ROUNDING

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

UTILITIES

THE CONTRACTOR SHALL USE THE FOLLOWING PROCEDURE AT EACH LOCATION WHERE WORK IS PERFORMED, IN ACCORDANCE WITH SECTIONS 105.07 AND 107.16 IN THE CONSTRUCTION AND MATERIALS SPECIFICATIONS:

THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER, OHIO 811, THE OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 4 HEADQUARTERS (MATT STEELE, 330-786-4832) AND ALL NON REGISTERED UTILITY OWNERS AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION OPERATIONS IN ALL AREAS.

OHIO 811 1-800-362-2764 (CONTACT LIMITED BASIS PARTICIPANTS DIRECTLY)

ODOT 330-786-4832 (MATT STEELE)

ODOT ITS LAB 1606 W. BROAD ST, COLUMBUS, OH 43223, EMAIL: CEN.ITS.LAB@DOT.OHIO.GOV

(EMAIL FOR ITS LOCATES AS WE ARE NOT A MEMBER OF OUPS)

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

AT&T OHIO
13630 LORAIN AVE 2ND FLOOR
CLEVELAND OHIO 44111
216-750-0135
MIKE DEIDERICH
MD4145@ATT.COM

AT&T TRANSMISSION
155 COMMERCE PARK DR. SUITE #1
WESTERVILLE, OHIO 43082
770-584-7083
CHAD HARKNESS
CHAD.HARKNESS@MCGFIBER.COM

CENTURYLINK (LEVEL 3 COMMUNICATIONS)
100 S. CINCINNATI AVE., SUITE 1200
TULSA, OK. 74103
NATIONALRELO@CENTURYLINK.COM
KENDALL ZETINA
KENDALL.ZETINA@CENTURYLINK.COM

CHARTER COMM
8179 DOW CIRCLE
STRONGSVILLE, OHIO 44136
216-575-8016
Gary Naumann
GARY.NAUMANN1@CHARTER.COM

CENTURYLINK/LUMEN
ATTN: ALAN PETERS
3801 ELM RD WARREN, OHIO 44483
330-841-1309
330-219-3306 CELL
ALAN.L.PETERS@LUMEN.COM

UTILITIES (CONTINUED)

FRONTIER COMM
6223 NORWALK ROAD
MEDINA, OHIO 44256
330-772-9586
RANDY HOWARD
J.HOWARD@FTR.COM

MCI
120 RAVINE ST
AKRON, OHIO 44303
330 253 8267
DANIEL ARZ
DANIEL.ARZ@VERIZON.COM
ALLAN GUEST
ALLAN.GUEST@VERIZON.COM

WINDSTREAM
560 TARNES AVE.
ELYRIA, OHIO 44035
440 329-4245
GEOFFREY HAMM
GEOFFREY.P.HAMM@WINDSTREAM.COM
216 385-1669
JEFF GULYAS
JEFF.GULYAS@WINDSTREAM.COM

CLEVELAND WATER DEPARTMENT
1201 LAKESIDE AVE.
CLEVELAND, OH 44114
216-362-6370
FRED ROBERTS, PE
fred_roberts@clevelandwater.com

COUNTY OF SUMMIT - DEPT OF SANITARY
RUSSELL M. PRY BUILDING
1180 SOUTH MAIN STREET
SUITE 201
AKRON, OH 44301
330-926-2405
MELISSA MCFADDEN
MELISSAMCFADDEN@SUMMITOH.NET

DOMINION ENERGY
320 SPRINGSIDE DR, SECOND FLOOR
AKRON OHIO 44333
330-664-2783
MICHAEL A. SALVATORE, S.I.T.
michael.a.salvatore@dominionenergy.com
330-664-2409
JASON ROSS
JASON.M.ROSS@DOMINIONENERGY.COM
RELOCATIONS@DOMINIONENERGY.COM

OHIO EDISON (FIRST ENERGY CORP) - (USIC)
76 S MAIN ST
AKRON, OH 44308
MICHAEL JANSON
JANSONM@FIRSTENERGYCORP.COM

SUNOCO PIPELINE
8111 WESTCHESTER DRIVE
DALLAS, TX 75225
216-346-1561
713-989-7079
RAY LEPOSKY
AGT_COMM@IRTH.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.

SUE LEVEL A TEST HOLE INFORMATION DATED 09-09-21 IS AVAILABLE FOR UTILITIES ALONG SR-21.

SURVEYING PARAMETERS

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE SHEET 4 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: STATIC GNSS METHODS
MONUMENT TYPE: TYPE A

VERTICAL POSITIONING
ORTHOMETRIC HEIGHT DATUM: NAVD88
GEOID: GEOID 18

HORIZONTAL POSITIONING
REFERENCE FRAME: NAD83 (2011)
ELLIPSOID: GRS80
MAP PROJECTION: LAMBERT CONFROMAL CONIC
COORDINATE SYSTEM: OHIO STATE PLANE, NORTH ZONE (3401)
COMBINED SCALE FACTOR: 1.00010358070
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.

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.

ITEM 623, CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF THE CMS, THIS ITEM OF WORK WILL INCLUDE THE FOLLOWING ADDITIONAL REQUIREMENTS.

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

PAYMENT FOR ALL OF THE ABOVE WORK SHALL BE AT THE UNIT PRICE BID FOR ITEM 623, CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN, WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK ABOVE.

PROTECTION OF RIGHT-OF-WAY LANDSCAPING

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

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

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

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

CLEARING AND GRUBBING

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING.

ITEM 204 - PROOF ROLLING

THE FOLLOWING QUANTITY IS PROVIDED IN THE GENERAL SUMMARY TO ADDRESS LOCATIONS REQUIRING PROOF ROLLING.

ITEM 204 - PROOF ROLLING 34 HOUR.

ITEM 441 - ANTI-SEGREGATION EQUIPMENT

THE FOLLOWING QUANTITY IS PROVIDED IN THE GENERAL SUMMARY TO PAY ITEM ANTI-SEGREGATION EQUIPMENT.

ITEM 441 - ANTI-SEGREGATION EQUIPMENT 3443 CY.

GENERAL NOTES

DESIGN AGENCY
Gannett Fleming
ENGINEERS AND ARCHITECTS, P.C.
2200 Corporate Exchange Drive
Suite 230
Columbus, OH 43231

DESIGNER
TQD

REVIEWER
DRJ 05/03/22

PROJECT ID
104983 (PRT 2)

SHEET 14 TOTAL 312

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HIGH SULFATE SOILS

THE FOLLOWING ITEMS AND QUANTITIES ARE TO BE USED AS DIRECTED BY THE ENGINEER TO ADDRESS HIGH SULFATE CONCENTRATED SOILS FOUND IN THE AREAS OF PAVEMENT CONSTRUCTION, TO ADDRESS AREAS THAT FAIL PROOF ROLL AFTER THE CHEMICAL STABILIZATION OR REQUIRE ATTENTION BEFORE CHEMICAL STABILIZATION CAN BE PERFORMED:

ITEM 204 - EXCAVATION OF SUBGRADE, 3230 CY ;
ITEM 204 - GRANULAR MATERIAL, TYPE B, 3230 CY;
ITEM 204 - GEOTEXTILE FABRIC, 9689 SY

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, NOTIFY THE ENGINEER 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, NOTIFY THE ENGINEER 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 IS INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEM.

ITEM 422 - ASPHALT CONCRETE SURFACE COURSE, 12.5mm, TYPE A (447), AS PER PLAN

THE REQUIREMENTS OF 442 AND 446 WILL APPLY; DEVIATIONS FROM THESE ARE AS FOLLOWS:

THE PERCENTAGE OF RECLAIMED MATERIAL PROPOSED FOR USE WILL BE INCLUDED IN THE MIX DESIGN PROCESS TO ESTABLISH THE JOB MIX FORMULA (JMF) IN ACCORDANCE WITH 401.04.

MATERIALS:	THE MATERIALS WILL BE:
AGGREGATES	703.05*

*THE VIRGIN COARSE AGGREGATE PORTION OF THE MIXTURE WILL CONTAIN 50% AIR COOLED BLAST FURNACE SLAG (ACBFS) AND MEET THE REQUIREMENTS OF 703.05.

USE AN NDES OF 50, AN NMAX OF 75 AND THE COMBINATION OF NEW AGGREGATES, NEW ASPHALT BINDER, AND RECLAIMED MATERIAL SHALL BE AS REQUIRED TO PRODUCE A COMPOSITION CONTAINING A MINIMUM OF 6.0% NEW ASPHALT BINDER RESULTING IN A MINIMUM TOTAL BINDER OF 6.5%.

703.05 DO NOT USE ANY FINE OR COARSE AGGREGATE WITH A 'SR' OR 'SRH' DESIGNATION ACCORDING TO THE OFFICE OF MATERIALS MANAGEMENT (OMM) IN ANY JOB MIX FORMULA (JMF) FOR THIS ITEM.

THE CONTRACTOR SHALL USE THE APPROPRIATE COUNTY, ROUTE AND SECTION TO OBTAIN TRAFFIC DATA, TO BE USED IN THE DESIGN OF THE JMF, AT THIS WEB SITE LOCATION:
http://www.odotonline.org/techservapps/traffmonit/countinformation/default.htm

THIS ITEM IS FOR ROADS WITH GREATER THAN 1500 TRUCKS IN THE OPENING DAY TRAFFIC. THE 12.5MM MIX IS DESIGNED FOR MAXIMUM RUT RESISTANCE AT 1.5 INCHES (38 MM) THICK. THE SURFACE COURSE IS GENERALLY THE MOST EXPENSIVE LAYER AND AN INCREASED THICKNESS MAY NOT BE ECONOMICAL. IN SPECIAL SITUATIONS WHERE AN INTERMEDIATE COURSE IS NOT POSSIBLE, THE 12.5MM MIX MAY BE SPECIFIED UP TO A MAXIMUM OF 2.5 INCHES (65 MM). A 12.5MM MIX CANNOT BE PLACED PROPERLY AT A THICKNESS LESS THAN 1.5 INCHES (38 MM); DURABILITY AND CONSTRUCTABILITY PROBLEMS WILL RESULT. BEST PRACTICE IS TO USE 1.5 INCHES (38 MM). IF 446 OR 447 ACCEPTANCE IS SPECIFIED A UNIFORM THICKNESS IS REQUIRED.

ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN

THIS ITEM OF WORK SHALL BE PERFORMED IN CONFORMANCE WITH ITEM 254 IN THE CMS EXCEPT THE DEPTH SHALL VARY FROM 2". THIS WORK SHALL BE PERFORMED ON THE APPROACH SLAB LOCATED ALONG SR-21. ALL EQUIPMENT, LABOR, TOOLS, AND OTHER INCIDENTALS REQUIRED TO PERFORM THIS WORK SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN.

ITEM 441 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG64-22, AS PER PLAN

703.05 DO NOT USE COARSE AGGREGATE FROM A SOURCE DESIGNATED 'SR' OR 'SRH' ACCORDING TO THE OFFICE OF MATERIALS MANAGEMENT (OMM) IN ANY JOB MIX FORMULA (JMF) FOR THIS ITEM.

DRAINAGE DISCHARGE CONTINUANCE

FURNISH A DRAINAGE DISCHARGE CONTINUANCE FOR ANY DRAINAGE DISCHARGE DISTURBED BY THE WORK AND NOT SHOWN IN THE PLANS. THE LOCATION, TYPE (CONDUIT ORSWALE), SIZE AND GRADE OF THE DRAINAGE DISCHARGE CONTINUANCE WILL BE AGREED TO BY THE ENGINEER

FURNISH AN INSPECTION WELL AT THE RIGHT OF WAY LINE PER SCD DM-3.1. FOR EACH DRAINAGE DISCHARGE THAT OUTLETS THROUGH A CURB OPENING, OR INTO A STORM SEWER OR DRAINAGE STRUCTURE. THE COST IS INCLUDED IN ITEM 611, INSPECTION WELL.

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

FURNISH AN EROSION CONTROL PAD AS SHOWN IN SCD DM-1.1 WHEN OUTLETTING A CONDUIT TO A DITCH. THE COST FOR THE EROSION CONTROL PAD IS INCLUDED IN ITEM 611, CONDUIT, MISC: TYPE X FOR DRAINAGE DISCHARGE CONTINUANCE.

FURNISH A DRILLED CORE HOLE WHEN OUTLETTING INTO A STORM SEWER OR DRAINAGE STRUCTURE. THE COST OF THE DRILLED CORE HOLE IS INCLUDED IN ITEM 611, CONDUIT, MISC.: TYPE X FOR DRAINAGE DISCHARGE CONTINUANCE.

DOCUMENTATION
PROVIDE WRITTEN DOCUMENTATION TO THE ENGINEER AND TO THE DISTRICT R/W PERMIT OFFICE. THE DOCUMENTATION INCLUDES THE CONSTRUCTION PROJECT NUMBER, PID, COUNTY, ROUTE, SECTION, LATITUDE AND LONGITUDE OF THE DRAINAGE DISCHARGE AT THE R/W, THE NAME OF PROPERTY OWNER WITH ADDRESS, THE DATE THE DRAINAGE DISCHARGE WAS LOCATED, THE DATE THE DRAINAGE DISCHARGE CONTINUANCE WAS FURNISHED, A DETAILED DESCRIPTION OF THE WORK AND PICTURES OF THE DRAINAGE DISCHARGE CONTINUANCE (IN PDF OR JPEG FORMAT). THE DOCUMENTATION IS INCLUDED IN ITEM 611, CONDUIT, MISC.: TYPE X FOR DRAINAGE DISCHARGE CONTINUANCE OR ITEM 203, EMBANKMENT AS PER PLAN.

DRAINAGE DISCHARGE CONTINUANCE REMOVAL
THE ENGINEER MAY REQUIRE THE NEWLY INSTALLED DRAINAGE DISCHARGE CONTINUANCE TO BE REMOVED.

REMOVE THE NEWLY INSTALLED CONDUIT AND ANY EXISTING CONDUIT TO THE RIGHT OF WAY LINE. FOR CONDUIT THAT OUTLETS TO A STORM SEWER OR DRAINAGE STRUCTURE LEAVE 6 INCHES PROTRUDING OUTSIDE OF THE CONDUIT. PLUG THE PROTRUDING CONDUIT WITH EITHER A MANUFACTURED CAP OR CLASS QC 1 CONCRETE. FOR CONDUIT THAT OUTLETS TO THE DITCH REMOVE THE EROSION CONTROL PAD. RESTORE ALL AREAS AS REQUIRED. PLUG THE EXISTING CONDUIT EGARDLESS OF SIZE AT THE RIGHT OF WAY LINE WITH CLASS QC 1 CONCRETE AND RESTORE ALL AREAS AS REQUIRED. ALL COSTS ARE INCLUDED IN ITEM 202, REMOVAL MISC. CONDUIT.

DAM THE SWALE THAT OUTLETS TO THE DITCH AT THE R/W AS DIRECTED BY THE ENGINEER. ALL COSTS ARE INCLUDED IN ITEM 203, EMBANKMENT AS PER PLAN.

DRAINAGE DISCHARGE CONTINUANCE REMOVAL (CONTINUED)

REMOVE THE INSPECTION WELL AND RESTORE ALL AREAS AS REQUIRED. THE COST IS INCLUDED IN ITEM 202, REMOVAL MISC. INSPECTION WELL.

CONDUIT MATERIAL TYPES
THE FOLLOWING CONDUIT MATERIAL TYPES MAY BE USED: 707.33, 707.41 NON-PERFORATED, 707.42, 707.43, 707.45, 707.46, 707.47, AND 707.51 SDR35.

PAY ITEMS
EACH OF THE PAY ITEMS LISTED BELOW FOR CONDUIT MISCELLANEOUS TYPES B, C, E AND F FOR DRAINAGE DISCHARGE CONTINUANCE INCLUDE CONDUIT SIZES 2 INCH TO 10 INCH. THERE IS NO COST DIFFERENTIATION FOR SIZE IN THESE PAY ITEMS.

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 611, 2 EACH INSPECTION WELL
ITEM 611, 100 FT.CONDUIT, MISC TYPE B FOR DRAINAGE DISCHARGE CONTINUANCE
ITEM 611, 100 FT.CONDUIT, MISC TYPE C FOR DRAINAGE DISCHARGE CONTINUANCE
ITEM 611, 100 FT.CONDUIT, MISC TYPE E FOR DRAINAGE DISCHARGE CONTINUANCE
ITEM 611, 100 FT.CONDUIT, MISC TYPE F FOR DRAINAGE DISCHARGE CONTINUANCE
ITEM 202, 200 FT. REMOVAL MISC CONDUIT
ITEM 202, 2 EACH REMOVAL MISC INSPECTION WELL
ITEM 203, 25 CUBIC YARD EMBANKMENT AS PER PLAN

ITEM 611 - CONDUIT BORED OR JACKED

WHERE IT IS SPECIFIED THAT A CONDUIT BE INSTALLED BY THE METHOD OF BORING OR JACKING, NO TRENCH EXCAVATION SHALL BE CLOSER THAN 30 FEET TO THE (EDGE OF PAVEMENT) PROVIDE A STEEL CASING PIPE CONFORMING TO 748.06. JOINTS WITH A CIRCUMFERENTIAL FULLY PENETRATING B-U4B WELD THAT IS PERFORMED BY AN ODOT APPROVED FIELD WELDER OR MACHINED INTERLOCKING JOINTS ARE PERMITTED. THE INSTALLED CASING PIPE IS THE STORM WATER CONVEYANCE CARRIER UNLESS OTHERWISE SPECIFIED IN THE PLANS. HYDROSTATIC TESTING IS NOT REQUIRED FOR THE CASING PIPE.

GENERAL NOTES

DESIGN AGENCY
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DESIGNER
TQD

REVIEWER
DRJ 05/03/22

PROJECT ID
104983 (PRT 2)

SHEET 15 TOTAL 312

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REVIEW OF DRAINAGE FACILITIES

PRIOR TO THE START OF WORK AND AGAIN BEFORE FINAL ACCEPTANCE, PERFORM AN INSPECTION WITH REPRESENTATIVES OF THE DEPARTMENT, CONTRACTOR AND LOCALS OF ALL EXISTING DRAINAGE FACILITIES THAT ARE TO REMAIN IN SERVICE WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCES IS DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION ARE MAINTAINED BY THE DEPARTMENT.

CONFIRM ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE-MENTIONED PARTIES ARE MAINTAINED AND LEFT IN A CONDITION COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. THE CONTRACTOR IS RESPONSIBLE TO CORRECT ANY CHANGE IN THE CONDITION RESULTING FROM THEIR OPERATIONS AS DIRECTED AND APPROVED BY THE ENGINEER.

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

EXISTING SUBSURFACE DRAINAGE

PROVIDE UNOBSTRUCTED OUTLETS FOR ALL EXISTING UNDERDRAINS OR AGGREGATE DRAINS ENCOUNTERED DURING CONSTRUCTION.

PROVIDE AN OUTLET PER STANDARD CONSTRUCTION DRAWING DM-1.1 FOR ALL UNDERDRAINS THAT OUTLET TO A SLOPE. UNDERDRAINS THAT CAN BE CONNECTED TO THE NEW OR EXISTING UNDERDRAINS AT THE END OF THE PROJECT LIMITS AS WELL AS ALL NECESSARY BENDS OR BRANCHES REQUIRED FOR CONNECTION ARE INCLUDED IN THE BASIS OF PAYMENT FOR UNCLASSIFIED PIPE UNDERDRAINS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

ITEM 601, TIED CONCRETE BLOCK MAT WITH TYPE 1 UNDERLAYMENT 10 SQ. YD.
ITEM 611, 6 " CONDUIT TYPE F FOR UNDERDRAIN OUTLETS 100 FT.
ITEM 611, PRECAST REINFORCED CONCRETE OUTLET 2 EACH
ITEM 605, 6 " UNCLASSIFIED PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC 100 FT.

ITEM 202 - ABANDON MISC.: ABANDON PIPE IN PLACE

THIS ITEM SHALL CONSIST OF CONSTRUCTING A BULKHEAD AT THE UPSTREAM END AND ABANDONING THE REMAINING PIPE IN PLACE. ALL EQUIPMENT, LABOR, TOOLS, AND OTHER INCIDENTALS REQUIRED TO PERFORM THIS WORK SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THIS ITEM.

SEEDING AND MULCHING

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

ITEM 659, SOIL ANALYSIS TEST 2 EACH
ITEM 659, TOPSOIL 3689 CU. YD.
ITEM 659, SEEDING AND MULCHING 33275 SQ. YD.
ITEM 659, REPAIR SEEDING AND MULCHING 1661 SQ. YD.
ITEM 659, INTER-SEEDING 1661 SQ. YD.
ITEM 659, COMMERCIAL FERTILIZER 10 TON
ITEM 659, LIME 7 ACRES
ITEM 659, WATER 270 M. GAL.
ITEM 659, MOWING 75 M. SQ.FT.

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 LIMITS IDENTIFIED AS NECESSARY IN THE CROSS-SECTIONS. ANY ADDITIONAL AREAS OUTSIDE OF THE AREAS IDENTIFIED IN THE CROSS-SECTIONS THAT ARE DISTURBED BY THE CONTRACTOR TO FACILITATE CONSTRUCTION MUST BE RESTORED IN ACCORDANCE WITH C&MS 107.10 AND CONSIDERED INCIDENTAL TO THE WORK. NO ADDITIONAL COMPENSATION WILL BE MADE FOR THESE AREAS

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.

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.

ASPHALT CONCRETE BASE, PG 64-22 (449), AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF ITEM 304, FOR THE PLACEMENT OF 302 ASPHALT BASE, USE ANTI-SEGREGATION EQUIPMENT CONFORMING TO THE REQUIREMENTS OF 401.03.C EXCLUDING THE USE OF REMIXING PAVERS.

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 A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

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 MASH 2016 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.

PAVING UNDER GUARDRAIL

THIS OPERATION SHALL INCLUDE PREPARATION OF THE GRADED SHOULDER USING ITEM 209, LINEAR GRADING, AS PER PLAN AND PAVING UNDER THE GUARDRAIL USING 441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (449), UNDER GUARDRAIL, AS PER PLAN.

ITEM 209, LINEAR GRADING, AS PER PLAN SHALL CONSIST OF EXCAVATING TOPSOIL, AND PLACING GRANULAR MATERIAL.

ALL COLLECTED DEBRIS AND TOPSOIL, INCLUDING RHIZOMES, ROOTS AND OTHER VEGETATIVE PLANT MATERIAL SHALL BE REMOVED AND DISPOSED OF AS SPECIFIED IN 105.17.

THE REMOVED MATERIAL SHALL BE REPLACED WITH COMPACTIBLE GRANULAR MATERIAL CONFORMING TO 703.16 PLACED TO GRADE AS DETAILED ON THE TYPICAL SECTION OR AS APPROVED BY THE ENGINEER.

ALL EQUIPMENT, MATERIALS AND LABOR REQUIRED TO PERFORM THE WORK OUTLINED ABOVE SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 209, LINEAR GRADING, AS PER PLAN.

PAVING UNDER GUARDRAIL SHALL CONSIST OF PLACING ITEM 441 TO THE DEPTH SPECIFIED USING ONE OF THE FOLLOWING METHODS:

METHOD A:
1. SET GUARDRAIL POSTS
2. PLACE ITEM 441

METHOD B:
1. PLACE ITEM 441
2. BORE ASPHALT AT POST LOCATIONS (MAY BE OMITTED IF STEEL POSTS ARE USED)
3. SET GUARDRAIL POSTS
4. PATCH AROUND POSTS. THE MATERIALS USED FOR PATCHING SHALL BE AN ASPHALT CONCRETE APPROVED BY THE ENGINEER. PATCHED AREAS SHALL BE COMPACTED USING EITHER HAND OR MECHANICAL METHODS. FINISHED SURFACES SHALL BE SMOOTH AND SLOPED TO DRAIN AWAY FROM THE POSTS.

ALL EQUIPMENT, MATERIALS AND LABOR REQUIRED TO PERFORM THE WORK OUTLINED ABOVE, WITH THE EXCEPTION OF SETTING GUARDRAIL POSTS, SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 441, ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 1 (448), UNDER GUARDRAIL, AS PER PLAN.

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

IN ADDITION TO THE REQUIREMENT OF CMS 619, THE CONTRACTOR SHALL FURNISH AND SET UP A WI-FI ROUTER MEETING THE REQUIREMENTS OF IEEE 802.11AC AND PROVIDE INTERNET SERVICE WITH A MINIMUM DOWNLOAD SPEED OF 100 MBS AND MINIMUM UPLOAD SPEED OF 10 MBS FOR EXCLUSIVE USE OF THE DEPARTMENT.

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

ITEM 619-FIELD OFFICE, TYPE C, AS PER PLAN 20 MONTHS.

GENERAL NOTES

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DESIGNER TQD
REVIEWER DRJ 05/03/22
PROJECT ID 104983 (PRT 2)
SHEET 16 TOTAL 312

SUM-77-32.27
MODEL: 111405_GN001_3 PAPERSIZE: 17x11 (in.) DATE: 9/8/2022 TIME: 12:11:08 PM USER: tdinh
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ITEM 606 - CABLE GUARDRAIL

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY ONE OF THE HIGH TENSION FOUR CABLE GUARDRAIL SYSTEMS AS LISTED ON THE OFFICE OF ROADWAY ENGINEERING'S WEB PAGE. PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, CABLE BARRIER WITH CONCRETE LINE POST FOUNDATION, AND ITEM 606 CABLE BARRIER, ANCHOR ASSEMBLY AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL HIGH TENSION CABLE GUARDRAIL SYSTEM NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER. THE LENGTH OF THE TENSIONED CABLE NECESSARY TO INSTALL A FUNCTIONAL ANCHOR SYSTEM SHALL BE INCLUDED IN ITEM 606, CABLE BARRIER WITH CONCRETE LINE POST FOUNDATION.

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

SYSTEMS SHALL HAVE A MAXIMUM DEFLECTION OF 8 FEET AND THE MAXIMUM LONGITUDINAL DISTANCE BETWEEN POSTS SHALL BE 15 FEET.

INSTALLATION WILL BE A FOUR CABLE HIGH TENSION SYSTEM INSTALLED IN SOCKETED POSTS FOUNDATION WITH A FOUR FOOT WIDE "NO MOW STRIP".

DELINEATE THE CABLE BARRIER USING TYPE 6 BARRIER REFLECTORS PER ITEM 626 OR USING FLEXIBLE POSTS PER ITEM 620 AS CALLED FOR IN THE PLANS OR DIRECTED BY THE ENGINEER.

ANCHOR TERMINAL STRUTS SHALL BE COVERED COMPLETELY ON BOTH SIDES WITH YELLOW TYPE J, ASTM D 4956 TYPE XI REFLECTIVE SHEETING, PER CMS 730.193.

TRANSITIONS TO W-BEAM GUARDRAIL ARE NOT ALLOWED.

REFER TO MANUFACTURER FOR MAXIMUM OFFSET FROM BREAK POINT.

TORPEDO OR BULLET SPLICES ARE NOT ALLOWED. ALL CABLE SPLICES SHALL BE A SWAGED OR OPEN BODY DESIGN THAT ALLOWS FOR ANNUAL INSPECTION BETWEEN THE WEDGE AND STRANDS OF CABLE.

POSTS ARE SET IN SOCKETED CONCRETE FOUNDATIONS AND SHALL NOT BE PERMANENTLY INSTALLED UNTIL THEIR RESPECTIVE RUNS OF TENSIONED CABLE GUARDRAIL ARE READY FOR FINAL CONNECTION TO THE END TERMINAL ASSEMBLY. THE CONTRACTOR SHALL REPLACE ANY POSTS DAMAGED DURING INSTALLATION AS DETERMINED BY THE ENGINEER AT NO ADDITIONAL COST TO THE STATE.

POST CONSTRUCTION STORM WATER TREATMENT

THIS PLAN UTILIZES STRUCTURAL BEST MANAGEMENT PRACTICES (BMP'S) FOR POST CONSTRUCTION STORM WATER TREATMENT.

VEGETATED FILTER STRIP

THIS PLAN UTILIZES VEGETATED FILTER STRIP(S) FOR POST CONSTRUCTION STORM WATER TREATMENT. PLACE EITHER ITEM 660 SODDING OR ITEM 659 SEEDING AND MULCHING WITH A 4-INCH LIFT OF TOPSOIL AND ITEM 670, SLOPE EROSION PROTECTION TO ALL DISTURBED AREAS DESIGNATED AS VEGETATED FILTER STRIPS, THE EDGE OF SHOULDER, AND THE FORESLOPE AS SPECIFIED IN THE PLANS.

REMOVAL MISC.: CONCRETE PAD

REMOVE EXISTING CONCRETE PADS NOTED ON PLANS. BACKFILL THE CAVITY CREATED BY THE REMOVAL ITEM ACCORDING TO CMS 202.02. PROPERLY DISPOSE OF THE MATERIAL OFF THE PROJECT SITE.

THE COST OF CONCRETE PAD AND DISPOSAL WILL BE PAID AT THE UNIT PRICE BID PER SQUARD YARD.

ITEM SPECIAL - FILL AND PLUG EXISTING CONDUIT

THIS ITEM CONSISTS OF THE CONSTRUCTION OF BULKHEADS IN AN EXISTING LESS THAN 24" IN DIAMETER CONDUIT AND FILLING THE AREA SEALED OFF WITH ITEM 613, SAND OR OTHER MATERIAL APPROVED BY THE ENGINEER.

LOCATE THE BULKHEADS AT THE LIMITS OF THE AREA TO BE FILLED, AS INDICATED ON THE PLANS. THE BULKHEADS CONSIST OF BRICK OR CONCRETE MASONRY WITH A MINIMUM THICKNESS OF 12 INCHES. PUMP THE FILL MATERIAL INTO PLACE OR BY OTHER MEANS APPROVED BY THE ENGINEER, SO THAT AFTER SETTLEMENT, AT LEAST 90 PERCENT OF THE CROSSSECTIONAL AREA OF THE CONDUIT, FOR ITS ENTIRE LENGTH IS FILLED. THE LENGTH OF FILLED AND PLUGGED CONDUIT TO BE PAID FOR IS THE ACTUAL NUMBER OF FEET (MEASURED ALONG THE CENTERLINE OF EACH CONDUIT FROM OUTER FACE TO OUTER FACE OF BULKHEADS) FILLED AND PLUGGED AS DESCRIBED ABOVE.

IN LIEU OF FILLING AND PLUGGING THE EXISTING CONDUIT, THE PIPE MAY BE CRUSHED AND BACKFILLED PER 203, OR IT MAY BE REMOVED. THE LENGTH, MEASURED AS PROVIDED ABOVE, WILL BE PAID FOR AT THE CONTRACT PRICE PER FOOT FOR, ITEM SPECIAL, FILL AND PLUG EXISTING CONDUIT.

REMOVAL MISC.: EXISTING ODOT ITS HIGHWAY ADVISORY RADIO

REMOVE EXISTING ODOT ITS HIGHWAY ADVISORY RADIO ON WOOD POLE FROM THE FOLLOWING LOCATIONS: STATION 1026+79.34 RT AND 1028+39.68 RT. UNDERGROUND CABLE AND PULL BOXES IS TO BE ABANDONED IN PLACE. SERVICE NEEDS TO BE DISCONNECTED TO HIGHWAY ADVISORY RADIO. THE POWER SERVICE ARE TO BE MAINTAINED FOR FUTURE USE. PROPERLY DISPOSE OF THE ADVISORY RADIO OFF THE PROJECT SITE.

THE COST OF ITS HIGHWAY ADVISORY RADIO REMOVAL AND DISPOSAL WILL BE PAID AT THE UNIT BID PER EACH.

ROUNDING

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

ITEM SPECIAL - MISC.: RECORD DRAWINGS

THE FOLLOWING SHALL APPLY AND BE PAID FOR UNDER THIS PAY ITEM.

CONTRACTOR SHALL MAINTAIN AND PROVIDE ODOT WITH RECORD DRAWINGS AS SPECIFIED HEREIN. RECORD DRAWINGS SHALL INCLUDE COMPLETE DOCUMENTATION OF FIELD REVISIONS TO THE CONTRACT DOCUMENTS.

FILING
1. THE CONTRACTOR SHALL MAINTAIN IN HIS FIELD OFFICE IN A CLEAN, DRY, LEGIBLE CONDITION THE FOLLOWING: CONTACT DRAWINGS, SPECIFICATIONS, ADDENDA, CONFORMING SHOP DRAWINGS, CHANGE ORDERS, OTHER MODIFICATIONS TO THE CONTRACT, TEST RECORDS, SURVEY DATA AND ALL OTHER DOCUMENTS PERTINENT TO THE CONTRACTOR'S WORK.
2. THE CONTRACTOR SHALL PROVIDE FILES AND RACKS FOR PROPER STORAGE AND EASY ACCESS. FILING SHALL BE ESTABLISHED IN A FORMAT ACCEPTABLE TO ODOT.
3. THE CONTRACTOR SHALL MAKE DOCUMENTS AVAILABLE AT ALL TIMES FOR INSPECTION BY ODOT OR THEIR REPRESENTATIVES.
4. RECORD DRAWINGS SHALL NOT BE USED FOR ANY OTHER PURPOSE AND SHALL NOT BE REMOVED FROM THE LOCATIONS WITHOUT ODOT APPROVAL.
5. RECORDS MUST BE KEPT CURRENT IN ELECTRONIC FORMAT AND FURNISHED AT ANY TIME THROUGHOUT THE PROJECT, UPON REQUEST.

RECORDING
1. THE CONTRACTOR SHALL KEEP ALL RECORDS CURRENT.
2. THE CONTRACTOR SHALL NOT PERMANENTLY CONCEAL ANY WORK UNTIL REQUIRED INFORMATION HAS BE RECORDED.
3. CONTRACT DRAWINGS SHALL BE LEGIBLY MARKED TO RECORD ACTUAL CONSTRUCTION INCLUDING:
   A. DEPTHS OF VARIOUS ELEMENTS OF FOUNDATION IN RELATION TO DATUM.
   B. HORIZONTAL AND VERTICAL LOCATIONS OF UNDERGROUND UTILITIES AND APPURTENANCES REFERENCED TO PERMANENT SURFACE IMPROVEMENTS.
   C. FIELD CHANGES OF DIMENSION AND DETAIL.
   D. CHANGES MADE BY CHANGE ORDER OR FIELD ORDER.
   E. DETAILS NOT ON ORIGINAL CONTRACT DOCUMENTS.
4. SPECIFICATIONS AND ADDENDA: LEGIBLY MARK EACH SECTION TO RECORD:
   A. MANUFACTURERS, TRADE NAME, CATALOG NUMBER AND SUPPLIER OF EACH PRODUCT AND ITEM OF EQUIPMENT ACTUALLY INSTALLED.
   B. CHANGES MADE BY CHANGE ORDER OR FIELD ORDER.
   C. OTHER MATTERS NOT ORIGINALLY SPECIFIED.

RECORD RETENTION
AS ODOT MAY LEGITIMATELY REQUEST FROM TIME TO TIME, THE CONTRACTOR AGGRESS TO MAKE AVAILABLE FOR INSPECTION AND/OR REPRODUCTION BY THE LPA OR ODOT, ALL RECORDS, BOOKS, AND DOCUMENTS OF ANY KIND AND DESCRIPTION GENERATED BY THE CONTRACTOR THAT RELATE TO THIS CONTRACT. THESE RECORDS MUST BE MADE AVAILABLE IN ELECTRONIC FORMAT.

SUBMITTALS
A. THE CONTRACTOR SHALL ANNOTATE ALL RECORD DRAWINGS REVISIONS INTO ELECTRONIC COPIES OF PLAN DRAWINGS PROVIDED BY THE ENGINEER USING MICROSTATION, AS APPROVED BY THE ENGINEER. AT THE COMPLETION OF THE PROJECT, DELIVER ONE (1) PDF, ONE (1) COMPLETE PAPER COPY, AND ONE (1) COMPLETE ELECTRONIC COPY IN TIFF FORMAT OF RECORD DRAWING ORIGINAL DOCUMENTS TO THE ENGINEER FOR DELIVERY. HIGHLIGHT CHANGES WITH CLOUDS AND SHOW MICOSTATION CHANGES ON A SEPARATE LAYER.

ITEM SPECIAL - MISC.: RECORD DRAWINGS (CONTINUED)

B. PROVIDE TRANSMITTAL LETTER CONTAINING THE FOLLOWING INFORMATION:

1. DATE
2. PROJECT TITLE AND PROJECT NUMBER
3. CONTRACTOR'S NAME AND ADDRESS
4. TITLE AND NUMBER OF EACH DRAWING
5. CERTIFICATION OF LICENSED PROFESSIONAL ENGINEER IN THE STATE OF OHIO AND LEVEL II PREQUALIFIED BY ODOT FOR BRIDGE PROJECTS.
6. SIGNATURE OF CONTRACTOR OR HIS AUTHORIZED REPRESENTATIVE.

PAYMENT
PAYMENT FOR ALL THE ABOVE SHALL BE LUMP SUM UPON PROPER EXECUTION OF ALL WORK OF THIS ITEM AS DETERMINED BY THE ENGINEER.

625, TEMPORARY LIGHTING

THE TEMPORARY LIGHTING SHALL INCLUDE THE REMOVAL OF THE EXISTING LIGHTING WITHIN INFIELD OF RAMP G FROM SR-21 TO I-77 SOUTHBOUND. THERE ARE 8 EXISTING LIGHT POLES, LUMINAIRES, FOUNDATIONS AND APPURTENANCES TO REMOVE IN ACCORDANCE WITH CMS 625.21 AND AS SHOWN ON THE PLANS. THE LIGHT POLE FOUDNATION SHALL BE REMOVED TO A MINIMUM OF 1 FOOT BELOW THE FINISHED GRADE, PROPOSED PAVEMENT BASE OR REMOVE THE FOUNDATION COMPLETELY, AND SHALL INCLUDE BACKFILLING THE RESULTANT DEPRESSION WITH COMPACTED SOIL. ALL CABLES SHALL BE REMOVED AND CONDUITS ABANDONED.

THE CONTRACTOR SHALL COORDINATE PROJECT PID 111405, WHERE PERMANENT LIGHTING WILL BE INSTALLED. PERMANENT LIGHTING SHOULD BE INSTALLED BY THE END OF PHASE 2 (OPENING OF RAMP G).

THE CONTRACTOR SHALL NOT PROCEED WITH THE REMOVAL OF THE EXISTING LIGHTING BEFORE THE NEW TEMPORARY LIGHTING IS OPERATIONAL. THE POLES SHALL BE SPACED AT 150 FEET, BRACKET ARMS SHALL BE 30 FEET, LUMINAIRES SHALL PROVIDE THE STATED FOOTCANDLES OR AT A MINIMUM MATCH THE EXISTING LIGHTING, 30-FOOT MOUNTING HEIGHT OF LUMINAIRES, OVERHEAD WIRING METHODS, SHALL BE PLACED OUTSIDE THE CLEAR ZONE. THE TEMPORARY LIGHTING SHALL PROVIDE AN AVERAGE INITIAL INTENSITY OF 1.2 FOOTCANDLES WITH AN AVERAGE TO MINIMUM UNIFORMITY NOT TO EXCEED 3:1. THE MINIMUM OVERHEAD CONDUCTOR CLEARANCE SHALL BE 20 FEET. TEMPORARY OVERHEAD CONSTRUCTION SHALL NOT BE LESS THAN GRADE "B" FOR STRENGTH REQUIREMENTS AS DEFINED BY THE NATIONAL ELECTRIC SAFETY CODE. WOOD POLES WITH OVERHEAD WIRING MAY BE USED. HOWEVER, TEMPORARY LIGHTING SHALL MEET FEDERAL AND STATE SAFETY CRITERIA.

ALL MATERIALS NECESSARY TO COMPLETE THE TEMPORARY LIGHTING SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR AND SHALL BE LEFT IN PLACE AT THE END OF THE CONTRACT.

THE MAINTAINING AGENCY WILL PAY FOR ELECTRICAL ENERGY CONSUMED BY EXISTING POWER SERVICES AND BY PROPOSED POWER SERVICES AFTER ACCEPTANCE OF THE TEMPORARY LIGHTING WORK.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID PER LUMP SUM FOR ITEM 625 TEMPORARY LIGHTING AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, TESTING AND INCIDENTALS TO REMOVE THE EXISTING LIGHTING AND PLACE A TEMPORARY LIGHTING SYSTEM COMPLETE, FULLY OPERATIONAL AND IN PLACE.

GENERAL NOTES

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REVIEWER DRJ 05/03/22
PROJECT ID 104983 (PRT 2)
SHEET 17 TOTAL 312

MODEL: 111405_GN001_4 PAPERSIZE: 17x11 (in.) DATE: 9/1/2022 TIME: 10:15:16 AM USER: tdinh
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SHEET NUMBER															FUNDING		ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
OC	14	15	16	17	18	19	25	78	81	82	190	197	198	199	03/IMS/PV	04/IMS/PV						
																					ROADWAY	
	LS														LUMP		201	11000	LS		CLEARING AND GRUBBING	14
									10		2				12		202	20010	12	EACH	HEADWALL REMOVED	
23016															23016		202	23000	23016	SY	PAVEMENT REMOVED	
								541							541		202	30700	541	FT	CONCRETE BARRIER REMOVED	
								210							210		202	32000	210	FT	CURB REMOVED	
									1029						1029		202	35100	1029	FT	PIPE REMOVED, 24" AND UNDER	
									334		8				342		202	35200	342	FT	PIPE REMOVED, OVER 24"	
								10021							10021		202	38000	10021	FT	GUARDRAIL REMOVED	
									9						9		202	58100	9	EACH	CATCH BASIN REMOVED	
									290						290		SPECIAL	20270000	290	FT	FILL AND PLUG EXISTING CONDUIT	17
								2							2		202	98100	2	EACH	REMOVAL MISC.: EXISTING ODOT ITS HIGHWAY ADVISORY RADIO	17
		2													2		202	98100	2	EACH	REMOVAL MISC.: INSPECTION WELL	15
		200													200		202	98200	200	FT	REMOVAL MISC.: CONDUIT	15
								227							227		202	98300	227	SY	REMOVAL MISC.: CONCRETE PAD	17
									262						262		202	98700	262	FT	ABANDON MISC.: ABANDON PIPE IN PLACE	16
					60462										40311	20151	203	10000	60462	CY	EXCAVATION	
					7576						2				5053	2525	203	20000	7578	CY	EMBANKMENT	
		25													25		203	20001	25	CY	EMBANKMENT, AS PER PLAN	15
		3230													3230		204	13000	3230	CY	EXCAVATION OF SUBGRADE	15
		3230													3230		204	30010	3230	CY	GRANULAR MATERIAL, TYPE B	15
	34														23	11	204	45000	34	HOUR	PROOF ROLLING	14
		9689													9689		204	50000	9689	SY	GEOTEXTILE FABRIC	15
1701															1701		206	10500	1701	TON	CEMENT	14
64952															64952		206	11000	64952	SY	CURING COAT	
62450															62450		206	15010	62450	SY	CEMENT STABILIZED SUBGRADE, 12 INCHES DEEP	
5048															3366	1682	206	15020	5048	SY	CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP	
34.5															35		206	20000	34.5	HOUR	TEST ROLLING	
								126.2							126		209	60201	126.2	STA	LINEAR GRADING, AS PER PLAN	16
					LS										LUMP		SPECIAL	53000200	LS		STRUCTURAL SURVEY AND MONITORING OF VIBRATION	18
								11638							11638		606	15050	11638	FT	GUARDRAIL, TYPE MGS	
								12							12		606	26150	12	EACH	ANCHOR ASSEMBLY, MGS TYPE E MASH 2016	16
								9							9		606	26550	9	EACH	ANCHOR ASSEMBLY, MGS TYPE T	
								8							8		606	35002	8	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
								3							3		606	35102	3	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2	
								2153							2153		SPECIAL	60655010	2153	FT	CABLE BARRIER WITH CONCRETE LINE POST FOUNDATION	16
								4							4		SPECIAL	60655150	4	EACH	CABLE BARRIER, ANCHOR ASSEMBLY	16
								1							1		606	60028	1	EACH	IMPACT ATTENUATOR, TYPE 2 (BIDIRECTIONAL), 45 MPH/24 INCH	
								1334							1334		622	24000	1334	FT	CONCRETE BARRIER, TYPE D	
								6							6		622	25050	6	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D	
																					EROSION CONTROL	
											4				4		601	11000	4	SY	RIPRAP, TYPE D	
			10									28			38		601	21050	38	SY	TIED CONCRETE BLOCK MAT WITH TYPE 1 UNDERLAYMENT	
											8				8		601	32104	8	CY	ROCK CHANNEL PROTECTION, TYPE B WITH GEOTEXTILE FABRIC	
									425						425		601	32204	425	CY	ROCK CHANNEL PROTECTION, TYPE C WITH GEOTEXTILE FABRIC	
			2												2		659	00100	2	EACH	SOIL ANALYSIS TEST	
			3689							1610					5299		659	00300	5299	CY	TOPSOIL	
			33215								100				33315		659	10000	33315	SY	SEEDING AND MULCHING	
			1661												1661		659	14000	1661	SY	REPAIR SEEDING AND MULCHING	
			1661												1661		659	15000	1661	SY	INTER-SEEDING	
			10												10		659	20000	10	TON	COMMERCIAL FERTILIZER	
			7												7		659	31000	7	ACRE	LIME	
			270												270		659	35000	270	MGAL	WATER	
			75												75		659	40000	75	MSF	MOWING	
										14640					14640		670	00500	14640	SY	SLOPE EROSION PROTECTION	
									1855						1855		670	00700	1855	SY	DITCH EROSION PROTECTION	
										LS					LUMP		832	15000	LS		STORM WATER POLLUTION PREVENTION PLAN	82
										LS					LUMP		832	15002	LS		STORM WATER POLLUTION PREVENTION INSPECTIONS	82

SHEET 1

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GENERAL SUMMARY

DESIGN AGENCY
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2280 Corporate Exchange Drive, Suite 230, Columbus, OH 43231

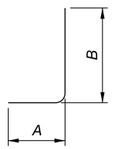
DESIGNER TQD

REVIEWER DRJ 05/03/22

PROJECT ID 104983 (PRT 2)

SHEET 74 TOTAL 312

Mark	NUMBER SUPER	NUMBER TOTAL	LENGTH	WEIGHT SUPER	WEIGHT TOTAL	TYPE	DIMENSIONS A	B	C	D	E	R	INC
DECK													
S401	160	160	30'-0"	3,207	3,207	STR.							
S402	20	20	10'-0"	134	134	STR.							
S403	228	228	26'-8"	4,062	4,062	STR.							
# S501	487	487	20'-6"	10,413	10,413	16	19'-11"						
# S502	487	487	19'-11"	10,117	10,117	STR.							
S503	522	522	7'-1"	3,857	3,857	16	6'-6"						
	1	1	2'-4"										
# S504	SER OF	SER OF	to	465	465	STR.							5 1/4"
	40	40	19'-11"										
	1	1	2'-4"										
# S505	SER OF	SER OF	to	465	465	STR.							5 1/4"
	40	40	19'-11"										
	1	1	2'-11"										
S506	SER OF	SER OF	to	536	536	STR.							4 1/2"
	45	45	19'-11"										
	1	1	2'-4"										
S507	SER OF	SER OF	to	523	523	STR.							4 3/4"
	45	45	19'-11"										
S508	200	200	30'-0"	6,258	6,258	STR.							
S509	25	25	14'-0"	366	366	STR.							
	1	1	2'-9"				2'-2"						
S510	SER OF	SER OF	to	49	49	16	to						5"
	10	10	6'-7"				6'-0"						
# S511	10	10	2'-3"	24	24	STR.							
S512	6	6	2'-0"	13	13	STR.							
			SUB-TOTAL	40,489	40,489								
PARAPET													
R601	258	258	7'-4"	2,842	2,842	39	9 1/2"	11"	2'-3"	2'-3"	7"	12"	
R602	285	285	7'-1"	3,033	3,033	23	6"	3'-3"	3'-3"			2"	
	6	6	4'-4"					3'-6"					
R603	SER OF	SER OF	to	471	471	1	1'-0"	to					1"
	11	11	5'-2"					4'-4"					
R604	24	24	4'-4"	157	157	1	1'-0"	3'-6"					
R605	27	27	7'-8"	311	311	39	9 1/2"	11"	2'-5"	2'-5"	7"	12"	
			SUB-TOTAL	6,814	6,814								
			TOTAL ALL REINFORCING		73,658								



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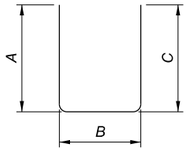

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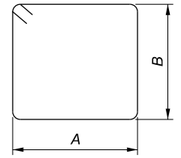

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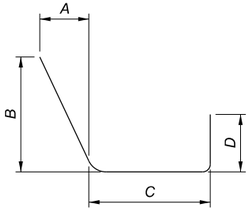

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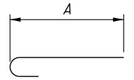

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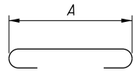

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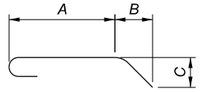

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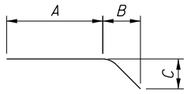

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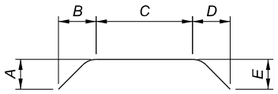

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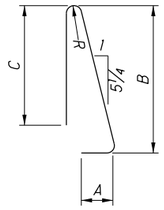

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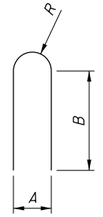

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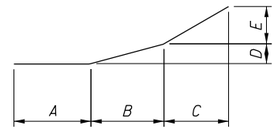

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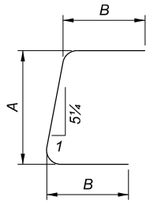

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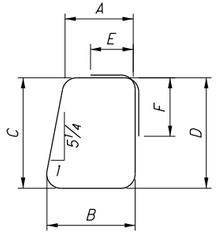

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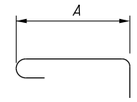
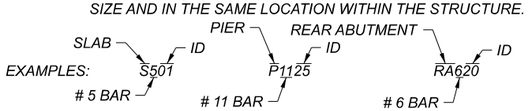


TYPE-52

REINFORCING CALLOUT NOMENCLATURE

BAR SIZE AND LOCATION ARE INDICATED IN THE BAR MARK.

LOCATION: THE BEGINING 1 OR 2 LETTERS INDICATES WHERE THE BAR IS INITIALLY CAST INTO.
SIZE: THE FIRST NUMBER (IF 3 TOTAL NUMBERS) OR TWO NUMBERS (IF 4 TOTAL NUMBERS)
UNIQUE ID: THE LAST TWO NUMBERS ARE AN INDEX NUMBER. THE INDEX NUMBER NEED NOT BE SEQUENTIAL, IT IS SIMPLY TO ALLOW A UNIQUE IDENTIFICATION OF BARS OF THE SAME SIZE AND IN THE SAME LOCATION WITHIN THE STRUCTURE.



LOCATION MARKS USED:
F = FOOTING
P = PIER
R = RAIL (PARAPET)
A = ABUTMENT
WW = WINGWALL
D = ABUTMENT DIAPHRAGM
S = SLAB (DECK)

 # = ALL OR A PORTION OF BARS PROVIDED WITH MECHANICAL CONNECTOR

MINIMUM LAP SPLICE LENGTHS

#4 BAR (ALL) = 2'-0"
#5 BAR (ALL) = 2'-6"
#6 BAR (ALL) = 3'-0"

REINFORCING NOTES

1. *ALL REINFORCEMENT BARS SHALL BE EPOXY COATED. PAYMENT FOR REINFORCING, INCLUDING MECHANICAL CONNECTORS, SHALL BE MADE WITH ITEM 509 - EPOXY COATED REINFORCING STEEL*
2. *"STR." IN THE TYPE COLUMN INDICATES STRAIGHT BARS.*
3. *"SER OF" DENOTES SERIES OF BARS, E.G "X" SER OF "Y" = "X" SERIES OF "Y" BARS/SERIES.*
4. *REFER TO C.M.S SECTION 509.05 FOR STANDARD BEND DIMENSIONS.*
5. *MECHANICAL CONNECTORS: AN APPROVED TYPE OF MECHANICAL CONNECTOR FOR REINFORCING BARS SHALL BE PROVIDED IN ACCORDANCE WITH C.M.S. SECTION 509.07. INSTALLATION OF CONNECTORS SHALL CONFORM WITH MANUFACTURER RECOMMENDED PROCEDURES.*

CONNECTORS AND DOWEL BARS USED WITH EPOXY COATED BARS SHALL BE EPOXY COATED. COATING FOR BOTH CONNECTORS AND BARS SHALL CONFORM TO THE SAME SPECIFICATIONS. COATINGS THAT HAVE BEEN DAMAGED OR THAT OTHERWISE DO NOT MEET SPECIFICATIONS WITH RESPECT TO COLOR, CONTINUITY AND UNIFORMITY, MAY BE REPAIRED AS DIRECTED BY THE ENGINEER, OR THEY SHALL BE REPLACED WITH MATERIAL WITH MEETS THE SPECIFICATIONS. FOR BARS UTILIZING A MECHANICAL CONNECTOR, THE BAR LENGTH FOR PAYMENT IS MEASURED TO THE CENTER OF THE PLANNED MECHANICAL CONNECTION. EXTRA BAR LENGTH AND/OR BAR END PREPARATION MAY BE NECESSARY DEPENDING UPON THE TYPE OF MECHANICAL CONNECTOR FURNISHED AND THOSE COSTS SHALL BE INCLUDED IN THE BID PRICE FOR ITEM 509. CONNECTORS AND DOWEL BAR EXTENSIONS SHALL CONFORM TO AND BE INCLUDED IN THE BID PRICE FOR ITEM 509.

GFRP PARAPET BARS									
Mark	QUANTITY	LENGTH (FT)	TOTAL (FT)	TYPE	DIMENSIONS A	B	C	D	E
R401	84.00	10.00	840.00	STR.					
R402	88.00	30.00	2640.00	STR.					
R403	11.00	13.00	143.00	STR.					
R405	8.00	11.75	94.00	STR.					
R406	36.00	10.00	360.00	STR.					
R407	18.00	6.42	115.50	25	2'-6"	2'-5"	1'-5"	1 1/2"	5"
R408	18.00	5.08	91.50	STR.					
R409	4.00	10.00	40.00	STR.					
R410	1.00	23.42	23.42	STR.					
R411	2.00	14.67	29.33	STR.					
R412	2.00	12.83	25.67	STR.					
R413	5.00	24.67	123.33	STR.					
R414	5.00	22.83	114.17	STR.					
TOTAL GFRP LENGTH			4640						

REINFORCING LIST 2 OF 2
BRIDGE NO. SUM-77-3227L
IR-77 OVER SR-21 (BRECKSVILLE RD.)

SFN 7704712

DESIGN AGENCY
Gannett Fleming
ENGINEERS AND ARCHITECTS, P.C.
250 Civic Center Drive, Suite 220
Columbus, OH 43215

DESIGNER	CHECKER
RSN	CTM

REVIEWER: MTO 3/22

PROJECT ID: 104983 (PRT 2)

SUBSET	TOTAL
38	38

SHEET	TOTAL
256	312

SUM-77-32.27

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	Mark	NUMBER SUPER	NUMBER TOTAL	LENGTH	WEIGHT SUPER	WEIGHT TOTAL	TYPE	DIMENSIONS A	B	C	D	E	R	INC
	DECK													
	S401	140	140	30'-0"	2,806	2,806	STR.							
	S402	20	20	21'-0"	281	281	STR.							
	S403	228	228	19'-4"	2,945	2,945	STR.							
#	S501	433	433	21'-0"	9,484	9,484	16	20'-5"						
#	S502	433	433	20'-5"	9,221	9,221	STR.							
	S503	461	461	6'-11"	3,326	3,326	16	6'-4"						
		1	1	3'-1"				2'-6"						
	S504	SER OF	SER OF	to	465	465	16	to						5 3/4"
		37	37	21'-0"				20'-5"						
		1	1	2'-6"										
	S505	SER OF	SER OF	to	443	443	STR.							5 3/4"
		37	37	20'-5"										
		1	1	3'-1"				2'-6"						
	S507	SER OF	SER OF	to	48	48	16	to						6"
		9	9	7'-1"				6'-6"						
		1	1	2'-9"										
#	S508	SER OF	SER OF	to	389	389	STR.							6 1/4"
		33	33	19'-10"										
		1	1	2'-9"										
#	S509	SER OF	SER OF	to	389	389	STR.							6 1/4"
		33	33	19'-10"										
	S510	175	175	30'-0"	5,476	5,476	STR.							
	S511	25	25	24'-6"	639	639	STR.							
	S512	5	5	2'-6"	14	14	16	1'-11"						
	S513	5	5	1'-11"	10	10	STR.							
#	S514	5	5	2'-4"	13	13	STR.							
#	S515	5	5	2'-4"	13	13	STR.							
				SUB-TOTAL	35,962	35,962								
	PARAPET													
	R601	239	239	7'-4"	2,633	2,633	39	9 1/2"	11"	2'-3"	2'-3"	7"	12"	
	R602	239	239	7'-1"	2,543	2,543	23	6"	3'-3"	3'-3"			2"	
		8	8	4'-4"					3'-6"					
	R603	SER OF	SER OF	to	617	617	1	1'-0"	to					3/4"
		11	11	5'-0"					4'-1 1/2"					
	R604	32	32	4'-4"	209	209	1	1'-0"	3'-6"					
				SUB-TOTAL	6,002	6,002								
				TOTAL ALL REINFORCING		69,246								

= ALL OR A PORTION OF BARS PROVIDED WITH MECHANICAL CONNECTOR

MINIMUM LAP SPLICE LENGTHS

#4 BAR (ALL) = 2'-0"
#5 BAR (ALL) = 2'-6"
#6 BAR (ALL) = 3'-0"

REINFORCING NOTES

1. ALL REINFORCEMENT BARS SHALL BE EPOXY COATED. PAYMENT FOR REINFORCING, INCLUDING MECHANICAL CONNECTORS, SHALL BE MADE WITH ITEM 509 - EPOXY COATED REINFORCING STEEL
2. "STR." IN THE TYPE COLUMN INDICATES STRAIGHT BARS.
3. "SER OF" DENOTES SERIES OF BARS, E.G "X" SER OF "Y" = "X" SERIES OF "Y" BARS/SERIES.
4. WHEN NO BAR LEG DIMENSIONS ARE SHOWN, IT INDICATES A STANDARD BEND/RETURN. REFER TO C.M.S SECTION 509.05 FOR STANDARD BEND DIMENSIONS.
5. MECHANICAL CONNECTORS: AN APPROVED TYPE OF MECHANICAL CONNECTOR FOR REINFORCING BARS SHALL BE PROVIDED IN ACCORDANCE WITH C.M.S. SECTION 509.07. INSTALLATION OF CONNECTORS SHALL CONFORM WITH MANUFACTURER RECOMMENDED PROCEDURES.

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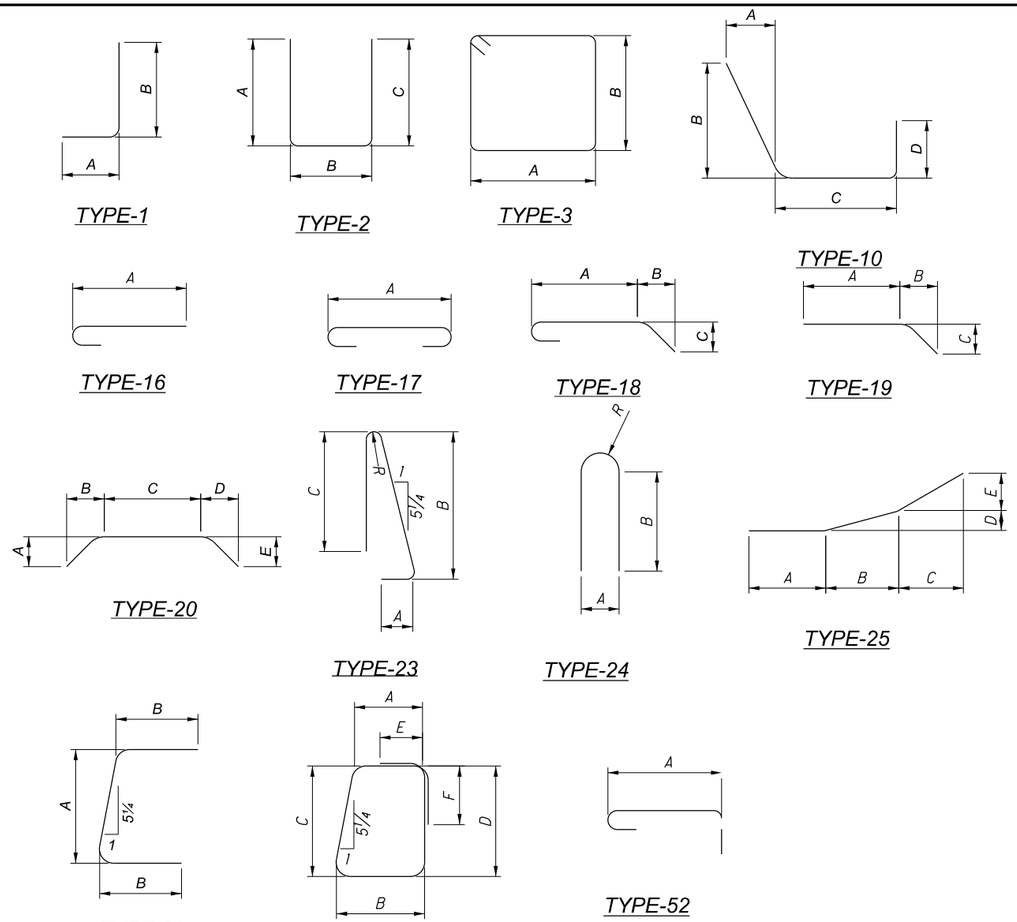


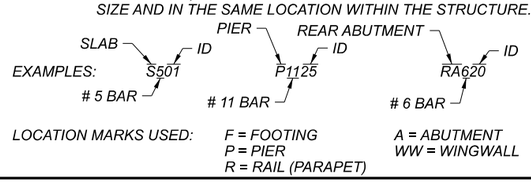
REINFORCING BEND DIAGRAMS

GFRP PARAPET BARS									
MARK	QUANTITY	LENGTH (FT)	TOTAL (FT)	TYPE	DIMENSIONS A	B	C	D	E
R401	76	10.00	760	STR.					
R402	77	30.00	2310	STR.					
R403	11	21.00	231	STR.					
R404	8	13.25	106	STR.					
R406	44	10.00	440	STR.					
R407	24	7.92	190	25	2'-6"	2'-5"	2'-11"	1 1/2"	5"
R408	24	6.58	158	STR.					
TOTAL GFRP LENGTH			4195						

REINFORCING CALLOUT NOMENCLATURE

BAR SIZE AND LOCATION ARE INDICATED IN THE BAR MARK.

LOCATION: THE BEGINING 1 OR 2 LETTERS INDICATES WHERE THE BAR IS INITIALLY CAST INTO.
SIZE: THE FIRST NUMBER (IF 3 TOTAL NUMBERS) OR TWO NUMBERS (IF 4 TOTAL NUMBERS)
UNIQUE ID: THE LAST TWO NUMBERS ARE AN INDEX NUMBER. THE INDEX NUMBER NEED NOT BE SEQUENTIAL, IT IS SIMPLY TO ALLOW A UNIQUE IDENTIFICATION OF BARS OF THE SAME SIZE AND IN THE SAME LOCATION WITHIN THE STRUCTURE.



LOCATION MARKS USED: F = FOOTING, P = PIER, R = RAIL (PARAPET), A = ABUTMENT, WW = WINGWALL, D = ABUTMENT DIAPHRAGM, S = SLAB (DECK)

REINFORCING LIST 2 OF 2
BRIDGE NO. SUM-77-3227R
IR-77 OVER BRECKSVILLE RD.

SFN 7704747

DESIGN AGENCY
Gannett Fleming
ENGINEERS AND ARCHITECTS, P.C.
2590 Corporate Exchange Drive Suite 220
Columbus, OH 43231

DESIGNER	CHECKER
RSN	CTM

REVIEWER MTO 3/22
PROJECT ID 104983 (PRT 2)
SUBSET 37 TOTAL 37
SHEET 293 TOTAL 312

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