

# MAINTENANCE OF TRAFFIC GENERAL NOTES

CALCULATED  
A.E.P.  
CHECKED  
I.M.H.

## E. LIGHTING DEVICES

FLASHERS SHALL BE 12 VOLT BATTERY OPERATED MODELS WITH .18 METERS DIAMETER YELLOW LENSES ILLUMINATED BY RAPID INTERMITTENT FLASHES OF SHORT DURATION AND SHALL BE PLACED ON ALL SIGNS AT ALL TIMES.

CONTINUOUS BURN LIGHTS SHALL BE 12 VOLT BATTERY OPERATED MODELS WITH MINIMUM 0.180 METER DIAMETER YELLOW LENSES.

## F. FLASHING ARROW BARRICADE

WHENEVER ANY PART OF THE TRAVELED SURFACE IS CLOSED, THE MOTORIST SHALL BE WARNED AND DIVERTED BY THE CONTRACTOR THROUGH THE USE OF ONE FLASHING ARROW BARRICADE FOR EACH LANE CLOSED. THE CONTRACTOR SHALL REFER TO STANDARD DRAWING TC-35.10M AND THE PROVISION SET FORTH IN OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS FOR ALL INFORMATION REGARDING FURNISHING, MAINTAINING, AND USE OF FLASHING ARROW BARRICADES. IF THE FLASHING ARROW BARRICADE IS WITHIN 91 METERS OF A RESIDENCE OR ON A SURFACE STREET, A SOLAR POWERED FLASHING ARROW BARRICADE SHALL BE USED. PAYMENT FOR THE ABOVE SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614, MAINTAINING TRAFFIC.

## SEQUENCE OF CONSTRUCTION

CONSTRUCTION SHALL BE PERFORMED IN THREE (3) SECTIONS AS FOLLOWS:

### SECTION 0: STATION 2+719.000 TO STATION 2+825.500

PRIOR TO BEGINNING MAINTENANCE OF TRAFFIC FOR SECTION A, CONSTRUCT THE PROPOSED STORM SEWER FROM STATION 2+719.000 TO STATION 2+825.500. MAINTAIN TWO-WAY TRAFFIC ON THE EXISTING PAVEMENT USING FLAGGERS AS REQUIRED. ANY ADDITIONAL TRAFFIC CONTROL MEASURES DEEMED NECESSARY BY THE ENGINEER SHALL BE PERFORMED AT THE CONTRACTOR'S EXPENSE. ADDITIONAL MEASURES MAY INCLUDE BUT SHALL NOT BE LIMITED TO OFF-DUTY POLICE OFFICERS, BARRICADES, SIGNAGE, AND TRAFFIC DRUMS. UPON COMPLETION AND RESTORATION OF THE PAVEMENT, SECTION 1 CONSTRUCTION MAY BEGIN.

### SECTION 1 - PHASE A: STATE ROUTE 91 TO E. 364TH STREET (STATION 2+825 TO STATION 3+540)

1. CONSTRUCT TEMPORARY PAVEMENT ALONG THE NORTH SIDE OF EXISTING PAVEMENT AS DETAILED IN THE PLAN BETWEEN STATE ROUTE 91 AND E. 364TH STREET. MAINTAIN TWO-WAY TRAFFIC ON THE EXISTING PAVEMENT USING FLAGGERS AS REQUIRED.
2. TURN OFF SIGNALS AT E. 360/E. 361 AND E. 364 AND BAG HEADS. INSTALL STOP SIGNS FOR TRAFFIC CONTROL. SIGNALS SHALL NOT BE TURNED OFF UNTIL THE STOP SIGNS HAVE BEEN INSTALLED.
3. INSTALL TEMPORARY WOOD POLE SPAN WITH BACK GUYS AT S.R. 91 & VINE FOR EAST/WEST CONTROL ONLY. LEAVE ENOUGH CABLE FOR HEAD REPOSITIONING, BAG MAST ARM VEHICLE HEADS FOR EAST/WEST TRAFFIC (ALL PEDESTRIAN SIGNALS AND PUSHBUTTONS TO REMAIN OPERATIONAL EXCEPT AS NEEDED FOR ONGOING CONDUIT WORK). CAUTION - CHECK FOR VISIBILITY OBSTRUCTIONS. EASTBOUND AND WESTBOUND TRAFFIC SHALL BE OPERATED IN A SPLIT PHASE OPERATION THROUGHOUT PHASE A AND PHASE B CONSTRUCTION. A VERTICAL CLEARANCE FOR THE TEMPORARY SIGNAL SHOULD BE A MINIMUM OF 4.9 METERS AND A MAXIMUM OF 5.5 METERS. CONTRACTOR WILL DETERMINE HEIGHT AND SIZE OF WOOD POLES AND SUBMIT TO ENGINEER FOR APPROVAL. THE CONTRACTOR SHALL DESIGN THE POLES SO THAT THE VERTICAL CLEARANCE AND SAG REQUIREMENTS ARE MET. MAXIMUM ALLOWABLE SAG SHALL BE 5% OF THE SPAN DIMENSION. THE CONTRACTOR SHALL INSTALL DOWN GUYS WITHIN THE R/W LIMITS AS SHOWN ON SHEET MT10 TO MAINTAIN ADEQUATE VERTICAL CLEARANCE AND SAG.
4. MAINTAIN TWO-WAY TRAFFIC ON TWO (2) 4.2 METER MINIMUM LANES ON THE NORTH SIDE OF THE ROADWAY USING TEMPORARY PAVEMENT MARKINGS ON THE TEMPORARY AND EXISTING PAVEMENT. INSTALL ALL MAINTENANCE OF TRAFFIC ITEMS AND SIGNING RELATING TO PHASE A AND MAINTAIN THROUGHOUT PHASE A.
5. DETOUR NORTHBOUND E. 361ST STREET TRAFFIC WEST ONTO CURTIS BOULEVARD.
6. CONSTRUCT SECTIONS OF PROPOSED STORM SEWER AND SANITARY SEWER REPLACEMENT ALONG THE SOUTH SIDE OF THE ROADWAY. CONSTRUCT PERMANENT SANITARY, STORM AND UTILITY SERVICE CONNECTIONS TO THE NORTH TO THE APPROXIMATE CENTERLINE OF CONSTRUCTION.
7. INSTALL PERMANENT TRAFFIC SIGNAL EQUIPMENT AT E. 360/E. 361 STREET AND E. 364TH STREET ON THE SOUTH SIDE. EXTEND ALL CROSSING CONDUITS TO THE EDGE OF THE WORK AREA. PROTECT THE ENDS OF THE CONDUITS TO PREVENT ENTRY OF MOISTURE AND DEBRIS.
8. CONSTRUCT THREE (3) LANES OF THE PROPOSED CONCRETE PAVEMENT ON THE SOUTH SIDE OF THE ROADWAY AND E. 361ST STREET INTERSECTION.

CONSTRUCT E. 355TH STREET, E. 357TH STREET, E. 359TH STREET AND E. 363 RD STREET INTERSECTIONS ONE HALF (1/2) WIDTH OF THE PAVEMENT AT A TIME. MAINTAIN ACCESS IN ONE (1) 3.3 METER MINIMUM LANE.

### SECTION 1 - PHASE B: STATE ROUTE 91 TO E. 364TH STREET (STATION 2+825 TO STATION 3+540)

1. MAINTAIN TWO-WAY TRAFFIC IN TWO (2) 3.3 METER MINIMUM USING TEMPORARY PAVEMENT MARKINGS ON THE PERMANENT CONCRETE PAVEMENT. INSTALL ALL MAINTENANCE OF TRAFFIC ITEMS AND SIGNING RELATING TO PHASE B AND MAINTAIN THROUGHOUT PHASE B CONSTRUCTION.
2. ADJUST SIGNAL HEAD PLACEMENT FOR THE TEMPORARY SIGNAL AT S.R. 91 AND VINE STREET FOR PHASE B LANE CONFIGURATIONS.
3. DETOUR SOUTHBOUND E. 354TH STREET, E. 357TH STREET, E. 359TH STREET AND E. 364TH STREET TRAFFIC TO STEVENS BOULEVARD.
4. COMPLETE CONSTRUCTION OF PERMANENT STORM, SANITARY AND UTILITY SERVICE CONNECTIONS TO THE SOUTH SIDE OF THE ROADWAY AS REQUIRED.
5. CONSTRUCT SECTIONS OF PROPOSED SANITARY SEWER REPLACEMENT.
6. CONSTRUCT TWO (2) LANES OF PROPOSED CONCRETE PAVEMENT ON THE NORTH SIDE OF THE ROADWAY AND THE E. 354TH STREET, E. 357TH STREET, E. 359TH STREET AND E. 364TH STREET INTERSECTIONS.  
  
CONSTRUCT E. 360TH STREET AND E. 362ND STREET INTERSECTIONS ONE HALF (1/2) WIDTH OF THE PAVEMENT AT A TIME. MAINTAIN ACCESS IN ONE (1) 3.3 METER MINIMUM LANE.
7. COMPLETE INSTALLATION OF PERMANENT TRAFFIC SIGNAL EQUIPMENT AT E. 360/E. 361 STREET AND E. 364TH STREET ON THE NORTH SIDE. COMPLETE CONDUIT CROSSINGS.

### SECTION 1 - PHASE C: STATE ROUTE 91 TO E. 364TH STREET (STATION 2+825 TO STATION 3+540)

1. PERFORM ITEM 448 - ASPHALT CONCRETE INTERMEDIATE COURSE AND ITEM 448 - ASPHALT CONCRETE SURFACE COURSE PAVING OPERATIONS FOR BOTH SIDES OF ROADWAY. MAINTAIN TRAFFIC ON PERMANENT PAVEMENT USING FLAGMEN AS REQUIRED.
2. INSTALL TRAFFIC SIGNAL LOOPS AFTER PERMANENT PAVEMENT IS COMPLETE.

### SECTION 2 - PHASE A: STATE ROUTE 91 (STATION 0+840 TO STATION 1+030, RT)

1. PERFORM PAVEMENT PLANING OPERATIONS ALONG THE EAST SIDE OF THE ROADWAY. MAINTAIN TRAFFIC ON EXISTING PAVEMENT USING FLAGMEN AS REQUIRED AND SIGNING AS INDICATED ON THE SIGNING AND AREA MAP.
2. CONSTRUCT PROPOSED PAVEMENT WIDENING ALONG THE EAST SIDE OF THE ROADWAY FROM STATION 0+854.758 TO STATION 0+974.768. MAINTAIN TRAFFIC ON TWO (2) THREE METER MINIMUM LANES ON THE EAST SIDE OF THE ROADWAY. IN ADDITION TO THE LEFT TURN LANE.
3. CONSTRUCT PROPOSED CONDUIT AND PULLBOX ADJUSTMENTS ALONG THE SOUTHEAST CORNER OF THE INTERSECTION (SEE SHEET T5 FOR CONSTRUCTION DETAIL).
4. PERFORM ITEM 448 - ASPHALT CONCRETE SURFACE COURSE RESURFACING OPERATIONS FOR THE EAST SIDE OF THE ROADWAY. MAINTAIN TRAFFIC ON EXISTING PAVEMENT USING FLAGMEN AS REQUIRED.

### SECTION 2 - PHASE B: STATE ROUTE 91 (STATION 0+870 TO STATION 1+145, LT)

1. PERFORM PAVEMENT PLANING OPERATIONS ALONG THE WEST SIDE OF THE ROADWAY. MAINTAIN TRAFFIC ON EXISTING PAVEMENT USING FLAGMEN AS REQUIRED AND SIGNING AS INDICATED ON THE SIGNING AND AREA MAP.
2. CONSTRUCT PROPOSED PAVEMENT WIDENING ALONG THE WEST SIDE OF THE ROADWAY FROM STATION 1+025.424 TO STATION 1+145.424. MAINTAIN TRAFFIC ON TWO (2) THREE METER MINIMUM LANES ON THE WEST SIDE OF THE ROADWAY, IN ADDITION TO THE LEFT TURN LANE.
3. CONSTRUCT PROPOSED POLE AND ARM, CONDUIT AND PULLBOXES ALONG THE NORTHWEST CORNER OF THE INTERSECTION (SEE SHEET T5 FOR CONSTRUCTION DETAIL).
4. PERFORM ITEM 448 - ASPHALT CONCRETE SURFACE COURSE RESURFACING OPERATIONS FOR THE WEST SIDE OF THE ROADWAY. MAINTAIN TRAFFIC ON EXISTING PAVEMENT USING FLAGMEN AS REQUIRED.

## ITEM 614 - LAW ENFORCEMENT OFFICER (WITH PATROL CAR)

IN ADDITION TO THE REQUIREMENTS OF 614 AND THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD), A UNIFORMED LAW ENFORCEMENT OFFICER (AND OFFICIAL PATROL CAR WITH WORKING TOP MOUNTED EMERGENCY FLASHING LIGHTS) SHALL BE PROVIDED FOR CONTROLLING TRAFFIC FOR THE FOLLOWING TASKS:

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.

DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.

DURING A TRAFFIC SIGNAL INSTALLATION.

LAW ENFORCEMENT OFFICERS (L.E.O.'S) SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED. THE LEO'S ARE CONSIDERED TO BE EMPLOYED BY THE CONTRACTOR AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR ACTIONS. ALTHOUGH THEY ARE EMPLOYED BY THE CONTRACTOR, THE PROJECT ENGINEER SHALL HAVE CONTROL OVER THEIR PLACEMENT. THE OFFICIAL PATROL CAR SHALL BE A PUBLIC SAFETY VEHICLE AS REQUIRED BY THE OHIO REVISED CODE.

THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR THESE SERVICES WITH :

35150 LAKESHORE BOULEVARD  
EASTLAKE, OHIO 44095  
440-951-1400

LAW ENFORCEMENT OFFICERS (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). THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614, LAW ENFORCEMENT OFFICER 250 HOURS

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR 250 HOURS

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

IF CONTRACTORS WSH TO UTILIZE LEO'S FOR FLAGGING AND TRAFFIC CONTROL OTHER THAN FOR THAT REQUIRED IN THESE PLANS, THEY MAY DO SO AT THEIR OWN EXPENSE. PAYMENT FOR THE EXCESS ABOVE THE CONTRACT REQUIREMENTS WILL BE INCLUDED UNDER ITEM 614 MAINTAINING TRAFFIC.

## ITEM 614 - DESIGNATED LOCAL DETOUR ROUTE

THE DESIGNATED LOCAL DETOUR ROUTE FOR THIS PROJECT IS THE SAME AS THE MAIN DETOUR ROUTE. THIS ROUTE IS SHOWN ON SHEETS 15 AND 16. DURING THE TIME THAT TRAFFIC IS DETOURED, THE CONTRACTOR SHALL MAINTAIN THIS ROUTE IN A CONDITION WHICH IS REASONABLY SMOOTH AND FREE FROM HOLES, RUTS, RIDGES, BUMPS, DUST AND STANDING WATER. ONCE THE DETOUR IS REMOVED AND TRAFFIC RETURNED TO ITS NORMAL PATTERN, THE DESIGNATED LOCAL DETOUR ROUTE SHALL BE RESTORED TO A CONDITION THAT IS EQUIVALENT TO THAT WHICH EXISTED PRIOR TO ITS USE FOR THIS PURPOSE. ALL SUCH WORK SHALL BE PERFORMED WHEN AND AS DIRECTED BY THE ENGINEER.

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER TO MAINTAIN AND SUBSEQUENTLY RESTORE THE DESIGNATED LOCAL DETOUR ROUTE.

301, BITUMINOUS AGGREGATE BASE, PG 64-22	35 CU. METERS
304, AGGREGATE BASE, AS PER PLAN	35 CU. METERS
448, ASPHALT CONCRETE, SURFACE COURSE, TYPE 1, PG 64-22	10 CU. METERS
407, TACK COAT	115 LITERS
408, BITUMINOUS PRIME COAT	430 LITERS
614, BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC	5 CU. METERS
616, CALCIUM CHLORIDE	5 METRIC TON
617, COMPACTED AGGREGATE, TYPE A	10 CU. METERS
617, WATER	25 CU. METERS
642, CENTER LINE	2.0 KILOMETERS

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