GENERAL:
THE CONTRACTOR SHALL SUBMIT IN WRITING A SCHEDULE OF OPERATIONS TO THE ENGINEER (SEE 108.02) AND RECEIVE APPROVAL IN WRITING BEFORE WORK IS STARTED ON THIS PROJECT. ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED, AND REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

CONTRACTORS EQUIPMENT - OPERATION AND STORAGE:
THE CONTRACTORS EQUIPMENT SHALL BE OPERATED IN THE DIRECTION OF TRAFFIC WHERE PRACTICAL. EQUIPMENT SHALL HAVE AT LEAST ONE AMBER FLASHING LIGHT. WHEN PARKED ALONG THE HIGHWAY, THE EQUIPMENT SHALL BE LOCATED EITHER A MINIMUM OF THIRTY FEET FROM THE EDGE OF PAVEMENT OR SIX FEET BEHIND GUARDRAIL WITH A MINIMUM OF 125 FEET OF GUARDRAIL PRECEDING THE EQUIPMENT. ALL OTHER EQUIPMENT, INCLUDING PRIVATE VEHICLES, SHALL BE STORED AT AN APPROVED CONTRACTORS STORAGE AREA.

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 CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT,

REMOVAL ITEMS:
UNLESS OTHERWISE INSTRUCTED, ASPHALT AND ANY OTHER MISCELLANEOUS ITEMS DESIGNATED FOR REMOVAL BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF. PAYMENT FOR THE ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE REMOVED ITEM.

WORK LIMITS:
THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE INSTALLATION AND OPERATION OF ALL TEMPORARY TRAFFIC CONTROL AND TEMPORARY TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

NON-RUBBER TIRE VEHICLES:
NO NON-RUBBER TIRE VEHICLE SHALL BE MOVED ON STATE OR COUNTY ROADS. EXCEPTIONS MAY BE GRANTED BY AN AUTHORIZED STATE OR COUNTY OFFICIAL WHERE SHORT DISTANCES AND SPECIAL CIRCUMSTANCES ARE INVOLVED. GRANTING OF EXCEPTIONS MUST BE IN WRITING AND ANY RESULTING DAMAGE MUST BE REPAIRED FOR THE SATISFACTION OF THE STATE OR COUNTY.

COORDINATION WITH MARATHON PIPE LINE LLC:
A MARATHON PIPE LINE LLC REPRESENTATIVE SHALL BE ON SITE WHEN THE CONTRACTOR IS DIGGING WITHIN 25' OF A MARATHON PIPE LINE LLC OWNED FACILITY. THE CONTRACTOR IS REQUIRED TO ALLOW MARATHON PIPE LINE LLC VERIFY THE DEPTH OF THEIR FACILITIES PRIOR TO THE COMMENCEMENT OF WORK.

HIGHWAY LIGHTING AND TRAFFIC SIGNALS:
EVEN THOUGH ODOT IS LISTED AS A MEMBER OF THE OHIO UTILITIES PROTECTION SERVICE (OUPS), THE ODOT CONTRACTOR IS REQUIRED TO CONTACT ODOT, DISTRICT 6 TRAFFIC MAINTENANCE DEPARTMENT DIRECTLY ONCE LINES ARE MARKED SO THAT THE ODOT UTILITIES LOCATED WITHIN THIS PROJECT CAN BE DISCUSSED OR CONFIRMED AS NECESSARY PRIOR TO EXCAVATION. THE CONTRACTOR SHALL NOTIFY DISTRICT 6 TRAFFIC MAINTENANCE AT 740-833-8198 AND THE CONSTRUCTION PROJECT ENGINEER, FOURTEEN (14) CALENDAR DAYS IN ADVANCE OF ANY WORK, FOR THE NEED TO VERIFY/DISCUSS ODOT OWNED UTILITIES.

UTILITIES:
NO UTILITY IMPACT IS ANTICIPATED DUE TO THE SCOPE OF WORK. THE ODOT CONTRACTOR IS REQUIRED TO CONTACT OHIO811 A MINIMUM OF 48 HOURS EXCLUDING WEEKENDS AND HOLIDAYS TO PERMIT ALL UNDERGROUND UTILITIES AN OPPORTUNITY TO MARK THEIR LINES. IT IS ALSO THE ODOT CONTRACTOR'S RESPONSIBILITY TO CONTACT ALL NON-MEMBERS OF OHIO811 DIRECTLY A MINIMUM OF 48 HOURS NOTICE EXCLUDING WEEKENDS AND HOLIDAYS TO PROVIDE THEM WITH THE SAME OPPORTUNITY.

IT IS ODOT'S EXPECTATION THAT ALL GUARDRAIL POSTS WILL BE INSTALLED IN THE SAME LOCATIONS AND THERE WILL BE NO DISRUPTION TO UNDERGROUND UTILITIES. IF THERE IS A UTILITY MARKING WITHIN THE TOLERANCE ZONE OF A UTILITY LOCATE FROM THE PROPOSED GUARDRAIL PLACEMENT IT IS THE ODOT CONTRACTORS RESPONSIBILITY TO DIRECTLY CONTACT THE IMPACTED UTILITY AND WORK WITH THEM TO FIND A SOLUTION THAT DOES NOT CHANGE THE GUARDRAIL PLACEMENT OR DAMAGE THE EXISTING UTILITY. NO UTILITY RELOCATION WILL BE REIMBURSED NOR WILL DELAY CLAIMS BE PERMISSIBLE BASED ON LACK OF COORDINATION BETWEEN THE ODOT CONTRACTOR AND THE IMPACTED UTILITY.

PRIOR TO EXCAVATION, THE CONTRACTOR SHALL GIVE A 48-HOUR NOTICE TO THE OHIO UTILITIES PROTECTION SERVICE (OUPS) NOW DOING BUSINESS AS OHIO 811 BY CALLING 811 OR (800-362-2764).

BELOW IS A LIST OF UTILITIES LOCATED WITHIN THE PROJECT AREA TOGETHER WITH THEIR RESPECTIVE OWNERS.

Paul Paxton
American Electric Power
777 Hopewell Drive
Heath, Ohio 43056
Office: 740-348-5322
AEP Solution Center: 800-277-2177
ptpaxton@aep.com
Also copy:
merigney@aep.com

Donald G. Marshall Jr.
AT&T (fka SBC)
111 N 4th St
Columbus, Ohio 43215
Cell: 614-216-2396
AT&T Repair Service: 888-611-4466
Damage Prevention: 937-296-3929
dm619w@att.com
Also copy:
tl9569@att.com
KG1963@att.com
BT2178@att.com

Charter Communications/Spectrum
(aka Time Warner Communications)
3760 Interchange Road
Columbus, Ohio 43204
DL-MOH-CONSTRUCTION-FRELO-TEAM@charter.com
COLUMBUS, OH 43204
614.255.6349
SAM LUTZ
614.481.5047

Rob Caldwell
Columbia Gas of Ohio
3550 Johnny Appleseed Ct.
Columbus, Ohio 43231
Office: 614-818-2104
Cell: 614-370-1906
Customer Service: 1-800-344-4077
Damage Prevention: 1-866-632-6243
columbiagas_columbuseng@nisource.com
Also copy: rcaldwell@nisource.com

COLUMBUS DEPT OF UTILITIES
910 Dublin Road
COLUMBUS, OH 43215
614.645.8276

CITY OF COLUMBUS
DPU - DIVISION OF SEWERAGE AND DRAINAGE
SEWER MAINTENANCE MANAGER
1250 FAIRWOOD AVENUE
COLUMBUS, OH 43206
614-645-7102

CITY OF COLUMBUS
DIVISION OF WATER
910 DUBLIN RD
COLUMBUS, OH 43215
614.645.7788

Austin Guyer
Marathon Pipe Line LLC
10722 East County Road 300 North
Indianapolis, Indiana 46234
Cell: 317-473-7441
aguyer@marathonpetroleum.com

FOR THE DIVISION OF POWER:
THE DIVISION OF POWER (DOP) MAY HAVE UNDERGROUND OR OVERHEAD PRIMARY POWER, SECONDARY POWER, CONDUIT SYSTEMS AND STREET LIGHTING AT THIS WORK LOCATION. THE CONTRACTOR IS HEREBY REQUIRED TO CONTACT OUPS AT 811 OR 1-800-362-2764 FORTY-EIGHT HOURS PRIOR TO CONDUCTING ANY ACTIVITY WITHIN THE CONSTRUCTION AREA.

ANY REQUIRED RELOCATION, SUPPORT, PROTECTION, OR ANY OTHER ACTIVITY CONCERNED WITH THE CITY'S ELECTRICAL FACILITIES IN THE CONSTRUCTION AREA IS TO BE PERFORMED BY THE CONTRACTOR UNDER THE DIRECTION OF DOP PERSONNEL AND AT THE EXPENSE OF THE PROJECT. DOP SHALL MAKE ALL FINAL CONNECTIONS TO DOP'S EXISTING ELECTRICAL SYSTEM AT THE EXPENSE OF THE PROJECT. THE CONTRACTOR SHALL USE MATERIAL AND MAKE REPAIRS TO A CITY OF COLUMBUS STREET LIGHTING SYSTEM BY FOLLOWING DOP'S MATERIAL AND INSTALLATION SPECIFICATIONS (MIS) AND THE CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS (CMSC). ANY NEW OR RE-INSTALLED UNDERGROUND STREETLIGHT SYSTEM SHALL REQUIRE TESTING AS REFERRED TO IN SECTION 1001.18 OF THE CMSC MANUAL. THE CONTRACTOR SHALL CONFORM TO DOP'S EXISTING STREET LIGHTING LOCKOUT/TAGOUT (LOTO) PROCEDURE, MIS-01, COPIES OF WHICH ARE AVAILABLE FROM DOP.

IF ANY ELECTRIC FACILITY BELONGING TO DOP IS DAMAGED IN ANY MANNER BY THE CONTRACTOR, ITS AGENTS, SERVANTS, OR EMPLOYEES, AND REQUIRES EMERGENCY REPAIRS, THE DOP DISPATCH OFFICE SHOULD BE CONTACTED IMMEDIATELY AT (614) 645-7627. DOP SHALL MAKE ALL NECESSARY REPAIRS, AND THE EXPENSE OF SUCH REPAIRS AND OTHER RELATED COSTS SHALL BE PAID BY THE CONTRACTOR TO THE DIVISION OF POWER, CITY OF COLUMBUS, OHIO.

PERMITS:
WHEN EXCAVATING WITHIN COLUMBUS PUBLIC RIGHT OF WAY LIMITS, THE CONTRACTOR SHALL OBTAIN AN EXCAVATION PERMIT FROM CITY OF COLUMBUS, DEPARTMENT OF PUBLIC SERVICE - PERMIT OFFICE BETWEEN THE HOURS OF 7:30 AM AND 4:00 PM MONDAY THROUGH FRIDAY.
PHONE: 614-654-7497
FAX: 614-645-1876
EMAIL: COLSPERMITS@COLUMBUS.GOV

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (ASPHALT CONCRETE BASE), AS PER PLAN, 6.0":
REPAIRS SHALL CONSIST OF REMOVING 6" OF PAVEMENT AND PLACING ITEM 407 - NON-TRACKING TACK COAT, AND 6" OF ITEM 301 - ASPHALT CONCRETE BASE, PG64-22. REPAIR AREAS SHALL BE DETERMINED BY THE PROJECT ENGINEER.

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GENERAL NOTES

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DESIGNATED LOCAL DETOUR ROUTE:
IN ADDITION TO THE OFFICIAL, SIGNED DETOUR ROUTE, A LOCAL ROUTE HAS BEEN DETERMINED TO BE THE SECONDARY, UNSIGNED DETOUR ROUTE OR "DESIGNATED LOCAL DETOUR ROUTE". THIS ROUTE IS SHOWN ON SHEET 13. DURING THE TIME THAT TRAFFIC IS DETOURED, THE CONTRACTOR SHALL MAINTAIN THIS ROUTE, AS WELL AS LOCAL ROADS WITHIN THE SIGNED DETOUR ROUTE (NORTON RD & GEORGESVILLE RD), IN A CONDITION WHICH IS REASONABLY SMOOTH AND FREE FROM HOLES, RUTS, RIDGES, BUMPS, DUST AND STANDING WATER. ONCE THE DETOUR IS REMOVED AND TRAFFIC RETURNED TO ITS NORMAL PATTERN, THE DESIGNATED LOCAL DETOUR ROUTE AND LOCAL ROADS (NORTON RD AND GEORGESVILLE RD) WITHIN THE SIGNED DETOUR ROUTE SHALL BE RESTORED TO A CONDITION THAT IS EQUIVALENT TO THAT WHICH EXISTED PRIOR TO ITS USE FOR THIS PURPOSE. ALL SUCH WORK SHALL BE PERFORMED WHEN AND AS DETERMINED BY THE ENGINEER.

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED FOR USE AS DETERMINED BY THE ENGINEER TO MAINTAIN AND SUBSEQUENTLY RESTORE LOCAL ROADS WITHIN THE SIGNED DETOUR ROUTE & DESIGNATED LOCAL DETOUR ROUTE.

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (ASPHALT CONCRETE BASE), AS PER PLAN, 6.0" = 35 CY
ITEM 614 - ASPHALT CONCRETE FOR MAINTAINING TRAFFIC = 70 CY
ITEM 616 - WATER = 1 MGAL

ITEM 614 - MAINTAINING TRAFFIC (TIME LIMITATION ON A DETOUR):
A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION ON SULLIVANT AVE. SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED 90 CONSECUTIVE CALENDAR DAYS, WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET 14. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF $11,000 PER DAY FOR EACH CALENDAR DAY THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT.

PERMANENT STRIPING SHALL BE IN PLACE PRIOR TO REOPENING.

ITEM 614 - MAINTAINING TRAFFIC (NOTICE OF CLOSURE SIGN):
NOTICE OF CLOSURE SIGNS (W20-H13) SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD OR RAMP CLOSURE IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIME TABLE BELOW.[AT THE APPROVAL OF THE ENGINEER, PORTABLE CHANGEABLE MESSAGE SIGNS MAY BE USED IN LIEU OF THE STANDARD FLATSHEET SIGN FOR CLOSURE DURATIONS OF LESS THAN 1 WEEK.

THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD/RAMP FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT OR NEAR THE POINT OF CLOSURE. THE SIGNS MAY BE ERECTED ANYWHERE ON RAMPS AS LONG AS THEY ARE VISIBLE TO THE MOTORISTS USING THE RAMP. ON ENTRANCE RAMPS, THE SIGNS SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.

Notice of Closure Sign Time Table

Item	Duration of Closure	Sign Displayed to Public	Notification due to District 6 Communications Office
Ramp & Road Closures	>= 2 weeks	14 calendar days prior to closure	21 calendar days prior to closure
	> 12 hours & < 2 weeks	7 calendar days prior to closure	14 calendar days prior to closure
	<= 12 hours	2 business days prior to closure	4 business days prior to closure

THE SIGN SHALL DISPLAY THE DATE OF THE CLOSURE IN MMM-DD FORMAT AND THE NUMBER OF DAYS OF THE CLOSURE. THE LAST LINE OF THE W20-H13 SIGN SHALL DISPLAY THE PHONE NUMBER OF THE DISTRICT 6 PUBLIC INFORMATION CONSTRUCTION LINE, (740)833-8268, WHICH A MOTORIST MAY CALL FOR ADDITIONAL INFORMATION.

ITEM 614 - DETOUR SIGNING:
SIZE AND PLACEMENT OF DETOUR SIGNS (M4-9) SHOULD FOLLOW THE REQUIREMENTS OF THE OMUTCD SECTION 6F.03, SECTION 2A.11 AND TABLE 6F.01.

DETOUR SIGNING SHALL PROVIDE DRIVERS ADEQUATE TIME TO CLEARLY READ THE SIGNS AND MAKE THE PROPER DECISIONS AT EACH REQUIRED TURNING MOVEMENT. THE DESIGNATED DETOUR ROUTE SHALL BE SIGNED IN ACCORDANCE WITH THE REQUIREMENTS BELOW:
-APPROXIMATELY 1500 FEET PRIOR TO TIP OF THE PAINTED GORE AT AN INTERCHANGE WHEN EXITING A HIGH SPEED (45 MPH OR HIGHER) FACILITY.
-AT OR NEAR THE EXISTING SIGN IN THE GORE OF AN INTERCHANGE RAMP.
-AT OR NEAR THE FIRST EXISTING LANE ASSIGNMENT SIGN ON AN INTERCHANGE EXIT RAMP.
-AT OR NEAR THE EXISTING LANE ASSIGNMENT SIGN OR EXISTING ROUTE MARKER AT THE END OF AN EXIT RAMP.
-APPROXIMATELY 500 FEET PRIOR TO A REQUIRED TURN AT AN INTERSECTION NOT CONTROLLED BY A STOP SIGN (FOR 45 MPH OR HIGHER ONLY).
-AT OR NEAR THE EXISTING LANE ASSIGNMENT SIGN OR EXISTING ROUTE MARKER AT AN INTERSECTION.
-EVERY TWO MILES ALONG A TANGENT SECTION BETWEEN TURNING MOVEMENTS OUTSIDE A CITY.
-EVERY TWO BLOCKS ALONG A TANGENT SECTION BETWEEN TURNING MOVEMENTS WITHIN A CITY.
-AT ANY OTHER INTERSECTION OR DECISION POINT WHERE THE DETOUR ROUTE IS CONTRARY TO THE NORMAL, EXPECTED TURNING MANEUVER OR OTHERWISE UNCLEAR.

DETOUR SIGNS SHALL BE PLACED, WHEN POSSIBLE, NEXT TO BUT NOT BLOCKING EXISTING ROUTE MARKERS OR LANE ASSIGNMENT SIGNS. DETOUR SIGNS SHALL NOT OBSCURE OR BE OBSCURED BY OTHER EXISTING OR TEMPORARY SIGNS.

DETOUR SIGNS SHALL BE ERECTED AND/OR UNCOVERED PRIOR TO THE ROAD OR RAMP BEING CLOSED TO TRAFFIC BUT NO EARLIER THAN FOUR HOURS PRIOR TO THE CLOSURE. DETOUR SIGNS SHALL BE COVERED AND/OR REMOVED NO LATER THAN FOUR HOURS FOLLOWING THE ROAD OR RAMP RE-OPENING TO TRAFFIC.
PAYMENT FOR ACCEPTED QUANTITIES WILL BE MADE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL BE FOR ALL MATERIALS, LABOR, INCIDENTALS AND EQUIPMENT FOR FURNISHING, PROPER SIGN PLACEMENT AND SIZING, TIMELY ERECTING AND/OR UNCOVERING OF SIGNS, MAINTAINING SIGNS, AND TIMELY COVERING AND/OR REMOVING SIGNS AND SUPPORTS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.
ITEM 614 - DETOUR SIGNING = LUMP SUM

USE OF WEIGHTED CHANNELIZER:
THE WEIGHTED CHANNELIZER MAY BE USED IN ACCORDANCE WITH THIS SECTION. THE WEIGHTED CHANNELIZER SHALL BE PREDOMINANTLY ORANGE IN COLOR AND SHALL BE MADE OF LIGHTWEIGHT, FLEXIBLE, AND DEFORMABLE MATERIAL. THEY SHALL BE AT LEAST 42 INCHES IN HEIGHT WITH A WEIGHTED BASE. THEY MAY HAVE A HANDLE OR LIFTING DEVICE WHICH EXTENDS ABOVE THE 42" MINIMUM HEIGHT.

THE MARKINGS ON THE WEIGHTED CHANNELIZER SHALL BE HORIZONTAL, CIRCUMFERENTIAL, ALTERNATING ORANGE AND WHITE RETROREFLECTIVE STRIPES 6 INCHES WIDE. EACH WEIGHTED CHANNELIZER SHALL HAVE A MINIMUM OF TWO ORANGE AND TWO WHITE STRIPES. ANY NON-RETROREFLECTIVE SPACES BETWEEN THE HORIZONTAL ORANGE AND WHITE STRIPES SHALL NOT EXCEED 2 INCHES WIDE. THE WEIGHTED CHANNELIZER SHALL HAVE A 4-INCH MINIMUM WIDTH, REGARDLESS OF ORIENTATION.

USE OF WEIGHTED CHANNELIZERS ON FREEWAYS AND MULTILANE HIGHWAYS SHALL BE LIMITED TO SHORT-TERM OPERATION FOR EITHER DAY OR NIGHT. UPON COMPLETION OF WORK, THE WEIGHTED CHANNELIZERS SHALL BE REMOVED. THE WEIGHTED CHANNELIZERS MAY AGAIN BE PLACED ON THE HIGHWAY WHEN THE WORK IS TO RESUME ON THE FOLLOWING DAY OR NIGHT. ANY LANE CLOSURE USING CHANNELIZATION DEVICES, EXPECTED TO REMAIN FOR MORE THAN TWELVE HOURS, SHALL REQUIRE THE USE OF DRUMS OR BARRIERS.

WHEN USED AT NIGHT, WEIGHTED CHANNELIZERS SHALL ONLY BE PLACED IN THE TANGENT AREA. THE TANGENT AREA IS DEFINED AS THE AREA AFTER THE TRANSITION TAPER WHERE THE WORK TAKES PLACE. DRUMS SHALL BE USED IN THE TRANSITION TAPERS FOR NIGHT OPERATIONS. MAXIMUM SPACING OF THE WEIGHTED CHANNELIZER SHALL BE 40 FEET AT NIGHT.

STEPS SHOULD BE TAKEN TO ENSURE THAT THE WEIGHTED CHANNELIZERS WILL NOT BE BLOWN OVER OR DISPLACED BY WIND OR MOVING TRAFFIC. BALLASTS SHOULD NOT PRESENT A HAZARD IF THE WEIGHTED CHANNELIZERS ARE INADVERTENTLY STRUCK, NOR SHOULD THEY AFFECT THE VISIBILITY OF THE WEIGHTED CHANNELIZERS. ALL BALLASTS USED SHOULD BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

PAYMENT SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

CALCULATED AMH
CHECKED VP

MAINTENANCE OF TRAFFIC NOTES

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SHEET NUMBER										PARTICIPATION		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
6-8	9-12	18	19	26						01/IMS/BR	02/IMS/BR						
																ROADWAY	
LS										LS		201	11001	LS		CLEARING AND GRUBBING, AS PER PLAN	6
		1458								1458		202	23001	1458	SY	PAVEMENT REMOVED, AS PER PLAN	6
			250							250		202	38001	250	FT	GUARDRAIL REMOVED, AS PER PLAN	6
			3.00							3		202	42001	3	EACH	ANCHOR ASSEMBLY REMOVED, TYPE A, AS PER PLAN	6
			1							1		202	42041	1	EACH	ANCHOR ASSEMBLY REMOVED, TYPE T, AS PER PLAN	6
			4							4		202	47001	4	EACH	BRIDGE TERMINAL ASSEMBLY REMOVED, AS PER PLAN	6
50										50		202	75200	50	FT	FENCE REMOVED FOR REUSE	
			52							52		203	20001	52	CY	EMBANKMENT, AS PER PLAN	6
		1572								1572		204	10000	1572	SY	SUBGRADE COMPACTION	
			275							275		606	15050	275	FT	GUARDRAIL, TYPE MGS	
			2							2		606	26151	2	EACH	ANCHOR ASSEMBLY, MGS TYPE E, AS PER PLAN (NCHRP 350 OR MASH 2016)	7
			2							2		606	26550	2	EACH	ANCHOR ASSEMBLY, MGS TYPE T	
			2							2		606	35002	2	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
			2							2		606	35102	2	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2	
37.5										37.5		606	98000	37.5	FT	GUARDRAIL, MISC.: ALTERNATE GUARDRAIL PLACEMENT	7
50										50		607	23101	50	FT	FENCE REBUILT, AS PER PLAN	7
			80							80		608	13000	80	SF	6" CONCRETE WALK	
			75							75		608	15000	75	SF	8" CONCRETE WALK	
			2								2	622	25051	2	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D, AS PER PLAN	7
2										2		623	39500	2	EACH	MONUMENT BOX ADJUSTED TO GRADE	
																EROSION CONTROL	
22										22		659	00300	22	CY	TOPSOIL	
210										210		659	10000	210	SY	SEEDING AND MULCHING	
11										11		659	14000	11	SY	REPAIR SEEDING AND MULCHING	
11										11		659	15000	11	SY	INTER-SEEDING	
0.03										0.03		659	20000	0.03	TON	COMMERCIAL FERTILIZER	
0.04										0.04		659	31000	0.04	ACRE	LIME	
1.00										1		659	35000	1	MGAL	WATER	
										1000		832	30000	1000	EACH	EROSION CONTROL	
																DRAINAGE	
			6							6		601	21060	6	SY	TIED CONCRETE BLOCK MAT WITH TYPE 2 UNDERLAYMENT	
			0.8							0.8		601	32200	0.8	CY	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	
			0.21							0.21		602	20000	0.21	CY	CONCRETE MASONRY	
404										404		605	31100	404	FT	AGGREGATE DRAINS	
			37							10	27	611	04400	37	FT	12" CONDUIT, TYPE B	
			113							113		611	05200	113	FT	12" CONDUIT, TYPE F 707.05 TYPE C OR 707.21	
			1							1		611	98180	1	EACH	CATCH BASIN, NO. 3A	
			1								1	611	99114	1	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE D	
			1							1		611	99574	1	EACH	MANHOLE, NO. 3	
																PAVEMENT	
	35									35		251	01043	35	CY	PARTIAL DEPTH PAVEMENT REPAIR (ASPHALT CONCRETE BASE), AS PER PLAN, 6.0"	6
		324								324		254	01000	324	SY	PAVEMENT PLANING, ASPHALT CONCRETE, VARIABLE DEPTH (1.5" AVG.)	
		391								391		301	46000	391	CY	ASPHALT CONCRETE BASE, PG64-22	
		320								320		304	20000	320	CY	AGGREGATE BASE	
		290								290		407	20000	290	GAL	NON-TRACKING TACK COAT	
		151								151		441	50000	151	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	
			19							19		609	24510	19	FT	CURB, TYPE 4-C	
			15							15		609	26000	15	FT	CURB, TYPE 6	
																WATER WORK	
1										1		638	10800	1	EACH	VALVE BOX ADJUSTED TO GRADE	

CALCULATED AMH
CHECKED DKR

GENERAL SUMMARY

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STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS:

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):

AS-1-15	REVISED	07-17-15
AS-2-15	REVISED	01-18-19
BR-2-15	DATED	07-17-15
SBR-1-20	REVISED	07-17-20
SICD-1-21	DATED	01-15-21
SICD-2-14	REVISED	01-15-21
VPF-1-90	REVISED	07-20-18

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 9TH EDITION 2020, AND THE ODOT BRIDGE DESIGN MANUAL, 2020 EDITION, INCLUDING REVISIONS THROUGH JULY 2021.

DESIGN LOADING:

HL-93

DESIGN DATA:

CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4500 PSI (SUPERSTRUCTURE)

CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4000 PSI (SUBSTRUCTURE)

REINFORCING STEEL - ASTM A615 OR A996 GRADE 60 MINIMUM YIELD STRENGTH 60,000 PSI

STRUCTURAL STEEL - ASTM A709 GRADE 50 - YIELD STRENGTH 50 KSI

DECK PROTECTION METHOD:

EPOXY COATED REINFORCING STEEL
2½" CONCRETE COVER

MONOLITHIC WEARING SURFACE:

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

DECK PLACEMENT DESIGN ASSUMPTIONS:

THE FOLLOWING ASSUMPTIONS OF CONSTRUCTION MEANS AND METHODS WERE MADE FOR THE ANALYSIS AND DESIGN OF THE SUPERSTRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE FALSEWORK SUPPORT SYSTEM WITHIN THESE PARAMETERS AND WILL ASSUME RESPONSIBILITY FOR SUPERSTRUCTURE ANALYSIS FOR DEVIATION FROM THESE DESIGN ASSUMPTIONS.

AN EIGHT WHEEL FINISHING MACHINE WITH A MAXIMUM LOAD OF 2.40 KIPS FOR A TOTAL MACHINE LOAD OF 19.2 KIPS.

A MINIMUM OUT-TO-OUT WHEEL SPACING AT EACH END OF THE MACHINE OF 103".

A MAXIMUM SPACING OF OVERHANG FALSEWORK BRACKETS OF 48 IN.

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

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 INDICATINVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05,105.02 AND 513.04

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.

ITEM 622 - CONCRETE BARRIER, TYPE D, AS PER PLAN:

SEE PLAN SHEET 14 / 19 FOR LIMITS OF PAYMENT.

ITEM 622 - CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D, AS PER PLAN:

SEE PLAN SHEET 14 / 19 FOR LIMITS OF PAYMENT.

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

SUPERSTRUCTURE:

DESCRIPTION: THIS WORK CONSISTS OF THE REMOVAL OF THE CONCRETE BRIDGE DECK INCLUDING, ABUTMENT BACKWALL, PARAPETS, DECK JOINTS, SAFETY CURB, SIDEWALK, SCUPPERS, END CROSSFRAMES AND OTHER APPURTENANCES FROM STEEL SUPPORTING SYSTEMS. THE PROVISIONS OF ITEM 202 APPLY EXCEPT AS SPECIFIED BY THE FOLLOWING NOTES. PERFORM WORK CAREFULLY DURING DECK REMOVALS 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 TRAFFIC: PRIOR TO DEMOLITION OF ANY PORTIONS OF THE EXISTING SUPERSTRUCTURE, THE CONTRACTOR SHALL SUBMIT PLANS FOR THE PROTECTION OF TRAFFIC (VEHICULAR, PEDESTRIAN, BOAT, ETC.) AS PER C&MS 2019 501.05.B.2.

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 BOTTOM LAYER 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.

REMOVAL METHODS: THE CONTRACTOR MAY REMOVE CONCRETE BY CUTTING AND BY MEANS OF HAND OPERATED PNEUMATIC HAMMERS POINTED OR BLUNTED CHISEL TOOLS. FOR REMOVALS OVER STRUCTURAL MEMBERS (STEEL GIRDER), THE CONTRACTOR MAY USE A HAMMER HEAVIER THAN 35 POUNDS BUT NOT EXCEED 90 POUNDS UNLESS APPROVED BY THE ENGINEER. REMOVAL METHODS OVER STRUCTURAL MEMBERS SHALL ENSURE ADEQUATE DEPTH CONTROL AND PREVENT NICKING OR GOUGING THE PRIMARY STRUCTURAL MEMBERS.

DUE TO THE POSSIBLE PRESENCE OF ATTACHMENTS (EG., FINISHING MACHINE, SCUPPER AND FORM SUPPORTS, ETC.) TO EXISTING STRUCTURAL MEMBERS, PERFORM WORK CAREFULLY DURING DECK REMOVAL TO AVOID DAMAGING STRUCTURAL MEMBERS THAT ARE TO REMAIN. REPLACE OR REPAIR STRUCTURAL MEMBERS DAMAGED BY THE REMOVAL 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.

INSPECTION OF EXISTING STEEL: THE ENGINEER WILL VISUALLY INSPECT ALL EXISTING BUTT-WELDED SPLICES AND/OR TOP FLANGE COVER PLATE FILLET WELDS TO ENSURE THE WELDS, PLATES AND GIRDERS ARE FREE OF DEFECTS AND CRACKS. IF NECESSARY, REMOVE ALL DECK SLAB HAUNCH FORMS IMMEDIATELY ADJACENT TO SUCH WELDS THAT MAY INTERFERE WITH THE ENGINEER'S INSPECTION. THE INSPECTION WILL NOT TAKE PLACE UNTIL THE TOP FLANGES ARE CLEANED ACCORDING TO 511.10, BUT IT WILL BE DONE BEFORE THE DECK SLAB REINFORCEMENT IS INSTALLED. THE ENGINEER WILL REPORT ALL CRACKS FOUND TO THE OFFICE OF CONSTRUCTION ADMINISTRATION, BRIDGE CONSTRUCTION SPECIALIST, ALONG WITH SPECIFIC INFORMATION ON LOCATION OF THE CRACKS, LENGTH, AND DEPTH SO AN EVALUATION AND REPAIR OR REPLACEMENT RECOMMENDATION CAN BE MADE.

EXISTING WELDED ATTACHEMENTS: REMOVE EXISTING WELDED ATTACHMENTS (E.G. FINISHING MACHINE AND FORM SUPPORTS; AND SUPPORTS FOR SCUPPERS AND BULB ANGLES WHICH ARE TO BE REMOVED) LOCATED IN THE DESINATED TENSION PORTIONS OF THE TOP FLANGES OF EXISTING STEEL MEMBERS AND GRIND THE FLANGE SURFACES SMOOTH. CAREFULLY GRIND PARALLEL TO THE FLANGES.
MEASUREMENT & PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF CONCRETE REMOVALS ON A CUBIC YARD BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT BID PRICE FOR ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN.

ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN: (CONTINUED)

END CROSSFRAMES:

THIS ITEM SHALL INCLUDE THE REMOVAL OF THE END CROSSFRAMES, GUSSET PLATES, AND WELDS FROM THE BEAMS. THE CONTRACTOR SHALL BE CAREFUL WHEN REMOVING THE END CROSS-FRAMES AND WELDS FROM THE BEAMS SO NO DAMAGE IS DONE TO THE BEAMS. ANY DAMAGE DONE TO THE BEAMS SHALL BE REPAIRED BY THE CONTRACTOR AT THEIR OWN EXPENSE. MEASUREMENT AND PAYMENT: MEASUREMENT OF END CROSS FRAMES REMOVED INCLUDES ALL STEEL ANGLES, GUSSET PLATES, AND WELDS BETWEEN STEEL BEAM BAYS. PAYMENT WILL BE PER CONTRACT BID PRICE FOR ITEM 202 PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.

SUBSTRUCTURE:

ALL CONCRETE REMOVED AS DETAILED IN THE PLANS SHALL BE REMOVED 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 REBUILT STRUCTURE. THIS ITEM SHALL INCLUDE REMOVING EXPANSION JOINT ARMOR.

CONTRACTOR SHALL SALVAGE THE RAILING ON THE SOUTH END OF THE BRIDGE. CONTRACTOR SHALL GENTLY REMOVE BOTTOM RAIL, TOP RAIL, AND BRACKETS AND DELIVER TO 400 E WILLIAM ST. ODOT DISTRICT 6 HQ.

MEAUSREMENT & PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF CONCRETE REMOVAL PER CONTRACT BID PRICE FOR ITEM 202, PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.

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

ALL REQUIREMENTS OF 513 APPLY TO SHOP FABRICATED MEMBERS. PERFORM WORK FOR FIELD FABRICATED MEMBERS ACCORDING TO ITEM 513, EXCEPT AS MODIFIED HEREIN. THE DEPARTMENT WILL NOT REQUIRE THE CONTRACTOR PERFORMING FIELD FABRICATION TO BE PREQUALIFIED AS SPECIFIED IN SUPPLEMENT 1078. SUBMIT A WRITTEN LETTER OF MATERIAL ACCEPTANCE, 501.06, TO THE ENGINEER. PROVIDE SHOP DRAWINGS ACCORDING TO 513.06 OR SUPPLY THE ENGINEER WITH "AS-BUILT" DRAWINGS MEETING 513.06 AFTER COMPLETION OF FIELD FABRICATION. THE ENGINEER WILL REVIEW THE SUBMITTED DRAWINGS FOR CONCURRENCE WITHE THE FINAL AS-BUILT CONDITION. IF NECESSARY, THE ENGINEER MAY CONTACT THE OFFICE OF STRUCTURAL ENGINEERING FOR TECHNICAL ASSISTANCE. IF THE ENGINEER IS SATISFIED WITH THE "AS-BUILT" DRAWINGS AND THE DELIVERED MATERIALS, SUPPLY A COPY OF THE DRAWINGS, STAMPED AND DATED, ALONG WITH MICROFILM, TO THE OFFICE OF STRUCTURAL ENGINEERING FOR RECORD PURPOSES. THE FOLLOWING MEMBERS ARE INCLUDED IN THIS ITEM: BEARING STIFFENERS.

BEARING STIFFENERS QUANTITIES:
36 STIFFNER PLATES FOR 36WF194 BEAMS - TOTAL WEIGHT: 1034 LBS.
24 STIFFNER PLATES FOR 36WF245 BEAMS - TOTAL WEIGHT: 1172 LBS.

STEEL NOTCH TOUGHNESS REQUIREMENT (CHARPY V-NOTCH):

CVN: WHERE A SHAPE OR PLATE IS DESIGNATED (CVN), FURNISH MATERIAL THAT MEETS THE MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01.

ABBREVIATIONS:

ABUT. - ABUTMENT
A.S. - APPROACH SLAB
BRG. - BEARING
C/C - CENTER TO CENTER
C.J. - CONSTRUCTION JOINT
C.I.P. - CAST-IN-PLACE
CONC. - CONCRETE
CONST. - CONSTRUCTION
DIA. - DIAMETER
EL. - ELEVATION
EX. - EXISTING
EXP. - EXPANSION
F.A. - FORWARD ABUTMENT
F/F - FACE TO FACE
FWD. - FORWARD
GFRP - GLASS FIBER REINFORCING BARS
IN. - INCH
L.F. - LEFT FORWARD
LMC - LATEX MODIFIED CONCRETE
LT. - LEFT
MID. - MIDDLE
MIN. - MINIMUM
NB - NORTHBOUND
PROP. - PROPOSED
R.A. - REAR ABUTMENT
RT. - RIGHT
SB - SOUTHBOUND
SDC - SUPERPLASTICIZED DENSE CONCRETE
SPA. - SPACES
STA. - STATION
SUP - SHARED USE PATH
SUPER. - SUPERSTRUCTURE
T/T - TOE TO TOE
TYP. - TYPICAL
VERT. - VERTICAL
W/ - WITH

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.

ITEM 526 - REINFORCED CONCRETE APPROACH SLAB (T=13") AS PER PLAN:

CONSTRUCTION OF THE PROPOSED REINFORCED CONCRETE APPROACH SLABS SHALL BE IN ACCORDANCE WITH THE DESIGN STRENGTHS LISTED IN THE STANDARD DRAWING AS-1-15 (REVISED 7-17-15):

CONCRETE, CLASS QC2: COMPRESSIVE STRENGTH = 4,500 PSI
REINFORCING STEEL: MIN. YIELD STRENGTH = 60,000 PSI

ALL REMAINING DIMENSIONS, BAR SPACING, ETC. SHALL FOLLOW THE PLAN DRAWINGS ON SHEETS 17/19.

ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN:

PATCHING TO BE AS DIRECTED BY ENGINEER.

PATCH THE EXISTING ABUTMENTS, 3FT X 3FT AT 5 LOCATIONS FOR EACH ABUTMENT. A QUANTITY OF 45 SQ IS ESTIMATED FOR EACH ABUTMENT. TOTAL = 90 SF ABUTMENTS.

PATCH THE EXISTING PIERS, 4FT X 3FT AT 3 LOCATIONS FOR EACH PIER. A QUANTITY OF 36 SQ IS ESTIMATED FOR EACH PIER. TOTAL = 108 SF PIERS.

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

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 BEAMS, 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 BEARING 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 514 - FIELD PAINTING MISC.:

ALL REQUIREMENTS OF 514 APPLY TO FIELD PAINTED MEMBERS. THIS ITEM INCLUDES INTERMEDIATE AND FINISH COAT PAINTING OF THE BEARING STIFFENERS. THE PRIME COAT IS INCLUDED WITH ITEM 513 FOR PAYMENT. THIS ITEM ALSO INCLUDES REPAIRING ANY DAMAGE TO THE EXISTING BEAMS CAUSED BY CONTRACTOR'S OPERATIONS. THE FINISH COAT OF PAINT SHALL BE FEDERAL COLOR GREEN (FS-595C,14277).

RESOURCE INTERNATIONAL INC.
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
(614) 823-4949

DESIGNED	DRAWN	REVIEWED	DATE
JGM	JGM	NCK	10/18/2021
CHECKED	REVISED	STRUCTURE FILE NUMBER	
MMS	-	2512459	

GENERAL NOTES
BRIDGE NO. FRA-270-0617
SULLIVANT AVE OVER IR 270

FRA-270-06.17
PID No. 104977

ITEM	EXT.	PARTICIPATION		TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SHEET NO.
		01/IMS/BR	02/IMS/BR								
						BRIDGE NO. FRA-270-0617					
202	11203	LS		LS		PORTIONS OF STRUCTURE REMOVED , OVER 20 FOOT SPAN, AS PER PLAN				LS	2
202	22900	214		214	SY	APPROACH SLAB REMOVED				214	
202	23500	1,906		1,906	SY	WEARING COURSE REMOVED			1,906		
503	11100	LS		LS		COFFERDAMS AND EXCAVATION BRACING			LS		
503	21300	LS		LS		UNCLASSIFIED EXCAVATION				LS	
509	10000	131,593		131,593	POUND	EPOXY COATED REINFORCING STEEL	10,497		121,096		
509	30020	4,191		4,191	FT	NO. 4 GFRP DEFORMED BARS			4,191		
510	10000	376		376	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	376				
511	34412	65		65	CY	CLASS QC2 CONCRETE WITH QC/QA, SUPERSTRUCTURE			65		
511	34446	517		517	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK			517		
511	34450	48		48	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)			48		
511	44112	17		17	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT NOT INCLUDING FOOTING	17				
512	10100	1,019	289	1,308	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	108	138	1,062		
512	33000	64		64	SY	TYPE 2 WATERPROOFING	64				
512	74000	302		302	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES	164	138			
513	10001	LS		LS		STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN			LS		2
513	20000	4,158		4,158	EACH	WELDED STUD SHEAR CONNECTORS			4,158		
514	27700	214		214	SF	FIELD PAINTING MISC.: BEARING STIFFENERS			214		
516	13900	114		114	SF	2" PREFORMED EXPANSION JOINT FILLER			114		
516	14020	118		118	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL			118		
516	44200	12		12	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE)	12				
						(10" X 15" X 3.14" WITH 11" X 16" X 1 1/2" LOAD PLATE)					
516	47001	LS		LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN			LS		2
517	75122	314		314	FT	RAILING (CONCRETE PARAPET WITH TWIN STEEL TUBE RAILING & VANDAL PROTECTION FENCE)			314		
518	21200	29		29	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	29				
518	40000	126		126	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	126				
518	40010	160		160	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	160				
519	11101	198		198	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN	90	108			2
526	15011	238		238	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=13"), AS PER PLAN			238		2
607	39930	278		278	FT	VANDAL PROTECTION FENCE, 12' CURVED, COATED FABRIC			278		
622	24001		252	252	FT	CONCRETE BARRIER, TYPE D, AS PER PLAN			252		2
622	25051		6	6	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D, AS PER PLAN			6		2

RESOURCE INTERNATIONAL INC.
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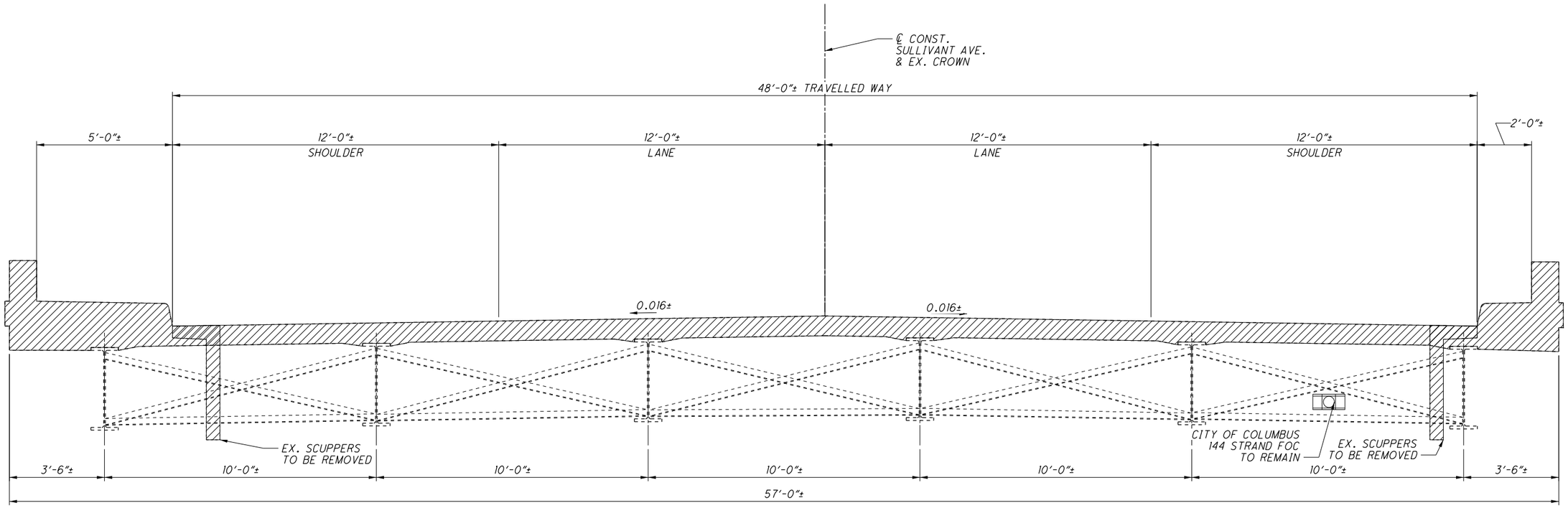
DESIGNED JGM | DRAWN JGM | REVIEWED NCK | DATE 10/18/2021
CHECKED MMS | REVISED - | STRUCTURE FILE NUMBER 2512459

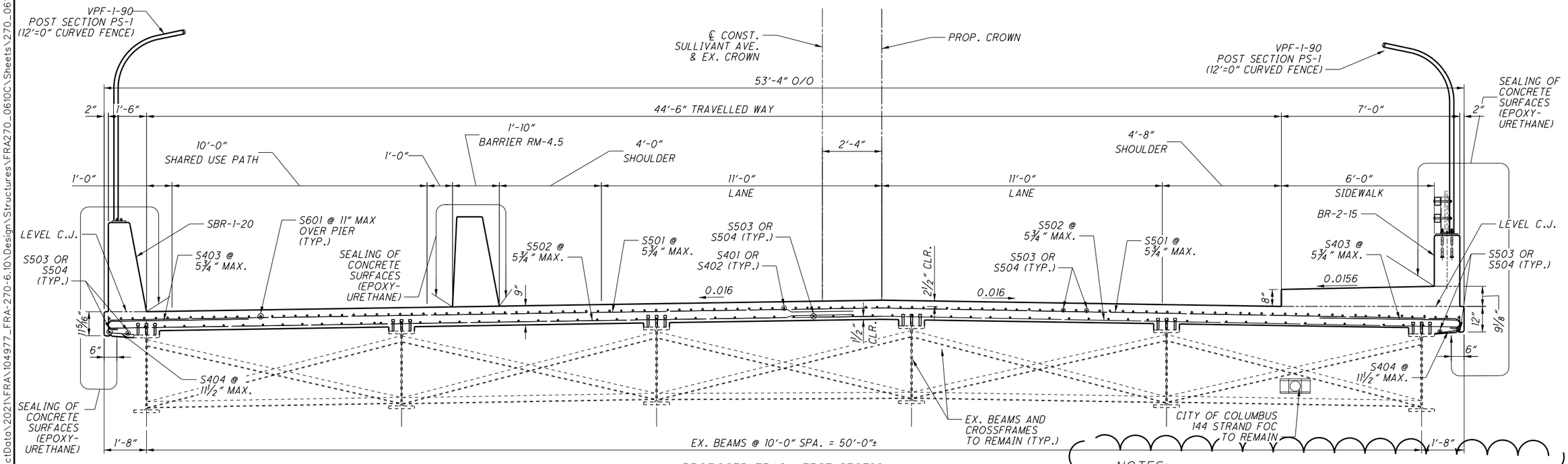
ESTIMATED QUANTITIES

BRIDGE NO. FRA-270-0617
SULLIVANT AVE OVER IR 270

FRA-270-06.17
PID No. 104977



EXISTING TRASNVERSE SECTION



PROPOSED TRASNVERSE SECTION

(PARAPET REBARS NOT SHOWN FOR CLARITY)

NOTES:

1. LAP NO. 5 BAR 2'-5" MIN.
2. THE BRIDGE DECK FOR THE SHARED USE PATH SHALL BE FINISHED PER C&MS 511.18 (NO GROOVING REQUIRED).

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JGM	—	2512459	

TRANSVERSE SECTION

BRIDGE NO. FRA-270-0617
SULLIVANT AVENUE OVER IR-270

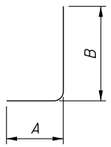
FRA-270-06.17
PID NO.: 104977

12 / 19

39 / 46

MARK	TOTAL	LENGTH	WEIGHT (LBS.)	TYPE	DIMENSIONS						
					A	B	C	D	E	R	INC
PARAPET											
R601	315	7'-3"	1459	40							
R602	315	7'-0"	3312	23	6"	3'-3"	3'-3"	1'-0 1/2"		2"	
	2	4'-2"				3'-3 1/2"					
R603	SER. OF	TO	151	1	1'-0"						
	11	5'-0"				4'-1 1/2"					
R604	16	4'-2"	100	1	1'-0"	3'-3 1/2"					
SUB-TOTAL			5022								
TOTAL			131593								
PARAPET - GLASS FIBER REINFORCED POLYMER (GFRP) BARS											
RG401	99	30'-0"	ST								
RG402	11	20'-11"	ST								
RG403	108	10'-2"	ST								
RG404	4	11'-7"	ST								
RG405	24	10'-0"	ST								
RG406	12	6'-4"	38								
RG407	12	5'-1"	ST								
RG408	22	3'-2"	ST								
TOTAL		4791	FT								
SIDEWALK PARAPET - FOR INFORMATION ONLY											
R501	40	30'-0"	1252	ST							
R502	4	3'-6"	15	ST							
R503	168	6'-2"	1081	ST							
R504	8	3'-11"	33	ST							
R505	304	7'-10"	2484	30	1'-6"	8"	2'-5"	2'-3"			
R506	68	10'-10"	768	30	1'-6"	8"	3'-11"	3'-9"			
R507	10	4'-6"	47	1	1'-6"	3'-1"					
R508	10	4'-4"	45	1	1'-6"	2'-11"					
R509	4	6'-1"	25	41							
R510	4	13'-7"	57	1	10"	12'-11"					
R511	4	14'-1"	59	ST							
R512	10	15'-8"	163	19	14'-4"	1'-4"	4"				
R513	10	15'-8"	163	ST							
SUB-TOTAL			6191								
INTERIOR PARAPET - FOR INFORMATION ONLY											
Y401	80	10'-0"	534	50	534	1'-2"	10"	3'-1"	3'-11"	3'-1"	
Y402	2	9'-9 1/2"	21	50	21	1'-2"	10"	2'-10"	3'-5 1/2"	2'-10"	
Y403	2	9'-6"	20	50	20	1'-2"	10"	2'-4"	3'-1 1/2"	2'-4"	
Y404	2	9'-0"	19	50	19	1'-2"	10"	1'-10"	2'-7 1/2"	1'-10"	
Y405	2	8'-7"	18	50	18	1'-2"	10"	1'-4"	2'-1 1/2"	1'-4"	
Y406	2	8'-2"	17	50	17	1'-2"	10"	10"	1'-7 1/2"	10"	
Y407	2	7'-9"	16	50	16	1'-2"	10"	4"	1'-1 1/2"	4"	
Y501	30	14'-8"	459	ST							
Y502	18	19'-8"	369	ST							
Y503	18	1'-8"	31	ST							
Y504	SER OF.	TO	57	ST							3'-2"
Y505	2	15'-0"	33	19	12'-2 1/4"	2'-9"	8 1/4"				
* Y801	78	1'-0"	208	ST							
SUB-TOTAL			1803								
APPROACH SLABS - FOR INFORMATION ONLY											
AS501	94	27'-9"	2721	ST							
AS502	18	26'-7"	500	ST							
AS503	70	19'-8"	1436	ST							
AS504	4	15'-9"	66	ST							
AS1001	164	20'-11"	14757	16	19'-6"						
AS1002	8	17'-8"	609	16	15'-9"						
SUB-TOTAL			19480								

BENDING DIAGRAMS



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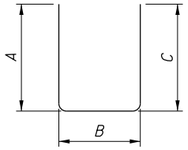

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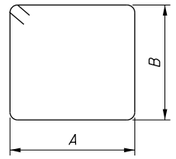

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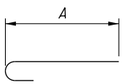

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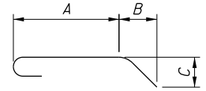
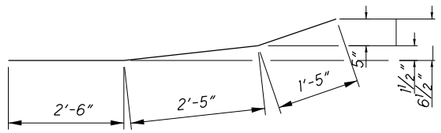
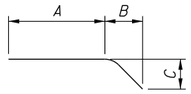


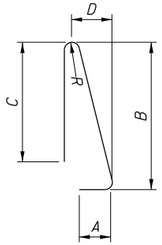
TYPE-18



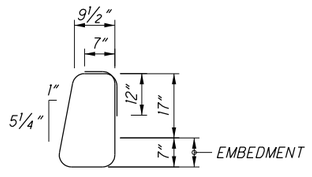
TYPE-38
(SEE NOTE 3)



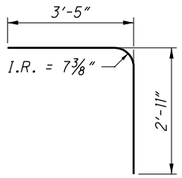
TYPE-19



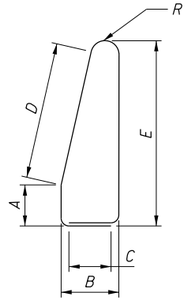
TYPE-23



TYPE-40



TYPE-41



TYPE-50

LEGEND:

* - INDICATES DOWEL BAR

NOTES:

1. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE 3 DIGITS ARE USED, AND THE FIRST 2 DIGITS WHERE FOUR DIGITS ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, P601 IS A NO. 6 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. "R" INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.

2. ALL REINFORCING STEEL TO BE EPOXY COATED, UNLESS NOTED OTHERWISE.

3. TYPE-38 BAR MAY BE PROVIDED AS EPOXY COATED STEEL REINFORCEMENT IF A GFRP FABRICATED SHAPE IS NOT AVAILABLE.

RESOURCE INTERNATIONAL INC.
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
(614) 823-4949

DESIGNED	DRAWN	REVIEWED	DATE
JGM	JGM	NCK	10/18/2021
CHECKED	REVISED	STRUCTURE FILE NUMBER	
MMS	-	2512459	

REINFORCING LIST
BRIDGE NO. FRA-270-0617
SULLIVANT AVE OVER IR 270

FRA-270-06.17
PID No. 104977