# CUY-271-09.28 PART

# PAVEMENT (CONT'D)

# ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (442), AS PER PLAN B

THIS ITEM SHALL BE USED FOR THE REPAIR OF UNSOUND, COLD-PATCH, OR POP-OUT AREAS OF TRANSVERSE JOINTS AND CRACKS AS DIRECTED BY THE ENGINEER. THIS WORK SHALL BE PERFORMED PRIOR TO THE BY THE ENGINEER. THIS WORK SHALL BE PERFORMED PRIVATED FOR PLANING OPERATION. THE DEPTH OF THE REPAIR SHALL BE 6.5" BELOW THE TOP OF THE EXISTING ASPHALT SURFACE. THE WIDTH OF THE REPAIR SHALL BE 12" CENTERED OVER THE EXISTING JOINT.

USE REPLACEMENT MATERIALS CONFORMING TO THE REQUIREMENTS

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (442), AS PER PLAN B

1190 SY

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

THIS ITEM SHALL BE USED TO REMOVE THE EXISTING ASPHALT OVERLAY FULL WIDTH AT AN AVERAGE DEPTH OF 1.5" AS SPECIFIED IN THE PLANS. AREAS WHICH HAVE TRANSVERSE WEDGES (BUTT) OINTS) ARE TO BE REMOVED IN TWO PASSES AS REQUIRED FOR MAINTAINING TRAFFIC. NO ADDITIONAL PAYMENT SHALL BE MADE FOR THE SECOND PASS.

# ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A, (447), PWL, 2025, AS PER PLAN, PG76-22M

THE COARSE VIRGIN AGGRECATE FOR THIS TEM SHALL BE LIMITED TO A BLEND OF AIR COALD BLAST TURNACE SLAG (AGRES) OR TRAP ROCK FROM ONTARIO AND LIMESTONE. THE CONTRACTOR SHALL USE A WINIMUM MOSO OF AGRES OR TRAP ROCK FROM ONTARIO WITH LIMESTONE COMPRISING THE REMAINING PERCENTAGE. AT LEAST 50% OF THE FIRM YERGIN AGGREGATE FOR THE THEM SHALL BE LIMITED TO ACBFS OR TRAP ROCK FROM ONTARIO.

TABLE 442.02-2 APPLIES EXCEPT NO. 4 SIEVE REQUIREMENTS ARE 52 TO 60 TOTAL PERCENT PASSING. FOR THE NO. 4 SIEVE, DO NOT EXCEED 63 IN PRODUCTION.

WHEN ACBFS IS USED FOR A FRACTION OF THE COARSE AGGREGATE, PROVIDE A TOTAL ASPHALT BINDER CONTENT GREATER THAN OR EQUAL TO 6.2%. IF ACBFS MAKES UP 100% OF THE COARSE AGGREGATE, APPLY THE BINDER CONTENT REQUIREMENTS OF CMS 442.

ALL REQUIREMENTS OF C&MS ITEM 442 APPLY EXCEPT AS SHOWN.

MAT DENSITY ACCEPTANCE - FOLLOW THE REQUIREMENTS OF 447 MAT DENSITY ACCEPTANCE, EXCEPT AS MODIFIED BELOW.

OBTAIN 6-INCH DIAMETER CORES FOR EACH LOT.

THE PWL CALCULATOR, LOCATED ON THE ODOT WEBSITE AT THE OFFICE OF CONSTRUCTION ADMINISTRATION, WILL BE USED TO DETERMINE THE LOT PWL AND THE LOT AASHTO PAY FACTORS.

THE DEPARTMENT WILL DETERMINE THE PAY FACTOR FOR EACH LOT CORED BY THE FOLLOWING TABLE.

LOWER SPECIFICATION LIMIT	PAY FACTOR CRITERIA	PAY FACTOR (PF)
92.6%	IF AVE DENSITY IS ≥ 93% AND PWL ≥ 90	PF=1 OR AASHTO PF WHICHEVER IS GREATER
92.6%	IF 90 > PWL > 50	AASHTO PF
	IF PWL ≤ 50	REMOVE AND REPLACE

# ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A, [446], PWL, 2025, AS PER PLAN, PG76-22M

JOINT CORING AS PER 446.04 WILL NOT BE REQUIRED FOR ALL ASPHALT CONCRETE PLACED WITH COLD LONGTUDINAL JOINTS USING YOU REDUCING ASPHALT MEMBRANE (YRAM). CONSTRUCT COLD LONGTUDINAL JOINTS OVER VIRAM USING THE SAME TECHNIQUES, EQUIPMENT, AND ROLLER PATTERNS USED ON THE REST OF THE MAT. DBIAIN 10 MAT CORES FOR EACH 107 OF MATERIAL PLACE ALO APPLY ACTORS FOR EACH LOT OF MATERIAL PLACE ALO APPLY ACTORS FOR EACH LOT OF MATERIAL WILL BE DETERMINED PER NABLE 446.04-2.

THE COARSE VIRGIN AGGREGATE AND AT LEAST 50% OF FINE VIRGIN AGGREGATE FOR THIS ITEM SHALL BE LIMITED TO AIR COOLED BLAST FURNACE SAG (ACBFS) OR TRAP ROCK FROM ONTARIO.

TABLE 442.02-2 APPLIES EXCEPT NO. 4 SIEVE REQUIREMENTS ARE 52 TO 60 TOTAL PERCENT PASSING. FOR THE NO. 4 SIEVE, DO NOT EXCEED 63 IN

ALL REQUIREMENTS OF C&MS ITEM 442 APPLY EXCEPT AS SHOWN. DENSITY ACCEPTANCE - FOLLOW THE REQUIREMENTS OF 446 DENSITY ACCEPTANCE, EXCEPT AS MODIFIED BELOW.

OBTAIN 6-INCH DIAMETER CORES FOR EACH LOT.

THE PWL CALCULATOR, LOCATED ON THE ODOT WEBSITE AT THE OFFICE OF CONSTRUCTION ADMINISTRATION, WILL BE USED TO DETERMINE THE LOT PWL AND THE LOT ASAFHO PAY FACTORS.

THE DEPARTMENT WILL DETERMINE THE PAY FACTOR FOR EACH LOT CORED BY THE FOLLOWING TABLES.

LOWER SPECIFICATION LIMIT	SURFACE WITH 3 JOINT CORES PAY FACTOR CRITERIA	PAY FACTOR (PF)
92%	IF AVE DENSITY IS ≥ 92.4% AND PWL ≥ 90	PF=1 OR AASHTO PF WHICHEVER IS GREATER
92%	IF 90 > PWL > 50	AASHTO PF
	IF PWL ≤ 50	REMOVE AND REPLACE
LOWER SPECIFICATION LIMIT	SURFACE <u>WITH NO</u> JOINT CORES PAY FACTOR CRITERIA	PAY FACTOR (PF)
92.6%	IF AVE DENSITY IS ≥ 93% AND PWL ≥ 90	PF=1 OR AASHTO PF WHICHEVER IS GREATER
92.6%	IF 90 > PWL > 50	AASHTO PF
	IF PWL ≤ 50	REMOVE AND REPLACE

# ITEM 617 - COMPACTED AGGREGATE, AS PER PLAN

THIS ITEM SHALL BE USED TO PLACE COMPACTED AGGREGATE AT A VARIABLE DEPTH ONLY WHERE NEEDED TO FILL IN LOW SPOTS ALONG THE SHOULDER AND ELIMINATE DROP OFFS. MATERIAL SHALL BE LIMITED TO RECLAIMED ASPHALT CONCRETE PAVEMENT (RAP).

THE ACTUAL DEPTH OF THE COMPACTED AGGREGATE PLACED WILL VARY DEPENDING UPON EXISTING CONDITIONS, FOR ESTIMATING PURPOSES, AN AVERAGE DEPTH OF ONE INCH (1") HAS BEEN USED. WATER, IF NEEDED, SHALL BE APPLIED AS PER 517.05 AND INCLUDED UNDER ITEM 617-COMPACTED AGGREGATE, AS PER PLACED.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

ITEM 617 - COMPACTED AGGREGATE, AS PER PLAN

# ITEM 618 - RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE), AS PER PLAN

FOR ALL FREEWAYS, THE LATERAL POSITION OF EDGE LINE RUMBLE STRIPS SHOWN IN SCD BP-9.1 IS REVISED AS FOLLOWS:

1. MEDIAN AND OUTSIDE SHOULDER OFFSET FOR SHOULDER LESS THAN 6': DIMENSION A AND B ARE EQUAL TO 6"

2. MEDIAN AND OUTSIDE SHOULDER OFFSET FOR SHOULDERS 6' TO 12': DIMENSION A AND B ARE EQUAL TO HALF THE SHOULDER WIDTH MINUS 12".

3. MEDIAN AND OUTSIDE SHOULDER OFFSET FOR SHOULDERS GREATER THAN 12': DIMENSION A AND B ARE EQUAL TO 5'

# ITEM 441 - ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (449), (UNDER GUARDRAIL), AS PER PLAN

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

HERBICIDE SHALL BE EPA APPROVED FOR PAVING UNDER GUARDRAIL. IT SHALL BE APPLIED TO THE PREPARED AREA AFTER FINAL LEVELING AND GRADING HAS BEEN COMPLETED. THE APPLICATION SHALL BE LUST PRIOR TO PAVING AND SHALL STRICTLY ADHERE TO THE MANUFACTURER'S INSTRUCTIONS.

THE APPLICATOR SHALL BE LICENSED BY THE OHIO DEPARTMENT OF AGRICUITURE AS A COMMERCIAL APPLICATOR AND ALL PERSONS INVOLVED IN THE ACTUAL SPRAYING SHALL BE LICENSED AS COMMERCIAL OPERATORS IN THE APPROPRIATE SPRAY CATEGORY.

HERBICIDE LABEL, MATERIAL SAFETY DATA SHEET AND COPY OF APPLICATORS LICENSE SHALL BE SUBMITTTED TO THE ENGINEER FOR VERIFICATION PRIOR TO COMMENCING WORK.

PAVING UNDER GUARDRAIL SHALL CONSIST OF PLACING ITEM 441 TO A DEPTH OF 3' AND A MAXIMUM WIDTH OF 4' USING ONE OF THE FOLLOWING METHODS:

## METHOD B:

PLACE ITEM 441
BORE ASPHALT AT POST LOCATIONS (MAY BE OMITTED IF STEEL POSTS
ARE USED)
SET GUARDRAIL POSTS
FOR MATERIALS USED FOR PATCHING SHALL
BACKS AND POSTS. THE MATERIALS USED FOR PATCHING SHALL
BACKS SHALL BE COMPACTED USING EITHER HAND OR MECHANICAL
METHODS. FINISHED SUBPRACES SHALL BE SMOOTH AND SLOPED TO
DRAIN AWAY FROM THE POSTS.

ALL LABOR, EQUIPMENT, AND MATERIALS REQUIRED TO PERFORM THE WORK OUTLINED ABOVE, WITH THE EXCEPTION OF SETTING GUARDRAIL POSTS, SHALL BE INCLUDED FOR PAYMENT UNDER TIEM 441 - ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 1 (449), (UNDER GUARDRAIL), AS

# ITEM 209 - RESHAPING UNDER GUARDRAIL, AS PER PLAN

THIS ITEM OF WORK SHALL BE USED TO PREPARE PROPOSED AND EXISTING GUARDRAIL RING FOR PAYING UNDER GUARDRAIL, INCLUDING REMOVAL AND DISPOSAL OF EXISTING ASPHALT UNDER GUARDRAIL

A SAWCUT WILL BE PERFORMED, WHEN APPLICABLE, TO ASSIST THE REMOVAL OF EXISTING ASPHALT UNDER GUARDRAIL AND MINIMIZE DAMAGE TO EXISTING SHOULDER ASPHALT PAYMENT FOR SAWCUTTING WILL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 209 - RESHAPING UNDER GUARDRAIL, AS PER FLAN.

FILL ALL HOLES REMAINING AFTER REMOVAL DE GUARDRAIL POSTS AND ANCHOR ASSEMBLE WITH GRANULAR MATERIAL. DO NOT USE FILL BY THE REMOVER OF THE PROPERTY OF THE ENGINEER AND SHALL BE COMPACTED AS DIRECTED BY THE ENGINEER. PAYMENT FOR THE ABOVE IS INCLUDED IN THE APPLICABLE GUARDRAIL TIEM.

RESHAPE AND COMPACT SUBGRADE TO ENSURE POSITIVE DRAINAGE. ESTABLISH A CROSS-SLOPE OF 0.042 (HALF INCH PER FOOT) GRADE TO A MAXIMUM WIDTH OF 6 'TO PROVIDE POSITIVE DRAINAGE AWAY FROM THE

ALL COLLECTED DEBRIS AND TOPSOIL SHALL BE REMOVED AND DISPOSED OF AS SPECIFIED IN SECTION 105.17 OF THE CMS.

IN AREAS WHERE ASPHALT UNDER GUARDRAIL WILL NOT BE REPLACED. THE REMOVED MATERIAL SHALL BE REPLACED WITH COMPACTABLE GRANULAR MATERIAL CONFORMING TO 703.15 AND PLACED TO GRADE AS APPROVED BY THE ENGINEER. SEED AND MULCH THESE AREAS ACCORDING TO 659.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT BID PRICE FOR ITEM 209 - RESHAPING UNDER GLARDRAIL, AS PER PLAN AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT, AND MATERIALS NECESSARY TO PERFORM THE WORK.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY

ITEM 209 - RESHAPING UNDER GUARDRAIL. AS PER PLAN

# ITEM 209 - LINEAR GRADING, AS PER PLAN

THIS TEAN OF WARE SHALL COMEST OF CARADING ALONG THE OUTSIDE DOES OF THE WARE SHALL COMEST OF ELMINATE HIGH SHOTS AND PROVIDE POSITIVE SHEET FLOW FILE PAYEMENT AND SHOULDER HITO RADDS DITCHES OR DRAINAGE STRUCTURES. THIS ITEM IS NOT INTENDED TO BE USED TO EXCAVATE A UNIFORM DEPTH TO PLACE ITEM ST. COMPARCTED AGERGEATE, AS PER PLAIN.

ANY DEBRIS COLLECTED SHALL BE REMOVED AND DISPOSED OF AS SPECIFIED IN SECTION 105.16 & 105.17 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT BID PRICE FOR ITEM 209, STATION, LINEAR GRADING, AS PER PLAN AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO PERFORM THIS WORK.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY

ITEM 209 - LINEAR GRADING, AS PER PLAN

80 STA.

40 STA.

# ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016)

THIS TEM SHALL CONNIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TEMMINALS FOR THE MOST GUARDRAIL SATE OF THE MOST GU

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE I, ASTM D4956 TYPE XI REFLECTIVE SHEETING, PER CMS 730.193.

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 BEIOW THE LEVEL LINE IN GROEK 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, AND CHORD ASSEMBLY, MGS TYPE, E, ACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO SYSTEM, CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, CHARDINGS, RECEIVES SHEETING, HARDWARE, CHARDINGS, RECEIVES SHEETING, HARDWARE, AND CHARDINGS, AND CHARDINGS, AS REQUIRED BY THE MANUFACTURER.

# ITEM 606 - IMPACT ATTENUATOR TYPE 1 (UNIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY ONE OF THE TYPE 1 IMPACT ATTENUATORS AS LISTED ON THE OFFICE OF ROADWAY ENGINEERINGS WEB PAGE. INSTALLIATION SHALL BE AT THE LOCATIONS, SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 605, IMPACT ATTENUATOR, TYPE I (UNIDIRECTIONAL OR BIDIRECTIONAL), EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, PEULIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FARTHER AND FASTERIAL SHEETS SHAT TO CONSTRUCT A CONFIDENCE AND FASTERIAL PRICE AND FASTERIAL PRICE AND FASTERIAL PRICE AND FASTERIAL PRICE AND FASTERIAL SHAND FASTERIAL PRICE CAN BE THE THING AND FASTERIAL SHOWN OF SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

# ITEM 202 - REMOVAL MISC.: QUICK CURB REMOVED AND DISPOSED

THIS ITEM SHALL FOLLOW ITEM 202 OF THE CMS AND AS DESCRIBED BELOW. WORK FOR THIS ITEM INCLUDES REMOVAL AND DISPOSAL OF EXISTING GUICK CURB, ATTACHED PELINEATIONS AND ALL HARDOWARE. CARE SHOULD GUICK CURB, ATTACHED PELINEATIONS AND ALL HARDOWARE. CARE SHOULD LINNECESSARY DAMAGE TO EXISTING FAVEMENT. THE UNIT COST PAYMENT PER FOOT SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, EQUIPMENT AND INCIDENTIALS TO REMOVE AND DISPOSE OF THE QUICK CURB AS DESCRIBED ABOVE TO THE SATISFACTION OF THE ENGINEER.

# DRAINAGE

# CROSSING AND CONNECTION OF 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, LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT & DETERMINED THAT THE LELYNTION OF THE EXISTING CONDUIT, OR YEXTING APPLIETMANT TO DE COMMENTED DIFFER FROM THE PUNI-ELEVATION OR RESULTS IN A HANGE IN THE PLAN CONDUIT SLOPE, NOTIFY THE ENGINEER BEFORE STATING 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 ROBIGHER 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.

# 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 FACULITIES THAT A'RE TO REMAIN IN SERVICE WHICH MAY BE AFFECTED BY THE WORK, THE CONDITION OF THE EXISTING CONDUTION AND THE RAPPURENANCES IS DETERMINED FROM THEID 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 IM 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.

DESIGN AGENCY

HNTB

AFG KKP 01/05/23

113156

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 OMUTCO. 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 OMUTOD 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 TRÚCKS)

"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

- THE FIRST ACTIVE WORK AREA THAT DRIVERS WILL ENCOUNTER; OR THE ACTIVE WORK AREA LATERALLY CLOSEST TO THE OPEN TRAVELED
- 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 LEGS HAVE BEEN TRAINED APPROPRIATE TO THE IOB DECISIONS THEY ARE REQUIRED TO MAKE WHILE ON THE PROJECT, IN ACCORDANCE WITH C&MS 614.03. ITEM 614 - LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS (CONT.)

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

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 280 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.

# RUMBLE STRIP REMOVAL AND REPLACEMENT PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN

ALL EXISTING RUMBLE STRIPS ON THE NORTHBOLIND OUTSIDE SHOULDER THAT ARE IN CONFLICT WITH THE PROPOSED MOVEMENT OF TRAFFIC DURING THE MOT OPERATIONS SHALL BE REMOVED BY PAVEMENT PLANING THE REMOVED RUMBLE STRIP AREAS SHALL BE FILLED WITH ASPHALT CONCRETE SURFACE COURSE. THE RUMBLE STRIP REMOVAL AREA SHALL BE 2.5 FEET WIDE AND 1.5 INCHES DEEP, CENTERED ON THE RUMBLE STRIP. THE PAVEMENT PLANING AND PLACEMENT OF ASPHALT CONCRETE SURFACE COURSE SHOULD BE COMPLETED IN THE SAME OPERATION. THE ESTIMATED REMOVAL LENGTH IS 9255 FT.

THE FOLLOWING ESTIMATED OLIANTITIES HAVE REEN CARRIED TO THE

ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN (1.5" DEPTH) ITEM 407 - NON-TRACKING TACK COAT 2571 SY 219 GAI ITEM 441 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1 (449), AS PER PLAN, PG64-22, 1-1/2

ITEM 441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1 (449).

THE COARSE VIRGIN AGGREGATE FOR THIS ITEM SHALL CONSIST OF A BLEND OF 60% MIN. AIR COOLED BLAST FURNACE SLAG (ACBFS) OR TRAP ROCK FROM ONTARIO WITH LIMESTONE COMPRISING

IN ADDITION TO THE JOINT SEALING REQUIREMENTS SPECIFIED IN 401.17, THE CONTRACTOR SHALL SEAL THE PERIMETER OF ALL RUMBLE STRIP PAVEMENT REPLACEMENT AREAS. THE MATERIAL USED SHALL BE A CERTIFIED 702.01 PG BINDER. THE WIDTH OF THE SEALER SHALL BE 2-3 INCHES.

THE REMAINING PERCENTAGE.

PAYMENT FOR ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED TO PERFORM THE ABOVE WORK SHALL BE INCLUDED IN THE CONTRACT PRICE FOR ITEM 441 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1 (449), AS PER PLAN, PG64-22.

......

# NOTIFICATION OF TRAFFIC RESTRICTIONS

THROUGHOUT THE DURATION OF THE PROJECT. THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM THE SPECIAL HAULING PERMITS SECTION

(HAULING.PERMITS@DOT.OHIO.GOV) AND THE DISTRICT PUBLIC
INFORMATION OFFICE (PIO). THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

INFORMATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

# NOTIFICATION OF TRAFFIC RESTRICTIONS TIME TABLE

ITEM	DURATION OF CLOSURE	NOTICE DUE TO PERMITS & PIO
RAMP & ROAD CLOSURES	≥ 2 WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE
CEOSONES	> 12 HOURS & < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	≤ 12 HOURS	4 BUSINESS DAYS PRIOR TO CLOSURE
LANE CLOSURES & RESTRICTIONS	≥ 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
RESTRICTIONS	< 2 WEEKS	5 BUSINESS DAYS PRIOR TO CLOSURE
START OF CONSTRUCTION & TRAFFIC PATTERN CHANGE	N/A ES	14 CALENDAR DAYS PRIOR TO IMPLEMENTATION

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT ENGINEER USING THE NOTIFICATION TIME TABLE.

NRF

HNTB

MTR 10/12/23 113156

	1		<u> </u>	·····						· · ·	T 6:-	6	1 611	66.5								_
				614	614	614	3 614	614	614	614	614	614	614	614	622	622	622	642	642	642		4
PHASE	LOCATION	BEGIN STA.	END STA.	INCREASED BARRIER DELINEATION	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN	BARRIER REFLECTOR, TYPE 1	OBJECT MARKER, ONE WAY	WORK ZONE LANE LINE, CLASS I, 6", 807 PAINT	WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT	WORK ZONE CHANNELIZING LINE, CLASS I, 8", 807 PAINT	WORK ZONE DOTTED LINE, CLASS I, 6", 807 PAINT	WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS I, 642 PAINT	WORK ZONE CROSSWALK LINE, CLASS I, 12", 642 PAINT	DUAL PORTABLE BARRIER TRANSITION/TERMINATION	PORTABLE BARRIER, UNANCHORED	PORTABLE BARRIER, ANCHORED	REMOVAL OF PAVEMENT MARKING	REMOVAL OF PAVEMENT MARKING	REMOVAL OF PAVEMENT MARKING	MARKING TYPE REMOVED	
			}	FT	EACH	EACH	3 EACH	EACH	MILE	MILE	FT	FT	FT	FT	EACH	FT	FT	FT	EACH	MILE		1
	WORK ZONE PAVEMENT MA	RKINGS AND PORTA	BLE BARRIER \$		•		7												•			1
1A	IR-271 NB EXPRESS	508+00	511+00 (			16	3															1
1A	IR-271 NB EXPRESS	508+00	511+00			16	3															1
1A	IR-271 NB EXPRESS	508+00	527+50			99	3				1953											1
1A	IR-271 NB EXPRESS	508+00	520+50	1260	1		3	26								1260						
1A	IR-271 NB EXPRESS	511+00	524+50			69				0.26												4
1A	IR-271 NB EXPRESS	511+00	527+50	700		84	1	45		0.31						700						4
1A 1A	IR-271 NB EXPRESS IR-271 NB EXPRESS	520+50 527+50	527+50 S	700			3 12	15 12								550						4
1A	IR-271 NB EXPRESS	527+50	533+00	1	+		<del>1</del> 12	12	<del>                                     </del>	0.11	<del>                                     </del>		+			J30	<del>                                     </del>	1		<del>                                     </del>		1
1A	IR-271 NB EXPRESS	532+00	535+00		1		1	1		5.11	1	300	1							1		1
1A	IR-271 NB EXPRESS	535+00	543+00				1			0.15			1									1
1A	IR-271 NB EXPRESS	535+00	542+50 E				3			0.14												1
1A	IR-271 NB EXPRESS	542+50	561+00	:		94	3			0.35												4
1A	IR-271 NB EXPRESS	542+50	564+00	:	1	109	}				2144		1									4
1A	IR-271 NB EXPRESS	545+50	561+00	1750		79	3	0.1		0.29						5710						-
1A 1A	IR-271 NB EXPRESS IR-271 NB EXPRESS	546+50 561+00	604+00 S	1750		16	3 81	81								5710						-
1A	IR-271 NB EXPRESS	561+00	564+00			16	3															-
1A	IR-271 NB LOCAL	508+30	592+35			- 10	3															1
1A	IR-271 NB LOCAL	508+00	518+50	1050	1		1	22								1050						1
1A	IR-271 NB LOCAL	508+50	518+50			51 51	1			0.19												
1A	IR-271 NB LOCAL	508+50	518+50			51	3				1006											
1A	IR-271 NB LOCAL	508+50	518+50			51	3				1007											_
1A	IR-271 NB LOCAL	508+50	518+50			51	}			0.19						4500						_
1A	IR-271 NB LOCAL	518+50	534+00				3 32	32		0.50						1560						4
1A 1A	IR-271 NB LOCAL IR-271 NB LOCAL	518+50 518+50	549+50 599+00	-		67	3		1.51	0.59												-
1A	IR-271 NB LOCAL	518+50	599+00	:-		67	₹		1.51													-
1A	IR-271 NB LOCAL	518+50	593+66	:		07	1		1.51	1.41												1
1A	IR-271 NB LOCAL	546+50	599+00	:	1		105	105							1	4670						1
1A	IR-271 NB LOCAL	549+50	565+00				3					1524										1
1A	IR-271 NB LOCAL	561+00	599+00	:			3			0.71												1
1A	IR-271 NB LOCAL	584+00	593+00	:			3				ļ	880										_
1A	IR-271 NB LOCAL	592+00	597+00	:			₹			0.11							500					4
1A 1A	IR-271 NB LOCAL	593+00 595+50	599+00 604+00	:			3			0.11												-
1A	IR-271 NB LOCAL	599+00	604+52	550			}	11								550						-
1A	IR-271 NB LOCAL	599+00	606+00	:		35	3			0.13						550						1
1A	IR-271 NB LOCAL	599+00	606+00			35	3			0.13												1
1A	IR-271 NB LOCAL	599+00	609+00			51 51	3				986											1
1A	IR-271 NB LOCAL	599+00	609+00	-		51	}				987		1									4
1A	IR-271 NB LOCAL	606+00	609+00	-	1	16	3				-		+									4
1A	IR-271 NB LOCAL	606+00 MARKING REMOVAL	609+00	-		16	3															-1
1A	IR-271 NB EXPRESS	508+00	527+47	1			3													0.37	LL	1
1A	IR-271 NB EXPRESS	511+00	524+50	-			3													0.26	ELY	1
1A	IR-271 NB EXPRESS	511+00	515+49				}													0.11	ELW	1
1A	IR-271 NB EXPRESS	515+49	520+95				1											596			CHW	4
1A	IR-271 NB EXPRESS	520+95	534+78	:			1						1					1385			DL	4
1A	IR-271 NB EXPRESS	534+78	543+00	-	1		1				-		+					823			CHW	4
1A 1A	IR-271 NB EXPRESS IR-271 NB EXPRESS	534+78 537+78	548+00 548+00	-	+		1						+					1323 379			CHW TVL	-1
1A	IR-271 NB EXPRESS	542+50	564+00	:	+		<del>1</del>	1		<u> </u>	+		+					3/3		0.41	LL	1_
1A	IR-271 NB EXPRESS	545+50	561+00	:			<b>1</b>						1							0.41	ELY	DESK
1A	IR-271 NB EXPRESS	548+00	561+00	<u>:  </u>			1													0.25	ELW	1
1A	IR-271 NB LOCAL	508+25	509+34				<u> </u>							· ·	·			,		0.03	ELY	J
1A	IR-271 NB LOCAL	508+25	513+37	١			}						1					514			DL	H
1A	IR-271 NB LOCAL	508+30	593+67	<del>                                     </del>	1		<del>}</del>				-		+							1.61	ELW	4
1A 1A	IR-271 NB LOCAL IR-271 NB LOCAL	508+50 508+50	609+05 609+05	£ <del> </del>	+		}	1		-			+						-	1.89 1.89	LL	4
1A	IR-271 NB LOCAL	513+37	514+50	<del>[</del>	+		3						+					229		1.09	CHW	1
1A	IR-271 NB LOCAL	517+91	549+43	ř <del>i</del>	1		}				1		†					223		0.6	ELY	DESK
1A	IR-271 NB LOCAL	549+43	561+35	<u>۲</u>			1						1					1174		0.0	DL	1—
1A	IR-271 NB LOCAL	560+99	605+99	<u> </u>			1													0.84	ELY	МТ
1A	IR-271 NB LOCAL	584+45	594+41	اغ			3											974			DL	PROJ
1A	IR-271 NB LOCAL	594+41	596+90	۱			1											245			CHW	
1A	IR-271 NB LOCAL	596+90	606+00	5310		$\perp$	230		3.02	5.07	8083									0.17 8.73	ELY	SHEE
1/1	SUBTOTALS FOR PHAS				3	1140		304				2704	1		1	16050	500	7642	1		1	2:

				۶	$\tilde{m}$	m	m	3															
					614	614	614	3 614	614	614	614	614	614	614	614	622	622	622	642	642	642		
	PHASE	LOCATION	BEGIN STA.	END STA.	INCREASED BARRIER DELINEATION	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN	BARRIER REFLECTOR, TYPE 1	OBJECT MARKER, ONE WAY	WORK ZONE LANE LINE, CLASS I, 6", 807 PAINT	WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT	WORK ZONE CHAMNELIZING LINE, CLASS I, 8", 807 PAINT	WORK ZONE DOTTED LINE, CLASS I, 6", 807 PAINT	WORK ZONE TRANSVERSE/DIAGONAL LINE, S CLASS I, 642 PAINT	WORK ZONE CROSSWALK LINE, CLASS I, 12", 642 PAINT	DUAL PORTABLE BARRIER TRANSITION/TERMINATION	PORTABLE BARRIER, UNANCHORED	PORTABLE BARRIER, ANCHORED	REMOVAL OF PAVEMENT MARKING	REMOVAL OF PAVEMENT MARKING	REMOVAL OF PAVEMENT MARKING	MARKING TYPE REMOVED	
				}	FT	EACH	EACH	EACH	EACH	MILE	MILE	FT	FT	FT	FT	EACH	FT	FT	FT	EACH	MILE		]
	10	WORK ZONE PAVEMENT MA IR-271 NB EXPRESS	ARKINGS AND PORTA 508+50	BLE BARRIER 511+00				3					250										4
	1B 1B	IR-271 NB EXPRESS	517+50	548+00		1		3 62	62				250			1	3050						1
	1B	IR-271 NB EXPRESS	532+00	535+00		1		3	02		0.06					1	3030						İ
	1B	IR-271 NB LOCAL	508+50	525+84				3			0.33												1
	1B 1B	IR-271 NB LOCAL IR-271 NB LOCAL	511+00 517+50	532+00 564+00	-			3 93	93		0.40						4650						ł
	1B	IR-271 NB LOCAL	525+84	532+00	:			1 33	93				617				4030						l
	1B	IR-271 NB LOCAL	549+55	564+00	Ç.			3			0.28												
	1B	EX. PAVEMENT IR-271 NB EXPRESS	MARKING REMOVAL 508+16	511+00				3						1							0.06	ELW	₹
	15	SUBTOTALS FOR PHAS			£	1		155	155		1.07		867			1	7700				0.06	LLVV	Σ
				}				1			2.07						,,,,,,						MAINTENANCE OF TRAFFIC SUBSUMMARY
1		WORK ZONE PAVEMENT MA	ARKINGS AND PORTA	BLE BARRIER				1															1 3
	2A 2A	IR-271 NB EXPRESS IR-271 NB EXPRESS	508+00 508+00	527+47 508+50	<del>}                                     </del>			1		0.37	0.01			+	-	-			-				BS
	2A	IR-271 NB EXPRESS	511+00	514+75	-			3			0.01		376										I ⊋
1	ZA.	IR-271 NB EXPRESS	520+48	524+50	[]			3			0.08												1 8
1	2A 2A	IR-271 NB EXPRESS IR-271 NB EXPRESS	542+50 542+50	564+00 546+00	<u> </u>		19	<del>}</del>		0.41	0.41			+		-			-				<b>1</b>
	2A	IR-271 NB EXPRESS	542+50	549+50	<b>!</b>		13	<del>1</del>		0.71	0.14												"
	2A	IR-271 NB EXPRESS	551+54	565+00				1			0.26		705										. ≥
	2A 2A	IR-271 NB EXPRESS IR-271 NB CROSSOVER 1	557+00 514+75	565+00 520+48				3				1151	795	178									1 :
	2A	IR-271 NB CROSSOVER 1	517+98	527+47	<del>[                                    </del>			3				1912		218									l 5
	2A	IR-271 NB CROSSOVER 2	545+49	551+54	3			}				1203		165									Ü
	2A 2A	IR-271 NB CROSSOVER 2 IR-271 NB LOCAL	549+50 508+50	557+00 517+98	}			₹			0.19	1490		175									2
	2A	IR-271 NB LOCAL	508+50	554+00	<b>}</b>		39	<b>1</b>		0.86	0.13												<b>√</b>
	2A	IR-271 NB LOCAL	508+50	554+00	\$		39	3		0.86													Z
	2A 2A	IR-271 NB LOCAL IR-271 NB LOCAL	508+50 520+48	599+79 549+50				3			1.72 0.56												1 🖺
	2A	IR-271 NB LOCAL	527+47	545+49	<del>[                                     </del>			3			0.50		1803										≥
	2A	IR-271 NB LOCAL	527+47	535+50	<b>E</b>			3			0.16												I ₹
	2A 2A	IR-271 NB LOCAL IR-271 NB LOCAL	548+71 551+54	557+00 606+00	810			₹			1.02												E
1.6gn	2A	IR-271 NB LOCAL	554+00	564+00	}		51	<del>}                                    </del>			1.02	983											İ
.00Sy	2A	IR-271 NB LOCAL	554+00	564+00	}		51	3				981											
7 99	2A 2A	IR-271 NB LOCAL IR-271 NB LOCAL	557+00 564+00	599+31 585+00	٠	1		3 70	84	0.4							2893						ł
nardt 71131	2A	IR-271 NB LOCAL	564+00	585+00	<del>[                                     </del>			₹		0.4													1
heets	2A	IR-271 NB LOCAL	564+00	580+00	<b>}</b>			1		0.3													
ER: r	2A 2A	IR-271 NB LOCAL IR-271 NB LOCAL	577+00 580+00	584+50 585+00	<del>}</del>			<del>}</del>					491					750					ł
M US	2A	IR-271 NB LOCAL	585+00	606+00	<del>}                                     </del>			3				2065	751										İ
31 P?	2A	IR-271 NB LOCAL	585+00	606+00	3			3				2061											4
2:35 P-Eng	2A 2A	IR-271 NB LOCAL IR-271 NB LOCAL	585+00 592+00	596+90 597+00	}			<del>}</del> ——				1166						500					ł
TIME: 56/40	2A	IR-271 NB LOCAL	592+00	597+55	<b>}</b>			1				544						500					1
11316	2A	IR-271 NB LOCAL	593+87	597+56	362			3															1
(16/2	2A 2A	IR-271 NB LOCAL IR-271 NB LOCAL	593+87 596+90	606+00 606+00	2 1187 C			3				891											1
1 E 10	2A	IR-271 NB LOCAL	597+55	598+69	13			1			0.03												1
DAT 77785	2A 2A	RAMP C3 RAMP C3	9+79 9+84	9+84 9+93	}			3			0.01				35								1
(in.) jects).	2A 2A	CEDAR ROAD WB	9+84 13+34	20+05	<del>}</del>			}			0.14			+	35								1
44x22 d Proj	2A	CEDAR ROAD WB	13+34	20+00	685			}															DESIGN AGENCY
IZE: 3	2A 2A	CEDAR ROAD WB CEDAR ROAD WB	21+15 25+00	23+60 29+65	\$ 494 \$ 471			+			0.1												1
SKGe	2A	CEDAR ROAD WB	25+45	29+65	} <del>"</del> /1			<del>\</del>			0.08			1									LINTE
Z Page		EX. PAVEMENT	MARKING REMOVAL		ξ.			{															HNTB
Docu	2A 2A	IR-271 NB EXPRESS IR-271 NB EXPRESS	508+00 524+50	511+00 527+47	====	-		}								-			-		0.06	ELY ELY	1
akes	2A	IR-271 NB EXPRESS	561+00	564+00	<u>{</u>																0.06	ELY	
E E	2A	IR-271 NB EXPRESS	561+00	565+00	}			1													0.08	ELW	DESIGNER
-S-	2A 2A	IR-271 NB LOCAL RAMP C2	556+17 116+00	560+99 118+42	<u>}</u>	_		₹						+					246		0.09	ELY CHW	NRE REVIEWER
12 James 1	2A	RAMP C2	118+42	120+16	[]			1											2.70		0.04	ELY	MTR 02/27/2
Unnar thrift	2A	BRAINARD SOUTH	17+19	19+94	=======================================			}												5	0.13	LN ARROW	PROJECT ID
CTY-RTE-SECTION MODEL: Unnamed Har-1 - Plan 2 (Sheet) PA pow/typw-in1.htmb.org:PWGress Lakes/Docume	2A 2A	CEDAR WB CEDAR EB	13+08 21+12	19+81 27+60	<del>}</del>			<del>-</del>													0.13 0.13	LL	113156 SHEET TOTAL
O M		SUBTOTALS FOR PHAS			4009	1	199	70	84	3.60	4.91	14447	3465	736	35		2893	1250	246	5	0.65		SHEET TOTAL 233
					amm		········	)											·				

_
=
$\circ$
_
⊢
()
SECT
$\overline{S}$
~ı′
ய்
_
`~
ш.
. 1
>

(J

			· · · · · · · · ·	614	614	614	3 614	614	614	614	614	614	614	614	622	622	622	642	642	642	
			1 8	614	614	614	3 614	614	614	614	614	614		614	622	622	_	642	642	642	
PHASE	LOCATION	BEGIN STA.	END STA.	INCREASED BARRIER DELINEATION	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN	BARRIER REFLECTOR, TYPE 1	OBJECT MARKER, ONE WAY	WORK ZONE LANE LINE, CLASS I, 6", 807 PAINT	WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT	WORK ZONE CHANNELIZING LINE, CLASS I, 8", 807 PAINT	WORK ZONE DOTTED LINE, CLASS I, 6", 807 PAINT	WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS I, 642 PAINT	WORK ZONE CROSSWALK LINE, CLASS I, 12", 642 PAINT	DUAL PORTABLE BARRIER TRANSITION/TERMINATION	PORTABLE BARRIER, UNANCHORED	PORTABLE BARRIER, ANCHOREE	REMOVAL OF PAVEMENT MARKING	REMOVAL OF PAVEMENT MARKING	REMOVAL OF PAVEMENT MARKING	
				FT	EACH	EACH	EACH	EACH	MILE	MILE	FT	FT	FT	FT	EACH	FT	FT	FT	EACH	MILE	
	ORK ZONE PAVEMENT MA						2														
2B	IR-271 NB LOCAL	523+00	542+50				3				1954										
2B	IR-271 NB LOCAL	523+00	542+50				3				1955										
2B	IR-271 NB LOCAL	526+00	542+50				1				1652										
2B	IR-271 NB LOCAL	526+00	539+50				3			0.26											
2B	IR-271 NB LOCAL	526+00	557+00				2									3083			-		
2B	IR-271 NB LOCAL	542+50	545+49				3		0.06										$\overline{}$		
2B	IR-271 NB LOCAL	594+65	603+00				3								1	580	240				
2B	RAMP C2	113+66	116+22				2				259										
2B	RAMP C2	113+66	121+85				<u> </u>			0.16											
2B	RAMP C2	113+66	116+21	1			}									257			$\vdash$		
2B	RAMP C2	115+60	121+50	-			2									598			$\vdash$		_
2B	RAMP C2	116+22	121+48	1			1			0.11									-		_
	SUBTOTALS	S FOR PHASE 2B					1		0.06	0.53	5820				1	4518	240				
	SUBTOTA	ALS SHEET 29		5310	3	1140	230	304	3.02	5.07	8083	2704			1	16050	500	7642		8.73	
	CUPTOT	ALC CHEET 20		1000	1 2	400	3 225	220	2.00	5.00	44447	4222	726	25		40502	4250	246		0.74	_
	SUBTOTA	ALS SHEET 30		4009	2	199	225	239	3.60	5.98	14447	4332	736	35	1	10593	1250	246	5	0.71	
	TOTALS CARRIED T	O GENERAL SUMIV	IARY	9319	5	1339	455	543	6.68	11.58	28350	7036	736	35	3	31161	1990	7888	5	9.44	
			8		SEE SHEE	T 23 FOR ADD	3 DITIONAL WO	ORK ZONE PA	VEMENT MA	RKING QUAI	NTITIES ASSO	CIATED WITH	i RESURFACIN	G OPERATIO	ons					· · · · · ·	

£.....

HNTB

DESIGNER
NRE
REVIEWER
MTR 02/27/24

PROJECT ID 113156 31 TOTAL 233

			S	HEET NU	JM.					PART.			ITEM	GRAND			SEE
19	20	21	£ 26 }	71	72	73	74	75	01/SAF/21	02/NFP/05	03/IMS/05	ITEM	EXT	TOTAL	UNIT	DESCRIPTION	SHEET NO.
			· · · · ·														
					8,060				8,060			605	11110	8,060	FT	DRAINAGE  6" SHALLOW PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	
					294				294			605	13410	294	FT	6" UNCLASSIFIED PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	-
					2,400				2,400			605	13510	2,400	FT	6" ROCK CUT UNDERDRAINS WITH GEOTEXTILE FABRIC	
					22,201				22,201			605	14020	22,201	FT	6" BASE PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	
		500			963				1,463			611	00510	1,463	FT	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	
				354 477					354 477			611 611	05900 06100	354 477	FT FT	15" CONDUIT, TYPE B 15" CONDUIT, TYPE C	-
				127					127			611	07400	127	FT	18" CONDUIT, TYPE B	
				70					70			611	08900	70	FT	21" CONDUIT, TYPE B	
				42					42			611	10400	42	FT	24" CONDUIT, TYPE B	
				379					379			611	97010	379	FT	SLOTTED DRAIN, TYPE 2 15"	21
				1 8	1				8			611	98180	1	EACH	CATCH BASIN, NO. 3A	
				29	1				29	-		611 611	98370 98410	8 29	EACH EACH	CATCH BASIN, NO. 6  CATCH BASIN, NO. 8	-
				29	_				29			911	98410	29	EACH	CATCH BASIN, NO. 6	_
				3					3			611	98635	3	EACH	CATCH BASIN RECONSTRUCTED TO GRADE, AS PER PLAN	21
				3					3			611	99574	3	EACH	MANHOLE, NO. 3	
				1					1			611	99621	1	EACH	MANHOLE, NO. 5, AS PER PLAN	21
				4					4			611	99654	4	EACH	MANHOLE ADJUSTED TO GRADE	
		5		l	2		1		7			611	99710	7	EACH	PRECAST REINFORCED CONCRETE OUTLET	$\perp$
		3,000		-	-	<b> </b>	<u> </u>		3,000	-		SPECIAL	61199820	3,000	10	MISCELLANEOUS METAL	21
		3,000			1				3,000			SPECIAL	61199820	3,000	LB	MISCELLANEOUS METAL	21
					1	5,936			5,936			670	00700	5,936	SY	DITCH EROSION PROTECTION	
						3,330			3,550			0/0	00700	3,330	31	STOTE ENGINE THOSE CHAIN	-
																PAVEMENT	
							31,844		31,844			204	10000	31,844	SY	SUBGRADE COMPACTION	19
							5,015		5,015			204	13000	5,015	CY	EXCAVATION OF SUBGRADE	
							5,015		5,015			204	30010	5,015	CY	GRANULAR MATERIAL, TYPE B	
							7,502		7,502			204	50000	7,502	SY	GEOTEXTILE FABRIC	
1,190											1.190	251	01021	1,190	ESY 3	PARTIAL DEPTH PAVEMENT REPAIR (442), AS PER PLAN A	19
1,150	1,190										1,190	251	01021 3	1,190	E SY 3	PARTIAL DEPTH PAVEMENT REPAIR (442), AS PER PLAN B	20
	1,130		m		1				cm	l	1,150	251	<del>Willi</del>	7,250	حنت	TATITUDE TO THE AND THE PARTY OF THE PARTY O	
			{ 2,571					53,117	£4,826 \$	806	50,056	254	01001	£55,6883	SY	PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN (T = 1.5")	20
			لسنا					4,009	4,809			254	01001	(4,009)	SY	PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN (T = VARIES 1.5" TO 4.5")	18
								6,778	6,778			302	56000	6,778	CY	ASPHALT CONCRETE BASE, PG64-22, (449)	
				-	1		5,318	-	E 210	-		304	20000	5,318	CY	AGGREGATE BASE	
			and		1		5,318	-	5,318		-	304	20000	5,318	LY	AGGREGALE BASE	-
			219		1			9,763	£ 5,657 \$	69	4,256	407	20000	₹9,982 ₹	GAL	NON-TRACKING TACK COAT	
			E 3				<b>†</b>	1	15 3	T	1 7,223	سيسا	mmy	1 5 7 3 3	سس		mm
			£ 108 }						\$ 108 }			\$ 441	70101	£ 108 \$	E CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), AS PER PLAN PG64-22	26
			w					99	تنووت			C MAAU	U70801	كتوويا	Carri	asphalt-concrete intermediate course, type 1,7449); (under guardrail); asper plam	war
				<b> </b>		1	1			L	L		40000			APPLIANT CONCERTS CHIPPER COLUMN TOPS A SEARCH TOPS A SEAR	$\perp$
			-	<b> </b>	1	1	<b>!</b>	246	29	34	183	442	10031	246	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446), PWL 2025, AS PER PLAN PG76-22M	20
					1		1	1,646 3,332	1,646 1,427		1,905	442 442	10080 10331	1,646 3,332	CY CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 12.5 MM, TYPE A (446)  ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447), PWL 2025, AS PER PLAN PG76-22M	20
				<b> </b>	<del>                                     </del>	<b>†</b>	<del>                                     </del>	3,334	1,42/	<b> </b>	1,303	444	10331	2,334		PROFESSION AND COUNTY, 12.3 WIN, THE N (997), FIVE 2023, AS FER FLAN FO/0-22WI	40
	75			1		1				l	75	617	10101	75	CY	COMPACTED AGGREGATE, AS PER PLAN	20
					1		1										
							25,098				25,098	618	40101	25,098	FT	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE), AS PER PLAN	20
				<b> </b>	1	ļ	l	17,947	ļ	l	17,947	872	10000	17,947	FT	VOID REDUCING ASPHALT MEMBRANE (VRAM)	$\perp$
				-	-	-	-	-		-				-			$\vdash$
				<del>                                     </del>	+	<del>                                     </del>	<del>                                     </del>	_	<del>                                     </del>	<del>                                     </del>	<del></del>			<b>-</b>			$\vdash$
				l	1	<b>†</b>	t		<b>1</b>					l			$\vdash$
				l	1		1			l							$\vdash$
						1	1										
						1			ļ								$\Box$
				ļ	1	1	<b>!</b>		ļ								
				-	1	-	1	-	-		-						$\vdash$
			1	i	1	1	1	1	i	ı	l	l		l	L	1	

HNTB

DESIGNER
AS

AS
REVIEWER
MTR 02/27/24
PROJECT ID
113156

66 Z33

	ATE: 10/16/2024 TIME: 2:40:46 PM USER: nebert
.28 PART1	Sheet] PAPERSIZE: 34x22 (in.) DAI
CUY-271-09.28 PART	MODEL: GG-1 - GENSUM-3 [S

22   23   34   30   32	S	DESCRIPTION	UNIT	GRAND	ITEM	ITEM		PART.				NUM,	SHEET				
10	1	DESCRIPTION	UNIT	TOTAL	EXT	TIEF	03/IMS/05	02/NFP/05	01/SAF/21			31	26	24	23	22	19
10		MAINTENANCE OF TRACEIC							<u> </u>								
3			HOUR	280	11110	614	140		140	$\rightarrow$			280				
1												9,319					
12   12   12   13   1361   1368   1																3	
Common							12					5		24			
90	<del></del>	WORK ZOINE INCREASED PENALTIES SIGN	EACH	24	12404	014	12		12					24			
CASACY   C			EACH	(1,333 <i>p</i> )	12801	614			(1,339)			(1,339)					
Section				£ 50 \$					£ 50 3			8 3				50	
Color																	
							24			$\longrightarrow$		543		40			
9.27		FORTABLE CHANGEABLE INESSAGE SIGN, AS PER PLAIN	SIVIVII	40	10001	014	24		24	-+-+				40			
5.35		WORK ZONE LANE LINE, CLASS I, 6", 807 PAINT	MILE	6.68	20056	614			6.68			6.68					
11.58		WORK ZONE LANE LINE, CLASS I, 6", 642 PAINT															
8.92     8.92     6.11   22.110   8.92   MILE   WORK POOR LOCK LOCK INC. (ASS 1.5. § 42.2 PAINT															5.35		
6.11   72,500   72,								<u> </u>		$\longrightarrow$	-	11.58		ļ	0.02		ļ
1,156		WORK ZOINE EDGE LINE, CLASS I, 6", 642 PAINT	MILE	8.92	22110	614		<u> </u>	8.92	$\rightarrow$					8.92		
1,156		WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT	MILE	6.11	22360	614			6.11	$\rightarrow$					6.11		
7,882   7,88		WORK ZONE CHANNELIZING LINE, CLASS I, 12", 807 PAINT	FT	28,350	23110	614			28,350			28,350					
1,7,396		WORK ZONE CHANNELIZING LINE, CLASS I, 12", 642 PAINT		11,156		614			11,156								
12,524															7,882		
6,876   6,876   756   775		WORK ZONE DOTTED LINE, CLASS 1, 6", 807 PAINT	FT	7,036	24102	614			7,036	<del></del>		7,036					
6,876   6,876   756   775		WORK ZONE DOTTED LINE CLASS L 6" 642 PAINT	FT	12 524	24202	614			12 524	-+-+					12 524		
978   736   1,714   614   25200   1,714   FT   WORK ZONE TRANSVERSE/DIAGONAL LINE, LASS 1,62 PAINT   108   161   25520   871   FT   WORK ZONE TRANSVERSE/DIAGONAL LINE, LASS 1,62 PAINT   108   108   FT   WORK ZONE TRANSVERSE/DIAGONAL LINE, LASS 1,62 PAINT   108   FT   WORK ZONE TRANSVERSE/DIAGONAL LINE, LASS 1,62 PAINT   108   FT   WORK ZONE TRANSVERSE/DIAGONAL LINE, LASS 1,62 PAINT   108   FT   WORK ZONE TRANSVERSE/DIAGONAL LINE, LASS 1,62 PAINT   108   FT   WORK ZONE TRANSVERSE/DIAGONAL LINE, LASS 1,72 FAIR ZONE TRANSVERSE/DIAGONAL LINE, LASS 1,72 FAIR ZONE ZONE ZONE ZONE ZONE ZONE ZONE ZONE																	
108			FT									736					
S4																	
456		WORK ZONE STOP LINE, CLASS I, 642 PAINT	FT	108	26200	614			108						108		
456		WORK TONE CTOR LINE CLASS III. CAR BAINT	FT	E 4	20010	C14			F4	<del></del>					F4		
228										$\rightarrow$		35					
SO		WORK ZONE CROSSWALK LINE, CLASS III, 12", 642 PAINT								-		33					
LS		WORK ZONE ARROW, CLASS I, 642 PAINT		50													
SO		WORK ZONE ARROW, CLASS III, 642 PAINT	EACH	34	30650	614			34						34		
SO		DOLOG FOR LAWYELENING TRAFFIC		1.0	40000	545			<del></del> '								
3   3   622   41060   3   EACH   DUAL PORTABLE BARRIER TRANSITION/TERMINATION     31,161   31,161   622   41100   31,161   FT   PORTABLE BARRIER, AUNCHORED     1,990   1,990   622   41110   1,990   FT   PORTABLE BARRIER, AUNCHORED     7,888   7,888   642   30000   7,888   FT   REMOVAL OF PAVEMENT MARKING     5   5   642   30030   9,44   MILE   REMOVAL OF PAVEMENT MARKING     9,44   642   30030   9,44   MILE   REMOVAL OF PAVEMENT MARKING     48   24   24   808   18700   48   SNMT   DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY     15   614   11000   LS   MAINTAINING TRAFFIC     8   4   4   619   16021   8   MNTH   FIELD OFFICE, TYPE C, AS PER PLAN     15   LS   LS   623   10001   LS   CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN		ROADS FOR MAINTAINING TRAFFIC		LS	10000	615			LS	-+-+							
3   3   622   41060   3   EACH   DUAL PORTABLE BARRIER TRANSITION/TERMINATION     31,161   31,161   622   41100   31,161   FT   PORTABLE BARRIER, AUNCHORED     1,990   1,990   622   41110   1,990   FT   PORTABLE BARRIER, AUNCHORED     7,888   7,888   642   30000   7,888   FT   REMOVAL OF PAVEMENT MARKING     5   5   642   30030   9,44   MILE   REMOVAL OF PAVEMENT MARKING     9,44   642   30030   9,44   MILE   REMOVAL OF PAVEMENT MARKING     48   24   24   808   18700   48   SNMT   DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY     15   614   11000   LS   MAINTAINING TRAFFIC     8   4   4   619   16021   8   MNTH   FIELD OFFICE, TYPE C, AS PER PLAN     15   LS   LS   623   10001   LS   CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN		WATER	MGAL	50	10000	616			50	$\rightarrow$					50		
31,151																	
1,990																	
7,888																	
S   S   S   G42   30020   S   EACH   REMOVAL OF PAVEMENT MARKING     9.44   9.44   642   30030   9.44   MILE   REMOVAL OF PAVEMENT MARKING     48   24   24   808   18700   48   SNMT   DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY     108   10000   L5   CPM PROGRESS SCHEDULE     108   10000   L5   CPM PROGRESS SCHEDULE     108   11000   L5   MAINTAINING TRAFFIC     8   4   4   619   16021   8   MNTH   FIELD OFFICE, TYPE C, AS PER PLAN     15   L5   623   10001   L5   CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN		PURTABLE BARKIEK, ANCHURED	FI FI	1,990	41110	622			1,990	$\longrightarrow$		1,990					
S   S   S   G42   30020   S   EACH   REMOVAL OF PAVEMENT MARKING     9.44   9.44   642   30030   9.44   MILE   REMOVAL OF PAVEMENT MARKING     48   24   24   808   18700   48   SNMT   DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY     108   10000   L5   CPM PROGRESS SCHEDULE     108   10000   L5   CPM PROGRESS SCHEDULE     108   11000   L5   MAINTAINING TRAFFIC     8   4   4   619   16021   8   MNTH   FIELD OFFICE, TYPE C, AS PER PLAN     15   L5   623   10001   L5   CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN	<del></del>	REMOVAL OF PAVEMENT MARKING	FT	7.888	30000	642		<b>-</b>	7.888	$\rightarrow$		7.888					
9.44 9.44 9.44 9.44 9.44 9.44 9.44 9.45 9.44 MILE REMOVAL OF PAVEMENT MARKING  1										$\rightarrow$							
LS																	
LS						06.			<u> </u>	$\dashv$	$\rightarrow$						
LS		DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY	SNMT	48	18700	808	24		24	$\longrightarrow$					48		
LS	+	INCIDENTALS	<b> </b>		<b> </b>			<b>-</b>		$\rightarrow$				<b>-</b>	<b>-</b>		<b>-</b>
LS 614 11000 LS MAINTAINING TRAFFIC  8	+			LS	10000	108			LS	$\rightarrow$							
8																	
LS LS 623 10001 LS CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN		MAINTAINING TRAFFIC		LS	11000	614			LS								
LS LS 623 10001 LS CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN	$\longrightarrow$	L FIFTH OFFICE TYPE C AC DED DIAM	A ANITH		15021	610	<b>.</b>	<u> </u>	<u> </u>	$\longrightarrow$					<u> </u>		<u> </u>
		HELD OFFICE, TYPE C, AS PER PLAN	MNIH	8	16021	619	4		4	$\longrightarrow$							×
		CONSTRUCTION LAYOUT STAKES AND SURVEYING. AS PER PLAN		LS	10001	623	LS		LS	$\rightarrow$	<del>                                      </del>						LS
LS 624 10000 LS MOBILIZATION																	
		MOBILIZATION		LS	10000	624			LS								
									<b>└</b>	-+	-						
	<del></del>		-		-				·'	$\longrightarrow$	-+						-
		+						<b>—</b>		$\rightarrow$							
	<del></del>								-	$\rightarrow$					<del>                                     </del>		<b>—</b>
		<u> </u>															
									$\vdash$	$\Box$							

DESIGN AGENC

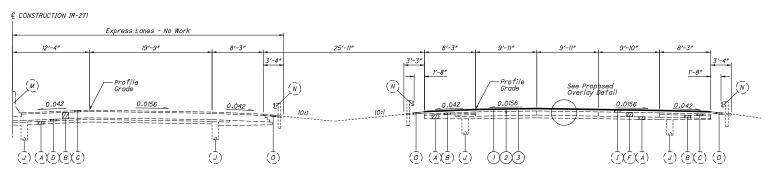
HNTB

DESIGNER
AS
REVIEWER
MTR 02/27/24

PROJECT ID 113156

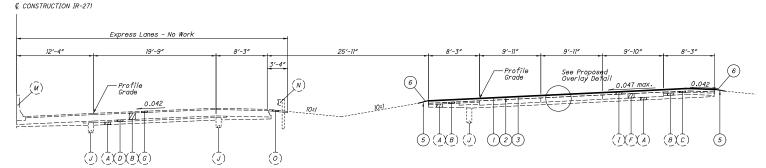
68 TOTAL 233





3-Lane Normal Section (NB Shown)

Sta. 532+68.89 to Sta. 545+81.86 (SB ONLY) Sta. 608+70.91 to Sta. 609+73.43 BK Sta. 606+20.66 AH to 673+77.67



# 3-Lane Superelevated Section (NB, Curve Left Shown)

Sta. 545+81.86 to Sta. 601+95.95 Sta. 601+95.95 to Sta. 609+73.43 BK= Sta. 606+20.66 AH to Sta. 608+70.91 (Curve Right) (Curve Right) (Curve Left) Sta. 673+77.67 to Sta. 733+15.55

# Proposed Legend

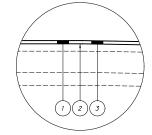
(A) Subbase

Existing Legend

- (B) Bituminous Aggregate Base
- (C) Waterproof Aggregate Base
- $\widehat{\left( \mathtt{D} \right)}$  Free Draining Base
- (E) 9" Reinforced Concrete Pavement
- 10" Reinforced Concrete Pavement
- (G) 3"± Asphalt Overlay
- 4-1/4"± Asphalt Overlay

- (I) 6-1/2"± Asphalt Overlay
- (J) Underdrain
- (K) Trench Drain (Concrete Encased, Do Not Disturb)
- (L) Concrete Curb
- (M) Concrete Barrier
- (N) Guardrail
- (O) Asphalt Under Guardrail

- Item 254 Pavement Planing, Asphalt Concrete, 1-1/2", As Per Plan
- (2) Item 407 - Non-tracking Tack Coat
- Item 442 Asphalt Concrete Surface Course, 12.5MM, Type A (447), PWL, 2025 As Per Plan, PG76-22M
- Item 442 Asphalt Concrete Surface Course, 12.5MM, Type A (446), PWL, 2025 As Per Plan, PG76-22M
- Linear Grading, As Per Plan
- Compacted Aggregate, As Per Plan



Proposed Overlay Detail

JDA EJK 07/31/23

113156

# CUY-271-9.73 PART

# Item 251 - Partial Depth Pavement Repair (442), As Per Plan A

This item shall be used for the repair of unsound, cold-patch, or pop-out areas of longitudinal joints as directed by the Engineer. This work shall be performed prior to the planing operation. The depth of the repair shall be 6.5" below the top of the existing asphalt surface. The width of the repair shall be 24" centered over the

Use replacement materials conforming to the requirements of Item 442, 19mm.

The following estimated quantity has been carried to the General Summary:

Item 251 - Partial Depth Pavement Repair (442), As Per Plan A ... 2,184 Sc Yd

# Item 251 - Partial Depth Pavement Repair (442), As Per Plan B

This item shall be used for the repair of unsound, cold-patch, or pop-out areas of transverse joints and cracks as directed by the Engineer. This work shall be performed prior to the planing operation. The depth of the repair shall be 6.5" below the top of the existing asphalt surface. The width of the repair shall be 24" centered

Use replacement materials conforming to the requirements of Item 442, 19mm.

The following estimated quantity has been carried to the General Summary:

Item 251 - Partial Depth Pavement Repair (442), As Per Plan B ..... 1,303 Sc Yd

# Item 442 - Asphalt Concrete Surface Course, 12.5mm, Type A, (447), PWL, 2025, As Fer Plan, PG76-22M 1.5"

The coarse virgin aggregate for this item shall be limited to a blend of air cooled blast furnace slag (ACBFS) or Trap Rock from Ontario and limestone. The Contractor shall use a minimum 60% of ACBFS or Trap Rock from Cntario with limestone comprising the remaining percentage. At least 50% of the fine virgin aggregate or this item shall be limited to ACBFS or Trap Rock from Ontario.

Table 442 02-2 applies except No. 4 sieve requirements are 52 to 60 Total Percent Passing. For the No. 4 sieve, do not exceed 63 in production.

When ACBFS is used for a fraction of the coarse aggregate, provide a total asphalt binder content greater than or equal to 6.2%. If ACBFS makes up 100% of the coarse aggregate, apply the binder content requirements of CMS 442.

# Item 617 - Compacted Aggregate, As Per Plan

This item shall be used to place compacted aggregate at a variable depth only where needed to fill in low spots along the shoulder and eliminate drop offs. Material shall be limited to reclaimed asphalt concrete pavement (RAP).

The actual depth of compacted aggregate placed will vary depending upon existing conditions. For estimating purposes, an average depth of one inch (1") has been used. Water, if needed, shall be applied as per 617.05 and included under Item 617 - Compacted Aggregate, As Per Plan.

The following estimated quantity has been carried to the General Summary for use as directed by the Engineer:

Item 617 - Compacted Aggregate, As Per Plan.................. 276 Cu Yd

# Item 618 - Rumble Strips, Shoulder (Asphalt Concrete), As Per Plan

For all freeways, the lateral position of edge line rumble strips shown in SCD BP-9.1 is revised as follows:

- 1. Median and Outside Shoulder Offset for shoulders less than 6': Dimension A and B are equal to 6"
- Median and Outside Shoulder Offset for shoulders 6' to 12': Dimension A and B are equal to half the shoulder width minus 12".
- Median and Outside Shoulder Offset for shoulders greater than 12': Dimension A and B are equal to 5'.

The following estimated quantity shall be used to construct Item 618 - Rumble Strips, Shoulder (Asphalt Concrete), As Per Plan as per Standard Drawing BP-9.1 except as noted above:

> Item 618 - Rumble Strips, Shoulder (Asphalt Concrete). .12 Miles As Per Plan

# Item 442 - Asphalt Concrete Surface Course, 12.5mm, Type A, (446), PWL, 2025, As Per Plan, PG76-22M, 1.5"

Joint coring in accordance with 446.04 is not required for cold longitudinal joints placed over Void Reducing Asphalt Membrane (VRAM). Construct cold longitudinal joints over VRAM using the same techniques, equipment, and roller patterns used on the rest of the mat. Obtain 10 mat cores for each lot of material in accordance with 446.04. Pay factors for each lot of material will be determined according to Table 446.04-2.

The coarse virgin aggregate and at least 50% of fine virgin aggregate for this item shall be limited to air cooled blast furnace slag (ACBFS) or Trap Rock from

Table 442.02-2 applies except No. 4 sieve requirements are 52 to 60 Total Percent Passing. For the No. 4 sieve, do not exceed 63 in production.

# Traffic Control

# Pavement Markings

Auxiliary markings shall be located and installed as per Standard Drawing TC-

# Permanent Pavement Markings on Bridges

Proposed pavement markings on bridges shall be placed on top of existing markings.

# Raised Pavement Markers

Install raised pavement markers for lane lines at a spacing of eighty feet (80') center-to-center

# Item 621 - Raised Pavement Marker Removed

This item shall include the removal and disposal of existing RPMs.

The following estimated quantity has been carried to the General Summary:

Item 621 - Raised Pavement Marker Removed........ 1,006 Each



JDA EJK 07/31/23

113156