

UTILITIES

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

DAYTON POWER AND LIGHT COMPANY
1900 DRYDEN ROAD
DAYTON, OH 45439
937-331-4521
WILLIAM GOURLEY
WILLIAM.GOURLEY@AES.COM

MIAMI VALLEY LIGHTING
1065 WOODMAN DRIVE
DAYTON, OH 45432
937-259-7192
ROBYN LIVESAY/STEVEN GALYO
ROBYN.LIVESAY@AES.COM
STEVEN.GALYO@AES.COM

TC ENERGY (COLUMBIA GAS TRANSMISSION)
ATTN: CROSSINGS & ENCROACHMENTS
700 LOUISIANA STREET, SUITE 700
HOUSTON, TX 77002
800-562-8931
US_CROSSINGS@TCENERGY.COM

VECTREN/CENTERPOINT ENERGY COMPANY
6500 CLYO ROAD
CENTERVILLE, OH 45459
PUBLICPROJECT@CENTERPOINTENERGY.COM

AT&T OHIO
7201 FAR HILLS AVENUE
DAYTON, OH 45459
937-296-3588
HOWARD LAUDERMILK
HL1596@ATT.COM

CHARTER COMMUNICATIONS/SPECTRUM
3691 TURNER ROAD
DAYTON, OH 45415
937-425-8854
CHRISTOPHER BOOKSH
CHRISTOPHER.BOOKSH@CHARTER.COM

GREENE COUNTY WATER & SEWER
667 DAYTON-XENIA ROAD
XENIA, OH 45385
937-562-7462
MARISSA RAGLIN/KEVIN MOYER
MRAGLIN@CO.GREENE.OH.US
KMAYER@CO.GREENE.OH.US

GREENE COUNTY ENGINEER'S OFFICE
615 DAYTON-XENIA ROAD
XENIA, OH 45385
937-562-7500
STEPHANIE ANN GOFF
SGOFF@CO.GREENE.OH.US

THAYER POWER AND COMMUNICATION LINE
CONSTRUCTION COMPANY, LLC
950 FREEWAY DRIVE N.
COLUMBUS, OH 43229
614-379-6419
TIM LAPOINTE
TL0695@ATT.COM

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

SURVEYING PARAMETERS

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE THIS SHEET OF THE PLANS FOR A TABLE CONTAINING PROJECT CONTROL INFORMATION.

USE THE FOLLOWING PROJECT CONTROL, VERTICAL POSITIONING, AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING:

PROJECT CONTROL

POSITIONING METHOD: ODOT VRS
MONUMENT TYPE: TYPE B

VERTICAL POSITIONING

ORTHOMETRIC HEIGHT DATUM: NAVD88
GEOID: GEOID 12B

HORIZONTAL POSITIONING

REFERENCE FRAME: NAD83(2011)
ELLIPSOID: GRS80
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: OHIO STATE PLANE, SOUTH ZONE
COMBINED SCALE FACTOR: 1.00009387
ORIGIN OF COORDINATE SYSTEM: 0,0

USE THE POSITIONING METHODS AND MONUMENT TYPE USED IN THE ORIGINAL SURVEY TO RESTORE ALL MONUMENTS RELATED TO PRIMARY PROJECT CONTROL THAT ARE DAMAGED OR DESTROYED BY CONSTRUCTION ACTIVITIES. RESTORE THE DAMAGED OR DESTROYED MONUMENTS IN ACCORDANCE WITH CMS 623.

UNITS ARE IN U.S. SURVEY FEET.

ROUNDING

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

CONSTRUCTION NOISE

ACTIVITIES AND LAND USE ADJACENT TO THIS PROJECT MAY BE AFFECTED BY CONSTRUCTION NOISE. CONTRACTOR MUST COMPLY WITH ALL LOCAL NOISE ORDINANCES.

CLEARING AND GRUBBING

REMOVE ALL TREES AND STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE CONSTRUCTION LIMITS UNDER THE LUMP SUM BID FOR ITEM 201, CLEARING AND GRUBBING. THE FOLLOWING IS AN APPROXIMATE ESTIMATE OF THE NUMBER OF TREES AND STUMPS TO BE REMOVED.

SIZES	NO. TREES	NO. STUMPS	TOTAL
18"	14	0	14
30"	6	0	6
48"	1	0	1
60"	0	0	0

MONUMENT ASSEMBLIES

CONSTRUCT MONUMENT ASSEMBLIES IN ACCORDANCE WITH THE DETAILS SHOWN ON THE STANDARD CONSTRUCTION DRAWINGS AND AT THE LOCATIONS SHOWN ON SHEET NO. 339.

PRIMARY PROJECT CONTROL INFORMATION (GROUND)				
POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
CP1	616120.203	1620088.044	1058.94	IRON PIN SET
CP2	615917.286	1619753.796	1057.87	IRON PIN AND CAP FOUND
CP3	616331.350	1619572.094	1059.15	MAG NAIL SET
CP4	617228.785	1619397.514	1063.44	IRON PIN SET
CP5	618092.069	1619104.150	1062.45	IRON PIN SET
CP6	619023.394	1618822.522	1065.59	IRON PIN SET
CP7	619833.020	1618185.941	1066.80	IRON PIN SET
CP8	620137.084	1618807.852	1065.22	MAG NAIL SET
CP9	620661.642	1617162.559	1062.19	IRON PIN SET
CP10	620532.003	1616645.288	1063.95	MAG NAIL SET
CP11	621365.112	1615695.366	1065.10	IRON PIN SET
CP12	621785.453	1614688.958	1062.16	IRON PIN SET
CP13	622371.048	1613880.333	1065.20	IRON PIN SET
CP14	623335.593	1612828.283	1064.57	IRON PIN SET
CP15	624389.010	1611793.173	1059.74	IRON PIN SET
CP16	624994.338	1611137.840	1060.56	IRON PIN SET
CP17	624507.932	1610604.795	1062.74	MAG NAIL SET
CP18	625893.742	1610523.205	1067.51	IRON PIN SET
CP19	626606.845	1610639.567	1065.10	MAG NAIL SET
CP20	627544.609	1610239.346	1067.40	IRON PIN SET
CP21	628378.127	1609770.865	1068.37	IRON PIN SET
CP22	628886.238	1609340.934	1069.79	IRON PIN SET
CP23	628165.491	1609265.344	1067.05	IRON PIN SET
CP24	629132.301	1608707.710	1070.37	IRON PIN SET
CP25	629703.517	1607686.621	1075.64	IRON PIN SET
CP26	630019.257	1607455.037	1067.35	IRON PIN SET
CP27	630886.681	1607034.997	1064.04	IRON PIN SET
CP28	631799.507	1606719.966	1058.55	IRON PIN SET
CP29	632788.323	1606336.447	1058.01	IRON PIN SET
CP30	633559.175	1605478.204	1063.29	IRON PIN SET
CP31	633915.074	1604459.254	1063.67	IRON PIN SET
CP32	634145.375	1603799.320	1070.91	IRON PIN SET
CP33	634373.353	1603334.651	1070.79	IRON PIN SET

SEEDING AND MULCHING

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

659, SOIL ANALYSIS TEST	3 EACH
659, TOPSOIL	11,081 CU. YD.
659, SEEDING AND MULCHING	99,825 SQ. YD.
659, REPAIR SEEDING AND MULCHING	4,991 SQ. YD.
659, INTER-SEEDING	4,991 SQ. YD.
659, COMMERCIAL FERTILIZER	13.5 TON
659, LIME	20.6 ACRES
659, WATER	552 M. GAL.

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.

ITEM 606 - BRIDGE TERMINAL ASSEMBLY, TYPE 4, AS PER PLAN

THIS PAY ITEM SHALL INCLUDE THE COST TO FURNISH AND INSTALL ALL GUARDRAIL COMPONENTS (NORMAL AND EXTRA) OF THE 25' LONG BRIDGE TERMINAL ASSEMBLY, TYPE 4 AS SEEN ON THE PLAN INSERT SHEET.

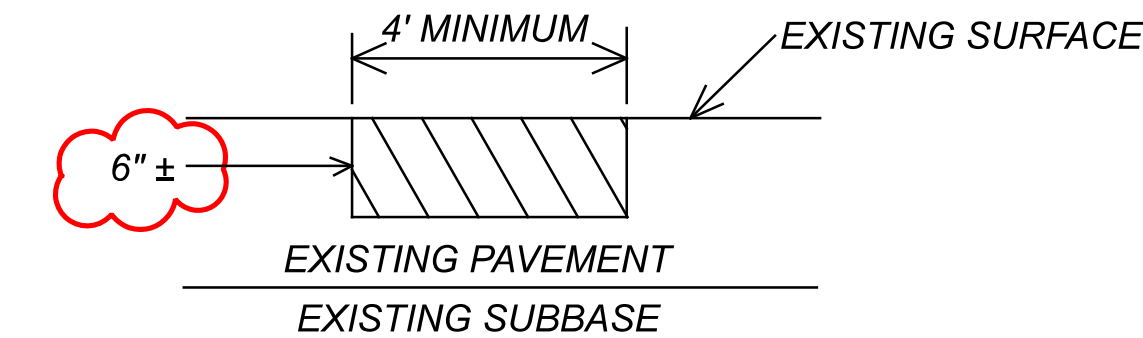
ITEM 617 - WATER

THE FOLLOWING ITEM IS PROVIDED TO APPLY WATER AS DIRECTED BY THE ENGINEER WHEN REQUIRED TO AID WITH THE COMPACTION AND TO PREVENT SEGREGATION OF ITEM 617, COMPACTED AGGREGATE.

617, WATER	1 MGAL
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ITEM 253- PAVEMENT REPAIR, AS PER PLAN

AN ESTIMATED QUANTITY OF 285 CY YDS OF ITEM 253- PAVEMENT REPAIR, AS PER PLAN, HAS BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER. THIS OPERATION SHALL BE PERFORMED BEFORE RESURFACING OF THE ROADWAY. RESURFACING OF THESE AREAS SHALL TAKE PLACE WITHIN 2 WEEKS OF PERFORMING THE REPAIR WORK.



EXISTING DETERIORATED ASPHALT SHALL BE REMOVED TO A MAXIMUM DEPTH OF 6" INCHES OR AS DIRECTED BY THE ENGINEER. THIS WORK CONSISTS OF PARTIAL DEPTH REMOVAL OF THE EXISTING PAVEMENT IN AREAS EXHIBITING DETERIORATION AT THE SURFACE, APPLYING TACK COAT AND PLACING AND COMPACTING ITEM 301 ASPHALT CONCRETE BASE. THE LOCATION AND SIZE OF THE REPAIR SHALL BE DETERMINED BY THE ENGINEER.

ITEM SPECIAL - MAILBOX SUPPORT

THIS WORK SHALL CONSIST OF FURNISHING AND ERECTING MAILBOX SUPPORTS AND ANY ASSOCIATED MOUNTING HARDWARE IN ACCORDANCE WITH PLAN DETAILS, AND ATTACHING AN OWNER-SUPPLIED MAILBOX AT LOCATIONS SPECIFIED IN THE PLAN, OR OTHERWISE ESTABLISHED BY THE ENGINEER.

WOOD POSTS SHALL BE NOMINAL 4 INCHES BY 4 INCHES SQUARE OR 4.5 INCHES DIAMETER ROUND, AND CONFORM TO 710.14.

STEEL POSTS SHALL BE NOMINAL PIPE SIZE 2 INCHES I.D., AND CONFORM TO AASHTO M 181.

ALL HARDWARE INCLUDING BUT NOT LIMITED TO PLATES, SCREWS, BOLTS, AND ETC. SHALL BE COMMERCIAL-GRADE GALVANIZED STEEL.

POSTS SHALL BE SET PER THE FIRST PARAGRAPH OF 606.03, AND SHALL IN NO INSTANCE BE ENCASED IN CONCRETE.

SUPPORT HARDWARE SHALL ACCOMMODATE EITHER A SINGLE OR A DOUBLE MAILBOX INSTALLATION, AND NO MORE THAN TWO BOXES MAY BE MOUNTED ON A SINGLE POST.

THE MAILBOX SHALL BE SECURELY AND NEATLY ATTACHED BY THE CONTRACTOR TO THE NEW SUPPORT. THE CONTRACTOR SHALL FURNISH ALL NECESSARY ATTACHMENT HARDWARE (NUTS, BOLTS, PLATES, SPACERS, AND WASHERS) AS NECESSARY TO ACCOMMODATE THE COMPLETE INSTALLATION.

IN THE ABSENCE OF A NEW BOX SUPPLIED BY THE OWNER, THE CONTRACTOR SHALL SALVAGE THE EXISTING BOX AND PLACE IT ON THE NEW SUPPORT. DUE CARE SHALL BE EXERCISED IN SUCH AN OPERATION, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING ANY BOX DAMAGED BY IMPROPER HANDLING ON HIS PART, AS JUDGED AND DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE LOCAL POST MASTER REGARDING THE TIMING OF THE MOVEMENT OF ANY MAILBOX TO A NEW LOCATION.

PAYMENT UNDER THIS ITEM SHALL BE LIMITED TO FINAL PERMANENT INSTALLATIONS. TEMPORARY INSTALLATIONS SHALL BE IN ACCORDANCE WITH 107.10. HOWEVER, THE SAME MATERIAL AND SIZE LIMITATIONS AS FOR PERMANENT INSTALLATIONS SHALL APPLY.

MAILBOX SUPPORTS, COMPLETE IN PLACE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH, FOR ITEM SPECIAL MAILBOX SUPPORT SYSTEM, (SINGLE) (DOUBLE).

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.

DRAINAGE DISCHARGE CONTINUANCE

FURNISH A DRAINAGE DISCHARGE CONTINUANCE FOR ANY DRAINAGE DISCHARGE DISTURBED BY THE WORK AND NOT SHOWN IN THE PLANS.

PROVIDE UNOBSTRUCTED OUTLETS TO ALL YARD DRAINS, FIELD DRAINS, AND SUMP LINES ENCOUNTERED DURING CONSTRUCTION. WHEN OUTLETTING YARD DRAINS, FIELD DRAINS, AND SUMP LINES INTO THE ROADWAY DITCH OR STORM SEWER USE ITEM 611 CONDUIT, MISC.: TYPE F FOR DRAINAGE DISCHARGE CONTINUANCE. THE OPTIMUM OUTLET ELEVATION IS ONE FOOT ABOVE THE FLOWLINE ELEVATION OF THE DITCH. FURNISH AN EROSION CONTROL PAD AS SHOWN IN THE STANDARD CONSTRUCTION DRAWING DM-1.1 WHEN OUTLETTING A CONDUIT TO A DITCH. THE COST OF THE EROSION CONTROL PAD AND NECESSARY BENDS OR BRANCHES IS INCLUDED FOR THE PAYMENT IN THE PERTINENT CONDUIT ITEMS.

FURNISH A DRILLED HOLE WHEN OUTLETTING INTO A STORM SEWER. THE COST OF THE DRILLED CORE HOLE IS INCLUDED IN THE PERTINENT CONDUIT ITEMS.

FURNISH A WELL GRADED TRANSITION BETWEEN THE DITCH AND SWALE WHEN OUTLETTING A SWALE TO A DITCH. THE COST FOR THE GRADED TRANSITION IS INCLUDED IN ITEM 203, EMBANKMENT, AS PER PLAN.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER IN MAKING THE ABOVE DRAINAGE DISCHARGE CONTINUANCE:

ITEM 203, EMBANKMENT AS PER PLAN	25 CU. YD.
ITEM 611, CONDUIT, MISC.: TYPE F FOR DRAINAGE DISCHARGE CONTINUANCE	100 FT.

ASBESTOS ABATEMENT

AN ASBESTOS SURVEY FOR SFN 2901978 SCHEDULED FOR RENOVATION WORK WAS CONDUCTED BY A LICENSED ASBESTOS HAZARD EVALUATION SPECIALIST. THE ASBESTOS SURVEY DID NOT IDENTIFY THE PRESENCE OF ANY ASBESTOS CONTAINING MATERIALS.

AN ASBESTOS SURVEY FOR SFN 2901994 SCHEDULED FOR RENOVATION WORK WAS CONDUCTED BY A LICENSED ASBESTOS HAZARD EVALUATION SPECIALIST. THE ASBESTOS SURVEY DID NOT IDENTIFY THE PRESENCE OF ANY ASBESTOS CONTAINING MATERIALS.

AN ASBESTOS SURVEY FOR SFN 2902044 SCHEDULED FOR RENOVATION WORK WAS CONDUCTED BY A LICENSED ASBESTOS HAZARD EVALUATION SPECIALIST. THE ASBESTOS SURVEY DID NOT IDENTIFY THE PRESENCE OF ANY ASBESTOS CONTAINING MATERIALS.

ELECTRONIC SUBMISSION:

THE CONTRACTOR SHALL SUBMIT ELECTRONICALLY TO OEPA A COMPLETED NOTIFICATION OF DEMOLITION & RENOVATION FORM (NORF) AND APPLICABLE FEES ALONG WITH THE ASBESTOS SURVEY REPORT. THE COMPLETED NORF MUST BE SUBMITTED TO OEPA AT LEAST 10 DAYS PRIOR TO ANY DEMOLITION AND RENOVATION ACTIVITY. THE CONTRACTOR IS RESPONSIBLE FOR RETAINING AN ELECTRONIC COPY OF THE NORF (IN PDF FORM) FOR SUBMISSION TO THE DISTRICT ENVIRONMENTAL STAFF AND ONE HARD COPY TO THE PROJECT ENGINEER.

(GO TO THE OEPA BUSINESS CENTER AND SUBMIT THE NORF AND PAYMENT ALONG WITH THE ASBESTOS SURVEY REPORT)

HARD COPY SUBMISSION:

THE CONTRACTOR MAY ELECT TO SUBMIT A HARD COPY OF THE COMPLETED NORF AND PAYMENT ALONG WITH THE ASBESTOS SURVEY REPORT TO THE FOLLOWING:

ASBESTOS PROGRAM	OR	ASBESTOS PROGRAM
OHIO EPA, DAPC		OHIO EPA, DAPC
P.O.BOX 1049		50 W. TOWN ST., SUITE 700
COLUMBUS, OHIO 43216-1049		COLUMBUS, OHIO 43215

IF THE CONTRACTOR ELECTS TO SUBMIT A HARD COPY TO OEPA THEY ARE RESPONSIBLE FOR RETAINING A HARD COPY OF THE NORF FOR SUBMISSION TO THE DISTRICT ENVIRONMENTAL STAFF AND ONE HARD COPY TO THE PROJECT ENGINEER.

BASIS OF PAYMENT

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

690E98400 ITEM SPECIAL - WORK INVOLVING ASBESTOS CONTAINING MATERIALS - LUMP SUM

INTERIM COMPLETION DATES

FOR THE PURPOSE OF MAINTAINING TRAFFIC, THE PROJECT HAS BEEN DIVIDED INTO 3 MAIN SECTIONS.

SECTION #1: STATION 459+00 TO 561+00 (INCLUDING WOLFORD ROAD)
SECTION #2: STATION 534+50 TO 667+00
SECTION #3: STATION 653+00 TO 767+00

EACH SECTION INCLUDES 2 OR 3 MOT PHASES (SEE PLAN SHEETS 15-34)

ALL WORK CAPTURED UNDER ANY ONE SECTION THAT IS INITIATED WITHIN THE 2023 CONSTRUCTION SEASON SHALL BE FULLY COMPLETED BY THE INTERIM COMPLETION DATE 10/31/2023.

ANY REMAINING SECTION SHALL NOT BEGIN WORK UNTIL 4/01/2024 AND SHALL BE COMPLETED BY THE FINAL COMPLETION DATE 8/01/2024.

DISINCENTIVES IN THE AMOUNT OF \$4,300 PER CALENDAR DAY WILL BE ASSESSED FOR FAILURE TO PERFORM WORK WITHIN A SECTION BY THE INTERIM COMPLETION DATE AND THE FINAL COMPLETION AS SPECIFIED ABOVE.

COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN

COFFERDAMS AND EXCAVATION BRACING INSTALLED FOR THE PROJECT ARE FOR DEWATERING THE WORK AREA AND ARE CONSIDERED FILL. COFFERDAMS AND EXCAVATION BRACING DESIGN, CONSTRUCTION, AND REIMBURSEMENT FOR DAMAGE IS BASED ON CMS 503. THE CONTRACTOR MUST COMPLY WITH ANY IN-STREAM RESTRICTION IN THE SPECIAL PROVISIONS – WATERWAY PERMIT. ADDING FILL TO THE STREAM TO DEWATER THE WORK AREA REQUIRES A TEMPORARY ACCESS FILL (TAF) SUBMISSION PER THE SPECIAL PROVISIONS.

IF THE CONTRACTOR CHOOSES TO IMPACT THE STREAM DURING THE MONTHS OF APRIL THROUGH OCTOBER: ALL REQUIREMENTS OF CMS 503 APPLY, UNLESS STIPULATED ELSEWHERE IN THIS NOTE.

IF THE CONTRACTOR CHOOSES TO IMPACT THE STREAM AT ANY TIME IN THE MONTHS OF NOVEMBER THROUGH MARCH: EVEN IF THE ACTUAL WATER ELEVATION EXCEEDS 3 FEET ABOVE THE STATED ORDINARY HIGH WATER MARK, THE DEPARTMENT WILL NOT REIMBURSE THE CONTRACTOR FOR RESULTING DAMAGE TO THE WORK PROTECTED BY THE COFFERDAM. ALL OTHER REQUIREMENTS OF CMS 503 APPLY.



ITEM 614. MAINTAINING TRAFFIC

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES, EXCEPT ONE LANE OF SOUTHBOUND TRAFFIC MAY BE MAINTAINED AND ONE LANE OF NORTHBOUND TRAFFIC MAY BE CLOSED USING A DIRECTIONAL CLOSURE SHOWN ON SHEET 4 BETWEEN APRIL 15 AND OCTOBER 15, BY USE OF THE EXISTING PAVEMENT AND THE COMPLETED PAVEMENT.

BY THE END OF THE WORK DAY, THE OPEN TRENCH SHALL BE BACKFILLED TO COMPLY WITH MT-101.90 USING DRUMS TO PROTECT THE DROP OFF.

BEFORE REOPENING THE LANE TO TRAFFIC DURING THE DIRECTIONAL CLOSURE, ITEM 301 BITUMINOUS AGGREGATE BASE SHALL BE COMPLETED FLUSH WITH THE EXISTING PAVEMENT. THE DEPARTMENT WILL PAY FOR THE PERMANENT ITEM 301 BITUMINOUS AGGREGATE BASE THAT IS COMPLETED AND LEFT IN PLACE. THE WASTE TEMPORARY MATERIAL SHALL BE CONSIDER INCIDENTAL AND INCLUDED IN THE LUMP SUM ITEM 614 MAINTAINING TRAFFIC.

TRAFFIC ON SOUTHBOUND SR 72 SHALL BE MAINTAINED AT ALL TIMES BY USE OF THE EXISTING PAVEMENT, THE COMPLETED PAVEMENT, AND TEMPORARY SURFACES USING ITEM 614 AND/OR ITEM 615.

LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

SEQUENCE OF CONSTRUCTION

THE FOLLOWING SEQUENCE OF CONSTRUCTION IS ASSUMED FOR THIS PROJECT. THE PROJECT CORRIDOR WILL BE DIVIDED INTO THREE SEGMENTS, AS SHOWN ON SHEET 15.

SECTION 1 - PRE-PHASE 1:

PLACE WORK ZONE PAVEMENT ON THE SB SHOULDER IN THE VICINITY OF THE PROPOSED SR 72 PIPE CROSSINGS, FOR PIPES WHICH WILL BE OPEN CUT, AS SHOWN ON SHEET 21. MAINTAIN TWO- WAY TRAFFIC USING FLAGGERS.

PHASE 1:

* DETOUR NB TRAFFIC AS SHOWN IN THE DETOUR PLAN. CLOSE THE NB LANE ON SR 72 FROM KLONTZ ROAD TO WOLFORD ROAD. CONSTRUCT THE NB SHOULDER WIDENING FROM STA 503+25 TO WOLFORD RD. DO NOT INSTALL THE SURFACE COURSE. BEGIN CONSTRUCTION OF THE GRE-72-9.46 CULVERT, AS SHOWN ON SHEET 20.

PHASE 2:

* SHIFT SB SR 72 TRAFFIC TO THE NB SIDE OF SR 72 AND CONSTRUCT THE SB SHOULDER AS SHOWN ON SHEETS 23 THRU 25. IT IS ASSUMED THAT THE CULVERT ON THE SB SIDE WILL STILL BE UNDER CONSTRUCTION. COMPLETE SHOULDER WIDENING ON THE SB SIDE TO STA 504+00, IN ORDER TO ACCOMMODATE THE CROSSOVER TRAFFIC PATTERN IN PHASE 3.

PHASE 3:

CROSS OVER SB TRAFFIC BACK TO THE SB SIDE IN THE VICINITY OF GRE-72-9.46, AND COMPLETE CONSTRUCTION OF THE CULVERT AND SHOULDER WIDENING.

SECTION 2 AND 3 WILL FOLLOW THE EXAMPLE MOT SET UP USED FOR SECTION 1. IN ADDITION TO OTHER REQUIREMENTS LISTED IN THIS PLAN, THE FOLLOWING REQUIREMENTS SHALL BE MET FOR EACH SECTION OF CONSTRUCTION:

- 1) CONSTRUCTION OF EACH SEGMENT SHALL BEGIN ON THE NB SIDE, TO ALLOW CROSSROAD TRAFFIC TO ADJUST TO 1-WAY OPERATIONS WHILE SB TRAFFIC IS MAINTAINED IN ITS NATURAL LANE.
- 2) ALL LANE SHIFTS SHALL BE MADE IN EITHER STRAIGHT TAPERS WITH A 55:1 TAPER, OR REVERSE CURVES WITH A MINIMUM 1980' RADIUS.
- 3) PIPES INSTALLATIONS UNDER SR 72 SHALL FOLLOW THE DETAILS PROVIDED IN SECTION C-C, ON SHEET 21.
- 4) SEGMENT 2 SHALL NOT BE CONSTRUCTED CONCURRENTLY WITH SEGMENT 1 OR SEGMENT 3, IN ORDER TO KEEP DESIGNATED LOCAL DETOUR ROUTES OPEN.

ITEM 614. MAINTAINING TRAFFIC (CONT.)

5) IF WORK ZONE MARKINGS ARE PLACED ON THE SURFACE COURSE PAVEMENT, THE MARKINGS SHALL BE PLACED IN THE SAME ALIGNMENT AS THE FINAL MARKINGS.

6) MARKINGS WHICH ARE NOT IN THE FINAL ALIGNMENT SHALL BE PLACED ONLY ON EXISTING PAVEMENT TO BE RESURFACED, TEMPORARY PAVEMENT, OR INTERMEDIATE COURSE PAVEMENT.

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN STANDARD 48 X 30 INCH ROAD CLOSED SIGNS, SIGN SUPPORTS, BARRICADES AND LIGHTS, AS DETAILED IN SCD MT-101.60 DURING PERIODS IN WHICH THE AFFECTED ROADS ARE CLOSED TO TRAFFIC.

THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AT ALL TIMES, IN CONFORMANCE WITH CM&S 614.02 (B). THIS WORK COULD INCLUDE, BUT IS NOT LIMITED TO TEMPORARY GRADING, JACKING TEMPORARY PIPES UNDER SR 72 TO MAINTAIN DRAINAGE WHILE EXISTING PIPES ARE REMOVED, EXTENDING EXISTING PIPES DURING CONSTRUCTION OF WORK ZONE PAVEMENT, OR EXTENDING DRIVEWAY PIPES FOR PLACEMENT OF TRAFFIC COMPACTED SURFACE.

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 FLAT SHEET SIGN FOR CLOSURE DURATIONS OF LESS THAN 1 WEEK.

ITEM	DURATION OF CLOSURE	SIGN DISPLAYED TO THE PUBLIC
RAMP & ROAD CLOSURES	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	>12 HOURS & < 2 WEEKS	7 CALENDAR DAYS PRIOR TO CLOSURE
	<= 12 HOURS	2 BUSINESS DAYS PRIOR TO CLOSURE

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 SIGN SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.

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 LISTS A PHONE NUMBER WHICH A MOTORIST MAY CALL FOR ADDITIONAL INFORMATION. THIS IS TO BE A SPECIFIC OFFICE WITHIN THE DISTRICT RATHER THAN THE GENERAL SWITCHBOARD NUMBER.

ROAD WILL BE CLOSED MM-DD FOR DAYS INFO: 1-513-933-6600

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY: ITEM 614 MAINTAINING TRAFFIC (LUMP)

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.

TRENCH FOR WIDENING

TRENCH EXCAVATION FOR BASE WIDENING SHALL BE ONLY ON ONE SIDE OF THE PAVEMENT AT A TIME. THE OPEN TRENCH SHALL BE ADEQUATELY MAINTAINED AND PROTECTED WITH DRUMS OR BARRICADES AT ALL TIMES. PLACEMENT OF PROPOSED SUBBASE AND BASE MATERIAL SHALL FOLLOW AS CLOSELY AS POSSIBLE BEHIND EXCAVATION OPERATIONS. THE LENGTH OF WIDENING TRENCH WHICH IS OPEN AT ANY ONE TIME SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIMES BE SUBJECT TO APPROVAL OF THE ENGINEER.

OVERNIGHT TRENCH CLOSURE

THE BASE WIDENING SHALL BE COMPLETED TO A DEPTH OF NO MORE THAN 12 INCHES BELOW THE EXISTING PAVEMENT BY THE END OF EACH WORK DAY. NO TRENCH SHALL BE LEFT OPEN OVERNIGHT EXCEPT FOR A SHORT LENGTH (25 FEET OR LESS) OF A WORK SECTION AT THE END OF THE TRENCH. IN CASE WORK MUST BE SUSPENDED BECAUSE OF INCLEMENT WEATHER OR OTHER REASONS, THE TRENCH FOR THE UNCOMPLETED BASE WIDENING SHALL BE BACKFILLED AT THE DIRECTION OF THE ENGINEER, AT NO ADDITIONAL COST TO THE PROJECT.

DUST CONTROL

THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED FOR DUST CONTROL PURPOSES:

ITEM 616, WATER 100 M. GAL.

FLOODLIGHTING

FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHTTIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE ROADWAY. TO ENSURE THE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR AND THE ENGINEER SHALL DRIVE THROUGH THE WORK SITE 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.

ITEM 614. WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS (UNIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING A NON-GATING IMPACT ATTENUATOR. FURNISH AN IMPACT ATTENUATOR FROM THE OFFICE OF ROADWAY ENGINEERING'S APPROVED LIST FOR WORK ZONE IMPACT ATTENUATORS, FROM THE ROADWAY STANDARDS 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.

DESIGN AGENCY



EGGEMAN ENGINEERING & CONSULTING
6958 OLD CLIFTON RD
SPRINGFIELD, OH 45502
(937) 319-6426

DESIGNER
MJH

REVIEWER
KAE 1-26-22

PROJECT ID
112038

SHEET TOTAL
P.11 421

SHEET NO.	PHASE	REF. NO.	STATION		614						615			622							
			FROM	TO	INCREASED BARRIER DELINEATION	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	BARRIER REFLECTOR, TYPE 1 (ONE-WAY)	OBJECT MARKER, ONE WAY	WORK ZONE EDGE LINE, CLASS 1, 4"		WORK ZONE EDGE LINE, CLASS III, 6", 624 PAINT	WORK ZONE CENTER LINE, CLASS III, 6", 624 PAINT	WORK ZONE STOP LINE, CLASS I	WORK ZONE ARROW, CLASS I	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B	PORTABLE BARRIER, UNANCHORED					
									WHITE	YELLOW											FT
20	SECTION 1 PHASE 1	WEW-1	496+99	504+40					741												
		WEY-1	496+99	504+40						741											
		PB-1	500+00	501+90	190		4	4							190						
		IA-1	501+90			1															
21		WEW-2	518+08	522+70					462												
		WEY-2	518+08	522+70						462											
		WZP-1	518+08	522+19									190								
		PB-2	520+20	521+10	90		3	3							90						
		IA-2	521+10			1															
23-25	PHASE 2	WEW-3	501+00	550+55					4955												
23-24	PHASE 2	WEY-3	501+00	550+55						4955											
24		PB-3	520+60	521+10	50		3	3							50						
24		IA-3	521+10			1															
26	PHASE 3	WEW-4	497+40	506+67					923												
		WEY-4	497+40	506+67						923											
		PB-4	500+00	502+10	210		4	4							210						
		IA-4	502+10			1															
	SECTION 2																				
31-32	PHASE 2	WEW-5	547+34	662+00					11466												
31-32	PHASE 2	WEY-5	547+34	662+00						11466											
	SECTION 3																				
34	PHASE 2	WEW-6	662+61	763+12					10051												
34	PHASE 2	WEY-6	662+61	763+12						10051											
	PIPE CONSTRUCTION																				
		GRE-72-1025	541+00		140	2	3	3						190	140						
		GRE-72-1091	576+16		140	2	3	3						190	140						
		GRE-72-1115	591+48		140	2	3	3						190	140						
		GRE-72-1162	625+21		140	2	3	3						190	140						
		GRE-72-1241	657+00		140	2	3	3						190	140						
		GRE-72-1280	673+87		140	2	3	3						190	140						
		GRE-72-1316	696+44		140	2	3	3						190	140						
		GRE-72-1358	715+54		140	2	3	3						190	140						
		SPAHR RD										10	2								
		WOLFORD RD										17	2								
		LACKEY RD										10	2								
		STRAYLEY RD										12	2								
		FEDERAL RD (WEST)										10	2								
		FEDERAL RD (EAST)										10	2								
		TURNBULL RD											1								
	ENTIRE PROJECT		496+99	764+25																	
	SUBTOTALS								18457 FT	18457 FT											
TOTALS CARRIED TO GENERAL SUMMARY									1660	20	35	35	7.03 MI	12	6	69	13	1710	1660		

MAINTENANCE OF TRAFFIC
SUBSUMMARY

DESIGN AGENCY

 EGGEMAN ENGINEERING & CONSULTING
 6555 OLD CLIFTON RD
 SPRINGFIELD, OH 45502
 (937) 319-6426

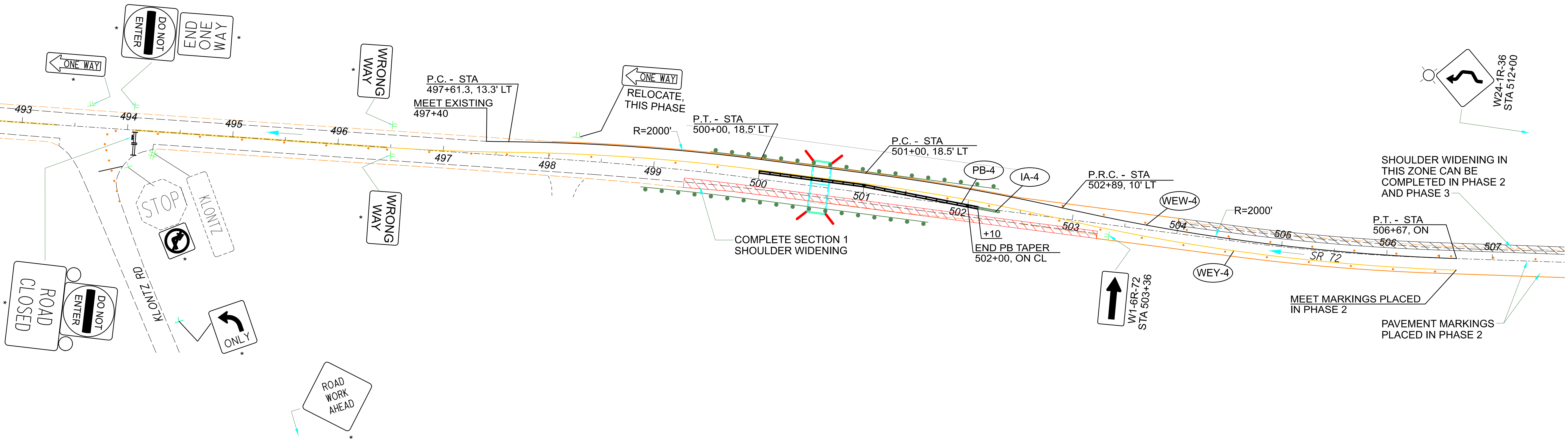
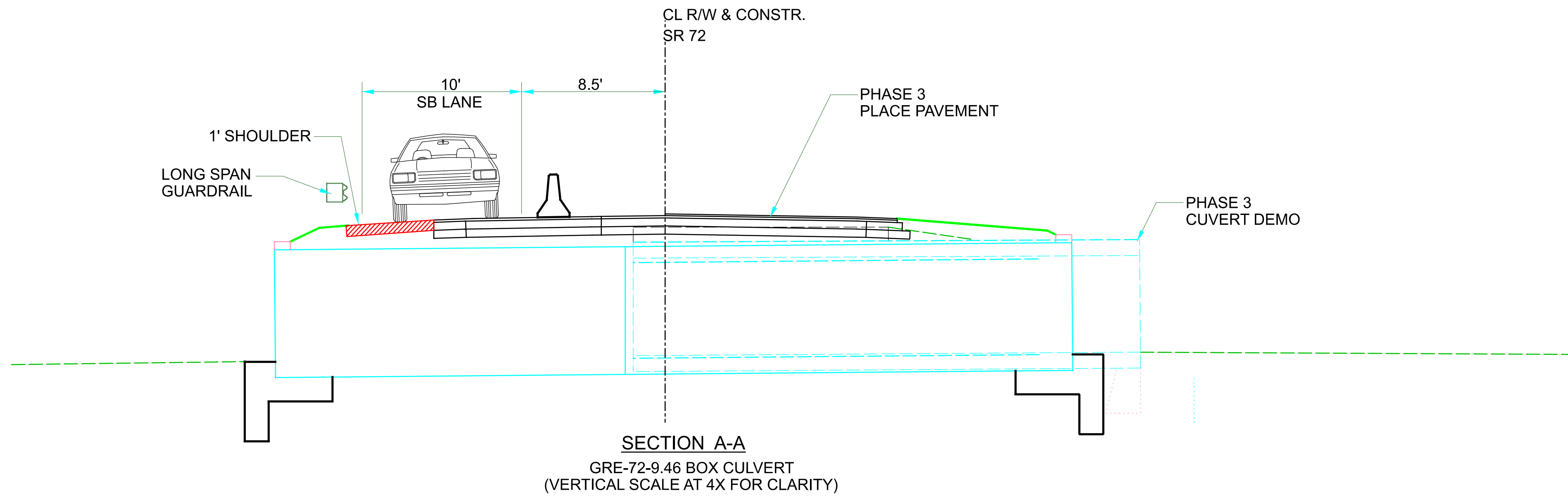
DESIGNER
MJH

REVIEWER
KAE 1-26-22

PROJECT ID
112038

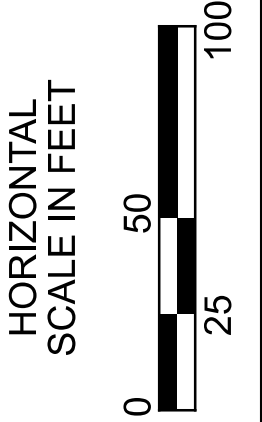
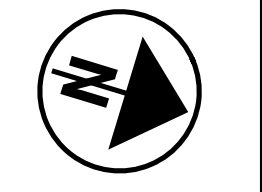
SHEET TOTAL
P.14 421

NOTES:
 1) SEE SHEET 13 FOR PLAN LEGEND.
 2) ASTERISK DENOTES SIGN PLACED IN PREVIOUS PHASE.



GRE-72-8.71

MODEL: Sheet PAPER: 34x22 (in.) DATE: 12/9/2022 TIME: 8:01:51 AM USER: mhunt
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MAINTENANCE OF TRAFFIC PLAN
 SECTION 1 - PHASE 3 - COMPLETE CULVERT AND SHOULDER WIDENING

DESIGN AGENCY



DESIGNER
 MJH

REVIEWER
 KAE 1-26-22

PROJECT ID
 112038

SHEET TOTAL
 P.26 421

SHEET NUM.											PART.					ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
8	9	10	40	41	42	43	60	110	336		01/STR/PV	02/SAF/OT	03/STR/BR	04/STR/CV	05/SAF/CV						
												LS				201	11000	LS		CLEARING AND GRUBBING	
							13					11			2	202	20010	13	EACH	HEADWALL REMOVED	
				8,882	6,676	214					695	15,077				202	23000	15,772	SY	PAVEMENT REMOVED	
				134							134					202	23500	134	SY	WEARING COURSE REMOVED	
							76					76				202	30000	76	SF	WALK REMOVED	
							1,139					1,139				202	34900	1,139	FT	PIPE REMOVED	
			386											386		202	35100	386	FT	PIPE REMOVED, 24" AND UNDER	
			169											56	113	202	35200	169	FT	PIPE REMOVED, OVER 24"	
							1,241					1,241				202	38000	1,241	FT	GUARDRAIL REMOVED	
							12					12				202	42001	12	EACH	ANCHOR ASSEMBLY REMOVED, TYPE A, AS PER PLAN	9
							8					8				202	47000	8	EACH	BRIDGE TERMINAL ASSEMBLY REMOVED	
							18					18				202	53100	18	EACH	MAILBOX REMOVED	
							2					2				202	58100	2	EACH	CATCH BASIN REMOVED	
							208					208				202	75000	208	FT	FENCE REMOVED	
							1					1				202	75250	1	EACH	GATE REMOVED	
							1					1				202	98100	1	EACH	REMOVAL MISC.:CLEANOUT	9
							8					8				202	98100	8	EACH	REMOVAL MISC.:DELINEATOR POST	9
							1					1				202	98100	1	EACH	REMOVAL MISC.:FENCE POST	9
							1					1				202	98100	1	EACH	REMOVAL MISC.:FLAGPOLE	9
							1					1				202	98100	1	EACH	REMOVAL MISC.:POLE FOUNDATION	9
							15					15				202	98100	15	EACH	REMOVAL MISC.:POST	9
							1					1				202	98100	1	EACH	REMOVAL MISC.:ROCK	9
							1					1				202	98100	1	EACH	REMOVAL MISC.:YARD DRAIN	9
								21,097				21,097				203	10000	21,097	CY	EXCAVATION	
								25,732				25,732				203	20000	25,732	CY	EMBANKMENT	
		25										25				203	20001	25	CY	EMBANKMENT, AS PER PLAN	10
			29,988	14,175	214						15,431	28,946				204	10000	44,377	SY	SUBGRADE COMPACTION	
												19,440				204	13000	19,440	CY	EXCAVATION OF SUBGRADE	
												39,802				204	30020	39,802	CY	GRANULAR MATERIAL, TYPE C	
	22											22				204	45000	22	hour	PROOF ROLLING	
								35,080				35,080				204	50000	35,080	SY	GEOTEXTILE FABRIC	
								4,542				4,542				204	51000	4,542	SY	GEOGRID	
			61	11							72					209	72000	72	STA	PREPARING SUBGRADE FOR SHOULDER PAVING	
							787.5					787.5				606	15050	787.5	FT	GUARDRAIL, TYPE MGS	
							100					100				606	17350	100	FT	GUARDRAIL, TYPE MGS, 25' LONG-SPAN	
							12					12				606	26150	12	EACH	ANCHOR ASSEMBLY, MGS TYPE E (NCHRP 350 OR MASH 2016)	
							2					2				606	35002	2	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
							6					6				606	35141	6	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 4, AS PER PLAN	8
							267					267				608	10000	267	SF	4" CONCRETE WALK	
									1			1				623	39600	1	EACH	MONUMENT BOX RECONSTRUCTED TO GRADE	
									115			115				623	40500	115	EACH	REFERENCE MONUMENT	
									33			33				623	40520	33	EACH	RIGHT-OF-WAY MONUMENT	
			30									30				626	00110	30	EACH	BARRIER REFLECTOR, TYPE 2, BI-DIRECTIONAL	
							19					19				SPECIAL	69050000	19	EACH	MAILBOX SUPPORT	8
												LS				878	25000	LS		INSPECTION AND COMPACTION TESTING OF UNBOUND MATERIALS	
		27											6	21							
							917					917				601	32200	27	CY	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	
												3				601	45020	917	SY	INFILTRATION BASIN FILTER	
3												3				659	00100	3	EACH	SOIL ANALYSIS TEST	
11,081							3,810					14,891				659	00300	14,891	CY	TOPSOIL	
99,825												99,825				659	10000	99,825	SY	SEEDING AND MULCHING	
4,991												4,991				659	14000	4,991	SY	REPAIR SEEDING AND MULCHING	
4,991												4,991				659	15000	4,991	SY	INTER-SEEDING	
13.5												13.5				659	20000	13.5	TON	COMMERCIAL FERTILIZER	
20.6												20.6				659	31000	20.6	ACRE	LIME	
552												552				659	35000	552	MGAL	WATER	
							23					23				660	30000	23	SY	SODDING UNSTAKED	
							34,288					34,288				670	00700	34,288	SY	DITCH EROSION PROTECTION	
										LS	LS	LS	LS	LS		832	15000	LS		STORM WATER POLLUTION PREVENTION PLAN	
										LS	LS	LS	LS	LS		832	15002	LS		STORM WATER POLLUTION PREVENTION INSPECTIONS	

GENERAL SUMMARY

DESIGN AGENCY



DESIGNER
BLC

REVIEWER
FRR 2/3/22

PROJECT ID
112038

SHEET TOTAL
P.37 421

SHEET NUM.										PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
11	12	13	14	60	317	322	327	02/SAF/OT	03/STR/BR	04/STR/CV								
STRUCTURE REPAIR (GRE-72-1033)																		
						LS			LS		202	11200	LS			PORTIONS OF STRUCTURE REMOVED		
						LS			LS		503	11101	LS			COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN	322	
						344			344		509	10000	344	LB		EPOXY COATED REINFORCING STEEL		
						3			3		511	46610	3	CY		CLASS QC1 CONCRETE, HEADWALL		
						58			58		512	10100	58	SY		SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)		
						58			58		512	74000	58	SY		REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES		
						33			33		517	75601	33	FT		DEEP BEAM BRIDGE RETROFIT RAILING, AS PER PLAN (EAST RAILING)	324	
						33			33		517	75601	33	FT		DEEP BEAM BRIDGE RETROFIT RAILING, AS PER PLAN (WEST RAILING)	324	
						58			58		843	50000	58	SF		PATCHING CONCRETE STRUCTURES WITH TROWELABLE MORTAR		
STRUCTURE REPAIR (GRE-72-1175)																		
						LS			LS		202	11200	LS			PORTIONS OF STRUCTURE REMOVED		
						LS			LS		503	11101	LS			COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN	327	
						560			560		509	10000	560	LB		EPOXY COATED REINFORCING STEEL		
						50			50		509	20001	50	LB		REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN	327	
						4			4		511	33412	4	CY		CLASS QC2 CONCRETE, SUPERSTRUCTURE		
						1			1		511	45710	1	CY		CLASS QC1 CONCRETE, ABUTMENT		
						106			106		512	10100	106	SY		SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)		
						111			111		512	73500	111	SY		TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN		
						106			106		512	74000	106	SY		REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES		
						30			30		517	70000	30	FT		RAILING (TWIN STEEL TUBE)		
						30			30		517	75600	30	FT		DEEP BEAM BRIDGE RETROFIT RAILING		
						25			25		SPECIAL	51822300	25	FT		STEEL DRIP STRIP	327 & 330	
						251			251		519	11100	251	SF		PATCHING CONCRETE STRUCTURE		
						21			21		SPECIAL	51912510	21	SY		PATCHING CONCRETE BRIDGE DECK	327 & 330	
						122			122		843	50000	122	SF		PATCHING CONCRETE STRUCTURES WITH TROWELABLE MORTAR		
						171			171		844	10000	171	SF		CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION		
						25			25		846	00110	25	CF		POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM		
STRUCTURE 20 FOOT SPAN AND UNDER (GRE-72-0946)																		
						LS			LS		202	11000	LS			STRUCTURE REMOVED		
						LS			LS		503	11101	LS			COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN	317	
						LS			LS		503	21330	LS			UNCLASSIFIED EXCAVATION, INCLUDING ROCK AND/OR SHALE		
						4,875			4,875		509	10000	4,875	LB		EPOXY COATED REINFORCING STEEL		
						11			11		511	46010	11	CY		CLASS QC1 CONCRETE, RETAINING/WINGWALL NOT INCLUDING FOOTING		
						37			37		511	46510	37	CY		CLASS QC1 CONCRETE, FOOTING		
						1			1		511	46610	1	CY		CLASS QC1 CONCRETE, HEADWALL		
						35			35		512	10100	35	SY		SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)		
						196			196		512	33000	196	SY		TYPE 2 WATERPROOFING		
						34			34		516	13600	34	SF		1" PREFORMED EXPANSION JOINT FILLER		
						LS			LS		518	21230	LS			POROUS BACKFILL WITH GEOTEXTILE FABRIC		
						50			50		601	32104	50	CY		ROCK CHANNEL PROTECTION, TYPE B WITH GEOTEXTILE FABRIC		
						50			50		611	96441	50	FT		16' X 6' CONDUIT, TYPE A, 706.05, AS PER PLAN	317 & 318	
MAINTENANCE OF TRAFFIC																		
						400			400		410	12000	400	CY		TRAFFIC COMPACTED SURFACE, TYPE A OR B		
	60					60			60		614	11110	60	HOUR		LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE		
						1,660			1,660		614	11630	1,660	FT		INCREASED BARRIER DELINEATION		
						20			20		614	12380	20	EACH		WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)		
						LS			LS		614	12420	LS			DETOUR SIGNING	11	
						35			35		614	13310	35	EACH		BARRIER REFLECTOR, TYPE 1, ONE WAY		
						35			35		614	13350	35	EACH		OBJECT MARKER, ONE WAY		
	24					24			24		614	18600	24	SNMT		PORTABLE CHANGEABLE MESSAGE SIGN		
						6			6		614	21550	6	MILE		WORK ZONE CENTER LINE, CLASS III, 642 PAINT		
						7.03			7.03		614	22000	7.03	MILE		WORK ZONE EDGE LINE, CLASS I, 4"		
						12			12		614	22360	12	MILE		WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT		
						69			69		614	26000	69	FT		WORK ZONE STOP LINE, CLASS I		
						13			13		614	30000	13	EACH		WORK ZONE ARROW, CLASS I		
						1,710			1,710		615	25000	1,710	SY		PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B		
	100					50			50		616	10000	50	MGAL		WATER		
						1,660			1,660		622	41100	1,660	FT		PORTABLE BARRIER, UNANCHORED		
INCIDENTALS																		
						LS			LS		614	11000	LS			MAINTAINING TRAFFIC		
						16			16		619	16010	16	MNTH		FIELD OFFICE, TYPE B		
						LS			LS		623	10000	LS			CONSTRUCTION LAYOUT STAKES AND SURVEYING		
						LS			LS		624	10000	LS			MOBILIZATION		



GRE-72-8.71

MODEL: Sheet PAPER: 34x22 (in.) DATE: 12/9/2022 TIME: 9:17:16 PM USER: cdekla
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	203	203	204	204	204	204	659
	EXCAVATION	EMBANKMENT	EXCAVATION OF SUBGRADE	GRANULAR MATERIAL, TYPE C	GEOTEXTILE FABRIC	GEOGRID	SEEDING AND MULCHING
	CY	CY	CY	CY	SY	SY	SY
TOTALS FROM SHEET 111	29	19	166	93	144		173
TOTALS FROM SHEET 112	106	76	377	145	324	74	621
TOTALS FROM SHEET 113	149	140	135	276	235	176	759
TOTALS FROM SHEET 114	107	194	146	248	252		690
TOTALS FROM SHEET 115	217	228	146	243	249		871
TOTALS FROM SHEET 116	579	207	171	306	243		1182
TOTALS FROM SHEET 117	387	138	76	207	168		812
TOTALS FROM SHEET 118	344	222	99	307	260		1026
TOTALS FROM SHEET 119	275	217	93	296	255		940
TOTALS FROM SHEET 120	163	240	115	300	252		557
TOTALS FROM SHEET 121	181	404	156	406	336		1124
TOTALS FROM SHEET 122	48	221	87	203	168		498
TOTALS FROM SHEET 123	77	212	118	329	269		532
TOTALS FROM SHEET 124	128	85	65	214	185		418
TOTALS FROM SHEET 125	349	135	87	296	252		990
TOTALS FROM SHEET 126	141	69	34	100	84		417
TOTALS FROM SHEET 127	327	194	102	291	252		1101
TOTALS FROM SHEET 128	379	288	99	300	252		1044
TOTALS FROM SHEET 129	443	282	115	300	252		1079
TOTALS FROM SHEET 130	231	236	105	296	252		902
TOTALS FROM SHEET 131	147	202	90	293	252		788
TOTALS FROM SHEET 132	133	230	93	324	265		752
TOTALS FROM SHEET 133	251	160	90	315	265		848
TOTALS FROM SHEET 134	175	102	76	200	168		595
TOTALS FROM SHEET 135	162	201	102	300	252		777
TOTALS FROM SHEET 136	141	165	129	315	265		702
TOTALS FROM SHEET 137	181	134	107	315	267		735
TOTALS FROM SHEET 138	234	115	149	248	232		620
TOTALS FROM SHEET 139	284	171	113	303	255		796
TOTALS FROM SHEET 140	248	213	131	259	210		957
TOTALS FROM SHEET 141	120	82	71	162	126		429
TOTALS FROM SHEET 142	73	15	42	109	87		206
TOTALS FROM SHEET 143	240	52	141	311	255		676
TOTALS FROM SHEET 144	59	95	70	203	168		381
TOTALS FROM SHEET 145	72	38	62	279	162		304
TOTALS FROM SHEET 146	143	176	115	301	260		654
TOTALS FROM SHEET 147	248	237	122	276	249		884
TOTALS FROM SHEET 148	163	174	102	246	232		735
TOTALS FROM SHEET 149	196	201	51	176	154		704
TOTALS FROM SHEET 150	376	232	104	303	246		1013
TOTALS FROM SHEET 151	271	226	76	207	173		963
TOTALS FROM SHEET 152	163	272	154	276	231		840
TOTALS FROM SHEET 153	151	230	157	251	246		765
TOTALS FROM SHEET 154	170	161	110	288	246		726
TOTALS FROM SHEET 155	163	259	136	386	336		909
TOTALS FROM SHEET 156	106	243	117	306	252		710
TOTALS FROM SHEET 157	64	117	59	150	120		373
TOTALS FROM SHEET 158	164	233	115	298	252		804
TOTALS FROM SHEET 159	222	190	117	285	252		798
TOTALS TABLE 1	9780	8733	5493	12841	11162	250	36180

	203	203	204	204	204	204	659
STATION TO STATION	EXCAVATION	EMBANKMENT	EXCAVATION OF SUBGRADE	GRANULAR MATERIAL, TYPE C	GEOTEXTILE FABRIC	GEOGRID	SEEDING AND MULCHING
	CY	CY	CY	CY	SY	SY	SY
TOTALS FROM SHEET 160	176	140	96	287	255		640
TOTALS FROM SHEET 161	118	170	71	195	162		523
TOTALS FROM SHEET 162	157	350	142	392	333		974
TOTALS FROM SHEET 163	76	283	108	291	252		668
TOTALS FROM SHEET 164	118	303	108	285	249		777
TOTALS FROM SHEET 165	194	380	68	191	159		1109
TOTALS FROM SHEET 166	105	95	31	87	84		395
TOTALS FROM SHEET 167	179	280	99	280	252		855
TOTALS FROM SHEET 168	134	209	116	293	246		688
TOTALS FROM SHEET 169	83	130	76	190	159		432
TOTALS FROM SHEET 170	117	229	102	285	234		735
TOTALS FROM SHEET 171	141	207	102	285	234		738
TOTALS FROM SHEET 172	85	114	59	198	156		401
TOTALS FROM SHEET 173	133	154	81	298	234		632
TOTALS FROM SHEET 174	146	123	149	396	321		687
TOTALS FROM SHEET 175	77	112	50	198	168		432
TOTALS FROM SHEET 176	111	217	87	288	252		737
TOTALS FROM SHEET 177	57	184	48	137	84		576
TOTALS FROM SHEET 178	107	251	96	285	249	249	749
TOTALS FROM SHEET 179	151	245	102	282	234	234	772
TOTALS FROM SHEET 180	126	249	90	270	234	234	749
TOTALS FROM SHEET 181	192	191	99	270	234	234	821
TOTALS FROM SHEET 182	215	285	121	377	312	312	754
TOTALS FROM SHEET 183	178	230	93	279	234	234	824
TOTALS FROM SHEET 184	172	191	90	293	252	252	762
TOTALS FROM SHEET 185	184	128	96	324	268	118	648
TOTALS FROM SHEET 186	131	90	67	193	168		479
TOTALS FROM SHEET 187	129	93	73	190	168		489
TOTALS FROM SHEET 188	256	150	84	276	252		857
TOTALS FROM SHEET 189	249	219	121	377	315		1044
TOTALS FROM SHEET 190	235	237	121	371	312		1042
TOTALS FROM SHEET 191	189	170	84	285	234		788
TOTALS FROM SHEET 192	232	127	70	238	195		898
TOTALS FROM SHEET 193	235	32	59	146	126		671
TOTALS FROM SHEET 194	50	45	64	148	126		248
TOTALS FROM SHEET 195	140	123	104	380	333		626
TOTALS FROM SHEET 196	15	26	57	15	50		275
TOTALS FROM SHEET 197	0	28	0	0	0		245
TOTALS FROM SHEET 198	98	55	37	126	117		607
TOTALS FROM SHEET 199	147	217	99	274	234		668
TOTALS FROM SHEET 200	148	107	84	232	196		549
TOTALS FROM SHEET 201	93	71	70	189	186		389
TOTALS FROM SHEET 202	45	4	65	176	153		184
TOTALS FROM SHEET 203	48	14	62	212	173		212
TOTALS FROM SHEET 204	102	75	84	335	276		633
TOTALS FROM SHEET 205	45	46	31	109	84		729
TOTALS FROM SHEET 206	77	93	87	318	252		483
TOTALS FROM SHEET 207	79	69	87	315	263		468
TOTALS FROM SHEET 208	78	116	87	293	252		637
TOTAL TABLE 2	6353	7657	4077	12154	10316	1867	31299

EARTHWORK SUBSUMMARY
SHEET SUB-TITLE

DESIGN AGENCY



DESIGNER
CLD

REVIEWER
FRR 09/17/21

PROJECT ID
112038

SHEET TOTAL
P.109 421

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

DBR-2-73 DATED 07/19/02
 DBR-3-11 DATED 07/15/11

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:

843 DATED 10/18/19

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO THE 9TH EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2020, AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

DESIGN LOADING

HS-20-44
 FUTURE WEARING SURFACE (FWS) OF 0.060 KSF

DESIGN DATA

CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4.0 KSI (HEADWALL)

REINFORCING STEEL - MINIMUM YIELD STRENGTH 60 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 CMS SECTIONS 102.05 AND 105.02.

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

ITEM 202, PORTIONS OF STRUCTURE REMOVED

THIS WORK CONSISTS OF THE REMOVAL OF PORTIONS OF THE EXISTING CONCRETE HEADWALL AS SHOWN ON THE PLANS AND AS SPECIFIED BY THE FOLLOWING NOTES. THE PROVISIONS OF ITEM 202 APPLY EXCEPT AS SPECIFIED BY THE FOLLOWING NOTES. PERFORM WORK CAREFULLY DURING 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 CMS 501.05.

REMOVAL METHODS:

THE CONTRACTOR MAY REMOVE CONCRETE BY CUTTING AND BY MEANS OF HAND OPERATED PNEUMATIC HAMMERS EMPLOYING POINTED OR BLUNTED CHISEL TYPE TOOLS. FOR REMOVALS OVER STRUCTURAL MEMBERS THE CONTRACTOR MAY USE A HAMMER HEAVIER THAN 35 POUNDS BUT NOT TO EXCEED 90 POUNDS UNLESS APPROVED BY THE ENGINEER. DO NOT PLACE PNEUMATIC HAMMERS IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

PERFORM WORK CAREFULLY DURING CONCRETE REMOVAL TO AVOID DAMAGING STRUCTURAL MEMBERS THAT ARE TO REMAIN. REPAIR AREAS 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 THE 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.

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.

STANDARD ABBREVIATIONS LIST

BRG = BEARING	MGS = MIDWEST GUARDRAIL SYSTEM
C.J. = CONSTRUCTION JOINT	MIN. = MINIMUM
CONST. = CONSTRUCTION	N.F. = NEAR FACE
C.P.P. = CORRUGATED PLASTIC PIPE	PCB = PORTABLE CONCRETE BARRIER
E.F. = EACH FACE	PEJF = PREFORMED EXPANSION JOINT FILLER
EL. = ELEVATION	PROP. = PROPOSED
EX. = EXISTING	R.A. = REAR ABUTMENT
F.A. = FORWARD ABUTMENT	RAD. = RADIUS
F.F. = FAR FACE	RCP = ROCK CHANNEL PROTECTION
GFRP = GLASS FIBER REINFORCED POLYMER	SHLD. = SHOULDER
HMWM = HIGH MOLECULAR WEIGHT METHACRYLATE	S.O. = SERIES OF
INT = INTEGRAL	SPA. = SPACES
M.C. = MECHANICAL CONNECTOR	STA. = STATION
M.E. = MATCH EXISTING	U.N.O. = UNLESS NOTED OTHERWISE

ESTIMATED QUANTITIES

ITEM	ITEM EXT	TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
202	11200	LUMP		PORTIONS OF STRUCTURE REMOVED	
503	11101	LUMP		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN	10
509	10000	344	LB.	EPOXY COATED REINFORCING STEEL	
511	46610	3	CU. YD.	CLASS QC1 CONCRETE, HEADWALL	
512	10100	58	SQ. YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
512	74000	58	SQ. YD.	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES	
517	75601	33	FT.	DEEP BEAM BRIDGE RETROFIT RAILING, AS PER PLAN (EAST RAILING)	324
517	75601	33	FT.	DEEP BEAM BRIDGE RETROFIT RAILING, AS PER PLAN (WEST RAILING)	324
843	50000	58	SQ. FT.	PATCHING CONCRETE STRUCTURES WITH TROWELABLE MORTAR	

GENERAL NOTES & ESTIMATED QUANTITIES
 BRIDGE NO. GRE-72-1033
 S.R. 72 OVER NORTH BRANCH CAESARS CREEK

SFN
 2901994

DESIGN AGENCY



DESIGNER CHECKER
 JLU BLS

REVIEWER
 FRR 12/08/22

PROJECT ID
 112038

SUBSET TOTAL
 2 5

SHEET TOTAL
 P.322 421

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

DS-1-92	REVISED	07/18/03
DBR-3-11	DATED	07/15/11
TST-1-99	REVISED	01/15/21

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:

843	DATED	10/18/19
844	DATED	04/20/18
846	DATED	04/17/15

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO THE 9TH EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2020, AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

DESIGN LOADING

HS-20
FUTURE WEARING SURFACE (FWS) OF 0.060 KSF

DESIGN DATA

CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)
CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4.0 KSI (ABUTMENT)

REINFORCING STEEL - MINIMUM YIELD STRENGTH 60 KSI

DECK PROTECTIVE METHODS

EPOXY COATED REINFORCING STEEL
2 1/2" CONCRETE COVER
STEEL DRIP STRIP

EXISTING STRUCTURE VERIFICATION

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

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

MECHANICAL CONNECTORS

AN APPROVED TYPE OF MECHANICAL CONNECTOR FOR REINFORCING BARS SHALL BE PROVIDED AS PER CMS 509.07. INSTALLATION OF CONNECTORS SHALL CONFORM WITH THE MANUFACTURER'S RECOMMENDED PROCEDURES. MECHANICAL CONNECTORS SHALL BE CAPABLE OF DEVELOPING 125 PERCENT OF THE YIELD STRENGTH OF THE BARS CONNECTED AND SHALL BE EPOXY COATED. COATING FOR BOTH CONNECTORS AND REINFORCING BARS SHALL CONFORM TO THE SAME SPECIFICATIONS. COATINGS WHICH HAVE BEEN DAMAGED OR WHICH OTHERWISE DO NOT MEET THE SPECIFICATIONS WITH RESPECT TO COLOR, CONTINUITY, AND UNIFORMITY MAY BE REPAIRED AS DIRECTED BY THE ENGINEER OR THEY SHALL BE REPLACED WITH MATERIAL WHICH MEETS THE SPECIFICATIONS. ALL EXPENSES INVOLVED IN REPAIR OR REPLACEMENT SHALL BE BORNE BY THE CONTRACTOR. THE CONNECTORS SHALL CONFORM AND BE INCLUDED WITH ITEM 509, EPOXY COATED REINFORCING STEEL, FOR PAYMENT.

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 REINFORCING STEEL OF THE SAME SIZE AND COATING AT NO COST TO THE DEPARTMENT.

ITEM 202 - PORTIONS OF STRUCTURE REMOVED

THIS WORK CONSISTS OF THE REMOVAL OF PORTIONS OF THE EXISTING CONCRETE SLAB AND WINGWALLS AS SHOWN ON THE PLANS AND AS SPECIFIED BY THE FOLLOWING NOTES. THE PROVISIONS OF ITEM 202 APPLY EXCEPT AS SPECIFIED BY THE FOLLOWING NOTES. PERFORM WORK CAREFULLY DURING 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 CMS 501.05.

REMOVAL METHODS:

THE CONTRACTOR MAY REMOVE CONCRETE BY CUTTING AND BY MEANS OF HAND OPERATED PNEUMATIC HAMMERS EMPLOYING POINTED OR BLUNTED CHISEL TYPE TOOLS. FOR REMOVALS OVER STRUCTURAL MEMBERS THE CONTRACTOR MAY USE A HAMMER HEAVIER THAN 35 POUNDS BUT NOT TO EXCEED 90 POUNDS UNLESS APPROVED BY THE ENGINEER. DO NOT PLACE PNEUMATIC HAMMERS IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

PERFORM WORK CAREFULLY DURING SLAB REMOVAL TO AVOID DAMAGING STRUCTURAL MEMBERS THAT ARE TO REMAIN. REPAIR AREAS 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 THE REPAIR.

CUT LINE CONSTRUCTION JOINT PREPARATION:

SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP INCLUDING THE FLOOR OF THE SLAB. 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.

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, AS PER PLAN.

ITEM SPECIAL - STEEL DRIP STRIP

INSTALLATION AND CONSTRUCTION OF THE STEEL DRIP STRIP SHALL BE IN ACCORDANCE WITH STANDARD DRAWING DS-1-92 (DATED: 7-18-03). ALL LABOR AND MATERIALS WILL BE PAID IN THE LENGTH MEASUREMENT (FT) FOR ITEM SPECIAL - STEEL DRIP STRIP.

ITEM 519 - PATCHING CONCRETE STRUCTURE

PATCH SPALLED AND DELAMINATED CONCRETE SURFACES PER CMS 519 ON BOTH ABUTMENTS, AND ANY SPALLED CONCRETE ON BRIDGE BEAM SEATS.

THE ESTIMATED QUANTITIES OF AREAS SHOWN ON PLANS THAT REQUIRE PATCHING ARE BASED ON FIELD MEASUREMENTS ABOVE THE EXISTING CONCRETE FOOTINGS. A 50% INCREASED QUANTITY IS ALSO INCLUDED IN THE ESTIMATES QUANTITIES FOR FUTURE DETERIORATION AND FOR EXISTING ABUTMENT BEAM SEATS.

PRIOR TO THE SURFACE CLEANING SPECIFIED IN CMS 519.04 AND WITHIN 24 HOURS OF PLACING PATCHING MATERIAL, BLAST CLEAN ALL SURFACES TO BE PATCHED INCLUDING ALL 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.

ITEM 519, SPECIAL - PATCHING CONCRETE STRUCTURE (APPROACH SLAB PATCHING)

UPON COMPLETION OF APPROACH PAVEMENT REMOVAL AND EXPOSURE OF EXISTING APPROACH SLABS, CONTRACTOR SHALL INSPECT THEIR SURFACE AND DETERMINE AREAS TO BE PATCHED PER REQUIREMENTS OF ODOT CMS 519 AND AT THE APPROVAL OF THE ENGINEER.

THE ESTIMATED QUANTITIES FOR THIS WORK IS BASED ON AN APPROXIMATE ASSUMPTION OF POSSIBLE APPROACH SLAB DETERIORATION.

PRIOR TO THE SURFACE CLEANING SPECIFIED IN CMS 519.04 AND WITHIN 24 HOURS OF PLACING PATCHING MATERIAL, BLAST CLEAN ALL SURFACES TO BE PATCHED INCLUDING ALL 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.

STANDARD ABBREVIATIONS LIST

BRG = BEARING	MGS = MIDWEST GUARDRAIL SYSTEM
C.J. = CONSTRUCTION JOINT	MIN. = MINIMUM
CONST. = CONSTRUCTION	N.F. = NEAR FACE
C.P.P = CORRUGATED PLASTIC PIPE	PCB = PORTABLE CONCRETE BARRIER
E.F. = EACH FACE	PEJF = PREFORMED EXPANSION JOINT FILLER
EL. = ELEVATION	PROP. = PROPOSED
EX. = EXISTING	R.A. = REAR ABUTMENT
F.A. = FORWARD ABUTMENT	RAD. = RADIUS
F.F. = FAR FACE	RCP = ROCK CHANNEL PROTECTION
GFRP = GLASS FIBER REINFORCED POLYMER	SHLD. = SHOULDER
HMWM = HIGH MOLECULAR WEIGHT METHACRYLATE	S.O. = SERIES OF
INT = INTEGRAL	SPA. = SPACES
M.C. = MECHANICAL CONNECTOR	STA. = STATION
M.E. = MATCH EXISTING	U.N.O. = UNLESS NOTED OTHERWISE

ESTIMATED QUANTITIES

ITEM	ITEM EXT	TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
202	11200	LUMP		PORTIONS OF STRUCTURE REMOVED	
503	11101	LUMP		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN	10
509	10000	560	LB.	EPOXY COATED REINFORCING STEEL	
509	20001	50	LB.	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN	327
511	33412	4	CU. YD.	CLASS QC2 CONCRETE, SUPERSTRUCTURE	
511	45710	1	CU. YD.	CLASS QC1 CONCRETE, ABUTMENT	
512	10100	106	SQ. YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
512	73500	111	SQ. YD.	TREATING OF CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN	
512	74000	106	SQ. YD.	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES	
517	70000	30	FT.	RAILING (TWIN STEEL TUBE)	
517	75600	30	FT.	DEEP BEAM BRIDGE RETROFIT RAILING	
SPECIAL	51822300	25	FT.	STEEL DRIP STRIP	327 & 330
519	11100	251	SQ. FT.	PATCHING CONCRETE STRUCTURE (ABUTMENT)	
SPECIAL	51912510	21	SQ. YD.	PATCHING CONCRETE BRIDGE DECK (APPROACH SLAB PATCHING)	327 & 329
843	50000	122	SQ. FT.	PATCHING CONCRETE STRUCTURES WITH TROWELABLE MORTAR (UNDER DECK)	
844	10000	171	SQ. FT.	CONCRETE PATCHING WITH GALVANIC ANODE PROTECTION (ABUTMENT)	
846	00110	25	CU. FT.	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM	