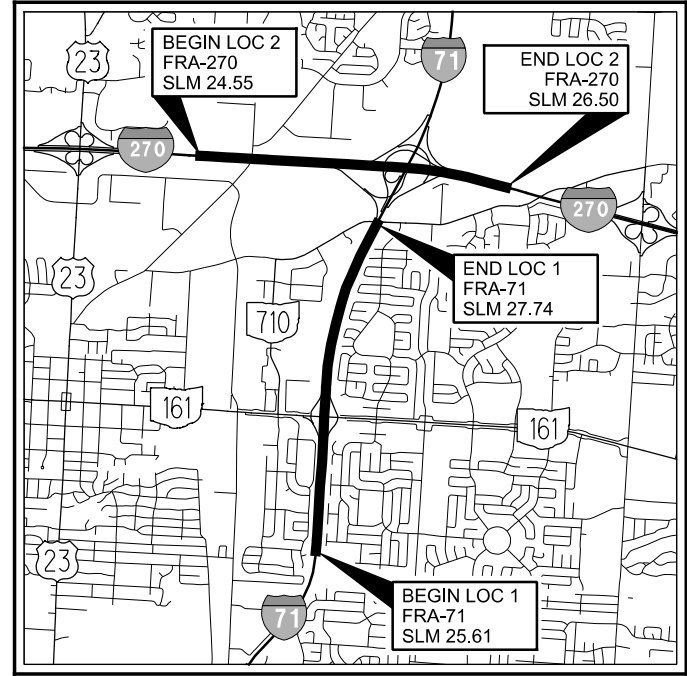


FRA-71-25.61, FRA-270-24.55

MODEL: 107799_G1001 PAPER SIZE: 17x11 (in.) DATE: 11/30/2021 TIME: 2:14:03 PM USER: rmcneill pwc\ohio\dot-pw-bentley.com\shahidoc-pw-02\Documents\01 Active Projects\District 06\Franklin\107799\400-Engineering\Roadway\Sheets\107799_G1001.dgn



LOCATION MAP

LATITUDE: 40°06'37" LONGITUDE: 82°58'40"



PORTION TO BE IMPROVED	—————	=====
INTERSTATE HIGHWAY	—————	=====
FEDERAL ROUTES	—————	=====
STATE ROUTES	—————	=====
COUNTY & TOWNSHIP ROADS	—————	=====
OTHER ROADS	—————	=====

DESIGN DESIGNATION

	<u>FRA-71-25.61</u>	<u>FRA-270-24.55</u>
CURRENT ADT (2016)	155,096	180,732
DESIGN YEAR ADT (2032)	198,000	187,000
DESIGN HOURLY VOLUME (2032)	19,800	16,830
DIRECTIONAL DISTRIBUTION	55%	50%
TRUCKS (24 HOUR B&C)	15%	13%
DESIGN SPEED	65 MPH	65 MPH
LEGAL SPEED	65 MPH	65 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	01 - INTERSTATE (URBAN)	01 - INTERSTATE (URBAN)
NHS PROJECT	YES	YES

DESIGN EXCEPTIONS

NONE REQUIRED

ADA DESIGN WAIVERS

NONE REQUIRED

UNDERGROUND UTILITIES

Contact Two Working Days
Before You Dig

OHIO811.org
Before You Dig

OHIO 811, 8-1-1, or 1-800-362-2764
(Non members must be called directly)

PLAN PREPARED BY:

ENGINEER'S SEAL:

DATE: 8/26/2021

STATE OF OHIO

DEPARTMENT OF TRANSPORTATION

FRA - 71 - 25.61, FRA - 270 - 24.55

PART 1

CITY OF COLUMBUS CITY OF WORTHINGTON SHARON TOWNSHIP FRANKLIN COUNTY

(FOR PART 2, SEE: DEL-71-1.61)

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STANDARD CONSTRUCTION DRAWINGS						SUPPLEMENTAL SPECIFICATIONS		SPECIAL PROVISIONS					
MGS-1.1	07/16/21	TC-41.20	10/18/13	MT-95.30	07/19/19	MT-101.60	01/17/20	CB-2.2	07/16/21	800	10/15/21		
MGS-2.1	01/19/18	TC-42.10	10/18/13	MT-95.31	07/19/19	MT-101.70	01/17/20			807	07/16/21		
MGS-3.1	01/19/18	TC-42.20	10/18/13	MT-95.32	04/19/19	MT-101.90	07/17/20	DM-1.1	07/17/20	809	07/16/21		
MGS-3.2	01/18/13	TC-52.10	10/18/13	MT-95.45	01/17/20	MT-102.20	04/19/19	DM-4.1	07/17/20	821	04/20/12		
MGS-4.2	07/19/13	TC-52.20	01/15/21	MT-95.50	07/21/17	MT-103.10	01/19/18	DM-4.4	01/15/16	832	10/19/18		
MGS-4.3	01/18/13	TC-61.10	01/17/20	MT-98.10	01/17/20	MT-105.10	01/17/20			843	10/18/19		
MGS-5.2	07/15/16	TC-65.10	01/17/14	MT-98.11	01/17/20			HW-2.1	07/20/18	850	04/16/21		
MGS-5.3	07/15/16	TC-65.11	07/21/17	MT-98.20	04/19/19					872	04/17/20		
		TC-72.20	07/20/18	MT-98.22	01/17/20					909	07/16/21		
BP-2.1	07/17/15	TC-73.20	07/17/20	MT-98.28	01/17/20					921	04/20/12		
BP-2.5	07/19/13			MT-98.29	01/17/20								
BP-3.1	01/17/20			MT-98.30	07/16/21								
BP-5.1	07/16/21			MT-99.20	04/19/19								

FEDERAL PROJECT NUMBER

E191 (321)

RAILROAD INVOLVEMENT

NONE

PROJECT DESCRIPTION

INTERSTATE RESURFACING OF 2.64 MILES ON I-71 (AND VARIOUS RAMPS) IN FRANKLIN COUNTY, BEGINNING AT SLM 25.61 AND ENDING AT SLM 27.77.

INTERSTATE RESURFACING OF 1.94 MILES ON I-270 (AND VARIOUS RAMPS) IN FRANKLIN COUNTY, BEGINNING AT SLM 24.55 AND ENDING AT SLM 26.50.

PROJECT INCLUDES VEGETATION REMOVAL/CONTROL, GUARDRAIL UPGRADES, AND MINOR DRAINAGE IMPROVEMENTS AT LOCATIONS IDENTIFIED IN THE PLANS.

PROJECT INCLUDES BRIDGE MAINTENANCE SEALING APPLICATIONS ON VARIOUS STRUCTURES WITHIN THE PROJECT LIMITS.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA:	0.1 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	0.0 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	NOI NOT REQUIRED

LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

2019 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND CHANGES LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

APPROVED _____

DATE _____ DISTRICT DEPUTY DIRECTOR

APPROVED _____

DATE _____ DIRECTOR, DEPARTMENT OF TRANSPORTATION

DESIGN AGENCY
DISTRICT 6

IN-HOUSE DESIGN

DESIGNER
RAM

REVIEWER

PROJECT ID
107799

SHEET TOTAL
P.01 | 60

PID#107799 FRA-71-25.61, FRA-270-24.55

USE OF STANDARD DRAWINGS

FOR THE PURPOSE OF THIS PROJECT, "MOVING OPERATION" SHALL BE LIMITED TO PAVEMENT MARKING STRIPING.

IT MAY BE NECESSARY TO EXTEND THE ADVANCE WARNING AND BUFFER ZONES BEYOND THE MINIMUM DISTANCES SHOWN ON THE STANDARD DRAWINGS. THIS MAY BE DUE TO HORIZONTAL ALIGNMENT, VERTICAL ALIGNMENT, RAMP LOCATIONS, OR OTHER SIGHT OBSTRUCTIONS. LOCATIONS OF THE TAPER ZONES MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER, BUT TAPER LENGTHS MUST MEET THE MINIMUM STANDARDS. TAPERS SHOULD BE PLACED IN TANGENT SECTIONS WHENEVER POSSIBLE. ADDITIONAL YIELD SIGNS MAY BE REQUIRED FOR RAMPS WITHIN 1,000 FEET OF A WORK ZONE. PAYMENT SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614 - MAINTAINING TRAFFIC.

FOR ANY MULTILANE HIGHWAY, DEVICE SPACING SHALL BE A MAXIMUM OF 40' CENTER ON CENTER IN THE TAPERS AND 80' CENTER ON CENTER IN THE TANGENT SECTIONS.

WORK SITE LIGHTING

FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHTTIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE ROADWAY. TO ENSURE THE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR, AND THE ENGINEER SHALL DRIVE THROUGH THE WORK SITE EACH NIGHT WHEN THE LIGHTING IS IN PLACE AND OPERATIVE PRIOR TO COMMENCING ANY WORK. IF GLARE IS DETECTED, THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISFACTION OF THE ENGINEER BEFORE WORK PROCEEDS. PAYMENT FOR ALL LABOR, EQUIPMENT, AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

WORK ZONE PAVEMENT MARKINGS, CLASS III, 642 PAINT:

THESE ITEMS ARE TO BE PERFORMED AT ALL PAVEMENT RESURFACING AREAS. THE CONTRACTOR SHALL MAINTAIN THESE MARKINGS UNTIL THE PERMANENT MAKINGS CAN BE PLACED IN ACCORDANCE WITH ITEM 642 PAVEMENT MARKINGS.

- WORK ZONE LANE LINE, CLASS III, 642 PAINT, 6" = 21.14 MILES
- WORK ZONE EDGE LINE, CLASS III, 642 PAINT, 6" = 14.49 MILES
- WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT, 12" = 7199 FT
- WORK ZONE DOTTED LINE, CLASS III, 642 PAINT, 6" = 7535 FT
- WORK ZONE STOP LINE, CLASS III, 642 PAINT, 6" = 108 FT

SHORT DURATION RAMP CLOSURES:

SHORT DURATION RAMP CLOSURES SHALL ONLY BE PERMITTED DURING THE HOURS LISTED IN THE UNAUTHORIZED LANE USE TABLE FOR WHEN THE FREEWAY IS REDUCED TO ONE LANE. RAMP CLOSURES ARE SUBJECT TO DISINCENTIVES.

SHORT DURATION RAMP CLOSURES FOR ALL RAMP CLOSURES LASTING MORE THAN 12 HOURS BUT LESS THAN 60 HOURS, THE CONTRACTOR SHALL PROVIDE THE FOLLOWING:

A MINIMUM OF TWO PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) PLACED, AS DIRECTED BY THE ENGINEER, TO WARN DRIVERS OF THE CLOSURE AND TO PROVIDE THE DESIGNATED DETOUR ROUTE.

POSITIVE GUIDANCE ALONG THE DETOUR ROUTE WITH DETOUR SIGNS (M4-9 SERIES) IN ACCORDANCE WITH THE DETOUR SIGNS NOTE.

SHORT DURATION RAMP CLOSURES FOR ALL RAMP CLOSURES LASTING LESS THAN 12 HOURS, THE CONTRACTOR SHALL PROVIDE THE FOLLOWING:

A MINIMUM OF TWO PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) PLACED, AS DIRECTED BY THE ENGINEER, TO WARN DRIVERS OF THE CLOSURE AND TO PROVIDE THE DESIGNATED DETOUR ROUTE.

WHEN CLOSING ENTRANCE RAMPS, CORRESPONDING LEAD-IN LANES AND TURN LANES SHALL ALSO BE CLOSED.

TRAFFIC SHALL BE DIRECTED TO THE NEXT INTERCHANGE, IF AVAILABLE, TO TURN AROUND. IF THE USE OF THE NEXT INTERCHANGE IS NOT POSSIBLE, AN ALTERNATIVE DETOUR ROUTE WILL BE PROVIDED BY THE ENGINEER.

USE OF WEIGHTED CHANNELIZERS:

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

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

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

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

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

ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS: USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED.

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

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

IN ADDITION TO THE REQUIREMENT OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHOULD BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS AS APPROVED BY THE ENGINEER: FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP). FOR OPERATIONS WITHOUT POSITIVE PROTECTION OCCURRING WITHIN 10 FEET OF AN OPEN TRAVELED LANE THAT MEET ALL OF THE FOLLOWING CRITERIA: -ON A MULTI-LANE DIVIDED INTERSTATE, OTHER FREEWAY OR EXPRESSWAY; AND -AN AUTHORIZED SPEED LIMIT OF 45 MPH OR GREATER THAT IS IN EFFECT AT THE TIME OF THE OPERATION; AND, -AADT OF 50,000 (OR AADT OF 30,000 WITH 25% OR HIGHER PERCENT TRUCKS)

"WITHOUT POSITIVE PROTECTION" MEANS USE OF DRUMS, CONES, SHADOW VEHICLE, ETC, WITHOUT PROTECTION FROM PORTABLE BARRIER OR OTHER RIGID BARRIER ALONG THE WORK AREA. THIS PHRASE DOES NOT APPLY TO CASES WHERE POSITIVE PROTECTION IS REQUIRED. MOBILE OPERATIONS ARE REGARDED AS "WITHOUT POSITIVE PROTECTION". FOR WORK ZONES USING A COMBINATION OF BARRIER AND TEMPORARY TRAFFIC CONTROL DEVICES (CONES, DRUMS, ETC), THE DESIGNATION SHALL BE BASED UPON THE TYPE OF DEVICES USED IN THE AREA THAT WORKERS ARE LOCATED.

IF MULTIPLE ACTIVE LOCALIZED QUALIFYING WORK AREAS OCCUR WITHOUT POSITIVE PROTECTION, PER MAINLINE TRAFFIC DIRECTION, PROVIDE A UNIFORMED LEO AND OFFICIAL PATROL CAR IN ADVANCE OF: -THE FIRST ACTIVE WORK AREA THAT DRIVERS WILL ENCOUNTER; OR -THE ACTIVE WORK AREA LATERALLY CLOSEST TO THE OPEN TRAVELED LANE; OR -OTHER LOCATION AS APPROVED BY THE ENGINEER.

THE UNIFORMED LEO AND OFFICIAL PATROL CAR MAY RELOCATE AMONG THE LISTED LOCATIONS AS APPROPRIATE AS THE OPERATIONS PROCEED IN THE LOCALIZED QUALIFYING WORK AREAS.

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

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

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL

CONTROL OVER THE LEOS' DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

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

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

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

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE = 600 HOURS.

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

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

ITEM 614 - WORK ZONE ATTENUATOR FOR 24" WIDE HAZARDS (UNI-DIRECTIONAL OR BI-DIRECTIONAL):

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.

DESIGN AGENCY



DESIGNER

REVIEWER

PROJECT ID

107799

SHEET TOTAL

P.19 60

ITEM 614 - WORK ZONE MARKING SIGN:

THE FOLLOWING WORK ZONE MARKING SIGNS HAVE BEEN PROVIDED TO BE USED IN AREAS WHERE CRACKSEAL MATERIAL COMPROMISES THE VISIBILITY OF THE EXISTING PAVEMENT MARKING. THE SIGN TYPES LISTED BELOW ARE TO BE CONSIDERED CONTINGENCY ITEMS AND SHALL BE USED AS DIRECTED BY THE ENGINEER.

LOC	ROUTE	R4-1-18
		NO EDGE LINES EACH
1	FRA-71	4
2	FRA-270	8
SUBTOTAL		12

THE FOLLOWING QUANTITY HAS BEEN PROVIDED AND THE TOTAL HAS BEEN CARRIED TO THE GENERAL SUMMARY. THESE TOTALS ARE CALCULATED BY ESTIMATING THAT EACH SIGN WILL BE PLACED EVERY 2 MILES.

ITEM 614 - WORK ZONE MARKING SIGN = 12 EACH

ITEM 614 - PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN:

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN, AND REMOVE WHEN NO LONGER NEEDED, CHANGEABLE MESSAGE SIGNS, ON SITE, FOR THE DURATION OF THE PROJECT. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS MAINTAINED BY THE DIRECTOR. ONLY CLASS I OR II SIGNS WILL BE PERMITTED.

EACH SIGN SHALL BE TRAILER MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM TO DIM THE SIGN DURING DARKNESS AND A TEMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLE SHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. PCMS TRAILERS SHOULD BE DELINEATED ON A PERMANENT BASIS BY AFFIXING RETRO REFLECTIVE MATERIAL, IN A CONTINUOUS LINE ON THE FACE OF THE TRAILER AS SEEN BY ONCOMING ROAD USERS.

A PCMS SHALL BE PLACED "AS DIRECTED BY THE PROJECT ENGINEER" IN CONJUNCTION WITH LANE CLOSURES. THE MESSAGES SHALL BE AS DIRECTED BY THE ENGINEER. THE 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 WILL BE OFF, FACING AWAY FROM ALL TRAFFIC, AND SHALL DISPLAY ONE OR MORE HIGH INTENSITY YELLOW REFLECTIVE SHEETING SURFACES OF 9" BY 15" MINIMUM, FACING 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 TROUBLE SHOOT THE UNIT AND TO REVISE SIGN MESSAGES, IF NEEDED.

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 SHOULD BE SUPPORTED, BUT NORMALLY, NOT MORE THAN TWO MESSAGE PHASES SHOULD BE EMPLOYED, ALTHOUGH THREE PHASES MAY BE USED IN UNUSUAL CONDITIONS. PCMS FORMAT

SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST ONCE. 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 FOR DIFFERENT DAYS OF THE WEEK.

THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF 614.03 SHALL MAINTAIN THE PCMS UNIT IN GOOD WORKING ORDER. THE CONTRACTOR SHALL, PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS TO ASSURE PROMPT SERVICE IN THE EVENT OF A FAILURE. ANY FAILURE SHALL NOT RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC AND THE ENTIRE COST TO CONTROL TRAFFIC ACCRUED BY THE DEPARTMENT WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON THE CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24 HOURS PER DAY OPERATIONS AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES WHEN THE PLAN REQUIRES THEIR USE. THE REQUIREMENT TO FURNISH, INSTALL, MAINTAIN, AND REMOVE A PCMS UNIT ON THIS PROJECT SHALL NOT IN ANY WAY RELIEVE THE CONTRACTOR OF ITS RESPONSIBILITIES AS OUTLINED IN 104.04.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT BID PRICE PER MONTH FOR EACH ITEM 614 - PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN AND SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE, AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK. THE FOLLOWING QUANTITY HAS BEEN PROVIDED.

ITEM 614 - PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN: (1 SIGNS X 2 MONTHS) = 4 SNMT

ITEM 614 - DETOUR SIGNING
 SIZE AND PLACEMENT OF DETOUR SIGNS (M4-9) SHOULD FOLLOW THE REQUIREMENTS OF THE OMUTCD SECTION 6F.03, SECTION 2A.11 AND TABLE 6F.01.
 DETOUR SIGNING SHALL PROVIDE DRIVERS ADEQUATE TIME TO CLEARLY READ THE SIGNS AND MAKE THE PROPER DECISIONS AT EACH REQUIRED TURNING MOVEMENT. THE DESIGNATED DETOUR ROUTE SHALL BE SIGNED IN ACCORDANCE WITH THE REQUIREMENTS BELOW:

- APPROXIMATELY 1500 FEET PRIOR TO TIP OF THE PAINTED GORE AT AN INTERCHANGE WHEN EXITING A HIGH SPEED (45 MPH OR HIGHER) FACILITY.
- AT OR NEAR THE EXISTING SIGN IN THE GORE OF AN INTERCHANGE RAMP.
- AT OR NEAR THE FIRST EXISTING LANE ASSIGNMENT SIGN ON AN INTERCHANGE EXIT RAMP.
- AT OR NEAR THE EXISTING LANE ASSIGNMENT SIGN OR EXISTING ROUTE MARKER AT THE END OF AN EXIT RAMP.
- APPROXIMATELY 500 FEET PRIOR TO A REQUIRED TURN AT AN INTERSECTION NOT CONTROLLED BY A STOP SIGN (FOR 45 MPH OR HIGHER ONLY).
- AT OR NEAR THE EXISTING LANE ASSIGNMENT SIGN OR EXISTING ROUTE MARKER AT AN INTERSECTION.
- EVERY TWO MILES ALONG A TANGENT SECTION BETWEEN TURNING MOVEMENTS OUTSIDE A CITY.
- EVERY TWO BLOCKS ALONG A TANGENT SECTION BETWEEN TURNING MOVEMENTS WITHIN A CITY.
- AT ANY OTHER INTERSECTION OR DECISION POINT WHERE THE DETOUR ROUTE IS CONTRARY TO THE NORMAL, EXPECTED TURNING MANEUVER OR OTHERWISE UNCLEAR.

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

DETOUR SIGNS SHALL BE ERECTED AND/OR UNCOVERED PRIOR TO THE ROAD OR RAMP BEING CLOSED TO TRAFFIC BUT NO EARLIER THAN FOUR HOURS PRIOR TO THE CLOSURE. DETOUR SIGNS SHALL BE COVERED AND/OR REMOVED NO LATER THAN FOUR HOURS FOLLOWING THE ROAD OR RAMP RE-OPENING TO TRAFFIC.

PAYMENT FOR ACCEPTED QUANTITIES WILL BE MADE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL BE FOR ALL MATERIALS, LABOR, INCIDENTALS AND EQUIPMENT FOR FURNISHING, PROPER SIGN PLACEMENT AND SIZING, TIMELY ERECTING AND/OR UNCOVERING OF SIGNS, MAINTAINING SIGNS, AND TIMELY COVERING AND/OR REMOVING SIGNS AND SUPPORTS. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614 - DETOUR SIGNING = LUMP SUM

PERMITS:

THE CONTRACTOR SHALL OBTAIN ALL APPLICABLE RIGHT OF WAY USE PERMITS PRIOR TO INSTALLATION OF MOT DETOUR SIGNING.

MAINTENANCE OF TRAFFIC FOR MARKING PAVEMENT REPAIRS:
 PROVIDE LANE CLOSURES AS PER THE MAINTENANCE OF TRAFFIC NOTES IN THESE PLANS A MINIMUM OF 24 HOURS PRIOR TO PERFORMING PAVEMENT REPAIRS TO ALLOW THE ENGINEER TO IDENTIFY AND MARK THE AREAS OF THE PAVEMENT IN NEED OF REPAIRS.

PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS, LEO HOURS, AND INCIDENTALS NEEDED TO PERFORM THE ABOVE LISTED WORK IS CONSIDERED INCIDENTAL TO MAINTAINING TRAFFIC ON THE PROJECT AND WILL BE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 614 MAINTAINING TRAFFIC.

PRE-MAINTENANCE OF TRAFFIC MEETING:

A PRE-MAINTENANCE OF TRAFFIC MEETING SHALL BE HELD (MINIMUM 14 WORK DAYS) PRIOR TO WORK BEGINNING OR ANY CHANGE OF PHASING. THIS MEETING SHALL INCLUDE THE DISTRICT WORK ZONE TRAFFIC MANAGER (D06.MOT@DOT.OHIO.GOV) AS WELL AS THE CONTRACTOR AND ANY OF HIS SUB-CONTRACTORS INVOLVED WITH TEMPORARY TRAFFIC CONTROL. FOR COLUMBUS SECTIONS OF ROADWAY, ALSO INCLUDE THE TEMPORARY CONTROL COORDINATOR (614-645-6269 OR 614-645-5845) FROM THE CITY OF COLUMBUS TRANSPORTATION DIVISION.

WEEKLY MAINTENANCE OF TRAFFIC MEETING:

AFTER THE INITIAL PRE-MAINTENANCE OF TRAFFIC MEETING, THE CONTRACTOR SHALL MEET WITH THE PROJECT ENGINEER ON A WEEKLY BASIS TO GO OVER A DETAILED MAINTENANCE OF TRAFFIC REPORT OF AT LEAST 7 CALENDAR DAYS. THIS MEETING SHOULD BE HELD ON THE SAME DAY AND TIME OF EACH WEEK.

THE CONTRACTOR WILL PROVIDE TO THE PROJECT ENGINEER A WRITTEN DETAIL OF THE INFORMATION REQUIRED BY THE NOTIFICATION OF TRAFFIC RESTRICTIONS NOTE PRIOR TO THE MEETING.

IN ADDITION TO THE DETAILED MAINTENANCE OF TRAFFIC REPORT THE CONTRACTOR SHALL GIVE A GENERAL LOOK AHEAD OF AN ADDITIONAL 2 WEEKS OF UPCOMING WORK ACTIVITIES. THIS WILL INCLUDE ANY NOTIFICATION REQUIREMENTS FOR RESTRICTIONS THAT HAVE A DURATION GREATER THAN 12 HOURS.

APPROVED MAINTENANCE OF TRAFFIC (MOT) POLICY

EXCEPTION(S):

PORTIONS OF THE MOT PLANS AS DESCRIBED BELOW HAVE APPROVED MOT EXCEPTION(S) PER TRAFFIC MANAGEMENT IN WORK ZONES POLICY (21-008(P)) AND STANDARD PROCEDURE (123-001(SP)).

APPROVED MOT EXCEPTION(S) INCLUDES					
INTERSTATE ROUTE 270 IN FRANKLIN COUNTY					
SECONDARY ROUTE: INTERSTATE ROUTE 71		SLM ALONG 270: 25.83 (NORTH SIDE)			
RAMP DESIGNATION	MOVEMENT	NO CLOSURES ALLOWED		DETOUR ROUTES	
		MON-FRI	SAT-SUN	PRIMARY DETOUR ROUTE	SECONDARY DETOUR ROUTE
J	I-71 SB TO I-270 WB	5AM-12AM	7AM-9PM	71 S TO 270 E (RAMP L) TO OH-710 TO 270 W	71 S TO SR-161 TO 71 N TO 270 W
K	I-270 WB TO I-71 SB	5AM-11PM	8AM-8PM	270 W TO 71 N (RAMP N) TO OH-750 TO 71 S	270 W TO SAWMILL TO 270 E TO 71 S (RAMP M)
L	I-71 SB TO I-270 EB	5AM-12AM	8AM-9PM	71 S TO OH-161 TO 71 N TO 270 E (RAMP Q)	270 W TO SAWMILL TO 270 E
M	I-270 EB TO I-71 SB	5AM-11PM	8AM-8PM	270 E TO 71 N (RAMP P) TO OH-750 TO 71 S	270 E TO OH-710 TO 270 W TO 71 S (RAMP K)
N	I-270 WB TO I-71 NB	5AM-11PM	7AM-9PM	270 W TO 71 S (RAMP K) TO OH-161 TO 71 N	270 W TO SAWMILL TO 270 E TO 71 N (RAMP P)
O	I-71 NB TO I-270 WB	5AM-11PM	8AM-8PM	71 N TO 270 E (RAMP Q) TO OH-710 TO 270 W	71 N TO OH-750 TO 71 S TO 270 W (RAMP J)
P	I-270 EB TO I-71 NB	5AM-11PM	8AM-9PM	270 E TO 71 S (RAMP M) TO OH-161 TO 71 N	270 E TO OH-710 TO 270 W TO 71 N (RAMP N)
Q	I-71 NB TO I-270 EB	5AM-10PM	8AM-8PM	71 N TO OH-750 TO 71 S TO 270 E (RAMP L)	71 N TO 270 W (RAMP O) TO SAWMILL TO 270 E

A MAINTENANCE OF TRAFFIC MEETING SHALL BE HELD A MINIMUM OF 30 CALENDAR DAYS PRIOR TO IMPLEMENTATION OF EACH APPROVED MOT EXCEPTION. THIS MEETING SHALL INCLUDE THE DISTRICT WORK ZONE TRAFFIC MANAGER AS WELL AS THE CONTRACTOR, WORKSITE TRAFFIC SUPERVISOR (WTS) AND ANY SUBCONTRACTORS INVOLVED WITH TEMPORARY TRAFFIC CONTROL.

IN ADDITION TO ANY NOTIFICATIONS REQUIRED IN OTHER NOTES, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AT LEAST 3 BUSINESS DAYS IN ADVANCE OF IMPLEMENTATION OF THE APPROVED MOT EXCEPTION(S) REFERENCED ABOVE SO THAT THE PROJECT ENGINEER CAN SEND EMAIL NOTIFICATION TO THE OFFICE OF ROADWAY ENGINEERING, STATEWIDE TMC, DWZTM AND SPECIAL HAULING PERMITS AT LEAST 2 BUSINESS DAYS IN ADVANCE OF THE IMPLEMENTATION OF THE APPROVED MOT EXCEPTION(S) REFERENCED ABOVE. REFERENCE "EXCEPTION REQUEST APPROVAL DATED 8/11/2021 FOR PID 107799" IN THE NOTIFICATION AND OTHER CORRESPONDENCE.

ANY CHANGES TO THE MOT THAT IMPACT THE PREVIOUSLY APPROVED MOT EXCEPTION(S) LISTED ABOVE SHALL BE APPROVED IN WRITING BY THE MOT EXCEPTION COMMITTEE (MOTEC). IN THE EVENT THAT SUCH CHANGES ARE PROPOSED, THE REQUEST SHALL BE COORDINATED THROUGH THE DISTRICT WORK ZONE TRAFFIC MANAGER (DWZTM) A MINIMUM OF 30 CALENDAR DAYS PRIOR TO THE DESIRED IMPLEMENTATION DATE. IF THE DISTRICT AGREES WITH THE PROPOSED CHANGES THE DWZTM SHALL SEEK APPROVAL FROM THE MOTEC. IN THE EVENT THE PROPOSED CHANGES ARE APPROVED IN WRITING, THE CLOSURES ARE STILL SUBJECT TO NOTIFICATION REQUIREMENTS WITHIN THIS NOTE PRIOR TO IMPLEMENTATION.

DESIGN AGENCY	
DESIGNER	
REVIEWER	
PROJECT ID	107799
SHEET	P.20
TOTAL	60

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 CONCRETE PERMANENT BARRIER LOCATED WITHIN 5 FEET OF THE EDGE OF THE TRAVELED LANE.

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

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.

QUANTITIES CAN BE FOUND ON THE MAINTENANCE OF TRAFFIC PLAN, SHEET 21.

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

DESIGN AGENCY



DESIGNER

REVIEWER

PROJECT ID

107799

SHEET TOTAL

P.20A 60

											FUNDING			ITEM	ITEM EXT	TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
14-17	18-20	21	24	25	26-28	29	44	46	47	48	01/IMS/PV	02/IMS/BR	04/SAF/PV						
																		WATER WORK	
											4			638	10800	4	EACH	VALVE BOX ADJUSTED TO GRADE	
																		TRAFFIC CONTROL	
											10			620	00500	10	EACH	DELINEATOR, POST GROUND MOUNTED	
									1352		1352			621	00100	1352	EACH	RPM	
									1352		1352			621	54000	1352	EACH	RAISED PAVEMENT MARKER REMOVED	
											30			626	00102	30	EACH	BARRIER REFLECTOR, TYPE 1, ONE WAY	
								6862			6862			644	00404	6862	FT	CHANNELIZING LING, 12"	
								108			108			644	00500	108	FT	STOP LINE	
								301			301			644	00600	301	FT	CROSSWALK LINE	
								1200			1200			644	00720	1200	FT	CHEVRON MARKING	
								29			29			644	01300	29	EA	LANE ARROW	
								1403			1403			644	01500	1403	FT	DOTTED LINE, 6"	
								1668			1668			644	30000	1668	FT	REMOVAL OF PAVEMENT MARKING (EDGE LINE)	
								0.58				0.58		807	12010	0.58	MILE	WET REFLECTIVE EPOXY PAVEMENT MARKING, EDGE LINE, 6"	
								0.81				0.81		807	12110	0.81	MILE	WET REFLECTIVE EPOXY PAVEMENT MARKING, LANE LINE, 6"	
								216				216		807	12410	216	FT	WET REFLECTIVE EPOXY PAVEMENT MARKING, DOTTED LINE, 6"	
								13.91				13.91		807	14010	13.91	MILE	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6"	
								20.33				20.33		807	14110	20.33	MILE	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, LANE LINE, 6"	
								7199				7199		807	14310	7199	FT	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, CHANNELIZING LINE, 12"	
								7319				7319		807	14410	7319	FT	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, DOTTED LINE, 6"	
								34.24				34.24		850	10010	34.24	MILE	GROOVING FOR 6" RECESSED PAVEMENT MARKING (ASPHALT)	
								7319				7,319		850	10110	7319	FT	GROOVING FOR 6" RECESSED PAVEMENT MARKING (ASPHALT)	
								7199				7,199		850	10130	7199	FT	GROOVING FOR 12" RECESSED PAVEMENT MARKING (ASPHALT)	
								1.39				1.39		850	20010	1.39	MILE	GROOVING FOR 6" RECESSED PAVEMENT MARKING (CONCRETE)	
								216				216		850	20110	216	FT	GROOVING FOR 6" RECESSED PAVEMENT MARKING (CONCRETE)	
																		TRAFFIC SIGNALS	
											11			632	26501	11	EACH	DETECTOR LOOP, AS PER PLAN	16
											11			632	27200	11	EACH	LOOP DETECTOR TIE IN	
																		STRUCTURES	
											100			519	11100	100	SF	PATCHING CONCRETE STRUCTURE (CONCRETE MEDIAN)	
											100			843	50000	100	SF	PATCHING CONCRETE STRUCTURE WITH TROWABLE MORTAR (CONCRETE MEDIAN)	
																		STRUCTURES OVER 20' SPAN	
																		SEE STRUCTURE SUBSUMMARY, SEE SHEET 55	56
																		MAINTENANCE OF TRAFFIC	
											600			614	11111	600	HOURS	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE, AS PER PLAN	19
											12			614	12460	12	EACH	WORK ZONE MARKING SIGN	
											1			614	12380	1	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	
											LS			614	12420	LS		DETOUR SIGNING	
											24			614	13310	24	EACH	BARRIER REFLECTOR, TYPE 1, ONE-WAY	
											9			614	13350	9	EACH	OBJECT MARKER, ONE WAY	
											4			614	18601	4	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	20
											21.14			614	20560	21.14	MILE	WORK ZONE LANE LINE, CLASS III, 6", 642 PAINT	
											14.49			614	22360	14.49	MILE	WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT	
											7199			614	23690	7199	FT	WORK ZONE CHANNELIZING LINE, CLASS III, 12", 642 PAINT	
											7535			614	24612	7535	FT	WORK ZONE DOTTED LINE, CLASS III, 6", 642 PAINT	
											108			614	26610	108	FT	WORK ZONE STOP LINE, CLASS III, 642 PAINT	
											340			622	41100	340	FT	PORTABLE BARRIER, UNANCHORED	
																		INCIDENTALS	
											LS			614	11000	LS		MAINTAINING TRAFFIC	
											LS			623	10001	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN	17
											LS			624	10000	LS		MOBILIZATION	

GENERAL SUMMARY

DESIGN AGENCY



DESIGNER

REVIEWER

PROJECT ID
107799

SHEET TOTAL
P.23 60