

**OHIO TURNPIKE AND
INFRASTRUCTURE COMMISSION**

ADDENDUM NO. 3

**PROJECT NO. 43-17-05
BRIDGE DECK REPAIR AND REHABILITATION
BOSTON MILLS ROAD OVER OHIO TURNPIKE M.P. 178.0,
OLDE EIGHT ROAD OVER OHIO TURNPIKE M.P. 179.5,
NICHOLS ROAD OVER OHIO TURNPIKE M.P. 199.2,
SUMMIT AND PORTAGE COUNTIES, OHIO**

EXTENDED OPENING DATE: 2:00 P.M. (EASTERN TIME), JANUARY 25, 2017

ALL BIDS MUST BE ELECTRONICALLY SUBMITTED THROUGH BID EXPRESS

ATTENTION OF BIDDERS IS DIRECTED TO:

QUESTIONS AND ANSWERS THROUGH 10:00 AM ON JANUARY 20, 2017

-AND-

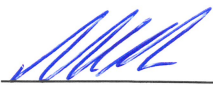
MODIFICATION TO PLAN SHEETS 2, 8, 12, 18, 32, 39 AND 44

-AND-

CHANGE TO THE BID FORM SCHEDULE OF ITEMS

Issued by the Ohio Turnpike and Infrastructure Commission on January 20, 2017. Issuance authorized by Anthony D. Yacobucci, Chief Engineer, and Mark R. Musson, Director of Contracts Administration.


Anthony D. Yacobucci 1-20-17
Date


Mark R. Musson 1/20/17
Date

**OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION
ADDENDUM NO. 3
PROJECT NO. 43-17-05**

QUESTIONS AND ANSWERS THROUGH 10:00AM ON JANUARY 20, 2017

Q#5. At MP 179.5, sheet 26/49, what is the estimated quantity of Item 601 slope protection, what is the estimated quantity, and what pay item reference # will this be paid under. Also, what materials will be considered acceptable.

A#5 There is a new pay item added as Ref. No. 43A, Item No. SP 601, Concrete Slope Protection, quantity of 90 SQ YDS. Plan Sheet 2 of 49 has been revised.

Q#6 Plan sheet 37/49 shows a scupper drain extension at both sides of the rear end of Arch, for a total of (4). However, bid reference item #38 has a quantity of 6 each. Please clarify.

A#6 Plan Sheet No. 37 of 49 shows a scupper drain extension at both sides (Left and Right) of the rear end of the arch for a total of two (2). Bid Ref. No. 38 is for Scupper Salvaged or Replaced, quantity of six (6) as shown on Plan Sheet No. 34 of 49. The quantity for Ref. No. 38 which was revised in Addendum 1 to four (4) is reverted back to six (6) through this Addendum No. 3. Note 2 on Plan Sheet 37 of 49 indicates the scupper drain extension work shall be included for payment WITH Item 518 – Scupper Salvaged or Replaced.

Q#8 The four (4) existing catch basins at Nichols Road are called out to be “reconstructed to grade” on plan sheet 39/49. The General Summary on plan sheet 2/49 indicates that the four (4) catch basins at Nichols Road are to be removed by bid item #8 and replaced with new catch basins by bid item #24. Also, there is a general note on plan sheet 8/49 “SP604 – Catch Basin Reconstructed to Grade” that describes the work involved with the reconstruction activity. It is unclear as to what the OTIC intends to do with the four (4) catch basins at Nichols Road. Please clarify if these catch basins are to be removed and replaced according to the General Summary or reconstructed and adjusted to grade according to plan sheets 8 & 39/49 and adjust the existing bid item quantity and add the new bid items if reconstruction is the desired work.

A#8 All catch basins at Nichols Road are to be removed and replaced. Plan Sheets 8 and 39 of 49 are revised accordingly through this Addendum No. 3.

Q#11 The existing bridge sections for Boston Mills (sheet 12/49) and Nichols (sheet 40/49) do not depict existing deck counterweights. The existing bridge plans for Boston Mills shows counterweights while Nichols does not. Please confirm if there are existing counterweights at any of the structures.

A#11 There are existing counterweights at Boston Mills, as indicated on the existing plans and will be replaced at Boston Mills. There are no existing counterweights at Nichols Road, but this project will add the counterweights at Nichols Road.

Q#13 Plan Sheet 44/49 it calls out the shear studs as 7/8" x 6" in the elevation view and then as 7/8" x 5" in the plan view. Can the correct stud length please be provided?

A#13 Six (6) inch studs are to be provided, and Plan Sheet 44 of 49 is revised accordingly through this Addendum No. 3.

Q#14 Can the commission please clarify the scupper and related work to be paid for under Bid Item #38? The original quantity, before it was changed by Addendum #1, was 6ea which corresponded to the number of scuppers shown on Sht 34/49 to be salvaged or replaced. Sht 37/49 only shows two (2) scupper drain extensions, one (1) on the southwest corner of the bridge and one (1) on the southeast corner of the bridge. Plan Note 2 on Sht 34 clearly states that the bench cleaning and scupper drain extensions are only to be performed on the rear end of the arch.

A#14 See the response to Q#6.

Q#15 The Olde Eight bridge plans indicate removal of the existing approach slab, however the Boston Mills plans do not indicate that the existing slabs are being removed. There is quantity for new slabs on Boston Mills. Please verify that the approach slabs at both locations are being removed and replaced.

A#15 Yes, Plan Sheets 2 and 18 of 49 have been revised to clarify that the Boston Mills Road approach slabs are to be removed and replaced.

Q#16 Some previous projects have included a bid item for Approach Slab Removal. Where should this work be included in the current bid?

A#16 This work is to be included for payment in Item SP 202 – Portions of Structure Removed.

Q#17 Addendum #2 did not include a location to acknowledge the addendum. Will it be acceptable to provide the typical acknowledgment information on the addendum page?

A#18 Yes, Addendum No. 2 did not provide any substantive revisions to the contract documents. Bidders may submit responsive bids any time prior to the extended opening date without providing an acknowledgement of Addendum No. 2.

Q#19 The General Summary lists Item 202 – Pavement Removed and Item 301 – Asphalt Concrete Base, PG64-22 for MP178.0 and MP 199.2. We cannot find locations for this work shown in the plans. What is the anticipated use of these items?

A#19 The anticipated activities compensated under these pay items are removing and replacing/repairing the roadway pavement around the catch basins replaced at the Boston Mills Road Bridge and the Nichols Road Bridge.

Addendum No. 3 to Contract 43-17-05:

(Firm Name)

(Signature)

(Printed Name)

Date: _____

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ITEM ODOT	TOTAL	UNIT	DESCRIPTION	GENERAL	MP 178.0	MP 179.5	MP 199.2
GENERAL							
IB.ART.6	LUMP	LUMP	PREMIUM FOR CONTRACT PERFORMANCE BOND AND PAYMENT BOND	LUMP			
SP 614	LUMP	LUMP	MAINTAINING TRAFFIC	LUMP			
SP 619	LUMP	LUMP	FILED OFFICE	LUMP			
SP 623	LUMP	LUMP	CONSTRUCTION LAYOUT SURVEY	LUMP			
624	LUMP	LUMP	MOBILIZATION	LUMP			
ROADWAY							
202	55	FOOT	PIPE REMOVED, 24" AND UNDER		35		20
202	600	FOOT	GUARDRAIL REMOVED		150	150	300
202	6	EACH	CATCH BASIN REMOVED		2		4
202	27	SQ.YD.	PAVEMENT REMOVED		20		7
254	518	SQ.YD.	PAVEMENT PLANING, ASPHALT CONCRETE		166	158	194
301	12	CU.YD.	ASPHALT CONCRETE BASE, PG64-22		5		7
407	70	GAL.	NON-TRACKING TACK COAT		22	22	26
441	19	CU.YD.	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22		6	6	7
441	27	CU.YD.	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448), PG64-22		9	8	10
526	199	SQ.YD.	REINFORCED CONCRETE APPROACH SLABS, (T=12")		96	103	
606	300	FOOT	GUARDRAIL, TYPE MGS		50	50	200
606	12	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1		4	4	4
614	90	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSIST	90			
614	5	EACH	REPLACEMENT SIGN	5			
626	16	EACH	BARRIER REFLECTOR		4	4	8
630	300	SQ.FT.	SIGNING MISC.: ADDITIONAL SIGNS, GROUND MOUNTED AS DIRECTED BY THE ENGINEER	300			
642	0.39	MILE	EDGE LINE, 4"		0.13	0.15	0.11
642	0.19	MILE	CENTER LINE		0.06	0.07	0.06
DRAINAGE							
SP 604	6	EACH	CATCH BASIN, NO. CB-1		2		4
611	28	FOOT	12" CONDUIT, TYPE B		28		
611	27	FOOT	12" CONDUIT, TYPE C		7		20
STRUCTURES							
SP 202	LUMP	LUMP	PORTIONS OF STRUCTURE REMOVED		LUMP	LUMP	LUMP
SP 509	200,969	POUND	EPOXY COATED REINFORCING STEEL, GRADE 60		58,498	88,648	53,823
509	300	POUND	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL		100	100	100
SP 511B	616	CU.YD.	CLASS HP4 CONCRETE, SUPERSTRUCTURE DECK SLAB		199	247	170
SP 511B	239	CU.YD.	CLASS S CONCRETE, BARRIERS AND PARAPETS, USING TYPE 1 CEMENT		72	99	68
SP 511B	144	CU.YD.	CLASS HP4 CONCRETE, ABUTMENT SLABS		37	69	38
SP 511B	9	CU.YD.	CLASS HP4 CONCRETE, FOR PREPLACEMENT TESTING		3	3	3
513	6,600	EACH	WELDED STUD SHEAR CONNECTORS			4,240	2,360
SP 516A	25	FOOT	CRACK REPAIR USING EPOXY INJECTION	25			
SP 516B	1,578	FOOT	SEALING OF CONSTRUCTION JOINTS		474	654	450
SP 516G	32	EACH	REPLACE EXPANSION BEARING DEVICE		16		16
518	6	EACH	SCUPPER SALVAGED OR REPLACED			6	
SP 519	202	SQ.FT.	PATCHING CONCRETE STRUCTURES		196		6
SP 527	LUMP	LUMP	FALSEWORK, TEMPORARY BRACING, AND PROTECTIVE STRUCTURES		LUMP	LUMP	LUMP
SP 533	241	FOOT	THREE (3) INCH CONTINUOUS STRIP SEAL IN STRUCTURAL STEEL JOINTS		61	125	55
SP 536	824	SQ.YD.	CONCRETE WEATHERPROOFING, SUBSTRUCTURE		374	152	298
SP 536	2,933	SQ.YD.	CONCRETE WEATHERPROOFING, DECK AND ABUTMENT SLABS		799	1,336	798
601	90	SQ.YD.	CONCRETE SLOPE PROTECTION			90	
SP 607	1,537	FOOT	TYPE II FENCE, ALL ALUMINUM (6'-0" CHAIN LINK WITH SPECIALS)		461	640	436

2

PROJECT 43-17-05	GENERAL SUMMARY	DESIGNED LMP	CHECKED JTH	NO. 2	BY DATE TMR 11/19/17
DATE: 11/30/16	OHIO TURNPIKE	DRAWN KAF	IN CHARGE ZRD	ADDENDUM NO. 2	REVISIONS
M.P. 178.0, M.P. 179.5 AND M.P. 199.2		SUMMIT AND PORTAGE COUNTIES		OHIO TURNPIKE	

DESIGN AGENCY
AKRON CLEVELAND COLUMBUS
564 WHITE POND DRIVE
AKRON, OHIO 44320-1100
AECOM
(330) 666-9111

OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION

ITEM 630 - SIGNING MISC.: ADDITIONAL SIGNS, GROUND MOUNTED AS DIRECTED BY THE ENGINEER

WHEN ADDITIONAL SIGNING IS NEEDED TO MAINTAIN TRAFFIC, THE CONTRACTOR SHALL FURNISH THE SIGN OR SIGNS AS DIRECTED BY THE ENGINEER. THESE SIGNS SHALL BE GROUND MOUNTED AND MEET ALL THE SPECIFICATIONS OF THE PLAN, PROPOSAL AND CURRENT YEAR CMS.

PAYMENT FOR THIS ITEM SHALL INCLUDE, BUT NOT BE LIMITED TO, THE COST TO FURNISH AND ERECT THE SIGN, INCLUDING DRIVING POSTS OR OTHER APPROVED METHODS OF SIGN SUPPORT, MAINTAINING THE SIGN AND REMOVAL OF THE SIGN. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.

ITEM 630, SIGNING MISC.: ADDITIONAL SIGNS, GROUND MOUNTED 300 SQ. FT.

ITEM 614 - REPLACEMENT SIGN

FLAT SHEET SIGNS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WITH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER. REPLACEMENT SIGNS SHALL BE NEW. OTHER MATERIALS MAY BE IN USED, BUT GOOD, CONDITION SUBJECT TO APPROVAL BY THE ENGINEER.

PAYMENT FOR THE NEW SIGNS SHALL BE MADE AT THE CONTRACT PRICE PER EACH ITEM 614, REPLACEMENT SIGN, AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF DAMAGED SIGNS, HARDWARE AND SUPPORTS, AND PROVIDING THE NECESSARY REPLACEMENT HARDWARE, SUPPORTS, ETC. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.

ITEM 614, REPLACEMENT SIGN 5 EACH

SUSPENSION OF WORK

IF THE CONTRACTOR FAILS TO COMPLY WITH THE PROVISIONS FOR TRAFFIC CONTROL AS SET FORTH IN THESE PLANS OR WITH PROVISIONS OF THE OMUTCD, THE ENGINEER SHALL SUSPEND WORK UNTIL THE CONTRACTOR COMPLIES WITH THE NECESSARY REQUIREMENTS.

NOTICE OF CLOSURE SIGNS

NOTICE OF CLOSURE SIGNS SHALL BE ERECTED BY THE CONTRACTOR AT LEAST TWENTY-ONE (21) DAYS IN ADVANCE OF THE SCHEDULED ROAD CLOSURE. THE SIGNS SHALL BE ERECTED ON THE RIGHT HAND SIDE OF THE ROAD FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. THEY SHALL BE ERECTED AT THE POINT OF CLOSURE. THE SIGNS SHALL REMAIN IN PLACE UNTIL THE ROADWAY IS REOPENED TO TRAFFIC.

THE NOTICE OF CLOSURE SIGNS SHALL BE IN ACCORDANCE WITH ITEM 614 AND ODOT SIGN DESIGNS AND MARKINGS MANUAL. EXCEPT THE LAST LINE SHALL READ "OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION".

ROAD WILL BE
CLOSED XX-XX-XX
FOR XX DAYS
OHIO TURNPIKE AND
INFRASTRUCTURE COMMISSION

W20-H14
60" X 36"

ALTERNATE METHODS

IF THE CONTRACTOR SO ELECTS, HE/SHE MAY SUBMIT ALTERNATE METHODS FOR THE MAINTENANCE OF TRAFFIC, PROVIDED THE INTENT OF THE PROVISIONS IS FOLLOWED AND NO ADDITIONAL INCONVENIENCE TO THE TRAVELING PUBLIC RESULTS THERE FROM. NO ALTERNATE PLAN SHALL BE PLACED INTO EFFECT UNTIL APPROVAL HAS BEEN GRANTED IN WRITING, BY THE CHIEF ENGINEER.



GUARDRAIL TRANSITIONS

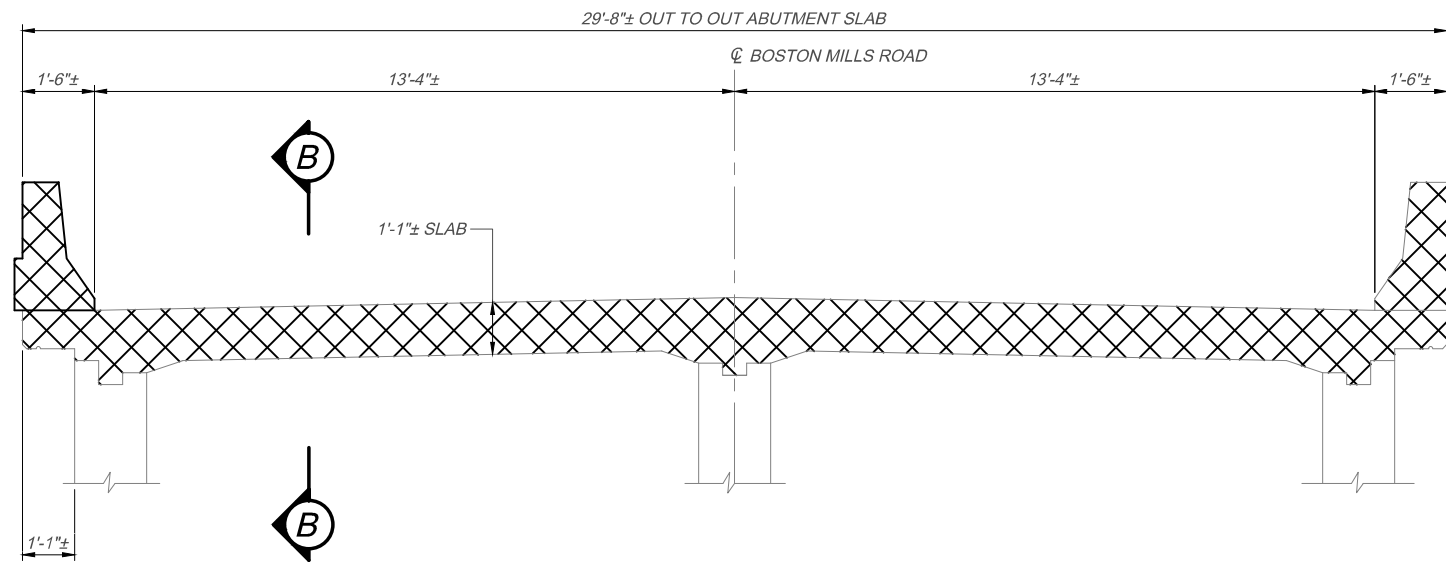
TRANSITION GUARDRAIL HEIGHT FROM EXISTING TO STANDARD MIDWEST GUARDRAIL SYSTEM BRIDGE TERMINAL ASSEMBLY HEIGHT IN 12.5 FEET.

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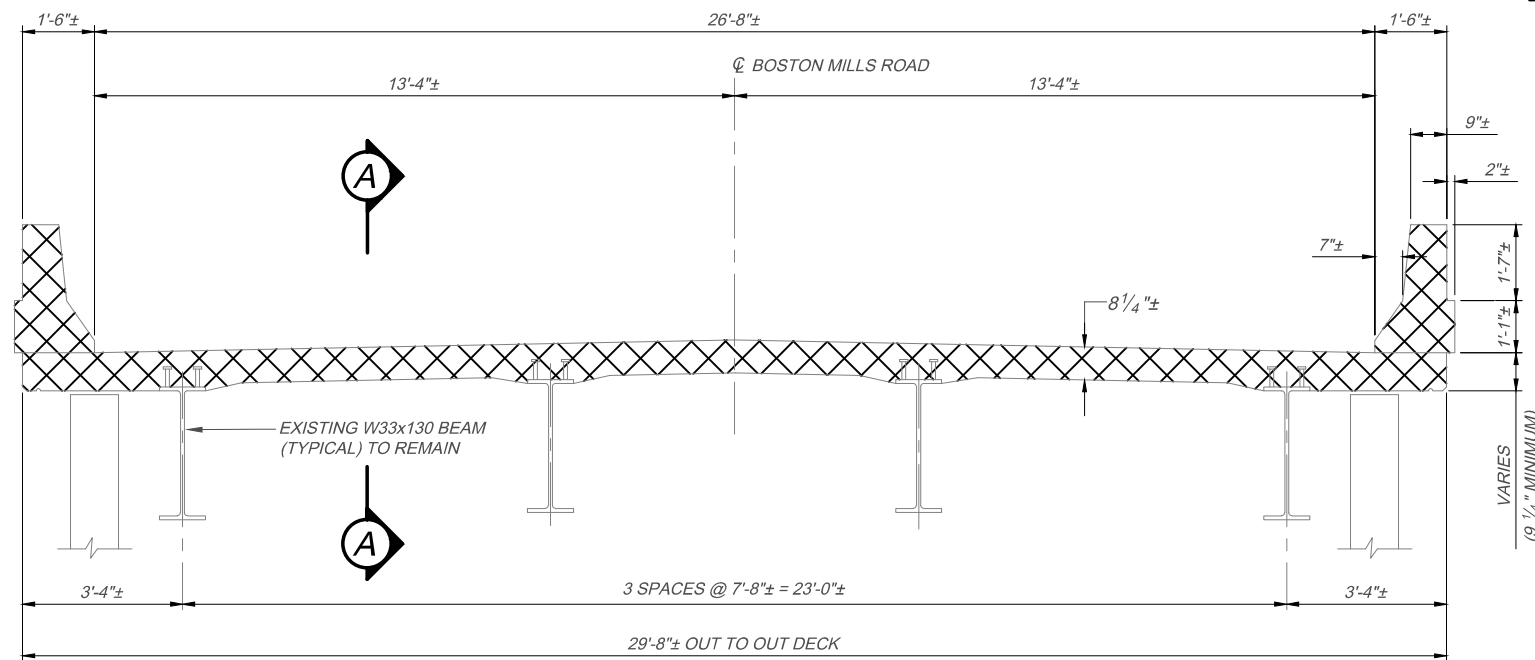
	PROJECT 43-17-05 DATE: 11/30/16	GENERAL NOTES 2 OF 2 M.P. 178.0, M.P. 179.5, M.P. 199.2 SUMMIT AND PORTAGE COUNTIES	DESIGN AGENCY AKRON CLEVELAND COLUMBUS 564 WHITE POND DRIVE AKRON, OHIO 44320-1100 AECOM (330) 666-9111
BY DATE	REVISIONS	NO.	CHECKED
TMR 11/19/17	ADDENDUM NO. 2	2	DEB IN CHARGE
			ZRD
			DRAWN KAF
			DESIGNED JMS

OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION

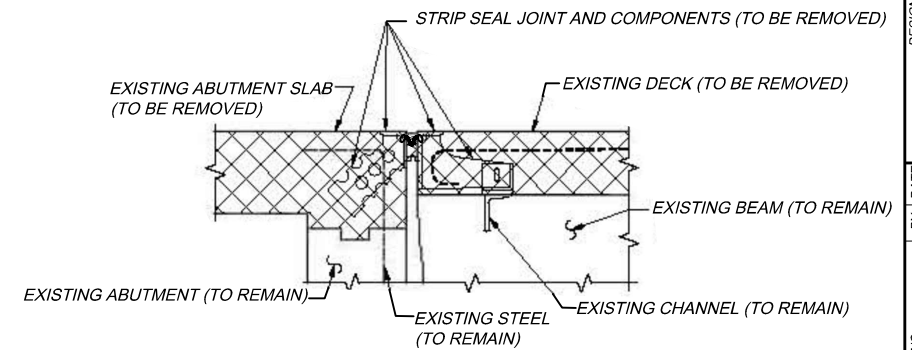
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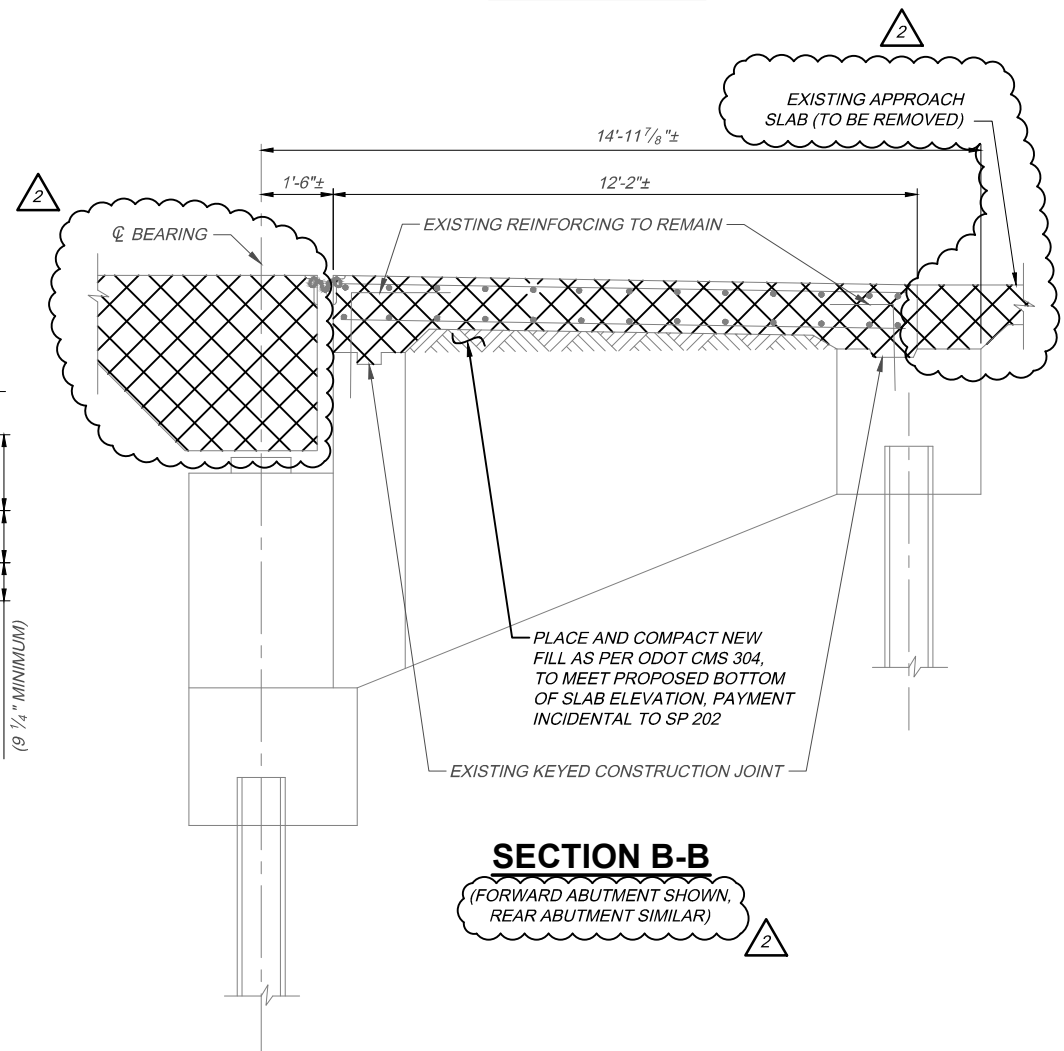
EXISTING ABUTMENT SECTION



EXISTING TRANSVERSE SECTION



SECTION A-A



SECTION B-B

(FORWARD ABUTMENT SHOWN, REAR ABUTMENT SIMILAR)

NOTES:

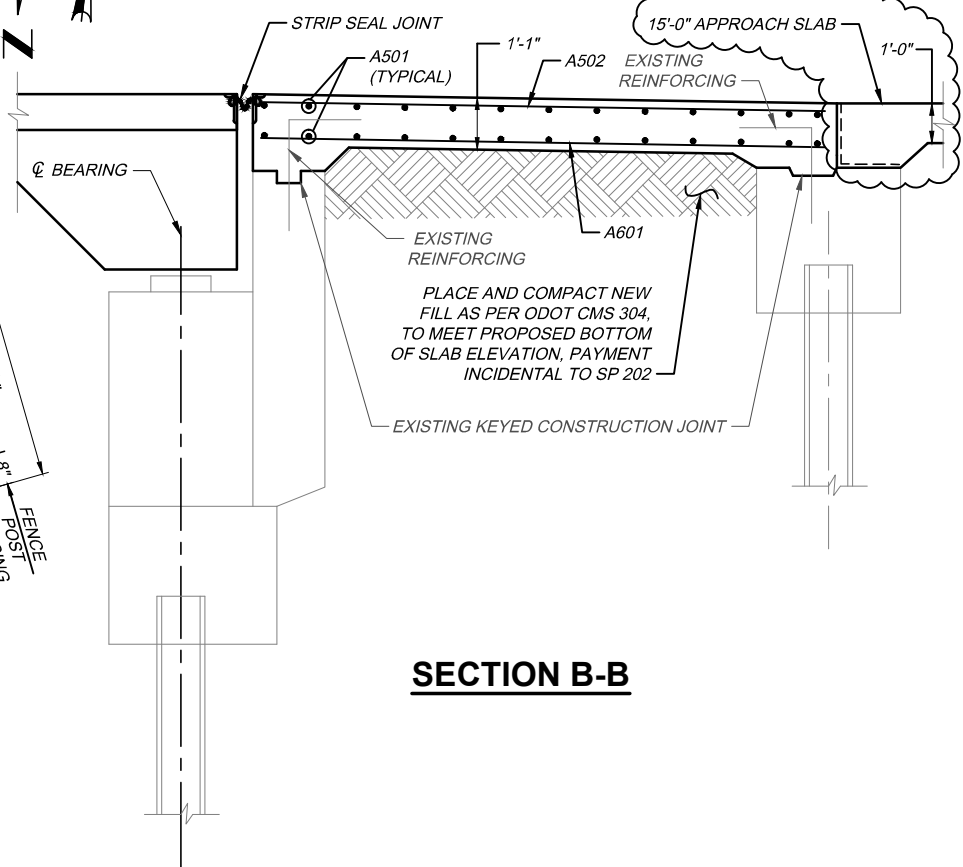
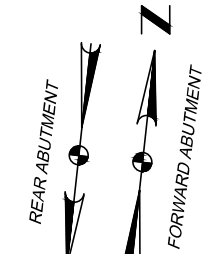
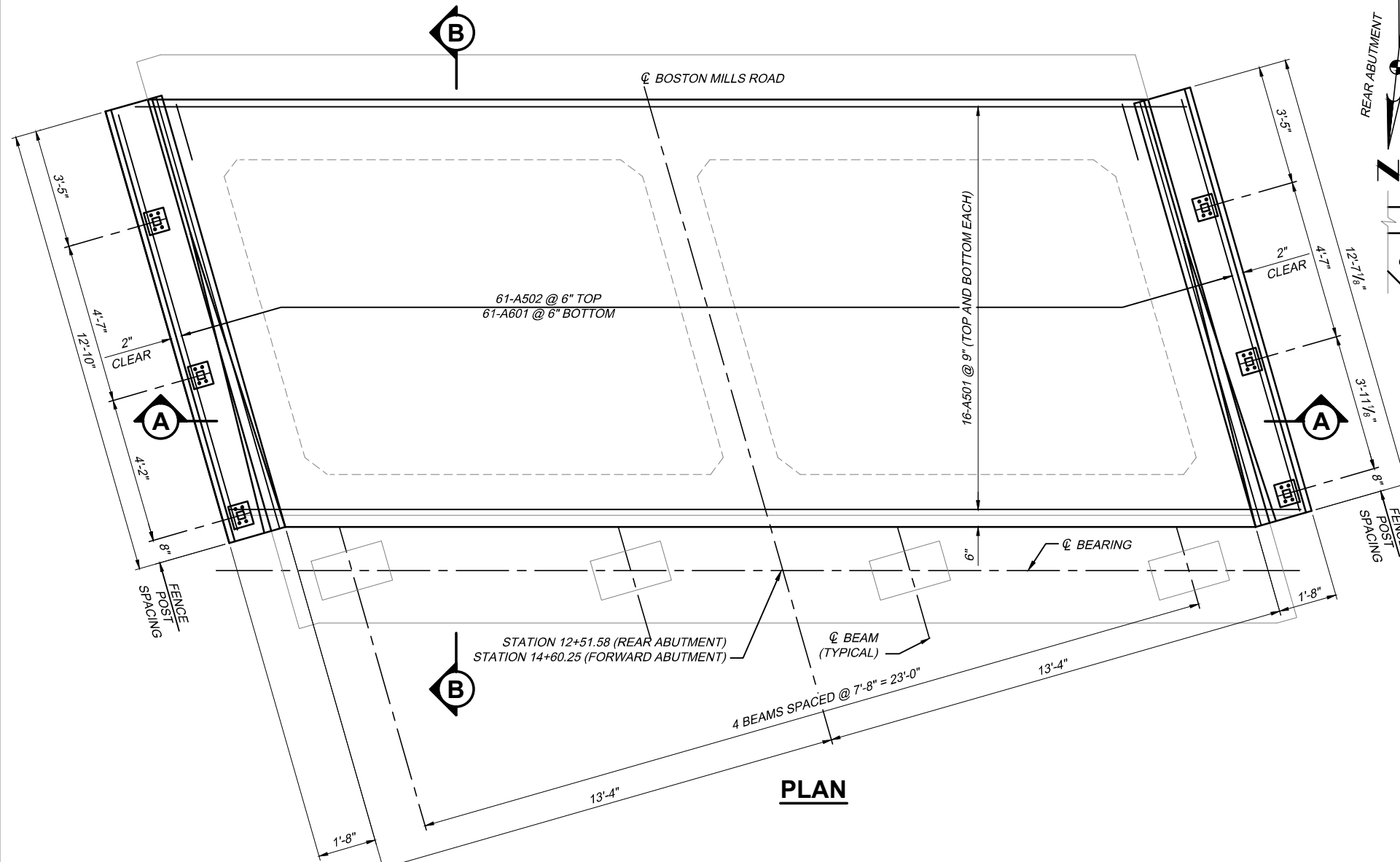
ANY REMAINING WELD MATERIAL THAT ATTACHED THE REMOVED STEEL TO THE REMAINING STEEL SHALL BE REMOVED BY METHODS APPROVED BY THE ENGINEER. THESE METHODS SHALL NOT CAUSE ANY DAMAGE TO THE REMAINING STEEL. ALL REMAINING EXCESS WELD MATERIAL SHALL BE REMOVED BY GRINDING IN THE DIRECTION OF STRESS. INCLUDE WITH ITEM SP 202 FOR PAYMENT.

LEGEND:

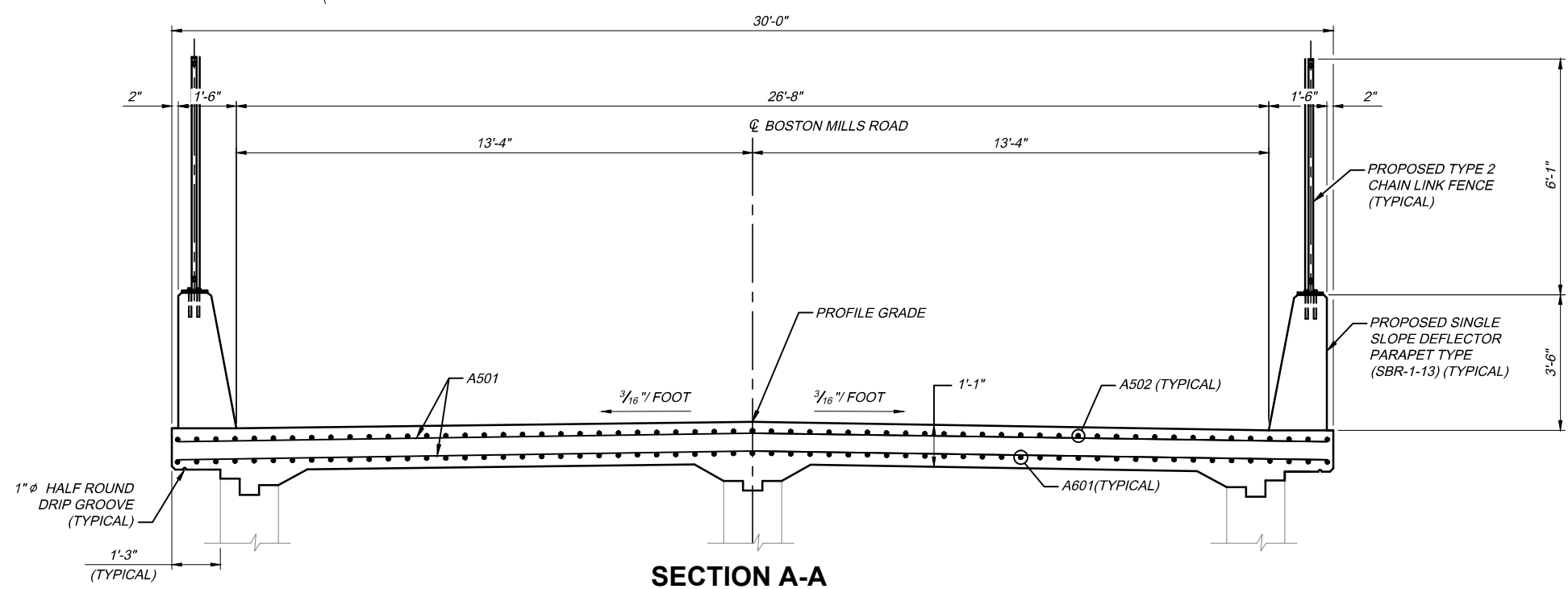
- DENOTES PORTIONS OF STRUCTURE TO BE REMOVED AS PER ITEM SP 202

PROJECT 43-17-05	DATE: 11/30/16	DESIGNED DEB	CHECKED JTH	NO. 2	BY DATE TMR 11/19/17
REMOVAL DETAILS		DRAWN VFG	IN CHARGE ZRD	ADDENDUM NO. 2	DESIGN AGENCY AECOM
BOSTON MILLS ROAD OVER OHIO TURNPIKE		SUMMIT COUNTY		AKRON CLEVELAND COLUMBUS 564 WHITE POND DRIVE AKRON, OHIO 44320-1100 (330) 666-9111	
M.P. 178.0		2 / 15		OHIO TURNPIKE	

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SECTION B-B



SECTION A-A

NOTES:

1. FOR CHAIN LINE FENCE DETAILS, SEE OTIC STANDARD DRAWINGS CL-2
2. FOR DECK JOINT DETAILS, SEE OTIC STANDARD DRAWINGS DJ-1, DJ-2, DJ-3, AND DJ-5.
3. SEE PAVEMENT ELEVATION TABLES FOR TOP OF SLAB ELEVATIONS

PROJECT 43-17-05	DESIGNED		CHECKED	NO.	REVISIONS	BY	DATE
	DEB	VFG	JTH	2	ADDENDUM NO. 2	TMR	11/19/17
8 / 15	ABUTMENT SLAB DETAILS		BOSTON MILLS ROAD OVER OHIO TURNPIKE		SUMMIT COUNTY		
18 / 49	M.P. 178.0		OHIO TURNPIKE				

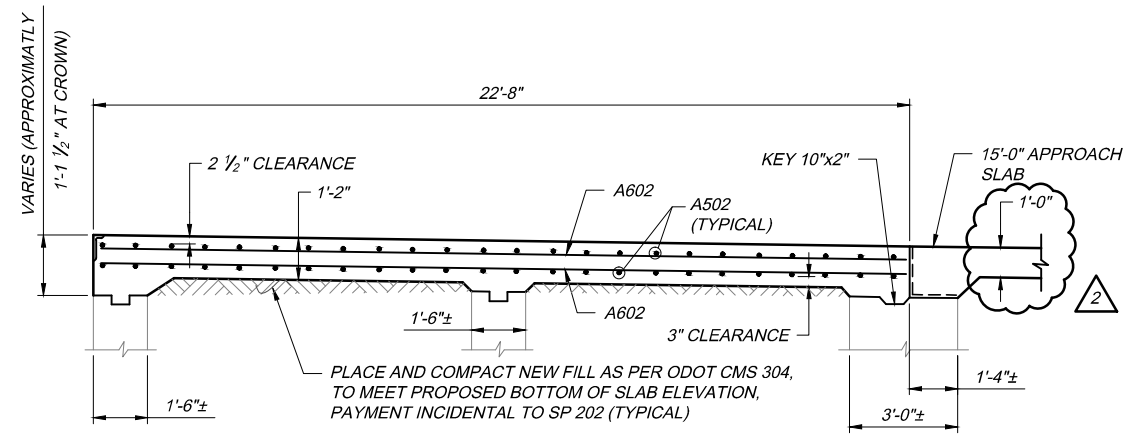
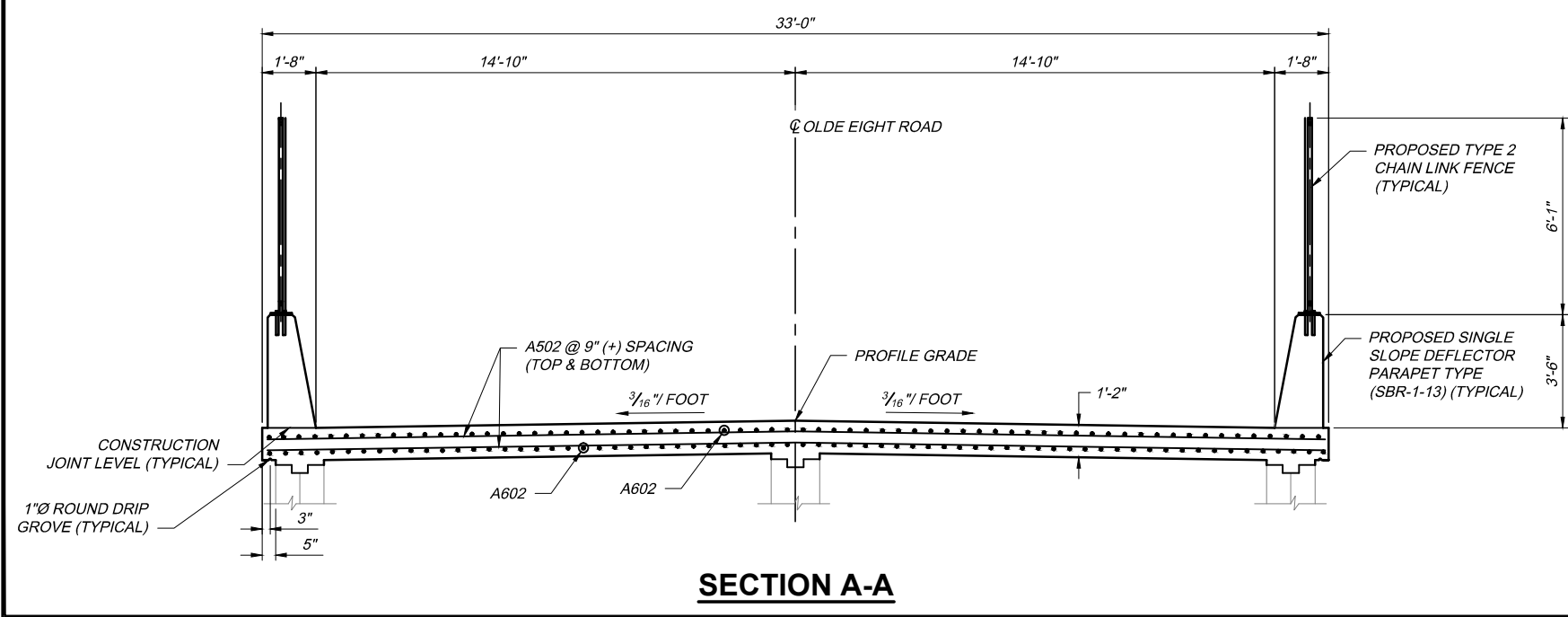
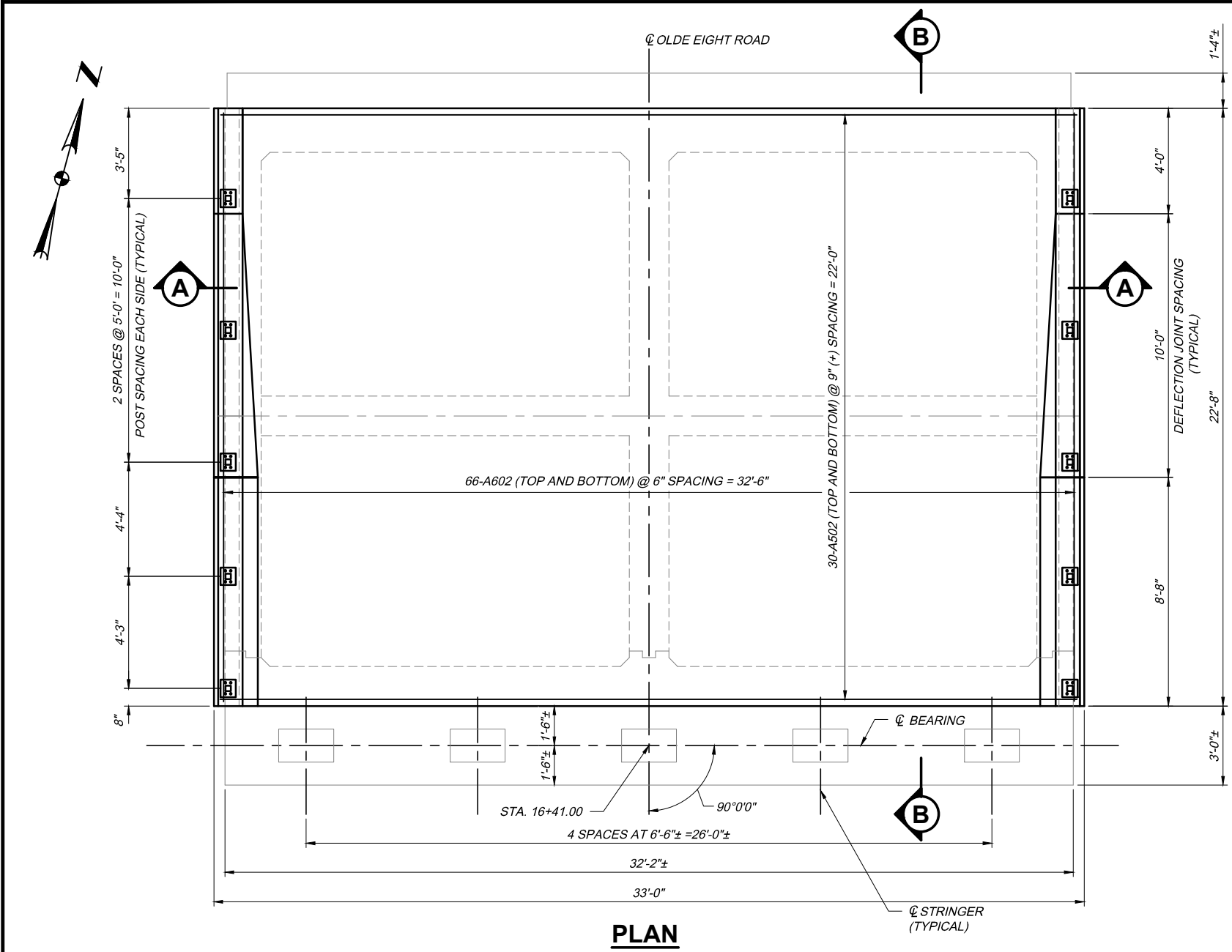
DESIGN AGENCY
 AKRON CLEVELAND COLUMBUS
 564 WHITE POND DRIVE
 AKRON, OHIO 44320-1100
AECOM
 (330) 686-9111

OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION

OHIO TURNPIKE

OHIO TURNPIKE

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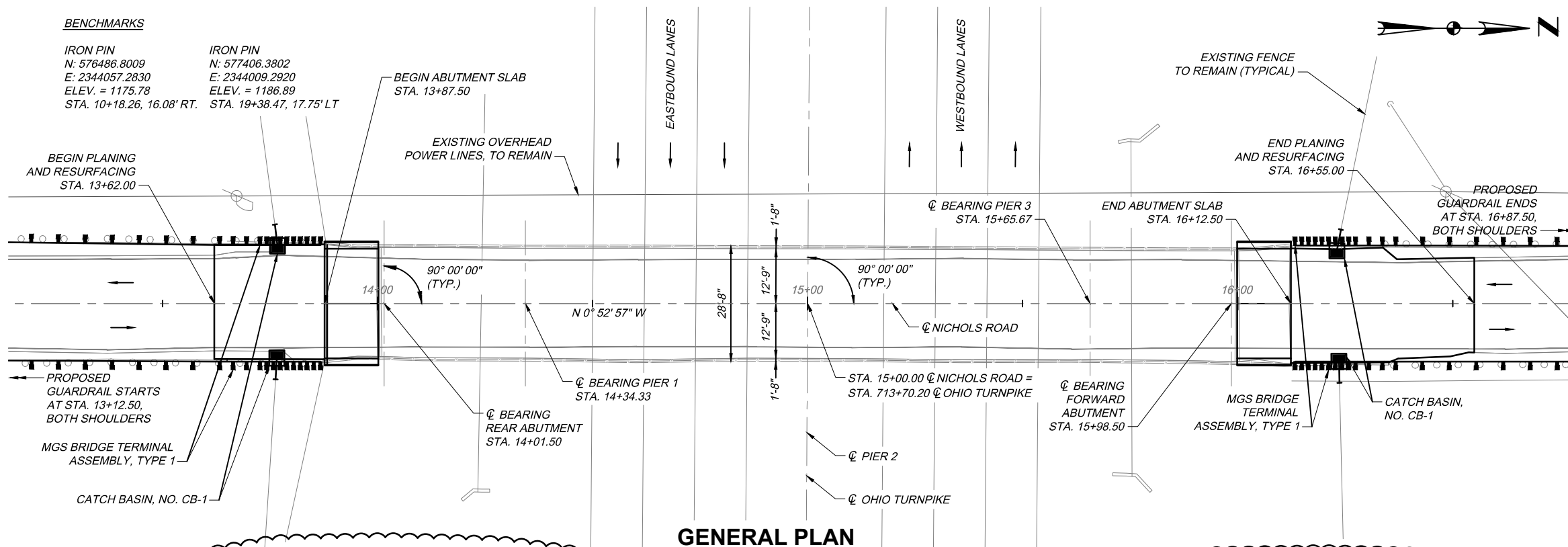
- NOTES:**
- FOR FENCE DETAILS SEE OTIC STANDARD DRAWING CL-2
 - FOR DECK JOINT DETAILS SEE OTIC STANDARD DRAWINGS DJ-1, DJ-2, AND DJ-5
 - FOR TOP OF PAVEMENT ELEVATION SEE SHEET 10/12

PROJECT 43-17-05		FORWARD ABUTMENT SLAB DETAILS		DESIGN AGENCY	
DATE: 11/30/16		OLDE EIGHT ROAD OVER OHIO TURNPIKE		AKRON CLEVELAND COLUMBUS	
M.P. 179.5		SUMMIT COUNTY		564 WHITE POND DRIVE	
				AKRON, OHIO 44320-1100	
				(330) 668-9111	
				AECOM	
				BY DATE	
				TMR 11/19/17	
				REVISIONS	
				ADDENDUM NO. 2	
				NO.	
				2	
				CHECKED	
				JTH	
				IN CHARGE	
				ZRD	
				DESIGNED	
				DEB	
				DRAWN	
				VFG	

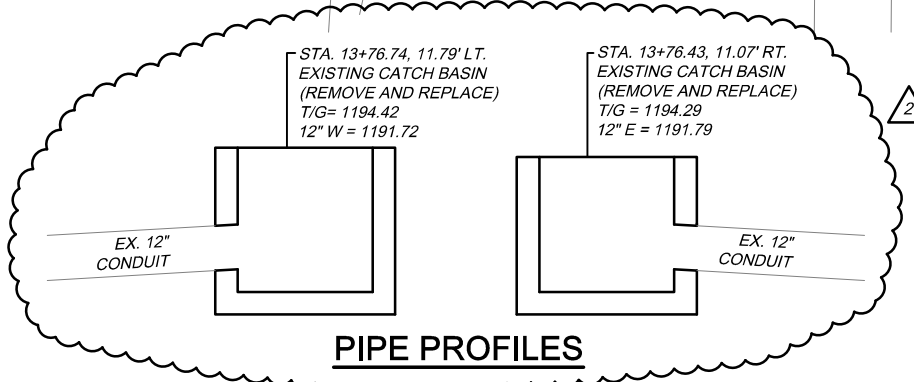
BENCHMARKS

IRON PIN
N: 576486.8009
E: 2344057.2830
ELEV. = 1175.78
STA. 10+18.26, 16.08' RT.

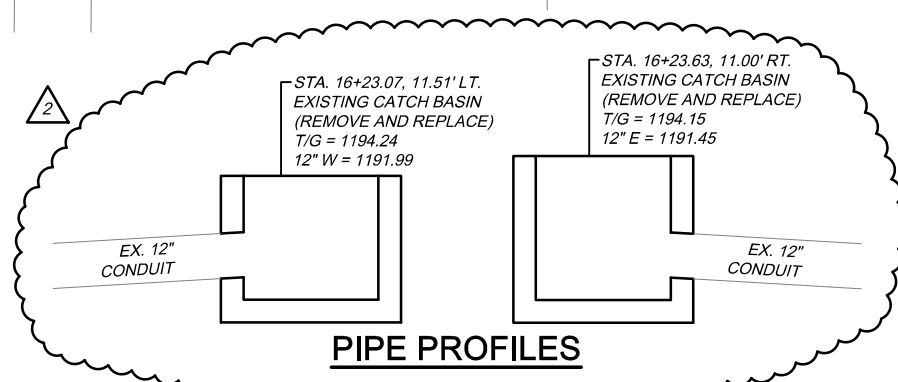
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N: 577406.3802
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ELEV. = 1186.89
STA. 19+38.47, 17.75' LT



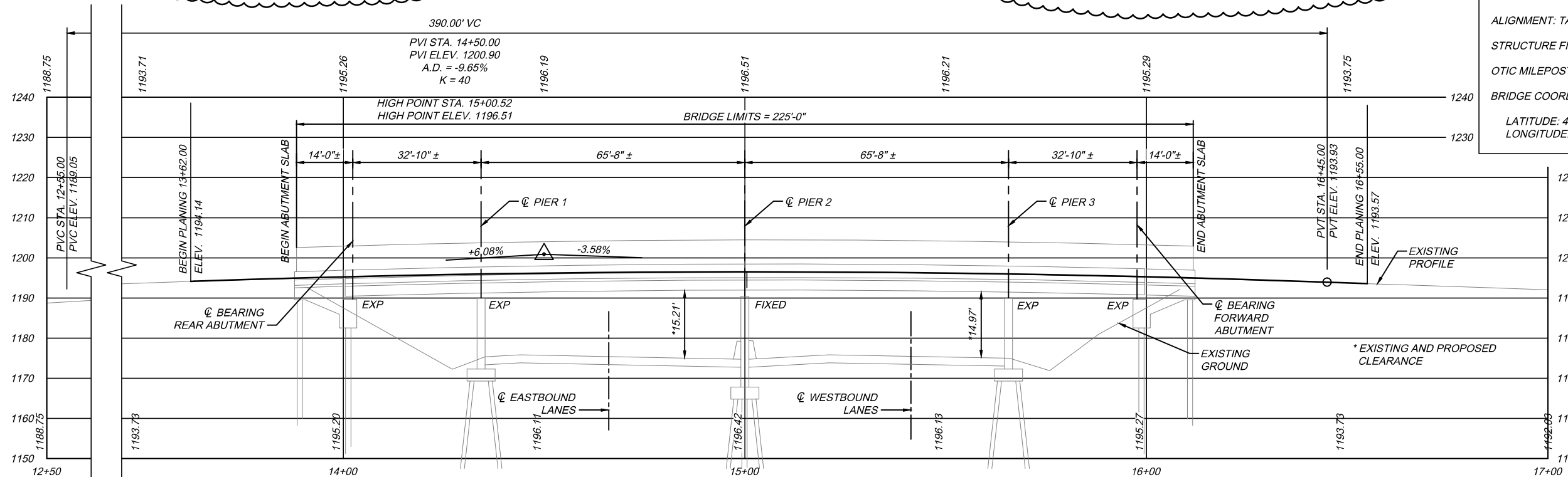
GENERAL PLAN



PIPE PROFILES



PIPE PROFILES



PROFILE ALONG CL NICHOLS ROAD

EXISTING STRUCTURE

TYPE: CONTINUOUS ROLLED STEEL BEAMS WITH NON-COMPOSITE REINFORCED CONCRETE DECK. SUPPORTED ON CELLULAR ABUTMENTS AND CAP AND COLUMN PIERS.

SPANS: 32'-10" ±, 65'-8" ±, 65'-8" ±, 32'-10" ± C/C BEARINGS

ROADWAY: 25'-6" TOE TO TOE OF PARAPETS 28'-6" O/O DECK

SKEW: NONE

WEARING SURFACE: 1/2" MONOLITHIC CONCRETE

APPROACH SLABS: NONE

ALIGNMENT: TANGENT

BUILT: 1954

STRUCTURE FILE NUMBER: 6729762

OTIC MILEPOST: 199.2

BRIDGE COORDINATES:
LATITUDE: 41° 14' 31.196" N
LONGITUDE: 81° 8' 3.818" W

PROPOSED STRUCTURE

TYPE: CONTINUOUS ROLLED STEEL BEAMS WITH COMPOSITE REINFORCED CONCRETE DECK. SUPPORTED ON CELLULAR ABUTMENTS AND CAP AND COLUMN PIERS.

SPANS: 32'-10" ±, 65'-8" ±, 65'-8" ±, 32'-10" ± C/C BEARINGS

ROADWAY: 25'-6" TOE TO TOE OF PARAPETS 28'-10" O/O DECK

SKEW: NONE

WEARING SURFACE: 1" MONOLITHIC CONCRETE

APPROACH SLABS: NONE

LOADING: HS-20-44 AND ALTERNATE MILITARY LOADING

ALIGNMENT: TANGENT

STRUCTURE FILE NUMBER: 6729762

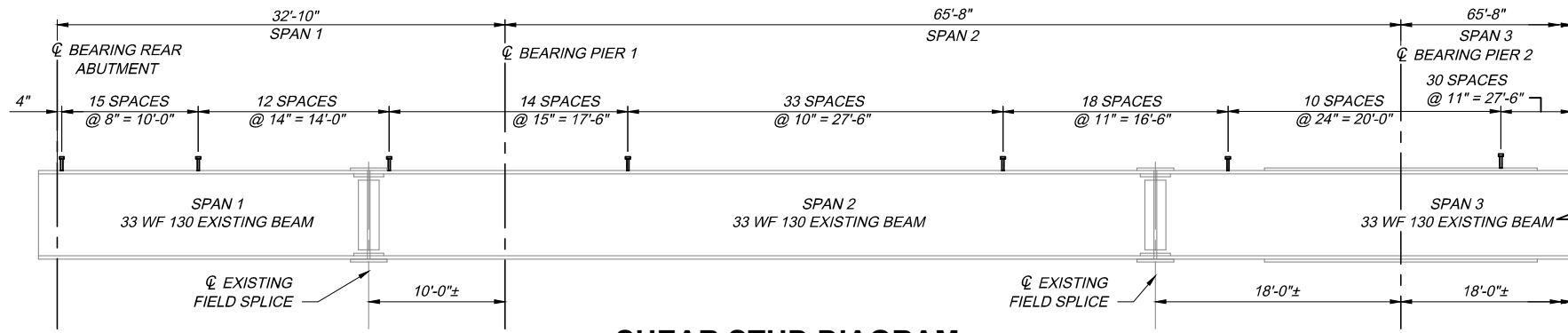
OTIC MILEPOST: 199.2

BRIDGE COORDINATES:
LATITUDE: 41° 14' 31.196" N
LONGITUDE: 81° 8' 3.818" W

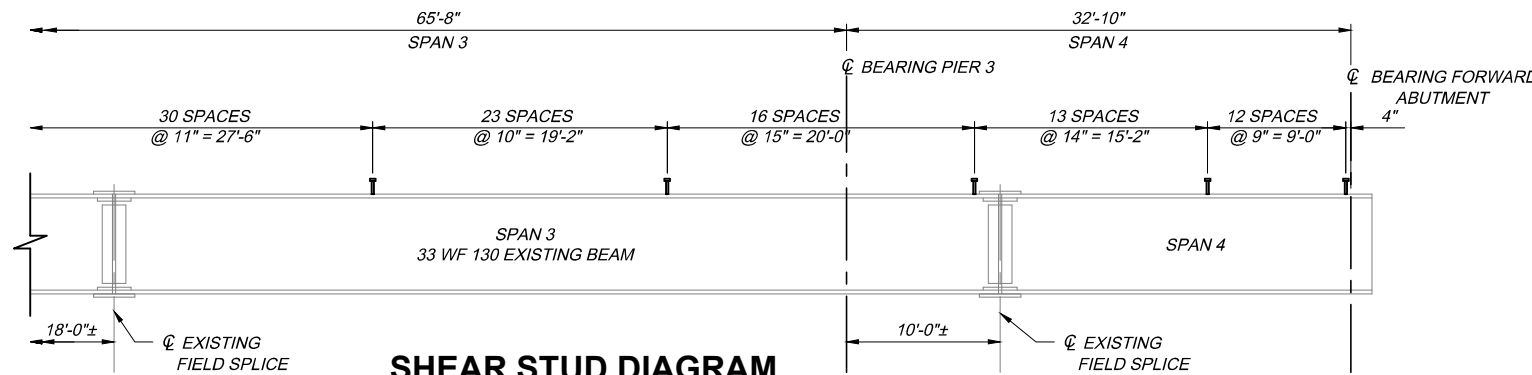
- NOTES:**
1. SURVEY CONTROL BASED ON NAD83 STATE PLANE COORDINATES FOR HORIZONTAL CONTROL AND NAVD88 FOR VERTICAL CONTROL.
- LEGEND:**
- * EXISTING AND PROPOSED VERTICAL CLEARANCE.

DESIGN AGENCY AKRON CLEVELAND COLUMBUS 964 WHITE POND DRIVE AKRON, OHIO 44320-1100 AECOM (330) 666-9111		BY DATE TMR 11/19/17	NO.	CHECKED JTH	DESIGNED DEB	NO.	REVISIONS ADDENDUM NO. 2	NO.	BY DATE TMR 11/19/17
GENERAL PLAN AND PROFILE NICHOLS ROAD OVER OHIO TURNPIKE PORTAGE COUNTY		2	2	JTH	DEB	2	ADDENDUM NO. 2	2	DATE 11/30/16
PROJECT 43-17-05		M.P. 199.2		DATE: 11/30/16		1 / 11		39 49	
OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION		OHIO TURNPIKE							

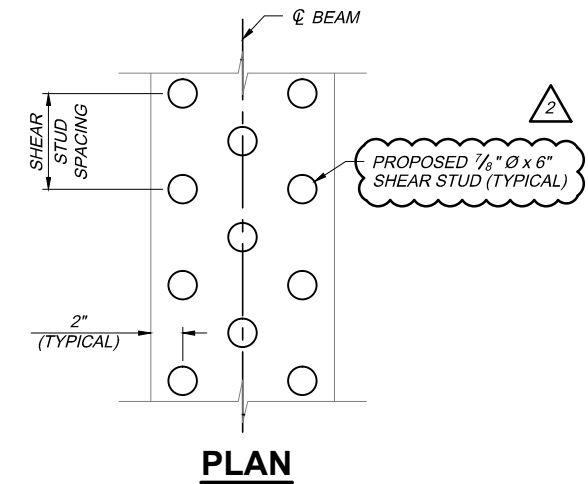
OTICT11505_MP199_SPO01.dwg; 1/19/17 - 11:51am



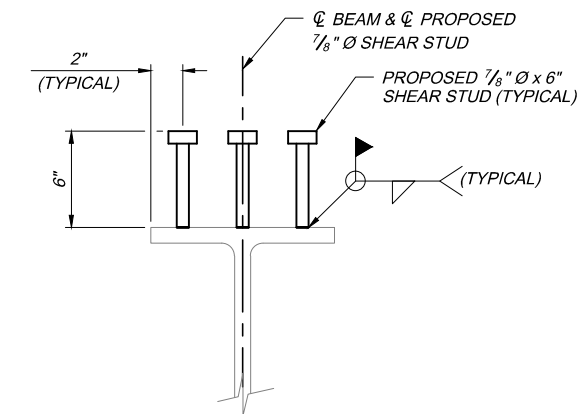
SHEAR STUD DIAGRAM



SHEAR STUD DIAGRAM



PLAN



**ELEVATION
SHEAR STUD DETAIL**

NOTES:

1. WELDED SHEAR STUD CONNECTORS SHALL CONFORM TO AASHTO M169. WELDED SHEAR STUD CONNECTORS SHALL BE MOVED TO AVOID INTERFERENCE WITH RIVET HEADS.

OTICT11505_MP199_SS001.dwg; 1/19/17 - 11:51am

DESIGN AGENCY
AKRON CLEVELAND COLUMBUS
564 WHITE POND DRIVE
AKRON, OHIO 44320-1100
AECOM
(330) 668-9111

BY	DATE	REVISIONS	NO.	CHECKED	NO.
TMR	11/19/17	ADDENDUM NO. 2	2	SAM	2
				IN CHARGE	2
				VFG	2
				ZRD	2

DESIGNED
LMP
DRAWN
VFG

SHEAR STUD DETAILS
NICHOLS ROAD OVER OHIO TURNPIKE
PORTAGE COUNTY
M.P. 199.2

PROJECT 43-17-05
DATE: 1/30/16

6 / 11
44
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OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION

