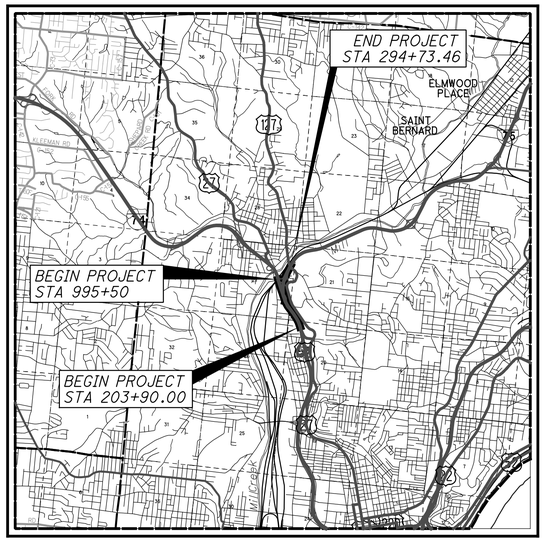

LOCATION MAP

LATITUDE: 39° 09′ 03″ LONGITUDE: -84° 32′ 24″

SCALE IN MILES
0 1 2 3 4

N

PORTION TO BE IMPROVED
INTERSTATE HIGHWAY
FEDERAL ROUTES
STATE ROUTES
COUNTY & TOWNSHIP ROADS
OTHER ROADS

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

HAM-75-3.84
HAM-75-0440 (BU-15)

HAMILTON COUNTY
CITY OF CINCINNATI

INDEX OF SHEETS:

DESIGN DESIGNATION

	IR 75 SOUTH OF MITCHELL	IR 75 SOUTH OF IR 74	IR 74 WEST OF BEEKMAN	IR 74 EAST OF BEEKMAN	DIRECTIONAL ROADWAY IR 75 NB TO IR 74 WB	DIRECTIONAL ROADWAY IR 74 EB TO IR 75 SB
CURRENT ADT (2010)	149,400	152,100	75,000	88,300	25,300	25,300
DESIGN YEAR ADT (2030)	174,300	179,200	89,300	102,000	29,800	29,800
DESIGN HOURLY VOLUME (2030)	14,640	15,050	8,040	9,180	4,100	4,380
DIRECTIONAL DISTRIBUTION	0.54	0.70	0.72	0.73	1.00	1.00
TRUCKS (24 HOUR B&C)	0.16	0.13	0.15	0.13	0.03	0.08
DESIGN SPEED	60 MPH	60 MPH	60 MPH	60 MPH	50 MPH	50 MPH
LEGAL SPEED	55 MPH	55 MPH	55 MPH	55 MPH	50 MPH	50 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	03 URBAN INTERSTATE	03 URBAN INTERSTATE	03 URBAN INTERSTATE	03 URBAN INTERSTATE	03 URBAN INTERSTATE	03 URBAN INTERSTATE
NHS PROJECT	YES					

DESIGN EXCEPTIONS

DESIGN FEATURE	APPROVAL DATES	SHEET NUMBERS
STOP. SIGHT DIST. - SB IR 75 (CURVE 6)	4/6/18	SEE BU-14
SHOULDER WIDTH - IR 74-1892R BRIDGE	4/10/18	
SHOULDER WIDTH - RAMP P 1908S BRIDGE	4/11/18	
CURVE RADIUS - RAMP P 1908S BRIDGE	4/11/18	
STOP. SIGHT DIST. - RAMP P 1908S BRIDGE	4/11/18	
S.E. RATE - IR 74 EB CURVE 13, 1908R BRIDGE	4/26/18	

PROJECT DESCRIPTION

THIS IS PHASE 5A OF THE HAMILTON 75 CORRIDOR PROJECTS (MCE). THE PROJECT ADDS A LANE TO IR 75 SB, PROVIDES 4-LANE CONTINUITY NB, AND RECONFIGURES IR 74 EB RAMPS TO IR 75. THE PROJECT ALSO INCLUDES SURFACE COURSE AND ADDITIONAL PAVEMENT WORK TO THE SOUTH AND IMPROVEMENTS TO RAMP A AT THE HOPPLE ST INTERCHANGE.

BUILDABLE UNIT 15 DESCRIPTION

THIS BUILDABLE UNIT INCLUDES THE REPLACEMENT OF THE HAM-75-0440 L/R STRUCTURE OVER IR 74 WB.

LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

2016 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND CHANGES LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

ENGINEERS SEAL:	ENGINEERS SEAL:
FOR ENTIRE PLAN EXCEPT STRUCTURES OVER 20′	FOR STRUCTURES OVER 20′
STATE OF OHIO BRUCE FRASER E-59019 REGISTERED PROFESSIONAL ENGINEER	STATE OF OHIO SAGE J FLANNAGAN E-71958 REGISTERED PROFESSIONAL ENGINEER
SIGNED: Bruce Fraser	SIGNED: Sage Flannagan
DATE: 2/5/2019	DATE: 2/5/2019

STANDARD CONSTRUCTION DRAWINGS

BP-1.1	7/28/00	DM-1.1	7/21/17	RM-4.5	7/21/17	HL-20.21	1/19/18	MT-98.11	1/20/17	TC-21.20	1/19/18
BP-2.1	7/17/15	DM-1.2	1/18/13	RM-4.6	7/19/13	HL-20.24	1/19/18	MT-98.20	7/18/14	TC-21.50	7/15/16
BP-2.2	7/18/08	DM-1.3	7/18/14			HL-30.11	1/19/18	MT-98.21	7/18/14	TC-22.10	10/18/13
BP-2.3	7/18/14	DM-2.1	1/18/13	A-1-69	7/19/02	HL-30.21	1/17/14	MT-98.29	1/20/17	TC-22.20	1/17/14
BP-2.4	7/19/13	DM-4.1	1/15/16	AS-1-15	7/17/15	HL-30.22	1/17/14	MT-98.30	7/21/17	TC-41.30	10/18/13
BP-3.1	7/18/14	DM-4.2	7/20/12	AS-2-15	1/19/18	HL-30.31	1/17/14	MT-99.30	1/19/18	TC-42.10	10/18/13
BP-6.1	7/19/13	DM-4.3	1/15/16	EXJ-4-87	1/19/18	HL-30.32	1/17/14	MT-99.60	7/15/16	TC-42.20	10/18/13
BP-8.1	7/18/08	DM-4.4	1/15/16	GSD-1-96	7/19/02	HL-30.33	1/17/14	MT-101.70	1/17/14	TC-52.10	10/18/13
				PCB-91	1/18/13	HL-30.41	1/19/18	MT-101.75	7/15/16	TC-52.20	1/19/18
CB-1.1	1/15/16	MGS-1.1	1/19/18	PSID-1-13	7/15/16	HL-40.10	1/20/17	MT-101.80	1/16/18	TC-61.30	1/20/17
CB-1.2	1/15/16	MGS-2.1	1/19/18	RB-1-55	7/19/13	HL-40.20	1/20/17	MT-101.90	7/21/17	TC-65.10	1/17/14
CB-1.3	1/15/16	MGS-3.1	1/19/18	SBR-1-13	1/14/14	HL-50.11	1/16/15	MT-102.10	1/20/17	TC-65.11	7/21/17
CB-2.1	1/15/16	MGS-3.2	1/18/13	SBR-2-13	1/14/14	HL-50.21	1/19/18	MT-102.20	7/18/14	TC-71.10	1/19/18
CB-2.2	1/15/16	MGS-4.2	7/19/13	SICD-1-96	7/18/14	HL-60.12	7/15/16	MT-103.10	1/19/18	TC-72.20	7/15/16
CB-2.3	1/15/16	MGS-4.3	1/18/13	SICD-2-14	7/18/14	HL-60.21	1/16/15	MT-104.10	10/16/15	TC-73.20	7/21/17
CB-3.1	1/15/16	MGS-5.2	7/15/16	VPF-1-90	1/19/18	HL-60.31	7/21/17	MT-105.10	7/19/13		
CB-3.3	1/15/16	MGS-5.3	7/15/16							ITS-13.10	7/17/15
		MGS-6.1	1/19/18	HL-10.11	1/19/18	MT-95.30	7/21/17	TC-7.65	1/15/16	ITS-14.10	7/17/15
I-2.1	1/15/16			HL-10.12	1/20/17	MT-95.31	7/21/17	TC-9.10	1/19/18	ITS-14.11	7/17/15
I-2.2	1/15/16			HL-10.13	1/20/17	MT-95.32	7/21/17	TC-9.30	1/19/18	ITS-15.10	7/17/15
I-2.3	1/15/16	RM-1.1	7/18/14	HL-10.15	7/17/15	MT-95.50	7/21/17	TC-12.30	1/19/18	ITS-15.11	7/17/15
I-2.4	1/15/16	RM-4.1	7/21/17	HL-10.31	1/19/18	MT-95.45	7/21/17	TC-15.115	10/18/13	ITS-50.10	1/19/18
		RM-4.3	7/18/14	HL-20.11	4/21/17	MT-95.73	1/19/18	TC-16.21	1/19/18		
MH-1.2	1/15/16	RM-4.4	7/21/17	HL-20.13	1/19/18	MT-98.10	1/20/17	TC-21.10	7/21/17		

SUPPLEMENTAL SPECIFICATIONS	
800-2016	1/19/18
804	1/15/16
806	3/2/15
808	10/16/15
809	1/19/18
814	7/15/16
821	4/20/12
832	1/17/14
839	7/17/15
840	7/20/18
866	4/21/17
867	4/15/16
902	12/31/12
904	7/15/16
908	10/20/17
914	7/15/16
921	4/20/12
939	7/17/15

SPECIAL PROVISIONS

APPROVED
FOR CONSTRUCTION

The DBT confirms that the record drawings have been updated to incorporate all red-lined changes and have been approved by the appropriate parties. These updated drawings represent the final and accurate record of the buildable unit's design and construction.

STATE OF OHIO SAGE J FLANNAGAN E-71958 REGISTERED PROFESSIONAL ENGINEER
10/26/23

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RELEASED FOR CONSTRUCTION
crowe 03/25/2019 7:55:17 AM

UNDERGROUND UTILITIES
CONTACT EACH UTILITY AT LEAST TWO WORKING DAYS BEFORE YOU DIG.

OHIO Utilities Protection SERVICE
Call Before You Dig
1-800-362-2764
(Non-members must be called directly)

OIL & GAS PRODUCERS UNDERGROUND PROTECTION SERVICE
1-800-925-0988

PLAN PREPARED BY:
AMERICAN STRUCTUREPOINT INC.
2550 CORPORATE EXCHANGE DR, STE 300
COLUMBUS, OH 43231
TEL 614.901.2235 FAX 614.901.2236
www.structurepoint.com

FEDERAL PROJECT NO. E170 (713)
PID NO. 104667
CONSTRUCTION PROJECT NO. 183000
RAILROAD INVOLVEMENT CSXT (CSX OP# OH1179) NORFOLK SOUTHERN
HAM-75-3.84
1/68
1/68

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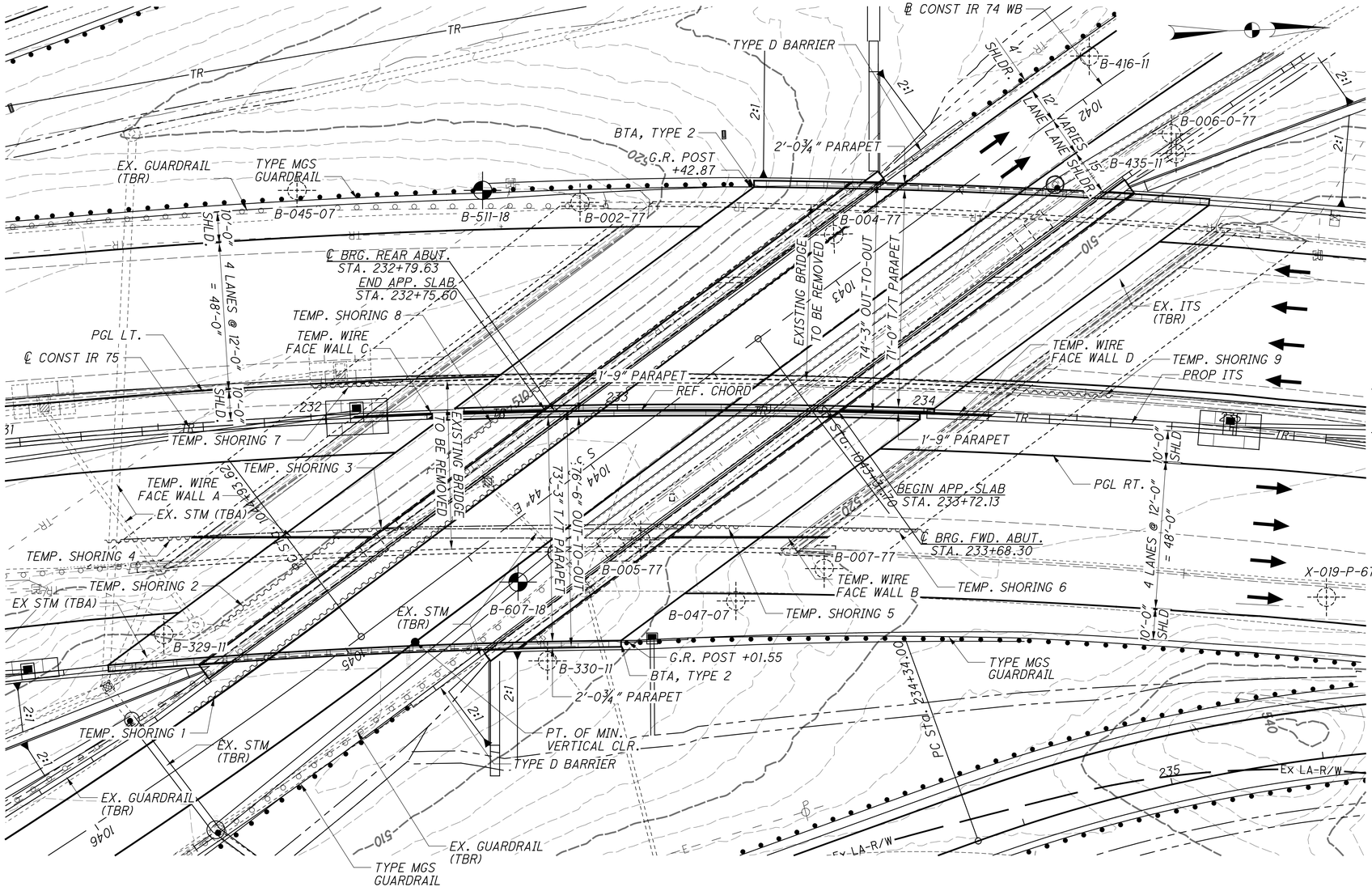


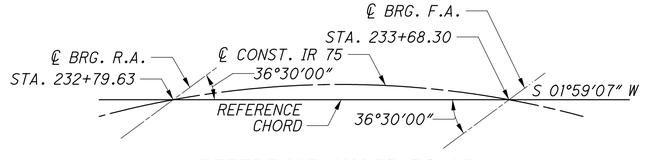
PLAN

I-74WB CURVE DATA

P.I. Sta. 1048+15.00
Δ = 19° 46′ 26″ (RT)
Dc = 3° 06′ 12″
R = 1,846.24′
T = 321.79′
L = 637.17′
E = 27.83′
C = 634.01′
C.B. = S 25° 00′ 32″ E

I-75 CURVE DATA

P.I. Sta. 232+75.63
Δ = 61° 02′ 03″ (RT)
Dc = 2° 30′ 00″
R = 2,291.83′
T = 1,350.91′
L = 2,441.37′
E = 368.52′
C = 2,327.56′
C.B. = N 2° 28′ 45″ W



REFERENCE CHORD DIAGRAM

BENCHMARK DATA

SEE BU-14 FOR BENCHMARK INFORMATION.

NOTES

EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.

DESIGN TRAFFIC:
2010 ADT = 149,400 2010 ADTT = 23,904
2030 ADT = 174,300 2030 ADTT = 27,888
DIRECTIONAL DISTRIBUTION = 0.54

LEGEND

PROJECT BORING LOCATION

HISTORIC BORING LOCATION

● 16′-0″ REQUIRED MINIMUM VERTICAL CLEARANCE
16′-3½″ (+) ACTUAL MINIMUM VERTICAL CLEARANCE
BTA = BRIDGE TERMINAL ASSEMBLY
TBR = TO BE REMOVED
TBRL = TO BE RELOCATED BY OTHERS
DND = DO NOT DISTURB
TBA = TO BE ABANDONED

EXISTING STRUCTURE

TYPE: CONTINUOUS STEEL BEAMS WITH CONCRETE DECK AND CONCRETE SUBSTRUCTURES
SPANS: 60′-4″, 73′-10½″, 60′-4″ C/C BRGS.
ROADWAY: 2 @ 53′-6″± T/T PARAPET
LOADING: CF 1200
SKEW: 52°29′57″± LF
APPROACH SLABS: AS-1-54 (25′-0″ LONG)
WEARING SURFACE: 1¼″ MICROSILICA MODIFIED CONCRETE OVERLAY
ALIGNMENT: 2°30′00″ CURVE RIGHT
SUPERELEVATION: 0.041 FT/FT
STRUCTURAL FILE NUMBER: 3109755
DATE BUILT: 1965±
DISPOSITION: TO BE REMOVED

PROPOSED STRUCTURE

TYPE: SINGLE SPAN PRESTRESSED CONCRETE I-BEAM WITH COMPOSITE REINFORCED DECK SUPPORTED ON REINFORCED CONCRETE SEMI-INTEGRAL WALL TYPE ABUTMENTS
SPANS: 88′-8″ C/C BRG. (MEASURED ALONG REF. CHORD)
ROADWAY: 71′-0″ LEFT / 73′-3″ RIGHT T/T PARAPET
LOADING: HL-93 AND FWS = 0.060 KSF
WEARING SURFACE: 1″ MONOLITHIC CONCRETE
SKEW: 53°30′00″ LF. (NORMAL TO REFERENCE CHORD)
APPROACH SLABS: 30′ LONG (AS-1-15 & AS-2-15)
ALIGNMENT: 2°30′00″ CURVE RIGHT
SUPERELEVATION 0.051 FT/FT
COORDINATES: LATITUDE 39°09′00.96″ N
LONGITUDE 84°32′23.93″ W

DESIGN AGENCY
STRUCTUREPOINT LLC
200 CORPORATE EXCHANGE DR. STE 200
COLUMBUS, OH 43231
TEL 614.901.2000 www.structurepoint.com

DESIGNED	DRAWN	REVIEWED	DATE
SJF	TMT	MDS	1/3/19
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CLB		3109763	

HAMILTON COUNTY
STA. 232+75.60
STA. 233+72.13

SITE PLAN - 1
BRIDGE NO. HAM-75-0440 L/R
OVER IR-74 WB

HAM-75-3.84
PID No. 104667

2 / 68

2
68

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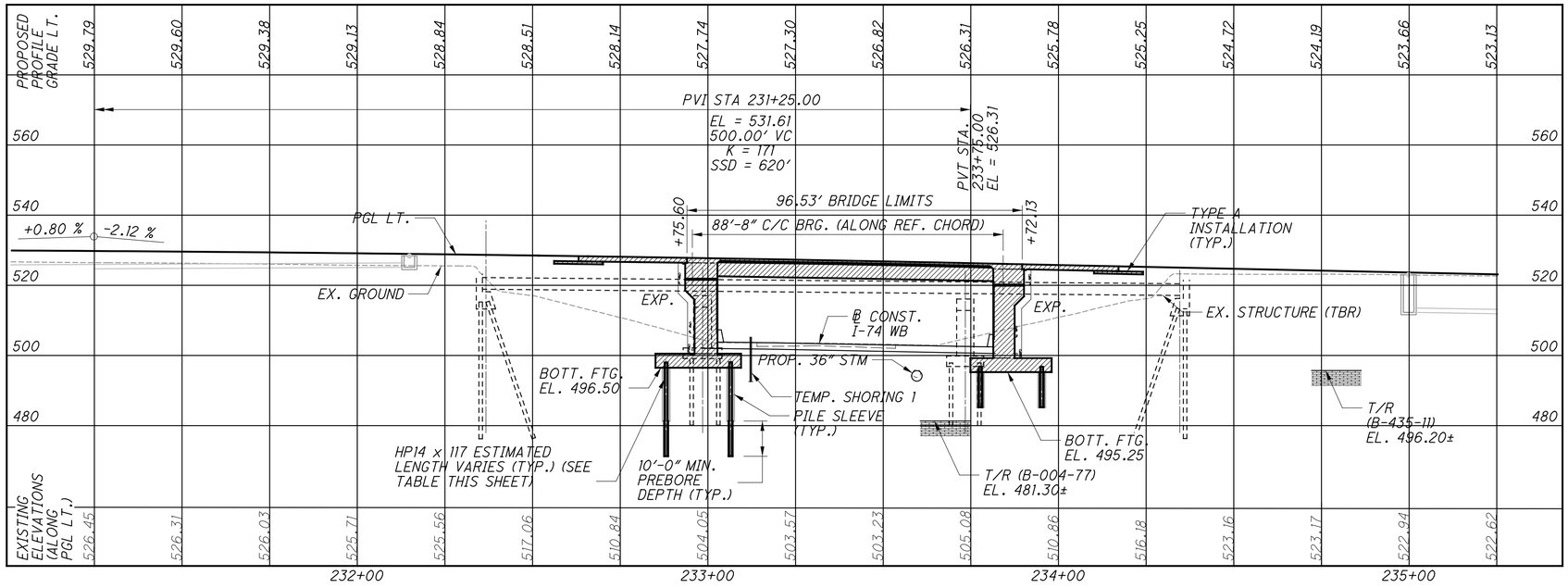
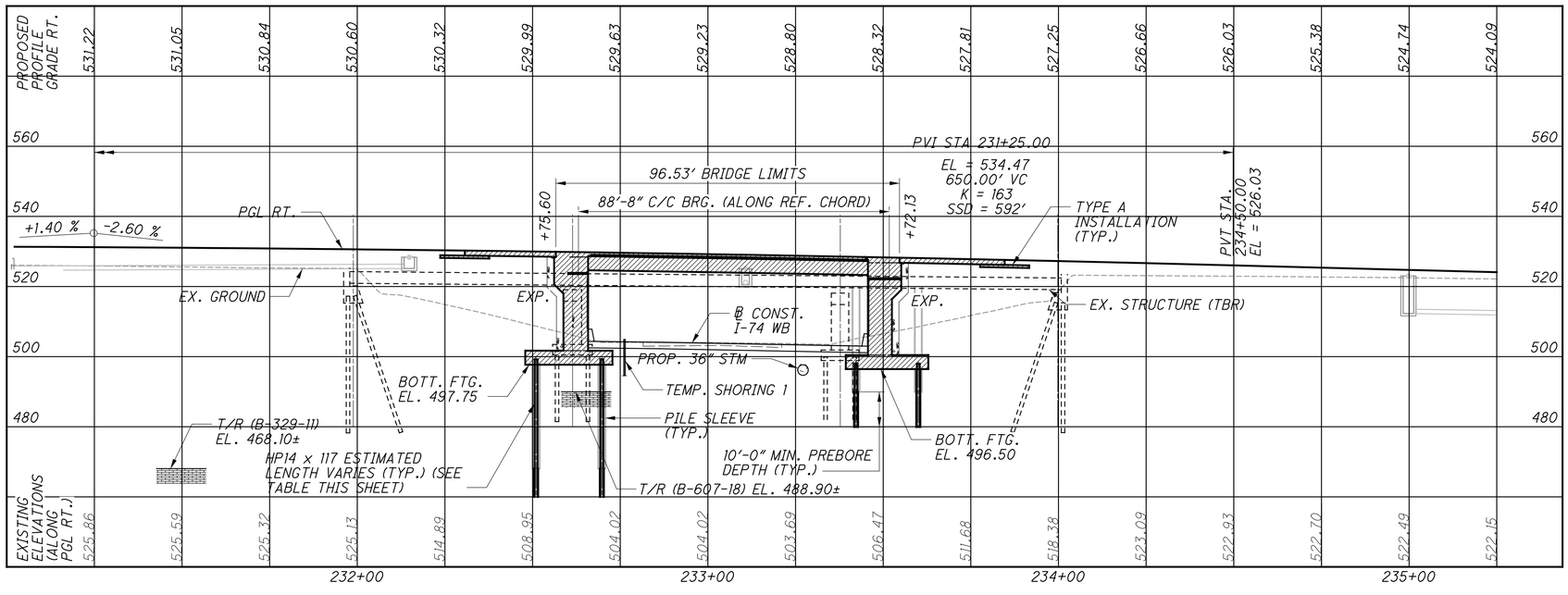


PROFILE
ALONG PGL LT.



PROFILE
ALONG PGL RT.

PILE LENGTHS	
REAR ABUTMENT PILES:	
PILES 1-9/19-27	15 FEET LONG
PILES 10-18/28-38	20 FEET LONG
PILES 39-49/61-68,	35 FEET LONG
PILES 50-60/69-78	10 FEET LONG
FORWARD ABUTMENT PILES:	
PILES 79-88/99-107	15 FEET LONG
PILES 89-97/108-114	15 FEET LONG
PILES 115-124/134-145	35 FEET LONG
PILES 125-133/146-154	35 FEET LONG

FOR PILE LOCATIONS SEE SHEETS 10, 11, 18, 19/68

DESIGN AGENCY
STRUCTUREPOINT LLC
2550 CORPORATE EXCHANGE DR. STE 200
COLUMBUS, OH 43231
TEL 614.901.2356 FAX 614.901.2358
www.structurepoint.com

DESIGNED	DRAWN	REVIEWED	DATE
SJF	TMT	MDS	1/03/19
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CLB		3109763	

HAMILTON COUNTY
STA. 232+75.60
STA. 233+72.13

SITE PLAN - 2
BRIDGE NO. HAM-75-0440 L/R
OVER IR-74 WB

HAM-75-3.84
PID No. 104667

30'-0" APP. SLAB
(ALONG REF. CHORD)

88'-8" C/C BRG. (ALONG REF. CHORD)

30'-0" APP. SLAB
(ALONG REF. CHORD)

℄ CONST IR 74 WB

4'-0" SHLD.

12'-0" VARIES LANE

15'-0" SHLD.

MSE WALL NO. 2

TEMP. SHORING 1
(ALONG I-74 WB ALL STAGES)
(LEFT IN PLACE,
CUT OFF AT GRADE)

MSE WALL NO. 3

℄ BRG. REAR ABUT.
STA. 232+79.63

TEMP WIRE FACE WALL C
(ST 2/PH 1/ ST 1) (LEFT IN PLACE)

END APP. SLAB
STA. 232+75.60

REF. CHORD

1043

74'-3" OUT-TO-OUT
(STAGE 3/ PHASE 1 / STEP 1)
71'-0" T/T PARAPET

TYPE A
INSTALLATION (TYP.)

8'-0" SLEEPER SLAB (TYP.)

SB I-75

TEMP. WIRE FACE WALL D
(ST2 /PH 1/ ST 1 FILL TYP.)
(LEFT IN PLACE)

10'-0" SHLD.

4 - 12'-0" LANES
= 48'-0"

PGL LT.

℄ CONST IR 75

STAGE 1 PHASE CUT LINE

231

232

233

234

TEMP. SHORING 3
(ST 1/PH 2/ST 1 FTG. CONST.)

PGL RT.

PC STA. 1044+93.62

1044

S 34° 56' 44" E

73'-3" T/T PARAPET
(STAGE 1/ PHASE 3 / STEP 1)

3'-0" CLOSURE POUR

71'-0" OUT-TO-OUT

VARIES 41'-9" MIN.
(STAGE 2/ PHASE 1 STEP 1)

STA. 1043+31.70

BEGIN APP. SLAB
STA. 233+72.13

℄ BRG. FWD. ABUT.
STA. 233+68.30

TEMP. SHORING 4
(ST 1/PH 2/ST 1 TYP.)
(LEFT IN PLACE, CUT
OFF AT GRADE)

NB I-75

TEMP. SHORING 6
(ST 1/PH 2/ST 1 TYP.)
(LEFT IN PLACE,
CUT OFF AT GRADE)

1045

VARIES 34'-9" MIN.
(STAGE 1/ PHASE 3 / STEP 1)

MSE WALL NO. 1

MSE WALL NO. 4

PROP
42" STM

PROP
24" STM

PROP
27" STM

PLAN

SFlannagan
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DESIGN AGENCY
STRUCTUREPOINT LLC
2500 CORPORATE EXCHANGE DR. STE 200
COLUMBIA, OH 43231
TEL: 614.901.7900 FAX: 614.901.7901
www.structurepointllc.com

DESIGNED	DRAWN	REVIEWED	DATE
SJF	TMT	MDS	1/03/19
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CLB		3109763	

GENERAL PLAN
BRIDGE NO. HAM-75-0440 L/R
OVER WB I-74

HAM-75-3.84
PID No. 104667

4 / 68

4
68

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS:

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

AS-1-15 REVISED 07-17-15
AS-2-15 REVISED 01-19-18
PCB-91 REVISED 01-18-13
PSID-1-13 REVISED 07-20-18
SBR-1-13 REVISED 07-20-18
SBR-2-13 REVISED 07-20-18
SICD-1-96 REVISED 07-18-14
SICD-2-14 REVISED 07-18-14

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:

800 REVISED 01-19-18
840 REVISED 07-20-18
867 REVISED 04-15-16

DESIGN SPECIFICATIONS:

THE STRUCTURE CONFORMS TO THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 8TH EDITION, AND THE ODOT BRIDGE DESIGN MANUAL, 2007.

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, 2007.

DESIGN LOADING:

HL-93

FUTURE WEARING SURFACE (FWS) OF 0.06 KSF

DESIGN DATA:

QC/QA CONCRETE, CLASS QC3 - COMPRESSIVE STRENGTH 4500 PSI (SUPERSTRUCTURE)

CONCRETE, CLASS QC3 - COMPRESSIVE STRENGTH 4000 PSI (SUBSTRUCTURE)

REINFORCING STEEL - MINIMUM YIELD STRENGTH 75,000 PSI (ABUTMENTS & DECK)

REINFORCING STEEL - MINIMUM YIELD STRENGTH 60,000 PSI (PARAPETS & APPROACH SLABS)

STRUCTURAL STEEL - ASTM A709 GRADE 50 - YIELD STRENGTH 50 KSI (BEARINGS)

STEEL H-PILES - ASTM A572 - YIELD STRENGTH 50 KSI

CONCRETE FOR PRESTRESSED BEAMS:
COMPRESSIVE STRENGTH (FINAL) - 8.5 KSI
COMPRESSIVE STRENGTH (RELEASE) - 6.5 KSI

WELDED WIRE FABRIC:
YIELD STRENGTH - 70 KSI

PRESTRESSING STRAND:
AREA = 0.217 SQ. IN.
ULTIMATE STRENGTH = 270 KSI
INITIAL STRESS = 202.5 KSI (LOW RELAXATION STRANDS)

DECK PROTECTION METHOD:

EPOXY COATED REINFORCING STEEL

2½" CONCRETE COVER

MONOLITHIC WEARING SURFACE:

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK.

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 FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05 AND 105.02.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

EMBANKMENT:

PLACE AND COMPACT EMBANKMENT MATERIAL IN 6 INCH LIFTS FOR THE CONSTRUCTION OF THE APPROACH EMBANKMENT.

SEALING OF CONCRETE SURFACES (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.

PILES TO BEDROCK:

PILES SHALL BE INSTALLED THROUGH 24" PILE SLEEVES IN 30" DIAMETER PREBORED HOLES. PILE SLEEVES PER SS840.03 SHALL BE INSTALLED FROM TOP OF ROCK TO BOTTOM OF FOOTING. PILE TIP ELEVATIONS SHALL EXTEND TO A MINIMUM OF 10 FEET INTO COMPETENT BEDROCK. THE PILE SLEEVES SHALL BE BACKFILLED WITH CONCRETE, CLASS QC MISC. PER CMS 499 TO THE TOP OF BEDROCK. ABOVE THE TOP OF BEDROCK ELEVATION PILE SLEEVES SHALL BE FILLED WITH LOW STRENGTH MORTAR (LSM) BACKFILL PER CMS 613. LSM SHALL NOT BE PLACED UNTIL AT LEAST 24 HOURS AFTER PLACING CONCRETE, CLASS QC MISC. THE ANNULAR SPACE BETWEEN PREBORED HOLES AND PILE SLEEVES SHALL BE FILLED WITH LOW STRENGTH MORTAR (LSM) BACKFILL PER CMS 613.

THE TOTAL FACTORED LOAD IS 520 KIPS PER PILE FOR THE ABUTMENT PILES.

REAR ABUTMENT PILES:
PILES 1-9/19-27, 35 FEET LONG, ORDER LENGTH
PILES 10-18/28-38, 40 FEET LONG, ORDER LENGTH
PILES 39-49/61-68, 45 FEET LONG, ORDER LENGTH
PILES 50-60/69-78, 50 FEET LONG, ORDER LENGTH

FORWARD ABUTMENT PILES:
PILES 79-88/99-107, 20 FEET LONG, ORDER LENGTH
PILES 89-97/108-114, 20 FEET LONG, ORDER LENGTH
PILES 115-124/134-145, 25 FEET LONG, ORDER LENGTH
PILES 125-133/146-154, 25 FEET LONG, ORDER LENGTH

MSE WALL FOUNDATION BEARING RESISTANCE:

THE FOUNDATION BEARING RESISTANCE IS LISTED IN THE TABLE BELOW.

FOUNDATION BEARING RESISTANCE

MSE WALL NUMBER	WALL LIMITS		FACTORED BEARING RESISTANCE
	FROM STA.	TO STA.	
1	1046+39.67	1045+42.27	11.2 KSF
2	1042+67.61	1042+48.17	12.1 KSF
3	1041+17.64	1042+04.06	11.0 KSF
4	1044+64.78	1044+81.59	15.5 KSF

SEALING OF CONCRETE SURFACES (EPOXY-URETHANE):

THE FINISH COAT COLOR SHALL BE FEDERAL COLOR NO. 595B-17778, LIGHT NEUTRAL.

AESTHETIC SURFACE TREATMENT:

ALL MSE PANELS SHALL HAVE A "FRACTURED FIN" FINISH WITH A 1½" RELIEF. THE MANUFACTURER SHALL FABRICATE AND THE CONTRACTOR INSTALL THE PANELS SUCH THAT THE VERTICAL FINS AND VALLEYS IN THE FRACTURED FIN AESTHETIC TREATMENT ALIGN VERTICALLY ACROSS ADJACENT PANELS FROM THE BOTTOM OF THE WALL TO THE TOP.

THE FRONT FACE OF ABUTMENTS SHALL HAVE A "FRACTURED FIN" FINISH WITH A 1½" RELIEF APPLIED TO THE LIMITS SHOWN IN THE PLANS. THE VERTICAL FINS AND VALLEYS IN THE FRACTURED FIN AESTHETIC TREATMENT SHALL ALIGN VERTICALLY FROM THE BOTTOM OF THE WALL TO THE TOP.

THE "FRACTURED FIN" FINISH ON THE MSE PANELS SHALL MATCH THE ABUTMENT WALL FINISH AND SHALL BE SUPPLIED BY THE SAME FORMLINER MANUFACTURER.

DECK PLACEMENT DESIGN ASSUMPTIONS:

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 FROM THESE DESIGN ASSUMPTIONS.

AN EIGHT WHEEL FINISHING MACHINE WITH A MAXIMUM WHEEL LOAD OF 3.32 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 IN.

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

BUILDABLE UNIT REFERENCES:

REFERENCE THE FOLLOWING BUILDABLE UNITS FOR ADDITIONAL INFORMATION, DETAILS, AND SPECIFICATIONS:
ROADWAY AND DRAINAGE - BU-14
MAINTENANCE OF TRAFFIC - BU-04 AND BU-23
LIGHTING, STRIPING, PAVEMENT MARKINGS, ITS - BU-19

MECHANICAL CONNECTORS:

MECHANICAL CONNECTORS SHALL BE CAPABLE OF DEVELOPING 125 PERCENT OF THE YIELD STRENGTH OF THE CONNECTED BARS. FOR CONNECTORS WITH THREADED BAR ENDS, IN ORDER TO OFFSET THE EFFECT OF AREA REDUCTION ON THE STRENGTH OF THE BAR AND STILL MEET THE REQUIREMENTS OF ASTM A615, USE THE NEXT LARGER DIAMETER BAR OR A HIGHER GRADE OF STEEL BAR.

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DESIGNED	DRAWN	REVIEWED	DATE
SJF	SJF	MDS	01/03/19
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CLB		3109763	

GENERAL NOTES - 1
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CLASS QC3 CONCRETE WITH QC/QA, SUBSTRUCTURE

THIS ITEM MODIFIES THE STANDARD 511 CONCRETE FOR STRUCTURES SPECIFICATION TO INCLUDE MACRO-SYNTHETIC FIBERS INTO THE SUBSTRUCTURE CONCRETE. THIS ITEM SHALL CONFORM TO CMS 511 WITH THE FOLLOWING CONDITIONS AND REVISIONS:

PROVIDE MATERIALS CONFORMING TO 511.02 EXCEPT AS MODIFIED BELOW:
PORTLAND CEMENT CONCRETE - 499.03, CLASS QC 3 MEETING A DESIGN STRENGTH OF 4,000 PSI, WITH MACRO-SYNTHETIC FIBERS WITH MODIFICATION PER 511.02.
FIBERS FOR CONCRETE - ASTM C 1116, TYPE III

THE CLASS QC3 CONCRETE FOR THE SUBSTRUCTURE SHALL MEET THE FOLLOWING CRITERIA: WATER/CEMENT RATIO = 0.40 MAXIMUM; MINIMUM 4 LBS/CY MACRO-SYNTHETIC FIBERS (1.5 IN. MIN. TO 2.5 IN. MAX.) MEETING ASTM C1116 TYPE III SHALL BE ADDED TO THE MIX.

THE MACRO-SYNTHETIC FIBERS SHALL BE INCORPORATED INTO THE MIX IN SUCH A WAY THAT NO 'BALLING' OCCURS. UPON INSPECTION OF THE MIX AT THE TIME OF PLACEMENT, IF ANY 'BALLING' OCCURS, THE ENGINEER SHALL REJECT THE REMAINDER OF THE LOAD AT ANY TIME DURING THE POUR. IT IS IMPORTANT TO FOLLOW INDUSTRY STANDARDS AND ASTM SPECIFICATIONS ON THE PREMIXING OF THE CEMENT, AGGREGATE, AND MACRO-SYNTHETICFIBERS PRIOR TO THE ADDITION OF WATER AND ADMIXTURES. PROVIDE MACRO-SYNTHETIC FIBERS THAT ARE MONOFILAMENT FIBERS MADE FROM VIRGIN POLYPROPYLENE, POLYETHYLENE, OR CO-POLYMERS THAT ARE INERT TO ALKALI ATTACK. ENSURE THE MACRO-SYNTHETIC FIBERS HAVE A MINIMUM TENSILE STRENGTH OF 70 KSI, A MINIMUM MODULUS OF ELASTICITY OF 800 KSI, A MINIMUM FILAMENT DIAMETER OF 0.012 INCHES, AND ASPECT RATIO BETWEEN 60 AND 100, AND ARE BETWEEN 1.5 AND 2.5 INCHES IN LENGTH. STORE THE MACRO-SYNTHETIC FIBERS ACCORDING TO THE MANUFACTURE'S RECOMMENDATION AND KEEP THE MATERIAL FREE FROM DUST, DIRT AND MOISTURE.

USE A MINIMUM DOSAGE RATE OF MACRO-SYNTHETIC FIBERS OF 4.0 LBS/CY OF CONCRETE. DETERMINE THE FINAL PROPOSED DOSAGE RATE THROUGH MIX TESTING. ENSURE THE FIBER REINFORCED CONCRETE MEETS OR EXCEEDS A MINIMUM EQUIVALENT FLEXURAL STRENGTH RATIO OF 25% ACCORDING TO ASTM C 1609. MACRO-SYNTHETIC FIBERS IS TO BE USED AS AN ADMIXTURE TO CONTROL CRACKING AND IS NOT TO BE USED TO SUPPLEMENT OR REPLACE REINFORCING STEEL IN THE DESIGN. ENSURE THE FINAL PROPOSED MIX IS WORKABLE AND ABLE TO BE PRODUCED SUCH THAT BALLING OR CLUMPING OF THE FIBERS IS NOT A PROBLEM AS DETERMINED BY THE ENGINEER. UTILIZE A LABORATORY REGULARLY INSPECTED BY THE CEMENT AND CONCRETE REFERENCE LABORATORY (CCRL) OF THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY, OR OTHER APPROVED REFERENCE LABORATORY, TO PERFORM THE TESTING. BEFORE USE, SUBMIT DOCUMENTATION TO THE PROJECT ENGINEER CERTIFYING BOTH THE MACRO-SYNTHETIC FIBERS AND THE MIX MEET OR EXCEED THE REQUIRED PROPERTIES. SAMPLING WILL BE ALLOWED FOR TESTING PURPOSES. A DEMONSTRATION OF THE MIX PRODUCTION OR TRIAL MIX, MAY BE REQUIRED BY THE ENGINEER PRIOR TO PLACING ANY OF THE MIX ON THE PROJECT.

THE BATCH WEIGHTS SHALL BE CORRECTED TO COMPENSATE FOR THE MOISTURE CONTAINED IN THE AGGREGATE AT THE TIME OF USE. A CHEMICAL ADMIXTURE (705.12, TYPE A OR D) SHALL BE USED.

CONCRETE SUPPLIERS SHOULD RECOGNIZE THAT ADMIXTURES MAY HAVE AN EFFECT ON STRENGTH, ENTRAINED AIR CONTENT, WORKABILITY, ETC. OF THEIR CONCRETE MIXES. THE CONCRETE SUPPLIER'S CHOICE OF ADMIXTURES DOES NOT ALLEVIATE MEETING DESIGN REQUIREMENTS.

CLASS QC3 CONCRETE WITH QC/QA, SUPERSTRUCTURE

THIS ITEM MODIFIES THE STANDARD 511 CONCRETE FOR STRUCTURES SPECIFICATION TO INCLUDE MACRO-SYNTHETIC FIBERS INTO THE SUPERSTRUCTURE CONCRETE. THIS ITEM SHALL CONFORM TO CMS 511 WITH THE FOLLOWING CONDITIONS AND REVISIONS:

PROVIDE MATERIALS CONFORMING TO 511.02 EXCEPT AS MODIFIED BELOW:
PORTLAND CEMENT CONCRETE - 499.03, CLASS QC 3 MEETING A DESIGN STRENGTH OF 4,500 PSI, WITH MACRO-SYNTHETIC FIBERS WITH MODIFICATION PER 511.02
FIBERS FOR CONCRETE - ASTM C 1116, TYPE III

THE CLASS QC3 CONCRETE FOR THE SUPERSTRUCTURE SHALL MEET THE FOLLOWING CRITERIA: WATER/CEMENT RATIO = 0.40 MAXIMUM; MINIMUM 4 LBS/CY MACRO-SYNTHETIC FIBERS (1.5 IN. MIN. TO 2.5 IN. MAX.) MEETING ASTM C1116 TYPE III SHALL BE ADDED TO THE MIX.

THE MACRO-SYNTHETIC FIBERS SHALL BE INCORPORATED INTO THE MIX IN SUCH A WAY THAT NO 'BALLING' OCCURS. UPON INSPECTION OF THE MIX AT THE TIME OF PLACEMENT, IF ANY 'BALLING' OCCURS, THE ENGINEER SHALL REJECT THE REMAINDER OF THE LOAD AT ANY TIME DURING THE POUR. IT IS IMPORTANT TO FOLLOW INDUSTRY STANDARDS AND ASTM SPECIFICATIONS ON THE PREMIXING OF THE CEMENT, AGGREGATE, AND MACRO-SYNTHETIC FIBERS PRIOR TO THE ADDITION OF WATER AND ADMIXTURES. PROVIDE MACRO-SYNTHETIC FIBERS THAT ARE MONOFILAMENT FIBERS MADE FROM VIRGIN POLYPROPYLENE, POLYETHYLENE, OR CO-POLYMERS THAT ARE INERT TO ALKALI ATTACK. ENSURE THE MACRO-SYNTHETIC FIBERS HAVE A MINIMUM TENSILE STRENGTH OF 70 KSI, A MINIMUM MODULUS OF ELASTICITY OF 800 KSI, A MINIMUM FILAMENT DIAMETER OF 0.012 INCHES, AND ASPECT RATIO BETWEEN 60 AND 100, AND ARE BETWEEN 1.5 AND 2.5 INCHES IN LENGTH. STORE THE MACRO-SYNTHETIC FIBERS ACCORDING TO THE MANUFACTURE'S RECOMMENDATION AND KEEP THE MATERIAL FREE FROM DUST, DIRT AND MOISTURE.

USE A MINIMUM DOSAGE RATE OF MACRO-SYNTHETIC FIBERS OF 4.0 LBS/CY OF CONCRETE. DETERMINE THE FINAL PROPOSED DOSAGE RATE THROUGH MIX TESTING. ENSURE THE FIBER REINFORCED CONCRETE MEETS OR EXCEEDS A MINIMUM EQUIVALENT FLEXURAL STRENGTH RATIO OF 25% ACCORDING TO ASTM C 1609. MACRO-SYNTHETIC FIBERS IS TO BE USED AS AN ADMIXTURE TO CONTROL CRACKING AND IS NOT TO BE USED TO SUPPLEMENT OR REPLACE REINFORCING STEEL IN THE DESIGN. ENSURE THE FINAL PROPOSED MIX IS WORKABLE AND ABLE TO BE PRODUCED SUCH THAT BALLING OR CLUMPING OF THE FIBERS IS NOT A PROBLEM AS DETERMINED BY THE ENGINEER. UTILIZE A LABORATORY REGULARLY INSPECTED BY THE CEMENT AND CONCRETE REFERENCE LABORATORY (CCRL) OF THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY, OR OTHER APPROVED REFERENCE LABORATORY, TO PERFORM THE TESTING. BEFORE USE, SUBMIT DOCUMENTATION TO THE PROJECT ENGINEER CERTIFYING BOTH THE MACRO-SYNTHETIC FIBERS AND THE MIX MEET OR EXCEED THE REQUIRED PROPERTIES. SAMPLING WILL BE ALLOWED FOR TESTING PURPOSES. A DEMONSTRATION OF THE MIX PRODUCTION OR TRIAL MIX, MAY BE REQUIRED BY THE ENGINEER PRIOR TO PLACING ANY OF THE MIX ON THE PROJECT.

THE BATCH WEIGHTS SHALL BE CORRECTED TO COMPENSATE FOR THE MOISTURE CONTAINED IN THE AGGREGATE AT THE TIME OF USE. A CHEMICAL ADMIXTURE (705.12, TYPE A OR D) SHALL BE USED.

CONCRETE SUPPLIERS SHOULD RECOGNIZE THAT ADMIXTURES MAY HAVE AN EFFECT ON STRENGTH, ENTRAINED AIR CONTENT, WORKABILITY, ETC. OF THEIR CONCRETE MIXES. THE CONCRETE SUPPLIER'S CHOICE OF ADMIXTURES DOES NOT ALLEVIATE MEETING DESIGN REQUIREMENTS.

APPROACH SLABS, DIAPHRAGMS, AND BRIDGE RAILING CONCRETE ARE TO USE THE SAME MIX DESIGN AS THE BRIDGE DECK (WHEN APPLICABLE). USE SELF-COMPACTING CONCRETE ON DECORATIVE RAILING SIMILAR TO TEXAS RAILING AND MACRO-SYNTHETIC CONCRETE PER THIS SPECIFICATION ON TRADITIONAL CONCRETE RAILING WHEN APPLICABLE.

THE PLACING OF THE DECK AND THE APPROACH SLABS IN THE SAME CONCRETE POUR IS NOT PERMITTED.

ABBREVIATION LIST:

THE FOLLOWING STANDARD ABBREVIATIONS ARE USED THROUGHOUT THE BRIDGE PLANS.

ABUT. = ABUTMENT
ACT. = ACTUAL
APP. = APPROACH
BRG. = BEARING
BOT. = BOTTOM
BTW. = BETWEEN
CB = CATCH BASIN
C.I.P. = CAST-IN-PLACE
C.J. = CONSTRUCTION JOINT
CLR. = CLEARANCE
CONST = CONSTRUCTION
CONT. = CONTINUOUS
DIA. = DIAMETER
DIM. = DIMENSION
DWG. = DRAWING
E.S. = EACH SIDE
EL. = ELEVATION
EQ. = EQUAL
EST. = ESTIMATED
EX. = EXISTING
EXP. = EXPANSION
F.A. = FORWARD ABUTMENT
F.D.S. = FINAL DECK SURFACE
F.S. = FAR SIDE
FTG. = FOOTING
FWD. = FORWARD
GR. = GUARDRAIL
HMWM = HIGH MOLECULAR WEIGHT METHACRYLATE
INT. = INTERIOR
INV. = INVERT
NPCCP = NON-PERFORATED CORRUGATED PLASTIC PIPE
N.S. = NEAR SIDE
O.C.J. = OPTIONAL CONSTRUCTION JOINT
PCCP = PERFORATED CORRUGATED PLASTIC PIPE
PEJF = PREFORMED EXPANSION JOINT FILLER
PERP. = PERPENDICULAR
PG = PROFILE GRADE
PGL = PROFILE GRADE LINE
PH. = PHASE
PROP. = PROPOSED
PT. = POINT
R.A. = REAR ABUTMENT
REQD. = REQUIRED
SER. = SERIES
SHLD. = SHOULDER
SPA. = SPACES
ST. = STAGE OR STEP
STA. = STATION
STD. = STANDARD
STM = STORM SEWER LINE
T&B = TOP AND BOTTOM
T.O.H. = TOP OF HAUNCH
T/R = TOP OF ROCK
T/S = TOP OF SLOPE
TYP. = TYPICAL
U.N.O = UNLESS NOTED OTHERWISE

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DESIGNED	DRAWN	REVIEWED	DATE
SJF	SJF	MDS	01/03/19
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CLB		3109763	

GENERAL NOTES - 2
BRIDGE NO. HAM-75-0440 L/R
OVER I-74 WB

HAM-75-3.84
PID No. 104667

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ITEM SPECIAL - SETTLEMENT PLATFORM:

SETTLEMENT PLATFORMS SHALL BE PLACED AT THE BOTTOM OF THE MSE WALL AT THE LOCATIONS INDICATED IN THE PLANS, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

CONTRACTOR HAS THE OPTION OF USING EITHER STEEL OR PLYWOOD PLATFORM BASE.

CONTRACTOR SHALL FURNISH MATERIALS AND LABOR TO EXTEND PIPE THROUGH ENTIRE FILL.

SETTLEMENT PLATFORMS SHALL BE ANCHORED BY STAKES DRIVEN AT EACH CORNER TO PREVENT OVERTURNING.

SPECIFICATIONS:
DESCRIPTION: THIS ITEM CONSISTS OF FURNISHING, CONSTRUCTING, AND MAINTAINING SETTLEMENT PLATFORMS AND OBTAINING SETTLEMENT READINGS AS REQUIRED BY THE PLANS OR AS DIRECTED BY THE ENGINEER. AT THE OPTION AND EXPENSE OF THE CONTRACTOR, ADDITIONAL SETTLEMENT PLATFORMS MAY BE INSTALLED AT LOCATIONS APPROVED BY THE ENGINEER.

SETTLEMENT READINGS SHALL BE TAKEN THREE TIMES PER WEEK DURING CONSTRUCTION AND DURING ANY SPECIFIED WAITING PERIOD. THE READINGS SHALL BE PLOTTED ON GRAPH PAPER PRESENTING DEFORMATION (ON THE NEGATIVE Y-AXIS) AND FILL HEIGHT (ON THE POSITIVE Y-AXIS) VERSUS TIME (ON THE X-AXIS). A COPY OF EACH CUMULATIVE PLOT SHALL BE SENT TO THE DISTRICT GEOTECHNICAL ENGINEER AND THE OFFICE OF GEOTECHNICAL ENGINEERING, ATTENTION: GEOTECHNICAL DESIGN COORDINATOR, AFTER EACH SETTLEMENT READING IS RECORDED.

THE CONTRACTOR SHALL IDENTIFY, SET, AND MAINTAIN AN APPROPRIATE NUMBER OF FIXED BENCHMARKS, REFERENCE POINTS, ETC. TO FACILITATE THE SURVEYING OF THE SETTLEMENT PLATFORMS . ALL FIXED POINTS SHALL BE LOCATED NOT LESS THAN 150 FEET FROM TOE OF THE PROPOSED EMBANKMENT FILL AT ANY LOCATION.

MATERIALS:
SOUND LUMBER SUCH AS ¾" EXTERIOR GRADE PLYWOOD SHALL BE USED FOR THE BASE. THE PIPE SHALL BE 2½" STANDARD BLACK PIPE WITH THREADED FITTINGS AS SHOWN ON THE PLANS. A STEEL PLATE 3'-0" x 3'-0" x ⅛" MAY BE SUBSTITUTED FOR THE LUMBER FOR THE PLATFORMS, AT THE CONTRACTOR'S OPTION.

CONSTRUCTION METHODS:
THE PLATFORM SHALL CONFORM TO THE DETAILS SHOWN ON THE PLANS. IF EXISTING PAVEMENT IS ENCOUNTERED AT THE SPECIFIED LOCATIONS, THE PAVEMENT (INCLUDING ANY BASE MATERIAL) SHALL BE REMOVED AND THE SETTLEMENT PLATFORM SHALL BE SET ON THE EXPOSED SUBGRADE. THE PLATFORM SHALL BE SET ON A LEVEL SURFACE. THE PIPE SHALL BE FIRMLY SECURED TO THE PLATFORM AND SHALL BE MAINTAINED IN A PLUMB POSITION DURING THE PLACEMENT OF THE EMBANKMENT. THE PIPE SHALL BE MARKED AT INTERVALS TO FACILITATE MEASUREMENT OF THE DEPTH OF FILL.

THE CONTRACTOR SHALL PROTECT SETTLEMENT PLATFORMS FROM CONSTRUCTION TRAFFIC/ACTIVITIES USING APPROPRIATE METHODS SUCH AS BARRICADES, CONES, ETC. THE CONTRACTOR SHALL STOP WORK IN ANY LOCATION WHERE THE SETTLEMENT PLATFORM HAS BEEN DISTURBED OR DAMAGED. PLATFORMS OR PIPES DAMAGED OR DISPLACED DURING CONSTRUCTION SHALL BE RESTORED TO THEIR PROPER CONDITION AT THE CONTRACTOR'S EXPENSE.

PRIOR TO PAVING:
THE TOP OF THE SETTLEMENT PLATFORM PIPE SHALL BE CUT OFF TWO FEET BELOW THE FINISHED SURFACE OF THE SUBGRADE OR FINISHED GROUND SURFACE, WHICHEVER IS APPLICABLE.

ITEM SPECIAL - SETTLEMENT PLATFORM (CONT.):

WAITING PERIOD:
THE WAITING PERIOD SHALL NOT BE CONSIDERED TO BEGIN UNTIL ALL PROPOSED FILL FOR THE LOADING HAS BEEN PLACED TO THE SUBGRADE LEVEL. AT ANY LOCATION ON THE PROJECT THE LOADING FILL SHALL CONSIST OF THE PROPOSED EMBANKMENT CONSTRUCTED TO THE ENTIRE PROPOSED LATERAL EXTENTS AND TO WITHIN ONE FOOT OF THE PROPOSED VERTICAL EXTENTS.

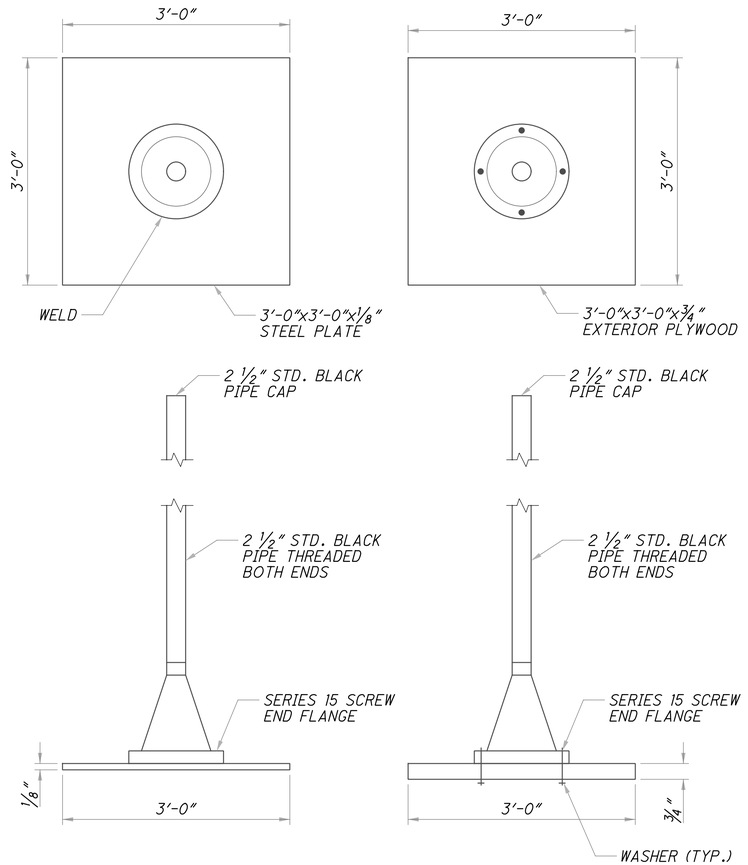
CONSTRUCTION OF THE MSE WALL COPING OR PAVING OF ROADWAYS SHALL NOT BEGIN UNTIL CONFIRMATION HAS BEEN RECEIVED FROM THE ENGINEER THAT THE CRITERIA TO END THE WAITING PERIOD HAVE BEEN MET.

WAITING PERIOD CRITERIA:
THE ENGINEER WILL CONSIDER THE WAITING PERIOD COMPLETE WHEN CONSECUTIVE SETTLEMENT READINGS, AT LEAST ONE WEEK (168 HOURS) APART, RECORDED AFTER EMBANKMENT CONSTRUCTION IS COMPLETE RESULT IN ELEVATION DIFFERENCES EQUAL TO OR LESS THAN ⅛ INCH PER WEEK FOR TWO CONSECUTIVE WEEKS.

THE ANTICIPATED WAITING PERIOD IN CALANDAR DAYS FOR THE SETTLEMENT TO OCCUR IS LISTED IN THE FOLLOWING TABLE.

WAITING PERIODS	
WALL NUMBER	TOTAL WAITING PERIOD
1	78 DAYS
2	54 DAYS
3	56 DAYS
4	76 DAYS

IF SETTLEMENT RATES EXCEED 3/4 INCH PER MONTH AFTER EMBANKMENT CONSTRUCTION HAS BEEN COMPLETE FOR 45 CALENDAR DAYS, REMAINING MSE WALL CONSTRUCTION, INCLUDING ANY NECESSARY CORRECTIVE MEASURES, MAY PROCEED ONLY AT THE DIRECTION OF THE ENGINEER.



SETTLEMENT PLATFORM DETAILS

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DESIGNED SJF | CHECKED CLB
DRAWN SJF | REVISED
REVIEWED MDS | DATE 01/03/19
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GENERAL NOTES - 3
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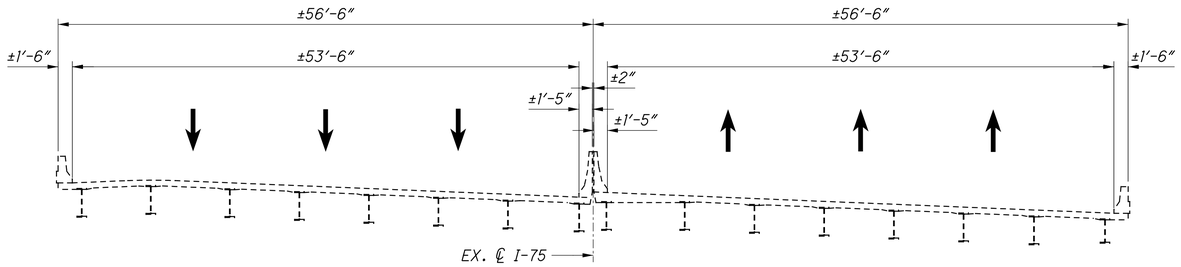
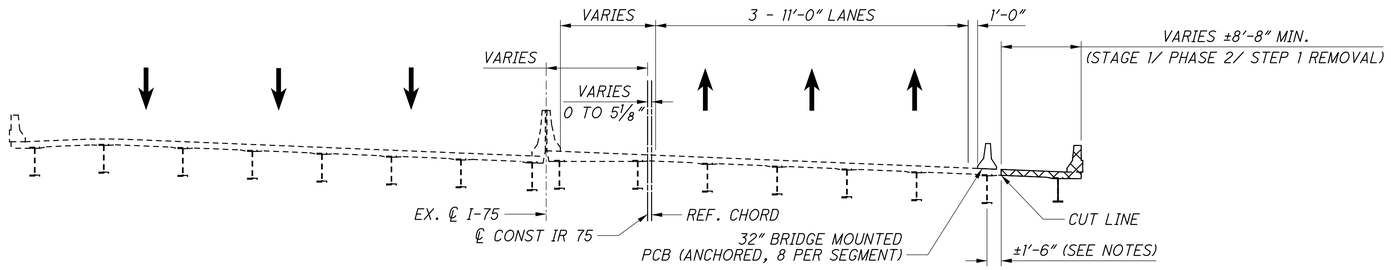
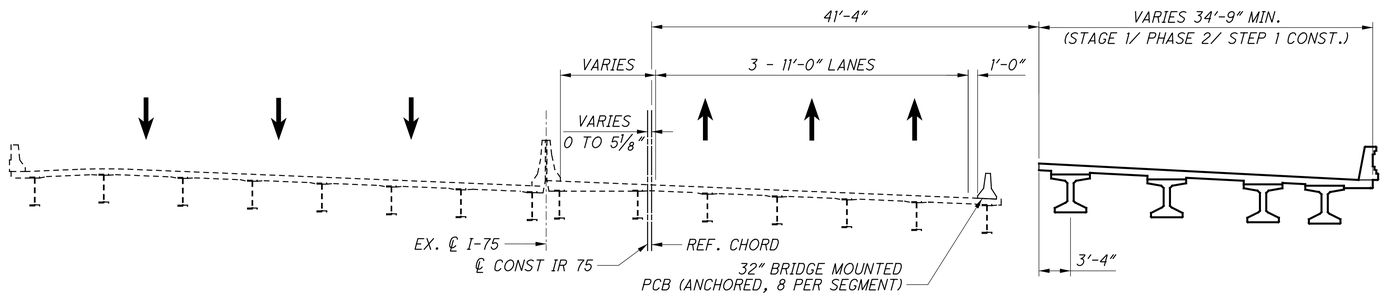


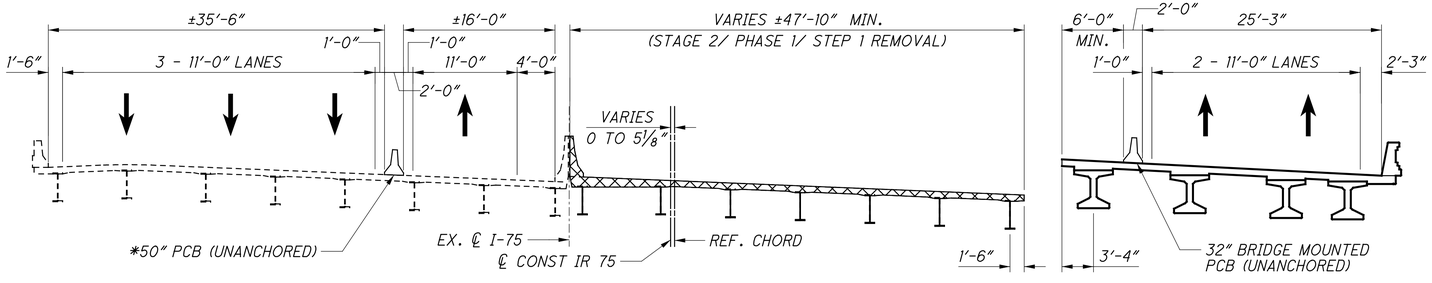
EX. TRANSVERSE SECTION



STAGE 1/ PHASE 2/ STEP 1 REMOVAL



STAGE 1/ PHASE 2/ STEP 1 CONSTRUCTION



STAGE 2/ PHASE 1/ STEP 1 REMOVAL

SEQUENCE OF CONSTRUCTION

STAGE 1/ PHASE 2/ STEP 1

1. INSTALL PCB AS SHOWN IN BU-02 & BU-23 PLANS.
2. MAINTAIN TRAFFIC AS SHOWN.
3. INSTALL TEMP. SHORING.
4. REMOVE STAGE 1/ PHASE 2/ STEP 1 PORTIONS OF RIGHT BRIDGE.
5. CONSTRUCT STAGE 1/ PHASE 2/ STEP 1 PORTIONS OF RIGHT BRIDGE.
6. CONSTRUCT TEMP. WIRE FACE WALLS.

STAGE 2/ PHASE 1/ STEP 1

1. RELOCATE PCB AS SHOWN IN BU-02 & BU-23 PLANS.
2. MAINTAIN TRAFFIC AS SHOWN.
3. INSTALL TEMP. SHORING.
4. REMOVE STAGE 2/ PHASE 1/ STEP 1 PORTIONS OF RIGHT BRIDGE.
5. CONSTRUCT STAGE 2/ PHASE 1/ STEP 1 PORTIONS OF RIGHT BRIDGE.
6. CONSTRUCT TEMP. WIRE FACE WALLS.

* 32" PCB WITH GLARE SCREEN MAY BE USED AS AN ALTERNATE

LEGEND

LIMITS OF REMOVAL PER ITEM 202 - STRUCTURE REMOVED, OVER 20 FOOT SPAN

NOTES:

CUT LINE IS A CONSTANT 1'-6" FROM ℄ EXISTING GIRDER ALONG ENTIRE LENGTH OF BRIDGE.

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DESIGNED	DRAWN	REVIEWED	DATE
SJF	SJF	MDS	1/3/19
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STAGE CONSTRUCTION DETAILS - 1
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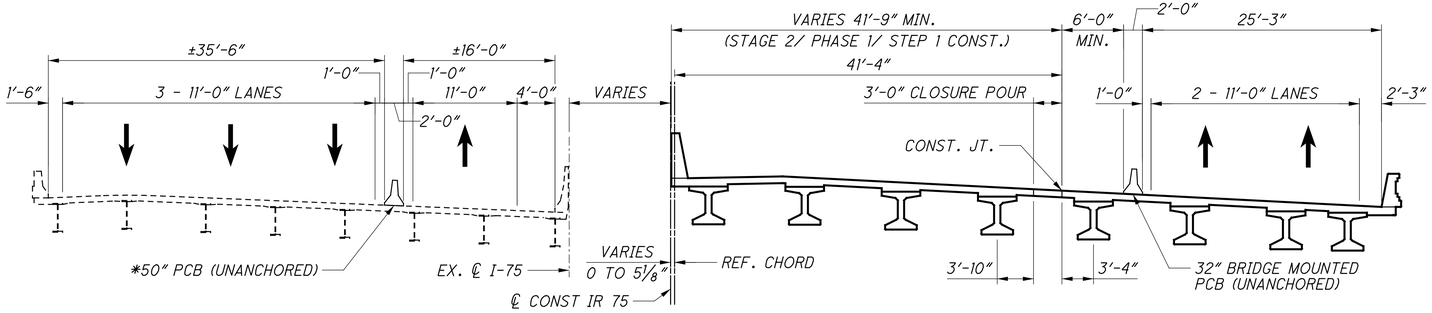
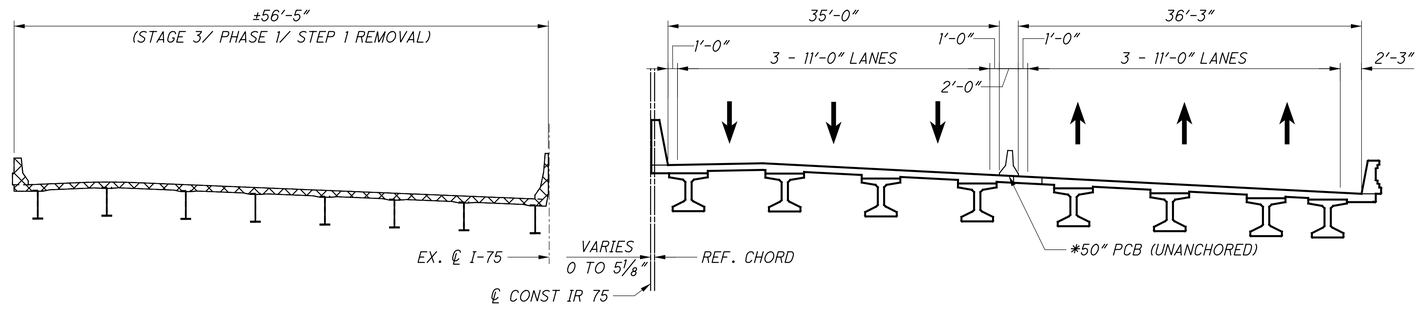
OVER IR-74 WB

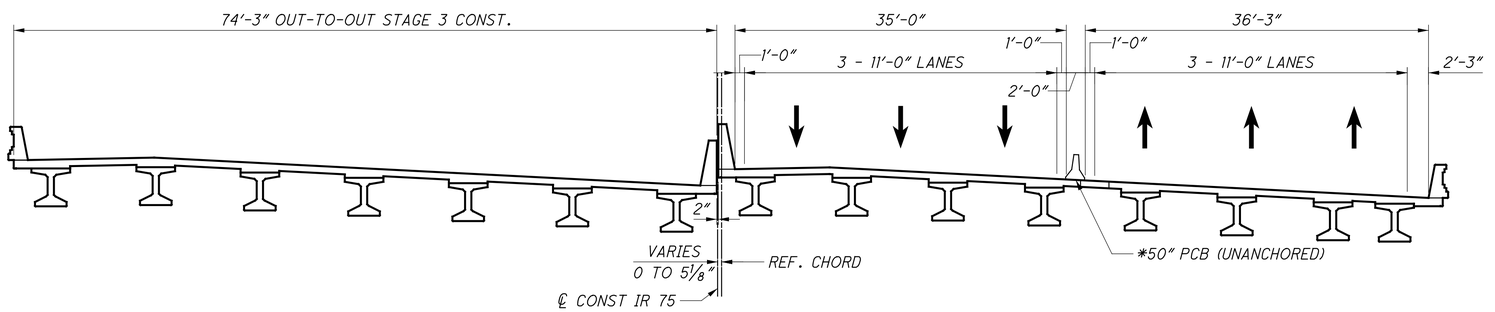
HAM-75-3.84
PID No. 104667



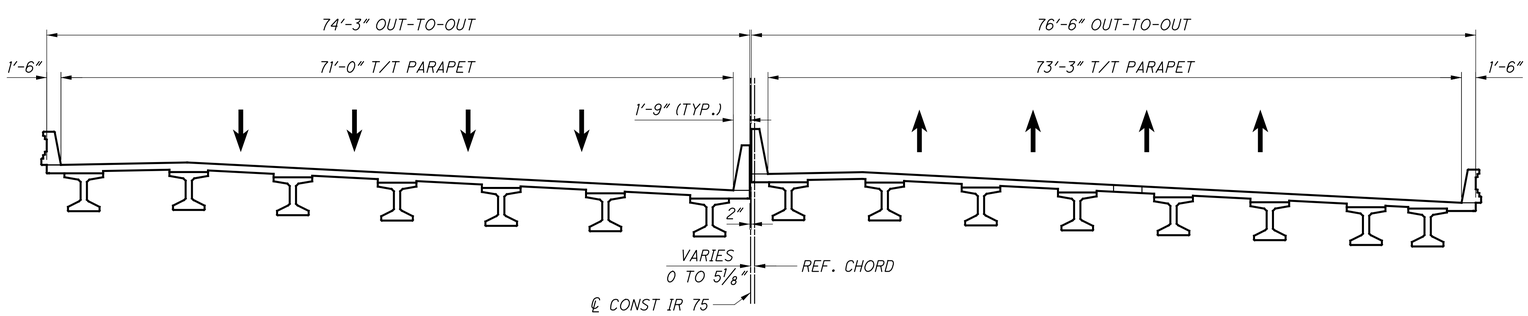
STAGE 2/ PHASE 1/ STEP 1 CONSTRUCTION



STAGE 3/ PHASE 1/ STEP 1 REMOVAL



STAGE 3/ PHASE 1/ STEP 1 CONSTRUCTION



TRANSVERSE SECTION

SEQUENCE OF CONSTRUCTION

STAGE 2/ PHASE 1/ STEP 1

1. RELOCATE PCB AS SHOWN IN BU-02 & BU-23 PLANS.
2. MAINTAIN TRAFFIC AS SHOWN.
3. INSTALL TEMP. SHORING.
4. REMOVE STAGE 2/ PHASE 1/ STEP 1 PORTIONS OF RIGHT BRIDGE.
5. CONSTRUCT STAGE 2/ PHASE 1/ STEP 1 PORTIONS OF RIGHT BRIDGE.
6. CONSTRUCT TEMP. WIRE FACE WALLS.

STAGE 3/ PHASE 1/ STEP 1

1. RELOCATE PCB AS SHOWN IN BU-02 & BU-23 PLANS.
2. MAINTAIN TRAFFIC AS SHOWN.
3. REMOVE STAGE 3/ PHASE 1/ STEP 1 PORTIONS OF LEFT BRIDGE.
4. CONSTRUCT STAGE 3/ PHASE 1/ STEP 1 PORTIONS OF LEFT BRIDGE.

* 32" PCB WITH GLARE SCREEN MAY BE USED AS AN ALTERNATE

LEGEND

LIMITS OF REMOVAL PER ITEM 202 - STRUCTURE REMOVED, OVER 20 FOOT SPAN

DESIGN AGENCY
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SJF	SJF	MDS	1/3/19
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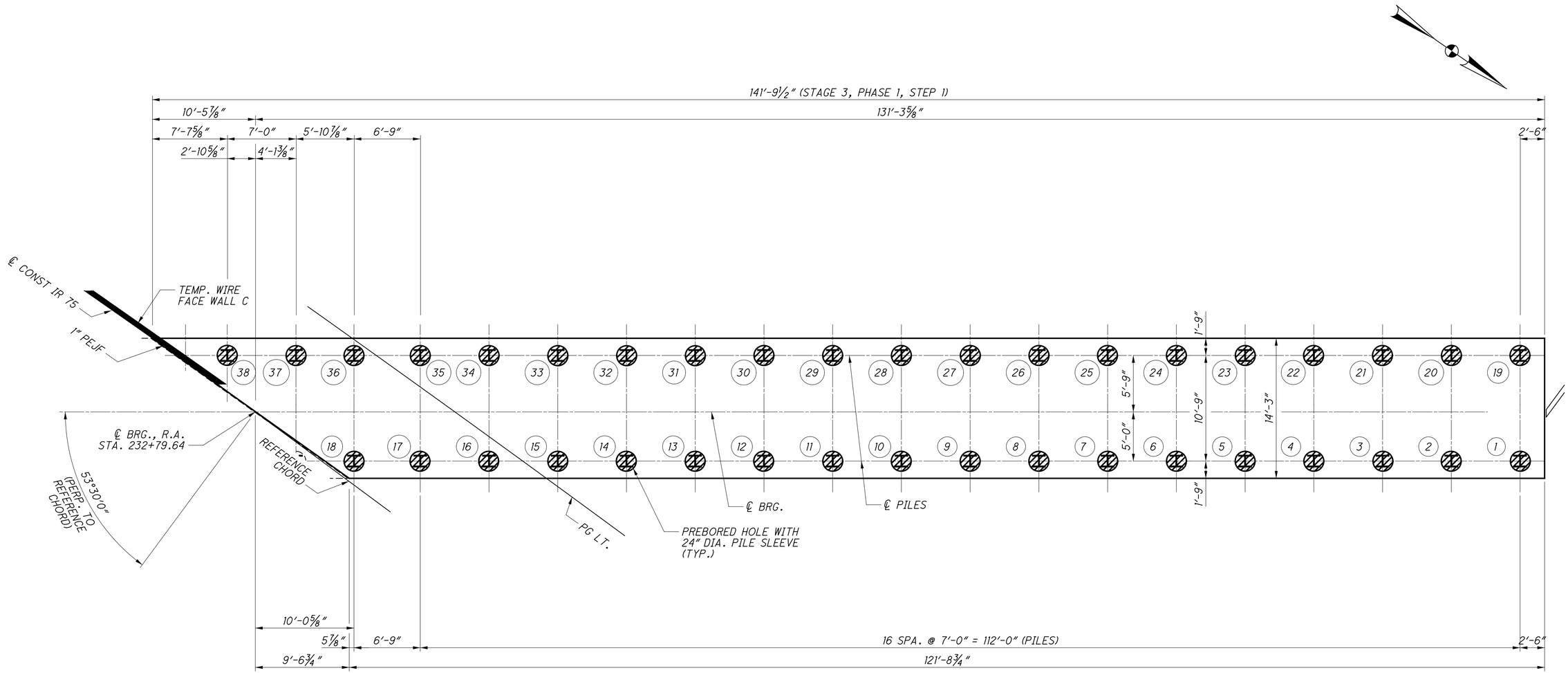
STAGE CONSTRUCTION DETAILS - 2

BRIDGE NO. HAM-75-0440 L/R
OVER IR-74 WB

HAM-75-3.84
PID No. 104667



LEFT REAR ABUTMENT PILE LAYOUT PLAN

LEGEND

(XX) INDICATES PILE NUMBER

INDICATES HP14x117 STEEL "H" PILE WITH 30" PREBORED HOLE

PILE SLEEVE AND LSM NOT INSTALLED. PREBORED HOLE ANNULAR SPACE FILLED WITH CONC. CLASS QC, MISC. FROM BOTTOM OF HOLE TO BOTTOM OF FOOTING

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CLB		3109763	

REAR ABUTMENT DETAILS (LEFT BRIDGE)
BRIDGE NO. HAM-75-0440 L/R
OVER WB I-74

HAM-75-3.84
PID No. 104667

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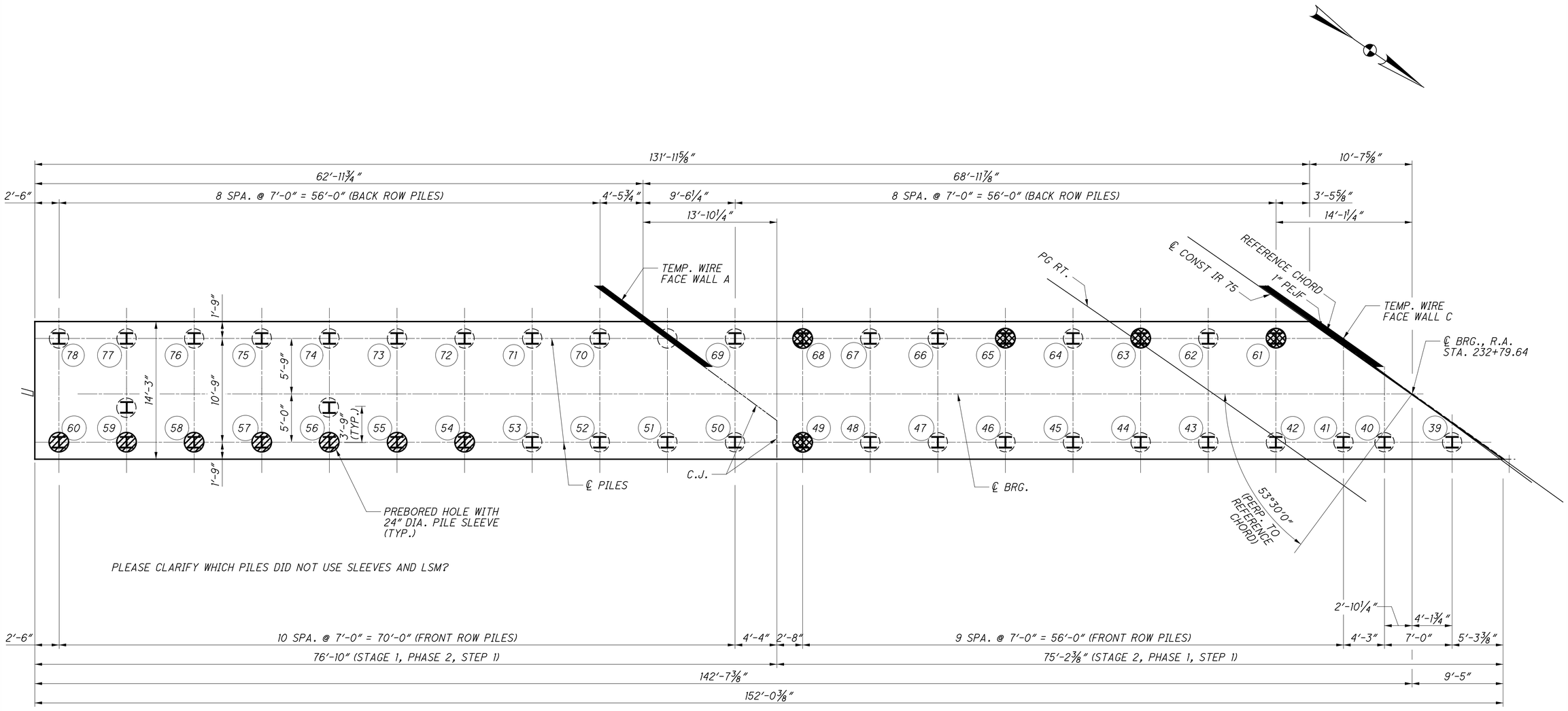

RIGHT REAR ABUTMENT PILE LAYOUT PLAN

LEGEND

- (XX) INDICATES PILE NUMBER
- INDICATES HP14x117 STEEL "H" PILE WITH 30" PREBORED HOLE
- PILE SLEEVE AND LSM NOT INSTALLED. PREBORED HOLE ANNULAR SPACE FILLED WITH CONC. CLASS QC, MISC. FROM BOTTOM OF HOLE TO BOTTOM OF FOOTING
- TEMP. CASING LEFT IN PLACE

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REAR ABUTMENT DETAILS (RIGHT BRIDGE)
BRIDGE NO. HAM-75-0440 L/R
OVER WB I-74

HAM-75-3.84
PID No. 104667

11 / 68

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68

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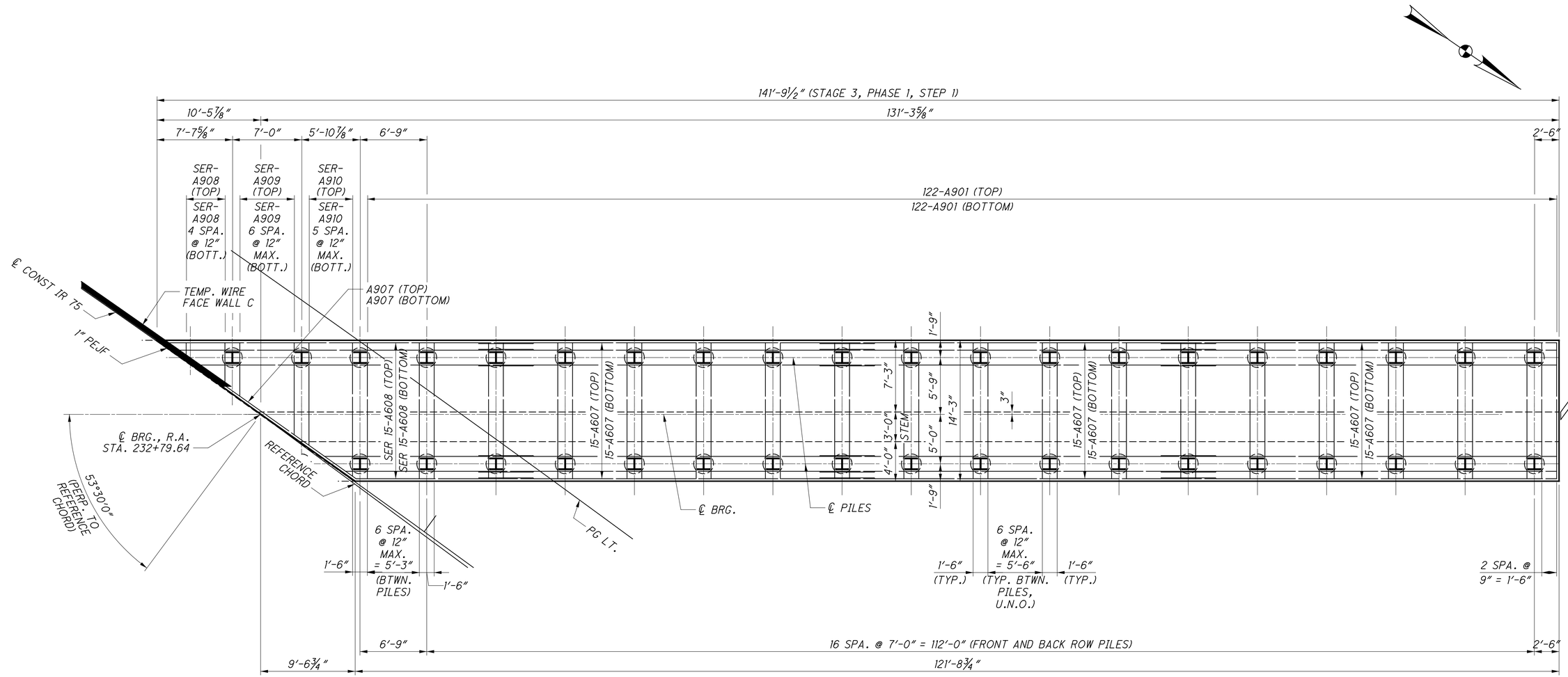

LEFT REAR ABUTMENT FOOTING PLAN

MINIMUM BAR LAP	
#6	5'-6"

LEGEND

INDICATES HP14x117 STEEL "H" PILE WITH 30" PREBORED HOLE

NOTES:

FOR ABUTMENT PILE LAYOUT PLAN, SEE SHEETS 10/68 TO 14/68.

FOR ABUTMENT PLAN AND ELEVATION, SEE SHEETS 14/68 TO 15/68.

DESIGN AGENCY
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REAR ABUTMENT DETAILS (LEFT BRIDGE)
BRIDGE NO. HAM-75-0440 L/R
OVER WB I-74

HAM-75-3.84
PID No. 104667

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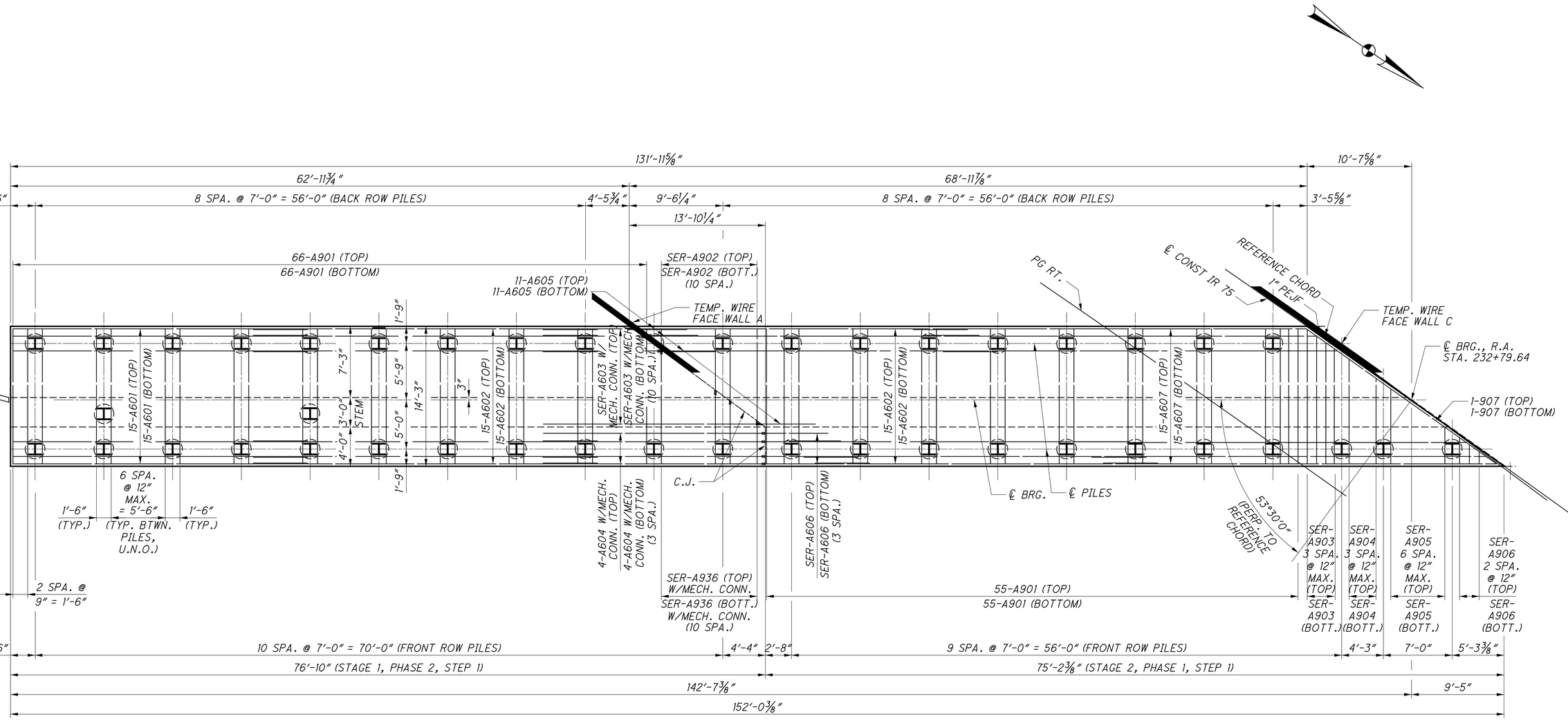
68



RIGHT REAR ABUTMENT FOOTING PLAN

MINIMUM BAR LAP	
#6	5'-6"

LEGEND

INDICATES HP14x117 STEEL "H" PILE WITH 30" PREBORED HOLE

NOTES:

FOR ABUTMENT PILE LAYOUT PLAN, SEE SHEETS 10/68 TO 11/68.
FOR ABUTMENT PLAN AND ELEVATION, SEE SHEETS 14/68 TO 15/68.

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REAR ABUTMENT DETAILS (RIGHT BRIDGE)
BRIDGE NO. HAM-75-0440 L/R
OVER WB I-74

HAM-75-3.84
PID No. 104667

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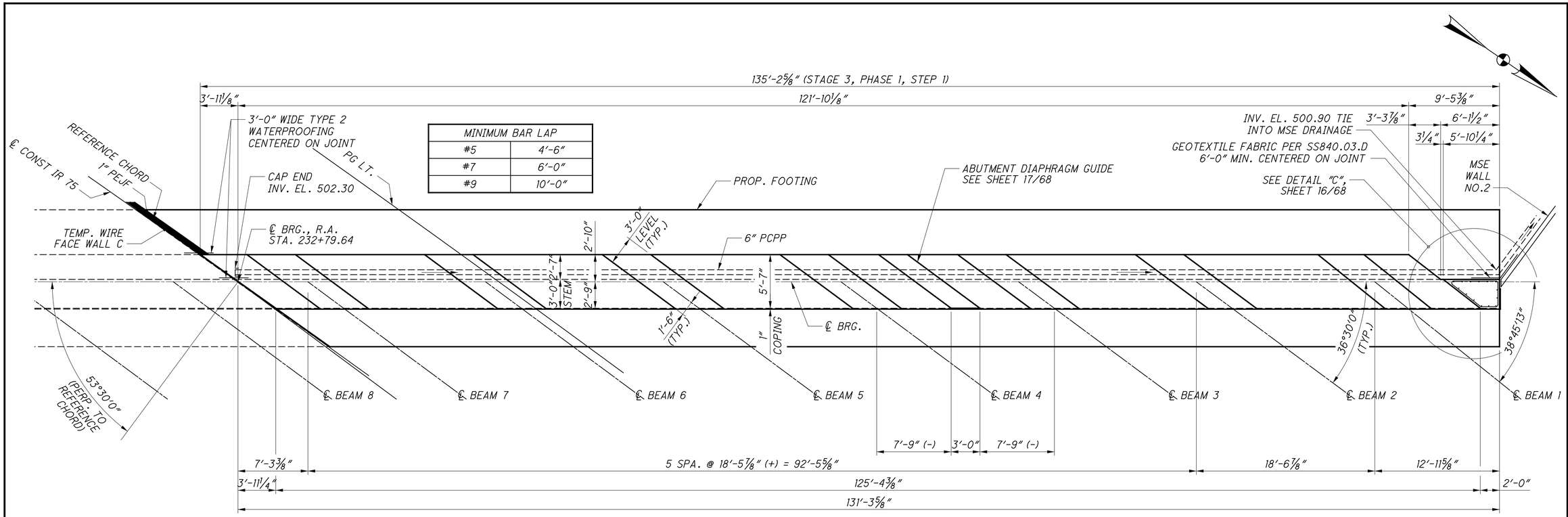
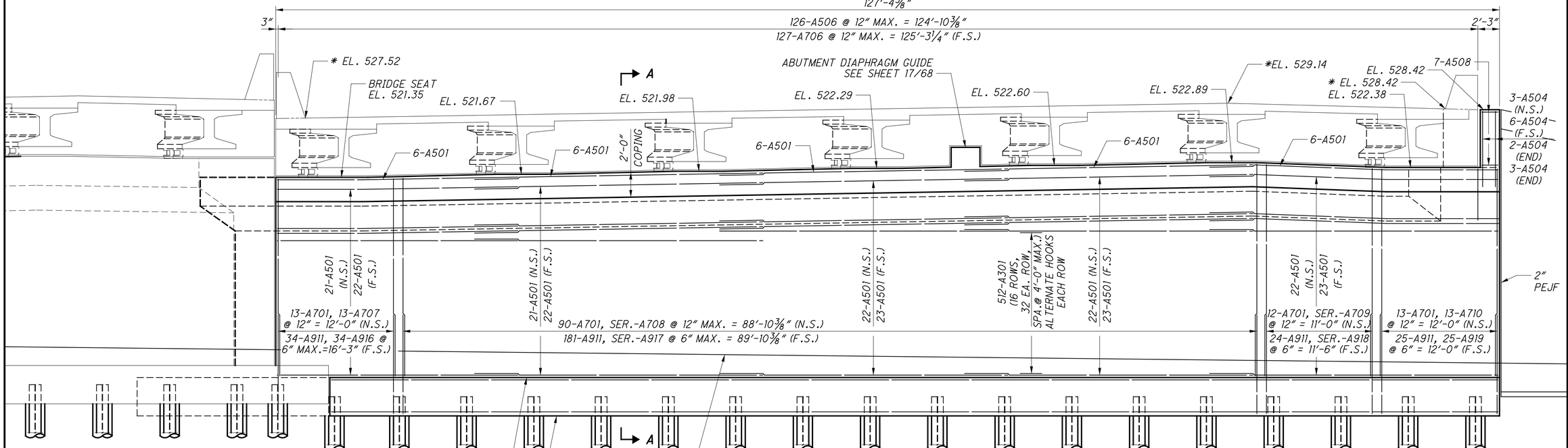
MINIMUM BAR LAP	
#5	4′-6″
#7	6′-0″
#9	10′-0″



PLAN - REAR ABUTMENT
LEFT BRIDGE



ELEVATION - REAR ABUTMENT
LEFT BRIDGE

LEGEND:

* AT ℄ BRGS.

NOTES:

FOR FOUNDATION DETAILS SEE SHEET 12/68.
FOR SECTION A-A, SEE SHEET 16/68.

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STRUCTUREPOINT LLC
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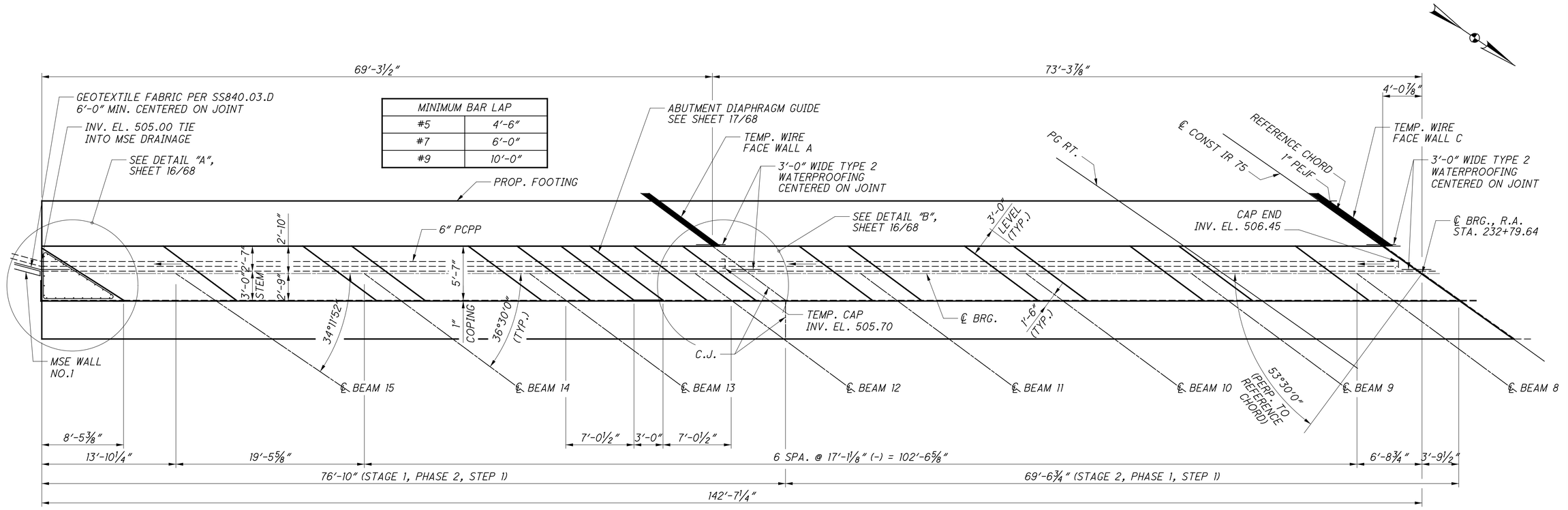
REAR ABUTMENT DETAILS (LEFT BRIDGE)
BRIDGE NO. HAM-75-0440 L/R
OVER WB I-74

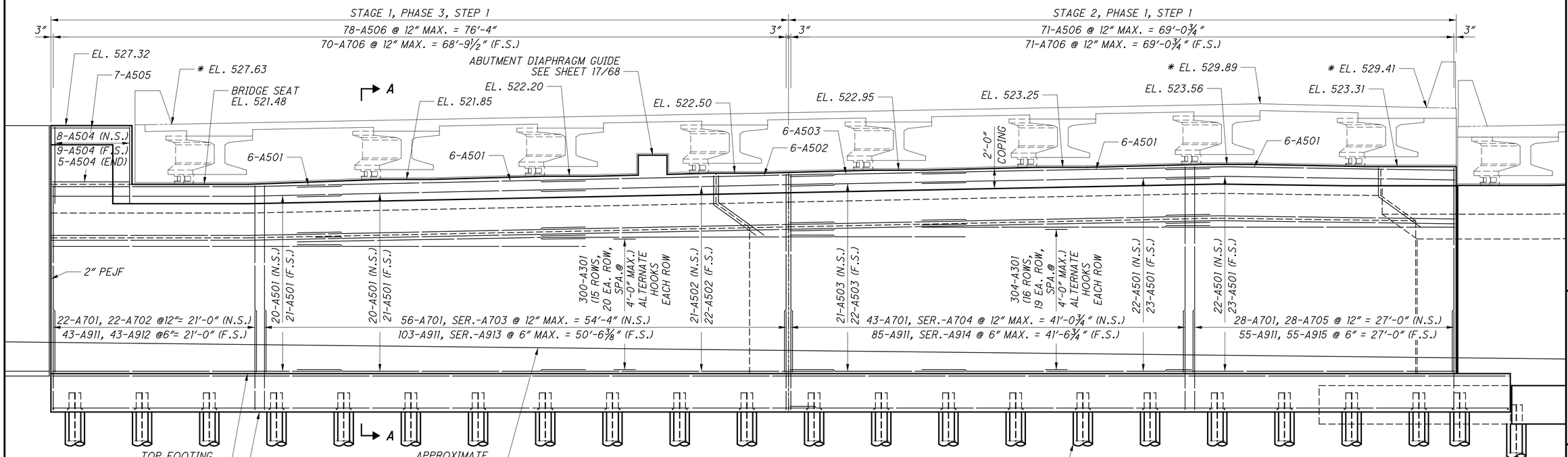
HAM-75-3.84
PID No. 104667

MINIMUM BAR LAP	
#5	4′-6″
#7	6′-0″
#9	10′-0″



PLAN - REAR ABUTMENT

RIGHT BRIDGE



ELEVATION - REAR ABUTMENT

RIGHT BRIDGE

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200 CORPORATE SQUARE DR. STE 330
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REAR ABUTMENT DETAILS (RIGHT BRIDGE)
BRIDGE NO. HAM-75-0440 L/R
OVER WB I-74

HAM-75-3.84
PID No. 104667

15 / 68

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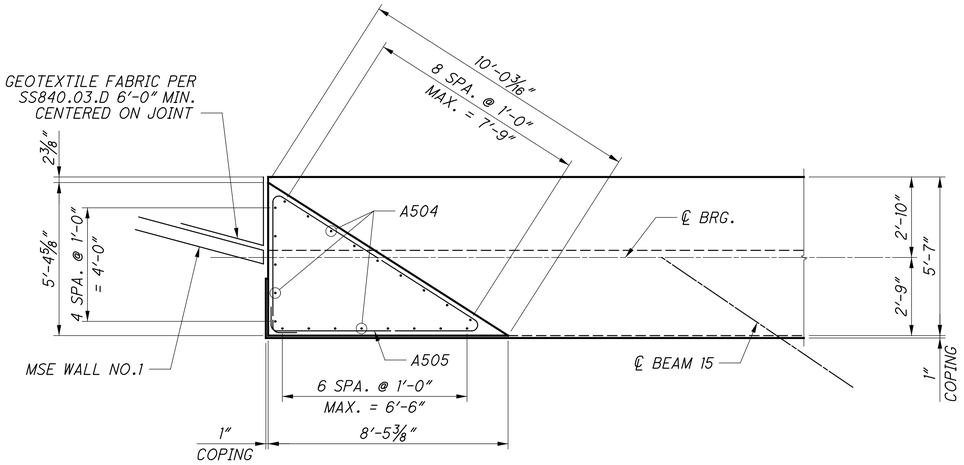
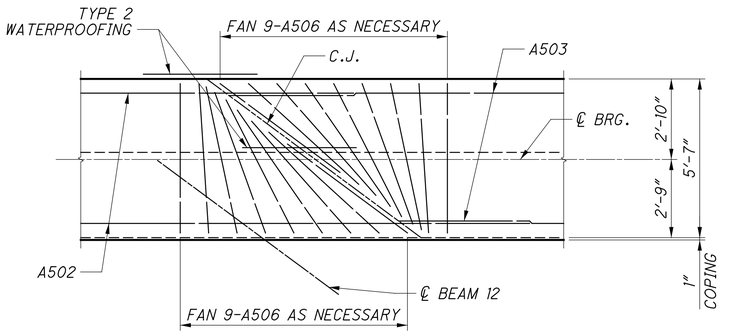
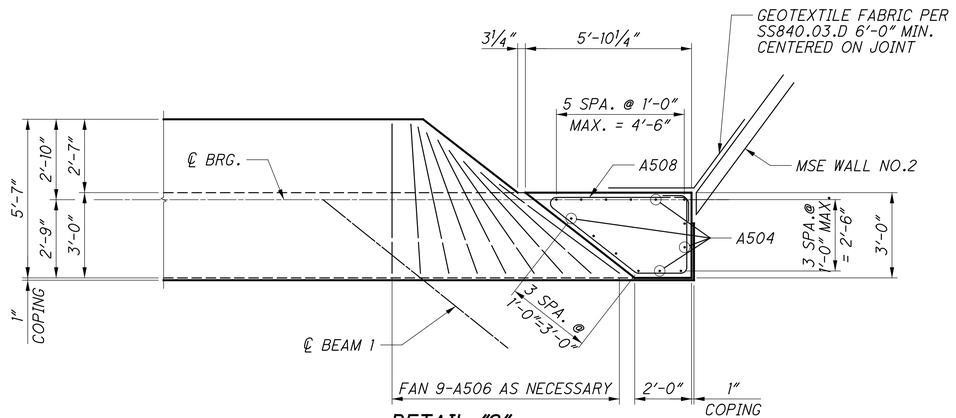


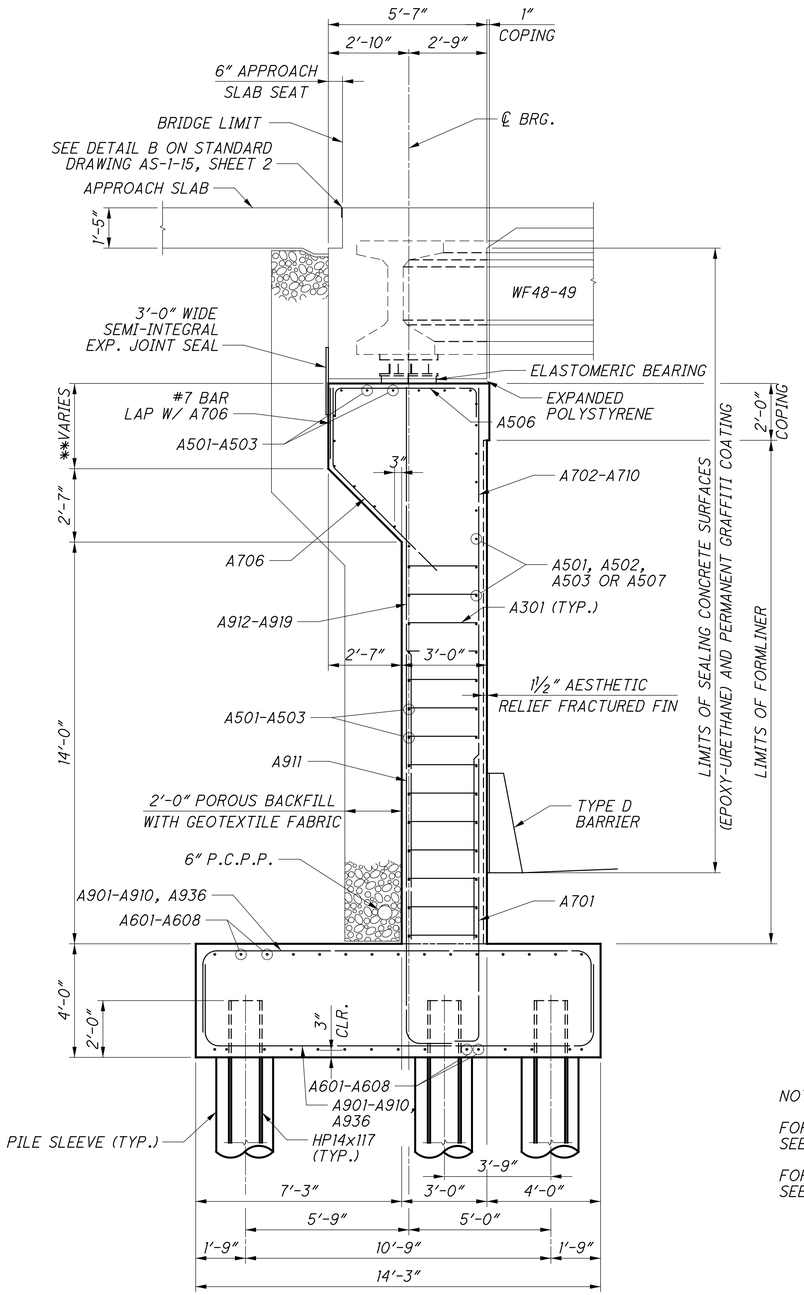
DETAIL "A"



DETAIL "B"



DETAIL "C"



SECTION A-A

** RIGHT BRIDGE VARIES 3'-1 3/4" MIN. TO 5'-2 3/4" MAX.
LEFT RBIDGE VARIES 4'-3 1/4" MIN. TO 5-9 3/4" MAX.

MINIMUM BAR LAP	
#5	4'-6"
#7	6'-0"
#9	10'-0"

NOTES:

FOR LOCATION OF DETAILS "A" AND "B", SEE SHEET 15/68.

FOR LOCATION OF DETAIL "C", SEE SHEET 14/68.

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REAR ABUTMENT DETAILS

BRIDGE NO. HAM-75-0440 L/R
OVER IR-74 WB

HAM-75-3.84
PID No. 104667

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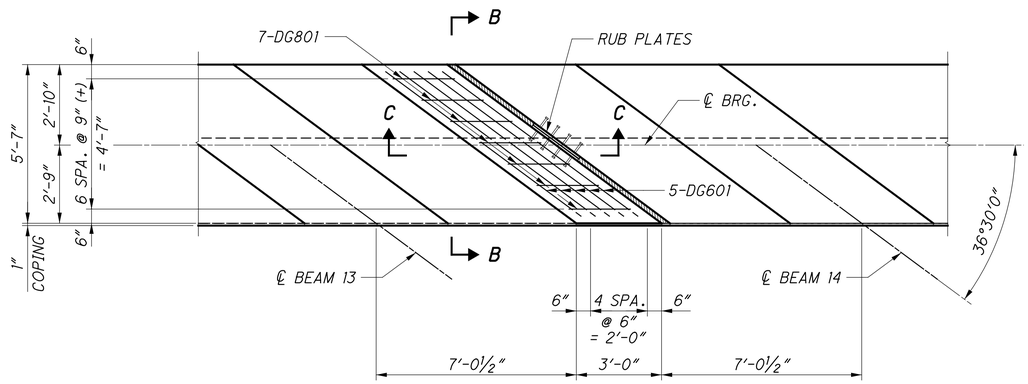
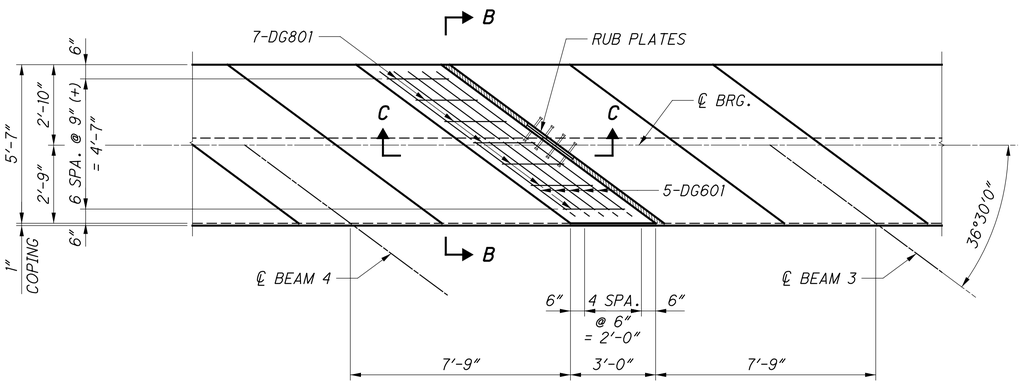
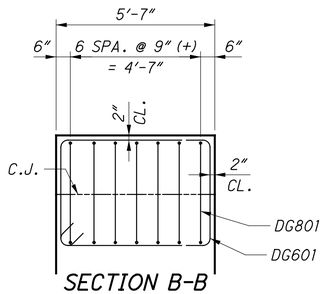


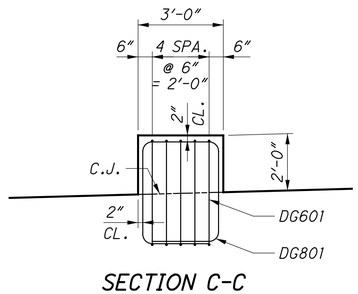
ABUTMENT DIAPHRAGM GUIDE PLAN AT
REAR ABUTMENT - RIGHT BRIDGE



ABUTMENT DIAPHRAGM GUIDE PLAN AT
REAR ABUTMENT - LEFT BRIDGE



SECTION B-B



SECTION C-C

ABUTMENT DIAPHRAGM GUIDE DETAILS

NOTES:

FOR ADDITIONAL ABUTMENT DIAPHRAGM GUIDE DETAILS,
SEE STANDARD DRAWING SICD-2-14.

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REAR ABUTMENT DETAILS
BRIDGE NO. HAM-75-0440 L/R
OVER WB I-74

HAM-75-3.84
PID No. 104667

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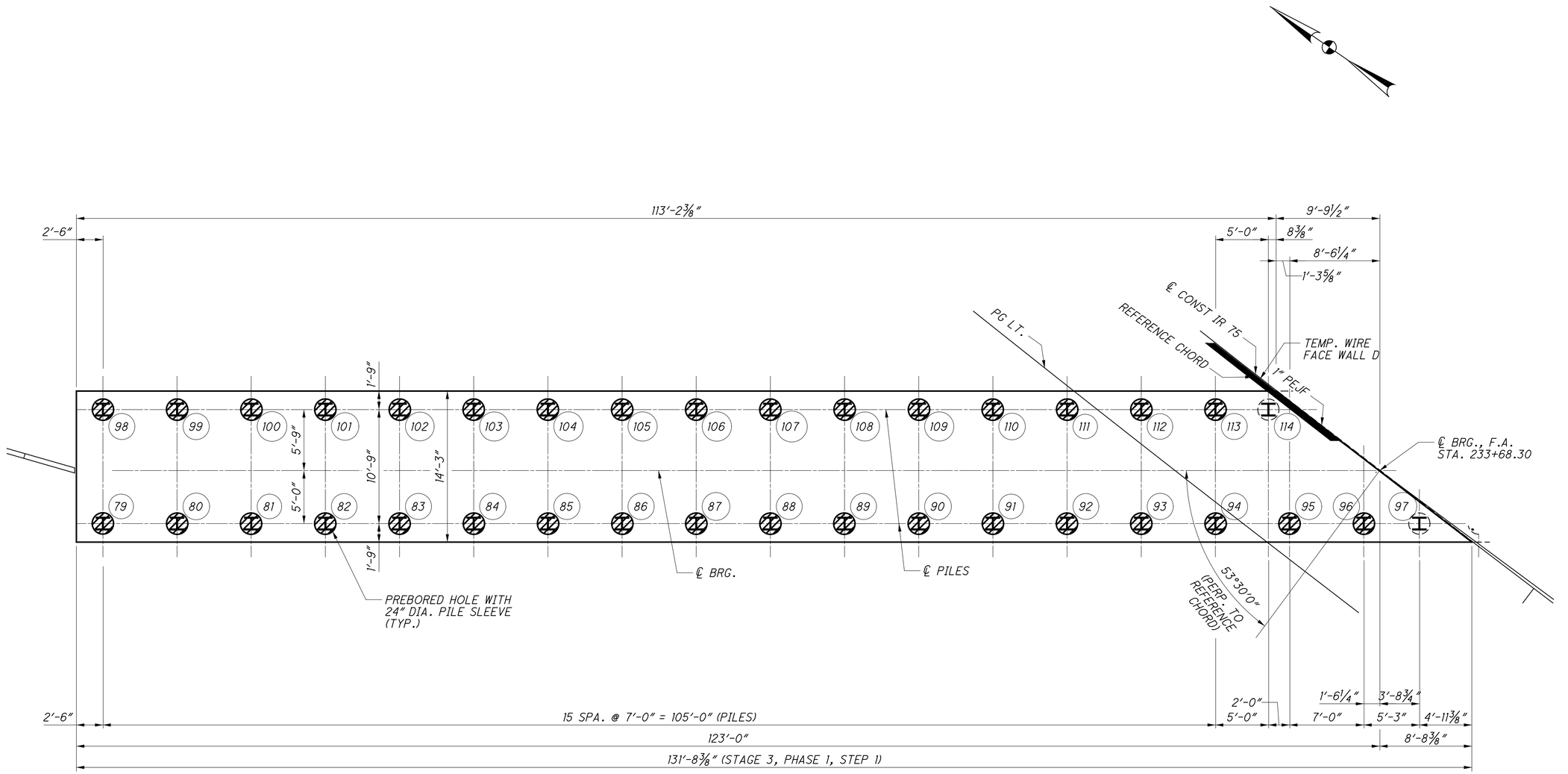

LEFT FORWARD ABUTMENT PILE LAYOUT PLAN

LEGEND

(XX) INDICATES PILE NUMBER

INDICATES HP14x117 STEEL "H" PILE WITH 30" PREBORED HOLE

PILES 98-113 TOP OF ROCK ENCOUNTERED AT BOTTOM OF FOOTING ELEVATION. PILE SLEEVES AND LSM WERE ELIMINATED. PILE POURED IN 14' ROCK SOCKET WITH CONCRETE.
PILES 79-96 TOP OF ROCK ENCOUNTERED AT BOTTOM OF FOOTING ELEVATION. PILE SLEEVES AND LSM WERE ELIMINATED. PILE POURED IN 17' ROCK SOCKET WITH CONCRETE.

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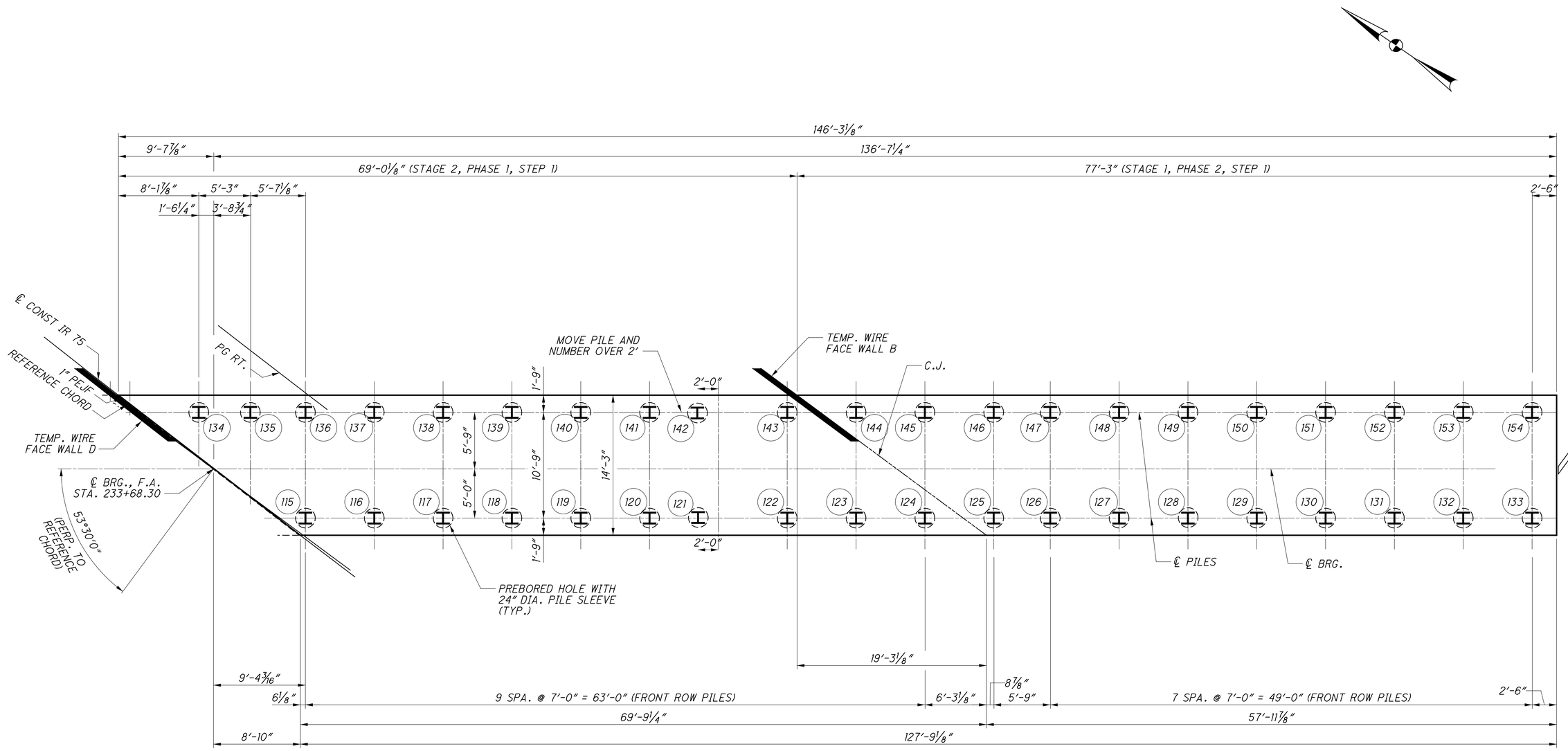
FORWARD ABUTMENT DETAILS (LEFT BRIDGE)
BRIDGE NO. HAM-75-0440 L/R
OVER WB I-74

HAM-75-3.84
PID No. 104667

18
68



RIGHT FORWARD ABUTMENT PILE LAYOUT PLAN

LEGEND

(XX) INDICATES PILE NUMBER

INDICATES HP14x117 STEEL "H" PILE WITH 30" PREBORED HOLE

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FORWARD ABUTMENT DETAILS (RIGHT BRIDGE)
BRIDGE NO. HAM-75-0440 L/R
OVER WB I-74

HAM-75-3.84
PID No. 104667

19 / 68

19
68

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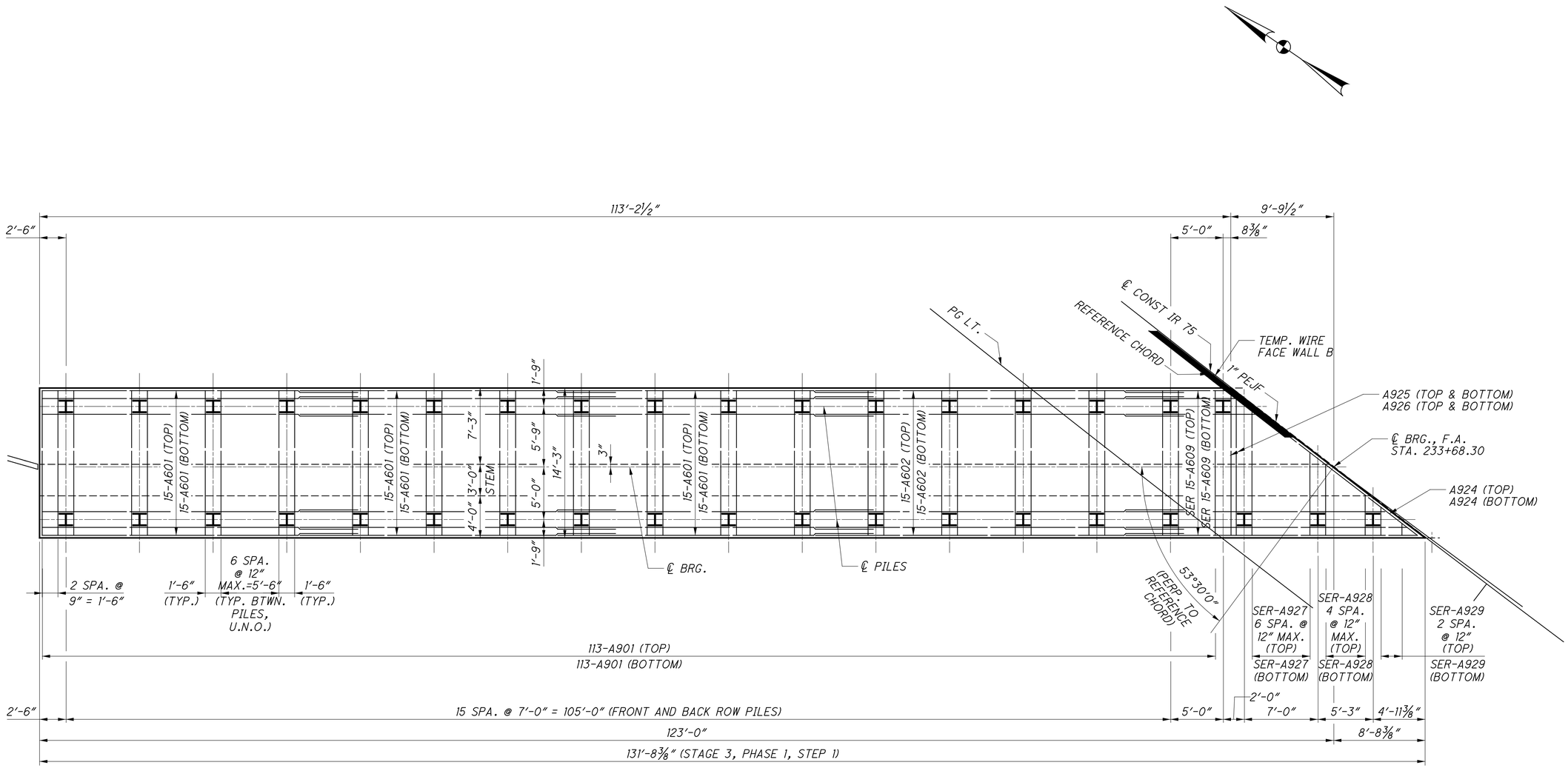

LEFT FORWARD ABUTMENT FOOTING PLAN

MINIMUM BAR LAP	
#6	5'-6"

LEGEND

⊥ INDICATES HP14x117 STEEL "H" PILE WITH 30" PREBORED HOLE

NOTES:

FOR ABUTMENT PILE LAYOUT PLAN, SEE SHEETS 18/68 TO 19/68.
FOR ABUTMENT PLAN AND ELEVATION, SEE SHEETS 22/68 TO 23/68.

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FORWARD ABUTMENT DETAILS (LEFT BRIDGE)
BRIDGE NO. HAM-75-0440 L/R
OVER WB I-74

HAM-75-3.84
PID No. 104667

20/68

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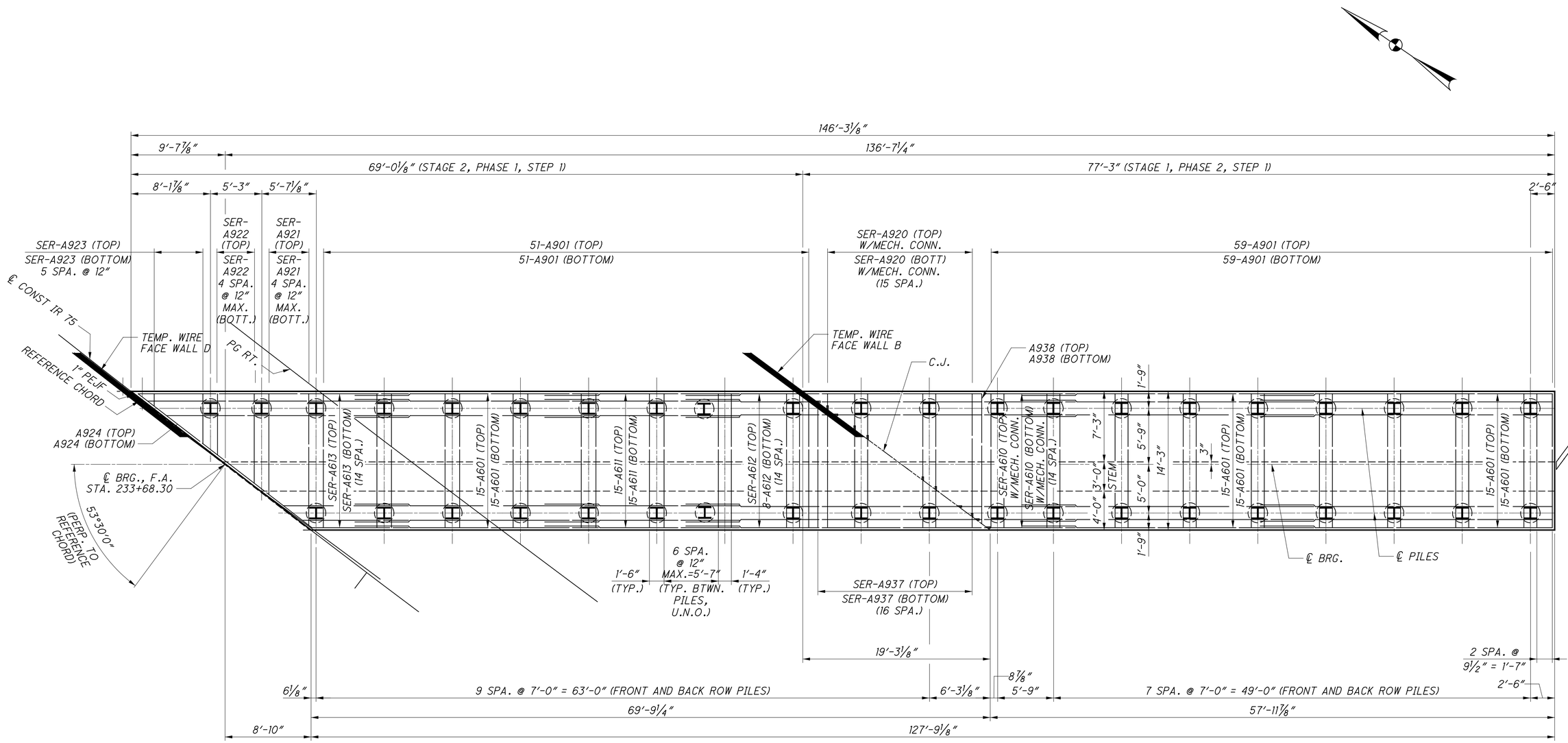
68



RIGHT FORWARD ABUTMENT FOOTING PLAN

MINIMUM BAR LAP	
#6	5'-6"

LEGEND

INDICATES HP14x117 STEEL "H" PILE WITH 30" PREBORED HOLE

NOTES:

FOR ABUTMENT PILE LAYOUT PLAN, SEE SHEETS 18/68 TO 19/68.
FOR ABUTMENT PLAN AND ELEVATION, SEE SHEETS 22/68 TO 23/68.

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FORWARD ABUTMENT DETAILS (RIGHT BRIDGE)
BRIDGE NO. HAM-75-0440 L/R
OVER WB I-74

HAM-75-3.84
PID No. 104667

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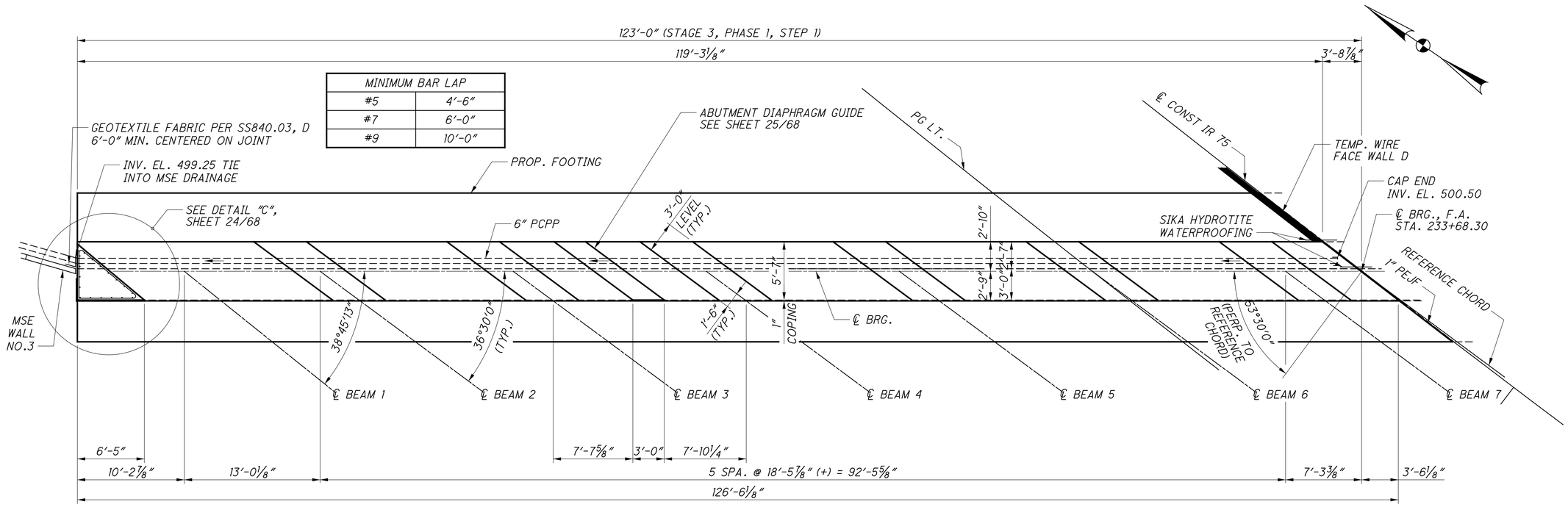
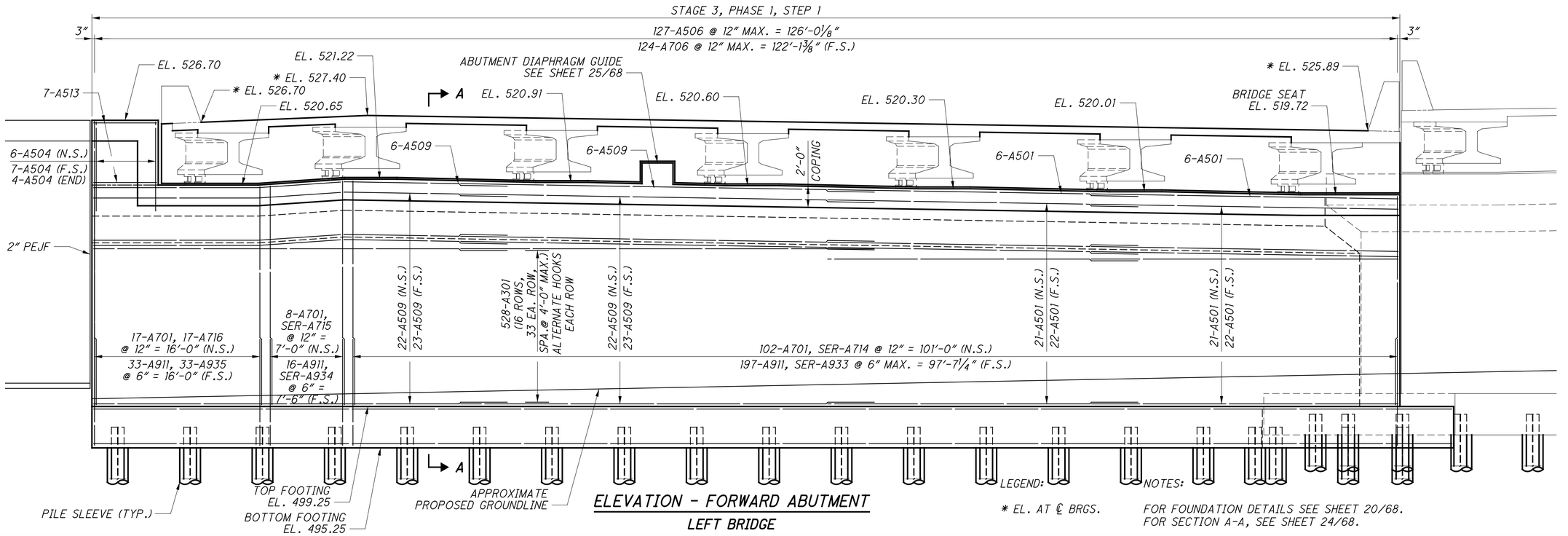
68

MINIMUM BAR LAP	
#5	4′-6″
#7	6′-0″
#9	10′-0″



PLAN - FORWARD ABUTMENT
LEFT BRIDGE



ELEVATION - FORWARD ABUTMENT
LEFT BRIDGE

LEGEND:
* EL. AT ℄ BRGS.

NOTES:
FOR FOUNDATION DETAILS SEE SHEET 20/68.
FOR SECTION A-A, SEE SHEET 24/68.

DESIGN AGENCY
STRUCTUREPOINT LLC
200 CORPORATE SQUARE DR. STE 200
CANTON, OH 44333
TEL: 614.901.7700 www.structurepoint.com

DESIGNED	DRAWN	REVIEWED	DATE
SJF	DSH	MDS	1/03/19
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CLB		3109763	

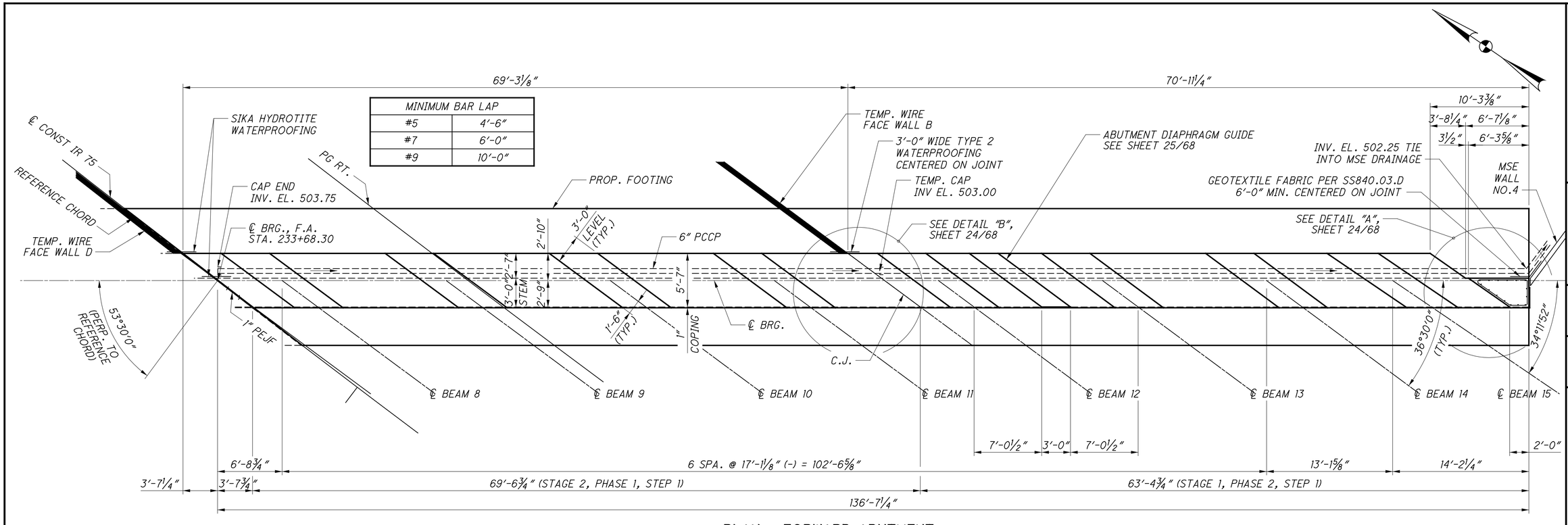
FORWARD ABUTMENT DETAILS (LEFT BRIDGE)
BRIDGE NO. HAM-75-0440 L/R
OVER WB I-74

HAM-75-3.84
PID No. 104667

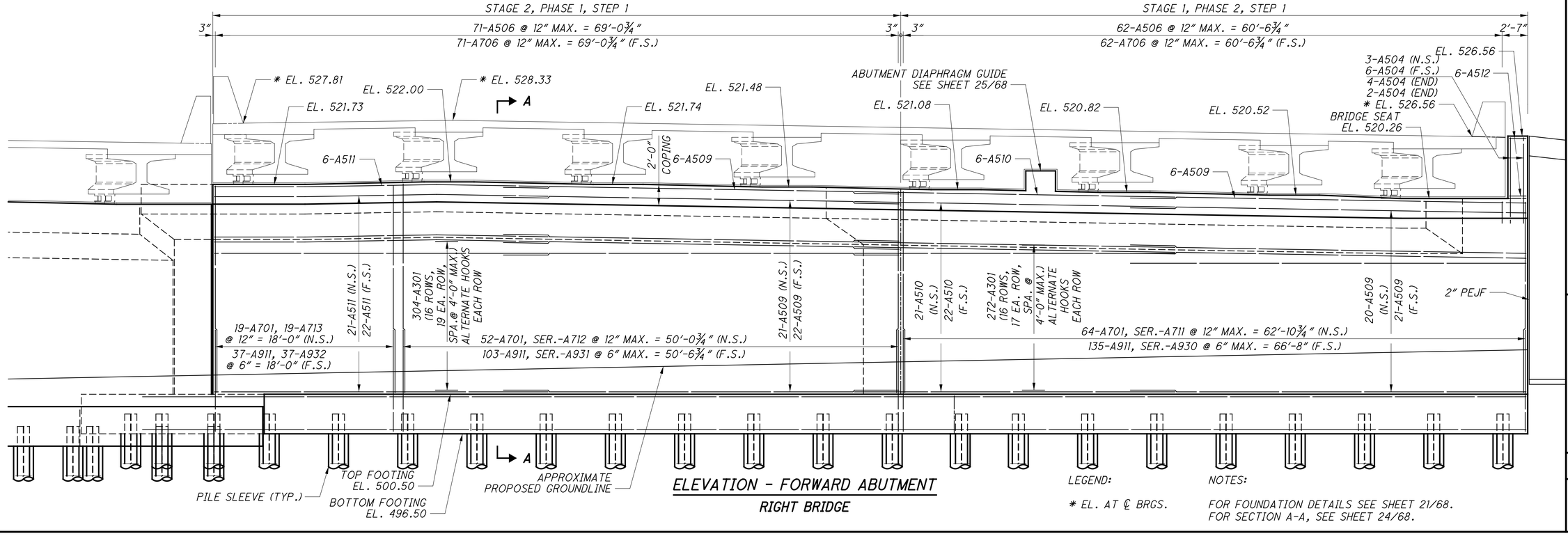
22 / 68

22
68

MINIMUM BAR LAP	
#5	4′-6″
#7	6′-0″
#9	10′-0″



PLAN - FORWARD ABUTMENT
RIGHT BRIDGE



ELEVATION - FORWARD ABUTMENT
RIGHT BRIDGE

LEGEND:

* EL. AT ℄ BRGS.

NOTES:

FOR FOUNDATION DETAILS SEE SHEET 21/68.
FOR SECTION A-A, SEE SHEET 24/68.

DESIGN AGENCY
STRUCTUREPOINT LLC
2001 CORPORATE SQUARE DR., STE 200
COLUMBIA, SC 29223
TEL: 614.961.1000 www.structurepoint.com

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SJF	DSH	MDS	1/03/19
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CLB		3109763	

FORWARD ABUTMENT DETAILS (RIGHT BRIDGE)
BRIDGE NO. HAM-75-0440 L/R
OVER WB I-74

HAM-75-3.84
PID No. 104667

23/68

23/68

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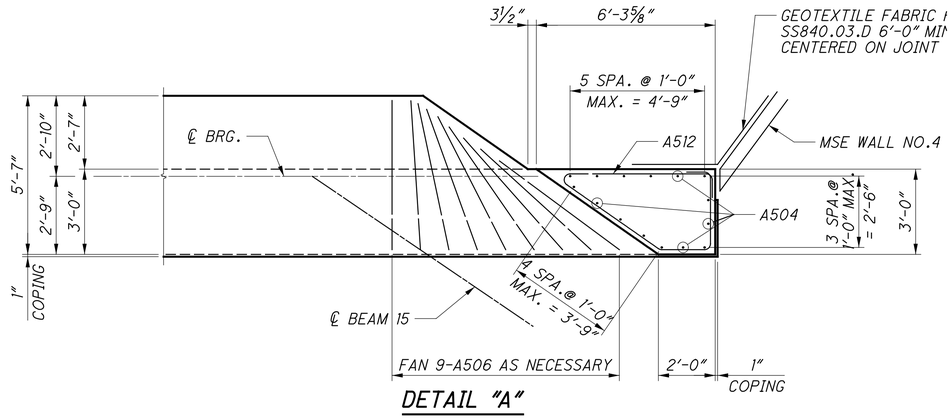
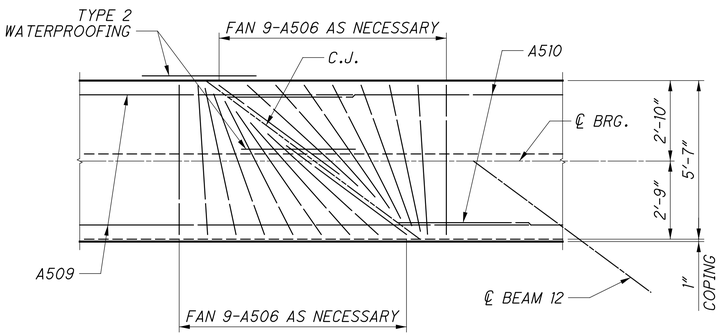


DETAIL "A"



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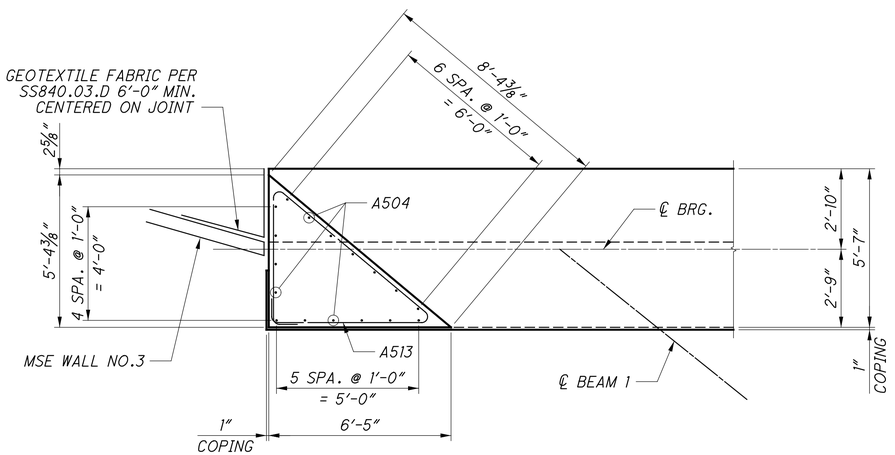
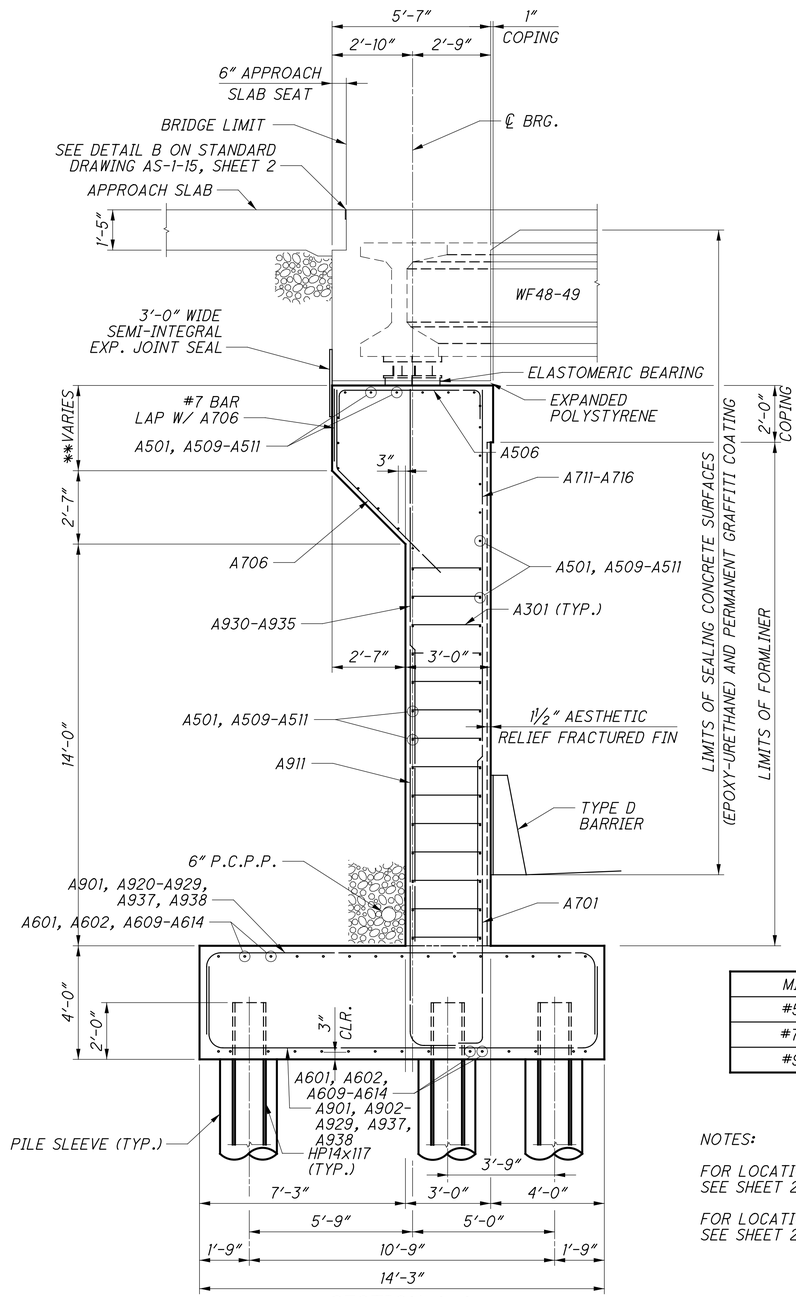


DETAIL "C"



SECTION A-A

** RIGHT BRIDGE VARIES 3'-1 ¾" MIN. TO 5'-2 ¾" MAX.
LEFT BRIDGE VARIES 4'-3 ¼" MIN. TO 5'-9 ¾" MAX.

MINIMUM BAR LAP	
#5	4'-6"
#7	6'-0"
#9	10'-0"

NOTES:

FOR LOCATION OF DETAILS "A" AND "B",
SEE SHEET 23/68.

FOR LOCATION OF DETAIL "C",
SEE SHEET 22/68.

DESIGN AGENCY
STRUCTUREPOINT LLC
200 CORPORATE SQUARE DR. STE 350
CLEVELAND, OH 44321
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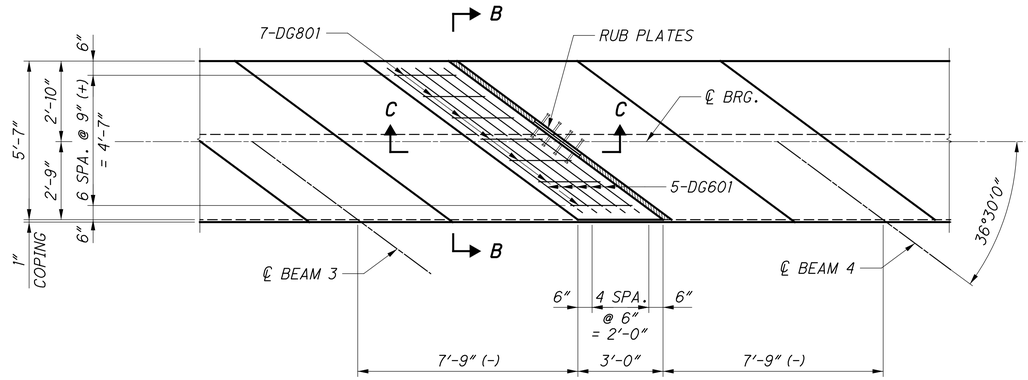
FORWARD ABUTMENT DETAILS

BRIDGE NO. HAM-75-0440 L/R
OVER WB I-74

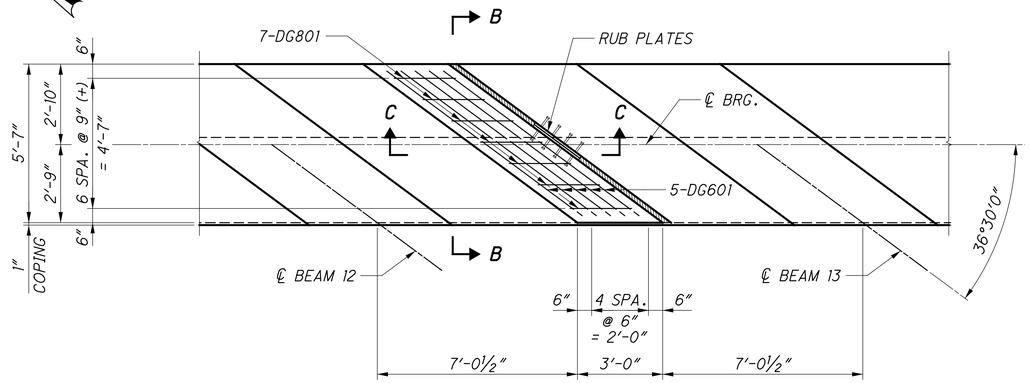
HAM-75-3.84
PID No. 104667

24/68

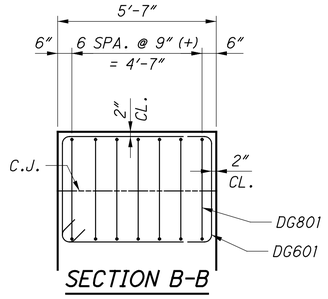
24
68



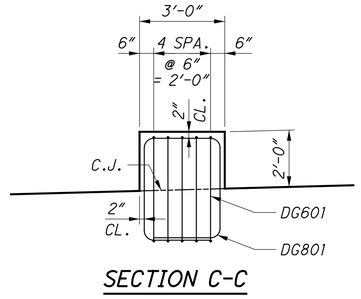
ABUTMENT DIAPHRAGM GUIDE PLAN AT FORWARD ABUTMENT - LEFT BRIDGE



ABUTMENT DIAPHRAGM GUIDE PLAN AT FORWARD ABUTMENT - RIGHT BRIDGE



SECTION B-B



SECTION C-C

ABUTMENT DIAPHRAGM GUIDE DETAILS

NOTES:

FOR ADDITIONAL ABUTMENT DIAPHRAGM GUIDE DETAILS, SEE STANDARD DRAWING SICD-2-14.

DESIGN AGENCY
STRUCTUREPOINT LLC
2004 CORPORATE SQUARE DR, STE 250
CUYAHOGA FALLS, OH 44223
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CLB		3109763	

FORWARD ABUTMENT DETAILS
BRIDGE NO. HAM-75-0440 L/R
OVER WB I-74

HAM-75-3.84
PID No. 104667

25 / 68

25
68

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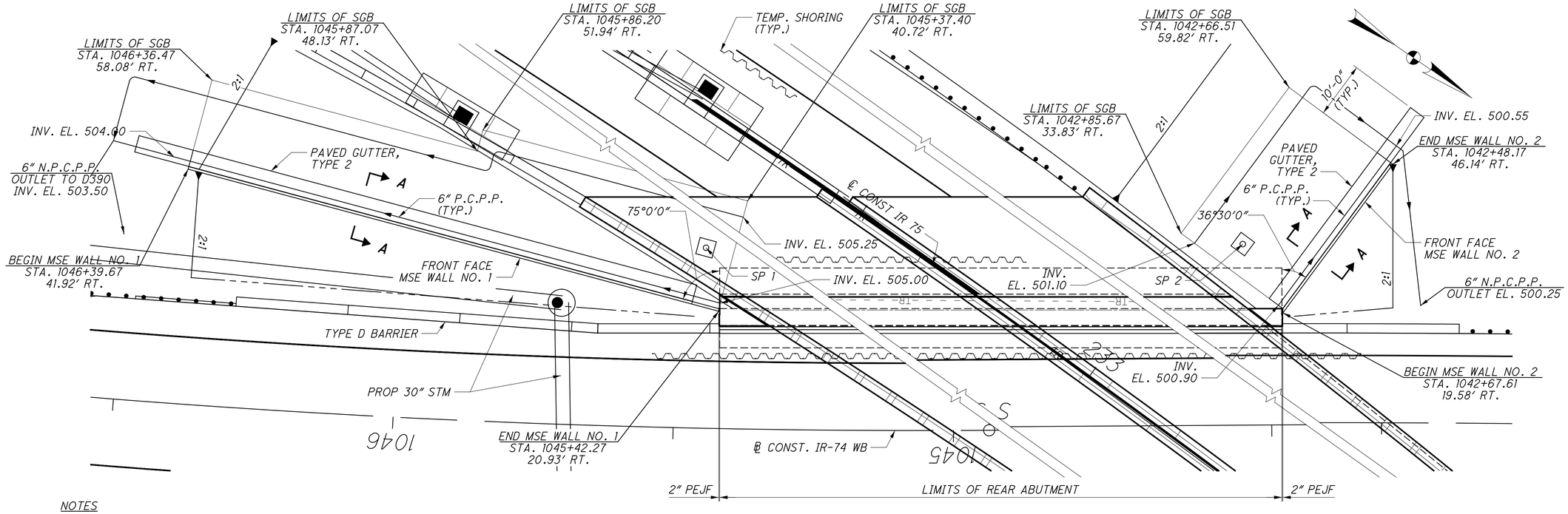


NOTES

* 6'-0" GEOTEXTILE FABRIC PER SS840.03.D ON BACK FACE CENTERED ON JOINT FROM TOP OF LEVELING PAD TO TOP OF WALL.

ALL STATIONS AND OFFSETS GIVEN ALONG FRONT FACE OF MSE WALL FROM ℄ CONST IR 74 WB.

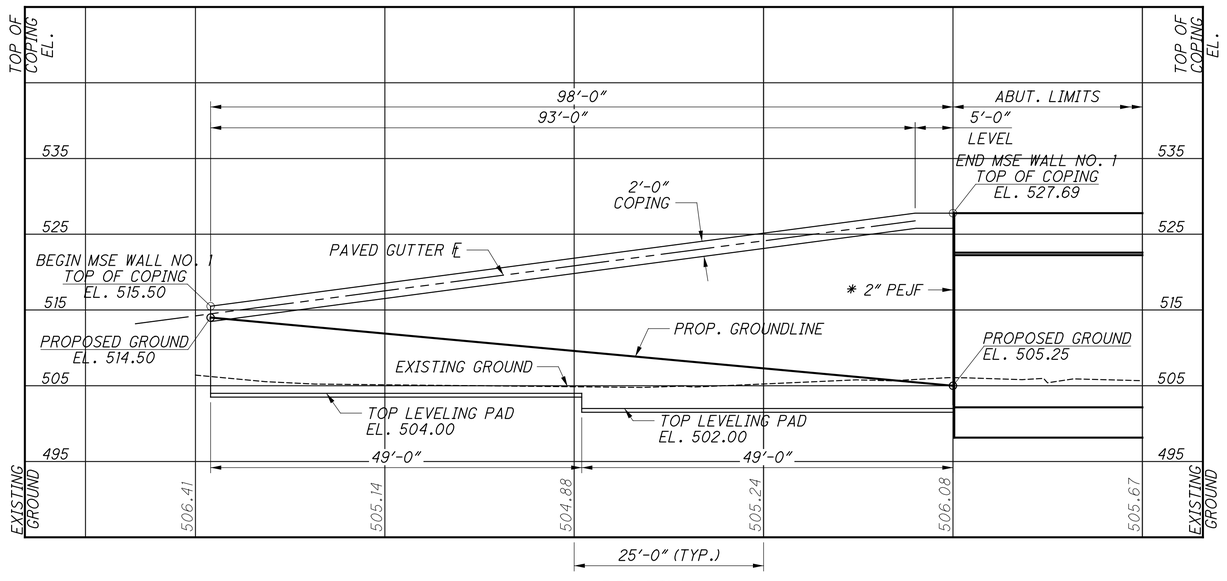
PROFILE SHOWN ALONG FRONT FACE OF MSE WALL.

FOR SECTIONS A-A , SEE SHEET 28/68.

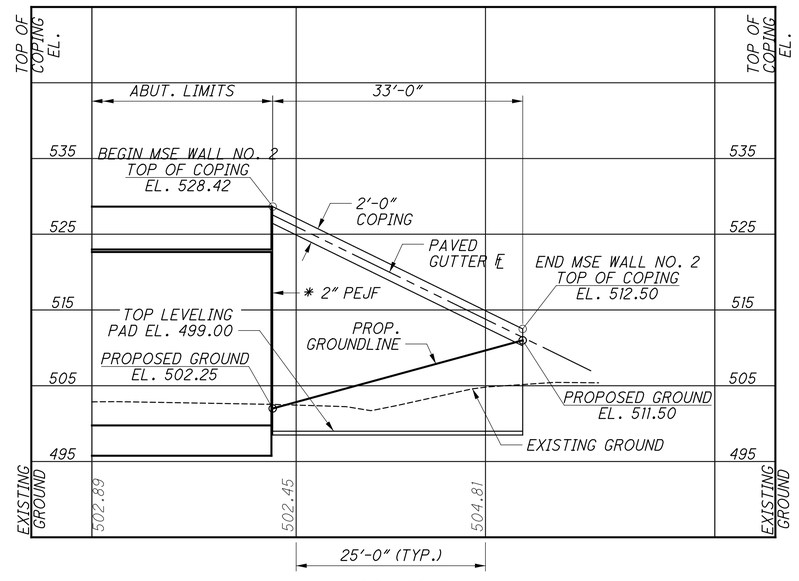
LEGEND

○ - SETTLEMENT PLATFORM (SP)
SP 1, MSE WALL NO. 1 - STA. 1045+44.81, 32.21' RT.
SP 2, MSE WALL NO. 2 - STA. 1042+74.72, 31.87' RT.

PLAN



PROFILE
ALONG FRONT FACE MSE WALL NO. 1



PROFILE
ALONG FRONT FACE MSE WALL NO. 2

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200 CORPORATE EXCHANGE DR. STE 200
COLUMBIA, SC 29229
TEL: 614.901.7700 FAX: 614.901.7701
www.structurepoint.com

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PLAN & PROFILE - MSE WALL NO. 1 & 2
BRIDGE NO. HAM-75-0440 L/R
OVER IR 74 WB

HAM-75-3.84
PID No. 104667

26/68

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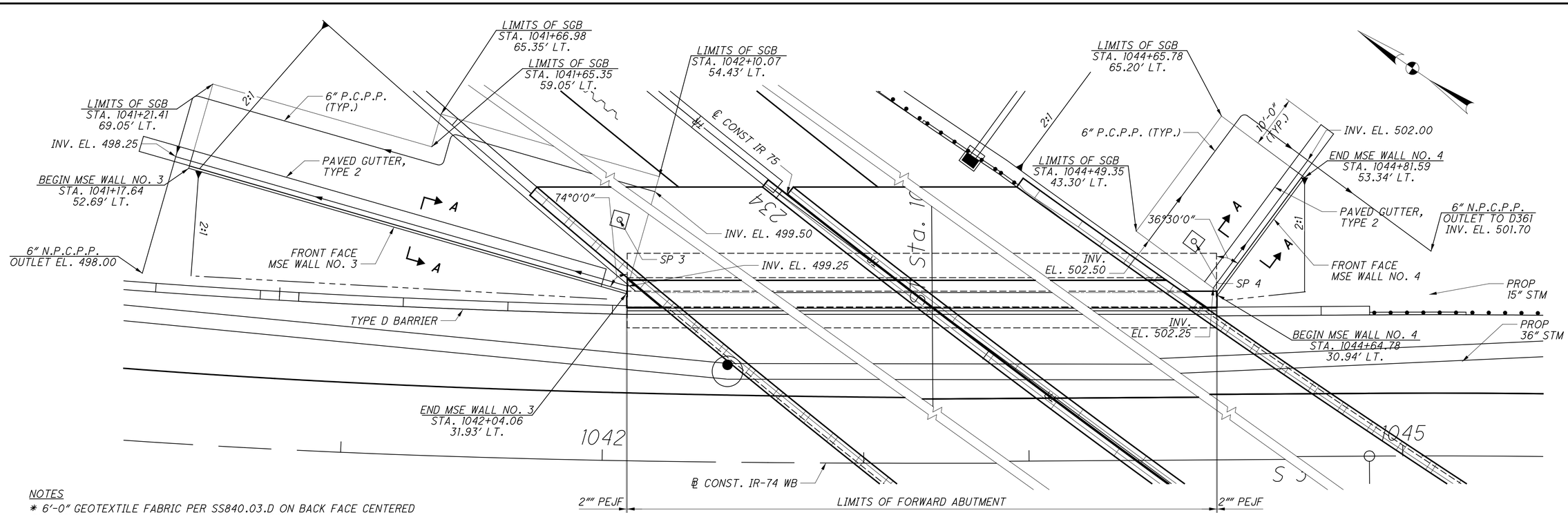


PLAN

NOTES

* 6'-0" GEOTEXTILE FABRIC PER SS840.03.D ON BACK FACE CENTERED ON JOINT FROM TOP OF LEVELING PAD TO TOP OF WALL.

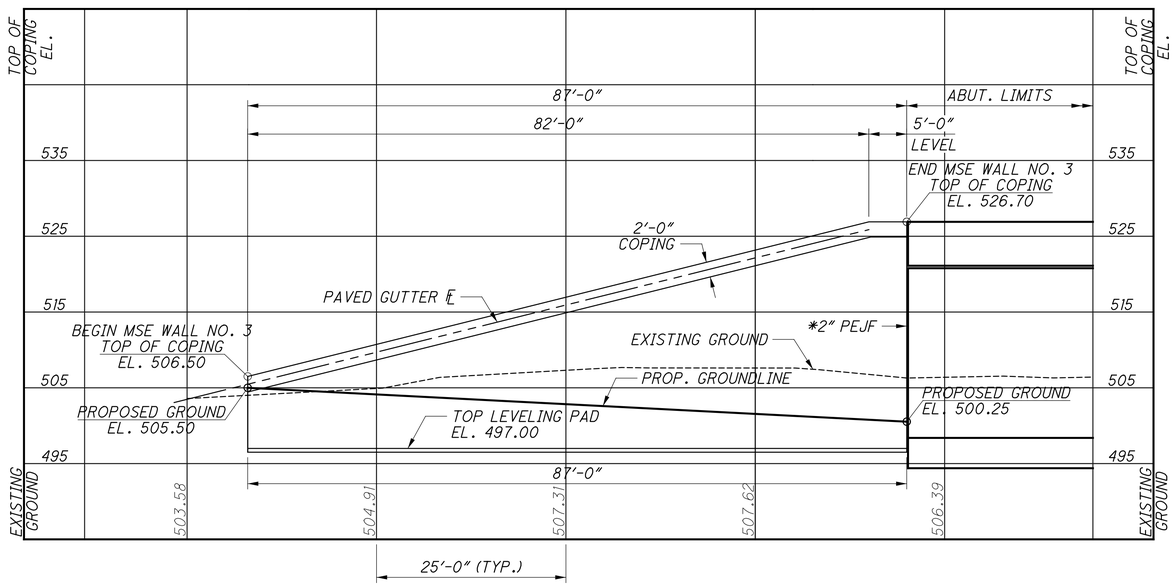
ALL STATIONS AND OFFSETS GIVEN ALONG FRONT FACE OF MSE WALL FROM ℄ CONST IR 74 WB.

PROFILE SHOWN ALONG FRONT FACE OF MSE WALL.

FOR SECTIONS A-A , SEE SHEET 28/68.

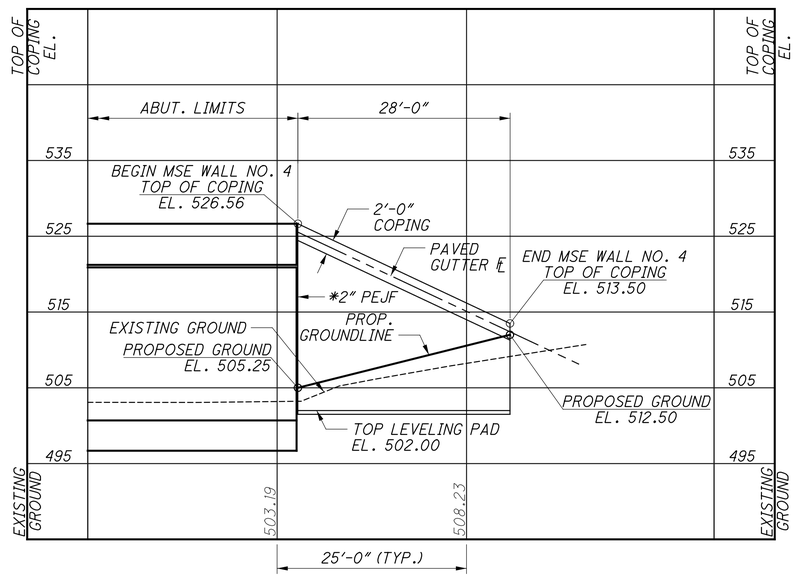
LEGEND

○ - SETTLEMENT PLATFORM (SP)
SP 3, MSE WALL NO. 3 - STA. 1042+02.50, 46.06' LT.
SP 4, MSE WALL NO. 4 - STA. 1044+60.35, 41.30' LT.



PROFILE
ALONG FRONT FACE MSE WALL NO. 3

PLAN



PROFILE
ALONG FRONT FACE MSE WALL NO. 4

DESIGN AGENCY
STRUCTUREPOINT LLC
200 CORPORATE EXCHANGE DR, STE 200
COLUMBIA, SC 29229
TEL: 614.901.7700 FAX: 614.901.7701
www.structurepointllc.com

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PLAN & PROFILE - MSE WALL NO. 3 & 4
BRIDGE NO. HAM-75-0440 L/R
OVER IR 74 WB

HAM-75-3.84
PID No. 104667

27/68

27
68

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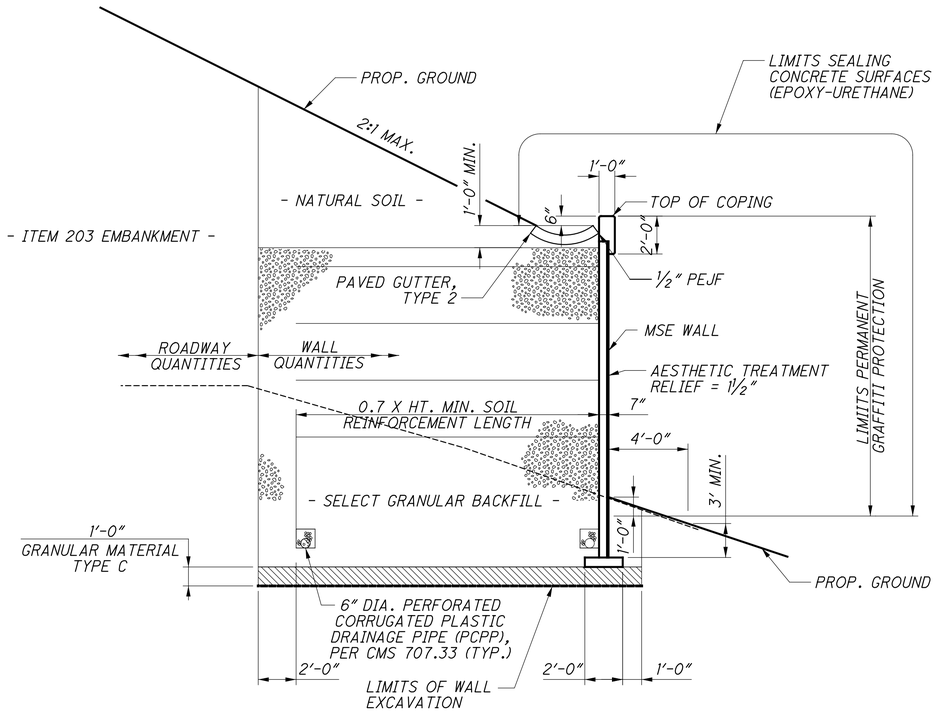
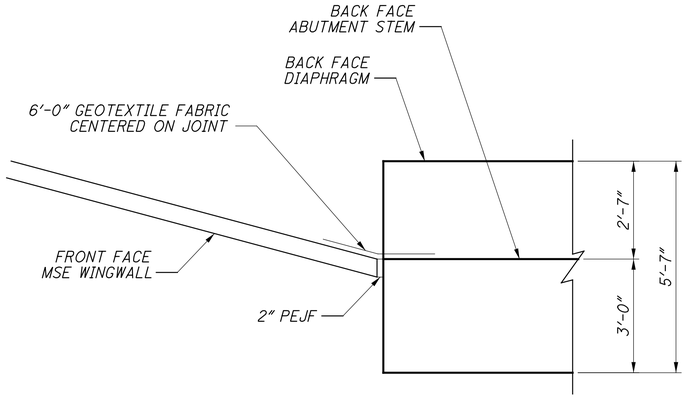
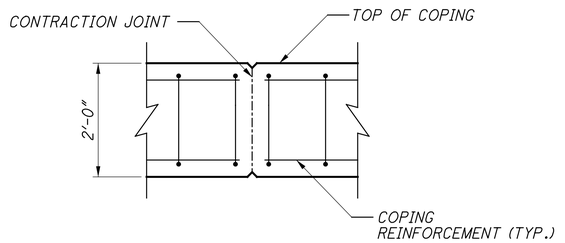


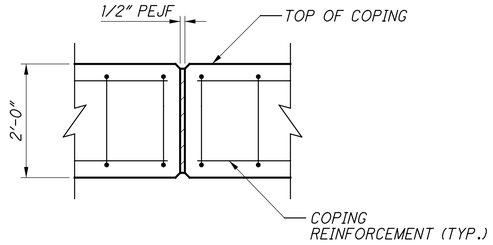
TYPICAL MSE WINGWALL SECTION



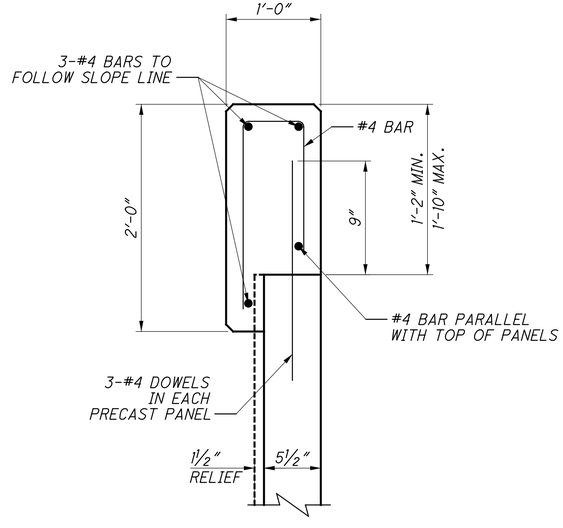
ABUTMENT INTERFACE DETAIL



COPING CONTRACTION JOINT



COPING EXPANSION JOINT



COPING DETAIL

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STRUCTUREPOINT LLC
2500 CORPORATE EXCHANGE DR. STE 350
COLUMBUS, OH 43231
TEL: 614.901.7900 FAX: 614.901.7901
www.structurepointllc.com

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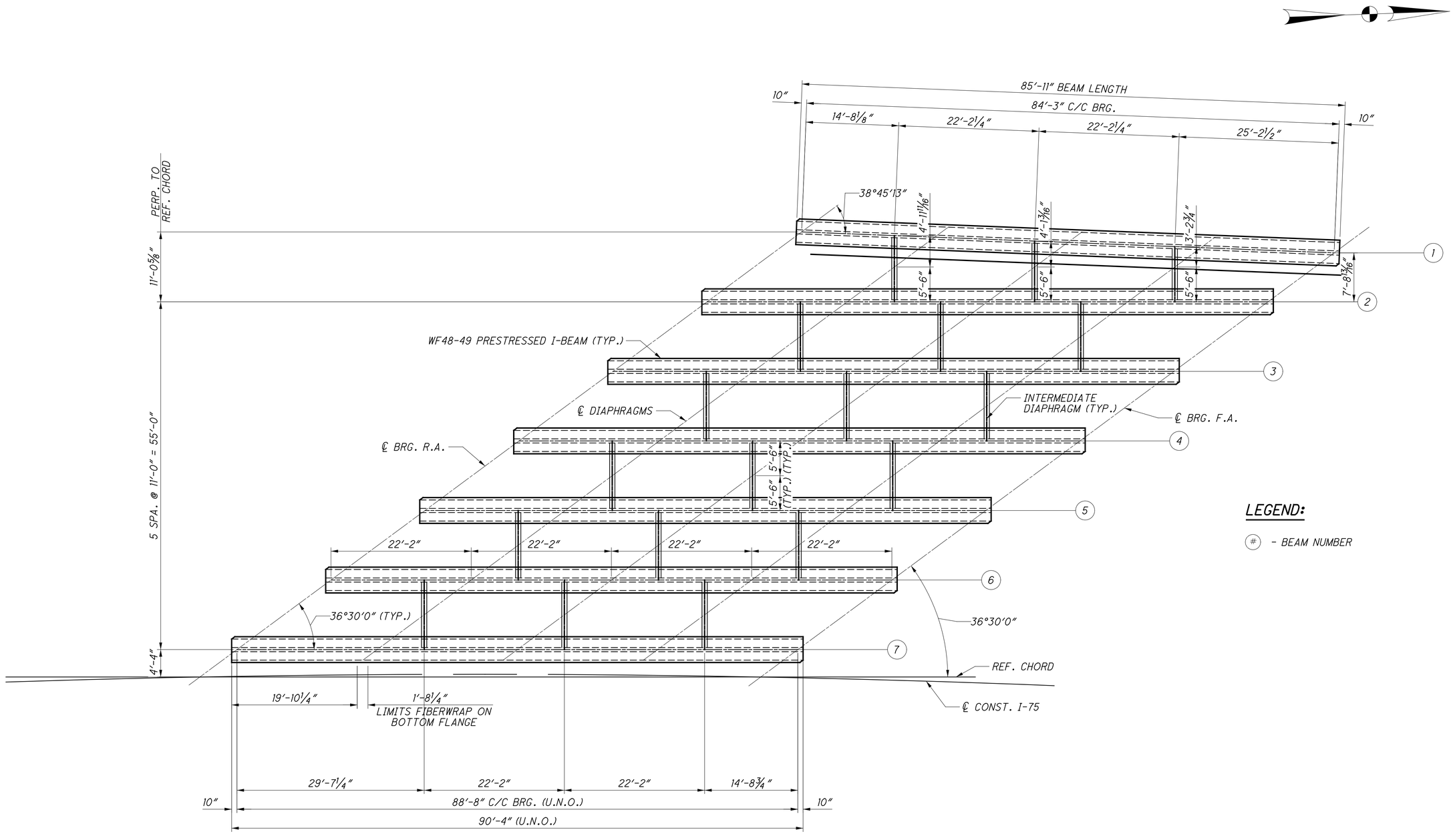
MSE WINGWALL SECTION AND DETAILS

BRIDGE NO. HAM-75-0440 L/R
OVER IR-74 WB

HAM-75-3.84
PID No. 104667



FRAMING PLAN

LEGEND:

(#) - BEAM NUMBER

NOTES:

1. SEE STD. DWG. PSID-1-13 FOR INTERMEDIATE DIAPHRAGM DETAILS.
2. SEE SHEETS 31/68 TO 32/68 FOR BEAM DETAILS.

DESIGN AGENCY
STRUCTUREPOINT LLC
2001 CORPORATE EXCHANGE DR. STE 200
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FRAMING PLAN (LEFT BRIDGE)
BRIDGE NO. HAM-75-0440 L/R
IR-75 OVER IR-74 WB

HAM-75-3.85
PID No. 104667

29/68

29
68

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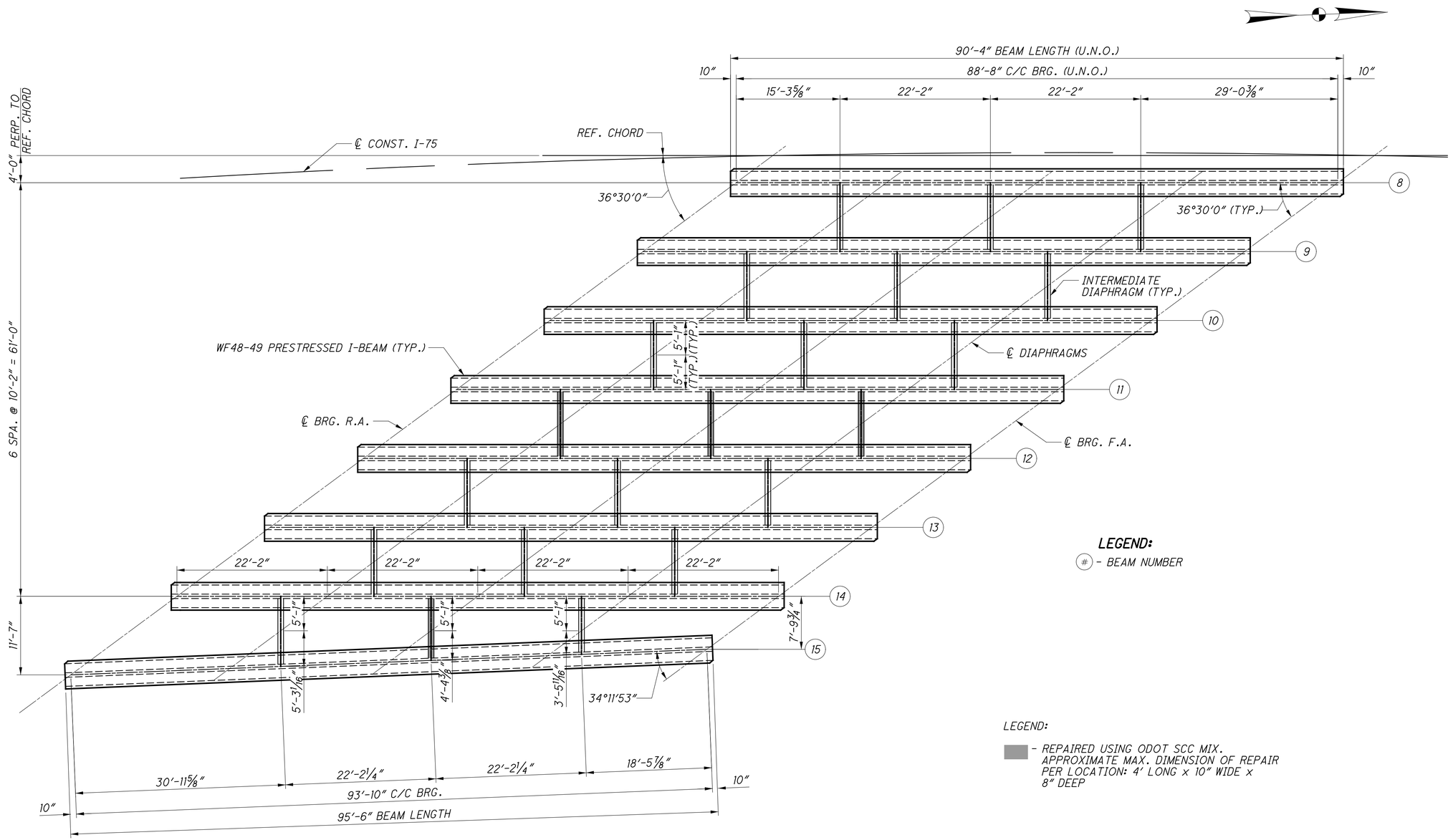

FRAMING PLAN

LEGEND:

(#) - BEAM NUMBER

LEGEND:

- REPAIRED USING ODOT SCC MIX. APPROXIMATE MAX. DIMENSION OF REPAIR PER LOCATION: 4′ LONG x 10″ WIDE x 8″ DEEP

NOTES:

1. SEE STD. DWG. PSID-1-13 FOR INTERMEDIATE DIAPHRAGM DETAILS.
2. SEE SHEETS 31/68 TO 32/68 FOR BEAM DETAILS.

DESIGN AGENCY
STRUCTUREPOINT LLC
2001 CORPORATE EXCHANGE DR. STE 200
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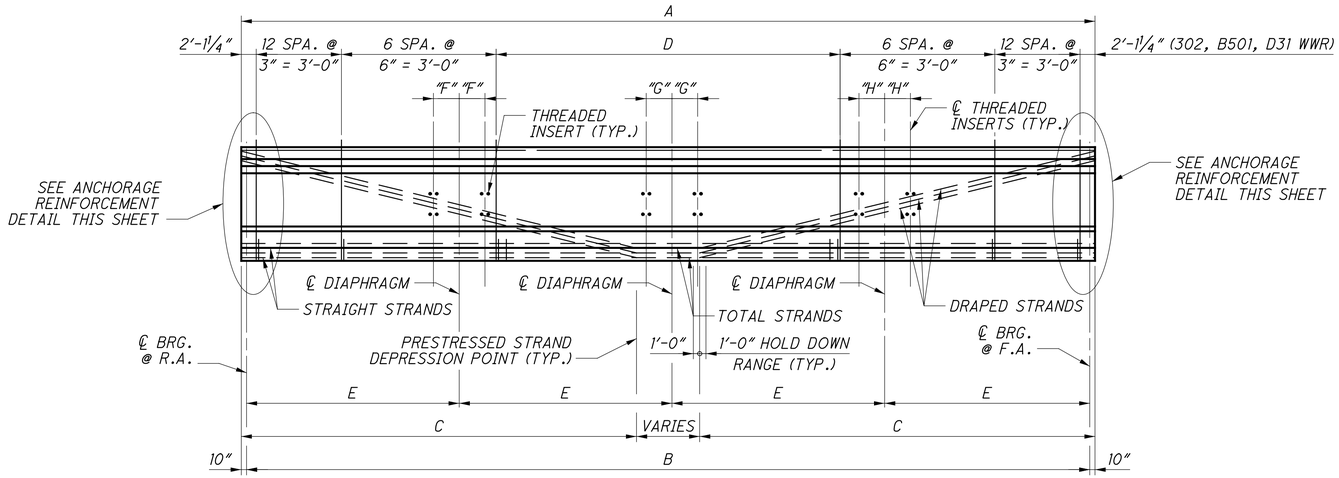
FRAMING PLAN (RIGHT BRIDGE)
BRIDGE NO. HAM-75-0440 L/R
IR-75 OVER IR-74 WB

HAM-75-3.85
PID No. 104667



TYPICAL BEAM ELEVATION

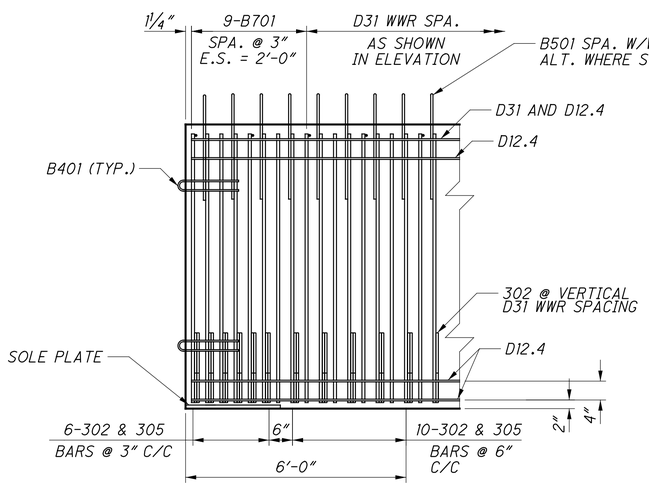
(SHEAR REINFORCEMENT AND PRESTRESSED STRAND DEPRESSION POINTS)
WF48-49 PRESTRESSED I-BEAM (TYP.)

BEAM NO.	TOTAL STRANDS	NO. DRAPED	NO. STRAIGHT	DIMENSIONS							
				A	B	C	D	E	F	G	H
LEFT BRIDGE											
1	43	3	40	Δ 85'-11"	Δ 84'-3"	34'-4½"	77 SPA. @ 11" (-)	21'-0¾"	6'-4⅝"	5'-3⅛"	4'-1¾"
2-7	43	3	40	Δ 90'-4"	Δ 88'-8"	36'-1⅜16"	81 SPA. @ 11" (-)	22'-2"	7'-5¼"	7'-5¼"	7'-5¼"
RIGHT BRIDGE											
8-14	43	3	40	Δ 90'-4"	Δ 88'-8"	36'-1⅜16"	81 SPA. @ 11" (-)	22'-2"	6'-10½"	6'-10½"	6'-10½"
15	43	3	40	Δ 95'-6"	Δ 93'-10"	38'-2½"	87 SPA. @ 11" (-)	23'-5½"	7'-6⅛"	6'-2⅞"	4'-11⅝"

ESTIMATED CAMBER AND REMAINING DL DEFLECTION			
	D_0	D_{30}	REMAINING DL DEFLECTION
BEAM 1	2.01	3.26	1.04
BEAM 2	2.14	3.46	1.43
BEAM 3-6	2.14	3.46	1.45
BEAM 7	2.14	3.46	1.26
BEAM 8	2.03	3.28	1.16
BEAM 9-13	2.03	3.28	1.33
BEAM 14	2.03	3.28	1.14
BEAM 15	2.27	3.68	1.37

NOTE TO FABRICATOR

THE DIMENSIONS MEASURED ALONG THE LENGTH OF THE BEAM, MARKED WITH A Δ, DO NOT CONTAIN AN ALLOWANCE FOR THE EFFECT OF THE LONGITUDINAL GRADE. INCLUDE THE PROPER ALLOWANCE FOR THESE DIMENSIONS IN THE SHOP DRAWINGS.



ANCHORAGE ZONE REINFORCING STEEL

STRANDS NOT SHOWN FOR CLARITY

NOTES:

1. PRESTRESSED CONCRETE I-BEAMS:
   STANDARD TYPE WF48-49 TYPICAL.
   REFER TO STD. DWG. PSID-1-13 FOR OTHER NOTES AND PERTINENT DETAILS.

2. CAMBER:
   SEE TABLE FOR ESTIMATED CAMBER AT DAY 0. (D0)
   SEE TABLE FOR ESTIMATED CAMBER AT DAY 30. (D30)
   DEFLECTION DUE TO REMAINING DEAD LOAD (E.G. CONCRETE DECK, CROSS FRAMES, DIAPHRAGMS, BARRIERS, UTILITIES, ETC.) ARE NOT INCLUDED IN THE ESTIMATED CAMBER VALUES ABOVE.

3. THE BEAM SEAT ELEVATIONS ASSUME ESTIMATED CAMBER D30 WITH SACRIFICIAL HAUNCH THICKNESS PROVIDE IN THE HAUNCH THICKNESS TABLE ON SHEETS 38/68 AND 40/68.

4. DESIGN STRESSES:
   PRESTRESSED CONCRETE - F'C = 8.5 KSI (28 DAY)
   F'CI = 6.5 KSI (RELEASE)

DESIGN AGENCY
STRUCTUREPOINT LLC
200 CORPORATE EXCHANGE DR. STE 350
COLUMBIA, SC 29229
TEL 614.901.7475 www.structurepoint.com

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SJF	BNM	MDS	1/2/19
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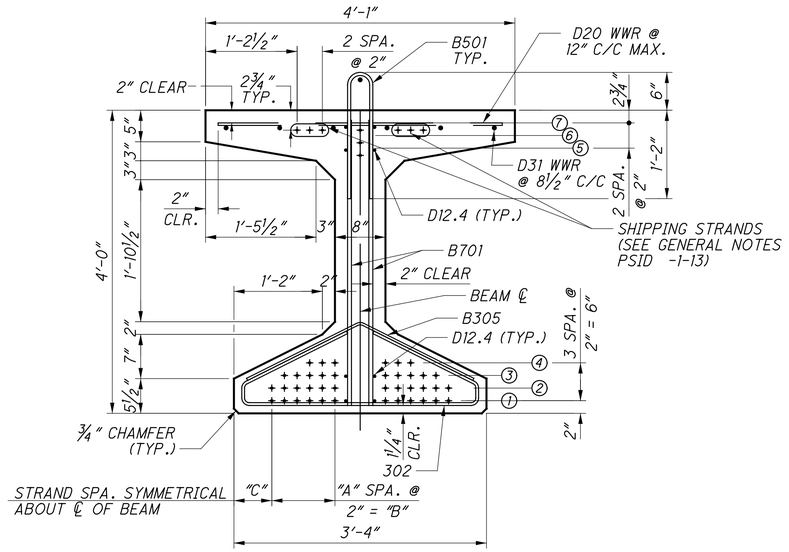
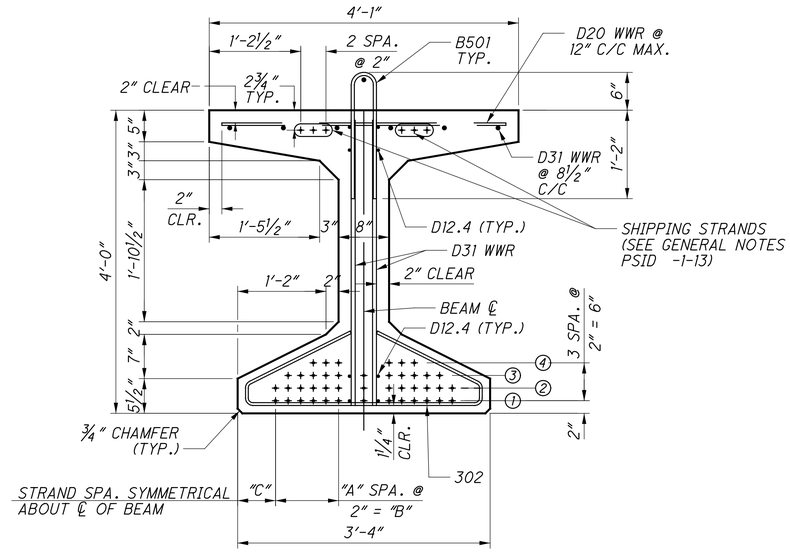
BEAM DETAILS
BRIDGE NO. HAM-75-0440 L/R
IR-75 OVER IR-74 WB

HAM-75-3.85
PID No. 104667

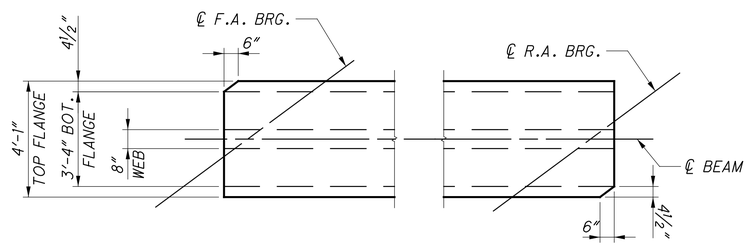


BEAM END



MIDSPAN

BEAM STRAND INFORMATION													
BRIDGE	BEAM NO.		BEAM END							MIDSPAN				TOTAL
		ROW NUMBER	1	2	3	4	5	6	7	1	2	3	4	
		STRANDS	12	12	10	6	1	1	1	13	13	11	6	43
LEFT BRIDGE	1 - 7	"A" (SPA.)	5	5	4	2				5	5	4	2	
		"B"	10"	10"	8"	4"				10"	10"	8"	4"	
		"C"	6"	6"	8"	12"				6"	6"	8"	12"	
		ROW NUMBER	1	2	3	4	5	6	7	1	2	3	4	TOTAL
		STRANDS	12	12	10	6	1	1	1	13	13	11	6	43
RIGHT BRIDGE	8 - 14	"A" (SPA.)	5	5	4	2				5	5	4	2	
		"B"	10"	10"	8"	4"				10"	10"	8"	4"	
		"C"	6"	6"	8"	12"				6"	6"	8"	12"	
		ROW NUMBER	1	2	3	4	5	6	7	1	2	3	4	TOTAL
		STRANDS	12	12	10	6	1	1	1	13	13	11	6	43
RIGHT BRIDGE	15	"A" (SPA.)	5	5	4	2				5	5	4	2	
		"B"	10"	10"	8"	4"				10"	10"	8"	4"	
		"C"	6"	6"	8"	12"				6"	6"	8"	12"	



TOP FLANGE BLOCK OUT DETAIL - PLAN VIEW

LEGEND:

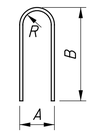
(#) - STRAND ROW

BENDING DIAGRAMS

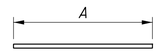
(ALL DIMENSIONS ARE OUT-TO-OUT)

MARK	TYPE	DIMENSIONS				
		A	B	C	D	R
BARS IN BEAMS						
*B501	1	5"	1'-8"			1⅞"
B701	3	3'-8¾"				

* INDICATES STEEL TO BE EPOXY-COATED.



TYPE 1



TYPE 3

NOTES:

1. FOR ADDITIONAL BEAM DETAILS AND NOTES, SEE SHEET 31/68.

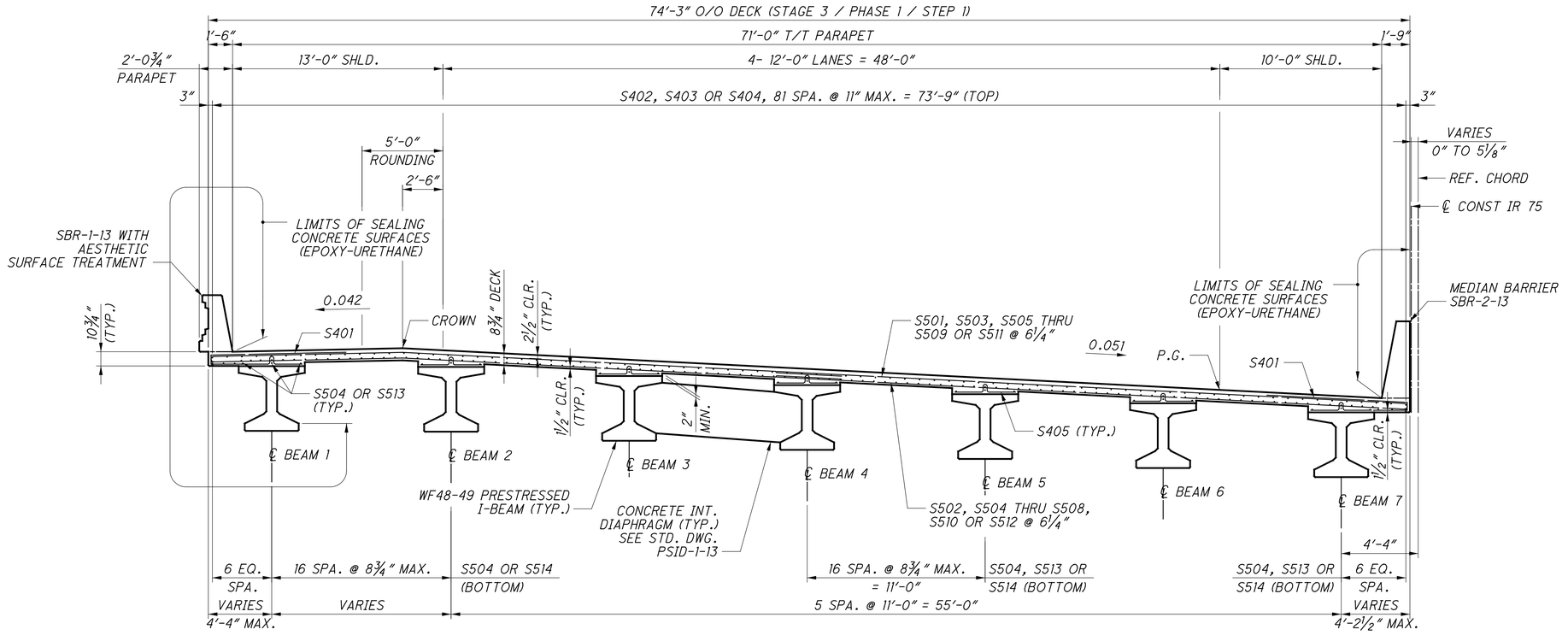
DESIGN AGENCY
STRUCTUREPOINT LLC
200 CORPORATE SQUARE DR. STE 350
CLEVES, OH 45002
TEL 513.460.1200 www.structurepoint.com

DESIGNED	DRAWN	REVIEWED	DATE
SJF	BNM	MDS	1/2/19
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CLB		3109763	

BEAM DETAILS
BRIDGE NO. HAM-75-0440 L/R
IR-75 OVER IR-74 WB

HAM-75-3.85
PID No. 104667

32/68



TRANSVERSE SECTION
(LEFT BRIDGE)

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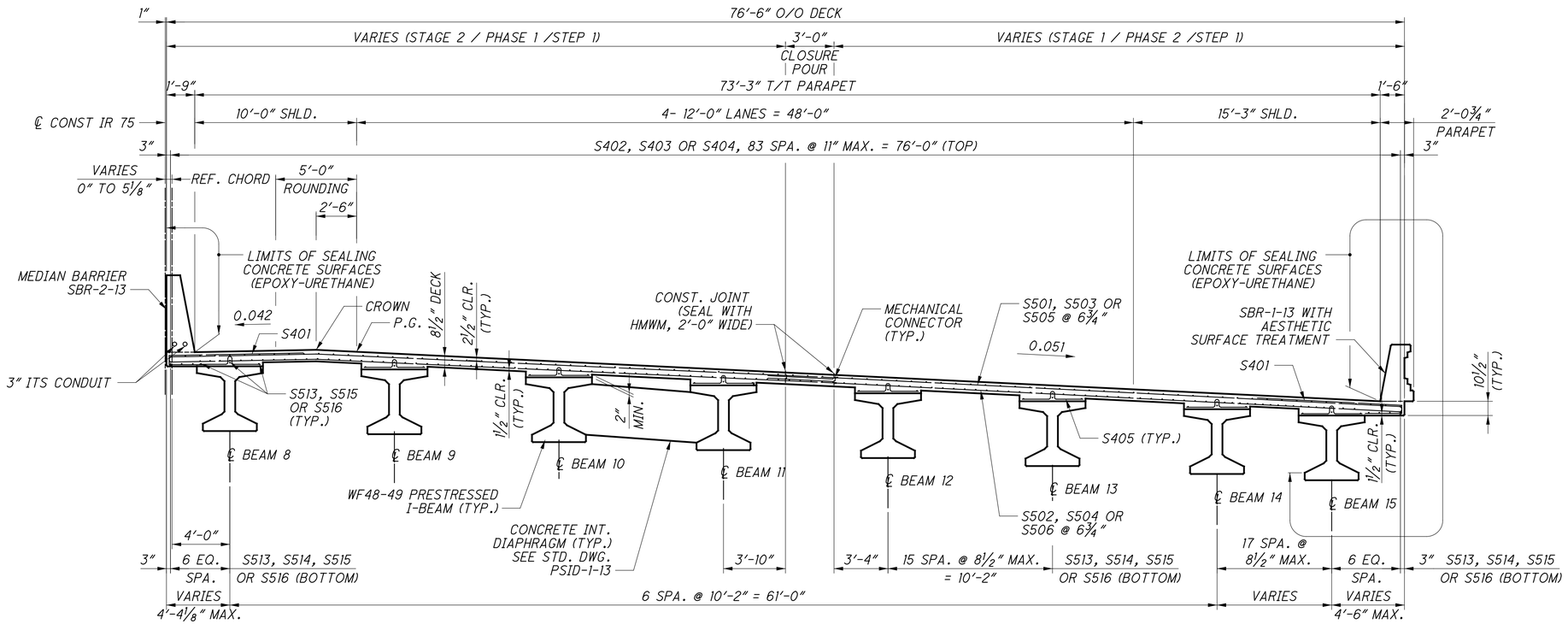
DESIGN AGENCY
STRUCTUREPOINT LLC
2550 CORPORATE EXCHANGE DR. STE 300
COLUMBUS, OH 43231
TEL: 614.901.7900 FAX: 614.901.7901
www.structurepoint.com

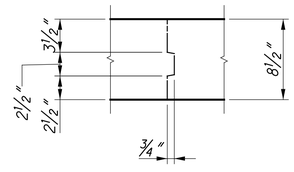
DESIGNED	DRAWN	REVIEWED	DATE
SJF	SJF	MDS	1/2/19
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CLB		3109763	

TRANSVERSE SECTION (LEFT BRIDGE)
BRIDGE NO. HAM-75-0440 L/R
OVER IR-74 WB

HAM-75-3.84
PID No. 104667



TRANSVERSE SECTION
(RIGHT BRIDGE)



CONSTRUCTION JOINT KEYWAY DETAIL

REFER TO CMS 511.12 FOR ADDITIONAL INFORMATION

DESIGN AGENCY
STRUCTUREPOINT LLC
200 CORPORATE SQUARE DR. STE 330
CINCINNATI, OH 45255
TEL 513.900.3000 www.structurepoint.com

DESIGNED	DRAWN	REVIEWED	DATE
SJF	SJF	MDS	1/2/19
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CLB		3109763	

TRANSVERSE SECTION (RIGHT BRIDGE)
BRIDGE NO. HAM-75-0440 L/R
OVER IR-74 WB

HAM-75-3.84
PID No. 104667

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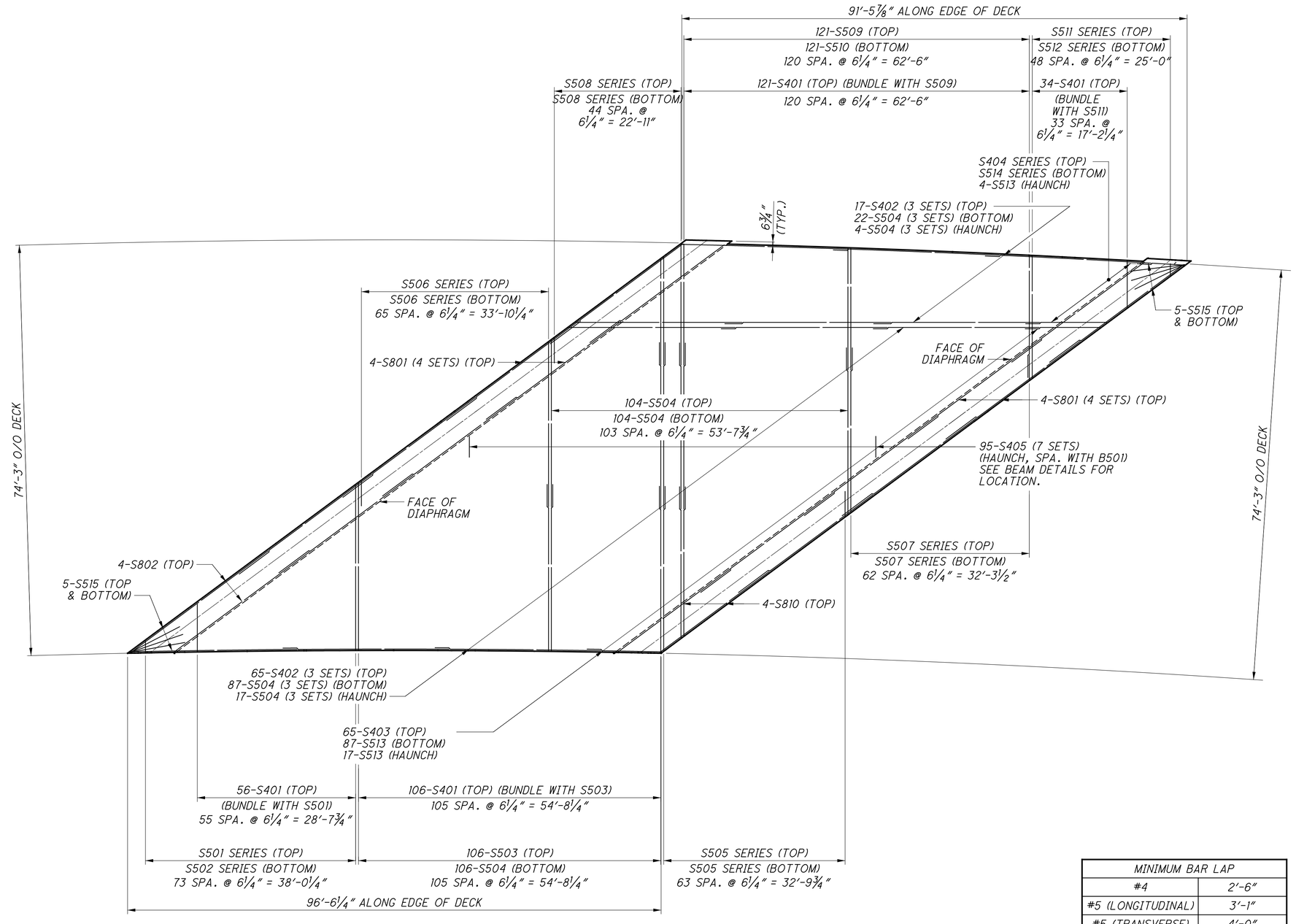


DECK REINFORCING PLAN

MINIMUM BAR LAP	
#4	2'-6"
#5 (LONGITUDINAL)	3'-1"
#5 (TRANSVERSE)	4'-0"
#8 (TRANSVERSE)	6'-8"

NOTES:

1. FOR PARAPET DETAILS, SEE SHEETS 46/68 THRU 51/68.
2. FOR END DIAPHRAGM DETAILS, SEE SHEETS 41/68 TO 42/68.
3. FOR TRANSVERSE SECTION, SEE SHEET 33/68.

DESIGN AGENCY
STRUCTUREPOINT LLC
200 CORPORATE SQUARE DR. STE 350
CLIO MICHIGAN, MI 48320
TEL: 517.492.7720 FAX: 517.492.7721
www.structurepoint.com

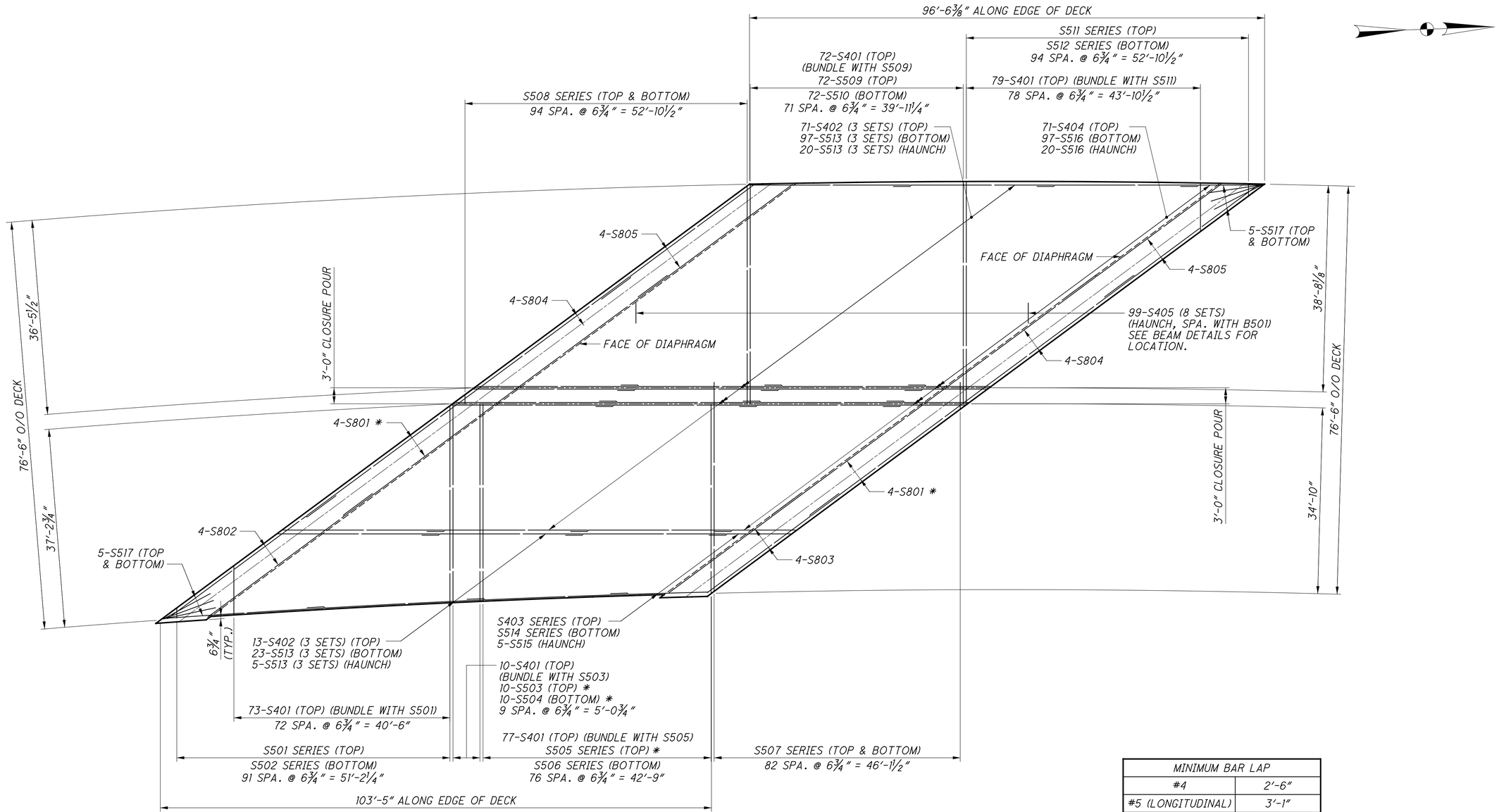
DESIGNED	DRAWN	REVIEWED	DATE
SJF	TLH	MDS	1/2/19
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CLB		3109763	

DECK PLAN (LEFT BRIDGE)
BRIDGE NO. HAM-75-0440 L/R
OVER IR-74 WB

HAM-75-3.84
PID No. 104667

35/68

35
68



DECK REINFORCING PLAN

MINIMUM BAR LAP	
#4	2'-6"
#5 (LONGITUDINAL)	3'-1"
#5 (TRANSVERSE)	4'-0"
#8 (TRANSVERSE)	6'-8"

NOTES:

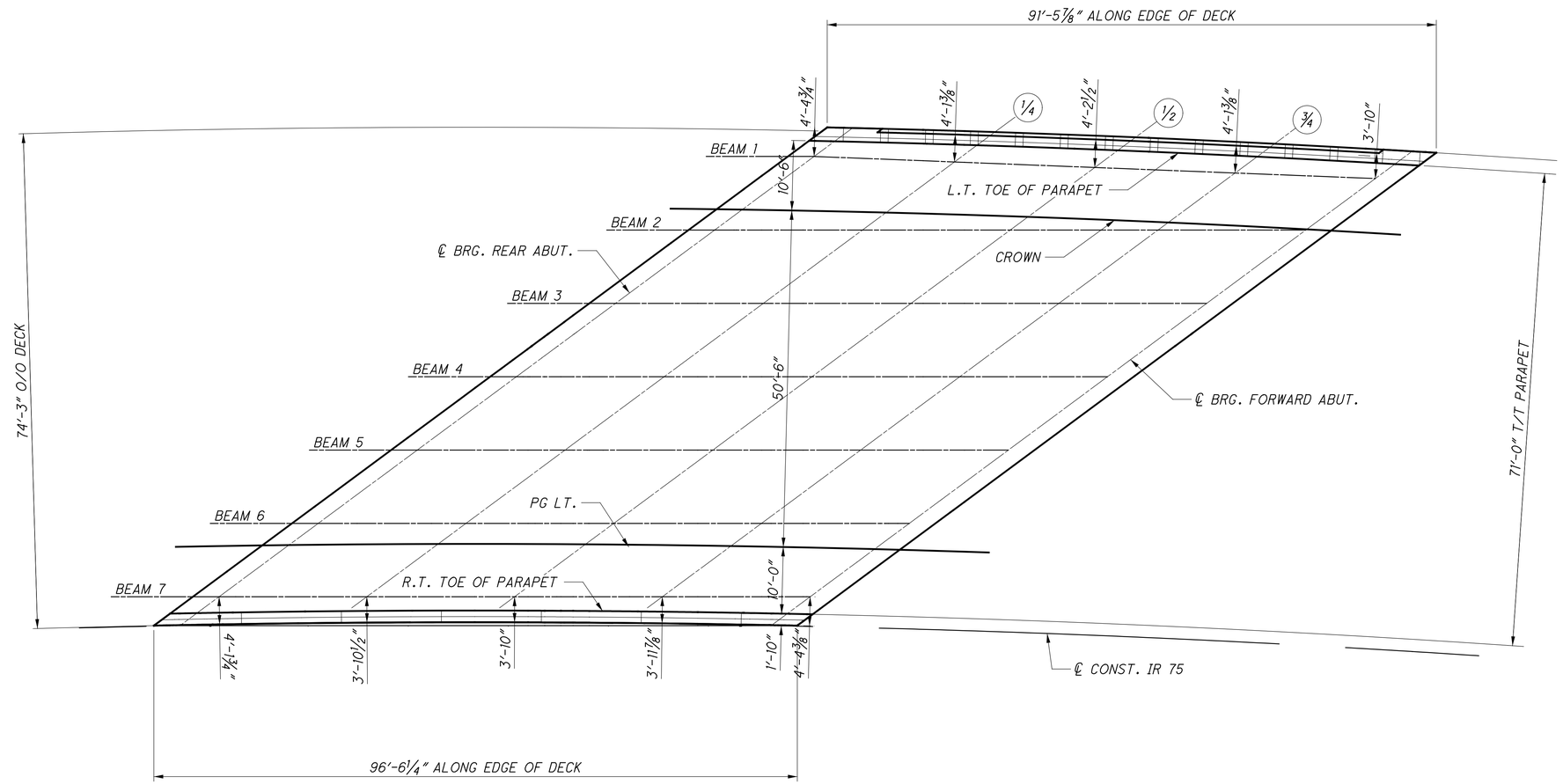
1. * INDICATES MECHANICAL CONNECTORS REQUIRED.
2. MECHANICAL CONNECTORS FOR REINFORCING BARS SHALL BE USED AT LONGITUDINAL CONSTRUCTION JOINT.
3. FOR PARAPET DETAILS, SEE SHEETS 52/68 THRU 57/68.
4. FOR END DIAPHRAGM DETAILS, SEE SHEETS 43/68 TO 44/68.
5. FOR TRANSVERSE SECTION, SEE SHEET 34/68.

DESIGN AGENCY
STRUCTUREPOINT LLC
200 CORPORATE EXCHANGE DR, STE 350
COLCHESTER, CT 06415
TEL 413.341.0600 FAX 413.341.0606
www.structurepoint.com

DESIGNED SJF | DRAWN TLH | REVIEWED MDS | DATE 1/2/19
CHECKED CLB | REVISED | STRUCTURE FILE NUMBER 3109763

DECK PLAN (RIGHT BRIDGE)
BRIDGE NO. HAM-75-0440 L/R
OVER IR-74 WB

HAM-75-3.84
PID No. 104667



SCREED PLAN

NOTES:

1. FOR TOP OF HAUNCH (T.O.H.) AND FINAL DECK SURFACE (F.D.S.) ELEVATIONS TABLE, SEE SHEET 38/68.

DESIGN AGENCY
STRUCTUREPOINT LLC
2001 CORPORATE EXCHANGE DR. STE 350
COLUMBUS, OH 43231
TEL: 614.901.7900 FAX: 614.901.7901
www.structurepoint.com

DESIGNED	DRAWN	REVIEWED	DATE
SJF	BNM	MDS	1/3/19
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CLB		3109763	

SCREED DETAILS (LEFT BRIDGE)
BRIDGE NO. HAM-75-0440 L/R
OVER IR-74 WB

HAM-75-3.84
PID No. 104667

37/68

37
68

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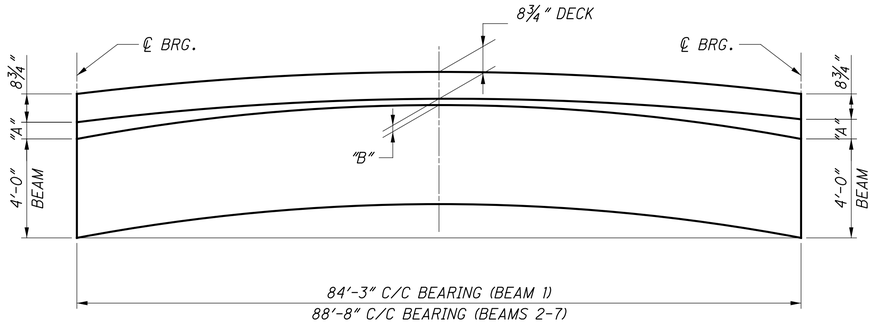
SCREED ELEVATIONS TABLE

SCREED LINE \ DESCRIPTION		℄ BRG. REAR ABUT.	¼ POINT	½ POINT	¾ POINT	℄ BRG. FWD. ABUT.
HAM-75-0440L SCREED ELEVATIONS						
LT. TOE OF PARAPET	STATION	233+76.17	233+96.89	234+17.39	234+37.65	234+57.70
	OFFSET	-72.83	-72.83	-72.83	-72.83	-72.83
	F.D.S. ELEV.	528.42	527.98	527.55	527.12	526.70
	DEFLECTION	0.00	0.06	0.08	0.06	0.00
	SCREED ELEV.	528.42	528.04	527.63	527.18	526.70
CROWN	STATION	233+62.94	233+83.91	234+04.64	234+25.14	234+45.41
	OFFSET	-62.33	-62.33	-62.33	-62.33	-62.33
	F.D.S. ELEV.	529.14	528.70	528.26	527.83	527.40
	DEFLECTION	0.00	0.07	0.11	0.07	0.00
	SCREED ELEV.	529.14	528.77	528.37	527.90	527.40
PGL	STATION	232+96.12	233+18.40	233+40.38	233+62.09	233+83.53
	OFFSET	-11.83	-11.83	-11.83	-11.83	-11.83
	F.D.S. ELEV.	527.80	527.42	527.01	526.58	526.13
	DEFLECTION	0.00	0.08	0.11	0.08	0.00
	SCREED ELEV.	527.80	527.49	527.12	526.66	526.13
RT. TOE OF PARAPET	STATION	232+82.21	233+04.77	233+27.02	233+48.99	233+70.69
	OFFSET	-1.83	-1.83	-1.83	-1.83	-1.83
	F.D.S. ELEV.	527.52	527.15	526.75	526.33	525.89
	DEFLECTION	0.00	0.07	0.10	0.07	0.00
	SCREED ELEV.	527.52	527.22	526.85	526.40	525.89

HAUNCH ELEVATIONS TABLE

SCREED LINE \ DESCRIPTION		℄ BRG. REAR ABUT.	¼ POINT	½ POINT	¾ POINT	℄ BRG. FWD. ABUT.
HAM-75-0440L TOP OF HAUNCH ELEVATIONS						
BEAM 1	STATION	233+73.25	233+93.68	234+14.12	234+34.56	234+54.99
	OFFSET	-70.50	-70.22	-70.12	-70.22	-70.50
	F.D.S. ELEV.	528.58	528.16	527.73	527.30	526.85
	DEFLECTION	0.00	0.06	0.08	0.06	0.00
	T.O.H. ELEV.	527.85	527.49	527.08	526.62	526.12
BEAM 2	STATION	233+58.92	233+80.53	234+02.12	234+23.70	234+45.26
	OFFSET	-59.18	-59.62	-60.27	-61.13	-62.20
	F.D.S. ELEV.	529.06	528.63	528.21	527.80	527.39
	DEFLECTION	0.00	0.07	0.11	0.07	0.00
	T.O.H. ELEV.	528.33	527.98	527.59	527.14	526.66
BEAM 3	STATION	233+44.53	233+66.24	233+87.94	234+09.63	234+31.30
	OFFSET	-48.00	-48.30	-48.82	-49.54	-50.47
	F.D.S. ELEV.	528.78	528.36	527.93	527.50	527.09
	DEFLECTION	0.00	0.08	0.11	0.08	0.00
	T.O.H. ELEV.	528.05	527.70	527.30	526.85	526.36
BEAM 4	STATION	233+30.00	233+51.81	233+73.62	233+95.42	234+17.21
	OFFSET	-36.91	-37.08	-37.45	-38.04	-38.83
	F.D.S. ELEV.	528.49	528.08	527.65	527.22	526.80
	DEFLECTION	0.00	0.08	0.11	0.08	0.00
	T.O.H. ELEV.	527.76	527.42	527.03	526.56	526.07
BEAM 5	STATION	233+15.32	233+37.24	233+59.16	233+81.07	234+02.97
	OFFSET	-25.92	-25.94	-26.18	-26.62	-27.28
	F.D.S. ELEV.	528.19	527.79	527.37	526.94	526.51
	DEFLECTION	0.00	0.08	0.11	0.08	0.00
	T.O.H. ELEV.	527.46	527.14	526.75	526.29	525.78
BEAM 6	STATION	233+00.51	233+22.54	233+44.56	233+66.58	233+88.59
	OFFSET	-15.03	-14.90	-15.00	-15.30	-15.82
	F.D.S. ELEV.	527.89	527.50	527.09	526.67	526.23
	DEFLECTION	0.00	0.08	0.11	0.08	0.00
	T.O.H. ELEV.	527.16	526.85	526.47	526.01	525.50
BEAM 7	STATION	232+85.56	233+07.69	233+29.82	233+51.95	233+74.07
	OFFSET	-4.23	-3.96	-3.91	-4.08	-4.45
	F.D.S. ELEV.	527.59	527.21	526.81	526.39	525.96
	DEFLECTION	0.00	0.07	0.10	0.07	0.00
	T.O.H. ELEV.	526.86	526.55	526.18	525.73	525.23



SCHEMATIC LONGITUDINAL SUPERSTRUCTURE CROSS-SECTION

(ONE SPAN)

LEFT HAUNCH THICKNESS TABLE							
LOCATION	BEAM 1	BEAM 2	BEAM 3	BEAM 4	BEAM 5	BEAM 6	BEAM 7
DIM "A"	5 7/16"	5 1/16"	5 1/8"	5 3/8"	5 1/2"	5 5/8"	5 7/8"
DIM "B"	3"	3 1/4"	3 1/4"	3 1/4"	3 1/4"	3 1/4"	3 1/4"

NOTES:

FOR SCREED PLAN, SEE SHEET 37/68.

SCREED ELEVATIONS SHOWN REPRESENT THE THEORETICAL DECK SURFACE LOCATION PRIOR TO DEFLECTIONS CAUSED BY DECK PLACEMENT AND OTHER ANTICIPATED DEAD LOADS.

TOP OF HAUNCH (T.O.H.) ELEVATIONS SHOWN REPRESENT THE THEORETICAL LOCATION OF THE BOTTOM OF THE DECK ABOVE THE BEAM HAUNCH PRIOR TO DEFLECTIONS CAUSED BY DECK PLACEMENT AND OTHER ANTICIPATED DEAD LOADS.

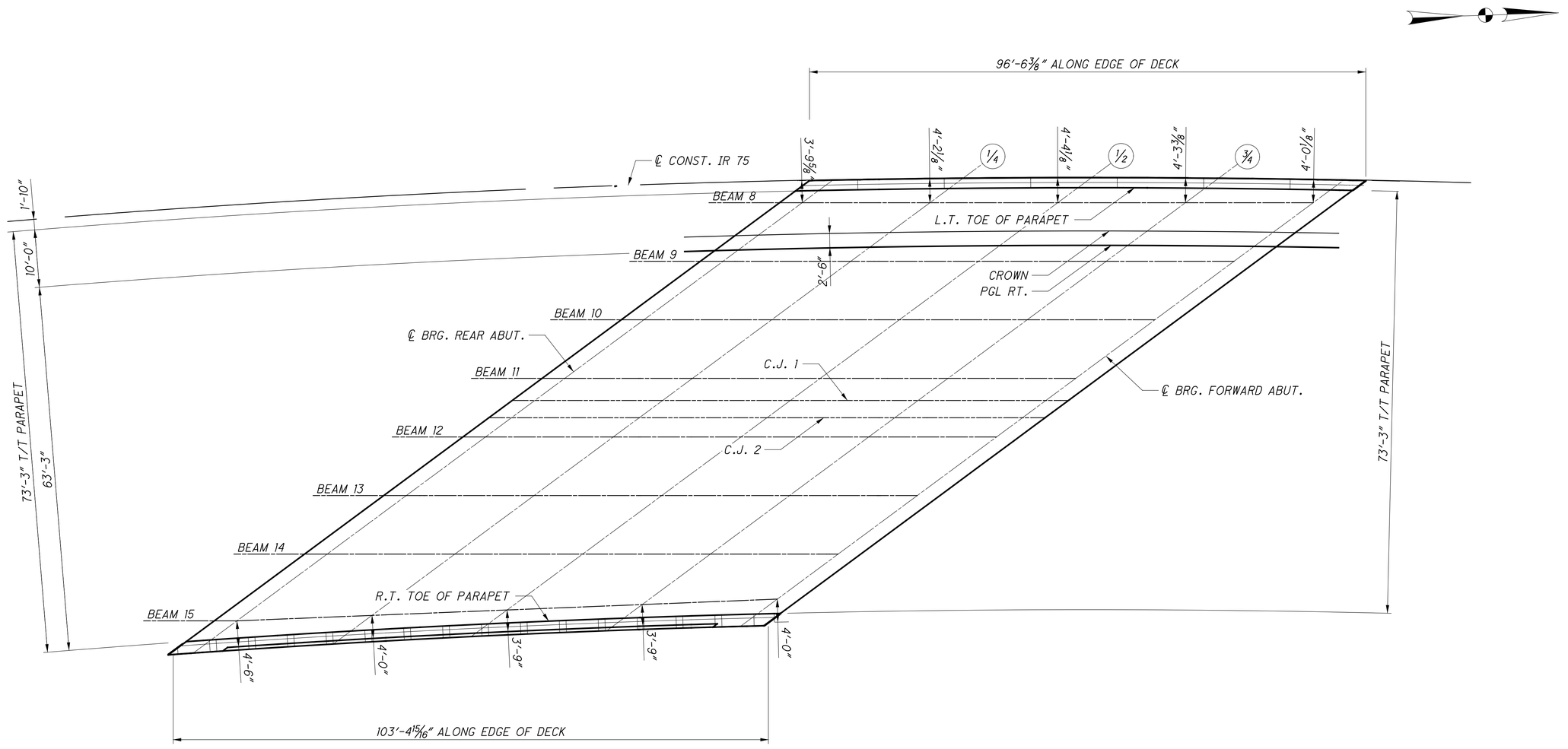
FINAL DECK SURFACE (F.D.S.) ELEVATIONS SHOWN REPRESENT THE DECK SURFACE LOCATION AFTER ALL ANTICIPATED DEAD LOAD DEFLECTIONS HAVE OCCURRED.

DESIGN AGENCY
STRUCTUREPOINT LLC
DESIGNED SJF
DRAWN TMT
CHECKED CLB
REVIEWED RMC
DATE 10/25/18
STRUCTURE FILE NUMBER 3109763
REVISED

SCREED DETAILS (LEFT BRIDGE)

BRIDGE NO. HAM-75-0440 L/R
OVER IR-74 WB

HAM-75-3.84
PID No. 104667



SCREED PLAN

NOTES:

1. FOR TOP OF HAUNCH (T.O.H.) AND FINAL DECK SURFACE (F.D.S.) ELEVATIONS TABLE, SEE SHEET 40/68.

DESIGN AGENCY
STRUCTUREPOINT LLC
2004 CORPORATE EXCHANGE DR, STE 350
COLUMBUS, OH 43231
TEL: 614.901.7700 FAX: 614.901.7705
www.structurepoint.com

DESIGNED	DRAWN	REVIEWED	DATE
SJF	BNM	MDS	1/2/19
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CLB		3109763	

SCREED DETAILS (RIGHT BRIDGE)
BRIDGE NO. HAM-75-0440 L/R
OVER IR-74 WB

HAM-75-3.84
PID No. 104667

39/68

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68

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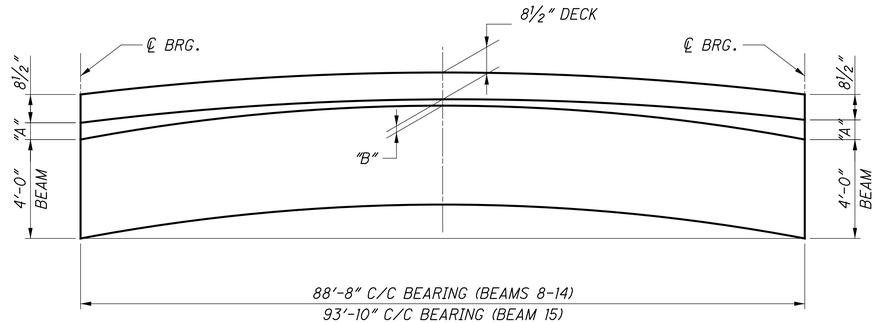
SCREED ELEVATIONS TABLE

SCREED LINE \ DESCRIPTION		℄ BRG. REAR ABUT.	¼ POINT	½ POINT	¾ POINT	℄ BRG. FWD. ABUT.
HAM-75-0440R SCREED ELEVATIONS						
LT. TOE OF PARAPET	STATION	232+77.05	232+99.71	233+22.07	233+44.14	233+65.93
	OFFSET	1.83	1.83	1.83	1.83	1.83
	F.D.S. ELEV.	529.41	529.05	528.66	528.25	527.81
	DEFLECTION	0.00	0.06	0.09	0.06	0.00
	SCREED ELEV.	529.41	529.11	528.75	528.31	527.81
CROWN	STATION	232+66.39	232+89.28	233+11.85	233+34.12	233+56.10
	OFFSET	9.33	9.33	9.33	9.33	9.33
	F.D.S. ELEV.	529.89	529.54	529.16	528.75	528.33
	DEFLECTION	0.00	0.07	0.10	0.07	0.00
	SCREED ELEV.	529.89	529.60	529.25	528.82	528.33
PGL	STATION	232+62.81	232+85.77	233+08.41	233+30.75	233+52.80
	OFFSET	11.83	11.83	11.83	11.83	11.83
	F.D.S. ELEV.	529.81	529.47	529.09	528.69	528.26
	DEFLECTION	0.00	0.07	0.10	0.07	0.00
	SCREED ELEV.	529.81	529.53	529.19	528.76	528.26
C.J. #1	STATION	232+26.24	232+48.76	232+71.29	232+93.83	233+16.37
	OFFSET	36.71	37.55	38.17	38.57	38.75
	F.D.S. ELEV.	529.03	528.70	528.35	527.97	527.58
	DEFLECTION	0.00	0.07	0.10	0.07	0.00
	SCREED ELEV.	529.03	528.77	528.45	528.04	527.58
C.J. #2	STATION	232+21.99	232+44.53	232+67.09	232+89.66	233+12.23
	OFFSET	39.53	40.41	41.07	41.51	41.73
	F.D.S. ELEV.	528.94	528.61	528.26	527.89	527.50
	DEFLECTION	0.00	0.07	0.10	0.07	0.00
	SCREED ELEV.	528.94	528.68	528.36	527.96	527.50
RT. TOE OF PARAPET	STATION	231+66.39	231+91.50	232+16.20	232+40.51	232+64.45
	OFFSET	75.08	75.08	75.08	75.08	75.08
	F.D.S. ELEV.	527.69	527.46	527.19	526.89	526.56
	DEFLECTION	0.00	0.08	0.11	0.08	0.00
	SCREED ELEV.	527.69	527.54	527.31	526.97	526.56

HAUNCH ELEVATIONS TABLE

SCREED LINE \ DESCRIPTION		℄ BRG. REAR ABUT.	¼ POINT	½ POINT	¾ POINT	℄ BRG. FWD. ABUT.
HAM-75-0440R TOP OF HAUNCH ELEVATIONS						
BEAM 8	STATION	232+74.15	232+96.35	233+18.56	233+40.77	233+62.97
	OFFSET	3.89	4.26	4.42	4.37	4.10
	F.D.S. ELEV.	529.54	529.21	528.83	528.42	527.97
	DEFLECTION	0.00	0.06	0.09	0.06	0.00
	T.O.H. ELEV.	528.84	528.56	528.22	527.77	527.26
BEAM 9	STATION	232+60.10	232+82.40	233+04.71	233+27.01	233+49.32
	OFFSET	13.71	14.22	14.52	14.59	14.46
	F.D.S. ELEV.	529.76	529.40	529.02	528.62	528.20
	DEFLECTION	0.00	0.07	0.10	0.07	0.00
	T.O.H. ELEV.	529.05	528.76	528.41	527.98	527.49
BEAM 10	STATION	232+45.94	232+68.33	232+90.73	233+13.14	233+35.55
	OFFSET	23.45	24.09	24.52	24.74	24.73
	F.D.S. ELEV.	529.46	529.11	528.74	528.35	527.94
	DEFLECTION	0.00	0.07	0.10	0.07	0.00
	T.O.H. ELEV.	528.75	528.47	528.13	527.71	527.23
BEAM 11	STATION	232+31.66	232+54.14	232+76.63	232+99.14	233+21.65
	OFFSET	33.10	33.86	34.45	37.80	34.93
	F.D.S. ELEV.	529.15	528.81	528.45	527.92	527.68
	DEFLECTION	0.00	0.07	0.10	0.07	0.00
	T.O.H. ELEV.	528.44	528.17	527.85	527.28	526.97
BEAM 12	STATION	232+17.25	232+39.82	232+62.41	232+85.01	233+07.62
	OFFSET	42.66	43.58	44.28	44.77	45.04
	F.D.S. ELEV.	528.84	528.51	528.16	527.80	527.41
	DEFLECTION	0.00	0.07	0.10	0.07	0.00
	T.O.H. ELEV.	528.13	527.87	527.56	527.16	526.70
BEAM 13	STATION	232+02.72	232+25.38	232+48.07	232+70.76	232+93.47
	OFFSET	52.13	53.19	54.04	54.66	55.06
	F.D.S. ELEV.	528.52	528.20	527.87	527.51	527.14
	DEFLECTION	0.00	0.07	0.10	0.07	0.00
	T.O.H. ELEV.	527.81	527.56	527.26	526.87	526.43
BEAM 14	STATION	231+88.07	232+10.82	232+33.60	232+56.39	232+79.19
	OFFSET	61.51	62.71	63.70	64.46	65.00
	F.D.S. ELEV.	528.19	527.89	527.56	527.22	526.86
	DEFLECTION	0.00	0.07	0.10	0.07	0.00
	T.O.H. ELEV.	527.48	527.25	526.96	526.58	526.15
BEAM 15	STATION	231+71.23	231+95.45	232+19.67	232+43.90	232+68.13
	OFFSET	72.08	72.58	72.83	72.83	72.58
	F.D.S. ELEV.	527.81	527.55	527.27	526.96	526.64
	DEFLECTION	0.00	0.08	0.11	0.08	0.00
	T.O.H. ELEV.	527.10	526.92	526.67	526.33	525.93



SCHEMATIC LONGITUDINAL SUPERSTRUCTURE CROSS-SECTION

(ONE SPAN)

RIGHT HAUNCH THICKNESS TABLE								
LOCATION	BEAM 8	BEAM 9	BEAM 10	BEAM 11	BEAM 12	BEAM 13	BEAM 14	BEAM 15
DIM "A"	6 1/16"	5 11/16"	5 11/16"	5 11/16"	7 1/4"	7"	7 1/4"	6 1/8"
DIM "B"	3"	3 1/4"	3 1/4"	3 1/4"	3 1/4"	3 1/4"	3 1/4"	3 1/4"

NOTES:

FOR SCREED PLAN, SEE SHEET 39/68.

SCREED ELEVATIONS SHOWN REPRESENT THE THEORETICAL DECK SURFACE LOCATION PRIOR TO DEFLECTIONS CAUSED BY DECK PLACEMENT AND OTHER ANTICIPATED DEAD LOADS.

TOP OF HAUNCH (T.O.H.) ELEVATIONS SHOWN REPRESENT THE THEORETICAL LOCATION OF THE BOTTOM OF THE DECK ABOVE THE BEAM HAUNCH PRIOR TO DEFLECTIONS CAUSED BY DECK PLACEMENT AND OTHER ANTICIPATED DEAD LOADS.

FINAL DECK SURFACE (F.D.S.) ELEVATIONS SHOWN REPRESENT THE DECK SURFACE LOCATION AFTER ALL ANTICIPATED DEAD LOAD DEFLECTIONS HAVE OCCURRED.

DESIGN AGENCY
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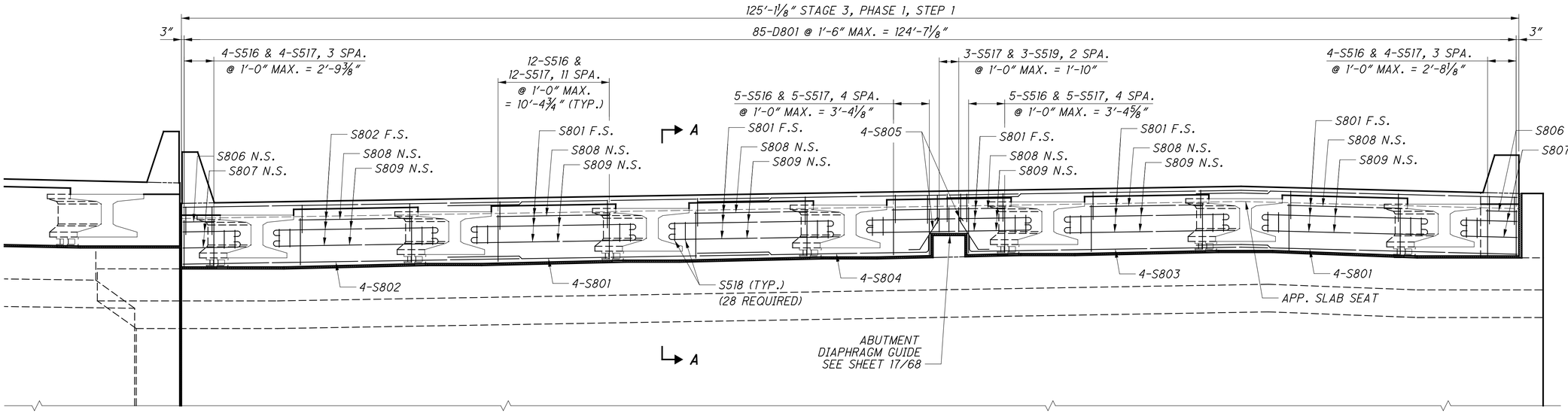
DESIGNED SJF | DRAWN TMT | REVIEWED MDS | DATE 1/2/19
CHECKED CLB | REVISED | STRUCTURE FILE NUMBER 3109763

SCREED DETAILS (RIGHT BRIDGE)
BRIDGE NO. HAM-75-0440 L/R
OVER IR-74 WB

HAM-75-3.84
PID No. 104667

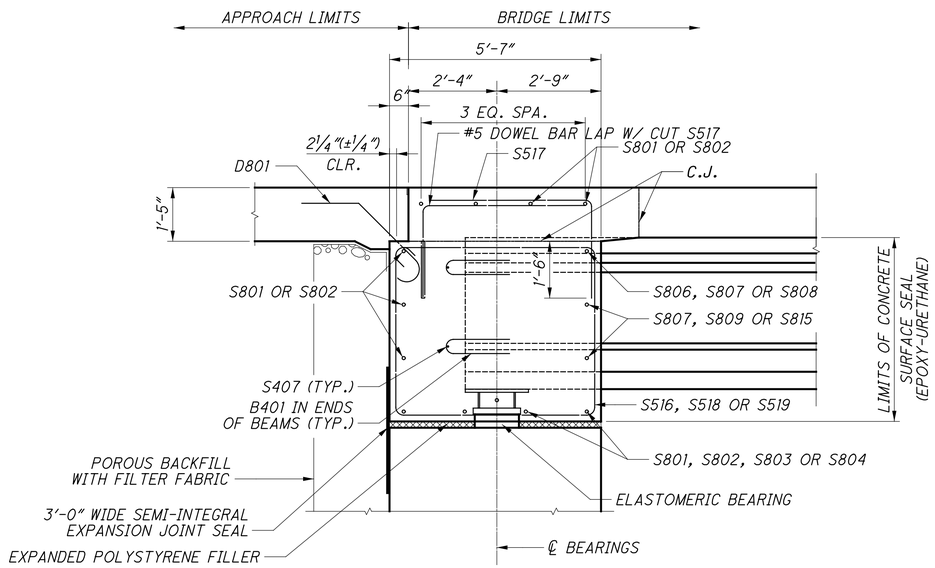
40 / 68

40
68



END DIAPHRAGM ELEVATION

REAR ABUTMENT



SECTION A-A

NOTES:

1. PLACE THE DIAPHRAGM CONCRETE ENCASING THE STRUCTURAL MEMBER ENDS AFTER THE DECK PLACEMENT IN THE ADJACENT SPAN IS COMPLETE. PROCEDURES THAT PLACE THE ABUTMENT DIAPHRAGM WITH THE DECK CONCRETE MAY BE APPROVED BY THE ENGINEER IF THE PLACEMENT SUBMITTAL CAN ASSURE THAT THE DECK CONCRETE IN THE ADJACENT SPAN WILL BE PLACED BEFORE CONCRETE IN THE DIAPHRAGM HAS REACHED ITS INITIAL SET.

DESIGN AGENCY
STRUCTUREPOINT LLC
250 CORPORATE BOULEVARD, STE. 200
CLIFTON PARK, NY 12065
TEL: 518.383.2000 FAX: 518.383.2001
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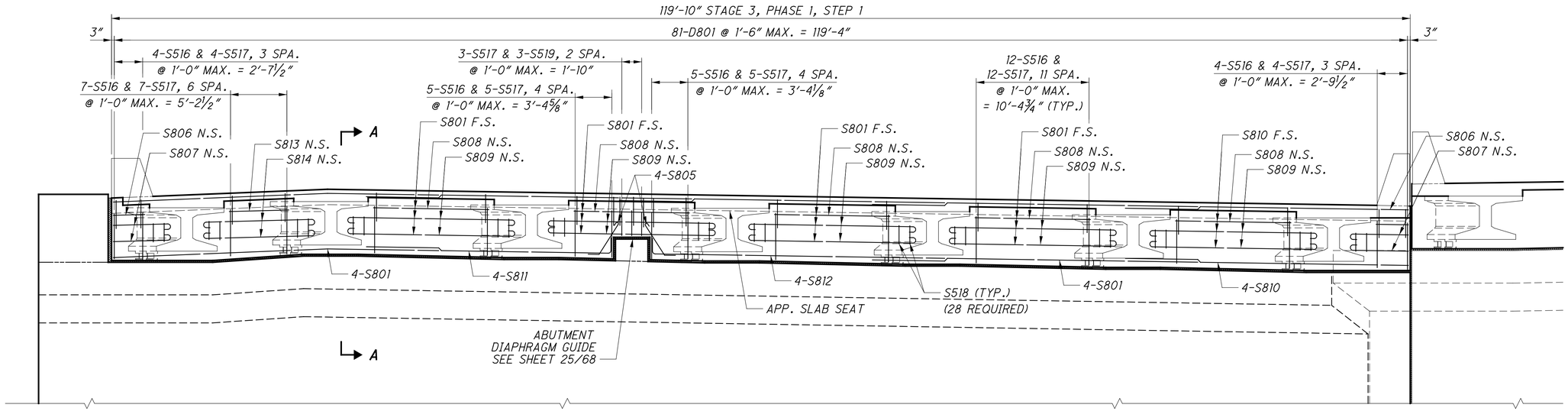
DESIGNED	DRAWN	REVIEWED	DATE
SJF	TLH	MDS	1/2/19
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CLB		3109763	

SUPERSTRUCTURE DETAILS (LEFT BRIDGE)
BRIDGE NO. HAM-75-0440 L/R
OVER WB I-74

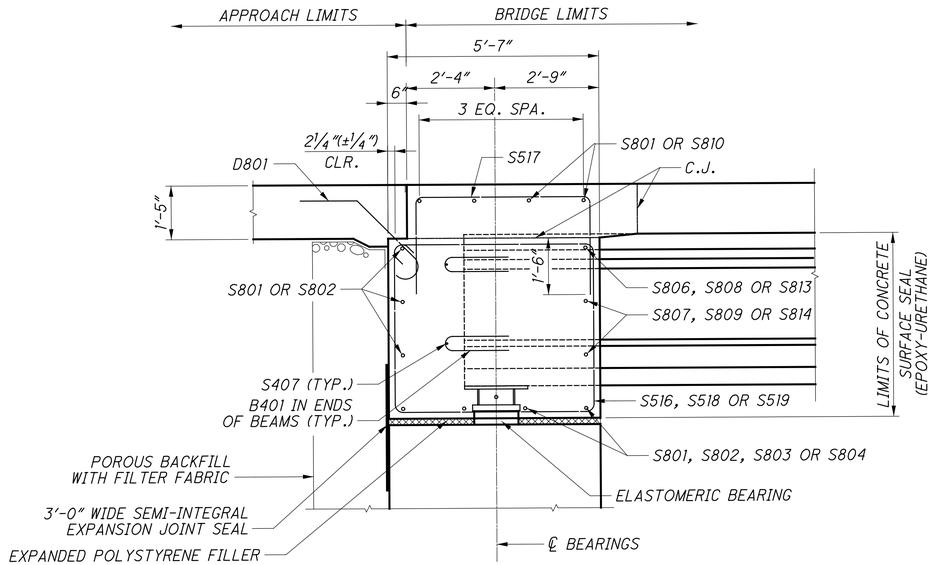
HAM-75-3.84
PID No. 104667

41 / 68

41
68



END DIAPHRAGM ELEVATION
FORWARD ABUTMENT



SECTION A-A

NOTES:

1. PLACE THE DIAPHRAGM CONCRETE ENCASING THE STRUCTURAL MEMBER ENDS AFTER THE DECK PLACEMENT IN THE ADJACENT SPAN IS COMPLETE. PROCEDURES THAT PLACE THE ABUTMENT DIAPHRAGM WITH THE DECK CONCRETE MAY BE APPROVED BY THE ENGINEER IF THE PLACEMENT SUBMITTAL CAN ASSURE THAT THE DECK CONCRETE IN THE ADJACENT SPAN WILL BE PLACED BEFORE CONCRETE IN THE DIAPHRAGM HAS REACHED ITS INITIAL SET.

DESIGN AGENCY
STRUCTUREPOINT LLC
200 CORPORATE SQUARE DR. STE 350
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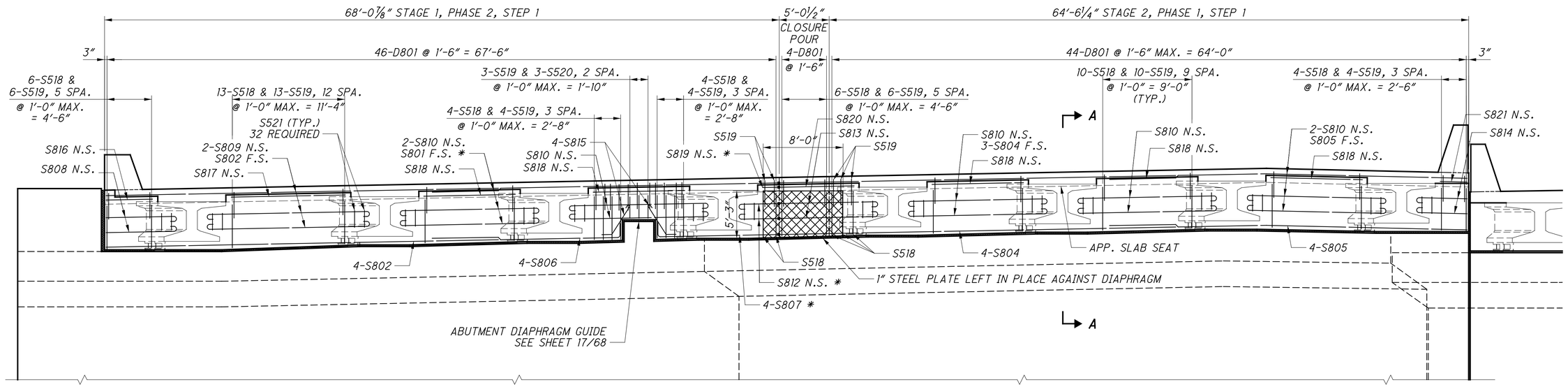
TEL 518.383.7333 FAX 518.383.7334
www.structurepoint.com

DESIGNED	DRAWN	REVIEWED	DATE
SJF	TLH	MDS	1/2/19
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CLB		3109763	

SUPERSTRUCTURE DETAILS (LEFT BRIDGE)

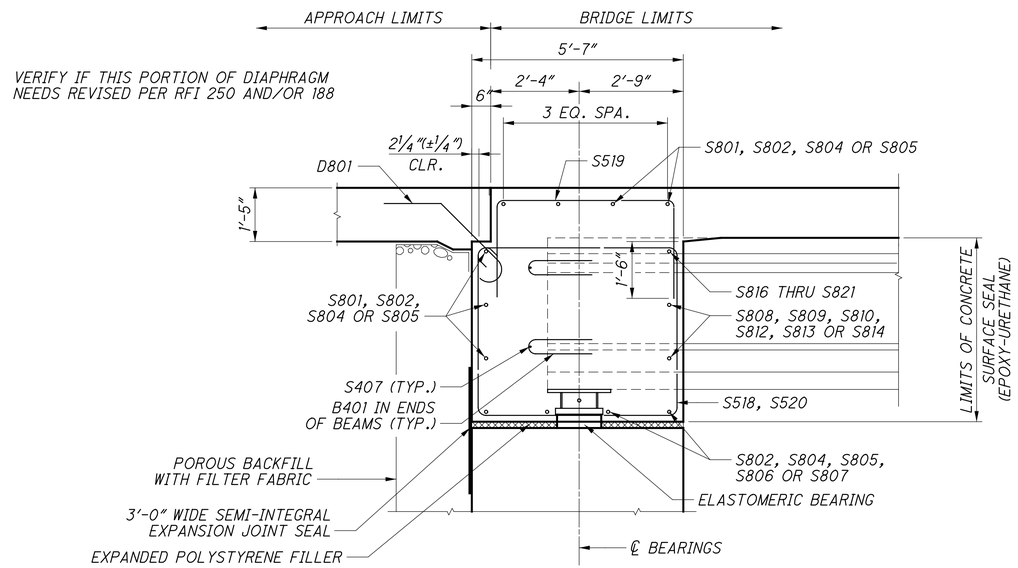
BRIDGE NO. HAM-75-0440 L/R
OVER WB I-74

HAM-75-3.84
PID No. 104667



END DIAPHRAGM ELEVATION

REAR ABUTMENT



SECTION A-A

NOTES:

1. ABUTMENT DIAPHRAGM CONCRETE, PHASED CONSTRUCTION: PLACE THE DIAPHRAGM CONCRETE ENCASING THE STRUCTURAL MEMBER ENDS OF AN INDIVIDUALPHASE AFTER THE DECK PLACEMENT IN THE ADJACENT SPAN IS COMPLETE. PROCEDURES THAT PLACE THE ABUTMENT DIAPHRAGM WITH THE DECK CONCRETE MAY BE APPROVED BY THE ENGINEER IF THE PLACEMENT SUBMITTAL CAN ASSURE THAT THE DECK CONCRETE IN THE ADJACENT SPAN WILL BE PLACED BEFORE CONCRETE IN THE DIAPHRAGM HAS REACHED ITS INITIAL SET. PLACE CLOSURE POUR CONCRETE IN THE DIAPHRAGM AND DECK CONCURRENTLY.

2. * INDICATES MECHANICAL CONNECTOR REQUIRED.

DESIGN AGENCY
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2550 CORPORATE EXCHANGE DR. STE 250
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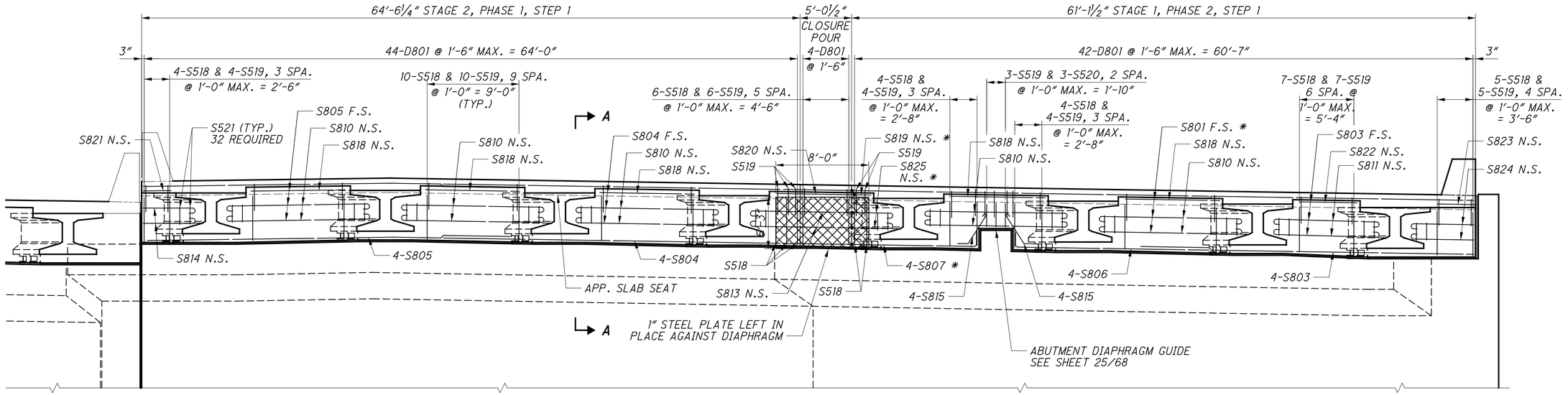
SJF	TLH	MDS	1/2/19
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CLB		3109763	

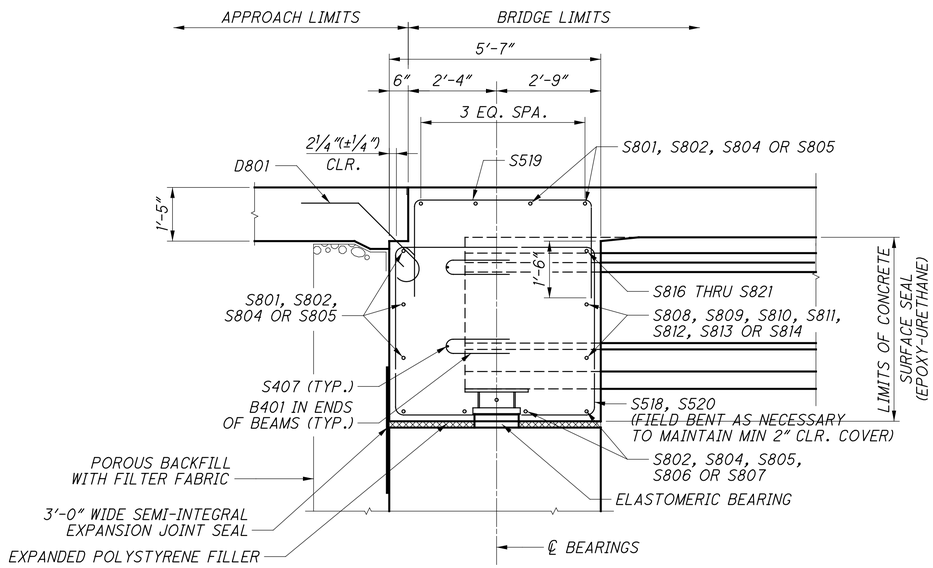
SUPERSTRUCTURE DETAILS (RIGHT BRIDGE)
BRIDGE NO. HAM-75-0440 L/R
OVER WB I-74

HAM-75-3.84
PID No. 104667



END DIAPHRAGM ELEVATION

FORWARD ABUTMENT



SECTION A-B

NOTES:

1. ABUTMENT DIAPHRAGM CONCRETE, PHASED CONSTRUCTION: PLACE THE DIAPHRAGM CONCRETE ENCASING THE STRUCTURAL MEMBER ENDS OF AN INDIVIDUALPHASE AFTER THE DECK PLACEMENT IN THE ADJACENT SPAN IS COMPLETE. PROCEDURES THAT PLACE THE ABUTMENT DIAPHRAGM WITH THE DECK CONCRETE MAY BE APPROVED BY THE ENGINEER IF THE PLACEMENT SUBMITTAL CAN ASSURE THAT THE DECK CONCRETE IN THE ADJACENT SPAN WILL BE PLACED BEFORE CONCRETE IN THE DIAPHRAGM HAS REACHED ITS INITIAL SET. PLACE CLOSURE POUR CONCRETE IN THE DIAPHRAGM AND DECK CONCURRENTLY.

2. * INDICATES MECHANICAL CONNECTOR REQUIRED.

DESIGN AGENCY
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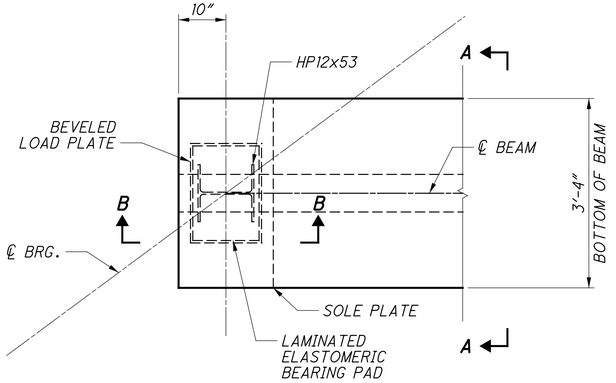
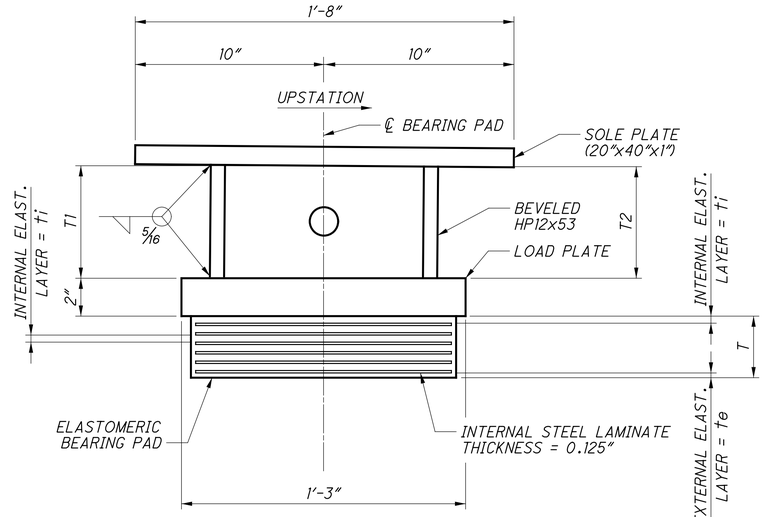
DESIGNED	DRAWN	REVIEWED	DATE
SJF	DSH	MDS	1/2/19
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CLB		3109763	

SUPERSTRUCTURE DETAILS (RIGHT BRIDGE)
BRIDGE NO. HAM-75-0440 L/R
OVER WB I-74

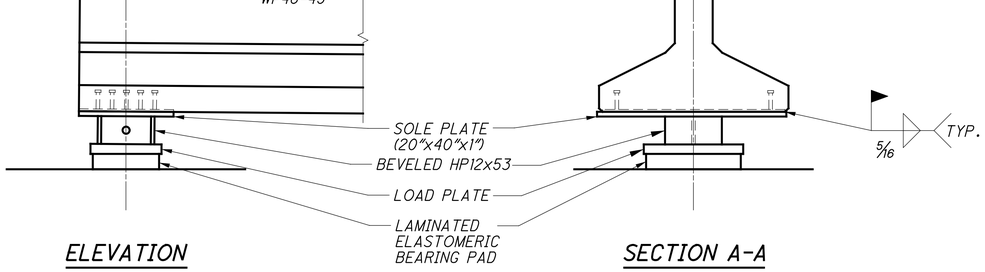
HAM-75-3.84
PID No. 104667



PLAN



SECTION B-B



ELEVATION

SECTION A-A

BEARING SCHEDULE											
BRIDGE	ASSEMBLY TYPE	NO. OF BEARINGS	SIZE L x W x T	NO. OF STEEL LAMINATES	ti	NO. OF ti LAYERS	te	NO. OF te LAYERS	BEVELED STEEL LOAD PL		
									L x W	T1	T2
LEFT	EXPANSION	14	1′-8″ x 1′-2″ x 3¼″	6	0.375″	6	0.25″	1	1′-9″ x 1-3″	6⅛″	5⅞″
RIGHT	EXPANSION	16	1′-8″ x 1′-2″ x 3¼″	6	0.375″	6	0.25″	1	1′-9″ x 1-3″	6⅛″	5⅞″

UNFACTORED ELASTOMERIC BEARING LOADS:

		LEFT	RIGHT
DEAD LOAD	=	223 K	207 K
LIVE LOAD	=	107 K	101 K
TOTAL LOAD	=	330 K	308 K

NOTES:

1. THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARINGS WERE DESIGNED UNDER DIVISION I, SECTION 14.6.6 (METHOD A) OF THE AASHTO STANDARD SPECIFICATION FOR HIGHWAY BRIDGES. THE LONG-TERM COMPRESSION PROOF LOAD TEST (AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DIVISION II, SECTION 18.7.2.6) IS NOT REQUIRED.
2. GALVANIZE ALL STRUCTURAL STEEL STUDS, EMBEDDED SOLE PLATES AND LOAD PLATES ACCORDING TO CMS 711.02.
3. ALL BEARINGS SHALL BE MARKED PRIOR TO SHIPPING. THE MARKS SHALL INCLUDE THE BEARING LOCATION ON THE BRIDGE, AND A DIRECTION ARROW THAT POINTS UP-STATION. ALL MARKS SHALL BE PERMANENT AND BE VISIBLE AFTER THE BEARING IS INSTALLED.
4. SEE STANDARD DRAWING PSID-1-13 FOR EMBEDDED STEEL PLATE AND STUDS.

DESIGN AGENCY
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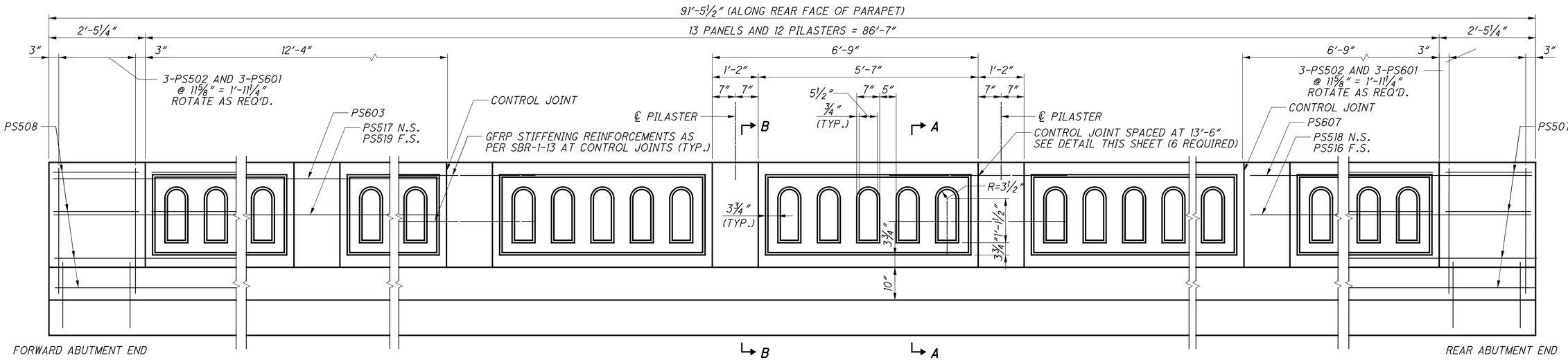
BEARING DETAILS
BRIDGE NO. HAM-75-0440 L/R
OVER WB I-74

HAM-75-3.84
PID No. 104667

45 / 68

45
68

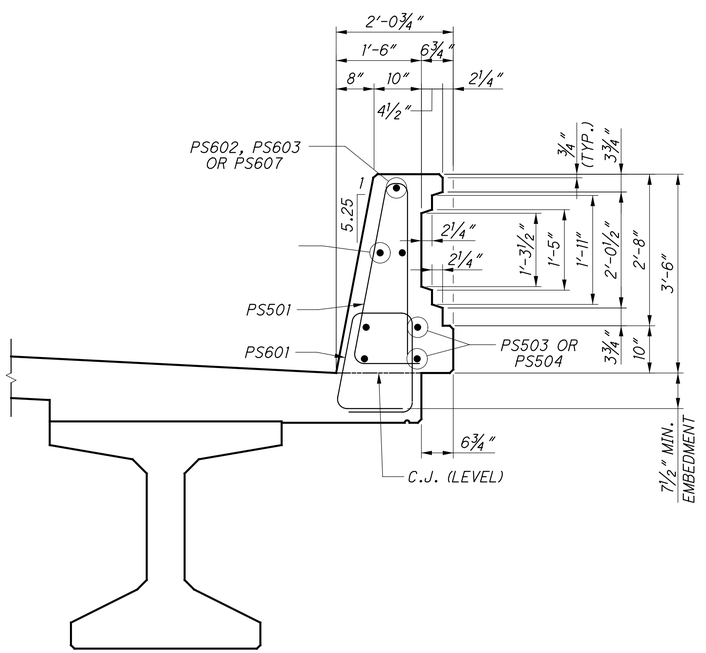


END ORNAMENTAL PARAPET PANEL

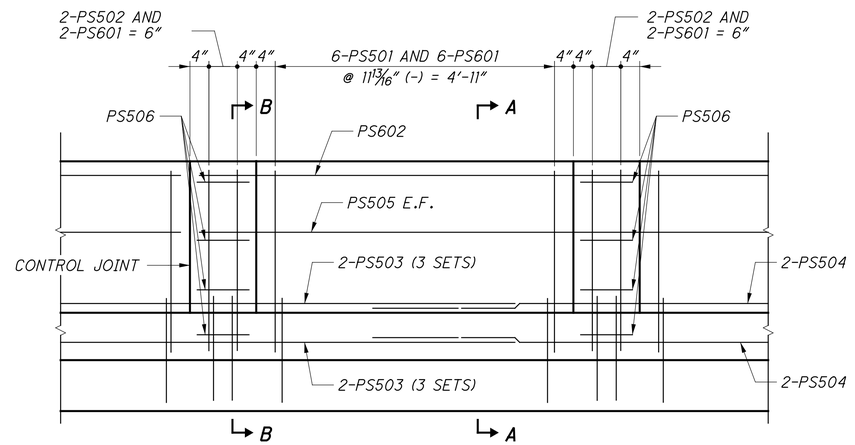
TYPICAL ORNAMENTAL PARAPET PANEL

(ALONG REAR FACE OF PARAPET)

END ORNAMENTAL PARAPET PANEL

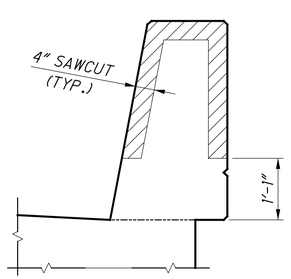


SECTION A-A



TYPICAL ORNAMENTAL PARAPET PANEL REINFORCING

(ALONG REAR FACE OF PARAPET)

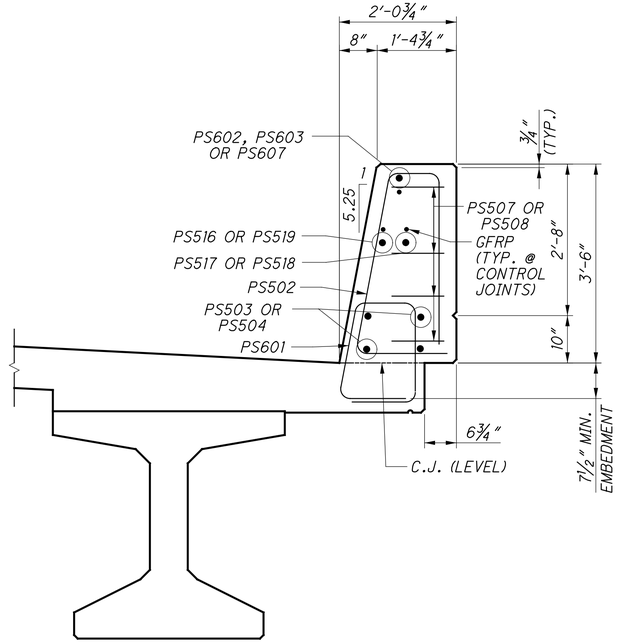


SECTION THRU CONTROL JOINT DETAIL

MINIMUM BAR LAP	
#5	2'-7"

NOTES:

1. SEE STANDARD BRIDGE DRAWING SBR-1-13 FOR ADDITIONAL DETAILS.
2. GFRP INDICATES ½" DIA. GLASS FIBER REINFORCED POLYMER STIFFENING REINFORCEMENT.



SECTION B-B

DESIGN AGENCY
STRUCTUREPOINT LLC
200 CORPORATE EXCHANGE DR. STE 200
COLUMBIA, OH 43231
TEL 614.901.7900 FAX 614.901.7901
www.structurepoint.com

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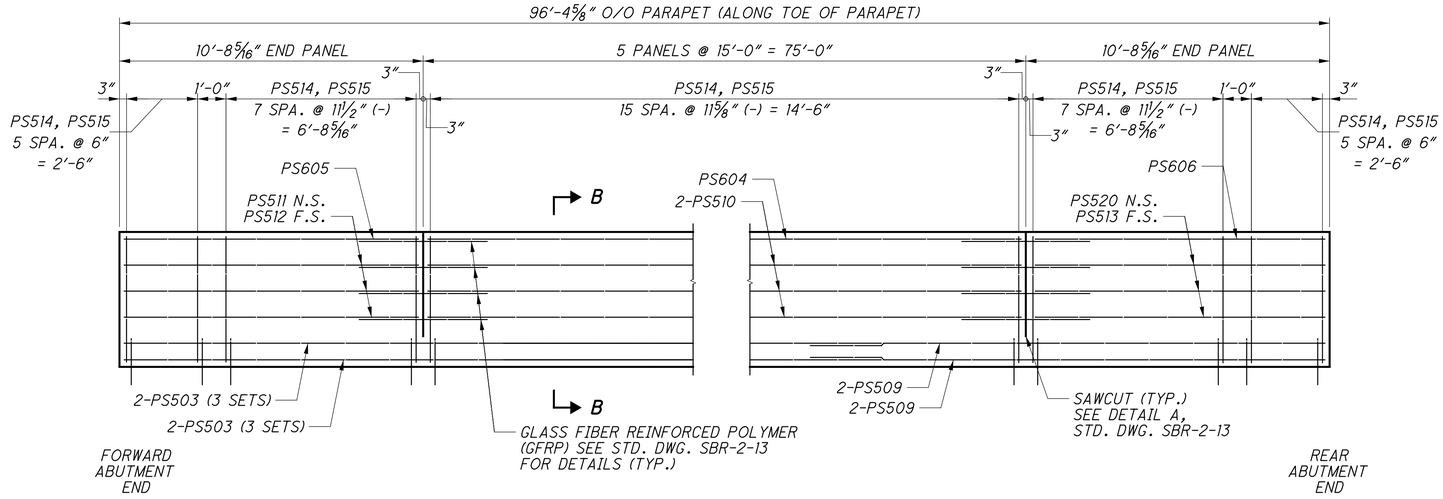
SJF	SJF	MDS	1/2/19
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CLB		3109763	

PARAPET DETAILS (LEFT BRIDGE)

BRIDGE NO. HAM-75-0440 L/R
OVER IR-74 WB

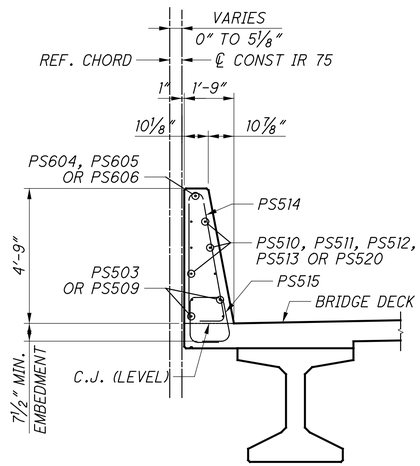
HAM-75-3.84

PID No. 104667



PARAPET ELEVATION

RIGHT PARAPET SHOWN (ALONG TOE PARAPET)



SECTION B-B

MINIMUM BAR LAP	
#5	2′-7″

NOTES:

1. SEE STANDARD BRIDGE DRAWING SBR-2-13 FOR ADDITIONAL DETAILS.

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2001 CORPORATE EXCHANGE DR. STE 350
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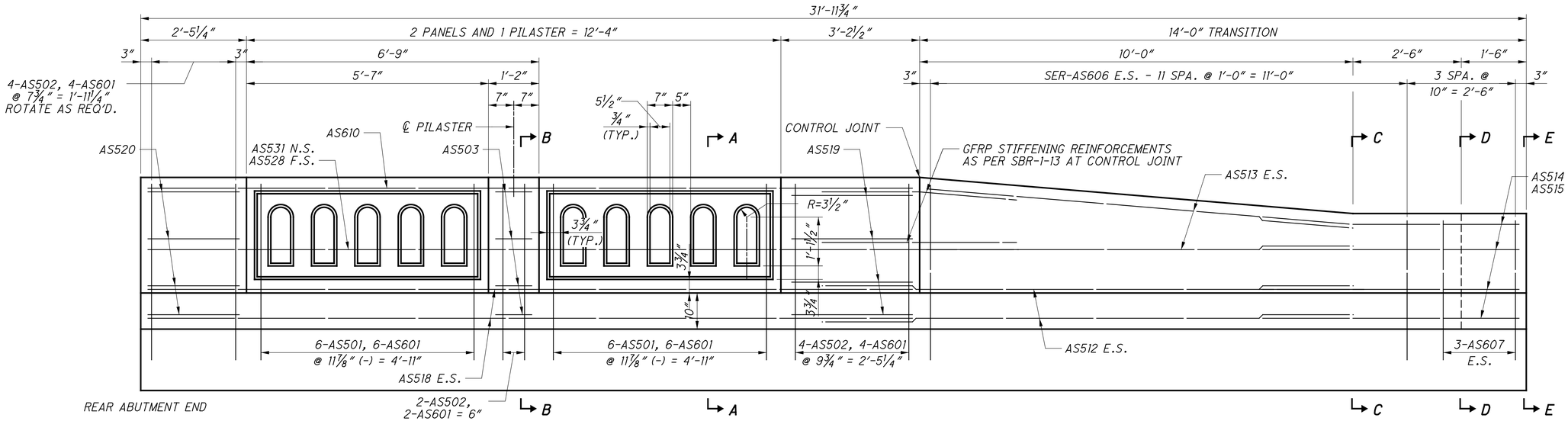
DESIGNED	DRAWN	REVIEWED	DATE
SJF	SJF	MDS	1/2/19
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CLB		3109763	

PARAPET DETAILS (LEFT BRIDGE)
BRIDGE NO. HAM-75-0440 L/R
OVER IR-74 WB

HAM-75-3.84
PID No. 104667

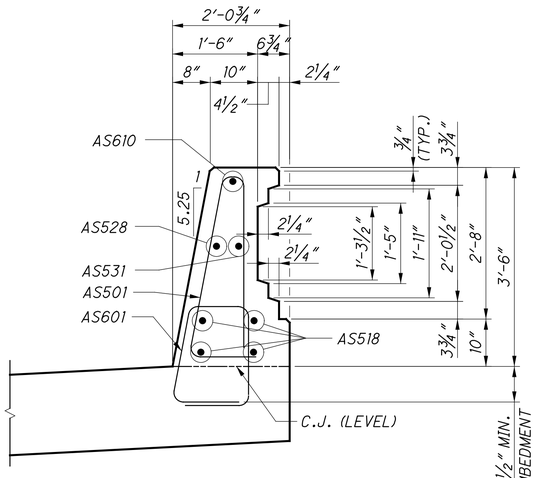
47 / 68

47
68

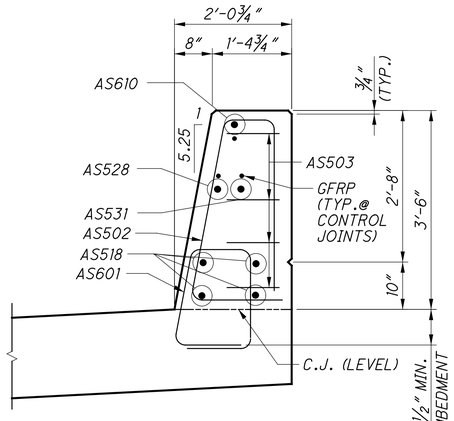


REAR ABUTMENT APPROACH SLAB ORNAMENTAL PARAPET PANEL

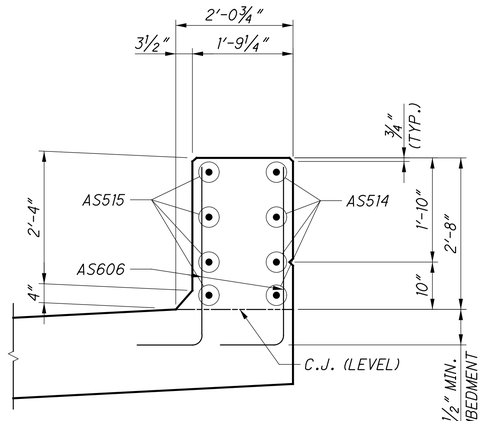
(ALONG REAR FACE OF PARAPET)



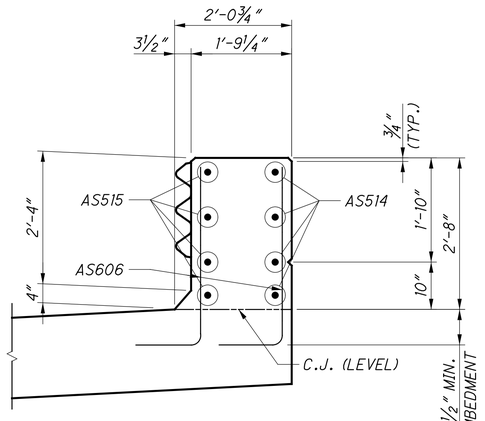
SECTION A-A



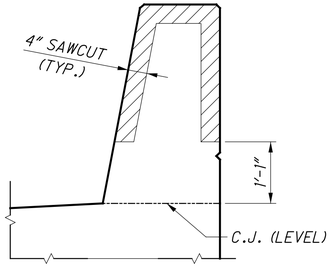
SECTION B-B



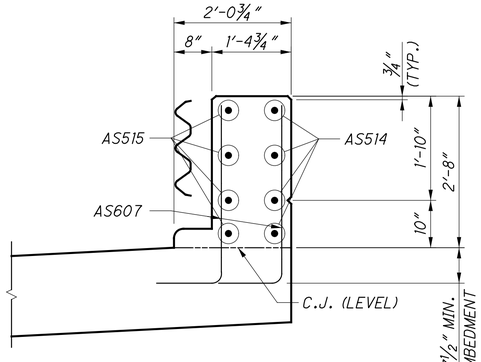
SECTION C-C



SECTION D-D



SECTION THRU CONTROL JOINT DETAIL



SECTION E-E

MINIMUM BAR LAP	
#5	2'-7"

NOTES:

1. SEE STANDARD BRIDGE DRAWING SBR-1-13 FOR ADDITIONAL DETAILS.
2. GFRP INDICATES ½" DIA. GLASS FIBER REINFORCED POLYMER STIFFENING REINFORCEMENT.

DESIGN AGENCY
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2001 CORPORATE SQUARE DR., STE 200
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www.structurepoint.com

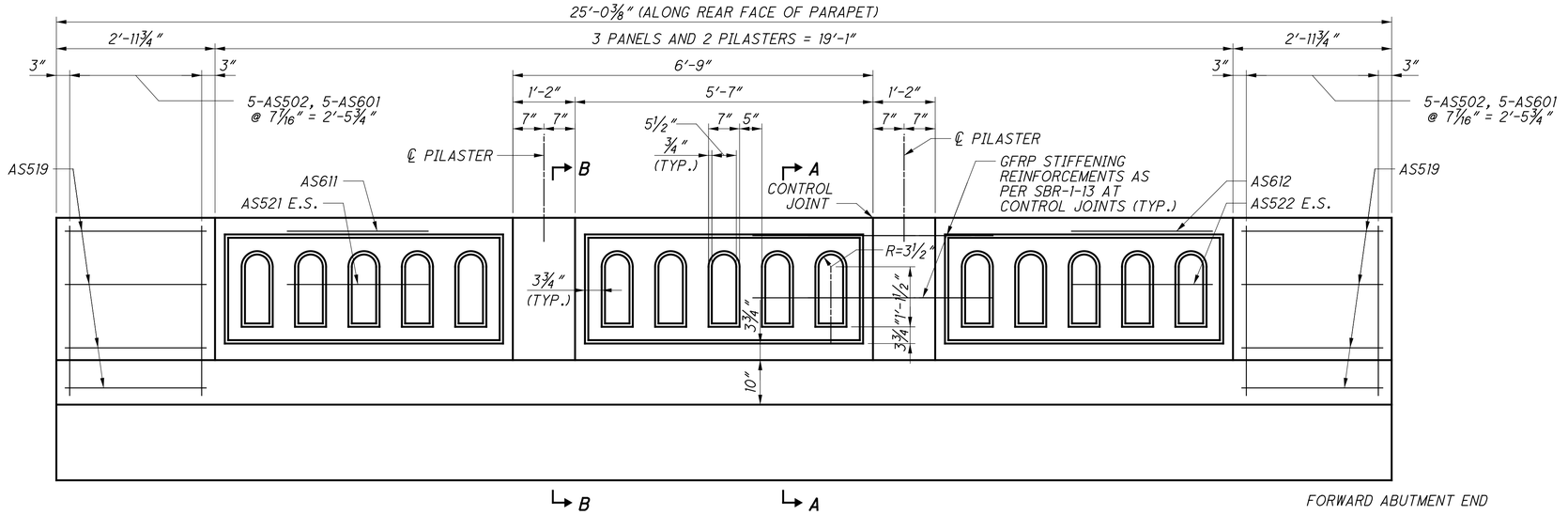
DESIGNED SJF | DRAWN DSH | CHECKED CLB | REVIEWED MDS | DATE 1/2/19 | REVISED | STRUCTURE FILE NUMBER 3109763

PARAPET DETAILS (LEFT BRIDGE)

BRIDGE NO. HAM-75-0440 L/R OVER WB I-74

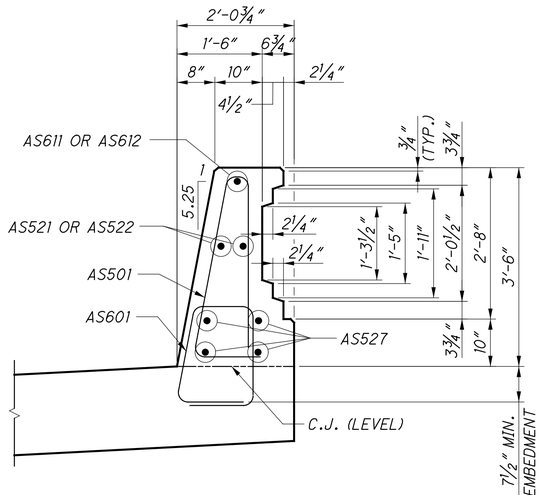
HAM-75-3.84

PID No. 104667

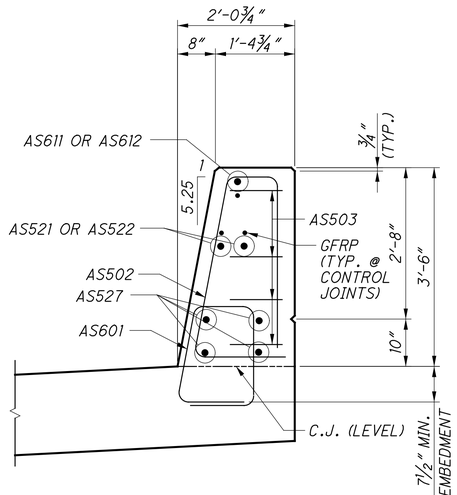


FORWARD ABUTMENT APPROACH SLAB ORNAMENTAL PARAPET PANEL

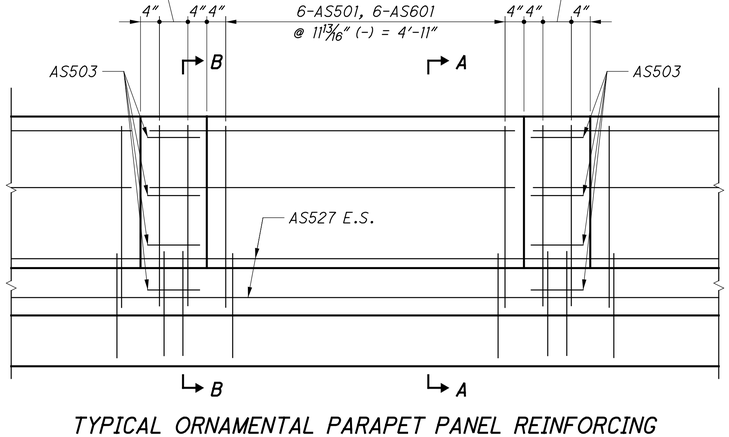
(ALONG REAR FACE OF PARAPET)



SECTION A-A

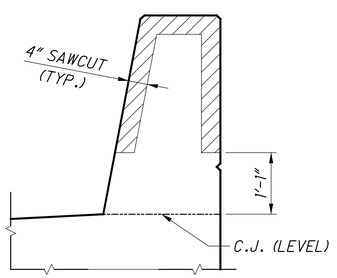


SECTION B-B



TYPICAL ORNAMENTAL PARAPET PANEL REINFORCING

(ALONG REAR FACE OF PARAPET)



SECTION THRU CONTROL JOINT DETAIL

MINIMUM BAR LAP	
#5	2'-7"

NOTES:

1. SEE STANDARD BRIDGE DRAWING SBR-1-13 FOR ADDITIONAL DETAILS.
2. GFRP INDICATES ½" DIA. GLASS FIBER REINFORCED POLYMER STIFFENING REINFORCEMENT.

DESIGN AGENCY
STRUCTUREPOINT LLC
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DESIGNED SJF | CHECKED CLB
DRAWN DSH | REVISED
REVIEWED MDS | DATE 1/2/19
STRUCTURE FILE NUMBER 3109763

PARAPET DETAILS (LEFT BRIDGE)
BRIDGE NO. HAM-75-0440 L/R
OVER WB I-74

HAM-75-3.84
PID No. 104667

49 / 68
49
68

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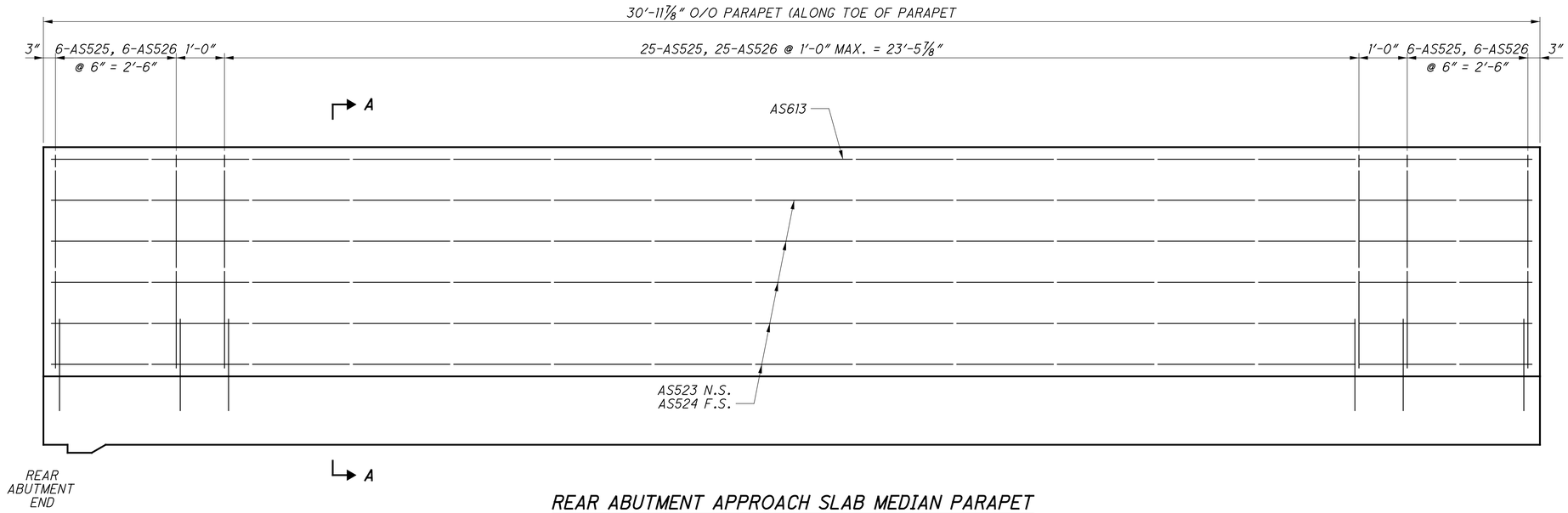
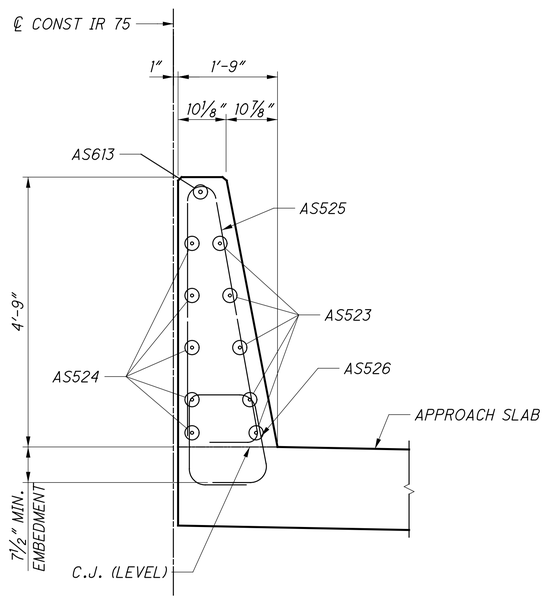


REAR ABUTMENT APPROACH SLAB MEDIAN PARAPET
(ALONG TOE PARAPET)



SECTION A-A

NOTES:

1. SEE STANDARD BRIDGE DRAWING SBR-2-13 FOR ADDITIONAL DETAILS.

DESIGN AGENCY
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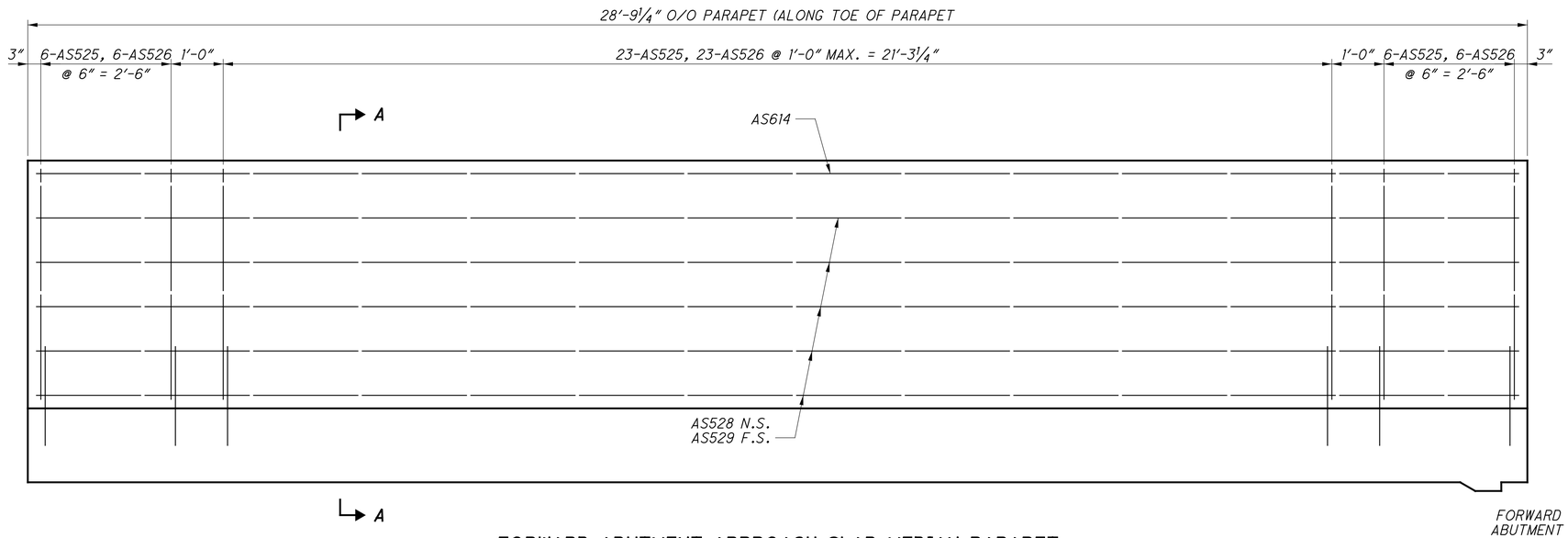
SJF	DSH	MDS	1/2/19
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CLB		3109763	

PARAPET DETAILS (LEFT BRIDGE)
BRIDGE NO. HAM-75-0440 L/R
OVER WB I-74

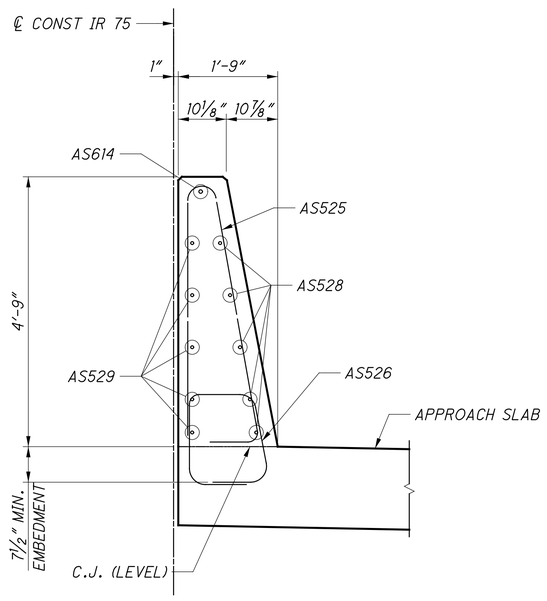
HAM-75-3.84
PID No. 104667

50 / 68

50
68



FORWARD ABUTMENT APPROACH SLAB MEDIAN PARAPET
(ALONG TOE PARAPET)



SECTION A-A

NOTES:

1. SEE STANDARD BRIDGE DRAWING SBR-2-13 FOR ADDITIONAL DETAILS.

DESIGN AGENCY
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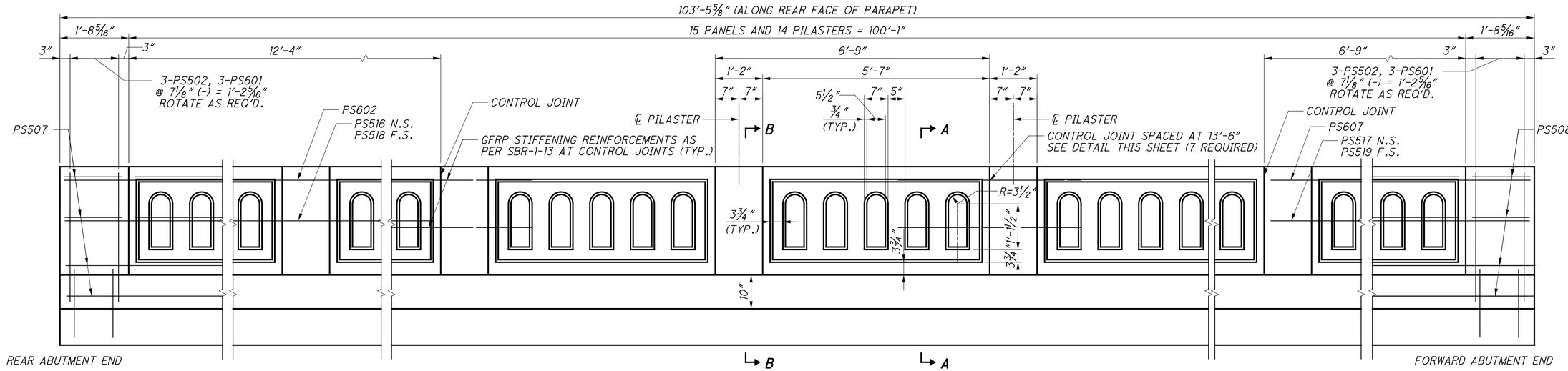
DESIGNED	DRAWN	REVIEWED	DATE
SJF	DSH	MDS	1/2/19
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CLB		3109763	

PARAPET DETAILS (LEFT BRIDGE)
BRIDGE NO. HAM-75-0440 L/R
OVER WB I-74

HAM-75-3.84
PID No. 104667

51/68

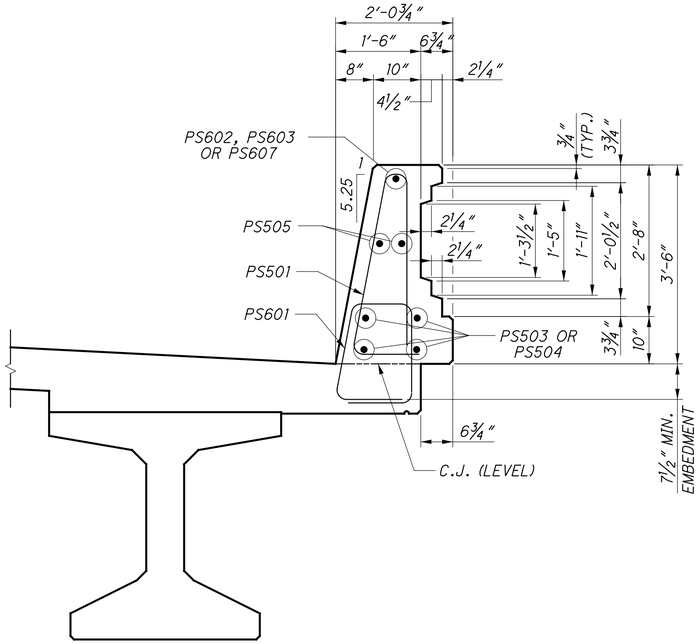
51
68



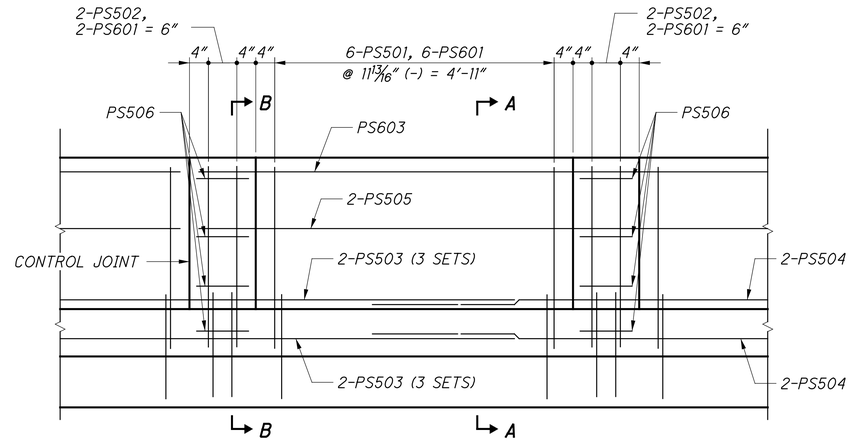
END ORNAMENTAL PARAPET PANEL

TYPICAL ORNAMENTAL PARAPET PANEL
(ALONG REAR FACE OF PARAPET)

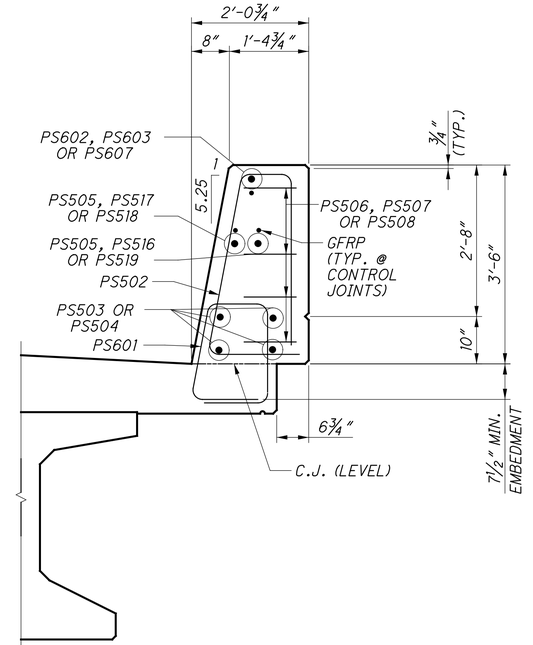
END ORNAMENTAL PARAPET PANEL



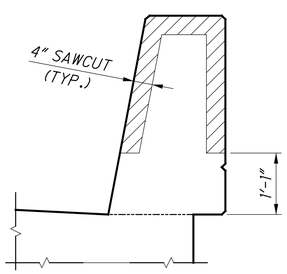
SECTION A-A



TYPICAL ORNAMENTAL PARAPET PANEL REINFORCING
(ALONG REAR FACE OF PARAPET)



SECTION B-B



SECTION THRU CONTROL JOINT DETAIL

MINIMUM BAR LAP	
#5	2'-7"

NOTES:

1. SEE STANDARD BRIDGE DRAWING SBR-1-13 FOR ADDITIONAL DETAILS.
2. GFRP INDICATES ½" DIA. GLASS FIBER REINFORCED POLYMER STIFFENING REINFORCEMENT.

DESIGN AGENCY
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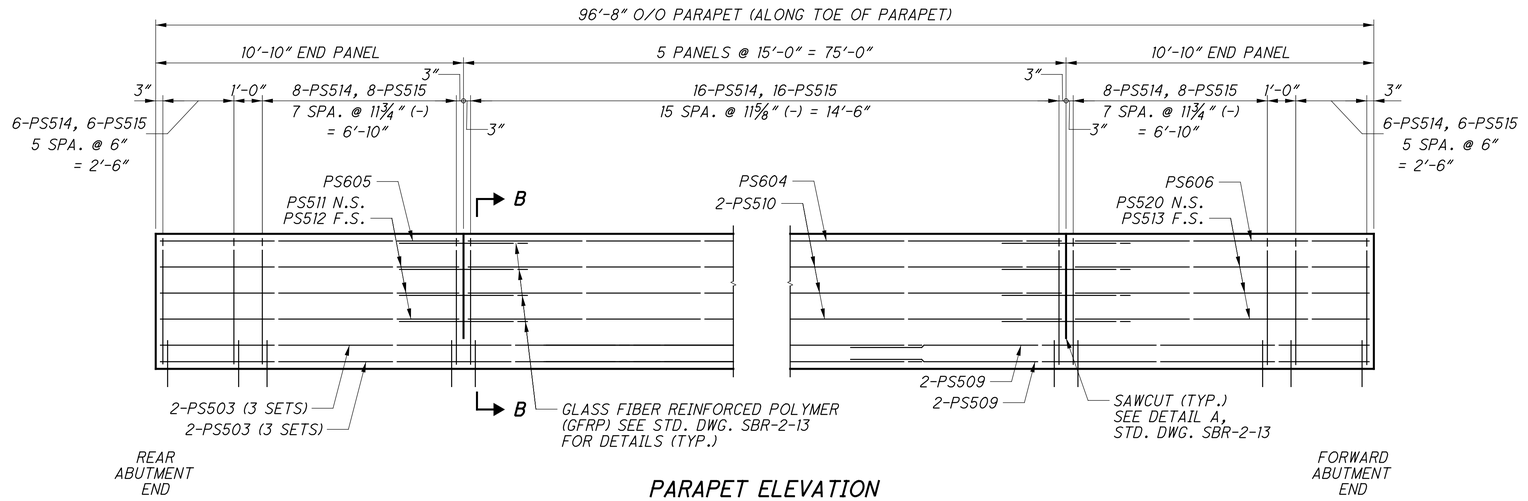
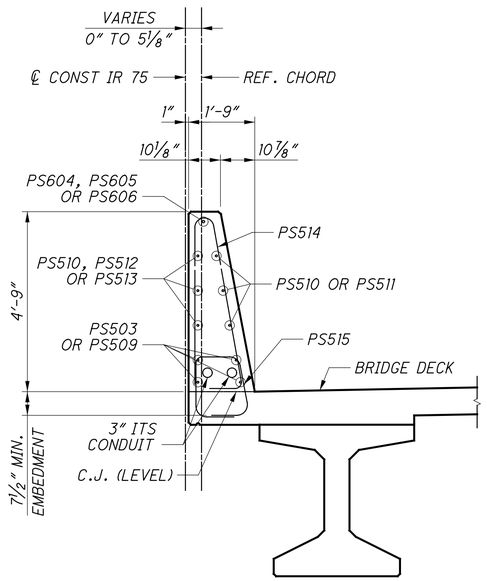
SJF	TLH	MDS	1/2/19
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CLB		3109763	

PARAPET DETAILS (RIGHT BRIDGE)
BRIDGE NO. HAM-75-0440 L/R
OVER IR-74 WB

HAM-75-3.84
PID No. 104667



PARAPET ELEVATION
LEFT PARAPET SHOWN (ALONG TOE PARAPET)



SECTION B-B

MINIMUM BAR LAP	
#5	2′-7″

NOTES:

1. SEE STANDARD BRIDGE DRAWING SBR-2-13 FOR ADDITIONAL DETAILS.

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CLB		3109763	

PARAPET DETAILS (RIGHT BRIDGE)
BRIDGE NO. HAM-75-0440 L/R
OVER IR-74 WB

HAM-75-3.84
PID No. 104667

53/68

53
68

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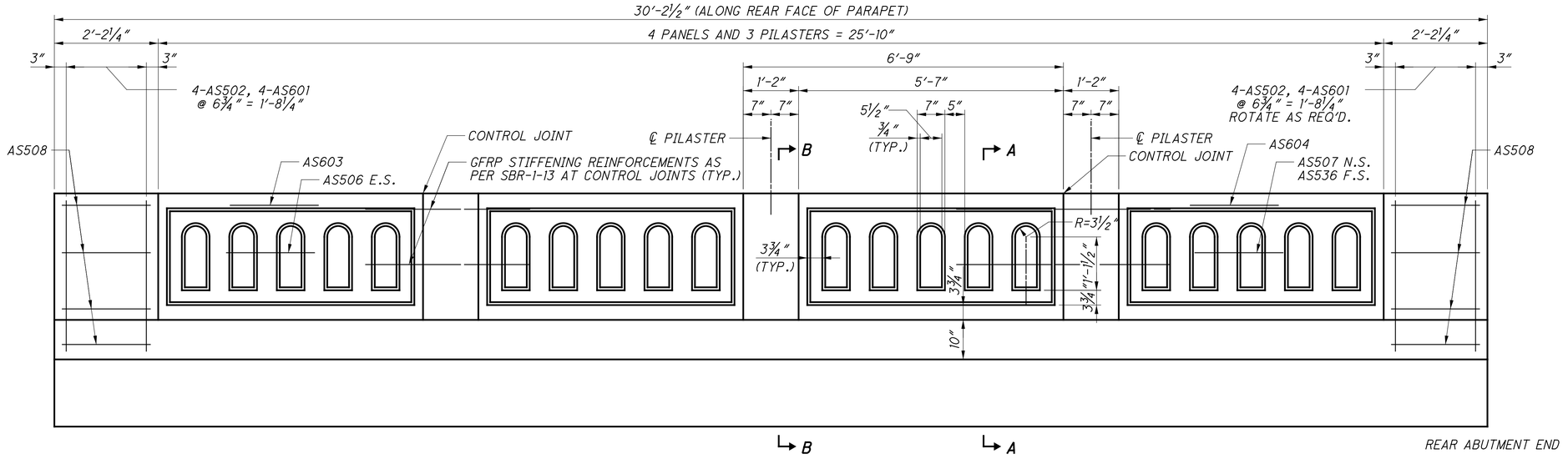
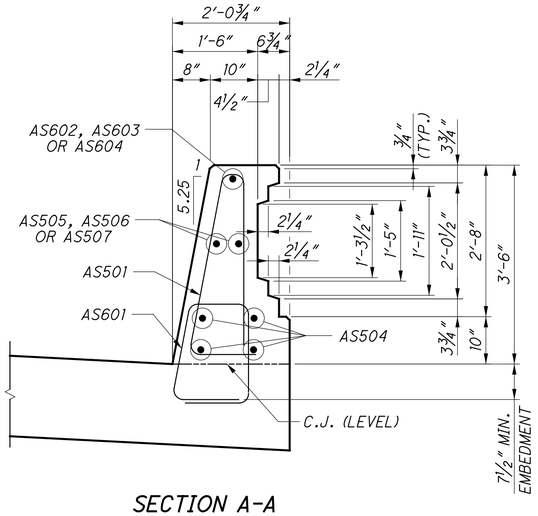
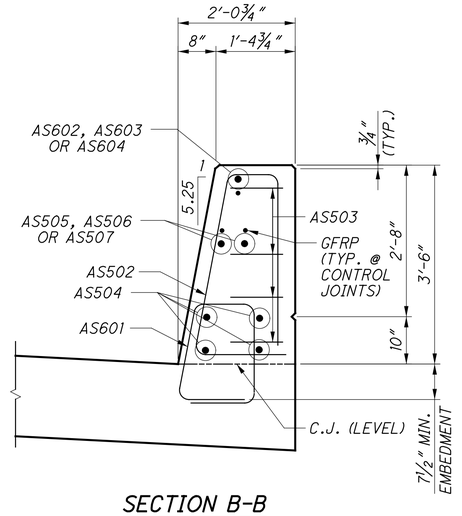


REAR ABUTMENT APPROACH SLAB ORNAMENTAL PARAPET PANEL

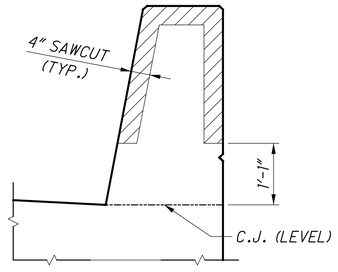
(ALONG REAR FACE OF PARAPET)



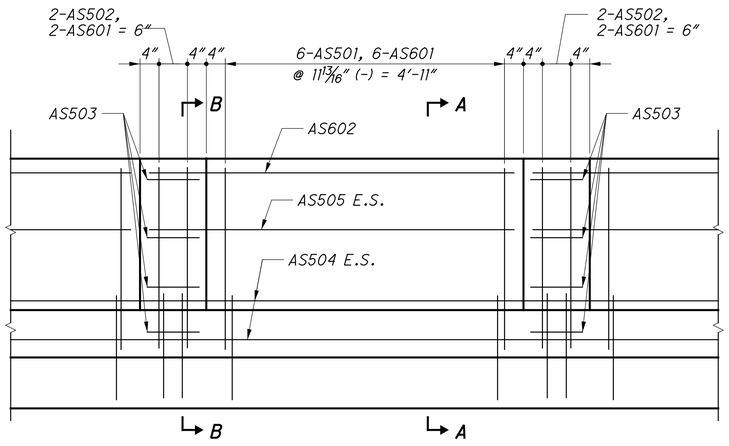
SECTION A-A



SECTION B-B



SECTION THRU CONTROL JOINT DETAIL



TYPICAL ORNAMENTAL PARAPET PANEL REINFORCING

(ALONG REAR FACE OF PARAPET)

MINIMUM BAR LAP	
#5	2'-7"

NOTES:

1. SEE STANDARD BRIDGE DRAWING SBR-1-13 FOR ADDITIONAL DETAILS.
2. GFRP INDICATES ½" DIA. GLASS FIBER REINFORCED POLYMER STIFFENING REINFORCEMENT.

DESIGN AGENCY
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SJF	DSH	MDS	1/2/19
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CLB		3109763	

PARAPET DETAILS (RIGHT BRIDGE)
BRIDGE NO. HAM-75-0440 L/R
OVER WB I-74

HAM-75-3.84
PID No. 104667

54 / 68

54
68

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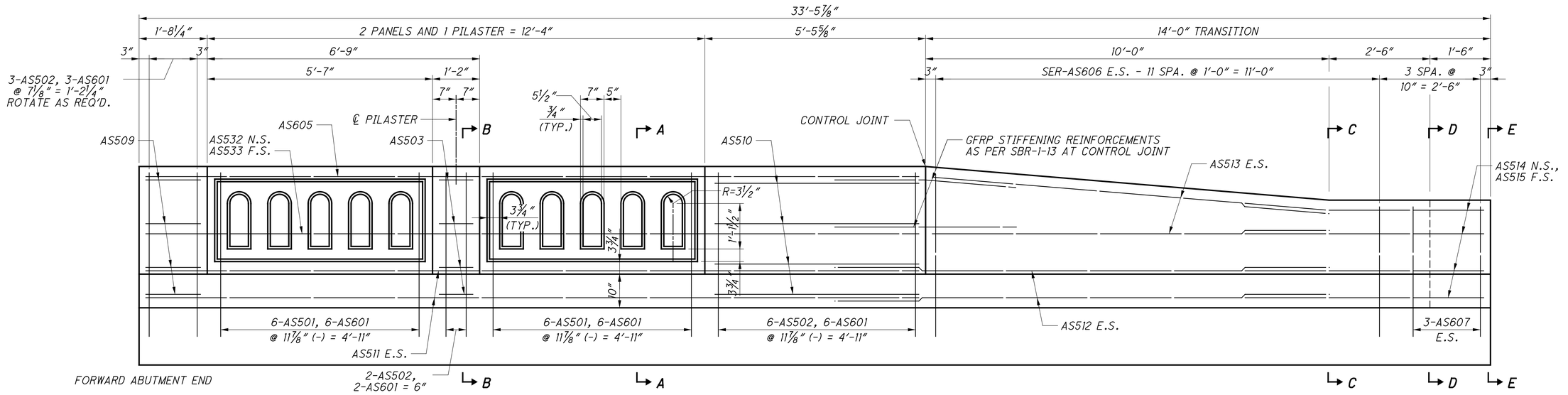
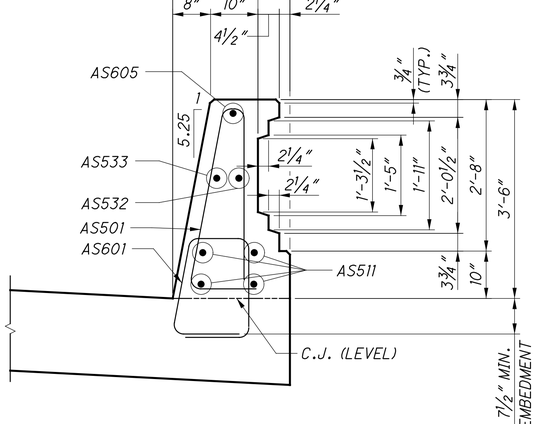
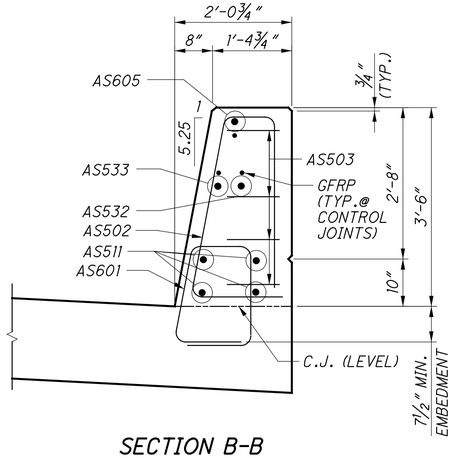


FORWARD ABUTMENT APPROACH SLAB ORNAMENTAL PARAPET PANEL

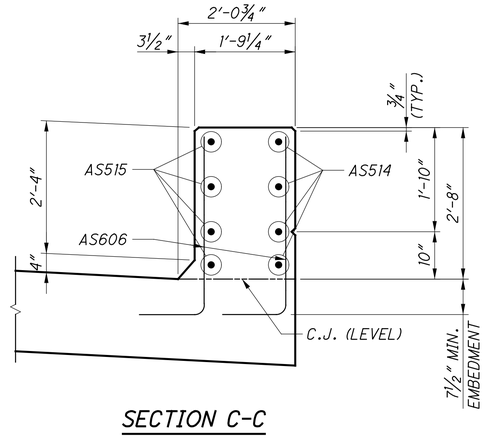
(ALONG REAR FACE OF PARAPET)



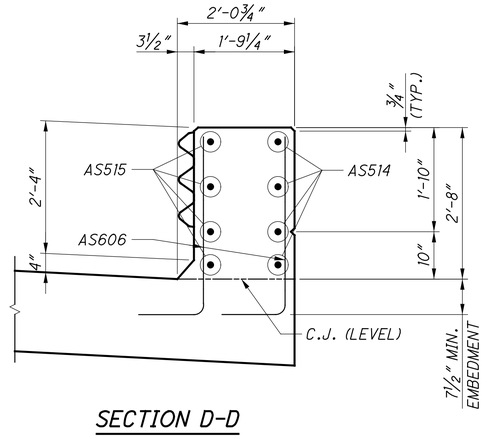
SECTION A-A



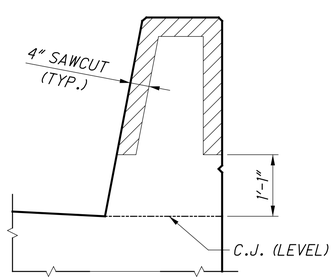
SECTION B-B



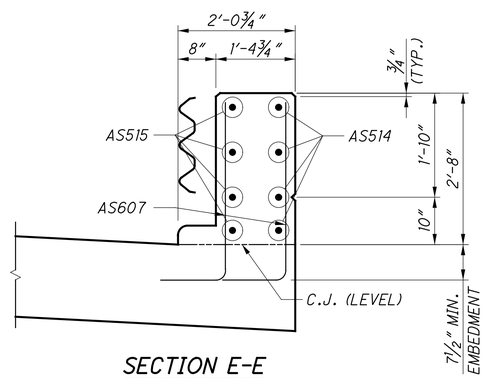
SECTION C-C



SECTION D-D



SECTION THRU CONTROL JOINT DETAIL



SECTION E-E

MINIMUM BAR LAP	
#5	2'-7"

NOTES:

1. SEE STANDARD BRIDGE DRAWING SBR-1-13 FOR ADDITIONAL DETAILS.
2. GFRP INDICATES ½" DIA. GLASS FIBER REINFORCED POLYMER STIFFENING REINFORCEMENT.

DESIGN AGENCY
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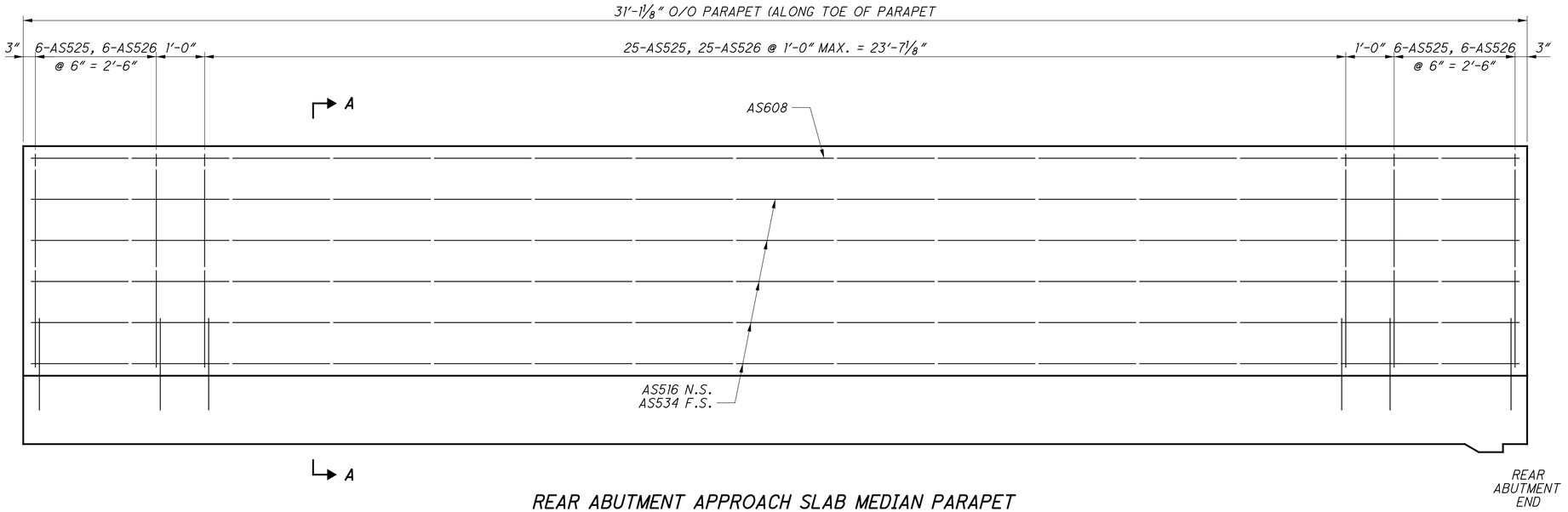
DESIGNED	DRAWN	REVIEWED	DATE
SJF	DSH	MDS	1/2/19
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CLB		3109763	

PARAPET DETAILS (RIGHT BRIDGE)
BRIDGE NO. HAM-75-0440 L/R
OVER I-74 WB

HAM-75-3.84
PID No. 104667

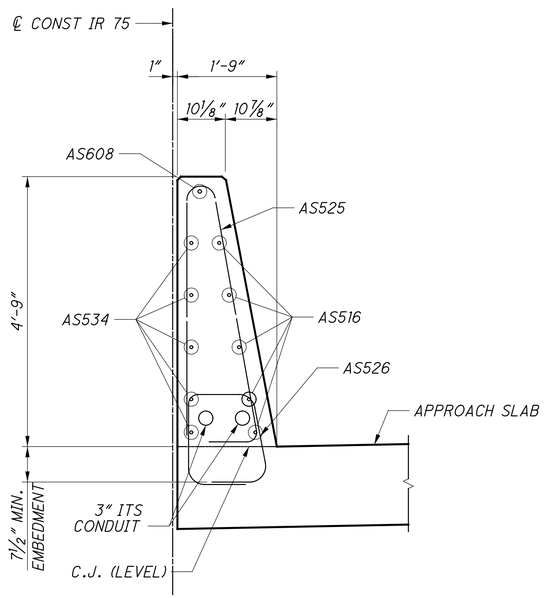
55 / 68

55
68



REAR ABUTMENT APPROACH SLAB MEDIAN PARAPET

(ALONG TOE PARAPET)



SECTION A-A

NOTES:

1. SEE STANDARD BRIDGE DRAWING SBR-2-13 FOR ADDITIONAL DETAILS.

DESIGN AGENCY
STRUCTUREPOINT LLC
200 CORPORATE EXCHANGE DR. STE 350
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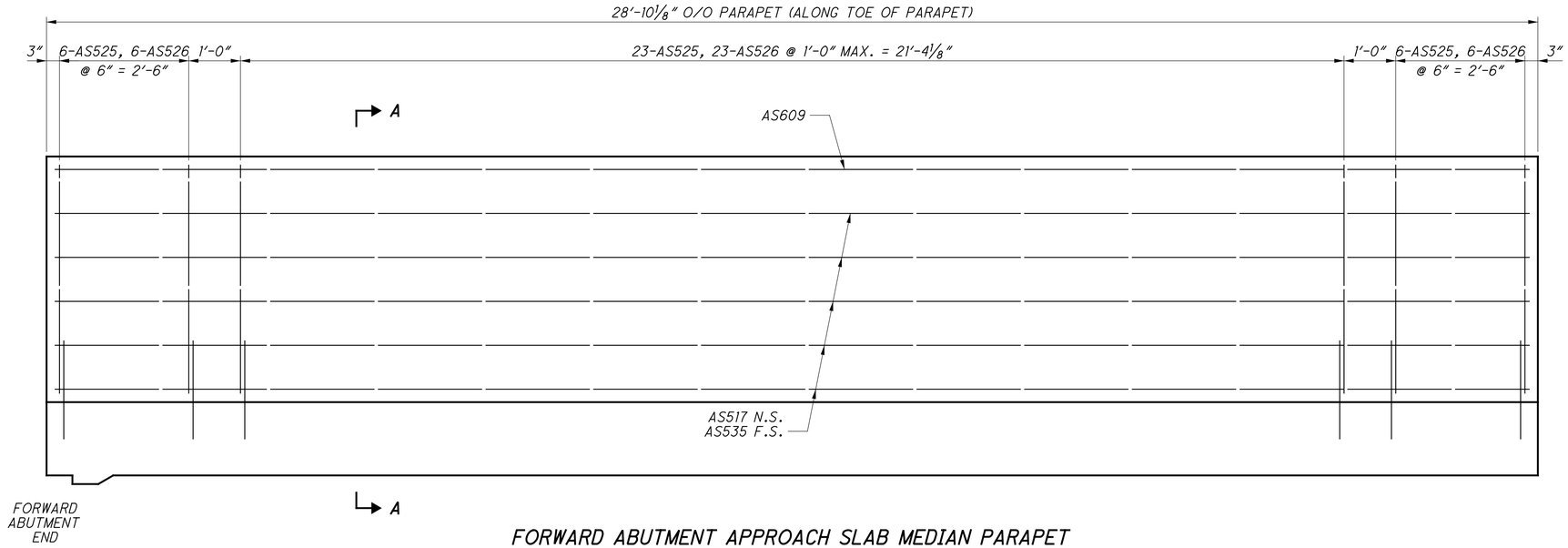
DESIGNED	DRAWN	REVIEWED	DATE
SJF	DSH	MDS	1/2/19
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CLB		3109763	

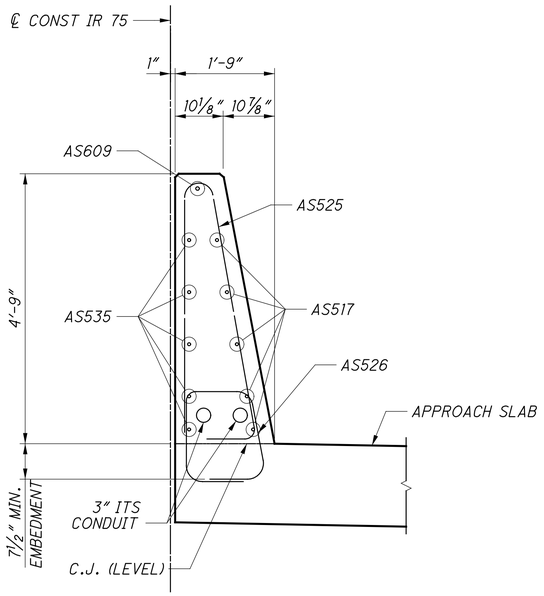
PARAPET DETAILS (RIGHT BRIDGE)
BRIDGE NO. HAM-75-0440 L/R
OVER WB I-74

HAM-75-3.84
PID No. 104667



FORWARD ABUTMENT APPROACH SLAB MEDIAN PARAPET

(ALONG TOE PARAPET)



SECTION A-A

NOTES:

1. SEE STANDARD BRIDGE DRAWING SBR-2-13 FOR ADDITIONAL DETAILS.

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SJF	DSH	MDS	1/2/19
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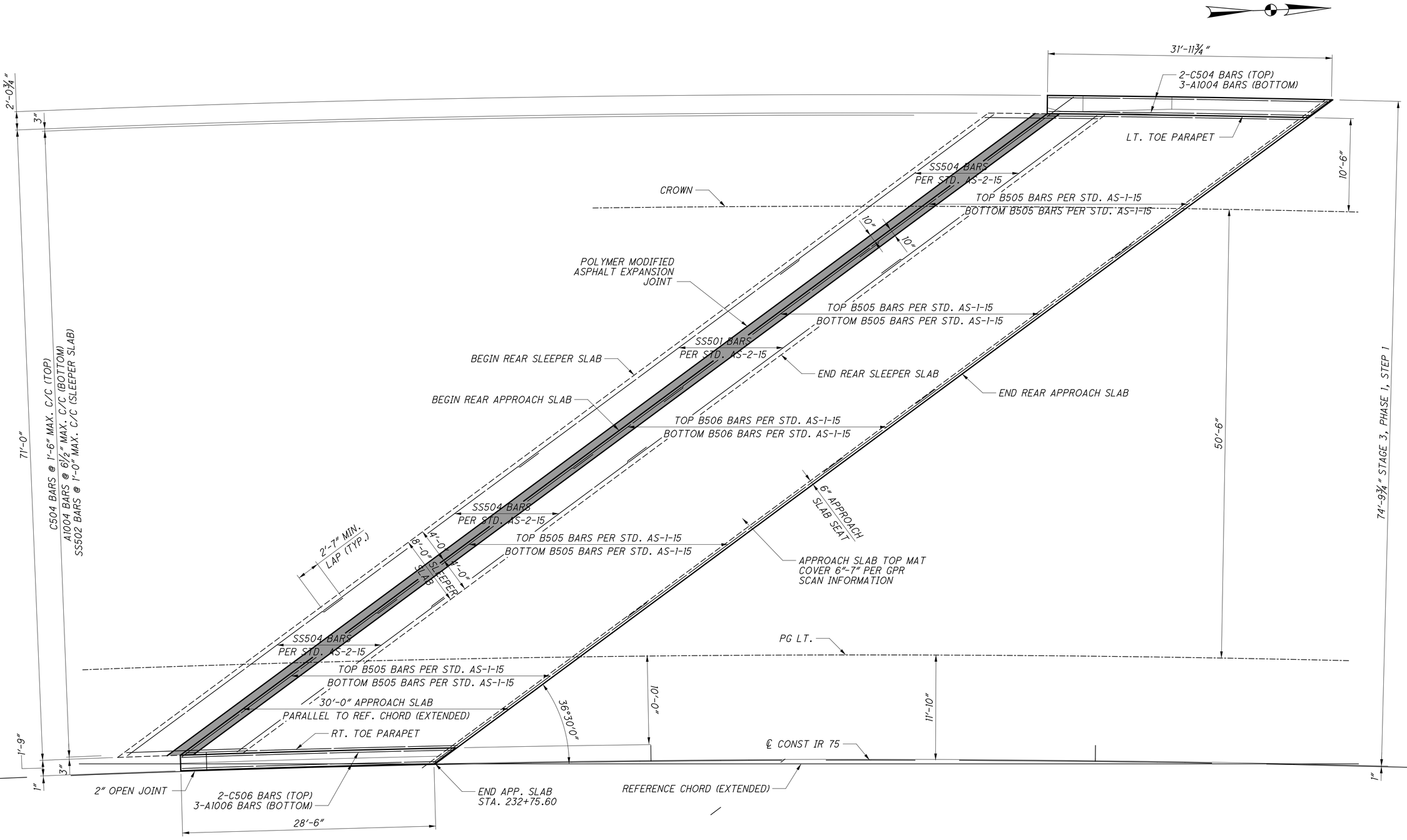
PARAPET DETAILS (RIGHT BRIDGE)
BRIDGE NO. HAM-75-0440 L/R
OVER WB I-74

HAM-75-3.84
PID No. 104667



PLAN
LEFT REAR APPROACH SLAB

NOTES:

1. FOR STANDARD APPROACH SLAB DETAILS, SEE STANDARD BRIDGE DWG. AS-1-15 AND STANDARD BRIDGE DWG. AS-2-15.
2. FOR PARAPET DETAILS, SEE SHEETS 48/68 AND 50/68.
3. FOR APPROACH SLAB ELEVATIONS, SEE SHEET 62/68.
4. THE ENTIRE APPROACH SLAB RECEIVED A ¼" EPOXY OVERLAY, CONSTRUCTED PER SS 858

DESIGN AGENCY
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CLB		3109763	

APPROACH SLAB DETAILS (LEFT BRIDGE)
BRIDGE NO. HAM-75-0440 L/R
OVER WB I-74

HAM-75-3.84
PID No. 104667

58/68

58
68

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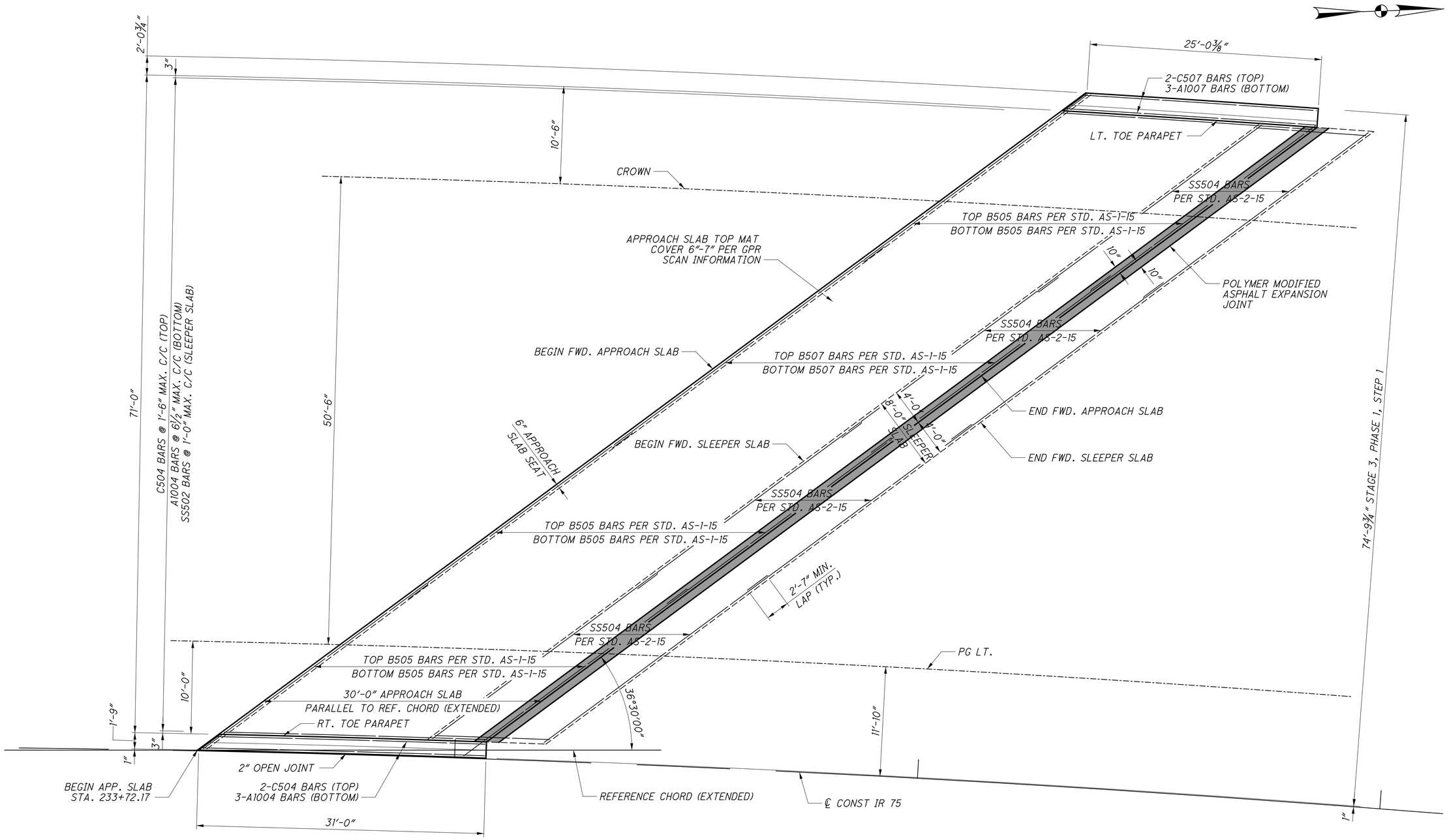

PLAN
LEFT FORWARD APPROACH SLAB

NOTES:

1. FOR STANDARD APPROACH SLAB DETAILS, SEE STANDARD BRIDGE DWG. AS-1-15 AND STANDARD BRIDGE DWG. AS-2-15.
2. FOR PARAPET DETAILS, SEE SHEETS 49/68 AND 51/68.
3. FOR APPROACH SLAB ELEVATIONS, SEE SHEET 62/68.
4. THE ENTIRE APPROACH SLAB RECEIVED A ¼" EPOXY OVERLAY, CONSTRUCTED PER SS 858.

DESIGN AGENCY
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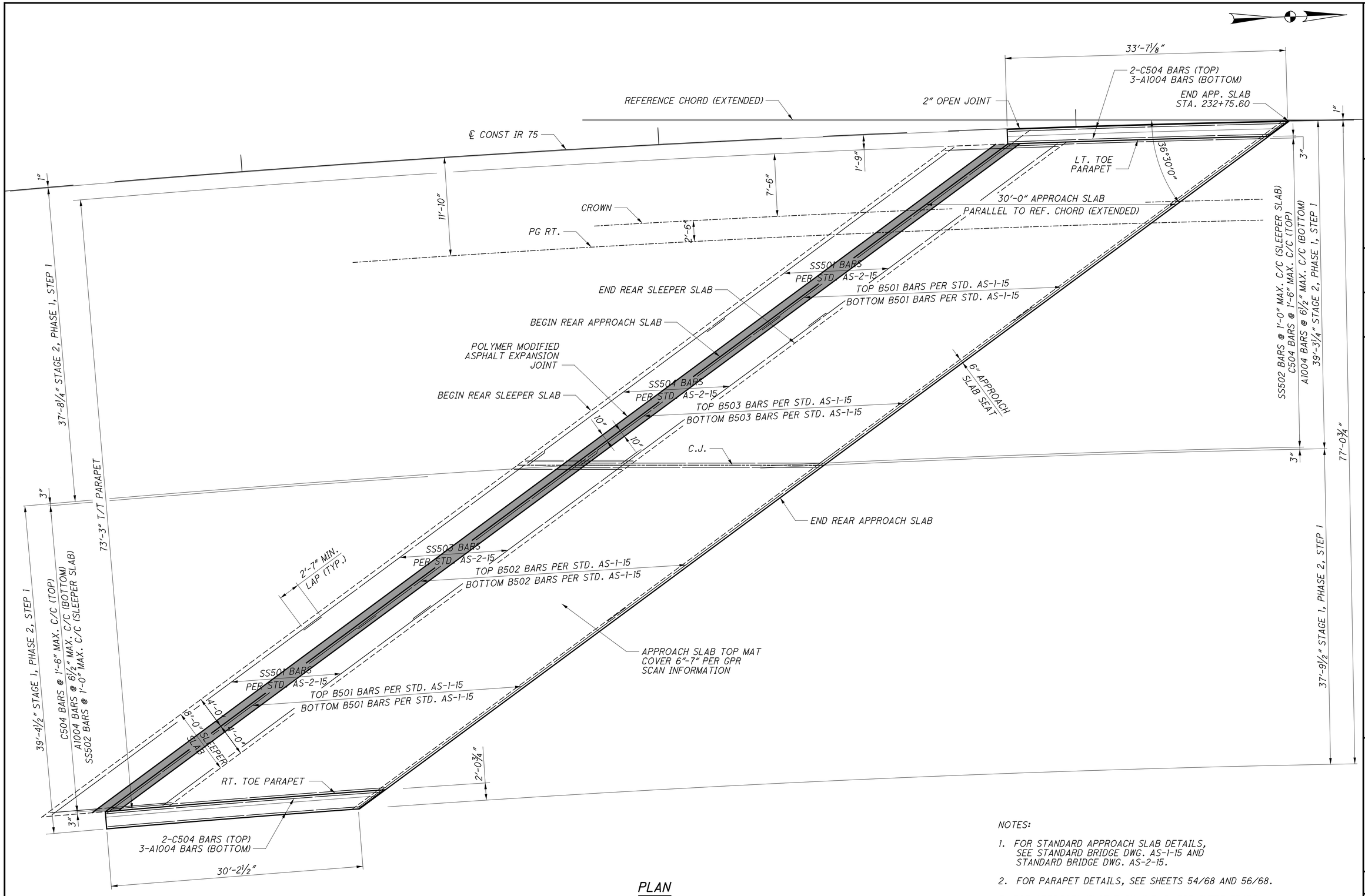
DESIGNED	DRAWN	REVIEWED	DATE
SJF	DSH	MDS	1/2/19
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CLB		3109763	

APPROACH SLAB DETAILS (LEFT BRIDGE)
BRIDGE NO. HAM-75-0440 L/R
OVER WB I-74

HAM-75-3.84
PID No. 104667

59 / 68

59
68



PLAN
RIGHT REAR APPROACH SLAB

NOTES:

1. FOR STANDARD APPROACH SLAB DETAILS, SEE STANDARD BRIDGE DWG. AS-1-15 AND STANDARD BRIDGE DWG. AS-2-15.
2. FOR PARAPET DETAILS, SEE SHEETS 54/68 AND 56/68.
3. FOR APPROACH SLAB ELEVATIONS, SEE SHEET 62/68.
4. THE ENTIRE APPROACH SLAB RECEIVED A ¼" EPOXY OVERLAY, CONSTRUCTED PER SS 858.

DESIGN AGENCY
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CLEMMONS, NC 27012
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DESIGNED	DRAWN	REVIEWED	DATE
SJF	DSH	MDS	1/2/19
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CLB		3109763	

APPROACH SLAB DETAILS (RIGHT BRIDGE)
BRIDGE NO. HAM-75-0440 L/R
OVER WB I-74

HAM-75-3.84
PID No. 104667

60/68

SFlannagan
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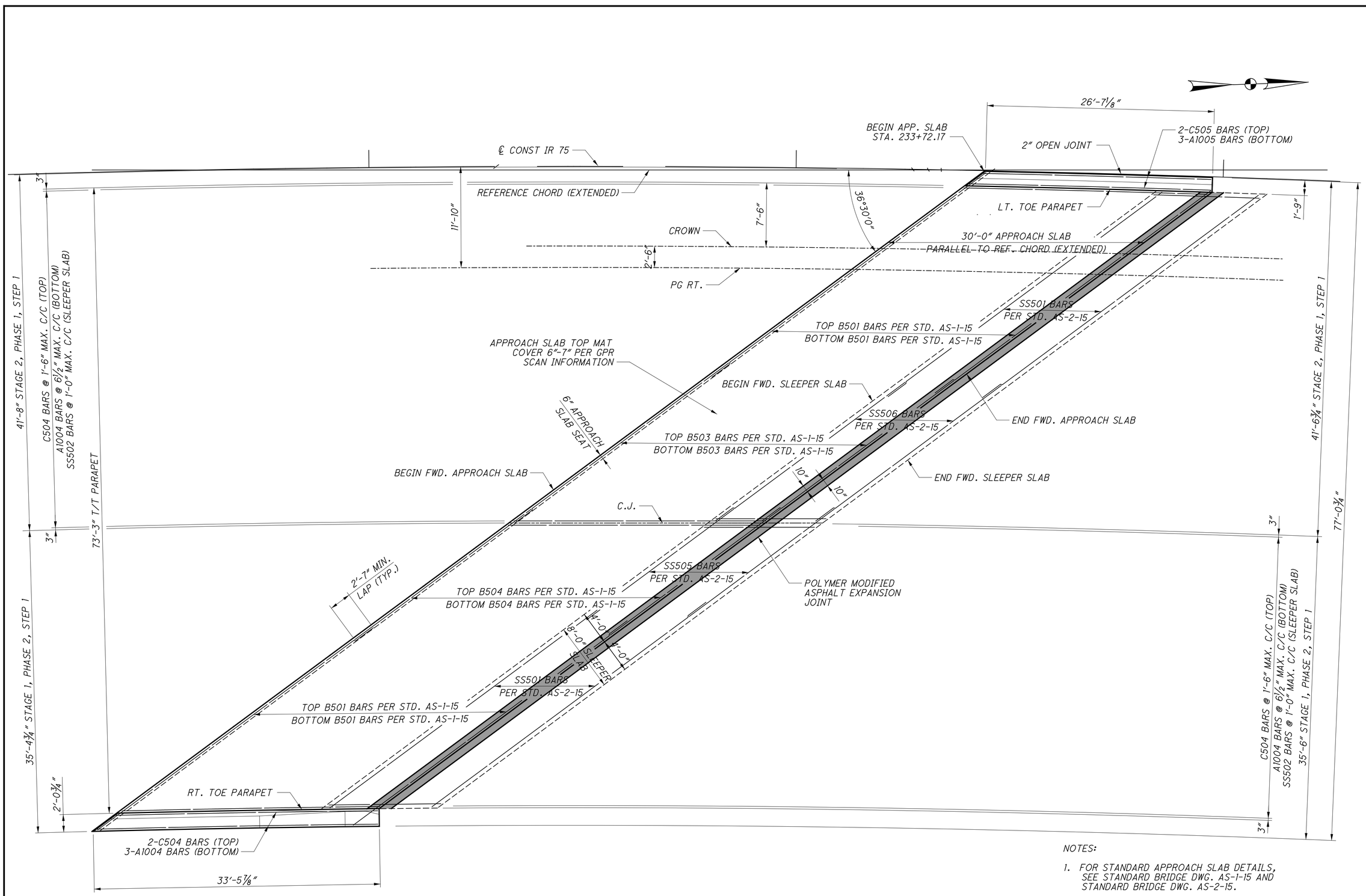

PLAN
RIGHT FORWARD APPROACH SLAB

NOTES:

1. FOR STANDARD APPROACH SLAB DETAILS, SEE STANDARD BRIDGE DWG. AS-1-15 AND STANDARD BRIDGE DWG. AS-2-15.
2. FOR PARAPET DETAILS, SEE SHEETS 55/68 AND 57/68.
3. FOR APPROACH SLAB ELEVATIONS, SEE SHEET 62/68.
4. THE ENTIRE APPROACH SLAB RECEIVED A 1/4" EPOXY OVERLAY, CONSTRUCTED PER SS 858.

DESIGN AGENCY
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SJF	DSH	MDS	1/2/19
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CLB		3109763	

APPROACH SLAB DETAILS (RIGHT BRIDGE)
BRIDGE NO. HAM-75-0440 L/R
OVER WB I-74

HAM-75-3.84
PID No. 104667

61 / 68

61
68

APPROACH SLAB ELEVATIONS LEFT BRIDGE

APPROACH LINE / DESCRIPTION		BEGIN REAR SLEEPER SLAB	BEGIN REAR APPROACH SLAB	END REAR SLEEPER SLAB	END REAR APPROACH SLAB	STRUCTURE LIMITS	BEGIN FWD. APPROACH SLAB	BEGIN FWD. SLEEPER SLAB	END FWD. APPROACH SLAB	END FWD. SLEEPER SLAB
LT. TOE OF PARAPET	STATION	233+37.50	233+43.96	233+50.39	233+72.47		234+61.23	234+82.01	234+87.98	234+93.94
	OFFSET	-72.83	-72.83	-72.83	-72.83		-72.83	-72.83	-72.83	-72.83
	ELEVATION	527.78	529.08	527.53	528.50		526.62	524.76	526.05	524.51
CROWN	STATION	233+23.80	233+30.34	233+36.85	233+59.20		234+48.98	234+69.99	234+76.02	234+82.03
	OFFSET	-62.33	-62.33	-62.33	-62.33		-62.33	-62.33	-62.33	-62.33
	ELEVATION	528.48	529.78	528.24	529.22		527.32	525.46	526.75	525.20
PGL	STATION	232+54.48	232+61.44	232+68.38	232+92.15		233+87.29	234+09.49	234+15.85	234+22.19
	OFFSET	-11.83	-11.83	-11.83	-11.83		-11.83	-11.83	-11.83	-11.83
	ELEVATION	527.03	528.34	526.82	527.87		526.05	524.17	525.45	523.90
RT. TOE OF PARAPET	STATION	232+40.02	232+47.08	232+54.10	232+78.19		233+74.50	233+96.95	234+03.38	234+09.79
	OFFSET	-1.83	-1.83	-1.83	-1.83		-1.83	-1.83	-1.83	-1.83
	ELEVATION	526.72	528.04	526.52	527.58		525.81	523.92	525.20	523.65

APPROACH SLAB ELEVATIONS RIGHT BRIDGE

APPROACH LINE / DESCRIPTION		BEGIN REAR SLEEPER SLAB	BEGIN REAR APPROACH SLAB	END REAR SLEEPER SLAB	END REAR APPROACH SLAB	STRUCTURE LIMITS	BEGIN FWD. APPROACH SLAB	BEGIN FWD. SLEEPER SLAB	END FWD. APPROACH SLAB	END FWD. SLEEPER SLAB
LT. TOE OF PARAPET	STATION	232+34.65	232+41.74	232+48.81	232+73.01		233+69.75	233+92.30	233+98.76	234+05.19
	OFFSET	1.83	1.83	1.83	1.83		1.83	1.83	1.83	1.83
	ELEVATION	528.59	529.92	528.41	529.48		527.73	525.82	527.09	525.53
CROWN	STATION	232+23.56	232+30.73	232+37.86	232+62.31		233+59.96	233+82.71	233+89.22	233+95.71
	OFFSET	9.33	9.33	9.33	9.33		9.33	9.33	9.33	9.33
	ELEVATION	529.04	530.37	528.87	529.95		528.25	526.35	527.62	526.06
PGL	STATION	232+19.83	232+27.02	232+34.18	232+58.71		233+56.67	233+79.48	233+86.02	233+92.53
	OFFSET	11.83	11.83	11.83	11.83		11.83	11.83	11.83	11.83
	ELEVATION	528.96	530.29	528.79	529.87		528.19	526.29	527.57	526.01
C.J. #2	STATION	231+80.71	231+87.43	231+94.36	232+18.00		233+16.23	233+39.94	233+46.79	233+53.64
	OFFSET	37.36	37.76	38.16	39.35		41.75	41.71	41.65	41.57
	ELEVATION	528.07	529.41	527.90	529.00		527.43	525.58	526.86	525.31
RT. TOE OF PARAPET	STATION	231+19.19	231+27.11	231+34.99	231+61.90		232+68.65	232+93.36	233+00.42	233+07.46
	OFFSET	75.08	75.08	75.08	75.08		75.08	75.08	75.08	75.08
	ELEVATION	526.61	527.98	526.51	527.73		526.50	524.70	526.00	524.46

DESIGN AGENCY
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DESIGNED SJF | DRAWN DSH | CHECKED CLB | REVIEWED MDS | DATE 1/2/19 | REVISED | STRUCTURE FILE NUMBER 3109763

APPROACH SLAB DETAILS
BRIDGE NO. HAM-75-0440 L/R
OVER WB I-74

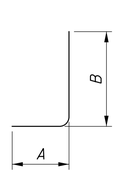
HAM-75-3.84
PID No. 104667

62 / 68

62
68

MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS						
	REAR ABUT.	FORWARD ABUT.	TOTAL				A	B	C	D	E	R	INC
ABUTMENTS (LEFT BRIDGE)													
A301	512	528	1040	3'-5"	1336	45	2'-6"	0'-6"					
A501	251	98	349	30'-0"	10920	STR							
A504	14	17	31	9'-0"	291	STR							
A506	126	127	253	6'-10"	1803	2	1'-0"	5'-1"	1'-0"				
A508	7		7	14'-8"	107	44	1'-9"	3'-5"	2'-8"	5'-2"	0'-10"		
A509		102	102	40'-0"	4255	STR							
A513		7	7	18'-6"	135	43	4'-10"	5'-9"	7'-6"	0'-10"			
A601		90	90	30'-0"	4055	STR							
A602		30	30	35'-0"	1577	STR							
A607	90		90	40'-0"	5407	STR							
	2 SR		2 SR	18'-0"									
A608	OF		OF	TO	1247	STR							1'-4 1/2"
	15		15	37'-4"									
		2 SR	2 SR	10'-0"									
A609		OF	OF	TO	856	STR							1'-3 1/2"
		15	15	28'-0"									
DG601	11	11	22	25'-3"	834	3	8'-6"	3'-8 1/2"					
A701	128	127	255	11'-0"	5733	1	1'-2"	10'-0"					
A706	127	124	251	7'-8"	3933	19	2'-9"	3'-6"	3'-6"				
A707	13		13	20'-7"	547	STR							
	1 SR		1 SR	20'-7"									
A708	OF		OF	TO	3917	STR							0'-0 1/4"
	90		90	22'-0"									
	1 SR		1 SR	22'-0"									
A709	OF		OF	TO	535	STR							0'-0 1/2"
	12		12	21'-7"									
A710	13		13	21'-7"	574	STR							
		1 SR	1 SR	20'-2"									
A714		OF	OF	TO	4352	STR							0'-0 1/8"
		102	102	21'-7"									
		1 SR	1 SR	21'-7"									
A715		OF	OF	TO	349	STR							0'-0 7/8"
		8	8	21'-1"									
A716		17	17	21'-1"	733	STR							
DG801	5	5	10	13'-8"	365	5	2'-8"	3'-7"	2'-4"				
A901	244	226	470	20'-2"	32226	2	3'-6"	13'-9"	3'-6"				
A907	2		2	30'-1"	205	2	3'-6"	23'-8"	3'-6"				
	2 SR		2 SR	7'-11"				1'-6"					
A908	OF		OF	TO	317	2	3'-6"	TO	3'-6"				0'-8 1/2"
	5		5	10'-9"				4'-4"					
	2 SR		2 SR	11'-9"				5'-4"					
A909	OF		OF	TO	655	2	3'-6"	TO	3'-6"				0'-8"
	7		7	15'-9"				9'-4"					
	2 SR		2 SR	16'-8"				10'-3"					
A910	OF		OF	TO	748	2	3'-6"	TO	3'-6"				0'-8"
	6		6	20'-0"				13'-7"					
A911	264	246	510	15'-4"	26588	1	1'-7"	14'-0"					
A916	34		34	20'-7"	2379	STR							
	1 SR		1 SR	20'-7"									
A917	OF		OF	TO	13103	STR							0'-0 1/8"
	181		181	22'-0"									
	1 SR		1 SR	22'-0"									
A918	OF		OF	TO	1778	STR							0'-0 1/4"
	24		24	21'-7"									
A919	25		25	21'-7"	1835	STR							
				SUB-TOTAL	133,695								

MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS						
	REAR ABUT.	FORWARD ABUT.	TOTAL				A	B	C	D	E	R	INC
ABUTMENTS (LEFT BRIDGE)													
A924		2	2	28'-11"	197	2	3'-6"	22'-6"	3'-6"				
A925		2	2	19'-7"	133	2	3'-6"	13'-2"	3'-6"				
A926		2	2	20'-1"	137	2	3'-6"	13'-8"	3'-6"				
		2 SR	2 SR	14'-2"				7'-9"					
A927		OF	OF	TO	780	2	3'-6"	TO	3'-6"				0'-8 3/4"
		7	7	18'-7"				12'-2"					
		2 SR	2 SR	10'-2"				3'-9"					
A928		OF	OF	TO	397	2	3'-6"	TO	3'-6"				0'-9"
		5	5	13'-2"				6'-9"					
		2 SR	2 SR	7'-7"				1'-2"					
A929		OF	OF	TO	170	2	3'-6"	TO	3'-6"				0'-9"
		3	3	9'-1"				2'-8"					
		1 SR	1 SR	20'-2"									
A933		OF	OF	TO	13982	STR							0'-0 1/8"
		197	197	21'-7"									
		1 SR	1 SR	21'-1"									
A934		OF	OF	TO	1161	STR							0'-0 1/2"
		16	16	21'-7"									
A935		33	33	21'-1"	2366	STR							
				SUB-TOTAL	19,323								



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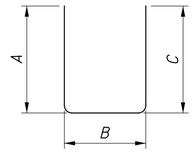

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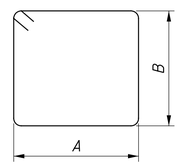

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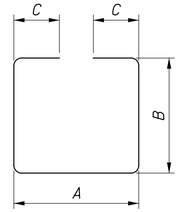

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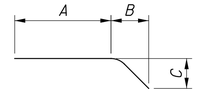

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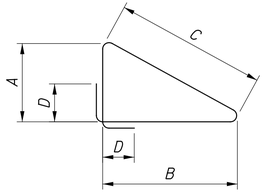

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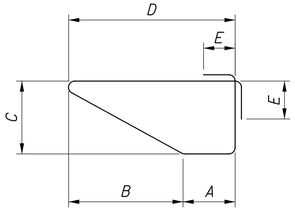

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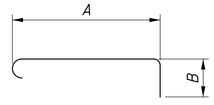

TYPE-45

DESIGN AGENCY
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DESIGNED	DRAWN	REVIEWED	DATE
SJF	DSH	MDS	1/18/19
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CLB		3109763	

REINFORCING STEEL LIST (LEFT BRIDGE)
BRIDGE NO. HAM-75-0440 L/R
OVER WB I-74

HAM-75-3.84
PID No. 104667

63/68

63
68

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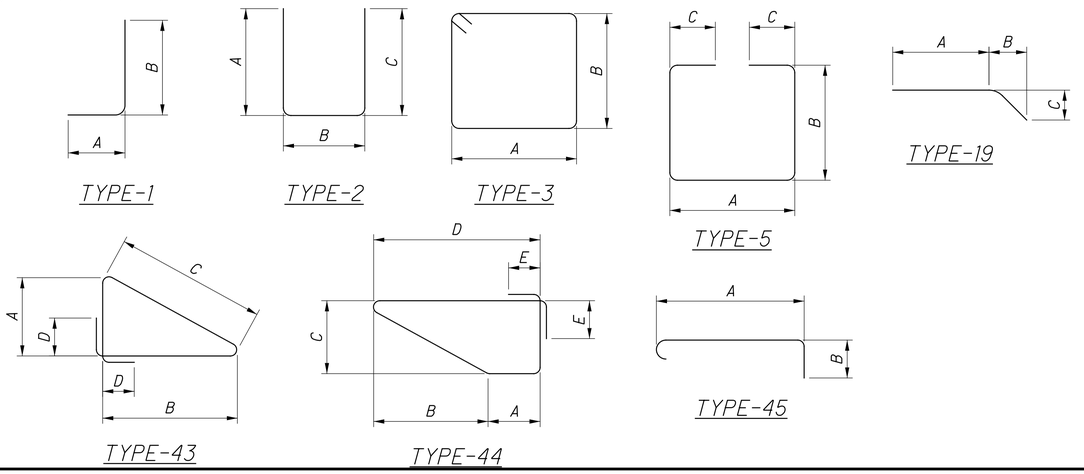
MARK	NUMBER REAR ABUT.	NUMBER FORWARD ABUT.	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	E	R	INC
ABUTMENTS (RIGHT BRIDGE)													
A301	604	576	1180	3′-5″	1516	45	2′-6″	0′-6″					
A501	196		196	30′-0″	6133	STR							
A502	49		49	30′-6″	1559	STR							
A503	49		49	18′-6″	945	STR							
A504	22	15	37	9′-0″	347	STR							
A505	7		7	22′-4″	163	43	4′-11″	7′-8″	9′-1″	1′-0″			
A506	149	133	282	6′-10″	2010	2	1′-0″	5′-1″	1′-0″				
A509		96	96	40′-0″	4005	STR							
A510		49	49	36′-6″	1865	STR							
A511		49	49	34′-0″	1738	STR							
A512		6	6	15′-2″	95	44	1′-9″	3′-10″	2′-8″	5′-7″	0′-10″		
A601	30	90	120	30′-0″	5407	STR							
A602	60		60	35′-0″	3154	STR							
	2 SR		2 SR	9′-1″									
(1) A603	OF		OF	TO	518	STR							1′-3 ¾″
	11		11	22′-3″									
(1) A604	8		8	22′-8″	272	STR							
A605	22		22	5′-6″	182	STR							
	2 SR		2 SR	6′-5″									
A606	OF		OF	TO	102	STR							1′-4 ¾″
	4		4	10′-7″									
A607	30		30	40′-0″	1802	STR							
		2 SR	2 SR	9′-3″									
A610		OF	OF	TO	834	STR							1′-3 ¾″
		15	15	27′-9″									
A611		30	30	20′-0″	901	STR							
		2 SR	2 SR	12′-6″									
A612		OF	OF	TO	980	STR							1′-3⅞″
		15	15	31′-0″									
		2 SR	2 SR	10′-0″									
A613		OF	OF	TO	856	STR							1′-3 ½″
		15	15	28′-0″									
DG601	11	11	22	25′-3″	834	3	8′-6″	3′-8 ½″					
A701	149	135	284	11′-0″	6385	1	1′-2″	10′-0″					
A702	22		22	19′-4″	869	STR							
	1 SR		1 SR	19′-4″									
A703	OF		OF	TO	2285	STR							0′-0⅛″
	56		56	20′-7″									
	1 SR		1 SR	20′-7″									
A704	OF		OF	TO	1849	STR							0′-0⅛″
	43		43	21′-6″									
A705	28		28	21′-4″	1221	STR							
A706	141	133	274	7′-8″	4294	19	2′-9″	3′-6″	3′-6″				
		1 SR	1 SR	19′-6″									
A711		OF	OF	TO	2611	STR							0′-0⅛″
		64	64	20′-5″									
		1 SR	1 SR	20′-5″									
A712		OF	OF	TO	2210	STR							0′-0⅛″
		52	52	21′-2″									
A713		19	19	20′-10″	809	STR							
DG801	5	5	10	13′-8″	365	5	2′-8″	3′-7″	2′-4″				
A901	242	220	462	20′-2″	31678	2	3′-6″	13′-9″	3′-6″				
	2 SR		2 SR	5′-5″				2′-2″					
A902	OF		OF	TO	673	1	3′-6″	TO					0′-8 ½″
	11		11	12′-7″				9′-4″					
	2 SR		2 SR	18′-1″				11′-8″					
A903	OF		OF	TO	519	2	3′-6″	TO	3′-6″				0′-8″
	4		4	20′-1″				13′-8″					
	2 SR		2 SR	15′-1″				8′-8″					
A904	OF		OF	TO	438	2	3′-6″	TO	3′-6″				0′-8″
	4		4	17′-1″				10′-8″					
			SUB-TOTAL	92,424									

MARK	NUMBER REAR ABUT.	NUMBER FORWARD ABUT.	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	E	R	INC
ABUTMENTS (RIGHT BRIDGE)													
	2 SR		2 SR	10′-1″				3′-8″					
A905	OF		OF	TO	575	2	3′-6″	TO	3′-6″				0′-8″
	7		7	14′-1″				7′-8″					
	2 SR		2 SR	7′-8″				1′-3″					
A906	OF		OF	TO	171	2	3′-6″	TO	3′-6″				0′-8 ½″
	3		3	9′-1″				2′-8″					
A907	2		2	30′-1″	205	2	3′-6″	23′-8″	3′-6″				
A911	286	275	561	15′-4″	29247	1	1′-7″	14′-0″					
A912	43		43	19′-4″	2827	STR							
	1 SR		1 SR	19′-4″									
A913	OF		OF	TO	7019	STR							0′-0 ¼″
	103		103	20′-7″									
	1 SR		1 SR	20′-7″									
A914	OF		OF	TO	6081	STR							0′-0 ¼″
	85		85	21′-7″									
A915	55		55	21′-3″	3974	STR							
		2 SR	2 SR	4′-8″				1′-5″					
(1) A920		OF	OF	TO	1115	1	3′-6″	TO					0′-9″
		16	16	15′-10″				12′-7″					
		2 SR	2 SR	16′-8″				10′-3″					
A921		OF	OF	TO	746	2	3′-6″	TO	3′-6″				0′-7 ¾″
		6	6	19′-11″				13′-6″					
		2 SR	2 SR	12′-7″				6′-2″					
A922		OF	OF	TO	480	2	3′-6″	TO	3′-6″				0′-9 ¼″
		5	5	15′-8″				9′-3″					
		2 SR	2 SR	7′-9″				1′-4″					
A923		OF	OF	TO	395	2	3′-6″	TO	3′-6″				0′-9 ¼″
		6	6	11′-7″				5′-2″					
A924		2	2	28′-11″	197	2	3′-6″	22′-6″	3′-6″				
		1 SR	1 SR	19′-6″									
A930		OF	OF	TO	9161	STR							0′-0 ⅛″
		135	135	20′-5″									
		1 SR	1 SR	20′-5″									
A931		OF	OF	TO	7281	STR							0′-0 ⅛″
		103	103	21′-2″									
A932		37	37	20′-10″	2621	STR							
	2 SR		2 SR	7′-7″				4′-4″					
(1) A936	OF		OF	TO	835	1	3′-6″	TO					0′-8 ¾″
	11		11	14′-10″				11′-7″					
		2 SR	2 SR	4′-4″				1′-1″					
A937		OF	OF	TO	1175	1	3′-6″	TO					0′-8 ¾″
		17	17	16′-1″				12′-10″					
A938		2	2	16′-7″	113	1	3′-6″	13′-4″					
				SUB-TOTAL	74,218								
				TOTAL	166,642								

(1) REQUIRES MECHANICAL CONNECTORS. (84 REQUIRED)



DESIGN AGENCY
STRUCTUREPOINT
XXX
XXX

DESIGNED	DRAWN	REVIEWED	DATE
SJF	DSH	MDS	1/18/19
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CLB		309763	

REINFORCING STEEL LIST (RIGHT BRIDGE)
BRIDGE NO. HAM-75-0440 L/R
OVER WB I-74

HAM-75-3.84
PID No. 104667

64/68

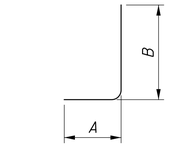
SFlannagan
10/26/2023 4:26:49 PM
O:\2017\01113\C Design\104667_HAM-75-3.84\Design\Structures\HAM0075_0440C\Sheets\HAM0075_0440C_RL002.dgn

MARK	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	E	R	INC
SUPERSTRUCTURE											
S401	317	10′-10″	2294	2	8′-5″	0′-6 ¼″	2′-1″				
S402	246	30′-0″	4930	STR							
S403	65	13′-6″	586	STR							
	1 SR	8′-6″									
S404	OF	TO	132	STR							0′-4 ¾″
	17	14′-8″									
S405	665	5′-4″	2369	42	1′-9″	3′-9″	0′-6″				
S406	NOT USED										
S407	28	4′-0″	75	STR							
	1 SR	2′-6″			1′-11″						
S501	OF	TO	1261	16	TO						0′-4 ½″
	74	30′-2″			29′-7″						
	1 SR	1′-11″									
S502	OF	TO	1216	STR							0′-4 ½″
	74	29′-7″									
S503	106	30′-7″	3381	16	30′-0″						
S504	704	30′-0″	22028	STR							
	2 SR	4′-5″									
S505	OF	TO	2275	STR							0′-4 ¾″
	64	29′-8″									
	2 SR	4′-5″									
S506	OF	TO	2340	STR							0′-4 ¾″
	66	29′-7″									
	2 SR	4′-5″									
S507	OF	TO	2240	STR							0′-5″
	63	29′-8″									
	2 SR	4′-5″									
S508	OF	TO	1232	STR							0′-4 ¾″
	45	21′-10″									
S509	121	22′-6″	2840	16	21′-11″						
S510	121	21′-11″	2766	STR							
	1 SR	2′-7″			2′-0″						
S511	OF	TO	639	16	TO						0′-5″
	49	22′-5″			21′-10″						
	1 SR	2′-0″									
S512	OF	TO	609	STR							0′-5″
	49	21′-10″									
S513	108	15′-3″	1718	STR							
	1 SR	10′-3″									
S514	OF	TO	293	STR							0′-2 ¾″
	22	15′-3″									
S515	20	10′-0″	209	STR							
S516	151	27′-4″	4305	3	9′-0″	4′-4″					
S517	157	12′-11″	2115	2	2′-6″	8′-2″	2′-6″				
S518	56	22′-0″	1285	3	9′-0″	1′-8″					
S519	6	22′-10″	143	3	9′-0″	2′-1″					
S801	75	30′-0″	6008	STR							
S802	11	31′-6″	925	STR							
S803	4	29′-2″	312	1	1′-5″	27′-11″					
S804	4	22′-11″	245	1	1′-5″	21′-8″					
S805	16	5′-2″	221	18	3′-5″	0′-7″	0′-10″				
S806	4	2′-10″	30	STR							
S807	8	6′-1″	130	16	5′-3″						
S808	11	10′-7″	311	STR							
S809	22	17′-2″	1008	17	15′-6″						
S810	11	25′-0″	734	STR							
S811	4	23′-10″	255	1	1′-5″	22′-7″					
S812	4	28′-3″	302	1	1′-5″	27′-0″					
S813	1	5′-6″	15	STR							
S814	2	11′-11″	64	17	10′-3″						
D801	166	4′-9″	2105	18	2′-5 ½″	1′-1″	1′-1″				
	SUB-TOTAL		75,946								

MARK	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	E	R	INC
PARAPETS (DECK)											
PS501	78	7′-4″	597	23	0′-11″	3′-3″	3′-0″			0′-3″	
PS502	30	8′-4″	261	41	0′-10″	1′-7″	3′-3″	3′-0″			
PS503	24	30′-0″	751	STR							
PS504	4	8′-11″	37	STR							
PS505	10	13′-2″	137	STR							
PS506	48	2′-5″	121	2	0′-11″	0′-10″	0′-11″				
PS507	4	3′-7″	15	9	1′-2″	0′-11″	2′-1″	0′-11″			
PS508	4	4′-9″	20	9	1′-9″	1′-6″	1′-9″	1′-6″			
PS509	4	14′-1″	59	STR							
PS510	30	14′-8″	459	STR							
PS511	3	9′-0″	28	STR							
PS512	3	8′-1″	25	STR							
PS513	3	12′-4″	39	STR							
PS514	108	7′-4″	826	23	0′-11″	3′-3″	3′-0″			0′-3″	
PS515	108	5′-10″	657	40	1′-1½″	1′-0″	1′-7″	1′-7″			
PS516	1	10′-6″	11	STR							
PS517	1	13′-4″	14	STR							
PS518	1	10′-0″	10	STR							
PS519	1	12′-10″	13	STR							
PS520	3	10′-10″	34	STR							
PS601	108	6′-2″	1000	40	1′-0″	1′-2″	1′-9″	1′-9″			
PS602	10	13′-2″	198	STR							
PS603	1	13′-2″	20	STR							
PS604	5	14′-8″	110	STR							
PS605	1	8′-7″	13	STR							
PS606	1	11′-7″	17	STR							
PS607	1	10′-1″	15	STR							
SUB-TOTAL		5,487									

NOTE:

BAR MARKS SHOWN ON THIS SHEET ARE FOR LEFT BRIDGE ONLY.



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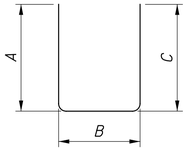

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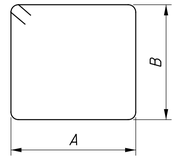

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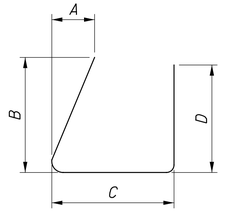

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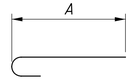

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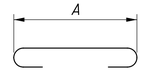

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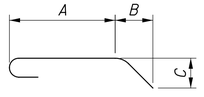

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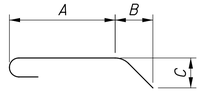

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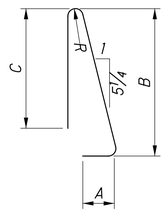

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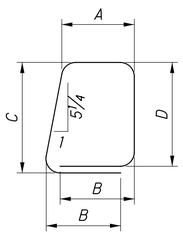

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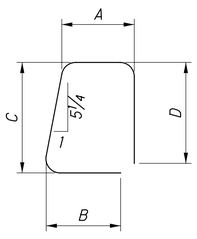

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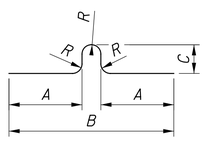

TYPE-42

DESIGN AGENCY
STRUCTUREPOINT LLC
2001 CORPORATE EXCHANGE DR. STE 200
COLUMBUS, OH 43231
TEL 614.901.7900 FAX 614.901.7901
www.structurepoint.com

DESIGNED	DRAWN	REVIEWED	DATE
SJF	TLH	MDS	1/2/18
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CLB		3109763	

REINFORCING STEEL LIST (LEFT BRIDGE)
BRIDGE NO. HAM-75-0440 L/R
OVER IR-74 WB

HAM-75-3.84
PID No. 104667

65 / 68

65
68

SFlannagan
10/26/2023 4:26:50 PM
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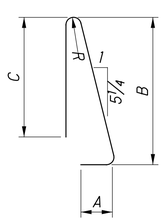
MARK	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	E	R	INC
SUPERSTRUCTURE											
S401	311	11′-5″	2372	2	8′-10″	0′-6 ¼″	2′-3″				
S402	252	30′-0″	5050	STR							
	1 SR	13′-6″									
S403	OF	TO	147	STR							0′-6 ¾″
	13	20′-4″									
S404	71	13′-6″	640	STR							
S405	792	5′-4″	2820	42	1′-9″	3′-9″	0′-6″			0′-1½″	
S406	NOT USED										
S407	32	4′-0″	86	STR							
	1 SR	2′-3″			1′-8″						
S501	OF	TO	1887	16	TO						0′-4 ½″
	92	37′-1″			36′-6″						
	1 SR	1′-8″									
S502	OF	TO	1831	STR							0′-4 ½″
	92	36′-6″									
(1) S503	10	37′-3″	389	16	36′-8″						
(1) S504	10	36′-8″	382	STR							
	1 SR	35′-9″			35′-2″						
(1) S505	OF	TO	2931	16	TO						0′-0 ¼″
	77	37′-3″			36′-8″						
	1 SR	35′-2″									
(1) S506	OF	TO	2885	STR							
	77	36′-8″									
	2 SR	4′-9″									
S507	OF	TO	3419	STR							0′-4 ½″
	83	34′-9″									
	2 SR	1′-6″									
S508	OF	TO	4170	STR							0′-5″
	95	40′-7″									
S509	72	41′-7″	3123	16	41′-0″						
S510	72	41′-0″	3079	STR							
	1 SR	2′-6″			1′-11″						
S511	OF	TO	2205	16	TO						0′-5″
	95	42′-0″			41′-5″						
	1 SR	1′-11″									
S512	OF	TO	2147	STR							0′-5″
	95	41′-5″									
S513	435	30′-0″	13611	STR							
	1 SR	15′-3″									
S514	OF	TO	414	STR							0′-2 ¼″
	23	19′-3″									
S515	5	19′-3″	100	STR							
S516	117	15′-3″	1861	STR							
S517	20	10′-0″	209	STR							
S518	157	27′-4″	4476	3	9′-0″	4′-4″					
S519	163	12′-11″	2196	2	2′-6″	8′-2″	2′-6″				
S520	6	22′-10″	143	3	9′-0″	2′-1″					
S521	64	22′-0″	1469	3	9′-0″	1′-8″					
S801	14	35′-0″	1308	STR							
S802	11	39′-6″	1160	STR							
S803	11	32′-8″	959	STR							
S804	22	40′-0″	2350	STR							
S805	22	36′-1″	2120	STR							
S806	8	20′-3″	433	1	1′-5″	19′-0″					
(1) S807	8	13′-5″	287	1	1′-5″	12′-2″					
S808	2	7′-11″	42	16	7′-1″						
S809	2	18′-0″	96	17	16′-4″						
S810	20	15′-8″	837	17	14′-0″						
S811	2	12′-0″	64	17	10′-4″						
(1) S812	2	4′-11″	26	16	4′-1″						
S813	4	10′-9″	115	16	9′-11″						
S814	4	5′-10″	62	16	5′-0″						
SUB-TOTAL			73,901								

MARK	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	E	R	INC
SUPERSTRUCTURE (CONT'D.)											
S815	16	5′-2″	221	18	3′-5″	0′-7″	0′-10″				
S816	1	4′-8″	12	STR							
S817	1	11′-6″	31	STR							
S818	10	9′-3″	247	STR							
(1) S819	2	1′-8″	9	STR							
S820	2	7′-6″	40	STR							
S821	2	2′-8″	14	STR							
S822	1	5′-7″	15	STR							
S823	1	3′-9″	10	STR							
S824	2	7′-0″	37	16	6′-2″						
S825	2	4′-10″	26	16	4′-0″						
D801	184	4′-9″	2334	18	2′-5 ½″	1′-1″	1′-1″				
SUB-TOTAL			2,996								
PARAPETS (DECK)											
PS501	90	7′-4″	688	23	0′-11″	3′-3″	3′-0″			0′-3″	
PS502	34	8′-6″	302	41	1′-0″	1′-7″	3′-3″	3′-0″			
PS503	24	30′-0″	751	STR							
PS504	4	20′-11″	87	STR							
PS505	12	13′-2″	165	STR							
PS506	56	2′-5″	141	2	0′-11″	0′-10″	0′-11″				
PS507	4	1′-6″	6	9	0′-11″	0′-7″	0′-11″	0′-7″			
PS508	4	4′-0″	17	10	1′-5″	1′-0″	1′-5″	1′-0″			
PS509	4	14′-1″	59	STR							
PS510	15	14′-8″	229	STR							
PS511	3	9′-6″	30	STR							
PS512	3	8′-3″	26	STR							
PS513	3	12′-5″	39	STR							
PS514	108	10′-0″	1127	23	0′-11″	4′-6″	4′-3″			0′-3″	
PS515	108	5′-10″	657	40	1′-1½″	1′-0″	1′-7″	1′-7″			
PS516	1	12′-2″	13	STR							
PS517	1	9′-5″	10	STR							
PS518	1	11′-2″	12	STR							
PS519	1	9′-11″	10	STR							
PS520	3	10′-10″	34	STR							
PS601	34	6′-2″	315	40	1′-0″	1′-2″	1′-9″	1′-9″			
PS602	1	12′-0″	18	STR							
PS603	12	13′-2″	237	STR							
PS604	5	14′-8″	110	STR							
PS605	1	8′-7″	13	STR							
PS606	1	12′-3″	18	STR							
PS607	1	9′-6″	14	STR							
SUB-TOTAL			5,128								

(1) REQUIRES MECHANICAL CONNECTORS. (109 REQUIRED)

NOTE:

BAR MARKS SHOWN ON THIS SHEET ARE FOR RIGHT BRIDGE ONLY.



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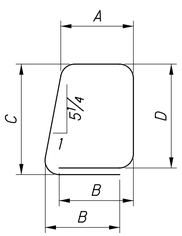

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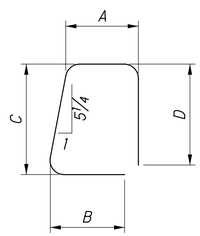

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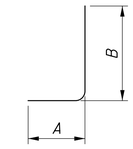

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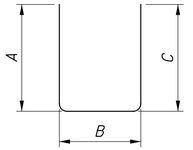

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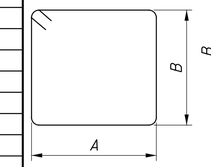

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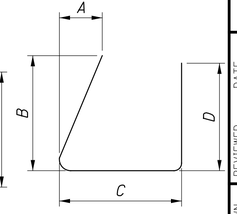

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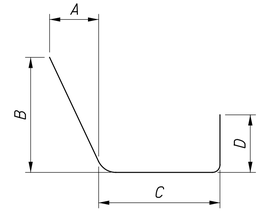

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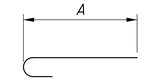

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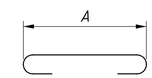

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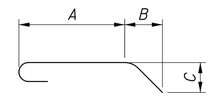
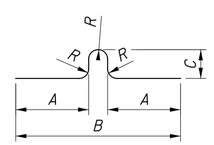


TYPE-18



TYPE-42

NOTES:

(1) REQUIRES MECHANICAL CONNECTORS (NON-PROTRUDING TYPE)

AN APPROVED TYPE OF MECHANICAL CONNECTOR FOR REINFORCING SHALL BE PROVIDED. INSTALLATION OF THE CONNECTORS SHALL CONFORM WITH RECOMMENDED MANUFACTURER'S PROCEDURES. IF A DOWEL BAR SPLICE IS FURNISHED, THE MINIMUM DOWEL BAR LENGTH TO BE INCLUDED WITH THE CONNECTOR SHALL BE GIVEN BY THE DIMENSION "L" SHOWN BELOW :
#5 REINFORCING BAR, L = 3′-6″

WHERE MECHANICAL CONNECTORS ARE REQUIRED THE REINFORCING BAR LENGTH IS MEASURED TO THE CONSTRUCTION JOINT. EXTRA BAR LENGTH AND/OR BAR PREPARATION MAY BE NECESSARY DEPENDING ON THE TYPE OF MECHANICAL CONNECTOR FURNISHED.

DESIGN AGENCY
STRUCTUREPOINT LLC
200 CORPORATE EXCHANGE DR, STE 350
COLUMBIA, OH 43231
TEL: 614.901.2356 FAX: 614.901.2357
www.structurepoint.com

DESIGNED	DRAWN	REVIEWED	DATE
SJF	TLH	CLB	

STRUCTURE FILE NUMBER 3109763

REVISED

CHECKED

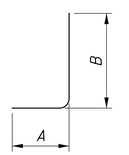
REINFORCING STEEL LIST (RIGHT BRIDGE)

BRIDGE NO. HAM-75-0440 L/R
OVER WB I-74

HAM-75-3.84

PID No. 104667

MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS						
	REAR ABUT.	FWD. ABUT.	TOTAL				A	B	C	D	E	R	INC
APPROACH SLAB PARAPETS (LEFT BRIDGE)													
AS501	12	18	30	7'-4"	229	23	0'-11"	3'-3"	3'-0"			0'-3"	
AS502	10	14	24	8'-8"	217	46	1'-8"	3'-2"	1'-1"	2'-11"			
AS503	4	8	12	2'-7"	32	2	1'-0"	0'-10"	1'-0"				
AS512	4		4	12'-9"	53	STR							
AS513	4		4	10'-0"	42	STR							
AS514	4		4	6'-5"	27	STR							
AS515	4		4	5'-9"	24	25	1'-10"	2'-5"	1'-5"	0'-1 1/2"	0'-5"		
AS518	6		6	17'-5"	109	STR							
AS519	4	8	12	4'-5"	55	2	1'-0"	2'-8"	1'-0"				
AS520	4		4	3'-10"	16	2	1'-0"	2'-1"	1'-0"				
AS521		2	2	15'-0"	31	STR							
AS522		2	2	10'-6"	22	STR							
AS523	5		5	29'-2"	152	STR							
AS524	5		5	28'-5"	148	STR							
AS525	37	35	72	9'-11"	745	47	1'-0"	4'-5"	4'-2"			0'-3"	
AS526	37	35	72	6'-0"	451	40	1'-2 1/2"	1'-0"	1'-7"	1'-6"			
AS527	4		4	24'-8"	103	STR							
AS528	1		1	15'-3"	16	STR							
AS529		5	5	28'-11"	151	STR							
AS530		5	5	30'-4"	158	STR							
AS531	1		1	16'-9"	17	STR							
AS601	22	32	54	6'-3"	507	40	1'-2"	1'-0"	1'-9"	1'-8"			
	2 SR		2 SR	3'-11"				3'-1"					
AS606	OF		OF	TO	159	1	1'-0"	TO					0'-1"
	12		12	4'-10"				4'-0"					
AS607	6		6	4'-0"	36	1	1'-0"	3'-2"					
AS610	1		1	16'-9"	20	STR							
AS611		1											
AS612		1	1	10'-6"	16	STR							
AS613	1		1	28'-8"	43	STR							
AS614		1	1	30'-2"	45	STR							
SUB-TOTAL					3,649								
APPROACH SLABS (LEFT BRIDGE)													
B505	260	195	455	30'-0"	14237	STR							
B506	65		65	15'-4"	1040	STR							
B507		65	65	37'-0"	2508	STR							
C504	50	50	100	29'-6"	3077	STR							
C506	2		2	28'-0"	59	STR							
C507		2	2	24'-6"	51	STR							
SS501	8		8	40'-0"	334	STR							
SS502	72	72	144	12'-5"	1865	STR							
SS504	24	32	56	30'-0"	1752	STR							
A1004	135	135	270	30'-11"	35919	16	29'-6"						
A1006	3		3	29'-5"	380	16	28'-0"						
A1007		3	3	25'-11"	335	16	24'-6"						
SUB-TOTAL					61,557								



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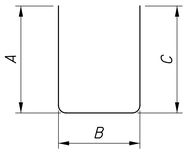

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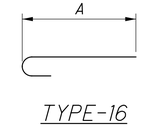

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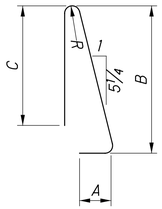

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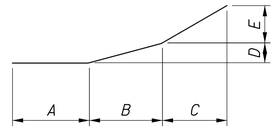

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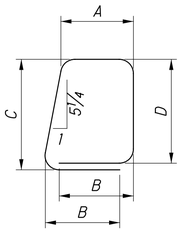

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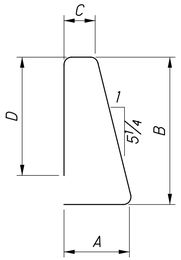

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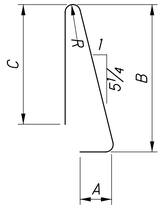


TYPE-47

NOTES:

ALL REINFORCING STEEL SHALL BE EPOXY COATED, GRADE 60.

LENGTHS ARE RECORDED IN FEET - INCHES.

"STR" IN THE TYPE COLUMN INDICATES STRAIGHT BARS.

ALL DIMENSIONS ARE MEASURED OUT-TO-OUT OF BAR.

THE LENGTH OF BENT BARS IS MEASURED ALONG THE CENTERLINE.

THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR DIGITS ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, P601 IS A NO. 6 BAR.
"R" INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED.
"STD" WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.

FOR STANDARD HOOK DIMENSIONS, SEE SECTION 509.05 OF THE SPECIFICATIONS.

PAYMENT FOR REINFORCING STEEL SHALL BE INCLUDED IN THE CONTRACT PRICE BID FOR ITEM 509, EPOXY COATED REINFORCING STEEL.

REINFORCING SAMPLES: REFER TO CMS SECTIONS 106.02, 700, 709.01 THROUGH 709.05 AND 709.08. SUFFICIENT ADDITIONAL REINFORCING STEEL SHALL BE PROVIDED FOR SAMPLING. RANDOM SAMPLES SHALL BE REPLACED IN THE STRUCTURE BY THE ADDITIONAL STEEL, SPLICED IN ACCORDANCE WITH 509.07.

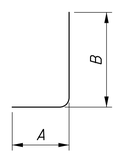
DESIGN AGENCY
STRUCTUREPOINT LLC
2500 CORPORATE EXCHANGE DR. STE 200
COLUMBIA, OH 43231
TEL: 614.901.7900 FAX: 614.901.7901
www.structurepointllc.com

DESIGNED	DRAWN	REVIEWED	DATE
SJF	DSH	MDS	1/18/19
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CLB		3109763	

REINFORCING STEEL LIST (LEFT BRIDGE)
BRIDGE NO. HAM-75-0440 L/R
OVER WB I-74

HAM-75-3.84
PID No. 104667

MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS						
	REAR ABUT.	FWD. ABUT.	TOTAL				A	B	C	D	E	R	INC
APPROACH SLAB PARAPETS (RIGHT BRIDGE)													
AS501	24	12	36	7′-4″	275	23	0′-11″	3′-3″	3′-0″			0′-3″	
AS502	14	11	25	8′-8″	226	46	1′-8″	3′-2″	1′-1″	2′-11″			
AS503	12	4	16	2′-7″	43	2	1′-0″	0′-10″	1′-0″				
AS504	4		4	29′-10″	124	STR							
AS505	2		2	13′-2″	27	STR							
AS506	2		2	7′-5″	15	STR							
AS501	1		1	9′-10″	10	STR							
AS508	8		8	3′-7″	30	2	1′-0″	1′-10″	1′-0″				
AS509		4	4	3′-1″	13	2	1′-0″	1′-4″	1′-0″				
AS510		4	4	6′-10″	29	2	1′-0″	5′-1″	1′-0″				
AS511		4	4	19′-1″	80	STR							
AS512		4	4	12′-9″	53	STR							
AS513		4	4	10′-0″	42	STR							
AS514		4	4	6′-5″	27	STR							
AS515		4	4	5′-9″	24	25	1′-10″	2′-5″	1′-5″	0′-1 ½″	0′-5″		
AS516	5		5	31′-1″	162	STR							
AS517		5	5	27′-2″	142	STR							
AS525	37	35	72	9′-11″	745	47	1′-0″	4′-5″	4′-2″			0′-3″	
AS526	37	35	72	6′-0″	451	40	1′-2 ½″	1′-0″	1′-7″	1′-6″			
AS532		1	1	18′-0″	19	STR							
AS533		1	1	17′-0″	18	STR							
AS534	5		5	32′-10″	171	STR							
AS535		5	5	26′-7″	139	STR							
AS536	1		1	10′-10″	11	STR							
AS601	38	23	61	6′-3″	573	40	1′-2″	1′-0″	1′-9″	1′-8″			
AS602	1		1	13′-2″	20	STR							
AS603	1		1	7′-5″	11	STR							
AS604	1		1	9′-10″	15	STR							
AS605		1	1	18′-0″	27	STR							
		2 SR	2 SR	3′-11″				3′-1″					
AS606		OF	OF	TO	159	1	1′-0″	TO					0′-1″
		12	12	4′-10″				4′-0″					
AS607		6	6	3′-11″	35	1	1′-0″	3′-1″					
AS608	1		1	32′-8″	49	STR							
AS609		1	1	26′-9″	40	STR							
				SUB-TOTAL	3,805								
APPROACH SLABS (RIGHT BRIDGE)													
B501	130	130	260	40′-0″	10847	STR							
B502	65		65	34′-6″	2339	STR							
B503	65	65	130	32′-0″	4339	STR							
B504		65	65	26′-0″	1763	STR							
C504	56	53	109	29′-6″	3354	STR							
C505		2	2	26′-1″	55	STR							
SS501	16	16	32	40′-0″	1335	STR							
SS502	76	75	151	12′-5″	1956	STR							
SS503	8		8	36′-0″	300	STR							
SS504	8		8	30′-0″	250	STR							
SS505		8	8	22′-0″	184	STR							
SS506		8	8	28′-0″	234	STR							
A1004	145	139	284	30′-11″	37782	16	29′-6″						
A1005		3	3	27′-6″	355	16	26′-1″						
				SUB-TOTAL	65,093								



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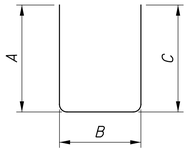
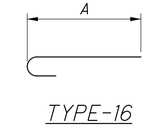


TYPE-2



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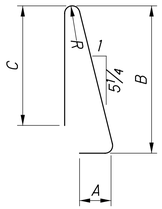

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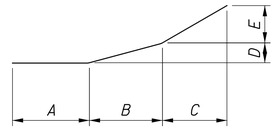

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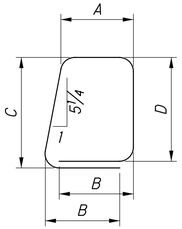

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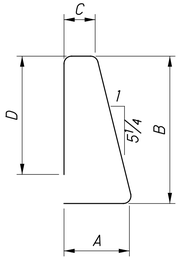

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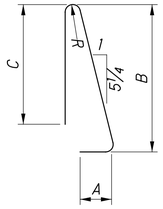

TYPE-43

NOTES:

ALL REINFORCING STEEL SHALL BE EPOXY COATED, GRADE 60.

LENGTHS ARE RECORDED IN FEET - INCHES.

"STR" IN THE TYPE COLUMN INDICATES STRAIGHT BARS.

ALL DIMENSIONS ARE MEASURED OUT-TO-OUT OF BAR.

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FOR STANDARD HOOK DIMENSIONS, SEE SECTION 509.05 OF THE SPECIFICATIONS.

PAYMENT FOR REINFORCING STEEL SHALL BE INCLUDED IN THE CONTRACT PRICE BID FOR ITEM 509, EPOXY COATED REINFORCING STEEL.

REINFORCING SAMPLES: REFER TO CMS SECTIONS 106.02, 700, 709.01 THROUGH 709.05 AND 709.08. SUFFICIENT ADDITIONAL REINFORCING STEEL SHALL BE PROVIDED FOR SAMPLING. RANDOM SAMPLES SHALL BE REPLACED IN THE STRUCTURE BY THE ADDITIONAL STEEL, SPLICED IN ACCORDANCE WITH 509.07.

DESIGN AGENCY
STRUCTUREPOINT LLC
2001 CORPORATE EXCHANGE DR, STE 350
COLUMBUS, OH 43231
TEL: 614.901.7900 FAX: 614.901.7901
www.structurepoint.com

DESIGNED	DRAWN	REVIEWED	DATE
SJF	DSH	MDS	1/18/19
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CLB		3109763	

REINFORCING STEEL LIST (RIGHT BRIDGE)

BRIDGE NO. HAM-75-0440 L/R
OVER WB I-74

HAM-75-3.84
PID No. 104667

68 / 68

68
68

45610 Woodland Road, Suite 200, Sterling, VA 20166
Tel: 703-547-8797 Fax: 703-348-8485
www.reinforcedearth.com

November 4, 2020

Walsh Construction Company
3298 Spring Grove Ave.
Cincinnati OH 45225

Attn: Zach Wirrig

SUBJECT: **HAM-75-0440 Wire Walls**
Wire Wall C and D Geometry
RECo Project No. 20114 (PN2752)

The Reinforced Earth Company (RECo) has been informed that Walsh Construction Company intends to build temporary Walls C and D with modified geometry compared to that shown in the design drawings.This geometry is shown in the attached elevation views and photograph.

The additional area of the wire wall should be built with the same Miragrid weight (i.e. 7XT, 5XT, or 3XT) as the adjacent as-designed sections at the same elevation. The slight plan view bend shown in the photograph does not affect the design calculations or wall stability, so it is acceptable. The same design calculations and bearing pressures apply to the wall as shown in the attached elevation, so no additional calculations are necessary.

If you have any questions, please contact me at (703) 547-8797.

Sincerely,

THE REINFORCED EARTH COMPANY

Kevin Von Handorf, P.E., S.E.
Senior Engineer

Attachments

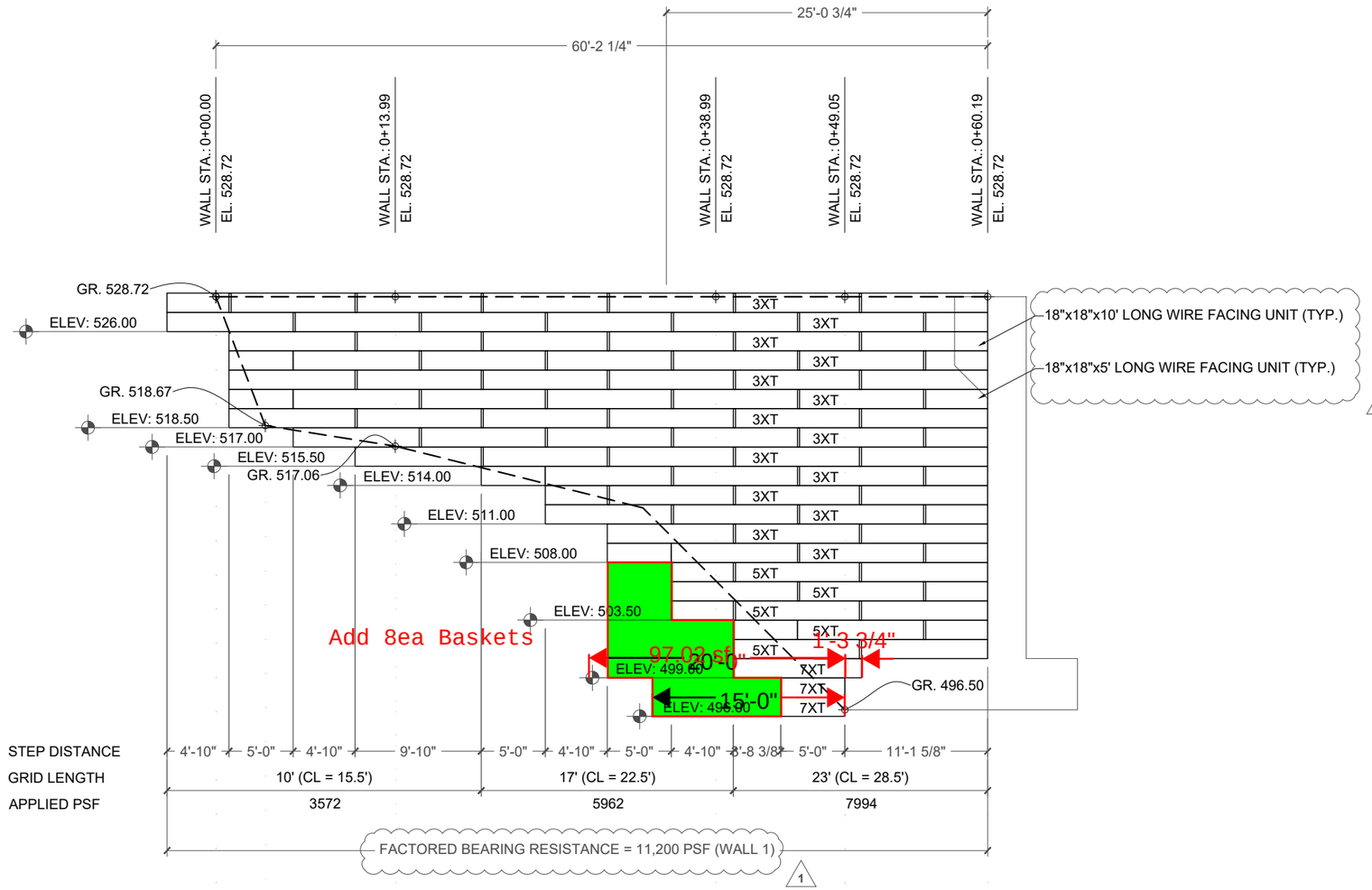
STATE OF OHIO
KEVIN
C.
VON HANDORF
E-70822
REGISTERED
PROFESSIONAL ENGINEER

11-4-2020

NOTES:

1. BACK FACE OF WALL SHOWN

2. APPLIED BEARING PRESSURE SHOWN AS: FACTORED



WIRE WALL C (BACK FACE)

NO SCALE

PREPARED BY:
REINFORCED EARTH
11640 North Park Drive - Suite 110
Wake Forest, NC 27587
Ph.: (919)453-2011 / Fax.: (513)297-7930

DESIGN BY: JL
DRAWN BY: JL
CHECKED BY: KV

PROJECT NAME:
STATE PROJECT #HAM-75-3.84
PID 104667
MILL CREEK EXPRESSWAY PHASE 5A
WIRE WALLS
HAMILTON COUNTY OHIO

THE DESIGN CONTAINED ON THESE DRAWINGS IS BASED ON INFORMATION PROVIDED BY THE OWNER. ON THE BASIS OF THIS INFORMATION, THE REINFORCED EARTH COMPANY HAS DESIGNED, AND IS RESPONSIBLE FOR THE INTERNAL STABILITY OF THE STRUCTURE ONLY. EXTERNAL STABILITY, (INCLUDING FOUNDATION (BEARING CAPACITY AND SETTLEMENT) AND GLOBAL STABILITY (INCLUDING SLIDING AND ROTATION), IS THE RESPONSIBILITY OF THE OWNER.

PAGE NAME:
WIRE WALL ELEVATION

SUBMITTAL DATE: 06/11/2019
11/13/2019 REV. 1 PLAN VIEW, NOTES & LOGO

PROJECT NO.: 2752

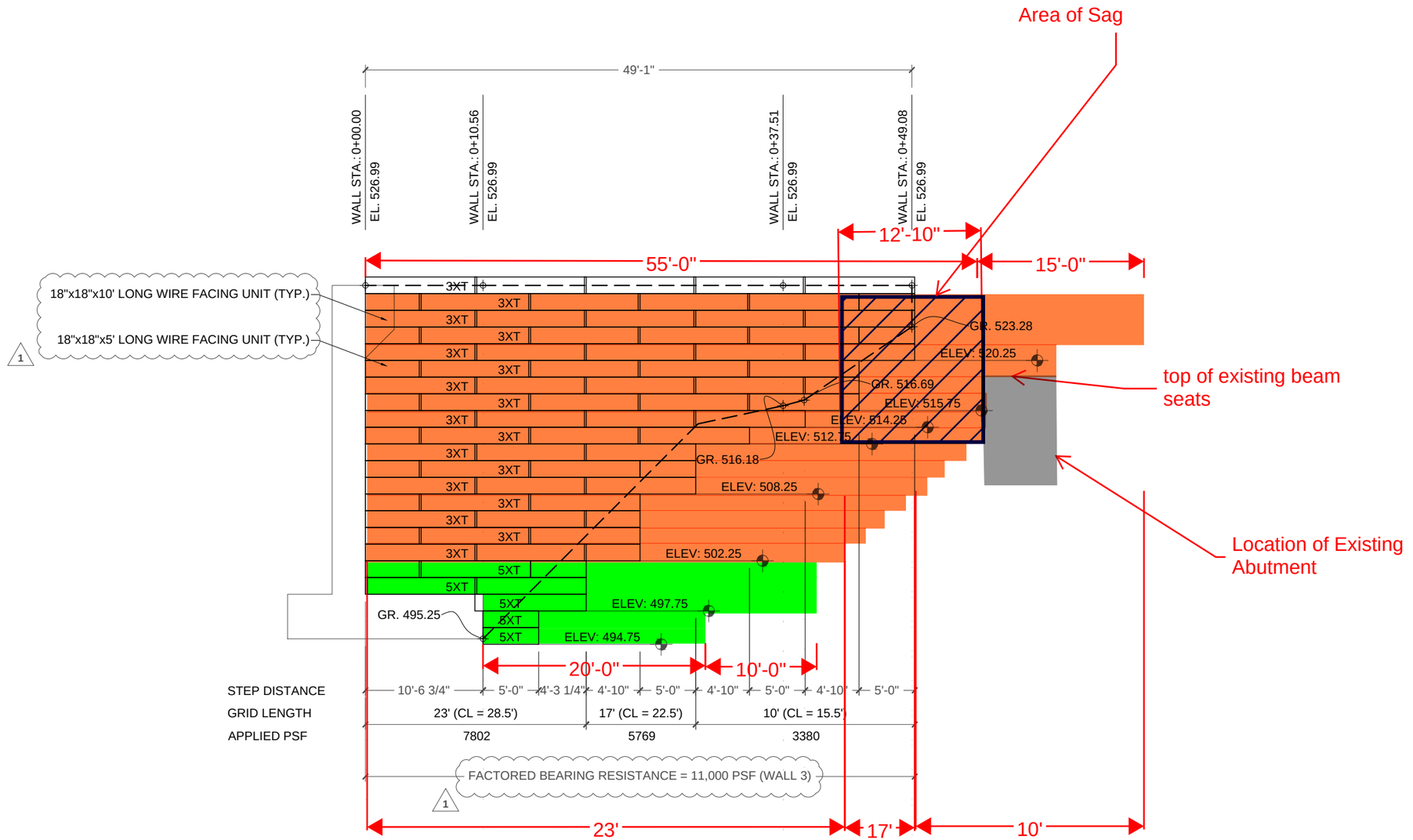
SET: S

PAGE #: 2.03

NOTES:

1. BACK FACE OF WALL SHOWN

2. APPLIED BEARING PRESSURE SHOWN AS: FACTORED



WIRE WALL D (BACK FACE)

NO SCALE

PREPARED BY:
REINFORCED EARTH
11640 North Park Drive - Suite 110
Wake Forest, NC 27587
Ph.: (919)453-2011 / Fax.: (513)297-7930

DESIGN BY: JL
DRAWN BY: JL
CHECKED BY: KV

PROJECT NAME: STATE PROJECT #HAM-75-3.84
PID 104667
MILL CREEK EXPRESSWAY PHASE 5A
WIRE WALLS
HAMILTON COUNTY OHIO

THE DESIGN CONTAINED ON THESE DRAWINGS IS BASED ON INFORMATION PROVIDED BY THE OWNER. ON THE BASIS OF THIS INFORMATION, THE REINFORCED EARTH COMPANY HAS DESIGNED, AND IS RESPONSIBLE FOR THE INTERNAL STABILITY OF THE STRUCTURE ONLY. EXTERNAL STABILITY, INCLUDING FOUNDATION (BEARING CAPACITY AND SETTLEMENT) AND GLOBAL STABILITY (INCLUDING SLIDING AND ROTATION), IS THE RESPONSIBILITY OF THE OWNER.

PAGE NAME: WIRE WALL ELEVATION

SUBMITTAL DATE: 06/11/2019
11/13/2019 REV. 1 PLAN VIEW, NOTES & LOGO

PROJECT NO.: 2752

SET: S

PAGE #: 2.04

WALL	ESTIMATED SELECT BACKFILL VOLUME
WALL 1	936
WALL 2	399
WALL 3	1038
WALL 4	250

INSTALLED WALL AREA:
WALL 1: 1,575 SF
WALL 2: 616 SF
WALL 3: 1,558 SF
WALL 4: 442 SF
(INSTALLED WALL AREA CALCULATED FROM TOP OF LEVELING PAD TO TOP OF PANEL)

DESIGN, MATERIALS AND CONSTRUCTION ARE BASED ON AASHTO LRFD BRIDGE DESIGN & CONSTRUCTION SPECIFICATIONS 2018, 8TH EDITION, AND THE ODOT BRIDGE DESIGN MANUAL 2007.

SINE WALL®

STATE PROJECT #HAM-75-3.84
PID 104677
MILL CREEK EXPRESSWAY PHASE 5A
WALLS 1-4
HAMILTON COUNTY, OHIO

THESE DRAWINGS AND INCLUDED DESIGN ARE BASED ON THE CONTRACT PLANS DATED 02/05/2019, PREPARED BY AMERICAN STRUCTUREPOINT, INC.

SHEET INDEX (MSE WALL)

CERTIFIED WITH RESPECT TO THE INTERNAL STABILITY OF SINE WALL STRUCTURES ONLY.

STATE OF OHIO
KEVIN C. VON HANDORF
E-70822
PROFESSIONAL ENGINEER
8-12-2019

BY SIGNING AND SEALING THIS COVER SHEET, I CERTIFY THAT THE DRAWINGS HEREIN, REFERENCED IN THE SHEET INDEX, WERE PREPARED OR APPROVED BY ME, A PROFESSIONAL ENGINEER IN THE STATE OF OHIO.

DESIGNED BY: JIM LEE CHECKED BY: KEVIN VON HANDORF

PREPARED BY:
REINFORCED EARTH
11640 North Park Drive - Suite 110
Wake Forest, NC 27587
Ph.: (919)453-2011 / Fax.: (513)297-7930

DESIGN BY: JL
DRAWN BY: JL
CHECKED BY: KV

PROJECT NAME: STATE PROJECT #HAM-75-3.84 PID 104677 MILL CREEK EXPRESSWAY PHASE 5A WALLS 1-4 HAMILTON COUNTY OHIO

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PAGE NAME: COVER SHEET - INDEX

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08/02/2019	REV. 3	WALLS 1-4	
08/12/2019	REV. 4	WALL 2 STEP	

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GENERAL NOTES

DESIGN NOTES

1. THE FOLLOWING DRAWINGS ARE BASED ON THE ASSUMPTION THAT THE MATERIAL WITHIN THE REINFORCED VOLUME, METHODS OF CONSTRUCTION AND QUALITY OF PREFABRICATED COMPONENTS MEET THE SPECIFICATIONS FOR MSE WALLS.

2. SOIL PARAMETERS:
SEE WALL CONTROL DRAWINGS AND CONTRACT SPECIFICATIONS FOR THE SOIL CHARACTERISTICS OF FOUNDATION MATERIAL TO BE USED IN THE DESIGN OF THE WALL SYSTEM. THE CONTRACTOR SHALL PROVIDE THE SOIL DESIGN PARAMETERS FOR BACKFILL MATERIAL BASED ON THE ACTUAL SOIL CHARACTERISTICS TO BE USED AT THE SITE.

BACKFILL PROPERTIES:
SELECT BACKFILL, $\varphi = 34°$, $\gamma = 120$ pcf, c=0
RETAINED BACKFILL, $\varphi = 30°$, $\gamma = 120$ pcf, c=0
FOUNDATION SOIL, $\varphi = 30°$, $\gamma = 120$ pcf, c=0

3. THE MAXIMUM APPLIED BEARING PRESSURE AT THE FOUNDATION LEVEL IS SHOWN ON THE WALL ELEVATIONS ON THE PLANS. IT IS THE RESPONSIBILITY OF OTHERS TO DETERMINE THAT THIS APPLIED BEARING PRESSURE IS ALLOWABLE AT THAT LOCATION.

4. ANY UNSUITABLE FOUNDATION MATERIAL BELOW THE REINFORCED VOLUME, AS DETERMINED BY THE ENGINEER, SHALL BE EXCAVATED AND REPLACED WITH SUITABLE MATERIAL OR OTHERWISE STABILIZED AS DIRECTED BY THE ENGINEER.

5. DESIGN, MATERIALS AND CONSTRUCTION ARE BASED ON THE AASHTO LRFD BRIDGE DESIGN & CONSTRUCTION SPECIFICATIONS, 8TH EDITION, AND THE ODOT BRIDGE DESIGN MANUAL, 2007.

LIVE LOAD SURCHARGE = 250 PSF
BARRIER IMPACT = N/A
SEISMIC = N/A
HYDROSTATIC = N/A
DESIGN LIFE = 100 YEARS

6. THE DESIGN CONTAINED IN THESE DRAWINGS IS BASED ON INFORMATION PROVIDED BY OTHERS. ON THE BASIS OF THIS INFORMATION, THE REINFORCED EARTH COMPANY®, IS RESPONSIBLE FOR INTERNAL STABILITY OF THE STRUCTURE ONLY. EXTERNAL STABILITY, INCLUDING THE FOUNDATION AND SLOPE STABILITY IS THE RESPONSIBILITY OF OTHERS.

7. DESIGN OF DRAINAGE SYSTEM TO BE PROVIDED BY OWNER AND SUPPLIED BY CONTRACTOR

WALL CONSTRUCTION

1. VERTICAL AND HORIZONTAL JOINTS SHALL BE 3/4" UNLESS SHOWN OTHERWISE ON THE PLANS.

2. WALLS ALONG CURVES WILL BE ACHIEVED BY A SERIES OF SHORT CHORDS OF THE PANEL LENGTH TO MATCH THE REQUIRED RADIUS.

3. FOR LOCATION AND ALIGNMENT OF THE MSE STRUCTURES, SEE RETAINING WALL CONTROL PLANS.

4. IF MANHOLES AND DROP INLETS ARE REQUIRED, THEY SHALL BE LOCATED AS SHOWN ON RETAINING WALL ELEVATIONS.

5. IF PILES ARE LOCATED WITHIN THE REINFORCED VOLUME, THEY SHALL BE DRIVEN PRIOR TO CONSTRUCTION OF THE WALL UNLESS AN ALTERNATIVE METHOD TO PROTECT THE STRUCTURE, WHICH IS ACCEPTABLE TO THE ENGINEER AND THE REINFORCED EARTH COMPANY® IS PROPOSED AND APPROVED IN WRITING. ALL PILING OR OTHER DEEP SEATED COLUMNS SHALL BE SLEEVED WITH BOND BREAKERS THROUGH THE REINFORCED MASS IF SHOWN IN THE CONTRACT PLANS.

6. INSTALLATION OF SINEstrips SHALL BE PERMITTED ONLY AFTER PLACEMENT AND COMPACTION OF THE BACKFILL HAS REACHED THE REQUIRED ELEVATION.

7. ALL BACKFILL SHALL BE PLACED AND COMPACTED PER ODOT SS840.

8. IF EXISTING OR FUTURE STRUCTURES WITHIN THE REINFORCED VOLUME INTERFERE WITH THE NORMAL PLACEMENT OF SINEstrip AND SPECIFIC DIRECTION HAS NOT BEEN PROVIDED IN THE PLANS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.

9. THE CONTRACTOR IS RESPONSIBLE FOR DEFLECTING THE TOP ROWS OF SINEstrip DOWNWARD TO AVOID CONFLICTS WITH ROADWAY CONSTRUCTION OPERATIONS SUCH AS SUPER ELEVATIONS, ETC.

10. THE CONTRACTOR IS RESPONSIBLE FOR THE CONTROL OF STORM WATER AND RUN-OFF TO BE COLLECTED AND DISCHARGED AWAY FROM THE WALL AND REINFORCED BACKFILL.

11. FOR OTHER INFORMATION PERTAINING TO WALL CONSTRUCTION PLEASE REFER TO THE SINE WALL CONSTRUCTION MANUAL.

12. THE REINFORCED EARTH COMPANY® SUPPLIES MSE PANEL WALLS AND COMPONENTS FOR THE STRUCTURES DETAILED HEREIN. THE CONSTRUCTION AND QA/QC MANUAL FURNISHED BY THE REINFORCED EARTH COMPANY® IS INTENDED TO PROVIDE A GENERAL EXPLANATION OF THE SYSTEM. IT IS THE CONTRACTORS OBLIGATION TO PREPARE AND EXECUTE A PROJECT SPECIFIC ERECTION SEQUENCE, PANEL UNLOADING, HANDLING AND BRACING AND FALL PROTECTION SYSTEM. THE BRACING SYSTEM SHOWN IN THE CONSTRUCTION AND QA/QC MANUAL IS GENERAL IN NATURE AND DOES NOT ACCOUNT FOR PROJECT SPECIFIC CRITERIA. COMPLIANCE WITH THE GUIDELINES IN THIS MANUAL DOES NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO CONSTRUCT THE WALL ACCORDING TO THE PROJECT PLANS, SPECIFICATIONS AND CONTRACT DOCUMENTS OR COMPLIANCE WITH ALL FALL PROTECTION, SAFETY, LAWS, STANDARDS AND PROCEDURES REQUIRED.

13. NO CHANGES SHALL BE MADE TO THESE PLANS WITHOUT THE WRITTEN APPROVAL OF THE REINFORCED EARTH COMPANY®.

14. PANELS WITH IDENTICAL DIMENSIONS AND CONNECTOR LAYOUTS MAY BE USED INTERCHANGEABLY WHEN APPROVED IN WRITING BY THE REINFORCED EARTH COMPANY®.

MATERIAL NOTES

1. ONLY THE MATERIALS SHOWN IN THE TABLE "MATERIALS PROVIDED FOR SINE WALL SYSTEM" WILL BE SUPPLIED BY THE REINFORCED EARTH COMPANY®. ANY OTHER MATERIALS REQUIRED TO CONSTRUCT THE MSE STRUCTURE ACCORDING TO THE CONTRACT DRAWINGS AND SPECIFICATIONS SHALL BE SUPPLIED BY THE CONTRACTOR, INCLUDING BUT NOT LIMITED TO: EXPANSION JOINT MATERIAL SANDBLASTING, PAINTING, GALVANIZING, SEALERS OR OTHER SPECIAL APPLIED COATINGS.

MATERIALS PROVIDED FOR SINE WALL SYSTEM

MSE PANEL SYSTEM

	SPECIFICATIONS	NOTES
PRECAST CONCRETE STANDARD PANEL SIZE CONCRETE STRENGTH	5'x10' fc' = 4000 PSI @ 28 DAYS	
CONCRETE SURFACE FINISH PANEL	FRACTURE FIN (CUSTOM ROCK 3012)	PLAIN GRAY
STEEL REINFORCING PANEL	ASTM A615 OR A996 GRADE 60	3 COATING: EPOXY
SINEstrip CONNECTOR	ASTM A 1011, GRADE 50	**GALVANIZED
SINEstrip-US PATENT 7,270,502	S2 (2.0" x .156") GRADE 65 - ASTM A1011	*GALVANIZED
BOLTS - NUTS	1/2" DIA. x 1.25" LONG BOLTS: ASTM A325 NUTS: ASTM A563	**GALVANIZED
WASHERS	WASHER: ASTM F 463	**GALVANIZED
GEOTEXTILE JOINT FABRIC	3 18" WIDE TO MEET AASHTO M 288 CLASS 2	
BEARING PADS	3"x6"x3/4" ASTM D-2000 M2AA 807 DUROMETER HARDNESS OF 80 +/-5	

*HOT-DIP GALVANIZED PER ASTM A123,AASHTO M111 WITH 2.0 OZ/SF OR 3.4 MILS THICKNESS.

**GALVANIZED PER ASTM A153.

3

3 3 3

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CHECKED BY: KV

PROJECT NAME:
STATE PROJECT #HAM-75-3.84
PID 104677
MILL CREEK EXPRESSWAY PHASE 5A
WALLS 1-4
HAMILTON COUNTY **OHIO**

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PAGE NAME:
GENERAL NOTES & SPECIFICATIONS

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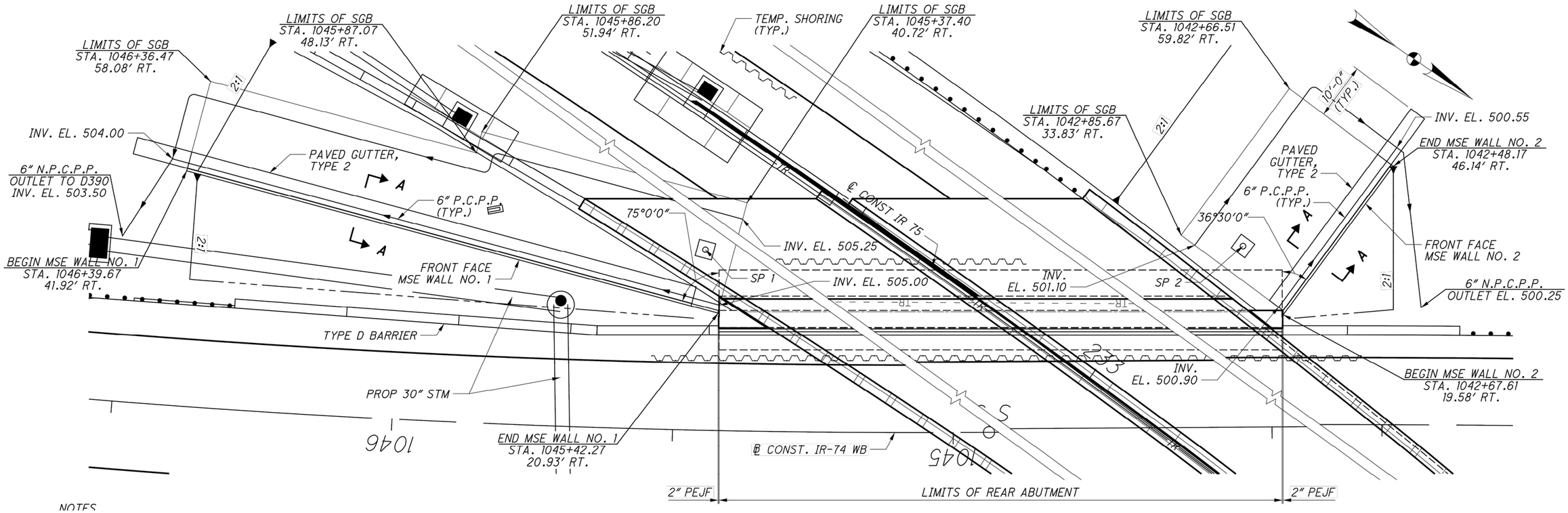

DETAILS ARE TAKEN FROM THE PROJECT CONTRACT PLANS SHEET 26 OF 68. DETAILS SHOWN IN THE PROJECT CONTRACT DRAWINGS ARE SHOWN HERE FOR INFORMATION ONLY AND INVENTURE CIVIL ACCEPTS NO LIABILITY ASSOCIATED WITH THEIR USE. △1

NOTES

WALL 1 & 2 PLAN

NO SCALE

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PAGE NAME: **MSE WALL PLAN**

SUBMITTAL DATE: 05/08/2019
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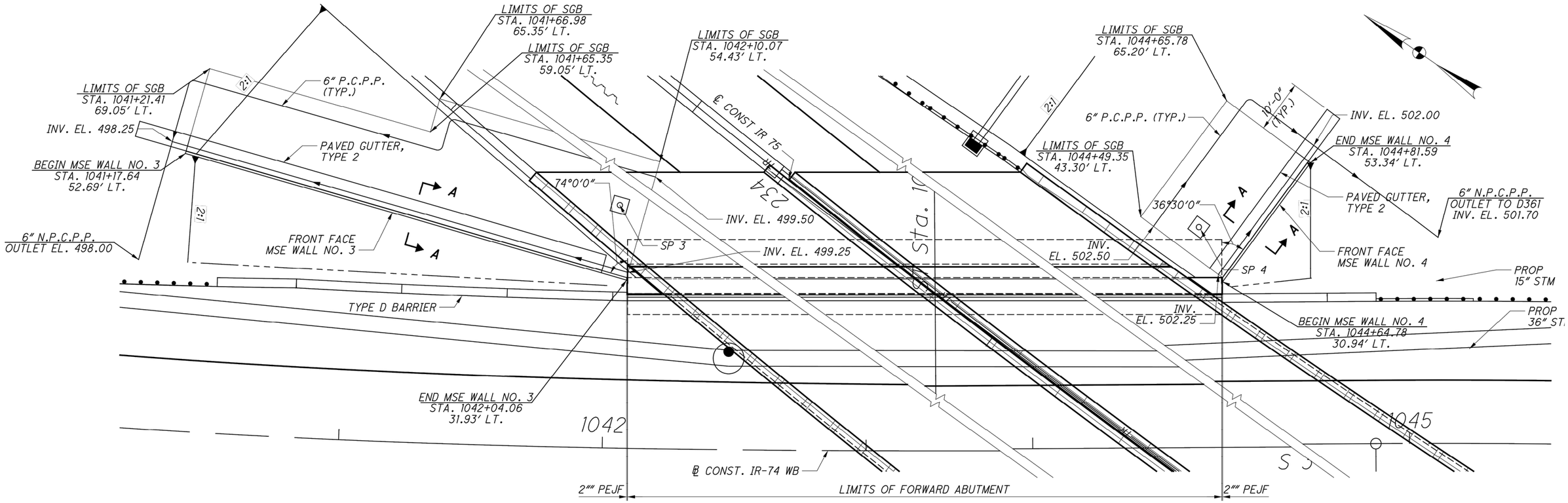

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WALL 3 & 4 PLAN

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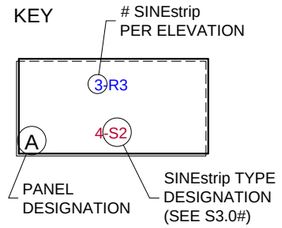

NOTES:

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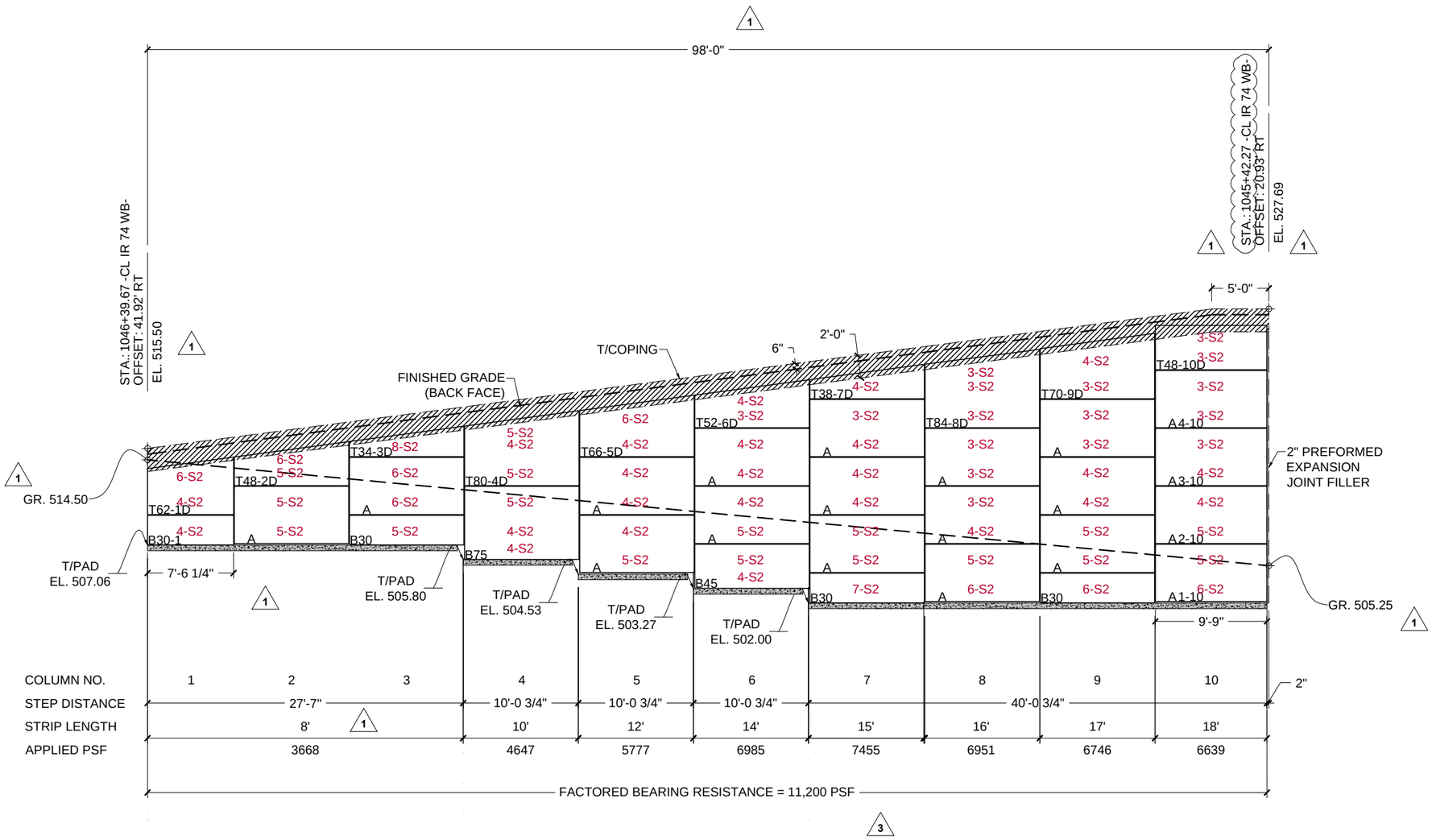
CAST IN PLACE COPING

LEVELING PAD



WALL 1

NO SCALE

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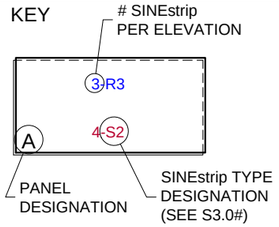

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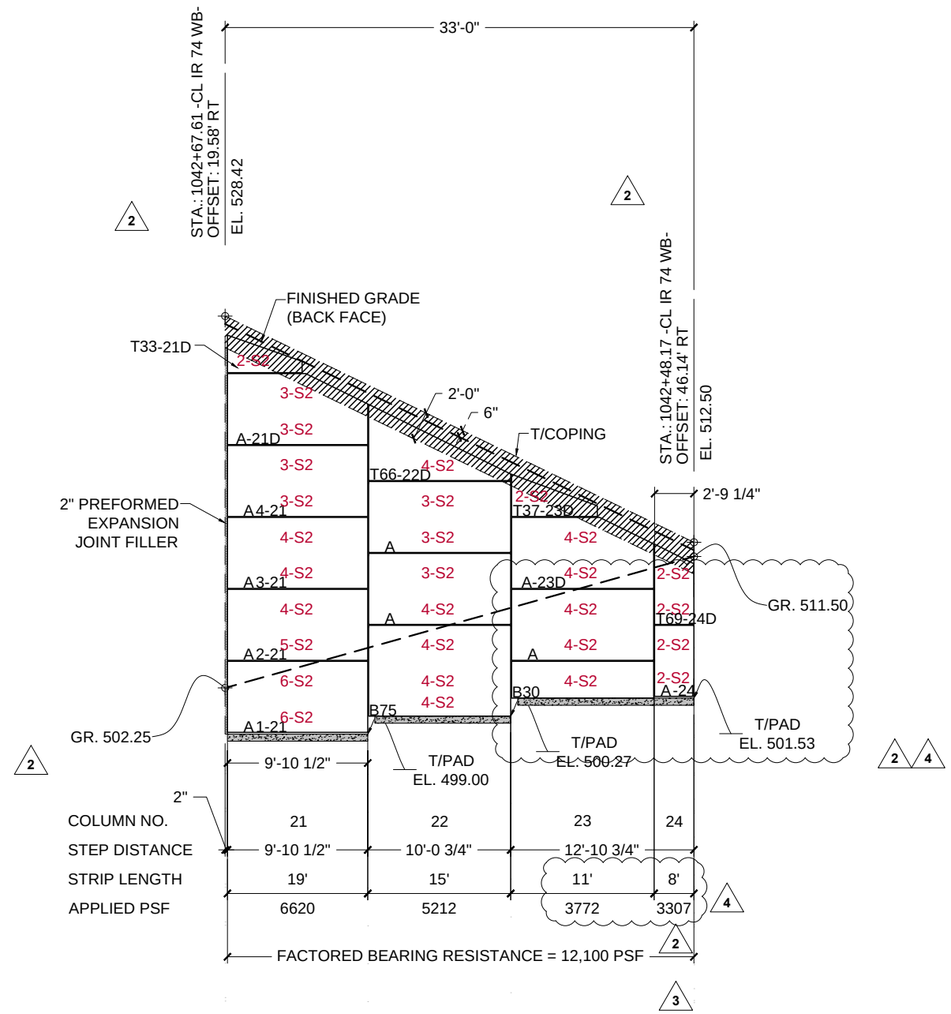

WALL 2
NO SCALE

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PROJECT NAME:
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WALLS 1-4
HAMILTON COUNTY **OHIO**

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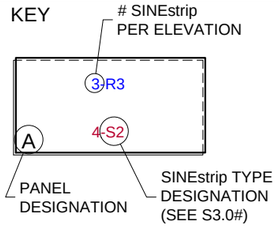

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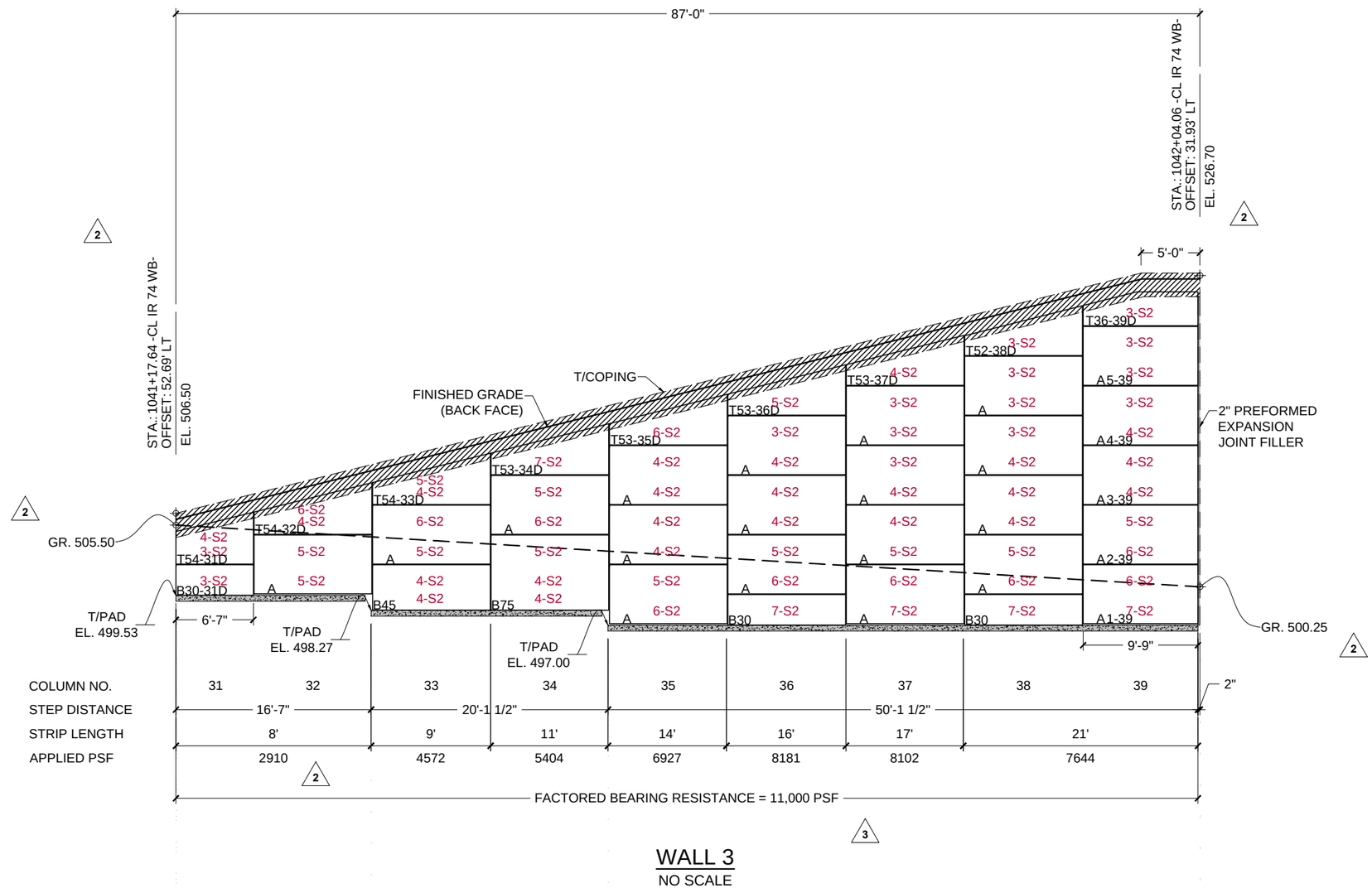
CAST IN PLACE COPING

LEVELING PAD



WALL 3

NO SCALE

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WALLS 1-4
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PAGE NAME: **MSE WALL ELEVATION**

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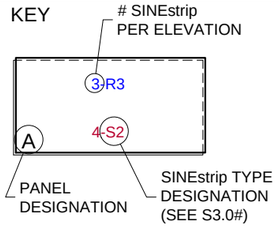

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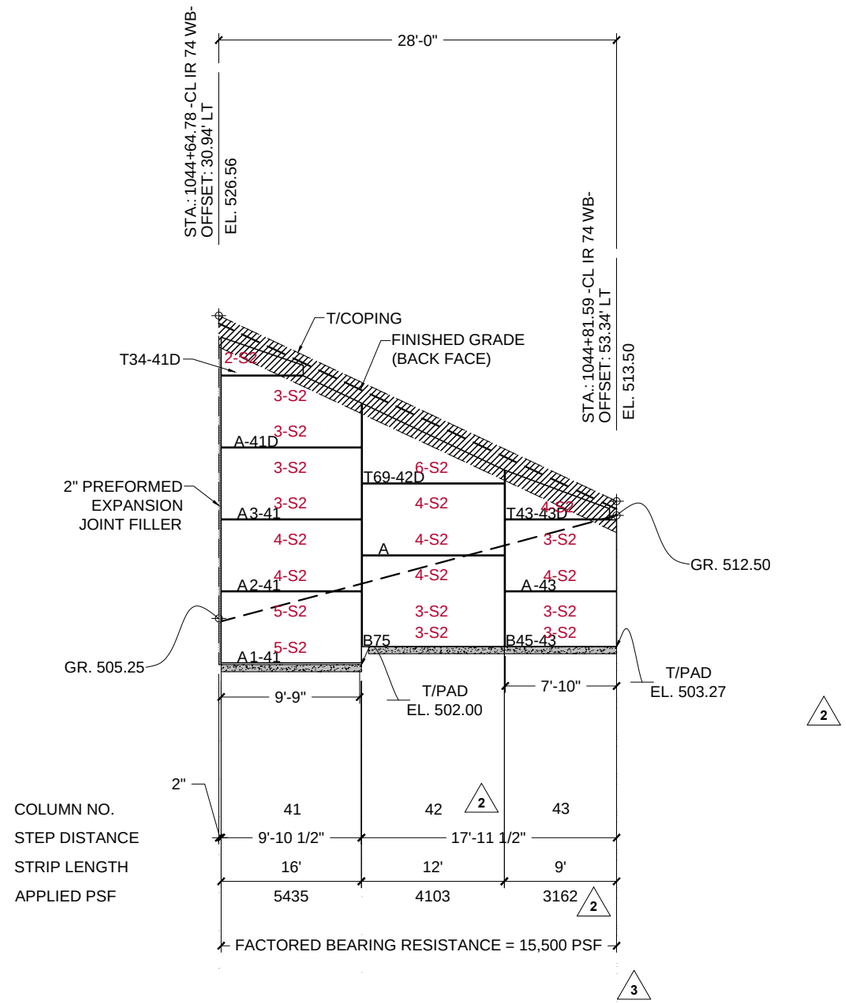
△3

CAST IN PLACE COPING

LEVELING PAD



WALL 4

NO SCALE

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△3

PROJECT NAME:
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PID 104677
MILL CREEK EXPRESSWAY PHASE 5A
WALLS 1-4
HAMILTON COUNTY OHIO

△3

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△3

PAGE NAME:
MSE WALL ELEVATION

SUBMITTAL DATE: 05/08/2019
PROJECT NO.: 2752

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08/02/2019	REV. 3	WALLS 1-4

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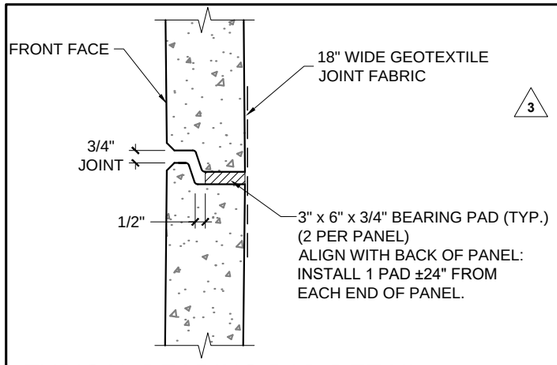
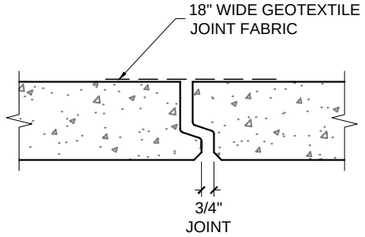
PAGE #: 2.04



TYPICAL BEARING PAD DETAIL

NO SCALE



VERTICAL JOINT DETAIL

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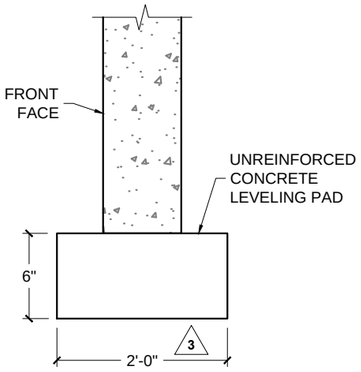
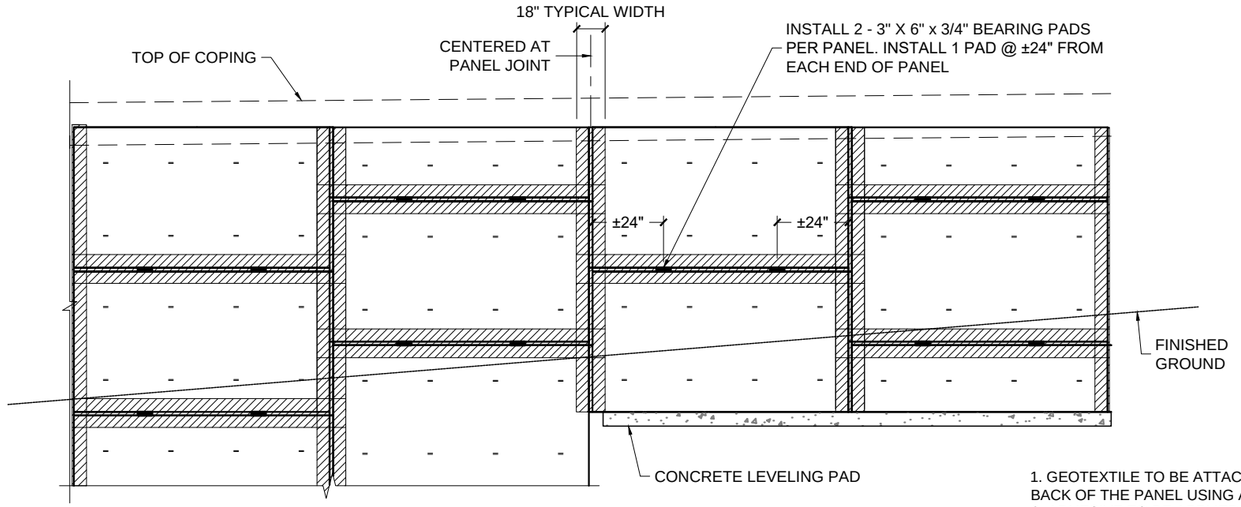


TYPICAL LEVELING PAD DETAIL

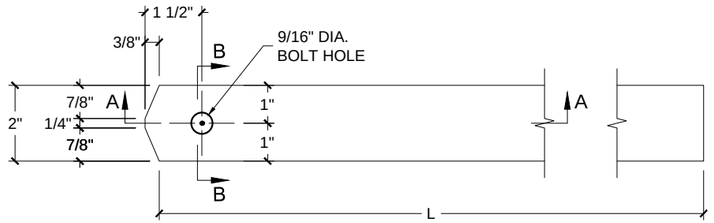
NO SCALE



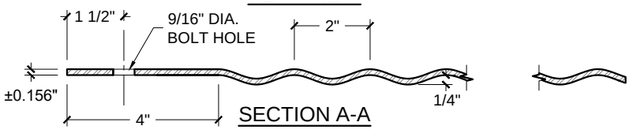
TYPICAL GEOTEXTILE JOINT FABRIC AND BEARING PAD DETAIL

NO SCALE

1. GEOTEXTILE TO BE ATTACHED TO THE BACK OF THE PANEL USING ADHESIVE.
2. ADHESIVE TO BE APPLIED TO THE PANELS ONLY AND SHALL NOT BE APPLIED WITHIN 2" OF A JOINT.
3. FABRIC SHALL OVERLAP A MINIMUM OF 12". QUANTITIES SUPPLIED ARE BASED ON A 12" OVERLAP.

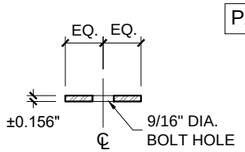


PLAN VIEW

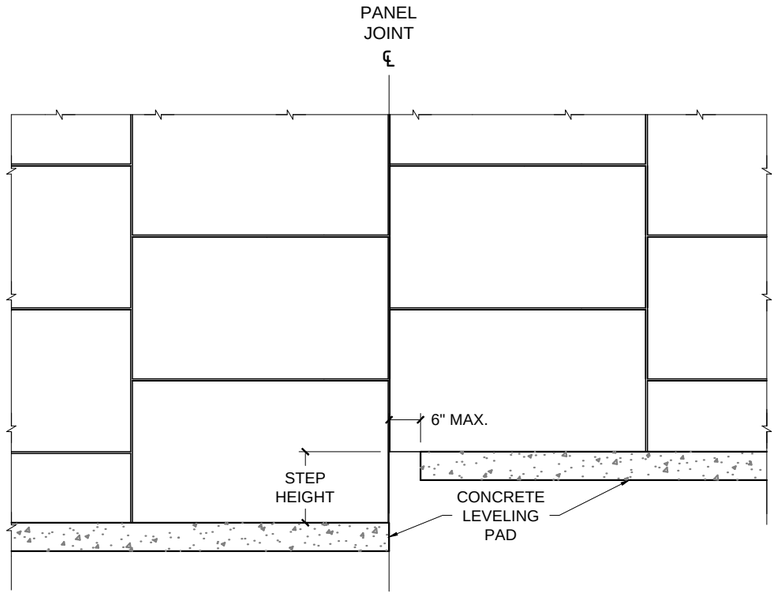


SECTION A-A

PATENT # 7,270,502



SECTION B-B



S2 - SINEstrip DETAIL

NO SCALE

TYPICAL LEVELING PAD STEP

NO SCALE

PREPARED BY:
REINFORCED EARTH
11640 North Park Drive - Suite 110
Wake Forest, NC 27587
Ph.: (919)453-2011 / Fax.: (513)297-7930

DESIGN BY: JL
DRAWN BY: JL
CHECKED BY: KV

PROJECT NAME: **STATE PROJECT #HAM-75-3.84**
PID 104677
MILL CREEK EXPRESSWAY PHASE 5A
WALLS 1-4
HAMILTON COUNTY **OHIO**

THE DESIGN CONTAINED ON THESE DRAWINGS IS BASED ON INFORMATION PROVIDED BY THE OWNER. ON THE BASIS OF THIS INFORMATION, THE REINFORCED EARTH COMPANY HAS DESIGNED, AND IS RESPONSIBLE FOR THE INTERNAL STABILITY OF THE STRUCTURE ONLY, EXTERNAL STABILITY, INCLUDING FOUNDATION (BEARING CAPACITY AND SETTLEMENT) AND GLOBAL STABILITY (INCLUDING SLIDING AND ROTATION), IS THE RESPONSIBILITY OF THE OWNER.

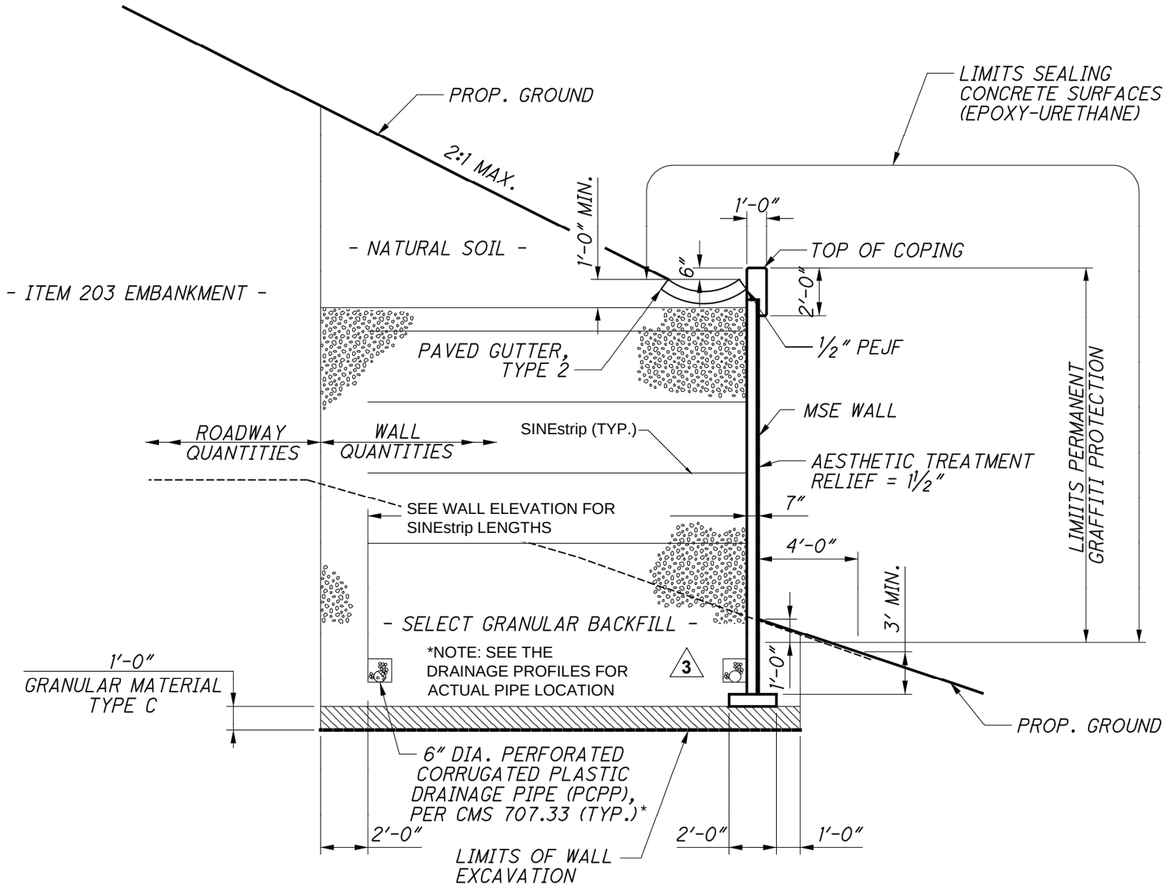
PAGE NAME: **TYPICAL DETAILS**

SUBMITTAL DATE: 05/08/2019
08/02/2019 REV. 3 WALLS 1-4

PROJECT NO.: 2752

SET: S

PAGE #: 3.02



TYPICAL WALL SECTION FOR WALLS 1 - 4

NO SCALE

DETAILS ARE TAKEN FROM THE PROJECT CONTRACT PLANS SHEET 28 OF 68. DETAILS SHOWN IN THE PROJECT CONTRACT DRAWINGS ARE SHOWN HERE FOR INFORMATION ONLY AND INVENTURE CIVIL ACCEPTS NO LIABILITY ASSOCIATED WITH THEIR USE. 1

PREPARED BY:
REINFORCED EARTH
11640 North Park Drive - Suite 110
Wake Forest, NC 27587
Ph.: (919)453-2011 / Fax.: (513)297-7930

DESIGN BY: JL
DRAWN BY: JL
CHECKED BY: KV

PROJECT NAME:
STATE PROJECT #HAM-75-3.84
PID 104677
MILL CREEK EXPRESSWAY PHASE 5A
WALLS 1-4
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THE DESIGN CONTAINED ON THESE DRAWINGS IS BASED ON INFORMATION PROVIDED BY THE OWNER. ON THE BASIS OF THIS INFORMATION, THE REINFORCED EARTH COMPANY HAS DESIGNED, AND IS RESPONSIBLE FOR THE INTERNAL STABILITY OF THE STRUCTURE ONLY. EXTERNAL STABILITY, INCLUDING FOUNDATION (BEARING CAPACITY AND SETTLEMENT) AND GLOBAL STABILITY (INCLUDING SLIDING AND ROTATION), IS THE RESPONSIBILITY OF THE OWNER.

PAGE NAME: **TYPICAL WALL SECTIONS**

SUBMITTAL DATE:		PROJECT NO.:
05/08/2019		2752
05/28/2019	REV. 1	AFC PLANS & LEVEING PAD
08/02/2019	REV. 3	WALLS 1-4

SET: **S**
PAGE #: **3.03**

3 3 3

COSMEC INC. / DYNAMIC RUBBER

P.O. Box 2159
1501 Rocky Ridge Road
Athens, TX 75751
TEL: 903.677.2871 FAX: 903.675.4776

TRANSMITTAL SHEET

TO: WALSH CONSTRUCTION CO. II

RACE SHARRETT RSHARRETT@WALSHGROUP.ONMICROSOFT.COM

CC KATHI MILLS

DATE: 4/8/19

JOB: E170 (713) BRIDGES HAM-75-0440 L/R, HAM-74-1840 L/R, HAM-74-1852 L/R, HAM-75-3.84

RE: SHOP DRAWING SUBMITTAL

DRP JOB NO: **15353A** LOCATION: HAMILTON CO.

WE TRANSMIT TO YOU UNDER SEPARATE COVER HERE WITH THE FOLLOWING DRAWINGS:

DWG NO	REV NO	NO EACH	DESCRIPTION	REMARKS
15353A-GN1	0	1	GENERAL NOTES	
15353A-D1	0	1	SHOP DRAWING	APPROVER NOTS REQUIRE REPLY
15353A-D2	0	1	SHOP DRAWING	APPROVER NOTS REQUIRE REPLY
15353A-D3	0	1	SHOP DRAWING	
15353A-D4	0	1	SHOP DRAWING	
15353A-D5	0	1	SHOP DRAWING	
15353A-D6	0	1	SHOP DRAWING	
15353A-D7	0	1	SHOP DRAWING	

DWG NO	REV NO	NO EACH	DESCRIPTION	REMARKS
15353A-D8	0	1	SHOP DRAWING	APPROVER NOTS REQUIRE REPLY

COMMENTS: **THE ATTACHED SHOP DRAWINGS ARE SUBMITTED FOR APPROVAL. PLEASE FORWARD THIS PACKAGE TO THE ENGINEER FOR REVIEW AND ADVISE THE APPROVAL STATUS AS SOON AS POSSIBLE.**

***** APPROVER NOTES REQUIRE REPLY*****

THE ABOVE PRINTS ARE SUBMITTED TO YOU FOR:

BY:

(XXX) Approval	( ) Final Approval	( ) Distribution
( ) Field Use	( ) Fabrication	(XXX) E-MAIL
( ) Next Day Air	( ) Second Day Air	( ) Messenger
( ) UPS	( ) First Class Mail	( ) Fax

Thank you

STEPHANIE RITZ

COSMEC INC. / DYNAMIC RUBBER PRODUCTS

WWW.COSMECINC.COM

GENERAL NOTES

GENERAL NOTES:

1. ALL BEARINGS IN ACCORDANCE WITH THE 2016 OHIO DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS AND BRIDGES AND SUPPLEMENTAL SPECIFICATIONS 800 DATED 10/19/18, AND 869 DATED 10/17/14.
2. SHOP TO MARK LOCATION, BEAM/GIRDER NUMBER, BEARING NUMBER, HIGH–SIDE ⊗ AND AHEAD STATION AS SHOWN. MARKS SHALL BE PERMANENT AND BE VISIBLE AFTER BEARING IS INSTALLED.
3. ALL DIMENSIONS ARE IN INCHES.
4. ALL PLATES SHALL BE SMOOTH AND STRAIGHT.
5. SHIP THE SAMPLE BEARING TO AN INDEPENDENT TESTING LABORATORY FOR TESTING PER OH DOT STANDARD SPECIFICATIONS SECTION 711.23.
6. NOTIFY THE OH DOT OFFICE OF STRUCTURAL ENGINEERING AT LEAST TWO WEEKS BEFORE STARTING SHOP FABRICATION.
7. DYNAMIC RUBBER REPRESENTATIVE:
   KATHI MILLS
   903–677–2871
   1501 ROCKY RIDGE RD.
   ATHENS, TX 75751

FINISH NOTES:

BRIDGE NO.: HAM–75–0440 L/R

1. BLAST EXPOSED STEEL SURFACES OF THE SOLE PLATES, LOAD PLATES AND HP12x53 PEDESTALS TO SSPC–SP6 (COMMERCIAL BLAST CLEANING) PRIOR TO GALVANIZING.
2. BLAST EXPOSED STEEL SURFACES OF THE RUB PLATES & STUDS TO SSPC–SP5 (WHITE METAL BLAST CLEANING) PRIOR TO METALIZING.
3. GALVANIZED THE SOLE PLATES, LOAD PLATES AND HP12x53 PEDESTALS ACCORDING TO SECTION 711.02.
4. RUB PLATES & STUDS SHALL BE ZINC METALIZED AND SEAL COATED PER SUPPLEMENTAL SPECIFICATION SECTION 869.13.

BRIDGE NO.: HAM–74–1840 L/R & HAM–74–1852 L/R

1. BLAST EXPOSED STEEL SURFACES OF THE SOLE PLATES, LOAD PLATES AND HP12x53 PEDESTALS TO SSPC–SP10 (NEAR WHITE BLAST CLEANING) PRIOR TO PAINTING.
2. THE SOLE PLATES, LOAD PLATES AND HP12x53 PEDESTALS SHALL BE PRIME PAINTED WITH A CONTRACTOR DESIGNATED PRIME PAINT PER SPECIFICATION SECTION 514.

MATERIAL NOTES:

BRIDGE NO.: HAM–75–0440 L/R

1. ELASTOMER: 50 DUROMETER GRADE 3 NEOPRENE
2. STEEL LAMINATES: ASTM A709 GRADE 36, A1011 GRADE 36, GRADE 40 OR EQUIVALENT.
3. STEEL PLATES: ASTM A709 GRADE 50 (GALVANIZED)
4. STEEL HP12x53 PEDESTALS: ASTM A709 GRADE 50 (GALVANIZED)
5. RUB PLATES: ASTM A709 GRADE 50 (METALIZED)
6. STAINLESS STEEL (RUB PLATE): ASTM A240 TYPE 304 W/#8 MIRROR FINISH ON SLIDING SURFACE
7. PTFE (RUB PLATE): ASTM D4894 (UNFILLED) – UNDIMPLED (PER AASHTO 18.8)
8. SHEAR STUDS: ASTM A108 GRADE 1018 (METALIZED)

BRIDGE NO.: HAM–74–1840 L/R & HAM–74–1852 L/R

1. ELASTOMER: 50 DUROMETER GRADE 3 NEOPRENE
2. STEEL LAMINATES: ASTM A709 GRADE 36, A1011 GRADE 36, GRADE 40 OR EQUIVALENT.
3. STEEL PLATES: ASTM A709 GRADE 50 (PRIME PAINTED)
4. STEEL HP12x53 PEDESTALS: ASTM A709 GRADE 50 (PRIME PAINTED)

CONTRACTOR NOTES:

1. WHEN WELDING BEAM FLANGE TO SOLE PLATES, USE TEMPERATURE INDICATING WAX PEN OR OTHER SUITABLE MEANS TO INSURE THAT THE TEMPERATURE OF THE ELASTOMER DOES NOT EXCEED 250°F. TEMPERATURES ABOVE THIS MAY DAMAGE THE ELASTOMER.
2. HAM–74–1840 & HAM–74–1852 ARE REHABILITATION PROJECTS. THE CONTRACTOR MUST VERIFY ALL SIZES AND DIMENSIONS ON THESE SHOP DRAWINGS PRIOR TO ANY FABRICATION BY COSMEC, INC.. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE CORRECT SIZES AND CORRECT FIT, IN THE FIELD, OF ALL COMPONENTS.

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

BRIDGE NO.: HAM–75–0440 L/R OVER IR–74 WB

BRIDGE NO.: HAM–74–1840 L/R OVER SB BEEKMAN ST. (U.S. 27) AND RAMP F

BRIDGE NO. HAM–74–1852 L/R OVER NB BEEKMAN ST. (U.S. 27)

HAM–75–3.84
CITY OF CINCINNATI

STATE	COUNTY	PID NO.
OH	HAMILTON	104667

FED. PROJ. NO.: E170 (713)

DYNAMIC RUBBER LAM. ELASTOMERIC BEARING ASSY.'S

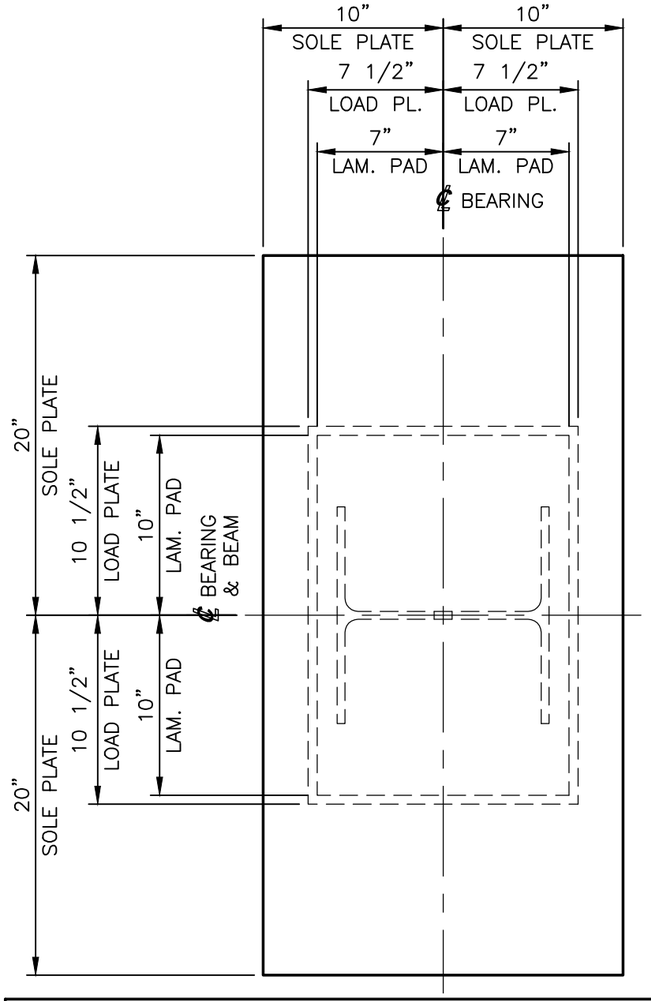
Cosmec
1501 ROCKY RIDGE ROAD
P.O. BOX 2159
ATHENS, TEXAS 75751

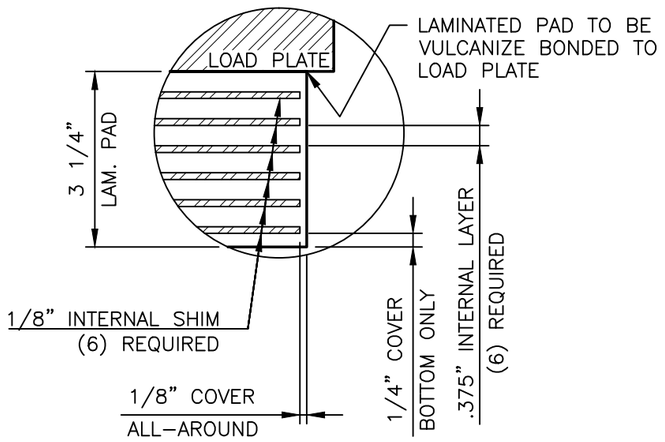
REV.	DESCRIPTION	BY	DATE	CK'D	DATE
0	.	.	.	.	.

SCALE: NONE | DRAWN BY: MH | DATE: 03/18/19 | CHECKED BY: ELS | DATE: 03/29/19

SHEET GN1 OF 1 | JOB NO.: 15353A

CUSTOMER: WALSH CONSTRUCTION CO. II | DRAWING NUMBER: 15353A–GN1 | REV.: 0





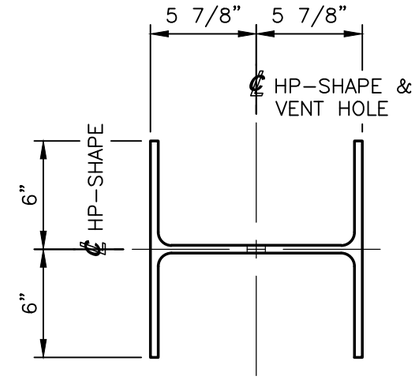
DETAIL 1

3 1/4" x 20" x 14" LAMINATED PAD
50 DUROMETER GRADE 3 NEOPRENE
VULCANIZE BONDED TO LOAD PLATE
(30) REQUIRED

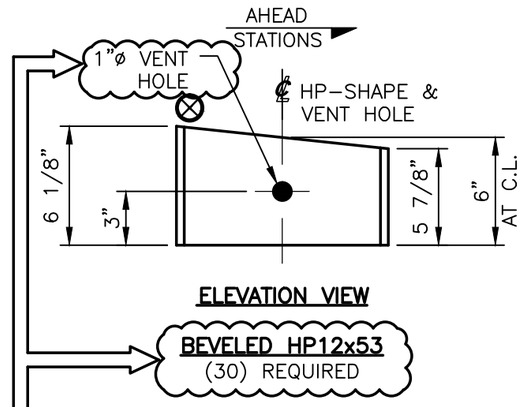
TEST1-A

3 1/4" x 20" x 14" LAMINATED PAD
50 DUROMETER GRADE 3 NEOPRENE
PAD ONLY FOR TESTING
(2) REQUIRED

UNFACTORED ELASTOMERIC BEARING LOADS		
	EBA1-A (LEFT)	EBA2-A (RIGHT)
DEAD LOAD	223 KIPS	207 KIPS
LIVE LOAD	107 KIPS	101 KIPS
TOTAL LOAD (DL+LL)	330 KIPS	308 KIPS

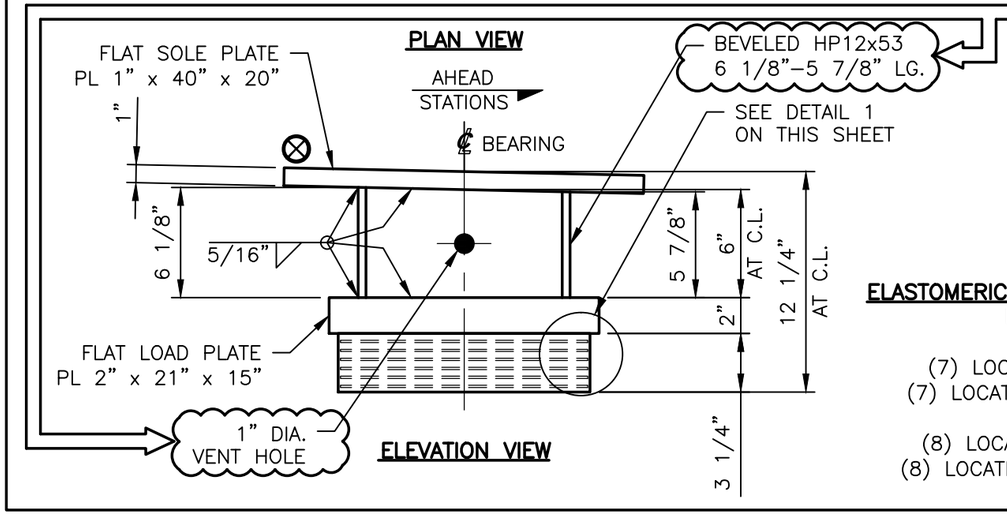


PLAN VIEW



ELEVATION VIEW

BEVELED HP12x53
(30) REQUIRED



EXPANSION LAMINATED
ELASTOMERIC BEARING ASSEMBLY (REF. NO.: 0039)
MARK: EBA1-A & EBA2-A

LEFT BRIDGE (EBA1-A)
(7) LOCATED AT REAR ABUT. (BEAMS 1-7)
(7) LOCATED AT FORWARD ABUT. (BEAMS 1-7)
RIGHT BRIDGE (EBA2-A)
(8) LOCATED AT REAR ABUT. (BEAMS 8-15)
(8) LOCATED AT FORWARD ABUT. (BEAMS 8-15)
(30) REQUIRED

APPROVER NOTE:

1. PER SECTIONS A-A, B-B AND ELEVATION VIEWS SHOWN ON CONTRACT SHEET 45 OF 68, THE HP12x53 IS TO BE BEVELED. IN THE PLAN AND BEARING SCHEDULE TABLE ON SHEET 45 OF 68 THE LOAD PLATE IS TO BE BEVELED. PLEASE VERIFY IF THE HP12x53 IS BEVELED AS SHOWN.
2. A VENT HOLE IS SHOWN IN THE DETAILS ON CONTRACT SHEET 45 OF 68 BUT THE SIZE IS NOT CALLED OUT. PLEASE VERIFY IF THE 1" DIAMETER, AS SHOWN, IS ACCEPTABLE.

BRIDGE NO.: HAM-75-0440 L/R

SEE NOTES ON SHEET GN1 OF 1

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

BRIDGE NO.: HAM-75-0440 L/R
OVER IR-74 WB

BRIDGE NO.: HAM-74-1840 L/R
OVER SB BEEKMAN ST. (U.S. 27)
AND RAMP F

BRIDGE NO. HAM-74-1852 L/R
OVER NB BEEKMAN ST. (U.S. 27)

HAM-75-3.84
CITY OF CINCINNATI

STATE	COUNTY	PID NO.
OH	HAMILTON	104667

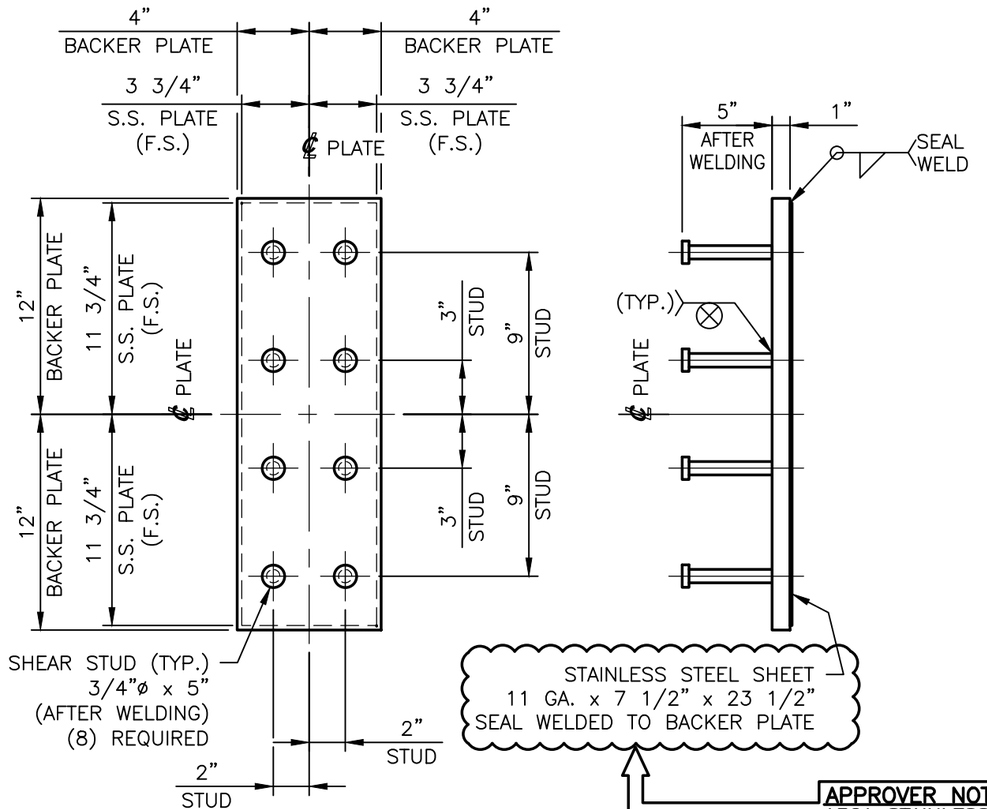
FED. PROJ. NO.: E170 (713)

DYNAMIC RUBBER
LAM. ELASTOMERIC BEARING ASSY.'S

Cosmec
1501 ROCKY RIDGE ROAD
P.O. BOX 2159
ATHENS, TEXAS 75751

REV.	DESCRIPTION	BY	DATE	CK'D	DATE
0	.	.	.	.	.

SCALE: NONE
DRAWN BY: MH DATE: 03/18/19
CHECKED BY: ELS DATE: 03/29/19
SHEET 1 OF 8
JOB NO.: 15353A
CUSTOMER: WALSH CONSTRUCTION CO. II
DRAWING NUMBER: 15353A-D1
REV. 0

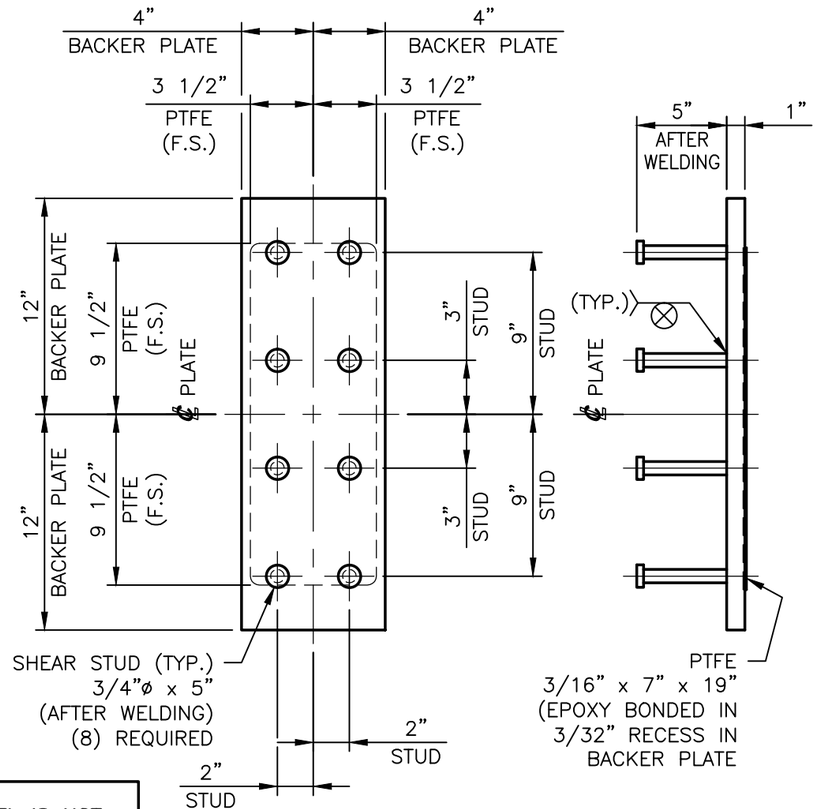


PLAN VIEW

FRONT VIEW

APPROVER NOTE:
13GA STAINLESS STEEL IS NOT AVAILABLE WITH A MIRROR FINISH. PLEASE VERIFY IF 11GA IS ACCEPTABLE.

RUB PLATE ASSEMBLY (REF. NO.: 0039)
MARK NO.: RP1–A
PL 1" x 8" x 24"
ASTM A709 GRADE 50 (METALIZED)
LEFT BRIDGE
(1) LOCATED AT REAR ABUTMENT
(1) LOCATED AT FRONT ABUTMENT
RIGHT BRIDGE
(1) LOCATED AT REAR ABUTMENT
(1) LOCATED AT FRONT ABUTMENT
(4) REQUIRED



PLAN VIEW

FRONT VIEW

RUB PLATE ASSEMBLY (REF. NO.: 0039)
MARK NO.: RP2–A
PL 1" x 8" x 24"
ASTM A709 GRADE 50 (METALIZED)
LEFT BRIDGE
(1) LOCATED AT REAR ABUTMENT
(1) LOCATED AT FRONT ABUTMENT
RIGHT BRIDGE
(1) LOCATED AT REAR ABUTMENT
(1) LOCATED AT FRONT ABUTMENT
(4) REQUIRED

BRIDGE NO.: HAM–75–0440 L/R

SEE NOTES ON SHEET GN1 OF 1

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

BRIDGE NO.: HAM–75–0440 L/R
OVER IR–74 WB

BRIDGE NO.: HAM–74–1840 L/R
OVER SB BEEKMAN ST. (U.S. 27)
AND RAMP F

BRIDGE NO. HAM–74–1852 L/R
OVER NB BEEKMAN ST. (U.S. 27)

HAM–75–3.84
CITY OF CINCINNATI

STATE	COUNTY	PID NO.
OH	HAMILTON	104667

FED. PROJ. NO.: E170 (713)

DYNAMIC RUBBER
LAM. ELASTOMERIC BEARING ASSY.'S

Cosmec
1501 ROCKY RIDGE ROAD
P.O. BOX 2159
ATHENS, TEXAS 75751

SCALE: NONE	DRAWN BY: MH	CHECKED BY: ELS
	DATE: 03/18/19	DATE: 03/29/19
SHEET 2 OF 8	JOB NO.: 15353A	

REV.	DESCRIPTION	BY	DATE	CK'D	DATE
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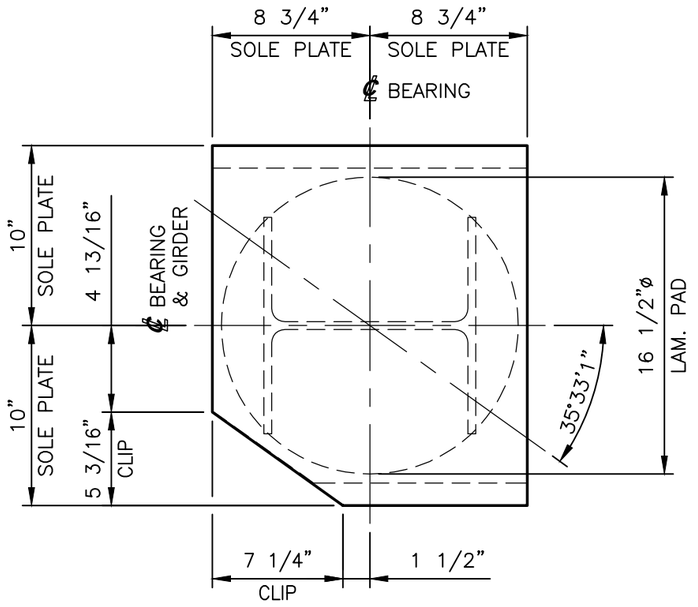
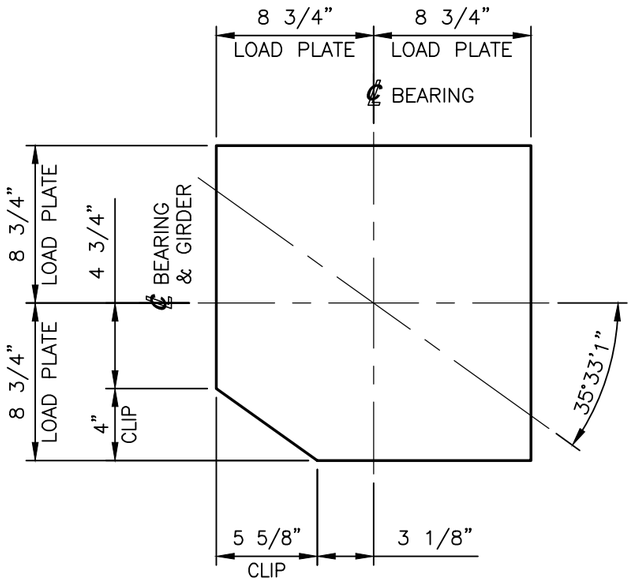
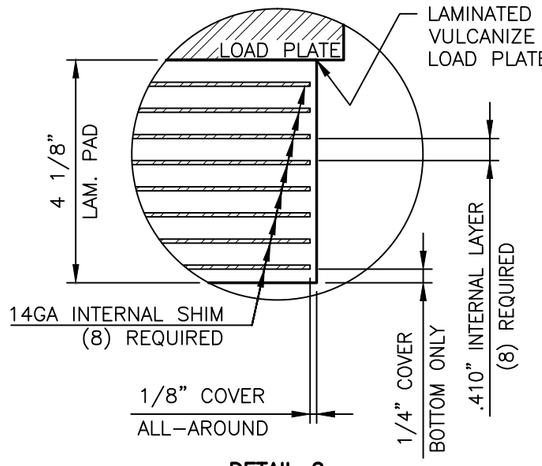
CUSTOMER: WALSH CONSTRUCTION CO. II
DRAWING NUMBER: 15353A–D2
REV.: 0



PLAN VIEW



LOAD PLATE DETAIL
PL 1 1/2" x 17 1/2" x 17 1/2"
ASTM A709 GRADE 50 (PRIME PAINTED)
(10) REQUIRED

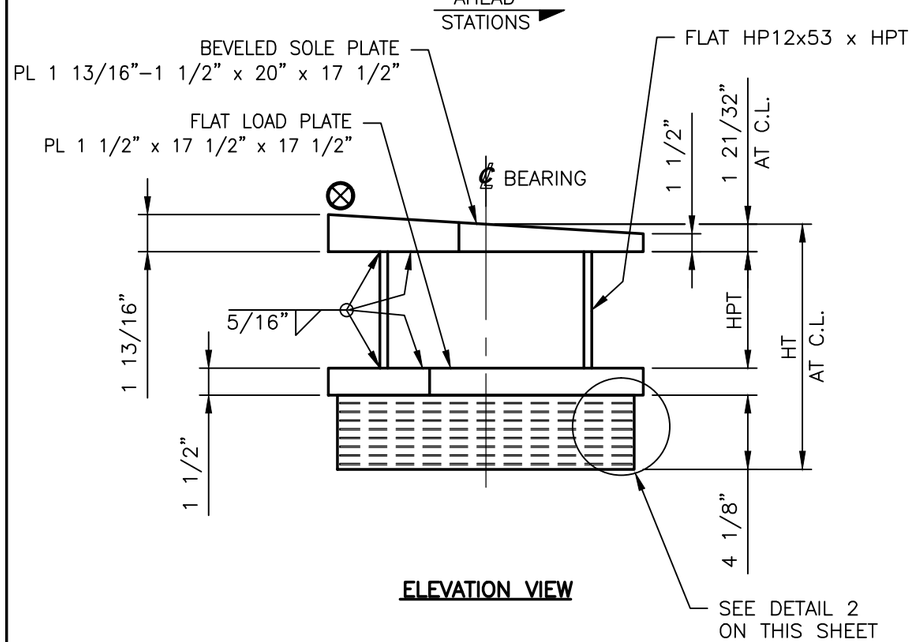


DETAIL 2
4 1/8" x 16 1/2"ø LAMINATED PAD
50 DUROMETER GRADE 3 NEOPRENE
VULCANIZE BONDED TO LOAD PLATE
(10) REQUIRED

TEST2-A
4 1/8" x 16 1/2"ø LAMINATED PAD
50 DUROMETER GRADE 3 NEOPRENE
PAD ONLY FOR TESTING
(2) REQUIRED

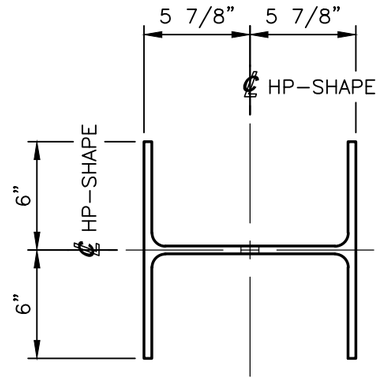
BRIDGE NO.: HAM-74-1840 L/R

SEE NOTES ON SHEET GN1 OF 1

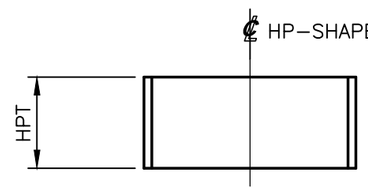


ELEVATION VIEW

EXPANSION LAMINATED ELASTOMERIC BEARING ASSEMBLY (REF. NO.: 0036) AT REAR ABUT.
SEE BEARING TABLE 1 ON SHEET 5 FOR MARK NUMBERS, QTY.'S, LOADS, LOCATIONS AND DIMENSIONS NOT SHOWN



PLAN VIEW



ELEVATION VIEW

FLAT HP12x53
(10) REQUIRED

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

BRIDGE NO.: HAM-75-0440 L/R
OVER IR-74 WB

BRIDGE NO.: HAM-74-1840 L/R
OVER SB BEEKMAN ST. (U.S. 27)
AND RAMP F

BRIDGE NO. HAM-74-1852 L/R
OVER NB BEEKMAN ST. (U.S. 27)

HAM-75-3.84
CITY OF CINCINNATI

STATE	COUNTY	PID NO.
OH	HAMILTON	104667

FED. PROJ. NO.: E170 (713)

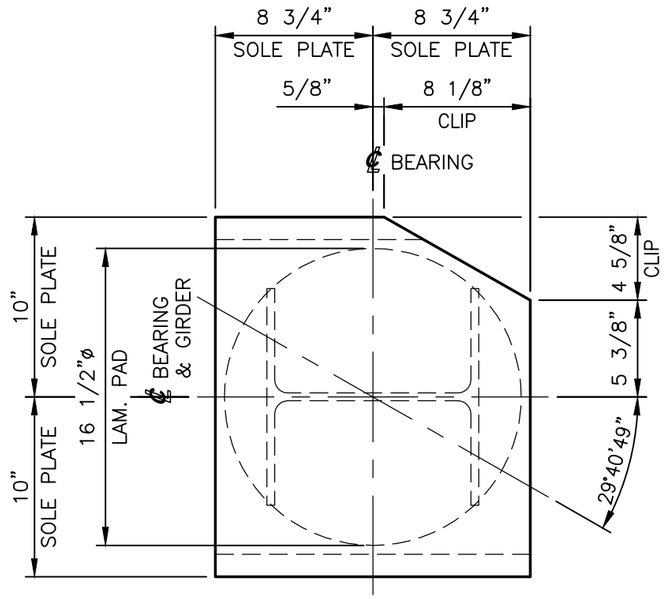
DYNAMIC RUBBER LAM. ELASTOMERIC BEARING ASSY.'S

Cosmec
1501 ROCKY RIDGE ROAD
P.O. BOX 2159
ATHENS, TEXAS 75751

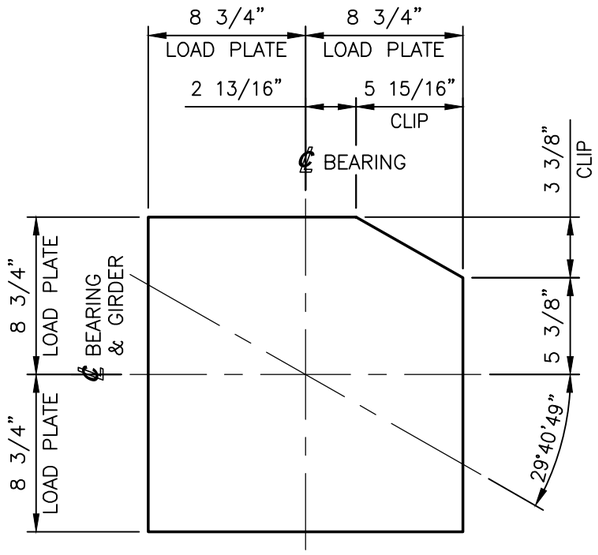
SCALE: NONE	DRAWN BY: MH	CHECKED BY: ELS
	DATE: 03/18/19	DATE: 03/29/19
SHEET 3 OF 8	JOB NO.: 15353A	

REV.	DESCRIPTION	BY	DATE	CK'D	DATE
0	.	.	.	.	.

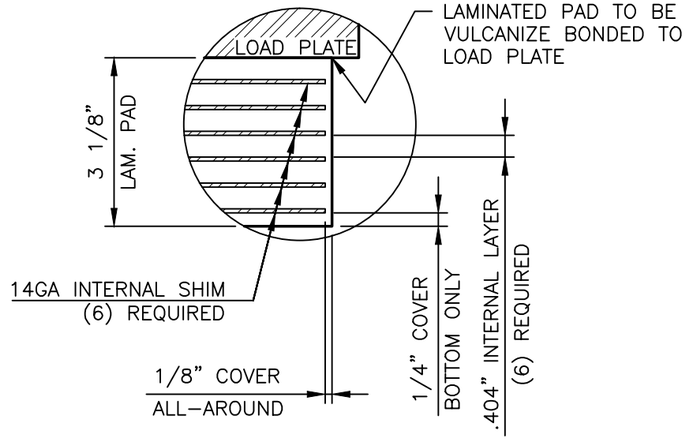
CUSTOMER	DRAWING NUMBER	REV.
WALSH CONSTRUCTION CO. II	15353A-D3	0



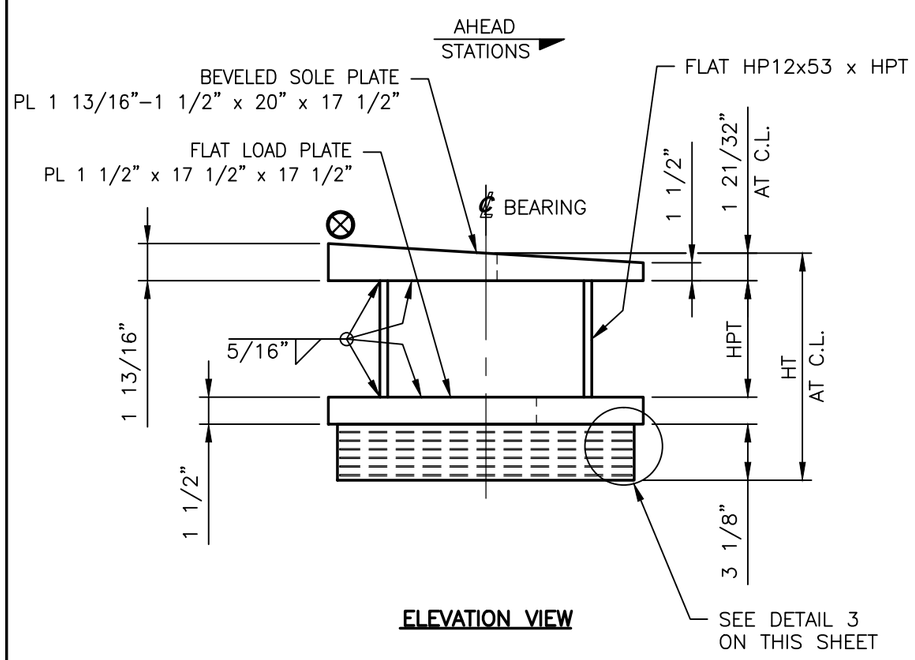
PLAN VIEW



LOAD PLATE DETAIL
PL 1 1/2" x 17 1/2" x 17 1/2"
ASTM A709 GRADE 50 (PRIME PAINTED)
(10) REQUIRED

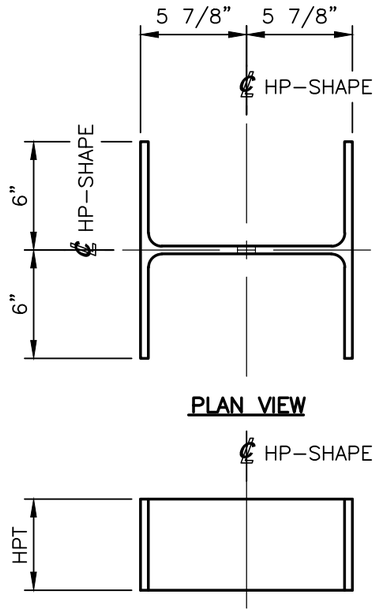


DETAIL 3
3 1/8" x 16 1/2"ø LAMINATED PAD
50 DUROMETER GRADE 3 NEOPRENE
VULCANIZE BONDED TO LOAD PLATE
(10) REQUIRED



ELEVATION VIEW

EXPANSION LAMINATED ELASTOMERIC BEARING
ASSEMBLY (REF. NO.: 0036) AT FORWARD ABUT.
SEE BEARING TABLE 2 ON SHEET 5 FOR MARK NUMBERS, QTY.'S, LOADS, LOCATIONS AND DIMENSIONS NOT SHOWN



PLAN VIEW

ELEVATION VIEW

FLAT HP12x53
(10) REQUIRED

BRIDGE NO.: HAM-74-1840 L/R

SEE NOTES ON SHEET GN1 OF 1

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

BRIDGE NO.: HAM-75-0440 L/R
OVER IR-74 WB

BRIDGE NO.: HAM-74-1840 L/R
OVER SB BEEKMAN ST. (U.S. 27)
AND RAMP F

BRIDGE NO. HAM-74-1852 L/R
OVER NB BEEKMAN ST. (U.S. 27)

HAM-75-3.84
CITY OF CINCINNATI

STATE	COUNTY	PID NO.
OH	HAMILTON	104667

FED. PROJ. NO.: E170 (713)

DYNAMIC RUBBER
LAM. ELASTOMERIC BEARING ASSY.'S

Cosmec
1501 ROCKY RIDGE ROAD
P.O. BOX 2159
ATHENS, TEXAS 75751

SCALE: NONE	DRAWN BY: MH	CHECKED BY: ELS
	DATE: 03/18/19	DATE: 03/29/19
SHEET 4 OF 8	JOB NO.: 15353A	

REV.	DESCRIPTION	BY	DATE	CK'D	DATE
0	.	.	.	.	.

CUSTOMER	DRAWING NUMBER	REV.
WALSH CONSTRUCTION CO. II	15353A-D4	0

TABLE 1 - EXPANSION LAMINATED ELASTOMERIC BEARING ASSEMBLIES

REF. NO.	BEARING MARK	QTY.	LOCATION			BEARING TYPE	DESIGN LOADS (KIPS)			HP12x53	HT AT C.L. (in.)
			BRIDGE	ABUTMENT	GIRDER(s)		D.L. (KIPS)	L.L. (KIPS)	TOTAL LOAD (DL+LL) (KIPS)	HPT THK. (in.)	
0036	EBA3-A	1	LEFT	REAR	G1	EXP	69	60	129	6 9/32	13 9/16
0036	EBA4-A	1	LEFT	REAR	G2	EXP	69	60	129	6.406	13 11/16
0036	EBA5-A	2	LEFT	REAR	G3 & G4	EXP	69	60	129	6 19/32	13 7/8
0036	EBA6-A	1	LEFT	REAR	G5	EXP	69	60	129	6 21/32	13 15/16
0036	EBA7-A	4	RIGHT	REAR	G6, G7, G9 & G10	EXP	69	60	129	6.639	13.92
0036	EBA8-A	1	RIGHT	REAR	G8	EXP	69	60	129	6.519	13.80

TABLE 2 - EXPANSION LAMINATED ELASTOMERIC BEARING ASSEMBLIES

REF. NO.	BEARING MARK	QTY.	LOCATION			BEARING TYPE	DESIGN LOADS (KIPS)			HP12x53	HT AT C.L. (in.)
			BRIDGE	ABUTMENT	GIRDER(s)		D.L. (KIPS)	L.L. (KIPS)	TOTAL LOAD (DL+LL) (KIPS)	HPT THK. (in.)	
0036	EBA9-A	1	LEFT	FORWARD	G1	EXP	85	85	170	7 5/32	13 7/16
0036	EBA10-A	1	LEFT	FORWARD	G2	EXP	85	85	170	7 27/32	14 1/8
0036	EBA11-A	1	LEFT	FORWARD	G3	EXP	85	85	170	7 23/32	14
0036	EBA12-A	1	LEFT	FORWARD	G4	EXP	85	85	170	7 29/32	14 3/16
0036	EBA13-A	1	LEFT	FORWARD	G5	EXP	85	85	170	7 19/32	13 7/8
0036	EBA14-A	2	RIGHT	FORWARD	G6 & G8	EXP	85	85	170	7.519	13.80
0036	EBA15-A	3	RIGHT	FORWARD	G7, G9 & G10	EXP	85	85	170	7.639	13.92

NOTE:
REFER TO SHEETS 3 & 4 FOR BEARINGS ASSEMBLIES.

BRIDGE NO.: HAM-74-1840 L/R

SEE NOTES ON SHEET GN1 OF 1

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

BRIDGE NO.: HAM-75-0440 L/R
OVER IR-74 WB

BRIDGE NO.: HAM-74-1840 L/R
OVER SB BEEKMAN ST. (U.S. 27)
AND RAMP F

BRIDGE NO. HAM-74-1852 L/R
OVER NB BEEKMAN ST. (U.S. 27)

HAM-75-3.84
CITY OF CINCINNATI

STATE	COUNTY	PID NO.
OH	HAMILTON	104667

FED. PROJ. NO.: E170 (713)

DYNAMIC RUBBER
LAM. ELASTOMERIC BEARING ASSY.'S

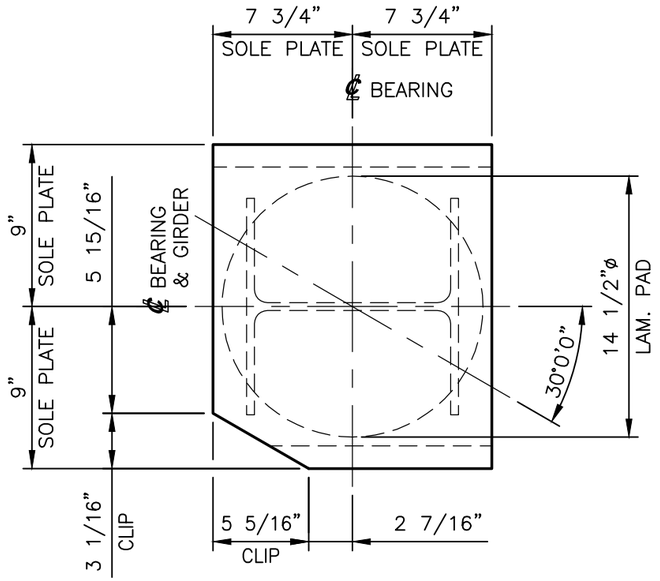
Cosmec
1501 ROCKY RIDGE ROAD
P.O. BOX 2159
ATHENS, TEXAS 75751

REV.	DESCRIPTION	BY	DATE	CK'D	DATE
0	.	.	.	.	.

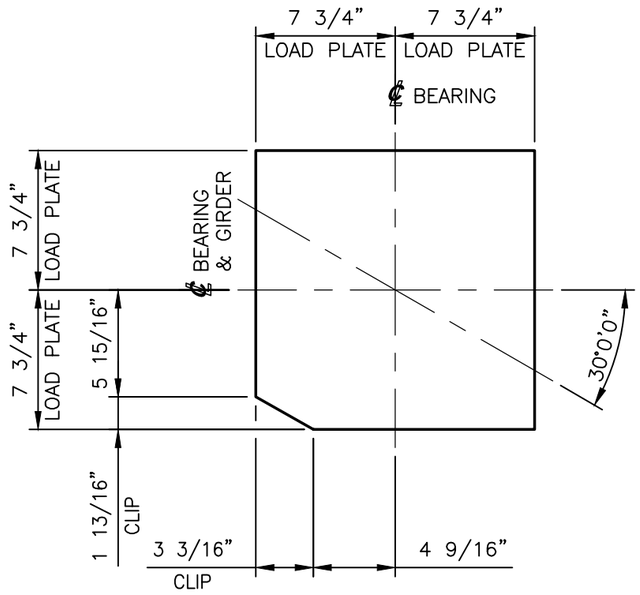
SCALE: NONE | DRAWN BY: MH DATE: 03/18/19 | CHECKED BY: ELS DATE: 03/29/19

 JOB NO.: 15353A

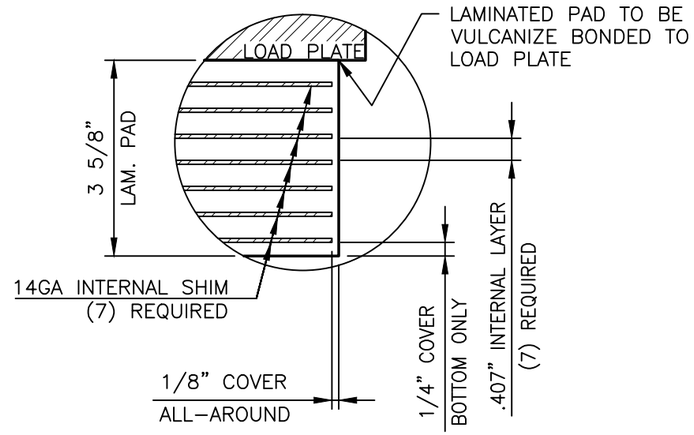
CUSTOMER: WALSH CONSTRUCTION CO. II | DRAWING NUMBER: 15353A-D5 | REV.: 0



PLAN VIEW



LOAD PLATE DETAIL
PL 1 1/2" x 15 1/2" x 15 1/2"
ASTM A709 GRADE 50 (PRIME PAINTED)
(10) REQUIRED

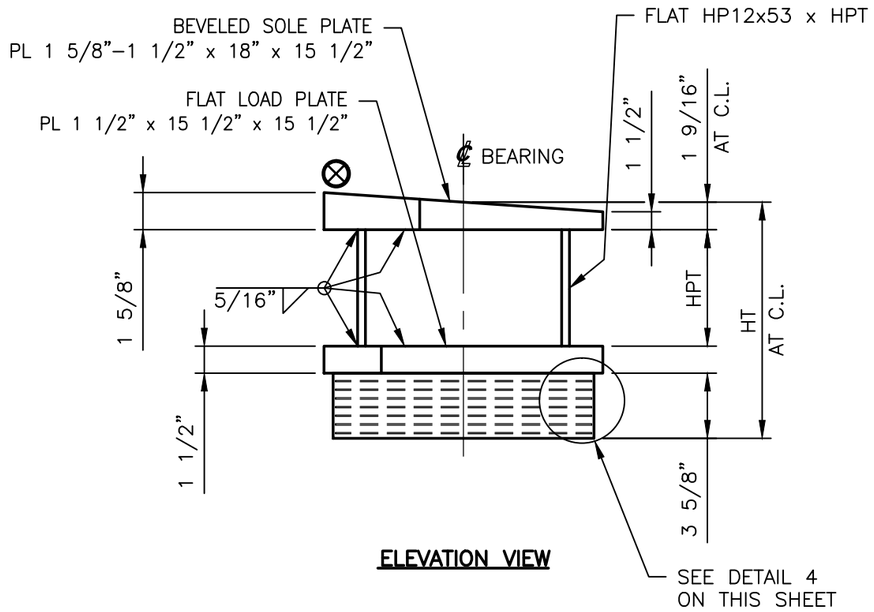


DETAIL 4
3 5/8" x 14 1/2"ø LAMINATED PAD
50 DUROMETER GRADE 3 NEOPRENE
VULCANIZE BONDED TO LOAD PLATE
(10) REQUIRED

TEST3-A
3 5/8" x 14 1/2"ø LAMINATED PAD
50 DUROMETER GRADE 3 NEOPRENE
PAD ONLY FOR TESTING
(2) REQUIRED

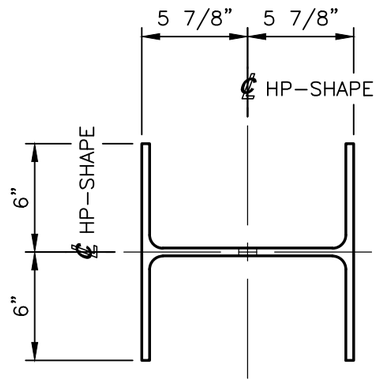
BRIDGE NO.: HAM-74-1852 L/R

AHEAD
STATIONS

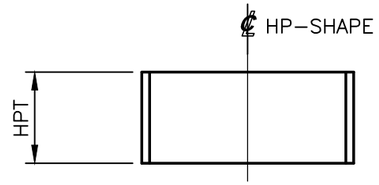


ELEVATION VIEW

EXPANSION LAMINATED ELASTOMERIC BEARING ASSEMBLY (REF. NO.: 0037) AT REAR ABUT.
SEE BEARING TABLE 3 ON SHEET 8 FOR MARK NUMBERS, QTY.'S, LOADS, LOCATIONS AND DIMENSIONS NOT SHOWN



PLAN VIEW



ELEVATION VIEW

FLAT HP12x53
(10) REQUIRED

SEE NOTES ON SHEET GN1 OF 1

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

BRIDGE NO.: HAM-75-0440 L/R
OVER IR-74 WB

BRIDGE NO.: HAM-74-1840 L/R
OVER SB BEEKMAN ST. (U.S. 27)
AND RAMP F

BRIDGE NO. HAM-74-1852 L/R
OVER NB BEEKMAN ST. (U.S. 27)

HAM-75-3.84
CITY OF CINCINNATI

STATE	COUNTY	PID NO.
OH	HAMILTON	104667

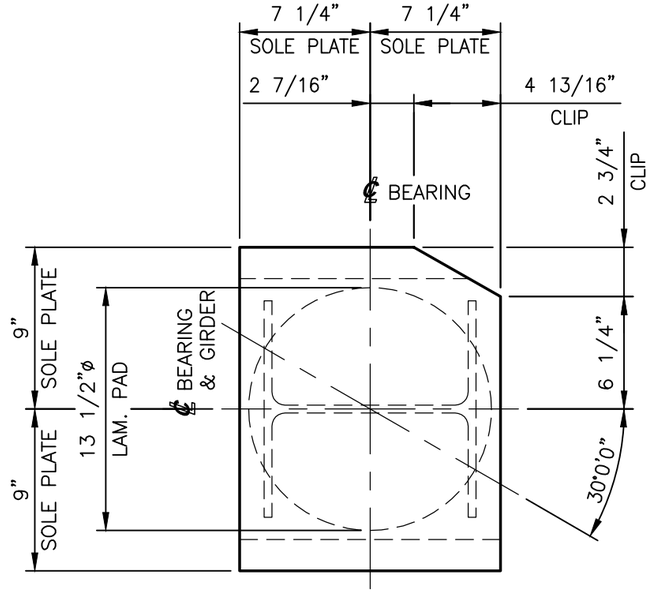
FED. PROJ. NO.: E170 (713)

DYNAMIC RUBBER
LAM. ELASTOMERIC BEARING ASSY.'S

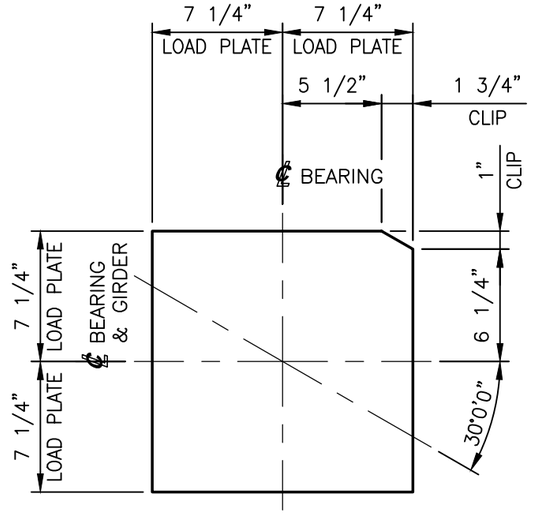
Cosmec
1501 ROCKY RIDGE ROAD
P.O. BOX 2159
ATHENS, TEXAS 75751

SCALE: NONE
DRAWN BY: MH DATE: 03/18/19
CHECKED BY: ELS DATE: 03/29/19
SHEET 6 OF 8
JOB NO.: 15353A
CUSTOMER: WALSH CONSTRUCTION CO. II
DRAWING NUMBER: 15353A-D6
REV.: 0

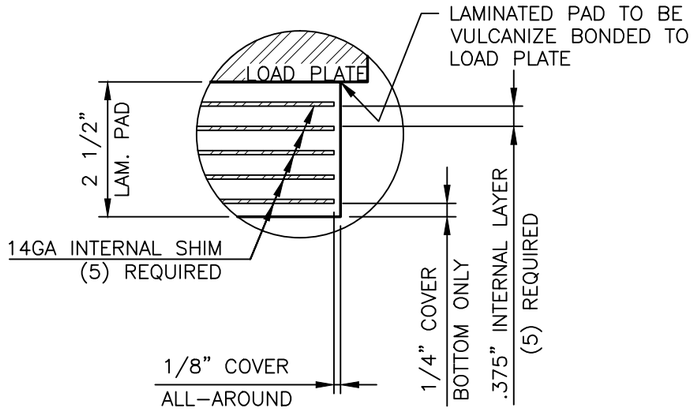
REV.	DESCRIPTION	BY	DATE	CK'D	DATE
0	.	.	.	.	.



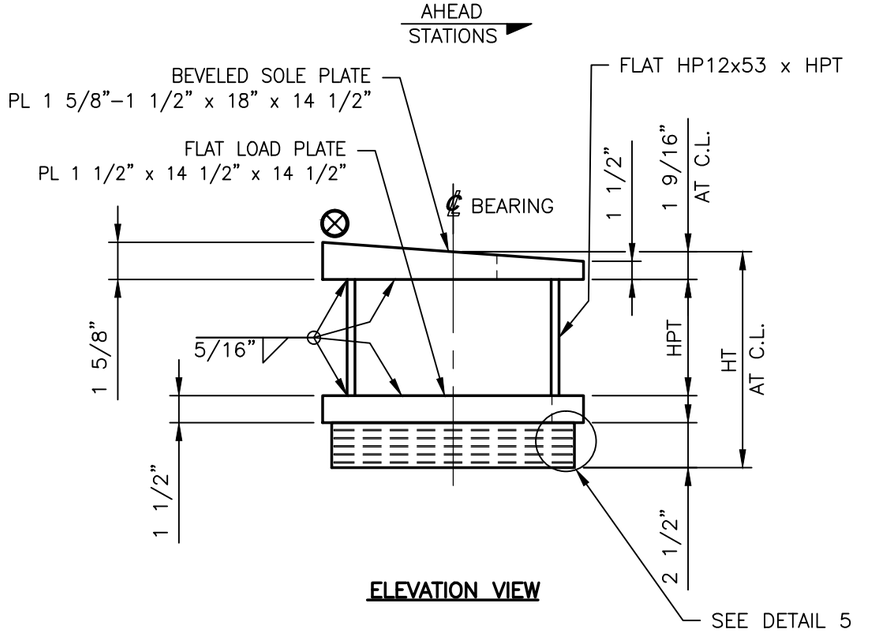
PLAN VIEW



LOAD PLATE DETAIL
PL 1 1/2" x 14 1/2" x 14 1/2"
ASTM A709 GRADE 50 (PRIME PAINTED)
(10) REQUIRED

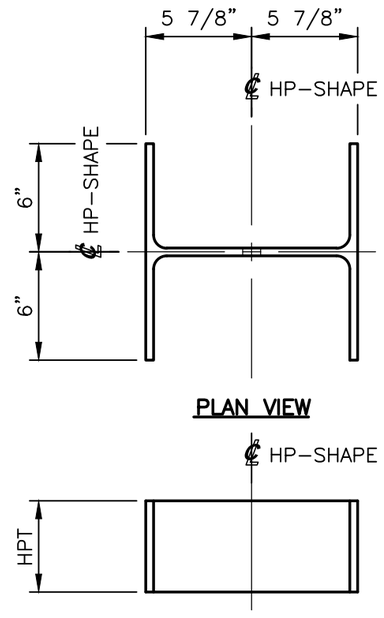


DETAIL 5
2 1/2" x 13 1/2"ø LAMINATED PAD
50 DUROMETER GRADE 3 NEOPRENE
VULCANIZE BONDED TO LOAD PLATE
(10) REQUIRED



ELEVATION VIEW

EXPANSION LAMINATED ELASTOMERIC BEARING ASSEMBLY (REF. NO.: 0037) AT FORWARD ABUT.
SEE BEARING TABLE 4 ON SHEET 8 FOR MARK NUMBERS, QTY.'S, LOADS, LOCATIONS AND DIMENSIONS NOT SHOWN



FLAT HP12x53
(10) REQUIRED

BRIDGE NO.: HAM-74-1852 L/R

SEE NOTES ON SHEET GN1 OF 1

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

BRIDGE NO.: HAM-75-0440 L/R OVER IR-74 WB

BRIDGE NO.: HAM-74-1840 L/R OVER SB BEEKMAN ST. (U.S. 27) AND RAMP F

BRIDGE NO. HAM-74-1852 L/R OVER NB BEEKMAN ST. (U.S. 27)

HAM-75-3.84
CITY OF CINCINNATI

STATE	COUNTY	PID NO.
OH	HAMILTON	104667

FED. PROJ. NO.: E170 (713)

DYNAMIC RUBBER
LAM. ELASTOMERIC BEARING ASSY.'S

Cosmec
1501 ROCKY RIDGE ROAD
P.O. BOX 2159
ATHENS, TEXAS 75751

REV.	DESCRIPTION	BY	DATE	CK'D	DATE
0	.	.	.	.	.

SCALE: NONE | DRAWN BY: MH DATE: 03/18/19 | CHECKED BY: ELS DATE: 03/29/19

 JOB NO.: 15353A

CUSTOMER: WALSH CONSTRUCTION CO. II | DRAWING NUMBER: 15353A-D7 | REV.: 0

TABLE 3 - EXPANSION LAMINATED ELASTOMERIC BEARING ASSEMBLIES

REF. NO.	BEARING MARK	QTY.	LOCATION			BEARING TYPE	DESIGN LOADS (KIPS)			HP12x53	HT AT C.L. (in.)
			BRIDGE	ABUTMENT	GIRDER(s)		D.L. (KIPS)	L.L. (KIPS)	TOTAL LOAD (DL+LL) (KIPS)	HPT THK. (in.)	
0037	EBA16-A	2	LEFT	REAR	G1 & G4	EXP	56	56	112	7 13/16	14 1/2
0037	EBA17-A	2	LEFT	REAR	G2 & G3	EXP	56	56	112	8	14 11/16
0037	EBA18-A	1	LEFT	REAR	G5	EXP	56	56	112	7 11/16	14 3/8
0037	EBA19-A	1	RIGHT	REAR	G6	EXP	56	56	112	8 5/16	15
0037	EBA20-A	2	RIGHT	REAR	G7 & G9	EXP	56	56	112	8 3/16	14.88
0037	EBA21-A	1	RIGHT	REAR	G8	EXP	56	56	112	7.95	14.64
0037	EBA22-A	1	RIGHT	REAR	G9	EXP	56	56	112	8.07	14.76

APPROVER NOTE:
PLEASE VERIFY 14 3/8" IS CORRECT. FIELD DIMENSIONS WERE SHOWN AS 14 6/16"

TABLE 4 - EXPANSION LAMINATED ELASTOMERIC BEARING ASSEMBLIES

REF. NO.	BEARING MARK	QTY.	LOCATION			BEARING TYPE	DESIGN LOADS (KIPS)			HP12x53	HT AT C.L. (in.)
			BRIDGE	ABUTMENT	GIRDER(s)		D.L. (KIPS)	L.L. (KIPS)	TOTAL LOAD (DL+LL) (KIPS)	HPT THK. (in.)	
0037	EBA23-A	1	LEFT	FORWARD	G1	EXP	62	54	116	7 3/8	12 15/16
0037	EBA24-A	1	LEFT	FORWARD	G2	EXP	62	54	116	7	12 9/16
0037	EBA25-A	2	LEFT	FORWARD	G3 & G4	EXP	62	54	116	7 3/16	12 3/4
0037	EBA26-A	1	LEFT	FORWARD	G5	EXP	62	54	116	6 3/4	12 5/16
0037	EBA27-A	3	RIGHT	FORWARD	G6, G8 & G10	EXP	62	54	116	6.80	12.36
0037	EBA28-A	1	RIGHT	FORWARD	G7	EXP	62	54	116	7.04	12.60
0037	EBA29-A	1	RIGHT	FORWARD	G9	EXP	62	54	116	6.92	12.48

NOTE:
REFER TO SHEETS 6 & 7 FOR BEARINGS ASSEMBLIES.

BRIDGE NO.: HAM-74-1852 L/R

SEE NOTES ON SHEET GN1 OF 1

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

BRIDGE NO.: HAM-75-0440 L/R
OVER IR-74 WB

BRIDGE NO.: HAM-74-1840 L/R
OVER SB BEEKMAN ST. (U.S. 27)
AND RAMP F

BRIDGE NO. HAM-74-1852 L/R
OVER NB BEEKMAN ST. (U.S. 27)

HAM-75-3.84
CITY OF CINCINNATI

STATE	COUNTY	PID NO.
OH	HAMILTON	104667

FED. PROJ. NO.: E170 (713)

DYNAMIC RUBBER
LAM. ELASTOMERIC BEARING ASSY.'S

Cosmec
1501 ROCKY RIDGE ROAD
P.O. BOX 2159
ATHENS, TEXAS 75751

SCALE: NONE | DRAWN BY: MH DATE: 03/18/19 | CHECKED BY: ELS DATE: 03/29/19

SHEET 8 OF 8 | JOB NO.: 15353A

REV.	DESCRIPTION	BY	DATE	CK'D	DATE
0	.	.	.	.	.

CUSTOMER: WALSH CONSTRUCTION CO. II | DRAWING NUMBER: 15353A-D8 | REV.: 0

Prestress Services Industries, LLC
5501 Briar Hill Road
Lexington, Ky. 40516
(859) 299-0461

Date
6/7/2019
ODOT
(18)3000

Shop Drawings

Drawing Number	Revision	Description	Detailer (Shannon Travis)	Checker (Monica Kennedy)	Date Detailed/Revised
1	0	Cover Sheet	ST	MK	5/6/2019
2	0	Erection Layout	ST	MK	5/6/2019
3	0	Casting Bed Layout - Sheet 1	ST	MK	5/6/2019
4	0	Casting Bed Layout - Sheet 2	ST	MK	5/6/2019
5	0	Bar Bending Details	ST	MK	5/6/2019
6	0	Step 1 Forming (MK 501)	ST	MK	5/6/2019
7	0	Step 1 Forming (MK 502)	ST	MK	5/6/2019
8	0	Step 1 Forming (MK 503)	ST	MK	5/6/2019
9	0	Step 1 Forming (MK 504)	ST	MK	5/6/2019
10	0	Step 1 Forming (MKs 505-507)	ST	MK	5/6/2019
11	0	Step 1 Forming (MK 508)	ST	MK	5/6/2019
12	0	Step 1 Section Details	ST	MK	5/6/2019
13	0	Step 2 Details (MK 501)	ST	MK	5/6/2019
14	0	Step 2 Details (MKs 502-507)	ST	MK	5/6/2019
15	0	Step 2 Details (MK 508)	ST	MK	5/6/2019
16	0	Step 3 Details (MKs 501-503 & 505)	ST	MK	5/6/2019
17	0	Step 3 Details (MKs 504 & 506)	ST	MK	5/6/2019
18	0	Step 3 Details (MKs 507 & 508)	ST	MK	5/6/2019
19	0	Step 4 Details (MKs 501-508)	ST	MK	5/6/2019

AMERICAN STRUCTUREPOINT INC.
2550 Corporate Exchange Drive, Suite 300
Columbus, Ohio 43231
TEL 614.901.2235
FAX 614.901.2236

(✓) Reviewed
( ) Reviewed as Noted
( ) Not Accepted
( ) Revise and Resubmit

By: SJF Date: 06/10/19

Project No.:

This submittal has been reviewed for conformance with the design concept and for compliance with the contract documents only. The notes made do not relieve the CONTRACTOR from compliance with the contract documents. Design and certification of manufactured items that are not specifically designed and detailed in the contract documents are the responsibility of the registered professional engineer working for the CONTRACTOR. The CONTRACTOR is responsible for all dimensions, quantities, fabrication, fit, and the coordination with other trades. Dimensions shall be confirmed and correlated by the CONTRACTOR at the job site. Any changes made to the submittal, other than those indicated by our review, shall be clouded or otherwise highlighted on subsequent submittals.

GENERAL NOTES

1. ALL 48" HYBRID I-BEAMS ARE MADE IN ACCORDANCE WITH 2016 ODOT STANDARD DRAWINGS, PSID-1-13 REV 07-20-18 AND THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8th EDITION, AND THE ODOT BRIDGE DESIGN MANUAL, 2007. LOADING IS PER HL-93 WITH 60 PSF FWS.
2. CONCRETE: 150 LBS/CF (INCLUDES REINFORCEMENT).
3. CORROSION INHIBITING ADMIXTURE SHALL BE USED IN ACCORDANCE TO SPECIAL PROVISION AT A RATE OF 4 GAL. PER CY (OR EQUIVALENT).
4. CONCRETE STRENGTHS: 6,500 PSI AT RELEASE, 8,500 PSI AT 28 DAYS.
5. FINISHES: TOP - 9" ALONG BOTH EDGES TROWELED SMOOTH, REMAINING INTENTIONALLY ROUGHENED @ 1½" c/c, ¼" DEEP.
   BOTTOM & SIDES - AS CAST AGAINST FORMS.
   PRESSURE WASH - EXT. SIDE OF EXT. BEAMS AND BOTTOM FLANGE OF EXT. BEAMS PRIOR TO APPLYING SEALER.
   SEALER - EPOXY/URETHANE TO BE FURNISHED BY CONTRACTOR AND APPLIED BY PS. (SEE DETAIL, THIS SHEET.)
   COVERAGE - EPOXY & URETHANE = 120 SF/GAL.
   ENDS - SEAL ALL STRANDS WITH TYPE E WATERPROOFING PER CM
   SURROUNDING EACH STRAND.
6. HANDLING DEVICES SHALL BE IN ACCORDANCE TO THE CURRENT EDITION PCI
7. ESTIMATED CAMBER:

	AT DAY 0	AT DAY 30	DEFLECTION
BEAM 1:	2.01"	3.26"	1.04"
BEAM 2:	2.14"	3.46"	1.43"
BEAMS 3-6:	2.14"	3.46"	1.45"
BEAM 7:	2.14"	3.46"	1.26"
BEAM 8:	2.03"	3.28"	1.16"
BEAMS 9-13:	2.03"	3.28"	1.33"
BEAM 14:	2.03"	3.28"	1.14"
BEAM 15:	2.27"	3.68"	1.37"

   DEFLECTION DUE TO REMAINING DEAD LOAD IS INCLUDED IN THE ESTIMATED C
8. LIFTLOOPS ARE TO BE REMOVED AFTER ERECTION (NOT BY PS).
9. BEAM SHIPPING LENGTHS & WEIGHTS (FOR INTERNAL USE ONLY): MK 501: 86'-11" 46 TONS.
   MK 502-507: 91'-4" 48 TONS.
   MK 508: 96'-6" 51 TONS.

AMERICAN STRUCTUREPOINT INC.
2550 Corporate Exchange Drive, Suite 300
Columbus, Ohio 43231
TEL 614.901.2235
FAX 614.901.2236

(✓) Reviewed ( ) Not Accepted
( ) Reviewed as Noted ( ) Revise and Resubmit
By: SJF Date: 06/10/19
Project No.:

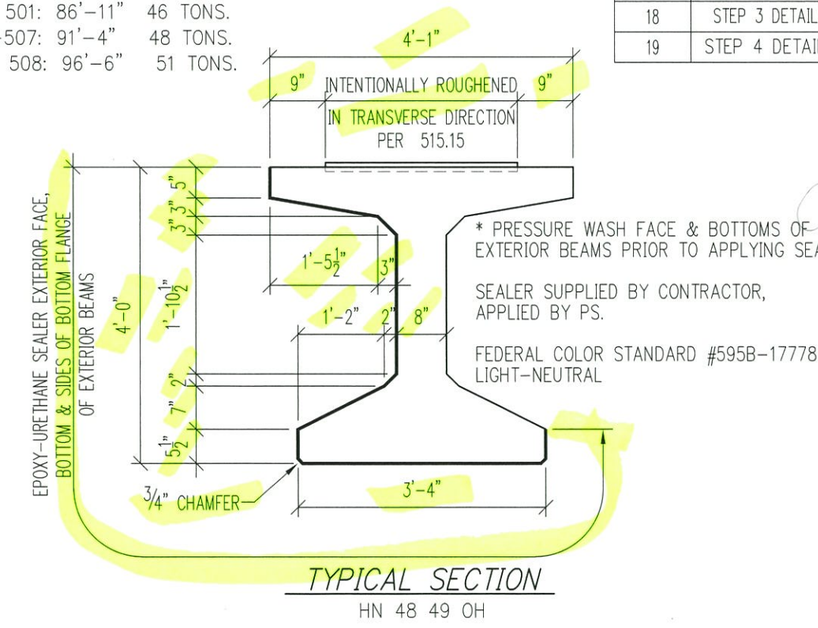
This submittal has been reviewed for conformance with the design concept and for compliance with the contract documents only. The notes made do not relieve the CONTRACTOR from compliance with the contract documents. Design and certification of manufactured items that are not specifically designed and detailed in the contract documents are the responsibility of the registered professional engineer working for the CONTRACTOR. The CONTRACTOR is responsible for all dimensions, quantities, fabrication, fit, and the coordination with other trades. Dimensions shall be confirmed and correlated by the CONTRACTOR at the job site. Any changes made to the submittal, other than those indicated by our review, shall be clouded or otherwise highlighted on subsequent submittals.

SHIPLOOSE HARDWARE

312 - ¾"øx2'-2" THREADED RODS (G) (FIT FOR ¾"ø INSERTS)

INSTALLED HARDWARE

15 - TOTAL GALLONS OF SEALER CALCULATED AT A RATE OF 120 SF/GAL.



TYPICAL SECTION
HN 48 49 OH

LIFTING LOOP GUIDELINES:

ALL LIFTING DEVICES SHOWN MUST BE USED SIMULTANEOUSLY AND EQUALLY, 90° TO THE BEAM. ANY DEVIATION FROM THIS STANDARD FOR ERECTING PURPOSES IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR IS ADVISED TO HAVE AN ENGINEER REVIEW ANY DEVIATION FROM THIS STANDARD WITH CONSIDERATION GIVEN TO BEAM STRESSES, STRENGTH AND STABILITY. PRESTRESS SERVICES WILL NOT BE LIABLE FOR ANY VARIATIONS TO THE STANDARD PROCEDURE.

DRAWING INDEX

		ISSUED FOR	SUBMITTAL	APPROVAL	REVISION	REVISION	REVISION
		DATE	5/23/19	X/X/XX	X/X/XX	X/X/XX	X/X/XX
SHEET #	SHEET TITLE	BY	ST	XXX	XXX	XXX	XXX
1	COVER SHEET		x				
2	ERECTION LAYOUT		x				
3	CASTING BED LAYOUT- SHEET 1		x				
4	CASTING BED LAYOUT - SHEET 2		x				
5	BAR BENDING DETAILS		x				
6	STEP 1 FORMING (MK 501)		x				
7	STEP 1 FORMING (MK 502)		x				
8	STEP 1 FORMING (MK 503)		x				
9	STEP 1 FORMING (MK 504)		x				
10	STEP 1 FORMING (MKs 505-507)		x				
11	STEP 1 FORMING (MK 508)		x				
12	STEP 1 SECTION DETAILS		x				
13	STEP 2 DETAILS (MK 501)		x				
14	STEP 2 DETAILS (MKs 502-507)		x				
15	STEP 2 DETAILS (MK 508)		x				
16	STEP 3 DETAILS (MKs 501-503 & 505)		x				
17	STEP 3 DETAILS (MKs 504 & 506)		x				
18	STEP 3 DETAILS (MKs 507 & 508)		x				
19	STEP 4 DETAILS (MKs 501-508)		x				

FABRICATION TOLERANCES FOR BEAMS

BEAM DIMENSIONS

DESCRIPTION	TOLERANCE
LENGTH OF BEAM	±⅛" PER 10 FT, MAX ±1"
DEPTH OF BEAM	+½", -¼"
DEPTH OF FLANGE INCLUDING FILLETS	±¼"
FLANGE WIDTH	+⅜", -¼"
FLANGE THICKNESS EXCLUDING FILLETS	±¼"
WIDTH WEB	+⅜", -¼"
DEVIATION FROM TRUE VERTICAL	⅛" PER FT.
DEVIATION FROM SKEW ANGLE	±½"

BEAM ACCESSORY

POSITION OF LIFTING DEVICES	±6"
POSITIONS OF ANCHOR DOWELS AND TIE RODS, INSERTS	±½"

BEAM STRAND

STRAND TENDON POSITION	±¼"
STRAND CG POSITION	±¼"

BEAMS SWEEP AND CAMBER

HORIZONTAL SWEEP	±⅛" PER 10 FT, MAX. ±1"
DEVIATION FROM DESIGN CAMBER	+ SACRIFICIAL HAUNCH

REINFORCING STEEL

CLEAR COVER	-0", +¼"
SPLICE LENGTHS	-1½"
STIRRUP SPACING IN ANCHORAGE ZONE	±¼"
STIRRUP SPACING OUTSIDE ANCHORAGE ZONE	±1"
STIRRUP EXTENSION ABOVE TOP FLANGE	-0", +1"

STATE OF OHIO
CHARLES B. SLAGLE
E-67391
REGISTERED PROFESSIONAL ENGINEER

STATE PROJECT

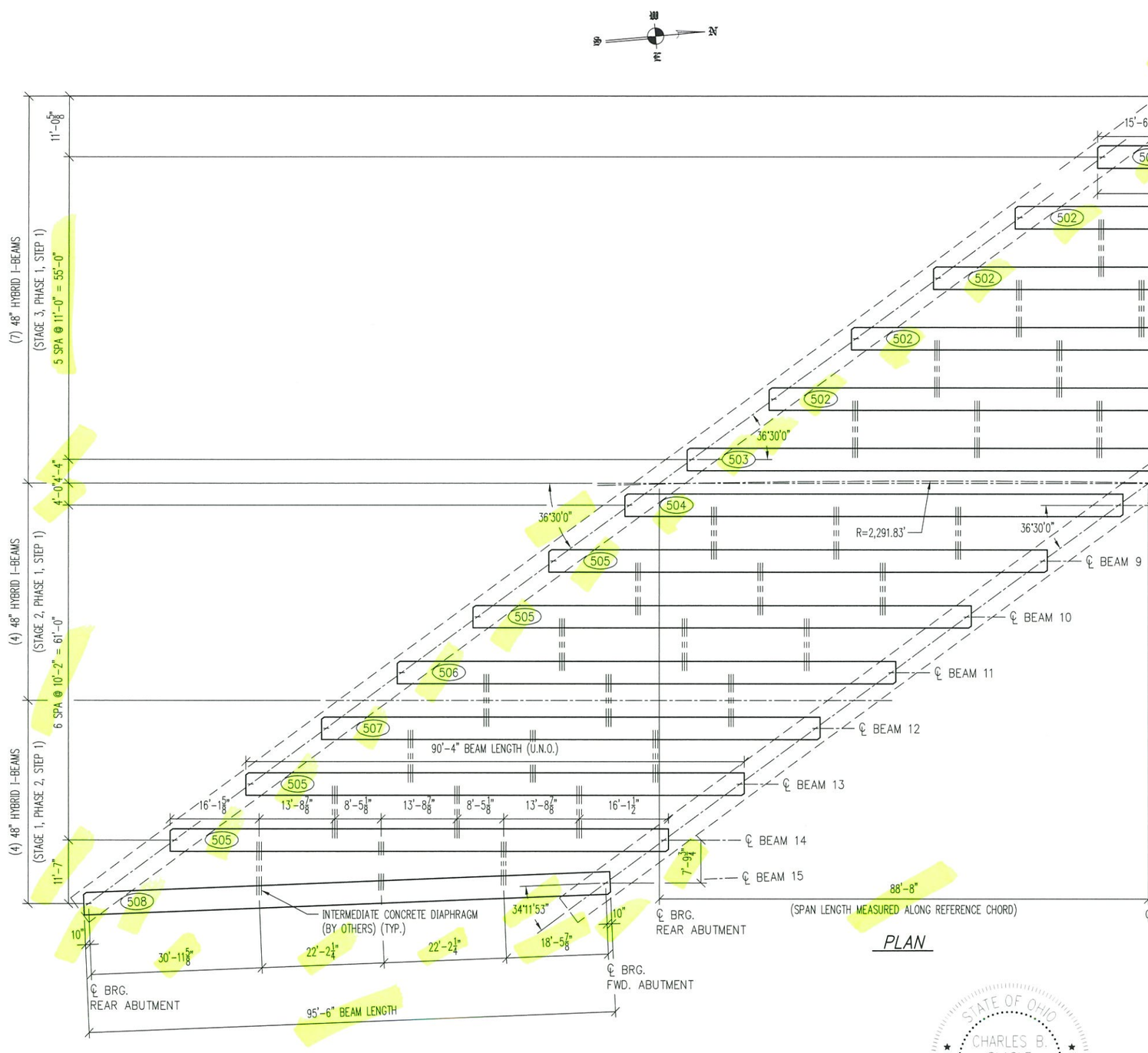
COVER SHEET

HAMILTON COUNTY, OHIO. HAM-75-3.85
IR-75 OVER IR-74 WB
BRIDGE No. HAM-75-0440 L/R STR. FILE: 3109763
48" HYBRID I-BEAM. ODOT: (18)3000 PID: 104667

CONTRACTOR: WALSH

PRESTRESS SERVICES INDUSTRIES LLC

Production: Lexington, KY (859) 299-0461 | Drafting: Lexington, KY (859) 299-0461
DATE: 05/06/19 | DRAWN BY: Shannon Travis | CHECKED: Monica Kennedy
REVISIONS: △ △ △
CODE: HN 48 49 OH | SHEET: 1 OF 19 | JOB NO: L19165



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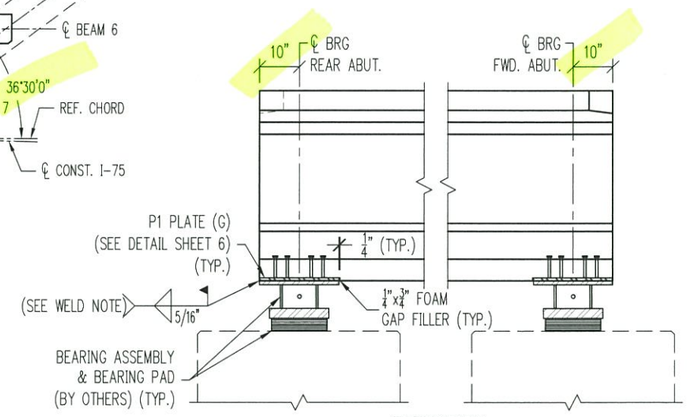

ELEVATION

NOTE FOR CONTRACTOR:

USE CAUTION WHEN WELDING TO THE BEARING PLATE EMBEDDED IN OUR BEAMS. OVERHEATING CAN CAUSE CRACKING AND/OR SPALLING THAT WILL REQUIRE COSTLY REPAIRS. IN NO CASE SHALL TEMPERATURE OF THE LOAD PLATE OR BEARING ASSEMBLY EXCEED 300°F WHEN FIELD WELDING TO THE BEARING PLATE. WELDING SHALL BE MONITORED BY THE USE OF TEMPERATURE INDICATING CRAYONS OR OTHER APPROVED METHOD.

STATE OF OHIO
CHARLES B. SLAGLE
E-67391
REGISTERED
PROFESSIONAL ENGINEER

ERECTION LAYOUT & DETAILS

HAMILTON COUNTY, OHIO. HAM-75-3.85
IR-75 OVER IR-74 WB
BRIDGE No. HAM-75-0440 L/R STR. FILE: 3109763
48" HYBRID I-BEAM. ODOT: (18)3000 PID: 104667

CONTRACTOR: WALSH

PRESTRESS SERVICES INDUSTRIES LLC

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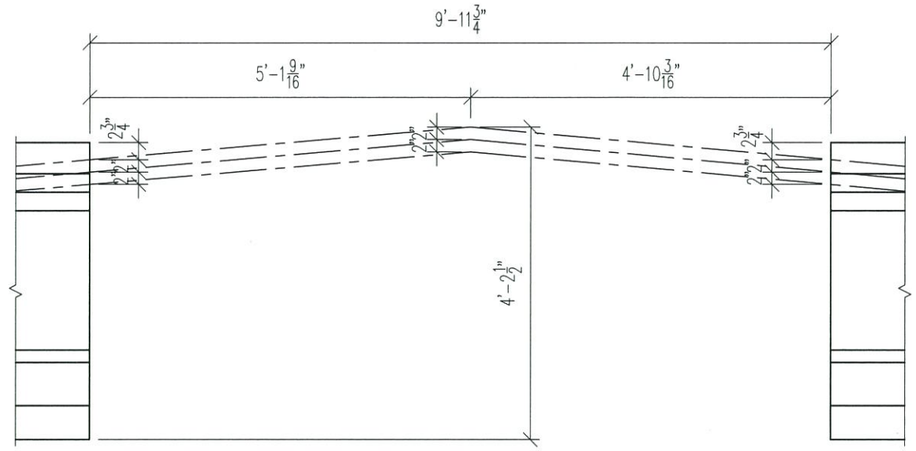
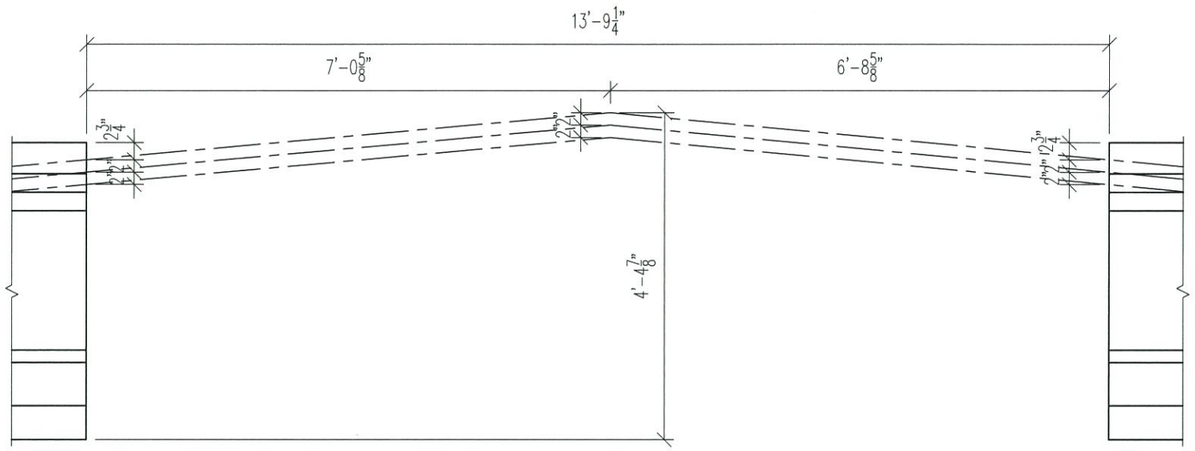
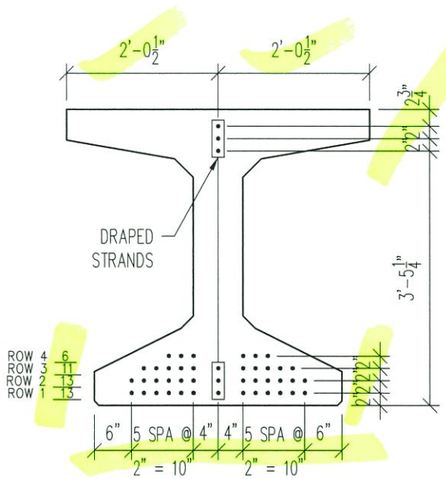
CODE: HN 48 49 OH	SHEET: 2 OF 19 / JOB NO: L19165



DETAIL B
(AT HOLD-UP)



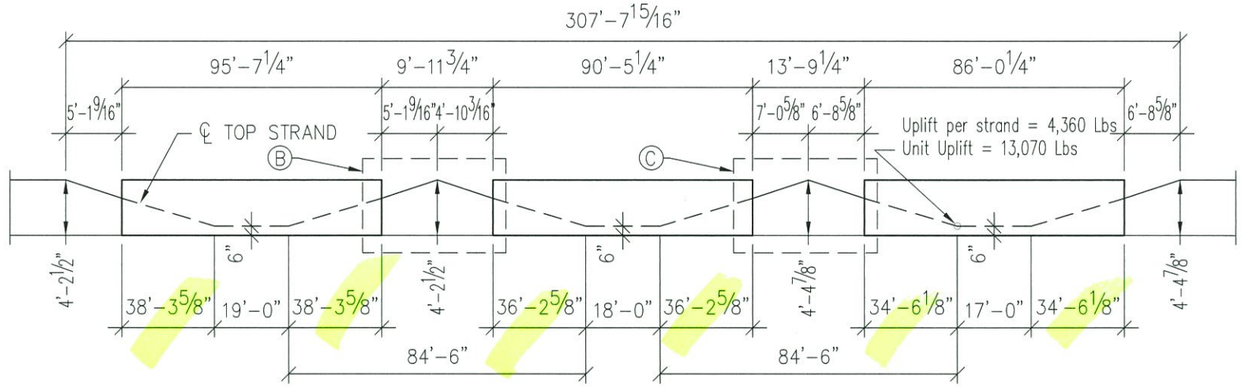
DETAIL C
(AT HOLD-UP)



43 – 0.6"ø 270K LOW RELAX (A_S=0.217"²)
PREPULL AT 5,000 LBS., FINAL PULL AT 43,943 LBS.

POUR 1
(SINGLE SPAN)

STRAND PATTERN



350' BED LAYOUT
* FOR INTERNAL USE ONLY

BED LAYOUT NOTES

1. ALL DIMENSIONS ARE CASTING DIMENSIONS AND ARE MEASURED ALONG THE SOFFIT AT THE CENTERLINE OF THE BEAM.
2. DRAPED STRANDS ARE STRESSED IN THE DRAPED POSITION.
3. ALL HOLDDOWNS ARE DAYTON/RICHMOND H-40. MAXIMUM SAFE WORKING LOADS: 8,000 Lbs. PER STRAND AND 40,000 LBS. PER UNIT.

CASTING BED LAYOUT – SHEET 1

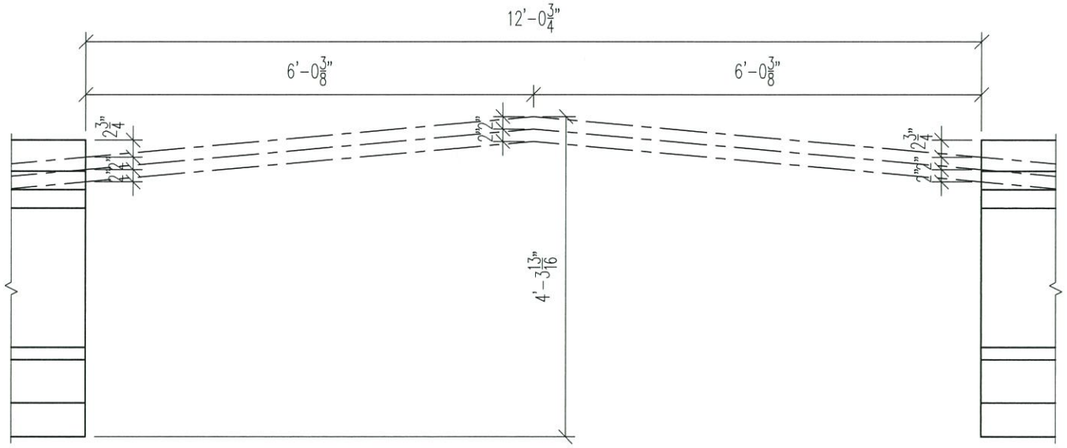
HAMILTON COUNTY, OHIO. HAM-75-3.85
IR-75 OVER IR-74 WB
BRIDGE No. HAM-75-0440 L/R STR. FILE: 3109763
48" HYBRID I-BEAM. ODOT: (18)3000 PID: 104667

CONTRACTOR: WALSH

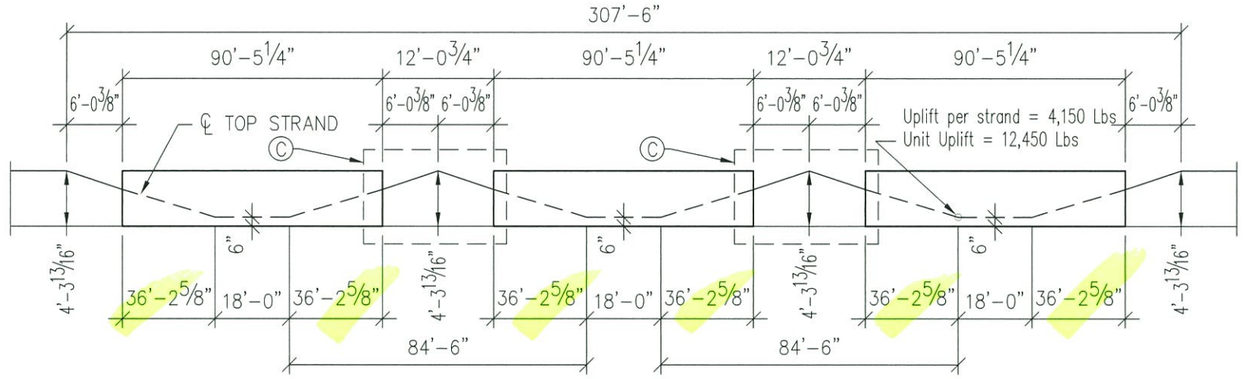
PRESTRESS SERVICES INDUSTRIES LLC

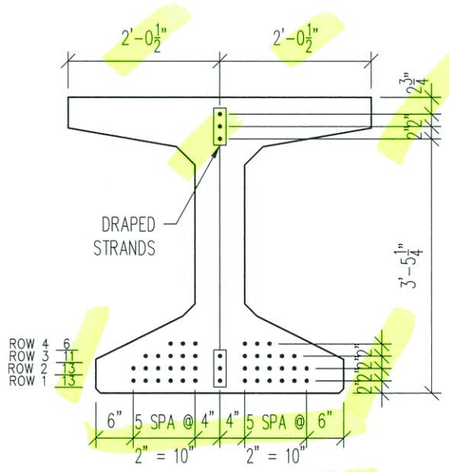
Production: Lexington, KY (859) 299-0461 | Drafting: Lexington, KY (859) 299-0461
DATE: 05/06/19 | DRAWN BY: Shannon Travis | CHECKED: Monica Kennedy
REVISIONS

CODE: HN 48 49 0H | SHEET: 3 OF 19 | JOB NO: L19165



DETAIL C
(AT HOLD-UP)





43 - 0.6"ø 270K LOW RELAX (A_S=0.217"²)
PREPULL AT 5,000 LBS., FINAL PULL AT 43,943 LBS.

POURS 2 THRU 5
(SINGLE SPAN)

STRAND PATTERN

POUR 2	503	505	505
POUR 3	504	505	505
POUR 4	502	502	502
POUR 5	502	502	506

350' BED LAYOUT
* FOR INTERNAL USE ONLY

BED LAYOUT NOTES

1. ALL DIMENSIONS ARE CASTING DIMENSIONS AND ARE MEASURED ALONG THE SOFFIT AT THE CENTERLINE OF THE BEAM.
2. DRAPED STRANDS ARE STRESSED IN THE DRAPED POSITION.
3. ALL HOLDDOWNS ARE DAYTON/RICHMOND H-40. MAXIMUM SAFE WORKING LOADS: 8,000 Lbs. PER STRAND AND 40,000 LBS. PER UNIT.

STATE OF OHIO
CHARLES B. SLAGLE
E-67391
REGISTERED PROFESSIONAL ENGINEER

CASTING BED LAYOUT - SHEET 2

HAMILTON COUNTY, OHIO. HAM-75-3.85
IR-75 OVER IR-74 WB
BRIDGE No. HAM-75-0440 L/R STR. FILE: 3109763
48" HYBRID I-BEAM. ODOT: (18)3000 PID: 104667

CONTRACTOR: WALSH

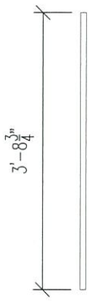
PRESTRESS SERVICES INDUSTRIES LLC

Production: Lexington, KY (859) 299-0461 | Drafting: Lexington, KY (859) 299-0461

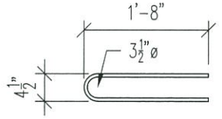
DATE: 05/06/19 | DRAWN BY: Shannon Travis | CHECKED: Monica Kennedy

REVISIONS

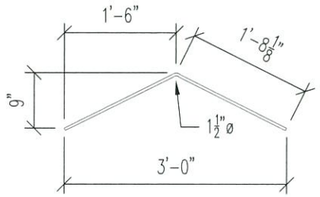
CODE: HN 48 49 OH | SHEET: 4 OF 19 | JOB NO: L19165



#505x3'-8 3/4"
(540 REQ'D)
(AT BEAM ENDS)



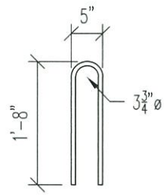
#S401(E)x3'-8"
(60 REQ'D)
(AT BEAM ENDS)



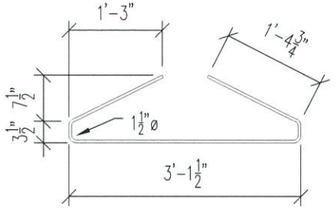
#305x3'-4"
(480 REQ'D)
(AT BEAM ENDS)

#4x5'-0"
(240 REQ'D)
(2'-0" MIN LAP)

#5x6'-0"
(90 REQ'D)
(2'-6" MIN LAP)



#501(E)x3'-7"
(1,710 REQ'D)

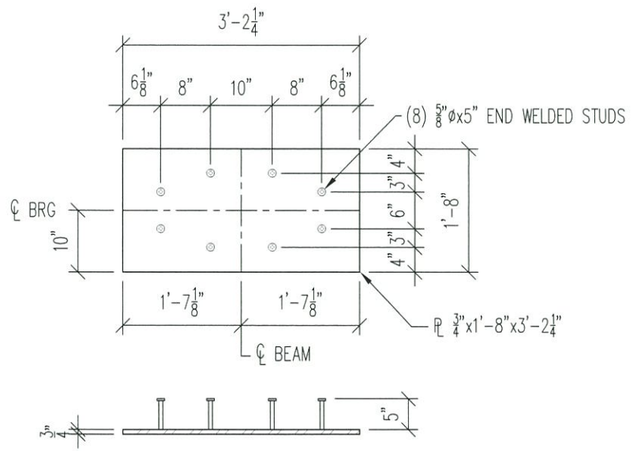


#302x6'-3"
(1,772 REQ'D)

#3xFULL LENGTH (FOR FABRICATION)

4 - #3x85'-8"
52 - #3x90'-1"
4 - #3x95'-3"

NOTE:
1) ALL REBAR IS ASTM A615 GRADE 60.
2) SEE PIECE DRAWINGS FOR INDIVIDUAL QUANTITIES PER BEAM.
3) WORK THIS SHEET WITH ALL BEAMS.
4) REBAR EXTENDING INTO DECK SHALL BE EPOXY COATED (E).
5) DIMENSIONS GIVEN ARE FROM OUT TO OUT OF BAR.
6) ALL WELDED WIRE REINFORCEMENT (WWR) MIN. YIELD TO BE 70 KSI.



P1 PLATE (GALV)
(ASTM A709 GRADE 50)
(30 REQ'D)

MARK 501		
BILL OF MATERIALS		
QTY	ITEM	FINISH
REBAR		
108	#501(E)x3'-7"	(E)
4	#401(E)x3'-8"	(E)
114	#302x6'-3"	(B)
32	#305x3'-4"	(B)
36	#505x3'-8 3/4"	(B)
4	#3x85'-8"	(B)
	#3 (FABRICATION)	
16	#4x5'-0"	(B)
12	#5x6'-0"	(B)
WELDED WIRE FABRIC		
4	VERT. SHEAR END	
2	VERT. SHEAR MID	
2	TOP FLANGE END	
1	TOP FLANGE MID	
HARDWARE		
8	0.5"ø DOUBLE LIFTLOOPS	(B)
2	P1 PLATES	(G)
2	H40 HOLDDOWNS B=2"/S3	
12	3/4"øx4" F-64 INSERTS	(G)
24	4 APR 45° HANGERS	(G)
STRAND		
43	0.6"ø 270K LR (As=0.217"²)	(B)
MATERIAL FINISHES		
(B) BLACK, (E) EPOXY, (G) GALVANIZED & (P) PRIMED		
CONCRETE		
CUBIC TOTAL:	21.60 CY	
WEIGHT:	87,400 LBS.	

MKs 502/503/504/505/506/507		
BILL OF MATERIALS		
QTY	ITEM	FINISH
REBAR		
114	#501(E)x3'-7"	(E)
4	#401(E)x3'-8"	(E)
118	#302x6'-3"	(B)
32	#305x3'-4"	(B)
36	#505x3'-8 3/4"	(B)
4	#3x90'-1"	(B)
	#3 (FABRICATION)	
16	#4x5'-0"	(B)
12	#5x6'-0"	(B)
WELDED WIRE FABRIC		
4	VERT. SHEAR END	
2	VERT. SHEAR MID	
2	TOP FLANGE END	
1	TOP FLANGE MID	
HARDWARE		
8	0.5"ø DOUBLE LIFTLOOPS	(B)
2	P1 PLATES	(G)
2	H40 HOLDDOWNS B=2"/S3	
* 24/12/12/24/24/24	3/4"øx4" F-64 INSERTS	(G)
* 0/25/25/0/0/25	4 APR 45° HANGERS	(G)
* 0/0/0/0/25/25	4 PR 90° HANGERS	(G)
* 0/36/0/0/0/0	1"øx10" COIL RODS	(G)
STRAND		
43	0.6"ø 270K LR (As=0.217"²)	(B)
MATERIAL FINISHES		
(B) BLACK, (E) EPOXY, (G) GALVANIZED & (P) PRIMED		
CONCRETE		
CUBIC TOTAL:	22.70 CY	
WEIGHT:	91,800 LBS.	

MARK 508		
BILL OF MATERIALS		
QTY	ITEM	FINISH
REBAR		
120	#501(E)x3'-7"	(E)
4	#401(E)x3'-8"	(E)
124	#302x6'-3"	(B)
32	#305x3'-4"	(B)
36	#505x3'-8 3/4"	(B)
4	#3x95'-3"	(B)
	#3 (FABRICATION)	
16	#4x5'-0"	(B)
12	#5x6'-0"	(B)
WELDED WIRE FABRIC		
4	VERT. SHEAR END	
2	VERT. SHEAR MID	
2	TOP FLANGE END	
1	TOP FLANGE MID	
HARDWARE		
8	0.5"ø DOUBLE LIFTLOOPS	(B)
2	P1 PLATES	(G)
2	H40 HOLDDOWNS B=2"/S3	
12	3/4"øx4" F-64 INSERTS	(G)
27	4 APR 45° HANGERS	(G)
STRAND		
43	0.6"ø 270K LR (As=0.217"²)	(B)
MATERIAL FINISHES		
(B) BLACK, (E) EPOXY, (G) GALVANIZED & (P) PRIMED		
CONCRETE		
CUBIC TOTAL:	24.00 CY	
WEIGHT:	97,100 LBS.	

* QUANTITIES SHOWN ARE PER BEAM/MARK UNLESS NOTED OTHERWISE

QTY: 1	MARK: 501
QTY: 5/1/1/4/1/1	MARK: 502/503/504/505/506/507
QTY: 1	MARK: 508

BAR BENDING DETAILS

HAMILTON COUNTY, OHIO. HAM-75-3.85
IR-75 OVER IR-74 WB
BRIDGE No. HAM-75-0440 L/R STR. FILE: 3109763
48" HYBRID I-BEAM. ODOT: (18)3000 PID: 104667

STATE OF OHIO
CHARLES B. SLAGLE
E-67391
REGISTERED
PROFESSIONAL ENGINEER

CONTRACTOR: WALSH

PRESTRESS SERVICES INDUSTRIES LLC

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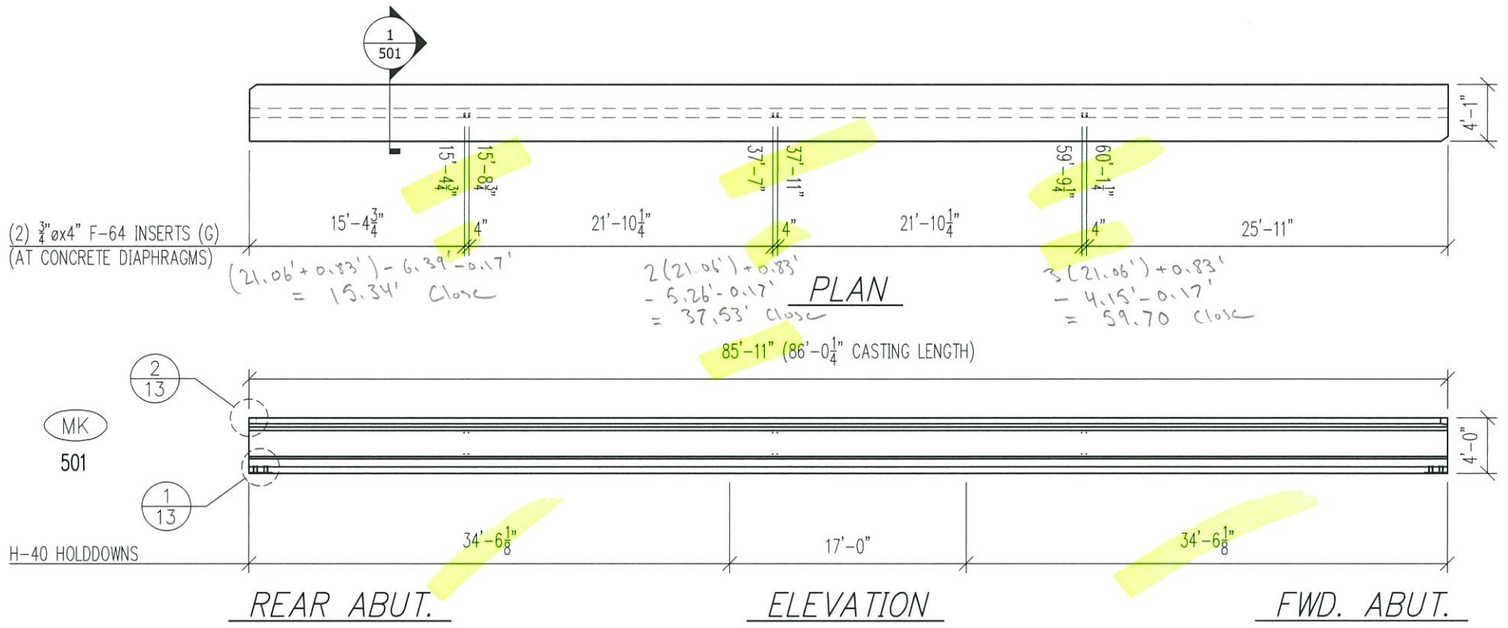
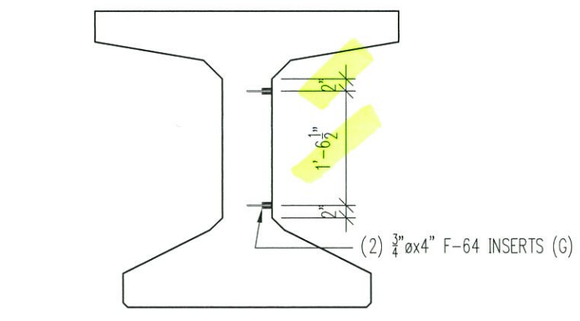




1 SECTION (501)
Scale: 1/2" = 1'-0"

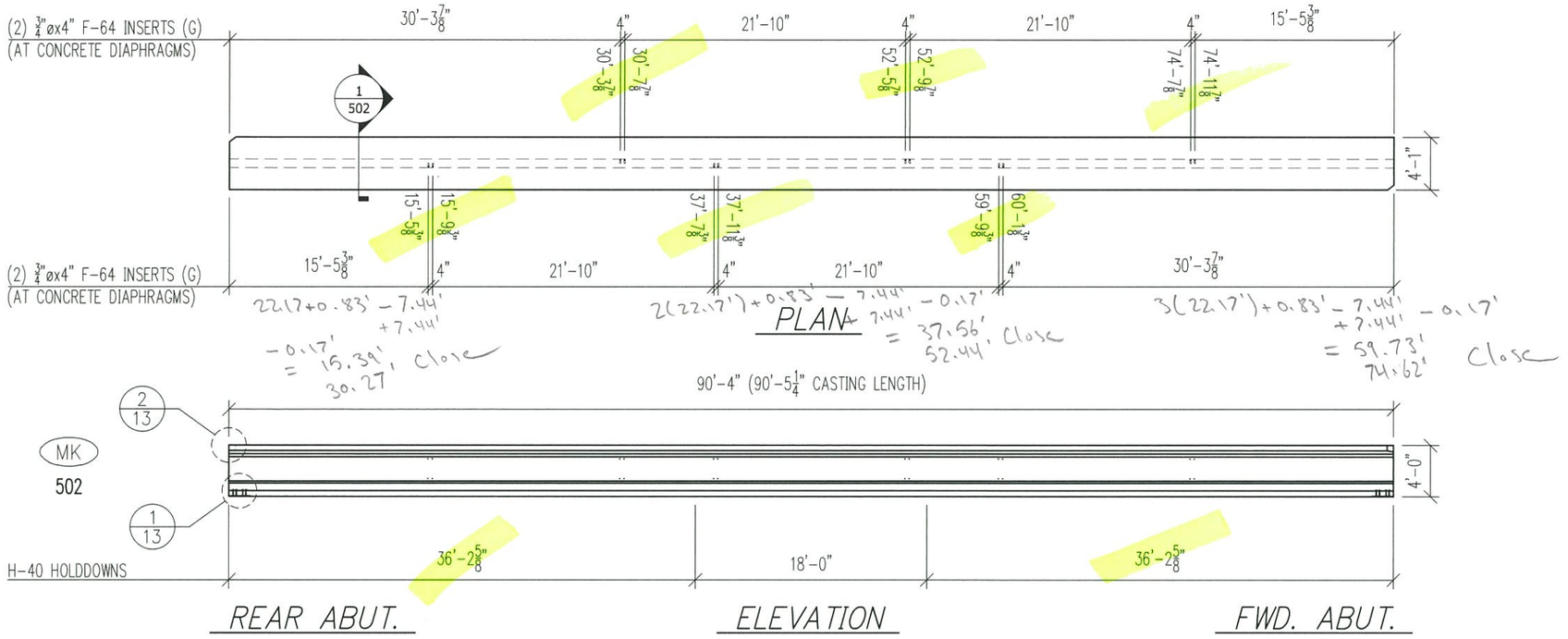
STEP 1 - FORMING PLAN

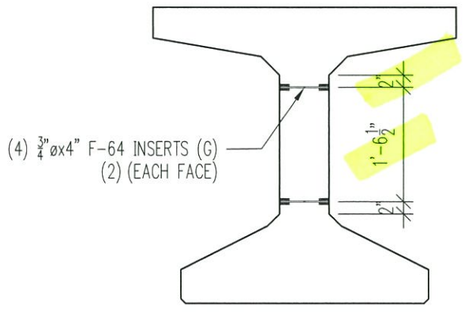
STEPS:
1) LOCATE HOLDDOWN LOCATIONS
2) LOCATE AND INSTALL HEADERS FROM HOLDDOWN POINTS
3) INSTALL BLOCKOUTS FOR CLIPPED TOP FLANGE
4) PLACE P1 PLATE AT BEAM ENDS
5) LOCATE INSERTS ON SIDE FORMS

NOTE: ¾"øx2'-2" THREADED RODS (G) for ¾"ø F-64 INSERTS (G) ARE SUPPLIED BY PRESTRESS & INSTALLED BY CONTRACTOR.

STATE OF OHIO
CHARLES B. SLAGLE
E-67391
REGISTERED
PROFESSIONAL ENGINEER

QTY: 1	MARK: 501
STEP 1 FORMING PLAN (SHEET 1)	
HAMILTON COUNTY, OHIO. HAM-75-3.85 IR-75 OVER IR-74 WB BRIDGE No. HAM-75-0440 L/R STR. FILE: 3109763 48" HYBRID I-BEAM. ODOT: (18)3000 PID: 104667	
CONTRACTOR: WALSH	
PRESTRESS SERVICES INDUSTRIES LLC	
Production: Lexington, KY (859) 299-0461	Drafting: Lexington, KY (859) 299-0461
DATE: 05/06/19	DRAWN BY: Shannon Travis / CHECKED: Monica Kennedy
REVISIONS △ △ △	
CODE: HN 48 49 OH	SHEET: 6 OF 19 / JOB NO: L19165





1 SECTION (502)
Scale: 1/2" = 1'-0"

STEP 1 - FORMING PLAN

STEPS:
1) LOCATE HOLDDOWN LOCATIONS
2) LOCATE AND INSTALL HEADERS FROM HOLDDOWN POINTS
3) INSTALL BLOCKOUTS FOR CLIPPED TOP FLANGE
4) PLACE P1 PLATE AT BEAM ENDS
5) LOCATE INSERTS ON SIDE FORMS

NOTE: ¾"øx2'-2" THREADED RODS (G) for ¾"ø F-64 INSERTS (G) ARE SUPPLIED BY PRESTRESS & INSTALLED BY CONTRACTOR.

STATE OF OHIO
CHARLES B. SLAGLE
E-67391
REGISTERED PROFESSIONAL ENGINEER

QTY: 5	MARK: 502

STEP 1 FORMING PLAN (SHEET 2)

HAMILTON COUNTY, OHIO. HAM-75-3.85
IR-75 OVER IR-74 WB
BRIDGE No. HAM-75-0440 L/R STR. FILE: 3109763
48" HYBRID I-BEAM. ODOT: (18)3000 PID: 104667

CONTRACTOR: WALSH

PRESTRESS SERVICES INDUSTRIES LLC

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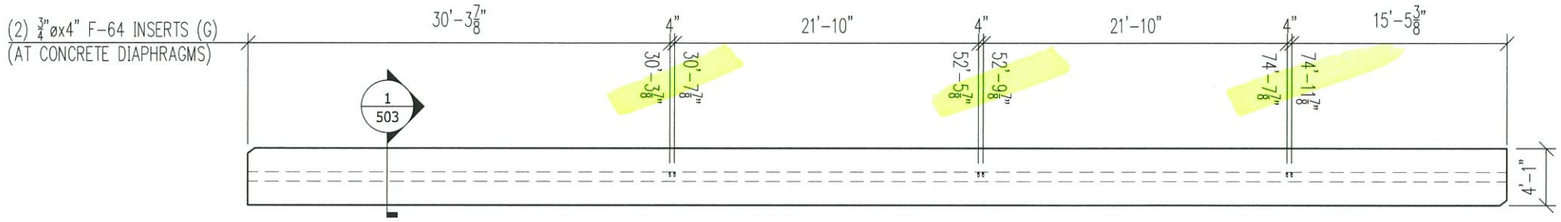
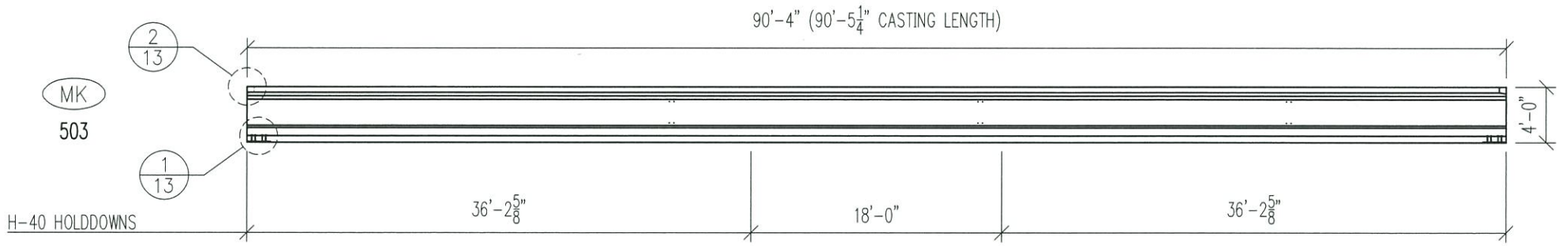
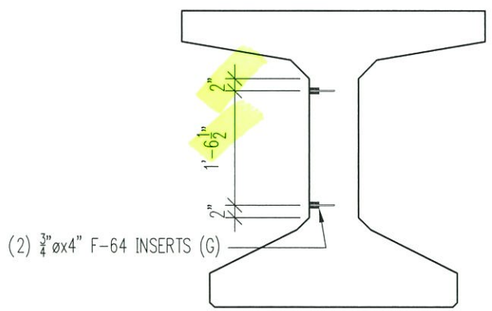
DATE: 05/06/19	DRAWN BY: Shannon Travis CHECKED: Monica Kennedy
REVISIONS	
CODE: HN 48 49 OH	SHEET: 7 OF 19 JOB NO: L19165



PLAN



REAR ABUT. ELEVATION FWD. ABUT.



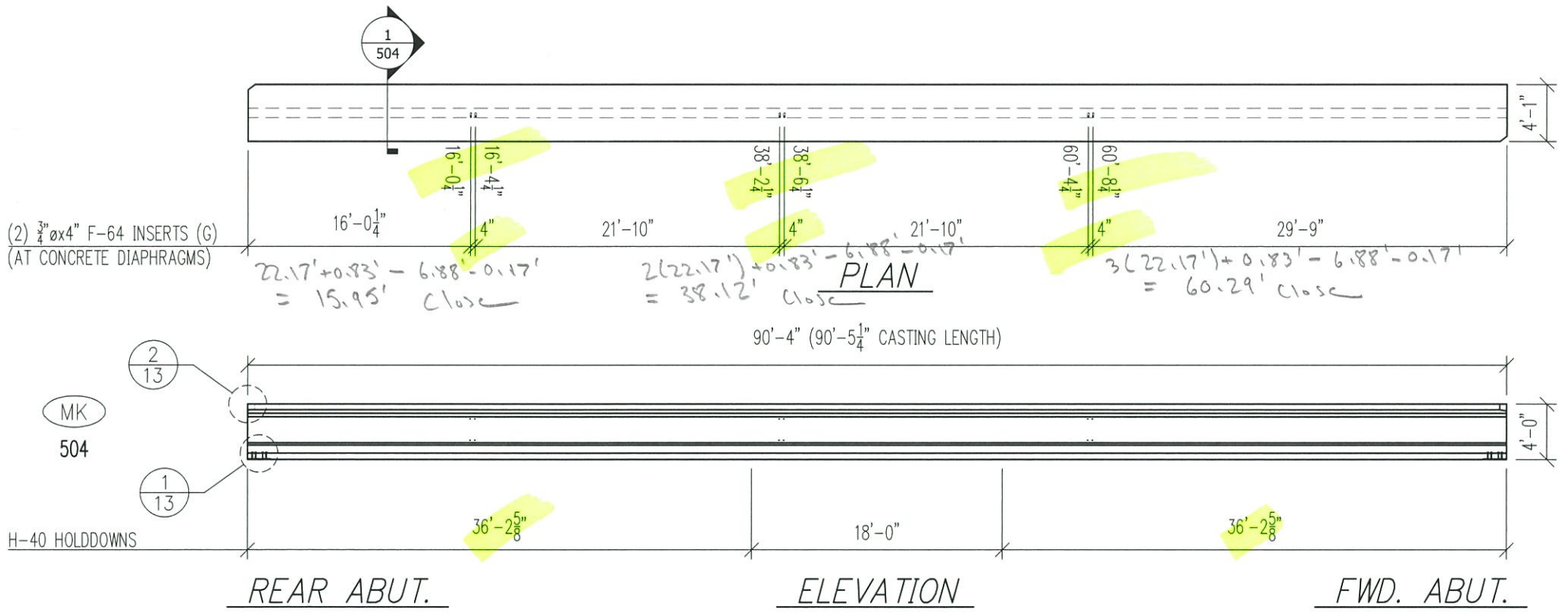
1 SECTION (503)
Scale: 1/2" = 1'-0"

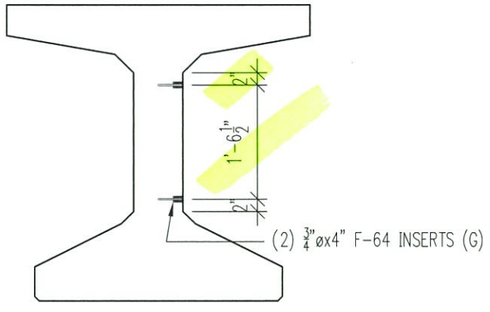
STEP 1 - FORMING PLAN

STEPS:
1) LOCATE HOLDDOWN LOCATIONS
2) LOCATE AND INSTALL HEADERS FROM HOLDDOWN POINTS
3) INSTALL BLOCKOUTS FOR CLIPPED TOP FLANGE
4) PLACE P1 PLATE AT BEAM ENDS
5) LOCATE INSERTS ON SIDE FORMS

NOTE: ¾"øx2'-2" THREADED RODS (G) for ¾"ø F-64 INSERTS (G) ARE SUPPLIED BY PRESTRESS & INSTALLED BY CONTRACTOR.

QTY: 1	MARK: 503
STEP 1 FORMING PLAN (SHEET 3)	
HAMILTON COUNTY, OHIO. HAM-75-3.85 IR-75 OVER IR-74 WB BRIDGE No. HAM-75-0440 L/R STR. FILE: 3109763 48" HYBRID I-BEAM. ODOT: (18)3000 PID: 104667	
CONTRACTOR: WALSH	
PRESTRESS SERVICES INDUSTRIES LLC	
Production: Lexington, KY (859) 299-0461	Drafting: Lexington, KY (859) 299-0461
DATE: 05/06/19	DRAWN BY: Shannon Travis / CHECKED: Monica Kennedy
REVISIONS	
CODE: HN 48 49 OH	SHEET: 8 OF 19 / JOB NO: L19165



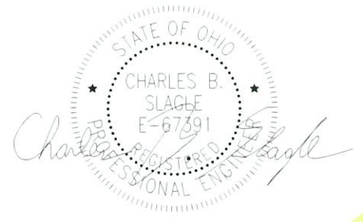


1 SECTION (504)
Scale: 1/2" = 1'-0"

STEP 1 - FORMING PLAN

STEPS:
1) LOCATE HOLDDOWN LOCATIONS
2) LOCATE AND INSTALL HEADERS FROM HOLDDOWN POINTS
3) INSTALL BLOCKOUTS FOR CLIPPED TOP FLANGE
4) PLACE P1 PLATE AT BEAM ENDS
5) LOCATE INSERTS ON SIDE FORMS

NOTE: ¾"øx2'-2" THREADED RODS (G) for ¾"ø F-64 INSERTS (G) ARE SUPPLIED BY PRESTRESS & INSTALLED BY CONTRACTOR.

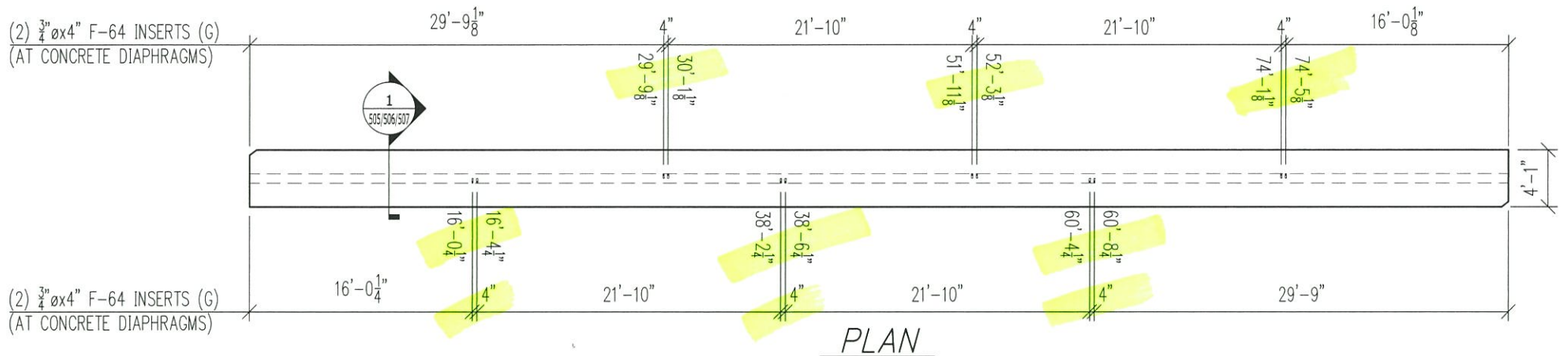


QTY: 1	MARK: 504
STEP 1 FORMING PLAN (SHEET 4)	
HAMILTON COUNTY, OHIO. HAM-75-3.85 IR-75 OVER IR-74 WB BRIDGE No. HAM-75-0440 L/R STR. FILE: 3109763 48" HYBRID I-BEAM. ODOT: (18)3000 PID: 104667	
CONTRACTOR: WALSH	
PRESTRESS SERVICES INDUSTRIES LLC	
Production: Lexington, KY (859) 299-0461	Drafting: Lexington, KY (859) 299-0461
DATE: 05/06/19	DRAWN BY: Shannon Travis / CHECKED: Monica Kennedy
REVISIONS	
CODE: HN 48 49 OH	SHEET: 9 OF 19 / JOB NO: L19165

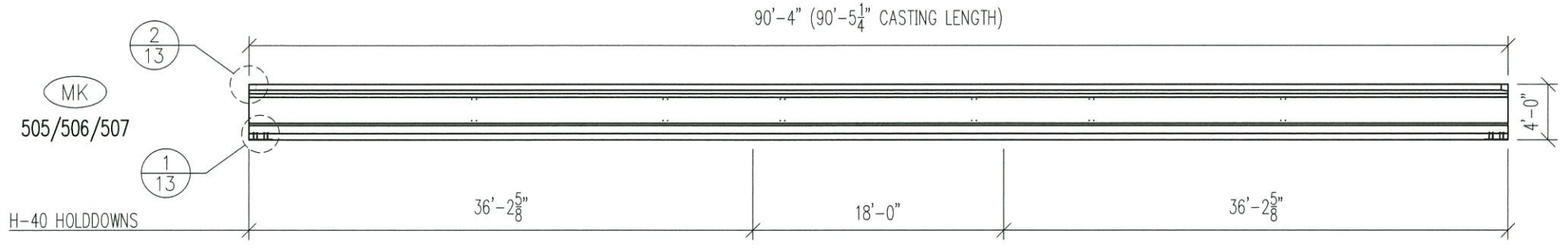
15.95' + 2(6.88') = 29.71' close

38.12' + 2(6.88') = 51.88' close

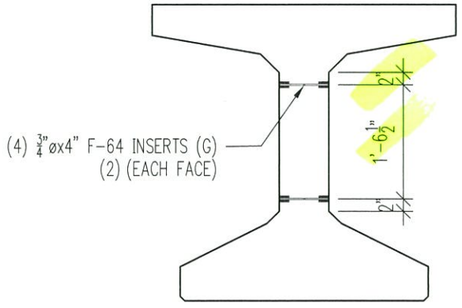
60.29' + 2(6.88') = 74.05' close



PLAN



REAR ABUT. ELEVATION FWD. ABUT.



1 SECTION (505 THRU 507)

Scale: 1/2" = 1'-0"

STEP 1 - FORMING PLAN

STEPS:
1) LOCATE HOLDDOWN LOCATIONS
2) LOCATE AND INSTALL HEADERS FROM HOLDDOWN POINTS
3) INSTALL BLOCKOUTS FOR CLIPPED TOP FLANGE
4) PLACE P1 PLATE AT BEAM ENDS
5) LOCATE INSERTS ON SIDE FORMS

NOTE: ¾"øx2'-2" THREADED RODS (G) for ¾"ø F-64 INSERTS (G) ARE SUPPLIED BY PRESTRESS & INSTALLED BY CONTRACTOR.

STATE OF OHIO
CHARLES B. SLAGLE
E-67391
REGISTERED PROFESSIONAL ENGINEER

QTY: 4/1/1	MARK: 505/506/507		
STEP 1 FORMING PLAN (SHEET 5)			
HAMILTON COUNTY, OHIO. HAM-75-3.85 IR-75 OVER IR-74 WB BRIDGE No. HAM-75-0440 L/R STR. FILE: 3109763 48" HYBRID I-BEAM. ODOT: (18)3000 PID: 104667			
CONTRACTOR: WALSH			
PRESTRESS SERVICES INDUSTRIES LLC			
Production: Lexington, KY (859) 299-0461	Drafting: Lexington, KY (859) 299-0461		
DATE: 05/06/19	DRAWN BY: Shannon Travis	CHECKED: Monica Kennedy	
REVISIONS			
CODE: HN 48 49 OH	SHEET: 10 OF 19	JOB NO: L19165	

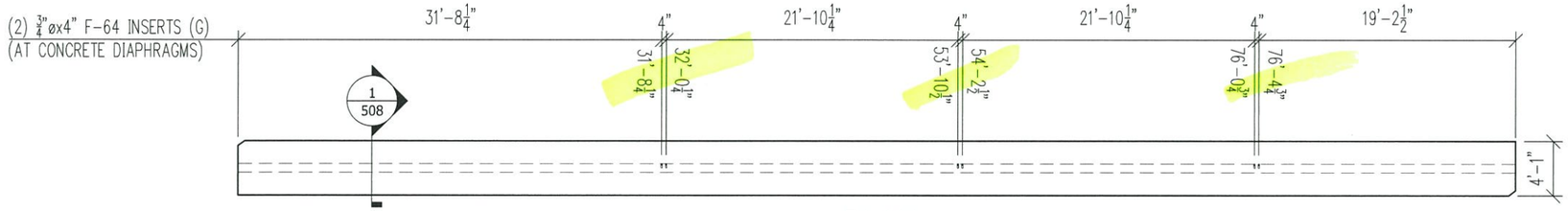
L19165 < 10 505 S1 > STRAVIS

5/23/2019 4:24 PM

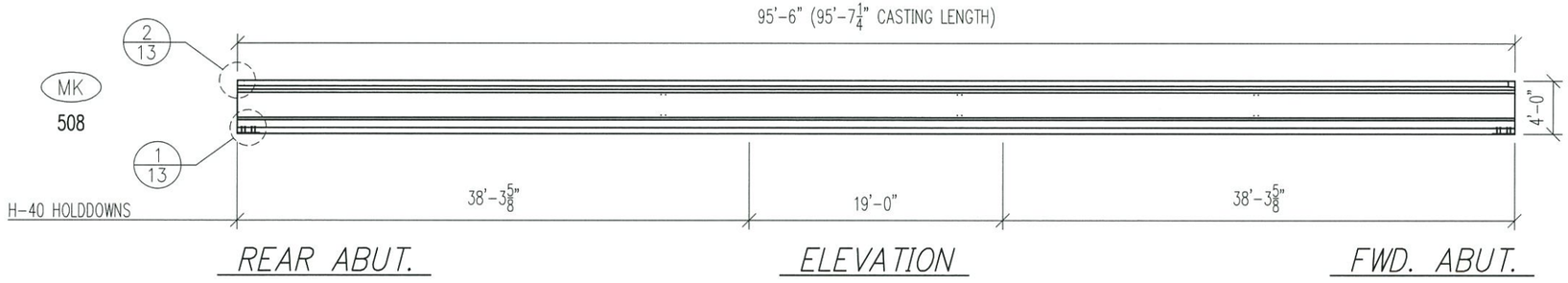
23.46' + 0.83' + 7.51' - 0.17' = 31.63' Close

2(23.46') + 0.83' + 6.24' - 0.17' = 53.32' Close

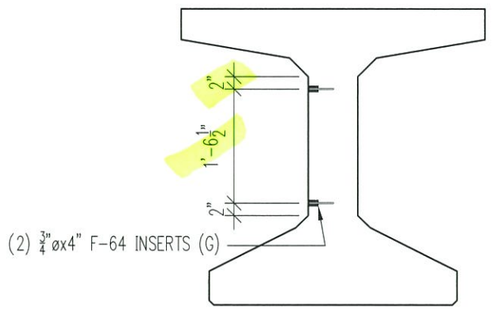
3(23.46') + 0.83' + 4.17' - 0.17' = 76.01' Close



PLAN



REAR ABUT. ELEVATION FWD. ABUT.



1 SECTION (508)

Scale: 1/2" = 1'-0"

STEP 1 - FORMING PLAN

STEPS:

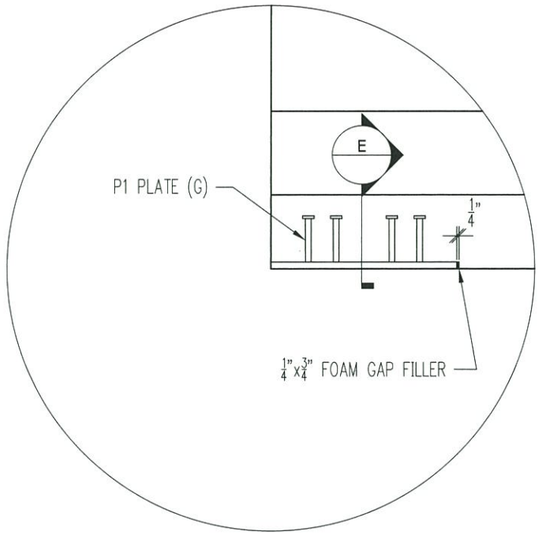
1) LOCATE HOLDDOWN LOCATIONS
2) LOCATE AND INSTALL HEADERS FROM HOLDDOWN POINTS
3) INSTALL BLOCKOUTS FOR CLIPPED TOP FLANGE
4) PLACE P1 PLATE AT BEAM ENDS
5) LOCATE INSERTS ON SIDE FORMS

NOTE: ¾"øx2'-2" THREADED RODS (G) for ¾"ø F-64 INSERTS (G) ARE SUPPLIED BY PRESTRESS & INSTALLED BY CONTRACTOR.

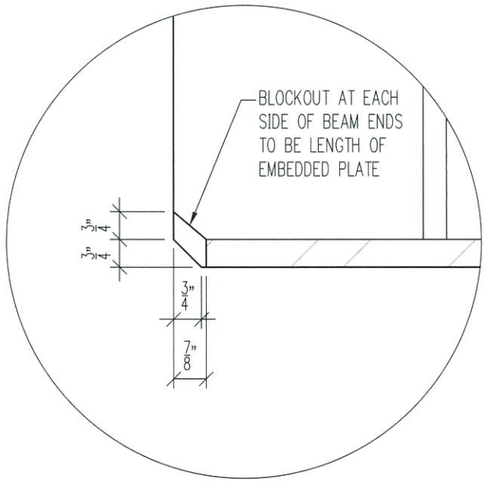
STATE OF OHIO
CHARLES B. SLAGLE
E-67391
REGISTERED PROFESSIONAL ENGINEER

Charles B. Slagle

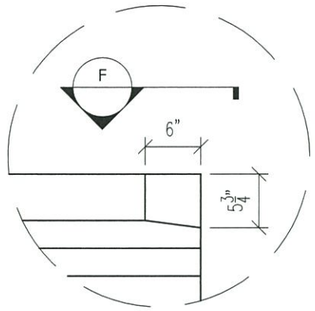
QTY: 1	MARK: 508
STEP 1 FORMING PLAN (SHEET 6)	
HAMILTON COUNTY, OHIO. HAM-75-3.85 IR-75 OVER IR-74 WB BRIDGE No. HAM-75-0440 L/R STR. FILE: 3109763 48" HYBRID I-BEAM. ODOT: (18)3000 PID: 104667	
CONTRACTOR: WALSH	
PRESTRESS SERVICES INDUSTRIES LLC	
Production: Lexington, KY (859) 299-0461	Drafting: Lexington, KY (859) 299-0461
DATE: 05/06/19 DRAWN BY: Shannon Travis	CHECKED: Monica Kennedy
REVISIONS △ △ △	
CODE: HN 48 49 OH	SHEET: 11 OF 19 JOB NO: L19165



DETAIL 1



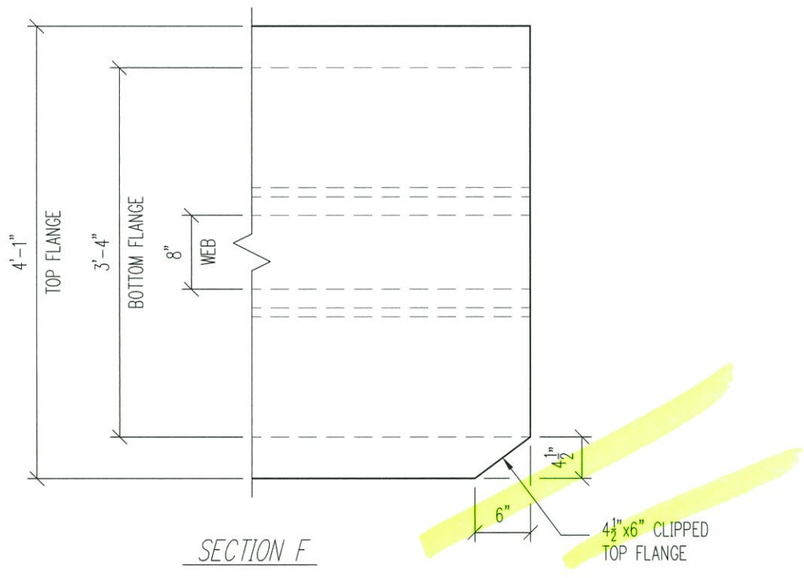
SECTION E



DETAIL 2

CLIPPED TOP FLANGE

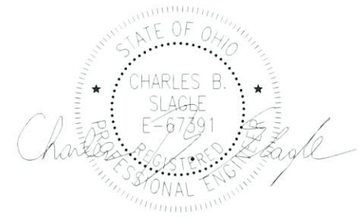
BENT 2 SHOWN, BENT 1 SIMILAR BY OPPOSITE HAND



SECTION F

CLIPPED TOP FLANGE

FWD. ABUT. SHOWN, REAR ABUT. SIMILAR BY OPPOSITE HAND



QTY: 1/5/1	MARK: 501/502/503
QTY: 1/4/1/1/1	MARK: 504/505/506/507/508

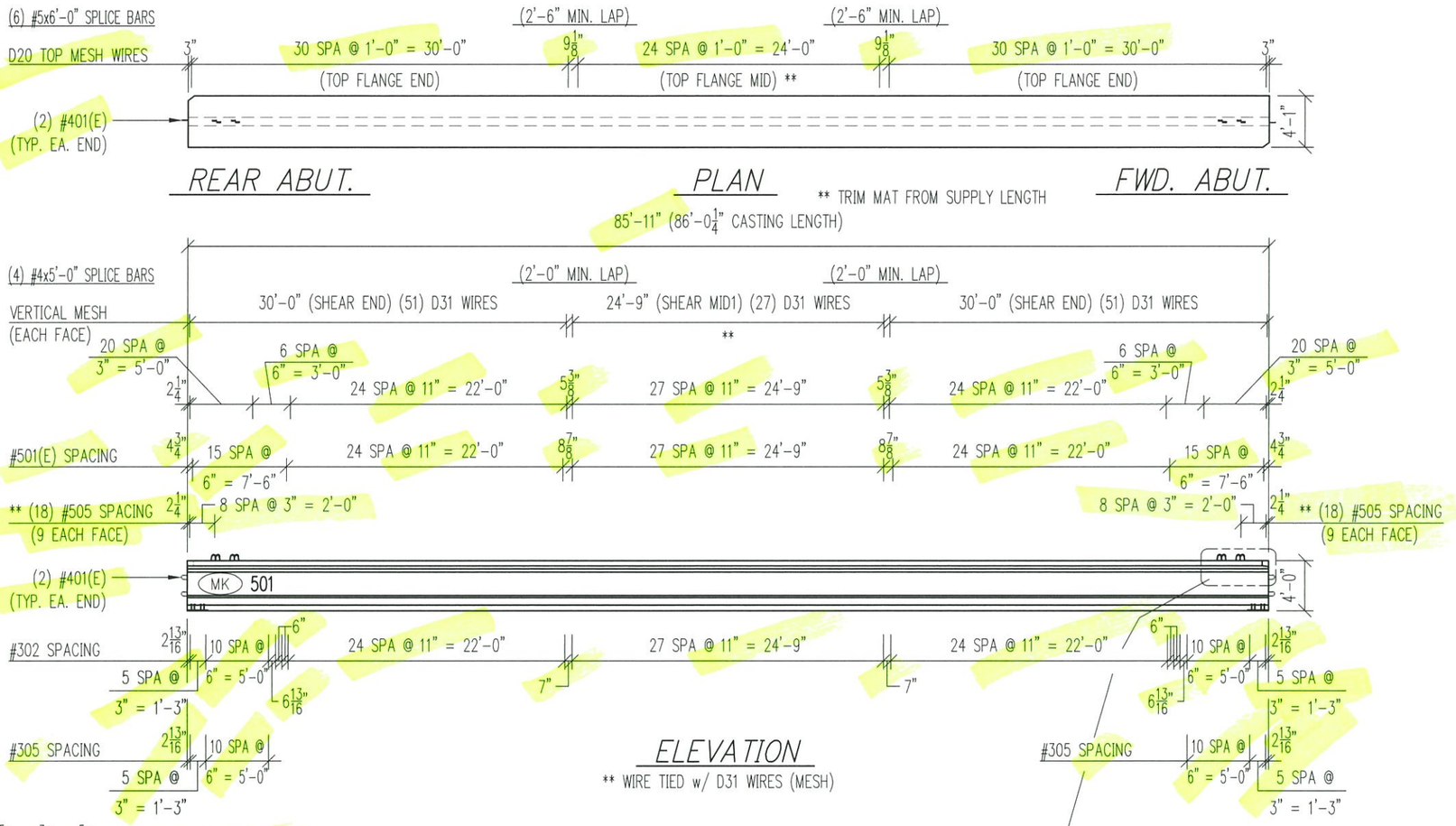
STEP 1 DETAILS

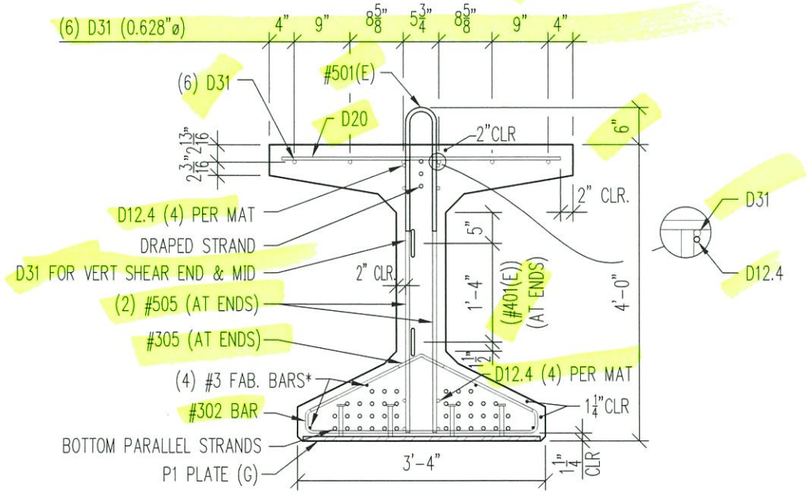
HAMILTON COUNTY, OHIO. HAM-75-3.85
IR-75 OVER IR-74 WB
BRIDGE No. HAM-75-0440 L/R STR. FILE: 3109763
48" HYBRID I-BEAM. ODOT: (18)3000 PID: 104667

CONTRACTOR: WALSH

PRESTRESS SERVICES INDUSTRIES LLC

Production: Lexington, KY (859) 299-0461	Drafting: Lexington, KY (859) 299-0461
DATE: 05/06/19	DRAWN BY: Shannon Travis / CHECKED: Monica Kennedy
REVISIONS	
CODE: HN 48 49 OH	SHEET: 12 OF 19 / JOB NO: L19165





REINFORCEMENT DETAIL

* REINFORCEMENT CAGES ARE TO BE MANUFACTURED IN SECTIONS TO OPTIMIZE PRODUCTION EFFICIENCY. ALL REINFORCEMENT DESIGNATED FULL LENGTH WILL BE MANUFACTURED PER THE SECTION LENGTHS AND SPLICED TOGETHER IN THE FORM AFTER SECTIONS HAVE BEEN SET, PER PCI GUIDELINES.

STEP 2 - INSTALL CAGE & RUN STRANDS

STEPS:

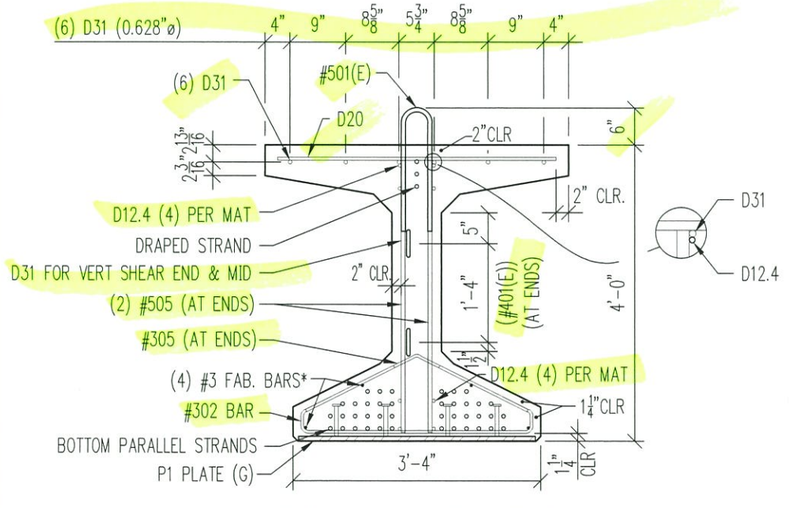
1) INSTALL BOTTOM CAGE (#302 & #3 FAB BARS)
2) INSTALL HOLDDOWNS
3) RUN AND PREPULL BOTTOM STRAND
4) RUN AND PREPULL DRAPED STRAND
5) FINAL TENSION ALL STRAND
6) INSTALL TOP CAGE CONSISTING OF #501(E), TOP & VERTICAL MESH, AND SPLICE BARS
7) INSTALL #401(E), #505 & #305 BARS AT ENDS
8) INSTALL LIFTLOOPS
9) CLOSE FORMS

STATE OF OHIO
CHARLES B. SLAGLE
E-67391
REGISTERED PROFESSIONAL ENGINEER

QTY: 1	MARK: 501
STEP 2 DETAILS (SHEET 1)	
HAMILTON COUNTY, OHIO. HAM-75-3.85 IR-75 OVER IR-74 WB BRIDGE No. HAM-75-0440 L/R STR. FILE: 3109763 48" HYBRID I-BEAM. ODOT: (18)3000 PID: 104667	
CONTRACTOR: WALSH	
PRESTRESS SERVICES INDUSTRIES LLC	
Production: Lexington, KY (859) 299-0461	Drafting: Lexington, KY (859) 299-0461
DATE: 05/06/19	DRAWN BY: Shannon Travis / CHECKED: Monica Kennedy
REVISIONS	
CODE: HN 48 49 OH	SHEET: 13 OF 19 / JOB NO: L19165

ELEVATION

** WIRE TIED w/ D31 WIRES (MESH)



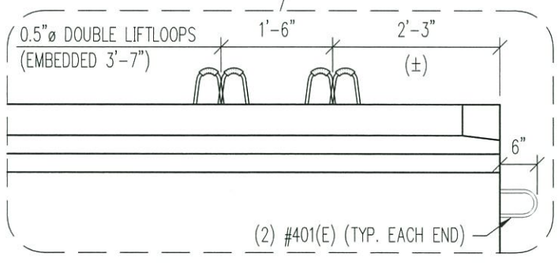
REINFORCEMENT DETAIL

* REINFORCEMENT CAGES ARE TO BE MANUFACTURED IN SECTIONS TO OPTIMIZE PRODUCTION EFFICIENCY. ALL REINFORCEMENT DESIGNATED FULL LENGTH WILL BE MANUFACTURED PER THE SECTION LENGTHS AND SPLICED TOGETHER IN THE FORM AFTER SECTIONS HAVE BEEN SET, PER PCI GUIDELINES.

STEP 2 - INSTALL CAGE & RUN STRANDS

STEPS:

1) INSTALL BOTTOM CAGE (#302 & #3 FAB BARS)
2) INSTALL HOLDDOWNS
3) RUN AND PREPULL BOTTOM STRAND
4) RUN AND PREPULL DRAPED STRAND
5) FINAL TENSION ALL STRAND
6) INSTALL TOP CAGE CONSISTING OF #501(E), TOP & VERTICAL MESH, AND SPLICE BARS
7) INSTALL #401(E), #505 & #305 BARS AT ENDS
8) INSTALL LIFTLOOPS
9) CLOSE FORMS



STATE OF OHIO
CHARLES B. SLAGLE
E-67391
REGISTERED PROFESSIONAL ENGINEER

QTY: 5/1	MARK: 502/503
QTY: 1/4/1/1	MARK: 504/505/506/507

STEP 2 DETAILS (SHEET 2)

HAMILTON COUNTY, OHIO. HAM-75-3.85
IR-75 OVER IR-74 WB
BRIDGE No. HAM-75-0440 L/R STR. FILE: 3109763
48" HYBRID I-BEAM. ODOT: (18)3000 PID: 104667

CONTRACTOR: WALSH

PRESTRESS SERVICES INDUSTRIES LLC

Production: Lexington, KY (859) 299-0461 | Drafting: Lexington, KY (859) 299-0461

DATE: 05/06/19 | DRAWN BY: Shannon Travis | CHECKED: Monica Kennedy

REVISIONS

CODE: HN 48 49 OH | SHEET: 14 OF 19 | JOB NO: L19165

REINFORCEMENT DETAIL

ELEVATION

** WIRE TIED w/ D31 WIRES (MESH)

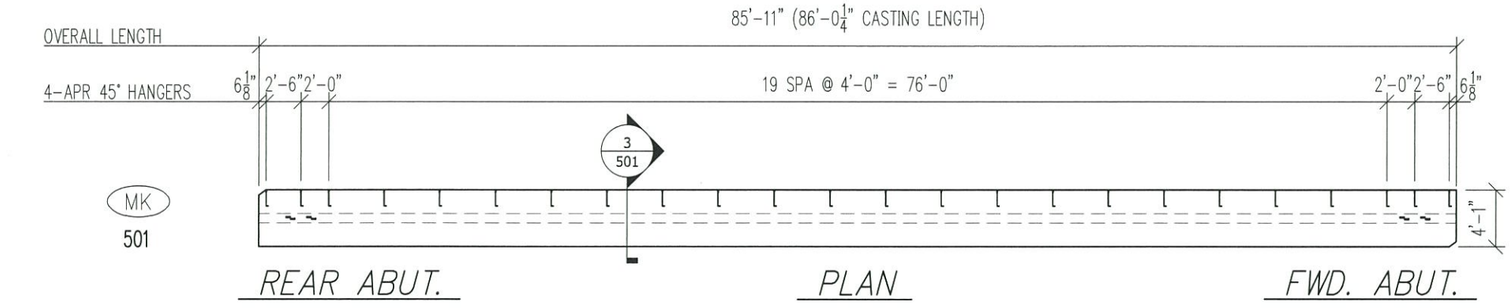
* REINFORCEMENT CAGES ARE TO BE MANUFACTURED IN SECTIONS TO OPTIMIZE PRODUCTION EFFICIENCY. ALL REINFORCEMENT DESIGNATED FULL LENGTH WILL BE MANUFACTURED PER THE SECTION LENGTHS AND SPLICED TOGETHER IN THE FORM AFTER SECTIONS HAVE BEEN SET, PER PCI GUIDELINES.

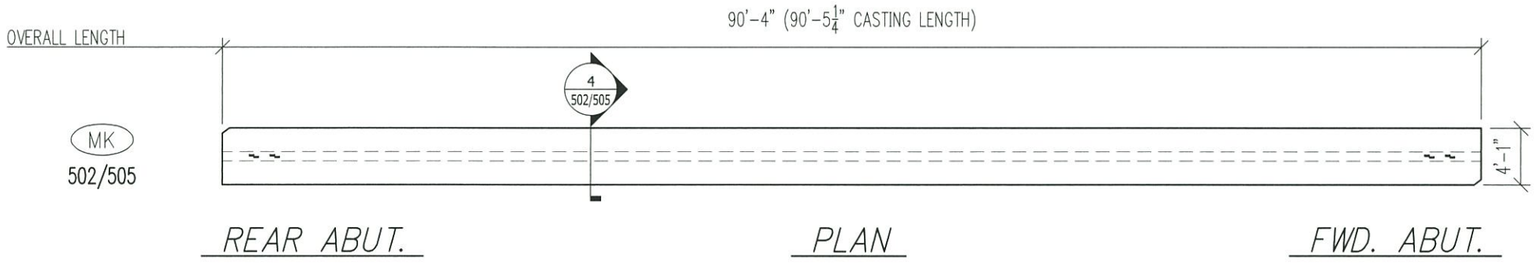
STEP 2 - INSTALL CAGE & RUN STRANDS

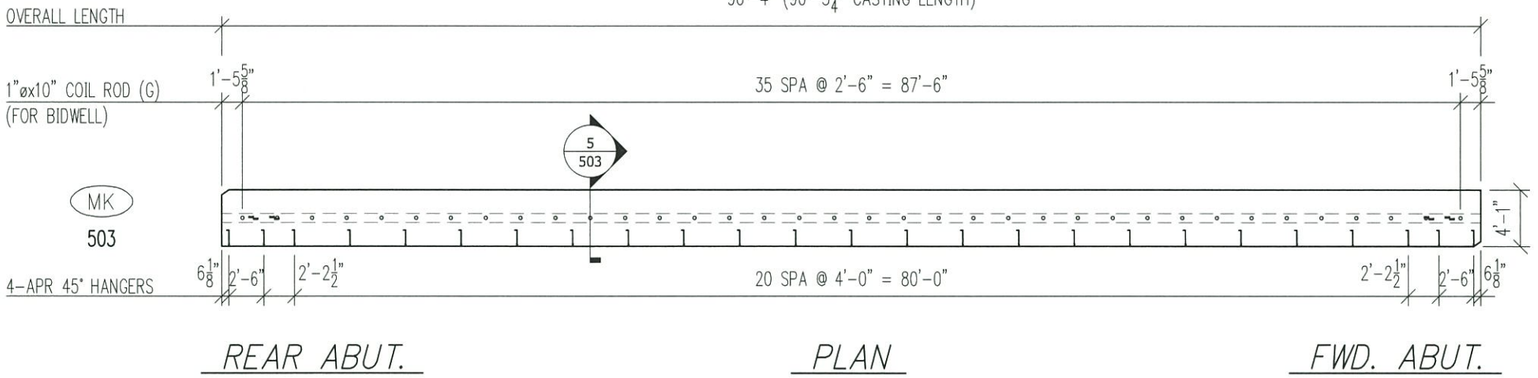
STEPS:

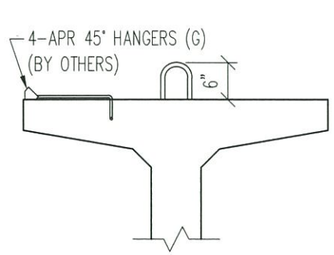
1) INSTALL BOTTOM CAGE (#302 & #3 FAB BARS)
2) INSTALL HOLDDOWNS
3) RUN AND PREPULL BOTTOM STRAND
4) RUN AND PREPULL DRAPED STRAND
5) FINAL TENSION ALL STRAND
6) INSTALL TOP CAGE CONSISTING OF #501(E), TOP & VERTICAL MESH, AND SPLICE BARS
7) INSTALL #401(E), #505 & #305 BARS AT ENDS
8) INSTALL LIFTLOOPS
9) CLOSE FORMS

QTY: 1	MARK: 508		
STEP 2 DETAILS (SHEET 3)			
HAMILTON COUNTY, OHIO. HAM-75-3.85 IR-75 OVER IR-74 WB BRIDGE No. HAM-75-0440 L/R STR. FILE: 3109763 48" HYBRID I-BEAM. ODOT: (18)3000 PID: 104667			
CONTRACTOR: WALSH			
PRESTRESS SERVICES INDUSTRIES LLC			
Production: Lexington, KY (859) 299-0461	Drafting: Lexington, KY (859) 299-0461		
DATE: 05/06/19	DRAWN BY: Shannon Travis	CHECKED: Monica Kennedy	
REVISIONS			
CODE: HN 48 49 0H	SHEET: 15 OF 19	JOB NO: L19165	

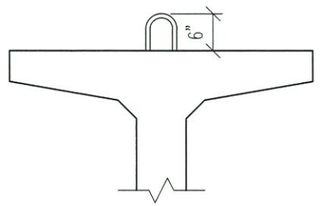




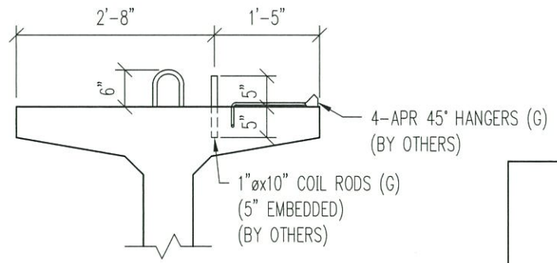




3 SECTION (501)
Scale: 1/2" = 1'-0"



4 SECTION (502 & 505)
Scale: 1/2" = 1'-0"



5 SECTION (503)
Scale: 1/2" = 1'-0"

STATE OF OHIO
CHARLES B. SLAGLE
E-67391
REGISTERED PROFESSIONAL ENGINEER

STEP 3 - POUR CONCRETE & INSTALL CONTRACTOR HARDWARE

STEPS:
1) POUR CONCRETE
2) SCORE TOPS OF BEAMS
3) INSTALL CONTRACTOR HARDWARE
4) COVER FORMS

QTY: 1/5/1/4	MARK: 501/502/503/505

STEP 3 DETAILS (SHEET 1)

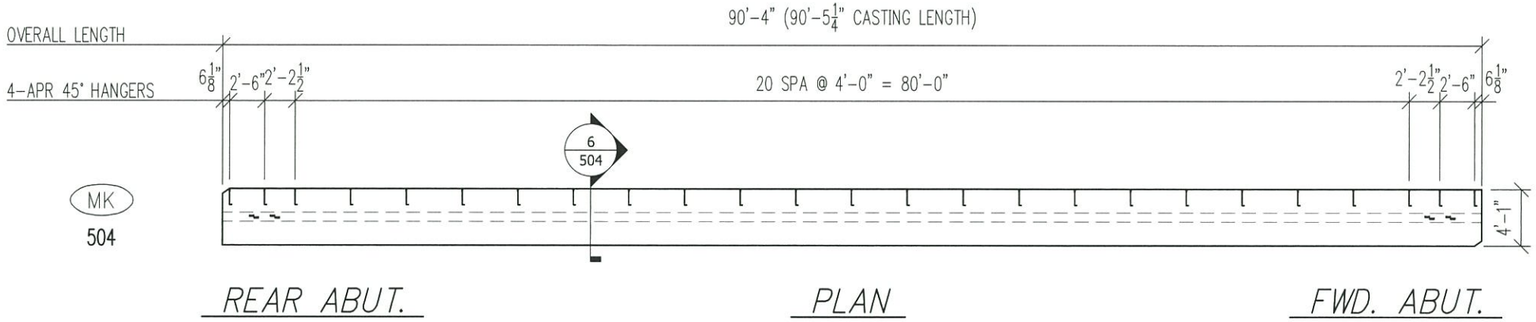
HAMILTON COUNTY, OHIO. HAM-75-3.85
IR-75 OVER IR-74 WB
BRIDGE No. HAM-75-0440 L/R STR. FILE: 3109763
48" HYBRID I-BEAM. ODOT: (18)3000 PID: 104667

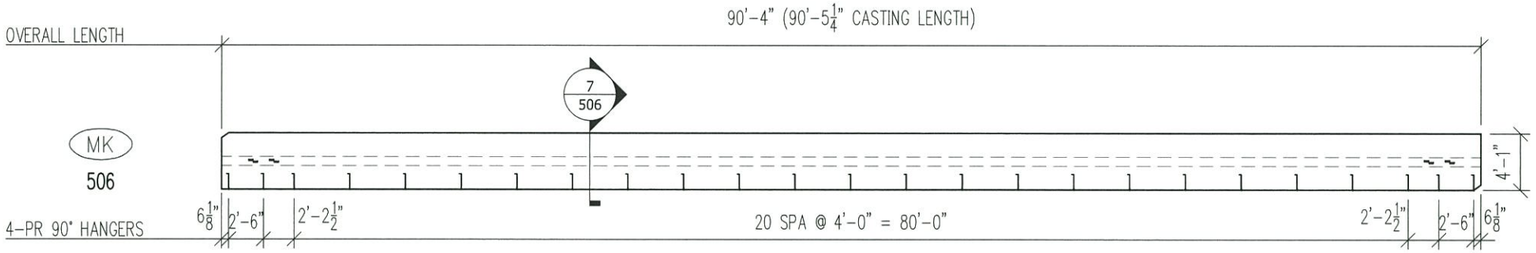
CONTRACTOR: WALSH

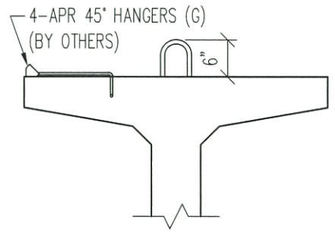
PRESTRESS SERVICES INDUSTRIES LLC

Production: Lexington, KY (859) 299-0461	Drafting: Lexington, KY (859) 299-0461
DATE: 05/06/19	DRAWN BY: Shannon Travis	CHECKED: Monica Kennedy
REVISIONS △	
CODE: HN 48 49 OH	SHEET: 16 OF 19	JOB NO: L19165

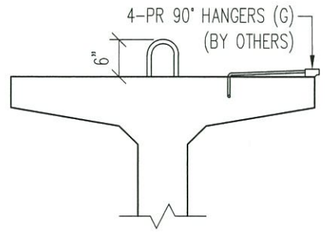
L19165 < 16 Step 3 S1 > STRAVIS
5/23/2019 4:24 PM







6 SECTION (504)
Scale: 1/2" = 1'-0"



7 SECTION (506)
Scale: 1/2" = 1'-0"

STATE OF OHIO
CHARLES B. SLAGLE
E-67391
REGISTERED PROFESSIONAL ENGINEER

STEP 3 - POUR CONCRETE & INSTALL CONTRACTOR HARDWARE

STEPS:
1) POUR CONCRETE
2) SCORE TOPS OF BEAMS
3) INSTALL CONTRACTOR HARDWARE
4) COVER FORMS

QTY: 1/1	MARK: 504/506

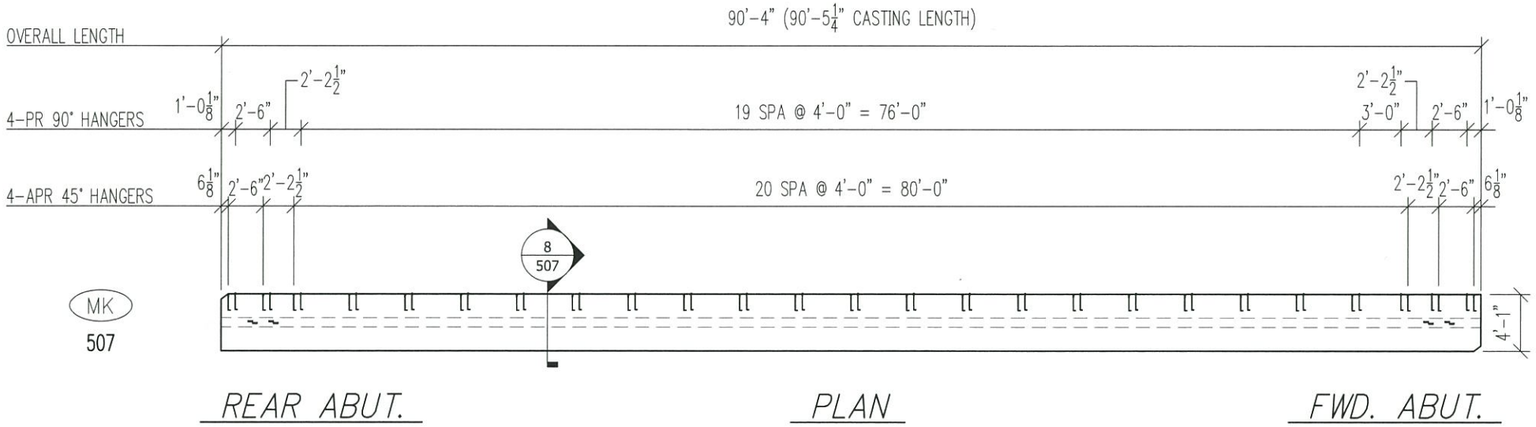
STEP 3 DETAILS (SHEET 2)

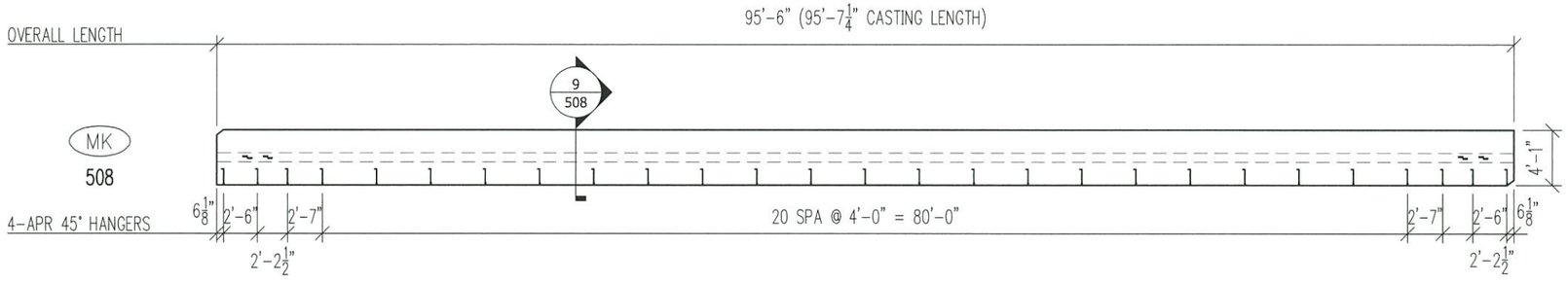
HAMILTON COUNTY, OHIO. HAM-75-3.85
IR-75 OVER IR-74 WB
BRIDGE No. HAM-75-0440 L/R STR. FILE: 3109763
48" HYBRID I-BEAM. ODOT: (18)3000 PID: 104667

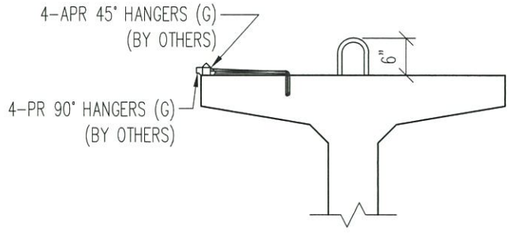
CONTRACTOR: WALSH

PRESTRESS SERVICES INDUSTRIES LLC

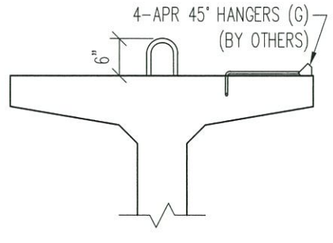
Production: Lexington, KY (859) 299-0461	Drafting: Lexington, KY (859) 299-0461
DATE: 05/06/19	DRAWN BY: Shannon Travis / CHECKED: Monica Kennedy
REVISIONS △	
CODE: HN 48 49 OH	SHEET: 17 OF 19 / JOB NO: L19165







8 SECTION (507)
Scale: 1/2" = 1'-0"



9 SECTION (508)
Scale: 1/2" = 1'-0"

STATE OF OHIO
CHARLES B. SLAGLE
E-67391
REGISTERED
PROFESSIONAL ENGINEER

STEP 3 - POUR CONCRETE & INSTALL CONTRACTOR HARDWARE

STEPS:
1) POUR CONCRETE
2) SCORE TOPS OF BEAMS
3) INSTALL CONTRACTOR HARDWARE
4) COVER FORMS

QTY: 1/1	MARK: 507/508
STEP 3 DETAILS (SHEET 3)	
HAMILTON COUNTY, OHIO. HAM-75-3.85 IR-75 OVER IR-74 WB BRIDGE No. HAM-75-0440 L/R STR. FILE: 3109763 48" HYBRID I-BEAM. ODOT: (18)3000 PID: 104667	
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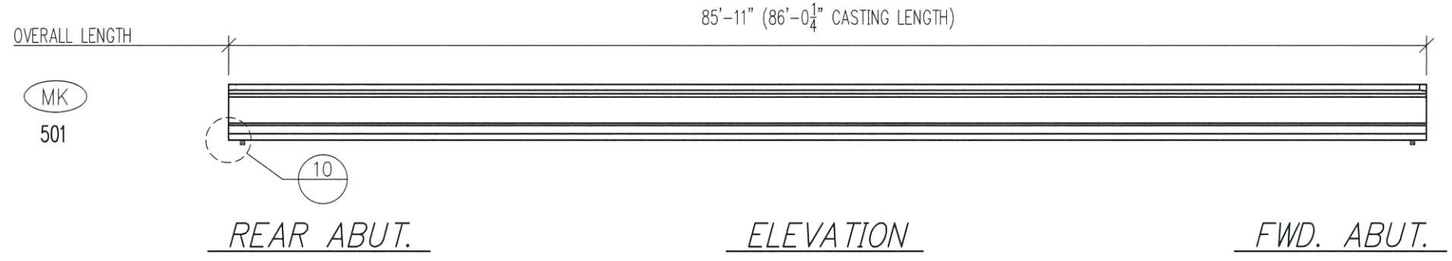
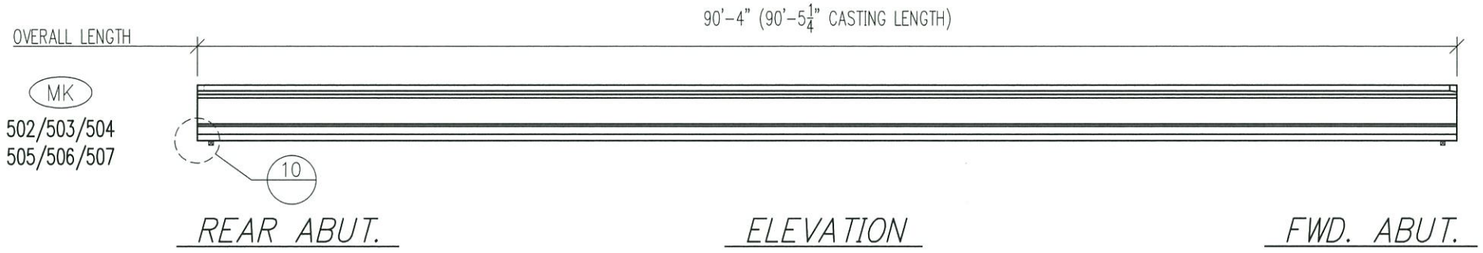
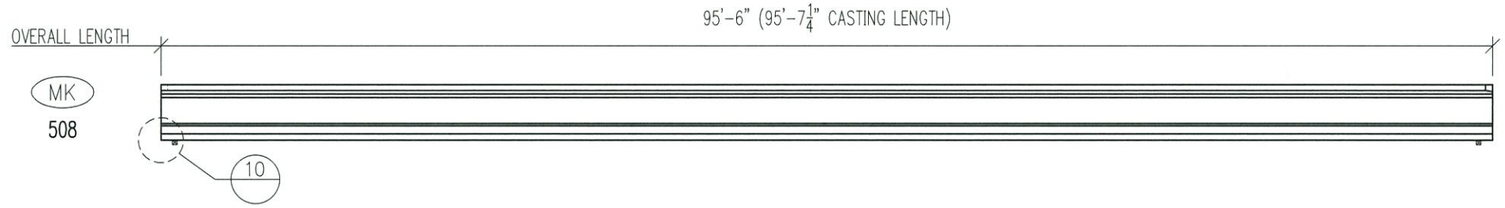
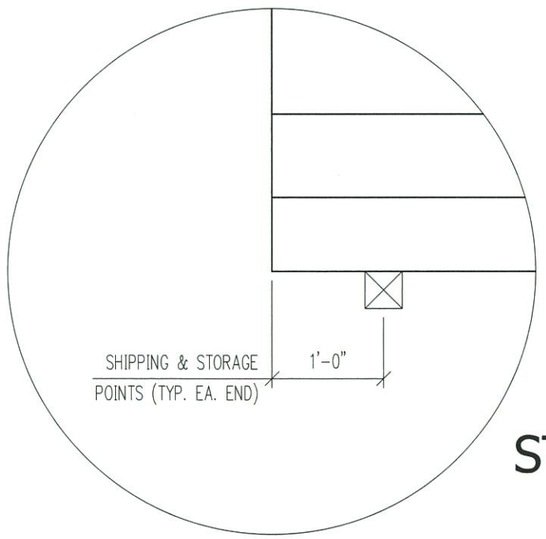
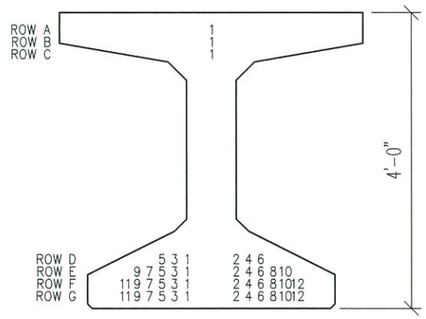








DETAIL 10



DETENSIONING DETAIL
(SINGLE SPAN)

DETENSIONING NOTES

1. SEE DETENSIONING DETAIL(S) FOR DETENSIONING PROCEDURE SEQUENCE.
2. STRAND DETENSIONING STARTS WITH ROW A THEN B AND SO ON. DETENSION TOTAL ROW IN SEQUENCE BEFORE MOVING TO NEXT ROW. AFTER DETENSIONING DRAPED STRANDS, RELEASE HOLDDOWNS THEN DETENSION PARALLEL STRANDS.
3. THERE ARE NO EXTENDED STRANDS.

STEP 4 - DETENSION STRAND & STORAGE

STEPS:
1) DETENSION STRAND PER DETAIL
2) CUT ALL STRAND FLUSH
3) PUT BEAM INTO STORAGE AS SHOWN

QTY: 1/5/1	MARK: 501/502/503
QTY: 1/4/1/1/1	MARK: 504/505/506/507/508

STEP 4 DETAILS

HAMILTON COUNTY, OHIO. HAM-75-3.85
IR-75 OVER IR-74 WB
BRIDGE No. HAM-75-0440 L/R STR. FILE: 3109763
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