

ITEM 615 - PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN

FOLLOW SPECIFICATION 615. UPON COMPLETION OF THE PROJECT, THE WORK ZONE PAVEMENT SHALL REMAIN IN PLACE. THE COMPOSITION OF THE PAVEMENT SHALL BE FLEXIBLE AND HAVE A CROSS SLOPE OF 0.02% AS DETAILED IN THE TYPICAL SECTIONS ON SHEET P.02.

IT IS EXPECTED TO USE HAND TOOLS TO COMPACT THIS PAVEMENT UNDER THE GUARDRAIL TO AVOID THE NEED TO TEMPORARILY REMOVE AND REINSTALL RAIL COMPONENTS TO COMPLETE THIS ITEM OF WORK.

SAW OR OTHERWISE CONSTRUCT A NEAT JOINT TO ACCEPT THE WORK ZONE PAVEMENT PER C&MS 202.05. THE MAXIMUM ACCEPTABLE ELEVATION DIFFERENCE AT SAW CUT LINE BETWEEN THE EXISTING PAVEMENT AND THE PAVEMENT FOR MAINTAINING TRAFFIC SHALL BE 0.25". A QUANTITY FOR ITEM 202 - PAVEMENT REMOVED FROM THE M.O.T. OFFICE CALCULATIONS ARE PROVIDED BELOW.

SEE MAINTENANCE OF TRAFFIC PLAN SHEETS FOR LOCATIONS OF THIS PAVEMENT.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 615 - PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN ----- **315 SQ. YD**

ITEM 202 - PAVEMENT REMOVED ----- **39 SQ. YD**

PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIAL, LABOR, INCIDENTALS, AND EQUIPMENT NECESSARY FOR INSTALLING THIS ITEM.

ITEM 615 - ROADS FOR MAINTAINING TRAFFIC

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED IN THE PLAN FOR INFORMATION ONLY:

EXCAVATION FOR MAINTAINING TRAFFIC ----- 122 CU. YD.

WHEN UNDERCUTS ARE NECESSARY FOR MAINLINE PAVEMENT OR EMBANKMENT CONSTRUCTION, EVALUATE THE NEED FOR TEMPORARY ROAD UNDERCUTS IF WITHIN A CLOSE PROXIMITY TO THE MAINLINE UNDERCUTS. A GEOTECHNICAL EVALUATION SHOULD BE CONSIDERED TO DETERMINE IF THE EXISTING SOIL CONDITIONS ARE ADEQUATE TO SUPPORT THE TEMPORARY ROAD. ADDITIONAL SOIL BORINGS ALONG THE TEMPORARY ROAD ARE NOT NORMALLY REQUIRED.

ALL WORK SHALL FOLLOW SPECIFICATION 615. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 615 - ROADS FOR MAINTAINING TRAFFIC.

ITEM 622 - PORTABLE BARRIER, UNANCHORED

IT IS ANTICIPATED THAT THE SAME BARRIER WILL BE USED IN VARIOUS PHASES OF CONSTRUCTION. MOVEMENT OF THE BARRIER BETWEEN PHASES WILL BE ACCOMPLISHED IN ONE WORKING DAY. FLAGGERS SHALL BE UTILIZED FOR PROTECTION OF VEHICULAR TRAFFIC UNTIL MOVEMENT OF THE BARRIER IS COMPLETE.

THE CONTRACTOR SHALL FOLLOW THE REQUIREMENTS LISTED IN SCD'S PCB-91 AND RM-4.2 FOR UNANCHORED BARRIER.

MAINTENANCE OF CANOE TRAFFIC

CANOE TRAFFIC SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION OF THE PROJECT THROUGH EXISTING RIVER CHANNEL.

ADEQUATE SIGNING BOTH UPSTREAM AND DOWNSTREAM SHALL BE INSTALLED AND MAINTAINED BY THE CONTRACTOR. THE FOLLOWING TYPE SIGNS ARE CONSIDERED TO BE MINIMUM TREATMENT:

1. APPROXIMATELY ONE-QUARTER MILE UPSTREAM, ADVANCED WARNING TYPE SIGNS ON BOTH BANKS;
2. APPROXIMATELY 300 FEET UPSTREAM, SIGNS SPECIFYING ACTIONS REQUIRED OF CANOEIST ON BOTH BANKS;
3. APPROXIMATELY ONE-QUARTER MILE DOWNSTREAM, ADVANCE WARNING TYPE SIGNS ON BOTH BANKS; AND
4. APPROXIMATELY 300 FEET DOWNSTREAM, SIGNS SPECIFYING ACTIONS REQUIRED OF CANOEIST OF BOTH BANKS.

THE ABOVE SIGNING SHALL BE MOUNTED IN SUCH A WAY AS TO BE A MINIMUM OF 4 FEET ABOVE THE WATER LEVEL, UNOBSTRUCTED BY TREE BRANCHES, AND PROPERLY ANGLED FOR MAXIMUM VISIBILITY FROM THE MAIN CLEAR CHANNEL. THE METHOD OF SUPPORTING THE SIGNS SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION. UPON COMPLETION OF THE PROJECT, THE SIGNS AND SUPPORT SYSTEMS SHALL BE COMPLETELY REMOVED FROM THE RIVER CHANNEL. THE CONTRACTOR SHALL NOTIFY LOCAL CANOE LIVERIES USING THIS PORTION OF THE RIVER AT LEAST 10 DAYS PRIOR TO ANY CHANGES AFFECTING CANOE TRAFFIC. PORTAGE TRAILS IF USED SHALL BE CONSTRUCTED AND MAINTAINED BY THE CONTRACTOR WITH THE LEAST POSSIBLE DISTURBANCE TO THE SURROUNDING AREA. THE TRAIL SHALL BE ADEQUATELY MARKED IN BOTH DIRECTIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE RIGHT-OF-WAY FOR THE PORTAGE TRAILS IF REQUIRED.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH CMS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS ALONG WITH PAYMENT FOR PROVIDING, ERECTING, MAINTAINING AND REMOVING THESE SIGNS SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

TRENCH FOR WIDENING

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

OVERNIGHT TRENCH CLOSING

THE BASE WIDENING SHALL BE COMPLETED TO A DEPTH OF NO MORE THAN 1 1/4 INCHES BELOW THE EXISTING PAVEMENT BY THE END OF EACH WORK DAY. NO TRENCH SHALL BE LEFT OPEN OVERNIGHT EXCEPT FOR A SHORT LENGTH (25 FEET OR LESS) OF A WORK SECTION AT THE END OF THE TRENCH. IN CASE WORK MUST BE SUSPENDED BECAUSE OF INCLEMENT WEATHER OR OTHER REASONS, THE TRENCH FOR THE UNCOMPLETED BASE WIDENING SHALL BE BACKFILLED AT THE DIRECTION OF THE ENGINEER.

FULLY-ACTUATED OPERATION OF WORK ZONE TRAFFIC SIGNAL

THE WORK ZONE SIGNAL CONTROL REQUIRED FOR THIS PROJECT AND SHOWN ON SHEETS P.06-P.09 AND TRAFFIC SCD'S MT-96.11, 96.20 AND 96.26 SHALL BE FULLY TRAFFIC-ACTUATED, COORDINATED WITH THE RAILROAD SIGNAL, AND OPERATE IN A MANNER SIMILAR TO THAT DESCRIBED IN SECTION 733.02 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS.

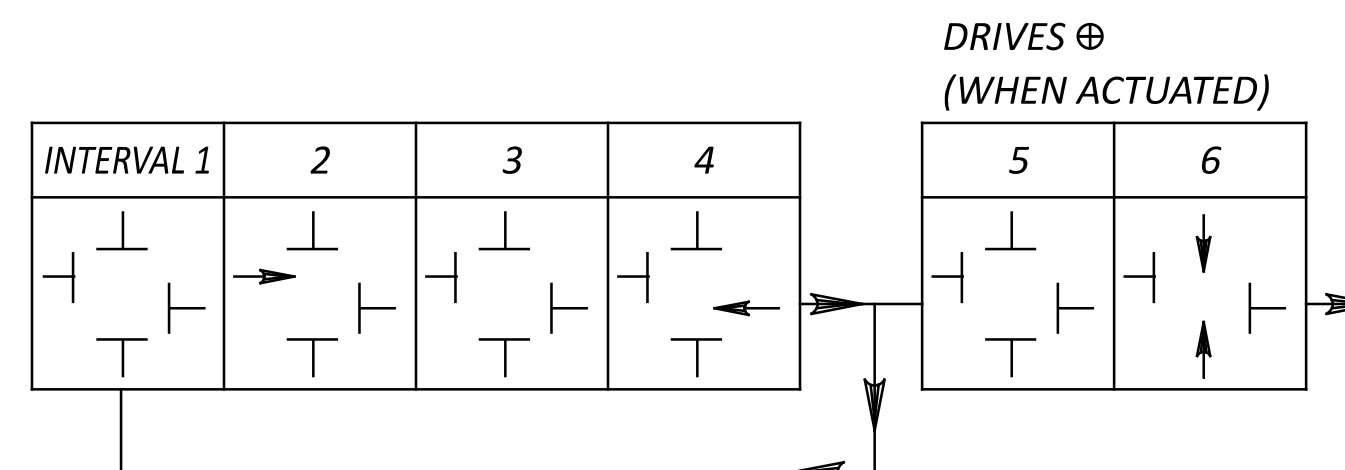
TO PREVENT WAITING TRAFFIC FROM BACKING UP ONTO S.R. 416, THERE SHALL BE A RESTING GREEN FOR THE NORTHBOUND WORK ZONE SIGNAL NEAREST S.R. 416 UNTIL A VEHICLE PULLS UP TO THE STOP BAR AT STA. 16+25 AND TRIGGERS THE CYCLE.

THE INITIAL CONTROLLER TIMING SHALL BE AS FOLLOWS:

	ALL PHASES					
	1	2	3	4	5	6
	ALL RED	S.R. 259 (NORTHBOUND)	ALL RED	S.R. 259 (SOUTHBOUND)	ALL RED	DRIVES (WHEN ACTUATED)
MIN. GREEN	--	10	--	10	--	10
EXTENSION	--	4	--	4	--	4
MAX. GREEN	--	31	--	31	--	31
YELLOW	--	4	--	4	--	4
ALL RED	40	--	40	--	40	--
RECALL	OFF	ON	OFF	OFF	OFF	OFF

THE CONTRACTOR SHALL ALSO DESIGN, FURNISH, INSTALL AND MAINTAIN A TRAFFIC DETECTOR ON EACH TRAFFIC APPROACH WHICH WILL RELIABLY DETECT ALL LEGAL TRAFFIC APPROACHING (BUT NOT LEAVING) THE SIGNAL AS IT PASSES OR WAITS IN THE DESIGNATED DETECTOR ZONE SHOWN IN THE PLANS. DETECTOR DESIGNS WHICH DO NOT PROVIDE RELIABLE DETECTION, FREE FROM FALSE CALLS, SHALL BE IMMEDIATELY REPLACED BY THE CONTRACTOR.

WORK ZONE TRAFFIC SIGNAL TIMING AND PHASING



CONTRACTOR SHALL DETERMINE THE TYPE OF DETECTOR TO BE INSTALLED AT EACH STOP BAR AS PER MT-96.20 AND MT-96.26.

⊕ DURING INTERVAL 6, ONLY THE SIGNAL LOCATION FOR THE DRIVE THAT WAS ACTUATED SHALL BE GREEN. THE NON-ACTUATED LOCATION SHALL BE RED.

THE CONTRACTOR SHALL ALSO DESIGN, FURNISH, INSTALL, AND MAINTAIN COORDINATION WITH THE RAILROAD SIGNAL. THE EQUIPMENT SHALL DISPLAY ALL RED DURING TRAIN CROSSINGS. THE INTENT IS TO NOT TRAP VEHICLES BETWEEN STOP BARS WITHIN THE WORK ZONE WHEN THE LIGHTS ARE ACTIVATED. ONCE A TRAIN HAS PASSED, TRAFFIC SHALL BE HELD WITH AN ALL RED CYCLE TO CLEAR THE ZONE OF ANY TRAFFIC BEFORE RETURNING TO THE NORMAL SIGNAL OPERATION. A SINGLE RED FLASHING LIGHT SHALL BE INSTALLED AS DETERMINED BY THE CONTRACTOR. THE RED FLASHING LIGHT SHALL BE ACTIVATED WHEN THE RAILROAD LIGHTS ARE ACTIVATED AND OFF WHEN THE RAILROAD LIGHTS ARE OFF. COORDINATION AND PERMITS WITH THE RAILROAD SHALL BE INCLUDED WITH THIS PAY ITEM.

PAYMENT SHALL BE INCLUDED WITH ITEM 614- MAINTAINING TRAFFIC FOR ALL MATERIALS, LABOR, INCIDENTALS, AND EQUIPMENT NECESSARY FOR FURNISHING, INSTALLING, MAINTAINING, AND REMOVING THE VEHICLE DETECTORS, SIGNAL SUPPORTS, RAILROAD COORDINATION EQUIPMENT, AND POWER SUPPLY.

OVERHEAD-MOUNTED WORK ZONE SIGNALS

SIGNALS SHALL BE OVERHEAD MOUNTED IN ACCORDANCE WITH THE DETAILS SHOWN ON TRAFFIC SCD MT-96.20.

WORK ZONE TRAFFIC SIGNALS

ALL WORK ZONE TRAFFIC SIGNALS SHALL HAVE A UPS SYSTEM CONFORMING TO CMS 633.18 AND 733.09, EXCEPT THAT A SEPARATE UPS ENCLOSURE IS NOT REQUIRED IF THE WORK ZONE TRAFFIC SIGNAL CONTROL EQUIPMENT IS TRAILER-MOUNTED. ALL SIGNAL HEADS SHALL BE LED CONFORMING TO CMS 732.04. IN ADDITION TO THE REQUIREMENTS OF CMS 614.10, THE CONTRACTOR SHALL INSTALL FRESH BATTERIES OR A PORTABLE GENERATOR WITHIN TWO HOURS OF A REPORTED DARK SIGNAL DUE TO AN EXTENDED POWER OUTAGE. ALL COSTS FOR MATERIALS, EQUIPMENT AND LABOR SHALL BE INCLUDED IN THE CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

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.

THE ESTIMATED QUANTITIES FOR BARRIER REFLECTORS AND OBJECT MARKERS ARE INCLUDED IN THE MAINTENANCE OF TRAFFIC ESTIMATED QUANTITIES ON SHEET P.10.

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

DELINEATION OF TEMPORARY AND PERMANENT GUARDRAIL

BARRIER REFLECTORS SHALL BE INSTALLED ON ALL TEMPORARY GUARDRAIL USED FOR TRAFFIC CONTROL AND ON ALL PERMANENT GUARDRAIL LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE. BARRIER REFLECTORS SHALL CONFORM TO C&MS 626 AND THE SPACING SHALL BE APPROXIMATELY 100 FEET.

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

ITEM 614, BARRIER REFLECTOR, TYPE 2, BIDIRECTIONAL ----- **23 EACH**

ITEM 614, OBJECT MARKER, TWO-WAY ----- **23 EACH**

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

DUST CONTROL

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

ITEM 616 - WATER ----- **5 M. GAL**

