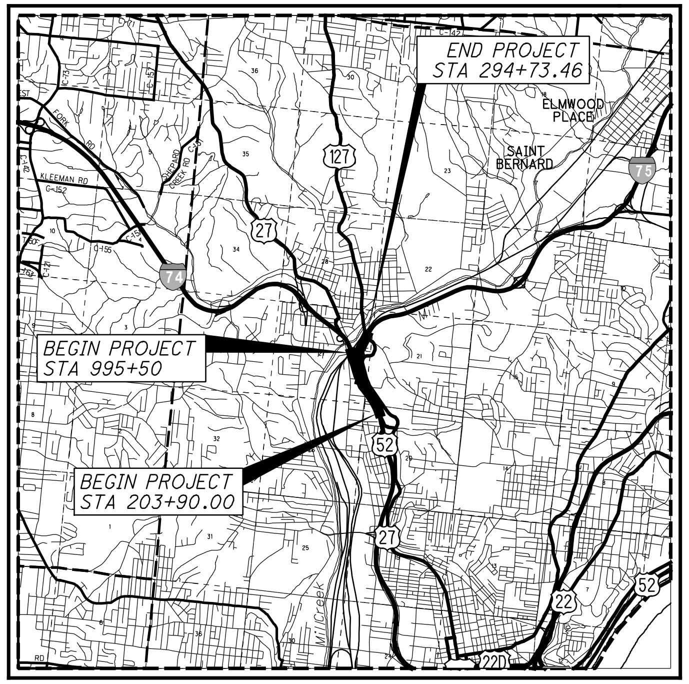


LOCATION MAP

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-74-1908R
BU-11 BEARINGS, SUBSTRUCTURE AND DECK

HAMILTON COUNTY
CITY OF CINCINNATI

INDEX OF SHEETS:

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 11 DESCRIPTION

THIS BUILDABLE UNIT 11 COVERS THE STAGE 2 REQUIREMENTS FOR BU-11 BEARINGS, SUBSTRUCTURE AND DECK FOR THE EXISTING HAM-74-1908R BRIDGE, UNITS NOS. 1, 2 AND 6.

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.

DESIGN DESIGNATION

	IR 75		IR 74		DIRECTIONAL ROADWAY	
	SOUTH OF MITCHELL	SOUTH OF IR 74	WEST OF BEEKMAN	EAST OF BEEKMAN	IR 75 NB TO IR 74 WB	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:	URBAN INTERSTATE	URBAN INTERSTATE	URBAN INTERSTATE	URBAN INTERSTATE	URBAN INTERSTATE	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 14, 1908R BRIDGE	4/26/18	

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 ANGELA M TRAUTMAN E-82339 REGISTERED PROFESSIONAL ENGINEER
Angela Trautman

ENGINEERS SEAL:	ENGINEERS SEAL:
FOR ENTIRE PLAN EXCEPT STRUCTURES OVER 20′	FOR STRUCTURES OVER 20′
	STATE OF OHIO THOMAS E. STORA 66634 REGISTERED PROFESSIONAL ENGINEER
SIGNED: DATE:	SIGNED: DATE:

AS-BUILT PLANS

REV. BY	DATE	DESCRIPTION	SHEETS
1	6/19/19	MISCELLANEOUS UPDATES	3,6,8,10,34,36-39,41, 45,46,49,61,90,100
2	8/3/20	MISCELLANEOUS UPDATES, UPDATED SIGN TRUSS LOCATION AND SHOULDER GRADE BREAK	2, 3, 5, 6, 20, 22, 23, 34, 35, 38, 50-52, 54, 55, 56A, 58, 63-66, 72-79, 84, 95, 97, 99, 100
3	1/19/21	UPDATED CROSSFRAME CONNECTIONS	45
DATE COMPLETED			

PLAN PREPARED BY:

PRIME
540 WHITE POND DRIVE, STE E
AKRON, OH 44320
(614) 839-0250

STANDARD CONSTRUCTION DRAWINGS

												SUPPLEMENTAL SPECIFICATIONS	
BP-1.1	7/28/00	I-2.4	1/15/16	MGS-5.3	7/15/16	VPF-1-90	1/19/18	MT-95.32	7/21/17	TC-21.50	7/15/16	800-2016	1/19/18
BP-2.1	7/17/15			MGS-6.1	1/19/18	HL-10.11	1/19/18	MT-95.50	7/21/17	TC-22.10	10/18/13	806	3/2/15
BP-2.2	7/18/08	MH-1.2	1/15/16			HL-10.12	1/20/17	MT-95.73	1/19/18	TC-22.20	1/17/14	808	10/16/15
BP-2.3	7/18/14			RM-1.1	7/18/14	HL-10.13	1/20/17	MT-98.30	7/21/17	TC-41.30	10/18/13	809	1/19/18
BP-2.4	7/19/13	DM-1.1	7/21/17	RM-4.1	7/21/17	HL-10.15	7/17/15	MT-99.30	1/19/18	TC-42.10	10/18/13	814	7/15/16
BP-3.1	7/18/14	DM-1.2	1/18/13	RM-4.3	7/18/14	HL-20.11	4/21/17	MT-101.70	1/17/14	TC-42.20	10/18/13	821	4/20/12
BP-6.1	7/19/13	DM-1.3	7/18/14	RM-4.4	7/21/17	HL-20.21	1/19/18	MT-101.75	7/15/16	TC-52.10	10/18/13	832	1/17/14
BP-8.1	7/18/08	DM-2.1	1/18/13	RM-4.5	7/21/17	HL-20.24	1/19/18	MT-101.80	1/16/18	TC-52.20	1/19/18	869	10/17/14
		DM-4.1	1/15/16	RM-4.6	7/19/13	HL-30.11	1/19/18	MT-101.90	7/21/17	TC-61.30	1/20/17	908	10/20/17
CB-1.1	1/15/16	DM-4.2	7/20/12	A-1-69	7/19/02	HL-30.21	1/17/14	MT-102.20	7/18/14	TC-65.10	1/17/14	914	7/15/16
CB-1.2	1/15/16	DM-4.3	1/15/16	AS-1-15	7/17/15	HL-30.22	1/17/14	MT-104.10	10/16/15	TC-65.11	7/21/17	921	4/20/12
CB-1.3	1/15/16	DM-4.4	1/15/16	AS-2-15	1/19/18	HL-30.31	1/17/14	MT-105.10	7/19/13	TC-71.10	1/19/18	939	7/17/15
CB-2.1	1/15/16			EXJ-4-87	1/19/18	HL-30.32	1/17/14			TC-72.20	7/15/16		
CB-2.2	1/15/16	MGS-1.1	1/19/18	GSD-1-96	7/19/02	HL-30.33	1/17/14	TC-7.65	1/15/16				
CB-2.3	1/15/16	MGS-2.1	1/19/18	PCB-91	1/18/13	HL-30.41	1/19/18	TC-9.10	1/19/18	ITS-13.10	7/17/15	SPECIAL PROVISIONS	
CB-3.1	1/15/16	MGS-3.1	1/19/18	PSID-1-13	7/15/16	HL-40.10	1/20/17	TC-9.30	1/19/18	ITS-14.10	7/17/15		
CB-3.3	1/15/16	MGS-3.2	1/18/13	RB-1-55	7/19/13	HL-40.20	1/20/17	TC-12.30	1/19/18	ITS-14.11	7/17/15		
		MGS-4.1	1/20/17	SBR-1-13	1/14/14	HL-50.11	1/16/15	TC-15.115	10/18/13	ITS-15.10	7/17/15		
I-2.1	1/15/16	MGS-4.2	7/19/13	SBR-2-13	1/14/14	HL-50.21	1/19/18	TC-16.21	1/19/18	ITS-15.11	7/17/15		
I-2.2	1/15/16	MGS-4.3	1/18/13	SICD-1-96	7/18/14	MT-95.30	7/21/17	TC-21.10	7/21/17	ITS-50.10	1/19/18		
I-2.3	1/15/16	MGS-5.2	7/15/16	SICD-2-14	7/18/14	MT-95.31	7/21/17	TC-21.20	1/19/18				

UNDERGROUND UTILITIES
CONTACT BOTH SERVICES 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

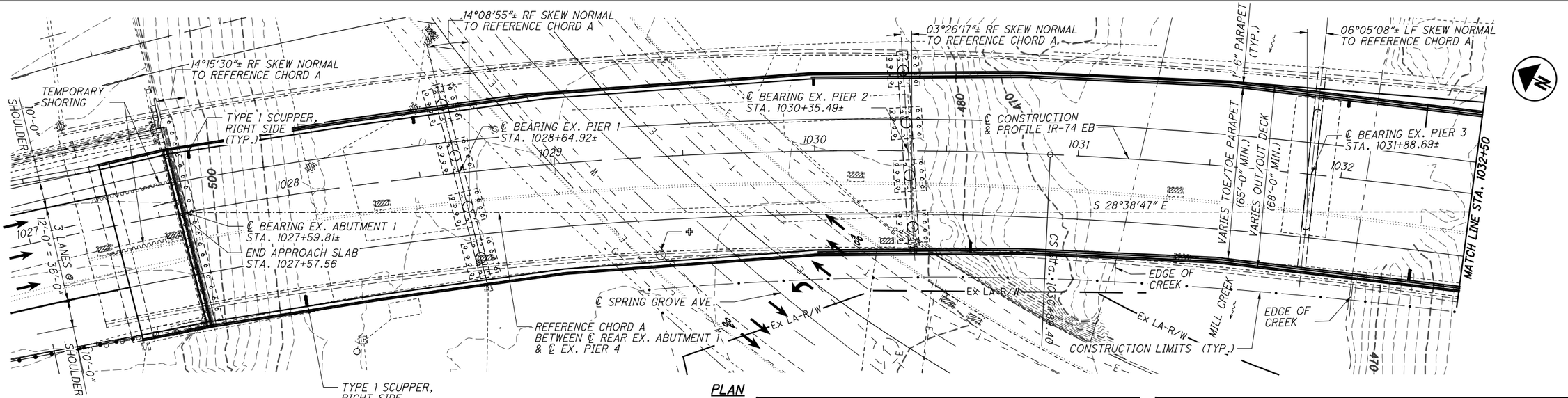
FEDERAL PROJECT NO. **E170 (713)**

PID NO. **104667**

CONSTRUCTION PROJECT NO. **183000**

RAILROAD INVOLVEMENT **CSXT (CSX OP# OH1179) NORFOLK SOUTHERN**

HAM-75-3.84



PLAN

HORIZONTAL CURVE DATA
IR-74 EB

C13

PI STA 1028+73.19	p = 4.53′
Δ = 33° 33′ 19″ (RT)	Δ c = 17° 57′ 19″ (RT)
Dc = 3° 54′ 00″	Lc = 460.39′
R = 1,469.12′	Ts = 644.17′
Ls = 400.00′	Es = 70.05′
θ s = 7° 48′ 00″	C = 458.51′
LT = 266.93′	C1 = C2 = 399.67′
ST = 133.57′	C.B.1 = S 49° 10′ 33″ E
x = 399.26′	C.B. = S 34° 59′ 53″ E
y = 18.13′	C.B.2 = N 20° 49′ 12″ W
k = 199.88′	e_{max} = 0.075

LEGEND:

- ✣ – 16′-6″ REQUIRED MINIMUM VERTICAL CLEARANCE
  21′-7″ PROPOSED MINIMUM VERTICAL CLEARANCE
- ∿∿∿ – TEMPORARY SHORING

EXISTING STRUCTURE

TYPE: CONTINUOUS WELDED PLATE GIRDER AND CONTINUOUS ROLLED STEEL BEAM WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE

SPANS: UNIT 1 – 105′-0″±, 174′-0″±, 157′-0″±, 110′-0″±
UNIT 2 – 113′-3″±, 143′-3″±, 127′-6″±
UNIT 6 – 52′-1½″±, 65′-0″±, 52′-0″±

ROADWAY: VARIES

LOADING: CF 2000 (57) AND ALTERNATE MILITARY

SKEW: VARIES

APPROACH SLABS: AS-1-67 (25′ LONG)

ALIGNMENT: VARIES

CROWN: VARIES

STRUCTURAL FILE NUMBER: 3115739

DATE BUILT: 1973

DISPOSITION: MAJOR REHABILITATION

PROPOSED STRUCTURE

TYPE: CONTINUOUS WELDED PLATE GIRDER AND CONTINUOUS ROLLED STEEL BEAM WITH NEW COMPOSITE REINFORCED CONCRETE DECK AND SUBSTRUCTURE

SPANS: UNIT 1 – 105′-1⅛″±, 170′-7½″±, 153′-2″±, 109′-8⅜″±, 5′-11″± (HINGE)
UNIT 2 – 120′-2⅛″±, 150′-7¼″±, 126′-4¼″±, 7′-3⅝″ (HINGE)
UNIT 6 – 51′-4⅛″, 64′-4¼″±, 51′-5½″±

ROADWAY: VARIES (65′-0″ MIN. TOE/TOE PARAPET)

LOADING: HS20 CASE I & ALTERNATE MILITARY LOADING

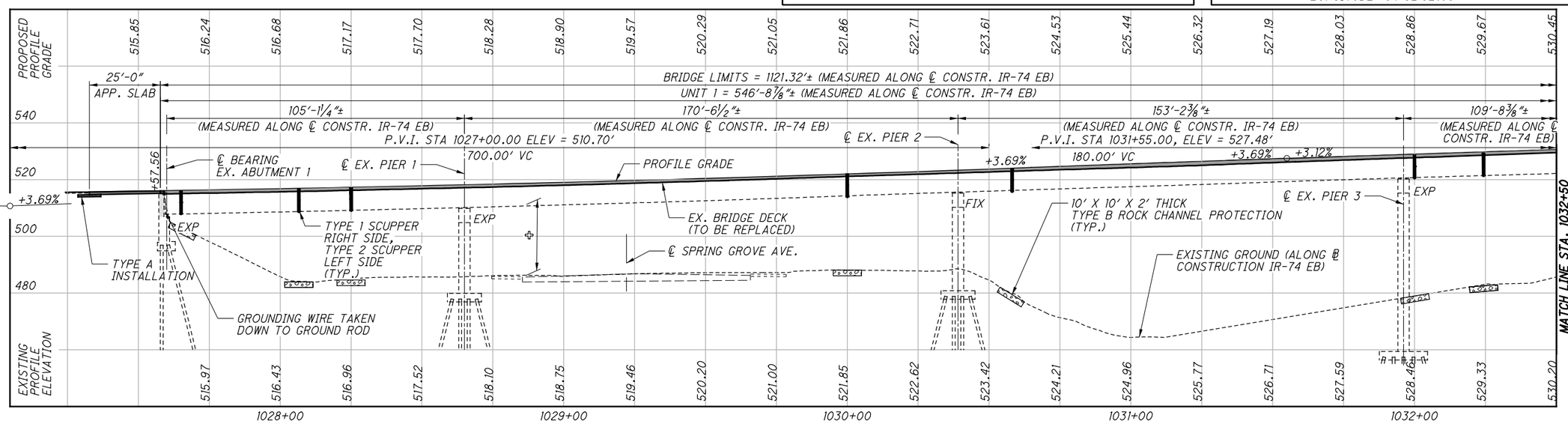
SKEW: VARIES

WEARING SURFACE: 1″ MONOLITHIC CONCRETE
APPROACH SLABS: 25′-0″ LONG (AS-1-15 & AS-2-15)

ALIGNMENT: VARIES

SUPERELEVATION: VARIES, 0.075 FT./FT. MAX

COORDINATES: LATITUDE 39°09′15.26″
LONGITUDE 84°32′32.60″



PROFILE ALONG ℄ CONSTRUCTION IR-74 EB

DESIGN AGENCY
PRIME AE
540 METROPOLIS WAY, SUITE E
WESTERVILLE, OH 43230

DESIGNED	DRAWN	REVIEWED	DATE
KDC	KDC	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CRG		3115739	

HAMILTON COUNTY
STA. 1027+57.56
STA. 1038+78.88

SITE PLAN (1 OF 3)
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

2 / 100

2
100

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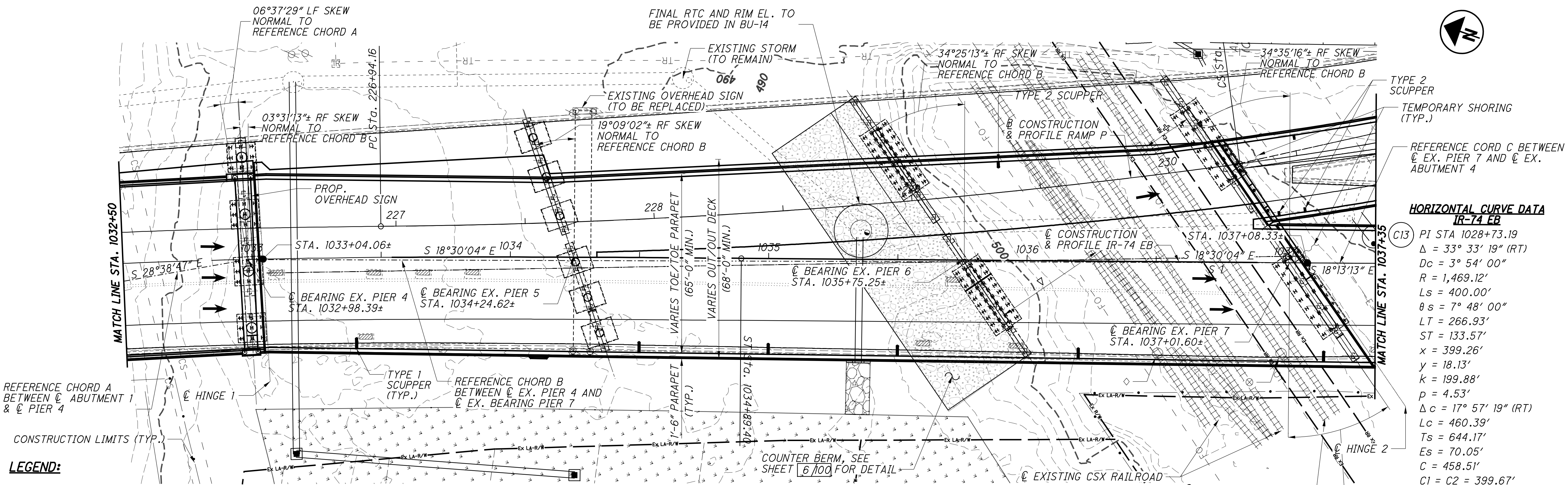


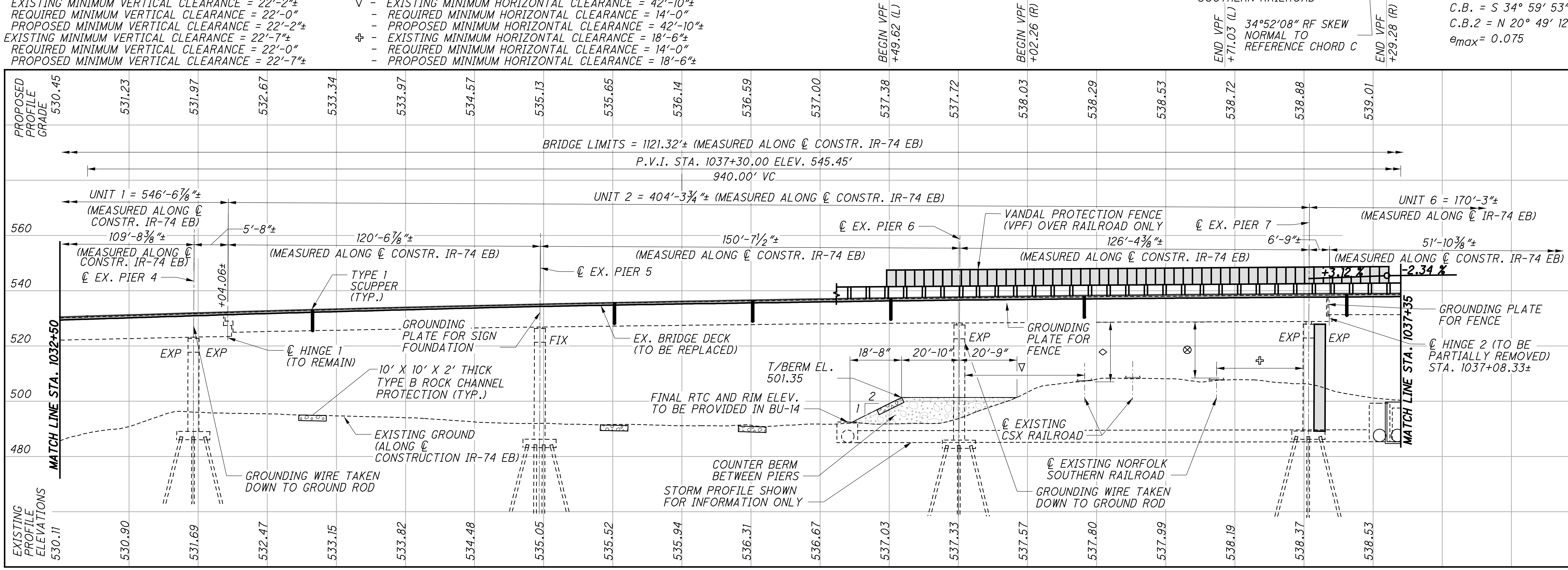
PLAN

LEGEND:

- ◩ – MEASURED ALONG REFERENCE CHORD A
- ◇ – EXISTING MINIMUM VERTICAL CLEARANCE = 22'-2"±
  REQUIRED MINIMUM VERTICAL CLEARANCE = 22'-0"
  PROPOSED MINIMUM VERTICAL CLEARANCE = 22'-2"±
- ⊗ – EXISTING MINIMUM VERTICAL CLEARANCE = 22'-7"±
  REQUIRED MINIMUM VERTICAL CLEARANCE = 22'-0"
  PROPOSED MINIMUM VERTICAL CLEARANCE = 22'-7"±
- ︵︵ – TEMPORARY SHORING
- ▽ – EXISTING MINIMUM HORIZONTAL CLEARANCE = 42'-10"±
  REQUIRED MINIMUM HORIZONTAL CLEARANCE = 14'-0"
  PROPOSED MINIMUM HORIZONTAL CLEARANCE = 42'-10"±
- ✣ – EXISTING MINIMUM HORIZONTAL CLEARANCE = 18'-6"±
  REQUIRED MINIMUM HORIZONTAL CLEARANCE = 14'-0"
  PROPOSED MINIMUM HORIZONTAL CLEARANCE = 18'-6"±

HORIZONTAL CURVE DATA IR-74 EB

(C13) PI STA 1028+73.19
Δ = 33° 33' 19" (RT)
Dc = 3° 54' 00"
R = 1,469.12'
Ls = 400.00'
θs = 7° 48' 00"
LT = 266.93'
ST = 133.57'
x = 399.26'
y = 18.13'
k = 199.88'
p = 4.53'
Δc = 17° 57' 19" (RT)
Lc = 460.39'
Ts = 644.17'
Es = 70.05'
C = 458.51'
C1 = C2 = 399.67'
C.B.1 = S 49° 10' 33" E
C.B. = S 34° 59' 53" E
C.B.2 = N 20° 49' 12" W
e_{max} = 0.075



PROFILE ALONG ℄ CONSTRUCTION IR-74 EB

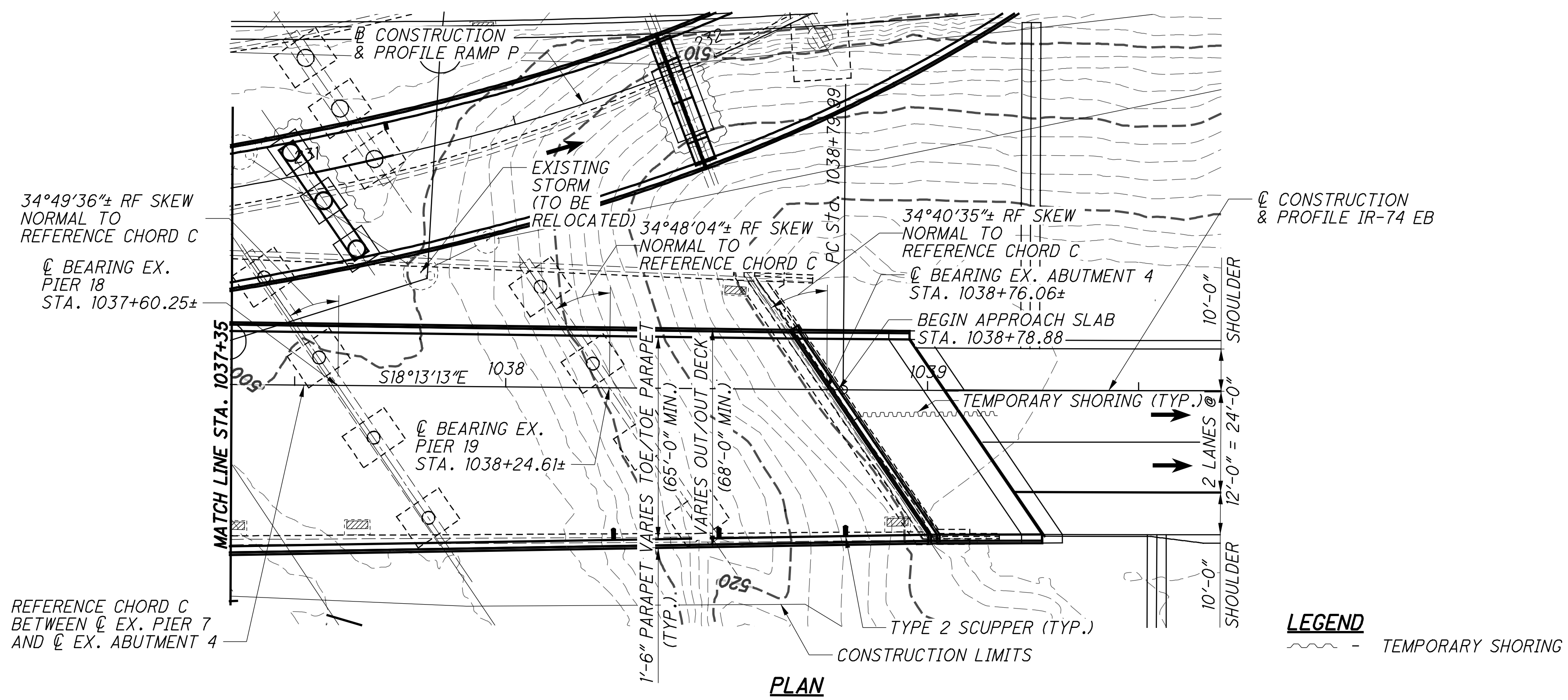
DESIGN AGENCY
PRIME AE
540 WHITE POND DR, SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
KDC	KDC	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CRG		3115739	

HAMILTON COUNTY
STA. 1027+57.56
STA. 1038+78.88

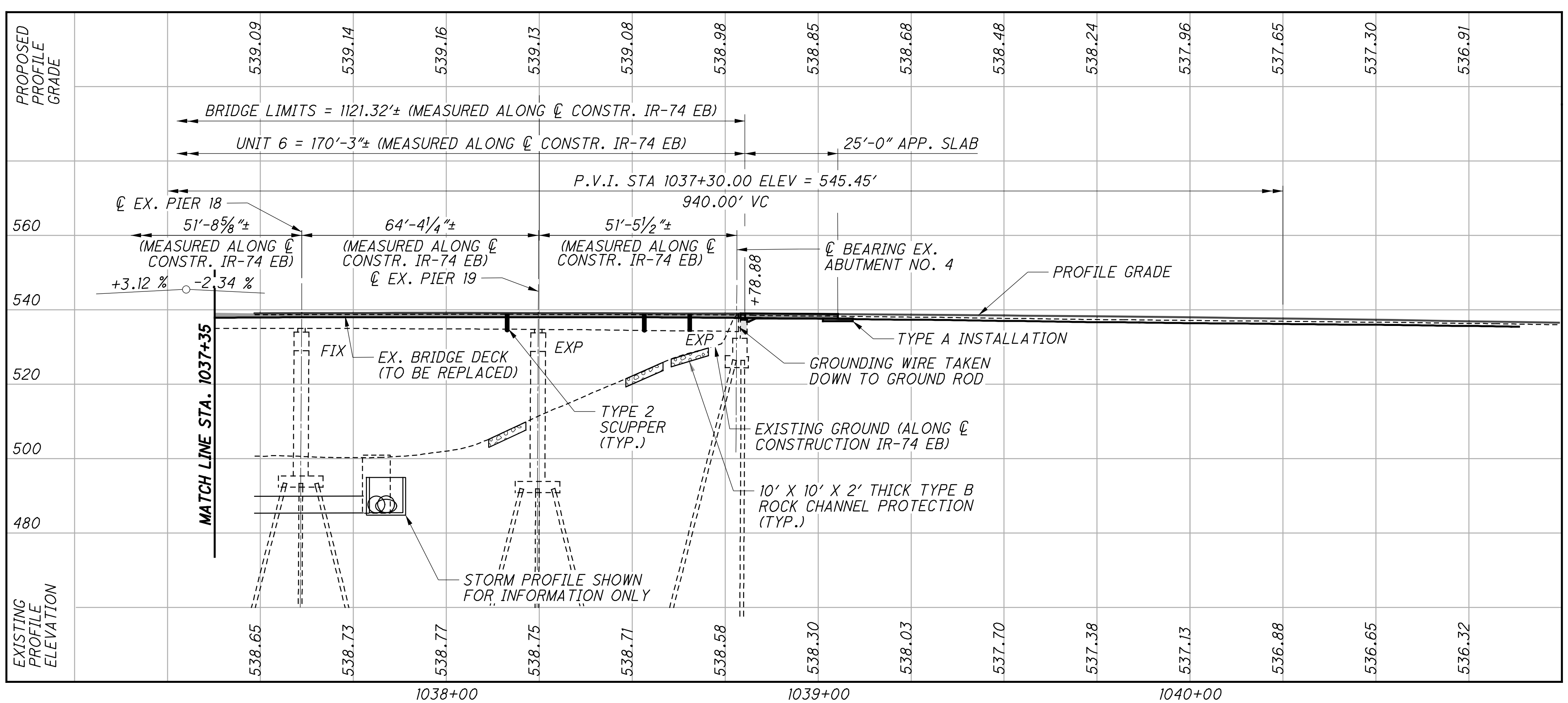
SITE PLAN (2 OF 3)
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667



HORIZONTAL CURVE DATA IR-74 EB

C14 PI STA 1040+29.02
50mph
Δ = 1° 29' 25" (LT)
Dc = 0° 30' 00"
R = 11,459.16'
T = 149.03'
L = 298.05'
E = 0.97'
C = 298.04'
C.B. = S 18° 57' 56" E



PROFILE ALONG ℄ CONSTRUCTION IR-74 EB

DESIGN AGENCY
PRIME
540 WHITE POND DR., SUITE E
AKRON, OH 44320

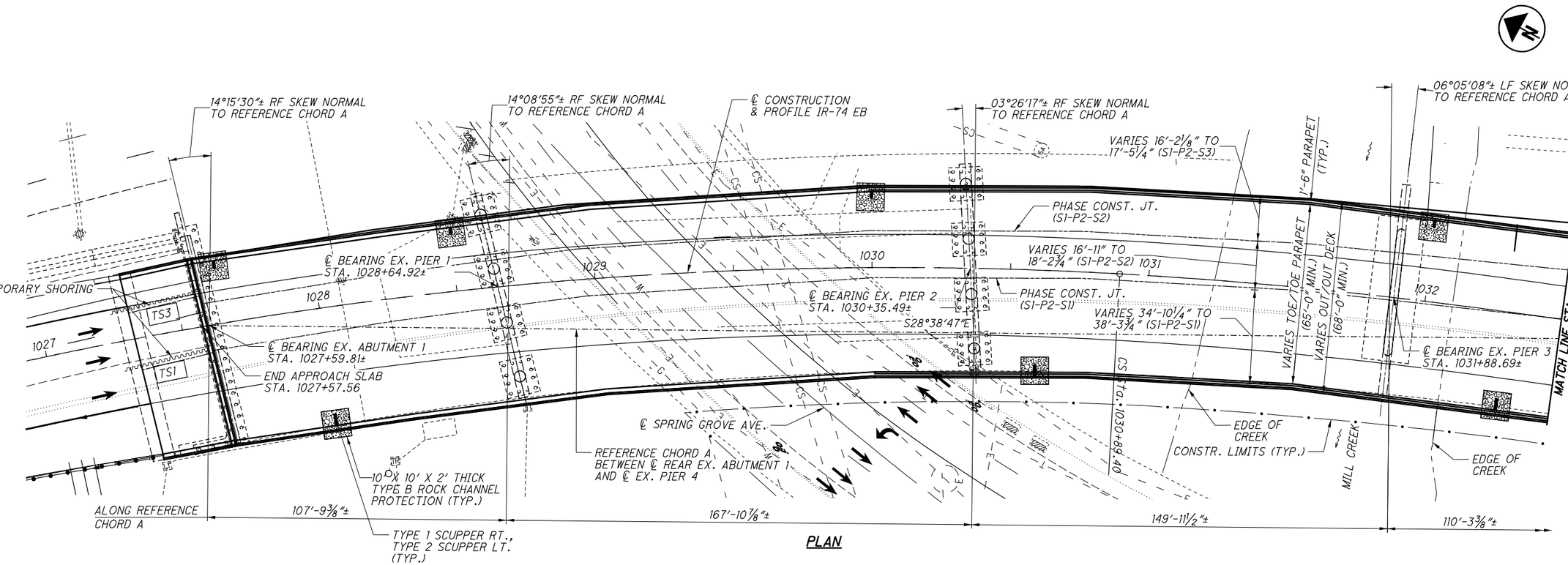
DESIGNED	DRAWN	REVIEWED	DATE
KDC	KDC	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CRG		3115739	

HAMILTON COUNTY
STA. 1027+57.56
STA. 1038+78.88

SITE PLAN (3 OF 3)
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

4/100



PLAN

HORIZONTAL CURVE DATA
IR-74 EB

(C13)
PI STA 1028+73.19
Δ = 33° 33' 19" (RT)
Dc = 3° 54' 00"
R = 1,469.12'
Ls = 400.00'
θs = 7° 48' 00"
LT = 266.93'
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x = 399.26'
y = 18.13'
k = 199.88'
p = 4.53'
Δc = 17° 57' 19" (RT)
Lc = 460.39'
Ts = 644.17'
Es = 70.05'
C = 458.51'
C1 = C2 = 399.67'
C.B.1 = S 49° 10' 33" E
C.B. = S 34° 59' 53" E
C.B.2 = N 20° 49' 12" W
e_{max} = 0.075

LEGEND

SX-PX-SX - STAGE X, PHASE X, STEP X (MOT PHASING)

TS# - TEMPORARY SHORING LOCATION

~~~ - TEMPORARY SHORING

NOTE:

1. FOR DESCRIPTION OF PROPOSED WORK, SEE SHEET 8/100.

DESIGN AGENCY
PRIME AE
540 WEST POOL DR. SUITE E
MARION, OH 43302

DESIGNED	DRAWN	REVIEWED	DATE
KDC	KDC	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CRG		3115739	

HAMILTON COUNTY
STA. 1027+56.76
STA. 1038+78.88

GENERAL PLAN (1 OF 3)
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

5/100

5/100

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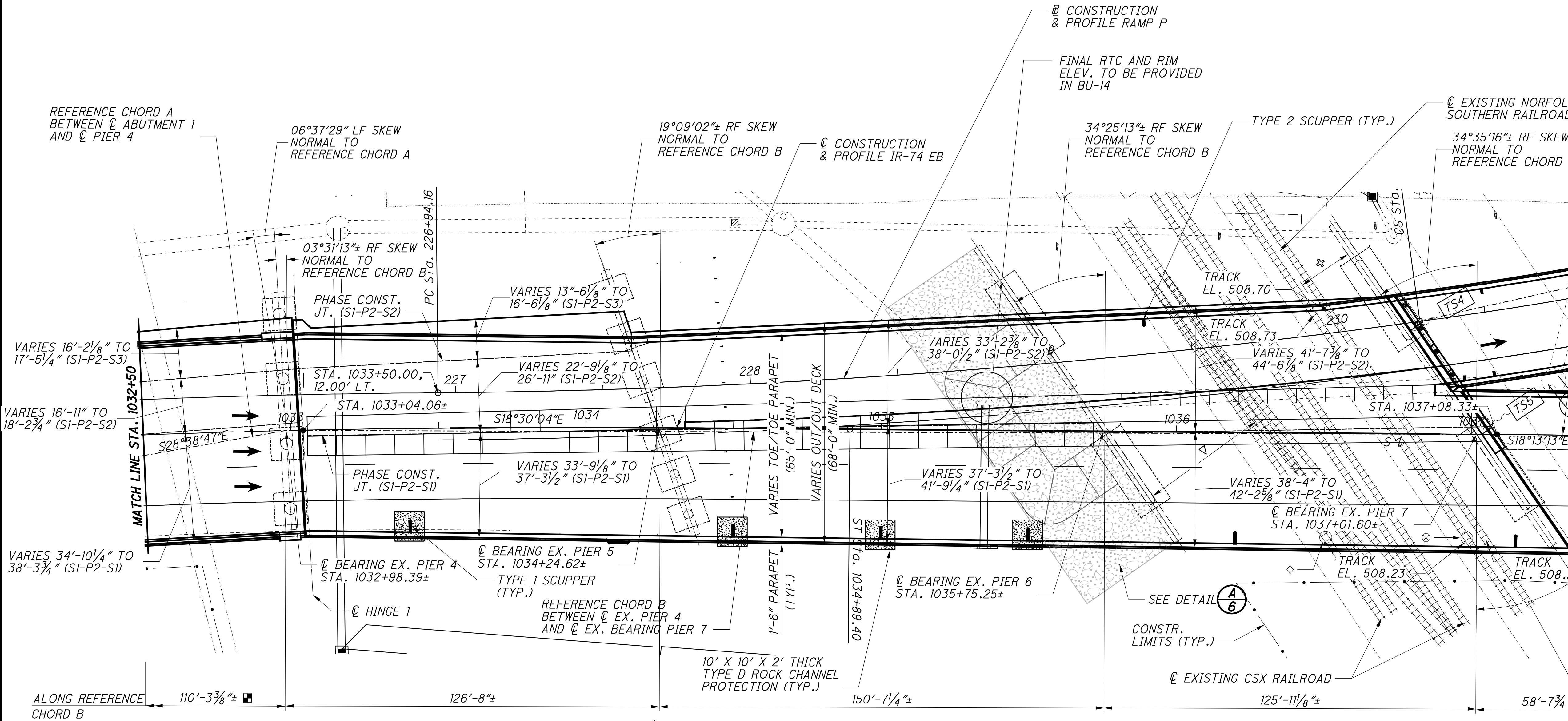

HORIZONTAL CURVE DATA IR-74 EB

C13 PI STA 1028+73.19
Δ = 33° 33' 19" (RT)
Dc = 3° 54' 00"
R = 1,469.12'
Ls = 400.00'
θs = 7° 48' 00"
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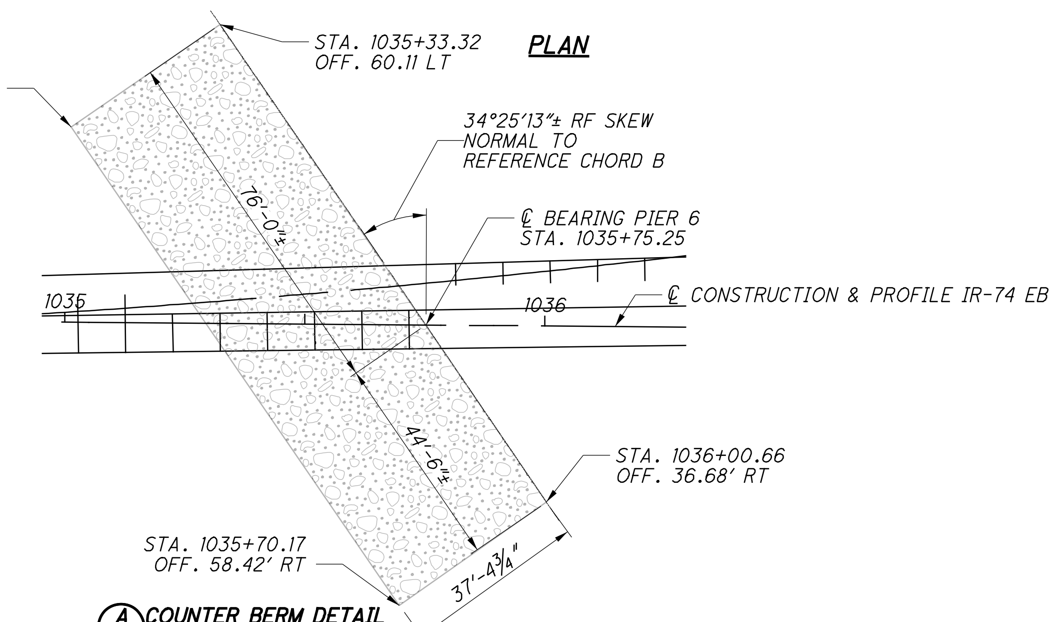
p = 4.53'
Δc = 17° 57' 19" (RT)
Lc = 460.39'
Ts = 644.17'
Es = 70.05'
C = 458.51'
C1 = C2 = 399.67'
C.B.1 = S 49° 10' 33" E
C.B. = S 34° 59' 53" E
C.B.2 = N 20° 49' 12" W
e_{max} = 0.075

PLAN



A/6 COUNTER BERM DETAIL

LEGEND:

- ◪ - MEASURED ALONG REFERENCE CHORD A
- ◇ - EXISTING MINIMUM VERTICAL CLEARANCE = 22'-2"± / REQUIRED MINIMUM VERTICAL CLEARANCE = 22'-0" / PROPOSED MINIMUM VERTICAL CLEARANCE = 22'-2"±
- ▽ - EXISTING MINIMUM HORIZONTAL CLEARANCE = 42'-10"± / REQUIRED MINIMUM HORIZONTAL CLEARANCE = 14'-0" / PROPOSED MINIMUM HORIZONTAL CLEARANCE = 42'-10"±
- ⊗ - EXISTING MINIMUM VERTICAL CLEARANCE = 22'-7"± / REQUIRED MINIMUM VERTICAL CLEARANCE = 22'-0" / PROPOSED MINIMUM VERTICAL CLEARANCE = 22'-7"±
- ✣ - EXISTING MINIMUM HORIZONTAL CLEARANCE = 18'-6"± / REQUIRED MINIMUM HORIZONTAL CLEARANCE = 14'-0" / PROPOSED MINIMUM HORIZONTAL CLEARANCE = 18'-6"±
- SX-PX-SX - STAGE X, PHASE X, STEP X (MOT PHASING)
- TS# - TEMPORARY SHORING LOCATION
- ∿∿ - TEMPORARY SHORING
- ░ - INDICATES ITEM 203 EMBANKMENT

NOTE:

1. FOR DESCRIPTION OF PROPOSED WORK, SEE SHEET 8/100.

DESIGN AGENCY: PRIME AE, 540 WHITE POND DR., SUITE E, AKRON, OH 44320

REVIEWED	DATE
TES	3/27/2019

DESIGNED	DRAWN	STRUCTURE FILE NUMBER
KDC	KDC	3115739
CHECKED CRG	REVISED	

HAMILTON COUNTY
STA. 1027+56.76
STA. 1038+78.88

GENERAL PLAN (2 OF 3)
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

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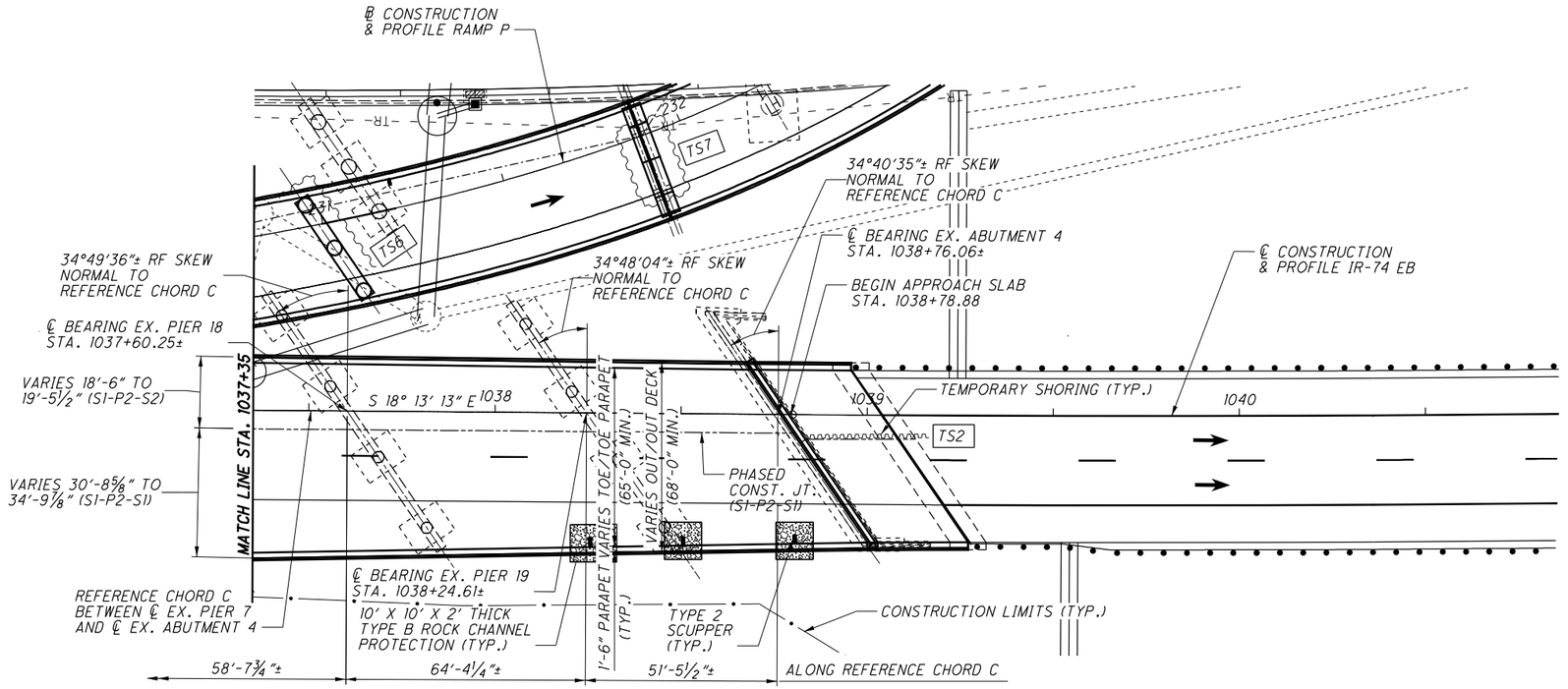

PLAN

HORIZONTAL CURVE DATA
IR-74 EB

C14 — 50mph

PI STA 1040+29.02
Δ = 1° 29' 25" (LT)
Dc = 0° 30' 00"
R = 11,459.16'
T = 149.03'
L = 298.05'
E = 0.97'
C = 298.04'
C.B. = S 18° 57' 56" E

LEGEND

SX-PX-SX - STAGE X, PHASE X, STEP X (MOT PHASING)

TS# - TEMPORARY SHORING LOCATION

~~~ - TEMPORARY SHORING

NOTE:

1. FOR DESCRIPTION OF PROPOSED WORK, SEE SHEET 8/100.

DESIGN AGENCY
PRIME AE
540 WHITE POND DR. SUITE E
AKRON, OH 44320

REVIEWED	DATE
TES	3/27/2019

STRUCTURE FILE NUMBER
3115739

DRAWN	REVISED
KDC	

DESIGNED	CHECKED
KDC	CRG

HAMILTON COUNTY
STA. 1027+57.56
STA. 1038+78.88

GENERAL PLAN (3 OF 3)
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

7/100

7
100

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STRUCTURE GENERAL NOTES

STANDARD DRAWINGS:

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

A-1-69	REVISED	07-19-02
AS-1-15	REVISED	07-17-15
AS-2-15	REVISED	01-19-18
EXJ-4-87	REVISED	01-19-18
GSD-1-96	REVISED	07-19-02
PCB-91	REVISED	01-18-13
RB-1-55	REVISED	07-19-13
SBR-1-13	REVISED	01-14-14
VPF-1-90	REVISED	01-19-18

DESIGN SPECIFICATIONS:

DESIGN SPECIFICATIONS : THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2002, INCLUDING THE 2005 INTERIM SPECIFICATIONS AND THE 2004 ODOT BRIDGE DESIGN MANUAL.

DESIGN LOADING:

HS-20 AND ALTERNATE MILITARY LOADING
FUTURE WEARING SURFACE (FWS) OF 0.060 KIPS/SF WAS NOT INCLUDED.

DESIGN STRESSES:

CONCRETE CLASS QC3 - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)
CONCRETE CLASS QC3 - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)
EXISTING CONCRETE CLASS C - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)
EXISTING REINFORCING STEEL - ASTM A615, A616 OR A617, GRADE 40, MINIMUM YIELD STRENGTH 40 KSI, EPOXY COATED
NEW REINFORCING STEEL - ASTM A615 OR A996, GRADE 60, MINIMUM YIELD STRENGTH 60 KSI, EPOXY COATED
EXISTING STRUCTURAL STEEL - ASTM A36 - GRADE 36 - YIELD STRENGTH 36 KSI.
NEW STRUCTURAL STEEL - ASTM A709 GRADE 50 - YIELD STRENGTH 50 KSI.

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, 105.02 AND 513.04.

EXISTING BRIDGE PLANS:

EXISTING AND REHABILITATION BRIDGE PLANS HAVE BEEN PROVIDED BY ODOT DISTRICT 8.

ITEM 202, REMOVAL MISC.: EXISTING DRAINAGE CLEANOUT:

WORK UNDER THIS ITEM SHALL INCLUDE THE CLEANOUT OF EXISTING SCUPPERS AND DOWNSPOUTS PRIOR TO THE REDIRECTING OF TRAFFIC FOR PHASED CONSTRUCTION. THE EXISTING SCUPPERS AND DOWNSPOUTS SHALL BE CLEARED OF ANY EXISTING DEBRIS AND SHALL BE FULLY FUNCTIONAL DURING THE MAINTENANCE OF TRAFFIC PHASES.

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

THE PROPOSED WORK CONSISTS OF REMOVING PORTIONS OF THE EXISTING STRUCTURES AS SHOWN IN THE PLANS AND CONSTRUCTING THE PROPOSED BRIDGE.

ALL REQUIREMENTS OF ODOT CMS 202.03 SHALL APPLY WITH THE FOLLOWING ADDITIONS. THIS WORK SHALL INCLUDE THE PHASED REMOVAL OF THE EXISTING STRUCTURES AS INDICATED IN THE PLANS AND GENERAL NOTES. THE STRUCTURE WILL BE CAREFULLY REMOVED BY PHASED CONSTRUCTION METHODS AS FURTHER DESCRIBED IN THE FOLLOWING SECTIONS. THE USE OF EXPLOSIVES AND HEADACHE BALLS WILL NOT BE PERMITTED FOR ANY DEMOLITION OF EXISTING STRUCTURES.

PROTECTION OF STEEL SUPPORT SYSTEMS:
BEFORE DECK SLAB CUTTING IS PERMITTED LAYOUT AS BUILT BEAM CENTERLINE LOCATIONS ON THE SURFACE OF THE DECK. VERIFY CONCRETE DEPTH OF DECK BY DRILLING SMALL PILOT HOLES TO THE TOP OF BEAM PRIOR TO SAWCUTTING. DECK CUTS OVER OR WITHIN 2" OF FLANGE EDGE SHALL NOT EXTEND LOWER THAN THE BOTTOM LAYER OF DECK SLAB REINFORCING STEEL. CUTS MADE OUTSIDE 2 INCHES OF FLANGE EDGES MAY EXTEND THE FULL DEPTH OF THE DECK. PERFORM WORK CAREFULLY DURING THE CUTTING OF THE DECK SLAB TO AVOID DAMAGING STEEL MEMBERS THAT ARE TO BE INCORPORATED INTO THE PROPOSED STRUCTURE. REPLACE OR REPAIR STEEL MEMBERS DAMAGED BY THE DECK SLAB CUTTING OPERATIONS AT NO COST TO THE PROJECT. IF REQUIRED, AT LEAST 7 DAYS BEFORE PERFORMING REPAIR WORK, SUBMIT A PROPOSED REPAIR PLAN, DEVELOPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER TO THE ENGINEER. OBTAIN THE ENGINEERS APPROVAL BEFORE PERFORMING REPAIR.

PHASED CONCRETE DECK REMOVAL:
WHEN NO LONGER REQUIRED TO MAINTAIN TRAFFIC, REMOVE THE CONCRETE DECK IN ACCORDANCE WITH THE SEQUENCE OF CONSTRUCTION SHOWN IN THE PLANS. PERFORM WORK CAREFULLY DURING THE CUTTING OF THE DECK SLAB AND DURING DECK PICKING OPERATIONS TO AVOID ANY DAMAGE TO THE EXISTING STEEL AND SUBSTRUCTURE TO REMAIN.

EXISTING WELDED ATTACHMENTS:
REMOVE EXISTING WELDED ATTACHMENTS (E.G., FINISHING MACHINE AND FORM SUPPORTS; AND SUPPORTS FOR SCUPPERS AND BULB ANGLES WHICH ARE TO BE REMOVED) LOCATED IN THE DESIGNATED TENSION PORTIONS OF THE TOP FLANGES OF EXISTING STEEL MEMBERS AND GRIND THE FLANGE SURFACES SMOOTH. CAREFULLY GRIND IN THE DIRECTION OF THE MAIN STRESSES.

CUT LINE CONSTRUCTION JOINT PREPARATION:
THOROUGHLY CLEAN THE JOINT SURFACE AND EXPOSED REINFORCEMENT OF ALL DIRT, DUST, RUST, OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING REINFORCING STEEL DOES NOT HAVE TO HAVE A BRIGHT STEEL FINISH, BUT REMOVE ALL PACK AND LOOSE RUST. THOROUGHLY DRENCH EXISTING CONCRETE SURFACES WITH CLEAN WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING CONCRETE.

PHASED CONCRETE ABUTMENT REMOVAL:
WHEN NO LONGER REQUIRED TO MAINTAIN TRAFFIC, PORTIONS OF THE EXISTING ABUTMENT SHALL BE REMOVED BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. HYDRAULIC HOE-RAM TYPE HAMMERS WILLNOT BE PERMITTED. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. OUTSIDE THE 18 INCH LIMIT, THE CONTRACTOR MAY USE HAMMERS NOT EXCEEDING 90 POUNDS. DO NOT PLACE PNEUMATIC HAMMERS IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

ITEM 203, EMBANKMENT, AS PER PLAN:

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

ITEM 509, EPOXY COATED REINFORCING STEEL, AS PER PLAN:

IN ADDITION TO THE PROVISIONS OF ITEM 509, FIELD BEND AND/OR FIELD CUT THE REINFORCING STEEL DESIGNATED IN THE PLANS, AS NECESSARY, IN ORDER TO MAINTAIN THE REQUIRED CLEARANCES AND BAR SPACINGS. REPAIR ALL DAMAGE TO THE EPOXY COATING, AS A RESULT OF THIS WORK, ACCORDING TO 709.00.

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

APPLY A PERMANENT GRAFFITI COATING QUALIFIED ACCORDING TO SUPPLEMENT 1083 THAT IS COMPATIBLE WITH THE CONCRETE SEALER OVER WHICH IT IS APPLIED. APPLY THE GRAFFITI COATING IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS. THE EPOXY URETHANE SEALER SHALL BE FEDERAL COLOR NUMBER 17778.

IN ADDITION TO THE LIMITS DETAILED IN THE PLANS, WORK UNDER THIS ITEM SHALL INCLUDE ALL EXPOSED SURFACES OF EXISTING PIERS EXCEPT FOR THE TOP SURFACE OF THE PIER CAP.

EPOXY-URETHAN SEALER WAS APPLIED ON ABUTMENTS, EXISTING WINGWALLS, AND DECK SURFACES. NON-EPOXY URETHANE SEALER, CHEMMASTER TEXTURE DOT, WAS APPLIED AT PARAPETS AND EXISTING PIERS 3,5,6,18, AND 19.

ITEM 512 SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN, AS PER PLAN

APPLY HIGH MOLECULAR WEIGHT METHACRYLATE (HMWM) TO FILL AND SEAL CRACKS IN THE CONCRETE APPROACH SLAB. HMWM CAN BE USED ON NEW DECKS THAT HAVE EXTENSIVE CRACKS AND COLD JOINTS.

ITEM 512 TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN, AS PER PLAN

APPLY GRAVITY-FED RESIN (GFR) TO FILL AND SEAL CRACKS IN THE CONCRETE BRIDGE DECK. GFR IS COST EFFECTIVE WHEN USED TO FLOOD DECK SURFACES WITH WIDESPREAD DECK CRACKING.

ITEM 513, STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN:

ALL REQUIREMENTS OF 513 APPLY TO SHOP FABRICATED MEMBERS. PERFORM WORK FOR FIELD-FABRICATED MEMBERS ACCORDING TO ITEM 513, EXCEPT AS MODIFIED HEREIN. THE DEPARTMENT WILL NOT REQUIRE THE CONTRACTOR PERFORMING FIELD FABRICATION TO BE PRE-QUALIFIED AS SPECIFIED IN SUPPLEMENT 1078. SUBMIT A WRITTEN LETTER OF MATERIAL ACCEPTANCE IN ACCORDANCE WITH 501.06, TO THE ENGINEER. PROVIDE THE ENGINEER "AS-BUILT" DRAWINGS ACCORDING TO 513.06, EXCEPT 501.04 DOES NOT APPLY. UPON RECEIPT OF THE ENGINEER'S ACCEPTANCE, SUPPLY A COPY OF THE DRAWINGS, ACCORDING TO SUPPLEMENT 1002, TO THE OFFICE OF MATERIAL MANAGEMENT FOR RECORD PURPOSES.

WORK UNDER THIS ITEM SHALL INCLUDE FURNISHING AND INSTALLING NEW CROSSFRAME MEMBERS AT EXISTING PIER NUMBERS 2, 5, 7, AND 18 AS DETAILED IN THE PLANS. CROSSFRAMES SHALL BE SHOP PRIMED AND INSTALLED PRIOR TO BEGINNING ITEM 514 FIELD PAINTING OPERATIONS. ALL REQUIREMENTS OF CMS 513 APPLY TO THE SHOP FABRICATION OF THE CROSSFRAME MEMBERS AND ASSOCIATED CONNECTION PLATES.

PROPOSED WORK:

1. REPLACE DECK WITH COMPOSITE DECK AND PARAPETS.
2. WELD ALL EXISTING CROSSFRAME STIFFENERS TO TOP & BOTTOM FLANGES.
3. PREP AND PAINT NEW AND EXISTING STRUCTURAL STEEL TO REMAIN.
4. REPLACE BEARINGS AT PIERS 1, 3, 6 AND 19 AND AT THE HINGES.
5. REPLACE ALL ABUTMENT BEARINGS WITH ELASTOMERIC BEARINGS.
6. REPLACE APPROACH SLAB AND APPROACH PAVEMENT.
7. REPLACE REAR EXPANSION JOINT AND TOP OF BACKWALL DOWN TO APPROACH SLAB SEAT.
8. REPLACE ALL DOWNSPOUTS FROM DECK SURFACE TO GROUND.
9. PERFORM SEISMIC RETROFIT TO PIERS.
10. ADD STRIP SEAL EXPANSION JOINTS AT ALL INTERMEDIATE JOINTS OVER PIERS OR HINGES.
11. CONSTRUCT 10' WIDE COUNTER BERM ON WEST SIDE OF PIER 6.
12. SEAL SUPERSTRUCTURE AND SUBSTRUCTURE, AS SHOWN IN THE PLANS.

ITEM 514, FIELD PAINTING STRUCTURAL STEEL, FINISH COAT:

IN ACCORDANCE WITH CMS 514, ALL NEW AND EXISTING STRUCTURAL STEEL SHALL BE PREPPED AND PAINTED WITH THE OZEU COATING SYSTEM. THE FINISH COAT SHALL BE FEDERAL COLOR 595B-34058 (DARK GREEN). SHERWIN WILLIAMS DOT HP ACRYLIC URETHANE USED FOR REPAIRS ON ABUTMENT NO. 1 CROSS FRAMES AND UNIT 6 GIRDER REPAIRS.

CONSTRUCTION OF DECK:

THE REMOVAL OF THE DECK INCLUDES FIELD SURVEY OF THE BOTTOM OF EXISTING GIRDERS/BEAMS BEFORE AND AFTER DECK REMOVAL TO OBTAIN THE REBOUND. THE REBOUND WILL BE INPUT INTO A SPREADSHEET PROVIDED TO THE CONTRACTOR BY THE ENGINEER OF RECORD TO OBTAIN SCREED ELEVATIONS REQUIRED FOR DECK PLACEMENT OPERATIONS. A PDF OF THIS SPREADSHEET SHALL BE INCLUDED WITH THE AS-BUILT PLANS.

TEMPORARY SHORING:

ALL TEMPORARY SHORING DESIGN WILL BE PERFORMED IN ACCORDANCE WITH CMS 501 AND SUBMITTED PRIOR TO CONSTRUCTION.

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 2.60 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 INCHES.

A MAXIMUM DISTANCE FROM THE CENTERLINE OF THE FASCIA GIRDER TO THE FACE OF THE SAFETY HANDRAIL OF 77 INCHES.

VANDAL PROTECTION FENCING:

VANDAL PROTECTION FENCING IS REQUIRED OVER RAILROAD RIGHT-OF-WAY.

INSTALL FENCING FOR EACH CONSTRUCTION PHASE PRIOR TO OPENING THAT PHASE TO VEHICULAR TRAFFIC.

MAINTENANCE OF TRAFFIC:

SEE BU-04 AND BU-23 FOR MAINTENANCE OF TRAFFIC PLANS.

DESIGN AGENCY
PRIME AE
540 WEST POINT PIKE, SUITE E
WILLIAMSPORT, PA 17701

DESIGNED	DRAWN	REVIEWED	DATE
KDC	KDC	TES	7/30/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CRG		3115739	

GENERAL NOTES (1 OF 3)
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

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STRUCTURE GENERAL NOTES

RAILROAD REQUIREMENTS:

ALL CONSTRUCTION WORK ON, OVER, UNDER OR ADJACENT TO THE NORFOLK-SOUTHERN (NS) OR CSX RIGHT-OF-WAY SHALL BE DONE IN ACCORDANCE WITH THE NORFOLK-SOUTHERN "SPECIAL PROVISIONS FOR THE PROTECTION OF RAILWAY INTERESTS" (NS SPECIAL PROVISIONS) OR CSX PUBLIC PROJECTS MANUAL.

CSXT MAY REQUIRE THE CONTRACTOR TO INSTALL FILTER FABRIC OVER THE TRACK(S) AND BALLAST TO PREVENT ANY CONSTRUCTION DEBRIS FROM FOULING THE BALLAST. THIS WILL BE DETERMINED DURING ACTUAL CONSTRUCTION ACTIVITIES BY CSXT OR ITS REPRESENTATIVE. FABRIC WILL REMAIN IN PLACE UNTIL ALL CONSTRUCTION ACTIVITIES ARE COMPLETE.

TEMPORARY CONSTRUCTION CLEARANCE - ENSURE ALL FALSEWORK, BRACING OR FORMS HAVE A MINIMUM HORIZONTAL CLEARANCE OF 12 FEET MEASURED PERPENDICULAR TO THE CENTERLINE OF THE NEAREST TRACK. ANY TEMPORARY VERTICAL CLEARANCE LESS THAN 23', OVER THE TRACKS, WILL REQUIRE SPECIAL PERMISSION, WITH NO GUARANTEE OF APPROVAL FROM CSX.

THE MINIMUM ALLOWABLE TEMPORARY CLEARANCES SHALL BE INDICATED ON THE GENERAL PLAN AND ELEVATION SHEET. A MINIMUM VERTICAL CLEARANCE OF 22'-0" ABOVE TOP OF HIGHEST RAIL AND A MINIMUM HORIZONTAL CLEARANCE OF 14'-0" SHALL BE MAINTAINED AT ALL TIMES

MEANS AND METHODS - THE CONTRACTOR SHALL DEVELOP A DETAILED SUBMISSION INDICATING THE PROGRESSION OF WORK WITH SPECIFIC TIMES WHEN TASKS WILL BE PERFORMED FOR WORK ACTIVITIES THAT ARE ON OR IN THE VICINITY OF THE CSXT PROPERTY. THIS SUBMISSION MAY REQUIRE A WALKTHROUGH AT WHICH TIME CSXT AND/OR THE REPRESENTATIVE WILL BE PRESENT. WORK WILL NOT BE PERMITTED TO COMMENCE UNTIL THE CONTRACTOR HAS PROVIDED CSXT WITH A SATISFACTORY PLAN THAT THE PROJECT WILL BE UNDERTAKEN WITHOUT SCHEDULING, PERFORMANCE OR SAFETY RELATED ISSUES. PROVIDE A LISTING OF THE ANTICIPATED EQUIPMENT TO BE USED, THE LOCATION OF ALL EQUIPMENT TO BE USED AND ENSURE A CONTINGENCY PLAN OF ACTION IS IN PLACE SHOULD A PRIMARY PIECE OF EQUIPMENT MALFUNCTION. ALL WORK IN THE VICINITY OF CSXT PROPERTY THAT HAS THE POTENTIAL OF AFFECTING CSXT TRAIN OPERATIONS MUST BE SUBMITTED AND APPROVED BY CSXT PRIOR TO WORK BEING PERFORMED. THIS SUBMISSION WILL ALSO INCLUDE A DETAILED NARRATIVE DISCUSSING THE COORDINATION OF PROJECT SAFETY ISSUES BETWEEN CONTRACTOR, CSXT AND THE REPRESENTATIVE. THE NARRATIVE SHALL ADDRESS PROJECT LEVEL COORDINATION AND DAY TO DAY, SPECIFIC WORK OPERATIONS INCLUDING CRANE AND EQUIPMENT OPERATIONS, ERECTION PLANS AND TEMPORARY WORKS.

DEMOLITION PROCEDURES, ERECTION PROCEDURES, AND PAINT CONTAINMENT PROCEDURES ARE REQUIRED TO BE SUBMITTED TO CSXT, OR THE REPRESENTATIVE, IN ACCORDANCE WITH THE CSXT CONSTRUCTION SUBMISSION CRITERIA, LAST REVISED APRIL 14, 2015. THE CSXT CONSTRUCTION SUBMISSION CRITERIA SHOULD BE REFERRED TO AND COMPLIED WITH PRIOR TO THE PREPARATION OF SUBMISSIONS, AS IT CONTAINS SPECIFIC REQUIREMENTS THAT COULD IMPACT THE CONTRACTOR'S MATERIAL SELECTION AND METHODS OR OPERATIONS FOR WORK NEAR THE RAILROAD. REVISIONS TO CONTRACTOR SUBMISSIONS MAY NOT BE FIELD APPROVED. ANY DEVIATION(S) FROM A PREVIOUSLY ACCEPTED PLAN INCLUDING EQUIPMENT SUBSTITUTIONS WILL REQUIRE A FORMAL RESUBMISSION OF THE PROCEDURE FOR REVIEW AND ACCEPTANCE PRIOR TO PERFORMING ANY WORK. A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF OHIO MUST SIGN AND SEAL THE PLANS. UP TO THIRTY (30) DAYS WILL BE REQUIRED TO REVIEW ALL CONSTRUCTION SUBMISSIONS. UP TO AN ADDITIONAL THIRTY (30) DAYS WILL BE REQUIRED TO REVIEW ANY SUBSEQUENT SUBMISSIONS RETURNED NOT APPROVED.

EMERGENCY ACTION PLAN - SUBMIT AN EMERGENCY ACTION PLAN INDICATING THE LOCATION OF THE SITE, CONTACT NUMBERS, ACCESS TO THE SITE, INSTRUCTIONS FOR EMERGENCY RESPONSE AND LOCATION OF THE NEAREST HOSPITALS. THIS PLAN SHOULD COVER ALL ITEMS REQUIRED IN THE EVENT OF AN EMERGENCY AT THE SITE INCLUDING FIRE SUPPRESSION. COORDINATE THE EMERGENCY ACTION PLAN WITH THE SAFETY RELATED DISCUSSION OF THE MEANS AND METHODS SUBMISSION DISCUSSED ABOVE. THE PLAN SHOULD ALSO INCLUDE A METHOD TO PROVIDE THIS INFORMATION TO EACH PROJECT WORKER FOR EACH DAY ON SITE.

RAILROAD REQUIREMENTS CONTINUED:

CONTRACTOR ACCESS WILL BE LIMITED TO THE IMMEDIATE PROJECT AREA ONLY. THE CSXT RIGHT-OF-WAY OUTSIDE THE PROJECT AREA MAY NOT BE USED FOR CONTRACTOR ACCESS TO THE PROJECT SITE AND NO TEMPORARY AT-GRADE CROSSINGS WILL BE ALLOWED.

"ONE CALL" SERVICES DO NOT LOCATE BURIED RAILROAD SIGNAL AND COMMUNICATIONS LINES. THE CONTRACTOR SHALL CONTACT THE RAILROAD'S REPRESENTATIVE TWO (2) DAYS IN ADVANCE OF THOSE PLACES WHERE EXCAVATION, PILE DRIVING, OR HEAVY LOADS MAY DAMAGE RAILROAD UNDERGROUND LINES ON RAILROAD PROPERTY. UPON REQUEST FROM THE CONTRACTOR OR AGENCY, RAILROAD SIGNAL FORCES WILL LOCATE AND PAINT MARK OR FLAG RAILROAD UNDERGROUND SIGNAL, COMMUNICATION, AND POWER LINES IN THE AREA TO BE DISTURBED FOR THE CONTRACTOR. THE CONTRACTOR SHALL AVOID EXCAVATION OR OTHER DISTURBANCE OF THESE LINES WHICH ARE CRITICAL TO THE SAFETY OF THE RAILROAD AND THE PUBLIC. IF DISTURBANCE OR EXCAVATION IS REQUIRED NEAR A BURIED RAILROAD SIGNAL, COMMUNICATION, OR POWER LINE, THE LINE SHALL BE POTHOLED MANUALLY WITH CAREFUL HAND EXCAVATION BY THE CONTRACTOR AND PROTECTED BY THE CONTRACTOR DURING THE COURSE OF THE DISTURBANCE UNDER THE SUPERVISION AND DIRECTION OF A RAILROAD SIGNAL REPRESENTATIVE.

ALL UTILITY INSTALLATIONS OR RELOCATIONS ON NORFOLK SOUTHERN RIGHT-OF-WAY THAT ARE REQUIRED IN CONJUNCTION WITH THIS PROJECT CAN BE INSTALLED OR RELOCATED AS PART OF THE PROJECT PROVIDED THE CONSTRUCTION IS PERFORMED BY THE PROJECT CONTRACTOR OR PROJECT CONTRACTOR'S SUB-CONTRACTOR. HOWEVER, THE UTILITY MUST SUBMIT AN APPLICATION FOR THE INSTALLATION OR RELOCATION TO AECOM FOR APPROPRIATE HANDLING FOR LICENSE AGREEMENT AND APPLICABLE FEES. FOR UTILITY APPLICATIONS GO TO: WWW.NSCORP.COM > REAL ESTATE > NS SERVICES > WIRE, PIPELINE, AND FIBER OPTICS PROJECTS. NOTE: LICENSE AGREEMENT MUST BE EXECUTED PRIOR TO UTILITY BEING INSTALLED OR RELOCATED.

FOR PROJECTS REQUIRING MORE THAN 30 CONSECUTIVE DAYS OF FLAGGING, CONTRACTOR SHALL PROVIDE THE FLAGMAN A SMALL WORK AREA WITH A DESK/COUNTER AND CHAIR WITHIN THE FIELD/SITE TRAILER, INCLUDING THE USE OF BATHROOM FACILITIES, WHERE THE FLAGMAN CAN CHECK IN/OUT WITH THE PROJECT, AS WELL AS TO THE FLAGMAN'S HOME TERMINAL. THE WORK AREA SHOULD PROVIDE ACCESS TO TWO (2) ELECTRICAL OUTLETS FOR RECHARGING RADIO(S), AND A LAPTOP COMPUTER; AND HAVE THE ABILITY TO PRINT OFF NEEDED DOCUMENTATION AND ORDERS AS NEEDED AT THE FIELD/SITE TRAILER. THIS SHOULD AID IN MAXIMIZING THE FLAGMAN'S TIME AND EFFICIENCY ON THE PROJECT.

THE ELEVATIONS OF THE EXISTING TOP-OF-RAIL PROFILE SHALL BE VERIFIED TO MATCH THE APPROVED FINAL PLANS BEFORE BEGINNING CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF NORFOLK SOUTHERN PUBLIC PROJECTS ENGINEER.

FINAL AS-BUILT DRAWINGS:

THE CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS SHOWING ACTUAL VERTICAL AND HORIZONTAL CLEARANCES AS WELL AS DEPTH, SIZE AND LOCATION OF ALL FOUNDATION COMPONENTS TO NORFOLK SOUTHERN RAILROAD AND CSX RAILROAD.

UTILITIES:

THE UTILITY(IES) SHALL BEAR ALL EXPENSE INVOLVED IN RELOCATING (INSTALLING) THE AFFECTED UTILITY LINES. THE CONTRACTOR AND UTILITY(IES) ARE TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM.

FOR A LISTING OF UTILITIES IN THE PROJECT AREA, SEE BU-14.

LIGHTING:

SEE BU-19 FOR REQUIRED LIGHTING WORK.

EXISTING UNDERPASS LIGHTING, IF REMOVED TO PERFORM REQUIRED WORK, SHALL BE STORED FOR REUSE.

IF ANY DAMAGE OCCURS DURING REMOVAL, OR RE-ERECTION OF THE LIGHTS, THE CONTRACTOR SHALL REPLACE THE AFFECTED LIGHTING FIXTURE WITH THE SAME MANUFACTURER AND MODEL.

THE SAME LEVEL OF LIGHTING, AS CURRENTLY EXISTS, SHALL BE MAINTAINED WITH TEMPORARY LIGHTING WHILE PERMANENT LIGHTING IS OFF-LINE.

RAILROAD EXCAVATION REQUIREMENTS:

THERE SHALL BE NO EXCAVATION ON OR AT THE TOE OF THE NORFOLK SOUTHERN OR CSX TRACK STRUCTURE SLOPES WITHOUT REVIEW AND COMPLIANCE WITH THE NORFOLK SOUTHERN AND CSX "SHORING REQUIREMENTS".

REFURBISH BEARING DEVICE, AS PER PLAN:

THIS ITEM SHALL INCLUDE ALL WORK NECESSARY TO PROPERLY CLEAN AND PAINT THE EXISTING BEARINGS AT PIER NUMBERS 2, 4, 5, 7, AND 18. INCLUDED SHALL BE THE HAND TOOL CLEANING (GRINDING IF NECESSARY), PAINTING ACCORDING TO ITEM 514, REPLACEMENT OF ANY DAMAGED SHEET LEAD WITH PREFORMED BEARING PADS (711.21), INSTALLATION OF ANY NECESSARY STEEL SHIMS OF THE SAME SIZE AS THE BEARINGS TO PROVIDE A SNUG FIT, AND LUBRICATING SLIDING SURFACES. ASSURE ALL BEARINGS ARE SHIMMED ADEQUATELY AND THAT NO BEAMS AND/OR BEARING DEVICES ARE "FLOATING".

STAY-IN-PLACE FORMS:

STAY-IN-PLACE FORMS SHALL ONLY BE USED OVER MILL CREEK (SPANS 3 AND 4 OF UNIT 1) AND THE RAILROAD (SPAN 7 OF UNIT 2). STAY-IN-PLACE FORMS SHALL BE GALVANIZED CONFORMING TO CMS 508.01 THRU 508.03.

FORMS SHALL NOT BE INSTALLED AT OVERHANGS, WITHIN EIGHT FEET OF EXPANSION JOINTS, AND WITHIN FOUR FEET OF ALL THROUGH DECK DRAINAGE SYSTEMS. FULL UNIT WIDTH FORMS ARE EXPECTED TO BE PROVIDED WITHIN THE APPROXIMATE LIMITS GIVEN.

THE FLUTES OF STAY-IN-PLACE FORMS SHALL BE FILLED WITH CONCRETE. THE DESIGN INCLUDES ALLOWANCE FOR 15 PSF OVER THE PROJECTED PLAN AREA OF THE METAL FORMS FOR THE UNIT WEIGHT OF METAL FORMS AND CONCRETE REQUIRED TO FILL THE FORM FLUTES.

MATERIALS- FURNISH FORM, SUPPORT MATERIALS AND HARDWARE CONFORMING TO THE FOLLOWING:

I. FORM AND SUPPORT MATERIAL, ASTM A653 HAVING A COATING DESIGNATION OF G235, AND CONFORMING TO THE MECHANICAL PROPERTIES THE DESIGN REQUIRES.

II. PROVIDE DECK FORMS WITH A 2 INCH MINIMUM FORM DEPTH.

III. PROVIDE MINIMUM MATERIAL THICKNESS AS FOLLOWS: SIP FORMS (20 GAGE), SUPPORT ANGLES (12 GAGE) AND SUPPORT BARS (12 GAGE).

IV. SUPPLY DECK, SELF DRILLING FASTENERS WITH CADIUM PLATING PER ASTM B766 WITH MINIMUM THICKNESS OF 5, TEN THOUSANDS.(0.0005 INCH). THE HEADS OF THESE FASTENERS WILL BE HIGHLY VISIBLE COLOR, RED OR OTHER, TO AID INSPECTION.

HARDWARE SHALL BE DETAILED IN SHOP DRAWINGS.

WELDING- DO NOT WELD SIP FORMS OR THEIR SUPPORTS TO THE STEEL BRIDGE MEMBERS. SIP SUPPORTS MAY BE WELDED TO ANCHORS CAST INTO PRECAST CONCRETE BRIDGE MEMBERS. PERFORM WELDING PER 513.21.

THREADED STUDS SHALL BE WELDED FOR OVERHANG AND PHASE LINE FRMEWORK ON SPANS 3, 4, AND 7 WHERE STAY-IN-PLACE FORMS ARE BEING INSTALLED.

STRUCTURE GROUNDING:

STRUCTURE TO BE GROUNDED IN ACCORDANCE WITH STD. DWG. HL-50.21 FOR EACH RUN OF VANDAL PROTECTION FENCE (VPF) AND THE OVERHEAD SIGN. THE VPF SHALL BE GROUNDED AT PIER 6 AND PIER 7 ON BOTH SIDES OF THE BRIDGE. THE OVERHEAD SIGN SHALL BE GROUNDED AT PIER 5 ON BOTH SIDES OF THE BRIDGE. THE GROUND WIRE SHALL BE EXOTHERMICALLY WELDED TO A GROUND ROD AND RUN UP THE OUTSIDE OF THE ADJACENT PIERS ON EACH SIDE, USING AN INSULATED COPPER CABLE, AND BONDED TO A SURFACE MOUNTED GROUND PLATE ON THE PIER CAP. THE GROUND PLATE SHALL BE EXOTHERMICALLY WELDED TO THE EXTERIOR GIRDER, WHICH CONNECTS THE TOP OF THE GIRDER WITH AN INSULATED COPPER WIRE CONCEALED IN THE DECK AND THE PARAPET TO A SURFACE MOUNTED GROUND PLATE ON THE TOP OF THE PARAPET, WHICH IS EXOTHERMICALLY WELDED TO THE VPF BASE PLATE OR THE OVERHEAD SIGN BASE PLATE.

EXTERIOR BEAMS AT HINGE 1 AND HINGE 2 SHALL ALSO BE BONDED WITH STRANDED INSULATED COPPER CABLES AND EXOTHERMIC WELDS ON BOTH SIDES. SEE STANDARD DRAWING HL-50.21 FOR MORE DETAILS.

DESIGN AGENCY
PRIME AE
540 METROPOOL DR, SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
KDC	KDC	TES	7/30/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CRG		3115739	

GENERAL NOTES (2 OF 3)
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

9 / 100

9
100

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STRUCTURE GENERAL NOTES

CLASS QC3 CONCRETE WITH QC/QA, SUBSTRUCTURE, AS PER PLAN

THIS ITEM MODIFIES THE STANDARD 511 CONCRETE FOR STRUCTURES SPECIFICATION TO INCLUDE MACRO-SYNTHETIC 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, 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-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, WILL 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, AS PER PLAN

THIS ITEM MODIFIES THE STANDARD 511 CONCRETE FOR STRUCTURES SPECIFICATION TO INCLUDE MACRO-SYNTHETIC 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 QC3, 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, WILL 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.

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

DUE TO TRANSVERSE DECK CRACKS ACROSS VARIOUS SECTIONS OF THE BRIDGE DECK E-CHEM EP100HM GRAVITY FED RESIN WAS APPLIED TO THE ENTIRE BRIDGE DECK PER ODOT SPEC 512.06.

ABBREVIATIONS

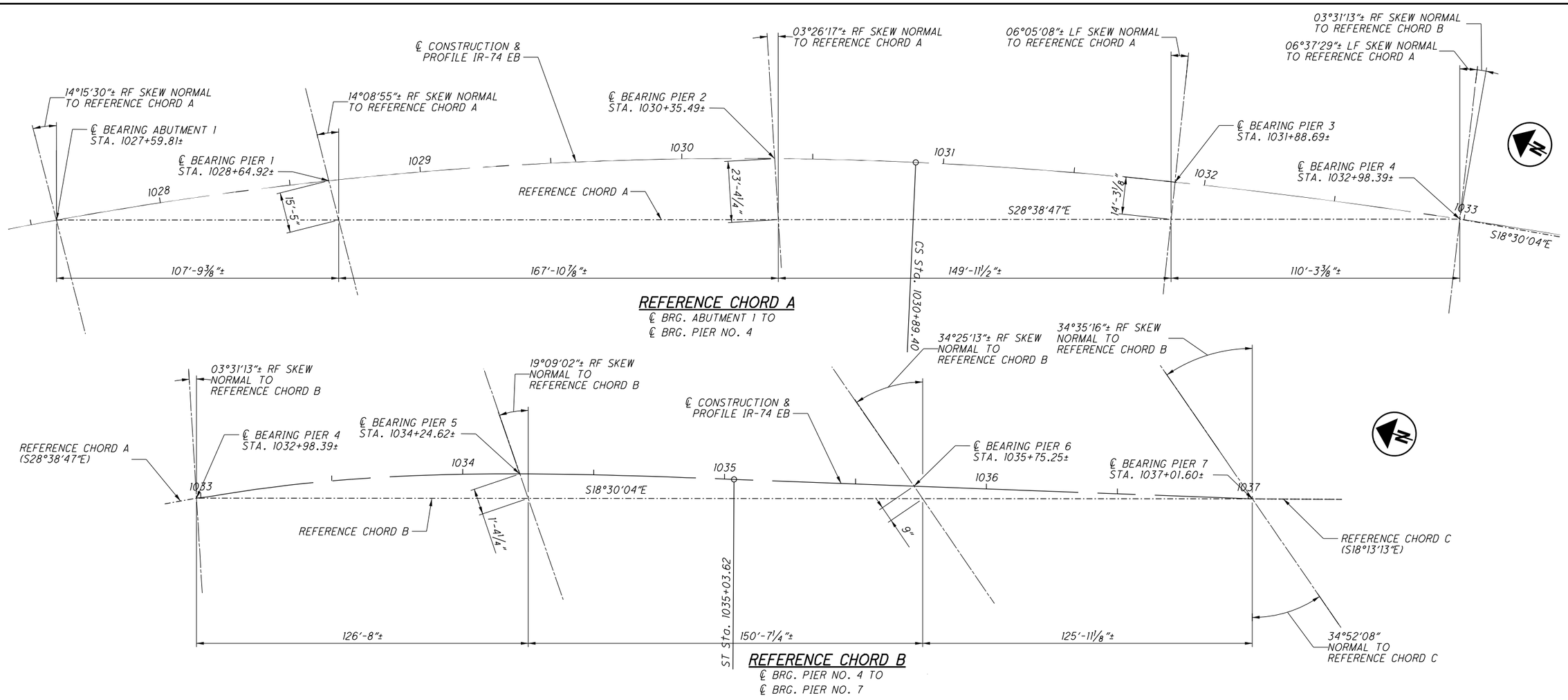
ABUT. - ABUTMENT
APPROX. - APPROXIMATELY
BOTT. - BOTTOM
BRG. - BEARING
BTW. - BETWEEN
C/C - CENTER TO CENTER
C.I.P. - CAST-IN-PLACE
C.J. - CONSTRUCTION JOINT
CLR. - CLEARANCE
CONST. - CONSTRUCTION
DIA. - DIAMETER
DWG. - DRAWING
EA. - EACH
E.F. - EACH FACE
EL. OR ELEV. - ELEVATION
EMB. - EMBEDMENT
EQ. - EQUAL
EX. - EXISTING
EXIST. - EXISTING
EXP. - EXPANSION
F.A. - FORWARD ABUTMENT
F.F. - FAR FACE
JT. - JOINT
MIN. - MINIMUM
MAX. - MAXIMUM
MOT - MAINTENANCE OF TRAFFIC
N.F. - NEAR FACE
NO. - NUMBER
N.P.C.P.P. - NON-PERFORATED CORRUGATED PLASTIC PIPE
P.C.P.P. - PERFORATED CORRUGATED PLASTIC PIPE
P.E.J.F. - PREFORMED EXPANSION JOINT FILLER
R.A. - REAR ABUTMENT
REQ'D. - REQUIRED
SPA. - SPACE(D) OR SPACING
STA. - STATION
STD. DWG. OR SCD - STANDARD CONSTRUCTION DRAWING
STR. - STRAIGHT
SQ. - SQUARE
T - TOP
T.B.D. - TO BE DETERMINED
T&B - TOP AND BOTTOM
TYP. - TYPICAL
U.N.O. - UNLESS NOTED OTHERWISE
W/ - WITH

DESIGN AGENCY
PRIME AE
540 WEST POINT PLACE, SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
KDC	KDC	TES	7/30/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CRG		3115739	

GENERAL NOTES (3 OF 3)
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667



NOTES:

1. FOR MORE GEOMETRIC DETAILS, SEE SHEETS 5/100 THRU 7/100.

DESIGN AGENCY
PRIME AE
540 METRO PLACE S, SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
KDC	ADS	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CRG		3115739	

REFERENCE CHORD LAYOUT
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

11/100

11/100

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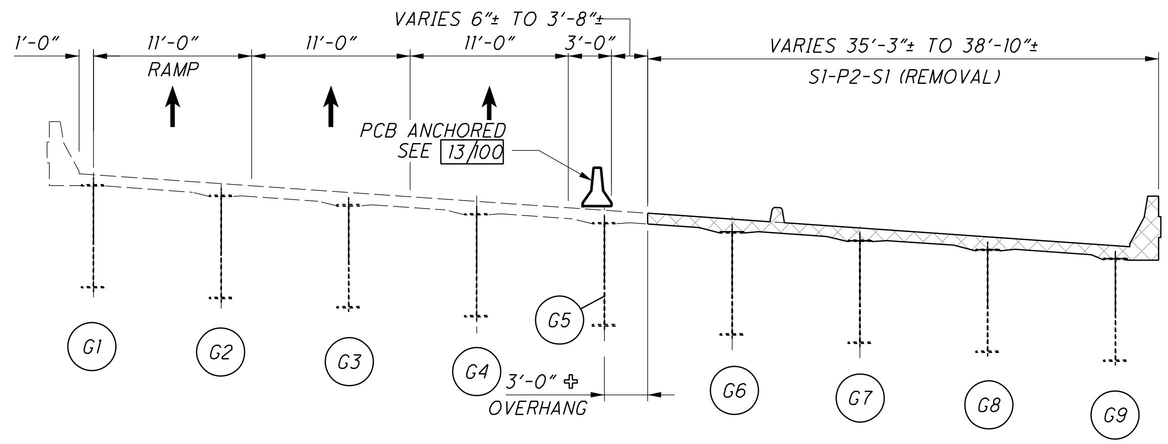
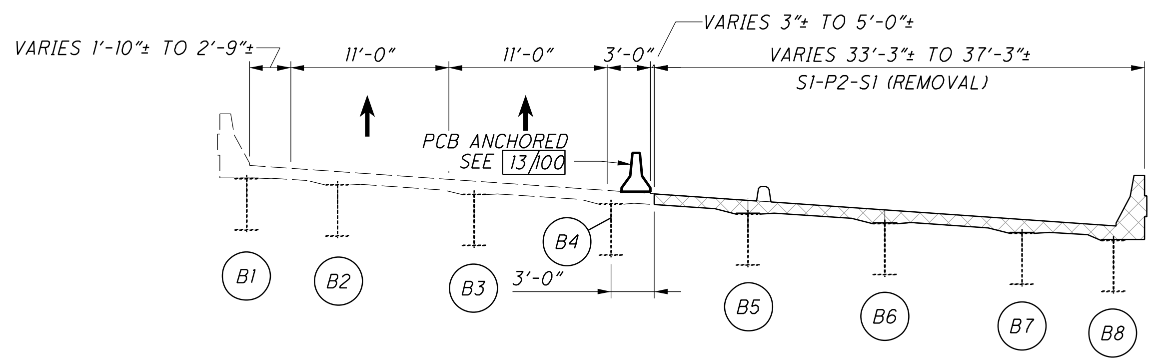


A/12 EXISTING UNIT 1 DECK REMOVAL
TYP. SPAN 1-4



E/12 EXISTING UNIT 6 DECK REMOVAL
TYP. SPAN 8-10

DECK REMOVAL SEQUENCE:

(1) REMOVE PORTION OF EXISTING UNIT 2 FROM EXISTING PIER 6 TO EXISTING HINGE 2. REMOVE PORTION OF EXISTING UNIT 6 FROM EXISTING HINGE 2 TO EXISTING ABUTMENT 4.

(2) REMOVE PORTION OF EXISTING UNITS 1 & 2 FROM EXISTING PIER 6 TO EXISTING ABUTMENT 1. SEQUENCE 2 MAY HAPPEN CONCURRENTLY WITH SEQUENCE 1.

NOTES:

1. REMOVAL DETAILS ARE FOR I-74 EB (HAM-74-1908R) ONLY. FOR CORRESPONDING REMOVAL DETAILS FOR RAMP P (HAM-74-1908S), SEE BU-05.
2. PRIOR TO ANY REMOVALS OF UNIT 3 OR UNIT 6, THE CONTRACTOR SHALL WELD PLATES NEAR THE LINKS AS SHOWN IN THE BU-10 REMOVAL SET.
3. PRIOR TO ANY REMOVALS OVER THE RAILROAD CONTRACTOR SHALL INSTALL TIMBER LAGGING DEBRIS SHIELD OVER RAILROAD IN SPAN 7. SEE SHEET 13/100 FOR MORE DETAILS.
4. FOR SUBSTRUCTURE REMOVAL DETAILS, SEE SHEETS 31/100 THRU 33/100 .
5. FOR GENERAL NOTES AND MOT REFERENCE, SEE SHEET 8/100 AND 9/100.

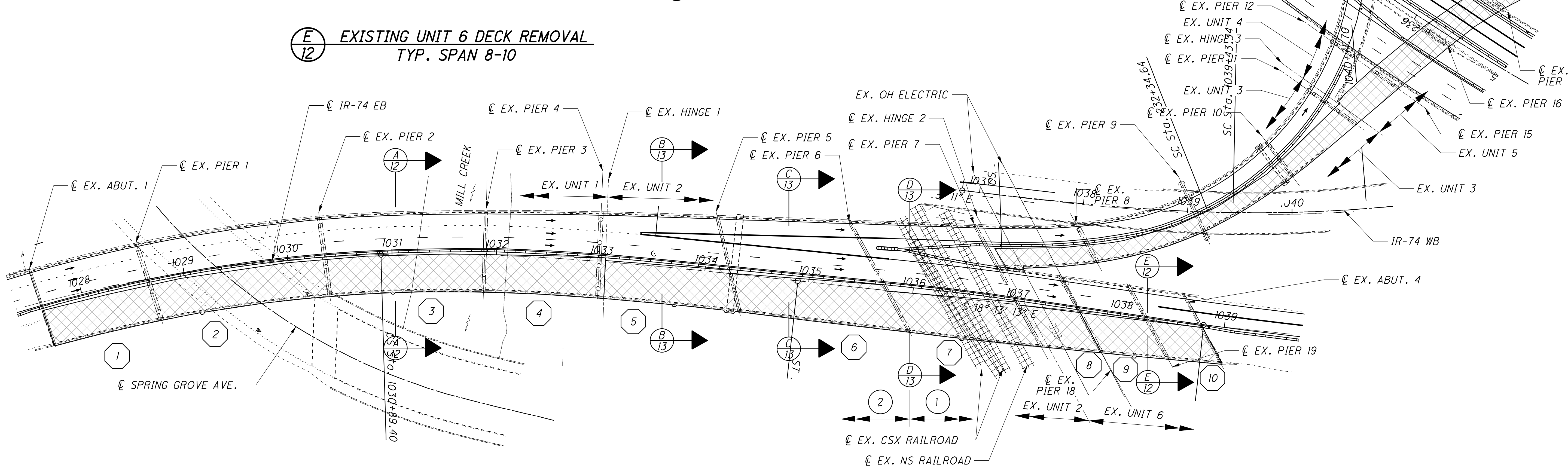
LEGEND:

[hatched box] - INDICATES LIMITS OF DECK REMOVAL (S1-P2-S1)

SX-PX-SX - STAGE X, PHASE X, STEP X (MOT PHASING)

✣ - 4'-0" OVERHANG THE LAST 30'-0" OF UNIT 1

(#) - SPAN NUMBER



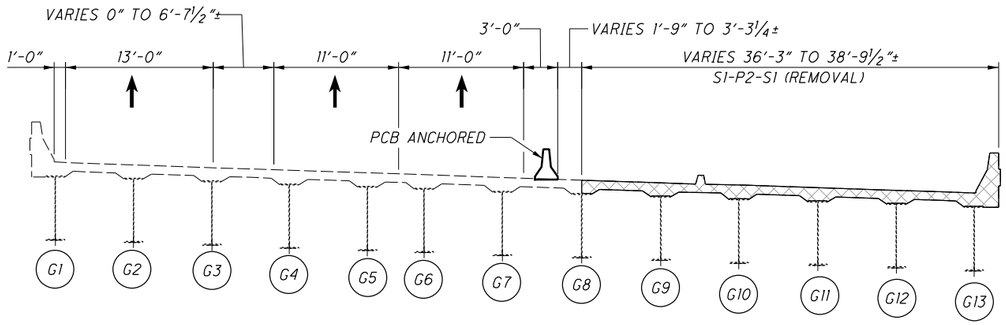
DECK REMOVAL - STAGE 1, PHASE 2, STEP 1

DESIGN AGENCY
PRIME AE
540 WHITE POND DR., SUITE E
AKRON, OH 44320

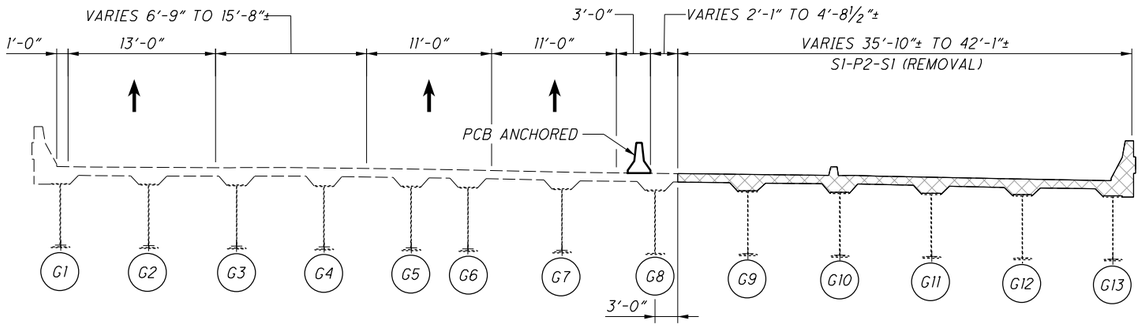
DESIGNED	DRAWN	REVIEWED	DATE
CRG	CRG	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		3115739	

DECK REMOVAL - STAGE 1, PHASE 2, STEP 1
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

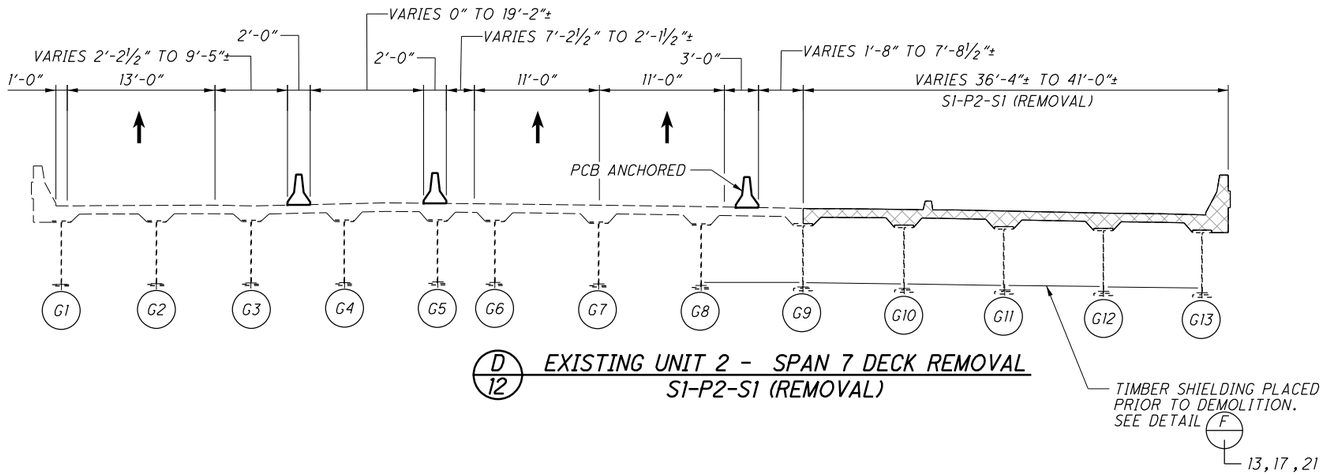
HAM-75-3.84
PID No. 104667



B/12 EXISTING UNIT 2 - SPAN 5 DECK REMOVAL
S1-P2-S1 (REMOVAL)



C/12 EXISTING UNIT 2 - SPAN 6 DECK REMOVAL
S1-P2-S1 (REMOVAL)



D/12 EXISTING UNIT 2 - SPAN 7 DECK REMOVAL
S1-P2-S1 (REMOVAL)

NOTES:

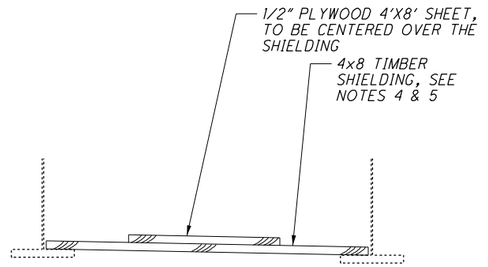
1. CONSTRUCTION DETAILS ARE FOR I-74 EB (HAM-74-1908R) ONLY. FOR CORRESPONDING CONSTRUCTION DETAILS FOR RAMP P (HAM-74-1908S), SEE BU-05.
2. FOR GENERAL NOTES AND MOT REFERENCE, SEE SHEETS 8/100 AND 9/100.
3. FOR LONGITUDINAL DECK REMOVAL CUT LINES OVER CENTERLINES OF EXISTING GIRDERS OR BEAMS, THE CONTRACTOR SHALL TAKE CARE NOT TO DAMAGE REMAINING GIRDERS OR BEAMS DURING THE REMOVAL PROCESS. SEE ITEM 202 ON SHEET 8/100.
4. TIMBER SHIELDING WAS DESIGNED FOR 4X8 TIMBERS SPACED ADJACENTLY; THE CONTRACTORS MAY SELECT LARGER TIMBER SIZES.
5. THE TIMBER SHIELDING MATERIAL WAS DESIGNED PER LRFD 8.4.6 AND 8.6.2 FOR THE SPRUCE-PINE-FIR (SOUTH) VISUALLY GRADED NO. OTHER TIMBER MATERIALS MAY BE SELECTED FROM THE VISUALLY GRADED SAWN LUMBER TABLE, PROVIDED THAT THE MINIMUM DESIGN VALUES ARE:
   - Eo = 1100 KSI
   - Fo = 0.755 KSI
   - Fo = 0.135 KSI
6. THE CONTRACTOR SHALL HAVE THE OPTION TO UTILIZE A COMPARABLE SHIELDING SYSTEM THAT MEETS THE LOADING REQUIREMENTS, PROVIDED THE MANUFACTUREER CAN PROVIDE SPECIFICATIONS AND TESTING RESULTS.
7. FOR ADDITIONAL DETAILS AND NOTES ON THE PORTABLE CONCRETE BARRIER (PCB), SEE STANDARD DRAWING PCB-91.

LEGEND:

- INDICATES LIMITS OF DECK REMOVAL (S1-P2-S1)

SX-PX-SX - STAGE X, PHASE X, STEP X (MOT PHASING)

PCB ANCHOR TABLE	
UNIT	# ANCHORS PER SEGMENT
UNIT 1	3
LAST 30' UNIT 1	6
UNIT 2	4
LAST 40' UNIT 2 (SPAN 5 AND 6)	8
UNIT 6 SPAN 8 AND 9	3
UNIT 6 SPAN 10	6



DEBRIS SHIELDING
(ONLY OVER RAILROAD - SPAN 7)

DECK REMOVAL - STAGE 1, PHASE 2, STEP 1

DESIGN AGENCY
PRIME AE
540 METROPOLITAN DR, SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
CRG	CRG	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		3115739	

DECK REMOVAL - STAGE 1, PHASE 2, STEP 1
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

13/100

13
100

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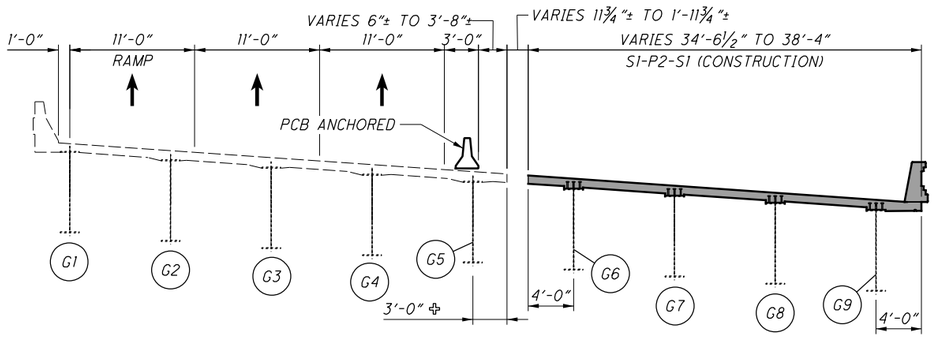
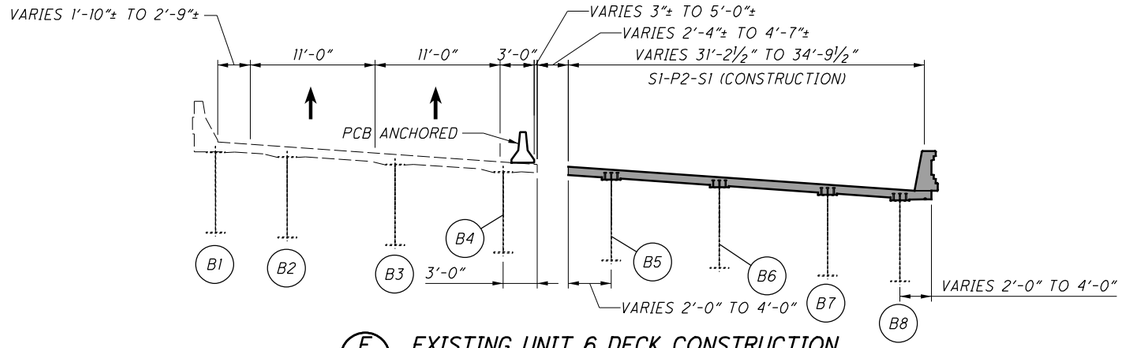


A/14 EXISTING UNIT 1 DECK CONSTRUCTION



E/14 EXISTING UNIT 6 DECK CONSTRUCTION

NOTES:

1. CONSTRUCTION DETAILS ARE FOR I-74 EB (HAM-74-1908R) ONLY. FOR CORRESPONDING CONSTRUCTION DETAILS FOR RAMP P (HAM-74-1908S), SEE BU-05.
2. FOR GENERAL NOTES AND MOT REFERENCE, SEE SHEET 8/100 AND 9/100.
3. FOR PCB ANCHOR DETAILS, SEE SHEET 13/100.

LEGEND:

- INDICATES LIMITS OF DECK CONSTRUCTION (S1-P2-S1)

SX-PX-SX - STAGE X, PHASE X, STEP X (MOT PHASING)

⌖ - 4'-0" OVERHANG THE LAST 30'-0" OF UNIT 1

DECK CONSTRUCTION - STAGE 1, PHASE 2, STEP 1

DESIGN AGENCY
PRIME AE
540 WHITE POND DR. SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
CRG	CRG	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CCJ		3115739	

DECK CONSTRUCTION - STAGE 1, PHASE 2, STEP 1
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

14/100

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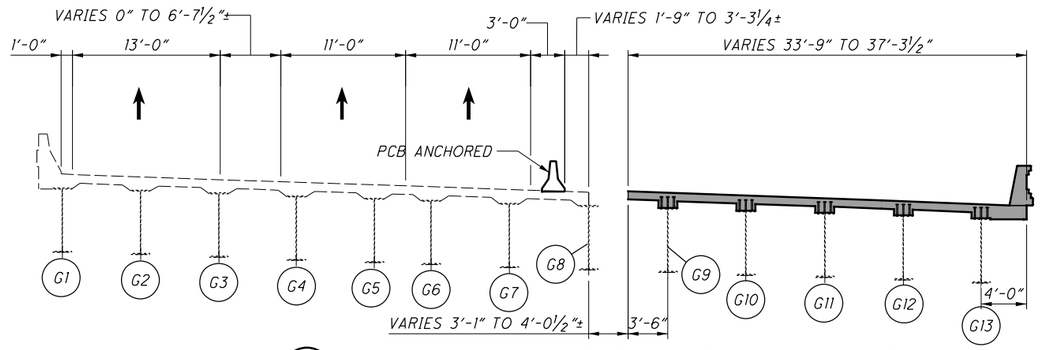
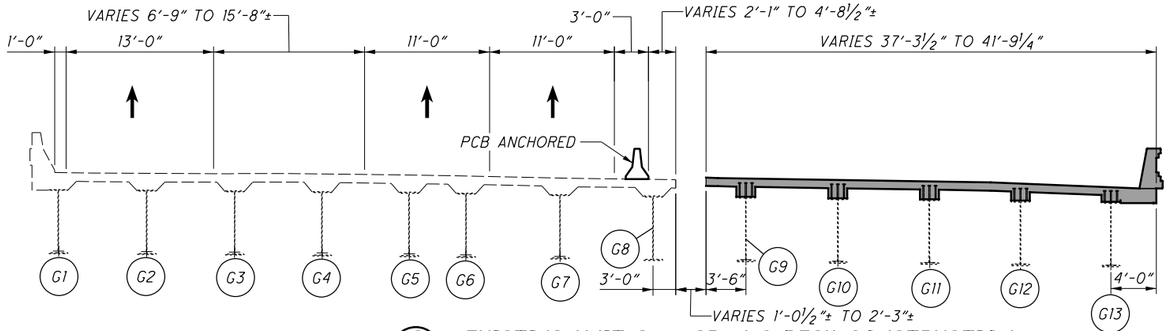
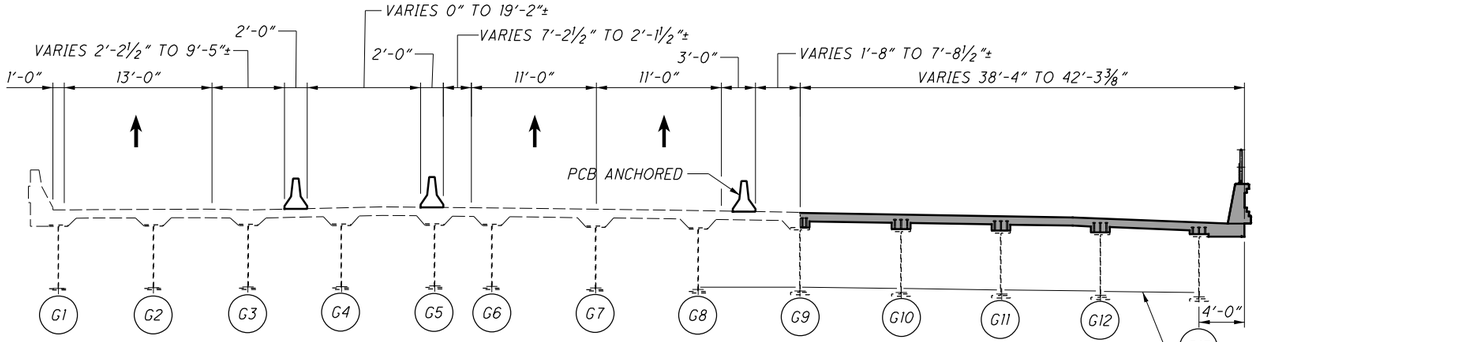


B/14 EXISTING UNIT 2 - SPAN 5 DECK CONSTRUCTION



C/14 EXISTING UNIT 2 - SPAN 6 DECK CONSTRUCTION



D/14 EXISTING UNIT 2 - SPAN 7 DECK CONSTRUCTION

NOTES:

1. CONSTRUCTION DETAILS ARE FOR I-74 EB (HAM-74-1908R) ONLY. FOR CORRESPONDING CONSTRUCTION DETAILS FOR RAMP P (HAM-74-1908S), SEE BU-05.
2. FOR GENERAL NOTES AND MOT REFERENCE, SEE SHEETS 8/100 AND 9/100.
3. FOR PCB ANCHOR DETAILS, SEE SHEET 13/100.

LEGEND:

- INDICATES LIMITS OF DECK CONSTRUCTION (S1-P2-S1)

SX-PX-SX - STAGE X, PHASE X, STEP X (MOT PHASING)

DECK CONSTRUCTION - STAGE 1, PHASE 2, STEP 1

DESIGN AGENCY
PRIME AE
540 WHITE POND DR, SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
CRG	CRG	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		3115739	

DECK CONSTRUCTION - STAGE 1, PHASE 2, STEP 1
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

15/100

15/100

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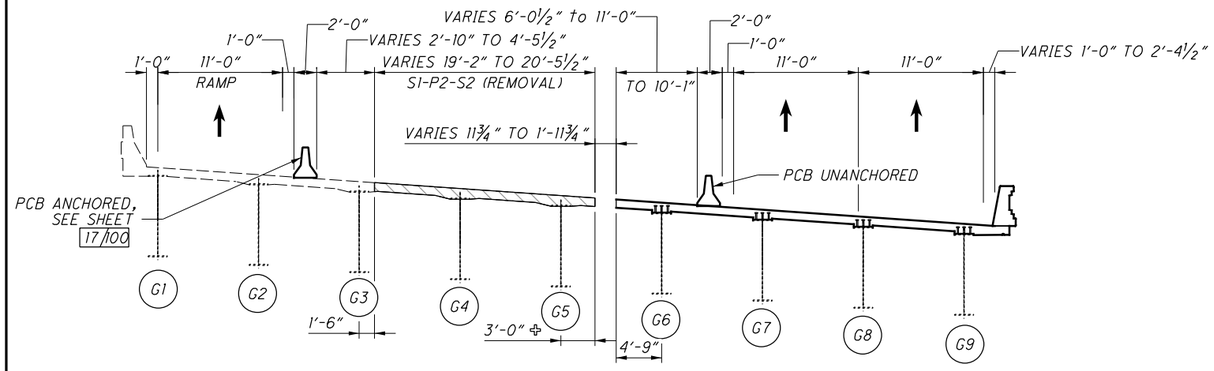
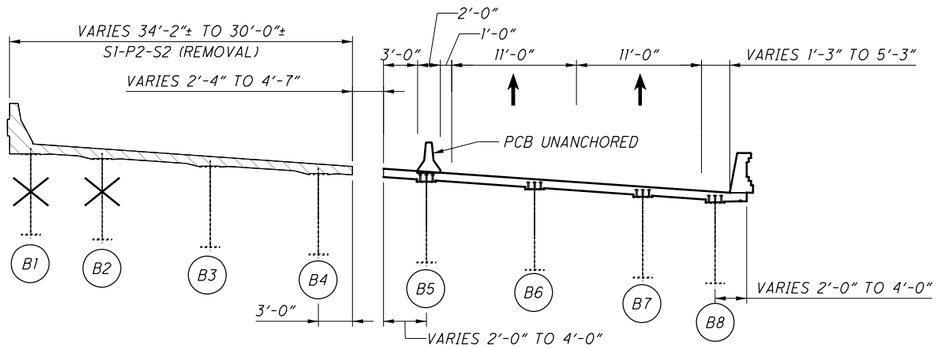


A/16 EXISTING UNIT 1 DECK REMOVAL
TYP. SPAN 1-4



E/16 EXISTING UNIT 6 DECK REMOVAL
TYP. SPAN 8-10

DECK REMOVAL SEQUENCE:

1. REMOVE PORTION OF EXISTING UNIT 2 FROM EXISTING PIER 6 TO EXISTING HINGE 2. REMOVE PORTION OF EXISTING UNIT 6 FROM EXISTING HINGE 2 TO EXISTING ABUTMENT 4.
2. REMOVE PORTION OF EXISTING UNITS 1 & 2 FROM EXISTING PIER 6 TO EXISTING ABUTMENT 1. SEQUENCE 2 MAY HAPPEN CONCURRENTLY WITH SEQUENCE 1.

NOTES:

1. REMOVAL DETAILS ARE FOR I-74 EB (HAM-74-1908R) ONLY. FOR CORRESPONDING REMOVAL DETAILS FOR RAMP P (HAM-74-1908S), SEE BU-05.
2. PRIOR TO ANY REMOVALS OF UNIT 3 OR UNIT 6, CONTRACTOR SHALL WELD PLATES TO THE LINKS AS SHOWN IN THE BU-10 REMOVAL SET.
3. PRIOR TO ANY REMOVALS OVER THE RAILROAD CONTRACTOR SHALL INSTALL TIMBER LAGGING DEBRIS SHIELD OVER RAILROAD IN SPAN 7. SEE SHEET 13/100 FOR MORE DETAILS.
4. FOR SUBSTRUCTURE REMOVAL DETAILS, SEE SHEETS 31/100 THRU 33/100 .
5. FOR GENERAL NOTES AND MOT REFERENCE, SEE SHEET 8/100 AND 9/100.

LEGEND:

- INDICATES LIMITS OF DECK REMOVAL (S1-P2-S2)

SX-PX-SX - STAGE X, PHASE X, STEP X (MOT PHASING)

⌖ - 4'-0" OVERHANG THE LAST 30'-0" OF UNIT 1

✕ - INDICATES BEAM REMOVAL

(#) - SPAN NUMBER

DECK REMOVAL - STAGE 1, PHASE 2, STEP 2

DESIGN AGENCY
PRIME AE
540 WHITE POND DR, SUITE E
AKRON, OH 44320

REVIEWED	DATE
TES	3/27/2019
STRUCTURE FILE NUMBER	
3115739	
DRAWN	REVISED
CRG	
DESIGNED	CHECKED
CRG	KDC

DECK REMOVAL - STAGE 1, PHASE 2
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

16/100

16/100

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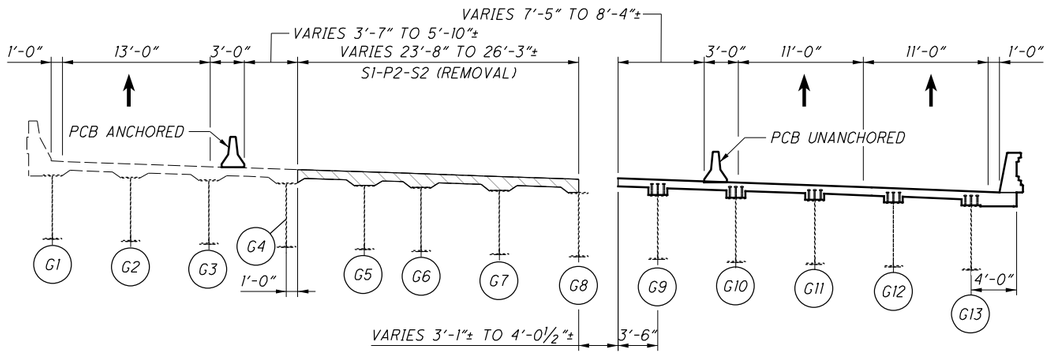
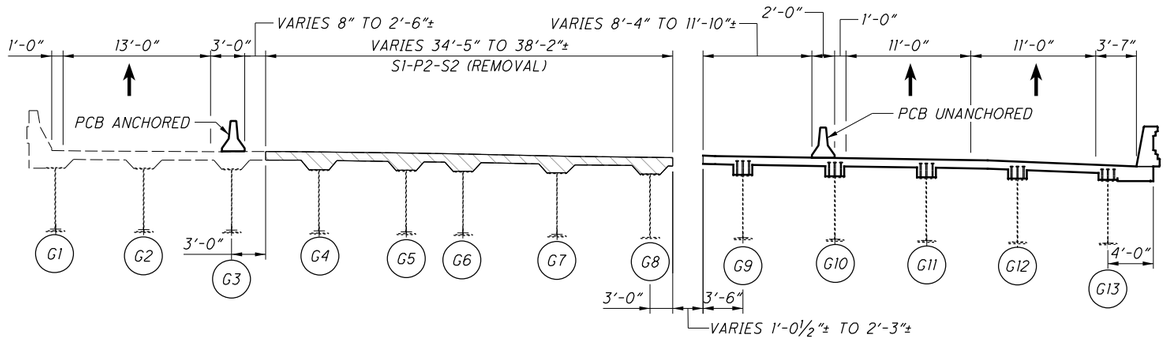
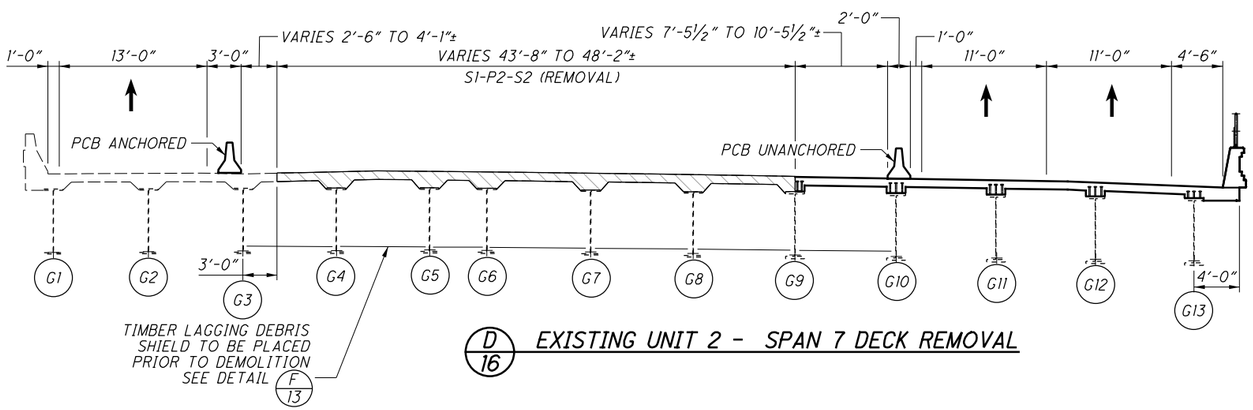


B/16 EXISTING UNIT 2 - SPAN 5 DECK REMOVAL



C/16 EXISTING UNIT 2 - SPAN 6 DECK REMOVAL



D/16 EXISTING UNIT 2 - SPAN 7 DECK REMOVAL

NOTES:

1. CONSTRUCTION DETAILS ARE FOR I-74 EB (HAM-74-1908R) ONLY. FOR CORRESPONDING CONSTRUCTION DETAILS FOR RAMP P (HAM-74-1908S), SEE BU-05.
2. FOR GENERAL NOTES AND MOT REFERENCE, SEE SHEETS 8/100 AND 9/100.
3. FOR LONGITUDINAL DECK REMOVAL CUT LINES OVER CENTERLINES OF EXISTING GIRDERS OR BEAMS, THE CONTRACTOR SHALL TAKE CARE NOT TO DAMAGE REMAINING GIRDERS OR BEAMS DURING THE REMOVAL PROCESS. REFER TO ITEM 202 NOTE ON SHEET 8/100.
4. FOR DEBRIS SHIELD DETAILS, SEE SHEET 13/100.
5. FOR ADDITIONAL DETAILS AND NOTES ON THE PORTABLE CONCRETE BARRIER (PCB), SEE STANDARD DRAWING PCB-91.

LEGEND:

▨ - INDICATES LIMITS OF DECK REMOVAL (S1-P2-S2)

SX-PX-SX - STAGE X, PHASE X, STEP X (MOT PHASING)

PCB ANCHOR TABLE	
UNIT	# ANCHORS PER SEGMENT
UNIT 1	2
UNIT 2 SPAN 6 (FIRST 65')	4
REMAINDER UNIT 2	2

DECK REMOVAL - STAGE 1, PHASE 2, STEP 2

DESIGN AGENCY
PRIME AE
540 WHITE POND DR. SUITE E
AKRON, OH 44320

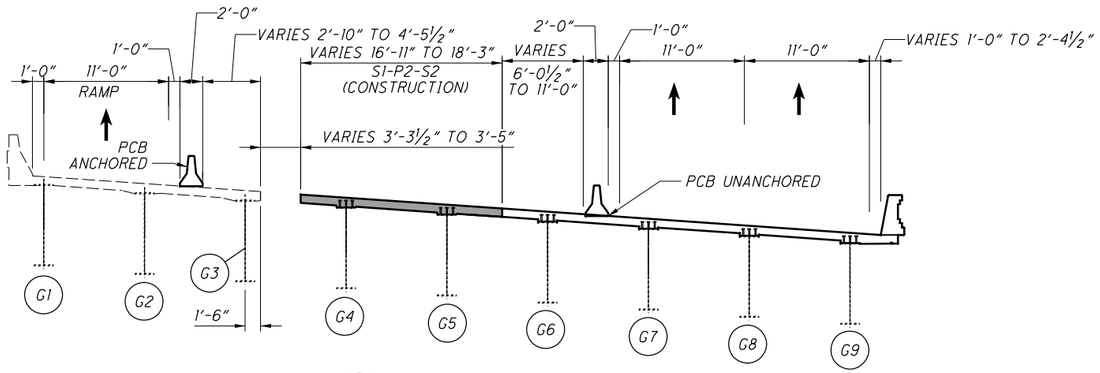
DESIGNED	DRAWN	REVIEWED	DATE
CRG	CRG	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		3115739	

DECK REMOVAL - STAGE 1, PHASE 2, STEP 2
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

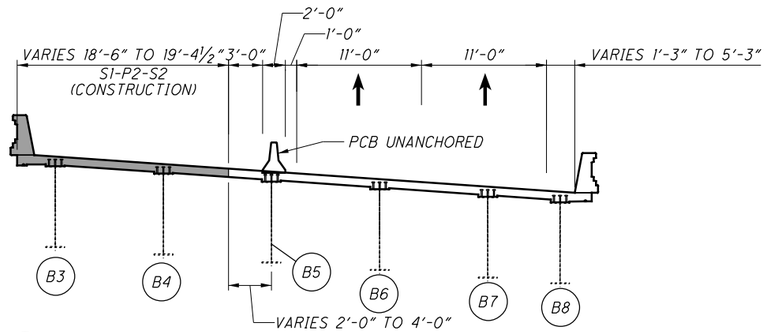
HAM-75-3.84
PID No. 104667

17/100

17/100



A/18 EXISTING UNIT 1 DECK CONSTRUCTION



E/18 EXISTING UNIT 6 DECK CONSTRUCTION

NOTES:

1. CONSTRUCTION DETAILS ARE FOR I-74 EB (HAM-74-1908R) ONLY. FOR CORRESPONDING CONSTRUCTION DETAILS FOR RAMP P (HAM-74-1908S), SEE BU-05.
2. FOR GENERAL NOTES AND MOT REFERENCE, SEE SHEETS 8/100 AND 9/100.
3. FOR PCB ANCHOR DETAIL, SEE SHEET 17/100.

LEGEND:

- INDICATES LIMITS OF DECK CONSTRUCTION (S1-P2-S2)

SX-PX-SX - STAGE X, PHASE X, STEP X (MOT PHASING)

DECK CONSTRUCTION- STAGE 1, PHASE 2, STEP 2

DESIGN AGENCY
PRIME AE
540 WHITE POND DR. SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
CRG	CRG	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		3115739	

DECK CONSTRUCTION - STAGE 1, PHASE 2, STEP 2
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

18/100

18/100

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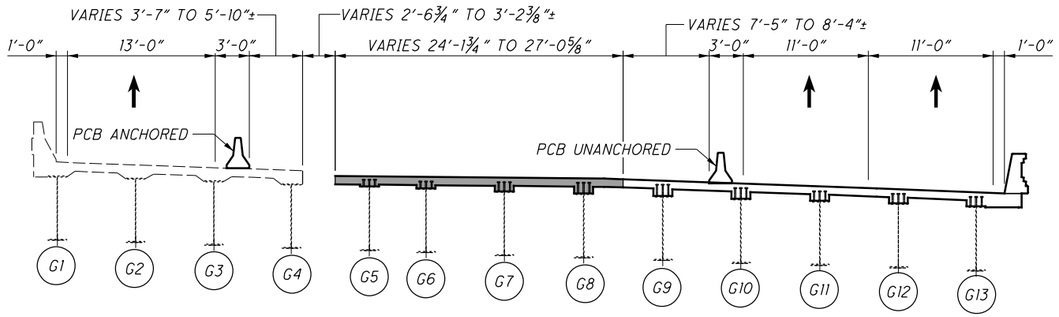
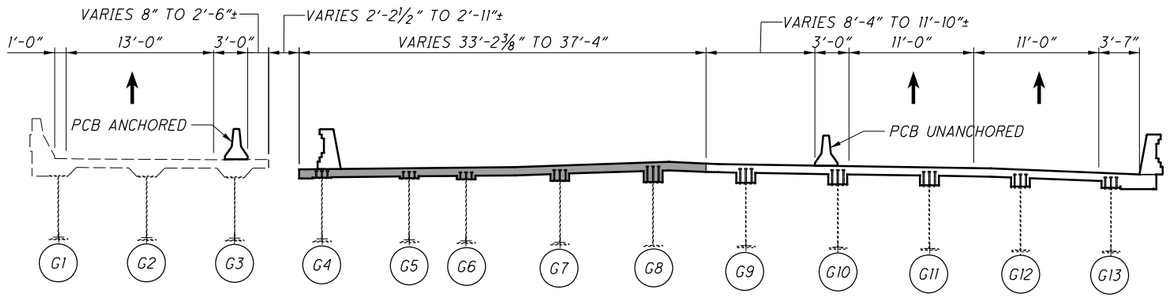
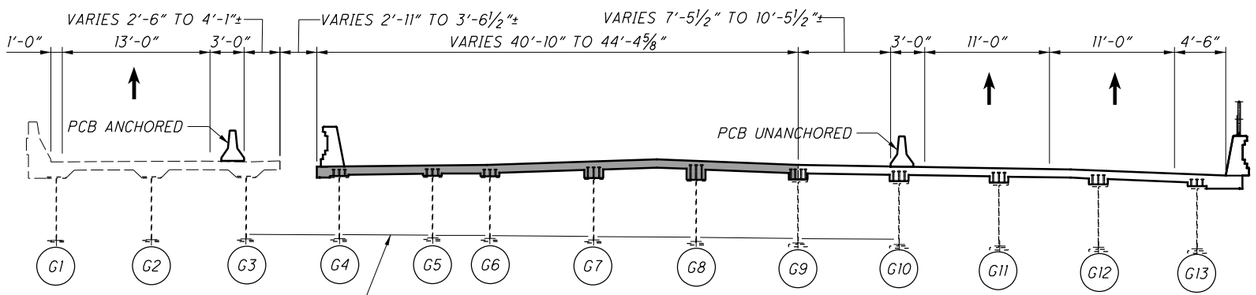


B/18 EXISTING UNIT 2 - SPAN 5 DECK CONSTRUCTION



C/18 EXISTING UNIT 2 - SPAN 6 DECK CONSTRUCTION



D/18 EXISTING UNIT 2 - SPAN 7 DECK CONSTRUCTION

NOTES:

1. CONSTRUCTION DETAILS ARE FOR I-74 EB (HAM-74-1908R) ONLY. FOR CORRESPONDING CONSTRUCTION DETAILS FOR RAMP P (HAM-74-1908S), SEE BU-05.
2. FOR GENERAL NOTES AND MOT REFERENCE, SEE SHEETS 8/100 AND 9/100.
3. FOR PCB ANCHOR DETAILS, SEE SHEET 17/100.

LEGEND:

- INDICATES LIMITS OF DECK CONSTRUCTION (S1-P2-S2)

SX-PX-SX - STAGE X, PHASE X, STEP X (MOT PHASING)

DECK CONSTRUCTION - STAGE 1, PHASE 2, STEP 2

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DESIGN AGENCY
PRIME AE
540 WHITE POND DR, SUITE E
AKRON, OH 44320

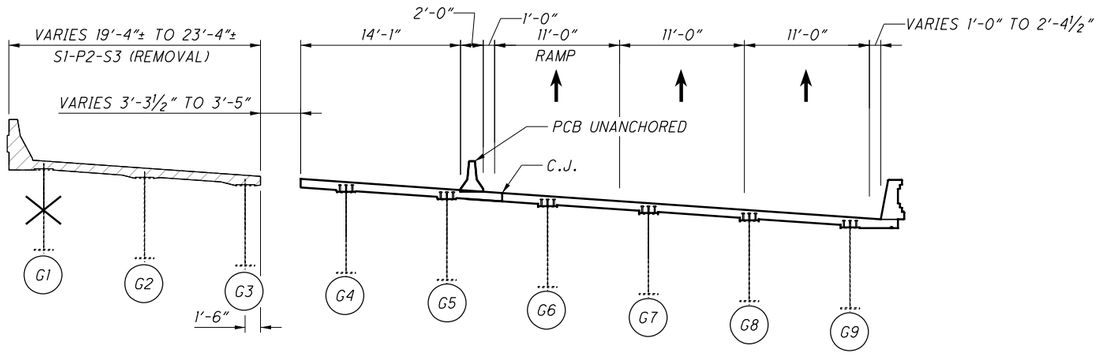
REVIEWED TES 3/27/2019
STRUCTURE FILE NUMBER 3115739
DRAWN CRG
REVISED
DESIGNED CRG
CHECKED KDC

DECK CONSTRUCTION - STAGE 1, PHASE 2, STEP 2
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

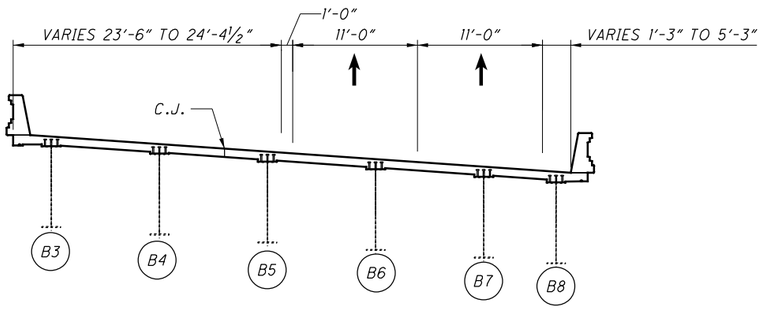
HAM-75-3.84
PID No. 104667

19/100

19/100



A/20 EXISTING UNIT 1 DECK REMOVAL
TYP. SPAN 1-4



E/20 EXISTING UNIT 6 MOT
TYP. SPAN 8-10

DECK REMOVAL SEQUENCE:

1. REMOVE PORTION OF EXISTING UNIT 2 FROM EXISTING PIER 6 TO EXISTING HINGE 2.
2. REMOVE PORTION OF EXISTING UNITS 1 & 2 FROM EXISTING PIER 6 TO EXISTING ABUTMENT 1. SEQUENCE 2 MAY HAPPEN CONCURRENTLY WITH SEQUENCE 1.

NOTES:

1. REMOVAL DETAILS ARE FOR I-74 EB (HAM-74-1908R) ONLY. FOR CORRESPONDING REMOVAL DETAILS FOR RAMP P (HAM-74-1908S), SEE BU-05.
2. PRIOR TO ANY REMOVALS OF UNIT 3 OR UNIT 6, CONTRACTOR SHALL WELD PLATES TO THE LINKS AS SHOWN IN THE BU-10 REMOVAL SET.
3. PRIOR TO ANY REMOVALS OVER THE RAILROAD CONTRACTOR SHALL INSTALL TIMBER LAGGING DEBRIS SHIELD OVER RAILROAD IN SPAN 7. SEE SHEET 13/100 FOR MORE DETAILS.
4. FOR SUBSTRUCTURE REMOVAL DETAILS, SEE SHEETS 31/100 THRU 33/100 .
5. FOR GENERAL NOTES AND MOT REFERENCE, SEE SHEETS 8/100 AND 9/100 .

LEGEND:

- INDICATES LIMITS OF DECK REMOVAL (S1-P2-S3)

SX-PX-SX - STAGE X, PHASE X, STEP X (MOT PHASING)

- INDICATES BEAM REMOVAL

(#) - SPAN NUMBER

DECK REMOVAL - STAGE 1, PHASE 2, STEP 3

DESIGN AGENCY
PRIME AE
540 WHITE POND DR. SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
CRG	CRG	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		3115739	

DECK REMOVAL - STAGE 1, PHASE 2, STEP 3
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

20/100

20/100

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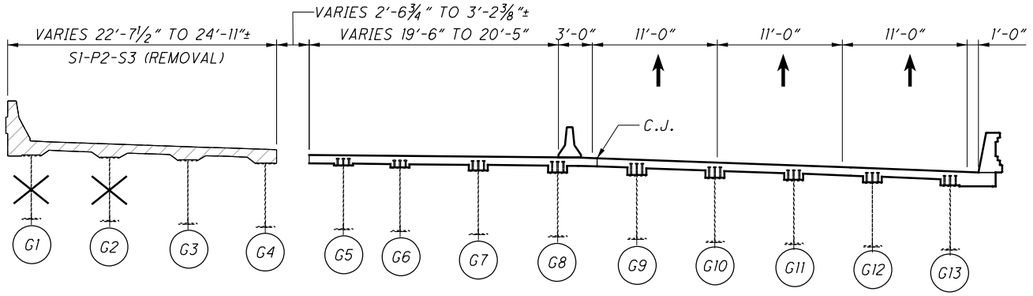
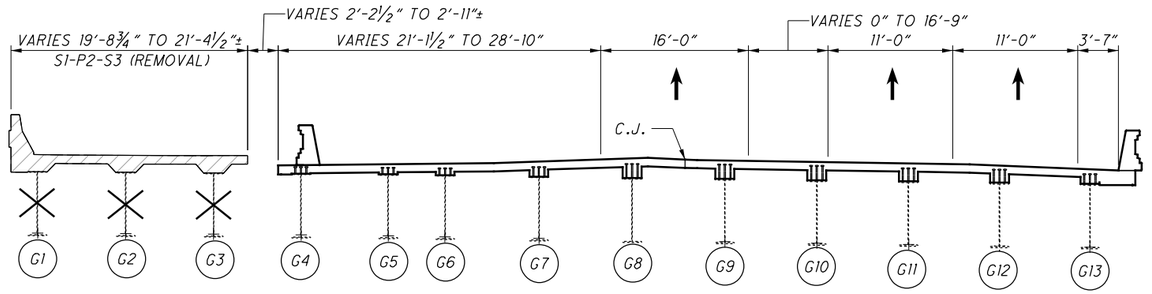
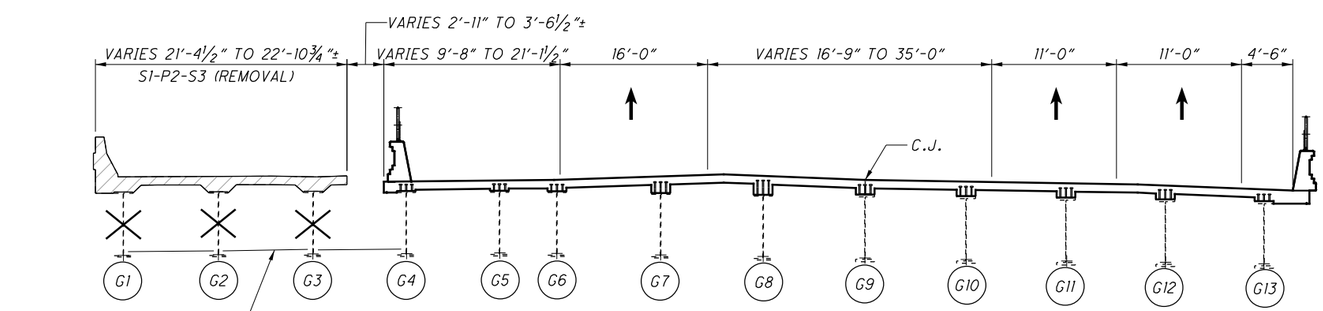


B 20 EXISTING UNIT 2 - SPAN 5 DECK REMOVAL



C 20 EXISTING UNIT 2 - SPAN 6 DECK REMOVAL



D 20 EXISTING UNIT 2 - SPAN 7 DECK REMOVAL

NOTES:

1. CONSTRUCTION DETAILS ARE FOR I-74 EB (HAM-74-1908R) ONLY. FOR CORRESPONDING CONSTRUCTION DETAILS FOR RAMP P (HAM-74-1908S), SEE BU-05.
2. FOR GENERAL NOTES AND MOT REFERENCE, SEE SHEETS 8/100 AND 9/100.
3. FOR BEBRIS SHIELD DETAILS, SEE SHEET 13/100.

LEGEND:

- INDICATES LIMITS OF DECK REMOVAL (S1-P2-S3)

SX-PX-SX - STAGE X, PHASE X, STEP X (MOT PHASING)

- INDICATES BEAM REMOVAL

DECK REMOVAL - STAGE 1, PHASE 2, STEP 3

DESIGN AGENCY
PRIME AE
540 WHITE POND DR, SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
CRG	CRG	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		3115739	

DECK REMOVAL - STAGE 1, PHASE 2, STEP 3
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

21/100

21
100

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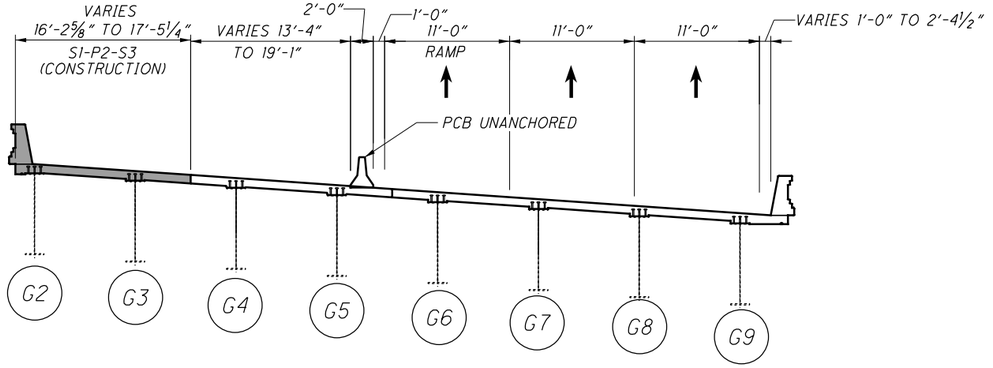
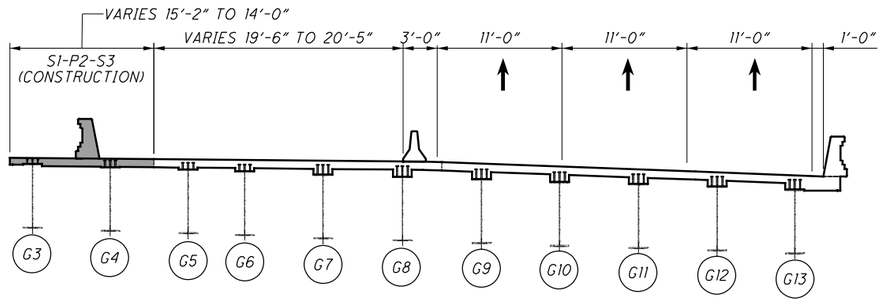


A/22 EXISTING UNIT 1 DECK CONSTRUCTION



B/22 EXISTING UNIT 2 - SPAN 5 DECK CONSTRUCTION

NOTES:

1. CONSTRUCTION DETAILS ARE FOR I-74 EB (HAM-74-1908R) ONLY. FOR CORRESPONDING CONSTRUCTION DETAILS FOR RAMP P (HAM-74-1908S), SEE BU-05.
2. FOR GENERAL NOTES AND MOT REFERENCE, SEE SHEETS 8/100 AND 9/100.

LEGEND:

▨ - INDICATES LIMITS OF DECK CONSTRUCTION (S1-P2-S3)

SX-PX-SX - STAGE X, PHASE X, STEP X (MOT PHASING)

DECK CONSTRUCTION- STAGE 1, PHASE 2, STEP 3

DESIGN AGENCY
PRIME AE
540 WHITE POND DR. SUITE E
AKRON, OH 44320

REVIEWED	DATE
TES	3/27/2019
STRUCTURE FILE NUMBER	
3115739	

DRAWN	REVISED
CRG	
DESIGNED	CHECKED
CRG	KDC

DECK CONSTRUCTION - STAGE 1, PHASE 2, STEP 3
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

22/100

22
100

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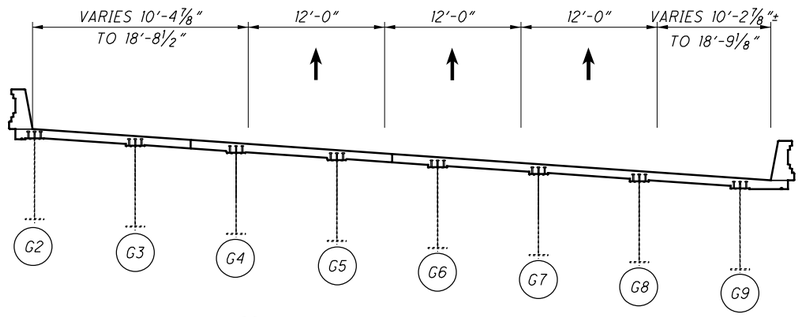
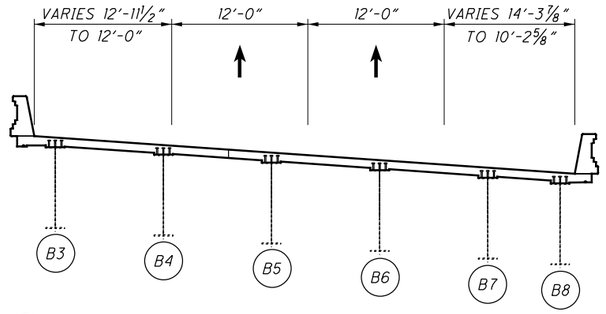


A/23 FINAL EXISTING UNIT 1



E/23 FINAL EXISTING UNIT 6

NOTES:

1. CONSTRUCTION DETAILS ARE FOR I-74 EB (HAM-74-1908R) ONLY. FOR CORRESPONDING CONSTRUCTION DETAILS FOR RAMP P (HAM-74-1908S), SEE BU-05.
2. FOR GENERAL NOTES AND MOT REFERENCE, SEE SHEETS 8/100 AND 9/100.

FINAL CONDITION

DESIGN AGENCY
PRIME AE
540 WHITE POND DR. SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
CRG	CRG	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		3115739	

DECK CONSTRUCTION - FINAL
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

23/100

23/100

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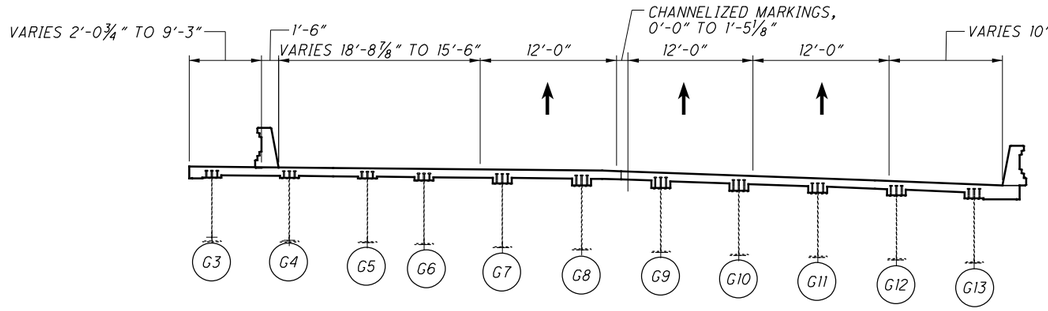
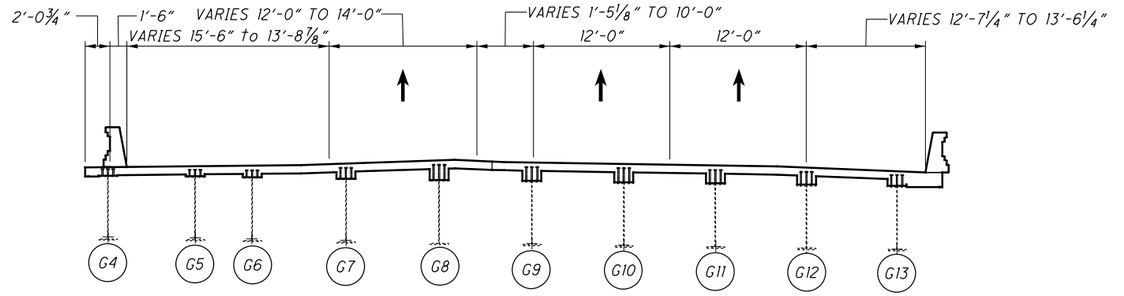


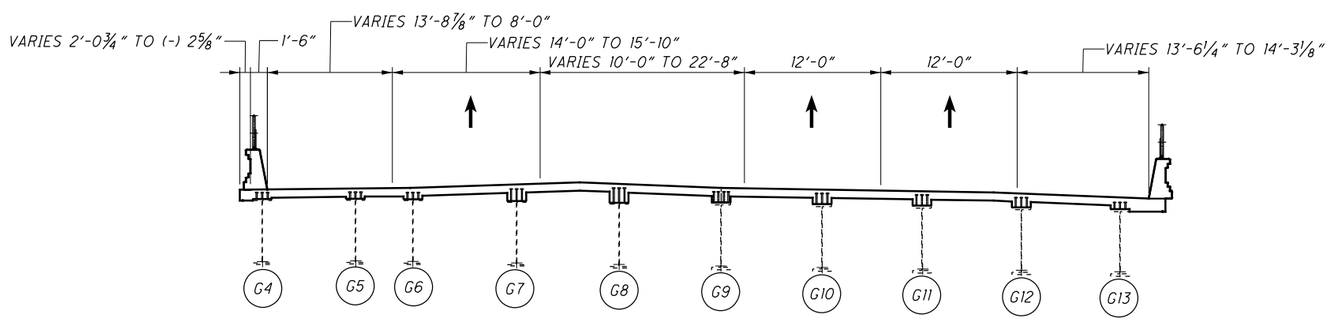
B/23 EXISTING UNIT 2 - SPAN 5 DECK FINAL

NOTES:

1. CONSTRUCTION DETAILS ARE FOR I-74 EB (HAM-74-1908R) ONLY. FOR CORRESPONDING CONSTRUCTION DETAILS FOR RAMP P (HAM-74-1908S), SEE BU-05.
2. FOR GENERAL NOTES AND MOT REFERENCE, SEE SHEETS 8/100 AND 9/100.



C/23 EXISTING UNIT 2 - SPAN 6 DECK FINAL



D/23 EXISTING UNIT 2 - SPAN 7 DECK FINAL

DECK CONSTRUCTION - FINAL

DESIGN AGENCY
PRIME AE
540 WHITE POND DR, SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
CRG	CRG	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		3115739	

DECK CONSTRUCTION - FINAL
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

24/100

24/100

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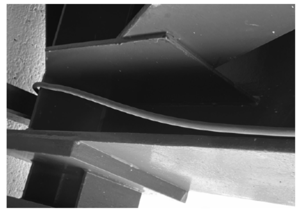
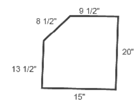
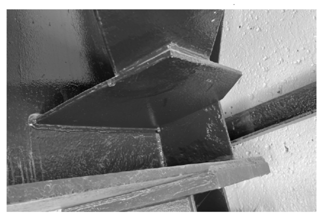
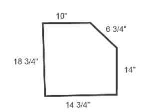



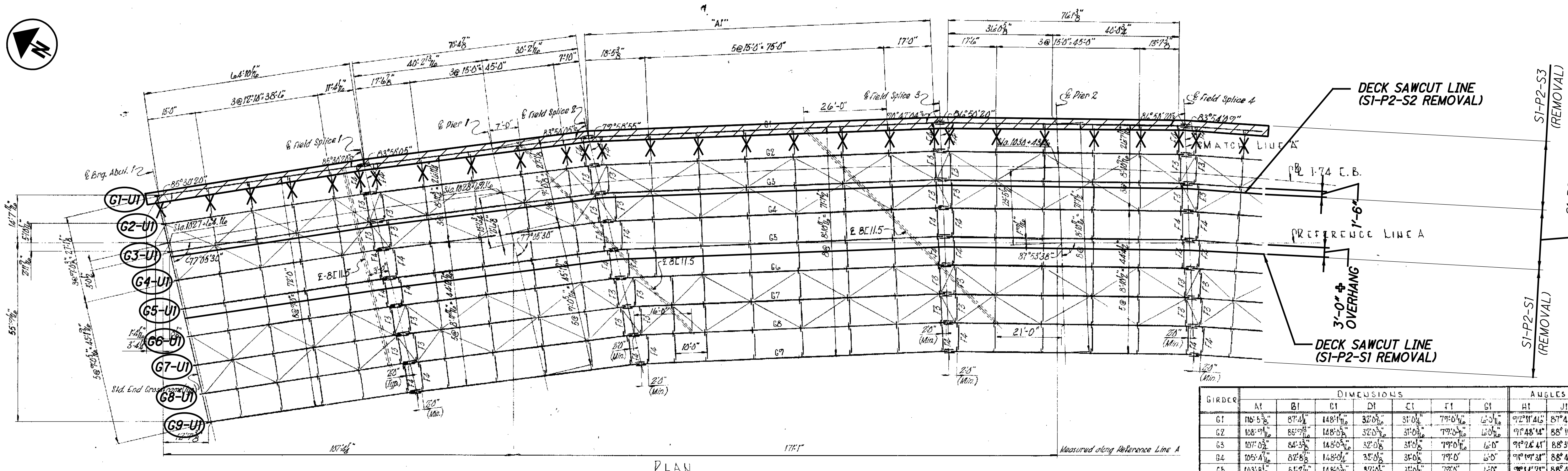
GIRDER 2 MODIFICATION

PLATE ON LEFT SIDE

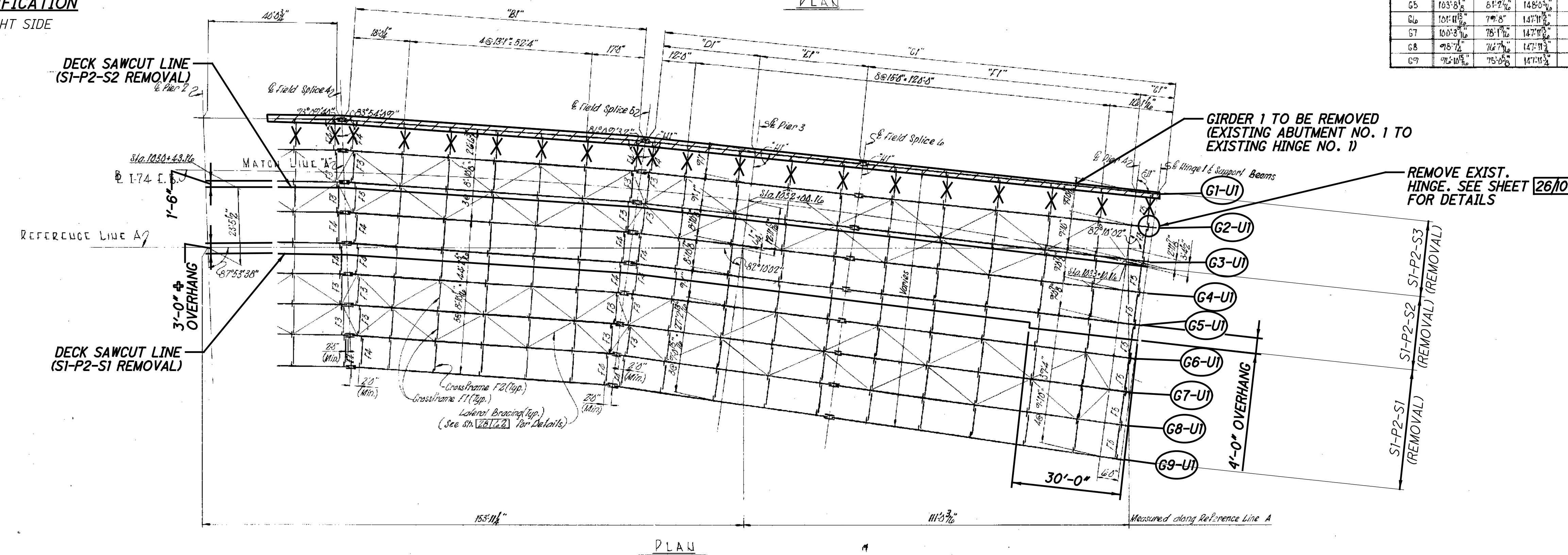



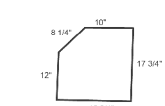
GIRDER 4 MODIFICATION

PLATE ON RIGHT SIDE



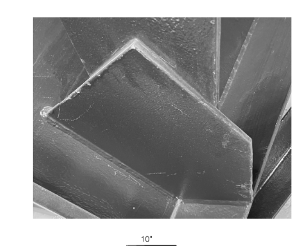
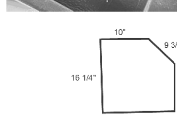
GIRDER	DIMENSIONS							ANGLES	
	A1	B1	C1	D1	E1	F1	G1	H1	J1
G1	110'-5 3/8"	87'-4 1/4"	148'-1 1/16"	32'-0 5/16"	31'-0 1/4"	79'-0 1/16"	6'-0 1/16"	92°11'46"	87°48'14"
G2	108'-9 1/16"	85'-9 13/16"	148'-0 5/8"	32'-0 3/16"	31'-0 3/16"	79'-0 3/16"	6'-0 1/16"	91°48'14"	88°11'46"
G3	107'-0 3/4"	84'-3 3/8"	148'-0 5/16"	32'-0 1/8"	31'-0 1/8"	79'-0 1/16"	6'-0"	91°24'41"	88°35'19"
G4	105'-4 7/16"	82'-8 7/8"	148'-0 1/4"	32'-0 1/8"	31'-0 1/8"	79'-0"	6'-0"	91°19'31"	88°40'29"
G5	103'-8 1/8"	81'-2 7/16"	148'-0 3/16"	32'-0 1/8"	31'-0 1/16"	79'-0"	6'-0"	91°14'21"	88°45'39"
G6	101'-11 13/16"	79'-8"	147'-11 15/16"	32'-0 1/16"	31'-0"	78'-11 7/8"	6'-0"	90°50'47"	89°09'13"
G7	100'-3 9/16"	78'-1 9/16"	147'-11 13/16"	32'-0"	31'-0"	78'-11 13/16"	6'-0"	90°27'13"	89°32'47"
G8	98'-7 1/4"	76'-7 1/16"	147'-11 3/4"	32'-0"	31'-0"	78'-11 3/4"	6'-0"	90°03'39"	89°56'21"
G9	96'-10 15/16"	75'-0 5/8"	147'-11 3/4"	32'-0"	31'-0"	78'-11 3/4"	6'-0"	89°40'05"	90°19'55"



GIRDER 6 MODIFICATION

PLATE ON LEFT SIDE

GIRDER 8 MODIFICATION

PLATE ON LEFT SIDE

EXISTING FRAMING PLAN - UNIT NO. 1

LEGEND:

- ▨ - INDICATES LIMITS OF REMOVAL (S1-P2-S3)
- ✕ - INDICATES EXISTING CROSSFRAME TO BE REMOVED IN S1-P2-S3
- GX-UX - GIRDER X UNIT X
- SX-PX-SX - STAGE X PHASE X STEP X (MOT PHASING)
- ✢ - 4'-0" OVERHANG THE LAST 30'-0" OF UNIT 1

NOTES:

1. CONTRACTOR SHALL TAKE CARE WHEN REMOVING EXISTING G1 AND CROSSFRAMES NOT TO DAMAGE G2.
2. PAINT ALL REMAINING STRUCTURAL STEEL WITH SYSTEM OZEU PER CMS 514. THE TOP COAT PAINT SHALL BE FEDERAL COLOR 595B-34058 (DARK GREEN)
3. SEE SHEETS 12/100 THRU 21/100 FOR CONSTRUCTION SEQUENCE INFORMATION.
4. FOR ADDITIONAL DETAILS, SEE SHEET 26/100.

DESIGN AGENCY: PRIME AE, 540 WHITE POND DR., SUITE E, AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
CRG	CRG	TES	7/30/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		3115739	

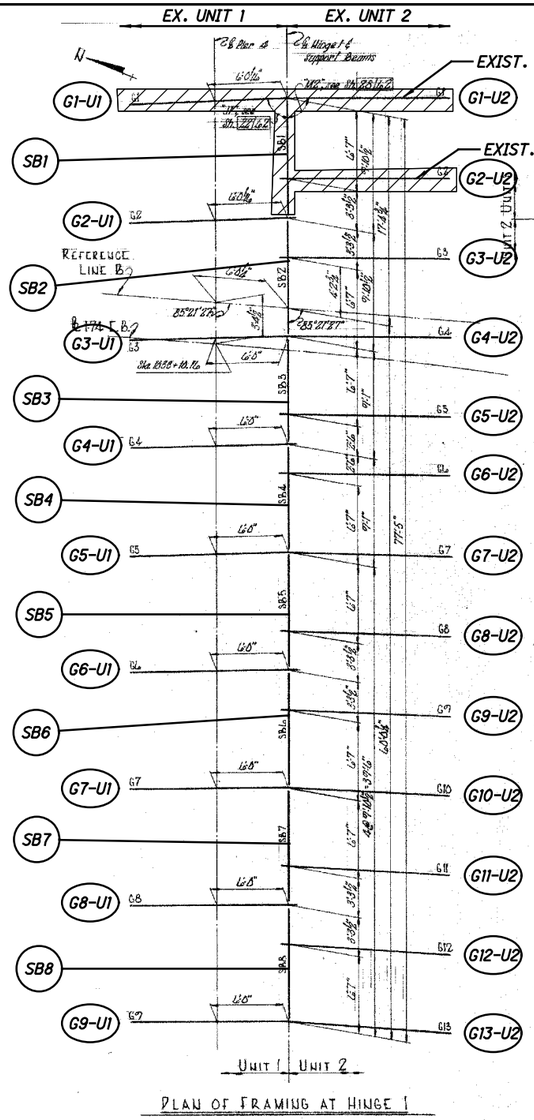
EXISTING FRAMING PLAN - UNIT 1 - REMOVAL DETAILS

BRIDGE NO. HAM-74-1908R

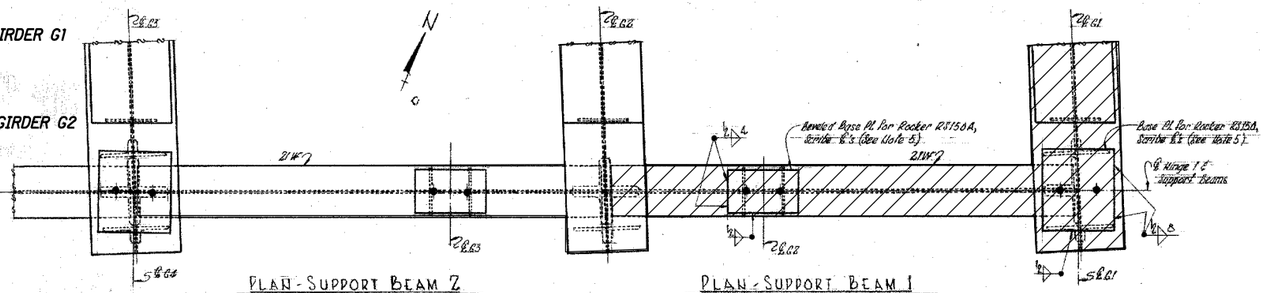
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84

PID No. 104667

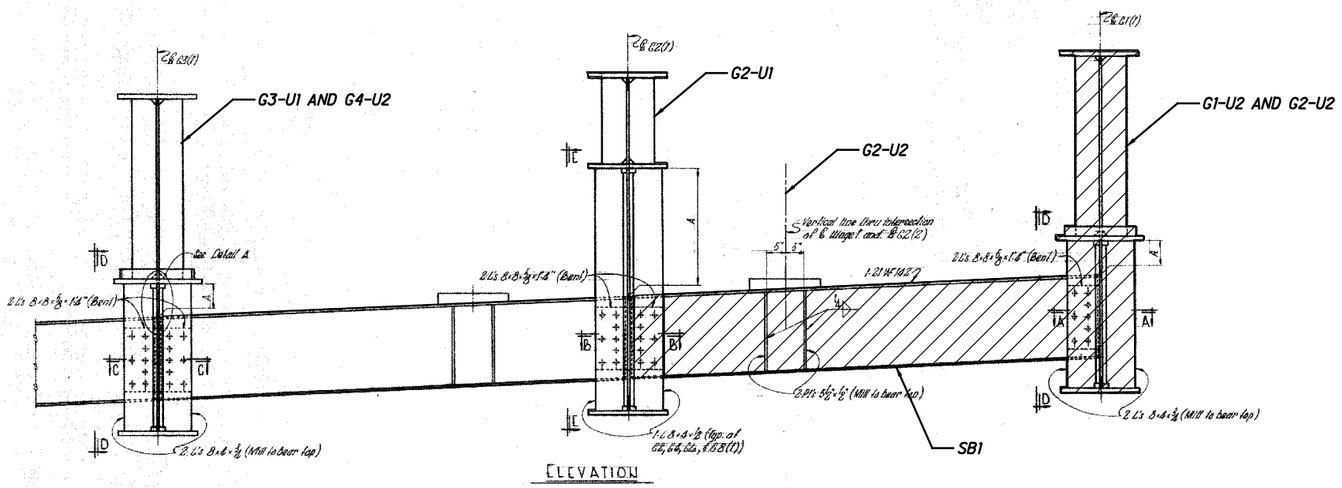


PLAN OF FRAMING AT HINGE 1

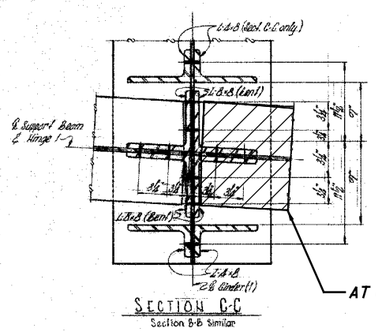


PLAN - SUPPORT BEAM 2
Support Beams 3 thru 7 Similar

PLAN - SUPPORT BEAM 1
Support Beam 8 Similar

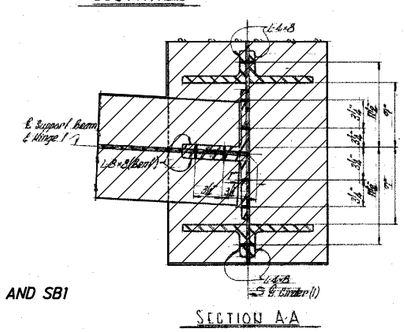


ELEVATION



SECTION C-C
Section B-B Similar

AT G2-U1 AND SB1



SECTION A-A

LEGEND:

- ▨ - INDICATES LIMITS OF REMOVAL (S1-P2-S3)
- GX-UX - GIRDER X UNIT X
- SBX - SUPPORT BEAM X

EXISTING HINGE NO. 1 - REMOVAL DETAILS

NOTES:

1. FOR ADDITIONAL DETAILS, SEE SHEETS 25/100 AND 27/100.
2. REMOVE G1-U1, G1-U2, G2-U2, AND SB1 DURING S1-P2-S3. CONTRACTOR SHALL TAKE CARE TO NOT DAMAGE G2-U1 AND SB2 DURING REMOVAL.
3. SEE SHEETS 12/100 THRU 21/100 FOR CONSTRUCTION SEQUENCE INFORMATION.

DESIGN AGENCY
PRIME AE
540 WHITE POND DR, SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
CRG	CRG	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		3115739	

EXIST. SUPPORT BEAM REMOVAL DETAILS AT HINGE 1
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

26/100

26
100

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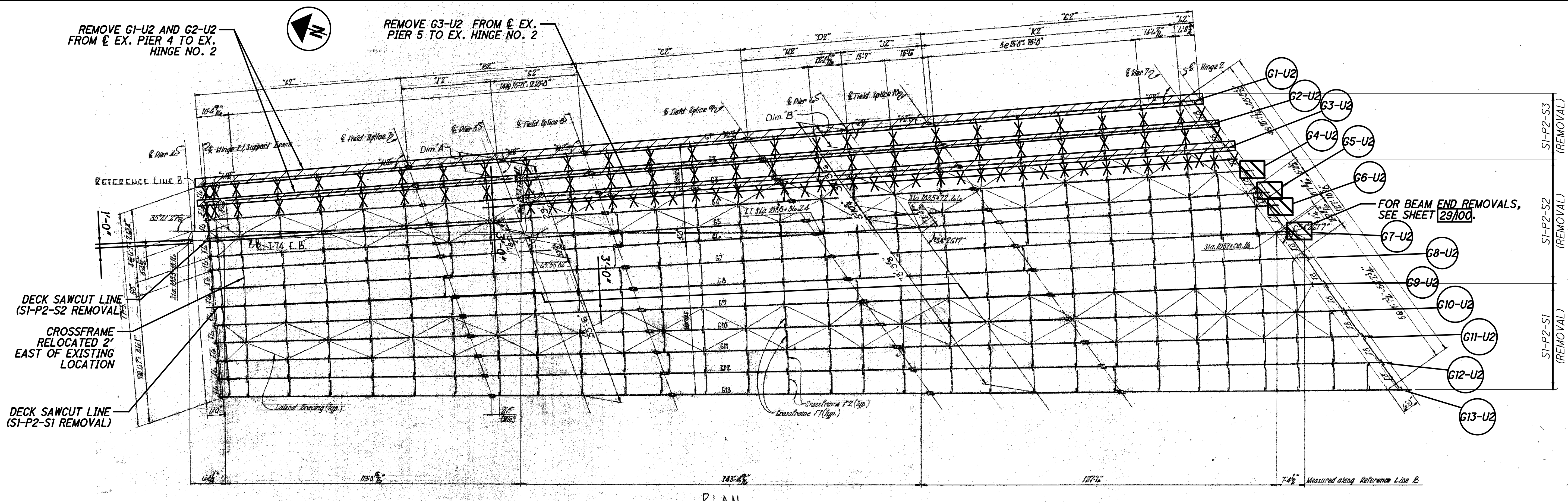


EXISTING FRAMING PLAN - UNIT NO. 2

GIRDER	DIMENSIONS											ANGLES		
	A2	B2	C2	D2	E2	F2	G2	H2	J2	K2	L2	M2	N2	P2
G1	73'-4 7/16"	63'-2 3/8"	59'-9 13/16"	65'-1 1/2"	98'-6 5/16"	32'-1 1/2"	31'-1 1/8"	36'-0 5/8"	29'-0 7/8"	91'-6 9/16"	6'-11 3/4"	90°13'18"	74°46'54"	59°18'09"
G2	75'-3 13/16"	63'-3 13/16"	62'-5"	65'-4 1/4"	98'-10 1/2"	32'-2 1/8"	31'-1 11/16"	36'-2 1/8"	29'-2 1/8"	91'-10 7/16"	7'-0 1/16"	89°53'00"	74°26'35"	58°57'50"
G3	77'-3 3/16"	63'-5 1/16"	65'-0 3/8"	65'-7"	99'-2 5/8"	32'-2 3/4"	31'-2 5/16"	36'-3 11/16"	29'-3 5/16"	92'-2 5/16"	7'-0 5/16"	89°33'15"	74°06'50"	58°38'05"
G4	79'-2 9/16"	63'-6 5/16"	67'-7 15/16"	65'-9 11/16"	99'-6 11/16"	32'-3 3/8"	31'-2 15/16"	36'-5 1/8"	29'-4 9/16"	92'-6 1/16"	7'-0 5/8"	89°14'03"	73°47'39"	58°18'54"
G5	81'-2"	63'-7 1/2"	70'-3 11/16"	66'-0 3/8"	99'-10 3/4"	32'-4"	31'-3 1/2"	36'-6 5/8"	29'-5 3/4"	92'-9 7/8"	7'-0 7/8"	88°55'24"	73°28'59"	58°00'14"
G6	82'-6 11/16"	63'-7 1/2"	71'-11 3/8"	66'-0 3/8"	99'-10 3/4"	32'-4"	31'-3 1/2"	36'-6 5/8"	29'-5 3/4"	92'-9 7/8"	7'-0 7/8"	88°55'24"	73°28'59"	58°00'14"
G7	84'-7 1/4"	63'-9 1/2"	74'-11 3/16"	66'-4 11/16"	100'-5 1/4"	32'-5"	31'-4 1/2"	36'-9"	29'-7 1/16"	93'-3 7/8"	7'-1 3/8"	88°25'52"	72°59'27"	57°30'42"
G8	86'-7 15/16"	63'-11 7/16"	77'-1 1/4"	66'-8 15/16"	100'-11 3/4"	32'-6"	31'-5 7/16"	36'-11 3/8"	29'-9 9/16"	93'-9 15/16"	7'-1 13/16"	87°57'15"	72°30'50"	57°02'05"
G9	88'-8 11/16"	64'-1 7/16"	80'-11 5/8"	67'-1 3/16"	101'-6 1/8"	32'-7"	31'-6 7/16"	37'-1 3/4"	29'-11 7/16"	94'-3 7/8"	7'-2 1/4"	87°29'30"	72°03'06"	56°34'21"
G10	90'-9 5/8"	64'-3 7/16"	84'-0 5/16"	67'-5 3/8"	102'-0 1/2"	32'-8 1/16"	31'-7 3/8"	37'-4 1/16"	30'-1 5/16"	94'-9 3/4"	7'-2 3/4"	87°02'36"	71°36'11"	56°07'26"
G11	92'-10 5/8"	64'-5 3/8"	87'-1/4"	67'-9 9/16"	102'-6 13/16"	32'-9"	31'-8 3/8"	37'-6 3/8"	30'-3 3/16"	95'-3 5/8"	7'-3 3/16"	86°36'30"	71°10'05"	55°41'20"
G12	94'-11 3/4"	64'-7 3/8"	90'-2 7/16"	68'-1 11/16"	103'-1 1/16"	32'-10 1/16"	31'-9 5/16"	37'-8 5/8"	30'-5 1/16"	95'-9 7/16"	7'-3 5/8"	86°11'10"	70°44'45"	55°16'00"
G13	97'-0 15/16"	64'-9 5/16"	93'-3 15/16"	68'-5 13/16"	103'-7 1/4"	32'-11"	31'-10 5/16"	37'-10 15/16"	30'-6 7/8"	96'-3 9/16"	7'-4 1/16"	85°46'34"	70°20'10"	54°51'25"

LEGEND:

- INDICATES LIMITS OF REMOVAL (S1-P2-S2)
- INDICATES LIMITS OF REMOVAL (S1-P2-S3)
- INDICATES EXISTING CROSSFRAME AND LATERAL BRACING TO BE REMOVED

SX-PX-SX - STAGE X PHASE X STEP X (MOT PHASING)

NOTES:

1. SEE SHEETS 12/100 THRU 21/100 FOR CONSTRUCTION SEQUENCE INFORMATION.
2. FOR HINGE REMOVAL DETAILS, SEE SHEET 29/100.
3. FOR SUPPORT BEAM REMOVAL DETAILS, SEE SHEET 26/100.
4. FOR EXISTING G3 REMOVAL LIMITS, SEE SHEET 28/100.

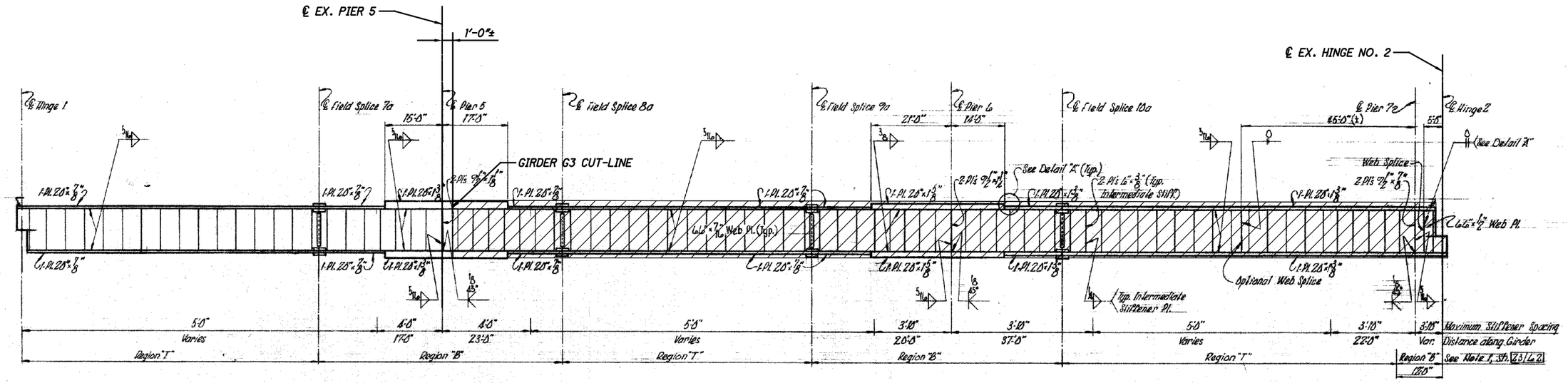
DESIGN AGENCY
PRIME AE
540 WHITE POND DR., SUITE E
AKRON, OH 44320

DESIGNED CRG | DRAWN CRG | REVIEWED TES | DATE 7/30/2019
CHECKED KDC | REVISED | STRUCTURE FILE NUMBER 3115739

EXISTING FRAMING PLAN - UNIT 2 - REMOVAL DETAILS

BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667



LEGEND:

▨ - INDICATES LIMITS OF REMOVAL (S1-P2-S3)

EXISTING GIRDER G3 REMOVAL LIMITS

NOTES:

1. SEE SHEETS 12/100 THRU 21/100 FOR CONSTRUCTION SEQUENCE INFORMATION.

DESIGN AGENCY
PRIME AE
540 WHITE POND DR, SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
CRG	CRG	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		3115739	

EXISTING GIRDER 3 UNIT 2 BEAM REMOVAL DETAILS

BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

28/100

28
100

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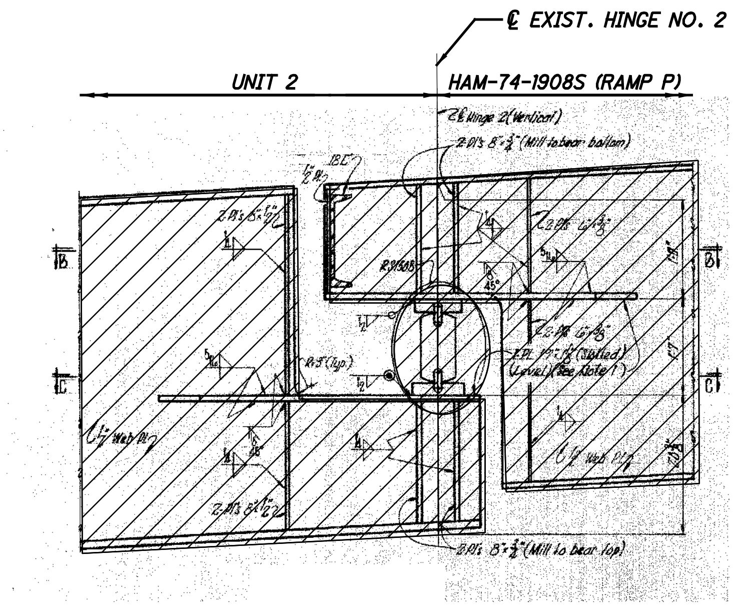
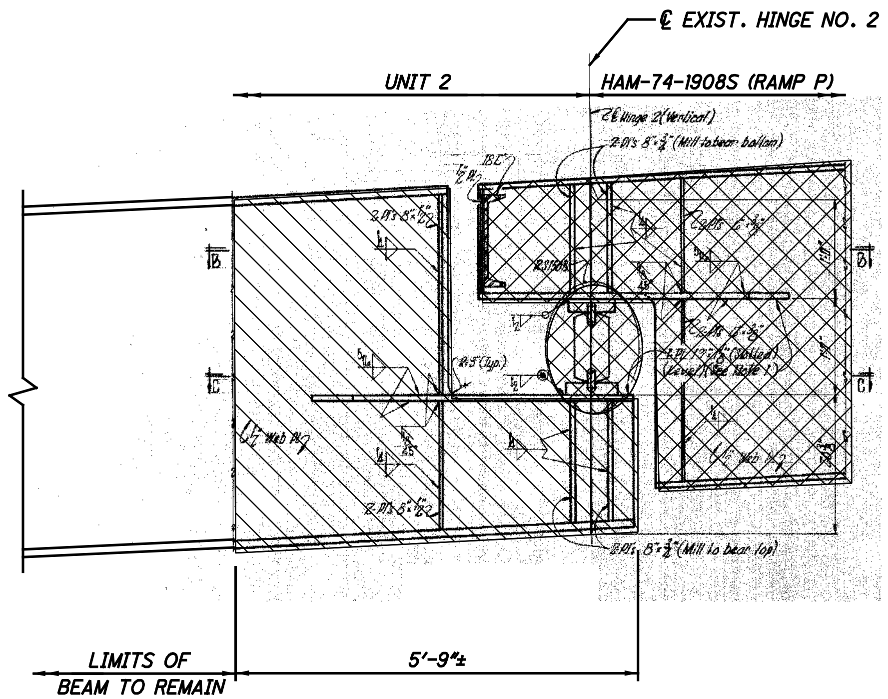
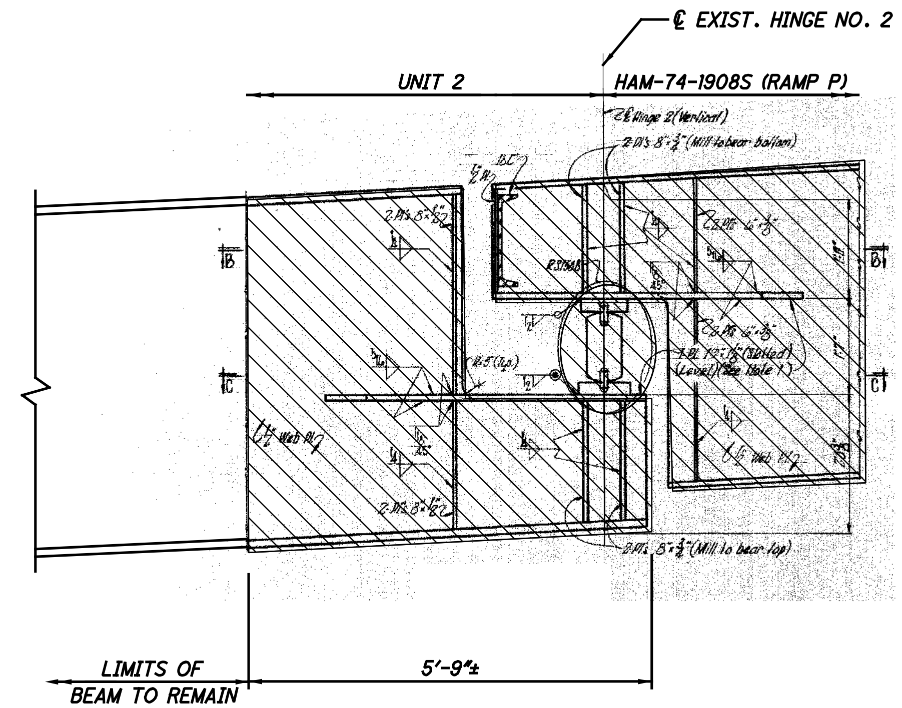


BEAM END REMOVALS - G1-U2 THRU G3-U2



BEAM END REMOVALS - G4-U2 AND G5-U2



BEAM END REMOVALS - G6-U2 AND G7-U2

EXISTING HINGE 2 REMOVAL DETAILS

LEGEND:

- INDICATES LIMITS OF REMOVAL (S1-P2-S1)
- INDICATES LIMITS OF REMOVAL (S1-P2-S2)
- INDICATES LIMITS OF REMOVAL (S1-P2-S3)

NOTES:

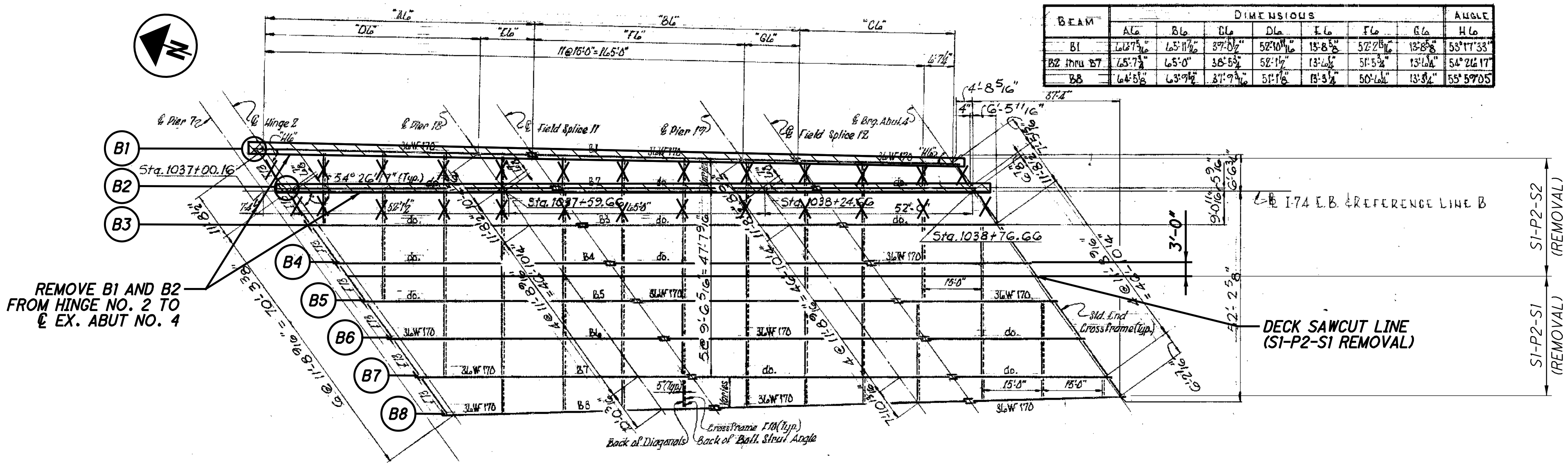
1. FOR LOCATION OF HINGE REMOVAL, SEE SHEET 27/100.
2. SEE SHEETS 12/100 THRU 21/100 FOR CONSTRUCTION SEQUENCE INFORMATION.

EXISTING HINGE 2 REMOVAL DETAILS
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

DESIGNED	DRAWN	REVIEWED	DATE
CRG	CRG	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		3115739	

DESIGN AGENCY
PRIME
540 WHITE POND DR., SUITE E
AKRON, OH 44320

HAM-75-3.84
PID No. 104667



BEAM	DIMENSIONS							ANGLE
	A6	B6	C6	D6	E6	F6	G6	H6
B1	66'-7 5/16"	65'-11 7/16"	37'-0 1/2"	52'-10 11/16"	13'-8 5/8"	52'-2 13/16"	13'-8 5/8"	53°17'33"
B2 thru B7	65'-7 3/4"	65'-0"	38'-5 3/4"	52'-1 1/2"	13'-6 1/4"	51'-5 3/4"	13'-6 1/4"	54°26'17"
B8	64'-5 1/8"	63'-9 1/2"	37'-9 3/16"	51'-1 7/8"	13'-3 1/4"	50'-6 1/4"	13'-3 1/4"	55°59'05"

EXISTING FRAMING PLAN - UNIT NO. 6

LEGEND:

⧅ - INDICATES LIMITS OF REMOVAL (S1-P2-S2)

ᚼ - INDICATES EXISTING CROSSFRAME TO BE REMOVED

SX-PX-SX - STAGE X PHASE X STEP X (MOT PHASING)

NOTES:

1. SEE SHEETS 12/100 THRU 21/100 FOR CONSTRUCTION SEQUENCE INFORMATION.

DESIGN AGENCY
PRIME
540 WHITE POND DR., SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
CRG	CRG	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		3115739	

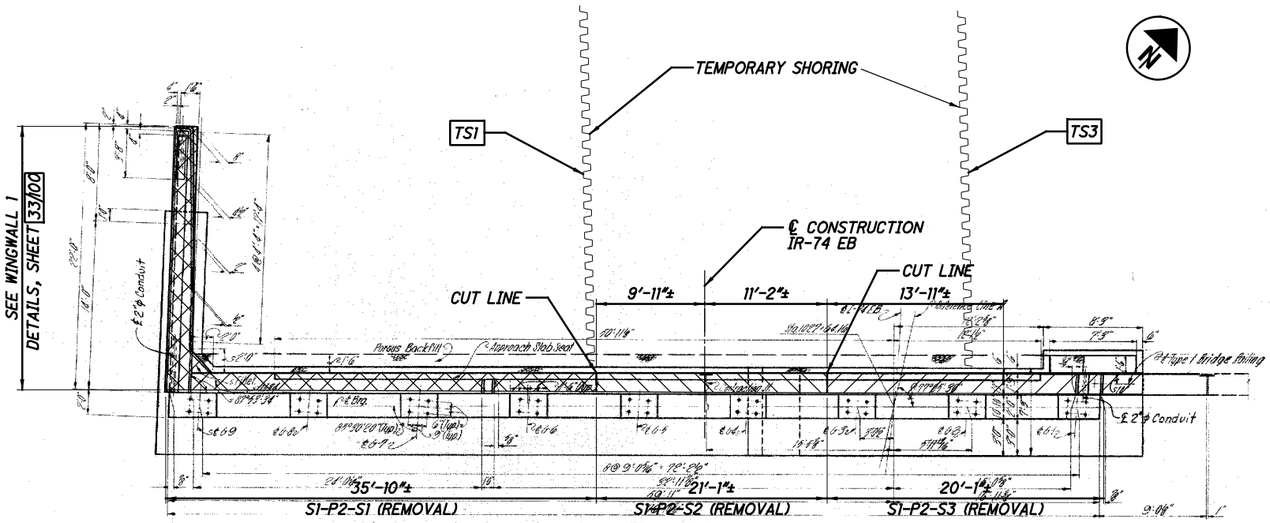
EXISTING FRAMING PLAN - UNIT 6 - REMOVAL DETAILS

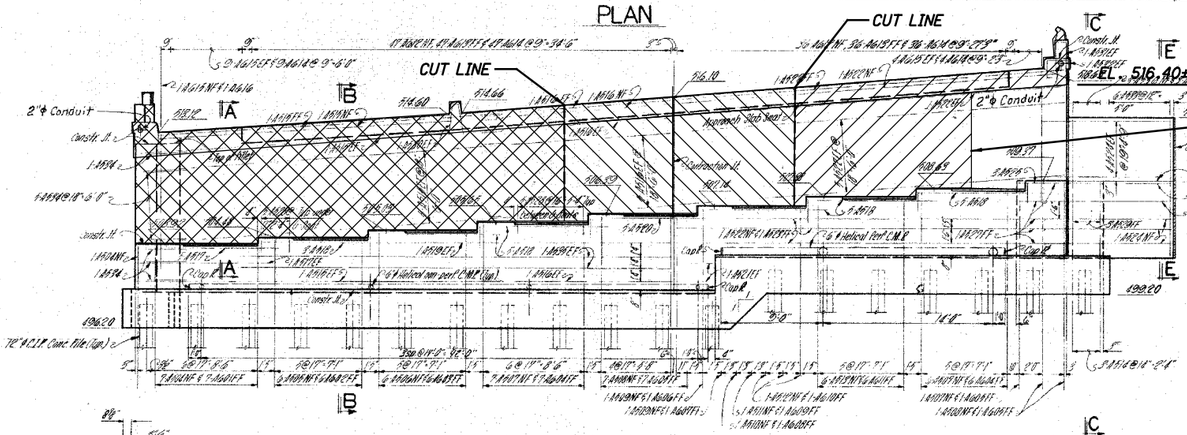
BRIDGE NO. HAM-74-1908R

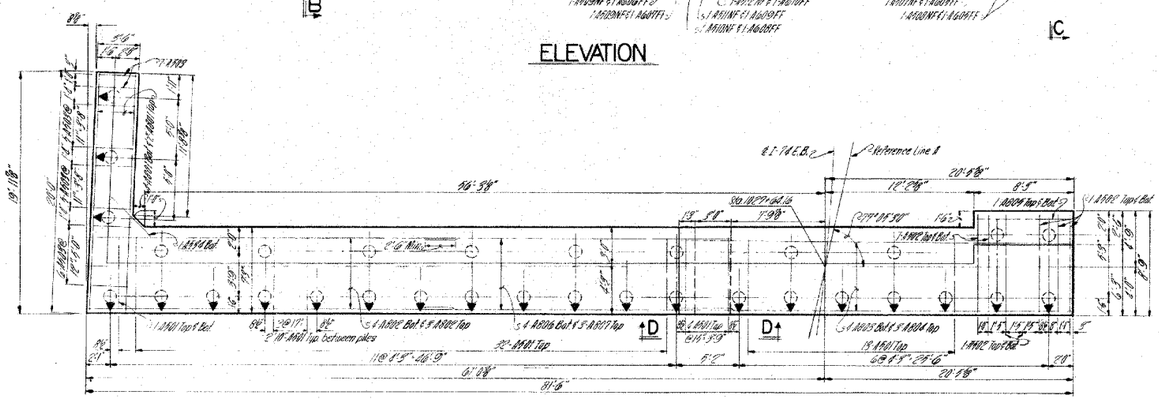
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

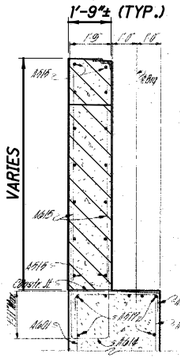
HAM-75-3.84

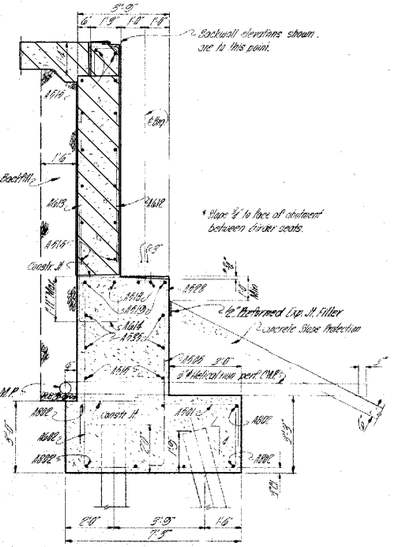
PID No. 104667

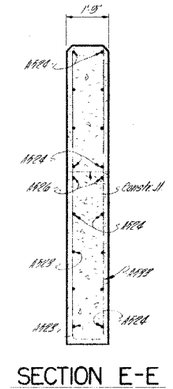


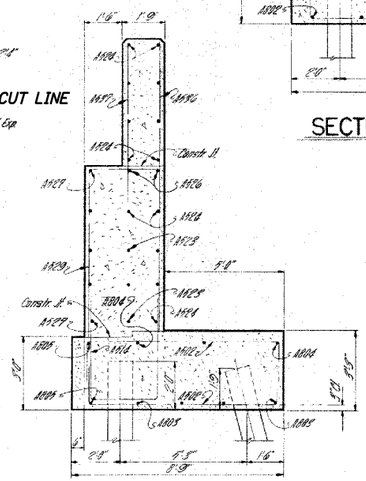


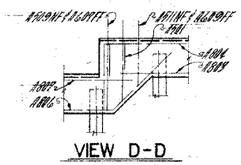












LEGEND
EF - Each Face
NF - Near Face
FF - Far Face
Symbol indicates pile to be battered 1:4 in the direction of the arrow.
Symbol indicates vertical pile.

LEGEND:

- ⊠ - INDICATES LIMITS OF REMOVAL (S1-P2-S1)
- ▨ - INDICATES LIMITS OF REMOVAL (S1-P2-S2)
- ▨ - INDICATES LIMITS OF REMOVAL (S1-P2-S3)

SX-PX-SX - STAGE X PHASE X STEP X (MOT PHASING)

EXISTING ABUTMENT NO. 1 REMOVAL DETAILS

NOTES:

1. FOR ADDITIONAL DETAILS, SEE SHEET 33/100.
2. THE EXISTING REINFORCING STEEL, PROTRUDING INTO THE PORTIONS OF THE CONCRETE TO BE REMOVED, SHALL NOT BE SALVAGED.
3. SEE SHEETS 12/100 THRU 21/100 FOR CONSTRUCTION SEQUENCE INFORMATION.
4. ALL REMAINING EXPOSED SURFACES, EXCLUDING THE BEAM SEATS, WILL BE SEALED TO THE EXISTING GROUND ELEVATION.

DESIGN AGENCY
PRIME AE
540 WEST NORTH BANK DRIVE, SUITE E.
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
CRG	CRG	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		3115739	

EXISTING ABUTMENT 1 REMOVAL DETAILS
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

31/100

31/100

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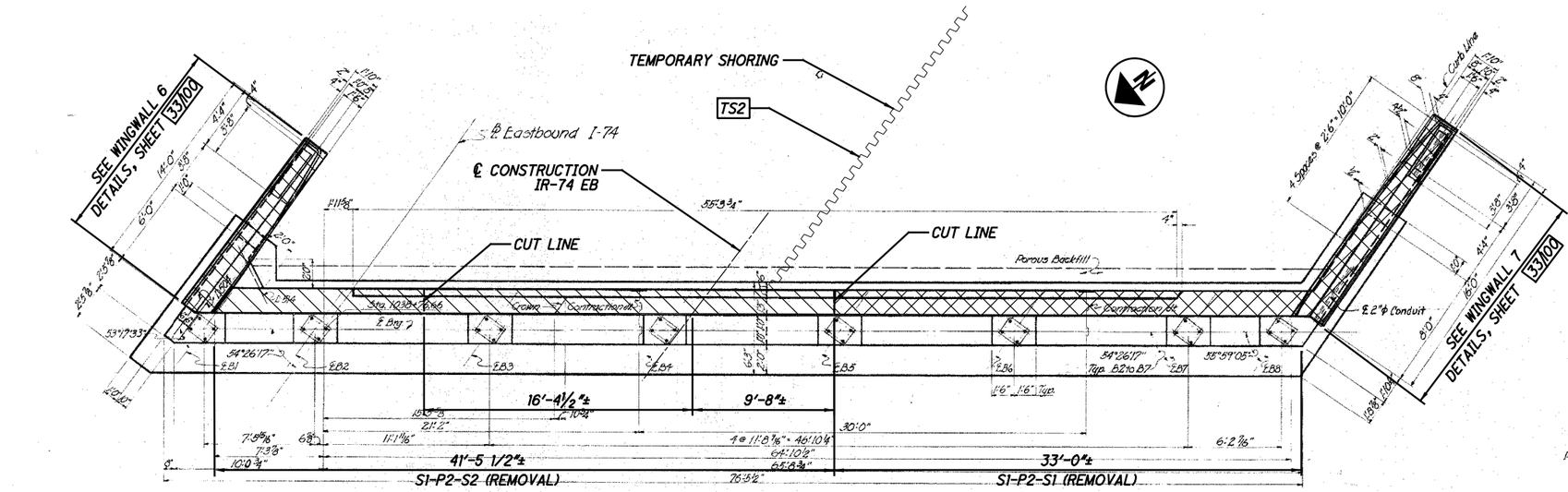

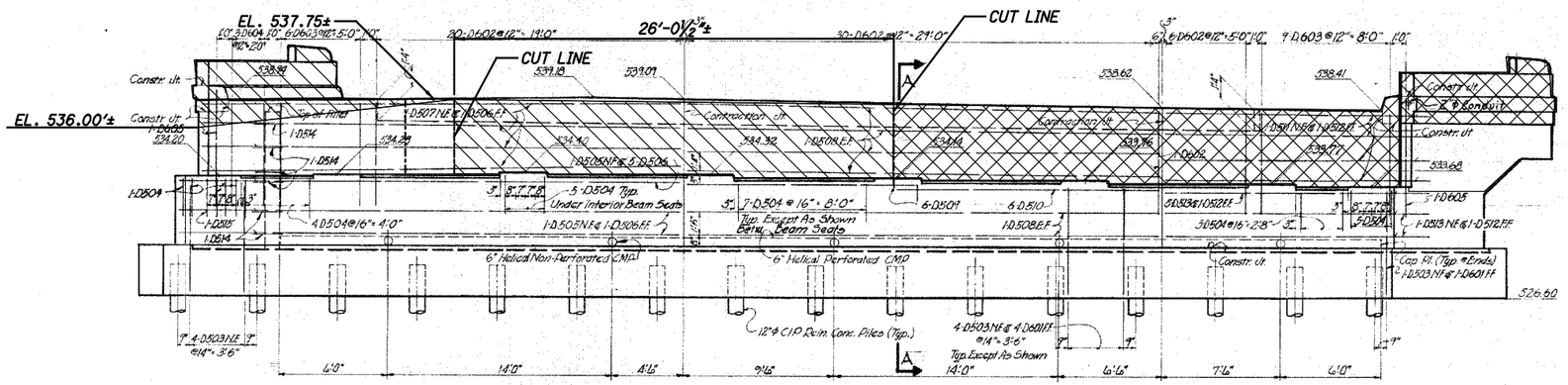

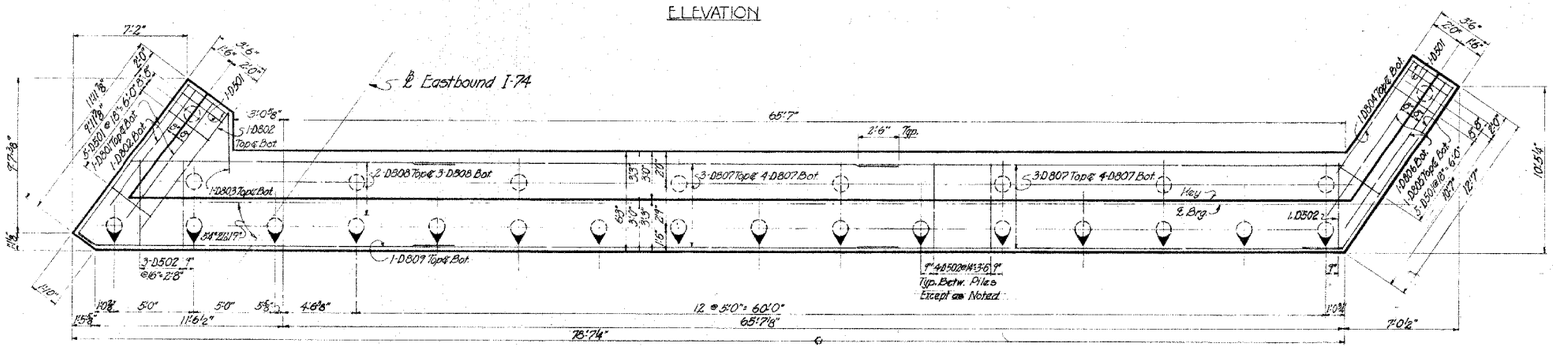

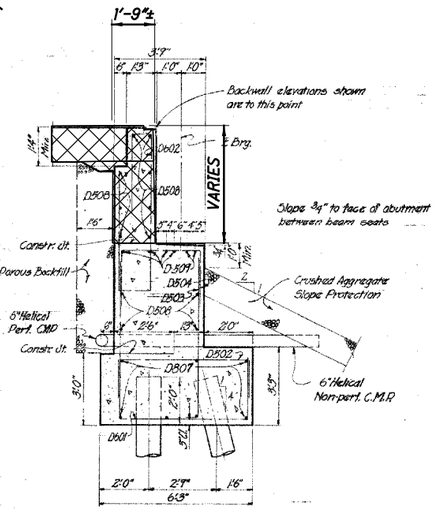

LEGEND:

- ⊠ - INDICATES LIMITS OF REMOVAL (S1-P2-S1)
- ▨ - INDICATES LIMITS OF REMOVAL (S1-P2-S2)
- SX-PX-SX - STAGE X PHASE X STEP X (MOT PHASING)

EXISTING ABUTMENT NO. 4 REMOVAL DETAILS

NOTES:

1. FOR ADDITIONAL DETAILS, SEE SHEET 33/100.
2. THE EXISTING REINFORCING STEEL, PROTRUDING INTO THE PORTIONS OF THE CONCRETE TO BE REMOVED, SHALL NOT BE SALVAGED.
3. SEE SHEETS 12/100 THRU 21/100 FOR CONSTRUCTION SEQUENCE INFORMATION.
4. ALL REMAINING EXPOSED SURFACES, EXCLUDING THE BEAM SEATS, WILL BE SEALED TO THE EXISTING GROUND ELEVATION.

DESIGN AGENCY
PRIME AE
540 WEST POINT DRIVE, SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
CRG	CRG	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		3115739	

EXISTING ABUTMENT 4 REMOVAL DETAILS
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

32/100

32/100

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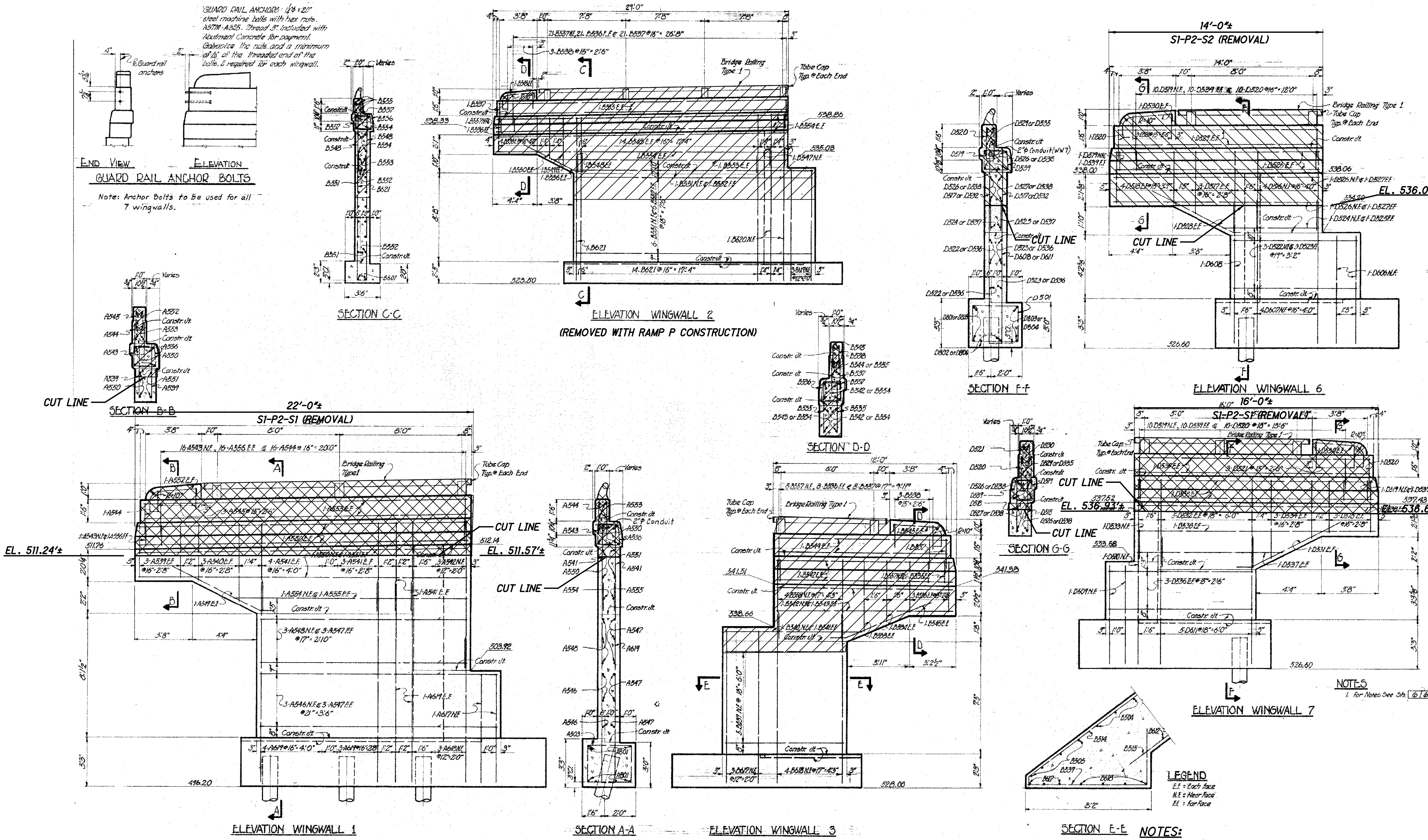


EXISTING WINGWALL REMOVAL DETAILS

LEGEND:

- INDICATES LIMITS OF REMOVAL (S1-P2-S1)
- INDICATES LIMITS OF REMOVAL (S1-P2-S2)
- INDICATES LIMITS OF REMOVAL (S1-P2-S3)

SX-PX-SX - STAGE X PHASE X STEP X (MOT PHASING)

NOTES:

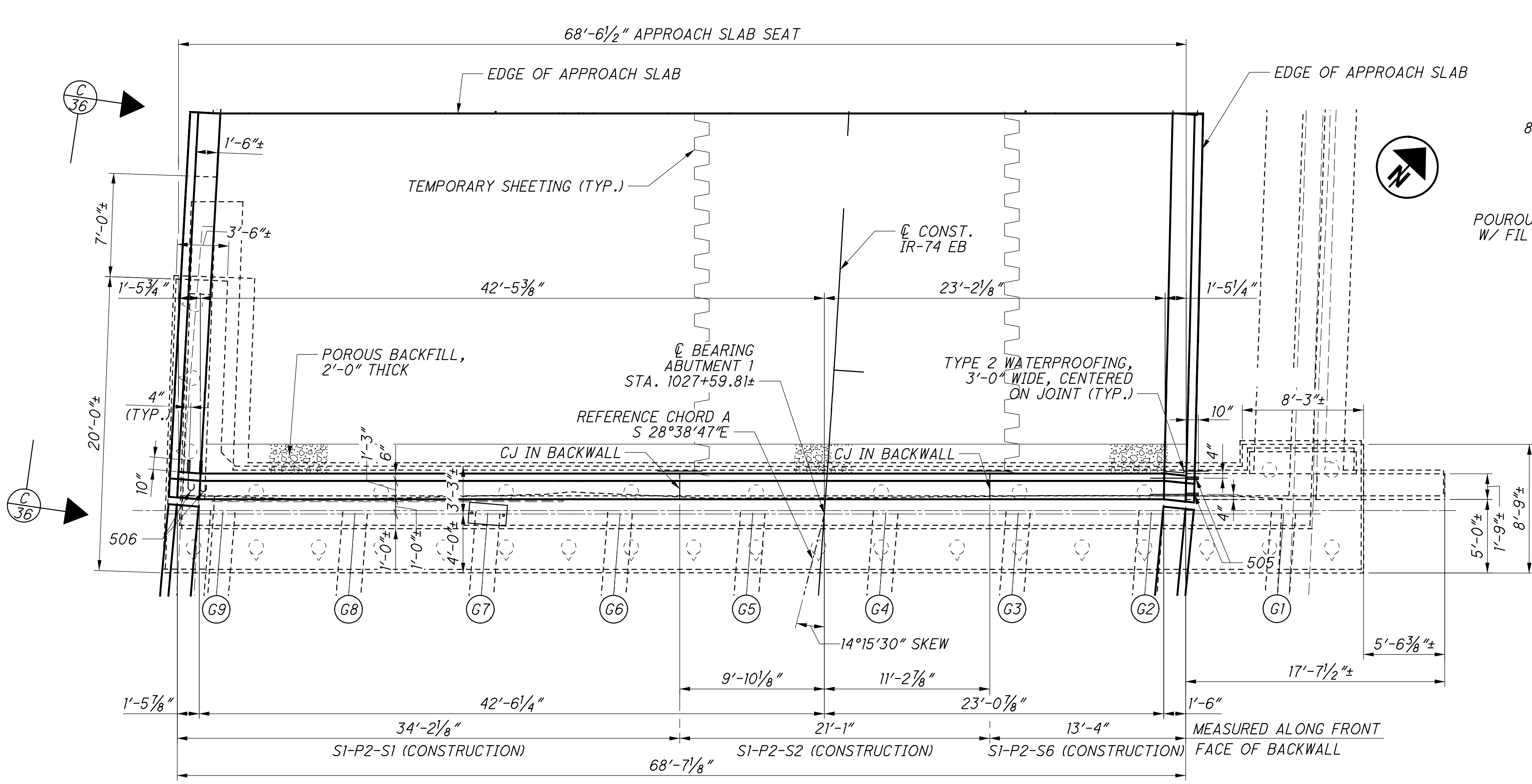
1. FOR ADDITIONAL DETAILS, SEE SHEETS 31/100 AND 32/100.
2. THE EXISTING REINFORCING STEEL, PROTRUDING INTO THE PORTIONS OF THE CONCRETE TO BE REMOVED, SHALL NOT BE SALVAGED.
3. SEE SHEETS 12/100 THRU 21/100 FOR CONSTRUCTION SEQUENCE INFORMATION.
4. ALL REMAINING EXPOSED SURFACES, EXCLUDING THE BEAM SEATS, WILL BE SEALED TO THE EXISTING GROUND ELEVATION.

DESIGN AGENCY
PRIME
540 WHITE POND DR., SUITE E
AKRON, OH 44320

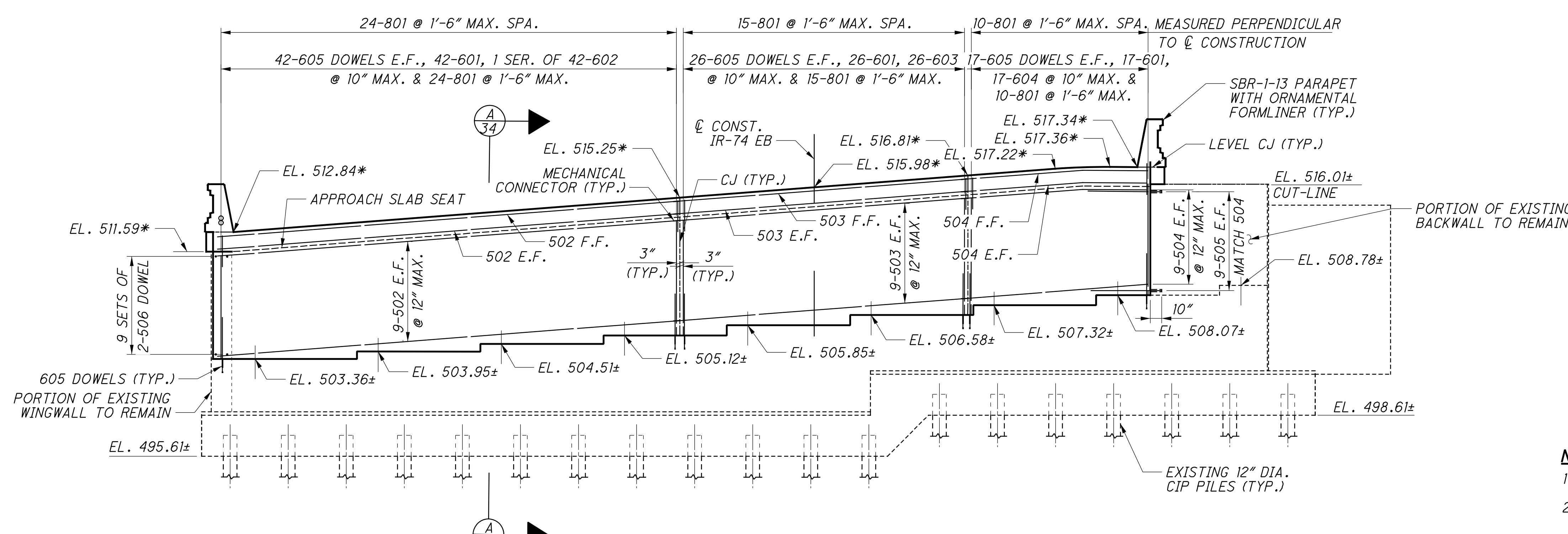
DESIGNED	DRAWN	REVIEWED	DATE
CRG	CRG	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		3115739	

EXISTING WINGWALL REMOVAL DETAILS
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

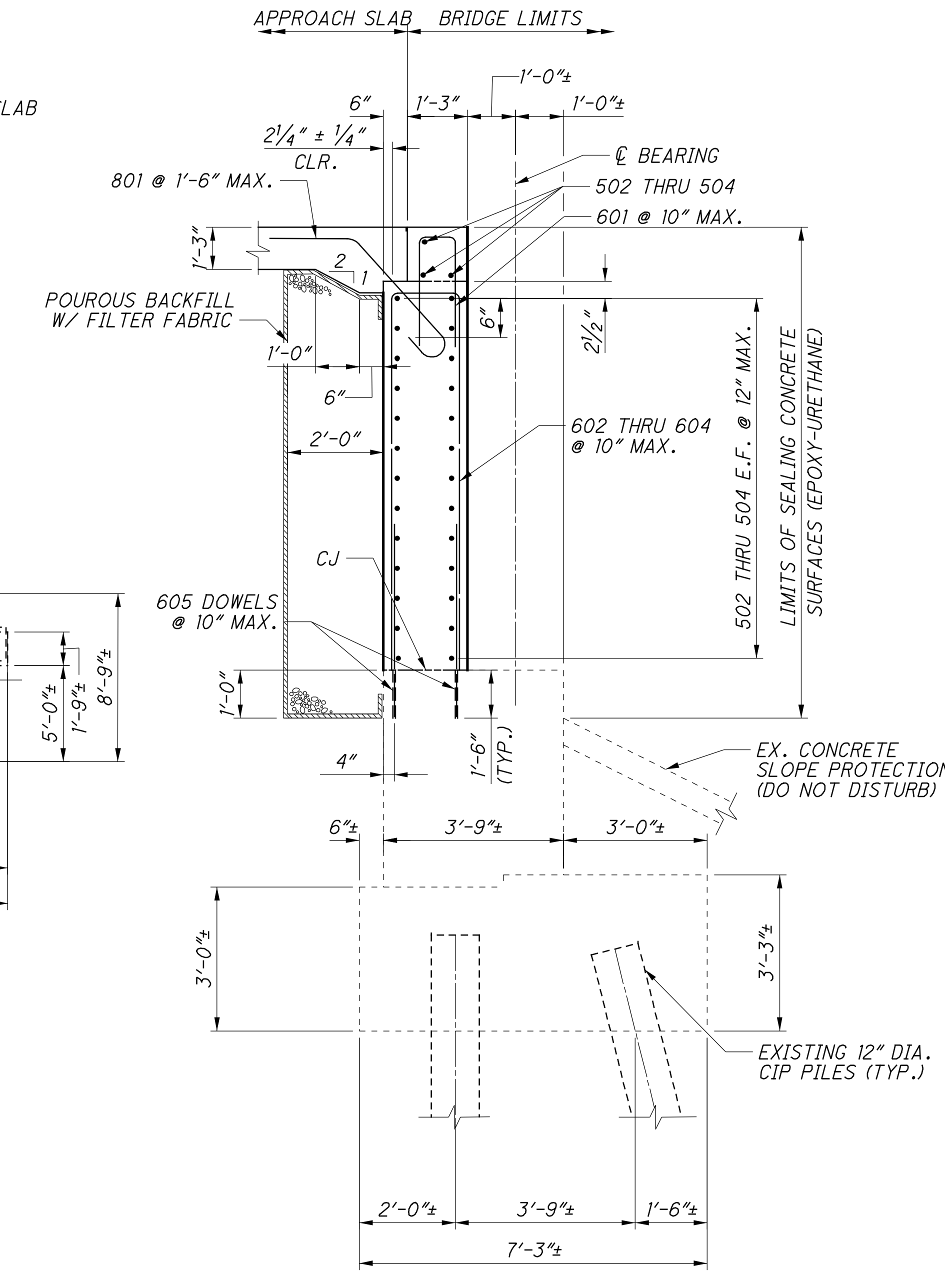
HAM-75-3.84
PID No. 104667



PLAN



ELEVATION



A/34 ABUTMENT 1 SECTION

LEGEND:

* - MEASURED AT FRONT FACE OF BACKWALL

MIN. REQUIRED LAP LENGTH	
#6 VERTICAL	2'-10"

NOTES:

1. FOR ABUTMENT 1 REMOVAL DETAILS, SEE SHEET 31/100.
2. FOR ABUTMENT 1 WINGWALL REMOVAL DETAILS, SEE SHEET 33/100.
3. THE PREFIX "1A" SHALL BE ADDED TO ALL BAR MARKS FOR ABUTMENT 1.
4. FOR REINFORCING STEEL LIST, SEE SHEET 100/100.

DESIGN AGENCY
PRIME
540 WHITE POND DR., SUITE E AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
KDC	KDC	TES	7/30/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CRG		3115739	

EXISTING ABUTMENT 1 PLAN AND ELEVATION

BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

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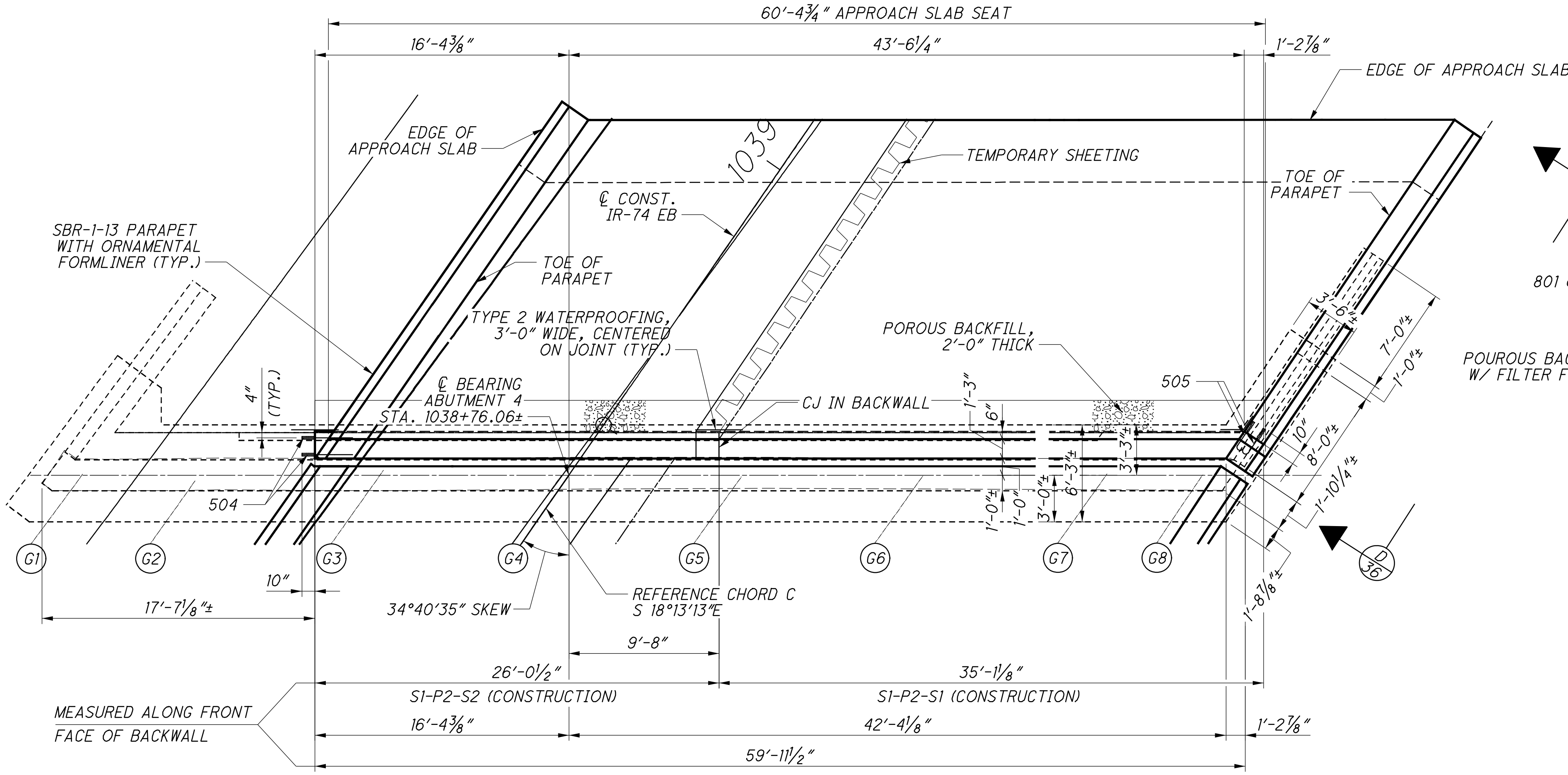
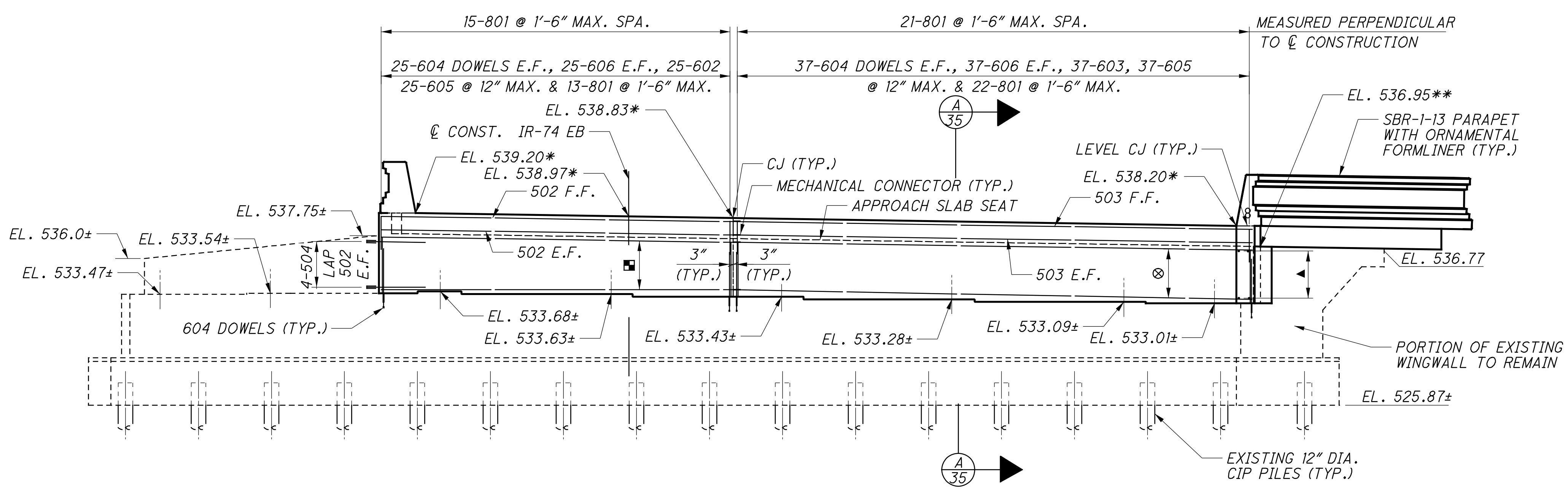
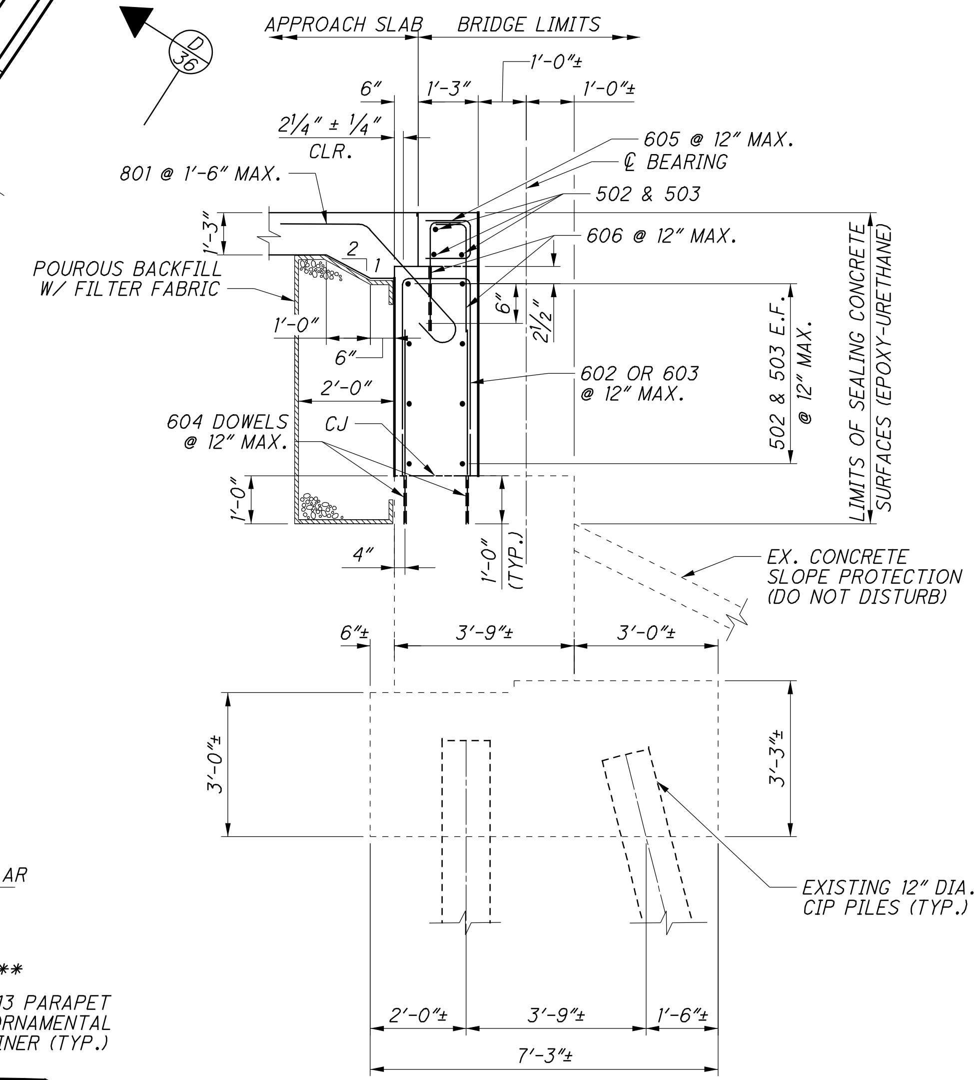


PLAN



ELEVATION



A/35 ABUTMENT 4 SECTION

LEGEND:

* - MEASURED AT FRONT FACE OF BACKWALL

** - MEASURED AT BACK FACE OF BACKWALL

◪ - 4-502 E.F. @ 12" MAX.

⊗ - 4-503 E.F. @ 12" MAX.

▲ - 4 SETS OF 2-505 DOWELS LAP W/ 503 BARS

MIN. REQUIRED LAP LENGTH	
#6 VERTICAL	2'-10"

NOTES:

1. FOR ABUTMENT 4 REMOVAL DETAILS, SEE SHEET 32/100.
2. FOR ABUTMENT 4 WINGWALL REMOVAL DETAILS, SEE SHEET 33/100.
3. THE PREFIX "4A" SHALL BE ADDED TO ALL BAR MARKS FOR ABUTMENT 4.
4. FOR REINFORCING STEEL LIST, SEE SHEET 100/100.

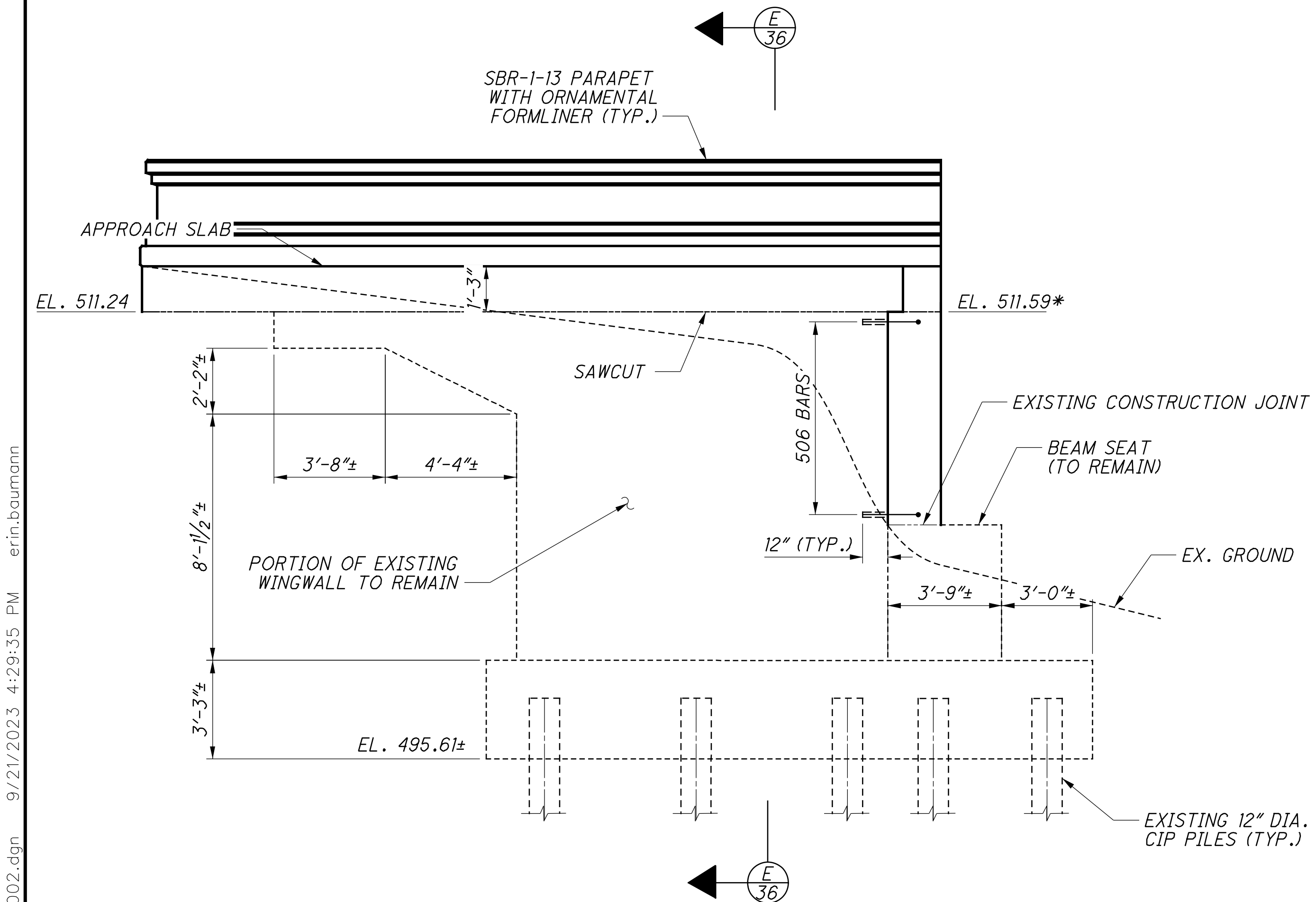
DESIGN AGENCY
PRIME
540 WHITE POND DR., SUITE E AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
KDC	KDC	TES	7/30/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CRG		3115739	

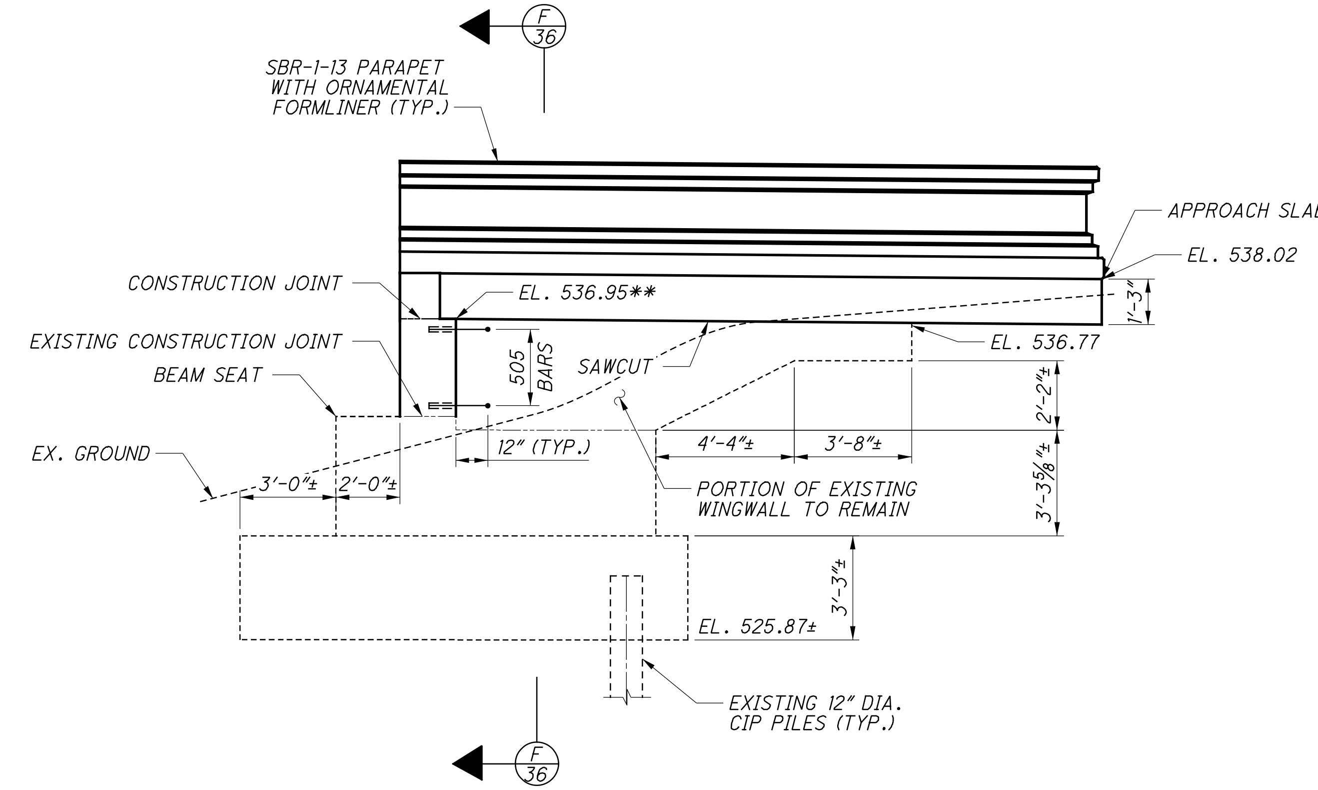
EXISTING ABUTMENT 4 PLAN AND ELEVATION

BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

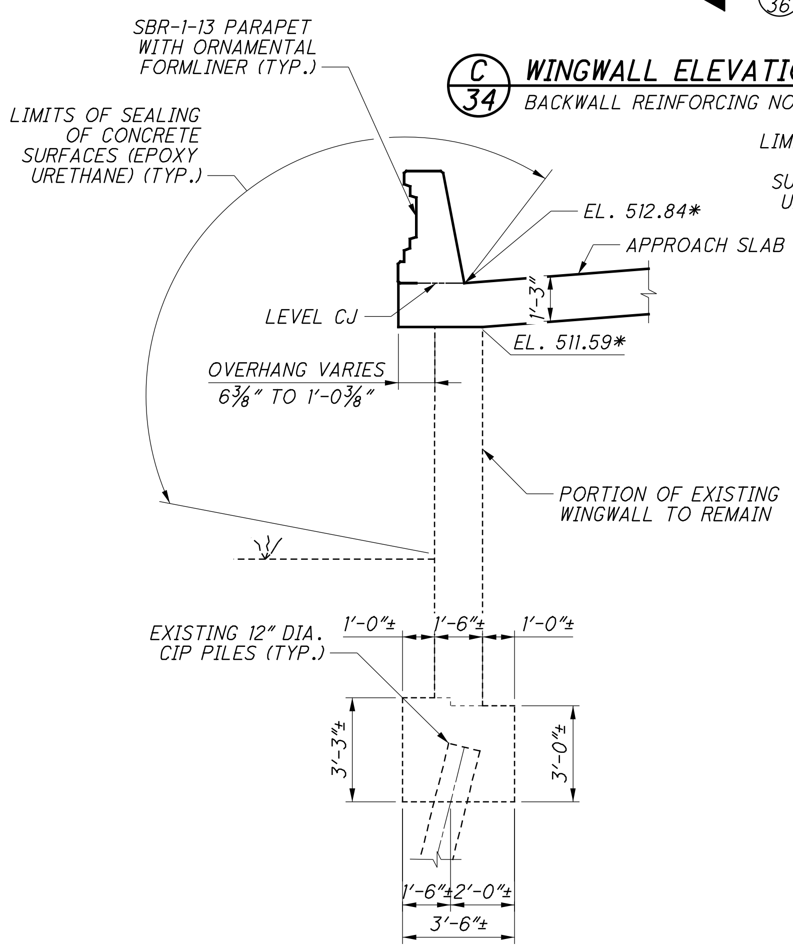
HAM-75-3.84
PID No. 104667



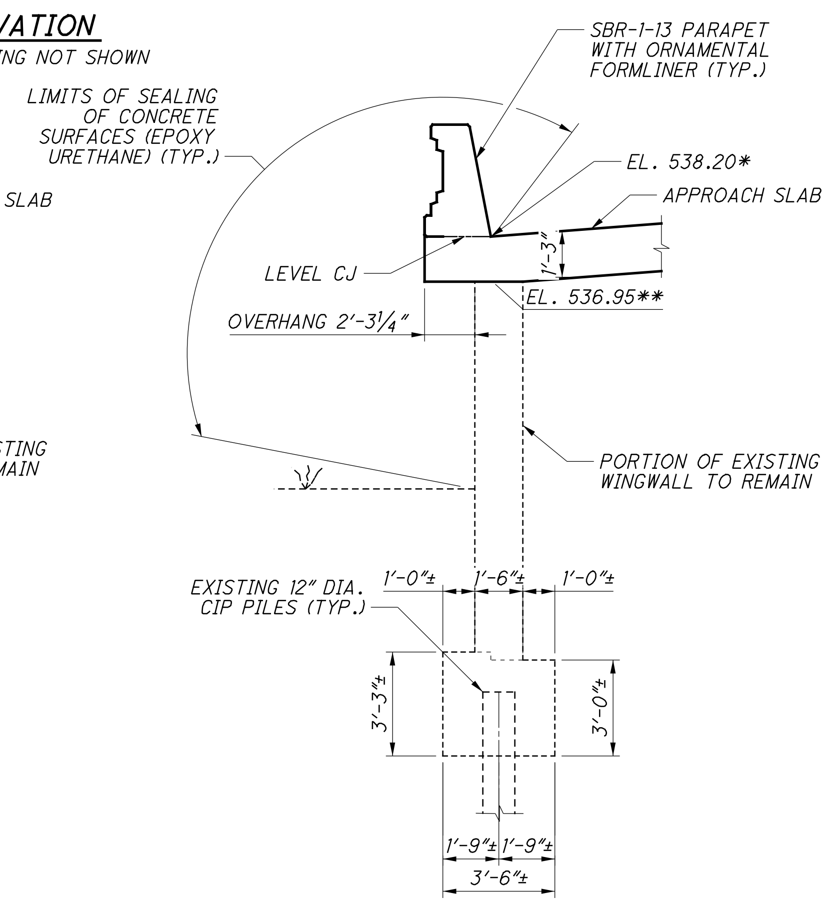
C/34 **WINGWALL ELEVATION**
BACKWALL REINFORCING NOT SHOWN



D/35 **WINGWALL ELEVATION**
BACKWALL REINFORCING NOT SHOWN



E/36 **WINGWALL SECTION**



F/36 **WINGWALL SECTION**

LEGEND:

* - MEASURED AT FRONT FACE OF BACKWALL
** - MEASURED AT BACK FACE OF BACKWALL

NOTES:

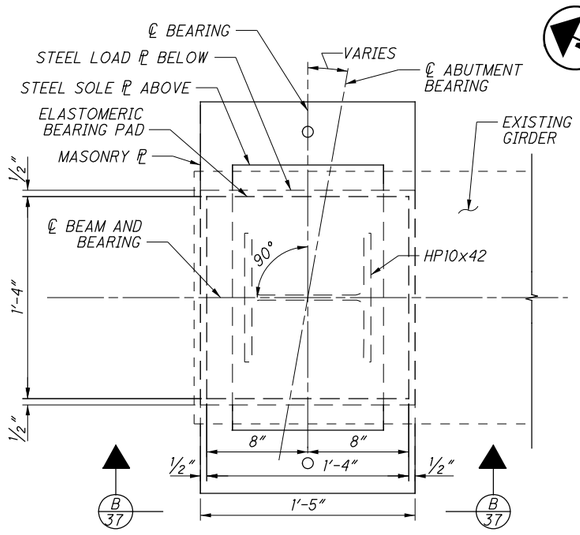
1. FOR PARAPET DETAILS AND REINFORCEMENT, SEE SHEETS 85/100 AND 88/100.
2. SEAL ALL EXPOSED SURFACES OF EXISTING WINGWALLS.

DESIGN AGENCY
PRIME
540 WHITE POND DR., SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
KDC	KDC	TES	7/30/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CRG		3115739	

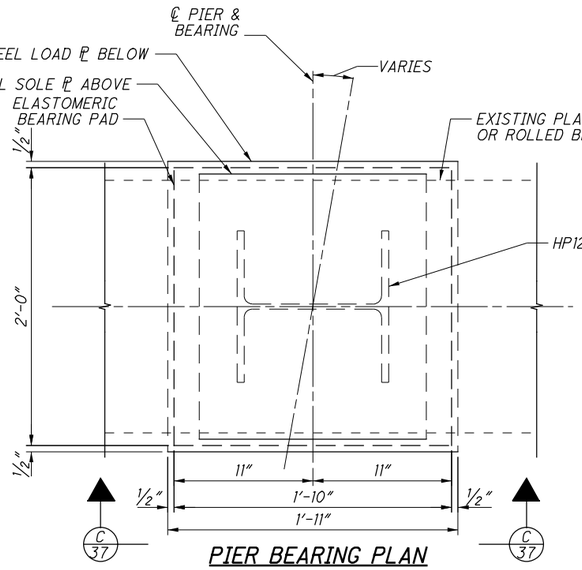
EXISTING ABUTMENT DETAILS
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667



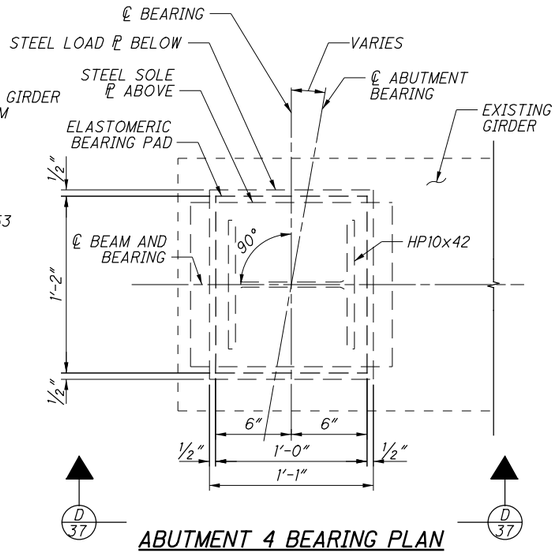
ABUTMENT 1 BEARING PLAN

* SEE TABLE 1 FOR SOLE PLATE THICKNESS



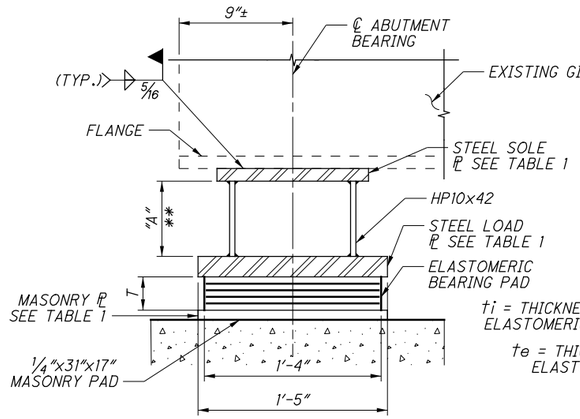
PIER BEARING PLAN

EX. PIER 1 SHOWN, OTHERS SIMILAR
EX. PIERS 1, 3, 6 & 19
* SEE TABLE 1 FOR SOLE PLATE THICKNESS



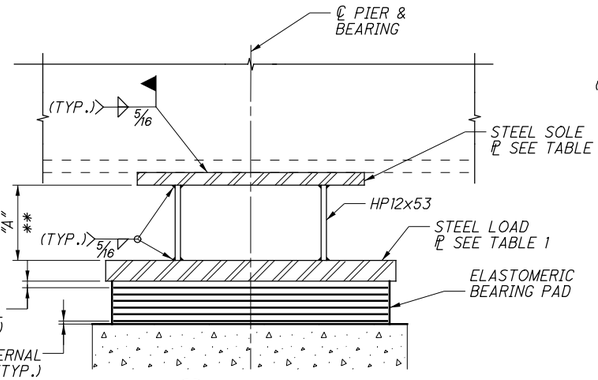
ABUTMENT 4 BEARING PLAN

* SEE TABLE 1 FOR SOLE PLATE THICKNESS



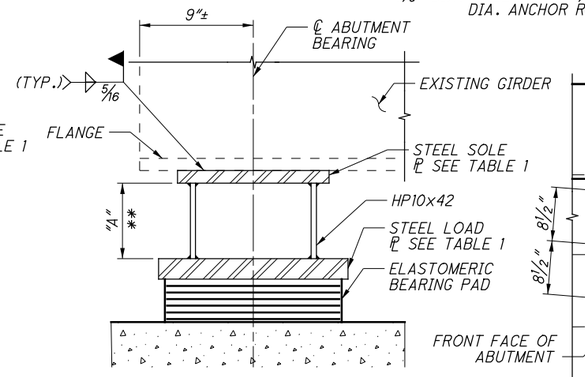
B 37 SECTION

* SEE TABLE 1 FOR SOLE PLATE THICKNESS
**SEE TABLE 2 FOR DIMENSION "A"



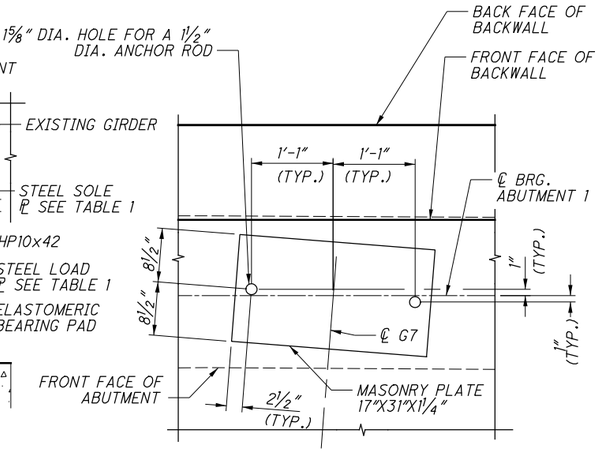
C 37 SECTION

EX. PIER 1 SHOWN, OTHER SIMILAR
EX. PIERS 1, 3, 6 & 19
* SEE TABLE 1 FOR SOLE PLATE THICKNESS
**SEE TABLE 2 FOR DIMENSION "A"



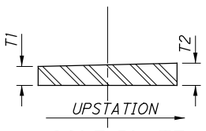
D 37 SECTION

* SEE TABLE 1 FOR SOLE PLATE THICKNESS
**SEE TABLE 2 FOR DIMENSION "A"



TYPICAL MASONRY PLATE

(ABUTMENT 1 ONLY. GIRDER 7 SHOWN, OTHERS SIMLIAR)
FOR ANCHOR BOLT DETAIL, SEE SHEET 39/100.



SOLE PLATE

* SEE TABLE 1 FOR SOLE PLATE THICKNESS

TABLE 1 - BEARING SCHEDULE — # = LIVE LOAD WITHOUT IMPACT

	BEARING TYPE	NO. OF BEARINGS	ELASTOMERIC BEARING PAD SIZE	NO. OF STEEL LAMINATES 0.0747" THICK (14 GAGE)	INTERNAL LAYERS		EXTERNAL LAYERS		STEEL LOAD PLATE SIZE	STEEL SOLE PLATE SIZE	STEEL SOLE PLATE THICKNESS		UNFACTORED DESIGN LOADS			MASONRY PLATE SIZE	MASONRY PLATE BOLTS	
													DEAD LOAD IN KIPS	LIVE LOAD IN KIPS #	TOTAL LOAD IN KIPS			
			LxWxT		†i	NO.	†e	NO.	LxWxT	LxW	T1	T2				LxWxT	DIA.	NO.
EX. ABUT. 1	EXP.	8	16"x16"x4.52"	7	0.500"	8	-	-	17"x17"x1½"	16"x21"	1.37"	1.63"	74	74	148	17"x31"x1¼"	1½"	2
EX. PIER 1	EXP.	8	22"x24"x3.12"	5	0.500"	5	0.25"	1	23"x25"x2¼"	16"x21"	1.98"	2.52"	345	144	489	NA	NA	NA
EX. PIER 3	EXP.	8	22"x22"x2.55"	4	0.500"	4	0.25"	1	23"x23"x2¼"	16"x21"	1.87"	2.63"	325	145	470	NA	NA	NA
EX. PIER 6	EXP.	10	22"x24"x2.55"	4	0.500"	4	0.25"	1	23"x25"x2½"	16"x21"	2.35"	2.65"	389	137	526	NA	NA	NA
EX. PIER 19	EXP.	6	16"x18"x3.12"	5	0.500"	5	0.25"	1	17"x19"x1½"	16"X13"	1.50"	1.50"	140	61	201	NA	NA	NA
EX. ABUT. 4	EXP.	6	12"x14"x3.12"	5	0.500"	5	0.25"	1	13"x15"x1½"	16"X13"	1.50"	1.50"	43	50	93	NA	NA	NA

TABLE 2 - DIM.

	"A"
ABUTMENT 1	5"
PIER 1	13⅛"
PIER 3	13.7"
PIER 6	13"
PIER 9	10⅝"
ABUTMENT 4	5⅛"

NOTES:

1. FOR NOTES, SEE SHEET 39/100.
2. GALVANIZED SHIM PLATES INSTALLED AT PIER 3, PIER 6, AND ABUTMENT NO. 4

DESIGN AGENCY
PRIME AE
540 WHITE POND DRIVE, SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
CRG	JAT	TES	7/30/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		3115739	

BEARING DETAILS (1 OF 3)
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

37/100

37/100

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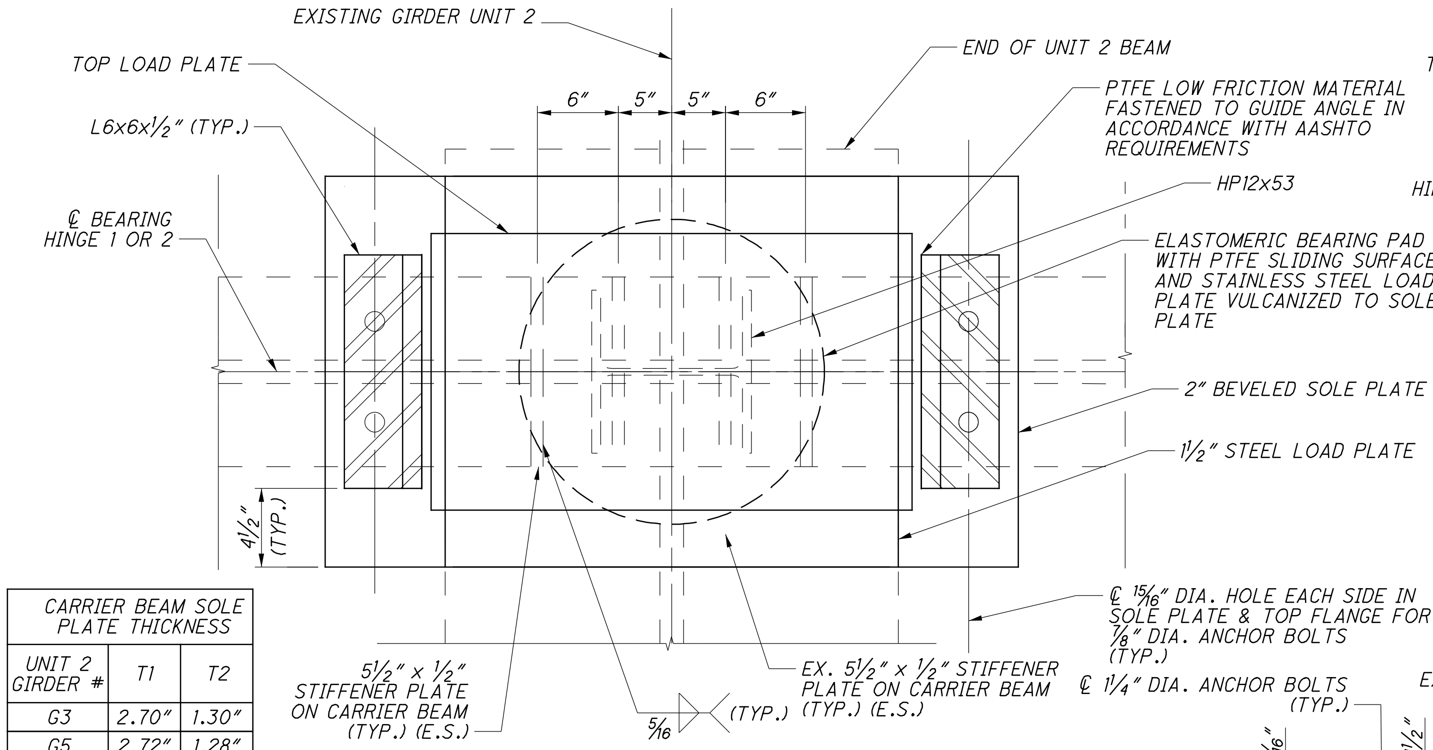
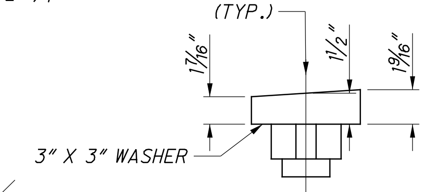
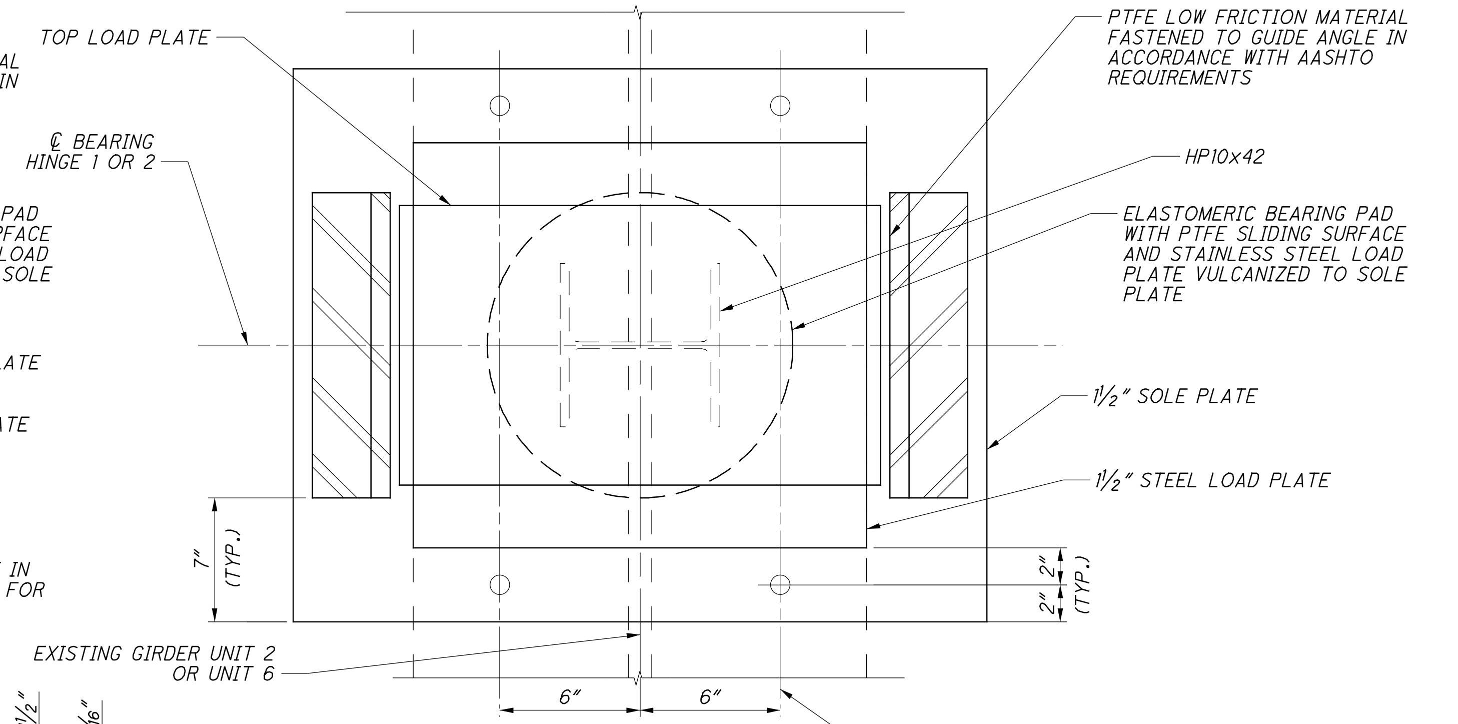


PLAN
(N.T.S.)

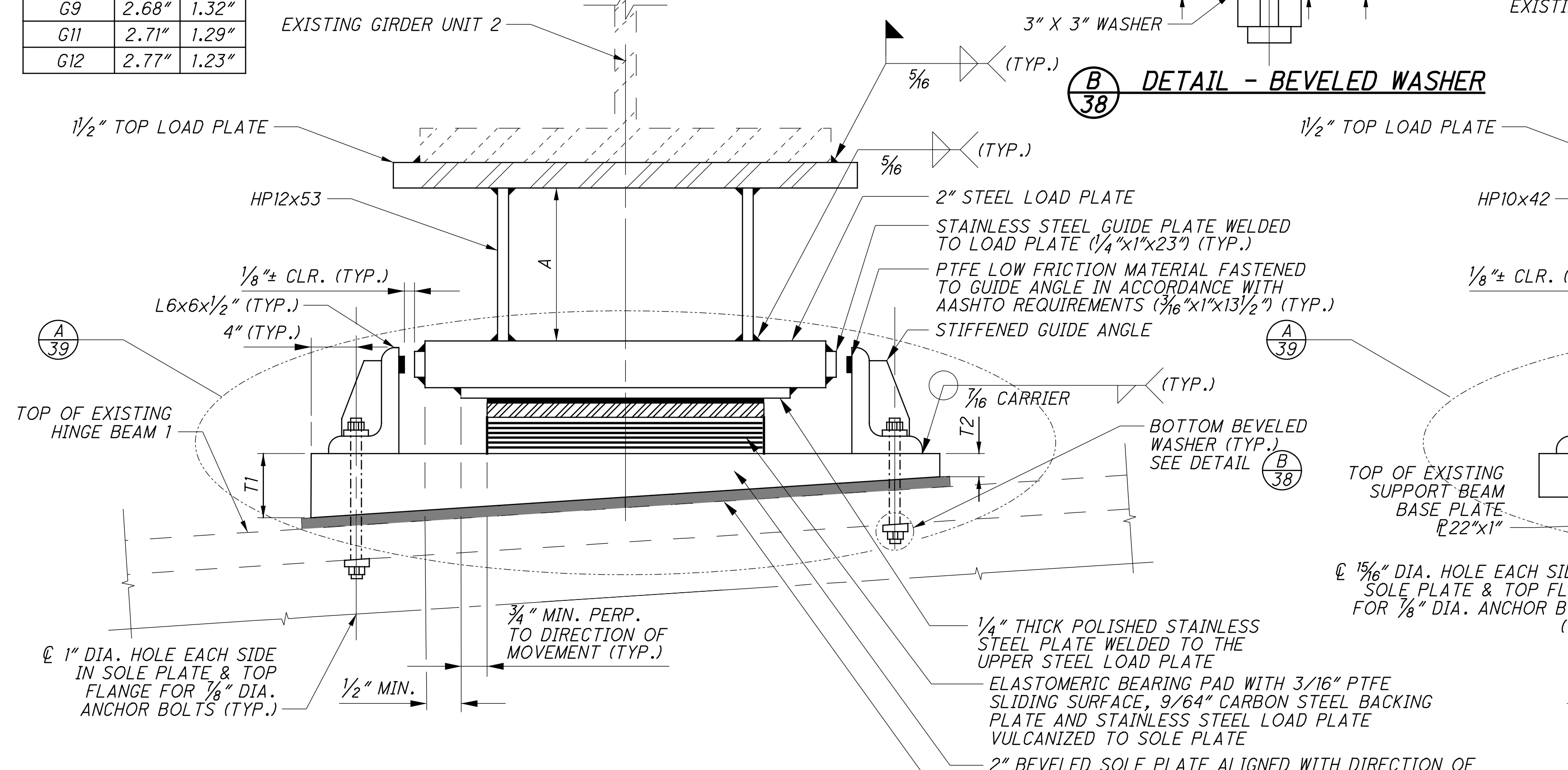
CARRIER BEAM SOLE PLATE THICKNESS		
UNIT 2 GIRDER #	T1	T2
G3	2.70"	1.30"
G5	2.72"	1.28"
G6	2.74"	1.26"
G8	2.72"	1.28"
G9	2.68"	1.32"
G11	2.71"	1.29"
G12	2.77"	1.23"



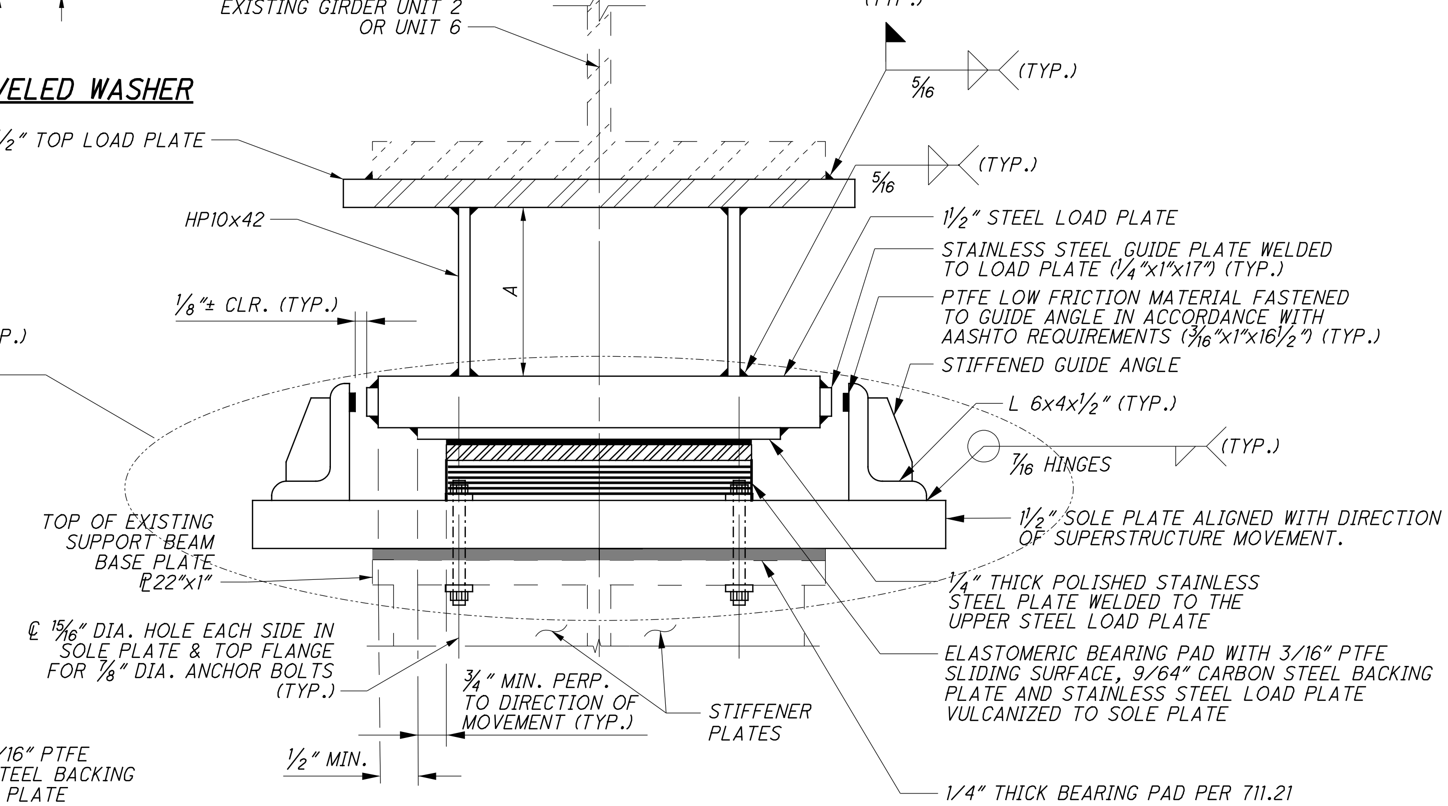
B/38 DETAIL - BEVELED WASHER



PLAN
(N.T.S.)



LAMINATED ELASTOMERIC EXPANSION BEARING ON CARRIER BEAM
(N.T.S.)



LAMINATED ELASTOMERIC EXPANSION BEARING ON HINGE SUPPORT
(N.T.S.)

TABLE 1 - BEARING SCHEDULE — # = LIVE LOAD WITHOUT IMPACT

	BEARING TYPE	NO. OF BEARINGS	ELASTOMERIC BEARING PAD SIZE	NO. OF STEEL LAMINATES 0.0747" THICK (14 GAGE)	INTERNAL LAYERS (#, THICK.)	SOLE PLATE SIZE (LxWxT)	STEEL LOAD PLATE SIZE (LxWxT)	TOP LOAD PLATE (LxWxT)	HP HEIGHT A	SERVICE LIMIT STATE DEAD LOAD (K)	SERVICE LIMIT STATE LIVE LOAD (K)#	SERVICE LIMIT STATE TOTAL LOAD (K)	STR LIMIT STATE TOTAL LOAD (K)	ROTATION (RADIAN) STR LIMIT STATE TOTAL	MAX. ONE WAY MVT. (IN) STR LIMIT STATE LONG.
CARRIER BEAM - UNIT 2	GUIDED EXP.	7	17" ϕx3.70"	6	6 @ 0.500"	23"x35"x1 1/2"	27"x20"x2"	16"x21"x1 1/2"	9 3/8"	80	99	179	330	0.004	2.70
HINGE SUPPORT - UNIT 2	GUIDED EXP.	4	17" ϕx3.70"	6	6 @ 0.500"	31"x30 1/4"x1 1/2"	27"x20"x1 1/2"	16"x21"x1 1/2"	9 7/8"	80	99	179	330	0.004	2.70
HINGE SUPPORT - UNIT 6	GUIDED EXP.	6	17" ϕx3.70"	6	6 @ 0.500"	31"x30 1/4"x1 1/2"	25"x20"x1 1/2"	16"x21"x1 1/2"	4 7/8"	37	49	86	160	0.003	1.90

NOTES:

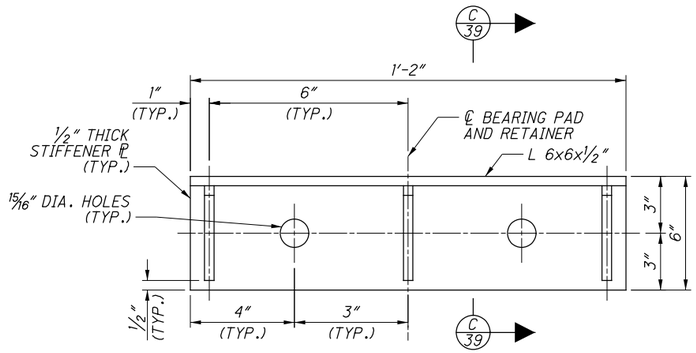
1. FOR NOTES, SEE SHEET 39/100.
2. FOR GUIDE ANGLE DETAILS, SEE SHEET 39/100.
3. FOR BEARING BUILD-UP DETAIL, SEE SHEET 39/100.

DESIGN AGENCY
PRIME
540 WHITE POND DR., SUITE E
AKRON, OH 44320

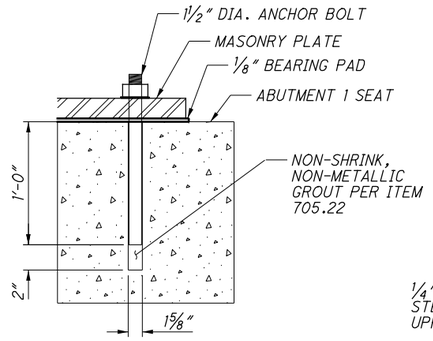
DESIGNED	DRAWN	REVIEWED	DATE
CRG	EDW	TES	7/30/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		3115739	

BEARING DETAILS (2 OF 3)
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

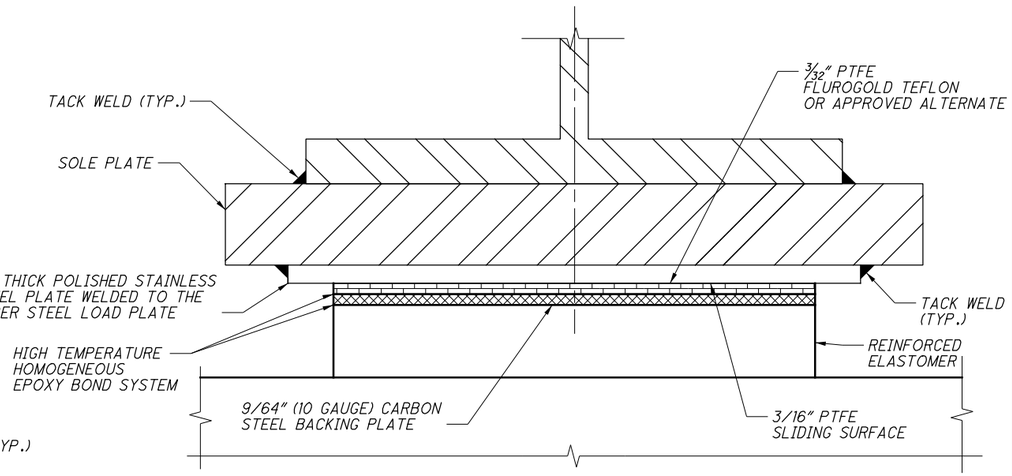
HAM-75-3.84
PID No. 104667



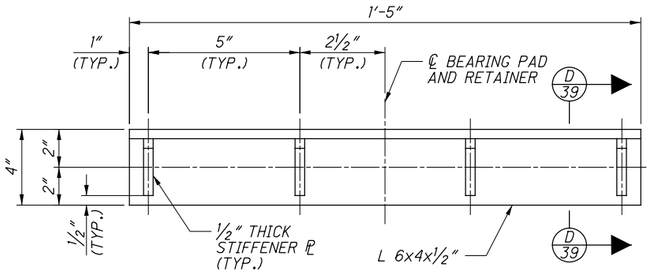
BEARING GUIDE ANGLE PLAN - CARRIER BEAM



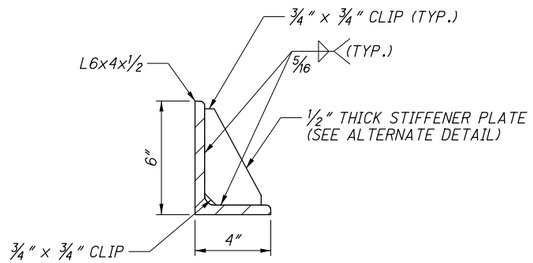
ANCHOR BOLT DETAIL



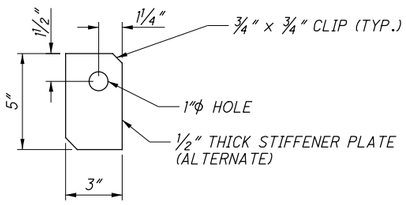
A
38
BEARING DETAIL



BEARING GUIDE ANGLE PLAN - HINGE SUPPORT

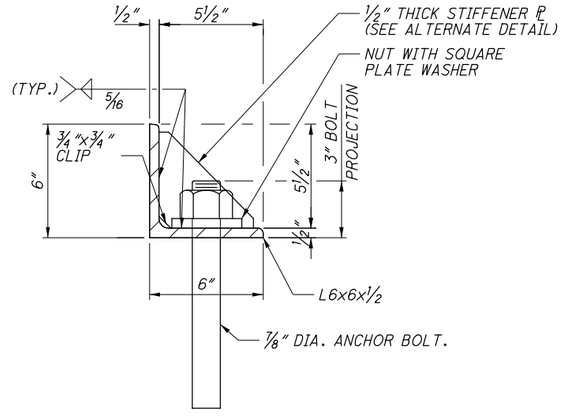


D
39
SECTION - BEARING GUIDE ANGLE - HINGE SUPPORT

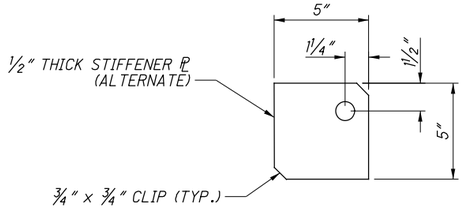


ALTERNATE STIFFENER PLATE - HINGE SUPPORT

(TO FACILITATE SHIPPING & PLACEMENT)



C
39
SECTION - BEARING GUIDE ANGLE - CARRIER BEAMS



ALTERNATE STIFFENER PLATE - CARRIER BEAMS

(TO FACILITATE SHIPPING & PLACEMENT)

NOTES:

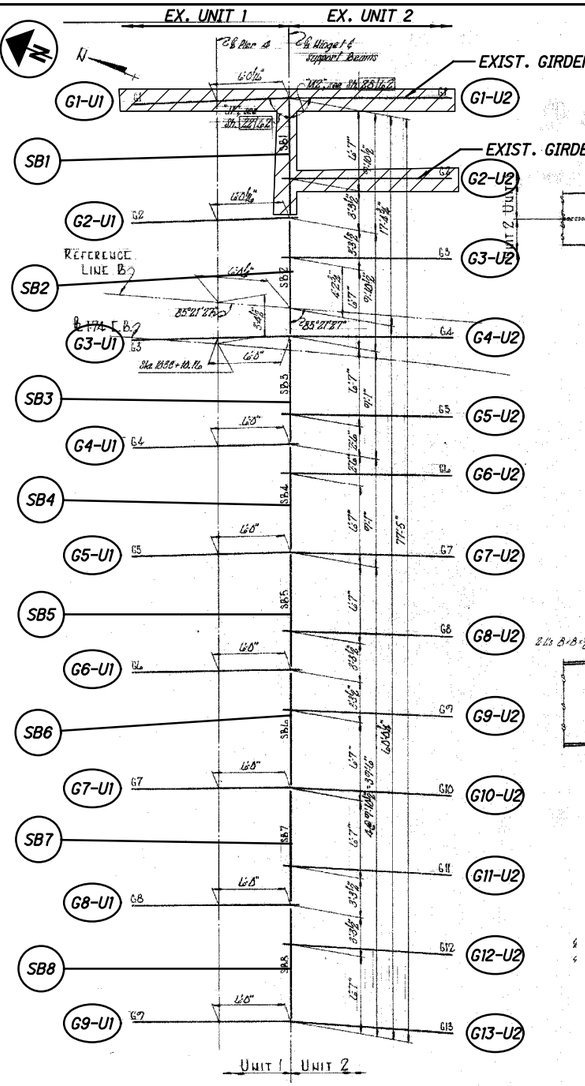
1. ELASTOMERIC BEARINGS:
   THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. ALL BEARINGS WERE DESIGNED IN ACCORDANCE WITH SECTION 14.7.6 (METHOD A) OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS. THE LONG TERM COMPRESSION PROOF LOAD TEST (AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DIVISION II, SECTION 18.7.2.6) IS NOT REQUIRED.
2. LOAD PLATES:
   THE TOP STEEL LOAD PLATE, STEEL LOAD PLATE AND SOLE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 50. THE SOLE PLATE SHALL BE BONDED TO THE ELASTOMER BY VULCANIZATION DURING THE MOLDING PROCESS IN ACCORDANCE WITH ITEM 516. CONTROL WELDING SO THAT THE PLATE TEMPERATURE DOES NOT EXCEED 300°F AS DETERMINED BY THE USE OF PYROMETRIC SENSORS OR OTHER TEMPERATURE MONITORING DEVICES.
3. COMPONENTS OF THE BEARING DEVICES SHALL MEET THE REQUIREMENTS OF ODOT SUPPLEMENTAL SPECIFICATION 869.
4. MARKINGS:
   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.
5. CORROSION PROTECTION:
   ALL STEEL SURFACES AND COMPONENTS, EXCEPT THE TOP OF THE STEEL LOAD PLATE, STAINLESS STEEL AND PTFE SURFACES SHALL BE METALLIZED IN ACCORDANCE WITH ODOT SUPPLEMENTAL SPECIFICATION 869. ONLY APPLICABLE FOR BEARINGS AT HINGE 1 & 2.
6. PAINTING:
   THE LOAD PLATES, SOLE PLATES AND HP SECTIONS SHALL BE PAINTED IN ACCORDANCE WITH ITEM 514 AND C&MS 708. THE FINISH COAT SHALL BE FEDERAL STANDARD COLOR 595B-16515 (GRAY). ONLY APPLICABLE TO BEARINGS AT ABUTMENTS 1 & 4 AND PIERS 1, 3, 6 AND 19.
7. DESIGN LOAD:
   TOTAL DESIGN LOAD FOR BEARINGS EQUALS THE SUM OF THE DEAD LOADS AND LIVE LOADS TABULATED IN THE BEARING TABLE. LOADS SHOWN ARE WITHOUT IMPACT FACTORS INCLUDED.
8. BEARING ORIENTATION:
   FOR BEARING ORIENTATION AT SUBSTRUCTURE UNITS, SEE INDIVIDUAL PLAN SHEETS.
9. BRIDGE SEAT ELEVATIONS:
   BRIDGE SEAT ELEVATIONS HAVE BEEN ADJUSTED UPWARD 0.139 INCHES AT PIER 2, UNIT 2, 0.125 INCHES AT PIER 3, 0.123 INCHES AT PIER 4 AND 0.105 INCHES AT THE FORWARD ABUTMENT TO COMPENSATE FOR THE VERTICAL DEFORMATION OF THE BEARINGS.
10. BEARING SEAT ADJUSTMENT FOR SPECIAL BEARINGS:
    THE PIER AND ABUTMENT BEAM SEAT ELEVATIONS ARE BASED ON BEARING HEIGHTS PROVIDED IN THE PLANS. IF THE CONTRACTOR'S SELECTED BEARING MANUFACTURER HAS A DESIGN THAT DOES NOT CONFORM TO THE HEIGHTS PROVIDED IN THESE PLANS, ADJUST THE BEARING SEAT ELEVATIONS AT NO ADDITIONAL COST TO THE STATE. ADJUST THE LOCATION OF REINFORCING STEEL HORIZONTALLY AS NECESSARY TO AVOID INTERFERENCE WITH THE BEARING ANCHOR BOLTS. MAINTAIN THE MINIMUM CONCRETE COVER AND MINIMUM SPACING REQUIRED BY THE PROJECT PLANS. IF THE REINFORCING STEEL CANNOT BE MOVED TO PROVIDE THE REQUIRED POSITION FOR THE ANCHOR BOLTS, THE CONTRACTOR'S BEARING MANUFACTURER SHALL REDESIGN THE BEARINGS TO ACCOMMODATE AN ACCEPTABLE ANCHOR BOLT CONFIGURATION.

DESIGN AGENCY
PRIME AE
540 WEST POINT PARK, SUITE E
AKRON, OH 44320

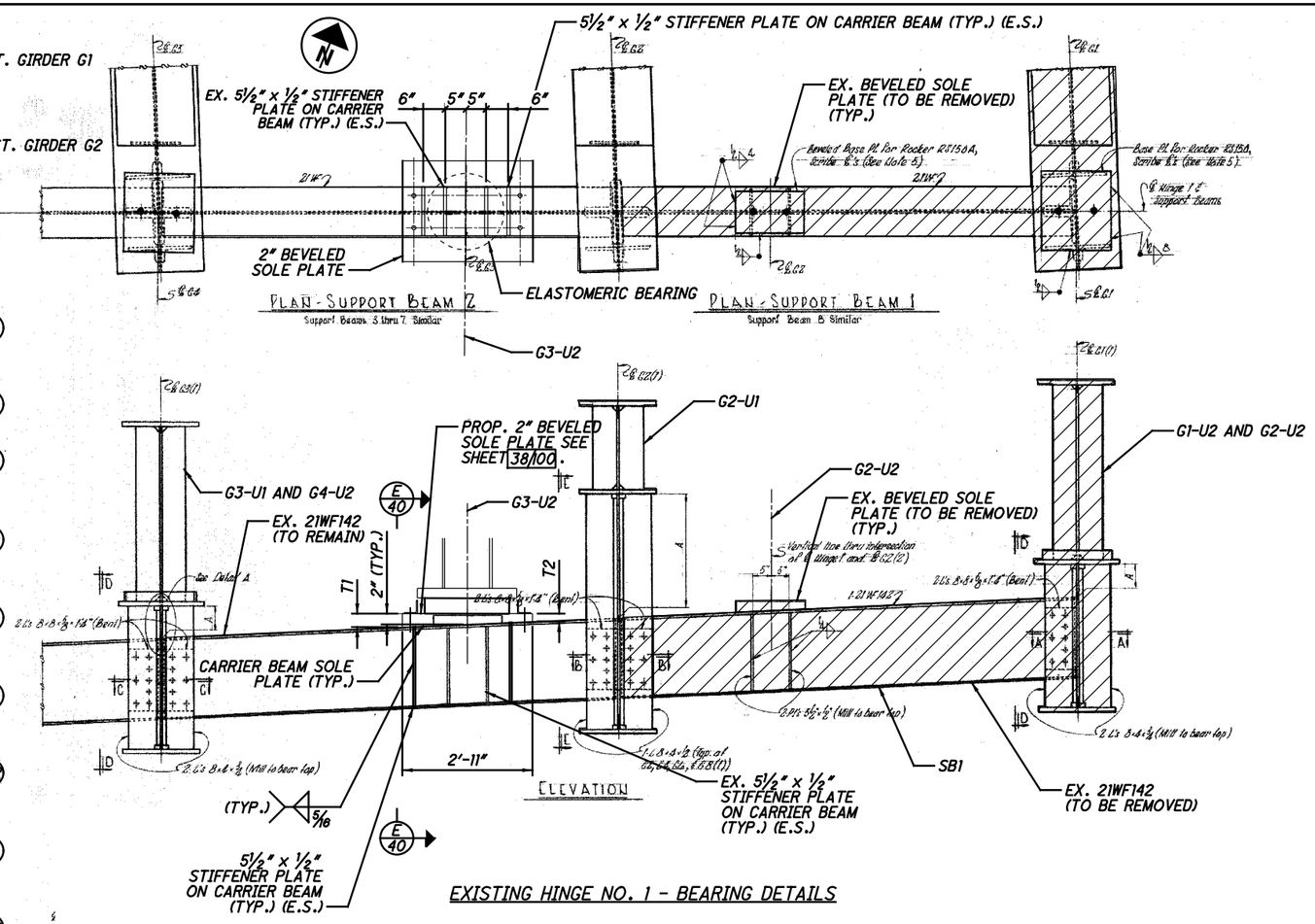
DESIGNED	DRAWN	REVIEWED	DATE
KDC	KDC	TES	7/30/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CRG		3115739	

BEARING DETAILS (3 OF 3)
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

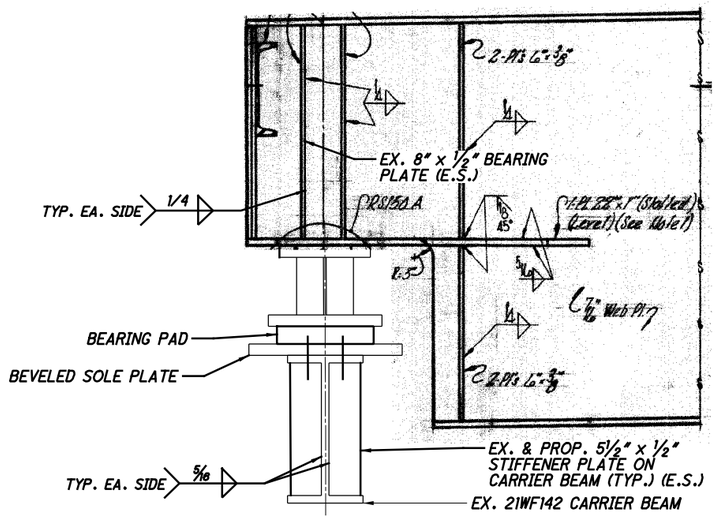
HAM-75-3.84
PID No. 104667



PLAN OF FRAMING AT HINGE 1



EXISTING HINGE NO. 1 - BEARING DETAILS



E/40 SECTION - CARRIER BEAM DETAIL

LEGEND:

- INDICATES LIMITS OF REMOVAL (S1-P2-S3)

GX-UX - GIRDER X UNIT X

SBX - SUPPORT BEAM X

NOTES:

1. FOR ADDITIONAL DETAILS AND BEARING DIMENSION TABLES , SEE SHEETS 38/100 AND 39/100.

DESIGN AGENCY
PRIME AE
540 WEST NORTH BANK DRIVE, SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
CRG	CRG	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		3115739	

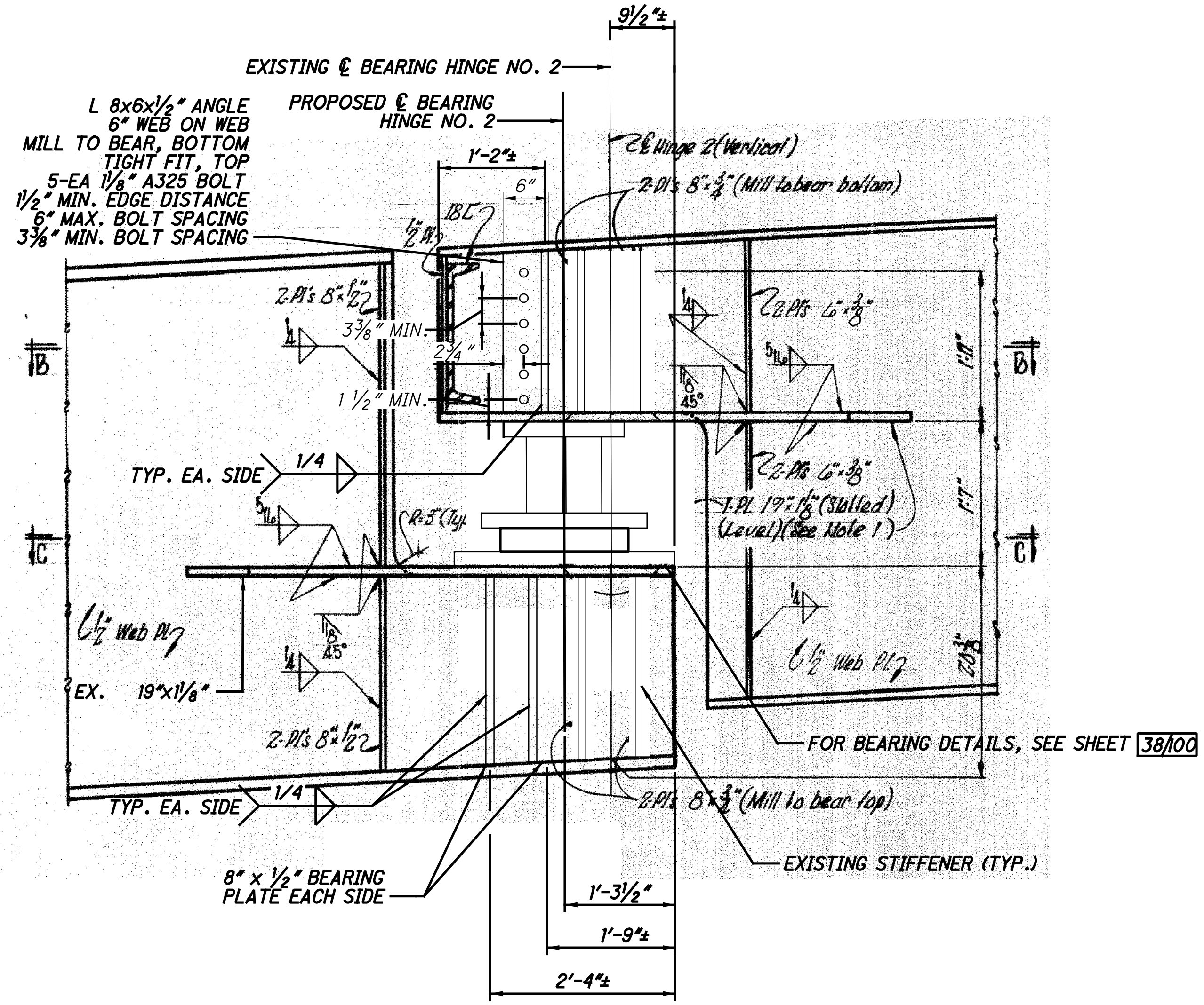
EXIST. SUPPORT BEAM BEARING DETAILS AT HINGE 1
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

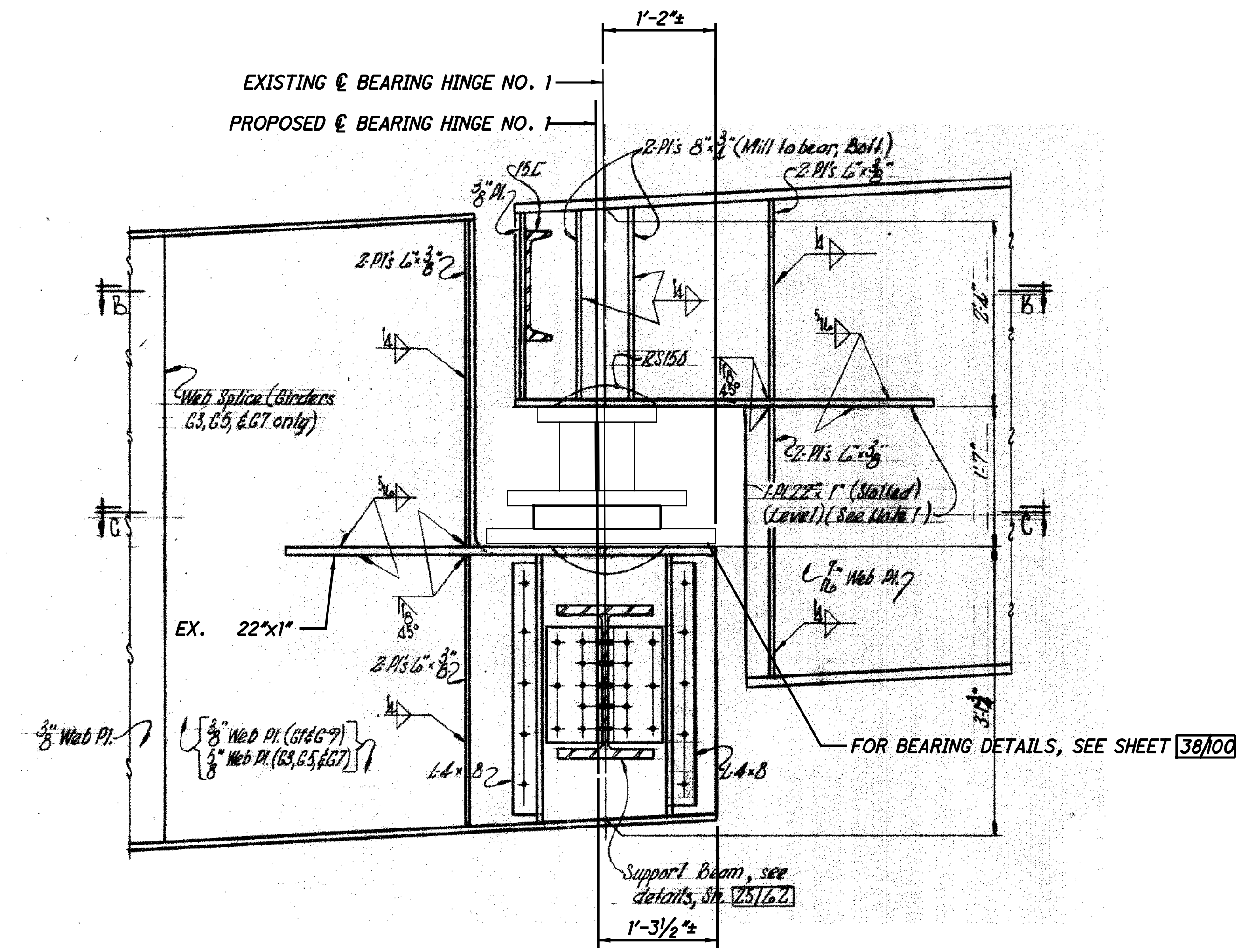
40/100

40
100

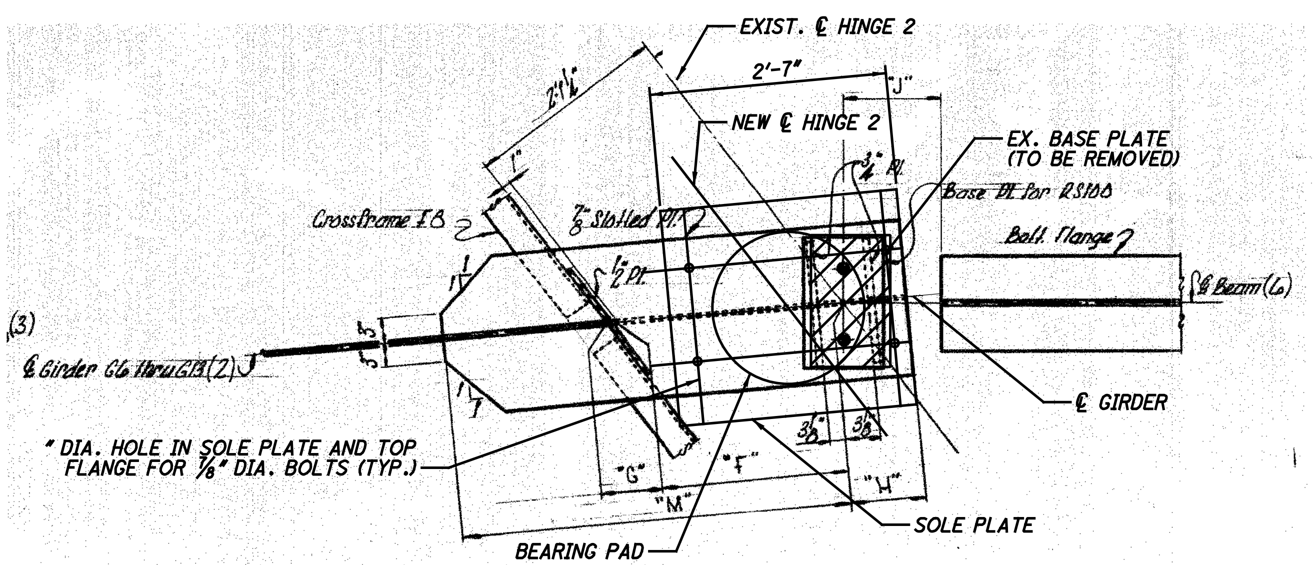
\\primedom01.primelocal.com\DFSRoot\Data\Projects\2018\20H030B-18232 HAM-75-03.84\104667\structures\HAM074_1908R\sheets\074_1908R_BR004.dgn 6/20/2019 9:13:11 AM oseed



HINGE NO. 2 BEARING DETAIL

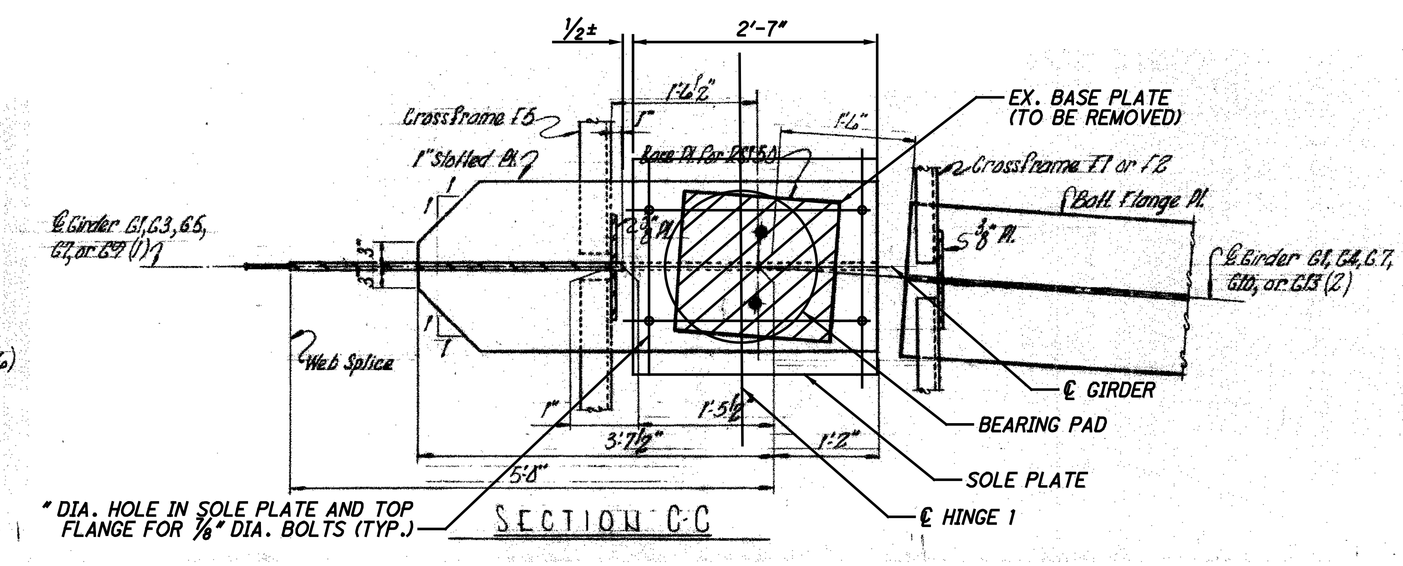


HINGE NO. 1 BEARING DETAIL



SECTION F-F

HINGE NO. 2 BEARING PLAN



SECTION C-C

HINGE NO. 1 BEARING PLAN

NOTES:

1. FOR LOCATION OF HINGES, SEE SHEETS 3/100.
2. EXISTING " FILLET WELD. TRIM ANGLE TO CLEAR WEB TO FLANGE WELD (TYP. TOP AND BOTTOM).

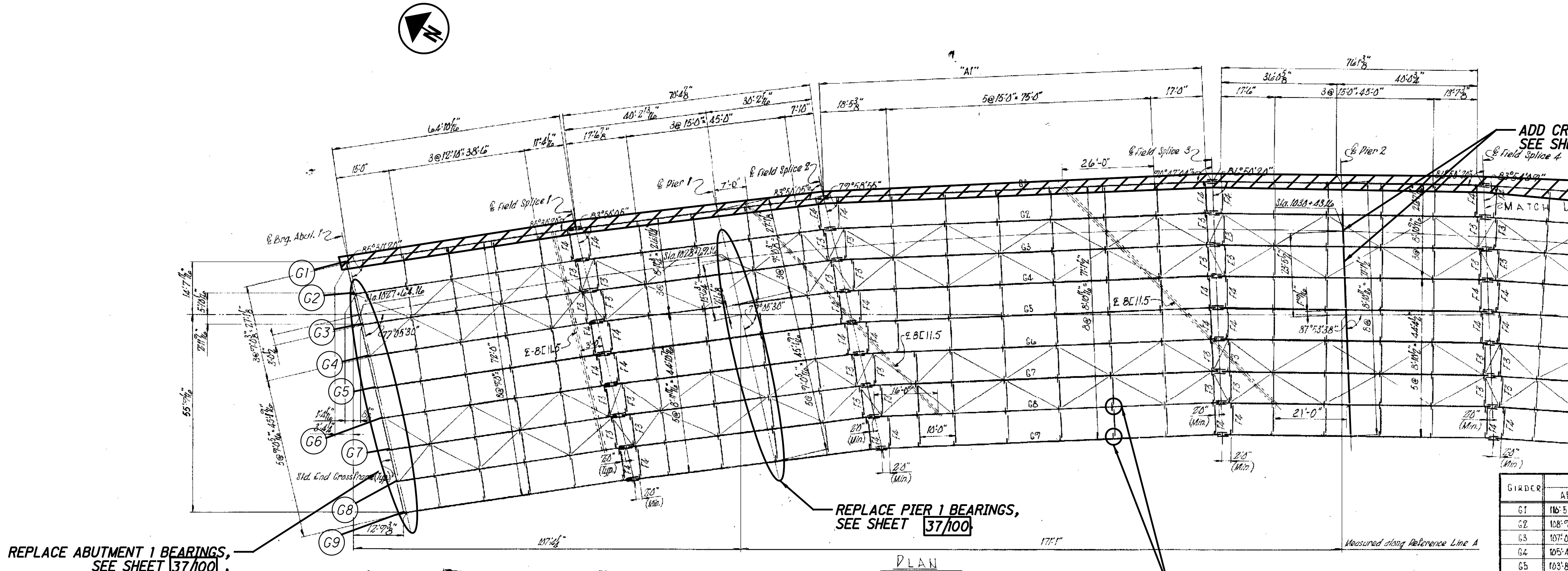
DESIGN AGENCY
PRIME
540 WHITE POND DR., SUITE E
AKRON, OH 44320

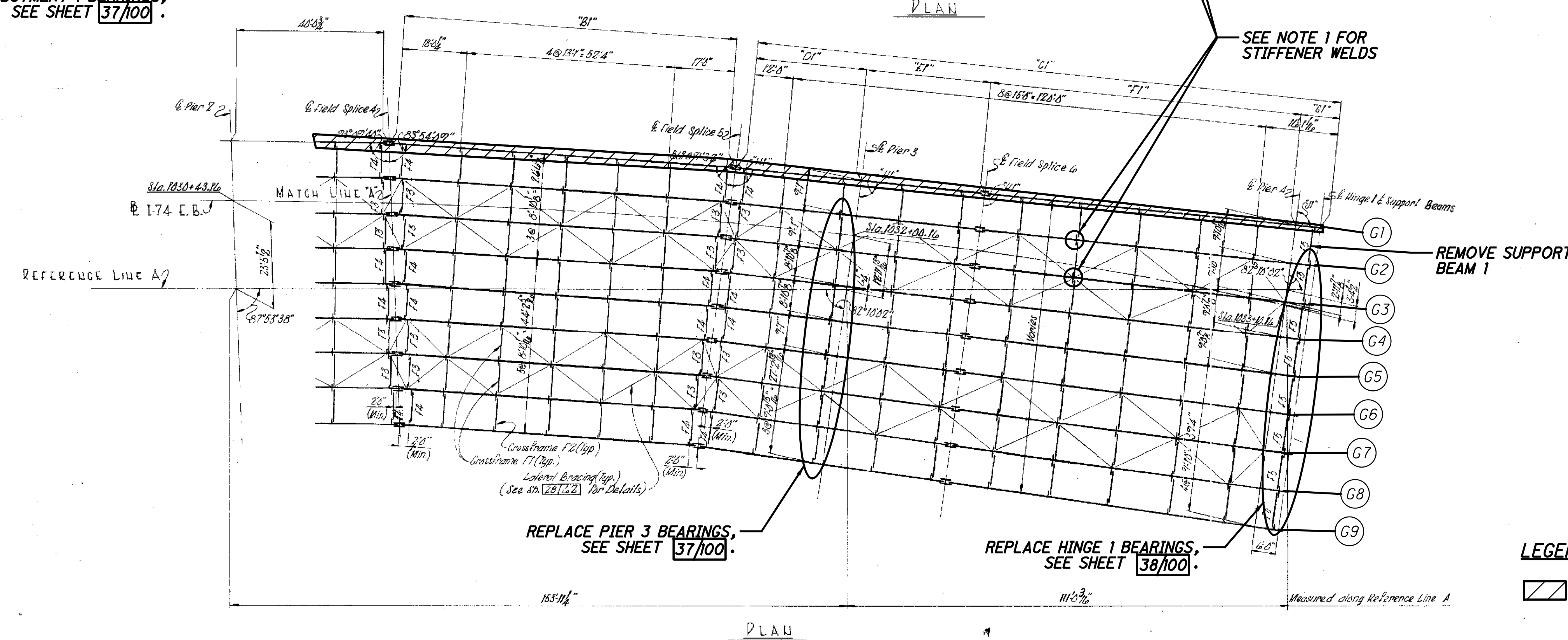
DESIGNED	DRAWN	REVIEWED	DATE
CRG	CRG	TES	7/30/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		3115739	

E ISTING HINGE 2 BEARING DETAILS

BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667





GIRDER	DIMENSIONS							ANGLES	
	A1	B1	C1	D1	E1	F1	G1	H1	J1
G1	116'-5 3/8"	87'-4 1/4"	148'-1 1/16"	32'-0 5/16"	31'-0 1/4"	79'-0 7/16"	6'-0 1/16"	92°11'46"	87°48'14"
G2	108'-9 1/16"	85'-9 13/16"	148'-0 5/8"	32'-0 3/16"	31'-0 3/16"	79'-0 3/16"	6'-0 1/16"	91°48'14"	88°11'46"
G3	107'-0 3/4"	84'-3 3/8"	148'-0 5/16"	32'-0 1/8"	31'-0 1/8"	79'-0 1/16"	6'-0"	91°24'41"	88°35'19"
G4	105'-4 7/16"	82'-8 7/8"	148'-0 1/4"	32'-0 1/8"	31'-0 1/8"	79'-0"	6'-0"	91°19'31"	88°40'29"
G5	103'-8 1/8"	81'-2 7/16"	148'-0 3/16"	32'-0 1/8"	31'-0 1/16"	79'-0"	6'-0"	91°14'21"	88°45'39"
G6	101'-11 13/16"	79'-8"	147'-11 15/16"	32'-0 1/16"	31'-0"	78'-11 7/8"	6'-0"	90°50'47"	89°09'13"
G7	100'-3 9/16"	78'-1 9/16"	147'-11 13/16"	32'-0"	31'-0"	78'-11 13/16"	6'-0"	90°27'13"	89°32'47"
G8	98'-7 1/4"	76'-7 1/16"	147'-11 3/4"	32'-0"	31'-0"	78'-11 3/4"	6'-0"	90°03'39"	89°56'21"
G9	96'-10 15/16"	75'-0 5/8"	147'-11 3/4"	32'-0"	31'-0"	78'-11 3/4"	6'-0"	89°40'05"	90°19'55"

EXISTING FRAMING PLAN - UNIT NO. 1

LEGEND:

▨ - INDICATES LIMITS OF BEAM REMOVAL (S1-P2-S3)

NOTES:

1. WELD INTERMEDIATE CROSSFRAME STIFFENERS TO TOP AND BOTTOM FLANGES AS SHOWN ON SHEET 45/100. BOTTOM STIFFENER LOCATIONS THAT HAVE LATERAL BRACING CONNECTIONS WITHIN 7" OF THE FLANGE MAY BE OMITTED FROM THE WELDING REQUIREMENT.
2. FOR STEEL DETAILS, SEE SHEET 45/100.
3. PAINT ALL EXISTING BEAMS TO REMAIN WITH SYSTEM OZEU IN ACCORDANCE WITH CMS514. THE TOPCOAT SHALL BE FEDERAL COLOR 595B-3Y053 (DARK GREEN)

DESIGN AGENCY: PRIME, 540 WHITE POND DR., SUITE E, AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
CRG	CRG	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		3115739	

FRAMING PLAN - UNIT 1

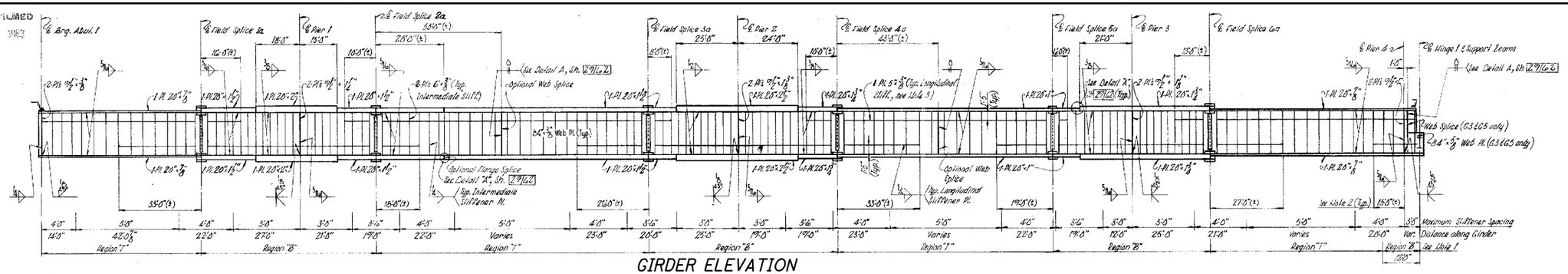
BRIDGE NO. HAM-74-1908R

IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84

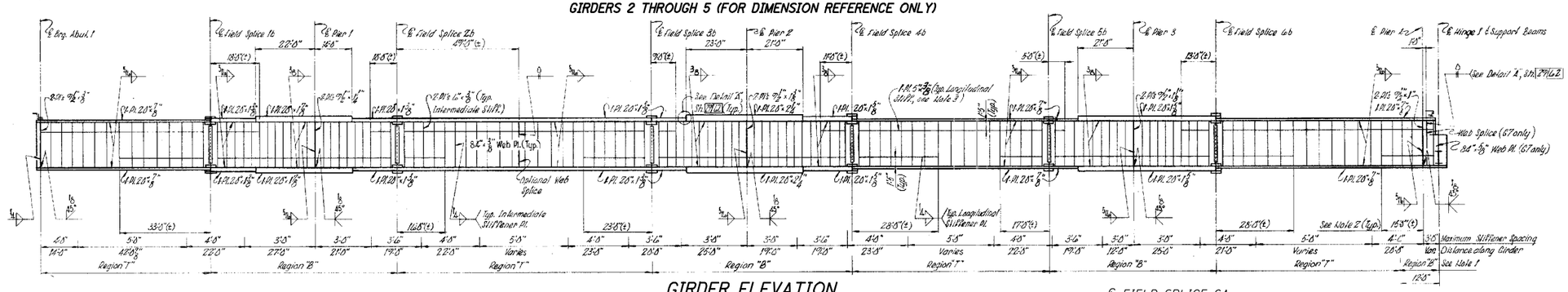
PID No. 104667

42/100



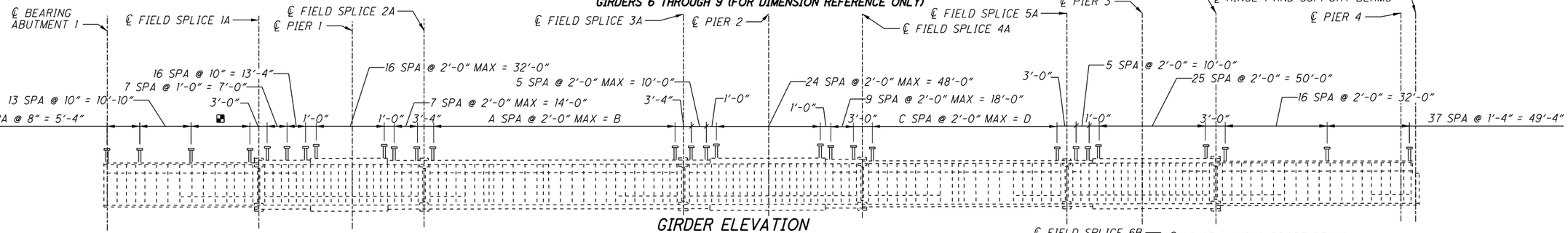
GIRDER ELEVATION

GIRDERS 2 THROUGH 5 (FOR DIMENSION REFERENCE ONLY)



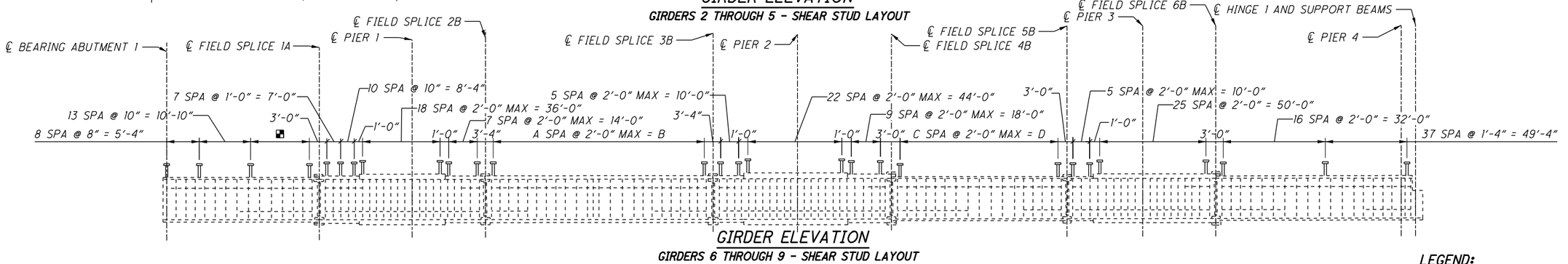
GIRDER ELEVATION

GIRDERS 6 THROUGH 9 (FOR DIMENSION REFERENCE ONLY)



GIRDER ELEVATION

GIRDERS 2 THROUGH 5 - SHEAR STUD LAYOUT



GIRDER ELEVATION

GIRDERS 6 THROUGH 9 - SHEAR STUD LAYOUT

SHEAR STUD SPACING				
	A	B	C	D
G2	53	106.00'	41	82.00'
G3	52	104.00'	41	82.00'
G4	51	102.00'	40	80.00'
G5	51	102.00'	40	80.00'

SHEAR STUD SPACING				
	A	B	C	D
G6	50	100.00'	39	78.00'
G7	49	98.00'	38	76.00'
G8	48	96.00'	37	74.00'
G9	47	94.00'	36	72.00'

LEGEND:

■ - 48 SPA. @ 1'-0" = 48'-0"

NOTES:

1. FOR NOTES, SEE SHEET 42/100.

DESIGN AGENCY
PRIME AE
540 WHITEWOOD DRIVE, SUITE E
AKRON, OH 44320

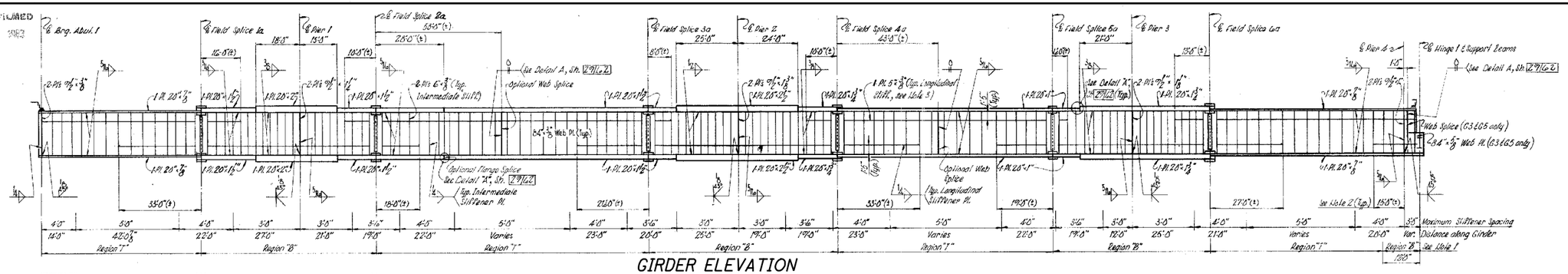
DESIGNED	DRAWN	REVIEWED	DATE
CRG	ADS	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		3115739	

GIRDER ELEVATION DETAILS - UNIT 1 (1 OF 2)
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

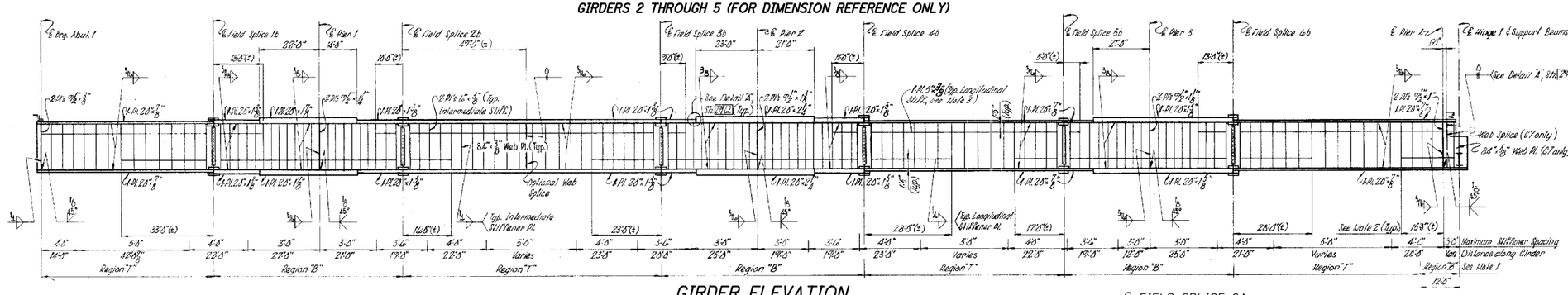
43/100

43
100



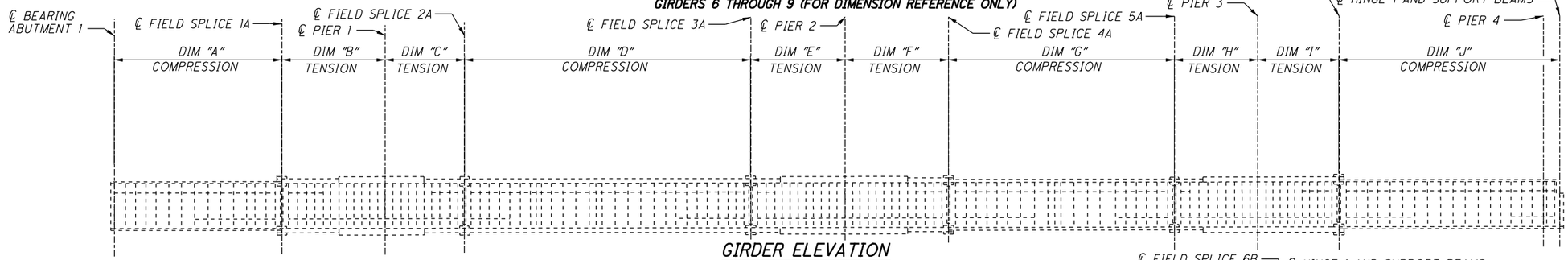
GIRDER ELEVATION

GIRDERS 2 THROUGH 5 (FOR DIMENSION REFERENCE ONLY)



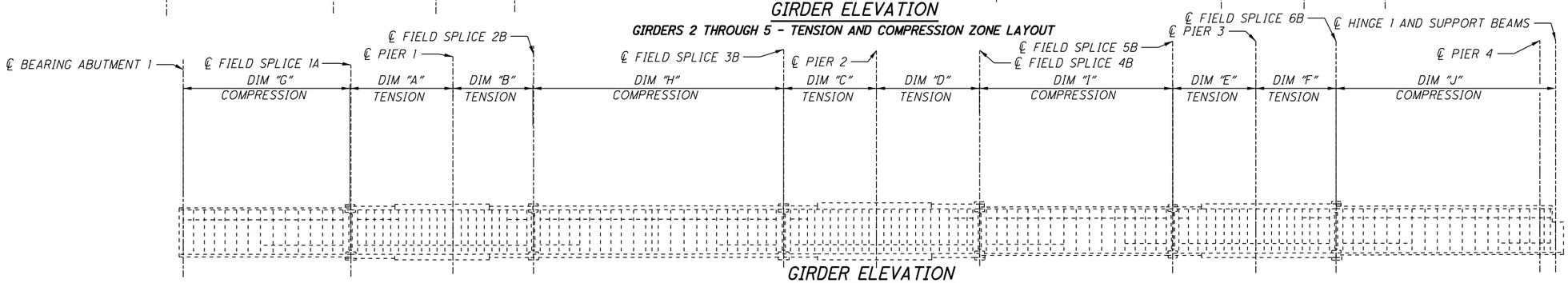
GIRDER ELEVATION

GIRDERS 6 THROUGH 9 (FOR DIMENSION REFERENCE ONLY)



GIRDER ELEVATION

GIRDERS 2 THROUGH 5 - TENSION AND COMPRESSION ZONE LAYOUT



GIRDER ELEVATION

GIRDERS 6 THROUGH 9 - TENSION AND COMPRESSION ZONE LAYOUT

TOP FLANGE TENSION AND COMPRESSION AREAS

GIRDER	DIM "A"	DIM "B"	DIM "C"	DIM "D"	DIM "E"	DIM "F"	DIM "G"	DIM "H"	DIM "I"	DIM "J"
G2	63'-10 3/8"	41'-4"	30'-8 3/4"	104'-10 1/2"	38'-5 1/4"	44'-6 7/8"	81'-5 3/4"	31'-8 7/8"	34'-0 3/4"	81'-11 5/8"
G3	65'-6 7/8"	39'-7 1/8"	30'-9 3/8"	103'-4 3/8"	39'-1 5/8"	43'-4 3/8"	81'-8 3/4"	31'-3 1/2"	33'-3 7/8"	82'-8 1/4"
G4	66'-0"	39'-2 1/8"	30'-9 3/4"	101'-11 3/4"	38'-10 3/4"	43'-3 1/8"	80'-1 5/8"	31'-5 1/2"	33'-4 1/2"	82'-7 5/8"
G5	66'-10 3/8"	38'-3 5/8"	30'-9 3/4"	100'-6 3/8"	38'-8"	42'-9 1/2"	79'-1"	31'-7"	33'-5 1/4"	82'-6 7/8"

TOP FLANGE TENSION AND COMPRESSION AREAS

GIRDER	DIM "A"	DIM "B"	DIM "C"	DIM "D"	DIM "E"	DIM "F"	DIM "G"	DIM "H"	DIM "I"	DIM "J"
G6	66'-11 1/4"	38'-2 3/8"	30'-7 3/4"	99'-11 1/8"	37'-9"	42'-1 1/2"	78'-0 3/4"	31'-9 1/2"	32'-7"	83'-4 7/8"
G7	67'-3 3/8"	37'-10 1/4"	31'-1 1/4"	98'-0 3/4"	37'-5 7/8"	41'-10 7/8"	76'-6 3/4"	32'-0 1/4"	31'-10 1/4"	84'-1 5/8"
G8	67'-5 1/8"	37'-8 1/8"	31'-0"	97'-2 1/8"	36'-9 1/2"	41'-4 1/2"	75'-6 1/2"	32'-1 1/4"	31'-0 1/8"	84'-11 5/8"
G8	67'-2 3/4"	37'-10 3/8"	31'-0 3/4"	96'-1"	35'-11 3/4"	41'-8 1/2"	73'-8 3/4"	32'-1 1/2"	30'-3 7/8"	85'-7 1/8"

NOTES:

1. FOR NOTES, SEE SHEET 42/100.

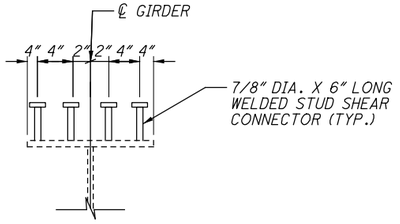
DESIGN AGENCY
PRIME AE
540 WEST MARKET STREET, SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
CRG	ADS	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		3115739	

GIRDER ELEVATION DETAILS - UNIT 1 (2 OF 2)
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

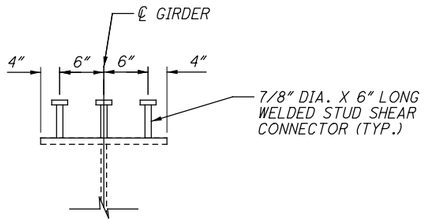
HAM-75-3.84
PID No. 104667

44/100



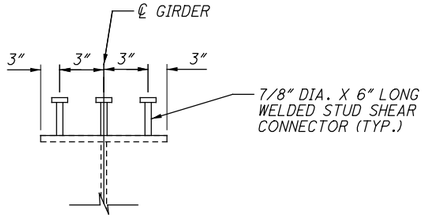
SHEAR CONNECTOR DETAIL

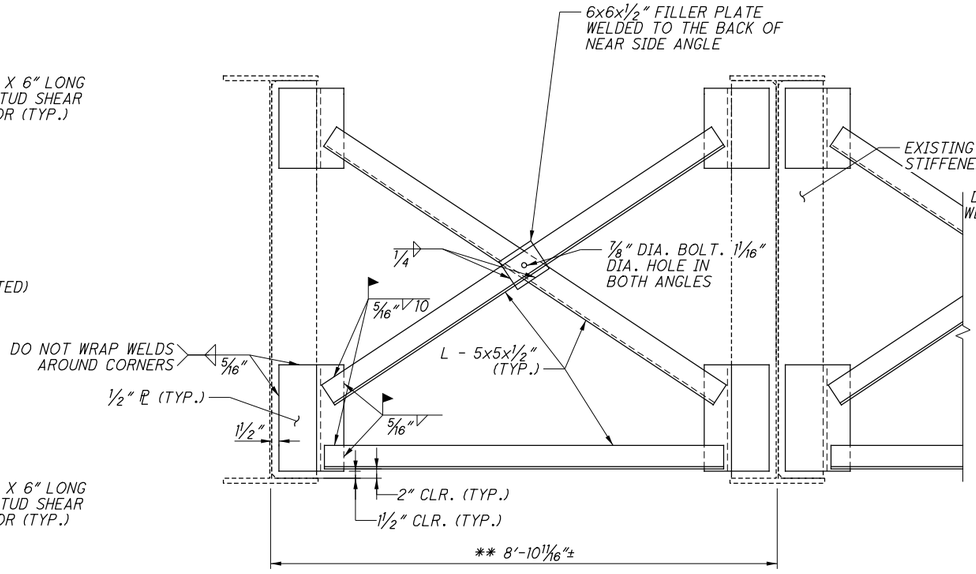
(UNIT 2, GIRDER 9, SPAN 7 ONLY)
(STUD PLACEMENT ON SPLICE PLATES IS NOT PERMITTED)



TYPICAL SHEAR CONNECTOR DETAIL - UNIT 1 & UNIT 2

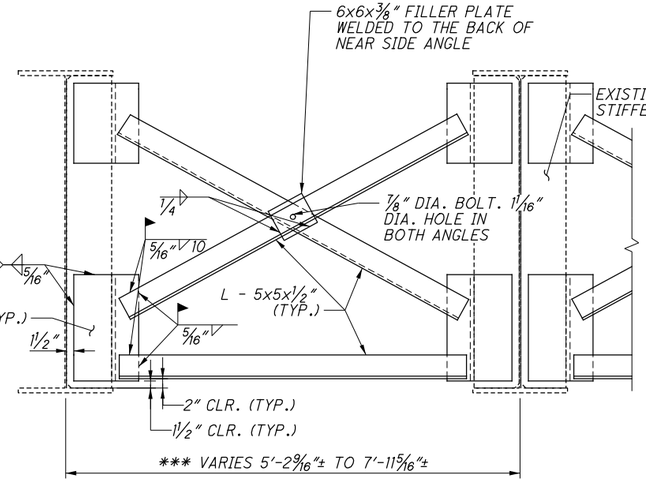
(STUD PLACEMENT ON SPLICE PLATES IS NOT PERMITTED)





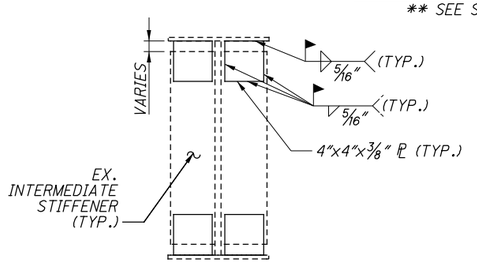
UNIT 1, PIER 2 DIAPHRAGM

** SEE SHEET 42/100



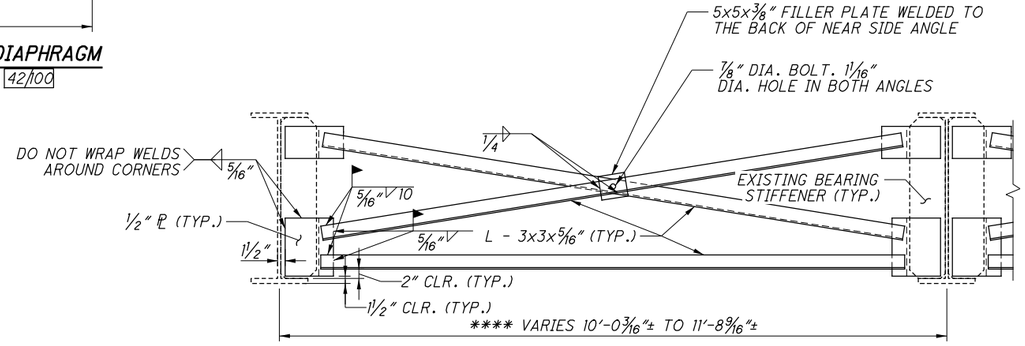
UNIT 2, PIER 5 DIAPHRAGM

*** SEE DIM. "A" IN TABLE A ON SHEET 46/100



OPTIONAL INTERMEDIATE CROSSFRAME EXISTING STIFFENER WELDS

* WELD TERMINATION SHALL BE PER CMS 513.13.

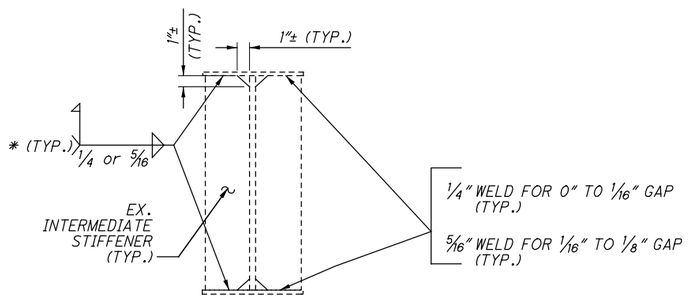


UNIT 6, PIER 18 DIAPHRAGM

**** SEE SHEET 49/100

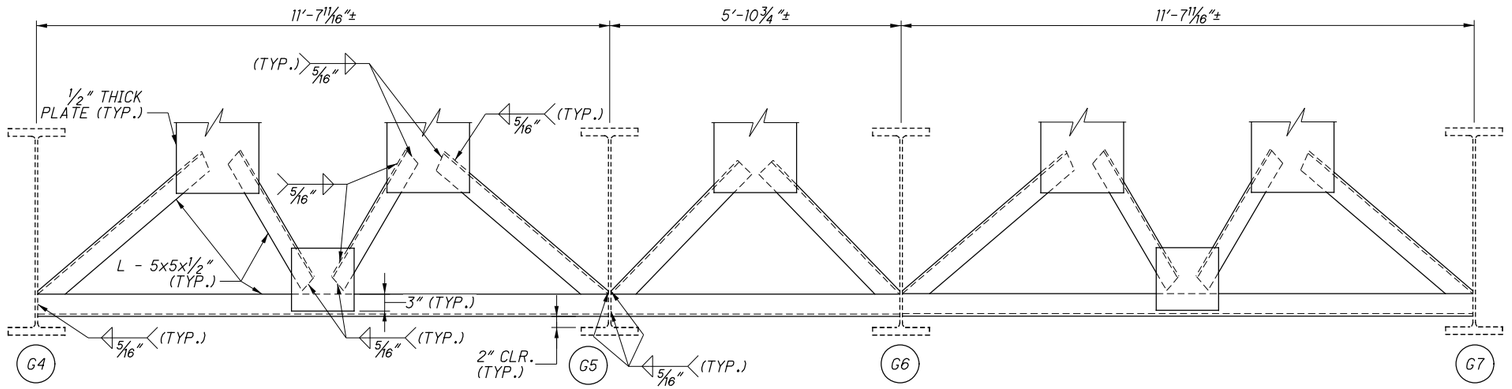
TYPICAL SHEAR CONNECTOR DETAIL - UNIT 6

(STUD PLACEMENT ON SPLICE PLATES IS NOT PERMITTED)



INTERMEDIATE CROSSFRAME EXISTING STIFFENER WELDS

* WELD TERMINATION SHALL BE PER CMS 513.13.



UNIT 2, PIER 7 END CROSSFRAMES

SEE SHEET 46/100

NOTES:

1. SEE STANDARD DRAWING GSD-1-96 FOR ADDITIONAL CROSSFRAME DETAILS AND NOTES.
2. FOR EXPANSION JOINT DETAILS, SEE SHEET **83/100**.

DESIGN AGENCY
PRIME AE
540 WEST POOL PLACE, SUITE E
NEWTOWN, OH 45220

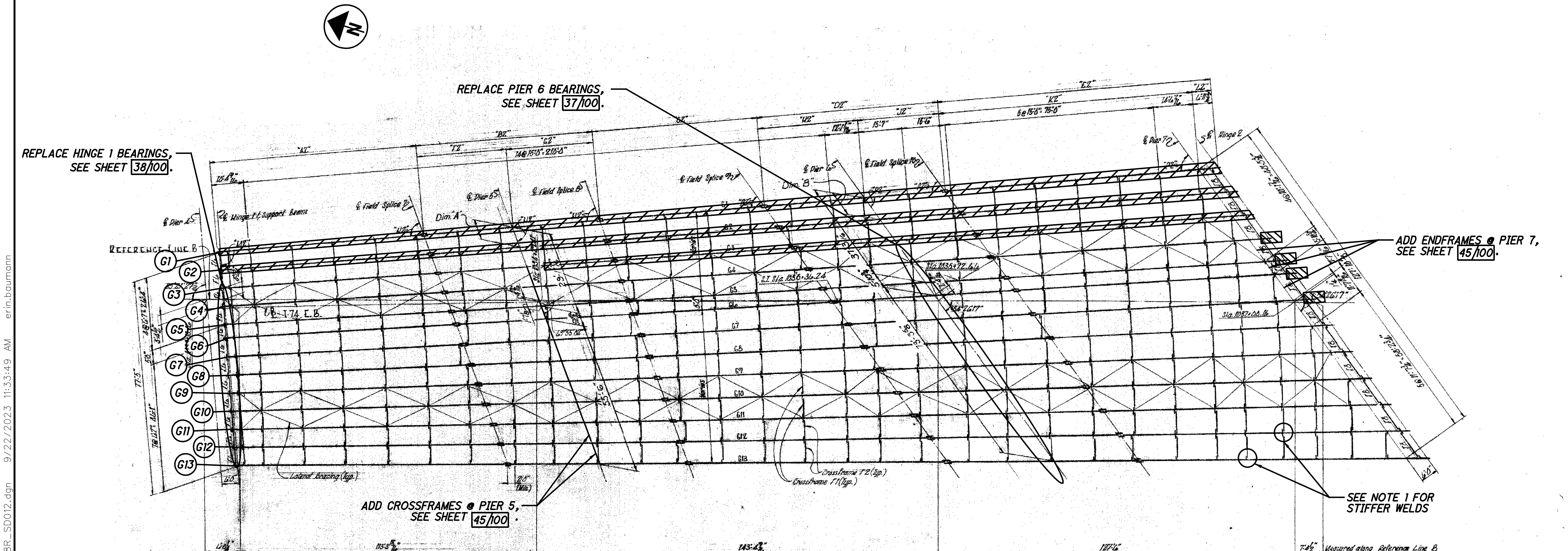
DESIGNED	DRAWN	REVIEWED	DATE
CRG	CRG	TES	7/30/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		3115739	

STEEL DETAILS
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

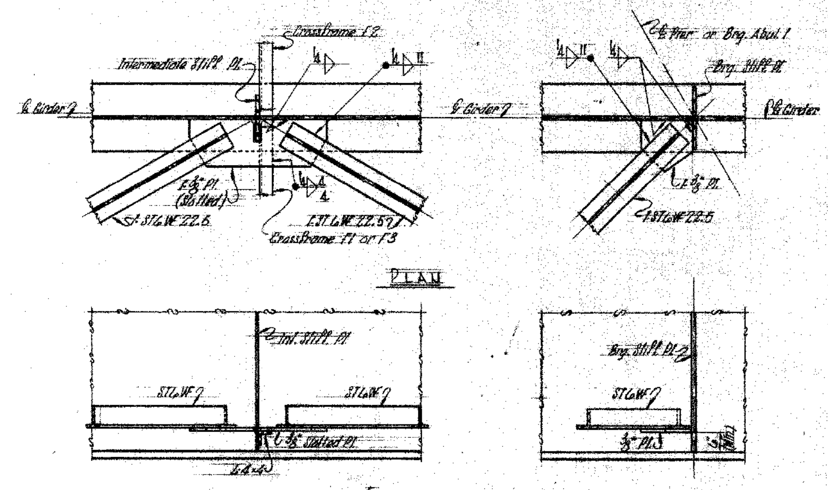
HAM-75-3.84
PID No. 104667

45/100

45
100



EXISTING FRAMING PLAN - UNIT NO. 2



LATERAL BRACING DETAILS

TABLE A:

	Girder Spacing along ℄ Piers 5 & 6 Dim."A"	Girder Spacing along ℄ Piers 5 & 6 Dim."B"
~~G1 to G2~~	~~7'-5 3/4"~~	9'-3 7/16"
~~G2 to G3~~	~~7'-5 13/16"~~	9'-3 11/16"
G3 to G4	7'-5 15/16"	9'-3 7/8"
G4 to G5	7'-5 15/16"	9'-4 1/16"
G5 to G6	5'-2 9/16"	5'-10 3/4"
G6 to G7	7'-10 15/16"	10'-4 3/4"
G7 to G8	7'-11 1/16"	10'-5 1/16"
G8 to G9	7'-11 1/8"	10'-5 3/8"
G9 to G10	7'-11 1/8"	10'-5 11/16"
G10 to G11	7'-11 3/16"	10'-5 15/16"
G11 to G12	7'-11 1/4"	10'-6 1/4"
G12 to G13	7'-11 5/16"	10'-6 9/16"

GIRDER	DIMENSIONS											ANGLES		
	A2	B2	C2	D2	E2	F2	G2	H2	J2	K2	L2	M2	N2	P2
G1	73'-4 9/16"	63'-2 5/8"	59'-9 13/16"	65'-1 1/2"	98'-6 3/16"	32'-1 1/2"	31'-1 1/8"	36'-0 5/8"	29'-0 7/8"	91'-6 9/16"	6'-11 3/4"	90°13'18"	74°46'54"	59°18'09"
G2	75'-3 13/16"	63'-3 13/16"	62'-5"	65'-4 1/4"	98'-10 1/2"	32'-2 1/8"	31'-1 11/16"	36'-2 1/8"	29'-2 1/8"	91'-10 7/16"	7'-0 1/16"	89°53'00"	74°26'35"	58°57'50"
G3	77'-3 3/16"	63'-5 1/16"	65'-0 3/8"	65'-7"	99'-2 5/8"	32'-2 3/4"	31'-2 5/16"	36'-3 11/16"	29'-3 5/16"	92'-2 5/16"	7'-0 5/16"	89°33'15"	74°06'50"	58°38'05"
G4	79'-2 9/16"	63'-6 5/16"	67'-7 15/16"	65'-9 11/16"	99'-6 11/16"	32'-3 3/8"	31'-2 15/16"	36'-5 1/8"	29'-4 9/16"	92'-6 1/16"	7'-0 5/8"	89°14'03"	73°47'39"	58°18'54"
G5	81'-2"	63'-7 1/2"	70'-3 11/16"	66'-0 3/8"	99'-10 3/4"	32'-4"	31'-3 1/2"	36'-6 5/8"	29'-5 3/4"	92'-9 7/8"	7'-0 7/8"	88°55'24"	73°28'59"	58°00'14"
G6	82'-6 11/16"	63'-7 1/2"	71'-11 3/8"	66'-0 3/8"	99'-10 3/4"	32'-4"	31'-3 1/2"	36'-6 5/8"	29'-5 3/4"	92'-9 7/8"	7'-0 7/8"	88°55'24"	73°28'59"	58°00'14"
G7	84'-7 1/4"	63'-9 1/2"	74'-11 3/16"	66'-4 1/16"	100'-5 1/4"	32'-5"	31'-4 1/2"	36'-9"	29'-7 1/16"	93'-3 7/8"	7'-1 3/8"	88°25'52"	72°59'27"	57°30'42"
G8	86'-7 15/16"	63'-11 7/16"	77'-1 1/4"	66'-8 15/16"	100'-11 3/4"	32'-6"	31'-5 7/16"	36'-11 3/8"	29'-9 9/16"	93'-9 15/16"	7'-1 13/16"	87°57'15"	72°30'50"	57°02'05"
G9	88'-8 11/16"	64'-1 7/16"	80'-11 5/8"	67'-1 3/16"	101'-6 1/8"	32'-7"	31'-6 7/16"	37'-1 3/4"	29'-11 7/16"	94'-3 7/8"	7'-2 1/4"	87°29'30"	72°03'06"	56°34'21"
G10	90'-9 5/8"	64'-3 7/16"	84'-0 5/16"	67'-5 3/8"	102'-0 1/2"	32'-8 1/16"	31'-7 3/8"	37'-4 1/16"	30'-1 5/16"	94'-9 3/4"	7'-2 3/4"	87°02'36"	71°36'11"	56°07'26"
G11	92'-10 5/8"	64'-5 3/8"	87'-1/4"	67'-9 9/16"	102'-6 13/16"	32'-9"	31'-8 3/8"	37'-6 3/8"	30'-3 3/16"	95'-3 5/8"	7'-3 3/16"	86°36'30"	71°10'05"	55°41'20"
G12	94'-11 3/4"	64'-7 3/8"	90'-2 7/16"	68'-1 11/16"	103'-1 1/16"	32'-10 1/16"	31'-9 5/16"	37'-8 5/8"	30'-5 1/16"	95'-9 7/16"	7'-3 5/8"	86°11'10"	70°44'45"	55°16'00"
G13	97'-0 15/16"	64'-9 5/16"	93'-3 15/16"	68'-5 13/16"	103'-7 1/4"	32'-11"	31'-10 5/16"	37'-10 15/16"	30'-6 7/8"	96'-8 3/16"	7'-4 1/16"	85°46'34"	70°20'10"	54°51'25"

LEGEND:

- INDICATES LIMITS OF BEAM REMOVAL (S1-P2-S3)
- INDICATES LIMITS OF BEAM REMOVAL (S1-P2-S2)

NOTES:

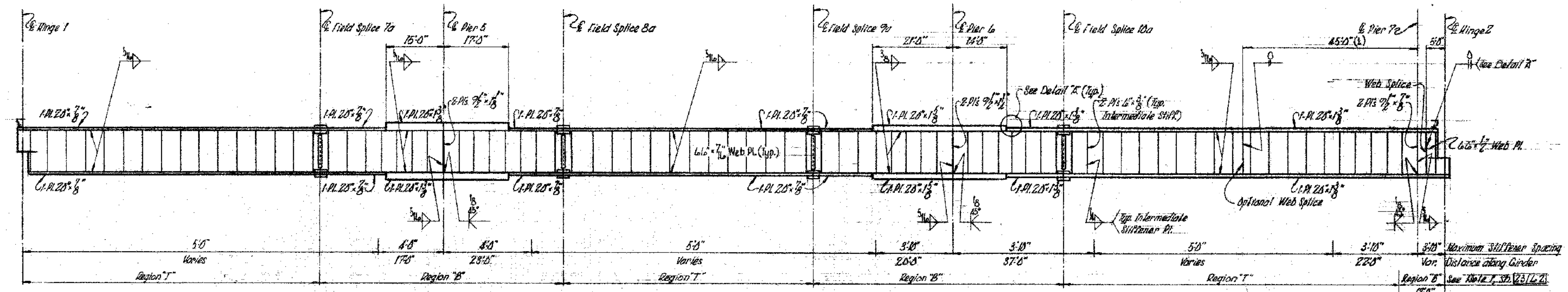
1. FOR NOTES, SEE SHEET 42/100.

DESIGN AGENCY
PRIME AE
540 WHITE POND DR., SUITE E
AKRON, OH 44320

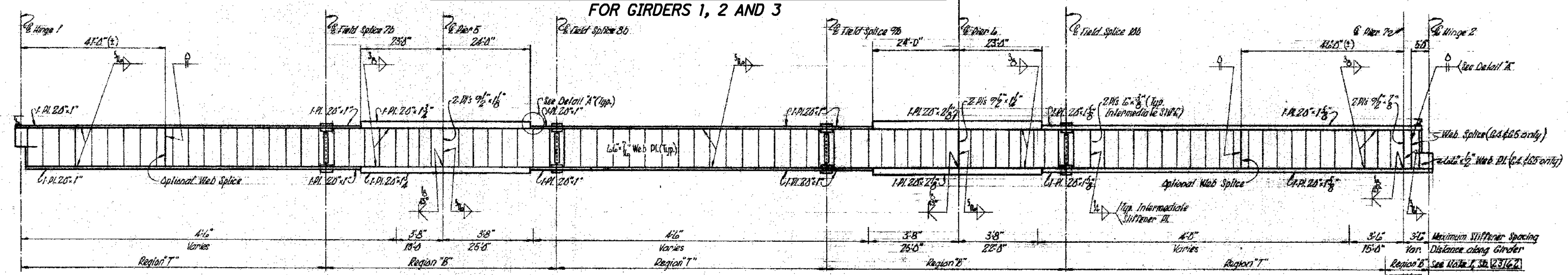
DESIGNED	DRAWN	REVIEWED	DATE
CRG	CRG	TES	7/30/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CCJ		3115739	

FRAMING PLAN - UNIT 2
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

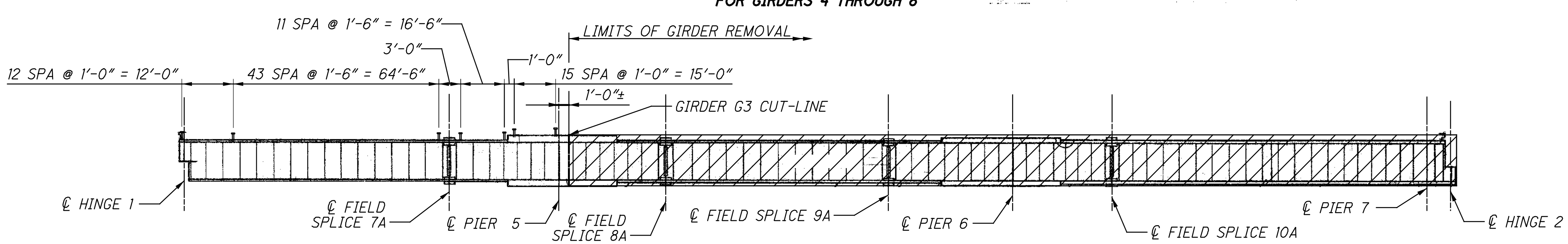
HAM-75-3.84
PID No. 104667



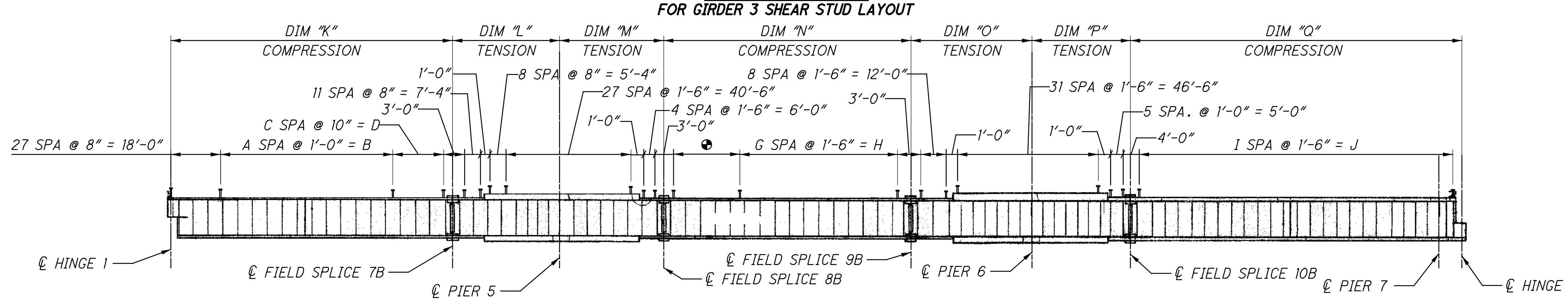
GIRDER ELEVATION (FOR DIMENSION REFERENCE ONLY)
FOR GIRDERS 1, 2 AND 3



GIRDER ELEVATION (FOR DIMENSION REFERENCE ONLY)
FOR GIRDERS 4 THROUGH 8



GIRDER ELEVATION
FOR GIRDER 3 SHEAR STUD LAYOUT



GIRDER ELEVATION
FOR GIRDERS 4 THROUGH 8 SHEAR STUD LAYOUT

SHEAR STUD SPACING										
	A	B	C	D	E	F	G	H	I	J
G4	29	43.50'	20	16.67'	43	21.50'	30	45.00'	65	97.50'
G5	30	45.00'	20	16.67'	45	22.50'	31	46.50'	65	97.50'
G6	31	46.50'	20	16.67'	47	23.50'	32	48.00'	65	97.50'
G7	31	46.50'	23	19.17'	49	24.50'	33	49.50'	65	97.50'
G8	32	48.00'	23	19.17'	52	26.00'	34	51.00'	66	99.00'

TOP FLANGE TENSION AND COMPRESSION ZONES							
GIRDER	DIM "K"	DIM "L"	DIM "M"	DIM "N"	DIM "O"	DIM "P"	DIM "Q"
G4	86'-7 3/8"	25'-1 1/4"	36'-7 1/2"	60'-0 1/8"	36'-6 1/4"	26'-10 1/2"	102'-0 1/2"
G5	83'-4 1/2"	30'-4"	33'-3 1/4"	68'-5 3/8"	36'-3 5/8"	28'-1 1/2"	101'-3"
G6	83'-2"	31'-11"	31'-7 7/8"	70'-11 1/4"	37'-1"	29'-3 3/8"	100'-1 1/8"
G7	84'-11 3/8"	32'-3 1/8"	32'-3 1/2"	72'-1 1/4"	38'-7"	29'-2 1/2"	100'-10 1/2"
G8	86'-1 1/8"	33'-2 3/8"	33'-2 5/8"	75'-11 3/4"	37'-1 1/4"	29'-3 3/8"	101'-5 1/8"

LEGEND:

● - E SPA @ 6" = F

NOTES:

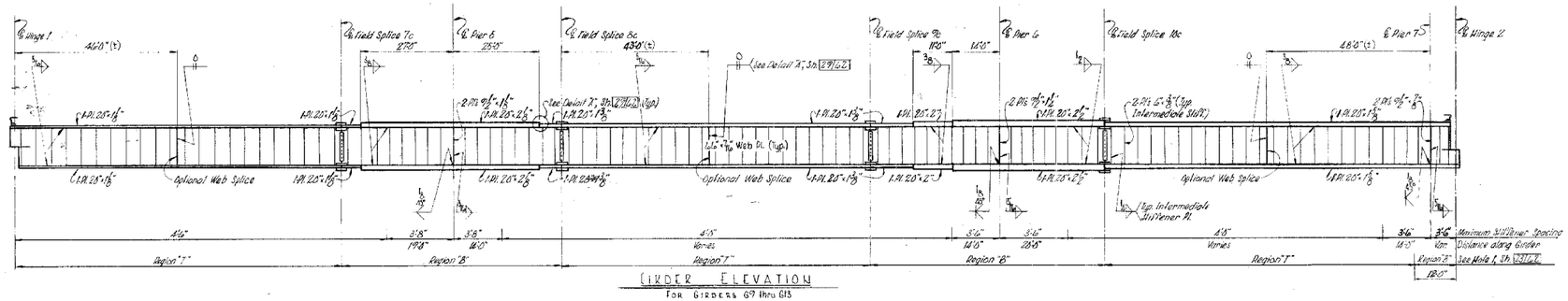
1. FOR NOTES, SEE SHEET 42/100.
2. 1" STEEL PIPE AND SHEAR STUDS LEFT IN PLACE ON GIRDER 4 FROM PIER 5 TO HINGE 2. STEEL PIPE WAS USED FOR BIDWELL RAIL DURING DECK POUR. PIPES ARE UNDER PARAPET AND WERE FILLED WITH SCC DURING PARAPET POURS.
3. 1" STEEL PIPE AND SHEAR STUDS LEFT IN PLACE ON GIRDER 4 FROM PIER 5 TO HINGE 2.
4. STEEL PIPE WAS USED FOR BIDWELL RAIL DURING DECK POUR.
5. PIPES ARE UNDER PARAPET AND WERE FILLED WITH SCC DURING PARAPET POURS.

DESIGN AGENCY
PRIME
540 WHITE POND DR., SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
CRG	CRG	TES	7/30/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		3115739	

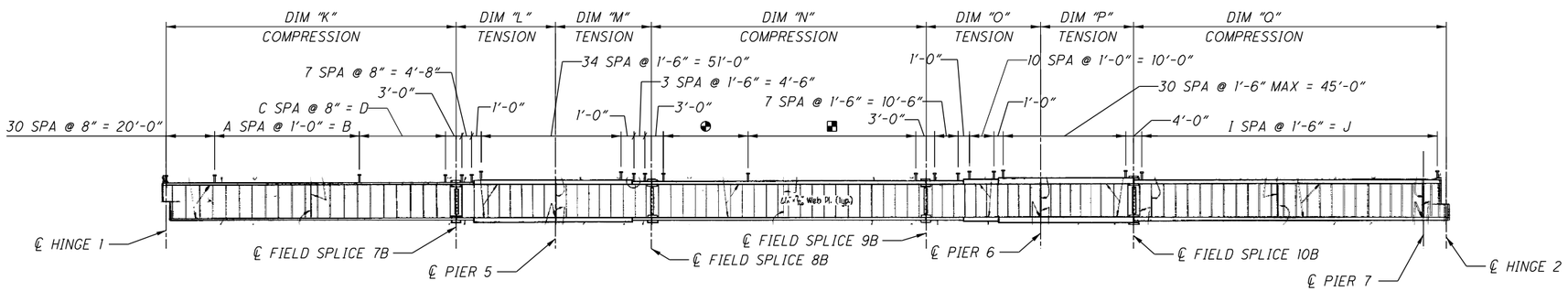
GIRDER ELEVATION DETAILS - UNIT 2 (1 OF 2)
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667



GIRDER ELEVATION
FOR GIRDERS G9 thru G13

GIRDER ELEVATION (FOR DIMENSION REFERENCE ONLY)
FOR GIRDERS 9 THROUGH 13



GIRDER ELEVATION
FOR GIRDERS 9 THROUGH 13 SHEAR STUD LAYOUT

SHEAR STUD SPACING										
	A	B	C	D	E	F	G	H	I	J
G9	40	40.00'	41	27.33'	54	27.00'	34	51.00'	61	91.50'
G10	41	41.00'	43	28.67'	56	28.00'	36	54.00'	61	91.50'
G11	42	42.00'	45	30.00'	59	29.50'	37	55.50'	62	93.00'
G12	43	43.00'	46	30.67'	62	31.00'	38	57.00'	62	93.00'
G13	44	44.00'	48	32.00'	64	32.00'	39	58.50'	62	93.00'

TOP FLANGE TENSION AND COMPRESSION ZONES							
GIRDER	DIM "K"	DIM "L"	DIM "M"	DIM "N"	DIM "O"	DIM "P"	DIM "O"
G9	85'-6 3/8"	35'-10 7/8"	33'-2 1/4"	79'-3 1/2"	37'-1 1/8"	31'-8 3/4"	99'-7 7/8"
G10	87'-0 3/8"	36'-7"	33'-6 3/4"	81'-5 1/8"	37'-10 1/2"	32'-5"	99'-7 7/8"
G11	88'-6 3/4"	37'-2 5/8"	34'-10 1/8"	85'-3 3/4"	36'-0 1/8"	32'-9 3/4"	99'-11 1/2"
G12	89'-10 1/2"	38'-1 3/8"	35'-9 7/8"	86'-6 1/2"	37'-1 1/2"	33'-7 1/8"	99'-9 3/4"
G13	90'-7 3/8"	39'-6 3/4"	36'-0 3/4"	89'-3 1/8"	37'-5 1/2"	33'-4 1/2"	100'-9 5/8"

LEGEND:

- ◒ - E SPA. @ 6" = F
- ◪ - G SPA. @ 1'-6" = H

NOTES:

1. FOR INTERMEDIATE CROSSFRAME STIFFNER WELD DETAILS AND SHEAR STUD DETAILS, SEE SHEET 45/100.

DESIGN AGENCY
PRIME AE
540 WHITE POND DR, SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
CRG	JAT	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		3115739	

GIRDER ELEVATION DETAILS - UNIT 2 (2 OF 2)
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

48/100

48
100

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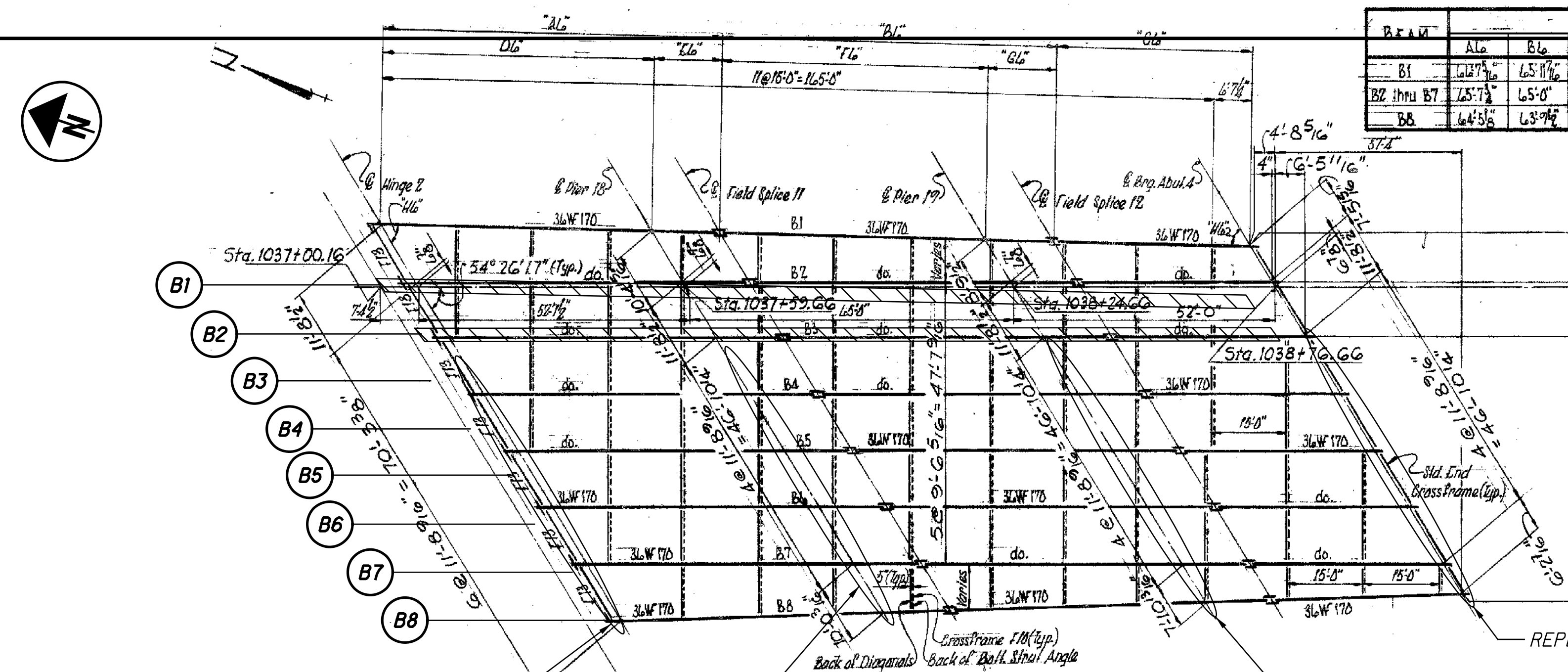


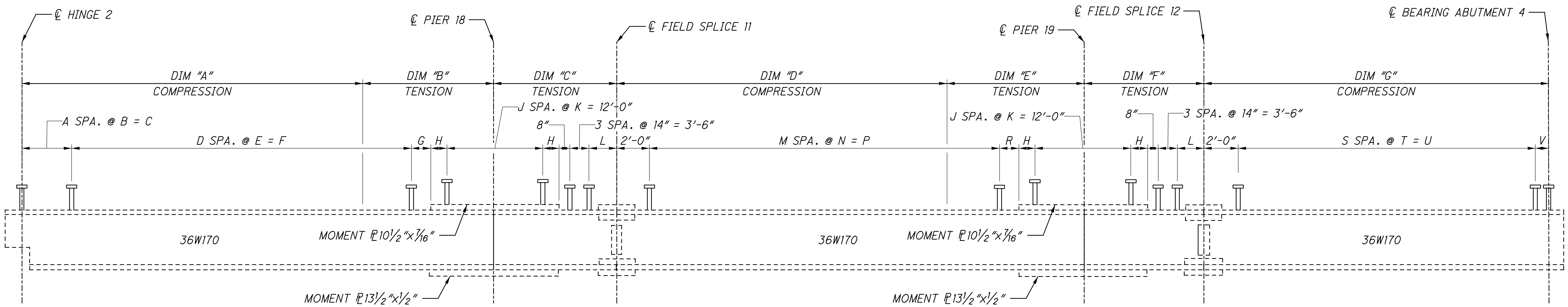
REPLACE BEARINGS AT HINGE 2, SEE SHEET 38/100.

ADD TYPE F9 CROSSFRAMES AT PIER 18, SEE SHEET 45/100.

REPLACE PIER 19 BEARINGS, SEE SHEET 37/100.

REPLACE BEARINGS AT ABUTMENT 4, SEE SHEET 37/100.

FRAMING PLAN - UNIT NO. 6



BEAM ELEVATION

(FOR DIMENSION REFERENCE ONLY)

SHEAR STUD SPACING																			
BEAM	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S	T	U	V
B3	6	11"	5'-6"	42	11"	38'-6"	1'-0½"	1'-1"	6	2'-0"	2'-3¼"	50	10"	41'-8"	1'-4"	48	9"	36'-0"	0'-5¾"
B4-B7	8	8"	5'-4"	52	9"	39'-0"	0'-8½"	0'-9½"	9	1'-4"	2'-3¼"	56	9"	42'-0"	1'-0"	48	9"	36'-0"	0'-5¾"
B8	8	8"	5'-4"	51	9"	38'-3"	0'-5⅞"	1'-1"	6	2'-0"	2'-0¼"	50	10"	41'-8"	1'-4"	26	1'-4"	34'-8"	1'-1⅛"

TOP FLANGE TENSION AND COMPRESSION AREAS							
GIRDER	DIM "A"	DIM "B"	DIM "C"	DIM "D"	DIM "E"	DIM "F"	DIM "G"
B3	37'-9¾"	14'-3¾"	13'-10⅜"	36'-5⅞"	14'-8¾"	13'-7⅜"	39'-1¾"
B4-B7	38'-1½"	14'-0"	14'-3"	36'-3⅞"	14'-6"	13'-8⅞"	38'-3⅛"
B8	38'-6½"	12'-7⅜"	15'-10¼"	36'-6⅛"	11'-6⅛"	16'-7⅞"	34'-4⅝"

LEGEND:

- INDICATES LIMITS OF BEAM REMOVAL (S1-P2-S2)

DESIGN AGENCY: PRIME, 540 WHITE POND DR., SUITE E, AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
JAT	ADS	TES	7/30/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CCJ		3115739	

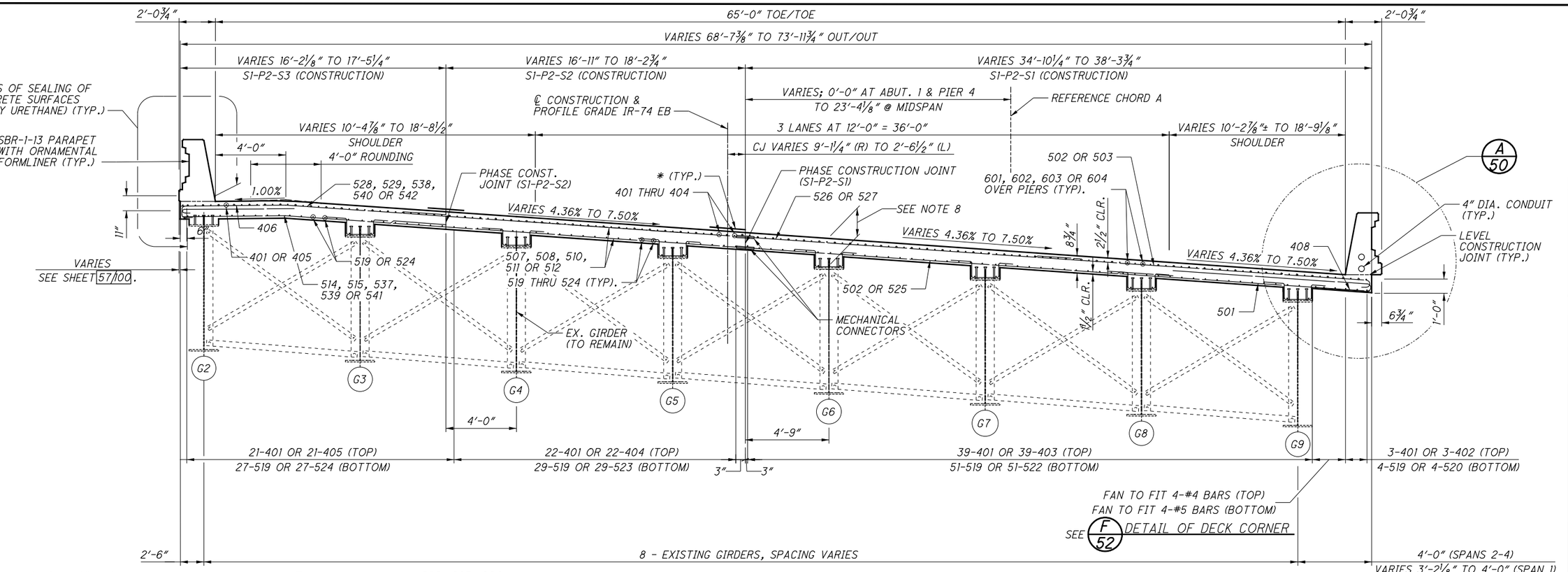
FRAMING PLAN - UNIT 6 (PAGE 1 OF 2)

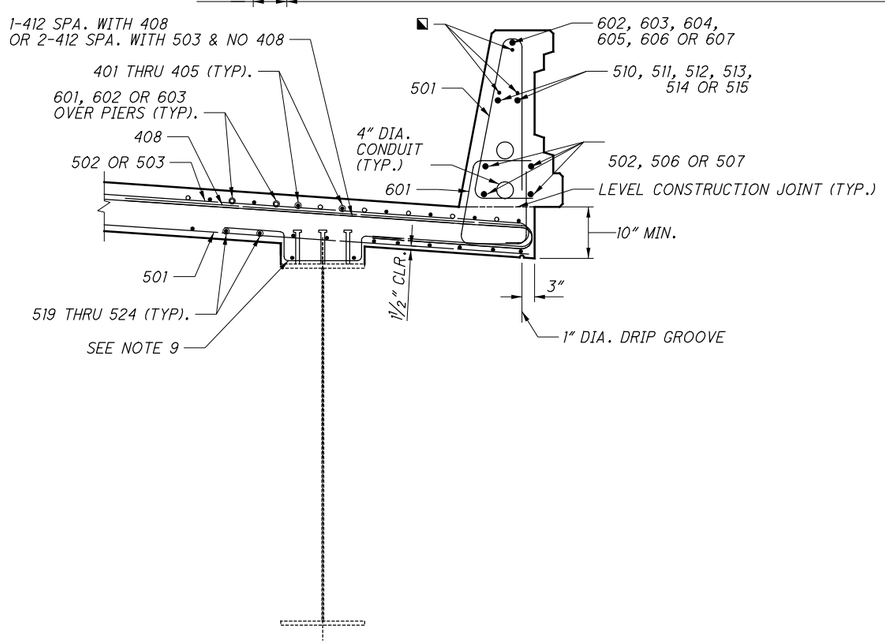
BRIDGE NO. HAM-74-1908R

IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84

PID No. 104667





TRANSVERSE SECTION - UNIT 1

(ABUTMENT NO. 1 TO HINGE NO. 1)

A 50 SLAB OVERHANG DETAIL

MIN. REQUIRED LAP LENGTH	
#4 LONGITUDINAL	1'-11"
#5 TRANSVERSE (TOP)	2'-5"
#5 TRANSVERSE (BOT.)	3'-0"
#5 LONGITUDINAL	2'-5"
#6 LONGITUDINAL	3'-7"

LEGEND:

◥ - ½" DIA. GLASS FIBER REINFORCED POLYMER (GFRP) STIFFENING REINFORCEMENT

SX-PX-SX - STAGE X, PHASE X, STEP X

✱ HMWM RESIN, 2'-0" WIDE, CENTERED ON JOINT, FULL LENGTH OF JOINT.

NOTES:

1. TRANSVERSE SECTIONS DRAWN LOOKING UPSTATION.
2. SIP FORMS CAN BE USED OVER MILL CREEK AND THE RAILROAD.
3. FOR FRAMING PLAN SEE SHEET 42/100.
4. FOR CROSSFRAME DETAILS SEE SHEET 45/100.
5. THE PREFIX "1S" SHALL BE ADDED TO ALL BAR MARKS FOR UNIT 1 AND "1R" FOR UNIT 1 RAILING.
6. FOR FINAL DECK ELEVATIONS, SEE SHEET 73/100 & 74/100 .
7. FOR DECK PLAN, SEE SHEETS 51/100 AND 52/100.
8. FOR ESTIMATED HAUNCH THICKNESSES, SEE SHEET 75/100.
9. FOR AS-BUILT HAUCH MODIFICATION DETAILS SEE SHEET 54/100.

DESIGN AGENCY
PRIME AE
540 WHITE POND DR. SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
CRG	JAT	TES	7/30/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		3115739	

TRANSVERSE SECTION - UNIT 1
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

50/100

50/100

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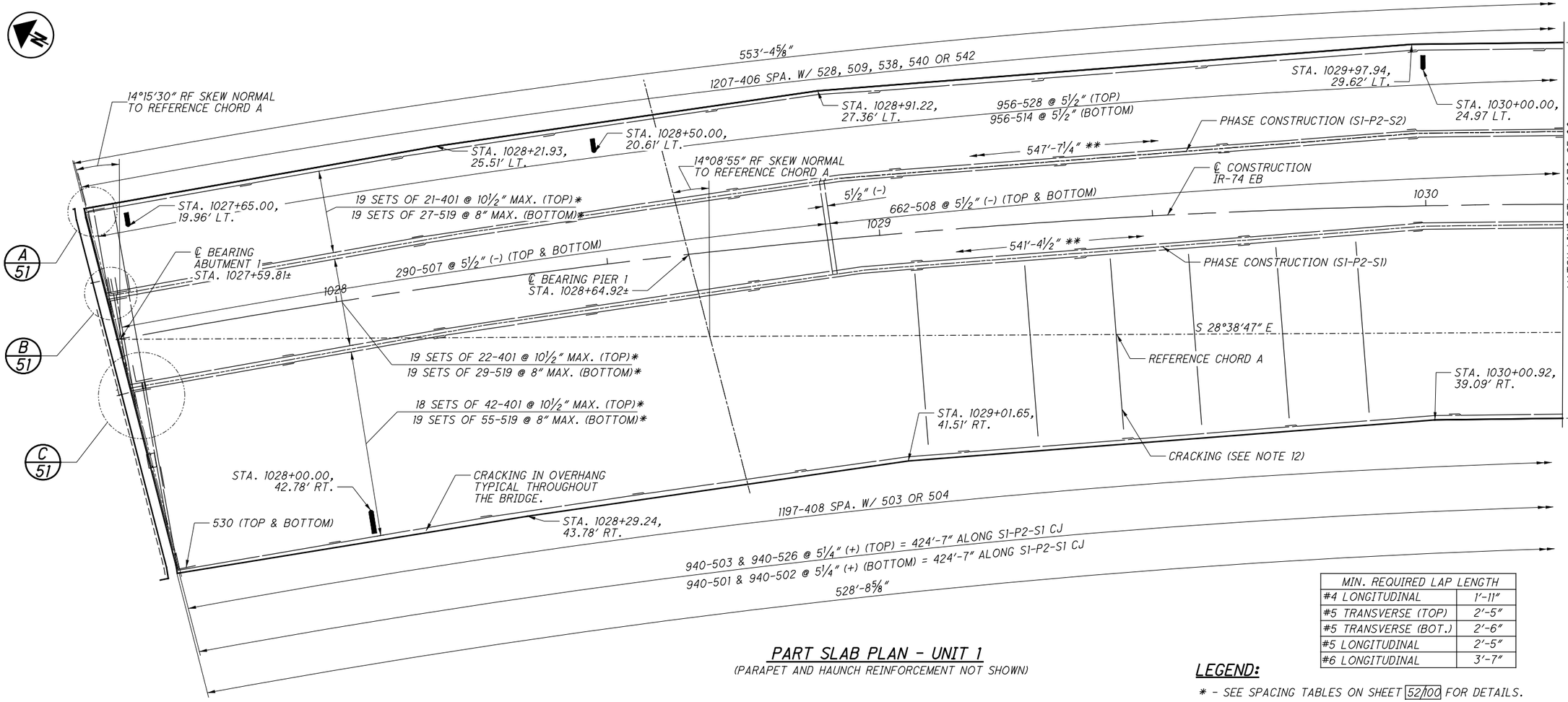
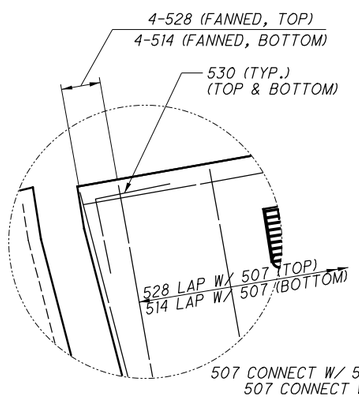


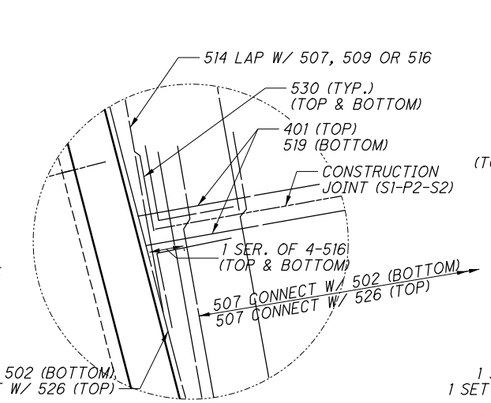
PART SLAB PLAN - UNIT 1

(PARAPET AND HAUNCH REINFORCEMENT NOT SHOWN)

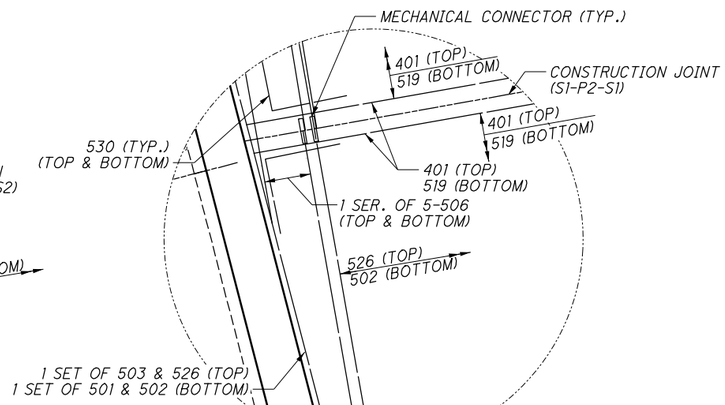
MIN. REQUIRED LAP LENGTH	
#4 LONGITUDINAL	1'-11"
#5 TRANSVERSE (TOP)	2'-5"
#5 TRANSVERSE (BOT.)	2'-6"
#5 LONGITUDINAL	2'-5"
#6 LONGITUDINAL	3'-7"



A 51 DETAIL OF DECK CORNER



B 51 DETAIL OF DECK CORNER



C 51 DETAIL OF DECK CORNER

LEGEND:

* - SEE SPACING TABLES ON SHEET 52/100 FOR DETAILS.

** - MEASURED ALONG PHASE CONSTRUCTION LINE

▬ - TYPE 1 SCUPPER

▬ - TYPE 2 SCUPPER

NOTES:

1. FOR TRANSVERSE SECTION, SEE SHEET 50/100.
2. FOR LONGITUDINAL BAR SPACING OVER PIERS, SEE SHEET 53/100.
3. FOR EXPANSION JOINT DETAIL, SEE SHEET 83/100.
4. FOR PARAPET DETAILS, SEE SHEET 55/100 THRU 57/100 .
5. FOR FINAL DECK ELEVATIONS, SEE SHEET 72/100 THRU 74/100 .
6. FOR REINFORCING STEEL LIST, SEE SHEET 95/100.
7. REBAR CLEARANCE MEASURED TO THE FACE OF CONCRETE SHALL BE 2" UNLESS OTHERWISE NOTED.
8. FIELD BEND LONGITUDINAL BARS TO FIT CURVATURE OF ROADWAY AND TRANSVERSE BARS TO FIT CROWN. EPOXY COATED BARS DAMAGED BY FIELD BENDING SHALL BE REPAIRED IN ACCORDANCE WITH CMS 509.
9. THE PREFIX "IS" SHALL BE ADDED TO ALL BAR MARKS IN UNIT 1 SUPERSTRUCTURE.
10. FOR TYPE 1 SCUPPER DETAILS, SEE SHEET 92/100.
11. MOVE SCUPPER LOCATIONS AS NECESSARY TO AVOID CROSS FRAMES.
12. CRACK WIDTH 0.01 TO 0.016 INCHES (TYPICAL).

DESIGN AGENCY
PRIME AE
540 WEST POINT DR., SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
CRG	JAT	TES	7/30/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		3115739	

SLAB PLAN - UNIT 1 (1 OF 2)
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

51/100

51/100

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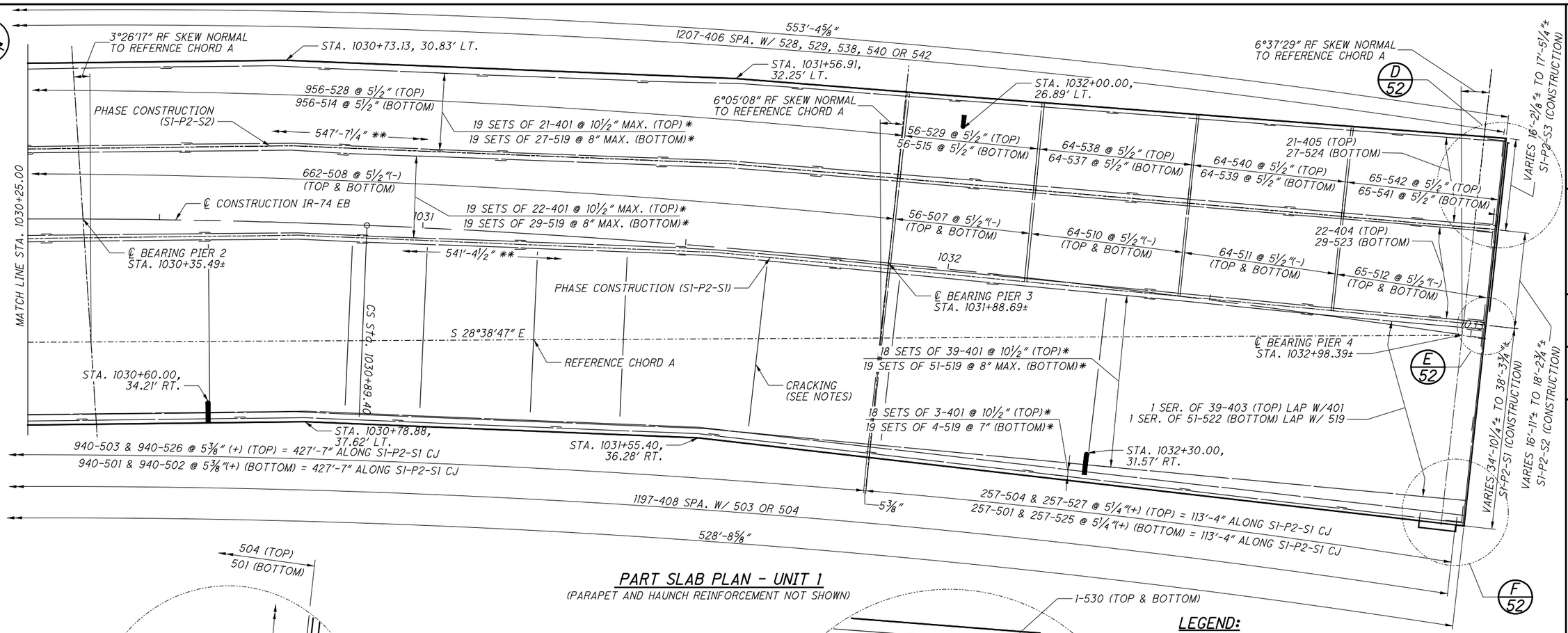
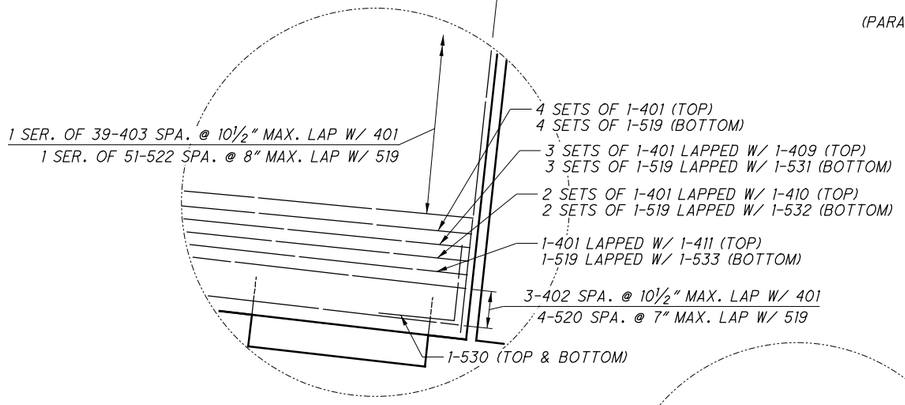
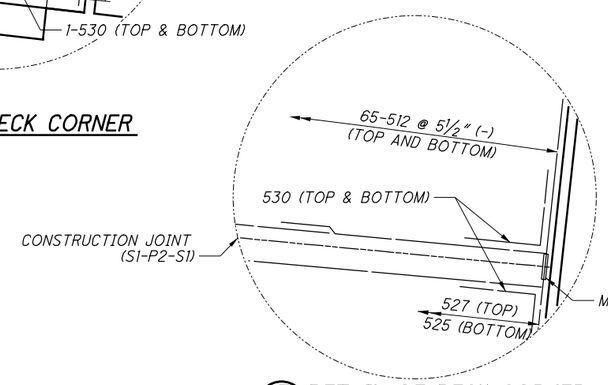


PART SLAB PLAN - UNIT 1

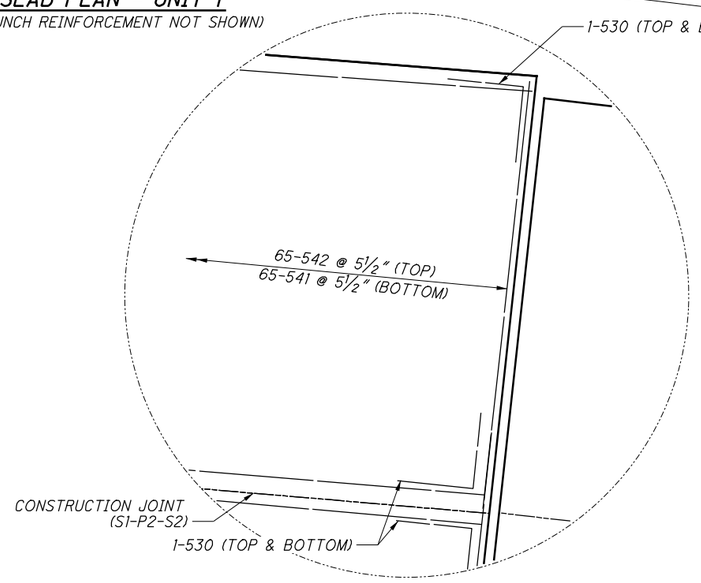
(PARAPET AND HAUNCH REINFORCEMENT NOT SHOWN)



F 50, 52 DETAIL OF DECK CORNER



E 52 DETAIL OF DECK CORNER



D 52 DETAIL OF DECK CORNER

MIN. REQUIRED LAP LENGTH	
#4 LONGITUDINAL	1'-11"
#5 TRANSVERSE (TOP)	2'-5"
#5 TRANSVERSE (BOT.)	3'-0"
#5 LONGITUDINAL	2'-5"
#6 LONGITUDINAL	3'-7"

LEGEND:

* - SEE LONGITUDINAL SPACING TABLES

** - MEASURED ALONG PHASED CONSTRUCTION LINE

S1-P2-S1 (CONSTRUCTION) LONGITUDINAL BAR SPACING					
		TOP BARS		BOTTOM BARS	
LOCATION	WIDTH	NO. BARS	SPACING	NO. BARS	SPACING
REAR ABUTMENT	34'-10¼"	42	10" (+)	54	7⅝" (+)
PIER 1	35'-8⅝"	42	10¼" (+)	54	8" (-)
PIER 2	35'-4⅞"	42	10¼" (-)	54	7⅞" (-)
PIER 3	36'-0⅛"	42	10⅜" (+)	58	VARIES
PIER 4	38'-3¾"	45	10⅜" (-)	58	8" (-)

S1-P2-S2 (CONSTRUCTION) LONGITUDINAL BAR SPACING					
		TOP BARS		BOTTOM BARS	
LOCATION	WIDTH	NO. BARS	SPACING	NO. BARS	SPACING
REAR ABUTMENT	17'-3¼"	22	9⅝" (-)	28	7½" (-)
PIER 1	17'-2⅜"	22	9½" (+)	28	7⅜" (-)
PIER 2	16'-11⅞"	22	9⅜" (+)	28	7⅜" (-)
PIER 3	17'-3¼"	22	9⅝" (-)	28	7½" (-)
PIER 4	18'-2¾"	22	10⅛" (+)	28	7⅛" (+)

S1-P2-S3 (CONSTRUCTION) LONGITUDINAL BAR SPACING					
		TOP BARS		BOTTOM BARS	
LOCATION	WIDTH	NO. BARS	SPACING	NO. BARS	SPACING
REAR ABUTMENT	16'-2⅛"	21	9⅝" (-)	27	7⅜" (+)
PIER 1	16'-4⅞"	21	9½" (+)	27	7⅜" (-)
PIER 2	16'-3¼"	21	9½" (-)	27	7¼" (+)
PIER 3	16'-5¼"	21	9½" (+)	27	7⅜" (-)
PIER 4	17'-5¼"	21	10⅛" (+)	27	7¾" (+)

NOTES:

1. FOR NOTES, SEE SHEET 51/100.

DESIGN AGENCY
PRIME AE
540 METROPOOL DR, SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
CRG	JAT	TES	7/30/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		3115739	

SLAB PLAN - UNIT 1 (2 OF 2)
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

52/100

52/100

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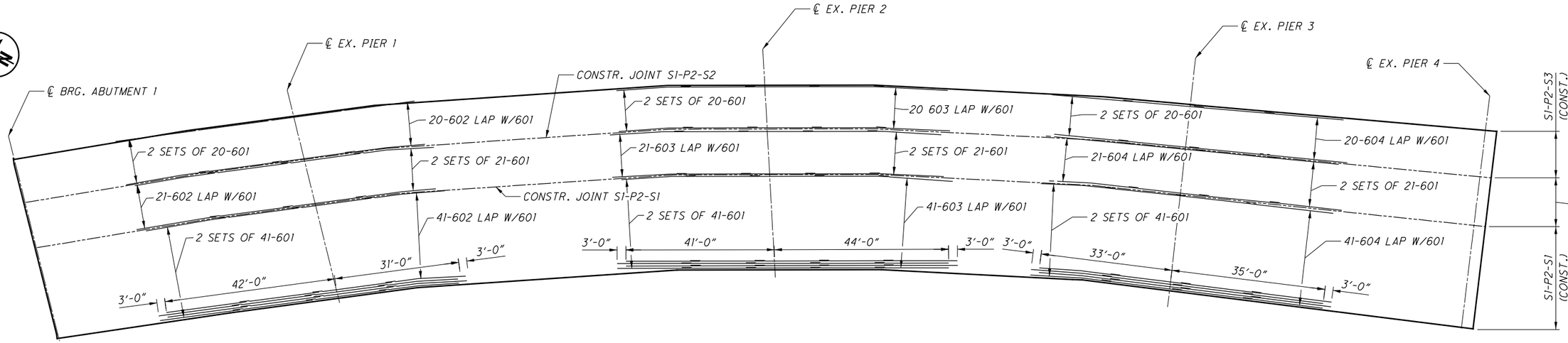
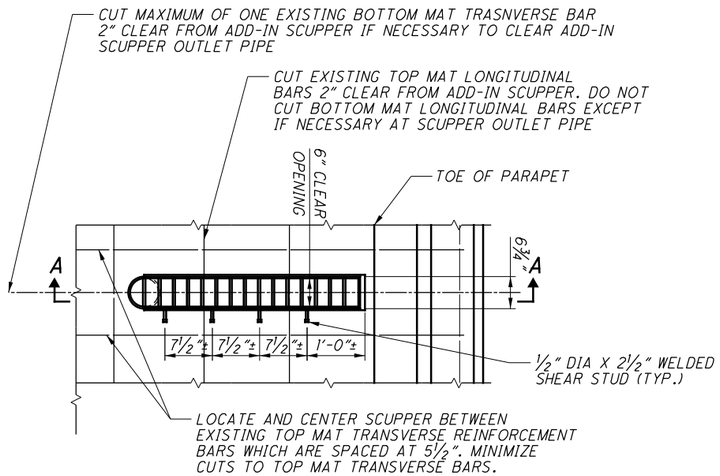


MIN. REQUIRED LAP LENGTH	
#6 LONGITUDINAL	3'-7"

STAGGER DIAGRAM, UNIT 1



TYPE 1 SCUPPER-PLAN

NOTES:

1. BEND BARS AS NEEDED TO FIT.
2. FOR DECK REINFORCEMENT LAYOUT, SEE SHEET 50/100 THRU 69/100.
3. FOR ADDITIONAL SCUPPER DETAILS SEE SHEET 92/100, AND STD. DWG GSD-1-96.

DESIGN AGENCY
PRIME AE
540 METROPOLITAN DR, SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
JAT	JAT	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CRG		3115739	

STAGGER DIAGRAM - UNIT 1
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

53/100

53
100

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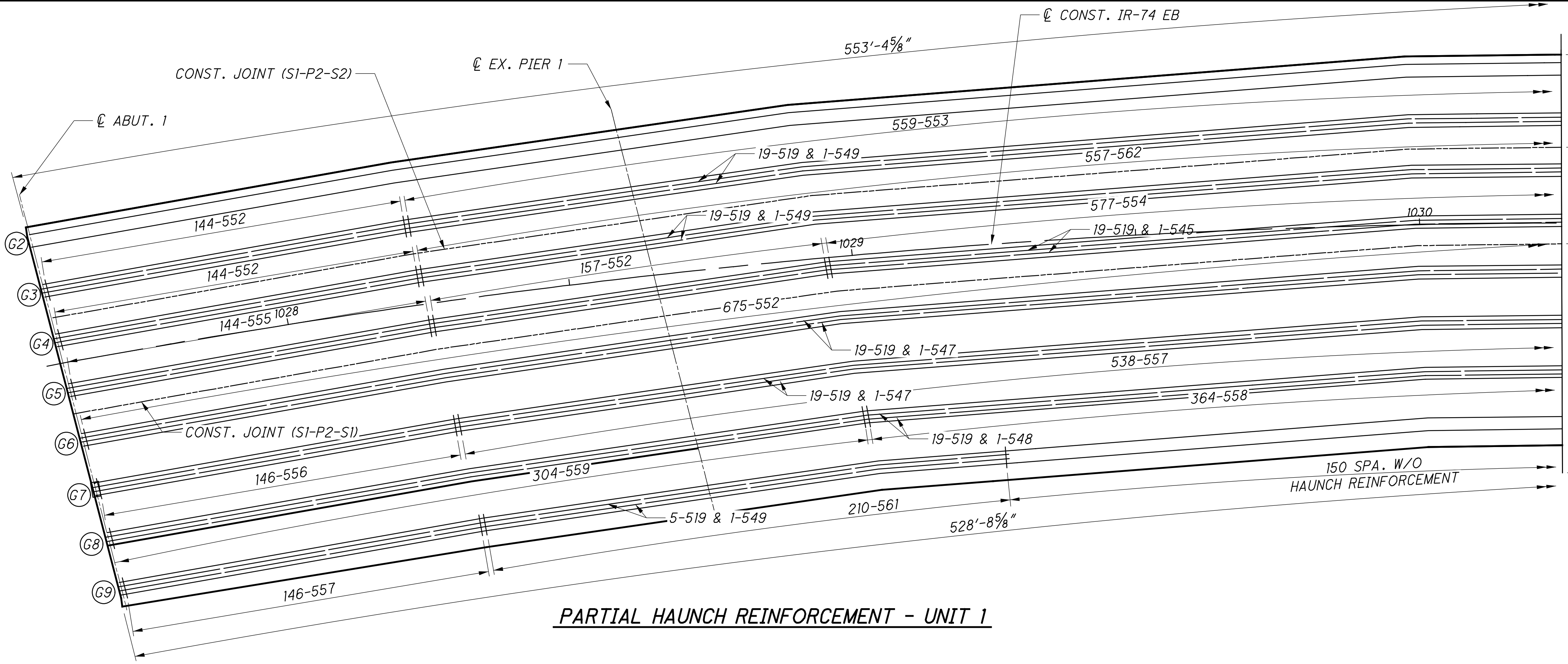
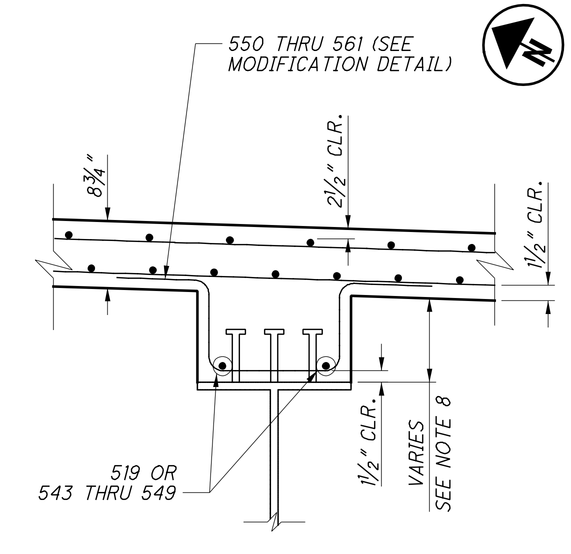
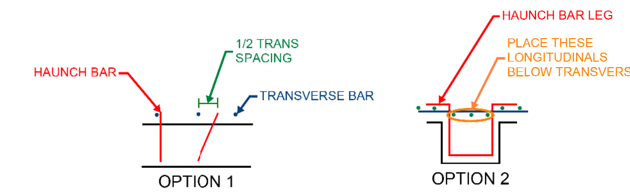


PARTIAL HAUNCH REINFORCEMENT - UNIT 1

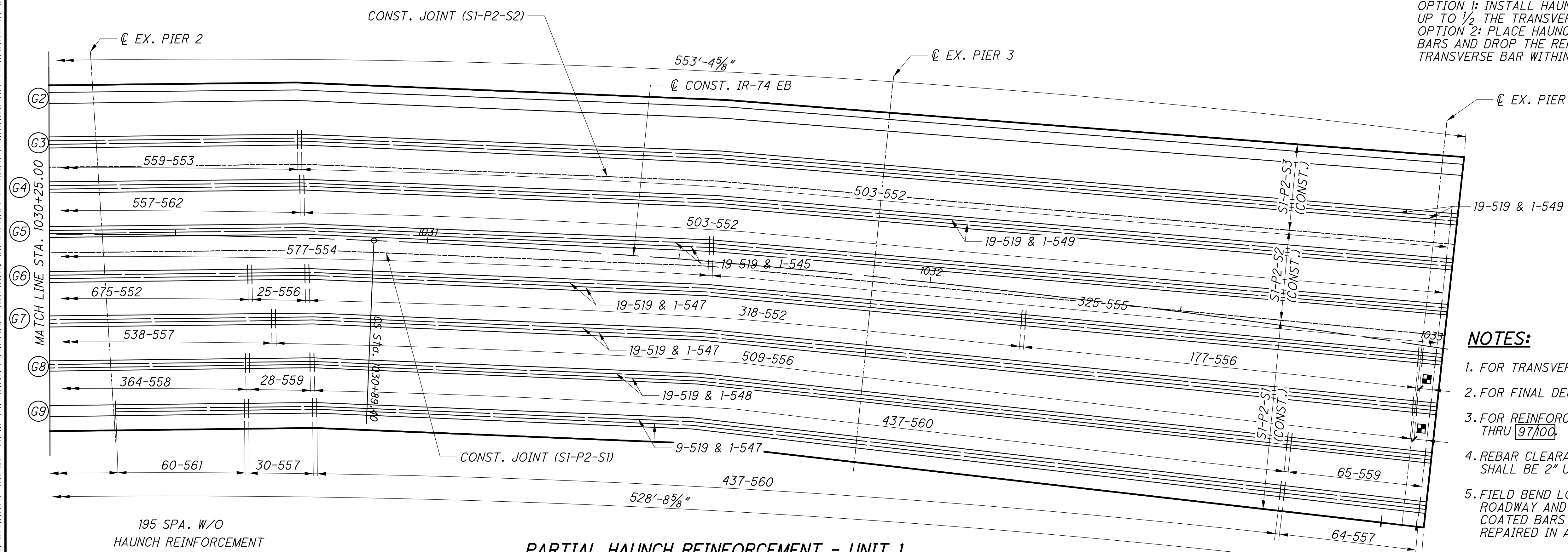


HAUNCH REINFORCEMENT SECTION



HAUNCH REINFORCEMENT MODIFICATION

HAUNCH BARS INSTALLED WITH 2 OPTIONS FOR CONSTRUCTABLILY:
OPTION 1: INSTALL HAUNCH BARS WITH AN ALLOWABLE LEAN OF UP TO ½ THE TRANSVERSE BAR SPACING.
OPTION 2: PLACE HAUNCH BAR LEGS ABOVE THE LONGITUDINAL BARS AND DROP THE REMAINING LONGITUDINAL BARS BELOW THE TRANSVERSE BAR WITHIN THE LIMITS OF THE HAUNCH.



PARTIAL HAUNCH REINFORCEMENT - UNIT 1

MIN. REQUIRED LAP LENGTH	
#5 LONGITUDINAL	2'-5"

NOTES:

1. FOR TRANSVERSE SECTION, SEE SHEET 50/100.
2. FOR FINAL DECK ELEVATIONS, SEE SHEET 88/100.
3. FOR REINFORCING STEEL LIST, SEE SHEETS 95/100 THRU 97/100.
4. REBAR CLEARANCE MEASURED TO THE FACE OF CONCRETE SHALL BE 2" UNLESS OTHERWISE NOTED.
5. FIELD BEND LONGITUDINAL BARS TO FIT CURVATURE OF ROADWAY AND TRANSVERSE BARS TO FIT CROWN. EPOXY COATED BARS DAMAGED BY FIELD BENDING SHALL BE REPAIRED IN ACCORDANCE WITH CMS 509.
6. THE PREFIX "IS" SHALL BE ADDED TO ALL BAR MARKS IN UNIT 1 SUPERSTRUCTURE.
7. TYPE 6 HAUNCH REINFORCEMENT BARS ARE TO BE SPACED WITH MAIN DECK REINFORCEMENT BARS.
8. FOR ESTIMATED HAUNCH THICKNESS, SEE SHEET 75/100.

LEGEND:

SX-PX-SX = STAGE X - PHASE X - STEP X

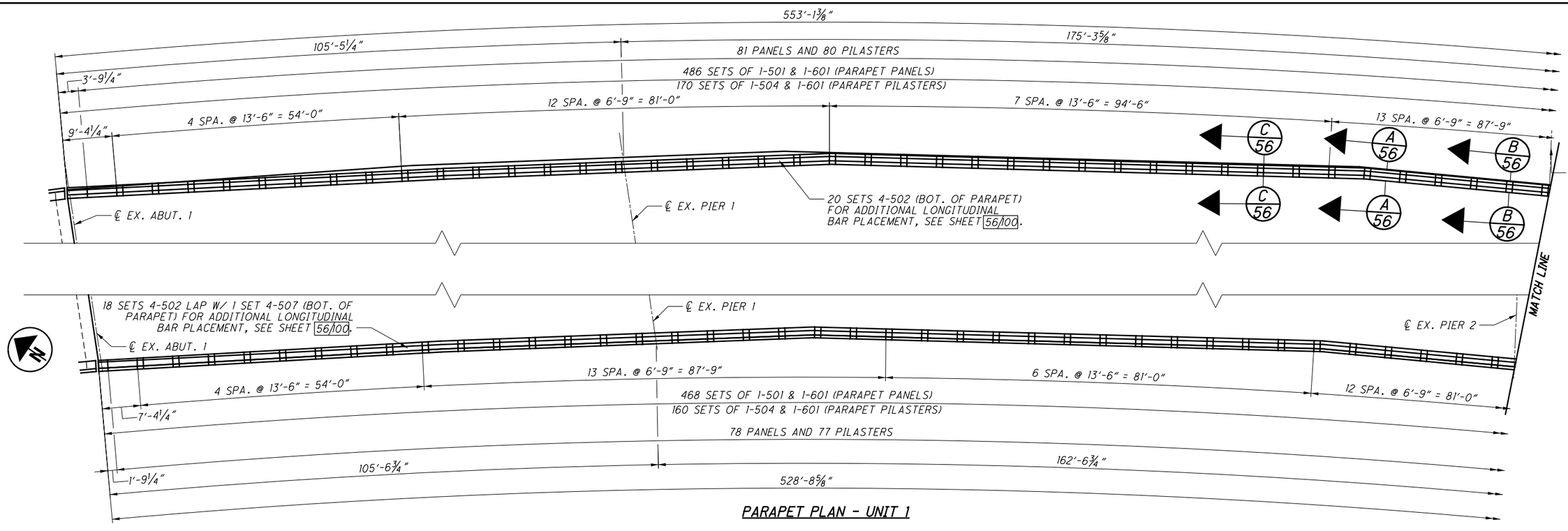
- 7-552

DESIGN AGENCY PRIME 540 WHITE POND DR., SUITE E AKRON, OH 44320

REVIEWED TES	DATE 7/30/2019
STRUCTURE FILE NUMBER	3115739
DRAWN JAT	REVISED
DESIGNED CRG	CHECKED KDC

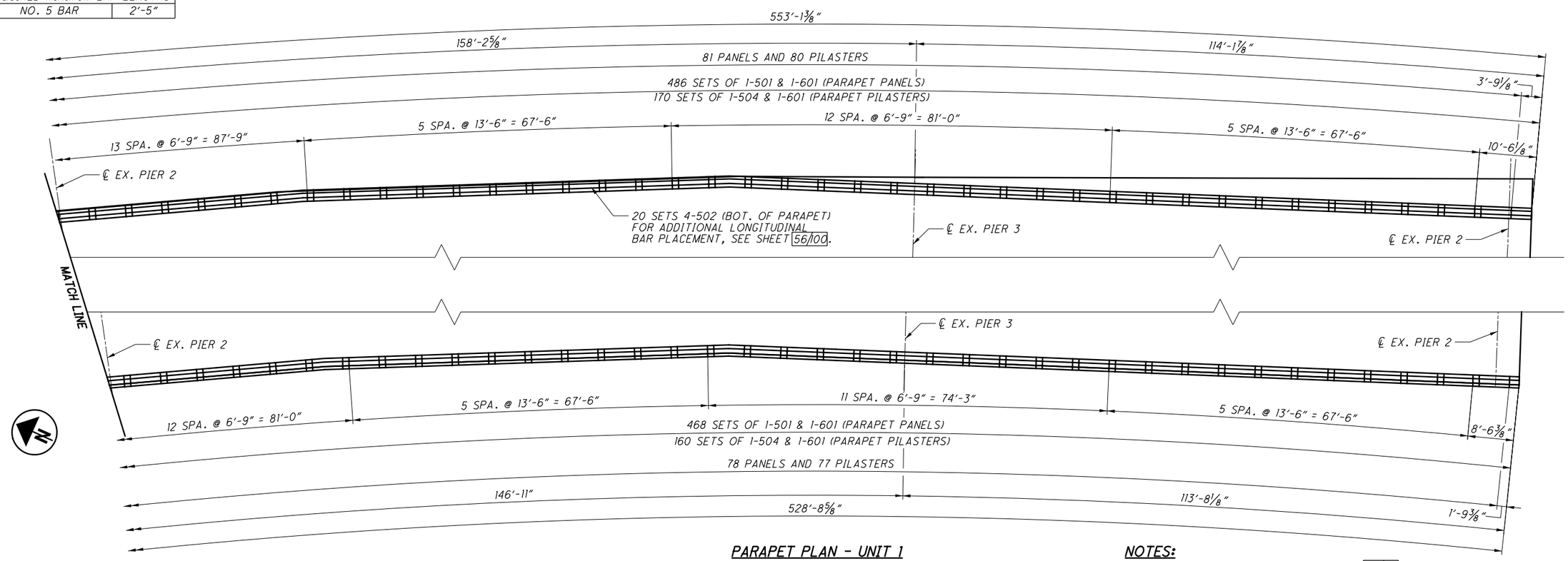
HAUNCH REINFORCEMENT PLAN - UNIT 1
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667



PARAPET PLAN - UNIT 1

REQUIRED MINIMUM LAP LENGTHS	
NO. 5 BAR	2'-5"



PARAPET PLAN - UNIT 1

NOTES:

1. FOR NOTES AND DETAILS, SEE SHEET 56/100.

DESIGN AGENCY
PRIME AE
540 WEST POINT DRIVE, SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
CRG	ADS	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		3115739	

PARAPET AND MEDIAN BARRIER PLAN
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

55/100

55
100

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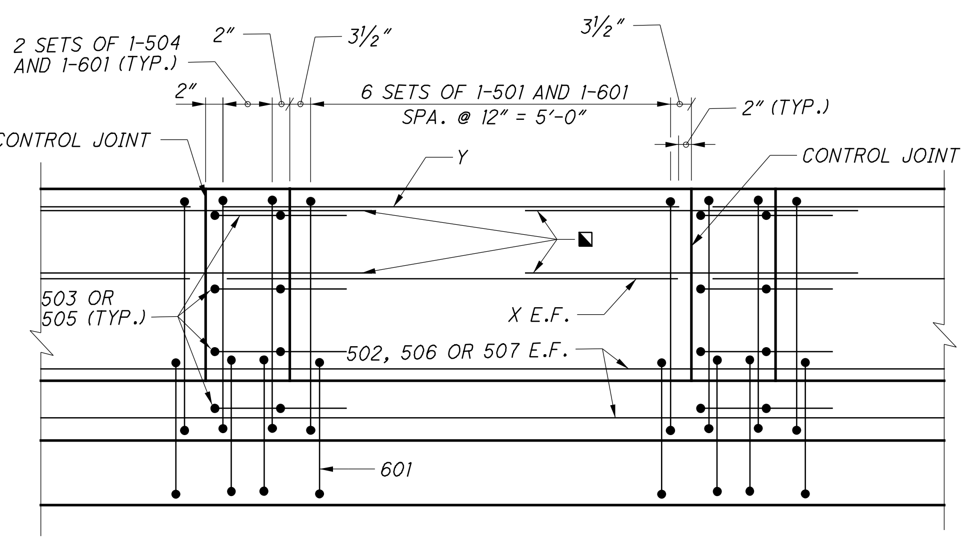
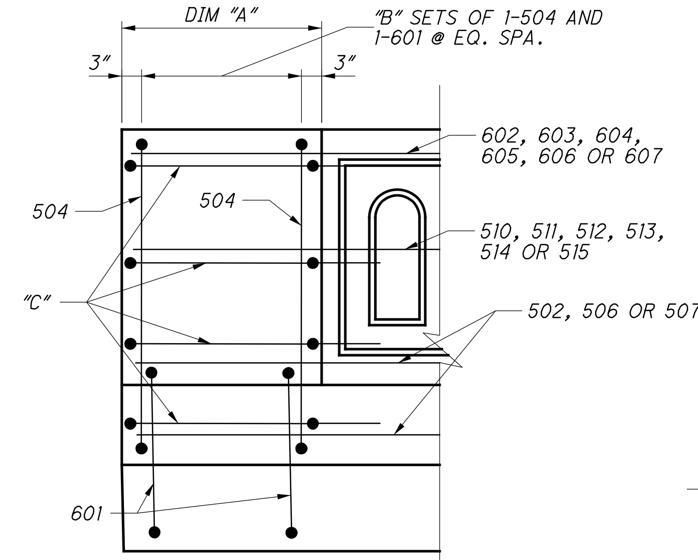
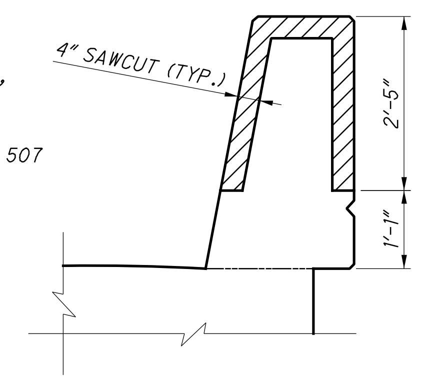


TYPICAL ORNAMENTAL PARAPET PANEL REINFORCING

(SINGLE PANEL SHOWN, DOUBLE PANEL SIMILAR)

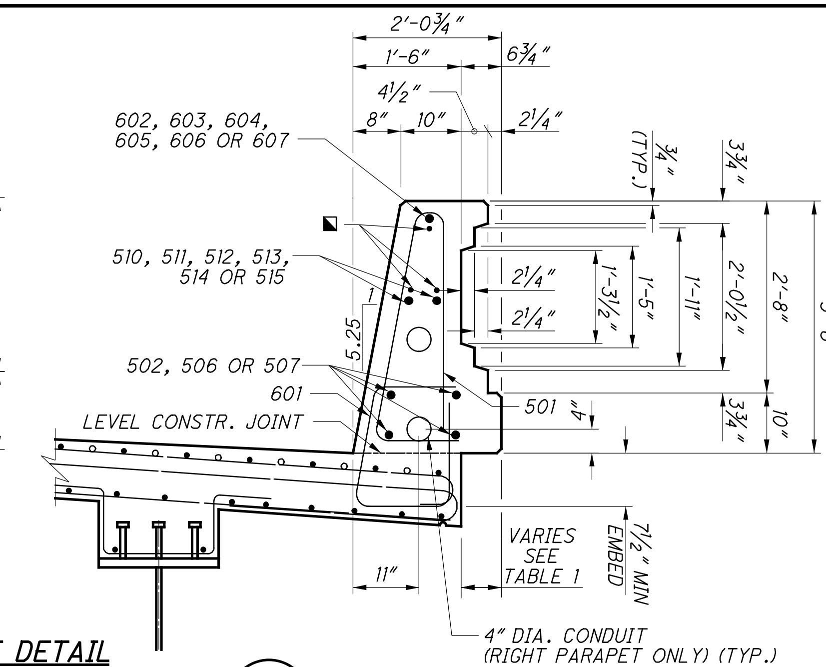


END PILASTER DETAIL



C SECTION THRU CONTROL JOINT DETAIL

55,64,70



A SECTION THRU PANEL

55,64,70

UNIT	CONTROL JT. SPA.	# PANELS	BAR X	BAR Y
1	6'-9"	73	510	602
1	13'-6"	41	511	603
1	9'-4¼"	1	512	604
1	10'-6⅜"	1	513	605
1	7'-4¼"	1	514	606
1	8'-6⅝"	1	515	607

UNIT	CONTROL JT. SPA.	# PANELS	BAR X	BAR Y
2	6'-9"	46	510	602
2	13'-6"	33	511	603
2	9'-3⅜"	1	512	604
2	10'-5⅜"	1	513	605
2	7'-4"	1	514	606
2	8'-6"	1	515	607

UNIT	CONTROL JT. SPA.	# PANELS	BAR X	BAR Y
6	6'-9"	33	510	602
6	13'-6"	6	511	603
6	7'-2"	1	512	604
6	8'-3⅞"	1	513	605
6	8'-7⅛"	1	514	606
6	9'-9⅛"	1	515	607

END PILASTERS

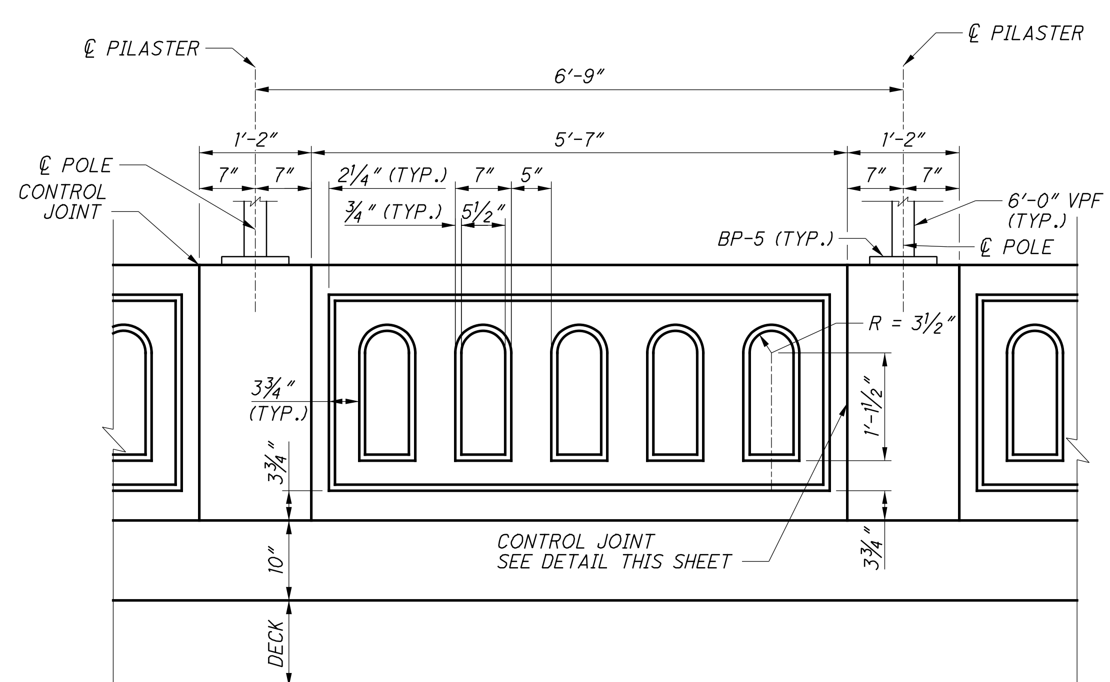
UNIT	SIDE OF SLAB	DIM "A"	"B"	"C"
1	LEFT	3'-9⅛"	5	508
1	RIGHT	1'-9¼"	3	509
2	LEFT	3'-8⅜"	5	508
2	RIGHT	1'-9"	3	509
6	LEFT	1'-7"	3	508
6	RIGHT	3'-0⅛"	4	509

TABLE 1 - PARAPET OVERHANGS

UNIT	LEFT	RIGHT
1	VARIES, SEE SHEET 57/100	6¾"
2	VARIES, SEE SHEET 67/100	6¾"
6	6¾"	6¾"

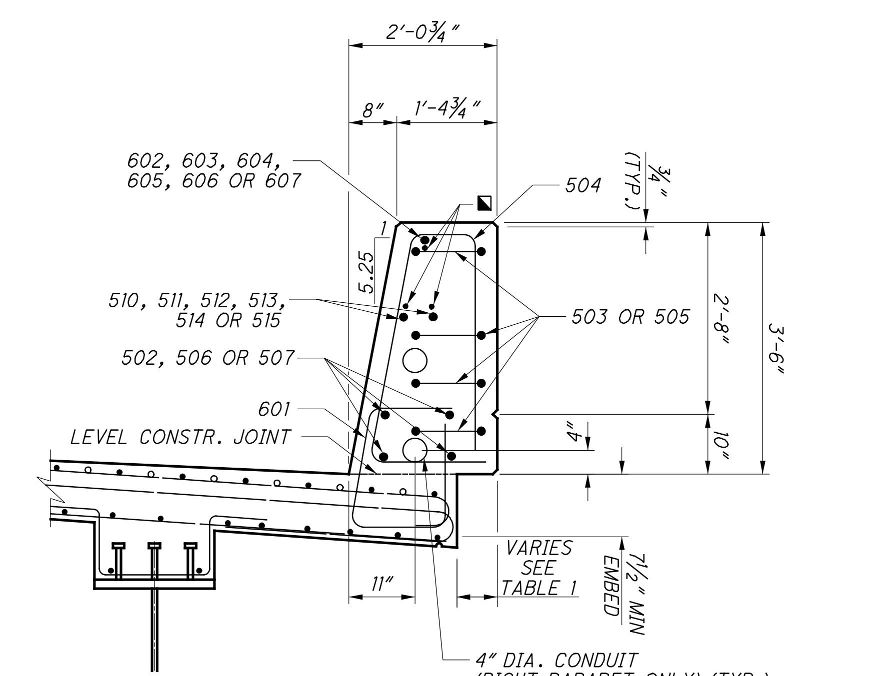
LEGEND:

◪ - ½" DIA. GLASS FIBER REINFORCED POLYMER (GFRP) STIFFENING REINFORCEMENT



TYPICAL ORNAMENTAL PARAPET PANEL

(VPF ON SPAN 7 OVER THE RAILROAD ONLY)



B SECTION THRU PILASTER

55,64,70

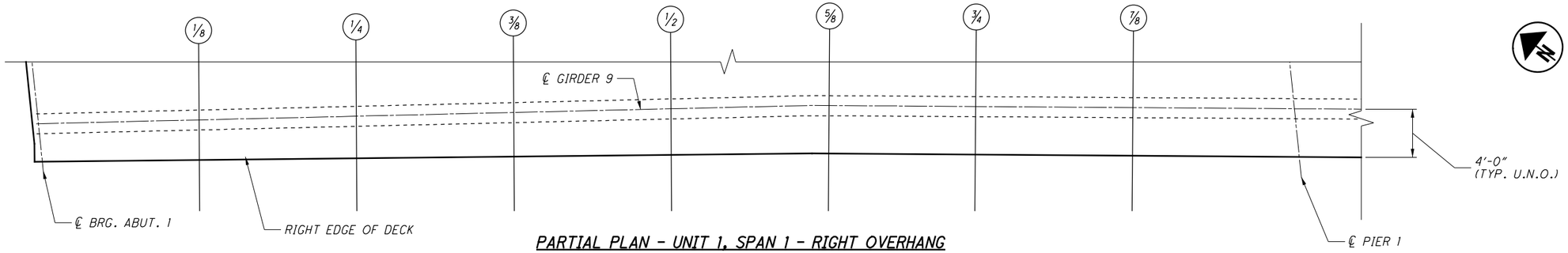
NOTES:

1. THE PREFIX "IR" SHALL BE ADDED TO ALL BAR MARKS FOR PARAPET DETAILS IN UNIT 1, "2R" SHALL BE ADDED TO ALL BAR MARKS FOR PARAPET DETAILS IN UNIT 2 AND "3R" SHALL BE ADDED TO ALL BAR MARKS FOR PARAPET DETAILS IN UNIT 3.
2. FOR REINFORCING STEEL LIST, SEE SHEET 98/100.
3. FOR ADDITIONAL DETAILS, SEE STANDARD DRAWING SBR-1-13.

DESIGN AGENCY
PRIME
540 WHITE POND DR., SUITE E
AKRON, OH 44320
DESIGNED KDC | CHECKED CRG | DRAWN ADS | REVISED | REVIEWED TES | DATE 7/30/2019 | STRUCTURE FILE NUMBER 3115739

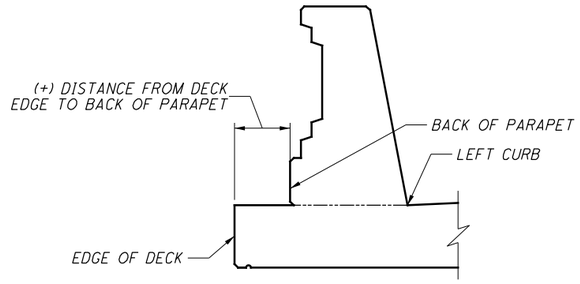
PARAPET DETAILS
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

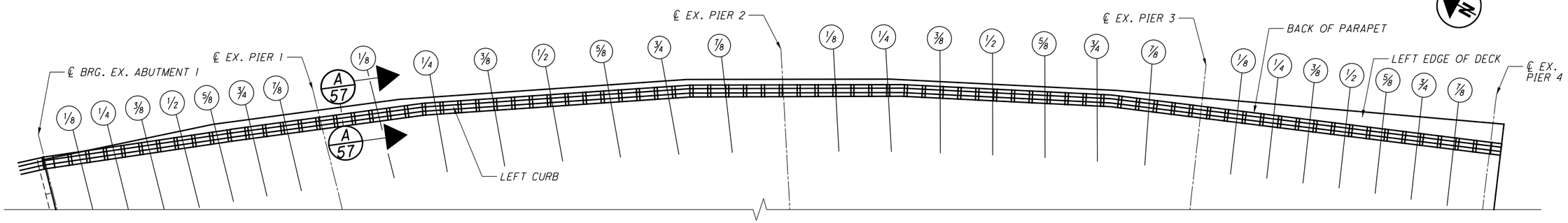


PARTIAL PLAN - UNIT 1, SPAN 1 - RIGHT OVERHANG

SPAN 1 RIGHT OVERHANG								
℄ EX. ABUT 1	1/8	1/4	3/8	1/2	5/8	3/4	7/8 POINT	℄ EX. PIER 1
3'-2 1/8"	3'-4 1/8"	3'-6 1/8"	3'-8 1/8"	3'-10 1/8"	4'-0"	4'-0"	4'-0"	4'-0"



A / 57 PARAPET OVERHANG SECTION



PARTIAL PLAN - LEFT PARAPET LOCATION OFFSET

DISTANCE FROM BACK OF PARAPET TO EDGE OF DECK																
℄ EX. ABUT 1	1/8	1/4	3/8	1/2	5/8	3/4	7/8	℄ EX. PIER 1	1/8	1/4	3/8	1/2	5/8	3/4	7/8
-4 3/8"	-1 3/8"	1 1/2"	4 1/2"	7 1/2"	10 1/8	9 1/4"	9 1/4"	9 1/4"	9 1/8"	2 1/8"	2 1/8"	2 1/4"	2 1/8"	2 3/8"	1 3/8"

DISTANCE FROM BACK OF PARAPET TO EDGE OF DECK																
℄ EX. PIER 2	1/8	1/4	3/8	1/2	5/8	3/4	7/8	℄ EX. PIER 3	1/8	1/4	3/8	1/2	5/8	3/4	7/8	℄ EX. PIER 4
1 1/4"	1"	7/8"	-2"	-2"	-1 1/8"	-1 1/8"	5 1/8"	1'-1 5/8"	1' 7 3/4"	2' 2"	2' 8 1/8"	3' 2 3/8"	3' 8 1/2"	4' 2 3/4"	4' 8 1/8"	5' 3 1/8"

NOTE: NEGATIVE NUMBER IMPLIES PARAPET OVERHANGS EDGE OF DECK

DESIGN AGENCY
PRIME AE
540 WHITE POND DR, SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
CRG	ADS	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		3115739	

DECK OVERHANG AND PARAPET DETAILS - UNIT 1
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

57 / 100

57 / 100

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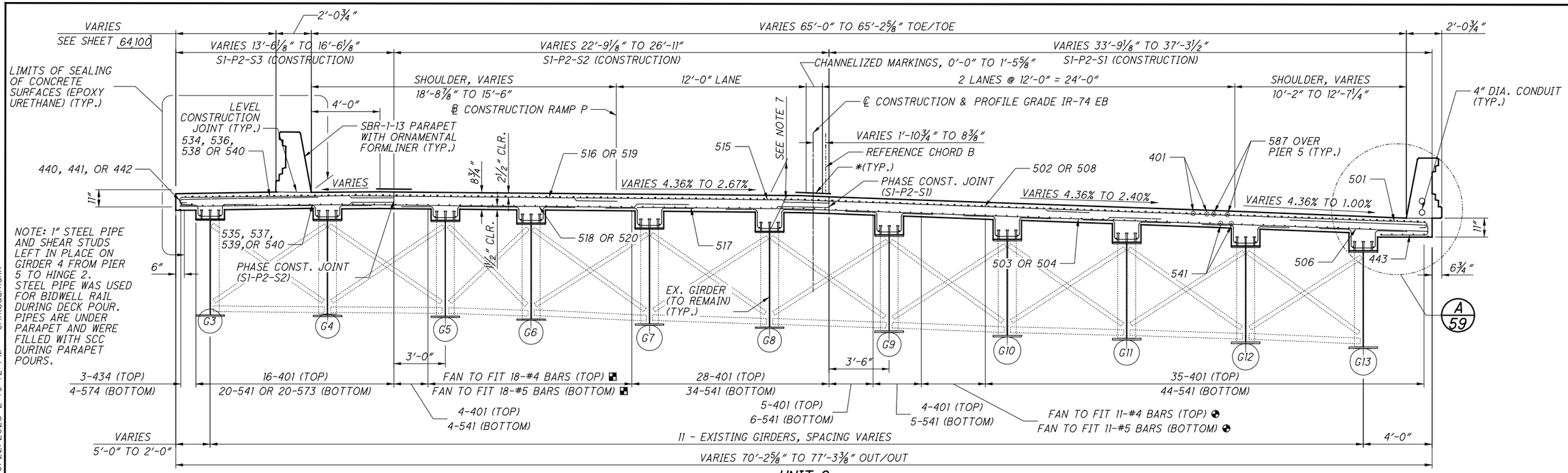
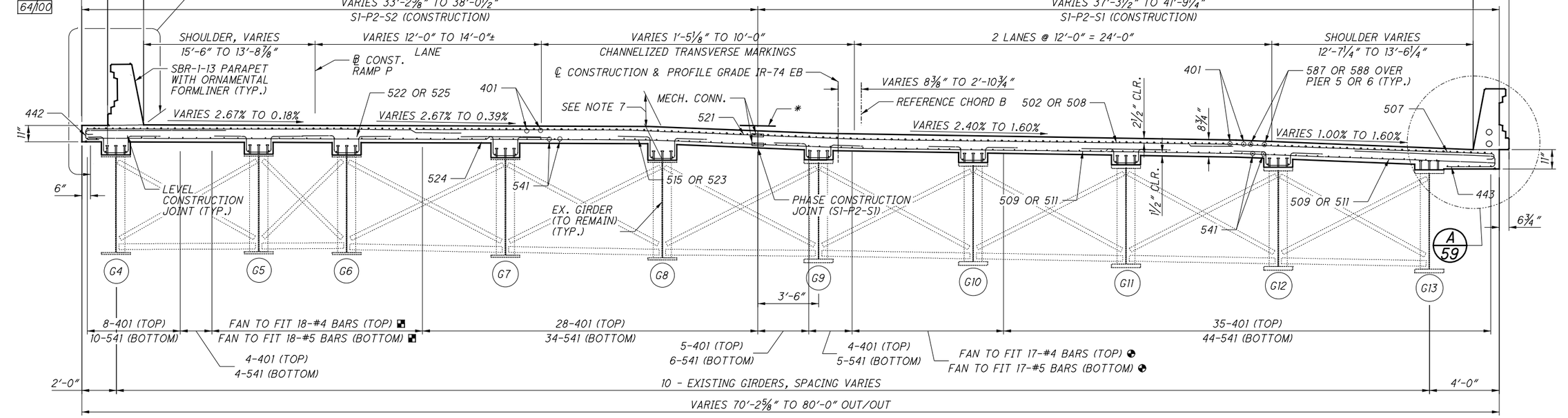


UNIT 2

(HINGE NO. 1 TO PIER 5)



MIN. REQUIRED LAP LENGTH	
#4 LONGITUDINAL	1'-11"
#5 TRANSVERSE (TOP)	2'-5"
#5 TRANSVERSE (BOT.)	3'-0"
#5 LONGITUDINAL	2'-5"
#6 LONGITUDINAL	3'-7"

LEGEND:

- ◕ SEE (G/62) DETAIL OF DECK CORNER
- ◾ SEE (F/62) DETAIL OF DECK CORNER

* HMWM RESIN, 2'-0" WIDE, CENTERED ON JOINT, FULL LENGTH OF JOINT.

UNIT 2 (PIER 5 TO PIER 6)

NOTES:

1. TRANSVERSE SECTIONS DRAWN LOOKING UPSTATION.
2. SIP FORMS CAN BE USED OVER MILL CREEK AND THE RAILROAD.
3. THE PREFIX "2S" SHALL BE ADDED TO ALL BAR MARKS FOR UNIT 2 SLAB AND "2R" FOR UNIT 2 RAILING.

NOTES CONT.:

4. FOR FINAL DECK ELEVATIONS, SEE SHEETS 76/100 THRU 78/100.
5. FOR DECK PLAN, SEE SHEETS 60/100 AND 61/100.
6. FOR FRAMING PLAN, SEE SHEET 46/100.
7. FOR ESTIMATED HAUNCH THICKNESSES, SEE SHEET 79/100.

DESIGN AGENCY
PRIME AE
540 WHITE POND DR. SUITE E
AKRON, OH 44320

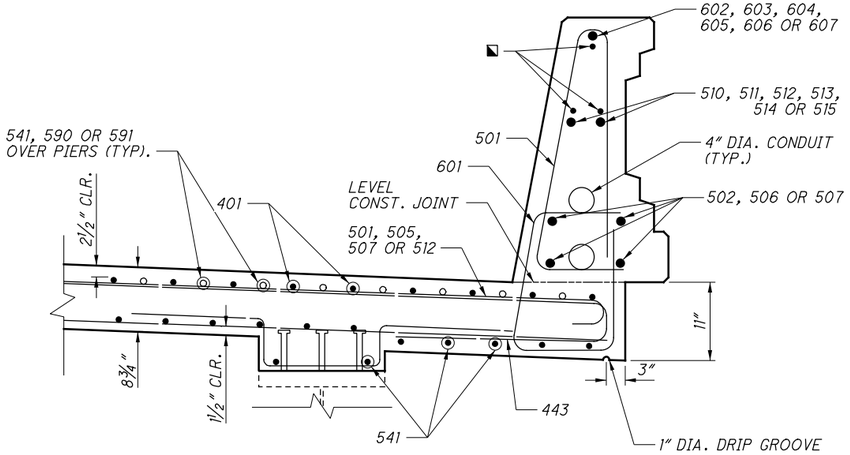
DESIGNED	DRAWN	REVIEWED	DATE
CRG	JAT	TES	7/30/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		3115739	

TRANSVERSE SECTIONS - UNIT 2
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

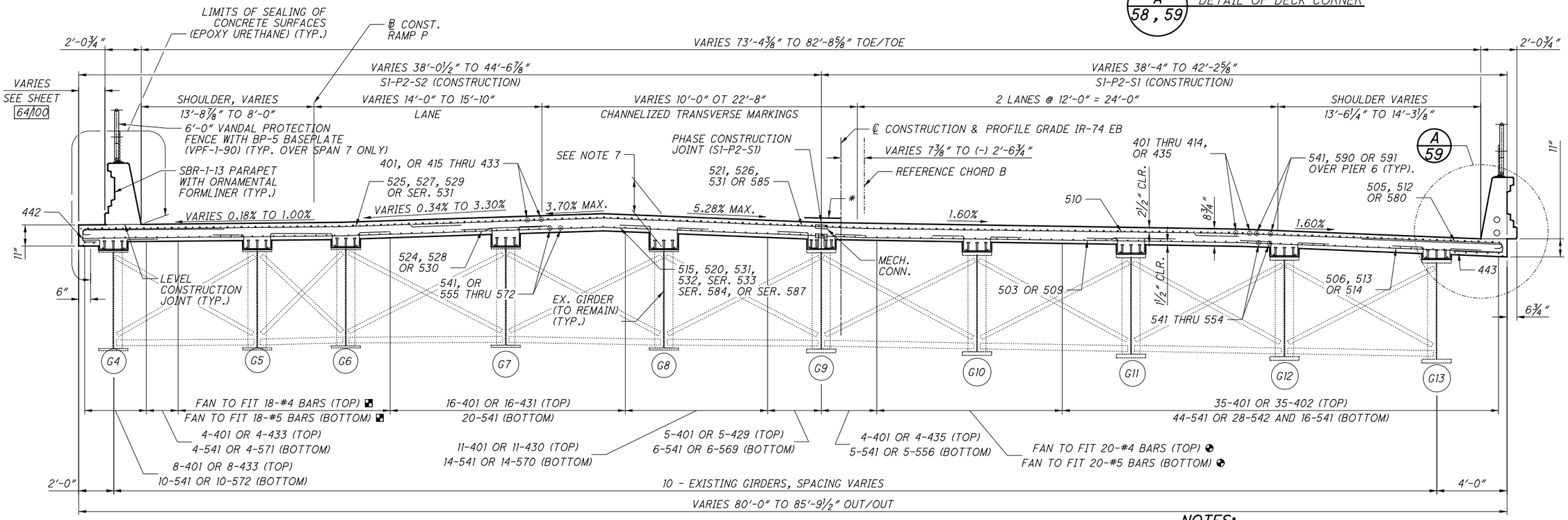
HAM-75-3.84
PID No. 104667

58/100

58
100



A / 58, 59 DETAIL OF DECK CORNER



A / 59

UNIT 2

(PIER 6 TO HINGE 2)

LEGEND:

- ◪ – ½" DIA. GLASS FIBER REINFORCED POLYMER (GFRP) STIFFENING REINFORCEMENT.
- ◕ – SEE G / 62 DETAIL OF DECK CORNER
- ◪ – SEE F / 62 DETAIL OF DECK CORNER
- * – HMWM RESIN, 2'-0" WIDE, CENTERED ON JOINT, FULL LENGTH OF JOINT.

MIN. REQUIRED LAP LENGTH	
#4 LONGITUDINAL	1'-11"
#5 TRANSVERSE (TOP)	2'-5"
#5 TRANSVERSE (BOT.)	3'-0"
#5 LONGITUDINAL	2'-5"

NOTES:

1. TRANSVERSE SECTIONS DRAWN LOOKING UPSTATION.
2. SIP FORMS CAN BE USED OVER MILL CREEK AND THE RAILROAD.
3. THE PREFIX "2S" SHALL BE ADDED TO ALL BAR MARKS FOR UNIT 2 SLAB AND "2R" FOR UNIT 2 RAILING.
4. FOR FINAL DECK ELEVATIONS, SEE SHEETS 76/100 THRU 78/100.
5. FOR DECK PLAN, SEE SHEETS 60/100 AND 61/100.
6. FOR FRAMING PLAN, SEE SHEET 46/100.
7. FOR ESTIMATED HAUNCH THICKNESSES, SEE SHEET 79/100.
8. FOR ADDITIONAL VANDAL PROTECTION FENCE DETAILS, SEE STD. DWG. VPF-1-90

DESIGN AGENCY
PRIME AE
540 WHITE POND DR. SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
CRG	JAT	TES	7/30/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		3115739	

TRANSVERSE SECTIONS - UNIT 2 (PAGE 2 OF 2)
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

59/100

59/100

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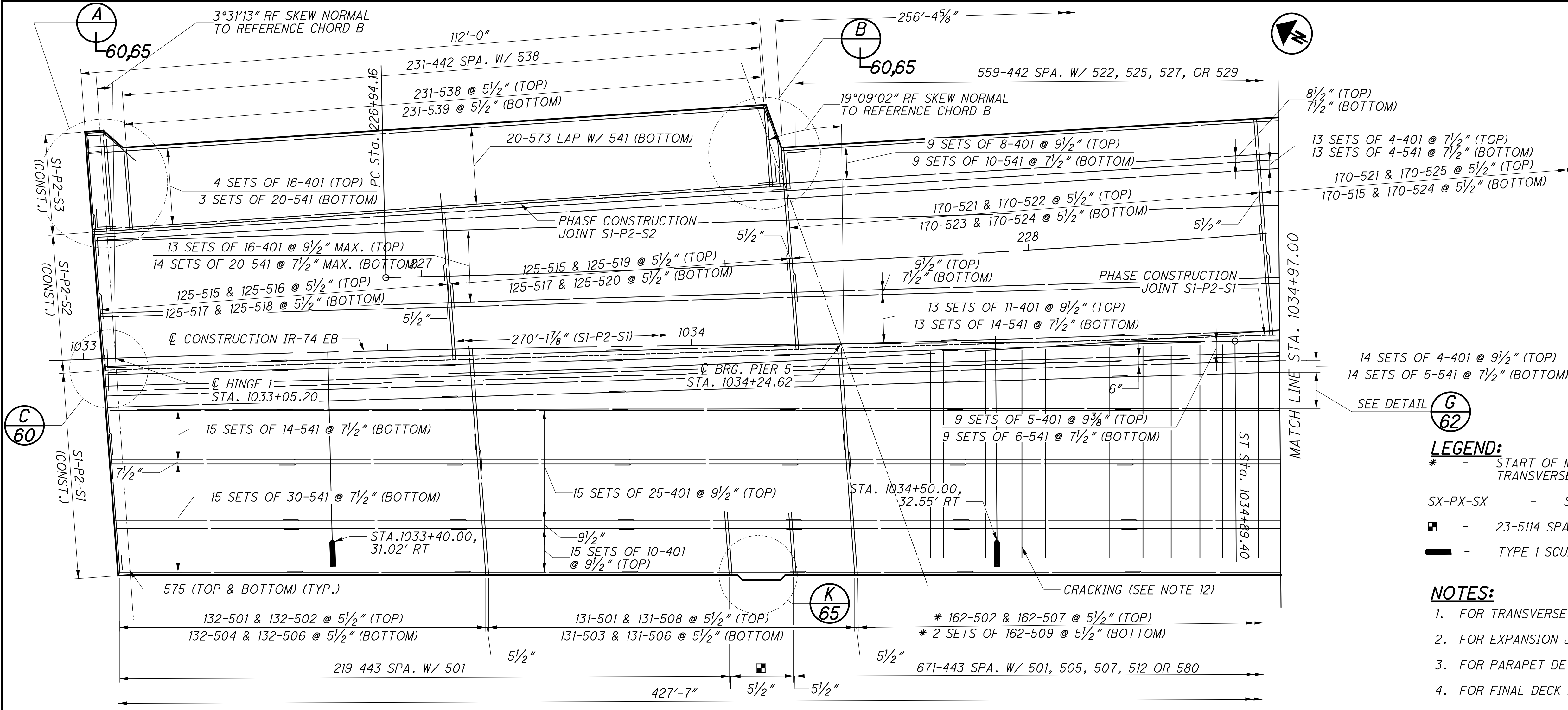
MIN. REQUIRED LAP LENGTH	
#4 LONGITUDINAL	1'-11"
#5 TRANSVERSE (TOP)	2'-5"
#5 TRANSVERSE (BOT.)	3'-0"
#5 LONGITUDINAL	2'-5"



PART SLAB PLAN - UNIT 2

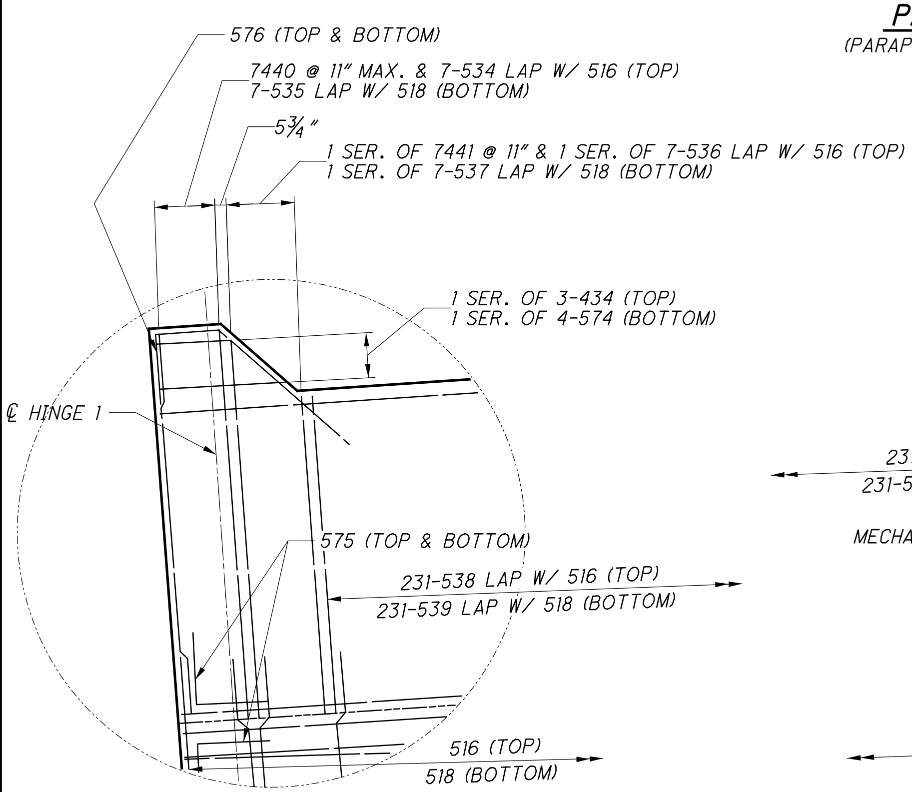
(PARAPET AND REFERENCE CHORD NOT SHOWN)

LEGEND:

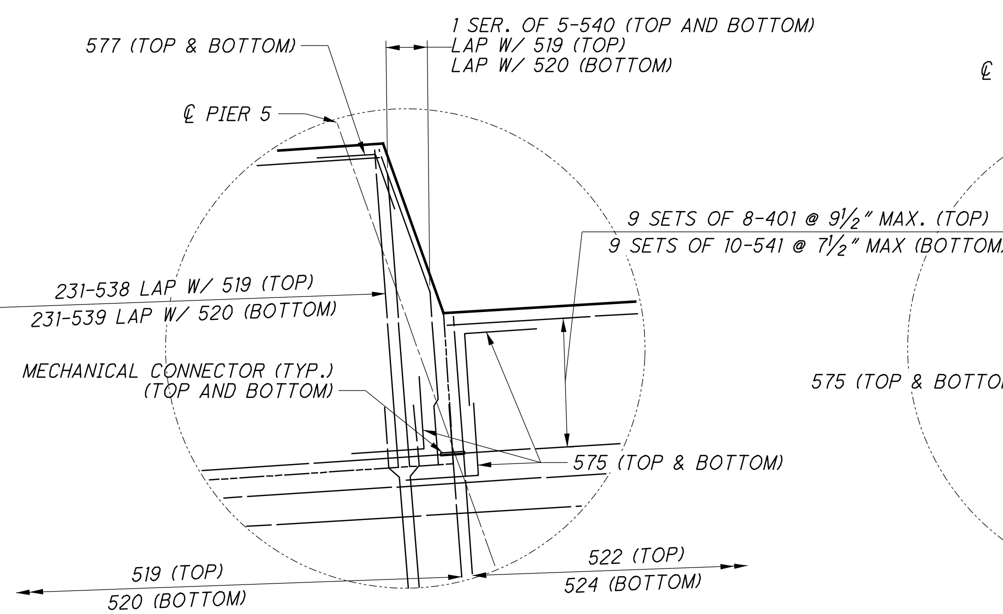
- * - START OF MECHANICAL CONNECTORS OF TRANSVERSE BARS AT S1-P2-S1
- SX-PX-SX - STAGE X, PHASE X, STEP X
- ▪ - 23-5114 SPA. W/ 501 (TOP)
- ▬ - TYPE 1 SCUPPER

NOTES:

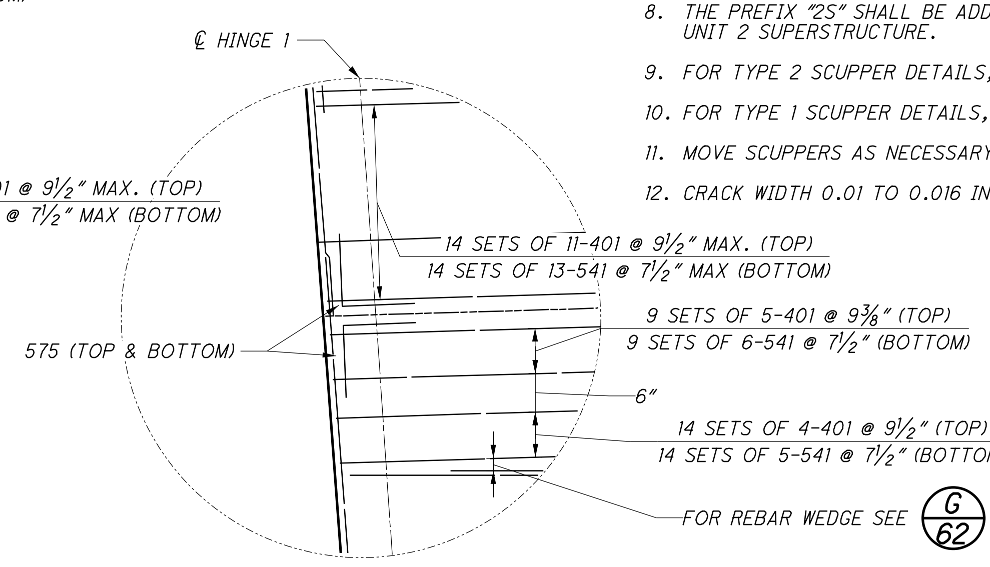
1. FOR TRANSVERSE SECTION, SEE SHEETS 58/100 AND 59/100.
2. FOR EXPANSION JOINT DETAIL, SEE SHEET 83/100.
3. FOR PARAPET DETAILS, SEE SHEET 64/100 THRU 70/100.
4. FOR FINAL DECK ELEVATIONS, SEE SHEETS 76/100 THRU 78/100.
5. FOR REINFORCING STEEL LIST, SEE SHEETS 95/100 THRU 97/100.
6. REBAR CLEARANCE MEASURED TO THE FACE OF CONCRETE SHALL BE 2" UNLESS OTHERWISE NOTED.
7. FIELD BEND LONGITUDINAL BARS TO FIT CURVATURE OF ROADWAY AND TRANSVERSE BARS TO FIT CROWN. EPOXY COATED BARS DAMAGED BY FIELD BENDING SHALL BE REPAIRED IN ACCORDANCE WITH CMS 509.
8. THE PREFIX "2S" SHALL BE ADDED TO ALL BAR MARKS IN UNIT 2 SUPERSTRUCTURE.
9. FOR TYPE 2 SCUPPER DETAILS, SEE SHEET 93/100.
10. FOR TYPE 1 SCUPPER DETAILS, SEE SHEET 92/100.
11. MOVE SCUPPERS AS NECESSARY TO AVOID CROSS FRAMES.
12. CRACK WIDTH 0.01 TO 0.016 INCHES (TYPICAL).



A/60 DETAIL OF DECK CORNER



B/60 DETAIL OF DECK CORNER



C/60 DETAIL OF DECK CORNER

DESIGN AGENCY: PRIME AE, 540 WHITE POND DR., SUITE E, AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
JAT	JAT	TES	7/30/2019
CHECKED CRG	REVISED	STRUCTURE FILE NUMBER 3115739	

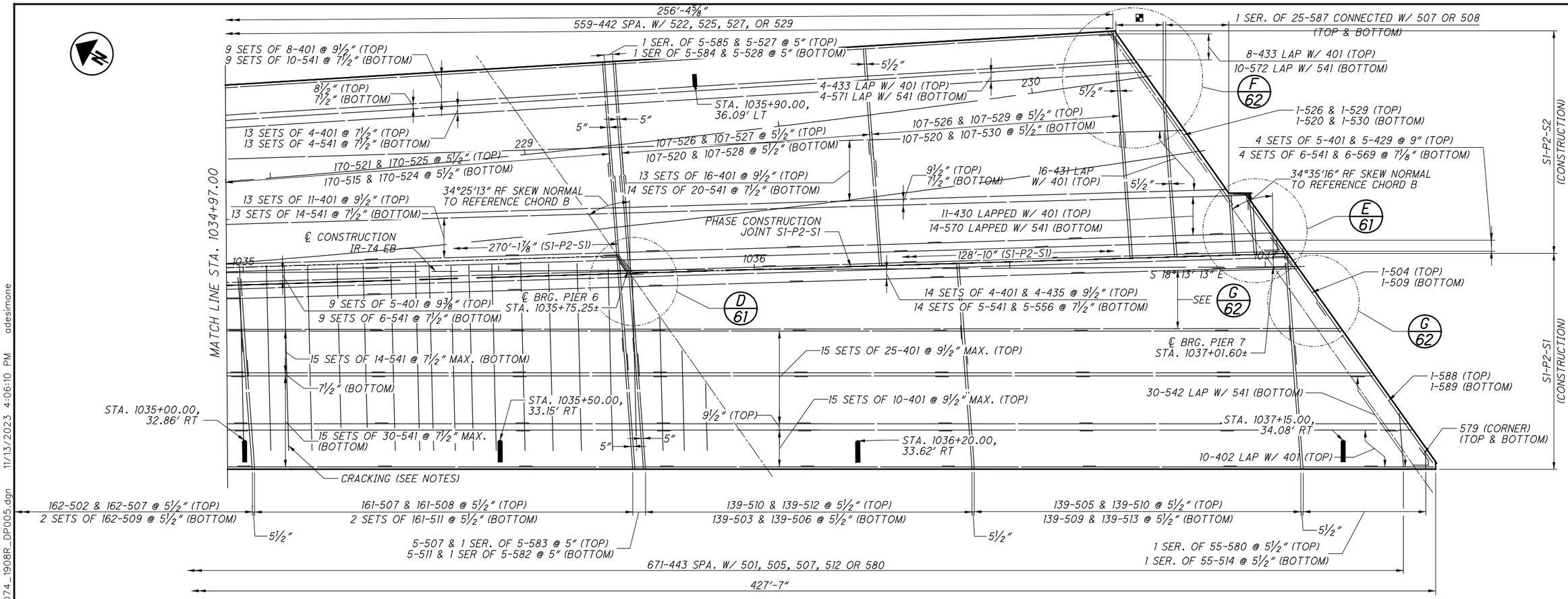
SLAB PLAN - UNIT 2 (1 OF 3)

BRIDGE NO. HAM-74-1908R

IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

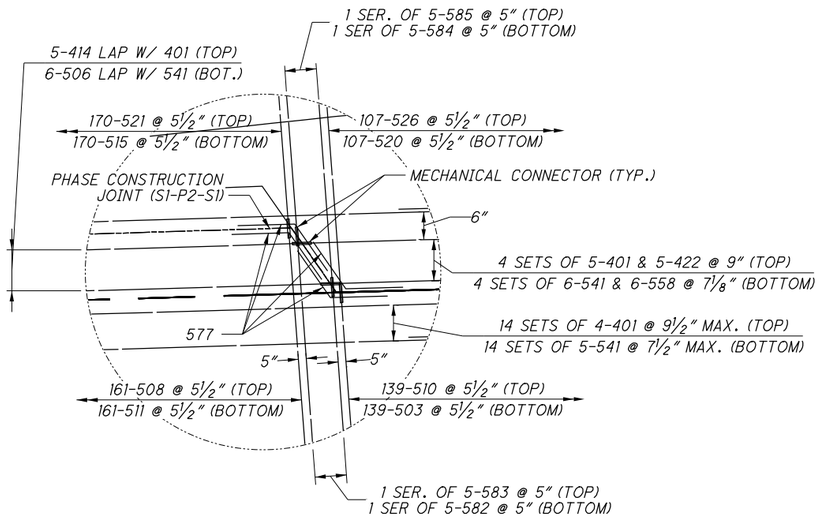
HAM-75-3.84

PID No. 104667

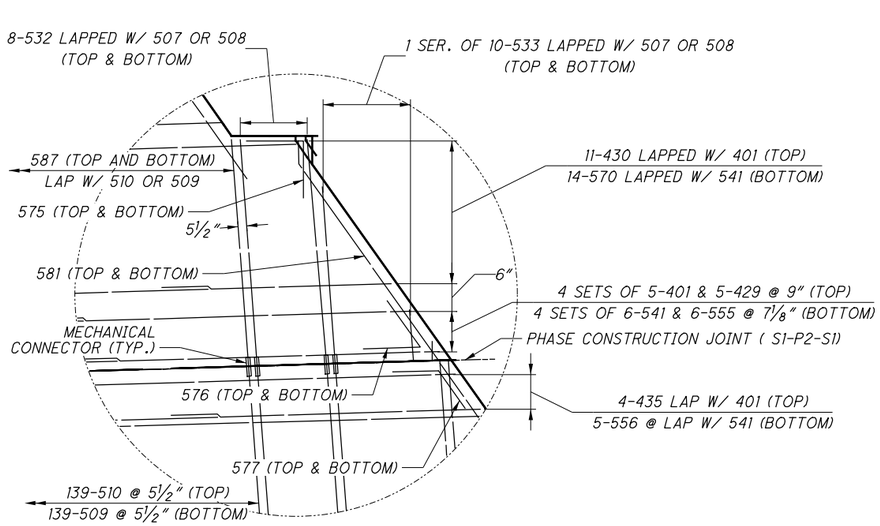


PART SLAB PLAN - UNIT 2

(PARAPET AND REFERENCE CHORD NOT SHOWN)



D 61 DETAIL OF DECK CORNER



E 61 DETAIL OF DECK CORNER

MIN. REQUIRED LAP LENGTH	
#4 LONGITUDINAL	1'-11"
#5 TRANSVERSE (TOP)	2'-5"
#5 TRANSVERSE (BOT.)	3'-0"
#5 LONGITUDINAL	2'-5"

LEGEND:

SX-PX-SX - STAGE X, PHASE X, STEP X

- ■ - 1 SER. OF 19-531 & 19-526 (TOP)
  1 SER. OF 19-586 & 19-520 (BOTTOM)
- ▌ - TYPE 2 SCUPPER
- ▌ - TYPE 1 SCUPPER

NOTES:

1. FOR NOTES SEE SHEET 60/100.

DESIGN AGENCY
PRIME AE
540 WEST POINT PIKE, SUITE E
WAYNE, PA 19420

DESIGNED	DRAWN	REVIEWED	DATE
CRG	JAT	TES	7/30/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		3115739	

SLAB PLAN - UNIT 2 (2 OF 3)
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

61/100

61
100

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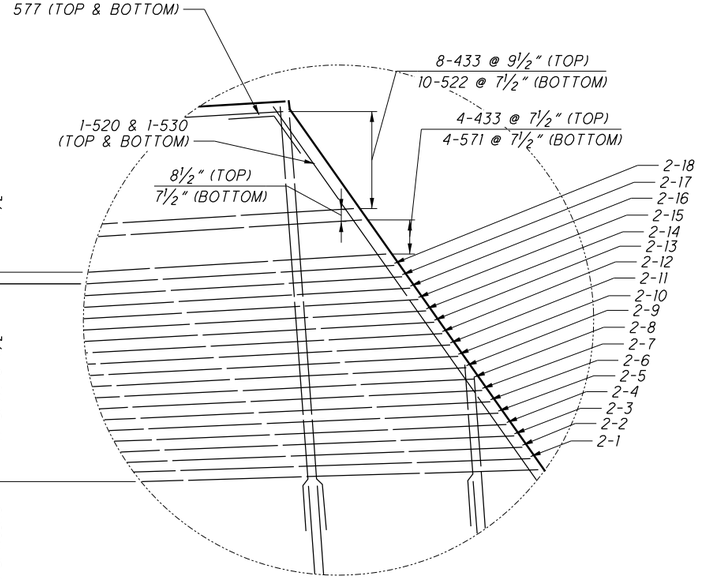
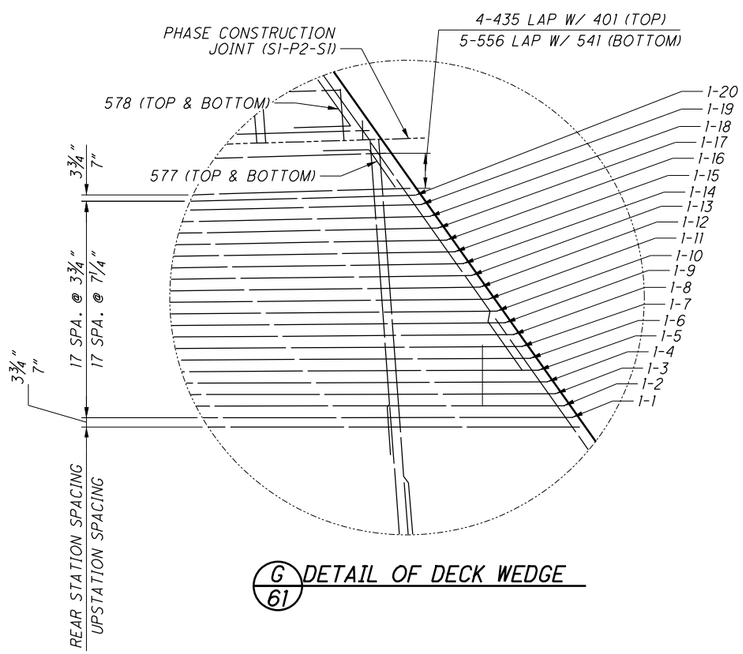
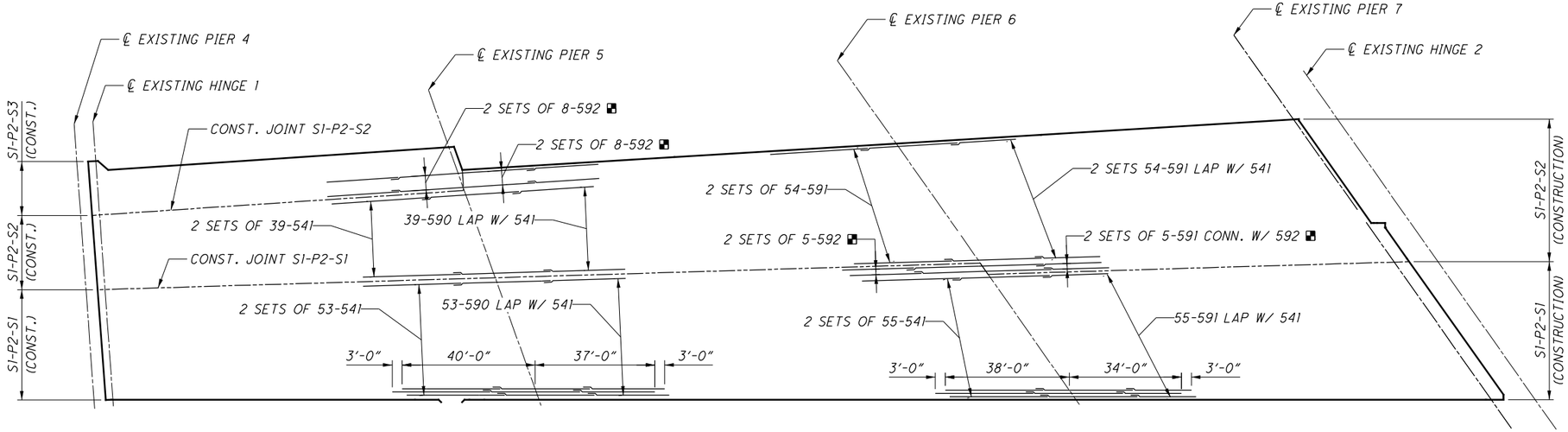


F 61 DETAIL OF DECK WEDGE



G 61 DETAIL OF DECK WEDGE



STAGGER DIAGRAM

MIN. REQUIRED LAP LENGTH	
#4 LONGITUDINAL	1'-11"
#5 TRANSVERSE (TOP)	2'-5"
#5 TRANSVERSE (BOT.)	3'-0"
#5 LONGITUDINAL	2'-5"

	LOCATION	1-1	1-2	1-3	1-4	1-5	1-6	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20
TOP	NO. 401	14	14	13	13	13	12	12	11	11	10	10	9	9	7	7	6	6	4	4	2
	LAST TOP BAR	403	-	404	405	-	406	-	407	-	408	-	409	-	410	411	412	-	413	-	414
BOTTOM	NO. 541	14	14	14	13	13	12	11	11	10	10	10	9	9	8	7	7	6	5	4	2
	LAST BTM. BAR	543	544	-	545	-	546	547	548	549	550	-	551	-	552	553	-	-	-	-	554

	LOCATION	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18
TOP	NO. 401	2	4	5	5	6	7	7	8	9	9	9	10	10	10	11	12	12	12
	LAST TOP BAR	415	-	-	416	417	418	419	420	-	421	422	423	424	425	426	-	427	428
BOTTOM	NO. 541	2	4	5	6	6	7	8	8	8	9	10	10	11	11	11	11	12	13
	LAST BTM. BAR	555	-	-	-	558	559	-	560	561	562	-	564	-	565	566	567	568	-

NOTES:

1. BEND BARS AS NEEDED TO FIT.
2. FOR DECK REINFORCEMENT LAYOUT, SEE SHEETS 51/100 THRU 69/100.
3. FOR RIGHT OVERHANG SCUPPER, SEE SHEET 53/100.
4. FOR SCUPPER DETAILS, SEE SHEETS 92/100, AND 93/100.

LEGEND:

▪ - MECHANICALLY CONNECTED BETWEEN PHASES

DESIGN AGENCY
PRIME AE
540 WHITE POND DR. SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
CRG	JAT	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		3115739	

SLAB PLAN - UNIT 2 (3 OF 3)
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

62/100

62
100

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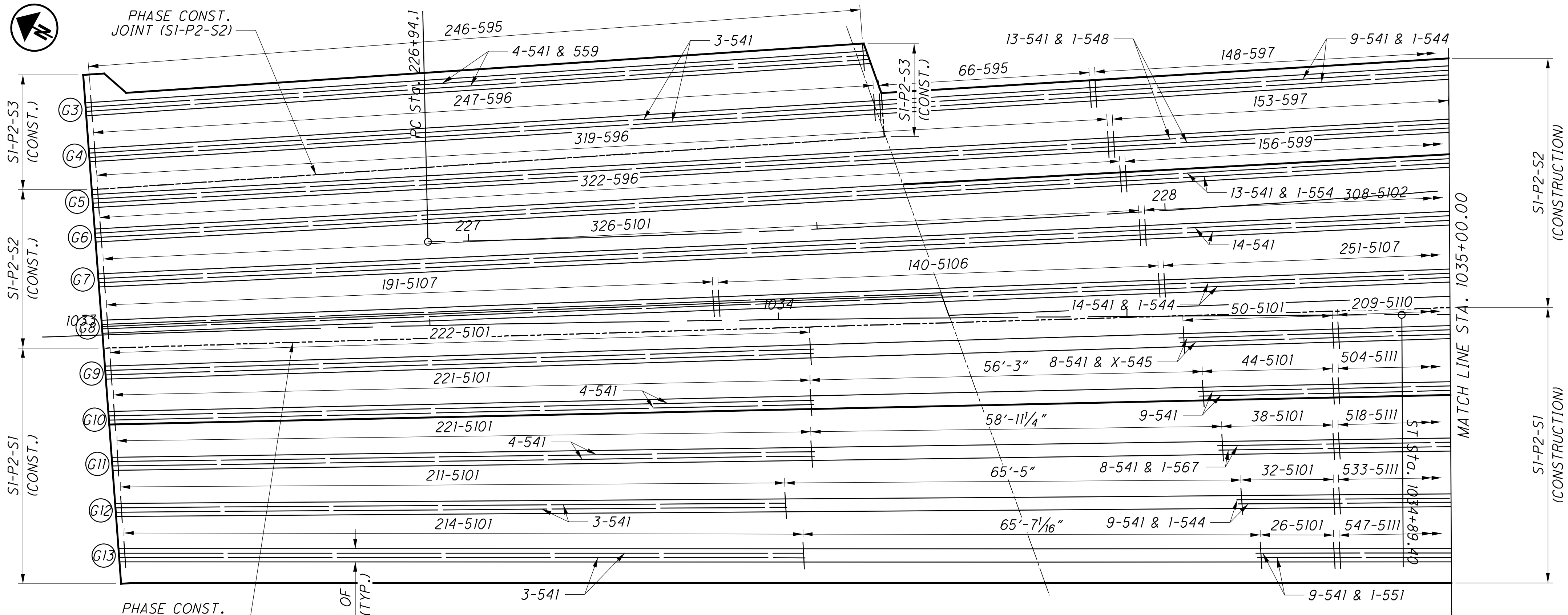
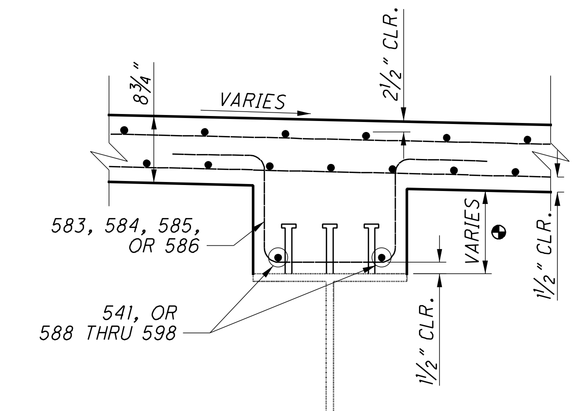
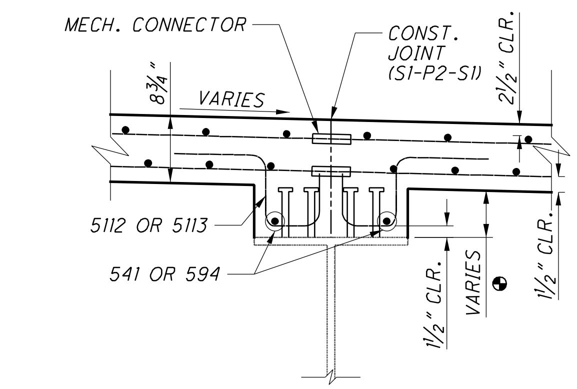


PARTIAL HAUNCH REINFORECMENT - UNIT 2

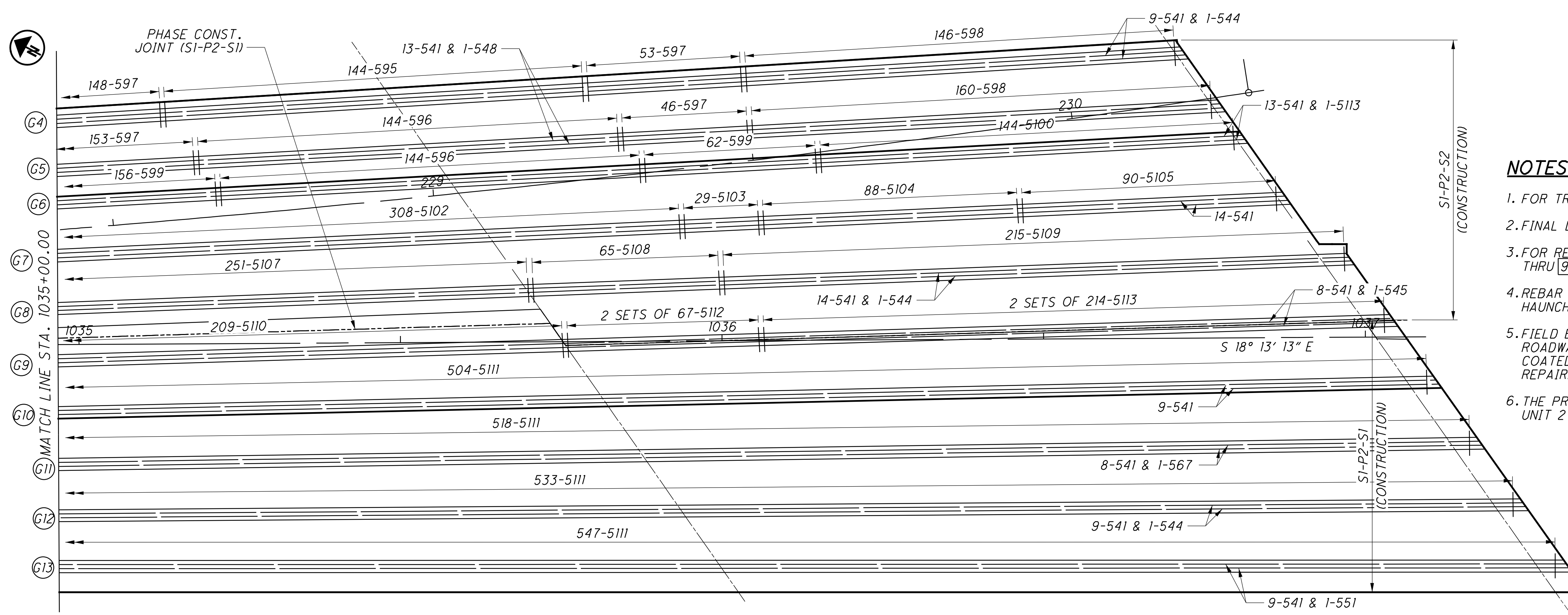


HAUNCH REINFORCEMENT SECTION



HAUNCH REINFORCEMENT SECTION

(GIRDER 9, SPAN 7)



PARTIAL HAUNCH REINFORECMENT - UNIT 2

NOTES:

1. FOR TRANSVERSE SECTION, SEE SHEETS 58/100 AND 59/100.
2. FINAL DECK ELEVATIONS, SEE SHEETS 76/100 THRU 78/100.
3. FOR REINFORCING STEEL LIST, SEE SHEETS 95/100 THRU 97/100.
4. REBAR CLEARANCE MEASURED TO THE FACE OF CONCRETE HAUNCH SHALL BE 2" UNLESS OTHERWISE NOTED.
5. FIELD BEND LONGITUDINAL BARS TO FIT CURVATURE OF ROADWAY AND TRANSVERSE BARS TO FIT CROWN. EPOXY COATED BARS DAMAGED BY FIELD BENDING SHALL BE REPAIRED IN ACCORDANCE WITH CMS 509.
6. THE PREFIX "2S" SHALL BE ADDED TO ALL BAR MARKS IN UNIT 2 SUPERSTRUCTURE.

LEGEND:

SX - PX - SX - STAGE X - PHASE X - STEP X

● - SEE ESTIMATED HAUNCH DEPTH TABLE, SHEET 79/100.

MIN. REQUIRED LAP LENGTH	
#5 LONGITUDINAL	2'-5"

DESIGN AGENCY
PRIME AE
540 WHITE POND DR., SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
JAT	JAT	TES	3/27/2019
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CRG		3115739	

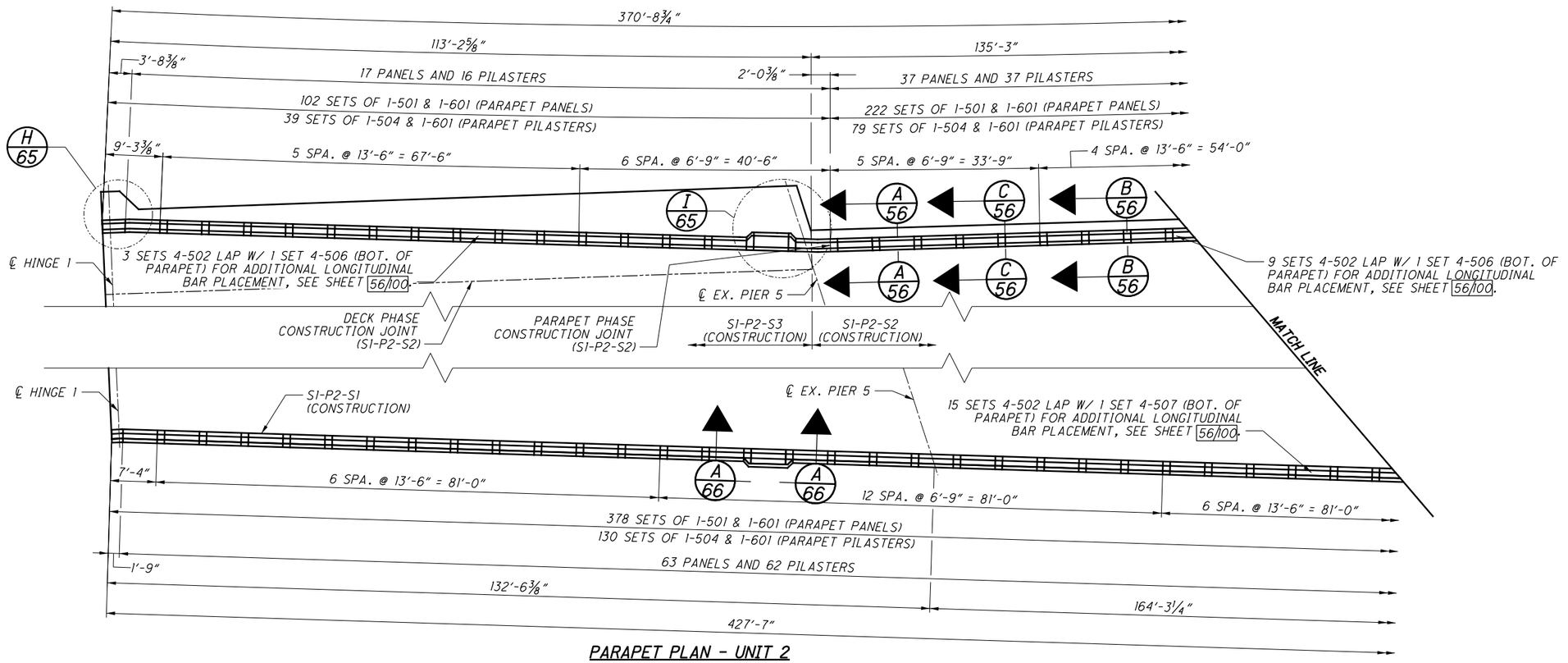
HAUNCH REINFORCEMENT PLAN - UNIT 2

BRIDGE NO. HAM-74-1908R

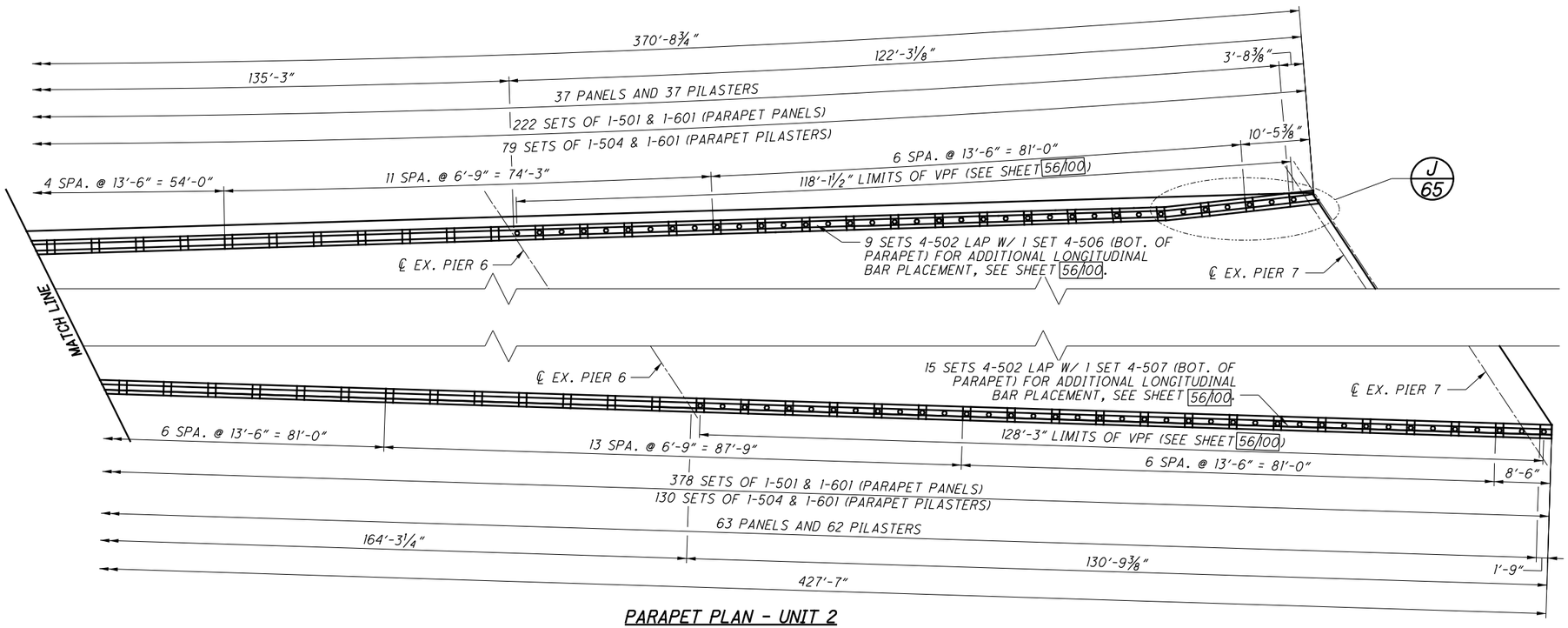
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84

PID No. 104667



PARAPET PLAN - UNIT 2



REQUIRED MINIMUM LAP LENGTHS	
NO. 5 BAR	2'-5"

PARAPET PLAN - UNIT 2

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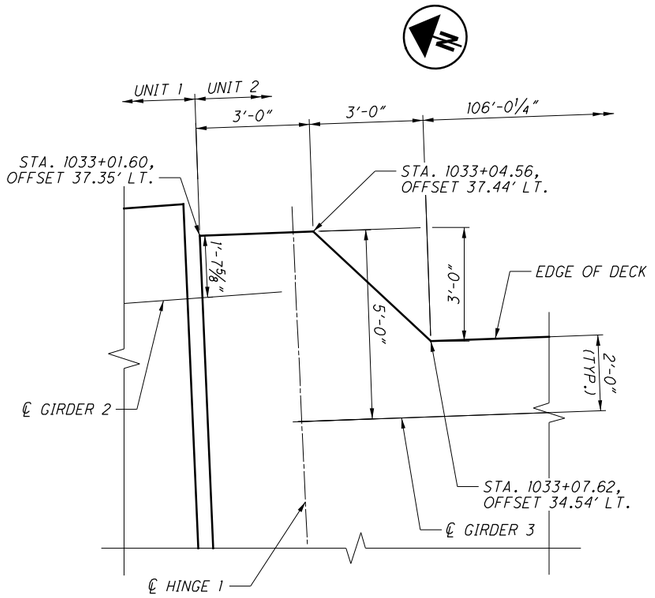
DESIGN AGENCY
PRIME AE
540 WEST POINTE DR. SUITE E
AKRON, OH 44320

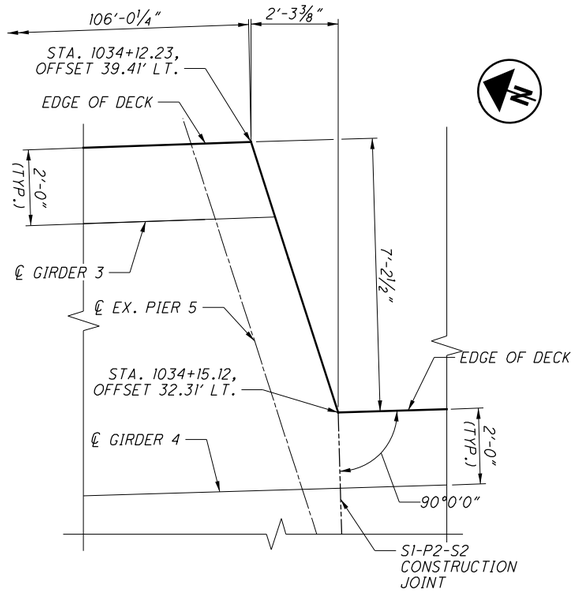
DESIGNED	DRAWN	REVIEWED	DATE
CRG	ADS	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		3115739	

PARAPET PLAN - UNIT 2
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

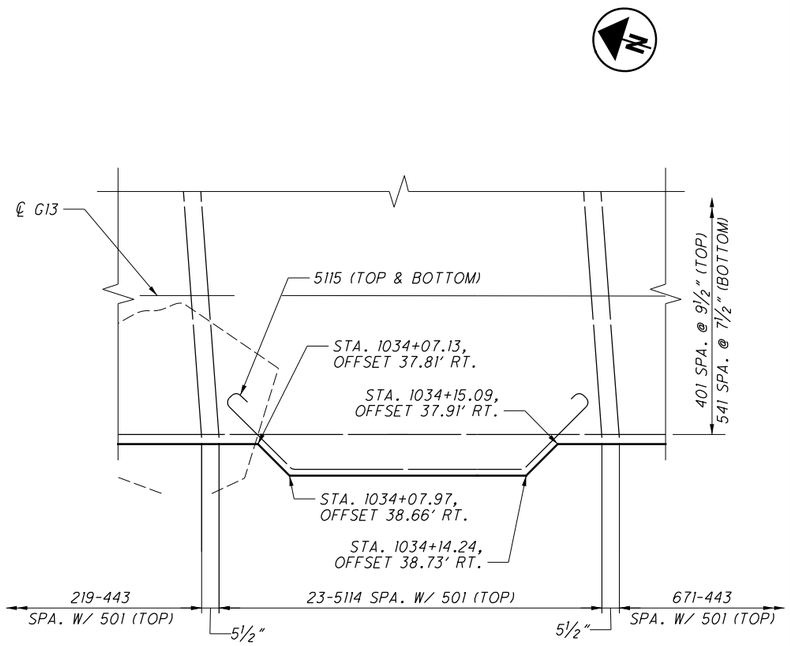
HAM-75-3.84
PID No. 104667



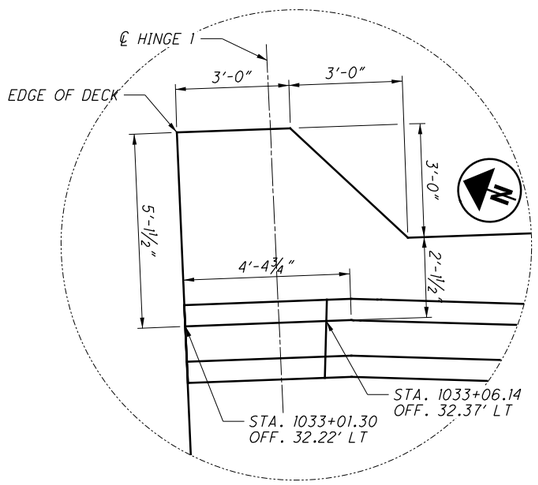
A 60 PARTIAL PLAN - LEFT DECK EDGE



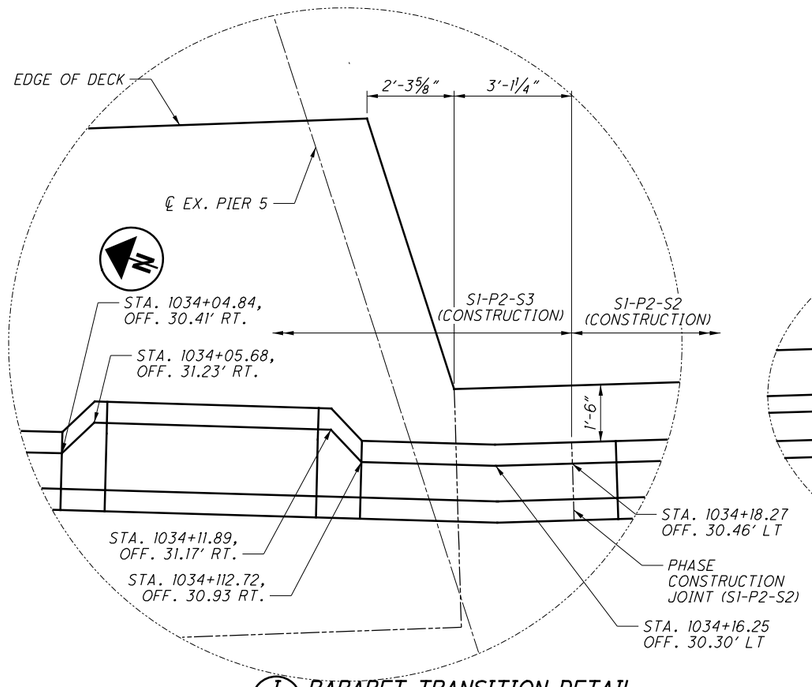
B 60 PARTIAL PLAN - LEFT DECK EDGE



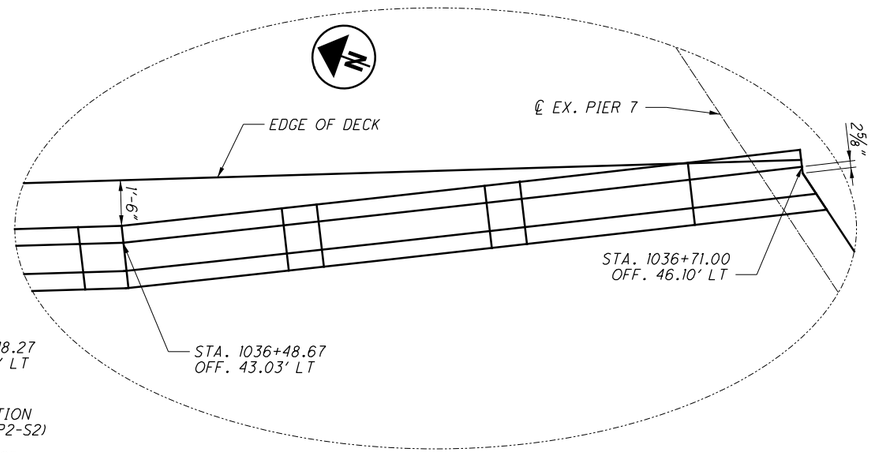
K 60 OVERHEAD SIGN DETAIL



H 64 PARAPET TRANSITION DETAIL



I 64 PARAPET TRANSITION DETAIL



J 64 PARAPET TRANSITION DETAIL

DESIGN AGENCY
PRIME AE
540 WHITE POND DR. SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
CRG	ADS	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		3115739	

DECK OVERHANG, SLAB AND PARAPET DETAILS - UNIT 2

BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

65/100

65/100

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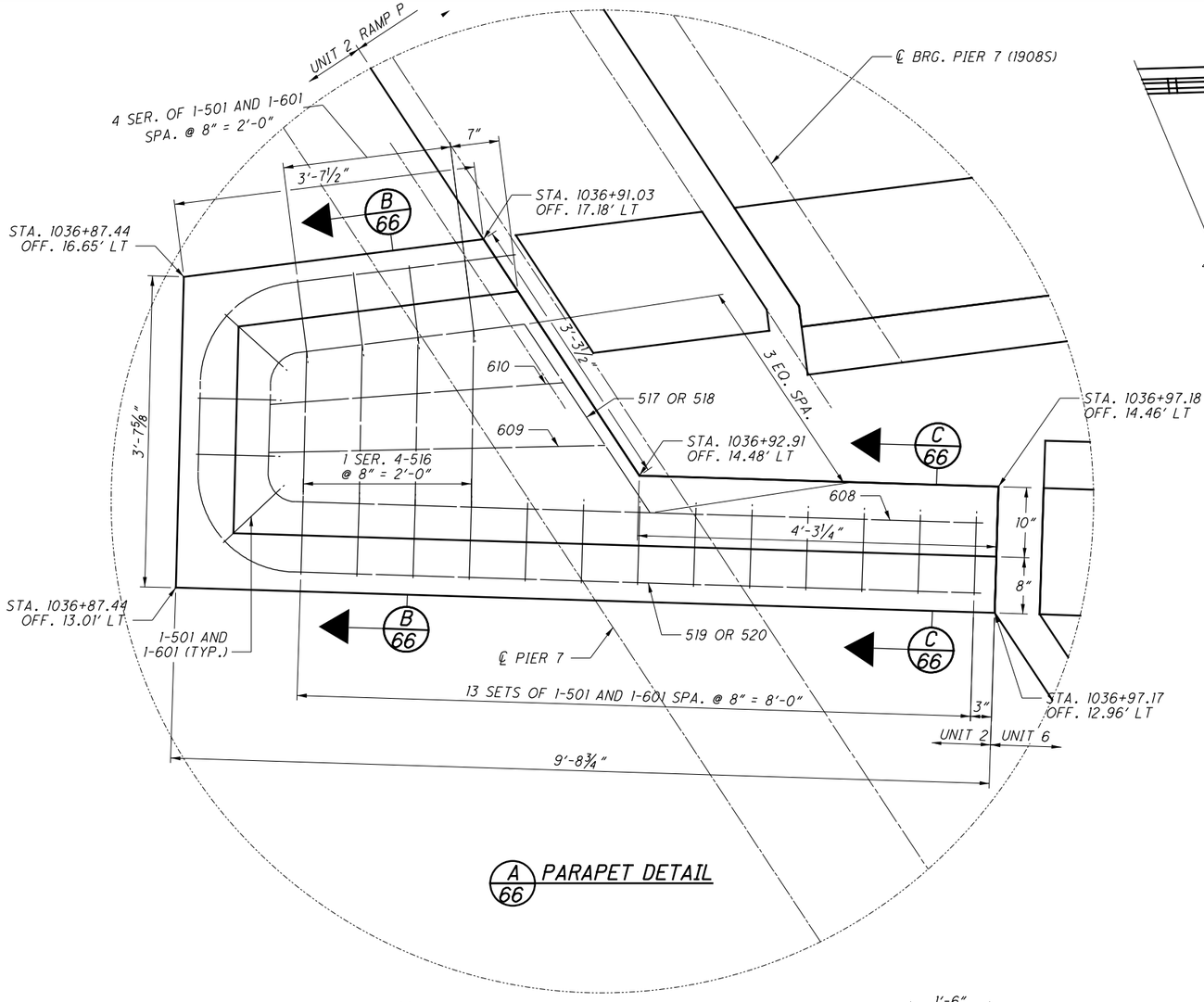
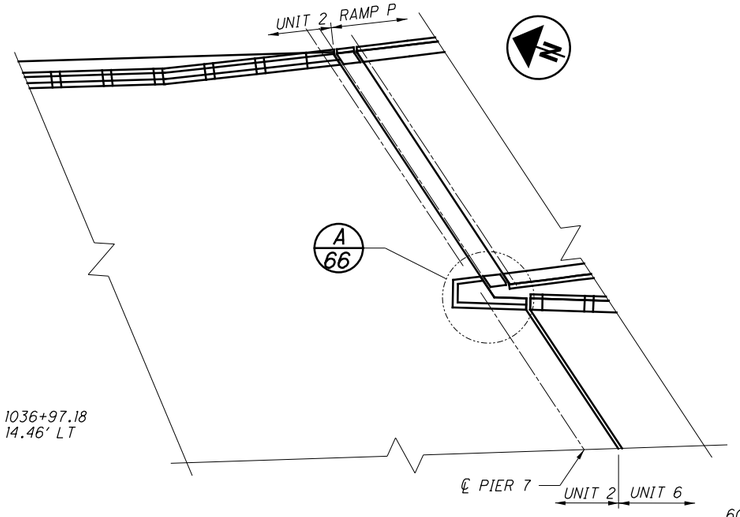
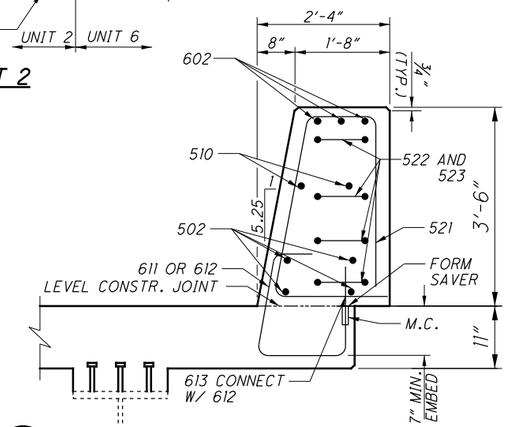


A 66 PARAPET DETAIL

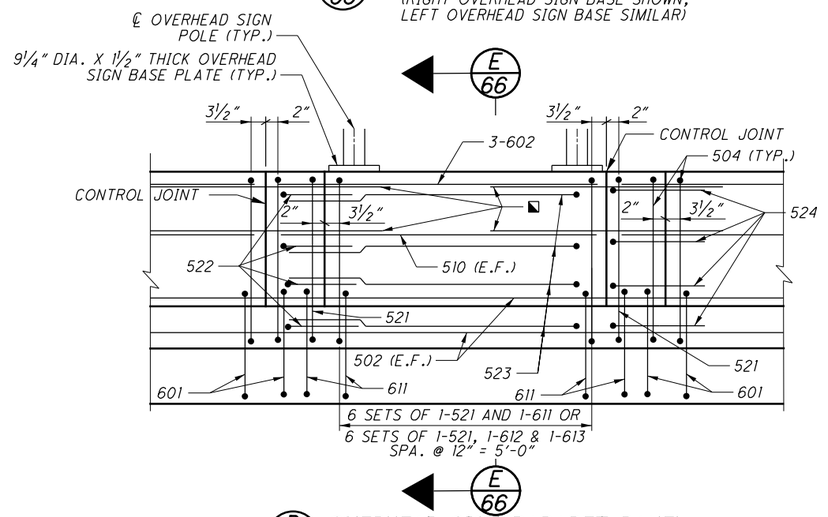


PARAPET PLAN - UNIT 2

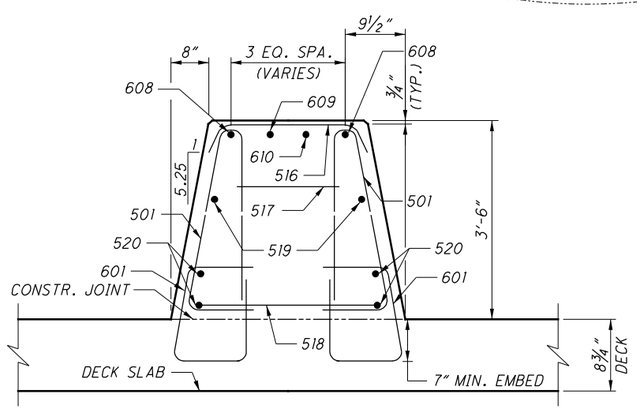


E 66 OVERHEAD SIGN PARAPET PANEL SECTION

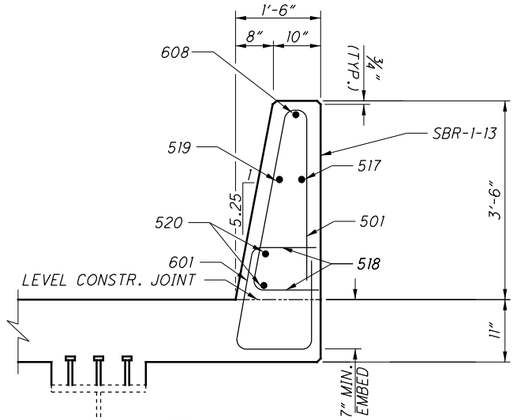
(RIGHT OVERHEAD SIGN BASE SHOWN, LEFT OVERHEAD SIGN BASE SIMILAR)



D 64 OVERHEAD SIGN PARAPET PANEL



B 66 SECTION THRU PARAPET



C 66 SECTION THRU PANEL

NOTES:

1. FOR ADDITIONAL DETAILS, SEE STANDARD DRAWING SBR-1-13.
2. THE PREFIX "2R" SHALL BE ADDED TO ALL BAR MARKS FOR PARAPET DETAILS.
2. FOR ADDITIONAL OVERHEAD SIGN DETAILS, SEE BU-20.

DESIGN AGENCY
PRIME AE
540 WEST POINTE DR. SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
CRG	ADS	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		3115739	

PARAPET AND MEDIAN BARRIER DETAIL - UNIT 2
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

66/100

66
100

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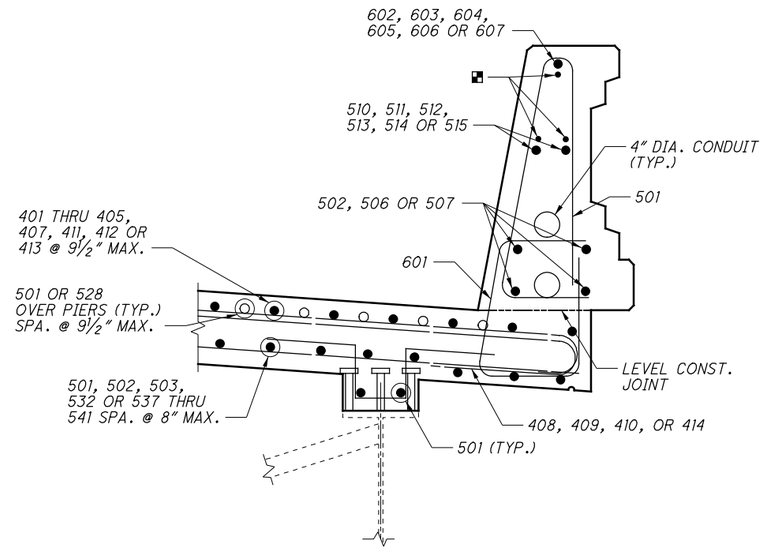
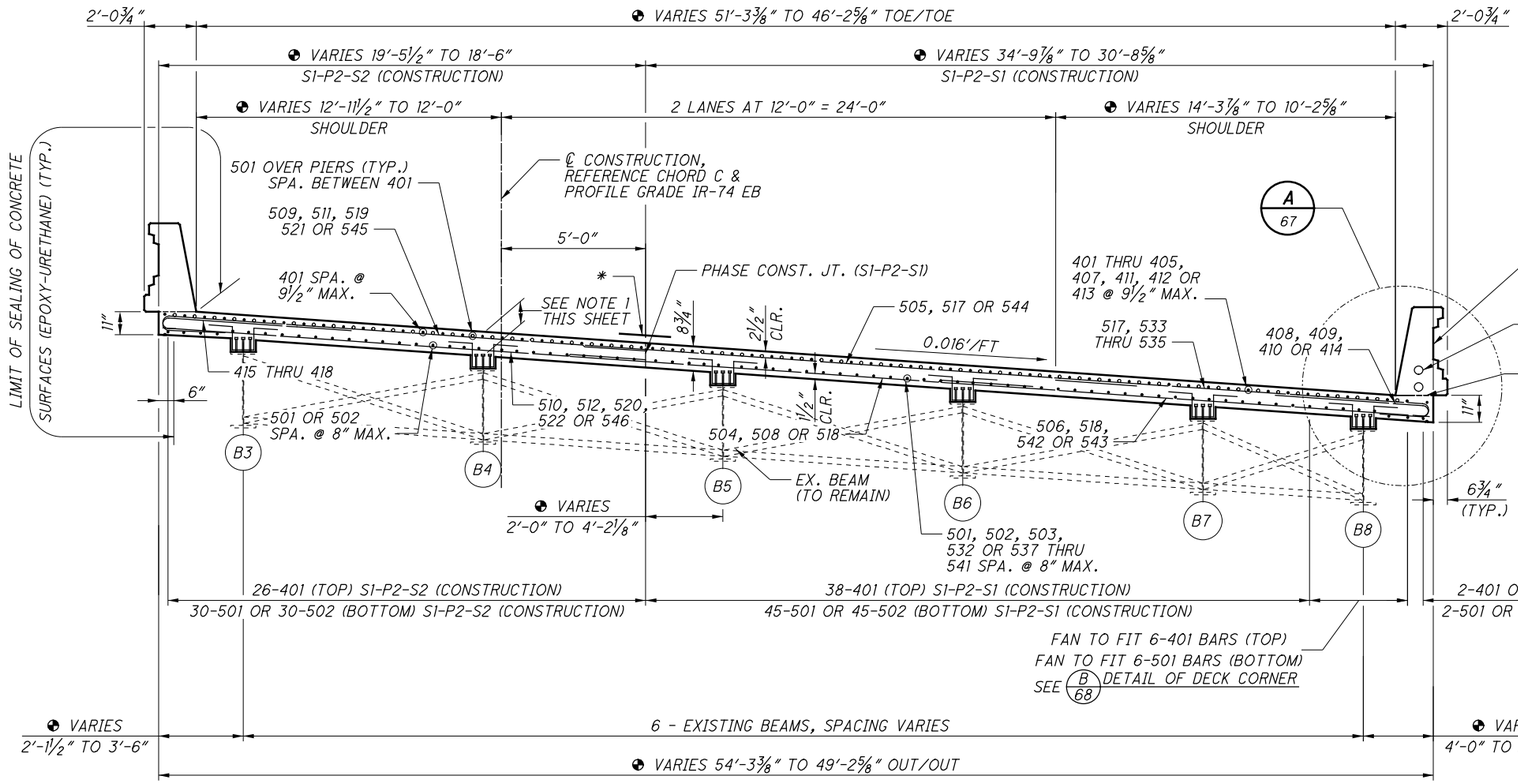


A 67 **DETAIL OF DECK OVERHANG**
(RIGHT SHOWN, LEFT SIMILAR)



TRANSVERSE SECTION - UNIT 6

(HINGE NO. 2 TO ABUTMENT 4)
(PARAPET REINFORCING STEEL NOT SHOWN)

LEGEND:

■ - ½" DIA. GLASS FIBER REINFORCED POLYMER (GFRP) STIFFENING REINFORCEMENT.

SX-PX-SX - STAGE X, PHASE X, STEP X.

◕ - VARIES FROM BEGINNING JOINT NEAR HINGE 2 TO END JOINT NEAR ABUTMENT 4.

* HMWM RESIN, 2'-0" WIDE, CENTERED ON JOINT, FULL LENGTH OF JOINT.

MIN. REQUIRED LAP LENGTH	
#4 LONGITUDINAL	1'-11"
#5 TRANSVERSE (TOP)	2'-5"
#5 TRANSVERSE (BOT.)	3'-0"
#5 LONGITUDINAL	2'-5"

NOTES:

1. FOR HAUNCH DEPTH DETAILS AND ESTIMATED DEPTHS, SEE SHEET 81/100 .
2. THE PREFIX "6S" SHALL BE ADDED TO ALL BAR MARKS IN UNIT 6 SUPERSTRUCTURE.
3. FOR FRAMING PLAN, SEE SHEET 49/100.
4. FOR FINAL DECK ELEVATIONS, SEE SHEET 81/100.
5. FOR DECK PLAN, SEE SHEET 68/100.

DESIGN AGENCY
PRIME AE
540 WHITE POND DR, SUITE E
AKRON, OH 44320

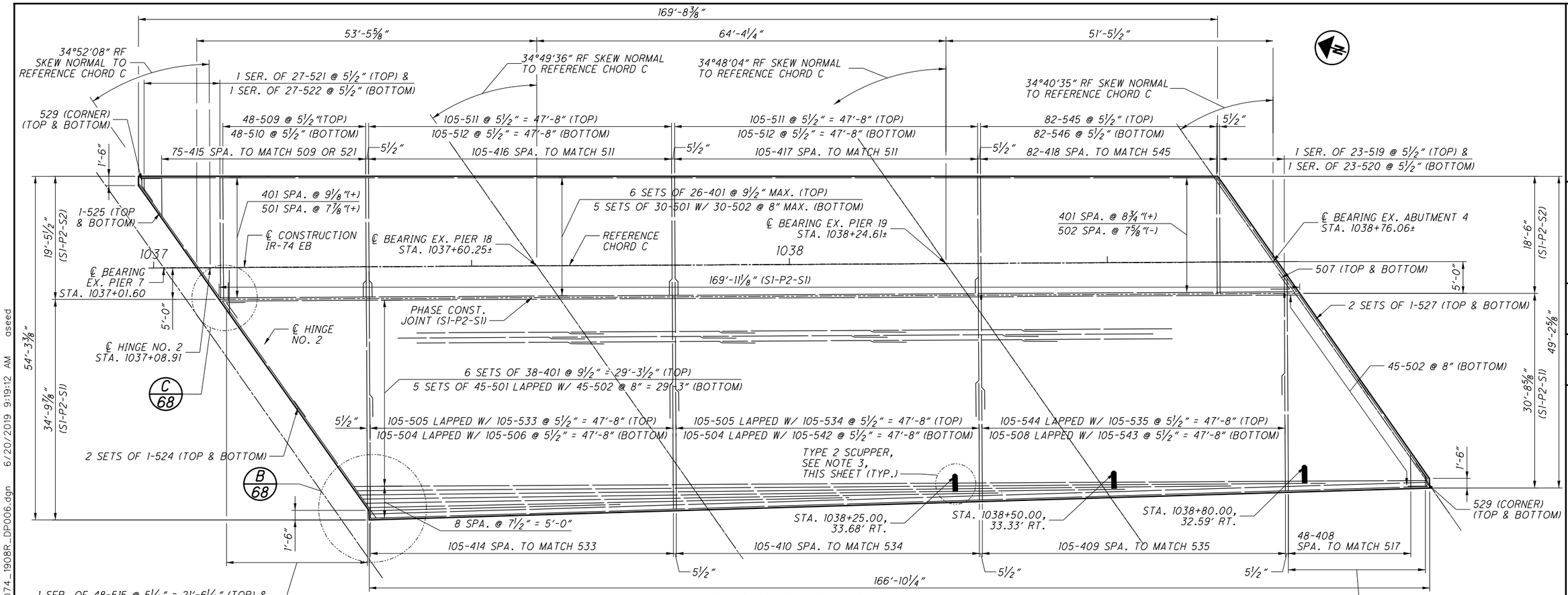
DESIGNED	DRAWN	REVIEWED	DATE
CRG	ADS	TES	7/30/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		3115739	

TRANSVERSE SECTION - UNIT 6
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

67/100

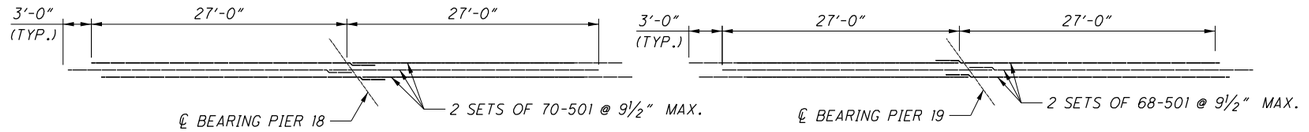
67
100



SLAB PLAN - UNIT 6

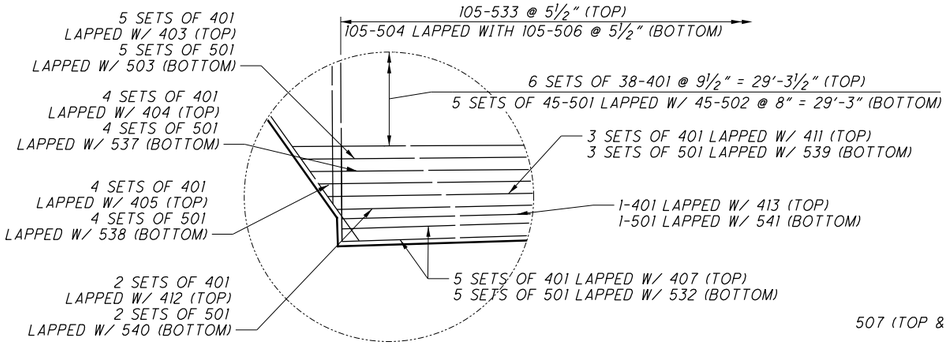
(PARAPET NOT SHOWN)

MIN. REQUIRED LAP LENGTH	
#4 LONGITUDINAL	1'-11"
#5 TRANSVERSE (TOP)	2'-5"
#5 TRANSVERSE (BOT.)	3'-0"
#5 LONGITUDINAL	2'-5"

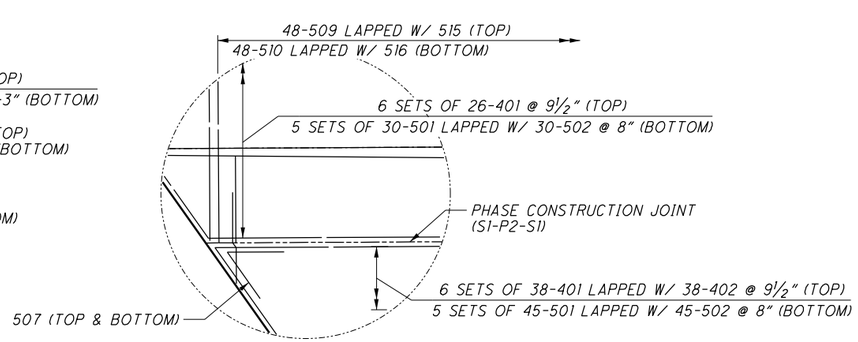


STAGGER DIAGRAM

PIERS 18 & 19



B 68 DETAIL OF DECK CORNER



C 68 DETAIL OF DECK CORNER

NOTES:

1. FOR TRANSVERSE SECTION, SEE SHEET 67100.
2. THE PREFIX "6S" SHALL BE ADDED TO ALL BAR MARKS IN UNIT 6 SUPERSTRUCTURE.
3. FOR TYPE 2 SCUPPER DETAILS, SEE SHEET 93100.

DESIGN AGENCY
PRIME AE
540 WHITE POND DR, SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
JAT	JAT	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CRG		3115739	

SLAB PLAN - UNIT 6
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

68/100

68/100

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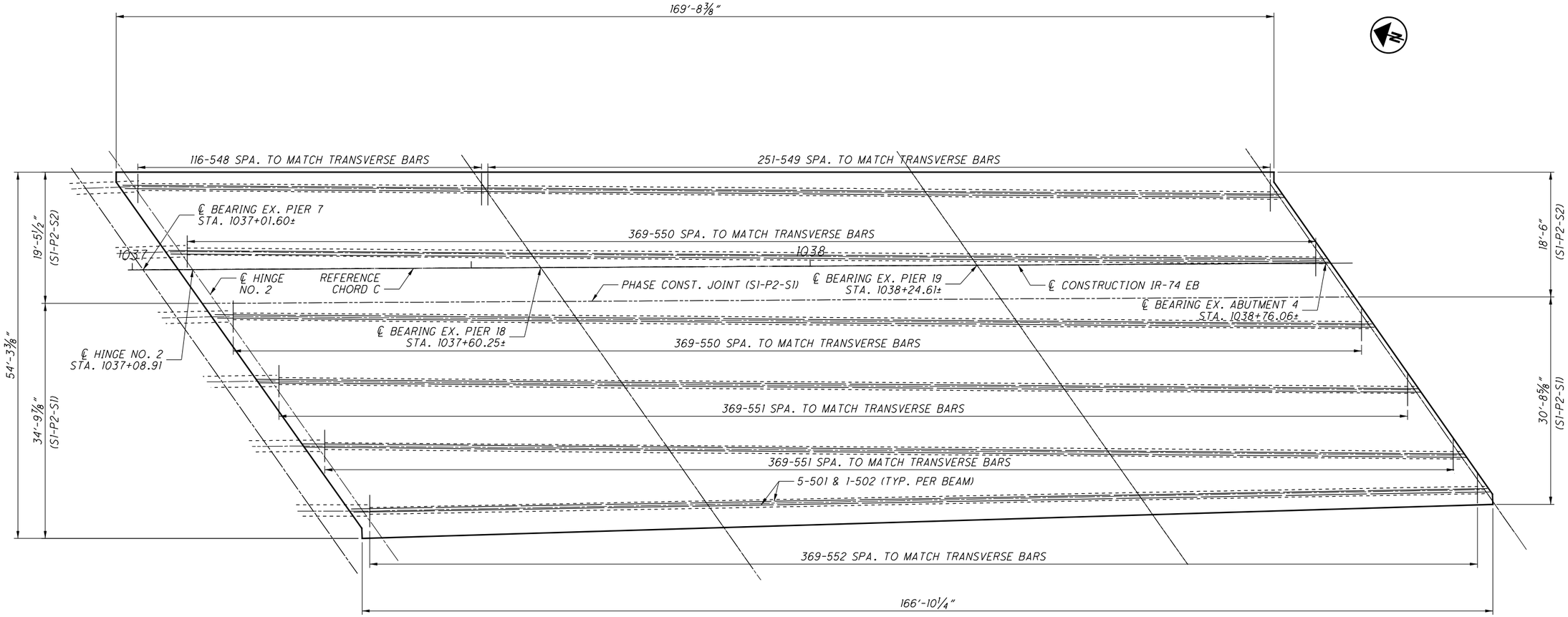

PART SLAB PLAN - UNIT 6

(PARAPET NOT SHOWN)

MIN. REQUIRED LAP LENGTH	
#5 LONGITUDINAL	2'-5"

NOTES:

1. FOR SLAB PLAN, SEE SHEET 68/100.
2. FOR REINFORCING LIST, SEE SHEET 98/100.

DESIGN AGENCY
PRIME AE
540 WHITE POND DR. SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
JAT	JAT	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CRG		3115739	

HAUNCH REINFORCEMENT PLAN - UNIT 6
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

69/100

69
100

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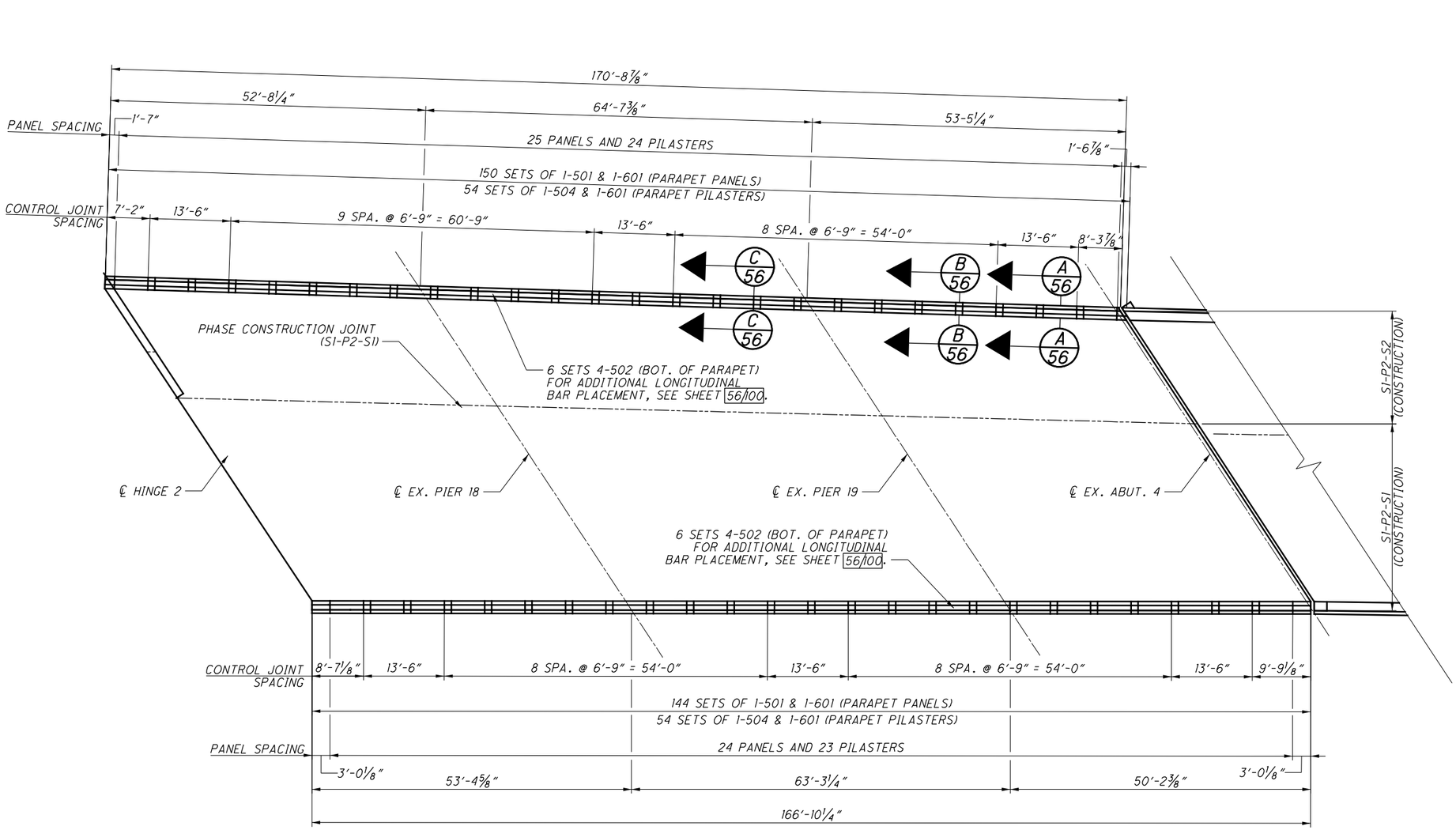

PARAPET PLAN - UNIT 6

REQUIRED MINIMUM LAP LENGTHS	
NO. 5 BAR	2'-5"

NOTES:

1. SEE SHEET 56/100 FOR PARAPET DETAILS.
2. ALL DIMENSIONS ALONG EDGE OF SLAB UNLESS NOTED OTHERWISE.
3. THE PREFIX "6R" SHALL BE ADDED TO ALL BAR MARKS FOR PARAPET DETAILS.
4. FOR REINFORCING STEEL LIST, SEE SHEET 99/100.

DESIGN AGENCY
PRIME AE
540 WHITE POND DR. SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
KDC	ADS	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CRG		3115739	

PARAPET PLAN - UNIT 6
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

70/100

70
100

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SLAB POURING SEQUENCE

S1-P2-S1:

(1) POUR PHASED CONSTRUCTION FROM ABUTMENT 1 TO PIER 18. SEE NOTE 3 FOR MORE DETAILS.

(2) POUR PHASED CONSTRUCTION FROM ABUTMENT 4 TO PIER 18. THIS POUR MUST HAPPEN AFTER SPAN 8 IS POURED, BUT DOES NOT REQUIRE SPAN 8 TO CURE BEFORE POURING THE REMAINDER OF UNIT 6.

S1-P2-S2:

[1] POUR PHASED CONSTRUCTION FROM ABUTMENT 1 TO PIER 18. SEE NOTE 3 FOR MORE DETAILS.

[2] POUR PHASED CONSTRUCTION FROM ABUTMENT 4 TO PIER 18. THIS POUR MUST HAPPEN AFTER SPAN 8 IS POURED, BUT DOES NOT REQUIRE SPAN 8 TO CURE BEFORE POURING THE REMAINDER OF UNIT 6. THE CONTRACTOR HAS THE OPTION OF POURING FROM ABUTMENT 1 TO ABUTMENT 4 IF HOLD DOWN ANCHORS OR COUNTER WEIGHTS CAPABLE OF RESISTING 5 KIPS PER BEAM ARE IMPLEMENTED. IF HOLD DOWN ANCHORS ARE USED, THE ANCHORS SHALL BE CENTERED ON THE BEARING AND WHEN OPERATIONS ARE COMPLETE, THE ANCHORS SHALL BE REMOVED TO 2 INCHES BELOW THE FINISHED CONCRETE SURFACE AND PATCHED WITH A NON-SHRINK, NON-METALLIC GROUT.

△1

S1-P2-S3:

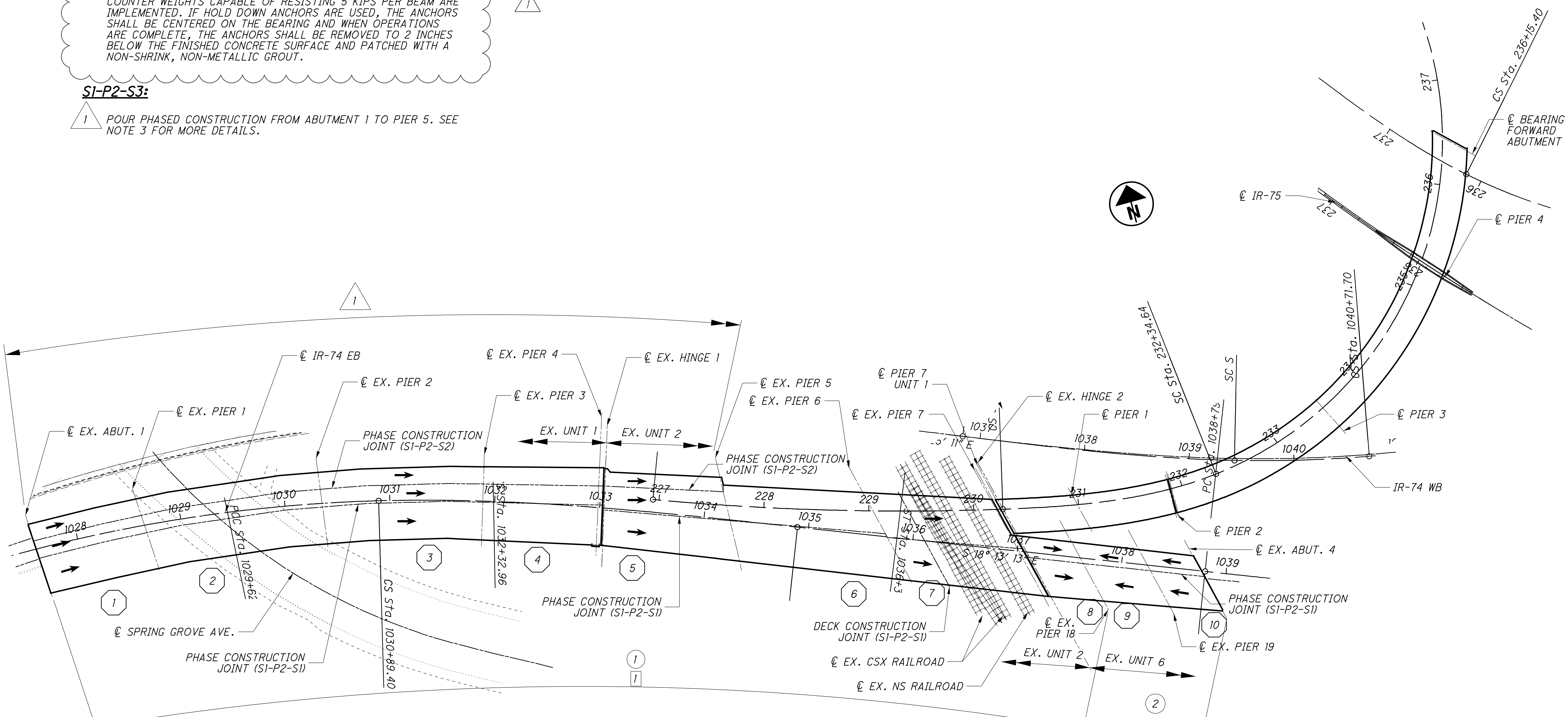
△1 POUR PHASED CONSTRUCTION FROM ABUTMENT 1 TO PIER 5. SEE NOTE 3 FOR MORE DETAILS.

LEGEND:

→ - DIRECTION OF POUR

NOTES:

1. CONSTRUCTION DETAILS ARE FOR I-74 EB (HAM-74-1908R) ONLY. FOR CORRESPONDING CONSTRUCTION DETAILS FOR RAMP P (HAM-74-1908S), SEE BU-05.
2. FOR GENERAL NOTES AND MOT REFERENCE, SEE SHEETS [8/100] AND [9/100].
3. THE CONTRACTOR SHALL CONDUCT SLAB POURS IN THE DIRECTION SHOWN ON THE PLANS. THE CONTRACTOR SHALL HAVE TO OPTION OF POURING ENTIRE UNITS IN ONE POUR; ALTERNATELY, THE CONTRACTOR SHALL HAVE THE OPTION TO STOP POURS WITHIN A UNIT AT PIERS OR AT SPLICE LOCATIONS.



DECK POURING SEQUENCE PLAN

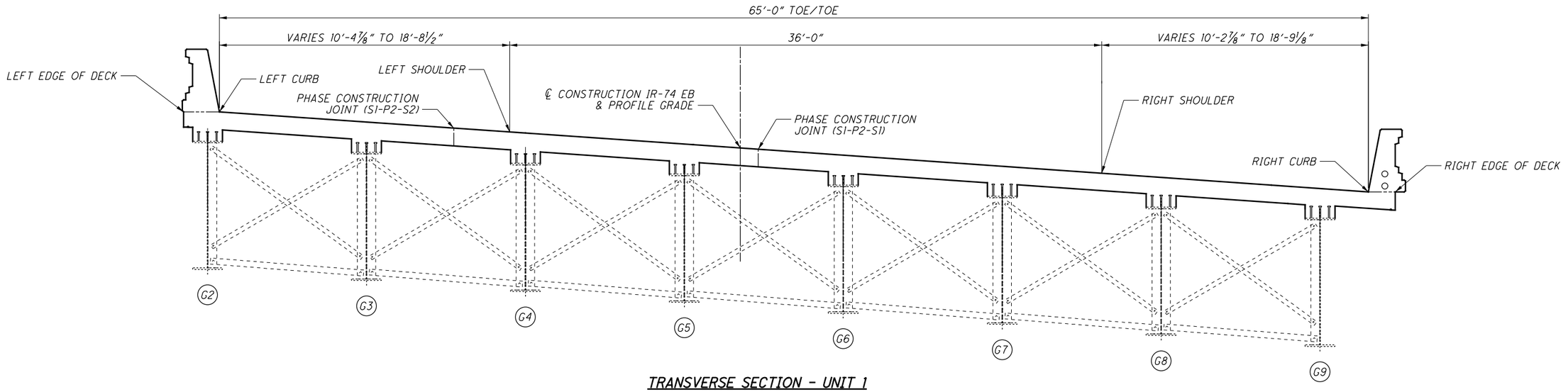
△1 - MODIFIED NOTE FOR PURING SEQUENCE

DESIGN AGENCY: PRIME AE, 540 WHITE POND DR., SUITE E, AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
CRG	CRG	TES	7/30/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KDC		3115739	

DECK POURING SEQUENCE
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

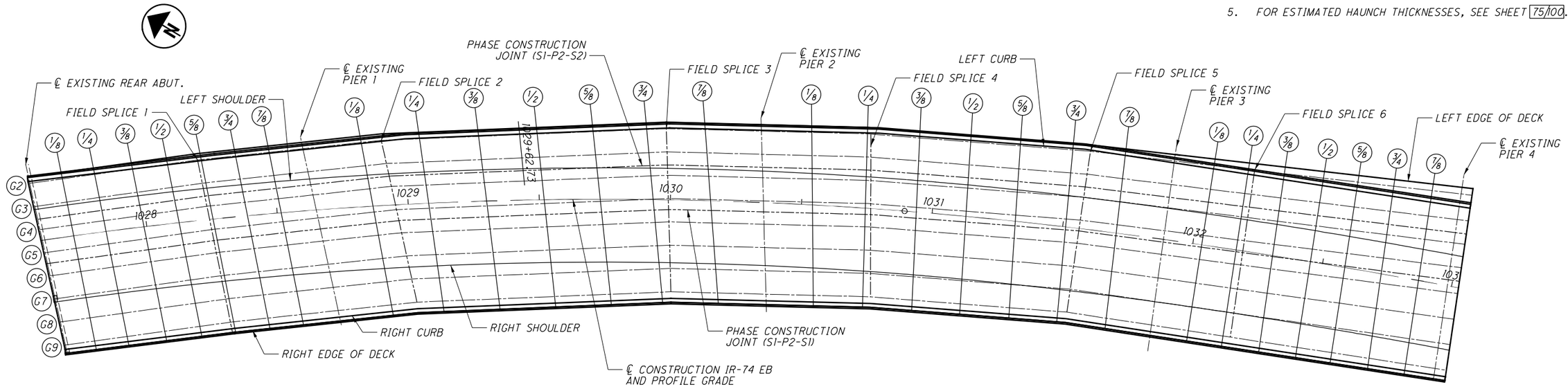
HAM-75-3.84
PID No. 104667



TRANSVERSE SECTION - UNIT 1

NOTES:

1. FOR FINAL DECK ELEVATIONS, SEE SHEET 73/100 & 74/100.
2. FOR DECK PLAN, SEE SHEETS 51/100 AND 52/100.
3. FOR TANSVERSE SECTION, SEE SHEET 50/100.
4. FOR FRAMING PLAN, SEE SHEET 42/100.
5. FOR ESTIMATED HAUNCH THICKNESSES, SEE SHEET 75/100.



ELEVATION LOCATION PLAN - UNIT 1

DESIGN AGENCY
PRIME AE
540 WHITE POND DR, SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
CRG	JAT	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CRG		3115739	

FINAL DECK SURFACE ELEVATION LOCATION - UNIT 1
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

72/100

72
100

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FINAL DECK SURFACE ELEVATIONS - UNIT 1

		ABUTMENT 1	1/8 POINT	1/4 POINT	3/8 POINT	1/2 POINT	FS1	5/8 POINT	3/4 POINT	7/8 POINT	℄ BRG. PIER 1	1/8 POINT	FS2	1/4 POINT	3/8 POINT	1/2 POINT	5/8 POINT	3/4 POINT	FS3 POINT	7/8 POINT	℄ BRG. PIER 2
LEFT EDGE	STATION	1027+58.10	1027+71.01	1027+83.92	1027+96.82	1028+09.72	1028+21.72	1028+22.61	1028+35.51	1028+48.41	1028+61.30	1028+82.83	1028+91.67	1029+04.36	1029+25.90	1029+47.44	1029+68.96	1029+90.46	1029+98.02	1030+11.96	1030+33.4
	ELEV.	517.36	517.52	517.72	517.95	518.19	518.80	518.82	518.73	519.03	519.34	519.92	520.53	520.53	521.11	521.78	522.45	523.20	523.84	523.95	524.72
LEFT CURB	STATION	1027+58.22	1027+71.16	1027+84.10	1027+97.05	1028+09.99	1028+22.04	1028+22.94	1028+35.85	1028+48.77	1028+61.68	1028+83.19	1028+91.33	1029+04.63	1029+26.15	1029+47.67	1029+69.17	1029+90.65	1029+98.12	1030+12.13	1030+33.6
	ELEV.	517.37	517.54	517.75	517.97	518.22	518.47	518.49	518.77	519.06	519.38	519.95	520.19	520.56	521.14	521.80	522.48	523.23	523.51	523.98	524.74
GIRDER 2	STATION	1027+58.28	1027+71.20	1027+84.13	1027+97.05	1028+09.98	1028+22.16	1028+22.89	1028+35.81	1028+48.73	1028+61.64	1028+83.15	1028+91.26	1029+04.66	1029+26.18	1029+47.70	1029+69.20	1029+90.68	1029+98.11	1030+12.15	1030+33.64
	ELEV.	517.37	517.55	517.75	517.97	518.22	518.47	518.48	518.76	519.06	519.38	519.95	520.18	520.56	521.15	521.80	522.48	523.24	523.51	523.99	524.75
LEFT ROUNDING	STATION	1027+58.50	1027+71.47	1027+84.45	1027+97.42	1028+10.40	1028+22.48	1028+23.38	1028+36.33	1028+49.28	1028+62.23	1028+83.70	1028+91.96	1029+05.11	1029+26.60	1029+48.08	1029+69.55	1029+90.99	1029+98.28	1030+12.43	1030+33.88
	ELEV.	517.39	517.57	517.77	518.00	518.24	518.49	518.51	518.79	519.09	519.41	519.98	520.21	520.59	521.17	521.82	522.51	523.26	523.53	524.01	524.77
SHOULDER BREAK	STATION	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	ELEV.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RIGHT ROUNDING	STATION	1027+58.64	1027+71.62	1027+84.62	1027+97.61	1028+10.61	1028+22.71	1028+23.60	1028+36.57	1028+49.54	1028+62.50	1028+83.96	1028+92.28	1029+05.35	1029+26.83	1029+48.29	1029+69.74	1029+91.16	1029+98.35	1030+12.58	1030+34.02
	ELEV.	517.25	517.44	517.64	517.87	518.12	518.37	518.39	518.67	518.97	519.29	519.86	520.10	520.47	521.05	521.69	522.39	523.14	523.40	523.89	524.65
GIRDER 3	STATION	1027+58.90	1027+71.90	1027+84.90	1027+97.90	1028+10.90	1028+23.00	1028+23.89	1028+36.88	1028+49.88	1028+62.86	1028+84.30	1028+92.70	1029+05.73	1029+27.18	1029+48.61	1029+70.03	1029+91.43	1029+98.46	1030+12.83	1030+34.2
	ELEV.	516.97	517.17	517.40	517.65	517.91	518.18	518.20	518.48	518.78	519.10	519.67	519.91	520.24	520.82	521.46	522.16	522.92	523.18	523.66	524.42
LEFT SHOULDER	STATION	1027+58.98	1027+71.98	1027+85.00	1027+98.03	1028+11.07	1028+23.22	1028+24.12	1028+37.15	1028+50.19	1028+63.24	1028+84.76	1028+93.33	1029+06.19	1029+27.60	1029+49.04	1029+70.49	1029+91.93	1029+98.76	1030+13.30	1030+34.6
	ELEV.	516.89	517.09	517.31	517.55	517.79	518.03	518.05	518.32	518.61	518.90	519.42	519.63	519.97	520.55	521.16	521.81	522.49	522.72	523.21	523.95
S1-P2-S2 CONSTRUCTION JOINT	STATION	1027+59.24	1027+72.29	1027+85.33	1027+98.38	1028+11.42	1028+23.55	1028+24.45	1028+37.49	1028+50.52	1028+63.55	1028+84.93	1028+93.48	1029+06.32	1029+27.72	1029+49.11	1029+70.49	1029+91.85	1029+98.70	1030+13.20	1030+34.5
	ELEV.	516.60	516.81	517.03	517.28	517.55	517.82	517.84	518.12	518.42	518.74	519.32	519.57	519.89	520.47	521.11	521.81	522.56	522.82	523.30	524.06
GIRDER 4	STATION	1027+59.52	1027+72.60	1027+85.68	1027+98.76	1028+11.84	1028+23.98	1028+24.90	1028+37.98	1028+51.04	1028+64.11	1028+85.46	1028+94.02	1029+06.81	1029+28.17	1029+49.53	1029+70.87	1029+92.19	1029+98.80	1030+13.51	1030+34.8
	ELEV.	516.31	516.51	516.74	516.99	517.26	517.53	517.55	517.83	518.13	518.46	519.04	519.28	519.61	520.19	520.83	521.52	522.27	522.52	523.01	523.77
RAMP P BASELINE	STATION	1027+59.81	1027+72.93	1027+86.05	1027+99.18	1028+12.33	1028+24.57	1028+25.48	1028+38.61	1028+51.76	1028+64.92	1028+86.33	1028+95.27	1029+07.66	1029+28.97	1029+50.30	1029+71.64	1029+92.97	1029+99.27	1030+14.23	1030+35.49
	ELEV.	516.00	516.21	516.43	516.67	516.92	517.16	517.18	517.45	517.74	518.04	518.56	518.78	519.10	519.68	520.30	520.95	521.63	521.83	522.34	523.08
GIRDER 5	STATION	1027+60.16	1027+73.32	1027+86.47	1027+99.63	1028+12.78	1028+25.09	1028+25.93	1028+39.08	1028+52.22	1028+65.36	1028+86.64	1028+95.61	1029+07.91	1029+29.19	1029+50.47	1029+71.73	1029+92.96	1029+99.28	1030+14.20	1030+35.45
	ELEV.	515.64	515.85	516.08	516.33	516.60	516.88	516.90	517.18	517.49	517.82	518.39	518.65	518.96	519.55	520.19	520.88	521.64	521.87	522.37	523.13
S1-P2-S1 CONSTRUCTION JOINT	STATION	1027+60.46	1027+73.66	1027+86.85	1028+00.05	1028+13.23	1028+25.50	1028+26.42	1028+39.60	1028+52.78	1028+65.96	1028+87.19	1028+96.26	1029+08.42	1029+29.67	1029+50.90	1029+72.13	1029+93.33	1029+99.43	1030+14.53	1030+35.7
	ELEV.	515.33	515.54	515.77	516.02	516.29	516.57	516.59	516.88	517.19	517.52	518.09	518.35	518.67	519.25	519.89	520.59	521.34	521.56	522.07	522.83
GIRDER 6	STATION	1027+60.80	1027+74.04	1027+87.27	1028+00.51	1028+13.74	1028+26.10	1028+26.96	1028+40.19	1028+53.41	1028+66.63	1028+87.83	1028+96.99	1029+09.02	1029+30.22	1029+51.41	1029+72.59	1029+93.74	1029+99.65	1030+14.90	1030+36.07
	ELEV.	514.97	515.19	515.42	515.67	515.95	516.23	516.24	516.53	516.84	517.18	517.75	518.02	518.33	518.91	519.55	520.25	521.00	521.22	521.73	522.48
GIRDER 7	STATION	1027+61.45	1027+74.77	1027+88.08	1028+01.40	1028+14.71	1028+27.13	1028+28.01	1028+41.32	1028+54.62	1028+67.92	1028+89.03	1028+98.52	1029+10.14	1029+31.26	1029+52.37	1029+73.46	1029+94.54	1030+00.02	1030+15.61	1030+36.69
	ELEV.	514.31	514.52	514.76	515.02	515.30	515.58	515.60	515.89	516.20	516.54	517.11	517.39	517.69	518.27	518.91	519.61	520.36	520.56	521.08	521.84
RIGHT SHOULDER	STATION	1027+61.53	1027+74.86	1027+88.19	1028+01.54	1028+14.90	1028+27.34	1028+28.27	1028+41.62	1028+54.98	1028+68.36	1028+89.56	1028+99.25	1029+10.68	1029+31.77	1029+52.88	1029+74.00	1029+95.11	1030+00.32	1030+16.15	1030+37.18
	ELEV.	514.23	514.44	514.67	514.91	515.17	515.42	515.44	515.72	516.01	516.32	516.84	517.08	517.38	517.96	518.58	519.22	519.90	520.07	520.60	521.34
GIRDER 8	STATION	1027+62.11	1027+75.51	1027+88.91	1028+02.30	1028+15.69	1028+28.21	1028+29.08	1028+42.46	1028+55.85	1028+69.23	1028+90.25	1029+00.12	1029+11.28	1029+32.31	1029+53.34	1029+74.35	1029+95.33	1030+00.48	1030+16.32	1030+37.3
	ELEV.	513.65	513.86	514.10	514.36	514.64	514.93	514.94	515.24	515.56	515.90	516.47	516.76	517.05	517.64	518.28	518.97	519.72	519.91	520.45	521.20
GIRDER 9	STATION	1027+62.77	1027+76.25	1027+89.73	1028+03.21	1028+16.69	1028+29.21	1028+30.15	1028+43.62	1028+57.09	1028+70.55	1028+91.49	1029+01.55	1029+12.43	1029+33.38	1029+54.32	1029+75.25	1029+96.15	1030+00.82	1030+17.05	1030+37.9
	ELEV.	512.98	513.20	513.44	513.70	513.99	514.27	514.29	514.59	514.91	515.26	515.83	516.13	516.41	517.00	517.64	518.33	519.08	519.25	519.80	520.56
RIGHT CURB	STATION	1027+62.90	1027+76.42	1027+89.93	1028+03.44	1028+16.95	1028+29.51	1028+30.46	1028+43.95	1028+57.44	1028+70.92	1028+91.84	1029+01.98	1029+12.76	1029+33.68	1029+54.60	1029+75.50	1029+96.38	1030+00.93	1030+17.26	1030+38.1
	ELEV.	512.86	513.07	513.29	513.55	513.82	514.09	514.11	514.41	514.73	515.08	515.66	515.95	516.24	516.82	517.46	518.15	518.90	519.07	519.62	520.38
RIGHT EDGE	STATION	1027+63.01	1027+76.53	1027+90.06	1028+03.59	1028+17.12	1028+29.69	1028+30.64	1028+44.14	1028+57.65	1028+71.14	1028+92.05	1029+02.24	1029+12.95	1029+33.86	1029+54.77	1029+75.65	1029+96.51	1030+01.00	1030+17.38	1030+38.2
	ELEV.	512.86	513.07	513.30	513.55	513.82	514.10	514.12	514.42	514.74	515.08	515.66	515.96	516.24	516.83	517.47	518.16	518.91	519.07	519.63	520.38

NOTES:

1. FINAL DECK ELEVATIONS SHOWN REPRESENT THE DECK SURFACE LOCATION AFTER ALL ANTICIPATED DEAD LOAD DEFLECTIONS HAVE OCCURED.
2. FOR ELEVATION DIAGRAM DEPICTING DECK SURFACE LOCATIONS IN TRANSVERSE SECTION AND PLAN VIEW, SEE SHEET 72/100.
3. FOR DECK POURING SEQUENCE, SEE SHEET 71/100.
4. FOR ADDITIONAL NOTES, SEE SHEET 72/100.

DESIGN AGENCY
PRIME AE
540 WEST POINT PIKE, SUITE E
WAYNE, PA 19087

DESIGNED CRG | CHECKED CRG | DRAWN JAT | REVIEWED TES | DATE 7/30/2019
REVISED | STRUCTURE FILE NUMBER 3115739

FINAL DECK SURFACE ELEVATION - UNIT 1 (1 OF 2)
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

73/100

73/100

FINAL DECK SURFACE ELEVATIONS - UNIT 1

		1/8 POINT	1/4 POINT	FS4 POINT	3/8 POINT	1/2 POINT	5/8 POINT	3/4 POINT	FS5 POINT	7/8 POINT	℄ BRG. PIER 3	1/8 POINT	1/4 POINT	FS6 POINT	3/8 POINT	1/2 POINT	5/8 POINT	3/4 POINT	7/8 POINT	℄ BRG. PIER 4
LEFT EDGE	STATION	1030+52.87	1030+72.24	1030+73.13	1030+91.63	1031+11.02	1031+30.43	1031+49.84	1031+57.12	1031+69.28	1031+88.72	1032+02.26	1032+15.79	1032+19.07	1032+30.00	1032+42.87	1032+56.41	1032+69.96	1032+83.51	1032+97.06
	ELEV.	525.81	526.58	526.61	527.29	527.91	528.54	529.17	529.39	529.73	530.27	530.64	531.02	531.11	531.41	531.77	532.14	532.52	532.88	533.24
LEFT CURB	STATION	1030+52.99	1030+72.35	1030+73.06	1030+91.71	1031+11.09	1031+30.48	1031+49.88	1031+57.06	1031+69.30	1031+88.72	1032+02.28	1032+15.83	1032+19.10	1032+30.00	1032+42.97	1032+56.55	1032+70.13	1032+83.72	1032+97.32
	ELEV.	525.82	526.58	526.61	527.29	527.91	528.54	529.17	529.39	529.73	530.27	530.64	531.02	531.11	531.41	531.77	532.15	532.52	532.89	533.25
GIRDER 2	STATION	1030+53.01	1030+72.37	1030+73.16	1030+91.74	1031+11.11	1031+30.50	1031+49.89	1031+56.96	1031+69.30	1031+88.72	1032+02.27	1032+15.81	1032+19.09	1032+29.36	1032+42.91	1032+56.47	1032+70.03	1032+83.59	1032+97.15
	ELEV.	525.79	526.56	526.59	527.25	527.87	528.50	529.13	529.36	529.73	530.27	530.64	531.02	531.11	531.40	531.77	532.14	532.52	532.88	533.24
GIRDER 3	STATION	1030+53.54	1030+72.83	1030+74.19	1030+92.13	1031+11.43	1031+30.74	1031+50.05	1031+56.62	1031+69.37	1031+88.71	1032+02.30	1032+15.90	1032+19.15	1032+29.50	1032+43.09	1032+56.69	1032+70.29	1032+83.89	1032+97.49
	ELEV.	525.15	525.91	525.97	526.61	527.25	527.90	528.55	528.77	529.16	529.76	530.18	530.60	530.70	531.01	531.43	531.84	532.24	532.64	533.03
LEFT SHOULDER	STATION	1030+53.95	1030+73.23	1030+74.55	1030+92.47	1031+11.72	1031+30.97	1031+50.22	1031+56.59	1031+69.46	1031+88.70	1032+02.37	1032+16.01	1032+19.21	1032+30.00	1032+43.31	1032+56.97	1032+70.63	1032+84.30	1032+97.96
	ELEV.	524.66	525.37	525.42	526.06	526.71	527.36	527.99	528.19	528.61	529.21	529.64	530.05	530.15	530.48	530.87	531.27	531.67	532.06	532.44
S1-P2-S2 CONSTRUCTION JOINT	STATION	1030+53.84	1030+73.09	1030+74.32	1030+92.35	1031+11.62	1031+30.88	1031+50.15	1031+56.69	1031+69.42	1031+88.71	1032+02.34	1032+15.96	1032+19.18	1032+30.00	1032+43.20	1032+56.82	1032+70.44	1032+84.05	1032+97.67
	ELEV.	524.79	525.55	525.60	526.25	526.91	527.57	528.23	528.46	528.86	529.47	529.90	530.32	530.42	530.76	531.17	531.59	532.01	532.41	532.81
GIRDER 4	STATION	1030+54.08	1030+73.30	1030+74.76	1030+92.53	1031+11.76	1031+30.99	1031+50.22	1031+56.56	1031+69.46	1031+88.70	1032+02.34	1032+15.99	1032+19.21	1032+29.63	1032+43.27	1032+56.91	1032+70.54	1032+84.17	1032+97.81
	ELEV.	524.50	525.26	525.32	525.96	526.62	527.30	527.97	528.19	528.61	529.22	529.66	530.10	530.20	530.53	530.96	531.39	531.81	532.23	532.64
RAMP P BASELINE	STATION	1030+54.68	1030+73.87	1030+75.64	1030+93.01	1031+12.17	1031+31.32	1031+50.45	1031+56.27	1031+69.57	1031+88.69	1032+02.43	1032+16.14	1032+19.29	1032+30.00	1032+43.55	1032+57.26	1032+70.97	1032+84.68	1032+98.39
	ELEV.	523.78	524.49	524.56	525.19	525.87	526.54	527.20	527.40	527.85	528.49	528.94	529.38	529.48	529.82	530.25	530.68	531.10	531.52	531.92
GIRDER 5	STATION	1030+54.62	1030+73.77	1030+75.40	1030+92.93	1031+12.09	1031+31.25	1031+50.39	1031+56.26	1031+69.54	1031+88.69	1032+02.38	1032+16.07	1032+19.27	1032+29.76	1032+43.44	1032+57.12	1032+70.79	1032+84.46	1032+98.12
	ELEV.	523.86	524.62	524.68	525.31	526.00	526.70	527.39	527.61	528.05	528.69	529.14	529.60	529.70	530.05	530.50	530.94	531.39	531.82	532.24
S1-P2-S1 CONSTRUCTION JOINT	STATION	1030+54.87	1030+74.00	1030+75.86	1030+93.12	1031+12.25	1031+31.37	1031+50.48	1031+56.24	1031+69.58	1031+88.69	1032+02.43	1032+16.14	1032+19.30	1032+30.00	1032+43.55	1032+57.25	1032+70.94	1032+84.62	1032+98.30
	ELEV.	523.56	524.32	524.39	525.01	525.72	526.42	527.13	527.34	527.78	528.42	528.88	529.34	529.45	529.80	530.25	530.70	531.15	531.59	532.02
GIRDER 6	STATION	1030+55.17	1030+74.25	1030+76.45	1030+93.34	1031+12.43	1031+31.50	1031+50.56	1031+56.02	1031+69.62	1031+88.68	1032+02.42	1032+16.16	1032+19.33	1032+29.90	1032+43.63	1032+57.35	1032+71.06	1032+84.77	1032+98.47
	ELEV.	523.22	523.97	524.06	524.67	525.38	526.10	526.82	527.02	527.48	528.13	528.61	529.08	529.18	529.54	530.00	530.47	530.93	531.38	531.82
GIRDER 7	STATION	1030+55.72	1030+74.74	1030+77.89	1030+93.75	1031+12.77	1031+31.76	1031+50.74	1031+55.84	1031+69.70	1031+88.67	1032+02.46	1032+16.25	1032+19.39	1032+30.04	1032+43.81	1032+57.58	1032+71.33	1032+85.08	1032+98.82
	ELEV.	522.57	523.32	523.45	524.03	524.76	525.50	526.24	526.43	526.92	527.59	528.07	528.55	528.67	529.04	529.52	530.00	530.47	530.94	531.39
RIGHT SHOULDER	STATION	1030+56.18	1030+75.18	1030+77.88	1030+94.14	1031+13.09	1031+32.02	1031+50.93	1031+55.61	1031+69.79	1031+88.66	1032+02.56	1032+16.39	1032+19.46	1032+30.21	1032+44.03	1032+57.85	1032+71.65	1032+85.45	1032+99.24
	ELEV.	522.04	522.74	522.84	523.44	524.19	524.92	525.64	525.81	526.34	527.04	527.54	528.04	528.15	528.53	529.01	529.49	529.97	530.44	530.89
GIRDER 8	STATION	1030+56.28	1030+75.22	1030+77.94	1030+94.17	1031+13.11	1031+32.03	1031+50.91	1031+55.72	1031+69.79	1031+88.66	1032+02.50	1032+16.34	1032+19.45	1032+30.18	1032+44.00	1032+57.81	1032+71.61	1032+85.39	1032+99.17
	ELEV.	521.93	522.68	522.79	523.39	524.14	524.90	525.66	525.85	526.36	527.04	527.54	528.04	528.15	528.54	529.03	529.53	530.02	530.50	530.97
GIRDER 9	STATION	1030+56.85	1030+75.73	1030+78.80	1030+94.60	1031+13.46	1031+32.30	1031+51.10	1031+55.38	1031+69.88	1031+88.65	1032+02.60	1032+16.49	1032+19.52	1032+30.36	1032+44.22	1032+58.07	1032+71.90	1032+85.72	1032+99.52
	ELEV.	521.28	522.03	522.15	522.75	523.53	524.31	525.09	525.26	525.80	526.49	527.01	527.52	527.64	528.04	528.55	529.06	529.56	530.06	530.55
RIGHT CURB	STATION	1030+57.01	1030+75.87	1030+79.04	1030+94.72	1031+13.56	1031+32.37	1031+51.15	1031+55.31	1031+69.90	1031+88.64	1032+02.62	1032+16.51	1032+19.54	1032+30.40	1032+44.27	1032+58.13	1032+71.97	1032+85.80	1032+99.61
	ELEV.	521.10	521.84	521.97	522.56	523.35	524.14	524.92	525.10	525.64	526.34	526.86	527.38	527.50	527.90	528.42	528.93	529.45	529.95	530.44
RIGHT EDGE	STATION	1030+57.11	1030+75.95	1030+79.19	1030+94.79	1031+13.62	1031+32.42	1031+51.18	1031+55.27	1031+69.92	1031+88.64	1032+02.63	1032+16.53	1032+19.55	1032+30.42	1032+44.30	1032+58.16	1032+72.01	1032+85.85	1032+99.67
	ELEV.	521.10	521.85	521.97	522.57	523.35	524.14	524.92	525.09	525.64	526.34	526.86	527.38	527.50	527.90	528.42	528.93	529.45	529.95	530.45

NOTES:

1. FINAL DECK ELEVATIONS SHOWN REPRESENT THE DECK SURFACE LOCATION AFTER ALL ANTICIPATED DEAD LOAD DEFLECTIONS HAVE OCCURED.
2. FOR ELEVATION DIAGRAM DEPICTING DECK SURFACE LOCATIONS IN TRANSVERSE SECTION AND PLAN VIEW, SEE SHEET 72/100.
3. FOR DECK POURING SEQUENCE, SEE SHEET 71/100.
4. FOR ADDITIONAL NOTES, SEE SHEET 72/100.

DESIGN AGENCY
PRIME AE
540 METROPLEX DRIVE, SUITE E
AKRON, OH 44320

DESIGNED CRG | DRAWN JAT | REVIEWED TES | DATE 3/27/2019
CHECKED CRG | REVISED | STRUCTURE FILE NUMBER 3115739

FINAL DECK SURFACE ELEVATIONS - UNIT 1 (2 OF 2)
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

74/100

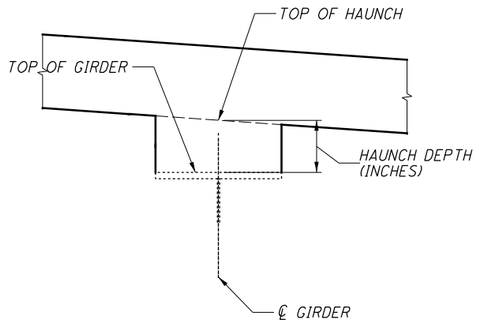
74/100

ESTIMATED HAUNCH DEPTH TABLE (IN)																				
	℄ REAR ABUT, UNIT 1	1/8 POINT	1/4 POINT	3/8 POINT	1/2 POINT	FS1	5/8 POINT	3/4 POINT	7/8 POINT	℄ BRG. PIER 1	1/8 POINT	FS2	1/4 POINT	3/8 POINT	1/2 POINT	5/8 POINT	3/4 POINT	FS3	7/8 POINT	℄ BRG. PIER 2
GIRDER 2	6.84	6.42	6.25	6.33	6.49	4.56	5.55	5.29	4.21	4.38	5.59	4.34	5.12	4.06	3.69	4.02	5.03	4.04	3.22	3.30
GIRDER 3	7.79	7.44	7.33	7.48	7.89	6.24	7.21	6.92	5.88	6.10	7.01	5.67	6.17	5.11	4.72	5.01	6.00	4.97	4.14	4.23
GIRDER 4	8.86	8.46	8.31	8.43	8.79	7.11	8.07	7.73	6.63	6.78	7.59	6.20	6.73	5.66	5.26	5.55	6.52	5.44	4.70	4.91
GIRDER 5	9.62	9.28	9.19	9.36	9.80	8.18	9.15	8.77	7.77	7.90	8.82	7.53	8.02	6.81	6.28	6.41	7.21	6.08	5.53	6.04
GIRDER 6	10.48	10.02	9.82	9.88	10.21	8.74	9.72	9.49	8.53	8.83	9.85	8.56	9.10	7.92	7.42	7.59	8.39	6.99	6.99	7.56
GIRDER 7	9.85	9.53	9.47	9.67	10.14	8.81	9.77	9.27	8.05	8.08	8.67	7.19	7.81	6.73	6.31	6.55	7.43	6.02	5.98	6.51
GIRDER 8	8.51	8.14	8.04	8.22	8.64	7.28	8.24	7.74	6.49	6.52	7.36	6.01	6.66	5.57	5.12	5.32	6.17	4.73	4.71	5.25
GIRDER 9	7.35	6.99	6.89	7.06	7.50	6.14	7.10	6.66	5.49	5.59	6.31	4.91	5.56	4.41	3.91	4.05	4.83	3.34	3.49	4.25

ESTIMATED HAUNCH DEPTH TABLE (IN)																			
	℄ BRG. PIER 2	1/8 POINT	1/4 POINT	FS4	3/8 POINT	1/2 POINT	5/8 POINT	3/4 POINT	FS5	7/8 POINT	℄ BRG. PIER 3	1/8 POINT	1/4 POINT	FS6	3/8 POINT	1/2 POINT	5/8 POINT	3/4 POINT	7/8 POINT	℄ BRG. PIER 4
GIRDER 2	3.30	3.96	5.46	6.00	8.53	8.32	8.16	8.01	6.96	6.33	5.63	5.51	5.39	4.36	7.01	6.86	6.71	6.56	6.31	5.96
GIRDER 3	4.23	4.89	6.38	6.45	9.31	9.17	9.08	9.01	7.96	7.45	7.41	7.47	7.50	6.49	9.26	9.24	9.17	9.08	8.88	8.55
GIRDER 4	4.91	5.68	7.26	7.35	10.07	10.10	10.18	10.26	9.29	8.51	8.12	8.12	8.10	7.10	9.82	9.73	9.62	9.48	9.24	8.86
GIRDER 5	6.04	7.07	8.90	9.01	11.49	11.49	11.52	11.59	10.59	9.72	9.16	9.06	8.92	7.90	10.53	10.32	10.10	9.85	9.49	8.97
GIRDER 6	7.56	8.63	11.23	11.40	12.68	12.75	12.86	12.98	11.99	10.76	9.72	9.57	9.41	8.35	10.71	10.44	10.20	9.93	9.53	8.99
GIRDER 7	6.51	7.54	10.08	10.32	11.79	12.22	12.68	13.20	12.32	11.27	10.48	10.27	10.01	8.97	11.28	10.96	10.67	10.31	9.89	9.29
GIRDER 8	5.25	6.27	8.81	9.00	10.53	11.21	11.92	12.63	11.80	10.91	10.40	10.10	9.79	8.72	10.96	10.60	10.24	9.84	9.33	8.71
GIRDER 9	4.25	5.46	8.18	8.43	9.96	10.80	11.65	12.49	11.67	10.87	10.50	10.13	9.74	8.67	10.86	10.44	10.01	9.56	9.00	8.32

NOTES:

1. FOR ELEVATION DIAGRAM DEPICTING DECK SURFACE LOCATIONS IN TRANSVERSE SECTION AND PLAN VIEW, SEE SHEET 72/100.
2. FOR ADDITIONAL NOTES, SEE SHEET 72/100.

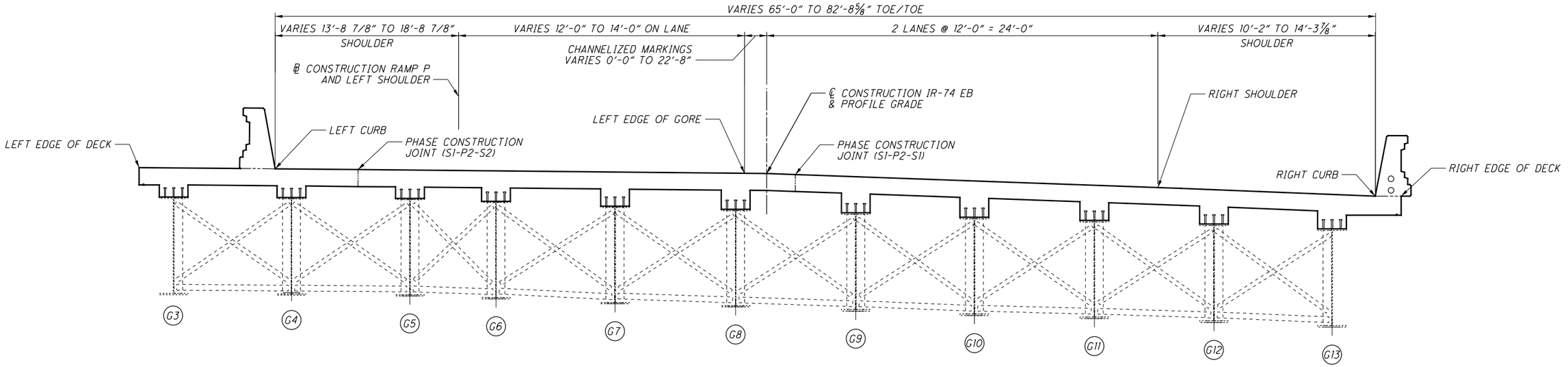


DESIGN AGENCY
PRIME AE
540 WHITEWOOD DR, SUITE E
AKRON, OH 44320

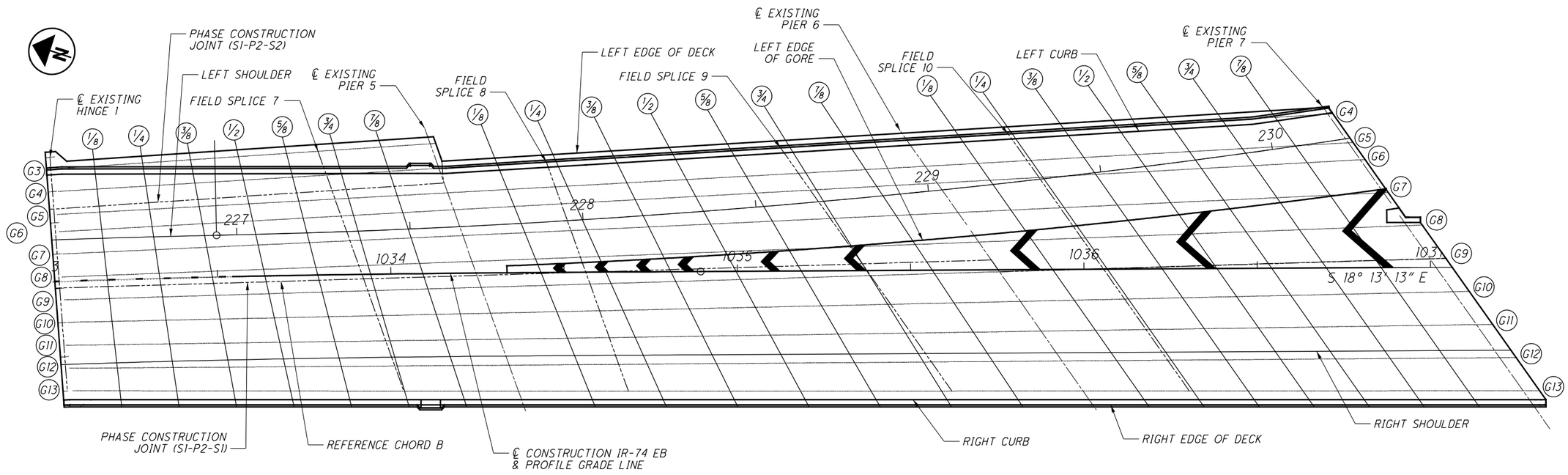
DESIGNED	DRAWN	REVIEWED	DATE
CRG	AMT	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CRG		3115739	

HAUNCH DEPTH - UNIT 1
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667



TRANSVERSE SECTION - UNIT 2



ELEVATION LOCATION PLAN - UNIT 2

NOTES:

1. FOR FINAL DECK ELEVATIONS, SEE SHEETS 77/100 AND 78/100.
2. FOR DECK PLAN, SEE SHEETS 60/100 AND 61/100.
3. FOR TANSVERSE SECTION, SEE SHEET 58/100.
4. FOR FRAMING PLAN, SEE SHEET 46/100.
5. FOR ESTIMATED HAUNCH THICKNESSES, SEE SHEET 79/100.

DESIGN AGENCY
PRIME AE
540 WEST POINTE DRIVE, SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
CRG	JAT	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CRG		3115739	

FINAL DECK SURFACE ELEVATION LOCATION - UNIT 2
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

76/100

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FINAL DECK SURFACE ELEVATIONS - UNIT 2

		HINGE 1	1/8 POINT	1/4 POINT	3/8 POINT	1/2 POINT	5/8 POINT	FS7	3/4	7/8 POINT	℄ BRG. PIER 5	1/8 POINT	FS8	1/4 POINT	3/8 POINT	1/2 POINT
LEFT EDGE	STATION	1033+02.83	1033+16.45	1033+29.96	1033+43.47	227+01.27	227+15.04	227+23.59	227+28.81	227+42.58	227+56.36	227+75.52	227+89.82	227+92.42	228+09.36	228+26.30
	ELEV.	533.39	533.70	534.00	534.29	534.58	534.85	535.03	535.13	535.39	535.64	536.00	536.25	536.29	536.57	536.83
GIRDER 3	STATION	1033+03.03	1033+16.60	1033+30.18	1033+43.76	227+01.64	227+15.47	227+24.23	227+29.30	227+43.13	227+56.97	-	-	-	-	-
	ELEV.	533.39	533.71	534.01	534.30	534.58	534.86	535.04	535.14	535.40	535.65	-	-	-	-	-
GIRDER 4	STATION	1033+03.28	1033+17.13	1033+30.99	1033+44.84	227+02.98	227+17.02	227+26.47	227+31.07	227+45.12	227+59.17	227+76.18	227+90.40	227+93.19	228+10.20	228+27.21
	ELEV.	533.18	533.54	533.89	534.22	534.54	534.86	535.07	535.16	535.44	535.69	536.01	536.26	536.31	536.58	536.84
LEFT CURB	STATION	1033+05.05	1033+18.31	1033+32.82	1033+47.35	227+06.10	227+20.69	227+31.71	227+35.27	227+49.84	227+64.37	227+82.12	227+95.46	227+99.72	228+13.68	228+34.85
	ELEV.	532.63	532.98	533.36	533.72	534.07	534.41	534.67	534.75	535.07	535.38	535.74	536.01	536.09	536.34	536.71
S1-P2-S2 CONSTRUCTION JOINT	STATION	1033+04.64	1033+17.52	1033+31.56	1033+45.64	1033+59.60	1033+73.64	1033+83.41	1033+87.69	1034+01.69	1034+15.44	-	-	-	-	-
	ELEV.	533.01	533.35	533.71	534.06	534.17	534.40	534.73	534.95	535.35	535.64	-	-	-	-	-
GIRDER 5	STATION	1033+03.54	1033+17.67	1033+31.80	1033+45.93	227+04.32	227+18.57	227+28.71	227+32.83	227+47.10	227+61.36	227+78.68	227+92.57	227+96.00	228+13.32	228+30.63
	ELEV.	532.90	533.28	533.64	533.99	534.33	534.66	534.89	534.98	535.29	535.58	535.92	536.17	536.23	536.52	536.79
GIRDER 6	STATION	1033+03.74	1033+18.06	1033+32.38	1033+46.70	227+05.25	227+19.65	227+30.29	227+34.06	227+48.47	227+62.88	227+80.38	227+94.03	227+97.87	228+15.36	228+32.85
	ELEV.	532.69	533.08	533.46	533.83	534.18	534.52	534.77	534.86	535.18	535.48	535.83	536.09	536.16	536.46	536.75
RAMP P BASELINE & LEFT SHOULDER	STATION	1033+05.05	1033+18.31	1033+32.82	1033+47.35	227+06.10	227+20.69	227+31.71	227+35.27	227+49.84	227+64.37	227+82.12	227+95.46	227+99.72	228+17.32	228+34.85
	ELEV.	532.63	532.98	533.36	533.72	534.07	534.41	534.67	534.75	535.07	535.38	535.74	536.01	536.09	536.41	536.71
GIRDER 7	STATION	1033+04.00	1033+18.61	1033+33.23	1033+47.84	227+06.64	227+21.27	227+32.60	227+35.90	227+50.54	227+65.17	227+83.03	227+96.32	228+00.88	228+18.72	228+36.56
	ELEV.	532.41	532.82	533.21	533.60	533.97	534.33	534.60	534.68	535.01	535.33	535.70	535.96	536.05	536.37	536.67
GIRDER 8	STATION	1033+04.26	1033+19.16	1033+34.07	1033+48.97	227+07.99	227+22.84	227+34.90	227+37.69	227+52.55	227+67.40	227+85.61	227+98.59	228+03.82	228+22.02	228+40.21
	ELEV.	532.14	532.56	532.97	533.37	533.76	534.13	534.43	534.50	534.85	535.18	535.57	535.84	535.94	536.29	536.62
LEFT EDGE OF GORE	STATION	-	-	-	1033+50.00	227+08.43	227+23.36	227+35.50	227+38.27	227+53.15	227+67.99	227+86.24	227+99.03	228+04.37	228+22.52	228+40.58
	ELEV.	-	-	-	533.34	533.71	534.09	534.39	534.45	534.81	535.15	535.55	535.82	535.92	536.28	536.61
℄ CONSTRUCTION IR-74 EB & PROFILE GRADE	STATION	1033+05.51	1033+19.30	1033+34.30	1033+49.32	1033+64.35	1033+79.39	1033+91.69	1033+94.47	1034+09.56	1034+24.69	1034+43.36	1034+56.26	1034+61.99	1034+80.76	1034+99.58
	ELEV.	532.13	532.52	532.93	533.32	533.71	534.08	534.38	534.44	534.79	535.12	535.52	535.78	535.89	536.25	536.58
S1-P2-S1 CONSTRUCTION JOINT	STATION	1033+05.58	1033+19.46	1033+34.54	1033+49.62	1033+64.69	1033+79.76	1033+92.14	1033+94.82	1034+09.87	1034+24.93	1034+43.48	1034+56.26	1034+61.93	1034+80.48	1034+99.03
	ELEV.	532.05	532.44	532.86	533.26	533.66	534.04	534.35	534.41	534.77	535.11	535.51	535.78	535.89	536.25	536.59
GIRDER 9	STATION	1033+04.52	1033+19.72	1033+34.93	1033+50.13	1033+65.33	1033+80.52	1033+93.35	1033+95.71	1034+10.90	1034+26.09	1034+44.78	1034+57.48	1034+63.48	1034+82.17	1035+00.86
	ELEV.	531.86	532.30	532.73	533.15	533.55	533.95	534.27	534.33	534.69	535.05	535.46	535.73	535.85	536.22	536.56
GIRDER 10	STATION	1033+04.78	1033+20.29	1033+35.79	1033+51.29	1033+66.78	1033+82.27	1033+95.84	1033+97.75	1034+13.23	1034+28.70	1034+47.83	1034+60.20	1034+66.94	1034+86.05	1035+05.16
	ELEV.	531.58	532.04	532.49	532.93	533.35	533.76	534.11	534.16	534.54	534.91	535.35	535.63	535.77	536.16	536.51
GIRDER 11	STATION	1033+05.04	1033+20.85	1033+36.66	1033+52.46	1033+68.25	1033+84.03	1033+98.34	1033+99.80	1034+15.57	1034+31.33	1034+50.88	1034+62.91	1034+70.41	1034+89.94	1035+09.46
	ELEV.	531.31	531.79	532.25	532.71	533.15	533.58	533.96	534.00	534.40	534.79	535.25	535.53	535.70	536.11	536.45
RIGHT SHOULDER	STATION	1033+05.26	1033+21.29	1033+37.30	1033+53.28	1033+69.25	1033+85.20	1033+99.95	1034+01.15	1034+17.09	1034+33.03	1034+52.89	1034+64.69	1034+72.71	1034+92.56	1035+12.41
	ELEV.	531.08	531.59	532.08	532.56	533.02	533.47	533.87	533.90	534.32	534.72	535.20	535.47	535.65	536.07	536.41
GIRDER 12	STATION	1033+05.31	1033+21.42	1033+37.53	1033+53.62	1033+69.71	1033+85.79	1034+00.85	1034+01.85	1034+17.91	1034+33.95	1034+53.93	1034+65.62	1034+73.89	1034+93.83	1035+13.77
	ELEV.	531.03	531.53	532.02	532.49	532.95	533.41	533.83	533.85	534.29	534.71	535.19	535.46	535.64	536.06	536.40
GIRDER 13	STATION	1033+05.57	1033+21.99	1033+38.40	1033+54.80	1033+71.18	1033+87.56	1034+03.37	1034+03.91	1034+20.26	1034+36.58	1034+56.99	1034+68.34	1034+77.37	1034+97.73	1035+18.09
	ELEV.	530.76	531.27	531.78	532.28	532.76	533.24	533.72	533.74	534.23	534.70	535.17	535.41	535.60	536.00	536.34
RIGHT CURB	STATION	1033+06.83	1033+22.19	1033+38.70	1033+55.20	1033+71.68	1033+88.14	1034+04.20	1034+04.59	1034+21.02	1034+37.43	1034+57.96	1034+69.20	1034+78.47	1034+98.95	1035+19.41
	ELEV.	530.70	531.19	531.70	532.21	532.70	533.19	533.70	533.71	534.22	534.70	535.16	535.40	535.59	535.98	536.32
RIGHT EDGE	STATION	1033+06.13	1033+22.32	1033+38.89	1033+55.45	1033+71.99	1033+88.51	1034+04.72	1034+05.01	1034+21.49	1034+37.96	1034+58.56	1034+69.73	1034+79.14	1034+99.68	1035+20.22
	ELEV.	530.67	531.19	531.71	532.21	532.71	533.20	533.71	533.72	534.23	534.71	535.17	535.41	535.60	535.99	536.33

NOTES:

1. FINAL DECK ELEVATIONS SHOWN REPRESENT THE DECK SURFACE LOCATION AFTER ALL ANTICIPATED DEAD LOAD DEFLECTIONS HAVE OCCURED.
2. FOR ELEVATION DIAGRAM DEPICTING DECK SURFACE LOCATIONS IN TRANSVERSE SECTION AND PLAN VIEW, SEE SHEET 76/100.
3. FOR DECK POURING SEQUENCE, SEE SHEET 71/100.
4. FOR ADDITIONAL NOTES, SEE SHEET 76/100.

DESIGN AGENCY
PRIME AE
540 WHITE POND DR, SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
CRG	JAT	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CRG		3115739	

FINAL DECK SURFACE ELEVATIONS - UNIT 2 (1 OF 2)
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

77/100

77
100

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		FINAL DECK SURFACE ELEVATIONS - UNIT 2													
		5/8 POINT	3/4 POINT	FS9	7/8 POINT	℄ BRG. PIER 6	1/8 POINT	FS10	1/4 POINT	3/8 POINT	1/2 POINT	5/8 POINT	3/4 POINT	7/8 POINT	℄ PIER 7
LEFT EDGE	STATION	228+43.24	228+60.18	228+57.33	228+77.11	228+94.03	229+09.34	229+23.54	229+24.65	229+39.94	229+55.23	229+70.50	229+85.76	230+01.01	230+16.25
	ELEV.	537.04	537.22	537.19	537.40	537.65	537.88	538.08	538.09	538.29	538.51	538.70	538.87	539.03	539.20
GIRDER 3	STATION	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	ELEV.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GIRDER 4	STATION	228+44.21	228+61.21	228+58.51	228+78.21	228+95.20	229+10.50	229+24.66	229+25.79	229+41.07	229+56.34	229+71.60	229+86.85	230+02.08	230+17.30
	ELEV.	537.05	537.23	537.20	537.42	537.67	537.90	538.09	538.11	538.31	538.53	538.72	538.88	539.04	539.22
LEFT CURB	STATION	228+52.27	228+69.59	228+68.15	228+86.80	229+03.89	229+18.72	229+32.41	229+33.50	229+48.23	229+62.92	229+77.57	229+92.17	230+06.73	230+21.25
	ELEV.	536.97	537.21	537.19	537.51	537.83	538.08	538.30	538.32	538.53	538.71	538.88	539.02	539.17	539.34
S1-P2-S2 CONSTRUCTION JOINT	STATION	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	ELEV.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GIRDER 5	STATION	228+47.94	228+63.12	228+65.25	228+82.54	228+99.83	229+15.13	229+29.27	229+30.41	229+45.69	229+60.96	229+76.21	229+91.45	230+06.68	230+21.89
	ELEV.	537.02	537.20	537.22	537.46	537.74	537.99	538.20	538.22	538.44	538.65	538.84	539.00	539.17	539.39
GIRDER 6	STATION	228+50.33	228+67.81	228+66.08	228+85.28	229+02.74	229+18.00	229+32.10	229+33.26	229+48.51	229+63.74	229+78.96	229+94.17	230+09.37	230+24.55
	ELEV.	536.99	537.21	537.19	537.49	537.80	538.06	538.29	538.31	538.54	538.75	538.95	539.13	539.34	539.60
RAMP P BASELINE & LEFT SHOULDER	STATION	228+52.27	228+69.59	228+68.15	228+86.80	229+03.89	229+18.72	229+32.41	229+33.50	229+48.23	229+62.92	229+77.57	229+92.17	230+06.73	230+21.25
	ELEV.	536.97	537.21	537.19	537.51	537.83	538.08	538.30	538.32	538.53	538.71	538.88	539.02	539.17	539.34
GIRDER 7	STATION	228+54.40	228+72.22	228+71.10	228+90.04	229+07.84	229+23.12	229+37.21	229+38.40	229+53.66	229+68.92	229+84.15	229+99.37	230+14.58	1036+86.52
	ELEV.	536.95	537.22	537.20	537.56	537.92	538.21	538.46	538.48	538.74	538.99	539.22	539.45	539.72	539.93
GIRDER 8	STATION	228+58.40	1035+33.13	1035+32.67	1035+51.40	1035+69.68	1035+85.11	1035+99.37	1036+00.55	1036+15.98	1036+31.42	1036+46.85	1036+62.28	1036+77.72	1036+93.15
	ELEV.	536.93	537.25	537.24	537.62	537.97	538.23	538.45	538.46	538.67	538.85	539.02	539.17	539.33	539.45
LEFT EDGE OF GORE	STATION	228+58.55	228+76.41	228+75.94	228+94.16	229+11.77	229+26.62	229+40.31	229+41.43	229+56.18	229+70.89	229+85.55	230+00.16	230+14.73	230+29.25
	ELEV.	536.93	537.25	537.24	537.64	538.02	538.32	538.58	538.60	538.85	539.09	539.30	539.61	539.73	539.98
℄ CONSTRUCTION IR-74 EB & PROFILE GRADE	STATION	1035+18.44	1035+36.94	1035+37.42	1035+56.28	1035+75.25	1035+91.04	1036+05.66	1036+06.84	1036+22.63	1036+38.42	1036+54.22	1036+70.01	1036+85.81	1037+01.60
	ELEV.	536.90	537.19	537.19	537.47	537.72	537.92	538.09	538.10	538.27	538.42	538.56	538.69	538.80	538.89
S1-P2-S1 CONSTRUCTION JOINT	STATION	1035+17.58	1035+37.42	1035+36.06	1035+54.70	1035+73.28	1035+91.19	1036+05.56	1036+06.72	1036+22.25	1036+37.78	1036+53.31	1036+68.84	1036+84.37	1036+99.89
	ELEV.	536.91	537.19	537.21	537.52	537.81	537.92	538.10	538.11	538.29	538.46	538.62	538.76	538.89	539.00
GIRDER 9	STATION	1035+19.55	1035+38.24	1035+38.43	1035+56.93	1035+75.62	1035+91.14	1036+05.51	1036+06.67	1036+22.19	1036+37.72	1036+53.24	1036+68.76	1036+84.29	1036+99.81
	ELEV.	536.88	537.18	537.19	537.46	537.72	537.92	538.10	538.11	538.30	538.47	538.62	538.77	538.90	539.00
GIRDER 10	STATION	1035+24.26	1035+43.36	1035+44.22	1035+62.47	1035+81.57	1035+97.18	1036+11.66	1036+12.80	1036+28.41	1036+44.02	1036+59.63	1036+75.25	1036+90.86	1037+06.47
	ELEV.	536.83	537.13	537.14	537.40	537.66	537.85	538.02	538.03	538.20	538.35	538.48	538.60	538.71	538.81
GIRDER 11	STATION	1035+28.98	1035+48.50	1035+50.02	1035+68.02	1035+87.54	1036+03.24	1036+17.82	1036+18.93	1036+34.63	1036+50.33	1036+66.03	1036+81.73	1036+97.43	1037+13.13
	ELEV.	536.77	537.07	537.09	537.34	537.59	537.78	537.94	537.95	538.11	538.26	538.38	538.50	538.60	538.69
RIGHT SHOULDER	STATION	1035+32.26	1035+54.25	1035+52.00	1035+71.99	1035+91.87	1036+07.68	1036+22.38	1036+23.48	1036+39.29	1036+55.10	1036+70.90	1036+86.71	1037+02.52	1037+18.32
	ELEV.	536.73	537.06	537.02	537.30	537.55	537.73	537.88	537.90	538.05	538.19	538.31	538.42	538.51	538.59
GIRDER 12	STATION	1035+33.71	1035+53.64	1035+55.84	1035+73.58	1035+93.51	1036+09.30	1036+23.99	1036+25.08	1036+40.87	1036+56.65	1036+72.44	1036+88.22	1037+04.00	1037+19.79
	ELEV.	536.71	537.01	537.04	537.28	537.53	537.71	537.86	537.87	538.03	538.16	538.28	538.39	538.49	538.56
GIRDER 13	STATION	1035+38.44	1035+58.79	1035+61.68	1035+79.15	1035+99.50	1036+15.37	1036+30.16	1036+31.24	1036+47.11	1036+62.98	1036+78.84	1036+94.71	1037+10.58	1037+26.45
	ELEV.	536.65	536.95	536.99	537.22	537.46	537.63	537.78	537.79	537.94	538.07	538.18	538.28	538.37	538.44
RIGHT CURB	STATION	1035+39.88	1035+60.37	1035+63.41	1035+80.81	1036+01.27	1036+17.15	1036+31.95	1036+33.02	1036+48.90	1036+64.78	1036+80.65	1036+89.39	1037+12.41	1037+28.28
	ELEV.	536.64	536.93	536.97	537.20	537.44	537.61	537.76	537.77	537.91	538.04	538.15	538.21	538.34	538.41
RIGHT EDGE	STATION	1035+40.75	1035+61.32	1035+64.44	1035+81.79	1036+02.31	1036+18.19	1036+33.00	1036+34.07	1036+49.95	1036+65.82	1036+81.70	1036+97.58	1037+13.46	1037+29.33
	ELEV.	536.65	536.94	536.98	537.21	537.45	537.62	537.77	537.78	537.92	538.05	538.16	538.26	538.34	538.41

NOTES:

1. FINAL DECK ELEVATIONS SHOWN REPRESENT THE DECK SURFACE LOCATION AFTER ALL ANTICIPATED DEAD LOAD DEFLECTIONS HAVE OCCURED.
2. FOR ELEVATION DIAGRAM DEPICTING DECK SURFACE LOCATIONS IN TRANSVERSE SECTION AND PLAN VIEW, SEE SHEET 76/100.
3. FOR DECK POURING SEQUENCE, SEE SHEET 71/100.
4. FOR ADDITIONAL NOTES, SEE SHEET 76/100.

DESIGN AGENCY
PRIME AE
540 METRO PLACE S, SUITE E
AKRON, OH 44320

DESIGNED CRG | DRAWN JAT | REVIEWED TES | DATE 3/27/2019
CHECKED CRG | REVISED | STRUCTURE FILE NUMBER 3115739

FINAL DECK SURFACE ELEVATIONS - UNIT 2 (2 OF 2)
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

78 / 100

78
100

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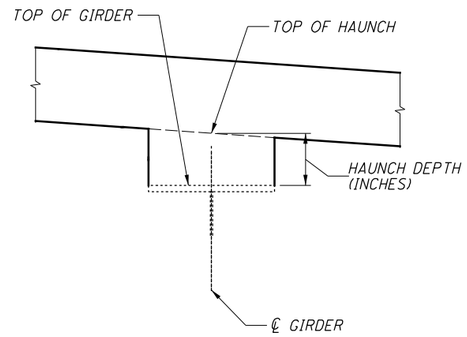
ESTIMATED HAUNCH DEPTH TABLE (IN)															
	℄ BRG HINGE 1, UNIT 2	1/8 POINT	1/4 POINT	3/8 POINT	1/2 POINT	5/8 POINT	FS7	3/4 POINT	7/8 POINT	℄ BRG. PIER 5	1/8 POINT	FS8	1/4 POINT	3/8 POINT	1/2 POINT
GIRDER 3	5.76	5.97	6.25	6.43	6.56	6.60	5.62	6.59	5.45	5.15	-	-	-	-	-
GIRDER 4	4.69	7.63	8.13	8.50	8.75	8.88	7.93	8.90	7.04	6.43	7.31	8.35	9.46	9.78	9.97
GIRDER 5	6.49	7.09	7.60	7.98	8.22	8.35	7.39	8.36	6.74	6.41	7.28	8.27	9.37	9.62	9.73
GIRDER 6	6.40	6.79	7.31	7.70	7.94	8.07	7.08	8.05	6.37	5.97	6.92	7.99	9.11	9.45	9.65
GIRDER 7	7.19	7.69	7.98	8.14	8.17	8.04	6.87	7.78	5.86	5.21	6.36	7.57	8.77	9.34	9.69
GIRDER 8	7.02	7.57	7.78	7.85	7.76	7.54	6.26	7.18	5.13	4.23	5.61	6.95	8.21	9.05	9.67
GIRDER 9	6.57	6.64	6.87	6.95	6.88	6.66	4.96	6.29	3.75	3.04	4.70	5.79	7.57	8.70	9.50
GIRDER 10	6.79	7.06	7.11	7.02	6.76	6.38	4.55	5.82	3.12	2.26	4.18	5.46	7.35	8.76	9.60
GIRDER 11	6.66	6.89	6.82	6.62	6.26	5.76	3.79	5.11	2.26	1.33	3.59	5.00	7.12	8.85	9.66
GIRDER 12	5.50	5.67	5.71	5.62	5.37	4.98	3.22	4.55	1.96	1.24	3.73	5.12	7.35	9.00	9.80
GIRDER 13	5.28	7.08	5.53	5.75	5.79	3.85	2.58	4.15	2.19	1.60	3.95	5.21	7.44	8.90	9.74

ESTIMATED HAUNCH DEPTH TABLE (IN)															
	1/2 POINT	5/8 POINT	3/4 POINT	FS9	7/8 POINT	℄ BRG. PIER 6	1/8 POINT	FS10	1/4 POINT	3/8 POINT	1/2 POINT	5/8 POINT	3/4 POINT	7/8 POINT	℄ BRG. PIER 7
GIRDER 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GIRDER 4	9.97	9.53	7.85	8.70	5.75	5.84	6.99	7.12	8.93	9.80	10.80	11.51	11.94	12.23	12.77
GIRDER 5	9.73	9.24	7.57	8.47	5.87	6.12	7.32	7.48	9.29	10.21	10.93	11.38	11.55	11.80	12.70
GIRDER 6	9.65	9.30	7.79	8.73	6.50	6.98	8.31	8.60	10.42	11.34	12.06	12.61	13.02	13.74	14.93
GIRDER 7	9.69	9.74	8.64	9.63	8.15	9.13	10.83	11.48	13.34	14.67	15.82	16.81	17.78	19.19	19.95
GIRDER 8	9.67	10.12	9.52	10.55	9.43	10.31	11.74	12.01	13.83	14.62	15.13	15.37	15.51	15.79	15.51
GIRDER 9	9.50	10.01	8.90	10.28	9.06	7.84	8.50	7.29	10.83	11.31	11.62	11.75	11.73	11.61	11.12
GIRDER 10	9.60	10.10	8.97	10.36	9.09	7.83	8.48	7.18	10.71	11.02	11.16	11.13	10.93	10.56	10.01
GIRDER 11	9.66	10.20	9.11	10.50	9.25	8.00	8.60	7.26	10.79	11.05	11.14	11.05	10.80	10.37	9.77
GIRDER 12	9.80	10.31	9.18	10.56	9.26	7.94	8.52	7.15	10.67	10.90	10.95	10.83	10.54	10.08	9.44
GIRDER 13	9.74	10.30	9.20	10.59	9.30	7.99	8.58	7.24	10.76	11.01	11.08	10.98	10.71	10.25	9.62

NOTES:

1. FOR ELEVATION DIAGRAM DEPICTING DECK SURFACE LOCATIONS IN TRANSVERSE SECTION AND PLAN VIEW, SEE SHEET 76/100.
2. FOR ADDITIONAL NOTES, SEE SHEET 76/100.

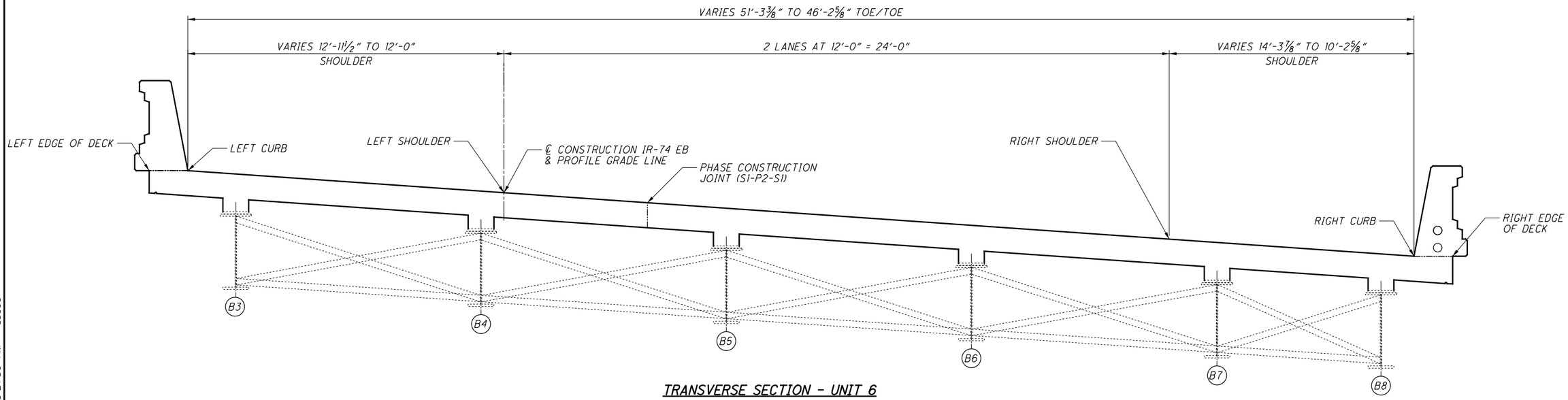


DESIGN AGENCY
PRIME AE
540 WHITE POND DR, SUITE E
AKRON, OH 44320

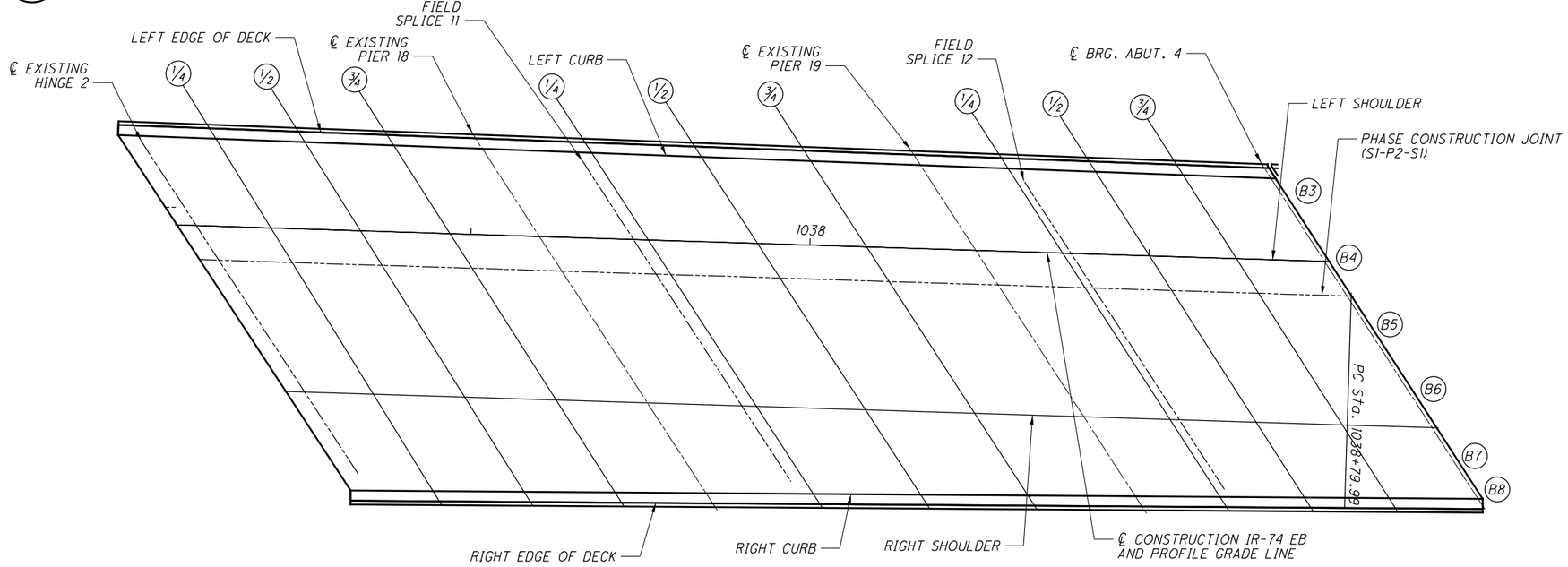
DESIGNED	DRAWN	REVIEWED	DATE
CRG	AMT	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CRG		3115739	

HAUNCH DEPTH - UNIT 2
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667



TRANSVERSE SECTION - UNIT 6



ELEVATION LOCATION PLAN - UNIT 6

NOTES:

1. FOR FINAL DECK ELEVATIONS, SEE SHEET 81/100.
2. FOR DECK PLAN, SEE SHEETS 68/100. 61/100
3. FOR TANSVERSE SECTION, SEE SHEET 67/100.
4. FOR FRAMING PLAN, SEE SHEET 49/100.
5. FOR ESTIMATED HAUNCH THICKNESSES, SEE SHEET 81/100.

DESIGN AGENCY
PRIME AE
540 WHITE POND DR. SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
CRG	JAT	TES	3/27/2019
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CRG		3115739	

FINAL DECK SURFACE ELEVATION LOCATION - UNIT 6
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

80/100

80
100

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FINAL DECK SURFACE ELEVATIONS - UNIT 6

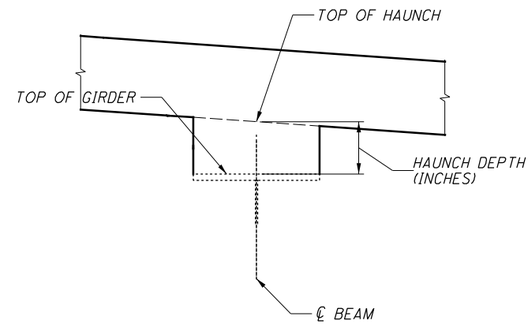
		℄ HINGE 2	1/4 POINT	1/2 POINT	3/4 POINT	℄ PIER 18	FS11	1/4 POINT	1/2 POINT	3/4 POINT	℄ PIER 19	1/4 POINT	FS12	1/2 POINT	3/4 POINT	℄ BRG. ABUTMENT 4
LEFT EDGE	STATION	1036+98.84	1037+12.54	1037+25.16	1037+37.78	1037+50.40	1037+64.17	1037+66.57	1037+82.71	1037+99.09	1038+15.02	1038+27.95	1038+28.94	1038+40.87	1038+53.79	1038+66.71
	ELEV.	539.50	539.49	539.48	539.46	539.43	539.39	539.38	539.35	539.35	539.34	539.32	539.32	539.30	539.26	539.21
LEFT CURB	STATION	1036+99.89	1037+13.59	1037+26.21	1037+38.83	1037+51.45	1037.65.22	1037+67.62	1037+83.76	1038+00.13	1038+16.06	1038+28.99	1038+29.99	1038+41.92	1038+54.84	1038+67.76
	ELEV.	539.50	539.49	539.48	539.46	539.43	539.39	539.38	539.35	539.35	539.34	539.32	539.32	539.29	539.25	539.20
BEAM 3	STATION	1037+00.30	1037+14.15	1037+26.84	1037+39.52	1037+52.20	1037+66.06	1037+68.46	1037+84.70	1038+01.15	1038+17.18	1038+30.19	1038+31.19	1038+43.17	1038+56.16	1038+69.15
	ELEV.	539.47	539.46	539.45	539.42	539.40	539.36	539.35	539.33	539.33	539.32	539.29	539.29	539.26	539.22	539.17
BEAM 4	STATION	1037+07.08	1037+20.85	1037+33.53	1037+46.21	1037+58.90	1037+72.76	1037+75.15	1037+91.38	1038+07.78	1038+23.85	1038+36.85	1038+37.88	1038+49.83	1038+62.82	1038+75.80
	ELEV.	539.03	539.08	539.11	539.14	539.16	539.17	539.17	539.18	539.17	539.15	539.13	539.12	539.09	539.04	538.98
℄ CONSTRUCTION IR-74 EB, PROFILE GRADE & LEFT SHOULDER	STATION	1037+08.91	1037+22.56	1037+35.12	1037+47.69	1037+60.25	1037+73.98	1037+76.35	1037+92.43	1038+08.68	1038+24.61	1038+37.48	1038+38.50	1038+50.34	1038+63.20	1038+76.06
	ELEV.	538.93	538.99	539.04	539.09	539.12	539.14	539.14	539.16	539.15	539.13	539.11	539.11	539.07	539.03	538.98
S1-P2-S1 CONSTRUCTION JOINT	STATION	1037+12.39	1037+26.04	1037+38.60	1037+51.17	1037+63.73	1037+77.47	1037+79.83	1037+95.91	1038+12.13	1038+28.08	1038+40.95	1038+41.98	1038+53.81	1038+66.66	1038+79.52
	ELEV.	538.87	538.93	538.98	539.01	539.04	539.07	539.07	539.08	539.07	539.05	539.02	539.02	538.98	538.94	538.88
BEAM 5	STATION	1037+13.69	1037+27.55	1037+40.24	1037+52.92	1037+65.61	1037+79.47	1037+81.85	1037+98.08	1038+14.43	1038+30.54	1038+43.52	1038+41.98	1038+56.49	1038+69.47	1038+82.44
	ELEV.	538.84	538.90	538.94	538.98	539.00	539.02	539.02	539.03	539.01	538.99	538.95	538.95	538.91	538.86	538.80
BEAM 6	STATION	1037+20.38	1037+34.23	1037+46.92	1037+59.61	1037+72.30	1037+86.17	1037+88.53	1038+04.76	1038+21.07	1038+37.22	1038+50.19	1038+51.26	1038+63.15	1038+76.11	1038+89.06
	ELEV.	538.72	538.77	538.81	538.84	538.86	538.87	538.87	538.87	538.85	538.82	538.78	538.78	538.73	538.68	538.61
RIGHT SHOULDER	STATION	1037+25.62	1037+39.27	1037+51.83	1037+64.39	1037+76.95	1037+90.70	1037+93.04	1038+09.12	1038+25.26	1038+41.29	1038+54.14	1038+55.22	1038+66.98	1038+79.82	1038+92.66
	ELEV.	538.62	538.68	538.71	538.74	538.76	538.77	538.77	538.77	538.75	538.72	538.68	538.67	538.63	538.57	538.51
BEAM 7	STATION	1037+27.07	1037+40.92	1037+53.61	1037+66.30	1037+78.98	1037+92.86	1037+95.21	1038+11.44	1038+27.71	1038+43.90	1038+56.87	1038+57.97	1038+69.84	1038+82.80	1038+95.74
	ELEV.	538.60	538.64	538.68	538.70	538.72	538.72	538.72	538.71	538.69	538.65	538.61	538.60	538.55	538.48	538.38
BEAM 8	STATION	1037+33.77	1037+47.39	1037+59.83	1037+72.26	1037+84.70	1037+98.32	1038+00.62	1038+16.54	1038+32.48	1038+48.39	1038+61.12	1038+62.22	1038+73.85	1038+86.55	1038+99.24
	ELEV.	538.47	538.51	538.55	538.57	538.59	538.60	538.60	538.59	538.57	538.53	538.49	538.49	538.44	538.35	538.23
RIGHT CURB	STATION	1037+35.58	1037+49.00	1037+61.34	1037+73.68	1037+86.02	1037+99.55	1038+01.84	1038+17.65	1038+33.46	1038+49.27	1038+61.89	1038+62.98	1038+74.51	1038+87.11	1038+99.69
	ELEV.	538.43	538.48	538.52	538.54	538.56	538.57	538.57	538.56	538.54	538.51	538.47	538.47	538.42	538.33	538.21
RIGHT EDGE	STATION	1037+36.59	1037+50.02	1037+62.36	1037+76.31	1037+87.04	1038+00.58	1038+02.86	1038+18.67	1038+34.48	1038+50.29	1038+62.91	1038+64.01	1038+75.53	1038+88.13	1039+00.41
	ELEV.	538.44	538.49	538.52	538.55	538.56	538.57	538.57	538.56	538.54	538.51	538.47	538.46	538.42	538.32	538.19

ESTIMATED HAUNCH DEPTH TABLE (IN)

	℄ BRG HINGE 2, UNIT 6	1/4 POINT	1/2 POINT	3/4 POINT	℄ BRG. PIER 18	FS11	1/4 POINT	1/2 POINT	3/4 POINT	℄ BRG. PIER 19	1/4 POINT	FS12	1/2 POINT	3/4 POINT	℄ BRG. ABUTMENT 4
BEAM 3	14.02	13.43	12.77	11.99	11.15	10.15	10.46	10.11	10.00	9.72	9.67	9.20	9.51	9.23	8.83
BEAM 4	10.02	9.95	9.83	9.57	9.28	8.94	9.38	9.45	9.35	9.06	8.91	8.41	8.64	8.25	7.76
BEAM 5	9.02	9.14	9.16	9.06	8.85	8.56	9.03	9.03	8.84	8.48	8.37	7.87	8.14	7.79	7.22
BEAM 6	8.53	8.74	8.84	8.83	8.71	8.33	8.81	8.74	8.47	8.03	8.01	7.55	7.86	7.60	7.09
BEAM 7	8.08	8.39	8.59	8.67	8.65	8.34	8.81	8.78	8.58	8.19	8.06	7.55	7.82	7.34	6.57
BEAM 8	8.21	8.37	8.42	8.37	8.20	7.95	8.36	8.33	8.13	7.76	7.85	7.38	7.82	7.34	6.42

NOTES:

1. FINAL DECK ELEVATIONS SHOWN REPRESENT THE DECK SURFACE LOCATION AFTER ALL ANTICIPATED DEAD LOAD DEFLECTIONS HAVE OCCURED.
2. FOR ELEVATION DIAGRAM DEPICTING DECK SURFACE LOCATIONS IN TRANSVERSE SECTION AND PLAN VIEW, SEE SHEET 80/100.
3. FOR DECK POURING SEQUENCE, SEE SHEET 71/100.
4. FOR ADDITIONAL NOTES, SEE SHEET 80/100.



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DESIGN AGENCY
PRIME AE
540 WHITE POND DR, SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
CRG	JAT	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CRG		3115739	

FINAL DECK SURFACE ELEVATIONS AND HAUNCH DEPTH - UNIT 6
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

		ABUTMENT 1	1/8 POINT	1/4 POINT	3/8 POINT	1/2 POINT	FS1	5/8 POINT	3/4 POINT	7/8 POINT	| BRG. PIER 1
LEFT EDGE	STATION	1027+58.10	1027+71.01	1027+83.92	1027+96.82	1028+09.72	1028+21.72	1028+22.61	1028+35.51	1028+48.41	1028+61.30
	OFFSET (NEGATIVE TO THE LEFT)	-24.67	-24.61	-24.67	-24.84	-25.13	-25.51	-25.51	-25.61	-25.83	-26.15
	TOTAL DECK DEFLECTION (IN) (G2)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	FINAL DECK SURFACE ELEVATION	517.69	517.88	518.08	518.31	518.55	518.80	518.82	519.10	519.39	519.71
	DECK SCREED ELEVATION	517.69	517.88	518.08	518.31	518.55	518.80	518.82	519.10	519.39	519.71
LEFT CURB	STATION	1027+58.22	1027+71.16	1027+84.10	1027+97.05	1028+09.99	1028+22.04	1028+22.94	1028+35.85	1028+48.77	1028+61.68
	OFFSET (NEGATIVE TO THE LEFT)	-22.97	-22.66	-22.48	-22.41	-22.45	-22.60	-22.61	-22.78	-23.00	-23.33
	TOTAL DECK DEFLECTION (IN) (G2)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	FINAL DECK SURFACE ELEVATION	517.69	517.88	518.08	518.31	518.56	518.81	518.82	519.10	519.40	519.72
	DECK SCREED ELEVATION	517.69	517.88	518.08	518.31	518.56	518.81	518.82	519.10	519.40	519.72
GIRDER 2	STATION	1027+58.28	1027+71.20	1027+84.13	1027+97.05	1028+09.98	1028+22.16	1028+22.89	1028+35.81	1028+48.73	1028+61.64
	OFFSET (NEGATIVE TO THE LEFT)	-22.17	-22.11	-22.17	-22.35	-22.64	-23.02	-23.01	-23.11	-23.33	-23.66
	BOTTOM OF FLANGE ELEV. BEFORE REMOVAL										
	BOTTOM OF FLANGE ELEV. AFTER REMOVAL										
	REBOUND (IN)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	TOP OF GIRDER ELEVATION										
	EXISTING DECK THICKNESS (IN)	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
	EXISTING TRIBUTARY DEAD LOAD (K)	2.19	2.25	2.29	2.46	2.65	2.23	2.58	2.47	2.13	2.25
	PROPOSED DECK THICKNESS (IN)	8.75	8.75	8.75	8.75	8.75	8.75	8.75	8.75	8.75	8.75
	PROPOSED TRIBUTARY DEAD LOAD (K)	1.08	1.07	1.06	1.07	1.07	1.03	1.05	1.04	1.02	1.02
	TOTAL DECK DEFLECTION (IN)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	HAUNCH THICKNESS (IN)	6202.93	6205.33	6207.97	6210.97	6213.97	6216.97	6217.09	6220.45	6224.05	6227.89
	FINAL DECK SURFACE ELEVATION	517.64	517.84	518.06	518.31	518.56	518.81	518.82	519.10	519.40	519.72
	DECK SCREED ELEVATION	517.64	517.84	518.06	518.31	518.56	518.81	518.82	519.10	519.40	519.72
	TOP OF HAUNCH ELEVATION	516.91	517.11	517.33	517.58	517.83	518.08	518.09	518.37	518.67	518.99
GIRDER 3	STATION	1027+58.90	1027+71.90	1027+84.90	1027+97.90	1028+10.90	1028+23.00	1028+23.89	1028+36.88	1028+49.88	1028+62.86
	OFFSET (NEGATIVE TO THE LEFT)	-13.15	-13.10	-13.17	-13.35	-13.65	-14.03	-14.03	-14.15	-14.39	-14.74
	BOTTOM OF FLANGE ELEV. BEFORE REMOVAL										
	BOTTOM OF FLANGE ELEV. AFTER REMOVAL										
	REBOUND (IN)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	TOP OF GIRDER ELEVATION										
	EXISTING DECK THICKNESS (IN)	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
	EXISTING TRIBUTARY DEAD LOAD (K)	2.31	2.37	2.36	2.55	2.75	2.33	2.68	2.60	2.31	2.42
	PROPOSED DECK THICKNESS (IN)	8.75	8.75	8.75	8.75	8.75	8.75	8.75	8.75	8.75	8.75
	PROPOSED TRIBUTARY DEAD LOAD (K)	1.36	1.35	1.35	1.35	1.36	1.33	1.35	1.34	1.32	1.32
	TOTAL DECK DEFLECTION (IN)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	HAUNCH THICKNESS (IN)	6194.89	6197.29	6200.05	6203.05	6206.17	6209.41	6209.65	6213.01	6216.61	6220.45
	FINAL DECK SURFACE ELEVATION	516.97	517.17	517.40	517.65	517.91	518.18	518.20	518.48	518.78	519.10
	DECK SCREED ELEVATION	516.97	517.17	517.40	517.65	517.91	518.18	518.20	518.48	518.78	519.10
	TOP OF HAUNCH ELEVATION	516.24	516.44	516.67	516.92	517.18	517.45	517.47	517.75	518.05	518.37
LEFT SHOULDER	STATION	1027+58.98	1027+71.98	1027+85.00	1027+98.03	1028+11.07	1028+23.22	1028+24.12	1028+37.15	1028+50.19	1028+63.24
	OFFSET (NEGATIVE TO THE LEFT)	-12.00	-12.00	-12.00	-12.00	-12.00	-12.00	-12.00	-12.00	-12.00	-12.00
	TOTAL DECK DEFLECTION (IN) (G3,4&5)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	FINAL DECK SURFACE ELEVATION	516.89	517.09	517.31	517.55	517.79	518.03	518.05	518.32	518.61	518.90
	DECK SCREED ELEVATION	516.89	517.09	517.31	517.55	517.79	518.03	518.05	518.32	518.61	518.90
S1-P2-S2 CONSTRUCTION JOINT	STATION	1027+59.24	1027+72.29	1027+85.33	1027+98.38	1028+11.42	1028+23.55	1028+24.45	1028+37.49	1028+50.52	1028+63.55
	OFFSET (NEGATIVE TO THE LEFT)	-8.17	-8.12	-8.18	-3.36	-8.66	-9.04	-9.06	-9.19	-9.44	-9.80
	TOTAL DECK DEFLECTION (IN) (G3&4)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	FINAL DECK SURFACE ELEVATION	516.60	516.81	517.03	517.28	517.55	517.82	517.84	518.12	518.42	518.74
	DECK SCREED ELEVATION	516.60	516.81	517.03	517.28	517.55	517.82	517.84	518.12	518.42	518.74
GIRDER 4	STATION	1027+59.52	1027+72.60	1027+85.68	1027+98.76	1028+11.84	1028+23.98	1028+24.90	1028+37.98	1028+51.04	1028+64.11
	OFFSET (NEGATIVE TO THE LEFT)	-4.17	-4.12	-4.19	-4.37	-4.67	-5.06	-5.06	-5.18	-5.42	-5.77
	BOTTOM OF FLANGE ELEV. BEFORE REMOVAL										
	BOTTOM OF FLANGE ELEV. AFTER REMOVAL										
	REBOUND (IN)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	TOP OF GIRDER ELEVATION										
	EXISTING DECK THICKNESS (IN)	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
	EXISTING TRIBUTARY DEAD LOAD (K)	2.60	2.60	2.56	2.68	2.86	2.37	2.73	2.65	2.30	2.38
	PROPOSED DECK THICKNESS (IN)	8.75	8.75	8.75	8.75	8.75	8.75	8.75	8.75	8.75	8.75
	PROPOSED TRIBUTARY DEAD LOAD (K)	1.38	1.37	1.37	1.37	1.38	1.34	1.36	1.36	1.33	1.34
	TOTAL DECK DEFLECTION (IN)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	HAUNCH THICKNESS (IN)	6186.97	6189.37	6192.13	6195.13	6198.37	6201.61	6201.85	6205.21	6208.81	6212.77
	FINAL DECK SURFACE ELEVATION	516.31	516.51	516.74	516.99	517.26	517.53	517.55	517.83	518.13	518.46
	DECK SCREED ELEVATION	516.31	516.51	516.74	516.99	517.26	517.53	517.55	517.83	518.13	518.46
	TOP OF HAUNCH ELEVATION	515.58	515.78	516.01	516.26	516.53	516.80	516.82	517.10	517.40	517.73

NOTES:

EXAMPLE DECK SCREED ELEVATION TABLE IS A TEMPLATE FOR THE CONTRACTOR TO USE FOR THE FINAL CONTRACTOR FURNISHED SCREED ELEVATION TABLE TO BE USED FOR CONSTRUCTION. THE EXAMPLE TABLE SHOWS ONLY A PORTION OF THE DECK FOR UNIT 1. THE CONTRACTOR SHALL PREPARE AND SUBMIT TO THE ENGINEER, FOR INCLUSION WITH THE AS-BUILT PLANS, THE FINAL DECK SCREED ELEVATION TABLE FOR EACH PHASE OF THE WORK WITH THE CALCULATED FINAL DECK SCREED ELEVATION AND THE FINAL TOP OF HAUNCH ELEVATION FOR EACH STATION AND OFFSET SHOWN IN THE FINAL SURFACE ELEVATION SHEETS 73/100 AND 74/100 FOR UNIT 1, 77/100 AND 78/100 FOR UNIT 2, AND 81/100 FOR UNIT 6.

FIELD PROCEDURE DURING PHASED CONSTRUCTION OF DECK WITHOUT CLOSURE POURS:

1. FIELD SURVEY THE BOTTOM OF THE GIRDER/BEAM ELEVATION AT EACH OF THE LOCATIONS WITHIN EACH UNIT BEFORE DECK REMOVAL AND AFTER DECK REMOVAL. (DECK REMOVAL SEQUENCE WAS PROVIDED IN DEMOLITION PLANS FOR BU-10).
2. CALCULATE THE SURVEYED REBOUND BY SUBTRACTING THE BOTTOM OF GIRDER/BEAM ELEVATION AFTER THE DECK REMOVAL FROM THE BOTTOM OF THE GIRDER/BEAM ELEVATION BEFORE REMOVAL.
3. ADD THE AMOUNT OF THE EXPECTED REMAINING DEAD LOAD DEFLECTION CALCULATED FROM THE MODEL FOR THE PHASED POUR TO THE FINAL DECK SURFACE ELEVATION TO OBTAIN THE DECK SCREED ELEVATION. USE THE REBOUND OF THE CLOSEST GIRDER/BEAM FOR SCREED LINES NOT OVER GIRDER/BEAMS.
4. SUBTRACT THE DECK THICKNESS FROM THE DECK SCREED ELEVATION TO DETERMINE THE TOP OF HAUNCH ELEVATION.
5. REPEAT THE PROCEDURE FOR EACH PHASE OF CONSTRUCTION.
6. A SPREADSHEET INCLUDING STATION, OFFSET, FINAL DECK SURFACE ELEVATIONS AND EXPECTED REMAINING DEAD LOAD DEFLECTIONS WILL BE PROVIDED TO THE CONTRACTOR BY THE ENGINEER AND SHALL BE INCLUDED IN THE AS- BUILT PLANS IN PDF FORMAT.

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

TOP OF HAUNCH ELEVATIONS SHOWN REPRESENT THE THEORETICAL LOCATION OF THE BOTTOM OF THE DECK ABOVE A GIRDER/BEAM HAUNCH PRIOR TO DEFLECTIONS CAUSED BY DECK PLACEMENT AND OTHER ANTICIPATED DEAD LOADS.

DESIGN AGENCY
PRIME AE
540 WEST POINT DRIVE, SUITE E
AKRON, OH 44320

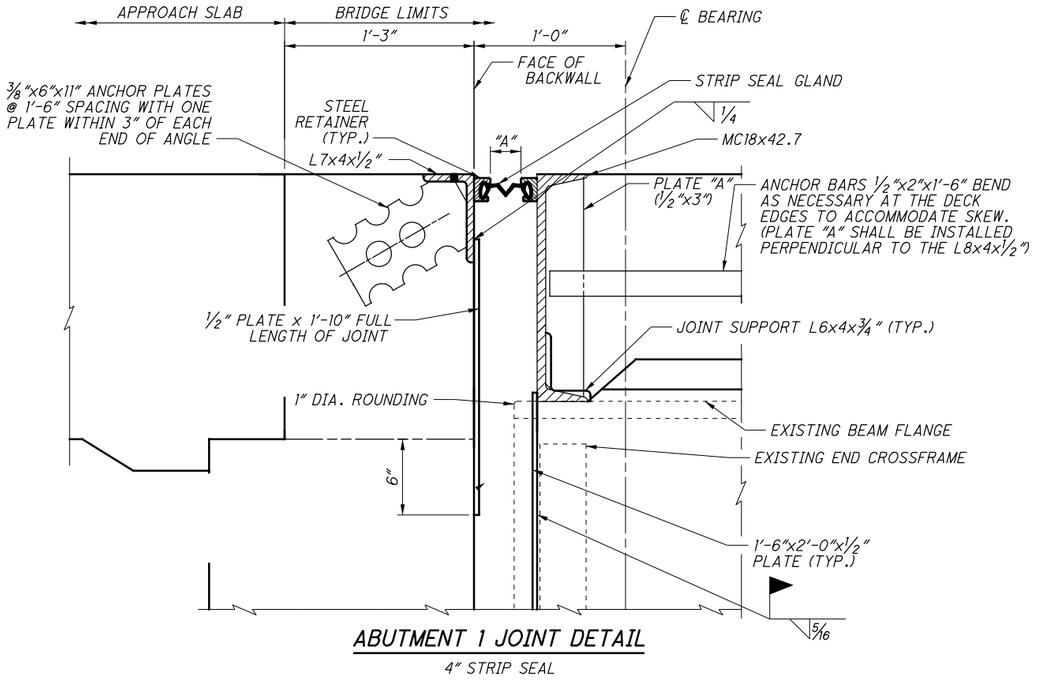
DESIGNED	DRAWN	REVIEWED	DATE
JAT	AMT	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CRG		3115739	

EXAMPLE DECK SCREED ELEVATION TABLE

BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

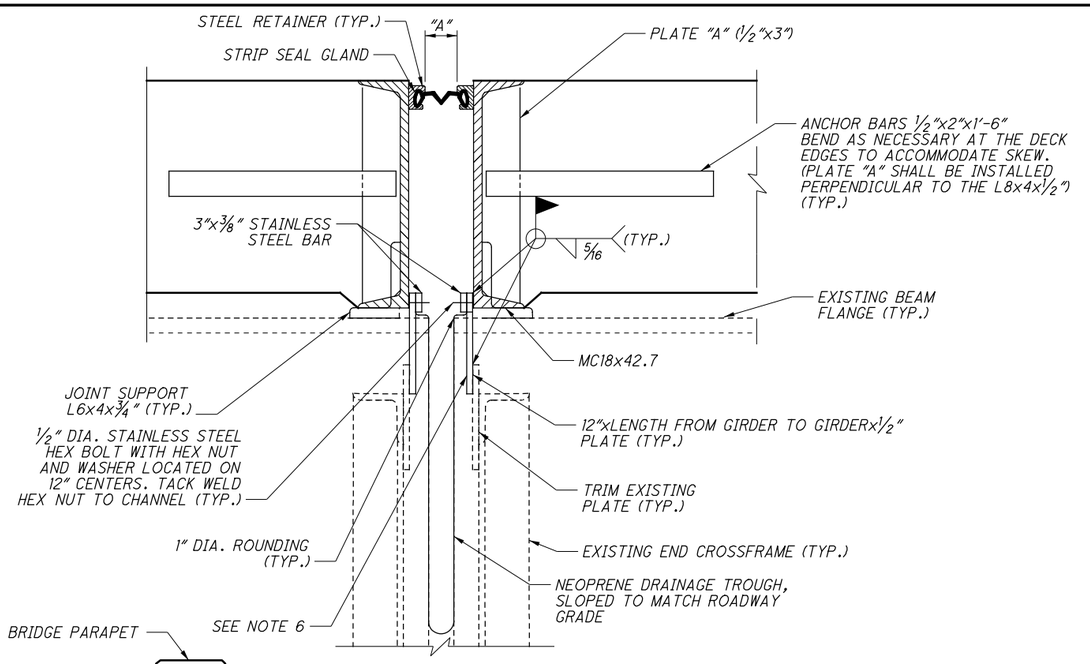
HAM-75-3.84
PID No. 104667

82/100



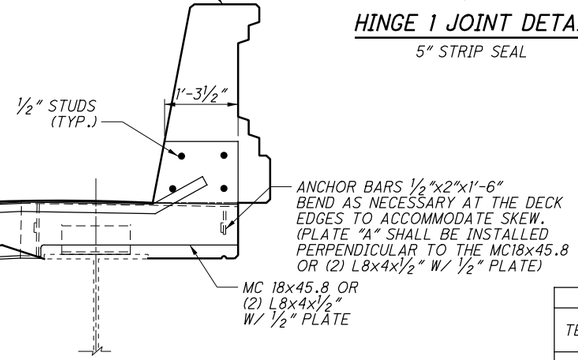
ABUTMENT 1 JOINT DETAIL

4" STRIP SEAL



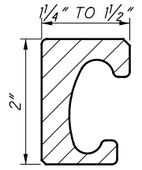
HINGE 1 JOINT DETAIL

5" STRIP SEAL



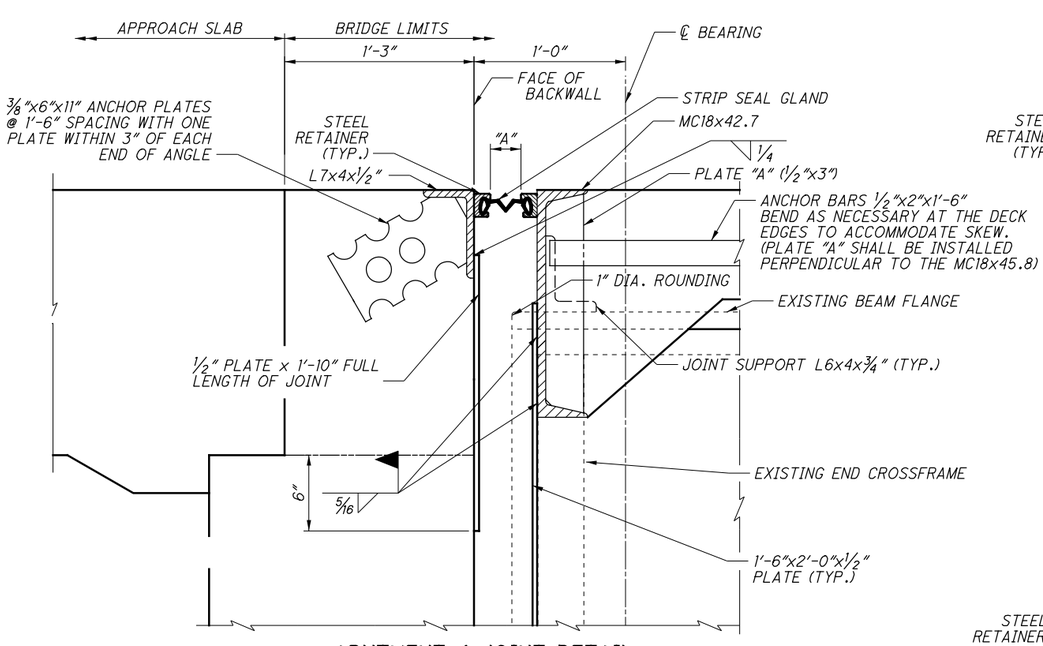
TYPICAL JOINT SECTION BRIDGE DECK

REAR & FORWARD ABUTMENT HINGES 1 & 2



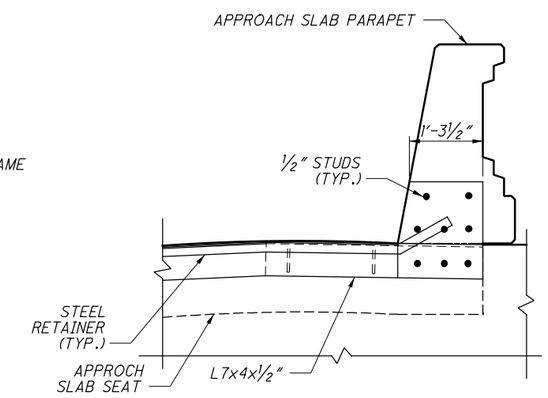
RETAINER DETAIL

STRIP SEAL JOINT "A" DIMENSION				
TEMP (°F)	REAR ABUTMENT	HINGE 1	HINGE 2	FORWARD ABUTMENT
30°	3 3/16"	4"	3 7/8"	2 1/8"
40°	2 15/16"	3 11/16"	3 5/8"	2"
50°	2 3/4"	3 3/8"	3 3/8"	1 15/16"
60°	2 1/2"	3 1/16"	3 1/8"	1 7/8"
70°	2 5/16"	2 13/16"	2 13/16"	1 3/4"
80°	2 1/16"	2 1/2"	2 9/16"	1 11/16"
90°	1 7/8"	2 3/16"	2 5/16"	1 9/16"



ABUTMENT 4 JOINT DETAIL

3" STRIP SEAL



TYPICAL JOINT SECTION APPROACH SLAB

NOTES:

1. FOR ADDITIONAL EXPANSION JOINT DETAILS, SEE STANDARD DRAWING EXJ-4-87.
2. THE TROUGH MATERIAL SHALL BE 3/32" THICK, HEAVY DUTY ELASTOMERIC SHEET OF NYLON FABRIC ENCASED IN A NEOPRENE POLYMER. THE MATERIAL SHALL BE "FAIRPRENE" WFP-N2N4 AS MANUFACTURED BY ALPHA ENGINEERING COMPOSITES LLC OR APPROVED EQUAL. THE MATERIAL SHALL CONFORM TO ASTM D751 AND THE FOLLOWING:

THICKNESS:	0.093 INCH ± 0.01 INCH
MIN. BREAKING STRENGTH:	650 LBS x 650 LBS
LOW TEMPERATURE:	ASTM D2136

3. THE SUPPORT ANGLES SHALL BE ASTM A709, GRADE 50 AND SHALL BE GALVANIZED IN ACCORDANCE WITH CMS 711.02.
4. THE STAINLESS STEEL BARS SHALL BE ASTM A480, TYPE 304.
5. THE CONTRACTOR SHALL GRIND BEAM ENDS THAT CONTACT THE NEOPRENE SHEETING TO 1" DIAMETER ROUND AND SMOOTH ANY TEARS OR FINS SO AS TO NOT TEAR THE NEOPRENE SHEETING.
6. SEE SHEET 40/100 FOR HINGE 1 CONFLICT DETAILS.

DESIGN AGENCY
PRIME AE
540 WEST POINT PASS, SUITE E
WOOSTER, OH 44691

DESIGNED	DRAWN	REVIEWED	DATE
KDC	KDC	TES	7/30/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CRG		3115739	

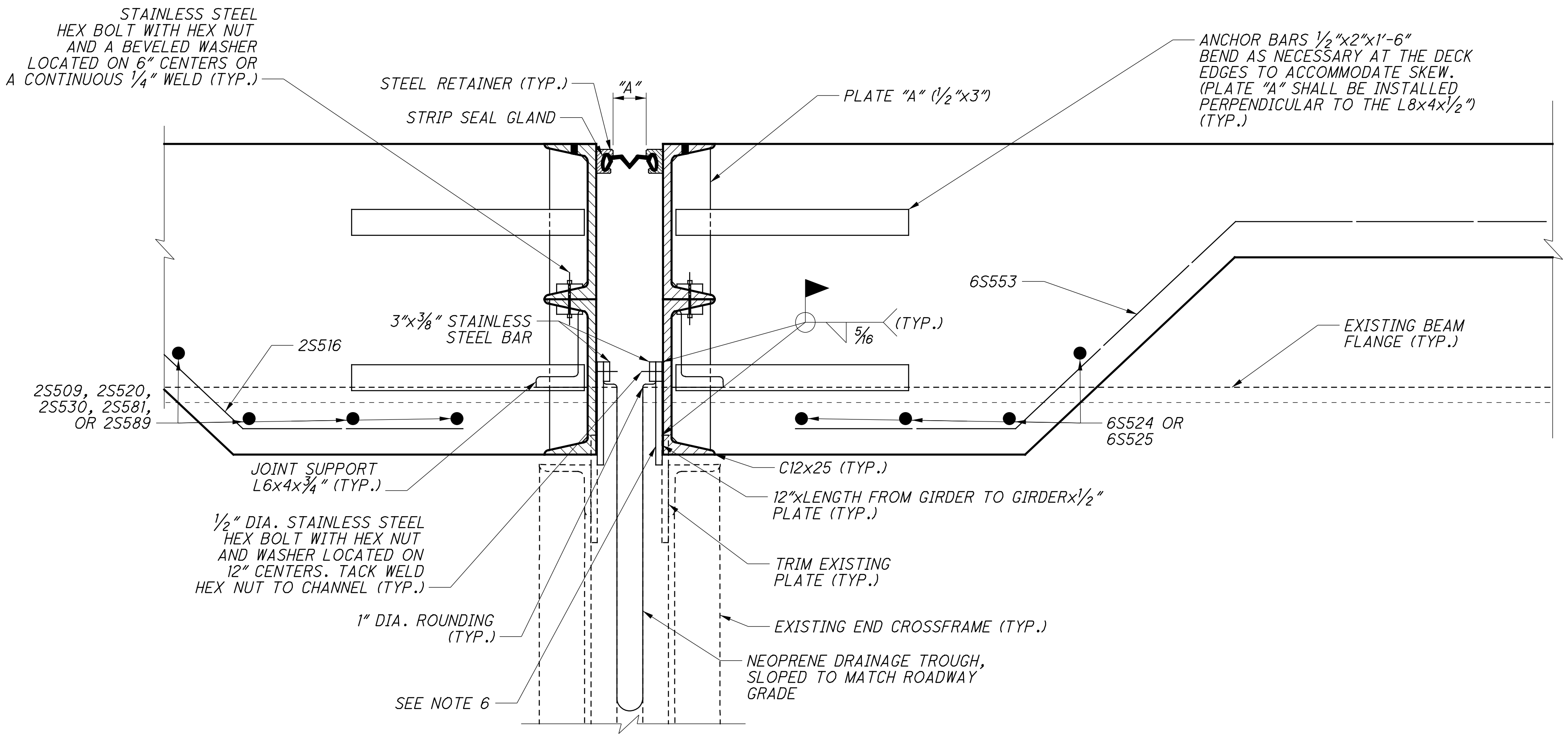
EXPANSION JOINT DETAILS
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

83/100

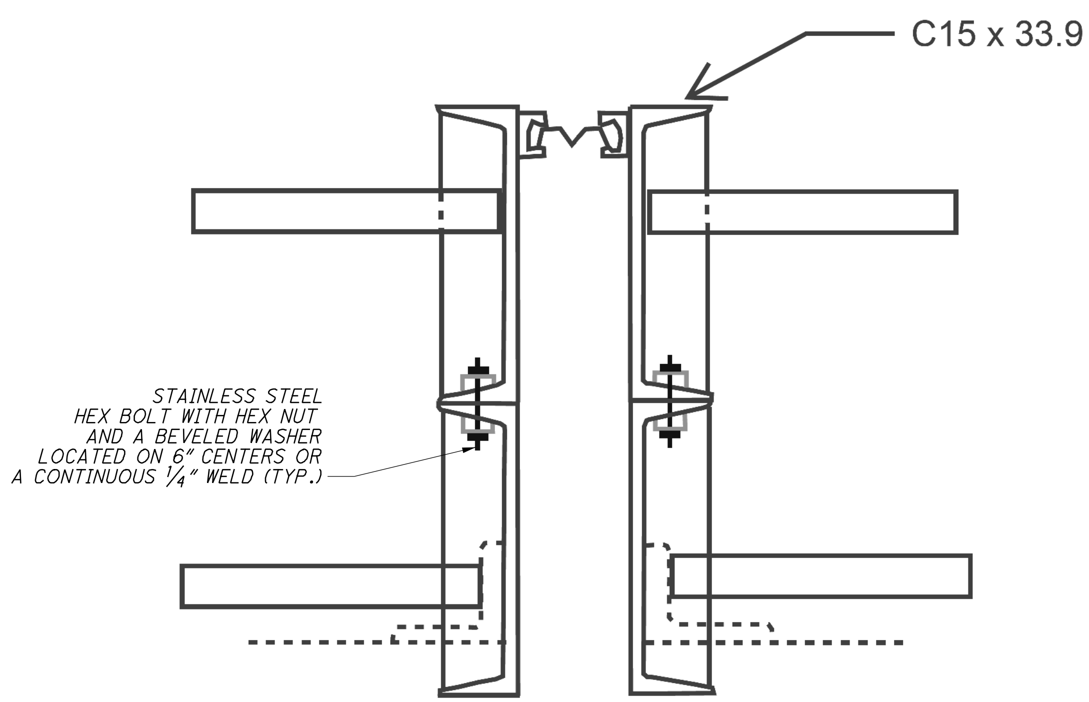
83
100

P:\Projects\2018\20H030B-18232 HAM-75-03.84\104667\structures\HAM074_1908R\sheets\074_1908R_EXA001.dgn 9/13/2023 4:16:08 PM erin.baumann



HINGE 2 JOINT DETAIL

4" STRIP SEAL



PIER 7 JOINT DETAIL

NOTES:

1. FOR ADDITIONAL EXPANSION JOINT DETAILS, SEE STANDARD DRAWING EXJ-4-87.
2. THE TROUGH MATERIAL SHALL BE 3/32" THICK, HEAVY DUTY ELASTOMERIC SHEET OF NYLON FABRIC ENCASED IN A NEOPRENE POLYMER. THE MATERIAL SHALL BE "FAIRPRENE" WFP-N2N4 AS MANUFACTURED BY ALPHA ENGINEERING COMPOSITES LLC OR APPROVED EQUAL. THE MATERIAL SHALL CONFORM TO ASTM D751 AND THE FOLLOWING:

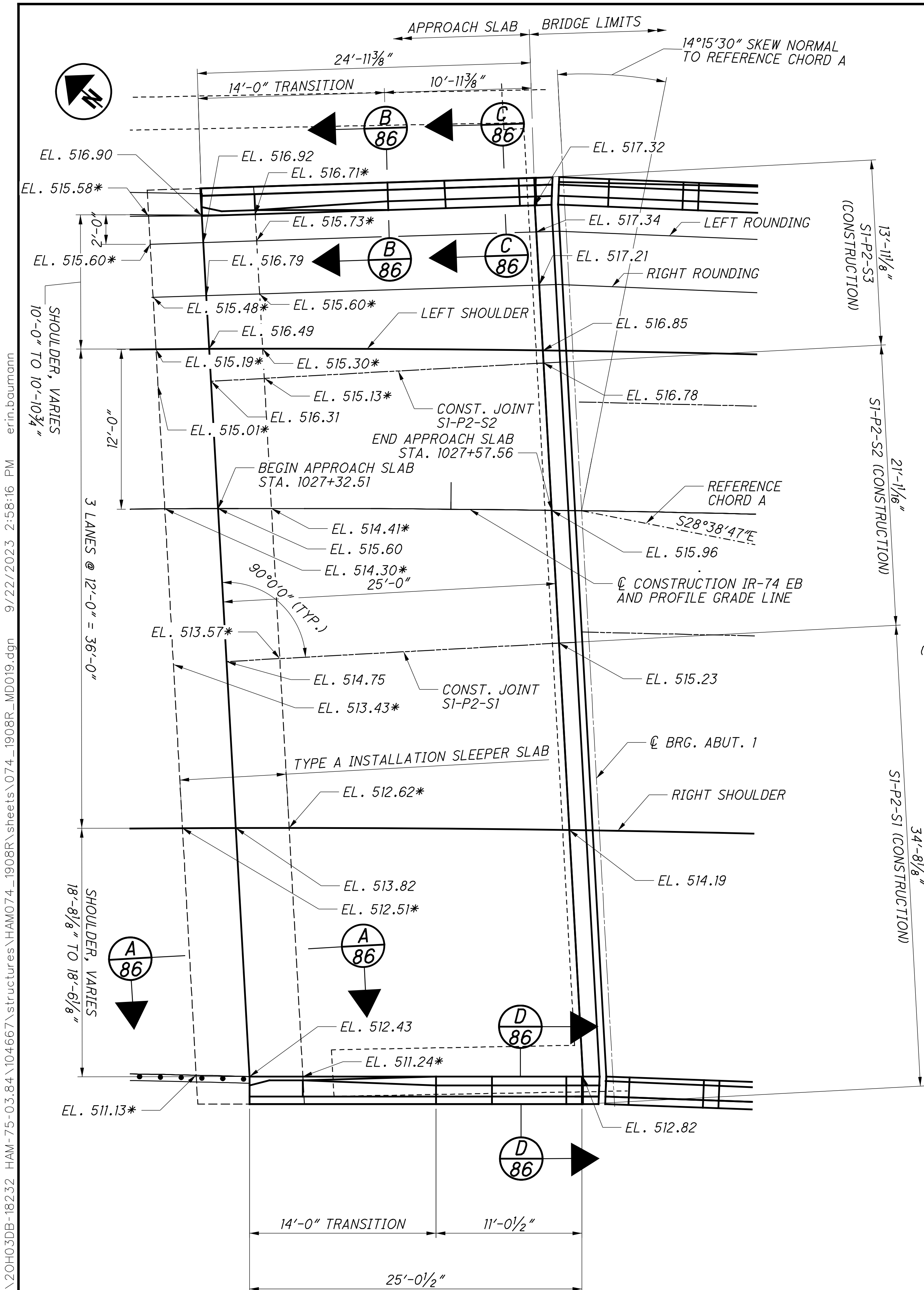
THICKNESS:	0.093 INCH ± 0.01 INCH
MIN. BREAKING STRENGTH:	650 LBS x 650 LBS
LOW TEMPERATURE:	ASTM D2136

3. THE SUPPORT ANGLES SHALL BE ASTM A709, GRADE 50 AND SHALL BE GALVANIZED IN ACCORDANCE WITH CMS 711.02.
4. THE STAINLESS STEEL BARS SHALL BE ASTM A480, TYPE 304.
5. THE CONTRACTOR SHALL GRIND BEAM ENDS THAT CONTACT THE NEOPRENE SHEETING TO 1" DIAMETER ROUND AND SMOOTH ANY TEARS OR FINS SO AS TO NOT TEAR THE NEOPRENE SHEETING.
6. EACH CANNEL IS TO BE METALIZED SEPERATELY THEN BOLTED TOGETHER.
7. EXCESS CONCRETE REMOVED AT HINGE 2 TO AVOID CONFLICT WITH STEEL MEMBERS.

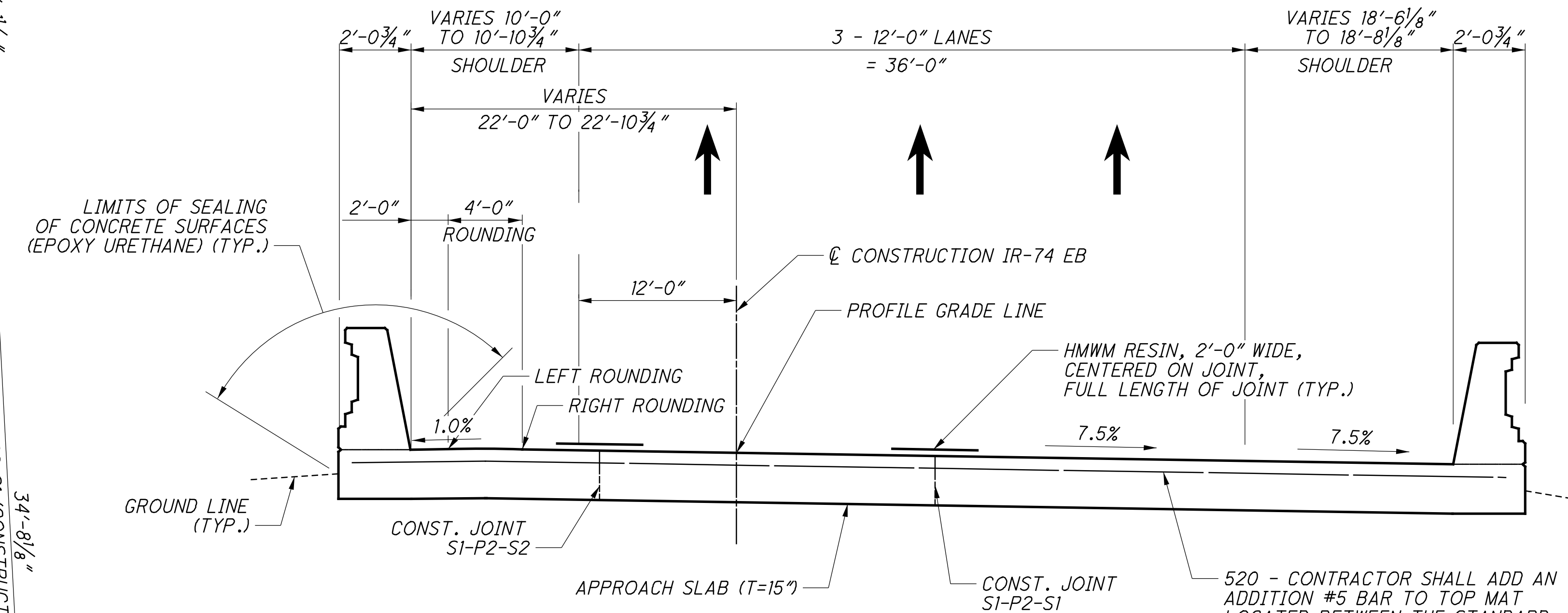
DESIGN AGENCY: PRIME AE, 540 WHITE POND DR., SUITE E, AKRON, OH 44320
DESIGNED EEB | DRAWN EEB | REVIEWED TES | DATE 7/30/2019 | CHECKED AMT | REVISED | STRUCTURE FILE NUMBER 3115739

EXPANSION JOINT DETAILS
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667



REAR APPROACH SLAB PLAN



REAR APPROACH SLAB SECTION

LEGEND

* - TOP OF SLEEPER SLAB ELEVATION

NOTES:

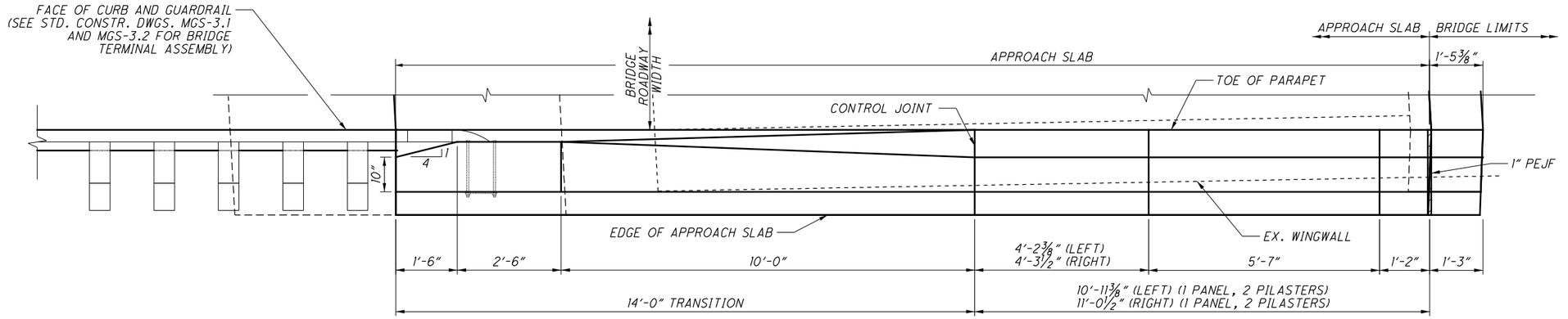
1. ALL CONCRETE SURFACES OF THE ORNAMENTAL PARAPET SHALL RECIEVE A RUBBER FINISH. SAW CUTTING AND TEXTURED FINISH ARE INCLUDED WITH ITEM 511 - CONCRETE CLASS QC3 WITH QC/QA-COMPRESSIVE STRENGTH 4.5 KSI, BRIDGE DECK (PARAPET, AS PER PLAN, FOR PAYMENT.
2. FOR MORE DETAILS, SEE STANDARD DRAWINGS AS-1-15 AND AS-2-15.
3. PARAPET DIMENSIONS ALONG OUTSIDE EDGE OF APPROACH SLAB.
4. ALL TRANSVERSE BARS IN THE APPROACH SLAB REQUIRE MECHANICAL CONNECTORS.
5. FOR REAR APPROACH SLAB AND ABUTMENT DETAILS, SEE SHEET 36/100.
6. FOR LIMITS OF SEALING, SEE SHEET 36/100.
7. CRACKS IN THE APPROACH SLAB CONCRETE WERE TREATED ACCORDING TO ODOT SPECIFICATIONS FOR ITEM 512 SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN.

DESIGN AGENCY
PRIME
540 WHITE POND DR., SUITE E
AKRON, OH 44320

REVIEWED TES DATE 7/30/2019
STRUCTURE FILE NUMBER 3115739
DRAWN ADS REVISED
DESIGNED JAT CHECKED CRG

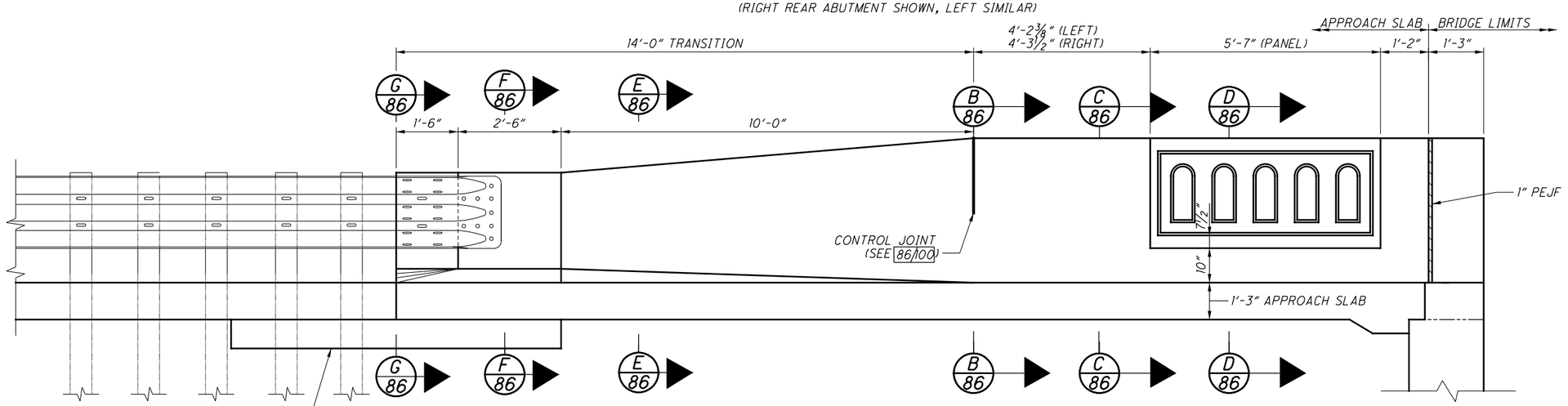
REAR APPROACH SLAB PLAN AND SECTION
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667



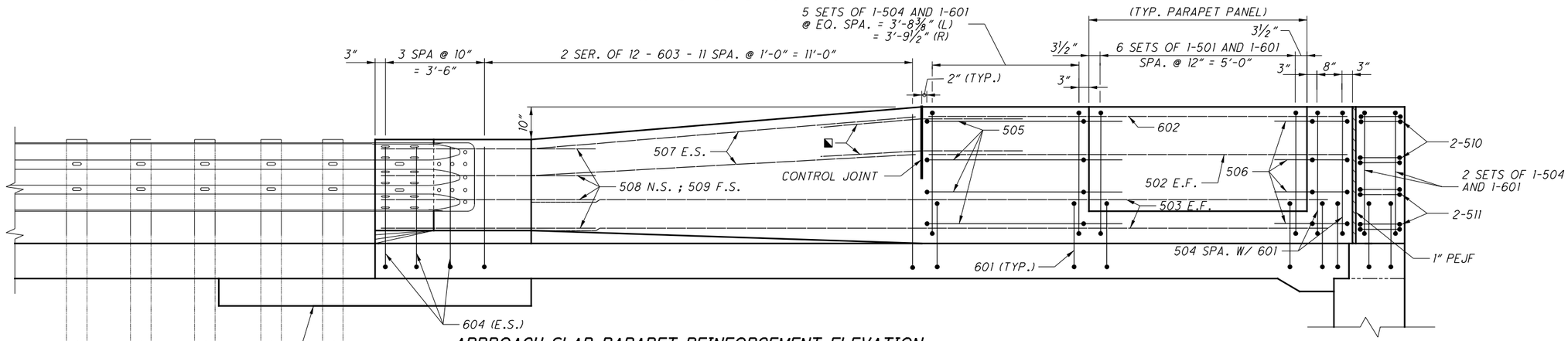
APPROACH SLAB PARAPET PLAN

(RIGHT REAR ABUTMENT SHOWN, LEFT SIMILAR)



APPROACH SLAB PARAPET ELEVATION

(RIGHT REAR ABUTMENT SHOWN, LEFT SIMILAR)



APPROACH SLAB PARAPET REINFORCEMENT ELEVATION

(RIGHT REAR ABUTMENT SHOWN, LEFT SIMILAR)

LEGEND:

- ½" DIA. GLASS FIBER REINFORCED POLYMER (GFRP) STIFFENING REINFORCEMENT

NOTES:

1. FOR ADDITIONAL DETAILS AND NOTES, SEE SHEET 86/100.
2. FOR PANEL DETAILS, SEE SHEET 56/100.
3. THE PREFIX "RASR" SHALL BE ADDED TO ALL BAR MARKS FOR REAR APPROACH SLAB PARAPET DETAILS.

DESIGN AGENCY
PRIME AE
540 WEST NORTH BANK DRIVE, SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
JAT	ADS	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CRG		3115739	

REAR APPROACH PARAPET DETAILS
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

85 / 100

85
100

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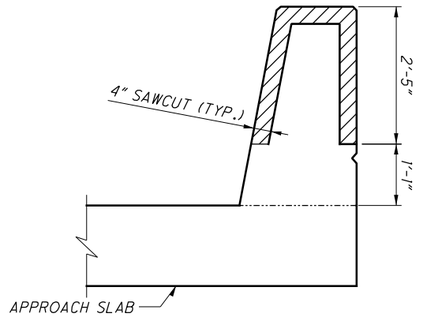
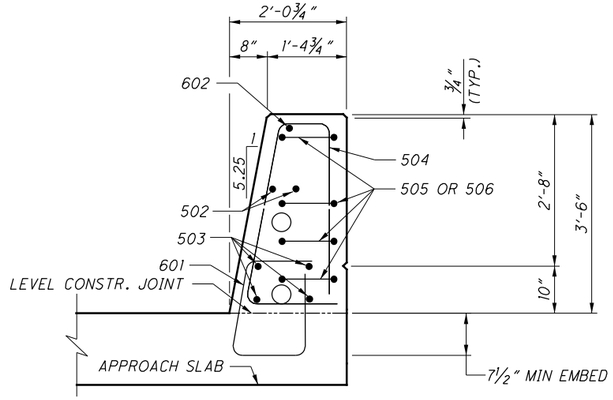
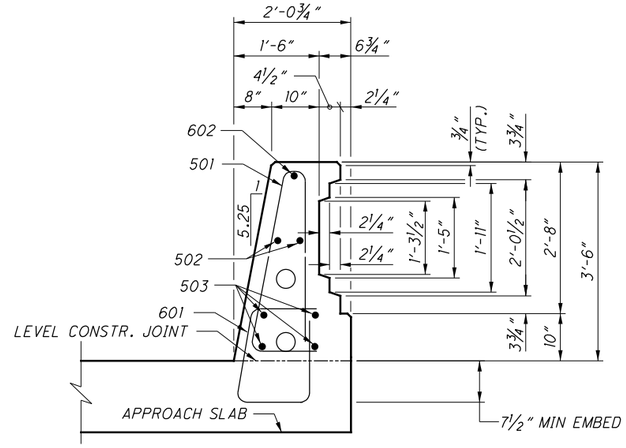


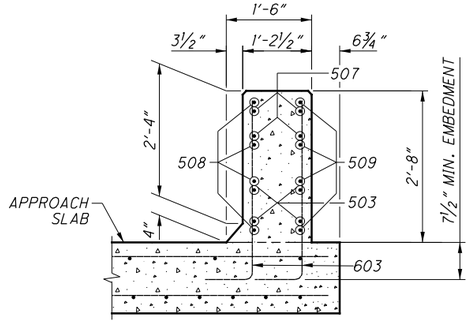
B 85,88 CONTROL JOINT DETAIL
(SECTION THROUGH SAWCUT)
(SEE SBR-1-99)



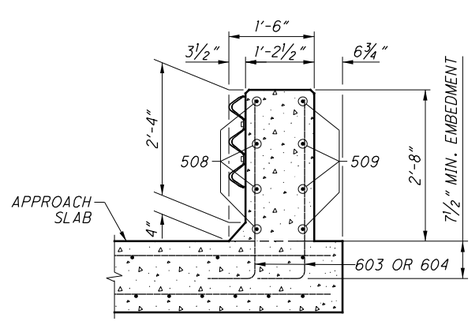
C 85,88 SECTION THRU PILASTER



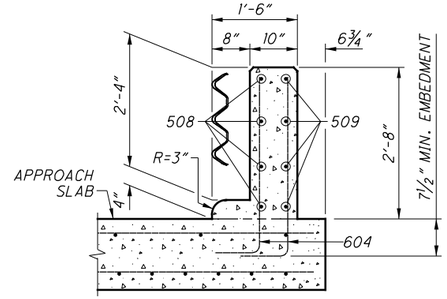
D 85,88 SECTION THRU PANEL



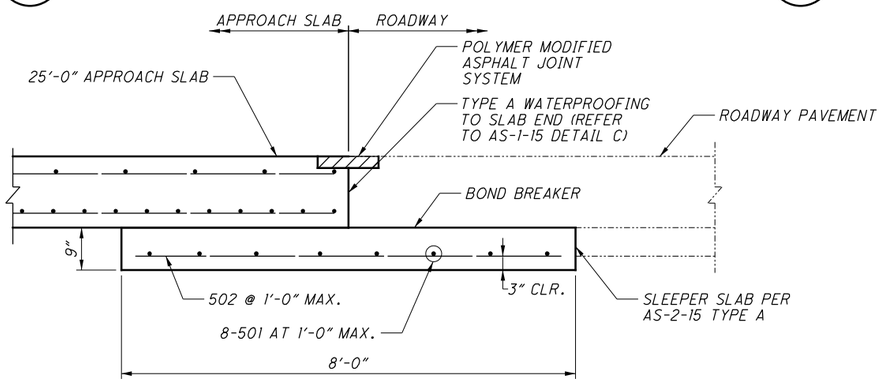
E 85,88 SECTION



F 85,88 SECTION



G 85,88 SECTION



A 87 SECTION

NOTES:

1. FOR NOTES, SEE SHEET 84/100.

LEGEND:

◥ - ½" DIA. GLASS FIBER REINFORCED POLYMER (GFRP) STIFFENING REINFORCEMENT

DESIGN AGENCY
PRIME AE
540 MITCHELL DRIVE, SUITE E
WADSWORTH, OH 44281

DESIGNED	DRAWN	REVIEWED	DATE
JAT	ADS	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CRG		3115739	

APPROACH PARAPET DETAILS
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

86/100

86
100

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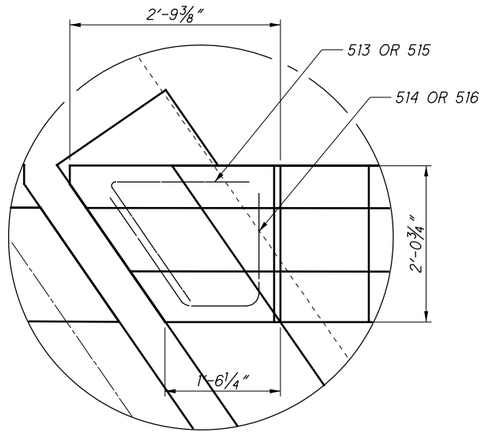
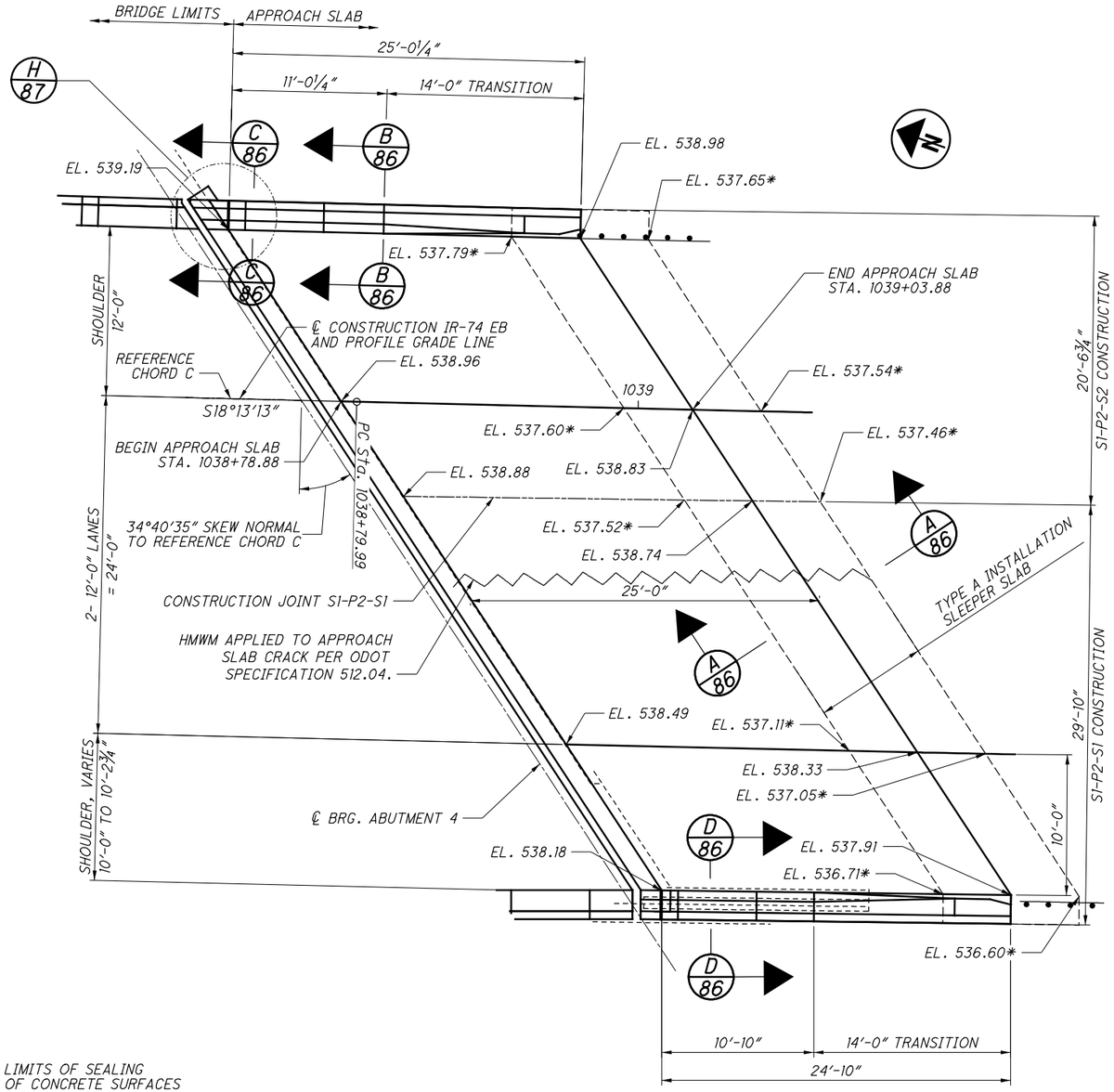


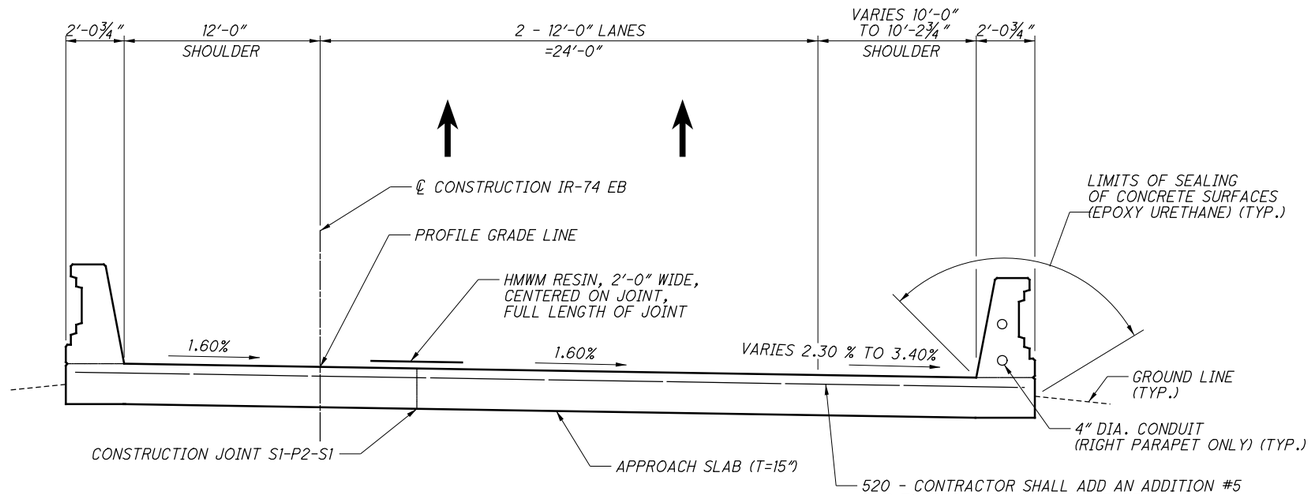
H/87 ABUTMENT PARAPET DETAIL

LEGEND

* - TOP OF SLEEPER SLAB ELEVATION



FORWARD APPROACH SLAB PLAN



FORWARD APPROACH SLAB SECTION

NOTES:

1. ALL CONCRETE SURFACES OF THE ORNAMENTAL PARAPET SHALL RECIEVE A RUBBER FINISH. SAW CUTTING AND TEXTURED FINISH ARE INCLUDED WITH ITEM 511 - CONCRETE CLASS QC3 WITH QC/QA-COMPRESSIVE STRENGTH 4.5 KSI, BRIDGE DECK (PARAPET, AS PER PLAN, FOR PAYMENT.
2. FOR MORE DETAILS, SEE STANDARD DRAWINGS AS-1-15 AND AS-2-15.
3. PARAPET DIMENSIONS ALONG OUTSIDE EDGE OF APPROACH SLAB.
4. ALL TRANSVERSE BARS IN THE APPROACHSLAB REQUIRE MECHANICAL CONNECTORS.
5. FOR FORWARD APPROACH SLAB AND ABUTMENT DETAILS, SEE SHEET 36/100.
6. FOR LIMITS OF SEALING, SEE SHEET 36/100.

DESIGN AGENCY
PRIME
540 WATER POLO DR. SUITE E
NEWBURY, OR 97420

DESIGNED	DRAWN	REVIEWED	DATE
JAT	ADS	TES	7/30/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CRG		3115739	

FORWARD APPROACH SLAB PLAN AND SECTION
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

87/100

87/100

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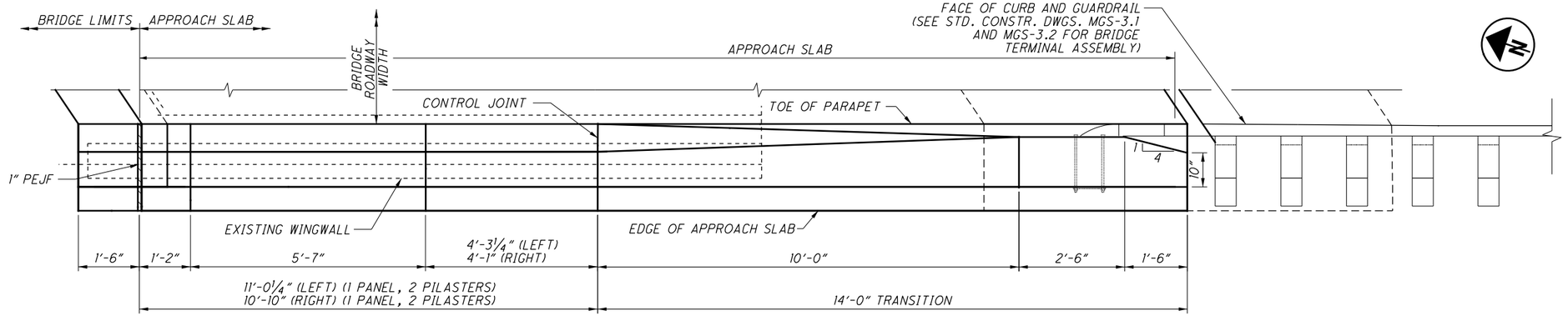
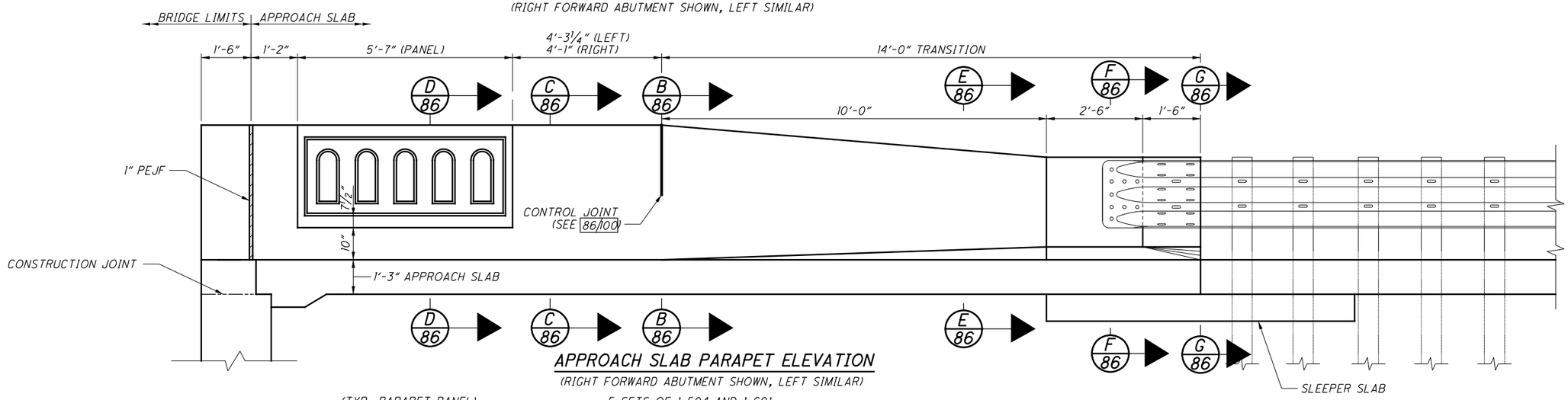


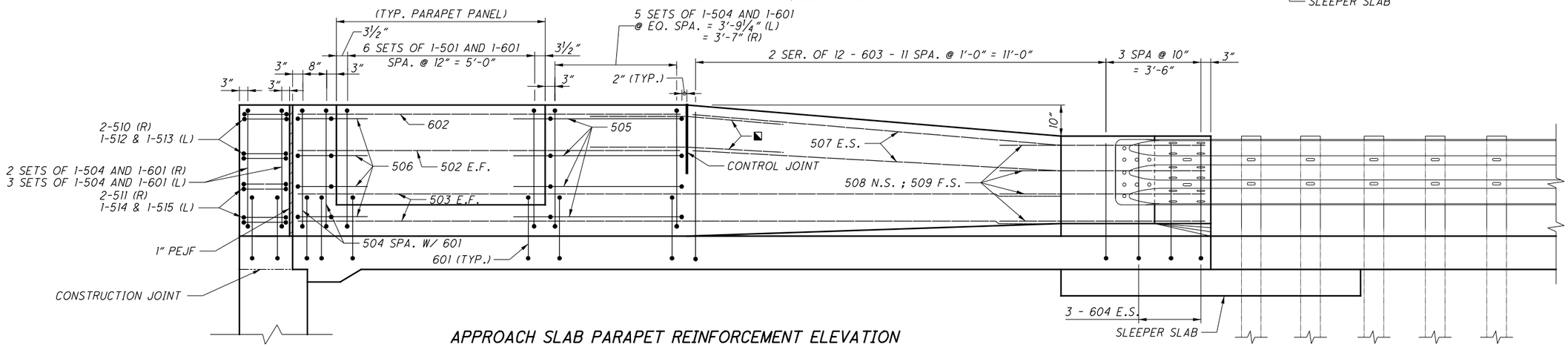
APPROACH SLAB PARAPET PLAN

(RIGHT FORWARD ABUTMENT SHOWN, LEFT SIMILAR)



APPROACH SLAB PARAPET ELEVATION

(RIGHT FORWARD ABUTMENT SHOWN, LEFT SIMILAR)



APPROACH SLAB PARAPET REINFORCEMENT ELEVATION

(RIGHT FORWARD ABUTMENT SHOWN, LEFT SIMILAR)

LEGEND:

■ - ½" DIA. GLASS FIBER REINFORCED POLYMER (GFRP) STIFFENING REINFORCEMENT

NOTES:

1. FOR ADDITIONAL DETAILS AND NOTES, SEE SHEET 87/100.
2. FOR PANEL DETAILS, SEE SHEET 56/100.
3. THE PREFIX "FASR" SHALL BE ADDED TO ALL BAR MARKS FOR FORWARD APPROACH SLAB PARAPET DETAILS.

DESIGN AGENCY
PRIME AE
540 WEST POINTE DR. SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
JAT	ADS	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CRG		3115739	

FORWARD APPROACH PARAPET DETAILS
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

88/100

88/100

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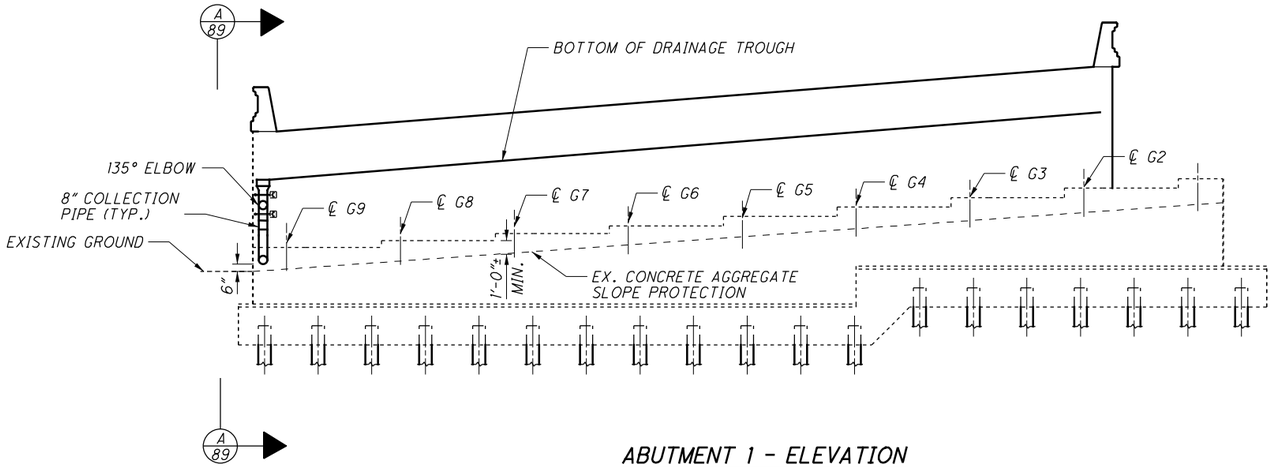
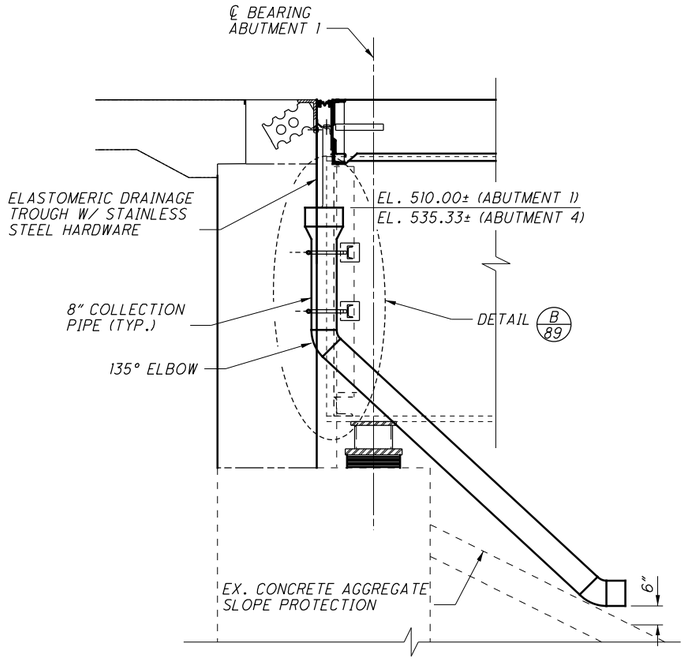
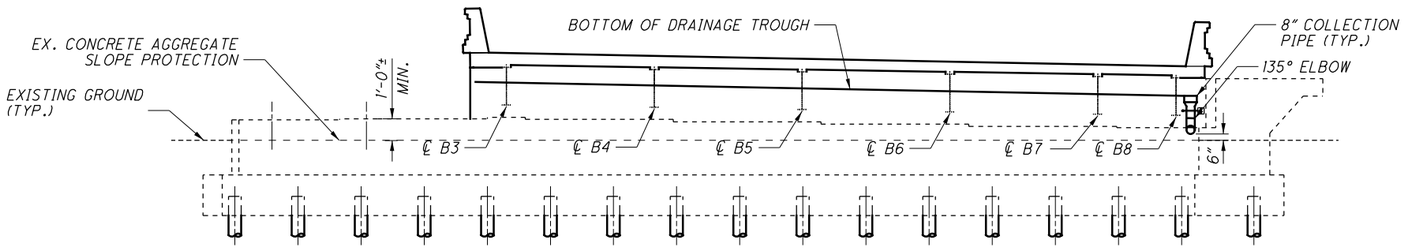


ABUTMENT 1 - ELEVATION

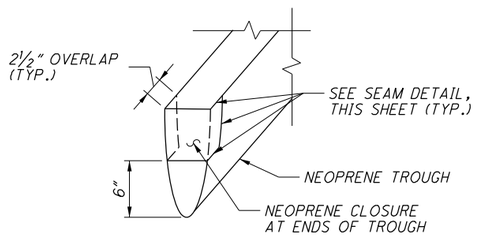


A 89 SECTION - ABUTMENT 1 DRAINAGE DETAIL

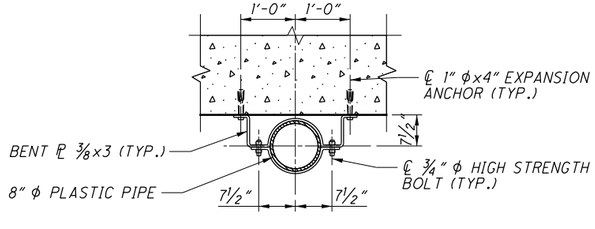
ABUTMENT 4 SIMILAR



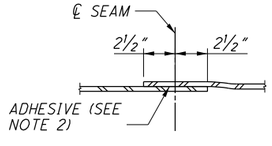
ABUTMENT 4 - ELEVATION



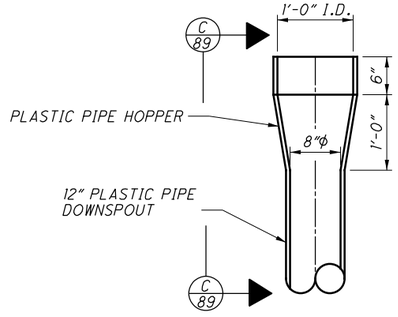
END OF TROUGH CLOSURE DETAIL



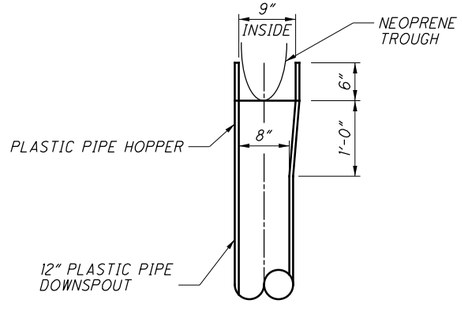
DOWNSPOUT SUPPORT BRACKET



SEAM DETAIL



B 89 DETAIL



C 89 SECTION

NOTES:

1. FOR EXPANSION JOINT DETAILS, SEE SHEET 83/100 .
2. AT THE ENDS OF THE NEOPRENE DRAINAGE TROUGHS, OVERLAP THE ENDS OF THE NEOPRENE AND SEAL WITH 3M SCOTCH-WELD HP 1357 NEOPRENE CONTACT ADHESIVE OR APPROVED EQUAL.
3. ALL BRACKETS SHALL BE ASTM A709, GRADE 50 AND SHALL BE GALVANIZED PER CMS 711.02.
4. ALL MATERIALS FOR THE DOWNSPOUTS AND ELBOWS SHALL BE PLASTIC PIPE IN ACCORDANCE WITH CMS 707.45.

DESIGN AGENCY
PRIME AE
540 WHITE POND DR, SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
KDC	KDC	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CRG		3115739	

DRAINAGE DETAILS (1 OF 3)
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

89/100

89/100

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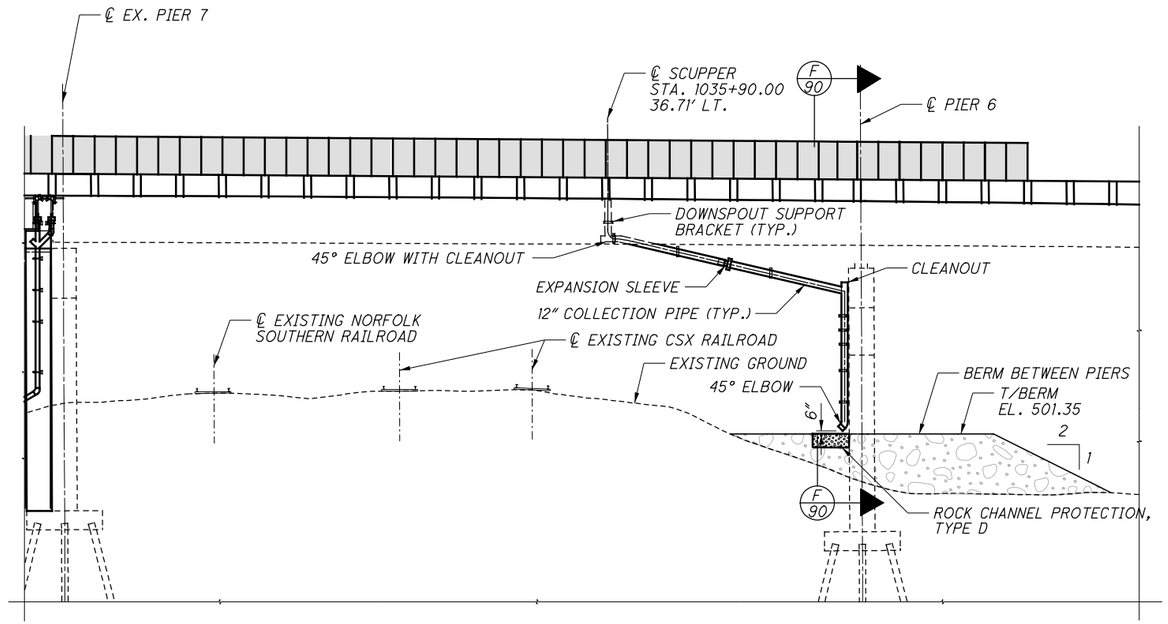
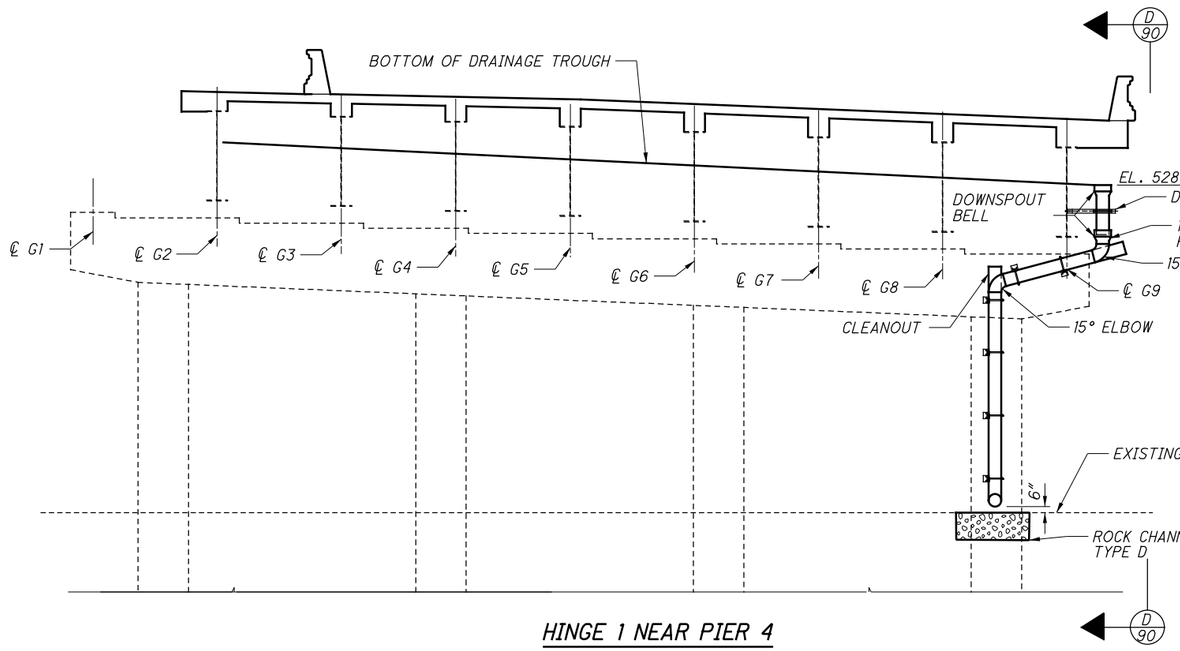
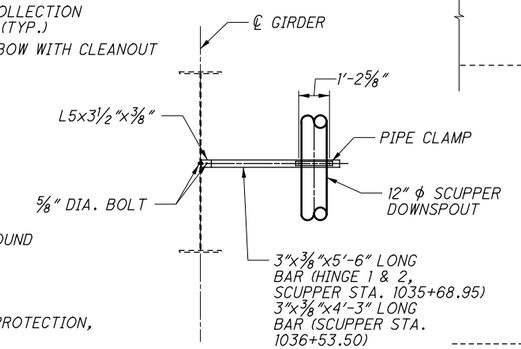


UNIT 2 LEFT - ELEVATION

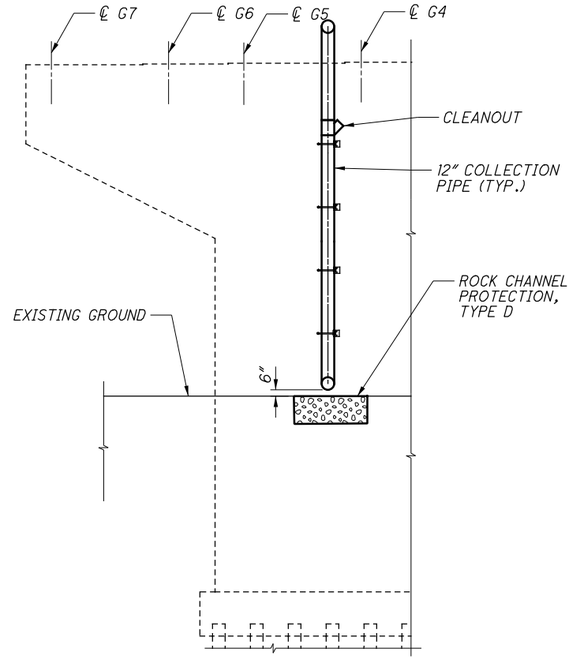


HINGE 1 NEAR PIER 4

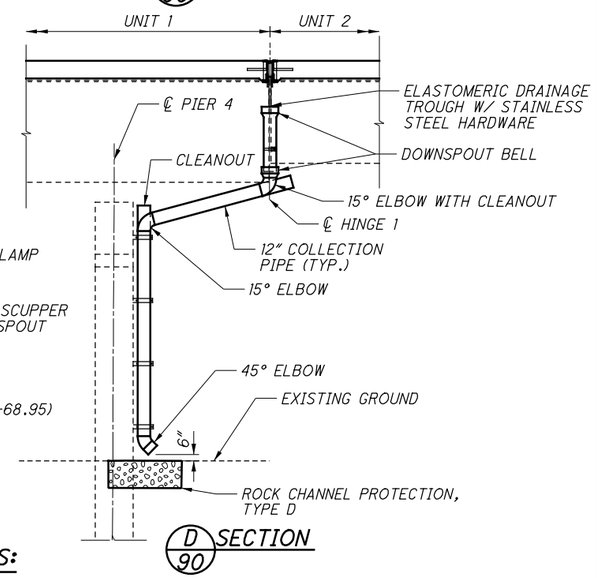


DOWNSPOUT SUPPORT BRACKET

PIPE CLAMPS SHALL BE EATON B-LINE SERIES B2400-12 OR APPROVED EQUAL.



F 90 SECTION - PIER 6 LEFT



D 90 SECTION

NOTES:

1. FOR EXPANSION JOINT DETAILS, SEE SHEET 83/100 .
2. NO BRIDGE SCUPPERS OR OTHER DECK DRAINS, ROADWAY DRAINAGE, CATCH BASINS, INLETS OR OUTLETS ARE PERMITTED TO DRAIN ONTO RAILWAY PROPERTY FROM OVERHEAD BRIDGE STRUCTURES. DRAINAGE FROM BRIDGE SCUPPERS AND DECK DRAINS MUST BE CONVEYED THROUGH PIPES, PREFERABLY TO A POINT OFF RAILROAD PROPERTY. ALL HANDLING SHALL BE IN KEEPING WITH REQUIREMENTS OF NS "OVERHEAD GRADE SEPARATION DESIGN CRITERIS".
3. FOR ADDITIONAL NOTES AND DETAILS, SEE SHEET 89/100.

DESIGN AGENCY
PRIME AE
540 WHITE POND DR., SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
KDC	KDC	TES	7/30/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CRG		3115739	

DRAINAGE DETAILS (2 OF 3)
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

90/100

90
100

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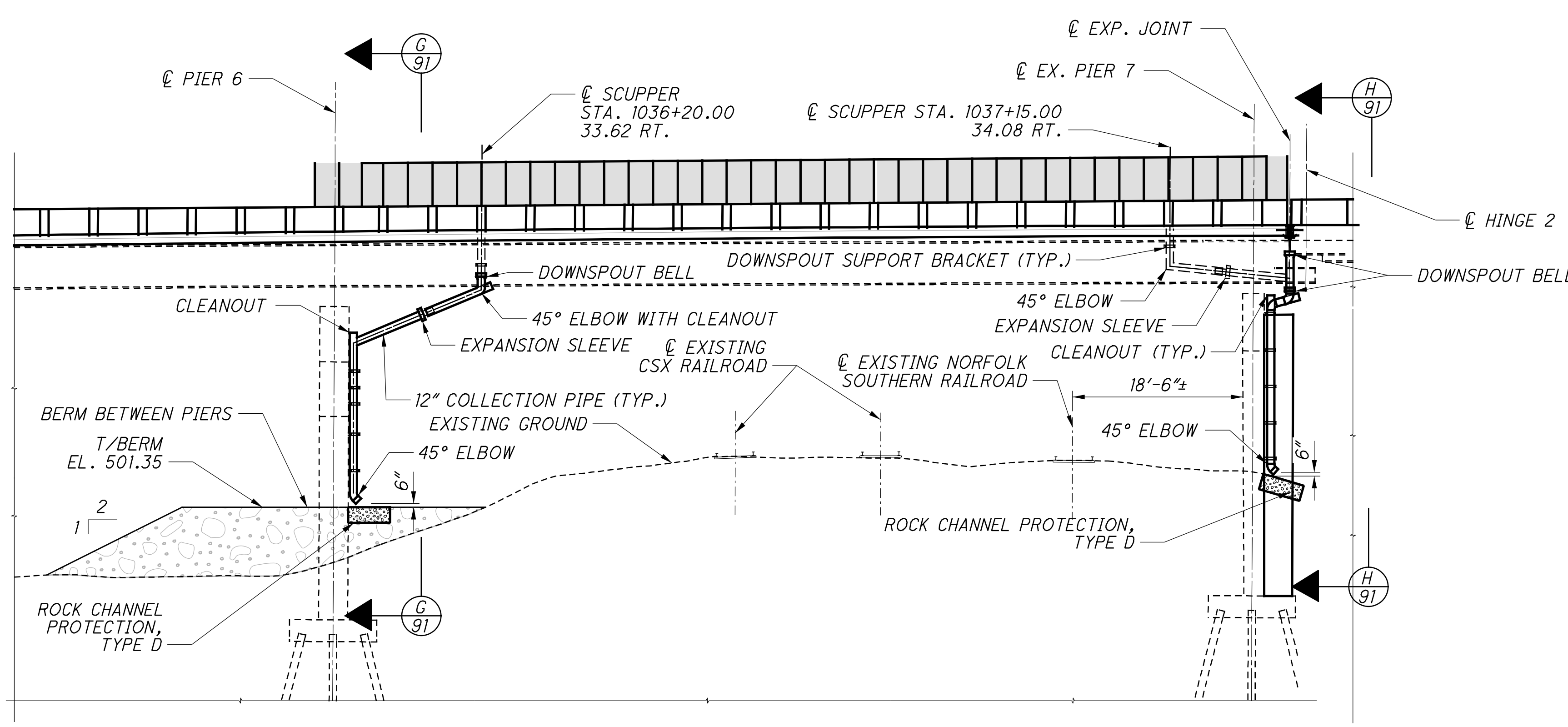
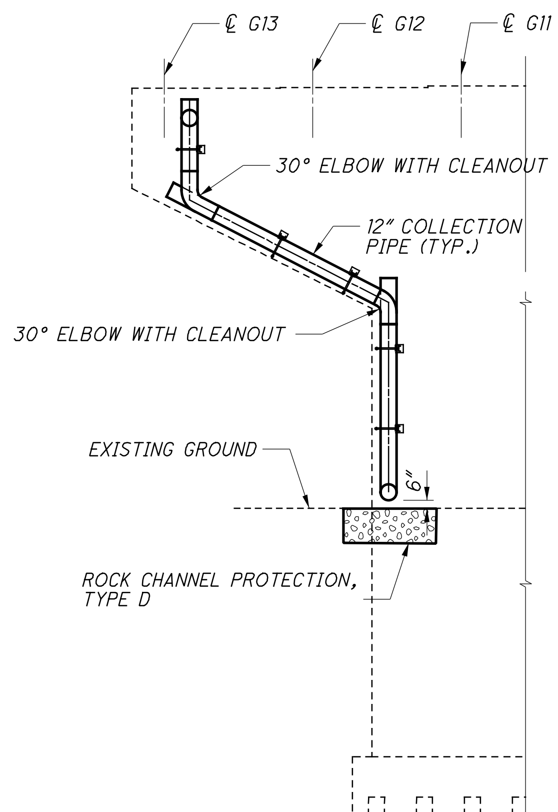
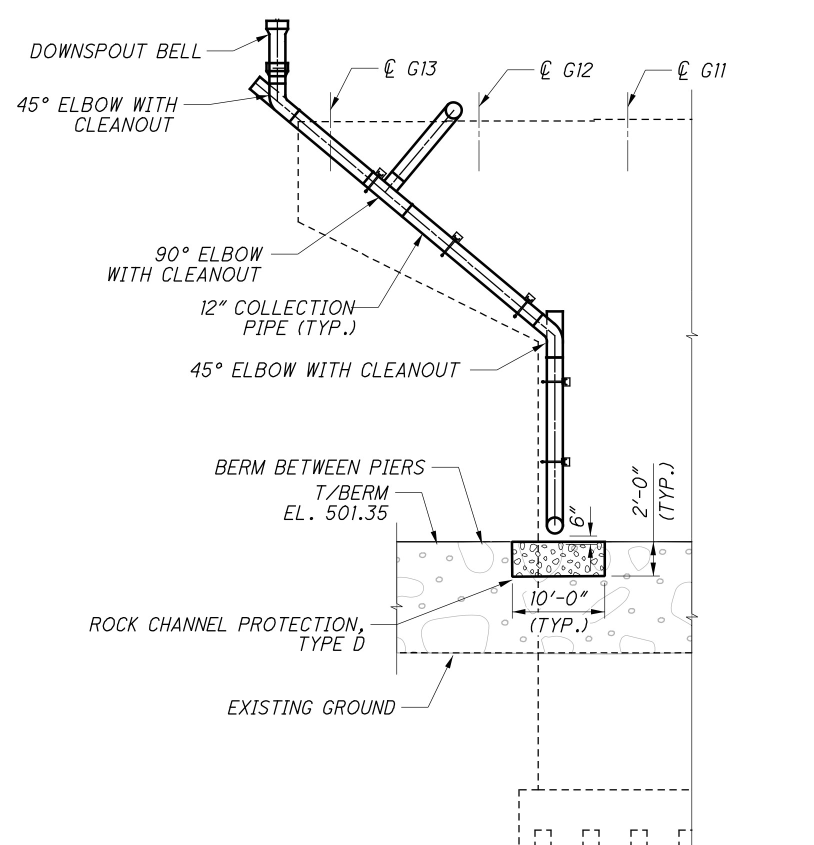


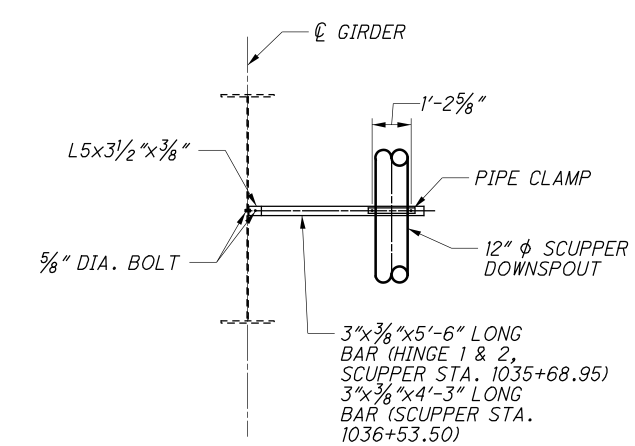
UNIT 2 RIGHT - ELEVATION



G/91 SECTION - PIER 6 RIGHT



H/91 SECTION - PIER 7 RIGHT



DOWNSPOUT SUPPORT BRACKET

PIPE CLAMPS SHALL BE EATON B-LINE SERIES B2400-12 OR APPROVED EQUAL.

NOTES:

1. FOR EXPANSION JOINT DETAILS, SEE SHEET 83/100 .
2. NO BRIDGE SCUPPERS OR OTHER DECK DRAINS, ROADWAY DRAINAGE, CATCH BASINS, INLETS OR OUTLETS ARE PERMITTED TO DRAIN ONTO RAILWAY PROPERTY FROM OVERHEAD BRIDGE STRUCTURES. DRAINAGE FROM BRIDGE SCUPPERS AND DECK DRAINS MUST BE CONVEYED THROUGH PIPES, PREFERABLY TO A POINT OFF RAILROAD PROPERTY. ALL HANDLING SHALL BE IN KEEPING WITH REQUIREMENTS OF NS "OVERHEAD GRADE SEPARATION DESIGN CRITERIS".
3. FOR ADDITIONAL NOTES AND DETAILS, SEE SHEET 89/100.

DESIGN AGENCY PRIME 540 WHITE POND DR., SUITE E AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
KDC	KDC	TES	7/30/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CRG		3115739	

DRAINAGE DETAILS - (3 OF 3)
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

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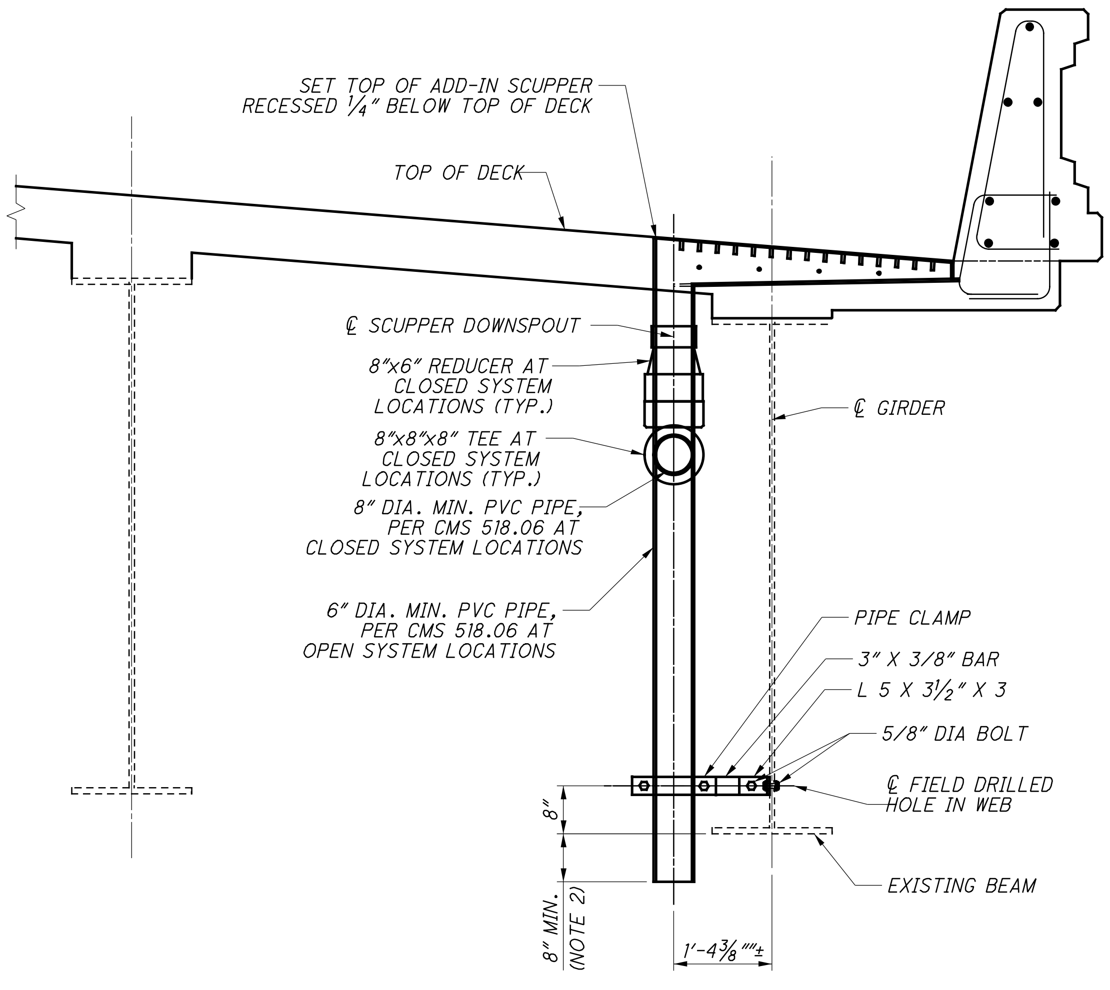
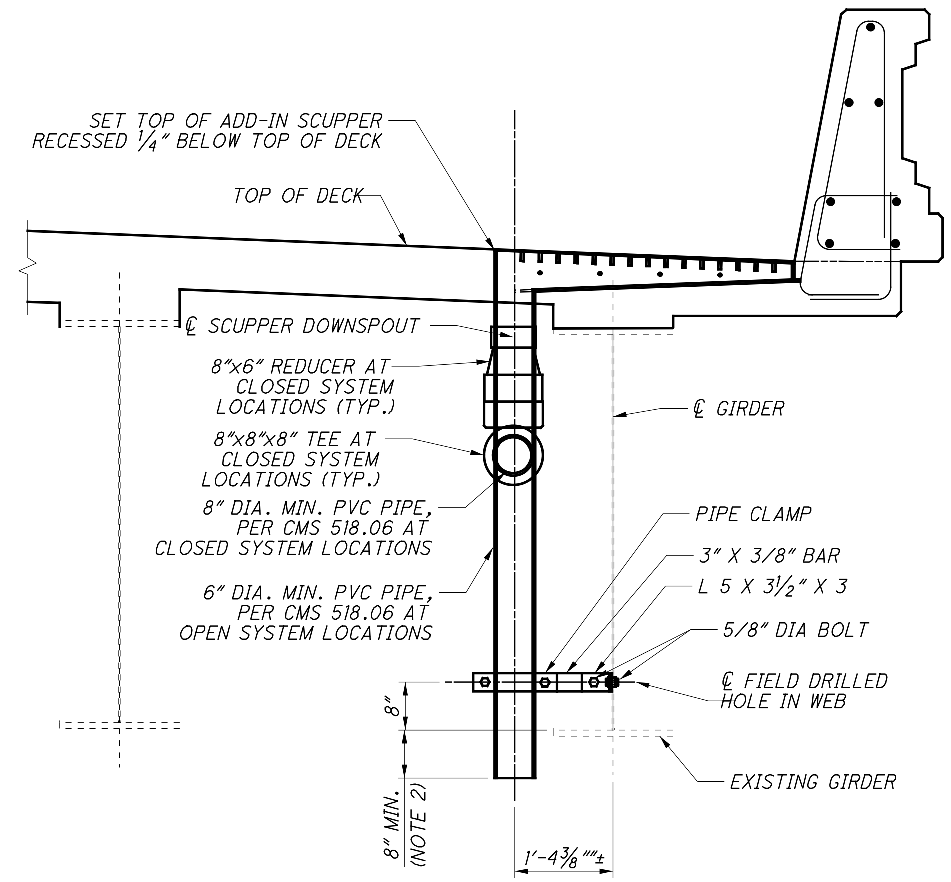
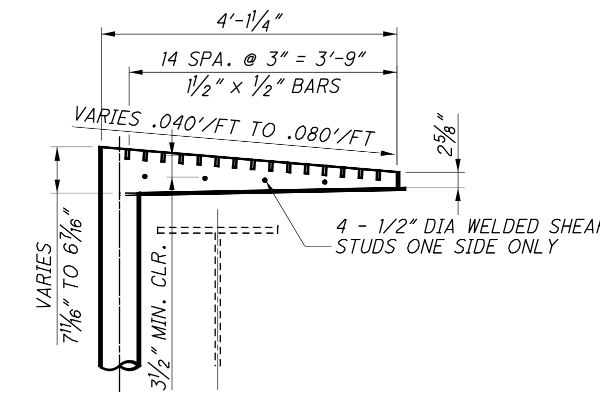


TYPE 1 SCUPPER - UNIT 1

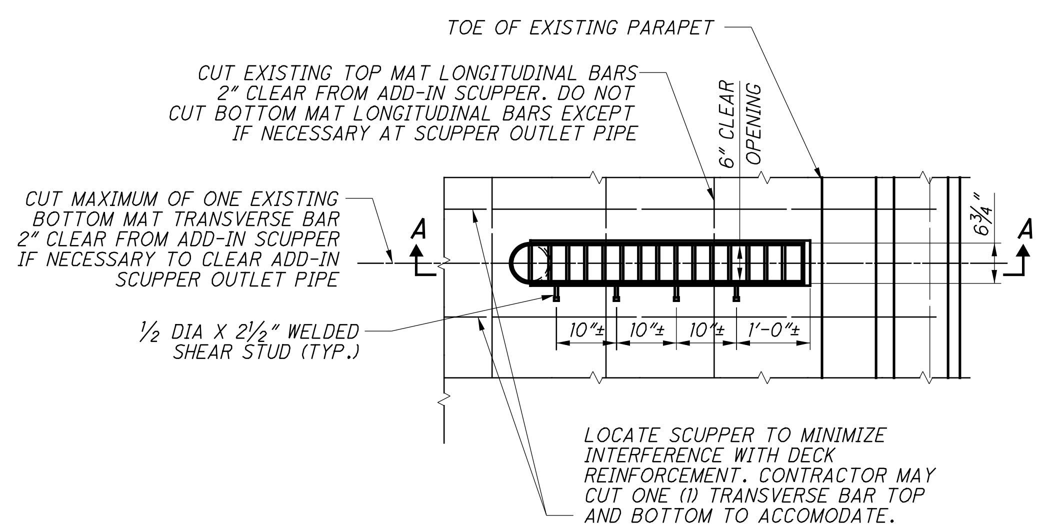


TYPE 1 SCUPPER - UNIT 2 (RIGHT)

(SCUPPERS ON UNIT 2-LEFT ARE STANDARD SCUPPERS)



SECTION A-A



TYPE 1 SCUPPER-PLAN

NOTES

1. FABRICATE TEMPORARY ADD-IN SCUPPERS FROM MIN. 3/8" THICK STEEL PLATE; ASTM A36 OR EQUAL.
2. PRIOR TO REMOVING PORTION OF DECK TO INSTALL ADD-IN SCUPPER, VERIFY THE SCUPPER WILL NOT CONFLICT WITH EXISTING X-FRAMES.
3. EXTEND DOWNDRAIN 8" MIN. BEYOND BOTTOM OF EXISTING GIRDER.
4. PROVIDE SPLASH PAD WHEN ERODIBLE MATERIAL IS LOCATED BELOW ADD-IN SCUPPER.
5. PIPE HANGERS SHALL BE EATON B-LINE SERIES B3100-8 OR APPROVED EQUAL.
6. PIPE CLAMPS SHALL BE EATON B-LINE SERIES B3140-8 OR APPROVED EQUAL.
7. ALL COMPONENTS (ANGLES, BARS, CLAMPS, ANCHORS, BOLT COUPLERS, PIPE HANGERS, ETC.) SHALL BE GALVANIZED.
8. ALL BOLTS SHALL BE A325, TYPE 1 GALVANIZED. EACH ASSEMBLY SHALL INCLUDE BOLT, NUT, AND TWO WASHERS. TIGHTEN ACCORDING TO CMS 513.
9. FOR TYPE 1 SCUPPER LOCATIONS ON UNIT 1, SEE SHEETS 51/100 AND 52/100 .
10. FOR TYPE 1 SCUPPER LOCATIONS ON UNIT 2, SEE SHEETS 60/100 AND 61/100 .

DESIGN AGENCY
PRIME
540 WHITE POND DR., SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
JAT	JAT	TES	7/30/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CRG		3115739	

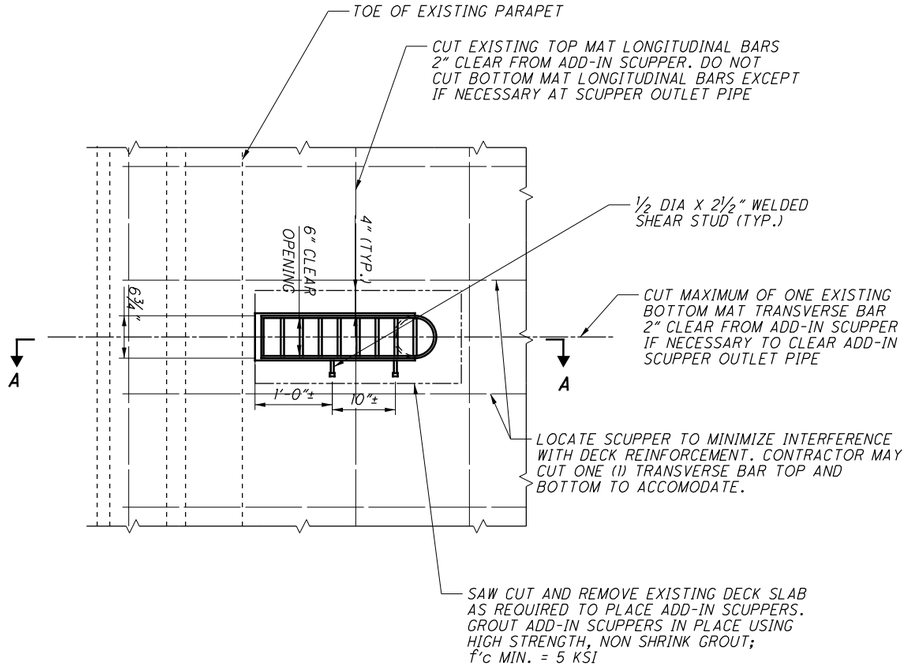
SCUPPER DETAILS - TYPE 1

BRIDGE NO. HAM-74-1908R

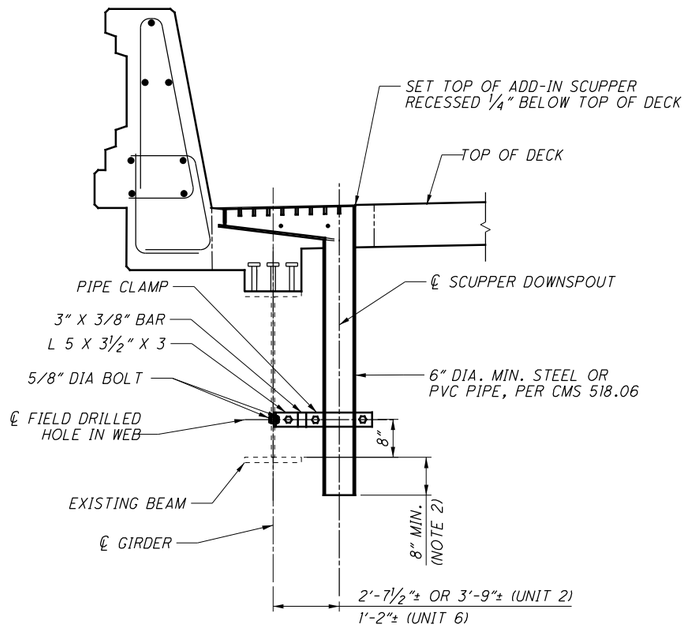
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84

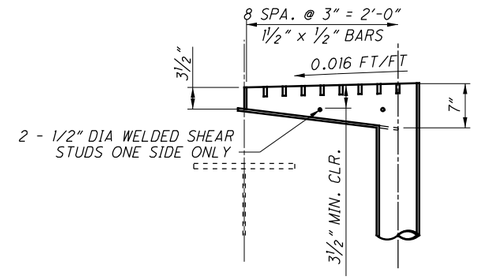
PID No. 104667



TYPE 2 SCUPPER-PLAN

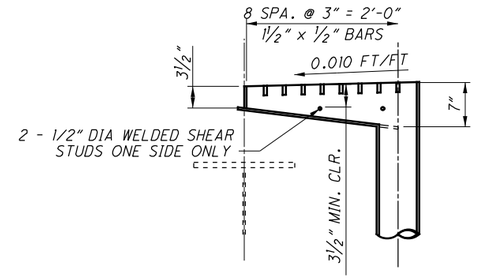


TYPE 2 SCUPPER - UNIT 6 AND UNIT 2



SECTION A-A

UNIT 6



SECTION A-A

UNIT 2

NOTES

1. FABRICATE TEMPORARY ADD-IN SCUPPERS FROM MIN. ⅜" THICK STEEL PLATE; ASTM A36 OR EQUAL.
2. PRIOR TO REMOVING PORTION OF DECK TO INSTALL ADD-IN SCUPPER, VERIFY THE SCUPPER WILL NOT CONFLICT WITH EXISTING X-FRAMES.
3. EXTEND DOWNDRAIN 8" MIN. BEYOND BOTTOM OF EXISTING GIRDER.
4. PROVIDE SPLASH PAD WHEN ERODIBLE MATERIAL IS LOCATED BELOW ADD-IN SCUPPER.
5. PIPE HANGERS SHALL BE EATON B-LINE SERIES B3100-8 OR APPROVED EQUAL.
6. PIPE CLAMPS SHALL BE EATON B-LINE SERIES B3140-8 OR APPROVED EQUAL.
7. ALL COMPONENTS (ANGLES, BARS, CLAMPS, ANCHORS, BOLT COUPLERS, PIPE HANGERS, ETC.) SHALL BE GALVANIZED.
8. ALL BOLTS SHALL BE A325, TYPE 1 GALVANIZED. EACH ASSEMBLY SHALL INCLUDE BOLT, NUT, AND TWO WASHERS. TIGHTEN ACCORDING TO CMS 513.
9. FOR TYPE 2 SCUPPER LOCATIONS ON UNIT 2 SEE SHEET 61/100, FOR UNIT 6 SEE SHEET 68/100.

DESIGN AGENCY
PRIME AE
540 WHITE POND DR. SUITE E
AKRON, OH 44320

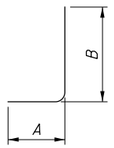
DESIGNED	DRAWN	REVIEWED	DATE
JAT	JAT	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CRG		3115739	

SCUPPER DETAILS - TYPE 2
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

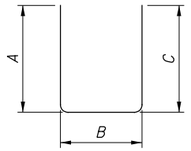
HAM-75-3.84
PID No. 104667

93/100

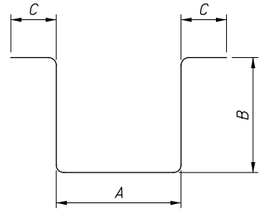
93
100



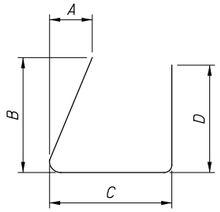
TYPE-1



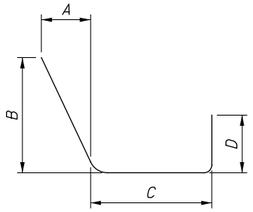
TYPE-2



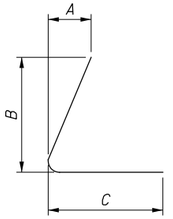
TYPE-6



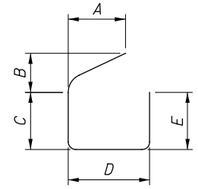
TYPE-9



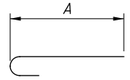
TYPE-10



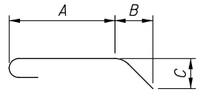
TYPE-11



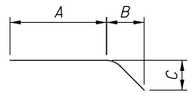
TYPE-12



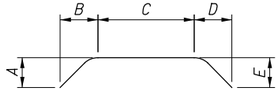
TYPE-16



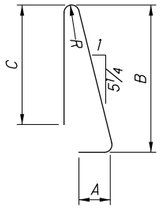
TYPE-18



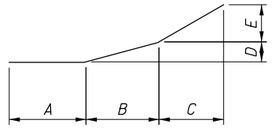
TYPE-19



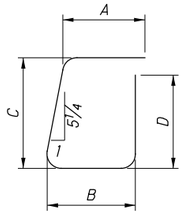
TYPE-20



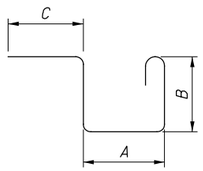
TYPE-23



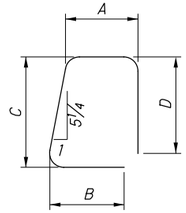
TYPE-25



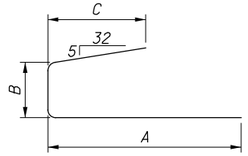
TYPE-29



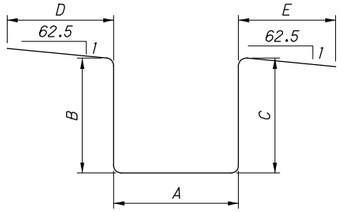
TYPE-44



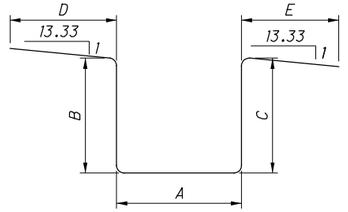
TYPE-45



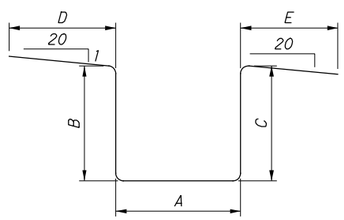
TYPE-46



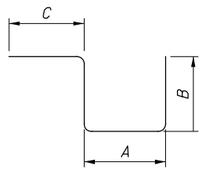
TYPE-47



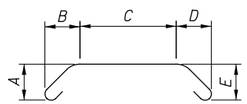
TYPE-48



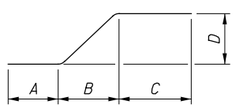
TYPE-49



TYPE-50



TYPE-51



TYPE-52

NOTES:

1. ALL REINFORCING SHALL BE EPOXY COATED.
2. BAR SIZE: THE BAR SIZE IS INDICATED IN THE BAR MARK. THE MARK BEGINS WITH ONE OR TWO LETTER THAT IDENTIFY THE BAR LOCATION. THE NEXT ONE OR TWO DIGITS INDICATE THE BAR SIZE, AND THE REMAINING TWO DIGITS ARE THE SEQUENCE NUMBER.

   EXAMPLE: 2S501

   2S = UNIT 2 SLAB
   5 = #5 BAR
   01 = BAR SEQUENCE NUMBER 1
3. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS NOTED OTHERWISE.
4. INC. INDICATED THE LENGTH INCREMENT FOR SERIES BARS.

DESIGN AGENCY
PRIME AE
540 WHITE POND DR. SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
EDW	JAT	TES	7/30/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CRG		3115739	

REINFORCING STEEL LIST (1 OF 7)
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

MARK	NUMBER 1	NUMBER 2	NUMBER 3	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	E	R	INC
UNIT 1 SLAB														
1S401	766	418	399	1583	30′-0″	31723	STR							
1S402	3			3	24′-0″	48	STR							
	1 SR			1 SR	24′-2″									
1S403	OF			OF	TO	782	STR							3 ¾″
	39			39	35′-10″									
1S404		22		22	13′-9″	202	STR							
1S405			21	21	19′-6″	274	STR							
1S406			1207	1207	9′-6″	7660	2	8′-0″	0′-7″	1′-2″				
1S407	NOT USED													A = ¼″
														C = ¼″
1S408	1197			1197	13′-6″	10795	2	10′-0″	0′-7″	3′-2″				
1S409	1			1	11′-0″	7	STR							
1S410	1			1	16′-3″	11	STR							
1S411	1			1	15′-7″	10	STR							
1S412	1197			1197	10′-5″	4688	16	10′-0″						
1S501	1198			1198	14′-6″	18118	STR							
1S502	941			941	24′-3″	23800	STR							
1S503	941			941	19′-8″	19302	16	19′-1″						
1S504	257			257	20′-11″	5607	16	20′-6″						
1S505	NOT USED													
	2 SR			2 SR	3′-3″									
1S506	OF			OF	TO	158	STR							6′-1 ¼″
	5			5	27′-0″									
1S507		694		694	20′-7″	14899	STR							
1S508		1324		1324	20′-2″	27849	STR							
1S509														
1S510		128		128	20′-10″	2781	STR							
1S511		128		128	21′-1″	2815	STR							
1S512		130		130	21′-5″	2904	STR							
1S513	NOT USED													
1S514			960	960	16′-0″	16020	STR							
1S515			56	56	16′-3″	949	STR							
		2 SR		2 SR	6′-9″									
1S516		OF		OF	TO	114	STR							5′-3 ¾″
		4		4	20′-7″									
1S517	NOT USED													
1S518	NOT USED													
1S519	1197	627	549	2373	30′-0″	74251	STR							
1S520	4			4	5′-6″	23	STR							
1S521	NOT USED													
	1 SR			1 SR	5′-6″									
1S522	OF			OF	TO	598	STR							0′-2 ¾″
	51			51	17′-0″									
1S523		29		29	22′-9″	688	STR							
1S524			27	27	29′-0″	817	STR							
1S525	257			257	26′-8″	7150	STR							
1S526	941			941	19′-1″	18730	STR							
1S527	257			257	20′-2″	5406	STR							
1S528			960	960	16′-0″	16020	16	15′-5″						
1S529			56	56	16′-3″	949	16	15′-8″						
1S530	8	8	8	24	5′-10″	146	1	3′-0″	3′-0″					
1S531	1			1	12′-6″	13	STR							
1S532	1			1	17′-3″	18	STR							
1S533	1			1	16′-1″	17	STR							
1S534	NOT USED													
1S535	NOT USED													
1S536	NOT USED													
					SUB-TOTAL	316,342								

MARK	NUMBER 1	NUMBER 2	NUMBER 3	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	E	R	INC
UNIT 1 SLAB														
1S537			64	64	16′-6″	1101	STR							
1S538			64	64	16′-6″	1101	16	15′-11″						
1S539			64	64	16′-9″	1118	STR							
1S540			64	64	16′-9″	1118	16	16′-2″						
1S541			65	65	17′-0″	1153	STR							
1S542			65	65	17′-0″	1153	16	16′-5″						
1S543	NOT USED													
1S544	NOT USED													
1S545		2		2	19′-0″	40	STR							
1S546	NOT USED													
1S547	6			6	15′-9″	99	STR							
1S548	4			4	10′-6″	44	STR							
1S549	2	2	2	6	25′-0″	156	STR							
1S550	NOT USED													
1S551	NOT USED													
1S552	1007	804	647	2458	6′-3″	16023	48	1′-4″	0′-11 ¼″	0′-10″	1′-10″	1′-10″		
1S553		559		559	5′-9″	3352	48	1′-4″	0′-8 ¼″	0′-7″	1′-10″	1′-10″		
1S554		577		577	5′-11″	3561	48	1′-4″	0′-9 ½″	0′-8 ¼″	1′-10″	1′-10″		
1S555		469		469	6′-5″	3139	48	1′-4″	1′-0 ¼″	0′-11″	1′-10″	1′-10″		
1S556	857			857	6′-7″	5885	48	1′-4″	1′-1 ½″	1′-0 ¼″	1′-10″	1′-10″		
1S557	778			778	6′-0″	4869	48	1′-4″	0′-10″	0′-8 ¾″	1′-10″	1′-10″		
1S558	364			364	5′-9″	2183	48	1′-4″	0′-8 ½″	0′-7 ¼″	1′-10″	1′-10″		
1S559	397			397	6′-1″	2519	48	1′-4″	0′-10 ½″	0′-9 ¼″	1′-10″	1′-10″		
1S560	874			874	6′-7″	6001	48	1′-4″	1′-1 ¼″	1′-0″	1′-10″	1′-10″		
1S561	270			270	5′-7″	1572	48	1′-4″	0′-7 ½″	0′-6 ¼″	1′-10″	1′-10″		
1S562		557		557	5′-10 ″	3389	48	1′-4″	0′-8 ¾″	0′-7 ½″	1′-10″	1′-10″		
1S601	246	126	120	492	30′-0″	22170	STR							
1S602	41	21	20	82	23′-3″	2863	STR							
1S603	41	21	20	82	35′-3″	4342	STR							
1S604	41	21	20	82	18′-3″	2248	STR							
					SUB-TOTAL	91,199								

NOTES:

1. FOR REINFORCING NOTES SEE SHEET 94/100.

DESIGN AGENCY
PRIME
540 WHITE POND DR., SUITE E
AKRON, OH 44320

REVIEWED TES DATE 7/30/2019
STRUCTURE FILE NUMBER 3115739
DRAWN JAT REVISED
DESIGNED EDW CHECKED CRG

REINFORCING STEEL LIST (2 OF 7)
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

MARK	NUMBER				LENGTH	WEIGHT	TYPE	DIMENSIONS						
	1	2	3	TOTAL				A	B	C	D	E	R	INC
UNIT 2 SLAB														
2S401	813	635	64	1512	30′-0″	30300	STR							
2S402	10			10	6′-6″	43	STR							
2S403	1			1	13′-9″	9	STR							
2S404	1			1	18′-9″	13	STR							
2S405	1			1	7′-0″	5	STR							
2S406	1			1	10′-9″	7	STR							
2S407	1			1	12′-8″	8	STR							
2S408	1			1	12′-3″	8	STR							
2S409	1			1	10′-0″	7	STR							
2S410	1			1	32′-0″	21	STR							
2S411	1			1	12′-6″	8	STR							
2S412	1			1	19′-3″	13	STR							
2S413	1			1	24′-6″	16	STR							
2S414	1			1	18′-0″	12	STR							
2S415		1		1	17′-7″	12	STR							
2S416		1		1	14′-5″	10	STR							
2S417		1		1	17′-1″	11	STR							
2S418		1		1	7′-8″	5	STR							
2S419		1		1	24′-8″	16	STR							
2S420		1		1	12′-5″	8	STR							
2S421		1		1	13′-0″	9	STR							
2S422		1		1	26′-2″	17	STR							
2S423		1		1	10′-8″	7	STR							
2S424		1		1	22′-8″	15	STR							
2S425		1		1	34′-3″	23	STR							
2S426		1		1	17′-3″	12	STR							
2S427		1		1	10′-3″	7	STR							
2S428		1		1	20′-3″	14	STR							
2S429		5		5	16′-5″	55	STR							
2S430		11		11	33′-0″	242	STR							
2S431		16		16	24′-9″	265	STR							
2S432	NOT USED													
2S433		12		12	8′-5″	67	STR							
			1 SR	1 SR	3′-4″									
2S434			OF	OF	TO	8	STR							0′-9 1/2″
			3	3	4′-11″									
2S435	4			4	9′-1″	24	STR							
2S436	NOT USED													
2S437	NOT USED													
2S438	NOT USED													
2S439	NOT USED													
2S440			7	7	11′-8″	55	2	7′-6″	0′-7″	3′-10″				
			1 SR	1 SR	5′-8″			4′-6″		10″		Incr A = 0′-6″		
2S441			OF	OF	TO	42	2	TO	0′-7″	TO		Incr C = 0′-6″		
			7	7	11′-8″			7′-6″		3′-10″				
2S442		231	559	790	5′-8″	2990	2	4′-6″	0′-7″	0′-10″				
2S443	890			890	9′-8″	5747	46	6′-6″	0′-7″	2′-10″				
					SUB-TOTAL	40,131								

MARK	NUMBER				LENGTH	WEIGHT	TYPE	DIMENSIONS						
	1	2	3	TOTAL				A	B	C	D	E	R	INC
UNIT 2 SLAB														
2S501	263			263	23′-7″	6469	16	23′-0″						
2S502	294			294	17′-3″	5290	STR							
2S503	270			270	20′-6″	5773	STR							
2S504	132			132	18′-6″	2547	STR							
2S505	139			139	30′-7″	4434	16	30′-0″						
2S506	402			402	23′-0″	9644	STR							
2S507	328			328	26′-1″	8923	16	25′-6″						
2S508	292			292	19′-1″	5812	STR							
2S509	467			467	21′-6″	10472	STR							
2S510	278			278	14′-6″	4204	STR							
2S511	327			327	22′-6″	7674	STR							
2S512	139			139	28′-7″	4144	16	28′-0″						
2S513	139			139	24′-3″	3516	STR							
	1 SR			1 SR	3′-0″									
2S514	OF			OF	TO	1288	STR							0′-8 3/4″
	55			55	41′-11″									
2S515	6	420		426	15′-6″	6887	STR							
2S516		125		125	14′-3″	1858	STR							
2S517		250		250	12′-3″	3194	STR							
2S518		125		125	18′-8″	2434	STR							
2S519		125		125	16′-4″	2129	STR							
2S520		363		363	20′-9″	7856	STR							
2S521		340		340	18′-0″	6383	STR							
2S522		170		170	20′-6″	3635	16	19′-11″						
2S523		170		170	13′-3″	2349	STR							
2S524		340		340	25′-4″	8984	STR							
2S525		170		170	22′-10″	4049	16	22′-3″						
2S526		234		234	24′-3″	5919	STR							
2S527		112		112	21′-10″	2550	16	21′-3″						
2S528		112		112	25′-6″	2979	STR							
2S529		108		108	23′-4″	2628	16	22′-9″						
2S530		112		112	27′-0″	3154	STR							
		1 SR		1 SR	8′-2″									
2S531		OF		OF	TO	696	STR							0′-4″
		44		44	22′-2″									
2S532		16		16	11′-10″	197	STR							
		2 SR		2 SR	2′-9″									
2S533		OF		OF	TO	126	STR							0′-8 3/4″
		10		10	9′-4″									
2S534			7	7	16′-10″	123	16	16′-3″						
2S535			7	7	16′-3″	119	STR							
			1 SR	1 SR	13′-10″			13′-3″						
2S536			OF	OF	TO	110	16	TO						0′-5″
			7	7	16′-4″			15′-9″						
			1 SR	1 SR	13′-3″									
2S537			OF	OF	TO	106	STR							0′-5″
			7	7	15′-9″									
2S538			231	231	13′-10″	3333	16	13′-3″						
2S539			231	231	13′-3″	3192	STR							
			2 SR	2 SR	6′-0″									
2S540			OF	OF	TO	95	STR							1′-6 3/4″
			5	5	12′-3″									
					SUB-TOTAL	155,275								

NOTES:

1. FOR REINFORCING NOTES SEE SHEET 94/100.

DESIGN AGENCY
PRIME AE
540 WEST POOL DR., SUITE E
MARION, OR 43302

DESIGNED	DRAWN	REVIEWED	DATE
EDW	JAT	TES	7/30/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CRG		3115739	

REINFORCING STEEL LIST (3 OF 7)
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

96/100

96
100

P:\Projects\2018\20H030B-18232 HAM-75-03.84\104667\structures\HAM074_1908R\sheets\074_1908R_RL006.dgn 9/13/2023 2:50:33 PM erin.baumann

MARK	NUMBER				LENGTH	WEIGHT	TYPE	DIMENSIONS						
	1	2	3	TOTAL				A	B	C	D	E	R	INC
UNIT 2 SLAB														
2S541	1103	952	52	2107	30′-0″	65928	STR							
2S542	32			32	13′-8″	456	STR							
2S543	1			1	20′-9″	22	STR							
2S544	5	2		7	9′-2″	67	STR							
2S545	2			2	25′-0″	52	STR							
2S546	1			1	16′-7″	17	STR							
2S547	1			1	32′-3″	34	STR							
2S548	1	2		3	18′-2″	57	STR							
2S549	1			1	31′-9″	33	STR							
2S550	1			1	17′-1″	18	STR							
2S551	3			3	14′-7″	46	STR							
2S552	1			1	8′-0″	8	STR							
2S553	1			1	16′-1″	17	STR							
2S554	1			1	19′-0″	20	STR							
2S555		7		7	18′-7″	136	STR							
2S556	5			5	23′-0″	120	STR							
2S557	NOT USED													
2S558		1		1	20′-1″	21	STR							
2S559		1		1	11′-2″	12	STR							
2S560		1		1	16′-5″	17	STR							
2S561		1		1	31′-2″	33	STR							
2S562		1		1	17′-6″	18	STR							
2S563	NOT USED													
2S564		1		1	15′-8″	16	STR							
2S565		1		1	11′-8″	12	STR							
2S566		1		1	22′-9″	24	STR							
2S567	2	1		3	33′-5″	105	STR							
2S568		1		1	16′-3″	17	STR							
2S569		6		6	18′-5″	115	STR							
2S570		14		14	40′-0″	584	STR							
2S571	4	4		8	15′-0″	125	STR							
2S572		10		10	13′-0″	136	STR							
2S573			20	20	33′-0″	688	STR							
			1 SR	1 SR	3′-1″									
2S574			OF	OF	TO	17	STR							0′-7 3/4″
			4	4	5′-0″									
2S575	4	10	4	18	5′-10″	110	1	3′-0″	3′-0″					
2S576			2	2	12′-8″	26	10	5′-1 1/4″	5′-1 1/4″	2′-7 3/4″	3′-0″			
2S577	6	6	2	14	5′-11″	86	19	3′-0″	0′-10″	2′-11″				
2S578		2		2	5′-10″	12	11	0′-10″	2′-11″	3′-0″				
2S579	2			2	6′-9″	14	10	2′-5″	1′-9″	0′-11 1/2″	3′-0″			
	1 SR			1 SR	3′-7″			3′-0″						
2S580	OF			OF	TO	1324	16	TO						0′-8 3/4″
	55			55	42′-6″			41′-11″						
2S581		6		6	14′-0″	88	19	12′-9″	1′-0″	0′-9″				
	1 SR			1 SR	19′-2″									
2S582	OF			OF	TO	107	STR							0′-8″
	5			5	21′-10″									
	1 SR			1 SR	15′-7″									
2S583	OF			OF	TO	88	STR							0′-8″
	5			5	18′-3″									
		1 SR		1 SR	15′-9″									
2S584		OF		OF	TO	90	STR							0′-8 1/2″
		5		5	18′-7″									
		1 SR		1 SR	18′-3″									
2S585		OF		OF	TO	103	STR							0′-8 1/2″
		5		5	21′-3″									
					SUB-TOTAL	71,019								

MARK	NUMBER				LENGTH	WEIGHT	TYPE	DIMENSIONS						
	1	2	3	TOTAL				A	B	C	D	E	R	INC
UNIT 2 SLAB														
		1 SR		1 SR	12′-3″									
2S586		OF		OF	TO	381	STR							0′-9 1/4″
		19		19	26′-3″									
		2 SR		2 SR	12′-0″									
2S587		OF		OF	TO	1084	STR							0′-8 3/4″
		25		25	29′-7″									
2S588	1			1	30′-3″	32	STR							
2S589	5			5	28′-0″	146	STR							
2S590	53	39		92	25′-0″	2399	STR							
2S591	55	64		119	20′-0″	2482	STR							
2S592	10	16	16	42	22′-0″	964	STR							
2S593	NOT USED													
2S594	NOT USED													
2S595		210		210	5′-3″	1150	49	1′-5″	0′-8 3/4″	0′-8 1/4″	1′-10″	1′-1 1/2″		
2S596		928	247	1175	6′-1″	7455	49	1′-5″	0′-9 1/2″	0′-9″	1′-10″	1′-10″		
2S597		400		400	6′-5″	2677	49	1′-5″	0′-11 1/4″	0′-10 3/4″	1′-10″	1′-10″		
2S598		306		306	6′-9″	2154	49	1′-5″	1′-1 3/4″	1′-1 1/4″	1′-10″	1′-10″		
2S599		218		218	6′-7″	1497	49	1′-5″	1′-0 3/4″	1′-0 1/4″	1′-10″	1′-10″		
2S5100		144		144	7′-2″	1076	49	1′-5″	1′-4″	1′-3 1/2″	1′-10″	1′-10″		
2S5101	1235	326		1561	5′-11″	9633	49	1′-5″	0′-8 3/4″	0′-8 1/4″	1′-10″	1′-10″		
2S5102		308		308	6′-5″	2061	49	1′-5″	0′-11 3/4″	0′-11 1/4″	1′-10″	1′-10″		
2S5103		29		29	7′-0″	212	49	1′-5″	1′-3 1/4″	1′-2 3/4″	1′-10″	1′-10″		
2S5104		88		88	7′-5″	681	49	1′-5″	1′-5 3/4″	1′-5 1/4″	1′-10″	1′-10″		
2S5105		90		90	7′-11″	743	49	1′-5″	1′-8 3/4″	1′-8 1/4″	1′-10″	1′-10″		
2S5106		140		140	5′-9″	840	49	1′-5″	0′-7 3/4″	0′-7 1/4″	1′-10″	1′-10″		
2S5107		442		442	6′-3″	2881	49	1′-5″	0′-10 3/4″	0′-10 1/4″	1′-10″	1′-10″		
2S5108		65		65	6′-9″	458	49	1′-5″	1′-1 3/4″	1′-1 1/4″	1′-10″	1′-10″		
2S5109		215		215	7′-2″	1607	49	1′-5″	1′-7 3/4″	1′-3 3/4″	1′-10″	1′-10″		
2S5110	209			209	6′-6″	1417	49	1′-5″	1′-0″	0′-11 1/2″	1′-10″	1′-10″		
2S5111	2102			2102	6′-5″	14068	49	1′-5″	0′-11 1/2″	0′-11″	1′-10″	1′-10″		
2S5112	67	67		134	3′-5″	472	50	0′-6″	0′-8 1/2″	1′-10″				
2S5113	214	214		428	3′-11″	1748	50	0′-6″	0′-11 3/4″	1′-10″				
2S5114	23			23	9′-8″	232	46	6′-6″	0′-7″	2′-10″				
2S5115	2			2	12′-5″	26	51	2′-0″	1′-9″	6′-0″	1′-9″	2′-0″		
2S5116	69			69	6′-2″	444	52	1′-5″	1′-5″	2′-0″	1′-4″			
					SUB-TOTAL	61,020								

NOTES:

1. FOR REINFORCING NOTES SEE SHEET 94/100.

DESIGN AGENCY
PRIME
540 WHITE POND DR., SUITE E
AKRON, OH 44320

REVIEWED TES DATE 7/30/2019
STRUCTURE FILE NUMBER 3115739
DRAWN JAT REVISED
DESIGNED EDW CHECKED CRG

REINFORCING STEEL LIST (4 OF 7)
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

MARK	NUMBER				LENGTH	WEIGHT	TYPE	DIMENSIONS						
	S1	S2	S3	TOTAL				A	B	C	D	E	R	INC
UNIT 6 SLAB														
6S401	257	156		413	30'-0"	8277	STR							
6S402	NOT USED													
6S403	1			1	12'-0"	8	STR							
6S404	1			1	24'-9"	17	STR							
6S405	1			1	7'-7"	5	STR							
6S406	NOT USED													
6S407	2			2	26'-3"	36	STR							
6S408	48			48	9'-2"	294	2	1'-10"	0'-7"	7'-0"				
6S409	105			105	10'-7"	742	2	2'-3"	0'-7"	8'-0"				
6S410	105			105	11'-1"	777	2	2'-8"	0'-7"	8'-0"				
6S411	1			1	15'-10"	11	STR							
6S412	1			1	19'-5"	13	STR							
6S413	1			1	11'-3"	8	STR							
6S414	105			105	13'-7"	953	2	3'-2"	0'-7"	10'-0"				
6S415		75		75	12'-4"	618	2	2'-0"	0'-7"	10'-0"				
6S416		105		105	12'-7"	883	2	2'-3"	0'-7"	10'-0"				
6S417		105		105	12'-11"	906	2	2'-7"	0'-7"	10'-0"				
6S418		82		82	13'-2"	721	2	2'-10"	0'-7"	10'-0"				
6S501	394	228		622	30'-0"	19462	STR							
6S502	53	34		87	32'-6"	2949	STR							
6S503	1			1	14'-6"	15	STR							
6S504	210			210	17'-10"	3906	STR							
6S505	210			210	21'-5"	4691	STR							
6S506	105			105	23'-6"	2574	STR							
6S507	2	2		4	5'-7"	23	11	1'-8 ¾"	2'-5 ½"	3'-0"				
6S508	105			105	17'-4"	1898	STR							
6S509		48		48	19'-8"	985	16	19'-1"						
6S510		48		48	19'-1"	955	STR							
6S511		210		210	19'-1"	4180	16	18'-6"						
6S512		210		210	18'-6"	4052	STR							
6S513	NOT USED													
6S514	NOT USED													
	1 SR			1 SR	4'-11"			4'-4"						
6S515	OF			OF	TO	1051	16	TO						8 3/16"
	48			48	37'-1"			36'-6"						
	1 SR			1 SR	5'-3"									
6S516	OF			OF	TO	1045	STR							8"
	48			48	36'-6"									
	1 SR			1 SR	2'-4"			1'-9"						
6S517	OF			OF	TO	909	16	TO						8"
	48			48	34'-0"			33'-5"						
	1 SR			1 SR	1'-9"									
6S518	OF			OF	TO	880	STR							8"
	48			48	33'-5"									
		1 SR		1 SR	3'-7"			3'-0"						
6S519		OF		OF	TO	260	16	TO						7 9/16"
		23		23	16'-11"			17'-7"						
		1 SR		1 SR	3'-0"									
6S520		OF		OF	TO	247	STR							8"
		23		23	17'-7"									
SUB-TOTAL					64,351									

MARK	NUMBER				LENGTH	WEIGHT	TYPE	DIMENSIONS						
	S1	S2	S3	TOTAL				A	B	C	D	E	R	INC
UNIT 6 SLAB														
		1 SR		1 SR	2'-8"			2'-1"						
6S521		OF		OF	TO	310	16	TO						7¾"
		27		27	19'-5"			18'-10"						
		1 SR		1 SR	2'-1"									
6S522		OF		OF	TO	294	STR							7¾"
		27		27	18'-10"									
6S523	NOT USED													
6S524	8			8	22'-6"	188	STR							
6S525		8		8	21'-10"	183	STR							
6S526	NOT USED													
6S527	4			4	19'-2"	80	STR							
6S529	2	2		4	7'-1"	30	10	2'-6"	1'-9"	1'-2"	3'-0"			
6S530	NOT USED													
6S531	NOT USED													
6S532	2			2	28'-9"	60	STR							
6S533	105			105	19'-0"	2081	16	18'-5"						
6S534	105			105	17'-10"	1953	16	17'-3"						
6S535	105			105	16'-7"	1816	16	16'-0"						
6S536	NOT USED													
6S537	1			1	26'-8"	28	STR							
6S538	1			1	9'-7"	10	STR							
6S539	1			1	17'-4"	18	STR							
6S540	1			1	20'-5"	21	STR							
6S541	1			1	11'-9"	12	STR							
6S542	105			105	22'-6"	2464	STR							
6S543	105			105	20'-8"	2263	STR							
6S544	105			105	21'-1"	2309	STR							
6S545		82		82	18'-10"	1611	16	18'-3"						
6S546		82		82	18'-3"	1561	STR							
6S547	NOT USED													
6S548		116		116	6'-1"	736	49	8"	1'-4"	1'-3 ½"	1'-6"	1'-10"		
6S549		251		251	5'-7"	1473	47	8"	1'-1"	1'-0½"	1'-6"	1'-10"		
6S550	369	369		738	5'-7"	4297	47	8"	11 ¼"	11"	1'-10"	1'-10"		
6S551	738			738	5'-5"	4170	47	8"	9½"	9¼"	1'-10"	1'-10"		
6S552	369			369	5'-1"	1956	47	8"	9½"	9¼"	1'-10"	1'-5 ½"		
6S553	34	19		53	6'-2"	341	52	1'-5"	1'-5"	2'-0"	1'-4"			
SUB-TOTAL					30,265									

NOTES:

1. SEE SHEET 94/100 FOR NOTES.

DESIGN AGENCY
PRIME AE
540 WEST POINT DR., SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
-	-	TES	7/30/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
-		3115739	

REINFORCING STEEL LIST (5 OF 7)
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS						
	S1	S3	TOTAL				A	B	C	D	E	R	INC
PARAPET - UNIT 1													
1R501	486	468	954	7'-4"	7296	23	11"	3'-3"	3'-0"			2¾"	
1R502	80	72	152	30'-0"	4756	STR							
1R503	236	228	464	4'-2"	2016	44	11"	1'-0"	1'-0"				
1R504	170	160	330	8'-7"	2954	45	1'-0"	1'-8"	3'-3"	3'-0"			
1R505	84	80	164	4'-5"	755	6	11"	1'-0"	1'-0"				
1R506													
1R507	0	4	4	32'-0"	134	STR							
1R508	0	8	8	6'-7"	55	44	3'-4"	1'-0"	1'-0"				
1R509	8	0	8	4'-7"	38	44	1'-4"	1'-0"	1'-0"				
1R510	74	72	146	6'-5"	977	STR							
1R511	42	40	82	13'-2"	1126	STR							
1R512	0	2	2	9'-0"	19	STR							
1R513	0	2	2	10'-2"	21	STR							
1R514	2	0	2	7'-0"	15	STR							
1R515	2	0	2	8'-2"	17	STR							
1R601	656	628	1284	4'-9"	9161	29	11"	1'-2 ½"	1'-7"	1'-6"			
1R602	37	36	73	6'-5"	704	STR							
1R603	21	20	41	13'-2"	811	STR							
1R604	0	1	1	9'-0"	14	STR							
1R605	0	1	1	10'-2"	15	STR							
1R606	1	0	1	7'-0"	11	STR							
1R607	1	0	1	8'-2"	12	STR							
			SUB-TOTAL		30,907								

MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS						
	S1	S2	TOTAL				A	B	C	D	E	R	INC
PARAPET - UNIT 6													
6R501	144	150	294	7'-4"	2249	23	11"	3'-3"	3'-0"			2¾"	
6R502	24	20	44	30'-0"	1377	STR							
6R503	80	84	164	4'-2"	713	44	11"	1'-0"	1'-0"				
6R504	54	54	108	8'-7"	967	45	1'-0"	1'-8"	3'-3"	3'-0"			
6R505	12	12	24	4'-5"	111	6	11"	1'-0"	1'-0"				
6R506	0	4	4	32'-6"	136	STR							
6R507													
6R508	0	8	8	4'-6"	38	44	1'-3"	1'-0"	1'-0"				
6R509	8	0	8	5'-11"	50	44	2'-8"	1'-0"	1'-0"				
6R510	32	34	66	6'-5"	442	STR							
6R511	6	6	12	13'-2"	165	STR							
6R512	0	2	2	6'-10"	14	STR							
6R513	0	2	2	8'-0"	17	STR							
6R514	2	0	2	8'-3"	17	STR							
6R515	2	0	2	9'-5"	20	STR							
6R601	198	204	402	4'-9"	2868	29	11"	1'-2 ½"	1'-7"	1'-6"			
6R602	16	17	33	6'-5"	318	STR							
6R603	3	3	6	13'-2"	119	STR							
6R604	0	1	1	6'-10"	10	STR							
6R605	0	1	1	8'-0"	12	STR							
6R606	1	0	1	8'-3"	12	STR							
6R607	1	0	1	9'-5"	14	STR							
			SUB-TOTAL		9,669								

MARK	NUMBER				LENGTH	WEIGHT	TYPE	DIMENSIONS						
	S1	S2	S3	TOTAL				A	B	C	D	E	R	INC
PARAPET - UNIT 2														
2R501	246	243	96	585	7'-4"	4474	23	11"	3'-3"	3'-0"			2¾"	
2R502	60	36	12	108	30'-0"	3380	STR							
2R503	176	108	44	328	4'-2"	1425	44	11"	1'-0"	1'-0"				
2R504	130	79	39	248	8'-7"	2220	45	1'-0"	1'-8"	3'-3"	3'-0"			
2R505	72	40	20	132	4'-5"	608	6	11"	1'-0"	1'-0"				
2R506	0	0	4	4	32'-3"	135	STR							
2R507	4	4	0	8	13'-8"	114	STR							
2R508	0	4	4	8	6'-6"	54	44	3'-4"	1'-0"	1'-0"				
2R509	8	0	0	8	4'-7"	38	44	1'-4"	1'-0"	1'-0"				
2R510	50	32	12	94	6'-5"	629	STR							
2R511	36	20	10	66	13'-2"	906	STR							
2R512	0	0	2	2	8'-11"	19	STR							
2R513	0	2	0	2	10'-1"	21	STR							
2R514	2	0	0	2	7'-0"	15	STR							
2R515	2	0	0	2	8'-2"	17	STR							
		1 SR		1 SR	4'-1"					2'-3"				
2R516	0	OF	0	OF	TO	18	20	1'-0"	2¼"	TO	2¼"	1'-0"		1"
		4		4	4'-4"					2'-6"				
2R517	0	1	0	1	7'-0"	7	19	4'-3"	1'-7"	2'-3"				
2R518	0	2	0	2	7'-5"	16	19	4'-3"	1'-10"	2'-8"				
2R519	0	1	0	1	13'-9"	14	46	8'-9⅝"	2'-4¼"	3'-2¾"				
2R520	0	2	0	2	14'-4"	30	46	9'-0⅝"	2'-10¼"	3'-4⅛"				
2R521	8	0	8	16	9'-3"	154	45	1'-4"	2'-0"	3'-2"	3'-0"			
2R522	4	0	4	8	4'-1"	34	10	2'-5"	0'-10"	0'-10"	0'-10"			
2R523	4	0	4	8	15'-1"	126	12	0'-10"	0'-10"	5'-9"	2'-0"	6'-5"		
2R524	4	0	4	8	3'-9"	31	9	0'-10"	0'-10"	0'-10"	2'-5"			
2R601	506	322	139	967	4'-9"	6899	29	11"	1'-2 ½"	1'-7"	1'-6"			
2R602	27	16	10	51	6'-5"	492	STR							
2R603	18	10	5	33	13'-2"	653	STR							
2R604	0	0	1	1	8'-11"	13	STR							
2R605	0	1	0	1	10'-1"	15	STR							
2R606	1	0	0	1	7'-0"	11	STR							
2R607	1	0	0	1	8'-2"	12	STR							
2R608	0	1	0	1	13'-10"	20	46	8'-6"	1'-9¼"	3'-0"				
2R609	0	1	0	1	8'-1"	12	1	4'-3"	4'-0"					
2R610	0	1	0	1	7'-7"	11	1	3'-9"	4'-0"					
2R611	0	0	8	8	5'-4"	64	29	11"	1'-9 ½"	1'-7"	1'-6"			
2R612*	8	0	0	8	4'-5"	53	29	11"	1'-9 ½"	1'-7"	7"			
2R613	8	0	0	8	2'-6"	30	STR							
				SUB-TOTAL		22,770								

LEGEND:

* - MECHANICAL CONNECTOR

NOTES:

1. SEE SHEET 94/100 FOR NOTES.

DESIGN AGENCY
PRIME AE
540 MITCHELL BLVD, SUITE E
AKRON, OH 44320

DESIGNED	DRAWN	REVIEWED	DATE
KDC	ADS	TES	3/27/2019
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CRG		3115739	

REINFORCING STEEL LIST (6 OF 7)
BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

99/100

MARK	NUMBER				LENGTH	WEIGHT	TYPE	DIMENSIONS						
	1	2	3	TOTAL				A	B	C	D	E	R	INC
ABUTMENT 1														
1A501	NOT USED													
*1A502	21			21	33'-6"	734	STR							
*1A503		21		21	21'-1"	462	STR							
1A504			21	21	13'-10"	303	STR							
1A505			18	18	4'-0"	75	STR							
1A506	18			18	2'-5"	45	16	2'-0"						
1A601	42	26	17	85	6'-5"	819	2	3'-0"	9"	3'-0"				
	1 SR			1 SER	15'-11"			7'-6"		7'-6"				
1A602	OF			OF	TO	1057	2	TO	1'-3"	TO				1/2"
	42			42	17'-7"			8'-4"		8'-4"				
1A603		26		26	17'-7"	687	2	8'-4"	1'-3"	8'-4"				
1A604			17	17	17'-11"	457	2	8'-6"	1'-3"	8'-6"				
1A605	84	52	34	170	4'-4"	1107	STR							
1A801	24	15	10	49	5'-5 1/2"	714	18	3'-3 1/2"	1'-0"	1'-0"				
					SUB-TOTAL	6,460								

MARK	NUMBER				LENGTH	WEIGHT	TYPE	DIMENSIONS						
	1	2	3	TOTAL				A	B	C	D	E	R	INC
ABUTMENT 4														
4A501	NOT USED													
4A502	11			11	23'-11"	274	STR							
*4A503		11		11	36'-4"	417	STR							
4A504	8			8	4'-0"	33	STR							
4A505		8		8	2'-7"	22	16	2'-0"						
4A601	25			25	6'-5"	167	2	3'-0"	9"	3'-0"				
4A602	25			25	7'-11"	297	2	3'-6"	1'-3"	3'-6"				
4A603		37		37	7'-7"	421	2	3'-4"	1'-3"	3'-4"				
4A604	50	74		124	4'-0"	745	STR							
4S605		37		37	2'-7"	36	2	0'-11"	0'-11"	0'-11"				
AS606		74		74	3'-4"	370	1	0'-6"	3'-0"					
4A801	21	15		41	6'-2"	675	18	4'-0"	1'-0"	1'-0"				
					SUB-TOTAL	3,435								

MARK	NUMBER				LENGTH	WEIGHT	TYPE	DIMENSIONS						
	1	2	3	TOTAL				A	B	C	D	E	R	INC
REAR APPROACH SLAB PARAPET														
RASR501	6		6	12	7'-4"	92	23	11"	3'-3"	3'-0"			2 3/4"	
RASR502	2		2	4	10'-7"	44	STR							
RASR503	4		4	8	20'-7"	172	STR							
RASR504	9		9	18	8'-7"	161	45	1'-0"	1'-8"	3'-3"	3'-0"			
RASR505	4		4	8	7'-1"	59	44	3'-10"	1'-0"	1'-0"				
RASR506	4		4	8	4'-2"	35	44	11"	1'-0"	1'-0"				
RASR507	4		4	8	9'-10"	82	STR							
RASR508	4		4	8	5'-9"	48	25	1'-10"	2'-5"	1'-5"	1 1/2"	5"		
RASR509	4		4	8	5'-8"	47	STR							
RASR510	8		8	16	3'-1"	51	2	1'-2"	1'-0"	1'-2"				
RASR511	8		8	16	3'-9"	63	2	1'-6"	1'-0"	1'-6"				
RASR520						1225	STR							
RASR601	15		15	30	4'-9"	214	29	11"	1'-2 1/2"	1'-7"	1'-6"			
RASR602	1		1	2	10'-7"	32	STR							
	2 SR		2 SR	4 SR	3'-11"				3'-0 1/2"					
RASR603	OF		OF	OF	TO	312	1	1'-0"	TO					1"
	12		12	12	4'-10"				3'-11 1/2"					
RASR604	6		6	12	4'-0"	72	1	1'-0"	3'-1 1/2"					
					SUB-TOTAL	2,709								

MARK	NUMBER				LENGTH	WEIGHT	TYPE	DIMENSIONS						
	1	2	3	TOTAL				A	B	C	D	E	R	INC
FORWARD APPROACH SLAB PARAPET														
FASR501	6	6		12	7'-4"	92	23	11"	3'-3"	3'-0"			2 3/4"	
FASR502	2	2		4	10'-6"	44	STR							
FASR503	4	4		8	20'-6"	171	STR							
FASR504	9	9		18	8'-7"	161	45	1'-0"	1'-8"	3'-3"	3'-0"			
FASR505	4	4		8	7'-0"	58	44	3'-9"	1'-0"	1'-0"				
FASR506	4	4		8	4'-2"	35	44	11"	1'-0"	1'-0"				
FASR507	4	4		8	9'-10"	82	STR							
FASR508	4	4		8	5'-9"	48	25	1'-10"	2'-5"	1'-5"	1 1/2"	5"		
FASR509	4	4		8	5'-8"	47	STR							
FASR510	8	8		16	3'-1"	51	2	1'-2"	1'-0"	1'-2"				
FASR511	8	8		16	3'-9"	63	2	1'-6"	1'-0"	1'-6"				
FASR512		2		2	3'-5"	7	10	10"	1'-2"	1'-0"	1'-2"			
FASR513		2		2	2'-10"	6	11	10"	1'-2"	1'-10"				
FASR514		2		2	4'-2"	9	10	1'-0"	1'-6"	1'-0"	1'-6"			
FASR515		2		2	3'-5"	7	11	1'-0"	1'-6"	2'-0"				
FASR520						1050	STR							
FASR601	15	15		30	4'-9"	214	29	11"	1'-2 1/2"	1'-7"	1'-6"			
FASR602	1	1		2	10'-6"	32	STR							
	2 SR	2 SR		4 SR	3'-11"				3'-0 1/2"					
FASR603	OF	OF		OF	TO	312	1	1'-0"	TO					1"
	12	12		12	4'-10"				3'-11 1/2"					
FASR604	6	6		12	4'-0"	72	1	1'-0"	3'-1 1/2"					
					SUB-TOTAL	2,561								

NOTES:

1. SEE SHEET 94/100 FOR NOTES.
2. BAR MARKS DENOTED WITH AN "*" REQUIRE MECHANICAL CONNECTORS.

DESIGN AGENCY
PRIME AE
540 WHITE POND DR., SUITE E
AKRON, OH 44320

DESIGNED	CHECKED	DRAWN	REVISED	REVIEWED	DATE
KDC	CRG	ADS		TES	7/30/2019

STRUCTURE FILE NUMBER 3115739

REINFORCING STEEL LIST (7 OF 7)

BRIDGE NO. HAM-74-1908R
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
PID No. 104667

COSMEC INC. / DYNAMIC RUBBER

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

PRIME AE, Group, Inc	RELEASED FOR FABRICATION
DATE REC'D: 8/1/2019 BUILDABLE UNIT NO.: 11	
Review conforms that the shop drawings meet the intent of the contract.	
[X] CONFORMS AS-IS [ ] CONFORMS AS NOTED [ ] REVISE AND RESEND	
1908R - BEARINGS	
By: Conrad Gagnon	By:
Date: 8/2/2019	Date:

TRANSMITTAL SHEET

TO: WALSH CONSTRUCTION CO. II

RACE SHARRETT RSHARRETT@WALSHGROUP.ONMICROSOFT.COM

CC KATHI MILLS

DATE: 8/1/19

JOB: 183000 BRIDGE HAM-74-1908R

RE: FINAL DRAWING DISTRIBUTION

DRP JOB NO: **15353B2** LOCATION: HAMILTON COUNTY

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

DWG NO	REV NO	NO EACH	DESCRIPTION	REMARKS
15353B2-GN1	1	1	GENERAL NOTES	
15353B2-D1	1	1	SHOP DRAWING	
15353B2-D2	1	1	SHOP DRAWING	
15353B2-D3	1	1	SHOP DRAWING	
15353B2-D4	0	1	SHOP DRAWING	
15353B2-D5	1	1	SHOP DRAWING	
15353B2-D6	1	1	SHOP DRAWING	
15353B2-D7	1	1	SHOP DRAWING	
15353B2-D8	1	1	SHOP DRAWING	

DWG NO	REV NO	NO EACH	DESCRIPTION	REMARKS
15353B2-D9	0	1	SHOP DRAWING	
15353B2-D10	1	1	SHOP DRAWING	
15353B2-D11	1	1	SHOP DRAWING	
15353B2-D12	1	1	SHOP DRAWING	
15353B2-D13	1	1	SHOP DRAWING	
15353B2-D14	1	1	SHOP DRAWING	
15353B2-D15	1	1	SHOP DRAWING	
15353B2-D16	1	1	SHOP DRAWING	
15353B2-D17	0	1	SHOP DRAWING	

COMMENTS: **THE ATTACHED SHOP DRAWINGS ARE PROVIDED FOR FINAL DISTRIBUTION, NO ACTION REQUIRED ON YOUR PART.**

THE ABOVE PRINTS ARE SUBMITTED TO YOU FOR:

BY:

( ) Approval	( ) Final Approval	(XXX) 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:

ABUTMENT 1, PIER 1, PIER 3, PIER 6, PIER 19 & ABUTMENT 4:

1. BLAST EXPOSED STEEL SURFACES OF THE STEEL PLATES AND HP PEDESTALS TO SSPC-SP10 (NEAR WHITE BLAST CLEANING) PRIOR TO PAINTING.
2. UNLESS NOTED OTHERWISE, THE STEEL PLATES AND HP PEDESTALS SHALL BE PRIME PAINTED WITH SHERWIN WILLIAMS ZINC CLAD II PLUS PRIME PAINT (3-5 MILS DFT) PER SPECIFICATION SECTION 514.

CARRIER BEAM - UNIT 2, HINGE SUPPORTS - UNIT 2 & UNIT 6:

1. BLAST EXPOSED STEEL SURFACES OF THE STEEL PLATES, ANGLES AND HP PEDESTALS TO SSPC-SP5 (WHITE METAL BLAST CLEANING) PRIOR TO METALIZING.
2. UNLESS NOTED OTHERWISE, THE STEEL PLATES, ANGLES AND HP PEDESTALS SHALL BE METALIZED (12 MILS MIN. DFT) & SEAL COATED PER SUPPLEMENTAL SPECIFICATION 869.

MATERIAL NOTES:

ABUTMENT 1, PIER 1, PIER 3, PIER 6, PIER 19 & ABUTMENT 4:

1. STEEL LOAD & SOLE PLATES: ASTM A709 GRADE 50 (PAINTED)
2. STEEL HP10x42 PEDESTALS: ASTM A709 GRADE 50 (PAINTED) ⚠1
3. STEEL HP12x53 PEDESTALS: ASTM A709 GRADE 50 (PAINTED)

CARRIER BEAM - UNIT 2, HINGE SUPPORTS - UNIT 2 & UNIT 6:

1. STEEL LOAD & SOLE PLATES: ASTM A709 GRADE 50 (METALIZED)
2. STEEL HP10x42 PEDESTALS: ASTM A709 GRADE 50 (METALIZED)
3. STEEL HP12x53 PEDESTALS: ASTM A709 GRADE 50 (METALIZED)
4. STEEL GUIDE ANGLES & STIFFENERS: ASTM A709 GRADE 50 (METALIZED)
5. GUIDE PTFE: ASTM D4894 OR D4895 UNFILLED
6. PRIMARY PTFE: ASTM D4894 OR D4895 DIMPLED AND LUBRICATED
7. STAINLESS STEEL: ASTM A240, TYPE 304 W/ #8 MIRROR FINISH ON THE SLIDING SURFACE.
8. PLATE WASHER: ASTM A709 GRADE 50 (HOT-DIPPED GALVANIZED)
9. PREFORMED BEARING PAD: PER C&MS 711.21

ALL BEARINGS

1. ELASTOMER: 50 DUROMETER GRADE 3 NEOPRENE
2. STEEL LAMINATES: ASTM A709 GRADE 36, A1011 GRADE 36, GRADE 40 OR EQUIVALENT.
3. ALL-THREAD ANCHOR ROD: ASTM F1554 GRADE 55 (HOT-DIPPED GLAVANIZED)
4. HVY. HEX NUT: ASTM A563-DH (HOT-DIPPED GALVANIZED)
5. HD WASHER: ASTM F436 (HOT-DIPPED GALVANIZED)

⚠1

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.

PRIME AE, Group, Inc

DATE REC'D: **8/1/2019** BUILDABLE UNIT NO.: **11**

Review conforms that the shop drawings meet the intent of the contract.

☒ CONFORMS AS-IS ☐ CONFORMS AS NOTED
☐ REVISE AND RESEND

1908R - BEARINGS

By: **Conrad Gagnon**
Date: **8/2/2019**

RELEASED FOR FABRICATION

WALSH

By:
Date:

REV.	DESCRIPTION	BY	DATE	CK'D	DATE
⚠1	REMOVED CONTRACTOR NOTE AND CLOUD. CHANGED HP10x57 TO HP10x42 PER DESIGN CHANGE.	MH	07/26/19	ELS	07/29/19

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

BRIDGE NO.: HAM-74-1908R
OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM-75-3.84
CITY OF CINCINNATI

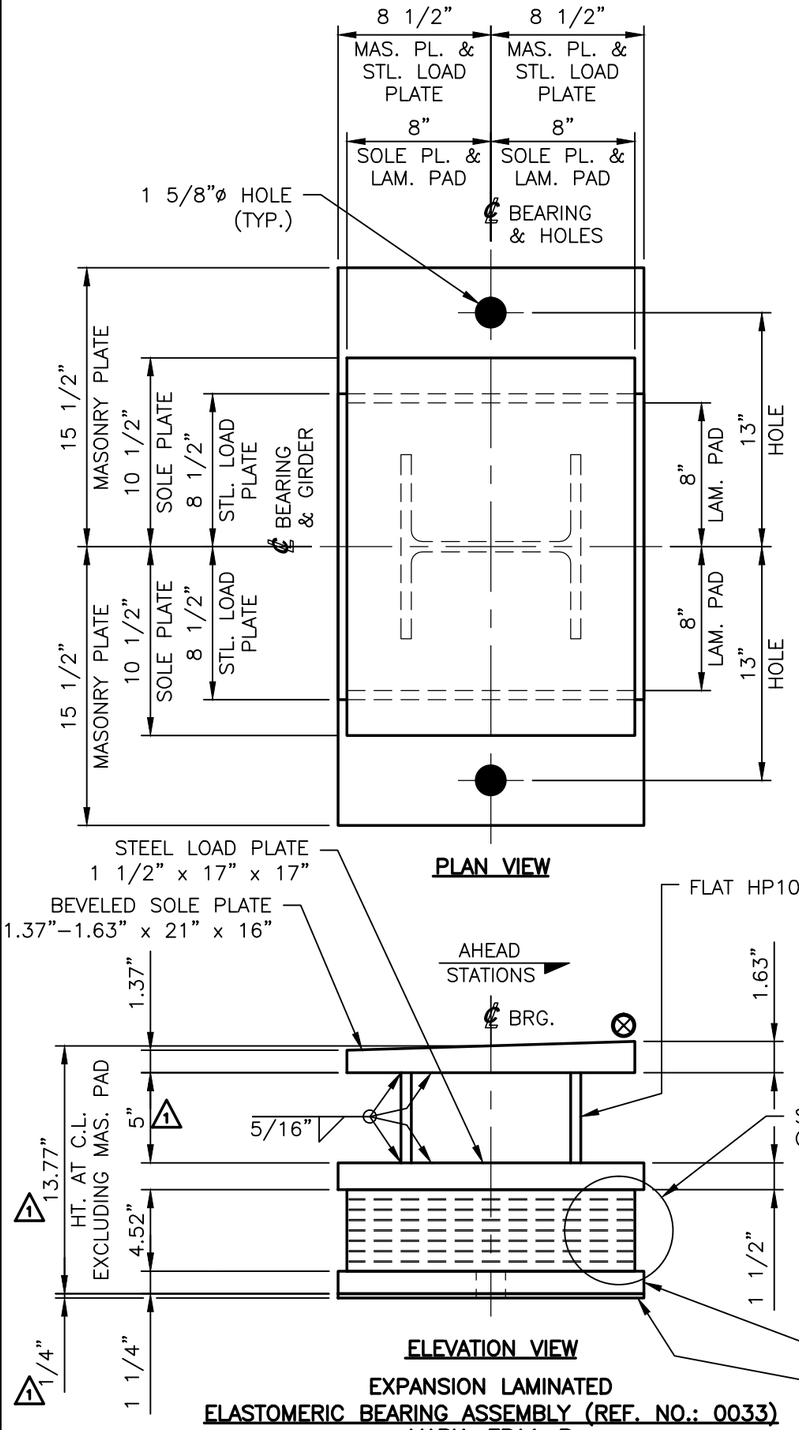
STATE	COUNTY	PID NO.
OH	HAMILTON	104667

FED. PROJ. NO.: E170 (713)

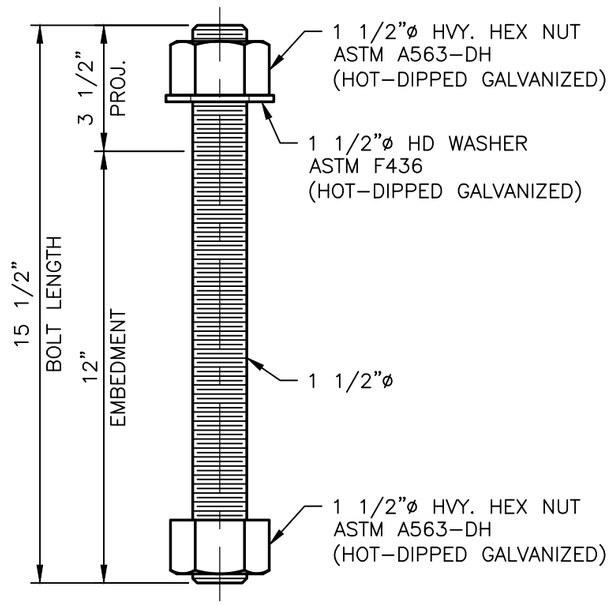
DYNAMIC RUBBER LAM. ELASTOMERIC BEARING ASSY.'S

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

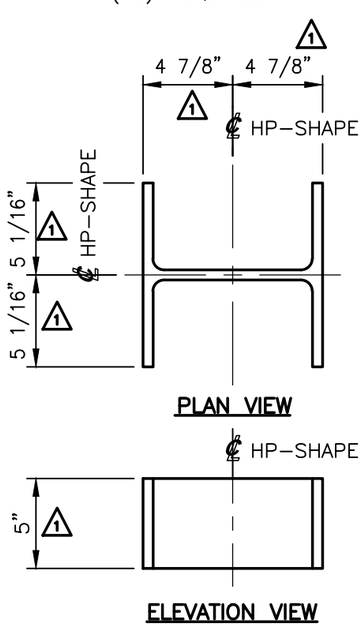
SCALE: NONE	DRAWN BY: MH	CHECKED BY: ELS
	DATE: 06/11/19	DATE: 07/16/19
SHEET GN1 OF 1	JOB NO.: 15353B2	
CUSTOMER: WALSH CONSTRUCTION CO. II	DRAWING NUMBER: 15353B2-GN1	REV.: 1



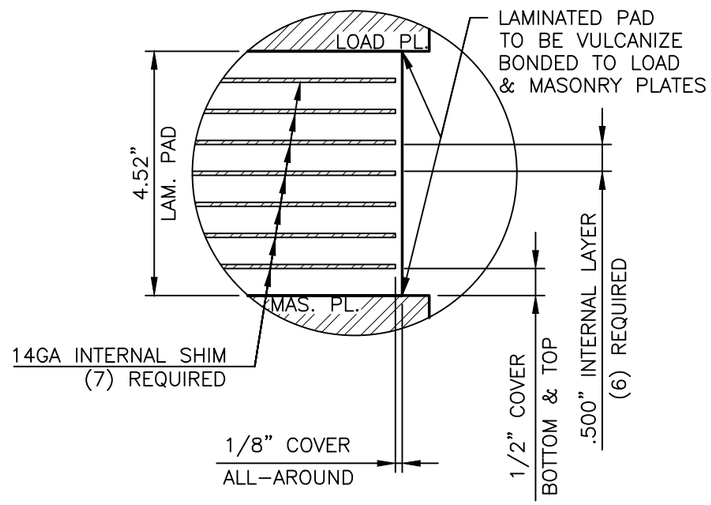
EXPANSION LAMINATED
ELASTOMERIC BEARING ASSEMBLY (REF. NO.: 0033)
MARK: EBA1–B
(8) LOCATED AT ABUTMENT 1, UNIT 1 (GIRDERS G2–G9)
(8) REQUIRED



ALL–THREAD ANCHOR ROD ASSEMBLY
MARK NO.: AB1–B
1 1/2"ø x 15 1/2" LG.
ASTM F1554 GRADE 55 (HOT–DIPPED GALV.)
(16) LOCATED AT ABUTMENT 1, UNIT 1
(GIRDERS G2–G9) (EBA1–B)
(16) REQUIRED



FLAT HP10x42 1
(8) REQUIRED



DETAIL 1
4.52" x 16" x 16" LAMINATED PAD
50 DUROMETER GRADE 3 NEOPRENE
VULCANIZE BONDED TO LOAD & MASONRY PLATES
(8) REQUIRED

TEST1–B
4.52" x 16" x 16" LAMINATED PAD
50 DUROMETER GRADE 3 NEOPRENE
PAD ONLY FOR TESTING
(1) REQUIRED

UNFACTORED ELASTOMERIC BEARING LOADS	
DEAD LOAD	74 KIPS
LIVE LOAD	74 KIPS
TOTAL LOAD (DL+LL)	148 KIPS

PRIME AE, Group, Inc
DATE REC'D: 8/1/2019 BUILDABLE UNIT NO.: 11
Review conforms that the shop drawings meet the intent of the contract.
[X] CONFORMS AS-IS [ ] CONFORMS AS NOTED [ ] REVISE AND RESEND
1908R - BEARINGS
By: Conrad Gagnon
Date: 8/2/2019

RELEASED FOR FABRICATION
WALSH
By:
Date:

REV.	DESCRIPTION	BY	DATE	CK'D	DATE
1	CHANGED HP10x57 TO HP10x42 AND CHANGED MAS. PAD THICKNESS PER DESIGN CHANGE.	MH	07/26/19	ELS	07/29/19

SEE NOTES ON SHEET GN1 OF 1

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

BRIDGE NO.: HAM–74–1908R
OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM–75–3.84
CITY OF CINCINNATI

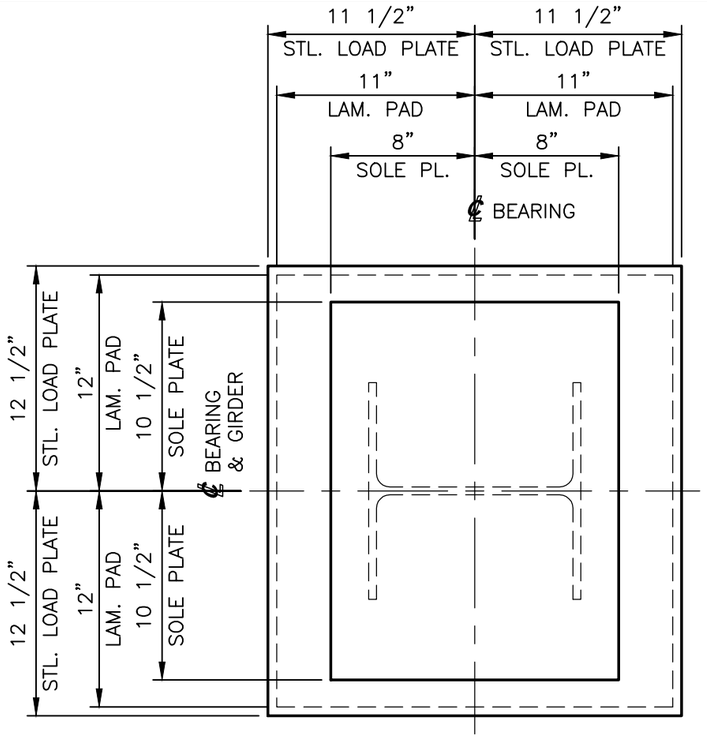
STATE	COUNTY	PID NO.
OH	HAMILTON	104667

FED. PROJ. NO.: E170 (713)

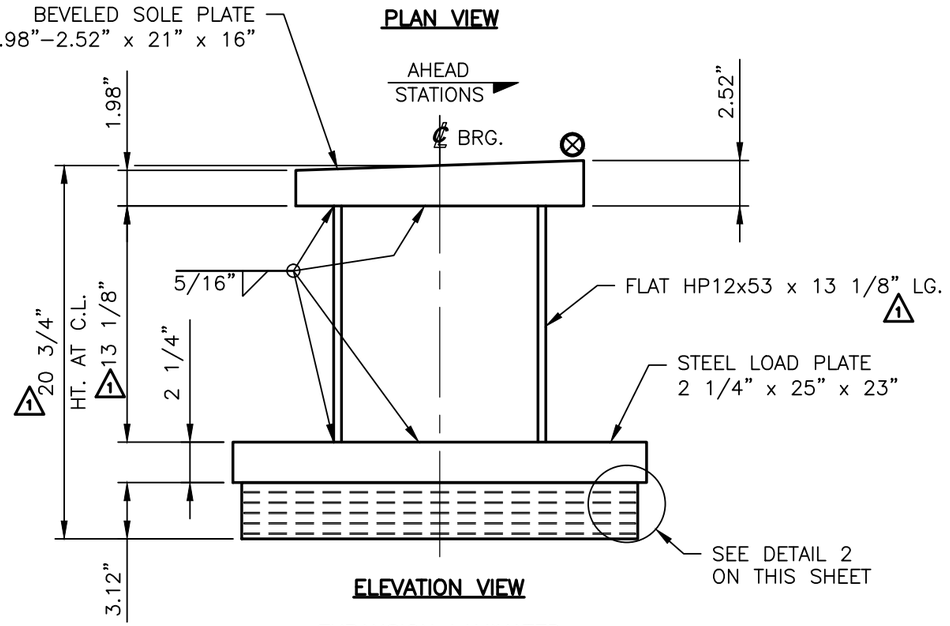
DYNAMIC RUBBER LAM. ELASTOMERIC BEARING ASSY.'S

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

SCALE: NONE
DRAWN BY: MH DATE: 06/11/19
CHECKED BY: ELS DATE: 07/16/19
SHEET 1 OF 17
JOB NO.: 15353B2
CUSTOMER WALSH CONSTRUCTION CO. II
DRAWING NUMBER 15353B2–D1 REV. 1

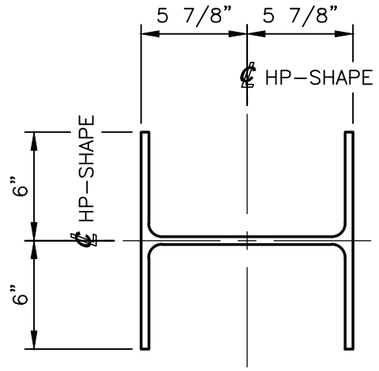


PLAN VIEW

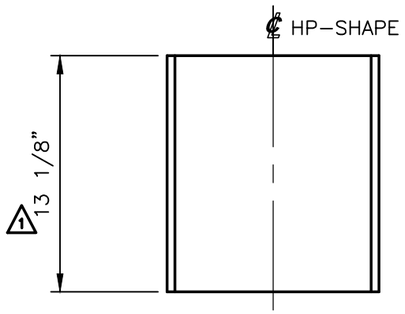


ELEVATION VIEW

EXPANSION LAMINATED
ELASTOMERIC BEARING ASSEMBLY (REF. NO.: 0033)
MARK: EBA2–B
(8) LOCATED AT PIER 1, UNIT 1 (GIRDERS G2–G9)
(8) REQUIRED

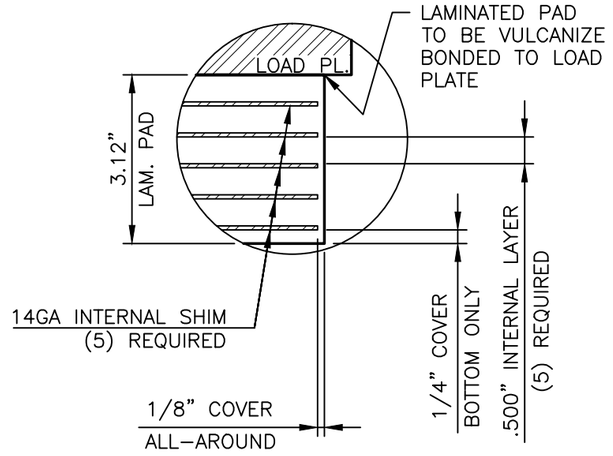


PLAN VIEW



ELEVATION VIEW

FLAT HP12x53
(8) REQUIRED



DETAIL 2
3.12" x 24" x 22" LAMINATED PAD
50 DUROMETER GRADE 3 NEOPRENE
VULCANIZE BONDED TO LOAD PLATE
(8) REQUIRED

UNFACTORED ELASTOMERIC BEARING LOADS	
DEAD LOAD	345 KIPS
LIVE LOAD	144 KIPS
TOTAL LOAD (DL+LL)	489 KIPS

SEE NOTES ON SHEET GN1 OF 1

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

BRIDGE NO.: HAM–74–1908R
OVER MILL CREEK, RR &
SPRING GROVE AVENUE

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

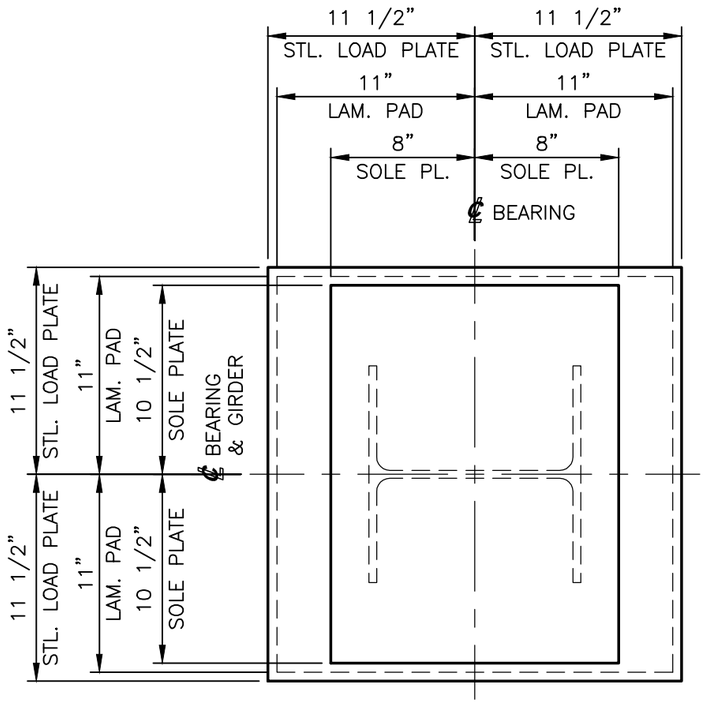
Cosmec
1501 ROCKY RIDGE ROAD
P.O. BOX 2159
ATHENS, TEXAS 75751

PRIME AE, Group, Inc
DATE REC'D: 8/1/2019 BUILDABLE UNIT NO.: 11
Review conforms that the shop drawings meet the intent of the contract.
☒ CONFORMS AS-IS ☐ CONFORMS AS NOTED
☐ REVISE AND RESEND
1908R - BEARINGS
By: Conrad Gagnon
Date: 8/2/2019

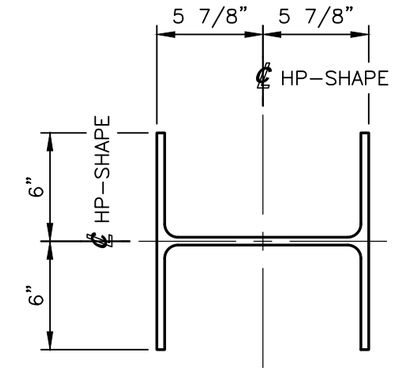
RELEASED FOR FABRICATION
WALSH
By:
Date:

REV.	DESCRIPTION	BY	DATE	CK'D	DATE
①	CHANGE HP12x53 HEIGHT PER DESIGN CHANGE.	MH	07/26/19	ELS	07/29/19

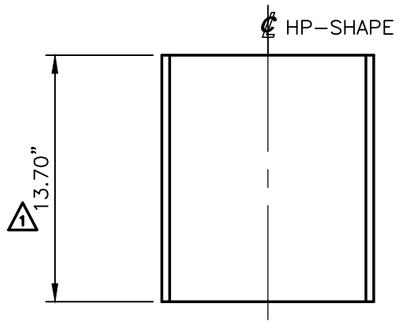
SCALE: NONE
DRAWN BY: MH DATE: 06/11/19
CHECKED BY: ELS DATE: 07/16/19
SHEET 2 OF 17
JOB NO.: 15353B2
CUSTOMER: WALSH CONSTRUCTION CO. II
DRAWING NUMBER: 15353B2–D2
REV. 1



PLAN VIEW

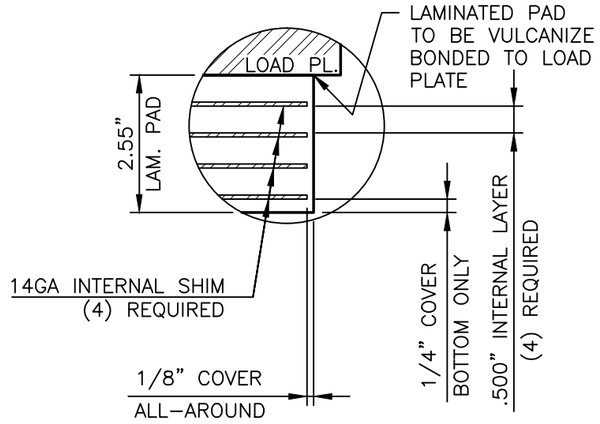


PLAN VIEW



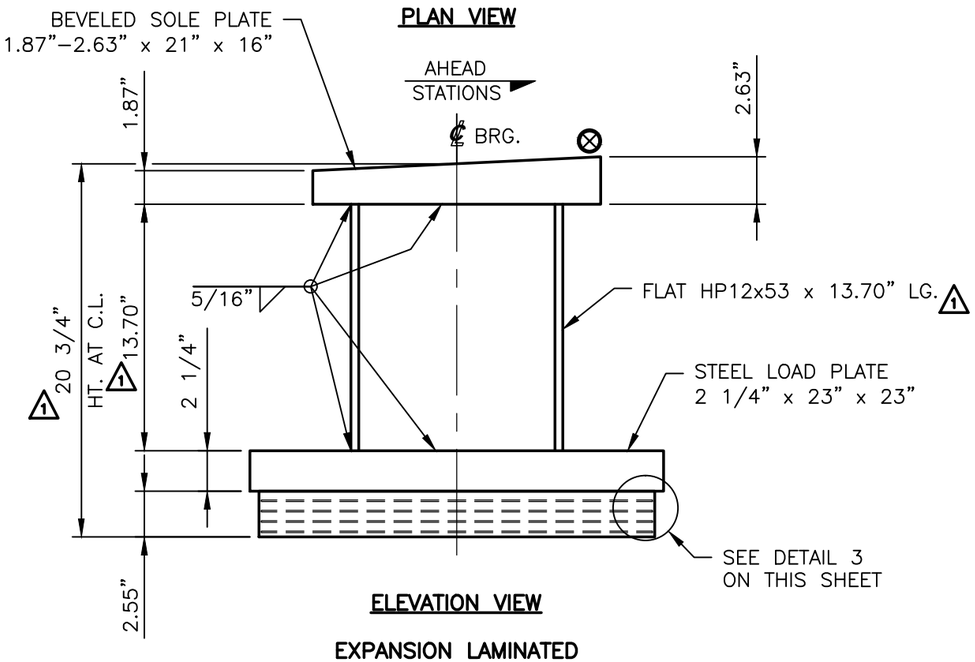
ELEVATION VIEW

FLAT HP12x53
(8) REQUIRED



DETAIL 3
2.55" x 22" x 22" LAMINATED PAD
50 DUROMETER GRADE 3 NEOPRENE
VULCANIZE BONDED TO LOAD PLATE
(8) REQUIRED

UNFACTORED ELASTOMERIC BEARING LOADS	
DEAD LOAD	325 KIPS
LIVE LOAD	145 KIPS
TOTAL LOAD (DL+LL)	470 KIPS



ELEVATION VIEW

EXPANSION LAMINATED
ELASTOMERIC BEARING ASSEMBLY (REF. NO.: 0033)
MARK: EBA3–B
(8) LOCATED AT PIER 3, UNIT 1 (GIRDERS G2–G9)
(8) REQUIRED

SEE NOTES ON SHEET GN1 OF 1

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

BRIDGE NO.: HAM–74–1908R
OVER MILL CREEK, RR & SPRING GROVE AVENUE

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

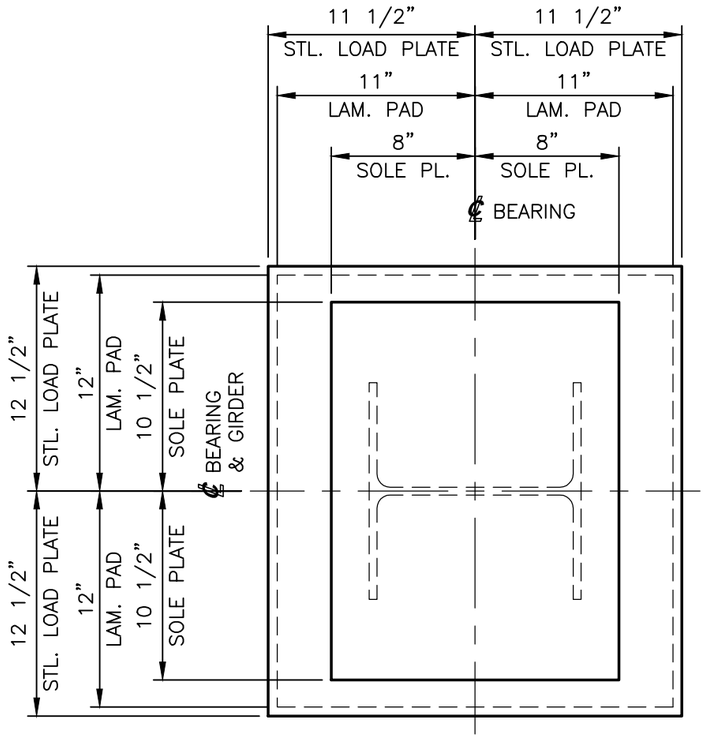
PRIME AE, Group, Inc
DATE REC'D: 8/1/2019 BUILDABLE UNIT NO.: 11
Review conforms that the shop drawings meet the intent of the contract.
[X] CONFORMS AS-IS [ ] CONFORMS AS NOTED
[ ] REVISE AND RESEND
1908R - BEARINGS
By: Conrad Gagnon
Date: 8/2/2019

RELEASED FOR FABRICATION
WALSH
By:
Date:

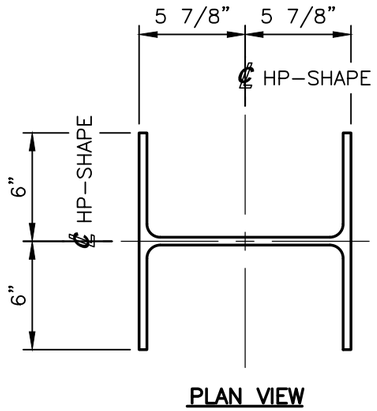
SCALE: NONE	DRAWN BY: MH DATE: 06/11/19	CHECKED BY: ELS DATE: 07/16/19
SHEET 3 OF 17	JOB NO.: 15353B2	

REV.	DESCRIPTION	BY	DATE	CK'D	DATE
1	REVISED HP12x53 HEIGHT PER DESIGN CHANGE.	MH	07/26/19	ELS	07/29/19

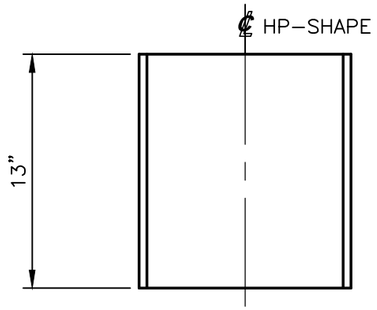
CUSTOMER: WALSH CONSTRUCTION CO. II
DRAWING NUMBER: 15353B2–D3 REV. 1



PLAN VIEW

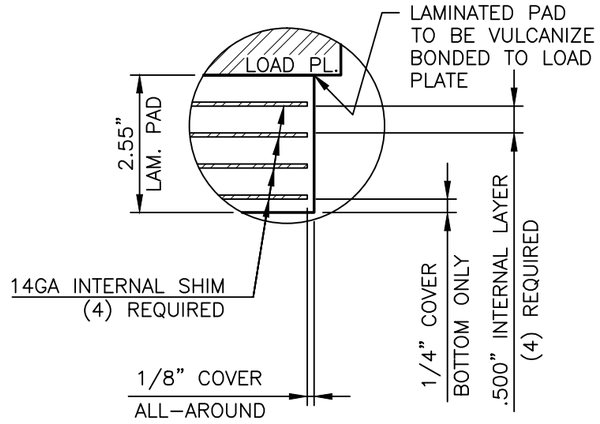


PLAN VIEW



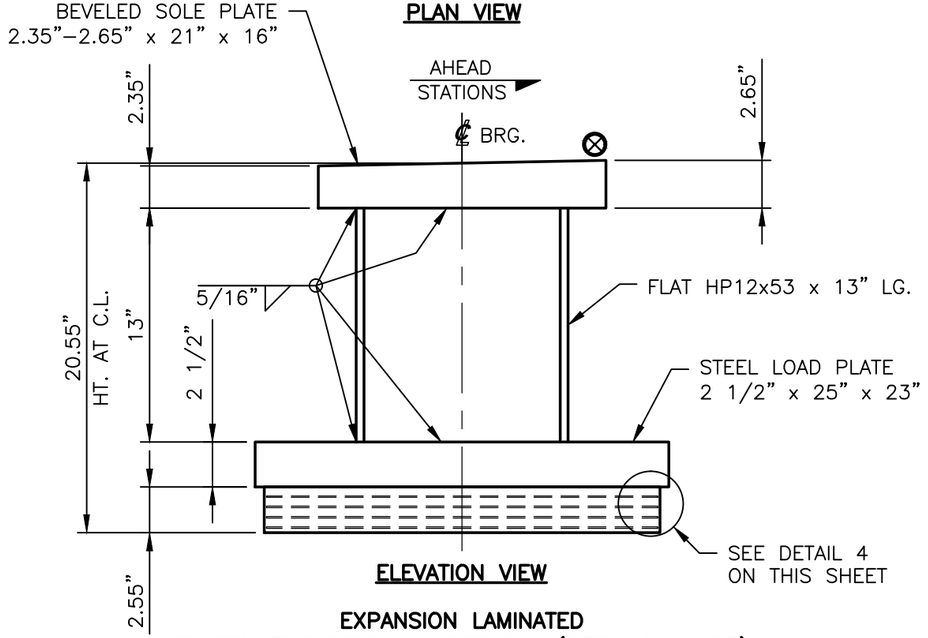
ELEVATION VIEW

FLAT HP12x53
(10) REQUIRED



DETAIL 4
2.55" x 24" x 22" LAMINATED PAD
50 DUROMETER GRADE 3 NEOPRENE
VULCANIZE BONDED TO LOAD PLATE
(10) REQUIRED

UNFACTORED ELASTOMERIC BEARING LOADS	
DEAD LOAD	389 KIPS
LIVE LOAD	137 KIPS
TOTAL LOAD (DL+LL)	526 KIPS



ELEVATION VIEW

EXPANSION LAMINATED
ELASTOMERIC BEARING ASSEMBLY (REF. NO.: 0033)
MARK: EBA4-B
(10) LOCATED AT PIER 6, UNIT 2 (GIRDERS G4-G13)
(10) REQUIRED

PRIME AE, Group, Inc	RELEASED FOR FABRICATION
DATE REC'D: 8/1/2019 BUILDABLE UNIT NO.: 11	
Review conforms that the shop drawings meet the intent of the contract.	
[X] CONFORMS AS-IS [ ] CONFORMS AS NOTED [ ] REVISE AND RESEND 1908R - BEARINGS	
By: Conrad Gagnon	By:
Date: 8/2/2019	Date:

SEE NOTES ON SHEET GN1 OF 1

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

BRIDGE NO.: HAM-74-1908R
OVER MILL CREEK, RR &
SPRING GROVE AVENUE

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

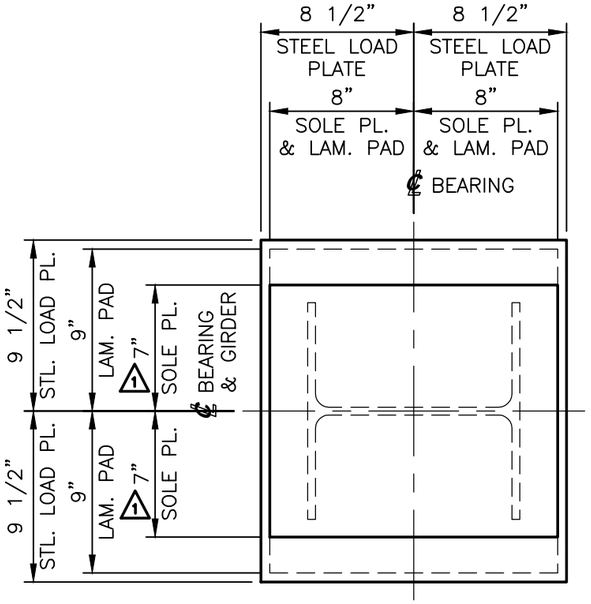
Cosmec
1501 ROCKY RIDGE ROAD
P.O. BOX 2159
ATHENS, TEXAS 75751

SCALE: NONE | DRAWN BY: MH MR | DATE: 06/11/19 | CHECKED BY: ELS | DATE: 07/16/19

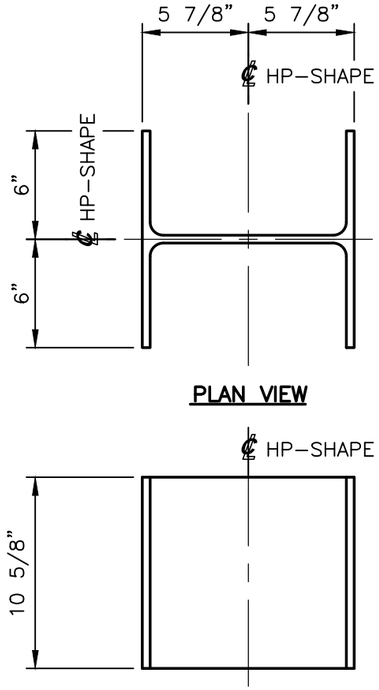
SHEET 4 OF 17 | JOB NO.: 15353B

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

CUSTOMER: WALSH CONSTRUCTION CO. II | DRAWING NUMBER: 15353B-D4 | REV.: 0



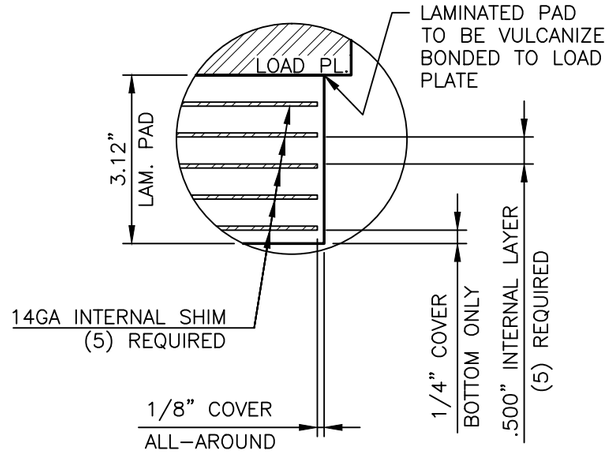
PLAN VIEW



PLAN VIEW

ELEVATION VIEW

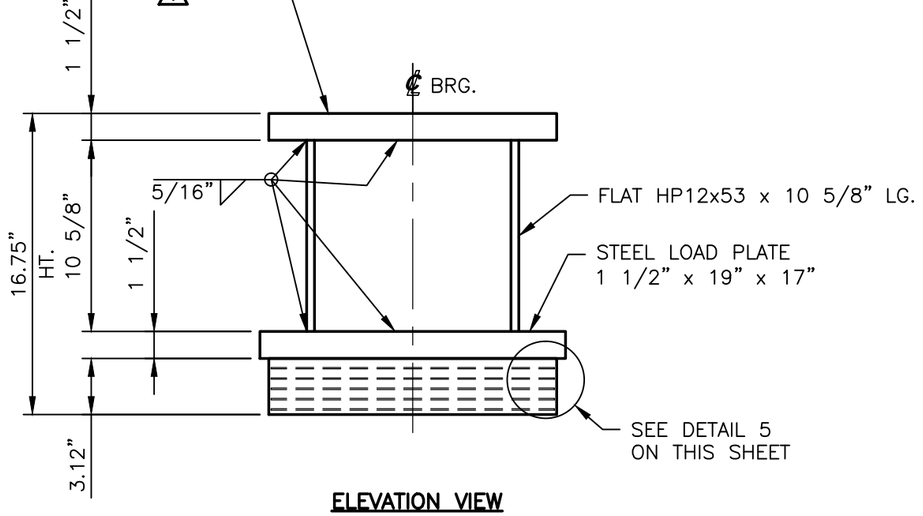
FLAT HP12x53
(6) REQUIRED



DETAIL 5

3.12" x 18" x 16" LAMINATED PAD
50 DUROMETER GRADE 3 NEOPRENE
VULCANIZE BONDED TO LOAD PLATE
(6) REQUIRED

UNFACTORED ELASTOMERIC BEARING LOADS	
DEAD LOAD	140 KIPS
LIVE LOAD	61 KIPS
TOTAL LOAD (DL+LL)	201 KIPS



ELEVATION VIEW

EXPANSION LAMINATED
ELASTOMERIC BEARING ASSEMBLY (REF. NO.: 0033)
MARK: EBA5-B
(6) LOCATED AT PIER 19, UNIT 6 (GIRDERS G3-G8)
(6) REQUIRED

PRIME AE, Group, Inc	RELEASED FOR FABRICATION
DATE REC'D: 8/1/2019 BUILDABLE UNIT NO.: 11	
Review conforms that the shop drawings meet the intent of the contract.	
[X] CONFORMS AS-IS [ ] CONFORMS AS NOTED [ ] REVISE AND RESEND	
1908R - BEARINGS	
By: Conrad Gagnon	By:
Date: 8/2/2019	Date:

SEE NOTES ON SHEET GN1 OF 1

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

BRIDGE NO.: HAM-74-1908R
OVER MILL CREEK, RR &
SPRING GROVE AVENUE

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

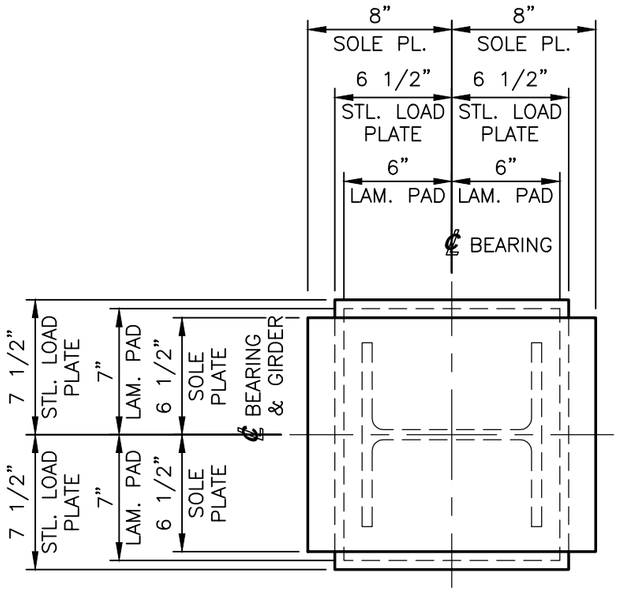
Cosmec
1501 ROCKY RIDGE ROAD
P.O. BOX 2159
ATHENS, TEXAS 75751

SCALE: NONE | DRAWN BY: MH DATE: 06/11/19 | CHECKED BY: ELS DATE: 07/16/19

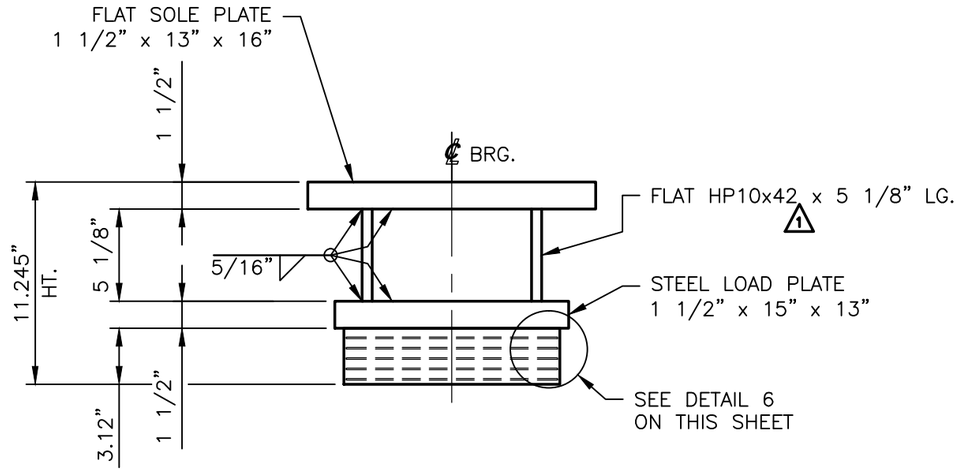
REV.	DESCRIPTION	BY	DATE	CK'D	DATE
1	REVISED SOLE PLATE WIDTH PER DESIGN CHANGE.	MH	07/26/19	ELS	07/29/19

SHEET 5 OF 17 | JOB NO.: 15353B2

CUSTOMER: WALSH CONSTRUCTION CO. II | DRAWING NUMBER: 15353B2-D5 | REV. 1

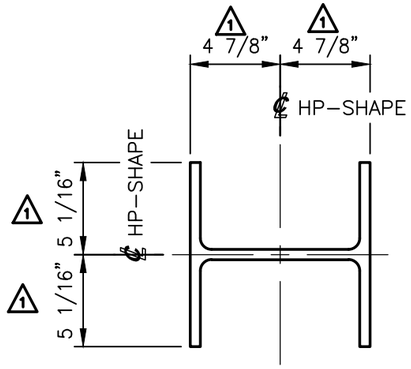


PLAN VIEW

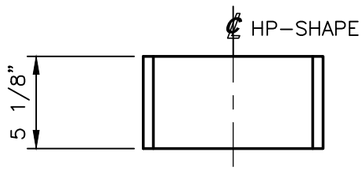


ELEVATION VIEW

EXPANSION LAMINATED
ELASTOMERIC BEARING ASSEMBLY (REF. NO.: 0033)
MARK: EBA6–B
(6) LOCATED AT ABUTMENT 4, UNIT 6 (GIRDERS G3–G8)
(6) REQUIRED

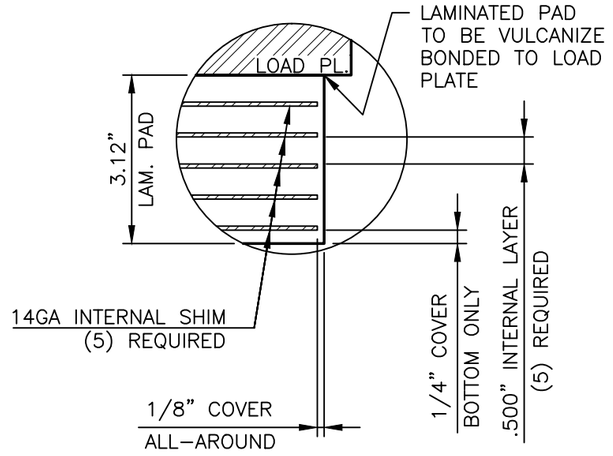


PLAN VIEW



ELEVATION VIEW

FLAT HP10x42 1
(6) REQUIRED



DETAIL 6
3.12" x 14" x 12" LAMINATED PAD
50 DUROMETER GRADE 3 NEOPRENE
VULCANIZE BONDED TO LOAD PLATE
(6) REQUIRED

UNFACTORED ELASTOMERIC BEARING LOADS	
DEAD LOAD	43 KIPS
LIVE LOAD	50 KIPS
TOTAL LOAD (DL+LL)	93 KIPS

SEE NOTES ON SHEET GN1 OF 1

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

BRIDGE NO.: HAM–74–1908R
OVER MILL CREEK, RR &
SPRING GROVE AVENUE

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

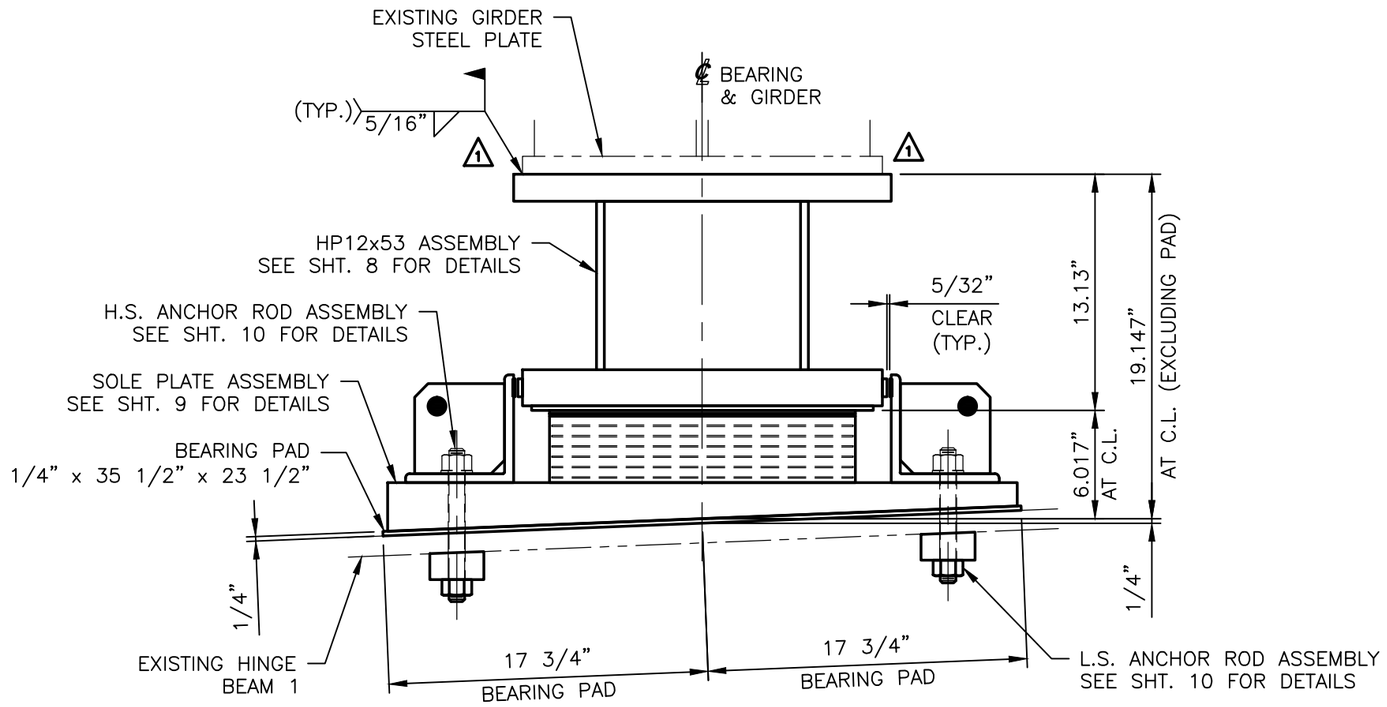
PRIME AE, Group, Inc
DATE REC'D: 8/1/2019 BUILDABLE UNIT NO.: 11
Review conforms that the shop drawings meet the intent of the contract.
[X] CONFORMS AS-IS [ ] CONFORMS AS NOTED
[ ] REVISE AND RESEND
1908R - BEARINGS
By: Conrad Gagnon
Date: 8/2/2019

RELEASED FOR FABRICATION
WALSH
By:
Date:

SCALE: NONE | DRAWN BY: MH DATE: 06/11/19 | CHECKED BY: ELS DATE: 07/16/19

REV.	DESCRIPTION	BY	DATE	CK'D	DATE
1	CHANGED HP10x57 TO HP10x42 PER DESIGN CHANGE.	MH	07/26/19	ELS	07/29/19

SHEET 6 OF 17 | JOB NO.: 15353B2
CUSTOMER: WALSH CONSTRUCTION CO. II | DRAWING NUMBER: 15353B2–D6 | REV. 1



EXPANSION LAMINATED
ELASTOMERIC BEARING ASSEMBLY (REF.: 0033)
AT CARRIER BEAM

REFER TO EXP. BEARING TABLE #1
FOR MARK NO.'s, QTY.'S AND LOCATIONS
(7) REQUIRED

EXP. BEARING TABLE #1			
MARK NO.	QTY.	LOCATION	
		UNIT	GIRDER NO.
EBA7–B	1	2	G3–U2
EBA8–B	2	2	G5–U2 & G8– U2
EBA9–B	1	2	G6–U2
EBA10–B	1	2	G9–U2
EBA11–B	1	2	G11–U2
EBA12–B	1	2	G12–U2

PRIME AE, Group, Inc

DATE REC'D: **8/1/2019** BUILDABLE UNIT NO.: **11**

Review conforms that the shop drawings meet the intent of the contract.

☒ CONFORMS AS-IS ☐ CONFORMS AS NOTED
☐ REVISE AND RESEND

1908R - BEARINGS

By: **Conrad Gagnon**
Date: **8/2/2019**

RELEASED FOR FABRICATION

WALSH

By:
Date:

SEE NOTES ON SHEET GN1 OF 1

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

BRIDGE NO.: HAM–74–1908R
OVER MILL CREEK, RR & SPRING GROVE AVENUE

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

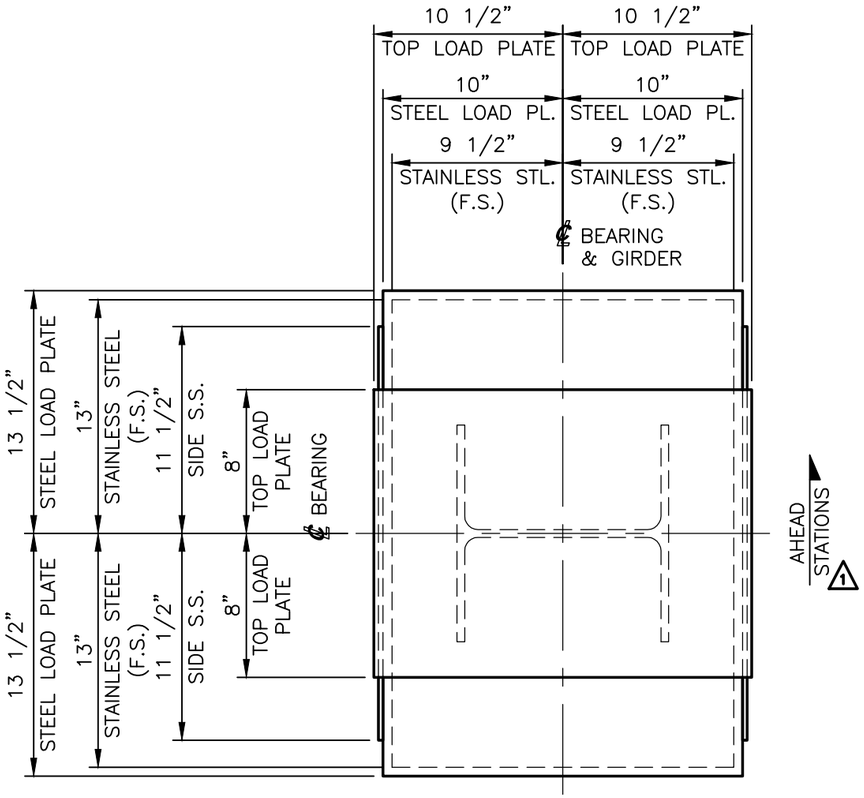
Cosmec
1501 ROCKY RIDGE ROAD
P.O. BOX 2159
ATHENS, TEXAS 75751

SCALE: NONE	DRAWN BY: MH	CHECKED BY: ELS
	DATE: 07/15/19	DATE: 07/16/19

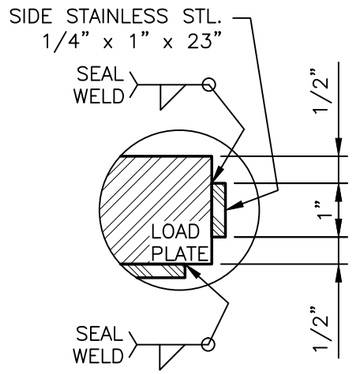
REV.	DESCRIPTION	BY	DATE	CK'D	DATE
1	REVISED EXISTING GIRDER PLATE PER APPROVER NOTATIONS.	MH	07/26/19	ELS	07/29/19

SHEET 7 OF 17 | JOB NO.: 15353B2

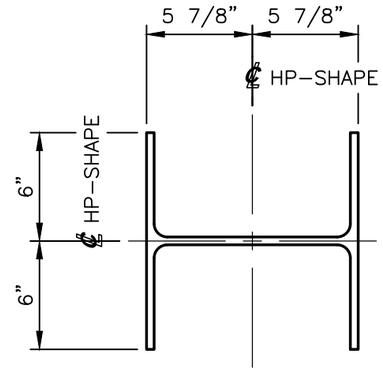
CUSTOMER: WALSH CONSTRUCTION CO. II | DRAWING NUMBER: 15353B2–D7 | REV. 1



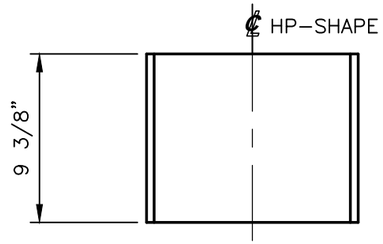
PLAN VIEW



DETAIL A

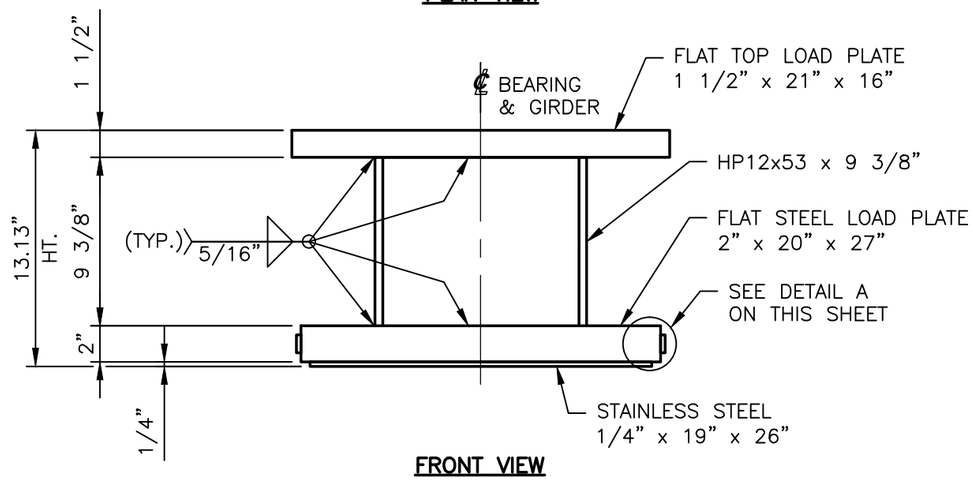


PLAN VIEW



ELEVATION VIEW

FLAT HP12x53
(7) REQUIRED



FRONT VIEW

HP12x53 ASSEMBLY DETAIL
REFER TO HP12x53 ASSEMBLY TABLE FOR MARK NO.'S, QTY.'S AND LOCATIONS
(7) REQUIRED

HP12x53 ASSEMBLY TABLE		
MARK NO.	QTY.	GIRDER NO.
EBA7–B	1	G3–U2
EBA8–B	2	G5–U2 & G8– U2
EBA9–B	1	G6–U2
EBA10–B	1	G9–U2
EBA11–B	1	G11–U2
EBA12–B	1	G12–U2

PRIME AE, Group, Inc	RELEASED FOR FABRICATION
DATE REC'D: 8/1/2019 BUILDABLE UNIT NO.: 11	
Review conforms that the shop drawings meet the intent of the contract.	
[X] CONFORMS AS-IS [ ] CONFORMS AS NOTED [ ] REVISE AND RESEND 1908R - BEARINGS	WALSH
By: Conrad Gagnon	By:
Date: 8/2/2019	Date:

SEE NOTES ON SHEET GN1 OF 1

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

BRIDGE NO.: HAM–74–1908R
OVER MILL CREEK, RR &
SPRING GROVE AVENUE

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

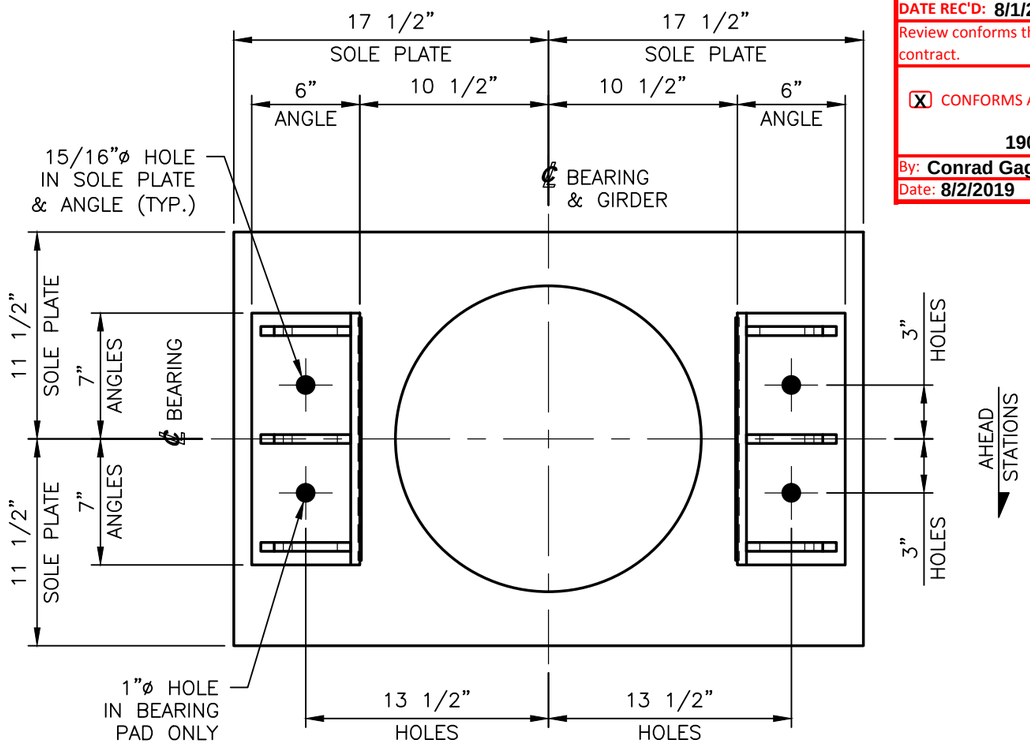
SCALE: NONE | DRAWN BY: MH DATE: 07/15/19 | CHECKED BY: ELS DATE: 07/16/19

REV.	DESCRIPTION	BY	DATE	CK'D	DATE
1	ADDED AHEAD STATIONING PER APPROVER.	MH	07/26/19	ELS	07/29/19

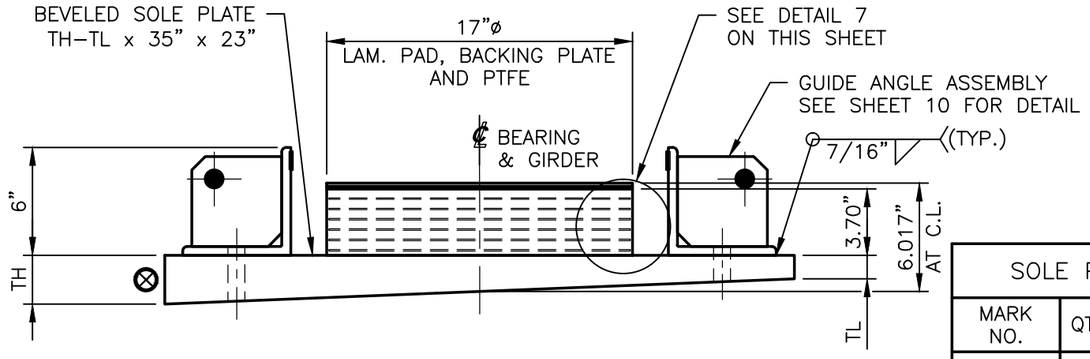
SHEET 8 OF 17 | JOB NO.: 15353B2

CUSTOMER WALSH CONSTRUCTION CO. II | DRAWING NUMBER 15353B2–D8 | REV. 1

PRIME AE, Group, Inc	RELEASED FOR FABRICATION
DATE REC'D: 8/1/2019 BUILDABLE UNIT NO.: 11	
Review conforms that the shop drawings meet the intent of the contract.	
[X] CONFORMS AS-IS [ ] CONFORMS AS NOTED [ ] REVISE AND RESEND	
1908R - BEARINGS	
By: Conrad Gagnon	By:
Date: 8/2/2019	Date:



PLAN VIEW

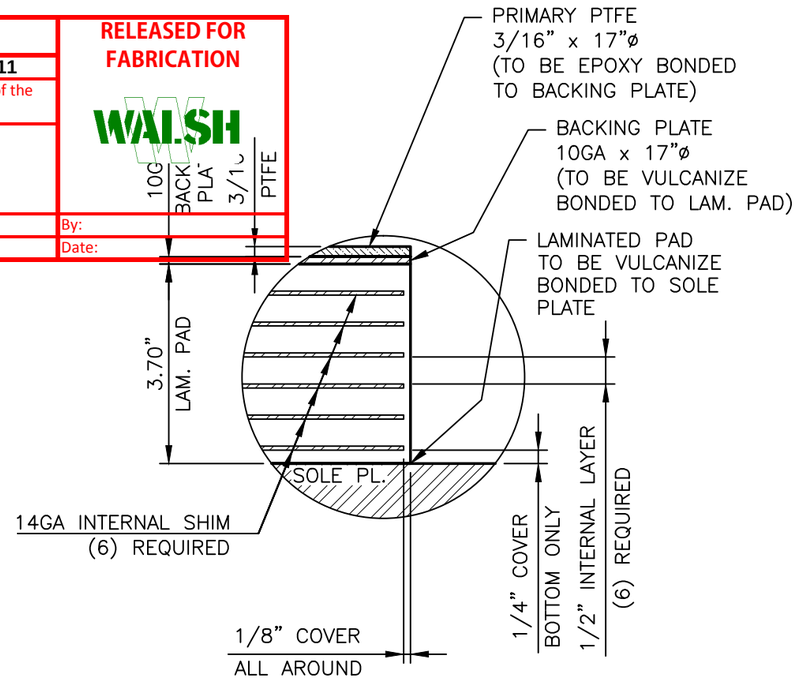


FRONT VIEW

SOLE PLATE ASSEMBLY DETAIL

REFER TO SOLE PLATE ASSEMBLY TABLE FOR MARK NO.'s, QTY.'S, LOCATIONS AND DIMENSIONS
(7) REQUIRED

SOLE PLATE ASSEMBLY TABLE				
MARK NO.	QTY.	GIRDER NO.	TH	TL
EBA7–B	1	G3–U2	2.70"	1.30"
EBA8–B	2	G5–U2 & G8– U2	2.72"	1.28"
EBA9–B	1	G6–U2	2.74"	1.26"
EBA10–B	1	G9–U2	2.68"	1.32"
EBA11–B	1	G11–U2	2.71"	1.29"
EBA12–B	1	G12–U2	2.77"	1.23"



DETAIL 7

3.70" x 17"ø LAMINATED PAD
50 DUROMETER GRADE 3 NEOPRENE
VULCANIZE BONDED TO SOLE & BACKING PLATES
(7) REQUIRED

UNFACTORED ELASTOMERIC BEARING LOADS	
DEAD LOAD	80 KIPS
LIVE LOAD	99 KIPS
TOTAL LOAD (DL+LL)	179 KIPS

SEE NOTES ON SHEET GN1 OF 1

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

BRIDGE NO.: HAM–74–1908R
OVER MILL CREEK, RR & SPRING GROVE AVENUE

HAM–75–3.84
CITY OF CINCINNATI

STATE	COUNTY	PID NO.
OH	HAMILTON	104667

FED. PROJ. NO.: E170 (713)

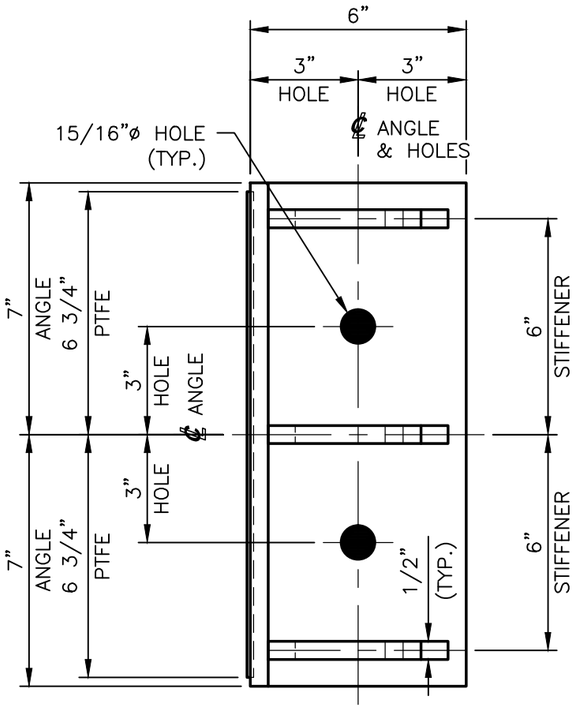
DYNAMIC RUBBER
LAM. ELASTOMERIC BEARING ASSY.'S

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

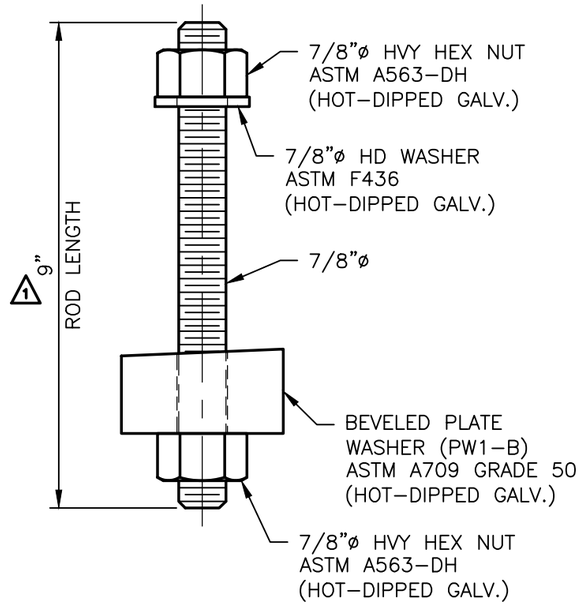
SCALE: NONE	DRAWN BY: MH DATE: 07/15/19	CHECKED BY: ELS DATE: 07/16/19
SHEET 9 OF 17	JOB NO.: 15353B2	

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

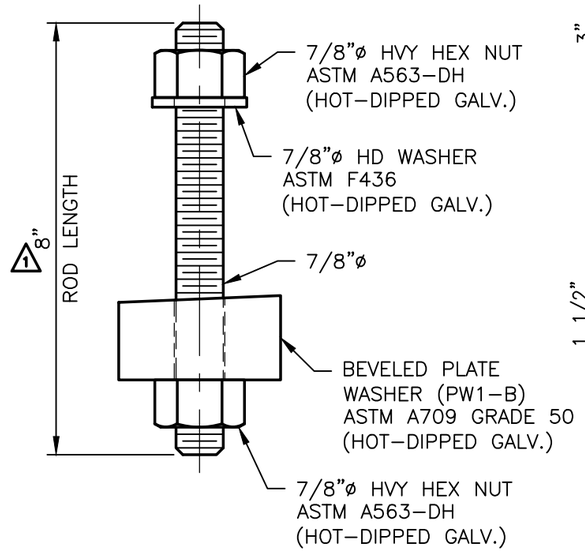
CUSTOMER: WALSH CONSTRUCTION CO. II
DRAWING NUMBER: 15353B2–D9 REV. 0



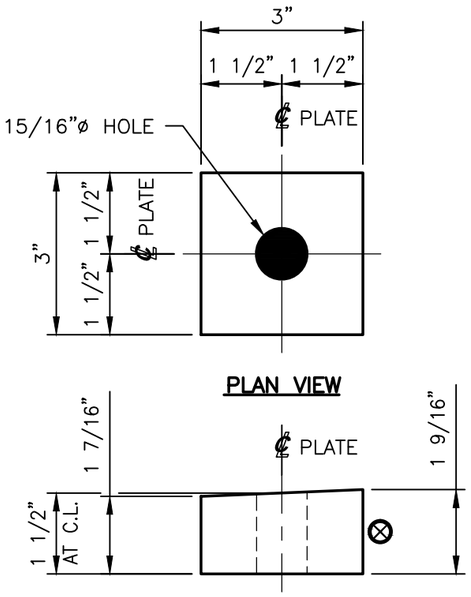
PLAN VIEW



H.S. ALL-THREAD ANCHOR ROD ASSEMBLY
MARK: AB2-B
ROD: 7/8"ø x 9" LONG 1
ASTM F1554 GRADE 55 (HOT-DIPPED GALV.)
(14) LOCATED AT CARRIER BEAM UNIT 2
(GIRDERS G3-U2, G5-U2, G6-U2, G8-U2,
G9-U2, G11-U2 & G12-U2)
(14) REQUIRED



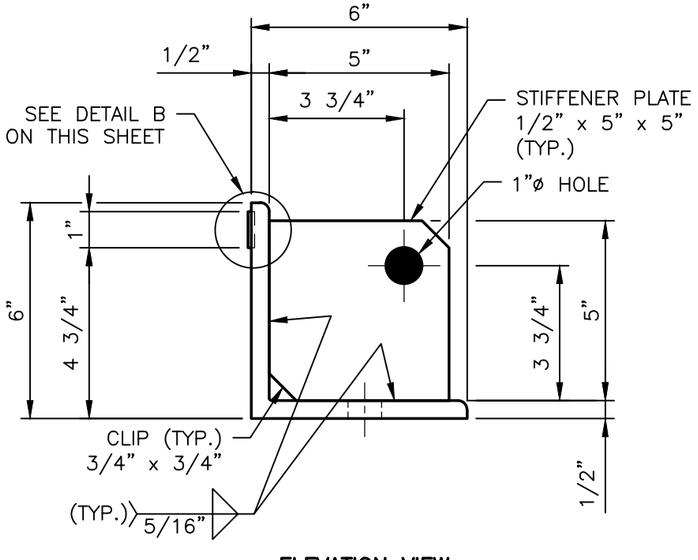
L.S. ALL-THREAD ANCHOR ROD ASSEMBLY
MARK: AB3-B
ROD: 7/8"ø x 8" LONG 1
ASTM F1554 GRADE 55 (HOT-DIPPED GALV.)
(14) LOCATED AT CARRIER BEAM UNIT 2
(GIRDERS G3-U2, G5-U2, G6-U2, G8-U2,
G9-U2, G11-U2 & G12-U2)
(14) REQUIRED



PLAN VIEW

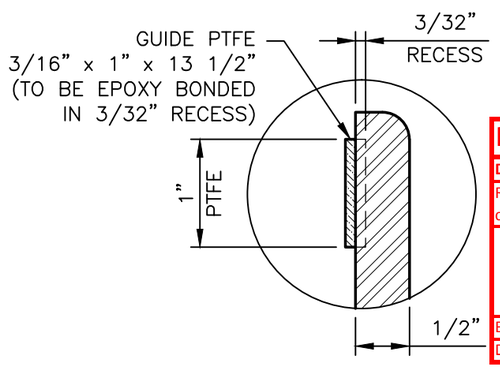
ELEVATION VIEW

BEVELED PLATE WASHER
MARK: PW1-B
PL 1 7/16"-1 9/16" x 3" x 3"
ASTM A709 GRADE 50
(HOT-DIPPED GALV.)
(28) REQUIRED



ELEVATION VIEW

GUIDE ANGLE DETAIL
∠6" x 6" x 1/2" x 14" LONG
ASTM A709 GRADE 50 (METALIZED)
(14) REQUIRED



DETAIL B

SEE NOTES ON SHEET GN1 OF 1

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

BRIDGE NO.: HAM-74-1908R
OVER MILL CREEK, RR &
SPRING GROVE AVENUE

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

PRIME AE, Group, Inc	RELEASED FOR FABRICATION
DATE REC'D: 8/1/2019 BUILDABLE UNIT NO.: 11	
Review conforms that the shop drawings meet the intent of the contract.	
[X] CONFORMS AS-IS [ ] CONFORMS AS NOTED [ ] REVISE AND RESEND	
1908R - BEARINGS	
By: Conrad Gagnon	By:
Date: 8/2/2019	Date:

WALSH

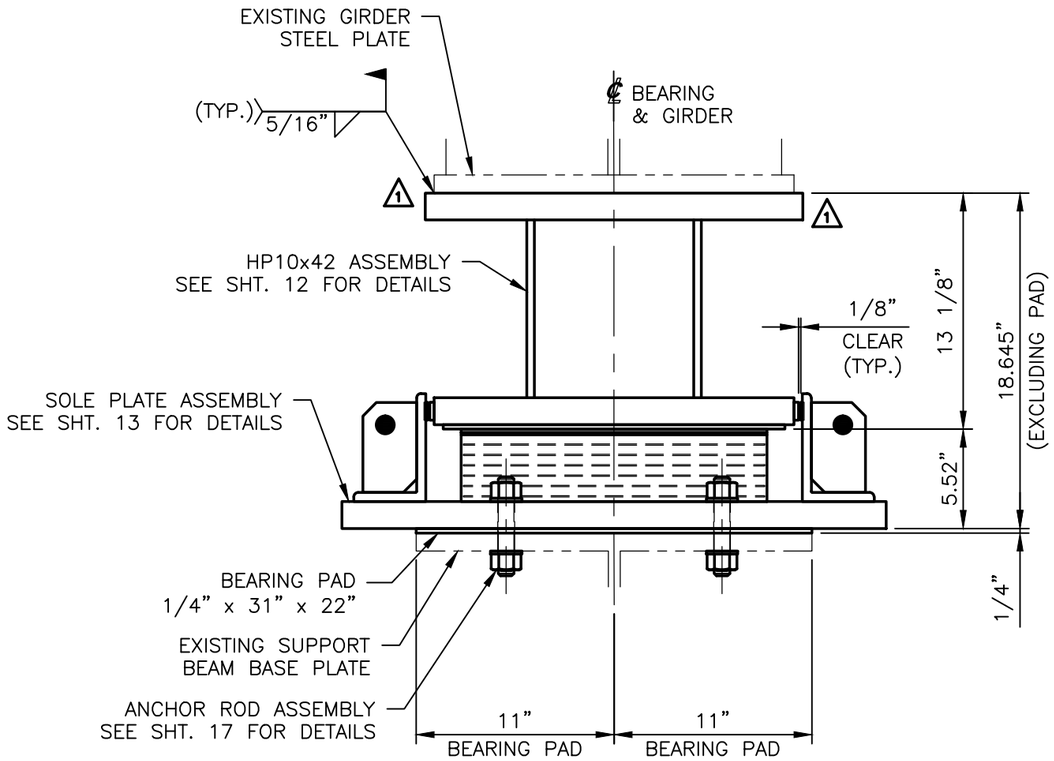
Cosmec
1501 ROCKY RIDGE ROAD
P.O. BOX 2159
ATHENS, TEXAS 75751

SCALE: NONE	DRAWN BY: MH DATE: 07/15/19	CHECKED BY: ELS DATE: 07/16/19

REV.	DESCRIPTION	BY	DATE	CK'D	DATE
1	REVISED ANCHOR BOLT LENGTHS PER DESIGN CHANGE.	MH	07/26/19	ELS	07/29/19

SHEET 10 OF 17 JOB NO.: 15353B2

CUSTOMER: WALSH CONSTRUCTION CO. II
DRAWING NUMBER: 15353B2-D10 REV. 1



EXPANSION LAMINATED
ELASTOMERIC BEARING ASSEMBLY (REF.: 0033)
AT HINGE SUPPORT – UNIT 2
MARK: EBA13–B
(4) LOCATED AT HINGE 1, UNIT 2
(GIRDERS G4–U2, G7–U2, G10–U2 & G13–U2)
(4) REQUIRED

PRIME AE, Group, Inc	RELEASED FOR FABRICATION
DATE REC'D: 8/1/2019 BUILDABLE UNIT NO.: 11	
Review conforms that the shop drawings meet the intent of the contract.	
[X] CONFORMS AS-IS [ ] CONFORMS AS NOTED [ ] REVISE AND RESEND 1908R - BEARINGS	WALSH
By: Conrad Gagnon	By:
Date: 8/2/2019	Date:

SEE NOTES ON SHEET GN1 OF 1

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

BRIDGE NO.: HAM–74–1908R
OVER MILL CREEK, RR &
SPRING GROVE AVENUE

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

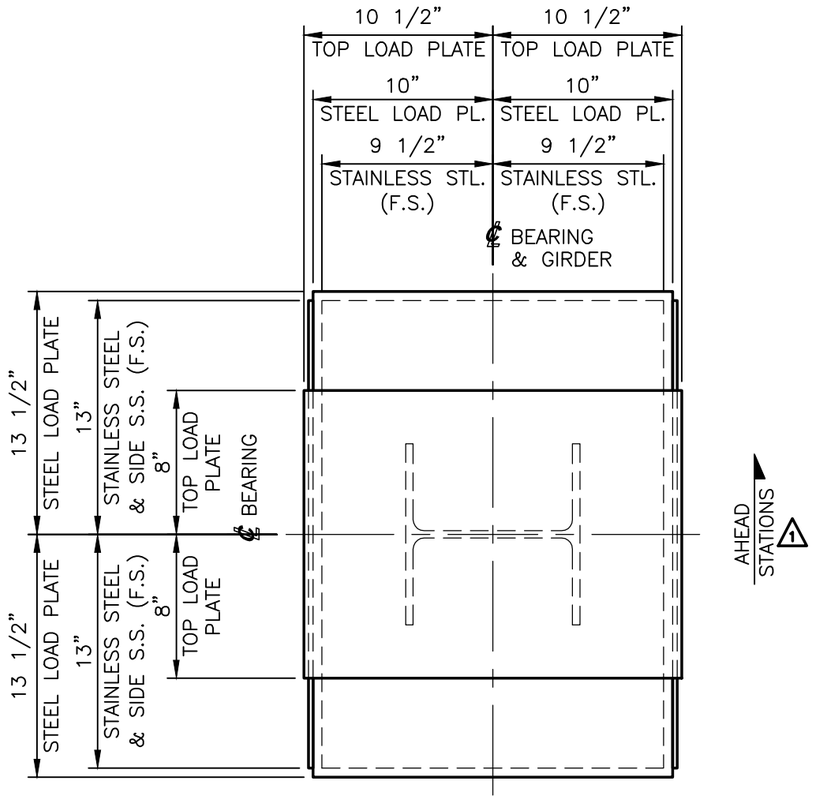
Cosmec
1501 ROCKY RIDGE ROAD
P.O. BOX 2159
ATHENS, TEXAS 75751

SCALE: NONE	DRAWN BY: MH	CHECKED BY: ELS
	DATE: 07/15/19	DATE: 07/16/19

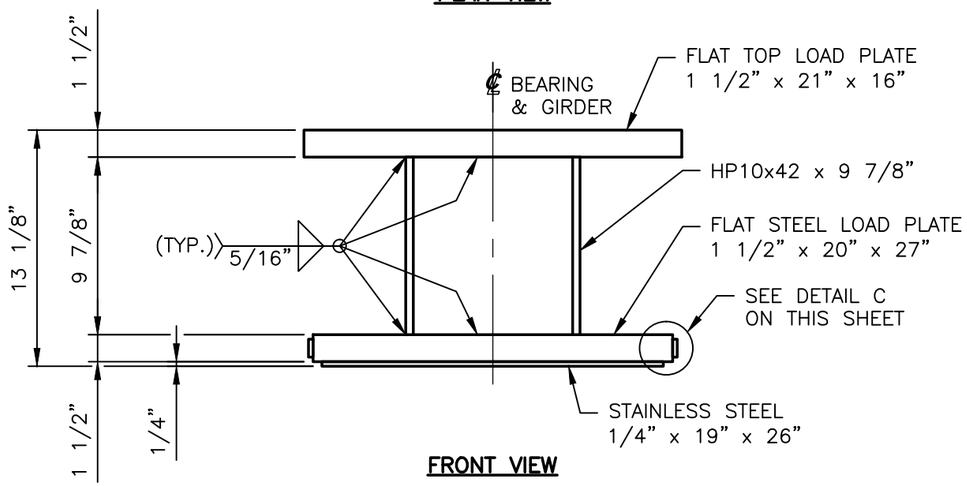
REV.	DESCRIPTION	BY	DATE	CK'D	DATE
1	REVISED EXISTING GIRDER PLATE PER APPROVER NOTATIONS.	MH	07/26/19	ELS	07/29/19

SHEET 11 OF 17 JOB NO.: 15353B2

CUSTOMER: WALSH CONSTRUCTION CO. II
DRAWING NUMBER: 15353B2–D11 REV. 1

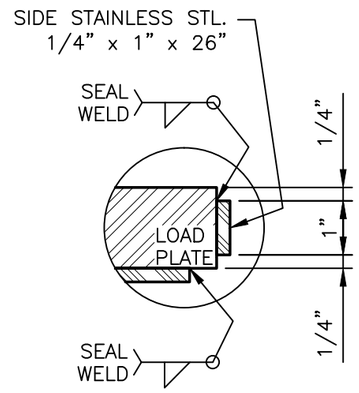


PLAN VIEW

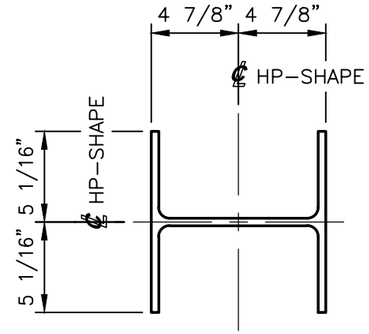


FRONT VIEW

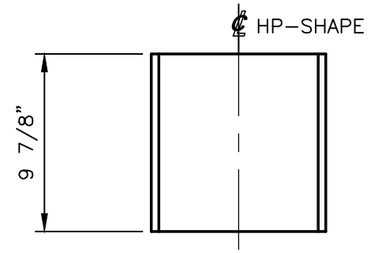
HP10x42 ASSEMBLY DETAIL
MARK: EBA13–B
(4) LOCATED AT HINGE 1, UNIT 2
(GIRDERS G4–U2, G7–U2, G10–U2 & G13–U2)
(4) REQUIRED



DETAIL C



PLAN VIEW



ELEVATION VIEW

FLAT HP10x42
(4) REQUIRED

SEE NOTES ON SHEET GN1 OF 1

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

BRIDGE NO.: HAM–74–1908R
OVER MILL CREEK, RR &
SPRING GROVE AVENUE

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

PRIME AE, Group, Inc

DATE REC'D: **8/1/2019** BUILDABLE UNIT NO.: **11**

Review conforms that the shop drawings meet the intent of the contract.

[X] CONFORMS AS-IS [ ] CONFORMS AS NOTED
[ ] REVISE AND RESEND

1908R - BEARINGS

By: **Conrad Gagnon**
Date: **8/2/2019**

RELEASED FOR FABRICATION

WALSH

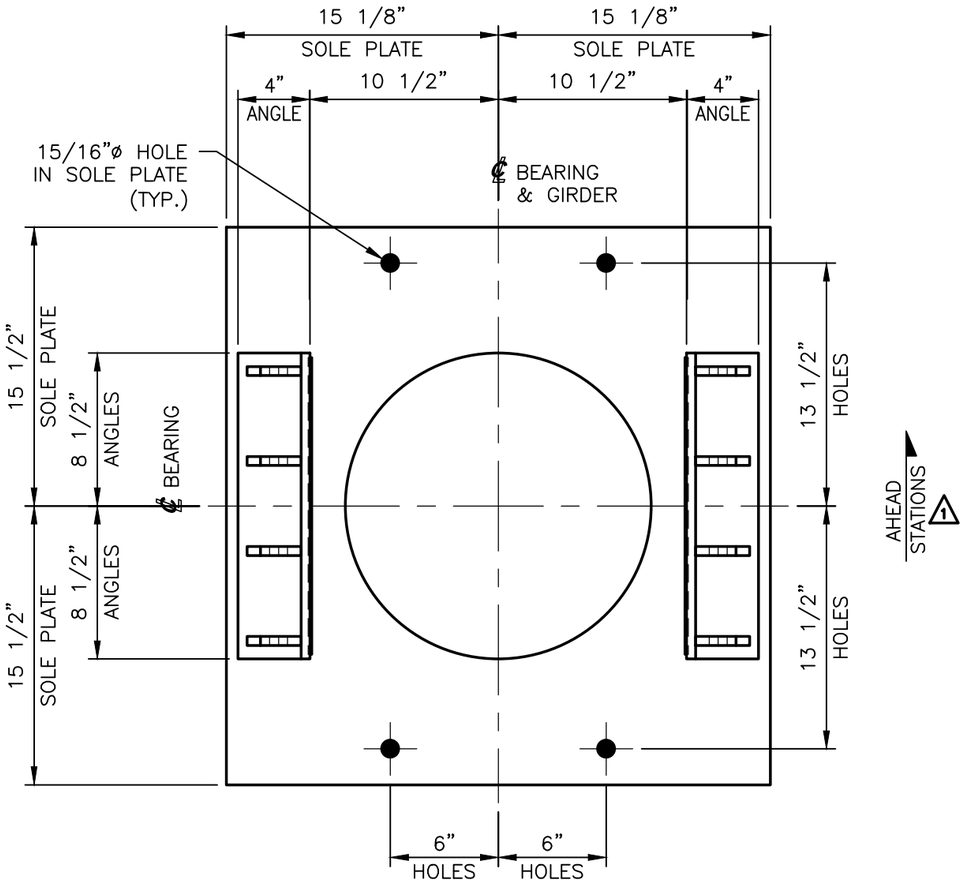
By:
Date:

SCALE: NONE | DRAWN BY: MH | DATE: 07/15/19 | CHECKED BY: ELS | DATE: 07/16/19

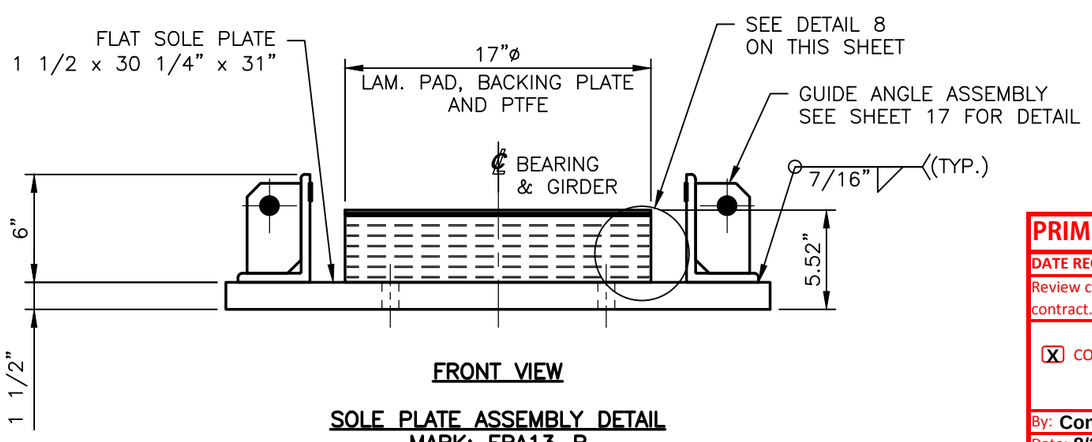
REV.	DESCRIPTION	BY	DATE	CK'D	DATE
1	ADDED AHEAD STATIONING PER APPROVER.	MH	07/26/19	ELS	07/29/19

SHEET 12 OF 17 | JOB NO.: 15353B2

CUSTOMER: WALSH CONSTRUCTION CO. II | DRAWING NUMBER: 15353B2–D12 | REV.: 1

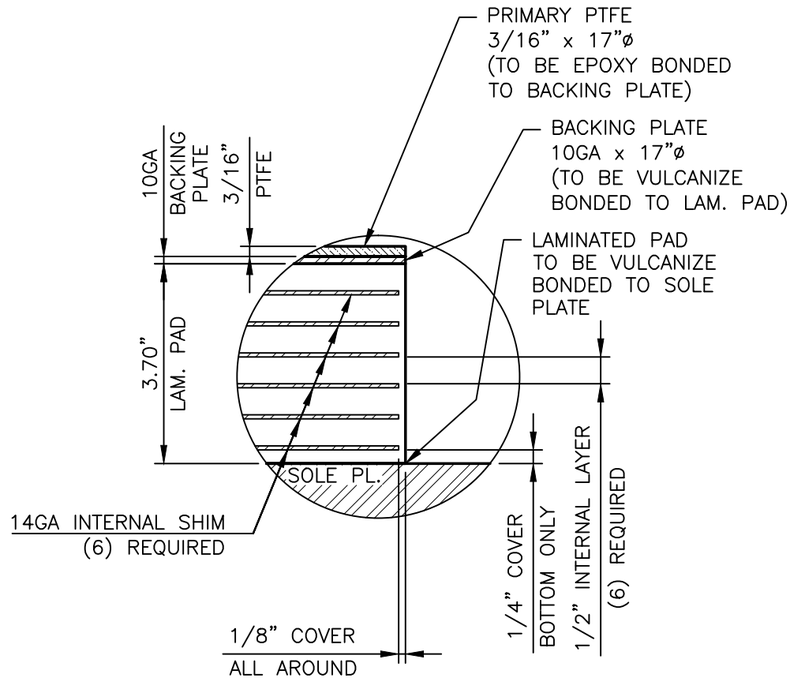


PLAN VIEW



FRONT VIEW

SOLE PLATE ASSEMBLY DETAIL
MARK: EBA13–B
(4) LOCATED AT HINGE 1, UNIT 2
(GIRDERS G4–U2, G7–U2, G10–U2 & G13–U2)
(4) REQUIRED



DETAIL 8
3.70" x 17"ø LAMINATED PAD
50 DUROMETER GRADE 3 NEOPRENE
VULCANIZE BONDED TO SOLE & BACKING PLATES
(4) REQUIRED

UNFACTORED ELASTOMERIC BEARING LOADS	
DEAD LOAD	80 KIPS
LIVE LOAD	99 KIPS
TOTAL LOAD (DL+LL)	179 KIPS

SEE NOTES ON SHEET GN1 OF 1

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

BRIDGE NO.: HAM–74–1908R
OVER MILL CREEK, RR &
SPRING GROVE AVENUE

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

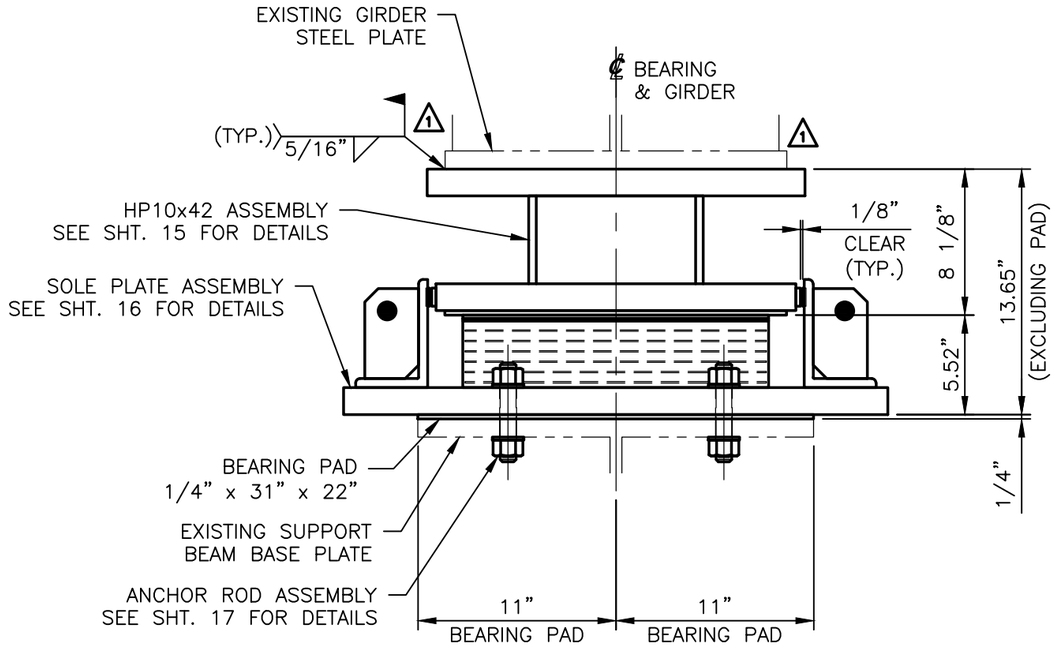
Cosmec
1501 ROCKY RIDGE ROAD
P.O. BOX 2159
ATHENS, TEXAS 75751

PRIME AE, Group, Inc
DATE REC'D: **8/1/2019** BUILDABLE UNIT NO.: **11**
Review conforms that the shop drawings meet the intent of the contract.
☒ CONFORMS AS-IS ☐ CONFORMS AS NOTED ☐ REVISE AND RESEND
1908R - BEARINGS
By: **Conrad Gagnon**
Date: **8/2/2019**

RELEASED FOR FABRICATION
WALSH
By:
Date:

SCALE: NONE	DRAWN BY: MH DATE: 07/15/19	CHECKED BY: ELS DATE: 07/16/19

REV.	DESCRIPTION	BY	DATE	CK'D	DATE	SHEET 13 OF 17	JOB NO.: 15353B2	
1	ADDED AHEAD STATIONING PER APPROVER.	MH	07/26/19	ELS	07/29/19	CUSTOMER WALSH CONSTRUCTION CO. II	DRAWING NUMBER 15353B2–D13	REV. 1



EXPANSION LAMINATED
ELASTOMERIC BEARING ASSEMBLY (REF.: 0033)
AT HINGE SUPPORT – UNIT 6
MARK: EBA14–B
(6) LOCATED AT HINGE 2, UNIT 6
(GIRDERS B3 THRU B8)
(6) REQUIRED

PRIME AE, Group, Inc	RELEASED FOR FABRICATION
DATE REC'D: 8/1/2019 BUILDABLE UNIT NO.: 11	
Review conforms that the shop drawings meet the intent of the contract.	
[X] CONFORMS AS-IS [ ] CONFORMS AS NOTED [ ] REVISE AND RESEND 1908R - BEARINGS	
By: Conrad Gagnon	By:
Date: 8/2/2019	Date:

SEE NOTES ON SHEET GN1 OF 1

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

BRIDGE NO.: HAM–74–1908R
OVER MILL CREEK, RR &
SPRING GROVE AVENUE

HAM–75–3.84
CITY OF CINCINNATI

STATE	COUNTY	PID NO.
OH	HAMILTON	104667

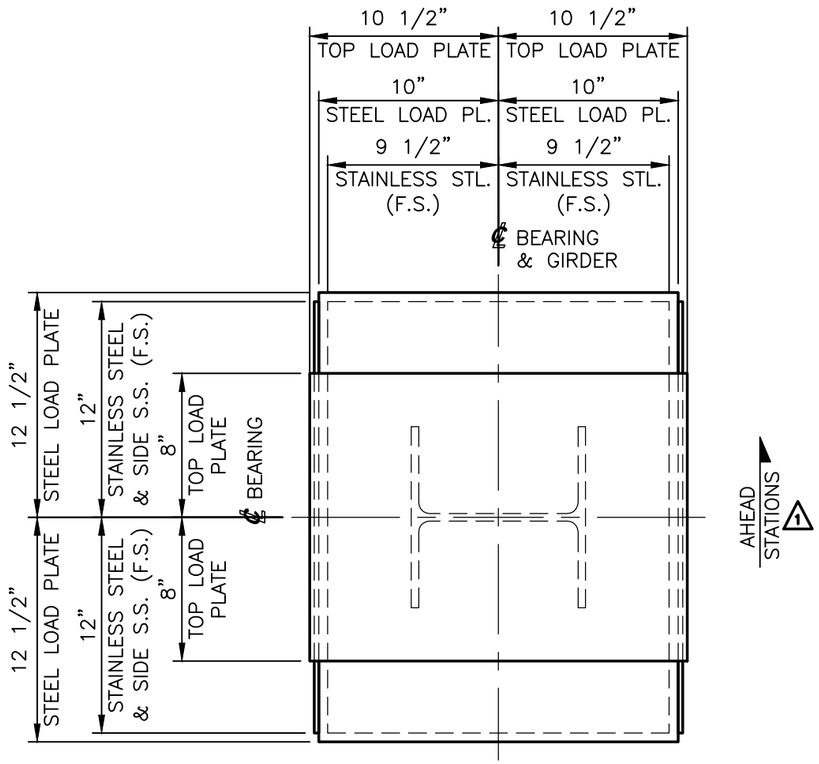
FED. PROJ. NO.: E170 (713)

DYNAMIC RUBBER
LAM. ELASTOMERIC BEARING ASSY.'S

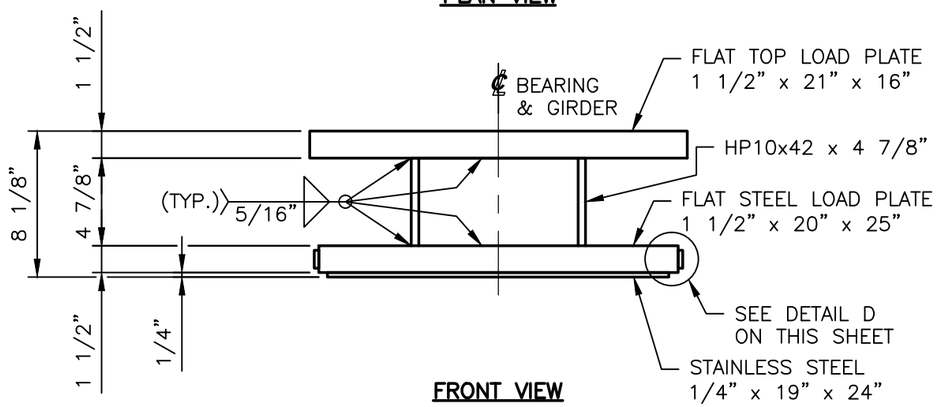
Cosmec
1501 ROCKY RIDGE ROAD
P.O. BOX 2159
ATHENS, TEXAS 75751

REV.	DESCRIPTION	BY	DATE	CK'D	DATE
1	REVISED EXISTING GIRDER PLATE PER APPROVER NOTATIONS.	MH	07/26/19	ELS	07/29/19

SCALE: NONE	DRAWN BY: MH	CHECKED BY: ELS
	DATE: 07/15/19	DATE: 07/16/19
SHEET 14 OF 17	JOB NO.: 15353B2	
CUSTOMER WALSH CONSTRUCTION CO. II	DRAWING NUMBER 15353B2–D14	REV. 1

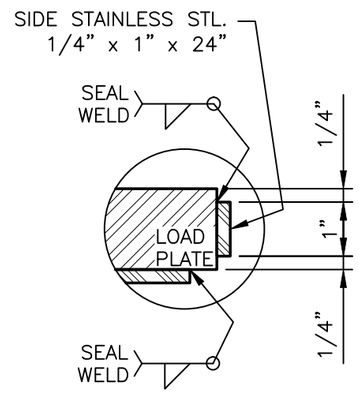


PLAN VIEW

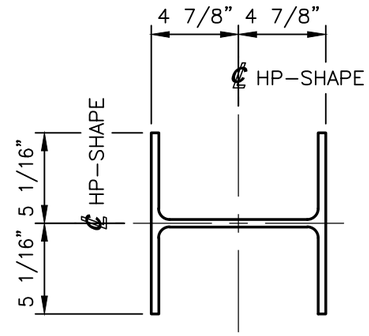


FRONT VIEW

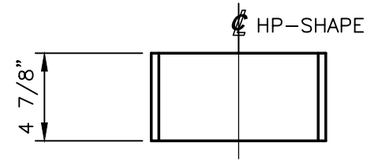
HP10x42 ASSEMBLY DETAIL
MARK: EBA14–B
(6) LOCATED AT HINGE 2, UNIT 6
(GIRDERS B3 THRU B8)
(6) REQUIRED



DETAIL D



PLAN VIEW



ELEVATION VIEW

FLAT HP10x42
(6) REQUIRED

SEE NOTES ON SHEET GN1 OF 1

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

BRIDGE NO.: HAM–74–1908R
OVER MILL CREEK, RR &
SPRING GROVE AVENUE

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

PRIME AE, Group, Inc

DATE REC'D: **8/1/2019** BUILDABLE UNIT NO.: **11**

Review conforms that the shop drawings meet the intent of the contract.

☒ CONFORMS AS-IS ☐ CONFORMS AS NOTED
☐ REVISE AND RESEND

1908R - BEARINGS

By: **Conrad Gagnon**
Date: **8/2/2019**

RELEASED FOR FABRICATION

WALSH

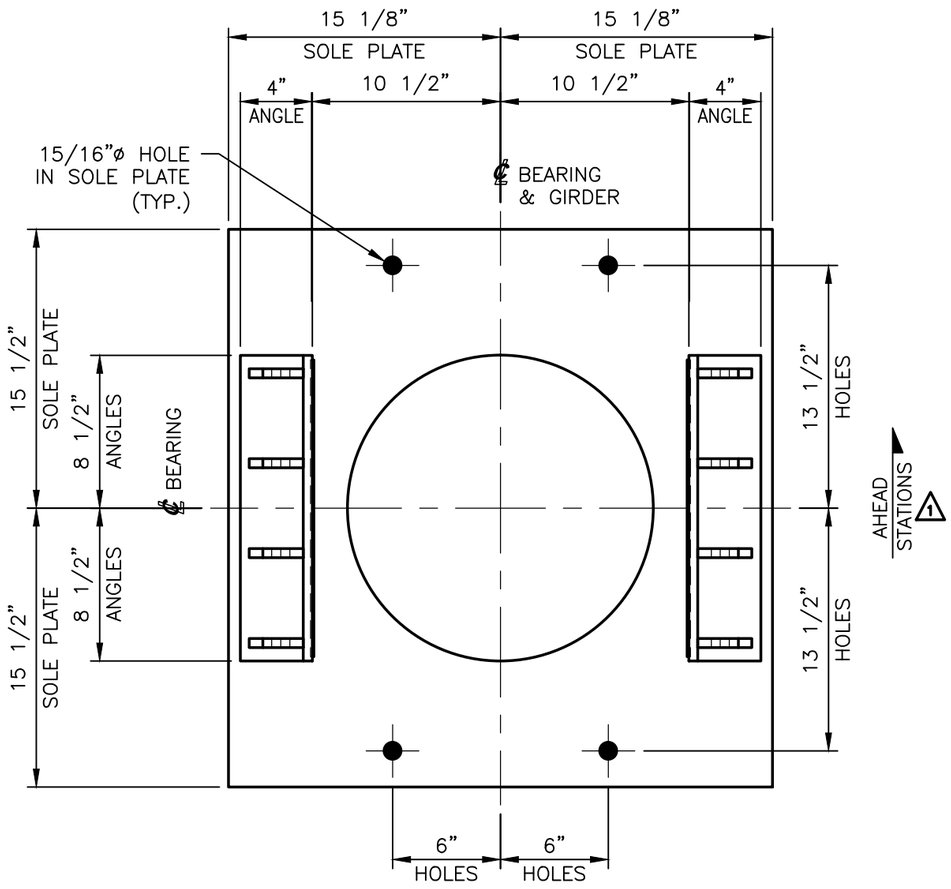
By:
Date:

SCALE: NONE | DRAWN BY: MH DATE: 07/15/19 | CHECKED BY: ELS DATE: 07/16/19

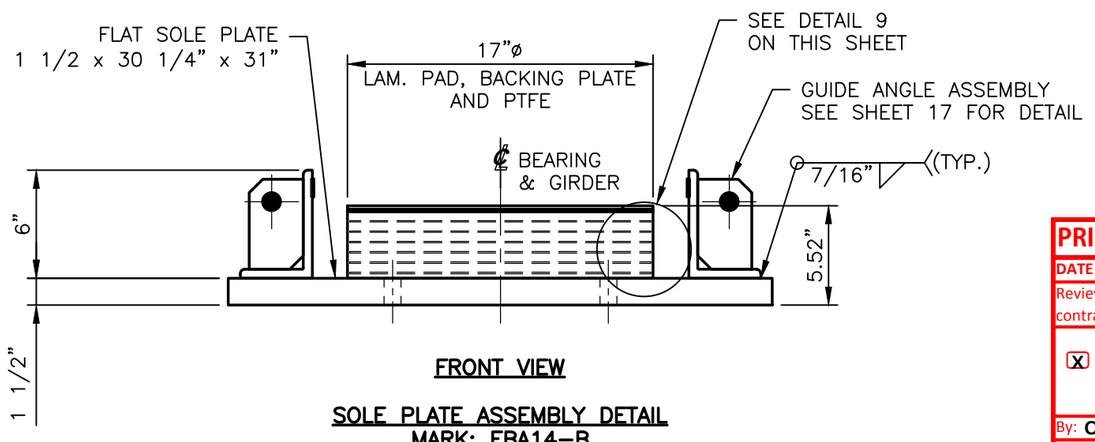
REV.	DESCRIPTION	BY	DATE	CK'D	DATE
1	ADDED AHEAD STATIONING PER APPROVER.	MH	07/26/19	ELS	07/29/19

SHEET 15 OF 17 | JOB NO.: 15353B2

CUSTOMER: WALSH CONSTRUCTION CO. II | DRAWING NUMBER: 15353B2–D15 | REV. 1

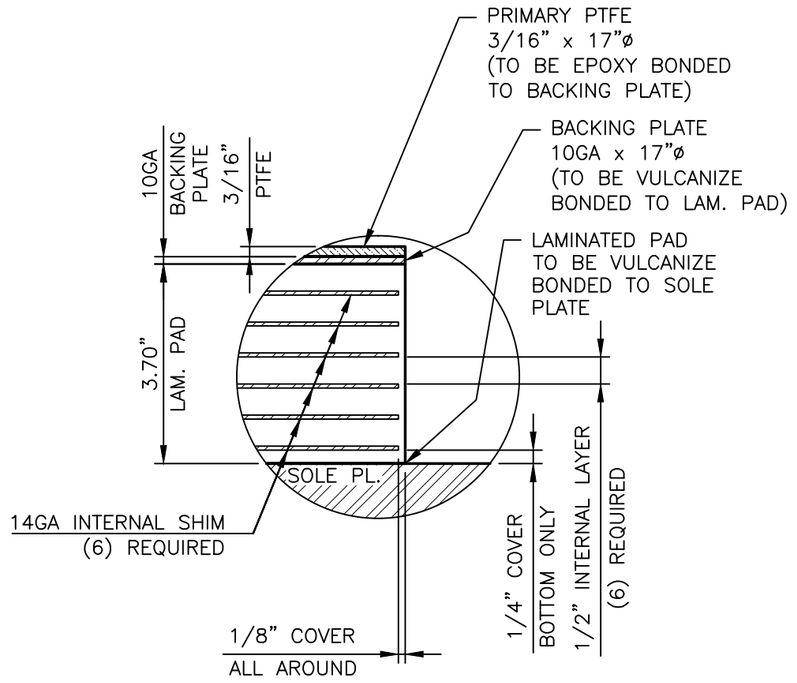


PLAN VIEW



FRONT VIEW

SOLE PLATE ASSEMBLY DETAIL
MARK: EBA14–B
(6) LOCATED AT HINGE 2, UNIT 6
(GIRDERS B3 THRU B8)
(6) REQUIRED



DETAIL 9
3.70" x 17"ø LAMINATED PAD
50 DUROMETER GRADE 3 NEOPRENE
VULCANIZE BONDED TO SOLE & BACKING PLATES
(6) REQUIRED

UNFACTORED ELASTOMERIC BEARING LOADS	
DEAD LOAD	37 KIPS
LIVE LOAD	49 KIPS
TOTAL LOAD (DL+LL)	86 KIPS

SEE NOTES ON SHEET GN1 OF 1

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

BRIDGE NO.: HAM–74–1908R
OVER MILL CREEK, RR &
SPRING GROVE AVENUE

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

PRIME AE, Group, Inc
DATE REC'D: 8/1/2019 BUILDABLE UNIT NO.: 11
Review conforms that the shop drawings meet the intent of the contract.
[X] CONFORMS AS-IS [ ] CONFORMS AS NOTED
[ ] REVISE AND RESEND
1908R - BEARINGS
By: Conrad Gagnon
Date: 8/2/2019

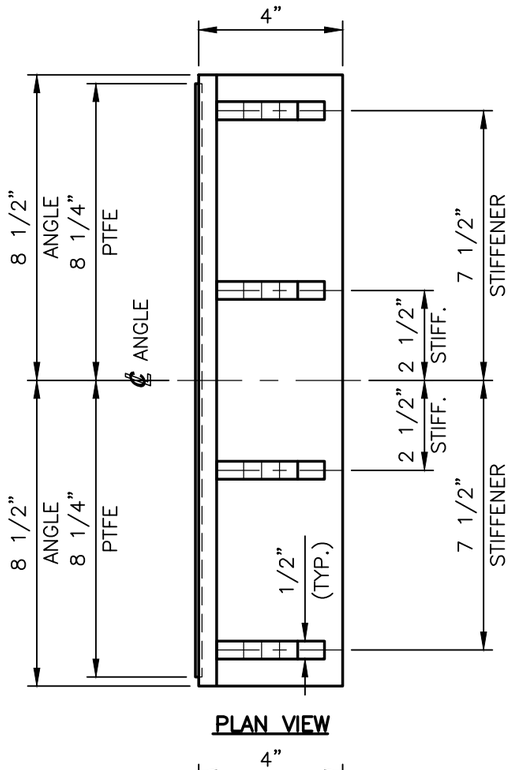
RELEASED FOR FABRICATION
WALSH
By:
Date:

SCALE: NONE	DRAWN BY: MH	CHECKED BY: ELS
	DATE: 07/15/19	DATE: 07/16/19

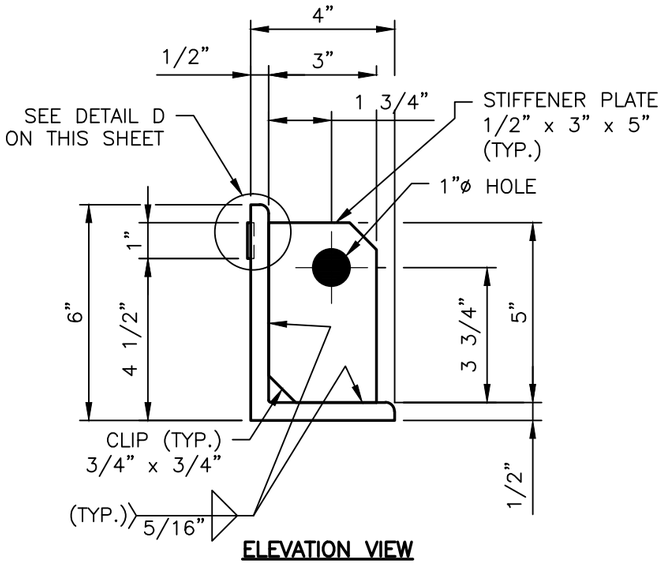
REV.	DESCRIPTION	BY	DATE	CK'D	DATE
1	ADDED AHEAD STATIONING PER APPROVER.	MH	07/26/19	ELS	07/19/19

SHEET 16 OF 17 JOB NO.: 15353B2

CUSTOMER: WALSH CONSTRUCTION CO. II
DRAWING NUMBER: 15353B2–D16 REV. 1



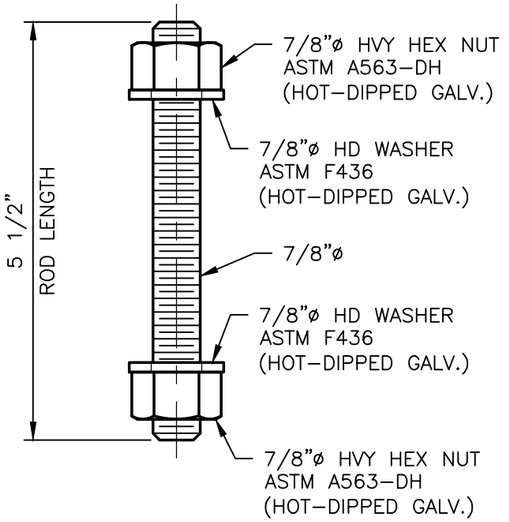
PLAN VIEW



ELEVATION VIEW

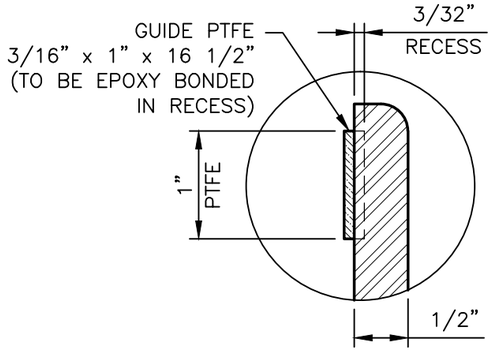
GUIDE ANGLE DETAIL

∠6" x 4" x 1/2" x 17" LONG
ASTM A709 GRADE 50 (METALIZED)
(8) LOCATED AT EBA13–B
(12) LOCATED AT EBA14–B
(20) REQUIRED



ALL–THREAD ANCHOR ROD ASSEMBLY
MARK: AB4–B

ROD: 7/8"ø x 5 1/2" LONG
ASTM F1554 GRADE 55 (HOT–DIPPED GALV.)
(16) LOCATED AT HINGE 1, UNIT 2
(GIRDERS G4–U2, G7–U2, G10–U2 & G13–U2)
(24) LOCATED AT HINGE 2, UNIT 6
(GIRDERS B3 THRU B8)
(40) REQUIRED



DETAIL D

SEE NOTES ON SHEET GN1 OF 1

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

BRIDGE NO.: HAM–74–1908R
OVER MILL CREEK, RR &
SPRING GROVE AVENUE

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: 07/15/19	DATE: 07/16/19	
SHEET 17 OF 17	JOB NO.: 15353B2		
CUSTOMER: WALSH CONSTRUCTION CO. II	DRAWING NUMBER: 15353B2–D17	REV. 0	

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

PRIME AE, Group, Inc
DATE REC'D: 8/1/2019 BUILDABLE UNIT NO.: 11
Review conforms that the shop drawings meet the intent of the contract.
☒ CONFORMS AS-IS ☐ CONFORMS AS NOTED
☐ REVISE AND RESEND
1908R - BEARINGS
By: Conrad Gagnon
Date: 8/2/2019

RELEASED FOR FABRICATION
WALSH
By:
Date:

based on 33'-11½" from phase I

31'-7¾" based on 33'-11½" from phase I comments (Toe curb/Toe curb is 65'-7¼")

~PLAN VIEW~
ABUT. #1

PHASE II ◁ ▷ PHASE III

CURB LINE

Revise

Revise

5° 3' 31" Bend

Phase 3 line on Deck side is 4'-11⅞" from G3.

Deck + Haunch:
15.59" (G2)
16.54" (G3)
17.61" (G4)
18.37" (G5)
19.23" (G6)

assumed

Dim = 15.59 - 1¾" = 13.84" (G2)
16.54 - 1¾ = 14.79" (G3)
17.61 - 1¾ = 15.86" (G4)
18.37 - 1¾ = 16.62" (G5)

VIEW "A-A"
1-REQ'D. AS SHOWN (14EJ113)

VIEW "B-B"
1-REQ'D. AS SHOWN (14EJ214)

Shouldn't this be 4'-3" to make 9'-1¼" btwn G5 & G6

4'-9⅛" from prev. comments

PRIME AE, Group, Inc

DATE REC'D: 3/10/2020 BUILDABLE UNIT NO.: 11

Review conforms that the shop drawings meet the intent of the contract.

STATE OF OHIO Kelly D. Chrisman E-68020 REGISTERED PROFESSIONAL ENGINEER

RELEASED FOR FABRICATION

WALSH

☐ CONFORMS AS-IS	☒ CONFORMS AS NOTED	By: Kelly Chrisman	By:
☐ INCOMPLETE	☐ DOES NOT CONFORM	Date: 3/10/2020	Date:

O.D.O.T. PROJ. 3000-18
COUNTY: HAMILTON
BRIDGE No. HAM-74-1908R
REF. No.

100 Highland Drive, Suite 9
Medina, Ohio 44256-9160
Office: (330) 721-0131
Fax: (330) 721-0151
E-mail: contact@marbri.net

NO.	BY	DATE	
1	RMS	3-9-20	FABRICATOR
			PROJECT O.D.O.T. PROJ. 3000-18
			CONTRACTOR WALSH CONSTRUCTION
			LOCATION HAMILTON COUNTY
			DESCRIPTION EXP. JOINT DETAILS - ABUT. #1 PHASE II & III
			DETAILED R.M.S. DATE 3-4-20
			CHECKED R.M.S. DATE 3-9-20
			FINISH METALIZED

JOB NUMBER 3000
DRAWING NO. 14

PREPARER: MARK STUCKY (RMS - MARBRI)

CHECKER: KELLY D CHRISMAN (KDC - PRIME AE)

PHASE 2 | PHASE 3

~PLAN VIEW~
(HINGE #1)

VIEW "A-A"
1-REQ'D. EA. (13EJ1 & 3)

VIEW "B-B"
1-REQ'D. EA. (13EJ2 & 4)

- not needed

O.D.O.T. PROJ. 3000-18
COUNTY: HAMILTON
BRIDGE No. HAM-75-1908R
REF. No.

PRIME AE, Group, Inc

DATE REC'D: 2/26/2020 BUILDABLE UNIT NO.: 11

Review conforms that the shop drawings meet the intent of the contract.

STATE OF OHIO — Kelly D. Chrisman E-68020 — REGISTERED PROFESSIONAL ENGINEER

RELEASED FOR FABRICATION

WALSH

☐ CONFORMS AS-IS	☒ CONFORMS AS NOTED	By: Kelly Chrisman	By:
☐ INCOMPLETE	☐ DOES NOT CONFORM	Date: 2/28/2020	Date:

PREPARER: MARK STUCKY (RMS - MARBRI)

CHECKER: KELLY D CHRISMAN (KDC - PRIME AE)

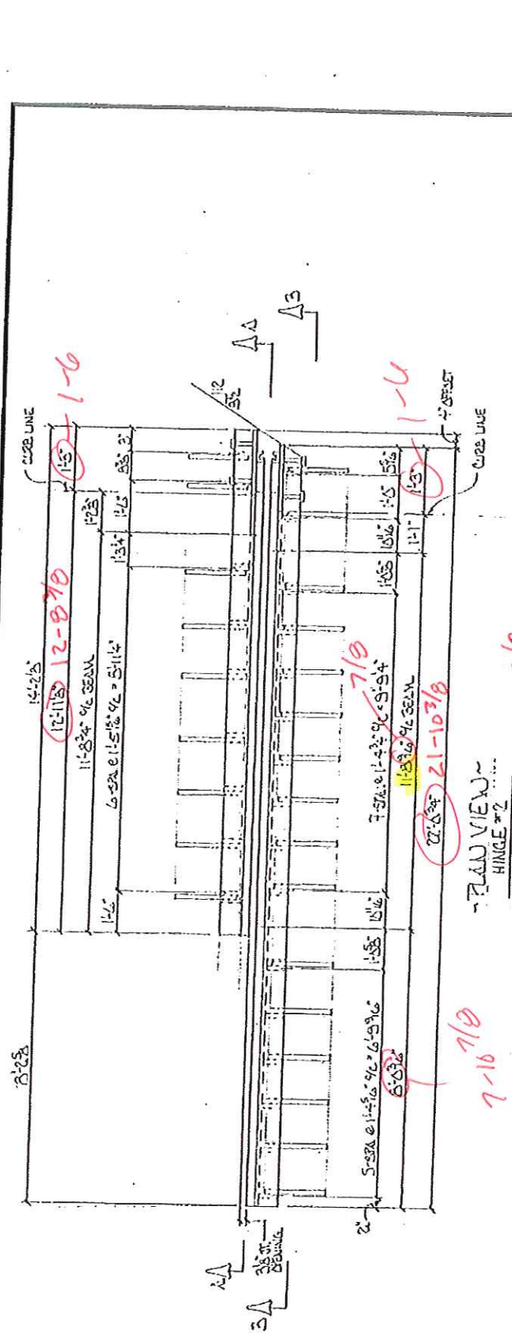
MARBRI
799 North Court Street, Suite 9
Medina, Ohio 44256
Office: (330) 721-0131
Fax: (330) 721-0161
E-mail: contact@marbri.net

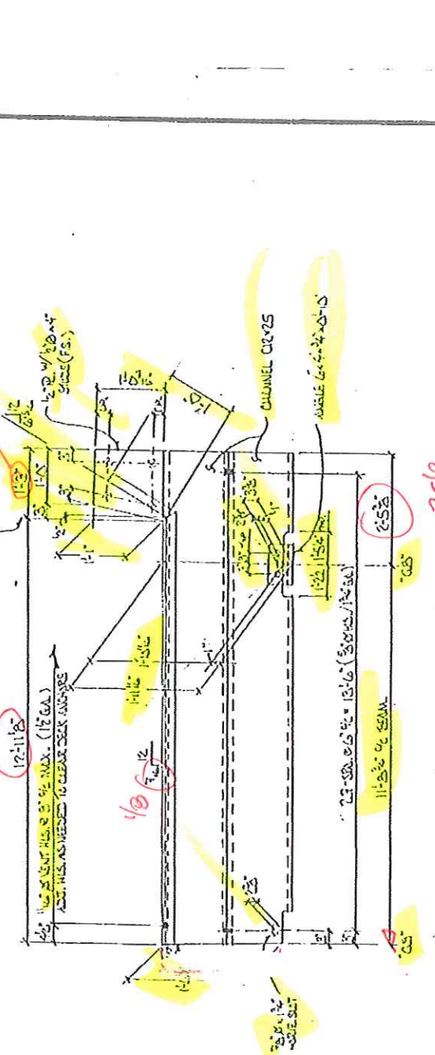
NO.	USE	DATE	FABRICATOR
1	APP	2.26.20	

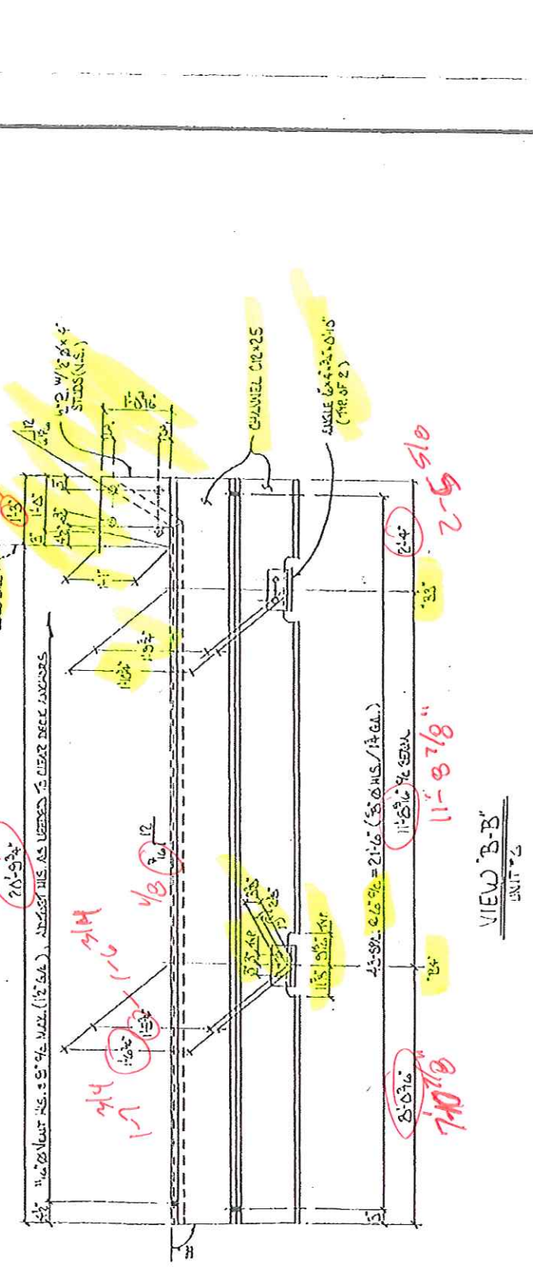
PROJECT O.D.O.T. PROJ. 3000-18
CONTRACTOR WALSH CONSTRUCTION
LOCATION HAMILTON COUNTY
DESCRIPTION PHASE 2 & 3 / HINGE #1

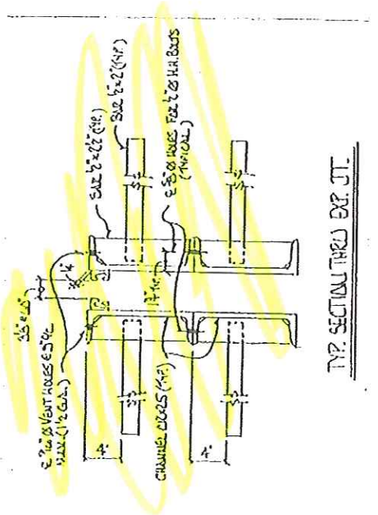
DETAILED A.D.S. DATE 2-26-20
CHECKED R.M.S. DATE 2-26-20
FINISH METALIZED

JOB NUMBER 3000
DRAWING NO. 13









Curb to curb = 62'-7 3/8"

Phase 1 U2 = 49-11

" U6 = 42-0

U2 P2 = 62'-7 3/8" - 49'-11" = 12-8 3/8"

U6 P2 = 62-7 3/8" - 42-0" = 20-7 3/8"

PREPARER: MARK STUCKY (RMS - MARBRI)

CHECKER: KELLY D CHRISMAN (KDC - PRIME AE)

PRIME AE, Group, Inc

DATE REC'D:	4/7/2020	BUILDABLE UNIT NO.:	11

Review conforms that the shop drawings meet the intent of the contract.

☐ CONFORMS AS-IS	☒ CONFORMS AS NOTED	By: Kelly Chrisman	By:
☐ INCOMPLETE	☐ DOES NOT CONFORM	Date: 4/10/2020	Date:

STATE OF OHIO — Kelly D. Chrisman E-68020 — REGISTERED PROFESSIONAL ENGINEER

RELEASED FOR FABRICATION

WALSH

O.D.O.T. PROJ.: 3000-18

COUNTY: HAMILTON

BRIDGE №: HAM-75-1908R

REF. №:

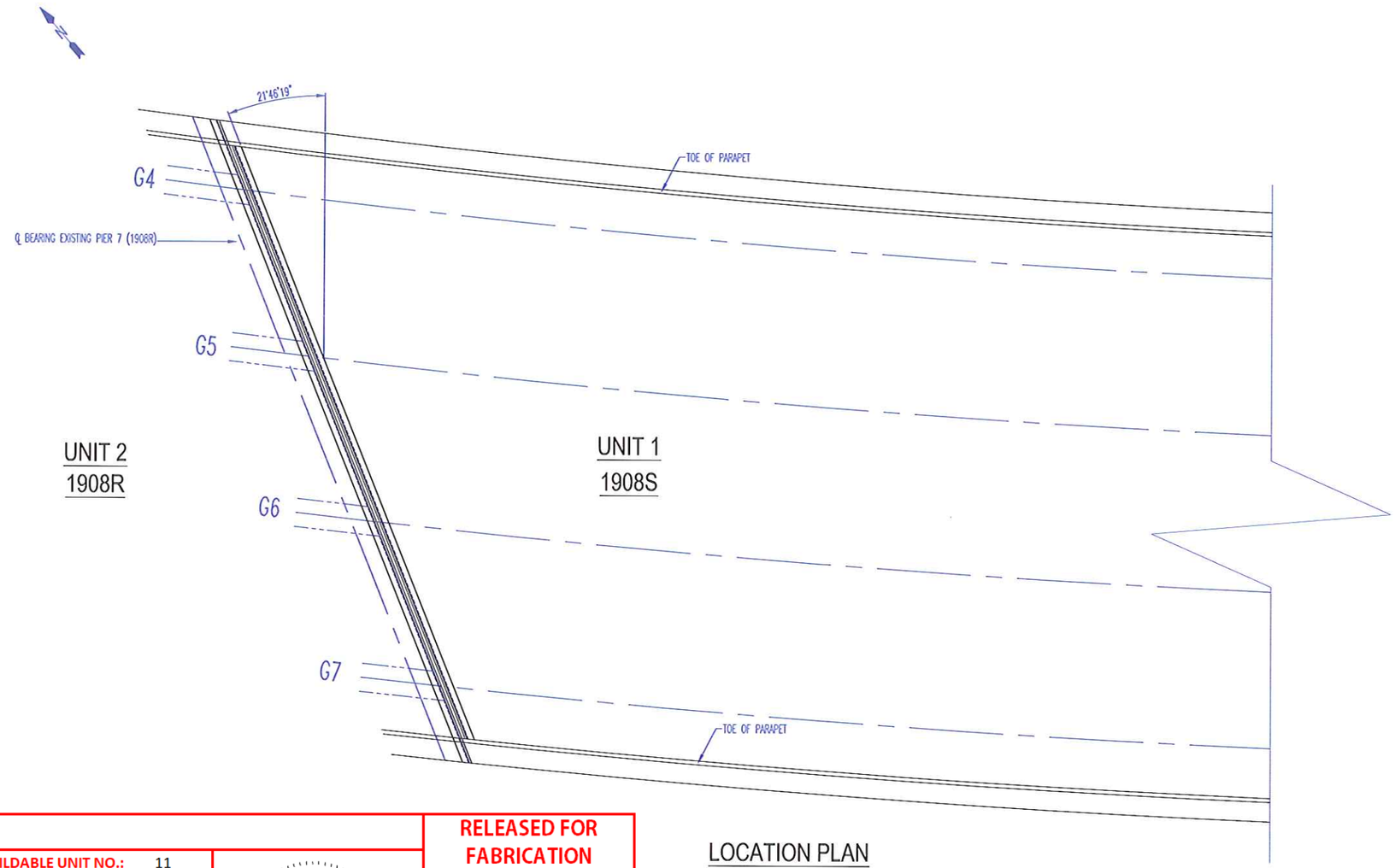
MARBRI
7990 North Coast Street, Suite 9
Medina, Ohio 44256-3160
Office (330) 721-0131
Fax (330) 721-0151
Email mail@marbri.net

NO.	BY	DATE	DESCRIPTION
1	MB	4-6-20	

PROJECT O.D.O.T. PROJ. 3000-18
OWNER WALSH CONSTRUCTION
LOCATION HAMILTON COUNTY
DRAWING EXP. JT. DETAILS - HINGE #2 PHASE 2
DESIGNED RMS. DATE 3-30-20
DRAWN RMS. DATE 4-6-20
CHECKED METALIZED

DRAWING NO. 2MO

SHEET NO. 15



LOCATION PLAN

PRIME AE, Group, Inc

DATE REC'D: 4/15/2020 **BUILDABLE UNIT NO.:** 11

Review conforms that the shop drawings meet the intent of the contract.

STATE OF OHIO
Kelly D. Chrisman
E-68020
REGISTERED
PROFESSIONAL ENGINEER

RELEASED FOR FABRICATION

WALSH

[X] CONFORMS AS-IS	[ ] CONFORMS AS NOTED	By: Kelly Chrisman	By:
[ ] INCOMPLETE	[ ] DOES NOT CONFORM	Date: 4/20/2020	Date:

PREPARER: MAT IANNARELLI (MI - OHIO STRUCTURES)

CHECKER: KELLY D CHRISMAN (KDC - PRIME AE)

NOTES:

SEE SHEET 2 FOR EXPANSION JOINT DETAILS
SEE SHEET 5 FOR GENERAL NOTES & BILL OF MATERIAL

AISC CERTIFIED FABRICATOR

BRIDGE - INTERMEDIATE (MAJOR)
FRACTURE CRITICAL ENDORSEMENT
SOPHISTICATED PAINT ENDORSEMENT

REV. No.	REVISION

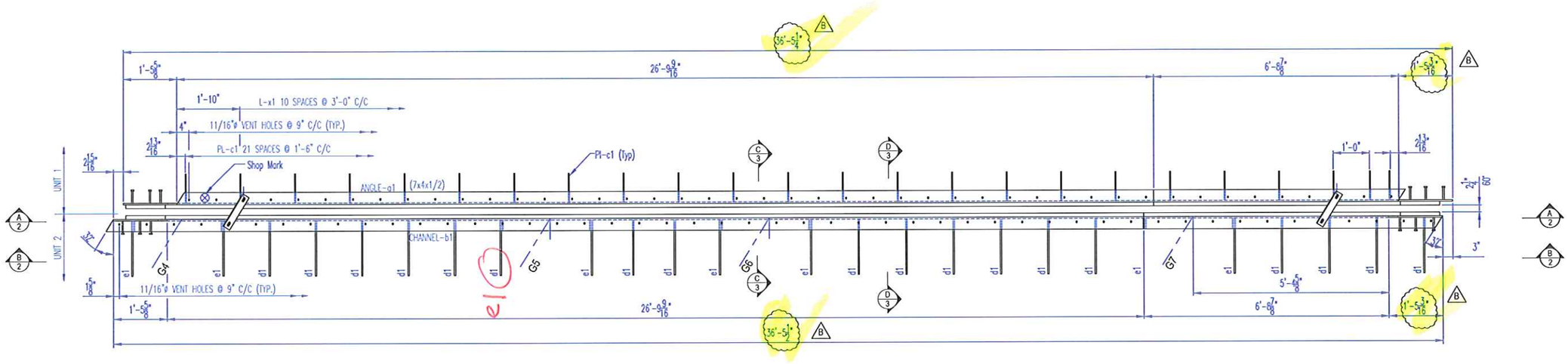
SHOP INSPECTED BY:

APPROVAL

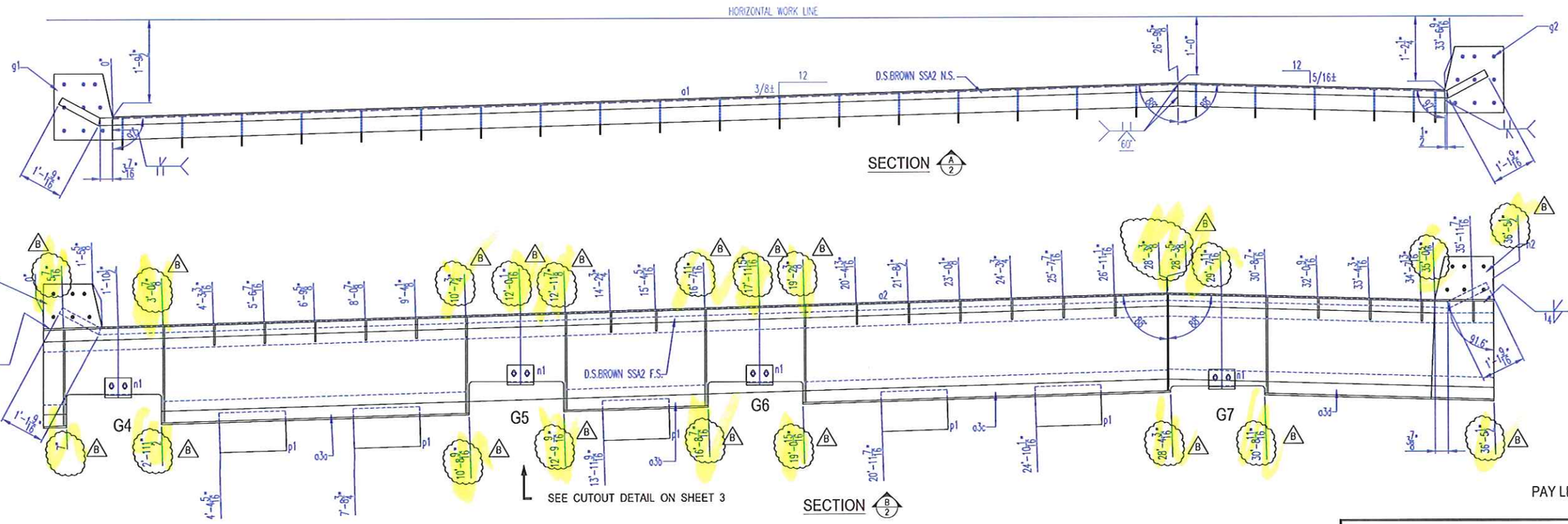
OHIO STRUCTURES INC.
4030 BOARDMAN- CANFIELD RD. SUITE 200D
CANFIELD, OHIO 44406
(330) 533-0084 FAX: (330) 533-0191

OHIO DEPARTMENT OF TRANSPORTATION
BRIDGE: HAM-74-1908R
IR-74 OVER MILLCREEK, RR & SPRING GROVE AVE

SCALE: N.T.S.	WALSH CONSTRUCTION	DRAWN: LF
DATE: 4/20	LOCATION PLAN 1908R PIER 7 UNIT 2	CHECK: MI
REF NO.: 0033		ITEM NO.: 516
ODOT PROJ. NO.: 183000	HAMILTON COUNTY	DWG. NO.: E1
OSI PROJ. NO.: 00-18	PID NO.: 104667 SFN: 3115739	1 OF 5



PIER 7 - EXPANSION JOINT - 1908R



AISC CERTIFIED FABRICATOR

BRIDGE - INTERMEDIATE (MAJOR)
FRACTURE CRITICAL ENDORSEMENT
SOPHISTICATED PAINT ENDORSEMENT

APPROVAL

OHIO STRUCTURES INC.
4030 BOARDMAN- CANFIELD RD. SUITE 200D
CANFIELD, OHIO 44406
(330) 533-0084 FAX: (330) 533-0191

OHIO DEPARTMENT OF TRANSPORTATION
BRIDGE: HAM-74-1908R
IR-74 OVER MILLCREEK, RR & SPRING GROVE AVE

SCALE: N.T.S.	WALSH CONSTRUCTION	DRAWN: LF
DATE: 4/20		CHECK: MI
PIER 7 UNIT 2 EXPANSION JOINT 1908R		
REF NO.: 0033		ITEM NO.: 516
ODOT PROJ. NO.: 183000	HAMILTON COUNTY	DWG. NO.: D1
OSI PROJ. NO.: 00-18	PID NO.: 104667 SFN: 3115739	2 OF 5

PREPARER: MI

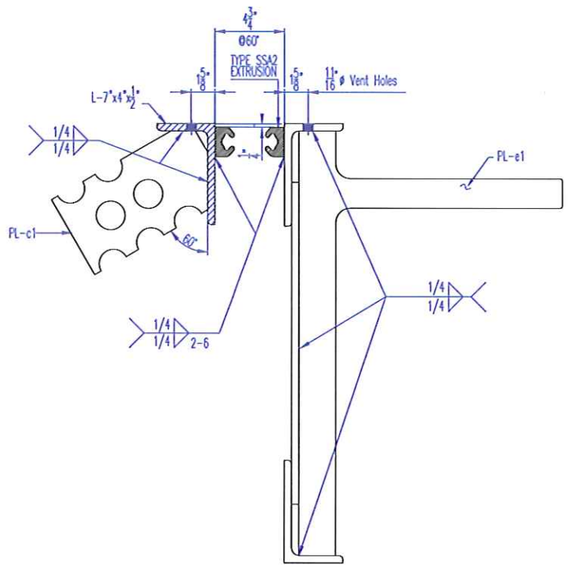
CHECKER: KDC

NOTES:

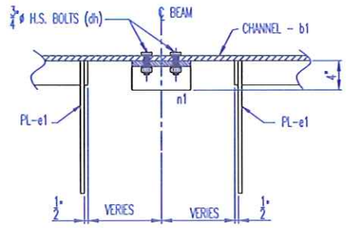
SEE SHEET 1 FOR EXPANSION JOINT LOCATION PLAN
SEE SHEET 3 FOR SECTION VIEWS, DETAILS
SEE SHEET 4 FOR CHANNEL b 1 DETAILS
SEE SHEET 5 FOR DETAILS, GENERAL NOTES & BILL OF MATERIAL

REV. No.	REVISION
B	REVISED PER CONTRACTORS REVIEW 4/20/20

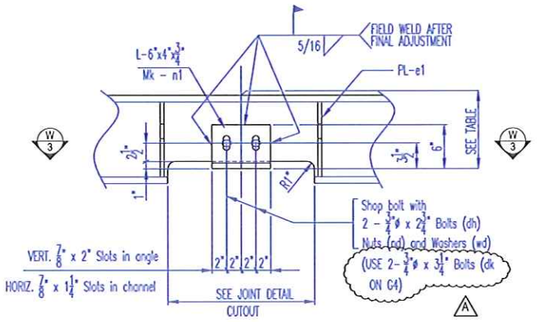
SHOP INSPECTED BY:



SECTION C/2

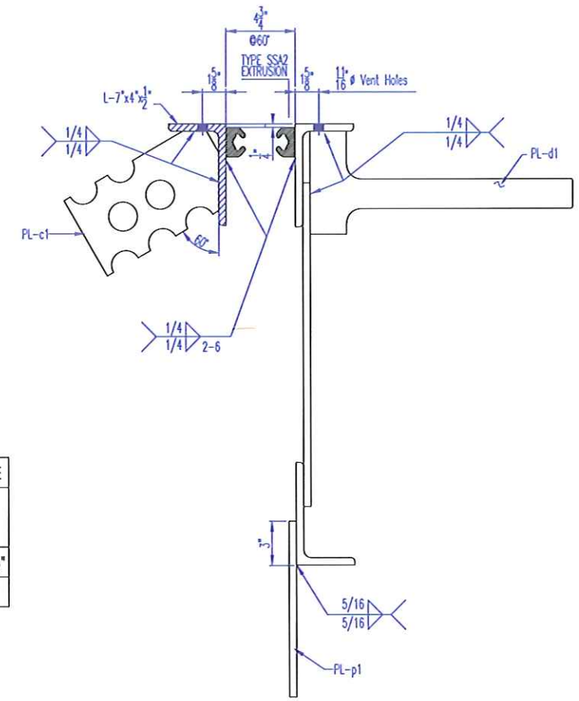


SECTION W/3

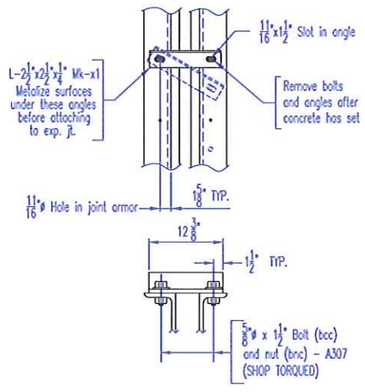


DETAIL 1

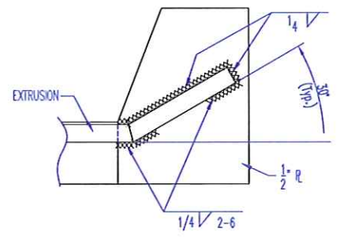
HAUNCH TABLE	
G4	1'-9 1/2"
G5	1'-9 7/16"
G6	1'-11 11/16"
G7	2'-4 11/16"



SECTION D/2



SHIPPING ANGLE DETAIL



PARAPET PL DETAIL

PREPARER: MI

CHECKER: KDC

NOTES:

SEE SHEET 1 FOR EXPANSION JOINT LOCATION PLAN
SEE SHEET 2 FOR EXPANSION JOINT DETAILS
SEE SHEET 5 FOR GENERAL NOTES & BILL OF MATERIAL

AISC CERTIFIED FABRICATOR

BRIDGE - INTERMEDIATE (MAJOR)
FRACTURE CRITICAL ENDORSEMENT
SOPHISTICATED PAINT ENDORSEMENT

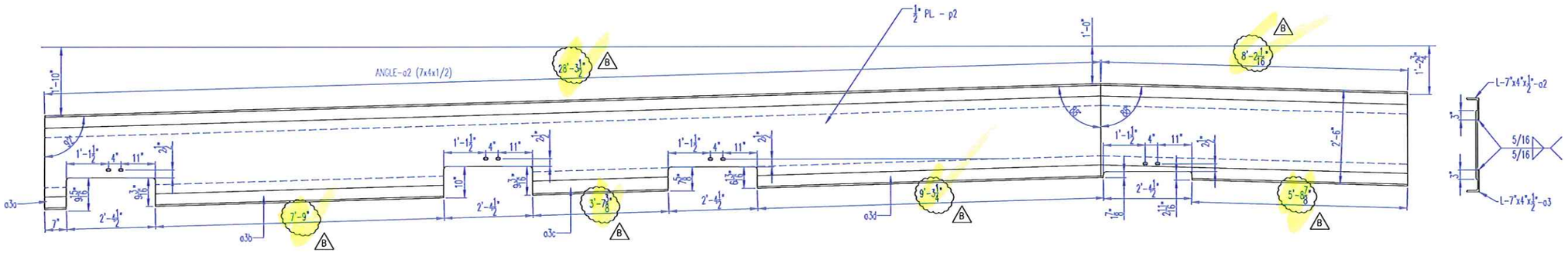
REV. No.	REVISION
A	ADJUST BOLT LENGTH 4/15/20
SHOP INSPECTED BY:	

APPROVAL

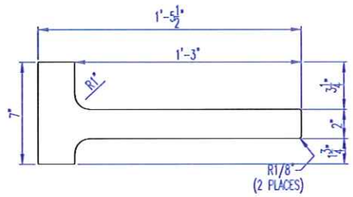
OHIO STRUCTURES INC.
4030 BOARDMAN- CANFIELD RD. SUITE 200D
CANFIELD, OHIO 44406
(330) 533-0084 FAX: (330) 533-0191

OHIO DEPARTMENT OF TRANSPORTATION
BRIDGE: HAM-74-1908R
IR-74 OVER MILLCREEK, RR & SPRING GROVE AVE

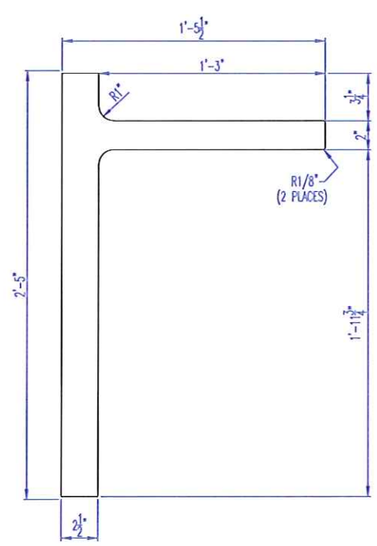
SCALE: N.T.S.	WALSH CONSTRUCTION	DRAWN: LF
DATE: 4/20		CHECK: MI
SECTION VIEWS, DETAILS		
REF NO.: 0033		ITEM NO.: 516
ODOT PROJ. NO.: 183000	HAMILTON COUNTY	DWG. NO.: D2
OSI PROJ. NO.: 00-18	PID NO.: 104667 SFN: 3115739	3 OF 5



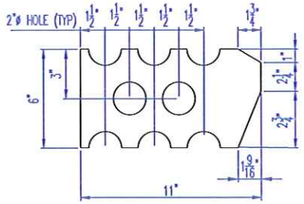
DETAILS CHANNEL - b1



DETAIL d1
MATERIAL: 1/2" PL.
QUANTITY:17



DETAIL e1
MATERIAL: 1/2" PL.
QUANTITY:8



DETAIL PL-c1
MATERIAL: 3/8" PL.
QUANTITY:24

PREPARER: MI

CHECKER: KDC

NOTES:
SEE SHEET 5 FOR DETAILS, GENERAL NOTES & BILL OF MATERIAL

AISC CERTIFIED FABRICATOR

BRIDGE - INTERMEDIATE (MAJOR)
FRACTURE CRITICAL ENDORSEMENT
SOPHISTICATED PAINT ENDORSEMENT

REV. No.	REVISION
B	REVISED PER CONTRACTORS REVIEW 4/20/20

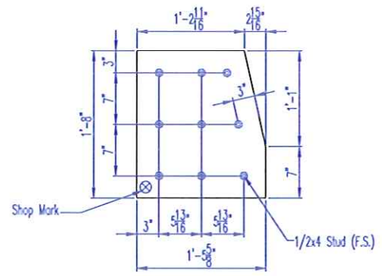
SHOP INSPECTED BY:

APPROVAL

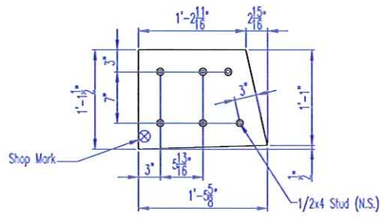
OHIO STRUCTURES INC.
4030 BOARDMAN- CANFIELD RD. SUITE 200D
CANFIELD, OHIO 44406
(330) 533-0084 FAX: (330) 533-0191

OHIO DEPARTMENT OF TRANSPORTATION
BRIDGE: HAM-74-1908R
IR-74 OVER MILLCREEK, RR & SPRING GROVE AVE

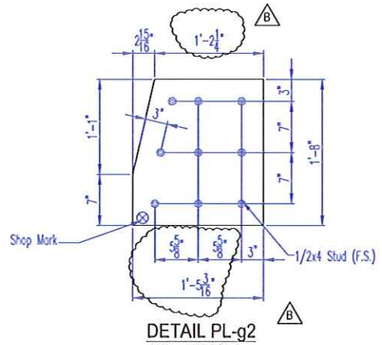
SCALE: N.T.S.	WALSH CONSTRUCTION	DRAWN: LF
DATE: 4/20		CHECK: MI
DETAILS CHANNEL b1		ITEM NO.: 516
REF NO.: 0033		
ODOT PROJ. NO.: 183000	HAMILTON COUNTY	DWG. NO.: D3
OSI PROJ. NO.: 00-18	PID NO.: 104667 SFN: 3115739	4 OF 5



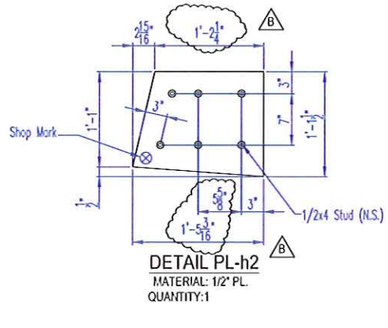
DETAIL PL-g1
MATERIAL: 1/2" PL.
QUANTITY:1



DETAIL PL-h1
MATERIAL: 1/2" PL.
QUANTITY:1



DETAIL PL-g2
MATERIAL: 1/2" PL.
QUANTITY:1



DETAIL PL-h2
MATERIAL: 1/2" PL.
QUANTITY:1

ODOT DOT PROJECT : 183000	PID NO.: 104667	OSI PROJ. #: 00-18	REF #:1	ITEM #: 516

1908R PIER 7 UNIT 2 EXPANSION JOINT

MATERIALS ONLY:

	LINE	PO#	QTY	MARK	SECTION	LENGTH (FEET)	LENGTH (INCHES)	STL SPEC	PC WT (IN LBS)	NET WT (IN LBS)	HEAT #	REMARKS
	1		1	a1	ANGLE 7x4x1/2	33	9	A709-50	604.13	604.13		
A	2		1	a2	ANGLE 7x4x1/2	36	5 1/2	A709-50	652.60	652.60		
A	3		1	a3a	ANGLE 7x4x1/2	0	7	A709-50	10.44	10.44		
A	4		1	a3b	ANGLE 7x4x1/2	7	9 1/8	A709-50	138.26	138.26		
A	5		1	a3c	ANGLE 7x4x1/2	3	10 7/8	A709-50	69.92	69.92		
A	6		1	a3d	ANGLE 7x4x1/2	17	4 11/16	A709-50	311.29	311.29		
	7		11	~~	ANGLE 2-1/2x2-1/2x1/4	1	3/8	A709-36	4.23	46.51		SHIPPING
	8		4	n1	ANGLE 6x4x3/4	0	8	A709-50	15.73	62.93		
	9		24	c1	PLATE 3/8 x 6	0	11	A709-36	5.02	120.48		
	10		8	e1	PLATE 1/2 x 29	1	5 1/2	A709-36	14.74	117.92		
	11		17	d1	PLATE 1/2 x 7	1	5 1/2	A709-36	6.94	117.98		
	12		4	p1	PLATE 1/2 20	1	0	A709-50	34.03	136.12		
	13		1	p2	PLATE 1/2 22	36	6 3/8	A709-50	1,355.81	1,355.81		
	14		1	g1	PLATE 1/2 20	1	5 5/8	A709-36	47.28	47.28		
A	15		1	g2	PLATE 1/2 20	1	5 3/16	A709-36	48.64	48.64		
	16		1	h1	PLATE 1/2 13 1/2	1	5 5/8	A709-36	30.35	30.35		
A	17		1	h2	PLATE 1/2 x 13 1/2	1	5 3/16	A709-36	31.67	31.67		
									SUB TOTAL	3,902.34		

HARDWARE ONLY:

LINE		QTY	MARK	DESCRIPTION	STL SPEC	WT PER (IN LBS)	NET WT (IN LBS)	HEAT #	REMARKS
18		30	~~	1/2" x 4" STUD	A108	0.29	8.70		
19		6	dh	3/4x2-3/4 HEX HEAD BOLT	A325 Galv	0.48	2.89		
19		2	dk	3/4x3-1/4 HEX HEAD BOLT	A325 Galv	0.54	1.08		
20		8	nd	3/4 HEAVY HEX NUT	A563 Galv	0.20	1.60		
21		8	wd	3/4 FLAT WASHER	F436 Galv	0.04	0.33		
22		22	bcc	5/8x1-1/2 HEX HEAD BOLT	A307	0.22	4.77		
23		22	bnc	5/8 HEAVY HEX NUT	A307	0.12	2.64		
						SUB TOTAL	22.01		

MISC:

LINE		QTY	MARK	DESCRIPTION	WT PER (IN LBS)	NET WT (IN LBS)	HEAT #	REMARKS
24		3.16	---	SSA2 EXTRUSION (D.S. BROWN) x 23'-0" A709-36	121.90	385.20		
25		* 1	---	3" A2R STRIP SEAL x 37'-0" (D.S. BROWN)	0.00	0.00		
26		* 1	---	GALLON OF GLUE	0.00	0.00		
					SUB TOTAL	385.20		
				* INDICATES AN ITEM THAT WILL BE SHIPPED LOOSE	TOTAL WT	4,309.55		

GENERAL NOTES:

* ALL MATERIAL SHALL BE ASTM A709 GR50/36.
* MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH ODOT-CMS-2019.
* WELDING SHALL BE IN ACCORDANCE WITH AWS/AASHTO D1.5-15 AND ODOT 1011.
* ALL MATERIAL TO BE METALIZED IN CONFORMANCE WITH O.D.O.T. STANDARD DRAWING EXJ-4-87 DATED 7/19/02.
* ALL INFORMATION & DIMENSIONS ARE TO BE APPROVED BY THE CONTRACTOR PRIOR TO COMMENCING FABRICATION.
* GENERAL TOLERANCE ±1/8" UNLESS NOTED.

PREPARER: MI

CHECKER: KDC

NOTES:
SEE SHEET 1 FOR EXPANSION JOINT LOCATION PLAN
SEE SHEET 2 FOR EXPANSION JOINT DETAILS

AISC CERTIFIED FABRICATOR
BRIDGE - INTERMEDIATE (MAJOR)
FRACTURE CRITICAL ENDORSEMENT
SOPHISTICATED PAINT ENDORSEMENT

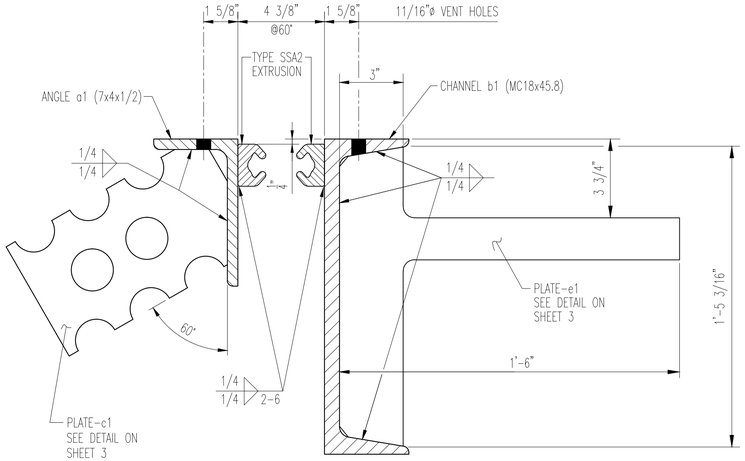
REV. No.	REVISION
B	REVISED PER CONTRACTORS REVIEW 4/20/20
SHOP INSPECTED BY:	

APPROVAL

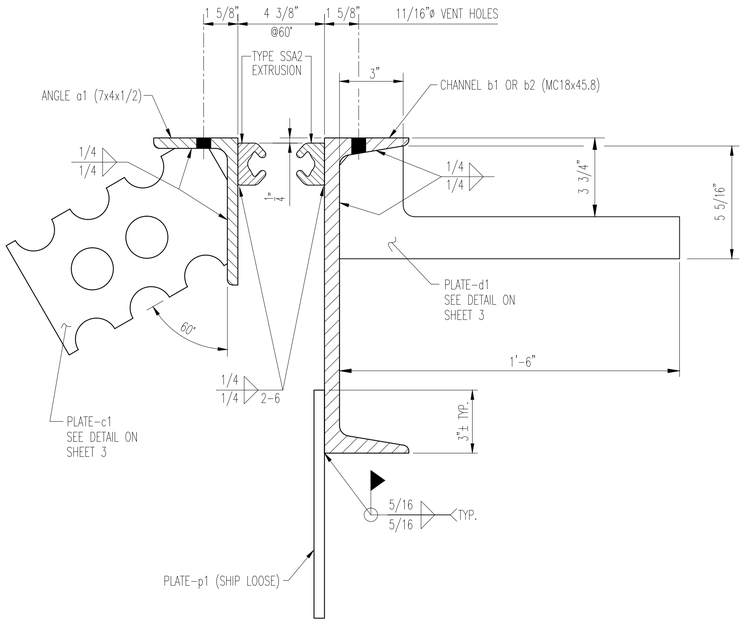
OHIO STRUCTURES INC.
4030 BOARDMAN- CANFIELD RD. SUITE 200D
CANFIELD, OHIO 44406
(330) 533-0084 FAX: (330) 533-0191

OHIO DEPARTMENT OF TRANSPORTATION
BRIDGE: HAM-74-1908R
IR-74 OVER MILLCREEK, RR & SPRING GROVE AVE

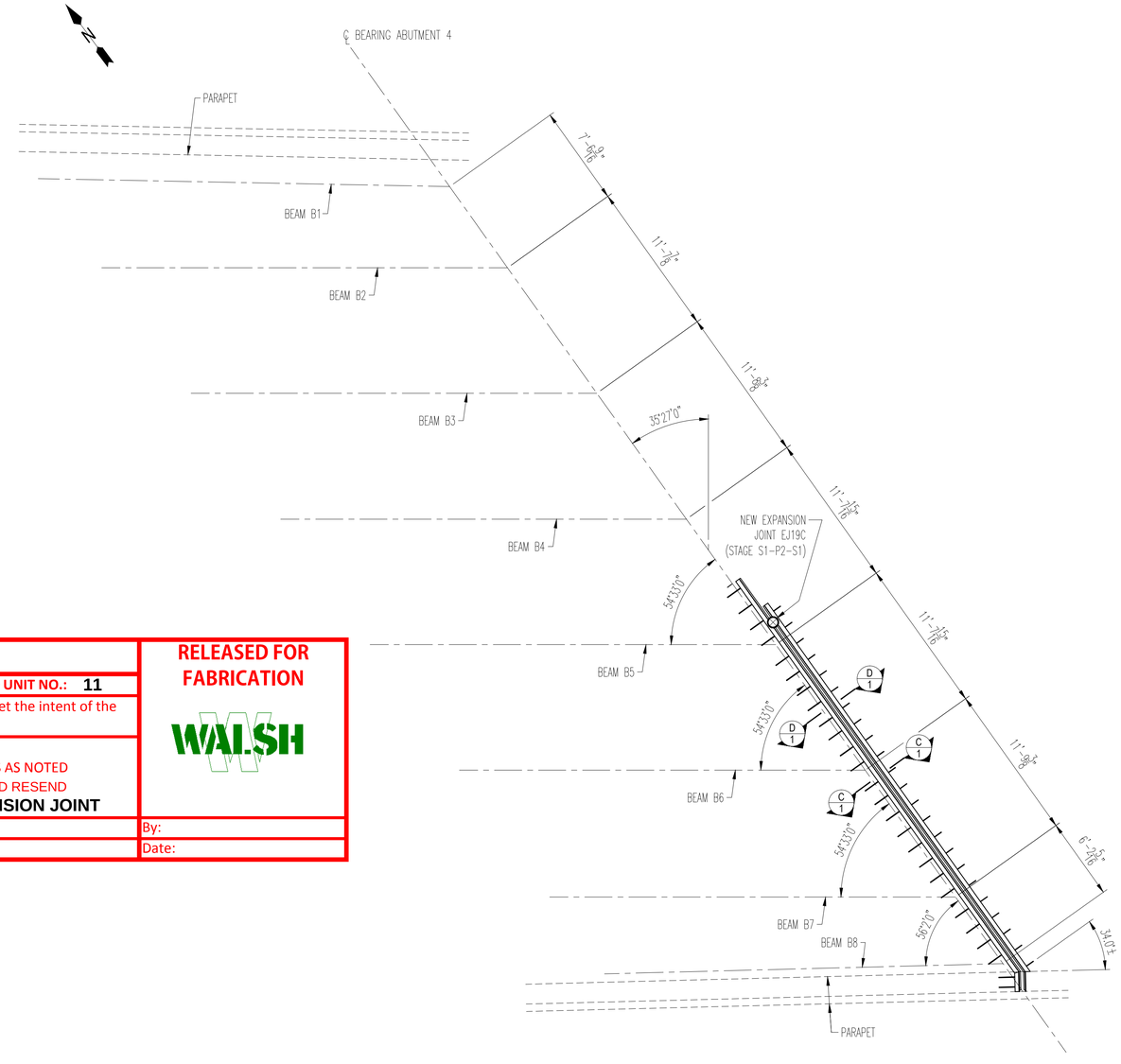
SCALE: N.T.S.	WALSH CONSTRUCTION	DRAWN: LF
DATE: 4/20		CHECK: MI
DETAILS, GENERAL NOTES, MATERISL LIST		
REF NO.: 1		ITEM NO.: 516
ODOT PROJ. NO.: 183000	HAMILTON COUNTY	DWG. NO.: D4
OSI PROJ. NO.: 00-18	PID NO.: 104667 SFN: 3115739	5 OF 5



SECTION C/2 1 & 2



SECTION D/2 1 & 2



EXPANSION JOINT LOCATION PLAN

PRIME AE, Group, Inc	RELEASED FOR FABRICATION
DATE REC'D: 9/20/2019 BUILDABLE UNIT NO.: 11	
Review conforms that the shop drawings meet the intent of the contract.	
☐ CONFORMS AS-IS ☒ CONFORMS AS NOTED ☐ REVISE AND RESEND 1908R - ABUTMENT #4 EXPANSION JOINT	WALSH
By: Tom Stora	By:
Date: 9/24/2019	Date:

NOTES:
SEE SHEET 2 FOR DETAIL OF EXPANSION JOINT EJ19C
SEE SHEET 3 FOR EXPANSION JOINT DETAILS, GENERAL NOTES & BILL OF MATERIAL

AISC CERTIFIED FABRICATOR
BRIDGE - INTERMEDIATE (MAJOR)
FRACTURE CRITICAL ENDORSEMENT
SOPHISTICATED PAINT ENDORSEMENT

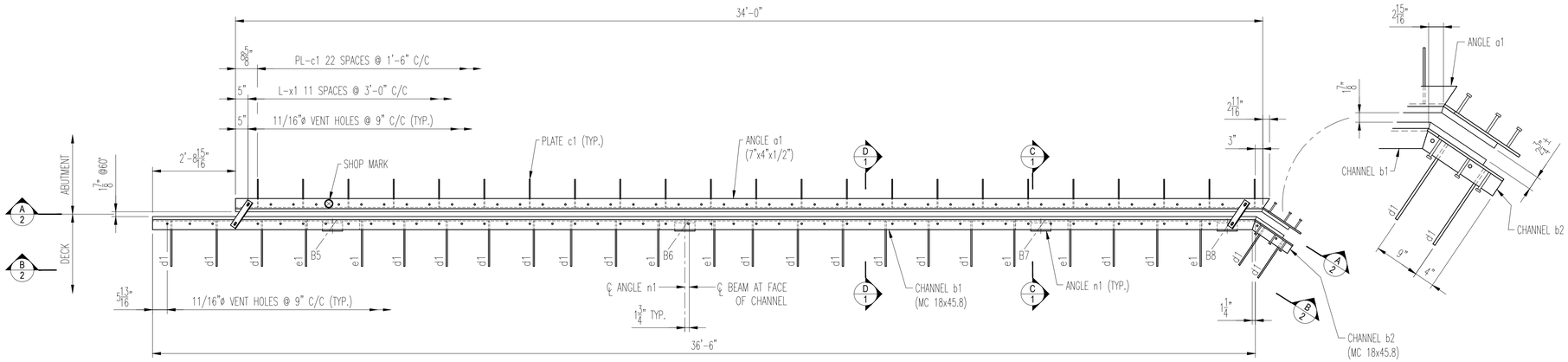
REV. No.	REVISION
SHOP INSPECTED BY:	

APPROVAL

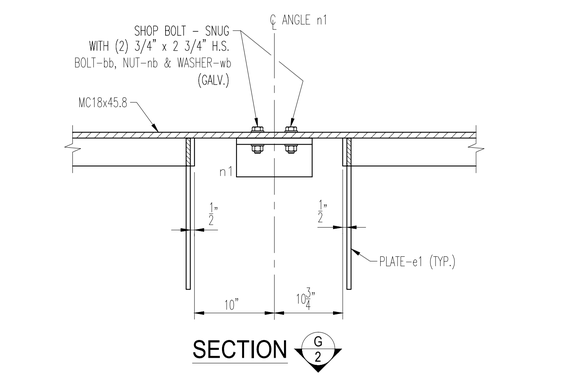
OHIO STRUCTURES INC.
535 NORTH BROAD STREET SUITE 5
CANFIELD, OHIO 44406
(330) 533-0084 FAX: (330) 533-0191

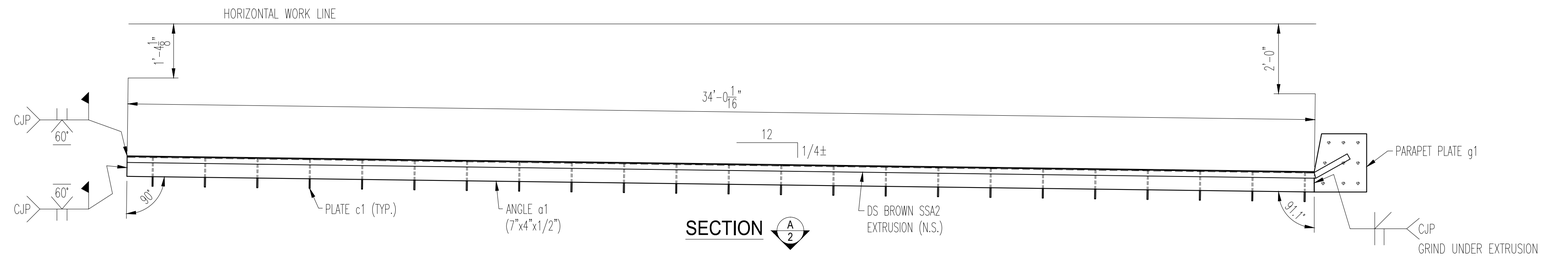
OHIO DEPARTMENT OF TRANSPORTATION
BRIDGE: HAM-74-1908R
IR 74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

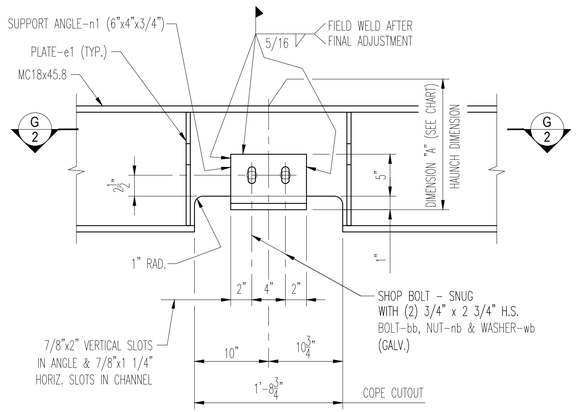
SCALE: N.T.S.	Walsh Construction Company	DRAWN: JDC
DATE: 9/19		CHECK: TJK
EXPANSION JOINT LOCATION PLAN		
REF NO.: 2		ITEM NO.: 516
ODOT PROJ. NO.: 183000	HAMILTON COUNTY	DWG. NO.: E1
OSI PROJ. NO.: 19-19	PID NO.: 104667 SFN: 3115739	1 OF 3



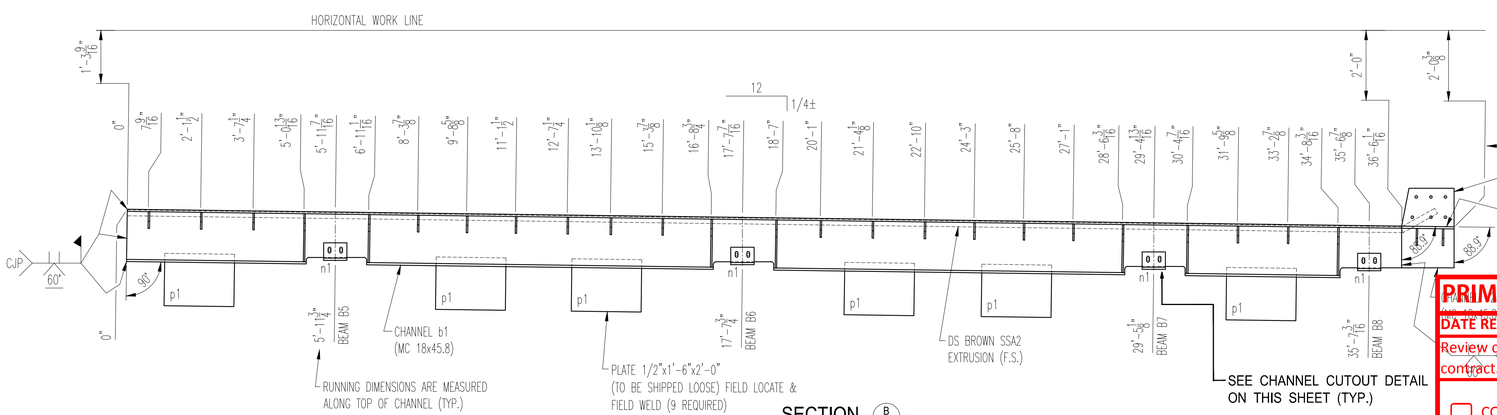
1 - EXPANSION JOINT EJ19C (PHASE S1-P2-S1 CONST.)





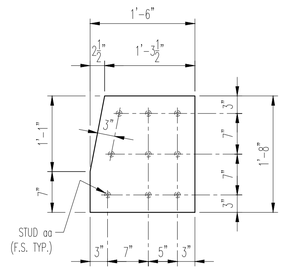


CHANNEL CUTOUT DETAIL @ SUPPORT ANGLE - n1

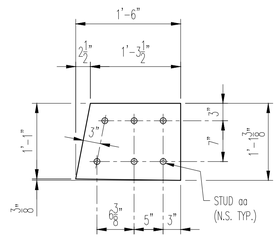


HAUNCH CHART (DIM "A")		
BEAM	SUPPORT	HAUNCH
B5	USE n1	16 5/8"
B6	USE n1	16 1/4"
B7	USE n1	16"
B8	USE n1	15 1/2"

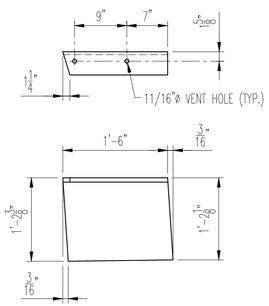
THE HAUNCH DIMENSION IS THE MEASUREMENT FROM THE TOP OF THE CHANNEL TO THE BOTTOM OF THE SUPPORT ANGLE n1



1 - Parapet Plate g1
MATERIAL: 1/2" PLATE



1 - Parapet Plate h1
MATERIAL: 1/2" PLATE



1 - Channel b2
MATERIAL: MC18x45.8

PRIME AE, Group, Inc
DATE REC'D: **9/20/2019** BUILDABLE UNIT NO.: **11**
Review conforms that the shop drawings meet the intent of the contract.
☐ CONFORMS AS-IS ☒ CONFORMS AS NOTED ☐ REVISE AND RESEND
1908R - ABUTMENT #4 EXPANSION JOINT
By: **Tom Stora**
Date: **9/24/2019**

RELEASED FOR FABRICATION
WALSH
By:
Date:

NOTES:
SEE SHEET 1 FOR EXPANSION JOINT LOCATION PLAN
SEE SHEET 3 FOR EXPANSION JOINT DETAILS, GENERAL NOTES & BILL OF MATERIAL
PAY LENGTH: 38.25 FT

AISC CERTIFIED FABRICATOR
BRIDGE - INTERMEDIATE (MAJOR)
FRACTURE CRITICAL ENDORSEMENT
SOPHISTICATED PAINT ENDORSEMENT

APPROVAL

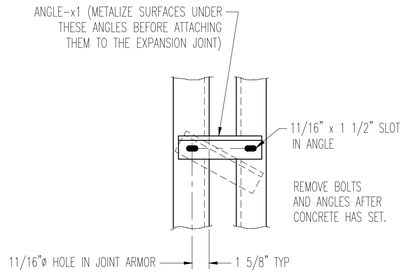
REV. No.	REVISION

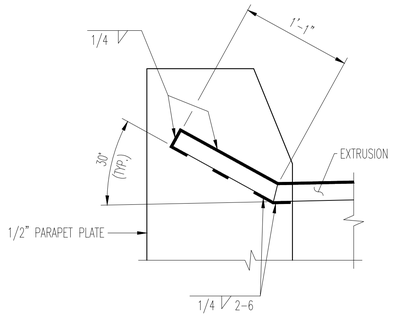
SHOP INSPECTED BY:

OHIO STRUCTURES INC.
535 NORTH BROAD STREET SUITE 5
CANFIELD, OHIO 44406
(330) 533-0084 FAX: (330) 533-0191

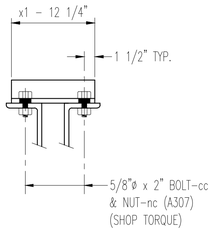
OHIO DEPARTMENT OF TRANSPORTATION
BRIDGE: HAM-74-1908R
IR 74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

SCALE: N.T.S.	Walsh Construction Company	DRAWN: JDC
DATE: 9/19		CHECK: TJK
DETAIL OF EXPANSION JOINT EJ19C		
REF NO.: 2		ITEM NO.: 516
ODOT PROJ. NO.: 183000	HAMILTON COUNTY	DWG. NO.: D1
OSI PROJ. NO.: 19-19	PID NO.: 104667 SFN: 3115739	2 OF 3





TYPICAL PARAPET WELD DETAIL



SHIPPING ANGLE DETAIL

ANGLE - 2 1/2 x 2 1/2 x 1/4

ODOT PROJECT : 183000	PID #: 104667	OSI PROJECT #: 19-19	REF #: 2

1 - EXPANSION JOINT EJ19C

MATERIALS ONLY:

LINE	PO#	QTY	MARK	SECTION	LENGTH (FEET)	LENGTH (INCHES)	STL SPEC	PC WT (IN LBS)	NET WT (IN LBS)	HEAT #	REMARK
1		1	a1	ANGLE 7x4x1/2	34	2 3/4	A709-50	612.70	612.70		
2		1	b1	MC18x45.8	36	6 3/8	A709-50	1,673.13	1,673.13		
3		1	b1	MC18x45.8	1	6 1/4	A709-50	69.65	69.65		
4		4	n1	ANGLE 6x4x3/4	0	8	A709-50	15.73	62.93		
5		12	x1	ANGLE 2-1/2x2-1/2x1/4	1	1/4	A709-36	4.19	50.23		SHIPPING
6		23	c1	PLATE 3/8 x 6	0	11	A709-36	4.92	113.16		
7		19	d1	PLATE 1/2 x 5 5/16	1	6	A709-36	6.38	121.22		
8		7	e1	PLATE 1/2 x 17 3/16	1	6	A709-36	11.29	79.03		
9		1	g1	PLATE 1/2 x 18	1	8	A709-36	48.75	48.75		
10		1	h1	PLATE 1/2 x 13 1/4	1	6	A709-36	31.20	31.20		
11		* 9	p1	PLATE 1/2 x 18	2	0	A709-50	60.60	545.40		
								SUB TOTAL	**3,407.41**		

b2

HARDWARE ONLY:

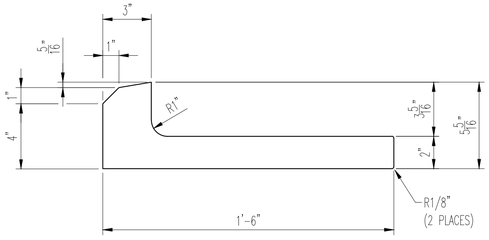
LINE		QTY	MARK	DESCRIPTION	STL SPEC	WT PER (IN LBS)	NET WT (IN LBS)	HEAT #	REMARKS
12		15	aa	1/2"x4" STUD	A108	0.29	4.35		
13		8	bb	3/4x2-3/4 HEX HEAD BOLT	A325 Galv	0.48	3.85		
14		8	nb	3/4 HEAVY HEX NUT	A563 Galv	0.20	1.60		
15		8	wb	3/4 FLAT WASHER	F436 Galv	0.04	0.33		
16		24	cc	5/8x2 HEX HEAD BOLT	A307	0.26	6.14		SHIPPING
17		24	nc	5/8 HEAVY HEX NUT	A307	0.12	2.88		SHIPPING
						SUB TOTAL	**19.15**		

MISC:

LINE		QTY	MARK	DESCRIPTION		WT PER (IN LBS)	NET WT (IN LBS)	HEAT #	REMARKS
18		3.20	---	SSA2 EXTRUSION x 23'-0"	A709-36	121.90	390.08		D.S. BROWN
19		* 1	---	A2R-400 STRIP SEAL x 42'-0"		0.00	0.00		D.S. BROWN
20		* 1	---	GALLON OF SEAL GLUE		0.00	0.00		D.S. BROWN
						SUB TOTAL	**390.08**		

* INDICATES AN ITEM THAT WILL BE SHIPPED LOOSE

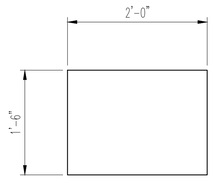
TOTAL WT	**3,816.64**



19 - Plates d1

MATERIAL: 1/2" PLATE

ADJUST SIZE TO FIT INSIDE THE MC18x45.8 CHANNEL

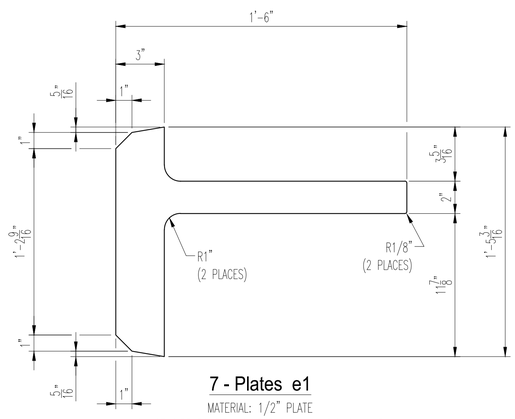


9 - Plates p1

MATERIAL: 1/2" PLATE (SHIP LOOSE)

5 REQUIRED FOR STAGE S1-P2-S1

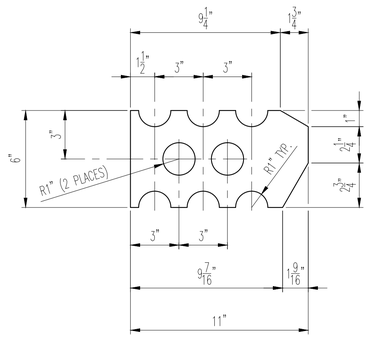
4 REQUIRED FOR STAGE S1-P2-S2



7 - Plates e1

MATERIAL: 1/2" PLATE

ADJUST SIZE TO FIT INSIDE THE MC18x45.8 CHANNEL



23 - Plates c1

MATERIAL: 3/8" PLATE

PRIME AE, Group, Inc	RELEASED FOR FABRICATION
DATE REC'D: 9/20/2019 BUILDABLE UNIT NO.: 11	
Review conforms that the shop drawings meet the intent of the contract.	
☐ CONFORMS AS-IS ☒ CONFORMS AS NOTED ☐ REVISE AND RESEND	
1908R - ABUTMENT #4 EXPANSION JOINT	
By: Tom Stora	By:
Date: 9/24/2019	Date:

GENERAL NOTES:

* MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH ODOT-CMS-2016.
* WELDING SHALL BE IN ACCORDANCE WITH AWS/AASHTO D1.5-10 AND ODOT 1011.
* ALL MATERIAL TO BE METALIZED IN CONFORMANCE WITH O.D.O.T. STANDARD DRAWING EXJ-4-87 DATED 7/19/02.
* ALL INFORMATION & DIMENSIONS ARE TO BE APPROVED BY THE CONTRACTOR PRIOR TO COMMENCING FABRICATION.

AISC CERTIFIED FABRICATOR

BRIDGE - INTERMEDIATE (MAJOR)
FRACTURE CRITICAL ENDORSEMENT
SOPHISTICATED PAINT ENDORSEMENT

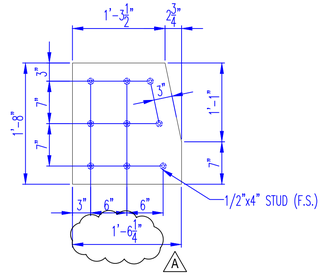
REV. No.	REVISION
SHOP INSPECTED BY:	

APPROVAL

OHIO STRUCTURES INC.
535 NORTH BROAD STREET SUITE 5
CANFIELD, OHIO 44406
(330) 533-0084 FAX: (330) 533-0191

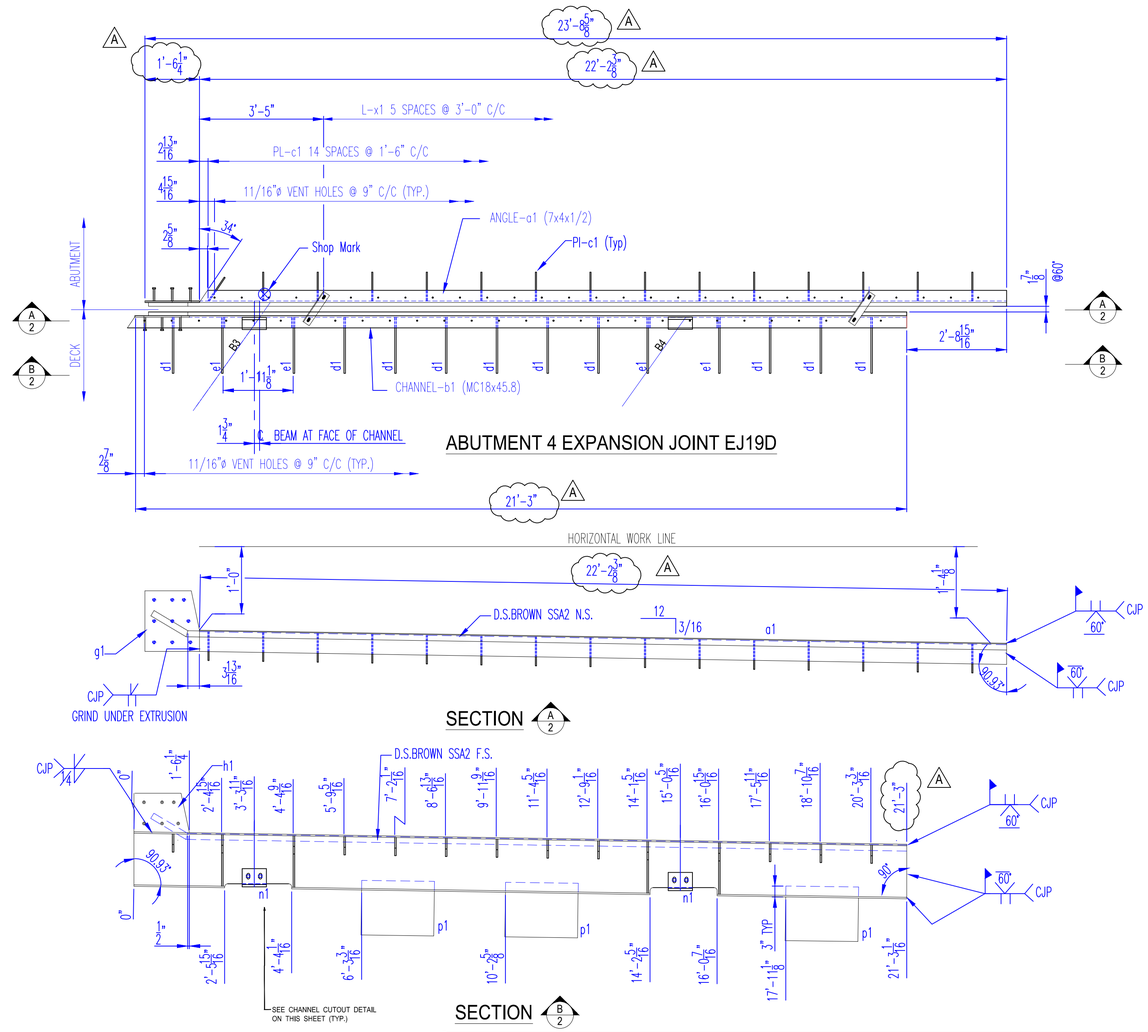
OHIO DEPARTMENT OF TRANSPORTATION
BRIDGE: HAM-74-1908R
IR 74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

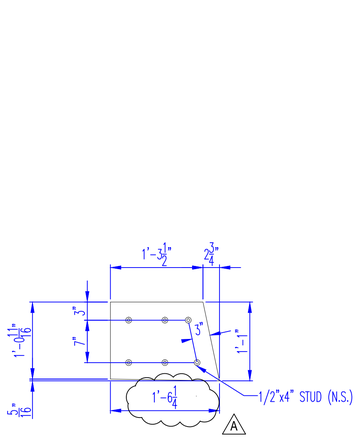
SCALE: N.T.S.	Walsh Construction Company	DRAWN: JDC
DATE: 9/19		CHECK: TJK
EXPANSION JOINT DETAILS, GENERAL NOTES & BILL OF MATERIAL		
REF NO.: 2		ITEM NO.: 516
ODOT PROJ. NO.: 183000	HAMILTON COUNTY	DWG. NO.: D2
OSI PROJ. NO.: 19-19	PID NO.: 104667 SFN: 3115739	3 OF 3



DETAIL - g1

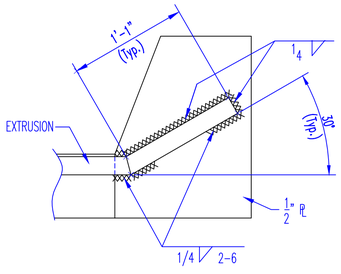
MATERIAL: 1/2" PL.
QUANTITY:1



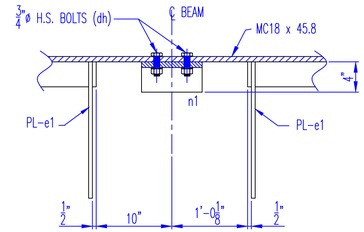


DETAIL - h1

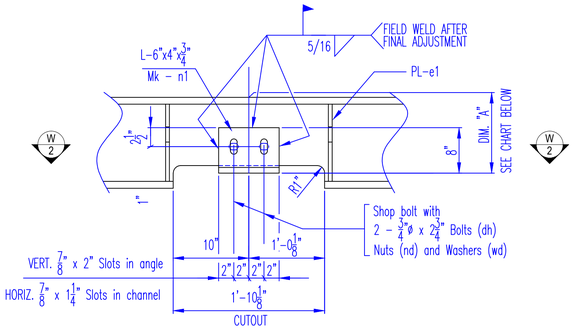
MATERIAL: 1/2" PL.
QUANTITY:1



PARAPET PL DETAIL



SECTION W/2



CHANNEL CUTOUT DETAIL @ SUPPORT ANGLE - n1

HAUNCH CHART (DIM A)		
BEAM	SUPPORT	HAUNCH
B3	USE n1	1'-5 9/16"
B4	USE n1	1'-4 1/2"

THE HAUNCH DIMENSION IS THE MEASUREMENT
FROM THE TOP OF THE CHANNEL TO
THE BOTTOM OF THE SUPPORT ANGLE (n1)

SEE SHEET E1 FOR EXPANSION JOINT LOCATION PLAN
SEE SHEET 3 FOR EXPANSION JOINT DETAILS, GENERAL NOTES & BILL OF MATERIAL

PAY LENGTH 23.71 FT.

PRIME AE, Group, Inc

DATE REC'D: 1/22/2020 BUILDABLE UNIT NO.: 11

Review conforms that the shop drawings meet the intent of the contract.

Unit No. 6 - Abutment #4 Bearings

STATE OF OHIO — THOMAS E. STORA E-66634 — REGISTERED PROFESSIONAL ENGINEER

RELEASED FOR FABRICATION

WALSH

[X] CONFORMS AS-IS	[ ] CONFORMS AS NOTED	By: Thomas E. Stora	By:
[ ] INCOMPLETE	[ ] DOES NOT CONFORM	Date: 1/22/2020	Date:

AISC CERTIFIED FABRICATOR

BRIDGE - INTERMEDIATE (MAJOR)
FRACTURE CRITICAL ENDORSEMENT
SOPHISTICATED PAINT ENDORSEMENT

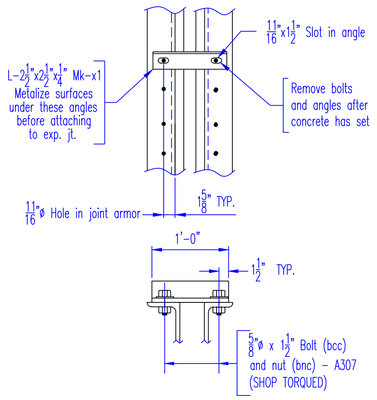
APPROVAL

REV. No.	REVISION
A	ADJUST DIMENSION PER CONTRACTOR 1/15/20
SHOP INSPECTED BY:	

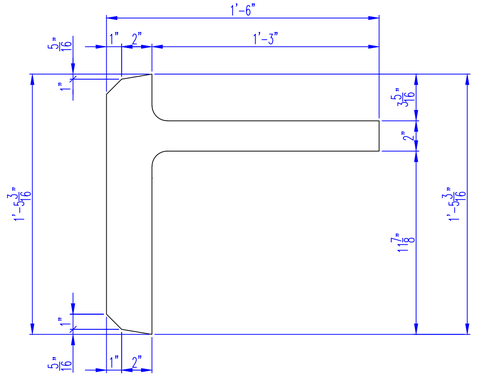
OHIO STRUCTURES INC.
4030 BOARDMAN- CANFIELD RD. SUITE 200D
CANFIELD, OHIO 44406
(330) 533-0084 FAX: (330) 533-0191

OHIO DEPARTMENT OF TRANSPORTATION
BRIDGE: HAM-74-1908R
IR 74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

SCALE: N.T.S.	WALSH CONSTRUCTION	DRAWN: LF
DATE: 1/20		CHECK: MI
EXPANSION JOINT EJ19D DETAILS		
REF NO.: 0033A		ITEM NO.: 516
ODOT PROJ. NO.: 183000	HAMILTON COUNTY	DWG. NO.: D1
OSI PROJ. NO.: 19-19	PID NO.: 104667 3115739	2 OF 3

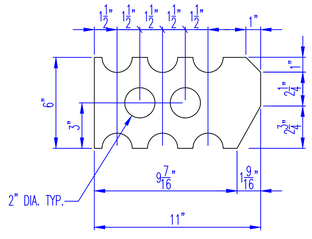


SHIPPING ANGLE DETAIL



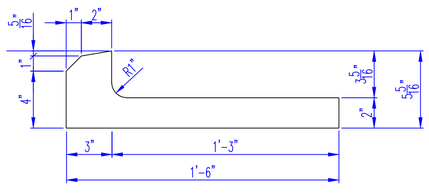
DETAIL e1

MATERIAL: 1/2" PL.
QUANTITY:4



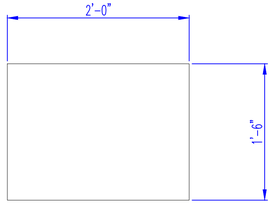
DETAIL PL-c1

MATERIAL: 3/8" PL.
QUANTITY: 15



DETAIL d1

MATERIAL: 1/2" PL.
QUANTITY:10



DETAIL p1

MATERIAL: 1/2" PL.
QUANTITY:3

ODOT PROJECT : 183000	PID #: 104667	OSI PROJECT #: 19-19	REF #: 2A

1 - EXPANSION JOINT EJ19D

MATERIALS ONLY:

LINE	PO#	QTY	MARK	SECTION	LENGTH (FEET)	LENGTH (INCHES)	STL SPEC	PC WT (IN LBS)	NET WT (IN LBS)	HEAT #	REMARK
1		1	a1	ANGLE 7x4x1/2	22	2 3/8	A709-50	397.34	397.34		
2		1	b1	MC18x45.8	21	3	A709-50	973.25	973.25		
3		2	n1	ANGLE 8x4x3/4	0	8	A709-50	19.13	38.27		
5		6	x1	ANGLE 2-1/2x2-1/2x1/4	1	0	A709-36	4.10	24.60		SHIPPING
6		15	c1	PLATE 3/8 x 6	0	11	A709-36	4.92	73.80		
7		10	d1	PLATE 1/2 x 5 5/16	1	6	A709-36	6.38	63.80		
8		1	g1	PLATE 1/2 x 20	1	6 1/4	A709-36	11.29	11.29		
9		1	h1	PLATE 1/2 x 13	1	6 1/4	A709-36	48.75	48.75		
10		3	p1	PLATE 1/2 x 18	2	0	A709-36	22.90	68.70		
								SUB TOTAL	**1,699.80**		

HARDWARE ONLY:

LINE		QTY	MARK	DESCRIPTION	STL SPEC	WT PER (IN LBS)	NET WT (IN LBS)	HEAT #	REMARKS
11		15	~~	1/2"x4" STUD	A108	0.29	4.35		
12		4	dh	3/4x2-3/4 HEX HEAD BOLT	A325 Galv	0.48	1.92		
13		4	nd	3/4 HEAVY HEX NUT	A563 Galv	0.20	0.80		
14		4	wd	3/4 FLAT WASHER	F436 Galv	0.04	0.16		
15		12	nc	5/8x2 HEX HEAD BOLT	A307	0.26	3.07		SHIPPING
16		12	wc	5/8 HEAVY HEX NUT	A307	0.12	1.44		SHIPPING
						SUB TOTAL	**11.75**		

MISC:

LINE		QTY	MARK	DESCRIPTION		WT PER (IN LBS)	NET WT (IN LBS)	HEAT #	REMARKS
17		1.90	---	SSA2 EXTRUSION x 23'-0"	A709-36	121.90	231.61		D.S. BROWN
18		* 1	---	A2R-400 STRIP SEAL x59'-0"		0.00	0.00		D.S. BROWN
19		* 1		GALLON OF SEAL GLUE		0.00	0.00		D.S. BROWN
						SUB TOTAL	**231.61**		

* INDICATES AN ITEM THAT WILL BE SHIPPED LOOSE

TOTAL WT	**1,943.16**

PRIME AE, Group, Inc

DATE REC'D: 1/22/2020 BUILDABLE UNIT NO.: 11

Review conforms that the shop drawings meet the intent of the contract.

Unit No. 6 - Abutment #4 Bearings

[X] CONFORMS AS-IS	[ ] CONFORMS AS NOTED	By: **Thomas E. Stora**	By:
[ ] INCOMPLETE	[ ] DOES NOT CONFORM	Date: **1/22/2020**	Date:

STATE OF OHIO · THOMAS E. STORA · E-66634 · REGISTERED PROFESSIONAL ENGINEER

RELEASED FOR FABRICATION

WALSH

GENERAL NOTES:

* ALL MATERIAL SHALL BE ASTM A709 GR50/36.
* MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH ODOT-CMS-2016.
* WELDING SHALL BE IN ACCORDANCE WITH AWS/AASHTO D1.5-15 AND ODOT 1011.
* ALL MATERIAL TO BE METALIZED IN CONFORMANCE WITH O.D.O.T. STANDARD DRAWING EXJ-4-87 DATED 1/18/19.
* ALL INFORMATION & DIMENSIONS ARE TO BE APPROVED BY THE CONTRACTOR PRIOR TO COMMENCING FABRICATION.
* GENERAL TOLERANCE ±1/8" UNLESS NOTED.

AISC CERTIFIED FABRICATOR

BRIDGE - INTERMEDIATE (MAJOR)
FRACTURE CRITICAL ENDORSEMENT
SOPHISTICATED PAINT ENDORSEMENT

REV. No.	REVISION

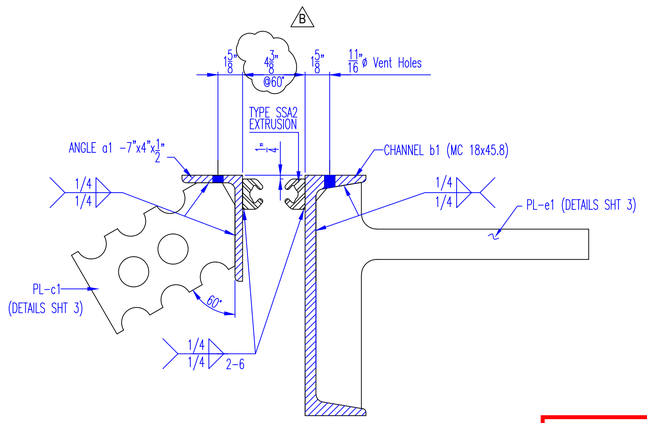
SHOP INSPECTED BY:

APPROVAL

OHIO STRUCTURES INC.
4030 BOARDMAN- CANFIELD RD. SUITE 200D
CANFIELD, OHIO 44406
(330) 533-0084 FAX: (330) 533-0191

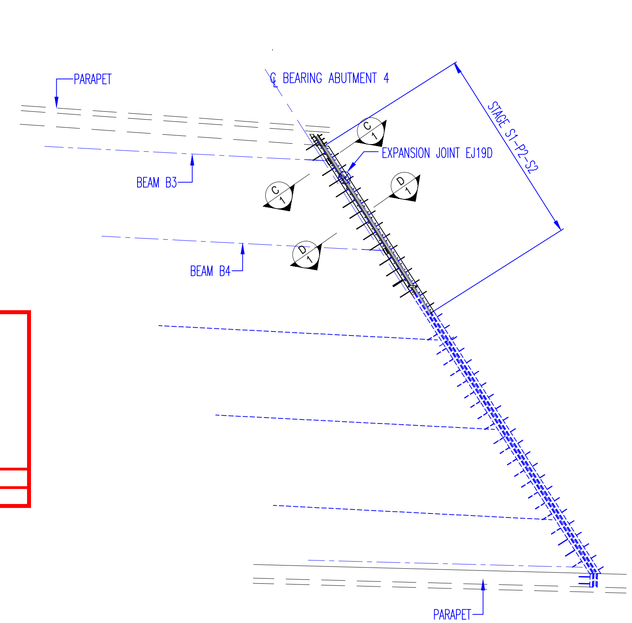
OHIO DEPARTMENT OF TRANSPORTATION
BRIDGE: HAM-74-1908R
IR 74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

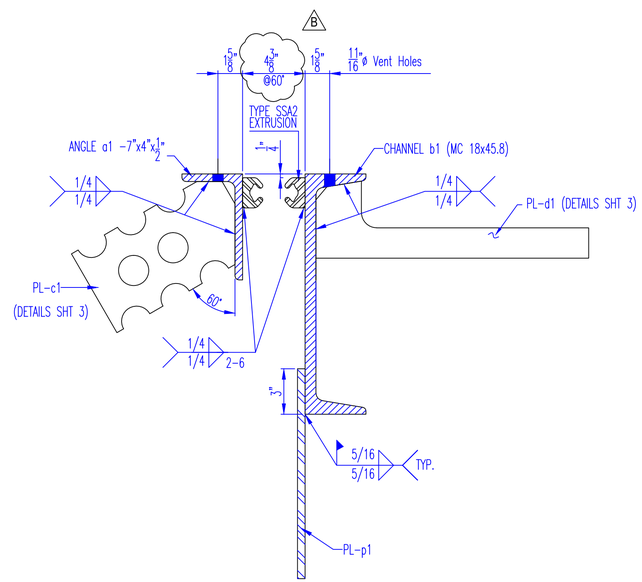
SCALE: N.T.S.	WALSH CONSTRUCTION	DRAWN: LF
DATE: 1/20		CHECK: MI
EXPANSION JOINT EJ19D DETAILS, GENERAL NOTES, BILL OF MATERIAL		
REF NO.: 0033		ITEM NO.: 516
ODOT PROJ. NO.: 183000	HAMILTON COUNTY	DWG. NO.: D2
OSI PROJ. NO.: 19-19	PID NO.: 104667 3115739	3 OF 3



SECTION C 1

PRIME AE, Group, Inc			RELEASED FOR FABRICATION
DATE REC'D: 1/22/2020 BUILDABLE UNIT NO.: 11		STATE OF OHIO THOMAS E. STORA E-66634 REGISTERED PROFESSIONAL ENGINEER	WALSH
Review conforms that the shop drawings meet the intent of the contract. **Unit No. 6 - Abutment #4 Bearings**			
[X] CONFORMS AS-IS	[ ] CONFORMS AS NOTED	By: **Thomas E. Stora**	By:
[ ] INCOMPLETE	[ ] DOES NOT CONFORM	Date: **1/22/2020**	Date:





SECTION D 1

ABUTMENT 4 - EXPANSION JOINT LOCATION PLAN

NOTES:

SEE SHEET 2 FOR EXPANSION JOINT EJ19D DETAILS

SEE SHEET 3 FOR EXPANSION JOINT DETAILS, GENERAL NOTES & BILL OF MATERIAL

REV. No.	REVISION
B	ADJUST DIMENSION PER CONTRACTOR 1/21/20
SHOP INSPECTED BY:	

AISC CERTIFIED FABRICATOR

BRIDGE - INTERMEDIATE (MAJOR)
FRACTURE CRITICAL ENDORSEMENT
SOPHISTICATED PAINT ENDORSEMENT

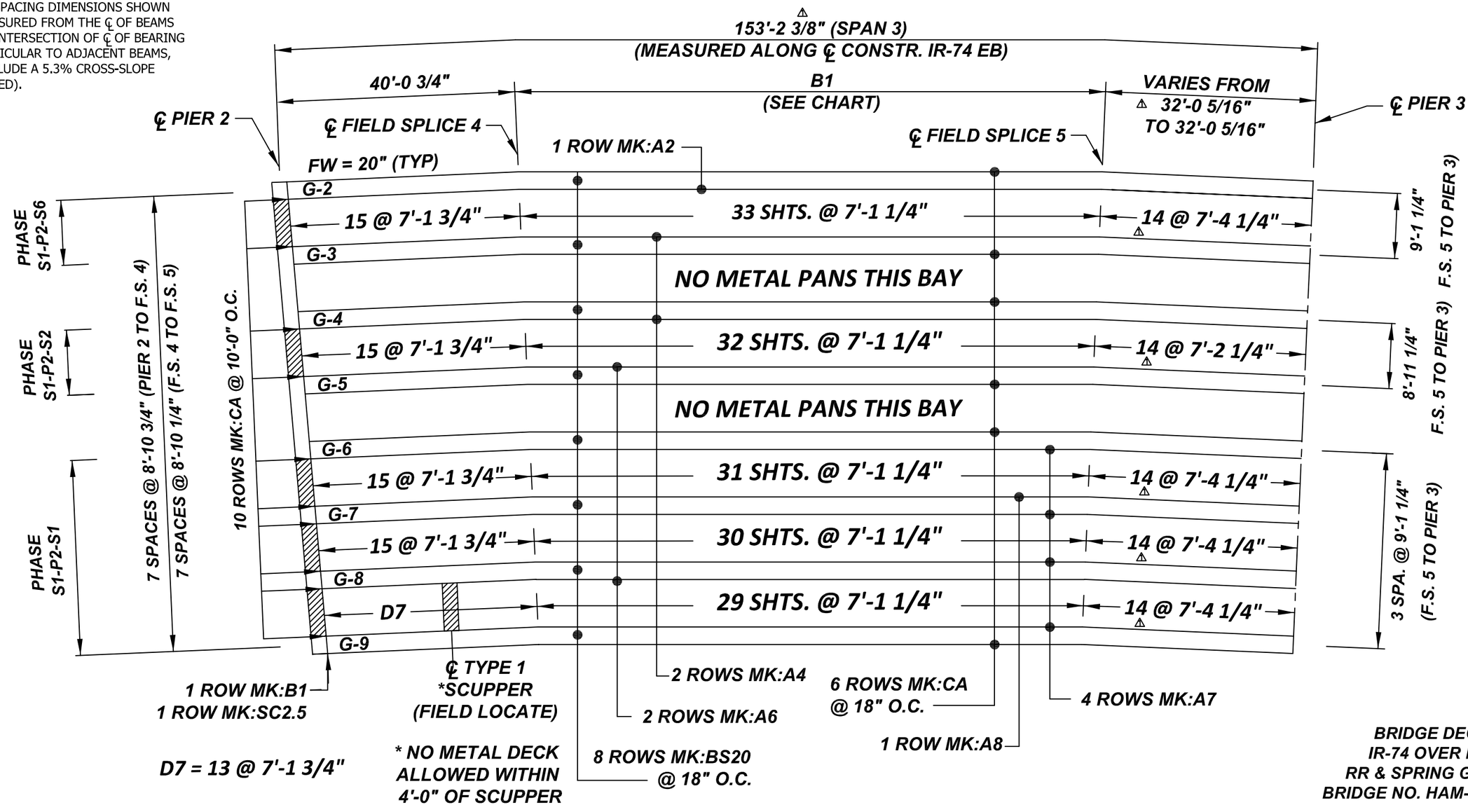
APPROVAL

OHIO STRUCTURES INC.
4030 BOARDMAN- CANFIELD RD. SUITE 200D
CANFIELD, OHIO 44406
(330) 533-0084 FAX: (330) 533-0191

OHIO DEPARTMENT OF TRANSPORTATION
BRIDGE: HAM-74-1908R
IR 74 OVER MILL CREEK, RR & SPRING GROVE AVENUE

SCALE: N.T.S.	WALSH CONSTRUCTION	DRAWN: LF
DATE: 1/20	EXPANSION JOINT LOCATION PLAN	CHECK: MI
REF NO.: 0033		ITEM NO.: 516
ODOT PROJ. NO.: 183000	HAMILTON COUNTY	DWG. NO.: E1
OSI PROJ. NO.: 19-19	PID NO.: 104667 3115739	1 OF 3

* BEAM SPACING DIMENSIONS SHOWN ARE MEASURED FROM THE ℄ OF BEAMS AT THE INTERSECTION OF ℄ OF BEARING PERPENDICULAR TO ADJACENT BEAMS, AND INCLUDE A 5.3% CROSS-SLOPE (AVERAGED).



BRIDGE DECK LAYOUT
IR-74 OVER MILL CREEK,
RR & SPRING GROVE AVENUE
BRIDGE NO. HAM-74-1908R (SPAN 3)

ERECTOR NOTE: BRIDGE RE-DECKING PROJECTS REQUIRE THAT BOTH EXISTING BRIDGE PLANS AND NEW BRIDGE PLANS BE FURNISHED TO NEW MILLENNIUM IN THE EVENT THAT A FULL SET OF EXISTING SUBSTRUCTURE PLANS ARE NOT AVAILABLE, IT IS THE ERECTOR'S RESPONSIBILITY TO VERIFY THE TOP FLANGE SIZES, GIRDER SPACING, COVER PLATE SIZES AND LOCATIONS, AND SLAB DEPTHS THAT ARE ILLUSTRATED ON SHOP DRAWINGS.

NOTES

1. UTILIZE DROPS OF SUPPORT ANGLES, SHEET CLOSURES AND CLOSURE ANGLES.

2. SEE HAUNCH TABLE ON SHEET 4 FOR ANGLE SUPPORT LIMITS.

3. BEAM STRAPS & MODIFIED BEAM ANGLES WILL ACCOMMODATE THE TOP FLANGE WIDTHS PER CONTRACT DRAWINGS. IF TOP FLANGE WIDTHS DIFFER FROM CONTRACT DRAWINGS, PLEASE PROVIDE TO NMBS PRIOR TO FABRICATION.

4. METAL DECK PANS MAY REQUIRE FIELD CUTTING AT FIELD SPICE 4 & 5 - SEE DETAIL SHEET 4

B1 CHART	
GIRDER	LENGTH
G1	87'-4 1/4"
G2	85'-9 13/16"
G3	84'-3 3/8"
G4	82'-8 7/8"
G5	81'-2 7/16"
G6	79'-8"
G7	78'-1 9/16"
G8	76'-7 1/16"
G9	75'-0 5/8"

AMERICAN STRUCTUREPOINT, INC.
ADDRESS: 7260 SHADELAND STATION,
INDIANAPOLIS, IN 46256
TELEPHONE #: 317.547.5580
CERTIFICATE OF AUTHORITY # 016489

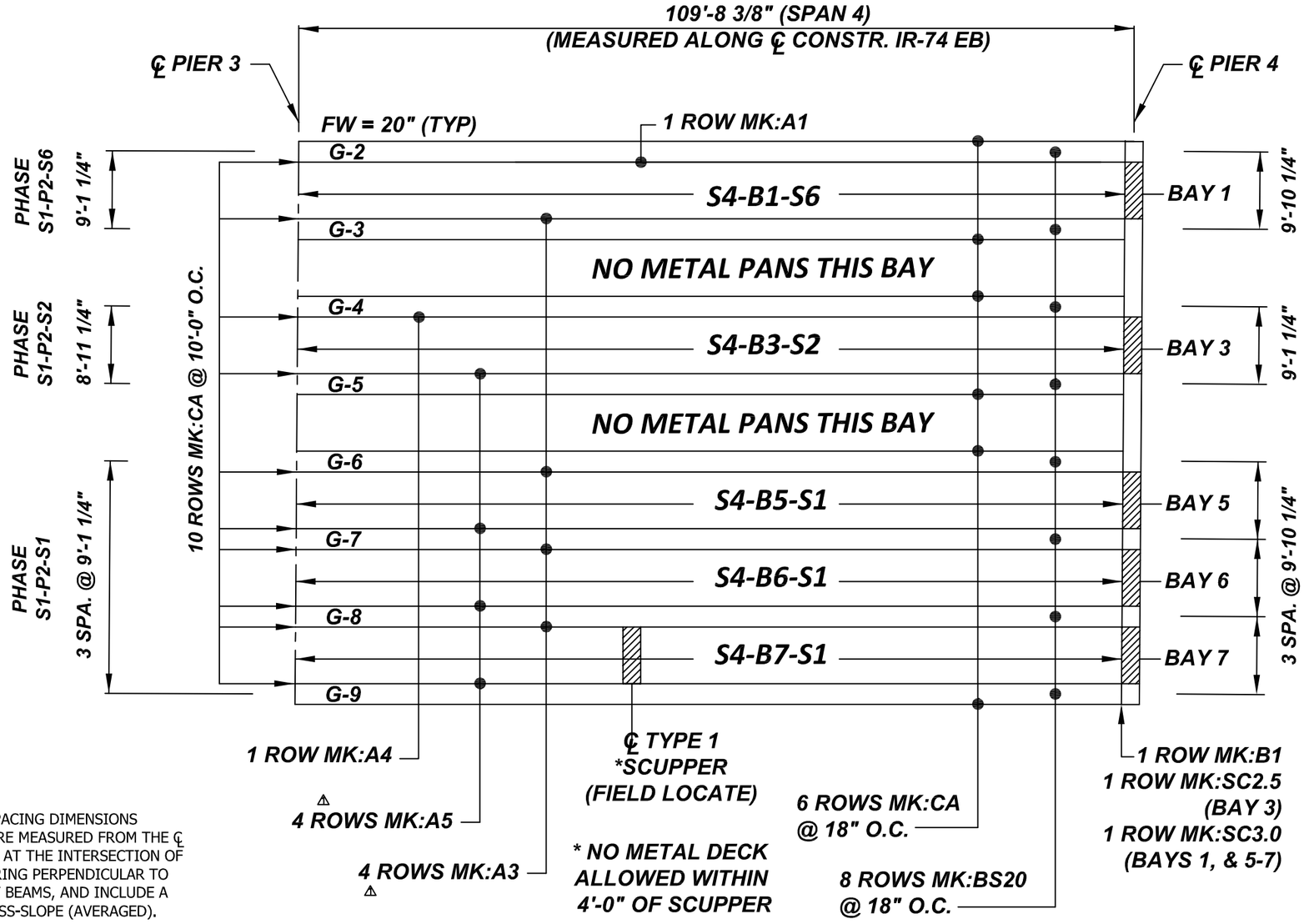
STATE OF OHIO
DERREK W. DAY
83601
REGISTERED
PROFESSIONAL ENGINEER
06/04/2019

DATE	6/3/19	
COMMENTS	PER APPROVER	
REVISIONS	RV-1	

REMARKS
BRIDGE DECK LAYOUT
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE
BRIDGE NO. HAM-74-1908R

NEW MILLENNIUM
BUILDING SYSTEMS
New Millennium Building Systems, LLC
4900 Hungerford Road
Memphis, Tennessee 38118
Phone: (901) 365-0226 | www.newmill.com

CUSTOMER	WALSH CONSTRUCTION COMPANEY II				
PROJECT	183000	FED. NO. E170 (713)	PID NO. 104667		
LOCATION	HAMILTON COUNTY, OHIO				
ENGINEER	STATE OF OHIO DEPARTMENT OF TRANSPORTATION				
DRAWN	TLC	DATE	04/2019	NEW MILLENNIUM JOB NO.	DRAWING NO.
CHECKED	TC	DATE	04/2019	BR18-0527	1 OF 5



* BEAM SPACING DIMENSIONS SHOWN ARE MEASURED FROM THE ℄ OF BEAMS AT THE INTERSECTION OF ℄ OF BEARING PERPENDICULAR TO ADJACENT BEAMS, AND INCLUDE A 5.3% CROSS-SLOPE (AVERAGED).

ERECTOR NOTE: BRIDGE RE-DECKING PROJECTS REQUIRE THAT BOTH EXISTING BRIDGE PLANS AND NEW BRIDGE PLANS BE FURNISHED TO NEW MILLENNIUM IN THE EVENT THAT A FULL SET OF EXISTING SUBSTRUCTURE PLANS ARE NOT AVAILABLE, IT IS THE ERECTOR'S RESPONSIBILITY TO VERIFY THE TOP FLANGE SIZES, GIRDER SPACING, COVER PLATE SIZES AND LOCATIONS, AND SLAB DEPTHS THAT ARE ILLUSTRATED ON SHOP DRAWINGS.

NOTES

1. UTILIZE DROPS OF SUPPORT ANGLES, SHEET CLOSURES AND CLOSURE ANGLES.

2. SEE HAUNCH TABLE ON SHEET 4 FOR ANGLE SUPPORT LIMITS.

3. BEAM STRAPS & MODIFIED BEAM ANGLES WILL ACCOMMODATE THE TOP FLANGE WIDTHS PER CONTRACT DRAWINGS. IF TOP FLANGE WIDTHS DIFFER FROM CONTRACT DRAWINGS, PLEASE PROVIDE TO NMBS PRIOR TO FABRICATION.

4. METAL DECK PANS MAY REQUIRE FIELD CUTTING AT FIELD SPICE 4 & 5 - SEE DETAIL SHEET 4

BRIDGE DECK LAYOUT
IR-74 OVER MILL CREEK,
RR & SPRING GROVE AVENUE
BRIDGE NO. HAM-74-1908R (SPAN 4)

AMERICAN STRUCTUREPOINT, INC.
ADDRESS: 7260 SHADELAND STATION,
INDIANAPOLIS, IN 46256
TELEPHONE #: 317.547.5580
CERTIFICATE OF AUTHORITY # 016489

STATE OF OHIO
DERREK W. DAY
83601
REGISTERED PROFESSIONAL ENGINEER

06/04/2019

Derrek W. Day

BRIDGE DECK GENERAL NOTES

1. NMBS will furnish only that material listed in the Bill of Material.
2. All material for bridge deck forms, support angles (Grade 50) and accessories (Grade 40) shall conform to ASTM specification A-653 having a coating designation of G-235.
3. The contractor shall verify all dimensions.
4. Extra concrete poured on deck slab as a result of these metal forms shall be provided by the General Contractor and will not be the responsibility of or to the account of NMBS.
5. ALL DECK SHEETS SHALL HAVE A MINIMUM BEARING OF 1 1/2" AT EACH END OF THE DECK. CENTER FORMS ON SUPPORT ANGLES.
6. FOR THE SAFETY OF THE WORKMEN, ALL DECK SHEETS SHALL BE SECURELY FASTENED TO THE SUPPORT ANGLE AS THEY ARE PLACED, BEFORE CONSTRUCTION TRAFFIC IS PERMITTED.
7. Reinforcing steel and supports for reinforcing steel shall be placed in accordance with applicable drawings and in conformance with good reinforced concrete practice, and under the continuous supervision of a properly trained foreman.
8. CALCIUM CHLORIDE (OR ANY ADMIXTURE CONTAINING CHLORIDE SALTS) SHALL NOT BE USED IN THE CONCRETE PLACED ON THE BRIDGE DECK.
9. Concrete should be poured from a low level to avoid impacting the deck. It should be placed uniformly over the supporting structure (DECK SUPPORTS) and spread towards the center of the deck span. Workers should not congregate around the concrete placement zone.
10. If situations arise that are not specifically covered by these notes or placing plans, or if there is any doubt as to the correct procedure to be followed in erection, please contact New Millennium Building Systems for additional instructions or clarification.
11. Vertical adjustment of support angles shall be determined in the field to maintain the correct slab thickness and roadway slope.
12. Closure angles shall not be used as support for deck form panels.

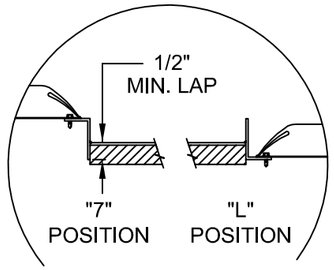
DATE	6/3/19	
COMMENTS	PER APPROVER	
REVISIONS	RV-1	

REMARKS
BRIDGE DECK LAYOUT AND GENERAL NOTES
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE
BRIDGE NO. HAM-74-1908R

NEW MILLENNIUM
BUILDING SYSTEMS

New Millennium Building Systems, LLC
4900 Hungerford Road
Memphis, Tennessee 38118
Phone: (901) 365-0226 | www.newmill.com

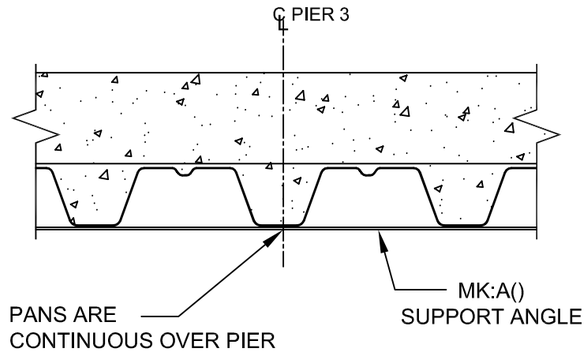
CUSTOMER	WALSH CONSTRUCTION COMPANEY II					
PROJECT	183000	FED. NO. E170 (713)		PID NO. 104667		
LOCATION	HAMILTON COUNTY, OHIO					
ENGINEER	STATE OF OHIO DEPARTMENT OF TRANSPORTATION					
DRAWN	TLC	DATE	04/2019	NEW MILLENNIUM JOB NO.	DRAWING NO.	
CHECKED	TC	DATE	04/2019	BR18-0527	2	OF 5



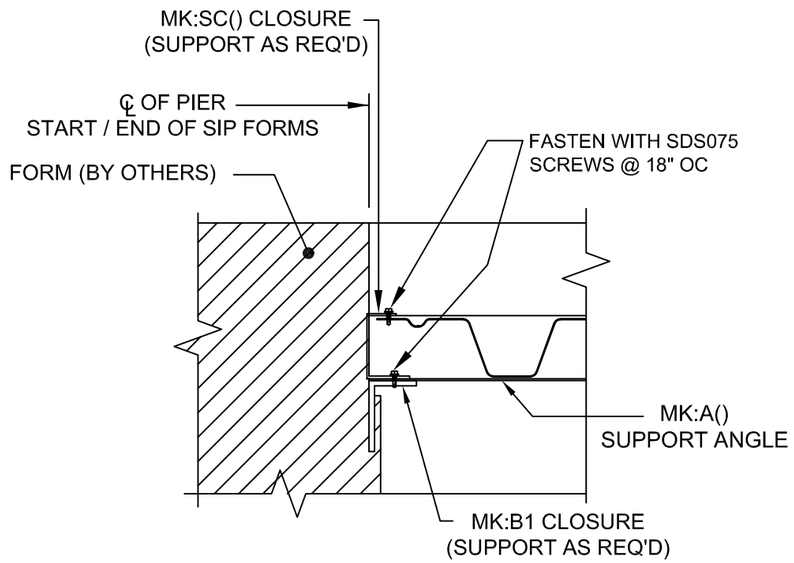
POSSIBLE POSITIONS
FOR SUPPORT ANGLES

NOTE: THE VERTICAL LEGS OF THE SUPPORT ANGLES IN THE "L" POSITION MAY NEED TO BE CUT IN THE FIELD AS NEEDED PER BRIDGE PLANS.

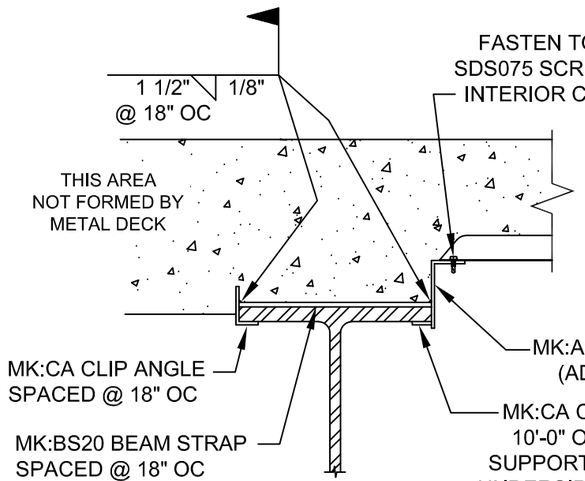
CONNECTION DETAIL



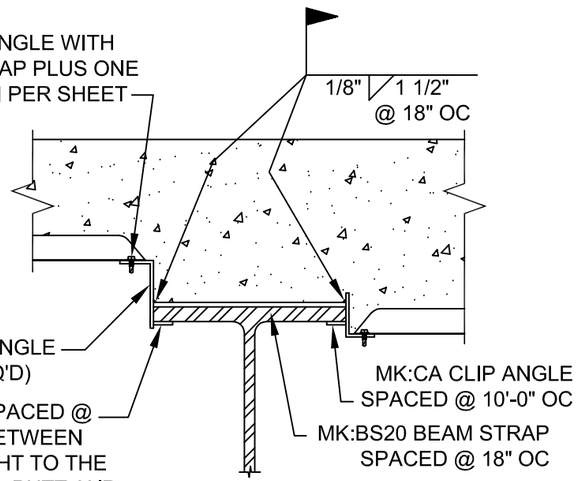
SECTION @ PIER 3



SECTION @ PIERS 2 & 4



SECTION @ EXTERIOR GIRDERS



SECTION @ INTERIOR GIRDERS

AMERICAN STRUCTUREPOINT, INC.
ADDRESS: 7260 SHADELAND STATION,
INDIANAPOLIS, IN 46256
TELEPHONE #: 317.547.5580
CERTIFICATE OF AUTHORITY # 016489

DATE	6/3/19	
COMMENTS	FIELD USE	
REVISIONS	RV-1	

REMARKS

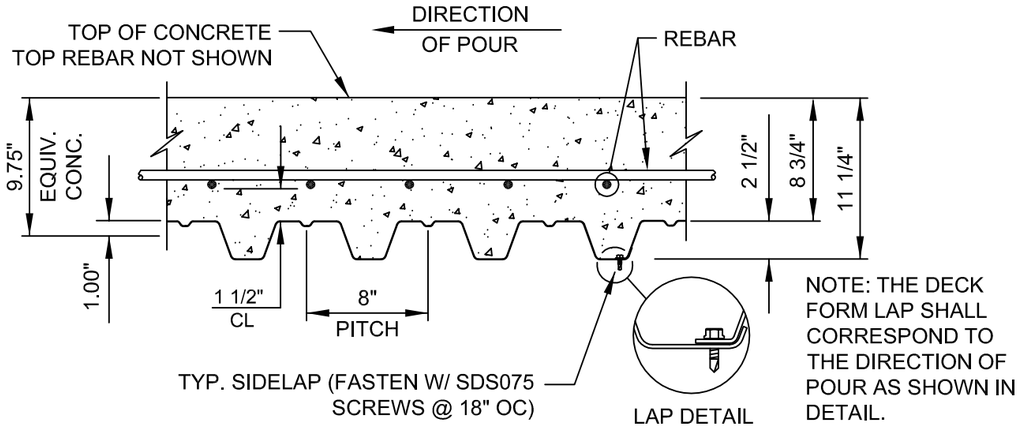
BRIDGE DECK SECTIONS

IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE
BRIDGE NO. HAM-74-1908R

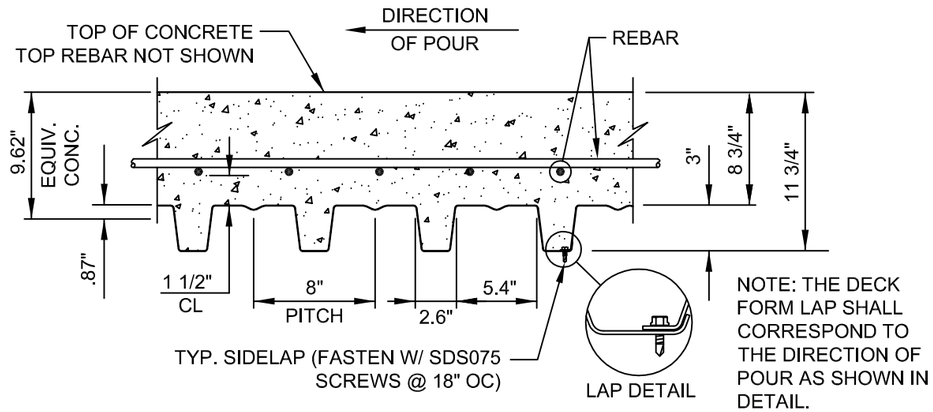
NEW MILLENNIUM
BUILDING SYSTEMS

New Millennium Building Systems, LLC
4900 Hungerford Road
Memphis, Tennessee 38118
Phone: (901) 365-0226 | www.newmill.com

CUSTOMER	WALSH CONSTRUCTION COMPANEY II			
PROJECT	183000	FED. NO. E170 (713)	PID NO. 104667	
LOCATION	HAMILTON COUNTY, OHIO			
ENGINEER	STATE OF OHIO DEPARTMENT OF TRANSPORTATION			
DRAWN TLC	DATE 04/2019	NEW MILLENNIUM JOB NO.	DRAWING NO.	
CHECKED TC	DATE 04/2019	BR18-0527	3 OF 5	



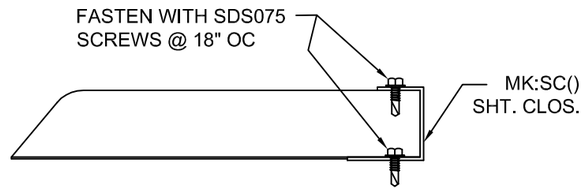
2 1/2" x 8" SLAB SECTION



3" x 8" SLAB SECTION

*ANGLE SUPPORT LIMITS CHART			
MARK	MAX. HAUNCH	MIN. HAUNCH	SIP PROFILE
A1	7 1/2"	-1 1/2"	3"
A2	8 1/2"	-3 1/2"	2 1/2"
A3	11"	-5"	3"
A4	10 1/2"	-5 1/2"	2 1/2"
A5	11 1/2"	-6 1/2"	2 1/2"
A5	12"	-6"	3"
A6	12 1/2"	-7 1/2"	2 1/2"
A7	13 1/2"	-8 1/2"	2 1/2"
A8	14"	-9"	2 1/2"

*BOTH MAX. & MIN. MEASURED AT THE EDGE OF BEAM. IF A LARGER HAUNCH EXISTS, i.e. DUE TO CAMBER & DEAD LOAD DEFLECTION, THIS VALUE MUST BE PROVIDED TO NMBS PRIOR TO DRAWING APPROVAL.



CLOSURE FOR FIELD CUT DECK ENDS

BRIDGE DECK GENERAL NOTES

1. NMBS will furnish only that material listed in the Bill of Material.
2. All material for bridge deck forms, support angles (Grade 50) and accessories (Grade 40) shall conform to ASTM specification A-653 having a coating designation of G-235.
3. The contractor shall verify all dimensions.
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12. Closure angles shall not be used as support for deck form panels.

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TELEPHONE #: 317.547.5580
CERTIFICATE OF AUTHORITY # 016489

STATE OF OHIO
DERREK W. DAY
83601
REGISTERED
PROFESSIONAL ENGINEER

06/04/2019

Derrek W. Day

REVISIONS	COMMENTS	DATE
RV-1	FIELD USE	6/3/19

REMARKS

BRIDGE DECK SECTIONS AND GENERAL NOTES
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE
BRIDGE NO. HAM-74-1908R

NEW MILLENNIUM
BUILDING SYSTEMS

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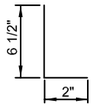
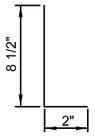
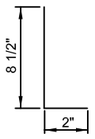
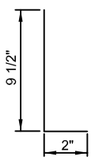
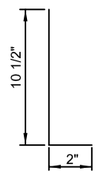
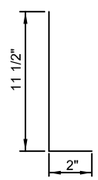
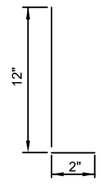
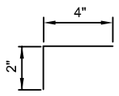
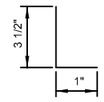
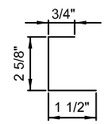
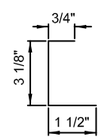
CUSTOMER	WALSH CONSTRUCTION COMPANEY II				
PROJECT	183000	FED. NO. E170 (713)	PID NO. 104667		
LOCATION	HAMILTON COUNTY, OHIO				
ENGINEER	STATE OF OHIO DEPARTMENT OF TRANSPORTATION				
DRAWN	TLC	DATE	04/2019	NEW MILLENNIUM JOB NO.	DRAWING NO.
CHECKED	TC	DATE	04/2019	BR18-0527	4 OF 5

BILL OF MATERIAL			
MARK	NO. PCS.	LENGTH	DESCRIPTION
S1-P2-S6 A1	11	10'-0"	SUPPORT ANGLE 10 GAGE GALV. 
S1-P2-S6 A2	17	10'-0"	SUPPORT ANGLE 12 GAGE GALV. 
S1-P2-S6 A3 S1-P2-S1 A3	11 34	10'-0" 10'-0"	SUPPORT ANGLE 10 GAGE GALV. 
S1-P2-S6 A4 S1-P2-S2 A4	17 28	10'-0" 10'-0"	SUPPORT ANGLE 12 GAGE GALV. 
S1-P2-S2 A5 S1-P2-S1 A5	11 32	10'-0" 10'-0"	SUPPORT ANGLE 10 GAGE GALV. 
S1-P2-S2 A6 S1-P2-S1 A6	17 16	10'-0" 10'-0"	SUPPORT ANGLE 10 GAGE GALV. 
S1-P2-S1 A7	64	10'-0"	SUPPORT ANGLE 10 GAGE GALV. 

BILL OF MATERIAL			
MARK	NO. PCS.	LENGTH	DESCRIPTION
S1-P2-S1 A8	16	10'-0"	SUPPORT ANGLE 8 GAGE GALV. 
S1-P2-S6 B S1-P2-S2 B S1-P2-S1 B	2 2 6	10'-0" 10'-0" 10'-0"	CLOSURE ANGLE 16 GAGE GALV. 
S1-P2-S6 CA S1-P2-S2 CA S1-P2-S1 CA	433 433 542	2" 2" 2"	CLIP ANGLE 12 GAGE GALV. 
S1-P2-S6 BS20 S1-P2-S2 BS20 S1-P2-S1 BS20	370 370 740	20 1/8" 20 1/8" 20 1/8"	BEAM STRAPS 12 GAGE 2" WIDE FLAT
S1-P2-S6 SC2.5 S1-P2-S2 SC2.5 S1-P2-S1 SC2.5	3 4 9	10'-0" 10'-0" 10'-0"	SHEET CLOSURE 22 GAGE GALV. 
S1-P2-S6 SC3.0 S1-P2-S1 SC3.0	1 3	10'-0" 10'-0"	SHEET CLOSURE 22 GAGE GALV. 
S1-P2-S6 SDS075 S1-P2-S2 SDS075 S1-P2-S1 SDS075	1,300 1,300 3,900	---- ---- ----	SELF DRILLING SCREWS 1/4-14x3/4" CADMIUM PLTD.

BILL OF MATERIAL: SPAN 4 BAY 1, PHASE S1-P2-S6			
MARK	NO. PCS.	LENGTH	DESCRIPTION
S4-B1-S6	2	7' - 4 1/2"	BRIDGE DECK 3" DEEP 8" PITCH 24" COVER CLOSED ENDS ASTM A653 GRADE 50 GALV. G-235 20 GAGE I=1.002 in^4/ft S=0.541 in^3/ft
	2	7' - 4 3/4"	
	2	7' - 5 1/4"	
	2	7' - 5 1/2"	
	2	7' - 5 3/4"	
	2	7' - 6 1/4"	
	2	7' - 6 1/2"	
	2	7' - 6 3/4"	
	2	7' - 7 1/4"	
	2	7' - 7 1/2"	
	2	7' - 7 3/4"	
	2	7' - 8 1/4"	
	2	7' - 8 1/2"	
	2	7' - 8 3/4"	
	2	7' - 9"	
	2	7' - 9 1/2"	
	2	7' - 9 3/4"	
	2	7' - 10"	
	2	7' - 10 1/2"	
	2	7' - 10 3/4"	
	2	7' - 11"	
	2	7' - 11 1/2"	
	2	7' - 11 3/4"	
	2	8' - 0"	
	2	8' - 0 1/2"	
	2	8' - 0 3/4"	
	2	8' - 1"	
	2	8' - 1 1/4"	

⚠

BILL OF MATERIAL: SPAN 4 BAY 3, PHASE S1-P2-S2			
MARK	NO. PCS.	LENGTH	DESCRIPTION
S4-B3-S2	7	7' - 2 1/2"	BRIDGE DECK 2 1/2" DEEP 8" PITCH 32" COVER CLOSED ENDS ASTM A653 GRADE 50 GALV. G-235 20 GAGE I=0.645 in^4/ft S=0.462 in^3/ft
	6	7' - 2 3/4"	
	6	7' - 3"	
	6	7' - 3 1/4"	
	6	7' - 3 1/2"	
	6	7' - 4"	
	7	7' - 4 1/4"	

⚠

BILL OF MATERIAL: SPAN 3			
MARK	NO. PCS.	LENGTH	DESCRIPTION
S1-P2-S6			BRIDGE DECK 2 1/2" DEEP 8" PITCH 32" COVER CLOSED ENDS ASTM A653 GRADE 50 GALV. G-235 20 GAGE I=0.645 in^4/ft S=0.462 in^3/ft
7'-1 1/4"	33	7'-1 1/4"	
7'-1 3/4"	15	7'-1 3/4"	
7'-4 1/4"	14⚠	7'-4 1/4"	
S1-P2-S2			
7'-1 1/4"	32	7'-1 1/4"	
7'-1 3/4"	15	7'-1 3/4"	
7'-2 1/4"	14⚠	7'-2 1/4"	
S1-P2-S1			
7'-1 1/4"	90	7'-1 1/4"	
7'-1 3/4"	43	7'-1 3/4"	
7'-4 1/4"	42⚠	7'-4 1/4"	

⚠

BILL OF MATERIAL: SPAN 4 BAY 4, PHASE S1-P2-S1			
MARK	NO. PCS.	LENGTH	DESCRIPTION
S4-B5-S1	2	7' - 4 1/2"	BRIDGE DECK 3" DEEP 8" PITCH 24" COVER CLOSED ENDS ASTM A653 GRADE 50 GALV. G-235 20 GAGE I=1.002 in^4/ft S=0.541 in^3/ft
	2	7' - 4 3/4"	
	2	7' - 5 1/4"	
	2	7' - 5 1/2"	
	2	7' - 5 3/4"	
	2	7' - 6 1/4"	
	2	7' - 6 1/2"	
	2	7' - 6 3/4"	
	2	7' - 7 1/4"	
	2	7' - 7 1/2"	
	2	7' - 7 3/4"	
	2	7' - 8 1/4"	
	2	7' - 8 1/2"	
	2	7' - 8 3/4"	
	2	7' - 9"	
	2	7' - 9 1/2"	
	2	7' - 9 3/4"	
	2	7' - 10"	
	2	7' - 10 1/2"	
	2	7' - 10 3/4"	
	2	7' - 11"	
	2	7' - 11 1/2"	
	2	7' - 11 3/4"	
	2	8' - 0"	
	2	8' - 0 1/2"	
	2	8' - 0 3/4"	
	2	8' - 1"	
	2	8' - 1 1/4"	

⚠

BILL OF MATERIAL: SPAN 4 BAY 6, PHASE S1-P2-S1			
MARK	NO. PCS.	LENGTH	DESCRIPTION
S4-B6-S1	2	7' - 4 1/2"	BRIDGE DECK 3" DEEP 8" PITCH 24" COVER CLOSED ENDS ASTM A653 GRADE 50 GALV. G-235 20 GAGE I=1.002 in^4/ft S=0.541 in^3/ft
	2	7' - 4 3/4"	
	2	7' - 5 1/4"	
	2	7' - 5 1/2"	
	2	7' - 5 3/4"	
	2	7' - 6 1/4"	
	2	7' - 6 1/2"	
	2	7' - 6 3/4"	
	2	7' - 7 1/4"	
	2	7' - 7 1/2"	
	2	7' - 7 3/4"	
	2	7' - 8 1/4"	
	2	7' - 8 1/2"	
	2	7' - 8 3/4"	
	2	7' - 9"	
	2	7' - 9 1/2"	
	2	7' - 9 3/4"	
	2	7' - 10"	
	2	7' - 10 1/2"	
	2	7' - 10 3/4"	
	2	7' - 11"	
	2	7' - 11 1/2"	
	2	7' - 11 3/4"	
	2	8' - 0"	
	2	8' - 0 1/2"	
	2	8' - 0 3/4"	
	2	8' - 1"	
	2	8' - 1 1/4"	

BILL OF MATERIAL: SPAN 4 BAY 7, PHASE S1-P2-S1			
MARK	NO. PCS.	LENGTH	DESCRIPTION
S4-B7-S1	2	7' - 4 1/2"	BRIDGE DECK 3" DEEP 8" PITCH 24" COVER CLOSED ENDS ASTM A653 GRADE 50 GALV. G-235 20 GAGE I=1.002 in^4/ft S=0.541 in^3/ft
	2	7' - 4 3/4"	
	2	7' - 5 1/4"	
	2	7' - 5 1/2"	
	2	7' - 5 3/4"	
	2	7' - 6 1/4"	
	2	7' - 6 1/2"	
	2	7' - 6 3/4"	
	2	7' - 7 1/4"	
	2	7' - 7 1/2"	
	2	7' - 7 3/4"	
	2	7' - 8 1/4"	
	2	7' - 8 1/2"	
	2	7' - 8 3/4"	
	2	7' - 9"	
	2	7' - 9 1/2"	
	2	7' - 9 3/4"	
	2	7' - 10"	
	2	7' - 10 1/2"	
	2	7' - 10 3/4"	
	2	7' - 11"	
	2	7' - 11 1/2"	
	2	7' - 11 3/4"	
	2	8' - 0"	
	2	8' - 0 1/2"	
	2	8' - 0 3/4"	
	2	8' - 1"	
	2	8' - 1 1/4"	

BRIDGE DECK GENERAL NOTES

1. NMBS will furnish only that material listed in the Bill of Material.
2. All material for bridge deck forms, support angles (Grade 50) and accessories (Grade 40) shall conform to ASTM specification A-653 having a coating designation of G-235.
3. The contractor shall verify all dimensions.
4. Extra concrete poured on deck slab as a result of these metal forms shall be provided by the General Contractor and will not be the responsibility of or to the account of NMBS.
5. ALL DECK SHEETS SHALL HAVE A MINIMUM BEARING OF 1 1/2" AT EACH END OF THE DECK. CENTER FORMS ON SUPPORT ANGLES.
6. FOR THE SAFETY OF THE WORKMEN, ALL DECK SHEETS SHALL BE SECURELY FASTENED TO THE SUPPORT ANGLE AS THEY ARE PLACED, BEFORE CONSTRUCTION TRAFFIC IS PERMITTED.
7. Reinforcing steel and supports for reinforcing steel shall be placed in accordance with applicable drawings and in conformance with good reinforced concrete practice, and under the continuous supervision of a properly trained foreman.
8. CALCIUM CHLORIDE (OR ANY ADMIXTURE CONTAINING CHLORIDE SALTS) SHALL NOT BE USED IN THE CONCRETE PLACED ON THE BRIDGE DECK.
9. Concrete should be poured from a low level to avoid impacting the deck. It should be placed uniformly over the supporting structure (DECK SUPPORTS) and spread towards the center of the deck span. Workers should not congregate around the concrete placement zone.
10. If situations arise that are not specifically covered by these notes or placing plans, or if there is any doubt as to the correct procedure to be followed in erection, please contact New Millennium Building Systems for additional instructions or clarification.
11. Vertical adjustment of support angles shall be determined in the field to maintain the correct slab thickness and roadway slope.
12. Closure angles shall not be used as support for deck form panels.

AMERICAN STRUCTUREPOINT, INC.
ADDRESS: 7260 SHADELAND STATION,
INDIANAPOLIS, IN 46256
TELEPHONE #: 317.547.5580
CERTIFICATE OF AUTHORITY # 016489

REVISIONS		COMMENTS	DATE
RV-1		PER APPROVER	6/3/19

REMARKS

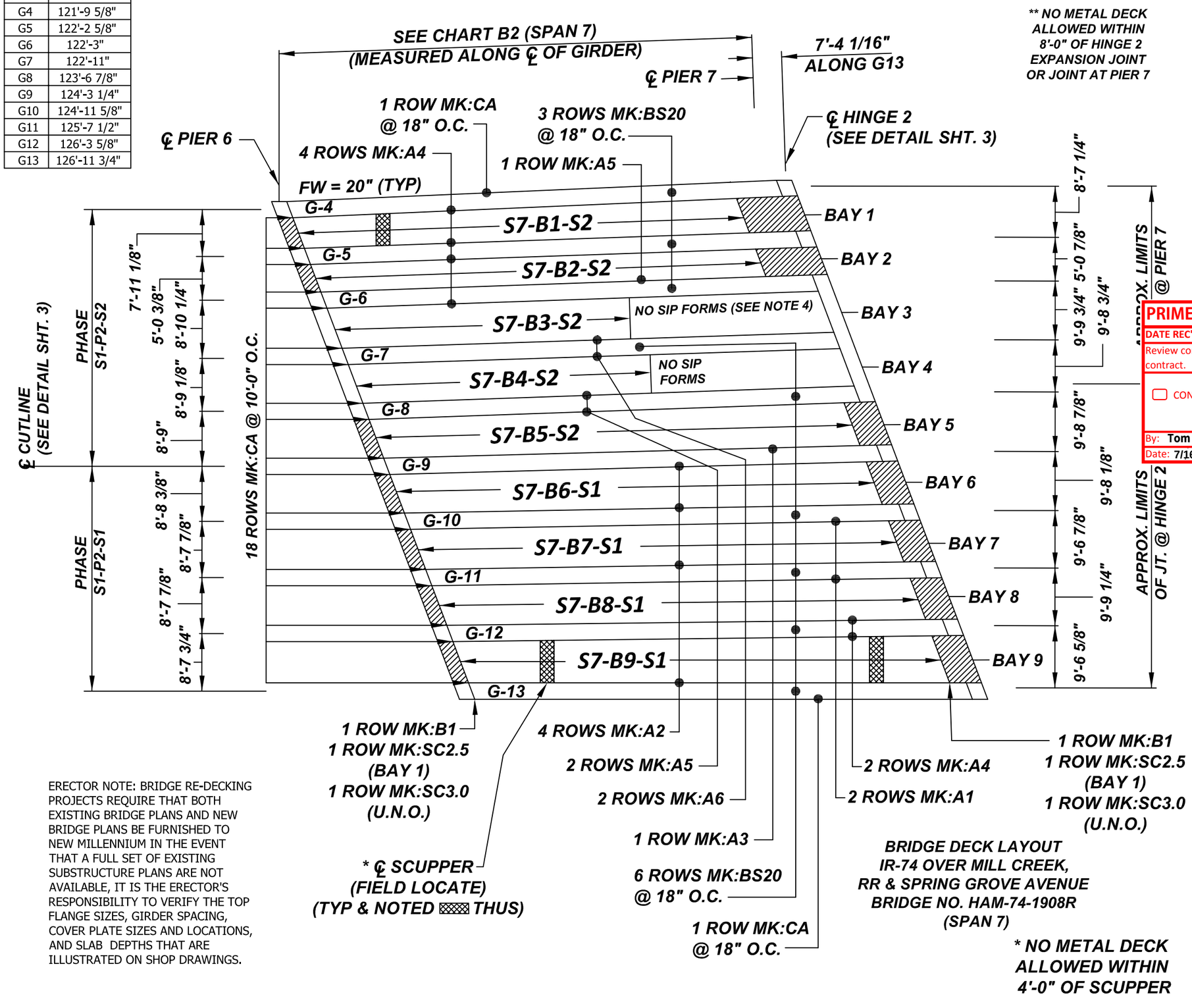
BRIDGE DECK BILL OF MATERIAL AND GENERAL NOTES

IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE
BRIDGE NO. HAM-74-1908R

NEW MILLENNIUM
BUILDING SYSTEMS
New Millennium Building Systems, LLC
4900 Hungerford Road
Memphis, Tennessee 38118
Phone: (901) 365-0226 | www.newmill.com

CUSTOMER	WALSH CONSTRUCTION COMPANEY II				
PROJECT	183000	FED. NO. E170 (713)		PID NO. 104667	
LOCATION	HAMILTON COUNTY, OHIO				
ENGINEER	STATE OF OHIO DEPARTMENT OF TRANSPORTATION				
DRAWN	TLC	DATE	04/2019	NEW MILLENNIUM JOB NO.	DRAWING NO.
CHECKED	TC	DATE	04/2019	BR18-0527	5 OF 5

B2 CHART	
GIRDER	LENGTH
G4	121'-9 5/8"
G5	122'-2 5/8"
G6	122'-3"
G7	122'-11"
G8	123'-6 7/8"
G9	124'-3 1/4"
G10	124'-11 5/8"
G11	125'-7 1/2"
G12	126'-3 5/8"
G13	126'-11 3/4"



ERECTOR NOTE: BRIDGE RE-DECKING PROJECTS REQUIRE THAT BOTH EXISTING BRIDGE PLANS AND NEW BRIDGE PLANS BE FURNISHED TO NEW MILLENNIUM IN THE EVENT THAT A FULL SET OF EXISTING SUBSTRUCTURE PLANS ARE NOT AVAILABLE, IT IS THE ERECTOR'S RESPONSIBILITY TO VERIFY THE TOP FLANGE SIZES, GIRDER SPACING, COVER PLATE SIZES AND LOCATIONS, AND SLAB DEPTHS THAT ARE ILLUSTRATED ON SHOP DRAWINGS.

NOTES
1. UTILIZE DROPS OF SUPPORT ANGLES, SHEET CLOSURES AND CLOSURE ANGLES.

2. SEE HAUNCH TABLE ON SHEET 7 FOR ANGLE SUPPORT LIMITS.

3. BEAM STRAPS & MODIFIED BEAM ANGLES WILL ACCOMMODATE THE TOP FLANGE WIDTHS PER CONTRACT DRAWINGS. IF TOP FLANGE WIDTHS DIFFER FROM CONTRACT DRAWINGS, PLEASE PROVIDE TO NMBS PRIOR TO FABRICATION.

4. AT BAYS 3 & 4 SIP FORMS ARE USED FROM PIER 6 TO THE MIDPOINT OF SPAN DUE TO THE EXTREMELY HIGH HAUNCHES PAST THIS POINT.

AMERICAN STRUCTUREPOINT, INC.
ADDRESS: 7260 SHADELAND STATION,
INDIANAPOLIS, IN 46256
TELEPHONE #: 317.547.5580
CERTIFICATE OF AUTHORITY # 016489

PRIME AE, Group, Inc

DATE REC'D: 7/12/2019 BUILDABLE UNIT NO.: BU-11

Review conforms that the shop drawings meet the intent of the contract.

☐ CONFORMS AS-IS ☒ CONFORMS AS NOTED

SIP Forms over Railroad - Span 7

By: Tom Stora, PE

Date: 7/16/2019

RELEASED FOR FABRICATION

WALSH

BRIDGE DECK GENERAL NOTES

1. NMBS will furnish only that material listed in the Bill of Material.
2. All material for bridge deck forms, support angles (Grade 50) and accessories (Grade 40) shall conform to ASTM specification A-653 having a coating designation of G-235.
3. The contractor shall verify all dimensions.
4. Extra concrete poured on deck slab as a result of these metal forms shall be provided by the General Contractor and will not be the responsibility of or to the account of NMBS.
5. ALL DECK SHEETS SHALL HAVE A MINIMUM BEARING OF 1 1/2" AT EACH END OF THE DECK. CENTER FORMS ON SUPPORT ANGLES.
6. FOR THE SAFETY OF THE WORKMEN, ALL DECK SHEETS SHALL BE SECURELY FASTENED TO THE SUPPORT ANGLE AS THEY ARE PLACED, BEFORE CONSTRUCTION TRAFFIC IS PERMITTED.
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9. Concrete should be poured from a low level to avoid impacting the deck. It should be placed uniformly over the supporting structure (DECK SUPPORTS) and spread towards the center of the deck span. Workers should not congregate around the concrete placement zone.
10. If situations arise that are not specifically covered by these notes or placing plans, or if there is any doubt as to the correct procedure to be followed in erection, please contact New Millennium Building Systems for additional instructions or clarification.
11. Vertical adjustment of support angles shall be determined in the field to maintain the correct slab thickness and roadway slope.
12. Closure angles shall not be used as support for deck form panels.

DATE

COMMENTS

REVISIONS

REMARKS

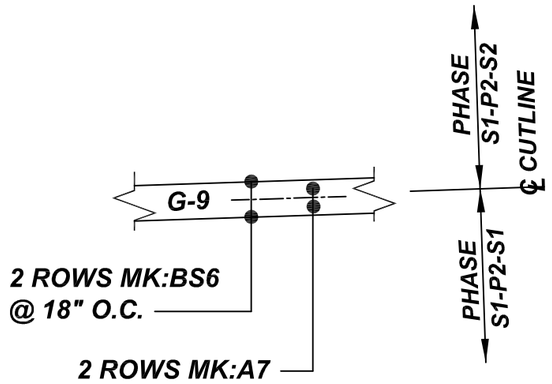
BRIDGE DECK LAYOUT AND GENERAL NOTES

IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE
BRIDGE NO. HAM-74-1908R (SPAN 7)

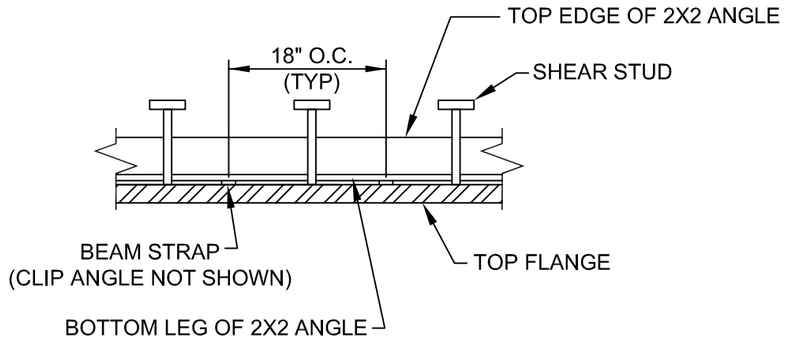
NEW MILLENNIUM BUILDING SYSTEMS

New Millennium Building Systems, LLC
4900 Hungerford Road
Memphis, Tennessee 38118
Phone: (901) 365-0226 | www.newmill.com

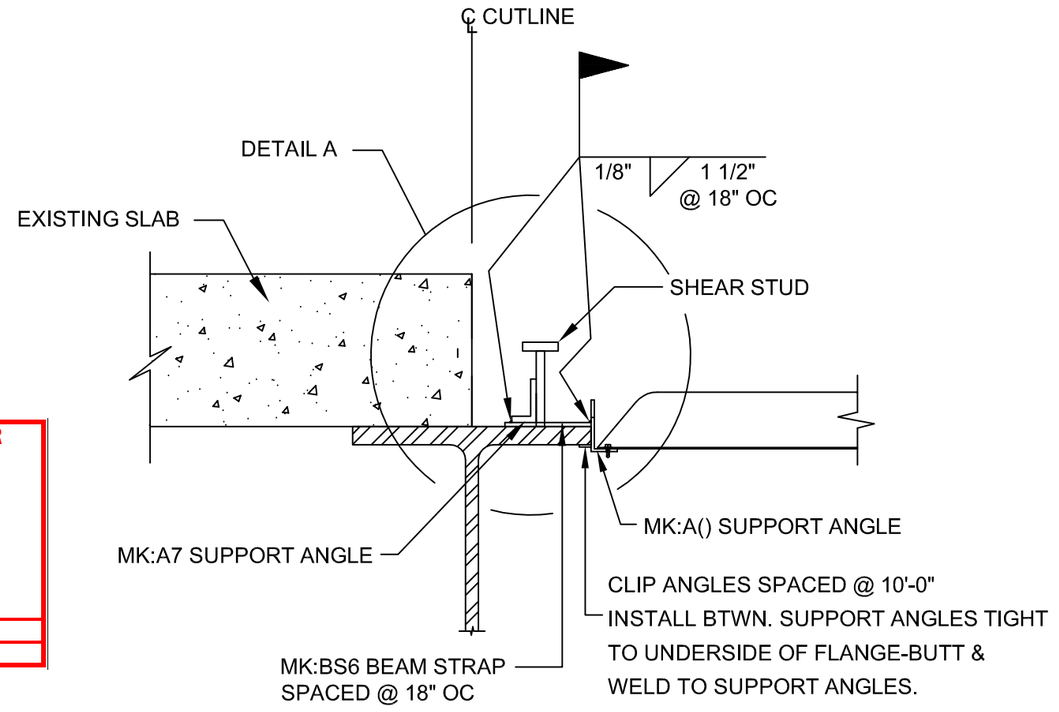
CUSTOMER	WALSH CONSTRUCTION COMPANEY II				
PROJECT	183000	FED. NO. E170 (713)		PID NO. 104667	
LOCATION	HAMILTON COUNTY, OHIO				
ENGINEER	STATE OF OHIO DEPARTMENT OF TRANSPORTATION				
DRAWN	TLC	DATE	06/2019	NEW MILLENNIUM JOB NO.	DRAWING NO.
CHECKED	TC	DATE	06/2019	BR18-0527	1 OF 7



SECTION @ BRIDGE DECK LAYOUT (GIRDER 9)



(DETAIL A)



SECTION @ EXISTING SLAB (GIRDER 9)

PRIME AE, Group, Inc	RELEASED FOR FABRICATION
DATE REC'D: 7/12/2019 BUILDABLE UNIT NO.: BU-11	
Review conforms that the shop drawings meet the intent of the contract.	
☐ CONFORMS AS-IS ☒ CONFORMS AS NOTED SIP Forms over Railroad - Span 7	
By: Tom Stora, PE	By:
Date: 7/16/2019	Date:

AMERICAN STRUCTUREPOINT, INC.
ADDRESS: 7260 SHADELAND STATION,
INDIANAPOLIS, IN 46256
TELEPHONE #: 317.547.5580
CERTIFICATE OF AUTHORITY # 016489

BRIDGE DECK GENERAL NOTES

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2. All material for bridge deck forms, support angles (Grade 50) and accessories (Grade 40) shall conform to ASTM specification A-653 having a coating designation of G-235.
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12. Closure angles shall not be used as support for deck form panels.

DATE

COMMENTS

REVISIONS

REMARKS
BRIDGE DECK LAYOUT AND GENERAL NOTES
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE
BRIDGE NO. HAM-74-1908R (SPAN 7)

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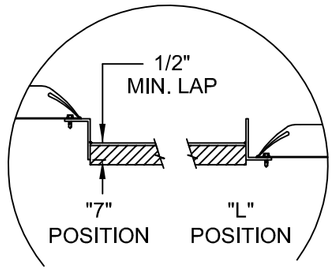
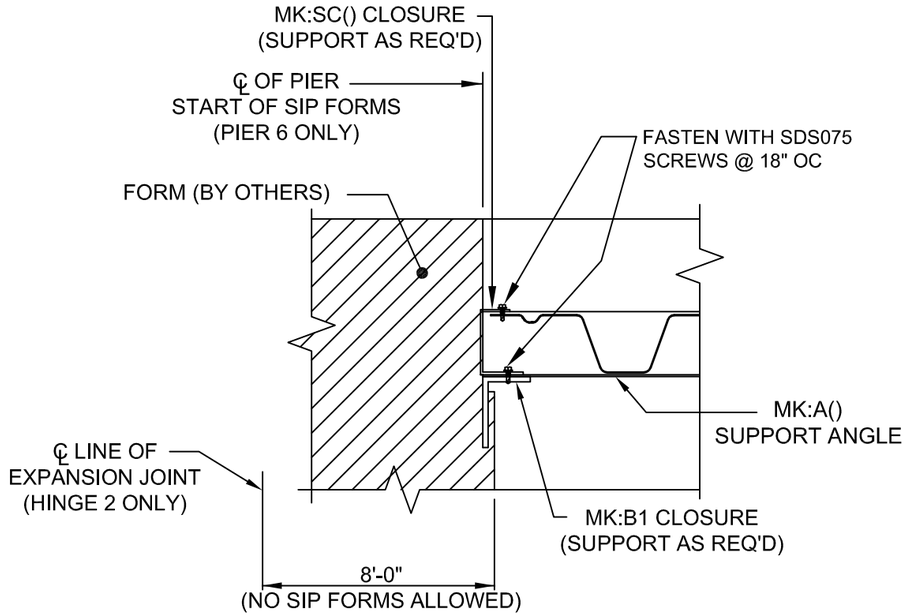
PROJECT	183000	FED. NO. E170 (713)		PID NO. 104667	
LOCATION	HAMILTON COUNTY, OHIO				
ENGINEER	STATE OF OHIO DEPARTMENT OF TRANSPORTATION				
DRAWN	TLC	DATE	06/2019	NEW MILLENNIUM JOB NO.	DRAWING NO.
CHECKED	TC	DATE	06/2019	BR18-0527	2 OF 7



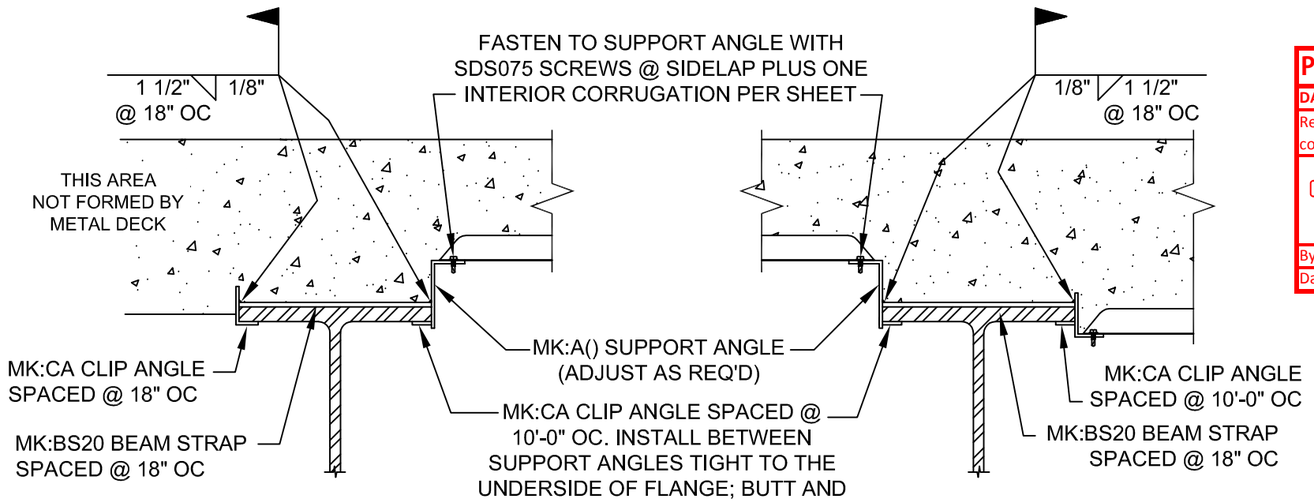
POSSIBLE POSITIONS
FOR SUPPORT ANGLES

NOTE: THE VERTICAL LEGS OF THE SUPPORT ANGLES IN THE "L" POSITION MAY NEED TO BE CUT IN THE FIELD AS NEEDED PER BRIDGE PLANS.

CONNECTION DETAIL



SECTION @ PIER 6, 7 & HINGE 2



SECTION @ EXTERIOR GIRDERS

FASTEN TO SUPPORT ANGLE WITH
SDS075 SCREWS @ SIDELAP PLUS ONE
INTERIOR CORRUGATION PER SHEET

SECTION @ INTERIOR GIRDERS

AMERICAN STRUCTUREPOINT, INC.
ADDRESS: 7260 SHADELAND STATION,
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CERTIFICATE OF AUTHORITY # 016489

PRIME AE, Group, Inc	RELEASED FOR FABRICATION
DATE REC'D: 7/12/2019 BUILDABLE UNIT NO.: BU-11	
Review conforms that the shop drawings meet the intent of the contract.	
☐ CONFORMS AS-IS ☒ CONFORMS AS NOTED SIP Forms over Railroad - Span 7	
By: Tom Stora, PE	By:
Date: 7/16/2019	Date:

DATE
COMMENTS
REVISIONS

REMARKS

BRIDGE DECK SECTIONS
IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE
BRIDGE NO. HAM-74-1908R (SPAN 7)

NEW MILLENNIUM
BUILDING SYSTEMS

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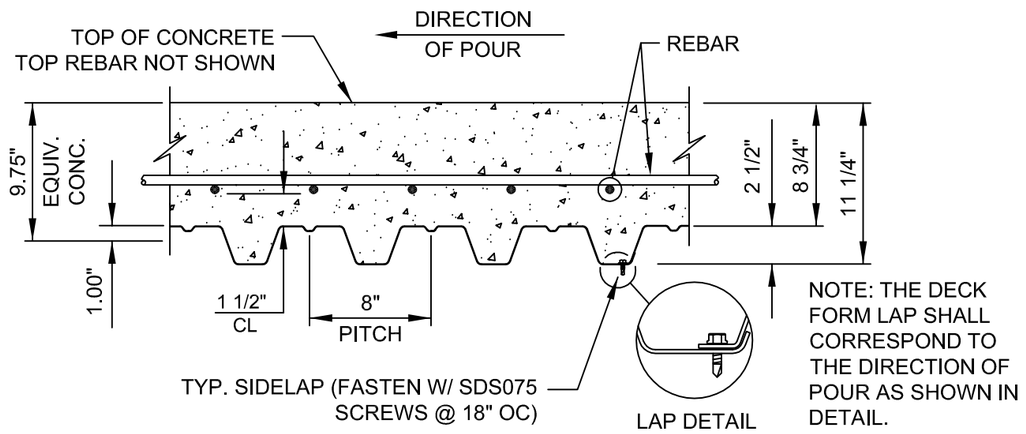
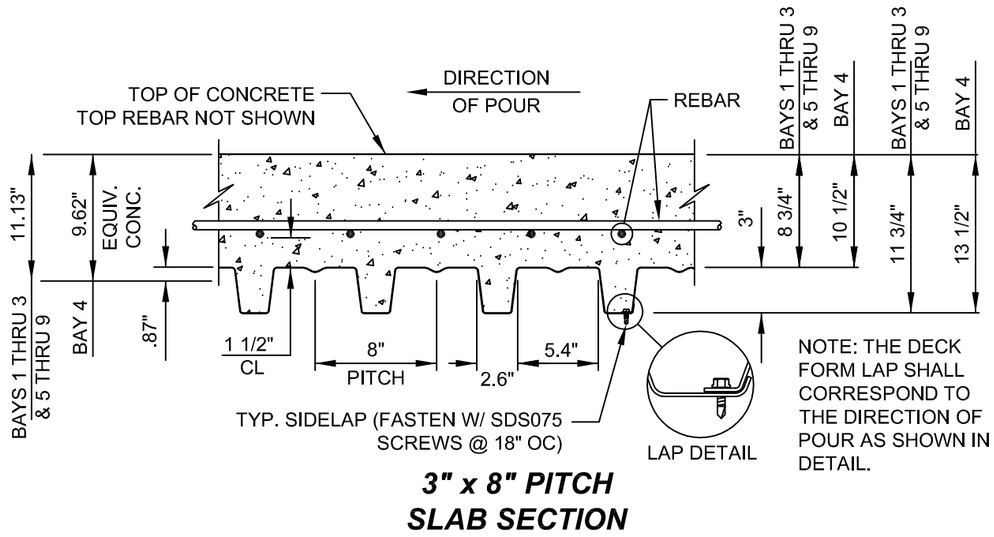
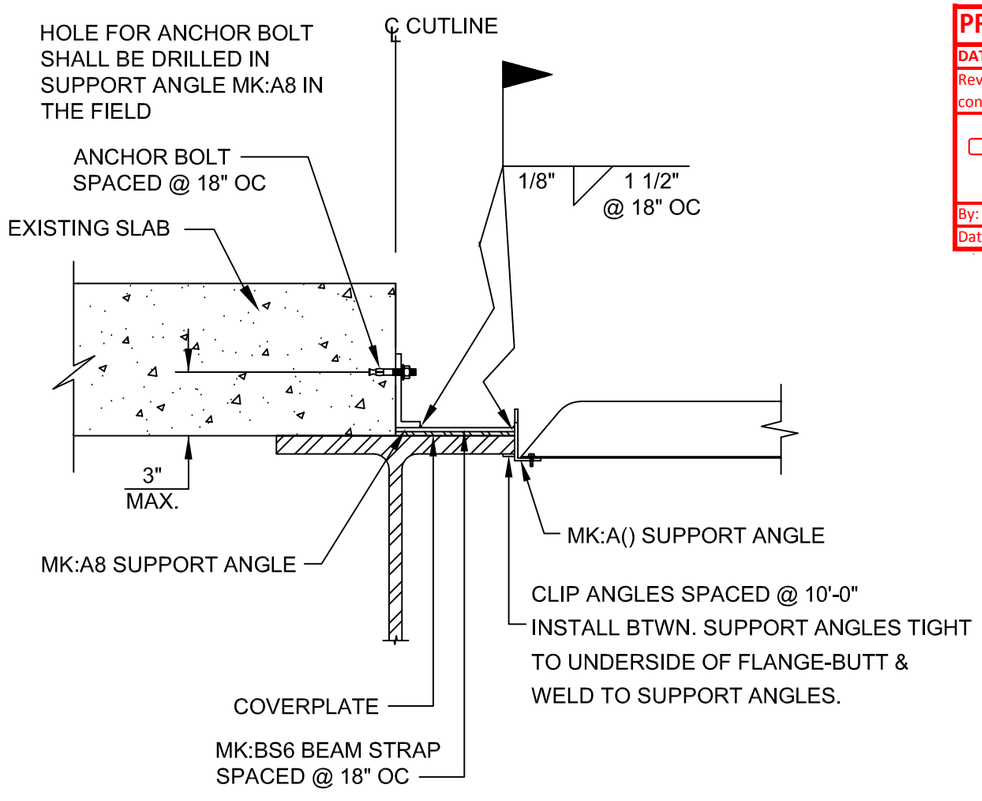
CUSTOMER	WALSH CONSTRUCTION COMPANEY II				
PROJECT	183000	FED. NO. E170 (713)	PID NO. 104667		
LOCATION	HAMILTON COUNTY, OHIO				
ENGINEER	STATE OF OHIO DEPARTMENT OF TRANSPORTATION				
DRAWN TLC	DATE 06/2019	NEW MILLENNIUM JOB NO.		DRAWING NO.	
CHECKED TC	DATE 06/2019	BR18-0527		3	OF 7



2 1/2" x 8" PITCH
SLAB SECTION



3" x 8" PITCH
SLAB SECTION



SECTION @ EXISTING SLAB
(GIRDER 9 @ COVERPLATE)

PRIME AE, Group, Inc

DATE REC'D: **7/12/2019** BUILDABLE UNIT NO.: **BU-11**

Review conforms that the shop drawings meet the intent of the contract.

☐ CONFORMS AS-IS ☒ CONFORMS AS NOTED

SIP Forms over Railroad - Span 7

By: **Tom Stora, PE**

Date: **7/16/2019**

RELEASED FOR FABRICATION

WALSH

By:

Date:

AMERICAN STRUCTUREPOINT, INC.
ADDRESS: 7260 SHADELAND STATION,
INDIANAPOLIS, IN 46256
TELEPHONE #: 317.547.5580
CERTIFICATE OF AUTHORITY # 016489

BRIDGE DECK GENERAL NOTES

1. NMBS will furnish only that material listed in the Bill of Material.
2. All material for bridge deck forms, support angles (Grade 50) and accessories (Grade 40) shall conform to ASTM specification A-653 having a coating designation of G-235.
3. The contractor shall verify all dimensions.
4. Extra concrete poured on deck slab as a result of these metal forms shall be provided by the General Contractor and will not be the responsibility of or to the account of NMBS.
5. ALL DECK SHEETS SHALL HAVE A MINIMUM BEARING OF 1 1/2" AT EACH END OF THE DECK. CENTER FORMS ON SUPPORT ANGLES.
6. FOR THE SAFETY OF THE WORKMEN, ALL DECK SHEETS SHALL BE SECURELY FASTENED TO THE SUPPORT ANGLE AS THEY ARE PLACED, BEFORE CONSTRUCTION TRAFFIC IS PERMITTED.
7. Reinforcing steel and supports for reinforcing steel shall be placed in accordance with applicable drawings and in conformance with good reinforced concrete practice, and under the continuous supervision of a properly trained foreman.
8. CALCIUM CHLORIDE (OR ANY ADMIXTURE CONTAINING CHLORIDE SALTS) SHALL NOT BE USED IN THE CONCRETE PLACED ON THE BRIDGE DECK.
9. Concrete should be poured from a low level to avoid impacting the deck. It should be placed uniformly over the supporting structure (DECK SUPPORTS) and spread towards the center of the deck span. Workers should not congregate around the concrete placement zone.
10. If situations arise that are not specifically covered by these notes or placing plans, or if there is any doubt as to the correct procedure to be followed in erection, please contact New Millennium Building Systems for additional instructions or clarification.
11. Vertical adjustment of support angles shall be determined in the field to maintain the correct slab thickness and roadway slope.
12. Closure angles shall not be used as support for deck form panels.

DATE | COMMENTS | REVISIONS

REMARKS

BRIDGE DECK SECTIONS AND GENERAL NOTES

IR–74 OVER MILL CREEK, RR & SPRING GROVE AVENUE
BRIDGE NO. HAM–74–1908R (SPAN 7)

NEW MILLENNIUM
BUILDING SYSTEMS

New Millennium Building Systems, LLC
4900 Hungerford Road
Memphis, Tennessee 38118
Phone: (901) 365-0226 | www.newmill.com

CUSTOMER	WALSH CONSTRUCTION COMPANEY II				
PROJECT	183000	FED. NO. E170 (713)	PID NO. 104667		
LOCATION	HAMILTON COUNTY, OHIO				
ENGINEER	STATE OF OHIO DEPARTMENT OF TRANSPORTATION				
DRAWN	TLC	DATE	06/2019	NEW MILLENNIUM JOB NO.	DRAWING NO.
CHECKED	TC	DATE	06/2019	BR18–0527	4 OF 7

BILL OF MATERIAL: SPAN 7 BAY 1, PHASE S1-P2-S2			
MARK	NO. PCS.	LENGTH	DESCRIPTION
S7-B1-S2	4	6' - 2 1/2"	BRIDGE DECK 2 1/2" DEEP 8" PITCH 32" COVER CLOSED ENDS ASTM A653 GRADE 50 GALV. G-235 20 GAGE I=0.645 in^4/ft S=0.462 in^3/ft
	2	6' - 2 3/4"	
	2	6' - 3 1/4"	
	2	6' - 3 1/2"	
	2	6' - 3 3/4"	
	2	6' - 4 1/4"	
	2	6' - 4 1/2"	
	2	6' - 4 3/4"	
	2	6' - 5 1/4"	
	2	6' - 5 1/2"	
	2	6' - 5 3/4"	
	2	6' - 6 1/4"	
	2	6' - 6 1/2"	
	2	6' - 6 3/4"	
	2	6' - 7 1/4"	
	2	6' - 7 1/2"	
	2	6' - 7 3/4"	
	2	6' - 8"	
	2	6' - 8 1/2"	
	2	6' - 8 3/4"	
	2	6' - 9"	
	2	6' - 9 1/2"	
	2	6' - 9 3/4"	
	2	6' - 10"	
	4	6' - 10 1/2"	

BILL OF MATERIAL: SPAN 7 BAY 2, PHASE S1-P2-S2			
MARK	NO. PCS.	LENGTH	DESCRIPTION
S7-B2-S2	67	3' - 3 3/4"	BRIDGE DECK 3" DEEP 8" PITCH 24" COVER CLOSED ENDS ASTM A653 GRADE 50 GALV. G-235 20 GAGE I=1.002 in^4/ft S=0.541 in^3/ft

BILL OF MATERIAL: SPAN 7 BAY 5, PHASE S1-P2-S2			
MARK	NO. PCS.	LENGTH	DESCRIPTION
S7-B5-S2	3	7' - 0 1/4"	BRIDGE DECK 3" DEEP 8" PITCH 24" COVER CLOSED ENDS ASTM A653 GRADE 50 GALV. G-235 20 GAGE I=1.002 in^4/ft S=0.541 in^3/ft
	2	7' - 0 3/4"	
	2	7' - 1"	
	2	7' - 1 1/2"	
	2	7' - 1 3/4"	
	2	7' - 2"	
	2	7' - 2 1/2"	
	2	7' - 2 3/4"	
	2	7' - 3 1/4"	
	2	7' - 3 1/2"	
	2	7' - 4"	
	2	7' - 4 1/4"	
	2	7' - 4 1/2"	
	2	7' - 5"	
	2	7' - 5 1/4"	
	2	7' - 5 3/4"	
	2	7' - 6"	
	2	7' - 6 1/2"	
	2	7' - 6 3/4"	
	2	7' - 7 1/4"	
	2	7' - 7 1/2"	
	2	7' - 7 3/4"	
	2	7' - 8 1/4"	
	2	7' - 8 1/2"	
	2	7' - 9"	
	2	7' - 9 1/4"	
	2	7' - 9 3/4"	
	2	7' - 10"	
	2	7' - 10 1/2"	
	2	7' - 10 3/4"	
	2	7' - 11"	
	2	7' - 11 1/2"	
	4	7' - 11 3/4"	

PRIME AE, Group, Inc

DATE REC'D: 7/12/2019 BUILDABLE UNIT NO.: BU-11

Review conforms that the shop drawings meet the intent of the contract.

☐ CONFORMS AS-IS ☒ CONFORMS AS NOTED

SIP Forms over Railroad - Span 7

By: Tom Stora, PE

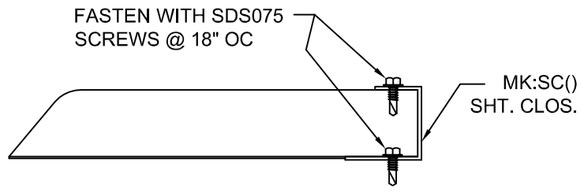
Date: 7/16/2019

RELEASED FOR FABRICATION

WALSH

By:

Date:



CLOSE CUT END WITH MK:SC()
ATTACH WITH SDS075 SCREWS @ 18" O.C.

CLOSURE FOR FIELD CUT DECK ENDS

BRIDGE DECK GENERAL NOTES

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3. The contractor shall verify all dimensions.
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AMERICAN STRUCTUREPOINT, INC.
ADDRESS: 7260 SHADELAND STATION,
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TELEPHONE #: 317.547.5580
CERTIFICATE OF AUTHORITY # 016489

DATE

COMMENTS

REVISIONS

REMARKS

BRIDGE DECK BILL OF MATERIAL AND GENERAL NOTES

IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE
BRIDGE NO. HAM-74-1908R (SPAN 7)

NEW MILLENNIUM
BUILDING SYSTEMS

New Millennium Building Systems, LLC
4900 Hungerford Road
Memphis, Tennessee 38118
Phone: (901) 365-0226 | www.newmill.com

CUSTOMER	WALSH CONSTRUCTION COMPANEY II				
PROJECT	183000	FED. NO. E170 (713)	PID NO. 104667		
LOCATION	HAMILTON COUNTY, OHIO				
ENGINEER	STATE OF OHIO DEPARTMENT OF TRANSPORTATION				
DRAWN	TLC	DATE	06/2019	NEW MILLENNIUM JOB NO.	DRAWING NO.
CHECKED	TC	DATE	06/2019	BR18-0527	5 OF 7

BILL OF MATERIAL: SPAN 7 BAY 6, PHASE S1-P2-S1			
MARK	NO. PCS.	LENGTH	DESCRIPTION
S7-B6-S1	4	6' - 11 3/4"	BRIDGE DECK 3" DEEP 8" PITCH 24" COVER CLOSED ENDS ASTM A653 GRADE 50 GALV. G-235 20 GAGE I=1.002 in^4/ft S=0.541 in^3/ft
	2	7' - 0"	
	2	7' - 0 1/2"	
	2	7' - 0 3/4"	
	2	7' - 1"	
	2	7' - 1 1/2"	
	2	7' - 1 3/4"	
	2	7' - 2 1/4"	
	2	7' - 2 1/2"	
	2	7' - 2 3/4"	
	2	7' - 3 1/4"	
	2	7' - 3 1/2"	
	2	7' - 4"	
	2	7' - 4 1/4"	
	2	7' - 4 1/2"	
	2	7' - 5"	
	2	7' - 5 1/4"	
	2	7' - 5 3/4"	
	2	7' - 6"	
	2	7' - 6 1/2"	
	2	7' - 6 3/4"	
	2	7' - 7"	
	2	7' - 7 1/2"	
	2	7' - 7 3/4"	
	2	7' - 8 1/4"	
	2	7' - 8 1/2"	
	2	7' - 8 3/4"	
	2	7' - 9 1/4"	
	2	7' - 9 1/2"	
	2	7' - 10"	
	2	7' - 10 1/4"	
	2	7' - 10 3/4"	
	2	7' - 11"	
	4	7' - 11 1/4"	

BILL OF MATERIAL: SPAN 7 BAY 7, PHASE S1-P2-S1			
MARK	NO. PCS.	LENGTH	DESCRIPTION
S7-B7-S1	4	6' - 11 3/4"	BRIDGE DECK 3" DEEP 8" PITCH 24" COVER CLOSED ENDS ASTM A653 GRADE 50 GALV. G-235 20 GAGE I=1.002 in^4/ft S=0.541 in^3/ft
	2	7' - 0 1/4"	
	2	7' - 0 1/2"	
	2	7' - 0 3/4"	
	2	7' - 1"	
	2	7' - 1 1/2"	
	2	7' - 1 3/4"	
	2	7' - 2"	
	2	7' - 2 1/4"	
	2	7' - 2 1/2"	
	2	7' - 3"	
	2	7' - 3 1/4"	
	2	7' - 3 1/2"	
	2	7' - 3 3/4"	
	2	7' - 4 1/4"	
	2	7' - 4 1/2"	
	2	7' - 4 3/4"	
	2	7' - 5"	
	2	7' - 5 1/2"	
	2	7' - 5 3/4"	
	2	7' - 6"	
	2	7' - 6 1/4"	
	2	7' - 6 3/4"	
	2	7' - 7"	
	2	7' - 7 1/4"	
	2	7' - 7 1/2"	
	2	7' - 8"	
	2	7' - 8 1/4"	
	2	7' - 8 1/2"	
	2	7' - 8 3/4"	
	2	7' - 9"	
	2	7' - 9 1/2"	
	2	7' - 9 3/4"	
	3	7' - 10"	

BILL OF MATERIAL: SPAN 7 BAY 8, PHASE S1-P2-S1			
MARK	NO. PCS.	LENGTH	DESCRIPTION
S7-B8-S1	4	6' - 11 1/4"	BRIDGE DECK 3" DEEP 8" PITCH 24" COVER CLOSED ENDS ASTM A653 GRADE 50 GALV. G-235 20 GAGE I=1.002 in^4/ft S=0.541 in^3/ft
	2	6' - 11 1/2"	
	2	7' - 0"	
	2	7' - 0 1/2"	
	2	7' - 0 3/4"	
	2	7' - 1 1/4"	
	2	7' - 1 1/2"	
	2	7' - 2"	
	2	7' - 2 1/2"	
	2	7' - 2 3/4"	
	2	7' - 3 1/4"	
	2	7' - 3 1/2"	
	2	7' - 4"	
	2	7' - 4 1/2"	
	2	7' - 4 3/4"	
	2	7' - 5 1/4"	
	2	7' - 5 1/2"	
	2	7' - 6"	
	2	7' - 6 1/2"	
	2	7' - 6 3/4"	
	2	7' - 7 1/4"	
	2	7' - 7 1/2"	
	2	7' - 8"	
	2	7' - 8 1/2"	
	2	7' - 8 3/4"	
	2	7' - 9 1/4"	
	2	7' - 9 1/2"	
	2	7' - 10"	
	2	7' - 10 1/2"	
	2	7' - 10 3/4"	
	2	7' - 11 1/4"	
	2	7' - 11 1/2"	
	2	8' - 0"	
	3	8' - 0 1/4"	

BILL OF MATERIAL: SPAN 7 BAY 9, PHASE S1-P2-S1			
MARK	NO. PCS.	LENGTH	DESCRIPTION
S7-B9-S1	4	6' - 11 1/4"	BRIDGE DECK 3" DEEP 8" PITCH 24" COVER CLOSED ENDS ASTM A653 GRADE 50 GALV. G-235 20 GAGE I=1.002 in^4/ft S=0.541 in^3/ft
	2	6' - 11 3/4"	
	2	7' - 0"	
	2	7' - 0 1/4"	
	2	7' - 0 1/2"	
	2	7' - 1"	
	2	7' - 1 1/4"	
	2	7' - 1 1/2"	
	2	7' - 2"	
	2	7' - 2 1/4"	
	2	7' - 2 1/2"	
	2	7' - 2 3/4"	
	2	7' - 3 1/4"	
	2	7' - 3 1/2"	
	2	7' - 3 3/4"	
	2	7' - 4 1/4"	
	2	7' - 4 1/2"	
	2	7' - 4 3/4"	
	2	7' - 5"	
	2	7' - 5 1/2"	
	2	7' - 5 3/4"	
	2	7' - 6"	
	2	7' - 6 1/2"	
	2	7' - 6 3/4"	
	2	7' - 7"	
	2	7' - 7 1/2"	
	2	7' - 7 3/4"	
	2	7' - 8"	
	2	7' - 8 1/4"	
	2	7' - 8 3/4"	
	2	7' - 9"	
	2	7' - 9 1/4"	
	2	7' - 9 3/4"	
	3	7' - 10"	

BILL OF MATERIAL: SPAN 7 BAY 3, PHASE S1-P2-S2			
MARK	NO. PCS.	LENGTH	DESCRIPTION
S7-B3-S2	3	7' - 1 1/2"	BRIDGE DECK 3" DEEP 8" PITCH 24" COVER CLOSED ENDS ASTM A653 GRADE 50 GALV. G-235 20 GAGE I=1.002 in^4/ft S=0.541 in^3/ft
	2	7' - 2"	
	2	7' - 2 1/4"	
	2	7' - 2 1/2"	
	2	7' - 3"	
	2	7' - 3 1/4"	
	2	7' - 3 3/4"	
	2	7' - 4"	
	2	7' - 4 1/2"	
	2	7' - 4 3/4"	
	2	7' - 5"	
	2	7' - 5 1/2"	
	2	7' - 5 3/4"	
	2	7' - 6 1/4"	
	2	7' - 6 1/2"	
	2	7' - 6 3/4"	
	4	7' - 7 1/4"	

BILL OF MATERIAL: SPAN 7 BAY 4, PHASE S1-P2-S2			
MARK	NO. PCS.	LENGTH	DESCRIPTION
S7-B4-S2	3	7' - 0 1/4"	BRIDGE DECK 3" DEEP 8" PITCH 24" COVER CLOSED ENDS ASTM A653 GRADE 50 GALV. G-235 20 GAGE I=1.002 in^4/ft S=0.541 in^3/ft
	2	7' - 0 3/4"	
	2	7' - 1"	
	2	7' - 1 1/2"	
	2	7' - 1 3/4"	
	2	7' - 2 1/4"	
	2	7' - 2 1/2"	
	2	7' - 3"	
	2	7' - 3 1/4"	
	2	7' - 3 1/2"	
	2	7' - 4"	
	2	7' - 4 1/4"	
	2	7' - 4 3/4"	
	2	7' - 5"	
	2	7' - 5 1/2"	
	2	7' - 5 3/4"	
	2	7' - 6"	
	4	7' - 6 1/2"	

PRIME AE, Group, Inc

DATE REC'D: 7/12/2019 BUILDABLE UNIT NO.: BU-11

Review conforms that the shop drawings meet the intent of the contract.

☐ CONFORMS AS-IS ☒ CONFORMS AS NOTED

SIP Forms over Railroad - Span 7

By: Tom Stora, PE

Date: 7/16/2019

RELEASED FOR FABRICATION

WALSH

By:

Date:

AMERICAN STRUCTUREPOINT, INC.
ADDRESS: 7260 SHADELAND STATION,
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DATE	COMMENTS	REVISIONS

REMARKS

BRIDGE DECK BILL OF MATERIAL AND GENERAL NOTES

IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE
BRIDGE NO. HAM-74-1908R (SPAN 7)

NEW MILLENNIUM
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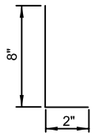
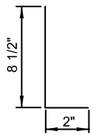
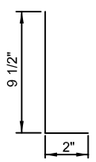
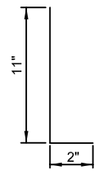
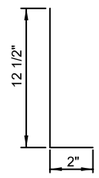
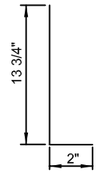
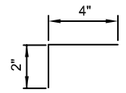
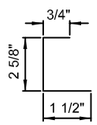
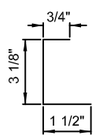
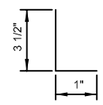
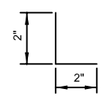
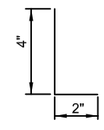
Phone: (901) 365-0226 | www.newmill.com

CUSTOMER	WALSH CONSTRUCTION COMPANEY II				
PROJECT	183000	FED. NO. E170 (713)	PID NO. 104667		
LOCATION	HAMILTON COUNTY, OHIO				
ENGINEER	STATE OF OHIO DEPARTMENT OF TRANSPORTATION				
DRAWN	TLC	DATE	06/2019	NEW MILLENNIUM JOB NO.	DRAWING NO.
CHECKED	TC	DATE	06/2019	BR18-0527	6 OF 7

BILL OF MATERIAL			
MARK	NO. PCS.	LENGTH	DESCRIPTION
S1-P2-S1 A1	26	10'-0"	SUPPORT ANGLE 10 GAGE GALV. 
S1-P2-S1 A2	52	10'-0"	SUPPORT ANGLE 10 GAGE GALV. 
S1-P2-S2 A3	13	10'-0"	SUPPORT ANGLE 10 GAGE GALV. 
S1-P2-S1 A4 S1-P2-S2 A4	26 46	10'-0" 10'-0"	SUPPORT ANGLE 10 GAGE GALV. 
S1-P2-S2 A5	37	10'-0"	SUPPORT ANGLE 8 GAGE GALV. 

BILL OF MATERIAL			
MARK	NO. PCS.	LENGTH	DESCRIPTION
S1-P2-S2 A6	14	10'-0"	SUPPORT ANGLE 8 GAGE GALV. 
S1-P2-S1 B S1-P2-S2 B	8 10	10'-0" 10'-0"	CLOSURE ANGLE 16 GAGE GALV. 
S1-P2-S2 SC2.5	2	10'-0"	SHEET CLOSURE 20 GAGE GALV. 
S1-P2-S1 SC3.0 S1-P2-S2 SC3.0	21 8	10'-0" 10'-0"	SHEET CLOSURE 20 GAGE GALV. 

BILL OF MATERIAL			
MARK	NO. PCS.	LENGTH	DESCRIPTION
CA	420	2"	CLIP ANGLE 12 GAGE GALV. 
S1-P2-S1 BS20 BS6 S1-P2-S2 BS20 BS6	360 90 442 90	20 1/8" 6 1/16" 20 1/8" 6 1/16"	BEAM STRAPS 12 GAGE 2" WIDE FLAT
SDS075	3,900	----	SELF DRILLING SCREWS 1/4-14x3/4" CADMIUM PLTD.
S1-P2-S1 A7 S1-P2-S2 A7	13 13	2" 2"	SUPPORT ANGLE 10 GAGE GALV. 
S1-P2-S1 A8 S1-P2-S1 A8	1 1	10'-0" 10'-0"	SUPPORT ANGLE 10 GAGE GALV. 

*ANGLE SUPPORT LIMITS CHART		
MARK	MAX. HAUNCH	SIP PROFILE
A1	10 1/2"	3"
A2	10 1/2"	2 1/2"
A3	12"	3"
A4	13"	2 1/2"
A5	14 1/2"	2 1/2"
A5	15"	3"
A6	16 1/4"	3"

* MAX. MEASURED AT THE EDGE OF BEAM. IF A LARGER HAUNCH EXISTS, i.e. DUE TO CAMBER & DEAD LOAD DEFLECTION, THIS VALUE MUST BE PROVIDED TO NMBS PRIOR TO DRAWING APPROVAL.

PRIME AE, Group, Inc

DATE REC'D: 7/12/2019 BUILDABLE UNIT NO.: BU-11

Review conforms that the shop drawings meet the intent of the contract.

☐ CONFORMS AS-IS ☒ CONFORMS AS NOTED

SIP Forms over Railroad - Span 7

By: Tom Stora, PE

Date: 7/16/2019

RELEASED FOR FABRICATION

WALSH

BRIDGE DECK GENERAL NOTES

1. NMBS will furnish only that material listed in the Bill of Material.
2. All material for bridge deck forms, support angles (Grade 50) and accessories (Grade 40) shall conform to ASTM specification A-653 having a coating designation of G-235.
3. The contractor shall verify all dimensions.
4. Extra concrete poured on deck slab as a result of these metal forms shall be provided by the General Contractor and will not be the responsibility of or to the account of NMBS.
5. ALL DECK SHEETS SHALL HAVE A MINIMUM BEARING OF 1 1/2" AT EACH END OF THE DECK. CENTER FORMS ON SUPPORT ANGLES.
6. FOR THE SAFETY OF THE WORKMEN, ALL DECK SHEETS SHALL BE SECURELY FASTENED TO THE SUPPORT ANGLE AS THEY ARE PLACED, BEFORE CONSTRUCTION TRAFFIC IS PERMITTED.
7. Reinforcing steel and supports for reinforcing steel shall be placed in accordance with applicable drawings and in conformance with good reinforced concrete practice, and under the continuous supervision of a properly trained foreman.
8. CALCIUM CHLORIDE (OR ANY ADMIXTURE CONTAINING CHLORIDE SALTS) SHALL NOT BE USED IN THE CONCRETE PLACED ON THE BRIDGE DECK.
9. Concrete should be poured from a low level to avoid impacting the deck. It should be placed uniformly over the supporting structure (DECK SUPPORTS) and spread towards the center of the deck span. Workers should not congregate around the concrete placement zone.
10. If situations arise that are not specifically covered by these notes or placing plans, or if there is any doubt as to the correct procedure to be followed in erection, please contact New Millennium Building Systems for additional instructions or clarification.
11. Vertical adjustment of support angles shall be determined in the field to maintain the correct slab thickness and roadway slope.
12. Closure angles shall not be used as support for deck form panels.

AMERICAN STRUCTUREPOINT, INC.
ADDRESS: 7260 SHADELAND STATION,
INDIANAPOLIS, IN 46256
TELEPHONE #: 317.547.5580
CERTIFICATE OF AUTHORITY # 016489

DATE | COMMENTS | REVISIONS

REMARKS

BRIDGE DECK BILL OF MATERIAL AND GENERAL NOTES

IR-74 OVER MILL CREEK, RR & SPRING GROVE AVENUE
BRIDGE NO. HAM-74-1908R (SPAN 7)

NEW MILLENNIUM BUILDING SYSTEMS

New Millennium Building Systems, LLC
4900 Hungerford Road
Memphis, Tennessee 38118
Phone: (901) 365-0226 | www.newmill.com

CUSTOMER	WALSH CONSTRUCTION COMPANEY II				
PROJECT	183000	FED. NO. E170 (713)	PID NO. 104667		
LOCATION	HAMILTON COUNTY, OHIO				
ENGINEER	STATE OF OHIO DEPARTMENT OF TRANSPORTATION				
DRAWN TLC	DATE 06/2019	NEW MILLENNIUM JOB NO.	DRAWING NO.		
CHECKED TC	DATE 06/2019	BR18-0527	7	OF	7