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UTILITIES

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

COLUMBIA GAS OF OHIO (TOLEDO) 2901 EAST MANHATTAN BLVD TOLEDO, OH 43611 CLINT WELLS 419-539-6209

TOLEDO EDISON *6099 ANGOLA ROAD* HOLLAND, OH 43528 RANDY SWOPE 419-249-5218 RRSWOPE@FIRSTENERGYCORP.COM

1300 COLUMBUS-SANDUSKY RD

MARION, OH 43302

740-383-0686

419-885-8965

CLINTWELLS@NISOURCE.COM

FIRST ENERGY **BUCKEYE CABLE** 5001 NASA BLVD -2700 OREGON ROAD NORTHWOOD, OH 43619 3RD FLOOR ENGINEERING MICHAEL SHEAHAN FAIRMONT, WV 26554 NICK BARMAN 419-724-3713 216-402-7466 MSHEAHAN@SHAREDSVCS.COM

NBARMAN@FIRSTENERGYCORP.COM

CHARTER COMMUNICATIONS **FRONTIER**

3760 INTERCHANGE DR COLUMBUS, OH 43204 614-255-6340

NORTHERN BUCKEYE EDUCATION COUNCIL CITY OF SYLVANIA 209 NOLAN PARKWAY *6730 MONROE ST* ARCHBOLD, OH 43502 SYLVANIA, OH 43560

ODOT CO ITS 1606 W BROAD ST COLUMBUS, OH 43223 614-387-4113 CEN.ITS.LAB@DOT.OHIO.GOV

419-267-2515

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**

ITEM 201 - CLEARING AND GRUBBING, AS PER PLAN

PRIOR TO THE COMMENCEMENT OF THIS CONTRACT, ODOT FORCES HAVE CUT DOWN ALL THE TREES WITHIN THE PROJECT EXCEPT FOR THE MARKED TREES IN THE ISLAND BORDER BY MONROE STREET AND ALEXIS ROAD AND THE TRIANGLE ISLAND BORDERED BY MONROE STREET, ALEXIS ROAD AND ACRES ROAD WHICH SHALL BE REMOVED BY THE CONTRACTOR. THE CONTRACTOR SHALL ALSO REMOVE THE STUMPS, LOGS, MULCH AND DEBRIS OF THE CUT DOWN TREES COMPLETED BY OTHERS. A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201. CLEARING AND GRUBBING AS PER PLAN.

ITEM 203 - EMBANKMENT, AS PER PLAN

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

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RAMP A

BETWEEN STATIONS 30+45.50 TO 31+45.50 AND 32+76.50 TO 33+76.50.

RAMP D

BETWEN STATIONS 21+97.28 TO 22+97.28 AND 24+57.79 TO 25+57.79.

THE FOLLOWING QUANTITY HAS BEEN PROVIDED IN THE GENERAL SUMMARY FOR THIS WORK

ITEM 203– EMBANKMENT, AS PER PLAN

9610 CY

SURVEYING PARAMETERS

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE SHEET 21 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 SURVEYS MONUMENT TYPE: TYPE B

VERTICAL POSITIONING

ORTHOMETRIC HEIGHT DATUM: ORTHOMETRIC HEIGHT DATUM: NAVD 88 GEOID: 12B

HORIZONTAL POSITIONING

REFERENCE FRAME: NAD83 (2011) ELLIPSOID: GRS 80 COORDINATE SYSTEM: OHIO STATE PLANE, NOTH ZONE COMBINED SCALE FACTOR: 0.99997466 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.

WORK LIMITS

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

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL

WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED, OR PUNCHED. THE CONNECTION SHALL BE MADE USING A W-BEAM, BEAM SPLICE AS SHOWN IN AASHTO M 180-12, EXCEPT THE BEAM WASHERS ARE NOT TO BE USED. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

CONSTRUCTION NOISE

ACTIVITIES AND LAND USE ADJACENT TO THIS PROJECT MAY BE AFFECTED BY CONSTRUCTION NOISE. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, DO NOT OPERATE POWER-OPERATED CONSTRUCTION-TYPE DEVICES BETWEEN THE HOURS OF 9PM AND 7AM UNLESS WORK IN THE PLANS IS SPECIFIED TO OCCUR BETWEEN THOSE HOURS. IN ADDITION, DO NOT OPERATE AT ANY TIME ANY DEVICE IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT

ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE B

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS FOR TYPE MGS GUARDRAIL AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

REFER TO THE MANUFACTURER'S INSTRUCTIONS REGARDING THE INSTALLATION OF, AND THE GRADING AROUND, THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 31 INCHES FROM THE EDGE OF THE SHOULDER.

ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE.

THE FACE OF THE TYPE B IMPACT HEAD SHALL BE COVERED WITH REBOUNDABLE RETROREFLECTIVE SHEETING, PER CMS 730.191.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, MGS TYPE B, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING REFLECTIVE SHEETING AND ALL RELATED HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E, MASH 2016

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS FOR TYPE MGS GUARDRAIL AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH REBOUNDABLE RETROREFLECTIVE SHEETING, PER CMS 730.191.

REFER TO THE MANUFACTURER'S INSTRUCTIONS REGARDING THE INSTALLATION OF, AND THE GRADING AROUND THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 31 INCHES FROM THE EDGE OF THE SHOULDER.

ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, MGS TYPE E, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 606 - IMPACT ATTENUATOR, TYPE 2 (UNIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE TYPE 2 IMPACT ATTENUATORS AS LISTED ON THE OFFICE OF ROADWAY ENGINEERING'S WEB PAGE (REFER TO THE POSTED SHOP DRAWINGS FOR THE MOST CURRENT APPROVED PRODUCT MODELS). WHEN BI-DIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, IMPACT ATTENUATOR, TYPE 2 (70 MPH), HAZARD WIDTH (XXXXXX"), UNIDIRECTIONAL, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS/BACKSTOPS, TRANSITIONS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

ITEM 606 - IMPACT ATTENUATOR, TYPE 3 (UNIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE TYPE 3 IMPACT ATTENUATORS AS LISTED ON THE OFFICE OF ROADWAY ENGINEERING'S WEB PAGE (REFER TO THE POSTED SHOP DRAWINGS FOR THE MOST CURRENT APPROVED PRODUCT MODELS). WHEN BI-DIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, IMPACT ATTENUATOR, TYPE 3 (70 MPH), HAZARD WIDTH (XXXXXXX), (UNIDIRECTIONAL), EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS/BACKSTOPS, TRANSITIONS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

CONTRACTION AND/OR EXPANSION JOINTS

ALTHOUGH SPECIFIC LOCATIONS OF CERTAIN CONTRACTION AND EXPANSION JOINTS HAVE BEEN DETAILED ON THIS PLAN, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. IN ALL CASES, THE PROVISION OF EXPANSION JOINTS AT ALL MAJOR STRUCTURES INCLUDING THE MAXIMUM SPACING BETWEEN CONTRACTION JOINTS IS IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING BP-2.2 AND THE SPECIFICATIONS.

CONTRACTION JOINTS IN CONCRETE PAVEMENT OR BASE WIDENING

WHERE NEW CONCRETE IS PLACED ADJACENT TO EXISTING CONCRETE, PROVIDE CONTRACTION JOINTS IN THE NEW CONCRETE TO FORM CONTINUOUS JOINTS WITH THOSE IN THE EXISTING CONCRETE.

THE MAXIMUM DISTANCE BETWEEN THE JOINTS IN THE NEW CONCRETE ARE IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING BP-2.2, IF NECESSARY, ADDITIONAL JOINTS MAY BE PROVIDED IN THE NEW CONCRETE AT APPROXIMATELY EQUAL INTERVALS BETWEEN EXISTING JOINTS THAT EXCEED THE MAXIMUM SPACING.

PART-WIDTH CONSTRUCTION

BECAUSE OF THE NECESSITY TO BUILD THIS PROJECT UNDER TRAFFIC AND TO CONSTRUCT THE FULL PAVEMENT WIDTH IN STAGES, EXERCISE CARE TO PREVENT THE CONSTRUCTION OF A BUTT JOINT IN THE BASE COURSES. LAP LONGITUDINAL JOINTS AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1.

ESIGN AGENCY ARCADIS SUPERIOR AVENUE SUITE 1300 ESIGNER TB

SMG 09/13/24 ROJECT ID 105889

REVIEWER

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ITEM 614, MAINTAINING TRAFFIC

A MINIMUM OF 1 LANE OF TRAFFIC ON MONROE STREET (EB) AND 2 LANES ON MONROE STREET (WB) WEST OF GLASGOW ROAD AND EAST OF ACRES ROAD, 1 LANE ON ALEXIS ROAD IN EACH DIRECTION, 2 LANES ON US-23 IN EACH DIRECTION BY USE OF THE EXISTING PAVEMENT, THE COMPLETED PAVEMENT, ITEM 615 PAVEMENT FOR MAINTAINING TRAFFIC, AND TEMPORARY SURFACES USING ITEMS 410 AND 614 WILL BE MAINTAINED AT ALL TIMES. MONROE STREET SHALL HAVE ALL EXISTING LANES OPEN TO TRAFFIC THROUGHOUT THE FIRST CONSTRUCTION SEASON. US-23 MAY BE REDUCED TO A SINGLE LANE OVERNIGHT FOR TRAFFIC SHIFTS AND TO INSTALL TEMPORARY PAVEMENT. LANE CLOSURES SHALL FOLLOW THE PERMITTED LANE CLOSURE SCHEDULE FOR ANY OVERNIGHT LANE CLOSURES. US-23 MAINLINE MAY ALSO BE CLOSED FOR SHORT PERIODS FOR BRIDGE WORK AS PER MT-99.60. TRAFFIC ALONG MONROE STREET BETWEEN GLASGOW ROAD AND ACRES ROAD SHALL BE MAINTAINED AT ALL TIMES, EXCEPT AS NOTED IN THE A+B NOTE ON SHEET 26. TRAFFIC ALONG ALEXIS ROAD BETWEEN MONROE STREET AND ACRES ROAD SHALL BE MAINTAINED AT ALL TIMES, EXCEPT AS NOTED IN THE A+B NOTE ON SHEET 26. TRAFFIC SHALL BE DETOURED AS SHOWN ON SHEETS 31,32, AND 32A. A DISINCENTIVE/INCENTIVE SHALL BE ASSESSED IN THE AMOUNT AS NOTED IN THE A+B NOTE ON SHEET 26.

A MINIMUM OF 1 LANE OF TRAFFIC ON THE US-23 RAMPS MUST BE MAINTAINED AT ALL TIMES. WEEKEND CLOSURES OF THE US-23 SOUTHBOUND ON-RAMPS ARE ALLOWABLE TO MAKE PHASE CHANGES. TRAFFIC SHALL BE DETOURED AS SHOWN ON SHEET 29 . A CLOSURE PER THE ALLOWABLE CLOSURE TABLE IS ALLOWED TO CONSTRUCT SEGMENTS < OF THE US-23 NORTHBOUND OFF-RAMPS DURING PHASE 5A. TRAFFIC SHALL BE DETOURED AS SHOWN ON SHEET 30 . A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF \$1,000 PER 15 MINUTES THE RAMP/ REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT.

ITEM 614, MAINTAINING TRAFFIC (LANES OPEN DURING HOLIDAYS OR SPECIAL EVENTS)

NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES SHALL BE OPEN (WITH EXCEPTION TO MONROE STREET BETWEEN GLASGOW ROAD AND ACRES ROAD) TO TRAFFIC DURING THE FOLLOWING DESIGNATED **HOLIDAYS OR EVENTS:**

NEW YEAR'S (OBSERVED) THANKSGIVING CHRISTMAS (OBSERVED) LABOR DAY

GENERAL/REGULAR ELECTION (NOV) MEMORIAL DAY FOURTH OF JULY (OBSERVED)

THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

EASTER

DAY OF EVENT TIME ALL LANES MUST BE OPEN TO TRAFFIC

SUNDAY 12:00N FRIDAY THROUGH 6:00 AM MONDAY **MONDAY** 12:00N FRIDAY THROUGH 6:00 AM TUESDAY TUESDAY 12:00N MONDAY THROUGH 6:00 AM WEDNESDAY TUESDAY (ELECT.) 5:00 AM TUESDAY THROUGH 12:00 AM WEDNESDAY WEDNESDAY 12:00N TUESDAY THROUGH 6:00 AM THURSDAY 12:00N WEDNESDAY THROUGH 6:00 AM FRIDAY THURSDAY THURS. (TGIVING) 6:00 AM WEDNESDAY THROUGH 6:00 AM MONDAY 12:00N THURSDAY THROUGH 6:00 AM MONDAY FRIDAY 12:00N FRIDAY THROUGH 6:00 AM MONDAY SATURDAY

DURING THE DANA OPEN (THURS-SUNDAY) THE CONTRACTOR MAY CONTINUE TO WORK WITHIN CLOSED WORK ZONES, HOWEVER THE CONTRACTOR SHALL NOT RESTRICT OPEN LANES OF TRAFFIC (INCLUDING FLAGGING OPERATIONS). NO ADDITIONAL LANE OR RAMP CLOSURES WILL BE ALLOWED DURING THIS PERIOD.

DURING NIS RACE CAR EVENTS AT MICHIGAN INTERNATIONAL SPEEDWAY THE CONTRACTOR SHALL NOT BLOCK LANES OF TRAFFIC ON SB US-23 DURING THE 24 HOURS AFTER THE RACE IS COMPLETE. (USUALLY ONE OR TWO WEEKEND EVENTS PER SEASON. THESE EVENTS MAY EXTEND TO MONDAYS IF RAINED OUT ON SUNDAYS.

DURING THE SAME PERIODS, MAINTAIN PEDESTRIAN ACCESS IF PEDESTRIAN ACCESS WAS PRESENT PRIOR TO CONSTRUCTION.

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE PER THE ALLOWABLE LANE CLOSURE/LANE VALUE CONTRACT TABLE (PN127) ON SHEET 25

ITEM 614, MAINTAINING TRAFFIC (LANE CLOSURE/REDUCTION REQUIRED)

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.

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.

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.

NOTICE C	OF CLOSURE SIGN	TIME TABLE
ITEM	DURATION OF CLOSURE	SIGN DISPLAYED TO PUBLIC
	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
RAMP & ROAD CLOSURES	> 12 HOURS & < 2 WEEKS	7 CALENDAR DAYS PRIOR TO CLOSURE
	<= 12 HOURS	2 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 LISTS A PHONE NUMBER WHICH A MOTORIST MAY CALL FOR ADDITIONAL INFORMATION. THIS PHONE NUMBER SHALL BE 419-373-4428.

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 OR *MAINTAIN A 3:1 SLOPE.*

OVERNIGHT TRENCH CLOSING

THE BASE WIDENING SHALL BE COMPLETED TO A DEPTH OF NO MORE THAN 3 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 OR MAINTAIN A 3:1 SLOPE.

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

672 M GAL.

WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS (UNIDIRECTIONAL OR BIDIRECTIONAL)

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 APPROVED PRODUCTS WEB PAGE.

INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE CONTRACTOR SHALL REPAIR OR REPLACE A DAMAGED UNIT WITHIN 24 HOURS OF A DAMAGING IMPACT.

WHEN BIDIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS.

WHEN GATING IMPACT ATTENUATORS ARE DESIRED, THE CONTRACTOR SHALL SUBMIT DOCUMENTATION TO THE ENGINEER FOR ACCEPTANCE.

THE COST FOR THE ADDITIONAL BARRIER REQUIRED FOR A GATING IMPACT ATTENUATOR SHALL BE INCLUDED IN THE COST OF THE GATING IMPACT ATTENUATOR.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT AND MAINTAIN A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS, TRANSITIONS, LEVELING PADS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN

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

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

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

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

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

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

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

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

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN ASSUMING 8 PCMS SIGNS FOR 24 MONTHS 192 SIGN MNTH

DELINEATION OF TEMPORARY AND PERMANENT GUARDRAIL

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

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

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

ITEM 614, BARRIER REFLECTOR, TYPE (2, 3, 4, OR 5) (ONE-WAY) 39 EACH ITEM 614, OBJECT MARKER, 1-WAY 13 EACH

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

ITEM 614, REPLACEMENT DRUM

DRUMS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER. REPLACEMENT DRUMS SHALL BE NEW.

PAYMENT FOR THE NEW DRUMS SHALL BE MADE AT THE CONTRACT PRICE PER EACH FOR ITEM 614, REPLACEMENT DRUM, AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF THE DAMAGED DRUM, AND PROVIDING AND MAINTAINING THE REPLACEMENT DRUM IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS FOR THE ORIGINAL DRUM.

AN ESTIMATED QUANTITY OF 100 EACH HAS BEEN PROVIDED IN THE GENERAL SUMMARY.

ITEM 614, DRUM REQUIREMENTS

IN ADDITION TO THE REQUIREMENTS OF THE PLANS, SPECIFICATION AND PROPOSAL, DRUMS FURNISHED BY THE CONTRACTOR SHALL BE NEW AND UNUSED AT THE TIME OF ARRIVAL ON THE PROJECT. ANY DRUMS BROUGHT ON THE PROJECT. WHICH HAVE PREVIOUSLY BEEN USED ELSEWHERE. WILL NOT BE ACCEPTED.

PAYMENT FOR DRUMS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR MAINTAINING TRAFFIC UNLESS SEPARATELY ITEMIZED.

DELINEATION OF PORTABLE AND PERMANENT BARRIER

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

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

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

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

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

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

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

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

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ESIGN AGENCY ARCADIS SUITE 44114 9

ESIGNER EJT

REVIEWER TJR 09/13/24 ROJECT ID

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SEQUENCE OF CONSTRUCTION

SEASON 1

PREPHASE

OVER A PERIOD OF ONE WEEKEND FROM 9 PM FRIDAY TO 5 AM MONDAY, THE CONTRACTOR SHALL CLOSE THE INSIDE LANE OF SOUTHBOUND US-23. THIS LANE CLOSURE WILL ALLOW FOR THE INSTALLATION OF TEMPORARY PAVEMENT THAT IS REQUIRED DURING PHASE 1 AND 2. THE LANE CLOSURE SHALL BE INSTALLED AS PER SCD MT-95.30.

PHASE 1

DURING THE FIRST PHASE OF CONSTRUCTION, US-23 SOUTHBOUND MAINLINE TRAFFIC SHALL BE SHIFTED EAST TOWARDS THE MEDIAN ONTO TEMPORARY PAVEMENT. THE US-23 SOUTHBOUND ON-RAMPigwedge 1SHALL BE CONSTRUCTED, INCLUDING THE PROPOSED STRUCTURE (SFN: 4805137). THE SOUTHBOUND RAMPS SHALL BE SHIETED TO THE NORTH AND EAST ON EXISTING AND TEMPORARY PAVEMENT TO ALLOW SPACE FOR CONSTRUCTION. AS MUCH OF THE NORTHBOUND OFF-RAMP AS POSSIBLE SHALL BE CONSTRUCTED THAT IS OUTSIDE OF THE EXISTING PAVEMENT AREAS. THIS INCLUDES THE PROPOSED NORTHBOUND US-23 OFF-RAMP STRUCTURE (SFN: 4805136). PEDESTRIANS FROM THE RIVER TRAIL SHALL BE DETOURED AS SHOWN ON SHEET 27. NO DAYTIME LANE CLOSURES ARE ALLOWED ALONG MONROE STREET OR ALEXIS ROAD DURING THIS PHASE. SINGLE LANE OVERNIGHT LANE CLOSURES ALLOWED FROM 8 PM TO 6 AM ALONG MONROE STREET AND ALEXIS ROAD. DURING THIS TIME FRAME, THE OUTSIDE WESTBOUND LANE OF ALEXIS ROAD SHALL BE CLOSED IN THE VICINITY OF ELLIOTT DRIVE. CONSTRUCT THE PROPOSED PAVEMENT ON THE NORTH SIDE OF ALEXIS ROAD (ROUGHLY STA. 46+00 TO STA. 47+50). THIS WILL ALLOW FOR U-TURNS IN FUTURE MOT PHASES. CLOSE THE OUTSIDE AND INSIDE SHOULDERS OF US-23 IN THE VICINITY OF THE MONROE STREET BRIDGE. THESE SHOULDER CLOSURES SHALL REMAIN IN PLACE THROUGHOUT THE PROJECT DURATION. THESE SHOULDER CLOSURES WILL ALLOW FOR A MAXIMUM AMOUNT OF SPACE FOR THE CONTRACTOR TO WORK ON THE BRIDGE.

PHASE 2

DURING THE SECOND PHASE OF CONSTRUCTION, US-23 SOUTHBOUND MAINLINE TRAFFIC SHALL BE IN THE SAME LOCATION AS PHASE 1 UNTIL IT CROSSES THE OTTAWA RIVER BRIDGE WHERE IT WILL SHIFT BACK TO THE ORIGINAL LOCATION. THE EASTERN PORTION OF THE US-23 SOUTHBOUND RAMP SHALL BE CONSTRUCTED. WORK ON THE NORTHBOUND RAMPS AND PROPOSED NORTHBOUND US-23 OFF-RAMP STRUCTURE (SFN: 4805136) SHALL CONTINUE FROM PHASE 1. THE PEDESTRIAN DETOUR FROM PHASE 1 SHALL REMAIN IN PLACE. NO DAYTIME LANE CLOSURES ARE ALLOWED ALONG MONROE STREET OR ALEXIS ROAD DURING THIS PHASE. SINGLE LANE OVERNIGHT LANE CLOSURES ALLOWED FROM 8 PM TO 6 AM ALONG MONROE STREET AND ALEXIS ROAD. WHEN SOUTHBOUND US-23 WORK IS COMPLETE, THE CONTRACTOR SHALL CLOSE THE INSIDE LANE OVER THE COURSE OF ONE WEEKEND FROM 9 PM FRIDAY TO 5 AM MONDAY TO REMOVE THE TEMPORARY PAVEMENT THAT WAS USED PHASE 1 AND 2. THE LANE CLOSURE SHALL BE AS PER SCD MT-95.30.

SEASON 2

PHASE 3

DURING THE THIRD PHASE OF CONSTRUCTION, MONROE STREET BETWEEN HARROUN ROAD AND GLASGOW ROAD SHALL BE SHIFTED TO THE NORTH. THE SOUTHERN HALF OF MONROE STREET INCLUDING ALL ROADWAY LAYERS EXCEPT FOR THE SURFACE COURSE, CURB AND GUTTER. SIDEWALKS. AND DRIVES SHALL BE CONSTRUCTED. PROPOSED WATERLINE WORK ON THE NORTH SIDE OF MONROE STREET BETWEEN GLASGOW ROAD TO THE EAST SIDE OF US-23 SHALL BE INSTALLED. WATERLINE WORK ALONG ACRES ROAD TO THE SOUTHWEST CORNER OF MONROE STREET AND THE EXISTING NORTHBOUND RAMPS SHALL ALSO BE INSTALLED. MONROE STREET IS TO BE CLOSED FROM GLASGOW ROAD TO ACRES ROAD. THE PROPOSED STRUCTURE (SFN:4805224) SHALL BE CONSTRUCTED. ALEXIS ROAD IS TO BE CLOSED FROM MONROE STREET TO ACRES ROAD. MONROE STREET TRAFFIC SHALL BE DETOURED AS SHOWN ON SHEET 31 THE SOUTH HALF OF ALEXIS ROAD, FROM ACRES ROAD TO THE END OF THE PROJECT, SHALL BE CONSTRUCTED DURING THIS PHASE. MONROE STREET AND ALEXIS ROAD PEDESTRIAN TRAFFIC SHALL BE DETOURED AS SHOWN ON SHEET 28 . RAMP B SHALL BE CONSTRUCTED.

PHASE 3A

US-23 SOUTHBOUND ON-RAMP TRAFFIC SHALL BE SHIFTED ONTO THE FINISHED PAVEMENT AREA ON MONROE STREET BEGINNING AT STATION 170+00. THE FINISHED RAMP CURVE SHALL BE IMPLEMENTED. ALL OTHER WORK AREAS AND TRAFFIC LANE LOCATIONS REMAIN UNCHANGED FROM PHASE 3. THE CONTRACTOR SHALL MOVE TO PHASE 3A WITHIN 21 DAYS OF ESTABLISHING PHASE 3 MOT WEST OF GLASGOW INTERSECTION.

PHASE 4

DURING THE FOURTH PHASE OF CONSTRUCTION, MONROE STREET BETWEEN HARROUN ROAD AND GLASGOW ROAD SHALL BE SHIFTED TO THE SOUTH. THE NORTHERN HALF OF MONROE STREET INCLUDING ALL ROADWAY LAYERS EXCEPT FOR THE SURFACE COURSE, CURB AND GUTTER, SIDEWALKS, AND DRIVES SHALL BE CONSTRUCTED. MONROE STREET IS TO REMAIN CLOSED FROM GLASGOW ROAD TO ACRES ROAD. WORK ON THE PROPOSED STRUCTURE (SFN:4805224) SHALL CONTINUE. ALEXIS ROAD IS TO REMAIN CLOSED FROM MONROE STREET TO ACRES ROAD. THE NORTH HALF OF ALEXIS ROAD, FROM ACRES ROAD TO THE END OF THE PROJECT, SHALL BE CONSTRUCTED DURING THIS PHASE. THE NORTH LEG OF THE ACRES ROAD AND ALEXIS ROAD INTERSECTION SHALL BE CLOSED. ACRES ROAD SHALL BE DETOURED AS SHOWN ON SHEET 31. THE PEDESTRIAN DETOUR FROM PHASE 3 SHALL REMAIN IN PLACE. THE NORTHERN-MOST SECTION OF THE US-23 SOUTHBOUND OFF-RAMP SHALL BE CONSTRUCTED. PROPOSED TRAFFIC SIGNAL POLES, HEADS, AND CORRESPONDING SIGNAL ITEMS WILL BE ERECTED AND UTILIZED FOR THIS PHASE OF CONSTRUCTION. THE PHASE 4 MAINTENANCE OF TRAFFIC TEMPORARY SIGNAL MODIFICATIONS FOR GLASGOW ROAD AND MONROE STREET ARE SHOWN ON SHEET 106 THE CONTRACTOR WILL ENSURE THE PROPOSED TRAFFIC SIGNAL INSTALLATION IS CONSTRUCTED AS PER THE CURRENT ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS. THE EAST DRIVE TO THE CEMETARY OFF OF MONROE STREET SHALL BE CLOSED. ALL CEMETARY TRAFFIC SHALL ENTER AND EXIT AT THE SIGNAL AT THE INTERSECTION OF MONROE STREET AND HARROUN ROAD.

PHASE 4A

DURING THIS SUBPHASE. TRAFFIC ON MONROE STREET WILL REMAIN UNCHANGED. RAMP C AND RAMP D LANES ARE TO BE SHIFTED TO THE EAST ONCE THE PROPOSED RAMP WORK IS COMPLETE IN PHASE 4. THE TRAFFIC OPERATION TO AND FROM GLASGOW ROAD SHALL BE CHANGED TO A ONE LANE TWO WAY FLOW.

PHASE 5A

PHASE 5A IS A SUBPHASE OF PHASE 4. MONROE STREET BETWEEN HARROUN ROAD AND GLASGOW ROAD IS MOSTLY UNCHANGED, HOWEVER THE NORTHERN INTERSECTION AREA OF MONROE STREET AND GLASGOW ROAD SHALL BE CONSTRUCTED WHILE ALLOWING A SINGLE TWO-WAY LANE TO TRAVEL TO AND FROM GLASGOW ROAD. THE TWO-WAY SINGLE LANE OPERATION SHALL BE IN PLACE FOR A MAXIMUM OF 10 DAYS. MONROE STREET IS TO REMAIN CLOSED FROM GLASGOW ROAD TO ACRES ROAD. WORK ON THE PROPOSED STRUCTURE (SFN: 4805224) SHALL CONTINUE. PROPOSED RAMP B IS TO BE OPENED TO TRAFFIC. THE NORTHERN HALF OF THE MONROE STREET AND ACRES ROAD INTERSECTION AREA SHALL BE CONSTRUCTED. THE SOUTHERN HALF OF THE ALEXIS ROAD AND ACRES ROAD INTERSECTION AREA SHALL BE CONSTRUCTED. ACRES ROAD BETWEEN ALEXIS ROAD AND MONROE STREET SHALL BE REMOVED. THE PROPOSED US-23 SOUTHBOUND RAMP CONCRETE MEDIAN SEPARATING THE ON AND OFF-RAMP SHALL BE CONSTRUCTED. THE US-23 NORTHBOUND OFF-RAMP IS TO BE CLOSED DURING THIS PHASE AS PER MT-98.29 AND ALL OVERLAPPING PROPOSED PAVEMENT AREAS WITH EXISTING PAVEMENT AREAS ARE TO BE CONSTRUCTED AND COMPLETED BEFORE IMPLEMENTING THE NEXT PHASE. THE PEDESTRIAN DETOUR FROM PHASE 3 SHALL REMAIN IN PLACE. THE PHASE 5A MAINTENANCE OF TRAFFIC TEMPORARY SIGNAL MODIFICATIONS FOR US-23 OFF RAMP AND MONROE STREET ARE SHOWN ON SHEET 106 THE CONTRACTOR WILL ENSURE THE PROPOSED TRAFFIC SIGNAL INSTALLATION IS CONSTRUCTED AS PER THE CURRENT ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS.

PHASE 5B

PHASE 5B IS A SUBPHASE OF PHASE 4. MONROE STREET BETWEEN HARROUN ROAD AND GLASGOW ROAD IS MOSTLY UNCHANGED FROM PHASE 5A, THE ONLY EXCEPTION BEING THAT THE NORTH LEG OF GLASGOW IS ALLOWED TO HAVE TWO LANE TWO WAY TRAFFIC. THE PROPOSED RAISED MEDIAN ON MONROE STREET FROM ROUGHLY STATION 170+42 TO STATION 175+18 SHALL BE INSTALLED DURING THIS PHASE. TRAFFIC SHALL BE MAINTAINED BY LANE CLOSURES AS PER MT-95.32. MONROE STREET IS TO REMAIN CLOSED FROM GLASGOW ROAD TO ACRES ROAD. WORK ON THE PROPOSED STRUCTURE (SFN: 4805224) SHALL CONTINUE. THE SOUTHERN HALF OF MONROE STREET FROM THE EXISTING US-23 NORTHBOUND RAMP INTERSECTION TO THE END OF THE PROJECT SHALL BE CONSTRUCTED. THE RAISED MEDIAN ALONG ALEXIS ROAD SHALL BE CONSTRUCTED. THE US-23 NORTHBOUND MAINLINE SHOULDER SHALL BE RECONSTRUCTED AND TRAFFIC SHALL BE SHIFTED ONTO THE EXISTING SHOULDER. THE PEDESTRIAN DETOUR FROM PHASE 3 SHALL REMAIN IN PLACE. THE WATERLINE WORK STARTED IN PHASE 3 IN THE SOUTHWEST QUADRANT OF MONROE STREET AND THE OLD US-23 NORTHBOUND RAMPS SHALL BE FINISHED. THE SECTION THAT IS TO BE COMPLETED CROSSES THROUGHTHE AREA OF WHERE THE NOW CLOSED AND DEMOLISHED US-23 NORTHBOUND RAMPS WERE PREVIOUSLY LOCATED.

POST PHASE

THE WORK TO BE PERFORMED DURING THIS PHASE WILL INCLUDE THE FOLLOWING: CONSTRUCTION OF THE REMAINING SURFACE COURSE OF PAVEMENT, FINAL PAVEMENT MARKINGS, FINAL SIGNAGE, LIGHTING, AND LANDSCAPING ITEMS. ALL MAINTENANCE OF TRAFFIC ITEMS THAT WERE PREVIOUSLY PLACED SHALL BE REMOVED. AT THE COMPLETION OF THE 180 DAY BRIDGE CLOSURE PERIOD ALL LANES OF TRAFFIC ON MONROE, ALEXIS, US-23, AND ALL RAMPS SHALL BE OPEN TO TRAFFIC. ANY REMAINING WORK SHALL BE COMPLETED WITH OVERNIGHT LANE CLOSURES FROM 8 PM TO 6 AM. EXISTING STRUCTURE SFN 4805135 LUC 00184-00.030R CANNOT BE DEMOLISHED UNTIL PEDESTRIAN TRAFFIC CAN SAFELY TRAVERSE ACROSS THE NEWLY CONSTRUCTED MONROE STREET BRIDGE. THE PEDESTRIAN DETOUR FROM PHASES 1 & 2 SHALL BE IN EFFECT WHILE THE EXISTING STRUCTURE IS DEMOLISHED.

CONSTRUCTION COORDINATION KROGER PARCEL

CONTRACTOR IS TO COORDINATE OPERATIONS AND SCHEDULE WITH A KROGER STORE MANAGER (419-885-5027), RELATED TO THE WORK AT THE DRIVEWAY FOR KROGER ON MONROE STREET. CONTRACTOR IS TO PERFORM WORK SO AS NOT TO INTERFERE WITH THE OPERATIONS OF THE KROGER PHARMACY DRIVE-THRU. WORK THAT WILL TEMPORARILY IMPACT THE PHARMACY DRIVE-THRU MAY ONLY BE PERFORMED WHEN THE PHARMACY IS CLOSED AND IN COORDINATION WITH KROGER.

ALLOW	ABLE CLOSURE TABLE			
LOCATION	MOT PHASE	DURATION	DAMAGES	
SHORT TERM CLOSURES OF US-23 FOR MONROE STREET BRIDGE WORK AS PER MT-99.60	PHASES 1 - 5B	15 MINUTES BETWEEN HOURS OF MIDNIGHT AND 5 AM	\$1000/15 MIN	
OVERNIGHT RAMP CLOSURES	PHASE CHANGES & TEMP. PAVEMENT WORK	9PM FRI - 5AM MON	\$1000/15 MIN	
US-23 SB INSIDE LANE CLOSURE FOR TEMPORARY PAVEMENT INSTALLATION	PREPHASE	ONE WEEKEND FROM 9 PM FRIDAY TO 5 AM MONDAY	\$1000/15 MIN	
ALEXIS ROAD U-TURN AT ELLIOTT DRIVE RIGHT LANE CLOSURE	PHASE 1	10 DAYS	\$1000/DAY	
US-23 SB INSIDE LANE CLOSURE FOR TEMPORARY PAVEMENT REMOVAL	PHASE 2	ONE WEEKEND FROM 9 PM FRIDAY TO 5 AM MONDAY	\$1000/15 MIN	DESIGN AGENC
MONROE STREET & ALEXIS ROAD BETWEEN GLASGOW ROAD AND ACRES ROAD	PHASES 3 - 5B	A+B DURATION 1	A+B INCENTIVE/ DISINCENTIVE	ADIS SINE SUITE 1300 OHIO 44114
ACRES ROAD NORTH OF ALEXIS ROAD	PHASE 3	14 DAYS	\$1000/DAY	RIOR AVE
RAMP CLOSURE US-23 NB	PHASE 5A	14 DAYS	\$1000/15 MIN	DESIGNER EITH SUPERIOR AVEN CLEVELAND, OF
EAST CEMETARY DRIVE NORTH OF MONROE STREET	PHASE 4	14 DAYS	\$1000/DAY	REVIEWE
GLASGOW ROAD ONE LANE TWO WAY	PHASE 4A	10 DAYS	\$3000/DAY	TJR 09/1
LANE CLOSURES ON MONROE/ ALEXIS	PHASE 1-2 AND POST PHASE	8 PM TO 6 AM	\$1000/15 MIN	PROJECT ID 105889 SHEET TOT
US 23 SINGLE LANE CLOSURES	ALL	PLCS REQUIREMENTS	\$150/MIN	25

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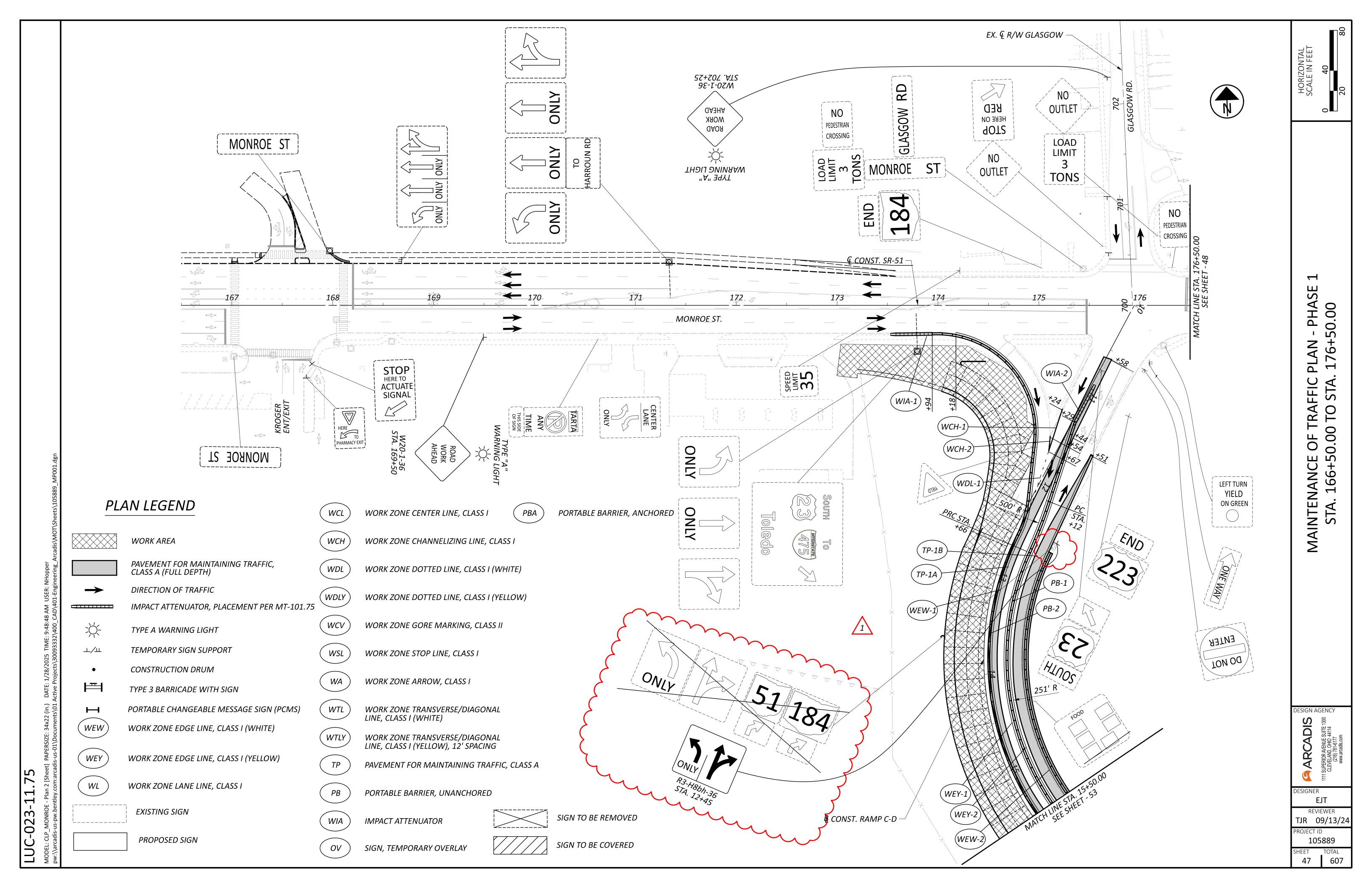
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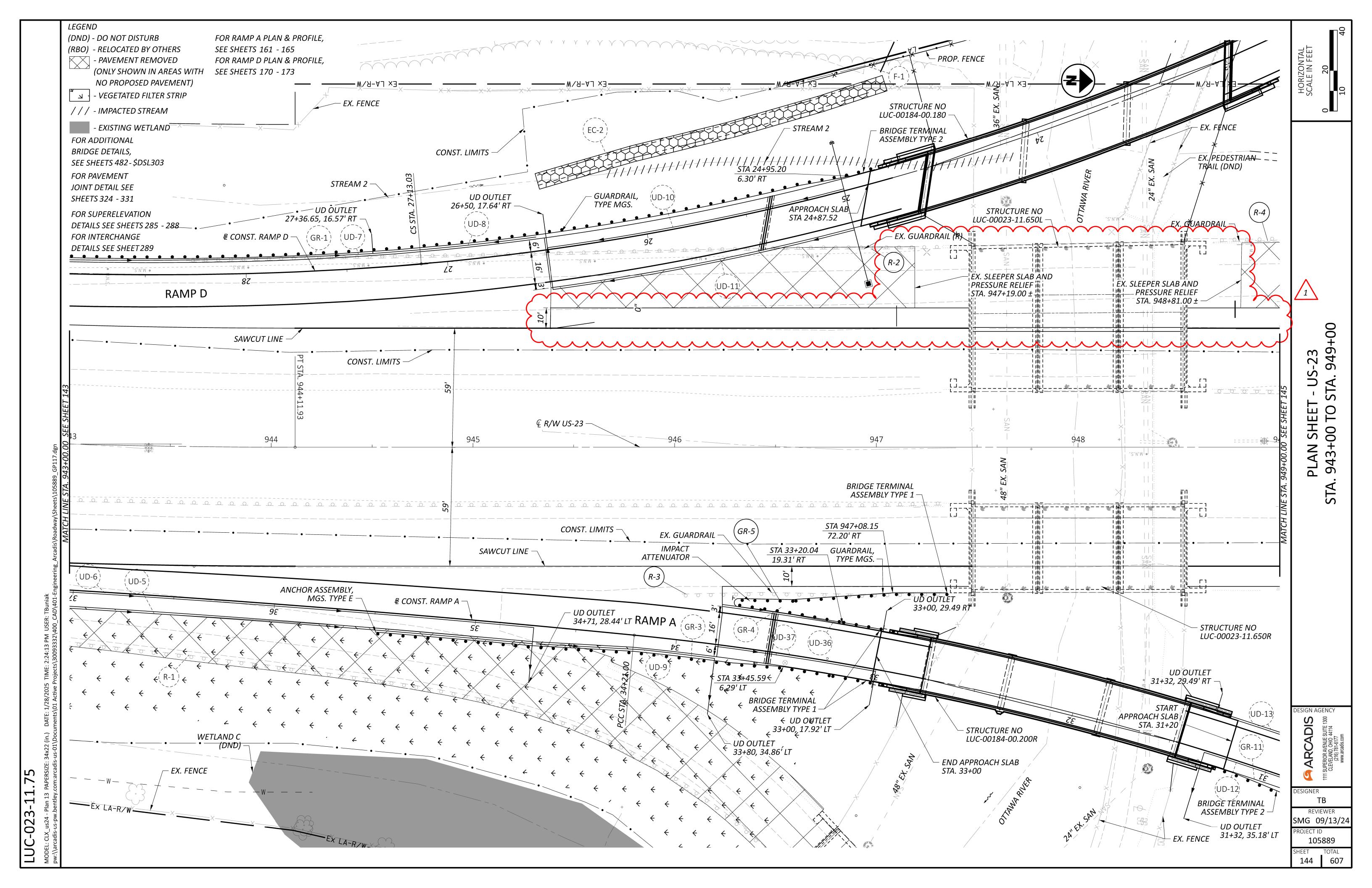
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				2,926						1,880	2,926	1,880	204	30030 30020	2,926 1,880		GRANULAR MATERIAL, TYPE D GRANULAR MATERIAL, TYPE C	
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										2,819		2,819	204	51000	2,819	SY	GEOGRID	
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							311				311		607	23001	311	FT	FENCE, TYPE CLT, AS PER PLAN 17	
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				40								40	607	98000	40	ET	FENCE, MISC.:WOOD FENCE, WITH 5' RAILS 18	
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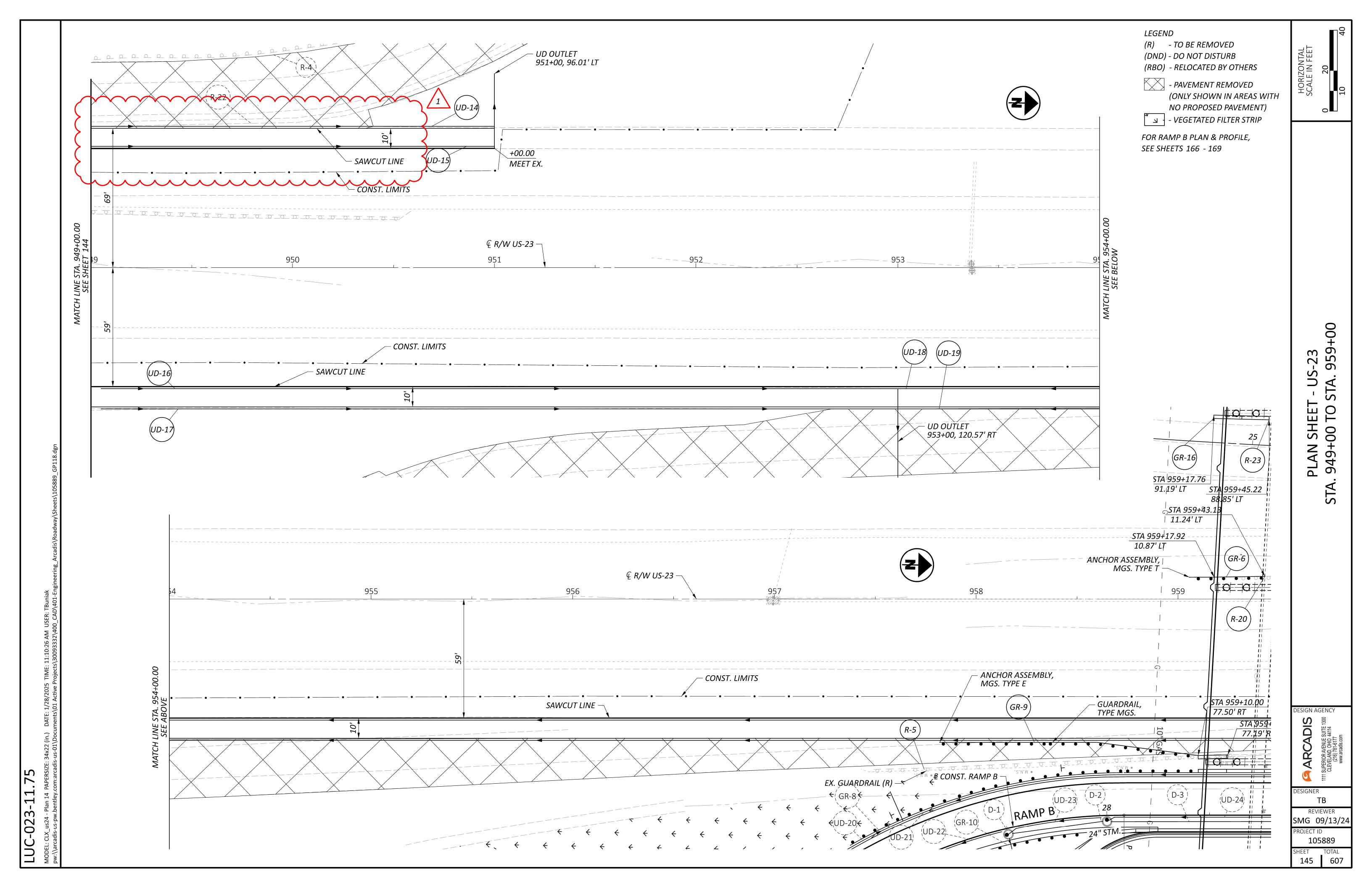
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		DRAINAGE (CONT.)																		
		CATCH BASIN, NO. 7	EACH	2	98390	611		2							2					
		CATCH BASIN, NO. 2-2B	EACH	3	98470	611	1	2				<u> </u>			3					
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9	18	CATCH BASIN RECONSTRUCTED TO GRADE, AS PER PLAN	EACH	'	98635	611	<u> </u>					 			I					
		MANHOLE, NO. 3	EACH	21	99574	611	13	8						21						
		MANHOLE ADJUSTED TO GRADE	EACH	8	99654	611	7	1						8						
		PRECAST REINFORCED CONCRETE OUTLET	EACH	28	99710	611		28					26					2		
		PAVEMENT DI ANUNCIA CONCRETE A FIL	0)/	04.007	04000	054	0.004	40.400	10010			<u> </u> '							0.454	
	20	PAVEMENT PLANING, ASPHALT CONCRETE, AS DED DI ANI 1.5"	SY	21,397	01000	254	9,201	12,196	12,246		+	<u> </u>							9,151	106
2	22	PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN, 1.5" ASPHALT CONCRETE BASE, PG64-22, (449)	SY CY	196 6,213	01001 56000	254 301	2,239	196 3,974	6,213			 								196
		AGGREGATE BASE	CY	10,044	20000	304	2,531	7,513	9,714			 				46	284			
		NON-TRACKING TACK COAT	GAL	4,451	20000	407	2,042	2,409	4,441							10				
		ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), (DRIVEWAYS)	CY	6	70500	441	6	,								6				
		ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449), (DRIVEWAYS)	CY	10	70700	441	10	4 400				<u> </u>				10				
		ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)		2,446	10000	442	960	1,486	2,073			 '							373	
		ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446) 8" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P	CY SY	2,317 18,731	10100 12010	442 452	838 266	1,479 18,465	2,317 18,465			<u> </u>				260	6			
		WATER WORK	<u> </u>	10,731	12010	402	200	10,403	10,403			<u> </u>				200				
		VALVE BOX REMOVED	EACH	6	75610	202	4	2				6								
14	31	ABANDON MISC.: WATER MAIN	FT	1,763	98700	202	871	892				1,763								
16	31	ROCK EXCAVATION	CY	106	31100	503		106				106								
14		8" WATER MAIN POLYVINYL CHLORIDE PIPE AND FITTINGS, AWWA C900, DR18	FT 	20	01720	638		20				20								
14	31	12" WATER MAIN DUCTILE IRON PIPE ANSI CLASS 53, MECHANICAL JOINTS AND FITTINGS	FT	366	02504	638	22	344			\vdash	366								
14	31	12" WATER MAIN POLYVINYL CHLORIDE PIPE AND FITTINGS, AWWA C900, DR18	FT	1,087	02730	638	389	698				1,087								
14		24" STEEL PIPE ENCASEMENT, BORED OR JACKED	FT	213	07310	638	000	213				213								
14		8" GATE VALVE AND VALVE BOX	EACH	1	07900	638	1	·				1								
14	31	12" GATE VALVE AND VALVE BOX	EACH	1	08100	638		1				1								
14	31	12" X 12" TAPPING SLEEVE, VALVE AND VALVE BOX	EACH	2	09800	638	1	1				2								
	0.4	ACULY ACULTA DDINIO OLEEVE MALVE AND MALVE DOM		4	00000	000		4												
14 14		16" X 12" TAPPING SLEEVE, VALVE AND VALVE BOX 6" FIRE HYDRANT, AS PER PLAN	EACH EACH	1	09908 10201	638 638		1				4								
	31	VALVE BOX ADJUSTED TO GRADE	EACH	5	10800	638	1	1				5								
14	31	FIRE HYDRANT REMOVED FOR STORAGE, CITY OF SYLVANIA	EACH	3	63820752	SPECIAL	3	'				$\frac{3}{3}$								
14		CUT AND PLUG EXISTING 8" WATER LINE, CITY OF SYLVANIA	EACH	6	63820880	SPECIAL	3	3				6								
14	21	WATER WORK MISC : 2 " BLOWOEF VALVE	EACH	2	98000	620	1	2			 									
14		WATER WORK, MISC.: 2." BLOWOFF VALVE WATER WORK, MISC.: 2.5" BLOWOFF VALVE	EACH EACH	2	98000	638 638	1	1				2								
14		WATER WORK, MISC.: CONNECT TO EXISTING WATER MAIN	EACH	4	98000	638	1	3				4								
		SANITARY SEWER					- 12													
		MANHOLE ADJUSTED TO GRADE (SANITARY)	EACH	16	99654	611	12	4						16						
		LIGHTING																		
		CONNECTION, FUSED PULL APART	EACH	57	00450	625		57		57										
		CONNECTION, UNFUSED PULL APART	EACH	5	00460	625		5		5										
		CONNECTION, UNFUSED PERMANENT	EACH	52	00480	625		52		52		<u> </u>								
06	40	LIGHT POLE, AESTHETIC, AS PER PLAN, POST-TOP, WITH ENHANCED AESTHETIC FEATURES	EACH	5	10481	625		5				<u> </u>								
06		LIGHT POLE, AESTHETIC, AS PER PLAN, POST-TOP, WITH ENHANCED AESTHETIC FEATURES	EACH	5	10481	625		5		5										
		LIGHT POLE, CONVENTIONAL, AT15B40	EACH	9	10490	625		9		9										
		LIGHT POLE, CONVENTIONAL, AT20B40	EACH	7	10490	625		7		7										
											↓									
		NO. 4 AWG 2400 VOLT DISTRIBUTION CABLE	FT	6,062	23200	625		6,062		6,062	400	 								
		NO. 10 AWG 600 VOLT DISTRIBUTION CABLE NO. 10 AWG POLE AND BRACKET CABLE	FT FT	400 3,333	23306 23400	625 625		400 3,333		3,333	400	 								-
		1-1/2" DUCT CABLE WITH THREE NO. 4 AWG 2400 VOLT CABLES	FT	5,755	24320	625		5,755		5,333 5,755		<u> </u>								
						· - •		- ,- 												
		CONDUIT, 2", 725.051	FT	314	25408	625	92	222		122	100						92			
		CONDUIT, 3", 725.051	FT	423	25504	625		423		323	100									
06	40	CONDUIT, JACKED OR DRILLED, 725.051, 3" LUMINAIRE CONVENTIONAL SOUD STATE (LED), AS REP DI ANLIES II, 13,700,16,400 LUMENS	FT EACH	432 16	25906 26253	625 625		432 16		432	 	 '								
	40	LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN, IES-II, 13,700-16,400 LUMENS LUMINAIRE, DECORATIVE, AS PER PLAN, POST TOP, WITH BASELINE AESTHETIC FEATURES	EACH EACH	5	20253	625		5		5	 	<u> </u>								
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SEE SHEET NO.								22													20														
DESCRIPTION	MAINTENANCE OF TRAFFIC	ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	EASED BARRIER DELINEATION	K ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL) ACEMENT DRUM	K ZONE RAISED PAVEMENT MARKER	IALT CONCRETE FOR MAINTAINING TRAFFIC RIER REFLECTOR, TYPE 1, ONE WAY	RIER REFLECTOR, TYPE 2, ONE WAY	CT MARKER, ONE WAY ABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	K ZONE LANE LINE, CLASS I, 6"	K ZONE CENTER LINE, CLASS I K ZONE EDGE LINE, CLASS I, 6"	K ZONE CHANNELIZING LINE, CLASS I, 12"	K ZONE DOTTED LINE, CLASS I	K ZONE TRANSVERSE/DIAGONAL LINE, CLASS I K ZONE STOP LINE, CLASS I	K ZONE ARROW, CLASS I	MENT FOR MAINTAINING TRAFFIC, CLASS A	R ABLE BARRIER, UNANCHORED	PORTABLE BARRIER TRANSITION/TERMINATION		INCIDENTALS	PROGRESS SCHEDULE TAINING TRAFFIC	OFFICE, TYPE C, AS PER PLAN	STRUCTION LAYOUT STAKES AND SURVEYING LIZATION													
UNIT		HOUR I	FT								FT	FT \		<u>N</u> _	^ ^ /	MGAL T	EACH I																		
TOTAL	101/12	300	4,230	18 100	1,021	10 784	39 268	192	1.52	1.51 11.1	17,051	4,345	828 406	118	6,403	672 13,332	1			LS LS	18	LS LS													
EXT		11110	11630	12380 12600	12800	13000 13310	13312	13350 18601	20010	21000 22010	23010	24000	25000 26000	30000	20000	10000 41100	41060			10000 11000	16021	10000 10000													
ITEM		614	614	614 614	614	614 614	614 614	614	614	614 614	614	614	614 614		615	616 622	622			108 614	619	623 624													
		150		50	226	5	19	96	0.29	1.15 2.14	2,854	1,294	828 217		860	336				LS LS	9	LS LS													
01/NHS/21		150	4,230	18 50	795	784	20 268	96	1.23	0.36 8.96	14,197	3,051	189		5,543	336 13,332	1			LS LS	9	LS LS													
										 																									. —————————————————————————————————————
37			,230	18	1,021	784	268	200	1.52	1.51	7,051	,345	828 406		5,207	3,332	1																		
23		300			10	10																													_
22				100			39	192							196	672																			

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	SUMMARY	ADWAY SUB-	RO				SIGNER CRA SZZ SOUTH MAIN STRE AKRON, OHIO (330) 434-18 www.arcadis.	OJECT ID 105889 EET TOTAL 124 607
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CY 12 6	7 13 6	8 13 15 16 7			11.7	23 21 21 22 23 25	23 22 21 19 4 8 5	349 403
CY 37 19	21 40 19	24 40 44 47 22))	35	69 64 63 66 69 74 71	68 66 62 56 13 25 14	1045 1209
CY 2473 1872 997 717 999 1266 1426 1455	1131 789 1289 1440 737	8 101 28 1 5 10 13	10 10 12 14 13 15 20	28 1 317 505 565 506 455	345 113 16 64	86 71 50 44 65 77	72 47 32 19 3 3 5	5 12897 23513
CY 1121 1881 2500 2696 2225 1737 1420 992	581 512 509 472 1095 1659 170 175	380 744 625 448 316 238 183	167 144 92 65 56 34 12 4	23 73 183 340 552	936 1935 3895 4758 3745 2773	1042 235 356 523 1087 1706	926 645 456 309 68 151 164	78 5393 53597
01/NHS/21 01/NHS/21 01/NHS/21 01/NHS/21 01/NHS/21 01/NHS/21 01/NHS/21	01/NHS/21 01/NHS/21 01/NHS/21 01/NHS/21 01/NHS/21 01/NHS/21 01/NHS/21 01/NHS/21	01/NHS/21 01/NHS/21 01/NHS/21 01/NHS/21 01/NHS/21 01/NHS/21 01/NHS/21	01/NHS/21 01/NHS/21 01/NHS/21 01/NHS/21 01/NHS/21 01/NHS/21 01/NHS/21	01/NHS/21 01/NHS/21 01/NHS/21 01/NHS/21 01/NHS/21 01/NHS/21	01/NHS/21 01/NHS/21 01/NHS/21 01/NHS/21 01/NHS/21 01/NHS/21	01/NHS/21 01/NHS/21 01/NHS/21 01/NHS/21 01/NHS/21 01/NHS/21	01/NHS/21 01/NHS/21 01/NHS/21 01/NHS/21 01/NHS/21 01/NHS/21 01/NHS/21	01/NHS/21
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25+00.00 25+50.00 26+00.00 26+50.00	29+00.00 29+50.00 30+00.00 30+50.00 31+00.00 31+20.50	33+50.00 34+00.00 34+50.00 35+00.00 35+50.00 36+50.00	37+50.00 38+00.00 38+50.00 39+00.00 39+50.00 40+00.00 40+50.00	22+00.00 22+50.00 23+00.00 23+50.00	24+50.00 25+00.00 25+50.00 26+00.00 26+50.00 27+00.00	28+00.00 28+50.00 29+00.00 29+50.00 30+00.00 30+50.00	31+50.00 32+00.00 32+50.00 33+00.00 33+14.12 33+50.00 34+00.00	34+27.47
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A A A A A A A A A A A A A A A A A A A	A A A A A A A A A A A A A A A A A A A	A A A A A A A A A A A A A A A A A A A		B B B B	B B B B B B B B B B B B B B B B B B B	B B B B B B B B B B B B B B B B B B B	B B B B B B B B B B B B B B B B B B B	TOTALS FROM P
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			RAMP A					
			RAMP A					
	RAMP A 24+00.00 TO 24+50.00 01/NHS/21 1121 2473 37 12 25	RAMPA 24-50.00 TO 24-50.00 OIN-HS:21 1121 2473 37 12 25 RAMPA 24-50.00 TO 25-50.00 OIN-HS:21 1881 1872 19 6 13 RAMPA 25-50.00 TO 25-50.00 OIN-HS:21 2500 997 RAMPA 25-50.00 TO 25-50.00 OIN-HS:21 2509 999 RAMPA 25-50.00 TO 25-50.00 OIN-HS:21 1737 1266 RAMPA 25-50.00 TO 27-50.00 OIN-HS:21 1737 1266 RAMPA 25-50.00 TO 27-50.00 OIN-HS:21 1420 1426 RAMPA 25-50.00 TO 25-50.00 OIN-HS:21 581 1131 RAMPA 25-50.00 TO 25-50.00 OIN-HS:21 598 1435 RAMPA 25-50.00 TO 25-50.00 OIN-HS:21 598 1431 RAMPA 25-50.00 TO 25-50.00 OIN-HS:21 598 1431 RAMPA 25-50.00 TO 25-50.00 OIN-HS:21 598 1289 40 13 27 RAMPA 25-50.00 TO 25-50.00 OIN-HS:21 598 1289 40 13 27 RAMPA 25-50.00 TO 30-50.00 OIN-HS:21 1935 737 RAMPA 30-50.00 TO 30-50.00 OIN-HS:21 1935 737 RAMPA 30-50.00 TO 31-50.00 OIN-HS:21 1935 RAMPA 31-20.50 TO 31-45.50 OIN-HS:21 175 RAMPA 31-45.50 OIN-HS:21 175 R	24400.00 TO	PAMPA 24-03.01 TO 24-03.01 Original 1/3 227 37 12 25	ModPA Section To Medical Section S	Mary Mary	Separa Second Color Second Se	Section Sect

																																												DESI				DES		S٨	PRO	SHE	
625	TRENCH, 36" DEEP	FT																																									46									46	
625	CONDUIT, 2", 725.051	FT																																									92									92	<u>پ ر</u>
623 O	MONUMENT ASSEMBLY ADJUSTED 'GRADE	EACH																																					1	1												2	4
609	4" CONCRETE MEDIAN	SY																															199	6	11																	216	∠ i ∪
609	CURB, TYPE 6, AS PER PLAN	FT																																																	044	941	
609	CURB, TYPE 6	FT 457	457 506	385	480	398	394	17	217	120	7	29	29																																						0044	2841 3039	
609	CURB, TYPE 4-A	FT																																																	44.45	1145	-
608	CURB RAMP	SF													153	302					150	87	166	201	117	179		126	75		83																					1639	
608	6" CONCRETE WALK	SF																				3041	5644		5328																											14013	
608	4" CONCRETE WALK	SF												1384			157	2029	95	1300	199			4096		2686	2809		819	85	550																					16209	
607	FENCE, MISC.: WOOD FENCE, WITH RAILS	FT																																		40																40	
452	8" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P	SY																														6																				6	
304	AGGREGATE BASE	CY																				62	114		107							1																				284	, v , -
204	GRANULAR MATERIAL, TYPE D	CY																																																	0000	2926	
204	GRANULAR MATERIAL, TYPE B	CY																																																	4404	1464	
204	EXCAVATION OF SUBGRADE	CY																																															^	1	4000	4388	
203	EMBANKMENT	CY																																																	92404	82491	
203	EXCAVATION	CY																																																		73650	
	SPLIT	04/NU 10/04	01/NHS/21 01/NHS/21	02/S>2/04	02/S>2/04	02/S>2/04	02/S>2/04	02/S>2/04	02/S>2/04	02/S>2/04	02/S>2/04	02/S>2/04	02/S>2/04	 02/S>2/04	02/S>2/04	01/NHS/21	01/NHS/21	01/NHS/21	01/NHS/21	02/S>2/04	02/S>2/04	02/S>2/04	02/S>2/04	02/S>2/04	02/S>2/04	02/S>2/04	02/S>2/04	02/S>2/04	02/S>2/04	02/S>2/04	01/NHS/21	01/NHS/21	02/S>2/04	02/S>2/04	02/S>2/04	02/S>2/04	02/S>2/04																
	SIDE	1 -	RT	LT	RT	LT/RT	RT	LT	LT	LT	RT	LT	RT	RT	RT	RT	RT	RT	RT	LT	LT	LT	LT	LT	RT	LT	RT	IT	IT	RT	LT	LT	LT/RT	LT/RT	LT/RT	RT	LT	LT	LT	CL	RT	RT	LT/RT										
	ATION	100:04.05	193+04.65 193+04.65	65+01.34	39+20.33	38+16.33	38+16.33	37+31.29	39+20.33	47+32.11	47+13.43	64+99.33	64+99.33	166+93.99	167+14.83	168+00.78	168+31.49	170+70.16	171+28.24	175+18.33	175+71.10	178+94.21	187+05.97	193+04.65	193+04.67	37+03.63	38+72.15	37+30.55	39+20.33	39+20.33	47+47.62	175+17.83	38+15.83	64+78.06	64+98.86	168+48.67	178+94.24	182+45.74	162+90.52	164+55.42	171+45.83	171+74.23	174+50.00										
	ON TO ST		TO TO	TO	ТО	ТО	ТО	ТО	ТО	TO	TO	ТО	TO	ТО	ТО	ТО	ТО	ТО	ТО	ТО	TO	ТО	ТО	TO	ТО	TO	TO	TO	TO	ТО	ТО	TO	TO	TO	ТО	TO	TO	ТО													ETC	EEIS	
	STATIO	400.00.04	188+22.04 21+20.80	33+72.62	33+99.77	34+08.82	34+08.82	37+14.47	65+33.70	46+19.89	47+06.48	64+72.93	64+74.48	 165+21.25	166+99.99	167+78.75	167+92.38	168+00.78	171+05.64	172+58.33	175+18.33	176+12.78	182+24.86	188+13.25	20+87.31	33+99.28	34+28.80	37+15.41	37+49.85	39+04.47	46+48.12	175+08.33	34+09.31	64+72.75	64+84.83	168+09.43	178+69.74	182+25.74															
	LOCATION	MONDOE OTDEET	MONROE STREET ALEXIS ROAD / MONROE STREET	ALEXIS ROAD / ACRES ROAD	ALEXIS ROAD	ALEXIS ROAD	ALEXIS ROAD	ALEXIS ROAD	ACRES ROAD / ALEXIS ROAD	ALEXIS ROAD	ALEXIS ROAD	ACRES ROAD	ACRES ROAD	 MONROE STREET	MONROE STREET	ALEXIS ROAD / MONROE STREET	ALEXIS ROAD	ALEXIS ROAD	ACRES ROAD	ALEXIS ROAD	ALEXIS ROAD	ALEXIS ROAD	MONROE STREET	ALEXIS ROAD	ACRES ROAD	ACRES ROAD	MONROE STREET								CLIMAL III ATTY /F TOTAL O FO	CUMULATIVE TOTALS FRO	IVIALO IIII																
	REFERENCE NO.	0.04	C-31 C-32	C-33	C-34	C-35	C-36	C-37	C-38	C-39	C-40	C-41	C-42	 W-1	W-2	W-3	W-4	W-5	W-6	W-7	W-26	W-27	W-28	W-29	W-30	W-31	W-32	W-33	W-34	W-35	W-36	MD-1A	MD-1	MD-2	MD-3	BR-1	BR-2	BR-3	M-1	M-2	M-3	M-4	M-5										
	SHEET NO.	454	151 151	155	155	155	155	155	155	158	158	159	159	 147	147	147	147	47, 148	148	48, 149	48, 149	149	150	151	151	155	155	155	157	157	159	149	155	159	159	147	149	150	146	147	148	148	149										





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STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS AS-1-15 REVISED 1/20/2023 *AS-2-15* REVISED 7/21/2023 1/19/2024 CPA-1-08 DATED 1/15/2021 CS-1-08 REVISED 4/17/2020 HL-20.14 REVISED 1/19/2024 REVISED HL-30.31 REVISED HL-50.21 7/15/2022 SBR-1-20 REVISED 7/21/2023

REFER TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS

DATED 4/16/2021

DESIGN SPECIFICATIONS

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

DESIGN LOADING

DESIGN LOADING INCLUDES: VEHICULAR LIVE LOAD: HL-93 FUTURE WEARING SURFACE (FWS) OF 0.06KIPS/SQ.FT

DESIGN DATA

CONCRETE CLASS QC2: COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)

CONCRETE CLASS QC1:

COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)

CONCRETE CLASS QC5, WITH 0.75-INCH MAX AGGREGATE SIZE: COMPRESSIVE STRENGTH 4.5 KSI (DRILLED SHAFT)

CONCRETE REINFORCEMENT:

EPOXY COATED STEEL REINFORCEMENT - MINIMUM YIELD STRENGTH 60-KSI - SLAB, ABUTMENTS, PIERS AND RAILINGS

GFRP REINFORCEMENT - RAILINGS

MONOTHILIC WEARING SURFACE

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

SCOUR ELEVATIONS

THE DESIGN FLOOD AND CHECK FLOOD SCOUR ELEVATIONS ARE PROVIDED BELOW:

	REAR ABUTMENT	PIER 1	PIER 2	FORWARD ABUTMENT
DESIGN FLOOD	607.30	606.85	606.61	604.50
CHECK FLOOD	607.30	606.85	606.52	604.50

ITEM 203 - EMBANKMENT, AS PER PLAN

PAYMENT UNDER THE ROADWAY QUANTITIES.

PLACE AND COMPACT EMBANKMENT MATERIAL IN 6 INCH LIFTS FOR THE CONSTRUCTION OF THE APPROACH EMBANKMENT BETWEEN STATIONS 30+45.50 TO 31+45.50 AND 32+76.50 TO 33+76.50. THIS ITEM IS INCLUDED FOR

SHAFT DRILLING CONSTRAINTS

PRIOR TO DRILLING SHAFTS, CONSTRUCT THE SPILL THROUGH SLOPES AND THE BRIDGE APPROACH EMBANKMENT BEHIND THE ABUTMENTS UP TO THE LEVEL OF THE SUBGRADE ELEVATIONS FOR A MINIMUM DISTANCE OF 200-FT BEHIND EACH ABUTMENT. DO NOT BEGIN THE EXCAVATION FOR THE ABUTMENT FOOTINGS AND THE DRILLING OF THE ABUTMENT SHAFTS UNTIL AFTER THE ABOVE REQUIRED EMBANKMENT HAS BEEN CONSTRUCTED AND A 14 CALENDAR DAY WAITING PERIOD HAS ELAPSED.

ROCK-SOCKETED DRILLED SHAFTS

THE MAXIMUM FACTORED LOAD TO BE SUPPORTED BY EACH DRILLED SHAFT IS 294.92 KIPS AT THE REAR ABUTMENT, 480.99 KIPS AT PIER 1, 480.99 KIPS AT PIER 2, AND 287.57 KIPS AT THE FORWARD ABUTMENT. THIS LOAD IS THEORETICALLY RESISTED ENTIRELY BY TIP RESISTANCE.

AT THE REAR ABUTMENT, THE FACTORED TIP RESISTANCE IS 21,735 KIPS. AT PIER 1, THE FACTORED TIP RESISTANCE IS 24,705 KIPS. AT PIER 2, THE FACTORED TIP RESISTANCE IS 22,405 KIPS. AT THE FORWARD ABUTMENT, THE FACTORED TIP RESISTANCE IS 17,600 KIPS.

CONTRACTOR IS REQUIRED TO HAVE ON-HAND DURING DRILLED SHAFT INSTALLATION A STEEL CASING TO PREVENT BOREHOLE COLLAPSE AND FOR GROUNDWATER CONTROL DURING DRILLED SHAFT INSTALLATION THROUGH SOIL.

ITEM 511 CLASS QC1 CONCRETE, ABUTMENT INCLUDING FOOTING, AS PER PLAN

INCLUDED WITH THIS ITEM IS THE FOLLOWING: COAT PORTIONS OF THE ABUTMENT WALLS AND WINGWALLS THAT ARE ABOVE EXISTING GRADE WITH LOW VISCOSITY BITUMINOUS ASPHALT AND THEN COVER OR WRAP THOSE COMPONENTS WITH A DURABLE THICK PLASTIC VISQUEEN TO AVOID ADDITIONAL DOWNDRAG LOADS ON THESE EXPOSED ELEMENTS. ALTERNATIVE METHODS TO AVOID DOWNDRAG ON THE WALLS AND FOOTINGS MAY BE IMPLEMENTED WITH THE APPROVAL OF THE ENGINEER. ALL LABOR AND MATERIALS TO INSTALL THE BITUMINOUS ASPHALT AND VISQUEEN SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 511 CLASS QC1 CONCRETE, ABUTMENT INCLUDING FOOTING, AS PER PLAN.

ITEM 894 - THERMAL INTEGRITY PROFILER (T.I.P.) TEST

PERFORM INTEGRITY TESTING ON ONE (1) OF THE DRILLED SHAFTS AT EACH SUBSTRUCTURE LOCATION: REAR ABUTMENT, FORWARD ABUTMENT PIER 1 AND PIER 2 BY THERMAL INTEGRITY PROFILING (TIP). PERFORM TIP TESTING PER ASTM D7949, "STANDARD TEST METHODS FOR THERMAL INTEGRITY PROFILING OF CONCRETE DEEP FOUNDATIONS," METHOD B, AND SUPPLEMENTAL SPECIFICATION 894.

SHARE USE PATH PROTECTION DURING CONSTRUCTION:

THE CONTRACTOR SHALL ENSURE PRESERVATION OF EXISTING SHARED-USE PATH FACILITIES, PAVEMENT, RAISED BOARDWALK, LANDSCAPING (INCLUDING BUT NOT LIMITED TO, ORNAMENTAL PLANTS, MULCHING, DECORATIVE STONE, OR FENCING) AND RETAINING WALLS DURING THE CONSTRUCTION OF THE PROPOSED RAMP BRIDGE. ACCESS TO THE CONSTRUCTION AREA VIA THE SHARED-USED PATH IS PERMITTED HOWEVER THE CONTRACTOR MUST LIMIT DAMAGE AS MUCH AS POSSIBLE TO ALL EXISTING SHARED-USE PATH FACILITIES. ANY DAMAGE OCCURRING AS A RESULT OF CONTRACTOR OPERATIONS TO THE AFOREMENTIONED SHARED-USE PATH ITEMS DURING CONSTRUCTION BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE AND TO THE SATISFACTION OF THE ENGINEER.

ITEM 516 - ELASTOMERIC BEARING PAD, MISC.: 1.5" THICK STRIP BEARING:

A 1.5" THICK UNREINFORCED ELASTOMERIC BEARING PAD STRIP SHALL BE INSTALLED IN THE ABUTMENT STEM UNDER THE SUPERSTRUCTURE WITHIN THE LOCATION SHOWN IN THESE PLANS.

THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARINGS WERE DESIGNED UNDER SECTION 14.6.7 (METHOD A) OF THE AASHTO LRFD DESIGN SPECIFICATION. THE LONG TERM COMPRESSION PROOF LOAD TEST IS NOT REQUIRED.

ALL LABOR. MATERIALS AND INCIDENTALS TO FURNISH AND INSTALL THIS BEARING STRIP ARE INCLUDED WITH PAYMENT FOR ITEM 516 - ELASTOMERIC BEARING PAD, MISC.: 1.5" THICK STRIP BEARING AT THE UNIT COST.



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DESIGNER HHH	CHECKER JAH
REVIE	WER 9/09/24
PROJECT ID 105	889
SUBSET 3	TOTAL 22
SHEET P.498	TOTAL 607

			ES7	TIMATED QUANTITIES (04/NHS/10)		Designer:	JAH	Date:	9/6/2024
TEM	EXT.	QUANTITY		DESCRIPTION	\sim	Checker:	JBM SUPER.	Date:	9/6/2024 SEE SHT:
		•						GENERAL	
				COFFEBDAMS AND EXCAVATION BRACING LINES ASSISTED EXCAVATION					
503	21301	LS		UNCLASSIFIED EXCAVATION	LS	LS			
509	10000	115,937	LB	EPOXY COATED STEEL REINFORCEMENT	25426	18011	72500		
509	30020	5,319	FT	NO. 4 DEFORMED GFRP REINFORCEMENT			5319		
	22212						221		
511	32212	301	CY	CLASS QC2 CONCRETE WITH QC/QA, SUPERSTRUCTURE			301		
511	33500	2	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE	2				
511	34450	52	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)			52		
511	40512	60	CY	CLASS QC1 CONCRETE WITH QC/QA, PIER ABOVE FOOTINGS		60			
511	43513	153	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT INCLUDING FOOTING, AS PER PLAN	153				3/22
511	46512	26	CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING		26			
512	10100	441	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)			441		
F1C	10010	F.O.	ГТ	ADMAQDIESS DREEQRAED IQINE SEAL				50	
516	10010	50	FT	ARMORLESS PREFORMED JOINT SEAL	50			50	
516	13200	58	SF	1/2" PREFORMED EXPANSION JOINT FILLER	58		7.4		
516	13600	74	SF	1" PREFORMED EXPANSION JOINT FILLER			74		
516	13900	57	SF	2" PREFORMED EXPANSION JOINT FILLER	57				
516	25000	229	SF	NYLON REINFORCED NEOPRENE SHEETING	229				- 100
516	42600	58	FT	ELASTOMERIC BEARING PAD, MISC.: 1.5" THICK STRIP BEARING	58				3/22
518	12000	1	EACH	SCUPPERS, INCLUDING SUPPORTS			1		
518	21200	76	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	76				
518	40000	88	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	88				
518	40010	16	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	16				
F24	04704	209	ГТ		122	76			
524	94704		FT	DRILLED SHAFTS, 36" DIAMETER, INTO BEDROCK	133				
524	94802	64	FT	DRILLED SHAFTS, 42" DIAMETER, ABOVE BEDROCK	51	13			
526	25011	155	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=15"), AS PER PLAN				155	20 / 22
526	90030	50	FT	TYPE C INSTALLATION				50	
601	21050	<u>4</u>	SY	TIED CONCRETE BLOCK MAT WITH TYPE 1 UNDERLAYMENT	4				
601	20000	73	SY	CRUSHED AGGREGATE SLOPE PROTECTION	73				
601	32200	86	CY	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	86				
331	32200			C. W. W. W. L. C. W. C. W. C.					
611	99710	2	EACH	PRECAST REINFORCED CONCRETE OUTLET	2				
625	33000	1	EACH	STRUCTURE GROUNDING SYSTEM			1		
894	10000	4	EACH	THERMAL INTEGRITY PROFILING (TIP) TEST	2	2			

LUC-023-11.75

4805136 DESIGN AGENCY

DESIGNER CHECKER
RFS JAH reviewer AMT 09/09/24 PROJECT ID 105889

SHEET TOTAL **P.500 607**

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS AS-1-15 REVISED 1/20/2023

AS-2-15 REVISED 7/21/2023 1/19/2024 DATED CPA-1-08 1/15/2021 REVISED CS-1-08 SBR-1-20 REVISED 7/21/2023

REFER TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS DATED 4/16/2021

DESIGN SPECIFICATIONS

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

DESIGN LOADING

DESIGN LOADING INCLUDES: VEHICULAR LIVE LOAD: HL-93 FUTURE WEARING SURFACE (FWS) OF 0.06KIPS/SQ.FT

DESIGN DATA

CONCRETE CLASS QC2: COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)

CONCRETE CLASS QC1:

COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)

CONCRETE CLASS QC5, WITH 0.75-INCH MAX AGGREGATE SIZE: COMPRESSIVE STRENGTH 4.5 KSI (DRILLED SHAFT)

CONCRETE REINFORCEMENT:

EPOXY COATED STEEL REINFORCEMENT - MINIMUM YIELD STRENGTH 60-KSI - SLAB, ABUTMENTS, PIERS AND RAILINGS

GFRP REINFORCEMENT - RAILINGS

MONOTHILIC WEARING SURFACE

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

SCOUR ELEVATIONS

THE DESIGN FLOOD AND CHECK FLOOD SCOUR ELEVATIONS ARE PROVIDED BELOW:

				-
	REAR ABUTMENT	PIER 1	PIER 2	FORWARD ABUTMENT
DESIGN FLOOD	607.10	607.75	601.99	607.7
CHECK FLOOD	607.10	607.64	601.99	607.7

ITEM 203 - EMBANKMENT, AS PER PLAN

PLACE AND COMPACT EMBANKMENT MATERIAL IN 6 INCH LIETS FOR THE CONSTRUCTION OF THE APPROACH EMBANKMENT BETWEEN STATIONS 21+97.28 TO 22+97.28 AND 24+57.79 TO 25+57.79. THIS ITEM IS INCLUDED FOR PAYMENT UNDER THE ROADWAY QUANTITIES.

SHAFT DRILLING CONSTRAINTS

PRIOR TO DRILLING SHAFTS, CONSTRUCT THE SPILL THROUGH SLOPES AND THE BRIDGE APPROACH EMBANKMENT BEHIND THE ABUTMENTS UP TO THE LEVEL OF THE SUBGRADE ELEVATIONS FOR A MINIMUM DISTANCE OF 200-FT BEHIND EACH ABUTMENT. DO NOT BEGIN THE EXCAVATION FOR THE ABUTMENT FOOTINGS AND THE DRILLING OF THE ABUTMENT SHAFTS UNTIL AFTER THE ABOVE REQUIRED EMBANKMENT HAS BEEN CONSTRUCTED AND A 14 CALENDAR DAY WAITING PERIOD HAS ELAPSED.

ROCK-SOCKETED DRILLED SHAFTS

THE MAXIMUM FACTORED LOAD TO BE SUPPORTED BY EACH DRILLED SHAFT IS 452.91 KIPS AT THE REAR ABUTMENT, 630.96 KIPS AT PIER 1, 634.04 KIPS AT PIER 2, AND 390.34 KIPS AT THE FORWARD ABUTMENT. THIS LOAD IS THEORETICALLY RESISTED ENTIRELY BY TIP RESISTANCE.

AT THE REAR ABUTMENT, THE FACTORED TIP RESISTANCE IS 18,305 KIPS. AT PIER 1, THE FACTORED TIP RESISTANCE IS 15,125 KIPS. AT PIER 2, THE FACTORED TIP RESISTANCE IS 30,360 KIPS. AT THE FORWARD ABUTMENT, THE FACTORED TIP RESISTANCE IS 17,350 KIPS.

CONTRACTOR IS REQUIRED TO HAVE ON-HAND DURING DRILLED SHAFT INSTALLATION A STEEL CASING TO PREVENT BOREHOLE COLLAPSE AND FOR GROUNDWATER CONTROL DURING DRILLED SHAFT INSTALLATION THROUGH

ITEM 511 CLASS QC1 CONCRETE, ABUTMENT INCLUDING FOOTING, AS PER PLAN

INCLUDED WITH THIS ITEM IS THE FOLLOWING: COAT PORTIONS OF THE ABUTMENT WALLS AND WINGWALLS THAT ARE ABOVE EXISTING GRADE WITH LOW VISCOSITY BITUMINOUS ASPHALT AND THEN COVER OR WRAP THOSE COMPONENTS WITH A DURABLE THICK PLASTIC VISQUEEN TO AVOID ADDITIONAL DOWNDRAG LOADS ON THESE EXPOSED ELEMENTS. ALTERNATIVE METHODS TO AVOID DOWNDRAG ON THE WALLS AND FOOTINGS MAY BE IMPLEMENTED WITH THE APPROVAL OF THE ENGINEER.

ALL LABOR AND MATERIALS TO INSTALL THE BITUMINOUS ASPHALT AND VISQUEEN SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 511 CLASS QC1 CONCRETE, ABUTMENT INCLUDING FOOTING, AS PER PLAN.

ITEM 894 - THERMAL INTEGRITY PROFILER (T.I.P.) TEST

PERFORM INTEGRITY TESTING ON ONE (1) OF THE DRILLED SHAFTS AT EACH SUBSTRUCTURE LOCATION: REAR ABUTMENT, FORWARD ABUTMENT PIER 1 AND PIER 2 BY THERMAL INTEGRITY PROFILING (TIP). PERFORM TIP TESTING PER ASTM D7949, "STANDARD TEST METHODS FOR THERMAL INTEGRITY PROFILING OF CONCRETE DEEP FOUNDATIONS," METHOD B, AND SUPPLEMENTAL SPECIFICATION 894.

SHARE USE PATH PROTECTION DURING CONSTRUCTION:

THE CONTRACTOR SHALL ENSURE PRESERVATION OF EXISTING SHARED-USE PATH FACILITIES, PAVEMENT, RAISED BOARDWALK, LANDSCAPING (INCLUDING BUT NOT LIMITED TO, ORNAMENTAL PLANTS, MULCHING, DECORATIVE STONE, OR FENCING) AND RETAINING WALLS DURING THE CONSTRUCTION OF THE PROPOSED RAMP BRIDGE. ACCESS TO THE CONSTRUCTION AREA VIA THE SHARED-USED PATH IS PERMITTED HOWEVER THE CONTRACTOR MUST LIMIT DAMAGE AS MUCH AS POSSIBLE TO ALL EXISTING SHARED-USE PATH FACILITIES. ANY DAMAGE OCCURRING AS A RESULT OF CONTRACTOR OPERATIONS TO THE AFOREMENTIONED SHARED-USE PATH ITEMS DURING CONSTRUCTION BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE AND TO THE SATISFACTION OF THE ENGINEER.

THE SUREVEYED AREA IDENTIFIED AS A "FLOWER BED" LOCATED AT THE FORWARD ABUTMENT WILL BE REMOVED WITHIN THE LIMITS OF THE ABUTMENT WALL AND PATH AS A RESULT OF NEW RAMP CONSTRUCTION. THE PORTION REMOVED WILL BE REPLACED WITH CRUSHED AGGREGATE SLOPE PROTECTION. OUTSIDE OF THESE LIMITS, NO OTHER UNNECESSARY DAMAGE SHALL TAKE PLACE TO ANY PORTIONS EXISTING LANDSCAPED AREAS.

ITEM 516 - ELASTOMERIC BEARING PAD, MISC.: 1.5" THICK STRIP BEARING:

A 1.5" THICK UNREINFORCED ELASTOMERIC BEARING PAD STRIP SHALL BE INSTALLED IN THE ABUTMENT STEM UNDER THE SUPERSTRUCTURE WITHIN THE LOCATION SHOWN IN THESE PLANS.

THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARINGS WERE DESIGNED UNDER SECTION 14.6.7 (METHOD A) OF THE AASHTO LRFD DESIGN SPECIFICATION. THE LONG TERM COMPRESSION PROOF LOAD TEST IS NOT REQUIRED.

ALL LABOR, MATERIALS AND INCIDENTALS TO FURNISH AND INSTALL THIS BEARING STRIP ARE INCLUDED WITH PAYMENT FOR ITEM 516 - ELASTOMERIC BEARING PAD, MISC.: 1.5" THICK STRIP BEARING AT THE UNIT COST.



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Designer: JAH

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	101 Active Projects/30093332/400 CAD/403-Fngipeering 21MN/Structures/SFN 4805137/Sheets
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1100			<u> </u>				PIERS	SUPER.	GENERAL	SEE SHT.
538 31100 15	203	02000	15	CY	EMBANKMENT			3		
593 21900 15	503	11100	LS		COFFERDAMS AND EXCAVATION BRACING					
Separate Separate	503	21300	LS		UNCLASSIFIED EXCAVATION	LS				
509 30020 6,336 FF NO. 4 DEFORMED GRAP REINFORCEMENT 6536	503	31100	23	CY	ROCK EXCAVATION		23			
Social S	509	10000	187 077		FPOXY COATED STEEL REINFORCEMENT	40937	22808	123332		
SILI 33500 2			· · ·			10337	22000			
\$11 \$3500 \$2		22242	205	0 1/				205		
511 34450 64								395		
511 40512 84						2				
3/22 3/25								64		
S11	511	40512	84				84			
S12	511	43513	219	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT INCLUDING FOOTING, AS PER PLAN	219				3/22
516 10010 56	511	46512	28	CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING		28			
516	512	10100	563	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)			563		
516	54.6	10010	5.6	FT	A DA AODI ESC DRESORATE LOVAT SEAL				5.6	
13600 80 SF 1" PREFORMED EXPANSION JOINT FILLER 59 516 13900 59 SF 2" PREFORMED EXPANSION JOINT FILLER 59 516 25000 249 SF NYLON REINFORCED DEOPRENS HISTERING 249 516 42600 63 FT ELASTOMERIC BEARING PAD, MISC.: 1.5" THICK STRIP BEARING 63 3 / 22 518 42600 112 FT 6" PERFORATED CORRUSATED PLASTIC PIPE 112 518 40000 112 FT 6" PERFORATED CORRUGATED PLASTIC PIPE 112 518 40010 16 FT 6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS 16 524 94704 177 FT DRILLED SHAFTS, 36" DIAMETER, INTO BEDROCK 103 74 524 94802 61 FT DRILLED SHAFTS, 42" DIAMETER, ABOVE BEDROCK 56 5 55 56 55 56 56 56									56	
516 13900 59 SF 2" PREFORMED EXPANSION JOINT FILLER 59 9 516 25000 249 SF NYLON REINFORCED NEOPRENE SHEETING 249 9 516 42600 63 FT ELASTOMERIC BEARING PAD, MISC.: 1.5" THICK STRIP BEARING 63 3 / 22 518 21200 129 CY POROUS BACKFILL WITH GEOTEXTILE FABRIC 129 518 40000 112 FT 6" PERFORATED CORRUGATED PLASTIC PIPE 112 518 40010 16 FT 6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS 16 524 94704 177 FT DRILLED SHAFTS, 36" DIAMETER, INTO BEDROCK 103 74 524 94802 61 FT DRILLED SHAFTS, 42" DIAMETER, ABOVE BEDROCK 56 5 526 30011 187 SY REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=17"), AS PER PLAN 187 20/22 526 90030 56 FT TYPE C INSTALLATION 56 601 21050 4 <td></td> <td></td> <td></td> <td></td> <td></td> <td>64</td> <td></td> <td></td> <td></td> <td></td>						64				
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518 40000 112 FT 6" PERFORATED CORRUGATED PLASTIC PIPE 112 112 518 40010 16 FT 6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS 16 524 94704 177 FT DRILLED SHAFTS, 36" DIAMETER, INTO BEDROCK 103 74 524 94802 61 FT DRILLED SHAFTS, 42" DIAMETER, ABOVE BEDROCK 56 5 526 30011 187 SY REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=17"), AS PER PLAN 187 20/22 526 90030 56 FT TYPE C INSTALLATION 56 56 601 21050 4 SY TIED CONCRETE BLOCK MAT WITH TYPE 1 UNDERLAYMENT 4 4 601 32200 78 CY ROCK CHANNEL PROTECTION, TYPE C WITH FILTER 78 78 611 99710 2 EACH PRECAST REINFORCED CONCRETE OUTLET 2	516	42600	63	FT	ELASTOMERIC BEARING PAD, MISC.: 1.5" THICK STRIP BEARING	63				3/22
518 40000 112 FT 6" PERFORATED CORRUGATED PLASTIC PIPE 112 112 518 40010 16 FT 6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS 16 524 94704 177 FT DRILLED SHAFTS, 36" DIAMETER, INTO BEDROCK 103 74 524 94802 61 FT DRILLED SHAFTS, 42" DIAMETER, ABOVE BEDROCK 56 5 526 30011 187 SY REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=17"), AS PER PLAN 187 20/22 526 90030 56 FT TYPE C INSTALLATION 56 56 601 21050 4 SY TIED CONCRETE BLOCK MAT WITH TYPE 1 UNDERLAYMENT 4 4 601 32200 78 CY ROCK CHANNEL PROTECTION, TYPE C WITH FILTER 78	518	21200	129	CY	POROUS BACKFUL WITH GEOTEXTUE FABRIC	129				
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601 32200 78 CY ROCK CHANNEL PROTECTION, TYPE C WITH FILTER 78 611 99710 2 EACH PRECAST REINFORCED CONCRETE OUTLET 2	601	21050	4	SY	TIED CONCRETE BLOCK MAT WITH TYPE 1 UNDERI AYMENT	4				
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	611	99710	2	FACH	PRECAST REINFORCED CONCRETE OUTLET	2				
894 10000 4 EACH THERMAL INTEGRITY PROFILING (TIP) TEST 2 2	<u> </u>	33710	-	Li (Ci i	, ,,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,,					
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DESIGN AGENCY

DESIGNER CHECKER
JAH JBM

REVIEWER
AMT 09/09/24

PROJECT ID
105889

SUBSET TOTAL
5 22

SHEET TOTAL **P.522 607**