FHWA REGION	STATE	PROJECT	
5	OHIO	FG-18(37)	

1/25

CHP-68-5.90
CITY OF URBANA

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
CHP-68-5.90 FG-18(37)
MAIN STREET TRAFFIC SIGNAL SYSTEM
CITY OF URBANA
CHAMPAIGN COUNTY

MICROFILMED JUL 31 1992

CONVENTIONAL SIGNS

FENCE LINE — X — X —
UTILITY POLES — Ø POWER — Ø TELEPH. — Ø COMBINATION
RIGHT-OF-WAY — R/W —
CENTER LINE OF ROAD — ℄ —
FIRE HYDRANT-, MAIL BOX-M, CATCH BASIN-C.B., TREE-
SIGNS — ⊥ GROUND MOUNTED; POLE MOUNTED
SIGNAL POLES — ● NEW — O EXISTING
— W/LUMINAIRE — W/CABINET
⊗ TO BE REMOVED
PULL BOX — ■ NEW — □ EXISTING
VEHICULAR SIGNAL HEAD-

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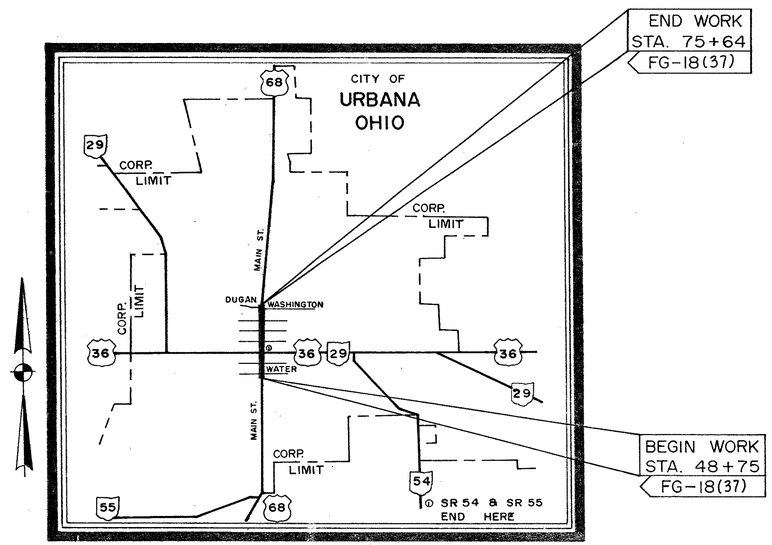

LOCATION PLAN

0 2000 4000
SCALE IN FEET

PORTION TO BE IMPROVED
STATE & US HIGHWAYS
OTHER HIGHWAYS

SCALES

PLAN 0 20 40

LINE DATA

BEGIN WORK MAIN ST. STA. 48+75
END WORK MAIN ST. STA. 75+64
TOTAL LENGTH OF WORK - 2689 L.F. = 0.509 MILES
TOTAL PROJECT LENGTH - 0.00 L.F. = 0.00 MILES

UNDERGROUND UTILITIES
2 WORK DAYS BEFORE YOU DIG
CALL 800-362-2764 (TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON MEMBERS MUST BE CALLED DIRECTLY

DESIGN DESIGNATION

CURRENT ADT (1986)	= 14,100
DESIGN ADT (1998)	= 15,000
DHV	= 1420
D	= 52%
T	= 4%
V	= 25 m.p.h.

1987 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR MAINTENANCE AND SAFETY OF TRAFFIC WILL BE SET FORTH ON THE PLANS AND ESTIMATES

APPROVED W. R. Weber
DATE 5-18-87 DIRECTOR OF ADMINISTRATION, CITY OF URBANA

APPROVED Claude Dickerson
DATE 5-18-87 CITY ENGINEER, CITY OF URBANA

APPROVED J. Kenneth Cofella, P.E.
DATE 5/18/86 DISTRICT DEPUTY DIRECTOR OF TRANSPORTATION

APPROVED
DATE ____ ENGINEER, BUREAU OF BRIDGES AND STRUCTURAL DESIGN

APPROVED Wayne H. Kauble
DATE 7-15-87 CHIEF ENGINEER, PLANNING AND DESIGN

APPROVED Warren J. Smith
DATE 7-15-87 DIRECTOR, DEPARTMENT OF TRANSPORTATION

PREPARED AND RECOMMENDED BY
MOSURE & SYRAKIS COMPANY
CONSULTING ENGINEERS
YOUNGSTOWN AND COLUMBUS, OHIO

FILE NO.	CHP-68-5.90
	DATE OF LETTING
	CONTRACT NO.

STANDARD DRAWINGS					
HL-2	7-27-73	TC-52.20	4-3-79	BP-12	7-7-81
HL-10	12-28-84	TC-71.10	4-9-79		
LA-1	6-1-79	TC-81.10	1-20-84		
HL-8	1-21-76	TC-83.10	1-20-84		
TC-21.20	1-20-84	TC-83.20	1-20-84		
TC-41.20	3-26-79	TC-84.20	1-20-84		
TC-41.40	6-18-79	TC-85.20	1-20-84		
TC-41.41	8-2-79	TC-85.10	1-20-84		
TC-42.20	3-26-79				
TC-52.10	4-3-79				

SUPPLEMENTAL SPECIFICATIONS		
806	11-24-86	
906	11-24-86	

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED:

DIVISION ADMINISTRATOR DATE

TRAFFIC CONTROL GENERAL NOTES

GENERAL

614 MAINTAINING TRAFFIC

THE CONTRACTOR SHALL MAINTAIN TRAFFIC ON THE PROJECT AS DESCRIBED BELOW, AS SHOWN ON SHEET 23, AND IN ACCORDANCE WITH THE SPECIFICATIONS OF ITEM 614 MAINTAINING TRAFFIC.

THE SAFETY OF PEDESTRIAN TRAFFIC SHALL BE CONSIDERED AT ALL TIMES IN THE PROVISION OF TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS AND NOTES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE LIGHTS, SIGNS, BARRICADES AND OTHER WARNINGS TO PHYSICALLY SEPARATE THE PEDESTRIAN FROM HAZARDS INCIDENTAL TO THE INSTALLATION OF THE REQUIRED TRAFFIC CONTROL DEVICES SUCH AS ANCHOR BOLTS, OPEN EXCAVATIONS, ETC.

THE CONTRACTOR SHALL FURNISH, MAINTAIN AND REMOVE ALL SIGNS, FLAGS, FLAGMEN, WATCHMEN, BARRICADES, SIGN SUPPORTS, CONES AND INCIDENTALS IN CONFORMANCE WITH THE MOST RECENT REVISION OF THE CURRENT EDITION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS.

INTERFERENCE WITH VEHICULAR TRAFFIC SHALL BE KEPT TO A MINIMUM AT ALL TIMES. DEVICES USED TO MAINTAIN TRAFFIC SHALL BE ERECTED IMMEDIATELY PRIOR TO THE BEGINNING OF WORK AND SHALL BE REMOVED IMMEDIATELY AFTER THE TERMINATION OF WORK.

SIGNAL SHUTDOWN AND/OR LANE BLOCKAGE ON ANY STREET SHALL NOT OCCUR DURING THE HOURS OF 3:00 PM TO 5:15 PM. IF IT IS NECESSARY TO STOP ALL TRAFFIC FOR THE ERECTION OF SIGNAL SUPPORTS, THE WORK SHALL BE SO ARRANGED THAT STOPPAGE IS LESS THAN TEN (10) MINUTES IN ANY ONE (1) THIRTY (30) MINUTE PERIOD. NO STOPPAGE OF TRAFFIC SHALL OCCUR FOR THE ERECTION OF OVERHEAD SUPPORTS WITHOUT A CITY OF URBANA POLICE OFFICER AT THE SITE FOR ASSISTANCE IN CONTROLLING TRAFFIC. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE THE SERVICES AND SCHEDULING OF SAID CITY OF URBANA POLICE OFFICER.

THE CITY OF URBANA SHALL PROVIDE ROUTINE MAINTENANCE FOR THE EXISTING SIGNAL INSTALLATIONS DURING THE CONSTRUCTION OF THIS PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING ANY ALTERATIONS TO THE EXISTING SIGNAL INSTALLATIONS THAT MAY BE NECESSARY IN ORDER TO ERECT THE NEW SIGNAL INSTALLATIONS.

THE CONTRACTOR SHALL HAVE THE OPTION OF TURNING OFF ANY TRAFFIC SIGNAL FOR A PERIOD NOT TO EXCEED SIX HOURS WHEN SWITCHING FROM THE EXISTING SIGNAL INSTALLATION TO THE NEW SIGNAL INSTALLATION. THE TIME PERIOD OF ANY SIGNAL SHUTDOWN SHALL BE APPROVED BY THE ENGINEER WHO WILL NOTIFY THE CITY OF URBANA NO LESS THAN 24 HOURS IN ADVANCE OF THE SHUTDOWN. DURING THE PERIOD OF SIGNAL SHUTDOWN THE CONTRACTOR SHALL MAINTAIN TEMPORARY STOP SIGNS ON ALL MINOR APPROACHES TO THE INTERSECTION. THE ENGINEER SHALL APPROVE THE DESIGN AND PLACEMENT OF ALL TEMPORARY STOP SIGNS. IT SHALL ALSO BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE A CITY OF URBANA POLICE OFFICER TO DIRECT TRAFFIC DURING THE PERIOD OF SIGNAL SHUTDOWN.

PAYMENT FOR ALL OF THE ABOVE WILL BE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 614 MAINTAINING TRAFFIC.

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR PLAN ITEMS SET UP TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED AT THE ENGINEES DISCRETION SHALL BE MADE A MATTER OF RECORD BY INCORPORATION INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

619 FIELD OFFICE

THE CONTRACTOR SHALL PROVIDE A SUITABLE FIELD OFFICE HAVING A MINIMUM OF 300 SQ. FT. OF FLOOR SPACE.

PAYMENT SHALL BE AT THE LUMP SUM PRICE BID FOR ITEM 619 FIELD OFFICE.

TRAFFIC CONTROL STANDARD CONSTRUCTION DRAWINGS

REFERENCES TO SUPPLEMENTAL SPECIFICATIONS 857, 858, 861, 957, 958, AND 961 ON THE TRAFFIC CONTROL STANDARD CONSTRUCTION DRAWINGS IN THIS PLAN SHALL BE CONSIDERED TO READ AS RESPECTIVE REFERENCES TO ITEMS 630, 631, 633, 730, 731, AND 733.

TREE TRIMMING

TRIMMING OF ALL TREES OR SHRUBS, AS MAY BE DEEMED NECESSARY BY THE ENGINEER, TO INSURE SAFE-AND-CLEAR INSTALLATION OF ANY OF THE EQUIPMENT, WIRES, CABLES, OR SIGNS SHALL BE PERFORMED BY THE CONTRACTOR. TRIMMING SHALL CONFORM TO APPLICABLE PORTIONS OF ITEM 201 OR STANDARD CONSTRUCTION DRAWING LA-1.

ALL COSTS FOR THIS WORK SHALL BE INCIDENTAL TO THE VARIOUS SIGNAL AND SIGNING ITEMS THAT MAY REQUIRE TREE TRIMMING FOR THEIR PROPER INSTALLATION.

UNDERGROUND UTILITIES

THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS OF THE UTILITY AS REQUIRED BY SECTION 153.64 ORC.

UTILITIES NOTIFICATION

AT LEAST TWO WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION OPERATIONS IN AN AREA WHICH MAY INVOLVE UNDERGROUND UTILITY FACILITIES, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER, THE REGISTERED UTILITY PROTECTION SERVICE AND THE OWNERS OF EACH UNDERGROUND UTILITY FACILITY SHOWN IN THE PLANS.

CITY OF URBANA - WATER & SEWER
MUNICIPAL BUILDING
205 S. MAIN STREET
URBANA, OHIO 43078
513: 653-7765

CITY OF URBANA - ENGINEERING DEPT.
MUNICIPAL BUILDING
205 S. MAIN STREET
URBANA, OHIO 43078
513: 653-7766

DAYTON POWER & LIGHT COMPANY
114 N. MAIN STREET
URBANA, OHIO 43078
513: 653-5283

COLUMBIA GAS
223 N. MAIN STREET
URBANA, OHIO 43078
513: 652-1318

CHAMPAIGN TELEPHONE COMPANY
126 SCIOTO STREET
URBANA, OHIO 43078
513: 653-2261

ROADWAY

608 CURB RAMPS, BY TYPE

THE CURB RAMPS CONSTRUCTED IN THIS PROJECT ARE ALL IN EXISTING WALK. THE CURB RAMPS SHALL BE OF THE TYPE SHOWN IN THE PLAN AND SHALL CONFORM TO APPLICABLE PORTIONS OF ODOT SPECIFICATION ITEM 608 AND ODOT STANDARD DRAWING BP-12. PAYMENT WILL BE AS STATED IN 608.09 AND IN BP-12 AND WILL INCLUDE ANY MINOR AMOUNTS OF PAVEMENT REMOVALS AND PAVEMENT REPLACEMENTS THAT MAY BE REQUIRED BY THE ENGINEER.

609 COMBINATION CURB AND GUTTER, AS PER PLAN

A SMALL QUANTITY OF 609 COMBINATION CURB AND GUTTER, AS PER PLAN WILL BE USED IN THIS PROJECT AS ONE OF FOUR BID ITEMS TO EFFECTIVELY REMOVE 3 EXISTING CURB RAMPS LOCATED ON THE NORTHEAST AND SOUTHWEST CORNERS OF MAIN & WATER. SEE SHEET 15.

THE COMBINATION CURB AND GUTTER SHALL CONFORM TO THE CITY OF URBANA'S TYPE 1 CURB AND GUTTER DETAIL AS SHOWN ON SHEET 23.

PAVEMENT MARKING

621 WORD "LOADING" ON PAVEMENT

THE CITY OF URBANA'S TEMPLATE FOR THE WORD "LOADING" ON PAVEMENT WILL BE MADE AVAILABLE FOR THE CONTRACTOR'S USE. THE CITY SHALL BE NOTIFIED ONE WORKING DAY IN ADVANCE OF WHEN THE CONTRACTOR NEEDS THE TEMPLATE AND THE CONTRACTOR SHALL RETURN THE TEMPLATE TO THE CITY OF URBANA WITHIN ONE WORKING DAY OF THE COMPLETION OF PAINTING THE FOUR WORDS "LOADING".

621 REMOVAL OF PAVEMENT MARKING, BY SIZE AND TYPE

THIS ITEM SHALL CONSIST OF THE REMOVAL OF PAVEMENT MARKINGS AS INDICATED IN PARAGRAPH 621.134 OF THE SPECIFICATIONS. THE EXISTING PAVEMENT MARKINGS, EXCEPT AT MAIN & MIAMI/SCIOTO, SHOULD BE IN THE SAME LOCATIONS AS THE NEW MARKINGS. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN PROVIDED FOR USE AS DIRECTED BY THE ENGINEER:

- 2500 LINEAR FEET OF 4-INCH PAINTED LINES
- 300 LINEAR FEET OF 8-INCH PAINTED LINES
- 300 LINEAR FEET OF 12-INCH PAINTED LINES
- 400 LINEAR FEET OF 24-INCH PAINTED LINES
- 8 EACH OF PAINTED ARROWS
- 4 EACH OF PAINTED WORD "LOADING"
- 4 EACH OF PAINTED WORD "ONLY"

PAYMENT FOR 621 REMOVAL OF PAVEMENT MARKING, BY SIZE AND TYPE WILL BE MADE AT THE CONTRACT UNIT PRICE PER LINEAR FOOT OR EACH AND WILL CONSTITUTE FULL COMPENSATION FOR ALL WORK INCLUDING MATERIALS, EQUIPMENT, LABOR, INCIDENTALS AND DISPOSAL OF SURPLUS MATERIALS.

PAVEMENT MARKING

THE CONTRACTOR SHALL PLACE ALL POLYESTER PAVEMENT MARKING AT THE BEGINNING OF THE CONSTRUCTION SEASON FOLLOWING THE COMPLETION OF THE ODOT RESURFACING PROJECT (ODOT #59(87)). THE SCHEDULED COMPLETION DATE FOR ODOT #59(87) IS AUGUST 31, 1987.

806 EDGE LINES, AS PER PLAN

EDGE LINES, AS PER PLAN, SHALL MEET THE REQUIREMENTS OF 621.06 EXCEPT THAT THE MARKING SHALL BE DOUBLE. EACH STRIPE SHALL BE 4 INCHES WIDE. THE LOCATION OF THE EDGE LINES SHALL BE AS INDICATED ON SHEET 8.

806 CROSSWALK LINES, AS PER PLAN

CROSSWALK LINES, AS PER PLAN, SHALL BE LONGITUDINAL LINES AS DETAILED ON SHEET 10. PAYMENT SHALL BE FOR THE SUM OF THE LENGTHS OF EACH LONGITUDINAL LINE.

TRAFFIC SIGNING

630 REMOVAL OF GROUND MOUNTED SIGNS AND DISPOSAL

THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND DISPOSING OF ALL ROUTE MARKING SIGNS WITHIN THE WORK LIMITS OF THIS PROJECT, EXCEPT FOR THE ROUTE MARKING SIGNS SHOWN IN THE PLANS AS "EXISTING TO REMAIN", AS PER 630.12, 630.14, AND 630.15. ALL THE EXISTING ROUTE SIGNS ARE POLE MOUNTED AND THE REMOVAL SHALL INCLUDE ALL POLE MOUNTING HARDWARE. THE APPROXIMATE LOCATIONS OF SIGNS TO BE REMOVED ARE LISTED AS FOLLOWS:

MAIN STA 54+32 RT	- 4 SIGNS	MAIN STA 58+98 RT	- 4 SIGNS
MAIN STA 55+22 RT	- 2 SIGNS	MAIN STA 58+98 LT	- 3 SIGNS
MAIN STA 56+05 LT	- 4 SIGNS	MAIN STA 64+62 LT	- 1 SIGN
MAIN STA 57+07 RT	- 5 SIGNS	MIAMI STA 8+74 LT	- 4 SIGNS
MAIN STA 57+08 LT	- 6 SIGNS	SCIOTO STA 11+27 RT	- 6 SIGNS

A TOTAL OF 39 ROUTE MARKING SIGNS HAVE BEEN CARRIED TO THE GENERAL SUMMARY AS 630 REMOVAL OF GROUND MOUNTED SIGN - 39 EACH.

THE CITY OF URBANA SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL OTHER TRAFFIC CONTROL SIGNS. UPON 2 WORKING DAYS NOTIFICATION BY THE ENGINEER AND AT A TIME MUTUALLY AGREEABLE TO THE CITY AND THE CONTRACTOR, THE CITY SHALL REMOVE EXISTING GROUND MOUNTED AND OVERHEAD TRAFFIC SIGNS AND SIGN SUPPORTS.

630 PARKING SIGNS FOR HEAD-IN PARKING STALLS

ALL PARKING SIGNS WITHIN MONUMENT SQUARE SHALL BE SET PARALLEL TO THE ADJACENT CURB FACE.

630 SIGNS, DOUBLE FACED, STREET NAME, TYPE G

THIS ITEM OF WORK SHALL CONFORM TO APPLICABLE SECTIONS OF 630.AND 730. THE SIGNS SHALL INCLUDE MOUNTING HARDWARE AS PER 630.14. STREET NAME SIGNS WILL BE POLE MOUNTED. THE MOUNTING HARDWARE SHALL INCLUDE ALL ITEMS SHOWN IN THE DETAIL ON SHEET 23 INCLUDING THE STAINLESS STEEL BANDS.

TRAFFIC SIGNALS

625 TRENCH, AS PER PLAN

THIS ITEM OF WORK INVOLVES PROVIDING TRENCH IN THE RAISED MONUMENT ISLAND AT THE INTERSECTION OF MAIN & MIAMI/SCIOTO STREET. THE TRENCH SHALL BE DUG BY HAND AND SHALL BE PLACED AS NEAR AS POSSIBLE TO THE PERIMETER CURB IN ORDER TO AVOID THE EXISTING ISLAND PLANTINGS. THE TRENCH SHALL BE AS PER 625.12 EXCEPT THAT THE MINIMUM TRENCH DEPTH IS REDUCED TO 15 INCHES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ANY DAMAGED PLANTINGS AND RESTORING THE DISTURBED LANDSCAPED AREAS TO A CONDITION EQUAL TO OR BETTER THAN EXISTING.

THE CONTRACTOR SHALL EXERCISE CAUTION NOT TO DISTURB THE EXISTING ELECTRICAL WIRING FOR THE TRAFFIC SIGNALS AND FLOODLIGHTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGE THAT OCCURS.

625 CONNECTION TO EXISTING CONDUIT

THIS ITEM OF WORK SHALL CONSIST OF PROVIDING A CONNECTION BETWEEN AN EXISTING CONDUIT AND A NEW 2-INCH PVC FOUNDATION CONDUIT ELL. MOST OF THE EXISTING CONDUITS ARE EMPTY 1½-INCH PVC CONDUITS INSTALLED BY THE CITY FOR INTERCONNECT CABLE IN THIS PROJECT.

CONNECTIONS TO EXISTING CONDUITS ARE REQUIRED AT VARIOUS LOCATIONS THROUGHOUT THE PLAN. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF THE EXISTING CONDUIT AND MAKE THE CONNECTION AS CLOSE TO THE FOUNDATION CONDUIT ELL AS POSSIBLE. ANY EXCAVATION OR SHORT SECTIONS OF CONDUIT NEEDED BETWEEN THE NEW CONDUIT ELL AND THE EXISTING CONDUIT SHALL BE INCIDENTAL TO THE COST OF THE CONNECTION. THE SECTION OF EXISTING CONDUIT BETWEEN TWO CONNECTIONS AT ONE SIGNAL POLE FOUNDATION CAN BE ABANDONED IN PLACE. ALSO THE SECTION OF UNUSED CONDUIT BEYOND A SINGLE CONNECTION AT A SIGNAL POLE FOUNDATION MAY BE ABANDONED IN PLACE.

CONNECTIONS TO CONDUIT STUBS WILL BE INCIDENTAL TO THE COST OF THE NEW CONDUIT MAKING THE CONNECTION.

PAYMENT FOR ITEM 625 CONNECTION TO EXISTING CONDUIT WILL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH CONNECTION INCLUDING ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS REQUIRED TO PERFORM THE COMPLETE ITEM OF WORK.

625 CONNECTION TO EXISTING PULL BOX

THIS ITEM OF WORK SHALL CONSIST OF PROVIDING A CONNECTION TO AN EXISTING CONCRETE PULL BOX AS REQUIRED BY THE PLAN. THE CONNECTION SHALL PERMIT THE ENTRANCE OF THE 2- OR 3-INCH CONDUIT AS SHOWN IN THE PLAN.

CONNECTIONS TO THE EXISTING CONCRETE PULL BOX SHALL BE PROVIDED BY DIRECTING THE CONDUIT UPWARD THROUGH THE PULL BOX FLOOR WITHOUT DISTURBING THE PULL BOX OR BY DRILLING A HOLE IN THE SIDE OF THE PULL BOX. IN THE EVENT THAT THE PULL BOX SHOULD BE DAMAGED, THE DAMAGE SHALL BE REPAIRED AS DIRECTED BY THE ENGINEER. THE COST OF REPAIRS TO OR REPLACEMENT OF THE EXISTING PULL BOX WILL BE INCIDENTAL TO THE COST OF THE CONNECTION. CARE SHOULD BE TAKEN TO NOT DISTURB THE EXISTING WIRING IN THE PULL BOX.

PAYMENT FOR ITEM 625 CONNECTION TO EXISTING PULL BOX WILL BE MADE AT THE UNIT PRICE FOR EACH CONDUIT CONNECTED INCLUDING ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS REQUIRED TO PERFORM THE COMPLETE ITEM OF WORK.

625 PULL BOX, 713.081, 10" x 14"

THE PULL BOX SHALL BE AS PER 713.081 AND SHALL HAVE THE WORD "TRAFFIC" ON THE COVER. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN PLACING THE PULL BOX SO AS TO NOT DISTURB THE EXISTING WIRING THAT SERVICES THE TRAFFIC SIGNALS AND FLOOD LIGHTS IN THE RAISED MONUMENT ISLAND. THE PULL BOX GRADE SHALL BE NOMINALLY FLUSH WITH THE AVERAGE GROUND LEVEL IN THE ISLAND. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND PLACING ADDITIONAL TOP SOIL IN THE EXISTING DEPRESSED AREA WHERE THE PULL BOX WILL BE INSTALLED. THE COST OF THE TOP SOIL WILL BE INCIDENTAL TO THE COST OF THE PULL BOX.

632 REMOVAL OF TRAFFIC SIGNAL INSTALLATION

THIS WORK SHALL CONSIST OF THE REMOVAL OF TRAFFIC SIGNAL HEADS, CONTROLLERS WITH CABINETS, SIGNAL POLES, FOUNDATIONS, CABLES, BACK GUYS, MESSENGER WIRE, CONDUIT RISERS, METER BASES AND DISCONNECT SWITCHES, AND ALL OTHER PORTIONS OF THE EXISTING TRAFFIC SIGNAL INSTALLATIONS AS SHOWN ON THE PLANS AND AS HEREIN SPECIFIED.

WITH THE EXCEPTION OF ITEMS WHOSE REMOVAL IS NECESSARY TO PERMIT THE INSTALLATION OF THE NEW SIGNAL EQUIPMENT, NO ITEM SHALL BE REMOVED UNTIL THE NEW INSTALLATION IS IN FULL OPERATION, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

POLE FOUNDATIONS SHALL BE REMOVED TO AT LEAST ONE FOOT BELOW GROUNDLINE, BACKFILLING, RESTORATION OF SURFACES, AND DISPOSAL OF SURPLUS MATERIAL SHALL BE IN ACCORDANCE WITH 603.09.

THE CONTRACTOR SHALL MAKE ARRANGEMENTS WITH THE DAYTON POWER & LIGHT COMPANY TO DISCONNECT THE EXISTING POWER SERVICE BEFORE THE EXISTING SIGNAL INSTALLATIONS ARE REMOVED.

SOME OF THE REMOVED ITEMS SHALL BECOME THE PROPERTY OF THE CONTRACTOR WHO SHALL PROPERLY DISPOSE OF THEM. OTHER REMOVED ITEMS SHALL BE STORED ON THE CONSTRUCTION SITE FOR THE CITY OF URBANA TO PICK UP. AT THE COMPLETION OF THE PROJECT, ANY STORED ITEMS STILL REMAINING ON THE SITE SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR. THE ITEMS TO BE REMOVED AND THE DISPOSAL INSTRUCTIONS FOR EACH ITEM ARE SHOWN ON SHEETS 15-22.

PAYMENT FOR ITEM 632 REMOVAL OF TRAFFIC SIGNAL INSTALLATION WILL BE AS PER 632.28.

REMOVAL AND ADJUSTMENTS OF STREET FAIR ELECTRICAL SYSTEM AND CHRISTMAS WIRING

MANY OF THE POLES SHOWN IN THE PLAN TO BE REMOVED BY THE CONTRACTOR OR BY DAYTON POWER AND LIGHT COMPANY HAVE CHRISTMAS WIRING, STREET FAIR WIRING, STREET FAIR ELECTRICAL METERS, AND STREET FAIR DISCONNECT SWITCHES ATTACHED TO THEM. THE CONTRACTOR WILL NOT BE RESPONSIBLE FOR THE REMOVAL AND ADJUSTMENTS OF THE STREET FAIR ELECTRICAL SYSTEM AND THE CHRISTMAS WIRING. THE DAYTON POWER AND LIGHT COMPANY SHALL BE RESPONSIBLE FOR DISCONNECTING THE STREET FAIR ELECTRICAL SYSTEM FROM DP&L CIRCUITS AND FOR REMOVING THE ELECTRICAL METERS LESS BASE. THE CITY OF URBANA SHALL BE RESPONSIBLE FOR REMOVING AND ADJUSTING THE REST OF THE STREET FAIR ELECTRICAL SYSTEM AND THE CHRISTMAS WIRING SYSTEM INCLUDING THE PLUG RECEPTACLE OUTLET BOXES AND CHRISTMAS WREATH MOUNTING BRACKETS. THE CITY OF URBANA SHALL BE RESPONSIBLE FOR REINSTALLING THE STREET FAIR ELECTRICAL SYSTEM AND THE CHRISTMAS WIRING ELECTRICAL SYSTEM.

THE CONTRACTOR SHALL NOTIFY THE ENGINEER WHO WILL NOTIFY THE CITY OF URBANA 30 DAYS BEFORE THE POLE REMOVALS ARE SCHEDULED SO THAT THE CITY CAN MAKE ARRANGEMENTS FOR THE ABOVE MENTIONED REMOVALS. DAYTON POWER & LIGHT COMPANY WILL COORDINATE THEIR POLE REMOVALS WITH THE CITY OF URBANA.

625 POWER SUPPLY FOR TRAFFIC SIGNALS

POWER CABLE SHALL BE PROVIDED AND INSTALLED AS PER 632.22 BETWEEN THE CONTROL CABINET AND THE SPLICE LOCATION NOTED IN THE PLAN. WHEN THE POWER CABLE IS IN PLACE AND THE NEW INSTALLATION IS READY FOR SERVICE, THE CONTRACTOR SHALL CONTACT THE DAYTON POWER & LIGHT COMPANY, WHO WILL MAKE THE ELECTRICAL SERVICE CONNECTIONS. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR SPLICE POWER CABLE INTO THE ELECTRIC COMPANY'S CIRCUITS. THE VOLTAGE SUPPLIED SHALL BE NOMINALLY 125 VOLTS.

632 VEHICULAR SIGNAL HEAD

VEHICULAR SIGNAL HEADS SHALL BE AS PER 632.05, 632.28, 632.29 AND 732.01 EXCEPT THAT ALL LENSES SHALL BE PLASTIC.

632 PEDESTAL, 8 FEET, TRANSFORMER BASE, AS PER PLAN

THIS ITEM SHALL BE PROVIDED IN ACCORDANCE WITH 632.18, 632.28, 632.29, AND 732.15 EXCEPT THAT THE PEDESTAL AND BASE SHALL BE SHOP PRIMED AND FIELD PAINTED WITH TWO COATS OF EXTERIOR ENAMEL PAINT. THE COLOR SHALL MATCH DEAN & BARRY EASE ALL PURPOSE ENAMEL "BLIND GREEN".

632 PREEMPT CONFIRMATION LIGHT

THIS ITEM OF WORK SHALL CONSIST OF PROVIDING AND INSTALLING EMERGENCY VEHICLE PREEMPT CONFIRMATION LIGHTS AS SHOWN IN THE PLAN, AND AS SPECIFIED HEREIN. THE PREEMPT CONFIRMATION LIGHTS SHALL BE LIGHTED WHEN THE ASSOCIATED TRAFFIC SIGNALS ARE IN THEIR PREEMPT DISPLAYS. THE PREEMPT CONFIRMATION LIGHTS SHALL TURN OFF AFTER PREEMPT. THE PREEMPT CONFIRMATION LIGHTS SHALL HAVE CLEAR WHITE LONG LIFE 200 WATT BULBS AND CLEAR PLASTIC GLOBES. THE MOUNTING UNIT AND GLOBE GUARD SHALL BE CAST ALUMINUM. THE PREEMPT CONFIRMATION LIGHT ASSEMBLY SHALL BE WATERTIGHT.

PAYMENT FOR ITEM 632 PREEMPT CONFIRMATION LIGHT WILL BE MADE AT THE CONTRACT UNIT PRICE PER EACH INCLUDING ALL LABOR, EQUIPMENT, MATERIAL, AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM OF WORK.

632 POWER SERVICE, AS PER PLAN

POWER SERVICE SHALL BE PROVIDED AS PER 632.23, 632.28, AND 632.29 EXCEPT THAT METERS, EXTERNAL DISCONNECT SWITCHES AND EXTERNAL CONDUIT RISERS SHALL NOT BE USED.

632 COMBINATION STRAIN POLE

THIS ITEM SHALL BE PROVIDED IN ACCORDANCE WITH 632.15 AND 732.12. THE COMBINATION STRAIN POLE SHALL BE PROVIDED WITH TWO POLE PLATES AS PER ODOT STANDARD DRAWING HL-2. THE POLE SHALL HAVE AN ADEQUATELY SIZED HOLE BEHIND THE TOP POLE PLATE FOR LUMINAIRE CABLE. THE POLE PLATES SHALL BE ORIENTED AS SHOWN ON SHEET 25.

THE DAYTON POWER & LIGHT COMPANY WILL PROVIDE AND INSTALL THE BRACKET ARMS, LUMINAIRES, AND LUMINAIRE WIRING. THE BRACKET ARMS WILL BE STYPE II AS SHOWN ON ODOT STANDARD DRAWING HL-8.

GUARANTEE

THE CONTRACTOR SHALL GUARANTEE THAT THE TRAFFIC CONTROL SYSTEM INSTALLED AS PART OF THIS CONTRACT SHALL OPERATE SATISFACTORILY FOR A PERIOD OF 90 DAYS FOLLOWING COMPLETION OF THE 10-DAY PERFORMANCE TEST. IN THE EVENT OF UNSATISFACTORY OPERATION, THE CONTRACTOR SHALL CORRECT FAULTY INSTALLATIONS, MAKE REPAIRS AND REPLACE DEFECTIVE PARTS WITH NEW PARTS OF EQUAL OR BETTER QUALITY. EQUIPMENT, MATERIAL AND LABOR COSTS INCURRED IN CORRECTING AN UNSATISFACTORY OPERATION SHALL BE BORNE BY THE CONTRACTOR.

THE GUARANTEE SHALL COVER THE FOLLOWING ITEMS OF THE TRAFFIC CONTROL SYSTEM: CONTROLLERS AND ASSOCIATED EQUIPMENT, INTERCONNECTION ITEMS AND PREEMPTION CONTROL EQUIPMENT.

CUSTOMARY MANUFACTURER'S GUARANTEES FOR THE FOREGOING ITEMS SHALL BE TURNED OVER TO THE CITY OF URBANA FOLLOWING ACCEPTANCE OF THE EQUIPMENT.

THE COST OF GUARANTEEING THE TRAFFIC CONTROL SYSTEM WILL BE INCIDENTAL TO AND INCLUDED IN THE CONTRACT UNIT PRICE OF THE VARIOUS ITEMS MAKING UP THE SYSTEM.

Mosure & Sprakis Co., Ltd.

633 EMERGENCY VEHICLE PREEMPTION CONTROL SYSTEM

THIS WORK SHALL CONSIST OF PROVIDING AND INSTALLING AN EMERGENCY VEHICLE PREEMPTION (EVP) CONTROL SYSTEM WHICH SHALL INCLUDE ALL ITEMS OF WORK LOCATED INSIDE THE CITY OF URBANA MUNICIPAL BUILDING INCLUDING, BUT NOT LIMITED TO, AN EMERGENCY VEHICLE PREEMPTION CONTROL PANEL AND ENCLOSURE, AN EMERGENCY VEHICLE PREEMPTION CONTROL PANEL WITHOUT ENCLOSURE, FOUR PREEMPT TIMERS WITH CABINET, RELAYS, CONDUIT, WIRING, 120 VOLT POWER SERVICE, AND 24 VOLT POWER SERVICE. THIS WORK SHALL BE AS SHOWN IN THE PLANS AND AS HEREIN DESCRIBED. ALL WORK IN THIS BID ITEM IS LOCATED INSIDE THE CITY OF URBANA MUNICIPAL BUILDING. BUILDING PLANS ARE AVAILABLE FROM THE CITY ENGINEER. THE EMERGENCY VEHICLE PREEMPTION CONTROL SYSTEM SHALL BE COMPLETELY FUNCTIONAL AND OPERATIONAL AS SHOWN IN THE PLANS AND AS SPECIFIED HEREIN.

AS SHOWN IN THE DETAILS ON SHEET 24, THE EXISTING BUILDING CONDUIT SYSTEMS SHALL BE USED TO ROUTE THE EVP CONTROL SYSTEM WIRING EXCEPT FOR THE 20/C, #22 AWG CABLE BETWEEN ROOM #14 AND ROOM #120. THE EXISTING FLEXIBLE CONDUIT BETWEEN THESE TWO ROOMS IS ONLY 3/8-INCH AND IS NOT CONSIDERED LARGE ENOUGH FOR THE 20/C #22 AWG CABLE WHICH HAS AN OUTSIDE DIAMETER OF APPROXIMATELY .345 INCHES; HOWEVER, THE EXISTING 3/8-INCH CONDUIT MAY BE USED IF THE CONTRACTOR CAN PULL THE CABLE. THE EXISTING 3/8-INCH CONDUIT PASSES THROUGH THE FLOOR AND RUNS ACROSS ROOM #14 ABOVE A DROP CEILING. THE NEW 3/4-INCH CONDUIT SHOWN IN THE DETAILS ON SHEET 24 SHALL BE RUN IN NOMINALLY THE SAME LOCATION AS THE EXISTING CONDUIT. THE EXACT ROUTING PATH AND THE EXACT LOCATIONS AND METHODS OF ATTACHMENT SHALL BE DETERMINED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. THE EXISTING 3/8-INCH CONDUIT BETWEEN ROOM #14 AND ROOM #120 SHALL BE REMOVED BY THE CONTRACTOR. THE CONTROL CIRCUITS BETWEEN THE TIMERS AND THE CONTROL PANELS SHALL BE 24 VOLT AND UTILIZE 20/C #22 AWG VINYL UNSHIELDED CONTROL CABLE. THE CONDUCTORS SHALL BE STRANDED TINNED COPPER WITH VINYL INSULATION AND SHALL BE CABLED. THE CIRCUIT FROM THE TIMERS TO THE TRAFFIC SIGNAL CONTROLLERS ON THE STREET SHALL BE 120 VOLT AND UTILIZE 12/C #14 AWG CABLE CONFORMING TO ODOT SPECIFICATION 732.19.

THE WORK INVOLVED IN THE FIRE STATION DISPATCH ROOM (#141) CONSISTS OF PROVIDING AND INSTALLING A FREE-STANDING EVP CONTROL PANEL AND ENCLOSURE. THE CONTROL PANEL AND ENCLOSURE SHALL BE OF THE NOMINAL DIMENSIONS SHOWN ON SHEET 24. DUE TO SPACE RESTRICTIONS THE 6-INCH MAXIMUM DIMENSION MUST BE MET. THE ENCLOSURE SHALL BE METAL AND SHALL HOUSE FOUR SWITCHES AND FOUR INDICATOR LIGHTS. THE ENCLOSURE SHALL HAVE FOUR ANTI-SKID RUBBER FEET SECURELY ATTACHED ON THE BOTTOM TO PREVENT SLIDING WHILE OPERATING THE PREEMPT SWITCHES. THE PREEMPT TOGGLE SWITCH SHALL BE OFF IN THE MIDDLE POSITION. TO ACTIVATE A PREEMPT DISPLAY, THE SWITCH WILL BE MOVED TO THE BOTTOM POSITION. UPON RELEASE, THE SWITCH SHALL RETURN TO THE MIDDLE POSITION. TO CANCEL A PREEMPT DISPLAY, THE SWITCH WILL BE MOVED TO THE TOP POSITION. THIS SHALL CAUSE SIGNALS TO BEGIN THEIR EXIT FROM PREEMPT. UPON RELEASE, THE SWITCH SHALL RETURN TO THE CENTER POSITION. THE SWITCH AND SWITCH POSITIONS SHALL BE LABELED AS SHOWN IN THE DETAIL ON SHEET 24. THE LABELS SHALL BE PERMANENTLY AFFIXED TO THE FRONT PANEL AND SHALL BE OF ADEQUATE SIZE TO INSURE EASY IDENTIFICATION. AN INDICATOR LAMP SHALL BE LOCATED ON THE FRONT OF THE PANEL AS SHOWN ON SHEET 24. THE LAMP SHALL GLOW WHEN THE TIMER IS TIMING.

THE WORK INVOLVED IN THE FIRE STATION ELECTRICAL DISTRIBUTION ROOM (#23) CONSISTS OF PROVIDING AND INSTALLING A NEW WALL MOUNTED PREEMPT TIMER CABINET WITH FOUR TIMERS, RELAYS, 120 VOLT POWER SERVICE, AND 24 VOLT POWER SERVICE. THE PREEMPT TIMER CABINET SHALL BE WALL MOUNTED IN THE SAME LOCATION AS THE EXISTING TIMER CABINET. THE CABINET SHALL BE METAL, WEATHERTIGHT, AND HAVE A HINGED FRONT DOOR WITH A KEYED LOCK. THE NOMINAL SIZE OF THE CABINET SHALL BE 14 INCHES WIDE, 16 INCHES HIGH, AND 11 INCHES DEEP. THE CABINET SHALL BE ALUMINUM IN COLOR. EACH TIMER SHALL BE CLEARLY LABELED NORTH, SOUTH, WEST OR EAST. EACH TIMER SHALL HAVE A RANGE FROM 1 SECOND TO 300 SECONDS SELECTABLE IN ONE SECOND INTERVALS AND A REPEAT ACCURACY OF 2% OR BETTER. THE TIMERS SHALL BE SOLID STATE AND SHALL BE SET FOR THE TIMES SHOWN ON SHEET 24. THE TIMERS SHALL BE CAPABLE OF RESET DURING THE TIMING OF THE PRESET INTERVAL. THIS FEATURE WILL BE USED WHEN AN ADDITIONAL EMERGENCY VEHICLE LEAVES THE FIRE STATION DURING THE INITIAL PREEMPT TIMING AND WILL CAUSE THE TIMER TO REINITIALIZE AND TIME THE FULL PRESET TIME PERIOD. THE EXISTING SPLICE ENCLOSURE LOCATED ABOVE THE EXISTING TIMER CABINET HAS 120 VOLT POWER SERVICE THAT IS BEING USED TO POWER THE EXISTING PREEMPT TIMER AND CAN BE USED TO POWER THE NEW SYSTEM. THE CONTRACTOR SHALL PROVIDE AND INSTALL A STEP DOWN TRANSFORMER TO SUPPLY THE 24 VOLT POWER SOURCE FOR THE CONTROL CIRCUITRY.

THE WORK INVOLVED IN THE POLICE STATION DISPATCH ROOM (#120) CONSISTS OF PROVIDING AND INSTALLING AN EMERGENCY VEHICLE PREEMPTION CONTROL PANEL WITHOUT ENCLOSURE. THE PANEL SHALL HAVE FOUR SWITCHES AND FOUR INDICATOR LIGHTS MOUNTED ON IT AND SHALL BE IDENTICAL IN OPERATION AND APPEARANCE TO THE PANEL IN THE FIRE STATION DISPATCH ROOM (#141) AS SHOWN ON SHEET 24. THE PANEL SHALL BE INSERTED INTO THE FRONT OF AN EXISTING ENCLOSURE, THE CONTRACTOR SHALL VERIFY THE PANEL LOCATION WITH THE URBANA POLICE CHIEF. THE PANEL MOUNTING TECHNIQUE SHALL BE DETERMINED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.

THE CONTRACTOR SHALL REMOVE ALL UNUSED PORTIONS OF THE EXISTING PREEMPT SYSTEM LOCATED THROUGHOUT THE CITY OF URBANA MUNICIPAL BUILDING. THE EXISTING PUSHBUTTON IN THE FIRE DISPATCH ROOM AND THE POLICE DISPATCH ROOM MAY BE DEACTIVATED INSTEAD OF REMOVED. THE REMOVAL ITEMS WILL CONSIST OF A TIMER AND CABINET, WIRING, AND 3/8-INCH FLEXIBLE CONDUIT. THE CONTRACTOR SHALL STORE THE REMOVED EQUIPMENT FOR THE CITY OF URBANA.

THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO INSURE THAT THIS ITEM OF WORK DOES NOT INTERFERE WITH OR IMPEDE THE EMERGENCY OPERATIONS OF THE URBANA FIRE DEPARTMENT.

PAYMENT FOR ITEM 633 EMERGENCY VEHICLE PREEMPTION CONTROL SYSTEM WILL BE AT THE CONTRACT LUMP SUM BID PRICE AND SHALL INCLUDE ALL REQUIRED LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM OF WORK.

633 CONTROLLER, PRETIMED, 18 CIRCUIT, SOLID STATE DIGITAL MICROPROCESSOR, SECONDARY WITH PREEMPTION, AS PER PLAN

THE CONTRACTOR SHALL FURNISH AND INSTALL A PRETIMED SOLID STATE DIGITAL MICROPROCESSOR SECONDARY CONTROLLER WITH PREEMPTION AND CABINET AND ALL OTHER ACCESSORIES THAT ARE NECESSARY TO MAKE THE CONTROLLER COMPLETELY FUNCTIONAL AND OPERATIONAL AS SHOWN IN THE PLANS AND DESCRIBED BELOW.

THE CONTROLLER SHALL CONFORM TO ODOT SPECIFICATIONS 633 AND 733 WITH THE FOLLOWING EXCEPTIONS, OPTIONAL FEATURES AND SPECIAL PROVISIONS:

1) THE CONTROLLER SHALL HAVE FOUR DIALS.
2) THE CONTROLLER SHALL HAVE A MINIMUM OF 2 SPLITS/DIAL
3) THE CONTROLLER SHALL HAVE A MINIMUM OF 3 OFFSETS/DIAL
4) THE CABINETS SHALL BE POLE MOUNTED AND BE NOMINALLY 38 INCHES HIGH, 22 INCHES WIDE AND 15 INCHES DEEP.
5) BACKPANEL 120 VOLT CURRENT CARRYING CONDUCTORS SHALL BE STRANDED COPPER WIRE AND NOT PRINTED CIRCUITS.
6) LOAD SWITCHES SHALL COMPLY WITH NEMA TS 1, SECTION 5.
7) CONFLICT MONITORS SHALL COMPLY WITH NEMA TS 1, SECTION 6 IF PROVIDED AS FREE STANDING UNITS; HOWEVER, THE CONFLICT MONITOR MAY BE CONFIGURED AS A MODULE OR PORTION OF THE CONTROLLER UNIT. WHEN CONFIGURED AS A MODULE OR PORTION OF THE CONTROLLER, THE CONFLICT MONITOR NEED ONLY COMPLY WITH NEMA TS 1, SECTIONS 6.1, 6.2, 6.6, 6.11 THROUGH 6.20, 6.22 AND 6.25 WITH THE FOLLOWING EXCEPTIONS:

6.12, 6.13, 6.15 - THE CONFLICT MONITOR IS NOT REQUIRED TO HAVE A RESET INPUT FEATURE. THIS FEATURE IS INTENDED FOR AUTOMATIC BENCH TESTING AND REMOTE ACTIVATION AND IS NOT REQUIRED. A RESET BUTTON SHALL BE PROVIDED.

6.14, 6.14.1 - THE CONFLICT MONITOR MAY BE PROVIDED WITH ONLY 1-24-VOLT MONITOR INPUT AS OPPOSED TO TWO INPUTS IF THE CONTROLLER DOES NOT UTILIZE ANY EXTERNAL LOGIC.

6.14.2 - THE 24-VOLT MONITOR INHIBIT INPUT IS NOT REQUIRED IF THE CONTROLLER IS DESIGNED SUCH THAT A LOSS OF THE 24-VOLT CIRCUIT WILL CAUSE THE CONTROLLER NOT TO OPERATE AND PUT THE INTERSECTION ON FLASH.

6.16 - THE OUTPUT RELAY MAY BE RATED FOR 1 AMP AT 135 VOLTS IF RECOMMENDED BY THE CONTROLLER MANUFACTURER.

6.17, 6.20 - THESE SECTIONS ARE NOT APPLICABLE IF THE CONTROLLER AND CONFLICT MONITOR USE THE SAME INTERNAL POWER SUPPLY.

6.22 - CABINET INTERLOCK A & B ARE NOT REQUIRED IF THE CONTROLLER WILL NOT OPERATE WITHOUT THE CONFLICT MONITOR.

6.25 - TIMING FOR MINIMUM FLASH AFTER POWER INTERRUPT MAY BE PROVIDED BY AN INTEGRAL CIRCUIT WITHIN THE CONTROLLER INSTEAD OF BY A POTENTIOMETER.

8) LIGHTNING PROTECTION ACROSS THE INTERCONNECT CABLE MAY BE BY OPTICAL ISOLATORS.
9) PREEMPTION MAY BE EITHER INTERNAL OR EXTERNAL TO THE CONTROLLER.

PAYMENT WILL BE AS PER 633.12.

633 CONTROLLER, PRETIMED, 18 CIRCUIT, SOLID STATE DIGITAL MICROPROCESSOR, MASTER/SECONDARY WITH PREEMPTION AND WEEKLY PROGRAMMER, AS PER PLAN

THE CONTRACTOR SHALL FURNISH AND INSTALL A PRETIMED SOLID STATE DIGITAL MICROPROCESSOR MASTER/SECONDARY CONTROLLER WITH PREEMPTION, WEEKLY PROGRAMMER, AND CABINET AND ALL OTHER ACCESSORIES THAT ARE NECESSARY TO MAKE THE CONTROLLER COMPLETELY FUNCTIONAL AND OPERATIONAL AS SHOWN IN THE PLANS AND DESCRIBED BELOW.

THE CONTROLLER SHALL CONFORM TO ODOT SPECIFICATIONS 633 AND 733 WITH THE FOLLOWING EXCEPTIONS, OPTIONAL FEATURES AND SPECIAL PROVISIONS:

1) THE CONTROLLER SHALL HAVE FOUR DIALS.
2) THE CONTROLLER SHALL HAVE A MINIMUM OF 2 SPLITS/DIAL
3) THE CONTROLLER SHALL HAVE A MINIMUM OF 3 OFFSETS/DIAL
4) THE CABINETS SHALL BE POLE MOUNTED AND BE NOMINALLY 38 INCHES HIGH, 22 INCHES WIDE AND 15 INCHES DEEP.
5) BACKPANEL 120 VOLT CURRENT CARRYING CONDUCTORS SHALL BE STRANDED COPPER WIRE AND NOT PRINTED CIRCUITS.
6) LOAD SWITCHES SHALL COMPLY WITH NEMA TS 1, SECTION 5.
7) CONFLICT MONITORS SHALL COMPLY WITH NEMA TS 1, SECTION 6 IF PROVIDED AS FREE STANDING UNITS; HOWEVER, THE CONFLICT MONITOR MAY BE CONFIGURED AS A MODULE OR PORTION OF THE CONTROLLER UNIT. WHEN CONFIGURED AS A MODULE OR PORTION OF THE CONTROLLER, THE CONFLICT MONITOR NEED ONLY COMPLY WITH NEMA TS 1, SECTIONS 6.1, 6.2, 6.6, 6.11 THROUGH 6.20, 6.22 AND 6.25 WITH THE FOLLOWING EXCEPTIONS:

6.12, 6.13, 6.15 - THE CONFLICT MONITOR IS NOT REQUIRED TO HAVE A RESET INPUT FEATURE. THIS FEATURE IS INTENDED FOR AUTOMATIC BENCH TESTING AND REMOTE ACTIVATION AND IS NOT REQUIRED. A RESET BUTTON SHALL BE PROVIDED.

6.14, 6.14.1 - THE CONFLICT MONITOR MAY BE PROVIDED WITH ONLY 1 24-VOLT MONITOR INPUT AS OPPOSED TO TWO INPUTS, IF THE CONTROLLER DOES NOT UTILIZE ANY EXTERNAL LOGIC.

6.14.2 - THE 24-VOLT MONITOR INHIBIT INPUT IS NOT REQUIRED IF THE CONTROLLER IS DESIGNED SUCH THAT A LOSS OF THE 24-VOLT CIRCUIT WILL CAUSE THE CONTROLLER NOT TO OPERATE AND PUT THE INTERSECTION ON FLASH.

6.16 - THE OUTPUT RELAY MAY BE RATED FOR 1 AMP AT 135 VOLTS IF RECOMMENDED BY THE CONTROLLER MANUFACTURER.

6.17, 6.20 - THESE SECTIONS ARE NOT APPLICABLE IF THE CONTROLLER AND CONFLICT MONITOR USE THE SAME INTERNAL POWER SUPPLY.

6.22 - CABINET INTERLOCK A & B ARE NOT REQUIRED IF THE CONTROLLER WILL NOT OPERATE WITHOUT THE CONFLICT MONITOR.

6.25 - TIMING FOR MINIMUM FLASH AFTER POWER INTERRUPT MAY BE PROVIDED BY AN INTEGRAL CIRCUIT WITHIN THE CONTROLLER INSTEAD OF BY A POTENTIOMETER.

8) LIGHTNING PROTECTION ACROSS THE INTERCONNECT CABLE MAY BE BY OPTICAL ISOLATORS.
9) PREEMPTION AND WEEKLY PROGRAMMER FUNCTIONS MAY BE EITHER INTERNAL OR EXTERNAL TO THE CONTROLLER.

PAYMENT WILL BE AS PER 633.12.

633 CONTROLLER, PRETIMED, 18 CIRCUIT, SOLID STATE DIGITAL MICROPROCESSOR, SECONDARY, WITH PREEMPTION, AS PER PLAN (ECONOLITE OR TRAFFIC CONTROL TECHNOLOGIES BRAND) - ALTERNATE BID

THE CONTROLLER SHALL BE A MODEL KFT 1800 AS MANUFACTURED BY ECONOLITE CONTROL PRODUCTS, INC., OR A MODEL LC-40 AS MANUFACTURED BY TRAFFIC CONTROL TECHNOLOGIES, INC., AND SHALL INCORPORATE OR BE FURNISHED WITH ALL THE DESIGN FEATURES, AUXILIARY EQUIPMENT, ACCESSORIES, AND PREWIRED CABINET FEATURES AS REQUIRED IN THE STANDARD BID ITEM.

PAYMENT WILL BE AS PER 633.12.

633 CONTROLLER, PRETIMED, 18 CIRCUIT, SOLID STATE DIGITAL MICROPROCESSOR, MASTER/SECONDARY, WITH PREEMPTION AND WEEKLY PROGRAMMER, AS PER PLAN, (ECONOLITE OR TRAFFIC CONTROL TECHNOLOGIES BRAND) - ALTERNATE BID

THE CONTROLLER SHALL BE A MODEL KFT 1800 AS MANUFACTURED BY ECONOLITE CONTROL PRODUCTS, INC., OR A MODEL LC-40 AS MANUFACTURED BY TRAFFIC CONTROL TECHNOLOGIES, INC., AND SHALL INCORPORATE OR BE FURNISHED WITH ALL THE DESIGN FEATURES, AUXILIARY EQUIPMENT, ACCESSORIES, AND PREWIRED CABINET FEATURES AS REQUIRED IN THE STANDARD BID ITEM.

PAYMENT WILL BE AS PER 633.12.

Mosure & Syrakis Co., Ltd.
Consulting Engineers and Planners

TRAFFIC CONTROL GENERAL SUMMARY

Quantities	
Calc. Date DRB 2-3-87	Chk'd. Date RJC 2-3-87

FHWA REGION	STATE	PROJECT	
5	OHIO		

CHP-68-5.30

TOTAL FROM SHEET NO. 2	4	12	14	15	16	17	19	20	21	22	PARTICIPATION SUB-TOTAL	GENERAL SUMMARY TOTAL	UNIT	ITEM	DESCRIPTION
															TRAFFIC CONTROL
		0.12										0.12	MI	806	EDGE LINES, AS PER PLAN
		0.49										0.49	MI	806	CENTER LINES
		1611										1611	LF	806	CHANNELIZING LINES
		1940										1940	LF	621	PARKING LOT STALL MARKING
		824										824	LF	806	STOP LINES
		2456										2456	LF	806	CROSSWALK LINES
		850										850	LF	806	CROSSWALK LINES, AS PER PLAN
		295										295	LF	806	TRANSVERSE LINES
		644										644	LF	621	CURB MARKING
		26										26	EA	806	LANE ARROWS
		14										14	EA	806	WORD 'ONLY' ON PAVEMENT, 72-IN.
		4										4	EA	806	WORD 'LOADING' ON PAVEMENT
2500												2500	LF	621	REMOVAL OF PAVEMENT MARKINGS, 4-IN. PAINTED LINES
300												300	LF	621	REMOVAL OF PAVEMENT MARKINGS, 8-IN. PAINTED LINES
300												300	LF	621	REMOVAL OF PAVEMENT MARKINGS, 12-IN. PAINTED LINES
400												400	LF	621	REMOVAL OF PAVEMENT MARKINGS, 24-IN. PAINTED LINES
8												8	EA	621	REMOVAL OF PAVEMENT MARKINGS, PAINTED ARROWS
4												4	EA	621	REMOVAL OF PAVEMENT MARKINGS, PAINTED WORD 'ONLY'
4												4	EA	621	REMOVAL OF PAVEMENT MARKINGS, PAINTED WORD 'LOADING'
			24									24	EA	630	SIGNS, DOUBLE-FACED, STREET NAME, TYPE G
			319									319	SF	630	SIGNS, FLAT SHEET
			186									186	SF	630	SIGNS, FLAT SHEET, TYPE G
			437									437	LF	630	GROUND MOUNTED SUPPORTS, NO. 2 POST
			13									13	LF	630	GROUND MOUNTED SUPPORTS, NO. 3 POST
			14									14	LF	630	GROUND MOUNTED SUPPORTS, NO. 4 POST
			24									24	EA	630	SIGN HANGER ASSEMBLY, SPAN WIRE, TYPE 2
			80									80	EA	630	SIGN SUPPORT ASSEMBLY, POLE MOUNTED
39												39	EA	630	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL
				8	8	8	8	8	8	8		56	EA	632	VEHICULAR SIGNAL HEAD, 3-SECTION, 8" LENS, 1-WAY
						4						4	EA	632	VEHICULAR SIGNAL HEAD, 3-SECTION, 8" LENS, 2-WAY
				7.2	7.5	13.4	6.0	6.0	7.5	7.2		54.8	CY	632	CONCRETE FOR ANCHOR BASE FOUNDATIONS
				1			2	2	1			6	EA	632	STRAIN POLE, TYPE TC-81.10, DESIGN 3, 25 FEET
					2					1		3	EA	632	STRAIN POLE, TYPE TC-81.10, DESIGN 3, 26 FEET
									1			1	EA	632	STRAIN POLE, TYPE TC-81.10, DESIGN 4, 25 FEET
				2	1					2		5	EA	632	STRAIN POLE, TYPE TC-81.10, DESIGN 4, 26 FEET
					1				1			2	EA	632	STRAIN POLE, TYPE TC-81.10, DESIGN 5, 26 FEET
				1		8	2	2	1	1		15	EA	632	COMBINATION STRAIN POLE, TYPE TC-81.10, DESIGN 3, 30 FEET
						4						4	EA	632	PEDESTAL, 8 FEET, TRANSFORMER BASE, AS PER PLAN
				3	2	8	3	3	2	3		24	EA	632	CABLE SUPPORT ASSEMBLY
				274	291	239	272	263	255	321		1915	LF	632	MESSENGER WIRE, 7 STRAND, 3/8" DIA. WITH ACCESSORIES
									320			320	LF	632	MESSENGER WIRE, 3 OR 7 STRAND, 1/4" DIA. WITH ACCESSORIES

TRAFFIC CONTROL GENERAL SUMMARY

Quantities	
Calc. Date DRB 2-3-87	Chk'd. Date RJC 2-3-87

FHWA REGION	STATE	PROJECT	
5	OHIO		

CHP-68-5.90

6/25

TOTAL FROM SHEET NO. 2	4	12	14	15	16	17	19	20	21	22	PARTICIPATION SUB-TOTAL	GENERAL SUMMARY TOTAL	UNIT	ITEM	DESCRIPTION
				132	123	938	105	174	162	115		1749	LF	632	SIGNAL CABLE, 3/C, NO. 14 AWG
				460	515	1378	453	451	435	505		4197	LF	632	SIGNAL CABLE, 5/C, NO. 14 AWG
						301						301	LF	632	SIGNAL CABLE, 9/C, NO. 14 AWG
						390	375	479	478	537		2259	LF	632	INTERCONNECT CABLE, 8/C, NO. 14 AWG
				145	705	762						1612	LF	632	INTERCONNECT CABLE, 12/C, NO. 14 AWG
				95	113	22	38	37	176	37		518	LF	632	POWER CABLE, 2/C, NO. 6 AWG
				1	1	1	1	1	1	1		7	EA	632	POWER SERVICE, AS PER PLAN
				8	8	12	8	8	8	8		60	EA	632	COVERING OF VEHICULAR SIGNAL HEAD
				1	1	1	1	1	1	1		7	EA	632	REMOVAL OF TRAFFIC SIGNAL INSTALLATION
				1	1	4	1	1	1	1		10	EA	632	PREEMPT CONFIRMATION LIGHT
				4	4	12	4	4	4	4		36	EA	625	GROUND ROD
						1						1	EA	625	PULL BOX, 713.081, 10" x 14"
					20							20	LF	625	TRENCH
				3		5			4			12	LF	625	TRENCH IN PAVED AREAS, TYPE A
						69						69	LF	625	TRENCH, AS PER PLAN
						69						69	LF	625	CONDUIT, 713.04, 1½"
				3	20				4			27	LF	625	CONDUIT, 713.07, TYPE DB, 2"
						5						5	LF	625	CONDUIT, 713.07, TYPE DB, 3"
				1		1			1			3	EA	625	CONNECTION TO EXISTING PULL BOX
					3	15	2			1		21	EA	625	CONNECTION TO EXISTING CONDUIT
								36	50	52		138	LF	202	CURB REMOVED
				178				180	238	236		832	SF	202	WALK REMOVED
				35								35	LF	202	CURB AND GUTTER REMOVED
									58	116		174	SF	608	CURB RAMP, STANDARD TYPE 1
				90				180	180	120		570	SF	608	CURB RAMP, STANDARD TYPE 2
				88								88	SF	608	4" CONCRETE WALK
				17								17	LF	609	COMBINATION CURB AND GUTTER, AS PER PLAN
	LUMP											LUMP		633	EMERGENCY VEHICLE PREEMPTION CONTROL SYSTEM
				1	1		1	1	1	1		6	EA	633	CONTROLLER, PRETIMED, 18 CIRCUIT, SOLID STATE DIGITAL MICROPROCESSOR, SECONDARY, WITH PREEMPTION, AS PER PLAN
						1						1	EA	633	CONTROLLER, PRETIMED, 18 CIRCUIT, SOLID STATE DIGITAL MICROPROCESSOR, MASTER/SECONDARY, WITH PREEMPTION AND WEEKLY PROGRAMMER, AS PER PLAN
				1	1		1	1	1	1		6	EA	633	CONTROLLER, PRETIMED, 18 CIRCUIT, SOLID STATE DIGITAL MICROPROCESSOR, SECONDARY, WITH PREEMPTION, AS PER PLAN (ECONOLITE OR TRAFFIC CONTROL TECHNOLOGIES BRAND) - ALTERNATE BID
						1						1	EA	633	CONTROLLER, PRETIMED, 18 CIRCUIT, SOLID STATE DIGITAL MICROPROCESSOR, MASTER/SECONDARY, WITH PREEMPTION AND WEEKLY PROGRAMMER, AS PER PLAN (ECONOLITE OR TRAFFIC CONTROL TECHNOLOGIES BRAND) - ALTERNATE BID
LUMP												LUMP		614	MAINTAINING TRAFFIC
LUMP												LUMP		619	FIELD OFFICE
												LUMP		624	MOBILIZATION

FHWA REGION	STATE	PROJECT	
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7/25

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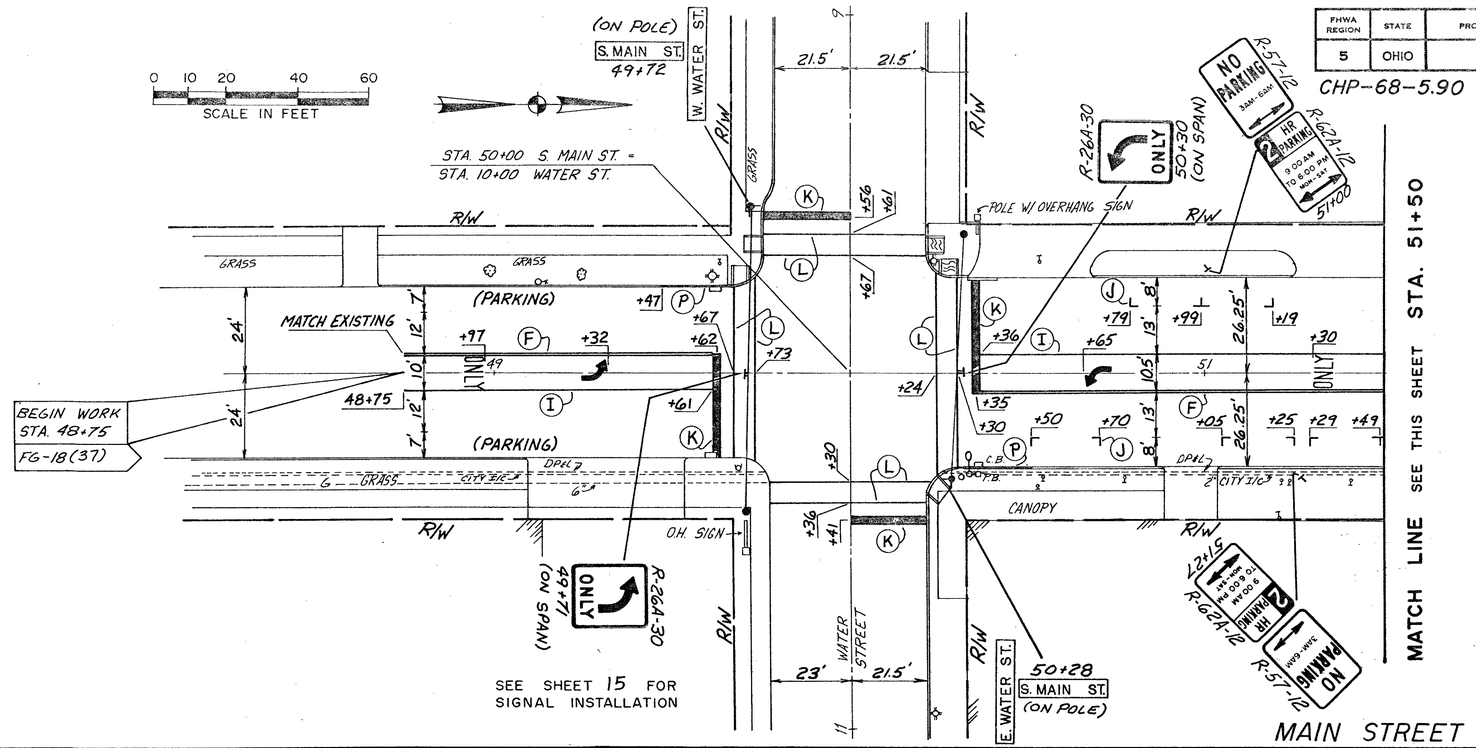
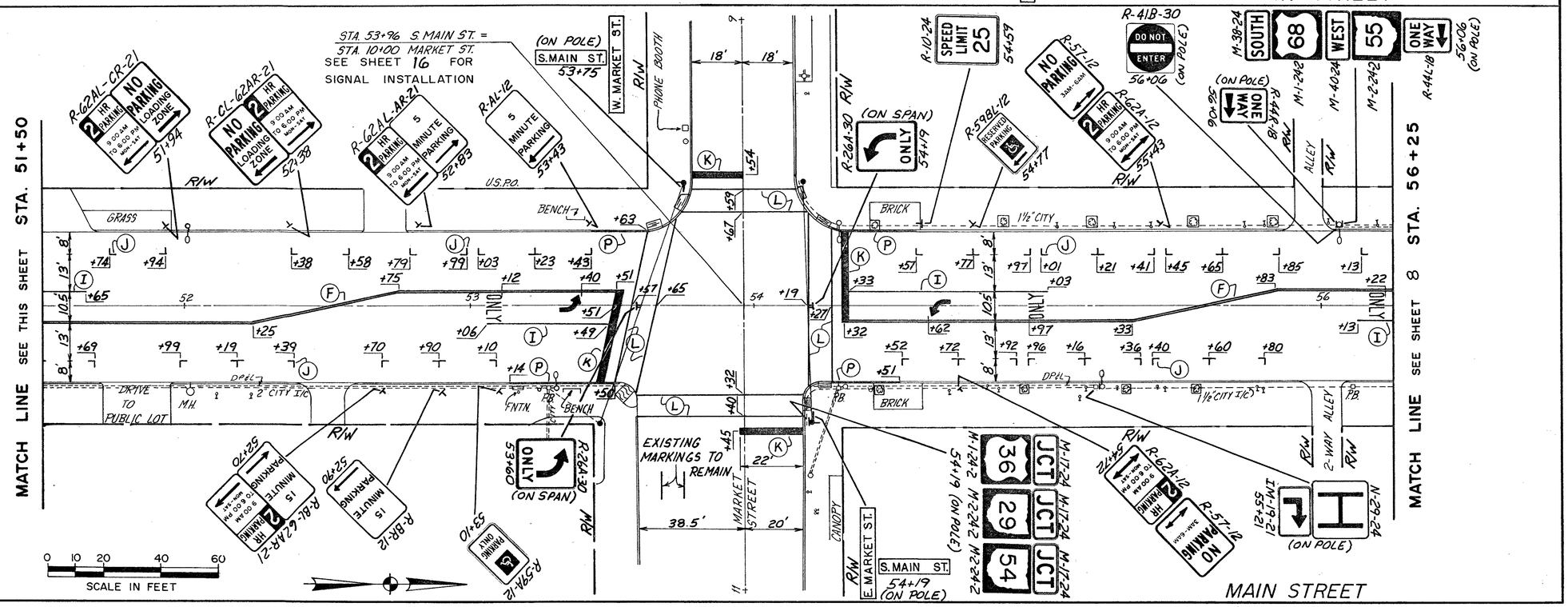
NOTE: THE WORD "ONLY" ON PAVEMENT SHALL BE THE URBAN SIZE AS SHOWN ON STANDARD DRAWING TC-71.10.

806 PAVEMENT MARKING, POLYESTER.	621 PAVEMENT MARKING	LINE SPECIFICATIONS
(A)		EDGE LINE, WHITE, AS PER PLAN (4")
		~~DOTTED LINE, 4" YELLOW~~
(F)		CENTER LINE, SOLID DOUBLE (4")
		~~CENTER LINE, DASHED SINGLE~~
		~~CENTER LINE, DASHED & SOLID DOUBLE~~
(I)		CHANNELIZING LINE
	(J)	PARKING STALL MARKING, WHITE
(K)		STOP LINE
(L)		CROSSWALK LINE
(M)		CROSSWALK LINE, AS PER PLAN (SEE SHEET 10 FOR DETAIL)
(N)		TRANSVERSE LINE, YELLOW
		~~ISLAND MARKING, WHITE~~
		~~ISLAND MARKING, YELLOW~~
	(P)	CURB MARKING, YELLOW



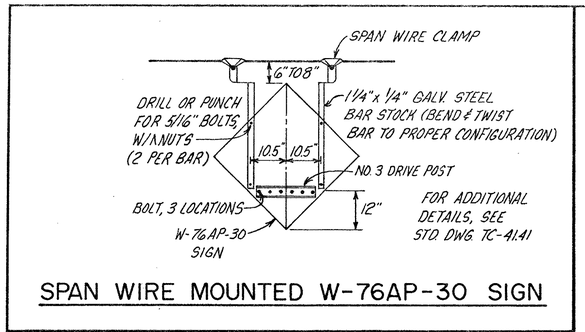


MAIN ST. STA. 48+00-56+25 SIGNING & PAVEMENT MARKING PLAN

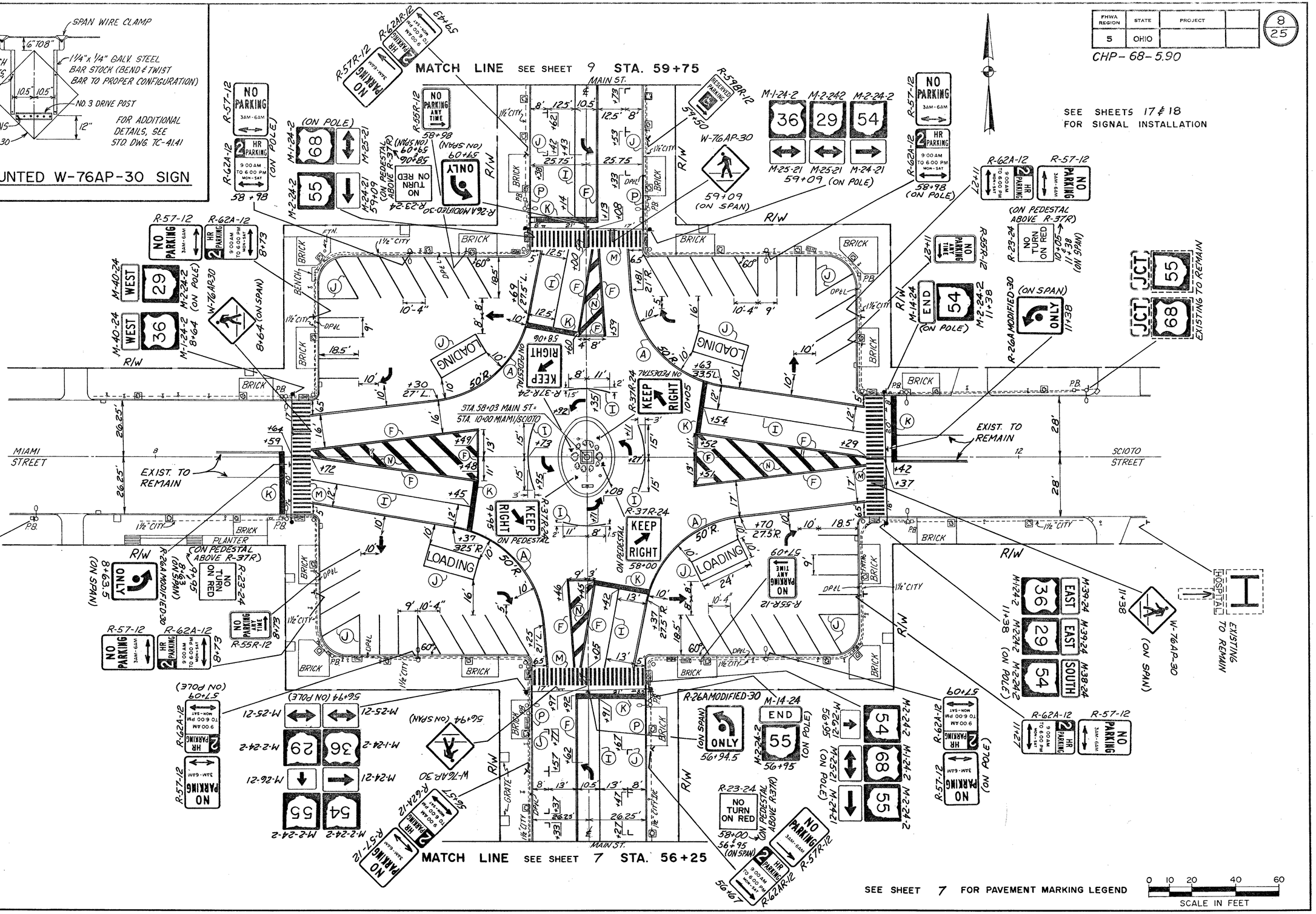
FHWA REGION	STATE	PROJECT	
5	OHIO		

8
25

CHP-68-5.90



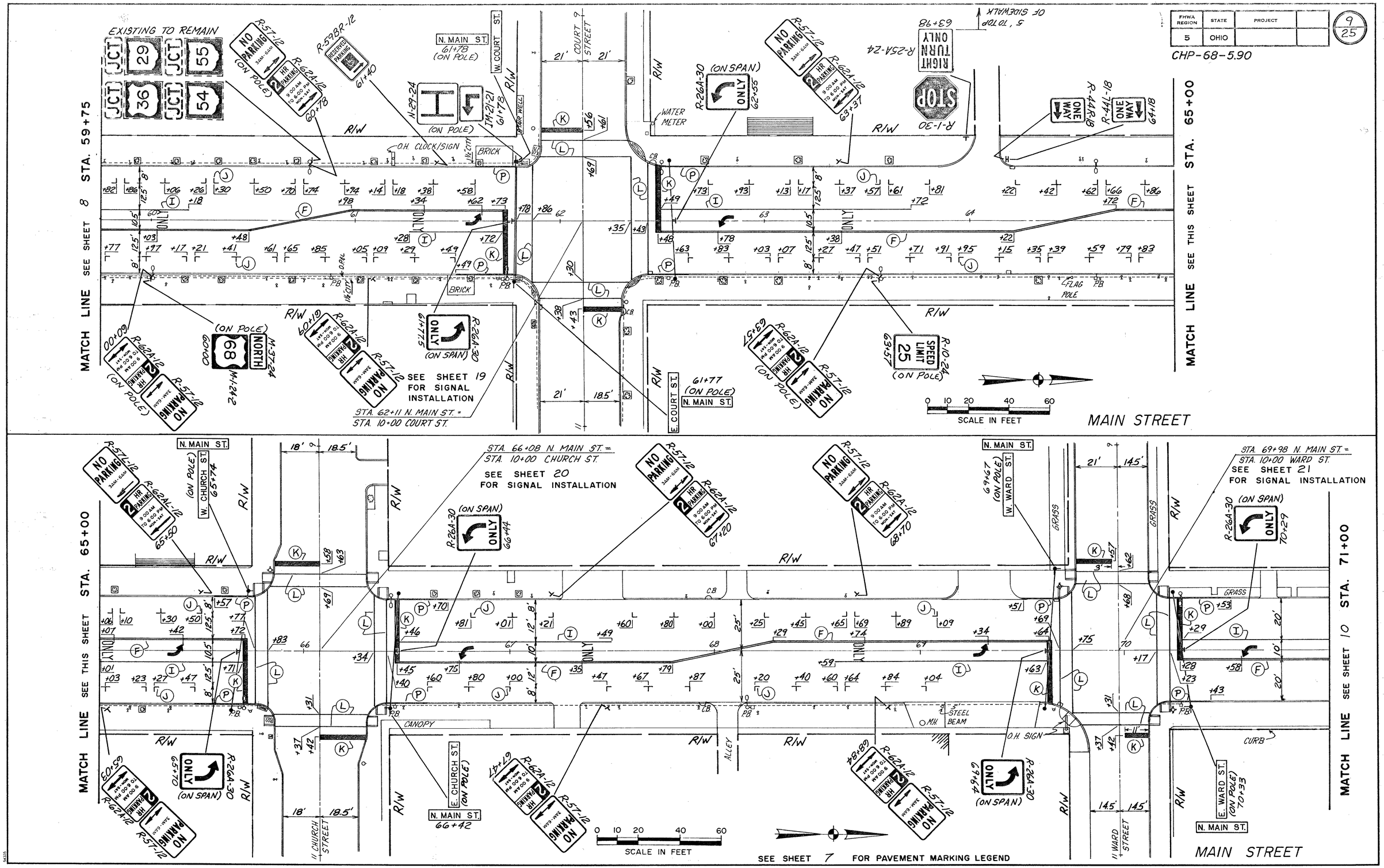
SPAN WIRE MOUNTED W-76AP-30 SIGN



SIGNING & PAVEMENT MARKING PLAN

FHWA REGION	STATE	PROJECT	
5	OHIO		

CHP-68-5.90



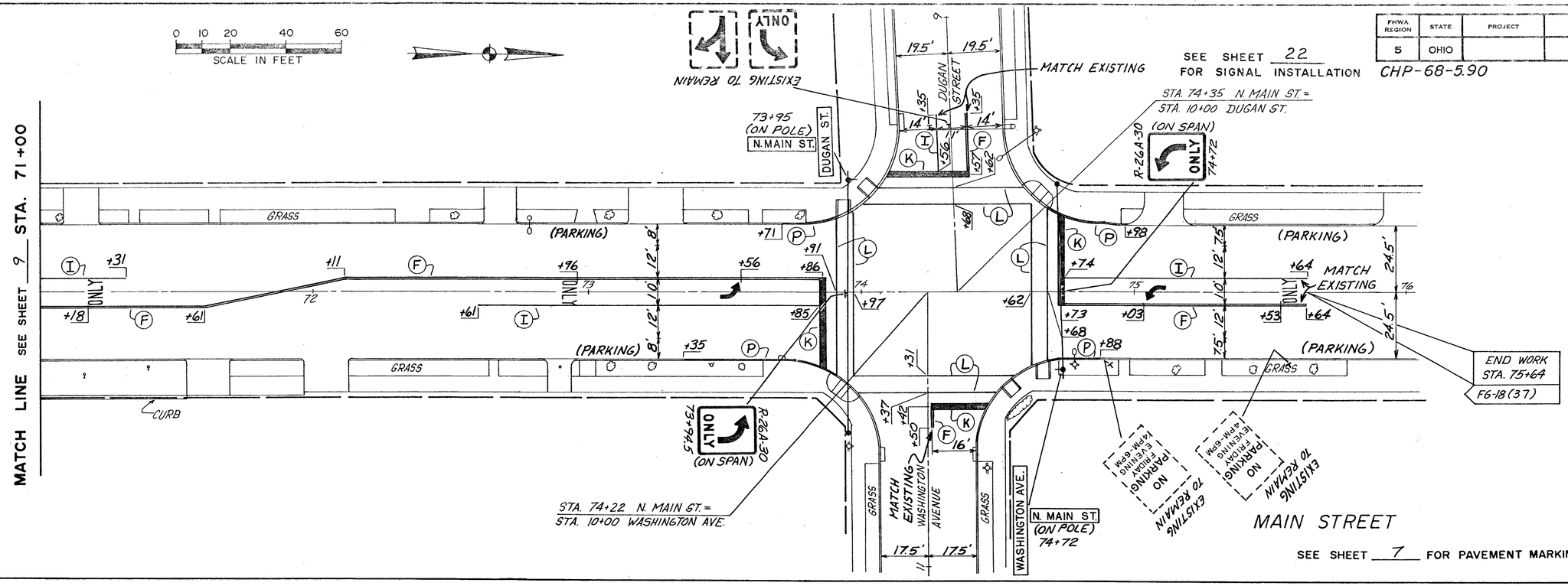
MAIN ST. STA. 59+75-71+00

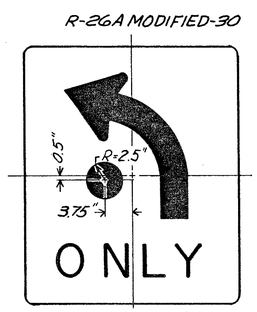
SIGNING & PAVEMENT MARKING PLAN

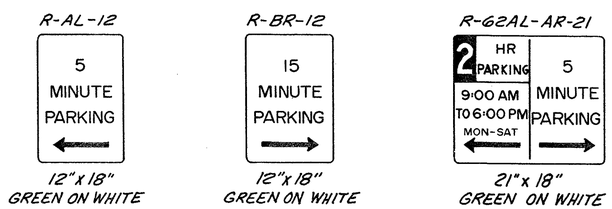
FHWA REGION	STATE	PROJECT	
5	OHIO		

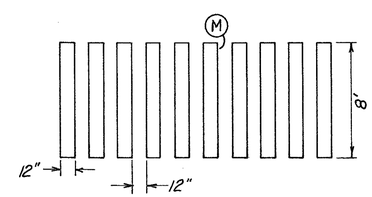
10/25

CHP-68-5.90

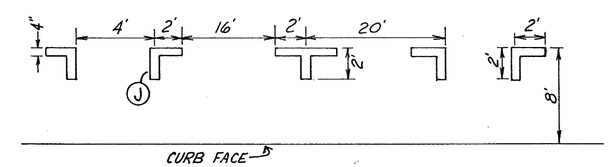


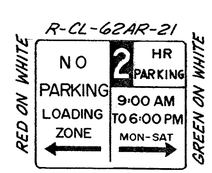




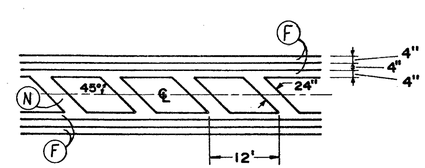


CROSSWALK WITH LONGITUDINAL LINES DETAIL

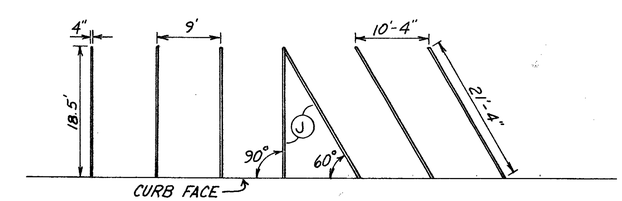




SPECIAL SIGN LEGEND DETAILS



ISLAND DETAIL



PARKING STALL MARKINGS DETAILS

MAIN ST. STA. 71+00 – 76+00

SIGNING & PAVEMENT MARKING PLAN

CALCULATED BY LLD 1/16/87
CHECKED BY DRB 1-30-87

FHWA REGION	STATE	PROJECT
5	OHIO	

CHP-68-5.90

PAVEMENT MARKING SUB-SUMMARY

LOCATION FROM	TO	SIDE	806 Ⓐ EDGE LINES, WHITE, AS PER PLAN Lin Ft	806 Ⓕ CENTER LINES, SOLID DOUBLE Lin Ft	806 Ⓘ CHANNELIZING LINES Lin Ft	621 Ⓙ PKG. LOT STALL MARKING, WHITE Lin Ft	806 Ⓚ STOP LINES Lin Ft	806 Ⓛ CROSSWALK LINES Lin Ft	806 Ⓜ CROSSWALK LINES, AS PER PLAN Lin Ft	806 Ⓝ TRANSVERSE LINES, YELLOW Lin Ft	621 Ⓟ CURB MARKING, YELLOW Lin Ft	806 LANE ARROWS Each	806 WORD "ONLY" ON PAVEMENT, 72" Each	806 WORD "LOADING" ON PAVEMENT Each
MAIN ST.														
48+75	49+61	L		86										
48+75	49+61	R			86									
48+97		℄											1	
49+32		℄										1		
49+47	49+67	L									20			
49+62		R&L					29							
49+67		R&L						48						
49+73		R&L						52						
50+24		R&L						57						
50+30		R&L						53						
50+30	50+50	R									20			
50+35		R&L					32							
50+36	51+65	L			129									
50+36	53+51	R&L		315										
50+50	50+70	R				8								
50+65		℄										1		
50+79	51+19	L				14								
51+05	51+69	R				22								
51+30		℄											1	
51+74	51+94	L				8								
51+99	52+39	R				14								
52+38	52+58	L				8								
52+70	53+10	R				14								
52+79	53+13	L				22								
53+06	53+19	R			43									
53+12		℄											1	
53+14	53+50	R									36			
53+40		℄										1		
53+49	53+63	L									20			
53+51		R&L					33							
53+57		R&L						54						
53+65		R&L						63						
54+19		R&L						61						
54+27		R&L						54						
54+27	54+57	L									30			
54+27	54+51	R									24			
54+32		R&L					32							
54+33	55+03	L			70									
54+33	56+91	R&L		258										
54+52	55+80	R				42								
54+57	55+85	L				42								
54+62		℄										1		
54+97		℄											1	
56+13	56+77	L				22								
56+13	56+91	R			78									
56+22		℄											1	
56+27	56+67	R				14								
56+62		℄										1		
56+67	56+97	R									30			
56+77	56+97	L									20			
56+92		R&L					32							
56+97	56+05	R&L							210					
TOTAL-COLUMN A				659	406	220	158	442	210		200	5	5	

LOCATION FROM	TO	SIDE	806 Ⓐ EDGE LINES, WHITE, AS PER PLAN Lin Ft	806 Ⓕ CENTER LINES, SOLID DOUBLE Lin Ft	806 Ⓘ CHANNELIZING LINES Lin Ft	621 Ⓙ PKG. LOT STALL MARKING, WHITE Lin Ft	806 Ⓚ STOP LINES Lin Ft	806 Ⓛ CROSSWALK LINES Lin Ft	806 Ⓜ CROSSWALK LINES, AS PER PLAN Lin Ft	806 Ⓝ TRANSVERSE LINES, YELLOW Lin Ft	621 Ⓟ CURB MARKING, YELLOW Lin Ft	806 LANE ARROWS Each	806 WORD "ONLY" ON PAVEMENT, 72" Each	806 WORD "LOADING" ON PAVEMENT Each
57+05	57+46	L		41										
57+05	57+44	R&L		39										
57+05	57+42	R			37									
57+05	57+46	R&L								32				
57+45		R					25							
57+46		R&L		12										
57+71		R&L			19									
57+95		L										1		
58+11		R										1		
58+35		R&L			19									
58+59		R&L		12										
58+59	59+00	R		41										
58+59	59+00	R&L								32				
58+60		L					24							
58+61	59+00	R&L		39										
58+63	59+00	L			37									
59+00	59+08	R&L							206					
59+08	59+38	L									30			
59+08	59+33	R									25			
59+13		R&L					31							
59+14	60+18	L			104									
59+14	61+72	R&L		258										
59+33	61+49	R				70								
59+42	61+58	L				70								
59+43		℄										1		
60+03		℄											1	
61+28	61+72	R			44									
61+34		℄											1	
61+49	61+78	R									29			
61+58	61+78	L									20			
61+62		℄										1		
61+73		R&L					31							
61+78		R&L						52						
61+86		R&L						57						
62+35		R&L						60						
62+43		R&L						54						
62+43	62+63	R									20			
62+47	62+73	L									26			
62+48		R&L					31							
62+49	63+72	L			123									
62+49	65+71	R&L		322										
62+63	65+47	R				92								
62+73	63+81	L				36								
62+78		℄										1		
63+38		℄											1	
64+22	65+50	L				42								
65+01	65+71	R			70									
65+07		℄											1	
65+42		℄										1		
65+47	65+77	R									30			
65+57	65+77	L									20			
65+72		R&L					31							
65+77		R&L						52						
65+83		R&L						57						
TOTAL-COLUMN B				764	453	310	173	332	206	64	200	6	4	

LOCATION FROM	TO	SIDE	806 Ⓐ EDGE LINES, WHITE, AS PER PLAN Lin Ft	806 Ⓕ CENTER LINES, SOLID DOUBLE Lin Ft	806 Ⓘ CHANNELIZING LINES Lin Ft	621 Ⓙ PKG. LOT STALL MARKING, WHITE Lin Ft	806 Ⓚ STOP LINES Lin Ft	806 Ⓛ CROSSWALK LINES Lin Ft	806 Ⓜ CROSSWALK LINES, AS PER PLAN Lin Ft	806 Ⓝ TRANSVERSE LINES, YELLOW Lin Ft	621 Ⓟ CURB MARKING, YELLOW Lin Ft	806 LANE ARROWS Each	806 WORD "ONLY" ON PAVEMENT, 72" Each	806 WORD "LOADING" ON PAVEMENT Each
66+34		R&L						54						
66+40		R&L						50						
66+40	66+70	L									30			
66+40	66+60	R									20			
66+45		R&L					30							
66+46	67+49	L			103									
66+46	69+63	R&L		317										
66+60	67+00	R				14								
66+75		℄										1		
66+81	67+21	L				14								
67+35		℄											1	
67+47	67+87	R				14								
67+60	68+00	L				14								
68+20	69+04	R				28								
68+25	69+09	L				28								
68+59	69+63	R			104									
68+74		℄											1	
69+34		℄										1		
69+51	69+69	L									18			
69+64		R&L					30							
69+69		R&L						52						
69+75		R&L						59						
70+17		R&L						54						
70+23		R&L						50						
70+23	70+53	L									30			
70+23	70+43	R									20			
70+28		R&L					30							
70+29	71+31	L			102									
70+29	73+85	R&L		356										
70+58		℄										1		
71+18		℄											1	
72+61	73+85	R			124									
72+96		℄											1	
73+35	73+91	R									56			
73+56		℄										1		
73+71	73+91	L									20			
73+86		R&L					33							
73+91		R&L						57						
73+97		R&L						61						
74+62		R&L						60						
74+68		R&L						56						
74+68	74+98	L									30			
74+68	74+88	R									20			
74+73		R&L					33							
74+74	75+64	L			90									
74+74	75+64	R		90										
75+03		℄										1		
75+53		℄											1	
TOTAL-COLUMN C				763	523	112	156	553			244	5	5	
TOTAL-COLUMN A				659	406	230	158	442	210		200	5	5	
TOTAL-COLUMN B				764	453	310	173	332	206	64	200	6	4	
TOTAL THIS SHEET				2186	1382	652	487	1327	416	64	644	16	14	

CALCULATED BY L.L.D 1/19/87
CHECKED BY DRB 1-30-87

FHWA REGION	STATE	PROJECT	
5	OHIO		

CHP-68-5.90

PAVEMENT MARKING SUB-SUMMARY

LOCATION FROM	TO	SIDE	806 Ⓐ EDGE LINES, WHITE, AS PER PLAN Lin Ft			806 Ⓕ CENTER LINES, SOLID DOUBLE Lin Ft		806 Ⓘ CHANNELIZING LINES Lin Ft	621 Ⓙ PKG. LOT STALL MARKING, WHITE Lin Ft	806 Ⓚ STOP LINES Lin Ft	806 Ⓛ CROSSWALK LINES Lin Ft	806 Ⓜ CROSSWALK LINES, AS PER PLAN Lin Ft	806 Ⓝ TRANSVERSE LINES, YELLOW Lin Ft	621 Ⓟ CURB MARKING, YELLOW Lin Ft		806 LANE ARROWS Each	806 WORD "ONLY" ON PAVEMENT, 72" Each	806 WORD "LOADING" ON PAVEMENT Each
WATER ST.																		
9+56		R								25								
9+61		R&L									46							
9+67		R&L									46							
10+30		R&L									45							
10+36		R&L									44							
10+41		L								22								
MARKET ST.																		
9+54		R								18								
9+59		R&L									37							
9+67		R&L									44							
10+32		R&L									59							
10+40		R&L									59							
10+45		L								22								
MIAMI/SCIOTO																		
8+59		R&L								29								
8+64 - 8+72		R&L										210						
8+72 - 9+49		L				77												
8+72 - 9+49		R&L											113					
8+72 - 9+47		R				75												
8+72 - 9+45		R						73										
9+48		R								22								
9+49		R&L				24												
9+73		R&L						30										
9+92		L														1		
10+08		R														1		
10+27		R&L						30										
10+51		R&L				24												
10+51 - 11+29		R&L											118					
10+51 - 11+29		R				78												
10+52		L								24								
10+53 - 11+29		L				76												
10+54 - 11+29		L						75										
11+29 - 11+37		R&L										224						
11+42		R&L								30								
MONUMENT SQ.																		
N.E. QUADRANT			152						334							2		1
N.W. QUADRANT			156						310							2		1
S.W. QUADRANT			153						334							2		1
S.E. QUADRANT			152						310							2		1
TOTAL COLUMN A			613			354		208	1286	192	380	434	231			10		4

LOCATION FROM	TO	SIDE	806 Ⓐ EDGE LINES, WHITE, AS PER PLAN Lin Ft			806 Ⓕ CENTER LINES, SOLID DOUBLE Lin Ft		806 Ⓘ CHANNELIZING LINES Lin Ft	621 Ⓙ PKG. LOT STALL MARKING, WHITE Lin Ft	806 Ⓚ STOP LINES Lin Ft	806 Ⓛ CROSSWALK LINES Lin Ft	806 Ⓜ CROSSWALK LINES, AS PER PLAN Lin Ft	806 Ⓝ TRANSVERSE LINES, YELLOW Lin Ft	621 Ⓟ CURB MARKING, YELLOW Lin Ft		806 LANE ARROWS Each	806 WORD "ONLY" ON PAVEMENT, 72" Each	806 WORD "LOADING" ON PAVEMENT Each
COURT ST.																		
9+56		R								21								
9+61		R&L									42							
9+69		R&L									45							
10+30		R&L									48							
10+38		R&L									40							
10+43		L								20								
CHURCH ST.																		
9+58		R								22								
9+63		R&L									45							
9+69		R&L									48							
10+31		R&L									46							
10+37		R&L									45							
10+42		L								23								
WARD ST.																		
9+57		R								18								
9+62		R&L									36							
9+68		R&L									36							
10+31		R&L									39							
10+37		R&L									33							
10+42		L								11								
DUGAN/WASHINGTON																		
9+35 - 9+56		R&L				21		21										
9+57		R&L								30								
9+62		R&L									54							
9+68		R&L									62							
10+31		R&L									59							
10+37		R&L									51							
10+42		L									20							
10+43 - 10+50		L				7												
TOTAL COLUMN B						28		21		145	749							
TOTAL COLUMN A			613			354		208	1288	192	380	434	231			10		4
TOTAL THIS SHEET			613			382		229	1288	337	1129	434	231			10		4
TOTAL SHEET 11						2186		1382	652	487	1327	416	64	644		16	14	
TOTAL			613			2568		1611	1940	824	2456	850	295	644		26	14	4
TOTAL MILES			0.12			0.49												

LOCATION FROM	TO	SIDE	806 Ⓐ EDGE LINES, WHITE, AS PER PLAN Lin Ft			806 Ⓕ CENTER LINES, SOLID DOUBLE Lin Ft		806 Ⓘ CHANNELIZING LINES Lin Ft	621 Ⓙ PKG. LOT STALL MARKING, WHITE Lin Ft	806 Ⓚ STOP LINES Lin Ft	806 Ⓛ CROSSWALK LINES Lin Ft	806 Ⓜ CROSSWALK LINES, AS PER PLAN Lin Ft	806 Ⓝ TRANSVERSE LINES, YELLOW Lin Ft	621 Ⓟ CURB MARKING, YELLOW Lin Ft		806 LANE ARROWS Each	806 WORD "ONLY" ON PAVEMENT, 72" Each	806 WORD "LOADING" ON PAVEMENT Each

SIGNING SUB-SUMMARY:

NOTE:
POST SUPPORT LENGTHS REFLECT THE URBAN DESIGN STANDARD OF 7' VERTICAL CLEARANCE FROM BOTTOM OF SIGN TO TOP OF CURB OR EDGE OF ROADWAY.

Calculated By: LLD Date: 1/12/1987
Checked By: DRB Date: 2/2/87

FHWA REGION	STATE	PROJECT	
5	OHIO		

CHP-68-5.90

13/25

SIGN CODE NUMBER AND SIZE

LOCATION STATION	SHEET NO.	SIDE	STREET NAME SIGN VAR.X 8"	R-1-30 30"X30"	R-10-24 24"X30"	R-23-24 24"X24"	R-25A-24 24"X30"	R-26A-30 30"X36"	R-26AMODIFIED-30 30"X36"	R-37R-24 24"X30"	R-41B-30 30"X30"	R-44L-18 18"X24"	R-44R-18 18"X24"	R-55R-12 12"X18"	R-57-12 12"X18"	R-57L-12 12"X18"	R-57R-12 12"X18"	R-59A-12 12"X18"	R-59BL-12 12"X18"	R-59BR-12 12"X18"	R-62A-12 12"X18"	R-62AL-12 12"X18"	R-62AR-12 12"X18"	R-AL-12 12"X18"	R-BR-12 12"X18"	R-62AL-AR-21 21"X18"	R-62AL-CR-21 21"X18"	R-BL-62AR-21 21"X18"	R-CL-62AR-21 21"X18"	W-76AP-30 30"X30"	M-1-24-2 24"X24"	M-2-24-2 24"X24"	M-14-24 24"X12"	M-17-24 24"X12"	IM-19-21 21"X15"	IM-21-21 21"X15"	M-24-21 21"X15"	M-25-21 21"X15"	M-26-21 21"X15"	M-37-24 24"X12"	M-38-24 24"X12"	M-39-24 24"X12"	M-40-24 24"X12"	N-29-24 24"X24"
MAIN ST.																																													
49+71	7	℄						1																																					
49+72		L	2																																										
50+28		R	2																																										
50+30		℄						1																																					
51+00		L													1						1																								
51+27		R													1						1																								
51+94		L																									1																		
52+38		L																										1																	
52+70		R																											1																
52+83		L																								1																			
52+90		R																							1																				
53+10		R																1																											
53+43		L																						1																					
53+60		℄						1																																					
53+75		L	2																																										
54+19	7	R	2																													1	2		3										
54+19		R																																											
54+19		℄						1																																					
54+59		L			1																																								
54+72		R													1						1																								
54+77		L																	1																										
55+21		R																																	1										1
55+43		L													1						1																								
56+06		L										1																																	
56+06		L									1																																		
56+06		L										1																				1	1							1		1			
56+57	8	L													1						1																								
56+67		R															1					1																							
56+94		L																														1	3					1	2	1					
56+94		L																													1															
56+94.5		℄							1																																				
56+95		R																															1	1											
56+95		R			1																											1	2					1	1	1					
57+09	8	L													1						1																								
57+09		R												1																															
57+09		R													1						1																								
58+00		R			1				1																																				
58+06	8	L			1				1																																				
58+98		L													1						1																								
58+98		L												1																															
58+98		R													1						1																								
59+09		L			1																											1	1					1	1						
59+09		℄						1																																					
59+09		R																													1														
59+09		R																														1	2					1	2						
59+43		L															1					1																							
59+50		R																		1																									
TOTAL THIS SHEET			8		1	4		4	2	2	1	1	1		2	9		2	1	1	1	9		2		1	1		1	1	1	1		2		6	12	1	3	1		4	6	2		1		1		1

SIGNING QUANTITIES

LOCATION STATION	SIGNS, DOUBLE-FACED, STREET NAME, TYPE G (630) EA.	SIGNS, FLAT SHEET (630) S.F.	SIGNS, FLAT SHEET, TYPE G (630) S.F.	GROUND MOUNTED SUPPORTS, NO. 2 POST (630) L.F.	GROUND MOUNTED SUPPORTS, NO. 3 POST (630) L.F.	GROUND MOUNTED SUPPORTS, NO. 4 POST (630) L.F.	SIGN HANGER ASSEMBLY, SPAN WIRE, TYPE 2 (630) EA.	SIGN SUPPORT ASSEMBLY, POLE MOUNTED (630) EA.
MAIN ST.								
49+71			7.50				1	
49+72	2							
50+28	2							
50+30			7.50				1	
51+00		3.00		13.5				
51+27		3.00		13.5				
51+94		2.63		12.0				
52+38		2.63		12.0				
52+70		2.63		12.0				
52+83		2.63		12.0				
52+90		1.50		12.0				
53+10		1.50		12.0				
53+43		1.50		12.0				
53+60			7.50				1	
53+75	2							
54+19	2							
54+19		18.00						6
54+19			7.50				1	
54+59		5.00			13.0			
54+72		3.00		13.5				
54+77		1.50		12.0				
55+21		6.19						2
55+43		3.00		13.5				
56+06			3.00					1
56+06			6.25					1
56+06		12.00	3.00					5
56+57		3.00		13.5				
56+67		3.00		13.5				
56+94		24.75						8
56+94			6.25				1	
56+94.5			7.50				1	
56+95		6.00						2
56+95		18.56						6
56+95			4.00				1	
57+09		3.00						2
57+09		1.50		12.0				
57+09		3.00						2
58+00		9.00						2
58+06		9.00						2
58+98		3.00						2
58+98		1.50		12.0				
58+98		3.00						2
59+09		12.38	4.00				1	4
59+09			7.50				1	
59+09			6.25				1	
59+09		18.56						6
59+43		3.00		13.5				
59+50		1.50		12.0				
TOTAL THIS SHEET	8	193.46	77.75	226.5	13.0		10	53

Mossure & Syrakis Co. Ltd.

* 5' VERTICAL CLEARANCE FROM BOTTOM OF LOWER SIGN TO TOP OF SIDEWALK.

SIGNING SUB-SUMMARY:

NOTE:
POST SUPPORT LENGTHS REFLECT THE URBAN DESIGN STANDARD OF 7' VERTICAL CLEARANCE FROM BOTTOM OF SIGN TO TOP OF CURB OR EDGE OF ROADWAY.

Calculated By: L.L.D Date: 1/22/87
Checked By: DRB Date: 2/2/87

FHWA REGION	STATE	PROJECT	
5	OHIO		

CHP-68-5.90

SIGN CODE NUMBER AND SIZE

LOCATION STATION	SHEET NO.	SIDE	STREET NAME SIGN VAR. X 8"	R-1-30 30" X 30"	R-10-24 24" X 30"	R-23-24 24" X 24"	R-25A-24 24" X 30"	R-26A-30 30" X 36"	R-26AMODIFIED-30 30" X 36"	R-37R-24 24" X 30"	R-41B-30 30" X 30"	R-44L-18 18" X 24"	R-44R-18 18" X 24"	R-55R-12 12" X 18"	R-57-12 12" X 18"	R-57L-12 12" X 18"	R-57R-12 12" X 18"	R-59A-12 12" X 18"	R-59BL-12 12" X 18"	R-59BR-12 12" X 18"	R-62A-12 12" X 18"	R-62AL-12 12" X 18"	R-62AR-12 12" X 18"	R-AL-12 12" X 18"	R-BR-12 12" X 18"	R-62AL-AR-21 21" X 18"	R-62AL-CR-21 21" X 18"	R-BL-62AR-21 21" X 18"	R-CL-62AR-21 21" X 18"	W-76AP-30 30" X 30"	M-1-24-2 24" X 24"	M-2-24-2 24" X 24"	M-14-24 24" X 12"	M-17-24 24" X 12"	IM-19-21 21" X 15"	IM-21-21 21" X 15"	M-24-21 21" X 15"	M-25-21 21" X 15"	M-26-21 21" X 15"	M-37-24 24" X 12"	M-38-24 24" X 12"	M-39-24 24" X 12"	M-40-24 24" X 12"	N-29-24 24" X 24"
MAIN ST	9																																											
60+00		R																														1									1				
60+00		R													1						1																								
60+78		L													1						1																								
61+09		R													1						1																								
61+40		L																		1																									
61+77		R	2																																										
61+77.5		℄						1																																					
61+78		L	2																																										
61+78		L																																		1									1
62+55		℄						1																																					
63+37		L													1						1																								
63+57		R			1																																								
63+57		R													1						1																								
63+98*		L		1			1																																						
64+18		L									1	1																																	
65+03		R													1						1																								
65+50		L														1						1																							
65+70		℄						1																																					
65+74		L	2																																										
66+42		R	2																																										
66+44		℄						1																																					
67+20		L													1						1																								
67+47		R													1						1																								
68+70		L													1						1																								
68+84		R													1						1																								
69+64		℄						1																																					
69+67		L	2																																										
70+29		℄						1																																					
70+33		R	2																																										
73+94.5	10	℄						1																																					
73+95		L	2																																										
74+72		R	2																																										
74+72		℄						1																																					
MIAMI/SCIOTO																																													
8+63	8	R				1																																							
8+63.5		R							1																																				
8+64		L																												1															
8+64		L																														1	1								2				
8+73		L													1						1																								
8+73		R												1																															
8+73		R													1						1																								
9+95		R				1				1																																			
10+05		L				1				1																																			
11+27		L													1						1																								
11+27		L												1																															
11+27		R													1						1																								
11+38		L																															1	1											
11+38		L			1				1																																				
11+38		R																												1															
11+38		R																														1	2								1	2			
TOTAL THIS SHEET			16	1	1	4	1	8	2	2		1	1		2	4	1				1	4	1								2		3	4	1			1			1	1	2	2		1
TOTAL SHEET	13		8		1	4		4	2	2	1	1	1		2	9		2	1	1	1	9		2		1	1		1	1	1	1	2		6	12	1	3	1		4	6	2		1		1		1
TOTAL			24	1	2	8	1	12	4	4	1	2	2		4	23	1	2	1	1	2	23	1	2		1	1		1	1	1	1	4		9	16	2	3	1	1	4	6	2	1	2	2	3		2

SIGNING QUANTITIES

LOCATION STATION	SIDE	630 SIGNS, DOUBLE-FACED, STREET NAME, TYPE G EA.	630 SIGNS, FLAT SHEET S.F.	630 SIGNS, FLAT SHEET, TYPE G S.F.	630 GROUND MOUNTED SUPPORTS, NO. 2 POST L.F.	630 GROUND MOUNTED SUPPORTS, NO. 3 POST L.F.	630 GROUND MOUNTED SUPPORTS, NO. 4 POST L.F.	630 SIGN HANGER ASSEMBLY, SPAN WIRE, TYPE 2 EA.	630 SIGN SUPPORT ASSEMBLY, POLE MOUNTED EA.
MAIN ST									
60+00	R		6.00						2
60+00	R		3.00						2
60+78	L		3.00						2
61+09	R		3.00		13.5				
61+40	L		1.50		12.0				
61+77	R	2							
61+77.5	℄			7.50				1	
61+78	L	2							
61+78	L		6.19						2
62+55	℄			7.50				1	
63+37	L		3.00		13.5				
63+57	R		5.00						1
63+57	R		3.00						2
63+98*	L		5.00	6.25			13.5		
64+18	L			6.00	12.5				
65+03	R		3.00		13.5				
65+50	L		3.00		13.5				
65+70	℄			7.50				1	
65+74	L	2							
66+42	R	2							
66+44	℄			7.50				1	
67+20	L		3.00		13.5				
67+47	R		3.00		13.5				
68+70	L		3.00		13.5				
68+84	R		3.00		13.5				
69+64	℄			7.50				1	
69+67	L	2							
70+29	℄			7.50				1	
70+33	R	2							
73+94.5	℄			7.50				1	
73+95	L	2							
74+72	R	2							
74+72	℄			7.50				1	
MIAMI/SCIOTO									
8+63	R			4.00				1	
8+63.5	R			7.50				1	
8+64	L			6.25				1	
8+64	L		12.00						4
8+73	L		3.00		13.5				
8+73	R		1.50		12.0				
8+73	R		3.00		13.5				
9+95	R		9.00						2
10+05	L		9.00						2
11+27	L		3.00		13.5				
11+27	L		1.50		12.0				
11+27	R		3.00		13.5				
11+38	L		6.00						2
11+38	L			11.50				2	
11+38	R			6.25				1	
11+38	R		18.00						6
TOTAL THIS SHEET		16	125.69	107.75	210.5		13.5	14	27
TOTAL SHEET		8	193.46	77.75	226.5	13.0		10	53
TOTAL		24	319.15	185.50	437.0	13.0	13.5	24	80

Mauger & Sprague Co., Ltd.

FHWA REGION	STATE	PROJECT		
5	OHIO			15 / 25

CHP-68-5.90

SIGNAL DISPLAYS

DISPLAY INTERVAL	SIGNAL NUMBER 1	2	3	4	5	6	7	8	DESCRIPTION OF INTERVAL	TIME IN SECONDS DIAL I OFF PEAK 70 SEC	DIAL II AM PEAK 75 SEC	DIAL III PM PEAK 80 SEC	DIAL IV LIGHT 55 SEC
1 (DWELL)	G	G	R	R	G	G	R	R	ϕ1 GREEN	45	50	51	32
2	Y	Y	R	R	Y	Y	R	R	ϕ1 YELLOW	3.0	3.0	3.0	3.0
3	R	R	R	R	R	R	R	R	ϕ1 ALL RED	1.5	1.5	1.5	1.5
4	R	R	G	G	R	R	G	G	ϕ2 GREEN	16	16	20	14
5	R	R	Y	Y	R	R	Y	Y	ϕ2 YELLOW	3.0	3.0	3.0	3.0
6	R	R	R	R	R	R	R	R	ϕ2 ALL RED	1.5	1.5	1.5	1.5
FLASH	Y	Y	R	R	Y	Y	R	R	FLASH				
E.V. PREEMPT	R	R	R	R	R	R	R	R	E.V. PREEMPT ①				
									OFFSET (SEC.)	66	67	68	21
									OFFSET (%)	95	89	85	38

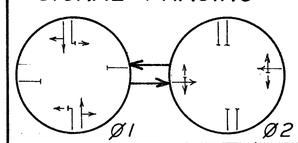
① UPON TERMINATION OR CANCELLATION OF THE EMERGENCY VEHICLE PREEMPT DISPLAY, THE SIGNAL DISPLAYS SHALL REVERT TO THOSE SHOWN DURING ϕ1 GREEN.

CLEARANCE BEFORE EMERGENCY VEHICLE PREEMPT DISPLAY

PREEMPT DURING INTERVAL	SIGNAL NUMBER 1	2	3	4	5	6	7	8	DURATION (SECONDS)
1②	Y	Y	R	R	Y	Y	R	R	3.0
2	Y	Y	R	R	Y	Y	R	R	COMPLETE NORMAL 3.0 SEC. CLEAR
3	NO CLEARANCE REQUIRED								
4②	R	R	Y	Y	R	R	Y	Y	3.0
5	R	R	Y	Y	R	R	Y	Y	COMPLETE NORMAL 3.0 SEC. CLEAR
6	NO CLEARANCE REQUIRED								

② A MINIMUM GREEN DISPLAY OF 5 SECONDS SHALL BE DISPLAYED BEFORE CLEARING TO PREEMPT DISPLAY.

SIGNAL PHASING



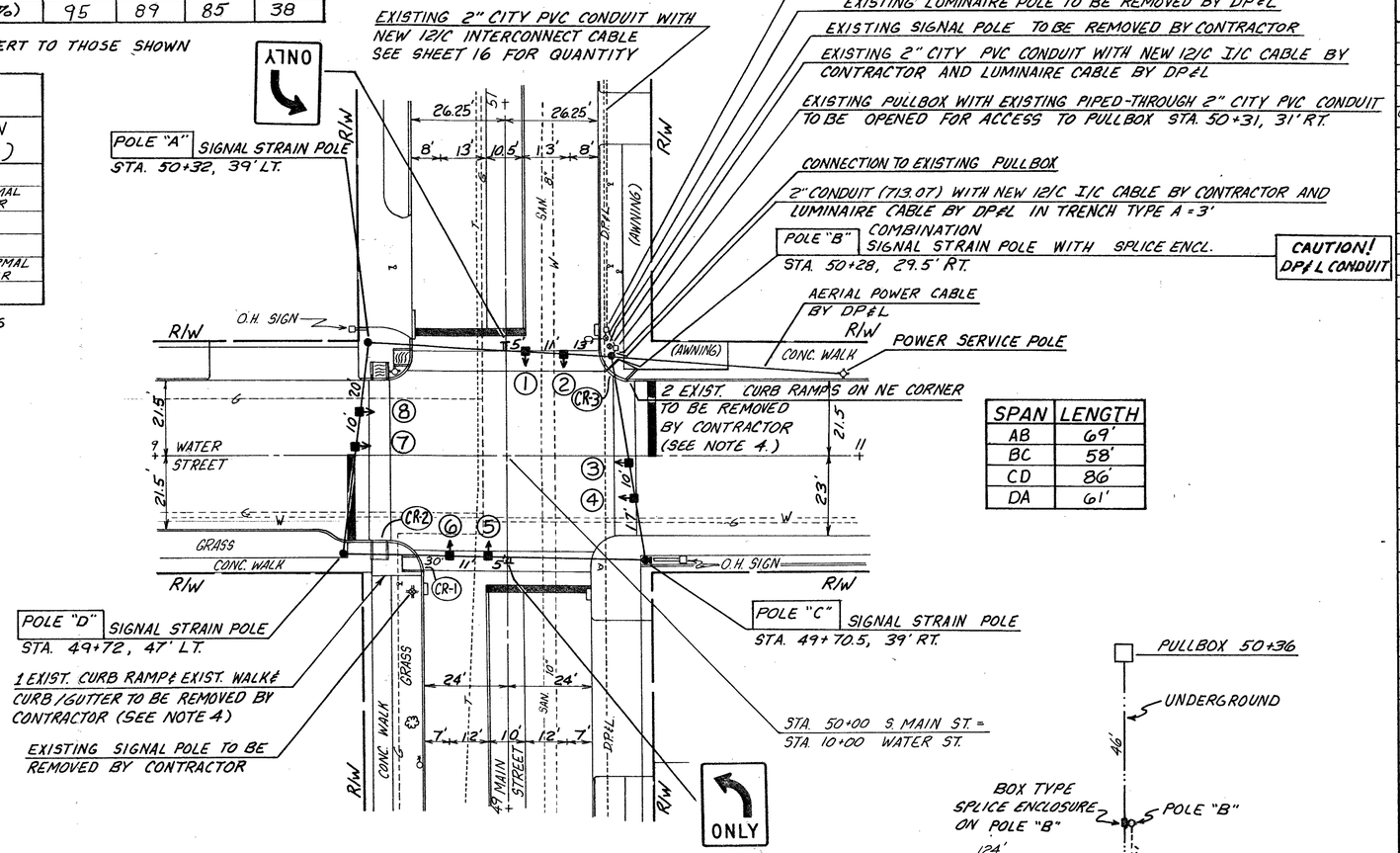
DESCRIPTION OF ITEM TO BE REMOVED BY CONTRACTOR	ITEM TO BE STORED FOR CITY OF URBANA	ITEM TO BE DISPOSED OF BY CONTRACTOR
1-CONTROLLER WITH CABINET AND ACCESSORIES	X	
1-4 WAY SIGNAL HEAD	X	
MESSENGER WIRE	X	
SIGNAL CABLE	X	
1-EMBEDDED WOOD POLE	X	
1-EMBEDDED STEEL POLE	X	
3-BACK GUY CABLES	X	
3-CONDUIT RISERS	X	
METER BASE AND DISCONNECT SWITCH	X	

LEGEND

- (COMBINATION) SIGNAL STRAIN POLE
- SIGNAL STRAIN POLE WITH CONTROL CABINET
- TRAFFIC SIGNAL HEAD
- EXISTING PULLBOX
- EXISTING CONDUIT
- EXISTING STEEL SIGNAL POLE TO BE REMOVED
- EXISTING WOOD SIGNAL POLE TO BE REMOVED
- DP&L DAYTON POWER & LIGHT

NOTES:

1. THE CONTRACTOR SHALL PROVIDE AND INSTALL POWER CABLE FROM THE CONTROL CABINET TO THE TOP OF POLE "B".
2. ALL SIGNAL HEADS SHALL HAVE 8" LENSES.
3. THERE SHALL BE A PREEMPT CONFIRMATION LIGHT ON POLE "D". SEE SHEET 18.
4. THE 202, 608, & 609 ITEMS INCLUDED IN THE SUB-SUMMARY ARE FOR THE REMOVAL OF 2 EXISTING CURB RAMPS AND FOR CR-1, CR-2, & CR-3.
5. SEE SHEET 23 FOR COMB. CURB & GUTTER DETAIL.

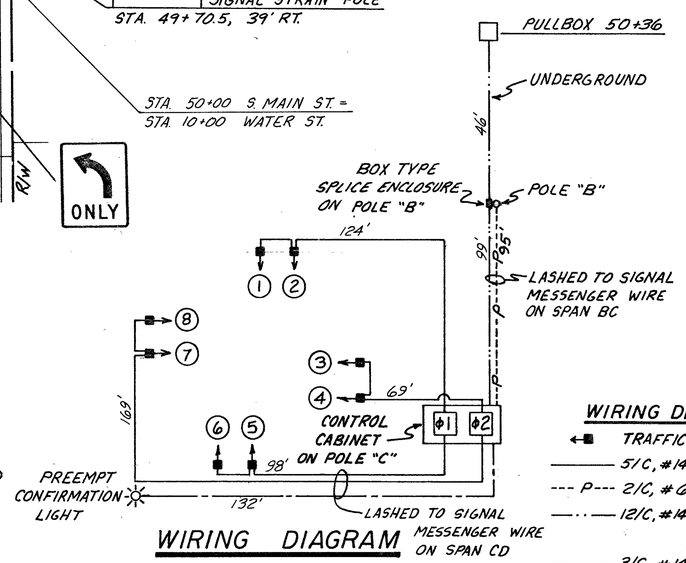


SPAN	LENGTH
AB	69'
BC	58'
CD	86'
DA	61'

CURB RAMP	TYPE	MAIN ST. STATION REF. *	WATER ST. STATION REF. *
CR-1	2	49+67 LT. 49+71 LT.	———
CR-2	2	———	9+62 RT. 9+66 RT.
CR-3	2	50+24.5 RT.	10+32 LT.

* SEE SHEET 20 FOR CURB RAMP STATION REFERENCE DETAIL.

0 10 20 40 60
SCALE IN FEET



WIRING DIAGRAM

WIRING DIAGRAM LEGEND

- TRAFFIC SIGNAL HEAD
- 5/C, #14 AWG (SIGNAL)
- P 2/C, #6 AWG (POWER)
- 12/C, #14 AWG (INTERCONNECT)
- 3/C, #14 AWG

SUB-SUMMARY OF TRAFFIC SIGNAL ITEMS

REFERENCE LETTER	ITEM DESCRIPTION	ITEM NUMBER	UNIT	QUANTITY
	VEHICULAR SIGNAL HEAD, 3-SECTION, 8" LENS, 1-WAY	632	EA	8
	CONCRETE FOR ANCHOR BASE FOUNDATIONS	632	CY	7.2
A	STRAIN POLE, TYPE TC-81.10, DESIGN 3, 25'	632	EA	1
C,D	STRAIN POLE, TYPE TC-81.10, DESIGN 4, 26'	632	EA	2
B	COMBINATION STRAIN POLE, TYPE TC-81.10, DESIGN 3, 30'	632	EA	1
	CABLE SUPPORT ASSEMBLY	632	EA	3
	MESSENGER WIRE, 7 STRAND, 3/8" DIA., WITH ACCESSORIES	632	LF	274
	SIGNAL CABLE, 3/C, NO. 14 AWG	632	LF	132
	SIGNAL CABLE, 5/C, NO. 14 AWG	632	LF	460
	INTERCONNECT CABLE, 12/C, NO. 14 AWG	632	LF	145
	POWER CABLE, 2/C, NO. 6 AWG	632	LF	95
	POWER SERVICE, AS PER PLAN	632	EA	1
	COVERING OF VEHICULAR SIGNAL HEAD	632	EA	8
	REMOVAL OF TRAFFIC SIGNAL INSTALLATION	632	EA	1
	PREEMPT CONFIRMATION LIGHT	632	EA	1
	GROUND ROD	625	EA	4
	TRENCH IN PAVED AREAS, TYPE A	625	LF	3
	CONDUIT, 713.07, TYPE DB, 2"	625	LF	3
	CONNECTION TO EXISTING PULLBOX	625	EA	1
	WALK REMOVED	202	SF	178
	CURB AND GUTTER REMOVED	202	LF	35
	CURB RAMP, TYPE 2	608	SF	90
	4" CONCRETE WALK	608	SF	88
	COMBINATION CURB AND GUTTER, AS PER PLAN	609	LF	17
	CONTROLLER, PRETIMED, 18 CIRCUIT, SOLID STATE DIGITAL MICROPROCESSOR, SECONDARY, WITH PREEMPTION, AS PER PLAN	633	EA	1
	CONTROLLER, PRETIMED, 18 CIRCUIT, SOLID STATE DIGITAL MICROPROCESSOR, SECONDARY, WITH PREEMPTION, AS PER PLAN (ECONOLITE OR TRAFFIC CONTROL TECHNOLOGIES BRAND)—ALTERNATE BID	633	EA	1

DESIGNED	CALCULATED
RJC 9-15-86	DRB 1-28-87
DRAWN	CHECKED
LLD 9-22-86	RJC 1-30-87

MOSURE & SYRAKIS CO., LTD.

SIGNAL INSTALLATION

WATER ST. & MAIN ST.

URBANA, OHIO

FHWA REGION	STATE	PROJECT		
5	OHIO			

16/25

CHP-68-5.90

SIGNAL DISPLAYS / TIME IN SECONDS

DISPLAY INTERVAL	SIGNAL NUMBER 1	2	3	4	5	6	7	8	DESCRIPTION OF INTERVAL	DIAL I OFF PEAK 70 SEC	DIAL II AM PEAK 75 SEC	DIAL III PM PEAK 80 SEC	DIAL IV LIGHT 55 SEC
1 (DWELL)	G	G	R	R	G	G	R	R	Ø1 GREEN	47	52	57	32
2	Y	Y	R	R	Y	Y	R	R	Ø1 YELLOW	3.0	3.0	3.0	3.0
3	R	R	R	R	R	R	R	R	Ø1 ALL RED	1.5	1.5	1.5	1.5
4	R	R	G	G	R	R	G	G	Ø2 GREEN	14	14	14	14
5	R	R	Y	Y	R	R	Y	Y	Ø2 YELLOW	3.0	30	3.0	3.0
6	R	R	R	R	R	R	R	R	Ø2 ALL RED	1.5	1.5	1.5	1.5
FLASH	Y	Y	R	R	Y	Y	R	R	FLASH				
E.V. PREEMPT	R	R	R	R	R	R	R	R	E.V. PREEMPT ①				
									OFFSET (SEC.)	33	35	24	54
									OFFSET (%)	47	47	30	98

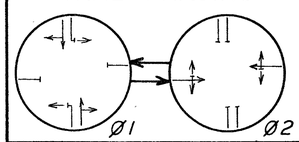
① UPON TERMINATION OR CANCELLATION OF THE EMERGENCY VEHICLE PREEMPT DISPLAY, THE SIGNAL DISPLAYS SHALL REVERT TO THOSE DURING Ø1 GREEN.

CLEARANCE BEFORE EMERGENCY VEHICLE PREEMPT DISPLAY

PREEMPT DURING INTERVAL	SIGNAL NUMBER 1	2	3	4	5	6	7	8	DURATION (SECONDS)
1 ②	Y	Y	R	R	Y	Y	R	R	3.0
2	Y	Y	R	R	Y	Y	R	R	COMPLETE NORMAL 3.0 SEC. CLEAR
3	NO CLEARANCE REQUIRED								
4 ②	R	R	Y	Y	R	R	Y	Y	3.0
5	R	R	Y	Y	R	R	Y	Y	COMPLETE NORMAL 3.0 SEC. CLEAR
6	NO CLEARANCE REQUIRED								

② A MINIMUM GREEN DISPLAY OF 5 SECONDS SHALL BE DISPLAYED BEFORE CLEARING TO PREEMPT DISPLAY.

SIGNAL PHASING



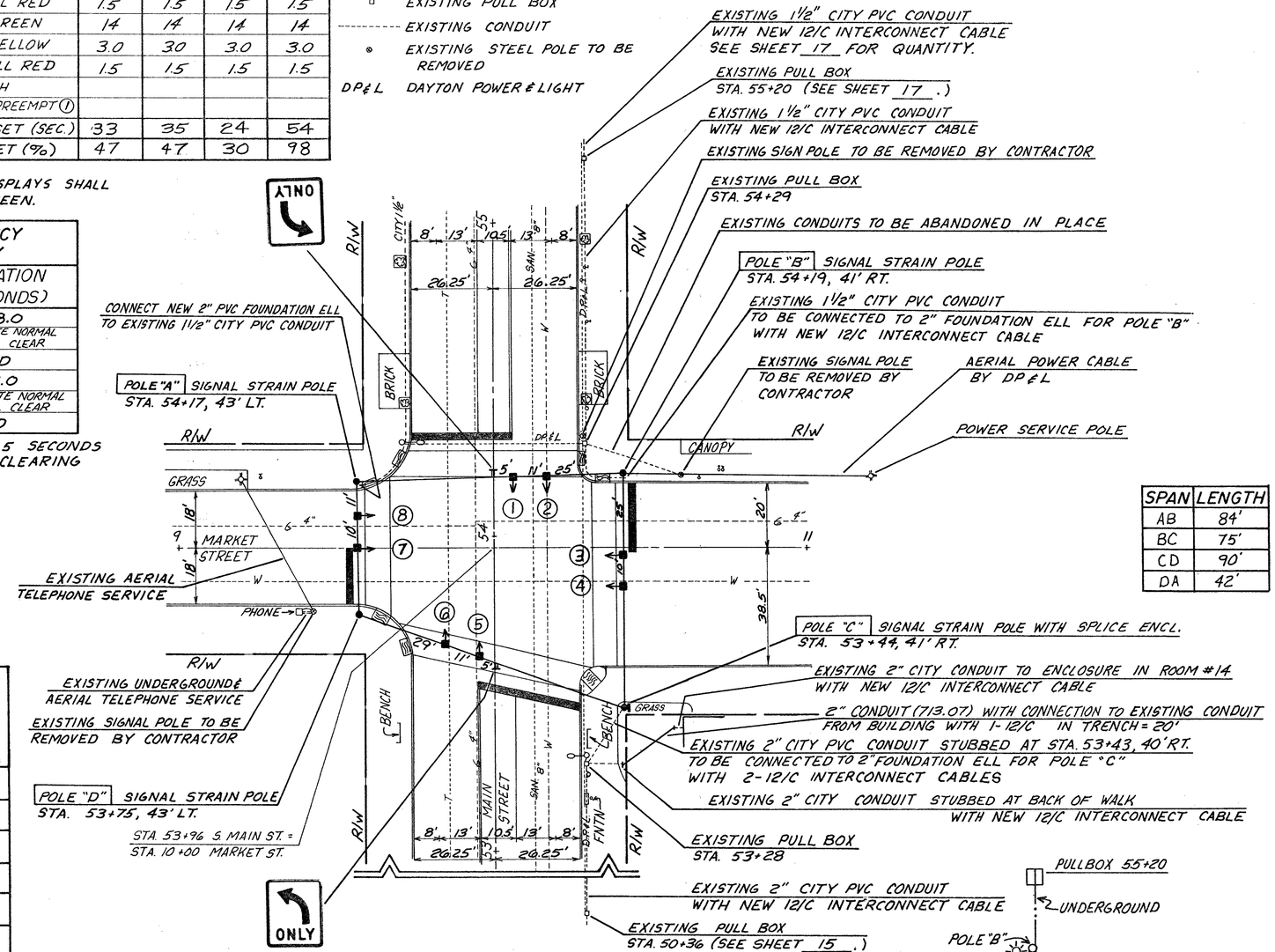
DESCRIPTION OF ITEM TO BE REMOVED BY CONTRACTOR	ITEM TO BE STORED FOR CITY OF URBANA	ITEM TO BE DISPOSED OF BY CONTRACTOR
1- CONTROLLER WITH CABINET AND ACCESSORIES	X	
1- 4 WAY SIGNAL HEAD	X	
MESSENGER WIRE	X	
SIGNAL CABLE	X	
3-EMBEDDED STEEL POLES	X	
2- CONDUIT RISERS	X	
METER BASE AND DISCONNECT SWITCH	X	

LEGEND

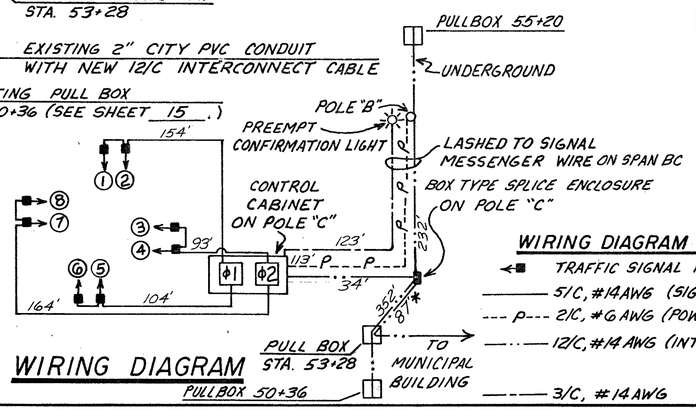
- SIGNAL STRAIN POLE
- SIGNAL STRAIN POLE WITH CONTROL CABINET
- TRAFFIC SIGNAL HEAD
- EXISTING PULL BOX
- EXISTING CONDUIT
- EXISTING STEEL POLE TO BE REMOVED
- DP&L DAYTON POWER & LIGHT

NOTES:

1. THE CONTRACTOR SHALL PROVIDE & INSTALL POWER CABLE FROM THE CONTROLLER TO THE TOP OF POLE "B".
2. ALL SIGNAL HEADS SHALL HAVE 8" LENSES.
3. THERE SHALL BE A PREEMPT CONFIRMATION LIGHT MOUNTED ON POLE "B". SEE SHEET 18 .



SPAN	LENGTH
AB	84'
BC	75'
CD	90'
DA	42'



WIRING DIAGRAM

WIRING DIAGRAM LEGEND

- TRAFFIC SIGNAL HEAD
- 5/C, #14 AWG (SIGNAL)
- P 2/C, #6 AWG (POWER)
- 12/C, #14 AWG (INTERCONNECT)
- 3/C, #14 AWG

* CABLE QUANTITY IS TO FACE OF MUNICIPAL BLDG. CABLE INSIDE OF BLDG. IS INCLUDED IN LUMP SUM BID ITEM 633 EMERGENCY VEHICLE PREEMPTION CONTROL SYSTEM. (SEE NOTE SHEET 4)

0 10 20 40 60
SCALE IN FEET

SUB-SUMMARY OF TRAFFIC SIGNAL ITEMS

REFERENCE LETTER	ITEM DESCRIPTION	ITEM NUMBER	UNIT	QUANTITY
	VEHICULAR SIGNAL HEAD, 3-SECTION, 8" LENS, 1-WAY	632	EA	8
	CONCRETE FOR ANCHOR BASE FOUNDATIONS	632	CY	7.5
A, D	STRAIN POLE, TYPE TC-81.10, DESIGN 3, 26'	632	EA	2
B	STRAIN POLE, TYPE TC-81.10, DESIGN 4, 26'	632	EA	1
C	STRAIN POLE, TYPE TC-81.10, DESIGN 5, 26'	632	EA	1
	CABLE SUPPORT ASSEMBLY	632	EA	2
	MESSENGER WIRE, 7 STRAND, 3/8" DIA., WITH ACCESSORIES	632	LF	291
	SIGNAL CABLE, 3/C, NO. 14 AWG	632	LF	123
	SIGNAL CABLE, 5/C, NO. 14 AWG	632	LF	515
	INTERCONNECT CABLE, 12/C, NO. 14 AWG	632	LF	705
	POWER CABLE, 2/C, NO. 6 AWG	632	LF	113
	POWER SERVICE, AS PER PLAN	632	EA.	1
	COVERING OF VEHICULAR SIGNAL HEAD	632	EA	8
	REMOVAL OF TRAFFIC SIGNAL INSTALLATION	632	EA	1
	PREEMPT CONFIRMATION LIGHT	632	EA	1
	GROUND ROD	625	EA	4
	TRENCH	625	LF	20
	CONDUIT, 713.07, TYPE DB, 2"	625	LF	20
	CONNECTION TO EXISTING CONDUIT	625	EA	3
	CONTROLLER, PRETIMED, 18 CIRCUIT, SOLID STATE DIGITAL MICROPROCESSOR, SECONDARY, WITH PREEMPTION, AS PER PLAN	633	EA	1
	CONTROLLER, PRETIMED, 18 CIRCUIT, SOLID STATE DIGITAL MICROPROCESSOR, SECONDARY, WITH PREEMPTION, AS PER PLAN (ECONOLITE OR TRAFFIC CONTROL TECHNOLOGIES BRAND)— ALTERNATE BID	633	EA	1

DESIGNED	CALCULATED
RJC 9-16-86	DRB 1-28-87
DRAWN	CHECKED
LLD 9-26-86	RJC 1-30-87

MOSURE & SYRAKIS CO., LTD.

SIGNAL INSTALLATION

MARKET ST. & MAIN ST.

URBANA, OHIO

FHWA REGION	STATE	PROJECT	
5	OHIO		

17 / 25

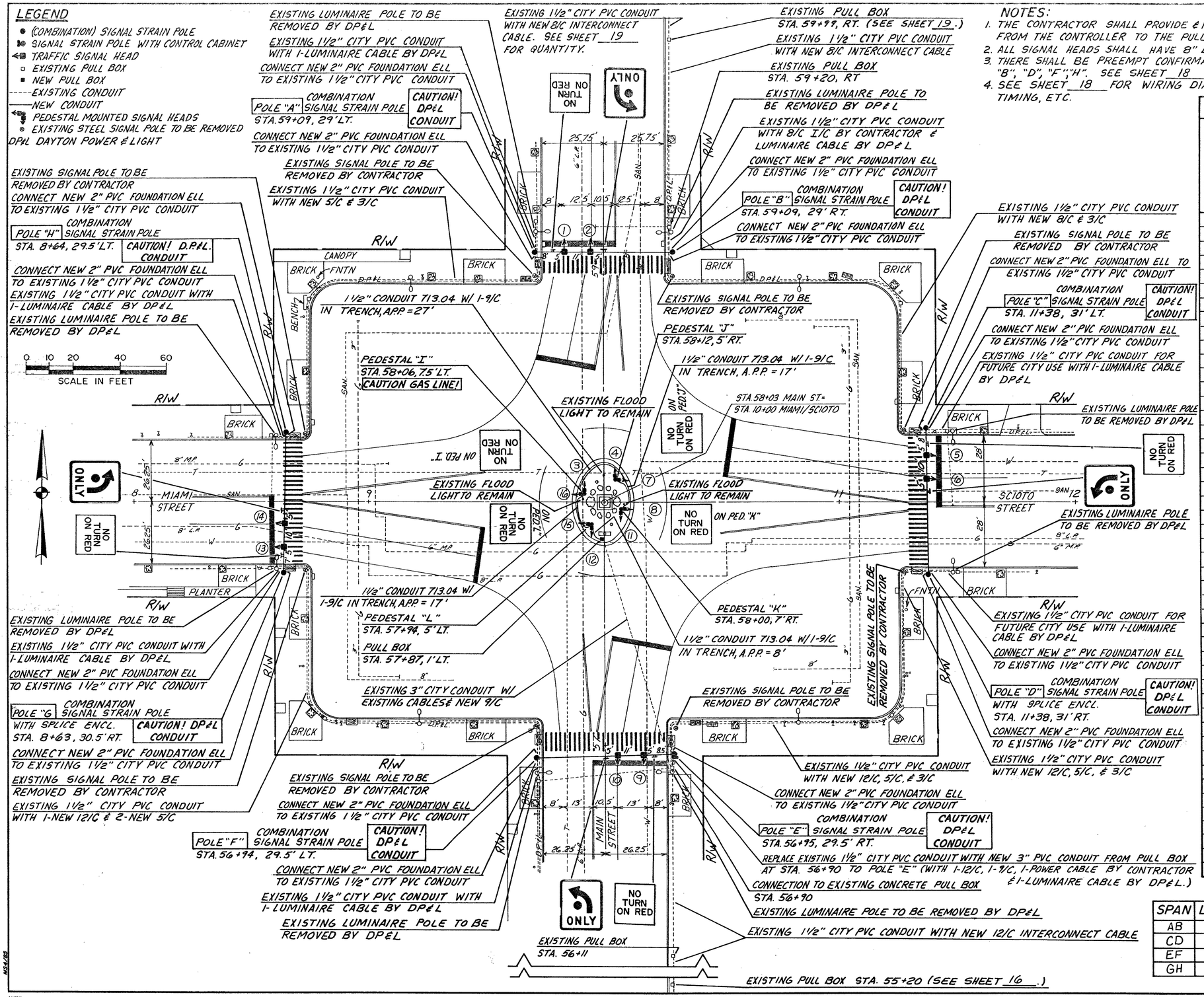
CHP-68-5.90

LEGEND

- (COMBINATION) SIGNAL STRAIN POLE
- SIGNAL STRAIN POLE WITH CONTROL CABINET
- TRAFFIC SIGNAL HEAD
- EXISTING PULL BOX
- NEW PULL BOX
- EXISTING CONDUIT
- NEW CONDUIT
- PEDESTAL MOUNTED SIGNAL HEADS
- EXISTING STEEL SIGNAL POLE TO BE REMOVED DP&L DAYTON POWER & LIGHT

NOTES:

1. THE CONTRACTOR SHALL PROVIDE & INSTALL POWER CABLE FROM THE CONTROLLER TO THE PULL BOX AT STA. 56+70, RT.
2. ALL SIGNAL HEADS SHALL HAVE 8" LENSES.
3. THERE SHALL BE PREEMPT CONFIRMATION LIGHTS ON POLES "B", "D", "F", "H". SEE SHEET 18.
4. SEE SHEET 18 FOR WIRING DIAGRAM, SIGNAL DISPLAYS & TIMING, ETC.



SPAN	LENGTH
AB	58'
CD	62'
EF	59'
GH	60'

SUB-SUMMARY OF TRAFFIC SIGNAL ITEMS

REFERENCE LETTER	ITEM DESCRIPTION	ITEM NUMBER	UNIT	QUANTITY
	VEHICULAR SIGNAL HEAD, 3-SECTION, 8" LENS, 1-WAY	632	EA	8
	VEHICULAR SIGNAL HEAD, 3-SECTION, 8" LENS, 2-WAY	632	EA	4
	CONCRETE FOR ANCHOR BASE FOUNDATIONS	632	CY	13.4
	COMBINATION STRAIN POLE, TYPE TC-81.10, DESIGN 3, 30'	632	EA	8
	PEDESTAL, 8 FEET, TRANSFORMER BASE, AS PER PLAN	632	EA	4
	CABLE SUPPORT ASSEMBLY	632	EA	8
	MESSENGER WIRE, 7 STRAND, 3/8" DIA. WITH ACCESSORIES	632	LF	239
	SIGNAL CABLE, 3/C, NO. 14 AWG	632	LF	938
	SIGNAL CABLE, 5/C, NO. 14 AWG	632	LF	1378
	SIGNAL CABLE, 9/C, NO. 14 AWG	632	LF	301
	INTERCONNECT CABLE, 8/C, NO. 14 AWG	632	LF	390
	INTERCONNECT CABLE, 12/C, NO. 14 AWG	632	LF	762
	POWER CABLE, 2/C, NO. 6 AWG	632	LF	22
	POWER SERVICE, AS PER PLAN	632	EA	1
	COVERING OF VEHICULAR SIGNAL HEAD	632	EA	12
	REMOVAL OF TRAFFIC SIGNAL INSTALLATION	632	EA.	1
	PREEMPT CONFIRMATION LIGHT	632	EA	4
	GROUND ROD	625	EA	12
	PULL BOX, 713.081, 10"x 14"	625	EA	1
	TRENCH IN PAVED AREAS, TYPE A	625	LF	5
	TRENCH, AS PER PLAN	625	LF	69
	CONDUIT, 713.04, 1½"	625	LF	69
	CONDUIT, 713.07, TYPE DB, 3"	625	LF	5
	CONNECTION TO EXISTING PULL BOX	625	EA	1
	CONNECTION TO EXISTING CONDUIT	625	EA	15
	CONTROLLER, PRETIMED, 18 CIRCUIT, SOLID STATE DIGITAL MICROPROCESSOR, MASTER/SECONDARY, WITH PREEMPTION AND WEEKLY PROGRAMMER, AS PER PLAN	633	EA	1
	CONTROLLER, PRETIMED, 18 CIRCUIT, SOLID STATE DIGITAL MICROPROCESSOR, MASTER/SECONDARY, WITH PREEMPTION AND WEEKLY PROGRAMMER, AS PER PLAN (ECONOLITE OR TRAFFIC CONTROL TECHNOLOGIES BRAND) — ALTERNATE BID	633	EA	1

DESIGNED	CALCULATED
RJC 9-18-86	DRB 1-28-87
DRAWN	CHECKED
LLD 10-9-86	RJC 2-2-87

MOSURE & SYRAKIS CO., LTD.

SIGNAL INSTALLATION

MIAMI ST. / SCIOTO ST. & MAIN ST.

URBANA, OHIO

MS 4/88

N63066

SUPPLEMENTAL SIGNAL SHEET FOR MAIN STREET & MIAMI/SCIOTO STREET

FHWA REGION	STATE	PROJECT	
5	OHIO		

CHP-68-5.90

SIGNAL DISPLAYS / TIME IN SECONDS

DISPLAY INTERVAL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	DESCRIPTION OF INTERVAL	DIAL I OFF PEAK 70 SEC	DIAL II AM PEAK 75 SEC	DIAL III PM PEAK 80 SEC	DIAL IV LIGHT 55 SEC
1 (DWELL)	G	G	G	G	R	R	R	R	G	G	G	G	R	R	R	R	Ø1 GREEN	34	39	41	26
2	Y	Y	Y	Y	R	R	R	R	Y	Y	Y	Y	R	R	R	R	Ø1 YELLOW	3.0	3.0	3.0	3.0
3	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Ø1 ALL RED	3.0	3.0	3.0	3.0
4	R	R	R	R	G	G	G	G	R	R	R	R	G	G	G	G	Ø2 GREEN	23	23	26	16
5	R	R	R	R	Y	Y	Y	Y	R	R	R	R	Y	Y	Y	Y	Ø2 YELLOW	3.0	3.0	3.0	3.0
6	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Ø2 ALL RED	4.0	4.0	4.0	4.0
FLASH	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	FLASH				
E.V. PREEMPT	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	E.V. PREEMPT ①				
																	OFFSET (SEC)	44	45	35	54
																	OFFSET (%)	63	60	44	98

① UPON TERMINATION OR CANCELLATION OF THE EMERGENCY VEHICLE PREEMPT DISPLAY, THE SIGNAL DISPLAYS SHALL REVERT TO THOSE DURING Ø1 GREEN.

CLEARANCE BEFORE EMERGENCY VEHICLE PREEMPT DISPLAY

PREEMPT DURING INTERVAL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	DURATION (SECONDS)
1②	Y	Y	Y	Y	R	R	R	R	Y	Y	Y	Y	R	R	R	R	3.0
2	Y	Y	Y	Y	R	R	R	R	Y	Y	Y	Y	R	R	R	R	COMPLETE NORMAL 3.0 SEC. CLEAR
3	NO CLEARANCE REQUIRED																
4②	R	R	R	R	Y	Y	Y	Y	R	R	R	R	Y	Y	Y	Y	3.0
5	R	R	R	R	Y	Y	Y	Y	R	R	R	R	Y	Y	Y	Y	COMPLETE NORMAL 3.0 SEC. CLEAR
6	NO CLEARANCE REQUIRED																

② A MINIMUM GREEN DISPLAY OF 5 SECONDS SHALL BE DISPLAYED BEFORE CLEARING TO PREEMPT DISPLAY.

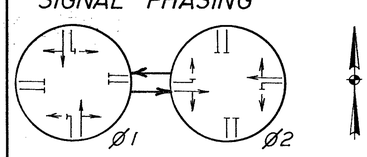
TIMING PLAN SCHEDULE

DIAL	PLAN	CYCLE LENGTH (SECONDS)	TIME OF DAY (TOD) & DAY OF WEEK (DOW) TIMING PLAN IS IN EFFECT
IV	LIGHT TRAFFIC	55	12:00M-8:00AM SU
I	OFF PEAK	70	8:00AM-9:00PM SU
IV	LIGHT TRAFFIC	55	9:00PM-12:00M SU
IV	LIGHT TRAFFIC	55	12:00M-6:00AM M-F
II	AM PEAK	75	6:00AM-8:00AM M-F
I	OFF PEAK	70	8:00AM-3:00PM M-F
III	PM PEAK	80	3:00PM-5:15PM M-F
I	OFF PEAK	70	5:15PM-9:00PM M-TH
I	OFF PEAK	70	5:15PM-10:00PM F
IV	LIGHT TRAFFIC	55	9:00PM-12:00M M-TH
IV	LIGHT TRAFFIC	55	10:00PM-12:00M F
IV	LIGHT TRAFFIC	55	12:00M-8:00AM SA
I	OFF PEAK	70	8:00AM-10:00PM SA
IV	LIGHT TRAFFIC	55	10:00PM-12:00M SA

INTERCONNECT CABLE COLOR CODE CHART

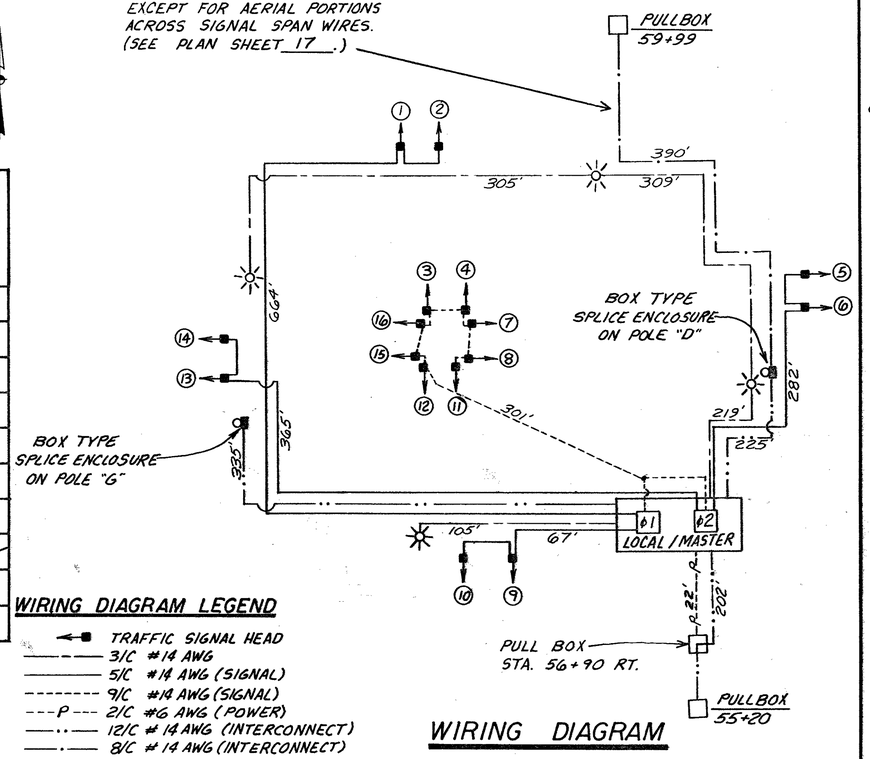
COLOR	FUNCTION 12/C	8/C	12/C (INTO FIRE STATION)
BLACK	OFFSET 1	OFFSET 1	NOT USED
WHITE	COMMON	COMMON	NOT USED
RED	DIAL II	DIAL II	NOT USED
GREEN	DIAL III	DIAL III	NOT USED
ORANGE	DIAL IV	DIAL IV	NOT USED
BLUE	NORTH PREEMPT ROUTE	NORTH PREEMPT ROUTE	NORTH PREEMPT ROUTE
WHITE/BLACK	PREEMPT COMMON	PREEMPT COMMON	PREEMPT COMMON
RED/BLACK	SPARE	SPARE	SPARE
GREEN/BLACK	SPARE		SPARE
ORANGE/BLACK	SOUTH PREEMPT ROUTE		SOUTH PREEMPT ROUTE
BLUE/BLACK	EAST PREEMPT ROUTE		EAST PREEMPT ROUTE
BLACK/WHITE	WEST PREEMPT ROUTE		WEST PREEMPT ROUTE

SIGNAL PHASING



DESCRIPTION OF ITEM TO BE REMOVED BY CONTRACTOR	ITEM TO BE STORED FOR CITY OF URBANA	ITEM TO BE DISPOSED OF BY CONTRACTOR
1-CONTROLLER WITH CABINET AND ACCESSORIES	X	
4-1 WAY SIGNAL HEADS	X	
2-2 WAY SIGNAL HEADS	X	
MESSENGER WIRE	X	
SIGNAL CABLE	X	
8-EMBEDDED STEEL POLES	X	
2-ANCHOR BASE PEDESTALS	X	
2-ANCHOR BASE FOUNDATIONS		X
12-CONDUIT RISERS	X	
METER BASE AND DISCONNECT SWITCH	X	

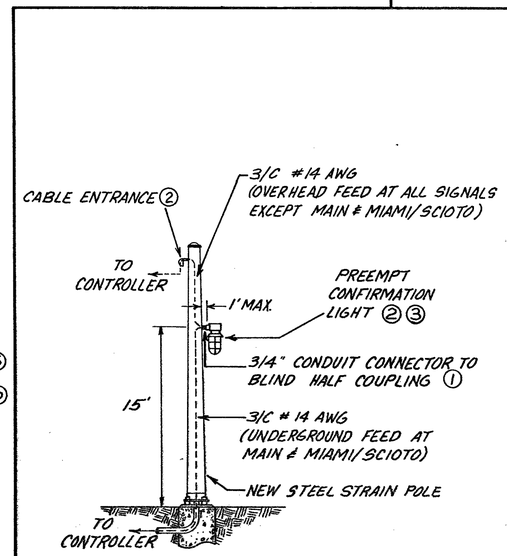
NOTE: ALL CABLES ARE UNDERGROUND EXCEPT FOR AERIAL PORTIONS ACROSS SIGNAL SPAN WIRES. (SEE PLAN SHEET 17 .)



WIRING DIAGRAM LEGEND

- TRAFFIC SIGNAL HEAD
- 3/C #14 AWG
- 5/C #14 AWG (SIGNAL)
- 9/C #14 AWG (SIGNAL)
- P — 2/C #6 AWG (POWER)
- 12/C #14 AWG (INTERCONNECT)
- 8/C #14 AWG (INTERCONNECT)
- PREEMPT CONFIRMATION LIGHT

WIRING DIAGRAM



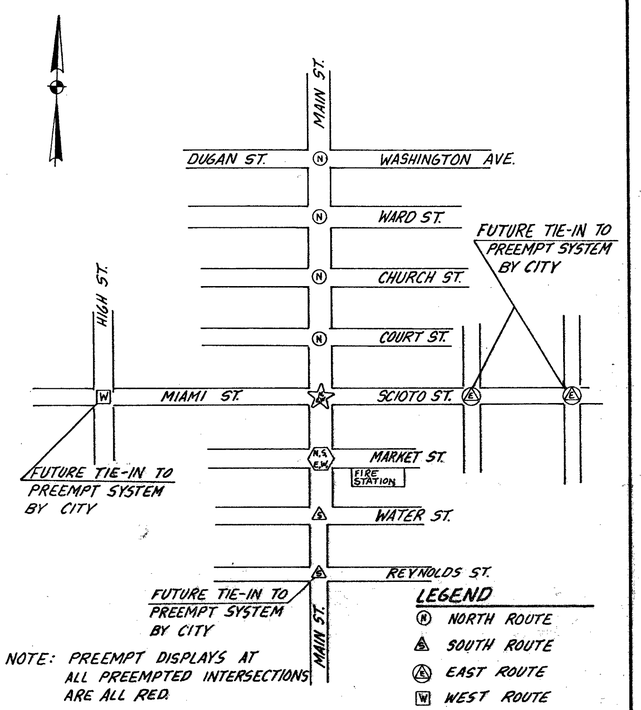
NOTES:

① CONDUIT CONNECTIONS SHALL BE WATER TIGHT.

② SEE SHEET 25 FOR LOCATIONS & ORIENTATIONS.

③ SEE NOTE ON SHEET 3 .

PREEMPT CONFIRMATION LIGHT DETAIL



NOTE: PREEMPT DISPLAYS AT ALL PREEMPTED INTERSECTIONS ARE ALL RED.

LEGEND

- N NORTH ROUTE
- S SOUTH ROUTE
- E EAST ROUTE
- W WEST ROUTE
- N, E, W NORTH, EAST, OR WEST ROUTE
- N, S, E, W NORTH, SOUTH, EAST, OR WEST ROUTE

EMERGENCY VEHICLE PREEMPTION ROUTES

FHWA REGION	STATE	PROJECT		
5	OHIO			19 / 25

CHP-68-5.90

SIGNAL DISPLAYS / TIME IN SECONDS

DISPLAY INTERVAL	SIGNAL NUMBER 1	2	3	4	5	6	7	8	DESCRIPTION OF INTERVAL	DIAL I OFF PEAK 70 SEC	DIAL II AM PEAK 75 SEC	DIAL III PM PEAK 80 SEC	DIAL IV LIGHT 55 SEC
1 (DWELL)	G	G	R	R	G	G	R	R	Φ1 GREEN	45	50	54	32
2	Y	Y	R	R	Y	Y	R	R	Φ1 YELLOW	3.0	3.0	3.0	3.0
3	R	R	R	R	R	R	R	R	Φ1 ALL RED	1.5	1.5	1.5	1.5
4	R	R	G	G	R	R	G	G	Φ2 GREEN	16	16	17	14
5	R	R	Y	Y	R	R	Y	Y	Φ2 YELLOW	3.0	3.0	3.0	3.0
6	R	R	R	R	R	R	R	R	Φ2 ALL RED	1.5	1.5	1.5	1.5
FLASH	Y	Y	R	R	Y	Y	R	R	FLASH				
E.V. PREEMPT	R	R	R	R	R	R	R	R	E.V. PREEMPT ①				
									OFFSET (SEC.)	31	29	20	21
									OFFSET (%)	45	39	25	39

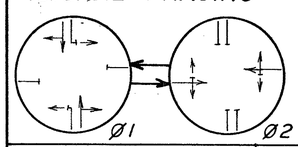
① UPON TERMINATION OR CANCELLATION OF THE EMERGENCY VEHICLE PREEMPT DISPLAY, THE SIGNAL DISPLAYS SHALL REVERT TO THOSE DURING Φ1 GREEN.

CLEARANCE BEFORE EMERGENCY VEHICLE PREEMPT DISPLAY

PREEMPT DURING INTERVAL	SIGNAL NUMBER 1	2	3	4	5	6	7	8	DURATION (SECONDS)
1 ②	Y	Y	R	R	Y	Y	R	R	3.0
2	Y	Y	R	R	Y	Y	R	R	COMPLETE NORMAL 3.0 SEC. CLEAR
3	NO CLEARANCE REQUIRED								
4 ②	R	R	Y	Y	R	R	Y	Y	3.0
5	R	R	Y	Y	R	R	Y	Y	COMPLETE NORMAL 3.0 SEC. CLEAR
6	NO CLEARANCE REQUIRED								

② A MINIMUM GREEN DISPLAY OF 5 SECONDS SHALL BE DISPLAYED BEFORE CLEARING TO PREEMPT DISPLAY.

SIGNAL PHASING



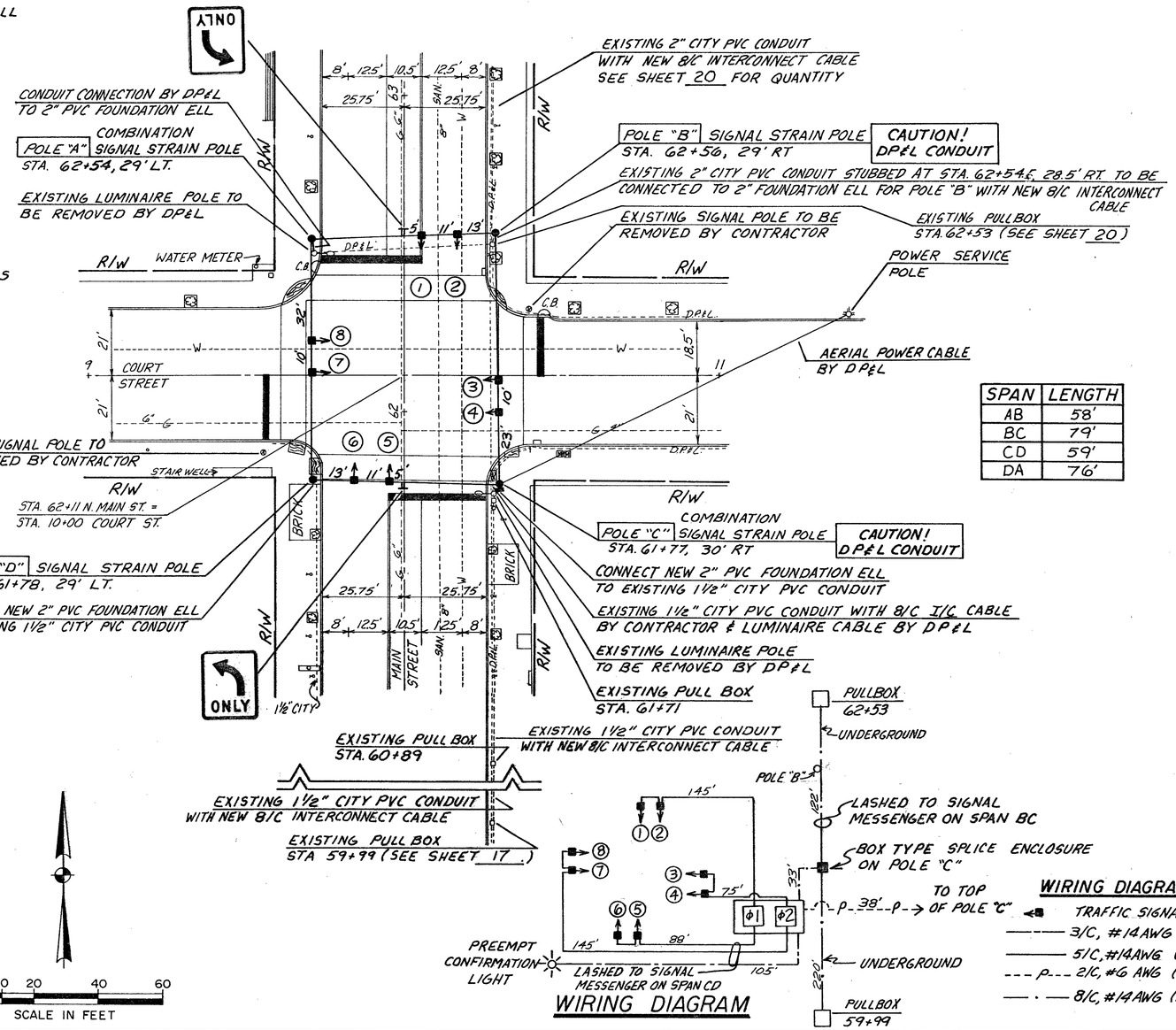
DESCRIPTION OF ITEM TO BE REMOVED BY CONTRACTOR	ITEM TO BE STORED FOR CITY OF URBANA	ITEM TO BE DISPOSED OF BY CONTRACTOR
1- CONTROLLER WITH CABINET AND ACCESSORIES	X	
1-4 WAY SIGNAL HEAD	X	
MESSENGER WIRE	X	
SIGNAL CABLE	X	
2-EMBEDDED STEEL POLES	X	
3- CONDUIT RISERS	X	
METER BASE AND DISCONNECT SWITCH	X	

LEGEND

(COMBINATION)
- SIGNAL STRAIN POLE
- SIGNAL STRAIN POLE WITH CONTROL CABINET
- TRAFFIC SIGNAL HEAD
- EXISTING PULL BOX
- EXISTING CONDUIT
- EXISTING STEEL SIGNAL POLE TO BE REMOVED
- DP&L — DAYTON POWER & LIGHT

NOTES:

1. THE CONTRACTOR SHALL PROVIDE & INSTALL POWER CABLE FROM THE CONTROLLER TO THE TOP OF POLE "C".
2. ALL SIGNAL HEADS SHALL HAVE 8" LENSES.
3. THERE SHALL BE A PREEMPT CONFIRMATION LIGHT ON POLE "D". SEE SHEET 18.



SPAN	LENGTH
AB	58'
BC	79'
CD	59'
DA	76'

WIRING DIAGRAM

WIRING DIAGRAM LEGEND

- TRAFFIC SIGNAL HEAD
- 3/C, #14 AWG
- 5/C, #14 AWG (SIGNAL)
- P — 2/C, #6 AWG (POWER)
- 8/C, #14 AWG (INTERCONNECT)

SUB-SUMMARY OF TRAFFIC SIGNAL ITEMS

REFERENCE LETTER	ITEM DESCRIPTION	ITEM NUMBER	UNIT	QUANTITY
	VEHICULAR SIGNAL HEAD, 3-SECTION, 8" LENS, 1-WAY	632	EA	8
	CONCRETE FOR ANCHOR BASE FOUNDATIONS	632	CY	6.0
B D	STRAIN POLE, TYPE TC-81.10, DESIGN 3, 25'	632	EA	2
A C	COMBINATION STRAIN POLE, TYPE TC-81.10, DESIGN 3, 30'	632	EA	2
	CABLE SUPPORT ASSEMBLY	632	EA	3
	MESSENGER WIRE, 7 STRAND, 3/8" DIA., WITH ACCESSORIES	632	LF	272
	SIGNAL CABLE, 3/C, NO. 14 AWG	632	LF	105
	SIGNAL CABLE, 5/C, NO. 14 AWG	632	LF	453
	INTERCONNECT CABLE, 8/C, NO. 14 AWG	632	LF	375
	POWER CABLE, 2/C, NO. 6 AWG	632	LF	38
	POWER SERVICE, AS PER PLAN	632	EA.	1
	COVERING OF VEHICULAR SIGNAL HEAD	632	EA	8
	REMOVAL OF TRAFFIC SIGNAL INSTALLATION	632	EA	1
	PREEMPT CONFIRMATION LIGHT	632	EA	1
	GROUND ROD	625	EA	4
	CONNECTION TO EXISTING CONDUIT	625	EA	2
	CONTROLLER, PRETIMED, 18 CIRCUIT, SOLID STATE DIGITAL MICROPROCESSOR, SECONDARY, WITH PREEMPTION, AS PER PLAN	633	EA	1
	CONTROLLER, PRETIMED, 18 CIRCUIT, SOLID STATE DIGITAL MICROPROCESSOR, SECONDARY, WITH PREEMPTION, AS PER PLAN (ECONOLITE OR TRAFFIC CONTROL TECHNOLOGIES BRAND)- ALTERNATE BID	633	EA	1

DESIGNED	CALCULATED
RJC 9-23-86	DRB 1-29-87
DRAWN LLD 9-26-86	CHECKED RJC 2-2-87

MOSURE & SYRAKIS CO., LTD.

SIGNAL INSTALLATION

COURT ST. & MAIN ST.

URBANA, OHIO

FHWA REGION	STATE	PROJECT		
5	OHIO			

20/25

CHP-68-5.90

SIGNAL DISPLAYS

DISPLAY INTERVAL	SIGNAL NUMBER 1	2	3	4	5	6	7	8	DESCRIPTION OF INTERVAL	TIME IN SECONDS DIAL I OFF PEAK 70 SEC	DIAL II AM PEAK 75 SEC	DIAL III PM PEAK 80 SEC	DIAL IV LIGHT 55 SEC
1 (DWELL)	G	G	R	R	G	G	R	R	ϕ1 GREEN	47	52	57	32
2	Y	Y	R	R	Y	Y	R	R	ϕ1 YELLOW	3.0	3.0	3.0	3.0
3	R	R	R	R	R	R	R	R	ϕ1 ALL RED	1.5	1.5	1.5	1.5
4	R	R	G	G	R	R	G	G	ϕ2 GREEN	14	14	14	14
5	R	R	Y	Y	R	R	Y	Y	ϕ2 YELLOW	3.0	3.0	3.0	3.0
6	R	R	R	R	R	R	R	R	ϕ2 ALL RED	1.5	1.5	1.5	1.5
FLASH	Y	Y	R	R	Y	Y	R	R	FLASH				
E.V. PREEMPT	R	R	R	R	R	R	R	R	E.V. PREEMPT①				
									OFFSET (SEC.)	66	68	24	30
									OFFSET (%)	94	91	30	54

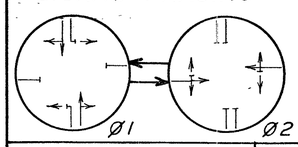
① UPON TERMINATION OR CANCELLATION OF THE EMERGENCY VEHICLE PREEMPT DISPLAY, THE SIGNAL DISPLAYS SHALL REVERT TO THOSE DURING ϕ1 GREEN.

CLEARANCE BEFORE EMERGENCY VEHICLE PREEMPT DISPLAY

PREEMPT DURING INTERVAL	SIGNAL NUMBER 1	2	3	4	5	6	7	8	DURATION (SECONDS)
1 ②	Y	Y	R	R	Y	Y	R	R	3.0
2	Y	Y	R	R	Y	Y	R	R	COMPLETE NORMAL 3.0 SEC. CLEAR
3	NO CLEARANCE REQUIRED								
4 ②	R	R	Y	Y	R	R	Y	Y	3.0
5	R	R	Y	Y	R	R	Y	Y	COMPLETE NORMAL 3.0 SEC. CLEAR
6	NO CLEARANCE REQUIRED								

② A MINIMUM GREEN DISPLAY OF 5 SECONDS SHALL BE DISPLAYED BEFORE CLEARING TO PREEMPT DISPLAY.

SIGNAL PHASING



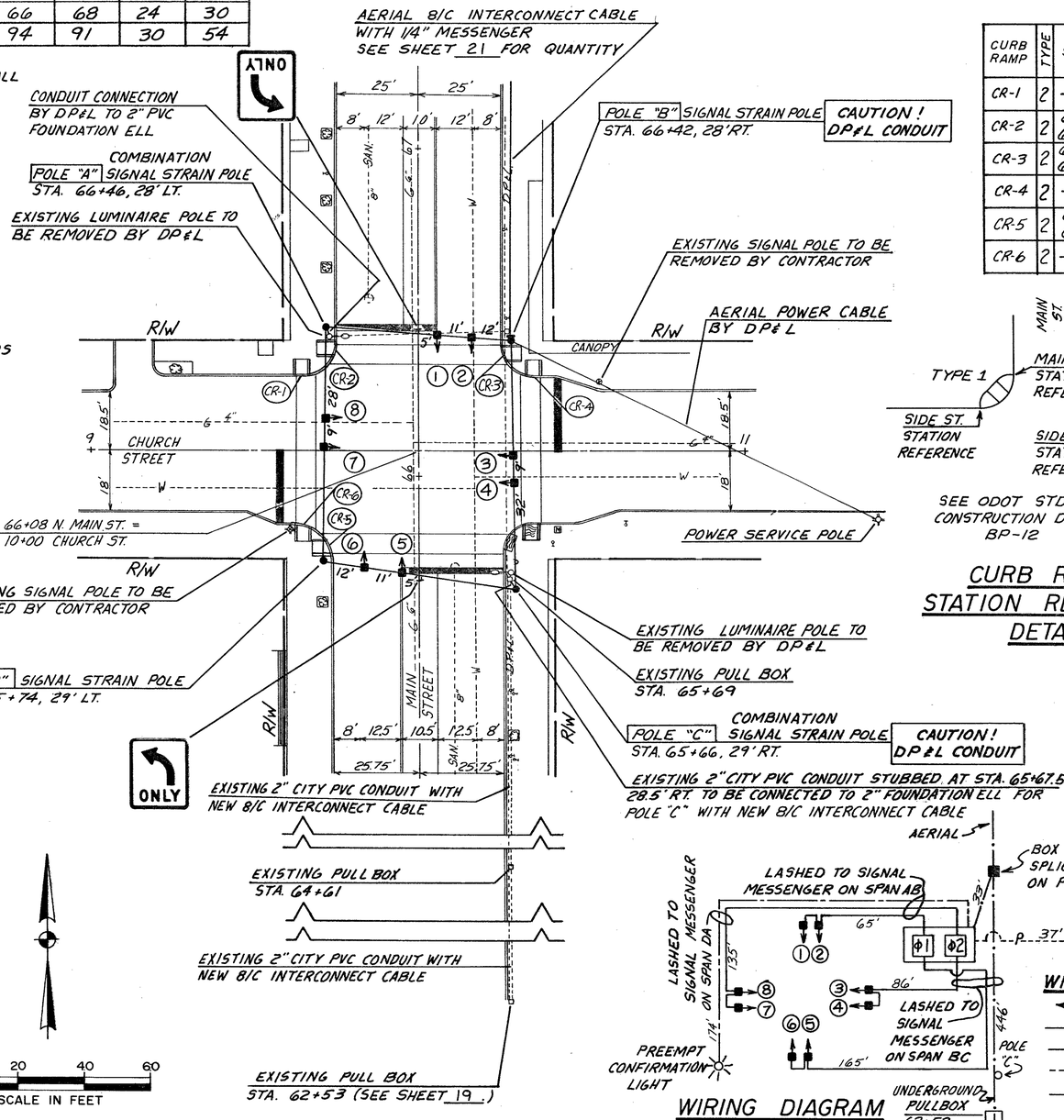
DESCRIPTION OF ITEM TO BE REMOVED BY CONTRACTOR	ITEM TO BE STORED FOR CITY OF URBANA	ITEM TO BE DISPOSED OF BY CONTRACTOR
1- CONTROLLER WITH CABINET AND ACCESSORIES	X	
1- 4 WAY SIGNAL HEAD	X	
MESSENGER WIRE	X	
SIGNAL CABLE	X	
1- WOOD POLE	X	X
1- EMBEDDED STEEL POLE	X	
2- CONDUIT RISERS	X	
METER BASE AND DISCONNECT SWITCH	X	
1- BACK GUY WIRE	X	

LEGEND

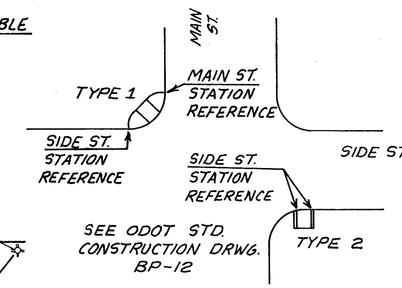
(COMBINATION)
- SIGNAL STRAIN POLE
- SIGNAL STRAIN POLE WITH CONTROL CABINET
- TRAFFIC SIGNAL HEAD
- EXISTING PULL BOX
- EXISTING STEEL SIGNAL POLE TO BE REMOVED
- EXISTING WOOD SIGNAL POLE TO BE REMOVED
- DP&L DAYTON POWER & LIGHT

NOTES:

1. THE CONTRACTOR SHALL PROVIDE AND INSTALL POWER CABLE FROM THE CONTROL CABINET TO THE TOP OF POLE "B".
2. ALL SIGNAL HEADS SHALL HAVE 8" LENSES.
3. THERE SHALL BE A PREEMPT CONFIRMATION LIGHT ON POLE "D". SEE SHEET 18.
4. THE AERIAL INTERCONNECT CABLE FROM POLE "B" AT MAIN & CHURCH TO POLE "B" AT MAIN & WARD SHALL NOT HAVE ANY SPLICES.

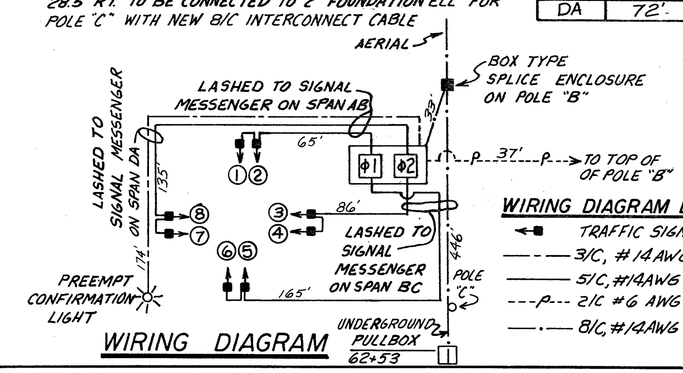


CURB RAMP	TYPE	MAIN ST. STATION REF.	CHURCH ST. STATION REF.
CR-1	2	—	9+62 LT. 9+66 LT.
CR-2	2	66+36 LT. 66+40 LT.	—
CR-3	2	66+36 RT. 66+40 RT.	—
CR-4	2	—	10+33 LT. 10+37 LT.
CR-5	2	65+76 LT. 65+80 LT.	—
CR-6	2	—	9+63 RT. 9+67 RT.



CURB RAMP STATION REFERENCE DETAIL

SPAN	LENGTH
AB	56'
BC	76'
CD	59'
DA	72'



WIRING DIAGRAM

WIRING DIAGRAM LEGEND

- TRAFFIC SIGNAL HEAD
- 3/C, #14 AWG
- 5/C, #14 AWG (SIGNAL)
- 2/C #6 AWG (POWER)
- 8/C, #14 AWG (INTERCONNECT)

SUB-SUMMARY OF TRAFFIC SIGNAL ITEMS

REFERENCE LETTER	ITEM DESCRIPTION	ITEM NUMBER	UNIT	QUANTITY
	VEHICULAR SIGNAL HEAD, 3-SECTION, 8" LENS, 1-WAY	632	EA	8
	CONCRETE FOR ANCHOR BASE FOUNDATIONS	632	CY	6.0
B, D	STRAIN POLE, TYPE TC-81.10, DESIGN 3, 25'	632	EA	2
A, C	COMBINATION STRAIN POLE, TYPE TC-81.10, DESIGN 3, 30'	632	EA	2
	CABLE SUPPORT ASSEMBLY	632	EA	3
	MESSENGER WIRE, 7 STRAND, 3/8" DIA., WITH ACCESSORIES	632	LF	263
	SIGNAL CABLE, 3/C, NO. 14 AWG	632	LF	174
	SIGNAL CABLE, 5/C, NO. 14 AWG	632	LF	451
	INTERCONNECT CABLE, 8/C, NO. 14 AWG	632	LF	479
	POWER CABLE, 2/C, NO. 6 AWG	632	LF	37
	POWER SERVICE, AS PER PLAN	632	EA	1
	COVERING OF VEHICULAR SIGNAL HEAD	632	EA	8
	REMOVAL OF TRAFFIC SIGNAL INSTALLATION	632	EA	1
	PREEMPT CONFIRMATION LIGHT	632	EA	1
	GROUND ROD	625	EA	4
	CURB REMOVED	202	LF	36
	WALK REMOVED	202	SF	180
	CURB RAMP, TYPE 2	608	SF	180
	CONTROLLER, PRETIMED, 18 CIRCUIT, SOLID STATE DIGITAL MICROPROCESSOR, SECONDARY, WITH PREEMPTION, AS PER PLAN	633	EA	1
	CONTROLLER, PRETIMED, 18 CIRCUIT, SOLID STATE DIGITAL MICROPROCESSOR, SECONDARY, WITH PREEMPTION, AS PER PLAN (ECONOLITE OR TRAFFIC CONTROL TECHNOLOGIES BRAND)— ALTERNATE BID	633	EA	1

DESIGNED	CALCULATED
RJC 9-24-86	DRB 1-29-87
DRAWN	CHECKED
LLD 10-1-86	RJC 2-2-87

MOSURE & SYRAKIS CO., LTD.

SIGNAL INSTALLATION

CHURCH ST. & MAIN ST.

URBANA, OHIO

FHWA REGION	STATE	PROJECT		
5	OHIO			

21/25

CHP-68-5.90

SIGNAL DISPLAYS / TIME IN SECONDS

DISPLAY INTERVAL	SIGNAL NUMBER 1	2	3	4	5	6	7	8	DESCRIPTION OF INTERVAL	DIAL I OFF PEAK 70 SEC	DIAL II AM PEAK 75 SEC	DIAL III PM PEAK 80 SEC	DIAL IV LIGHT 55 SEC
1 (DWELL)	G	G	R	R	G	G	R	R	ϕ1 GREEN	47	52	57	32
2	Y	Y	R	R	Y	Y	R	R	ϕ1 YELLOW	3.0	3.0	3.0	3.0
3	R	R	R	R	R	R	R	R	ϕ1 ALL RED	1.5	1.5	1.5	1.5
4	R	R	G	G	R	R	G	G	ϕ2 GREEN	14	14	14	14
5	R	R	Y	Y	R	R	Y	Y	ϕ2 YELLOW	3.0	3.0	3.0	3.0
6	R	R	R	R	R	R	R	R	ϕ2 ALL RED	1.5	1.5	1.5	1.5
FLASH	Y	Y	R	R	Y	Y	R	R	FLASH				
E.V. PREEMPT	R	R	R	R	R	R	R	R	E.V. PREEMPT ①				
									OFFSET (SEC.)	69	0	68	21
									OFFSET (%)	99	0	85	39

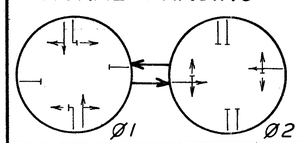
① UPON TERMINATION OR CANCELLATION OF THE EMERGENCY VEHICLE PREEMPT DISPLAY, THE SIGNAL DISPLAYS SHALL REVERT TO THOSE DURING ϕ1 GREEN.

CLEARANCE BEFORE EMERGENCY VEHICLE PREEMPT DISPLAY

PREEMPT DURING INTERVAL	SIGNAL NUMBER 1	2	3	4	5	6	7	8	DURATION (SECONDS)
1 ②	Y	Y	R	R	Y	Y	R	R	3.0
2	Y	Y	R	R	Y	Y	R	R	COMPLETE NORMAL 3.0 SEC. CLEAR
3	NO CLEARANCE REQUIRED								
4 ②	R	R	Y	Y	R	R	Y	Y	3.0
5	R	R	Y	Y	R	R	Y	Y	COMPLETE NORMAL 3.0 SEC. CLEAR
6	NO CLEARANCE REQUIRED								

② A MINIMUM GREEN DISPLAY OF 5 SECONDS SHALL BE DISPLAYED BEFORE CLEARING TO PREEMPT DISPLAY.

SIGNAL PHASING



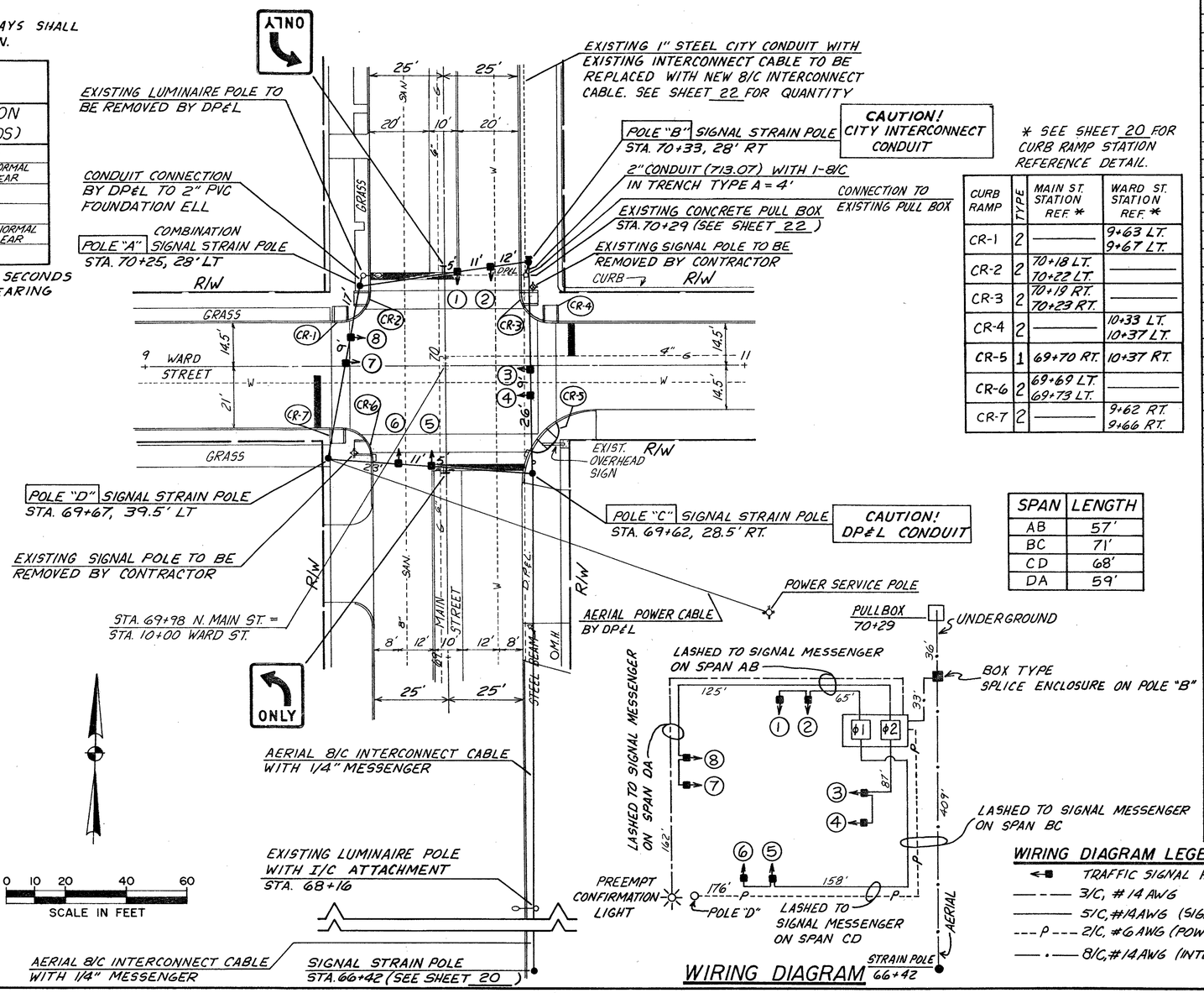
DESCRIPTION OF ITEM TO BE REMOVED BY CONTRACTOR	ITEM TO BE STORED FOR CITY OF URBANA	ITEM TO BE DISPOSED OF BY CONTRACTOR
1-CONTROLLER WITH CABINET AND ACCESSORIES	X	X
1-4 WAY SIGNAL HEAD	X	X
MESSENGER WIRE	X	X
SIGNAL CABLE	X	X
2-WOOD POLES	X	X
2-CONDUIT RISERS	X	X
METER BASE AND DISCONNECT SWITCH	X	X

LEGEND

(COMBINATION)
- SIGNAL STRAIN POLE
- SIGNAL STRAIN POLE WITH CONTROL CABINET
- TRAFFIC SIGNAL HEAD
- EXISTING PULL BOX
- EXISTING CONDUIT
- EXISTING WOOD SIGNAL POLE TO BE REMOVED
- DP&L DAYTON POWER & LIGHT

NOTES:

1. THE CONTRACTOR SHALL PROVIDE & INSTALL POWER CABLE FROM THE CONTROL CABINET TO THE TOP OF POLE "D".
2. ALL SIGNAL HEADS SHALL HAVE 8" LENSES.
3. THERE SHALL BE A PREEMPT CONFIRMATION LIGHT ON POLE "D". SEE SHEET 18.
4. THE AERIAL INTERCONNECT CABLE FROM POLE "B" AT MAIN & CHURCH TO POLE "B" AT MAIN & WARD SHALL NOT HAVE ANY SPLICES.



* SEE SHEET 20 FOR CURB RAMP STATION REFERENCE DETAIL.

CURB RAMP	TYPE	MAIN ST. STATION REF. *	WARD ST. STATION REF. *
CR-1	2	—	9+63 LT. 9+67 LT.
CR-2	2	70+18 LT. 70+22 LT.	—
CR-3	2	70+19 RT. 70+23 RT.	—
CR-4	2	—	10+33 LT. 10+37 LT.
CR-5	1	69+70 RT.	10+37 RT.
CR-6	2	69+69 LT. 69+73 LT.	—
CR-7	2	—	9+62 RT. 9+66 RT.

SPAN	LENGTH
AB	57'
BC	71'
CD	68'
DA	59'

WIRING DIAGRAM LEGEND

- TRAFFIC SIGNAL HEAD
- 3/C, #14 AWG
- 5/C, #14 AWG (SIGNAL)
- P — 2/C, #6 AWG (POWER)
- 8/C, #14 AWG (INTERCONNECT)

WIRING DIAGRAM

SUB-SUMMARY OF TRAFFIC SIGNAL ITEMS

REFERENCE LETTER	ITEM DESCRIPTION	ITEM NUMBER	UNIT	QUANTITY
	VEHICULAR SIGNAL HEAD, 3-SECTION, 8" LENS, 1-WAY	632	EA	8
	CONCRETE FOR ANCHOR BASE FOUNDATIONS	632	CY	7.5
B	STRAIN POLE, TYPE TC-81.10, DESIGN 3, 25'	632	EA	1
C	STRAIN POLE, TYPE TC-81.10, DESIGN 4, 25'	632	EA	1
D	STRAIN POLE, TYPE TC-81.10, DESIGN 5, 26'	632	EA	1
A	COMBINATION STRAIN POLE, TYPE TC-81.10, DESIGN 3, 30'	632	EA	1
	CABLE SUPPORT ASSEMBLY	632	EA	2
	MESSENGER WIRE, 7 STRAND, 3/8" DIA., WITH ACCESSORIES	632	LF	255
	MESSENGER WIRE, 3 OR 7 STRAND, 1/4" DIA., WITH ACCESSORIES	632	LF	320
	SIGNAL CABLE, 3/C, NO. 14 AWG	632	LF	162
	SIGNAL CABLE, 5/C, NO. 14 AWG	632	LF	435
	INTERCONNECT CABLE, 8/C, NO. 14 AWG	632	LF	478
	POWER CABLE, 2/C, NO. 6 AWG	632	LF	176
	POWER SERVICE, AS PER PLAN	632	EA	1
	COVERING OF VEHICULAR SIGNAL HEAD	632	EA	8
	REMOVAL OF TRAFFIC SIGNAL INSTALLATION	632	EA	1
	PREEMPT CONFIRMATION LIGHT	632	EA	1
	GROUND ROD	625	EA	4
	TRENCH IN PAVED AREAS, TYPE A	625	LF	4
	CONDUIT, 713.07, TYPE DB, 2"	625	LF	4
	CONNECTION TO EXISTING PULLBOX	625	EA	1
	CURB REMOVED	202	LF	50
	WALK REMOVED	202	SF	238
	CURB RAMP, TYPE 1	608	SF	58
	CURB RAMP, TYPE 2	608	SF	180
	CONTROLLER, PRETIMED, 18 CIRCUIT, SOLID STATE DIGITAL MICROPROCESSOR, SECONDARY, WITH PREEMPTION, AS PER PLAN	633	EA	1
	CONTROLLER, PRETIMED, 18 CIRCUIT, SOLID STATE DIGITAL MICROPROCESSOR, SECONDARY, WITH PREEMPTION, AS PER PLAN, (ECONOLITE OR TRAFFIC CONTROL TECHNOLOGIES BRAND) — ALTERNATE BID	633	EA	1

DESIGNED	CALCULATED
RJC 9-26-86	DRB 1-29-87
DRAWN	CHECKED
LLD 10-2-86	RJC 2-2-87

MOSURE & SYRAKIS CO., LTD.

SIGNAL INSTALLATION

WARD ST. & MAIN ST.

URBANA, OHIO

FHWA REGION	STATE	PROJECT	
5	OHIO		

22/25

CHP-68-5.90

SIGNAL DISPLAYS / TIME IN SECONDS

DISPLAY INTERVAL	SIGNAL NUMBER 1	2	3	4	5	6	7	8	DESCRIPTION OF INTERVAL	DIAL I OFF PEAK 70 SEC	DIAL II AM PEAK 75 SEC	DIAL III PM PEAK 80 SEC	DIAL IV LIGHT 55 SEC
1 (DWELL)	G	G	R	R	G	G	R	R	ϕ1 GREEN	44	46	45	32
2	Y	Y	R	R	Y	Y	R	R	ϕ1 YELLOW	3.0	3.0	3.0	3.0
3	R	R	R	R	R	R	R	R	ϕ1 ALL RED	1.5	1.5	1.5	1.5
4	R	R	G	G	R	R	G	G	ϕ2 GREEN	17	20	26	14
5	R	R	Y	Y	R	R	Y	Y	ϕ2 YELLOW	3.0	3.0	3.0	3.0
6	R	R	R	R	R	R	R	R	ϕ2 ALL RED	1.5	1.5	1.5	1.5
FLASH	Y	Y	R	R	Y	Y	R	R	FLASH				
E.V. PREEMPT	R	R	R	R	R	R	R	R	E.V. PREEMPT ①				
									OFFSET (SEC.)	0	0	0	0
									OFFSET (%)	0	0	0	0

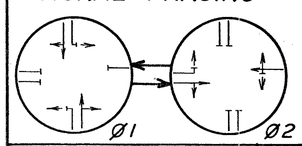
① UPON TERMINATION OR CANCELLATION OF THE EMERGENCY VEHICLE PREEMPT DISPLAY, THE SIGNAL DISPLAYS SHALL REVERT TO THOSE DURING ϕ1 GREEN.

CLEARANCE BEFORE EMERGENCY VEHICLE PREEMPT DISPLAY

PREEMPT DURING INTERVAL	SIGNAL NUMBER 1	2	3	4	5	6	7	8	DURATION (SECONDS)
1 ②	Y	Y	R	R	Y	Y	R	R	3.0
2	Y	Y	R	R	Y	Y	R	R	COMPLETE NORMAL 3.0 SEC. CLEAR
3	NO CLEARANCE REQUIRED								
4 ②	R	R	Y	Y	R	R	Y	Y	3.0
5	R	R	Y	Y	R	R	Y	Y	COMPLETE NORMAL 3.0 SEC. CLEAR
6	NO CLEARANCE REQUIRED								

② A MINIMUM GREEN DISPLAY OF 5 SECONDS SHALL BE DISPLAYED BEFORE CLEARING TO PREEMPT DISPLAY.

SIGNAL PHASING

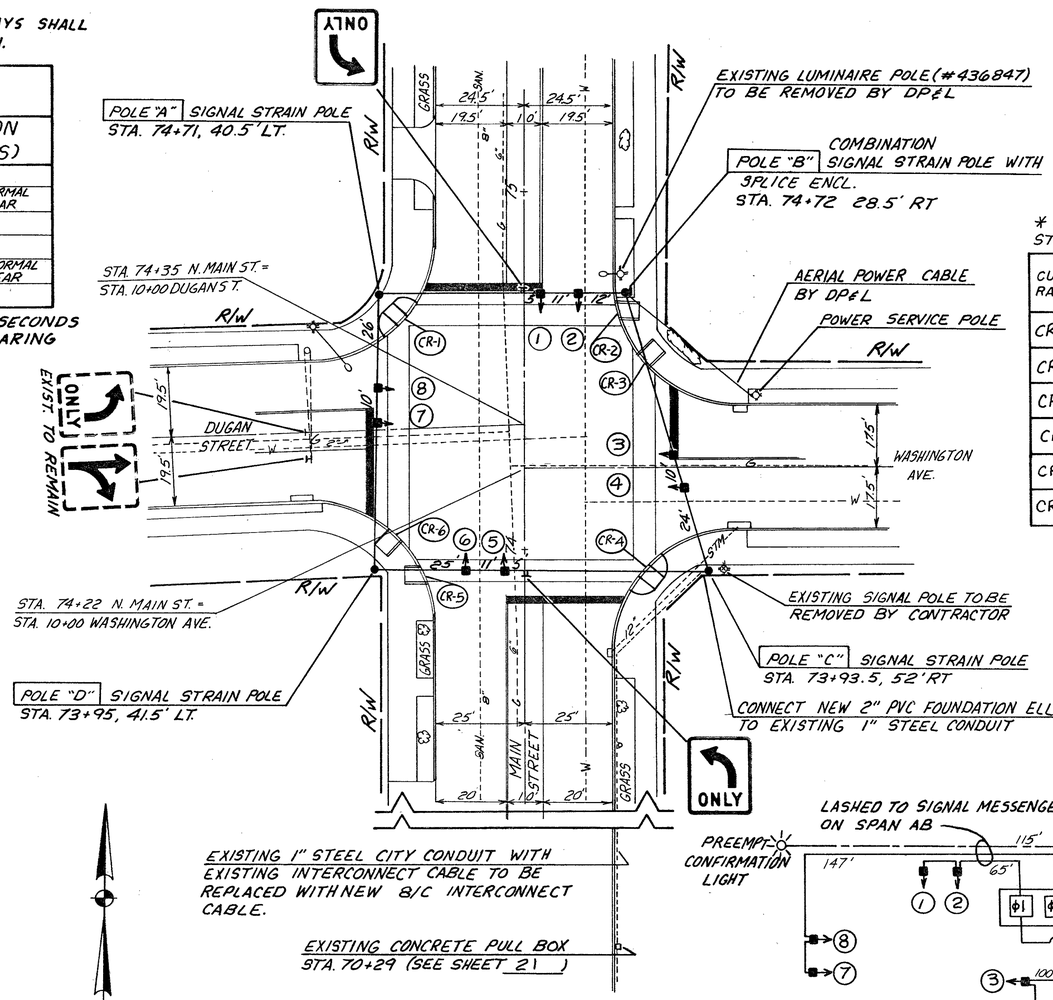


LEGEND

(COMBINATION)
- SIGNAL STRAIN POLE
- SIGNAL STRAIN POLE WITH CONTROL CABINET
- TRAFFIC SIGNAL HEAD
- EXISTING PULL BOX
- EXISTING CONDUIT
- EXISTING WOOD SIGNAL POLE TO BE REMOVED
- DP&L DAYTON POWER & LIGHT

NOTES:

1. THE CONTRACTOR SHALL PROVIDE & INSTALL POWER CABLE FROM THE CONTROLLER TO THE TOP OF POLE "B".
2. ALL SIGNAL HEADS SHALL HAVE 8" LENSES.
3. THERE SHALL BE A PREEMPT CONFIRMATION LIGHT MOUNTED ON POLE "A". SEE SHEET 18.



* SEE SHEET 20 FOR CURB RAMP STATION REFERENCE DETAIL.

CURB RAMP	TYPE	MAIN ST. STATION REF. *	DUGAN/WASH. STATION REF. *
CR-1	1	74+69 LT.	9+62 LT.
CR-2	2	74+64 RT. 74+68 RT.	—
CR-3	2	—	10+33 LT. 10+36 LT.
CR-4	1	73+88 RT.	10+39 RT.
CR-5	2	73+91 LT. 73+95 LT.	—
CR-6	2	—	9+61 RT. 9+64 RT.

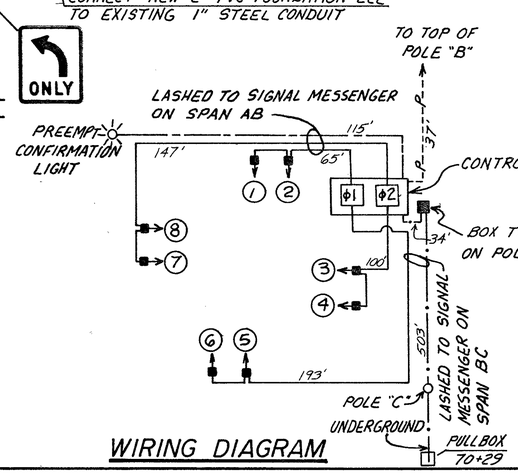
SPAN	LENGTH
AB	69'
BC	82'
CD	94'
DA	76'

DESCRIPTION OF ITEM TO BE REMOVED BY CONTRACTOR

	ITEM TO BE STORED FOR CITY OF URBANA	ITEM TO BE DISPOSED OF BY CONTRACTOR
1- CONTROLLER WITH CABINET AND ACCESSORIES	X	
1- 4 WAY SIGNAL HEAD	X	
MESSENGER WIRE	X	
SIGNAL CABLE	X	
1- WOOD POLE	X	
2- CONDUIT RISERS	X	
METER BASE AND DISCONNECT SWITCH	X	

SUB-SUMMARY OF TRAFFIC SIGNAL ITEMS

REFERENCE LETTER	ITEM DESCRIPTION	ITEM NUMBER	UNIT	QUANTITY
	VEHICULAR SIGNAL HEAD, 3-SECTION, 8" LENS, 1-WAY	632	EA	8
	CONCRETE FOR ANCHOR BASE FOUNDATIONS	632	CY	7.2
A	STRAIN POLE, TYPE TC-81.10, DESIGN 3, 26'	632	EA	1
C, D	STRAIN POLE, TYPE TC-81.10, DESIGN 4, 26'	632	EA	2
B	COMBINATION STRAIN POLE, TC-81.10, DESIGN 3, 30'	632	EA	1
	CABLE SUPPORT ASSEMBLY	632	EA	3
	MESSENGER WIRE, 7 STRAND, 3/8" DIA., WITH ACCESSORIES	632	LF	321
	SIGNAL CABLE, 3/C, NO. 14 AWG	632	LF	115
	SIGNAL CABLE, 5/C, NO. 14 AWG	632	LF	505
	INTERCONNECT CABLE, 8/C, NO. 14 AWG	632	LF	537
	POWER CABLE, 2/C, NO. 6 AWG	632	LF	37
	POWER SERVICE, AS PER PLAN	632	EA	1
	COVERING OF VEHICULAR SIGNAL HEAD	632	EA	8
	REMOVAL OF TRAFFIC SIGNAL INSTALLATION	632	EA	1
	PREEMPT CONFIRMATION LIGHT	632	EA	1
	GROUND ROD	625	EA	4
	CONNECTION TO EXISTING CONDUIT	625	EA	1
	CURB REMOVED	202	LF	52
	WALK REMOVED	202	SF	236
	CURB RAMP, TYPE 1	608	SF	116
	CURB RAMP, TYPE 2	608	SF	120
	CONTROLLER, PRETIMED, 18 CIRCUIT, SOLID STATE DIGITAL MICROPROCESSOR, SECONDARY, WITH PREEMPTION, AS PER PLAN	633	EA	1
	CONTROLLER, PRETIMED, 18 CIRCUIT, SOLID STATE DIGITAL MICROPROCESSOR, SECONDARY, WITH PREEMPTION, AS PER PLAN (ECONOLITE OR TRAFFIC CONTROL TECHNOLOGIES BRAND)- ALTERNATE BID	633	EA	1



WIRING DIAGRAM

WIRING DIAGRAM LEGEND

- TRAFFIC SIGNAL HEAD
- 3/C, #14 AWG
- 5/C, #14 AWG (SIGNAL)
- P — 2/C, #6 AWG (POWER)
- 8/C, #14 AWG (INTERCONNECT)

0 10 20 40 60
SCALE IN FEET

DESIGNED	CALCULATED
DRB 9-25-86	DRB 1-29-87
DRAWN	CHECKED
LLD 10-6-86	RJC 2-3-87

MOSURE & SYRAKIS CO., LTD.

SIGNAL INSTALLATION

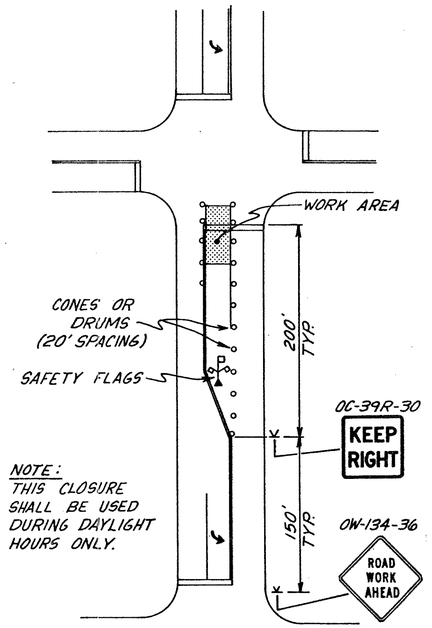
DUGAN ST. / WASHINGTON AVE. & MAIN ST.

URBANA, OHIO

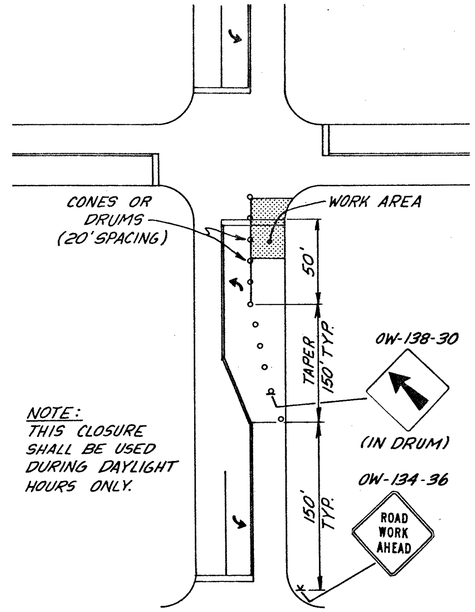
FHWA REGION	STATE	PROJECT		
5	OHIO			

23/25

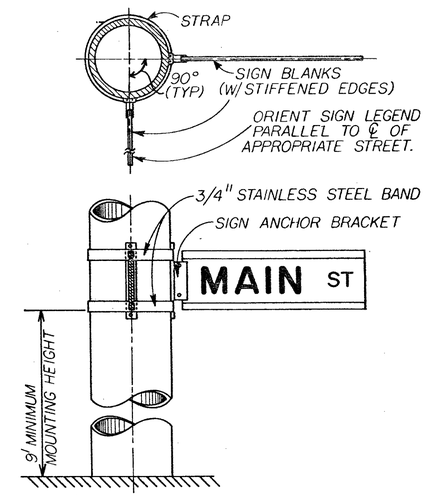
CHP-68-5.90



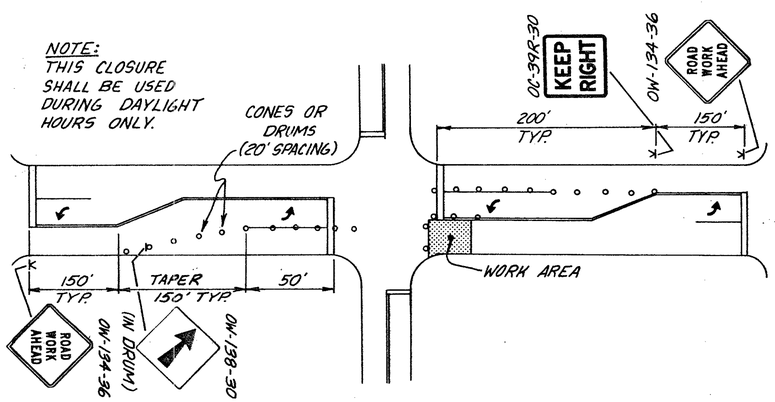
TYPICAL TURN LANE CLOSURE



TYPICAL CURB LANE CLOSURE
NEAR SIDE



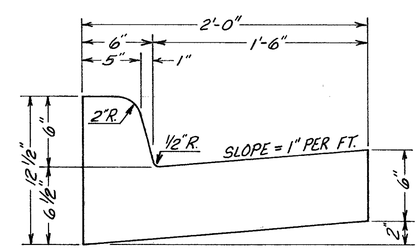
POLE MOUNTED
STREET NAME SIGN DETAIL



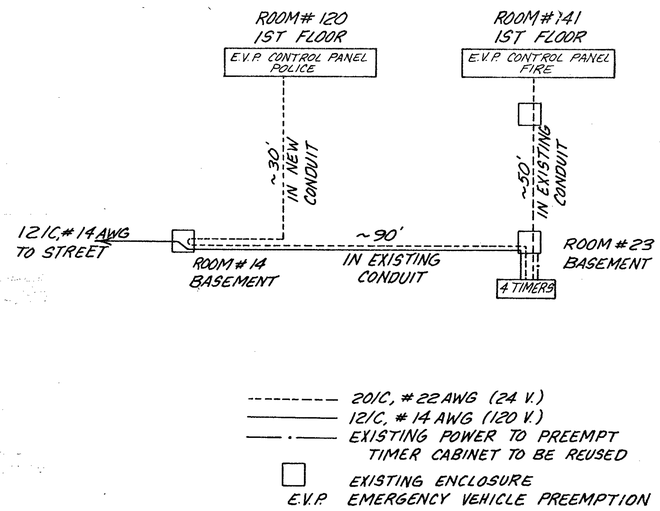
TYPICAL CURB LANE CLOSURE
FAR SIDE

NOTES:

1. ALL FORMS FOR CURB & GUTTER SHALL BE APPROVED BY THE ENGINEER.
2. CONCRETE SHALL BE CLASS "C" MEETING 1987 O.D.O.T. SPECIFICATIONS.



CURB & GUTTER
DETAIL

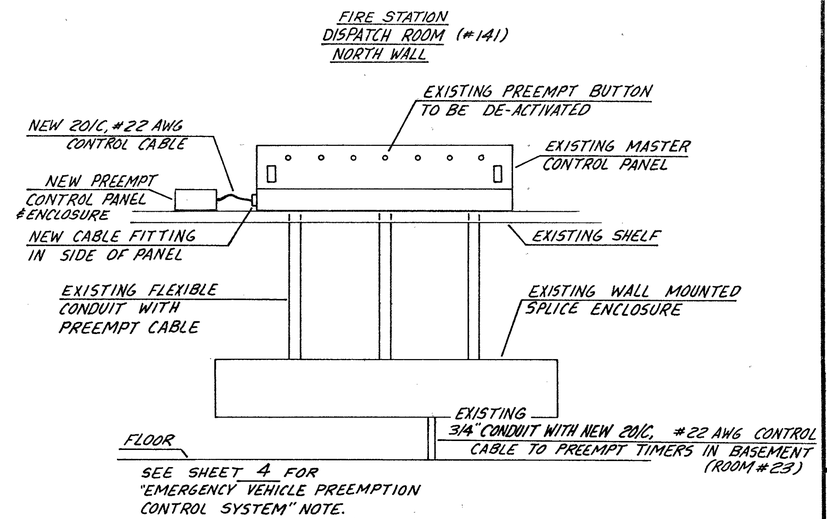


EMERGENCY VEHICLE PREEMPTION WIRING DIAGRAM

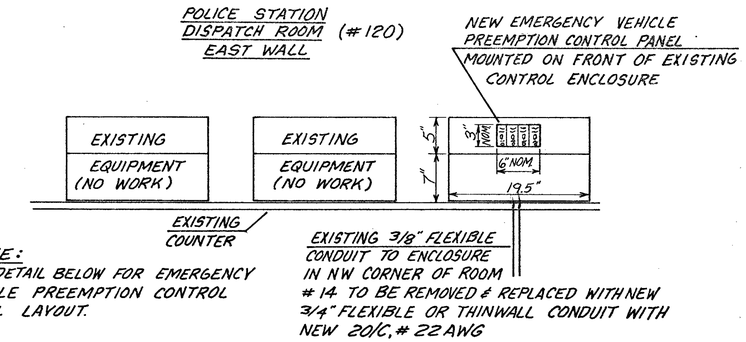
* THIS IS THE TIME THAT SHALL BE SET ON THE TIMERS IN THE FIRE STATION.

ROUTE	ROUTE LOCATION	PREEMPT DURATION*
NORTH	MAIN ST. FROM MARKET ST. TO WASH/DUGAN	85 SEC.
SOUTH	MAIN ST. FROM MARKET ST. TO WATER (MAIN ST & REYNOLDS ST. - FUTURE BY CITY)	30 SEC.
EAST	MAIN ST. FROM MARKET ST. TO MIAMI/SCIOTO (SCIOTO ST. - FUTURE BY CITY)	30 SEC.
WEST	MAIN ST. FROM MARKET ST. TO MIAMI/SCIOTO (MIAMI ST. - FUTURE BY CITY)	30 SEC.

EMERGENCY VEHICLE PREEMPTION ROUTE TIMING

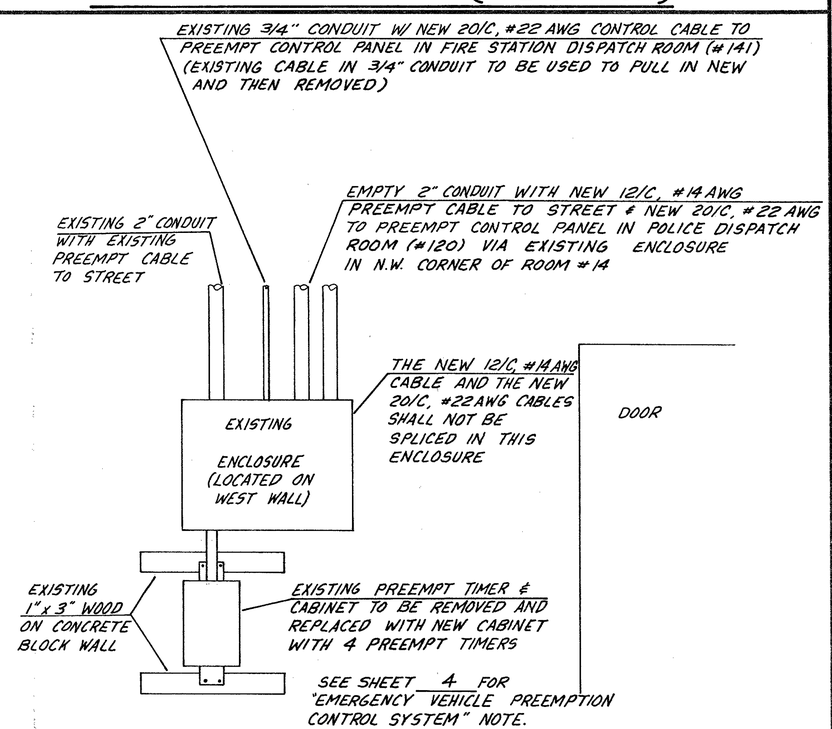


EMERGENCY VEHICLE PREEMPTION CONTROL PANEL LOCATION (FIRE STATION)

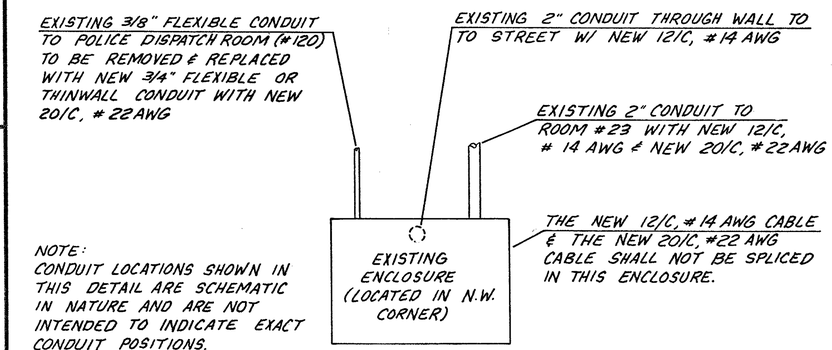


NOTE:
SEE DETAIL BELOW FOR EMERGENCY VEHICLE PREEMPTION CONTROL PANEL LAYOUT.

EMERGENCY VEHICLE PREEMPTION CONTROL PANEL LOCATION (POLICE STATION)



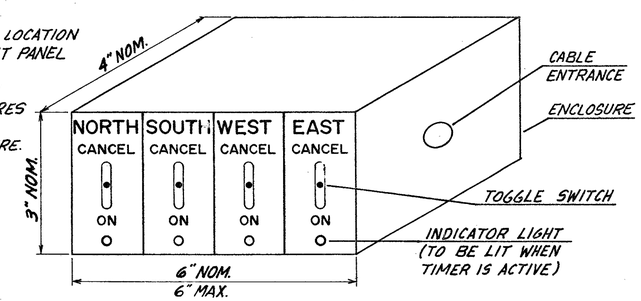
ELECTRICAL DISTRIBUTION ROOM (# 23) IN FIRE STATION BASEMENT



NOTE:
CONDUIT LOCATIONS SHOWN IN THIS DETAIL ARE SCHEMATIC IN NATURE AND ARE NOT INTENDED TO INDICATE EXACT CONDUIT POSITIONS.

ROOM # 14 IN POLICE STATION BASEMENT

NOTES:
1. FIRE STATION LOCATION REQUIRES FRONT PANEL AND ENCLOSURE.
2. POLICE STATION LOCATION REQUIRES FRONT PANEL WITHOUT ENCLOSURE.



EMERGENCY VEHICLE PREEMPTION CONTROL PANEL

SIGNAL SPANS AND PERCENT SAG				POLE SIZES & SPAN ATTACHMENT HEIGHT					POLE FABRICATION ACCESSORY LOCATIONS – CLOCKWISE FROM HANDHOLE AT 0 DEGREES													FIELD ORIENTATION		
INTERSECTION	SHT. NO.	SPAN DESIGNATION	PERCENT SAG	POLE OR BULLRING DESIGNATION	TC 81.10 POLE DESIGN NUMBER	POLE HT. (FT.)	ATTACHMENT HT. (FT.) SPAN @ HT.	ATTACHMENT HT. (FT.) SPAN @ HT.	POLE BASE PLATE	CABLE ENTRANCES (1) 1 ANGLE - HT	CABLE ENTRANCES (1) 2 ANGLE - HT	CABLE ENTRANCES (1) 3 ANGLE - HT			CONTROL CABINET (2)	PED. SIGNALS (3)		METER BASE (4)	PREEMPT CONFIR-MATION LIGHT (5)	BOX TYPE SPLICE ENCLOSURE (6)	POLE PLATES FOR (7) STYLE II BRACKET ARM		INDEX LINE ANGLE (HANDHOLE)	ANCHOR BOLTS	UNUSED FOUNDN. CONDUIT ELL 2" DIA.
MAIN & WATER	15	AB	4	A	3	25	DA-22.7'	AB-23.4'	0°	0°-24'													180°	0°	0°
		BC	4	B	3	30	AB-23.4'	BC-22.6'	0°	135°-24'										270°-20	180°		180°	0°	
		CD	4	C	4	26	BC-22.6'	CD-23.7'	0°	315°-24.5'		45°-24.5'			90°								90°	0°	315°
		DA	4	D	4	26	CD-23.7'	DA-22.7'	0°	0°-24.5'									270°				90°	0°	0°
MAIN & MARKET	16	AB	4	A	3	26	DA-22.0'	AB-24.0'	0°	270°-23'													270°	0°	
		BC	4	B	4	26	AB-24.0'	BC-23.3'	0°	90°-25'									225°				90°	0°	
		CD	4	C	5	26	BC-23.3'	CD-24.2'	0°	0°-25'		90°-25'			90°					180°-21'			90°	0°	
		DA	4	D	3	26	CD-24.2'	DA-22.0'	0°	90°-23'													90°	0°	180°
MAIN & MIAMI/ SCIOTO	17	AB	4	A	3	30	AB-23.0'		0°	270°-24'											180°		180°	0°	
				B	3	30	AB-23.0'		0°	270°-24'									180°		180°		180°	0°	
		CD	4	C	3	30	CD-23.0'		0°	270°-24'											180°		180°	0°	
				D	3	30	CD-23.0'		0°	270°-24'									180°	270°-21'	180°		180°	0°	
		EF	4	E	3	30	EF-23.0'		0°	270°-24'					90°						180°		180°	0°	
				F	3	30	EF-23.0'		0°	270°-24'									180°		180°		180°	0°	
		GH	4	G	3	30	GH-23.0'		0°	270°-24'										90°-21'	180°		180°	0°	
				H	3	30	GH-23.0'		0°	270°-24'									180°		180°		180°	0°	
				I (PEDESTAL)																			270°	0°	
				J (PEDESTAL)																			0°	0°	
				K (PEDESTAL)																			270°	0°	
				L (PEDESTAL)																			0°	0°	
MAIN & COURT	19	AB	4	A	3	30	DA-23.3'	AB-22.6'	0°	0°-24'											180°		180°	0°	90°
		BC	4	B	3	25	AB-22.6'	BC-23.5'	0°	0°-24'													180°	0°	
		CD	4	C	3	30	BC-23.5'	CD-22.7'	0°	270°-24'		0°-25'			90°					90°-20'	180°		180°	0°	
		DA	4	D	3	25	CD-22.7'	DA-23.3'	0°	270°-24'									180°				180°	0°	
MAIN & CHURCH	20	AB	4	A	3	30	DA-23.2'	AB-22.5'	0°	0°-24'											180°		180°	0°	45°
		BC	4	B	3	25	AB-22.5'	BC-23.3'	0°	90°-24'		0°-24'			270°					270°-20			180°	0°	135°
		CD	4	C	3	30	BC-23.3'	CD-22.7'	0°	0°-24'											180°		180°	0°	
		DA	4	D	3	25	CD-22.7'	DA-23.2	0°	0°-24'									180°				180°	0°	90°
MAIN & WARD	21	AB	4	A	3	30	DA-22.9'	AB-22.6'	0°	0°-24'											180°		180°	0°	315°
		BC	4	B	3	25	AB-22.6'	BC-23.1'	0°	135°-24'		0°-24'			270°					270°-20			180°	0°	
		CD	4	C	4	25	BC-23.1'	CD-23.4'	0°	0°-24'													180°	0°	270°
		DA	4	D	5	26	CD-23.4'	DA-22.9'	0°	90°-24'									270°				90°	0°	0°
MAIN & DUGAN/ WASHINGTON	22	AB	4	A	3	26	DA-23.6'	AB-23.3'	45°	180°-24.5'									270°				90°	45°	0°
		BC	4	B	3	30	AB-23.3'	BC-23.6'	0°	225°-24.5'		90°-24.5'			90°					0°-21'	270°		90°	0°	180°
		CD	4	C	4	26	BC-23.6'	CD-24.1'	0°	0°-25'													180°	0°	
		DA	4	D	4	26	CD-24.1'	DA-23.6'	45°	0°-25'													180°	45°	0°

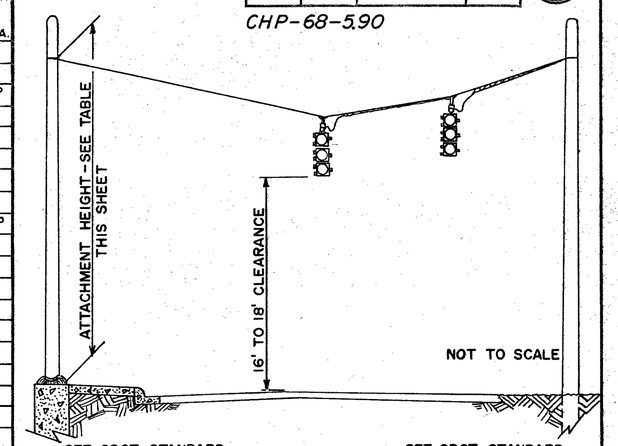
NOTES (CONT.)

5. 3/4" BLIND HALF COUPLING TO BE FURNISHED WITH POLE, 15' ABOVE BASE.
6. 2" BLIND HALF COUPLING TO BE FURNISHED WITH POLE (AT HEIGHT SHOWN IN TABLE).
7. SEE ODOT STD. DWGS. HL-2 & HL-8.

FHWA REGION	STATE	PROJECT	
5	OHIO		

25/25

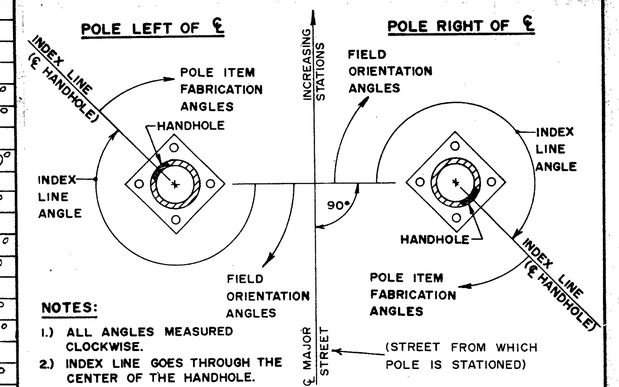
CHP-68-5.90



SEE ODOT STANDARD DRAWING TC 21.20 FOR FOUNDATION DETAILS.

SEE ODOT STANDARD DRAWING TC 81.10 FOR ADDITIONAL POLE DATA.

TYPICAL SIGNAL ELEVATION



NOTES:
1.) ALL ANGLES MEASURED CLOCKWISE.
2.) INDEX LINE GOES THROUGH THE CENTER OF THE HANDHOLE.

SIGNAL STRAIN POLE ORIENTATION DETAIL

NOTES:

1. CABLE ENTRANCES ARE GIVEN FOR NEW STEEL POLES ONLY; EXISTING WOOD POLES WILL USE WEATHERHEADS & CONDUIT RISERS TO BE ORIENTED AS REQUIRED. NO. 1 & 2 ARE 2-IN. ENTRANCES FOR SIGNAL CABLES; ENTRANCE NO.3 IS A 1-1/2 IN. ENTRANCE FOR ELECTRICAL SERVICE. UNUSED B.H.C. SHALL HAVE GALVANIZED PLUG.
2. WHEN CONTROL CABINETS ARE LOCATED ON NEW STEEL POLES, 2-1/2" BLIND HALF COUPLINGS SHALL BE PROVIDED IN THE POLE AS PER TC-83.10 AND AT THE ORIENTATION NOTED IN THE TABLE. ON WOOD POLES, THE CONTROL CABINET AS SHOWN IN TC-83.10 SHALL BE ORIENTED AS NOTED IN THE TABLE.

~~3. WHEN PEDESTRIAN SIGNALS ARE LOCATED ON NEW STEEL POLES, 1-1/2" BLIND HALF COUPLINGS SHALL BE PROVIDED IN THE POLE AS PER TC-85.10 AND AT THE ORIENTATION NOTED IN THE TABLE. ON WOOD POLES, THE HUB PLATE AS SHOWN IN TC-85.10 SHALL BE ORIENTED AS NOTED IN THE TABLE.~~

~~4. INCH B.H.C. LOCATED FT. ABOVE BASE OF POLE.~~

SIGNAL SPAN, POLE, AND ORIENTATION DATA