

**MAINTENANCE OF TRAFFIC SEQUENCE:**

THE FOLLOWING MOT PHASES DESCRIBE THE MULTIPLE MOT SET-UPS TO BE USED FOR THIS PROJECT. THE PHASES MAY OCCUR IN ANY ORDER OR SIMULTANEOUSLY, WHILE ALSO FOLLOWING THE INTERIM COMPLETION DATE, EXCEPT THAT PHASE II AND THE 251 REPAIRS OF PHASE I MUST BE COMPLETED BEFORE PHASE III.

**PHASE I (PAVEMENT REPAIRS):**

ITEM 251 AND ITEM 255 PAVEMENT REPAIRS ON I-670 MAINLINE AND INTERCHANGE RAMPS. THIS WORK WILL BE PERFORMED DURING ALLOWABLE LANE AND RAMP CLOSURE TIMES IN ACCORDANCE WITH THE LANE VALUE CONTRACT TABLE AND RAMP CLOSURE RESTRICTION TABLE, EXCEPT AS FOLLOWS:  
- GRANDVIEW AVE RAMPS A AND D MAY EACH BE CLOSED FOR 1 WEEKEND FRIDAY 7P TO MONDAY 5A (58 HOURS MAX.)  
- GRANDVIEW AVE RAMP B MAY BE CLOSED FOR 1 WEEKEND FRIDAY 7P TO MONDAY 5A (58 HOURS MAX.) FOR PAVEMENT REPAIRS AND ONE ADDITIONAL TIME FROM FRIDAY 7P TO SUNDAY 8A OR SATURDAY 7P TO MONDAY 5A FOR BRIDGE WORK.

**PHASE II (CONCRETE BARRIER REPLACEMENT):**

REPLACEMENT OF CONCRETE BARRIER AND ADJACENT EASTBOUND PAVEMENT FROM STA. 173+81.69 TO STA. 174+56.69 AND FROM STA. 176+55.51 TO STA. 177+30.51. THIS WORK WILL BE PERFORMED BY SHIFTING ALL LANES TO THE RIGHT FOR 21 DAYS. SEE SHEET P.29 FOR DETAILS.

**PHASE III (RESURFACING):**

ASPHALT CONCRETE PAVEMENT PLANING & RESURFACING ON I-670 MAINLINE AND INTERCHANGE RAMPS. THIS WORK WILL BE PERFORMED DURING ALLOWABLE LANE AND RAMP CLOSURE TIMES IN ACCORDANCE WITH THE LANE VALUE CONTRACT TABLE AND RAMP CLOSURE RESTRICTION TABLE.

**PHASE IV (STRUCTURE WORK):**

DECK PATCHING, CONCRETE SEALING, PRESSURE RELIEF JOINT REPAIR, PARAPET REPAIR, AND VANDAL FENCE REPLACEMENT WILL BE PERFORMED DURING ALLOWABLE LANE AND RAMP CLOSURE TIMES IN ACCORDANCE WITH THE LANE VALUE CONTRACT TABLE AND RAMP CLOSURE RESTRICTION TABLE, EXCEPT AS FOLLOWS:

- GRANDVIEW AVE RAMP C MAY BE CLOSED ONE TIME FROM FRIDAY 7P TO SUNDAY 8A OR SATURDAY 7P TO MONDAY 5A.
- GRANDVIEW AVE RAMP B, SEE ABOVE IN PAVEMENT REPAIR SECTION.
- US-33 RAMP S-E MAY BE CLOSED ONE TIME FROM FRIDAY 7P TO SUNDAY 8A OR SATURDAY 7P TO MONDAY 5A.
- W GOODALE ST RAMP ND MAY BE CLOSED ONE TIME FROM FRIDAY 8P TO SUNDAY 8A OR SATURDAY 7P TO MONDAY 6A.
- NEIL AVE RAMP NC MAY BE CLOSED ONE TIME FROM FRIDAY 8P TO SUNDAY 8A OR SATURDAY 7P TO MONDAY 6A.
- STRUCTURE US-23D (N 3RD ST) OVER 670 WEEKEND LANE CLOSURES, INCLUDING THE CLOSURE OF THE BIKE LANE, SHALL BE COORDINATED WITH CITY OF COLUMBUS.
- US-23D (N 3RD ST) RAMP NO MAY BE CLOSED ONE TIME FROM FRIDAY 8P TO SUNDAY 8A OR SATURDAY 7P TO MONDAY 6A.

**WELDING OF MANHOLE COVERS:**

PRIOR TO PHASE II WHEN TRAFFIC WILL BE SHIFTED ONTO THE OUTSIDE SHOULDER OF I-670 EASTBOUND, THE COVERS OF MANHOLES AT STA. 169+75.40 AND STA. 172+03.18 SHALL BE WELDED SHUT TO PREVENT THE COVERS FROM COMING OFF UNDER LIVE TRAFFIC.

ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO ADEQUATELY WELD THE MANHOLE COVER SHUT SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

**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 CHANNELIZER 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 THE 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 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.

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.

PAYMENT SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

**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, LAW ENFORCEMENT OFFICERS AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

**INTERSTATE ENTRANCE RAMP CLOSURES (FRANKLIN COUNTY ONLY):**

IF THE INTERSTATE IS REDUCED TO ONE THROUGH LANE, ALL NON INTERSTATE ENTRANCE RAMPS ENTERING DIRECTLY INTO THE WORK ZONE TRANSITION AREA, ACTIVITY AREA, OR TERMINATION AREA AS DEFINED BY THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD) OR ENTERING WITHIN 1000 FEET OF THE FIRST ARROW BOARD SHALL BE CLOSED IN ACCORDANCE WITH THE SHORT DURATION RAMP CLOSURES NOTE.

**SHORT DURATION RAMP CLOSURES:**

FOR THE PURPOSE OF PERFORMING THE REQUIRED WORK OR WHEN REQUIRED BY THE INTERSTATE ENTRANCE RAMP CLOSURE NOTE, RAMPS MAY BE CLOSED FOR SHORT DURATIONS AND DETOURED IN ACCORDANCE WITH THE RAMP CLOSURE TABLE IF APPROVED BY THE ENGINEER. RAMP CLOSURES ARE SUBJECT TO DISINCENTIVES.

FOR ALL SERVICE RAMP CLOSURES LASTING MORE THAN 12 HOURS BUT LESS THAN 60 HOURS AND/OR, FOR ALL SYSTEM RAMP CLOSURES LASTING MORE THAN 12 HOURS BUT LESS THAN 24 HOURS

THE CONTRACTOR SHALL PROVIDE THE FOLLOWING:

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

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

- o 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.

IF A DESIGNATED DETOUR ROUTE IS NOT PROVIDED IN THE PLANS, 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 SHALL BE PROVIDED BY THE ENGINEER.

SERVICE RAMP: INTERCHANGE RAMPS BETWEEN FREEWAYS (OR EXPRESSWAYS) AND NON-FREEWAYS (OR NONEXPRESSWAYS). THESE RAMPS PROVIDE ACCESS (CONNECTIONS) BETWEEN FREEWAYS/EXPRESSWAYS AND OTHER PRINCIPAL/MINOR ARTERIALS, COLLECTORS OR LOCAL ROADS.

SYSTEM RAMP: INTERCHANGE RAMPS (OR CONNECTORS) BETWEEN FREEWAYS (OR EXPRESSWAYS) AND FREEWAYS (OR EXPRESSWAYS).

**DETOUR SIGNING :**

THE CONTRACTOR SHALL PROVIDE, ERECT, AND MAINTAIN SIGNS, SIGN SUPPORTS, TYPE III BARRICADES, AND LIGHTS, AS DETAILED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND SCD MT-101.60. 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.

THIS ITEM SHALL BE USED TO DETOUR RAMPS ON THE PRIMARY ROUTES DESCRIBED ON SHEET P.26.

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 QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 614 - DETOUR SIGNING, AS PER PLAN = LUMP SUM

DESIGN AGENCY



DESIGNER

KLM

REVIEWER

GF MM-DD-YY

PROJECT ID

110051

SHEET TOTAL

P.23 104