

ITEM 625. TRENCH, AS PER PLAN

THIS ITEM SHALL INCLUDE ANY TRENCH NECESSARY FOR THE INSTALLATION OF CONDUIT AND WIRE FOR THE TRAFFIC SIGNALS AND LOOP DETECTORS. TRENCH IN PAVEMENTS OF ANY THICKNESS SHALL ALSO BE INCLUDED IN THIS ITEM. REPLACEMENT OF DISTURBED PAVEMENT OR SIDEWALK SLABS SHALL BE INCLUDED IN THIS ITEM. ALL TRENCHING SHALL BE DONE AND CONDUIT INSTALLED PRIOR TO FINAL PAVEMENT AND/OR SIDEWALK BEING INSTALLED.

ITEM 633. PREEMPTION

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ALL ITEMS TO PROVIDE A COMPLETE PRIORITY CONTROL SYSTEM. EQUIPMENT TO BE SUPPLIED AND INSTALLED BY THE CONTRACTOR SHALL INCLUDE OPTICOM MODEL 754 PHASE SELECTOR, MODEL 711, 721, 722 OPTICAL DETECTORS, MODEL 760 CARD RACKS AND 150 WATT WHITE FLOOD LIGHTS FOR CONFIRMATION LIGHTS. INSTALLATION OF ALL CONNECTORS, TERMINALS AND INTERFACE RACKS NECESSARY TO PROVIDE A COMPLETE PRIORITY CONTROL SYSTEM SHALL BE INCIDENTAL TO THIS ITEM. ANY ITEMS OF LABOR, MATERIALS OR EQUIPMENT REQUIRED BUT NOT LISTED SHALL BE FURNISHED AND INSTALLED AS INCIDENTAL TO THE CONTRACT. PAYMENT FOR ITEM 633 - PREEMPTION WILL BE MADE AT THE CONTRACT PRICE FOR ALL PRIORITY CONTROL COMPONENTS AT EACH LOCATION IN PLACE, INSTALLED, WIRED, TESTED AND ACCEPTED.

ITEM 632 - INTERCONNECT MISC.: PREEMPTION DETECTOR CABLE

PREEMPTION DETECTOR CABLE SHALL CONFORM TO O.D.O.T. SPECIFICATION 632. THE CABLE SHALL BE MODEL 138 DETECTOR CABLE OR AN APPROVED EQUAL. THE CABLE SHALL BE APPROVED FOR BOTH OVERHEAD AND UNDERGROUND USE. THE JACKET SHALL BE HOMOGENOUS IN CHARACTER AND SHALL BE SO COMPOUNDED THAT IT WILL CONFORM TO THE FOLLOWING REQUIREMENTS WHEN TESTED IN ACCORDANCE WITH THE PROCEDURE AS GIVEN IN A.S.T.M. DESIGNATION D-470, LATEST REVISION.

PAYMENT FOR SIGNAL CABLE MISC.: PREEMPTION DETECTOR CABLE, WILL BE MADE AT THE CONTRACT PRICE FOR EACH UNIT IN PLACE, COMPLETELY INSTALLED IN THE LOCATION SHOWN IN THE PLANS, WIRED, TESTED AND ACCEPTED.

POWER SUPPLY FOR TRAFFIC SIGNALS

ELECTRIC POWER SHALL BE OBTAINED FROM THE CLEVELAND ELECTRIC ILLUMINATING COMPANY AT THE LOCATION INDICATED ON THE SIGNAL PLAN. POWER SUPPLIED SHALL BE 120 VOLTS.

ITEM 632. POWER SERVICE, 30 AMP. AS PER PLAN

POWER SERVICE SHALL CONSIST OF EQUIPMENT TO PROVIDE A POLE ATTACHED WIRING RACEWAY AND DISCONNECT SWITCH FOR USE WITH POWER CABLE ROUTED FROM THE SERVICE ENTRANCE TO THE CONTROLLER CABINET. THE POWER SERVICE INSTALLATION SHALL INCLUDE A WEATHER HEAD, CONDUIT AND FITTINGS, A DISCONNECT SWITCH WITH ENCLOSURE, AND ATTACHMENT CLAMPS. THE 1" CONDUIT RISER SHALL TERMINATE WITH A 1" WATERTIGHT HUB AT THE DISCONNECT SWITCH. THE CONDUIT SHALL BE BENT AWAY FROM THE POLE AT THE TOP AND BOTTOM OF THE RISER TO ALLOW THE CONDUIT TO ENTER STRAIGHT INTO THE ENCLOSURE AND PROVIDE SPACE FOR THE WEATHER HEAD WHEN THE RISER IS PULLED TIGHT AGAINST THE POLE. ALL CONDUIT CONNECTIONS AND DISCONNECT SHALL BE MADE WATERTIGHT BY THE USE OF CONDUIT HUBS LISTED ON THE ENCLOSURE UL LABEL. THE DISCONNECT (2 POLE, 3 WIRE) SHALL HAVE ITS NEUTRAL BAR GROUNDED DIRECTLY TO THE POLE GROUNDING LUG.

FROM THE BOTTOM OF THE DISCONNECT: SEE NOTE 1 & 2

NOTE 1: (STEEL POLE) A 1 1/2" CONDUIT "LB" SHALL GO DIRECTLY INTO THE STEEL POLE. A 2" CONDUIT SHALL BE PROVIDED FROM THE POLE FOUNDATION UNDERGROUND AND TRAVEL DIRECTLY INTO THE CABINET FOUNDATION.

NOTE 2: (WOOD POLE) A 2" CONDUIT SHALL RUN UNDERGROUND AND TRAVEL DIRECTLY INTO THE CONTROLLER FOUNDATION. CONDUIT STRAPS SHALL HOLD THE CONDUIT TIGHTLY AGAINST THE WOOD POLE.

DISCONNECT: NEMA TYPE 4, 240 VOLT, 30 AMP FUSED, UL LISTED, STAINLESS STEEL WATERTIGHT, 2 POLE, 3 WIRE W/ NEUTRAL KIT. LOCKABLE FROM THE SIDE AND BOTTOM. LOCKABLE IN BOTH "ON" AND "OFF" POSITIONS.

POWER WIRE: # 8 RHH/RHW, STRANDED COPPER. 3 CONDUCTORS

THIS ITEM SHALL BE UTILIZED AT THE FOLLOWING INTERSECTIONS:

- 1) S.R. 84/STOCKBRIDGE/STEEPLECHASE

PICK UP AND ERECT SIGNAL SUPPORT, AS DIRECTED

THE CITY OF MENTOR MAY, AT THEIR DISCRETION, SUPPLY STRAIN POLES FOR THIS PROJECT. IT IS THE INTENTION OF THE CITY OF MENTOR FOR THE CONTRACTOR TO INSTALL A USED POLE SUPPLIED BY THE CITY AT EACH LOCATION INDICATED IN THE PLANS AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL PICK UP THE POLE AT A LOCATION DESIGNATED BY THE ENGINEER.

ITEM 630 - SIGN HANGER ASSEMBLY, MAST ARM, AS PER PLAN

SIGNS MOUNTED ON PROPOSED TRAFFIC SIGNAL MAST ARMS SHALL BE RIGIDLY ATTACHED TO THE ARM AND CENTERED VERTICALLY ON THE ARM. THE CONTRACTOR MAY USE THE METHOD OF ATTACHMENT SHOWN IN STANDARD CONSTRUCTION DRAWING TC-16.20 OR ANOTHER METHOD OF RIGID ATTACHMENT AS APPROVED BY THE ENGINEER.

THE CONTRACTOR SHALL INSURE THE SIGN FACE IS MOUNTED PERPENDICULAR (90 DEGREES) TO THE DIRECTION OF TRAFFIC.

PAYMENT FOR ITEM 630 - SIGN HANGER ASSEMBLY, MAST ARM, AS PER PLAN SHALL BE MADE AT THE CONTRACT UNIT PRICE BID FOR EACH. PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIALS, LABOR, TOOLS, EQUIPMENT AND ALL PARTS NECESSARY TO ERECT ONE INDIVIDUAL SIGN.

MISCELLANEOUS CONSTRUCTION NOTES

- 1) ALL PULL BOXES AND CONDUIT SHALL DRAIN TOWARD S.R. 84.
- 2) ALL SIGN SHEETING SHALL BE TYPE H (3M "DIAMOND GRADE" OR APPROVED EQUAL)
- 3) STREET NAME SIGNS SHALL BE WHITE LETTERING ON A BLUE BACKGROUND. SIGNS SHALL CONFORM TO STANDARD DIMENSIONING FOR TYPE D-11 SIGNS.

4) THE SIGNAL CONTRACTOR SHALL CONTACT THE CITY OF MENTOR ENGINEERING DEPARTMENT FOR SIGNAL TIMING PLANS. THE CITY OF MENTOR CONTACT PERSON FOR SIGNAL TIMING IS:

MR. PAUL CIUPA
ASSISTANT TO THE CITY ENGINEER - TRAFFIC
(440) 255-1100

5) CONTRACTOR SHALL HAVE AN IMSA LEVEL 2 CERTIFIED TRAFFIC SIGNAL TECHNICIAN ON THE JOB SITE DURING PERFORMANCE OF ANY SIGNAL RELATED CONSTRUCTION OPERATIONS.

ITEM 632. POWER SERVICE, 60 AMP. AS PER PLAN

POWER SERVICE SHALL CONSIST OF EQUIPMENT TO PROVIDE A POLE ATTACHED WIRING RACEWAY AND DISCONNECT SWITCH FOR USE WITH POWER CABLE ROUTED FROM THE SERVICE ENTRANCE TO THE CONTROLLER CABINET. THE POWER SERVICE INSTALLATION SHALL INCLUDE A WEATHER HEAD, CONDUIT AND FITTINGS, A DISCONNECT SWITCH WITH ENCLOSURE, AND ATTACHMENT CLAMPS. THE 1 1/2" CONDUIT RISER SHALL TERMINATE WITH A 1 1/2" WATERTIGHT HUB AT THE DISCONNECT SWITCH. THE CONDUIT SHALL BE BENT AWAY FROM THE POLE AT THE TOP AND BOTTOM OF THE RISER TO ALLOW THE CONDUIT TO ENTER STRAIGHT INTO THE ENCLOSURE AND PROVIDE SPACE FOR THE WEATHER HEAD WHEN THE RISER IS PULLED TIGHT AGAINST THE POLE. ALL CONDUIT CONNECTIONS AND DISCONNECT SHALL BE MADE WATERTIGHT BY THE USE OF CONDUIT HUBS LISTED ON THE ENCLOSURE UL LABEL. THE DISCONNECT (2 POLE, 3 WIRE) SHALL HAVE ITS NEUTRAL BAR GROUNDED DIRECTLY TO THE POLE GROUNDING LUG.

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DISCONNECT: NEMA TYPE 4, 240 VOLT, 60 AMP FUSED, UL LISTED, STAINLESS STEEL WATERTIGHT, 2 POLE, 3 WIRE W/ NEUTRAL KIT. LOCKABLE FROM THE SIDE AND BOTTOM. LOCKABLE IN BOTH "ON" AND "OFF" POSITIONS.

POWER WIRE: # 6 RHH/RHW, STRANDED COPPER. 3 CONDUCTORS

THIS ITEM SHALL BE UTILIZED AT THE FOLLOWING LOCATIONS:

- 1) S.R. 84/S.R. 306

ITEM 632 - REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN

THIS WORK SHALL CONSIST OF THE REMOVAL OF THE EXISTING TRAFFIC SIGNAL EQUIPMENT INCLUDING SIGNAL HEADS, SIGNAL AND POWER CABLE, INTERCONNECT CABLE, POLES, PULL BOXES, CONTROLLER, CABINET AND ALL FOUNDATIONS TO BE ABANDONED. THE CONTRACTOR SHALL STORE MATERIALS ON SITE AND ARRANGE WITH THE CITY OF MENTOR PUBLIC WORKS DEPARTMENT FOR THE CONTRACTOR'S DELIVERY OF THE POLES, PULL BOXES, CONTROLLER, CABINET, SIGNAL HEADS AND INTERCONNECT CABLE TO THE DESTINATION OF THE CITY'S CHOICE. SIGNAL CABLE, MESSENGER WIRE AND ANY ITEMS THE CITY DOES NOT WISH TO RETAIN SHALL BE DISPOSED OF BY THE CONTRACTOR.

ITEM 632 - VIDEO DETECTION, AS PER PLAN

THIS ITEM OF WORK SHALL INCLUDE ALL NECESSARY TOOLS, LABOR, MATERIALS AND SOFTWARE REQUIRED TO INSTALL A COMPLETE VIDEO DETECTION SYSTEM AT THE S.R. 84/S.R. 306 INTERSECTION. THE SYSTEM TO BE SUPPLIED SHALL BE THE VANTAGE SYSTEM AS MANUFACTURED BY ITERIS (PHONE (888) 254-5487). THE SYSTEM SHALL INCLUDE ALL CAMERAS, WIRING AND ANY OTHER COMPONENTS NECESSARY TO PROVIDE A COMPLETE VIDEO DETECTION SYSTEM. THIS PAY ITEM SHALL ALSO INCLUDE A LUMINAIRE ARM ON EACH STRAIN POLE AS INDICATED IN THE SIGNAL PLANS FOR MOUNTING OF THE VIDEO CAMERAS ON EACH CORNER OF THE INTERSECTION.

CERTIFICATION AND APPROVAL OF TRAFFIC CONTROL ITEMS

SUBMISSIONS BY THE CONTRACTOR FOR APPROVAL SHALL CONFORM WITH SECTIONS 632.03 AND 633.03 AS APPROPRIATE EXCEPT THAT FOUR (4) SETS OF INFORMATION AND SUBMISSIONS SHALL BE MADE TO THE CITY OF MENTOR ENGINEER FOR HIS INFORMATION AND COMMENTS.

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REV. NO.	DESCRIPTION	DATE	BY	CHK'D.

**STATE ROUTE 84
INTERIM WIDENING & RESURFACING
IMPROVEMENTS**
CITY OF MENTOR, LAKE COUNTY, OHIO

DATE: JULY, 2000
DRAWN BY: A.E.P.
CHECKED BY: A.E.P.
APPROVED BY: I.M.H.
F.B. No. PG.

**TRAFFIC CONTROL
GENERAL NOTES**

SCALE	
HOR.	1" = 20'
VERT.	--
CONTRACT No.	
00123	
SHEET No.	OF
64	74