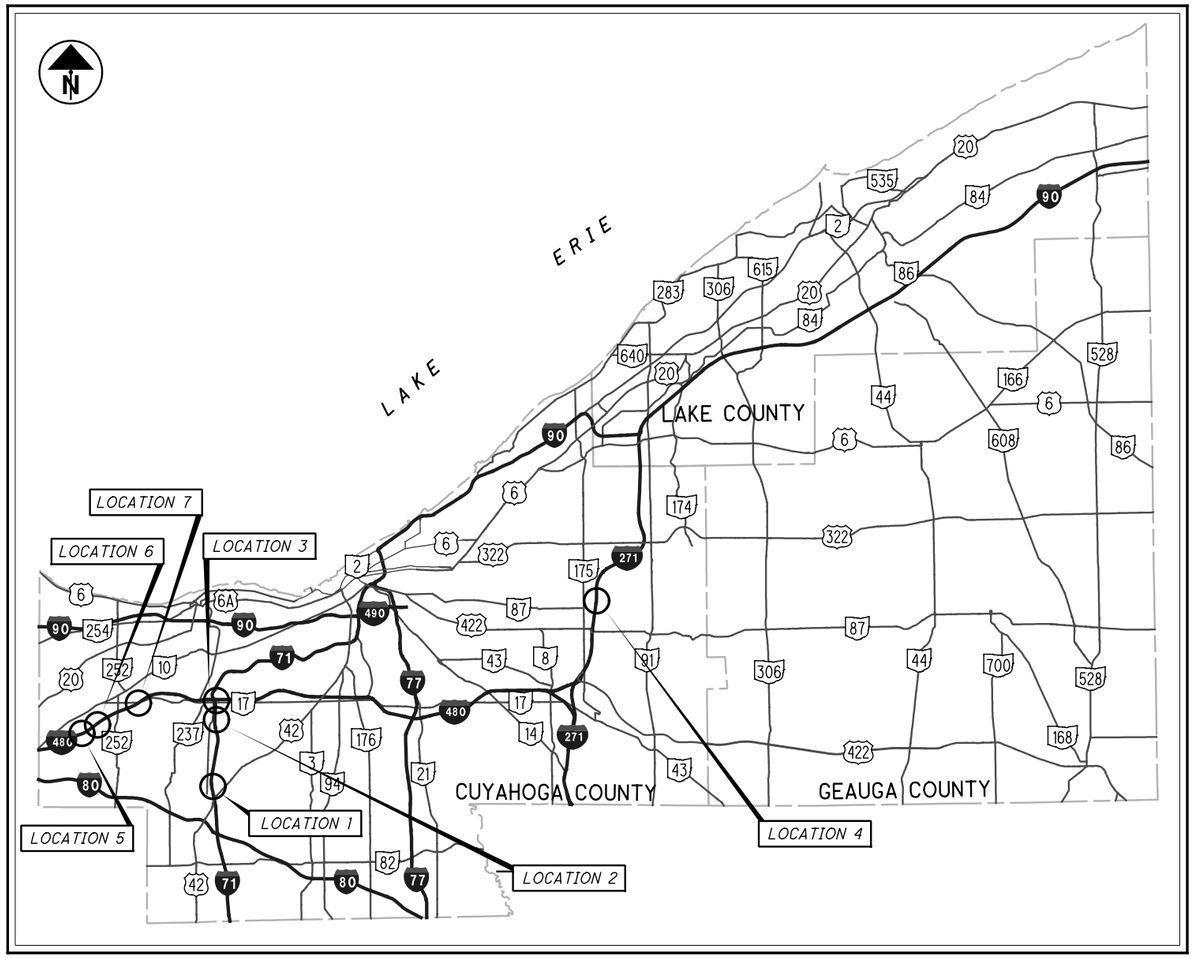

LOCATION MAP

LATITUDE: 41°24'54" N LONGITUDE: 81°36'54" W

(NOTE: FOR COORDINATES PER LOCATION, SEE SHEETS 2-4

STATE OF OHIO

DEPARTMENT OF TRANSPORTATION

D12-BH-FY2021(A) MISC (1-7) PART 1

FOR PART 2, SEE D12-BH-FY2021(A) MISC (8-10)

LOCATION	BRIDGE NUMBER	STRUCTURAL FILE NUMBER	CITY	TOWNSHIP	VILLAGE
1	CUY-71-0579	1804081 (SB) 1804111 (NB)	MIDDLEBURG HEIGHTS		
2	CUY-71-0856	1804359	BROOK PARK		
3	CUY-71-1007	1814257	CLEVELAND/BROOK PARK		
4	CUY-271-0972 & 0974	1811401 (EB) 1811436 (WB)	BEACHWOOD		
5	CUY-480-0126	1814028	NORTH OLMSTED		
6	CUY-480-0177	1814044	NORTH OLMSTED		
7	CUY-480-0501	1814125	NORTH OLMSTED		

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LOCATION 3 - CUY-71-1007	49-50
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LOCATION 5 - CUY-480-0126	58-63
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LOCATION 7 - CUY-480-0501	70-96

PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF VARIOUS REPAIRS INCLUDING FLANGE COVER PLATE REPAIRS, BEARING REPAIRS, CONCRETE REPAIRS AND GIRDER FLANGE REPAIRS.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA: 0.03 ACRES

ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0.25 ACRES

*NOTICE OF INTENT EARTH DISTURBED AREA: N/A (NOI NOT REQUIRED)**

**ROUTINE MAINTENANCE PROJECT*

2019 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.

APPROVED _____

DATE _____ *DISTRICT DEPUTY DIRECTOR*

APPROVED _____

DATE _____ *DIRECTOR, DEPARTMENT OF TRANSPORTATION*

UNDERGROUND UTILITIES

Contact Two Working Days Before You Dig

OHIO811.org Before You Dig

OHIO811, 8-1-1, or 1-800-362-2764

(Non-members must be called directly)

PLAN PREPARED BY:

RICHLAND ENGINEERING LIMITED

29 NORTH PARK STREET

MANSFIELD OHIO 44902

PHONE: (419) 524-0074 FAX: (419) 524-1812

ENGINEER'S SEAL:

STATE OF OHIO PATRICK SCHWAN 61571 REGISTERED PROFESSIONAL ENGINEER

SIGNED: _____

DATE: 11-06-2020

STANDARD CONSTRUCTION DRAWINGS						SUPPLEMENTAL SPECIFICATIONS		SPECIAL PROVISIONS
BP-2.1	7-17-15	TC-41.20	10-18-13	MT-95.30	7-19-19	MT-101.60	1-17-20	AS-1-15	7-15-15	800	1-15-21	
BP-2.2	7-18-08	TC-42.20	10-18-13	MT-95.40	1-17-20	MT-101.70	1-17-20	EXJ-4-87	1-19-18	821	4-20-12	
BP-2.5	7-19-13	TC-52.10	10-18-13	MT-95.45	1-17-20	MT-101.75	1-17-20	GSD-1-19	1-18-19	832	10-19-18	
BP-3.1	1-17-20	TC-52.20	7-20-18	MT-95.50	7-21-17	MT-101.90	7-17-20	PCB-91	7-17-20	844	4-20-18	
		TC-65.10	1-17-14	MT-95.72	1-17-20	MT-102.10	1-17-20	VPF-1-90	7-20-18	921	4-20-12	
F-1.1	7-19-13	TC-65.11	7-21-17	MT-97.10	4-19-19	MT-102.20	4-19-19			961	4-17-20	
		TC-71.10	1-19-18	MT-98.11	1-17-20	MT-105.10	1-17-20			987	1-16-09	
RM-4.2	4-17-20	TC-72.20	7-20-18	MT-98.22	1-17-20	MT-110.10	7-19-13					
		TC-83.20	7-21-17	MT-98.29	1-17-20							
		TC-85.10	4-17-20	MT-98.30	7-19-19							
				MT-99.20	4-19-19							
				MT-99.30	1-17-20							

FEDERAL PROJECT NO.

PID NO. 103162

CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT

D12-BH-FY2021(A) MISC
PID NO. 103162

1
96

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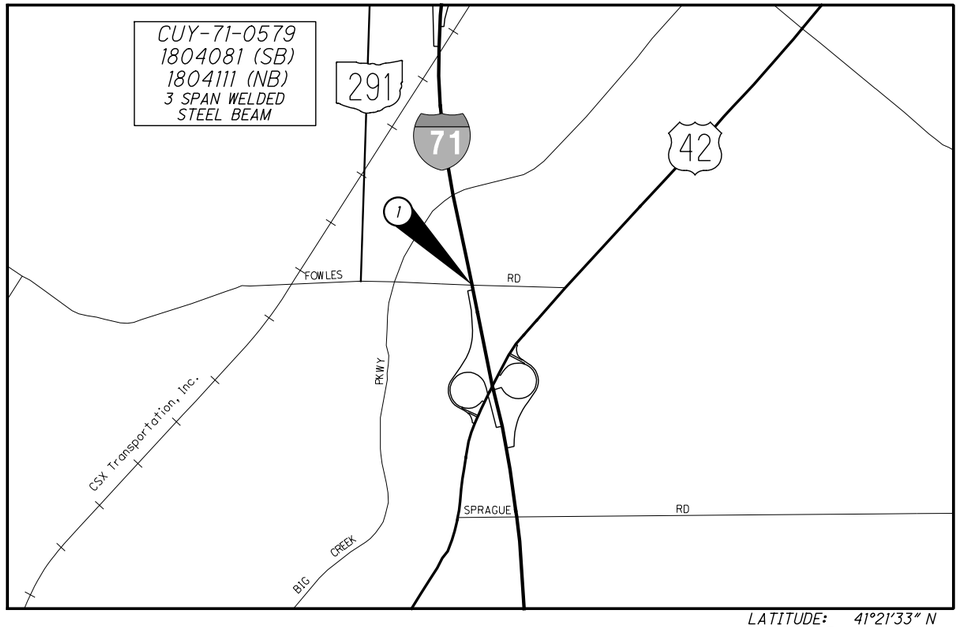
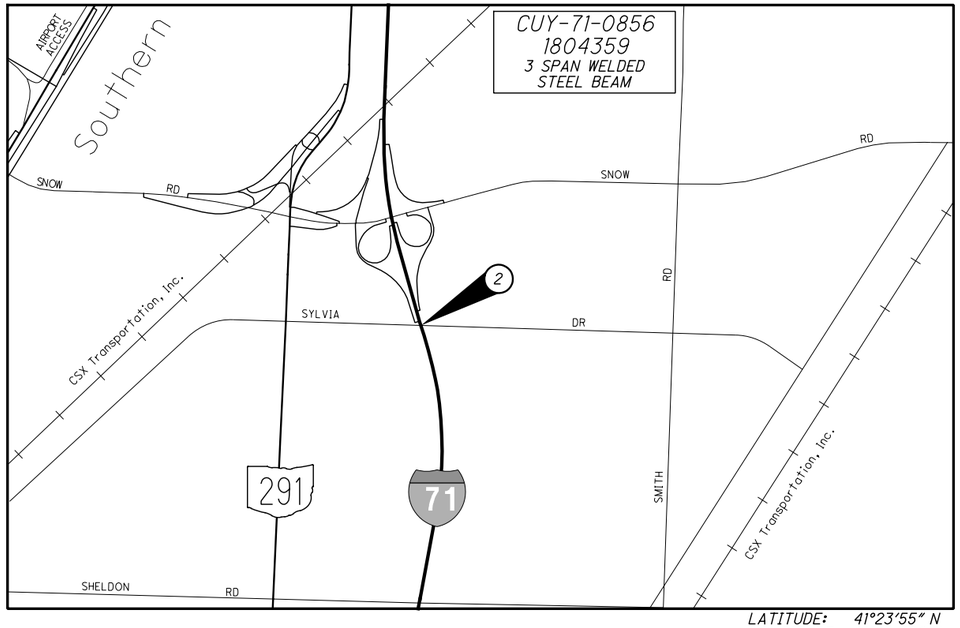


LATITUDE: 41°21'33" N
LONGITUDE: 81°49'13" W

MAP FOR LOCATION 1

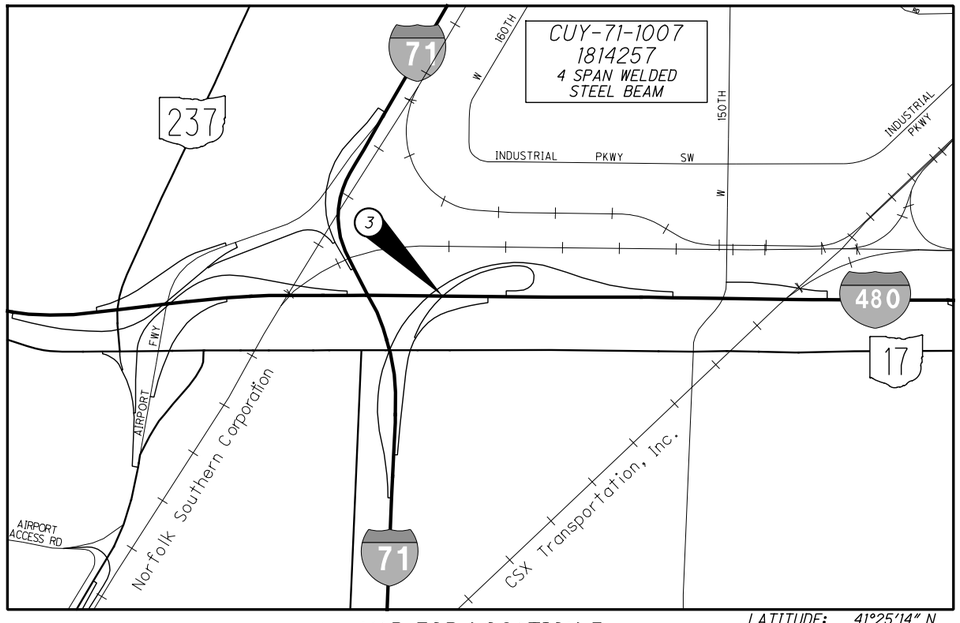
PROPOSED WORK ⓵
- RETROFIT BOTTOM COMPRESSION FLANGE COVER PLATE ENDS AT PIERS
- SEAL WEARING SURFACE
- CONCRETE PATCHING AND SEALING



LATITUDE: 41°23'55" N
LONGITUDE: 81°48'59" W

MAP FOR LOCATION 2

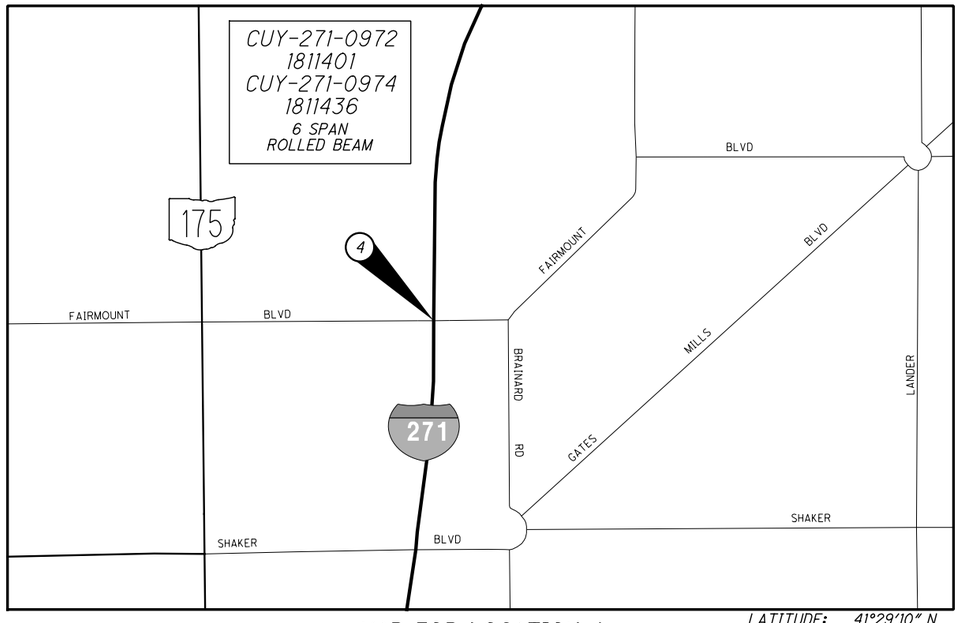
PROPOSED WORK ⓵
- RETROFIT BOTTOM COMPRESSION FLANGE COVER PLATE ENDS AT PIERS
- REPLACE DAMAGED ABUTMENT BEARINGS
- CONCRETE PATCHING AND SEALING
- REPAIR DAMAGED CROSS FRAMES



LATITUDE: 41°25'14" N
LONGITUDE: 81°48'55" W

MAP FOR LOCATION 3

PROPOSED WORK ⓵
- RESET BEARINGS



LATITUDE: 41°29'10" N
LONGITUDE: 81°29'12" W

MAP FOR LOCATION 4

PROPOSED WORK ⓵
- SEAL WEARING SURFACE AND SIDEWALK
- REPAIR THE CONCRETE PIER COLUMNS
- RESET ABUTMENT ROCKERS
- BEAM HAUNCH CONCRETE SPALL REMOVAL
- REMOVE AND REPLACE INSIDE VANDAL PROTECTION FENCE

⓵ WORK SHOWN IS REPRESENTATIVE AND DOES NOT INCLUDE ALL WORK REQUIRED.

CALCULATED TJF
CHECKED ALP

LOCATION MAPS - 1

D12-BH-FY2021(A) MISC
PID NO. 103162

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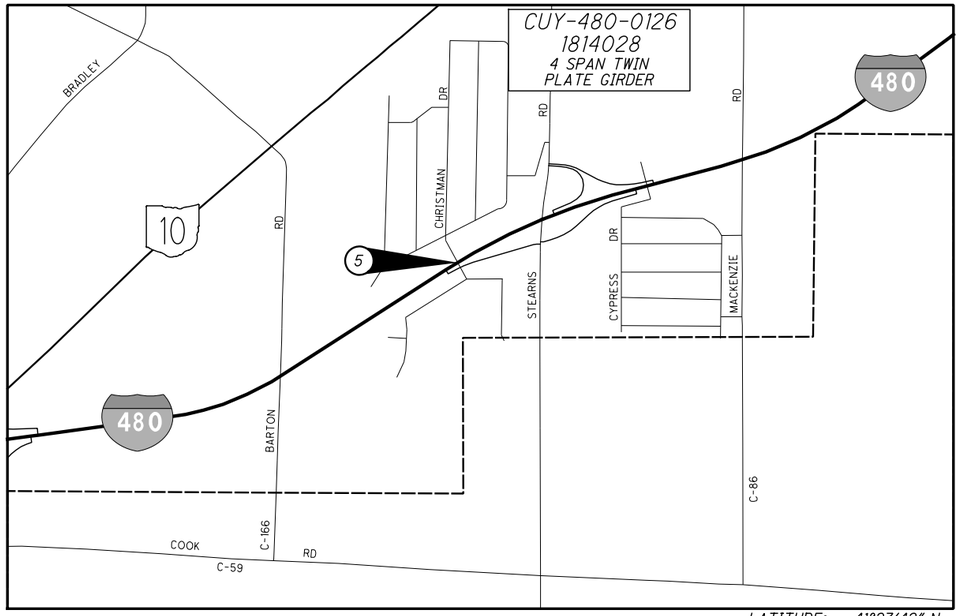
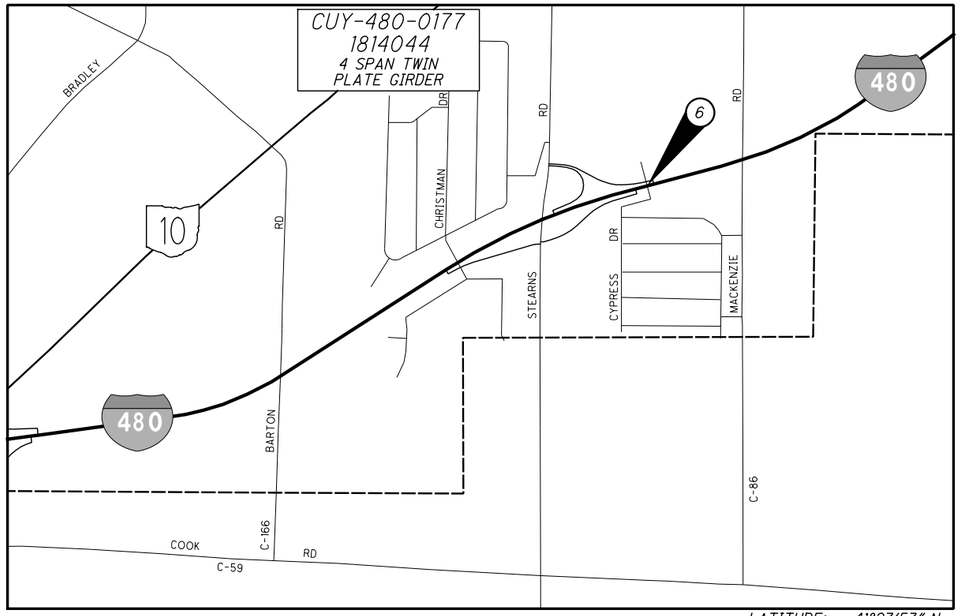


MAP FOR LOCATION 5

LATITUDE: 41°23'42" N
LONGITUDE: 81°56'55" W

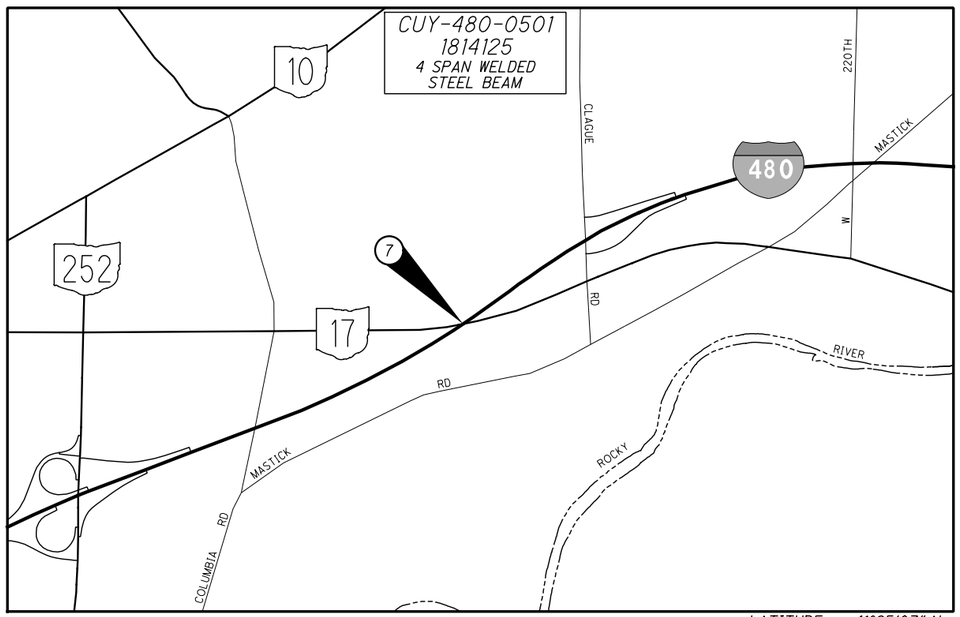
PROPOSED WORK ⓵
- REPAIR ALL PIER COLUMNS
- INSTALL DIAMOND PLATE AT ABUTMENT JOINTS
- CONCRETE PATCHING AND SEALING
- CORE RAMP SLAB FOR SCUPPERS



MAP FOR LOCATION 6

LATITUDE: 41°23'53" N
LONGITUDE: 81°56'22" W

PROPOSED WORK ⓵
- REPAIR ALL PIER COLUMNS
- REPAIR VANDAL PROTECTION FENCE
- REMOVE AND REPLACE CONCRETE APPROACH SIDEWALKS



MAP FOR LOCATION 7

LATITUDE: 41°25'07" N
LONGITUDE: 81°53'03" W

PROPOSED WORK ⓵
- DRILL OUT END WEB CRACKS NEAR TOP FLANGE
- RESET BEARINGS
- PATCH DECK
- REPAIR BACKWALL
- CONCRETE PATCHING AND SEALING

⓵ WORK SHOWN IS REPRESENTATIVE AND DOES NOT INCLUDE ALL WORK REQUIRED.

CALCULATED TJF
CHECKED ALP

LOCATION MAPS - 2

D12-BH-FY2021(A) MISC
PID NO. 103162

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LOCATION	BRIDGE NUMBER	STRUCTURAL FILE NUMBER	STRUCTURE TYPE	STRUCTURE LIMITS	BRIDGE WIDTH (OUT/OUT)	LANES ON	LANES UNDER	SEALER AND PAINT COLOR	PROPOSED WORK (WORK SHOWN IS REPRESENTATIVE AND DOES NOT INCLUDE ALL WORK REQUIRED)
1	CUY-71-0579	1804081 SB 1804111 NB	3 SPAN WELDED STEEL BEAM	157.73'	VARIES 75'-5 3/4" TO 75'-0" SB VARIES 69'-9 1/2" TO 66'-5 1/4" NB	4 SB 3 NB	2	N/A	- RETROFIT BOLTED BOTTOM COMPRESSION FLANGE COVER PLATE AT PIERS - REPAIR CONCRETE COLUMNS WITH CONCRETE PATCHING AND FIBER WRAPPING - PATCH CONCRETE PIER CAPS - PATCH CONCRETE ABUTMENT SEATS AND BREAST WALLS - PATCH CONCRETE PARAPETS - SEAL PARAPETS AND REPAIR AREAS WITH EPOXY-URETHANE SEALER - SEAL DECK WITH NON-EPOXY SEALER
2	CUY-71-0856	1804359	3 SPAN WELDED STEEL BEAM	124.91'	VARIES 71'-3 1/2" TO 74'-4 5/8" SB 65'-5" NB	4 EACH	2	N/A	- RETROFIT BOLTED BOTTOM COMPRESSION FLANGE COVER PLATE AT PIERS - REPAIR CONCRETE COLUMNS WITH CONCRETE PATCHING AND FIBER WRAPPING - PATCH CONCRETE PIER CAPS - PATCH CONCRETE ABUTMENT SEATS AND BREAST WALLS - PATCH CONCRETE PARAPETS - SEAL PARAPETS AND REPAIR AREAS WITH EPOXY-URETHANE SEALER - REPAIR DAMAGED ABUTMENT CROSSFRAMES - REPLACE ABUTMENT BEARINGS WITH ELASTOMERIC BEARINGS
3	CUY-71-1007	1814257	4 SPAN WELDED STEEL BEAM	325.85'	30'-4"	1	6	N/A	- RESET AND SHIM EXISTING ROCKER BEARINGS
4	CUY-271-0972 CUY-271 0974	1811401 1811436	6 SPAN ROLLED BEAM	400.5'	37'-0"	2 EACH	12	N/A	- REPAIR CONCRETE COLUMNS WITH CONCRETE PATCHING AND FIBER WRAPPING - PATCH CONCRETE PIER CAPS - SEAL PIERS WITH EPOXY-URETHANE SEALER - SEAL DECK / SIDEWALK WITH NON-EPOXY SEALER - RESET AND SHIM WESTBOUND NORTH FORWARD ABUTMENT ROCKER - SPALL REMOVAL OF BEAM HAUNCH CONCRETE OVER TRAFFIC LANES - REMOVE AND REPLACE MEDIAN VANDAL PROTECTION FENCE
5	CUY-480-0126	1814028	4 SPAN TWIN PLATE GIRDER	293.5'	9'-6"	PEDESTRIAN	7	N/A	- REPAIR CONCRETE COLUMNS WITH CONCRETE PATCHING AND FIBER WRAPPING - PATCH CONCRETE ABUTMENT RAMP STRUCTURE - SEAL PIERS AND REPAIR AREAS WITH EPOXY-URETHANE SEALER - REPAIR DAMAGED FENCE ON NORTH ABUTMENT RAMP STRUCTURE - CORE CONCRETE RAMP SLAB AND INSTALL SCUPPER - INSTALL DIAMOND PLATE TO COVER JOINT DISPLACEMENT AT ABUTMENTS - SPALL REMOVAL UNDER ABUTMENT RAMPS
6	CUY-480-0177	1814044	4 SPAN TWIN PLATE GIRDER	292.5'	9'-6"	PEDESTRIAN	8	N/A	- REPAIR CONCRETE COLUMNS WITH CONCRETE PATCHING AND FIBER WRAPPING - SEAL PIERS AND REPAIR AREAS WITH EPOXY-URETHANE SEALER - REMOVE AND REPLACE VANDAL PROTECTION FENCE - REMOVE AND REPLACE CONCRETE APPROACH SIDEWALKS - REMOVE AND REPLACE CHAIN LINK FENCE
7	CUY-480-0501	1814125	4 SPAN WELDED STEEL BEAM (HIGHLY SKEWED)	455.4'	124'-4"	6	4	N/A	- DRILL OUT THE END OF THE WEB CRACKS LOCATED NEAR THE TOP FLANGE - REPAIR CONCRETE COLUMNS WITH CONCRETE PATCHING AND FIBER WRAPPING - PATCH CONCRETE ABUTMENT SEATS AND BREAST WALLS - PATCH CONCRETE PARAPETS - SEAL REPAIR AREAS WITH EPOXY-URETHANE SEALER - INSTALL COMPRESSION SEAL IN ABUTMENT BACKWALL EXPANSION JOINTS - REPAIR TOP OF WESTBOUND FORWARD ABUTMENT BACKWALL - RESET AND SHIM BEARINGS AND INSTALL ANCHORED MASONRY RESTRAINING PLATES - REMOVE TREE GROWING INTO THE ABUTMENT AT THE NORTHWEST CORNER, INCLUDING REGRADING THE SLOPE - PATCH DECK

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RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DESIGNED BLN | DRAWN JLS | REVIEWED DLR | DATE 8/2020
CHECKED dht | REVISED | STRUCTURE FILE NUMBER VARIOUS

STRUCTURE DATA TABLE - 1

D12-BH-FY2021(A) MISC
PID No. 103162

UTILITIES

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

COMMUNICATIONS

AT & T OHIO
13630 LORAIN AVENUE 2ND FLOOR
CLEVELAND, OHIO 44111
ATTN: JAMES JANIS
PHONE: (216) 476-6142
FAX: (216) 476-6013

WIDE OPEN WEST INTERNET CABLE & PHONE
105 BLAZE INDUSTRIAL PARKWAY
BEREA, OH 44017
ATTN: BOB HAMMOND
PHONE: (440) 625-0349

CROWN CASTLE
15565 NEO PARKWAY
GARFIELD HEIGHTS, OH 44128
ATTN: ED DALY
PHONE: (585) 397-5988

VERIZON (MCI)
12300 RIDGE ROAD
NORTH ROYALTON, OH 44133
ATTN: DAN ARZ
PHONE: (440) 457-4832

ZAYO FIBER SOLUTIONS
305 E. WIGGIN STREET
GAMBIER, OH 43022
ATTN: SCOTT HEINLEN
PHONE: (740) 501-6921

MASTEC UTILITY SERVICES
7300 NORTHFIELD ROAD
WALTON HILLS, OH 44146
ATTN: MICHAEL SHONCE
PHONE: (216) 212-2490

EVERSTREAM
1228 EUCLID AVENUE, SUITE 250
CLEVELAND, OH 44115
ATTN: SARAH HATFIELD
PHONE: (216) 923-2206

LIGHTING

ODOT DISTRICT 12
5500 TRANSPORTATION BLVD.
GARFIELD HEIGHTS, OHIO 44125
ROADWAY SERVICES LIGHTING
ATTN: ANTHONY TOTH
PHONE: (216) 584-2220

SIGNALS

CITY OF CLEVELAND, DIVISION
OF TRAFFIC ENGINEERING
601 LAKESIDE AVENUE, RM 25
CLEVELAND, OHIO 44114
ATTN: ANDREW R. CROSS
PHONE: (216) 644-3197

CABLE

CHARTER COMMUNICATIONS
8179 DOW CIRCLE
STRONGSVILLE, OHIO 44136
SUPERVISOR: GARY NAUMANN
PHONE: (216) 575-8016, EXT. 5033
FIELD ENGINEER: RICK PALENCAR
PHONE: (216) 575-8016
EXT. 2165555032
FAX: (440) 826-2940

GAS

DOMINION ENERGY OHIO
320 SPRINGSIDE DR. SUITE 320
AKRON, OHIO 44333
ATTN: MICAH J. RISACHER
PHONE: (330) 664-2409

BP OIL
4421 BRADLEY ROAD
CLEVELAND, OH 44109
ATTN: DAN PLEVNY
PHONE: (216) 906-6374

BUCKEYE PARTNERS, L.P.
FIVE TEK PARK
9999 HAMILTON BOULEVARD
BREINIGSVILLE, PA 18031
ATTN: DAVID JONES
PHONE: (610) 904-4409

COLUMBIA GAS OF OHIO
7080 FRY ROAD
MIDDLEBURG HEIGHTS, OH 44130
ATTN: DAN SUREN
PHONE: (440) 891-2428

SEWER

CITY OF CLEVELAND
DIVISION OF WATER
POLLUTION CONTROL
12302 KIRBY ROAD
CLEVELAND, OHIO 44108
ATTN: RACHID ZOGHAIB
PHONE: (216) 664-3785

CITY OF NORTH OLMSTED
ENGINEERING DEPARTMENT
5200 DOVER CENTER ROAD
NORTH OLMSTED, OH 44070
ATTN: PIETRO A. DIFRANCO
PHONE: (440) 777-8000

CITY OF BEACHWOOD
SERVICE DEPARTMENT
23355 MERCANTILE ROAD
BEACHWOOD, OH 44122
ATTN: CHRIS ARRIETTA
PHONE: (216) 292-1922

NORTHEAST OHIO REGIONAL
SEWER DISTRICT (NEORSD)
3900 EUCLID AVENUE
CLEVELAND, OH 44115
ATTN: MARY MACIEJOWSKI
PHONE: (216) 881-6600, EXT. 6466

ELECTRIC

CEI, FIRST ENERGY
6896 MILLER RD. #101
BRECKSVILLE, OHIO 44141
ATTN: JOHN M. ZASSICK
PHONE: (440) 546-8706

WATER

CITY OF CLEVELAND
DIVISION OF WATER
1201 LAKESIDE AVENUE
CLEVELAND, OHIO 44114
ATTN: FRED ROBERTS
PHONE: (216) 664-2444, EXT. 75590
FAX: (216) 664-2838

THE NATURE OF THE WORK REQUIRED BY THIS PROJECT IS NOT ANTICIPATED TO AFFECT ANY KNOWN UTILITIES IN THE WORK AREAS.

RESTORATION AND CLEAN UP

RESTORE ALL DISTURBED AREAS TO A CONDITION EQUAL TO THAT EXISTING PRIOR TO WHEN THE WORK WAS STARTED PER C&MS 104.04.

REMOVE ANY BROKEN GLASSWARE FOUND BY CREWS IN THE WORK AREA. DISPOSE OF ANY BROKEN GLASS IN REGULAR RUBBISH DISPOSAL UNITS. DISPOSE OF ALL REMOVED MATERIALS OFF OF THE RIGHT OF WAY. PAYMENT FOR RESTORATION WORK IS INCLUDED IN THE UNIT PRICE BID FOR THE VARIOUS ITEMS.

ENDANGERED BAT HABITAT REMOVAL

THIS PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY LISTED AND PROTECTED INDIANA BAT AND NORTHERN LONG-EARED BAT. NO TREES SHALL BE REMOVED UNDER THIS PROJECT FROM APRIL 1 THROUGH SEPTEMBER 30. ALL NECESSARY TREE REMOVAL SHALL OCCUR FROM OCTOBER 1 THROUGH MARCH 31. THIS REQUIREMENT IS NECESSARY TO AVOID AND MINIMIZE IMPACTS TO THESE SPECIES AS REQUIRED BY THE ENDANGERED SPECIES ACT. FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS: A LIVE, DYING, OR DEAD WOODY PLANT, WITH A TRUNK THREE INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.

RIGHT OF WAY

ALL WORK IS TO BE PERFORMED WITHIN THE EXISTING RIGHT-OF-WAY OR EASEMENTS OR WITHIN STATE PROPERTY.

CONSTRUCTION NOISE

ACTIVITIES AND LAND USE ADJACENT TO THIS PROJECT MAY BE AFFECTED BY CONSTRUCTION NOISE. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, ANY POWER-OPERATED CONSTRUCTION-TYPE DEVICE SHALL NOT BE OPERATED DURING NON-WORKING HOURS (UNLESS OTHERWISE INDICATED IN THE PLANS) AS APPROVED BY THE ENGINEER. IN ADDITION, ANY SUCH DEVICE SHALL NOT BE OPERATED AT ANY TIME IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT.

RESTRICTION TIMES:

7:00PM TO 8:00AM MONDAY THROUGH SATURDAY
ALL-DAY SUNDAYS
ALL HOLIDAYS

COOPERATION BETWEEN CONTRACTORS

THE CONTRACTOR SHALL COOPERATE AND COORDINATE HIS/HER OPERATIONS WITH THE CONTRACTORS ON OTHER PROJECTS THAT MAY BE IN FORCE DURING THE LIFE OF THE CONTRACT. NO WAIVER OF ANY PROVISIONS OF 105.08 OF THE 2019 CONSTRUCTION AND MATERIAL SPECIFICATIONS IS INTENDED.

EXISTING DIMENSIONS

ALL DIMENSIONS ARE APPROXIMATE (±).

LIMITATIONS OF OPERATIONS

THE CONTRACTOR'S ACTIVITIES AND WORK SCHEDULE SHALL BE CONSTRAINED BY THE FOLLOWING LIMITATIONS:

1. MAINTENANCE OF TRAFFIC RESTRICTIONS (REFER TO MAINTENANCE OF TRAFFIC NOTES SHEETS WITHIN THIS PLAN).

EQUIPMENT AND MATERIAL STORAGE

IN ORDER TO PROVIDE FOR THE SAFETY OF THE TRAVELING PUBLIC, THE CONTRACTOR'S ATTENTION IS DIRECTED TO 614.03. IN ADDITION, NO STORAGE OF EQUIPMENT, MATERIALS, AND VEHICLES WITHIN THE HIGHWAY RIGHT-OF-WAY WILL BE PERMITTED WITHOUT PRIOR APPROVAL FROM THE ENGINEER AND OBTAINING AN ODOT R/W PERMIT FROM THE D12 ROADWAY SERVICES. ALL RESTORATION WILL BE AT NO COST TO THE STATE.

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL SUBSIDIARY AGREEMENT GOVERNING COMPLETION OF THIS PROJECT.

AIRWAY/HIGHWAY CLEARANCE FOR AIRPORTS AND HELIPORTS

PORTIONS OF THIS PROJECT HAS BEEN IDENTIFIED AS BEING WITHIN THE INFLUENCE AREA OF A PUBLIC USE AIRPORT OR HELIPORT. NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT AT MAXIMUM OPERATING HEIGHT SHALL EXCEED A HEIGHT OF: 65' AT BRIDGE 2 (CUY-71-0856)
30' AT BRIDGE 3 (CUY-71-1007)
98' AT BRIDGE 7 (CUY-480-0501)

IF ANY TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT WILL EXCEED THIS HEIGHT, FURTHER COORDINATION WITH THE FEDERAL AVIATION ADMINISTRATION (FAA), AND ODOT OFFICE OF AVIATION, WILL BE NECESSARY PRIOR TO ERECTING SUCH TEMPORARY STRUCTURES OR OPERATING SUCH EQUIPMENT ON THE PROJECT. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT FORM 7460-1 TO THE FAA. NOTIFY THE ODOT OFFICE OF AVIATION WHEN SUBMITTING FAA FROM 7460-1.

NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT SHALL EXCEED THE PERMISSIBLE HEIGHT, UNTIL A COPY OF THE FAA APPROVAL AND THE ODOT OFFICE OF AVIATION PERMIT HAS BEEN FURNISHED TO THE PROJECT ENGINEER.

EXPRESS PROCESSING CENTER
THE FEDERAL AVIATION ADMINISTRATION
SOUTHWEST REGIONAL OFFICE
AIR TRAFFIC AIRSPACE BRANCH ASW-520
2601 MEACHAN BLVD.
FORT WORTH, TX 76137-4298

OHIO DEPARTMENT OF TRANSPORTATION
OFFICE OF AVIATION
2829 WEST DUBLIN-GRANVILLE ROAD
COLUMBUS, OHIO 43235
614-387-2346

CALCULATED TJF
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GENERAL NOTES - 1

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PID NO. 103162

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ENVIRONMENTAL

NO WORK TO BE WITHIN STREAMS OR WETLANDS WITHOUT PRIOR APPROVAL FROM ODOT.

ROUNDING

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLIES TO ALL CROSS-SECTIONS EVEN THOUGH OTHERWISE SHOWN.

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

PROFILE AND ALIGNMENT

THE INTENT OF THE PROPOSED PAVEMENT IS TO UTILIZE THE ALIGNMENT AND PROFILE OF THE EXISTING PAVEMENT UNLESS OTHERWISE DETAILED IN THE PLANS.

PROTECTION OF RIGHT-OF-WAY LANDSCAPING

PRIOR TO BEGINNING WORK, THE CONTRACTOR, THE PROJECT ENGINEER, AND A REPRESENTATIVE OF THE MAINTAINING AGENCY WILL REVIEW AND RECORD ALL LANDSCAPING ITEMS WITHIN THE RIGHT OF WAY (BOTH WITHIN AND OUTSIDE THE CONSTRUCTION LIMITS) A RECORD OF THIS REVIEW WILL BE KEPT IN THE PROJECT ENGINEER'S FILES. PRIOR TO FINAL ACCEPTANCE, A FINAL REVIEW OF LANDSCAPING ITEMS WILL BE MADE.

CONSTRICT ALL ACTIVITIES, EQUIPMENT STORAGE, AND STAGING TO WITHIN THE CONSTRUCTION LIMITS. UNLESS OTHERWISE IDENTIFIED IN THE PLANS OR PROPOSAL, THE CONSTRUCTION LIMITS ARE IDENTIFIED AS 30 FEET FROM THE EDGE OF PAVEMENT.

SUBMIT A WRITTEN REQUEST TO THE PROJECT ENGINEER TO USE ANY AREA OUTSIDE THESE LIMITS. THE DOCUMENT SUBMITTED MUST CLEARLY IDENTIFY THE AREA AND EXPLAIN THE PROPOSED USE AND RESTORATION OF THE AREA. DISPOSAL OF WASTE MATERIAL AND CONSTRUCTION DEBRIS, EXCAVATION OF BORROW MATERIAL AND PLACEMENT OF PORTABLE PLANTS IS PROHIBITED UNLESS OTHERWISE APPROVED BY THE PROJECT ENGINEER. THE REQUEST MUST BE APPROVED, IN WRITING, BEFORE THE CONTRACTOR HAS PERMISSION TO USE THE AREA.

ANY ITEMS DAMAGED BEYOND THE CONSTRUCTION LIMITS AS DEFINED ABOVE WILL BE REPLACED IN KIND OR AS APPROVED BY THE PROJECT ENGINEER.

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURES HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURES AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURES AND THE PROPOSED WORK BUT SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO SECTIONS 102.05, 105.02 AND 513.04 OF THE 2019 CONSTRUCTION AND MATERIAL SPECIFICATIONS.

BASE CONTRACT BID PROCESS UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PRE-BID EXAMINATION OF THE EXISTING STRUCTURES BY THE CONTRACTOR.

THE EXISTING STRUCTURE PLANS MAY BE REVIEWED AT THE:

OHIO DEPARTMENT OF TRANSPORTATION
5500 TRANSPORTATION BOULEVARD
GARFIELD HEIGHTS, OH 44125

OR

HTTP://WWW.DOT.STATE.OH.US/DIVISIONS/CONTRACTADMIN/CONTRACTS/PAGES/DESIGNFILES.ASPX

STAGING AREA ON/WITHIN STATE RIGHT-OF-WAY

THERE ARE NO SPECIFIC AREAS GIVEN IN THE PLANS FOR THE CONTRACTOR TO USE AS STAGING AREA(S). IF THE CONTRACTOR WANTS TO USE AN AREA(S) FOR STAGING, REGARDLESS IF IT FALLS WITHIN THE PROJECT LIMITS OR NOT, THE CONTRACTOR IS TO CONTACT MELVIN STAFFORD AT 216-584-2137 AT DISTRICT 12 IN ORDER TO APPLY FOR A PERMIT PER SECTION 107.02 OF THE C&MS. IF A PERMIT IS GRANTED, ALL CONDITIONS OF THE PERMIT SHALL BE MET IN ADDITION TO THE REQUIREMENTS OF 104.04 OF THE C&MS, AT NO COST TO THE STATE. IF THE PROJECT ENGINEER DEEMS THAT ALL THE CONDITIONS OF THE PERMIT WERE NOT MET, THEN 10% OF THE CONTRACT BID AMOUNT FOR MOBILIZATION SHALL BE WITHHELD UNTIL ALL CONDITIONS OF THE PERMIT ARE SATISFIED.

EXISTING PAVEMENT MARKINGS

ANY EXISTING PAVEMENT MARKINGS, INCLUDING RAISED PAVEMENT MARKINGS, THAT ARE AFFECTED BY THE PROPOSED WORK SHALL BE REPLACED IN-KIND. PAYMENT FOR THE NEW PAVEMENT MARKINGS IS AS LISTED IN THE PLANS.

EARTHWORK FOR PROJECT TRANSITION

A CONTINGENCY OF ITEM 203 - EMBANKMENT AND ITEM 203 - EXCAVATION IS BEING PROVIDED IN THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER TO TRANSITION THE EARTHWORK INTO THE EXISTING AT THE BEGIN/END OF THE PROJECT.

ITEM 203 - EXCAVATION	25	CY
ITEM 203 - EMBANKMENT	25	CY

THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY TO BE USED AT LOCATION 6: CUY-480-0177, CYPRUS DRIVE PEDESTRIAN BRIDGE OVER I-480 ALONG THE PROPOSED WALK.

ITEM 203 - EMBANKMENT	13	CY

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEM.

CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN

AN OHIO PROFESSIONAL SURVEYOR SHALL DETERMINE THE MINIMUM VERTICAL CLEARANCES OF ALL EXISTING BRIDGES WITHIN THE PROJECT LIMITS AFTER COMPLETION OF ALL THE WORK, BUT PRIOR TO FINAL ACCEPTANCE OF THE PROJECT. AT A MINIMUM, MEASUREMENTS SHALL BE TAKEN ALONG THE CENTERLINE OF EACH FASCIA BEAM AT THE EDGE OF THE SHOULDERS, EDGE LINES, LANE LINES, AND CROWN OF THE ROADWAY BELOW. THE MEASUREMENTS SHALL BE DOCUMENTED IN THE ODOT VERTICAL CLEARANCE SURVEY FORM. THE FORM SHALL BEAR THE STAMP OR SEAL OF THE OHIO PROFESSIONAL SURVEYOR WHO HAS TAKEN THE MEASUREMENTS. THE OHIO PROFESSIONAL SURVEYOR SHALL SUBMIT THE COMPLETED FORM TO THE PROJECT ENGINEER AND THE DISTRICT BRIDGE MAINTENANCE ENGINEER PRIOR TO FINAL ACCEPTANCE OF THE PROJECT.

IN ADDITION TO VERTICAL CLEARANCE DETERMINATION, THE CONTRACTOR SHALL VERIFY EXISTING ELEVATIONS AS NECESSARY PRIOR TO AND AT COMPLETION OF THE WORK, AT WORK INTERFACES SUCH AS ENDS OF DECK, EXPANSION JOINTS, AND END OF APPROACH SLABS. THESE MEASUREMENTS ARE INTENDED TO ENSURE PROPOSED WORK MEETS EXISTING GRADES AND PROVIDES A SMOOTH RIDING SURFACE FOR THE TRAVELING PUBLIC.

SEEDING AND MULCHING

THE FOLLOWING QUANTITIES ARE PROVIDED FOR LOCATION 6: CUY-480-0177, CYPRUS DRIVE PEDESTRIAN BRIDGE OVER I-480 ALONG THE PROPOSED WALK. TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

ITEM 659 - TOPSOIL	8	CY
ITEM 659 - SEEDING AND MULCHING	65	SY
ITEM 659 - REPAIR SEEDING AND MULCHING	4	SY
ITEM 659 - COMMERCIAL FERTILIZER	0.01	TON
ITEM 659 - WATER	1	MGAL

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

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ENVIRONMENTAL COMMITMENTS

TO MINIMIZE IMPACTS TO THE KIRTLAND'S WARBLER DURING MIGRATION, TREES AND BRUSH LOCATED WITHIN 3-MILES OF LAKE ERIE SHORELINE WILL NOT BE REMOVED BETWEEN APRIL 22ND AND JUNE 1ST OR BETWEEN AUGUST 15TH AND OCTOBER 15TH. IF THIS SPECIES IS ENCOUNTERED WITHIN THE CONSTRUCTION LIMITS DURING CONSTRUCTION OPERATIONS, ALL CONSTRUCTION OPERATIONS WILL CEASE AND THE USFWS COLUMBUS FIELD OFFICE BE NOTIFIED IMMEDIATELY (614-416-8993). ACTIVITY WILL NOT RESUME UNTIL COORDINATION WITH USFWS HAS BEEN CONCLUDED.

REVIEW OF DRAINAGE FACILITIES

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE STATE, REPRESENTATIVES OF THE STATE AND THE CONTRACTOR, ALONG WITH LOCAL REPRESENTATIVES, SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCES SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE STATE. ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE STATE.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEMS.

FENCE REMOVED AND REPLACED

PORTIONS OF THE CHAIN LINK FENCE AT LOCATION 6: CUY-480-0177, CYPRUS DRIVE PEDESTRIAN BRIDGE OVER I-480 SHALL BE REMOVED ALONG THE PROPOSED WALK AT A POST.

THE FENCE SHALL BE REPLACED WITH A NEW CHAIN LINK FENCE AND TIE INTO THE EXISTING FENCE. ANY DAMAGE TO THE EXISTING FENCE THAT IS TO REMAIN SHALL BE REPLACED IN KIND AT THE EXPENSE OF THE CONTRACTOR. SEE SHEET 67 FOR MORE DETAILS.

THE FOLLOWING QUANTITIES HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR WORK DESCRIBED ABOVE:

ITEM 202 - FENCE REMOVED	140	FT
ITEM 607 - FENCE, TYPE CL	140	FT

THE COST OF ALL WORK DESCRIBED ABOVE INCLUDING LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS NECESSARY TO PERFORM THESE ITEMS, TO THE SATISFACTION OF THE ENGINEER, SHALL BE PAID FOR AT THE UNIT PRICE PER FOOT ITEM 202 - FENCE REMOVED AND ITEM 607 - FENCE, TYPE CL.

PAVEMENT RESTORATION FOR SHOULDER REPAIR

THE FOLLOWING QUANTITY HAS BEEN PROVIDED FOR PAVEMENT RESTORATION OF THE SHOULDER FOLLOWING THE BACKWALL REPAIR AT LOCATION 7: CUY-480-0501, I-480 OVER SR-17 (BROOKPARK ROAD). SAW CUT ALL PAVEMENT JOINTS PRIOR TO ALL BACKWALL REPAIR.

ITEM 255 - FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS QC1	16	SY
ITEM 255 - FULL DEPTH PAVEMENT SAWING	82	FT
ITEM 642 - EDGE LINE, 6", TYPE 1	0.01	MILE

THE ABOVE QUANTITY IS BASED ON A PAVEMENT RESTORATION WIDTH OF FIVE FEET PERPENDICULAR TO THE BRIDGE SKEW AND A LENGTH OF TWENTY-EIGHT FEET ALONG THE BRIDGE SKEW. PROVIDE ANY MATERIALS USED OUTSIDE THE LIMITS STATED ABOVE AT NO ADDITIONAL COST.

ITEM 201 - CLEARING AND GRUBBING, AS PER PLAN

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THIS PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING, FOR EACH BRIDGE LOCATION IDENTIFIED TO BE USED AS DIRECTED BY THE ENGINEER. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201 - CLEARING AND GRUBBING, AS PER PLAN.

ITEM 619 - FIELD OFFICE, TYPE B, AS PER PLAN

A TYPE B FIELD OFFICE IS REQUIRED FOR THIS PROJECT. THE FOLLOWING REVISIONS TO EQUIPMENT SUPPLIED WITH THE TYPE B FIELD OFFICE, AS SPECIFIED IN TABLE 619.02-1, FIELD OFFICE, SHALL APPLY:

THE COPIER SUPPLIED MUST MEET THE REQUIREMENTS OF THE COPIER SUPPLIED WITH THE TYPE C FIELD OFFICE.

THE BROAD BAND INTERNET CONNECTION MUST MEET A MINIMUM DOWNLOAD SPEED OF 10MB PER SECOND AND A MINIMUM UPLOAD SPEED OF 5MB PER SECOND.

THE CONTRACTOR SHALL FURNISH, SET-UP AND MAINTAIN A WI-FI ROUTER MEETING THE REQUIREMENTS OF IEEE 802.11ac FOR THE EXCLUSIVE USE OF THE DEPARTMENT.

ALL OTHER FIELD OFFICE ITEMS SUPPLIED SHALL MEET THE REQUIREMENTS OF A TYPE B FIELD OFFICE.

ITEM 619 - FIELD OFFICE, TYPE B, AS PER PLAN	12	MNTH

ITEM 832 - EROSION CONTROL

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK SUPPLEMENTAL SPECIFICATION 832:

ITEM 832 - EROSION CONTROL	10000	EACH

ITEM 607 - FENCE, MISC.: FENCE REMOVED AND REERECTED

PORTIONS OF THE CHAIN LINK FENCE ALONG BROOKPARK ROAD MAY BE REMOVED TO PROVIDE ACCESS TO THE ABUTMENTS OF LOCATION 7: CUY-480-0501, I-480 OVER SR-17 (BROOKPARK ROAD).

SECTIONS OF THE WIRE FABRIC BETWEEN POSTS SHALL BE REMOVED WITHOUT DAMAGING THE WIRE FABRIC OR THE POSTS. AT CONSTRUCTION COMPLETION OF CUY-480-0501, THE WIRE FABRIC SHALL BE REERECTED ON THE EXISTING FENCE POSTS. THE CONTRACTOR IS CAUTIONED TO USE EXTREME CARE IN THE REMOVAL AND REERECTION OF THE WIRE FABRIC. WIRE FABRIC AND/OR FENCE POSTS DAMAGED BY THE NEGLIGENCE OF THE CONTRACTOR, AS DETERMINED BY THE ENGINEER, SHALL BE REPLACED WITH NEW CHAIN LINK FENCE AT THE EXPENSE OF THE CONTRACTOR.

THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE REMOVAL AND REERECTION OF WIRE FABRIC:

ITEM 607 - FENCE, MISC.: FENCE REMOVED AND REERECTED	90	FT

THE ABOVE QUANTITY IS BASED ON PROVIDING ACCESS AT 3 LOCATIONS PER ABUTMENT. THE EXISTING CHAIN LINK FENCE POSTS ARE SPACED AT APPROXIMATELY 10 FEET. ACCESS WILL BE PROVIDED THROUGH TWO FENCES AT THE REAR ABUTMENT AND ONE FENCE AT THE FORWARD ABUTMENT.

THE COST OF ALL WORK DESCRIBED ABOVE INCLUDING LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS NECESSARY TO PERFORM THIS ITEM, TO THE SATISFACTION OF THE ENGINEER, SHALL BE PAID FOR AT THE UNIT CONTRACT BID PRICE PER FOOT FOR ITEM 607 - FENCE, MISC.: FENCE REMOVED AND REERECTED.

ITEM SPECIAL: SITE ACCESS

THIS ITEM SHALL INCLUDE ALL WORK NECESSARY TO PROVIDE ACCESS TO THE SLOPE EROSION REPAIR, DRAINAGE CLEANOUT, PIER COLUMN SCOUR REPAIR, AND DRAINAGE REPAIR LOCATIONS:

LOCATION 1 (CUY-71-0576): ACCESS ALONG MAINLINE SHOULDER FROM STA. 791+00± TO STA 796+00±.

LOCATION 2 (CUY-71-0856): ACCESS ALONG MAINLINE SHOULDER FROM STA. 937+00± TO STA. 942+00±.

LOCATION 3 (CUY-71-1007): ACCESS ALONG IR 480 SHOULDER FROM STA. 485+00± TO STA. 489+00±.

LOCATION 4 (CUY-271-0972 &0974): ACCESS ALONG IR 271 SHOULDER FROM STA. 531+00± TO STA. 533+00±.

LOCATION 5 (CUY-480-0126): ACCESS ALONG IR 480 SHOULDER FROM STA. 166+00± TO STA. 168+00±.

LOCATION 6 (CUY-480-0177): ACCESS ALONG IR 480 SHOULDER FROM STA. 192+00± TO STA. 194+00±.

LOCATION 7 (CUY-480-0501): ACCESS ALONG IR 480 SHOULDER FROM STA. 363+00± TO STA. 370+00±.

THIS ITEM SHALL INCLUDE, BUT IS NOT LIMITED TO, EARTHWORK, CLEARING AND GRUBBING, FENCE WORK, GUARDRAIL, SIGN REMOVAL AND REERECTION, CRUSHED AGGREGATE SLOPE PROECTION, ETC. TEMPORARY EROSION CONTROL ITEMS SHALL BE PAID FOR PER ITEM 832. THIS ITEM SHALL INCLUDE ALL RESTORATION WORK NECESSARY TO RESTORE ANY DISTURBED AREAS TO AS GOOD AS OR BETTER THAN THEIR ORIGINAL CONDITION. WHEN ACCESSING THE SPECIFIC LOCATIONS AND SLOPES 3:1 OR STEEPER ARE ENCOUNTERED, THE CONTRACTOR SHALL MAKE EVERY ATTEMPT TO PREVENT FUTURE EROSION PROBLEMS.

ALL SLOPES 3:1 OR STEEPER SHALL HAVE ITEM 670-SLOPE PROTECTION INSTALLED. ALL DISTRUBED VEGETATED DITCHES SHALL HAVE ITEM 670-DITCH EROSION PROTECTION INSTALLED. ALL DISTURBED ROCK CHANNEL PROTECTION AND PAVED GUTTERS SHALL BE REPLACED PER THE CURRENT SPECIFICATIONS UNDER THIS ITEM, AT NO ADDITIONAL COST TO THE STATE.

THIS ITEM SHALL ALSO INCLUDE SEEDING, FERTILIZING, AND WATERING PER ITEM 659 FOR ALL DISTURBED AREAS. IT SHALL ALSO INCLDUE THE ADDITION OF 3 INCHES OF TOPSOIL FOR ALL DISTURBED AREAS. THE CONTRACTOR SHALL ENSURE A GOOD STAND OF GRASS AS DESCRIBED PER 659.23. THE COST OF ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS AS APPROVED BY THE ENGINEER FOR THE SLOPE EROSION REPAIR AND DRAINAGE REPAIR LOCATIONS, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM SPECIAL: SITE ACCESS.

CALCULATED TJF CHECKED ALP

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ITEM 614 - MAINTAINING TRAFFIC

GENERALLY THE CONTRACTOR SHALL CONDUCT THEIR OPERATIONS AS TO MAKE THE PROPOSED CONSTRUCTION WITH A MINIMUM HAZARD, DELAY AND INCONVENIENCE TO THE MOTORISTS USING THE HIGHWAY. MAINTENANCE OF TRAFFIC INCLUDES ALL LOCATIONS FOR THIS PROJECT. THIS ITEM SHALL CONSIST OF THE MAINTENANCE OF TRAFFIC ON EXISTING ROADWAYS, RAMPS, AND SIDEWALKS IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAY, CURRENT EDITION, LATEST REVISION, THE SPECIFICATIONS, AND THE FOLLOWING:

I. NOTIFICATION

SINCE FUNCTIONAL TRAFFIC CONTROL IS A MAJOR CONCERN ON THIS PROJECT, IT IS ESSENTIAL THAT THE MOTORING PUBLIC BE ADEQUATELY FOREWARNED OF FUTURE LANE CLOSURES AND TRAFFIC CONSTRICTIONS. THEREFORE, THE CONTRACTOR MUST SUBMIT A WRITTEN SCHEDULE TO THE ODOT PUBLIC INFORMATION OFFICE (216-584-2007 OR D12.PUBLICINFORMATION@DOT.OHIO.GOV) INDICATING THE LOCATIONS AND DATES OF THE LANE CLOSURES AT LEAST 14 DAYS PRIOR TO THE IMPLEMENTATION OF ANY SUCH CLOSURES. ALSO, NOTIFY THE ENGINEER, RESPONSIBLE LAW ENFORCEMENT AGENCIES AND EMERGENCY SERVICES, AND LOCAL MUNICIPALITIES OF LANE CLOSURES OR OTHER RESTRICTIONS AT LEAST 2 WEEKS PRIOR TO IMPLEMENTATION. USE PORTABLE CHANGEABLE MESSAGE SIGNS TO ALERT MOTORISTS 3 DAYS PRIOR TO THE IMPLEMENTATION OF ANY CHANGES SUCH AS LANE CLOSURES OR OTHER RESTRICTIONS.

THE CONTRACTOR SHALL NOTIFY THE LOCAL MUNICIPALITIES OF PEDESTRIAN BRIDGE CLOSURES OR ANY OTHER PEDESTRIAN RESTRICTIONS AT LEAST 2 WEEKS PRIOR TO IMPLEMENTATION. USE ADVANCED WARNING SIGNS TO ALERT PEDESTRIANS 3 DAYS PRIOR TO THE IMPLEMENTATION OF PEDESTRIAN BRIDGE CLOSURES OR ANY OTHER PEDESTRIAN RESTRICTIONS. FOR LOCATION 2, THE BROOK PARK CITY ENGINEER SHALL BE NOTIFIED. FOR LOCATION 4, THE BEACHWOOD CITY ENGINEER SHALL BE NOTIFIED. FOR LOCATIONS 5 AND 6, THE NORTH OLMSTED CITY ENGINEER SHALL BE NOTIFIED. FOR LOCATION 7, THE NORTH OLMSTED CITY ENGINEER SHALL BE NOTIFIED. THE PEDESTRIAN BRIDGE CLOSURE FOR LOCATION 5 IS EXPECTED TO HAVE A 21 DAY DURATION. THE PEDESTRIAN BRIDGE CLOSURE FOR LOCATION 6 IS EXPECTED TO HAVE A 21 DAY DURATION. THE PEDESTRIAN BRIDGE CLOSURES FOR LOCATIONS 5 AND 6 SHALL NOT OCCUR CONCURRENTLY.

THE CONTRACTOR SHALL FURNISH, ERECT, MAINTAIN, AND SUBSEQUENTLY REMOVE ALL FLAGS, BARRICADES, SIGNS, SIGN SUPPORTS AND FURNISH AND MAINTAIN ALL FLAGGERS, WATCHERS AND INCIDENTALS RELATED THERETO.

II. LANE CLOSURE RESTRICTIONS

1. LANE CLOSURES MAY ONLY BE IMPLEMENTED AT THE TIMES PERMITTED BY THE "DISTRICT 12 PERMITTED LANE CLOSURE TIMES" LIST WHICH IS LOCATED ON THE ODOT WEB SITE: HTTP://WWW.DOT.STATE.OH.US/DISTRICTS/D12/HIGHWAY MANAGEMENT/PAGES/PERMITTEDLANECLOSURES.ASPX. THE LATEST REVISION 14 DAYS PRIOR TO THE BID DATE SHALL BE IN EFFECT FOR THIS PROJECT. ALL NOTES ON THE PERMITTED LANE CLOSURE TIMES SHALL BE PART OF THIS PROJECT.

2. UNLESS OTHERWISE NOTED, EXIT AND ENTRANCE RAMP LANES SHALL REMAIN OPEN AT ALL TIMES AND EXHIBIT A MINIMUM WIDTH OF ELEVEN (11) FEET.

3. MAINTENANCE OF TRAFFIC SHALL FOLLOW THE INSTRUCTION OF THE STANDARD CONSTRUCTION DRAWINGS LISTED ON THE TITLE SHEET AND THE LATEST REVISION OF THE OMUTCD.

4. PEDESTRIAN TRAFFIC SHALL BE PERMITTED AND ACCOMMODATED ON AT LEAST ONE SIDE AT ALL TIMES AT LOCATIONS WHERE PEDESTRIAN TRAFFIC IS CURRENTLY MAINTAINED EXCEPT THAT PEDESTRIAN TRAFFIC SHALL BE DETOURED FOR THE PEDESTRIAN BRIDGES AT ANOTHER LOCATION.

5. ALL DRIVES AND SIDE STREETS SHALL BE MAINTAINED AT ALL TIMES.

LOCATION 1 (CUY-71-0579)
I-71 OVER CR 299 (FOWLES ROAD):
THE CONTRACTOR SHALL PERFORM THE DECK SEALING WORK IN TWO PHASES OF CONSTRUCTION FOR THE SOUTHBOUND STRUCTURE. THE FIRST PHASE SHALL CLOSE THE TWO OUTSIDE TRAVEL LANES AND THE DECELERATION LANE IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS), MT-102.20 (LANE SHIFT ON A MULTI-LANE HIGHWAY USING DRUMS) AND MT-98.29 (EXIT RAMP CLOSURE) WHILE MAINTAINING THE INSIDE TRAVEL LANE AND MAINTAINING A SECOND LANE ON THE INSIDE SHOULDER. THE CONTRACTOR SHALL PERFORM WORK FOR PHASE ONE IN ONE WEEKEND. PHASE ONE MAINTENANCE OF TRAFFIC WILL REQUIRE MARKINGS TO SHIFT LANES AND MAINTAIN TWO LANES OF TRAFFIC. MARKING ITEMS HAVE BEEN INCLUDED IN THE MAINTENANCE OF TRAFFIC SUBSUMMARY. THE MARKING SHALL BE IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE HIGHWAY WITH DRUMS), MT-99.30 (WORK ZONE DELINEATION) AND MT-102.20 (LANE SHIFT ON A MULTI-LANE HIGHWAY USING DRUMS) EXCEPT THAT THE WORK ZONE RAISED PAVEMENT MARKERS ARE NOT REQUIRED FOR THE WEEKEND LANE CLOSURE. THE SECOND PHASE SHALL CLOSE THE INSIDE TRAVEL LANE IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) WHILE MAINTAINING TRAFFIC ON THE TWO OUTSIDE TRAVEL LANES AND THE RAMP DECELERATION LANE.

THE CONTRACTOR SHALL PERFORM THE DECK SEALING WORK IN TWO PHASES OF CONSTRUCTION FOR THE NORTHBOUND STRUCTURE. THE FIRST PHASE SHALL CLOSE THE TWO OUTSIDE TRAVEL LANES AND THE ACCELERATION LANE IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS), MT-102.20 (LANE SHIFT ON A MULTI-LANE HIGHWAY USING DRUMS) AND MT-101.60 (ROAD CLOSURE USING TYPE 3 BARRICADES) WHILE MAINTAINING TRAFFIC ON THE INSIDE TRAVEL LANE AND MAINTAINING A SECOND LANE ON THE INSIDE SHOULDER. THE CONTRACTOR SHALL PERFORM WORK FOR PHASE ONE IN ONE WEEKEND. PHASE ONE MAINTENANCE OF TRAFFIC WILL REQUIRE MARKINGS TO SHIFT LANES AND MAINTAIN TWO LANES OF TRAFFIC. MARKING ITEMS HAVE BEEN INCLUDED IN THE MAINTENANCE OF TRAFFIC SUBSUMMARY. THE MARKING SHALL BE IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE HIGHWAY WITH DRUMS), MT-99.30 (WORK ZONE DELINEATION) AND MT-102.20 (LANE SHIFT ON A MULTI-LANE HIGHWAY USING DRUMS) EXCEPT THAT THE WORK ZONE RAISED PAVEMENT MARKERS ARE NOT REQUIRED FOR THE WEEKEND LANE CLOSURE. THE SECOND PHASE SHALL CLOSE THE INSIDE TRAVEL LANE IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) WHILE MAINTAINING TWO LANES OF TRAFFIC. MARKING ITEMS HAVE BEEN INCLUDED IN THE MAINTENANCE OF TRAFFIC SUBSUMMARY. THE MARKING SHALL BE IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE HIGHWAY WITH DRUMS), MT-99.30 (WORK ZONE DELINEATION) AND MT-102.20 (LANE SHIFT ON A MULTI-LANE HIGHWAY USING DRUMS) EXCEPT THAT THE WORK ZONE RAISED PAVEMENT MARKERS ARE NOT REQUIRED FOR THE WEEKEND LANE CLOSURE. THE SECOND PHASE SHALL CLOSE THE INSIDE TRAVEL LANE IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) WHILE MAINTAINING THE TWO OUTSIDE TRAVEL LANES AND THE ACCELERATION LANE.

THE CONTRACTOR SHALL PERFORM THE COMPRESSION FLANGE RETROFIT, PIER PATCHING AND PIER SEALING WORK ON CR 299 (FOWLES ROAD) IN ACCORDANCE WITH OMUTCD FIGURE 6H-3 (TA-3 - WORK ON SHOULDERS) BY CLOSING THE SHOULDERS IN EACH DIRECTION AND PROVIDING FLAGGERS IN ACCORDANCE WITH MT-97.10 (FLAGGER CLOSING 1 LANE OF A 2-LANE HIGHWAY - STATIONARY OPERATION).

THE ABUTMENT PATCHING AND ABUTMENT SEALING WILL NOT REQUIRE MAINTENANCE OF TRAFFIC. THE CONTRACTOR CAN ACCESS THE ABUTMENTS FROM FOWLES ROAD AND PARK IN THE AREAS OUTSIDE OF THE TRAFFIC LANES.

LANE CLOSURES SHALL ONLY BE PERMITTED DURING THE PLCM HOURS FOR I-71 AT THE BRIDGE LOCATION. A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES ON FOWLES ROAD.

LOCATION 2 (CUY-71-0856)
I-71 OVER SYLVIA DRIVE:
THE CONTRACTOR SHALL PERFORM THE PARAPET PATCHING AND SEALING WORK IN TWO PHASES. THE FIRST PHASE SHALL CLOSE THE INSIDE LANE ON IR 71 (NORTHBOUND AND SOUTHBOUND) IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) WHILE MAINTAINING TWO LANES OF TRAFFIC IN EACH DIRECTION, THE SOUTHBOUND ACCELERATION LANE AND THE NORTHBOUND DECELERATION LANE. THE SECOND PHASE SHALL CLOSE THE SOUTHBOUND OUTSIDE SHOULDER AND THE ENTRANCE RAMP LANE ON THE SOUTHBOUND BRIDGE IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) AND MT-98.10 (LANE CLOSURE AT ENTRANCE RAMP) WHILE MAINTAINING ALL SOUTHBOUND LANES OF TRAFFIC INCLUDING ACCESS FROM THE ENTRANCE RAMP TO THE NORTH. THE SECOND PHASE SHALL ALSO CLOSE THE NORTHBOUND OUTSIDE SHOULDER AND THE EXIT RAMP LANE ON THE NORTHBOUND BRIDGE IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) WHILE MAINTAINING ALL NORTHBOUND LANES OF TRAFFIC INCLUDING ACCESS TO THE EXIT RAMP TO THE NORTH.

THE CONTRACTOR SHALL PERFORM THE COMPRESSION FLANGE RETROFIT, PIER SEALING AND PIER PATCHING WORK BY CLOSING ONE LANE ON SYLVIA DRIVE IN ACCORDANCE WITH MT-97.10 (FLAGGER CLOSING 1 LANE OF A 2-LANE HIGHWAY - STATIONARY OPERATION) WHILE MAINTAINING TWO WAY TRAFFIC IN THE OTHER LANE.

THE SIDEWALK ALONG SYLVIA DRIVE SHALL BE CLOSED DURING THE COMPRESSION FLANGE RETROFIT, PIER SEALING AND PIER PATCHING WORK AND DETOURED IN ACCORDANCE WITH MT-110.10 (PEDESTRIAN DETOUR METHODS).

THE ABUTMENT BEARING REPLACEMENT, ABUTMENT PATCHING, ABUTMENT SEALING AND CROSSFRAME REPAIR WILL NOT REQUIRE MAINTENANCE OF TRAFFIC. THE CONTRACTOR CAN GAIN ACCESS TO THE ABUTMENTS FROM SYLVIA DRIVE AND CAN PARK IN THE FENCED IN AREAS NEXT TO THE STRUCTURE BY USE OF THE GATES.

LANE CLOSURES SHALL ONLY BE PERMITTED DURING THE PLCM HOURS FOR I-71 AT THE BRIDGE LOCATION. A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES ON SYLVIA DRIVE EXCEPT AS REQUIRED TO PERFORM THE COMPRESSION FLANGE RETROFIT, PIER SEALING AND PIER PATCHING WORK AS DEFINED ABOVE. LANE CLOSURES ON SYLVIA DRIVE SHALL BE AS PERMISSIBLE BY THE CITY OF BROOK PARK AND SHALL NOT OCCUR DURING PEAK TRAFFIC HOURS.

LOCATION 3 (CUY-71-1007)
I-71 RAMP T OVER I-480 MAINLINE:
THE CONTRACTOR SHALL PERFORM THE ABUTMENT AND PIER BEARING WORK BY CLOSING THE OUTSIDE SHOULDER OF IR 480 EASTBOUND IN ACCORDANCE WITH OMUTCD FIGURE 6H-3 (TA-3 - WORK ON SHOULDERS) WHILE MAINTAINING ALL EASTBOUND TRAVEL LANES. THE CONTRACTOR SHALL PERFORM THE ABUTMENT AND PIER BEARING WORK BY CLOSING THE OUTSIDE SHOULDER OF IR 480 WESTBOUND IN ACCORDANCE WITH OMUTCD FIGURE 6H-3 (TA-3 - WORK ON SHOULDERS) AND MT-98.10 (LANE CLOSURE AT ENTRANCE RAMP) WHILE MAINTAINING ALL WESTBOUND TRAVEL LANES AND ACCESS FROM THE ENTRANCE RAMP TO THE EAST.

LANE CLOSURES (INCLUDING SHOULDER CLOSURES) SHALL ONLY BE PERMITTED DURING THE PLCM HOURS FOR I-480 AT THE BRIDGE LOCATION.

LOCATION 4 (CUY-271-0972 & 0974)
FAIRMOUNT BOULEVARD OVER I-271 & I-271X:
THE CONTRACTOR SHALL PERFORM WORK IN SIX PHASES OF CONSTRUCTION FOR THE IR 271 MAINLINE AND IR 271 EXPRESS LANES. THE CONTRACTOR SHALL RESET THE ABUTMENT BEARINGS DURING PHASE 1. THE CONTRACTOR SHALL PERFORM PIER REPAIRS DURING PHASES 1 AND 4. THE CONTRACTOR SHALL PERFORM DECK HAUNCH CONCRETE REMOVAL DURING ALL SIX PHASES OF CONSTRUCTION. THE FIRST PHASE SHALL CLOSE THE IR 271 MAINLINE (NORTHBOUND AND SOUTHBOUND) OUTSIDE SHOULDERS IN ACCORDANCE WITH OMUTCD FIGURE 6H-3 (TA-3 - WORK ON SHOULDERS) WHILE MAINTAINING THE THREE TRAVEL LANES. THE SECOND PHASE SHALL CLOSE THE IR 271 MAINLINE (NORTHBOUND AND SOUTHBOUND) OUTSIDE TRAVEL LANES IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) WHILE MAINTAINING THE TWO INSIDE TRAVEL LANES. THE THIRD PHASE SHALL CLOSE THE TWO INSIDE TRAVEL LANES OF IR 271 MAINLINE (NORTHBOUND AND SOUTHBOUND) IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) WHILE MAINTAINING ONE LANE OF TRAFFIC ON THE OUTSIDE TRAVEL LANE. THE THIRD PHASE SHALL ALSO MAINTIAN THE EXIT RAMPS IN ACCORDANCE WITH MT-98.20 (LANE CLOSURE AT EXIT RAMP USING DRUMS). THE FOURTH PHASE SHALL CLOSE THE IR 271 MAINLINE (NORTHBOUND AND SOUTHBOUND) INSIDE SHOULDERS IN ACCORDANCE WITH OMUTCD FIGURE 6H-3 (TA-3 - WORK ON SHOULDERS) WHILE MAINTAINING THE THREE TRAVEL LANES. THE FOURTH PHASE SHALL ALSO CLOSE THE OUTSIDE SHOULDER OF IR 271 EXPRESS LANES (NORTHBOUND AND SOUTHBOUND) IN ACCORDANCE WITH OMUTCD FIGURE 6H-3 (TA-3 - WORK ON SHOULDERS) WHILE MAINTAINING THE THREE TRAVEL LANES. THE FIFTH PHASE SHALL CLOSE THE OUTSIDE LANE (SLIP RAMP) OF IR 271 EXPRESS LANES (NORTHBOUND AND SOUTHBOUND) AT THE BRIDGE IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) WHILE MAINTAINING TRAFFIC ON THE TWO INSIDE TRAVEL LANES. THE FIFTH PHASE SHALL ALSO MAINTAIN THE ENTRANCE RAMPS IN ACCORDANCE WITH MT-98.11 (LANE CLOSURE AT ENTRANCE RAMP ACCELERATION LANE). THE SIXTH PHASE SHALL CLOSE THE TWO INSIDE TRAVEL LANES OF IR 271 EXPRESS LANES (NORTHBOUND AND SOUTHBOUND) IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) WHILE MAINTAINING TRAFFIC ON THE OUTSIDE TRAVEL LANE AND THE OUTSIDE SHOULDER. THE SIXTH PHASE SHALL ALSO MAINTAIN THE ENTRANCE RAMPS.

THE CONTRACTOR SHALL PERFORM WORK ON FAIRMOUNT BOULEVARD IN TWO PHASES OF CONSTRUCTION. THE CONTRACTOR SHALL PERFORM DECK AND SIDEWALK SEALING DURING PHASE 1. THE CONTRACTOR SHALL SEAL THE DECK AND REPLACE THE VANDAL PROTECTION FENCE DURING PHASE 2. THE FIRST PHASE SHALL CLOSE THE OUTSIDE LANES (EASTBOUND AND WESTBOUND) IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) WHILE MAINTAINING TRAFFIC ON THE INSIDE LANES. THE FIRST PHASE SHALL ALSO CLOSE THE SIDEWALK ALONG FAIRMOUNT BOULEVARD AND PEDESTRIAN TRAFFIC SHALL BE DETOURED IN ACCORDANCE WITH MT-110.10 (PEDESTRIAN DETOUR METHODS). THE SECOND PHASE SHALL CLOSE THE INSIDE LANES (EASTBOUND AND WESTBOUND) IN ACCORDANCE WITH MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) WHILE MAINTAINING TRAFFIC ON THE OUTSIDE LANES.

LANE CLOSURES SHALL ONLY BE PERMITTED DURING THE PLCM HOURS FOR THE I-271 MAINLINE AND THE I-271 EXPRESS LANES AT THE BRIDGE LOCATION. A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES ON FAIRMOUNT BOULEVARD. LANE CLOSURES ON FAIRMOUNT BOULEVARD SHALL BE COORDINATED WITH THE CITY OF BEACHWOOD.

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MAINTENANCE OF TRAFFIC NOTES - 1

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LOCATION 5 (CUY-480-0126)
CHRISTMAN DRIVE PEDESTRIAN BRIDGE OVER I-480:
THE CONTRACTOR SHALL PERFORM WORK IN TWO PHASES OF CONSTRUCTION FOR IR 480. THE CONTRACTOR SHALL REPAIR THE PIERS DURING PHASES 1 AND 2. THE CONTRACTOR SHALL PATCH THE ABUTMENTS, REPAIR THE FENCE, PERFORM THE ABUTMENT DRAINAGE REPAIRS (DECK CORING AND INSTALLING PVC PIPE), PATCH THE ABUTMENT RAMP AND REPAIR THE ABUTMENT SLIDING PLATE JOINT DURING PHASE 1. THE FIRST PHASE SHALL CLOSE THE IR 480 (EASTBOUND) OUTSIDE SHOULDER IN ACCORDANCE WITH MT-95.45 (CLOSING SHOULDER OF A MULTI-LANE DIVIDED HIGHWAY) AND MT-98.22 (LANE CLOSURE IN DECELERATION LANE) WHILE MAINTAINING THE THREE EASTBOUND TRAVEL LANES AND THE DECELERATION LANE. THE FIRST PHASE SHALL ALSO CLOSE THE IR 480 (WESTBOUND) OUTSIDE SHOULDER IN ACCORDANCE WITH MT-95.45 (CLOSING SHOULDER OF A MULTI-LANE DIVIDED HIGHWAY) WHILE MAINTAINING THE THREE WESTBOUND TRAVEL LANES. THE SECOND PHASE SHALL CLOSE THE IR 480 (EASTBOUND AND WESTBOUND) INSIDE SHOULDERS IN ACCORDANCE WITH MT-95.45 (CLOSING SHOULDER OF A MULTI-LANE DIVIDED HIGHWAY) WHILE MAINTAINING THE THREE WESTBOUND TRAVEL LANES, THE THREE EASTBOUND TRAVEL LANES AND THE DECELERATION LANE.

THE CONTRACTOR SHALL PERFORM THE ABUTMENT RAMP PATCHING AND ABUTMENT SLIDING PLATE JOINT REPAIR WORK ON THE CHRISTMAN DRIVE PEDESTRIAN BRIDGE BY CLOSING THE PEDESTRIAN BRIDGE DURING CONSTRUCTION AND DETOURING PEDESTRIAN TRAFFIC IN ACCORDANCE WITH MT-110.10 (PEDESTRIAN DETOUR METHODS). LOCATION 6 (CUY-480-0177) SHALL NOT BE CLOSED AT THE SAME TIME AS THIS LOCATION. THE EXPECTED PEDESTRIAN BRIDGE CLOSURE IS 21 DAYS.

THE ABUTMENT WALL PATCHING, FENCE REPAIRS AND THE ABUTMENT DRAINAGE REPAIRS (DECK CORING AND INSTALLING PVC PIPE) WILL NOT REQUIRE MAINTENANCE OF TRAFFIC FOR THE PEDESTRIAN BRIDGE.

LANE CLOSURES SHALL ONLY BE PERMITTED DURING THE PLCM HOURS FOR I-480 AT THE BRIDGE LOCATION. THE PEDESTRIAN BRIDGE CLOSURE ON CHRISTMAN DRIVE SHALL BE COORDINATED WITH THE CITY OF NORTH OLMSTED.

LOCATION 6 (CUY-480-0177)
CYPRUS DRIVE PEDESTRIAN BRIDGE OVER I-480:
THE CONTRACTOR SHALL PERFORM WORK IN TWO PHASES OF CONSTRUCTION FOR IR 480. THE CONTRACTOR SHALL PERFORM THE PIER REPAIR AND PIER SEALING WORK DURING PHASES 1 AND 2. THE CONTRACTOR SHALL REPAIR THE APPROACH RAMPS, REPAIR THE FENCE, REPLACE THE VANDAL PROTECTION FENCE AND PATCH THE DECK DURING PHASE 1. THE FIRST PHASE SHALL CLOSE THE IR 480 (EASTBOUND) OUTSIDE SHOULDER IN ACCORDANCE WITH MT-95.45 (CLOSING SHOULDER OF A MULTI-LANE DIVIDED HIGHWAY) WHILE MAINTAINING THE THREE EASTBOUND TRAVEL LANES AND THE ACCELERATION LANE. THE FIRST PHASE SHALL ALSO CLOSE THE IR 480 (WESTBOUND) OUTSIDE SHOULDER IN ACCORDANCE WITH MT-95.45 (CLOSING SHOULDER OF A MULTI-LANE DIVIDED HIGHWAY) AND MT-98.22 (LANE CLOSURE IN DECELERATION LANE) WHILE MAINTAINING THE THREE WESTBOUND TRAVEL LANES AND THE DECELERATION LANE. THE SECOND PHASE SHALL CLOSE THE IR 480 (EASTBOUND AND WESTBOUND) INSIDE SHOULDERS IN ACCORDANCE WITH MT-95.45 (CLOSING SHOULDER OF A MULTI-LANE DIVIDED HIGHWAY) WHILE MAINTAINING THE THREE WESTBOUND TRAVEL LANES, THE DECELERATION LANE, THE THREE EASTBOUND TRAVEL LANES AND THE ACCELERATION LANE.

THE CONTRACTOR SHALL PERFORM THE APPROACH RAMP REPAIRS, FENCE REPAIRS, VANDAL PROTECTION FENCE REPLACEMENT, AND THE DECK PATCHING WORK ON THE CYPRUS DRIVE PEDESTRIAN BRIDGE BY CLOSING THE PEDESTRIAN BRIDGE DURING CONSTRUCTION AND DETOURING PEDESTRIAN TRAFFIC IN ACCORDANCE WITH MT-110.10 (PEDESTRIAN DETOUR METHODS). LOCATION 5 (CUY-480-0126) SHALL NOT BE CLOSED AT THE SAME AS THIS LOCATION. THE EXPECTED PEDESTRIAN BRIDGE CLOSURE IS 21 DAYS.

LANE CLOSURES SHALL ONLY BE PERMITTED DURING THE PLCM HOURS FOR I-480 AT THE BRIDGE LOCATION. THE PEDESTRIAN BRIDGE CLOSURE ON CYPRUS DRIVE SHALL BE COORDINATED WITH THE CITY OF NORTH OLMSTED.

LOCATION 7 (CUY-480-0501)
I-480 OVER SR-17 (BROOKPARK ROAD):
THE CONTRACTOR SHALL PERFORM THE PARAPET PATCHING, PARAPET SEALING, PARAPET REPLACEMENT, SHOULDER EXCAVATION, BACKWALL REPAIR, FULL DEPTH PAVEMENT REPAIR, APPROACH SLAB PATCHING, DECK PATCHING AND BACKWALL REPLACEMENT WORK IN SIX PHASES ON IR 480.

DURING PHASE ONE, THE CONTRACTOR SHALL PATCH AND SEAL THE OUTSIDE WESTBOUND PARAPET, PERFORM THE SHOULDER EXCAVATION (WESTBOUND FORWARD ABUTMENT), REPAIR THE BACKWALL (WESTBOUND FORWARD ABUTMENT), REPAIR THE SHOULDER PAVEMENT BEHIND THE BACKWALL REPAIR (WESTBOUND FORWARD ABUTMENT), AND PATCH THE APPROACH SLAB AND BACKWALL IN THE OUTSIDE LANE (WESTBOUND FORWARD ABUTMENT). THE FIRST PHASE SHALL MAINTAIN THREE LANES OF TRAFFIC ON IR 480 (WESTBOUND) IN ACCORDANCE WITH THE MAINTENANCE OF TRAFFIC PLANS, MT-95.40 (CLOSING RIGHT OR LEFT LANES OF A MULTI-LANE DIVIDED HIGHWAY WITH PORTABLE BARRIER) AND MT-102.10 (LANE SHIFT ON A MULTI-LANE HIGHWAY USING PORTABLE BARRIER). THE EASTBOUND BRIDGE WILL NOT REQUIRE MAINTENANCE OF TRAFFIC DURING THIS PHASE AND ALL EASTBOUND LANES SHALL REMAIN OPEN.

DURING PHASE TWO, THE CONTRACTOR SHALL PATCH THE DECK AND APPROACH SLAB AT THE WESTBOUND FORWARD ABUTMENT. THE SECOND PHASE SHALL CLOSE THE TWO OUTSIDE LANES ON IR 480 (WESTBOUND) IN ACCORDANCE WITH MT-95.40 (CLOSING RIGHT OR LEFT LANES OF A MULTI-LANE DIVIDED HIGHWAY WITH PORTABLE BARRIER) AND MT-102.10 (LANE SHIFT ON A MULTI-LANE HIGHWAY USING PORTABLE BARRIER) WHILE MAINTAINING TRAFFIC ON THE INSIDE WESTBOUND TRAVEL LANE AND THE INSIDE WESTBOUND SHOULDER.

DURING PHASE THREE, THE CONTRACTOR SHALL PATCH THE MEDIAN PARAPET, SEAL THE MEDIAN PARAPET AND REPLACE PORTIONS OF THE MEDIAN PARAPET. THE THIRD PHASE SHALL MAINTAIN THREE LANES OF TRAFFIC ON IR 480 (EASTBOUND AND WESTBOUND) IN ACCORDANCE WITH THE MAINTENANCE OF TRAFFIC PLANS, MT-95.40 (CLOSING RIGHT OR LEFT LANES OF A MULTI-LANE DIVIDED HIGHWAY WITH PORTABLE BARRIER) AND MT-102.10 (LANE SHIFT ON A MULTI-LANE HIGHWAY USING PORTABLE BARRIER).

DURING PHASE FOUR, THE CONTRACTOR SHALL PATCH THE DECK AT THE EASTBOUND FORWARD ABUTMENT. THE FOURTH PHASE SHALL CLOSE THE TWO INSIDE IR 480 (EASTBOUND) LANES IN ACCORDANCE WITH MT-95.40 (CLOSING RIGHT OR LEFT LANES OF A MULTI-LANE DIVIDED HIGHWAY WITH PORTABLE BARRIER) AND MT-102.10 (LANE SHIFT ON A MULTI-LANE HIGHWAY USING PORTABLE BARRIER) WHILE MAINTAINING TRAFFIC ON THE OUTSIDE EASTBOUND TRAVEL LANE AND THE OUTSIDE EASTBOUND SHOULDER.

DURING PHASE FIVE, THE CONTRACTOR SHALL PATCH THE DECK AT THE EASTBOUND FORWARD ABUTMENT. THE FIFTH PHASE SHALL CLOSE THE TWO OUTSIDE LANES ON IR 480 (EASTBOUND) IN ACCORDANCE WITH MT-95.40 (CLOSING RIGHT OR LEFT LANES OF A MULTI-LANE DIVIDED HIGHWAY WITH PORTABLE BARRIER) AND MT-102.10 (LANE SHIFT ON A MULTI-LANE HIGHWAY USING PORTABLE BARRIER) WHILE MAINTAINING TRAFFIC ON THE INSIDE EASTBOUND TRAVEL LANE AND THE INSIDE EASTBOUND SHOULDER.

DURING PHASE SIX, THE CONTRACTOR SHALL PATCH AND SEAL THE EASTBOUND OUTSIDE PARAPET. THE SIXTH PHASE SHALL CLOSE THE OUTSIDE LANE OF IR 480 (EASTBOUND) IN ACCORDANCE WITH MT-95.40 (CLOSING RIGHT OR LEFT LANES OF A MULTI-LANE DIVIDED HIGHWAY WITH PORTABLE BARRIER) WHILE MAINTAINING TRAFFIC ON THE TWO INSIDE EASTBOUND TRAVEL LANES.

THE CONTRACTOR SHALL PERFORM WORK IN THREE PHASES ON BROOKPARK ROAD. THE CONTRACTOR SHALL PERFORM DRILLING OUT THE WEB CRACKS, PATCHING THE PIER, REPAIRING THE PIER AND SEALING THE PIER DURING PHASES 1, 2 AND 3. THE CONTRACTOR SHALL REPAIR ABUTMENT BEARINGS, RESET ABUTMENT BEARINGS, PATCH THE ABUTMENTS, SEAL THE ABUTMENTS AND REMOVE THE TREE DURING PHASES 2 AND 3. PORTIONS OF THE FENCE SHALL BE REMOVED TO PROVIDE ACCESS TO THE ABUTMENTS DURING CONSTRUCTION (SEE GENERAL NOTE ITEM 607 - FENCE, MISC.: FENCE REMOVED AND REERECTED). THE FIRST PHASE SHALL CLOSE THE INSIDE LANES ON BROOKPARK ROAD (EASTBOUND AND WESTBOUND) IN ACCORDANCE WITH THE MAINTENANCE OF TRAFFIC PLANS AND MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) WHILE MAINTAINING TRAFFIC ON THE OUTSIDE LANES (EASTBOUND AND WESTBOUND). THE SECOND PHASE SHALL CLOSE THE OUTSIDE LANE ON BROOKPARK ROAD (EASTBOUND) IN ACCORDANCE WITH THE MAINTENANCE OF TRAFFIC PLANS AND MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) WHILE MAINTAINING TRAFFIC ON THE INSIDE LANE (EASTBOUND). THE SECOND PHASE SHALL ALSO CLOSE THE SIDEWALK (EASTBOUND) IN ACCORDANCE WITH MT-110.10 (PEDESTRIAN DETOUR METHODS). THE THIRD PHASE SHALL CLOSE THE OUTSIDE LANE ON BROOKPARK ROAD (WESTBOUND) IN ACCORDANCE WITH THE MAINTENANCE OF TRAFFIC PLANS AND MT-95.30 (CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS) WHILE MAINTAINING TRAFFIC ON THE INSIDE LANE (WESTBOUND). THE THIRD PHASE SHALL ALSO CLOSE THE SIDEWALK (WESTBOUND) IN ACCORDANCE WITH MT-110.10 (PEDESTRIAN DETOUR METHODS).

THE WORK CONSTRUCTED FROM IR 480 MAY OCCUR CONCURRENTLY WITH THE WORK CONSTRUCTED FROM BROOKPARK ROAD.

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES ON BROOKPARK ROAD. LANE CLOSURES ON SR-17 (BROOKPARK ROAD) SHALL BE COORDINATED WITH THE CITY OF NORTH OLMSTED AND SHALL NOT OCCUR DURING PEAK TRAFFIC HOURS. LANE CLOSURES SHALL OCCUR DURING NIGHTTIME HOURS AS APPROVED BY THE ENGINEER.

Surrey Dr
Christman Dr
Sutton Dr
Outerbelt S Fwy
480
PEDESTRIAN BRIDGE CLOSURE
SEE MT-110.10.
Bretton Ridge Dr
Bretton Ridge Dr
Bretton Ridge Dr

III. MAINTENANCE OF TRAFFIC SYSTEMS

1. WHEN REQUIRED

WHENEVER ANY PART OF THE TRAVELED SURFACE IS BEING WORKED UPON OR IS OTHERWISE NOT SUITABLE FOR SAFE AND CONVENIENT USE BY VEHICLES, TRAFFIC CONTROL DEVICES SUFFICIENT TO PROTECT SUCH AREAS TO ASSURE THE SAFE AND CONVENIENT PASSAGE OF VEHICULAR TRAFFIC SHALL BE INSTALLED AND MAINTAINED. SUCH TRAFFIC CONTROL DEVICES AND THE MANNER IN WHICH THEY ARE USED SHALL BE CONSISTENT WITH THESE PLANS AND THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, HEREINAFTER REFERRED TO AS THE "MANUAL". THE TRAFFIC CONTROL DEVICE SYSTEM SHALL CONSTITUTE THE MINIMUM PROVISIONS FOR TRAFFIC CONTROL FOR EACH PARTICULAR SITUATION. WHENEVER THE ENGINEER DEEMS IT NECESSARY ESPECIALLY WHERE A GRADE, CURVE, OR MERGE CONDITION EXISTS, THE ENGINEER MAY DIRECT THAT ADDITIONAL OR ALTERNATIVE DEVICES BE USED.

2. CONDITIONS

DURING ALL PARTS OF THIS PROJECT, FLAGGERS, SIGNING, BARRICADES, FLASHING ARROWS, ETC. SHALL BE LOCATED AS INDICATED IN THE "MANUAL" OR AS SHOWN IN THE STANDARD DRAWINGS.

3. ADVANCE WARNING SIGNS

ALL ADVANCE WARNING SIGNS FOR ANY CONDITION WHICH RESTRICTS TRAFFIC SHALL BE ERECTED BEFORE ANY SUCH RESTRICTION IS PUT INTO EFFECT. ALL SUCH SIGNS SHALL BE COVERED OR REMOVED FROM THE VIEW OF TRAFFIC WHENEVER THEY ARE NOT APPLICABLE.

4. FLAGGERS

AT LEAST TWO FLAGGERS ARE REQUIRED FOR EACH LANE CLOSURE REQUIRING FLAGGERS. THE CONTRACTOR SHALL FURNISH ADDITIONAL FLAGGERS AS DIRECTED BY THE ENGINEER.

5. PROTECTION OF PUBLIC

PERSONAL CARS SHALL NOT BE PARKED WITHIN THE RIGHT OF WAY.

6. FAILURE TO COMPLY

IF THERE IS ANY FAILURE TO COMPLY WITH PROVISIONS FOR TRAFFIC CONTROL SET OUT IN THESE PLANS AND NOTES, OR WITH THE PROVISIONS OF THE "MANUAL", THE HIGHWAY IN THE VICINITY OF THE WORK AREA SHALL NOT BE CONSIDERED IN A CONDITION FOR THE SAFE AND CONVENIENT USE BY THE TRAVELING PUBLIC. ANY FAILURE TO KEEP THE HIGHWAY, IN THE VICINITY OF THE WORK AREA, IN A CONDITION FOR THE SAFE AND CONVENIENT USE BY THE TRAVELING PUBLIC SHALL BE CONSIDERED A BREACH OF THIS CONTRACT. WORK SHALL BE SUSPENDED UNTIL THE CONTRACTOR COMPLIES WITH THE PROVISIONS OF THE AFOREMENTIONED ITEMS.

IV. MAINTENANCE OF TRAFFIC MATERIALS

1. SIGNS

SIGN DIMENSIONS AND SPECIFICATIONS, INCLUDING LETTER SIZES ARE TO BE AS PROVIDED IN THE "MANUAL", OR IN DESIGN DRAWINGS PROVIDED BY THE DEPARTMENT OF TRANSPORTATION. THE SIGNS SHALL BE SUBJECT TO APPROVAL OF THE ENGINEER PRIOR TO THE START OF THE PROJECT.

2. SIGN SUPPORT

SIGN SUPPORTS SHALL BE OF SUFFICIENT SIZE AND MASS AS TO SUPPORT THE SIGNS AT THE APPROPRIATE HEIGHT. SUPPORTS SHALL BE AS SHOWN ON THE STANDARD DRAWINGS.

3. FLASHING ARROW REQUIREMENT

WHENEVER ANY PART OF THE TRAVELED SURFACE OF THE INTERSTATES IS CLOSED, THE MOTORISTS SHALL BE WARNED AND DIRECTED BY THE CONTRACTOR THROUGH THE USE OF ONE FLASHING ARROW PANEL FOR EACH LANE CLOSED. THE CONTRACTOR SHALL REFER TO SUPPLEMENTAL SPECIFICATION 821, 921, AND THE PROVISIONS SET FORTH IN THE "MANUAL" FOR ALL INFORMATION REGARDING FURNISHING, MAINTAINING, AND USE OF FLASHING ARROW PANELS. PAYMENT FOR THE ABOVE MENTIONED ITEMS SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 - MAINTAINING TRAFFIC.

4. DRUMS

DRUMS SHALL BE IN ACCORDANCE WITH PERTINENT SECTIONS OF THE "MANUAL". ALL COSTS FOR INSTALLING, MAINTAINING, AND SUBSEQUENT REMOVAL OF SAID DRUMS IS TO BE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 614 - MAINTAINING TRAFFIC.

5. CONES

CONES, IF UTILIZED, ARE TO BE LOCATED AS SHOWN IN THE "MANUAL" AND THE STANDARD DRAWINGS.

6. BARRIER

PORTABLE CONCRETE BARRIER, IF NECESSARY, IS TO BE LOCATED AS SHOWN IN THE "MANUAL" AND THE STANDARD DRAWINGS.

7. FLASHERS

FLASHERS SHALL BE 12 VOLT BATTERY-OPERATED MODELS WITH 7 INCH DIAMETER YELLOW LENSES ILLUMINATED BY RAPID INTERMITTENT FLASHERS OF SHORT DURATION AND ARE TO BE PLACED ON ALL SIGNS AT ALL TIMES AS REQUIRED BY THE "MANUAL" AND THE STANDARD CONSTRUCTION DRAWINGS.

8. FLOODLIGHTING

FLOODLIGHTING OF THE WORKSITE FOR OPERATIONS CONDUCTED DURING THE NIGHTTIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE ROADWAY. TO ENSURE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR AND ENGINEER SHALL DRIVE THROUGH THE WORKSITE EACH NIGHT WHEN THE LIGHTING IS IN PLACE AND OPERATIVE PRIOR TO COMMENCING ANY WORK. IF GLARE IS DETECTED, THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISFACTION OF THE ENGINEER BEFORE WORK PROCEEDS.

PAYMENT FOR ALL LABOR, EQUIPMENT, INCIDENTALS AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614 - MAINTAINING TRAFFIC.

9. WORK VEHICLES

ALL WORK VEHICLES LICENSED TO OPERATE ON THE HIGHWAY, SHALL BE EQUIPPED WITH A FLASHING, ROTATING, OR OSCILLATING AMBER LIGHT VISIBLE TO ALL DIRECTIONS OF TRAFFIC FOR A MINIMUM OF ONE-QUARTER MILE IN BRIGHT SUNLIGHT AND SHALL BE OPERATED WITH LIGHTED HEAD AND TAIL LAMPS. THE AMBER LIGHT SHALL BE IN OPERATION AT ALL TIMES WITHIN THE WORK ZONE AND WHILE TRAVELING TO AND FROM THE WORK ZONE WHENEVER THE VEHICLE SPEED IS BELOW THE POSTED LEGAL LIMIT. VEHICLE HAZARD LIGHTS DO NOT SATISFY THIS REQUIREMENT. ALL OTHER EQUIPMENT SHALL BE EQUIPPED WITH A FLASHING, ROTATING, OR OSCILLATING AMBER LIGHT VISIBLE TO ALL DIRECTIONS OF TRAFFIC FOR A MINIMUM OF ONE-QUARTER MILE IN BRIGHT SUNLIGHT. THE AMBER LIGHT SHALL BE IN OPERATION WHILE THE EQUIPMENT IS WITHIN THE WORK ZONE.

V. PAYMENT

REMOVING TEMPORARY MAINTENANCE OF TRAFFIC CONTROL DEVICES INCLUDING DETOURS AND INTERSTATE LANE CLOSURES/SHIFTS SHALL BE MADE UNDER THE LUMP SUM PRICE BID FOR ITEM 614 - MAINTAINING TRAFFIC.

CONSTRUCTION TRAFFIC

ALL CONSTRUCTION TRAFFIC SHALL USE ACCEPTABLE TRUCK ROUTES TO ACCESS THE CONSTRUCTION AREA. USE OF LOCAL RESIDENTIAL STREETS IS STRICTLY PROHIBITED UNLESS ALLOWED IN WRITING BY THE LOCAL ENFORCEMENT AUTHORITY.

CONTINUOUS ACCESS

IN ORDER TO PROVIDE CONTINUOUS ACCESS FOR PEDESTRIANS, PASSENGER VEHICLES, TRUCKS, AND SAFETY EQUIPMENT TO ALL ADJOINING PROPERTIES. THE COST FOR ALL MATERIALS, EQUIPMENT, INCIDENTALS AND LABOR NECESSARY TO PROVIDE CONTINUOUS ACCESS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 - MAINTAINING TRAFFIC.

MAINTENANCE OF TRAFFIC CONTROL ZONES

TEMPORARY PAVEMENT MARKINGS AT THE LOCATIONS DETAILED IN THE PLANS OR SPECIFIED IN THE STANDARD DRAWINGS. WHEN THE CONTRACTOR IS NOTIFIED OF DEFICIENCIES HE SHALL CORRECT THE DEFICIENCIES AS SOON AS POSSIBLE, PREFERABLY WITHIN 12 HOURS AND NO LATER THAN 24 HOURS.

CALCULATED ALP
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MAINTENANCE OF TRAFFIC NOTES - 3

MAINTENANCE

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ITEM 614 - LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF CMS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.

DURING A TRAFFIC SIGNAL INSTALLATION WHEN IMPACTING THE NORMAL FUNCTION OF THE SIGNAL OR THE FLOW OF TRAFFIC OR WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAY (E.G., DIRECTING MOTORISTS THROUGH A RED LIGHT).

IN ADDITION TO THE REQUIREMENT OF CMS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHOULD BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS AS DETERMINED AND PRE-APPROVED BY THE ENGINEER. ANY LEO HOURS WHICH ARE NOT PRE-APPROVED FOR THE FOLLOWING PURPOSES SHALL NOT BE COMPENSABLE:

FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP).

IN GENERAL, LEOS SHOULD BE POSITIONED IN ADVANCE OF AND ON THE SAME SIDE AS THE LANE RESTRICTION OR AT THE POINT OF ROAD CLOSURE AND SHOULD MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH INTERSECTIONS IN WORK ZONES.

WHEN CONSTRUCTION VEHICLES ARE ENTERING/EXITING THE ZONE DIRECTLY FROM/INTO AN OPEN LANE OF TRAFFIC, IF A LANE HAS BEEN CLOSED TO PROVIDE AN ACCELERATION/DECELERATION LANE FOR THE VEHICLE, THE LEO WILL NOT BE REQUIRED.

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST'S ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

ENSURE PROVIDED LEOS HAVE BEEN TRAINED APPROPRIATE TO THE JOB DECISIONS THEY ARE REQUIRED TO MAKE WHILE ON THE PROJECT, IN ACCORDANCE WITH CMS 614.03.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE WHICH SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEOS (WITH PATROL CAR) REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614 - LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	80 HOURS (TOTAL AT 7 LOCATIONS)

THE HOURS PAID SHALL INCLUDE ANY MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF AN LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

DELINEATION OF PORTABLE AND PERMANENT BARRIER

BARRIER REFLECTORS AND OBJECT MARKERS SHALL BE INSTALLED ON ALL PORTABLE BARRIER (PB) USED FOR TRAFFIC CONTROL; AND, ON PERMANENT CONCRETE BARRIER (INCLUDING BRIDGE PARAPETS) LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE.

BARRIER REFLECTORS SHALL CONFORM TO CMS 626, EXCEPT THAT THE SPACING SHALL BE AS PER TRAFFIC SCD MT-101.70. OBJECT MARKERS AND THEIR INSTALLATION SHALL CONFORM TO CMS 614.03 AND SCD MT-101.70. WHEN THE PB CONTAINS GLARE SCREEN, ONE SET OF THREE VERTICAL STRIPES OF SHEETING SHALL BE CONSIDERED EQUIVALENT TO AN OBJECT MARKER, ONE-WAY.

INCREASED BARRIER DELINEATION, AS SPECIFIED HEREIN, SHALL BE INSTALLED ON ALL PB AND PERMANENT CONCRETE BARRIER LOCATED WITHIN 5 FEET OF THE EDGE OF THE TRAVELED LANE UNDER EITHER OF THE FOLLOWING CONDITIONS: ALONG TAPERS AND TRANSITION AREAS; OR ALONG CURVES (OUTSIDE ONLY) WITH DEGREE OF CURVATURE GREATER THAN OR EQUAL TO 3 DEGREES.

THE INCREASED BARRIER DELINEATION SHALL CONSIST OF EITHER DELINEATION PANELS OR THE TRIPLE STACKING OF WORK ZONE BARRIER REFLECTORS.

DELINEATION PANELS SHALL CONSIST OF PANELS OF DELINEATION, APPROXIMATELY 34 INCHES LONG AND 6 INCHES WIDE AND SHALL BE "CRIMPED". PANELS SHALL BE INSTALLED AND SPACED PER TRAFFIC SCD MT-101.70.

TRIPLE-STACKED BARRIER REFLECTORS SHALL CONSIST OF ALIGNING THREE BARRIER REFLECTORS VERTICALLY, AT LOCATIONS WHERE A SINGLE BARRIER REFLECTOR WOULD BE OTHERWISE ATTACHED. THERE SHALL BE NO OPEN SPACE BETWEEN THE ADJACENT BARRIER REFLECTORS. THE TRIPLE-STACKED BARRIER REFLECTORS SHALL CONFORM TO CMS 626, EXCEPT THAT THEY SHALL BE SPACED AND ALIGNED PER TRAFFIC SCD MT-101.70.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE MAINTENANCE OF TRAFFIC SUBSUMMARY AND CARRIED TO THE GENERAL SUMMARY:

ITEM 614 - BARRIER REFLECTOR, TYPE 1, ONE-WAY	117 EACH
ITEM 614 - OBJECT MARKER, ONE-WAY	111 EACH
ITEM 614 - INCREASED BARRIER DELINEATION	4743 FEET

PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIAL, LABOR, INCIDENTALS AND EQUIPMENT NECESSARY FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING EACH OF THE ABOVE ITEMS.

ALONG RUNS OF INCREASED BARRIER DELINEATION WHERE THIS ITEM IS PROVIDED, THE QUANTITY SHALL BE MEASURED AS THE ENTIRE LENGTH OF THE RUN OF INCREASED BARRIER DELINEATION, INCLUDING THE SPACES BETWEEN THE INDIVIDUAL DELINEATION PANELS OR STACKS OF BARRIER REFLECTORS.

DELINEATION OF TEMPORARY AND PERMANENT GUARDRAIL

BARRIER REFLECTORS SHALL BE INSTALLED ON ALL TEMPORARY GUARDRAIL USED FOR TRAFFIC CONTROL; AND, ON ALL PERMANENT GUARDRAIL LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE. BARRIER REFLECTORS SHALL CONFORM TO CMS 626 AND THE SPACING SHALL BE APPROXIMATELY 50 FEET.

OBJECT MARKERS SHALL BE INSTALLED ON ALL TEMPORARY AND PERMANENT GUARDRAIL LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE. GUARDRAIL-MOUNTING OF OBJECT MARKERS SHALL BE MADE BY INSTALLING THE OBJECT MARKERS ON THE EXTENSION BLOCKS RATHER THAN DIRECTLY ONTO THE GUARDRAIL ITSELF. OBJECT MARKERS SHALL CONFORM TO CMS 614.03 AND THE SPACING SHALL BE APPROXIMATELY 50 FEET WITH A 25 FOOT OFFSET FROM THE BARRIER REFLECTORS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE PLANS AND CARRIED TO THE GENERAL SUMMARY:

ITEM 614 - BARRIER REFLECTOR, TYPE 2, ONE-WAY	41 EACH
ITEM 614 - OBJECT MARKER, ONE-WAY	37 EACH

PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIAL, LABOR, INCIDENTALS AND EQUIPMENT NECESSARY FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING THE ABOVE ITEMS.

ITEM 614 - WORK ZONE RAISED PAVEMENT MARKERS

RAISED PAVEMENT MARKERS IN WORK ZONES, SHALL BE ITEM 614 - WORK ZONE RAISED PAVEMENT MARKER. WZRPMS ARE INTENDED FOR USE ONLY DURING THE NON-SNOW-PLOWING SEASON. WZRPMS SHALL NOT BE PROVIDED DURING THE SNOW-PLOWING SEASON.

THE SNOW-PLOWING SEASON SHALL RUN FROM OCTOBER 15 THROUGH APRIL 1.

THIS ITEM SHALL INCLUDE PURCHASE, INSTALLATION AND REMOVAL OF ITEM 614 - WORK ZONE RAISED PAVEMENT MARKER.

AN ESTIMATED QUANTITY OF 1658 EACH OF ITEM 614 - WORK ZONE RAISED PAVEMENT MARKER HAS BEEN PROVIDED AND CARRIED TO THE GENERAL SUMMARY.

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MAINTENANCE OF TRAFFIC NOTES - 4

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MAINTENANCE OF TRAFFIC SCHEME

THE CONTRACTOR SHALL DEVISE A SIMPLE MAINTENANCE OF TRAFFIC SCHEME FOR EACH LOCATION, WHICH SHALL BE STAMPED BY A PROFESSIONAL ENGINEER (SCHEME MAY BE A HAND SKETCH) AND PRESENT IT TO THE DISTRICT WORK ZONE SAFETY ENGINEER AND PROJECT ENGINEER FOR ACCEPTANCE AT LEAST TWO WEEKS PRIOR TO IMPLEMENTATION. THE CONTRACTOR SHALL CONDUCT THE REQUIRED WORK IN A SAFE AND EFFICIENT MANNER. THE CONTRACTOR SHALL PROPOSED METHODS FOR MAINTAINING TRAFFIC. IN GENERAL, THE CONTRACTOR'S METHODS FOR MAINTAINING TRAFFIC SHALL BE SUPPORTED BY HAND SKETCHES AS NECESSARY. THE MAINTENANCE OF TRAFFIC SCHEME SHALL BE IN CONFORMANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, LATEST REVISION, THE REFERENCED STANDARD CONSTRUCTION DRAWINGS, THE ATTACHED MAINTENANCE OF TRAFFIC SHEETS, AND THE SPECIFICATIONS. THE CONTRACTOR SHALL NOT COMMENCE WORK UNTIL THE MAINTENANCE OF TRAFFIC SCHEME HAS BEEN ACCEPTED.

IF DURING THE PROJECT, THE ENGINEER DETERMINES THAT THE APPROVED MAINTENANCE OF TRAFFIC PLAN IS NOT PERFORMING AS DESIRED, THE WORK SHALL BE SUSPENDED UNTIL THE PROBLEM IS RESOLVED TO THE SATISFACTION OF THE ENGINEER AND THE MAINTENANCE OF TRAFFIC PLAN IS REVISED ACCORDINGLY. ANY COSTS OR DELAYS INCURRED AS A RESULT OF THE FAILURE OF THE CONTRACTOR TO ADJUST THE MAINTENANCE OF TRAFFIC SCHEME TO THE SATISFACTION OF THE ENGINEER SHALL BE THE FULL RESPONSIBILITY OF THE CONTRACTOR. DURING NON-WORKING HOURS, ALL LANES SHALL BE IN FULL OPERATION WITH ALL TRAFFIC CONTROL SIGNS, EXCEPT OW-124 (ROAD CONSTRUCTION AHEAD) SIGNS, REMOVED OR COVERED AND ALL CHANNELIZING DEVICES REMOVED FROM THE PAVEMENT SURFACES. CHANNELIZING DEVICES MAY BE STORED OR DEPLOYED TEMPORARILY ADJACENT TO THE SHOULDER TO MINIMIZE THE NIGHTLY TRAFFIC CONTROL SET-UP TIME. PAYMENT FOR ALL THE ITEMS REQUIRED TO MAINTAIN TRAFFIC IN ACCORDANCE WITH THESE REQUIREMENTS IS INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 614 - MAINTAINING TRAFFIC.

EXTRA ADVANCE WARNING SIGNS

AN EXTRA ADVANCE WARNING SIGN GROUP CONSISTS OF TWO W20-1 (ROAD WORK AHEAD) SIGNS, TWO W20-5 (RIGHT/LEFT LANE CLOSED AHEAD) SIGNS WITH W16-3A DISTANCE PLATES, AND TWO W3-H7 (WATCH FOR STOPPED TRAFFIC) SIGNS AND REQUIRED WARNING LIGHTS.

THE CONTRACTOR SHALL PROVIDE, ERECT, MAINTAIN AND REMOVE EXTRA ADVANCE WARNING SIGN GROUPS AS SHOWN ON TRAFFIC SCD MT-95.50 AT THE FOLLOWING DISTANCES IN ADVANCE OF THE LANE TAPERS WITH THE APPROPRIATE W16-3A DISTANCE PLATES:

1) LOCATION 7: CUY-480-0501 (I-480 OVER SR-17 (BROOKPARK ROAD))
   LANE TAPER STATION 385+56± , PHASE 1 (I-480 WB);
   PROVIDE SIGN GROUPS AT 2 MILES, 3 MILES, AND 4 MILES.

2) LOCATION 7: CUY-480-0501 (I-480 OVER SR-17 (BROOKPARK ROAD))
   LANE TAPER STATION 348+04± , PHASE 3 (I-480 EB);
   PROVIDE SIGN GROUPS AT 2 MILES, 3 MILES, AND 4 MILES.

3) LOCATION 7: CUY-480-0501 (I-480 OVER SR-17 (BROOKPARK ROAD))
   LANE TAPER STATION 385+51± , PHASE 3 (I-480 WB);
   PROVIDE SIGN GROUPS AT 2 MILES, 3 MILES, AND 4 MILES.

THE CONTRACTOR SHALL HAVE AN ADDITIONAL EXTRA ADVANCE WARNING SIGN GROUP (6 SIGNS AND 2 DISTANCE PLATES) AVAILABLE FOR USE WHEN DIRECTED BY THE ENGINEER. THE DISTANCE PLATES FOR THIS GROUP SHALL BE ABLE TO BE MODIFIED IN THE FIELD TO SHOW APPROPRIATE WHOLE MILES TO THE LANE TAPER.)

PAYMENT FOR PROVIDING, ERECTING, MAINTAINING AND REMOVING EXTRA ADVANCE WARNING SIGN GROUPS SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 - MAINTAINING TRAFFIC.

ITEM 614 - PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A CHANGEABLE MESSAGE SIGN. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS AVAILABLE ON THE OFFICE OF MATERIALS MANAGEMENT WEB PAGE. THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 800 FEET AND 650 FEET, RESPECTIVELY.

EACH SIGN SHALL BE TRAILER-MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM, TO DIM THE SIGN DURING DARKNESS, AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. THE PCMS SHALL BE DELINEATED IN ACCORDANCE WITH CMS 614.03.

PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED AWAY FROM ALL TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ODOT PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT, AND TO REVISE SIGN MESSAGES, IF NECESSARY.

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST TWICE.

THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF CMS 614.07. THE CONTRACTOR SHALL, PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 12 HOURS, INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC. THE ENTIRE COST TO CONTROL TRAFFIC, ACCRUED BY THE DEPARTMENT DUE TO THE CONTRACTOR'S NONCOMPLIANCE, WILL BE DEDUCTED FROM MONEYS DUE OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24-HOUR-PER-DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES WHEN THE PLAN REQUIRES THEIR USE.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

ITEM 614 - PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN — 13 — SIGN MONTH
ASSUMING 8 PCMS SIGNS FOR 1 MONTH,
1 PCMS SIGN FOR 2 MONTHS AND
1 PCMS SIGN FOR 3 MONTHS

ITEM 614 - WORK ZONE PAVEMENT MARKING, MISC.: REMOVABLE, NON-REFLECTIVE PREFORMED BLACKOUT TAPE

THIS ITEM SHALL CONFORM TO CMS 614.11 WORK ZONE PAVEMENT MARKING REQUIREMENTS WITH THE EXCEPTION THAT THE MARKING MATERIAL SHALL BE BLACKOUT TAPE CONFORMING TO SUPPLEMENTAL SPECIFICATION 987. THE BLACKOUT TAPE SHALL BE MANUFACTURED BY A SUPPLIER ON ODOT'S QUALIFIED PRODUCTS LIST FOR THIS ITEM. PAYMENT FOR THIS ITEM SHALL BE MADE AT THE UNIT PRICE BID PER LINEAR FOOT FOR ITEM 614 - WORK ZONE PAVEMENT MARKING, MISC.: REMOVABLE, NON-REFLECTIVE PREFORMED BLACKOUT TAPE AND SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS NECESSARY TO FURNISH, INSTALL, MAINTAIN, AND REMOVE THIS ITEM.

THE CONTRACTOR SHALL INSTALL A SINGLE CONTINUOUS PIECE OF BLACKOUT TAPE TO COVER THE EXISTING EDGE LINES AND LANE LINES AS INDICATED IN THE PLANS.

ITEM 621 - RAISED PAVEMENT MARKERS REMOVED, AS PER PLAN

THIS ITEM SHALL CONSIST OF REMOVING THE EXISTING RAISED PAVEMENT MARKER REFLECTORS FROM THE EXISTING RAISED PAVEMENT MARKERS PRIOR TO MAINTENANCE OF TRAFFIC PHASES 1 AND 3 OF LOCATION 7: CUY-480-0501 (I-480 OVER SR-17 (BROOKPARK ROAD))

ALL LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS REQUIRED TO REMOVE THE EXISTING RAISED PAVEMENT MARKER REFLECTORS SHALL BE INCLUDED WITH ITEM 621 - RAISED PAVEMENT MARKER REMOVED, AS PER PLAN.

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MAINTENANCE OF TRAFFIC NOTES - 5

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ITEM 614 - WORKSITE TRAFFIC SUPERVISOR

SUBJECT TO APPROVAL OF THE ENGINEER, THE CONTRACTOR SHALL EMPLOY AND IDENTIFY (SOMEONE OTHER THAN THE SUPERINTENDENT) A PREQUALIFIED WORKSITE TRAFFIC SUPERVISOR (WTS) BEFORE STARTING WORK IN THE FIELD. THE WTS SHALL BE TRAINED IN ACCORDANCE WITH CMS 614.03, SHALL HAVE SUCCESSFULLY COMPLETED ODOT ADMINISTERED WTS TESTING (AND RE-TESTING WHEN APPLICABLE) AND BE LISTED ON THE ODOT PREQUALIFIED WTS ROSTER. PREQUALIFICATION EXPIRES EVERY 5 YEARS. RE-TESTING SHALL BE SUCCESSFULLY REPEATED EVERY 5 YEARS TO REMAIN PREQUALIFIED.

THE NAME OF THE PREQUALIFIED WTS AND RELATED 24-HOUR CONTACT INFORMATION SHALL BE PROVIDED TO THE ENGINEER AT THE PRECONSTRUCTION CONFERENCE. IF THE DESIGNATED WTS WILL NOT BE AVAILABLE FULL TIME (24/7), THE CONTRACTOR MAY DESIGNATE AN ALTERNATE (SECONDARY) WTS TO BE AVAILABLE WHEN THE PRIMARY IS OFF DUTY; HOWEVER THE PRIMARY WTS SHALL REMAIN THE POINT OF CONTACT AT ALL TIMES. ANY ALTERNATE (SECONDARY) WTS IS SUBJECT TO THE SAME TRAINING, PREQUALIFICATION AND OTHER REQUIREMENTS OUTLINED WITHIN THIS PLAN NOTE. AT ALL TIMES THE ENGINEER, OR ENGINEER'S REPRESENTATIVES, MUST BE INFORMED OF WHO THE PRIMARY WTS (AND SECONDARY WTS, IF APPLICABLE) IS AT THE CURRENT TIME.

THE WTS POSITION HAS THE PRIMARY RESPONSIBILITY OF IMPLEMENTING THE TRAFFIC MANAGEMENT PLAN (TMP), MONITORING THE SAFETY AND MOBILITY OF THE ENTIRE WORK ZONE, AND CORRECTING TEMPORARY TRAFFIC CONTROL (TTC) DEFICIENCIES FOR THE ENTIRE WORK ZONE. THE WTS, AND ALTERNATE WTS WHEN ON DUTY, SHALL HAVE SUFFICIENT AUTHORITY TO EFFECTIVELY CARRY OUT THE IDENTIFIED WTS RESPONSIBILITIES AND DUTIES. THE DUTIES OF THE WTS ARE AS FOLLOWS:

1. BE AVAILABLE ON A 24-HOUR PER DAY BASIS.

2. BE ON SITE FOR ALL EMERGENCY TTC NEEDS WITHIN ONE HOUR OF NOTIFICATION BY POLICE OR PROJECT STAFF, AND EFFECT CORRECTIVE MEASURES IMMEDIATELY ON EXISTING WORK ZONE TTC DEVICES.

3. ATTEND PRECONSTRUCTION MEETING AND ALL PROJECT MEETINGS WHERE TTC MANAGEMENT IS DISCUSSED.

4. BE AVAILABLE ON SITE FOR OTHER MEETINGS OR DISCUSSIONS WITH THE ENGINEER UPON REQUEST.

5. BE AWARE OF ALL EXISTING AND PROPOSED TTC OPERATIONS OF THE CONTRACTOR, SUBCONTRACTORS AND SUPPLIERS, AND ENSURE COORDINATION OCCURS BETWEEN THEM TO ELIMINATE CONFLICTING TEMPORARY AND/OR PERMANENT TRAFFIC CONTROL.

6. COORDINATE PROJECT ACTIVITIES WITH ALL LAW ENFORCEMENT OFFICERS (LEOS). THE WTS SHALL ALSO BE THE MAIN CONTACT PERSON WITH THE LEOS WHILE LEOS ARE ON THE PROJECT.

7. COORDINATE AND FACILITATE MEETINGS WITH ODOT PERSONNEL, LEOS AND OTHER APPLICABLE ENTITIES BEFORE EACH PLAN PHASE SWITCH TO DISCUSS THE WORK ZONE TTC FOR IMPLEMENTING THE PHASE SWITCH. SUBMIT A WRITTEN DETAIL OF MOT OPERATIONS AND SCHEDULE OF EVENTS TO IMPLEMENT THE SWITCH BETWEEN PHASE PLANS TO THE ENGINEER 5 CALENDAR DAYS PRIOR TO THIS MEETING.

8. BE PRESENT, ON SITE FOR, AND INVOLVED WITH, EACH TTC SET UP/TAKE DOWN AND EACH PHASE CHANGE IN ACCORDANCE WITH CMS 614.03.

9. ON A CONTINUAL BASIS ENSURE THAT THE TTC ZONE AND ALL RELATED DEVICES ARE INSTALLED, MAINTAINED AND REMOVED IN COMPLIANCE WITH THE CONTRACT DOCUMENTS.

10. ON A CONTINUAL BASIS FACILITATE CORRECTIVE ACTION(S) NECESSARY TO BRING DEFICIENT TTC ZONES AND ALL RELATED DEVICES INTO COMPLIANCE WITH CONTRACT DOCUMENTS IN THE TIME FRAME DETERMINED BY THE ENGINEER.

11. INSPECT, EVALUATE, PROPOSE NECESSARY MODIFICATIONS TO, AND DOCUMENT THE EFFECTIVENESS OF, THE TTC DEVICES AND TRAFFIC OPERATIONS ON A DAILY BASIS (7 DAYS A WEEK). IN ADDITION, PERFORM ONE WEEKLY NIGHT INSPECTION OF THE WORK ZONE SETUP FOR DAYTIME WORK OPERATIONS; AND ONE DAYTIME INSPECTION PER WEEK FOR NIGHTTIME PROJECTS. THIS SHALL INCLUDE (BUT NOT BE LIMITED TO) DOCUMENTATION ON THE FOLLOWING PROJECT EVENTS:

    A. INITIAL TTC SETUP (DAY AND NIGHT REVIEW).
    B. DAILY TTC SETUP AND REMOVAL.
    C. WHEN CONSTRUCTION STAGING CAUSES A CHANGE IN THE TTC SETUP.
    D. CRASH OCCURRENCES WITHIN THE CONSTRUCTION AREA AND WITHIN THE INFLUENCE AREA(S) APPROACHING THE WORK ZONE.
    E. REMOVAL OF TTC DEVICES AT THE END OF A PHASE OR PROJECT.
    F. ALL OTHER EMERGENCY TTC NEEDS.

12. COMPLETE THE DEPARTMENT APPROVED LONG TERM INSPECTION FORM (CA-D-8) AFTER EACH INSPECTION AS REQUIRED IN # 11 AND SUBMIT IT TO THE ENGINEER THE FOLLOWING WORKDAY. THESE REPORTS SHALL INCLUDE A CHECKLIST OF ALL TTC MAINTENANCE ITEMS TO BE REVIEWED. A COPY OF THE FORM WILL BE PROVIDED AT THE PRE-CONSTRUCTION MEETING. ANY DEFICIENCIES OBSERVED SHALL BE NOTED, ALONG WITH RECOMMENDED OR COMPLETED CORRECTIVE ACTIONS AND THE DATES BY WHICH SUCH CORRECTIONS WERE, OR WILL BE, COMPLETED. A COPY OF THE CURRENT CA-D-8 DOCUMENT CAN BE FOUND ON THE OFFICE OF CONSTRUCTION ADMINISTRATION'S INSPECTION FORMS WEBSITE.

13. HAVE COPIES OF THE ODOT TEMPORARY TRAFFIC CONTROL MANUAL AND CONTRACT DOCUMENTS AVAILABLE AT ALL TIMES ON THE PROJECT.

THE DEPARTMENT WILL DEDUCT:

A. THE PRORATED DAILY AMOUNT OF ITEM 614 - MAINTAINING TRAFFIC FOR ANY DAY IN WHICH THE WTS FAILS TO PERFORM THE DUTIES SET FORTH ABOVE. THE PRORATED DAILY AMOUNT WILL BE EQUAL TO THE ORIGINAL BID AMOUNT FOR ITEM 614 - MAINTAINING TRAFFIC DIVIDED BY THE DIFFERENCE BETWEEN THE ORIGINAL COMPLETION DATE AND THE FIRST DAY OF WORK, IN CALENDAR DAYS.
B. 1% OF THE ORIGINAL BID AMOUNT FOR ITEM 614 - MAINTAINING TRAFFIC FOR ANY DAY THAT A TTC ISSUE IS IDENTIFIED IN THE FIELD AND IS NOT CORRECTED IN THE GIVEN TIMEFRAME PER THE ENGINEER. DEDUCTION B SHALL NOT APPLY TO SITUATIONS COVERED BY DEDUCTION C.
C. 1% OF THE ORIGINAL BID AMOUNT FOR ITEM 614 - MAINTAINING TRAFFIC FOR ANY DAY THAT A LANE OR RAMP IS BLOCKED (FULLY OR PARTIALLY) WITHOUT TTC, AS DETERMINED BY THE ENGINEER. THIS DEDUCTION SHALL BE IN ADDITION TO ANY OTHER DISINCENTIVES ESTABLISHED FOR UNAUTHORIZED LANE USE.

FOR DAYS IN WHICH MORE THAN ONE DEDUCTION LISTED ABOVE OCCURS, THE HIGHEST DEDUCTION AMOUNT WILL APPLY.

IF THREE OR MORE TOTAL DAYS RESULT IN TTC ISSUES DESCRIBED IN DEDUCTION B OR C ABOVE, THE PRIMARY WTS SHALL BE IMMEDIATELY REMOVED FROM THE WORK IN ACCORDANCE WITH C&MS 108.05. UPON REMOVAL, THE ENGINEER SHALL NOTIFY ODOT CENTRAL OFFICE (WTSPREQUALIFICATION@DOT.OHIO.GOV) TO REGISTER A REMOVAL AGAINST THE STATEWIDE PREQUALIFICATION FOR THE PRIMARY WTS. THREE REMOVALS SHALL CAUSE STATEWIDE DISQUALIFICATION FOR ANY PREVIOUSLY PREQUALIFIED WTS.

PAYMENT FOR THE ABOVE REQUIREMENTS, RESPONSIBILITIES AND DUTIES SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 - MAINTAINING TRAFFIC.

MAINTENANCE OF TRAFFIC SUBSUMMARY
LOCATION 1: CUY-71-0579 (I-71 OVER CR 299 [FOWLES ROAD])

STATION FROM	STATION TO	SIDE	614 WORK ZONE EDGE LINE, CLASS 1, 6", 740.06, TYPE 1 (MILE Y)	614 WORK ZONE EDGE LINE, CLASS 1, 6", 740.06, TYPE 1 (MILE W)	614 WORK ZONE CHANNELIZING LINE, CLASS 1, 8", 740.06, TYPE 1 (FT)	614 WORK ZONE DOTTED LINE, CLASS 1, 6", 740.06, TYPE 1 (FT)	614 WORK ZONE PAVEMENT MARKING MISC.: REMOVEABLE NON-REFLECTIVE PREFORMED BLACKOUT TAPE (FT)
PAVEMENT MARKING							
SOUTHBOUND							
782+76.42	785+76.42	LT	300.00	300.00	300.00		
785+76.42	807+74.14	LT	2197.72	2197.72	2197.72		4395.44
807+74.14	810+74.14	LT	300.00	300.00	300.00	300.00	300.00
810+74.14	814+94.14	LT				420.00	420.00
NORTHBOUND							
771+89.98	776+09.98	RT				420.00	420.00
776+09.98	779+09.98	RT	300.00	300.00	300.00	300.00	300.00
779+09.98	801+07.70	RT	2197.72	2197.72	2197.72		4395.44
801+07.70	804+07.70	RT	300.00	300.00	300.00		
TOTALS			5596	5596	5596	1440	10231
CONVERTED TO MILES			1.06	1.06			
TOTALS CARRIED TO GENERAL SUMMARY			2.12		5596	1440	10231

CALCULATED ALP
CHECKED TJF

MAINTENANCE OF TRAFFIC NOTES - 6

D12-BH-FY2021(A) MISC
PID NO. 103162

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STATION FROM	STATION TO	SIDE	614 INCREASED BARRIER DELINEATION (FT)	614 WORK ZONE IMPACT ATTENUATOR (UNIDIRECTIONAL) (EACH)	614 WORK ZONE RAISED PAVEMENT MARKER (EACH)	614 BARRIER REFLECTOR, TYPE 1, ONE-WAY (EACH)	614 BARRIER REFLECTOR, TYPE 2, ONE-WAY (EACH)	614 OBJECT MARKER, ONE WAY (EACH)	614 WORK ZONE, EDGE LINE, CLASS 1, 6", 740.06, TYPE 1 (MILE) Y	614 WORK ZONE, EDGE LINE, CLASS 1, 6", 740.06, TYPE 1 (MILE) W	614 WORK ZONE CHANNELIZING LINE, CLASS 1, 8", 740.06, TYPE 1 (FT)	614 WORK ZONE PAVEMENT MARKING, MISC.: REMOVABLE, NON-REFLECTIVE PREFORMED BLACKOUT TAPE (FT)	621 RPM REFLECTOR (EACH)	621 RAISED PAVEMENT MARKER REMOVED, AS PER PLAN (EACH)	622 PORTABLE BARRIER, 32" (FT)
IR 480 PHASE 1															
PAVEMENT MARKING															
355+88±	385+56±	LT							2968.00	2968.00	5936.00	8904.00		50	
RAISED PAVEMENT MARKERS															
352+88±	366+38±	LT			272										
366+38±	375+06±	LT			14										
375+06±	388+56±	LT			272										
BARRIER															
361+58±	379+86±	LT				38		37							
363+38±	372+36±	LT		1		19		18							870
INCREASED BARRIER DELINEATION (MEDIAN BARRIER)															
361+58±	363+38±	LT	180.00												
363+38±	378+06±	LT	1468.00												
378+06±	379+86±	LT	180.00												
INCREASED BARRIER DELINEATION (PORTABLE BARRIER)															
363+38±	368+98±	LT	560.00												
368+98±	369+82±	LT	84.00												
IR 480 PHASE 3															
PAVEMENT MARKING															
348+04±	377+03.00	RT								2899.00	5798.00	8697.00		48	
356+12±	385+51.00	LT								2939.00	5878.00	8817.00			
									2899.00						
RAISED PAVEMENT MARKERS									2939.00						
345+04±	358+39±	RT			268										
358+39±	366+68±	RT			14										
353+12±	366+47±	LT			268										
366+47±	375+16±	LT			14										
366+68±	380+03±	RT			268										
375+16±	388+51±	LT			268										
BARRIER															
358+32±	365+78±	RT					16	15							
365+78±	370+75±	RT				11		10							
361+67±	362+56±	LT					3	2							
362+56±	367+82±	LT				12		11							
363+47±	372+46±	LT		1		19		18							870
361+09±	369+68±	RT		1		18		17							830
367+82±	376+63±	LT					19	18							
370+75±	371+31±	RT					3	2							
INCREASED BARRIER DELINEATION (OUTSIDE BARRIER)															
362+56±	367+82±	LT	526.00												
365+78±	370+75±	RT	497.00												
INCREASED BARRIER DELINEATION (PORTABLE BARRIER)															
363+64±	364+48±	RT	84.00												
364+48±	369+68±	RT	520.00												
363+47±	369+07±	LT	560.00												
369+07±	369+91±	LT	84.00												
IR480 POST PHASE 3															
355+88±	385+56±	LT											50		
348+04±	377+03±	RT											48		
TOTALS			4743	3	1658	117	41	148	8806	8806	17612	26418	98	98	2570
CONVERTED TO MILES									1.67	1.67					
TOTALS CARRIED TO GENERAL SUMMARY			**4743**	**3**	**1658**	**117**	**41**	**148**	**3.34**		**17612**	**26418**	**98**	**98**	**2570**

CALCULATED ALP
CHECKED TJF

MAINTENANCE OF TRAFFIC SUBSUMMARY
LOCATION 7: CUY-480-0501 (I-480 OVER SR-17 BROOK PARK ROAD)

D12-BH-FY2021(A) MISC
PID NO. 103162

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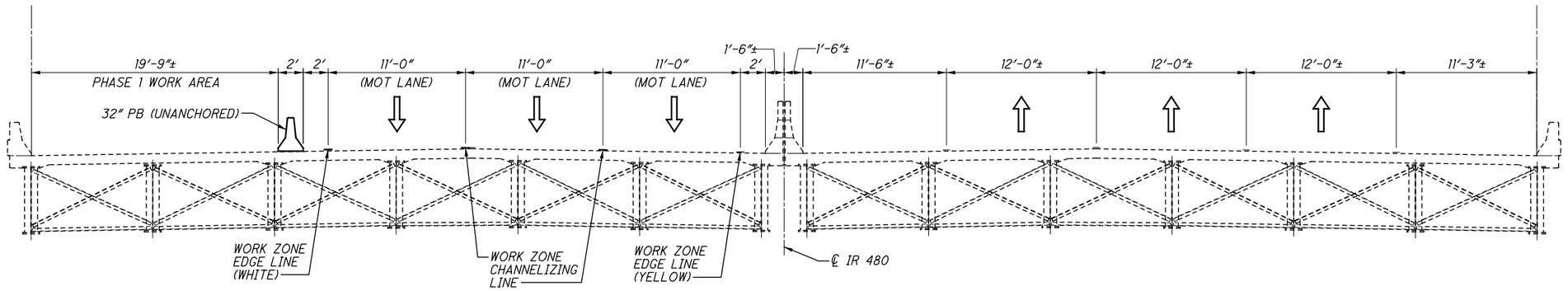


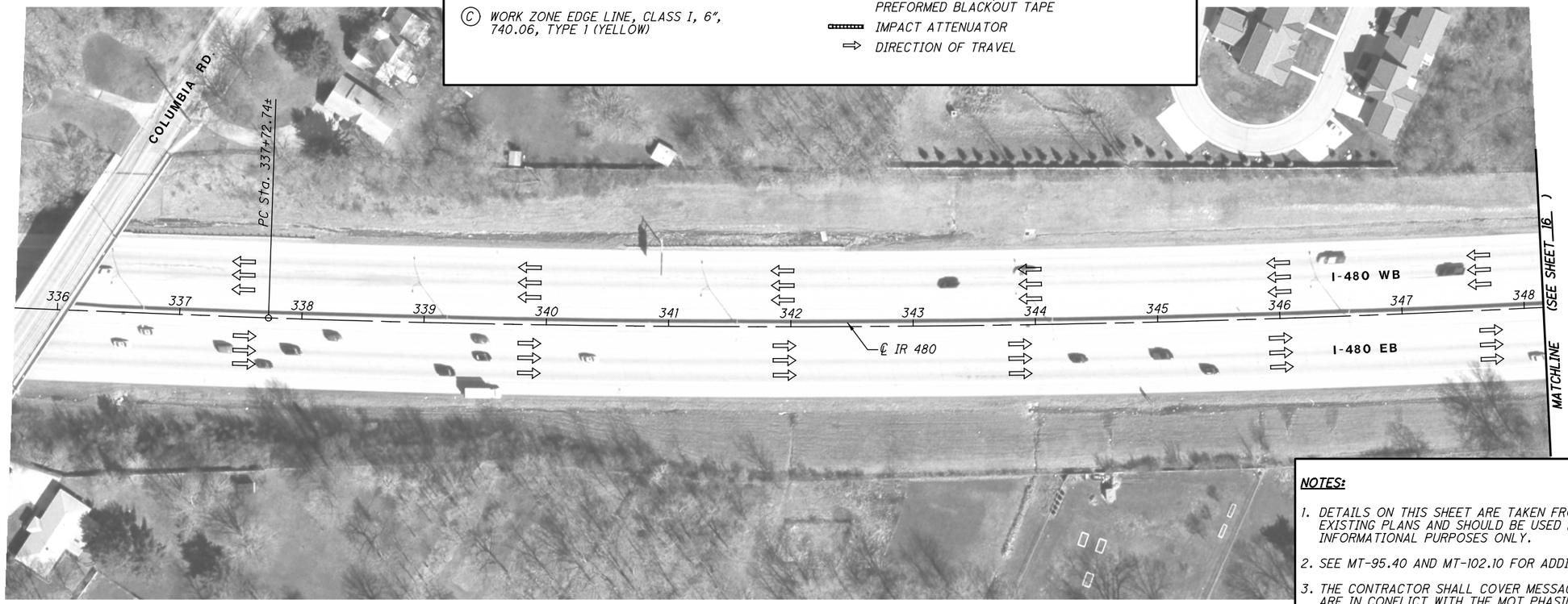
MOT SECTION A-A - PHASE 1

MOT PAVEMENT MARKING LEGEND

- (A) WORK ZONE EDGE LINE, CLASS I, 6", 740.06, TYPE 1 (WHITE)
- (B) WORK ZONE CHANNELIZING LINE, CLASS I, 8", 740.06, TYPE 1
- (C) WORK ZONE EDGE LINE, CLASS I, 6", 740.06, TYPE 1 (YELLOW)

LEGEND

- WORK AREA
- DRUMS
- 32" PORTABLE BARRIER (UNANCHORED)
- ITEM 614 - WORK ZONE PAVEMENT MARKING, MISC.: REMOVABLE, NON-REFLECTIVE PREFORMED BLACKOUT TAPE
- IMPACT ATTENUATOR
- DIRECTION OF TRAVEL



NOTES:

1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE USED FOR INFORMATIONAL PURPOSES ONLY.
2. SEE MT-95.40 AND MT-102.10 FOR ADDITIONAL DETAILS.
3. THE CONTRACTOR SHALL COVER MESSAGES THAT ARE IN CONFLICT WITH THE MOT PHASING PLANS ON ALL GUIDE SIGNS.

N

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED ALP
CHECKED TJF

MAINTENANCE OF TRAFFIC PLAN
CUY-480-0501 - PHASE 1

D12-BH-FY2021(A) MISC
PID NO. 103162

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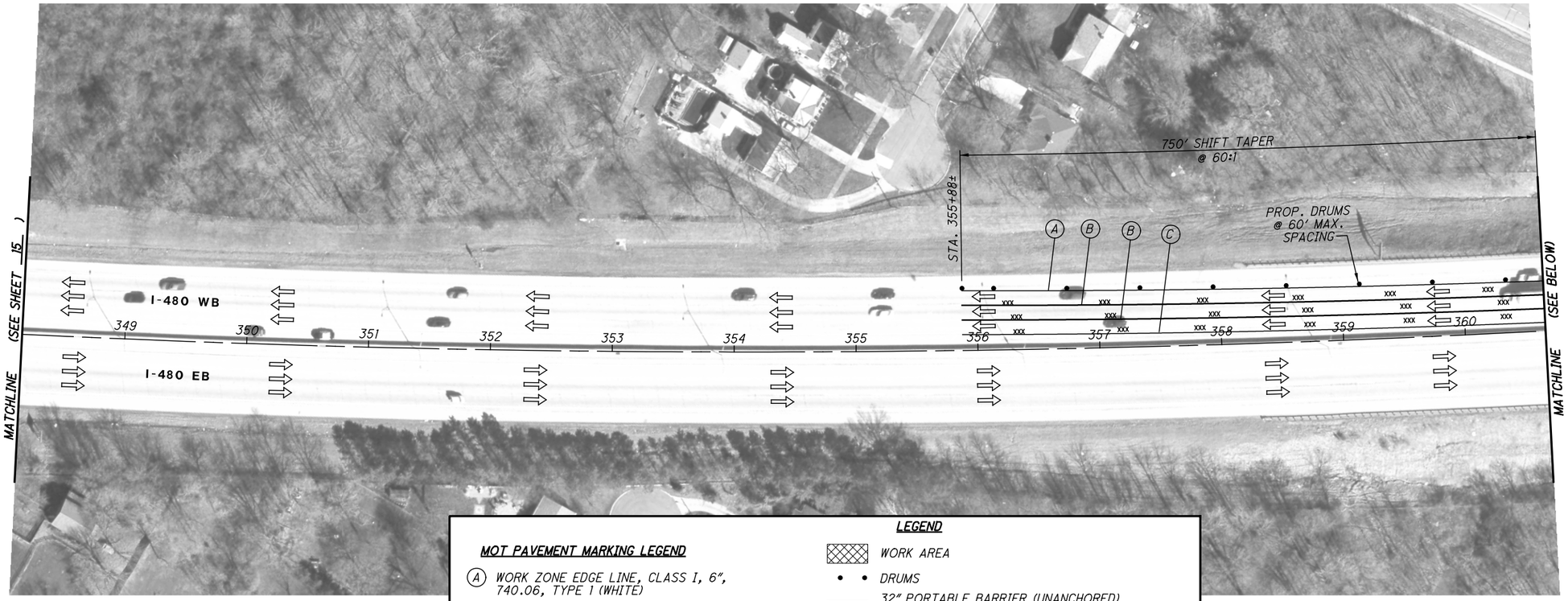
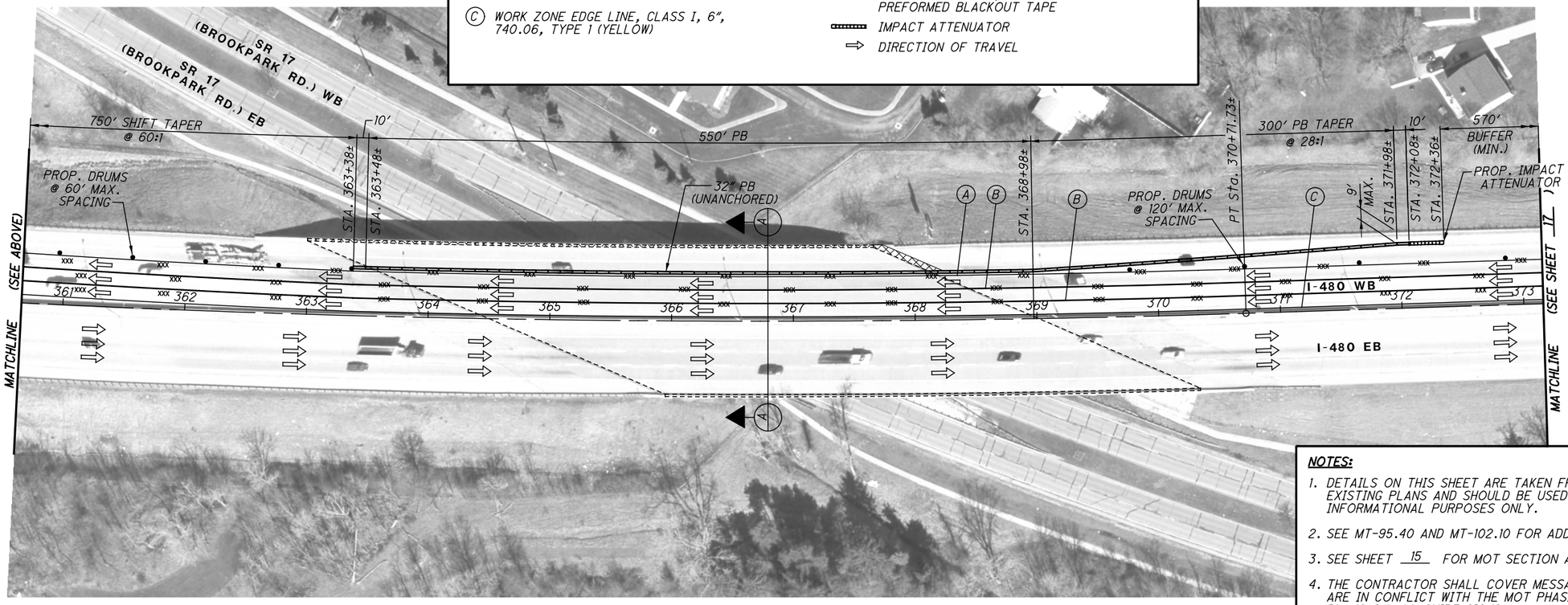


LEGEND

- WORK AREA
- • • DRUMS
- 32" PORTABLE BARRIER (UNANCHORED)
- xxx ITEM 614 - WORK ZONE PAVEMENT MARKING, MISC.: REMOVABLE, NON-REFLECTIVE PREFORMED BLACKOUT TAPE
- IMPACT ATTENUATOR
- ⇨ DIRECTION OF TRAVEL

MOT PAVEMENT MARKING LEGEND

- (A) WORK ZONE EDGE LINE, CLASS I, 6", 740.06, TYPE 1 (WHITE)
- (B) WORK ZONE CHANNELIZING LINE, CLASS I, 8", 740.06, TYPE 1
- (C) WORK ZONE EDGE LINE, CLASS I, 6", 740.06, TYPE 1 (YELLOW)



NOTES:

1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE USED FOR INFORMATIONAL PURPOSES ONLY.
2. SEE MT-95.40 AND MT-102.10 FOR ADDITIONAL DETAILS.
3. SEE SHEET 15 FOR MOT SECTION A-A.
4. THE CONTRACTOR SHALL COVER MESSAGES THAT ARE IN CONFLICT WITH THE MOT PHASING PLANS ON ALL GUIDE SIGNS.

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED ALP
CHECKED TJF

MAINTENANCE OF TRAFFIC PLAN
CUY-480-0501 - PHASE 1
D12-BH-FY2021(A) MISC
PID NO. 103162

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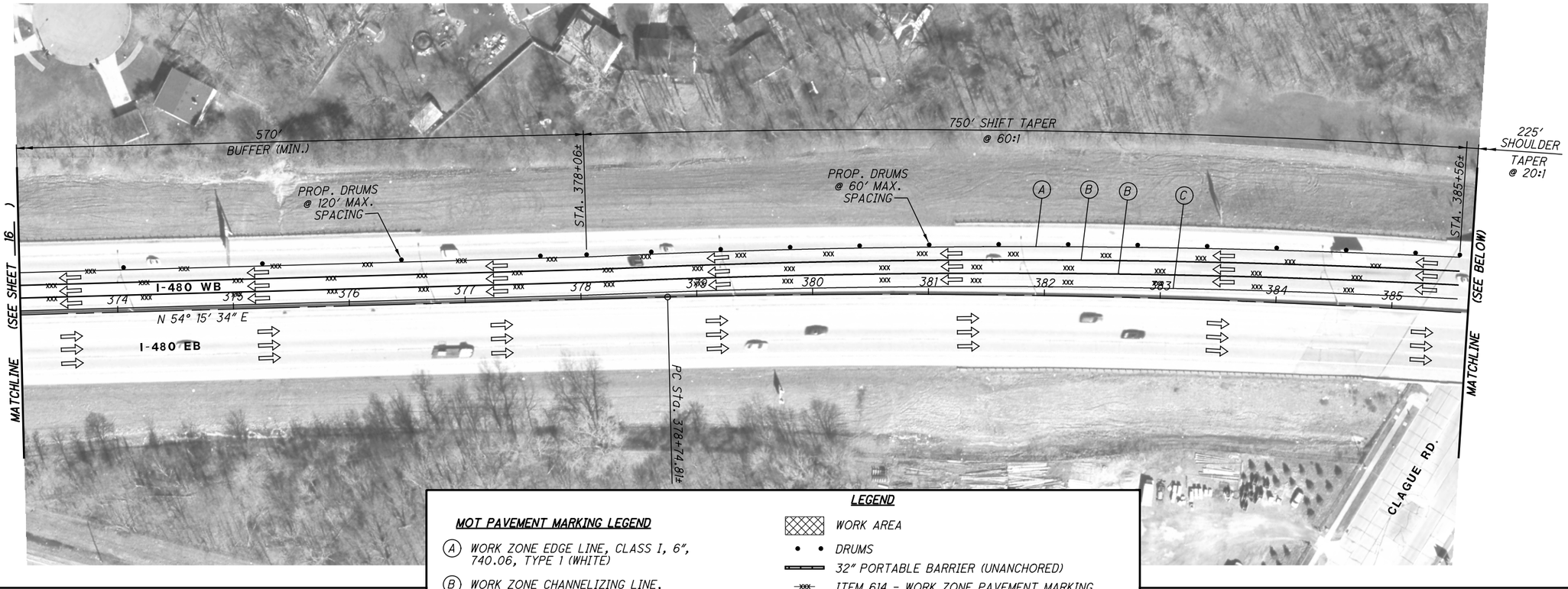

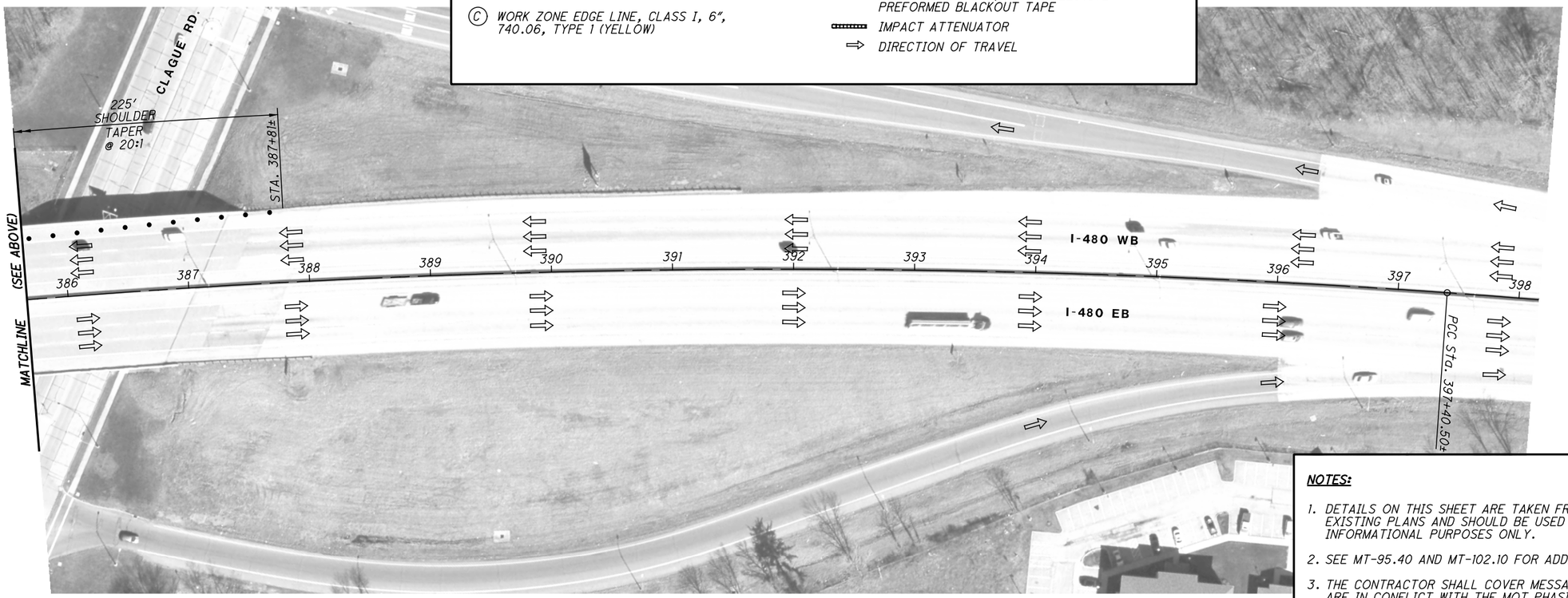

LEGEND

- WORK AREA
- DRUMS
- 32" PORTABLE BARRIER (UNANCHORED)
- ITEM 614 - WORK ZONE PAVEMENT MARKING, MISC.: REMOVABLE, NON-REFLECTIVE PREFORMED BLACKOUT TAPE
- IMPACT ATTENUATOR
- DIRECTION OF TRAVEL

MOT PAVEMENT MARKING LEGEND

- (A) WORK ZONE EDGE LINE, CLASS I, 6", 740.06, TYPE 1 (WHITE)
- (B) WORK ZONE CHANNELIZING LINE, CLASS I, 8", 740.06, TYPE 1
- (C) WORK ZONE EDGE LINE, CLASS I, 6", 740.06, TYPE 1 (YELLOW)

NOTES:

1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE USED FOR INFORMATIONAL PURPOSES ONLY.
2. SEE MT-95.40 AND MT-102.10 FOR ADDITIONAL DETAILS.
3. THE CONTRACTOR SHALL COVER MESSAGES THAT ARE IN CONFLICT WITH THE MOT PHASING PLANS ON ALL GUIDE SIGNS.

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED ALP
CHECKED TJF

MAINTENANCE OF TRAFFIC PLAN
CUY-480-0501 - PHASE 1
D12-BH-FY2021(A) MISC
PID NO. 103162

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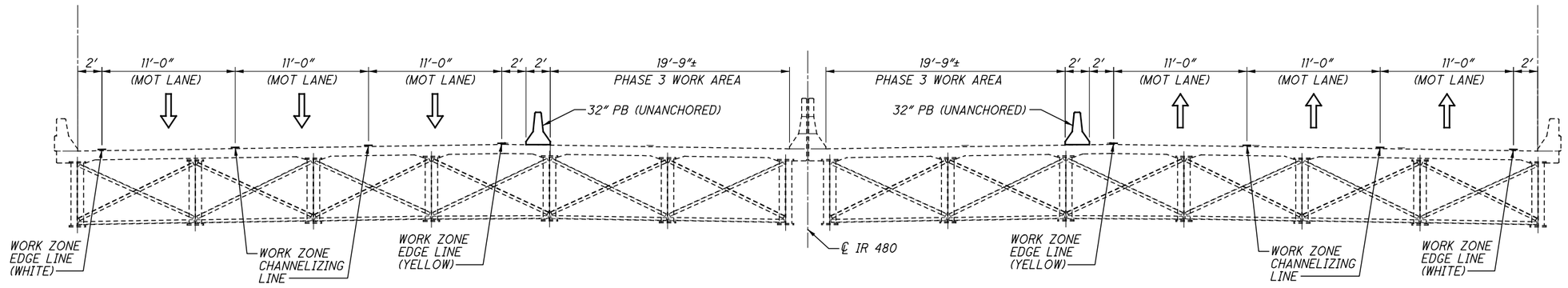


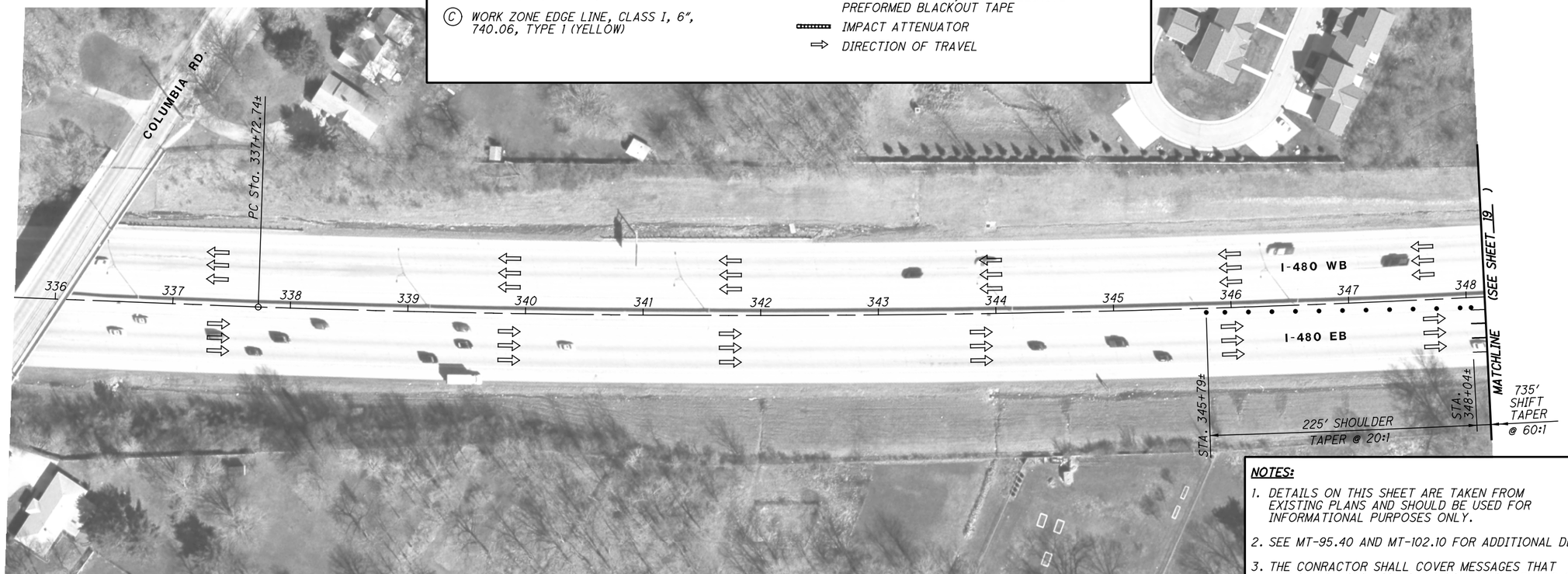
MOT SECTION B-B - PHASE 3

MOT PAVEMENT MARKING LEGEND

- (A) WORK ZONE EDGE LINE, CLASS I, 6″, 740.06, TYPE 1 (WHITE)
- (B) WORK ZONE CHANNELIZING LINE, CLASS I, 8″, 740.06, TYPE 1
- (C) WORK ZONE EDGE LINE, CLASS I, 6″, 740.06, TYPE 1 (YELLOW)

LEGEND

- WORK AREA
- DRUMS
- 32″ PORTABLE BARRIER (UNANCHORED)
- ITEM 614 - WORK ZONE PAVEMENT MARKING, MISC.: REMOVABLE, NON-REFLECTIVE PREFORMED BLACKOUT TAPE
- IMPACT ATTENUATOR
- DIRECTION OF TRAVEL



NOTES:

1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE USED FOR INFORMATIONAL PURPOSES ONLY.
2. SEE MT-95.40 AND MT-102.10 FOR ADDITIONAL DETAILS.
3. THE CONRACTOR SHALL COVER MESSAGES THAT ARE IN CONFICT WITH THE MOT PHASING PLANS ON ALL GUIDE SIGNS.

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED ALP
CHECKED TJF

MAINTENANCE OF TRAFFIC PLAN
CUY-480-0501 - PHASE 3
D12-BH-FY2021(A) MISC
PID NO. 103162

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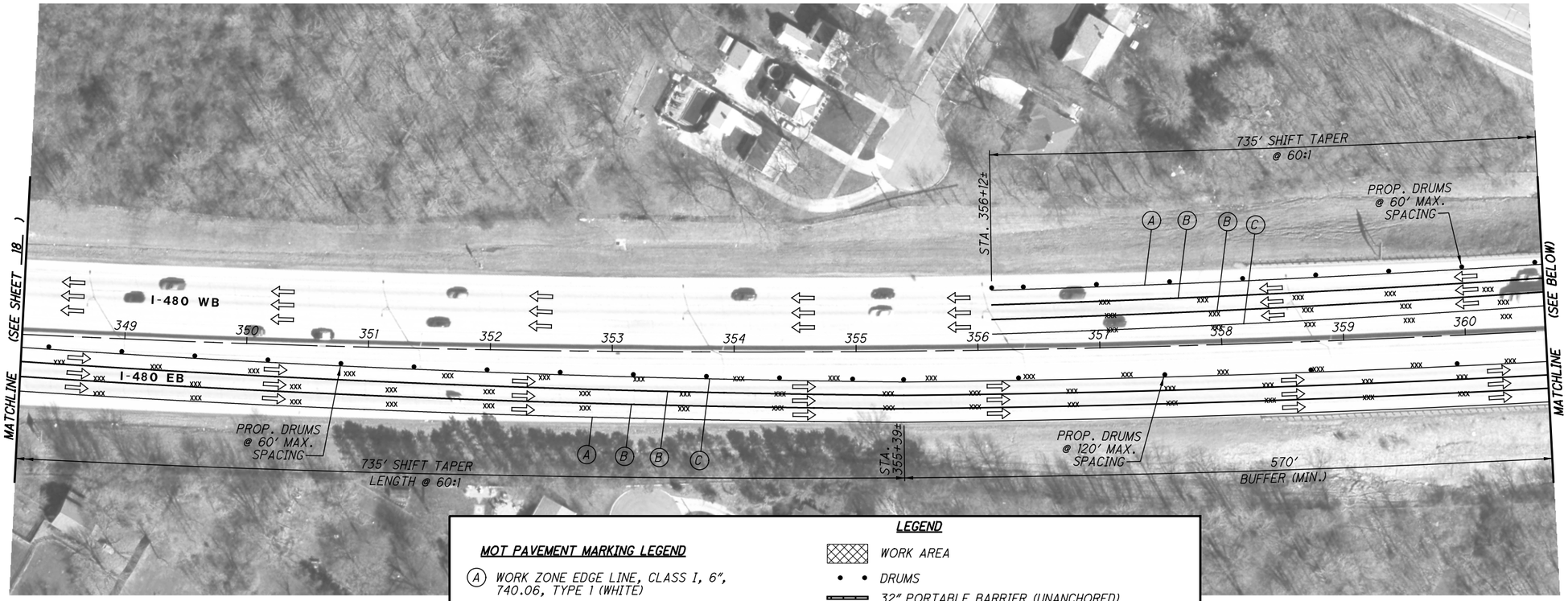
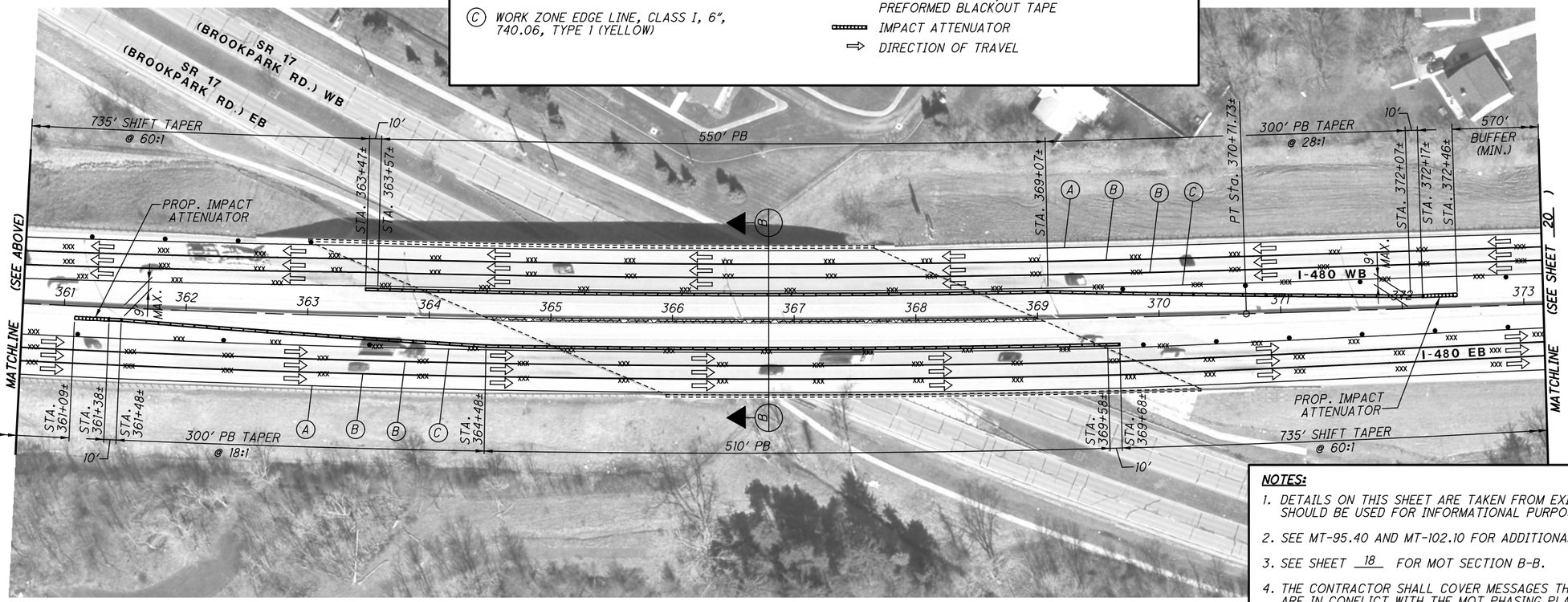


LEGEND

MOT PAVEMENT MARKING LEGEND

- (A) WORK ZONE EDGE LINE, CLASS I, 6", 740.06, TYPE 1 (WHITE)
- (B) WORK ZONE CHANNELIZING LINE, CLASS I, 8", 740.06, TYPE 1
- (C) WORK ZONE EDGE LINE, CLASS I, 6", 740.06, TYPE 1 (YELLOW)

- WORK AREA
- DRUMS
- 32" PORTABLE BARRIER (UNANCHORED)
- xxx ITEM 614 - WORK ZONE PAVEMENT MARKING, MISC.: REMOVABLE, NON-REFLECTIVE PREFORMED BLACKOUT TAPE
- IMPACT ATTENUATOR
- DIRECTION OF TRAVEL



NOTES:

1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE USED FOR INFORMATIONAL PURPOSES ONLY.
2. SEE MT-95.40 AND MT-102.10 FOR ADDITIONAL DETAILS.
3. SEE SHEET 18 FOR MOT SECTION B-B.
4. THE CONTRACTOR SHALL COVER MESSAGES THAT ARE IN CONFLICT WITH THE MOT PHASING PLANS ON ALL GUIDE SIGNS.

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED ALP
CHECKED TJF

MAINTENANCE OF TRAFFIC PLAN
CUY-480-0501 - PHASE 3
D12-BH-FY2021(A) MISC
PID NO. 103162

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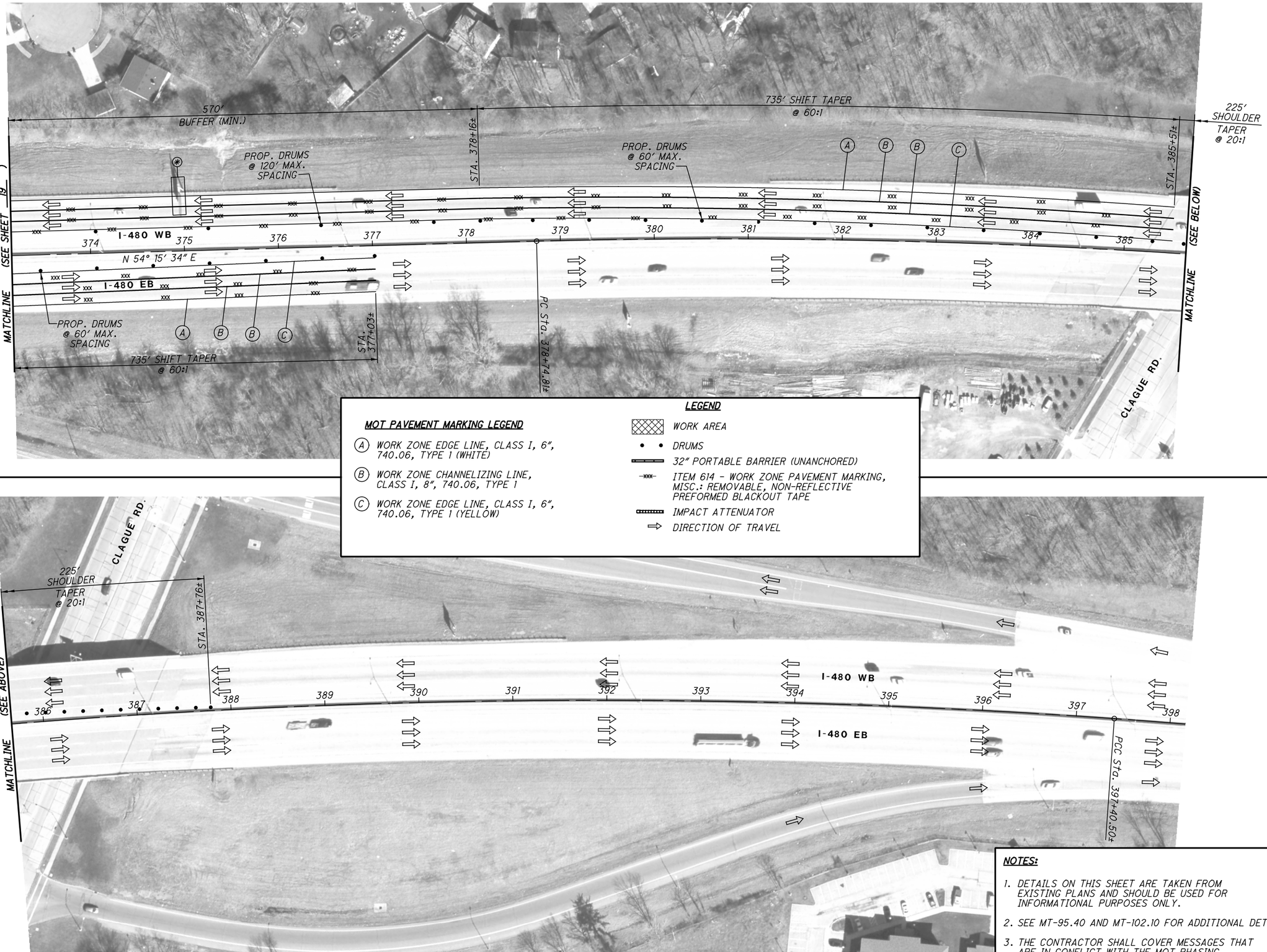

MOT PAVEMENT MARKING LEGEND

- (A) WORK ZONE EDGE LINE, CLASS I, 6", 740.06, TYPE 1 (WHITE)
- (B) WORK ZONE CHANNELIZING LINE, CLASS I, 8", 740.06, TYPE 1
- (C) WORK ZONE EDGE LINE, CLASS I, 6", 740.06, TYPE 1 (YELLOW)

LEGEND

- WORK AREA
- DRUMS
- 32" PORTABLE BARRIER (UNANCHORED)
- ITEM 614 - WORK ZONE PAVEMENT MARKING, MISC.: REMOVABLE, NON-REFLECTIVE PREFORMED BLACKOUT TAPE
- IMPACT ATTENUATOR
- DIRECTION OF TRAVEL

NOTES:

1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE USED FOR INFORMATIONAL PURPOSES ONLY.
2. SEE MT-95.40 AND MT-102.10 FOR ADDITIONAL DETAILS.
3. THE CONTRACTOR SHALL COVER MESSAGES THAT ARE IN CONFLICT WITH THE MOT PHASING PLANS ON ALL GUIDE SIGNS.

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED ALP
CHECKED TJF

MAINTENANCE OF TRAFFIC PLAN
CUY-480-0501 - PHASE 3

D12-BH-FY2021(A) MISC
PID NO. 103162

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SHEET NUMBER													ITEM	ITEM EXT.	PARTICIPATION		GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
5-7	8-20	27-35	36-48	49-50	51-57	58-63	64-69	70-96							01/NFP/BR					
																			ROADWAY	
LS													201	11001	LS		LS		CLEARING AND GRUBBING, AS PER PLAN	7
140													202	75000	140		140	FT	FENCE REMOVED	
25													203	10000	25		25	CY	EXCAVATION	
38													203	20000	38		38	CY	EMBANKMENT	
140													607	20000	140		140	FT	FENCE, TYPE CL	
90													607	98000	90		90	FT	FENCE, MISC.: FENCE REMOVED AND REERECTED	7
90													SPECIAL	69098400	LS		LS		SITE ACCESS	7
																			EROSION CONTROL	
8													659	00300	8		8	CY	TOPSOIL	
65													659	10000	65		65	SY	SEEDING AND MULCHING	
4													659	14000	4		4	SY	REPAIR SEEDING AND MULCHING	
0.01													659	20000	0.01		0.01	TON	COMMERCIAL FERTILIZER	
1													659	35000	1		1	MGAL	WATER	
10000													832	30000	10000		10000	EACH	EROSION CONTROL	
																			PAVEMENT	
16													255	10010	16		16	SY	FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS QC1	
82													255	20000	82		82	FT	FULL DEPTH PAVEMENT SAWING	
																			TRAFFIC CONTROL	
	98												621	00300	98		98	EACH	RPM REFLECTOR	
	98												621	54001	98		98	EACH	RAISED PAVEMENT MARKER REMOVED, AS PER PLAN	12
0.01													642	00104	0.01		0.01	MILE	EDGE LINE, 6", TYPE 1	
																			STRUCTURE REPAIR (CUY-71-0579, SFN 1804081 SB SFN 1804111 NB - LOCATION 1	
		LS											202	11203	LS		LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	24
		2405											512	10050	2405		2405	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	
		1072											512	10101	1072		1072	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN	24
		539											512	74001	539		539	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES, AS PER PLAN	24
		12887											513	21599	12887		12887	LB	STRUCTURAL STEEL FOR REHABILITATION (BOTTOM FLANGE RETROFIT)	
		LS											514	00100	LS		LS		SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL	
		LS											514	00200	LS		LS		FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT	
		LS											514	00300	LS		LS		FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	
		LS											514	00401	LS		LS		FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN	26
		556											SPECIAL	51900100	556		556	SF	COMPOSITE FIBER WRAP SYSTEM	25
		284											519	11101	284		284	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN	24
		9											844	10001	9		9	SF	CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN	25
																			STRUCTURE REPAIR (CUY-71-0856, SFN 1804359 - LOCATION 2)	
			LS										202	11203	LS		LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	24
			298										512	10101	298		298	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN	24
			6										512	74001	6		6	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES, AS PER PLAN	24
			10100										513	21599	10100		10100	LB	STRUCTURAL STEEL FOR REHABILITATION (BOTTOM FLANGE RETROFIT)	
			5										513	95030	5		5	EACH	STRUCTURAL STEEL, MISC.: REPAIR OF CROSSFRAME BY WELDING OR REPLACEMENT OF MEMBERS	24
			LS										514	00100	LS		LS		SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL	
			LS										514	00200	LS		LS		FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT	
			LS										514	00300	LS		LS		FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	
			LS										514	00401	LS		LS		FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN	26
			38										516	44101	38		38	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), (2.190"x8"x12" WITH 2-7/8" OR 2-1/2" LOAD PLATE WITH SHIMS), AS PER PLAN	47
			LS										516	47001	LS		LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN	24
			629										SPECIAL	51900100	629		629	SF	COMPOSITE FIBER WRAP SYSTEM	25
			93										519	11101	93		93	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN	24
			13										844	10001	13		13	SF	CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN	25
																			STRUCTURE REPAIR (CUY-71-1007, 181427 - LOCATION 3)	
				10									516	46701	10		10	EACH	RESET BEARING, AS PER PLAN	24
				LS									516	47001	LS		LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN	24

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SHEET NUMBER												ITEM	ITEM EXT.	PARTICIPATION		GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
5-7	8-20	27-35	36-48	49-50	51-57	58-63	64-69	70-96						01/NFP/BR					
																		STRUCTURE REPAIR (CUY-271-0972 & 0974, SFN 1811401 EB SFN 1811436 WB - LOCATION 4)	
					858							202	75260	858		858	FT	VANDAL PROTECTION FENCE REMOVED	
					3072							512	10050	3072		3072	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	
					408							512	10101	408		408	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN	24
					399							512	74001	399		399	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES, AS PER PLAN	24
					2							516	46701	2		2	EACH	RESET BEARING, AS PER PLAN	24
					LS							516	47001	LS		LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN	24
					7057							SPECIAL	51900100	7057		7057	SF	COMPOSITE FIBER WRAP SYSTEM	25
					77							519	11101	77		77	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN	24
					4110							SPECIAL	53000600	4110		4110	SF	STRUCTURES, BOTTOM OF DECK SPALL REMOVAL ALONG BEAMS	25
					854							607	39901	854		854	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN	24
					737							844	10001	737		737	SF	CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN	25
																		STRUCTURE REPAIR (CUY-480-0126, SFN 1814028 - LOCATION 5)	
						26						512	10101	26		26	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN	24
						25						512	74001	25		25	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES, AS PER PLAN	24
						2						516	15000	2		2	EACH	STRUCTURAL JOINT OR JOINT SEALER, MISC.: ADDING DIAMOND PLATE COVER TO JOINT	62
						6						518	12500	6		6	EACH	SCUPPER, MISC.: CORING AND INSTALLING PVC DOWNSPOUT	62
						752						SPECIAL	51900100	752		752	SF	COMPOSITE FIBER WRAP SYSTEM	25
						16						519	11101	16		16	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN	24
						44						SPECIAL	53000600	44		44	SF	STRUCTURES, BOTTOM OF DECK SLAB SPALL REMOVAL	25
						1						607	98100	1		1	EACH	FENCE, MISC.: REPAIR DAMAGED FENCE ON NORTH ABUTMENT LANDING	62
						106						844	10001	106		106	SF	CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN	25
																		STRUCTURE REPAIR (CUY-480-0177, SFN 1814044 - LOCATION 6)	
							520					202	30000	520		520	SF	WALK REMOVED	
							587					202	75260	587		587	FT	VANDAL PROTECTION FENCE REMOVED	
							17					304	20000	17		17	CY	AGGREGATE BASE	
							24					512	10101	24		24	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN	24
							23					512	74001	23		23	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES, AS PER PLAN	24
							889					SPECIAL	51900100	889		889	SF	COMPOSITE FIBER WRAP SYSTEM	25
							4					519	11101	4		4	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN	24
							586					607	39901	586		586	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN	24
							520					608	12000	520		520	SF	5" CONCRETE WALK	
							46					844	10001	46		46	SF	CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN	25
																		STRUCTURE REPAIR (CUY-480-0501, SFN 1814125 - LOCATION 7)	
								1				201	21801	1		1	EACH	TREE REMOVED, 18", AS PER PLAN	86
								LS				202	11203	LS		LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	24
								355				509	10000	355		355	LB	EPOXY COATED REINFORCING STEEL	
								59				510	10000	59		59	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	
								3				511	45710	3		3	CY	CLASS QC1 CONCRETE, ABUTMENT (BACKWALL REPAIR)	
								958				512	10101	958		958	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN	24
								885				512	74001	885		885	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES, AS PER PLAN	24
								13				513	95030	13		13	EACH	STRUCTURAL STEEL, MISC.: PENCIL ABRASIVE BLASTING, GRINDING, AND NDT	25
								26				513	95030	26		26	EACH	STRUCTURAL STEEL, MISC.: DRILLING STRUCTURAL STEEL, GRINDING AND NDT	26
								57				516	10001	57		57	FT	PREFORMED ELASTOMERIC COMPRESSION JOINT SEAL, AS PER PLAN	78
								10				516	46701	10		10	EACH	RESET BEARING, AS PER PLAN	24
								LS				516	47001	LS		LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN	24
								39				517	74500	39		39	FT	RAILING, CONCRETE. QC2, REPLACEMENT OF DAMAGED SECTION	
								868				SPECIAL	51900100	868		868	SF	COMPOSITE FIBER WRAP SYSTEM	25
								6				519	12300	6		6	SY	PATCHING CONCRETE BRIDGE DECK - TYPE B (FOR OVERNIGHT REPAIRS)	26
								495				519	11101	495		495	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN	24
								27				844	10001	27		27	SF	CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN	25

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SHEET NUMBER													ITEM	ITEM EXT.	PARTICIPATION		GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
5-7	8-20	27-35	36-48	49-50	51-57	58-63	64-69	70-96							01/NFP/BR					
																			MAINTENANCE OF TRAFFIC	
	80												614	11110	80		80	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
	4743												614	11630	4743		4743	FT	INCREASING BARRIER DELINEATION	
	3												614	12336	3		3	EACH	WORK ZONE IMPACT ATTENUATOR (UNIDIRECTIONAL)	
	1658												614	12800	1658		1658	EACH	WORK ZONE RAISED PAVEMENT MARKER	
	117												614	13310	117		117	EACH	BARRIER REFLECTOR, TYPE 1, ONE-WAY	
	41												614	13312	41		41	EACH	BARRIER REFLECTOR, TYPE 2, ONE-WAY	
	148												614	13350	148		148	EACH	OBJECT MARKER, ONE-WAY	
	13												614	18601	13		13	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	12
	5.46												614	22210	5.46		5.46	MILE	WORK ZONE EDGE LINE, CLASS A, 6", 740.06, TYPE 1	
	23208												614	23400	23208		23208	FT	WORK ZONE CHANNELIZING LINE, CLASS 1, 8", 740.06, TYPE 1	
	1440												614	24402	1440		1440	FT	WORK ZONE DOTTED LINE, CLASS 1, 6", 740.06, TYPE 1	12
	36649												614	98100	36649		36649	FT	WORK ZONE PAVEMENT MARKING, MISC.: REMOVABLE, NON-REFLECTIVE BLACKOUT TAPE	12
	2570												622	41100	2570		2570	FT	PORTABLE BARRIER, UNANCHORED	
																			INCIDENTALS	
													103	05000	LS		LS		PREMIUM FOR CONTRACT PERFORMANCE BOND AND FOR PAYMENT BOND	
													108	10000	LS		LS		CPM PROGRESS SCHEDULE	
	LS												614	11000	LS		LS		MAINTAINING TRAFFIC	
12													619	16011	12		12		FIELD OFFICE, TYPE B, AS PER PLAN	7
LS													623	10001	LS		LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN	6
													624	10000	LS		LS		MOBILIZATION	

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PROJECT DESCRIPTION

AS LISTED IN STRUCTURE DATA TABLE ON SHEET 4.

REFER TO STANDARD BRIDGE DRAWINGS

AS LISTED ON TITLE SHEET

REFER TO SUPPLEMENTAL SPECIFICATIONS

SS 844

RIGHT OF WAY

ALL WORK IS TO BE PERFORMED WITHIN THE EXISTING RIGHT OF WAY OR EASEMENTS OR WITHIN STATE PROPERTY.

UTILITY OWNERSHIP

THE NATURE OF THE WORK REQUIRED BY THIS PROJECT WILL NOT AFFECT ANY KNOWN UTILITIES IN THE WORK AREAS.

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 SECTIONS 102.05 AND 105.02 OF THE 2019 CONSTRUCTION AND MATERIAL SPECIFICATIONS.

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

THE EXISTING STRUCTURE PLANS MAY BE REVIEWED AT THE:
OHIO DEPARTMENT OF TRANSPORTATION
DISTRICT 12 OFFICE
5500 TRANSPORTATION BOULEVARD
GARFIELD HEIGHTS, OH 44125

EXISTING PLANS ARE ALSO AVAILABLE THROUGH THE FOLLOWING ODOT WEBSITE:
HTTP://WWW.DOT.STATE.OH.US/DIVISIONS/CONTRACTADMIN/CONTRACTS/PAGES/DESIGNFILES.ASPX

EXISTING DIMENSIONS

ALL DIMENSIONS ARE ±.

MATERIAL REQUIREMENTS

STRUCTURAL STEEL:
ALL PROPOSED STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36 OR GRADE 50 (MINIMUM YIELD = 36 KSI) UNLESS OTHERWISE NOTED.

FASTENERS:
ALL BOLTS, WASHERS, AND NUTS SHALL BE ASTM A-325 AND GALVANIZED AS PER SECTION 711.02 OF THE C.M.S.

CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4500 PSI (SUPERSTRUCTURE)

CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4000 PSI (SUBSTRUCTURE)

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

THIS ITEM SHALL INCLUDE THE ELEMENTS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT. ITEMS TO BE REMOVED INCLUDE ALL EXISTING MATERIALS BEING REPLACED BY NEW CONSTRUCTION AND MISCELLANEOUS ITEMS THAT ARE NOT SHOWN TO BE INCORPORATED INTO THE FINAL CONSTRUCTION AND ARE DIRECTED TO BE REMOVED BY THE ENGINEER. THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE-RAMS WILL NOT BE PERMITTED. THE METHOD OF REMOVAL AND THE WEIGHT OF HAMMER SHALL BE APPROVED BY THE ENGINEER. PERFORM ALL WORK IN A MANNER THAT WILL NOT CUT, ELONGATE OR DAMAGE THE EXISTING REINFORCING STEEL TO BE PRESERVED. CHIPPING HAMMERS SHALL NOT BE HEAVIER THAN THE NOMINAL 90-POUND CLASS. PNEUMATIC HAMMERS SHALL NOT BE PLACED IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE. SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

CUT LINE CONSTRUCTION JOINT PREPARATION

SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. LEAVE THE EXISTING REINFORCING STEEL IN PLACE. INSTALL DOWEL BARS IF SPECIFIED. 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.

ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN

AT LOCATIONS 1 (CUY-71-0579), 2 (CUY-71-0856), 4 (CUY-271-0972 & CUY-271-0974), 5 (CUY-480-0126), 6 (CUY-480-0177) AND 7 (CUY-480-0501) SEAL CONCRETE AREAS SPECIFIED IN THE PLANS. THE COLOR OF THE FINISH COAT SHALL BE AS INDICATED ON THE STRUCTURE DATA SHEET. CONTRACTOR SHALL ENSURE ANY EXISTING UNDERPASS LIGHTING, FENCE AND POSTS, RAILING AND ALL OTHER BRIDGE COMPONENTS ARE PROTECTED DURING THE SEALING OPERATIONS. SEALING OF THE FIBER WRAPPED AREAS SHALL BE INCLUDED FOR PAYMENT UNDER ITEM SPECIAL - STRUCTURES, COMPOSITE FIBER WRAP SYSTEM.

ALL EQUIPMENT, LABOR, MATERIALS AND INCIDENTALS REQUIRED TO SEAL ALL OF THE AREAS DETAILED IN THE PLANS SHALL BE PAID UNDER ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN.

ITEM 512 - REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES, AS PER PLAN

AT LOCATIONS 1 (CUY-71-0579), 2 (CUY-71-0856), 4 (CUY-271-0972 & CUY-271-0974), 5 (CUY-480-0126), 6 (CUY-480-0177) AND 7 (CUY-480-0501) THIS ITEM IS INCLUDED FOR THE REMOVAL OF EXISTING COATINGS FROM EXISTING CONCRETE SURFACES TO BE SEALED. AREAS OF CONCRETE REQUIRING PATCHES OR FIBERWRAP SHALL NOT BE INCLUDED IN THIS ITEM.

ITEM 513 - STRUCTURAL STEEL, MISC.: REPAIR OF CROSSFRAME BY WELDING OR REPLACEMENT OF MEMBERS

FOR LOCATION 2 (CUY-71-0856), EXISTING DAMAGED OR DETERIORATED PLATES AND ANGLES ARE TO BE REMOVED AND REPLACED AS PER THE PLANS OR AS DIRECTED BY THE ENGINEER. THE EXISTING END CROSSFRAME MEMBERS SHALL BE REMOVED FLUSH WITH THE BEAM WEB, WHEN APPLICABLE. ALL END CROSSFRAME MEMBERS DESIGNATED FOR REPLACEMENT IN ONE BAY SHALL BE REMOVED AND REPLACED PRIOR TO REMOVING ANY END CROSSFRAME MEMBERS IN AN ADJACENT BAY.

THE MINIMUM PORTION OF MEMBERS FOR REPLACEMENT AND REMOVAL IS SHOWN IN THE PLAN DETAILS. THE CONTRACTOR MAY AT HIS EXPENSE REMOVE AND REPLACE ADDITIONAL MEMBERS TO FACILITATE THE WORK.

MATERIAL SHALL BE A709 GRADE 50.

FOR ADDITIONAL DETAILS NOT SHOWN IN PLANS, REFER TO SCD GSD-1-19.

ALL EQUIPMENT, LABOR, AND MATERIALS REQUIRED TO WELD AND REMOVE AND INSTALL THE END CROSSFRAMES SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 513 - STRUCTURAL STEEL, MISC.: REPAIR OF CROSSFRAME BY WELDING OR REPLACEMENT OF MEMBERS.

ITEM 516 - RESET BEARING, AS PER PLAN

AT LOCATIONS 3 (CUY-71-1007), 4 (CUY-271-0972 & CUY-271-0974) AND 7 (CUY-480-0501) THIS ITEM SHALL INCLUDE ALL WORK NECESSARY TO PROPERLY ALIGN BRIDGE BEARINGS, 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, REALIGNMENT OF THE LOWER MASONRY PLATE BY RELOCATING IT SO THAT THE BEARINGS ARE VERTICALLY ALIGNED AT 60-DEGREES F (15-DEGREES C), AND INSTALLING BEARING RESTRAINING PLATES IF REQUIRED PER PLAN DETAILS.

ASSURE ALL BEARINGS ARE SHIMMED ADEQUATELY AND THAT NO BEAMS AND/OR BEARING DEVICES ARE "FLOATING".

ALL WORK SHALL BE TO THE SATISFACTION OF THE ENGINEER. PAYMENT FOR ALL OF THE ABOVE DESCRIBED LABOR AND MATERIALS WILL BE MADE AT THE CONTRACT PRICE BID FOR ITEM 516 - RESET BEARING, AS PER PLAN.

ITEM 516 - JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN

FOR LOCATIONS 2 (CUY-71-0856), 3 (CUY-71-1007), 4 (CUY-271-0972 & CUY-271-0974) AND 7 (CUY-480-0501) THIS WORK INCLUDES RAISING OR RE-POSITIONING EXISTING STRUCTURES TO PERFORM THE WORK DEFINED IN THE PROJECT PLANS. SUBMIT CONSTRUCTION PLANS IN ACCORDANCE WITH CMS 501.05. IF, DURING THE JACKING OPERATIONS, CRACKING OF THE CONCRETE SUPERSTRUCTURE, SEPARATION OF THE CONCRETE DECK FROM THE STEEL STRINGERS OR OTHER DAMAGE TO THE STRUCTURE IS VISUALLY OBSERVED, IMMEDIATELY CEASE THE JACKING OPERATION AND INSTALL SUPPORTS TO THE SATISFACTION OF THE ENGINEER. ANALYZE THE DAMAGE AND SUBMIT A METHOD OF CORRECTION TO THE ENGINEER FOR APPROVAL. EPOXY INJECT ALL BEAMS THAT SEPARATE FROM THE DECK FOR THE DISTANCE OF THE SEPARATION IN ACCORDANCE WITH CMS 512.07. THE DEPARTMENT WILL NOT PAY FOR THE COST OF THIS EPOXY INJECTION OR OTHER REQUIRED REPAIRS. THE BRIDGE BEARINGS SHALL BE FULLY SEATED AT ALL CONTACT AREAS. IF FULL SEATING IS NOT ATTAINED, SUBMIT A REPAIR PLAN TO THE ENGINEER. THE DEPARTMENT WILL NOT PAY FOR THE REPAIR COSTS TO ENSURE FULL SEATING ON BEARINGS.

THE DEPARTMENT WILL MEASURE THIS WORK ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516 - JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN.

ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN

AT LOCATIONS 1 (CUY-71-0579), 2 (CUY-71-0856), 4 (CUY-271-0972 & CUY-271-0974), 5 (CUY-480-0126), 6 (CUY-480-0177) AND 7 (CUY-480-0501) PRIOR TO THE SURFACE CLEANING SPECIFIED IN 519.04 AND WITHIN 24 HOURS OF PLACING PATCHING MATERIAL, BLAST CLEAN ALL SURFACES TO BE PATCHED, INCLUDING THE EXPOSED REINFORCING STEEL. ACCEPTABLE METHODS INCLUDE HIGH PRESSURE WATER BLASTING WITH OR WITHOUT ABRASIVES IN THE WATER, ABRASIVE BLASTING WITH CONTAINMENT, OR VACUUM ABRASIVE BLASTING. WHERE APPLICABLE, CONTRACTOR SHALL ENSURE ANY EXISTING UNDERPASS LIGHTING, BRIDGE RAIL OR ANY OTHER BRIDGE COMPONENTS ARE PROTECTED DURING THE PATCHING OPERATIONS.

SPECIFIC PATCHING LOCATIONS SHALL BE DETERMINED BY THE ENGINEER IN ACCORDANCE WITH ITEM 519 UNLESS IDENTIFIED IN THE PLANS. IF EXISTING UTILITIES ARE LOCATED WITHIN THE SPECIFIED PATCHING AREAS, THE COST FOR REMOVAL AND REINSTALLING THE UTILITIES SHALL BE INCLUDED IN THIS ITEM. ALL EQUIPMENT, LABOR, MATERIALS AND INCIDENTALS REQUIRED TO PERFORM THE ABOVE DESCRIBED WORK SHALL BE INCLUDED FOR PAYMENT AT THE SQUARE FOOT CONTRACT PRICE FOR ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN.

ITEM 607 - VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN

AT LOCATIONS 4 (CUY-271-0972 & CUY-271-0974), AND 6 (CUY-480-0177), THIS ITEM IS INTENDED TO COMPLETELY REMOVE THE EXISTING VANDAL PROTECTION FENCE (VPF). THE EXISTING ANCHOR BOLTS SHALL BE CUT OFF AND COVERED WITH A NEW LARGER BASE PLATE AND NEW ANCHORS PER STANDARD DRAWING VPF-1-90.

THIS ITEM SHALL BE AS PER THE DETAILS IN THE PLANS WITH THE APPLICABLE PORTIONS OF STANDARD DRAWING VPF-1-90 AND THE MANUFACTURER'S RECOMMENDATIONS.

PATCHING OPERATIONS SHALL OCCUR PRIOR TO FENCE INSTALLATION.

AT LOCATIONS WHERE THE FENCE SPANS ACROSS THE EXPANSION JOINT, DO NOT INSTALL LINE RAILS AND EXPANSION JOINT SLEEVES; HOWEVER, THE FABRIC SHALL REMAIN CONTINUOUS ACROSS THE EXPANSION JOINT.

THE COLOR OF THE FENCE FABRIC, RAILS, POSTS, PLATES, TIE WIRES, AND ADDITIONAL VISUAL HARDWARE AND CAULK SHALL BE BLACK.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER LINEAR FOOT FOR ITEM 607 - VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

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ITEM 844 - CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN

AT LOCATIONS 1 (CUY-71-0579), 2 (CUY-71-0856), 4 (CUY-271-0972 & CUY-271-0974), 5 (CUY-480-0126), 6 (CUY-480-0177) AND 7 (CUY-480-0501) REPAIR WORK SHALL BE PER SUPPLEMENTAL SPECIFICATION 844. THE MINIMUM SPACING OF 100 GRAM ZINC ANODE SHALL BE 18" OR EQUIVALENT TOTAL ZINC CONTENT PER AREA. THIS ITEM SHALL BE PER ITEM 844 - CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN AND INCLUDE ALL REQUIRED PATCHING AND PROTECTION WORK TO MAKE THE PIER COLUMNS READY FOR THE COMPOSITE FIBER WRAP SYSTEM.

ITEM SPECIAL - COMPOSITE FIBER WRAP SYSTEM

FOR LOCATIONS 1 (CUY-71-0579), 2 (CUY-71-0856), 4 (CUY-271-0972 & CUY-271-0974), 5 (CUY-480-0126), 6 (CUY-480-0177) AND 7 (CUY-480-0501).

DESCRIPTION: THIS WORK SHALL CONSIST OF PROVIDING AND INSTALLING A FIBER WRAP INCLUDING PREPARATION, WRAPPING THE PIER, AND ALL INCIDENTALS NECESSARY TO COMPLETE THIS WORK. THE INSTALLATION SHALL BE PER THE MANUFACTURER'S REQUIREMENTS.

MATERIALS: SUPPLIERS SHALL HAVE A MINIMUM OF 10 INSTALLATIONS AND FURNISH CERTIFIED TEST REPORTS INCLUDING 1000 HOUR TESTS FOR 140 °F WATER, SALT WATER, ALKALINE SOIL, OZONE AND EFFERVESCENCE IN ADDITION TO THE REQUIREMENTS LISTED BELOW.

THE FABRIC FOR THE COMPOSITE CASING SHALL BE CONTINUOUS FILAMENT WOVEN FABRIC. PRIMARY FIBERS FOR THE FABRIC SHALL BE (E) ELECTRICAL GLASS FIBERS. THE FIBER SHALL HAVE A MINIMUM NOMINAL THICKNESS OF 0.05 INCHES.

THE MINIMUM WEIGHT OF THE FABRIC SHALL BE 27.0 OUNCES PER SQUARE YARD.

THE EPOXY SHALL BE SUPPLIED BY THE MANUFACTURER TO MEET THE COMPOSITE STRENGTH GIVEN BELOW. POLYESTER RESIN SHALL NOT BE ALLOWED AS A SUBSTITUTE FOR EPOXY RESIN.

THE COMPOSITE OF THE FIBER WRAPPED COLUMN CASING SYSTEM SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:

PROPERTY	REQUIREMENTS	ASTM TEST METHOD
ULTIMATE TENSILE STRENGTH, PSI MIN. IN PRIMARY FIBER DIRECTION	60,000 PSI	D3039, AVERAGE OF 7, 1" BY 10" NORMALIZED TO 0.80" THICK 0.01" PER MINUTE TESTING SPEED
ULTIMATE TENSILE STRENGTH, PSI MIN. IN ORTHOGONAL FIBER DIRECTION	3,000 PSI	D3039, AVERAGE OF 7, 1" BY 10" NORMALIZED TO 0.80" THICK 0.01" PER MINUTE TESTING SPEED
TENSILE STRENGTH (MIN. AFTER TEST) 1000 HOURS EXPOSURE TO 100% HUMIDITY	60,000 PSI	C581
TENSILE STRENGTH (MIN. AFTER TEST) 1000 HOURS EXPOSURE TO OZONE	60,000 PSI	D1149 EXCEPT NOT UNDER STRESS DURING OZONE EXPOSURE
TENSILE STRENGTH (MIN. AFTER TEST) 1000 HOURS EXPOSURE TO ALKALI	60,000 PSI	D3038 USING SOIL BURIAL - WATER CONTENT OF 73% ± 3%
TENSILE STRENGTH (MIN. AFTER TEST) 1000 HOURS EXPOSURE TO SALT WATER	60,000 PSI	C581 AND D1141 OMITTING ADDITION OF HEAVY METAL REAGENTS
TENSILE STRENGTH (MIN. AFTER TEST) 1000 HOURS EXPOSURE @ 140 DEGREES F	60,000 PSI	D3045
TENSILE STRENGTH (MIN. AFTER TEST) ULTRAVIOLET (UV) EXPOSURE	60,000 PSI	G154 USING FS40 UV-B BULBS FOR A MIN. 40 CYCLES. THE CYCLE SHALL BE 4 HOURS OF CONDENSATE EXPOSURE AT 40 DEGREES C.
ELONGATION: PERCENT, MIN. PERCENT, MAX.	 1.7 % 5.0 %	
TENSILE MODULUS, PSI MIN. OF PRIMARY FIBERS	3,000,000	D3039
VISUAL EFFECTS	ACCEPTANCE LEVEL III	D2563
COEFFICIENT OF THERMAL EXPANSION IN THE PRIMARY DIRECTION	4,300,000 PPM/DEG. F (+15%)	D696

SURFACE PREPARATION: THE SURFACE TO RECEIVE THE COMPOSITE WRAP SHALL BE FREE FROM FINS, SHARP EDGES, AND PROTRUSIONS THAT WILL CAUSE VOIDS BEHIND THE CASING OR THAT, IN THE OPINION OF THE ENGINEER, WILL DAMAGE THE FIBER. IF FIBERS ARE TO WRAP AROUND CORNERS OF RECTANGLE CROSS-SECTIONS, THE CORNERS SHALL BE ROUNDED TO A 1/2 INCH RADIUS. THIS WILL HELP PREVENT STRESS CONCENTRATIONS IN THE FIBER WRAP AND VOIDS BETWEEN THE FIBER WRAP AND THE CONCRETE. IN ADDITION, THE SURFACE SHALL BE SMOOTH AND FREE OF VOIDS OR UNDULATIONS THAT WOULD PREVENT FULL CONTACT BETWEEN THE CONCRETE AND THE FIBER WRAP. THE REMOVAL OF THE EXISTING COATING FROM THE CONCRETE SURFACES IS INCLUDED WITH THE SURFACE PREPARATION FOR THE COMPOSITE FIBER WRAP SYSTEM AND WILL NOT BE PAID SEPARATELY UNDER ITEM 512.

COMPOSITE APPLICATION: THE AMBIENT TEMPERATURE AND THE TEMPERATURE OF THE EPOXY RESIN COMPONENTS SHALL BE BETWEEN 55 DEG. F AND 95 DEG. F AT THE TIME OF MIXING. THE COMPOSITE SHALL BE APPLIED WHEN THE RELATIVE HUMIDITY IS LESS THAN 85% AND THE SURFACE TEMPERATURE IS MORE THAN 5 DEG. F ABOVE THE DEW POINT. APPLICATION SHALL BEGIN WITHIN ONE HOUR AFTER THE BATCH HAS BEEN MIXED. A MANUFACTURER REPRESENTATIVE SHALL BE ON SITE FOR THE FIRST APPLICATION OF THE COMPOSITE FIBER WRAP SYSTEM TO APPROVE THE CONTRACTOR'S APPLICATION PROCESS. THIS REQUIREMENT MAY BE WAIVED WITH WRITTEN APPROVAL FROM THE ENGINEER.

THE COMPONENTS OF THE EPOXY RESIN SHALL BE MIXED WITH A MECHANICAL MIXER AND APPLIED UNIFORMLY TO THE FIBER AT A RATE THAT SHALL INSURE COMPLETE SATURATION OF THE FABRIC.

THE FABRIC/EPOXY COMPOSITE SHALL BE APPLIED TO THE SURFACE OF THE COLUMN BY WRAPPING METHODS THAT PRODUCE A UNIFORM FORCE THAT IS DISTRIBUTED ACROSS THE ENTIRE WIDTH OF THE FABRIC. THE PRIMARY FIBERS OF THE FABRIC SHALL NOT DEVIATE FROM A HORIZONTAL LINE MORE THAN 1/2 INCH PER FOOT. ENTRAPPED AIR SHALL BE RELEASED OR ROLLED OUT BEFORE THE EPOXY SETS.

SUCCESSIVE LAYERS OF COMPOSITE MATERIALS SHALL BE PLACED BEFORE POLYMERIZATION OF THE PREVIOUS LAYER OF EPOXY IS TOO DRY TO ACHIEVE ADEQUATE BOND BETWEEN LAYERS. IF POLYMERIZATION DOES OCCUR BETWEEN LAYERS THE SURFACE MUST BE ROUGHENED USING A LIGHT ABRASIVE THAT WILL NOT DAMAGE THE FIBER.

THE FINAL LAYER OF EPOXY SHALL BE APPLIED TO THE FINAL LAYER OF FABRIC, WITH CARE TAKEN TO ENSURE COATING OF ALL EDGES AND SEAMS. SPACES BETWEEN THE BANDS OF FABRIC SHALL BE FILLED WITH EPOXY THICKENED AS DIRECTED BY THE MANUFACTURER.

A FINAL INSPECTION SHALL BE PERFORMED ON ALL FIBER WRAPPED COLUMNS AFTER THE EPOXY SETS YET PRIOR TO THE APPLICATION OF THE URETHANE TOP COAT. ALL DEFECTS (INCLUDING BUBBLES, DELAMINATIONS AND FABRIC TEARS) MORE THAN 1 SQUARE INCH OF THE SURFACE AREA, OR AS SPECIFIED BY THE PROJECT ENGINEER, SHALL BE REPAIRED AS SUCH.

1. SMALL DEFECTS (ON THE ORDER OF 6" DIAMETER) SHALL BE INJECTED OR BACK FILLED WITH EPOXY.
2. BUBBLES LESS THAN 12" DIAMETER SHALL BE REPAIRED BY INJECTING WITH EPOXY. TWO HOLES SHALL BE DRILLED INTO THE BUBBLE TO ALLOW INJECTION OF THE EPOXY AND ESCAPE OF ENTRAPPED AIR.
3. BUBBLES, DELAMINATIONS AND FABRIC TEARS GREATER THAN 12" IN DIAMETER SHALL BE REPAIRED BY REMOVING AND REAPPLYING THE REQUIRED NUMBER OF LAYERS OF THE COMPOSITE AND THE REQUIRED FINISH COATING. ALL REPAIRS SHALL BE APPROVED BY THE PROJECT ENGINEER.

COATING SYSTEM APPLICATION: A FINAL URETHANE COATING IS REQUIRED TO PROTECT THE FIBERS FROM THE ELEMENTS, SPECIFICALLY UV RADIATION, AND TO GIVE THE FINAL AESTHETIC EFFECT.

AFTER 96 HOURS FROM THE FINAL APPLICATION OF EPOXY, IF THE FINAL EPOXY COAT IS COMPLETELY POLYMERIZED, THE EXTERIOR SURFACES OF THE COMPOSITE WRAP SHALL BE CLEANED AND ROUGHENED BY A LIGHT ABRASIVE. CARE SHOULD BE TAKEN DURING THE ROUGHENING PROCESS SO THAT THE FIBERS ARE NOT DAMAGED. ALL CLEANED AND ROUGHENED SURFACES SHALL BE DRY BEFORE APPLYING THE URETHANE COATING.

MEASUREMENT AND PAYMENT: THE DEPARTMENT WILL PAY FOR THIS ITEM PER SQUARE FOOT OF FIBER WRAP MATERIAL INSTALLED AND ACCEPTED TO COMPLETE THE PROPOSED WORK. THE BID PRICE SHALL INCLUDE ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO PROVIDE AND INSTALL A FIBER WRAP COLUMN CASING SYSTEM USING HIGH STRENGTH, HYBRID FIBER/EPOXY COMPOSITES FIELD APPLIED TO THE COLUMN, INCLUDING ERECTION OF SCAFFOLDING, CLEANING, SURFACE PREPARATION, WRAPPING THE COLUMN, URETHANE SEALER, AND ALL INCIDENTALS NECESSARY TO COMPLETE THE INSTALLATION PER THE MANUFACTURER'S REQUIREMENTS. PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER SQUARE FOOT FOR ITEM SPECIAL - COMPOSITE FIBER WRAP SYSTEM.

ITEM SPECIAL - STRUCTURES, BOTTOM OF DECK SPALL REMOVAL ALONG BEAMS

AT LOCATION 4 (CUY-271-0972 & CUY-271-0974), LOOSE OR DELAMINATED CONCRETE OVER THE TRAVELED LANES, SHOULDERS, AND WHERE DESIGNATED ON THE PLANS SHALL BE REMOVED.

METHOD OF MEASUREMENT:

THE PAYMENT FOR THIS ITEM SHALL BE PER SQUARE FOOT. PAYMENT SHALL BE MADE UNDER ITEM SPECIAL - STRUCTURES, BOTTOM OF DECK SPALL REMOVAL ALONG BEAMS.

ITEM SPECIAL - STRUCTURES, BOTTOM OF DECK SLAB SPALL REMOVAL

FOR LOCATION 5, LOOSE OR DELAMINATED CONCRETE ON THE BOTTOM SLAB OF THE ABUTMENT RAMPS, WHERE SHOWN ON THE PLANS, SHALL BE REMOVED.

METHOD OF MEASUREMENT:

THE PAYMENT FOR THIS ITEM SHALL BE PER SQUARE FOOT. PAYMENT SHALL BE MADE UNDER ITEM SPECIAL - STRUCTURES, BOTTOM OF DECK SPALL REMOVAL.

PENCIL ABRASIVE BLASTING

THE PENCIL ABRASIVE BLASTING REFERRED TO IN THE VARIOUS NOTES AND REPAIR ITEMS IN THESE PLANS SHALL CONFORM TO THE FOLLOWING:

CLEAN THE DESIGNATED NON-DESTRUCTIVE TESTING (NDT) AREAS OF ALL PAINT, RUST, AND FOREIGN MATERIAL BY ABRASIVE BLASTING TO A SURFACE QUALITY EQUAL TO SSPC-SP10 PREPARATION GRADE SA 2 ACCORDING TO AND AS SHOWN IN SSPC-VIS 1-89. SINCE THE INTENT OF THE PENCIL ABRASIVE BLASTING IS TO ENHANCE THE VISUAL AND NDT CRACK DETECTION TECHNIQUES, A GENTLE ABRASIVE BLAST SHALL BE USED SUCH THAT THE SURFACE IS NOT PEENED OR OTHERWISE COLD WORKED. PERFORM THE ABRASIVE BLASTING USING A MAXIMUM COMPRESSED AIR PRESSURE OF 100 PSI, A HOSE NOZZLE DIAMETER OF 1/4" (± 1/16"), AND A GRADE 30/60 COAL SLAG ABRASIVE OR EQUIVALENT. DO NOT USE BLASTING ABRASIVES CONTAINING MORE THAN ONE-PERCENT FREE SILICA. BLASTERS USED FOR SURFACE PREPARATION FOR STRUCTURAL STEEL COATING CAN NOT BE USED FOR PENCIL BLASTING. AFTER THE ABRASIVE BLASTING IS COMPLETE, AIR BLOW THE AREA CLEAN.

THE CONTRACTOR SHALL DEMONSTRATE TO THE ENGINEER THAT PENCIL ABRASIVE BLASTING CAN SATISFACTORILY BE PERFORMED ACCORDING TO THESE SPECIFICATIONS PRIOR TO THE START OF THE WORK. THE COST OF THE PENCIL ABRASIVE BLASTING HAS BEEN INCLUDED FOR PAYMENT IN THE APPROPRIATE REPAIR ITEMS.

ITEM 513 - STRUCTURAL STEEL, MISC.: PENCIL ABRASIVE BLASTING, GRINDING, AND NDT

FOR LOCATION 7 (CUY-480-0501),THIS WORK CONSISTS OF THE FOLLOWING SEQUENCE OF OPERATIONS PERFORMED AT THE AREAS AS DESIGNATED IN THE PLANS AND AS DIRECTED BY THE ENGINEER.

1. CLEAN THE DESIGNATED AREA BY PENCIL ABRASIVE BLASTING THE PAINT AND/OR RUST FROM THE STEEL SURFACE. CLEANED AREAS SHALL BE AT LEAST 3 INCHES WIDE ALONG EACH SIDE OF A SUSPECTED CRACK LOCATION UNLESS OTHERWISE SHOWN IN THE PLANS.

2. THE ENGINEER, ACCOMPANIED BY THE CONTRACTOR, SHALL CAREFULLY VISUALLY INSPECT THE CLEANED AREA. GRINDING MAY BE DIRECTED BY THE ENGINEER TO ENHANCE THE INVESTIGATION FOR CRACK PRESENCE. ALL GRINDING MUST BE DONE CAUTIOUSLY, ESPECIALLY IN TENSION ZONES. THE GRINDING MOTION SHALL BE PARALLEL TO THE FLANGE EDGE.

3. NON-DESTRUCTIVE TEST (NDT) THE AREA USING MAGNETIC PARTICLE EXAMINATION AND/OR DYE PENETRATION SO THAT THE ENGINEER MAY FURTHER INSPECT THE CRACKS.

4. ALL CRACKS AND/OR CRACK TIPS THAT ARE ACCESSIBLE ARE TO BE REMOVED AS SHOWN IN THE PLANS AND PAID FOR AS ITEM 513 - STRUCTURAL STEEL, MISC.: DRILLING STRUCTURAL STEEL, GRINDING, AND NDT. ANY CRACKS ACCESSIBLE TO DRILLING ARE TO BE REMOVED AS SHOWN IN THE PLANS BY CAREFULLY GRINDING OR BY CAREFULLY ENLARGING THE DRILLED HOLES BY GRINDING.

5. PERFORM STEPS 1 THRU 4 ON THE OTHER SIDE OF THIS LOCATION.

6. CLEAN AND PAINT AREAS PER ITEM 514 - PAINTING OF STRUCTURAL STEEL. (PAINTING SHALL BE CONSIDERED INCIDENTAL WITH THIS ITEM).

7. THE FINAL PAINT COLOR SHALL CLOSELY MATCH THE EXISTING BRIDGE COLOR, AS APPROVED BY THE ENGINEER.

THE ACCEPTED NUMBER OF LOCATIONS OF WORK AS DESCRIBED HEREIN WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER LOCATION. THIS PRICE AND PAYMENT SHALL BE FULL COMPENSATION FOR FURNISHING ALL MATERIAL, LABOR, AND EQUIPMENT NECESSARY TO CLEAN, GRIND, AND PERFORM NDT ON ALL SURFACES AT EACH LOCATION.

THE FOLLOWING HAS BEEN CARRIED TO THE ESTIMATED QUANTITIES:

ITEM 513 - STRUCTURAL STEEL, MISC.: PENCIL ABRASIVE BLASTING, GRINDING AND NDT.....13 EACH

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

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ITEM 513 - STRUCTURAL STEEL, MISC.: DRILLING STRUCTURAL STEEL, GRINDING, AND NDT

FOR LOCATION 7 (CUY-480-0501), THIS WORK CONSISTS OF DRILLING CRACKS AND ENDS OF CRACKS, GRINDING TO ENLARGE DRILLED HOLES, AND NON-DESTRUCTIVE TESTING AS SHOWN IN THE PLANS AND AS DIRECTED BY THE ENGINEER. DISTRICT PRODUCTION DEPARTMENT (BRIDGE SECTION) APPROVAL MUST BE OBTAINED BEFORE DRILLING ANY HOLES IN THE FLANGES UNDER THIS PAY ITEM.

DRILL HOLES TO REMOVE ENTIRE CRACKS OR THE APPARENT ENDS OF THE CRACK REVEALED BY THE INITIAL NDT AND/OR VISUAL INSPECTION. GRIND SMOOTH THE EXPOSED CIRCUMFERENCE OF EACH DRILLED HOLE AND CAREFULLY INSPECT FOR CRACKS USING MAGNETIC PARTICLE EXAMINATION AND/OR DYE PENETRATION. CONTINUE DRILLING, GRINDING, AND TESTING UNTIL ALL CRACK ENDS ARE REMOVED. WHEN NO CRACKS ARE DETECTED AT A LOCATION NO HOLES SHALL BE DRILLED UNDER THIS ITEM.

SINCE ANY OF THESE CRACKS COULD PROPAGATE INTO A TENSION ZONE, REMOVING THEIR ENDS IS IMPERATIVE. CRACKS LESS THAN 1½" LONG AND CRACKED AREAS OR DEFECTS LESS THAN 1½" IN DIAMETER SHALL BE REMOVED BY A SINGLE HOLE WHEN PRACTICAL.

ENDS OF CRACKS LONGER THAN 1½" AND DEFECTS SMALLER THAN 1½" SHALL BE DRILLED WITH A 1" DIAMETER DRILL BIT. HOLES SHALL BE CAREFULLY EXAMINED FOR CRACKS IN THE PLANE OF THE PLATE. 1½" OR 2" DIAMETER HOLES MAY BE DRILLED WHERE THE PROXIMITY OF THE CRACK END TO ADJACENT STEEL PRECLUDES DRILLING 1" DIAMETER HOLES.

CLEAN AND PAINT AREAS PER ITEM 514 - PAINTING OF STRUCTURAL STEEL (PAINTING SHALL BE CONSIDERED INCIDENTAL WITH THIS ITEM).

THE LOCATION OF ALL HOLES SHALL BE DETERMINED BY AND DRILLED UNDER THE DIRECTION OF THE ENGINEER.

THE ACCEPTABLE NUMBER OF HOLES DRILLED IN THE STRUCTURAL STEEL AS DETAILED ABOVE WILL BE PAID FOR AT THE CONTRACT PRICE FOR EACH HOLE. PRICE AND PAYMENT SHALL BE FULL COMPENSATION FOR FURNISHING ALL MATERIAL, LABOR, AND EQUIPMENT NECESSARY FOR DRILLING THE HOLES, GRINDING TO ENLARGE HOLES, AND NDT.

THE FOLLOWING HAS BEEN CARRIED TO THE ESTIMATED QUANTITIES:

ITEM 513 - STRUCTURAL STEEL, MISC.: DRILLING STRUCTURAL STEEL, GRINDING, AND NDT.....13 EACH

ITEM 514 - FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN

FOR LOCATIONS 1 (CUY-71-0579 AND 2 (CUY-71-0856), THE FINAL PAINT COLOR SHALL CLOSELY MATCH THE EXISTING BRIDGE COLOR, AS APPROVED BY THE ENGINEER.

ITEM 519 - PATCHING CONCRETE BRIDGE DECK - TYPE B (FOR OVERNIGHT REPAIRS)

FOR LOCATION 7 (CUY-480-0501)

A. DESCRIPTION:

THIS ITEM SHALL CONSIST OF FURNISHING THE NECESSARY LABOR, MATERIALS AND EQUIPMENT TO REPAIR CONCRETE BRIDGE DECKS, INCLUDING THE REMOVAL OF ALL LOOSE AND UNSOUND CONCRETE, BITUMINOUS PATCHES, SURFACE PREPARATION, BONDING COAT AND THE MIXING, PLACING, FINISHING AND CURING OF THE MORTAR OR CONCRETE PATCHES.

B. MATERIALS:

MATERIALS SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:

FINE AGGREGATE (NATURAL SAND)	703.02
COARSE AGGREGATE (NO. 8)	703.02
PORTLAND CEMENT	701.05
QUICK SETTING CONCRETE MORTAR, TYPE 1 OR 2	705.21
AIR-ENTRAINING ADMIXTURE	705.10
CURING MATERIALS - TYPE A OR B PATCHES	705.07
CURING MATERIALS - TYPE C PATCHES	MFGR'S RECOMMENDATIONS

C. REMOVAL OF UNSOUND CONCRETE:

THE ENGINEER SHALL SOUND AND OUTLINE THE AREAS TO BE REMOVED PER DIRECTION OF THE ENGINEER. SOUNDING MAY HAVE TO BE DELAYED UNTIL THE DECK IS SUFFICIENTLY DRY TO PERMIT DETECTION OF ALL AREAS OF DELAMINATION. THE PERIMETER OF ALL REMOVAL AREAS SHALL BE SAWED TO A DEPTH OF 1 INCH TO PRODUCE A VERTICAL OR SLIGHTLY UNDERCUT FACE. ADDITIONAL SAWCUTS MAY BE REQUIRED TO FACILITATE REMOVAL. ALL UNSOUND CONCRETE INCLUDING ALL PATCHES OTHER THAN SOUND PORTLAND CEMENT CONCRETE, AND ALL LOOSE AND DISINTEGRATED CONCRETE SHALL BE REMOVED. THE UNSOUND CONCRETE MAY BE REMOVED BY CHIPPING OR HAND DRESSING. CHIPPING HAMMERS SHALL NOT BE HEAVIER THAN THE NOMINAL 35 POUND CLASS AND SHALL BE OPERATED AT AN ANGLE OF LESS THAN 45 DEGREES MEASURED FROM THE SURFACE OF THE DECK. CONCRETE SHALL BE REMOVED IN A MANNER THAT PREVENTS CUTTING, ELONGATING OR DAMAGING REINFORCING STEEL. WHERE THE BOND BETWEEN CONCRETE AND A PRIMARY REINFORCING BAR HAS BEEN DESTROYED, OR WHERE MORE THAN ONE HALF OF THE PERIPHERY OF SUCH A BAR HAS BEEN EXPOSED, THE ADJACENT CONCRETE SHALL BE REMOVED TO A DEPTH THAT WILL PROVIDE A MINIMUM ¾ INCH CLEARANCE AROUND THE BAR EXCEPT WHERE OTHER REINFORCING BARS MAKE THIS IMPRACTICABLE. REINFORCEMENT WHICH HAS BECOME LOOSE SHALL BE ADEQUATELY SUPPORTED AND TIED BACK INTO PLACE. AFTER COMPLETION OF THE SECONDARY REMOVAL OPERATIONS, THE ENGINEER WILL RE-SOUND THE DECK TO ENSURE THAT ONLY SOUND CONCRETE REMAINS. MINIMIZE CONSTRUCTION JOINTS. CONSTRUCTION JOINTS SHALL ONLY BE PLACED ON THE PERIMETER OF THE REMOVAL AREAS.

D. SURFACE PREPARATION:

CLEANING SHALL CLOSELY PRECEDE APPLICATION OF THE BONDING GROUT AND/OR THE PATCHING MATERIAL. THE SURFACE TO BE PATCHED AND THE EXPOSED REINFORCING STEEL SHALL BE THOROUGHLY CLEANED BY SANDBLASTING FOLLOWED BY AN AIR BLAST. IT MAY BE NECESSARY TO USE HAND TOOLS TO REMOVE SCALE FROM THE REINFORCING STEEL. FOR TYPE A AND TYPE B PATCHES AND TYPE C PATCHES WHICH DO NOT USE WATER AS THE ACTIVATOR, THE PREPARED SURFACE SHALL BE SURFACE DRY. FOR TYPE C PATCHES WHICH REQUIRE WATER AS THE ACTIVATOR, THE PREPARED SURFACE SHALL BE LEFT IN THE CONDITION AS RECOMMENDED BY THE MANUFACTURER. ANY ADDITIONAL SURFACE PREPARATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS FOR THE PATCHING MATERIAL WHICH IS USED.

E. BONDING GROUT:

THE GROUT FOR BONDING TYPE A PATCHES SHALL CONSIST OF EQUAL PARTS BY VOLUME OF PORTLAND CEMENT AND SAND, MIXED WITH SUFFICIENT WATER TO FORM A STIFF SLURRY. THE CONSISTENCY OF THIS SLURRY SHALL BE SUCH THAT IT CAN BE APPLIED WITH A STIFF BRUSH OR BROOM TO THE EXISTING SURFACE IN A THIN, UNIFORM COATING. THE COATING OF GROUT SHALL BE SCRUBBED ONTO THE DRY SURFACE IMMEDIATELY BEFORE PLACING THE CONCRETE. CARE SHALL BE EXERCISED TO ENSURE THAT NO EXCESS GROUT IS PERMITTED TO COLLECT IN LOW SPOTS. IN NO CASE SHALL THE GROUT BE PERMITTED TO DRY BEFORE PLACING THE NEW CONCRETE. THINNED GROUT SHALL BE PAINTED OVER ALL JOINTS BETWEEN THE NEW AND EXISTING CONCRETE IMMEDIATELY AFTER THE FINISHING HAS BEEN COMPLETED. TYPE B AND TYPE C PATCHES SHALL BE BONDED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

F. PATCHING:

THE MORTAR OR CONCRETE SHALL BE PLACED AS TYPE A, B, OR C.

1. TYPE A - THE MIXTURE SHALL CONSIST OF 1 PART HIGH-EARLY-STRENGTH PORTLAND CEMENT, 1½ PARTS FINE AGGREGATE AND 1½ PARTS COARSE AGGREGATE BY VOLUME. SUFFICIENT AIR-ENTRAINING AGENT SHALL BE ADDED TO MAINTAIN AN AIR CONTENT OF 8 PLUS OR MINUS 2 PERCENT. THE SLUMP SHALL BE THE MINIMUM PRACTICAL FOR PLACING AND IN NO CASE SHALL IT EXCEED 2 INCHES. THE MATERIALS SHALL BE MIXED AT THE SITE. READY-MIXED CONCRETE SHALL NOT BE PERMITTED. THE MIX SHALL BE PLACED IN THE AREA TO BE PATCHED WHILE THE BONDING GROUT IS STILL WET, A SLIGHTLY OVERFILLED AND STRUCK OFF WITH A VIBRATING SCREED DRAWN SLOWLY ACROSS THE AREA. HAND FINISHING WITH A WOOD FLOAT MAY BE REQUIRED TO PRODUCE A TIGHT, UNIFORM SURFACE.

2. TYPE B - PATCHING MATERIAL SHALL BE MADE USING QUICK SETTING CONCRETE MORTAR, TYPE 1 OR 2, 705.21, AND SUITABLE FOR TRAFFIC AFTER OVERNIGHT CLOSURES WITH LIMITED CURING TIME. THE MORTAR SHALL BE MIXED AND PLACED AS PER MANUFACTURER'S RECOMMENDATIONS. COARSE AGGREGATE MAY BE ADDED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS WHEN THE DEPTH OF THE PATCH EXCEEDS 1 INCH.

3. TYPE C - PATCHING MATERIAL SHALL BE MADE USING A BLEND OF 705.21 TYPE 2 MATERIAL AND SELECTED AGGREGATES WITH AN ACTIVATOR. THESE MATERIALS SHALL BE MIXED AND PLACED AS PER MANUFACTURER'S RECOMMENDATIONS. COARSE AGGREGATE MAY BE ADDED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS WHEN THE DEPTH OF THE PATCH EXCEEDS 1 INCH.

G. CURING:

TYPE A PATCHES SHALL BE CURED IN ACCORDANCE WITH SECTION 511.17, METHOD (A), FOR NOT LESS THAN 24 HOURS IF MEMBRANE WATERPROOFING IS TO BE APPLIED IMMEDIATELY. IF NOT, METHOD (A) SHALL BE USED FOR 48 HOURS, AFTER WHICH THE MEMBRANE CURING MATERIAL SHALL BE APPLIED AT A RATE OF NOT LESS THAN ONE GALLON PER 200 SQUARE FEET. MEMBRANE CURING MATERIAL SHALL BE REMOVED PRIOR TO PLACING WATERPROOFING. TYPE B AND TYPE C PATCHES SHALL BE CURED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

H. METHOD OF MEASUREMENT:

THE QUANTITY SHALL BE THE ACTUAL AREA IN SQUARE YARDS OF THE EXPOSED SURFACE OF ALL PATCHES, IRRESPECTIVE OF THE DEPTH OF THE PATCH, COMPLETE, IN PLACE AND ACCEPTED.

I. BASIS OF PAYMENT:

PAYMENT SHALL BE MADE AT THE CONTRACT PRICE BID FOR:

ITEM	UNIT	DESCRIPTION
SPECIAL	SQUARE YARD	PATCHING CONCRETE BRIDGE DECKS, TYPE B (FOR OVERNIGHT REPAIRS)

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

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dht		VARIOUS	

STRUCTURE GENERAL NOTES - 3

D12-BH-FY2021(A) MISC
PID No. 103162

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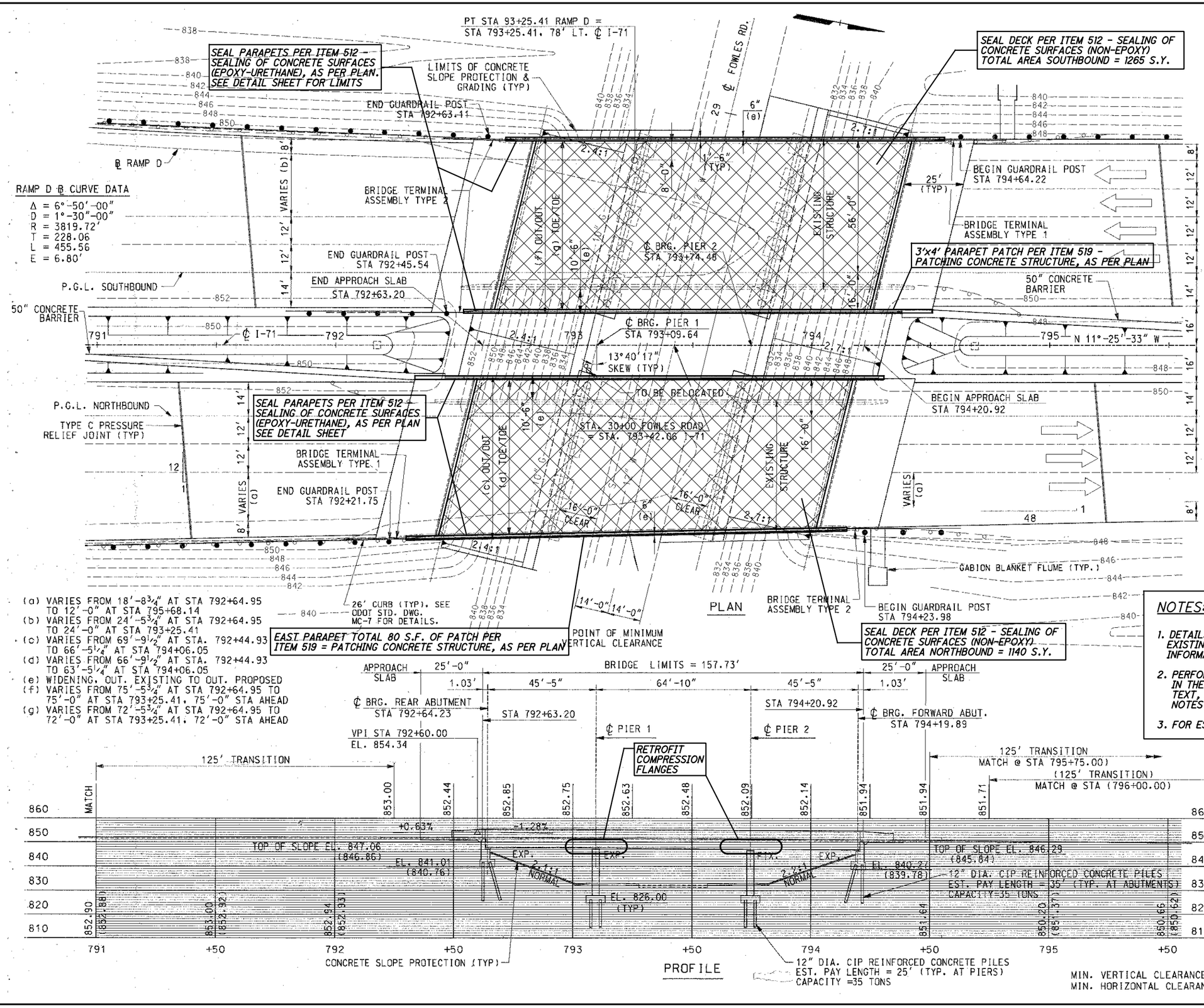

NOTES:

1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE USED FOR INFORMATION PURPOSES ONLY.
2. PERFORM ONLY THE WORK AS INDICATED IN THE STRUCTURE DATA SHEET, FRAMED TEXT, AND/OR DESCRIBED IN THE GENERAL NOTES.
3. FOR ESTIMATED QUANTITIES SEE SHEET 2/9.

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dht		1804081 (L) 1804111 (R)	

GENERAL PLAN – LOCATION 1
BRIDGE NO. CUY-71-0579
OVER CR 299 (FOWLES ROAD)

D12-BH-FY2021(A) MISC
PID No. 103162

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ESTIMATED QUANTITIES

CALCULATED JLS DATED 6/2020
CHECKED dht DATED 6/2020

ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	SUPER.	PIERS	ABUTS.	GEN'L	REF. SHEET
202	11203	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN				LS	24
512	10050	2405	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	2405				
512	10101	1072	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN	512	537	23		24
512	74001	539	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES, AS PER PLAN		527	12		24
513	21599	12,887	LB	STRUCTURAL STEEL FOR REHABILITATION (BOTTOM FLANGE RETROFITS)	12,887				
514	00100	LS		SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL				LS	
514	00200	LS		FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT				LS	
514	00300	LS		FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT				LS	
514	00401	LS		FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN				LS	26
SPECIAL	51900100	556	SF	COMPOSITE FIBER WRAP SYSTEM		556			25
519	11101	284	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN	92	87	105		24
844	10001	9	SF	CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN		9			25

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29 NORTH PARK STREET
MANSFIELD, OHIO 44902

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ESTIMATED QUANTITIES - LOCATION 1
BRIDGE NO. CUY-71-0579
OVER CR 299 (FOWLES ROAD)

D12-BH-FY2021(A) MISC
PID No. 103162

2 / 9

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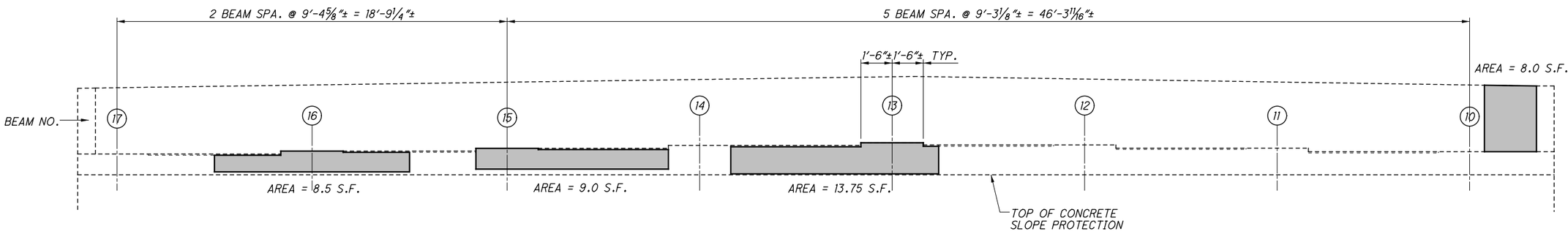
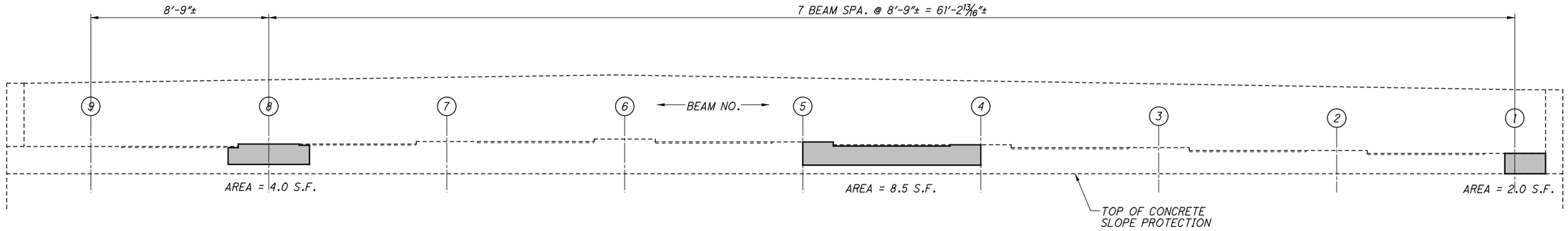
96



REAR ABUTMENT NORTHBOUND



REAR ABUTMENT SOUTHBOUND

LEGEND

INDICATES CONCRETE REPAIR PER ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN. TOTAL AREA THIS SHEET = 54 S.F.

ALL PATCHES SHALL BE SEALED 6" BEYOND THE PATCHING LIMITS USING EPOXY-URETHANE AND SHALL BE PAID WITH ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN. TOTAL SEALING AREA THIS SHEET = 106 S.F.

NOTES:

1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE USED FOR INFORMATION PURPOSES ONLY.
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29 NORTH PARK STREET
MANSFIELD, OHIO 44902

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BLN	JLS	DLR	8/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
dht		1804081 (L) 1804111 (R)	

REAR ABUTMENT PATCHING - LOCATION 1
BRIDGE NO. CUY-71-0579
OVER CR 299 (FOWLES ROAD)

D12-BH-FY2021(A) MISC
PID No. 103162

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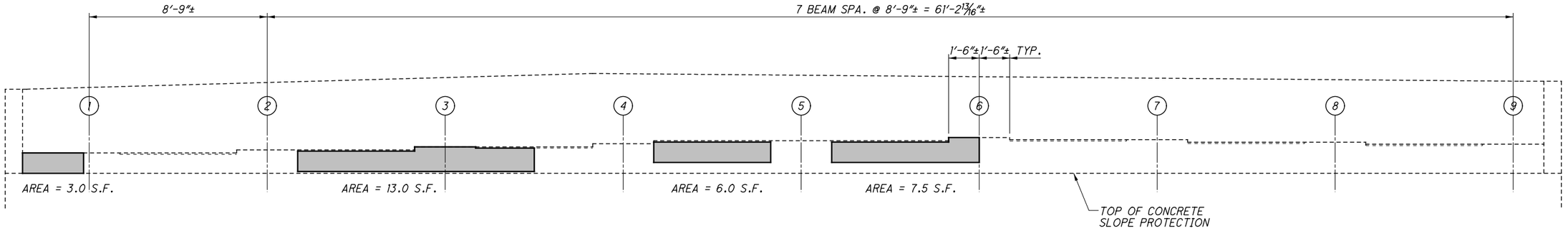
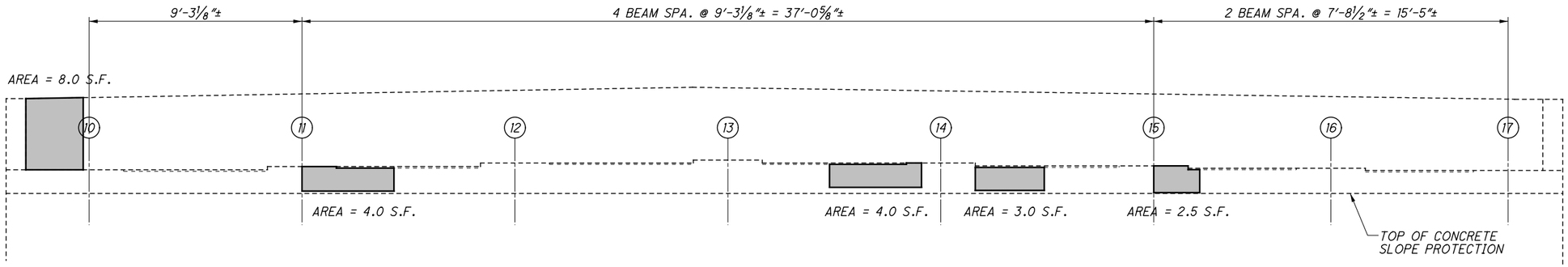


FORWARD ABUTMENT SOUTHBOUND



FORWARD ABUTMENT NORTHBOUND

LEGEND

INDICATES CONCRETE REPAIR PER ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN. TOTAL AREA THIS SHEET = 51 S.F.

ALL PATCHES SHALL BE SEALED 6" BEYOND THE PATCHING LIMITS USING EPOXY-URETHANE AND SHALL BE PAID WITH ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN. TOTAL SEALING AREA THIS SHEET = 99 S.F.

NOTES:

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29 NORTH PARK STREET
MANSFIELD, OHIO 44902

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CHECKED	REVISED	STRUCTURE FILE NUMBER	
dht		1804081 (E) 1804111 (R)	

FORWARD ABUTMENTS PATCHING - LOCATION 1
BRIDGE NO. CUY-71-0579
OVER CR 299 (FOWLES ROAD)

D12-BH-FY2021(A) MISC
PID No. 103162

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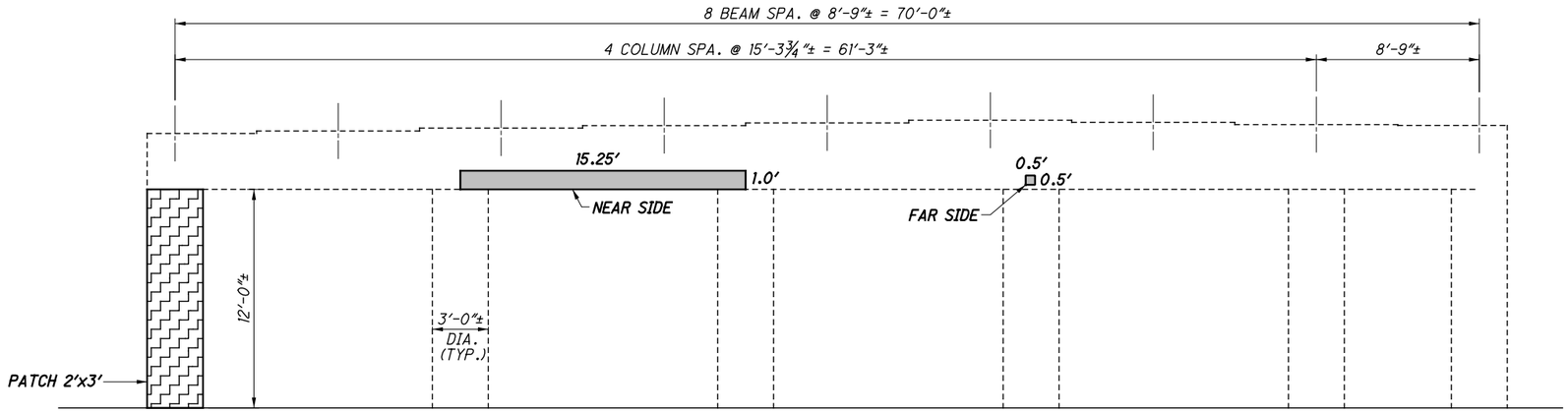
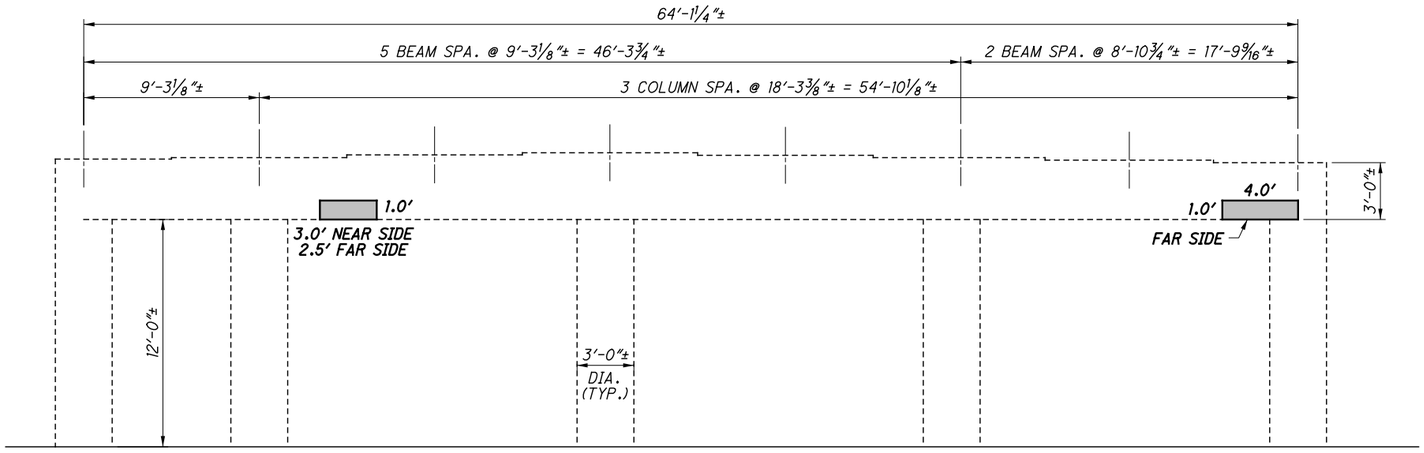


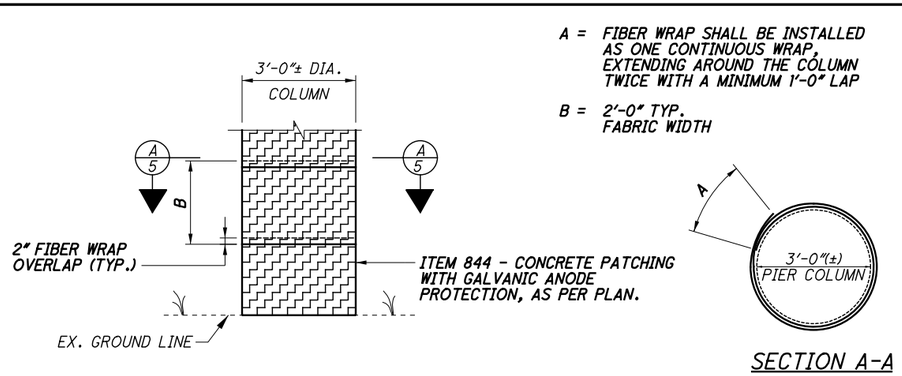
PIER 1 SOUTHBOUND

LOOKING NORTH



PIER 1 NORTHBOUND

LOOKING NORTH



A = FIBER WRAP SHALL BE INSTALLED AS ONE CONTINUOUS WRAP, EXTENDING AROUND THE COLUMN TWICE WITH A MINIMUM 1'-0" LAP

B = 2'-0" TYP. FABRIC WIDTH

SECTION A-A

PIER COLUMN FIBER WRAP DETAIL

LEGEND

INDICATES CONCRETE PIER COLUMN REPAIR PER ITEM SPECIAL - STRUCTURES, COMPOSITE FIBER WRAP SYSTEM AND ITEM 844 - CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN.

INDICATES AREAS OF CONCRETE PATCHING PER ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN. TOTAL AREA THIS SHEET = 25 S.F.

SEAL ALL COLUMNS NOT BEING FIBER WRAPPED AND THE BOTTOM AND SIDES OF THE PIER CAPS WITH EPOXY-URETHANE AND INCLUDE WITH ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN. TOTAL AREA THIS SHEET = 2433 S.F.

NOTES:

1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE USED FOR INFORMATION PURPOSES ONLY.
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3. MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
4. FOR ESTIMATED QUANTITIES SEE SHEET 2/9.

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PIER 1 REPAIRS - LOCATION 1
BRIDGE NO. CUY-71-0579
OVER CR 299 (FOWLES ROAD)

D12-BH-FY2021(A) MISC
PID No. 103162

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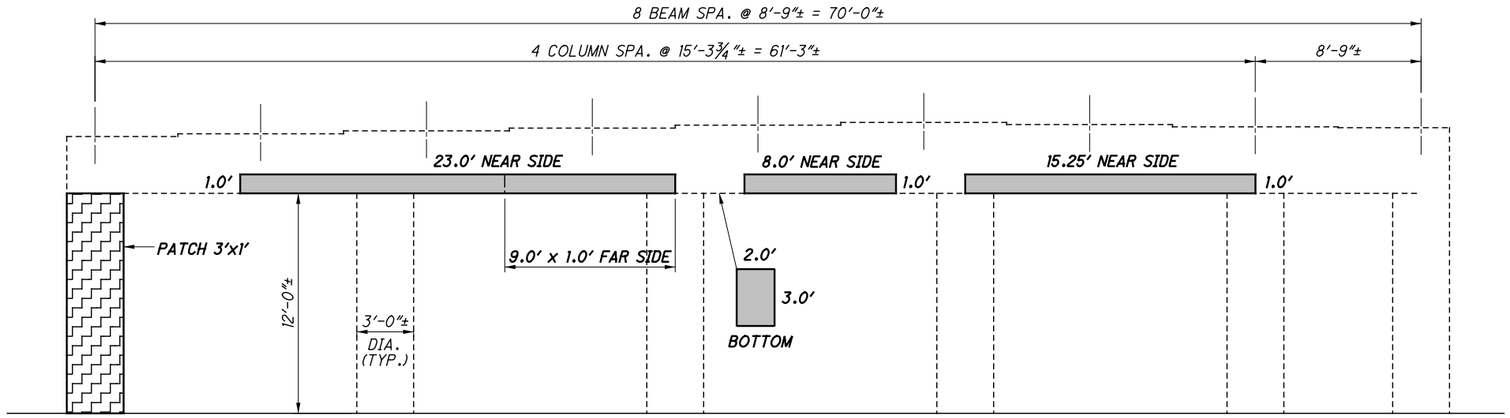
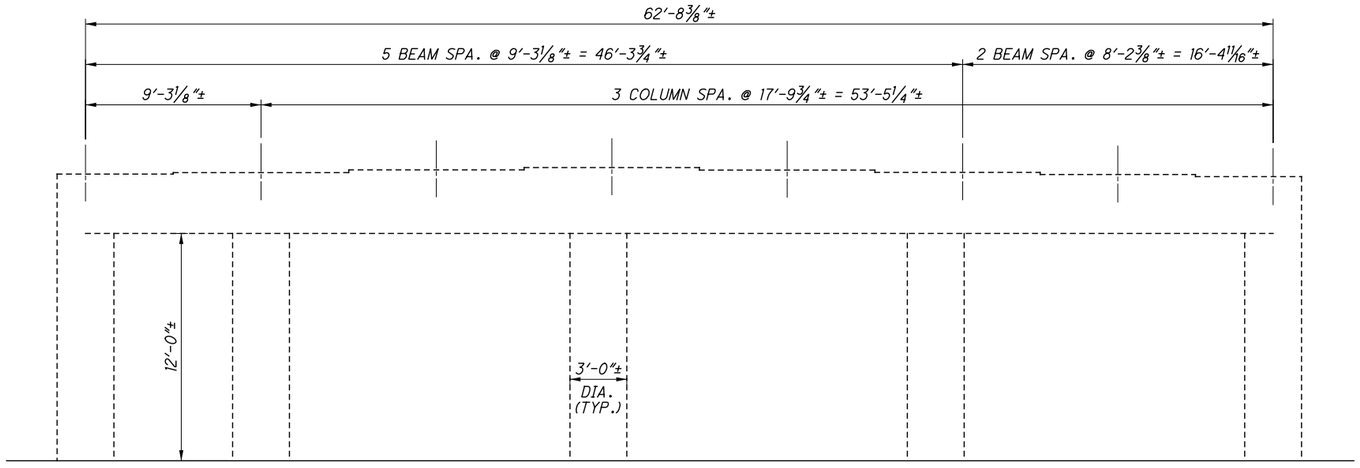


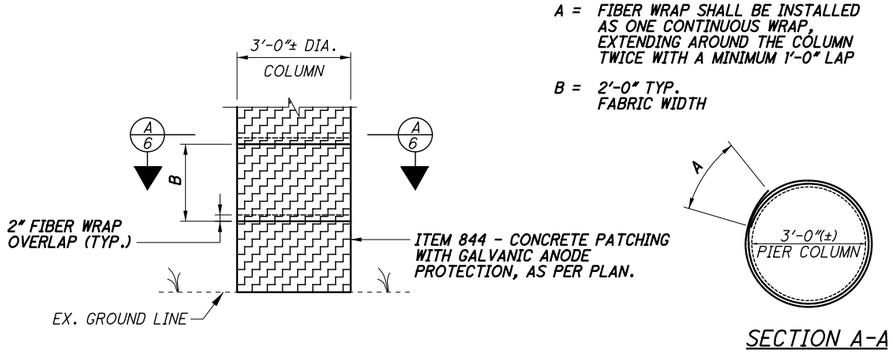
PIER 2 SOUTHBOUND

(LOOKING NORTH)



PIER 2 NORTHBOUND

(LOOKING NORTH)



A = FIBER WRAP SHALL BE INSTALLED AS ONE CONTINUOUS WRAP, EXTENDING AROUND THE COLUMN TWICE WITH A MINIMUM 1'-0" LAP

B = 2'-0" TYP. FABRIC WIDTH

SECTION A-A

PIER COLUMN FIBER WRAP DETAIL

LEGEND

INDICATES CONCRETE PIER COLUMN REPAIR PER ITEM SPECIAL - STRUCTURES, COMPOSITE FIBER WRAP SYSTEM AND ITEM 844 - CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN.

INDICATES AREAS OF CONCRETE PATCHING PER ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN. TOTAL AREA THIS SHEET = 62 S.F.

SEAL ALL COLUMNS NOT BEING FIBER WRAPPED AND THE BOTTOM AND SIDES OF THE PIER CAPS WITH EPOXY-URETHANE AND INCLUDE WITH ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN. TOTAL AREA THIS SHEET = 2396 S.F.

NOTES:

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PIER 2 REPAIRS - LOCATION 1
BRIDGE NO. CUY-71-0579
OVER CR 299 (FOWLES ROAD)

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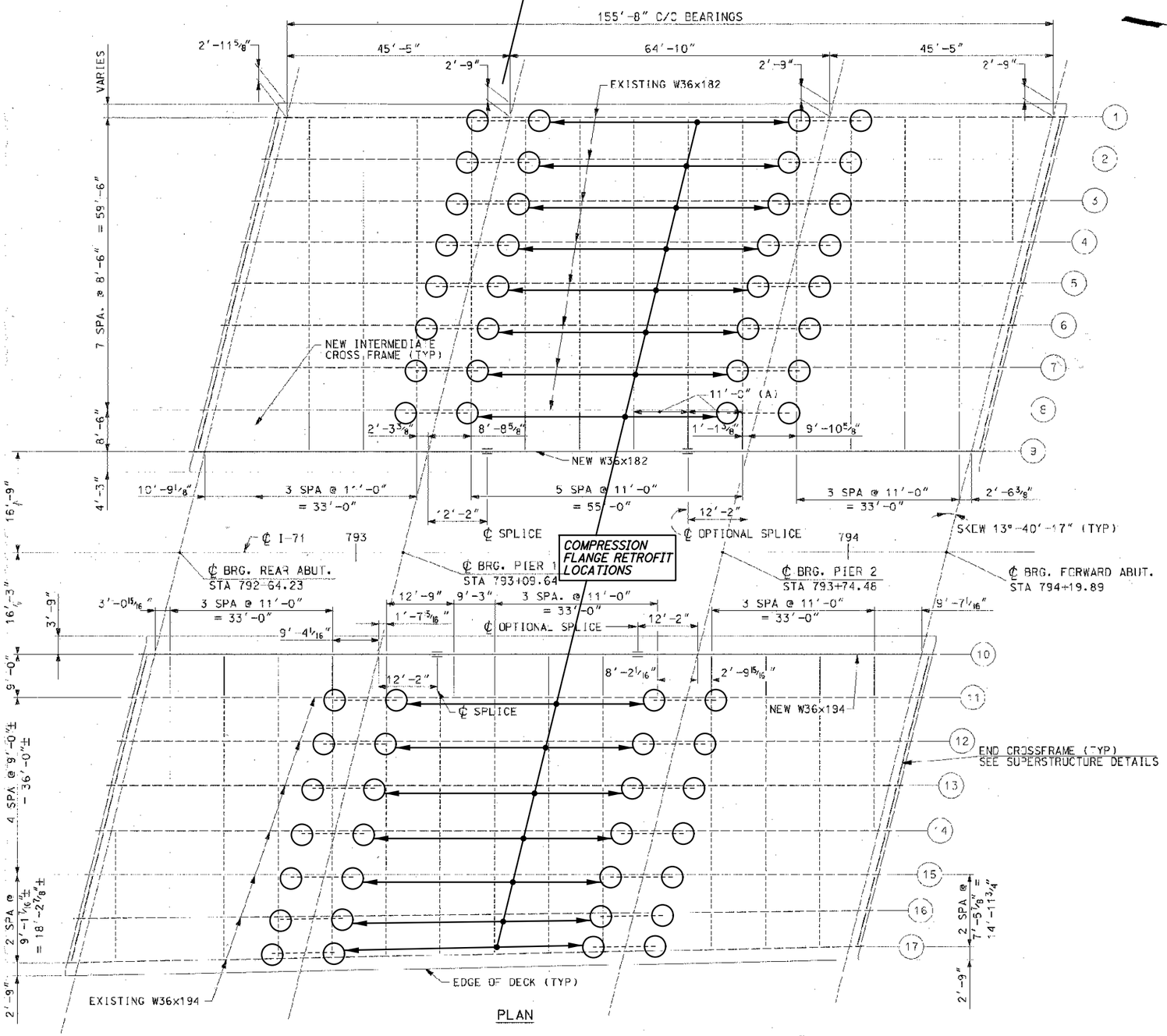
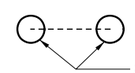
AERIAL UTILITY LINES IN THE RETROFIT AREA AT PIER 1 WILL NEED TO BE TEMPORARILY MOVED IN ORDER TO INSTALL THE RETROFIT PLATES TO THE BOTTOM FLANGE.



PLAN

LEGEND



INDICATES RETROFIT BOTH ENDS OF PLATE

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4. FOR COMPRESSION FLANGE RETROFIT DETAILS SEE SHEET 8/9.
5. FOR ESTIMATED QUANTITIES SEE SHEET 2/9.

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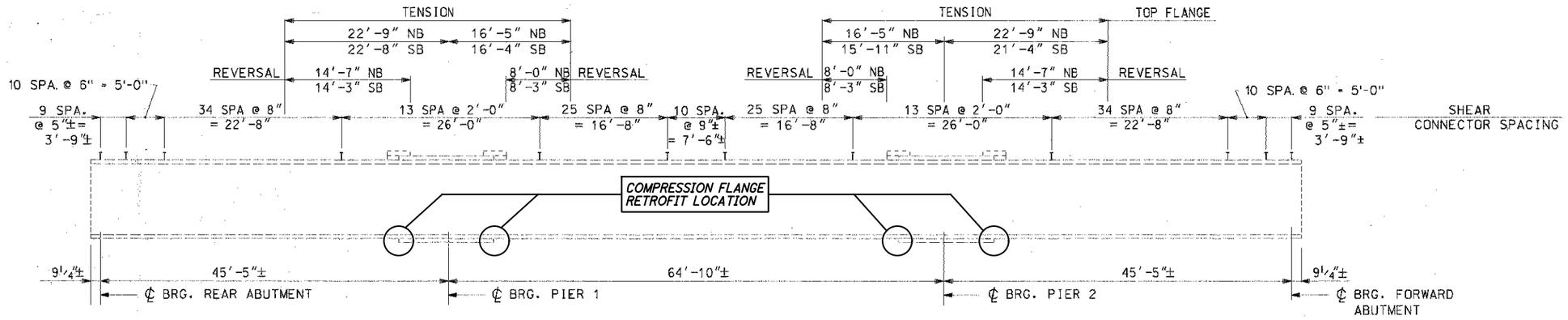
dht		1604081 (R) 1804111 (R)	

FRAMING PLAN - RETROFIT LOCATIONS - LOCATION 1

BRIDGE NO. CUY-71-0579
OVER CR 299 (FOWLES ROAD)

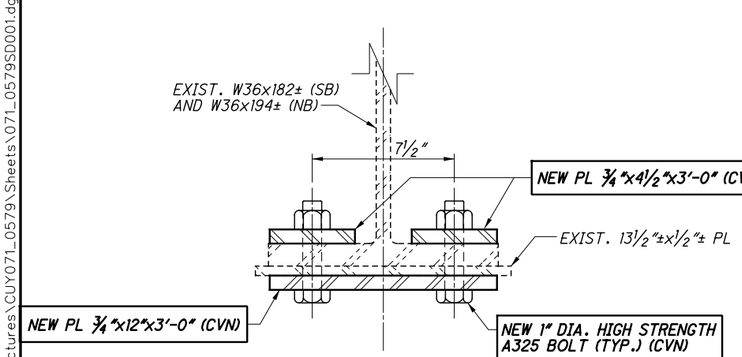
D12-BH-FY2021(A) MISC

PID No. 103162

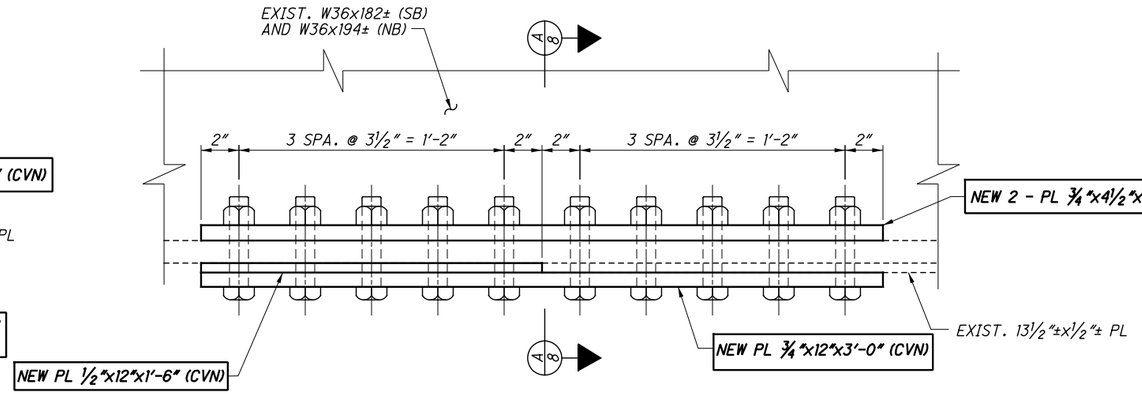


EXISTING BEAM ELEVATION

(W36x182 SB, W36 x 194 NB)



SECTION A-A



BOTTOM GIRDER FLANGE ELEVATION

COMPRESSION FLANGE RETROFIT DETAILS

NOTES:

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CVN: WHERE A SHAPE OR PLATE IS DESIGNATED (CVN), FURNISH MATERIAL THAT MEETS THE MINIMUM NOTCH TOUGHNESS REQUIREMENTS OF C&MS 711.01.

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RETROFIT DETAILS - LOCATION 1

BRIDGE NO. CUY-71-0579
OVER CR 299 (FOWLES ROAD)

D12-BH-FY2021(A) MISC

PID No. 103162

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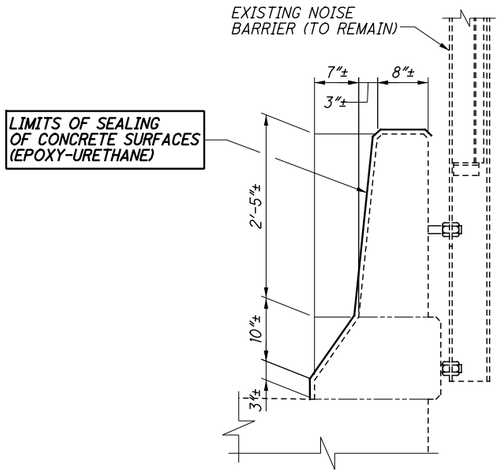
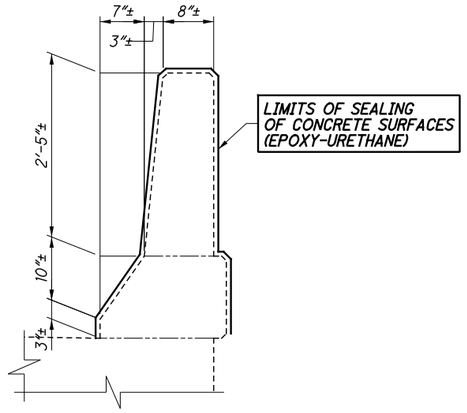


OUTSIDE PARAPET DETAIL



MEDIAN PARAPET DETAIL

OUTSIDE PARAPET SEALING INCLUDES THE OUTSIDE DECK PARAPETS (156'-11"± LONG) AND THE OUTSIDE TRANSITION BARRIER ON THE APPROACH SLABS. TOTAL SEALING AREA FOR OUTSIDE PARAPETS = 1650 S.F.

MEDIAN PARAPET SEALING INCLUDES THE INSIDE DECK PARAPETS (156'-11"± LONG) AND THE MEDIAN TRANSITION BARRIER ON THE APPROACH SLABS. TOTAL SEALING AREA FOR MEDIAN BARRIER = 2953 S.F.

NOTES:

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4. *FOR ESTIMATED QUANTITIES SEE SHEET* 2/9.

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dht		1804108 (L) 1804111 (R)	

PARAPET SEALING - LOCATION 1

BRIDGE NO. CUY-71-0579
OVER CR 299 (FOWLES ROAD)

D12-BH-FY2021(A) MISC

PID No. 103162

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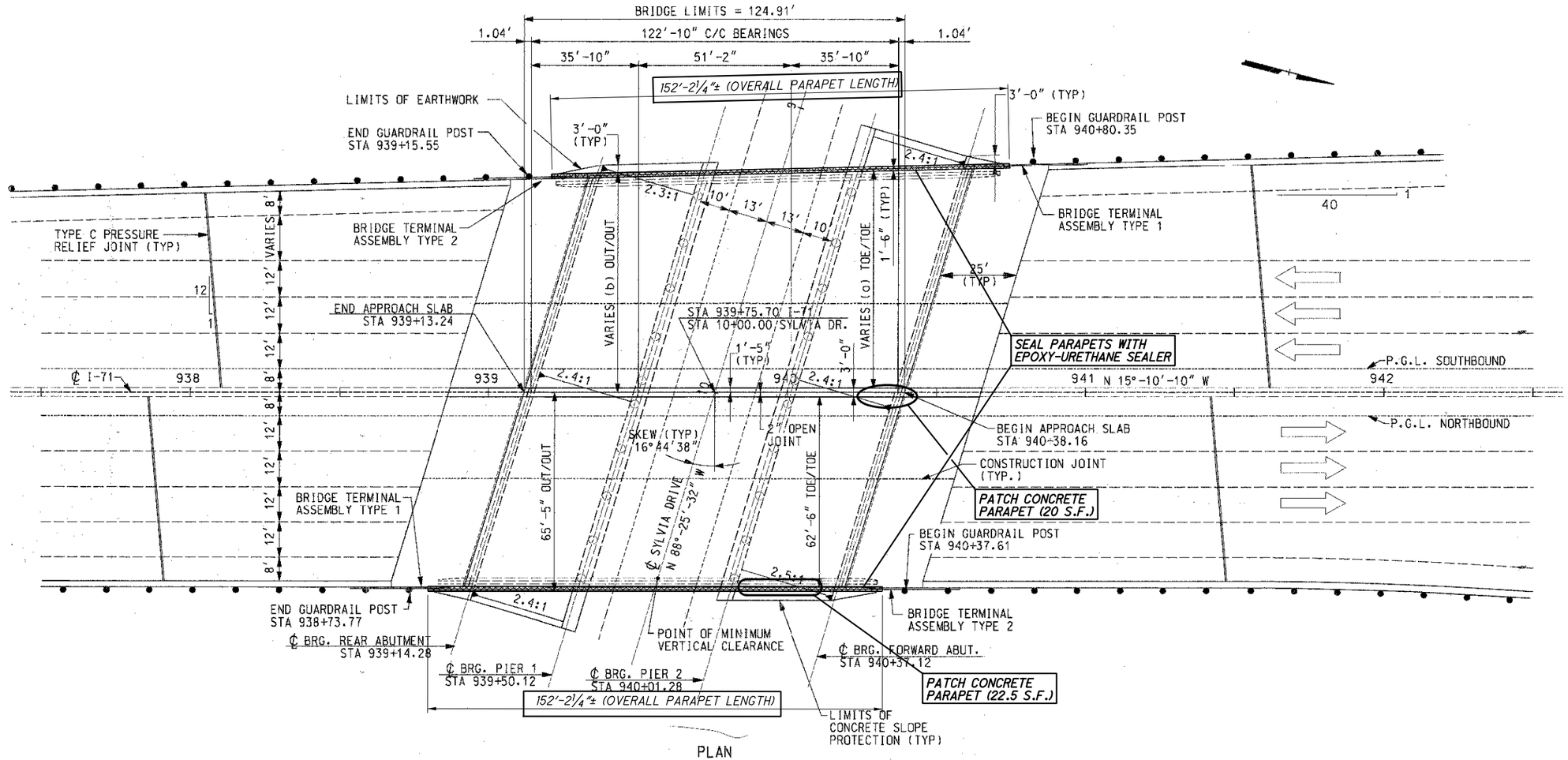

NOTES:

1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE USED FOR INFORMATION PURPOSES ONLY.
2. PERFORM ONLY THE WORK AS INDICATED IN THE STRUCTURE DATA SHEET, FRAMED TEXT, AND/OR DESCRIBED IN THE GENERAL NOTES.
3. FOR ESTIMATED QUANTIIES SEE SHEET 2/12.

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DESIGNED BLN | DRAWN JLS | REVIEWED DLR | DATE 8/2020
CHECKED dht | REVISED | STRUCTURE FILE NUMBER 1804359

GENERAL PLAN - LOCATION 2
BRIDGE NO. CUY-71-0856
OVER SYLVIA DRIVE

D12-BH-FY2021(A) MISC
PID No. 103162

1 / 13

36
96

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ESTIMATED QUANTITIES

CALCULATED JLS DATED 6/2020
CHECKED dht DATED 6/2020

ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	SUPER.	PIERS	ABUTS.	GEN'L	REF. SHEET
202	11203	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN				LS	24
512	10101	298	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN	287	6	5		24
512	74001	6	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES, AS PER PLAN		3	3		24
513	21599	10,100	LB	STRUCTURAL STEEL FOR REHABILITATION (BOTTOM FLANGE RETROFITS)	10,100				
513	95030	5	EACH	STRUCTURAL STEEL, MISC.: REPAIR OF CROSSFRAME BY WELDING OR REPLACEMENT OF MEMBERS	5				24
514	00100	LS		SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL				LS	
514	00200	LS		FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT				LS	
514	00300	LS		FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT				LS	
514	00401	LS		FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN				LS	26
516	44101	38	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), (2.190"x8"x12" WITH 2⅞" OR 2½" LOAD PLATE WITH SHIMS), AS PER PLAN	38				47
516	47001	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN				LS	24
SPECIAL	51900100	629	SF	COMPOSITE FIBER WRAP SYSTEM		629			25
519	11101	93	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN	43	31	19		24
844	10001	13	SF	CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN		13			25

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DESIGNED BLN | DRAWN JSB | REVIEWED DLR | DATE 8/2020
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ESTIMATED QUANTITY - LOCATION 2
BRIDGE NO. CUY-71-0856
OVER SYLVIA DRIVE

D12-BH-FY2021(A) MISC
PID No. 103162

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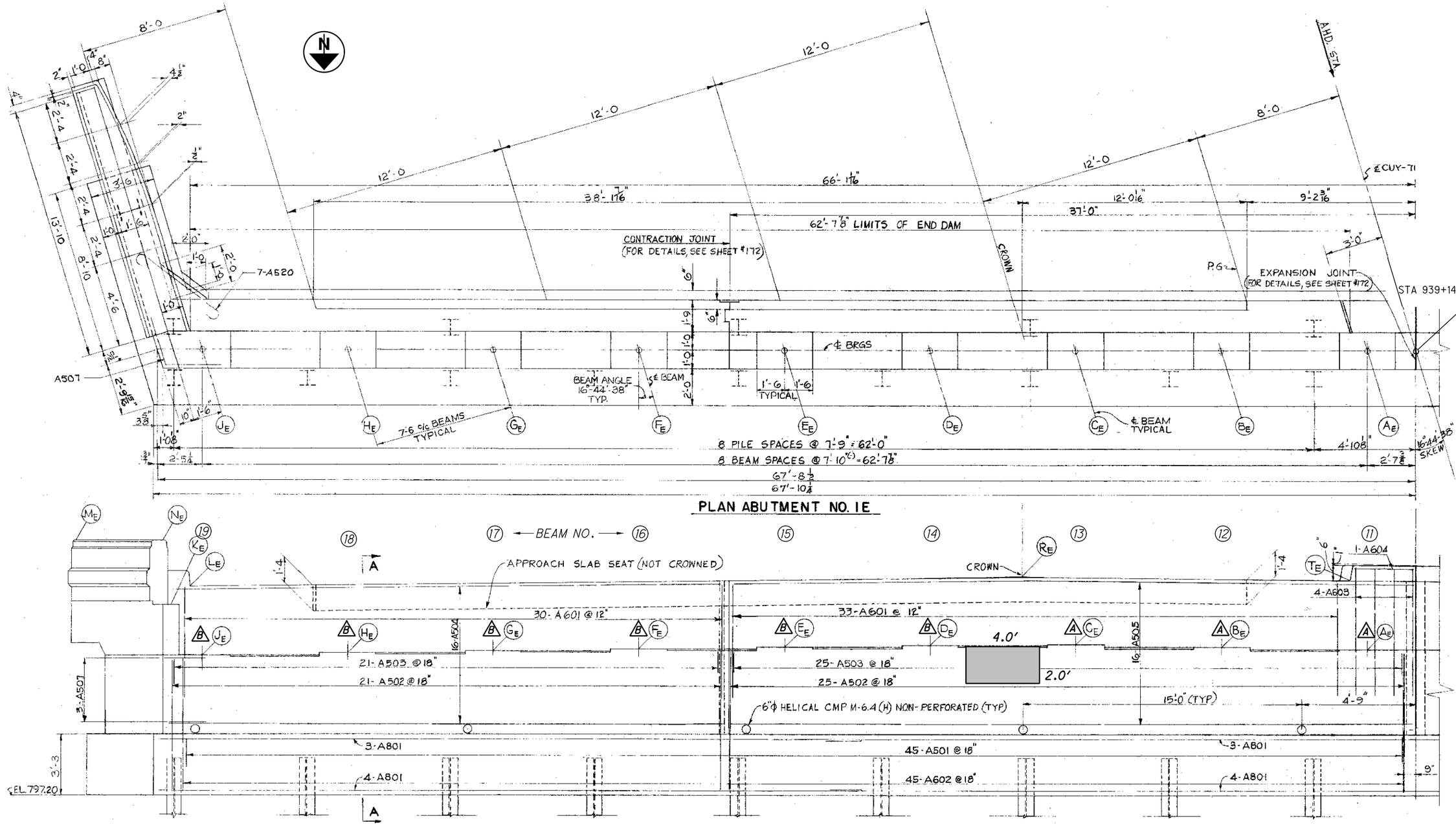

INDICATES CONCRETE REPAIR PER ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN - QUANTITY THIS SHEET = 8 S.F.

ALL PATCHES SHALL BE SEALED 6" BEYOND THE PATCHING LIMITS USING EPOXY-URETHANE AND SHALL BE PAID WITH ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN. TOTAL SEALING AREA THIS SHEET = 15 S.F.

(A) INDICATES NEW BEARING TYPE

(19) INDICATES BEAM LOCATION

POINTS	A_E	B_E	C_E	D_E	E_E	F_E	G_E	H_E	J_E	K_E	L_E	M_E	N_E		R_E		T_E
ELEVATIONS	804.84	804.97	805.10	805.08	804.97	804.87	804.77	804.67	804.57	807.21	808.18	810.63	810.54		808.77		808.47

NOTES:

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3. MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
4. WORK ON THIS SHEET INCLUDES PATCHING CONCRETE AND REPLACING ALL ABUTMENT BEARINGS.
5. FOR BEARING DETAILS SEE SHEET 12/13.
6. FOR ESTIMATED QUANTITIES SEE SHEET 2/13.

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DESIGNED	DRAWN	REVIEWED	DATE
BLN	JLS	DLR	8/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
dht		1804359	

REAR ABUTMENT REPAIRS - 1 - LOCATION 2
BRIDGE NO. CUY-71-0856
OVER SYLVIA DRIVE

D12-BH-FY2021(A) MISC
PID No. 103162

3 / 13

38 / 96

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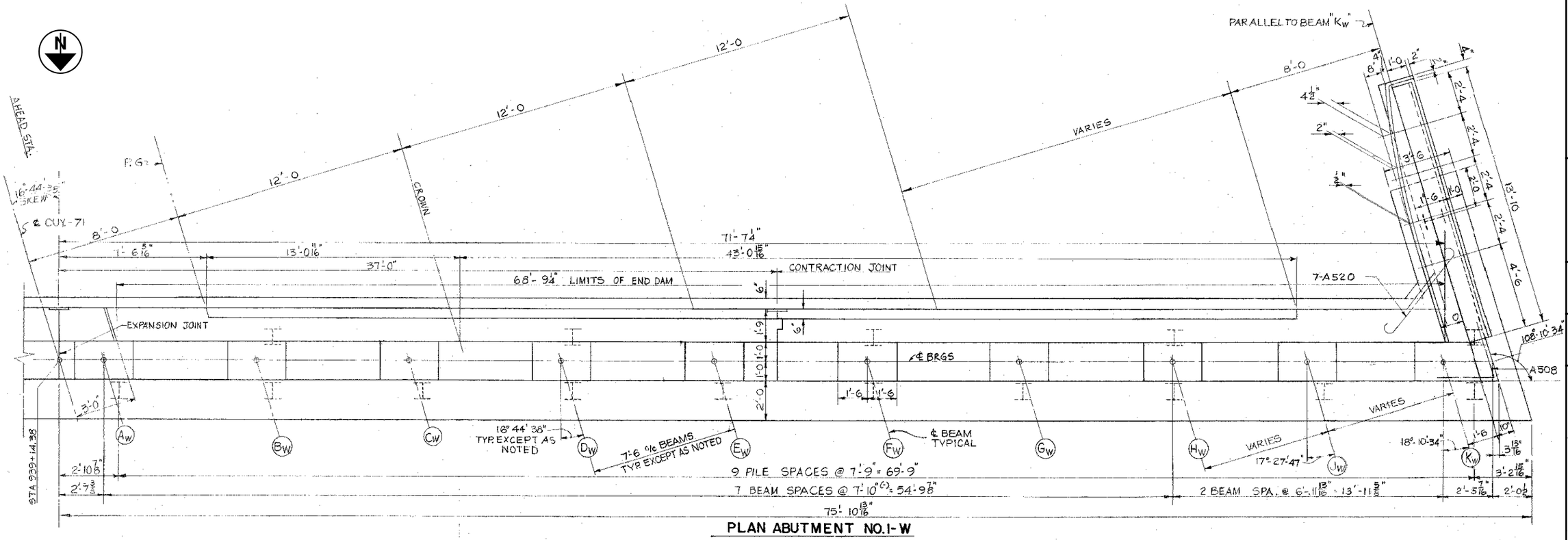

A INDICATES NEW BEARING TYPE.

POINTS	A_W	B_W	C_W	D_W	E_W	F_W	G_W	H_W	J_W	K_W	L_W	M_W	N_W	P_W	S_W	U_W
ELEVATIONS	804.83	804.93	805.03	804.98	804.85	804.71	804.58	804.45	804.33	804.22	806.86	807.83	810.18	810.28	808.69	808.46

(10) INDICATES BEAM LOCATION.

NOTES:

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4. WORK ON THIS SHEET INCLUDES REPLACING ALL ABUTMENT BEARINGS.
5. FOR BEARING DETAILS SEE SHEET 12/13.
6. FOR ESTIMATED QUANTITIES SEE SHEET 2/13.

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DESIGNED BLN | DRAWN JLS | CHECKED dht | REVIEWED DLR | DATE 8/2020 | REVISED | STRUCTURE FILE NUMBER 1804359

REAR ABUTMENT REPAIR - 2 - LOCATION 2
BRIDGE NO. CUY-71-0856
OVER SYLVIA DRIVE

D12-BH-FY2021(A) MISC
PID No. 103162

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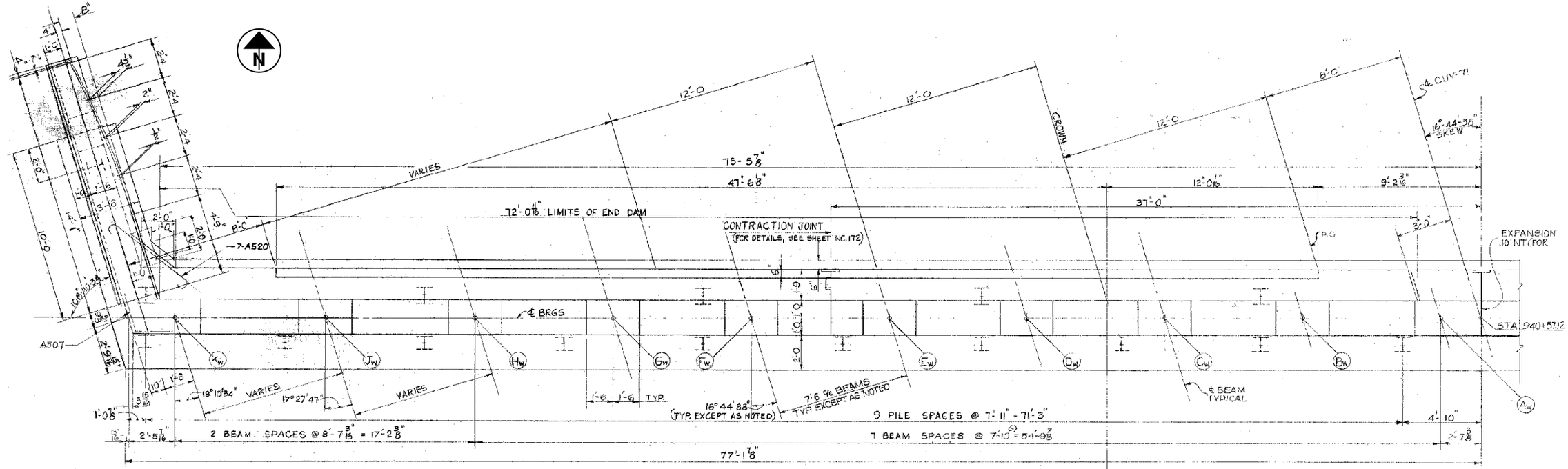
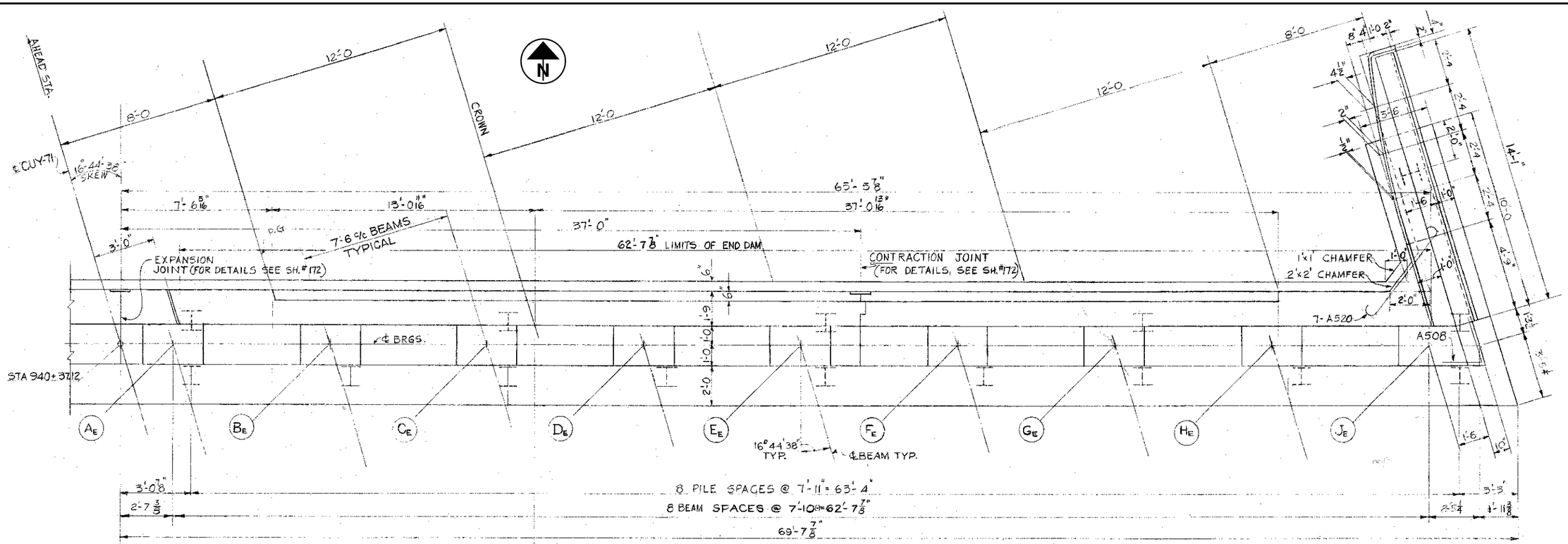
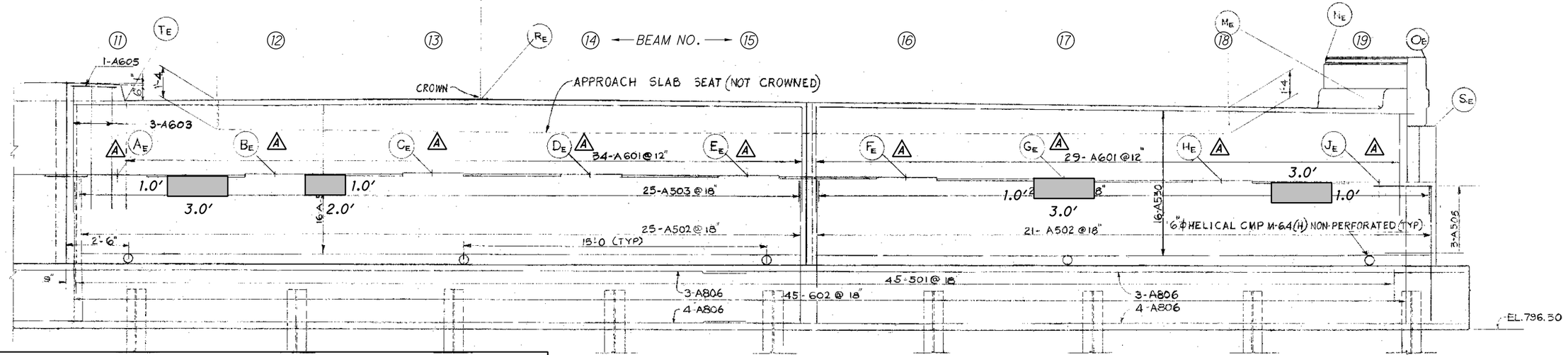

12'-0
12'-0
12'-0
8'-0
VARIES
75'-5 7/8"
47'-6 8"
72'-0 1/8" LIMITS OF END DAM
CONTRACTION JOINT
(FOR DETAILS, SEE SHEET NO. 172)
CROWN
℄ CUY-71
16°-44'-36" SKEW
12'-0 1/16"
9'-2 1/16"
37'-0"
3'-0"
EXPANSION JOINT (FOR
STA. 940+57.12
℄ BRGS
℄ BEAM TYPICAL
A507
A502
A520
1'-6 1/2" TYP.
16°44'38" (TYP. EXCEPT AS NOTED)
7'-6 9/16 BEAMS TYP. EXCEPT AS NOTED
9 PILE SPACES @ 7'-11" = 71'-3"
7 BEAM SPACES @ 7'-10 1/2" = 54'-9 1/2"
2 BEAM SPACES @ 8'-7 3/16" = 17'-2 3/8"
77'-1 7/8"
4'-10"
2'-7 3/8"
18°10'34" VARIES
17°27'47"
VARIES
1'-0 1/8"
2'-5 7/16"
10'-1 1/2"
2'-0"
4'-0"
1'-0"
2'-4"
4 1/2"
2"
1/2"
13/16"
1'-4"
1'-9"
2'-0"
1'-0"
6"
8"
4'-0"
2'-9 15/16"
1'-0 3/4"
1'-0 1/2"
1'-0"
1'-0"
1'-0



PLAN ABUTMENT NO. 2E



ELEVATION

POINTS	A℄	B℄	C℄	D℄	E℄	F℄	G℄	H℄	J℄		M℄	N℄	O℄		R℄	S℄	T℄
ELEVATIONS	804.03	804.16	804.29	804.27	804.17	804.06	803.96	803.86	803.76		807.36	809.62	809.72		807.95	808.40	807.65

INDICATES CONCRETE REPAIR PER ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN. QUANTITY THIS SHEET = 11 S.F.

ALL PATCHES SHALL BE SEALED 6" BEYOND THE PATCHING LIMITS USING EPOXY-URETHANE AND SHALL BE PAID WITH ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN. TOTAL SEALING THIS SHEET = 30 S.F.

A INDICATES NEW BEARING TYPE

(11) INDICATES BEAM LOCATION

NOTES:

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4. WORK ON THIS SHEET INCLUDES PATCHING CONCRETE AND REPLACING ALL ABUTMENT BEARINGS.
5. FOR BEARING DETAILS SEE SHEET 12/13.
6. FOR ESTIMATED QUANTITIES SEE SHEET 2/13.

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DESIGNED BLN | DRAWN JLS | REVIEWED DLR | DATE 8/2020
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FORWARD ABUTMENT REPAIRS - 2 - LOCATION 2
BRIDGE NO. CUY-71-0856
OVER SYLVIA DRIVE

D12-BH-FY2021(A) MISC
PID No. 103162

6 / 13

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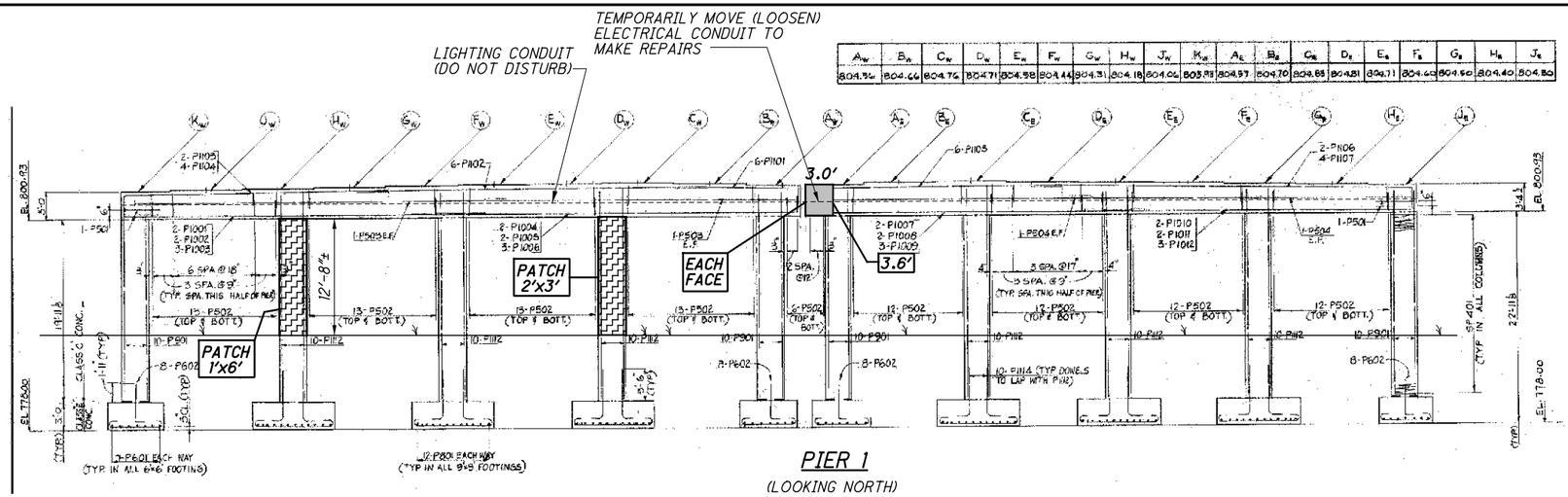
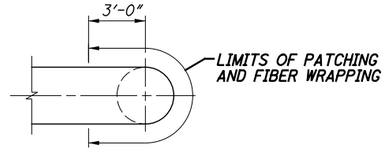
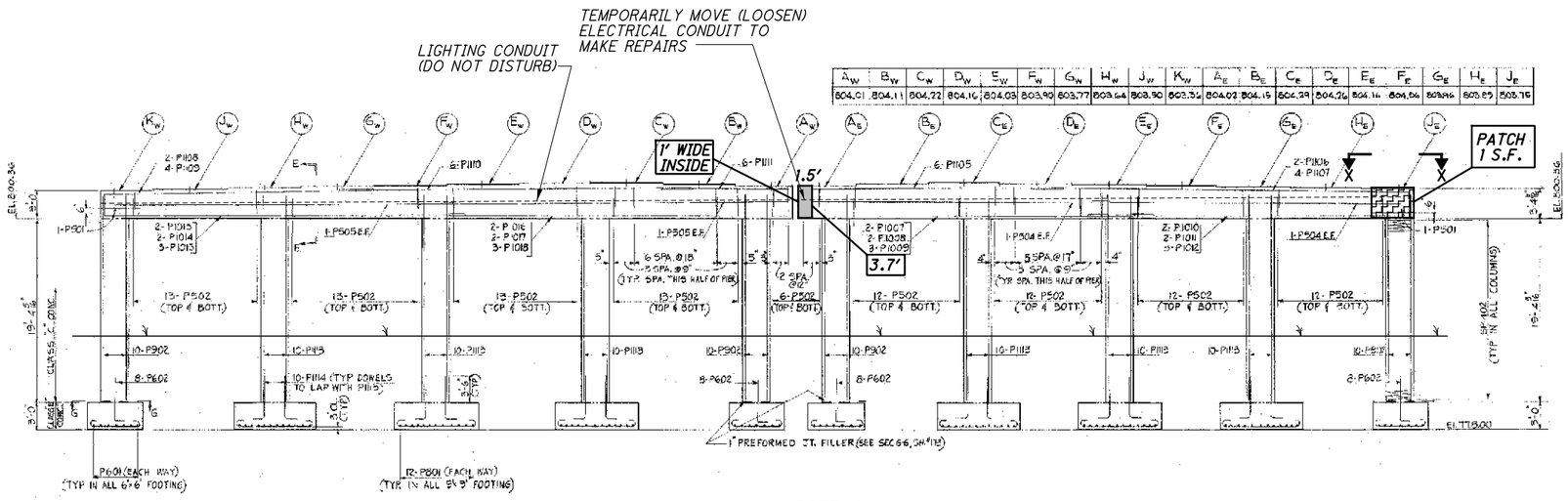


PIER 1

(LOOKING NORTH)

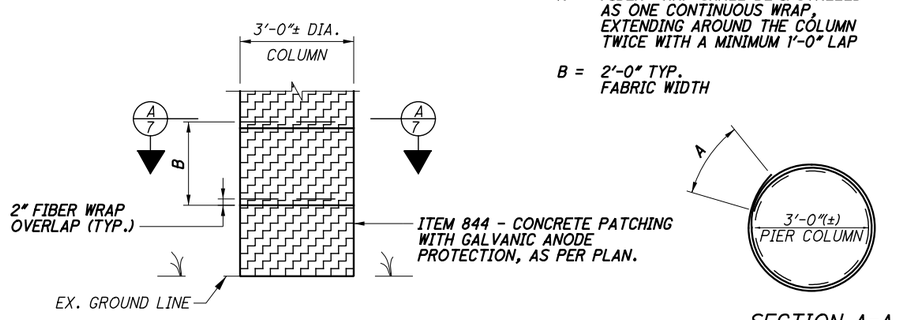


VIEW X-X



PIER 2

(LOOKING NORTH)



PIER COLUMN FIBER WRAP DETAIL

LEGEND

INDICATES CONCRETE PIER COLUMN REPAIR PER ITEM SPECIAL - STRUCTURES, COMPOSITE FIBER WRAP SYSTEM AND ITEM 844 - CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN.

INDICATES AREAS OF CONCRETE PATCHING PER ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN. TOTAL AREA THIS SHEET = 31 S.F.

ALL PATCHES SHALL BE SEALED 6" BEYOND THE PATCHING LIMITS WITH EPOXY-URETHANE AND SHALL BE PAID WITH ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN. TOTAL SEALING QUANTITY THIS SHEET = 54 S.F.

NOTES:

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RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DESIGNED BLN | DRAWN JLS | REVIEWED DLR | DATE 8/2020
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PIER REPAIRS - LOCATION 2
BRIDGE NO. CUY-71-0856
OVER SYLVIA DRIVE

D12-BH-FY2021(A) MISC
PID No. 103162

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96

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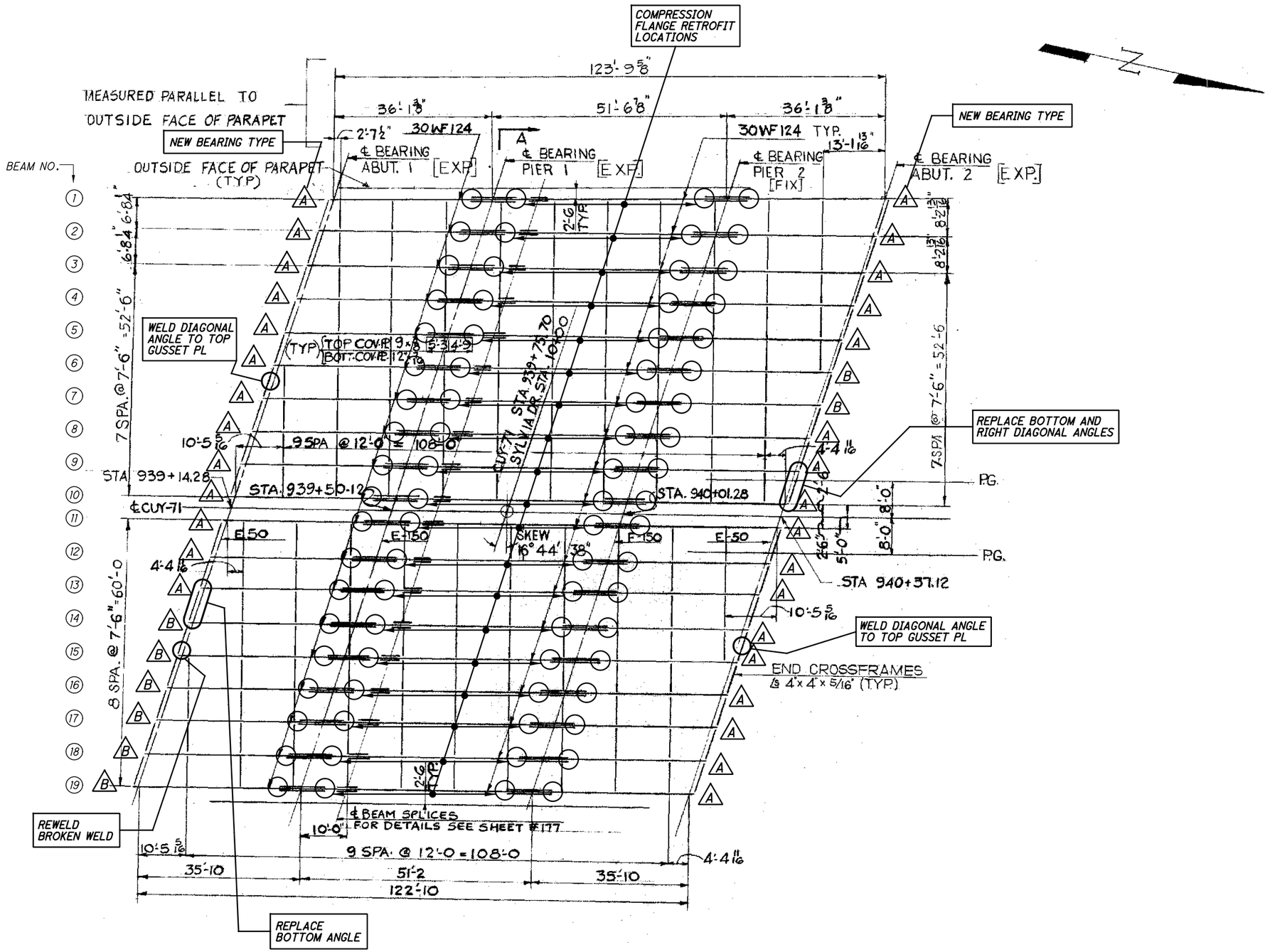

FRAMING PLAN

LEGEND

INDICATES RETROFIT BOTH ENDS OF PLATE

NOTES:

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3. MATERIALS SHOWN ARE EXISTING UNLESS NOTED OTHERWISE.
4. FOR BEARING DETAILS SEE SHEET 12/13.
5. FOR COMPRESSION FLANGE RETROFIT DETAILS SEE SHEET 9/13.
6. FOR END CROSSFRAME REPAIR DETAILS SEE SHEETS 10/13 & 11/13.
7. FOR ESTIMATED QUANTITIES SEE SHEET 2/13.

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DESIGNED	DRAWN	REVIEWED	DATE
BLN	JLS	DLR	8/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
dht		1804359	

FRAMING PLAN - LOCATION 2
BRIDGE NO. CUY-71-0856
OVER SYLVIA DRIVE

D12-BH-FY2021(A) MISC
PID No. 103162

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43
96

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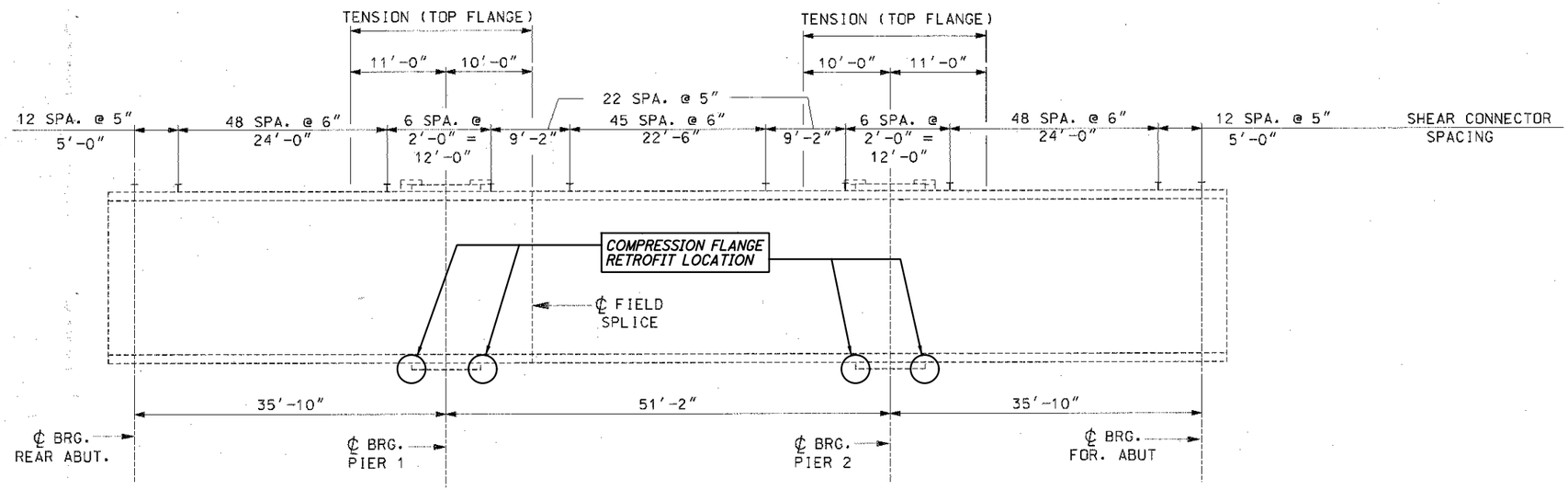
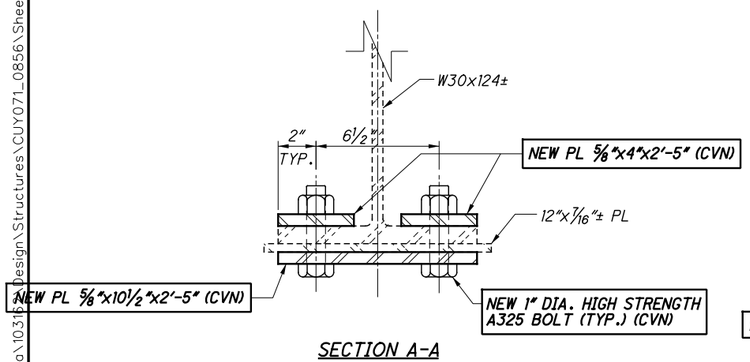
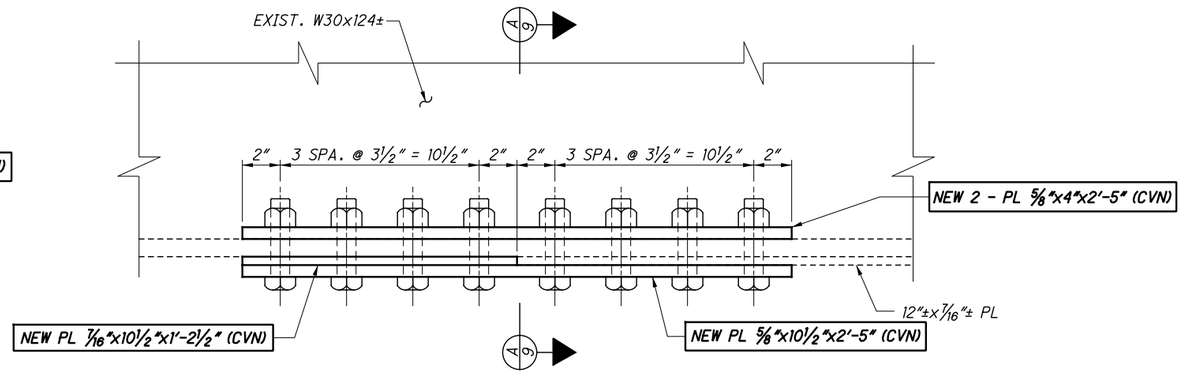


EXISTING BEAM ELEVATION

W30 X 124



SECTION A-A



BOTTOM GIRDER FLANGE ELEVATION

COMPRESSION FLANGE RETROFIT DETAILS

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CVN: WHERE A SHAPE OR PLATE IS DESIGNATED (CVN), FURNISH MATERIAL THAT MEETS THE MINIMUM NOTCH TOUGHNESS REQUIREMENTS OF C&MS 711.01.

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DESIGNED BLN | DRAWN JLS | REVIEWED DLR | DATE 8/2020
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RETROFIT DETAILS - LOCATION 2
BRIDGE NO. CUY-71-0856
OVER SYLVANIA DRIVE

D12-BH-FY2021(A) MISC
PID No. 103162

9 / 13

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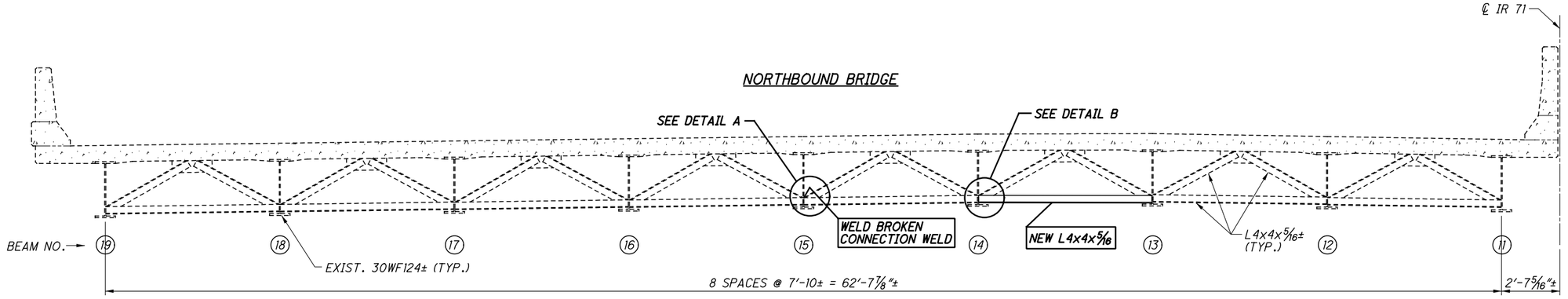
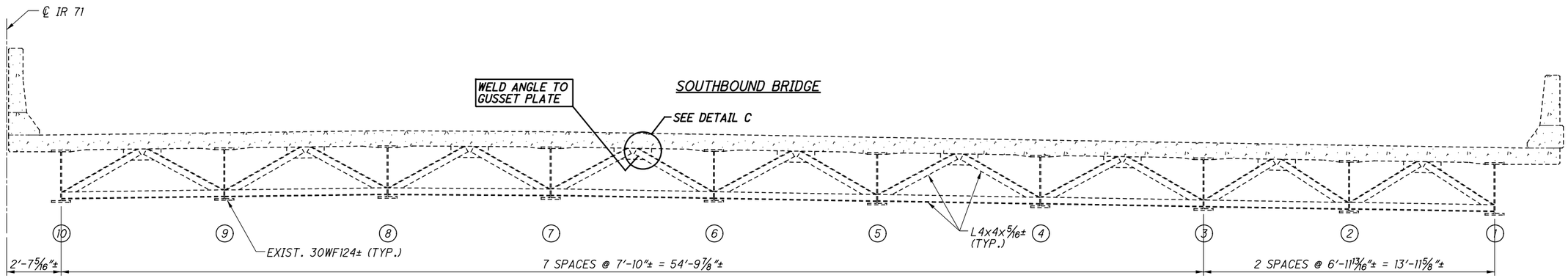
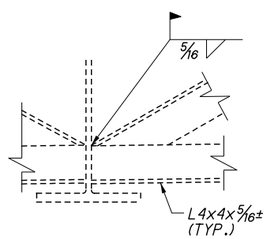
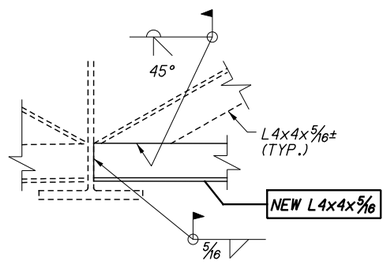




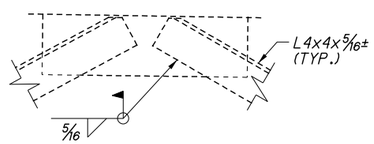
REAR ABUTMENT END CROSSFRAMES



DETAIL A



DETAIL B



DETAIL C

NOTES:

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RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DESIGNED BLN | DRAWN JLS | REVIEWED DLR | DATE 8/2020
CHECKED dht | REVISED | STRUCTURE FILE NUMBER 1804359

REAR ABUTMENT END CROSSFRAME REPAIRS - LOCATION 2
BRIDGE NO. CUY-71-0856
OVER SYLVIA DRIVE

D12-BH-FY2021(A) MISC
PID No. 103162

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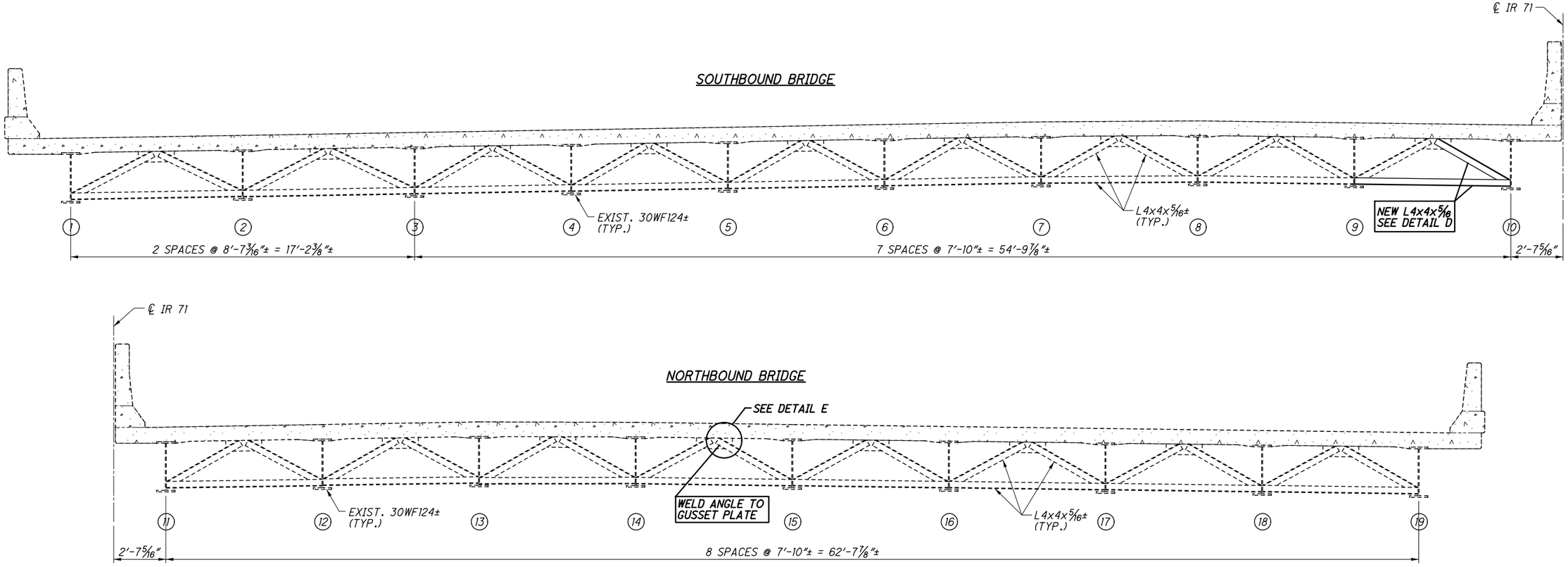
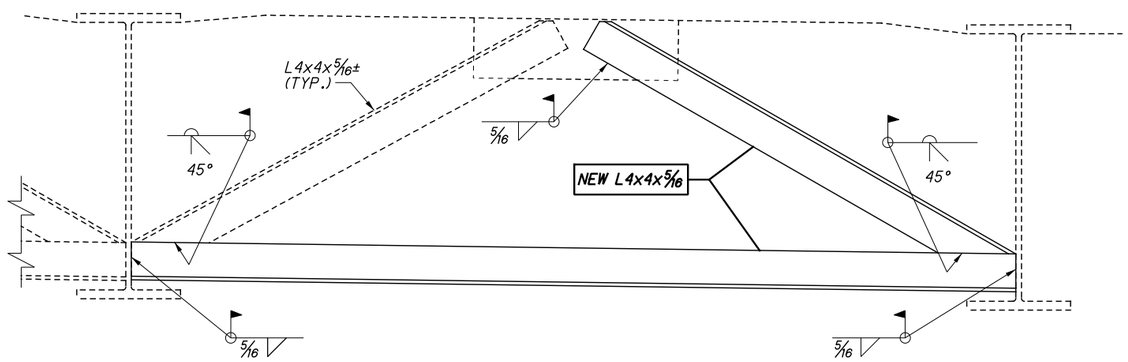
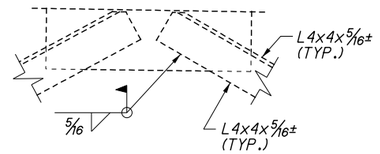


FORWARD ABUTMENT END CROSSFRAMES



DETAIL D



DETAIL E

NOTES:

1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE USED FOR INFORMATION PURPOSES ONLY.
2. PERFORM ONLY THE WORK AS INDICATED IN THE STRUCTURE DATA SHEET, FRAMED TEXT, AND/OR DESCRIBED IN THE GENERAL NOTES.
3. MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
4. FOR ESTIMATED QUANTITIES SEE SHEET 2/13.

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DESIGNED	DRAWN	REVIEWED	DATE
BLN	JLS	DLR	8/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
dht		1804359	

FORWARD ABUTMENT END CROSSFRAME REPAIRS - LOCATION 2
BRIDGE NO. CUY-71-0856
OVER SYLVIA DRIVE

D12-BH-FY2021(A) MISC
PID No. 103162

11 / 13

46
96

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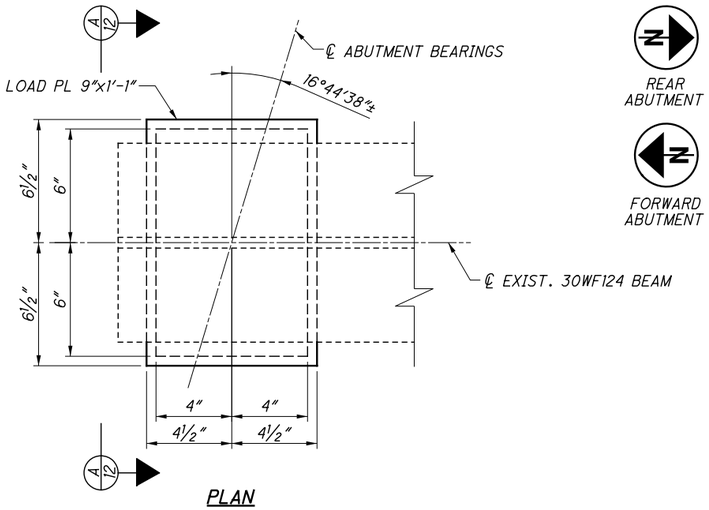
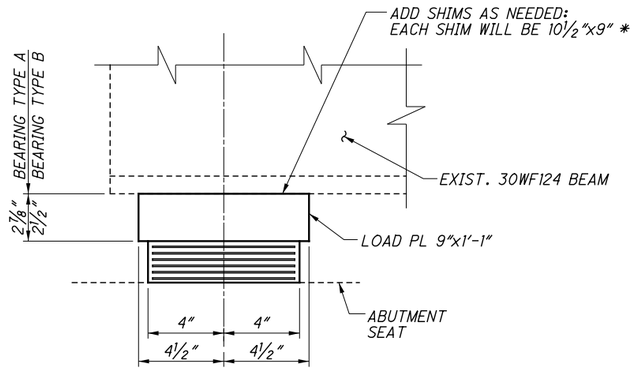
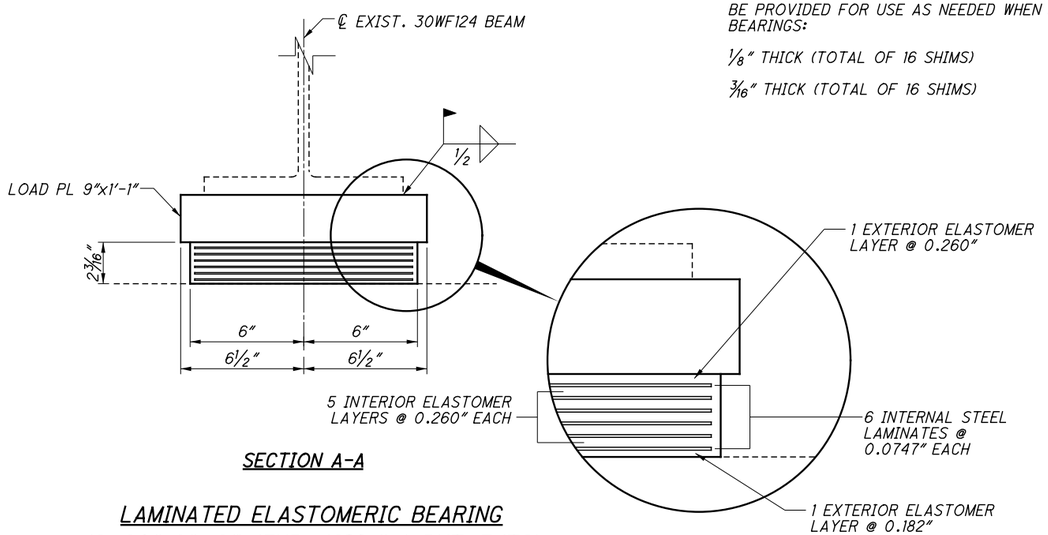


PLAN



ELEVATION



SECTION A-A

LAMINATED ELASTOMERIC BEARING (2.190"x8"x12") (EXPANSION) (ABUTMENTS)

* THE FOLLOWING STAINLESS STEEL SHIMS SHALL BE PROVIDED FOR USE AS NEEDED WHEN SETTING BEARINGS:

1/8" THICK (TOTAL OF 16 SHIMS)

3/16" THICK (TOTAL OF 16 SHIMS)

NOTES

BEARING TYPES:
BEARING TYPE A HAS A 2⅞" THICK LOAD PLATE.
BEARING TYPE B HAS A 2½" THICK LOAD PLATE.

SEE ABUTMENT REPAIR DRAWINGS FOR BEARING TYPE LOCATIONS.

ITEM 516 - ELASTOMERIC BEARINGS WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (2.190"x8"x12" WITH 2⅞" OR 2½" LOAD PLATE WITH SHIMS), AS PER PLAN:
THE EXISTING BEARINGS ARE WORN DOWN AND HAVE UNEVEN HEIGHT. THE BEAM ENDS AT THE ABUTMENTS SHALL BE JACKED UP AND NEW ELASTOMER BEARINGS SHALL BE INSTALLED. STAINLESS STEEL SHIM PLATES SHALL BE USED TO ADJUST THE LOAD PLATE HEIGHT. THE BEARING LOAD PLATES AND SHIM PLATES ARE TO BE WELDED TO THE BOTTOM FLANGE OF THE BEAM WITH VARIABLE HEIGHT FILLET WELD AS REQUIRED. BEARINGS SHALL BE FIRMLY SEATED ON THE ABUTMENT SEAT WITHOUT DEFLECTION FROM LIVE LOAD.

THE UNIT PRICE: MATERIALS SHOWN ARE NEW UNLESS NOTED OTHERWISE. THE UNIT PRICE FOR BEARINGS SHALL INCLUDE ALL INCIDENTAL INSTALLATION MATERIALS, LABOR, TESTING, AND INCIDENTALS NECESSARY TO INSTALL LAMINATED ELASTOMERIC EXPANSION BEARINGS. PAYMENT SHALL BE MADE AT THE CONTRACT PRICE FOR ITEM 516, EACH, ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (2.190"x8"x12" WITH 2⅞" OR 2½" LOAD PLATE WITH SHIMS), AS PER PLAN.

ALL LOAD PLATES ARE ASTM A709, GRADE 50W AND WILL BE INCLUDED WITH BEARINGS FOR PAYMENT.

ELASTOMERIC BEARINGS: THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARINGS WERE DESIGNED UNDER DIVISION I, SECTION 14.6.6 (METHOD A) OF THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES. THE STEEL LOAD PLATE SHALL BE BONDED BY VULCANIZATION TO THE ELASTOMER DURING THE MOLDING PROCESS.

ALL BEARINGS SHALL BE MARKED PRIOR TO SHIPPING. THE MARKS SHALL INCLUDE THE BEARING LOCATION AND DIRECTIONAL ARROW POINTING UP STATION. ALL MARKS SHALL BE PERMANENT AND BE VISIBLE AFTER THE BEARING IS INSTALLED.

CONTROL WELDING SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE DOES NOT EXCEED 300° F AS DETERMINED BY USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.

BEARING REPOSITIONING: IF THE STEEL IS PLACED ON BEARING AT AN AMBIENT TEMPERATURE HIGHER THAN 80° F OR LOWER THAN 40° F AND THE BEARING SHEAR DEFLECTION EXCEEDS 1/8 OF THE BEARING HEIGHT AT 60° F (±) 10° F, RAISE THE BEAMS TO ALLOW THE BEARINGS TO RETURN TO THEIR UNDEFORMED SHAPE AT 60° F (±) 10° F.

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MANSFIELD, OHIO 44902

DESIGNED	DRAWN	REVIEWED	DATE
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dht		1804359	

ABUTMENT BEARING DETAILS - LOCATION 2
BRIDGE NO. CUY-71-0856
OVER SYLVIA DRIVE

D12-BH-FY2021(A) MISC
PID No. 103162

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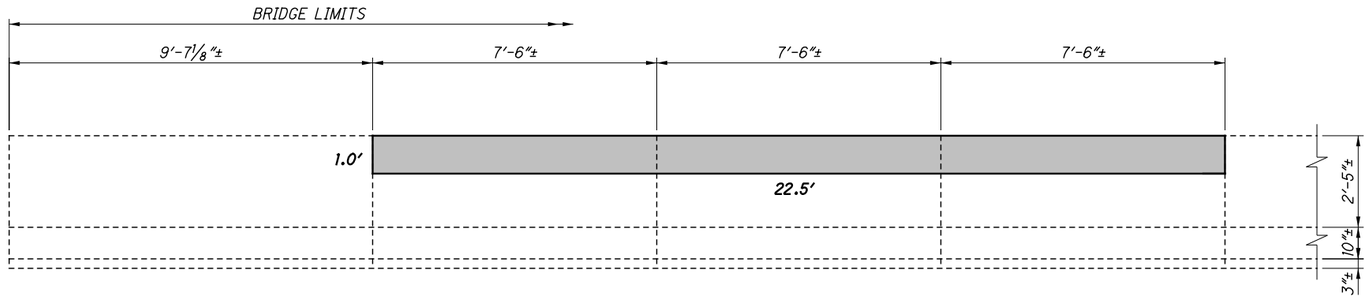
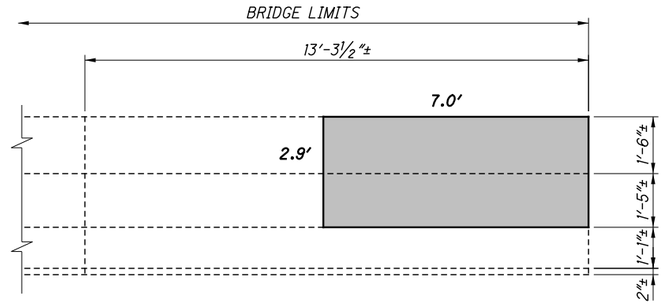
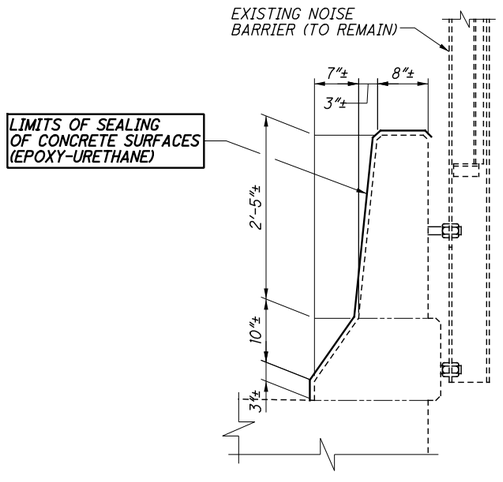


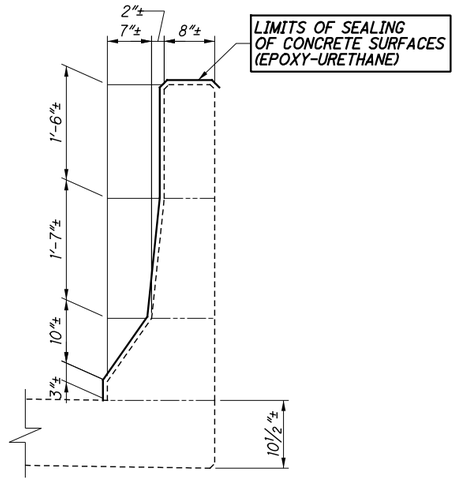
NORTHEAST PARAPET REPAIR
(LOOKING EAST)



NORTHEAST MEDIAN BARRIER REPAIR
(LOOKING WEST)



OUTSIDE PARAPET DETAIL



MEDIAN PARAPET DETAIL

OUTSIDE PARAPET SEALING INCLUDES THE OUTSIDE DECK PARAPETS (124'-4"± LONG) AND THE OUTSIDE TRANSITION BARRIER ON THE APPROACH SLABS. TOTAL SEALING AREA FOR OUTSIDE PARAPETS = 1325 S.F.

MEDIAN PARAPET SEALING INCLUDES THE INSIDE DECK BARRIER (124'-4"± LONG). TOTAL SEALING AREA FOR MEDIAN BARRIER = 1250 S.F.

INDICATES CONCRETE REPAIR PER ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN. QUANTITY THIS SHEET = 43.0 S.F.

NOTES:

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29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DESIGNED BLN | DRAWN JLS | REVIEWED DLR | DATE 8/2020
CHECKED dht | REVISED | STRUCTURE FILE NUMBER 1804359

PARAPET REPAIR & SEALING - LOCATION 2
BRIDGE NO. CUY-71-0856
OVER SYLVIA DRIVE

D12-BH-FY2021(A) MISC
PID No. 103162

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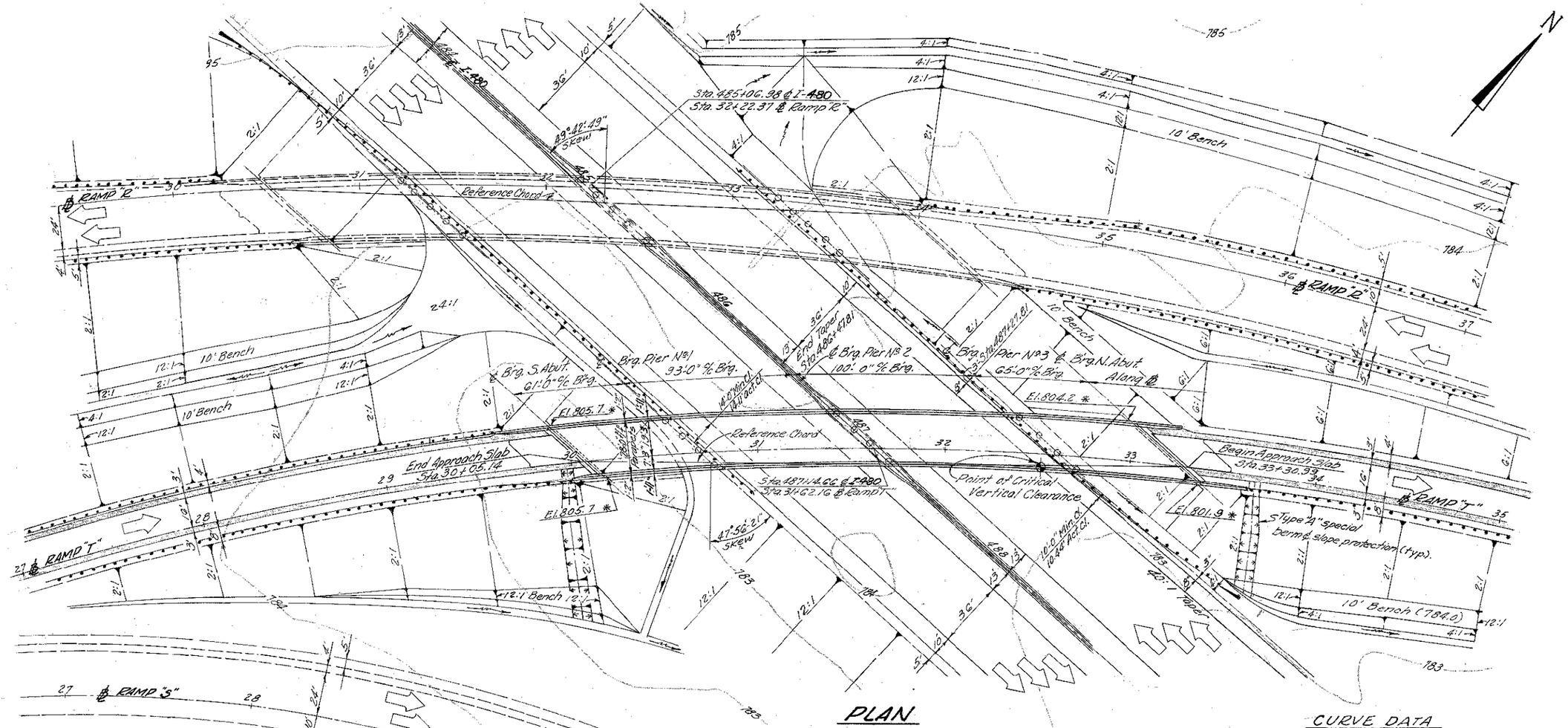


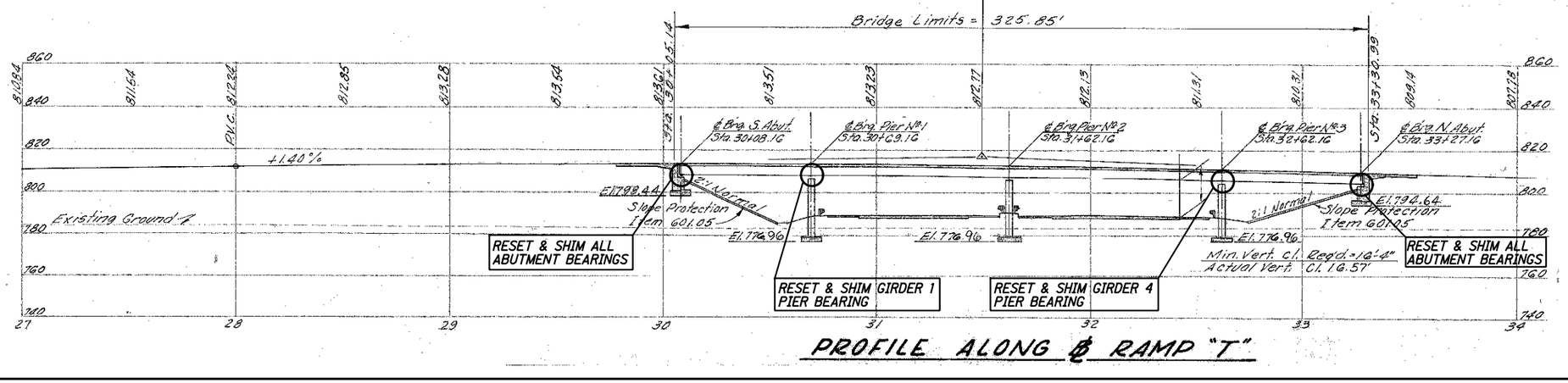
PLAN

VERTICAL CURVE DATA

P.V.I. Sta. 31+50
700' V.C.
Elev. 817.14
Corr. = -4.37'
P.G. Elev. 812.77
G_1 = +1.40% G_2 = -3.60%

CURVE DATA ℄ RAMP "T"

Δ = 60°-00'-56"
D_C = 3°-45'-00"
R = 1,527.89'
T = 882.40'
L_C = 1,600.42'
C = 1,528.25'



PROFILE ALONG ℄ RAMP "T"

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DESIGNED	DRAWN	REVIEWED	DATE
BLN	JLS	DLR	8/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
dht		1814257	

GENERAL PLAN - LOCATION 3
BRIDGE NO. CUY-71-1007
RAMP T OVER IR 480 MAINLINE

D12-BH-FY2021(A) MISC
PID No. 103162

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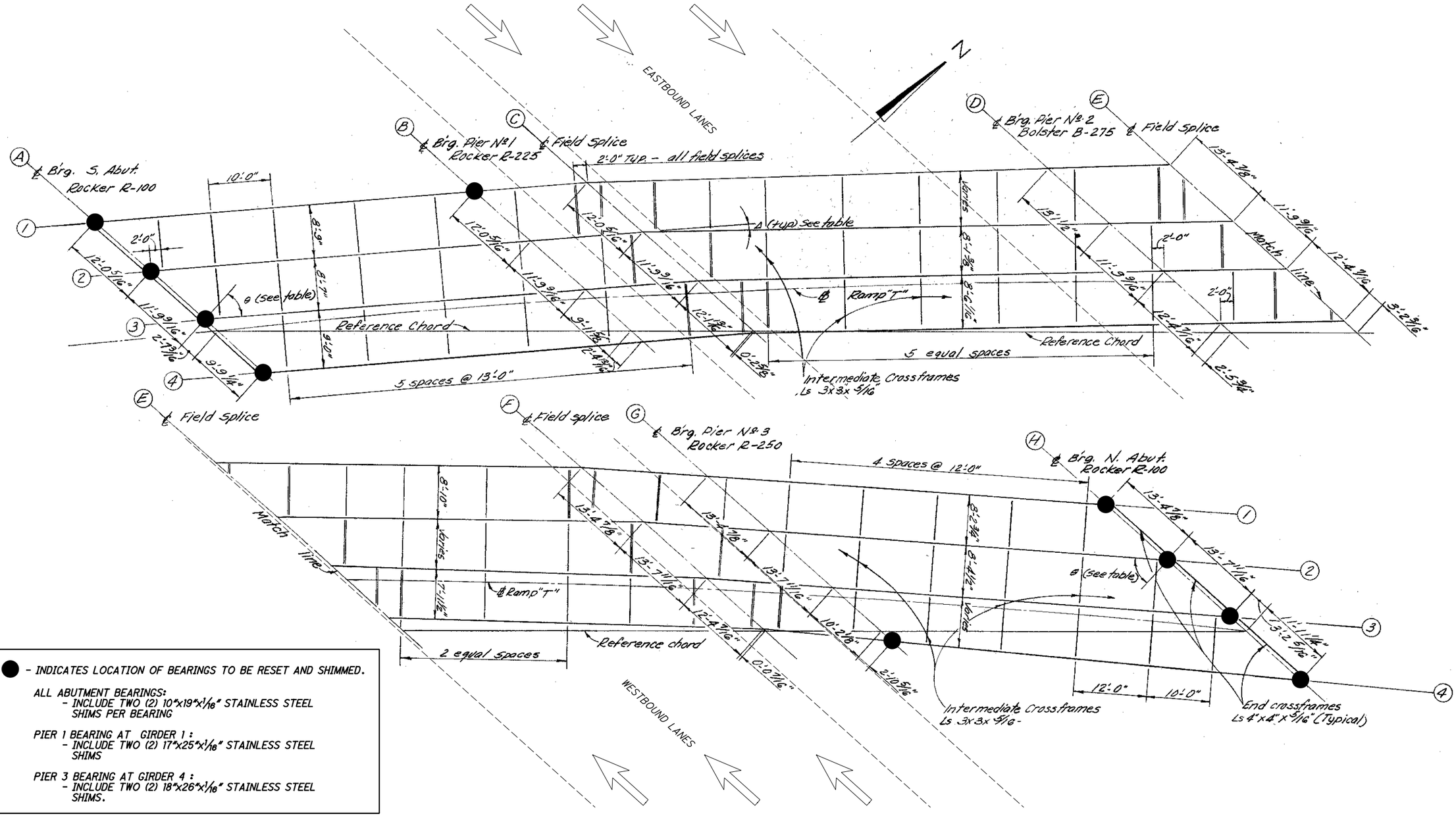

● - INDICATES LOCATION OF BEARINGS TO BE RESET AND SHIMMED.

ALL ABUTMENT BEARINGS:
- INCLUDE TWO (2) 10"x19"x1/16" STAINLESS STEEL SHIMS PER BEARING

PIER 1 BEARING AT GIRDER 1 :
- INCLUDE TWO (2) 17"x25"x1/16" STAINLESS STEEL SHIMS

PIER 3 BEARING AT GIRDER 4 :
- INCLUDE TWO (2) 18"x26"x1/16" STAINLESS STEEL SHIMS.

ESTIMATED QUANTITIES

CALCULATED JLS DATED 6/2020
CHECKED dht DATED 6/2020

ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	SUPER.	GEN'L	REF. SHEET
516	46701	10	EACH	RESET BEARING, AS PER PLAN	10		24
516	47001	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN		LS	24

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29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DESIGNED BLN | DRAWN JLS | REVIEWED DLR | DATE 8/2020
CHECKED dht | REVISED | STRUCTURE FILE NUMBER 1814257

RESET BEARING LOCATIONS - LOCATION 3

BRIDGE NO. CUY-71-1007
RAMP T OVER IR 480 MAINLINE

D12-BH-FY2021(A) MISC
PID No. 103162

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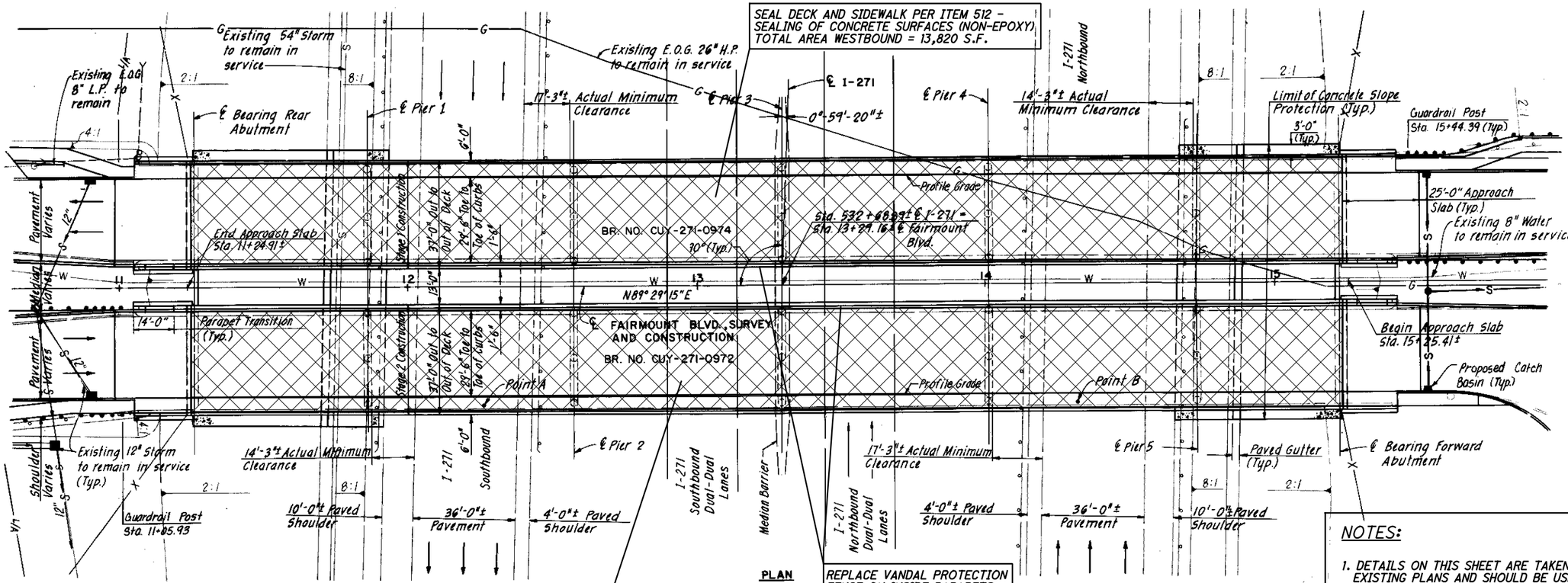

EARTHWORK

Earthwork Limits shown are approximate. Actual slope shall conform to plan cross sections.

TRAFFIC DATA – (FAIRMOUNT BLVD.)

1999	A.D.T.	= 12,644
	A.D.T.T.	= 190
2019	A.D.T.	= 16,437
	A.D.T.T.	= 247

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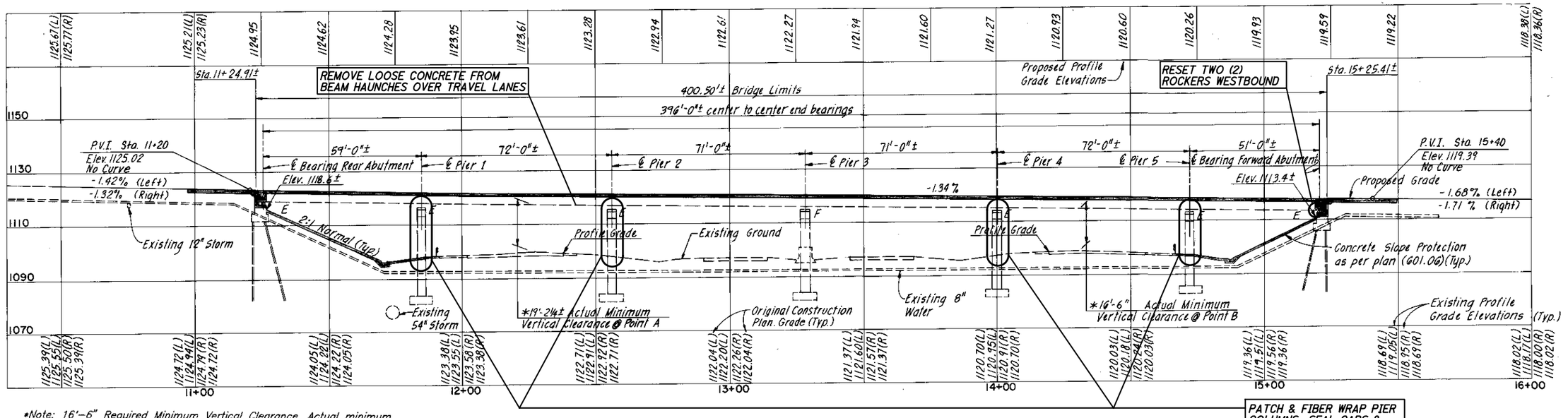

*Note: 16'-6" Required Minimum Vertical Clearance. Actual minimum vertical clearances at Points A and B occur at the intersection of the roadway crowns and the south edge of the south exterior beam of the right bridge.

SECTION ON PROFILE GRADE-EAST BOUND BRIDGE

PATCH & FIBER WRAP PIER COLUMNS, SEAL CAPS & UNWRAPPED COLUMNS WITH EPOXY-URETHANE SEALER

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DESIGNED BLN | DRAWN JLS | CHECKED dht | REVIEWED DLR | DATE 8/2020 | REVISED | STRUCTURE FILE NUMBER 8814(E) 1811436 (L)

GENERAL PLAN - LOCATION 4
BRIDGE NO. CUY-271-0972 & 0974
FAIRMOUNT BOULEVARD OVER IR 271 & IR 271X

D12-BH-FY2021(A) MISC
PID No. 103162

1 / 7

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96

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ESTIMATED QUANTITIES

CALCULATED JLS DATED 6/2020
CHECKED dht DATED 6/2020

ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	SUPER.	PIERS	ABUTS.	GEN'L	REF. SHEET
202	75260	858	FT	VANDAL PROTECTION FENCE REMOVED	858				
512	10050	3072	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	3072				
512	10101	408	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN		408			24
512	74001	399	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES, AS PER PLAN		399			24
516	46701	2	EACH	RESET BEARING, AS PER PLAN	2				24
516	47001	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN				LS	24
SPECIAL	51900100	7057	SF	COMPOSITE FIBER WRAP SYSTEM		7057			25
519	11101	77	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN		77			24
SPECIAL	53000600	4110	SF	STRUCTURES, BOTTOM OF DECK SPALL REMOVAL ALONG BEAMS	4110				25
607	39901	854	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN	854				24
844	10001	737	SF	CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN		737			25

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

REVIEWED DLR DATE 8/2020
STRUCTURE FILE NUMBER 18140 (L) 181436 (L)
DRAWN JSB REVISED
DESIGNED BLN CHECKED dht

ESTIMATED QUANTITY - LOCATION 4
BRIDGE NO. CUY-271-0972 & 0974
FAIRMOUNT BOULEVARD OVER IR 271 & IR 271X

D12-BH-FY2021(A) MISC
PID No. 103162

2 / 7

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96

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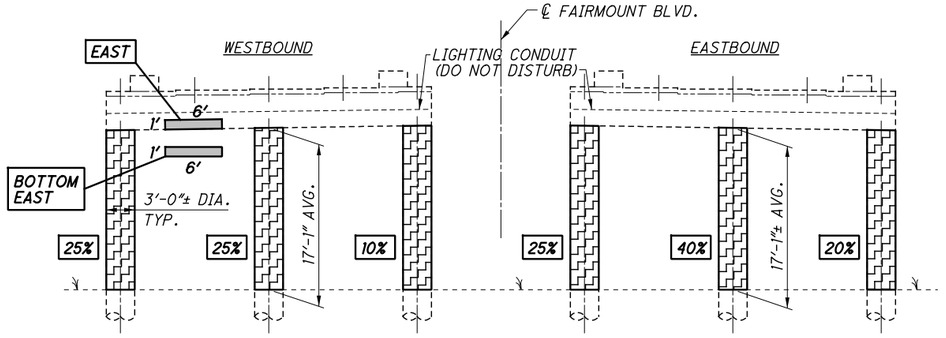
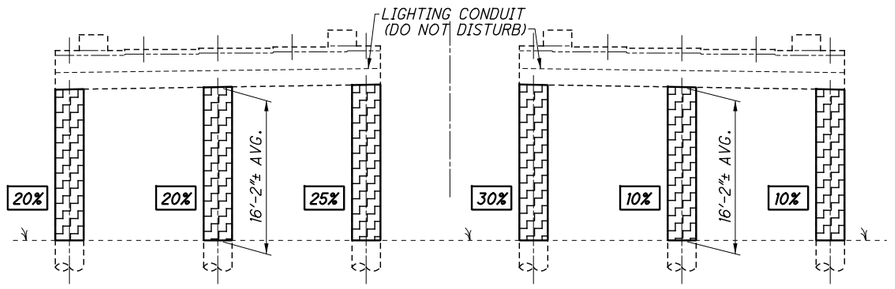
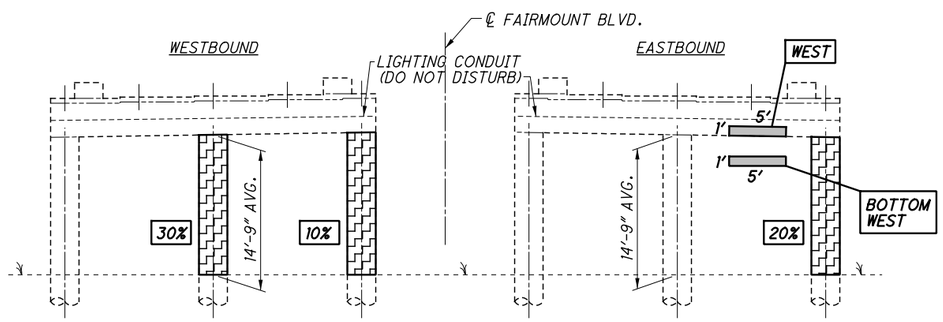


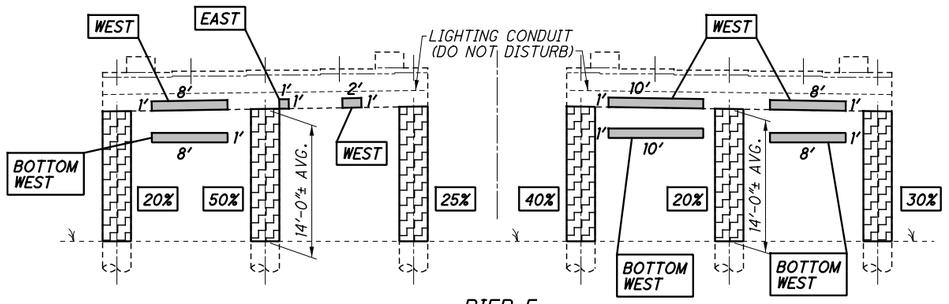
PIER 1



PIER 2



PIER 4



PIER 5

LEGEND

INDICATES CONCRETE PIER COLUMN REPAIR PER ITEM SPECIAL - STRUCTURES, COMPOSITE FIBER WRAP SYSTEM AND ITEM 844 - CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN.

25% INDICATES THE APPROXIMATE PERCENTAGE OF COLUMN PATCHING REQUIRED PRIOR TO FIBER WRAPPING.

INDICATES AREAS OF CONCRETE PATCHING PER ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN. TOTAL AREA THIS SHEET = 77 S.F.

NOTES:

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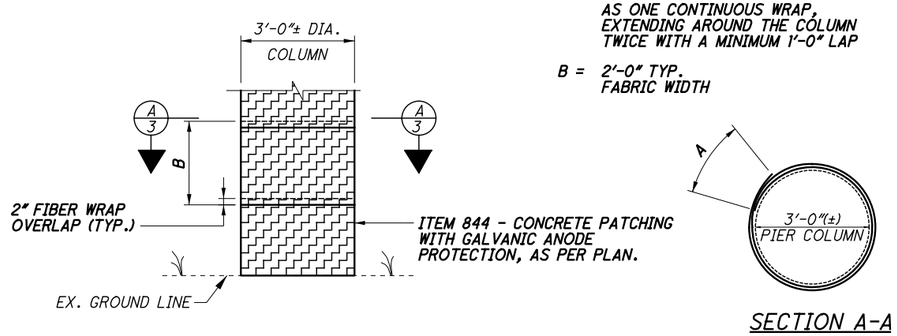
3. MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
4. AVERAGE COLUMN HEIGHTS ARE USED FROM GROUND LINE TO BOTTOM OF PIER CAP FOR QUANTITY PURPOSES.
5. ALL PIERS 1, 2, 4 & 5 CAPS AND COLUMNS NOT FIBER WRAPPED SHALL BE SEALED WITH EPOXY-URETHANE SEALER. SEE DETAILS ON SHEET 4/7.
6. FOR ESTIMATED QUANTITIES SEE SHEET 2/7.

A = FIBER WRAP SHALL BE INSTALLED AS ONE CONTINUOUS WRAP, EXTENDING AROUND THE COLUMN TWICE WITH A MINIMUM 1'-0" LAP

B = 2'-0" TYP. FABRIC WIDTH



SECTION A-A

PIER COLUMN FIBER WRAP DETAIL

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DESIGNED	DRAWN	REVIEWED	DATE
BLN	JLS	DLR	8/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
dht		18161 (E) 1811436 (L)	

PIER REPAIRS - LOCATION 4
BRIDGE NO. CUY-271-0972 & 0974
FAIRMOUNT BOULEVARD OVER IR 271 & IR 271X

D12-BH-FY2021(A) MISC
PID No. 103162

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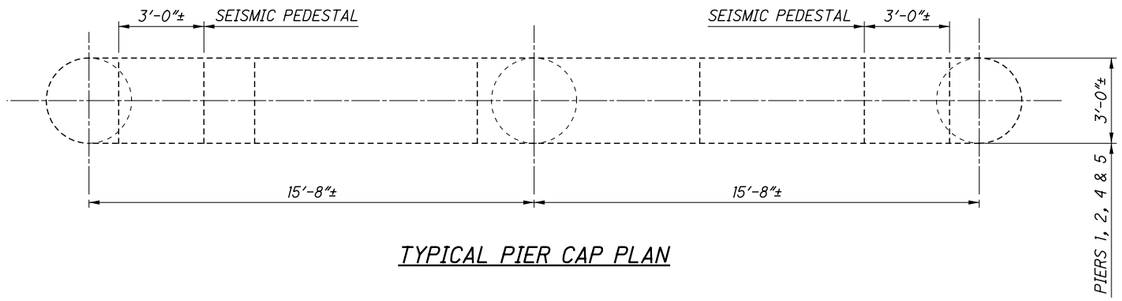
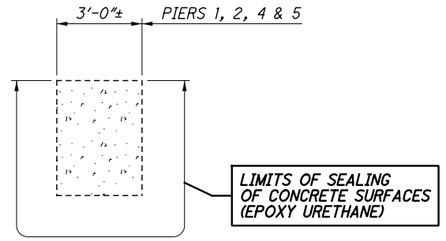
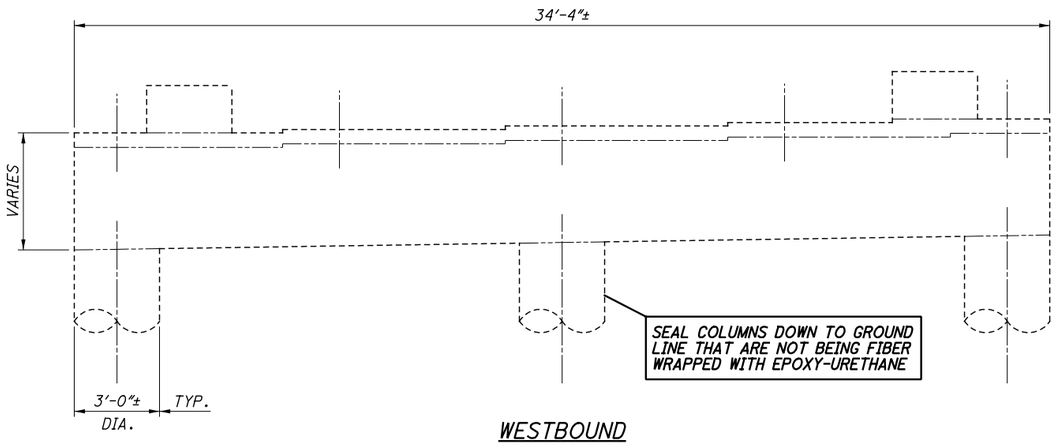


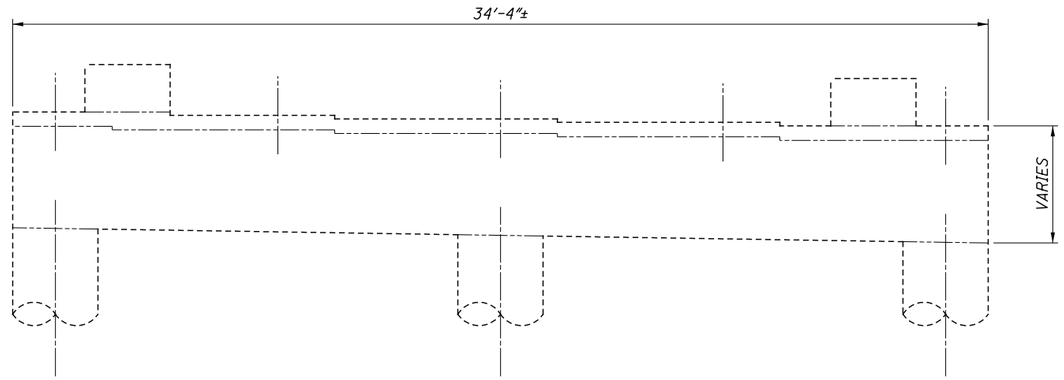
TYPICAL PIER CAP PLAN



SECTION THRU CAP



WESTBOUND



EASTBOUND

PIER 3 - NO WORK

SEAL PIER CAP AS FOLLOWS:

PIERS 1, 2, 4 & 5 = 406 S.F. PER CAP x 8 CAPS = 3248 S.F.

SEAL PIER COLUMNS AS FOLLOWS:

PIER 4 WESTBOUND (1 COLUMN) 3.0' DIA. x 14.75" HIGH = 139.0 S.F.

PIER 4 EASTBOUND (2 COLUMNS) 3.0' DIA. x 14.75' HIGH = 278.0 S.F.

TOTAL COLUMNS SEALING = 417 S.F.

NOTES:

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4. SEAL COLUMNS AND CAPS PER ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE, AS PER PLAN AND ITEM 512 - REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES, AS PER PLAN.
5. FOR ESTIMATED QUANTITIES SEE SHEET 2/7.

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DESIGNED	DRAWN	REVIEWED	DATE
BLN	JLS	DLR	8/2020
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dht		1811436 (L)	

PIER CONCRETE SEALING - LOCATION 4

BRIDGE NO. CUY-271-0972 & 0974
FAIRMOUNT BOULEVARD OVER IR 271 & IR 271X

D12-BH-FY2021(A) MISC

PID No. 103162

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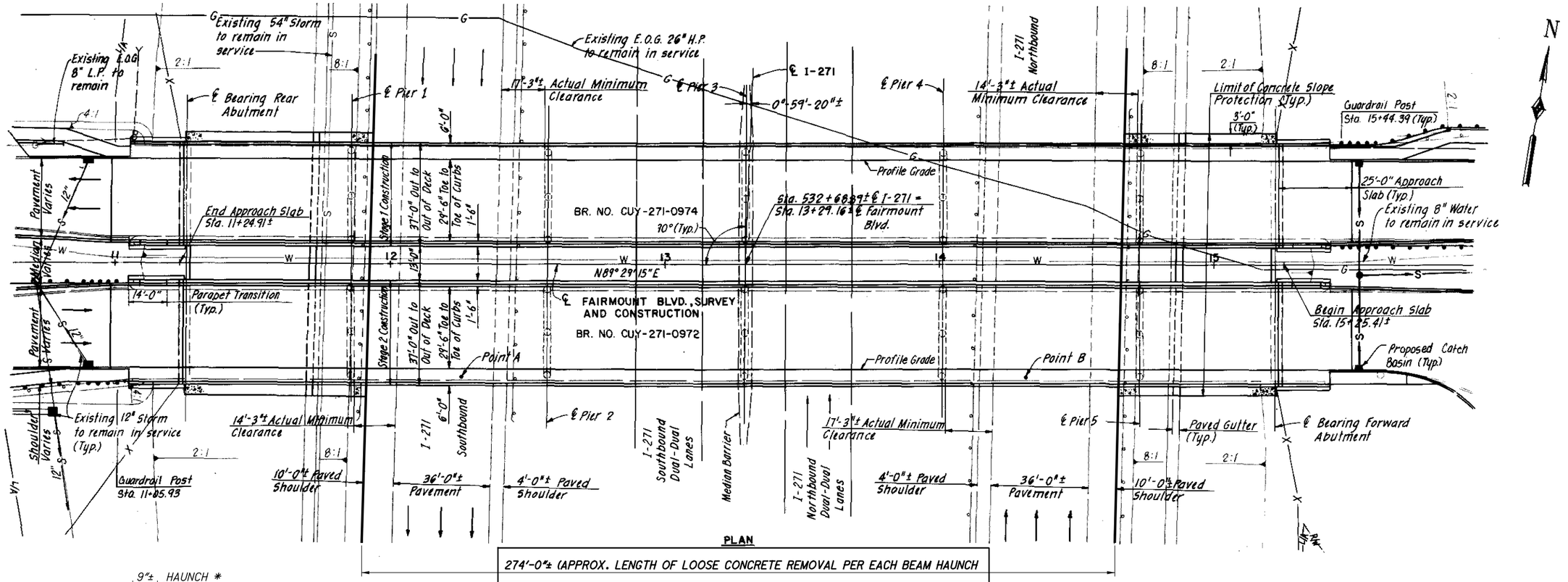

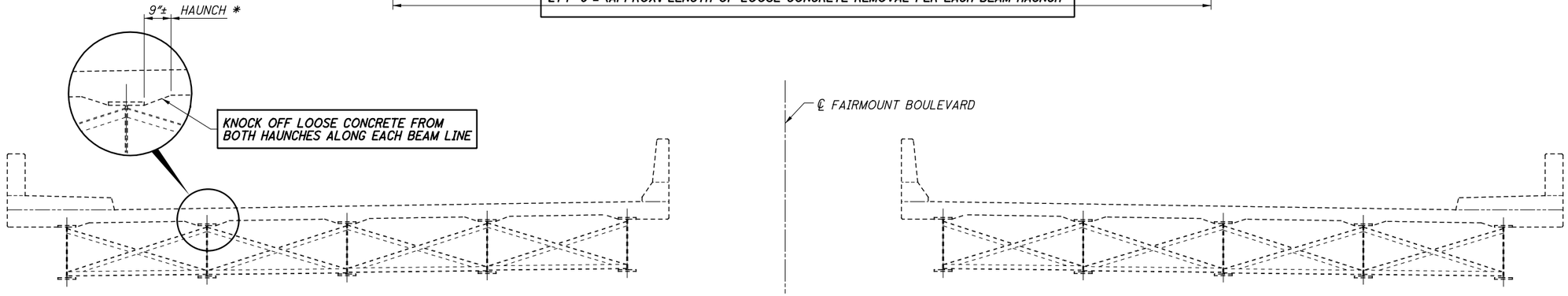

BRIDGE NO. CUY-271-0974

BRIDGE NO. CUY-271-0972

TRANSVERSE SECTION

* AREA FOR PAYMENT = (0.75' HAUNCH x 2 SIDES) (10 BEAM LINES) (274.0' PER BEAM) = 4110 S.F.

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dht		181436 (L)	

BEAM HAUNCH REPAIR - LOCATION 4
BRIDGE NO. CUY-271-0972 & 0974
FAIRMOUNT BOULEVARD OVER IR 271 & IR 271X

D12-BH-FY2021(A) MISC
PID No. 103162

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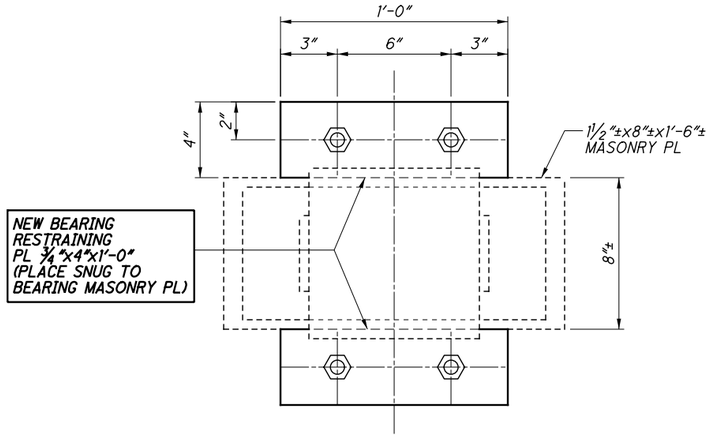
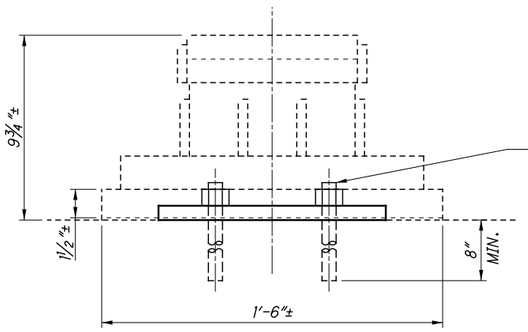
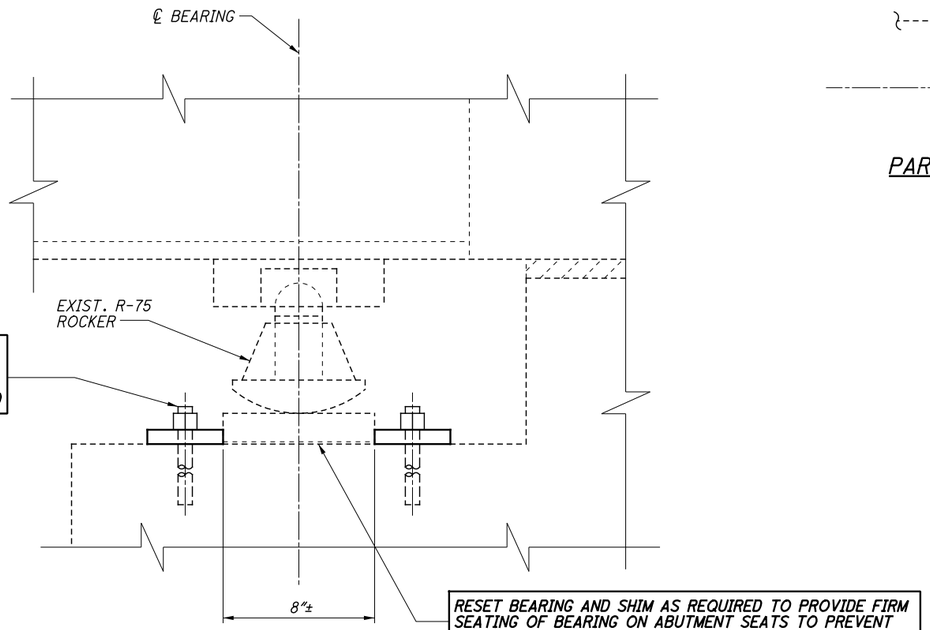


PLAN



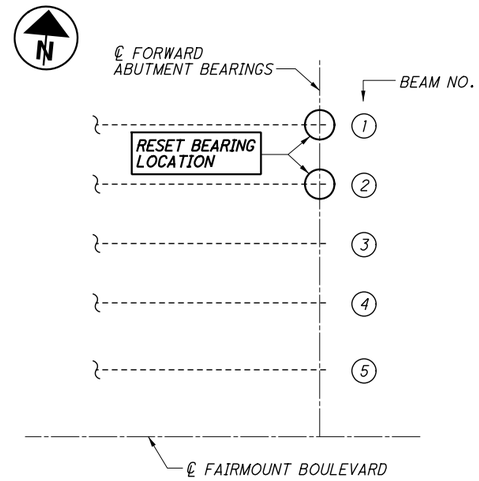
ELEVATION



SIDE VIEW

BEARING REPAIR DETAIL

WESTBOUND BRIDGE
FORWARD ABUTMENT
NORTH BEARING



PARTIAL FRAMING PLAN

NOTES:

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MANSFIELD, OHIO 44902

DESIGNED BLN | DRAWN JLS | REVIEWED DLR | DATE 8/2020
CHECKED dht | REVISED | STRUCTURE FILE NUMBER 18960 (EN) 1811436 (L)

BEARING REPAIR DETAILS - LOCATION 4
BRIDGE NO. CUY-271-0972 & 0974
FAIRMOUNT BOULEVARD OVER IR 271 & IR 271X

D12-BH-FY2021(A) MISC
PID No. 103162

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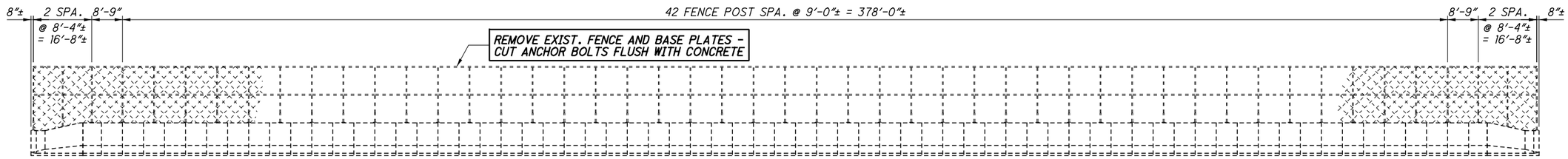
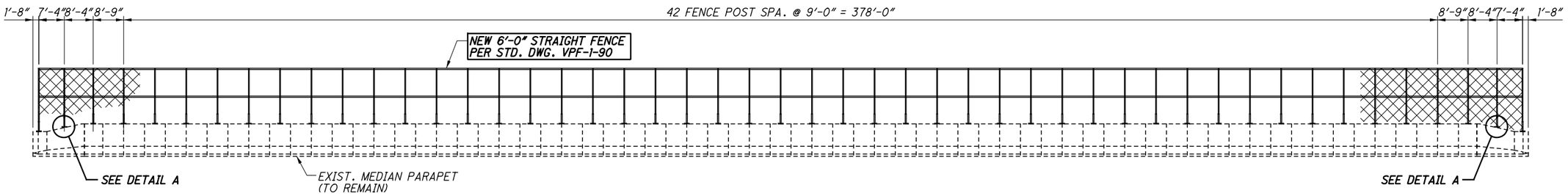
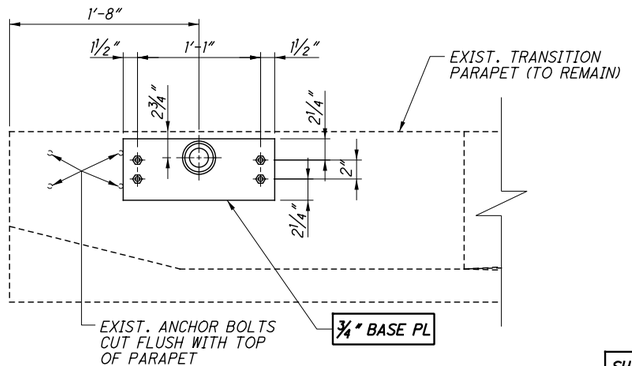


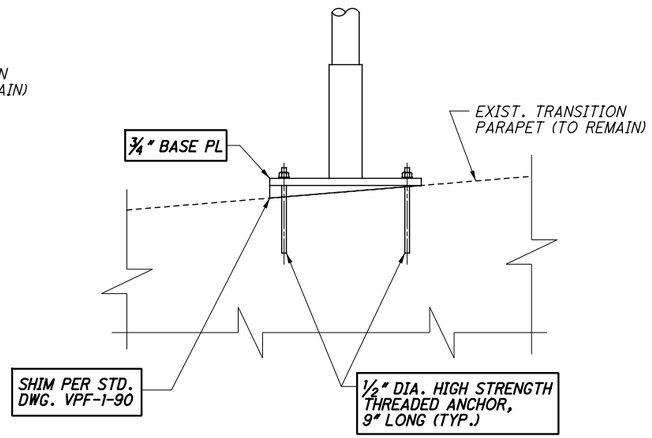
ELEVATION - EXISTING MEDIAN FENCE REMOVAL



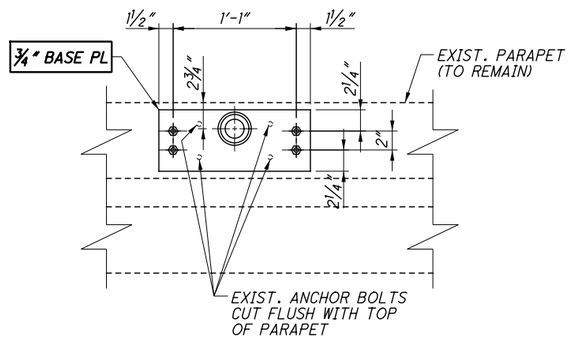
ELEVATION - PROPOSED MEDIAN FENCE



TYPICAL END POST DETAIL



DETAIL A



TYPICAL POST DETAIL

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RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DESIGNED	DRAWN	REVIEWED	DATE
BLN	JLS	DLR	8/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
dht		1814067 (E) 1811436 (L)	

MEDIAN FENCE REPLACEMENT DETAILS - LOCATION 4
BRIDGE NO. CUY-271-0972 & 0974
FAIRMOUNT BOULEVARD OVER IR 271 & IR 271X

D12-BH-FY2021(A) MISC
PID No. 103162

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96

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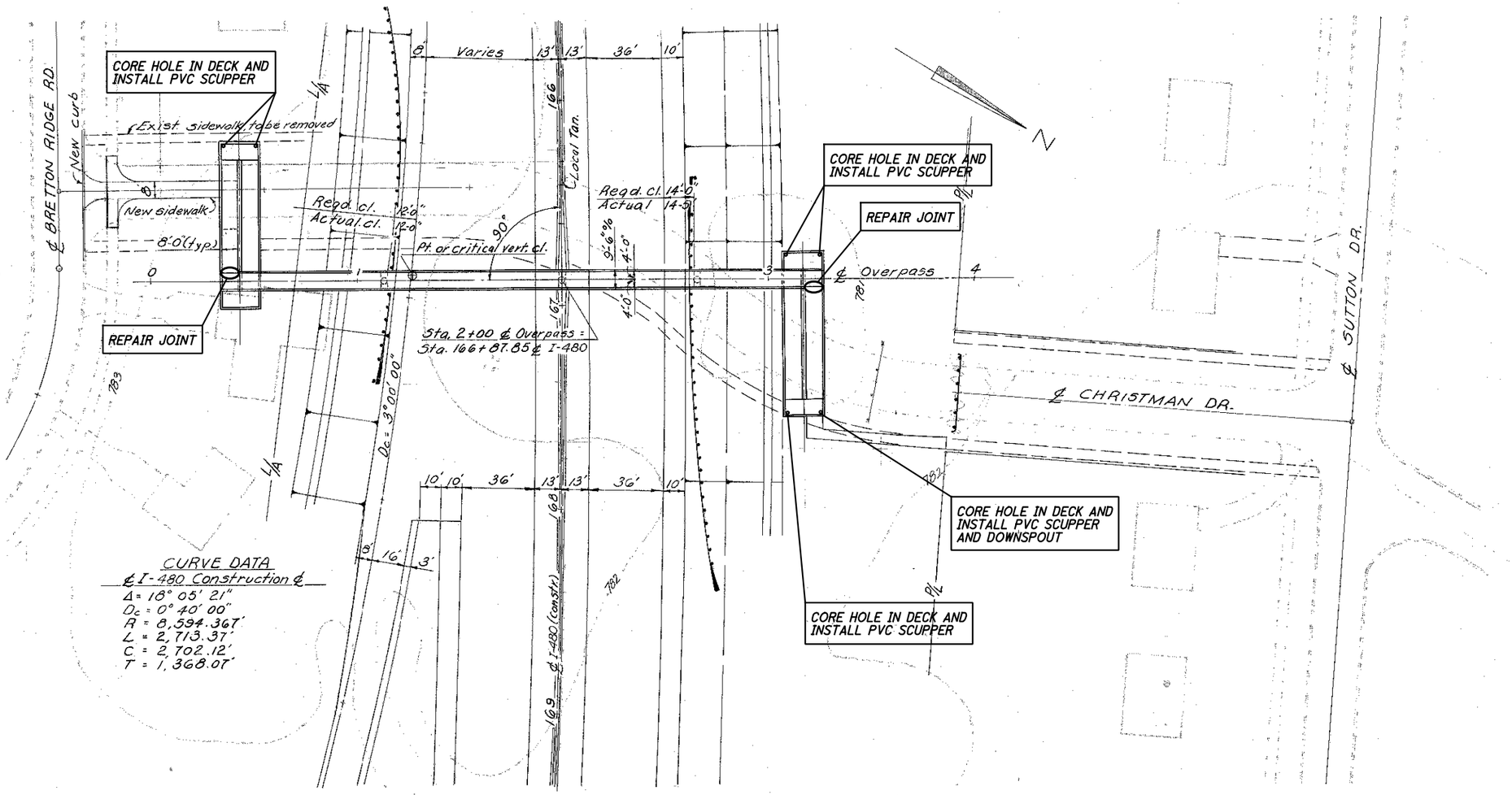

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RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DESIGNED	DRAWN	REVIEWED	DATE
BLN	JLS	DLR	8/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
dht		1814028	

GENERAL PLAN - LOCATION 5
BRIDGE NO. CUY-480-0126
CHRISTMAN DRIVE PEDESTRIAN BRIDGE OVER IR 480

D12-BH-FY2021(A) MISC
PID No. 103162

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96

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ESTIMATED QUANTITIES

CALCULATED JLS DATED 6/2020
CHECKED dht DATED 6/2020

ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	SUPER.	PIERS	ABUTS.	GEN'L	REF. SHEET
512	10101	26	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN		23	3		24
512	74001	25	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES, AS PER PLAN		23	2		24
516	15000	2	EACH	STRUCTURAL JOINT OR JOINT SEALER, MISC.: ADDING DIAMOND PLATE COVER TO JOINT			2		62
518	12500	6	EACH	SCUPPER, MISC.: CORING AND INSTALLING PVC DOWNSPOUT			6		62
SPECIAL	51900100	752	SF	COMPOSITE FIBER WRAP SYSTEM		752			25
519	11101	16	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN			16		24
SPECIAL	53000600	44	SF	STRUCTURES, BOTTOM OF DECK SLAB SPALL REMOVAL			44		25
607	98100	1	EACH	FENCE, MISC.: REPAIR DAMAGED FENCE ON NORTH ABUTMENT LANDING			1		62
844	10001	106	SF	CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN		106			25

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29 NORTH PARK STREET
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DESIGNED BLN | DRAWN JSB | REVIEWED DLR | DATE 8/2020
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ESTIMATED QUANTITIES - LOCATION 5
BRIDGE NO. CUY-480-0126
CHRISTMAN DRIVE PEDESTRIAN BRIDGE OVER IR 480

D12-BH-FY2021(A) MISC
PID No. 103162

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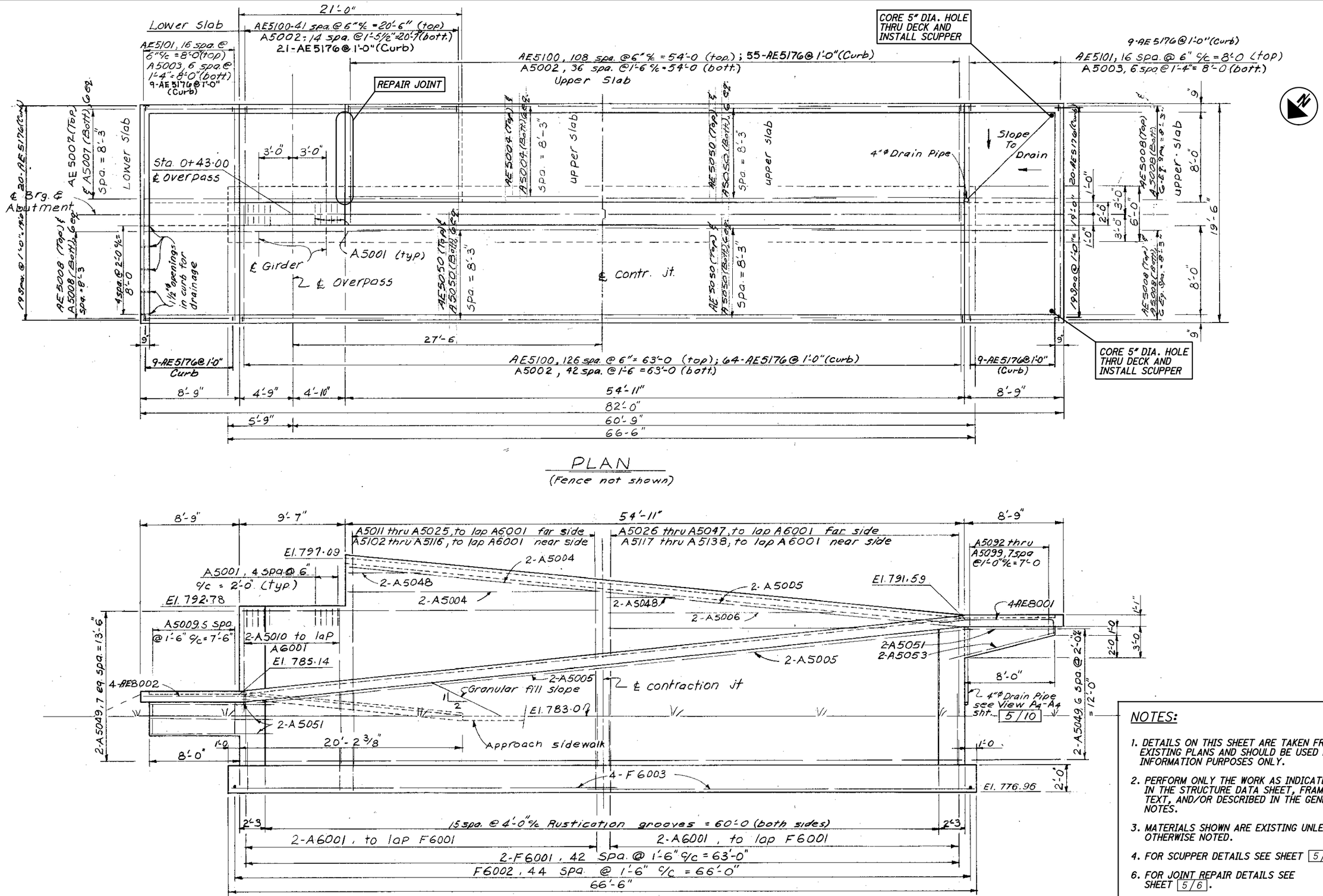

PLAN
(Fence not shown)

ELEVATION
(Fence not shown)

NOTES:

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4. FOR SCUPPER DETAILS SEE SHEET 5/6.
6. FOR JOINT REPAIR DETAILS SEE SHEET 5/6.
7. FOR ESTIMATED QUANTITIES SEE SHEET 2/6.

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SOUTH ABUTMENT REPAIRS - LOCATION 5
BRIDGE NO. CUY-480-0126
CHRISTMAN DRIVE PEDESTRIAN BRIDGE OVER IR 480

D12-BH-FY2021(A) MISC
PID No. 103162

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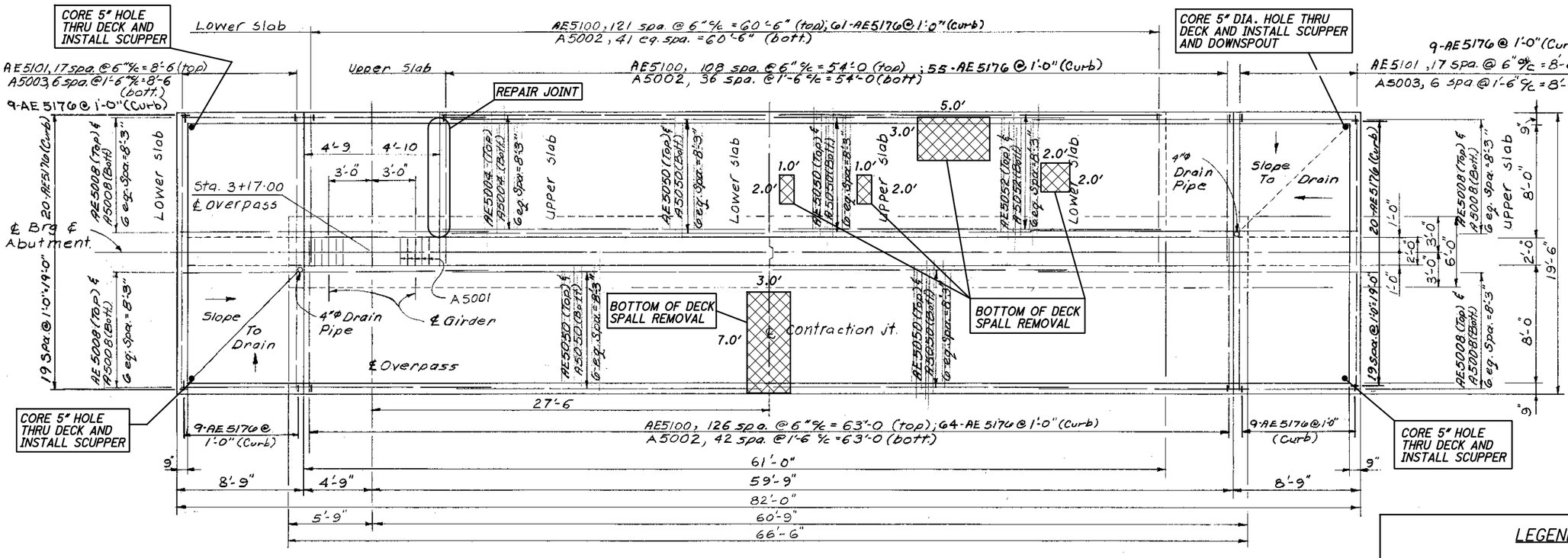

PLAN
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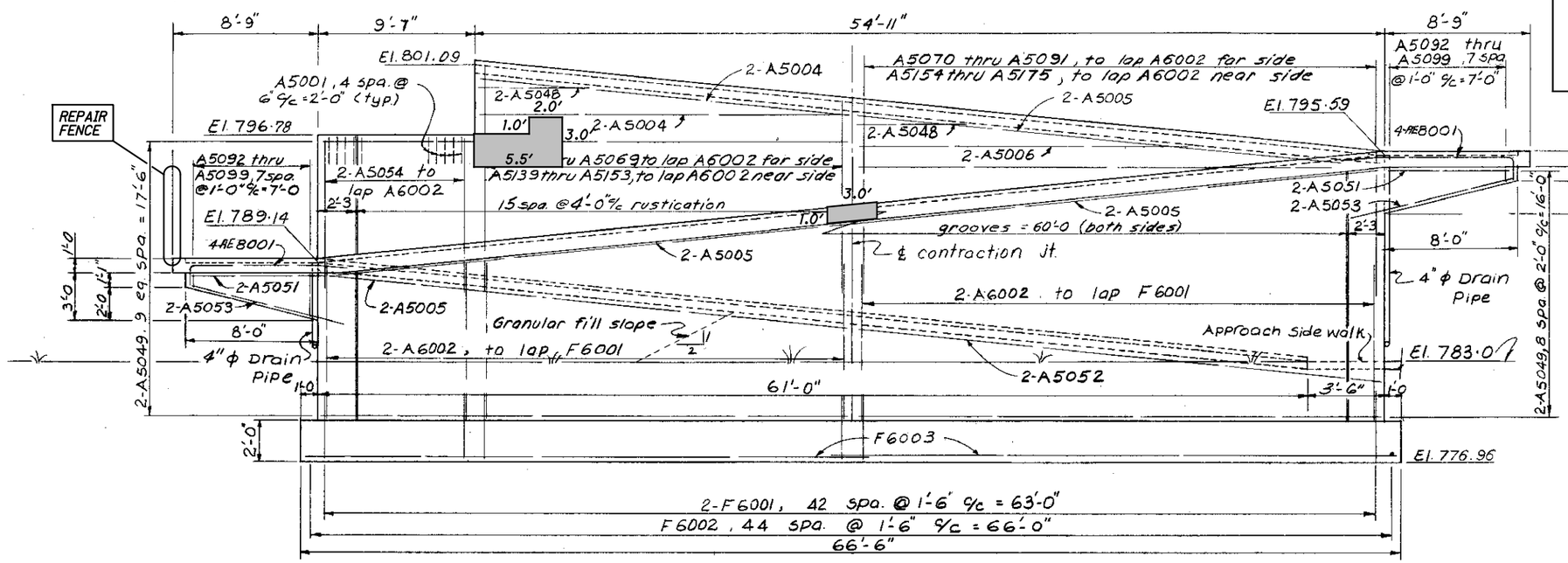

ELEVATION
(Fence not shown)

LEGEND

INDICATES AREAS OF CONCRETE PATCHING PER ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN. TOTAL AREA THIS SHEET = 16 S.F.

ALSO SEAL 6" OUTSIDE OF PATCHED AREAS PER ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN. TOTAL AREA THIS SHEET = 26 S.F.

INDICATES DECK SPALL REMOVAL PER ITEM SPECIAL - STRUCTURES, BOTTOM OF DECK SPALL REMOVAL. TOTAL AREA THIS SHEET = 44 S.F.

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4. FOR SCUPPER AND DOWNSPOUT DETAILS SEE SHEET 5/6.
5. FOR FENCE REPAIR DETAILS SEE SHEET 5/6.
6. FOR JOINT REPAIR DETAILS SEE SHEET 5/6.
7. FOR ESTIMATED QUANTITIES SEE SHEET 2/6.

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DESIGNED BLN | DRAWN JLS | REVIEWED DLR | DATE 8/2020 | STRUCTURE FILE NUMBER 1814028 | CHECKED dht | REVISED

NORTH ABUTMENT REPAIRS - LOCATION 5
BRIDGE NO. CUY-480-0126
CHRISTMAN DRIVE PEDESTRIAN BRIDGE OVER IR 480

D12-BH-FY2021(A) MISC
PID No. 103162

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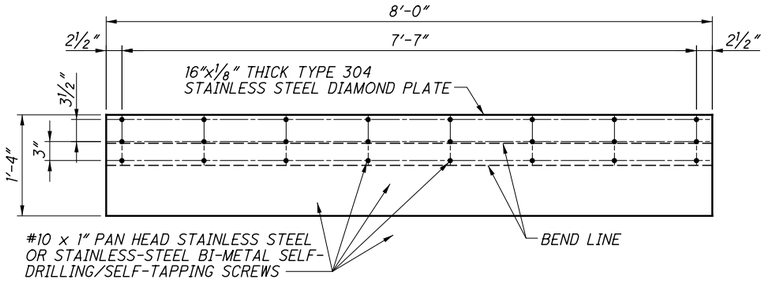
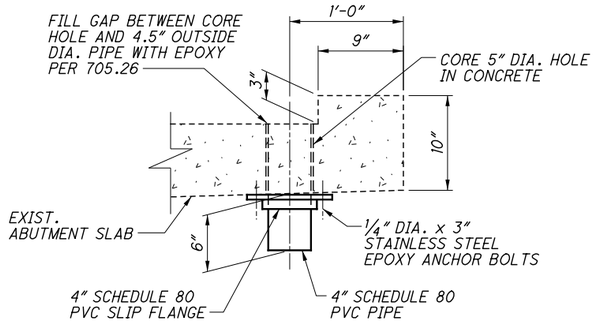
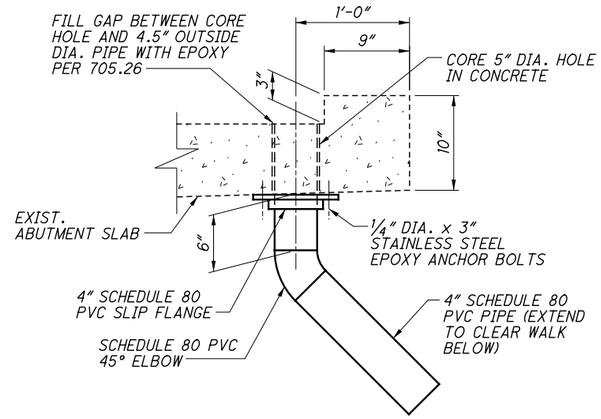


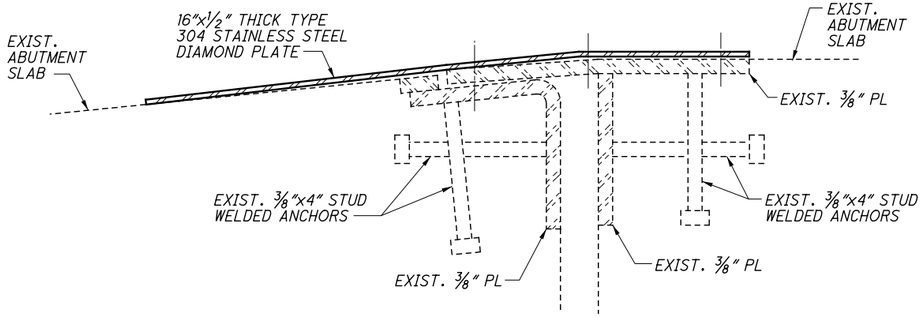
DIAMOND PLATE DETAIL



NEW SCUPPER DETAIL



NEW SCUPPER & DOWNSPOUT DETAIL



JOINT SECTION

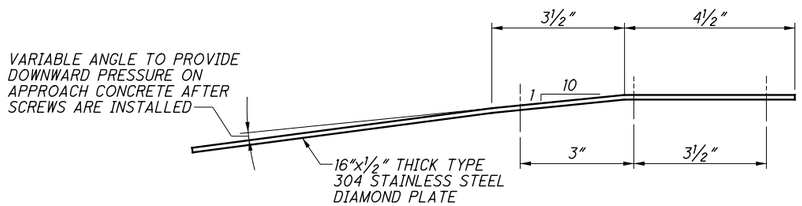


PLATE DETAIL

EXPANSION JOINT REPAIR DETAILS

PAYMENT FOR THIS ITEM SHALL BE PER EACH. PAYMENT SHALL BE MADE UNDER ITEM 516 - STRUCTURAL JOINT OR JOINT SEALER, MISC.: ADDING DIAMOND PLATE COVER TO JOINT.

ABUTMENT SLAB DRAINAGE DETAILS

PAYMENT FOR THIS ITEM SHALL BE PER EACH. PAYMENT SHALL BE MADE UNDER ITEM 518 - SCUPPER, MISC.: CORING AND INSTALLING PVC DOWNSPOUT.

NORTH ABUTMENT FENCE REPAIR

PAYMENT FOR THIS ITEM SHALL BE PER EACH. PAYMENT SHALL BE MADE UNDER ITEM 607 - FENCE, MISC.: REPAIR DAMAGED FENCE ON NORTH ABUTMENT LANDING.

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dht		1814028	

ABUTMENT REPAIR DETAILS - LOCATION 5

BRIDGE NO. CUY-480-0126
CHRISTMAN DRIVE PEDESTRIAN BRIDGE OVER IR 480

D12-BH-FY2021(A) MISC
PID No. 103162

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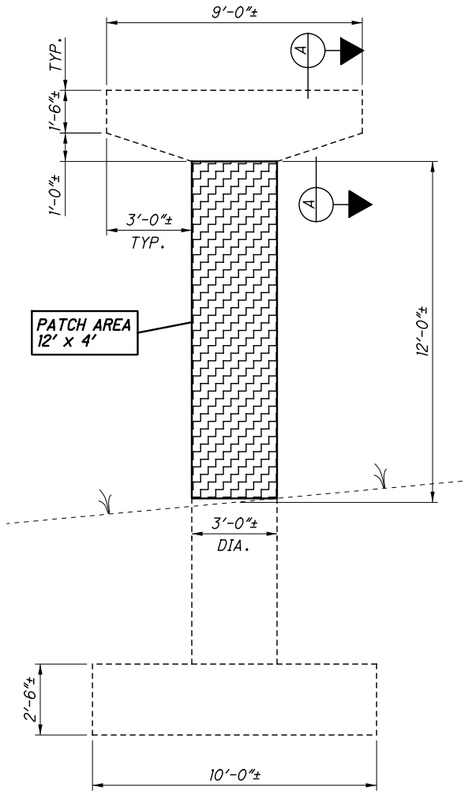
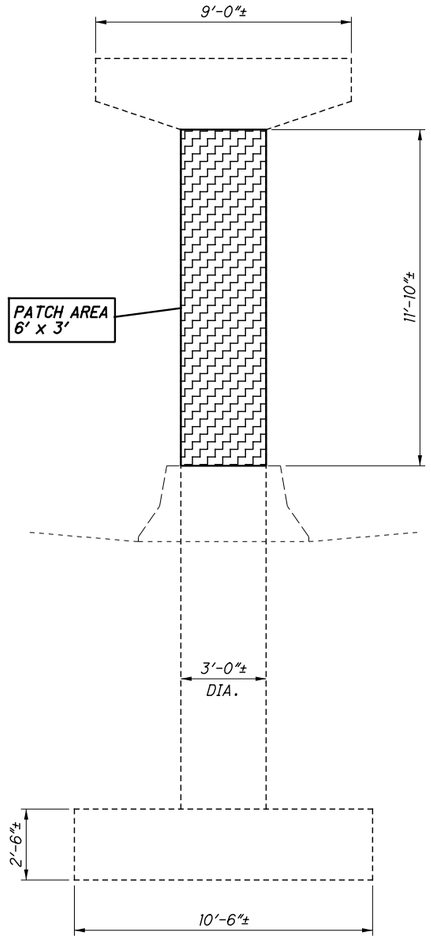
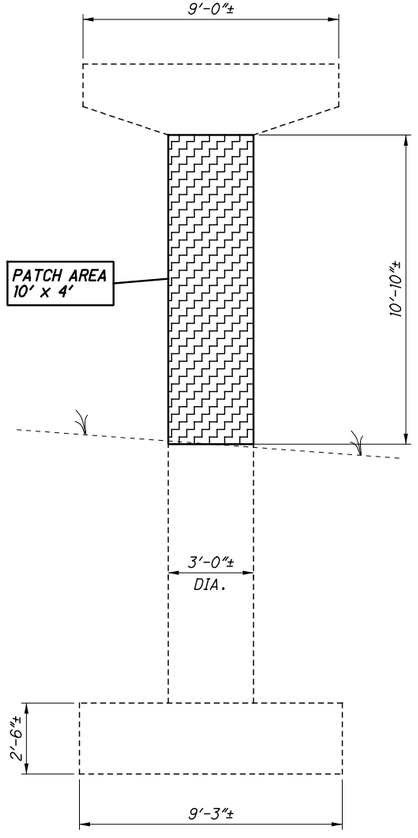


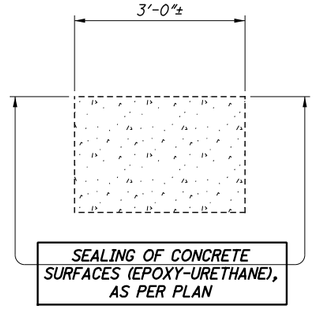
PIER 1 ELEVATION



PIER 2 ELEVATION

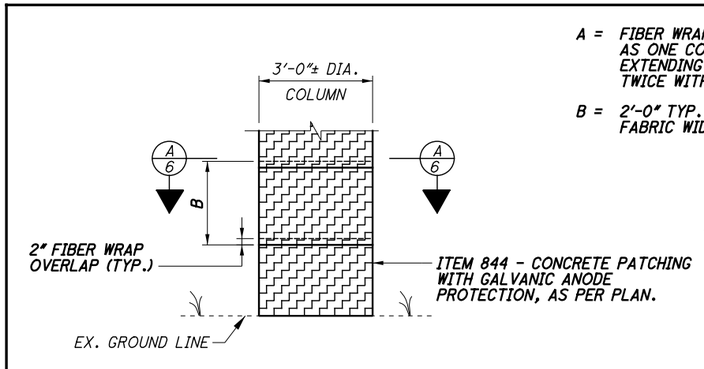


PIER 3 ELEVATION



SECTION A-A

TYPICAL ALL PIER CAPS



SECTION A-A

PIER COLUMN FIBER WRAP DETAIL

LEGEND

INDICATES CONCRETE PIER COLUMN REPAIR PER ITEM SPECIAL - STRUCTURES, COMPOSITE FIBER WRAP SYSTEM AND ITEM 844 - CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN.

NOTES:

1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE USED FOR INFORMATION PURPOSES ONLY.
2. PERFORM ONLY THE WORK AS INDICATED IN THE STRUCTURE DATA SHEET, FRAMED TEXT, AND/OR DESCRIBED IN THE GENERAL NOTES.
3. SEAL PIER CAPS PER ITEM 512 - REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES, AS PER PLAN AND ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN.
4. FOR ESTIMATED QUANTITIES SEE SHEET 2/6.

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DESIGNED	DRAWN	REVIEWED	DATE
BLN	JLS	DLR	8/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
dht		1814028	

PIER COLUMN REPAIRS - LOCATION 5

BRIDGE NO. CUY-480-0126
CHRISTMAN DRIVE PEDESTRIAN BRIDGE OVER IR 480

D12-BH-FY2021(A) MISC

PID No. 103162

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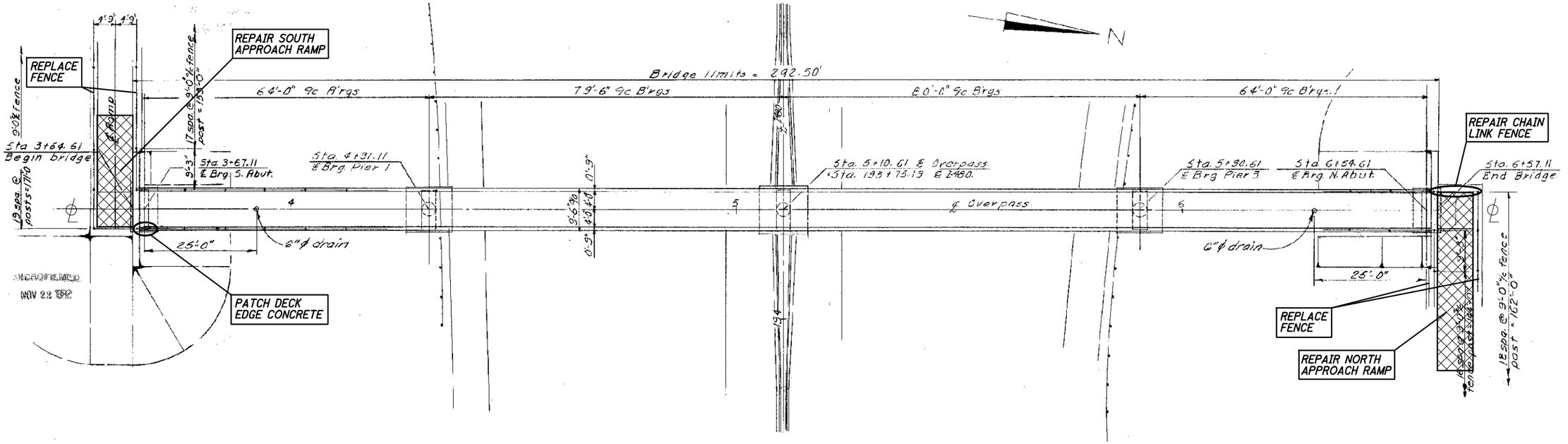
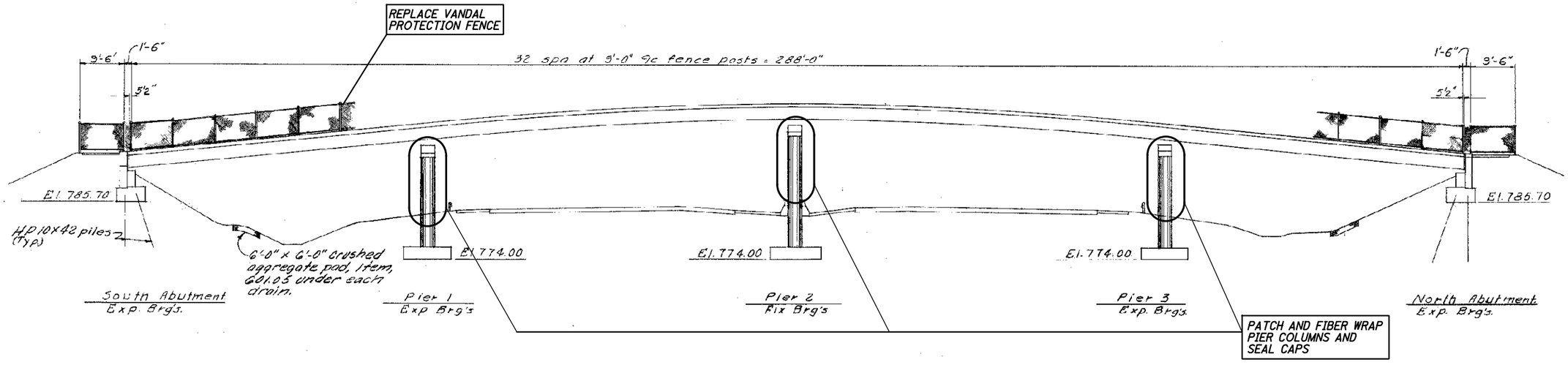


GENERAL PLAN



ELEVATION

NOTES:

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3. FOR ESTIMATED QUANTITIES SEE SHEET 2/6.

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29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DESIGNED BLN | DRAWN JLS | REVIEWED DLR | DATE 8/2020
CHECKED dht | REVISED | STRUCTURE FILE NUMBER 1814044

GENERAL PLAN - LOCATION 6
BRIDGE NO. CUY-480-0177
CYPRUS DRIVE PEDESTRIAN BRIDGE OVER IR 480

D12-BH-FY2021(A) MISC
PID No. 103162

1 / 6

64 / 96

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ESTIMATED QUANTITIES

CALCULATED JLS DATED 6/2020
CHECKED dht DATED 6/2020

ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	SUPER.	PIERS	ABUTS.	GEN'L	REF. SHEET
202	30000	520	SF	WALK REMOVED				520	
202	75260	587	FT	VANDAL PROTECTION FENCE REMOVED	587				
304	20000	17	CY	AGGREGATE BASE				17	
512	10101	24	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN	1	23			24
512	74001	23	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES, AS PER PLAN		23			24
SPECIAL	51900100	889	SF	COMPOSITE FIBER WRAP SYSTEM		889			25
519	11101	4	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN	4				24
607	39901	586	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN	586				24
608	12000	520	SF	5" CONCRETE WALK				520	
844	10001	46	SF	CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN		46			25

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29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DESIGNED BLN | DRAWN JSB | REVIEWED DLR | DATE 8/2020
CHECKED dht | REVISED | STRUCTURE FILE NUMBER 1814044

ESTIMATED QUANTITY - LOCATION 6
BRIDGE NO. CUY-480-0177
CYPRUS DRIVE PEDESTRIAN BRIDGE OVER IR 480

D12-BH-FY2021(A) MISC
PID No. 103162

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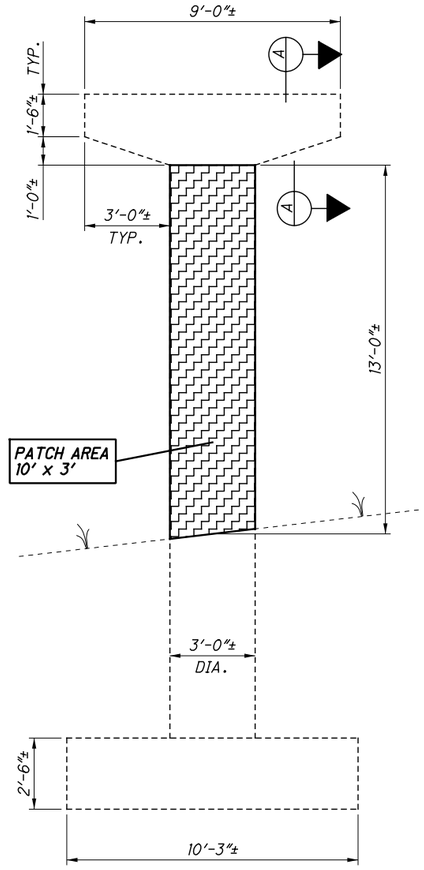
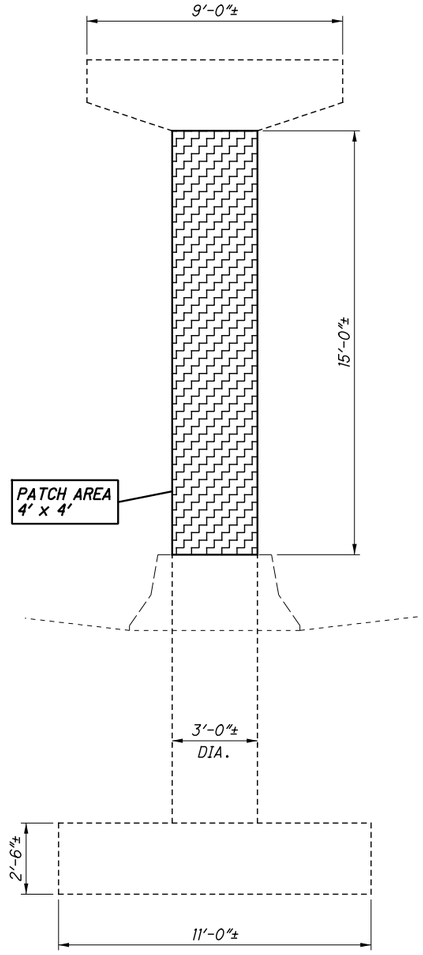
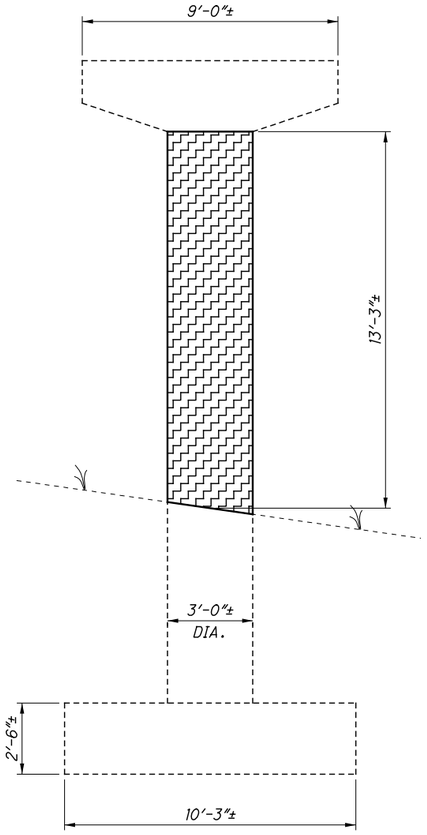


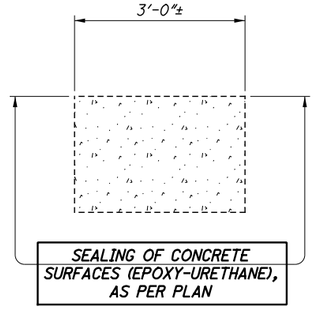
PIER 1 ELEVATION



PIER 2 ELEVATION

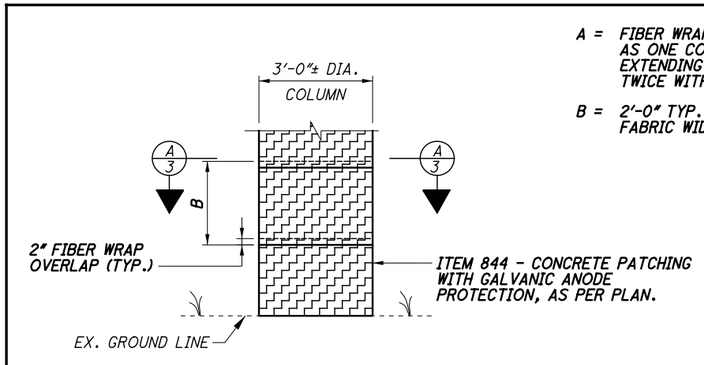


PIER 3 ELEVATION



SECTION A-A

TYPICAL ALL PIER CAPS



SECTION A-A

PIER COLUMN FIBER WRAP DETAIL

LEGEND

INDICATES CONCRETE PIER COLUMN REPAIR PER ITEM SPECIAL - STRUCTURES, COMPOSITE FIBER WRAP SYSTEM AND ITEM 844 - CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN.

NOTES:

1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE USED FOR INFORMATION PURPOSES ONLY.
2. PERFORM ONLY THE WORK AS INDICATED IN THE STRUCTURE DATA SHEET, FRAMED TEXT, AND/OR DESCRIBED IN THE GENERAL NOTES.
3. SEAL PIER CAPS PER ITEM 512 - REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES, AS PER PLAN AND ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN.
4. FOR ESTIMATED QUANTITIES SEE SHEET 2/6.

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DESIGNED	DRAWN	REVIEWED	DATE
BLN	JLS	DLR	8/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
dht		1814044	

PIER COLUMN REPAIRS - LOCATION 6
BRIDGE NO. CUY-480-0177
CYPRUS DRIVE PEDESTRIAN BRIDGE OVER IR 480

D12-BH-FY2021(A) MISC
PID No. 103162

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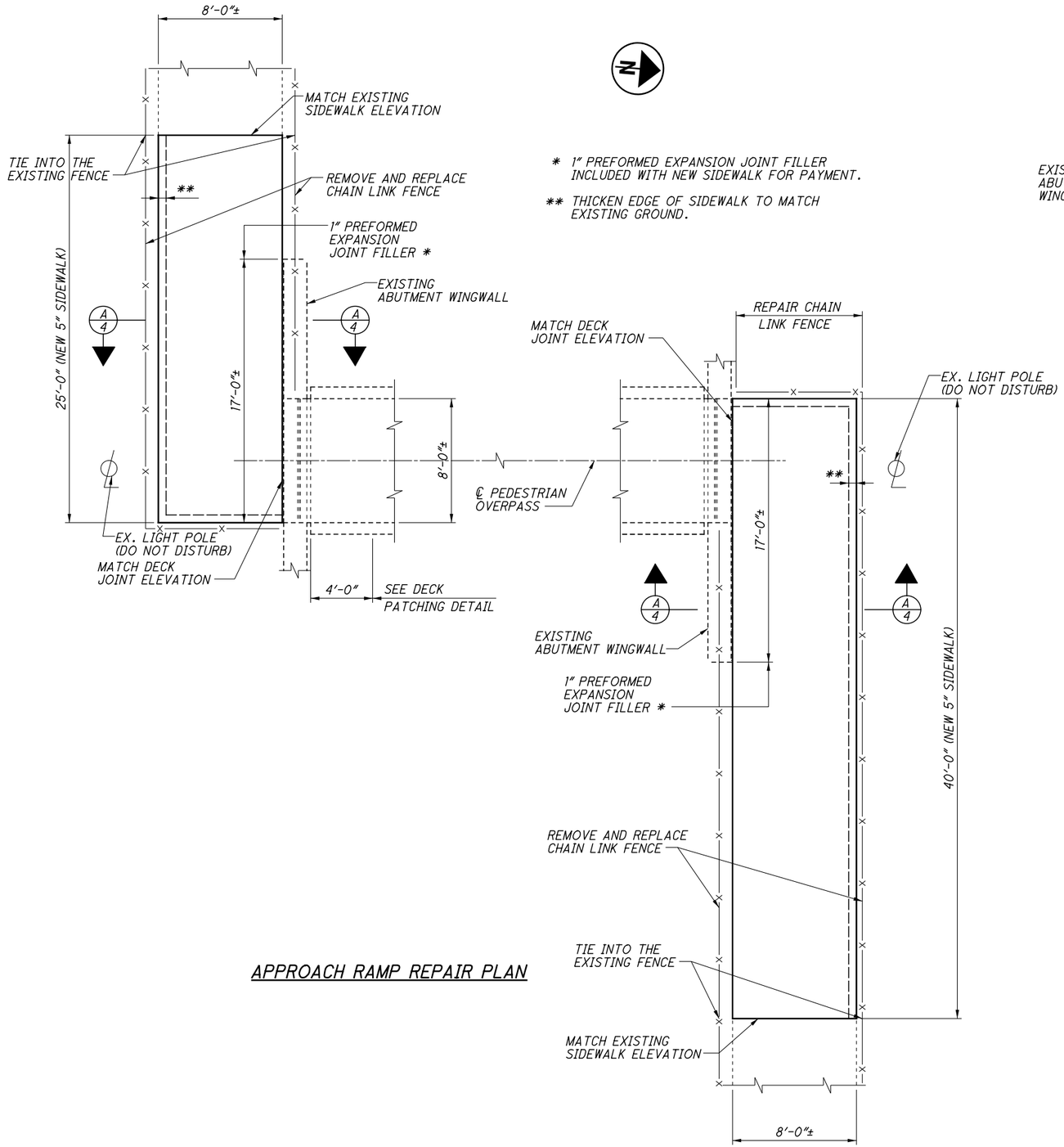
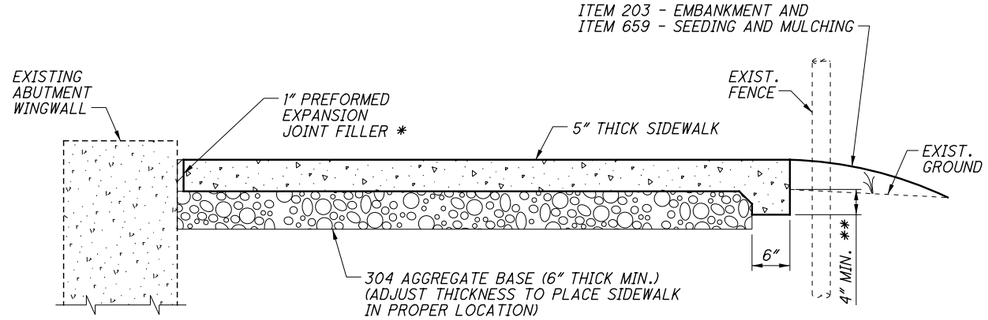


* 1" PREFORMED EXPANSION JOINT FILLER INCLUDED WITH NEW SIDEWALK FOR PAYMENT.

** THICKEN EDGE OF SIDEWALK TO MATCH EXISTING GROUND.

APPROACH RAMP REPAIR PLAN



SECTION A-A

NOTES:

1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE USED FOR INFORMATION PURPOSES ONLY.
2. PERFORM ONLY THE WORK AS INDICATED IN THE STRUCTURE DATA SHEET, FRAMED TEXT, AND/OR DESCRIBED IN THE GENERAL NOTES.
3. EXISTING SIDEWALK TO BE REMOVED SHALL BE PAID UNDER ITEM 202 - WALK REMOVED.
4. FOR DECK PATCHING DETAIL SEE SHEET 6/6.
5. FOR FENCE REPAIR DETAIL SEE SHEET 6/6.
6. FOR NEW VANDAL PROTECTION FENCE DETAILS SEE SHEET 5/6.
7. FOR ESTIMATED QUANTITIES SEE SHEET 2/6.
8. FOR FENCE REMOVED AND REPLACED SEE ROADWAY GENERAL NOTE SHEET 7.

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DESIGNED BLN | DRAWN JLS | REVIEWED DLR | DATE 8/2020
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APPROACH RAMP REPAIR DETAILS - LOCATION 6
BRIDGE NO. CUY-480-0177
CYPRUS DRIVE PEDESTRIAN BRIDGE OVER IR 480

D12-BH-FY2021 GROUP 5
PID No. 103162

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67
96

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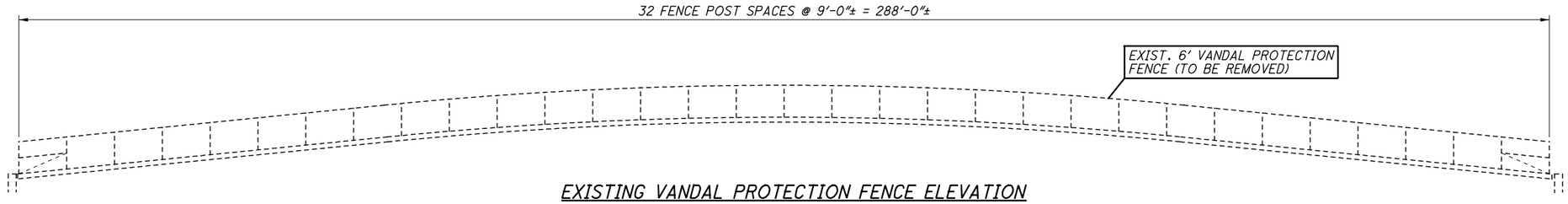
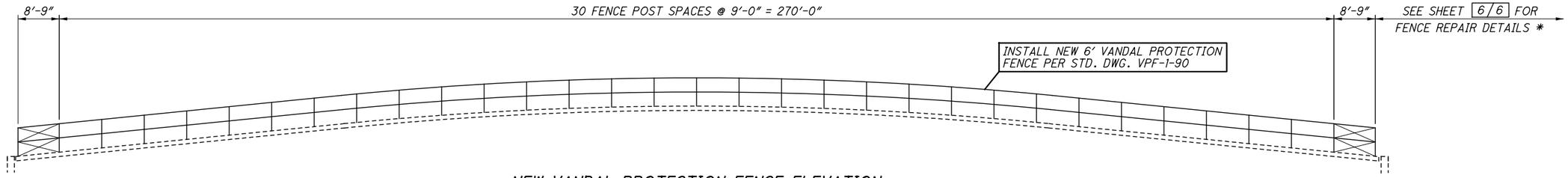
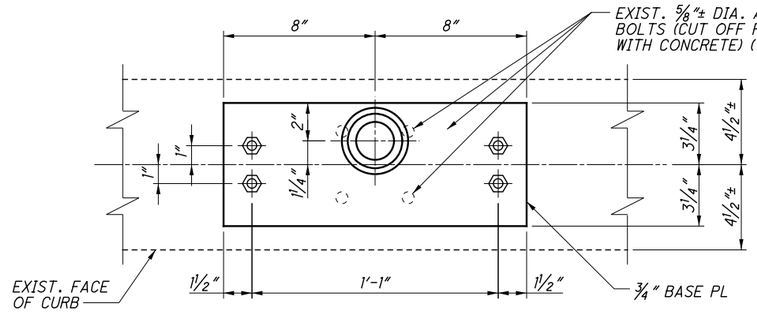


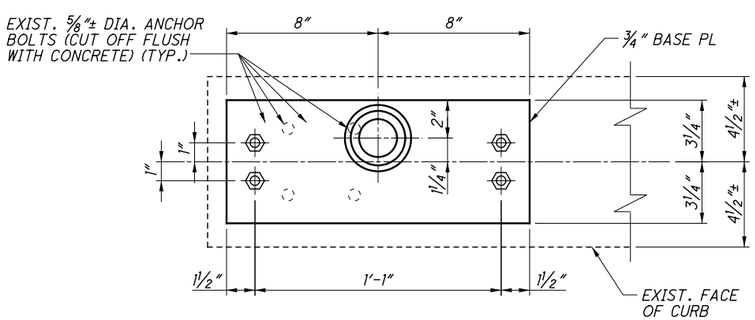
EXISTING VANDAL PROTECTION FENCE ELEVATION



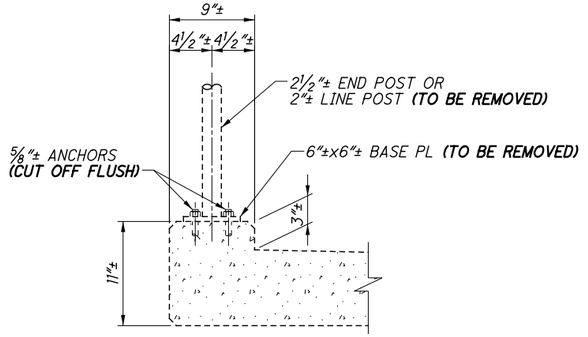
NEW VANDAL PROTECTION FENCE ELEVATION



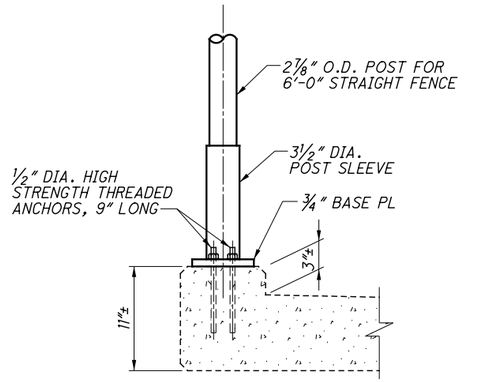
BASE PLATE DETAIL



END BASE PLATE DETAIL



EXISTING DECK SECTION



PROPOSED FENCE REPAIR

* FENCE REPAIR IS INCLUDED WITH ITEM 607 - VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN FOR PAYMENT. TOTAL LENGTH THIS SHEET = 575.0'

EXISTING FENCE REMOVED IS PAID FOR UNDER ITEM 202 - VANDAL PROTECTION FENCE REMOVED.

NOTES:

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2. PERFORM ONLY THE WORK AS INDICATED IN THE STRUCTURE DATA SHEET, FRAMED TEXT, AND/OR DESCRIBED IN THE GENERAL NOTES.
3. FOR ADDTIONAL NOTES AND DETAILS SEE STD. DWG. VPF-1-90.
4. ADDITIONAL FENCE REPAIRS - SEE SHEET 6/6.
5. FOR ESTIMATED QUANTITIES SEE SHEET 2/6.

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

REVIEWED DLR DATE 8/2020
DRAWN JLS REVISED
DESIGNED BLN CHECKED dht
STRUCTURE FILE NUMBER 1814044

FENCE REPAIR DETAILS - 1 - LOCATION 6

BRIDGE NO. CUY-480-0177
CYPRUS DRIVE PEDESTRIAN BRIDGE OVER IR 480

D12-BH-FY2021(A) MISC
PID No. 103162

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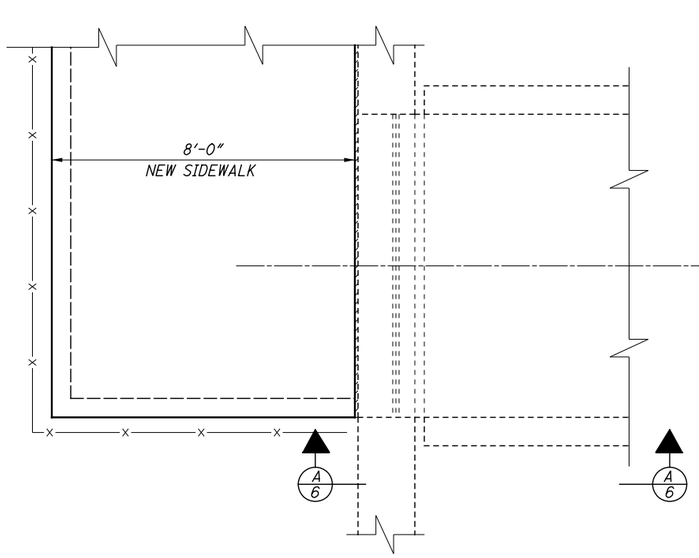
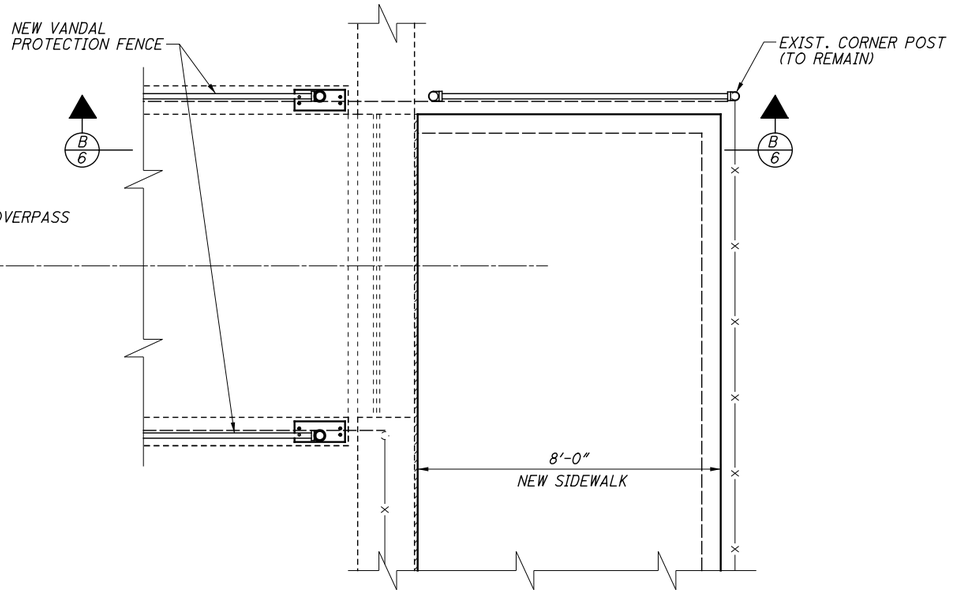
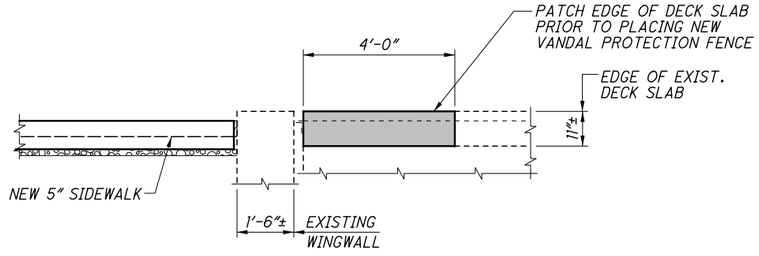


SOUTH ABUTMENT PLAN

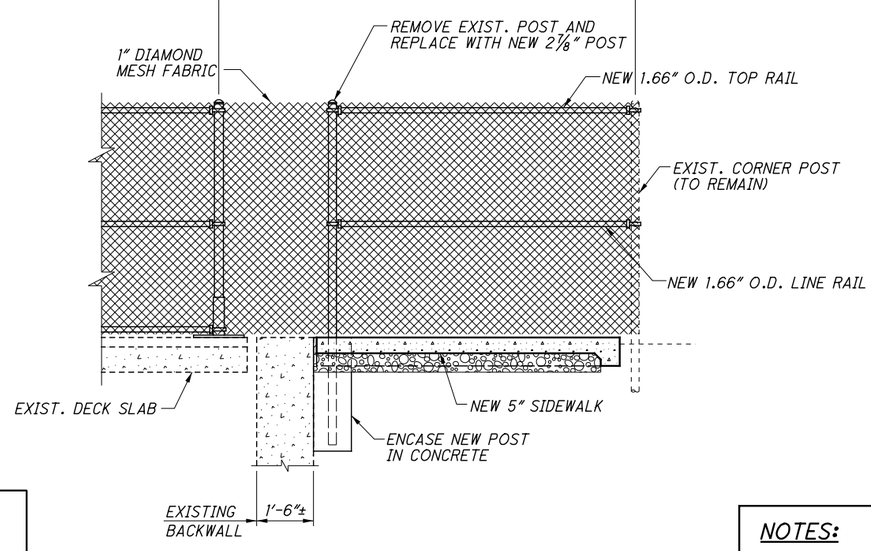


NORTH ABUTMENT PLAN



SECTION A-A

DECK PATCHING DETAIL



SECTION B-B

FENCE REPAIR DETAIL

LEGEND

INDICATES AREAS OF CONCRETE PATCHING PER ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN. TOTAL AREA THIS SHEET = 4 S.F.

SEAL DECK REPAIR 6" OUTSIDE OF PATCH WITH EPOXY-URETHANE PER ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN.

* FENCE REPAIR IS INCLUDED WITH ITEM 607 - VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN. TOTAL LENGTH THIS SHEET = 11.0 FEET

EXISTING FENCE REMOVED FOR REPAIR IS INCLUDED WITH ITEM 202 - VANDAL PROTECTION FENCE REMOVED.

NOTES:

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3. FOR NEW VANDAL PROTECTION FENCE DETAILS SEE SHEET 5/6 AND STD. DWG. VPF-1-90.
4. FOR ADDITIONAL CHAIN LINK FENCE DETAILS AND NOTES SEE ROADWAY STD. DWG. F-1.1
5. FOR ESTIMATED QUANTITIES SEE SHEET 2/6.

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DESIGNED	DRAWN	REVIEWED	DATE
BLN	JLS	DLR	8/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
dht		1814044	

FENCE REPAIR DETAILS - 2 - LOCATION 6

BRIDGE NO. CUY-480-0177
CYPRUS DRIVE PEDESTRIAN BRIDGE OVER IR 480

D12-BH-FY2021(A) MISC
PID No. 103162

6 / 6

69
96

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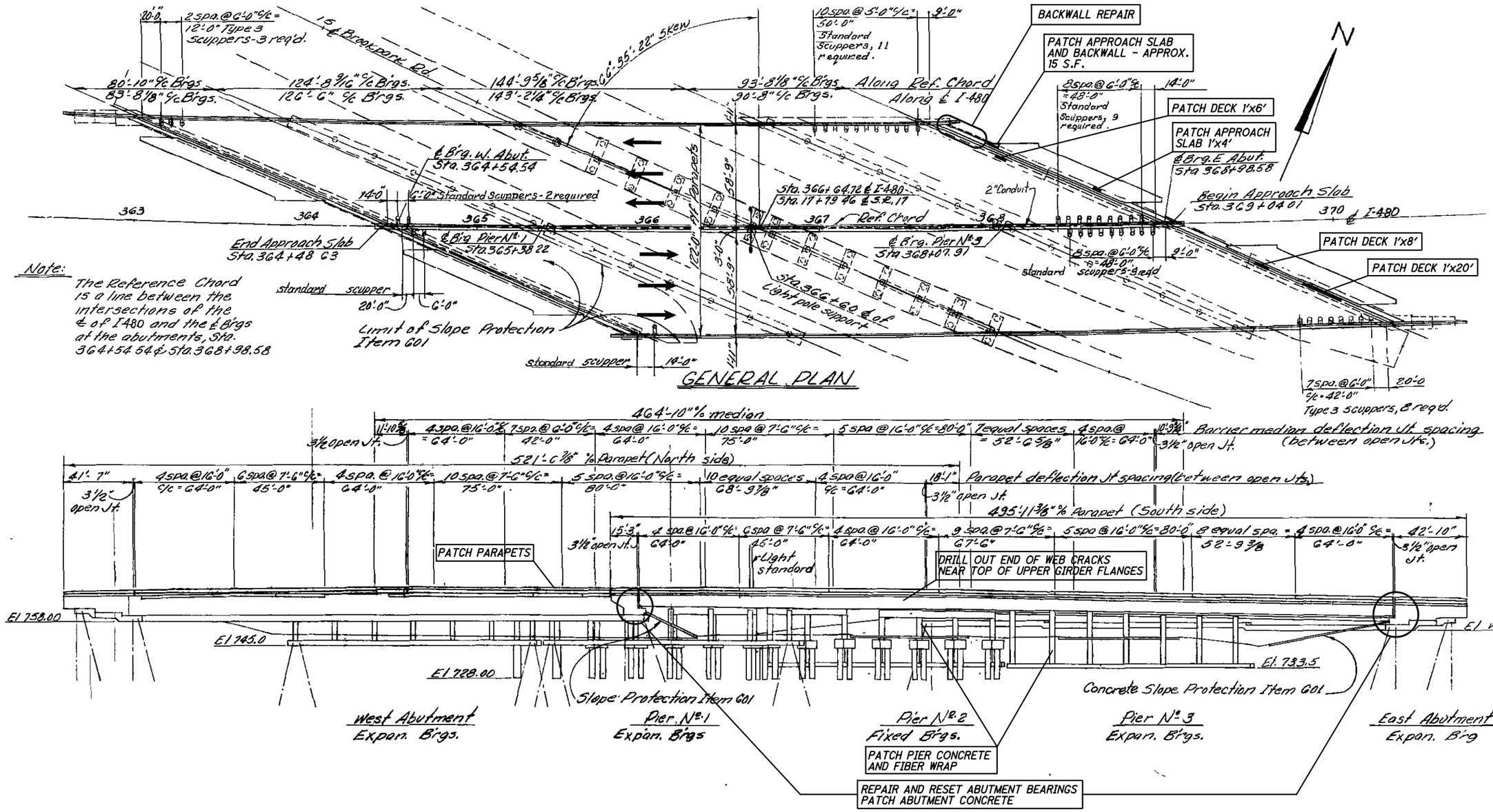

ITEM 519 - PATCHING CONCRETE BRIDGE DECK, TYPE B (FOR OVERNIGHT REPAIRS:
THE EXISTING CONCRETE OVERLAY AT THE FORWARD ABUTMENT IS DETERIORATED NEAR THE JOINT AT THE DECK, BACKWALL, AND SKEWED CORNER OF THE APPROACH SLAB. THESE AREAS ARE TO BE PATCHED WITH THIS ITEM IN CONJUNCTION WITH THE SHOULDER BACKWALL REPAIR WORK. PATCH THESE DETERIORATED OVERLAY AREAS PER MATERIAL, PLACEMENT, AND CURING REQUIREMENTS OF PLAN NOTE, 705.21 AND THE MANUFACTURER'S RECOMMENDATIONS.

NOTES:

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3. FOR ESTIMATED QUANTITIES SEE SHEET 2/27.

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DESIGNED BLN | DRAWN JLS | REVIEWED DLR | DATE 8/2020 | STRUCTURE FILE NUMBER 1814125
CHECKED dht | REVISED

GENERAL PLAN - LOCATION 7
BRIDGE NO. CUY-480-0501
OVER SR 17 (BROOKPARK ROAD)

D12-BH-FY2021(A) MISC
PID No. 103162

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ESTIMATED QUANTITIES

CALCULATED JLS DATED 6/2020
CHECKED dht DATED 6/2020

ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	SUPER.	PIERS	ABUTS.	GEN'L	REF. SHEET
201	21801	1	EACH	TREE REMOVED, 18", AS PER PLAN				1	86
202	11203	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN				LS	24
509	10000	355	LB	EPOXY COATED REINFORCING STEEL			355		
510	10000	59	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT			59		
511	45710	3	CY	CLASS QC1 CONCRETE, ABUTMENT (BACK WALL REPAIR)			3		
512	10101	958	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN	921		37		24
512	74001	885	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES, AS PER PLAN	867		18		24
513	95030	13	EACH	STRUCTURAL STEEL, MISC.: PENCIL ABRASIVE BLASTING, GRINDING, AND NDT	13				25
513	95030	26	EACH	STRUCTURAL STEEL, MISC.: DRILLING STRUCTURAL STEEL, GRINDING AND NDT	26				26
516	10001	57	FT	PREFORMED ELASTOMERIC COMPRESSION JOINT SEAL, AS PER PLAN			57		78
516	46701	10	EACH	RESET BEARING, AS PER PLAN	10				24
516	47001	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN				LS	24
517	74500	39	FT	RAILING, CONCRETE (QC2), REPLACEMENT OF DAMAGED SECTIONS	39				
SPECIAL	51900100	868	SF	COMPOSITE FIBER WRAP SYSTEM		868			25
519	12300	6	SY	PATCHING CONCRETE BRIDGE DECK - TYPE B (FOR OVERNIGHT REPAIRS)	6				26
519	11101	495	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN	313		182		24
844	10001	27	SF	CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN		27			25

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DESIGNED BLN | DRAWN JSB | REVIEWED DLR | DATE 8/2020
CHECKED dht | REVISED | STRUCTURE FILE NUMBER 181425

ESTIMATED QUANTITY - LOCATION 7
BRIDGE NO. CUY-480-0501
OVER SR 17 (BROOKPARK ROAD)

D12-BH-FY2021(A) MISC
PID No. 103162

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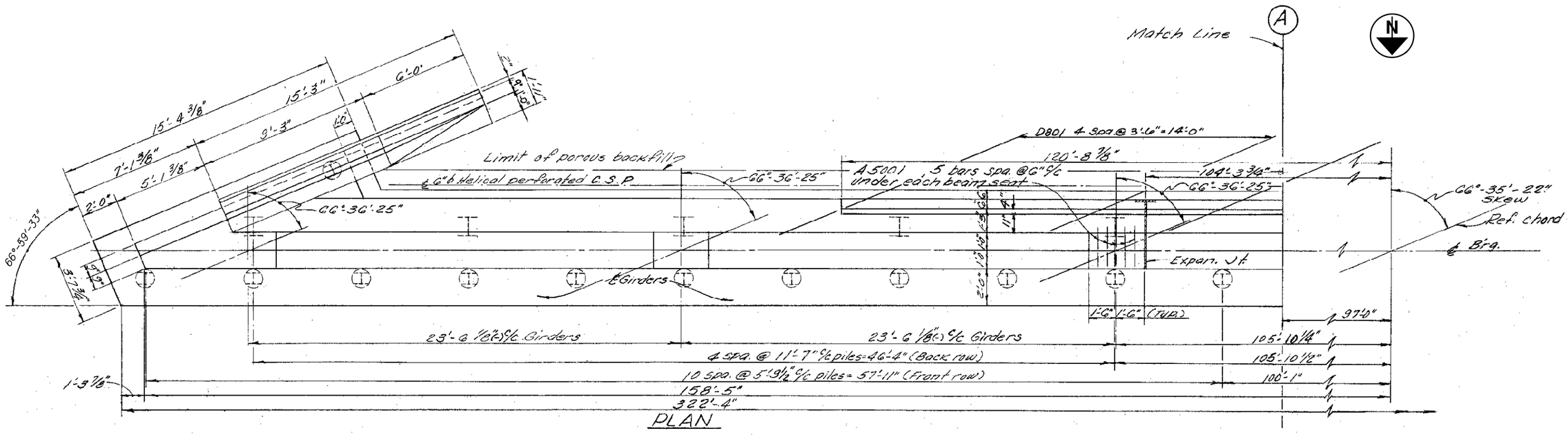
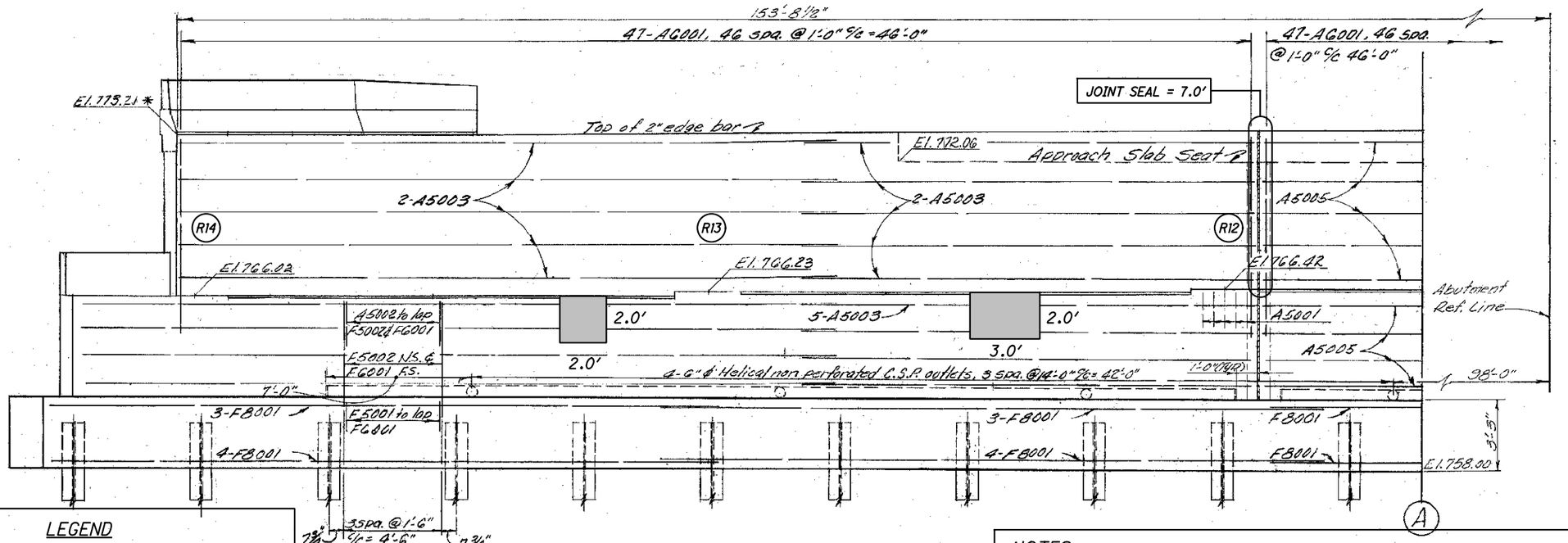




ELEVATION

LEGEND

INDICATES CONCRETE REPAIR PER ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN. QUANTITY THIS SHEET = 10 S.F.

ALL PATCHES WILL BE SEALED 6" BEYOND THE PATCHING LIMITS USING EPOXY-URETHANE AND SHALL BE PAID WITH ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN. TOTAL SEALING AREA THIS SHEET = 21 S.F.

(R14) INDICATES GIRDER BEARING LOCATION.

NOTES:

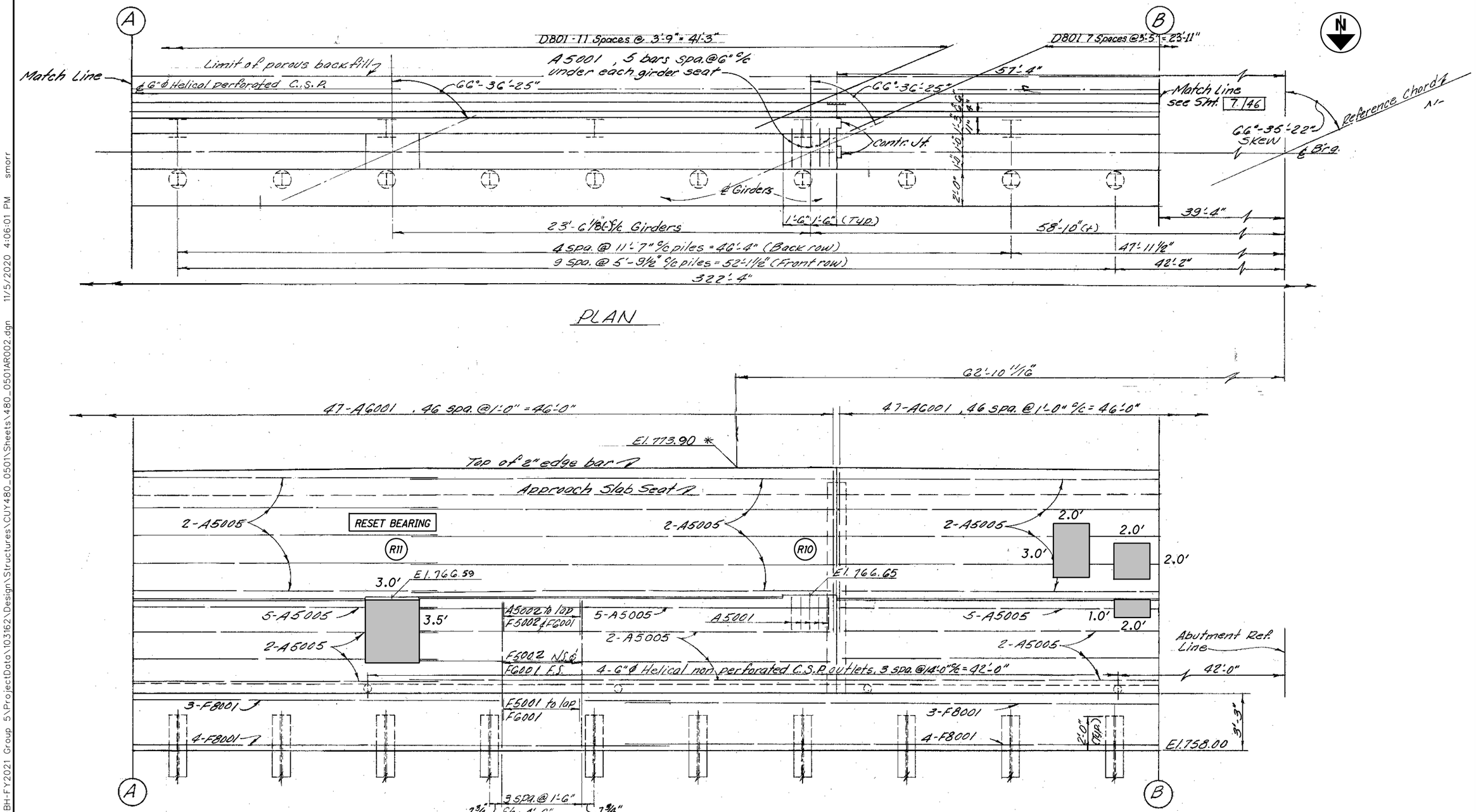
1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE USED FOR INFORMATION PURPOSES ONLY.
2. PERFORM ONLY THE WORK AS INDICATED IN THE STRUCTURE DATA SHEET, FRAMED TEXT, AND/OR DESCRIBED IN THE GENERAL NOTES.
3. MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
4. WORK ON THIS SHEET INCLUDES PATCHING CONCRETE AND INSTALLING COMPRESSION SEALS IN VERTICAL JOINTS.
5. COMPRESSION JOINT SEALS ARE INCLUDED WITH ITEM 516 - PREFORMED ELASTOMERIC COMPRESSION JOINT SEAL, AS PER PLAN. SEE DETAIL NOTE ON SHEET 9/27.
6. FOR ESTIMATED QUANTITIES SEE SHEET 2/27.

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DESIGNED	DRAWN	REVIEWED	DATE
BLN	JLS	DLR	8/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
dht		1814125	

REAR ABUTMENT REPAIRS - 1 - LOCATION
BRIDGE NO. CUY-480-0501
OVER SR 17 (BROOKPARK ROAD)

D12-BH-FY2021(A) MISC
PID No. 103162



LEGEND

INDICATES CONCRETE REPAIR PER ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN. QUANTITY THIS SHEET = 22.5 S.F.

ALL PATCHES WILL BE SEALED 6" BEYOND THE PATCHING LIMITS USING EPOXY-URETHANE AND SHALL BE PAID WITH ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN. TOTAL SEALING AREA THIS SHEET = 45 S.F.

(R11) INDICATES GIRDER BEARING LOCATION.

NOTES:

1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE USED FOR INFORMATION PURPOSES ONLY.
2. PERFORM ONLY THE WORK AS INDICATED IN THE STRUCTURE DATA SHEET, FRAMED TEXT, AND/OR DESCRIBED IN THE GENERAL NOTES.
3. MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
4. WORK ON THIS SHEET INCLUDES PATCHING CONCRETE AND RESETTING BEARINGS.
5. FOR RESETTING BEARING DETAILS SEE SHEET 25/27.
6. FOR ESTIMATED QUANTITIES SEE SHEET 2/27.

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

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REAR ABUTMENT REPAIR - 2 - LOCATION 7
BRIDGE NO. CUY-480-0501
OVER SR 17 (BROOKPARK ROAD)

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4 / 27

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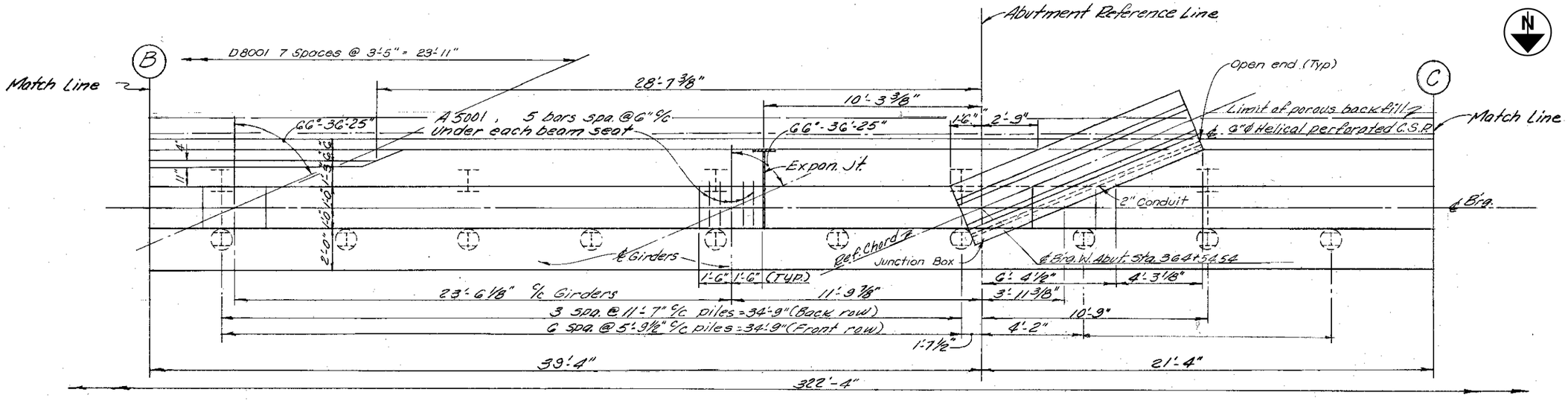
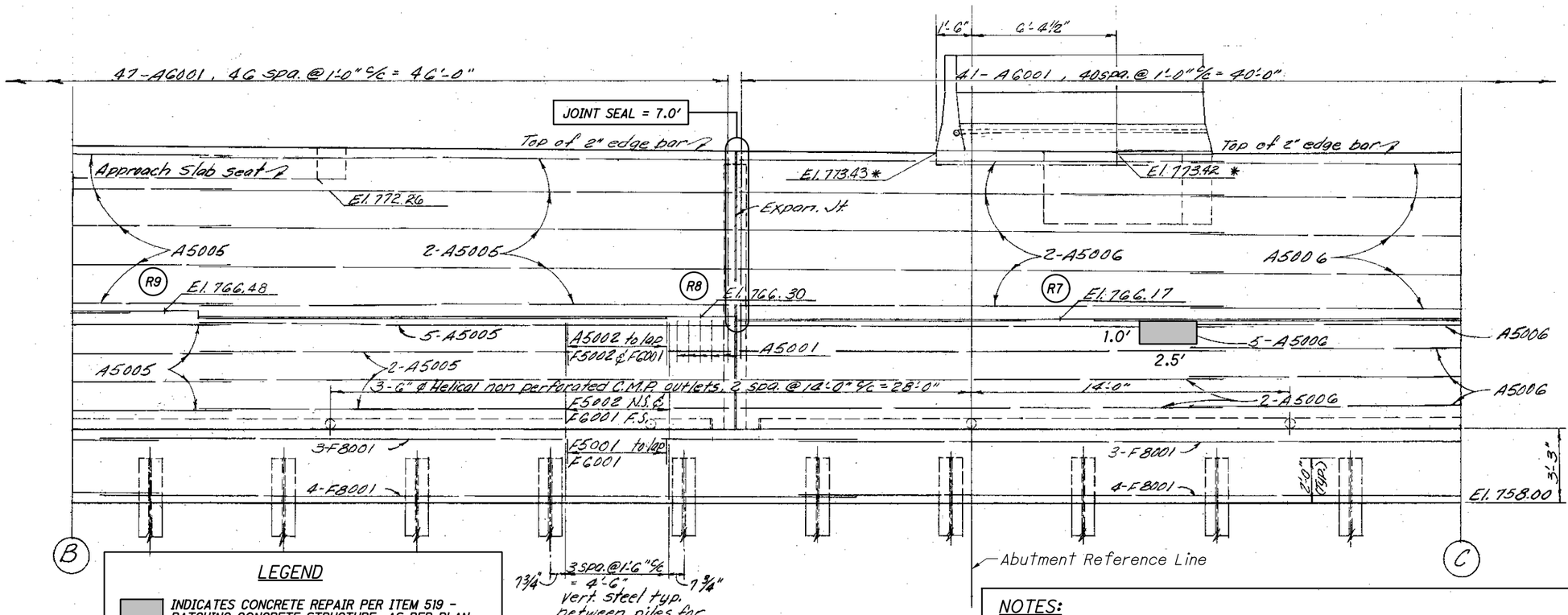


PLAN



ELEVATION

LEGEND

INDICATES CONCRETE REPAIR PER ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN. QUANTITY THIS SHEET = 2.5 S.F.

ALL PATCHES WILL BE SEALED 6" BEYOND THE PATCHING LIMITS USING EPOXY-URETHANE AND SHALL BE PAID WITH ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN. TOTAL SEALING AREA THIS SHEET = 7 S.F.

(R9) INDICATES GIRDER BEARING LOCATION.

NOTES:

1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE USED FOR INFORMATION PURPOSES ONLY.
2. PERFORM ONLY THE WORK AS INDICATED IN THE STRUCTURE DATA SHEET, FRAMED TEXT, AND/OR DESCRIBED IN THE GENERAL NOTES.
3. MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
4. WORK ON THIS SHEET INCLUDES PATCHING CONCRETE AND INSTALLING COMPRESSION SEALS IN VERTICAL JOINTS.
5. COMPRESSION JOINT SEALS ARE INCLUDED WITH ITEM 516 - PREFORMED ELASTOMERIC COMPRESSION JOINT SEAL, AS PER PLAN. SEE DETAIL NOTE ON SHEET 9/27.
6. FOR ESTIMATED QUANTITIES SEE SHEET 2/27.

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REAR ABUTMENT REPAIRS - 3 - LOCATION 7
BRIDGE NO. CUY-480-0501
OVER SR 17 (BROOKPARK ROAD)

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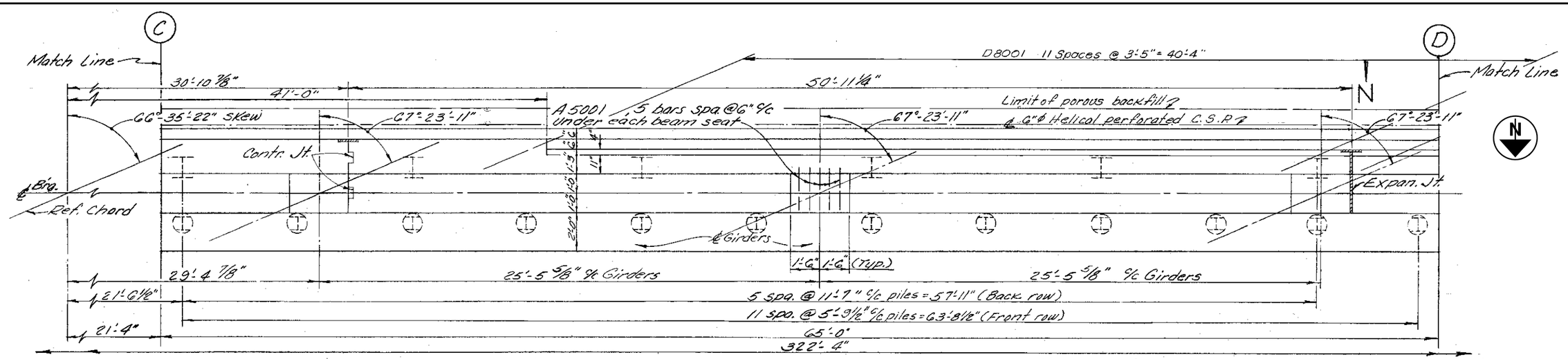
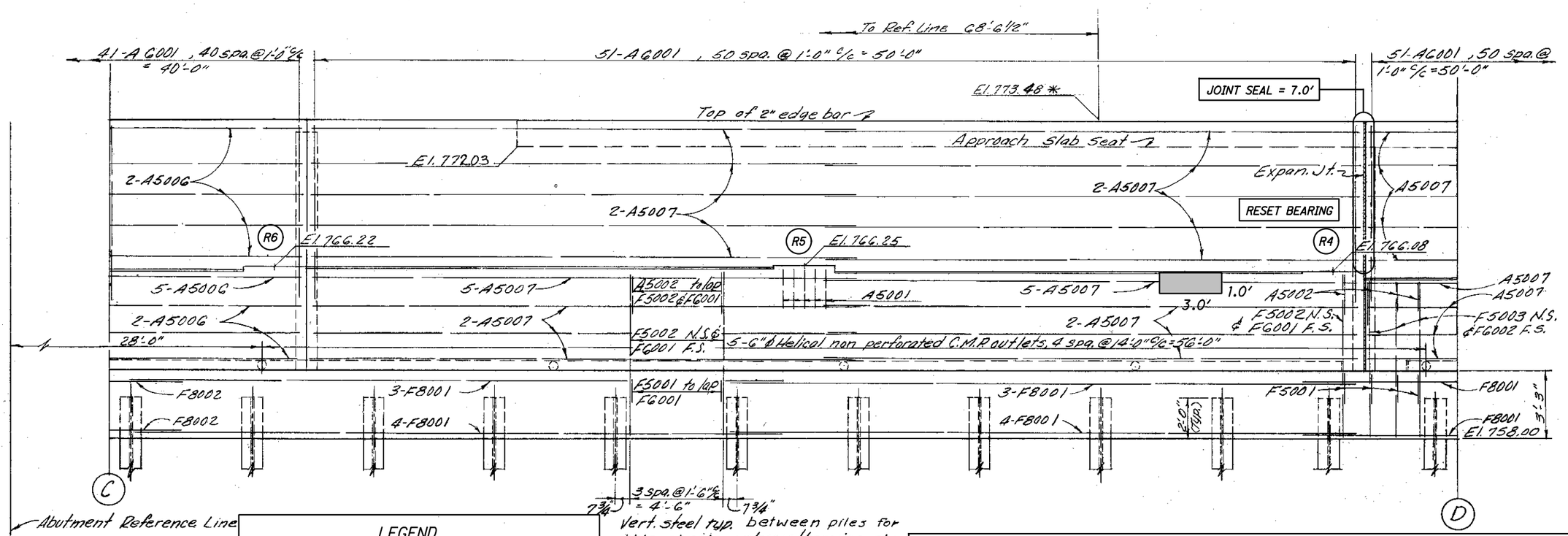


PLAN



ELEVATION

LEGEND

INDICATES CONCRETE REPAIR PER ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN. QUANTITY THIS SHEET = 3 S.F.

ALL PATCHES WILL BE SEALED 6" BEYOND THE PATCHING LIMITS USING EPOXY-URETHANE AND SHALL BE PAID WITH ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN. TOTAL SEALING AREA THIS SHEET = 8 S.F.

(R6) INDICATES GIRDER BEARING LOCATION.

NOTES:

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3. MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
4. WORK ON THIS SHEET INCLUDES PATCHING CONCRETE, INSTALLING COMPRESSION SEALS IN VERTICAL JOINTS, AND RESETTING BEARINGS.
5. COMPRESSION JOINT SEALS ARE INCLUDED WITH ITEM 516 - PREFORMED ELASTOMERIC COMPRESSION JOINT SEAL, AS PER PLAN. SEE DETAIL NOTE ON SHEET 9/27.
6. FOR RESETTING BEARINGS DETAILS SEE SHEET 25/27.
7. FOR ESTIMATED QUANTITIES SEE SHEET 2/27.

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REAR ABUTMENT REPAIRS - 4 - LOCATION 7

BRIDGE NO. CUY-480-0501
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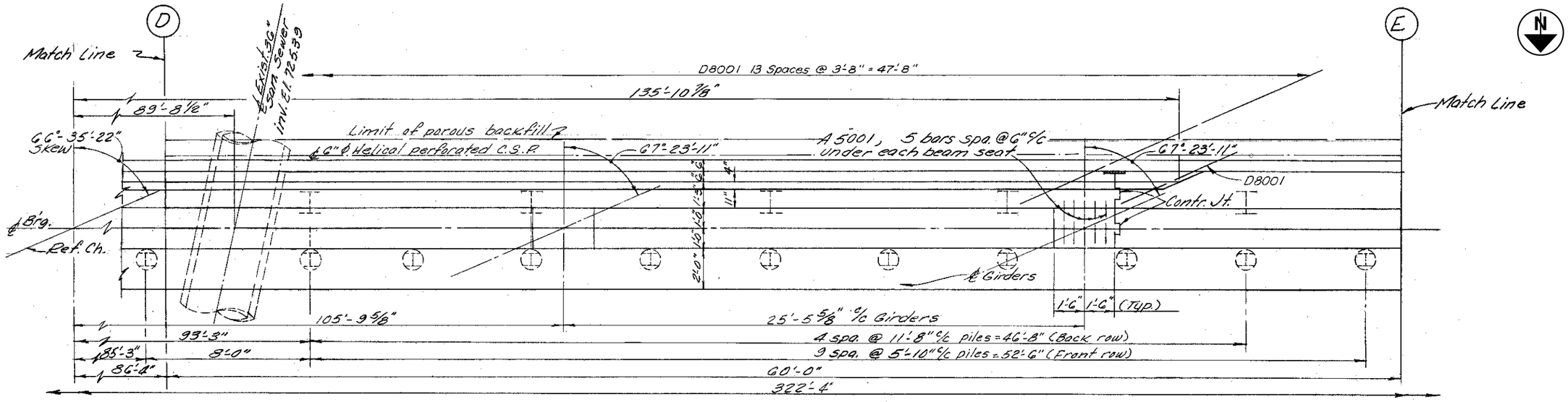

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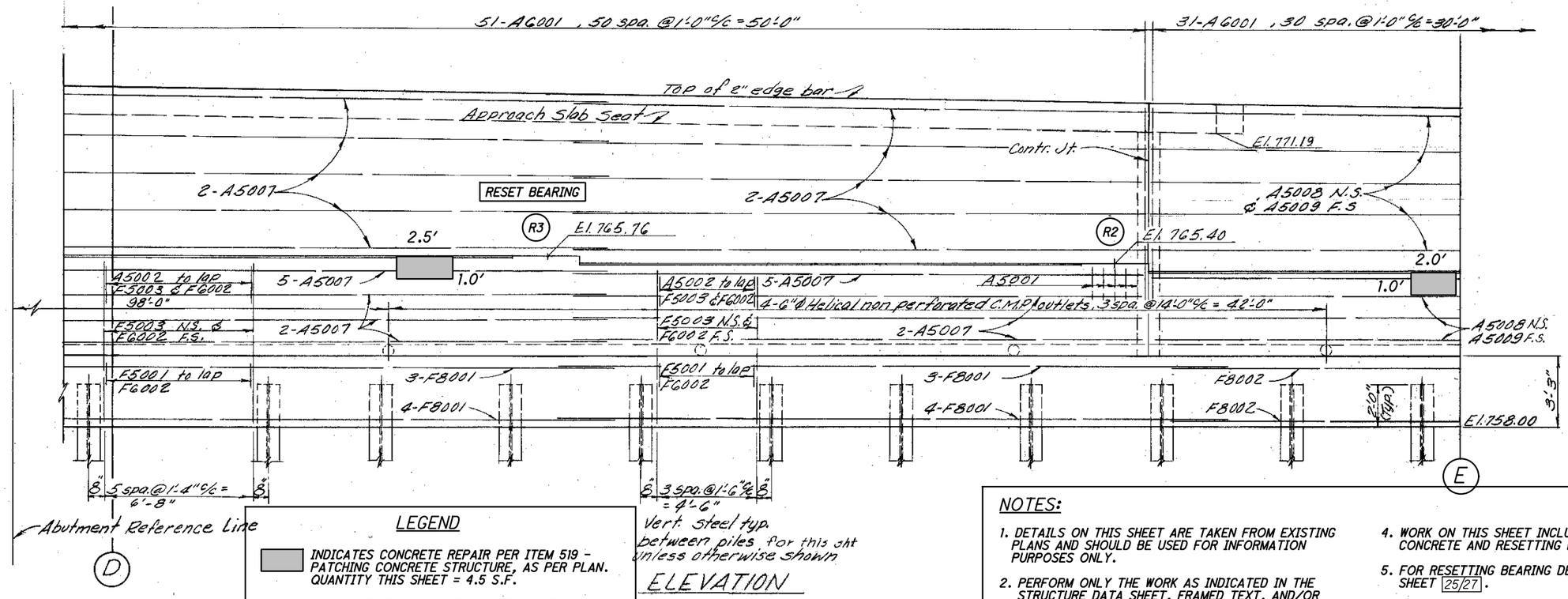

Vert. Steel typ. between piles for this abt unless otherwise shown

ELEVATION

LEGEND

INDICATES CONCRETE REPAIR PER ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN. QUANTITY THIS SHEET = 4.5 S.F.

ALL PATCHES WILL BE SEALED 6" BEYOND THE PATCHING LIMITS USING EPOXY-URETHANE AND SHALL BE PAID WITH ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN. TOTAL SEALING AREA THIS SHEET = 13 S.F.

(R3) INDICATES GIRDER BEARING LOCATION.

NOTES:

1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE USED FOR INFORMATION PURPOSES ONLY.
2. PERFORM ONLY THE WORK AS INDICATED IN THE STRUCTURE DATA SHEET, FRAMED TEXT, AND/OR DESCRIBED IN THE GENERAL NOTES.
3. MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
4. WORK ON THIS SHEET INCLUDES PATCHING CONCRETE AND RESETTING BEARINGS.
5. FOR RESETTING BEARING DETAILS SEE SHEET 25/27.
6. FOR ESTIMATED QUANTITIES SEE SHEET 2/27.

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REAR ABUTMENT REPAIR - 5 - LOCATION 7
BRIDGE NO. CUY-480-0501
OVER SR 17 (BROOKPARK ROAD)

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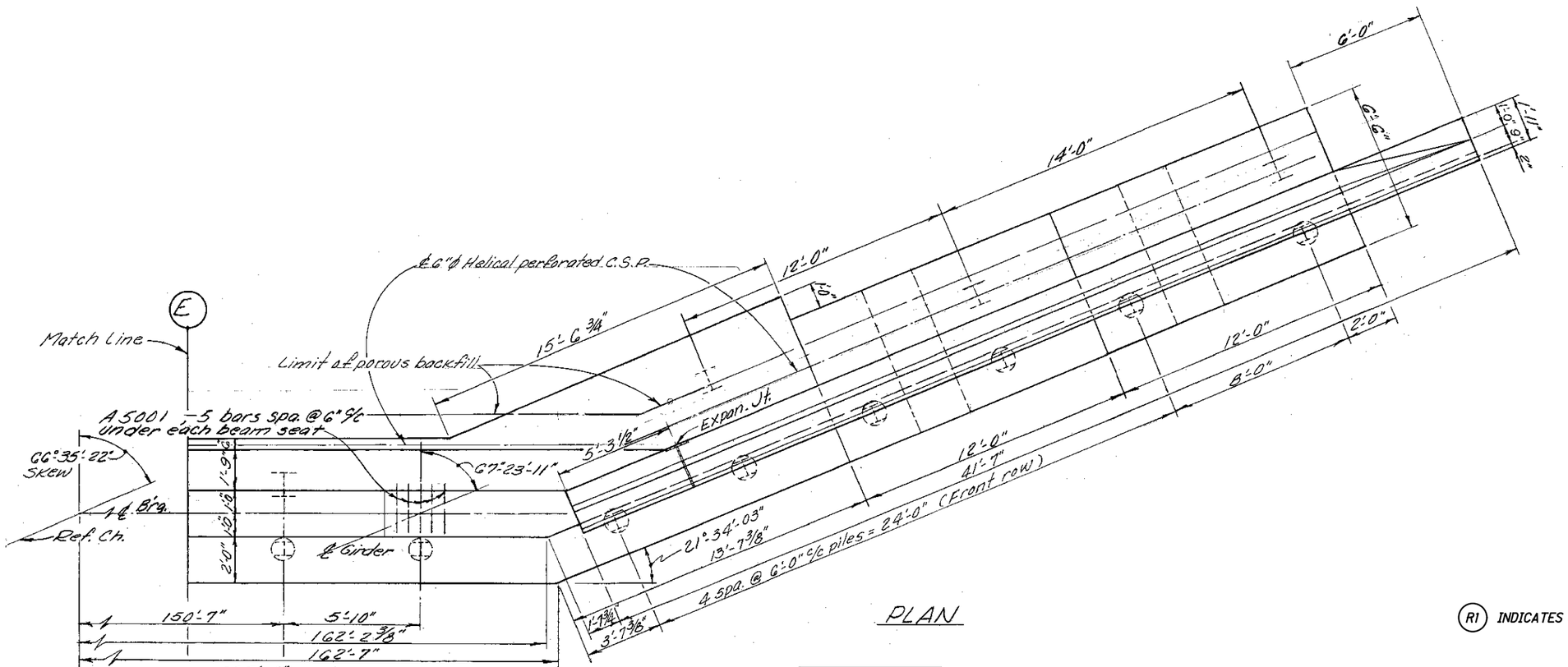

NOTES:

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3. MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
4. WORK ON THIS SHEET INCLUDES INSTALLING COMPRESSION SEALS IN VERTICAL JOINTS.
5. COMPRESSION JOINT SEALS ARE INCLUDED WITH ITEM 516 - PREFORMED ELASTOMERIC COMPRESSION JOINT SEAL, AS PER PLAN. SEE DETAIL NOTE ON SHEET 9/27.
6. FOR ESTIMATED QUANTITIES SEE SHEET 2/27.

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CHECKED	REVISED	STRUCTURE FILE NUMBER	
dht		1814125	

REAR ABUTMENT REPAIR - 6 - LOCATION 7
BRIDGE NO. CUY-480-0501
OVER SR 17 (BROOKPARK ROAD)

D12-BH-FY2021(A) MISC
PID No. 103162

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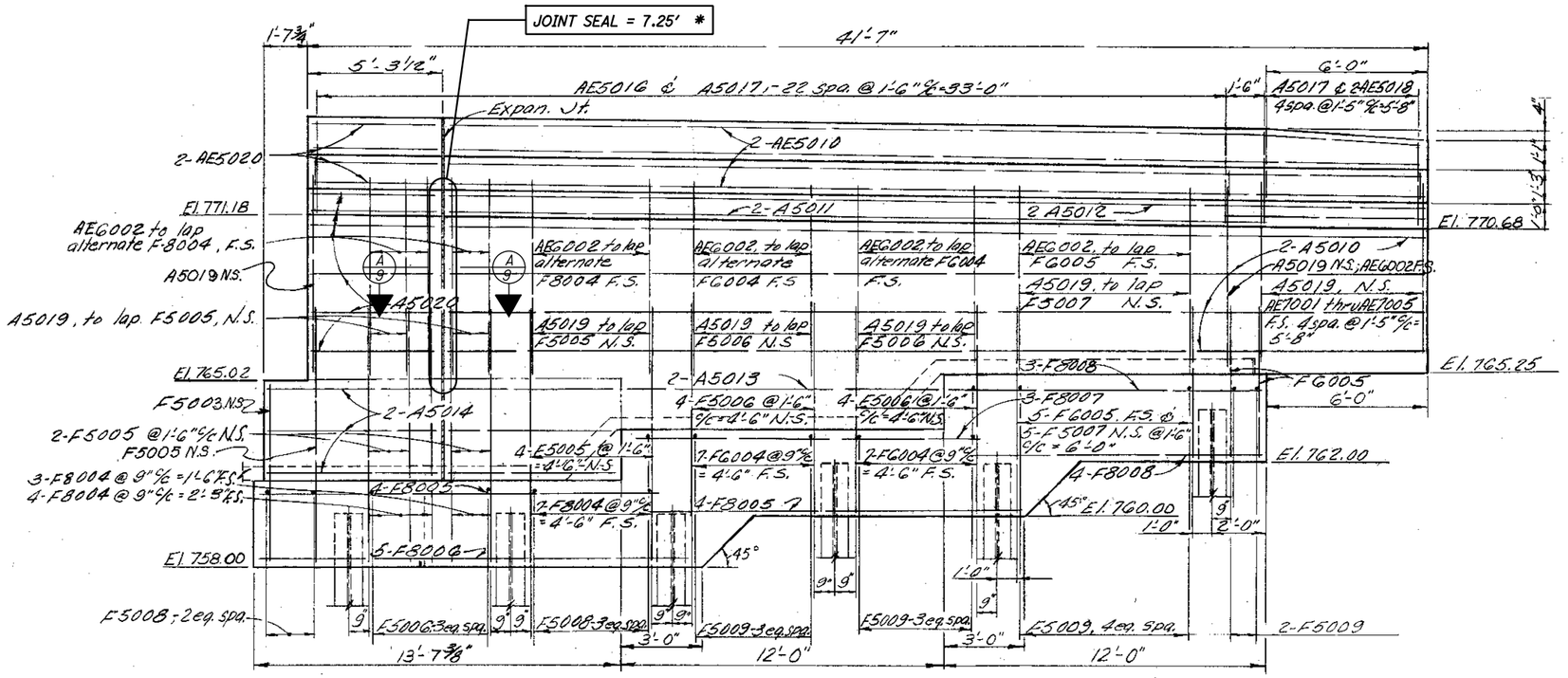
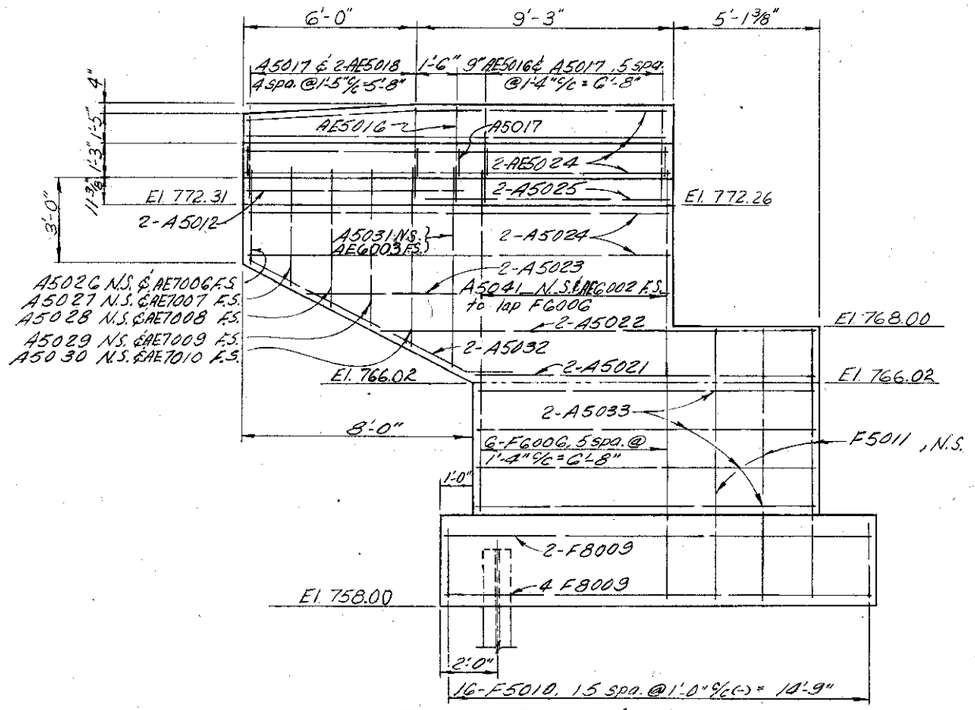
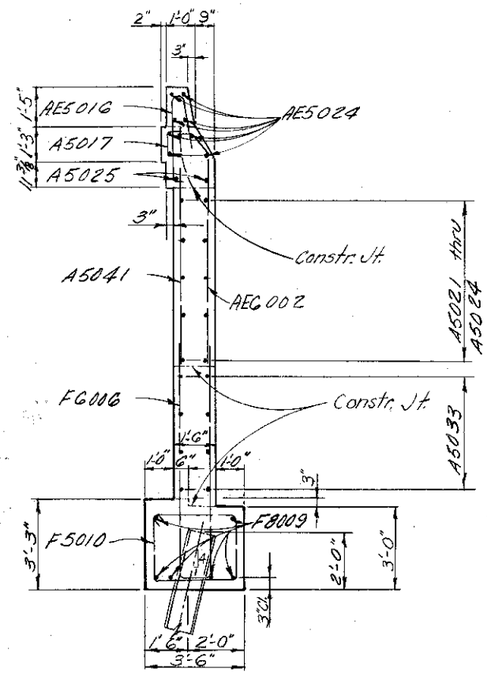


ELEVATION A8-A8
(NORTH WEST WINGWALL)



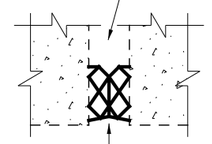
ELEVATION A7-A7

(SOUTH WEST WINGWALL)



SECTION A14-A14

SCRAPE AND CLEAN OUT SOIL IN JOINT AS REQUIRED TO ALLOW FOR INTEGRATING THE SEAL INTO THE EXISTING SPACE AT THE PROPER DEPTH



SECTION A-A

COMPRESSION SEAL: FURNISH MATERIAL CONFORMING TO 705.11. THE SEAL CONFIGURATION SHOULD BE SIMILAR TO THE DETAILS SHOWN HEREIN. ACCEPTED MANUFACTURERS ARE: D.S. BROWN (MODEL CV-1250), WATSON-BOWMAN-ACME (MODEL WE-100) OR AN APPROVED EQUIVALENT. INSTALL THE SEAL ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS AND UNDER THE SUPERVISION OF THE MANUFACTURER'S DESIGNATED REPRESENTATIVE.

PAYMENT FOR THIS ITEM SHALL BE PER FOOT. PAYMENT SHALL BE MADE UNDER ITEM 516 - PREFORMED ELASTOMERIC COMPRESSION JOINT SEAL, AS PER PLAN.

* THIS LOCATION IS ALSO SHOWN ON PREVIOUS SHEET.

NOTES:

1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE USED FOR INFORMATION PURPOSES ONLY.
2. PERFORM ONLY THE WORK AS INDICATED IN THE STRUCTURE DATA SHEET, FRAMED TEXT, AND/OR DESCRIBED IN THE GENERAL NOTES.
3. MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
4. WORK ON THIS SHEET INCLUDES INSTALLING COMPRESSION SEALS IN VERTICAL JOINTS.
5. COMPRESSION JOINT SEALS ARE INCLUDED WITH ITEM 516 - PREFORMED ELASTOMERIC COMPRESSION JOINT SEAL, AS PER PLAN. SEE DETAIL NOTE THIS SHEET.
6. FOR ESTIMATED QUANTITIES SEE SHEET 2/27.

RICHLAND ENGINEERING LIMITED
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REAR ABUTMENT REPAIRS - 7 - LOCATION 7
BRIDGE NO. CUY-480-0501
OVER SR 17 (BROOKPARK ROAD)

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PID No. 103162

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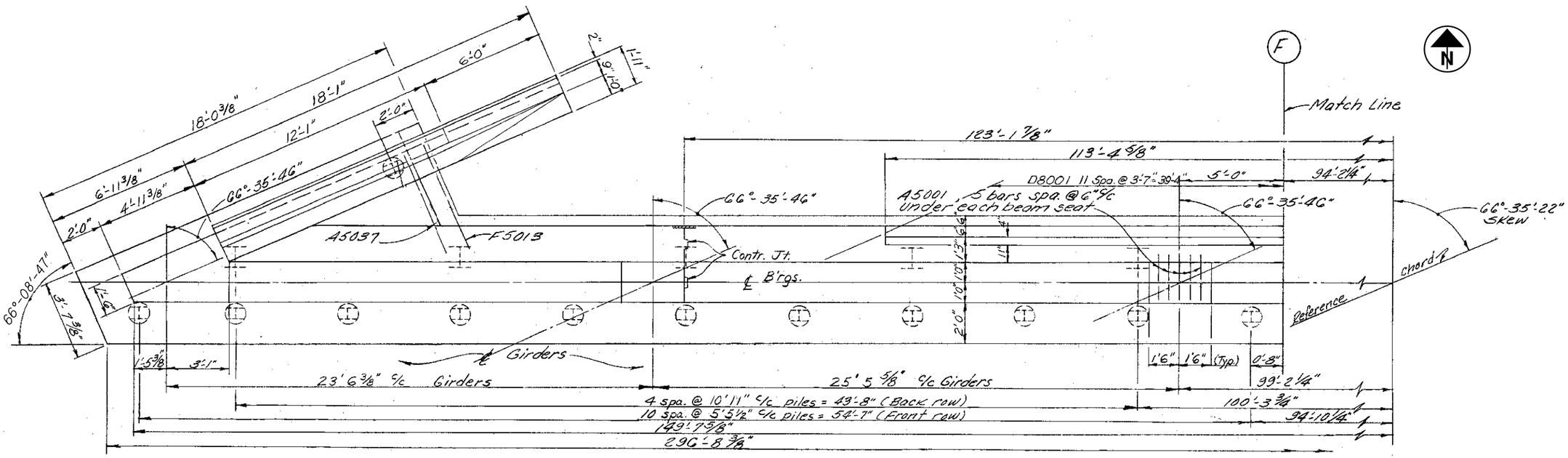
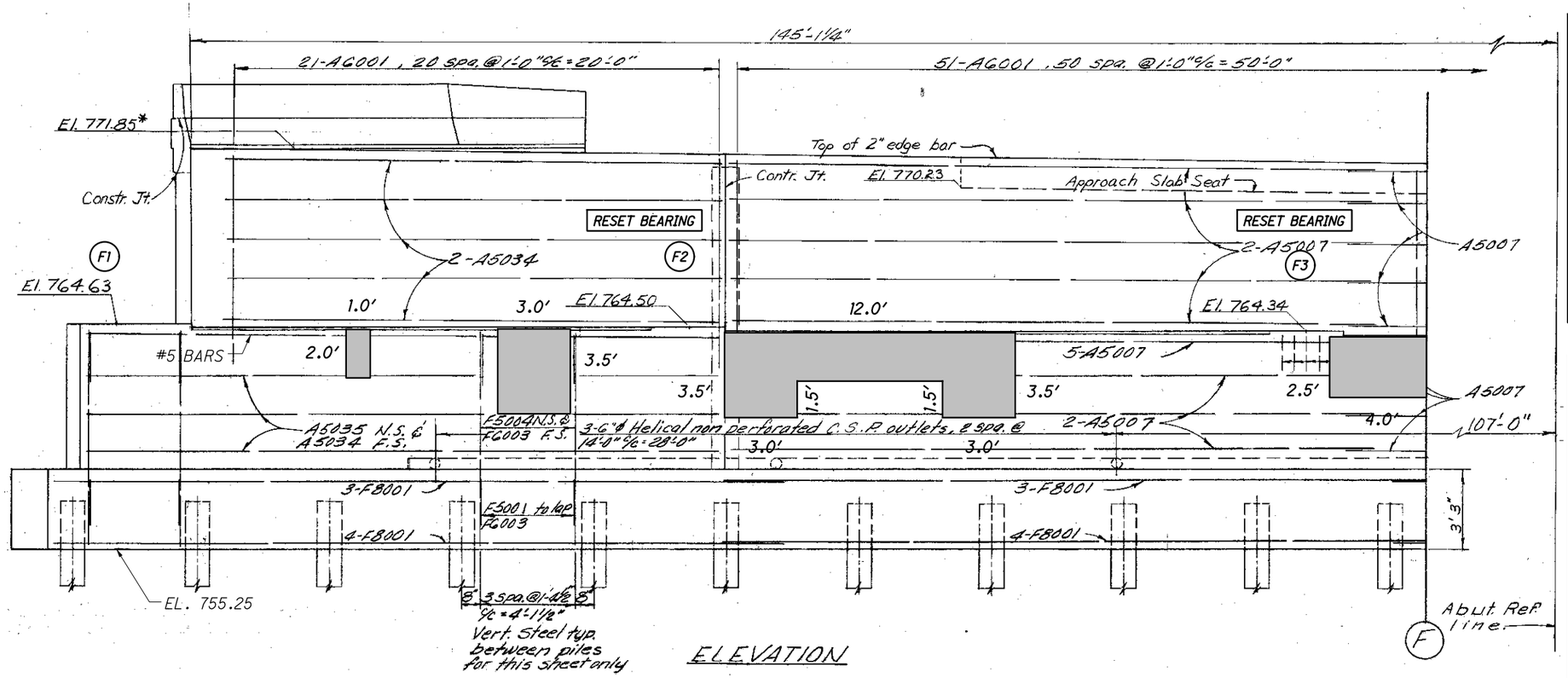


PLAN



ELEVATION

LEGEND

INDICATES CONCRETE REPAIR PER ITEM 519 – PATCHING CONCRETE STRUCTURE, AS PER PLAN. QUANTITY THIS SHEET = 55.5 S.F.

ALL PATCHES SHALL BE SEALED 6" BEYOND THE PATCHING LIMITS USING EPOXY-URETHANE AND SHALL BE PAID WITH ITEM 512 – SEALING CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN. TOTAL SEALING AREA THIS SHEET = 90.75 S.F.

(F1) INDICATES GIRDER BEARING LOCATION.

NOTES:

1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE USED FOR INFORMATION PURPOSES ONLY.
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3. MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
4. WORK ON THIS SHEET INCLUDES PATCHING CONCRETE AND RESETTING BEARINGS.
5. FOR RESETTING BEARING DETAILS SEE SHEET 25/27.
6. FOR ESTIMATED QUANTITIES SEE SHEET 2/27.

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MANSFIELD, OHIO 44902

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FORWARD ABUTMENT REPAIRS - 1 - LOCATION 7
BRIDGE NO. CUY-480-0501
OVER SR 17 (BROOKPARK ROAD)

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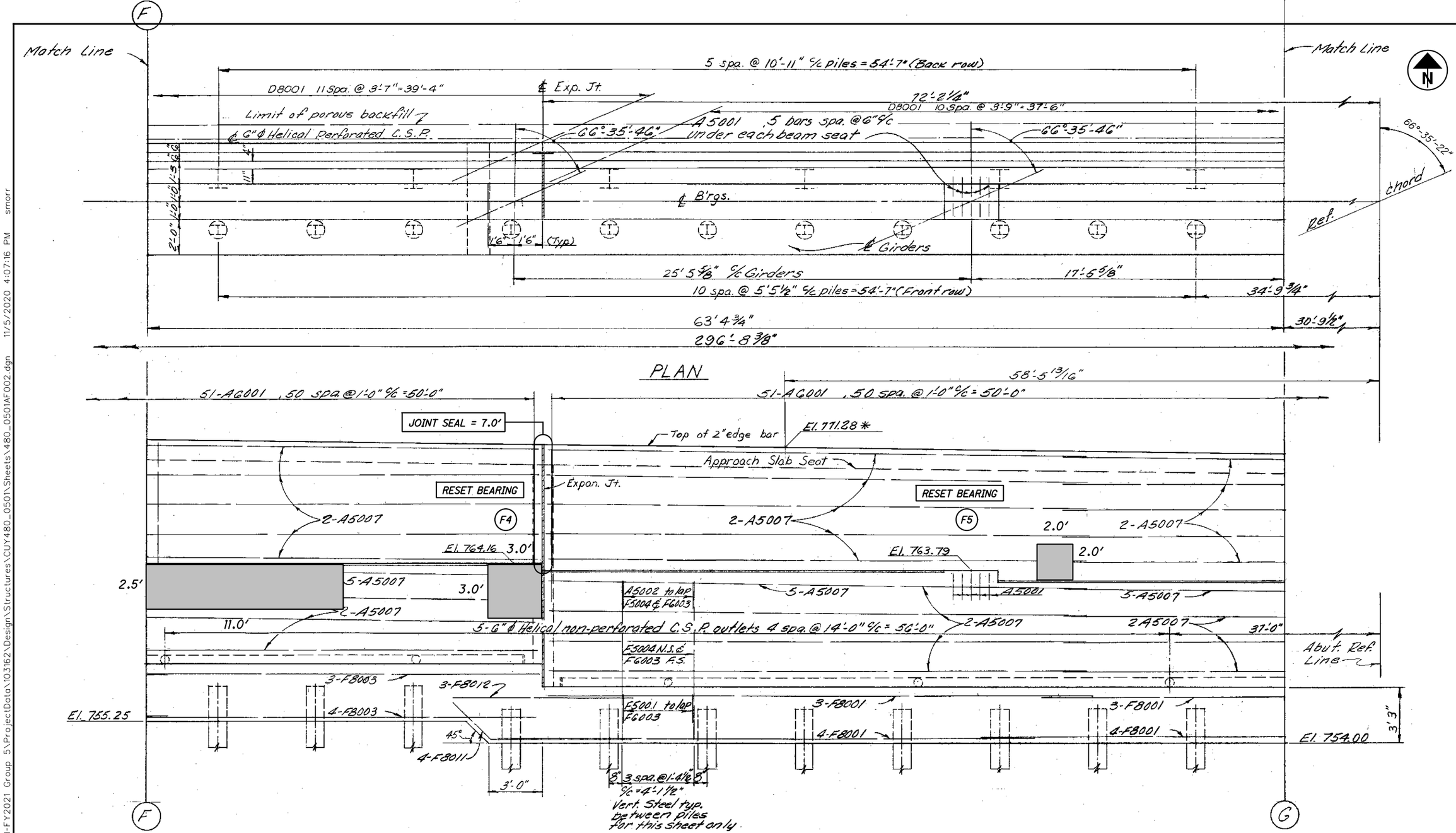

LEGEND

INDICATES CONCRETE REPAIR PER ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN. QUANTITY THIS SHEET = 40.5 S.F.

ALL PATCHES WILL BE SEALED 6" BEYOND THE PATCHING LIMITS USING EPOXY-URETHANE AND SHALL BE PAID WITH ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN. TOTAL SEALING AREA THIS SHEET = 65.25 S.F.

(F4) INDICATES GIRDER BEARING LOCATION.

NOTES:

1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE USED FOR INFORMATION PURPOSES ONLY.
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3. MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
4. WORK ON THIS SHEET INCLUDES PATCHING CONCRETE, INSTALLING COMPRESSION SEALS IN VERTICAL JOINTS, AND RESETTING BEARINGS.
5. COMPRESSION JOINT SEALS ARE INCLUDED WITH ITEM 516 - PREFORMED ELASTOMERIC COMPRESSION JOINT SEAL, AS PER PLAN. SEE DETAIL NOTE ON SHEET 9/27.
6. FOR RESETTING BEARINGS DETAILS SEE SHEET 25/27.
7. FOR ESTIMATED QUANTITIES SEE SHEET 2/27.

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

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dht		181125	

FORWARD ABUTMENT REPAIRS - 2 - LOCATION 7
BRIDGE NO. CUY-480-0501
OVER SR 17 (BROOKPARK ROAD)

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PID No. 103162

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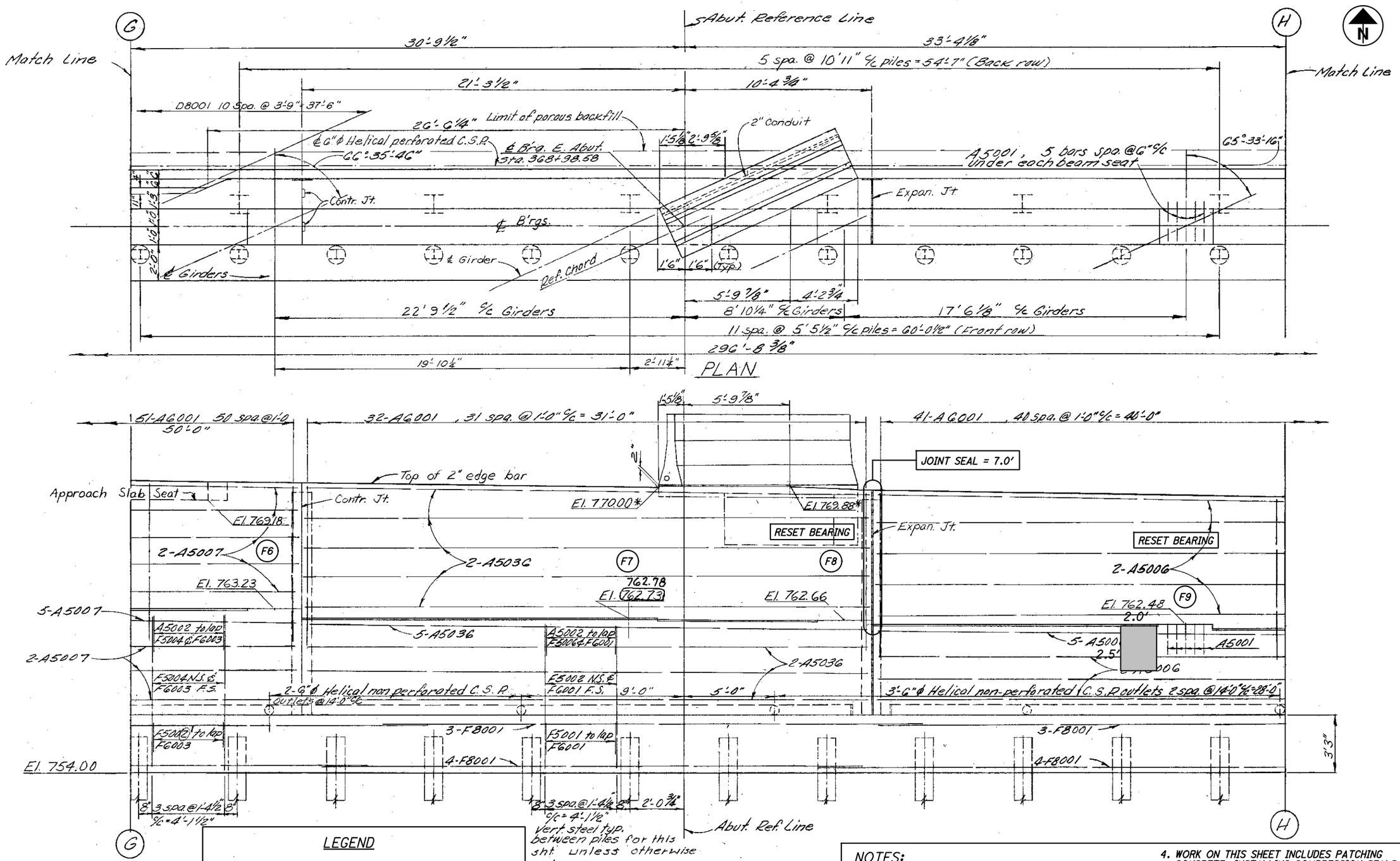

LEGEND

INDICATES CONCRETE REPAIR PER ITEM 519 – PATCHING CONCRETE STRUCTURE, AS PER PLAN. QUANTITY THIS SHEET = 5 S.F.

ALL PATCHES WILL BE SEALED 6" BEYOND THE PATCHING LIMITS USING EPOXY-URETHANE AND SHALL BE PAID WITH ITEM 512 – SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN. TOTAL SEALING AREA THIS SHEET = 10.5 S.F.

(F6) INDICATES GIRDER BEARING LOCATION.

NOTES:

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5. COMPRESSION JOINT SEALS ARE INCLUDED WITH ITEM 516 – PREFORMED ELASTOMERIC COMPRESSION JOINT SEAL, AS PER PLAN. SEE DETAIL NOTE ON SHEET 9/27.
6. FOR RESETTING BEARINGS DETAILS SEE SHEET 25/27.
7. FOR ESTIMATED QUANTITIES SEE SHEET 2/27.

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DESIGNED BLN | DRAWN JLS | CHECKED dht | REVIEWED DLR | DATE 8/2020 | REVISED | STRUCTURE FILE NUMBER 1814125

FORWARD ABUTMENT REPAIRS – 3 – LOCATION 7
BRIDGE NO. CUY-480-0501
OVER SR 17 (BROOKPARK ROAD)

D12-BH-FY2021(A) MISC
PID No. 103162

12 / 27

81 / 96

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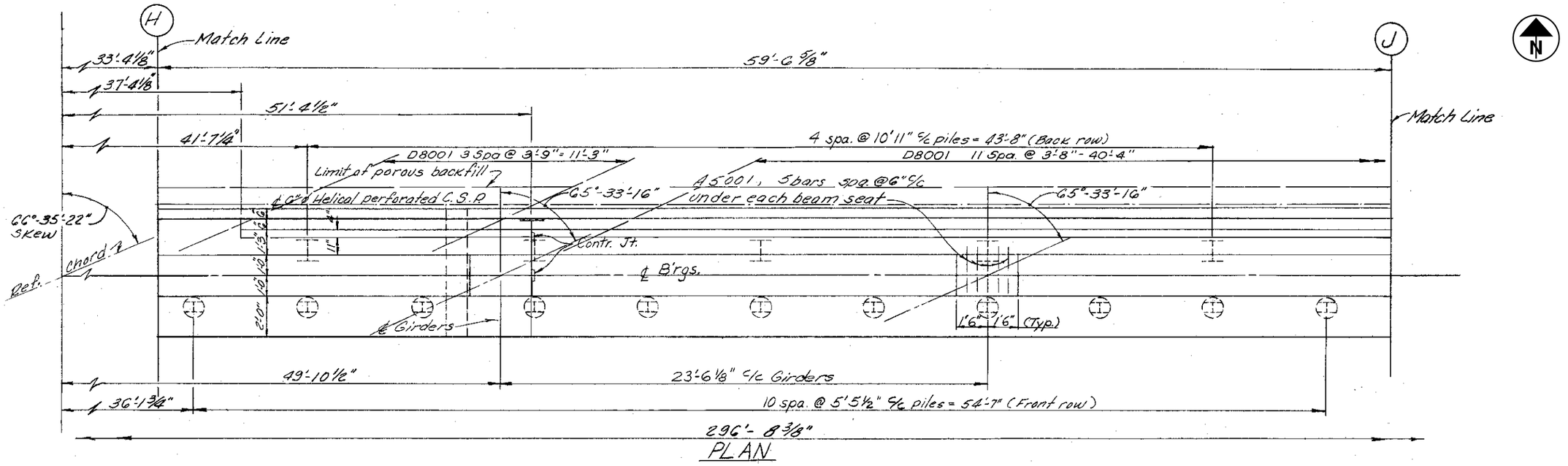

LEGEND

INDICATES CONCRETE REPAIR PER ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN. QUANTITY THIS SHEET = 12 S.F.

ALL PATCHES SHALL BE SEALED 6" BEYOND THE PATCHING LIMITS USING EPOXY-URETHANE AND SHALL BE PAID WITH ITEM 512 - SEALING CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN. TOTAL SEALING AREA THIS SHEET = 24 S.F.

(F10) INDICATES GIRDER BEARING LOCATION.

NOTES:

1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE USED FOR INFORMATION PURPOSES ONLY.
2. PERFORM ONLY THE WORK AS INDICATED IN THE STRUCTURE DATA SHEET, FRAMED TEXT, AND/OR DESCRIBED IN THE GENERAL NOTES.
3. MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
4. WORK ON THIS SHEET INCLUDES PATCHING CONCRETE AND RESETTING BEARINGS.
5. FOR RESETTING BEARING DETAILS SEE SHEET 25/27.
6. FOR ESTIMATED QUANTITIES SEE SHEET 2/27.

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DESIGNED	DRAWN	REVIEWED	DATE
BLN	JLS	DLR	8/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
dht		181425	

FORWARD ABUTMENT REPAIRS - 4 - LOCATION 7
BRIDGE NO. CUY-480-0501
OVER SR 17 (BROOKPARK ROAD)

D12-BH-FY2021(A) MISC
PID No. 103162

13 / 27

82 / 96

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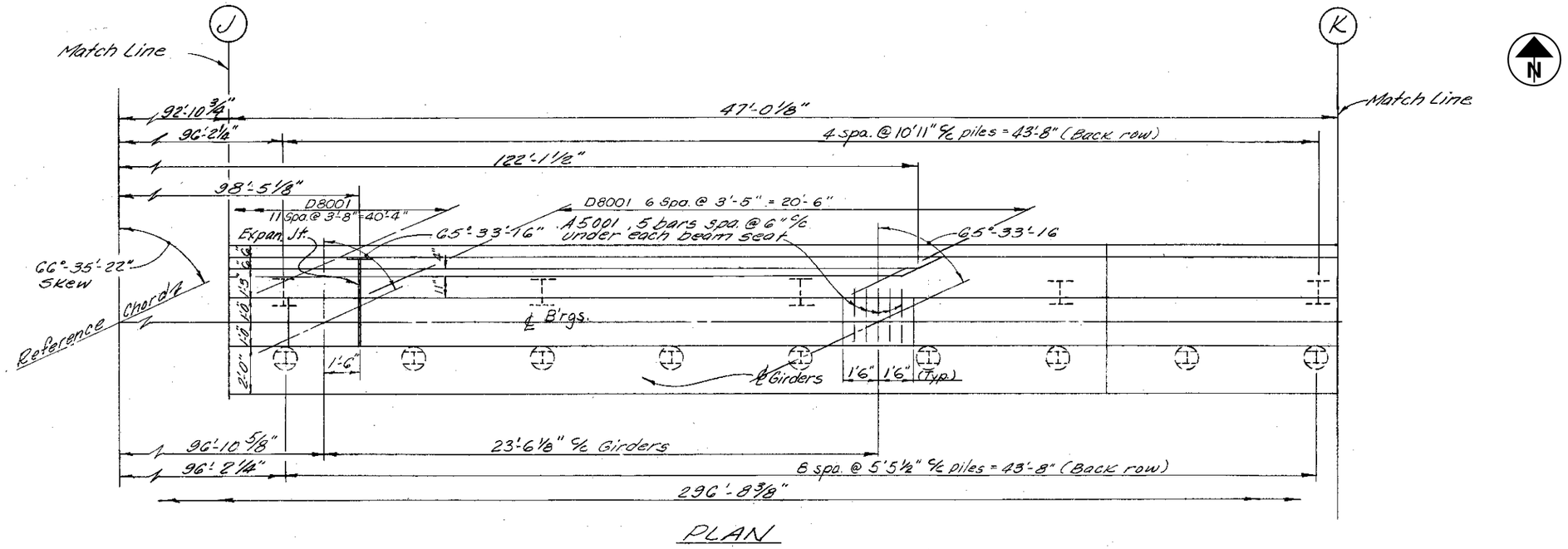
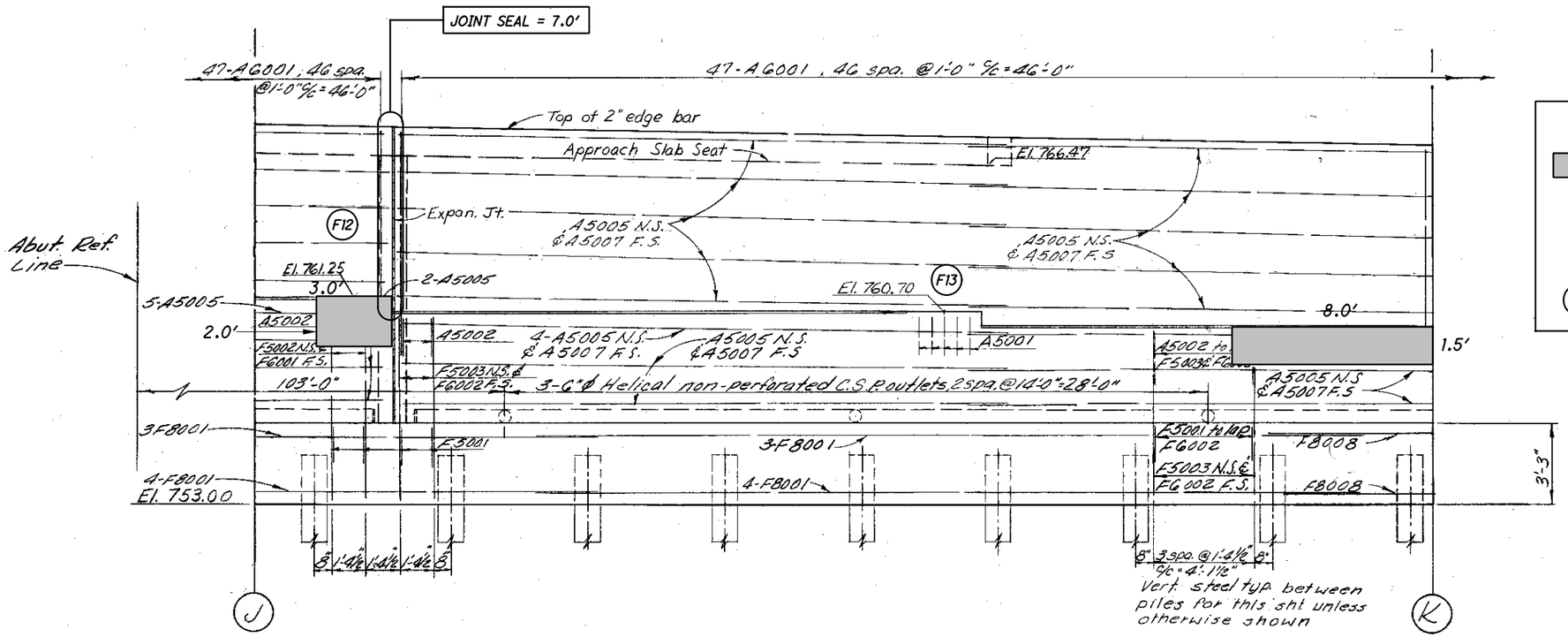


PLAN



ELEVATION

LEGEND

INDICATES CONCRETE REPAIR PER ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN. QUANTITY THIS SHEET = 18 S.F.

ALL PATCHES WILL BE SEALED 6" BEYOND THE PATCHING LIMITS USING EPOXY-URETHANE AND SHALL BE PAID WITH ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN. TOTAL SEALING AREA THIS SHEET = 33.25 S.F.

(F12) INDICATES GIRDER BEARING LOCATION.

NOTES:

1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE USED FOR INFORMATION PURPOSES ONLY.
2. PERFORM ONLY THE WORK AS INDICATED IN THE STRUCTURE DATA SHEET, FRAMED TEXT, AND/OR DESCRIBED IN THE GENERAL NOTES.
3. MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
4. WORK ON THIS SHEET INCLUDES PATCHING CONCRETE AND INSTALLING COMPRESSION SEALS IN VERTICAL JOINTS.
5. COMPRESSION JOINT SEALS ARE INCLUDED WITH ITEM 516 - PREFORMED ELASTOMERIC COMPRESSION JOINT SEAL, AS PER PLAN. SEE DETAIL NOTE ON SHEET 9/27.
6. FOR ESTIMATED QUANTITIES SEE SHEET 2/27.

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DESIGNED	DRAWN	REVIEWED	DATE
BLN	JLS	DLR	8/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
dht		181425	

FORWARD ABUTMENT REPAIRS - 5 - LOCATION 7
BRIDGE NO. CUY-480-0501
OVER SR 17 (BROOKPARK ROAD)

D12-BH-FY2021(A) MISC
PID No. 103162

14 / 27

83
96

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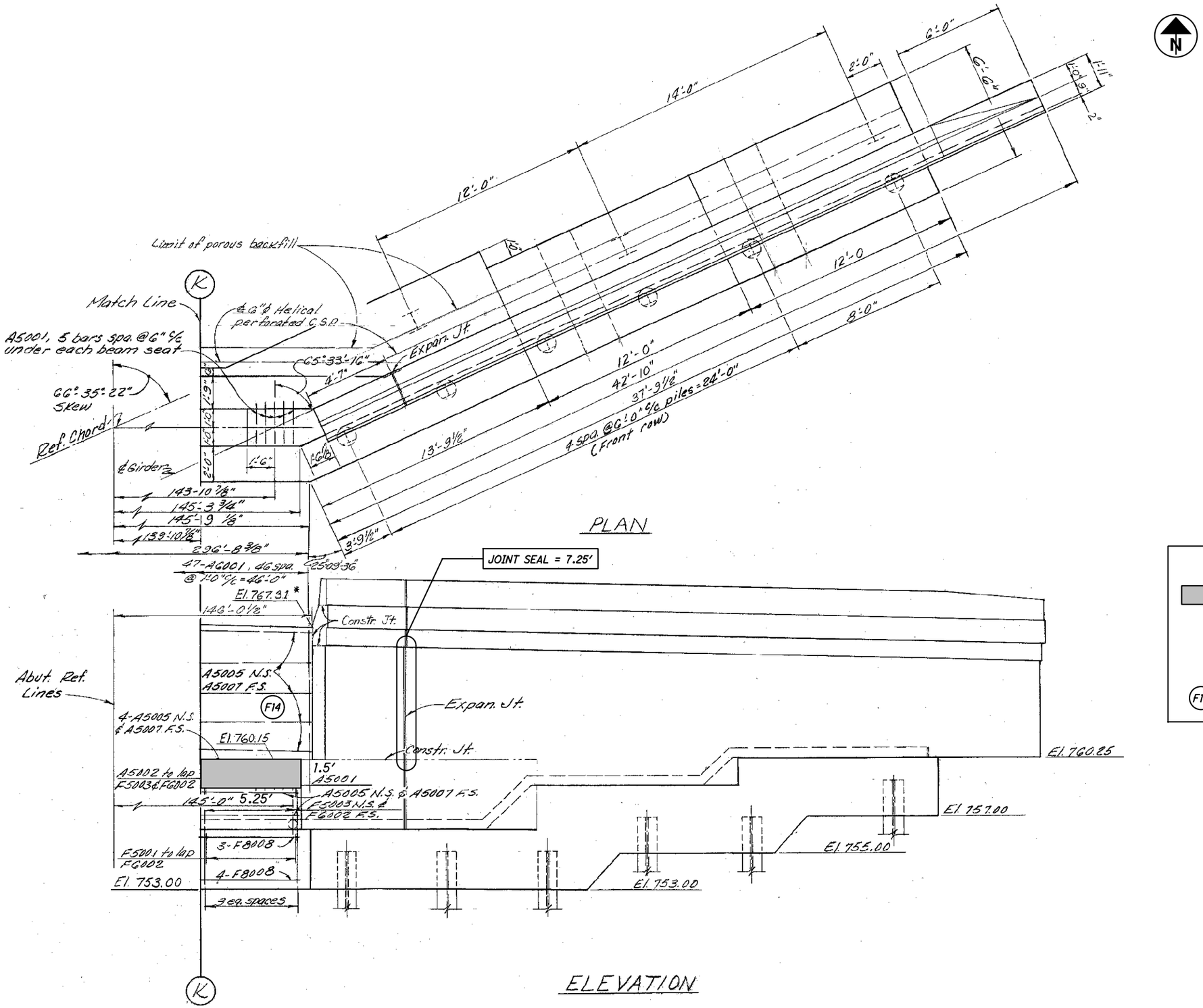

LEGEND

INDICATES CONCRETE REPAIR PER ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN. QUANTITY THIS SHEET = 8 S.F.

ALL PATCHES WILL BE SEALED 6" BEYOND THE PATCHING LIMITS USING EPOXY-URETHANE AND SHALL BE PAID WITH ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN. TOTAL SEALING AREA THIS SHEET = 15 S.F.

(F14) INDICATES GIRDER BEARING LOCATION.

NOTES:

1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE USED FOR INFORMATION PURPOSES ONLY.
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3. MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
4. WORK ON THIS SHEET INCLUDES PATCHING CONCRETE AND INSTALLING COMPRESSION SEALS IN VERTICAL JOINTS.
5. COMPRESSION JOINT SEALS ARE INCLUDED WITH ITEM 516 - PREFORMED ELASTOMERIC COMPRESSION JOINT SEAL, AS PER PLAN. SEE DETAIL NOTE ON SHEET 9/27.
6. FOR ESTIMATED QUANTITIES SEE SHEET 2/27.

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DESIGNED	DRAWN	REVIEWED	DATE
BLN	JLS	DLR	8/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
dht		1814125	

FORWARD ABUTMENT REPAIRS - 6 - LOCATION 7
BRIDGE NO. CUY-480-0501
OVER SR 17 (BROOKPARK ROAD)

D12-BH-FY2021(A) MISC
PID No. 103162

15 / 27

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96

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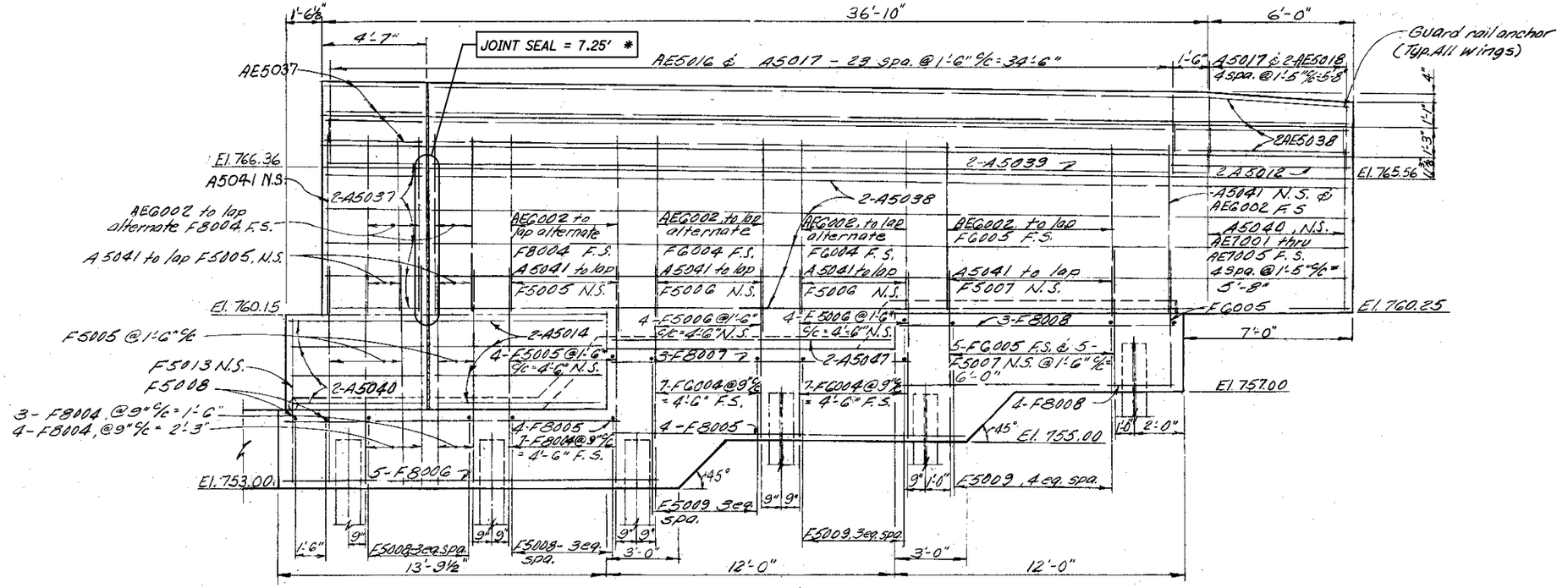
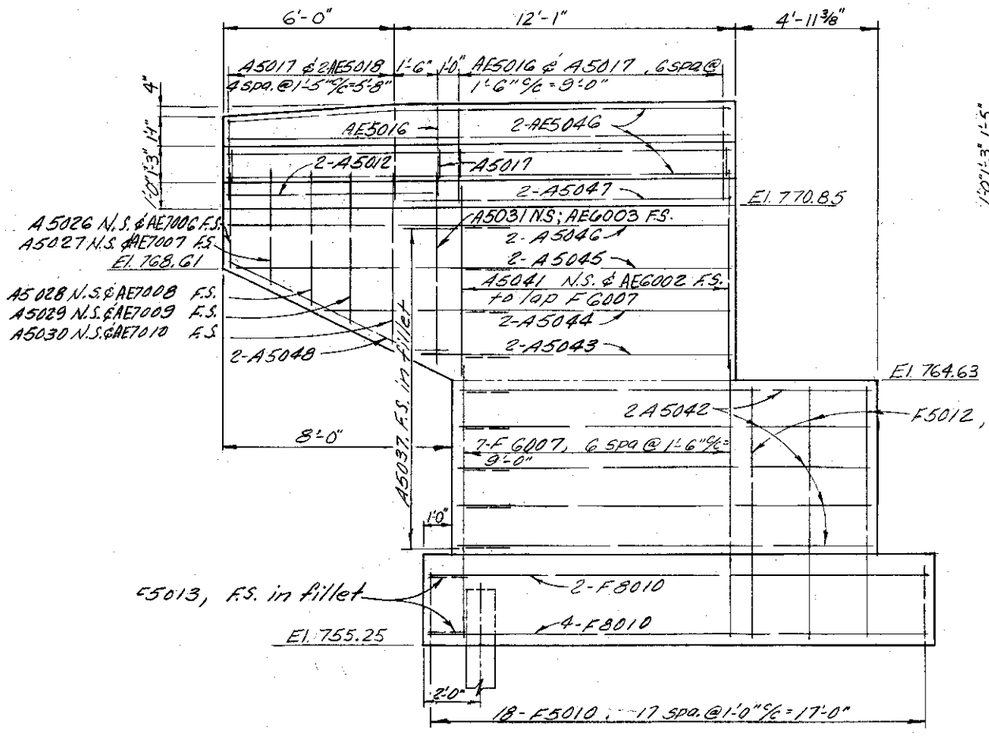
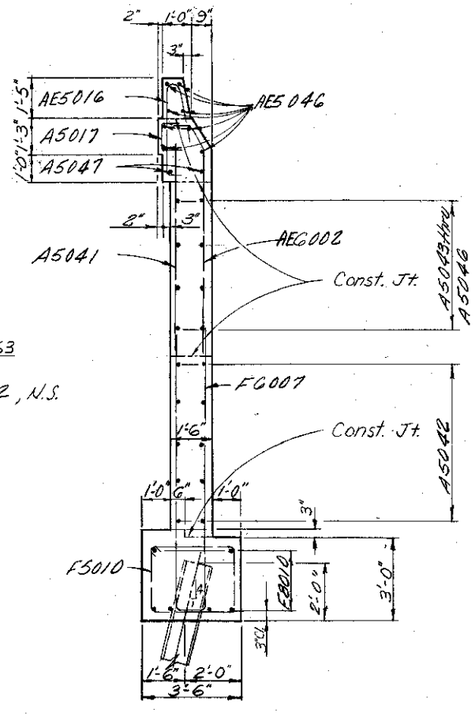


ELEVATION A10-A10



ELEVATION A9-A9



SECTION A18-A18

* THIS LOCATION IS ALSO SHOWN ON PREVIOUS SHEET.

NOTES:

1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE USED FOR INFORMATION PURPOSES ONLY.
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3. MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
4. WORK ON THIS SHEET INCLUDES INSTALLING COMPRESSION SEALS IN VERTICAL JOINTS.
5. COMPRESSION JOINT SEALS ARE INCLUDED WITH ITEM 516 - PREFORMED ELASTOMERIC COMPRESSION JOINT SEAL, AS PER PLAN. SEE DETAIL NOTE ON SHEET 9/27.
6. FOR ESTIMATED QUANTITIES SEE SHEET 2/27.

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

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CHECKED dht | REVISED | STRUCTURE FILE NUMBER 1814125

FORWARD ABUTMENT REPAIRS - 7 - LOCATION 7
BRIDGE NO. CUY-480-0501
OVER SR 17 (BROOKPARK ROAD)

D12-BH-FY2021(A) MISC
PID No. 103162

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85 / 96

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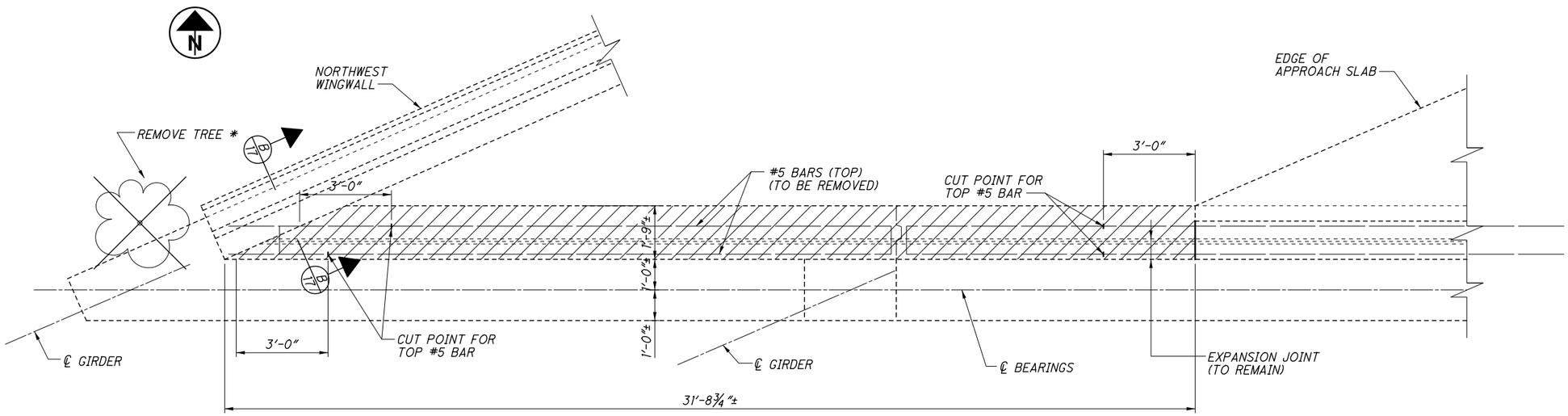
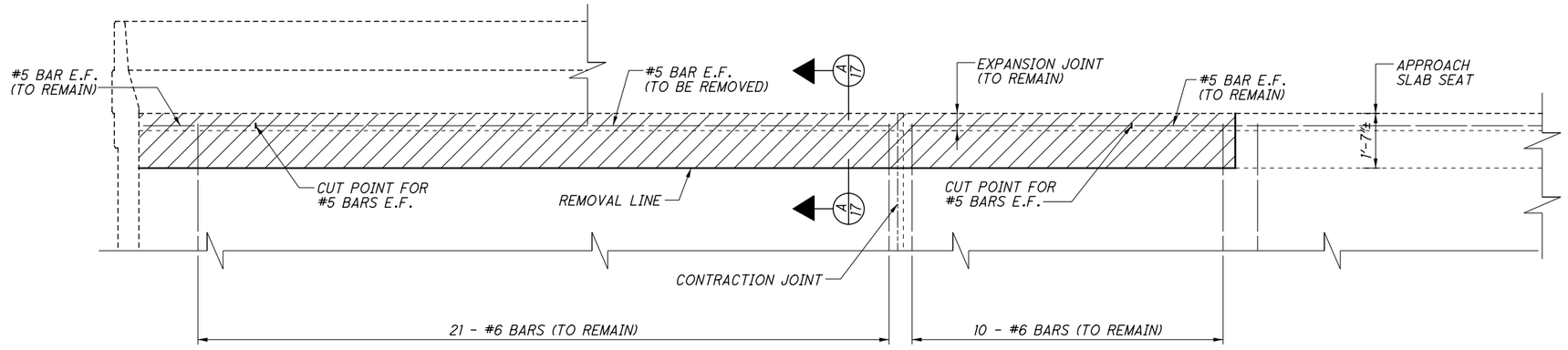
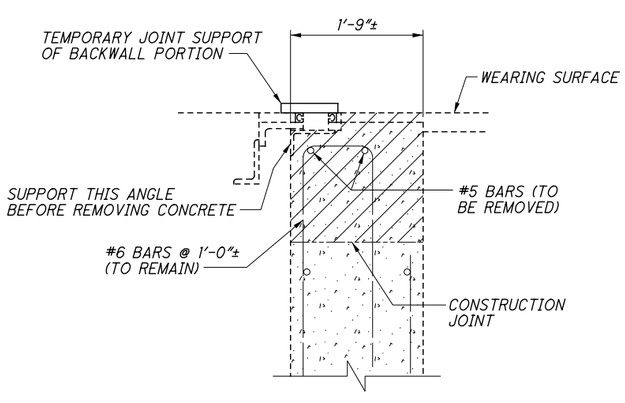


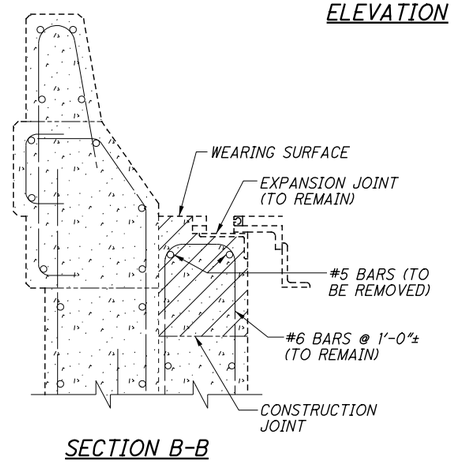
PLAN - FORWARD ABUTMENT AT WEST WINGWALL



ELEVATION



SECTION A-A



SECTION B-B

LEGEND

INDICATES REMOVAL PER ITEM 202- PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN.

* REMOVE TREE TO AT LEAST 12" BELOW THE SEAT AND REGRADE THE IMMEDIATE SLOPE BEHIND THE SEAT LEVEL AND RESEED. THE GRADE SHALL BE BELOW THE SEAT LEVEL SO THAT WATER AND SOIL DO NOT FLOW ONTO THE SEAT. PAYMENT FOR THIS ITEM SHALL BE PER EACH, ITEM 201 - TREE REMOVED, 18", AS PER PLAN.

NOTES:

MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.

BACKWALL REPAIR DETAILS: SEE SHEET 18/27.

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DESIGNED BLN | DRAWN JLS | REVIEWED DLR | DATE 8/2020
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FORWARD ABUTMENT BACKWALL REMOVAL - LOCATION 7
BRIDGE NO. CUY-480-0501
OVER SR 17 (BROOKPARK ROAD)

D12-BH-FY2021(A) MISC
PID No. 103162

17 / 27

86 / 96

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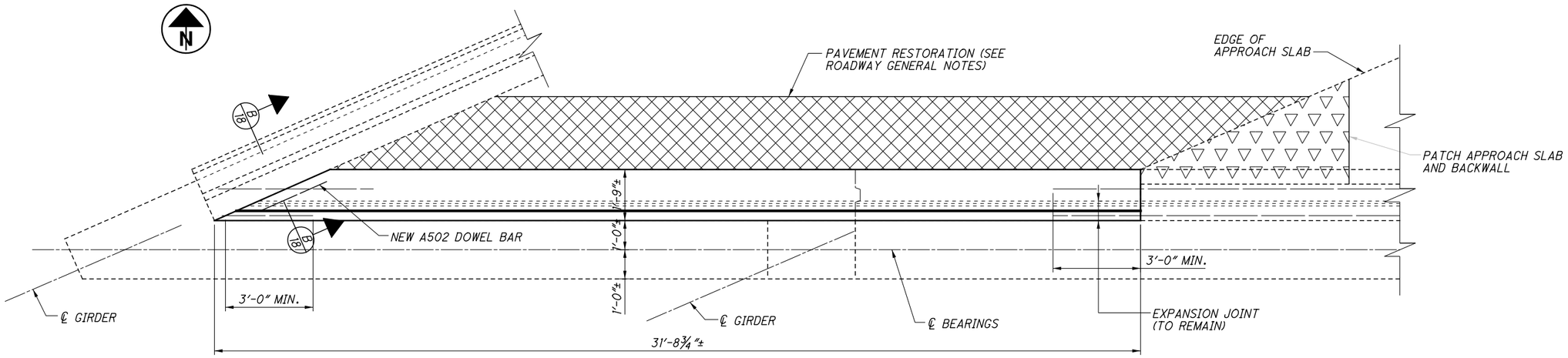
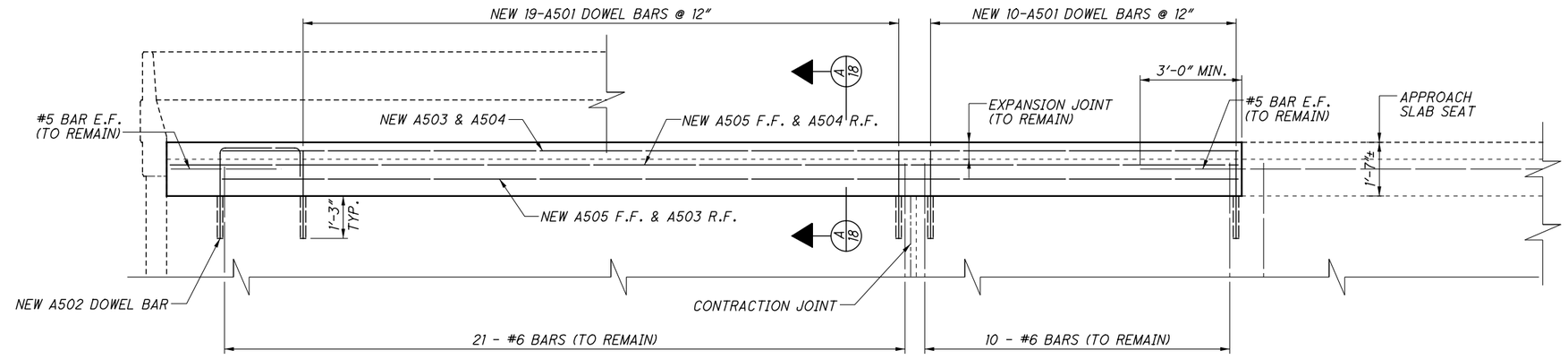
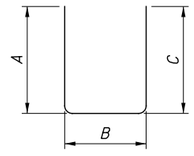


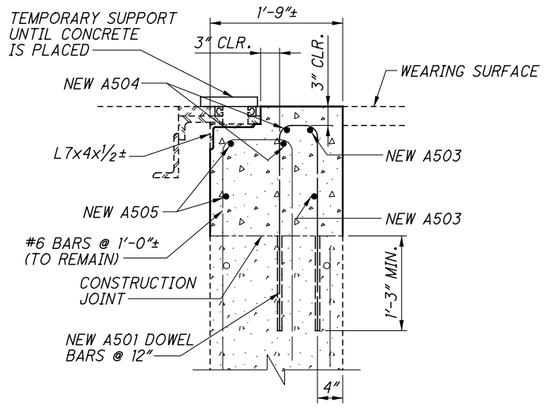
PLAN - FORWARD ABUTMENT AT WEST WINGWALL



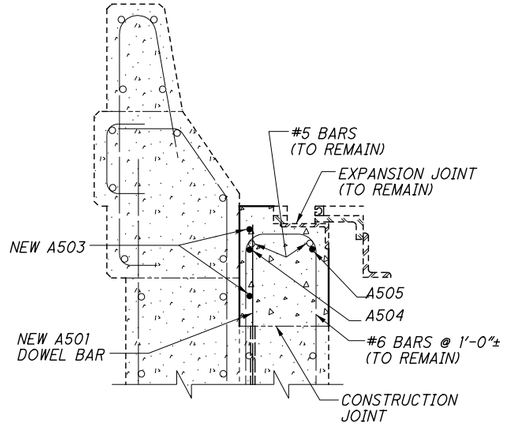
ELEVATION



TYPE-2



SECTION A-A



SECTION B-B

MARK	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	E	R	INC
ABUTMENT									CALCULATED JLS DATE 05/20 CHECKED BLN DATE 05/20		
A501	29	5'-7"	169	2	2'-8"	0'-6"	2'-8"				
A502	1	5'-11"	6	2	2'-8"	2'-8"	0'-10"				
A503	2	27'-6"	57	STR							
A504	2	28'-6"	59	STR							
A505	2	30'-9"	64	STR							
		TOTAL	355								

LEGEND

INDICATES AREA OF APPROACH SLAB TO BE PATCHED PER ITEM 519 - PATCHING CONCRETE BRIDGE DECK - TYPE B (FOR OVERNIGHT REPAIRS). AREA OF PATCH IS APPROXIMATELY 15 S.F.

NOTES

MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.

BACKWALL REMOVAL DETAILS: SEE SHEET 17/27.

ESTIMATED QUANTITIES: SEE SHEET 2/27.

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DESIGNED BLN | DRAWN JLS | REVIEWED DLR | DATE 8/2020
CHECKED dht | REVISED | STRUCTURE FILE NUMBER 1814125

FORWARD ABUTMENT BACKWALL REPAIR - LOCATION 7
BRIDGE NO. CUY-480-0501
OVER SR 17 (BROOKPARK ROAD)

D12-BH-FY2021(A) MISC
PID No. 103162

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87 / 96

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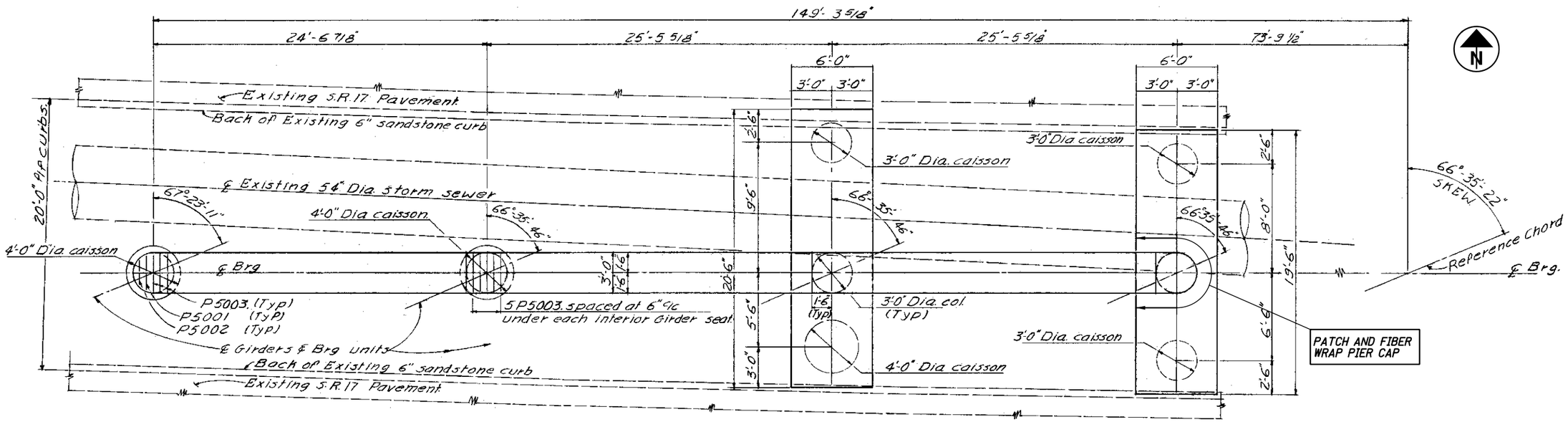
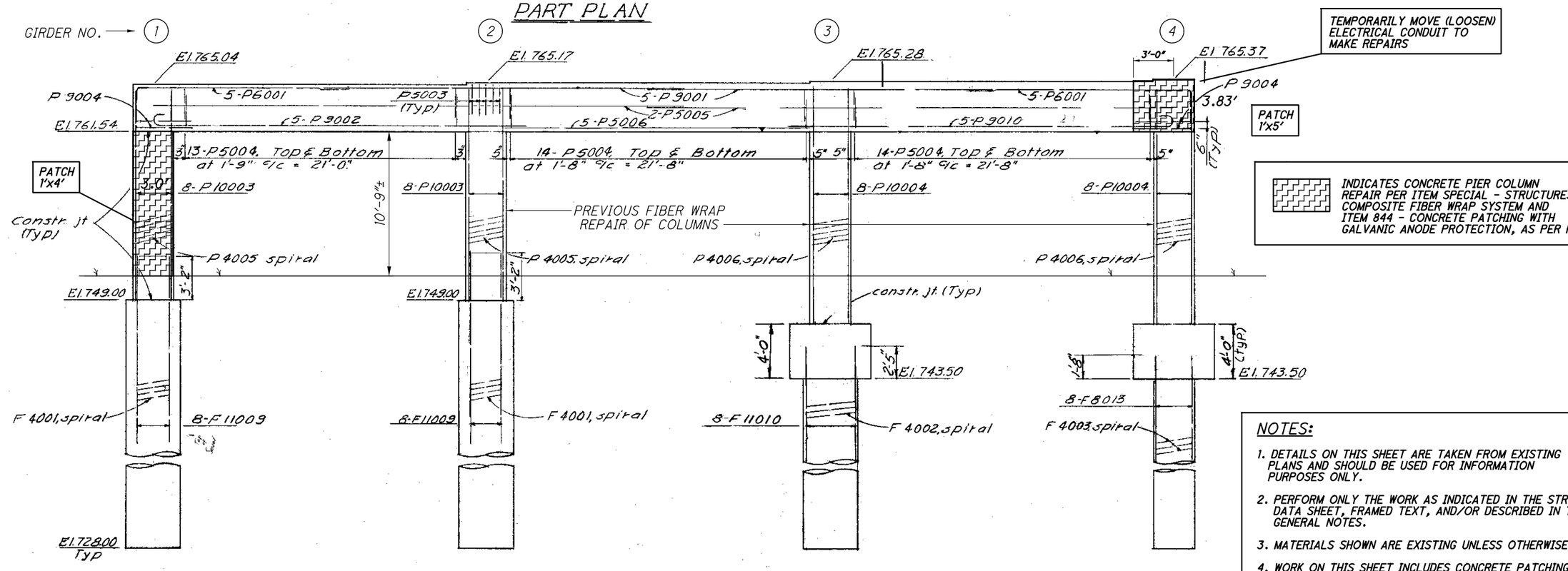


PART PLAN



ELEVATION

NOTES:

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4. WORK ON THIS SHEET INCLUDES CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION AND COMPOSITE FIBER WRAPPING. FOR DETAIL SEE SHEET 22/27.
5. FOR ESTIMATED QUANTITIES SEE SHEET 2/27.

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DESIGNED BLN | DRAWN JLS | REVIEWED DLR | DATE 8/2020
CHECKED dht | REVISED | STRUCTURE FILE NUMBER 1814125

PIER 2 REPAIRS - 1 - LOCATION 7
BRIDGE NO. CUY-480-0501
OVER SR 17 (BROOKPARK ROAD)

D12-BH-FY2021(A) MISC
PID No. 103162

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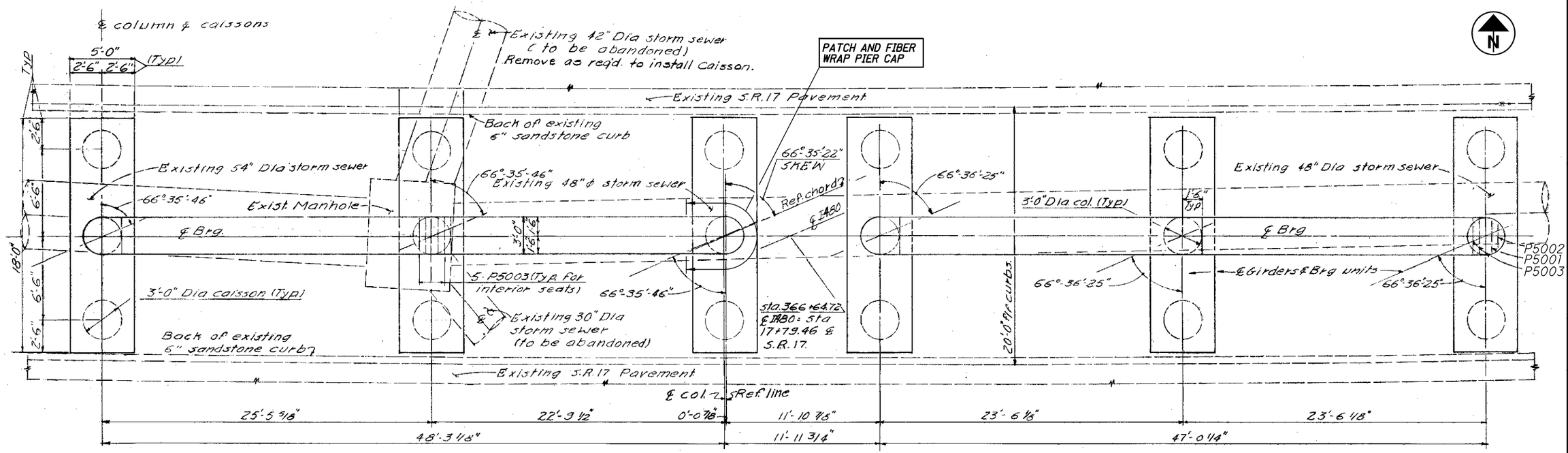

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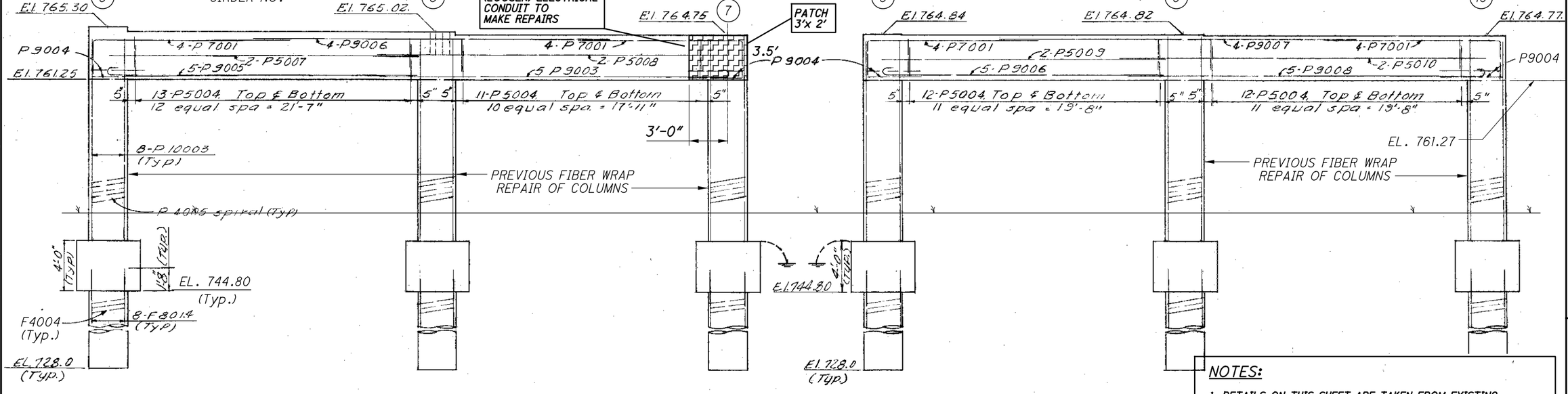

ELEVATION

INDICATES CONCRETE PIER CAP REPAIR PER ITEM SPECIAL - STRUCTURES, COMPOSITE FIBER WRAP SYSTEM AND ITEM 844 - CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN.

NOTES:

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3. MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
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5. FOR ESTIMATED QUANTITIES SEE SHEET 2/27.

RICHLAND ENGINEERING LIMITED
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MANSFIELD, OHIO 44902

DESIGNED BLN | DRAWN JLS | CHECKED dht | REVIEWED DLR | DATE 8/2020 | REVISED | STRUCTURE FILE NUMBER 1814125

PIER 2 REPAIRS - 2 - LOCATION 7
BRIDGE NO. CUY-480-0501
OVER SR 17 (BROOKPARK ROAD)

D12-BH-FY2021(A) MISC
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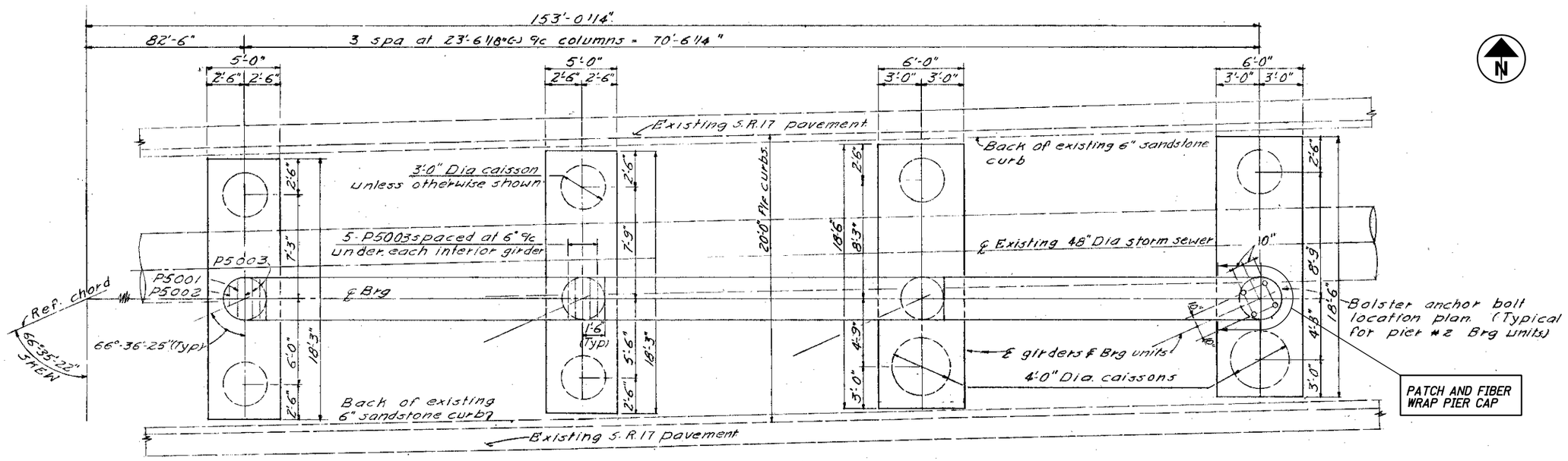

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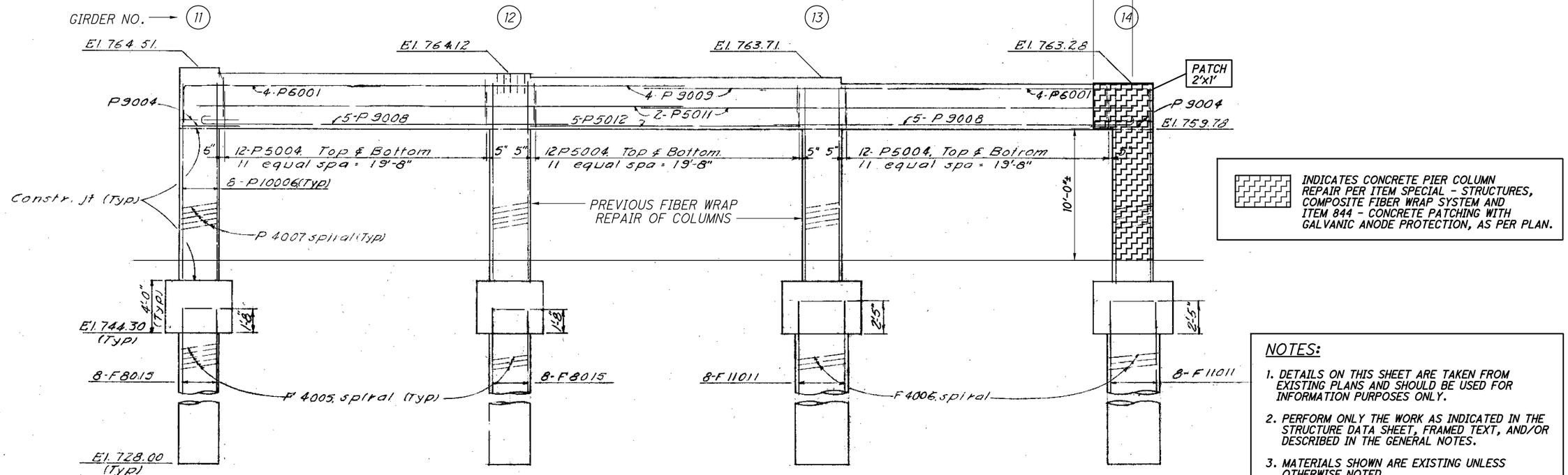

ELEVATION

INDICATES CONCRETE PIER COLUMN REPAIR PER ITEM SPECIAL - STRUCTURES, COMPOSITE FIBER WRAP SYSTEM AND ITEM 844 - CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN.

NOTES:

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4. WORK ON THIS SHEET INCLUDES CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION AND COMPOSITE FIBER WRAPPING. FOR DETAIL SEE SHEET 22/27.
5. FOR ESTIMATED QUANTITIES SEE SHEET 2/27.

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DESIGNED BLN | DRAWN JLS | CHECKED dht | REVIEWED DLR | DATE 8/2020 | REVISED | STRUCTURE FILE NUMBER 1814125

PIER 2 REPAIRS - 3 - LOCATION 7
BRIDGE NO. CUY-480-0501
OVER SR 17 (BROOKPARK ROAD)

D12-BH-FY2021(A) MISC
PID No. 103162

21/27

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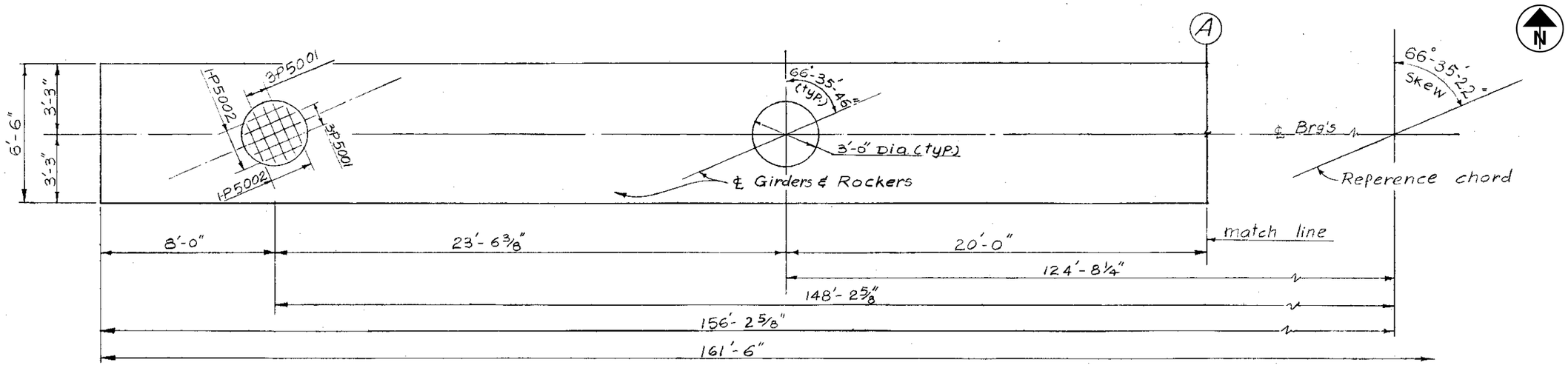

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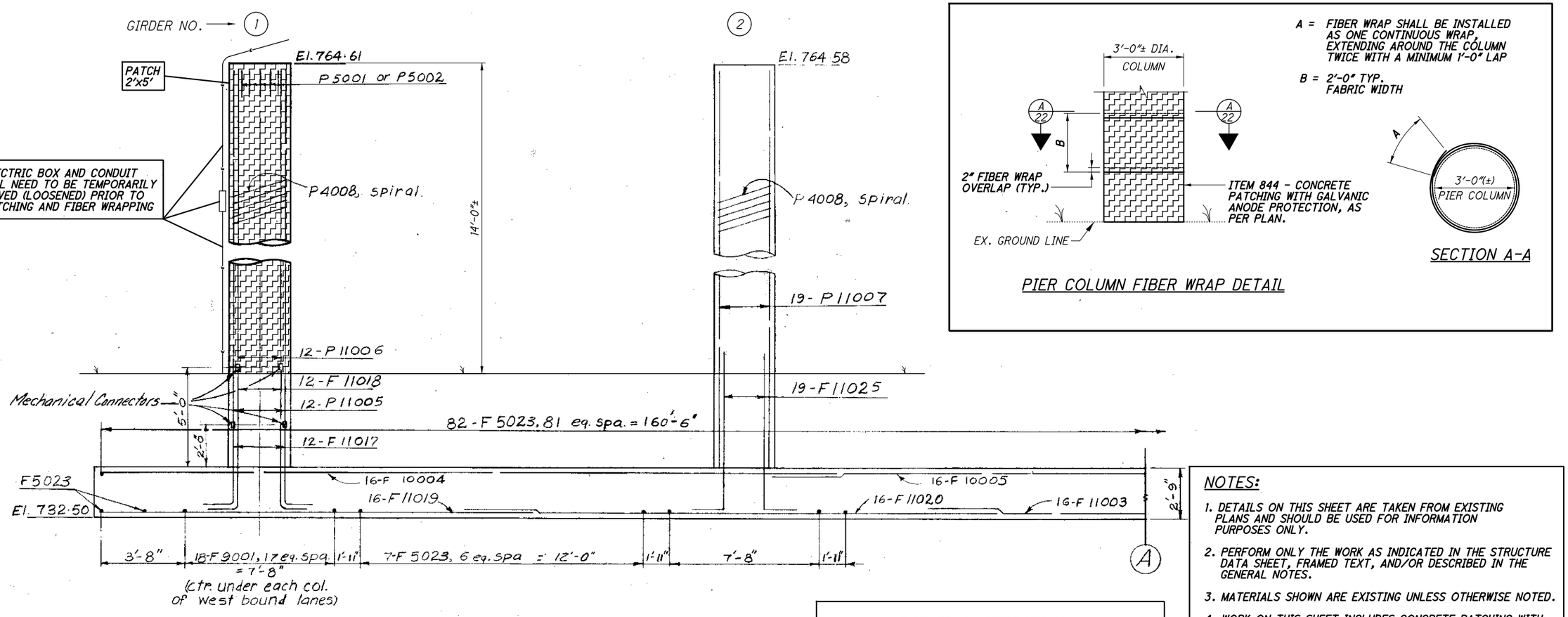

ELEVATION

SECTION A-A

PIER COLUMN FIBER WRAP DETAIL

INDICATES CONCRETE PIER COLUMN REPAIR PER ITEM SPECIAL - STRUCTURES, COMPOSITE FIBER WRAP SYSTEM AND ITEM 844 - CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN.

NOTES:

1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE USED FOR INFORMATION PURPOSES ONLY.
2. PERFORM ONLY THE WORK AS INDICATED IN THE STRUCTURE DATA SHEET, FRAMED TEXT, AND/OR DESCRIBED IN THE GENERAL NOTES.
3. MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
4. WORK ON THIS SHEET INCLUDES CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION AND COMPOSITE FIBER WRAPPING. SEE DETAIL THIS SHEET.
5. FOR ESTIMATED QUANTITIES SEE SHEET 2/27.

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DESIGNED BLN | DRAWN JLS | REVIEWED DLR | DATE 8/2020
CHECKED dht | REVISED | STRUCTURE FILE NUMBER 181425

PIER 3 REPAIR DETAILS - LOCATION 7
BRIDGE NO. CUY-480-0501
OVER SR 17 (BROOKPARK ROAD)

D12-BH-FY2021(A) MISC
PID No. 103162

22 / 27

91 / 96

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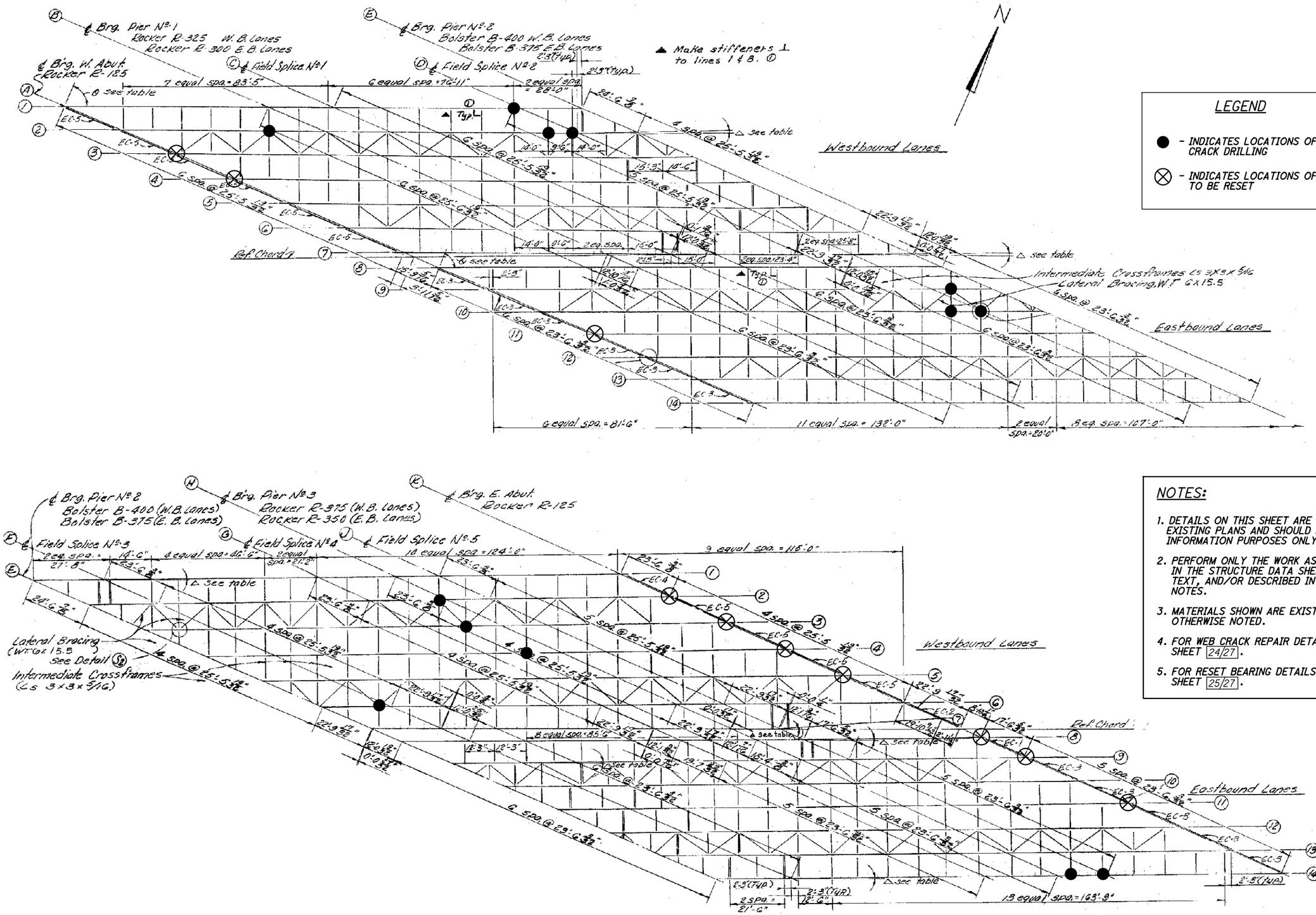

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DESIGNED BLN | DRAWN JLS | REVIEWED DLR | DATE 8/2020
CHECKED dht | REVISED | STRUCTURE FILE NUMBER 181425

SUPERSTRUCTURE REPAIR PLAN - LOCATION 7

BRIDGE NO. CUY-480-0501
OVER SR 17 (BROOKPARK ROAD)

D12-BH-FY2021(A) MISC
PID No. 103162

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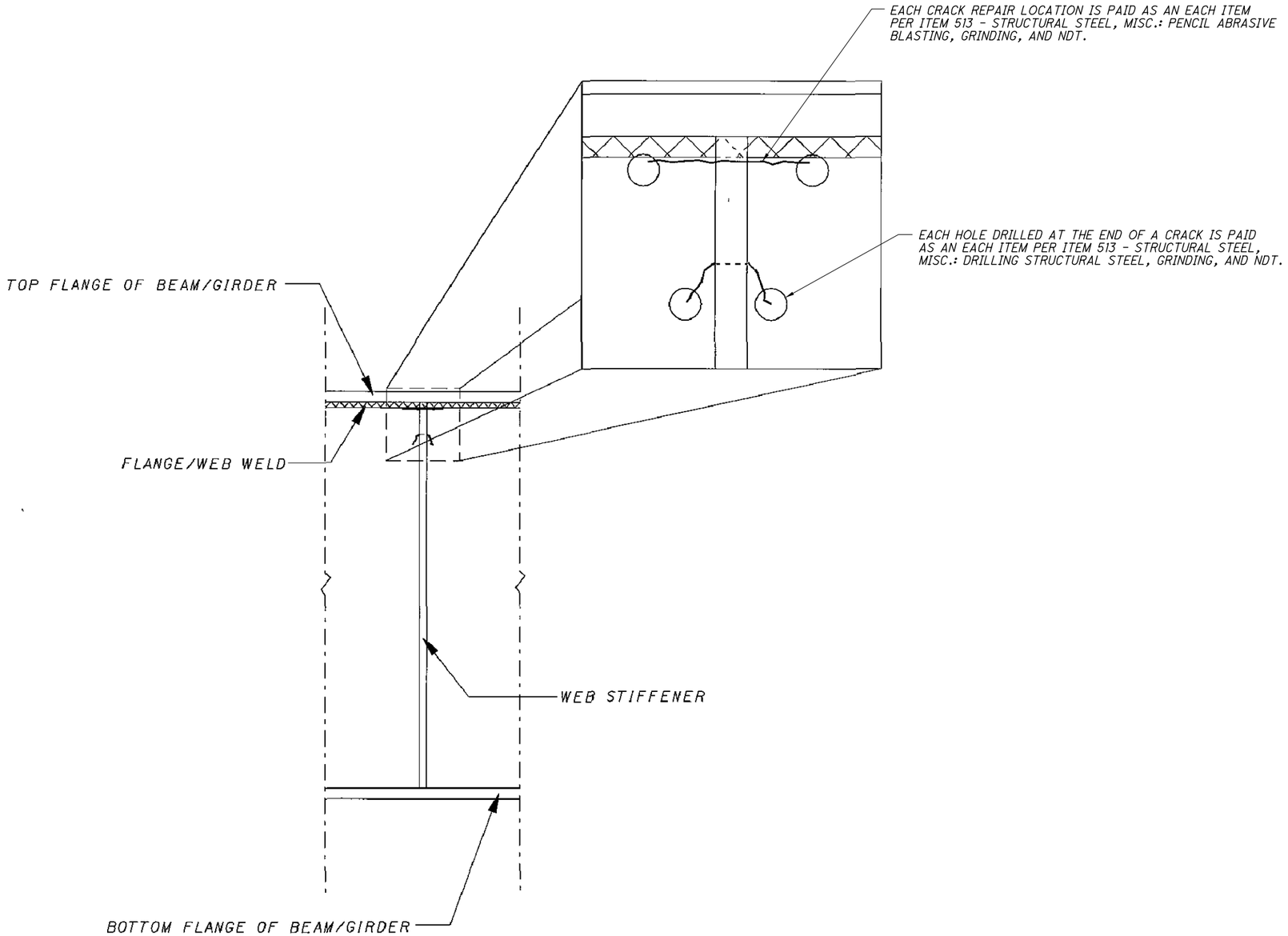

DRILLING DETAIL

NOTES:

1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE USED FOR INFORMATION PURPOSES ONLY.
2. PERFORM ONLY THE WORK AS INDICATED IN THE STRUCTURE DATA SHEET, FRAMED TEXT, AND/OR DESCRIBED IN THE GENERAL NOTES.
3. FOR LOCATION OF WEB CRACK REPAIRS, SEE SHEET 23/27.
4. FOR ESTIMATED QUANTITIES SEE SHEET 2/27.

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DESIGNED	DRAWN	REVIEWED	DATE
BLN	JLS	DLR	8/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
dht		181125	

WEB CRACK REPAIR DETAIL - LOCATION 7

BRIDGE NO. CUY-480-0501
OVER SR 17 (BROOKPARK ROAD)

D12-BH-FY2021(A) MISC

PID No. 103162

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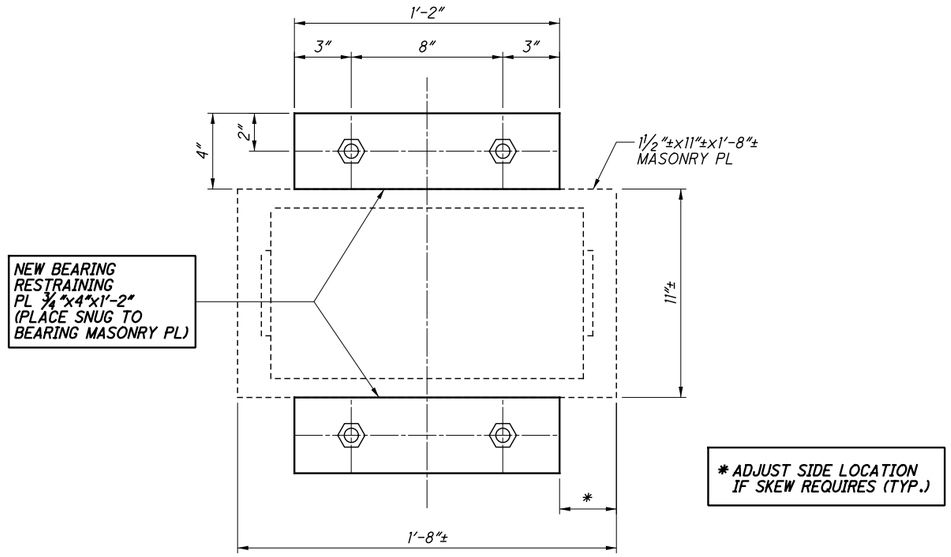
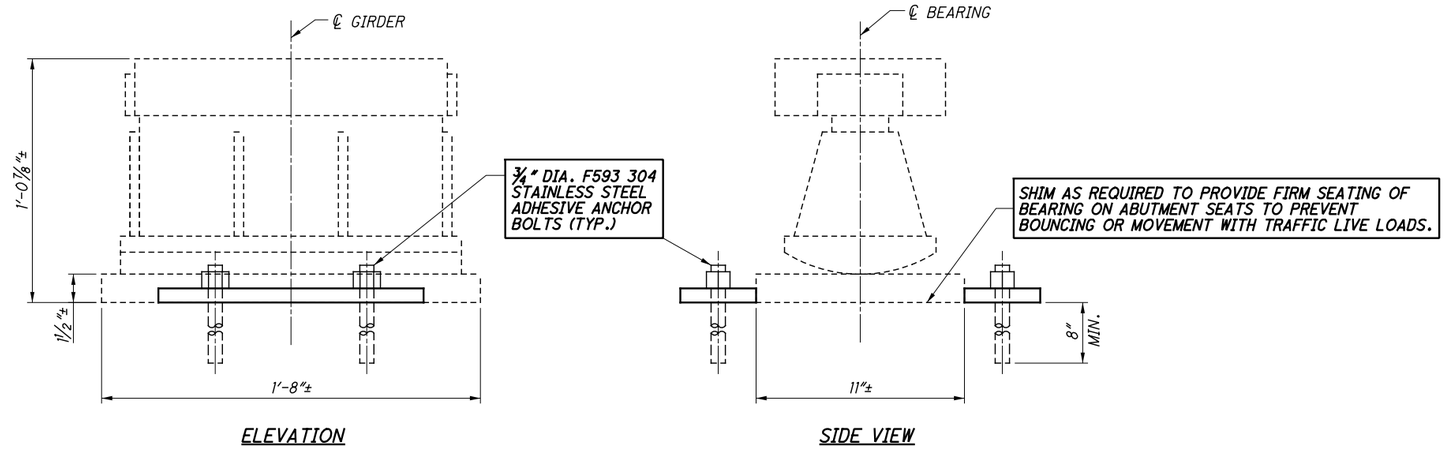


PLAN



ELEVATION

SIDE VIEW

RESET EXISTING BEARINGS R-125

NOTES:

1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE USED FOR INFORMATION PURPOSES ONLY.
2. PERFORM ONLY THE WORK AS INDICATED IN THE STRUCTURE DATA SHEET, FRAMED TEXT, AND/OR DESCRIBED IN THE GENERAL NOTES.
3. MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
4. WORK ON THIS SHEET INCLUDES RESETTING BEARING, SHIMS AS REQUIRED, AND INSTALLATION OF MASONRY PLATE ANCHORED RESTRAINER PLATES.
5. SHIM PACKS CONTAINING THREE 1/16"x11"x20" 304 STAINLESS STEEL SHIMS SHALL BE PROVIDED PER EACH BEARING RESET LOCATION.
6. FOR BEARING RESET LOCATIONS SEE SHEETS 3/27 THRU 15/27.
7. FOR ESTIMATED QUANTITIES SEE SHEET 2/27.

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DESIGNED	DRAWN	REVIEWED	DATE
BLN	JLS	DLR	8/2020
CHECKED	REVISED	STRUCTURE FILE NUMBER	
dht		181125	

RESET ABUTMENT BEARING DETAILS - LOCATION 7
BRIDGE NO. CUY-480-0501
OVER SR 17 (BROOKPARK ROAD)

D12-BH-FY2021(A) MISC
PID No. 103162

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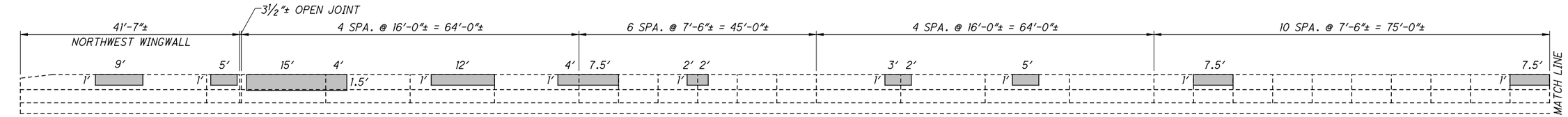
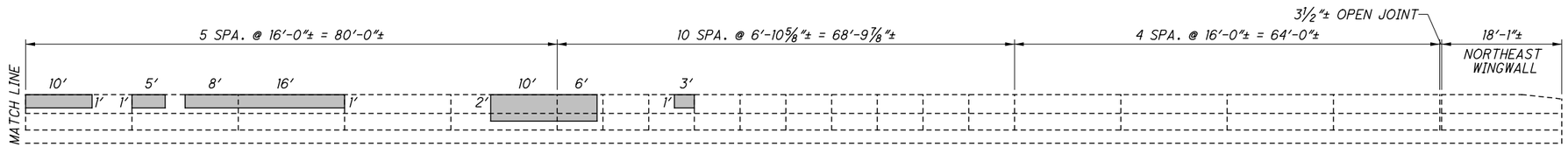
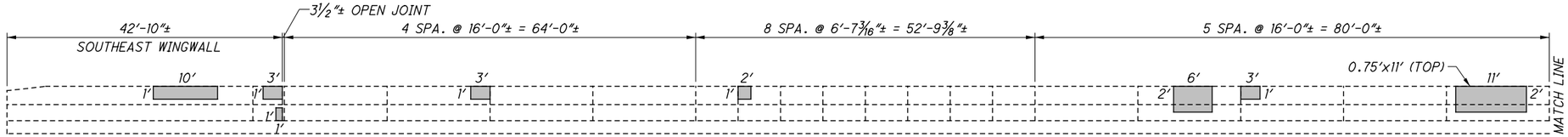
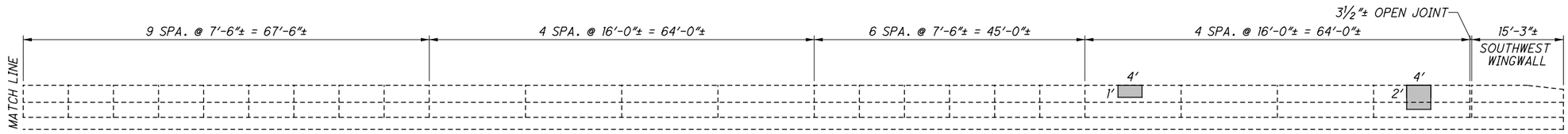




WESTBOUND BRIDGE - NORTH PARAPET ELEVATION *

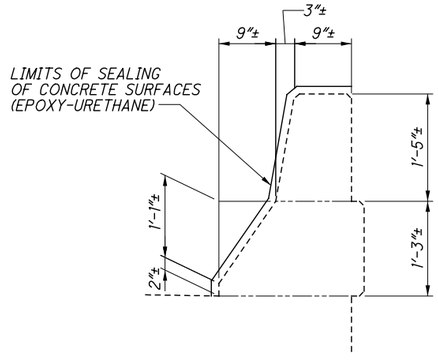
LOOKING NORTH





EASTBOUND BRIDGE - SOUTH PARAPET ELEVATION *

LOOKING SOUTH



OUTSIDE PARAPET SECTION

LEGEND

INDICATES CONCRETE REPAIR PER ITEM 519 - PATCHING CONCRETE STRUCTURE AS PER PLAN. TOTAL AREA THIS SHEET = 245.25 S.F.

THE ENTIRE LENGTH OF THE FRONT AND TOP OF THE PARAPETS SHALL BE SEALED WITH EPOXY-URETHANE AND SHALL BE PAID WITH ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN.

* RAILING ELEVATION IS DRAWN 2X VERTICALLY.

NOTES:

1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE USED FOR INFORMATION PURPOSES ONLY.
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3. FOR ESTIMATED QUANTITIES SEE SHEET 2/27.

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DESIGNED BLN | DRAWN JLS | REVIEWED DLR | DATE 8/2020
CHECKED dht | REVISED | STRUCTURE FILE NUMBER 181425

OUTSIDE PARAPET PATCHING DETAILS - LOCATION 7

BRIDGE NO. CUY-480-0501
OVER SR 17 (BROOKPARK ROAD)

D12-BH-FY2021(A) MISC
PID No. 103162

26/27

95
96

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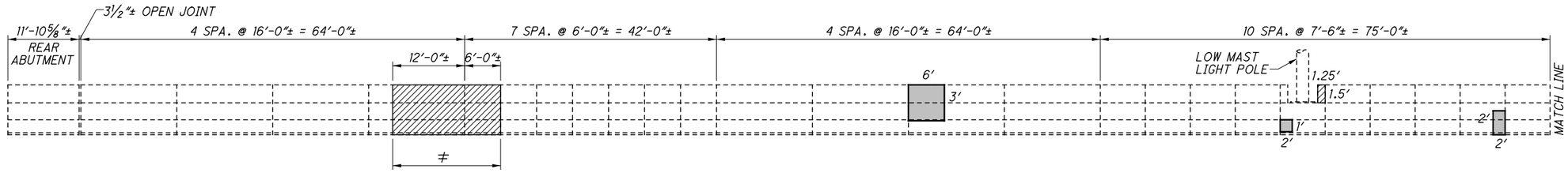
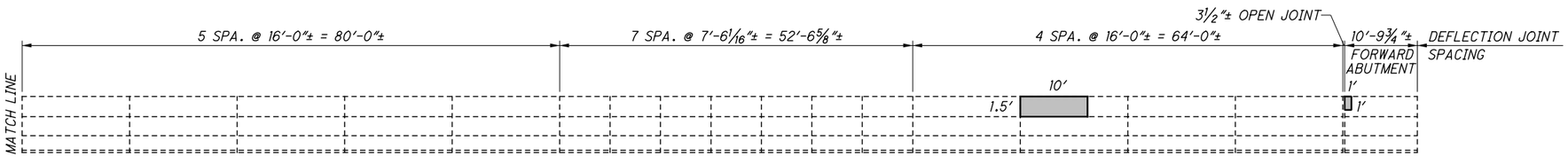
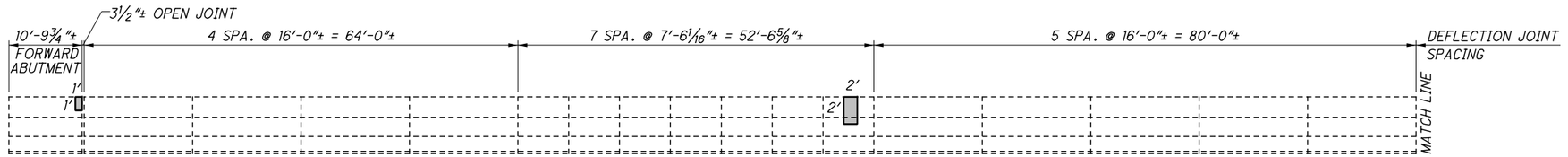
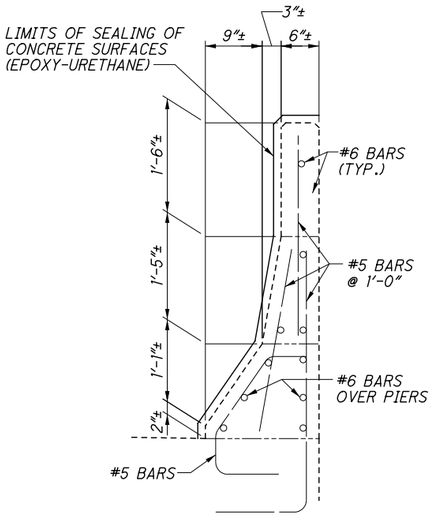




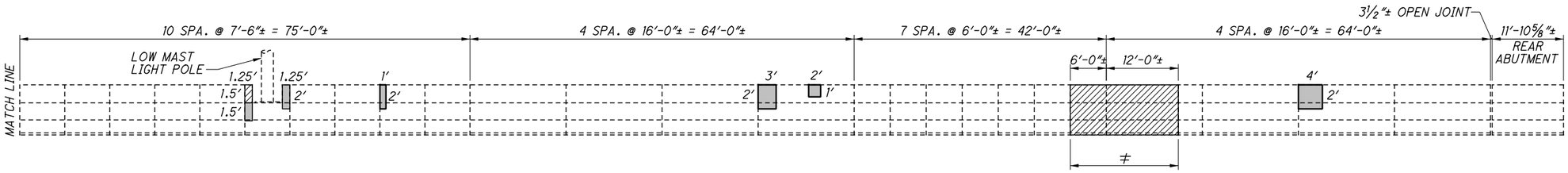
EASTBOUND BRIDGE - MEDIAN PARAPET ELEVATION *

LOOKING NORTH





MEDIAN PARAPET SECTION



WESTBOUND BRIDGE - MEDIAN PARAPET ELEVATION *

LOOKING SOUTH

LEGEND

- INDICATES CONCRETE REPAIR PER ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN. TOTAL AREA THIS SHEET = 67.375 S.F.

  THE ENTIRE LENGTH OF THE FRONT AND TOP OF THE PARAPETS SHALL BE SEALED WITH EPOXY-URETHANE AND SHALL BE PAID WITH ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN.

- INDICATES MEDIAN BARRIER TO BE REMOVED AND REPLACED PER ITEM 517 - RAILING, CONCRETE (QC2), REPLACEMENT OF DAMAGED SECTIONS. REUSE EXISTING REINFORCING.

- * RAILING ELEVATION IS DRAWN 2X VERTICALLY.

- ≠ THIS SECTION OF MEDIAN PARAPET WAS DAMAGED BY VEHICLE IMPACT. REUSE EXISTING REINFORCING STEEL IN REPAIR.

NOTES:

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3. FOR ESTIMATED QUANTITIES SEE SHEET 2/27.

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DESIGNED BLN | DRAWN JLS | CHECKED dht | REVIEWED DLR | DATE 8/2020 | REVISED | STRUCTURE FILE NUMBER 181125

MEDIAN PARAPET PATCHING DETAILS - LOCATION 7

BRIDGE NO. CUY-480-0501
OVER SR 17 (BROOKPARK ROAD)

D12-BH-FY2021(A) MISC

PID No. 103162

27/27

96
96

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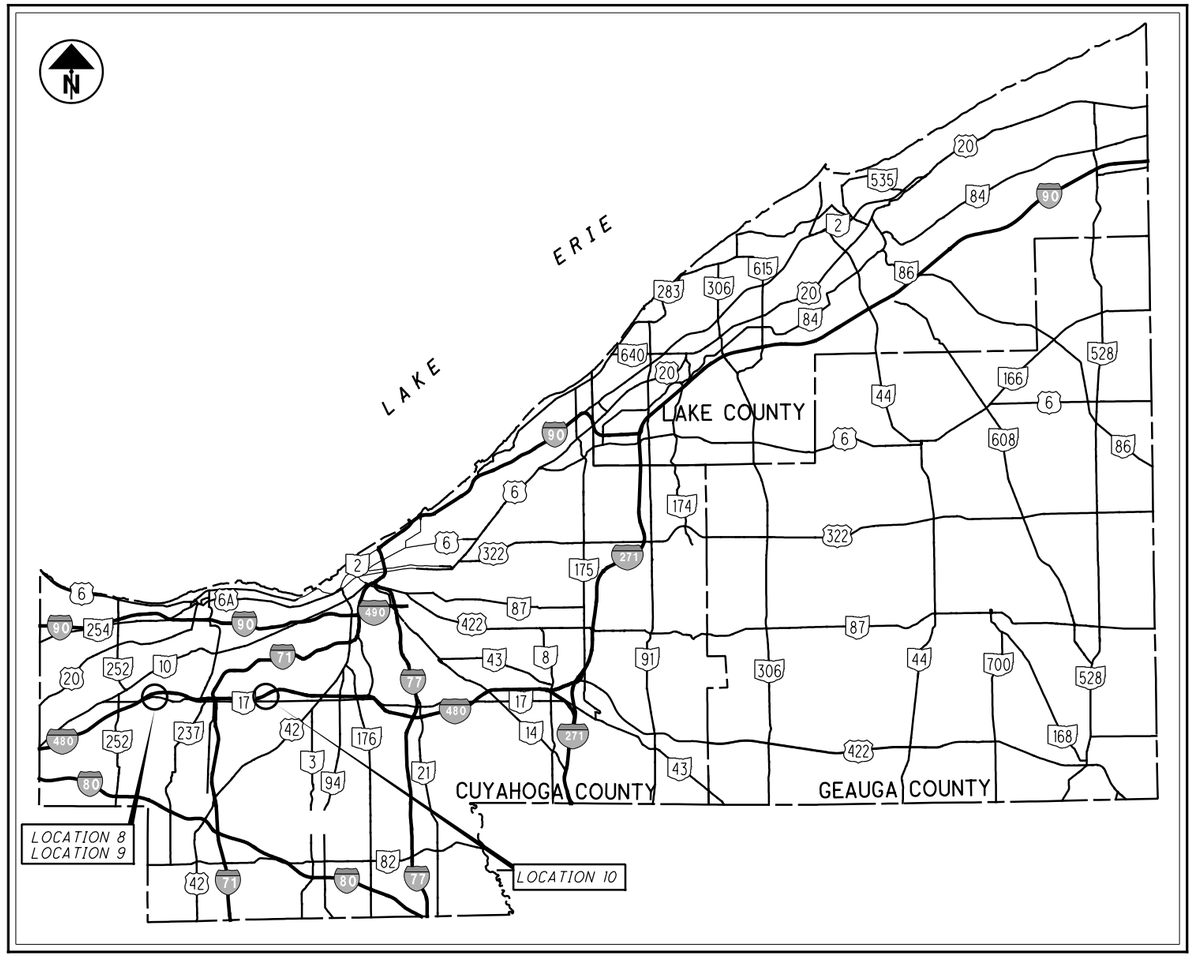

LOCATION MAP

LATITUDE: 41°24'54" N LONGITUDE: 81°36'54" W

(NOTE: FOR COORDINATES PER LOCATION, SEE SHEET 2

STATE OF OHIO

DEPARTMENT OF TRANSPORTATION

D12-BH-FY2021(A) MISC(8-10) PART 2

FOR PART 1, SEE D12-BH-FY2021(A) MISC (1-7)

LOCATION	BRIDGE NUMBER	STRUCTURAL FILE NUMBER	CITY	TOWNSHIP	VILLAGE
8	CUY-480-0612	1814168	FAIRVIEW PARK		
9	CUY-480-0616	1814176	FAIRVIEW PARK		
10	CUY-480-1075	1812912	CLEVELAND		

FEDERAL PROJECT NO. NON-FEDERAL

PID NO. 103162

CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT NONE

D12-BH-FY2021(A) MISC PID NO. 103162

1 / 74

INDEX OF SHEETS:

TITLE	1
LOCATION MAP	2
GENERAL NOTES	3-4
MAINTENANCE OF TRAFFIC	5-21
GENERAL SUMMARY	22-23
STRUCTURE DATA TABLE AND NOTES	24-25
LOCATION 8 - CUY-480-0612	26-33
LOCATION 9 - CUY-480-0616	34-40
LOCATION 10 - CUY-480-1075	41-74

PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF VARIOUS REPAIRS INCLUDING VANDAL FENCE REPLACMENT, BEARING REPAIRS, CONCRETE REPAIRS AND STEEL REPAIRS.

THIS IS A MAINTENANCE PROJECT.

PROJECT EARTH DISTURBED AREA:	N/A
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	N/A
NOTICE OF INTENT EARTH DISTURBED AREA:	N/A

2019 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 EXCEPT FOR THE SIDE ROADS AS DESCRIBED ON SHEETS AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

APPROVED _____

DATE _____ DISTRICT DEPUTY DIRECTOR

APPROVED _____

DATE _____ DIRECTOR, DEPARTMENT OF TRANSPORTATION

UNDERGROUND UTILITIES

Contact Two Working Days Before You Dig

OHIO811.org Before You Dig

OHIO811, 8-1-1, or 1-800-362-2764

(Non-members must be called directly)

PLAN PREPARED BY:

CARPENTER MARTY transportation

6812 SINGLETREE DRIVE COLUMBUS, OH 43229

614.656.2424 * WWW.CMTRAN.COM

ENGINEERS SEAL:

FOR STRUCTURES OVER 20' SPAN

STATE OF OHIO — SHANE THOMAS KALINOSKI 73569 — REGISTERED PROFESSIONAL ENGINEER

SIGNED: Shane Kalinoski

DATE: 10/29/2020

ENGINEERS SEAL:

FOR ENTIRE PLAN EXCEPT STRUCTURES OVER 20' SPAN

STATE OF OHIO — TONY W. GRIESHOP 70196 — REGISTERED PROFESSIONAL ENGINEER

SIGNED: Tony W Grieshop

DATE: 10/29/2020

STANDARD CONSTRUCTION DRAWINGS					SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS
		SEE PART 1			SEE PART 1	SEE PART 1

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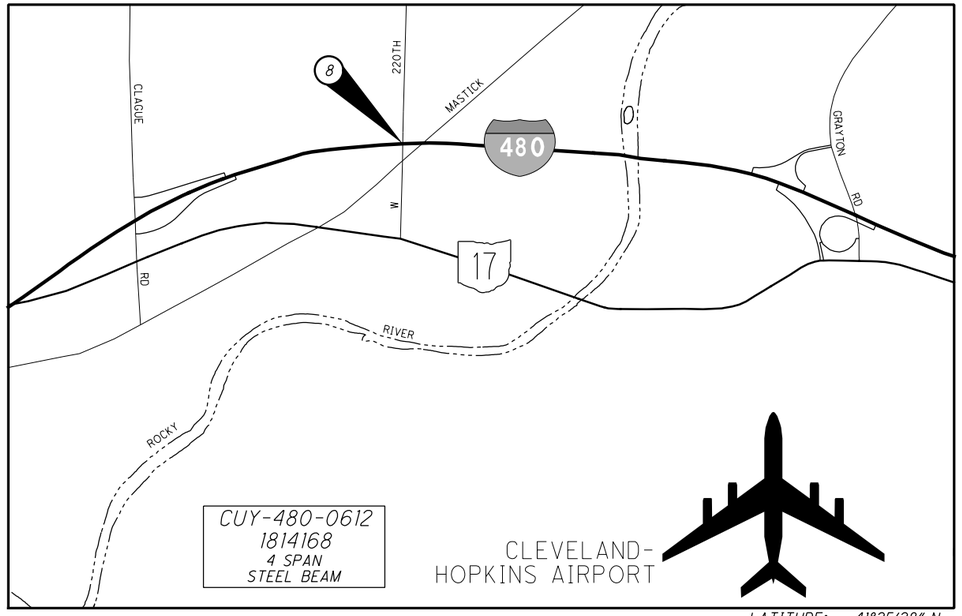
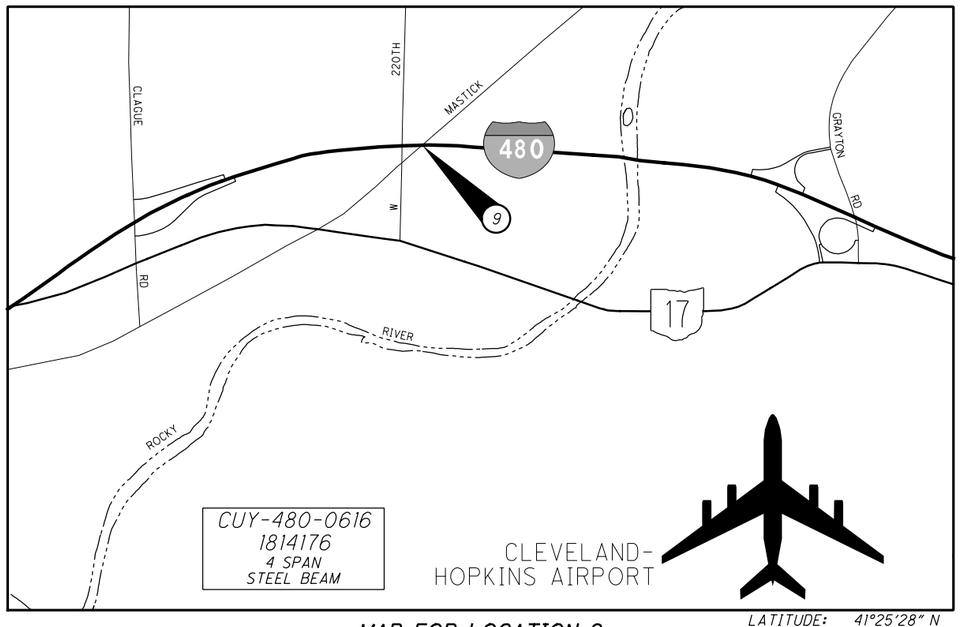


MAP FOR LOCATION 8

LATITUDE: 41°25'28" N
LONGITUDE: 81°51'53" W

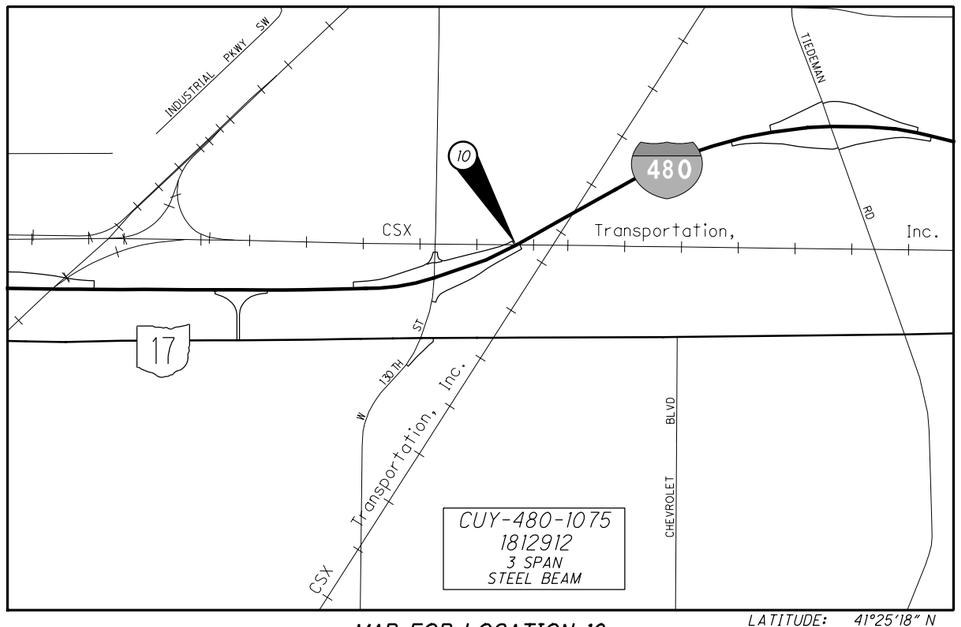
PROPOSED WORK ⓘ
- PATCH CONCRETE DECK AND PARAPET
- REPLACE VANDAL PROTECTION FENCE
- INSTALL TIMBER SUBDECKING



MAP FOR LOCATION 9

LATITUDE: 41°25'28" N
LONGITUDE: 81°51'51" W

PROPOSED WORK ⓘ
- PATCH CONCRETE DECK AND PARAPET
- REPLACE VANDAL PROTECTION FENCE
- FIBER WRAP PIER COLUMS



MAP FOR LOCATION 10

LATITUDE: 41°25'18" N
LONGITUDE: 81°46'36" W

PROPOSED WORK ⓘ
- REPLACE EXPANSION JOINTS
- REPLACE APPROACH SLABS
- REPLACE END CROSSFRAMES
- REPLACE ABUTMENT BEARINGS
- PATCH DECK AND PARAPETS

ⓘ WORK SHOWN IS REPRESENTATIVE AND DOES NOT INCLUDE ALL WORK REQUIRED.

CALCULATED | CHECKED

LOCATION MAPS

D12-BH-FY2021(A) MISC
PID NO. 103162

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UTILITIES

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

COMMUNICATIONS
AT&T OHIO
13630 LORAIN AVE. 2ND FLOOR
CLEVELAND, OH 44111
ATTN: JAMES JANIS
PHONE: (216) 476-6142
FAX: (216) 476-6013

WIDE OPEN WEST
105 BLAZE INDUSTRIAL PARKWAY
BEREA, OH 44017
ATTN: BOB HAMMOND
PHONE: (440) 625-0349

VERIZON (MCI)
12300 RIDGE ROAD
NORTH ROYALTON, OH 44133
ATTN: DAN ARZ
PHONE: (440) 457-4832

MASTEC UTILITY SERVICES
7300 NORTHFIELD ROAD
WALTON HILLS, OH 44146
ATTN: MICHAEL SHONCE
PHONE: (216) 212-2490

COX COMMUNICATIONS
12221 PLAZA DRIVE
PARMA, OH 44130
ATTN: CRAIG SMITH
PHONE: (216) 535-3356

SIGNALS
CITY OF CLEVELAND, DIVISION OF TRAFFIC ENGINEERING
601 LAKESIDE AVENUE, RM 25
CLEVELAND, OH 44114
ATTN: ANDREW R. CROSS
PHONE: (216) 644-3197

WATER
CITY OF CLEVELAND
DIVISION OF WATER
1201 LAKESIDE AVENUE
CLEVELAND, OH 44114
ATTN: FRED ROBERTS
PHONE: (216) 664-2444, X75590
FAX: (216) 664-2838

GAS
DOMINION ENERGY OHIO
320 SPRINGSIDE DR, SUITE 320
AKRON, OH 44333
ATTN: MICAH J. RISACHER
PHONE: (330) 664-2409

BP OIL
4421 BRADLEY ROAD
CLEVELAND, OH 44109
ATTN: DAN PLEVNY
PHONE: (216) 906-6374

BUCKEYE PARTNERS, L.P.
FIVE TEK PARK
9999 HAMILTON BOULEVARD
BREINIGSVILLE, PA 18031
ATTN: DAVID JONES
PHONE: (610) 904-4409

SEWER
CITY OF CLEVELAND, DIVISION OF WATER POLLUTION CONTROL
12302 KIRBY ROAD
CLEVELAND, OH 44108
ATTN: RACHID ZOGHAIB
PHONE: (216) 664-3785

NORTHEAST OHIO REGIONAL SEWER DISTRICT (NEORSD)
3900 EUCLID AVENUE
CLEVELAND, OH 44115
ATTN: MARY MACIEJOWSKI
PHONE: (216) 881-6600, X6466

ELECTRIC
CEI, FIRST ENERGY
6896 MILLER ROAD #101
BRECKSVILLE, OH 44141
ATTN: JOHN M. ZASSICK
PHONE: (440) 546-8706

THERE ARE NO UNDERGROUND UTILITIES SHOWN ON THIS PLAN. THE NATURE OF THE WORK REQUIRED BY THIS PROJECT WILL NOT AFFECT ANY KNOWN UNDERGROUND UTILITIES THAT EXIST UNDER, OR ADJACENT TO, THE WORK AREA.

IF ANY UTILITIES ARE DAMAGED DURING CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND THE APPROPRIATE UTILITY OWNER(S).

PROFILE AND ALIGNMENT

THE INTENT OF THE PROPOSED PAVEMENT IS TO UTILIZE THE ALIGNMENT AND PROFILE OF THE EXISTING PAVEMENT UNLESS OTHERWISED DETAILED IN THE PLANS.

CLEARING AND GRUBBING, AS PER PLAN

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING. THIS ITEM SHALL INCLUDE TRIMMING BACK ALL TREE BRANCHES AND BRUSH WHICH ARE WITHIN 10'-0" OF ANY LOCATION TO HAVE A PAINTED OR SEALED SURFACE. ANY COMPLETE TREE REMOVALS REQUIRED FOR CONSTRUCTION ACCESS ARE TO BE APPROVED BY THE ENGINEER.

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURES AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURES AND THE PROPOSED WORK BUT SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO SECTIONS 102.05, 105.02, AND 513.04 OF THE 2019 CONSTRUCTION AND MATERIAL SPECIFICATIONS.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PRE-BID EXAMINATION OF THE EXISTING STRUCTURES BY THE CONTRACTOR.

THE EXISTING STRUCTURE PLANS MAY BE REVIEWED AT THE:
OHIO DEPARTMENT OF TRANSPORTATION
DISTRICT 12 OFFICE
5500 TRANSPORTATION BOULEVARD
GARFIELD HEIGHTS, OH 44125
OR

HTTP://WWW.DOT.STATE.OH.US/DIVISIONS/CONTRACTADMIN/CONTRACTS/PAGES/DESIGNFILES.ASPX

CONSTRUCTION NOISE

ACTIVITIES AND LAND USE ADJACENT TO THIS PROJECT MAY BE AFFECTED BY CONSTRUCTION NOISE. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, ANY POWER-OPERATED CONSTRUCTION-TYPE DEVICES SHALL NOT BE OPERATED DURING NON-WORKING HOURS AS APPROVED BY THE ENGINEER. IN ADDITION, DO NOT OPERATE AT ANY TIME ANY DEVICE IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT.

RESTRICTION TIMES:

7:00PM TO 8:00AM MONDAY THROUGH SATURDAY
ALL-DAY SUNDAYS
ALL HOLIDAYS

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

COOPERATION BETWEEN CONTRACTORS

THE CONTRACTOR SHALL COOPERATE AND COORDINATE HER/HIS OPERATIONS WITH THE CONTRACTORS ON OTHER PROJECTS THAT MAY BE IN FORCE DURING THE LIFE OF THE CONTRACT. NO WAIVER OF ANY PROVISIONS OF 105.08 OF THE 2019 CONSTRUCTION AND MATERIAL SPECIFICATIONS IS INTENDED.

STAGING AREA ON/WITHIN STATE RIGHT-OF-WAY

THERE ARE NO SPECIFIC AREAS GIVEN IN THE PLANS FOR THE CONTRACTOR TO USE AS STAGING AREA(S). IF THE CONTRACTOR WANTS TO USE AN AREA(S) FOR STAGING, REGARDLESS IF IT FALLS WITHIN THE PROJECT LIMITS OR NOT, THE CONTRACTOR IS TO CONTACT MELVIN STAFFORD AT 216-584-2137 AT DISTRICT 12 IN ORDER TO APPLY FOR A PERMIT PER SECTION 107.02 OF THE C&MS. IF A PERMIT IS GRANTED, ALL CONDITIONS OF THE PERMIT SHALL BE MET IN ADDITION TO THE REQUIREMENTS OF 104.04 OF THE C&MS, AT NO COST TO THE STATE. IF THE PROJECT ENGINEER DEEMS THAT ALL THE CONDITIONS OF THE PERMIT WERE NOT MET, THEN 10% OF THE CONTRACT BID AMOUNT FOR MOBILIZATION HALL BE WITHHELD UNTIL ALL CONDITIONS OF THE PERMIT ARE SATISFIED.

EQUIPMENT AND MATERIAL STORAGE

IN ORDER TO PROVIDE FOR THE SAFETY OF THE TRAVELING PUBLIC THE CONTRACTOR'S ATTENTION IS DIRECTED TO C&MS 614.035. IN ADDITION, THE FOLLOWING PROVISIONS SHALL APPLY:

- ANY REMOVED ITEMS SHALL NOT BE STORED ON THE RIGHT OF WAY FOR MORE THAN THIRTY DAYS.
- ALL DISTURBED AREAS SHALL BE RETURNED TO THEIR ORIGINAL CONDITION AT NO EXPENSE TO THE STATE.

RESTORATION AND CLEAN UP

RESTORE ALL DISTURBED AREAS TO A CONDITION EQUAL TO THAT EXISTING THE WORK WAS STARTED PER C&MS 104.04.

REMOVE ANY BROKEN GLASSWARE FOUND BY CREWS IN THE WORK AREA. DISPOSE OF ANY BROKEN GLASS IN REGULAR RUBBISH DISPOSAL UNITS. DISPOSE OF ALL REMOVED MATERIALS OFF OF THE RIGHT OF WAY AND PARK PROPERTY. PAYMENT FOR RESTORATION WORK IS INCLUDED IN THE UNIT PRICE BID FOR THE VARIOUS ITEMS.

ENDANGERED BAT HABITAT REMOVAL

THIS PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY LISTED AND PROTECTED INDIANA BAT AND NORTHERN LONG-EARED BAT. NO TREES SHALL BE REMOVED UNDER THIS PROJECT FROM APRIL 1 THROUGH SEPTEMBER 30. ALL NECESSARY TREE REMOVAL SHALL OCCUR FROM OCTOBER 1 THROUGH MARCH 31. THIS REQUIREMENT IS NECESSARY TO AVOID AND MINIMIZE IMPACTS TO THESE SPECIES AS REQUIRED BY THE ENDANGERED SPECIES ACT. FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS: A LIVE, DYING, OR DEAD WOODY PLANT, WITH A TRUNK THREE INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.

LIMITS OF OPERATIONS

THE CONTRACTOR'S ACTIVITIES AND WORK SCHEDULE SHALL BE CONSTRAINED BY THE FOLLOWING LIMITATIONS:

1. MAINTENANCE OF TRAFFIC RESTRICTIONS (REFER TO THE MAINTENANCE OF TRAFFIC SHEETS IN THIS PLAN).

AIRWAY/HIGHWAY CLEARANCE FOR AIRPORTS AND HELIPORTS

PORTIONS OF THIS PROJECT HAS BEEN IDENTIFIED AS BEING WITHIN THE INFLUENCE AREA OF A PUBLIC USE AIRPORT OR HELIPORT. NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT AT MAXIMUM OPERATING HEIGHT SHALL EXCEED A HEIGHT OF:

34' AT BRIDGE 8 (CUY-480-0612)
37' AT BRIDGE 9 (CUY-480-0616)
42' AT BRIDGE 10 (CUY-480-1075)

IF ANY TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT WILL EXCEED THIS HEIGHT, FURTHER COORDINATION WITH THE FEDERAL AVIATION ADMINISTRATION (FAA), AND ODOT OFFICE OF AVIATION, WILL BE NECESSARY PRIOR TO ERECTING SUCH TEMPORARY STRUCTURES OR OPERATING SUCH EQUIPMENT ON THE PROJECT. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT FORM 7460-1 TO THE FAA. NOTIFY THE ODOT OFFICE OF AVIATION WHEN SUBMITTING FAA FORM 7460-1.

NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT SHALL EXCEED THE PERMISSIBLE HEIGHT, UNTIL A COPY OF THE FAA APPROVAL AND THE ODOT OFFICE OF AVIATION PERMIT HAS BEEN FURNISHED TO THE PROJECT ENGINEER.

FEDERAL AVIATION ADMINISTRATION
SOUTHWEST REGIONAL OFFICE
OBSTRUCTION EVALUATION GROUP
10101 HILLWOOD PARKWAY
FORT WORTH, TX 76177
FAX: (817) 222-5920
HTTP://CEAAA.FAA.GOV

OHIO DEPARTMENT OF TRANSPORTATION
OFFICE OF AVIATION
2829 WEST DUBLIN-GRANVILLE ROAD
COLUMBUS, OHIO 43235
OHIO.AIRPORT.PROTECTION@DOT.OHIO.GOV

EXISTING PAVEMENT MARKINGS

ANY EXISTING PAVEMENT MARKINGS, INCLUDING RAISED PAVEMENT MARKINGS, THAT ARE AFFECTED BY THE PROPOSED WORK SHALL BE REPLACED IN-KIND. PAYMENT FOR THE NEW PAVEMENT MARKINGS IS AS LISTED IN THE PLANS.

EARTHWORK FOR PROJECT TRANSITION

A CONTINGENCY OF ITEM 203 - EMBANKMENT AND ITEM 203 - EXCAVATION IS BEING PROVIDED IN THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER TO TRANSITION THE EARTHWORK INTO THE EXISTING AT THE BEGIN/END OF THE PROJECT.

ITEM 203 - EXCAVATION	100 CY
ITEM 203 - EMBANKMENT	100 CY

CALCULATED KDW
CHECKED TWG

GENERAL NOTES

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ITEM 832 - EROSION CONTROL

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK SUPPLEMENTAL SPECIFICATION 832:

ITEM 832 - EROSION CONTROL	10000 EACH

TRAFFIC CONTROL - CUY-480-0612

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR REPLACING THE EXISTING PAVEMENT MARKINGS ON W. 220TH STREET FOLLOWING THE COMPLETION OF THE PROJECT:

ITEM 642 - EDGE LINE, 4", TYPE 1	0.07 MILE
ITEM 642 - CENTER LINE, TYPE 1	0.15 MILE
ITEM 642 - CHANNELIZING LINE, 8", TYPE 1	238 FT
ITEM 642 - STOP LINE, TYPE 1	32 FT
ITEM 642 - TRANSVERSE/DIAGONAL, TYPE 1	380 FT
ITEM 642 - LANE ARROW, TYPE 1	3 EACH
ITEM 642 - WORD ON PAVEMENT, 72", TYPE 1	1 EACH

TRAFFIC CONTROL - CUY-480-0616

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE REMOVAL AND REERECTION OF EXISTING SIGNS THAT WILL BE AFFECTED BY THE VANDAL FENCING INSTALLATION ON MASTICK ROAD BRIDGE. THESE SIGNS SHALL BE INSTALLED ON NEW POSTS.

ITEM 630 - GROUND MOUNTED SUPPORT, NO. 3 POST	30 FT
ITEM 630 - REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	3 EACH
ITEM 630 - REMOVAL OF GROUND POST SUPPORT AND DISPOSAL	2 EACH

TRAFFIC CONTROL - CUY-480-1075

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR REPLACING THE EXISTING PAVEMENT MARKINGS ON I.R. 480 FOLLOWING THE COMPLETION OF THE PROJECT:

ITEM 646 - EDGE LINE, 6"	0.29 MILE
ITEM 646 - LANE LINE, 6"	0.52 MILE
ITEM 646 - CHANNELIZING LINE, 12",	448 FT
ITEM 646 - DOTTED LINE, 6"	179 FT

PAVEMENT RESTORATION FOR APPROACH SLAB REPLACEMENT

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED FOR THE PAVEMENT RESTORATION OF THE MAINLINE PAVEMENT AND SHOULDERS FOLLOWING THE APPROACH SLAB REPLACEMENT AT LOCATION 10: CUY-480-1075:

ITEM 252 - FULL DEPTH RIGID PAVEMENT REMOVAL AND FLEXIBLE REPLACEMENT	383 SY
ITEM 255 - FULL DEPTH PAVEMENT SAWING	686 FT

THE ABOVE QUANTITY IS BASED ON A PAVEMENT RESTORATION WIDTH OF FIVE FEET PERPENDICULAR TO THE BRIDGE SKEW AND LENGTH OF THE LENGTH OF THE APPROACH SLAB ALONG THE BRIDGE SKEW. PROVIDE ANY MATERIALS USED OUTSIDE THE LIMITS STATE ABOVE AT NO ADDITIONAL COST.

APPROACH SLAB REPLACEMENT

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED FOR THE APPROACH SLAB REPLACEMENT AT LOCATION 10: CUY-480-1075:

ITEM 204 - SUBGRADE COMPACTION	1839 SY
ITEM 304 - AGGREGATE BASE	307 CY

PROVIDE ANY MATERIALS USED OUTSIDE THE LIMITS STATE ABOVE AT NO ADDITIONAL COST.

CONTIGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL SUBSIDIARY AGREEMENT GOVERNING COMPLETION OF THIS PROJECT.

ITEM SPECIAL - SITE ACCESS

THIS ITEM SHALL INCLUDE ALL WORK NECESSARY TO PROVIDE ACCESS TO THE SLOPE EROSION REPAIR, DRAINAGE CLEANOUT, PIER COLUMN SCOUR REPAIR, AND DRAINAGE REPAIR LOCATIONS:

LOCATION 1 (CUY-480-0612): ACCESS ALONG MAINLINE SHOULDER FROM STA. 422+00± TO STA. 425+00±.

LOCATION 2 (CUY-480-0616): ACCESS ALONG MAINLINE SHOULDER FROM STA. 424+00± TO STA. 428+00±.

LOCATION 3 (CUY-480-1075): ACCESS ALONG MAINLINE SHOULDER FROM STA. 591+00± TO STA. 598+00±.

THIS ITEM SHALL INCLUDE, BUT IS NOT LIMITED TO, EARTHWORK, CLEARING AND GRUBBING, FENCE WORK, GUARDRAIL, SIGN REMOVAL AND REERECTION, CRUSHED AGGREGATE SLOPE PROTECTION, ETC. TEMPORARY EROSION CONTROL ITEMS SHALL BE PAID FOR PER ITEM 832. THIS ITEM SHALL INCLUDE ALL RESTORATION WORK NECESSARY TO RESTORE ANY DISTURBED AREAS TO AS GOOD AS OR BETTER THAN THEIR ORIGINAL CONDITION. WHEN ACCESSING THE SPECIFIC LOCATIONS AND SLOPES 3:1 OR STEEPER ARE ENCOUNTERED, THE CONTRACTOR SHALL MAKE EVERY ATTEMPT TO PREVENT FUTURE EROSION PROBLEMS.

ALL SLOPES 3:1 OR STEEPER SHALL HAVE ITEM 670-SLOPE PROTECTION INSTALLED. ALL DISTURBED VEGETATED DITCHES SHALL HAVE ITEM 670-DITCH EROSION PROTECTION INSTALLED. ALL DISTURBED ROCK CHANNEL PROTECTION AND PAVED GUTTERS SHALL BE REPLACED PER THE CURRENT SPECIFICATIONS UNDER THIS ITEM, AT NO ADDITIONAL COST TO THE STATE.

THIS ITEM SHALL ALSO INCLUDE SEEDING, FERTILIZING, AND WATERING PER ITEM 659 FOR ALL DISTURBED AREAS. IT SHALL ALSO INCLUDE THE ADDITION OF 3 INCHES OF TOPSOIL FOR ALL DISTURBED AREAS. THE CONTRACTOR SHALL ENSURE A GOOD STAND OF GRASS AS DESCRIBED PER 659.23. THE COST OF ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS AS APPROVED BY THE ENGINEER FOR THE SLOPE EROSION REPAIR AND DRAINAGE REPAIR LOCATIONS, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM SPECIAL - SITE ACCESS.

GENERAL NOTES

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ITEM 614 - MAINTAINING TRAFFIC

GENERALLY, THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS AS TO MAKE THE PROPOSED REPAIR WITH A MINIMUM OF HAZARD, DELAY, AND INCONVENIENCE TO THE MOTORISTS USING THE HIGHWAY AFFECTED BY THE WORK ZONE UNDER THIS CONTRACT. IN ADDITION TO THE CONSTRUCTION AND MATERIAL SPECIFICATIONS, THE FOLLOWING SPECIFIC PROVISIONS ARE MANDATORY.

I. NOTIFICATION

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM THE FOLLOWING:

DISTRICT PUBLIC INFORMATION OFFICER BY EMAIL AT (D12.PUBLIC.INFROMATION@DOT.OHIO.GOV)

DISTRICT PERMIT SECTION BY EMAIL AT (DISTRICT12.PERMITS@DOT.OHIO.GOV)

CENTRAL OFFICE SPECIAL HAUL PERMITS SECTION BY EMAIL AT (HAULING.PERMITS@DOT.OHIO.GOV)

CITY OF CLEVELAND, ANDREW CROSS BY PHONE AT (216) 664-3197 OR EMAIL AT ACROSS@CITY.CLEVELAND.OH.US

CITY OF FAIRVIEW PARK, SHAWN LEININGER BY PHONE AT (440) 333-2200 OR EMAIL AT SHAWN.LEININGER@FAIRVIEWPARK.ORG

FAIRVIEW HOSPITAL BY PHONE AT (216) 476-7000

THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

INFORMATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

NOTIFICATION TIME TABLE

ITEM	DURATION OF CLOSURE	NOTICE DUE TO PERMITS & PIO
RAMP & ROAD CLOSURES	>= 2 WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 12 HOURS	4 BUSINESS DAYS PRIOR TO CLOSURE
LANE CLOSURES & RESTRICTIONS	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 2 WEEKS	5 BUSINESS DAYS PRIOR TO CLOSURE
START OF CONSTRUCTION & TRAFFIC PATTERN CHANGES	N/A	14 CALENDAR DAYS PRIOR TO IMPLEMENTATION

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT ENGINEER USING THE NOTIFICATION TIME TABLE.

II. LANE CLOSURE RESTRICTIONS

1. LANE CLOSURES MAY ONLY BE IMPLEMENTED AT THE TIMES PERMITTED BY THE "DISTRICT 12 PERMITTED LANE CLOSURE TIMES" LIST WHICH IS LOCATED ON THE ODOT WEBSITE: HTTP://WWW.DOT.STATE.OH.US/DISTRICTS/D12/HIGHWAYMANAGEMENT/PAGES/PERMITTEDLANECLOSURES.ASPX THE LATEST REVISION AT 14 DAYS PRIOR TO THE BID DATE SHALL BE IN EFFECT FOR THIS PROJECT.
2. UNLESS OTHERWISE NOTED, EXIT AND ENTRANCE RAMP LANES SHALL REMAIN OPEN AT ALL TIMES AND EXHIBIT A MINIMUM WIDTH OF ELEVEN (11) FEET.
3. MAINTENANCE OF TRAFFIC SHALL FOLLOW THE INSTRUCTION OF THE STANDARD CONSTRUCTION DRAWINGS LISTED ON THE TITLE SHEET AND THE LATEST REVISION OF THE OMUTCD.
4. PEDESTRIAN TRAFFIC SHALL BE PERMITTED AND ACCOMMODATED ON AT LEAST ONE SIDE AT A TIME AT LOCATIONS WHERE PEDESTRIAN TRAFFIC IS CURRENTLY MAINTAINED.
5. ALL DRIVES AND SIDE STREETS SHALL BE MAINTAINED AT ALL TIMES.

NOTWITHSTANDING THE ABOVE, NO LANE CLOSURES SHALL OCCUR DURING THE PERIOD BEGINNING AT 12:00 NOON ON THE DAY PRECEDING AND CONTINUING UNTIL NOON ON THE FOLLOWING LEGAL HOLIDAYS AND HOLIDAY WEEKENDS SUCH AS MEMORIAL DAY, FOURTH OF JULY, AND LABOR DAY. FURTHERMORE, NO LANE CLOSURES ARE TO BE IMPLEMENTED OR IN PLACE DURING INCREASED TRAFFIC VOLUMES CAUSED BY SPECIAL EVENTS OR WHEN THE ENGINEER DEEMS THE CLIMATOLOGICAL CONDITIONS TOO HAZARDOUS.

LOCATION 8 (CUY-480-0612)
W 220TH STREET OVER I-480:

THE CONTRACTOR SHALL PERFORM WORK IN TWO PHASES OF CONSTRUCTION FOR W 220TH STREET.

PHASE 1:
THE FIRST PHASE SHALL COMPLETE THE BACKWALL REPAIR, VANDAL FENCE REPLACEMENT, AND DECK REPAIR ON THE EAST SIDE OF THE BRIDGE. TRAFFIC SHALL SHIFTED TO WEST SIDE OF THE BRIDGE AND TWO 10' LANES SHALL BE PROVIDED. ALL TURNING MOVEMENTS SHALL BE MAINTAINED AT THE MASTICK ROAD INTERSECTION. PEDESTRIAN TRAFFIC SHALL BE DETOURED AS SHOWN ON SHEET 12.

PHASE 2:
THE SECOND PHASE SHALL COMPLETE THE BACKWALL REPAIR, VANDAL FENCE REPLACEMENT, AND DECK REPAIR ON THE WEST SIDE OF THE BRIDGE. TRAFFIC SHALL BE SHIFTED TO THE EAST SIDE OF THE BRIDGE. ALL TURNING MOVEMENTS SHALL BE MAINTAINED AT THE MASTICK ROAD INTERSECTION. PEDESTRIAN TRAFFIC SHALL BE DETOURED AS SHOWN ON SHEET 12.

THE BACKWALL REPAIR ON THE WEST SIDE OF THE BRIDGE SHALL BE COMPETED IN TWO SUBPHASES. ONCE THE SECTION OF BACKWALL WITHIN THE EXISTING SOUTHBOUND RIGHT LANE IS REPAIRED, SOUTHBOUND TRAFFIC SHALL BE DIVERTED TO THIS FAR OUTSIDE LANE IN ORDER TO COMPLETE THE BACKWALL REPAIR IN THE EXISTING SOUTHBOUND LEFT TURN LANE. THIS DIVERSION SHALL ONLY BE TEMPORARY AND DURING ACTIVE WORKING HOURS. FLAGGERS SHALL BE UTILIZED TO HELP GUIDE VEHICLES DURING THIS SHORT TERM DIVERSION. STEEL PLATES SHALL BE UTILIZED AS NECESSARY TO COVER REPAIRED AREAS SO THAT LANES CAN BE REOPENED TO TRAFFIC.

DURING THE INSTALLATION OF THE TIMBER SUBDECKING AND VANDAL FENCE, TRAFFIC ON I-480 SHALL BE MAINTAINED AND LANE CLOSURES SHALL FOLLOW THE PERMITTED LANE CLOSURE TIMES.

LOCATION 9 (CUY-480-0616)
MASTICK ROAD OVER I-480:

THE CONTRACTOR SHALL PERFORM THE WORK ON THIS BRIDGE BY CLOSING MASTICK ROAD TO TRAFFIC. VEHICULAR AND PEDESTRIAN TRAFFIC SHALL BE DETOURED AS SHOWN ON SHEETS 13 AND 14.

DURING THE INSTALLATION OF THE VANDAL FENCE, TRAFFIC ON I-480 SHALL BE MAINTAINED AND LANE CLOSURES SHALL FOLLOW THE PERMITTED LANE CLOSURE TIMES.

LOCATION 10 (CUY-480-1075)
I-480 OVER CSX RAILROAD:

THE CONTRACTOR SHALL PERFORM WORK IN THREE PHASES OF CONSTRUCTION FOR I-480. THE EXIT AND ENTRANCE RAMP TO W 130TH STREET SHALL BE CLOSED FOR THE DURATION OF THIS WORK. TRAFFIC SHALL BE DETOURED AS SHOWN ON SHEET 21.

PHASE 1:
THE PARAPET PATCHING, APPROACH SLAB REPLACEMENT, AND EXPANSION JOINT REPLACEMENT SHALL BE COMPLETED ON THE OUTSIDE OF EACH BRIDGE. TRAFFIC SHALL BE SHIFTED TO THE INSIDE OF THE ROADWAY AND THE WORK AREA SHALL BE PROTECTED BY PORTABLE BARRIER. WORK ZONE SIGNING APPROACHING AND WITHIN THE WORK AREA SHALL BE AS PER SCD MT-102.10.

PHASE 2:
THE APPROACH SLAB REPLACEMENT, EXPANSION JOINT REPLACEMENT, AND DECK PATCHING SHALL BE COMPLETED ON THE MIDDLE SECTION OF EACH BRIDGE. THE FOUR LANES OF I-480 IN EACH DIRECTION SHALL BE SPLIT. THE TWO EASTBOUND AND WESTBOUND OUTSIDE LANES SHALL BE SHIFTED TO THE OUTSIDE OF THE ROADWAY WHILE THE TWO INSIDE LANES FOR EACH DIRECTION SHALL REMAIN IN THEIR PHASE 1 LOCATION. THE WORK AREA SHALL BE PROTECTED BY PORTABLE BARRIER. WORK ZONE SIGNING APPROACHING AND WITHIN THE WORK AREA SHALL BE AS PER SCD MT-95.72.

PHASE 3:
THE APPROACH SLAB REPLACEMENT, EXPANSION JOINT REPLACEMENT, AND DECK PATCHING SHALL BE COMPLETED ON THE INSIDE SECTION OF THE BRIDGE. THE TWO OUTSIDE LANES SHALL REMAIN IN THEIR LOCATION FROM THE PREVIOUS PHASE AND THE TWO INSIDE LANES SHALL BE SHIFTED TOWARDS THE OUTSIDE. THE WORK AREA SHALL BE PROTECTED BY PORTABLE BARRIER. WORK ZONE SIGNING ON THE APPROACH AND WITHIN THE WORK AREA SHALL BE AS PER SCD MT-102.10

III. MAINTENANCE OF TRAFFIC SYSTEMS

1. WHEN REQUIRED

   WHENEVER ANY PART OF THE TRAVELED SURFACE IS BEING WORKED UPON OR IS OTHERWISE NOT SUITABLE FOR SAFE AND CONVENIENT USE BY VEHICLES, TRAFFIC CONTROL DEVICES SUFFICIENT TO PROTECT SUCH AREAS TO ASSURE THE SAFE AND CONVENIENT PASSAGE OF VEHICULAR TRAFFIC SHALL BE INSTALLED AND MAINTAINED. SUCH TRAFFIC CONTROL DEVICES AND THE MANNER IN WHICH THEY ARE USED SHALL BE CONSISTENT WITH THESE PLANS AND THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, HEREINAFTER REFERRED TO AS THE "MANUAL". THE TRAFFIC CONTROL DEVICE SYSTEM SHALL CONSTITUTE THE MINIMUM PROVISIONS FOR TRAFFIC CONTROL FOR EACH PARTICULAR SITUATION. WHENEVER THE ENGINEER DEEMS IT NECESSARY ESPECIALLY WHERE A GRADE, CURVE, OR MERGE CONDITIONS EXISTS, HE MAY DIRECT THAT ADDITIONAL OR ALTERNATIVE DEVICES BE USED.

2. CONDITIONS

   DURING ALL PARTS OF THIS PROJECT FLAGGERS, SIGNING, BARRICADES, FLASHING ARROWS, ETC. SHALL BE LOCATED AS INDICATED IN THE "MANUAL" OR AS SHOWN IN THE STANDARD DRAWINGS.

3. ADVANCE WARNING SIGNS

   ALL ADVANCE WARNING SIGNS FOR ANY CONDITIONS WHICH RESTRICTS TRAFFIC SHALL BE ERECTED BEFORE ANY SUCH RESTRICTION IS PUT INTO EFFECT. ALL SUCH SIGNS SHALL BE COVERED OR REMOVED FROM THE VIEW OF TRAFFIC WHENEVER THEY ARE NOT APPLICABLE.

4. FLAGGERS

   AT LEAST ONE FLAGGER IS REQUIRED FOR CLOSURE. THE CONTRACTOR SHALL FURNISH ADDITIONAL FLAGGERS AS DIRECTED BY THE ENGINEER.

5. PROTECTION OF PUBLIC

   PERSONAL CARS SHALL NOT BE PARKED WITHIN THE RIGHT OF WAY.

6. FAILURE TO COMPLY

   IF THERE IS ANY FAILURE TO COMPLY WITH PROVISIONS OF THE "MANUAL", THE HIGHWAY IN THE VICINITY OF THE WORK AREA SHALL NOT BE CONSIDERED IN A CONDITION FOR THE SAFE AND CONVENIENT USE BY THE TRAVELING PUBLIC. ANY FAILURE TO KEEP THE HIGHWAY, IN THE VICINITY OF THE WORK AREA, IN A CONDITION FOR THE SAFE AND CONVENIENT USE BY THE TRAVELING PUBLIC SHALL BE CONSIDERED A BREACH OF THIS CONTRACT. WORK SHALL BE SUSPENDED UNTIL THE CONTRACTOR COMPLIES WITH THE PROVISIONS OF THE AFOREMENTIONED ITEMS.

CALCULATED NAU | CHECKED TWG

GENERAL NOTES OF TRAFFIC MAINTENANCE

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IV. MAINTENANCE OF TRAFFIC MATERIALS

1. SIGNS

SIGN DIMENSIONS AND SPECIFICATIONS, INCLUDING LETTER SIZES ARE TO BE AS PROVIDED IN THE "MANUAL", OR IN DESIGN DRAWINGS PROVIDED BY THE DEPARTMENT OF TRANSPORTATION. THE SIGNS SHALL BE SUBJECT TO APPROVAL OF THE ENGINEER PRIOR TO THE START OF THE PROJECT.

2. SIGN SUPPORT

SIGN SUPPORTS SHALL BE OF SUFFICIENT SIZE AND MASS AS TO SUPPORT THE SIGNS AT THE APPROPRIATE HEIGHT. SUPPORTS SHALL BE AS SHOWN ON THE STANDARD DRAWINGS.

3. FLASHING ARROW REQUIREMENT

WHENEVER ANY PART OF THE TRAVELED SURFACE IS CLOSED, THE MOTORISTS SHALL BE WARNED AND DIRECTED BY THE CONTRACTOR THROUGH THE USE OF ONE FLASHING ARROW PANEL FOR EACH LANE CLOSED. THE CONTRACTOR SHALL REFER TO SUPPLEMENTAL SPECIFICATION 821, 921 AND THE PROVISIONS SET FORTH IN THE "MANUAL" FOR ALL INFORMATION REGARDING FURNISHING, MAINTAINING, AND USE OF FLASHING ARROW PANELS.

4. DRUMS

DRUMS SHALL BE IN ACCORDANCE WITH PERTINENT SECTIONS OF THE "MANUAL". ALL COSTS FOR INSTALLING, MAINTAINING, AND SUBSEQUENT REMOVAL OF SAID DRUMS IS TO BE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 614 - MAINTAINING TRAFFIC.

5. CONES

CONES, IF UTILIZED, ARE TO BE LOCATED AS SHOWN IN THE "MANUAL" AND THE STANDARD DRAWINGS.

6. BARRIER

PORTABLE BARRIER IF NECESSARY IS TO BE LOCATED AS SHOWN IN THE "MANUAL" AND THE STANDARD DRAWINGS.

7. FLASHERS

FLASHERS SHALL BE 12 VOLT BATTERY-OPERATED MODELS WITH 7 INCH DIAMETER YELLOW LENSES ILLUMINATED BY RAPID INTERMITTENT FLASHERS OF SHORT DURATION AND ARE TO BE PLACED ON ALL SIGNS AT ALL TIMES AS REQUIRED BY THE "MANUAL" AND THE STANDARD CONSTRUCTION DRAWINGS.

8. FLOODLIGHTING

FLOODLIGHTING OF THE WORKSITE FOR OPERATIONS CONDUCTED DURING THE NIGHTTIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE ROADWAY. TO ENSURE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR AND ENGINEER SHALL DRIVE THROUGH THE WORKSITE EACH NIGHT WHEN THE LIGHTING IS IN PLACE AND OPERATIVE PRIOR TO COMMENCING ANY WORK. IF GLARE IS DETECTED, THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISFACTION OF THE ENGINEER BEFORE WORK PROCEEDS.

9. WORK VEHICLES

ALL WORK VEHICLES LICENSED TO OPERATE ON THE HIGHWAY, SHALL BE EQUIPPED WITH A FLASHING, ROTATING, OR OSCILLATING AMBER LIGHT VISIBLE TO ALL DIRECTIONS OF TRAFFIC FOR A MINIMUM OF ONE-QUARTER MILE IN BRIGHT SUNLIGHT AND SHALL BE OPERATED WITH LIGHTED HEAD AND TAIL LAMPS. THE AMBER LIGHT SHALL BE IN OPERATION AT ALL TIMES WITHIN THE WORK ZONE AND WHILE TRAVELING TO AND FROM THE WORK ZONE WHENEVER THE VEHICLE SPEED IS BELOW THE POSTED LEGAL LIMIT. VEHICLE HAZARD LIGHTS DO NOT SATISFY THIS REQUIREMENT. ALL OTHER EQUIPMENT SHALL BE EQUIPPED WITH A FLASHING, ROTATING, OR OSCILLATING AMBER LIGHT VISIBLE TO ALL DIRECTIONS OF TRAFFIC FOR A MINIMUM OF ONE-QUARTER MILE IN BRIGHT SUNLIGHT. THE AMBER LIGHT SHALL BE IN OPERATION WHILE THE EQUIPMENT IS WITHIN THE WORK ZONE.

V. PAYMENT

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH C&MS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

MAINTENANCE OF TRAFFIC SCHEME

THE CONTRACTOR SHALL DEVISE A SIMPLE MAINTENANCE OF TRAFFIC SCHEME, WHICH SHALL BE DEVISED BY THE WORKSITE TRAFFIC SUPERVISOR (SCHEME MAY BE A HAND SKETCH) AND PRESENT IT TO THE DISTRICT WORK ZONE TRAFFIC CONTROL ENGINEER AND PROJECT ENGINEER FOR ACCEPTANCE AT LEAST TWO WEEKS PRIOR TO IMPLEMENTATION. IN GENERAL, THE METHODS FOR MAINTAINING TRAFFIC THAT THE CONTRACTOR PROPOSES TO USE FOR CONDUCTING THE REQUIRED WORK IN A SAFE AND EFFICIENT MANNER CAN BE SHOWN BY HAND SKETCHES AS NECESSARY. THE MAINTENANCE OF TRAFFIC SCHEME SHALL BE IN CONFORMANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (LATEST REVISION) THE REFERENCED STANDARD CONSTRUCTION DRAWINGS, THE ATTACHED MAINTENANCE OF TRAFFIC SHEETS, AND THE SPECIFICATIONS. THE CONTRACTOR SHALL NOT COMMENCE WORK UNTIL THE MAINTENANCE OF TRAFFIC SCHEME HAS BEEN ACCEPTED.

IF DURING THE PROJECT THE ENGINEER DETERMINES THAT THE APPROVED MAINTENANCE OF TRAFFIC PLAN IS NOT PERFORMING AS DESIRED, THE WORK SHALL BE SUSPENDED UNTIL THE PROBLEM IS RESOLVED TO THE SATISFACTION OF THE ENGINEER AND THE MAINTENANCE OF TRAFFIC PLAN IS REVISED ACCORDINGLY. ANY COSTS OR DELAYS INCURRED AS A RESULT OF THE FAILURE OF THE SATISFACTION OF THE ENGINEER SHALL BE THE FULL RESPONSIBILITY OF THE CONTRACTOR.

PAYMENT FOR ALL THE ITEMS REQUIRED TO MAINTAIN TRAFFIC IN ACCORDANCE WITH THESE REQUIREMENTS IS INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 614-MAINTAINING TRAFFIC.

ITEM 614 - PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN, AND REMOVE, WHEN NO LONGER NEEDED, A CHANGEABLE MESSAGE SIGN. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS AVAILABLE ON THE OFFICE OF MATERIALS MANAGEMENT WEB PAGE. THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 800 FEET AND 650 FEET, RESPECTIVELY.

EACH SIGN SHALL BE TRAILER-MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM, TO DIM THE SIGN DURING DARKNESS, AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. THE PCMS SHALL BE DELINEATED IN ACCORDANCE WITH C&MS 614.03.

THE PROBABLE PCMS LOCATIONS WILL BE DETERMINED BY THE ENGINEER PRIOR TO BEGINNING WORK ON THIS PROJECT. PLACEMENT, OPERATION, MAINTENANCE, AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED AWAY FROM ALL TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ODOT PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT, AND TO REVISE SIGN MESSAGES, IF NECESSARY.

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES ON THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST TWICE.

THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED, OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF C&MS 614.07. THE CONTRACTOR SHALL, PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS, WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS, TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 12 HOURS, INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC. THE ENTIRE COST TO CONTROL TRAFFIC, ACCRUED BY THE DEPARTMENT DUE TO THE CONTRACTOR'S NONCOMPLIANCE, WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24-HOUR-PER-DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES WHEN THE PLAN REQUIRES THEIR USE.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN....24 SIGN MONTH, ASSUMING 3 PCMS SIGNS FOR 8 MONTHS

CONSTRUCTION TRAFFIC

ALL CONSTRUCTION TRAFFIC SHALL USE ACCEPTABLE TRUCK ROUTES TO ACCESS THE CONSTRUCTION AREA. USE OF LOCAL RESIDENTIAL STREETS IS STRICTLY PROHIBITED UNLESS ALLOWED IN WRITING BY THE LOCAL ENFORCEMENT AUTHORITY.

MAINTENANCE OF TRAFFIC CONTROL ZONES

TEMPORARY PAVEMENT MARKINGS AT THE LOCATIONS DETAILED IN THE PLANS OR SPECIFIED IN THE STANDARD DRAWINGS. WHEN THE CONTRACTOR IS NOTIFIED OF DEFICIENCIES HE SHALL CORRECT THE DEFICIENCIES AS SOON AS POSSIBLE, PREFERABLY WITHIN 12 HOURS AND NO LATER THAN 24 HOURS.

CALCULATED NAU CHECKED TWG

GENERAL NOTES OF TRAFFIC

MAINTENANCE

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ITEM 614, WORK ZONE IMPACT ATTENUATOR FOR 24 " WIDE HAZARDS (UNIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING A NONGATING IMPACT ATTENUATOR. FURNISH AN IMPACT ATTENUATOR FROM THE OFFICE OF ROADWAY ENGINEERING'S APPROVED LIST FOR WORK ZONE IMPACT ATTENUATORS, FROM THE ROADWAY STANDARDS APPROVED PRODUCTS WEB PAGE.

INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE CONTRACTOR SHALL REPAIR OR REPLACE A DAMAGED UNIT WITHIN 24 HOURS OF A DAMAGING IMPACT.

WHEN BIDIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS.

WHEN GATING IMPACT ATTENUATORS ARE DESIRED, THE CONTRACTOR SHALL SUBMIT DOCUMENTATION TO THE ENGINEER FOR ACCEPTANCE.

THE COST FOR THE ADDITIONAL BARRIER REQUIRED FOR A GATING IMPACT ATTENUATOR SHALL BE INCLUDED IN THE COST OF THE GATING IMPACT ATTENUATOR.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT AND MAINTAIN A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS, TRANSITIONS, LEVELING PADS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

DELINEATION OF PORTABLE AND PERMANENT BARRIER

BARRIER REFLECTORS AND OBJECT MARKERS SHALL BE INSTALLED ON ALL PORTABLE BARRIER (PB) USED FOR TRAFFIC CONTROL; AND, ON PERMANENT CONCRETE BARRIER (INCLUDING BRIDGE PARAPETS) LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE.

BARRIER REFLECTORS SHALL CONFORM TO C&MS 626, EXCEPT THAT THE SPACING SHALL BE AS PER TRAFFIC SCD MT-101.70. OBJECT MARKERS AND THEIR INSTALLATION SHALL CONFORM TO C&MS 614.03 AND SCD MT-101.70. WHEN THE PB CONTAINS GLARE SCREEN, ONE SET OF THREE VERTICAL STRIPES OF SHEETING SHALL BE CONSIDERED EQUIVALENT TO AN OBJECT MARKER, ONE-WAY.

THE FOLLOWING ITEMS HAVE BEEN INCLUDED IN THE MAINTENANCE OF TRAFFIC SUBSUMMARY:

ITEM 614, BARRIER REFLECTOR, TYPE 1 (ONE-WAY)
ITEM 614, OBJECT MARKER, ONE WAY

PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIAL, LABOR, INCIDENTALS AND EQUIPMENT NECESSARY FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING EACH OF THE ABOVE ITEMS.

ITEM 614, WORK ZONE RAISED PAVEMENT MARKERS

RAISED PAVEMENT MARKERS IN WORK ZONES, SHALL BE ITEM 614 WORK ZONE RAISED PAVEMENT MARKER. WZRPMS ARE INTENDED FOR USE ONLY DURING THE NON-SNOW-PLOWING SEASON. WZRPMS SHALL NOT BE PROVIDED DURING THE SNOW-PLOWING SEASON.

THE SNOW-PLOWING SEASON SHALL RUN FROM OCTOBER 15 THROUGH APRIL 1.

THIS ITEM SHALL INCLUDE PURCHASE, INSTALLATION AND REMOVAL OF ITEM 614 WORK ZONE RAISED PAVEMENT MARKER.

AN ESTIMATED QUANTITY OF ITEM 614, WORK ZONE RAISED PAVEMENT MARKER HAS BEEN PROVIDED IN MAINTENANCE OF TRAFFIC SUBSUMMARY AND CARRIED TO THE GENERAL SUMMARY.

ITEM 621, RAISED PAVEMENT MARKERS REMOVED, AS PER PLAN

THIS ITEM SHALL CONSIST OF REMOVING THE EXISTING RAISED PAVEMENT MARKER REFLECTORS FROM THE EXISTING RAISED PAVEMENT MARKERS PRIOR TO MAINTENANCE OF TRAFFIC PHASES 1 OF LOCATION 10: CUY-480-1075 (I-480 OVER CSX RAILROAD). THE REFLECTORS SHALL BE REPLACED AFTER THE LANES HAVE BEEN PLACED IN THEIR PRECONSTRUCTION LOCATION

ALL LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS REQUIRED TO REMOVE THE EXISTING RAISED PAVEMENT MARKER REFLECTORS SHALL BE INCLUDED WITH ITEM 621 RAISED PAVEMENT MARKER REMOVED, AS PER PLAN.

ITEM 614 - LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) MAY BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

- DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.
- DURING A TRAFFIC SIGNAL INSTALLATION WHEN IMPACTING THE NORMAL FUNCTION OF THE SIGNAL OR FLOW OF TRAFFIC OR WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAY (E.G. DIRECTING MOTORISTS THROUGH A RED LIGHT).

IN ADDITION TO THE REQUIREMENTS OF CMS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHOULD BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

- FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP). IN GENERAL, LEOS SHOULD BE POSITIONED AT THE POINT OF LANE RESTRICTION OR ROAD CLOSURE AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH INTERSECTIONS IN WORK ZONES.
- WHEN CONSTRUCTION VEHICLES ARE ENTERING/ EXITING THE ZONE DIRECTLY FROM/INTO AN OPEN LANE OF TRAFFIC. IF A LANE HAS BEEN CLOSED TO PROVIDE AN ACCELERATION/DECELERATION LANE FOR THE VEHICLE, THE LEO WILL NOT BE REQUIRED.

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST'S ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO THE DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. ONCE THE LEO HAS COMPLETED THE DUTIES DESCRIBED ABOVE AND STILL HAS TIME REMAINING ON HIS/HER SHIFT, THE LEO MAY BE ASKED TO PATROL THROUGH THE WORK ZONE (WITH FLASHING LIGHTS OFF) OR BE PLACED AT A LOCATION TO DETER MOTORISTS FROM SPEEDING. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE WHICH SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEOS (WITH PATROL CAR) REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 614 - LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS 100 HOURS.

THE HOURS PAID SHALL INCLUDE ANY MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED. ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF AN LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS.

ITEM 614, WORK ZONE PAVEMENT MARKING, MISC.: REMOVABLE, NON-REFLECTIVE PREFORMED BLACKOUT TAPE

THIS ITEM SHALL CONFORM TO CMS 614.11 WORK ZONE PAVEMENT MARKING REQUIREMENTS WITH THE EXCEPTION THAT THE MARKING MATERIAL SHALL BE BLACKOUT TAPE CONFORMING TO SUPPLEMENTAL SPECIFICATION 987. THE BLACKOUT TAPE SHALL BE MANUFACTURED BY A SUPPLIER ON ODOT'S QUALIFIED PRODUCTS LIST FOR THIS ITEM. PAYMENT FOR THIS ITEM SHALL BE MADE AT THE UNIT PRICE BID PER LINEAR FOOT FOR ITEM 614 WORK ZONE PAVEMENT MARKING, MISC.: REMOVABLE, NON-REFLECTIVE PREFORMED BLACKOUT TAPE AND SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS NECESSARY TO FURNISH, INSTALL, MAINTAIN, AND REMOVE THIS ITEM.

THE CONTACTOR SHALL INSTALL A SINGLE CONTINUOUS PIECE OF BLACKOUT TAPE TO COVER THE EXISTING EDGE LINES AND LANE LINES AS INDICATED IN THE PLANS.

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MAINTENANCE OF TRAFFIC GENERAL NOTES

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ITEM 614, WORKSITE TRAFFIC SUPERVISOR

SUBJECT TO APPROVAL OF THE ENGINEER, THE CONTRACTOR SHALL EMPLOY AND IDENTIFY (SOMEONE OTHER THAN THE SUPERINTENDENT) A PREQUALIFIED WORKSITE TRAFFIC SUPERVISOR (WTS) BEFORE STARTING WORK IN THE FIELD. THE WTS SHALL BE TRAINED IN ACCORDANCE WITH CMS 614.03, SHALL HAVE SUCCESSFULLY COMPLETED ODOT ADMINISTERED WTS TESTING (AND RE-TESTING WHEN APPLICABLE) AND BE LISTED ON THE ODOT PREQUALIFIED WTS ROSTER. PREQUALIFICATION EXPIRES EVERY 5 YEARS. RE-TESTING SHALL BE SUCCESSFULLY REPEATED EVERY 5 YEARS TO REMAIN PREQUALIFIED.

THE NAME OF THE PREQUALIFIED WTS AND RELATED 24-HOUR CONTACT INFORMATION SHALL BE PROVIDED TO THE ENGINEER AT THE PRECONSTRUCTION CONFERENCE. IF THE DESIGNATED WTS WILL NOT BE AVAILABLE FULL TIME (24/7), THE CONTRACTOR MAY DESIGNATE AN ALTERNATE (SECONDARY) WTS TO BE AVAILABLE WHEN THE PRIMARY IS OFF DUTY; HOWEVER THE PRIMARY WTS SHALL REMAIN THE POINT OF CONTACT AT ALL TIMES. ANY ALTERNATE (SECONDARY) WTS IS SUBJECT TO THE SAME TRAINING, PREQUALIFICATION AND OTHER REQUIREMENTS OUTLINED WITHIN THIS PLAN NOTE. AT ALL TIMES THE ENGINEER, OR ENGINEER'S REPRESENTATIVES, MUST BE INFORMED OF WHO THE PRIMARY WTS (AND SECONDARY WTS, IF APPLICABLE) IS AT THE CURRENT TIME.

THE WTS POSITION HAS THE PRIMARY RESPONSIBILITY OF IMPLEMENTING THE TRAFFIC MANAGEMENT PLAN (TMP), MONITORING THE SAFETY AND MOBILITY OF THE ENTIRE WORK ZONE, AND CORRECTING TEMPORARY TRAFFIC CONTROL (TTC) DEFICIENCIES FOR THE ENTIRE WORK ZONE. THE WTS, AND ALTERNATE WTS WHEN ON DUTY, SHALL HAVE SUFFICIENT AUTHORITY TO EFFECTIVELY CARRY OUT THE IDENTIFIED WTS RESPONSIBILITIES AND DUTIES. THE DUTIES OF THE WTS ARE AS FOLLOWS:

1. BE AVAILABLE ON A 24-HOUR PER DAY BASIS.

2. BE ON SITE FOR ALL EMERGENCY TTC NEEDS WITHIN ONE HOUR OF NOTIFICATION BY POLICE OR PROJECT STAFF, AND EFFECT CORRECTIVE MEASURES IMMEDIATELY ON EXISTING WORK ZONE TTC DEVICES.

3. ATTEND PRECONSTRUCTION MEETING AND ALL PROJECT MEETINGS WHERE TTC MANAGEMENT IS DISCUSSED.

4. BE AVAILABLE ON SITE FOR OTHER MEETINGS OR DISCUSSIONS WITH THE ENGINEER UPON REQUEST.

5. BE AWARE OF ALL EXISTING AND PROPOSED TTC OPERATIONS OF THE CONTRACTOR, SUBCONTRACTORS AND SUPPLIERS, AND ENSURE COORDINATION OCCURS BETWEEN THEM TO ELIMINATE CONFLICTING TEMPORARY AND/OR PERMANENT TRAFFIC CONTROL.

6. COORDINATE PROJECT ACTIVITIES WITH ALL LAW ENFORCEMENT OFFICERS (LEOS). THE WTS SHALL ALSO BE THE MAIN CONTACT PERSON WITH THE LEOS WHILE LEOS ARE ON THE PROJECT.

7. COORDINATE AND FACILITATE MEETINGS WITH ODOT PERSONNEL, LEOS AND OTHER APPLICABLE ENTITIES BEFORE EACH PLAN PHASE SWITCH TO DISCUSS THE WORK ZONE TTC FOR IMPLEMENTING THE PHASE SWITCH. SUBMIT A WRITTEN DETAIL OF MOT OPERATIONS AND SCHEDULE OF EVENTS TO IMPLEMENT THE SWITCH BETWEEN PHASE PLANS TO THE ENGINEER 5 CALENDAR DAYS PRIOR TO THIS MEETING.

8. BE PRESENT, ON SITE FOR, AND INVOLVED WITH, EACH TTC SET UP/TAKE DOWN AND EACH PHASE CHANGE IN ACCORDANCE WITH CMS 614.03.

9. ON A CONTINUAL BASIS ENSURE THAT THE TTC ZONE AND ALL RELATED DEVICES ARE INSTALLED, MAINTAINED AND REMOVED IN COMPLIANCE WITH THE CONTRACT DOCUMENTS.

10. ON A CONTINUAL BASIS FACILITATE CORRECTIVE ACTION(S) NECESSARY TO BRING DEFICIENT TTC ZONES AND ALL RELATED DEVICES INTO COMPLIANCE WITH CONTRACT DOCUMENTS IN THE TIMEFRAME DETERMINED BY THE ENGINEER.

11. INSPECT, EVALUATE, PROPOSE NECESSARY MODIFICATIONS TO, AND DOCUMENT THE EFFECTIVENESS OF, THE TTC DEVICES AND TRAFFIC OPERATIONS ON A DAILY BASIS (7 DAYS A WEEK). IN ADDITION, PERFORM ONE WEEKLY NIGHT INSPECTION OF THE WORK ZONE SETUP FOR DAYTIME WORK OPERATIONS; AND ONE DAYTIME INSPECTION PER WEEK FOR NIGHTTIME PROJECTS. THIS SHALL INCLUDE (BUT NOT BE LIMITED TO) DOCUMENTATION ON THE FOLLOWING PROJECT EVENTS:

    A. INITIAL TTC SETUP (DAY AND NIGHT REVIEW).

    B. DAILY TTC SETUP AND REMOVAL.

    C. WHEN CONSTRUCTION STAGING CAUSES A CHANGE IN THE TTC SETUP.

    D. CRASH OCCURRENCES WITHIN THE CONSTRUCTION AREA AND WITHIN THE INFLUENCE AREA(S) APPROACHING THE WORK ZONE.

    E. REMOVAL OF TTC DEVICES AT THE END OF A PHASE OR PROJECT.

    F. ALL OTHER EMERGENCY TTC NEEDS.

12. COMPLETE THE DEPARTMENT APPROVED LONG TERM INSPECTION FORM (CA-D-8) AFTER EACH INSPECTION AS REQUIRED IN # 11 AND SUBMIT IT TO THE ENGINEER THE FOLLOWING WORKDAY. THESE REPORTS SHALL INCLUDE A CHECKLIST OF ALL TTC MAINTENANCE ITEMS TO BE REVIEWED. A COPY OF THE FORM WILL BE PROVIDED AT THE PRE-CONSTRUCTION MEETING. ANY DEFICIENCIES OBSERVED SHALL BE NOTED, ALONG WITH RECOMMENDED OR COMPLETED CORRECTIVE ACTIONS AND THE DATES BY WHICH SUCH CORRECTIONS WERE, OR WILL BE, COMPLETED. A COPY OF THE CURRENT CA-D-8 DOCUMENT CAN BE FOUND ON THE OFFICE OF CONSTRUCTION ADMINISTRATION'S INSPECTION FORMS WEBSITE.

13. HAVE COPIES OF THE ODOT TEMPORARY TRAFFIC CONTROL MANUAL AND CONTRACT DOCUMENTS AVAILABLE AT ALL TIMES ON THE PROJECT.

THE DEPARTMENT WILL DEDUCT:

A. THE PRORATED DAILY AMOUNT OF ITEM 614 MAINTAINING TRAFFIC FOR ANY DAY IN WHICH THE WTS FAILS TO PERFORM THE DUTIES SET FORTH ABOVE. THE PRORATED DAILY AMOUNT WILL BE EQUAL TO THE ORIGINAL BID AMOUNT FOR ITEM 614 MAINTAINING TRAFFIC DIVIDED BY THE DIFFERENCE BETWEEN THE ORIGINAL COMPLETION DATE AND THE FIRST DAY OF WORK, IN CALENDAR DAYS.

B. 1% OF THE ORIGINAL BID AMOUNT FOR ITEM 614 MAINTAINING TRAFFIC FOR ANY DAY THAT A TTC ISSUE IS IDENTIFIED IN THE FIELD AND IS NOT CORRECTED IN THE GIVEN TIMEFRAME PER THE ENGINEER. DEDUCTION B SHALL NOT APPLY TO SITUATIONS COVERED BY DEDUCTION C.

C. 1% OF THE ORIGINAL BID AMOUNT FOR ITEM 614 MAINTAINING TRAFFIC FOR ANY DAY THAT A LANE OR RAMP IS BLOCKED (FULLY OR PARTIALLY) WITHOUT TTC, AS DETERMINED BY THE ENGINEER. THIS DEDUCTION SHALL BE IN ADDITION TO ANY OTHER DISINCENTIVES ESTABLISHED FOR UNAUTHORIZED LANE USE.

FOR DAYS IN WHICH MORE THAN ONE DEDUCTION LISTED ABOVE OCCUR, THE HIGHEST DEDUCTION AMOUNT WILL APPLY.

IF THREE OR MORE TOTAL DAYS RESULT IN TTC ISSUES DESCRIBED IN DEDUCTION B OR C ABOVE, THE PRIMARY WTS SHALL BE IMMEDIATELY REMOVED FROM THE WORK IN ACCORDANCE WITH C&MS 108.05. UPON REMOVAL THE ENGINEER SHALL NOTIFY ODOT CENTRAL OFFICE (WTSPREQUALIFICATION@DOT.OHIO.GOV) TO REGISTER A REMOVAL AGAINST THE STATEWIDE PREQUALIFICATION FOR THE PRIMARY WTS. THREE REMOVALS SHALL CAUSE STATEWIDE DISQUALIFICATION FOR ANY PREVIOUSLY PREQUALIFIED WTS.

PAYMENT FOR THE ABOVE REQUIREMENTS, RESPONSIBILITIES AND DUTIES SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614, MAINTAINING TRAFFIC.

EXTRA ADVANCE WARNING SIGNS

AN EXTRA ADVANCE WARNING SIGN GROUP CONSISTS OF TWO W20-1 (ROAD WORK AHEAD) SIGNS, TWO W20-5 (RIGHT/LEFT LANE CLOSED AHEAD) SIGNS WITH W16-3A DISTANCE PLATES, AND TWO W3-H7 (WATCH FOR STOPPED TRAFFIC) SIGNS AND REQUIRED WARNING LIGHTS.

THE CONTRACTOR SHALL PROVIDE, ERECT, MAINTAIN AND REMOVE EXTRA ADVANCE WARNING SIGNS GROUPS AS SHOWN ON TRAFFIC SCD MT-95.50 AT THE FOLLOWING DISTANCES IN ADVANCE OF THE LANE TAPERS WITH THE APPROPRIATE W16-3A DISTANCE PLATES:

1. LOCATION 10: CUY-480-1075 (I-480 OVER CSX RAILROAD) LANE TAPER STATION: 574+70±, PHASE 1 THRU 3 (I-480 ED); PROVIDE SIGN GROUPS AT 2 MILES, 3 MILES, AND 4 MILES.

2. LOCATION 10: CUY-480-1075 (I-480 OVER CSX RAILROAD) LANE TAPER STATION: 609+75±, PHASE 1 THRU 3 (I-480 WB); PROVIDE SIGN GROUPS AT 2 MILES, 3 MILES, AND 4 MILES.

THE CONTRACTOR SHALL HAVE AN ADDITIONAL EXTRA ADVANCE WARNING SIGN GROUP (6 SIGNS AND 2 DISTANCE PLATES) AVAILABLE FOR USE WHEN DIRECTED BY THE ENGINEER. THE DISTANCE PLATES FOR THIS GROUP SHALL BE ABLE TO BE MODIFIED IN THE FIELD TO SHOW APPROPRIATE WHOLE MILES TO THE LANE TAPER.

PAYMENT FOR PROVIDING, ERECTING, MAINTAINING AND REMOVING EXTRA ADVANCE WARNING SIGN GROUPS SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 MAINTAINING TRAFFIC.

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STATION		SIDE	614														615	621		622				
			INCREASED BARRIER DELINEATION	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	WORK ZONE RAISED PAVEMENT MARKER	BARRIER REFLECTOR, TYPE 1, ONE-WAY	OBJECT MARKER, ONE WAY	WORK ZONE CENTER LINE, CLASS 1, 740.06, TYPE 1	WORK ZONE EDGE LINE, CLASS 1, 6", 740.06, TYPE 1	WORK ZONE DOTTED LINE, CLASS 1, 6", 740.06, TYPE 1		WORK ZONE ARROW, CLASS 1, 740.06, TYPE 1	WORK ZONE EDGE LINE, CLASS 1, 6", 642 PAINT		WORK ZONE CHANNELIZING LINE, CLASS 1, 8", 642 PAINT	WORK ZONE PAVEMENT MARKINGS, MISC.: REMOVABLE, NON-REFLECTIVE PREFORMED BLACKOUT TAPE	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	RPM REFLECTOR	RAISED PAVEMENT MARKER REMOVED, AS PER PLAN	PORTABLE BARRIER, "Y" CONNECTOR	PORTABLE BARRIER, UNANCHORED		
FROM	TO		FT	EACH	EACH	EACH	EACH	MILE	MILE	FT		EACH	MILE		FT	FT	SY	EACH	EACH	EACH	FT		
									W	Y	W		Y	W									
CUY-480-0612 PHASE 1																							
PAVEMENT MARKING																							
7+00±	13+75±	LT/RT						740	508	152	148					1150							
CUY-480-0612 PHASE 2																							
PAVEMENT MARKING																							
5+87±	13+75±	LT/RT						689	515	176	189	6				570							
CUY-480-1075 PHASE 1																							
PAVEMENT MARKING																							
571+70±	610+00±	RT											3230	3230	11490	17950		102	102				
575+25±	612+75±	LT											3150	3150	9450	15750		99	99				
RAISED PAVEMENT MARKERS																							
571+70±	610+00±	RT			965																		
575+25±	612+75±	LT			945																		
BARRIER																							
590+60±	597+95±	RT		1		15	15														710		
591+75±	602+00±	LT		1		21	21														1000		
INCREASED BARRIER DELINEATION (MEDIAN BARRIER)																							
574+70±	607+00±	RT	800																				
578+25±	609+75±	LT	880																				
PAVEMENT FOR MAINTAINING TRAFFIC																							
586+25±	590+25±	RT															191						
587+50±	591+92±	LT															105						
CUY-480-1075 PHASE 2																							
PAVEMENT MARKING																							
571+70±	610+00±	RT											3230	6460	5030								
575+25±	612+75±	LT											3150	6300	4950								
RAISED PAVEMENT MARKERS																							
571+70±	610+00±	RT			652																		
575+25±	612+75±	LT			636																		
BARRIER																							
590+95±	597+85±	RT		1		15	15													1	690		
590+95±	597+45±	RT				14	14														630		
591+75±	598+85±	LT		1		30	30													1	1400		
CUY-480-1075 PHASE 3																							
PAVEMENT MARKING																							
571+70±	610+00±	RT											3230		8260								
575+25±	612+75±	LT											3150		8100								
RAISED PAVEMENT MARKERS																							
571+70±	610+00±	RT			489																		
575+25±	612+75±	LT			477																		
BARRIER																							
589+70±	597+50±	RT		1		17	17														780		
592+45±	600+25±	LT		1		17	17														780		
TOTALS			1680	6	4164	129	129	1429	1023	328	337	6	19140	19140	47280	35420	296	201	201	2	5990		
CONVERTED TO MILES								0.27	0.19				3.63	3.63									
TOTALS CARRIED TO GENERAL SUMMARY			1680	6	4164	129	129	0.27	0.19	665		6	7.26		47280	35420	296	201	201	2	5990		

CALCULATED KDW
CHECKED TWG

MAINTENANCE OF TRAFFIC SUBSUMMARY

D12-BH-FY2021(A) MISC
PID NO. 103162

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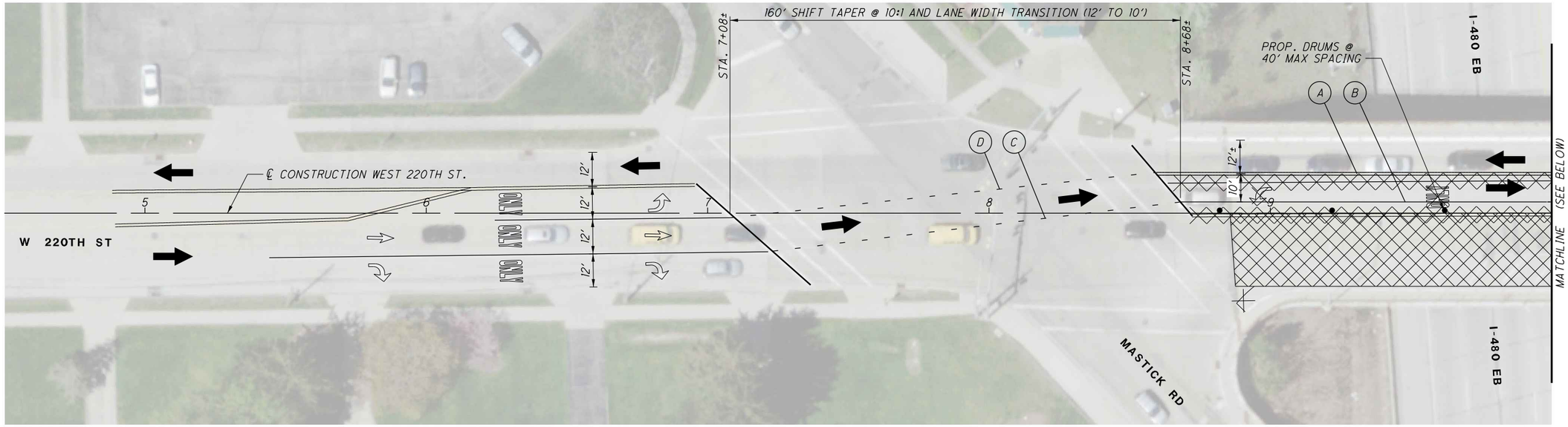
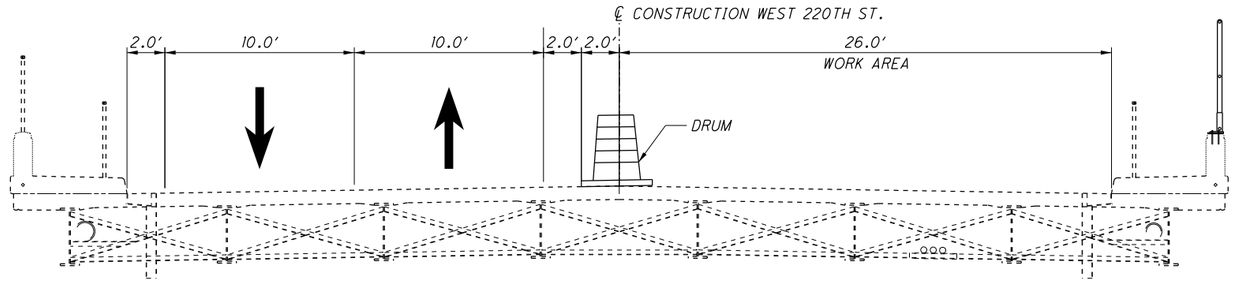
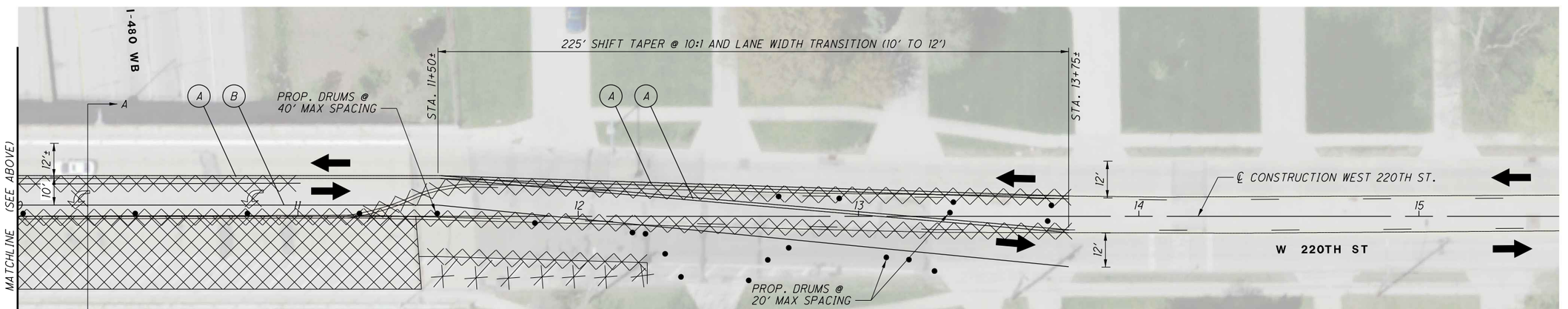




TYPICAL SECTION A-A



LEGEND

- WORK AREA
- DRUMS
- DIRECTION OF TRAVEL
- REMOVE EXISTING MARKINGS

(A) WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE I (DOUBLE SOLID)

(B) WORK ZONE EDGE LINE, CLASS I, 6", 740.06, TYPE I (WHITE)

(C) WORK ZONE DOTTED LINE, CLASS I, 6", 740.06, TYPE I (WHITE)

(D) WORK ZONE DOTTED LINE, CLASS I, 6", 740.06, TYPE I (YELLOW)

(E) WORK ZONE ARROW, CLASS I, 740.06, TYPE I

NOTES

1. ACCESS TO RESIDENTIAL DRIVES SHALL BE MAINTAINED AT ALL TIMES.
2. SEE SHEET 9 FOR ESTIMATED QUANTITIES.
3. SEE SCD MT-102.20 FOR ADDITIONAL DETAILS.

N

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED KDW
CHECKED TWG

MAINTENANCE OF TRAFFIC PLAN
CUY-480-0612 - PHASE 1

D12-BH-FY2021(A) MISC
PID NO. 103162

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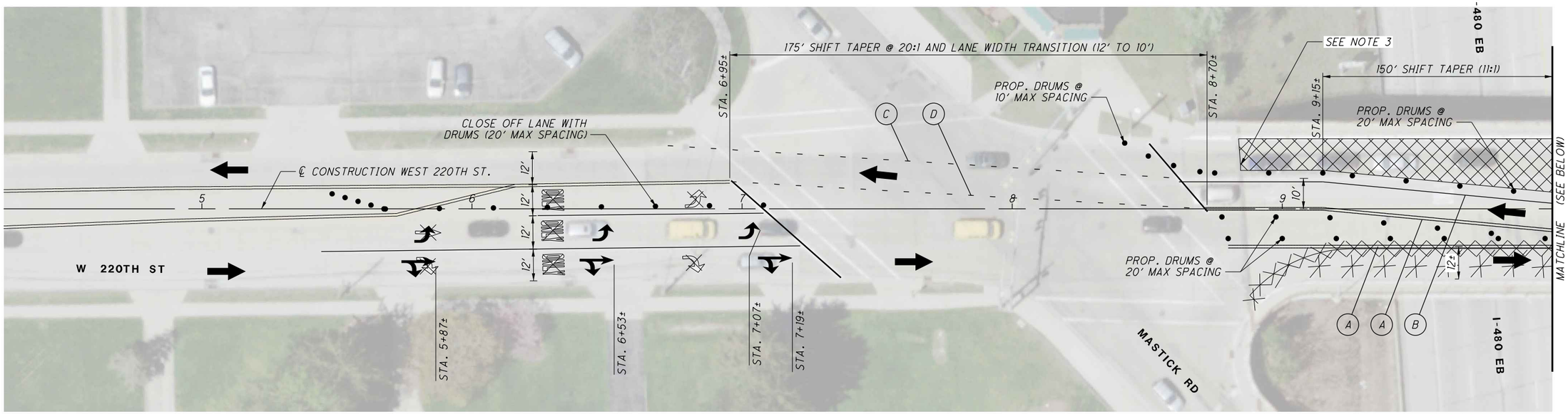
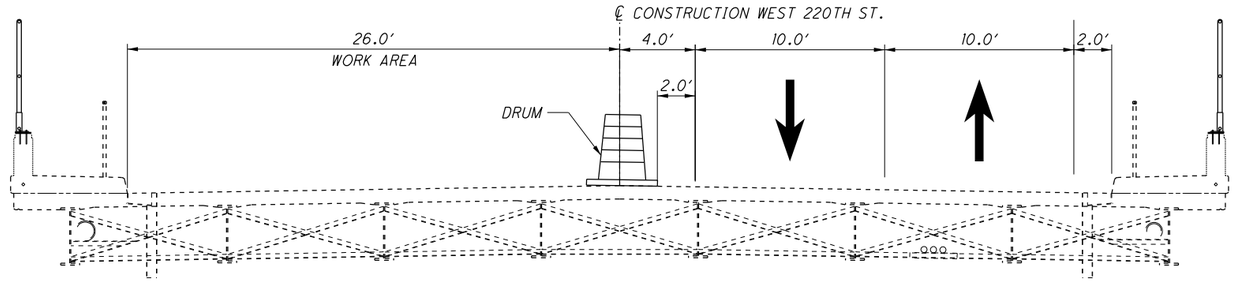
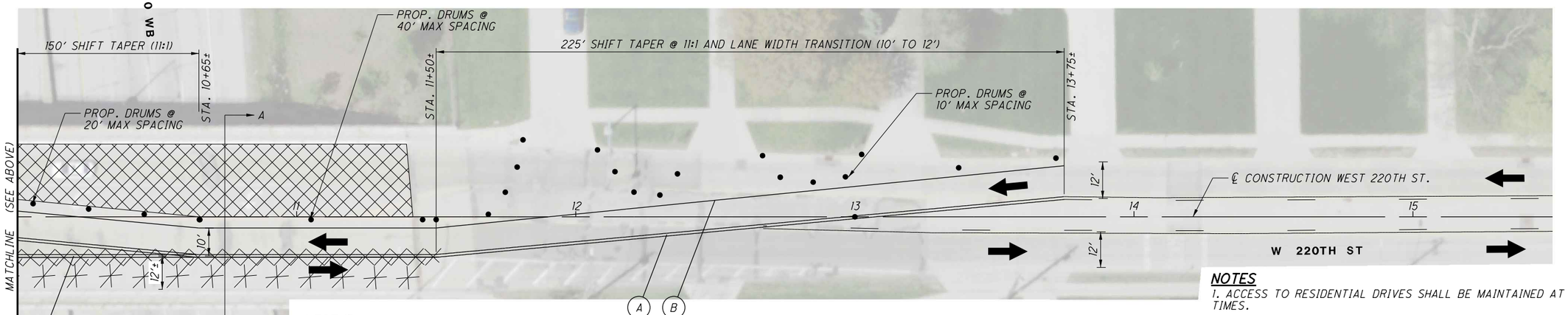




TYPICAL SECTION A-A



LEGEND

- WORK AREA
- DRUMS
- DIRECTION OF TRAVEL
- REMOVE PAVEMENT MARKINGS

(A) WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE I (DOUBLE SOLID)

(B) WORK ZONE EDGE LINE, CLASS I, 6", 740.06, TYPE I (WHITE)

(C) WORK ZONE DOTTED LINE, CLASS I, 6", 740.06, TYPE I (WHITE)

(D) WORK ZONE DOTTED LINE, CLASS I, 6", 740.06, TYPE I (YELLOW)

(E) WORK ZONE ARROW, CLASS I, 740.06, TYPE I

NOTES

1. ACCESS TO RESIDENTIAL DRIVES SHALL BE MAINTAINED AT ALL TIMES.

2. SEE SHEET 9 FOR ESTIMATED QUANTITIES.

3. THE BACKWALL REPAIR ON THE LEFT SIDE OF THE BRIDGE SHALL BE COMPLETED IN TWO SUBPHASES. TRAFFIC SHALL BE MAINTAINED AS SHOWN TO THE REPAIR THE SECTION IN THE EXISTING RIGHT LANE. TRAFFIC SHALL THEN BE DIVERTED TO THE FAR OUTSIDE LANE WHILE THE BACKWALL IN THE EXISTING LEFT TURN LANE IS REPAIRED. FLAGGERS SHALL BE UTILIZED TO HELP GUIDE VEHICLES DURING THIS SHORT TERM DIVERSION. STEEL PLATES SHALL BE USED TO PROTECT THE REPAIRED AREA AND TO MAINTAIN ONE LANE OF TRAFFIC AT ALL TIMES. TRAFFIC SHALL BE RESTORED AS SHOWN ON THIS SHEET AT THE CONCLUSION OF THE BACKWALL REPAIR IN THE SOUTHBOUND LANES.

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED KDW
CHECKED TWG

MAINTENANCE OF TRAFFIC PLAN
CUY-480-0612 - PHASE 2

D12-BH-FY2021(A) MISC
PID NO. 103162

11
74

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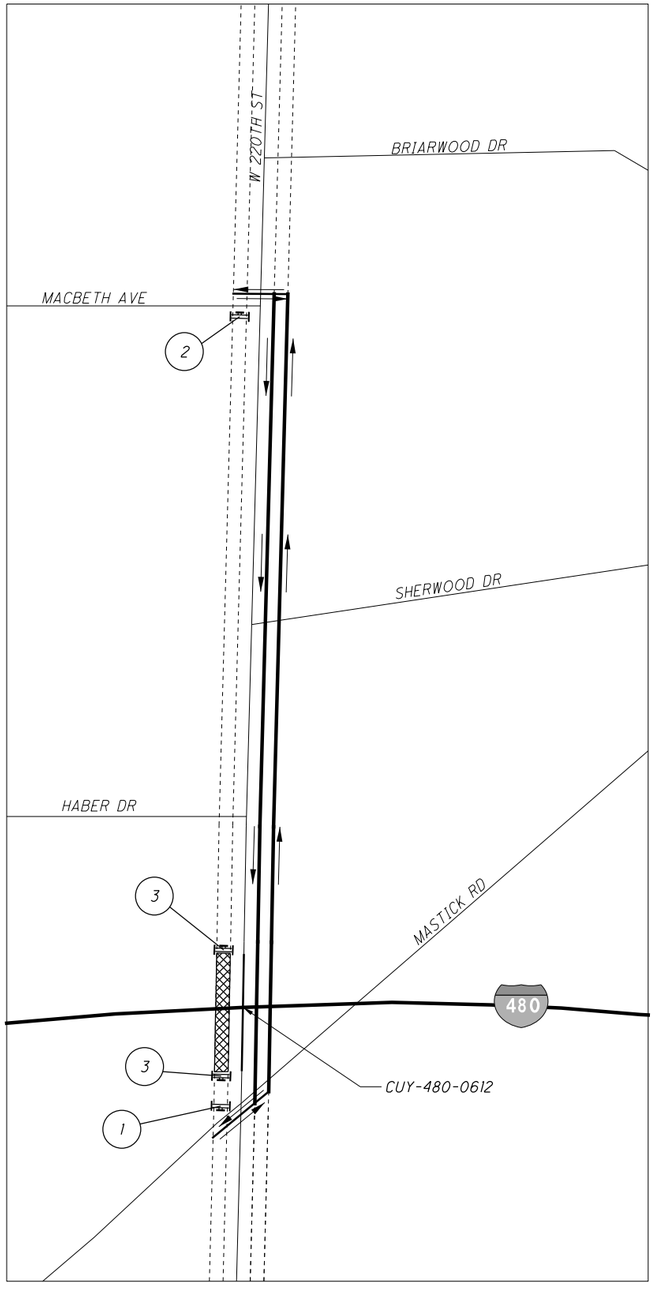
PHASE 1



1

SIDEWALK CLOSED AHEAD

CROSS HERE

R9-11R-24
TYPE 1 BARRICADE

2

SIDEWALK CLOSED AHEAD

CROSS HERE

R9-11L-24
TYPE 1 BARRICADE

3

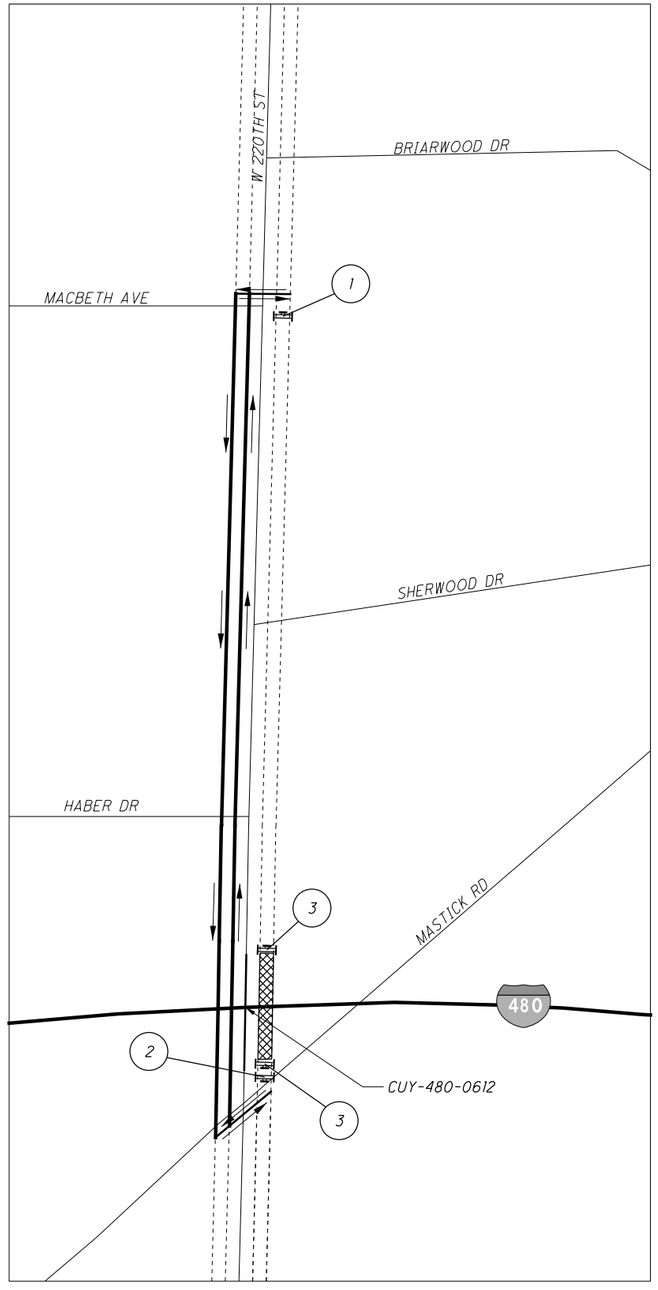
SIDEWALK CLOSED

R9-9-30
TYPE 1 BARRICADE

LEGEND

- TYPE 1 BARRICADE
- CLOSURE AREA
- DETOUR ROUTE

PHASE 2



NOTE

FOR ADDITIONAL DETAILS SEE SCD MT-110.10.

NOT TO SCALE

CALCULATED MTJ
CHECKED TWG

MAINTENANCE OF TRAFFIC
W 220TH ST PEDESTRIAN DETOUR PLAN

D12-BH-FY2021(A) MISC
PID NO. 103162

12
74

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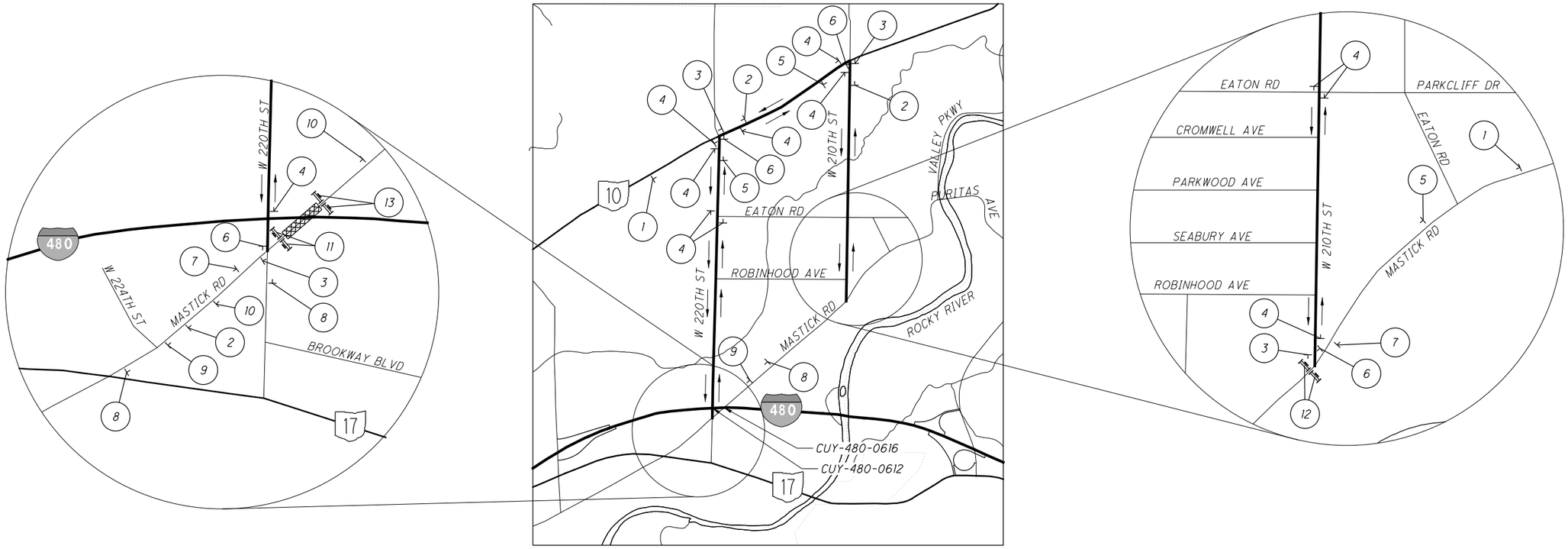

1 — DETOUR AHEAD
W20-2-48

2 — DETOUR / MASTICK RD
M4-8-24
D3-1-VAR
M5-1L-21

3 — DETOUR / MASTICK RD
M4-8-24
D3-1-VAR
M6-1L-21

4 — DETOUR / MASTICK RD
M4-8-24
D3-1-VAR
M6-3-21

5 — DETOUR / MASTICK RD
M4-8-24
D3-1-VAR
M5-1R-21

6 — DETOUR / MASTICK RD
M4-8-24
D3-1-VAR
M6-1R-21

7 — MASTICK RD / END DETOUR
D3-1-VAR
M4-8A-24

8 — TYPE A WARNING LIGHT
ROAD WORK AHEAD
W20-1-48

9 — TYPE A WARNING LIGHT
ROAD CLOSED AHEAD
1000 FEET
W20-3-48
W16-2P-30

10 — ROAD CLOSED AHEAD
500 FEET
W20-3-48
W16-2P-30

11 — TYPE B WARNING LIGHT
ROAD CLOSED
DETOUR
R11-2-48
M4-10L-48
TYPE 3 BARRICADE

12 — TYPE B WARNING LIGHT
BRIDGE OUT
0.6 MILES AHEAD
LOCAL TRAFFIC ONLY
DETOUR
R11-3B-60
M4-10R-48
TYPE 3 BARRICADE

13 — TYPE B WARNING LIGHT
ROAD CLOSED
R11-2-48
TYPE 3 BARRICADE

LEGEND
- TYPE 3 BARRICADE
- CLOSURE AREA
- DETOUR ROUTE

NOT TO SCALE

CALCULATED MTJ
CHECKED TWG

MAINTENANCE OF TRAFFIC
MASTICK RD DETOUR PLAN

D12-BH-FY2021(A) MISC
PID NO. 103162

13
74

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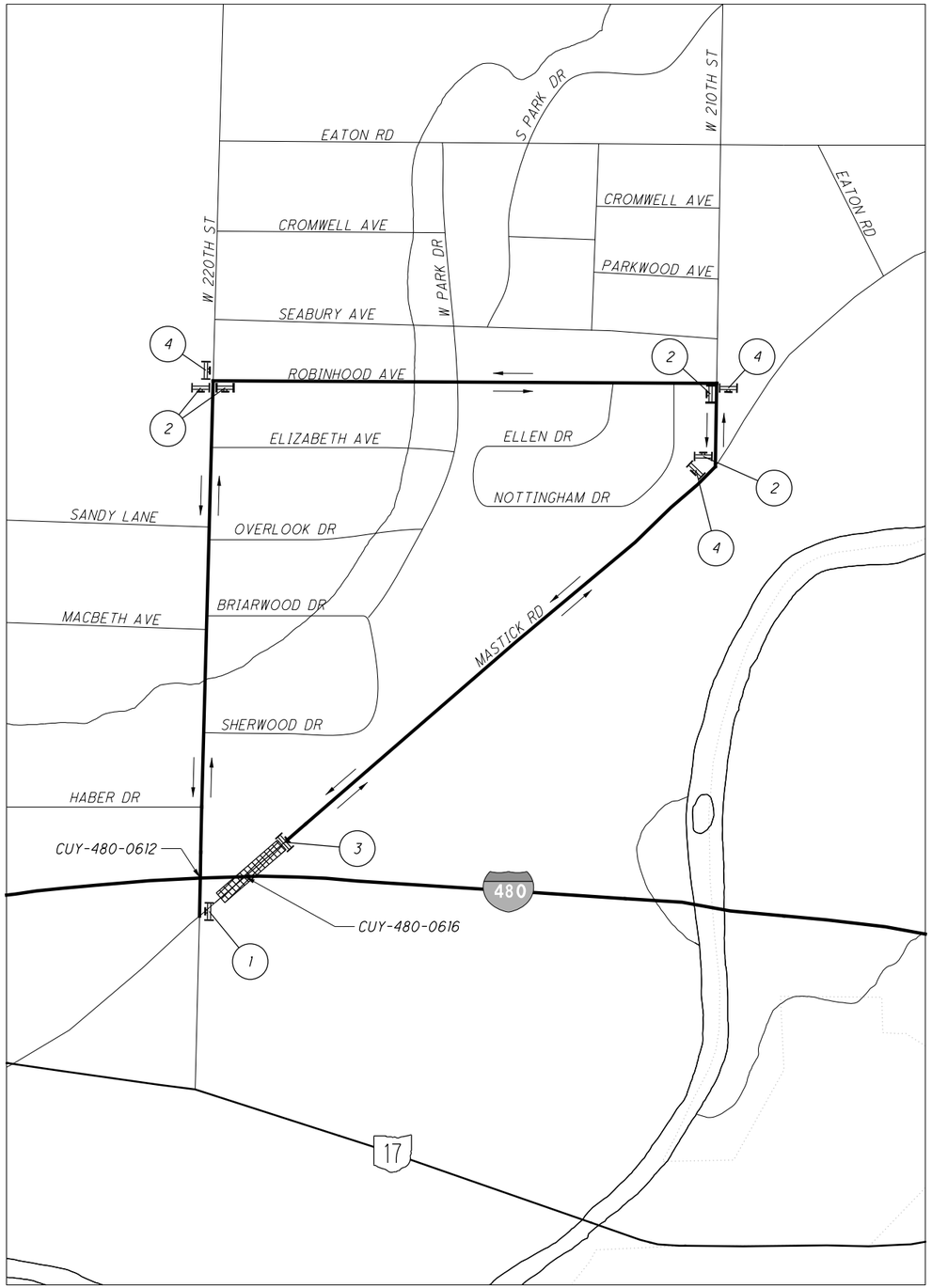

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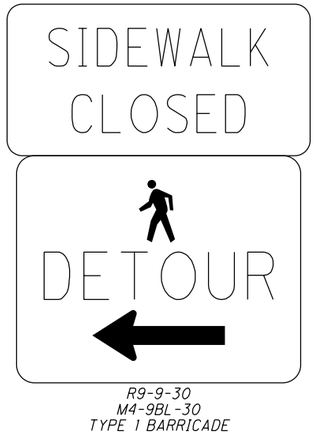
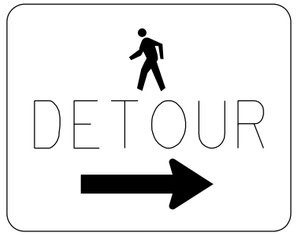


R9-9-30
M4-9BL-30
TYPE I BARRICADE

2

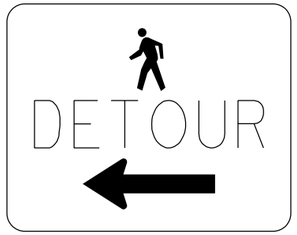


M4-9BR-30
TYPE I BARRICADE

3

R9-9-30
TYPE I BARRICADE

4



R9-9-30
M4-9BL-30
TYPE I BARRICADE

LEGEND

TYPE I BARRICADE

CLOSURE AREA

DETOUR ROUTE

NOTE

FOR ADDITIONAL DETAILS SEE SCD MT-110.10.

NOT TO SCALE

CALCULATED MTJ CHECKED TWG

MAINTENANCE OF TRAFFIC
MASTICK RD PEDESTRIAN DETOUR PLAN

D12-BH-FY2021(A) MISC
PID NO. 103162

14
74

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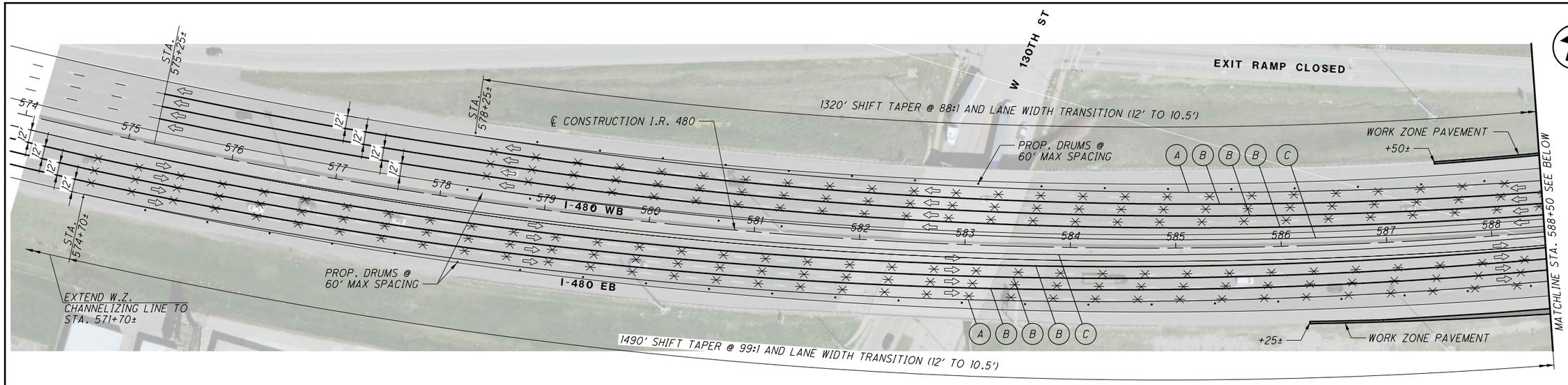
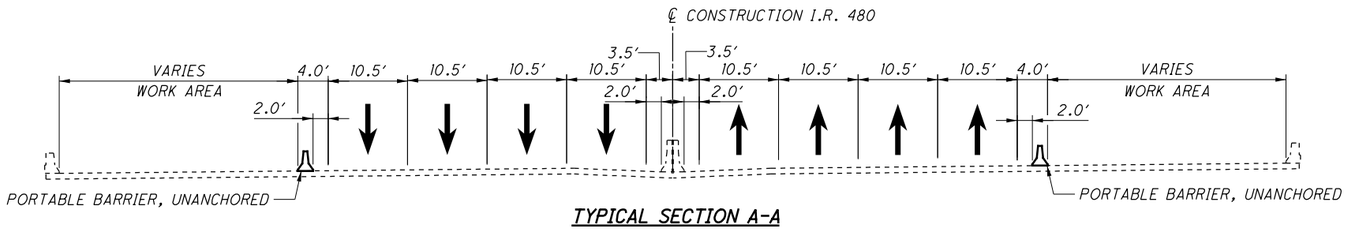
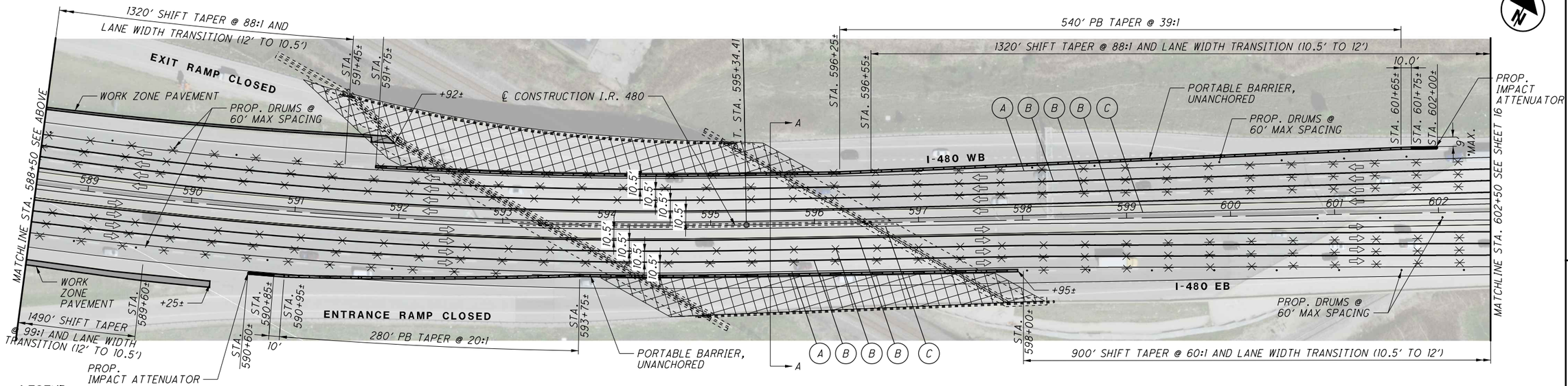




TYPICAL SECTION A-A



LEGEND

- WORK AREA
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A
- PORTABLE BARRIER, UNANCHORED
- PORTABLE BARRIER, "Y" CONNECTOR
- WORK ZONE IMPACT ATTENUATOR
- DRUMS
- DIRECTION OF TRAVEL
- (A) WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT (WHITE)
- (B) WORK ZONE CHANNELIZING LINE, CLASS I, 8", 642 PAINT
- (C) WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT (YELLOW)
- WORK ZONE PAVEMENT MARKING PLACED IN PREVIOUS PHASE
- WORK ZONE PAVEMENT MARKING, MISC.: REMOVABLE, NON-REFLECTIVE PREFORMED BLACKOUT TAPE

NOTES

1. SEE MT-102.10 FOR ADDITIONAL DETAILS.
2. SEE SHEET 9 FOR ESTIMATED QUANTITIES.

HORIZONTAL SCALE IN FEET: 0, 25, 50, 100

CALCULATED KDW
CHECKED TWG

MAINTENANCE OF TRAFFIC PLAN
CUY-480-1075 - PHASE 1

D12-BH-FY2021(A) MISC
PID NO. 103162

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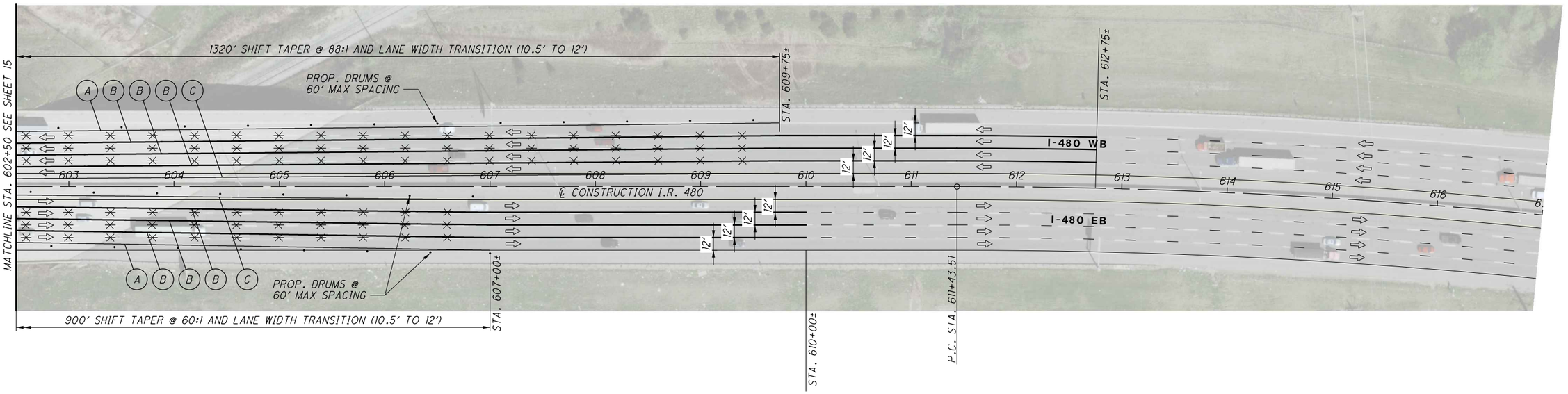

LEGEND

- WORK AREA
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A
- PORTABLE BARRIER, UNANCHORED
- PORTABLE BARRIER, "Y" CONNECTOR
- WORK ZONE IMPACT ATTENUATOR
- DRUMS
- DIRECTION OF TRAVEL
- (A) WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT (WHITE)
- (B) WORK ZONE CHANNELIZING LINE, CLASS I, 8", 642 PAINT
- (C) WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT (YELLOW)
- (*) WORK ZONE PAVEMENT MARKING PLACED IN PREVIOUS PHASE
- WORK ZONE PAVEMENT MARKING, MISC.: REMOVABLE, NON-REFLECTIVE PREFORMED BLACKOUT TAPE

NOTES

1. SEE MT-102.10 FOR ADDITIONAL DETAILS.
2. SEE SHEET 9 FOR ESTIMATED QUANTITIES.

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED KDW
CHECKED TWG

MAINTENANCE OF TRAFFIC PLAN
CUY-480-1075 - PHASE 1

D12-BH-FY2021(A) MISC
PID NO. 103162

16
74

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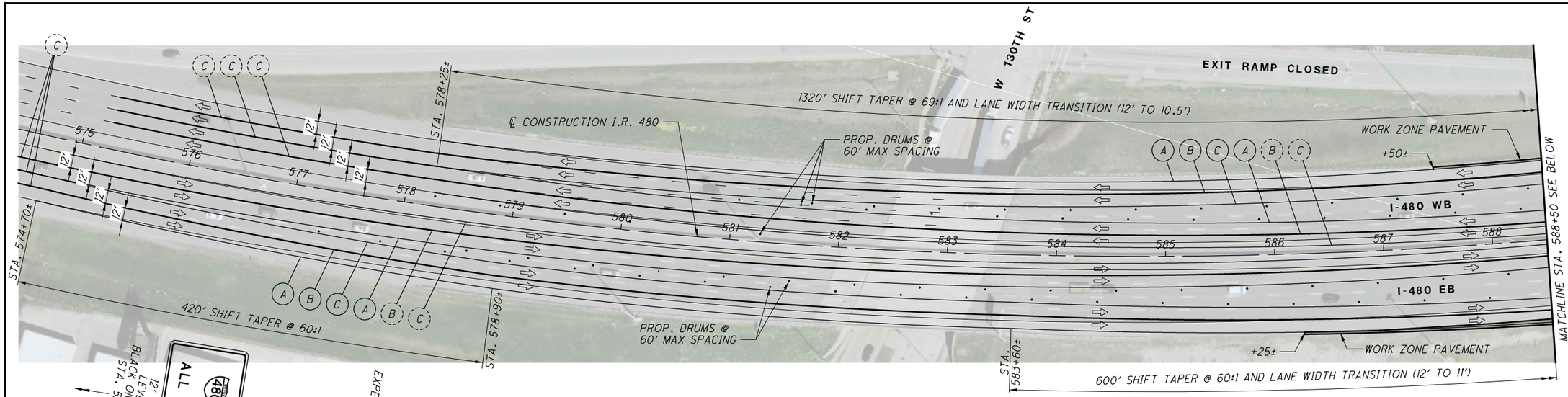
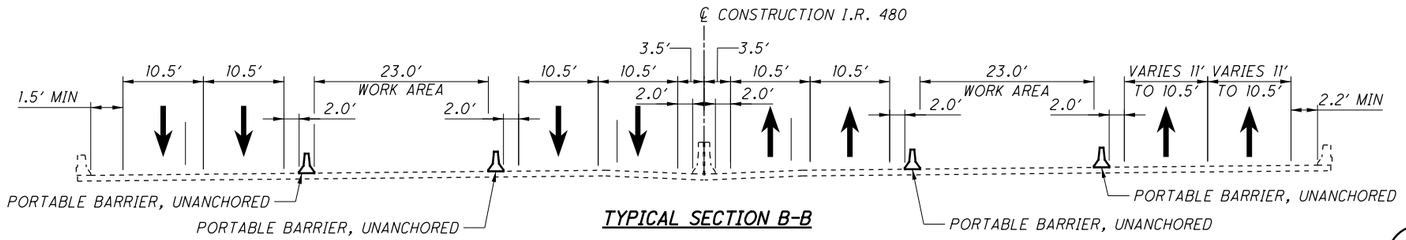
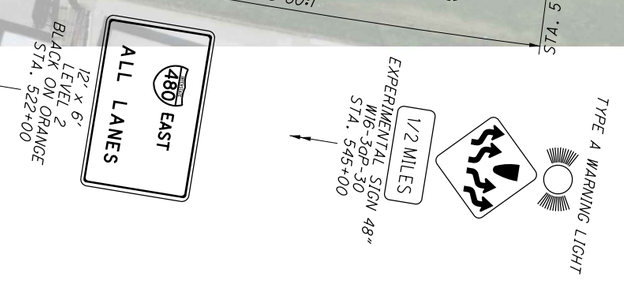
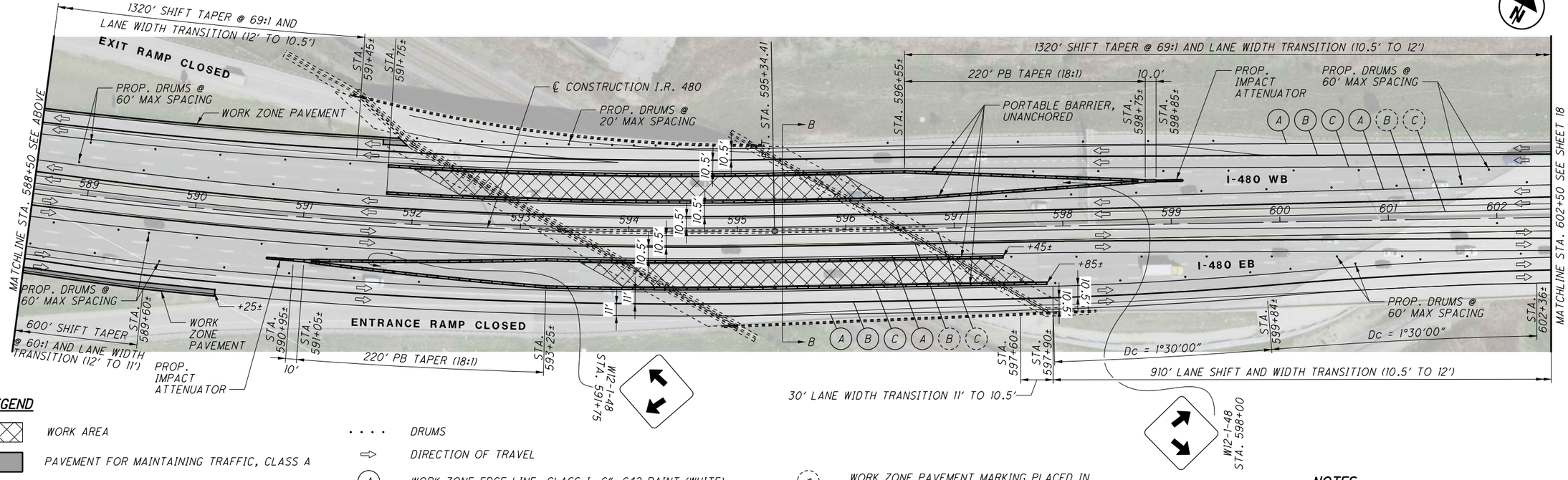




TYPICAL SECTION B-B





LEGEND

- WORK AREA
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A
- PORTABLE BARRIER, UNANCHORED
- PORTABLE BARRIER, "Y" CONNECTOR
- WORK ZONE IMPACT ATTENUATOR
- DRUMS
- DIRECTION OF TRAVEL
- (A) WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT (WHITE)
- (B) WORK ZONE CHANNELIZING LINE, CLASS I, 8", 642 PAINT
- (C) WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT (YELLOW)
- (*) WORK ZONE PAVEMENT MARKING PLACED IN PREVIOUS PHASE
- WORK ZONE PAVEMENT MARKING, MISC.: REMOVABLE, NON-REFLECTIVE PREFORMED BLACKOUT TAPE

NOTES

1. SEE MT-95.72 FOR ADDITIONAL DETAILS.
2. SEE SHEET 9 FOR ESTIMATED QUANTITIES.

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED KDW
CHECKED TWG

MAINTENANCE OF TRAFFIC PLAN
CUY-480-1075 - PHASE 2
D12-BH-FY2021(A) MISC
PID NO. 103162

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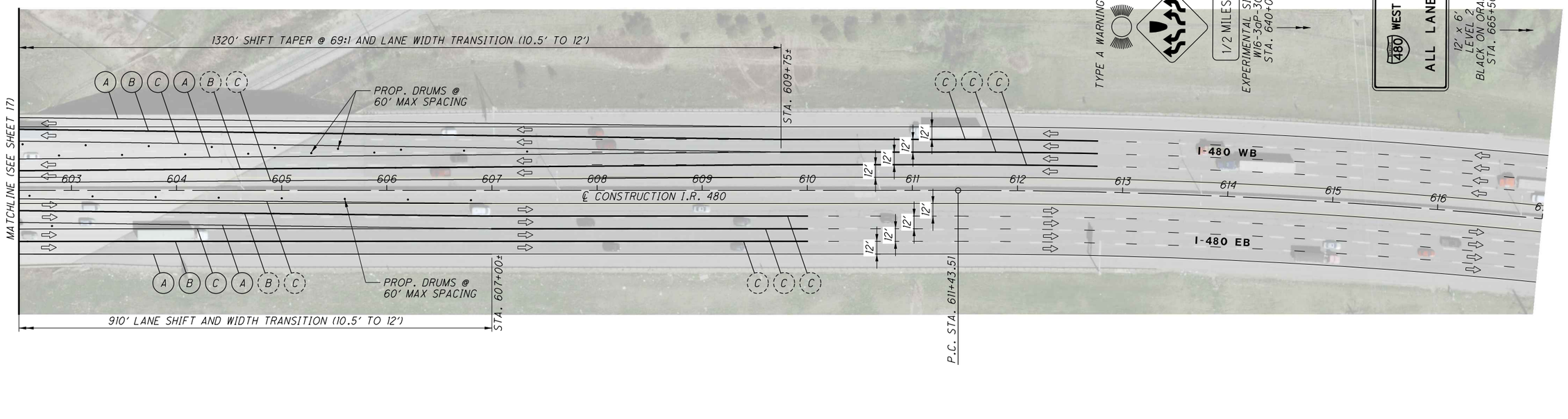

LEGEND

- WORK AREA
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A
- PORTABLE BARRIER, UNANCHORED
- PORTABLE BARRIER, "Y" CONNECTOR
- WORK ZONE IMPACT ATTENUATOR
- . . . . DRUMS
- ⇨ DIRECTION OF TRAVEL
- (A) WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT (WHITE)
- (B) WORK ZONE CHANNELIZING LINE, CLASS I, 8", 642 PAINT
- (C) WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT (YELLOW)
- (*) WORK ZONE PAVEMENT MARKING PLACED IN PREVIOUS PHASE
- WORK ZONE PAVEMENT MARKING, MISC.: REMOVABLE, NON-REFLECTIVE PREFORMED BLACKOUT TAPE

NOTES

1. SEE MT-95.72 FOR ADDITIONAL DETAILS.
2. SEE SHEET 9 FOR ESTIMATED QUANTITIES.

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED KDW
CHECKED TWG

MAINTENANCE OF TRAFFIC PLAN
CUY-480-1075 - PHASE 2

D12-BH-FY2021(A) MISC
PID NO. 103162

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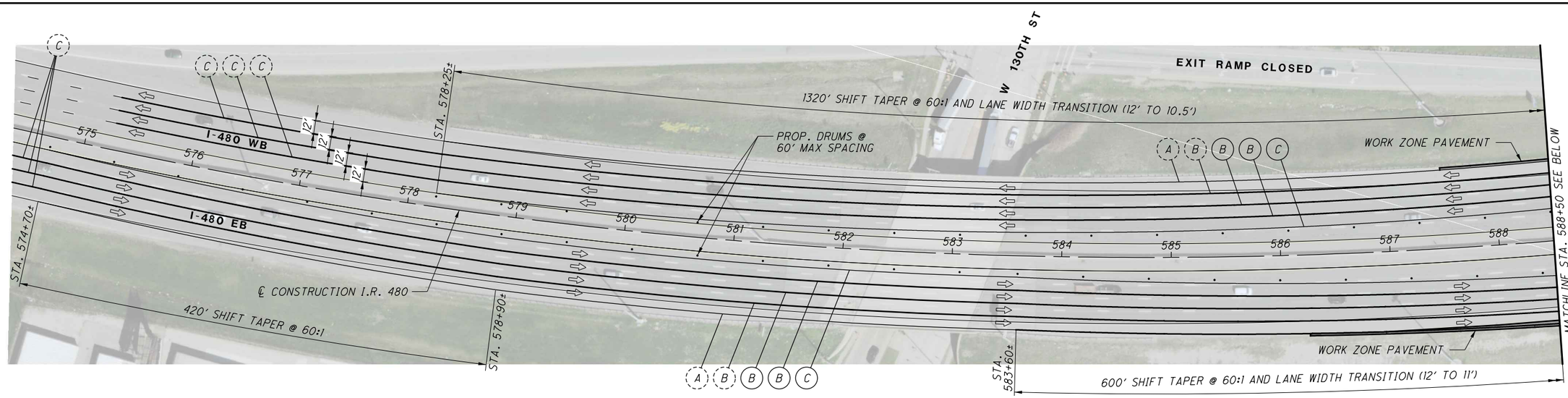
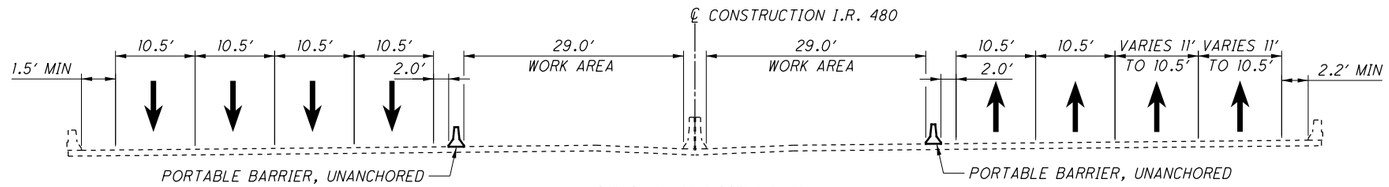
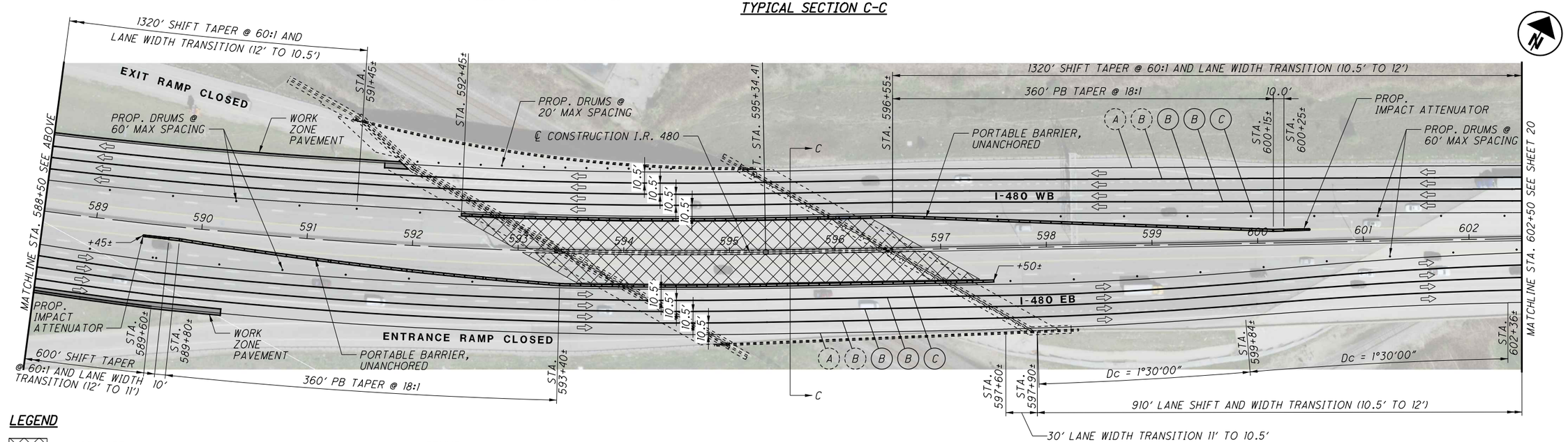




TYPICAL SECTION C-C



LEGEND

- WORK AREA
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A
- PORTABLE BARRIER, UNANCHORED
- PORTABLE BARRIER, "Y" CONNECTOR
- WORK ZONE IMPACT ATTENUATOR
- DRUMS
- DIRECTION OF TRAVEL
- (A) WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT (WHITE)
- (B) WORK ZONE CHANNELIZING LINE, CLASS I, 8", 642 PAINT
- (C) WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT (YELLOW)
- WORK ZONE PAVEMENT MARKING PLACED IN PREVIOUS PHASE
- WORK ZONE PAVEMENT MARKING, MISC.: REMOVABLE, NON-REFLECTIVE PREFORMED BLACKOUT TAPE

NOTES

1. SEE MT-102.10 FOR ADDITIONAL DETAILS.
2. SEE SHEET 9 FOR ESTIMATED QUANTITIES.

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED KDW
CHECKED TWG

MAINTENANCE OF TRAFFIC PLAN
CUY-480-1075 - PHASE 3

D12-BH-FY2021(A) MISC
PID NO. 103162

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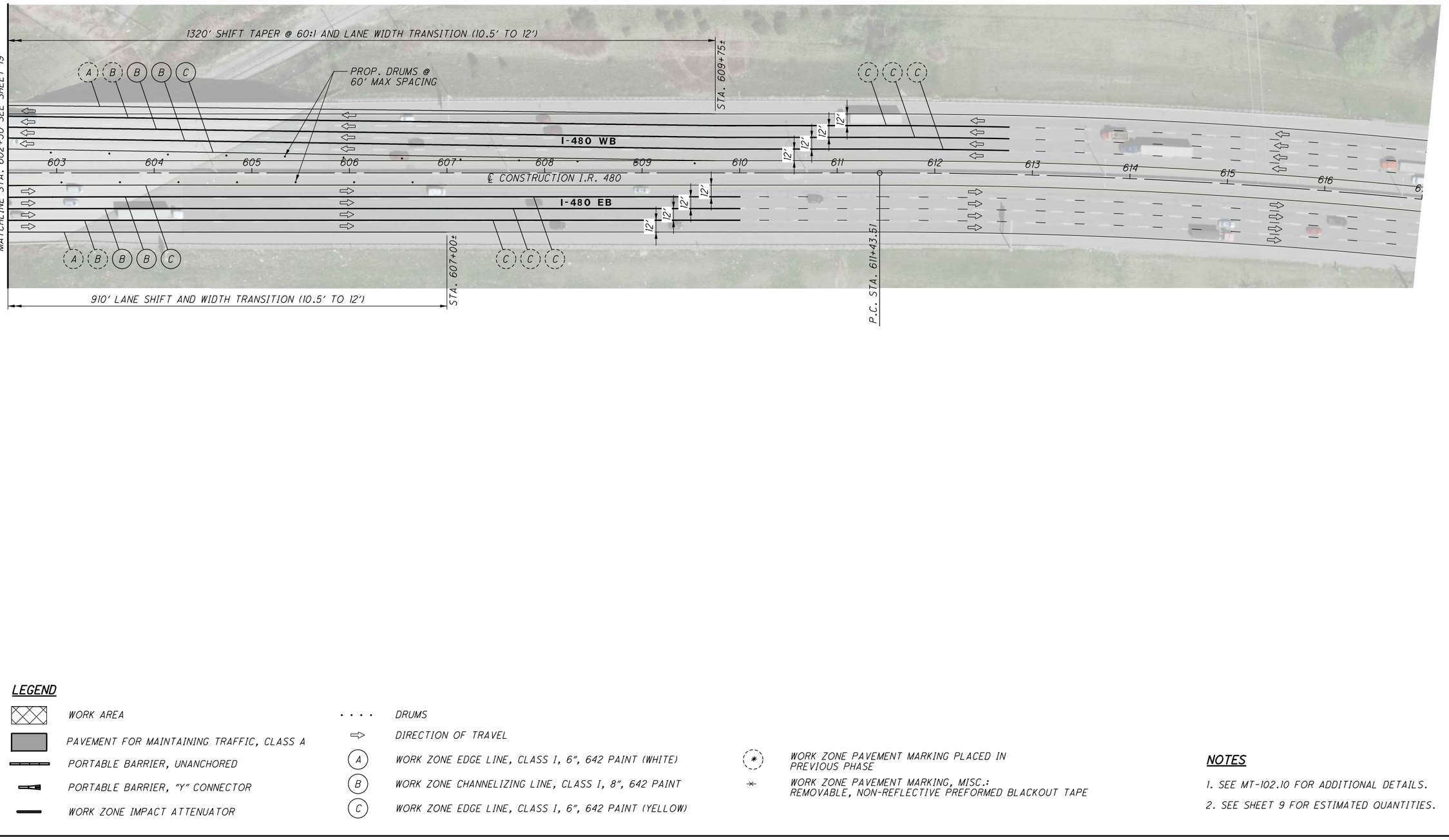

LEGEND

- WORK AREA
- PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A
- PORTABLE BARRIER, UNANCHORED
- PORTABLE BARRIER, "Y" CONNECTOR
- WORK ZONE IMPACT ATTENUATOR
- DRUMS
- DIRECTION OF TRAVEL
- (A) WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT (WHITE)
- (B) WORK ZONE CHANNELIZING LINE, CLASS I, 8", 642 PAINT
- (C) WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT (YELLOW)
- (*) WORK ZONE PAVEMENT MARKING PLACED IN PREVIOUS PHASE
- WORK ZONE PAVEMENT MARKING, MISC.: REMOVABLE, NON-REFLECTIVE PREFORMED BLACKOUT TAPE

NOTES

1. SEE MT-102.10 FOR ADDITIONAL DETAILS.
2. SEE SHEET 9 FOR ESTIMATED QUANTITIES.

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED KDW
CHECKED TWG

MAINTENANCE OF TRAFFIC PLAN
CUY-480-1075 - PHASE 3

D12-BH-FY2021(A) MISC
PID NO. 103162

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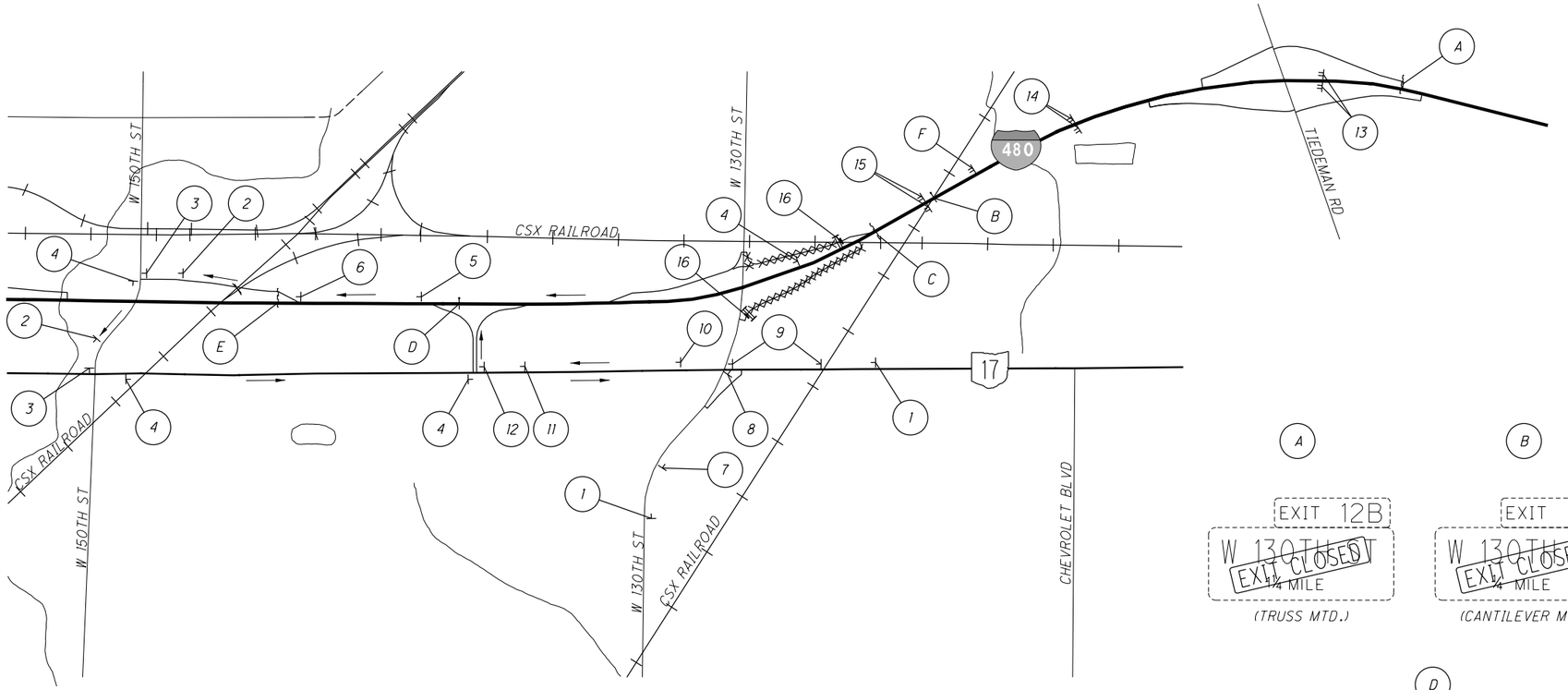

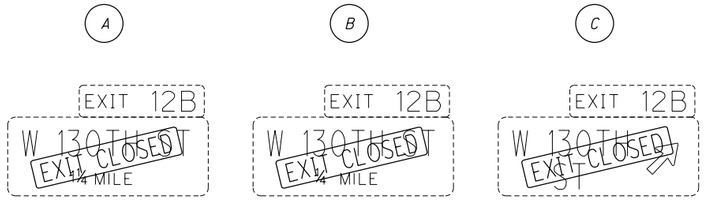

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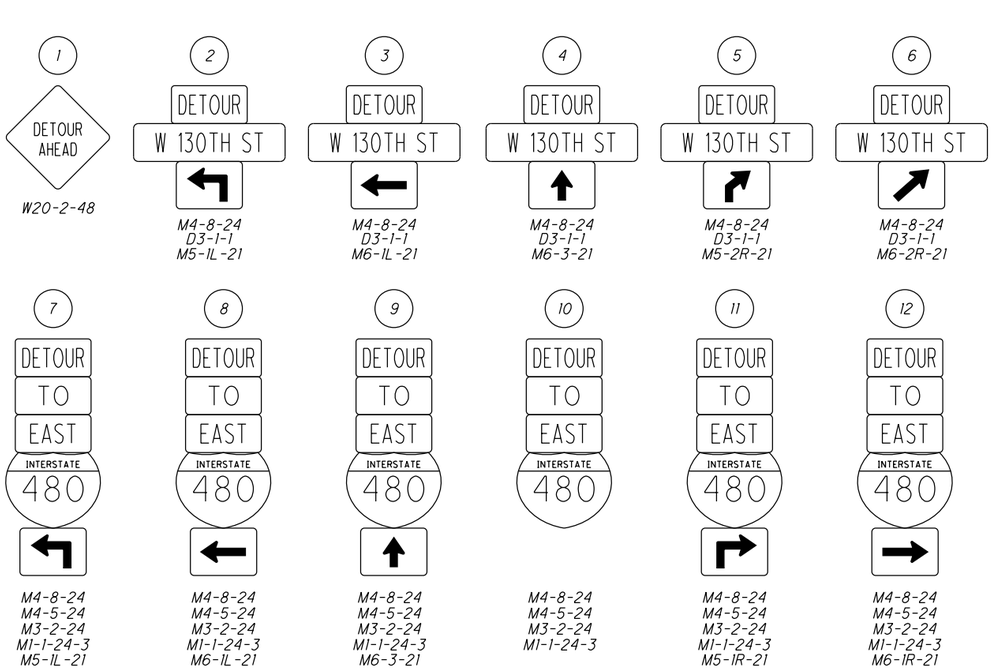
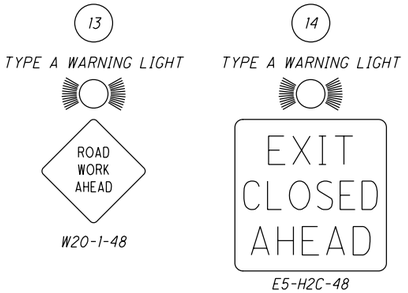


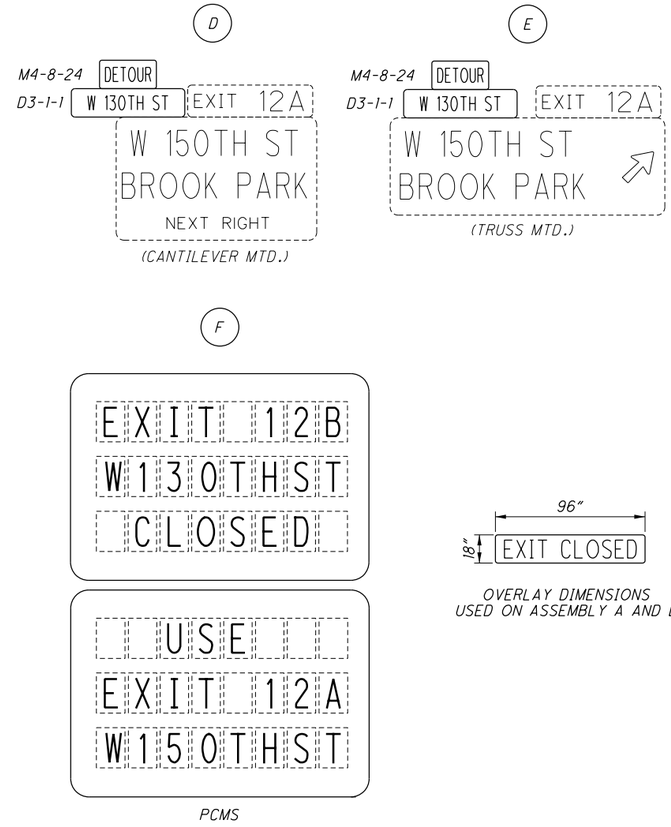
NOTE

FOR EXIT RAMP CLOSURE DETAILS, SEE SCD MT-98.29

LEGEND

- TYPE 3 BARRICADE
- CLOSURE AREA
- DETOUR ROUTE





OVERLAY DIMENSIONS
USED ON ASSEMBLY A AND B

NOT TO SCALE

CALCULATED MTJ
CHECKED TWG

MAINTENANCE OF TRAFFIC
W 130TH ST RAMP DETOUR PLAN

D12-BH-FY2021(A) MISC
PID NO. 103162

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SHEET NUM.												PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
										3	4	01/IMS/ BR							
																		ROADWAY	
										LS		LS		201	11001	LS		CLEARING AND GRUBBING, AS PER PLAN	3
										100		100		203	10000	100	CY	EXCAVATION	
										100		100		203	20000	100	CY	EMBANKMENT	
											1,839	1,839		204	10000	1,839	SY	SUBGRADE COMPACTION	
											LS	LS		SPECIAL	69098400	LS		SITE ACCESS	4
																		EROSION CONTROL	
											10,000	10,000		832	30000	10,000	EACH	EROSION CONTROL	
																		PAVEMENT	
											383	383		252	01000	383	SY	FULL DEPTH RIGID PAVEMENT REMOVAL AND FLEXIBLE REPLACEMENT	
											686	686		255	20000	686	FT	FULL DEPTH PAVEMENT SAWING	
											307	307		304	20000	307	CY	AGGREGATE BASE	
																		TRAFFIC CONTROL	
											30	30		630	03100	30	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
											3	3		630	85100	3	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	
											2	2		630	86002	2	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
											0.07	0.07		642	00100	0.07	MILE	EDGE LINE, 4", TYPE 1	
											0.15	0.15		642	00300	0.15	MILE	CENTER LINE, TYPE 1	
											238	238		642	00400	238	FT	CHANNELIZING LINE, 8", TYPE 1	
											32	32		642	00500	32	FT	STOP LINE, TYPE 1	
											380	380		642	00700	380	FT	TRANSVERSE/DIAGONAL LINE, TYPE 1	
											3	3		642	01300	3	EACH	LANE ARROW, TYPE 1	
											1	1		642	01400	1	EACH	WORD ON PAVEMENT, 72", TYPE 1	
											0.29	0.29		646	10010	0.29	MILE	EDGE LINE, 6"	
											0.52	0.52		646	10110	0.52	MILE	LANE LINE, 6"	
											448	448		646	10310	448	FT	CHANNELIZING LINE, 12"	
											179	179		646	20504	179	FT	DOTTED LINE, 6"	
																		STRUCTURE REPAIR (CUY-480-0612)	27
																		STRUCTURE REPAIR (CUY-480-0616)	35
																		STRUCTURE REPAIR (CUY-480-1075)	42

CALCULATED KDW
CHECKED TWG

GENERAL SUMMARY

D12-BH-FY2021(A) MISC
PID NO. 103162

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SHEET NUM.												PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
								3	6	7	9	01/IMS/BR							
																		MAINTENANCE OF TRAFFIC	
										100		100		614	11110	100	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
											1,680	1,680		614	11630	1,680	FT	INCREASED BARRIER DELINEATION	
											6	6		614	12380	6	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	
									LS			LS		614	12420	LS		DETOUR SIGNING	
											4,164	4,164		614	12800	4,164	EACH	WORK ZONE RAISED PAVEMENT MARKER	
											129	129		614	13310	129	EACH	BARRIER REFLECTOR, TYPE 1, ONE-WAY	
											129	129		614	13350	129	EACH	OBJECT MARKER, ONE WAY	
									24			24		614	18601	24	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	6
											0.27	0.27		614	21200	0.27	MILE	WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE I	
											7.26	7.26		614	22110	7.26	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT	
											0.19	0.19		614	22210	0.19	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 740.06, TYPE I	
											47,280	47,280		614	23200	47,280	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 8", 642 PAINT	
											665	665		614	24402	665	FT	WORK ZONE DOTTED LINE, CLASS I, 6", 740.06, TYPE I	
											6	6		614	30400	6	EACH	WORK ZONE ARROW, CLASS I, 740.06, TYPE I	
											35,420	35,420		614	98100	35,420	FT	WORK ZONE PAVEMENT MARKING, MISC.: REMOVABLE, NON-REFLECTIVE BLACKOUT TAPE	7
												LS		615	10000	LS		ROADS FOR MAINTAINING TRAFFIC	
											296	296		615	20000	296	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	
											201	201		621	00300	201	EACH	RPM REFLECTOR	
											201	201		621	54001	201	EACH	RAISED PAVEMENT MARKER REMOVED, AS PER PLAN	7
											2	2		622	41050	2	EACH	PORTABLE BARRIER, "Y" CONNECTOR	
											5,990	5,990		622	41100	5,990	FT	PORTABLE BARRIER, UNANCHORED	
																		INCIDENTALS	
									LS			LS		614	11000	LS		MAINTAINING TRAFFIC	
												LS		623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
												LS		624	10000	LS		MOBILIZATION	

CALCULATED KDW
CHECKED TWG

GENERAL SUMMARY

D12-BH-FY2021(A) MISC
PID NO. 103162

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LOCATION	BRIDGE NUMBER	STRUCTURAL FILE NUMBER	STRUCTURE TYPE	STRUCTURE LIMITS	BRIDGE WIDTH (OUT/OUT)	LANES ON	LANES UNDER	SEALER AND PAINT COLOR	PROPOSED WORK (WORK SHOWN IS REPRESENTATIVE AND DOES NOT INCLUDE ALL WORK REQUIRED)
8	CUY-480-0612	1814168	4 SPAN CONTINUOUS STEEL BEAM	259'	64'-4"	3	8	N/A	- PATCH CONCRETE ABUTMENTS AND PIERS - PATCH CONCRETE PARAPETS AND SIDEWALK CURBS - REPLACE VANDAL PROTECTION FENCE ON BRIDGE - INSTALL TIMBER SUBDECKING - REPLACE SIDEWALK EXPANSION JOINT PLATE - REMOVE EXISTING ASPHALT PATCHING ON DECK AND PATCH WITH CONCRETE
9	CUY-480-0616	1814176	4 SPAN CONTINUOUS STEEL BEAM	398'	40'-4"	2	8	N/A	- PATCH CONCRETE ABUTMENTS AND PIERS - PATCH CONCRETE PARAPETS AND SIDEWALK CURBS - REPLACE VANDAL PROTECTION FENCE ON BRIDGE - REMOVE EXISTING ASPHALT PATCHING ON DECK AND PATCH WITH CONCRETE - FIBER WRAP COLUMNS AT PIER 3
10	CUY-480-1075	1812912	3 SPAN CONTINUOUS STEEL BEAM	312'	VARIES 76'-11" TO 111'-6" WB VARIES 77'-8" TO 92'-3" EB	10	2 CSX TRACKS	N/A	- REPLACE EXPANSION JOINT WITH STRIP SEAL EXPANSION JOINT - REPLACE APPROACH SLABS - REPLACE END CROSSFRAMES - REPLACE ABUTMENT BEARINGS - PAINT END TEN FEET OF GIRDER ENDS - PATCH DECK AND PARAPET

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DESIGN AGENCY
CARPENTER MARTY transportation
6612 SINGLETREE DR. COLUMBUS, OH 43229
614.890.4242 CARPENTERMARTY.COM

DESIGNED	DRAWN	REVIEWED	DATE
ERK	ERK	GDJ	8-19-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
STK		VARIOUS	

STRUCTURE DATA TABLE
BRIDGE NO. VARIES

D12-BH-FY2021(A) MISC
PID No. 103162

1 / 2

24
74

REFER TO STANDARD BRIDGE DRAWINGS

AS LISTED ON TITLE SHEET

REFER TO SUPPLEMENTAL SPECIFICATION

844 DATED 4-20-18

DESIGN SPECIFICATIONS:

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

DESIGN DATA

CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)

CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)

REINFORCING STEEL - MINIMUM YIELD STRENGTH 60 KSI

STRUCTURAL STEEL - ASTM A709 GRADE 50 - YIELD STRENGTH 50 KSI

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 C&MS SECTIONS 102.05, 105.02, AND 513.04.

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

THE EXISTING STRUCTURE PLANS MAY BE REVIEWED AT THE:
OHIO DEPARTMENT OF TRANSPORTATION
DISTRICT 12 OFFICE
5500 TRANSPORTATION BOULEVARD
GARFIELD HEIGHTS, OH 44125

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

THIS WORK CONSISTS OF THE REMOVAL OF PORTIONS OF THE EXISTING STRUCTURES, ETC. AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER. THIS WORK ALSO INCLUDES THE REMOVAL OF SUPERSTRUCTURE BEARINGS AND MISCELLANEOUS STRUCTURAL STEEL ITEMS AS DIRECTED BY THE ENGINEER.

THE PROVISIONS OF ITEM 202 APPLY EXCEPT AS SPECIFIED BY THE FOLLOWING NOTES. PERFORM WORK CAREFULLY DURING BACKWALL REMOVAL TO PROTECT PORTIONS OF SUCH SYSTEMS THAT ARE TO BE SALVAGED AND INCORPORATED INTO THE PROPOSED STRUCTURE. THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE RAM TYPE OF EQUIPMENT IS PROHIBITED. SUBMIT CONSTRUCTION PLANS ACCORDING TO C&MS 501.05.

PROTECTION OF STEEL SUPPORT SYSTEMS: BEFORE DECK SLAB CUTTING IS PERMITTED, DRAW THE OUTLINE OF PRIMARY STEEL MEMBERS IN CONTACT WITH THE BOTTOM OF THE DECK ON THE SURFACE OF DECK. DRILL SMALL DIAMETER PILOT HOLES 2 INCHES OUTSIDE THESE LINES TO CONFIRM THE LOCATION OF FLANGE EDGES. DECK CUTS OVER OR WITHIN 2 INCHES OF FLANGE EDGES 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 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. AT LEAST 7 DAYS BEFORE PERFORMING REPAIR WORK, SUBMIT A PROPOSED REPAIR PLAN, DEVELOPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER TO THE DIRECTOR. OBTAIN THE DIRECTOR'S APPROVAL BEFORE PERFORMING REPAIR.

CUT LINE CONSTRUCTION JOINT PREPARATION: SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. LEAVE THE EXISTING REINFORCING STEEL, IF REQUIRED IN THE PLANS, IN PLACE. INSTALL DOWEL BARS IF SPECIFIED. PRIOR TO CONCRETE PLACEMENT ABRASIVELY CLEAN JOINT SURFACES AND EXISTING EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. 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.

SUBSTRUCTURE CONCRETE REMOVAL: REMOVE CONCRETE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. HYDRAULIC HOE-RAM TYPE HAMMERS WILL NOT 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 UPON THE APPROVAL OF THE ENGINEER. DO NOT PLACE PNEUMATIC HAMMERS IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

CLEANING BRIDGE SEATS: REMOVE DIRT, SAND, SOIL, PAPER, GLASS, CANS, AND OTHER DEBRIS FROM ABUTMENT SEATS. EQUIPMENT MAY CONSIST OF HAND TOOLS, MANUAL BROOMS, POWER BROOMS, AIR COMPRESSIORS, WATER TANKS, WATER PUMPS WITH ASSOCIATED DELIVERY HARDWARE TO CLEAN, FLUSH, AND REMOVE DIRT AND DEBRIS.

THE CONTRACTOR SHALL TAKE CARE NOT TO DAMAGE ANY PORTION OF THE STRUCTURE THAT WILL REMAIN IN SERVICE. ANY PORTION OF THE REMAINING STRUCTURE DAMAGED AS A RESULT OF CONTRACTOR ACTIONS SHALL BE REPLACED IN KIND AT THE CONTRACTOR'S EXPENSE.

THE CONTRACTOR MUST REVIEW THE STRUCTURE WHEN PREPARING HIS BID. THE CONTRACTOR WILL REVIEW THE CONDITION OF THE STRUCTURE TO DETERMINE WHAT DEBRIS WILL FALL FROM THE STRUCTURE DURING REMOVAL. THE CONTRACTOR WILL DETERMINE THE CORRESPONDING COST TO CLEAN UP ANY AND ALL DEBRIS WHICH FALLS FROM THE STRUCTURE DURING ANY ALL REMOVAL OPERATION. THE COST TO CLEAR AND CLEAN UP ALL DEBRIS DURING REMOVAL SHALL BE INCLUDED WITH THE BID FOR THIS ITEM OF WORK. NO ADDITIONAL COST WILL BE RECOGNIZED TO CLEAN DEBRIS RESULTING FROM THE STRUCTURE REMOVAL OPERATION.

MEASUREMENT & PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202, PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.

ITEM 509 - REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN

REPLACE ALL EXISTING REINFORCING BARS DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION. THE DEPARTMENT WILL MEASURE THE REPLACEMENT REINFORCING STEEL BY THE NUMBER OF POUNDS ACCEPTED IN PLACE. REPLACE ALL EXISTING REINFORCING STEEL BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND ARE DEEMED BY THE ENGINEER TO BE MADE UNUSABLE BY CONCRETE REMOVAL OPERATIONS WITH NEW EPOXY COATED REINFORCING STEEL OF THE SAME SIZE AT NO COST TO THE DEPARTMENT.

ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN

SEAL CONCRETE AREAS SPECIFIED IN THE PLANS. THE COLOR OF THE FINISH COAT SHALL BE AS INDICATED ON THE STRUCTURE DATA SHEET. CONTRACTOR SHALL ENSURE ANY EXISTING UNDERPASS LIGHTING, FENCE AND POSTS, RAILING AND ALL OTHER BRIDGE COMPONENTS ARE PROTECTED DURING THE SEALING OPERATIONS.

ALL EQUIPMENT, LABOR, MATERIALS, AND INCIDENTALS REQUIRED TO SEAL ALL OF THE AREAS DETAILED IN THE PLANS SHALL BE PAID FOR UNDER ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN.

ITEM 512 - REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES, AS PER PLAN

AT LOCATIONS 8 (CUY-480-0612) AND 9 (CUY-480-0616) THIS ITEM IS INCLUDED FOR REMOVAL OF EXISTING COATINGS FROM EXISTING CONCRETE SURFACES TO BE SEALED. AREAS OF CONCRETE REQUIRING PATCHES OR FIBERWRAP SHALL NOT BE INCLUDED IN THIS ITEM.

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

FOR LOCATION 10 (CUY-480-1075) ALL REQUIREMENTS OF C&MS 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 S1078. SUBMIT A WRITTEN LETTER OF MATERIAL ACCEPTANCE IN ACCORDANCE WITH C&MS 501.06, TO THE ENGINEER. PROVIDE THE ENGINEER "AS-BUILT" DRAWINGS IN ACCORDING TO C&MS 513.06, EXCEPT C&MS 501.04 DOES NOT APPLY. UPON RECEIPT OF THE ENGINEER'S ACCEPTANCE, SUPPLY A COPY OF THE DRAWINGS, ACCORDING TO S1002, TO THE OFFICE OF MATERIAL MANAGEMENT FOR RECORD PURPOSES.

THE FOLLOWING MEMBERS ARE INCLUDED IN THIS ITEM:
END CROSSFRAMES.

ITEM 514 - FIELD PAINTING EXISTING STRUCTURAL STEEL

THIS ITEM INCLUDES THE WORK NECESSARY FOR PAINTING THE EXISTING STRUCTURAL STEEL OF CUY-480-1075 AS SHOWN ON THE PLANS USING SYSTEM OZEU. PAINT COLOR SHALL MATCH EXISTING.

PAYMENT FOR THIS WORK SHALL INCLUDE ALL EQUIPMENT, TOOLS, MATERIALS, AND LABOR NECESSARY TO PERFORM THIS TASK. PAYMENT SHALL BE MADE AT THE UNIT PRICE BID PER SQUARE FEET OF ITEM 514.

ITEM 516 - STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN

THIS WORK SHALL CONSIST OF REPLACING THE EXISTING GLAND AND RETAINERS WITH NEW GLAND AND RETAINERS AT THE EXPANSION JOINTS AT ABUTMENTS. FOR BRIDGE NO. CUY-480-1075.

THIS BRIDGE MAY HAVE AN EXISTING STRIP SEAL THAT IS NOT READILY AVAILABLE ON THE SHELF. A SPECIAL RUN BY THE MANUFACTURER FROM THE OLD MOLDS MAY BE NEEDED WHICH MAY REQUIRE ADDITIONAL LEAD TIME. THE CONTRACTOR IS TO SCHEDULE ACTIVITIES ACCORDINGLY.

THE PHASE CONSTRUCTION JOINTS IN THE RETAINERS SHALL BE WELDED ACCORDING TO STD. DWG. EXJ-4-87. THE PHASE CONSTRUCTION LOCATIONS ARE TO BE DETERMINED BY THE CONTRACTOR.

PAYMENT FOR THIS WORK SHALL INCLUDE ALL EQUIPMENT, MATERIAL, AND LABOR NECESSARY TO PERFORM THIS TASK. PAYMENT SHALL BE MADE AT THE UNIT BID PRICE PER FOOT OF ITEM 516, STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN.

ITEM 516 - RESET BEARING, AS PER PLAN

AT LOCATION 8 (CUY-480-0612) THIS ITEM SHALL INCLUDE ALL WORK NECESSARY TO PROPERLY ALIGN BRIDGE BEARINGS, 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, REALIGNMENT OF THE LOWER MASONRY PLATE BY RELOCATING IT SO THAT THE BEARINGS ARE VERTICALLY ALIGNED AT 60-DEGREES F (15-DEGREES C), AND INSTALLING BEARING RESTRAINING PLATES IF REQUIRED PER PLAN DETAILS.

ASSURE ALL BEARINGS ARE SHIMMED ADEQUATELY AND THAT NO BEAMS AND/OR BEARING DEVICES ARE "FLOATING".

ALL WORK SHALL BE TO THE SATISFACTION OF THE ENGINEER. PAYMENT FOR ALL OF THE ABOVE DESCRIBED LABOR AND MATERIALS WILL BE MADE AT THE CONTRACT PRICE FOR ITEM 516 - RESET BEARING, AS PER PLAN.

ITEM 519 - JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN

AT LOCATIONS 8 (CUY-480-0612) AND 10 (CUY-480-1075) THIS WORK CONSISTS OF RAISING OR RE-POSITIONING EXISTING STRUCTURES TO THE DIMENSIONS AND REQUIREMENTS DEFINED IN THE PROJECT PLANS.

SUBMIT CONSTRUCTION PLANS IN ACCORDANCE WITH C&MS 501.05.

IF, DURING THE JACKING OPERATIONS, CRACKING OF THE CONCRETE SUPERSTRUCTURE, SEPARATION OF THE CONCRETE DECK FROM THE STEEL STRINGERS, OR OTHER DAMAGE TO THE STRUCTURE IS VISUALLY OBSERVED, IMMEDIATELY CEASE THE JACKING OPERATION AND INSTALL SUPPORTS TO THE SATISFACTION OF THE ENGINEER. ANALYZE THE DAMAGE AND SUBMIT A METHOD OF CORRECTION TO THE ENGINEER FOR APPROVAL. EPOXY INJECT ALL BEAMS THAT SEPARATE FROM THE DECK FOR THE DISTANCE OF THE SEPARATION IN ACCORDANCE WITH C&MS 512.07. THE DEPARTMENT WILL NOT PAY FOR THE COST OF THIS EPOXY INJECTION OR OTHER REQUIRED REPAIRS. THE BRIDGE BEARINGS SHALL BE FULLY SEATED AT ALL CONTACT AREAS. IF FULL SEATING IS NOT ATTAINED, SUBMIT A REPAIR PLAN TO THE ENGINEER. THE DEPARTMENT WILL NOT PAY FOR THE REPAIR COSTS TO ENSURE FULL SEATING ON BEARINGS.

THE DEPARTMENT WILL MEASURE THIS WORK ON A LUMP SUM BASIS.

THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516, JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN.

ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN

PRIOR TO THE SURFACE CLEANING SPECIFIED IN 519.04 AND WITHIN 24 HOURS OF PLACING PATCHING MATERIAL, BLAST CLEAN ALL SURFACES TO BE PATCHED INCLUDING THE EXPOSED REINFORCING STEEL. ACCEPTABLE METHODS INCLUDE HIGH-PRESSURE WATER BLASTING WITH OR WITHOUT ABRASIVES IN THE WATER, ABRASIVE BLASTING WITH CONTAINMENT, OR VACUUM ABRASIVE BLASTING. WHERE APPLICABLE, CONTRACTOR SHALL ENSURE ANY EXISTING UNDERPASS LIGHTING, BRIDGE RAIL OR ANY OTHER BRIDGE COMPONENTS ARE PROTECTED DURING THE PATCHING OPERATIONS.

SPECIFIC PATCHING LOCATIONS SHALL BE DETERMINED BY THE ENGINEER IN ACCORDANCE WITH ITEM 519 UNLESS IDENTIFIED IN THE PLANS. IF EXISTING UTILITIES ARE LOCATED WITHIN THE SPECIFIED PATCHING AREAS, THE COST FOR REMOVAL AND REINSTALLING THE UTILITIES SHALL BE INCLUDED IN THIS ITEM. ALL EQUIPMENT, LABOR, MATERIALS AND INCIDENTALS SHALL BE INCLUDED FOR PAYMENT AT THE SQUARE FOOT CONTRACT PRICE FOR ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN.

ITEM 530 - STRUCTURE, MISC.: PERMANENT TRAFFIC PROTECTION, AS PER PLAN

FOR LOCATION 8 (CUY-480-0612), PRIOR TO CONSTRUCTING THE PERMANENT TRAFFIC PROTECTION, ALL DIMENSIONS SHALL BE FIELD VERIFIED (E.G. CROSSFRAMES, BEAM SPACING, ETC.). PROTECTION SHALL BE PROVIDED TO ALL AREAS WHERE THE STRUCTURE FALLS DIRECTLY ABOVE I.R. 480 TRAVEL LANES AND SHOULDERS. ALL WORK SHALL BE TO THE SATISFACTION OF THE ENGINEER. PAYMENT FOR ALL MATERIALS, LABOR, AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL THE PERMANENT TRAFFIC PROTECTION SHALL BE MADE AT THE CONTRACT PRICE BID FOR ITEM SPECIAL - STRUCTURE, MISC.: PERMANENT TRAFFIC PROTECTION, AS PER PLAN.

ITEM 607 - VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN

THIS ITEM SHALL BE AS PER THE DETAILS IN THE PLANS WITH THE APPLICABLE PORTIONS OF STANDARD DRAWING VPF-1-90 AND THE MANUFACTURER'S RECOMMENDATIONS.

PATCHING OPERATIONS SHALL OCCUR PRIOR TO FENCE INSTALLATION.

AT LOCATIONS WHERE THE FENCE SPANS ACROSS THE EXPANSION JOINT, DO NOT INSTALL LINE RAILS AND EXPANSION JOINTS SLEEVES; HOWEVER, THE FABRIC SHALL REMAIN CONTINUOUS ACROSS THE EXPANSION JOINT.

THE COLOR OF THE FENCE FABRIC, RAILS, POSTS, PLATES, TIE WIRES, AND ADDITIONAL VISUAL HARDWARE AND CAULK SHALL BE BLACK.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER LINEAR FOOT FOR ITEM 607 - VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

ITEM 844 - CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN

AT LOCATION 9 (CUY-480-0616) REPAIR WORK SHALL BE PER SUPPLEMENTAL SPECIFICATION 844. THE MINIMUM SPACING OF 100 GRAM ZINC ANODE SHALL BE 18" OR EQUIVALENT TOTAL ZINC CONTENT PER AREA. THIS ITEM SHALL BE PER ITEM 844 - CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN AND INCLUDE ALL REQUIRED PATCHING AND PROTECTION WORK TO MAKE THE PIER COLUMNS READY FOR THE COMPOSITE FIBER WRAP SYSTEM.

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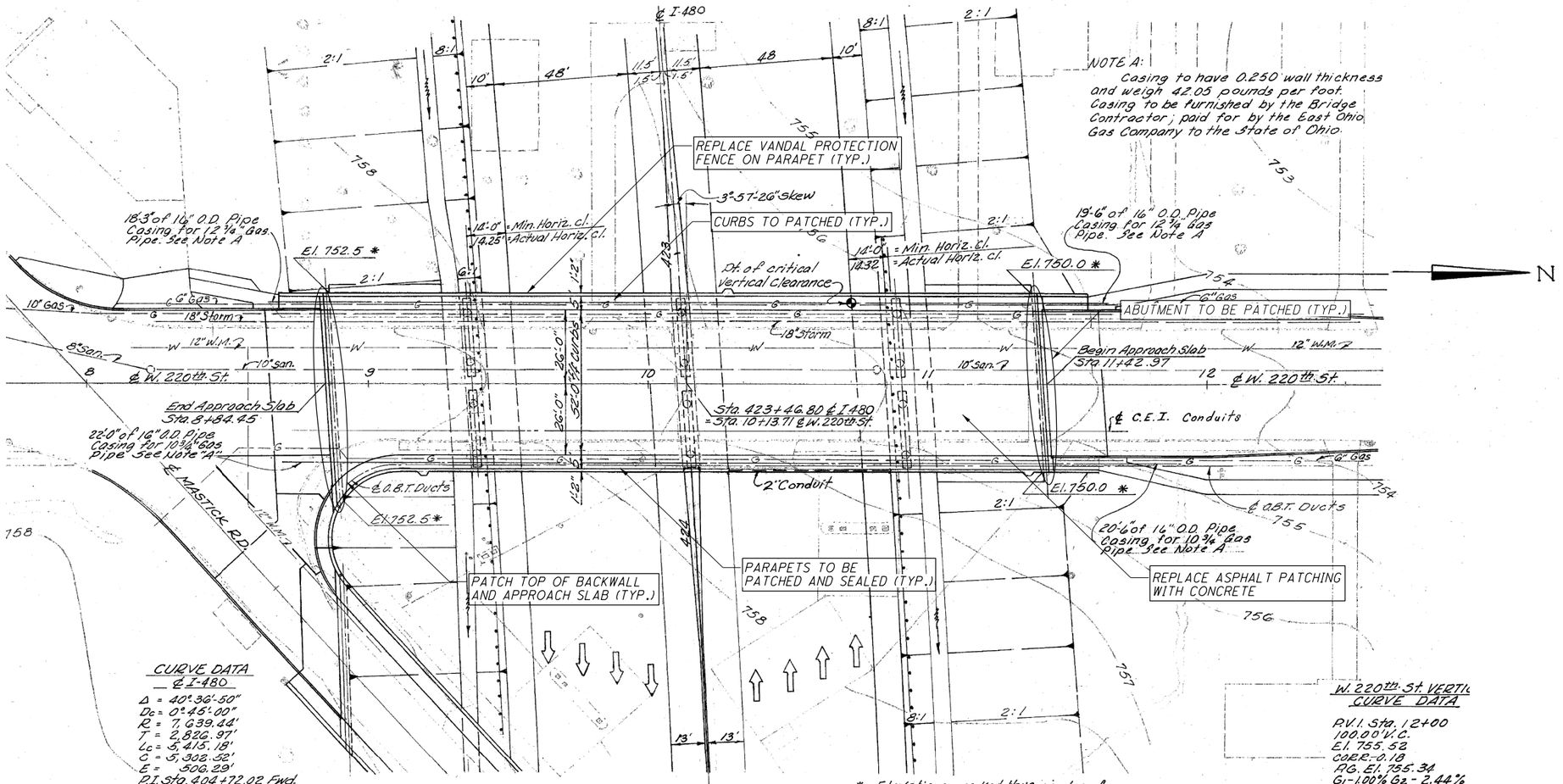
DESIGN AGENCY
CARPENTER MARTY transportation
6812 SINGLETREE DR. COLUMBUS, OH 43229
614 • 847 • 0300 CARPENTERMARTY.COM

DESIGNED	DRAWN	REVIEWED	DATE
ERK	ERK	GDJ	8-19-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
STK		VARIOUS	

GENERAL NOTES
BRIDGE NO. VARIES

D12-BH-FY2021(A) MISC
PID No. 103162



NOTES

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2. PERFORM ONLY THE WORK AS INDICATED IN THE STRUCTURE DATA SHEET, FRAMED TEXT, AND/OR DESCRIBED IN THE GENERAL NOTES.
3. FOR ESTIMATED QUANTITIES SEE SHEET 2/8.

DESIGN AGENCY
CARPENTER MARTY transportation
6812 SINGLETREE DR. COLUMBUS, OH 43229
ENGINEERS • CONSULTANTS

DESIGNED	DRAWN	REVIEWED	DATE
MTJ	MTJ	GDJ	8-27-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
STK		1814168	

GENERAL PLAN - LOCATION 8
BRIDGE NO. CUY-480-0612
WEST 220TH ST. OVER I-480

D12-BH-FY2021(A) MISC
PID No. 103162

1/8

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ESTIMATED QUANTITIES						DESIGN: STK DATE: 8-18-20		CHECK: ERK DATE: 8-18-20	
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SHEET #
202	75261	579	FT	VANDAL PROTECTION FENCE REMOVED, AS PER PLAN				579	33
512	10101	406	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN	15	7	384		25
512	74001	322	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES, AS PER PLAN			322		25
516	12310	68	LB	SIDEWALK COVER PLATE			68		
516	46701	1	EACH	RESET BEARING, AS PER PLAN	1				
516	47001	LS	-	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN			LS		25
519	11101	595	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN	90	38	467		25
519	12300	98	SY	PATCHING CONCRETE BRIDGE DECKS - TYPE B*			98		
SPECIAL	53000600	8937	SF	STRUCTURES, PERMANENT TRAFFIC PROTECTION, AS PER PLAN				8937	31
607	39901	579	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN				579	25

* SEE PROPOSAL NOTE 512

DESIGN AGENCY
CARPENTER MARTY transportation
6812 SINGLETREE DR. COLUMBUS, OH 43229
614.890.4040 CARPENTERMARTY.COM

DESIGNED	DRAWN	REVIEWED	DATE
STK	STK	GDJ	8-10-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
ERK		1814168	

ESTIMATED QUANTITIES - LOCATION 8

BRIDGE NO. CUY-480-0612
WEST 220TH ST. OVER I-480

D12-BH-FY2021(A) MISC
PID No. 103162

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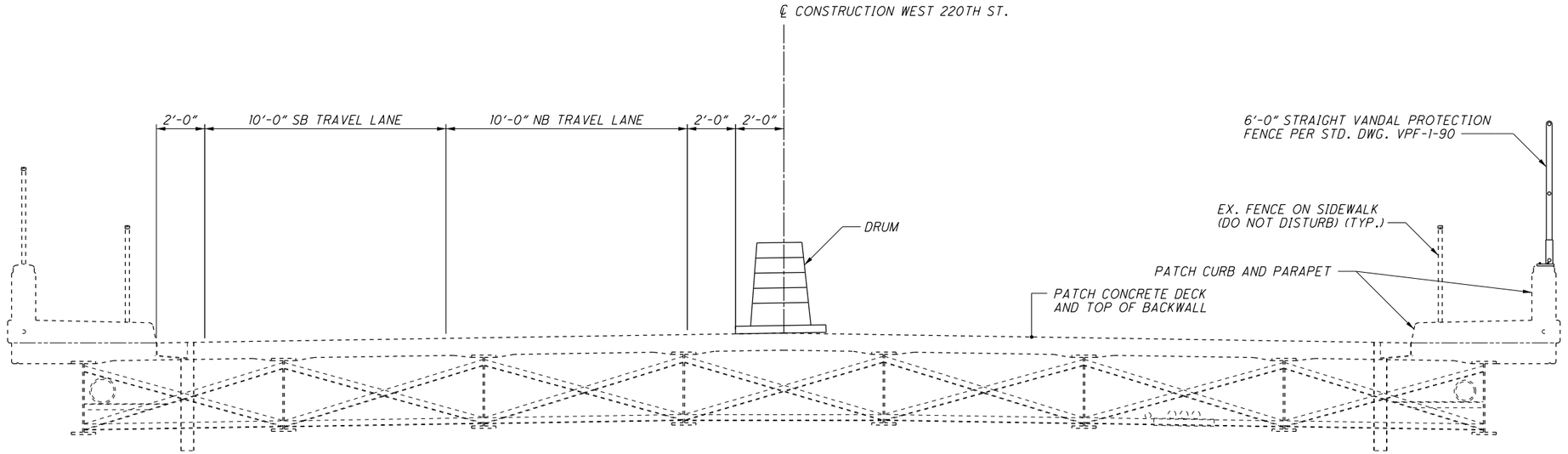
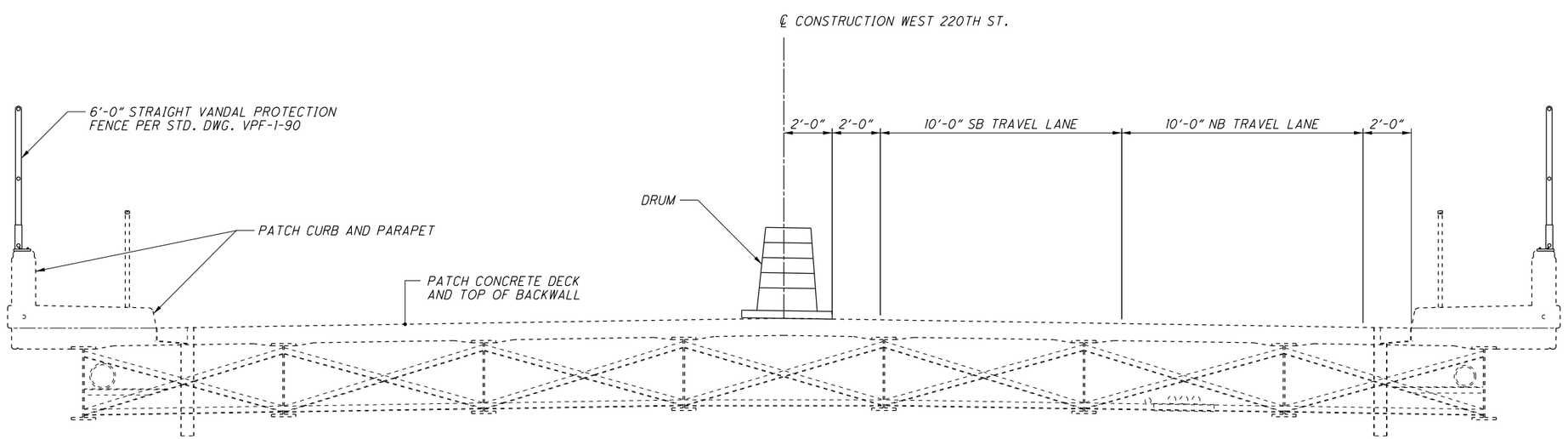


PHASE 1 MAINTENANCE OF TRAFFIC AND CONSTRUCTION



PHASE 2 MAINTENANCE OF TRAFFIC AND CONSTRUCTION

DESIGN AGENCY
CARPENTER MARTY transportation
6812 SINGLETREE DR. COLUMBUS, OH 43229
ARCHITECTS · ENGINEERS

DESIGNED	DRAWN	REVIEWED	DATE
STK	STK	GDJ	8-10-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
ERK		1814168	

MAINTENANCE OF TRAFFIC DETAILS - LOCATION 8
BRIDGE NO. CUY-480-0612
WEST 220TH ST. OVER I-480

D12-BH-FY2021(A) MISC
PID No. 103162

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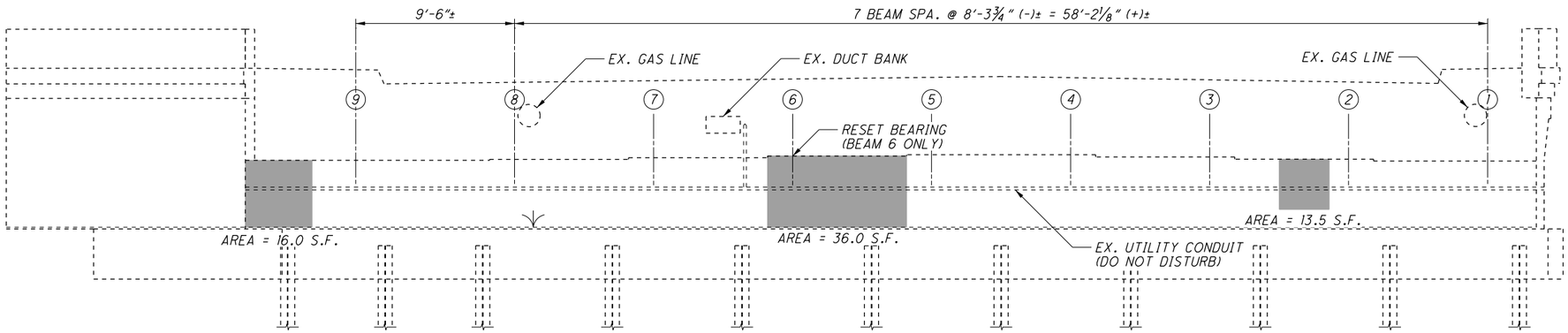
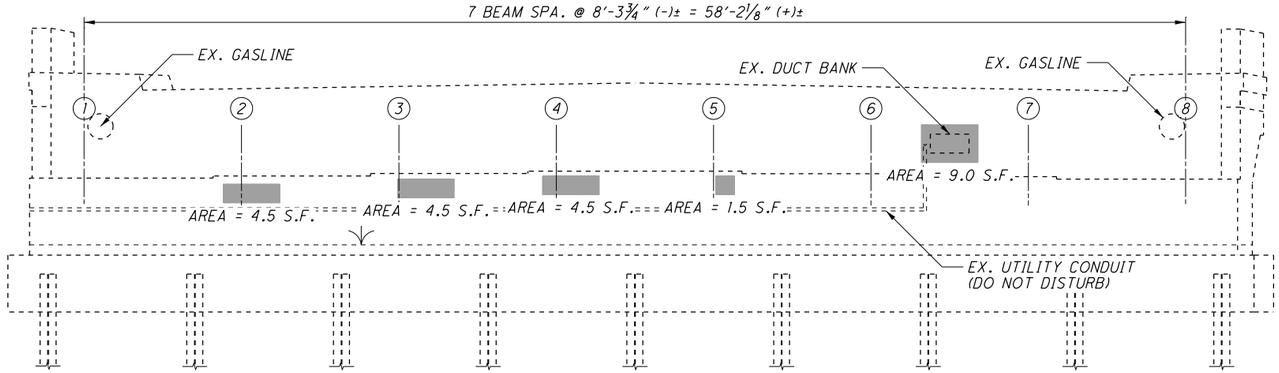


REAR ABUTMENT ELEVATION



FORWARD ABUTMENT ELEVATION

NOTES

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3. MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
4. FOR ESTIMATED QUANTITIES, SEE SHEET 2/8.
5. PATCHING ESTIMATED QUANTITIES HAVE BEEN INCREASED BY 50% OVER MEASURED QUANTITIES TO ACCOUNT FOR ADDITIONAL DETERIORATION.

LEGEND

INDICATES CONCRETE REPAIR PER ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN. TOTAL AREA THIS SHEET = 90 S.F.

ALL PATCHES SHALL BE SEALED 6" BEYOND THE PATCHING LIMITS USING EPOXY-URETHANE AND SHALL BE PAID WITH ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN. FOR ESTIMATING PURPOSES, TOTAL SEALING AREA THIS SHEET = 135 S.F.

(1) BEAM NUMBER

DESIGN AGENCY
CARPENTER MARTY transportation
6812 SINGLETREE DR. COLUMBUS, OH 43229
614.882.0062 CARPENTERMARTY.COM

DESIGNED	DRAWN	REVIEWED	DATE
ERK	ERK	GDJ	8-7-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
STK		1814168	

ABUTMENT REPAIRS - LOCATION 8
BRIDGE NO. CUY-480-0612
WEST 220TH ST. OVER I-480

D12-BH-FY2021(A) MISC
PID No. 103162

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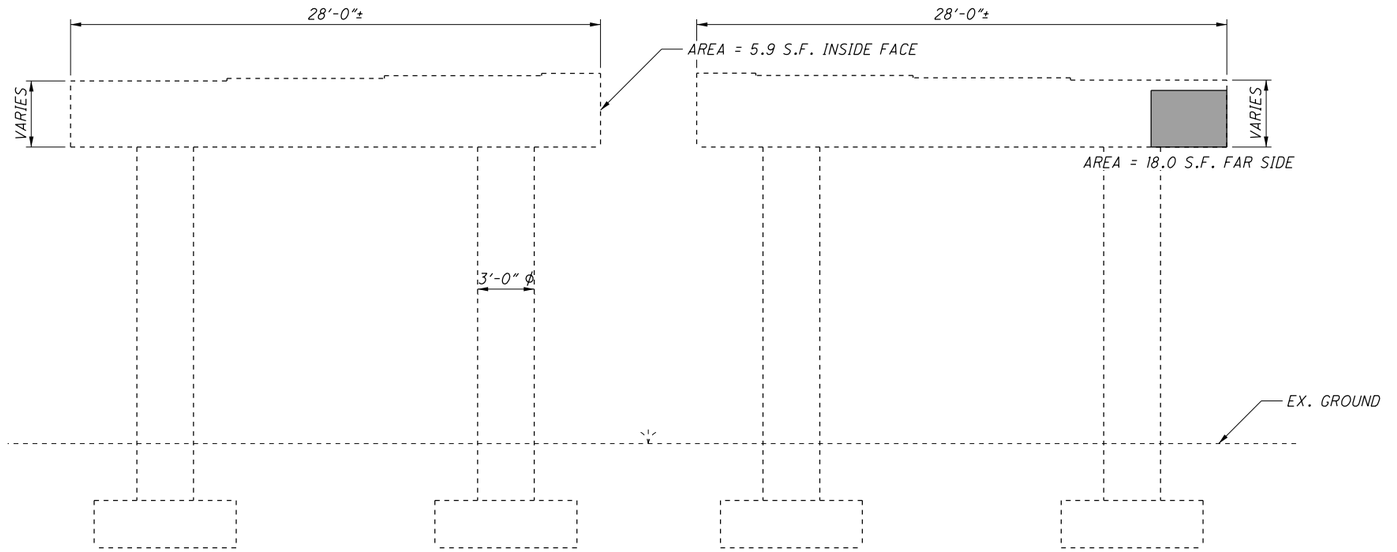
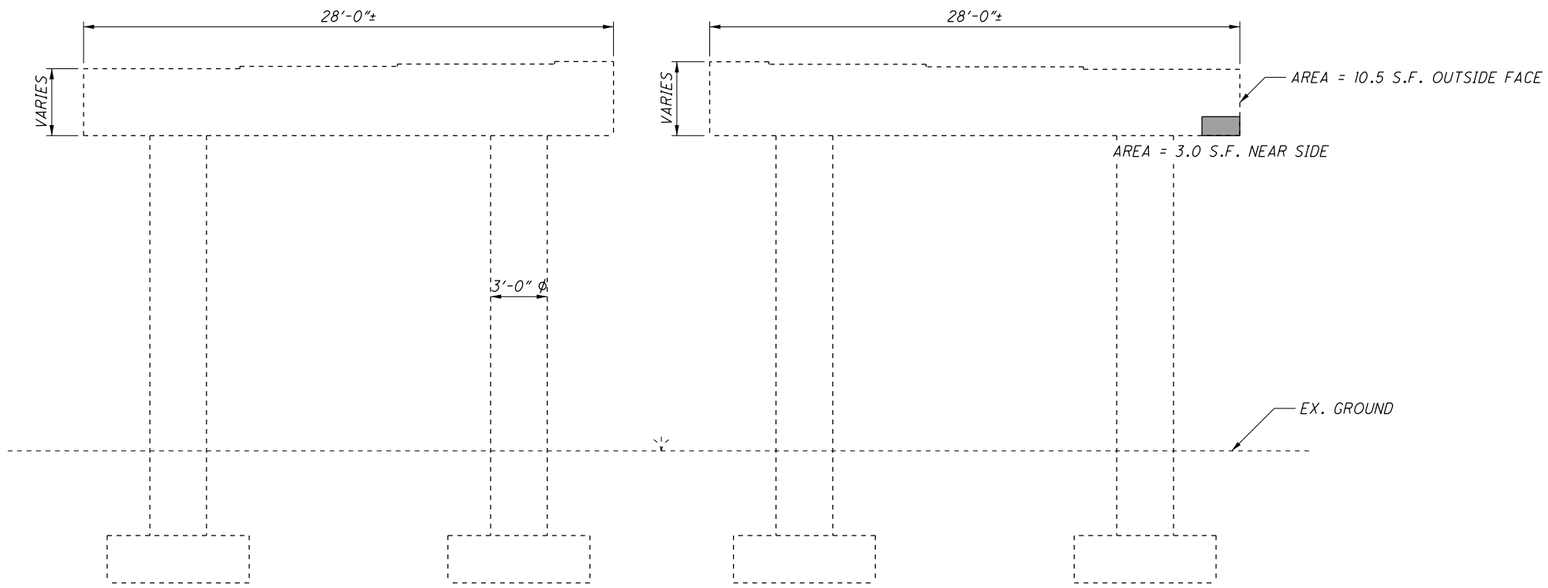


PIER 1

(LOOKING NORTH)



PIER 3

(LOOKING NORTH)

NOTES

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3. MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
4. FOR ESTIMATED QUANTITIES, SEE SHEET 2/8.
5. PATCHING ESTIMATED QUANTITIES HAVE BEEN INCREASED BY 50% OVER MEASURED QUANTITIES TO ACCOUNT FOR ADDITIONAL DETERIORATION.

LEGEND

INDICATES CONCRETE REPAIR PER ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN. TOTAL AREA THIS SHEET = 38 S.F.

ALL PATCHES SHALL BE SEALED 6" BEYOND THE PATCHING LIMITS USING EPOXY-URETHANE AND SHALL BE PAID WITH ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN. FOR ESTIMATING PURPOSES, TOTAL SEALING AREA THIS SHEET = 57 S.F.

DESIGN AGENCY
CARPENTER MARTY transportation
6812 SINGLETREE DR. COLUMBUS, OH 43229
614.882.0004 CARPENTERMARTY.COM

DESIGNED	DRAWN	REVIEWED	DATE
ERK	ERK	GDJ	8-7-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
STK		1814168	

PIER REPAIRS - LOCATION 8
BRIDGE NO. CUY-480-0612
WEST 220TH ST. OVER I-480

D12-BH-FY2021(A) MISC
PID No. 103162

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NOTES

1. PATCH THE WEARING SURFACE PER PROPOSAL NOTE 512, TYPE B PATCH. PATCH ONLY THE AREAS SHOWN IN THE PLANS TO BE REPAIRED AS DIRECTED BY THE ENGINEER. AREAS THAT ARE DESIGNATED FOR REPAIR ARE AREAS THAT ARE PATCHED WITH ASPHALT, SPALLED, OR HEAVILY CRACKED. DELAMINATED AREAS IMMEDIATELY CONTIGUOUS TO THE DESIGNATED REPAIR AREAS SHALL BE REMOVED AND REPAIRED WITH THE SAME PATCH. AREAS OF THE WEARING SURFACE ARE KNOWN TO EXIST THAT ARE DELAMINATED WHEN SOUNDED BUT ARE NOT SHOWING VISIBLE SIGNS OF DISTRESS. THESE AREAS SHALL NOT BE REPAIRED UNLESS DIRECTED TO DO SO BY THE PROJECT ENGINEER AND DISTRICT BRIDGE ENGINEER. PAYMENT WILL BE BASED UPON THE ACTUAL QUANTITIES REPAIRED AND ACCEPTED BY THE ENGINEER. PATCHING ESTIMATED QUANTITIES HAVE BEEN INCREASED BY 50% OVER MEASURED QUANTITIES TO ACCOUNT FOR ADDITIONAL DETERIORATION.

2. PAYMENT FOR ALL MATERIALS, LABOR, REMOVAL, AND INCIDENTALS TO REPLACE SIDEWALK PLATE SHALL BE INCLUED WITH ITEM 516 - SIDEWALK COVER PLATE.

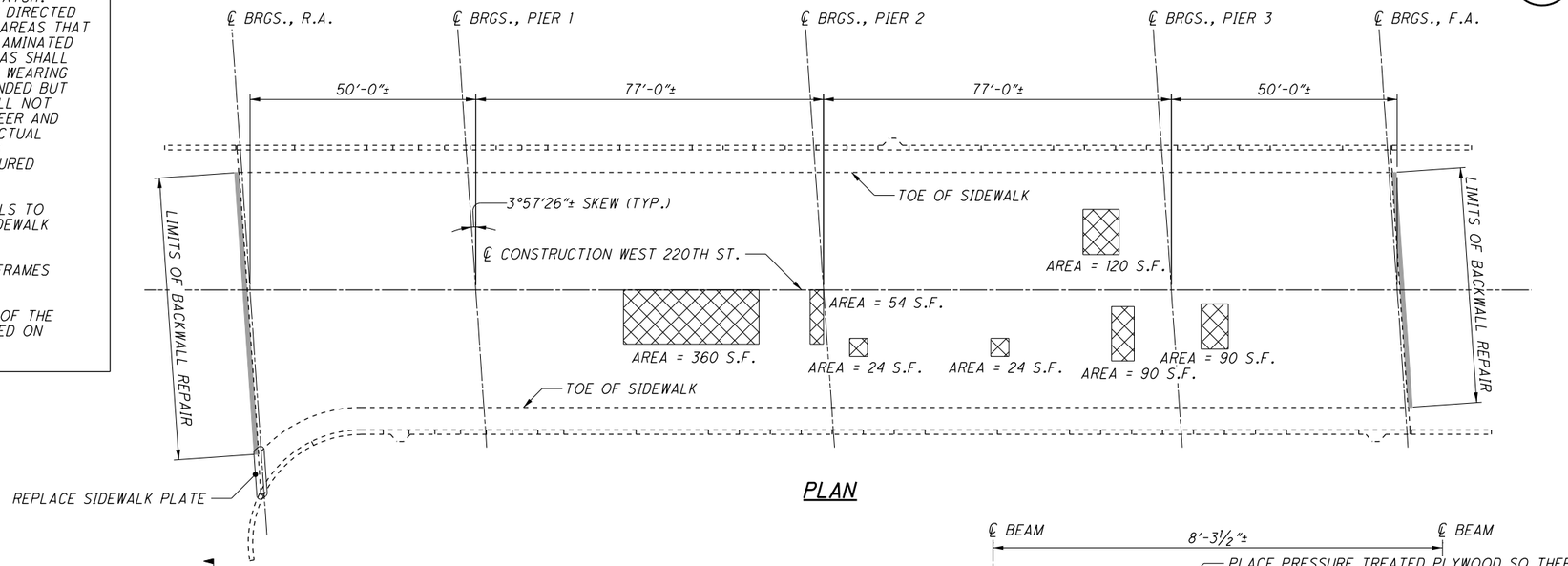
3. 2X6 SPACINGS MAY BE ALTERED TO AVOID THE EXISTING CROSS FRAMES AND STIFFENERS. NO SPACING SHALL EXCEED 2 FEET.

   ALTERNATIVE DESIGNS MAY BE USED SUBJECT TO THE APPROVAL OF THE DISTRICT 12 BRIDGE MAINTENANCE ENGINEER. BID SHOULD BE BASED ON PLAN DETAILS.

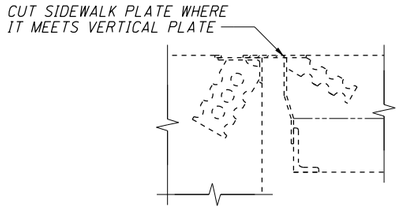
LEGEND

INDICATES CONCRETE REPAIR PER ITEM 519 - PATCHING CONCRETE BRIDGE DECKS, TYPE B. DECK AREA THIS SHEET = 762 S.F.

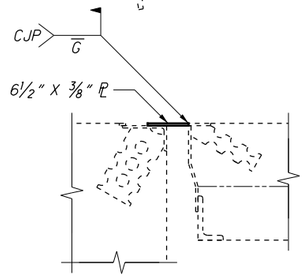
INDICATES CONCRETE REPAIR PER ITEM 519 - PATCHING CONCRETE BRIDGE DECKS, TYPE B. BACKWALL AREA THIS SHEET = 115 S.F.



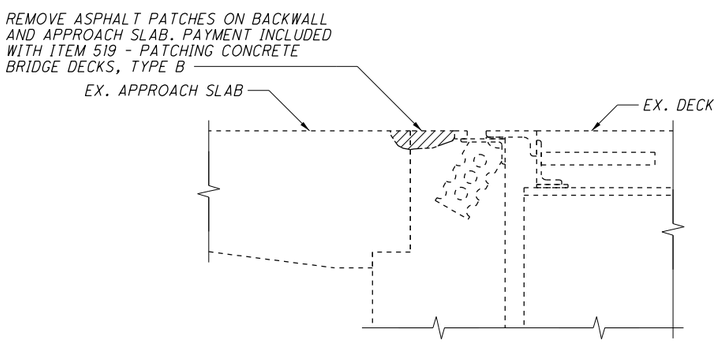
PLAN



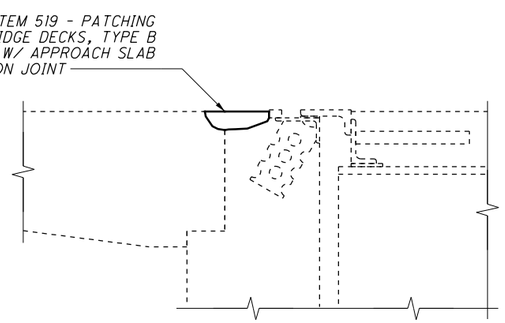
SIDEWALK JOINT REMOVAL SECTION



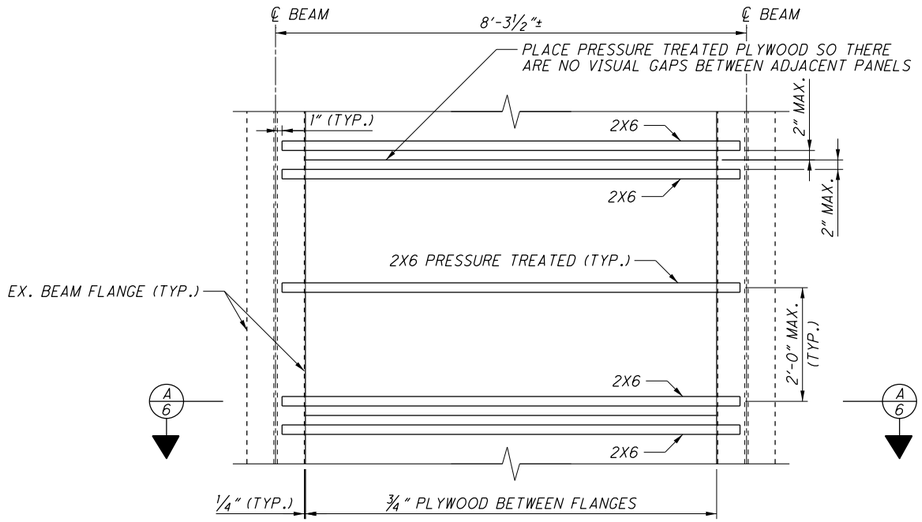
PROPOSED SIDEWALK JOINT SECTION



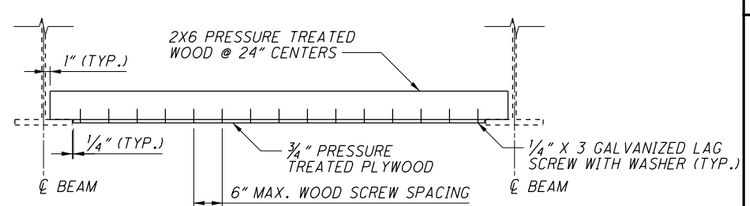
BACKWALL REMOVAL SECTION



PROPOSED BACKWALL SECTION



PERMANENT TRAFFIC PROTECTION PLAN



A/6 SECTION
PERMANENT TRAFFIC PROTECTION

DESIGN AGENCY
CARPENTER MARTY transportation
6812 SINGLETREE DR. COLUMBUS, OH 43229
614.890.4422 CARPENTERMARTY.COM

DESIGNED	DRAWN	REVIEWED	DATE
ERK	ERK	GDJ	8-10-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
STK		1814168	

SUPERSTRUCTURE DETAILS - LOCATION 8
BRIDGE NO. CUY-480-0612
WEST 220TH ST. OVER I-480

D12-BH-FY2021(A) MISC
PID No. 103162

6 / 8

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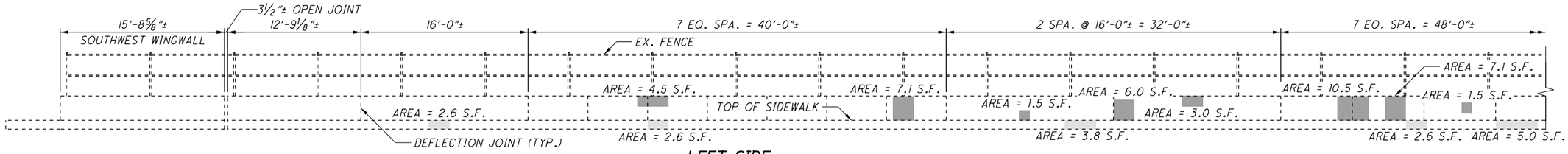
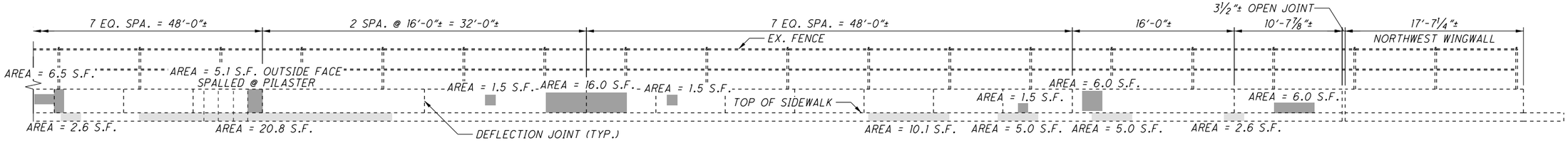
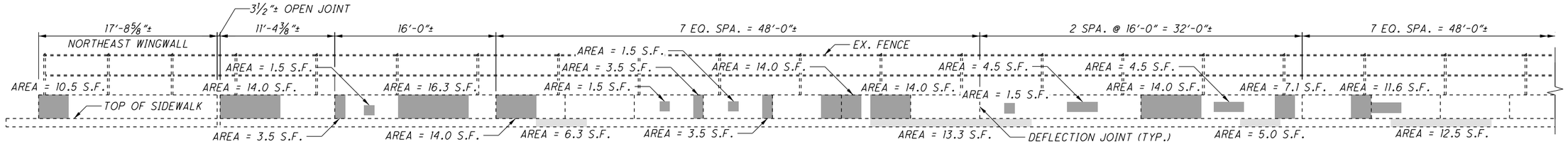


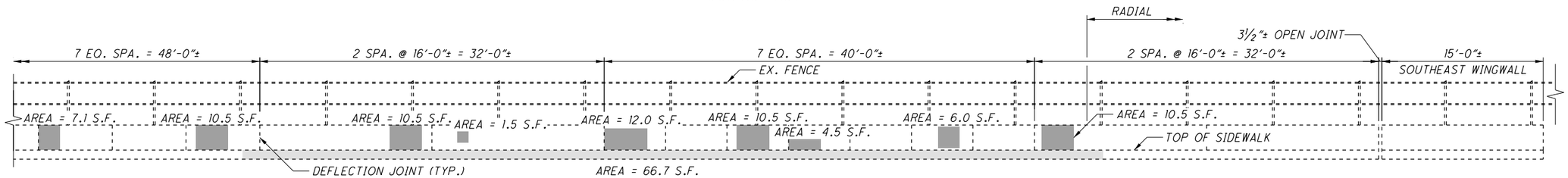
LEFT SIDE
LOOKING WEST



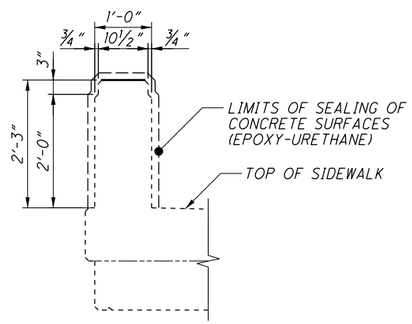
LEFT SIDE
LOOKING WEST



RIGHT SIDE
LOOKING EAST



RIGHT SIDE
LOOKING EAST



PARAPET SECTION (AT FENCE POST)
FENCING NOT SHOWN

NOTES

1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE USED FOR INFORMATION PURPOSES ONLY.
2. PERFORM ONLY THE WORK AS INDICATED IN THE STRUCTURE DATA SHEET, FRAMED TEXT, AND/OR DESCRIBED IN THE GENERAL NOTES.
3. MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
4. FOR ESTIMATED QUANTITIES, SEE SHEET 2/8.
5. PATCHING ESTIMATED QUANTITIES HAVE BEEN INCREASED BY 50% OVER MEASURED QUANTITIES TO ACCOUNT FOR ADDITIONAL DETERIORATION.
6. DO NOT DISTURB EXISTING FENCING ON SIDEWALK DURING CURB REPAIR OPERATIONS.

LEGEND

INDICATES CONCRETE PARAPET REPAIR PER ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN. TOTAL AREA THIS SHEET = 300 S.F.

THE ENTIRE LENGTH OF THE PARAPETS SHALL BE SEALED WITH EPOXY-URETHANE AND SHALL BE PAID WITH ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN

INDICATES CONCRETE CURB REPAIR PER ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN. TOTAL AREA THIS SHEET = 167 S.F.

ALL PATCHES SHALL BE SEALED 6" BEYOND THE PATCHING LIMITS USING EPOXY-URETHANE AND SHALL BE PAID WITH ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN. FOR ESTIMATING PURPOSES, THE TOTAL SEALING AREA THIS SHEET = 251 S.F.

DESIGN AGENCY
CARPENTER MARTY transportation
6912 SINGLETREE DR. COLUMBUS, OH 43229
614.890.4242 CARPENTERMARTY.COM

DESIGNED	DRAWN	REVIEWED	DATE
ERK	ERK	GDJ	8-10-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
STK		1814168	

CURB AND PARAPET PATCHING DETAILS - LOCATION 8

BRIDGE NO. CUY-480-0612
WEST 220TH ST. OVER I-480

D12-BH-FY2021(A) MISC
PID No. 103162

7 / 8

32 / 74

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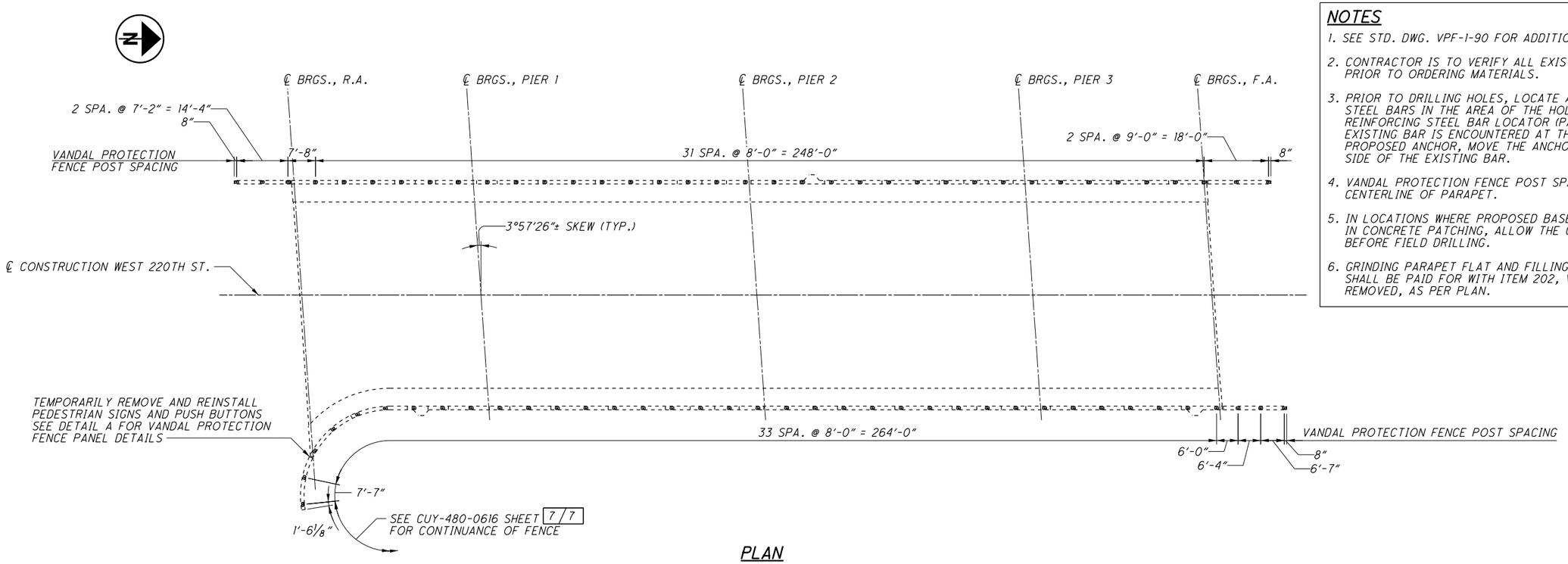
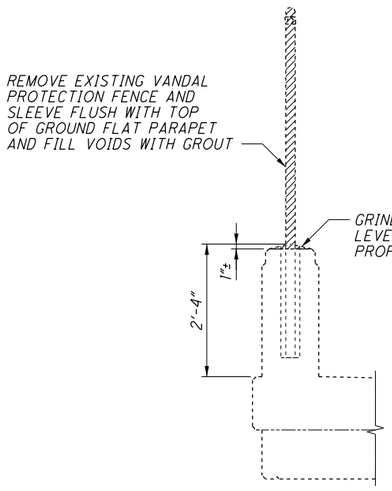


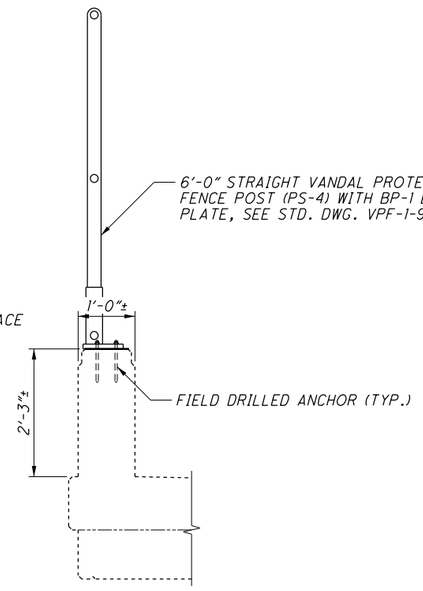
PLAN

NOTES

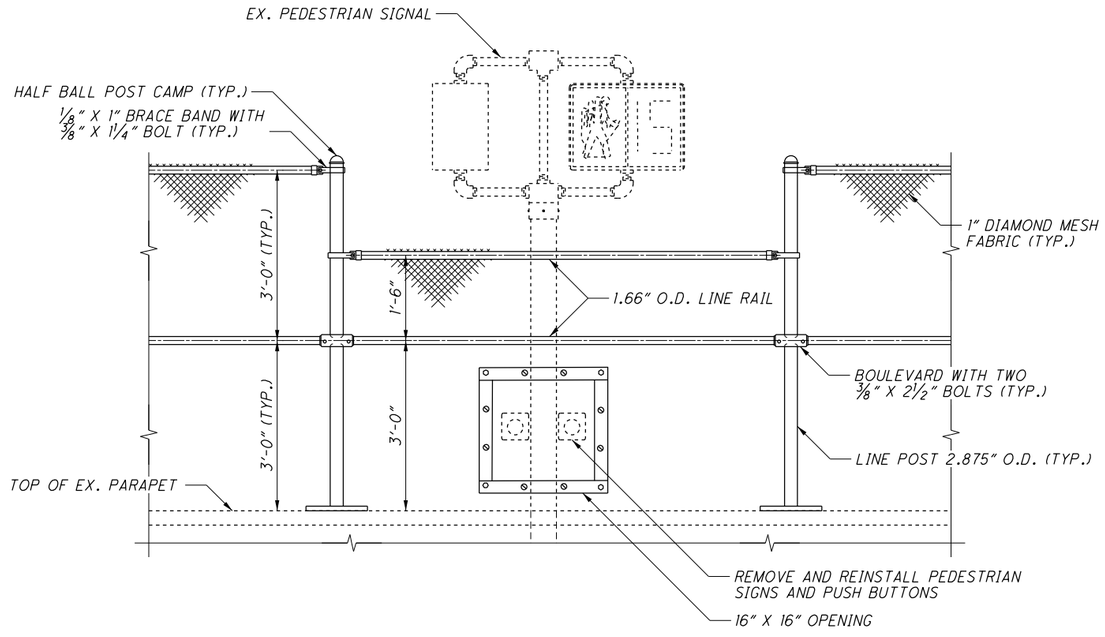
1. SEE STD. DWG. VPF-1-90 FOR ADDITIONAL NOTES AND DETAILS.
2. CONTRACTOR IS TO VERIFY ALL EXISTING FENCING DIMENSIONS PRIOR TO ORDERING MATERIALS.
3. PRIOR TO DRILLING HOLES, LOCATE ALL EXISTING REINFORCING STEEL BARS IN THE AREA OF THE HOLE WITH THE AID OF A REINFORCING STEEL BAR LOCATOR (PACHOMETER). IF AN EXISTING BAR IS ENCOUNTERED AT THE SAME LOCATION AS A PROPOSED ANCHOR, MOVE THE ANCHOR HOLE TO EITHER SIDE OF THE EXISTING BAR.
4. VANDAL PROTECTION FENCE POST SPACING MEASURED ALONG CENTERLINE OF PARAPET.
5. IN LOCATIONS WHERE PROPOSED BASE PLATE ANCHORS WILL BE IN CONCRETE PATCHING, ALLOW THE CONCRETE TO FULLY CURE BEFORE FIELD DRILLING.
6. GRINDING PARAPET FLAT AND FILLING GROUT IN EXISTING VOIDS SHALL BE PAID FOR WITH ITEM 202, VANDAL PROTECTION FENCE REMOVED, AS PER PLAN.



EXISTING PARAPET SECTION



PROPOSED PARAPET SECTION



DETAIL A

DESIGN AGENCY
CARPENTER MARTY transportation
6812 SINGLETREE DR. COLUMBUS, OH 43229
614.436.6262 CARPENTERMARTY.COM

DESIGNED	DRAWN	REVIEWED	DATE
ERK	ERK	GDJ	8-10-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
STK		1814168	

VANDAL PROTECTION FENCE DETAILS - LOCATION 8

BRIDGE NO. CUY-480-0612
WEST 220TH ST. OVER I-480

D12-BH-FY2021(A) MISC
PID No. 103162

8 / 8

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74

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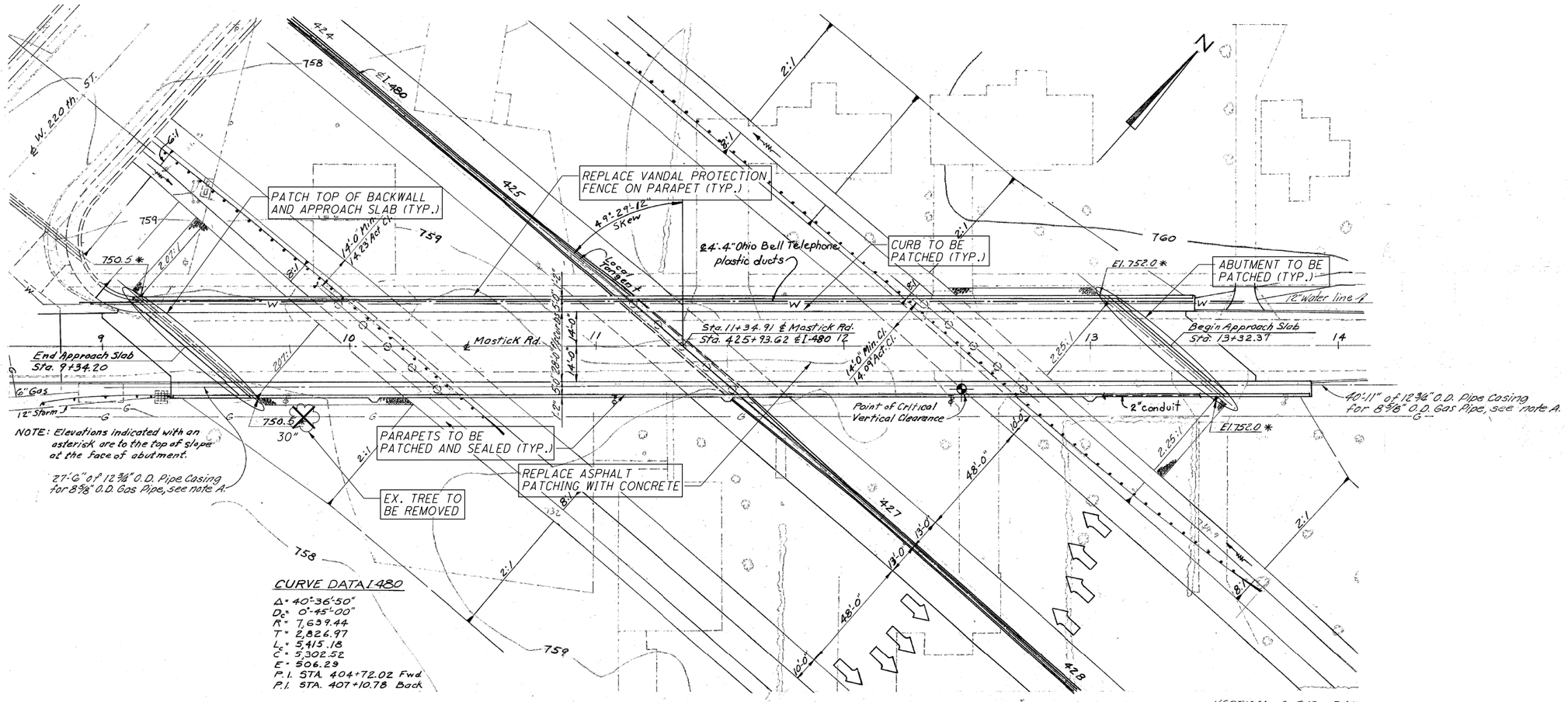

NOTES

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3. FOR ESTIMATED QUANTITIES SEE SHEET 2/7 .

DESIGN AGENCY
CARPENTER MARTY transportation
6812 SINCLAIRE DR. COLUMBUS, OH 43229
ENGINEERS • CONSULTANTS

DESIGNED	DRAWN	REVIEWED	DATE
MTJ	MTJ	GDJ	8-6-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
STK		1814176	

GENERAL PLAN - LOCATION 9
BRIDGE NO. CUY-480-0616
MASTICK ROAD OVER I-480

D12-BH-FY2021(A) MISC
PID No. 103162

1 / 7

34 / 74

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ESTIMATED QUANTITIES						DESIGN: STK DATE: 8-18-20		CHECK: STK DATE: 8-18-20	
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SHEET #
201	23000	1	EACH	TREE REMOVED, 30"				1	
202	75261	893	FT	VANDAL PROTECTION FENCE REMOVED, AS PER PLAN				893	40
512	10101	626	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN	71		555		25
512	71500	69	SY	URETHANE TOP COAT SEALER		69			37
512	74001	483	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES, AS PER PLAN			483		25
SPECIAL	51900100	746	SF	COMPOSITE FIBER WRAP SYSTEM **		746			
519	11101	1045	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN	425		620		25
519	12300	24	SY	PATCHING CONCRETE BRIDGE DECKS - TYPE B *			24		
607	39901	893	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN				893	25
844	10001	84	SF	CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN		84			25

* SEE PROPOSAL NOTE 512

** SEE PROPOSAL NOTE 519

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DESIGN AGENCY
CARPENTER MARTY transportation
6812 SINGLETREE DR. COLUMBUS, OH 43229
614.901.0900 CARPENTERMARTY.COM

DESIGNED	DRAWN	REVIEWED	DATE
STK	STK	GDJ	8-6-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
ERK		1814176	

ESTIMATED QUANTITIES - LOCATION 9

BRIDGE NO. CUY-480-0616
MASTICK RD OVER I-480

D12-BH-FY2021(A) MISC
PID No. 103162

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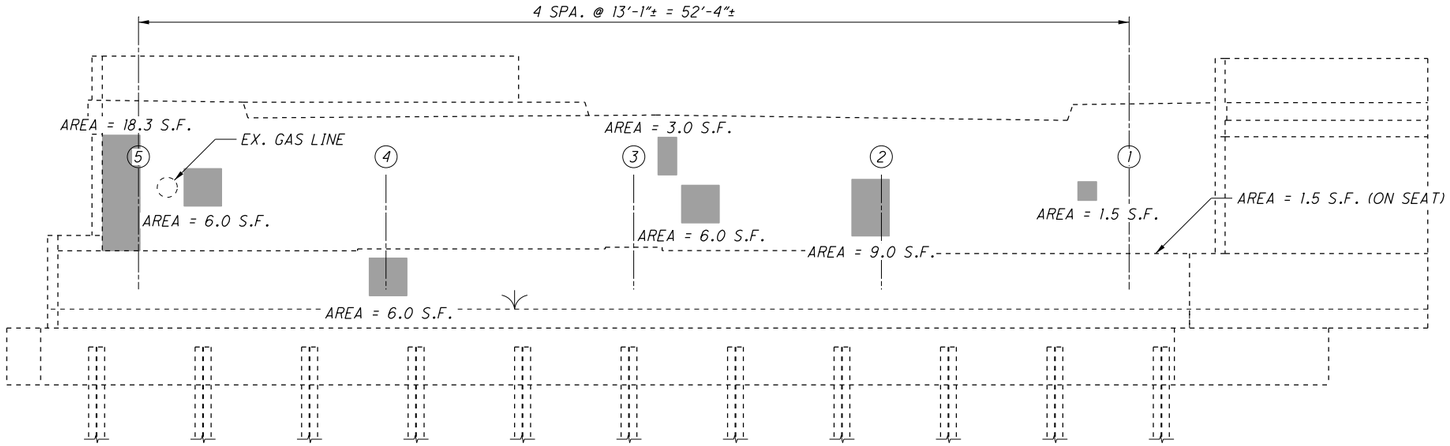
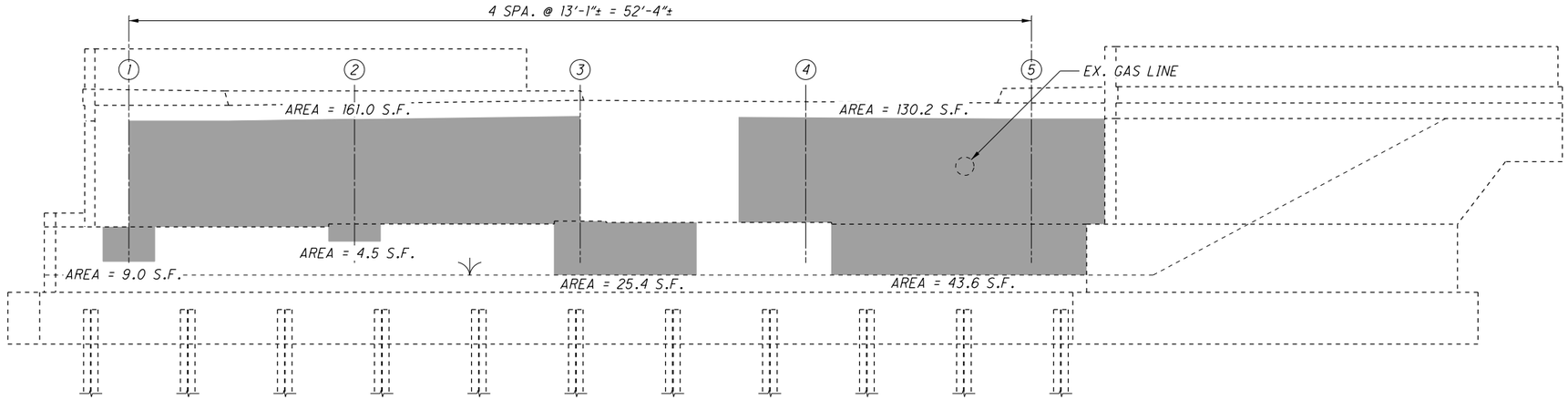


REAR ABUTMENT ELEVATION



FORWARD ABUTMENT ELEVATION

NOTES

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4. FOR ESTIMATED QUANTITIES, SEE SHEET 2/7.
5. PATCHING ESTIMATED QUANTITIES HAVE BEEN INCREASED BY 50% OVER MEASURED QUANTITIES TO ACCOUNT FOR ADDITIONAL DETERIORATION.

LEGEND

INDICATES CONCRETE REPAIR PER ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN. TOTAL AREA THIS SHEET = 425 S.F.

ALL PATCHES SHALL BE SEALED 6" BEYOND THE PATCHING LIMITS USING EPOXY-URETHANE AND SHALL BE PAID WITH ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN. FOR ESTIMATING PURPOSES, TOTAL SEALING AREA THIS SHEET = 638 S.F.

(1) BEAM NUMBER

DESIGN AGENCY
CARPENTER MARTY transportation
6812 SINGLETREE DR. COLUMBUS, OH 43229
614.882.0003 CARPENTERMARTY.COM

DESIGNED	DRAWN	REVIEWED	DATE
ERK	ERK	GDJ	8-6-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
STK		1814176	

ABUTMENT PATCHING DETAILS - LOCATION 9

BRIDGE NO. CUY-480-0616
MASTICK ROAD OVER I-480

D12-BH-FY2021(A) MISC
PID No. 103162

3 / 7

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74

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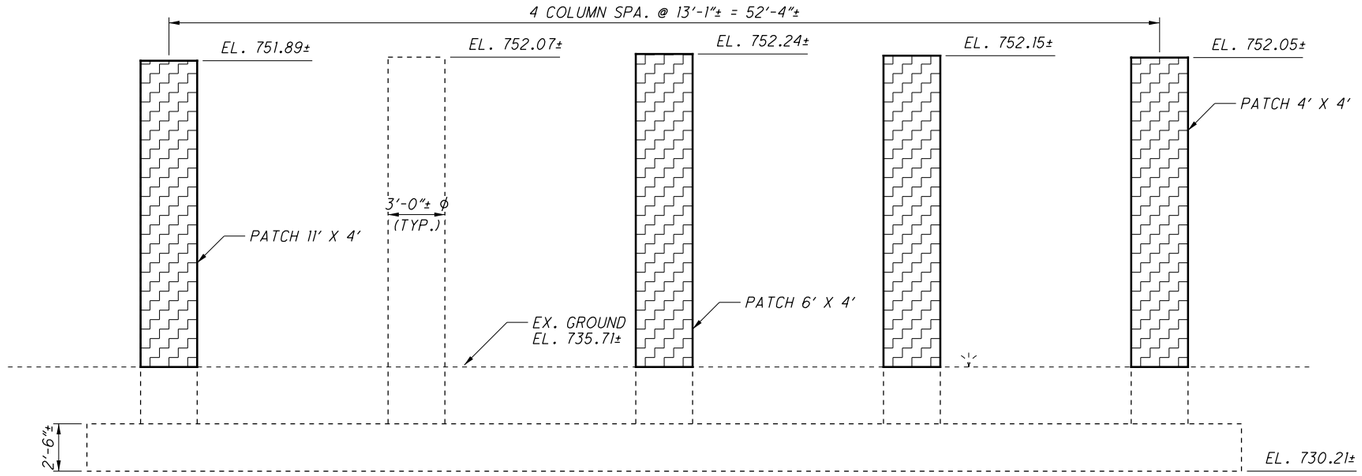
ITEM 512 - URETHANE TOP COAT SEALER

THIS ITEM OF WORK SHALL BE PER C&MS 512, EXCEPT AS MODIFIED BELOW.

A FINAL URETHANE COATING IS REQUIRED TO PROTECT THE COMPOSITE FIBER WRAP SYSTEM FROM THE ELEMENTS, SPECIFICALLY THE UV RADIATION, AND TO GIVE THE FINAL AESTHETIC EFFECT.

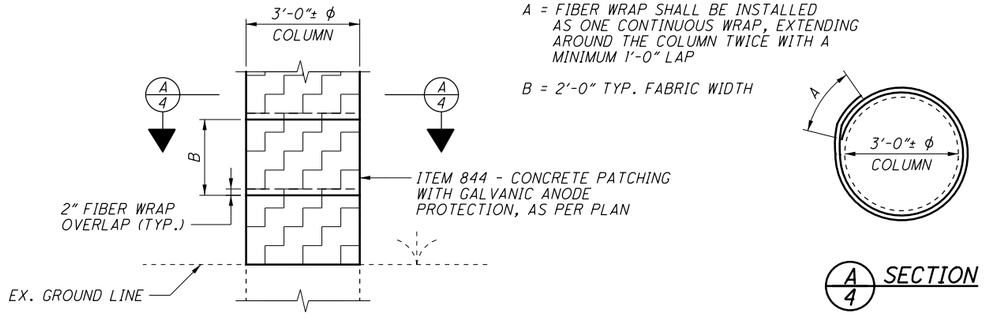
INSTALL THE URETHANE TOP COAT SEALER AFTER THE COMPOSITE FIBER WRAP SYSTEM HAS FULLY CURED, AND WITHIN 4 CALENDAR DAYS OF INSTALLATION. CLEAN AND ROUGHEN THE COMPOSITE FIBER WRAP SYSTEM IN A MANNER THAT WILL NOT DAMAGE THE SYSTEM. IF THE COMPOSITE FIBER WRAP SYSTEM IS DAMAGED, REPAIR IT PER THE MANUFACTURER'S RECOMMENDATIONS AT NO COST TO THE STATE. ALLOW THE CLEANED AND ROUGHENED SURFACES TO DRY COMPLETELY BEFORE INSTALLING THE URETHANE TOP COAT SEALER.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER SQUARE YARD FOR ITEM 512, URETHANE TOP COAT SEALER, WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.



PIER 3 (SPAN 3 SIDE)

(LOOKING NORTH)



PIER COLUMN FIBER WRAP DETAIL

NOTES

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4. FOR ESTIMATED QUANTITIES, SEE SHEET 2/7.
5. PATCHING ESTIMATED QUANTITIES HAVE BEEN INCREASED BY 50% OVER MEASURED QUANTITIES TO ACCOUNT FOR ADDITIONAL DETERIORATION.
6. AREAS TREATED WITH FIBER WRAP SHALL BE SEALED WITH URETHANE TOP COAT SEALER. COLOR TO MATCH EPOXY-URETHANE SEALER.

LEGEND

INDICATES CONCRETE PIER COLUMN REPAIR PER ITEM SPECIAL - STRUCTURES, COMPOSITE FIBER WRAP SYSTEM AND ITEM 844 - CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION, AS PER PLAN

DESIGN AGENCY
CARPENTER MARTY transportation
6812 SINGLETREE DR. COLUMBUS, OH 43229
614.882.0003 CARPENTERMARTY.COM

DESIGNED	DRAWN	REVIEWED	DATE
ERK	ERK	GDJ	8-6-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
STK		1814176	

PIER 3 PATCHING DETAILS - LOCATION 9

BRIDGE NO. CUY-480-0616
MASTICK ROAD OVER I-480

D12-BH-FY2021(A) MISC
PID No. 103162

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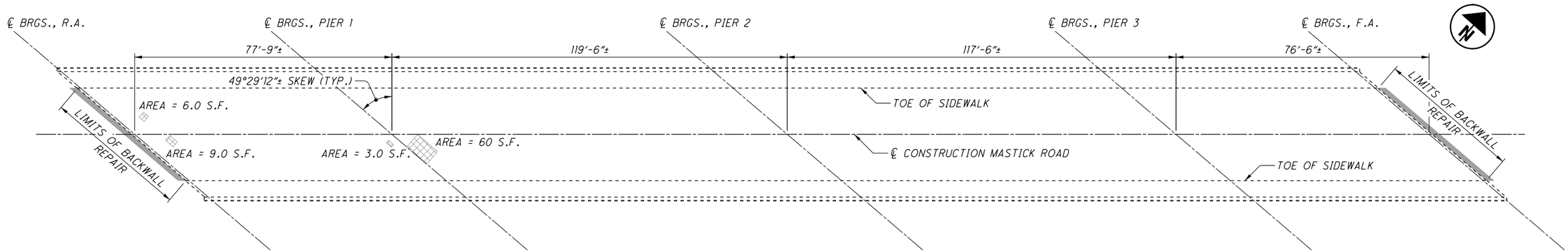


DECK PLAN

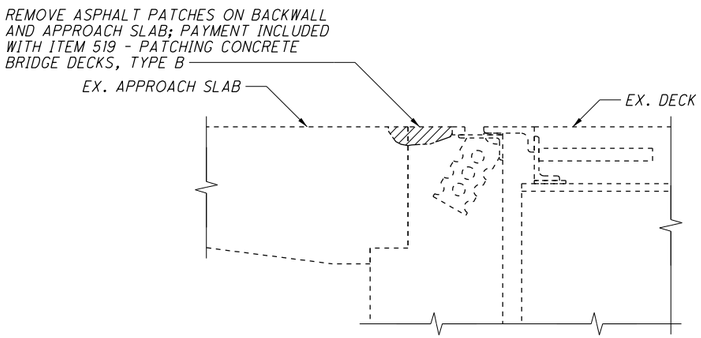
LEGEND

INDICATES CONCRETE REPAIR PER ITEM 519 - PATCHING CONCRETE BRIDGE DECKS, TYPE B. DECK AREA THIS SHEET = 78 S.F.

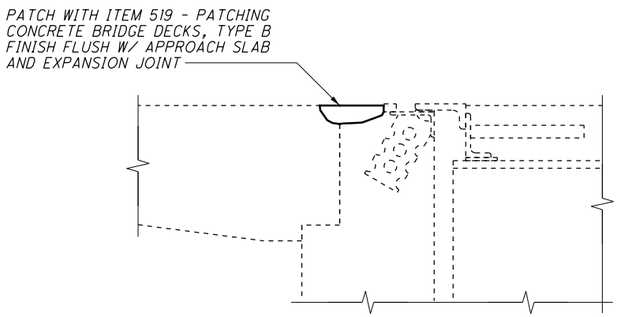
INDICATES CONCRETE REPAIR PER ITEM 519 - PATCHING CONCRETE BRIDGE DECKS, TYPE B. BACKWALL AREA THIS SHEET = 130 S.F.

NOTE

PATCH THE WEARING SURFACE PER PROPOSAL NOTE 512, TYPE B PATCH. PATCH ONLY THE AREAS SHOWN IN THE PLANS TO BE REPAIRED AS DIRECTED BY THE ENGINEER. AREAS THAT ARE DESIGNATED FOR REPAIR ARE AREAS THAT ARE PATCHED WITH ASPHALT, SPALLED, OR HEAVILY CRACKED. DELAMINATED AREAS IMMEDIATELY CONTIGUOUS TO THE DESIGNATED REPAIR AREAS SHALL BE REMOVED AND REPAIRED WITH THE SAME PATCH. AREAS OF THE WEARING SURFACE ARE KNOWN TO EXIST THAT ARE DELAMINATED WHEN SOUNDED BUT ARE NOT SHOWING VISIBLE SIGNS OF DISTRESS. THESE AREAS SHALL NOT BE REPAIRED UNLESS DIRECTED TO DO SO BY THE PROJECT ENGINEER AND DISTRICT BRIDGE ENGINEER. PAYMENT WILL BE BASED UPON THE ACTUAL QUANTITIES REPAIRED AND ACCEPTED BY THE ENGINEER. PATCHING ESTIMATED QUANTITIES HAVE BEEN INCREASED BY 50% OVER MEASURED QUANTITIES TO ACCOUNT FOR ADDITIONAL DETERIORATION.



BACKWALL REMOVAL SECTION



PROPOSED BACKWALL SECTION

DESIGN AGENCY
CARPENTER MARTY transportation
6812 SINGLETREE DR. COLUMBUS, OH 43229
614.846.0400 CARPENTERMARTY.COM

DESIGNED	DRAWN	REVIEWED	DATE
ERK	ERK	GDJ	8-6-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
STK		1814176	

DECK AND BACKWALL PATCHING DETAILS - LOCATION 9

BRIDGE NO. CUY-480-0616
MASTICK ROAD OVER I-480

D12-BH-FY2021(A) MISC
PID No. 103162

5 / 7

38
74

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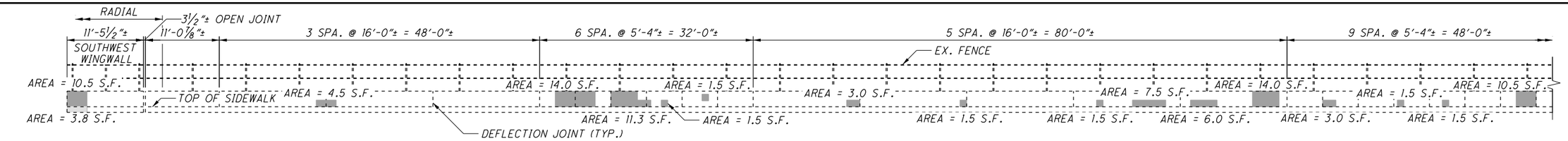
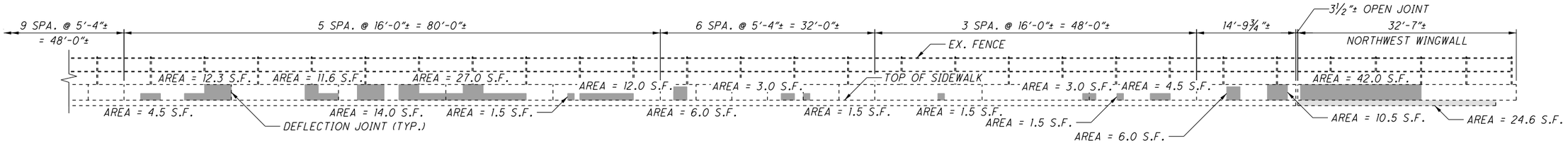
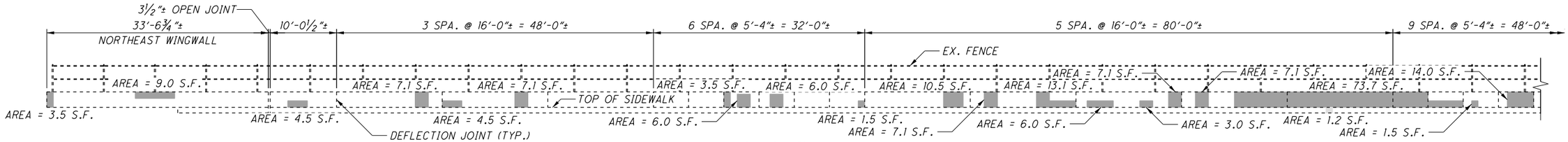


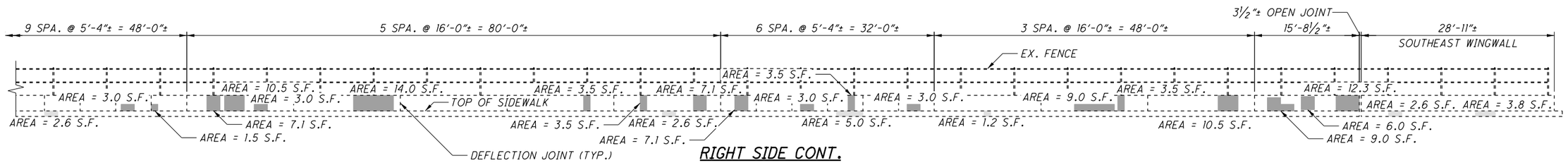
LEFT SIDE
LOOKING WEST



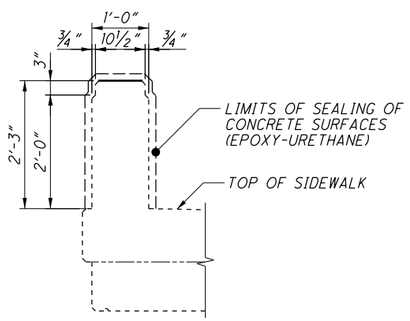
LEFT SIDE CONT.
LOOKING WEST



RIGHT SIDE
LOOKING EAST



RIGHT SIDE CONT.
LOOKING EAST



PARAPET SECTION (AT FENCE POST)
FENCING NOT SHOWN

NOTES

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4. FOR ESTIMATED QUANTITIES, SEE SHEET 2/7.
5. PATCHING ESTIMATED QUANTITIES HAVE BEEN INCREASED BY 50% OVER MEASURED QUANTITIES TO ACCOUNT FOR ADDITIONAL DETERIORATION.
6. DO NOT DISTURB EXISTING FENCING ON SIDEWALK DURING CURB REPAIR OPERATIONS.

LEGEND

INDICATES CONCRETE PARAPET REPAIR PER ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN. TOTAL AREA THIS SHEET = 572 S.F.

THE ENTIRE LENGTH OF THE PARAPETS SHALL BE SEALED WITH EPOXY-URETHANE AND SHALL BE PAID WITH ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN

INDICATES CONCRETE CURB REPAIR PER ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN. TOTAL AREA THIS SHEET = 48 S.F.

ALL PATCHES SHALL BE SEALED 6" BEYOND THE PATCHING LIMITS USING EPOXY-URETHANE AND SHALL BE PAID WITH ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN. FOR ESTIMATING PURPOSES, THE TOTAL SEALING AREA THIS SHEET = 72 S.F.

DESIGN AGENCY
CARPENTER MARTY transportation
6812 SINGLETREE DR. COLUMBUS, OH 43229
614.839.0900 CARPENTERMARTY.COM

DESIGNED	DRAWN	REVIEWED	DATE
ERK	ERK	GDJ	8-6-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
STK		1814176	

CURB AND PARAPET PATCHING DETAILS - LOCATION 9
BRIDGE NO. CUY-480-0616
MASTICK ROAD OVER I-480

D12-BH-FY2021(A) MISC
PID No. 103162

6 / 7

39 / 74

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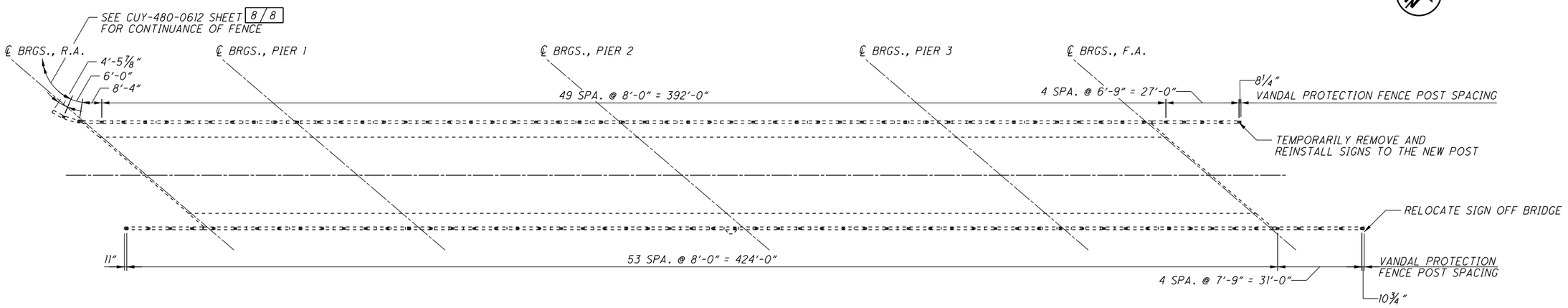
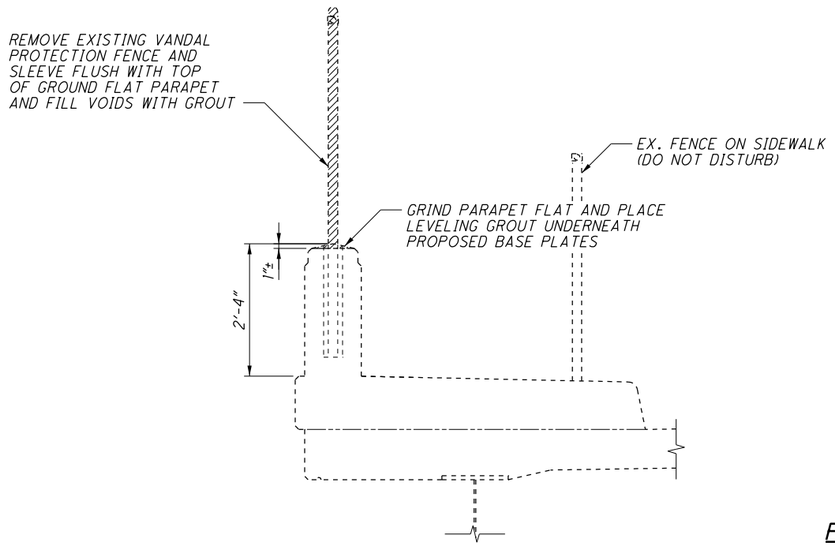
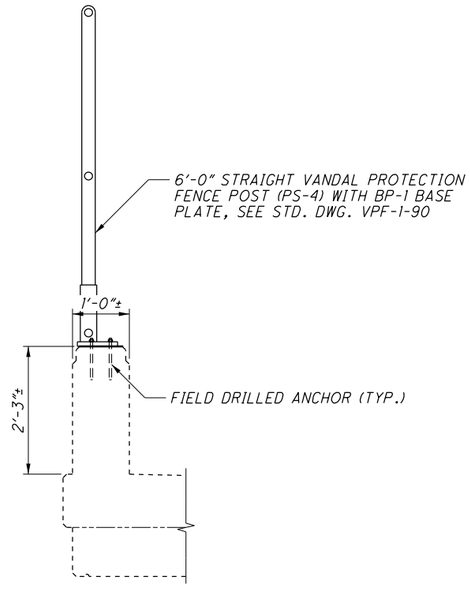


PLAN



EXISTING PARAPET SECTION



PROPOSED PARAPET SECTION

NOTES

1. SEE STD. DWG. VPF-1-90 FOR ADDITIONAL NOTES AND DETAILS.
2. CONTRACTOR IS TO VERIFY ALL EXISTING FENCING DIMENSIONS PRIOR TO ORDERING MATERIALS.
3. PRIOR TO DRILLING HOLES, LOCATE ALL EXISTING REINFORCING STEEL BARS IN THE AREA OF THE HOLE WITH THE AID OF A REINFORCING STEEL BAR LOCATOR (PACHOMETER). IF AN EXISTING BAR IS ENCOUNTERED AT THE SAME LOCATION AS A PROPOSED ANCHOR, MOVE THE ANCHOR HOLE TO EITHER SIDE OF THE EXISTING BAR.
4. VANDAL PROTECTION FENCE POST SPACING MEASURED ALONG CENTERLINE OF PARAPET.
5. IN LOCATIONS WHERE PROVIDED BASE PLATE ANCHORS WILL BE IN CONCRETE PATCHING, ALLOW THE CONCRETE TO FULLY CURE BEFORE FIELD DRILLING.
6. GRINDING PARAPET FLAT AND PLACING GROUT IN EXISTING VOIDS SHALL BE PAID FOR WITH ITEM 202 - VANDAL PROTECTION FENCE REMOVED, AS PER PLAN.

DESIGN AGENCY
CARPENTER MARTY transportation
6812 SINGLETREE DR. COLUMBUS, OH 43229
614.794.0611 CARPENTERMARTY.COM

DESIGNED	DRAWN	REVIEWED	DATE
ERK	ERK	GDJ	8-6-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
STK		1814176	

VANDAL PROTECTION FENCE DETAILS - LOCATION 9

BRIDGE NO. CUY-480-0616
MASTICK ROAD OVER I-480

D12-BH-FY2021(A) MISC
PID No. 103162

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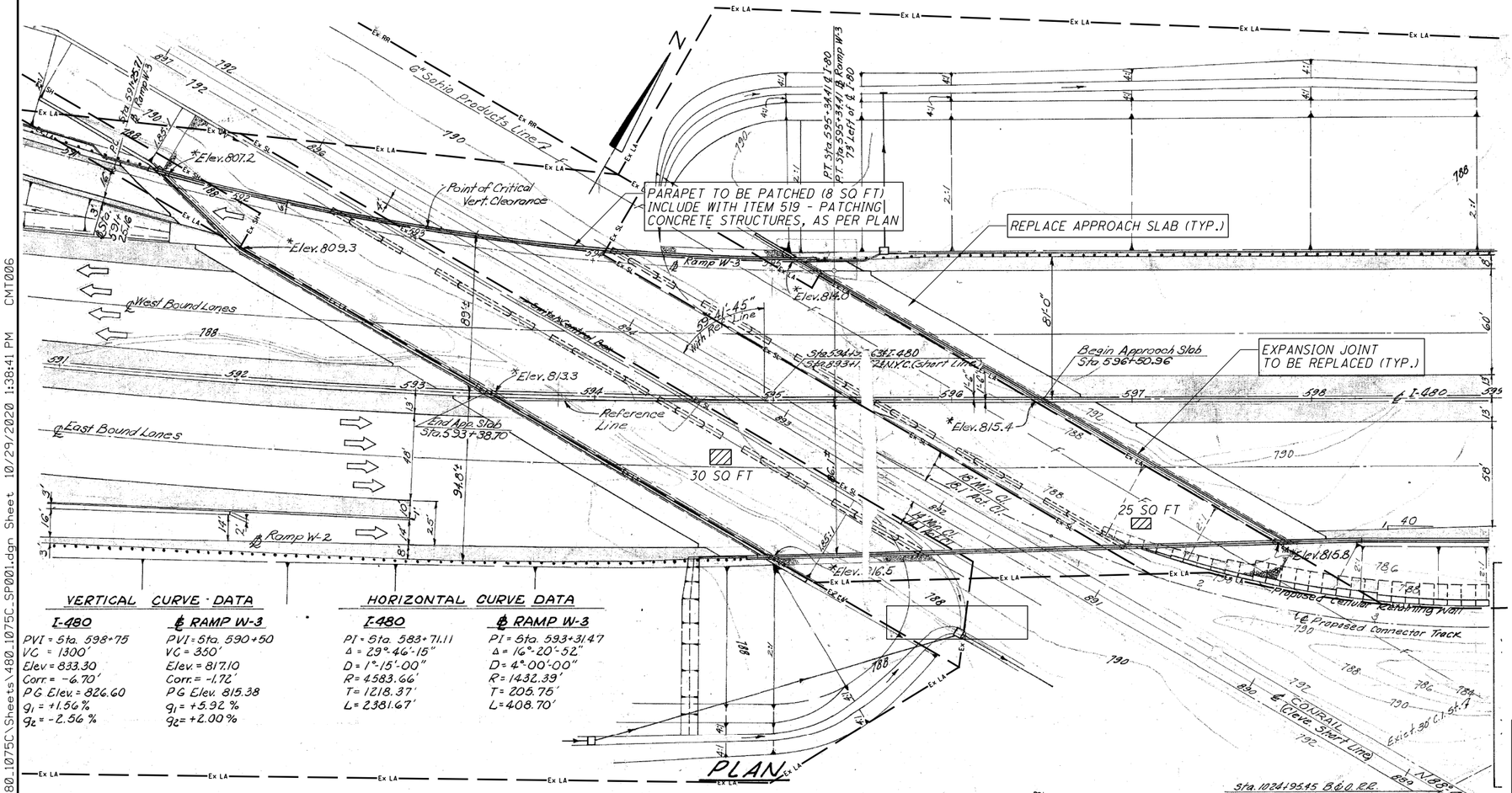
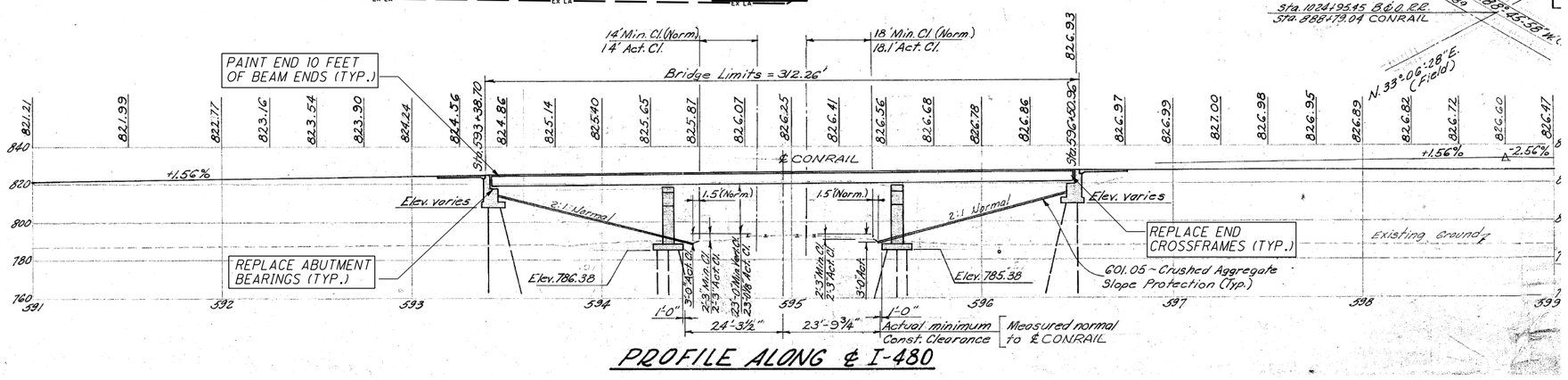


VERTICAL CURVE · DATA		HORIZONTAL CURVE DATA	
I-480	℄ RAMP W-3	I-480	℄ RAMP W-3
PVI = Sta. 598+75	PVI = Sta. 590+50	PI = Sta. 583+71.11	PI = Sta. 593+31.47
VC = 1300'	VC = 350'	Δ = 29°-46'-15"	Δ = 16°-20'-52"
Elev = 833.30	Elev. = 817.10	D = 1°-15'-00"	D = 4°-00'-00"
Corr. = -6.70'	Corr. = -1.72'	R = 4583.66'	R = 1432.39'
P.G. Elev. = 826.60	P.G. Elev. 815.38	T = 1218.37'	T = 205.75'
g_1 = +1.56 %	g_1 = +5.92 %	L = 2381.67'	L = 408.70'
g_2 = -2.56 %	g_2 = +2.00 %		



LEGEND

▨ INDICATES CONCRETE REPAIR PER ITEM 519 - PATCHING CONCRETE BRIDGE DECKS, TYPE B. TOTAL AREA THIS SHEET = 55 S.F.

NOTES:

1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE USED FOR INFORMATION PURPOSES ONLY.
2. PERFORM ONLY THE WORK AS INDICATED IN THE STRUCTURE DATA SHEET, FRAMED TEXT, AND/OR DESCRIBED IN THE GENERAL NOTES.
3. FOR ESTIMATED QUANTITIES SEE SHEET 2/34.
4. PATCH THE WEARING SURFACE PER PROPOSAL NOTE 512, TYPE B PATCH. PATCH ONLY THE AREAS SHOWN IN THE PLANS TO BE REPAIRED AS DIRECTED BY THE ENGINEER. AREAS THAT ARE DESIGNATED FOR REPAIR ARE AREAS THAT ARE PATCHED WITH ASPHALT, SPALLED, OR HEAVILY CRACKED. DELAMINATED AREAS IMMEDIATELY CONTIGUOUS TO THE DESIGNATED REPAIR AREAS SHALL BE REMOVED AND REPAIRED WITH THE SAME PATCH. AREAS OF THE WEARING SURFACE ARE KNOWN TO EXIST THAT ARE DELAMINATED WHEN SOUNDED BUT ARE NOT SHOWING VISIBLE SIGNS OF DISTRESS. THESE AREAS SHALL NOT BE REPAIRED UNLESS DIRECTED TO DO SO BY THE PROJECT ENGINEER AND DISTRICT BRIDGE ENGINEER. PAYMENT WILL BE BASED UPON THE ACTUAL QUANTITIES REPAIRED AND ACCEPTED BY THE ENGINEER. PATCHING ESTIMATED QUANTITIES HAVE BEEN INCREASED BY 50% OVER MEASURED QUANTITIES TO ACCOUNT FOR ADDITIONAL DETERIORATION.
5. THE PARAPET PATCH SHALL BE SEALED 6" BEYOND THE PATCHING LIMITS USING EPOXY-URETHANE AND SHALL BE PAID WITH ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN. TOTAL SEALING AREA THIS SHEET = 12 S.F.
6. CONTRACTOR ACCESS SHALL BE RESTRICTED WITHIN THE CSX RAILROAD R/W.

DESIGN AGENCY
CARPENTER MARTY transportation
6612 SINGLETREE DR. · COLUMBUS, OH 43229
ENGINEERS · CONSULTANTS

DESIGNED	DRAWN	REVIEWED	DATE
MTJ	MTJ	GDJ	8-17-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
STK		1814168	

GENERAL PLAN - LOCATION 10
BRIDGE NO. CUY-480-1075
OVER CSX RAILROAD

D12-BH-FY2021(A) MISC
PID No. 103162

1 / 34

41 / 74

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ESTIMATED QUANTITIES						DESIGN: STK DATE: 8-18-20		CHECK: ERK DATE: 8-18-20	
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SHEET #
202	11203	LS	-	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN				LS	25
202	22900	924	SY	APPROACH SLAB REMOVED				924	
202	23500	924	SY	WEARING COURSE REMOVED				924	
509	10000	4050	LB	EPOXY COATED REINFORCING STEEL	2959		1091		
509	20001	5545	LB	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN	2071		3474		25
511	21520	71	CY	CLASS QC2 CONCRETE, SUPERSTRUCTURE	6		65		
511	44110	50	CY	CLASS QC1 CONCRETE, ABUTMENT NOT INCLUDING FOOTING	50				
512	10100	122	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	62		60		
513	10201	36000	LB	STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN			36000		25
514	00050	5603	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL			5603		
514	00056	5603	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT			5603		
514	00060	9294	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT			9294		
514	00066	9294	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT			9294		25
514	00504	7	MNHR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL			7		
514	10000	5	EACH	FINAL INSPECTION REPAIR			5		
516	11210	725	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL			725		
516	13600	277	SF	1" PREFORMED EXPANSION JOINT FILLER	277				
516	44000	1	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (10"X12"X1.648" WITH A 12"X14"X1" LOAD PLATE)	1				
516	44100	1	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (12"X6"X2.222" WITH A 14"X8"X1" LOAD PLATE)	1				
516	44100	20	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (15"X12"X2.398" WITH A 17"X14"X1" LOAD PLATE)	20				
516	44100	1	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (15"X12"X2.398" WITH A 18"X14"X1" LOAD PLATE)	1				
516	44400	18	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (15"X12"X5.694" WITH A 17"X14"X1" LOAD PLATE)	18				
516	44400	1	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (15"X12"X5.694" WITH A 18"X17"X1" LOAD PLATE)	1				
516	47001	LS	-	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN			LS		25
519	11101	379	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN	371		8		25
519	12300	7	SY	PATCHING CONCRETE BRIDGE DECKS - TYPE B*			7		
526	25000	924	SY	REINFORCED CONCRETE APPROACH SLABS (T=15")				924	

* SEE PROPOSAL NOTE 512

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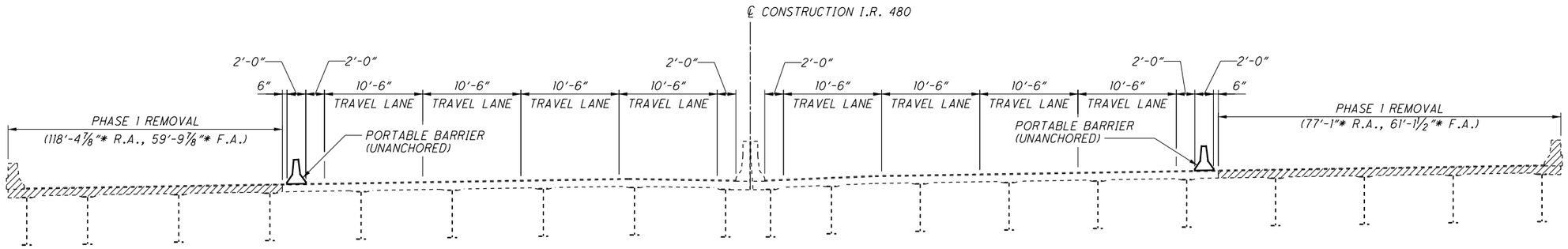
DESIGN AGENCY
CARPENTER MARTY transportation
6612 SINGLETREE DR. COLUMBUS, OH 43229
614.540.6633 CARPENTERMARTY.COM

DESIGNED	DRAWN	REVIEWED	DATE
STK	STK	GDJ	8-17-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
ERK		1812912	

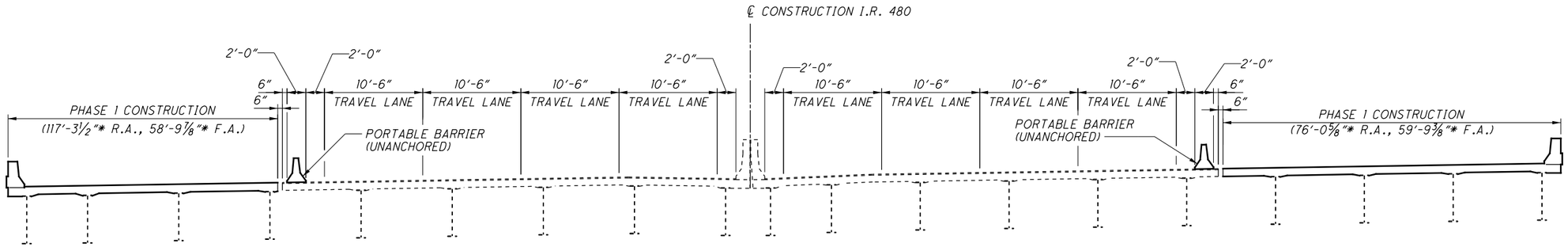
ESTIMATED QUANTITIES - LOCATION 10

BRIDGE NO. CUY-480-1075
OVER CSX RAILROAD

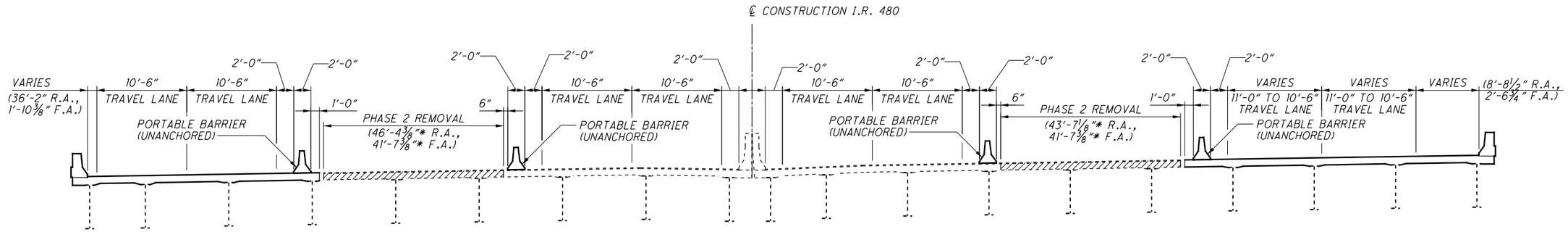
D12-BH-FY2021(A) MISC
PID No. 103162



PHASE 1 MAINTENANCE OF TRAFFIC AND REMOVAL



PHASE 1 CONSTRUCTION



PHASE 2 MAINTENANCE OF TRAFFIC AND REMOVAL

LEGEND

PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN (AT BRIDGE LIMITS)

* - MEASURED PARALLEL TO ℄ BRGS. AT ABUTMENT EXPANSION JOINTS

DESIGN AGENCY
CARPENTER MARTY transportation
6812 SINGLETREE DR. COLUMBUS, OH 43229
614 • 846 • 9690 CARPENTERMARTY.COM

DESIGNED	DRAWN	REVIEWED	DATE
STK	STK	GDJ	8-17-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
ERK		1812912	

BRIDGE PHASE CONSTRUCTION DETAILS - LOCATION 10

BRIDGE NO. CUY-480-1075
OVER CSX RAILROAD

D12-BH-FY2021(A) MISC
PID No. 103162

3 / 34

43 / 74

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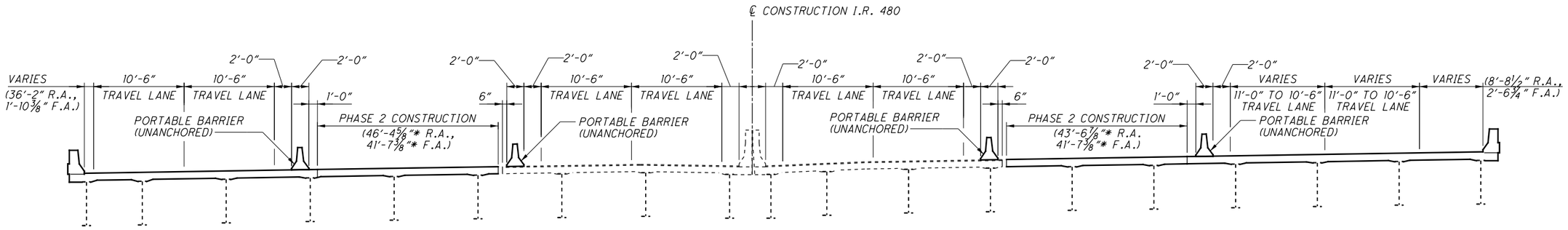
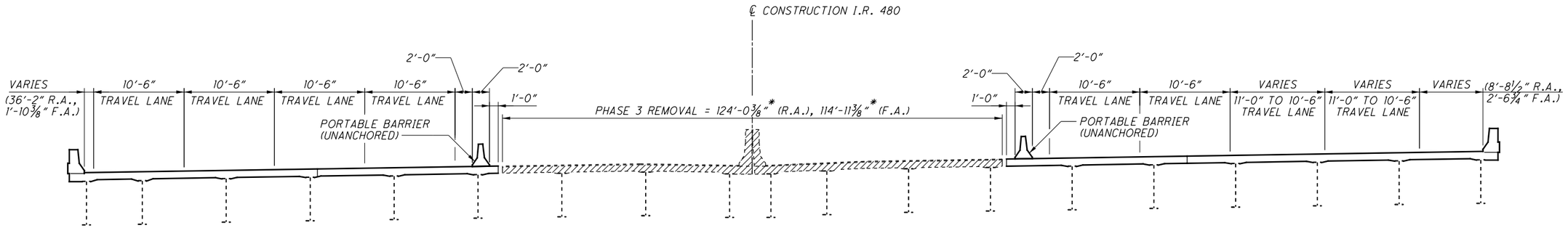
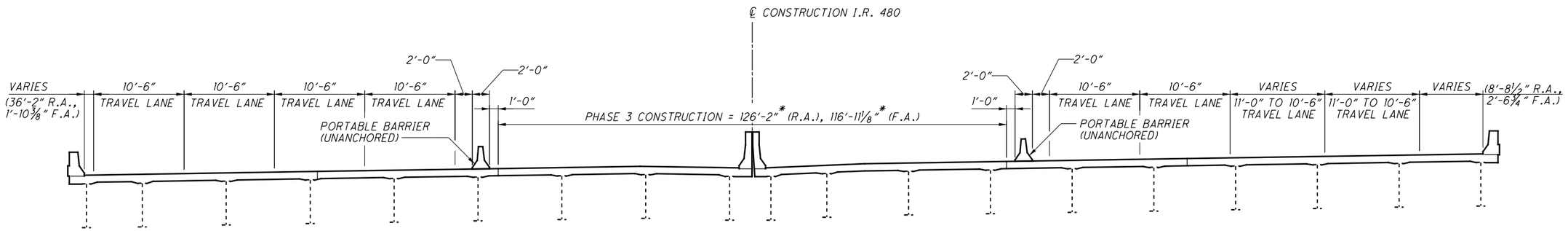


PHASE 2 CONSTRUCTION



PHASE 3 MAINTENANCE OF TRAFFIC AND REMOVAL



PHASE 3 CONSTRUCTION

LEGEND

PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN (AT BRIDGE LIMITS)

* - MEASURED PARALLEL TO ℄ BRGS. AT ABUTMENT EXPANSION JOINTS

DESIGN AGENCY
CARPENTER MARTY transportation
6812 SINGLETREE DR. COLUMBUS, OH 43229

DESIGNED	DRAWN	REVIEWED	DATE
STK	STK	GDJ	8-17-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
ERK		1812912	

BRIDGE PHASE CONSTRUCTION DETAILS - LOCATION 10

BRIDGE NO. CUY-480-1075
OVER CSX RAILROAD

D12-BH-FY2021(A) MISC
PID No. 103162

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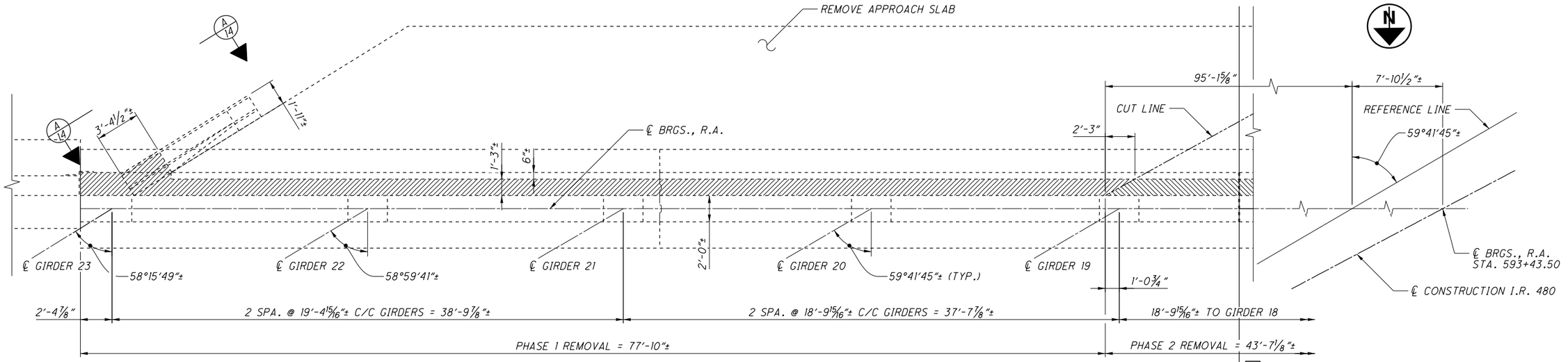
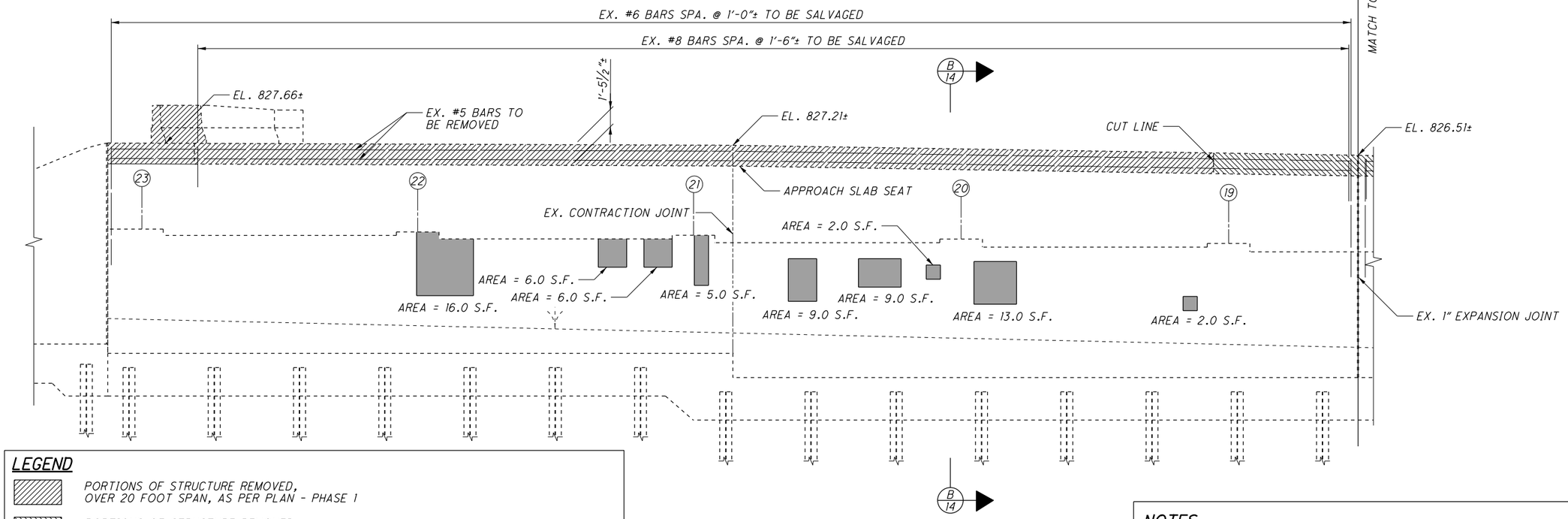


PLAN



ELEVATION

LEGEND

- PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN - PHASE 1
- PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN - PHASE 2
- INDICATES CONCRETE REPAIR PER ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN. TOTAL AREA THIS SHEET = 78.0 S.F. THIS AREA INCLUDES A CONTINGENCY QUANTITY OF 10 S.F. FOR THE BACKWALL. AT THE TIME OF INSPECTION, THE BACKWALL WAS COVERED WITH A NEOPRENE CURTAIN.

  ALL PATCHES SHALL BE SEALED 6" BEYOND THE PATCHING LIMITS USING EPOXY-URETHANE AND SHALL BE PAID WITH ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN. TOTAL SEALING AREA THIS SHEET = 117 S.F.
- (1) BEAM NUMBER

NOTES

1. ELEVATIONS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE VERIFIED BEFORE ORDERING EXPANSION JOINT MATERIALS.
2. PATCHING ESTIMATED QUANTITIES HAVE BEEN INCREASED BY 50% OVER MEASURED QUANTITIES TO ACCOUNT FOR ADDITIONAL DETERIORATION.
3. MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
4. PERFORM ONLY THE WORK AS INDICATED IN THE STRUCTURE DATA SHEET, FRAMED TEXT, AND/OR DESCRIBED IN THE GENERAL NOTES.

DESIGN AGENCY
CARPENTER MARTY transportation
6812 SINGLETREE DR. COLUMBUS, OH 43229
(614)847-0361 CARPENTERMARTY.COM

DESIGNED	DRAWN	REVIEWED	DATE
MTJ	MTJ	GDJ	8-11-20
CHECKED	REVISED		STRUCTURE FILE NUMBER
STK			1812912

REAR ABUTMENT REMOVAL DETAILS 1 - LOCATION 10

BRIDGE NO. CUY-480-1075
OVER CSX RAILROAD

D12-BH-FY2021(A) MISC
PID No. 103162

5 / 34

45 / 74

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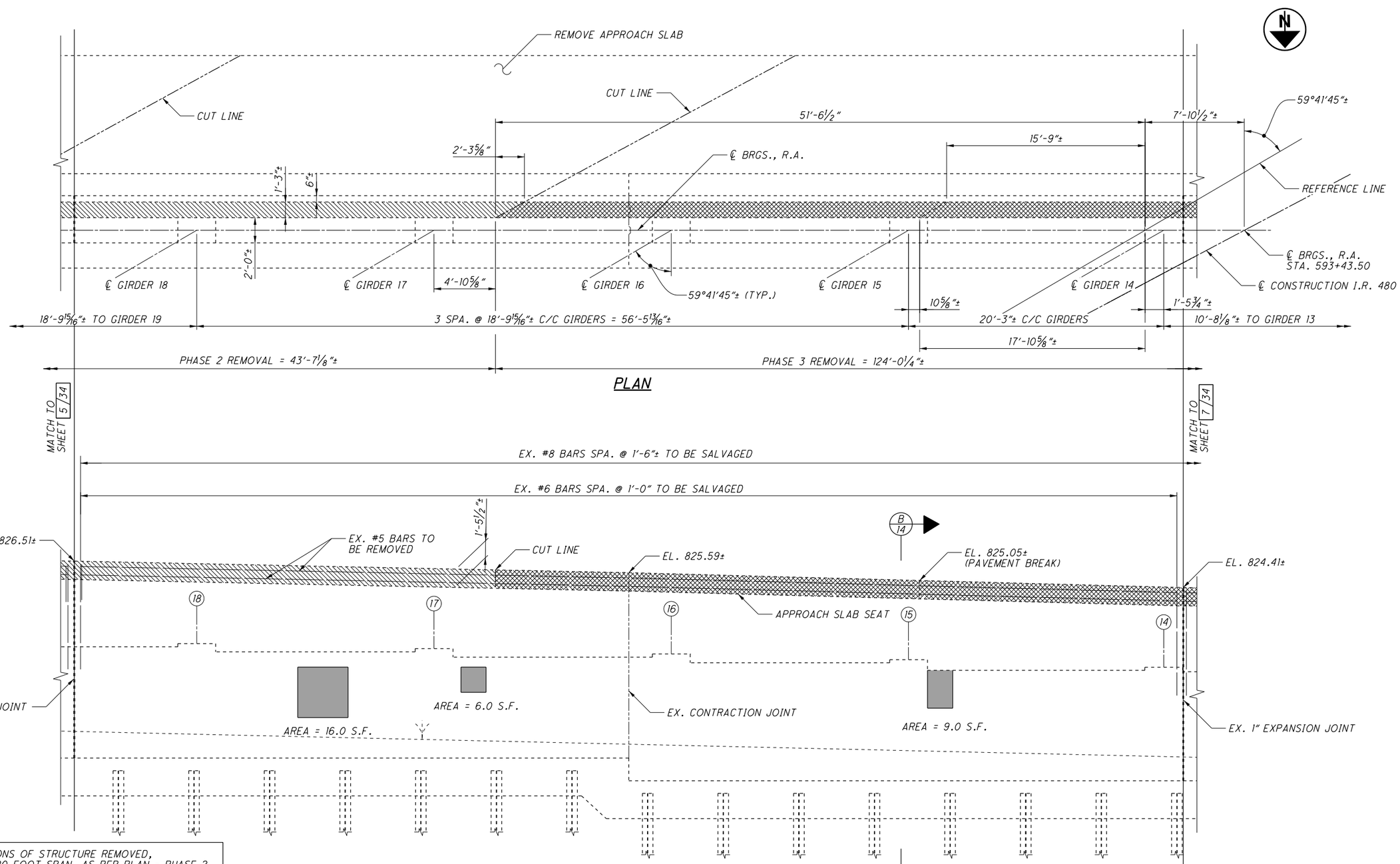

LEGEND

- PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN - PHASE 2
- PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN - PHASE 3
- INDICATES CONCRETE REPAIR PER ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN. TOTAL AREA THIS SHEET = 41.0 S.F. THIS AREA INCLUDES A CONTINGENCY QUANTITY OF 10 S.F. FOR THE BACKWALL. AT THE TIME OF INSPECTION, THE BACKWALL WAS COVERED WITH A NEOPRENE CURTAIN.

  ALL PATCHES SHALL BE SEALED 6" BEYOND THE PATCHING LIMITS USING EPOXY-URETHANE AND SHALL BE PAID WITH ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN. TOTAL SEALING AREA THIS SHEET = 61.5 S.F.
- (1) BEAM NUMBER

NOTES

1. ELEVATIONS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE VERIFIED BEFORE ORDERING EXPANSION JOINT MATERIALS.
2. PATCHING ESTIMATED QUANTITIES HAVE BEEN INCREASED BY 50% OVER MEASURED QUANTITIES TO ACCOUNT FOR ADDITIONAL DETERIORATION.
3. MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
4. PERFORM ONLY THE WORK AS INDICATED IN THE STRUCTURE DATA SHEET, FRAMED TEXT, AND/OR DESCRIBED IN THE GENERAL NOTES.

DESIGN AGENCY
CARPENTER MARTY transportation
6812 SINGLETREE DR. COLUMBUS, OH 43229
ENGINEERS • CONSULTORS

DESIGNED	DRAWN	REVIEWED	DATE
MTJ	MTJ	GDJ	8-11-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
STK		1812912	

REAR ABUTMENT REMOVAL DETAILS 2 - LOCATION 10

BRIDGE NO. CUY-480-1075
OVER CSX RAILROAD

D12-BH-FY2021(A) MISC
PID No. 103162

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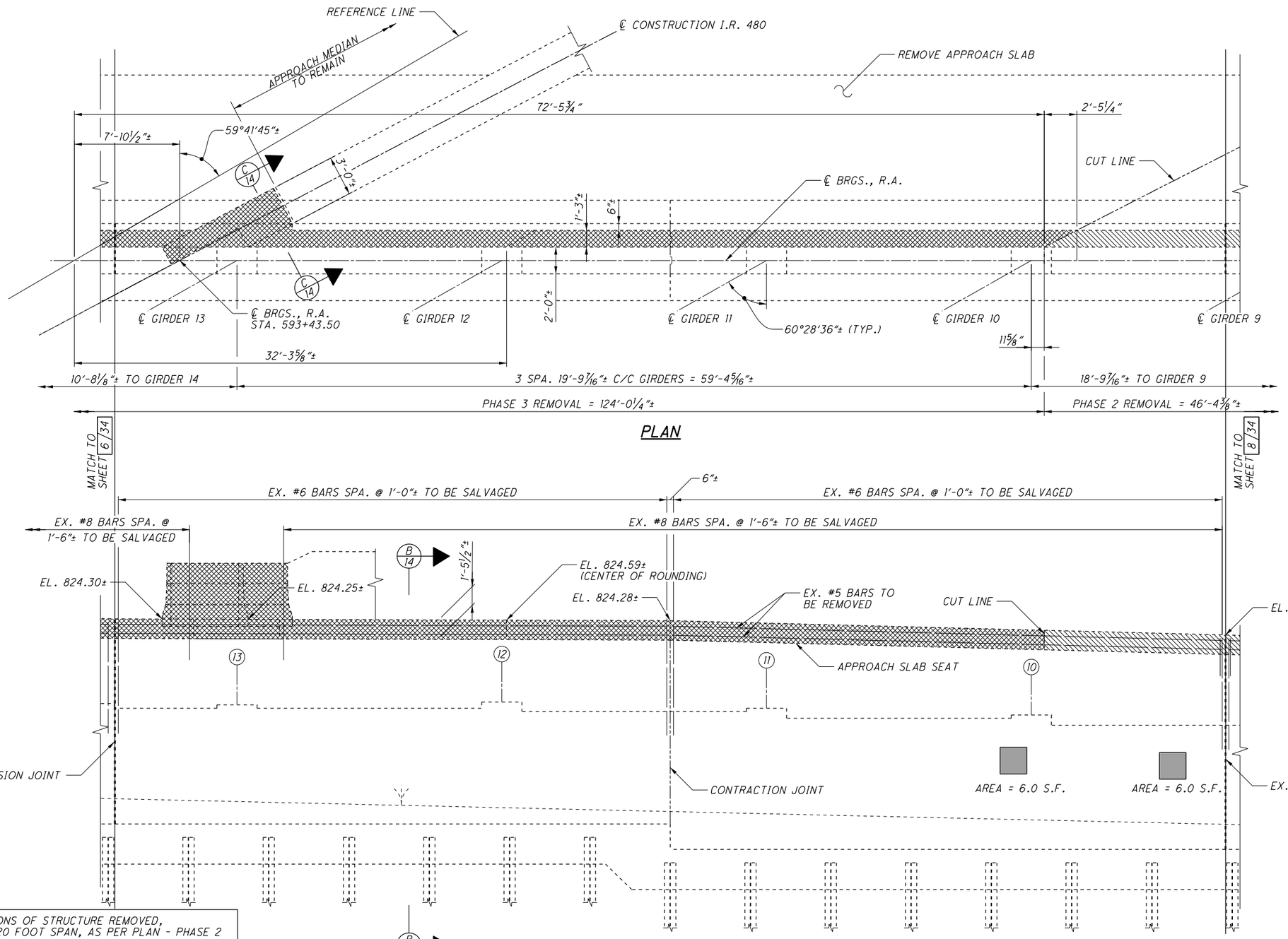
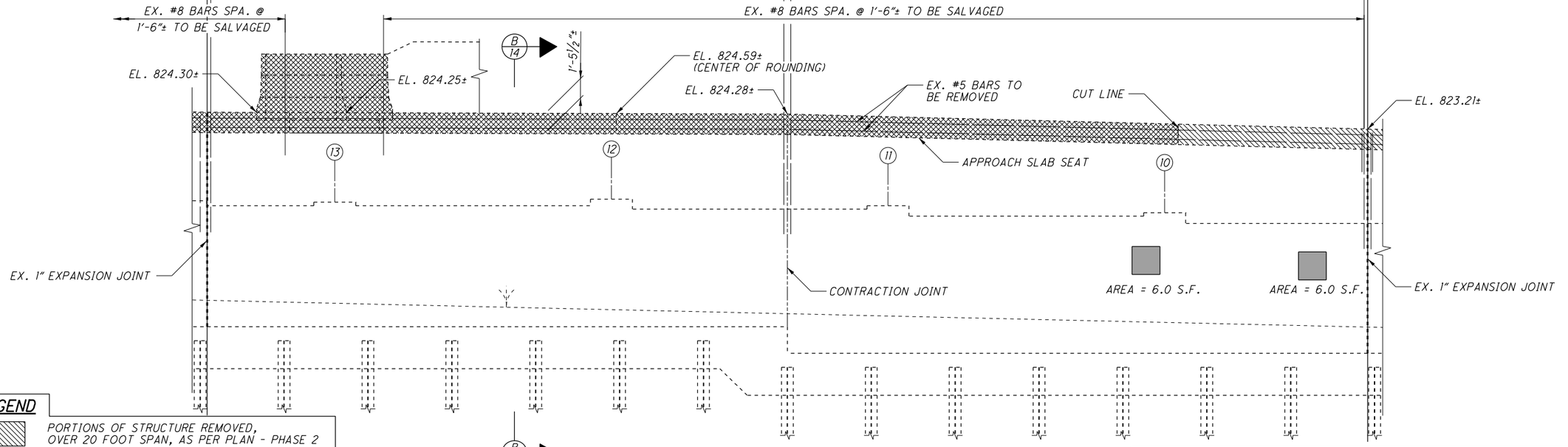


PLAN



ELEVATION

LEGEND

- PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN - PHASE 2
- PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN - PHASE 3
- INDICATES CONCRETE REPAIR PER ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN. TOTAL AREA THIS SHEET = 22.0 S.F. THIS AREA INCLUDES A CONTINGENCY QUANTITY OF 10 S.F. FOR THE BACKWALL. AT THE TIME OF INSPECTION, THE BACKWALL WAS COVERED WITH A NEOPRENE CURTAIN.

  ALL PATCHES SHALL BE SEALED 6" BEYOND THE PATCHING LIMITS USING EPOXY-URETHANE AND SHALL BE PAID WITH ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN. TOTAL SEALING AREA THIS SHEET = 33 S.F.
- (1) BEAM NUMBER

NOTES

1. ELEVATIONS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE VERIFIED BEFORE ORDERING EXPANSION JOINT MATERIALS.
2. PATCHING ESTIMATED QUANTITIES HAVE BEEN INCREASED BY 50% OVER MEASURED QUANTITIES TO ACCOUNT FOR ADDITIONAL DETERIORATION.
3. MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
4. PERFORM ONLY THE WORK AS INDICATED IN THE STRUCTURE DATA SHEET, FRAMED TEXT, AND/OR DESCRIBED IN THE GENERAL NOTES.

DESIGN AGENCY
CARPENTER MARTY transportation
6812 SINCLAIR DR. COLUMBUS, OH 43229
ENGINEERS CONSULTANTS

DESIGNED	DRAWN	REVIEWED	DATE
MTJ	MTJ	GDJ	8-11-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
STK		1812912	

REAR ABUTMENT REMOVAL DETAILS 3 - LOCATION 10

BRIDGE NO. CUY-480-1075
OVER CSX RAILROAD

D12-BH-FY2021(A) MISC
PID No. 103162

7 / 34

47 / 74

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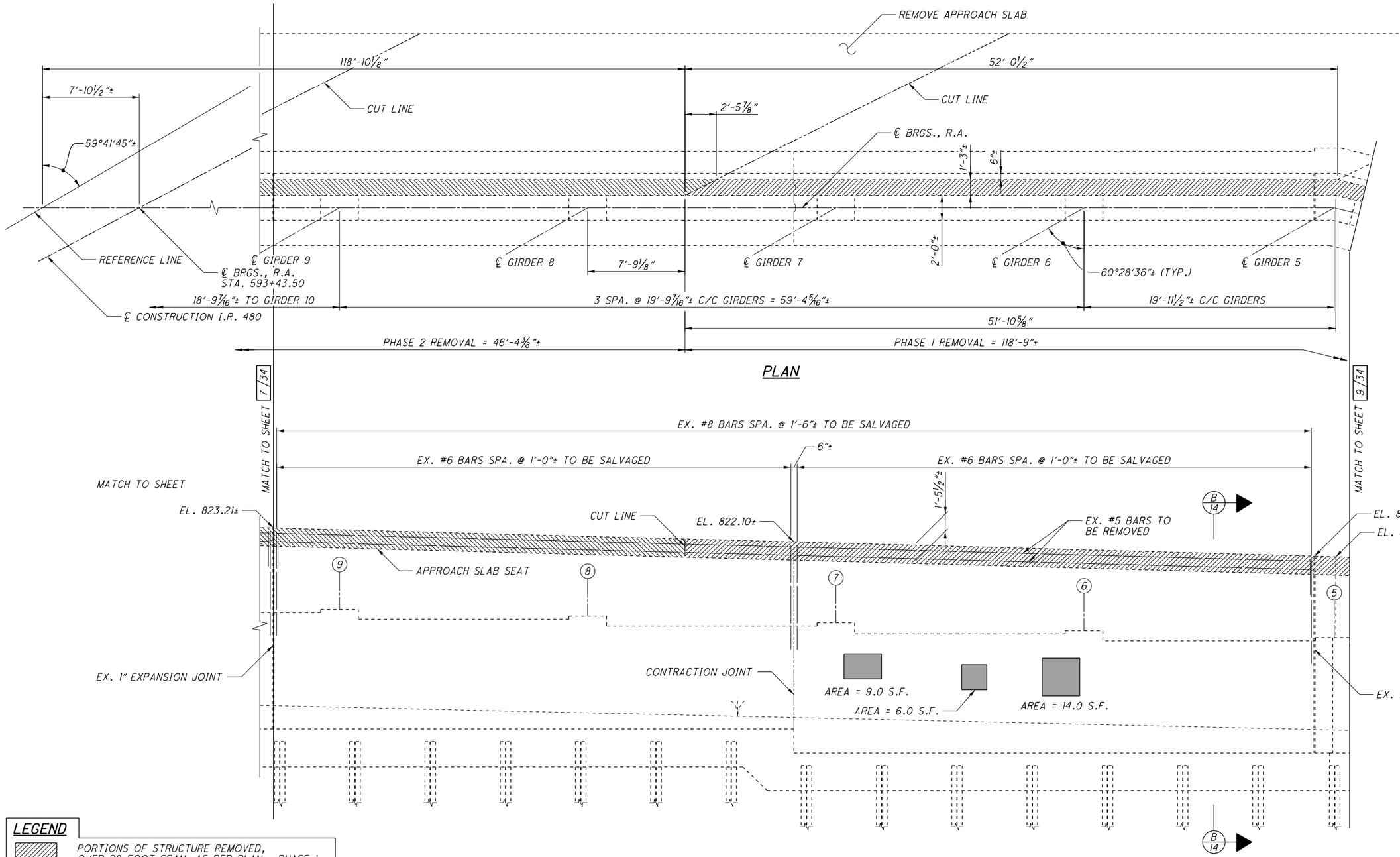

LEGEND

PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN - PHASE 1

PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN - PHASE 2

INDICATES CONCRETE REPAIR PER ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN. TOTAL AREA THIS SHEET = 39.0 S.F. THIS AREA INCLUDES A CONTINGENCY QUANTITY OF 10 S.F. FOR THE BACKWALL. AT THE TIME OF INSPECTION, THE BACKWALL WAS COVERED WITH A NEOPRENE CURTAIN.

ALL PATCHES SHALL BE SEALED 6" BEYOND THE PATCHING LIMITS USING EPOXY-URETHANE AND SHALL BE PAID WITH ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN. TOTAL SEALING AREA THIS SHEET = 58.5 S.F.

(1) BEAM NUMBER

NOTES

1. ELEVATIONS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE VERIFIED BEFORE ORDERING EXPANSION JOINT MATERIALS.
2. PATCHING ESTIMATED QUANTITIES HAVE BEEN INCREASED BY 50% OVER MEASURED QUANTITIES TO ACCOUNT FOR ADDITIONAL DETERIORATION.
3. MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
4. PERFORM ONLY THE WORK AS INDICATED IN THE STRUCTURE DATA SHEET, FRAMED TEXT, AND/OR DESCRIBED IN THE GENERAL NOTES.

DESIGN AGENCY
CARPENTER MARTY transportation
6812 SINGLETREE DR. COLUMBUS, OH 43229
ENGINEERS • CONSULTANTS

DESIGNED	DRAWN	REVIEWED	DATE
MTJ	MTJ	GDJ	8-11-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
STK		1812912	

REAR ABUTMENT REMOVAL DETAILS 4 - LOCATION 10

BRIDGE NO. CUY-480-1075
OVER CSX RAILROAD

D12-BH-FY2021(A) MISC
PID No. 103162

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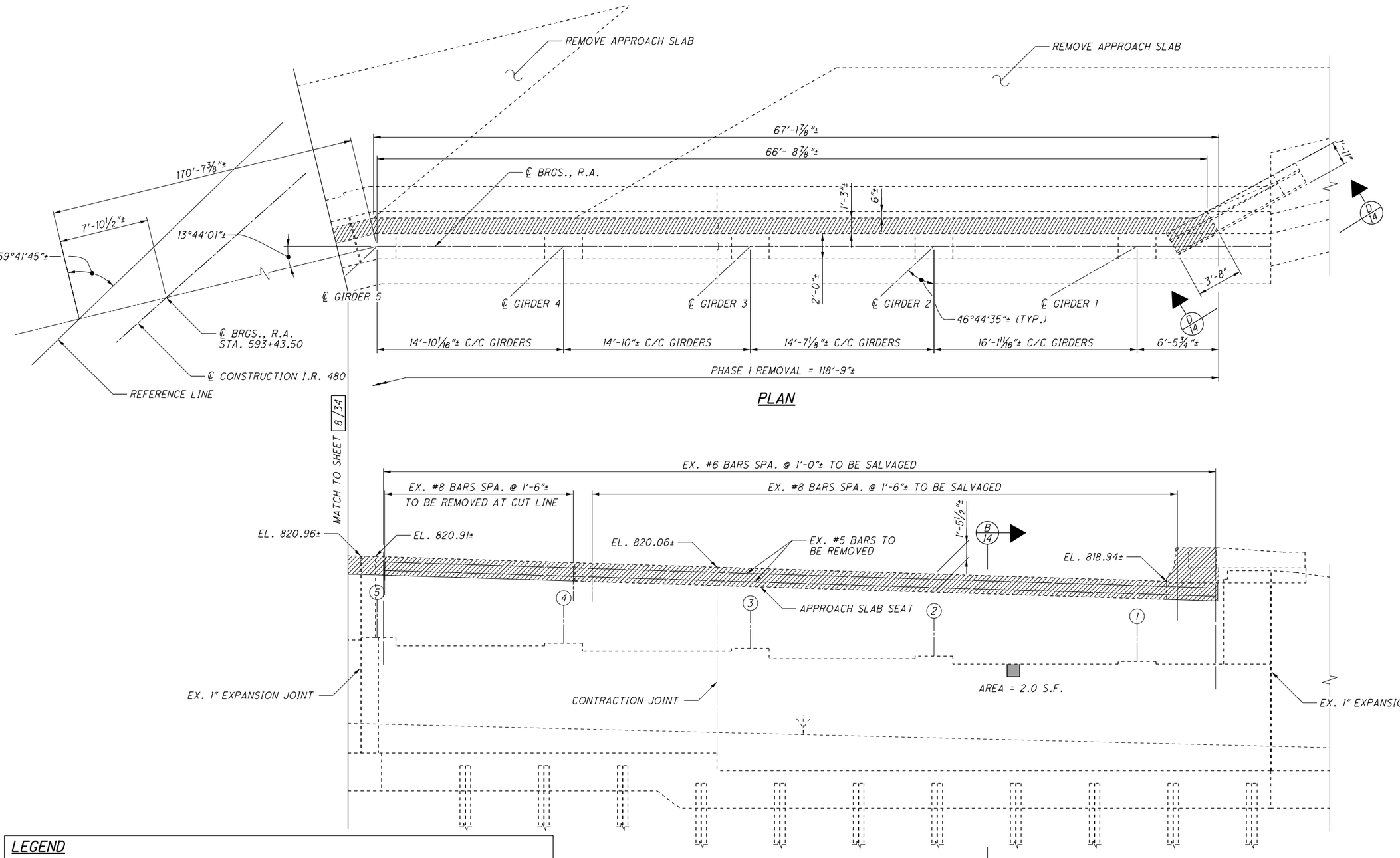

LEGEND

PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN - PHASE 1

INDICATES CONCRETE REPAIR PER ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN. TOTAL AREA THIS SHEET = 12.0 S.F. THIS AREA INCLUDES A CONTINGENCY QUANTITY OF 10 S.F. FOR THE BACKWALL. AT THE TIME OF INSPECTION, THE BACKWALL WAS COVERED WITH A NEOPRENE CURTAIN.

ALL PATCHES SHALL BE SEALED 6" BEYOND THE PATCHING LIMITS USING EPOXY-URETHANE AND SHALL BE PAID WITH ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN. TOTAL SEALING AREA THIS SHEET = 18 S.F.

(1) BEAM NUMBER

NOTES

1. ELEVATIONS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE VERIFIED BEFORE ORDERING EXPANSION JOINT MATERIALS.
2. PATCHING ESTIMATED QUANTITIES HAVE BEEN INCREASED BY 50% OVER MEASURED QUANTITIES TO ACCOUNT FOR ADDITIONAL DETERIORATION.
3. MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
4. PERFORM ONLY THE WORK AS INDICATED IN THE STRUCTURE DATA SHEET, FRAMED TEXT, AND/OR DESCRIBED IN THE GENERAL NOTES.

DESIGN AGENCY
CARPENTER MARTY transportation
6812 SINGLETREE DR. COLUMBUS, OH 43229
ENGINEERS CONSULTANTS

DESIGNED	DRAWN	REVIEWED	DATE
MTJ	MTJ	GDJ	8-11-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
STK		1812912	

REAR ABUTMENT REMOVAL DETAILS 5 - LOCATION 10
BRIDGE NO. CUY-480-1075
OVER CSX RAILROAD

D12-BH-FY2021(A) MISC
PID No. 103162

9 / 34

49 / 74

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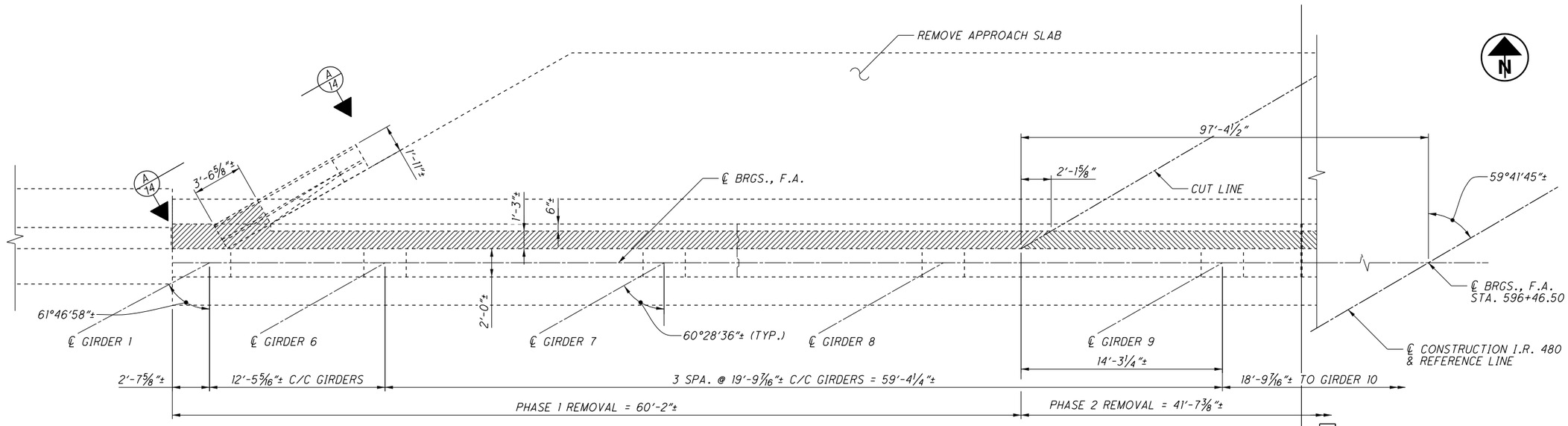
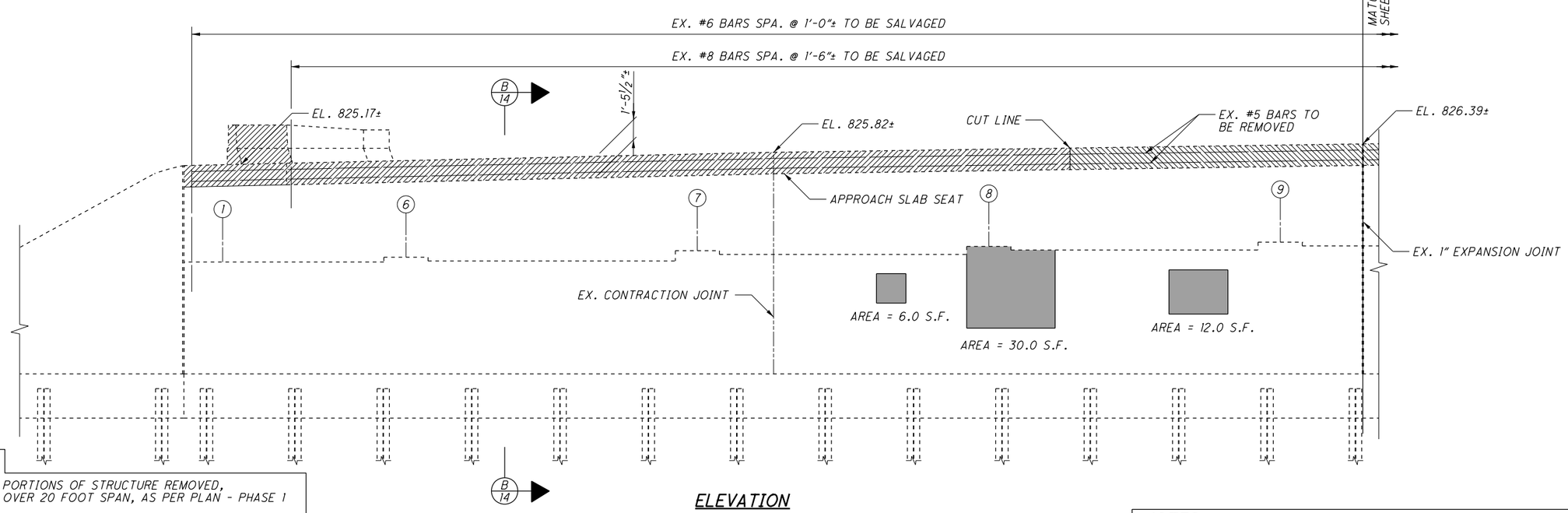


PLAN



ELEVATION

LEGEND

- PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN - PHASE 1
- PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN - PHASE 2
- INDICATES CONCRETE REPAIR PER ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN. TOTAL AREA THIS SHEET = 58.0 S.F. THIS AREA INCLUDES A CONTINGENCY QUANTITY OF 10 S.F. FOR THE BACKWALL. AT THE TIME OF INSPECTION, THE BACKWALL WAS COVERED WITH A NEOPRENE CURTAIN.

ALL PATCHES SHALL BE SEALED 6" BEYOND THE PATCHING LIMITS USING EPOXY-URETHANE AND SHALL BE PAID WITH ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN. TOTAL SEALING AREA THIS SHEET = 87 S.F.

(1) BEAM NUMBER

NOTES

1. ELEVATIONS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE VERIFIED BEFORE ORDERING EXPANSION JOINT MATERIALS.
2. PATCHING ESTIMATED QUANTITIES HAVE BEEN INCREASED BY 50% OVER MEASURED QUANTITIES TO ACCOUNT FOR ADDITIONAL DETERIORATION.
3. MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
4. PERFORM ONLY THE WORK AS INDICATED IN THE STRUCTURE DATA SHEET, FRAMED TEXT, AND/OR DESCRIBED IN THE GENERAL NOTES.

DESIGN AGENCY
CARPENTER MARTY transportation
6812 SINGLETREE DR. COLUMBUS, OH 43229
ENGINEERS • CONSULTANTS

DESIGNED	DRAWN	REVIEWED	DATE
MTJ	MTJ	GDJ	8-12-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
STK		1812912	

FORWARD ABUTMENT REMOVAL DETAILS 1 - LOCATION 10

BRIDGE NO. CUY-480-1075
OVER CSX RAILROAD

D12-BH-FY2021(A) MISC
PID No. 103162

10 / 34

50 / 74

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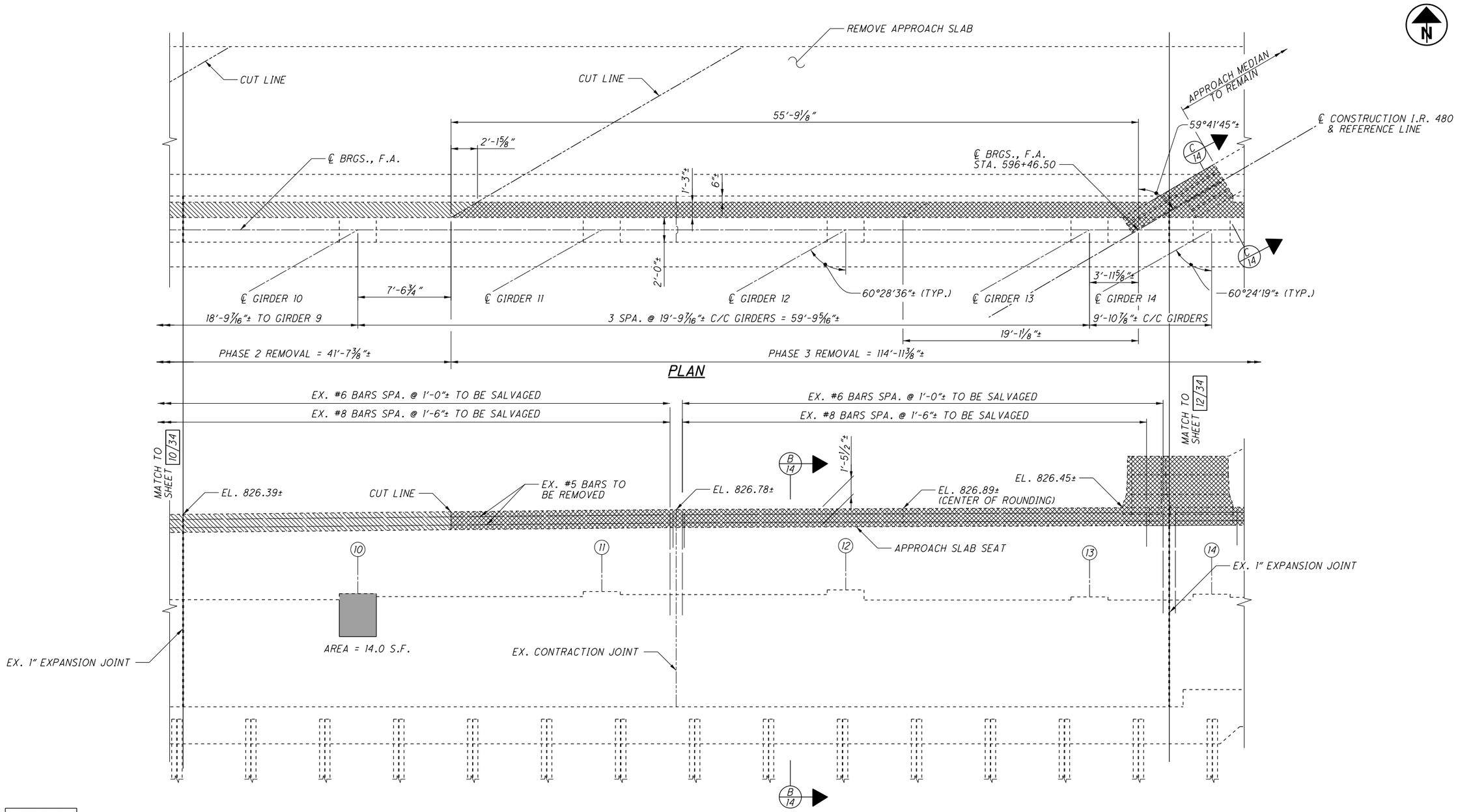

LEGEND

PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN - PHASE 2

PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN - PHASE 3

INDICATES CONCRETE REPAIR PER ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN. TOTAL AREA THIS SHEET = 24.0 S.F. THIS AREA INCLUDES A CONTINGENCY QUANTITY OF 10 S.F. FOR THE BACKWALL. AT THE TIME OF INSPECTION, THE BACKWALL WAS COVERED WITH A NEOPRENE CURTAIN.

ALL PATCHES SHALL BE SEALED 6" BEYOND THE PATCHING LIMITS USING EPOXY-URETHANE AND SHALL BE PAID WITH ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN. TOTAL SEALING AREA THIS SHEET = 36 S.F.

BEAM NUMBER

NOTES

1. ELEVATIONS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE VERIFIED BEFORE ORDERING EXPANSION JOINT MATERIALS.
2. PATCHING ESTIMATED QUANTITIES HAVE BEEN INCREASED BY 50% OVER MEASURED QUANTITIES TO ACCOUNT FOR ADDITIONAL DETERIORATION.
3. MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
4. PERFORM ONLY THE WORK AS INDICATED IN THE STRUCTURE DATA SHEET, FRAMED TEXT, AND/OR DESCRIBED IN THE GENERAL NOTES.

DESIGN AGENCY
CARPENTER MARTY transportation
6612 SINGLETREE DR. COLUMBUS, OH 43229
ENGINEERS • CONSULTANTS

DESIGNED	DRAWN	REVIEWED	DATE
MTJ	MTJ	GDJ	8-12-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
STK		1812912	

FORWARD ABUTMENT REMOVAL DETAILS 2 - LOCATION 10
BRIDGE NO. CUY-480-1075
OVER CSX RAILROAD

D12-BH-FY2021(A) MISC
PID No. 103162

11 / 34

51 / 74

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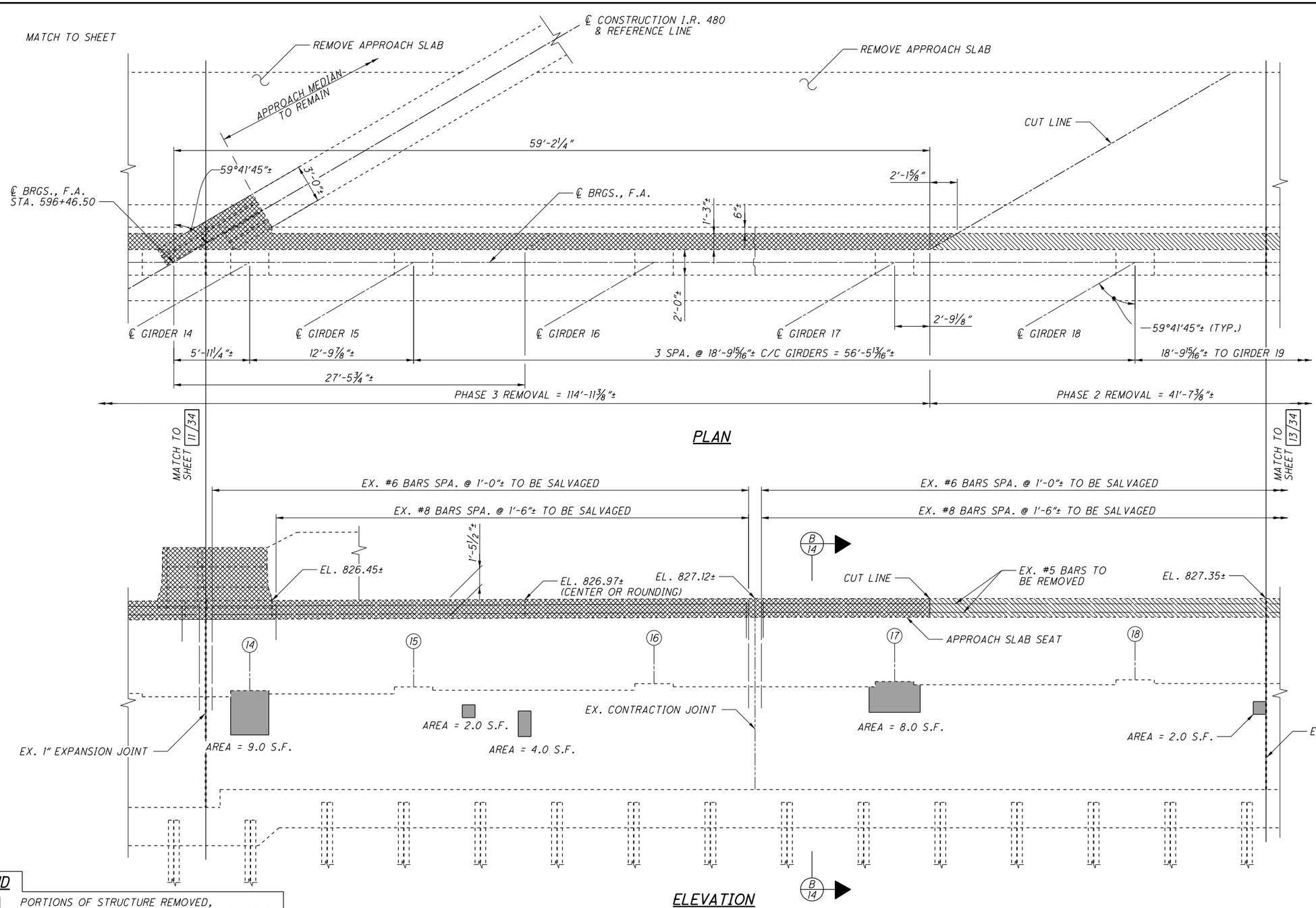

LEGEND

PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN - PHASE 2

PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN - PHASE 3

INDICATES CONCRETE REPAIR PER ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN. TOTAL AREA THIS SHEET = 35.0 S.F. THIS AREA INCLUDES A CONTINGENCY QUANTITY OF 10 S.F. FOR THE BACKWALL. AT THE TIME OF INSPECTION, THE BACKWALL WAS COVERED WITH A NEOPRENE CURTAIN.

ALL PATCHES SHALL BE SEALED 6" BEYOND THE PATCHING LIMITS USING EPOXY-URETHANE AND SHALL BE PAID WITH ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN. TOTAL SEALING AREA THIS SHEET = 52.5 S.F.

(1) BEAM NUMBER

NOTES

1. ELEVATIONS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE VERIFIED BEFORE ORDERING EXPANSION JOINT MATERIALS.
2. PATCHING ESTIMATED QUANTITIES HAVE BEEN INCREASED BY 50% OVER MEASURED QUANTITIES TO ACCOUNT FOR ADDITIONAL DETERIORATION.
3. MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
4. PERFORM ONLY THE WORK AS INDICATED IN THE STRUCTURE DATA SHEET, FRAMED TEXT, AND/OR DESCRIBED IN THE GENERAL NOTES.

DESIGN AGENCY
CARPENTER MARTY transportation
6812 SINGLETREE DR. COLUMBUS, OH 43229
ENGINEERS CONSULTANTS

DESIGNED	DRAWN	REVIEWED	DATE
MTJ	MTJ	GDJ	8-13-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
STK		1812912	

FORWARD ABUTMENT REMOVAL DETAILS 3 - LOCATION 10
BRIDGE NO. CUY-480-1075
OVER CSX RAILROAD

D12-BH-FY2021(A) MISC
PID No. 103162

12 / 34

52 / 74

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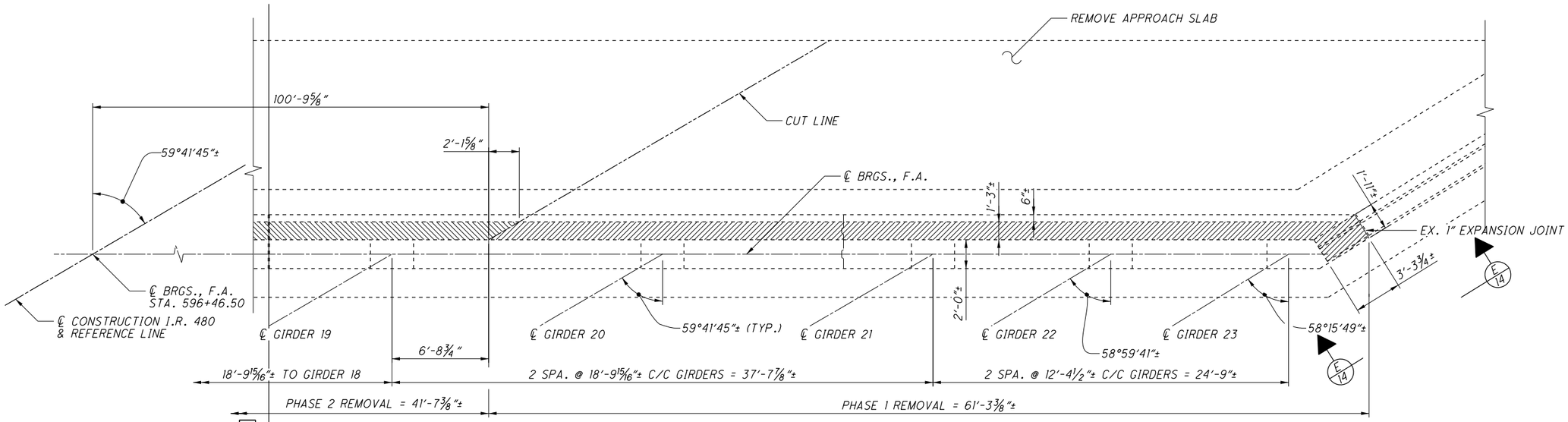
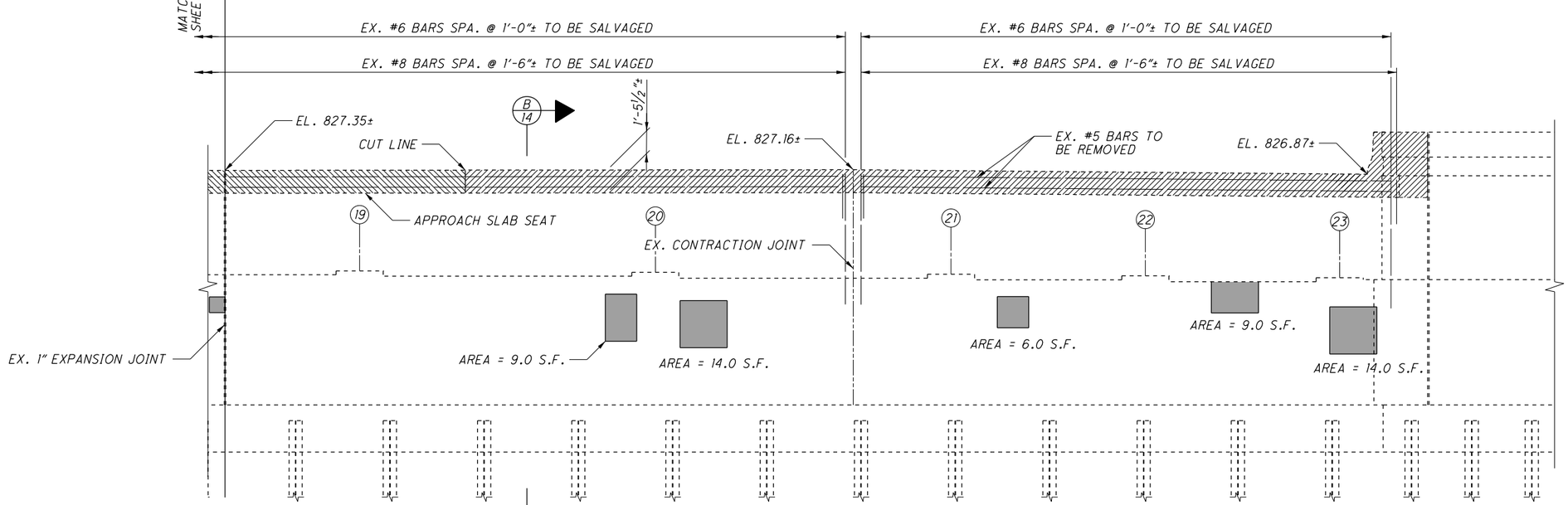


PLAN



ELEVATION

LEGEND

- PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN - PHASE 1
- PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN - PHASE 2
- INDICATES CONCRETE REPAIR PER ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN. TOTAL AREA THIS SHEET = 62.0 S.F. THIS AREA INCLUDES A CONTINGENCY QUANTITY OF 10 S.F. FOR THE BACKWALL. AT THE TIME OF INSPECTION, THE BACKWALL WAS COVERED WITH A NEOPRENE CURTAIN.

  ALL PATCHES SHALL BE SEALED 6" BEYOND THE PATCHING LIMITS USING EPOXY-URETHANE AND SHALL BE PAID WITH ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN. TOTAL SEALING AREA THIS SHEET = 93 S.F.
- (1) BEAM NUMBER

NOTES

1. ELEVATIONS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE VERIFIED BEFORE ORDERING EXPANSION JOINT MATERIALS.
2. PATCHING ESTIMATED QUANTITIES HAVE BEEN INCREASED BY 50% OVER MEASURED QUANTITIES TO ACCOUNT FOR ADDITIONAL DETERIORATION.
3. MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
4. PERFORM ONLY THE WORK AS INDICATED IN THE STRUCTURE DATA SHEET, FRAMED TEXT, AND/OR DESCRIBED IN THE GENERAL NOTES.

DESIGN AGENCY
CARPENTER MARTY transportation
6612 SINCLAIR DR. COLUMBUS, OH 43229
ARCHITECT CORPORATION

DESIGNED	DRAWN	REVIEWED	DATE
MTJ	MTJ	GDJ	8-13-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
STK		1812912	

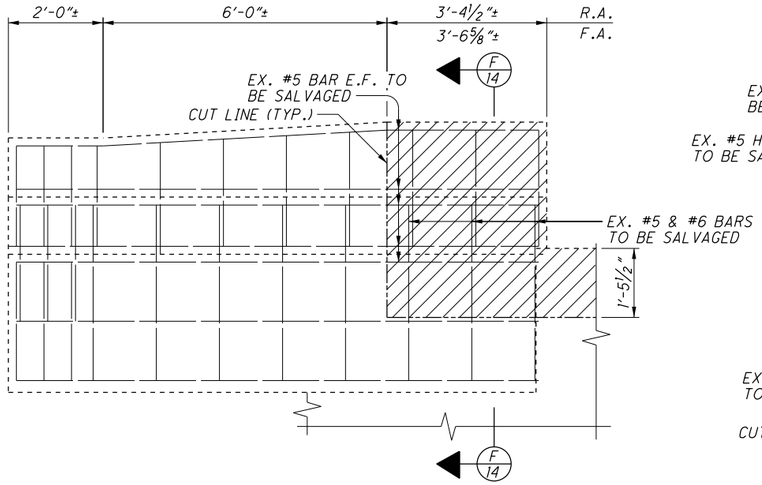
FORWARD ABUTMENT REMOVAL DETAILS 4 - LOCATION 10

BRIDGE NO. CUY-480-1075
OVER CSX RAILROAD

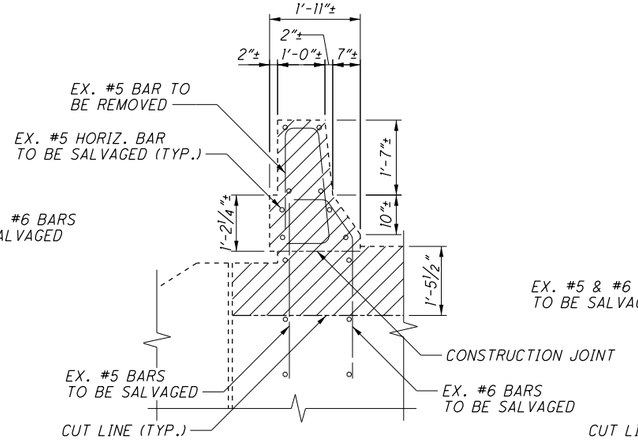
D12-BH-FY2021(A) MISC
PID No. 103162

13 / 34

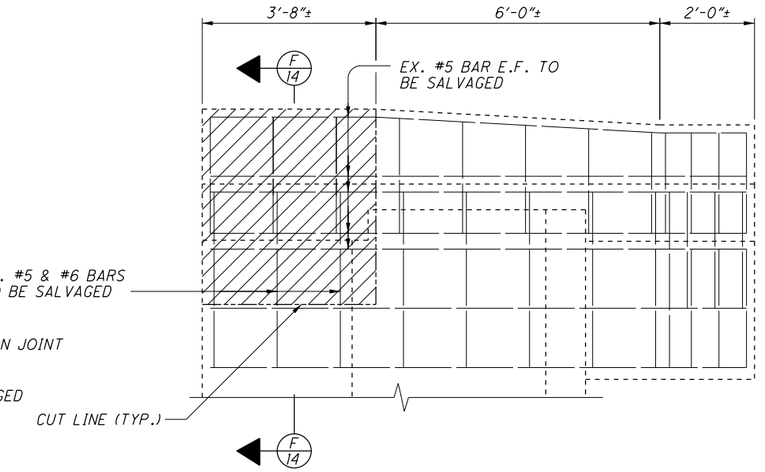
53 / 74



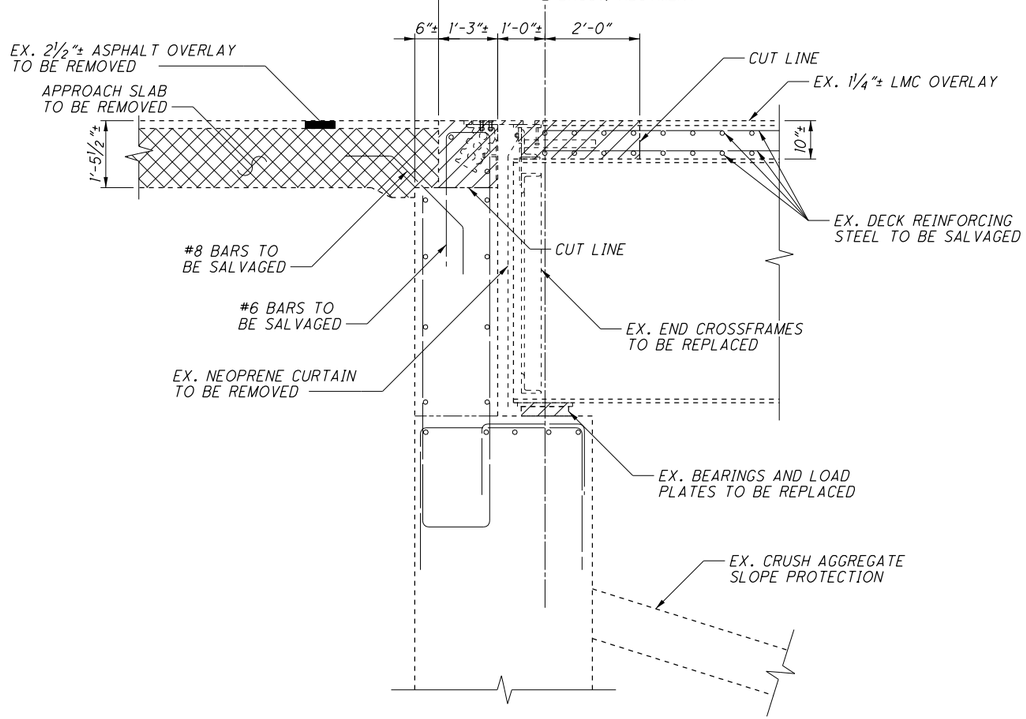
A 5 / A 10 VIEW



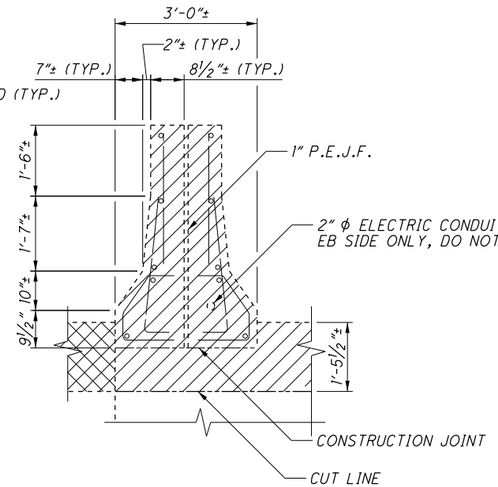
F 14 SECTION
R.A. RIGHT SHOWN, OTHERS ARE SIMILAR



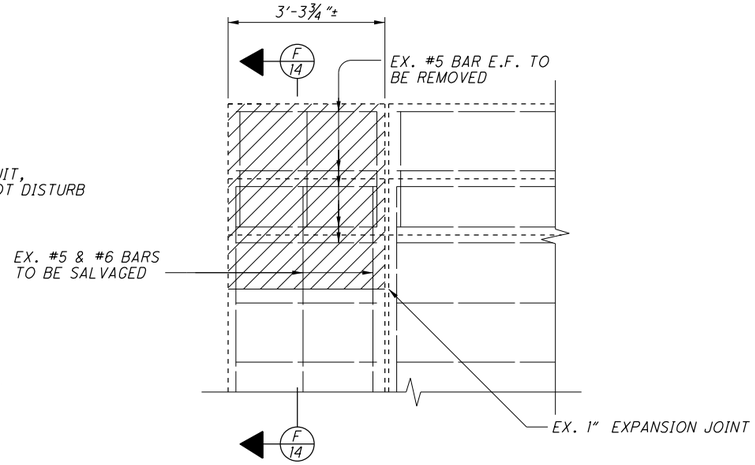
D 9 VIEW



B 5 / B 6 / B 7 / B 8 / B 9 / B 10 / B 11 / B 12 / B 13 SECTION



C 7 / C 11 SECTION



E 13 VIEW

LEGEND

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

APPROACH SLAB REMOVED

E.F. - EACH FACE

DESIGN AGENCY
CARPENTER MARTY transportation
6812 SINCLAIR DR. COLUMBUS, OH 43229
ENGINEERS • CONSULTANTS

DESIGNED	DRAWN	REVIEWED	DATE
MTJ	MTJ	GDJ	8-13-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
STK		181291	

ABUTMENT REMOVAL DETAILS- LOCATION 10
BRIDGE NO. CUY-480-1075
OVER CSX RAILROAD

D12-BH-FY2021(A) MISC
PID No. 103162

14 / 34

54 / 74

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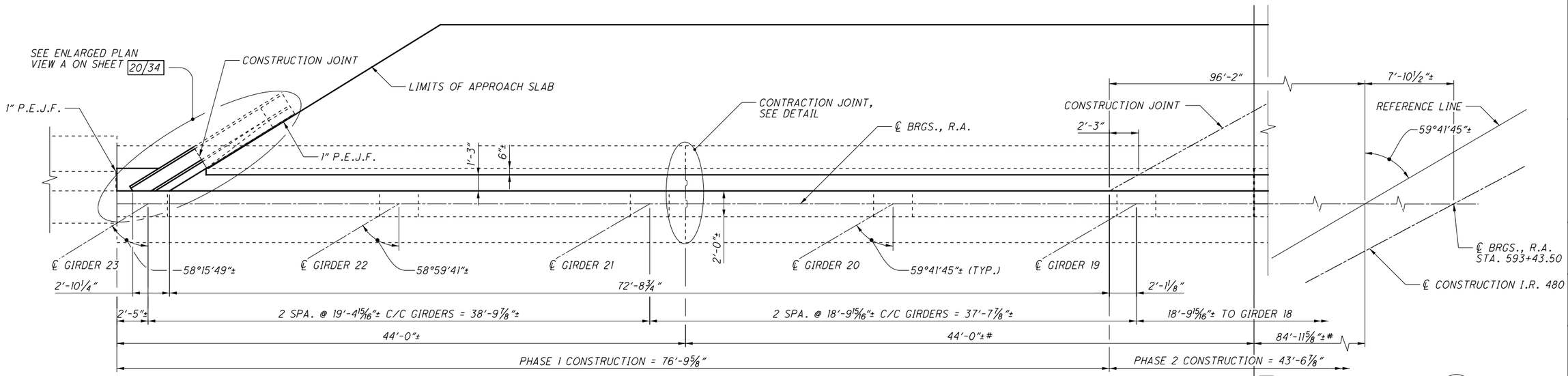
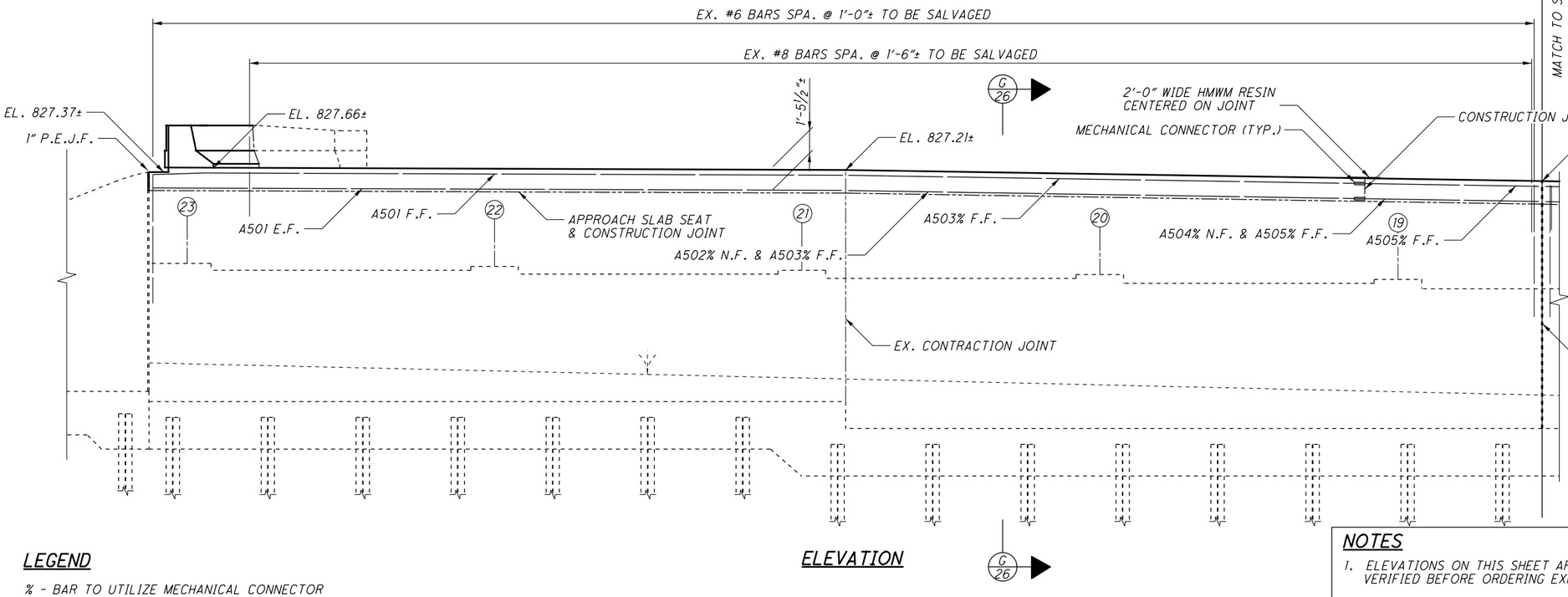
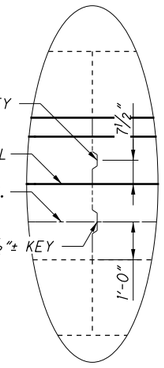


PLAN



ELEVATION



CONTRACTION JOINT DETAIL

LEGEND

% - BAR TO UTILIZE MECHANICAL CONNECTOR

- MEASURED TO CENTERLINE OF EXPANSION JOINT

N.F. - NEAR FACE

F.F. - FAR FACE

E.F. - EACH FACE

NOTES

1. ELEVATIONS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE VERIFIED BEFORE ORDERING EXPANSION JOINT MATERIALS.
2. MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
3. PERFORM ONLY THE WORK AS INDICATED IN THE STRUCTURE DATA SHEET, FRAMED TEXT, AND/OR DESCRIBED IN THE GENERAL NOTES.
4. PAYMENT FOR HMWM RESIN TO BE INCLUDED WITH ITEM 511, CLASS QCI CONCRETE, ABUTMENT NOT INCLUDING FOOTING.

DESIGN AGENCY
CARPENTER MARTY transportation
6812 SINCLAIR DR. COLUMBUS, OH 43229
ENGINEERS CONSULTANTS

DESIGNED	DRAWN	REVIEWED	DATE
MTJ	MTJ	GDJ	8-13-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
STK		1812912	

REAR ABUTMENT DETAILS 1 - LOCATION 10

BRIDGE NO. CUY-480-1075
OVER CSX RAILROAD

D12-BH-FY2021(A) MISC
PID No. 103162

15 / 34

55 / 74

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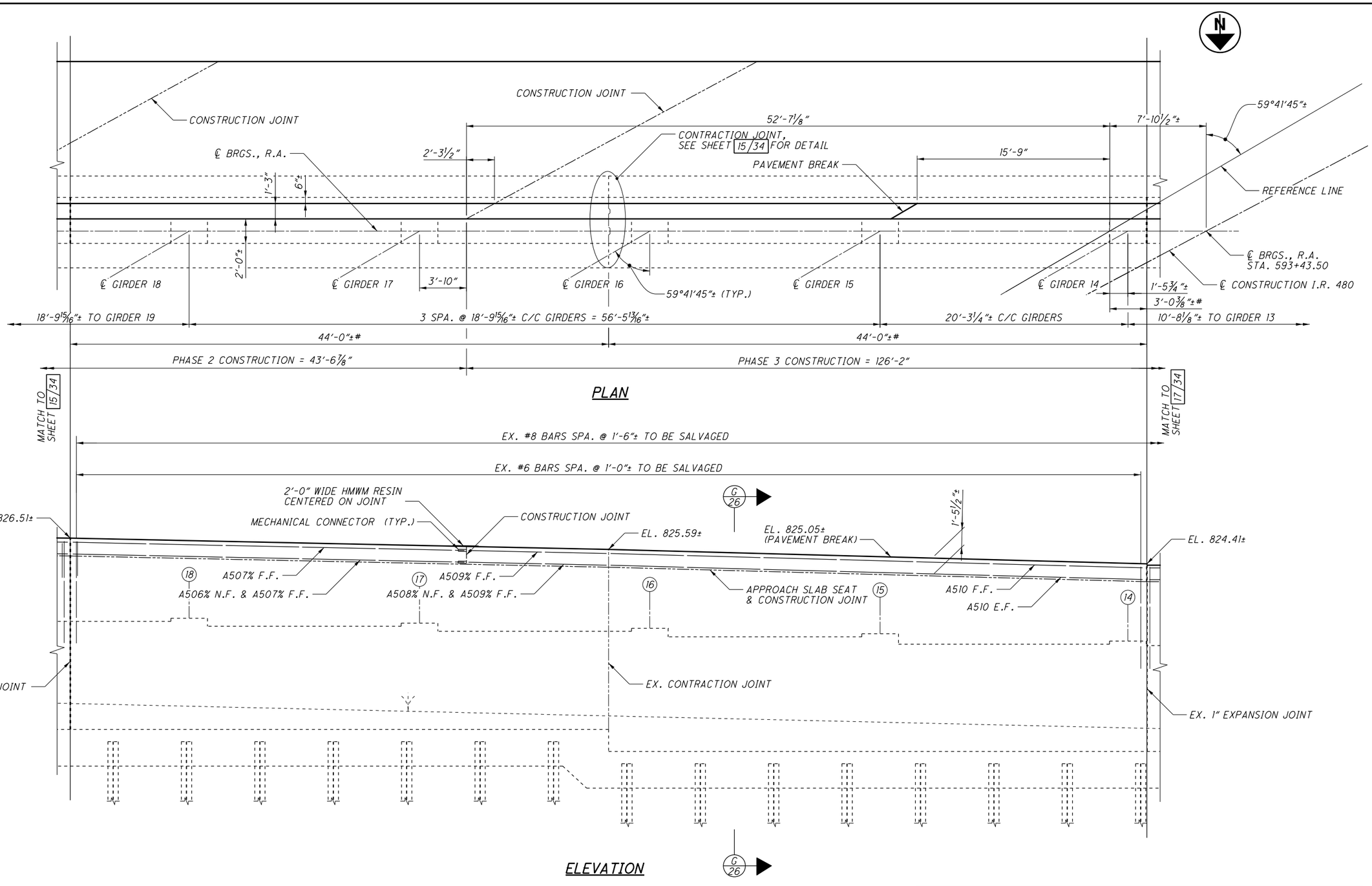

PLAN

ELEVATION

LEGEND

% - BAR TO UTILIZE MECHANICAL CONNECTOR

- MEASURED TO CENTERLINE OF EXPANSION JOINT

N.F. - NEAR FACE

F.F. - FAR FACE

E.F. - EACH FACE

NOTES

1. ELEVATIONS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE VERIFIED BEFORE ORDERING EXPANSION JOINT MATERIALS.
2. MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
3. PERFORM ONLY THE WORK AS INDICATED IN THE STRUCTURE DATA SHEET, FRAMED TEXT, AND/OR DESCRIBED IN THE GENERAL NOTES.
4. PAYMENT FOR HMWM RESIN TO BE INCLUDED WITH ITEM 511, CLASS QCI CONCRETE, ABUTMENT NOT INCLUDING FOOTING.

DESIGN AGENCY
CARPENTER MARTY transportation
6812 SINGLETREE DR. COLUMBUS, OH 43229
ENGINEERS CONSULTANTS

DESIGNED	DRAWN	REVIEWED	DATE
MTJ	MTJ	GDJ	8-13-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
STK		1812912	

REAR ABUTMENT DETAILS 2 - LOCATION 10

BRIDGE NO. CUY-480-1075
OVER CSX RAILROAD

D12-BH-FY2021(A) MISC

PID No. 103162

16 / 34

56 / 74

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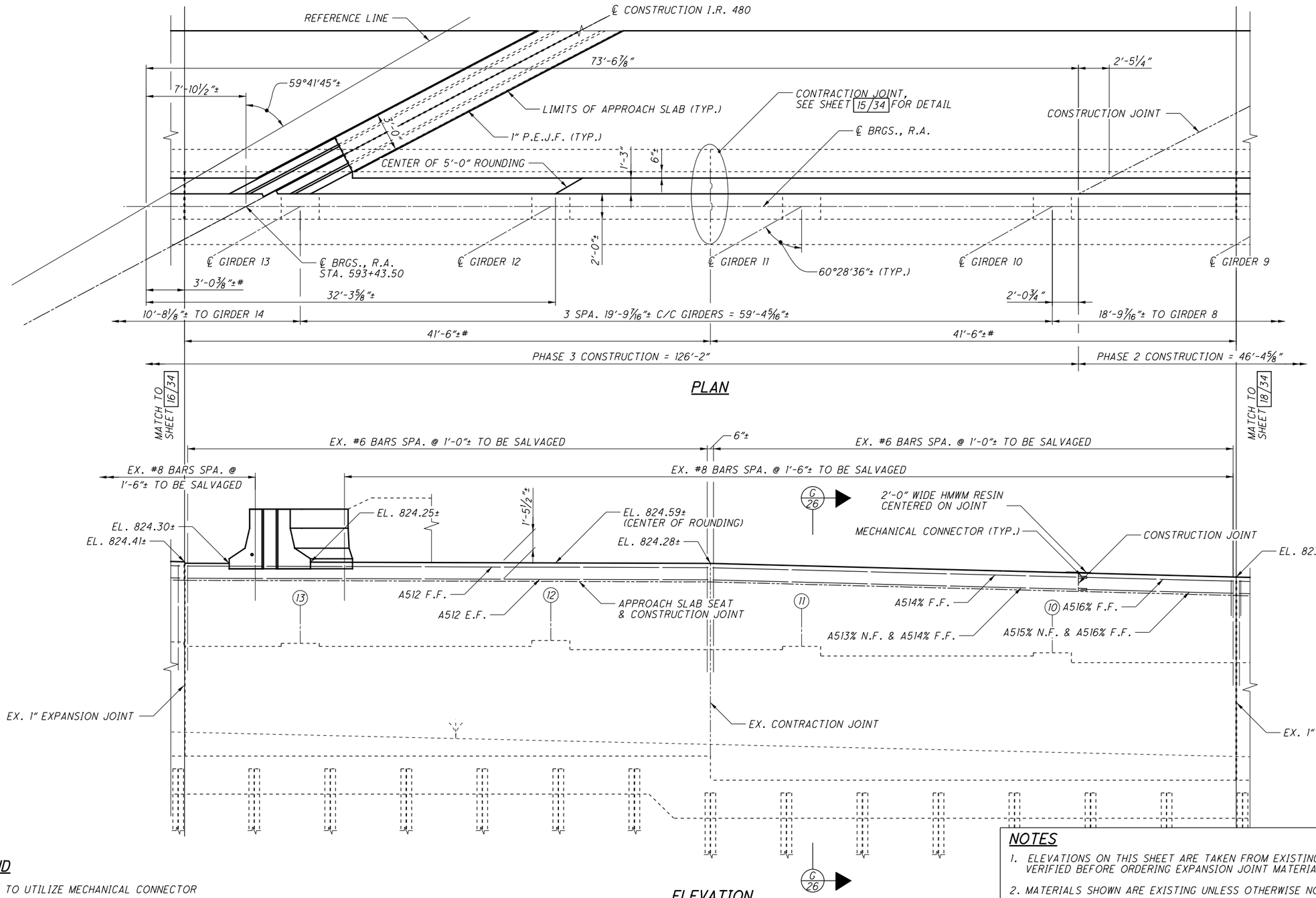

LEGEND

% - BAR TO UTILIZE MECHANICAL CONNECTOR

- MEASURED TO CENTERLINE OF EXPANSION JOINT

N.F. - NEAR FACE

F.F. - FAR FACE

E.F. - EACH FACE

NOTES

1. ELEVATIONS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE VERIFIED BEFORE ORDERING EXPANSION JOINT MATERIALS.
2. MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
3. PERFORM ONLY THE WORK AS INDICATED IN THE STRUCTURE DATA SHEET, FRAMED TEXT, AND/OR DESCRIBED IN THE GENERAL NOTES.
4. PAYMENT FOR HMWM RESIN TO BE INCLUDED WITH ITEM 511, CLASS QCI CONCRETE, ABUTMENT NOT INCLUDING FOOTING.
5. SEE SHEET 26/34 FOR MEDIAN BARRIER DETAILS.

DESIGN AGENCY
CARPENTER MARTY transportation
6812 SINGLETREE DR. COLUMBUS, OH 43229
ARCHITECT CORPORATION

DESIGNED	DRAWN	REVIEWED	DATE
MTJ	MTJ	GDJ	8-13-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
STK		1812912	

REAR ABUTMENT DETAILS 3 - LOCATION 10

BRIDGE NO. CUY-480-1075
OVER CSX RAILROAD

D12-BH-FY2021(A) MISC
PID No. 103162

17 / 34

57 / 74

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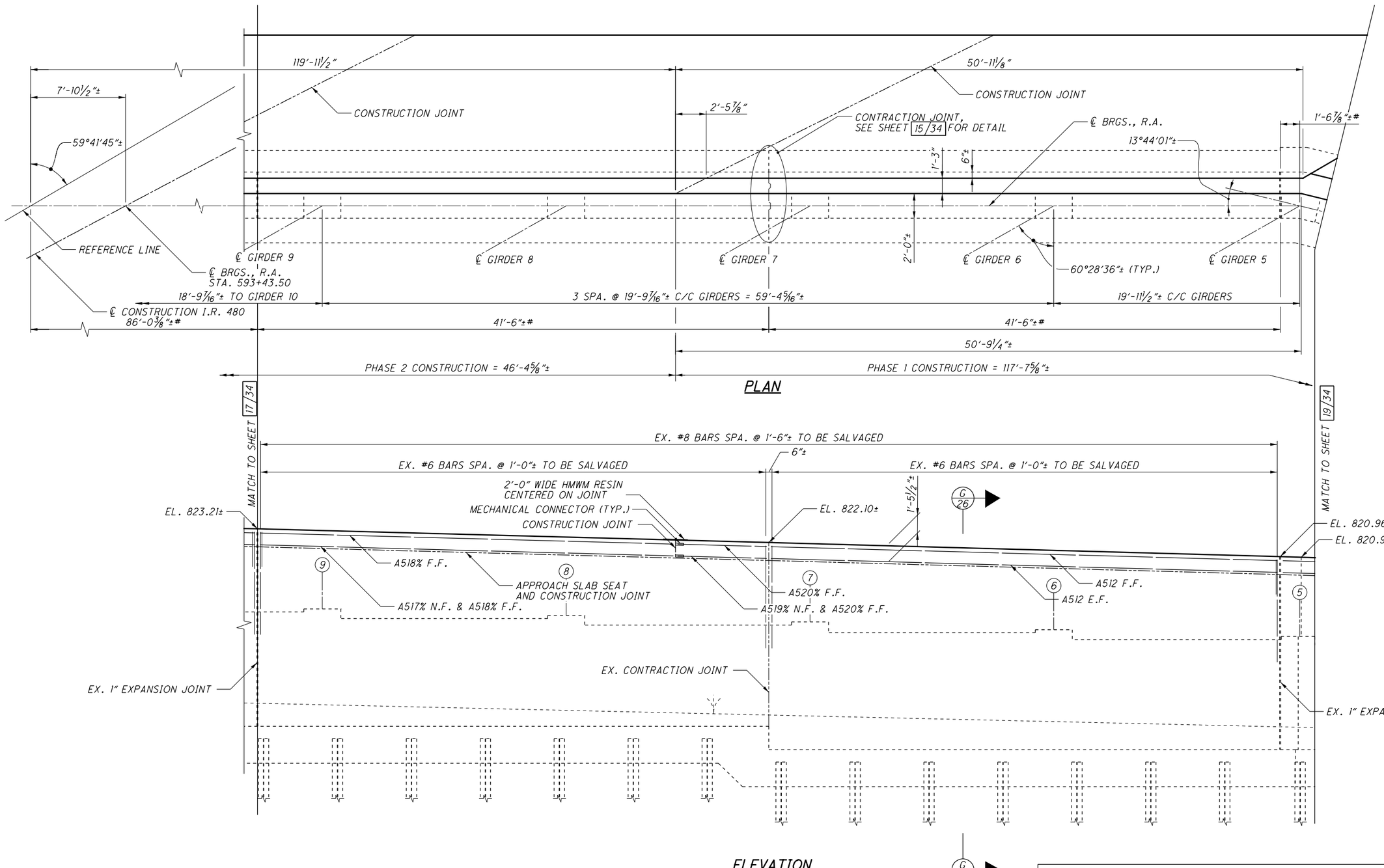

LEGEND

% - BAR TO UTILIZE MECHANICAL CONNECTOR

- MEASURED TO CENTERLINE OF EXPANSION JOINT

N.F. - NEAR FACE

F.F. - FAR FACE

E.F. - EACH FACE

NOTES

1. ELEVATIONS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE VERIFIED BEFORE ORDERING EXPANSION JOINT MATERIALS.
2. MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
3. PERFORM ONLY THE WORK AS INDICATED IN THE STRUCTURE DATA SHEET, FRAMED TEXT, AND/OR DESCRIBED IN THE GENERAL NOTES.
4. PAYMENT FOR HMWM RESIN TO BE INCLUDED WITH ITEM 511, CLASS QC1 CONCRETE, ABUTMENT NOT INCLUDING FOOTING.

DESIGN AGENCY
CARPENTER MARTY transportation
6812 SINGLETREE DR. COLUMBUS, OH 43229
ENGINEERS • CONSULTANTS

DESIGNED	DRAWN	REVIEWED	DATE
MTJ	MTJ	GDJ	8-13-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
STK		1812912	

REAR ABUTMENT DETAILS 4 - LOCATION 10

BRIDGE NO. CUY-480-1075
OVER CSX RAILROAD

D12-BH-FY2021(A) MISC
PID No. 103162

18 / 34

58 / 74

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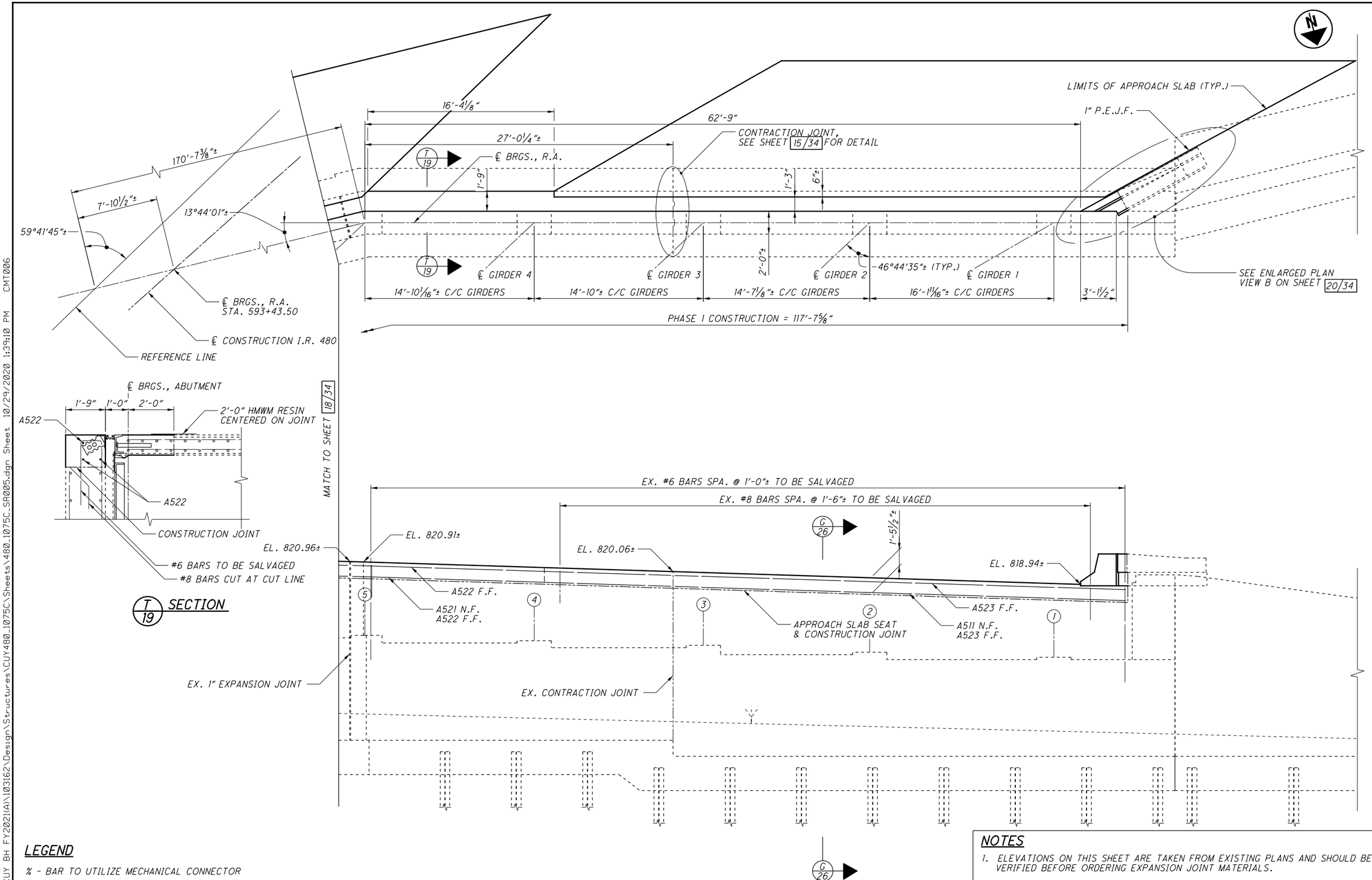

T 19 SECTION

LEGEND

% - BAR TO UTILIZE MECHANICAL CONNECTOR

- MEASURED TO CENTERLINE OF EXPANSION JOINT

E.F. - EACH FACE

F.F. - FAR FACE

NOTES

1. ELEVATIONS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE VERIFIED BEFORE ORDERING EXPANSION JOINT MATERIALS.
2. MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
3. PERFORM ONLY THE WORK AS INDICATED IN THE STRUCTURE DATA SHEET, FRAMED TEXT, AND/OR DESCRIBED IN THE GENERAL NOTES.
4. PAYMENT FOR HMWM RESIN TO BE INCLUDED WITH ITEM 511, CLASS QCI CONCRETE, ABUTMENT NOT INCLUDING FOOTING.

DESIGN AGENCY
CARPENTER MARTY transportation
6812 SINGLETREE DR. COLUMBUS, OH 43229
ENGINEERS • CONSULTANTS

DESIGNED	DRAWN	REVIEWED	DATE
MTJ	MTJ	GDJ	8-16-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
STK		1812912	

REAR ABUTMENT DETAILS 5 - LOCATION 10

BRIDGE NO. CUY-480-1075
OVER CSX RAILROAD

D12-BH-FY2021(A) MISC
PID No. 103162

19 / 34

59 / 74

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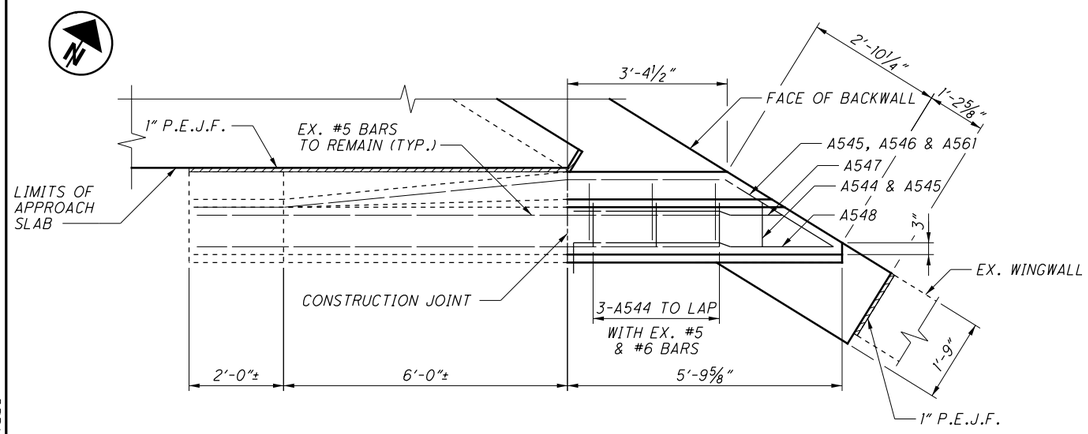
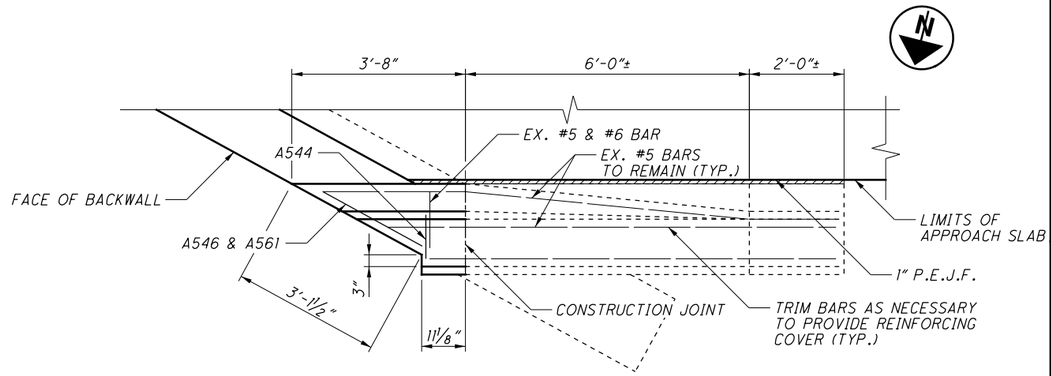


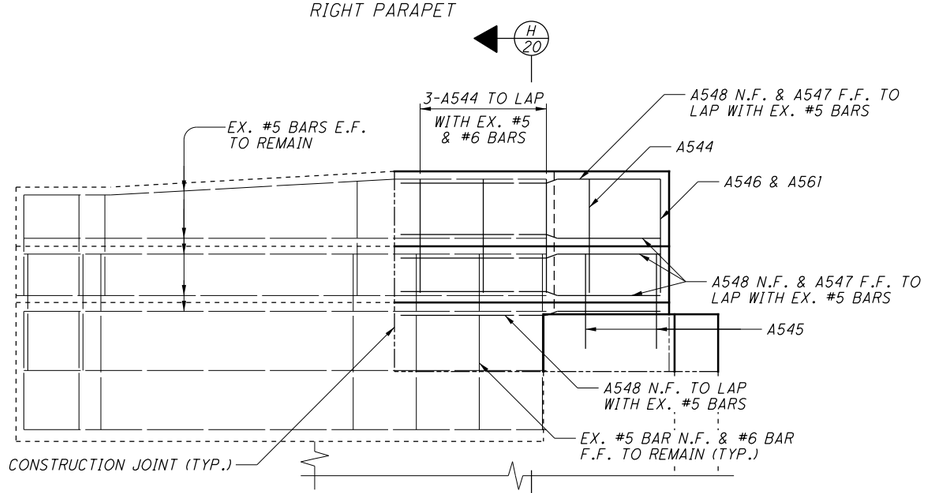
ENLARGED PLAN A

RIGHT PARAPET



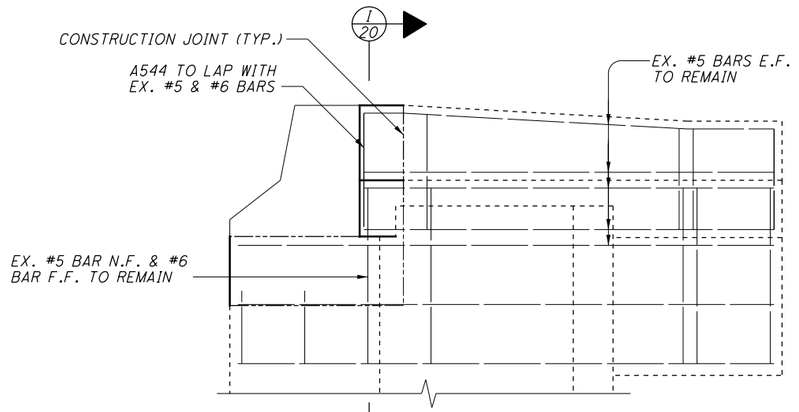
ENLARGED PLAN B

LEFT PARAPET



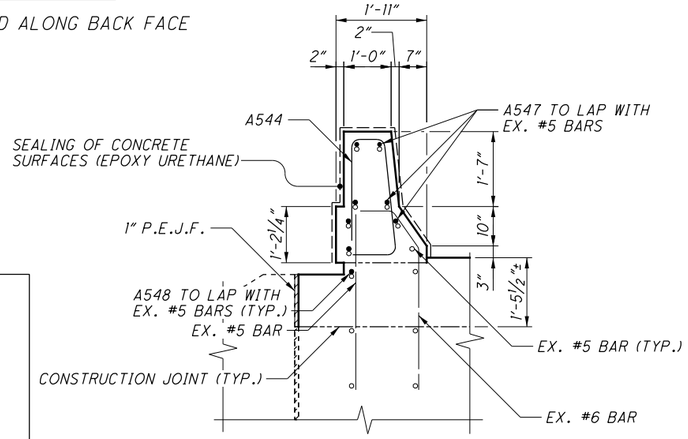
ELEVATION

VIEWED ALONG BACK FACE

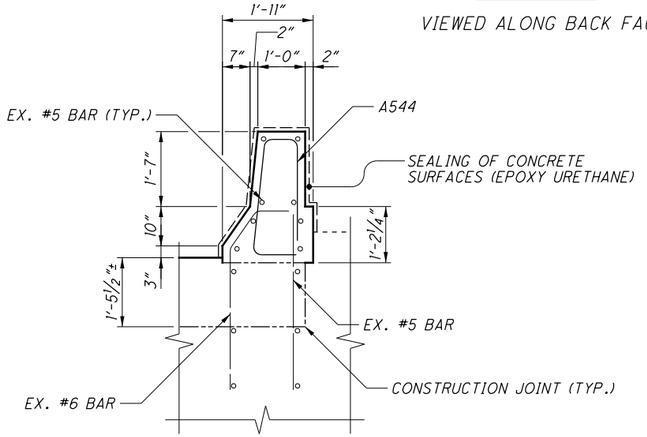


ELEVATION

VIEWED ALONG BACK FACE



H/20 SECTION



I/20 SECTION

LEGEND

N.F. - NEAR FACE

F.F. - FAR FACE

E.F. - EACH FACE

NOTES

1. EXISTING REINFORCING SHALL BE TRIMMED AS NECESSARY TO PROVIDE 2" COVER IN RELATION TO PROPOSED GEOMETRY. COAT TRIMMED ENDS PER C&MS 509.09. PAYMENT FOR TRIMMING AND COATING OF EXISTING REINFORCING STEEL SHALL BE MADE AT THE LUMP SUM PRICE BID OF ITEM 202, PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.

2. CONCRETE FOR PARAPETS SHALL BE CLASS QC2 CONCRETE AND INCLUDED FOR PAYMENT WITH ITEM 511, CLASS QC2 CONCRETE, SUPERSTRUCTURE.

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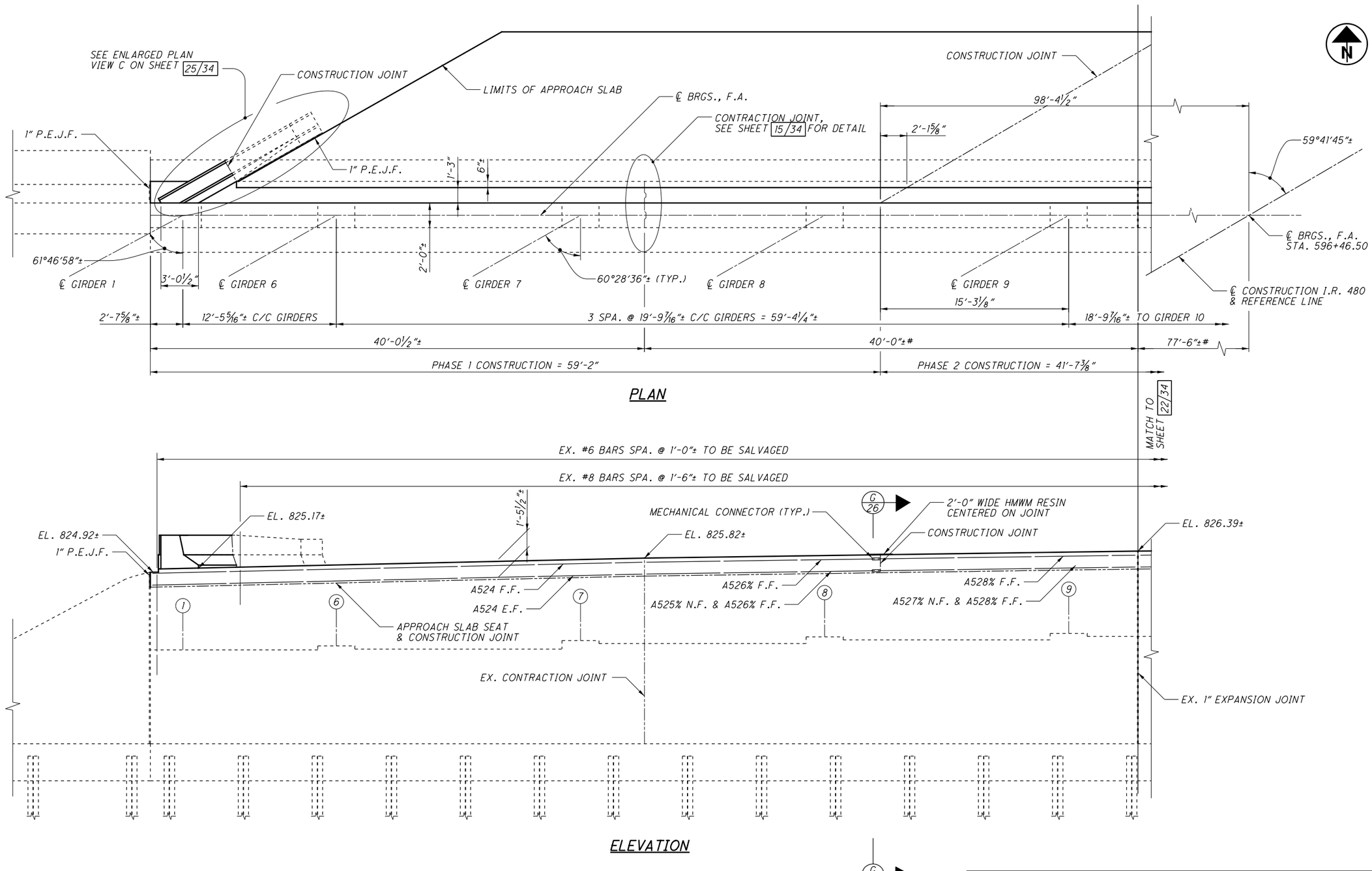
DESIGN AGENCY
CARPENTER MARTY transportation
6612 SINCLAIR DR. COLUMBUS, OH 43229
ARCHITECT CORPORATION

DESIGNED	DRAWN	REVIEWED	DATE
MTJ	MTJ	GDJ	8-17-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
STK		1812912	

REAR ABUTMENT PARAPET DETAILS- LOCATION 10

BRIDGE NO. CUY-480-1075
OVER CSX RAILROAD

D12-BH-FY2021(A) MISC
PID No. 103162



PLAN

ELEVATION

LEGEND

% - BAR TO UTILIZE MECHANICAL CONNECTOR

- MEASURED TO CENTERLINE OF EXPANSION JOINT

N.F. - NEAR FACE

F.F. - FAR FACE

E.F. - EACH FACE

NOTES

1. ELEVATIONS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE VERIFIED BEFORE ORDERING EXPANSION JOINT MATERIALS.
2. MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
3. PERFORM ONLY THE WORK AS INDICATED IN THE STRUCTURE DATA SHEET, FRAMED TEXT, AND/OR DESCRIBED IN THE GENERAL NOTES.
4. PAYMENT FOR HMWM RESIN TO BE INCLUDED WITH ITEM 511, CLASS QCI CONCRETE, ABUTMENT NOT INCLUDING FOOTING.

DESIGN AGENCY
CARPENTER MARTY transportation
6812 SINGLETREE DR. COLUMBUS, OH 43229
ENGINEERS • CONSULTANTS

DESIGNED	DRAWN	REVIEWED	DATE
MTJ	MTJ	GDJ	8-16-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
STK		1812912	

FORWARD ABUTMENT DETAILS 1 - LOCATION 10

BRIDGE NO. CUY-480-1075
OVER CSX RAILROAD

D12-BH-FY2021(A) MISC
PID No. 103162

21/34

61/74

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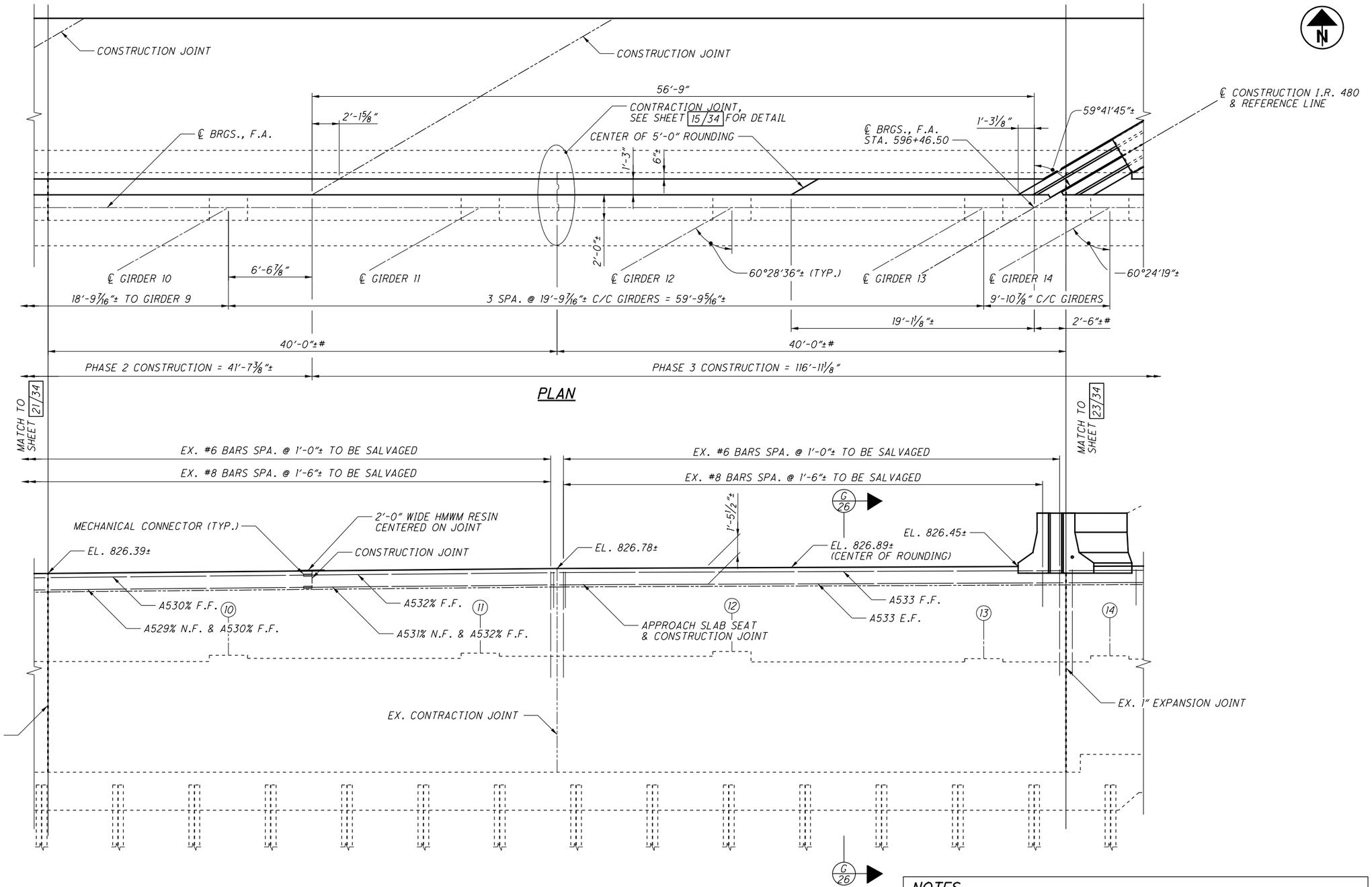

LEGEND

% - BAR TO UTILIZE MECHANICAL CONNECTOR

- MEASURED TO CENTERLINE OF EXPANSION JOINT

N.F. - NEAR FACE

F.F. - FAR FACE

E.F. - EACH FACE

NOTES

1. ELEVATIONS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE VERIFIED BEFORE ORDERING EXPANSION JOINT MATERIALS.
2. MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
3. PERFORM ONLY THE WORK AS INDICATED IN THE STRUCTURE DATA SHEET, FRAMED TEXT, AND/OR DESCRIBED IN THE GENERAL NOTES.
4. PAYMENT FOR HMWM RESIN TO BE INCLUDED WITH ITEM 511, CLASS QCI CONCRETE, ABUTMENT NOT INCLUDING FOOTING.
5. SEE SHEET 26/34 FOR MEDIAN BARRIER DETAILS.

DESIGN AGENCY
CARPENTER MARTY transportation
6812 SINCLAIRE DR. COLUMBUS, OH 43229
ENGINEERS • CONSULTANTS

DESIGNED	DRAWN	REVIEWED	DATE
MTJ	MTJ	GDJ	8-16-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
STK		181291	

FORWARD ABUTMENT DETAILS 2 - LOCATION 10

BRIDGE NO. CUY-480-1075
OVER CSX RAILROAD

D12-BH-FY2021(A) MISC
PID No. 103162

22/34

62/74

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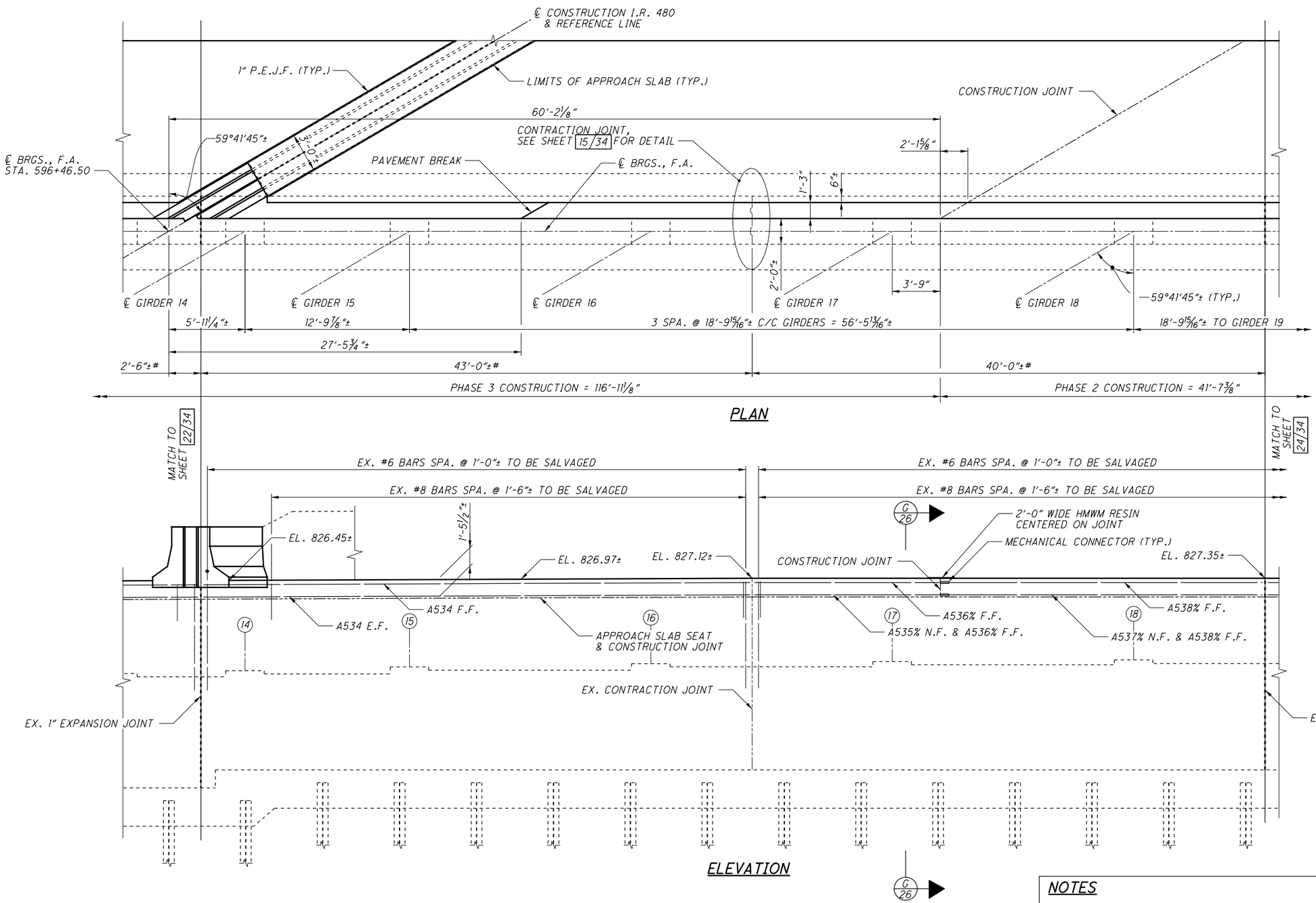

LEGEND

% - BAR TO UTILIZE MECHANICAL CONNECTOR

- MEASURED TO CENTERLINE OF EXPANSION JOINT

N.F. - NEAR FACE

F.F. - FAR FACE

E.F. - EACH FACE

NOTES

1. ELEVATIONS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE VERIFIED BEFORE ORDERING EXPANSION JOINT MATERIALS.
2. MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
3. PERFORM ONLY THE WORK AS INDICATED IN THE STRUCTURE DATA SHEET, FRAMED TEXT, AND/OR DESCRIBED IN THE GENERAL NOTES.
4. PAYMENT FOR HMWM RESIN TO BE INCLUDED WITH ITEM 511, CLASS QCI CONCRETE, ABUTMENT NOT INCLUDING FOOTING.
5. SEE SHEET 26/34 FOR MEDIAN BARRIER DETAILS.

DESIGN AGENCY
CARPENTER MARTY transportation
6812 SINGLETREE DR. COLUMBUS, OH 43229
ARCHITECT CORPORATION

DESIGNED	DRAWN	REVIEWED	DATE
MTJ	MTJ	GDJ	8-16-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
STK		1812912	

FORWARD ABUTMENT DETAILS 3 - LOCATION 10

BRIDGE NO. CUY-480-1075
OVER CSX RAILROAD

D12-BH-FY2021(A) MISC
PID No. 103162

23/34

63/74

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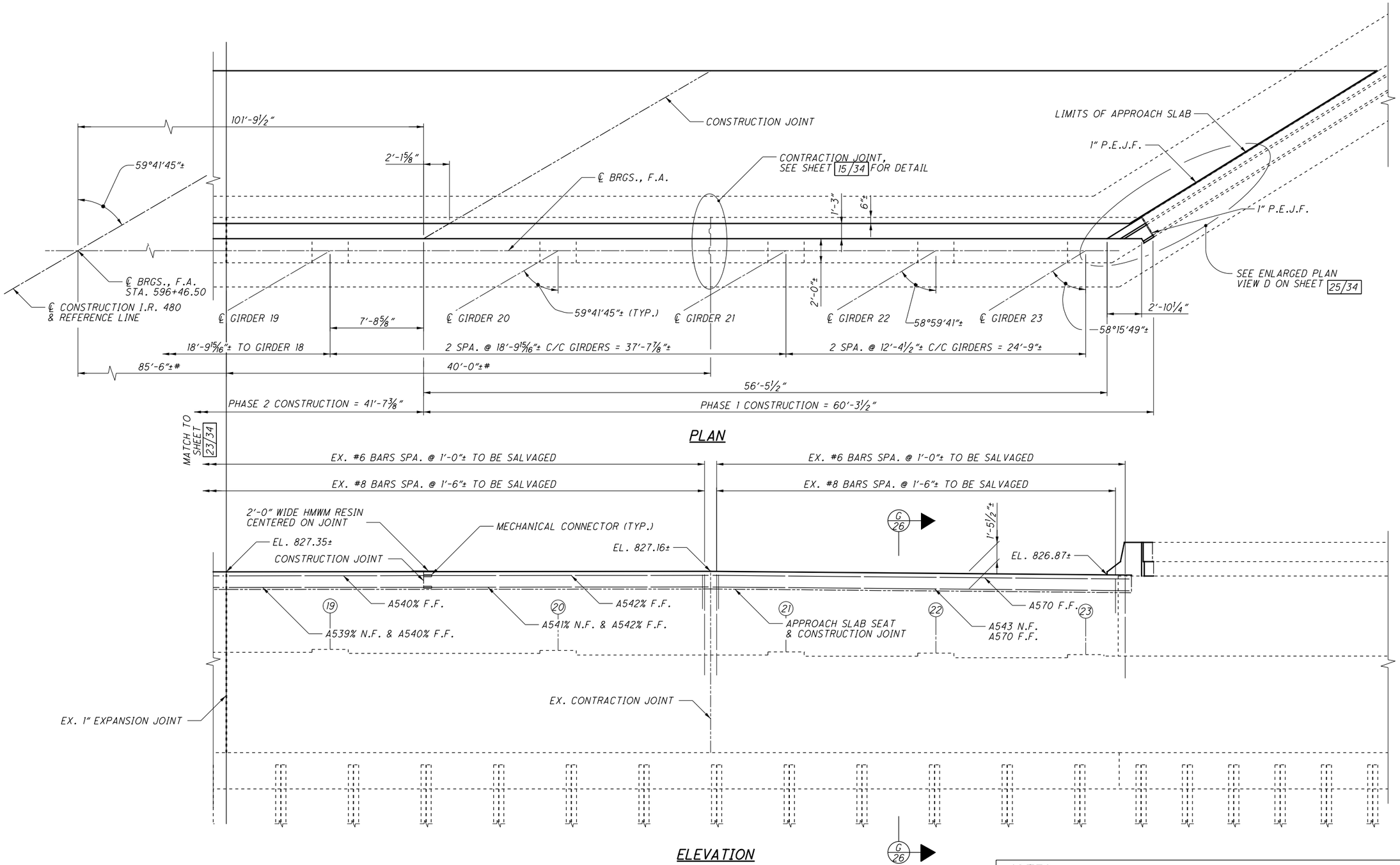

PLAN

ELEVATION

LEGEND

% - BAR TO UTILIZE MECHANICAL CONNECTOR

- MEASURED TO CENTERLINE OF EXPANSION JOINT

N.F. - NEAR FACE

F.F. - FAR FACE

E.F. - EACH FACE

NOTES

1. ELEVATIONS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE VERIFIED BEFORE ORDERING EXPANSION JOINT MATERIALS.
2. MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
3. PERFORM ONLY THE WORK AS INDICATED IN THE STRUCTURE DATA SHEET, FRAMED TEXT, AND/OR DESCRIBED IN THE GENERAL NOTES.
4. PAYMENT FOR HMWM RESIN TO BE INCLUDED WITH ITEM 511, CLASS QCI CONCRETE, ABUTMENT NOT INCLUDING FOOTING.

DESIGN AGENCY
CARPENTER MARTY transportation
6812 SINGLETREE DR. COLUMBUS, OH 43229
ENGINEERS • CONSULTANTS

DESIGNED	DRAWN	REVIEWED	DATE
MTJ	MTJ	GDJ	8-16-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
STK		1812912	

FORWARD ABUTMENT DETAILS 4 - LOCATION 10

BRIDGE NO. CUY-480-1075
OVER CSX RAILROAD

D12-BH-FY2021(A) MISC
PID No. 103162

24 / 34

64 / 74

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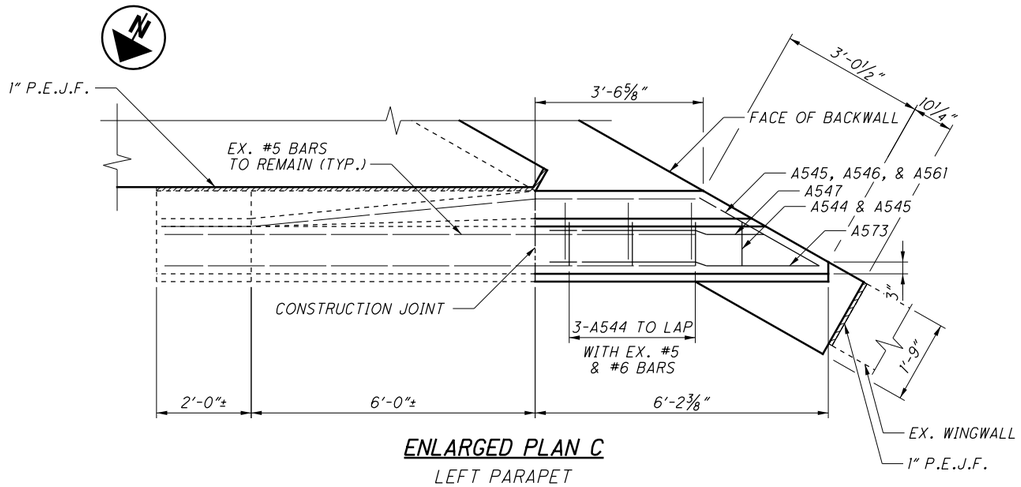
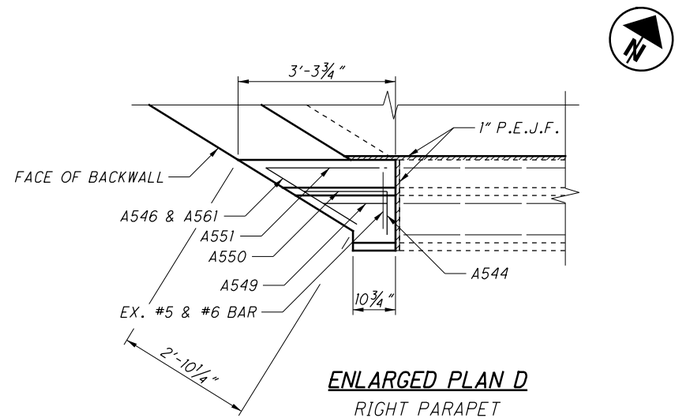


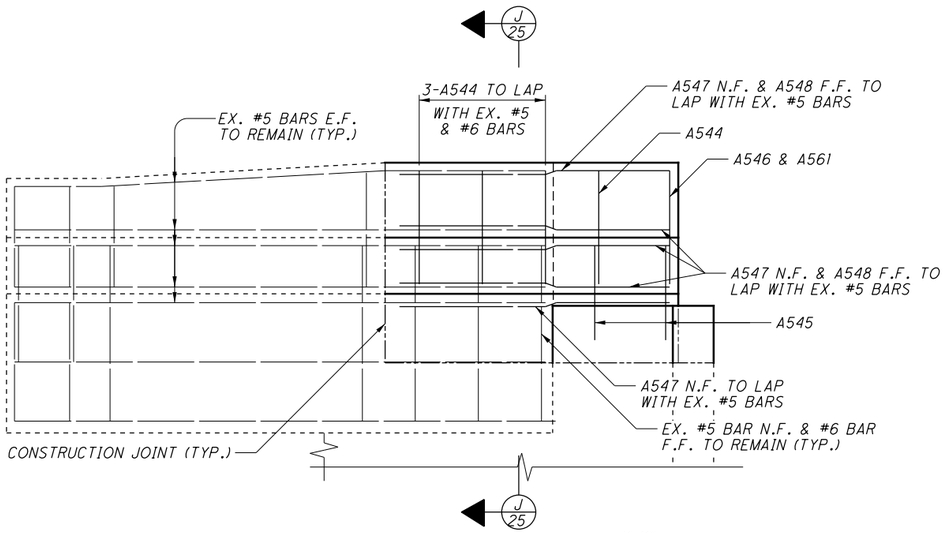
ENLARGED PLAN C

LEFT PARAPET



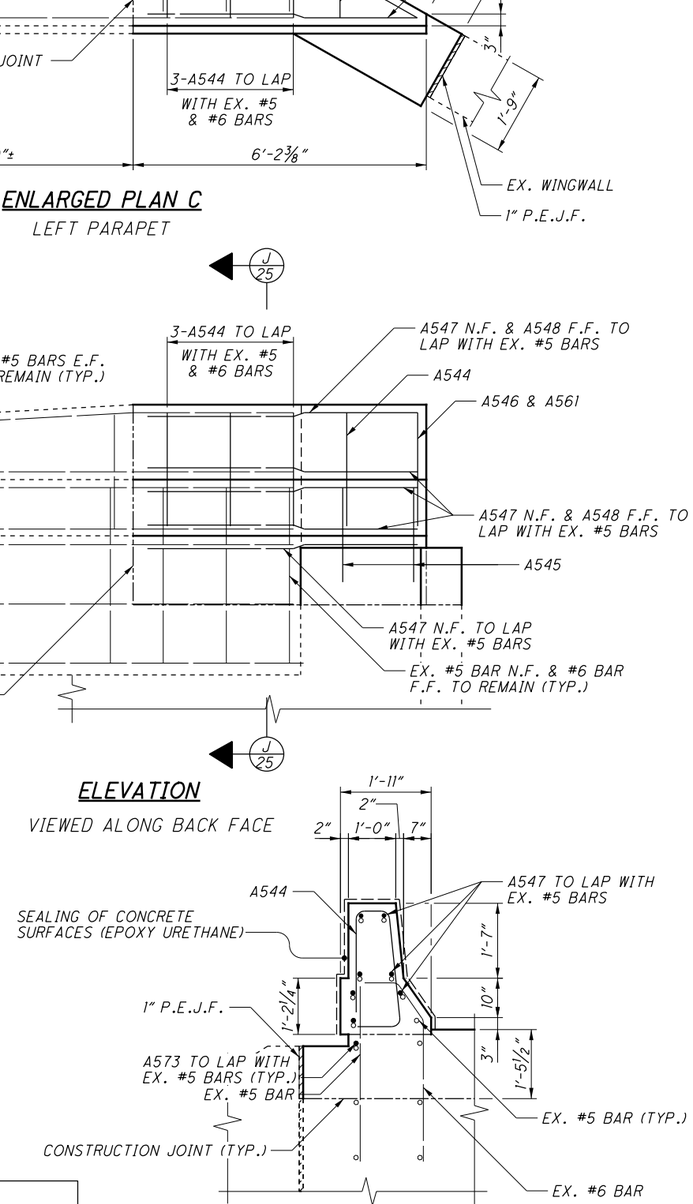
ENLARGED PLAN D

RIGHT PARAPET

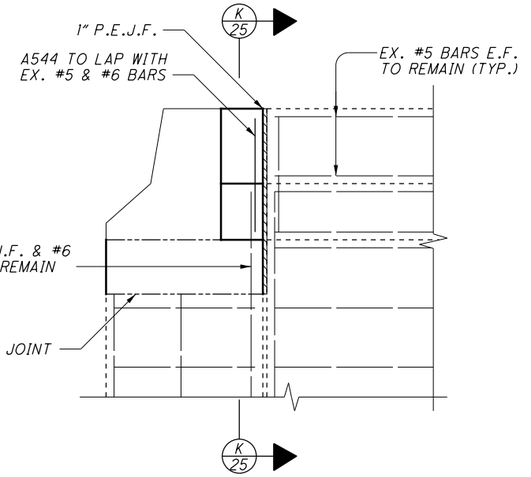


ELEVATION

VIEWED ALONG BACK FACE

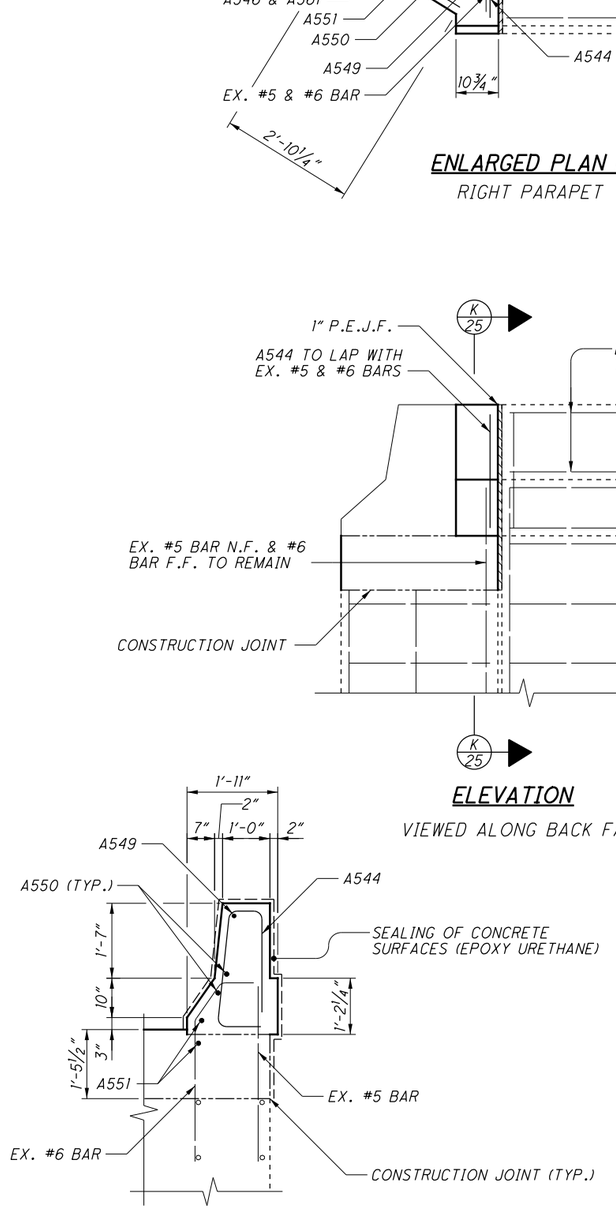


J/25 SECTION



ELEVATION

VIEWED ALONG BACK FACE



K/25 SECTION

LEGEND

N.F. - NEAR FACE

F.F. - FAR FACE

E.F. - EACH FACE

NOTE

CONCRETE FOR PARAPETS SHALL BE CLASS QC2 CONCRETE AND INCLUDED FOR PAYMENT WITH ITEM 511, CLASS QC2 CONCRETE, SUPERSTRUCTURE.

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DESIGN AGENCY
CARPENTER MARTY transportation
6612 SINCLAIRE DR. COLUMBUS, OH 43229
ARCHITECT - CORPORATION

DESIGNED	DRAWN	REVIEWED	DATE
MTJ	MTJ	GDJ	8-17-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
STK		1812912	

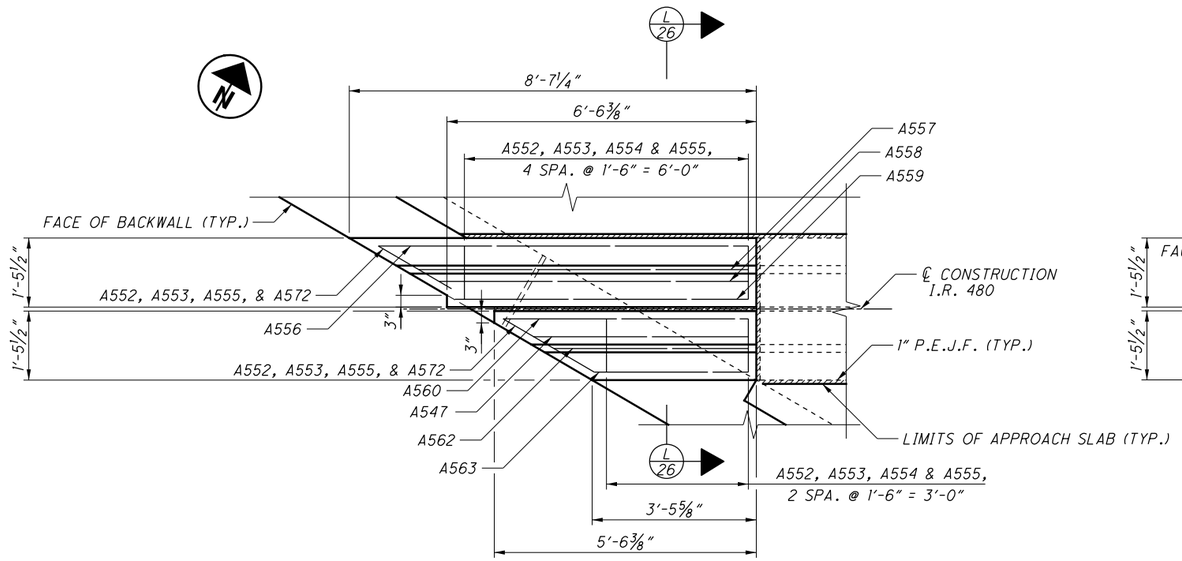
FORWARD ABUTMENT PARAPET DETAILS - LOCATION 10

BRIDGE NO. CUY-480-1075
OVER CSX RAILROAD

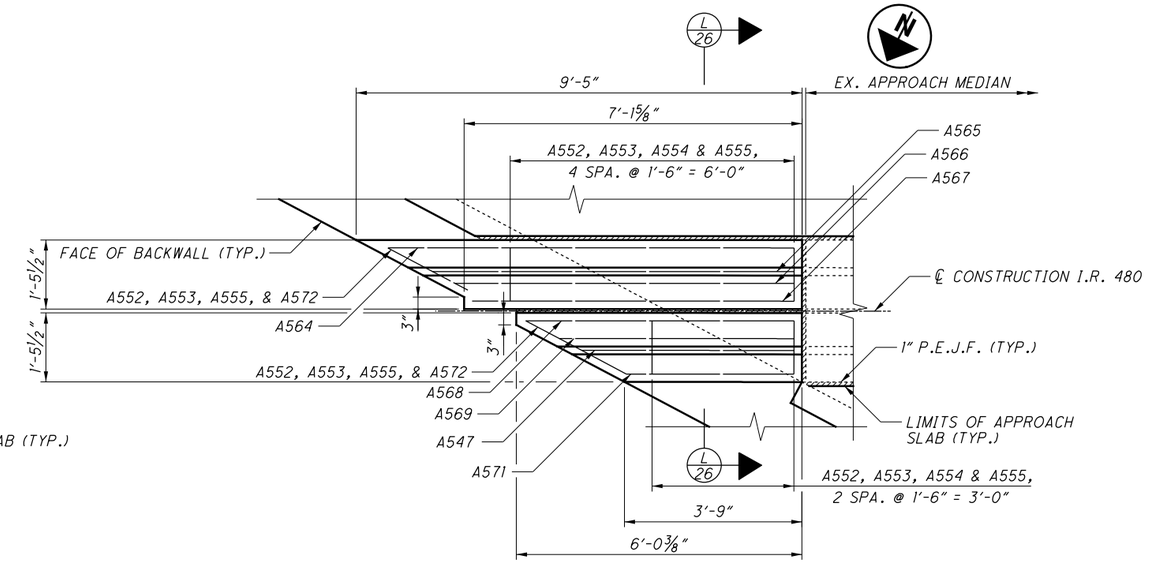
D12-BH-FY2021(A) MISC
PID No. 103162

25/34

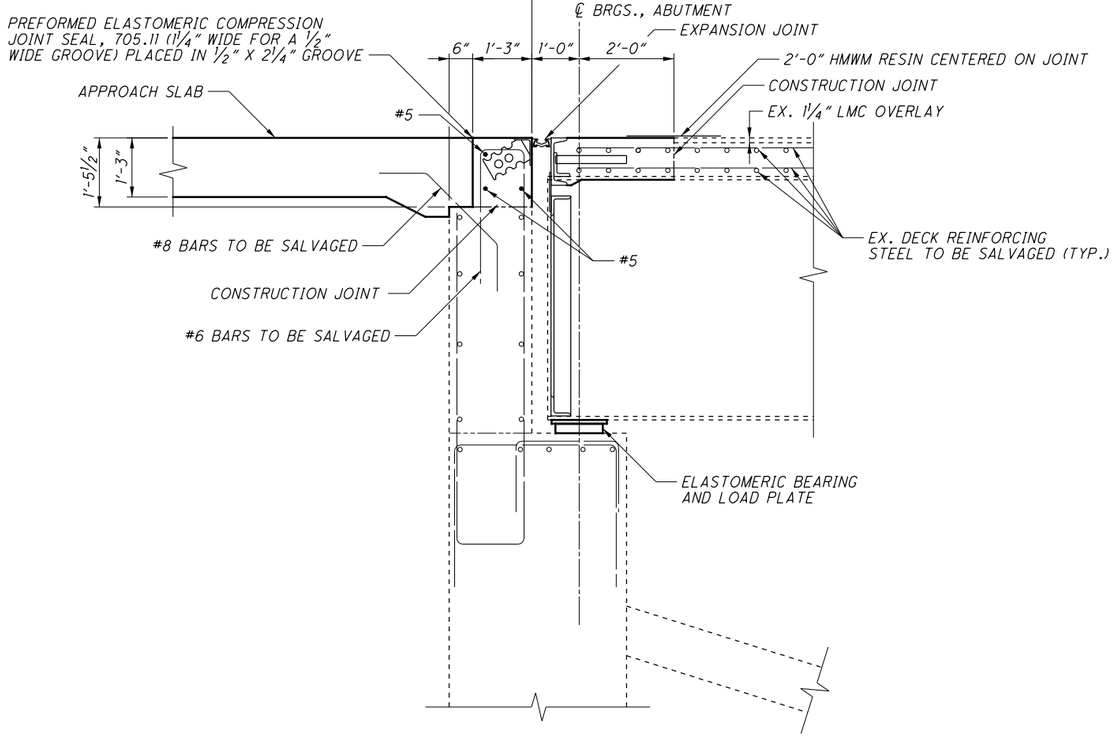
65/74



MEDIAN PARAPET F.A.



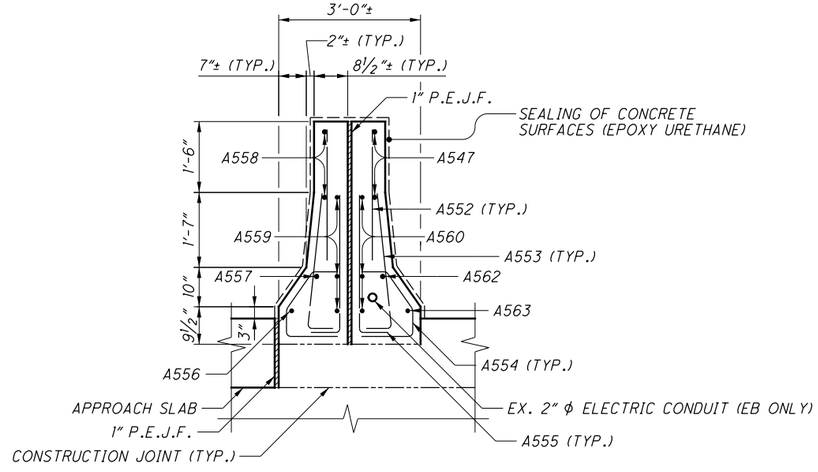
MEDIAN PARAPET R.A.



G 15 G 16 G 17 G 18 G 19 G 21 G 22 G 23 B 24 SECTION

NOTES

1. PAYMENT FOR HMWM RESIN TO BE INCLUDED WITH ITEM 511, CLASS QC2 CONCRETE, SUPERSTRUCTURE.
2. REFER TO STD. DWG. EXJ-4-87 FOR ADDITIONAL NOTES AND DETAILS.
3. SEE SHEET 28/34 FOR ADDITIONAL EXPANSION JOINT DETAILS.
4. CONCRETE FOR PARAPETS SHALL BE CLASS QC2 CONCRETE AND INCLUDED FOR PAYMENT WITH ITEM 511, CLASS QC2 CONCRETE, SUPERSTRUCTURE.



L 26 SECTION
F.A. SHOWN, R.A. SIMILAR

DESIGN AGENCY
CARPENTER MARTY transportation
6812 SINGLETREE DR. COLUMBUS, OH 43229
ENGINEERS • CONSULTANTS

DESIGNED	DRAWN	REVIEWED	DATE
MTJ	MTJ	GDJ	8-17-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
STK		1812912	

MISCELLANEOUS DETAILS - LOCATION 10
BRIDGE NO. CUY-480-1075
OVER CSX RAILROAD

D12-BH-FY2021(A) MISC
PID No. 103162

26/34

66/74

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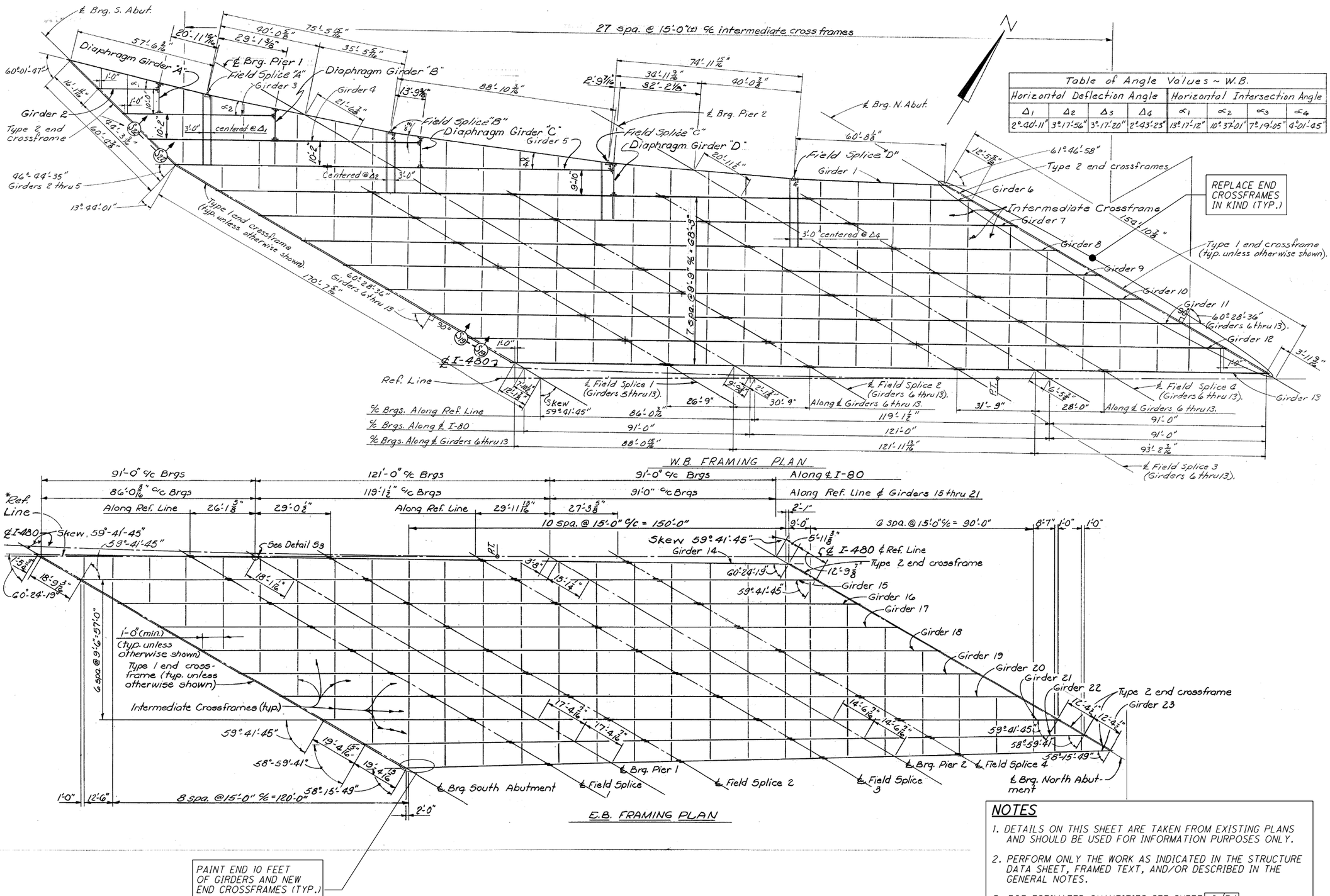

NOTES

1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE USED FOR INFORMATION PURPOSES ONLY.
2. PERFORM ONLY THE WORK AS INDICATED IN THE STRUCTURE DATA SHEET, FRAMED TEXT, AND/OR DESCRIBED IN THE GENERAL NOTES.
3. FOR ESTIMATED QUANTITIES SEE SHEET 2/34.
4. SEE SHEET 28/34 FOR END CROSSFRAME DETAILS.

DESIGN AGENCY
CARPENTER MARTY transportation
6812 SINGLETREE DR. COLUMBUS, OH 43229

DESIGNED	DRAWN	REVIEWED	DATE
STK	STK	GDJ	8-13-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
ERK		1812912	

FRAMING PLAN
BRIDGE NO. CUY-480-1075
OVER CSX RAILROAD

D12-BH-FY2021(A) MISC
PID No. 103162

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67 / 74

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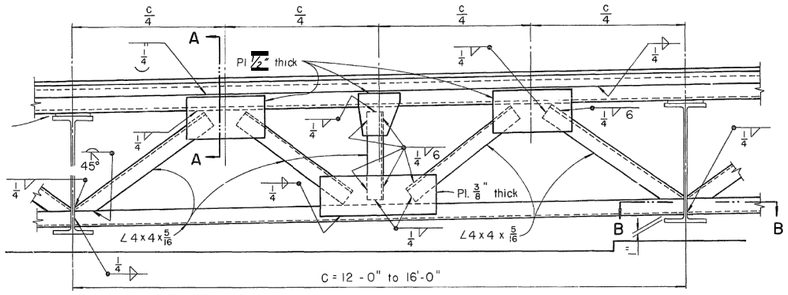
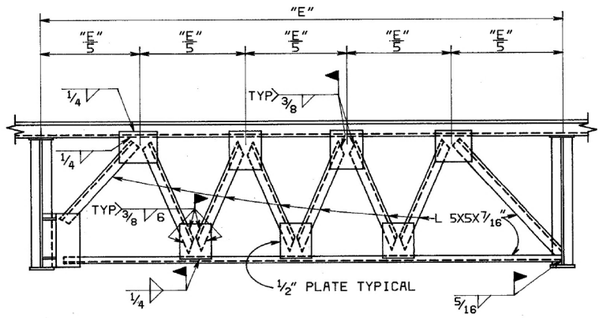
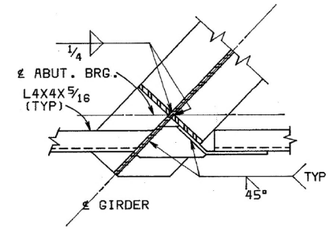


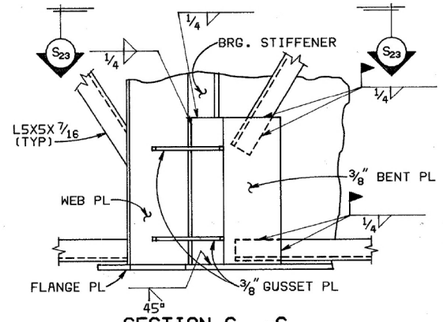
TYPE 2 END CROSSFRAME
FROM RETIRED STD. DWG. SD-1-69



TYPE 1 END CROSSFRAME



VIEW S_{23} -S_{23}



SECTION S_{19} -S_{19}

SECTION S_{22} -S_{22}

NOTES

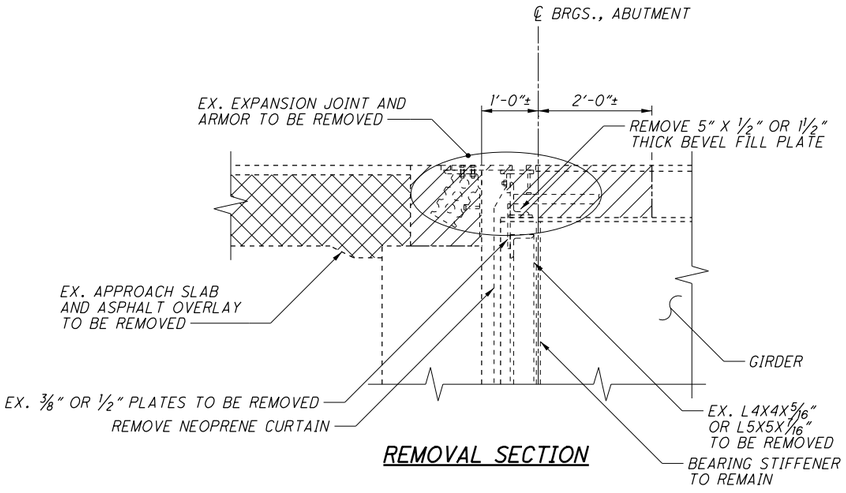
1. INSTALLATION OF SEAL: DURING INSTALLATION OF THE SUPPORT/ARMOR FOR THE SUPERSTRUCTURE SIDE OF THE EXPANSION JOINT SEAL, OBSERVE THE SEATING OF BEAMS ON BEARINGS TO ASSURE THAT POSITIVE BEARING IS MAINTAINED.
2. ALL COSTS ASSOCIATED WITH THE REMOVAL OF THE EXISTING END DAMS AND END CROSSFRAMES SHALL BE MADE AT THE LUMP SUM PRICE BID FOR ITEM 202, PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.
3. THE LOCATIONS OF EXISTING CONNECTION PLATES AS SHOWN IN THE DETAILS IN THIS PLAN ARE BASED ON INFORMATION OBTAINED FROM THE PLANS OF THE ORIGINAL STRUCTURE AND RETIRED ODOT STANDARD DRAWING SD-1-69. THE ACTUAL LOCATIONS OF EXISTING CONNECTION PLATE MAY DIFFER FROM THAT SHOWN. TO ENSURE PROPER FITTING OF THE NEW END DAMS, THE CONTRACTOR SHALL TAKE MEASUREMENTS TO FIELD VERIFY ALL CONNECTION PLATE LOCATIONS PRIOR TO FABRICATING THE NEW SUPERSTRUCTURE END DAMS. ALL LABOR AND MATERIALS ASSOCIATED WITH THE SPECIFIED WORK SHALL BE MADE AT THE UNIT PRICE PER LINEAR FOOT OF ITEM 516, STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL.
4. REFER TO STD. DWGS. EXJ-4-87 AND GSD-1-19 AND RETIRED STD. DWG. SD-1-69, SHEET 1 FOR ADDITIONAL NOTES AND DETAILS.
5. SHIM 1/2" PLATE AS NECESSARY TO MAINTAIN DIMENSION A IN TABLE. ALL WORK SHALL MEET THE APPROVAL OF THE ENGINEER.
6. THE CONTRACTOR SHALL WELD ANCHOR PLATES IN THE FIELD TO AVOID THE EXISTING VERTICAL REINFORCING STEEL IN THE ABUTMENT.
7. REPLACE ALL END CROSS FRAMES IN KIND.
8. FOR DIMENSIONS "C" AND "E" SEE SHEET 27/34.
9. PERFORM ONLY THE WORK AS INDICATED IN THE STRUCTURE DATA SHEET, FRAMED TEXT, AND/OR DESCRIBED IN THE GENERAL NOTES.
10. TYPE-2 END CROSSFRAME DETAILS SHALL BE AS SHOWN IN STD. DWG. SD-1-69 EXCEPT CONNECTION BETWEEN GIRDER WEB AND LS4X4X5/16 SHALL BE AS SHOWN IN SECTION S22-S22.
11. MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.

AMBIENT TEMPERATURE	DIMENSION A	
	R.A.	F.A.
30° F	1 3/16"	1 7/8"
40° F	1 3/4"	1 13/16"
50° F	1 3/4"	1 11/16"
60° F	1 11/16"	1 5/8"
70° F	1 5/8"	1 1/2"
80° F	1 5/8"	1 3/8"
90° F	1 9/16"	1 5/16"

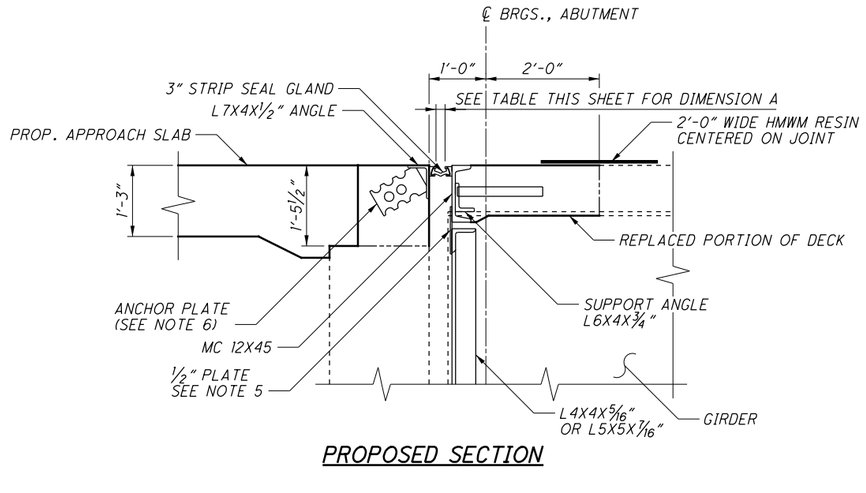
LEGEND

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

APPROACH SLAB REMOVED



REMOVAL SECTION



PROPOSED SECTION

DESIGN AGENCY
CARPENTER MARTY transportation
6812 SINGLETREE DR. COLUMBUS, OH 43229
ARCHITECTS · ENGINEERS

DESIGNED	DRAWN	REVIEWED	DATE
ERK	ERK	GDJ	8-13-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
STK		181292	

EXPANSION JOINT DETAILS - LOCATION 10

BRIDGE NO. CUY-480-1075
OVER CSX RAILROAD

D12-BH-FY2021(A) MISC
PID No. 103162

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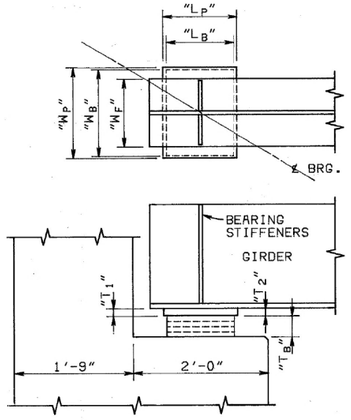


ABUTMENT BEARING DETAILS

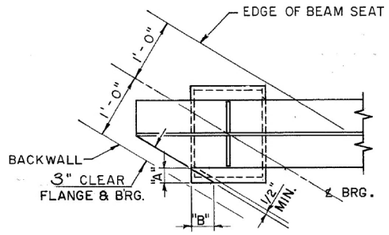
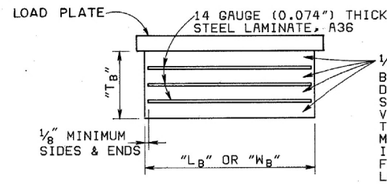


TABLE OF CLIP DIMENSIONS				
GIRDER Nº	SOUTH ABUTMENT		NORTH ABUTMENT	
	"A"	"B"	"A"	"B"
1	2 5/8"	4 5/8"	3 3/8"	6 1/4"
4	2 3/4"	2 7/8"		
5	2 3/4"	3 3/4"		
6-21	2 1/8"	3 3/4"	1 1/2"	2 5/8"
22 & 23	2 1/4"	3 5/8"	1 5/8"	2 5/8"

BEARING PAD CLIP DETAILS



1/2" OR 3/4" THICK ELASTOMERIC BEARING PAD LAYERS, 50 DUROMETER HARDNESS. STEEL LAMINATE AND LOAD PLATE SHALL BE VULCANIZED BONDED TO THE NEOPRENE DURING THE MOLDING PROCESS AS PER ITEM 711.23. SEE TABLE FOR NUMBER & SIZE OF LAYERS.

WELDING SHALL BE CONTROLLED SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE DOES NOT EXCEED 300°F AS DETERMINED BY USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.

LAMINATED ELASTOMERIC BEARING PAD DETAILS

LAMINATED ELASTOMERIC BEARINGS TABLE (ALL DIMENSIONS IN INCHES)

		GIRDER 1				GIRDER 2	GIRDER 3	GIRDER 4		GIRDER 5		GIRDERS 6-23			
		SOUTH ABUTMENT	PIER 1	PIER 2	NORTH ABUTMENT	SOUTH ABUTMENT	SOUTH ABUTMENT	SOUTH ABUTMENT	PIER 1	SOUTH ABUTMENT	PIER 1	SOUTH ABUTMENT	PIER 1	PIER 2	NORTH ABUTMENT
FLANGE WIDTH, "W_F"		16	16	16	16	12	12	12	12	12	12	12	12	12	12
A588 STEEL LOAD PLATE "L_P" X "W_P" X "T_1" X "T_2"		14X18X1 X1	32X22X2X2	29 1/2X22X2X2	17X18X1X1	8X14X1 X 1	12X14X1 X 1	14X17X1 X 1	20X26X2X2	14X17X1 X 1	20X26X2X2	14X17X1X1	20X26X2X2	20X26X2X2	17X14X1X1
BEARINGS GRADE 50	PAD SIZE NO. LAYERS	12X15X3/4 3	30X20X3/4 2	27 1/2X20X3/4 8	15X12X3/4 7	6X12X1/2 4	10X12X1/2 3	12X15X3/4 3	18X24X3/4 2	12X15X3/4 3	18X24X3/4 2	12X15X3/4 3	18X24X3/4 2	18X24X3/4 6	15X12X3/4 7
	LAMINATE SIZE NO. REQ'D.	11 3/4X14 3/4X0.074 2	28 3/4X19 3/4X0.074 1	27 1/4X19 3/4X0.074 7	14 3/4X11 3/4X0.074 6	5 3/4X11 3/4X0.074 3	9 3/4X11 3/4X0.074 2	11 3/4X14 3/4X0.074 2	17 3/4X23 3/4X0.074 1	11 3/4X14 3/4X0.074 2	17 3/4X23 3/4X0.074 1	11 3/4X14 3/4X0.074 2	17 3/4X23 3/4X0.074 1	17 3/4X23 3/4X0.074 5	14 3/4X11 3/4X0.074 6
	"T_B"	2.398	1.574	6.518	5.694	2.222	1.648	2.398	1.574	2.398	1.574	2.398	1.574	4.870	5.694

NOTES

1. CONTRACTOR TO CONFIRM BEARING AND LOAD PLATE DIMENSIONS PRIOR TO ORDERING MATERIALS.
2. PERFORM ONLY THE WORK AS INDICATED IN THE STRUCTURE DATA SHEET, FRAMED TEXT, AND/OR DESCRIBED IN THE GENERAL NOTES.
3. SEE SHEET 28/34 FOR EXPANSION JOINT DETAILS.
4. DETAILS PROVIDED ON THIS SHEET ARE TAKEN FROM EXISTING PLANS.
5. SEE SHEET 27/34 FOR FRAMING PLAN.
6. MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.

DESIGN AGENCY
CARPENTER MARTY transportation
6812 SINGLETREE DR. COLUMBUS, OH 43229
614.882.0003 CARPENTERMARTY.COM

DESIGNED MTJ | DRAWN MTJ | CHECKED STK | REVIEWED GDJ | DATE 8-13-20 | REVISED | STRUCTURE FILE NUMBER 1812912

BEARING AND END CROSS FRAME DETAILS
BRIDGE NO. CUY-480-1075
OVER CSX RAILROAD

D12-BH-FY2021(A) MISC
PID No. 103162

29/34

69/74

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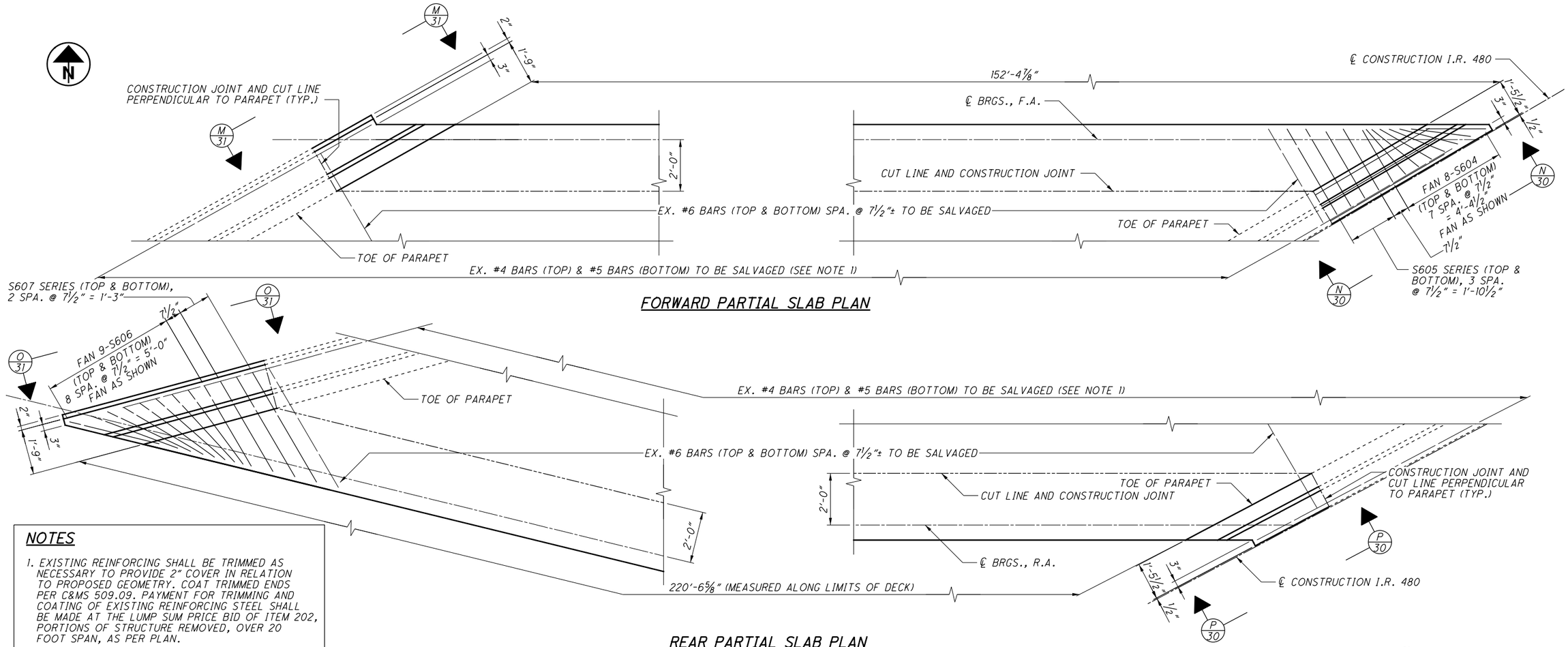


FORWARD PARTIAL SLAB PLAN

REAR PARTIAL SLAB PLAN

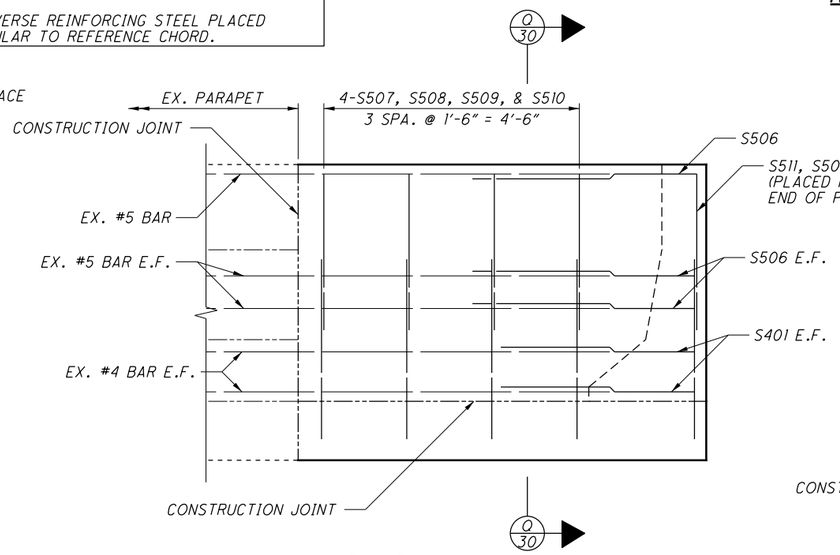
NOTES

1. EXISTING REINFORCING SHALL BE TRIMMED AS NECESSARY TO PROVIDE 2" COVER IN RELATION TO PROPOSED GEOMETRY. COAT TRIMMED ENDS PER C&MS 509.09. PAYMENT FOR TRIMMING AND COATING OF EXISTING REINFORCING STEEL SHALL BE MADE AT THE LUMP SUM PRICE BID OF ITEM 202, PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.

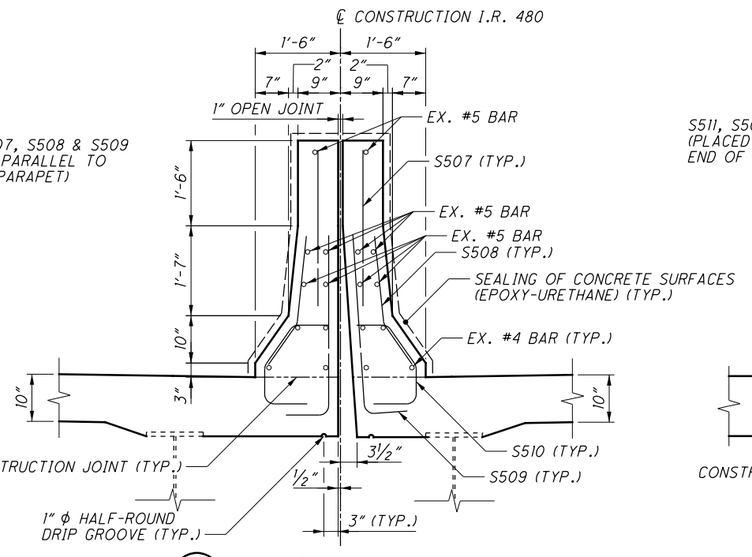
2. EX. TRANSVERSE REINFORCING STEEL PLACED PERPENDICULAR TO REFERENCE CHORD.

LEGEND

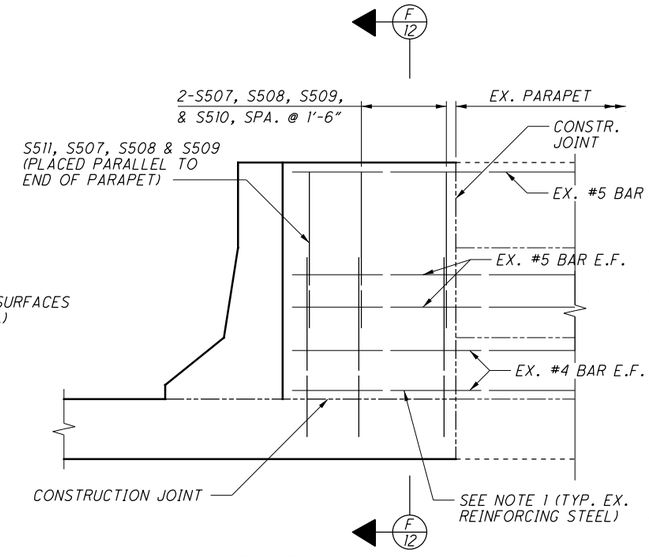
E.F. - EACH FACE



N 30 N 31 ELEVATION



Q 30 SECTION
DECK REINFORCING NOT SHOWN



P 30 P 31 ELEVATION

DESIGN AGENCY
CARPENTER MARTY transportation
6612 SINGLETREE DR. COLUMBUS, OH 43229
ENGINEERS • CONSULTANTS

DESIGNED	DRAWN	REVIEWED	DATE
ERK	ERK	GDJ	8-17-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
STK		1812912	

WESTBOUND DECK DETAILS - LOCATION 10
BRIDGE NO. CUY-480-1075
OVER CSX RAILROAD

D12-BH-FY2021(A) MISC
PID No. 103162

30 / 34

70 / 74

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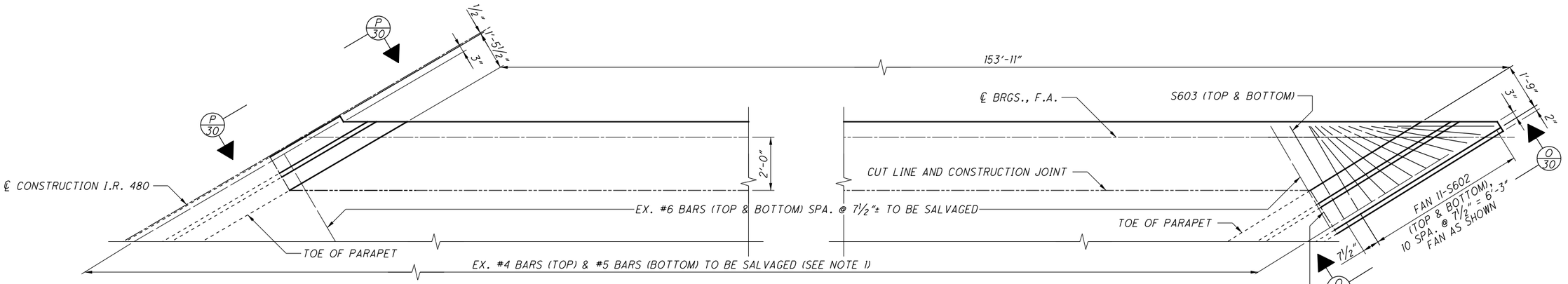
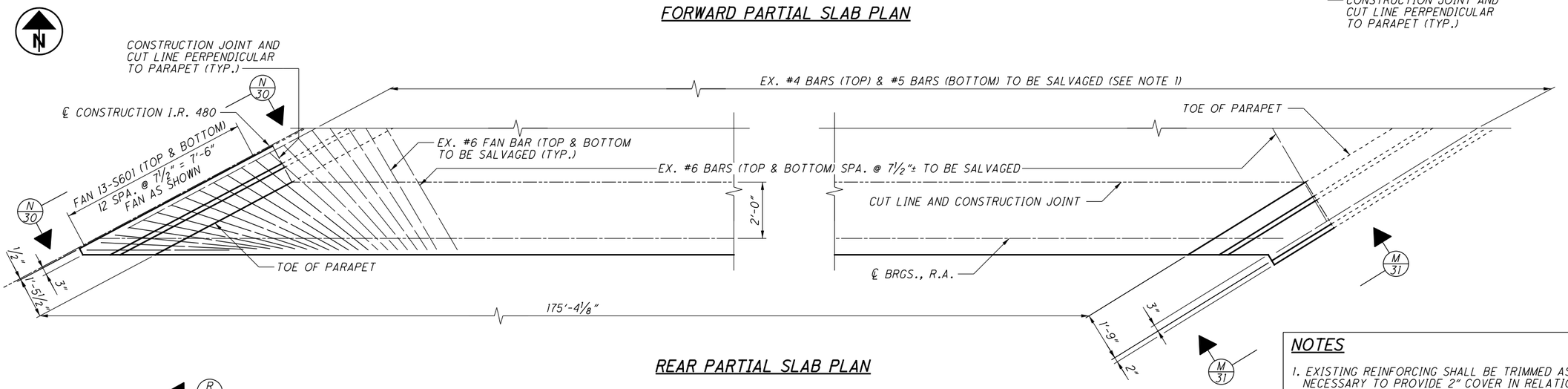


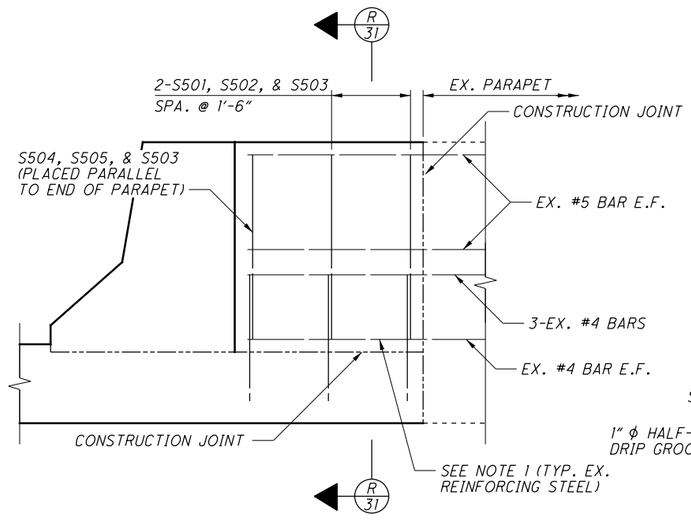
FORWARD PARTIAL SLAB PLAN



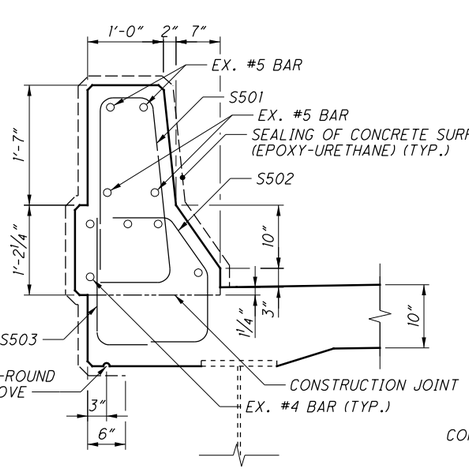
REAR PARTIAL SLAB PLAN

NOTES

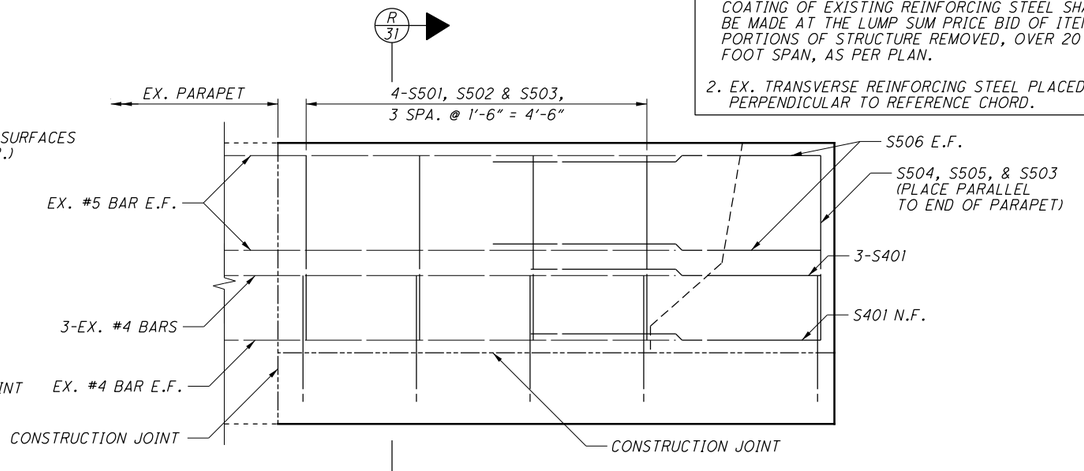
1. EXISTING REINFORCING SHALL BE TRIMMED AS NECESSARY TO PROVIDE 2" COVER IN RELATION TO PROPOSED GEOMETRY. COAT TRIMMED ENDS PER C&MS 509.09. PAYMENT FOR TRIMMING AND COATING OF EXISTING REINFORCING STEEL SHALL BE MADE AT THE LUMP SUM PRICE BID OF ITEM 202, PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.
2. EX. TRANSVERSE REINFORCING STEEL PLACED PERPENDICULAR TO REFERENCE CHORD.



M 30 / M 31 ELEVATION



R 31 SECTION
DECK REINFORCING NOT SHOWN



O 30 / O 31 ELEVATION

LEGEND

E.F. - EACH FACE
N.F. - NEAR FACE

DESIGN AGENCY
CARPENTER MARTY transportation
6612 SINGLETREE DR. COLUMBUS, OH 43229
ENGINEERS • CONSULTANTS

DESIGNED	DRAWN	REVIEWED	DATE
ERK	ERK	GDJ	8-17-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
STK		1812912	

EASTBOUND DECK DETAILS - LOCATION 10
BRIDGE NO. CUY-480-1075
OVER CSX RAILROAD

D12-BH-FY2021(A) MISC
PID No. 103162

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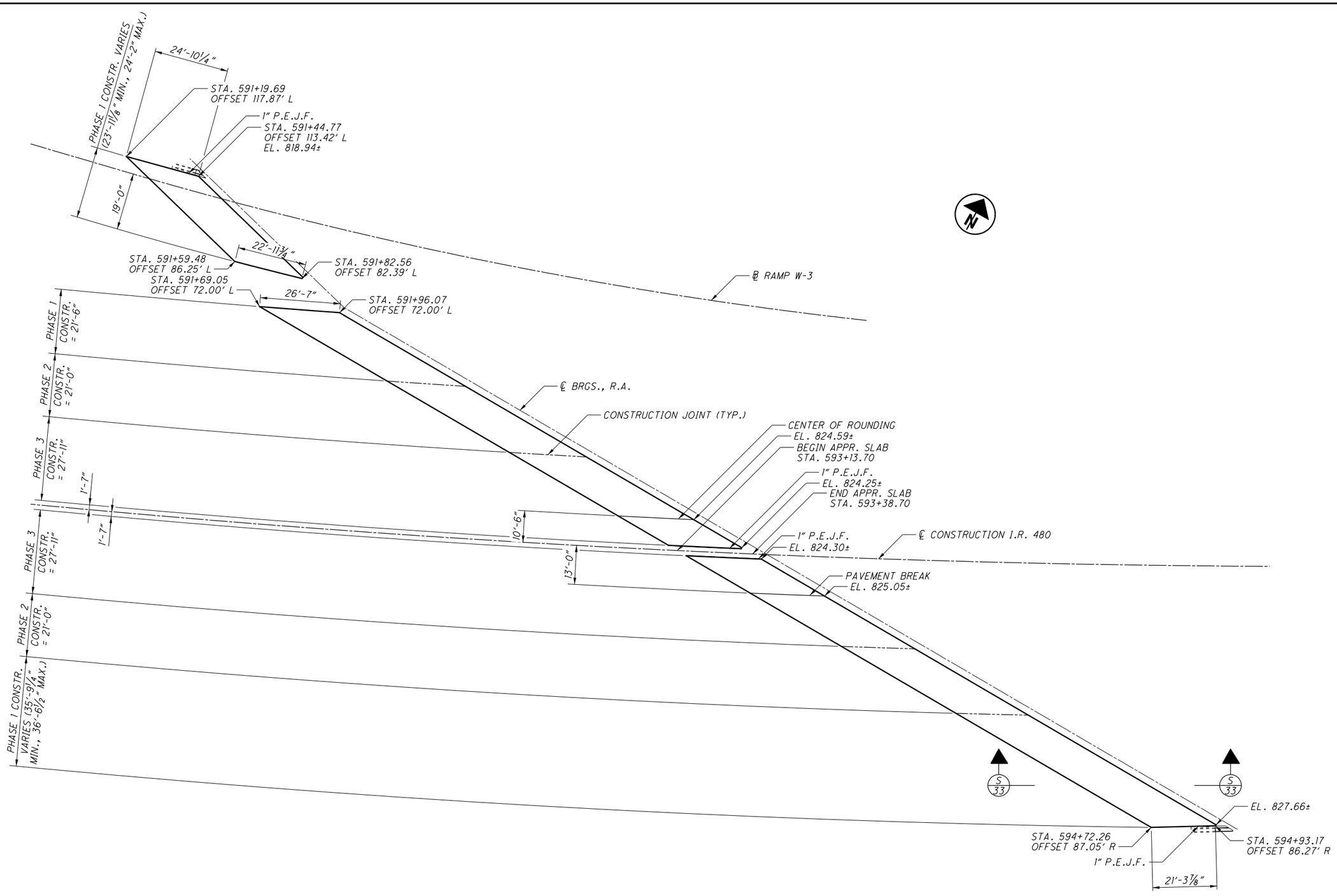

PLAN

NOTES

1. SEE STD. DWG. AS-1-15 FOR ADDITIONAL NOTES AND DETAILS.
2. ELEVATIONS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE USED FOR INFORMATION PURPOSES ONLY. PROPOSED APPROACH SLAB ELEVATIONS SHOULD MATCH EXISTING ASPHALT ELEVATIONS.
3. OFFSETS ARE TAKEN FROM ℄ CONSTRUCTION I.R. 480.

DESIGN AGENCY
CARPENTER MARTY transportation
6812 SINGLETREE DR. COLUMBUS, OH 43229
ARCHITECT CERTIFICATE

DESIGNED	DRAWN	REVIEWED	DATE
ERK	ERK	GDJ	MM/DD/YY
CHECKED	REVISED	STRUCTURE FILE NUMBER	
STK		1812912	

REAR APPROACH SLAB DETAILS - LOCATION 10

BRIDGE NO. CUY-480-1075
OVER CSX RAILROAD

D12-BH-FY2021(A) MISC
PID No. 103162

32 / 34

72 / 74

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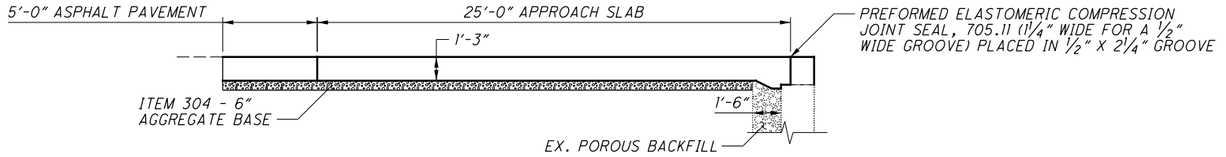
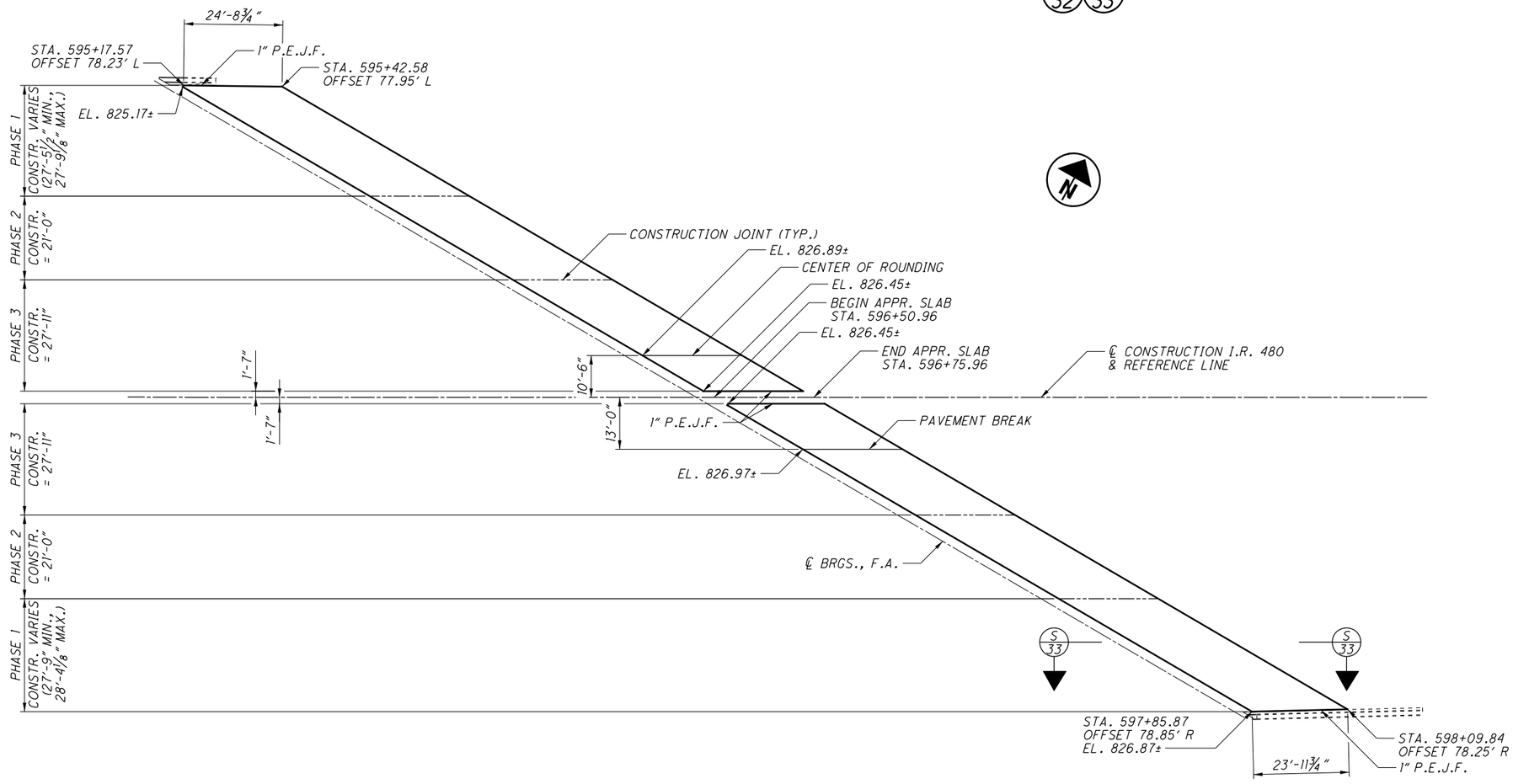


S 32 / S 33 SECTION



PLAN

NOTES

1. SEE STD. DWG. AS-1-15 FOR ADDITIONAL NOTES AND DETAILS.
2. ELEVATIONS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS AND SHOULD BE USED FOR INFORMATION PURPOSES ONLY. PROPOSED APPROACH SLAB ELEVATIONS SHOULD MATCH EXISTING ASPHALT ELEVATIONS.
3. OFFSETS TAKEN FROM ℄ CONSTRUCTION I.R. 480.

DESIGN AGENCY
CARPENTER MARTY transportation
6812 SINGLETREE DR. COLUMBUS, OH 43229
614.847.4300 CARPENTERMARTY.COM

DESIGNED	DRAWN	REVIEWED	DATE
ERK	ERK	GDJ	8-17-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
STK		1812912	

FORWARD APPROACH SLAB DETAILS - LOCATION 10

BRIDGE NO. CUY-480-1075
OVER CSX RAILROAD

D12-BH-FY2021(A) MISC
PID No. 103162

33 / 34

73 / 74

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MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS				
	R.A.	F.A.	TOTAL				A	B	C	D	E
ABUTMENTS											
A501	3		3	43'-8"	137	STR					
A502%	1		1	33'-0"	35	STR					
A503%	2		2	34'-5"	72	STR					
A504%	1		1	10'-7"	12	STR					
A505%	2		2	9'-2"	20	STR					
A506%	1		1	32'-7"	34	STR					
A507%	2		2	34'-0"	71	STR					
A508%	1		1	11'-0"	12	STR					
A509%	2		2	9'-7"	20	STR					
A510	3		3	43'-7"	137	STR					
A511	1		1	39'-5"	42	STR					
A512	6		6	41'-1"	258	STR					
A513%	1		1	29'-4"	31	STR					
A514%	2		2	30'-10"	65	STR					
A515%	1		1	11'-9"	13	STR					
A516%	2		2	10'-3"	22	STR					
A517%	1		1	34'-2"	36	STR					
A518%	2		2	35'-9"	75	STR					
A519%	1		1	6'-11"	8	STR					
A520%	2		2	5'-4"	12	STR					
A521	1		1	28'-6"	30	19	27'-0"	1'-6"	4"		
A522	2		2	28'-9"	60	19	27'-1"	1'-7"	5"		
A523	2		2	39'-0"	82	STR					
A524		3	3	39'-8"	125	STR					
A525%		1	1	19'-4"	21	STR					
A526%		2	2	20'-8"	44	STR					
A527%		1	1	20'-3"	22	STR					
A528%		2	2	18'-11"	40	STR					
A529%		1	1	20'-11"	22	STR					
A530%		2	2	22'-3"	47	STR					
A531%		1	1	18'-8"	20	STR					
A532%		2	2	17'-4"	37	STR					
A533		3	3	39'-7"	124	STR					
A534		3	3	42'-7"	134	STR					
A535%		1	1	14'-10"	16	STR					
A536%		2	2	16'-3"	34	STR					
A537%		1	1	24'-8"	26	STR					
A538%		2	2	23'-4"	49	STR					
A539%		1	1	16'-5"	18	STR					
A540%		2	2	17'-10"	38	STR					
A541%		1	1	23'-1"	25	STR					
A542%		2	2	21'-9"	46	STR					
A543		1	1	36'-1"	38	STR					
A544	5	5	10	5'-10"	61	37	8"	3"	2'-5"	2'-2"	11"
A545	2	2	4	2'-10"	12	1	2'-0"	1'-0"			
A546	2	2	4	6'-7"	28	37	1'-5"	5"	2'-5"	2'-2"	11"
A547	5	6	11	4'-5"	51	STR					
A548	5		5	5'-6"	29	STR					
A549		1	1	1'-4"	2	STR					
A550		2	2	1'-9"	4	STR					
A551		2	2	2'-6"	6	STR					
A552	10	10	20	2'-9"	58	STR					
A553	10	10	20	3'-5"	72	11	4"	3'-0"	7"		
A554	8	8	16	2'-11"	49	14	1'-1"	7"	9"	7"	6"
A555	10	10	20	3'-5"	72	1	3'-0"	7"			
A556		1	1	7'-9"	9	STR					
A557		1	1	6'-11"	8	STR					
A558		2	2	6'-6"	14	STR					
A559		3	3	6'-2"	20	STR					
A560		3	3	5'-2"	17	STR					
A561	2	2	4	4'-3"	18	14	8"	1'-3"	10"	1'-0"	1'-3"
A562		1	1	4'-1"	5	STR					
A563		1	1	3'-3"	4	STR					
A564	1		1	8'-7"	9	STR					
A565	1		1	7'-7"	8	STR					
A566	2		2	7'-2"	15	STR					
A567	3		3	6'-9"	22	STR					
A568	3		3	5'-8"	18	STR					
A569	2		2	4'-11"	11	STR					
A570		2	2	35'-8"	75	STR					

MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS				
	R.A.	F.A.	TOTAL				A	B	C	D	E
ABUTMENTS CONTINUED											
A571	1		1	3'-6"	4	STR					
A572	2	2	4	4'-1"	18	14	1'-1"	7"	9"	1'-3"	1'-2"
A573		5	5	5'-8"	30	STR					
SUB-TOTAL					2959						

MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS					
					A	B	C	D	E	INC
SUPERSTRUCTURE										
S401	16	4'-1"	44	STR						
S501	12	5'-11"	75	37	8"	3"	2'-5"	2'-2"	11"	
S502	12	3'-1"	39	14	9"	11"	9"	6"	9"	
S503	16	2'-2"	37	1	1'-8"	8"				
S504	4	6'-6"	28	37	1'-5"	5"	2'-5"	2'-2"	11"	
S505	4	3'-5"	15	14	9"	11"	9"	11"	9"	
S506	18	4'-7"	87	STR						
S507	16	2'-9"	46	STR						
S508	16	2'-4"	39	19	1'-6"	9"	6"			
S509	16	3'-9"	63	1	3'-2"	9"				
S510	12	2'-8"	34	14	9"	8"	9"	6"	7"	
S511	4	3'-6"	15	14	9"	8"	9"	10"	1'-2"	
S601	26	5'-1"	199	STR						
S602	22	3'-8"	122	STR						
S603	2	4'-0"	13	STR						
S604	16	2'-4"	57	STR						
S605	2 SERIES OF 4	2'-9" TO 3'-10"	40	STR						4" (+)
S606	18	3'-7"	97	STR						
S607	2 SERIES OF 3	4'-0" TO 4'-11"	41	STR						5½"
SUB-TOTAL			1091							

NOTES

1. THE BAR NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, S501 IS A NO. 5 BAR. BAR DIMENSIONS ARE OUT TO OUT UNLESS OTHERWISE INDICATED.
2. ALL REINFORCING STEEL IS TO BE EPOXY COATED.
3. PAYMENT FOR MECHANICAL CONNECTORS SHALL BE INCLUDED WITH ITEM 509, EPOXY COATED REINFORCING STEEL.

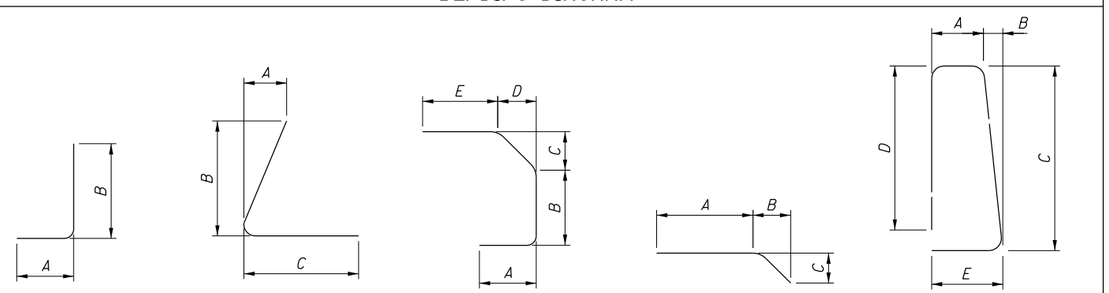
MECHANICAL CONNECTORS		
LOCATION	BAR SIZE	TOTAL
ABUTMENTS	5	24

LEGEND

% - REINFORCING BAR UTILIZES A MECHANICAL CONNECTOR. BAR LENGTH IS MEASURED TO THE CONSTRUCTION JOINT. EXTRA BAR LENGTH AND/OR BAR END PREPARATION MAY BE NECESSARY DEPENDING UPON THE TYPE OF MECHANICAL ANCHOR FURNISHED.

- BARS TO BE DOWELED INTO EXISTING STRUCTURE.

BENDING DIAGRAM



DESIGN AGENCY
CARPENTER MARTY transportation
6912 SINGLETREE DR. COLUMBUS, OH 43229
ARCHITECTS · ENGINEERS

DESIGNED	DRAWN	REVIEWED	DATE
ERK	ERK	GDJ	8-19-20
CHECKED	REVISED	STRUCTURE FILE NUMBER	
STK		181292	

REINFORCING STEEL LIST - LOCATION 10

BRIDGE NO. CUY-480-1075
OVER CSX RAILROAD

D12-BH-FY2021(A) MISC
PID No. 103162

34/34

74/74

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