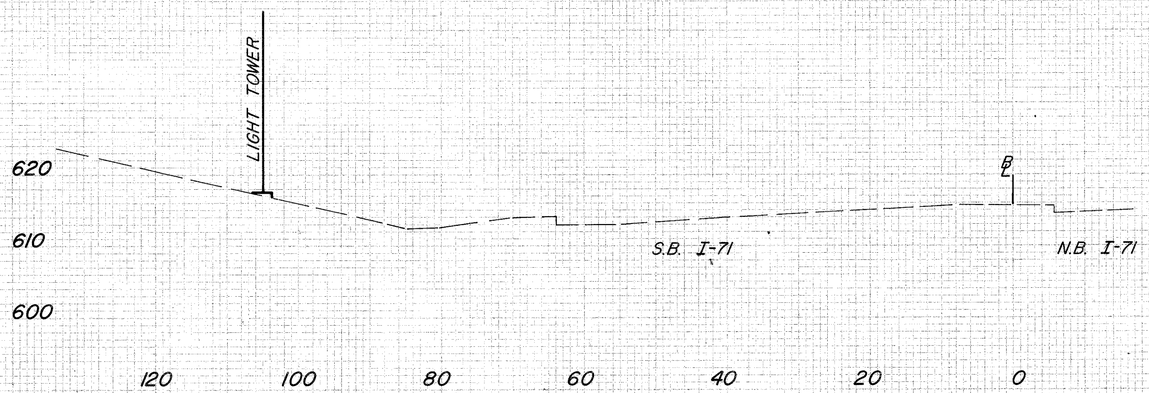
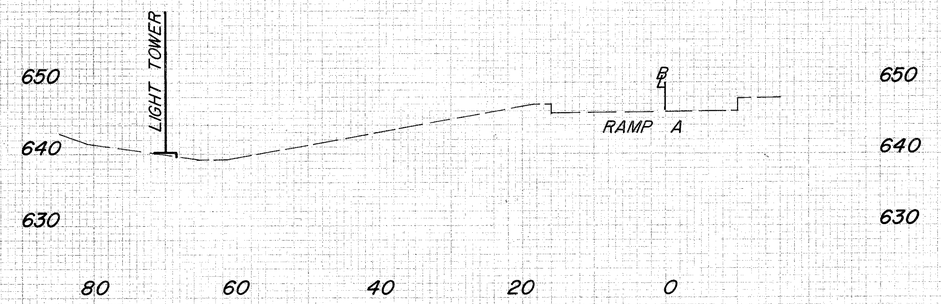
DISTRICT	STATE	PROJECT	
08	OHIO		

229
401

HAMILTON COUNTY
HAM-71-1.30/9.00



486+30 105 LT I-71



4+70 65' LT RAMP A

KORDA / NEMETH ENGINEERING, INC.

344 Orange 1-69

HAM-71-1.30/9.00	OHIO
IM/CMG.-71-1(89)	FHWA REGION 5 / FEDERAL PROJECT

1/401

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
HAM-71-1.30/9.00

APR 16 1997

CITY OF CINCINNATI,
CITY OF SILVERTON and CITY OF MADEIRA
SYCAMORE TOWNSHIP and COLUMBIA TOWNSHIP
HAMILTON COUNTY

DESIGN DESIGNATION

CURRENT YEAR A.D.T. (1993)	78,153
DESIGN YEAR A.D.T. (2013)	108,795
D.H.V.	10,879
D	62%
T	8%
DESIGN SPEED	55 MPH
LEGAL SPEED	55 MPH
FUNCTIONAL CLASSIFICATION:	URBAN INTERSTATE
DESIGN EXCEPTION:	SHOULDER WIDTH, STOPPING SIGHT DISTANCE, CROSS SLOPE, SUPERELEVATION, HORIZONTAL ALIGNMENT APPROVED 4-6-90

CONVENTIONAL SIGNS

County Line
Township Line
Section Line
Corporation Line — or
Fence Line (existing) — (proposed)
Center Line
Trees , Stumps , (to be removed)
Utility Poles: Telephone , Power , Light
Limited Access (only) — LA
Right of Way (only) — RW
Limited Access & Right of Way — LA, RW
Existing Right of Way
Property Line — PL — (in existing fence)
Railroad — or
Guardrail (existing) — (proposed)
(Barrier) — (Barrier)
Catch Basin Adjusted To Grade — Manhole Adjusted To Grade

INDEX OF SHEETS

Title Sheet	1	Estimated Quantities	123-135
Schematic Plans	2-5	RTMS Barrier Wall	135A-135J
Typical Sections	6-17	Drainage Details	136A,136B, 137A,137B
Miscellaneous Details	18-23, 24A-24D	Drainage Profiles	138-140
General Notes	25-28, 27A, 28A-28F	Lighting Plans	141-229, 144A, 145A
29A, 32A-E, 49A-C Maintenance of Traffic	29-78	Traffic Control/ Traffic Surveillance	230-253, 230A
Calculations	80-89		254A-254B, 255-271, 271A, 273A
General Summary	90-91, 92A,92B	Structures Over 20' Span	272-325, 325A, 325B, 272A,B, 275A, 326-341, 341A, 342-373, 373A-373F, 374-401
Plan and Profile	93-122		

SHEETS NOT USED: 24, 79, 92, 136, 137, 254

LINE DATA

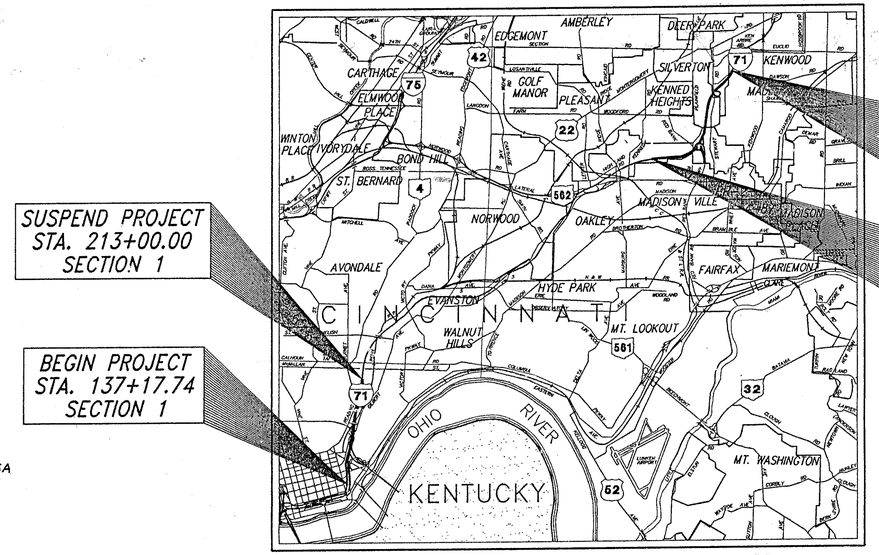
BEGIN PROJECT (SECTION 1) Sta. 137+17.74NB
STATION EQUATION:
Sta. 144+15.68NB Back
Sta. 142+27.27SB Back = Sta. 144+15.68℄ Ahead
STATION EQUATION:
Sta. 166+12.27℄ Back =
Sta. 166+12.27SB Ahead Sta. 166+12.27NB Ahead
STATION EQUATION:
Sta. 212+56.91SB Back
Sta. 212+25.02NB Back = Sta. 212+25.02 Ahead
SUSPEND PROJECT (SECTION 1) Sta. 213+00.00℄
Length of Project 7,614.15 Lin Ft or 1.442 Miles
RESUME PROJECT (SECTION 2) Sta. 436+82.72℄
STATION EQUATION:
Sta. 434+25.00℄ Back = Sta. 435+07.72 Ahead
END PROJECT (SECTION 2) Sta. 544+60.98℄
Length of Project 10,778.26 Lin Ft or 2.041 Miles
NET LENGTH OF PROJECT:
18,360.79 Lin Ft or 3.477 Miles

BEGIN WORK (SECTION 1)	Sta. 125+40.00SB
SUSPEND WORK (SECTION 1)	Sta. 215+62.50℄
RESUME WORK (SECTION 2)	Sta. 433+87.50℄
END WORK (SECTION 2)	Sta. 559+00.00℄
LENGTH OF WORK: SECTION 1	9563.92 Lin Ft
SECTION 2	12,429.78 Lin Ft

ADD FOR WORK ON THE FOLLOWING

Location	Station to Station	Linear Feet
N.B. Reading Rd.	13+14.00 to 32+08.50	1894.50 Lin Ft
Red Bank Expwy.	74+25.00 to 86+03.31	1178.31 Lin Ft

NET LENGTH OF WORK: 25,066.51 Lin Ft or 4.747 Miles



LOCATION MAP

Scale in Miles 0 1 2 3 4
Portion to be Improved
State & Federal Routes 75 43 33
Other Roads

SCALES

Plan — SECTION 1 0 20 40 — SECTION 2 0 50 100
Profile — Horizontal 0 20 40 — Vertical 0 5 10
Cross Section — Horizontal 0 10 20 — Vertical 0 10 20

UNDERGROUND UTILITIES
TWO WORKING DAYS
BEFORE YOU DIG
Call 800-362-2764 (Toll Free)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

IM/CMG.-71-1(89)
LIMITED ACCESS

The improvement is especially designated for through traffic and has been declared a limited access highway or freeway by action of the director in accordance with provisions of section 5511.02 of the revised code of Ohio.

1995 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 require the closing to traffic of local streets and that detours will be provided as indicated on plans.

Under authority of Section 4511.21, Division (I) of the revised Code of Ohio , the revised PRIMA FACIE speed limits as indicated herein are determined to be reasonable and safe, and are hereby established for the duration of this project. The PRIMA FACIE speed limit or limits hereby established shall become effective when appropriate signs giving notice thereof are erected.

Approved Gary M. Kelton
Date 12-29-94 District Deputy Director of Transportation

Approved Richard L. Engel
Date 3-30-95 Engineer, Bureau of Bridges and Structural Design

Approved Christopher L. Ramsay
Date 5-11-95 Deputy Director, Design

Approved Jerry Wray
Date 5-11-95 Director, Department of Transportation

Revised 6/20/95

SUPPLEMENTAL SPECIFICATIONS

802	4-13-90	933	7-22-94
		944	5-2-94
812	5-15-91		
820	3-18-92	903	1-1-69
845	5-31-88	910	5-20-91
924	12-14-88		
931	7-19-94		
953	8-21-80		

SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS

BP-1.1	2-21-92	GR-1.1	5-6-91	MC-6	1-30-84	HL-20.31	5-1-87	AS-1-81	11-27-81	TC-32.10	9-1-92	TC-65.10	2-1-90
BP-2.4	2-21-92	GR-1.2	10-30-92	MC-9.4	10-30-92	HL-30.11	5-1-87	BR-2-82	11-1-82	TC-32.11	9-1-92	TC-65.11	2-1-90
BP-2.5	2-21-92	GR-1.3	2-21-92	MC-9.2	5-6-91	HL-30.21	5-1-87	EXJ-4-87	1-20-94	TC-35.10	8-29-84	TC-72.20	2-26-82
BP-3.1	2-21-92	GR-2.1	5-6-91	MC-9.3	10-30-92	HL-30.22	5-1-87	SD-1-69	6-12-69	TC-41.10	8-29-84	MT-95.31	10-10-88
BP-5.1	10-28-94			MC-10	5-1-76	HL-30.31	5-1-87	VPF-1-92	2-1-92	TC-41.20	6-21-94	MT-95.30	10-10-88
BP-2.2	10-28-94	GR-3.1	5-6-91	MC-11	8-1-78	HL-30.32	5-1-87	TC-12.30	1-20-84	TC-41.40	6-18-79	MT-98.12	6-24-93
BP-2.1	10-28-94	GR-3.2	5-6-91	HL-10.11	5-1-87	HL-30.33	5-1-87	TC-21.10	9-1-92	TC-41.50	6-21-94	MT-98.13	6-24-93
CB-5	11-10-83	GR-3B	1-21-85	HL-10.12	5-1-87	HL-40.10	5-1-87	TC-21.20	9-1-92	TC-42.10	8-19-77	MT-98.14	6-24-93
CB-2-3	5-1-79	GR-4.2	5-6-91	HL-10.13	5-1-87	HL-50.11	5-1-87	TC-21.40	9-1-92	TC-42.20	3-26-79	MT-98.15	6-24-93
F-1	11-10-83	GR-5.1	10-30-92	HL-10.31	5-1-87	HL-50.21	5-1-87	TC-21.41	9-1-92			MT-99.10	11-14-86
F-3	5-1-76	GR-8.1	1-31-94	HL-20.11	5-1-87	HL-60.11	5-1-87	TC-22.10	9-1-92	TC-51.11	9-3-94	MT-99.20	4-29-88
F-5	5-1-76	I-3A&B	4-1-80	HL-20.13	5-1-87	HL-60.12	5-1-87	TC-22.20	9-1-92	TC-52.10	4-3-79	MT-102.20	8-25-89
F-6	5-1-76	MC-4	7-26-76	HL-20.14	5-1-87	HL-60.21	5-1-87			TC-52.20	4-3-79	MT-95.32	8-25-89
F-9	11-10-83	MC-5	6-12-75	HL-20.21	5-1-87	HL-60.31	5-1-87	TC-31.21	9-1-92	TC-61.10	4-5-82	VPT-1-90	3-24-93

MT-95.40	10-1-92	MT-105.10	7-1-92
MT-98.16	6-24-93	MT-105.11	7-1-92
MT-101.60	7-1-92	RB-1-55	2-2-59

Plans Prepared By:

409 EAST MONUMENT AVENUE
DAYTON, OHIO 45402
(513)-461-5660
WOOLPERT

Project
Date of Letting 8-16 1995 Contract No. 437

SEAL

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GENERAL NOTES

POWER SERVICE

ELECTRICAL ENERGY FROM EXISTING POWER SERVICES SHALL CONTINUE TO BE CHARGED TO THE MAINTAINING AGENCY. THE CONTRACTOR SHALL PAY ELECTRICAL ENERGY CHARGES FOR NEW POWER SERVICES ESTABLISHED BY THIS PROJECT. AFTER ACCEPTANCE OF THE LIGHTING, POWER SERVICE ELECTRICAL ENERGY ACCOUNTS SHALL BE TRANSFERRED TO THE MAINTAINING AGENCIES NOTED IN THE PLANS.

THIS SHALL INCLUDE NEW POWER SERVICE ESTABLISHED BY THIS PROJECT AS WELL AS REASSIGNMENT OF EXISTING SERVICE DUE TO WORK PERFORMED BY THIS PROJECT.

THE POWER SUPPLYING AGENCY FOR THIS PROJECT IS:
CINCINNATI GAS & ELECTRIC
SECTION 1 = 120/240 VOLT, 1 ø
SECTION 2 = 480 VOLT, 1 ø

UTILITY COMPANIES

C.G. & E. – GAS OPERATIONS
ENGINEERING AND PLANNING
P.O. BOX 960, RM. 460-A
CINCINNATI, OH 45201-0960

C.G. & E. – ELECTRIC OPERATIONS
CUSTOMER ACTIVITIES DEPT./
GOVERNMENTAL SERVICES
P.O. BOX 960, RM. 347-C
CINCINNATI, OH 45201-0960

CITY OF CINCINNATI
HIGHWAY ENGINEERING DEPT.
801 PLUM STEET
CINCINNATI, OHIO 45202

CITY OF CINCINNATI
TRAFFIC ENGINEERING DEPT.
705 CENTRAL AVE., RM. 200
CINCINNATI, OHIO 45202

CITY OF CINCINNATI
STORMWATER ENGINEERING
705 CENTRAL AVE., RM. 400
CINCINNATI, OHIO 45202

CINCINNATI WATER WORKS
ENGINEERING DIVISION
4747 SPRING GROVE AVE.
CINCINNATI, OHIO 45232

CINCINNATI BELL TELEPHONE
1717 DIXIE HIGHWAY, SUITE 800
FT. WRIGHT, KY 41011

METROPOLITAN SEWER DISTRICT
WASTEWATER ENGINEERING DEPT.
1600 GEST ST.
CINCINNATI, OH 45204

U.S. SPRINT COMMUNICATIONS
FIBER OPERATIONS
10265 SPARTAN DR. – UNIT M
CINCINNATI, OH 45215

WARNER CABLE COMMUNICATIONS
6709 VAN KIRK AVE.
CINCINNATI, OH 45216

UNDERGROUND UTILITIES

THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS HAVE BEEN OBTAINED BY DILIGENT FIELD CHECKS AND SEARCHES OF AVAILABLE RECORDS. IT IS BELIEVED THAT THEY ARE ESSENTIALLY CORRECT, BUT THE STATE OF OHIO AND CONSULTING ENGINEER MAKE NO GUARANTEES AS TO THEIR ACCURACY OR COMPLETENESS. REFER TO THE RIGHT OF WAY PLANS FOR ALL OTHER UTILITIES IN THE VINCINITY OF THIS PROJECT.

ALL UNDERGROUND UTILITIES, WATER, SEWER, TELEPHONE, GAS, TRAFFIC CONTROL, ETC. NEAR PROPOSED LIGHT POLES, PULL BOXES, ETC. SHALL BE STAKED BY THAT UTILITY COMPANY BEFORE CONSTRUCTION BEGINS.

VERIFICATION OF EXISTING CONDITIONS

THE ELECTRICAL CONTRACTOR SHALL VERIFY AND COORDINATE ALL UNDERGROUND LIGHTING AND TRAFFIC CONTROL DEVICES ON THE NORTH EAST CORNER OF THE EDEN PARK/READING ROAD INTERSECTION WITH THE CITY OF CINCINNATI DIVISION OF TRAFFIC.

DUE TO DEVIATION FROM AVAILABE EXISTING DRAWINGS AND THE QUANTITIES OF CONDUCTORS WITHIN EACH PULL BOX, IT WAS IMPOSSIBLE TO DETERMINE THE ACTUAL DISTRIBUTION OF EXISTING LIGHTING AND TRAFFIC CONTROL CIRCUITS WITHOUT TESTING OF THE CIRCUIT CONDUCTORS.

ELECTRICAL CONTRACTOR SHALL CONSULT WITH THE CITY OF CINCINNATI DIVISION OF TRAFFIC AND THE ENGINEER TO DETERMINE WHICH PULL BOXES AND CONDUCTORS SHALL BE MAINTAINED, AND WHICH SHALL BE REMOVED.

QUANTITIES INCLUDED IN THE SUB-SUMMARIES ARE ESTIMATED DUE TO THE LACK OF ACCURATE INFORMATION AVAILABLE.

UNDERDRAINS FOR PULL BOXES

REFERENCE IS MADE TO THE STANDARD DRAWINGS FOR DETAILS OF DRAINING PULL BOXES. UNDERDRAINS FOR PULL BOXES SHALL BE USED AS DIRECTED BY THE ENGINEER AND SHALL BE PROVIDED WHERE THE LENGTH REQUIRED FOR A SATISFACTORY OUTLET DOES NOT EXCEED APPROXIMATELY 20 FEET. AN ESTIMATED QUANTITY OF 2420 LINEAR FEET OF ITEM 603 "4 INCH CONDUIT TYPE E" IS INCLUDED IN THE LIGHTING GENERAL SUMMARY FOR THIS PURPOSE.

ITEM 713.14 – LAMPS

HIGH PRESSURE SODIUM LAMPS SHALL BE GENERAL ELECTRIC "LUCALOX", WESTINGHOUSE "CERAMALUX", SYLVANIA "LUMALUX" OR EQUAL APPROVED BY THE ENGINEER.

ITEM 625 – 713.11 LUMINAIRES

STYLE B LUMINAIRES SHALL HAVE SINGLE RATED INTEGRAL BALLASTS FOR THE VOLTAGE SPECIFIED FOR USE WITH HIGH PRESSURE SODIUM LAMPS AND SHALL BE GENERAL ELECTRIC M-400, CROUSE-HINDS OVM, AMERICAN 25/26 OR EQUAL APPROVED BY THE ENGINEER.

PADLOCKS AND KEYS

PADLOCKS FURNISHED SHALL BE EITHER BRASS OR BRONZE, EQUAL TO NO. 4BKA OR WILSON BOHANNAN 660A, AND SHALL BE KEYED IN ACCORDANCE WITH SPECIFICATION 631.08. PAYMENT SHALL BE INCLUDED IN THE BID FOR THE ITEM(S) BEING LOCKED.

ITEM 202 – PULL BOX REMOVED

THIS ITEM SHALL INCLUDE REMOVING THE PULL BOX TO ONE FOOT (1') BELOW THE GROUND LEVEL [THREE FEET (3') BELOW THE GROUND LEVEL WHERE PULL BOX IS TO BE REPLACED WITH A NEW CONCRETE PULL BOX] AND RESTORING THE DISTURBED AREA. WHERE A PULLBOX IS TO BE REPLACED WITH A NEW CONCRETE PULL BOX, IT IS THE INTENT OF THIS NOTE TO CUT ALL CONDUITS IN A NEAT FASHION IN ORDER TO REUSE THE EXISTING CONDUITS IN PLACE. CARE SHALL BE TAKEN NOT TO DAMAGE EXISTING CIRCUIT CONDUCTORS IF THEY ARE TO BE REUSED.

PAYMENT SHALL BE PER EACH ITEM 202 – " PULL BOX REMOVED".

ITEM 202 – LIGHT POLE REMOVED

THIS ITEM SHALL INCLUDE REMOVING AND DISPOSING OF THE LIGHT POLE, BRACKET ARM, BASE AND POLE AND BRACKET WIRING.

PAYMENT SHALL BE PER EACH ITEM 202 – "LIGHT POLE REMOVED".

ITEM 202 – LIGHT POLE FOUNDATION REMOVED

THIS ITEM SHALL INCLUDE REMOVING THE LIGHT POLE, CONCRETE FOUNDATION TO A DEPTH OF ONE FOOT (1') BELOW GROUND LEVEL, TWO FEET (2') BELOW GROUND LEVEL WHERE IT WOULD INTERFERE WITH PROPOSED TRENCHING AND THREE FEET (3') BELOW GROUND LEVEL WHERE THE FOUNDATION IS TO BE REPLACED BY A PULL BOX, AND RESTORING THE DISTURBED AREA.

PAYMENT SHALL BE PER EACH ITEM 202 – "LIGHT POLE FOUNDATION REMOVED".

ITEM ~~SPECIAL~~ (625 LIGHTING, MISC.) – REMOVE BRACKET ARM

THIS ITEM SHALL INCLUDE REMOVING AND DISPOSING OF THE BRACKET ARM FROM THE LOCATION SHOWN ON THE PLANS.

PAYMENT SHALL BE PER EACH ITEM – ~~SPECIAL~~ (625) "REMOVE BRACKET ARM", AS PER PLAN.

ITEM 625 – LIGHT POLE ANCHOR U-BOLTS, AS PER PLAN

THIS ITEM SHALL CONSIST OF PROVIDING LIGHT POLE ANCHOR U-BOLTS AS PER STANDARD DRAWING HL-10.13 EXCEPT AS DETAILED ON SHEET 227/401.

PAYMENT FOR THIS ITEM SHALL BE PER EACH "ITEM 625 – LIGHT POLE ANCHOR U-BOLTS, AS PER PLAN" AND SHALL INCLUDE ALL EQUIPMENT, LABOR AND MATERIALS NECESSARY TO PROVIDE LIGHT POLE ANCHOR U-BOLTS AS SPECIFIED HEREIN.

ITEM 632 – COMBINATION STRAIN POLE, TYPE TC-81.10, DESIGN 3, AS PER PLAN

THIS ITEM SHALL CONSIST OF PROVIDING A COMBINATION STRAIN POLE WITH A LUMINAIRE MOUNTING HEIGHT OF 35' NOMINAL AND AS DETAILED IN THESE PLANS. LUMINAIRE AND BRACKET ARM SHALL BE PAID FOR SEPARATELY UNDER ITEM 625 – REERECT LUMINAIRE AS PER PLAN", ITEM 625 – "BRACKET ARM, 10'" AND ITEM 625 – "BRACKET ARM, 15'" AS REQUIRED.

PAYMENT FOR THIS ITEM SHALL BE PER EACH "ITEM 632 – COMBINATION STRAIN POLE, TYPE TC-81.10, DESIGN 3, AS PER PLAN" AND SHALL INCLUDE ALL EQUIPMENT, LABOR, AND MATERIALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED. COMPONENT PARTS NOT SPECIFICALLY MENTIONED BUT REQUIRED FOR SATISFACTORY OPERATION OF THIS ITEM SHALL BE PROVIDED AND CONSIDERED PAID FOR AS PART OF THIS ITEM.

ITEM ~~SPECIAL~~ (625 LIGHTING, MISC.) – DISCONNECTION OF MESSENGER CABLE

THIS ITEM SHALL CONSIST OF DISCONNECTING THE 5/16" MESSENGER CABLE SUPPORTING ONE TRAFFIC SIGNAL AND ONE DIRECTIONAL SIGN FROM THE COMBINATION STRAIN POLE. AFTER NEW COMBINATION STRAIN POLE IS IN PLACE, TEMPORARY SUPPORT SHALL BE REMOVED. CARE SHALL BE TAKEN TO MAINTAIN MESSENGER CABLE IN EXISTING CONDITION FOR REUSE.

PAYMENT FOR THIS ITEM SHALL BE PER EACH "ITEM ~~SPECIAL~~ (625) – DISCONNECTION OF MESSENGER CABLE AND SUPPORT AS PER PLAN" AND SHALL INCLUDE ALL EQUIPMENT, LABOR AND MATERIALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED. COMPONENT PARTS NOT SPECIFICALLY MENTIONED BUT REQUIRED FOR SATISFACTORY OPERATION OF THIS ITEM SHALL BE PROVIDED AND CONSIDERED PAID FOR AS PART OF THIS ITEM.

ITEM ~~SPECIAL~~ (625 LIGHTING, MISC.) – DISCONNECTION OF TRAFFIC CONTROL CIRCUITS AND RELOCATION

THIS ITEM SHALL CONSIST OF DISCONNECTING ALL TRAFFIC CONTROL CIRCUITS WITHIN THE TRANSFORMER ENCLOSURE, LIGHT POLE BASE OR TRAFFIC CONTROL PULL BOX AND RELOCATING THE CIRCUITS TO PROVIDE TEMPORARY CONTROL OF THE EXISTING TRAFFIC CONTROL SIGNALS. AFTER NEW POWER SERVICE OR NEW COMBINATION STRAIN POLE AND NEW TRAFFIC CONTROL CIRCUITRY IS IN PLACE, TEMPORARY CONTROL OF THE EXISTING TRAFFIC CONTROL SIGNALS SHALL BE REMOVED.

PAYMENT FOR THIS ITEM SHALL BE PER EACH "ITEM ~~SPECIAL~~ (625) – DISCONNECTION OF TRAFFIC CONTROL CIRCUITS AND RELOCATION" AND SHALL INCLUDE ALL EQUIPMENT, LABOR AND MATERIALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED. COMPONENT PARTS NOT SPECIFICALLY MENTIONED BUT REQUIRED FOR SATISFACTORY OPERATION OF THIS ITEM SHALL BE PROVIDED AND CONSIDERED PAID FOR AS PART OF THIS ITEM.

ITEM 632 – REUSE OF MESSENGER CABLE, AS PER PLAN

THIS ITEM SHALL CONSIST OF REUSING THE EXISTING 5/16" MESSENGER CABLE. WORK REQUIRED SHALL INCLUDE REMOVING THE MESSENGER CABLE FROM THE TEMPORARY SUPPORT AND ATTACHING THE MESSENGER CABLE TO THE NEW COMBINATION STRAIN POLE.

PAYMENT FOR THIS ITEM SHALL BE PER EACH "ITEM 632 – REUSE OF MESSENGER CABLE, AS PER PLAN" AND SHALL INCLUDE ALL EQUIPMENT, LABOR AND MATERIALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED.

ITEM ~~SPECIAL~~ (625 LIGHTING, MISC.) – REFURBISH CONDUIT STUB OUT

THIS ITEM SHALL CONSIST OF REFURBISHING THE EXISTING DAMAGED CONDUIT STUB OUT THAT IS EXPOSED ABOVE GRADE. WORK REQUIRED SHALL INCLUDE CUTTING AND REMOVING THE DAMAGED PORTION OF THE CONDUIT, PROVIDING A CONDUIT COUPLING AND TWO 90° CONDUIT ELBOWS TO ENABLE THE ENTRY OF NEW DUCT CABLE 24" BELOW FINISHED GRADE.

PAYMENT FOR THIS ITEM SHALL BE PER EACH "ITEM ~~SPECIAL~~ (625) REFURBISH CONDUIT STUB OUT" AND SHALL INCLUDE ALL EQUIPMENT, LABOR AND MATERIALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED.

ITEM ~~SPECIAL~~ (625 LIGHTING, MISC.) – WIRE TERMINATION AT PILASTERS

THIS ITEM OF WORK SHALL CONSIST OF PREPARING AN EXISTING BRIDGE PILASTER FOR ABANDONMENT. ALL WIRING SHALL BE PULLED INTO AN ADJACENT JUNCTION BOX AND THE ENDS TAPED IF THE WIRES ARE NOT TO BE REMOVED AS PER ITEM ~~SPECIAL~~ "EXISTING CONDUIT CLEANED". CONDUIT AND ANCHOR BOLTS SHALL BE CUT FLUSH WITH THE TOP OF THE PILASTER. CONDUIT SHALL THEN BE PLUGGED WITH CONCRETE FLUSH WITH THE PILASTER. ALL MATERIALS REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OFF THE PROJECT SITE.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH ITEM ~~SPECIAL~~ (625) "WIRE TERMINATION AT PILASTER" AND SHALL BE FULL COMPENSATION INCLUDING ALL LABOR, MATERIALS, AND INCIDENTALS REQUIRED TO COMPLETE THE WORK IN A SATISFACTORY WORKMANLIKE MANNER.

ITEM ~~SPECIAL~~ (625 LIGHTING, MISC.) – WIRE TERMINATION AT RETAINING WALL

THIS ITEM OF WORK SHALL CONSIST OF PREPARING AN EXISTING RETAINING WALL PILASTER FOR ABANDONMENT. ALL WIRING SHALL BE CUT AND ENDS TAPED IF THE WIRES ARE NOT TO BE REMOVED AS PER ITEM SPECIAL "EXISTING CONDUIT CLEANED" AND PUSHED INSIDE THE EXISTING CONDUIT. CONDUIT AND ANCHOR BOLTS SHALL BE CUT FLUSH WITH THE TOP OF THE PILASTER. CONDUIT SHALL THEN BE PLUGGED WITH CONCRETE FLUSH WITH THE RETAINING WALL. ALL MATERIALS REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OFF THE PROJECT SITE.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH ITEM ~~SPECIAL~~ (625) "WIRE TERMINATION AT RETAINING WALL" AND SHALL BE FULL COMPENSATION INCLUDING ALL LABOR, MATERIALS, AND INCIDENTALS REQUIRED TO COMPLETE THE WORK IN A SATISFACTORY WORKMANLIKE MANNER.

ITEM SPECIAL – DISCONNECT EXISTING CIRCUIT

THIS ITEM OF WORK SHALL CONSIST OF THE DISCONNECTION OF AN EXISTING LIGHT CIRCUIT AT A PULL BOX OR AT A LIGHT POLE.

DISCONNECTION AT A PULL BOX OR POLE BASE SHALL INVOLVE CUTTING THE EXISTING CIRCUIT AND REMOVING ALL CONNECTOR KITS. ANY CABLE THAT IS TO BE ABANDONED SHALL BE TERMINATED IN A MANNER SUCH THAT NO CABLE IS LEFT REMAINING IN THE PULL BOX OR POLE BASE. ANY CABLE THAT IS TO BE REUSED SHALL BE CUT IN A MANNER SO THAT THERE IS SUFFICIENT LENGTH OF CABLE LEFT FOR RECONNECTION.

CONNECTIONS SHALL BE PAID FOR UNDER EACH ITEM 625 "CABLE SPLICING KIT" IN PULL BOXES, OR ITEM 625 "CONNECTOR KITS" IN LIGHT POLES.

PAYMENT WILL BE MADE AT THE UNIT BID PROVIDED FOR EACH ITEM SPECIAL "DISCONNECT EXISTING CIRCUIT" AND SHALL BE FULL COMPENSATION INCLUDING ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THE WORK IN A SATISFACTORY WORKMANLIKE MANNER.

ITEM ~~SPECIAL~~ (625 CONDIT MISC.,) – EXISTING CONDUIT CLEANED

THIS ITEM SHALL INCLUDE LOCATING THE EXISTING CONDUIT, CUTTING IT, AND REAMING ANY BURRS TO PROVIDE A FREE RACEWAY FOR THE PROPOSED OR FUTURE 1 1/2" DUCT CABLE OR DISTRIBUTION CABLE. AT LOCATIONS WHERE LIGHT POLE FOUNDATIONS OR PULL BOXES ARE TO BE REMOVED, CONDUIT SHOULD BE CUT PRIOR TO REMOVAL TO PREVENT DAMAGE TO THE CONDUIT.

IT SHALL ALSO CONSIST OF REMOVING ANY MUD, DEBRIS, AND WIRE IN THE EXISTING CONDUIT TO THE SATISFACTION OF THE ENGINEER BEFORE NEW DUCT CABLE OR DISTRIBUTION CABLE IS PULLED THROUGH IT. IF CONDUIT WILL NOT BE REUSED AS PART OF THIS PROJECT IT SHALL BE CLEANED AS DESCRIBED ABOVE AND BE PROVIDED WITH NO. 12 AWG PULL WIRE, THEN CAPPED AND SEALED FOR FUTURE USE.

PAYMENT SHALL BE PER EACH ITEM ~~SPECIAL~~ (625 CONDUIT MISC.) "EXISTING CONDUIT CLEANED".

ITEM 625 – MEDIAN LIGHT POLE FOUNDATION, 8' DEEP, AS PER PLAN

THIS ITEM SHALL CONSIST OF PROVIDING A MEDIAN LIGHT POLE FOUNDATION, 8' DEEP, AS PER STANDARD DRAWING HL-20.13 EXCEPT AS DIMENSIONED ON SHEET 227/401.

PAYMENT FOR THIS ITEM SHALL BE PER EACH "ITEM 625 – MEDIAN LIGHT POLE FOUNDATION, 8' DEEP, AS PER PLAN" AND SHALL INCLUDE ALL EQUIPMENT, LABOR AND MATERIALS NECESSARY TO PROVIDE LIGHT POLE FOUNDATION AS SPECIFIED HEREIN.

ITEM 625 – MEDIAN LIGHT POLE FOUNDATION, 10' DEEP, AS PER PLAN

THIS ITEM SHALL CONSIST OF PROVIDING A MEDIAN LIGHT POLE FOUNDATION, 10' DEEP, AS PER STANDARD DRAWING HL-20.13 EXCEPT AS DIMENSIONED ON SHEET 227/401.

PAYMENT FOR THIS ITEM SHALL BE PER EACH "ITEM 625 – MEDIAN LIGHT POLE FOUNDATION, 10' DEEP, AS PER PLAN" AND SHALL INCLUDE ALL EQUIPMENT, LABOR AND MATERIALS NECESSARY TO PROVIDE LIGHT POLE FOUNDATION AS SPECIFIED HEREIN.

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GENERAL NOTES

ITEM 202 – REMOVE POWER SERVICE "A", AS PER PLAN

THIS ITEM SHALL CONSIST OF REMOVING THE EXISTING CONTROL CENTER FROM THE EXISTING TRANSFORMER ENCLOSURE FOR DISPOSAL OFF THE PROJECT SITE.

THE UNIT PRICE BID FOR EACH ITEM 202 – "REMOVE POWER SERVICE "A", AS PER PLAN" SHALL INCLUDE PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO REMOVE POWER SERVICE.

ITEM 202 – REMOVE POWER SERVICE "B", AS PER PLAN

THIS ITEM SHALL CONSIST OF REMOVING THE EXISTING CONTROL CENTER AND ASSOCIATED CONDUITS FROM THE EXISTING CONTROL CENTER STRUCTURE FOR DISPOSAL OFF THE PROJECT SITE. EXISTING CONTROL CENTER STRUCTURE IS FABRICATED FROM 3" RIGID GALVANIZED STEEL CONDUIT AND ANGLE IRON.

THE UNIT PRICE BID FOR EACH ITEM 202 – "REMOVE POWER SERVICE "B", AS PER PLAN" SHALL INCLUDE PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO REMOVE POWER SERVICE.

ITEM 202 – EXISTING CONDUIT REMOVED, ~~AS PER PLAN~~

THIS ITEM SHALL CONSIST OF CUTTING THE EXISTING STRUCTURE MOUNTED CONDUIT AND REMOVING THE UNUSED PORTION FROM THE SITE FOR DISPOSAL. THE CONDUIT STUB PROTRUDING FROM THE DECK SHALL BE SEALED FOR ABANDONMENT.

THE UNIT PRICE BID FOR EACH ITEM 202 – "EXISTING CONDUIT REMOVED, ~~AS PER PLAN~~" SHALL INCLUDE PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO REMOVE EXISTING CONDUIT AS SPECIFIED HEREIN.

VOID

ITEM 625 – POWER SERVICE, AS PER PLAN

POWER SERVICE EQUIPMENT SHALL BE INSTALLED AS SPECIFIED IN THE ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS AND AS DETAILED IN THESE PLANS. ENCLOSURE TYPES SHALL BE AS PER STANDARD CONSTRUCTION DRAWING HL-40.10. THE CONTRACTOR SHALL PAY ANY UTILITY COMPANY FEES ASSOCIATED WITH THE INSTALLATION AND REARRANGEMENT OF POWER COMPANY EQUIPMENT NEEDED TO ESTABLISH A 480 OR 120/240 VOLT ELECTRICAL SERVICE AS SPECIFIED HEREIN. *

ITEM 625 – POWER SERVICE "A", AS PER PLAN

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ALL EQUIPMENT NECESSARY TO PROVIDE COMPLETE ELECTRICAL SERVICE TO ROADWAY LIGHTING AND SIGNING INSIDE OF THE EXISTING TRANSFORMER ENCLOSURE. MOUNT REMOTE PHOTOCELL AS SHOWN ON THE PLANS. EXISTING PRIMARY SERVICE SHALL BE REUSED.

POWER SERVICE COMPONENTS SHALL CONFORM TO THE REQUIREMENTS OF 713.19 AND DETAILS SHOWN ON THE PLANS AND STANDARD DRAWINGS. THE CONTRACTOR SHALL ALSO MAKE ALL NECESSARY ARRANGEMENTS WITH THE POWER SUPPLYING AGENCY FOR ELECTRICAL SERVICE CONNECTIONS.

PAYMENT FOR THIS ITEM SHALL BE PER EACH ITEM 625 – "POWER SERVICE "A", AS PER PLAN" AND SHALL INCLUDE ALL EQUIPMENT, LABOR AND MATERIALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED. COMPONENT PARTS NOT SPECIFICALLY MENTIONED BUT REQUIRED FOR SATISFACTORY OPERATION OF THIS ITEM SHALL BE PROVIDED AND CONSIDERED PAID FOR AS PART OF THIS ITEM.

* SENTENCE ABOVE ALSO APPLIES TO POWER SERVICE "A", AS PER PLAN.

ITEM 625 – POWER SERVICE "B", AS PER PLAN

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ALL EQUIPMENT NECESARY TO PROVIDE COMPLETE ELECTRICAL SERVICE TO ROADWAY LIGHTING AND SIGNING INSIDE OF THE EXISTING TRANSFORMER ENCLOSURE. MOUNT REMOTE PHOTOCELL AS SHOWN ON THE PLANS. EXISTING PRIMARY SERVICE SHALL BE REUSED. TRAFFIC CONTROLLER CIRCUIT SHALL BE MAINTAINED AT ALL TIMES. ANY INTERRUPTION OF POWER TO THE TRAFFIC CONTROLLER CIRCUIT SHALL BE COORDINATED WITH THE CITY OF CINCINNATI, DIVISION OF TRAFFIC. REFER TO PAY ITEM FOR "MAINTAIN TRAFFIC CONTROLLER CIRCUIT".

POWER SERVICE COMPONENTS SHALL CONFORM TO THE REQUIREMENTS OF 713.19 AND DETAILS SHOWN ON THE PLANS AND STANDARD DRAWINGS. THE CONTRACTOR SHALL ALSO MAKE ALL NECESSARY ARRANGEMENTS WITH THE POWER SUPPLYING AGENCY FOR ELECTRICAL SERVICE CONNECTIONS.

PAYMENT FOR THIS ITEM SHALL BE PER EACH ITEM 625 – "POWER SERVICE "B", AS PER PLAN" AND SHALL INCLUDE ALL EQUIPMENT, LABOR AND MATERIALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED. COMPONENT PARTS NOT SPECIFICALLY MENTIONED BUT REQUIRED FOR SATISFACTORY OPERATION OF THIS ITEM SHALL BE PROVIDED AND CONSIDERED PAID FOR AS PART OF THIS ITEM.

* SENTENCE ABOVE ALSO APPLIES TO POWER SERVICE "B", AS PER PLAN.

ITEM 625 – POWER SERVICE "C", AS PER PLAN

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ALL EQUIPMENT NECESSARY TO PROVIDE COMPLETE ELECTRICAL SERVICE TO ROADWAY LIGHTING AND SIGNING. POWER SERVICE COMPONENTS SHALL CONFORM TO THE REQUIREMENTS OF 713.19 AND THE STANDARD DRAWINGS. IN LIEU OF WOOD SERVICE POLES, ALL COMPONENTS SHALL BE MOUNTED ON THE EXISTING CONTROL CENTER STRUCTURE WHICH IS FABRICATED FROM 3" RIGID GALVANIZED STEEL CONDUIT AND ANGLE IRON. THE CONTRACTOR SHALL ALSO MAKE ALL NECESSARY ARRANGEMENTS WITH THE POWER SUPPLYING AGENCY FOR ELECTRICAL SERVICE CONNECTIONS.

PAYMENT FOR THIS ITEM SHALL BE PER EACH ITEM 625 – "POWER SERVICE "C", AS PER PLAN" AND SHALL INCLUDE ALL EQUIPMENT, LABOR AND MATERIALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED. COMPONENT PARTS NOT SPECIFICALLY MENTIONED BUT REQUIRED FOR SATISFACTORY OPERATION OF THIS ITEM SHALL BE PROVIDED AND CONSIDERED PAID FOR AS PART OF THIS ITEM.

* SENTENCE ABOVE ALSO APPLIES TO POWER SERVICE "C", AS PER PLAN.

ELECTRIC SERVICE

ELECTRIC SERVICE SHALL BE INSTALLED AS DESCRIBED BELOW. AN ESTIMATED QUANTITY OF THE FOLLOWING ITEMS SHALL BE INCLUDED IN THE GENERAL SUMMARY FOR COMPLETION OF THIS WORK;

TRENCH	25 LINEAR FEET
NO. 4 AWG, 5000 VOLT DISTRIBUTION CABLE	575 LINEAR FEET
CONDUIT, 3" 713.04	30 LINEAR FEET
NO. 2 AWG, 5000 VOLT DISTRIBUTION CABLE	175 LINEAR FEET
EXISTING CONDUIT CLEANED	1 EACH

THE ELECTRICAL CONTRACTOR SHALL EXTEND TRENCHING AND DISTRIBUTION CABLE IN EXISTING 3" CONDUIT, PROPOSED 3" CONDUIT OR IN 3" CONDUIT JACKED OR DRILLED UNDER PAVEMENT TO A UTILITY POLE COORDINATED WITH THE UTILITY TO PROVIDE A 240 VOLT ELECTRICAL SERVICE. A 35 FOOT COIL SHALL BE PROVIDED AT THE BASE OF POLE FOR FINAL CONNECTION BY THE UTILITY COMPANY. PAYMENT MADE FOR THE ABOVE ITEMS SHALL INCLUDE ALL EQUIPMENT, LABOR AND MATERIALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED.

ELECTRIC SERVICE CONNECTION

THIS ITEM SHALL CONSIST OF INSTALLATION AND CONNECTION OF A NEW CIRCUIT TO THE REMAINING PORTION OF AN EXISTING CIRCUIT. CARE SHALL BE TAKEN NOT TO DAMAGE THE EXISTING CONDUCTORS.

CABLE SPLICING KITS SHALL BE PAID FOR SEPARATELY UNDER EACH ITEM 625 "CABLE SPLICING KIT". PAYMENT SHALL BE PER EACH "ELECTRIC SERVICE CONNECTION" AND SHALL INCLUDE ALL EQUIPMENT, LABOR AND MATERIALS NECESSARY TO MAKE THE ELECTRICAL SERVICE CONNECTION AS SPECIFIED HEREIN.

CONDUIT ON STRUCTURES

EXPANSION FITTINGS FOR CONDUIT ON STRUCTURES SHALL BE OZ TYPE AX, SPRING CITY TYPE AF, APPLETON TYPE XJ-4, OR EQUAL APPROVED BY THE ENGINEER FOR BRIDGE NO.

SEE NOTE ON SHEET 144A FOR CONTINGENCY QUANTITIES.

SERVICE TO UNDERPASS LIGHTING REFURBISHED, AS PER PLAN

THIS ITEM SHALL CONSIST OF REFURBISHING THE EXISTING SERVICE TO THE UNDERPASS LIGHTING. WORK SHALL INCLUDE REMOVAL OF ALL EXISTING CONDUCTORS FEEDING THE UNDERPASS LIGHTING SYSTEM, PROVIDING NEW #10 AWG POLE AND BRACKET CABLE BETWEEN ALL UNDERPASS LUMINAIRES AND PROVIDING NEW #4 AWG DISTRIBUTION CABLE FROM THE PULL BOX, JUNCTION BOX OR BARRIER JUNCTION BOX TO THE FIRST JUNCTION BOX OR UNDERPASS LUMINAIRE.

THE UNIT PRICE BID FOR EACH ITEM 625 – "SERVICE TO UNDERPASS LIGHTING REFURBISHED, AS PER PLAN" SHALL INCLUDE PAYMENT FOR ALL EQUIPMENT, LABOR AND MATERIALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED. COMPONENT PARTS NOT SPECIFICALLY MENTIONED BUT REQUIRED FOR SATISFACTORY OPERATION OF THIS ITEM SHALL BE PROVIDED AND CONSIDERED PAID FOR AS PART OF THIS ITEM.

ITEM 625 – SERVICE TO UNDERPASS LIGHTING

THIS ITEM SHALL CONSIST OF PROVIDING COMPLETE ELECTRICAL SERVICE EXCEPT FOR LUMINAIRES AND STRUCTURE GROUNDING, FOR AN UNDERPASS LIGHTING SYSTEM. THE INSTALLATION WORK SHALL INCLUDE CONDUITS, CONDUIT GROUNDING, MOUNTINGS, FITTINGS, JUNCTION BOXES, CABLES, AND ALL INCIDENTALS NECESSARY TO COMPLETE, READY FOR USE, THE SERVICES AS SPECIFIED HEREIN.

THE UNIT PRICE BID FOR EACH ITEM 625 – "SERVICE TO UNDERPASS LIGHTING" SHALL INCLUDE PAYMENT FOR ALL EQUIPMENT, LABOR AND MATERIALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED. COMPONENT PARTS NOT SPECIFICALLY MENTIONED BUT REQUIRED FOR SATISFACTORY OPERATION OF THIS ITEM SHALL BE PROVIDED AND CONSIDERED PAID FOR AS PART OF THIS ITEM.

ITEM 625 – SERVICE TO UNDERPASS LIGHTING "A", AS PER PLAN

THIS ITEM SHALL INCLUDE REMOVAL OF ALL CONDUCTORS FEEDING THE UNDERPASS LIGHTING SYSTEM AND CUTTING THE EXISTING 2" CONDUIT PROTRUDING FROM THE DECK BELOW THE BARRIER MOUNTED JUNCTION BOX FLUSH WITH THE UNDERSIDE OF DECK AND SEALING CONDUIT IN DECK. CONTRACTOR SHALL REMOVE REMAINING 2" CONDUIT BACK TO THE FIRST JUNCTION BOX FEEDING THE UNDERPASS LIGHTING AND PROVIDE A 12" X 8" X 6" SURFACE MOUNTED JUNCTION BOX AT THE ABANDONED CONDUIT LOCATION. PROVIDE 2" GALVANIZED CONDUIT AND NEW #4 AWG DISTRIBUTION CABLE FROM THE PROPOSED JUNCTION BOX TO THE FIRST JUNCTION BOX FEEDING THE UNDERPASS LIGHTING. PROVIDE NEW #10 AWG POLE AND BRACKET CABLE BETWEEN ALL UNDERPASS LUMINAIRES. THE INSTALLATION WORK SHALL INCLUDE CONDUITS, CONDUIT GROUNDING, MOUNTING, FITTINGS, JUNCTION BOXES, CABLES AND ALL INCIDENTALS NECESSARY TO COMPLETE, READY FOR USE, THE SERVICE AS SPECIFIED HEREIN.

THE UNIT PRICE BID FOR EACH ITEM 625 – "SERVICE TO UNDERPASS LIGHTING "A", AS PER PLAN" SHALL INCLUDE PAYMENT FOR ALL EQUIPMENT, LABOR AND MATERIALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED. COMPONENT PARTS NOT SPECIFICALLY MENTIONED BUT REQUIRED FOR SATISFACTORY OPERATION OF THIS ITEM SHALL BE PROVIDED AND CONSIDERED PAID FOR AS PART OF THIS ITEM.

ITEM 625–SERVICE TO UNDERPASS LIGHTING "B", AS PER PLAN

THIS ITEM SHALL CONSIST OF REMOVING THE EXISTING EXPOSED CONDUIT FEEDING THE UNDERPASS LUMINAIRE AND PROVIDING A NEW SERVICE TO UNDERPASS LIGHTING.

WORK SHALL INCLUDE CUTTING THE EXISTING CONDUIT FLUSH WITH TOP OF COLUMN AT PIER NO. 6 AND FLUSH WITH BOTTOM OF DECK OF BRIDGE NO. HAM-71-0447. REMOVE ALL CONDUIT BETWEEN TOP OF COLUMN AND BRIDGE DECK. SEAL CONDUIT OPENINGS AND PREPARE FOR ABANDONMENT. REMOVE EXISTING UNDERPASS LUMINAIRE.

SURFACE MOUNT A 8"X6"X6" JUNCTION BOX ONTO THE EXISTING JUNCTION BOX. PROVIDE SERVICE TO UNDERPASS LIGHTING AS SPECIFIED IN GENERAL NOTE "ITEM 625–SERVICE TO UNDERPASS LIGHTING". REINSTALL LUMINAIRE AND MAKE FINAL CONNECTIONS.

THE UNIT PRICE BID FOR EACH ITEM 625 – "SERVICE TO UNDERPASS LIGHTING "B", AS PER PLAN", SHALL INCLUDE PAYMENT FOR ALL EQUIPMENT, LABOR AND MATERIALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED. COMPONENT PARTS NOT SPECIFICALLY MENTIONED BUT REQUIRED FOR SATISFACTORY OPERATION OF THIS ITEM SHALL BE PROVIDED AND CONSIDERED PAID FOR AS PART OF THIS ITEM.

ITEM 625 – SERVICE TO UNDERPASS LIGHTING "C", AS PER PLAN

THIS ITEM SHALL INCLUDE REMOVAL OF ALL CONDUCTORS FEEDING THE UNDERPASS LIGHTING SYSTEM AND CUTTING THE EXISTING 1 1/2" CONDUIT PROTRUDING FROM THE DECK BELOW THE BARRIER MOUNTED JUNCTION BOX FLUSH WITH THE UNDERSIDE OF DECK AND SEALING CONDUIT IN DECK. CONTRACTOR SHALL REMOVE REMAINING CONDUIT BACK TO THE UNDERPASS LUMINAIRE. PROVIDE SERVICE TO UNDERPASS LIGHTING AS SPECIFIED IN GENERAL NOTE "ITEM 625 – SERVICE TO UNDERPASS LIGHTING".

PAYMENT FOR THIS ITEM SHALL BE PER EACH "ITEM 625 – SERVICE TO UNDERPASS LIGHTING "C", AS PER PLAN" AND SHALL INCLUDE ALL EQUIPMENT, LABOR AND MATERIALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED. COMPONENT PARTS NOT SPECIFICALLY MENTIONED BUT REQUIRED FOR SATISFACTORY OPERATION OF THIS ITEM SHALL BE PROVIDED AND CONSIDERED PAID FOR AS PART OF THIS ITEM.

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REFURBISH SIGN SERVICE "A", AS PER PLAN

THIS ITEM SHALL INCLUDE DISCONNECTING THE LINE SIDE OF THE CIRCUIT WIRING IN THE SIGN SWITCH ENCLOSURE AND REMOVING CIRCUIT WIRING BETWEEN SWITCH ENCLOSURE AND PULL BOX OR JUNCTION BOX. CONTRACTOR SHALL PROVIDE NEW NO. 4 AWG CIRCUIT WIRING IN EXISTING CONDUIT BETWEEN PULL BOX AND SWITCH ENCLOSURE AND RECONNECT. SIGNS CONTROLLED WITH A PHOTOCELL SHALL HAVE THE PHOTOCELL BYPASSED. PHOTOCELL AND ASSOCIATED WIRING SHALL BE REMOVED.

THE UNIT PRICE BID FOR ITEM 625 – "REFURBISH SIGN SERVICE "A", AS PER PLAN" SHALL INCLUDE PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO REFURBISH SIGN SERVICE AS SPECIFIED HEREIN.

REFURBISH SIGN SERVICE "B", AS PER PLAN

THIS ITEM SHALL INCLUDE DISCONNECTING THE LINE SIDE OF THE CIRCUIT WIRING IN THE SIGN SWITCH ENCLOSURE AND REMOVING CIRCUIT WIRING BETWEEN SWITCH ENCLOSURE AND PULL BOX. CONTRACTOR SHALL LOCATE, CUT AND CLEAN THE EXISTING SIGN SERVICE CONDUITS, EXTEND A 2" CONDUIT FROM THE PROPOSED MEDIAN PULL BOX TO THE EXISTING SIGN SERVICE CONDUIT AND MAKE FINAL CONNECTION. PROVIDE NEW NO. 4 AWG CIRCUIT WIRING IN EXISTING CONDUIT BETWEEN PULL BOX AND SWITCH ENCLOSURE AND RECONNECT. SIGNS CONTROLLED WITH A PHOTOCELL SHALL HAVE THE PHOTOCELL BYPASSED. PHOTOCELL AND ASSOCIATED WIRING SHALL BE REMOVED.

THE UNIT PRICE BID FOR ITEM 625 – "REFURBISH SIGN SERVICE "B", AS PER PLAN" SHALL INCLUDE PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO REFURBISH SIGN SERVICE AS SPECIFIED HEREIN.

REFURBISH SIGN SERVICE "C", AS PER PLAN

THIS ITEM SHALL INCLUDE DISCONNECTING THE LINE SIDE OF THE CIRCUIT WIRING IN THE SIGN SWITCH ENCLOSURE AND REMOVING CIRCUIT WIRING BETWEEN SWITCH ENCLOSURE AND JUNCTION BOX. CONTRACTOR SHALL LOCATE, CUT AND CLEAN THE EXISTING SIGN SERVICE CONDUITS, PREPARE UNUSED CONDUITS FOR ABANDONMENT, EXTEND A 2" CONDUIT FROM THE PROPOSED JUNCTION BOX TO THE EXISTING SIGN SERVICE CONDUIT AND MAKE FINAL CONNECTION. PROVIDE A BUSHED HOLE FOR THE 2" CONDUIT THROUGH A TOTAL OF 7 EXISTING GIRDERS. PROVIDE NEW NO. 4 AWG CIRCUIT WIRING IN CONDUIT BETWEEN JUNCTION BOX AND SWITCH ENCLOSURE AND RECONNECT. SIGNS CONTROLLED WITH A PHOTOCELL SHALL HAVE THE PHOTOCELL BYPASSED. PHOTOCELL AND ASSOCIATED WIRING SHALL BE REMOVED.

THE UNIT PRICE BID FOR ITEM 625 – "REFURBISH SIGN SERVICE "C", AS PER PLAN" SHALL INCLUDE PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO REFURBISH SIGN SERVICE AS SPECIFIED HEREIN.

625 LIGHTING, MISC.

ITEM ~~SPECIAL~~ – MODIFICATION TO EXISTING CIRCUIT RACEWAY "A"

THIS ITEM SHALL CONSIST OF MODIFYING THE EXISTING CIRCUIT RACEWAY AND PREPARING UNUSED CONDUITS FOR ABANDONMENT. THE WORK REQUIRED SHALL BE AS FOLLOWS:

CUT BOTH EXISTING 3" CONDUITS ON THE SOUTH ABUTMENT WALL OF BRIDGE NO. HAM-71- 0154 L/R AND REAMING ANY BURRS, SEALING UNUSED CONDUITS, DRILLING A 3 1/2" HOLE THROUGH THE EXISTING ROADWAY DECK IN A LOCATION TO AVOID EXISTING RE-BARS FOR 3" FLEXIBLE CONDUIT.

THE UNIT PRICE BID FOR ITEM ~~SPECIAL~~ 625 – "MODIFICATION TO EXISTING CIRCUIT RACEWAY "A" " SHALL INCLUDE PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO MODIFY THE EXISTING CIRCUIT RACEWAY AS SPECIFIED HEREIN AND AS DETAILED ON SHEET 220/401.

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GENERAL NOTES

ITEM ~~SPECIAL~~ 625 – LIGHTING, MISC. MODIFICATION TO EXISTING CIRCUIT RACEWAY "B"

THIS ITEM SHALL CONSIST OF MODIFYING THE EXISTING CIRCUIT RACEWAY AND PREPARING UNUSED CONDUITS FOR ABANDONMENT. THE WORK REQUIRED SHALL BE AS FOLLOWS; CUT EXISTING CONDUIT AND REAMING ANY BURRS. SEAL ALL UNUSED CONDUITS FOR ABANDONMENT.

THE UNIT PRICE BID FOR EACH ITEM ~~SPECIAL~~ 625 – "MODIFICATION TO EXISTING CIRCUIT RACEWAY "B"" SHALL INCLUDE PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO MODIFY THE EXISTING CIRCUIT RACAEWAY AS SPECIFIED HEREIN AND AS DETAILED ON SHEET 221/401.

ITEM 625 – CONDUIT, 2", 713.04, AS PER PLAN

THIS ITEM SHALL CONSIST OF 2" CONDUIT IN ACCORDANCE WITH 713.04 ATTACHED TO THE STRUCTURE. THE INSTALLATION WORK SHALL INCLUDE CONDUITS, CONDUIT GROUNDING, MOUNTINGS, FITTINGS AND ALL INCIDENTALS NECESSARY TO PROVIDE 2" CONDUIT AS PER PLAN. THE PRICE BID PER LINEAR FOOT OF ITEM 625 – "CONDUIT, 2", 713.04, AS PER PLAN" SHALL INCLUDE PAYMENT FOR ALL EQUIPMENT, LABOR AND MATERIALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED.

ITEM ~~SPECIAL~~ 625 – LIGHTING, MISC. CONNECTION TO EXISTING CONDUIT

THIS ITEM SHALL CONSIST OF LOCATING AN EXISTING CONDUIT AND EXTENDING THE PROPOSED CONDUIT AS SHOWN ON THESE PLANS FROM THE MEDIAN PULL BOX TO EXISTING CONDUIT LOCATION. MAKE CONNECTIONS TO PROVIDE A CONTINUOUS RACEWAY. THE UNIT PRICE BID FOR EACH ITEM ~~SPECIAL~~ 625 "CONNECTION TO EXISTING CONDUIT" SHALL INCLUDE PAYMENT FOR ALL EQUIPMENT LABOR AND MATERIALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED. COMPONENT PARTS NOT SPECIFICALLY MENTIONED BUT REQUIRED FOR SATISFACTORY OPERATION OF THIS ITEM SHALL BE PROVIDED AND CONSIDERED PAID FOR AS PART OF THIS ITEM.

ITEM ~~SPECIAL~~ 625 – ELECTRIC SERVICE CONNECTION TO PEDESTAL LIGHT

THIS ITEM SHALL CONSIST OF CONNECTING THE EXISTING #12 AWG CONDUCTORS IN THE PULL BOX FROM THE 202 WATT INCANDESCENT PEDESTAL LIGHT TO THE PROPOSED LIGHTING CIRCUIT. THE ELECTRICAL CONTRACTOR SHALL MAKE ALL CONNECTIONS NECESSARY TO PROVIDE A COMPLETE 120 VOLT ELECTRIC SERVICE TO THE PEDESTAL LIGHT. CABLE SPLICING KITS SHALL BE PAID FOR SEPARATELY UNDER EACH ITEM 625 "CABLE SPLICING KIT".

THE UNIT PRICE BID FOR EACH ITEM ~~SPECIAL~~ 625 "ELECTRIC SERVICE CONNECTION TO PEDESTAL LIGHT" SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED HEREIN.

BRACKET ARM, 15', AS PER PLAN

THIS ITEM SHALL CONSIST OF PROVIDING A BRACKET ARM, 15 FEET IN LENGTH AS SPECIFIED IN SECTION 713.01 AND A MODIFIED POLE PLATE AS DETAILED ON SHEET 219/401. BRACKET UPSWEEP SHALL MATCH ADJACENT STANDARDS.

THE UNIT PRICE BID FOR EACH "BRACKET ARM, 15', AS PER PLAN" SHALL INCLUDE PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO PROVIDE THE 15' BRACKET ARM AS SPECIFIED HEREIN.

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VOID

ELECTRICAL SERVICE FOR ILLUMINATED SIGNS

THE PAY ITEMS IN THE GENERAL SUMMARY INCLUDE THE PULL BOX OR JUNCTION BOX ADJACENT TO EACH ILLUMINATED SIGN AND THE ELECTRICAL SERVICE CONNECTIONS LEADING INTO THE BOX, INCLUDING SPLICES OR CONNECTOR KITS IN THE PULL BOX OR JUNCTION BOX. QUANTITIES FOR ELECTRICAL SERVICE FROM THE CONNECTION IN THE PULL BOX OR JUNCTION BOX TO THE SIGN ARE INCLUDED IN THE TRAFFIC CONTROL GENERAL SUMMARY.

ITEM ~~SPECIAL~~ 625 – LIGHTING, MISC. JUNCTION BOX EXTENSION "A"

THIS ITEM SHALL CONSIST OF PROVIDING A MODIFIED TYPE II JUNCTION BOX TO EXTEND THE EXISTING JUNCTION BOX FACE SO THAT IT IS FLUSH WITH THE PROPOSED RETROFIT BARRIER. THE MODIFIED TYPE II JUNCTION BOX SHALL HAVE THE FACE OPPOSITE THE OPENING AND PORTIONS OF THE WALL REMOVED AT AN ANGLE AS REQUIRED TO ALLOW THE MODIFIED TYPE II JUNCTION BOX COVER PLATE TO BE FLUSH WITH THE FACE OF THE PROPOSED BARRIER. ATTACH THE MODIFIED TYPE II JUNCTION BOX TO THE FORM WORK FOR PLACEMENT. THE EXISTING JUNCTION BOX COVER SHALL BE TRIMMED AND/OR FORMS USED TO PREVENT PROPOSED RETROFIT BARRIER CONCRETE FROM SEEPING INTO THE EXISTING JUNCTION BOX. SEE DETAIL SHEET 227/401.

THE UNIT PRICE BID FOR EACH ITEM ~~SPECIAL~~ 625 – "JUNCTION BOX EXTENSION "A"" SHALL INCLUDE PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO PROVIDE THE JUNCTION BOX EXTENSION AS SPECIFIED HEREIN.

ITEM ~~SPECIAL~~ 625 – LIGHTING, MISC. REMOTE PHOTOCELL "A"

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ALL EQUIPMENT NECESSARY TO PROVIDE COMPLETE PHOTOELECTRIC CONTROL OF THE POWER SERVICE.

THE UNIT PRICE BID FOR EACH ITEM ~~SPECIAL~~ "REMOTE PHOTECELL "A" SHALL INCLUDE PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO PROVIDE A REMOTE PHOTECELL AS SPECIFIED HEREIN AND AS DETAILED ON SHEET 220/401.

ITEM ~~SPECIAL~~ 625 – LIGHTING, MISC, REMOTE PHOTOCELL "B"

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ALL EQUIPMENT NECESSARY TO PROVIDE COMPLETE PHOTOELECTRIC CONTROL OF THE POWER SERVICE. THE PHOTOCELL THAT CONTROLS THE STATE POWER SERVICE SHALL BE INTEGRAL WITH THE REFURBISHED LUMINAIRE. THE PHOTOCELL THAT CONTROLS THE CITY POWER SERVICE SHALL BE PROVIDED BY; DRILLING AND TAPPING A HOLE IN THE LIGHT POLE END CAP AND INSTALLING A PHOTOCELL MEETING THE REQUIREMENTS OF SPECIFICATION SECTION 713.19-14, EXTENDING #12 AWG CONTROL CABLE FOR CITY PHOTOCELL IN EXISTING CONDUIT FOR STATE LIGHTING CIRCUIT TO WITHIN 5 FEET OF THE STATE CONTROL CENTER, CUTTING EXISTING CONDUIT AND PROVIDING JUNCTION BOX AND CONDUIT TO PROVIDE A RACEWAY TO THE CITY CONTROL CENTER, EXTEND #12 AWG CONTROL CABLES FROM THE STATE PHOTOCELL TO THE STATE CONTROL CENTER IN EXISTING CONDUIT FOR STATE LIGHTING CIRCUITS.

THE UNIT PRICE BID FOR EACH ITEM ~~SPECIAL~~ 625 "REMOTE PHOTECELL "B" SHALL INCLUDE PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO PROVIDE A REMOTE PHOTECELL AS SPECIFIED HEREIN.

ITEM ~~SPECIAL~~ 625 – LIGHTING, MISC. REMOTE PHOTOCELL "C"

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ALL EQUIPMENT NECESSARY TO PROVIDE COMPLETE PHOTOELECTRIC CONTROL OF THE ELECTRIC SIGN.

THE PHOTOCELL THAT CONTROLS THE ELECTRIC SIGN SHALL BE PROVIDED BY; DRILLING AND TAPPING A HOLE IN THE SIGN SUPPORT END CAP AND INSTALLING A PHOTOCELL MEETING THE REQUIREMENTS OF SPECIFICATION SECTION 713.19-14, EXTENDING #12 AWG CONTROL CABLE FROM THE PHOTOCELL TO THE SIGN DISCONNECT ENCLOSURE AND INSTALLING A HAND-OFF-AUTO SWITCH MEETING THE REQUIREMENTS OF SPECIFICATION SECTION 713.19-13 IN THE SIGN DISCONNECT ENCLOSURE.

THE UNIT PRICE BID FOR EACH ITEM ~~SPECIAL~~ 625 "REMOTE PHOTECELL "C" SHALL INCLUDE PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO PROVIDE A REMOTE PHOTECELL AS SPECIFIED HEREIN.

ITEM SPECIAL – MAINTAIN EXISTING LIGHTING

EXISTING ROADWAYS WHICH ARE TO REMAIN OPEN TO TRAFFIC DURING CONSTRUCTION OF THIS PROJECT AND WHICH ARE LIGHTED SHALL HAVE THE LIGHTING MAINTAINED AS DESCRIBED HEREIN.

BEFORE ANY WORK IS STARTED IN THE IMMEDIATE VICINITY OF ANY EXISTING LIGHTING CIRCUITS, REPRESENTATIVES OF THE STATE, THE MAINTAINING AGENCY, AND THE CONTRACTOR SHALL MAKE A VISUAL INSPECTION OF THE EXISTING ROADWAY LIGHTING CIRCUITS TO BE MAINTAINED. DURING THIS INSPECTION, A WRITTEN RECORD OF THE CONDITION OF THE EXISTING LIGHTING SHALL BE MADE BY THE STATE'S REPRESENTATIVE. THIS WRITTEN REPORT SHALL NOTE INDIVIDUAL LUMINAIRES WHICH ARE NOT IN WORKING ORDER, INDIVIDUAL POLES WHICH ARE NOT STANDING, AND INDIVIDUAL CIRCUITS WHICH ARE NOT IN WORKING ORDER. THE COMPLETED REPORT SHALL BE SIGNED BY THE REPRESENTATIVES OF THE STATE, THE MAINTAINING AGENCY, AND THE CONTRACTOR.

IF, AS A RESULT OF THIS INSPECTION, IT IS DETERMINED THAT THE CONDITION OF THE EXISTING SYSTEM IS BELOW THAT REQUIRED FOR THE SAFETY OF THE TRAVELING PUBLIC, THEN THE MAINTAINING AGENCY SHALL MAKE REPAIRS NECESSARY TO RETURN THE SYSTEM TO AN ACCEPTABLE CONDITION. FOLLOWING THESE REPAIRS, THE SYSTEM SHALL AGAIN BE INSPECTED AND A REPORT MADE AND SIGNED AS OUTLINED HEREIN.

WHEN THE EXISTING SYSTEM IS IN AN ACCEPTABLE CONDITION, IT SHALL BE TURNED OVER TO THE CONTRACTOR WHO SHALL THEN BE REQUIRED TO MAINTAIN THE EXISTING LIGHTING TO THE CONDITION OUTLINED IN THIS REPORT WITH THE EXCEPTION OF KNOCKDOWNS DUE TO TRAFFIC ACCIDENTS.

REPLACEMENT OF KNOCKED DOWN UNITS SHALL BE DONE ONLY WHEN THE ENGINEER HAS DETERMINED THAT THE REPLACEMENT OF THE KNOCKED DOWN UNIT IS NECESSARY AND SHALL BE PAID SEPARATELY ON A UNIT BASIS.

BETTERMENTS SHALL BE COVERED IN ITEMS OF WORK PERTAINING TO THE CONSTRUCTION OF PERMANENT IMPROVEMENTS.

SHOULD THE CONTRACTOR DESIRE THE REMOVAL OF THE EXISTING LIGHTING BEFORE THE NEW LIGHTING IS OPERATIONAL, THE CONTRACTOR SHALL THEN BE RESPONSIBLE FOR ADEQUATE TEMPORARY LIGHTING OF THAT PORTION OF THE EXISTING ROADWAY AFFECTED BY THE REMOVAL OF THE EXISTING LIGHTING.

PRIOR TO INSTALLING SUCH LIGHTING, THE CONTRACTOR SHALL PREPARE AND SUBMIT FOUR (4) SETS OF THE TEMPORARY LIGHTING PLAN TO THE DIRECTOR FOR REVIEW AND APPROVAL.

THIS PLAN SHALL SHOW LOCATION OF POLES, LENGTH OF BRACKET ARMS, STYLE OF LUMINAIRES, MOUNTING HEIGHT, WIRING METHODS, AND OTHER PERTINENT INFORMATION. THE TEMPORARY LIGHTING SHALL PROVIDE AN AVERAGE INITIAL INTENSITY OF 1.2 FOOTCANDLES WITH AN AVERAGE TO MINIMUM UNIFORMITY NOT TO EXCEED 4:1. MOUNTING HEIGHT FOR TEMPORARY LUMINAIRES SHALL NOT BE LESS THAN 27 FEET AND MINIMUM OVERHEAD CONDUCTOR CLEARANCE SHALL BE 20 FEET. TEMPORARY OVERHEAD CONSTRUCTION SHALL NOT BE LESS THAN GRADE "A" FOR STRENGTH REQUIREMENT AS DEFINED BY THE NATIONAL ELECTRIC SAFETY CODE. WOOD POLES WITH OVERHEAD WIRING MAY BE USED. HOWEVER, TEMPORARY LIGHTING SHALL MEET FEDERAL AND STATE SAFETY CRITERIA. IF BREAKAWAY POLES ARE USED TO MEET THESE CRITERIA, THEN UNDERGROUND WIRING SHALL BE USED. RECONDITIONED OR USED MATERIALS MAY BE FURNISHED FOR TEMPORARY LIGHTING.

ALL MATERIALS NECESSARY TO COMPLETE THE TEMPORARY LIGHTING SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. WHEN NO LONGER NEEDED, THE TEMPORARY LIGHTING INSTALLATION SHALL BE REMOVED AND PROPERLY DISPOSED OF BY THE CONTRACTOR.

THE MAINTAINING AGENCY WILL PAY FOR ELECTRICAL ENERGY CONSUMED BY EXISTING POWER SERVICES AND BY PROPOSED PERMANENT POWER SERVICES AFTER ACCEPTANCE. THE CONTRACTOR WILL PAY FOR ELECTRICAL ENERGY, INSTALLATION, REMOVAL, AND MAINTENANCE OF ANY TEMPORARY POWER SERVICES.

THE LUMP SUM PRICE BID FOR ITEM SPECIAL "MAINTAIN EXISTING LIGHTING" SHALL INCLUDE PAYMENT FOR ALL LABOR, EQUIPMENT, AND MATERIALS, AND INCIDENTALS NECESSARY TO MAINTAIN THE EXISTING LIGHTING AS SPECIFIED HEREIN, *

THE UNIT PRICE BID FOR ITEM SPECIAL "REPLACEMENT OF EXISTING LIGHTING UNIT" SHALL BE FULL PAYMENT FOR THE REPLACEMENT OF AN EXISTING LIGHTING UNIT WHICH HAS BEEN KNOCKED DOWN AFTER THE AFORMENTIONED INSPECTION AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO PROVIDE A REPLACEMENT FOR SUCH UNIT. AN ESTIMATED QUANTITY OF ONE IS INCLUDED IN THE LIGHTING GENERAL SUMMARY FOR THIS PURPOSE.

* AND SHALL ALSO INCLUDE PAYMENT FOR ANY REARRANGEMENT OF THE EXISTING LIGHTING AND/OR TEMPORARY LIGHTING PROVIDED AS NOTED ABOVE TO ACCOMMODATE ROADWAY CONSTRUCTION.

REL 12 EC-1 P:\ET\FDW\KRWOA\KRWOAGL10.DWG OCTOBER-21-1994 USER: ROARDNER TIME:15:28

GENERAL NOTES

LIGHT TOWER LUMINAIRE MOUNTING ARRANGEMENT

UNLESS OTHERWISE SPECIFIED IN THE PLANS, ALL LUMINAIRES WITH ASYMMETRIC DISTRIBUTIONS SHALL BE INSTALLED SO THE "ARROW" OR "STREET SIDE" DESIGNATION ON THE OPTICAL ASSEMBLY IS POSITIONED PERPENDICULAR TO THE CENTERLINE OR BASELINE OF THE PAVEMENT FROM WHICH THE TOWER IS STATIONED. ANY OPTICAL ROTATION CALLED FOR WILL BE EXPRESSED AS A CLOCKWISE (CW) OR COUNTERCLOCKWISE (CCW) ANGULAR MEASUREMENT FROM THE NORMAL "ARROW" ORIENTATION.

ITEM SPECIAL – TOWER FOUNDATION GRADING

THIS ITEM OF WORK SHALL CONSIST OF FURNISHING ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO GRADE THE GROUND AROUND A LIGHT TOWER FOUNDATION WHERE SHOWN ON THE PLANS AND AS DETAILED ON STANDARD DRAWING HL-20.21.

PAYMENT WILL BE MADE FOR EACH "ITEM SPECIAL – TOWER FOUNDATION GRADING" AND SHALL BE FULL COMPENSATION TO COMPLETE THE WORK IN A SATISFACTORY MANNER.

ITEM 625 – PORTABLE POWER UNIT

THIS ITEM SHALL CONSIST OF FURNISHING A PORTABLE POWER UNIT FOR OPERATION OF LIGHT TOWER WINCH ASSEMBLIES. THE PORTABLE POWER UNIT SHALL CONFORM TO THE REQUIREMENTS OF 713.21 AND DETAILS SHOWN ON THE STANDARD DRAWINGS. PAYMENT SHALL BE PER EACH ITEM 625 – "PORTABLE POWER UNIT".

HIGH MAST LIGHT TOWERS

THE MANUFACTURER SHALL SUBMIT A REPORT FROM AN INDEPENDENT TESTING LABORATORY TO SHOW THAT THE LUMINAIRES DO NOT RECEIVE MORE THAN THE SPECIFIED ACCELERATION LOAD. THE TESTING LABORATORY'S REPORT SHALL SPECIFY IN DETAIL THE MOUNTING LOCATIONS OF THE ACCELEROMETERS AND THE TEST PROCEDURES USED. IN ADDITION TO THIS REPORT, OHIO DEPARTMENT OF TRANSPORTATION RESERVES THE RIGHT TO CONDUCT FIELD MEASUREMENTS OF THOSE ACCELERATION LOADS AND TO ACCEPT ONLY THOSE DESIGNS IN WHICH THE TESTED INSTALLATIONS MEET SPECIFICATIONS.

THE TERMINAL BLOCK SHOWN ON STANDARD CONSTRUCTION DRAWINGS SHALL BE INCLUDED IN THE PRICE OF THE TOWER.

TOWER LIGHTNING PROTECTION SYSTEM

THIS ITEM CONSISTS OF PROVIDING AND INSTALLING AN APPROVED TOWER LIGHTNING PROTECTION SYSTEM AS DETAILED IN THE STANDARD CONSTRUCTION DRAWINGS FOR EACH TOWER ERECTED. THE COST OF LABOR, MATERIALS AND EQUIPMENT REQUIRED TO INSTALL THIS PROTECTION SHALL BE INCLUDED IN THE PRICE OF THE TOWER.

LIGHT TOWER DETAILS

STANDARD DRAWING HL-10.31 (DATED 5-1-87) HAS BEEN REVISED AS FOLLOWS: THE TWO DIMENSIONS SHOWN AS 4 3/4 INCHES BETWEEN THE CENTER LINES OF THE DRIVE SUPPORT TUBE AND THE WINCH INPUT SHAFT SHOULD READ 3 3/4 INCHES.

ITEM 625 – LIGHT POLE DESIGN A10BB40, AS PER PLAN

THIS ITEM SHALL CONSIST OF PROVIDING A LIGHT POLE DESIGN A10BB40. REFER TO DETAIL SHEET 227/401 FOR BRACKET ARM AND HAND HOLE LOCATIONS.

PAYMENT FOR THIS ITEM SHALL BE PER EACH "ITEM 625 – LIGHT POLE DESIGN A10BB40, AS PER PLAN" AND SHALL INCLUDE ALL EQUIPMENT, LABOR AND MATERIALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED. COMPONENT PARTS NOT SPECIFICALLY MENTIONED BUT REQUIRED FOR SATISFACTORY OPERATION OF THIS ITEM SHALL BE PROVIDED AND CONSIDERED PAID FOR AS PART OF THIS ITEM.

ITEM 625 – LIGHT POLE DESIGN A18BB71.7, AS PER PLAN

THIS ITEM SHALL CONSIST OF PROVIDING A LIGHT POLE DESIGN A18BB71.7. LIGHT POLE SHALL BE LOCATED AS STATIONED IN THESE PLANS. SLIGHT ADJUSTMENTS SHALL BE MADE AS REQUIRED TO CENTER THE LIGHT POLE BETWEEN BRIDGE STRUCTURES.

PAYMENT FOR THIS ITEM SHALL BE PER EACH "ITEM 625 – LIGHT POLE DESIGN A18BB71.7, AS PER PLAN" AND SHALL INCLUDE ALL EQUIPMENT, LABOR AND MATERIALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED.

ITEM 625 – LIGHT TOWER FOUNDATION "A", 36" X 25' DEEP, AS PER PLAN

THIS ITEM SHALL CONSIST OF PROVIDING A LIGHT TOWER FOUNDATION AS PER STANDARD DRAWING HL-20.21 EXCEPT THAT THE TOP OF THE FOUNDATION SHALL BE AS DETAILED ON SHEET 228/401.

PAYMENT FOR THIS ITEM SHALL BE PER EACH "ITEM 625 – LIGHT TOWER FOUNDATION "A", 36" X 25' DEEP, AS PER PLAN" AND SHALL INCLUDE ALL EQUIPMENT, LABOR, FORMING, CLASS C CONCRETE AND OTHER MATERIALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED.

ITEM 625 – LIGHT TOWER FOUNDATION "B", 36" X 25' DEEP, AS PER PLAN

THIS ITEM SHALL CONSIST OF PROVIDING A LIGHT TOWER FOUNDATION AS PER STANDARD DRAWING HL-20.21 EXCEPT THAT THE TOP OF THE FOUNDATION SHALL BE FLUSH WITH THE TOP OF THE NEW CONCRETE MEDIAN BARRIER. CONCRETE MEDIAN BARRIER SHALL BE FORMED AROUND LIGHT TOWER FOUNDATION AS PER STANDARD DRAWING MC-9. CONCRETE MEDIAN BARRIER SHALL BE PAID FOR SEPARATELY UNDER ITEM 622.

PAYMENT FOR THIS ITEM SHALL BE PER EACH "ITEM 625 – LIGHT TOWER FOUNDATION "B", 36" X 25' DEEP, AS PER PLAN" AND SHALL INCLUDE ALL EQUIPMENT, LABOR AND MATERIALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED.

ITEM 625 – LIGHT POLE FOUNDATION "A", 24" X 10' DEEP, AS PER PLAN

THIS ITEM SHALL CONSIST OF PROVIDING A LIGHT POLE FOUNDATION AS PER STANDARD DRAWING HL-20.11 EXCEPT THAT THE TOP OF THE FOUNDATION SHALL BE AS DETAILED AND DIMENSIONED ON SHEET 228/401.

PAYMENT FOR THIS ITEM SHALL BE PER EACH "ITEM 625 – LIGHT POLE FOUNDATION "A", 24" X 10' DEEP, AS PER PLAN" AND SHALL INCLUDE ALL EQUIPMENT, LABOR, FORMING, CLASS C CONCRETE AND OTHER MATERIALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED.

ITEM 625 – LIGHT POLE FOUNDATION "B", 24" X 10' DEEP, AS PER PLAN

THIS ITEM SHALL CONSIST OF PROVIDING A LIGHT POLE FOUNDATION AS PER STANDARD DRAWING HL-20.11 EXCEPT THAT THE TOP OF THE FOUNDATION SHALL BE AS DETAILED AND DIMENSIONED ON SHEET 228/401.

PAYMENT FOR THIS ITEM SHALL BE PER EACH "ITEM 625 – LIGHT POLE FOUNDATION "B", 24" X 10' DEEP, AS PER PLAN" AND SHALL INCLUDE ALL EQUIPMENT, LABOR AND MATERIALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED.

ITEM 625 – PULL BOX, CONCRETE, 18", AS PER PLAN

THIS ITEM SHALL CONSIST OF PROVIDING A PULL BOX AS PER STANDARD DRAWING HL-30.11 EXCEPT THAT THE PULL BOX SHALL BE LOCATED AS DETAILED ON SHEET 228/401.

PAYMENT FOR THIS ITEM SHALL BE PER EACH "ITEM 625 – PULL BOX, CONCRETE, 18", AS PER PLAN" AND SHALL INCLUDE ALL EQUIPMENT, LABOR, FORMING, CLASS C CONCRETE AND OTHER MATERIALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED.

ITEM ~~SPECIAL~~ 202 – REMOVAL MISC. REMOVAL AND REPLACEMENT OF MEDIAN CONCRETE BARRIER CAP

THIS ITEM SHALL CONSIST OF REMOVAL OF THE EXISTING CONCRETE BARRIER CAP AND A PORTION OF THE LOOSE AGGREGATE FILL FOR PLACEMENT OF LIGHTING CONDUIT. AFTER PLACEMENT OF LIGHTING CONDUIT, LOOSE AGGREGATE FILL SHALL BE REPLACED WITH LIKE MATERIAL TO ORIGINAL DEPTH FOR PLACEMENT OF A NEW MEDIAN CONCRETE BARRIER CAP. NEW BARRIER CAP SHALL BE CLASS C CONCRETE AND SHALL BE EQUAL TO THE EXISTING BARRIER CAP IN CONSTRUCTION. ALL MATERIALS REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OFF THE PROJECT SITE.

PAYMENT FOR THIS ITEM SHALL BE PER LINEAR FOOT OF "ITEM ~~SPECIAL~~ 202 – REMOVAL MISC. REMOVAL AND REPLACEMENT OF MEDIAN CONCRETE BARRIER CAP" AND SHALL INCLUDE ALL EQUIPMENT, LABOR AND MATERIALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED.

ITEM 625 – 713.13 UNDERPASS LUMINAIRES

UNDERPASS LUMINAIRES SHALL BE HOLOPHANE "UNDERPASS WALLPACK", CROUSE-HINDS "WA" OR GENERAL ELECTRIC "W40L" UNDERPASS UNIT OR EQUAL APPROVED BY THE ENGINEER.

ALL UNDERPASS LUMINAIRES SHALL BE FURNISHED WITH AN INTEGRAL FUSE HOLDER AND 10 AMPERE FUSE. THE INTEGRAL HIGH PRESSURE SODIUM BALLAST SHALL BE OF A REGULATOR TYPE RATED FOR THE VOLTAGE SPECIFIED, 100 WATTS

ITEM SPECIAL - UNDERGROUND UTILITIES, ODOT/ GOVERNMENT OWNED & MAINTAINED

THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOW ON THE PLANS HAVE BEEN OBTAINED BY EXTENSIVE FIELD CHECKS AND SEARCHES OF AVAILABLE RECORDS. IT IS BELIEVED THAT THEY ARE ESSENTIALLY CORRECT, BUT THE STATE OF OHIO, SPECIFICALLY THE OHIO DEPARTMENT OF TRANSPORTATION, DOES NOT GUARANTEE THEIR ACCURACY OR COMPLETENESS. EXTREME CAUTION SHALL BE EXERCISED IN AREAS WITH UNDERGROUD ELECTRICAL CONDUIT OR CABLE, SEWERS, WATERLINES, OR ANY OTHER UNDERGROUND UTILITY.

THE CONTRACTOR, ACTING AS AN AGENT FOR ODOT AND COMPLYING WITH H.B.538, SHALL BE RESPONSIBLE FOR LOCATING AND MARKING ALL ODOT OWNED UNDERGROUND UTILITIES, INCLUDING BUT NOT LIMITED TO THE FOLLOWING: ELECTRICAL CONDUIT, DUCT AND/OR CABLE, SEWERS, AND DRAINS TO PREVENT DAMAGE DURING CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE UTILITIES, OTHER THAN ODOT, BY O.U.P.S. OR DIRECTLY BY TELEPHONE, FORTY-EIGHT (48) HOURS IN ADVANCE OF WORK. UTILITIES OWNED AND MAINTAINED BY ODOT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE CAUSED TO ANY AND ALL UNDERGROUND UTILITY BY THE EXCAVATION OR PLACEMENT OF SIGN SUPPORTS, LIGHT FOUNDATIONS, DRAINAGE, PROTECTIVE GUARDRAIL, DELINEATION, INCLUDING ANY AND ALL ROADWAY EXCAVATION ETC., AND WILL BE REQUIRED AT THE CONTRACTOR'S EXPENSE TO REPAIR THE DAMAGE TO AN "AS WAS" CONDITION AND BE IN COMPLIANCE AND IN ACCORDANCE WITH ALL SPECIFICATIONS INCLUDING 107.17, 625.631, AND 632 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS.

PAYMENT FOR THE ABOVE, INCLUDING LOCATING AND MARKING OF ODOT UNERGROUND UTILITIES, SHALL BE MADE IN THE LUMP SUM BID ITEM SPECIAL - UNDERGROUND UTILITIES, ODOT/GOVERNMENT OWNED & MAINTAINED. THE LUMP SUM QUANTITY HAS BEEN CARRIED TO THE LIGHTING GENERAL SUMMARY PAGE 147 FOR ITEM SPECIAL - UNDERGROUND UTILITIES, ODOT/GOVERNMENT OWNED & MAINTAINED.

23-APR-1995
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LIGHTING GENERAL NOTES

ITEM 625 - CONDUIT, MISC.: CONDUIT, 2", 713.04 IN STRUCTURE

PRIOR TO STARTING WORK ON PARAPET RETROFIT, THE CONTRACTOR IS TO ESTABLISH LOCATION OF EXISTING CONDUIT, SO AS NOT TO DAMAGE SAME DURING HIS OPERATIONS. ANY DAMAGE TO EXISTING CONDUIT SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER AT NO ADDITIONAL COST TO THE PROJECT.

AN ESTIMATED QUANTITY OF 500 L.F.- 2" RIGID CONDUIT 713.04 IN STRUCTURE IS CARRIED TO THE GENERAL SUMMARY TO BE USED, AS DIRECTED BY THE ENGINEER, TO REPLACE EXISTING CONDUIT WHERE CONDUIT INTERFERES WITH PROPOSED CONSTRUCTION.

ITEM 625 - LIGHTING, MISC.: 2" RIGID CONDUIT EXPANSION FITTING

AN ESTIMATED QUANTITY OF 25 EACH 2" RIGID CONDUIT EXPANSION FITTINGS HAS BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED, AS DIRECTED BY THE ENGINEER, TO REPLACE DETERIORATED EXISTING EXPANSION FITTINGS.

LIGHT POLES TO BE REPLACED ON EXISTING FOUNDATIONS AND/OR WELLS AND STRUCTURES

THE CONTRACTOR IS TO FIELD VERIFY EXISTING BOLT CIRCLES (TYPICAL). IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO INSURE PROPER FIT OF POLE BASES. ANY ERRORS IN FABRICATION SHALL BE CORRECTED AT THE CONTRACTORS EXPENSE.

TWIN DAVIT ARM LIGHT POLES, AS PER PLAN

FINISH ON POLES SHALL BE POWDER COAT OVER GALVANIZED FINISH IN COLOR, BENJAMIN MOORE NO. 624, WITH LUMINAIRES IN MATCHING COLOR.

ITEM SPECIAL - TEMPORARY LIGHTING, AS PER PLAN (SECTION 2)

THE CONTRACTOR SHALL DESIGN, INSTALL, MAINTAIN AND REMOVE TEMPORARY LIGHTING.

THE CONTRACTOR SHALL PREPARE AND SUBMITT (4) FOUR SETS OF THE TEMPORARY LIGHTING PLAN AT THE PRE-CONSTRUCTION MEETING. NO WORK ON ELECTRICAL ITEMS WILL BE PERMITTED UNTIL THIS PLAN IS APPROVED BY THE DIRECTOR.

THE PLAN SHALL SHOW LOCATIONS OF POLES, LENGTH OF BRACKET ARMS, STYLE OF LUMINAIRES, MOUNTING HEIGHT, WIRING METHODS AND OTHER PERTINENT INFORMATION. THE TEMPORARY LIGHTING SHALL PROVIDE AN AVERAGE INITIAL INTENSITY OF 1.2 FOOT-CANDLES WITH AN AVERAGE TO MINIMUM UNIFORMITY NOT TO EXCEED 4:1. MOUNTING HEIGHT SHALL NOT BE LESS THEN 27 FEET AND MINIMUM OVERHEAD CONDUCTOR CLEARANCE OF 20 FT. TEMPORARY OVERHEAD CONSTRUCTION SHALL NOT BE LESS THAN GRADE "A" FOR STRENGTH REQUIREMENTS AS DEFINED BY THE NATIONAL ELECTRIC SAFETY CODE. WOOD POLES FOR OVERHEAD WIRING MAY BE USED. HOWEVER, TEMPORARY LIGHTING SHALL MEET FEDERAL AND STATE SAFETY CRITERIA. IF BREAKAWAY POLES ARE USED TO MEET THESE CRITERIA, THEN UNDERGROUND WIRING SHALL BE USED. RECONDITIONED OR USED MATERIALS MAY BE FURNISHED FOR TEMPORARY LIGHTING.

ALL MATERIAL NECESSARY TO COMPLETE THE TEMPORARY LIGHTING SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR, WHEN NO LONGER NEEDED, THE TEMPORARY LIGHTING INSTALLATION SHALL BE REMOVED AND PROPERLY DISPOSED OF BY THE CONTRACTOR.

THE MAINTAINING AGENCY WILL PAY FOR ELECTRICAL ENERGY CONSUMED BY EXISTING POWER SERVICES AND BY PROPOSED PERMANENT POWER SERVICES AFTER ACCEPTANCE. THE CONTRACTOR WILL PAY FOR ELECTRICAL ENERGY, INSTALLATION, REMOVAL AND MAINTENANCE OF ANY TEMPORARY POWER SERVICES.

THE LUMP SUM PRICE BID FOR ITEM SPECIAL "TEMPORARY LIGHTING" SHALL INCLUDE PAYMENT FOR DESIGN, LABOR, EQUIPMENT AND MATERIALS AND INCIDENTALS NECESSARY TO PROVIDE TEMPORARY LIGHTING AND SUBSEQUENT REMOVAL.

ITEM 625 - UNDERPASS LUMINAIRE, 150 WATT HPS, 240 VOLT, AS PER PLAN (PENDANT TYPE)

THE LUMINAIRE SHALL BE HOLOPHANE "BANTAM PRISUATITE", OR CREATIVE SOLUTIONS OR EQUAL AND AS SPECIFIED BELOW, OR HOLOPHANE "PETL", CROOSE HINDS "VLW".

THE LUMINAIRE SHALL CONSIST OF TWO SUB-ASSEMBLIES, THE OPTICAL ASSEMBLY AND THE BALLAST HOUSING CONTAINING THE ELECTRICAL COMPONENTS.

THE BALLAST ASSEMBLY SHALL BE COMPLETE WITH DIE CAST ALUMINUM HOUSING AND INTEGRAL SPLICE CHAMBER WITH DETACHABLE ACCESS COVER AND AN ADJUSTABLE HUB ENTRY ADAPTER ASSURING PLUMB ALIGNMENT. THE HOUSING SHALL HAVE AN INTEGRAL MOUNTING PLATE FOR ATTACHING THE OPTICAL ASSEMBLY, THE SOCKET SHALL BE AN INTEGRAL PART OF THE BALLAST ASSEMBLY. THE BALLAST SHALL BE A COPPER WOUND HIGH POWER FACTOR MULTI-TAP AUTOTRANSFORMER FOR 150 WATT 100 VOLT HPS LAMP WITH TOTAL INPUT WATTS NOT TO EXCEED 180.

THE PRISMATIC REFRACTOR SHALL BE OF A BOROSILICATE GLASS 8 INCHES IN DIAMETER AND 6 INCHES DEEP, WITH A PRISMATIC STRUCTURE PRODUCING AN IES TYPE G, MEDIUM, NON-CUT OFF LIGHT DISTRIBUTION.

THE ASSEMBLED LUMINAIRE SHALL NOT EXCEED 12.75 INCHES IN HEIGHT OR 24 POUNDS IN WEIGHT. THE COMPLETE LUMINAIRE SHALL BE UL LISTED "SUITABLE FOR WET LOCATIONS" AND UL APPROVED FOR CONTINUOUS DUTY IN AMBIENT TEMPERATURES BETWEEN 20 DEG.F. AND 131 DEG.F. IT SHALL ALSO CARRY THE MANUFACTURERS 2-YEAR WARRANTY ON THE COMPLETE ASSEMBLY PLUS A 5-YEAR WARRANTY ON THE ELECTRICAL COMPONENTS.

PAYMENT FOR THE LUMINAIRE SHALL INCLUDE THE SUPPORT BETWEEN THE BEAMS AS DETAILED IN THE PLAN AND REPLACEMENT OF FLEXIBLE CONDUIT FROM LUMINAIRE TO EXISTING CONDUIT OR JUNCTION BOX AND ALL INCIDENTALS NECESSARY TO COMPLETE THE INSTALLATION INCLUDING ALL EQUIPMENT, LABOR AND MATERIALS.

ALL OF THE ABOVE SHALL BE INCLUDED IN THE BID PRICE FOR ITEM 625 - UNDERPASS LUMINAIRE, 150 WATT HPS, 240 VOLT, AS PER PLAN.

CALC. BY DATE
CHKD. BY DATE

HAM-71-1.30/9.00

OHIO
F.H.W.A. REGION 5

145
401

GENERAL SUMMARY

LIGHTING QUANTITIES

1 of 4

SHEET NUMBER																							SUBTOTALS			ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION
SECTION 1																			SECTION 2											
141/401	153/401	154/401	155/401	156/401	157/401	158/401	159/401	160/401	161/401	162/401	163/401	164/401	165/401	166/401	167/401	168/401	191/401	192/401	193/401	194/401	195/401	GEN. NOTES	SECTION 1	SECTION 2					
	86	64															22						150	22	202	75300	172	EACH	PULL BOX REMOVED
	101	91															58						192	58	202	75400	250	EACH	LIGHT POLE REMOVED
	62	54															52						116	52	202	75500	168	EACH	LIGHT POLE FOUNDATION REMOVED
	110	97															58						207	58	202	75506	265	EACH	LUMINAIRE REMOVED
	3	4															2						7	2	202	75510	9	EACH	POWER SERVICE REMOVED
	3																						3		202	75511	3	EACH	REMOVE POWER SERVICE "A", AS PER PLAN
		2																					2		202	75511	2	EACH	REMOVE POWER SERVICE "B", AS PER PLAN
	20																						20		202	98200	20	LIN. FT.	EXISTING CONDUIT REMOVED
																				1160				1160	202	98200	1160	LIN. FT.	REMOVAL AND REPLACEMENT OF MEDIAN BARRIER CAP; REMOVAL MISC.
				23			18	14		4				13	9								81		202	98100	81	EACH	REMOVAL, MISC.: REMOVE UNDERPASS LUMINAIRE AND SUPPORTS
2420																						2420			603	00400	2420	LIN. FT.	4 INCH CONDUIT, TYPE E
			34		42	26	20	20	28	26	28	40	34	16	16	28		8	15	21	7		358	51	625	00500	409	EACH	CONNECTOR KIT, TYPE II
														1				8	15	21	7		1	51	625	00600	52	EACH	CONNECTOR KIT, TYPE III
			3	12	3	3			3			3	3						6				30	6	625	01000	36	EACH	CONNECTOR KIT, TYPE VII A
			12	30	18		9	12		12	3	3	6	30		3		2	2				138	4	625	01004	142	EACH	CONNECTOR KIT, TYPE VII B
				6	6		3			3					15								33		625	01100	33	EACH	CONNECTOR KIT, TYPE VII C
			9	21	12	22	21	27	15	12	40	12	6	36	30	21		18	18	14	8		284	58	625	01500	342	EACH	CABLE SPLICING KIT
							2				3			5									10		625	10500	10	EACH	LIGHT POLE, DESIGN AT10B36.7
														1									1		625	10500	1	EACH	LIGHT POLE, DESIGN AT15B36.7
															2								2		625	04900	2	EACH	LIGHT POLE, DESIGN A4B40
									3				2										5		625	05006	5	EACH	LIGHT POLE, DESIGN A8B40
											3	9	11										23		625	05200	23	EACH	LIGHT POLE, DESIGN A10B40
											1												1		625	05715	1	EACH	LIGHT POLE, DESIGN A10BB40, AS PER PLAN
																				7				7	625	06000	7	EACH	LIGHT POLE, DESIGN AT6B41.7
							1								2								3		625	06100	3	EACH	LIGHT POLE, DESIGN AT8B41.7
								2	3	3					4					1	7		12	8	625	06200	20	EACH	LIGHT POLE, DESIGN AT10B41.7
							1												5				1	5	625	06300	6	EACH	LIGHT POLE, DESIGN AT12B41.7
							2		5	5		5	1			5							23		625	06400	23	EACH	LIGHT POLE, DESIGN AT15B41.7
							1					1											2		625	05000	2	EACH	LIGHT POLE, DESIGN A6B40D
											1												1		625	05006	1	EACH	LIGHT POLE, DESIGN A8B40D
										5		3	2			3							13		625	05200	13	EACH	LIGHT POLE, DESIGN A10B40D
									2														2		625	05300	2	EACH	LIGHT POLE, DESIGN A12B40D
							1																1		625	05400	1	EACH	LIGHT POLE, DESIGN A15B40D
																			3					3	625	05710	3	EACH	LIGHT POLE, DESIGN A8BB40D
												1											1		625	10500	1	EACH	LIGHT POLE, DESIGN A10B12B40D; MISC.
																3							3		625	10500	3	EACH	LIGHT POLE, DESIGN A12B15B40D; MISC.
																	8	7	7					22	625	10500	22	EACH	LIGHT POLE, DESIGN ST15B20B51.7; MISC.
																			2					2	625	10500	2	EACH	LIGHT POLE, DESIGN ST18BB51.7; MISC.
																			3					3	625	10500	3	EACH	LIGHT POLE, DESIGN ST15BB51.7; MISC.
							1	3	2		2	1	1			3							13		625	10500	13	EACH	VARIABLE HEIGHT STANDARD; LIGHT POLE; MISC.
																				1				1	625	10500	1	EACH	LIGHT POLE DESIGN A18BB71.7, AS PER PLAN; MISC.
			8		4												3						12		625	10611	12	EACH	LIGHT POLE ANCHOR U-BOLTS, AS PER PLAN
																	4	2						3	625	13200	3	EACH	LIGHT TOWER BBBB 100'
																								6	625	13400	6	EACH	LIGHT TOWER BBBBBB 100'
1			4		3	4	6		4	7	6	5	1	6	2	5			5	8	7		53	20	625	14100	73	EACH	LIGHT POLE FOUNDATION, 24" X 8' DEEP
									3	1	1			2	4								11		625	14200	11	EACH	LIGHT POLE FOUNDATION, 24" X 10' DEEP
																			3					3	625	14300	3	EACH	MEDIAN LIGHT POLE FOUNDATION, 8' DEEP
			3		10		3	3		2		5	2			5							33		625	14301	33	EACH	MEDIAN LIGHT POLE FOUNDATION, 8' DEEP, AS PER PLAN
									2	3													5		625	14307	5	EACH	MEDIAN LIGHT POLE FOUNDATION, 10' DEEP, AS PER PLAN
																	8	7	8					23	625	14201	23	EACH	LIGHT POLE FOUNDATION "A", 24" X 10' DEEP, AS PER PLAN
																			4					4	625	14201	4	EACH	LIGHT POLE FOUNDATION "B", 24" X 10' DEEP, AS PER PLAN
																			1					1	625	15200	1	EACH	LIGHT TOWER FOUNDATION, 36" X 25' DEEP

"D" DENOTES MEDIAN POLE BASE

FC-1 C:\RSRC\250806\1.DWG 06/06/24-21-1994 USER: ROADOFFR 1.30E-09.02

CALC. BY	DATE
CHK'D. BY	DATE

HAM-71-1.30/9.00

OHIO | F.H.W.A. REGION 5

145A / 401

GENERAL SUMMARY

LIGHTING QUANTITIES

2 of 4

SHEET NUMBER: SECTION 1 — 141/401	153/401	154/401	155/401	156/401	157/401	158/401	159/401	160/401	161/401	162/401	163/401	164/401	165/401	166/401	167/401	168/401
					3	4										
			4		2											
			6		1											
			1													
			2		1											
			3		8											
					1											
			1													
					3	4										
					3	3		3								
							1									
								3								

SHEET NUMBER: SECTION 2 — 191/401	192/401	193/401	194/401	195/401

SUBTOTALS: GEN. NOTES	SECTION 1	SECTION 2	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION
	7		625	10500	7	EACH	LIGHT POLE, MISC.: DESIGN A8B40 DAVIT ARM VALMONT DS90 *
	6		625	10500	6	EACH	LIGHT POLE, MISC.: TWIN DAVIT ARM VALMONT 7A12DD40, AS PER PLAN (SEE SHEET 144A) *
	7		625	10500	7	EACH	LIGHT POLE, MISC.: DESIGN A10B40 DAVIT ARM VALMONT DS90 *
	1		625	10500	1	EACH	LIGHT POLE, MISC.: DESIGN AT10B41.7 TWIN DAVIT ARM VALMONT DS90 *
	3		625	10500	3	EACH	LIGHT POLE, MISC.: DESIGN AT12B41.7 DAVIT ARM VALMONT DS90 *
	11		625	10500	11	EACH	LIGHT POLE, MISC.: TWIN DAVIT ARM VALMONT 7A12DD40 D, AS PER PLAN (SEE SHEET 144A) *
	1		625	10500	1	EACH	LIGHT POLE, MISC.: DESIGN A8B40D DAVIT ARM VALMONT DS90 *
	1		625	10500	1	EACH	LIGHT POLE, MISC.: DESIGN AT10B41.7 DAVIT ARM VALMONT DS90 *
	7		625	10500	7	EACH	LIGHT POLE, MISC.: DESIGN AT15B41.7 DAVIT ARM VALMONT DS90 *
	9		625	10500	9	EACH	LIGHT POLE, MISC.: VARIABLE HEIGHT STANDARD, DAVIT ARM VALMONT DS90 *
	1		625	10500	1	EACH	LIGHT POLE, MISC.: DESIGN A15B40D DAVIT ARM VALMONT DS90 *
	3		625	10500	3	EACH	LIGHT POLE, MISC.: DESIGN A12B40D DAVIT ARM VALMONT DS90 *

* OR APPROVED EQUAL

CALC. BY ___ DATE ___ CHKD. BY ___ DATE ___	HAM-71-1.30/9.00	OHIO F.H.W.A. REGION 5	146/401

GENERAL SUMMARY

LIGHTING QUANTITIES

3 of 4

SHEET NUMBER																						SUBTOTALS			ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION
SECTION 1																	SECTION 2												
142/401	153/401	154/401	155/401	156/401	157/401	158/401	159/401	160/401	161/401	162/401	163/401	164/401	165/401	166/401	167/401	168/401	191/401	192/401	193/401	194/401	195/401	GEN. NOTES	SECTION 1	SECTION 2					
																				1				1	625	14500	1	EACH	LIGHT POLE FOUNDATION, 36" X 35' DEEP
																		7						7	625	15201	7	EACH	LIGHT TOWER FOUNDATION "A", 36" X 25' DEEP, AS PER PLAN
																			1					1	625	15201	1	EACH	LIGHT TOWER FOUNDATION "B", 36" X 25' DEEP, AS PER PLAN
																			1					1	625	15700	1	EACH	LIGHT TOWER FOUNDATION GRADING
											1												1		625	18000	1	EACH	BRACKET ARM, 10'
														2									2		625	18200	2	EACH	BRACKET ARM, 15'
						2								1									3		625	18201	3	EACH	BRACKET ARM, 15', AS PER PLAN
																		1						1	625	20000	1	EACH	PORTABLE POWER UNIT
																		1						1	625	21000	1	EACH	LIGHT TOWER MAINTENANCE PLATFORM, TYPE A
																		6142	1542					7684	625	22900	7684	LIN. FT.	NO. 1/0 AWG, 5000 VOLT DISTRIBUTION CABLE
575			10875	5136	6828	3840	2049	1944	2655	2445	3522	7520	9723	3630	2640	4545		6512	5060		1492	575	67352	13064	625	23200	80991	LIN. FT.	NO. 4 AWG, 5000 VOLT DISTRIBUTION CABLE
175					7515	165					1179									7806		175	8859	7806	625	23300	16,840	LIN. FT.	NO. 2 AWG, 5000 VOLT DISTRIBUTION CABLE
			2038		2357	1135	1035	792	1444	1382	1398	2241	1841	812	697	1620		1632	2352	2668	624		19429	7276	625	23400	26705	LIN. FT.	NO. 10 AWG POLE AND BRACKET CABLE
																			1367	1952	1056			4375	625	24100	4375	LIN. FT.	1-1/2" DUCT CABLE WITH TWO NO. 4 AWG 5000 VOLT CABLES
																				736				736	625	24300	736	LIN. FT.	1-1/2" DUCT CABLE WITH TWO NO. 2 AWG 5000 VOLT CABLES
																		369	874					1243	625	24310	1243	LIN. FT.	1-1/2" DUCT CABLE WITH TWO NO. 1/0 AWG 5000 VOLT CABLES
			840	487	339	1294	1711	1877	1384	1719	1518	1467	147	1558	1473	1671							17485		625	24320	17485	LIN. FT.	1-1/2" DUCT CABLE WITH THREE NO. 4 AWG 5000 VOLT CABLES
					299																		299		625	24330	299	LIN. FT.	1-1/2" DUCT CABLE WITH THREE NO. 2 AWG 5000 VOLT CABLES
			970		479	51	10	38	1	10		109		22	19	44		5542	2190	3619			1753	11351	625	25400	13104	LIN. FT.	CONDUIT, 2", 713.04
			85	1456				130						986	273								2930		625	25401	2930	LIN. FT.	CONDUIT, 2", 713.04, AS PER PLAN
30					188	48		9			5		19			54			93		706	30	323	799	625	25500	1152	LIN. FT.	CONDUIT, 3", 713.04
				38	89			192		107	55				103			357	517	302	186		584	1362	625	25900	1946	LIN. FT.	CONDUIT, JACKED OR DRILLED UNDER PAVEMENT, 3", 713.04
1			415	180	1167	400	280	238	342	210	721	414	418	355	644	315		815	145			50	6099	960	625	25920	7109	LIN. FT.	EXISTING CONDUIT CLEANED, MISC.
																			5	8	1			14	625	26200	14	EACH	LUMINAIRE, STYLE B, TYPE II, 200 WATT, HIGH PRESSURE SODIUM, 713.11, 480 VOLT
			6		11	13	1	6	9	10	15	1	17		5				6				94	6	625	26202	100	EACH	LUMINAIRE, STYLE B, TYPE II, 200 WATT, HIGH PRESSURE SODIUM, 713.11, 240 VOLT
																					6			6	625	26300	6	EACH	LUMINAIRE, STYLE B, TYPE III, 200 WATT, HIGH PRESSURE SODIUM, 713.11, 480 VOLT
																		16	14	26				56	625	26600	56	EACH	LUMINAIRE, STYLE C, TYPE II, 310 WATT, HIGH PRESSURE SODIUM, 713.11, 480 VOLT
			19		19		9	3	5	3		20		9	3	17							107		625	26302	107	EACH	LUMINAIRE, STYLE B, TYPE III, 200 WATT, HIGH PRESSURE SODIUM, 713.11, 240 VOLT
																		12						12	625	27000	12	EACH	LUMINAIRE, ASYMMETRIC, 400 WATT HIGH PRESSURE SODIUM, 713.21, 480 VOLT
																		24	12					36	625	27200	36	EACH	LUMINAIRE, SYMMETRIC, 400 WATT HIGH PRESSURE SODIUM, 713.21, 480 VOLT
				2			18	14		4											6		38	6	625	27500	44	EACH	LUMINAIRE, UNDERPASS, HIGH PRESSURE SODIUM, 713.13
				21										13	9								43		625	27600	43	EACH	LUMINAIRE, MISC.: UNDERPASS, 150 WATT HIGH PRESSURE SODIUM, 240 VOLT, AS PER PLAN
																													(SEE SHEET 144A)
			2		3			2	2	1					1	2					2		13	2	625	28000	15	EACH	GLARE SHIELD
																		5542	2190	2414				10146	625	29000	10146	LIN. FT.	TRENCH, 12" DEEP
25			566		479	1034	1420	1580	1128	1456	1244	1110	152	1007	1164	1623		179	2001	3595	1516	25	13963	7291	625	29002	21279	LIN. FT.	TRENCH, 24" DEEP
				409		65						63		233	25	24							819		625	29500	819	LIN. FT.	TRENCH IN PAVED AREA, TYPE A
																									625	25920	500	LIN. FT.	CONDUIT, MISC.: 2" RIGID CONDUIT, 713.04, IN STRUCTURE (SEE SHEET 144A)
																									625	98000	25	EACH	LIGHTING, MISC.: 2" RIGID CONDUIT EXPANSION FITTING (SEE SHEET 144A)
			1	3				1				1		9	4								19		625	29900	19	EACH	JUNCTION BOX
			1		2																		3		625	29910	3	EACH	TRANSITION JUNCTION BOX
			4		2																		6		625	29920	6	EACH	STRUCTURE JUNCTION BOX
			2	7		10	6	7	4	3	13	5	2	11	5	9		4	6	6	4		84	20	625	30700	104	EACH	PULL BOX, 713.08, 18"
																		10	2	3				15	625	30701	15	EACH	PULL BOX, 713.08, 18", AS PER PLAN
			1		4		1	1			5				1								13		625	30706	13	EACH	PULL BOX, 713.08, 24"
			2		8		4	1	2	4		1	1			2			2				25	2	625	31500	27	EACH	MEDIAN PULL BOX
			11		18	7	10	9	11	13	7	9	3	8	6	14		22	19	21	7		126	69	625	32000	195	EACH	GROUND ROD

EC-1 C:\88090\88090G12.DWG OCTOBER-21-1994 USER: RGARDNER TIME:09:13

UAT

GENERAL SUMMARY

LIGHTING QUANTITIES

4 of 4

SHEET NUMBER: SECTION 1 143-144/401	147/401	153/401	154/401	155/401	156/401	157/401	158/401	159/401	160/401	161/401	162/401	163/401	164/401	165/401	166/401	167/401	168/401	SECTION 2 191/401	192/401	193/401	194/401	195/401	SUBTOTALS GEN. NOTES	SECTION 1	SECTION 2	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION
							1	1	2		1						2			2	1	1		7	4	625	34001	11	EACH	POWER SERVICE, AS PER PLAN
				1																				1		625	34001	1	EACH	POWER SERVICE "A", AS PER PLAN
					2																			2		625	34001	2	EACH	POWER SERVICE "B", AS PER PLAN
													1		1	2								4		625	34001	4	EACH	POWER SERVICE "C", AS PER PLAN
								1	1													4		2	4	625	37100	6	EACH	SERVICE TO UNDERPASS LIGHTING
					15											3								18		625	37101	18	EACH	SERVICE TO UNDERPASS LIGHTING "A", AS PER PLAN
					1																			1		625	37101	1	EACH	SERVICE TO UNDERPASS LIGHTING "B", AS PER PLAN
									1															1		625	37101	1	EACH	SERVICE TO UNDERPASS LIGHTING "C", AS PER PLAN
					1			4	4						6									15		625	37101	15	EACH	SERVICE TO UNDERPASS LIGHTING REFURBISHED, AS PER PLAN
	LUMP																						LUMP			625	38000	LUMP		HIGH VOLTAGE TEST
LUMP																							LUMP		LUMP	625	39001	LUMP		TEMPORARY LIGHTING, AS PER PLAN (SEE SHEET 144A)
1																										SPECIAL	62540000	LUMP		MAINTAIN EXISTING LIGHTING
		2	1															1					1			SPECIAL	62540010	1	EACH	REPLACEMENT OF EXISTING LIGHTING UNIT
																							3	1		SPECIAL	62540020	4	EACH	DISCONNECT EXISTING CIRCUIT
							1		1				1			1	1						5			625	98000	5	EACH	ELECTRIC SERVICE
				2		1		1				3	2		1	2	2		2	4			14	6		625	98000	20	EACH	REFURBISH SIGN SERVICE "A", AS PER PLAN
				1		3		1		1	1												7			625	98000	7	EACH	REFURBISH SIGN SERVICE "B", AS PER PLAN
				1																			1			625	98000	1	EACH	REFURBISH SIGN SERVICE "C", AS PER PLAN
		1	2																											
			1		1																		3			625	98000	3	EACH	DISCONNECTION OF MESSENGER CABLE, LIGHTING, MISC.
																							2			625	98000	2	EACH	DISCONNECTION OF TRAFFIC CONTROL CIRCUITS AND RELOCATION, LIGHTING, MISC.
		2	1																											
		15																					3			625	98000	3	EACH	REMOVE BRACKET ARM, LIGHTING, MISC.
		5																6					15	6		625	98000	21	EACH	WIRE TERMINATION AT PILASTER, LIGHTING, MISC.
																							5			625	98000	5	EACH	WIRE TERMINATION AT RETAINING WALL, LIGHTING, MISC.
				1																										
				1	2																		1			625	98000	1	EACH	MODIFICATION TO EXISTING CIRCUIT RACEWAY "A", LIGHTING, MISC.
																							3			625	98000	3	EACH	MODIFICATION TO EXISTING CIRCUIT RACEWAY "B", LIGHTING, MISC.
				1	1										1															
													1	1									3			625	98000	3	EACH	REMOTE PHOTOCELL "A", LIGHTING, MISC.
					1										1								2			625	98000	2	EACH	REMOTE PHOTOCELL "B", LIGHTING, MISC.
					1																		2			625	98000	2	EACH	REMOTE PHOTOCELL "C", LIGHTING, MISC
									2																					
								2			3						1			1			2			625	98000	2	EACH	REFURBISH CONDUIT STUB OUT, LIGHTING, MISC.
																							6	1		625	98000	7	EACH	CONNECTION TO EXISTING CONDUIT, LIGHTING, MISC.
							2					6			1	1							10			625	98000	10	EACH	ELECTRIC SERVICE CONNECTION TO PEDESTAL LIGHT, AS PER PLAN, LIGHTING, MISC.
				28		13	10			3		5	14	18		2			3	3			93	6		625	98000	99	EACH	JUNCTION BOX EXTENSION "A", LIGHTING, MISC.
					4		2								1								7			625	98000	7	EACH	ELECTRIC SERVICE CONNECTION, LIGHTING, MISC.
LUMP																							LUMP			SPECIAL	69018400	LUMP		UNDERGROUND UTILITIES, ODOT/GOVERNMENT OWNED AND MAINTAINED, ROADWAY MISC.
															73								73			632	40500	73	LIN. FT.	SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG.
												1			2								3			632	84301	3	EACH	COMBINATION STRAIN POLE, TYPE TC-81.10, DESIGN 3, AS PER PLAN
															2								2			632	90104	2	EACH	REUSE OF MESSENGER CABLE, AS PER PLAN

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CALC. BY DATE	HAM–71–1.30/9.00	OHIO	148 / 401
CHKD. BY DATE		F.H.W.A. REGION 5	

SECTION 1

SCHEMATIC PLAN

100 0 100 200 300
GRAPHIC SCALE IN FEET

CITY OF CINCINNATI
EXISTING CONTROL CENTER CL4
9+26.5 47' L GILBERT AVE. TO REMAIN.

7+07 FC
SIGN 1075 W
7+17 FC
7+57 FC
8 FC
E. FIFTH ST.
LYTLE PARK TUNNEL
PIKE ST.
COMMERCIAL SQ.
SENTINEL ST.
CULVERT ST.
EGGLESTON AVE.
COURT ST.
VAN METER ST.
WAREHAM ST.
Southbound GILBERT AVE.
Northbound GILBERT AVE.
Southbound I–471
Northbound I–71
Southbound I–71
Northbound I–471
RAMP "E"
RAMP "B"
RAMP "F"
RAMP "GF"
RAMP "GG"
Match Line Sta. 164+00 N.B. I–71
135N
138
140
140N
145
145S
150
150N
150S
155
155S
160
160N
135+91 RT B
136+00 NB I–71
136+62 NB I–71
137+02 RT B
151+74 RT A
137+74 RT B
SIGN 525 W
137+84 RT B
138+79 LT SB I–71
139+62 LT NB I–71
137+55 NB I–71
134+92 LT SB I–71
SIGN 1050 W
139+20 NB I–71
139+60 NB RT I–71
149+22 LT A
139+48 RT B
150+56 RT A
150+62 LT A
142+27 RT SB I–71
SIGN 350 W
145+35 LT SB I–71
148+12 LT NB I–71
143+56 LT NB I–71
143+36 RT NB I–71
141+91 RT NB I–71
141+28 LT NB I–71
147+75 LT A
140+84 RT B
140+00 LT NB I–71
SIGN 500 W
145+84 LT NB I–71
144+84 RT NB I–71
150+28 LT SB I–71
150+40 CL NB I–71
L5–A1 TYPE III
152+42 CL NB I–71
151+98 RT NB I–471
153+38.5 RT NB I–471
154+80 CL NB I–71
155+75 CL NB I–71
SIGN 500 W
48+07 LT GG
155+80 RT NB I–471
SIGN 500 W
152+00 LT SB I–71
152+37 LT SB I–71
SIGN 1050 W
153+70 LT SB I–71
155+65 LT SB I–71
155+90 CL NB I–71
155+90 RT NB I–71
157+90 LT SB I–71
157+30 CL NB I–71
46+27 LT GG
158+00 LT SB I–71
158+15 CL NB I–71
44+47 LT GG
159+40 RT NB I–471
159+80 RT SB I–71
42+80 LT GG
42+60 LT GG
8+82 LT VAN METER
STATE OF OHIO CONTROL CENTER L5
8+82 LT VAN METER STREET
8+85 RT VAN METER
8+85 LT VAN METER
42+63 LT GG
35+98 RT GF
162+32 LT SB I–71
162+30 RT SB I–71
37+87 RT GF
162+76 CL SB I–71
JB
162+75 LT SB I–71
JB
162+85 LT SB I–71
SIGN 1225 W
161+16 LT GD
39+12 LT GG
162+47 RT GD
161+16 RT GD
41+00 LT GG
161+09 RT NB I–71
160+70 RT NB I–471

LIGHTING SCHEMATIC

CALC. BY DATE	HAM–71–1.30/9.00	OHIO	149 / 401
CHKD. BY DATE		F.H.W.A. REGION 5	

SECTION 1

SCHEMATIC PLAN

GRAPHIC SCALE IN FEET: 100 0 100 200 300

13TH ST.
LIBERTY ST.
READING ROAD
SR READING RD.
ELSINORE PL.
READING RD
RAMP "GA"
RAMP "GB"
RAMP "GC"
RAMP "GD"
RAMP "GE"
RAMP "GF"
RAMP "GG"
Southbound GILBERT AVE.
Northbound GILBERT AVE.
Southbound I–71
Northbound I–71
Match Line Sta. 164+00 N.B. I–71
Match Line Sta. 193+00 N.B. I–71
Penn. R.R. Bridge (Abandoned)
SEE INSERT "A" THIS SHEET
INSERT "A" NTS

29+92 LT GF
30+30 RT GF
30+97 LT GG
32+44 LT GG
32+19 RT GF
34+00 LT GG
34+11 RT GF
35+70 LT GG
166+15 NB I–71
164+35 NB I–71
164+26 GD
37+42 LT GG
166+06 GD
168+25 NB I–71
167+86 GD
169+80 SB I–71
169+66 GD
171+03 CL NB I–71
SIGN 500 W
171+00 GD
171+13 LT NB I–71
171+70 LT SB I–71
172+62 NB I–71
173+65 LT GA
173+57 LT GA
173+73 LT SB I–71
173+66 10' LT NB I–71
30+30.5 RT GG
172+83 SB I–71
24+56 LT SB GILBERT
172+20 LT SB I–71
SIGN 350 W
171+50 LT GA
172+10 LT SB I–71
27+75 SB GILBERT
169+80 GA
168+75 LT GA
10+67 48' LT EL
12+40 EL(N)
11+35 LT EL(N)
10+94 EL(N)
10+64 48' LT EL
11+32 48' LT EL
11+39 45' LT EL(N)
SIGN 275 W
10+43 CL EL
STATE OF OHIO CONTROL CENTER L6
13+25 ELSINOR PLACE
13+25 54' RT EL
174+20 SB I–71
173+66 NB I–71
176+52 GA
182+45 RT GA
182+18 LT RB
181+68 LT RC
SIGN 525 W
13+29 RT SB READING
13+33 39' RT SB READING
13+33 62' RT SB READING
14+20 SB READING
SIGN 200 W
14+11 SB READING
14+17 RT SB READING
14+70 10' LT NB READING
175+50 RT RD
SIGN 450 W
176+37 RD
177+63 SB I–71
16+35 NB READING
17+61 RT NB READING
16+32 RT SB READING
179+96 LT SB I–71
180+18 LT GA
180+61 LT SB I–71
SIGN 700 W
181+25 LT SB I–71
182+35 LT GA
19+15 LT SB READING
SIGN 375 W
19+33 RT SB READING
19+33 LT SB READING
19+36 LT SB READING
STATE OF OHIO CONTROL CENTER L9
19+39 S.B. READING
19+55 RT SB READING
183+00 LT SB I–71
20+76 RT NB READING
183+78 RT RB
SIGN 250 W
184+38 LT RB
184+52 LT GA
184+73 LT SB I–71
184+61 LT RF
22+67 NB READING
22+64 RT SB READING
186+26 LT RF
186+46 LT SB I–71
187+50 RT RE
187+25 RT RC
SIGN 700 W
187+84 LT SB I–71
PB
188+16 LT SB I–71
26+24 LT NB READING
188+86 RT GA
189+67 LT SB I–71
190+33 LT RA
191+22 LT SB I–71
191+63 LT RA
192+09 LT RA
SIGN 1050 W
192+77 LT SB I–71
193+18 LT RA
192+95 LT NB I–71
191+35 RT RE
191+96 RT NB I–71
191+03 LT NB I–71
190+27 RT RB
190+13 RT NB I–71
189+40 RT RE
STATE OF OHIO CONTROL CENTER L7
CITY OF CINCINNATI CONTROL CENTER CL7
175+05 LT NB I–71
176+30 NB I–71
176+33 SB I–71
177+62 NB I–71
177+63 RD
178+85 SB I–71
178+82 NB I–71
178+95 RT RD
179+84 LT NB I–71
18+92 RT NB READING
180+25 RT RD
180+90 RT NB I–71
181+52 RT RD
182+05 LT NB I–71
182+64 RT SB I–71
182+73 RT NB I–71
PB
182+80 RT RD
182+86 RT RD
182+87 RT NB I–71
184+81 RT RD
184+43 RT NB I–71
185+74 LT NB I–71
21+08 RT NB READING
187+45 LT NB I–71
186+75 RT NB I–71
24+46 LT NB READING
188+33 RT NB I–71
189+20 LT NB I–71
32+63 LT GILBERT
174+78 NB I–71
STATE OF OHIO CONTROL CENTER L7 174+98 69' RT NB I–71 CIRCUIT L7–A
CITY OF CINCINNATI CONTROL CENTER CL7 175+01 69' RT NB I–71
174+46 NB I–71
173+92 NB I–71
JB FOR UNDERPASS
32+49 LT GILBERT
175+22 NB I–71
JB FOR UNDERPASS
15+62 RT EL
16+68 RT EL
175+04 NB I–71
174+98 73' RT NB I–71
175+01 73' RT NB I–71
33+19 LT GILBERT

LIGHTING SCHEMATIC

EC-1 C:\850940\850940SCH2.DWG OCTOBER-20-1994 USER: MBAKER TIMED: 08:26
EL 12

CALC. BY DATE	HAM–71–1.30/9.00	OHIO
CHKD. BY DATE		F.H.W.A. REGION 5

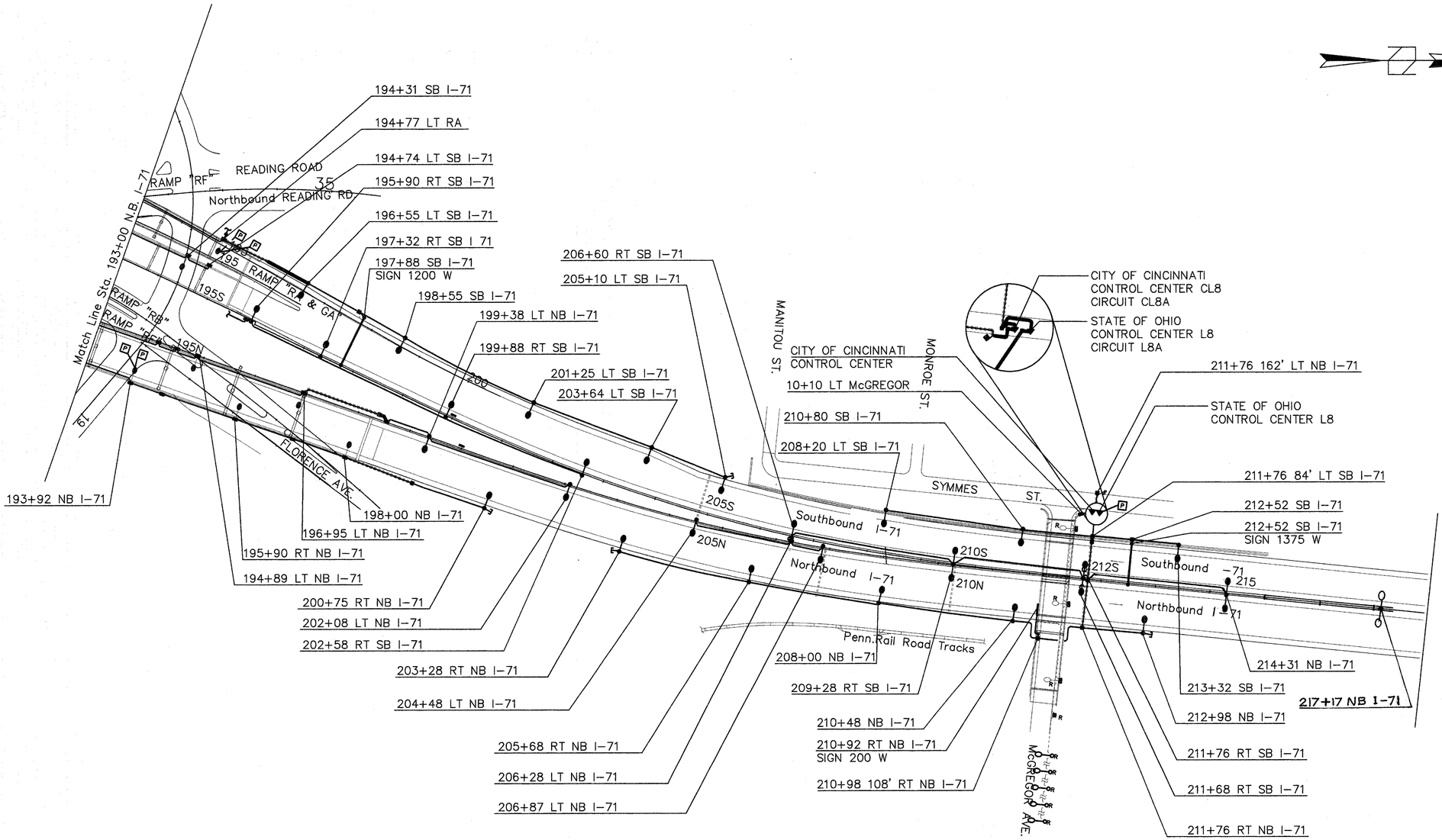
150/401

SECTION 1

SCHEMATIC PLAN

100 0 100 200 300

GRAPHIC SCALE IN FEET



LIGHTING SCHEMATIC

REL 12 EC–1 C:\88090\88090SC3.DWG OCTOBER–20–1994 USER: MBAKER TIME:08:27

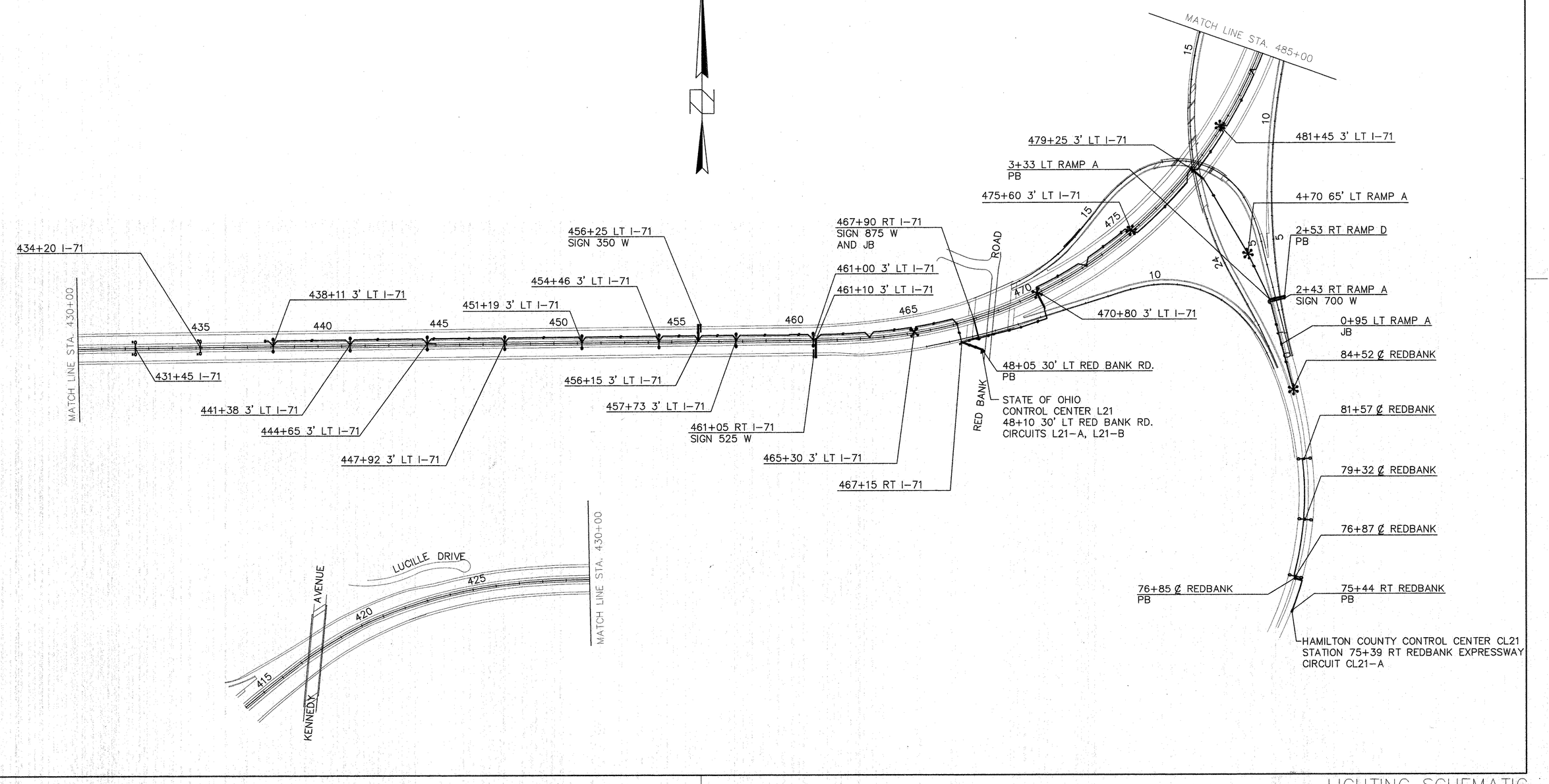
CALC. BY DATE	HAM–71–1.30/9.00	OHIO
CHKD. BY DATE		F.H.W.A. REGION 5

151
401

SECTION 2

SCHEMATIC PLAN

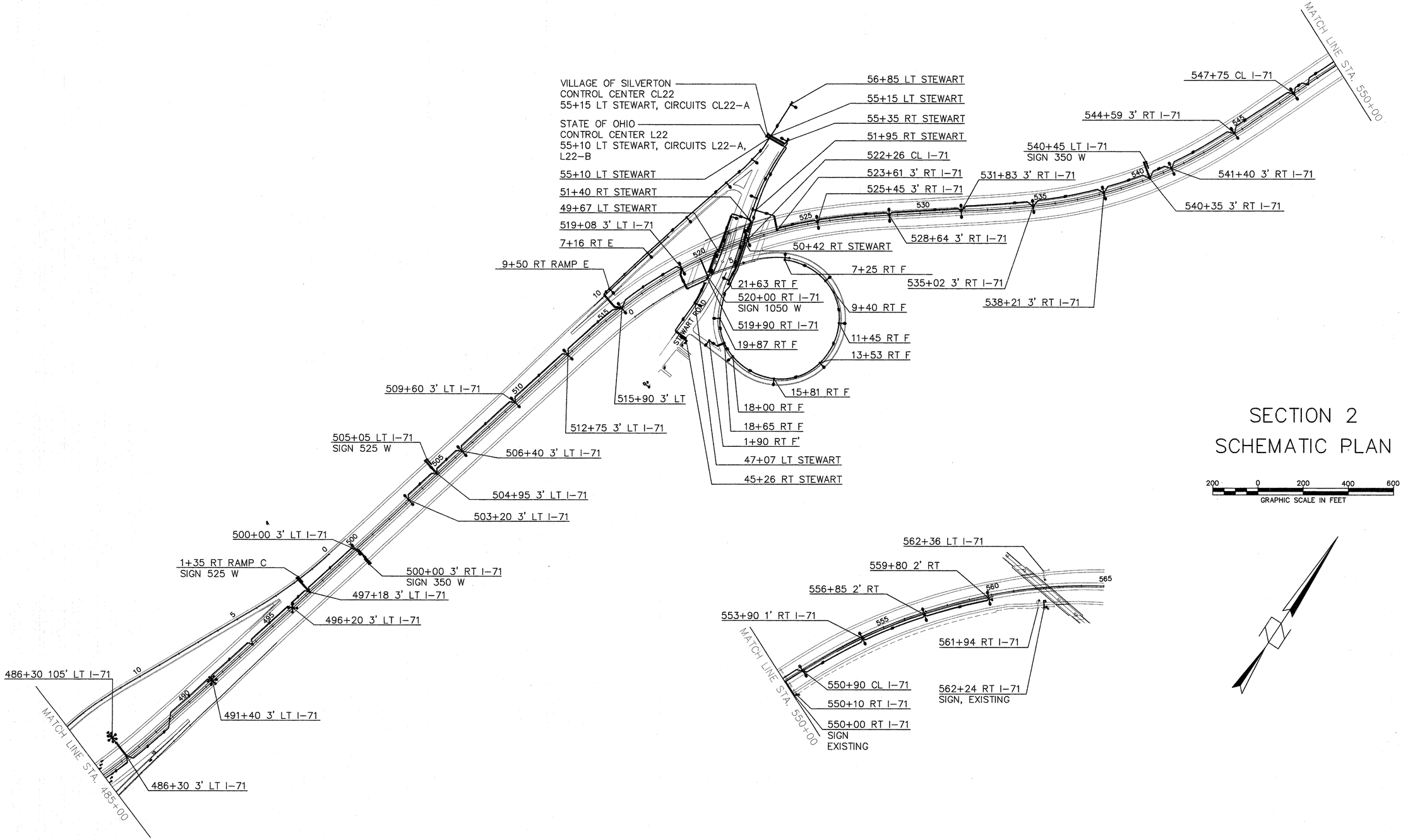
200 0 200 400 600
GRAPHIC SCALE IN FEET



LIGHTING SCHEMATIC

PCL 12 EC-1 C:\88090\SCHEM-2A.DWG OCTOBER-20-1994 USER: MBAKER TIME: 08:29

CALC. BY DATE	HAM–71–1.30/9.00	OHIO	152
CHKD. BY DATE		F.H.W.A. REGION 5	401



SECTION 2
SCHEMATIC PLAN

200 0 200 400 600
GRAPHIC SCALE IN FEET

CALC. BY DATE	HAM–71–1.30/9.00	OHIO
CHKD. BY DATE		F.H.W.A. REGION 5

153 / 401

LIGHTING QUANTITIES SUB–SUMMARY

HAM–71–1.30/9.00
SECTION 1
1 of 16

CALCULATED BY: [signature] DATE: 10-21-94
CHECKED BY: Donald A. Petrus DATE: 10-21-94

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	ITEM 202 LIGHT POLE REMOVED	ITEM 202 LIGHT POLE FOUNDATION REMOVED	ITEM 202 LUMINAIRE REMOVED	ITEM 202 PULL BOX REMOVED	ITEM SPECIAL REMOVE BRACKET ARM	ITEM SPECIAL DISCONNECT EXISTING CIRCUIT	ITEM SPECIAL WIRE TERMINATION AT RETAINING WALL	REMOVE POWER SERVICE "A", AS PER PLAN	POWER SERVICE REMOVED	EXISTING CONDUIT REMOVED		WIRE TERMINATION AT PILASTER
						EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	L.F.		EA.
169		7+37	7+57	FIFTH ST (FC)	RT				1		1						
169		135+91 47.5 RT	150+56 RAMP A	RAMP B	RT	3	3	4	2								
		138+07	150+62 RAMP A	RAMP B	LT/RT				1								
		150+62		RAMP A	RT/LT												
		151+74		RAMP A	RT	1	1	1									
		150+62	147+75	RAMP A	LT	2		2									
		136+38	140+10	NB I–71	RT	5	4	5	4								
		139+60	137+75 SB I–71	NB I–71	RT/LT								1				
		133+84	137+42	SB I–71	LT	5		5	1			5					
		14+75		SENTINEL	RT				1								
		137+75	149+00	SB I–71	LT	7	7	7					1				7
		139+48	144+84 NB I–71	RAMP B	RT	5		5									1
		144+84	149+00	NB I–71	RT	2		2									2
		14+25 50' RT		EGGLESTON	RT								1				
170		149+00	149+42	NB I–71	RT	1		1									1
		150+28	151+40	SB I–71	LT	1		2									
		151+40	9+26.5 LT GILBERT	SB I–71	LT										20		
		151+40	160+55	SB I–71	LT	6	2	11	6								
		157+90	40+60 RT RAMP GF	SB I–71	LT												
		40+60	39+04	RAMP GF	RT												
		39+04	UNDERPASS LIGHTING	RAMP GF	RT												
		162+21	164+00	SB I–71	LT	2	2	2	3								
		158+15	158+00 I–471	SB I–71	LT/RT				2								2
		151+10	158+03	NB I–71	RT	5	5	5	2								
		155+90		NB I–71	RT/CL				1								
		157+72	164+00	NB I–471	RT	4	2	4	4								2
		161+16		RAMP GD	RT/LT				2								
		161+03		RAMP GD	RT				1								
		151+98	39+00 RAMP GG	NB I–471	RT	6	2	8	3	2							
		160+70	8+82 VAN METER	NB I–471	RT/LT				2					1			
		8+85		VAN METER	LT/RT				2								
		39+04	34+22	RAMP GF	RT	2		2									
		SUB–TOTAL SHEET 1 OF 16				57	28	66	38	2	1	5	3	1	20		15

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	ITEM 202 LIGHT POLE REMOVED	ITEM 202 LIGHT POLE FOUNDATION REMOVED	ITEM 202 LUMINAIRE REMOVED	ITEM 202 PULL BOX REMOVED	ITEM SPECIAL REMOVE BRACKET ARM	ITEM SPECIAL DISCONNECTION OF MESSENGER CABLE	ITEM SPECIAL WIRE TERMINATION AT RETAINING WALL	ITEM SPECIAL DISCONNECT EXISTING CIRCUIT	ITEM 202 REMOVE POWER SERVICE "A", AS PER PLAN	ITEM 202 POWER SERVICE REMOVED	ITEM 202 EXISTING CONDUIT REMOVED	SPECIAL WIRE TERMINATION AT PILASTER
						EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	L.F.	EA.
171		164+26	31+20 RT GILBERT	RAMP GD	RT	5	2	5	1								
		174+78	174+98	NB I–71	RT	1	1	1	1						1		
		15+62		ELSINORE	RT				1								
		176+30	178+82	NB I–71	RT	3	3	3									
		39+00	29+92 RAMP GF	RAMP GG	LT	5	2	5	4								
		34+11	30+30	RAMP GF	RT	3	2	3	1								
		165+60	168+52	NB I–71	RT	3	3	3									
		168+51	168+51	RAMP GD	LT/RT				2								
		164+00	175+20	SB I–71	LT	6	6	6	9								
		24+56	13+25 RT ELSINORE	SB GILBERT	LT	5	5	5	6						1		
		27+50	169+80 RAMP GA	SB GILBERT	LT/LT	1	1	1	1								
		173+57	173+60 LT NB I–71	RAMP GA	LT/LT												
		171+13	176+33 SB I–71	NB I–71	CL	2	2	2	3								
		13+20		ELSINORE	RT				1								
		8+45		READING	LT				1			1					
		14+11	14+17	SB READING	RT				2								
		13+33 39' RT	10+89 EL (N)	SB READING	RT	2	2	2	3								
		10+43	10+67 48' LT	ELSINORE	CL/LT	1	1	1	2		1						
		11+34 45' LT	11+35	ELSINORE	LT				2								
		12+40	15+40 NB READING	ELSINORE	LT	1	1	1	3								
		15+40	17+15	NB READING	RT	1		1									
		176+37	178+85	RAMP RD	RT	2		2									
		176+52	179+00	RAMP GA	LT	1	1	1	2								
		177+63	179+00	SB I–71	LT	1	1	1	2								
		178+85	179+00	SB I–71	RT	1	1	1	1								
		SUB–TOTAL SHEET 1 OF 16				44	34	44	48		1		1		2		
		SUB–TOTAL SHEET 1 OF 16				57	28	66	38	2		5	1	3	1	20	15
		TOTAL SHEET 1 OF 16				101	62	110	86	2	1	5	2	3	3	20	15

EC-1 C:\88090\88090SDA.DWG OCTOBER-20-1994 USER: RGARDINER TIME:15:09
REL 12

CALC. BY DATE	HAM–71–1.30/9.00	OHIO	154
CHKD. BY DATE		F.H.W.A. REGION 5	401

LIGHTING QUANTITIES SUB–SUMMARY

HAM–71–1.30/9.00
SECTION 1
2 of 16

CALCULATED BY: [illegible] DATE: 10-21-94
CHECKED BY: Donald A. Petrie DATE: 10-21-94

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	ITEM 202 LIGHT POLE REMOVED EA.	ITEM 202 LIGHT POLE FOUNDATION REMOVED EA.		ITEM 202 LUMINAIRE REMOVED EA.	ITEM 202 PULL BOX REMOVED EA.	ITEM SPECIAL REMOVE BRACKET ARM EA.	ITEM SPECIAL WIRE TERMINATION AT RETAINING WALL EA.			202 POWER SERVICE REMOVED EA.	202 EXISTING CONDUIT REMOVED L.F.	
172		178+85	193+00 NB I–71	RAMP RD	RT	9	4		9	3							
		179+00	184+43	NB I–71	RT	3	3		3	1							
		179+84	21+08 RT NB READING	NB I–71	LT	2	2		2	1							
		17+15	21+08	NB READING	RT	3			3								
		182+18	186+26 LT RAMP RF	RAMP RB	LT	3			3	2							
		184+61	22+67 LT NB READING	RAMP RF	LT					1							
		22+67	26+24	NB READING	LT	3			4								
		179+00	193+00	SB I–71	LT	9	5		10	3							
		187+84	188+86	RAMP GA	RT	1			1	1							
		180+18	182+48	RAMP GA	LT	2	2		2	1							
		184+52		RAMP GA	LT	1	1		1								
		16+87	22+64	SB READING	RT	2	2		2	2							
		18+90	19+37	SB READING	LT					2					2		
		182+86	19+36	RAMP RD	RT/LT					1							
		185+74	193+00	NB I–71	LT	5			5								
		187+50	193+04	RAMP RB	RT	4	4		4	2							
		190+27	193+21	RAMP RB	RT	2			2	1							
		28+26		NB READING	LT	1	1		1								
		29+14		NB READING	LT/RT					2							
		29+21		NB READING	RT	1	1		1								
		190+33	193+00	RAMP RA	LT												
		193+00	31+35 LT NB READING	RAMP RA	LT						1						
		193+00	193+18	RAMP RA	LT												
		9+96	11+83	EDEN PARK	RT	1	1		1	1							
		11+83	11+83	EDEN PARK	RT/LT					2							
		10+12	11+83	EDEN PARK	LT	1	1		1	1							
		SUB–TOTAL SHEET 2 OF 16				53	27		55	27	1				2		

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	ITEM 202 LIGHT POLE REMOVED EA.	ITEM 202 LIGHT POLE FOUNDATION REMOVED EA.	SPEC. DISCONNECTION OF TRAFFIC CONTROL CIRCUITS & RELOCATION EA.	ITEM 202 LUMINAIRE REMOVED EA.	ITEM 202 PULL BOX REMOVED EA.	ITEM SPECIAL REMOVE BRACKET ARM EA.	ITEM SPECIAL WIRE TERMINATION AT RETAINING WALL EA.	ITEM SPECIAL DISCONNECTION OF MESSENGER CABLE EA.	ITEM 202 REMOVE POWER SERVICE "B", AS PER PLAN EA.	ITEM 202 POWER SERVICE REMOVED EA.	ITEM 202 EXISTING CONDUIT REMOVED L.F.	SPEC. DISCONNECT EXISTING CIRC. EA.
173		19+28	18+30	EDEN PARK	LT					1					1		
		18+30	195+00 90' RT FLOR.	EDEN PARK	LT					2				1			
		193+00	208+00	NB I–71	RT	6	3		6	3							
		194+45	195+00 RT FLORENCE	NB I–71	RT/DN												
		197+00	197+45 RT RAMP RB	NB I–71	RT/DN					1							
		193+00	208+00	NB I–71	LT	6	4		6	3							
		194+44	17+02 LT EDEN PARK	NB I–71	LT/DN												
		17+02	195+00 90' RT FLOR.	EDEN PARK	LT					2							
		197+32	202+58	SB I–71	RT	3	3		3								
		193+23	195+90	SB I–71	LT	2	1		2								
		194+74	15+60 LT EP	SB I–71	LT/DN					1							
		193+18	208+00 SB I–71	RAMP RA/GA	LT	8	5		8	5							
		194+77	15+13 LT EP	SB I–71	LT/DN									1			
		195+08		RAMP RB	LT	1	1		1								
		16+45	16+35	EDEN PARK	RT/LT	1	1	1	1	1			1				
		15+15		EDEN PARK	LT					1							
		14+96		EDEN PARK	LT					1							
		14+90	31+23 LT SB READING	EDEN PARK	LT	1	1		1	3			1				
		13+38	13+10	EDEN PARK	LT	1	1		1	1							
		34+20	34+65	READING	RT	2	2		2	1							
		41+90		READING	RT					1							
174		208+00	212+98	NB I–71	RT	3	3		3	3							
		208+00	214+31	NB I–71	CL	3	3		6	3							
		208+00	213+32 LT SB I–71	NB I–71	LT	2			2	1							
		211+76	211+76	NB I–71	RT/LT					3							
		211+79		NB I–71	LT										1		
		217+17		NB I–71	CL												1
		SUB–TOTAL SHEET 2 OF 16				39	28	1	42	37			2	2	2		
		SUB–TOTAL SHEET 2 OF 16				53	27		55	27	1				2		
		TOTAL SHEET 2 OF 16				92	55	1	97	64	1		2	2	4		1

EC-1 C:\88090\88090SUM.DWG OCTOBER-20-1994 USER: RGARDNER TIME: 15:10
REL 12

* DAVIT ARM VALMONT DS90 OR EQUAL
** TWIN DAVIT ARM VALMONT DS90 OR EQUAL
*** TWIN DAVIT ARM VALMONT OR EQUAL, AS PER PLAN

CALC. BY	
DATE	
CHK'D. BY	
DATE	

HAM-71-1.30/9.00

OHIO | F.H.W.A. REGION 5

155/401

LIGHTING QUANTITIES SUB-SUMMARY

HAM-71-1.30/9.00
SECTION 1
3 of 16

CALCULATED BY: Dave Long DATE: 10-21-94
CHECKED BY: Donald A. Petrie DATE: 10-21-94

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	ITEM 625 * LIGHT POLE DESIGN A10B40 EA.	ITEM 625 * LIGHT POLE DESIGN AT12B41.7 EA.	ITEM 625 ** LIGHT POLE DESIGN AT10B41.7 EA.	ITEM 625 * LIGHT POLE DESIGN AT10B41.7 EA.	ITEM 625 *** LIGHT POLE DESIGN 7A12DD40D EA.	ITEM 625 *** LIGHT POLE DESIGN 7A12DD40 EA.	ITEM 625 LUMINAIRE, STYLE B, TYPE III, 200 WATT H.P.S. 7511, 240 VOLT
						EA.	EA.	EA.	EA.	EA.	EA.	
175	L2A	11+82	136+62 NB I-71	SENTINEL	RT							
		136+00	136+62	NB I-71	CL					1		2
		136+62	137+55	NB I-71	CL							
		137+55	139+20	NB I-71	CL					1		2
		139+20	139+30 LT	NB I-71	CL					1		2
		139+30	139+62	NB I-71	LT							
		139+62	141+28	NB I-71	LT						1	2
		141+28	143+56	NB I-71	LT						1	2
		143+56	145+84	NB I-71	LT						1	2
		145+84	148+12	NB I-71	LT						1	2
		148+12	149+00	NB I-71	LT							
	↓	139+62		NB I-71	LT/DOWN							1
												1
	L2B	135+91	137+02	RAMP B	RT		1					
		137+02	137+84	RAMP B	RT		1					
		150+56	137+84 RAMP B	RAMP A	RT			1				1
		151+74	137+84 RAMP B	RAMP A	RT				1			
		137+84	150+62 RAMP A	RAMP B	RT/LT							
		150+62	149+22	RAMP A	LT							
		149+22	147+75	RAMP A	LT	1						
		147+75		RAMP A	LT	1						
		137+84	139+43 NB I-71	RAMP B	RT							
		139+43	139+60	NB I-71	RT							
	↓	139+60	139+62	NB I-71	RT/DOWN							
176	L2	139+62 (BELOW)	137+75 SB I-71 (BELOW)	NB I-71	CL/LT							
175	L2B	139+48	140+84	RAMP B	RT	1						
		140+84	141+91 NB I-71	RAMP B	RT	1						
		141+91	143+36	NB I-71	RT	1						1
		143+36	144+84	NB I-71	RT	1						1
		142+27	144+84	SB I-71	RT							
		144+84	145+35 SB I-71	NB I-71	RT/LT							
		145+35	138+79	SB I-71	LT							
	↓	138+79	137+75	SB I-71	LT							
	L2	137+75	137+75 48' LT	SB I-71	LT							
	↓	137+75 48' LT	POWER SERVICE L2	SB I-71	LT							
	–	146+30	147+85	NB I-71	RT							
	↓ –	145+85	148+55	SB I-71	LT							
			TOTAL SHEET 3 OF 16			6	2	1	1	3	4	19

SHEET NO.	REFERENCE NO.	SPECIAL MODIFICATION TO EXIST. CIRCUIT RACEWAY "A" EA.	SPECIAL MODIFICATION TO EXIST. CIRCUIT RACEWAY "B" EA.	ITEM 625 STRUCTURE JUNCTION BOX EA.	ITEM 625 GLARE SHIELD EA.	ITEM 625 LUMINAIRE, STYLE B, TYPE II, 200 WATT H.P.S. 7311, 240 VOLT EA.	ITEM 625 LIGHT POLE FOUNDATION, 24" X 8' DEEP EA.	ITEM 625 LIGHT POLE ANCHOR U-BOLTS, AS PER PLAN EA.	ITEM 625 PULL BOX CONCRETE, 18" EA.	ITEM 625 PULL BOX CONCRETE, 24" EA.	ITEM 625 GROUND ROD EA.	ITEM 625 REFURBISH SIGN SERVICE "B", AS PER PLAN EA.	ITEM 625 MEDIAN LIGHT POLE FOUNDATION, 8' DEEP, AS PER PLAN EA.	ITEM 625 MEDIAN PULL BOX EA.	ITEM 625 REFURBISH SIGN SERVICE "A", AS PER PLAN EA.	ITEM 625 CONDUIT, 2", 713.04 L.F.	ITEM 625 CONDUIT, 2", 713.04, AS PER PLAN L.F.	SPEC. JUNCTION BOX, EXTENSION "A" EA.	ITEM 625 REFURBISH SIGN SERVICE "C", AS PER PLAN EA.	ITEM 625 TRENCH 24" DEEP L.F.	ITEM 625 POLE AND BRACKET CABLE NO. 10 L.F.	ITEM 625 DISTRIBUTION CABLE NO. 2 AWG, 5000 VOLT L.F.	ITEM 625 DISTRIBUTION CABLE NO. 4 AWG, 5000 VOLT L.F.	SPEC. REMOTE PHOTOCELL "A" EA.	ITEM 625 TRANSITION JUNCTION BOX EA.	ITEM 625 1-1/2" DUCT CABLE WITH 3 NO. 4 AWG 5000 VOLT CABLES L.F.	ITEM 625 EXISTING CONDUIT CLEANED L.F.	ITEM 625 POWER SERVICE "A", AS PER PLAN EA.	ITEM 625 CONNECTOR KIT TYPE III A	ITEM 625 CONNECTOR KIT TYPE III B	ITEM 625 CONNECTOR KIT TYPE III C	ITEM 625 CONNECTOR KIT TYPE II EA.	ITEM 625 CONNECTOR KIT TYPE III EA.	ITEM 625 CABLE SPLICING KIT EA.	ITEM 625 JUNCTION BOX EA.
175	L2A								1		1																	94	85							3	
											1		1									134		216														
											1		1				1					134		309														
											1		1									134		525														
											1		1									134		60														
																				32																	
											1		1							166				528														
				1	1						2		1							228		134		714													
				1							2		1							228		134		714													
				1							2		1							228		134		714													
				1							2		1							88		134															
																								54														
											1		1									157	108					167									
											1		1									105	108					115									
												1	1				1					23	144					33									
												1	1				1					97	104					107									
																		1										55	45					6		
																			1					450													
																			2			106		465													
													1						1			106															
													1																									
																						184						269	265							
																								90					20							
										1														189													
																								540													
													1						1			106		438													
													1						2			106		381													
																			2			106		495													
																			1			106		474													
																					85		1		450													
																			1					495													
					1														7					1998													
												1							2					342													
																								108													
																					1										1						
																			3																		
																			5																		
				6	2	1	1	3	4	19	4	2	6	4	8	2	1	11	1	3	2	2	970	85	28	1	566	2038	10875	1	1	840	415	1	3	12	34	9	1

SUB-SUMMARY

LIGHTING QUANTITIES SUB-SUMMARY

HAM-71-1.30/9.00
SECTION 1
4 of 16

CALCULATED BY: [signature] DATE: 10-21-94
CHECKED BY: Gerald A. Petrie DATE: 10-21-94

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	ITEM 202: REMOVE UNDERPASS LUMINAIRE AND SUPPORTS EA.	ITEM 625: SERVICE TO UNDERPASS LIGHTING "B" AS PER PLAN EA.	ITEM 625: SERVICE TO UNDERPASS LIGHTING REFURBISHED, AS PER PLAN EA.	ITEM 625: PULL BOX CONCRETE, 18" EA.	ITEM 625: SERVICE TO UNDERPASS LIGHTING "A" AS PER PLAN EA.	ITEM 625: UNDERPASS LUMINAIRE HIGH PRESSURE SODIUM 715.15 EA.	ITEM 625: UNDERPASS LUMINAIRE 150 WATT H.P.S. 240 VOLT AS PER PLAN EA.	ITEM SPECIAL: ELECTRIC SERVICE CONNECTION EA.	ITEM SPECIAL: REMOTE PHOTOCELL "A" EA.	ITEM 625: CONDUIT, 2", 713.04, AS PER PLAN L.F.	ITEM 625: CONDUIT, JACKED OR DRILLED UNDER PAVEMENT, 3" L.F.	ITEM 625: TRENCH IN PAVED AREA, TYPE "A" L.F.	ITEM SPECIAL: MODIFICATION TO EXIST. CIRCUIT RACEWAY "B", AS PER PLAN EA.	ITEM SPECIAL: DISCONNECTION OF TRAFFIC CONTROL CIRCUITS & RELOCATION EA.	ITEM SPECIAL: REMOTE PHOTOCELL "C" EA.	ITEM 625: DISTRIBUTION CABLE NO. 4 AWG, 5000 VOLT L.F.	ITEM 625: POWER SERVICE "B", AS PER PLAN EA.	ITEM 625: 1-1/2" DUCT CABLE WITH 3 NO. 4 AWG 5000 VOLT CABLES L.F.	ITEM 625: EXISTING CONDUIT CLEANED L.F.	ITEM 625: CONNECTOR KIT TYPE XII A	B	C EA.	ITEM 625: CONNECTOR KIT TYPE II	III EA.	ITEM 625: CABLE SPLICING KIT EA.	ITEM 625: JUNCTION BOX EA.
175	–	7+17	7+57	FIFTH ST (FC)	RT				1							40		1															3	
↓	–	7+57		FIFTH ST (FC)	RT				1				1																				3	
176	CL3A	12+90	12+23	CULVERT	RT/LT	1	1		1		1					38	77														3	
	CL3A	12+23		CULVERT	LT	1		1	1		1		1																		3	
	CL3A	14+75	137+75 LT SB I-71	SENTINEL	RT				1				1			140															3	
	CL3A	137+75	137+75 40.5' LT	SB I-71	LT				1																						3	
	CL3A	137+75 40.5' LT	POWER SERVICE CL3	SB I-71	LT															1				1								
	CL1A	138+79	139+18	SB I-71	LT	1				1			1			39						147						3				
		139+18	140+00	SB I-71	LT	1				1			1			82						276							3			
		140+00	140+45	SB I-71	LT	1				1			1			45						165							3			
		140+45	145+35	SB I-71	LT										1	310						960							3			3
		145+35	146+32	SB I-71	LT	2				1			2			97						321								3		
		146+32	147+79	SB I-71	LT	1				1			1			147						471							3			
		147+79	148+55	SB I-71	LT	1				1			1			76						258							3			
		148+55		SB I-71	LT	1				1			1															3				
		145+35	15+45 RT EGGLESTON	SB I-71	LT/DOWN													1				204			40							
↓		15+45	14+25	EGGLESTON	RT				1								152						162	110						3	
	CL1B	140+84	141+78	RAMP B	RT	1				1			1			94						312						3				
		141+78	141+91 NB I-71	RAMP B	RT	2				1			2			47						171							3			
		141+91	142+78	NB I-71	RT	2				1			2			87						291							3			
		142+78	143+36	NB I-71	RT	1				1			1			58						204							3			
		143+36	144+84	NB I-71	RT	1				1			1			148						474							3			
		144+84	146+30	NB I-71	RT	4				1			4			146						468								3		
		146+30	147+10	NB I-71	RT	1				1			1			80						270							3			
		147+10		NB I-71	RT	1				1			1															3				
		144+84	14+25 EGGLESTON	NB I-71	RT												1				1	144										
↓	↓	14+25 56' RT	POWER SERVICE CL1	EGGLESTON	RT																			1								
			TOTAL SHEET 4 OF 16			23	1	1	7	15	2	21	4	1	1456	38	409	2	1	1	5136	2	487	180	12	30	6	21	3		

PEL 12 EC-1 C:\88090\88090S1B.DWG OCTOBER-20-1994 USER: RGARDNER TIME:15:16

* DAVIT ARM VALMONT DS90 OR EQUAL

*** TWIN DAVIT ARM VALMONT OR EQUAL, AS PER PLAN

CALC. BY:		HAM-71-1.30/9.00	OHIO	157 / 401
DATE:			F.H.W.A. REGION 5	
CHK'D. BY:				
DATE:				

LIGHTING QUANTITIES SUB-SUMMARY

HAM-71-1.30/9.00
SECTION 1
5 of 16

CALCULATED BY: [illegible] DATE: 12-21-94

CHECKED BY: [illegible] DATE: 12-21-94

SHEET NO.	REFERENCE NO.	STATION FROM-	STATION TO	LOCATION	SIDE	ITEM 625 * LIGHT POLE DESIGN A8B40 EA.	ITEM 625 * LIGHT POLE DESIGN AT12B41.7 EA.	ITEM 625 LUMINAIRE, STYLE B, TYPE III, 200 WATT H.P.S. 7/3.11, 240 VOLT EA.	ITEM 625 * LIGHT POLE DESIGN AT15B41.7 EA.	ITEM 625 *** LIGHT POLE DESIGN 7A12DD40D EA.	ITEM 625 * LIGHT POLE DESIGN A8B40D EA.	ITEM 625 *** LIGHT POLE DESIGN 7A12DD40 EA.	ITEM 625 * LIGHT POLE DESIGN A10B40 EA.	ITEM 625 STRUCTURE JUNCTION BOX EA.	ITEM 625 * VARIABLE HEIGHT STANDARD EA.	ITEM 625 * GLARE SHIELD EA.	ITEM 625 LUMINAIRE, STYLE B, TYPE III, 240 VOLT EA.	ITEM 625 LIGHT POLE FOUNDATION, 24" X 8' DEEP EA.	ITEM 625 LIGHT POLE ANCHOR U-BOLTS, AS PER PLAN EA.	ITEM 625 PULL BOX CONCRETE, 18" EA.	ITEM 625 PULL BOX CONCRETE, 24" EA.	ITEM 625 GROUND ROD EA.	ITEM 625 TRANSITION JUNCTION BOX EA.	ITEM 625 MEDIAN LIGHT POLE FOUNDATION, 8' DEEP, AS PER PLAN EA.	ITEM 625 MEDIAN PULL BOX EA.	ITEM 625 REFURBISH SIGN SERVICE "A", AS PER PLAN EA.	ITEM 625 CONDUIT, 2", 713.04 L.F.	ITEM 625 CONDUIT, JACKED OR DRILLED UNDER PAVEMENT, 3" L.F.	SPECIAL JUNCTION BOX EXTENSION "A" EA.		ITEM 625 TRENCH 24" DEEP L.F.	ITEM 625 POLE AND BRACKET CABLE NO. 10 L.F.	ITEM 625 DISTRIBUTION CABLE NO. 2 AWG, 5000 VOLT L.F.	ITEM 625 DISTRIBUTION CABLE NO. 4 AWG, 5000 VOLT L.F.	ITEM 625 CONDUIT, 3", 713.04 L.F.	ITEM 625 REFURBISH SIGN SERVICE "B", AS PER PLAN EA.	ITEM 625 1-1/2" DUCT CABLE WITH 3 NO. 4 AWG 5000 VOLT CABLES L.F.	ITEM 625 1 1/2" DUCT CABLE WITH 3 NO. 2 AWG 5000 VOLT CABLES L.F.	ITEM 625 EXISTING CONDUIT CLEANED L.F.	ITEM 625 CONNECTOR KIT TYPE VII A EA.	ITEM 625 CONNECTOR KIT TYPE VII B EA.	ITEM 625 CONNECTOR KIT TYPE VII C EA.	ITEM 625 CONNECTOR KIT TYPE II EA.	ITEM 625 CONNECTOR KIT TYPE III EA.	ITEM 625 CABLE SPLICING KIT EA.
177	–	149+00	150+23																						1			123																				
	–	150+23	150+28																											2			79		546							170			2		
	L5B	150+28	152+00	SB I-71	LT										1		1								1					1			95		141							37			2		
		152+00	152+37	SB I-71	LT										1		1								1					1					429							150	3				
		152+37	153+70	SB I-71	LT																									1			106		216							62			2		
		153+70	154+32	SB I-71	LT										1		1								1				1					429								3				
		154+32	155+65	SB I-71	LT																				1					1			100		705										2		
		155+65	157+90	SB I-71	LT								1				1												1					189							50	3				
		157+90	40+60 RT RAMP GF	SB I-71	LT																									2					849												
		40+60	37+87	RAMP GF	RT												1								1					2			96		597										2		
		37+87	35+98	RAMP GF	RT	1											1													2			96		591										2		
		35+98	34+11	RAMP GF	RT	1																																									
178		34+11	32+19	RAMP GF	RT	1											1												20	2		20	96		606							180			2		
		32+19	30+30	RAMP GF	RT				1								1	1							1							189	114					199							2		
		30+30		RAMP GF	RT		1										1	1							1								108												2		
177		157+90	158+00	SB I-71	LT																													60												
		158+00	158+15 CL NB I-71	SB I-71	LT		1				1														1							96		75										2		
		158+15		NB I-71	LT/CL																								1					192							60					
	L5A	150+40	152+42	NB I-71	CL		2			1															1		1					128	636										2		
		152+42	154+80	NB I-71	CL		2			1															1		1					128	744										2		
		154+80	155+90	NB I-71	CL		2			1															1		1					128	360										2		
		155+90		NB I-71	CL/RT																													192				1			50		3			
		155+90		NB I-71	RT																								1									1			10	3				
		155+90	157+30	NB I-71	CL																													450												
		157+30	158+15	NB I-71	CL		2			1															1		1					128	285										2		
		158+15	159+38 RT SB I-71	NB I-71	CL																													399									3			
		159+38	159+80	SB I-71	RT																													156												
		159+80	162+30	SB I-71	RT		2					1		1								2		1		1			42			128	780										2		
		162+30	162+74	SB I-71	RT		2					1		1								2		1		1			250			128	162										2		
		162+74	162+75 CL SB I-71	SB I-71	RT																				1				44				33												
		162+32	162+75	SB I-71	LT					1																	1					105										2		
		162+75		SB I-71	LT/RT																													297				1					3			
		162+75	164+00	NB I-71	CL																								1		89			375										3		
178		164+00	164+35	NB I-71	CL																													105												
		164+35	166+15	NB I-71	CL		2			1						1									1		1					128	570										2		
		166+15	168+25	NB I-71	CL		2			1						2									1		1					128	660										2		
		168+25		NB I-71	CL		2			1															1		1					128											2		
177	L5	158+15	159+40	NB I-71	CL/RT																											140		720	720	140				95					
	L5	159+40	160+70 NB I-471	NB I-71	RT				1								1	1							1							130	114					140	140		3		2		
	L5A	160+70	161+09 NB I-71	NB I-471	RT																			1										108							40					6
	L5A	161+09	NB I-71						1																									240	240						68					
	L5	160+70	42+60 RT RAMP GG	NB I-71	LT																			1										99	99						35					
	L5	42+60		RAMP GG	RT/LT																			1										144	144	48					40					
	L5	42+60	8+82 LT VAN METER	RAMP GG	LT																			1																						6
	L5	8+82		VAN METER	LT																																										
			TOTAL SHEET 5 OF 16			3	1	19	3	8	1	2	1	2	3	3	11	3	4		4	18	2	10	8	1	479	89	13		479	2357	7515	6828	188	3	339	299	1057	3	18	6	42	12

SUB-SUMMARY

* DAVIT ARM VALMONT DS90 OR EQUAL

	HAM-71-1.30/9.00	OHIO	158 / 401
		FED. ROAD SECTION 5	

LIGHTING QUANTITIES SUB-SUMMARY

HAM-71-1.30/9.00
SECTION 1
6 of 16

CALCULATED BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	ITEM 625: * LIGHT POLE DESIGN A8B40 EA.	ITEM 625: * LIGHT POLE DESIGN AT15B41.7 EA.	ITEM 625: BRACKET ARM, 15', AS PER PLAN EA.	ITEM 625: * VARIABLE HEIGHT STANDARD EA.	ITEM 625: GLARE SHIELD EA.	ITEM 625: LUMINAIRE, STYLE B, TYPE II, 200 WATT HPS, 113.11, 240 VOLT EA.	ITEM 625: LIGHT POLE FOUNDATION, 24" X 8' DEEP EA.	ITEM 625: PULL BOX CONCRETE, 18" EA.	ITEM 625: GROUND ROD EA.	ITEM 625: ELECTRIC SERVICE CONNECTION EA.	ITEM 625: CONDUIT, 2", 713.04 L.F.	ITEM 625: CONDUIT, JACKED OR DRILLED UNDER PAVEMENT, 3" L.F.	ITEM 625: CONDUIT, 3", 713.04 L.F.	ITEM SPECIAL: TRENCH IN PAVED AREA, TYPE A L.F.	ITEM SPECIAL: JUNCTION BOX EXTENSION "A" EA.	ITEM 625: TRENCH 24" DEEP L.F.	ITEM 625: POLE AND BRACKET CABLE NO. 10 L.F.	ITEM 625: DISTRIBUTION CABLE NO. 2 AWG, 5000 VOLT L.F.	ITEM 625: DISTRIBUTION CABLE NO. 4 AWG, 5000 VOLT L.F.	ITEM 625: ELECTRIC SERVICE EA.	ITEM 625: 1-1/2" DUCT CABLE WITH 3 NO. 4 AWG 5000 VOLT CABLES L.F.	ITEM 625: ELECTRIC SERVICE CONNECTION TO PEDESTAL LIGHT, AS PER PLAN EA.	ITEM 625: EXISTING CONDUIT CLEANED L.F.	ITEM 625: POWER SERVICE EA.	ITEM 625: CONNECTOR KIT TYPE H EA.	ITEM 625: CONNECTOR KIT TYPE H EA.	ITEM 625: CABLE SPLICING KIT EA.	ITEM 625: CONNECTOR KIT TYPE XIII A EA.	ITEM 625: CONNECTOR KIT TYPE XIII B EA.	ITEM 625: CONNECTOR KIT TYPE XIII C EA.
177	L5C	151+98	153+38.5	NB I-471	RT			1			1												30						2					
		153+38.5	154+63	NB I-471	RT			1			1												30						2					
		154+63	48+07 RAMP GG	NB I-471	RT																		50				60						3		
		48+07	46+27	RAMP GG	LT				1		1			1									108	62			118		2						
		46+27	44+47	RAMP GG	LT				1		1			1									180	80			190		2						
		44+47	42+80	RAMP GG	LT				1		1			1									167	93			177		2						
		42+80	42+63	RAMP GG	LT		1				1	1		1									23	114			39		2						
													1										157				161					3			
		42+63	41+00	RAMP GG	LT																		72	114			82		2						
		41+00	40+72	RAMP GG	LT		1				1	1		1							1				510		170			3				
		40+72	39+12	RAMP GG	LT								1								2			96	540				2					
▼		39+12	37+42	RAMP GG	LT	1					1																							
178		37+42	35+70	RAMP GG	LT	1					1										2			96	546				2					
		35+70	34+00	RAMP GG	LT	1					1										2			96	540				2					
		34+00	32+44	RAMP GG	LT	1					1						42				1		42	96	498			62	2					
		32+44	30+97	RAMP GG	LT		1				1	1		1									147	114			157		2						
		30+97	30+30.5	RAMP GG	LT		1				1	1		1									40	114			85		2						
		30+30.5	29+92 RAMP GF	RAMP GG	LT								1												120			1	50			2			
▼		29+92		RAMP GF	LT								1															1				2			
177		42+63	8+85 VAN METER	RAMP GG	LT													48				48			174								3		
▼		8+85		VAN METER	LT								1																			1			
	L5	8+82 LT VAN METER	POWER SERVICE L5	VAN METER	LT																														
		8+82	8+85	VAN METER	LT														9						57										
		8+85		VAN METER	LT/RT								1													165		40							
▼		8+85		VAN METER	RT								1														1								
	–	158+92		SB I-71	LT																1														
▼	–	160+55		SB I-71	LT																1														
178	–	7+70	8+45	SB READING	LT								1													65			225				3		
	–	8+45		SB READING	LT								1												1								3		
▼	–	18+25		LIBERTY	LT								1												1								3		
			TOTAL SHEET 6 OF 16			4	4	2	3		13	4	10	7	2	51	48	65	10	1034	1135	165	3840	1	1294	2	400	1	26	22	3				

* DAVIT ARM VALMONT DS90 OR EQUAL

DES. BY	DATE
CHK'D BY	DATE

HAM-71-1.30/9.00 | OHIO | F.H.W.A. REGION 5 | 159/401

LIGHTING QUANTITIES SUB-SUMMARY

HAM-71-1.30/9.00
SECTION 1
7 of 16

CALCULATED BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	ITEM 625 LIGHT POLE DESIGN A6B40D EA.	* LIGHT POLE DESIGN A15B40D	ITEM 625 LIGHT POLE DESIGN AT10B36.7 EA.	LIGHT POLE DESIGN AT15B41.7 EA.	LIGHT POLE DESIGN A15B40D EA.	LIGHT POLE DESIGN AT8B41.7 EA.	LUMINAIRE, STYLE B, TYPE III, 200 WATT H.P.S. 7/3.11, 240 VOLT EA.	LIGHT POLE DESIGN AT12B41.7 EA.	SERVICE TO UNDERPASS LIGHTING EA.	VARIABLE HEIGHT STANDARD EA.	LUMINAIRE, STYLE B, TYPE II, 200 WATT H.P.S. 7/3.11, 240 VOLT EA.	LIGHT POLE FOUNDATION, 24" X 8' DEEP EA.	PULL BOX CONCRETE, 18" EA.	PULL BOX CONCRETE, 24" EA.	GROUND ROD EA.	REFURBISH SIGN SERVICE B, AS PER PLAN EA.	MEDIAN LIGHT POLE FOUNDATION, 8' DEEP, AS PER PLAN EA.	MEDIAN PULL BOX EA.	REFURBISH SIGN SERVICE "A" AS PER PLAN EA.	CONDUIT, 2", 713.04 L.F.	SPEC. CONNECTION TO EXISTING CONDUIT EA.	ITEM 625 TRENCH 24" DEEP L.F.	POLE AND BRACKET CABLE NO. 10 L.F.	UNDERPASS LUMINAIRE 100 WATT H.P.S. 7/3.13 EA.	DISTRIBUTION CABLE NO. 4 AWG, 5000 VOLT L.F.	EXISTING CONDUIT CLEANED L.F.	SERVICE TO UNDERPASS LIGHTING REFURBISHED, AS PER PLAN EA.	1-1/2" DUCT CABLE WITH 3 NO. 4 AWG 5000 VOLT CABLES L.F.	202 REMOVE UNDERPASS LUMINAIRE AND SUPPORTS EA.	ITEM 625 CONNECTOR KIT TYPE VII A B C EA.	POWER SERVICE EA.	CONNECTOR KIT TYPE II III EA.	CABLE SPLICING KIT EA.
178	L6A	171+13	172+62	NB I-71	LT													1						1			154										3
		172+62	173+66 10' LT	NB I-71	LT													1									104		7			1	114	7				3
																			1														20					3
		173+66 10' LT	173+66	NB I-71	LT															1							10	92									2	
		173+66		NB I-71	LT	1						1									1		1															
		173+66 10' LT	175+05	NB I-71	LT																						140						150					
		175+05	176+33 SB-71	NB I-71	LT													1									150		4			1	160	4			2	3
		176+33		SB I-71	RT							1	1				1			1								108									2	
		173+66 10' LT	173+73 LT SB I-71	NB I-71	LT																										270	70					
																												110			600					2	
		169+80	171+70	SB I-71	LT	1						1								1		1		1	5	1	40		3	150		1		3	3		
		171+70	172+10	SB I-71	LT									1							1		1							249	75				3		
		172+10	172+83	SB I-71	LT																	1		1				110		294						2	
		172+83	173+73	SB I-71	LT				1			1					1													171					3		
																									1											2	
		173+73	174+20	SB I-71	LT																							99	4	315							
		174+20	175+15	SB I-71	LT							1		1				1					1		5	1	5					1		4	3		
		175+15	175+20	SB I-71	LT																										65		70				
		173+73	173+57 RAMP GA	SB I-71	LT																																
																											26			70		72				3
		169+80	27+75 SB GILBERT	RAMP GA	LT/RT															1				1				94							2	
		27+75		SB GILBERT	LT		1					1									1		1				204	94					214		2	
		24+56	168+75 RAMP GA	SB GILBERT	LT		1					1									1		1				105	100					115		2	
		168+75	169+80	RAMP GA	LT						1	1																									
																											170					180				
		169+80	171+50	RAMP GA	LT																						204	114					216		2	
		171+50	173+57	RAMP GA	LT			1													1		1														
	L6	173+57	173+65	RAMP GA	LT																						8						26				3
		173+65	13+25 54' RT ELSINORE	RAMP GA	LT				1			1									1		1				100	114					210		2	
																									1											3	
		13+25 54' RT		ELSINORE	RT																															1	
		13+25	POWER SERVICE L6	ELSINORE	RT																																
			TOTAL SHEET 7 OF 16			1	1	2	2	1	1	9	1	1	1	1	6	6	1	10	1	3	4	1	10	2	1420	1035	18	2049	280	4	1711	18	9	3	1	20	21

* DAVIT ARM VALMONT DS90 OR EQUAL

LIGHTING QUANTITIES SUB-SUMMARY

HAM-71-1.30/9.00
SECTION 1
8 of 16

CALCULATED BY: ________ DATE: ________
CHECKED BY: ________ DATE: ________

ITEM 625 / SPECIAL / ITEM 625

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	* LIGHT POLE DESIGN A12B40D EA.	VARIABLE HEIGHT STANDARD *	SERVICE TO UNDERPASS LIGHTING "C" AS PER PLAN EA.	SERVICE TO UNDERPASS LIGHTING REFURBISHED AS PER PLAN EA.	SERVICE TO UNDERPASS LIGHTING EA.	VARIABLE HEIGHT STANDARD EA.	GLARE SHIELD EA.	LUMINAIRE, STYLE B, TYPE II, 200 WATT H.P.S. 713.11, 240 VOLT EA.	LUMINAIRE, STYLE B, TYPE III, 200 WATT H.P.S. 713.11, 240 VOLT EA.	CONDUIT, 2" 713.04, AS PER PLAN L.F.	PULL BOX CONCRETE, 18" EA.	PULL BOX CONCRETE, 24" EA.	GROUND ROD EA.	MEDIAN LIGHT POLE FOUNDATION, 8' DEEP, AS PER PLAN EA.	MEDIAN PULL BOX EA.	UNDERPASS LUMINAIRE 100 WATT H.P.S. 713.13 EA.	CONDUIT, 2", 713.04 L.F.	CONDUIT, JACKED OR DRILLED UNDER PAVEMENT, 3" L.F.	CONDUIT, 3", 713.04 L.F.	TRENCH 24" DEEP L.F.	POLE AND BRACKET CABLE NO. 10 L.F.	ELECTRIC SERVICE EA.	DISTRIBUTION CABLE NO. 4 AWG, 5000 VOLT L.F.	EXISTING CONDUIT CLEANED (SPECIAL) L.F.	REFURBISH CONDUIT STUB OUT EA.	1-1/2" DUCT CABLE WITH 3 NO. 4 AWG 5000 VOLT CABLES L.F.	(202) REMOVE UNDERPASS LUMINAIRE AND SUPPORTS EA.	CONNECTOR KIT TYPE VII (A / B / C) EA.	POWER SERVICE EA.	CONNECTOR KIT TYPE II / III EA.	CABLE SPLICING KIT EA.	JUNCTION BOX EA.
177	L7A	159+66.5	161+16	RAMP GD	LT			1								1					1				149						159	1				3	
		161+16		RAMP GD	LT/RT				1							1					3							264	78			3				3	
		161+16	161+25	RAMP GD	RT				1							1					4				27						37	4				3	
		161+25	162+47	RAMP GD	RT															1								396					3				
		162+47	164+00	RAMP GD	RT	1							1					1	1							104		435							2		
178		164+00	164+26	RAMP GD	RT																							138									
		164+26	166+06	RAMP GD	RT	1						1	1					1	1						180	104					190				2		
		166+06	167+86	RAMP GD	RT		1						1					1							180	105					190				2		
		167+86	169+66	RAMP GD	RT		1						1					1							180	89					190				2		
		169+66	171+00	RAMP GD	RT		1						1					1							134	98					144				2		
		171+00	32+63 GILBERT	RAMP GD	RT	1								1				1	1				88		320	104					418				2		
		173+92	174+46	NB I-71	RT				1						54						4							192				4	3				
		174+46	175+22	NB I-71	RT										76													258					3				1
		175+22		NB I-71	RT				1												2											2	3				
		174+46	32+63 LT GILBERT	NB I-71	RT																	17			17			81									
		32+63	174+78 NB I-71	GILBERT	LT					1						1									40						50					3	
		174+78	174+98 73' RT	NB I-71	RT						1			1				1							50	62					60				2		
		174+98 73' RT	176+30	NB I-71	RT											1							104		45						159					3	
		176+30	177+62	NB I-71	RT						1	1	1					1							132	61				2	142				2		
		177+62		NB I-71	RT						1			1				1								65									2		
		174+98 69' RT	POWER SERVICE L7	NB I-71	RT																													1			
	L7	174+98 69' RT	175+04	NB I-71	RT																	12			6			66									
	CL7A	32+59	175+01 73' RT NB I-71	GILBERT	LT																				65				160		75					3	
		175+01 73' RT	15+62 RT EL	NB I-71	RT												1								14						24					3	
		15+62		ELSINORE	RT											1																				3	
		33+19	175+01 RT I-71	GILBERT	LT																				29						39				2		
		175+01 69' RT	POWER SERVICE CL7	NB I-71	RT																													1			
	CL7	175+01 69' RT	175+04	NB I-71	RT																	9			3			57									
		175+04	16+68 RT EL	NB I-71	RT											1								9	9			57								3	
		16+68		ELSINORE	RT																						1										
			TOTAL SHEET 8 OF 16			3	3	1	4	1	3	2	6	3	130	7	1	9	3	1	14	38	192	9	1580	792	1	1944	238	2	1877	14	12	2	20	27	1

CALC. BY DATE	HAM–71–1.30/9.00	OHIO
CHKD. BY DATE		F.H.W.A. REGION 5

161
401

LIGHTING QUANTITIES SUB–SUMMARY

HAM–71–1.30/9.00
SECTION 1
9 of 16

CALCULATED BY: [illegible] DATE: 10-21-94
CHECKED BY: Donald A. Petrie DATE: 10-21-94

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	ITEM 625 LIGHT POLE DESIGN AT10B41.7 EA.	ITEM 625 LIGHT POLE DESIGN A12B40D EA.	ITEM 625 LIGHT POLE DESIGN AT15B41.7 EA.	ITEM 625 LIGHT POLE DESIGN A8B40 EA.	ITEM 625 LUMINAIRE, STYLE B, TYPE III, 200 WATT HPS, 713.11, 240 VOLT EA.	ITEM 625 VARIABLE HEIGHT STANDARD EA.	ITEM 625 GLARE SHIELD EA.	ITEM 625 LUMINAIRE, STYLE B, TYPE II, 200 WATT HPS, 713.11, 240 VOLT EA.	ITEM 625 LIGHT POLE FOUNDATION, 24" X 8' DEEP EA.	ITEM 625 LIGHT POLE FOUNDATION 24" X 10' DEEP EA.	ITEM 625 PULL BOX CONCRETE, 18" EA.	ITEM 625 GROUND ROD EA.	ITEM 625 MEDIAN LIGHT POLE FOUNDATION, 10' DEEP, AS PER PLAN EA.	ITEM 625 MEDIAN PULL BOX EA.	ITEM 625 REFURBISH SIGN SERVICE "B", AS PER PLAN EA.	ITEM 625 CONDUIT, 2", 713.04 L.F.	ITEM SPECIAL JUNCTION BOX EXTENSION "A" EA.	ITEM 625 TRENCH 24" DEEP L.F.	ITEM 625 POLE AND BRACKET CABLE NO. 10 L.F.	ITEM 625 DISTRIBUTION CABLE NO. 4 AWG, 5000 VOLT L.F.	ITEM 625 1–1/2" DUCT CABLE WITH 3 NO. 4 AWG 5000 VOLT CABLES L.F.	ITEM 625 EXISTING CONDUIT CLEANED L.F.	ITEM 625 CONNECTOR KIT TYPE VIII A	B	C EA.	ITEM 625 CONNECTOR KIT TYPE II	III EA.	ITEM 625 CABLE SPLICING KIT EA.
178	L9C	176+37	177+63	RAMP RD	RT				1				1													1		96	408						2		
↓		177+63	178+95	RAMP RD	RT				1				1													1		96	429						2		
179		178+95	179+55	RAMP RD	RT				1				1													1		96	210						2		
		179+55	180+25	RAMP RD	RT											1										70			80						3	
		180+25	181+52	RAMP RD	RT	1							1	1			1									127	104		137					2		
		181+52	182+80	RAMP RD	RT	1							1	1			1									128	104		138					2		
		182+80	182+86	RAMP RD	RT			1					1	1			1									6	114		16					2		
		182+86	184+81	RAMP RD	RT											1										195			205						3	
		184+81		RAMP RD	RT			1					1	1			1										114							2		
↓		182+86	182+73 NB I–71	RAMP RD	RT																							249			72					
178		178+82	179+00	NB I–71	RT					1	1	1					1									18	71		28					2		
179		179+00	180+90	NB I–71	RT																					125			190	210						
		180+90	182+73	NB I–71	RT					1	1	1					1									183	99		193					2		
		182+73	182+87	NB I–71	RT											1										14			24						3	
		182+87	184+43	NB I–71	RT			1		1					1		1									156	114		166					2		
		184+43		NB I–71	RT			1		1					1		1										114							2		
↓		182+73	182+67 RAMP RC	NB I–71	RT/LT																							255			10					
178		178+85	179+00	SB I–71	RT			1		1					1		1									15	114		116					2		
179		179+00	179+82 NB I–71	SB I–71	LT																					91			91							
		179+82	179+84	NB I–71	LT													1											36			3				
		179+84	181+73 RAMP RC	NB I–71	LT		1						1				1	1									104		597					2		
		181+73	182+05	RAMP RC	LT														1	1									126			30				3
		182+05	182+67	RAMP RC	LT		1						1				1	1									104		216					2		
		182+67	182+67 11' LT	RAMP RC	LT													1											57			10				3
↓	↓	182+67 11' LT	20+76 NB READING	RAMP RC	LT											1													72			10				
			TOTAL SHEET 9 OF 16			2	2	5	3	5	2	2	9	4	3	4	11	2	2	1	1		3		1128	1444		2655		1384		342	3		28		15

ED-1 C:\600\600393\600393SUB.DWG OCTOBER-20-1994 USER: ROARDNER TIME: 10:34
SHEET 12

CALC. BY DATE	HAM-71-1.30/9.00	OHIO F.H.W.A. REGION 5	162 401
CHKD. BY DATE			

LIGHTING QUANTITIES SUB-SUMMARY

HAM-71-1.30/9.00
SECTION 1
10 of 16

CALCULATED BY: R.F.G. DATE: 10-21-94
CHECKED BY: Donald A. Petrie DATE: 10-21-94

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	ITEM 625 LIGHT POLE DESIGN AT15B41.7 EA.	LIGHT POLE DESIGN A10B40D EA.	LUMINAIRE, STYLE B, TYPE III, 200 WATT HPS. 715.11, 240 VOLT EA.	LIGHT POLE DESIGN AT10B41.7 EA.	GLARE SHIELD EA.	LUMINAIRE, STYLE B, TYPE II, 200 WATT HPS. 715.11, 240 VOLT EA.	LIGHT POLE FOUNDATION, 24" X 8' DEEP EA.	REFURBISH SIGN SERVICE "B" AS PER PLAN EA.	PULL BOX CONCRETE, 18" EA.	LIGHT POLE FOUNDATION 24" X 10' DEEP EA.	GROUND ROD EA.	MEDIAN LIGHT POLE FOUNDATION, 10' DEEP, AS PER PLAN EA.	MEDIAN LIGHT POLE FOUNDATION, 8' DEEP, AS PER PLAN EA.	MEDIAN PULL BOX EA.	UNDERPASS LUMINAIRE HIGH PRESSURE SODIUM 715.13 EA.	CONDUIT, JACKED OR DRILLED UNDER PAVEMENT, 3" L.F.	SPEC. JUNCTION BOX EXTENSION "A" EA.	ITEM 625 CONDUIT, 3", 713.04 L.F.	TRENCH 24" DEEP L.F.	POLE AND BRACKET CABLE NO. 10 L.F.	DISTRIBUTION CABLE NO. 2 AWG, 5000 VOLT L.F.	DISTRIBUTION CABLE NO. 4 AWG, 5000 VOLT L.F.	202 REMOVE UNDERPASS LUMINAIRE AND SUPPORTS EA.	CONDUIT, 2", 713.04 L.F.	1-1/2" DUCT CABLE WITH 3 NO. 4 AWG 5000 VOLT CABLES L.F.	CONNECTOR KIT TYPE VII EA. A	B	C	EXISTING CONDUIT CLEANED L.F.	SPEC. CONNECTION TO EXISTING CONDUIT EA.	ITEM 625 CONNECTOR KIT TYPE II EA.	III	CABLE SPLICING KIT EA.
178	L9A	177+63	177+97 RAMP GA	SB I-71	RT		1				1					1	1																								
		177+97	178+97	RAMP GA	RT														1	2																				
		178+97	179+00	RAMP GA	RT														1	2																				
179		179+00	179+96 SB I-71	RAMP GA	RT																																				
		179+96	180+51	SB I-71	LT		1	1		1						1	1																								
		180+51	181+25	SB I-71	LT								1						1																								
		181+25	182+45 RAMP GA	SB I-71	LT		1				1					1	1																								
		182+45	183+00 SB I-71	RAMP GA	RT														1																								
		183+00	184+73	SB I-71	LT		1	1								1		1																								
		184+73		SB I-71	LT		1	1								1		1																								
		182+45	182+35	RAMP GA	RT/LT																		31		15					56			3	45						
178		176+52	178+88	RAMP GA	LT	1					1	1				1								238	114				248					2						
179		178+88	180+18	RAMP GA	LT																				126					136											
		180+18	182+35	RAMP GA	LT				1		1				1	1								219	104				229					2						
		182+35	19+33 SB READING	RAMP GA	LT				1		1	1				1									104				46		3			2						
178		14+70 10' LT	16+32 SB READING	NB READING	LT				1		1	1				1								193	104				203					2						
179		16+32	19+33	SB READING	RT	1					1	1				1								301	114				311					2						
		19+33	19+55	SB READING	RT									1										22					32											3
		19+55	184+52 RAMP GA	SB READING	RT	1					1	1				1								186	114				196					2						
		184+52	22+64 SB READING	RAMP GA	LT	1					1	1				1								128	114				138					2						
		22+64		SB READING	RT	1					1	1				1									114									2						
		19+33		SB READING	RT/LT																		76							86				75						
		19+05	19+33	SB READING	LT									1										28					38											3
		19+33		SB READING	LT									1																										3
	L9	19+39	POWER SERVICE L9	SB READING	LT																														90						
			TOTAL SHEET 10 OF 16			5	5	3	3	1	10	7	1	3	1	13	3	2	4	4	107		1456	1382		2445	4	10	1719		12	3	210	3	26		12	

EC-1 C:\88090\88090SUM.DWG OCTOBER-20-1994 USER: RGARDNER TIME: 15:35
REL 12

CALC. BY		HAM–71–1.30/9.00	OHIO	163
DATE			F.H.W.A. REGION 5	401
CHKD. BY				
DATE				

LIGHTING QUANTITIES SUB–SUMMARY

HAM–71–1.30/9.00
SECTION 1
11 of 16

CALCULATED BY: Robert L. Yoder Jr. DATE: 10-21-94

CHECKED BY: Gerald A. Petrie DATE: 10-21-94

						625	632	ITEM 625																													SPEC	ITEM 625									ITEM 625
SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	LIGHT POLE DESIGN A10B40	COMBINATION STRAIN POLE TYPE TC–81.10, DESIGN 3, AS PER PLAN	LIGHT POLE DESIGN A8B40D	LIGHT POLE DESIGN A10BB40, AS PER PLAN	BRACKET ARM, 10'			LIGHT POLE DESIGN AT10B36.7		LIGHT POLE DESIGN AT10B41.7	VARIABLE HEIGHT STANDARDS		LUMINAIRE, STYLE B, TYPE III, 200 WATT H.P.S. 193.11, 240 VOLT	LIGHT POLE FOUNDATION, 24" X 8' DEEP	LIGHT POLE FOUNDATION, 24" X 10' DEEP	PULL BOX CONCRETE, 18"	PULL BOX CONCRETE, 24"	GROUND ROD				REFURBISH SIGN SERVICE "A" AS PER PLAN		CONDUIT, JACKED OR DRILLED UNDER PAVEMENT, 3"		CONDUIT, 3", 713.04	TRENCH 24" DEEP	POLE AND BRACKET CABLE NO. 10	DISTRIBUTION CABLE NO. 2 AWG, 5000 VOLT	DISTRIBUTION CABLE NO. 4 AWG, 5000 VOLT	JUNCTION BOX EXTENSION "A"		1–1/2" DUCT CABLE WITH 3 NO. 4 AWG 5000 VOLT CABLES	ELECTRIC SERVICE CONNECTION TO PEDESTAL LIGHT, AS PER PLAN	EXISTING CONDUIT CLEANED	CONNECTOR KIT TYPE VIII A	CONNECTOR KIT TYPE VIII B	CONNECTOR KIT TYPE VIII C	CONNECTOR KIT TYPE II	CONNECTOR KIT TYPE III	CABLE SPLICING KIT
						EA.	EA.	EA.	EA.	EA.			EA.		EA.	EA.		EA.	EA.	EA.	EA.	EA.	EA.			EA.		L.F.		L.F.	L.F.	L.F.	L.F.	L.F.	EA.		L.F.	EA.	L.F.	EA.						EA.
178	L9B	14+11	14+17	SB READING	RT																1													78					1						2
		14+17	13+33 62' RT	SB READING	RT																1						1					84					94	1					3
		13+33 39' RT	13+33 62' RT	SB READING	RT																1													74					1	30					3
		13+29	13+33 62' RT	SB READING	RT								1					1	1				1									4	94				14				2		
		13+33 62' RT	10+94 ELSINORE	SB READING	RT																1										5	5				74	1	70				6
		10+94	11+35	ELSINORE	LT								1					1	1				1									50	94				60				2		
		10+43	10+67	ELSINORE	CL/LT																1													118					1	50					2
		10+64	10+67	ELSINORE	LT		1			1								1		1			1									3	90				13				2		
		10+67	11+32	ELSINORE	LT																1												68					78						3
		11+32	11+35 LT ELSINORE (N)	ELSINORE	LT																1						1							138						1	40				3
		11+35	12+40	ELSINORE (N)	LT																1												105					115						3
		12+40	175+56 RT RAMP RD	ELSINORE (N)	LT								1					1	1				1									157	94				167				2		
		175+56	15+40 RT NB READING	RAMP RD	RT																1						1							162						40					3
		15+40	16+35	NB READING	RT																1													294						50					3
		16+35	17+61	NB READING	RT			1										1															96		426	1						2		
179		17+61	18+92	NB READING	RT	1												1															100		423	1						2		
		18+92	20+76	NB READING	RT	1												1															100		561	1						2		
		20+76	21+08	NB READING	RT																													126		1					3			
		21+08		NB READING	RT	1												1															100									2		
	L9	20+76	182+67 SB I–71	NB READING	RT/LT																												309	309	1				90					
		182+67	182+48 RT GA	SB I–71	RT															1													219	219					60					
		182+48		RAMP GA	RT/LT															1													141	141					40					
		182+48	19+36 RT SB READING	RAMP GA	LT															1													126	126					30					
		19+36		SB READING	RT/LT															1													258	258					85					
		19+36		SB READING	LT															1																									
	L9A	182+18	182+64 SB I–71	RAMP RB	LT										1			1	1				1									49	104				59				2		
		182+64	183+88 RAMP RB	SB I–71	RT																1												124					134						3
		183+88	184+38	RAMP RB	LT																1												50					60						3
		184+38	184+61 RF	RAMP RB	LT										1			1	1				1									23	104				33				2		
		184+61	186+26	RAMP RF	LT																1												165					175						3
		186+26		RAMP RF	LT										1			1	1				1										104									2		
		184+61	22+67 NB READING	RAMP RF	LT																																65		55					
		22+67	24+46	NB READING	LT											1		1															179	99				189				2		
		24+46	26+24	NB READING	LT											1		1															178	79				188				2		
		26+24		NB READING	LT				1									2																140									2		
	L9	182+64	182+45 RAMP GA	SB I–71	RT																									55					195				55					
			TOTAL SHEET 11 OF 16			3	1	1	1	1			3		3	2		15	6	1	13	5	7				3		55		5	1244	1398	1179	3522	5		1518	6	721	3	28		40	

REL 12 EC-1 C:\88090\88090S11.DWG OCTOBER-20-1994 USER: RGARDNER TIME:15:36

CALC. BY DATE	HAM–71–1.30/9.00	OHIO
CHKD. BY DATE		F.H.W.A. REGION 5

164
401

LIGHTING QUANTITIES SUB–SUMMARY

HAM–71–1.30/9.00
SECTION 1
12 of 16

CALCULATED BY: [signature] DATE: 10-21-94
CHECKED BY: Derald A. Petrie DATE: 10-21-94

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	ITEM 625 LIGHT POLE DESIGN A10B40D EA.	LIGHT POLE DESIGN A715B41.7 EA.	LIGHT POLE DESIGN A10B40 EA.	LIGHT POLE DESIGN A6B40D EA.	LIGHT POLE DESIGN A10B12B40D EA.	VARIABLE HEIGHT STANDARD EA.	LUMINAIRE, STYLE B, TYPE III, 200 WATT H.P.S. 713.11, 240 VOLT EA.	LIGHT POLE FOUNDATION, 24" X 8' DEEP EA.	LUMINAIRE, STYLE B, TYPE II, 200 WATT H.P.S. 713.11, 240 VOLT EA.	PULL BOX CONCRETE, 18" EA.	GROUND ROD EA.	MEDIAN LIGHT POLE FOUNDATION, 8' DEEP, AS PER PLAN EA.	MEDIAN PULL BOX EA.	REFURBISH SIGN SERVICE "A", AS PER PLAN EA.	CONDUIT, 2", 713.04 L.F.	TRENCH IN PAVED AREA, TYPE A L.F.	TRENCH 24" DEEP L.F.	POLE AND BRACKET CABLE NO. 10 L.F.	DISTRIBUTION CABLE NO. 4 AWG, 5000 VOLT L.F.	ITEM SPECIAL JUNCTION BOX EXTENSION "A" EA.	REMOTE PHOTOCELL "B" EA.	ITEM 625 1–1/2" DUCT CABLE WITH 3 NO. 4 AWG 5000 VOLT CABLES L.F.	ELECTRIC SERVICE EA.	EXISTING CONDUIT CLEANED L.F.	ITEM 625 POWER SERVICE "C", AS PER PLAN EA.	CONNECTOR KIT TYPE VII A	CONNECTOR KIT TYPE VII B	CONNECTOR KIT TYPE VII C	CONNECTOR KIT TYPE II	CONNECTOR KIT TYPE III	CABLE SPLICING KIT EA.	JUNCTION BOX EA.
179	L10A	190+33	191+63	RAMP RA	LT			1				1											100	420	1								2			
		191+63	192+09	RAMP RA	LT			1				1											100	168	1								2			
		192+09	193+18	RAMP RA	LT														1					357	3						3					
		193+18	194+77	RAMP RA	LT			1				1											100	504	1								2			
180		194+77	196+55 SB I–71	RAMP RA	LT			1						1						90			90	100	564	1								2			
		196+55	197+78	SB I–71	LT		1					1	1			1							123	114			133						2			
		197+78	198+55	SB I–71	LT										1				1				77				87								3	
		198+55	201+25	SB I–71	LT		1					1	1			1							270	114			280						2			
		201+25	203+64	SB I–71	LT		1					1	1			1							239	114			249						2			
		203+64	205+10	SB I–71	LT		1					1	1			1							146	114			156						2			
		205+10		SB I–71	LT		1					1	1			1								114										2			
		194+77	15+12 EDEN PARK	RAMP RA	LT/DOWN																			140	105		1			70							
179	L10B	186+46	187+84	SB I–71	LT					1		2					1						144	444									2			
		187+84	188+86 RAMP GA	SB I–71	LT										1					8				378					122						3	
		188+86		RAMP GA	RT						1	1											95		1								2			
		187+84	188+16	SB I–71	LT																			150					57							
		188+16	189+67	SB I–71	LT			1				1											100	483	1								2			
		189+67	191+22	SB I–71	LT			1				1											100	495	1								2			
		191+22	192+77	SB I–71	LT			1				1											100	495	1								2			
		192+77	193+00	SB I–71	LT			1				1											100	171	1								2			
180		193+00	194+31	SB I–71	LT																			336												
		194+31	194+74	SB I–71	LT			1				1											100	159	1								2			
		194+74	15+60	SB I–71	LT/DOWN																			105	1				50							1
		15+60	195+87 RT SB I–71	EDEN PARK	LT										1								165				175							3	
		195+87	195+90	SB I–71	RT													1						29							3					
		195+90	197+32	SB I–71	RT					1		1				1	1						92	456									2			
		197+32	199+88	SB I–71	RT	1						1				1	1						100	798									2			
		199+88	202+58	SB I–71	RT	1						1				1	1						100	840									2			
		202+58				1						1				1	1						100										2			
182	L10B	15+60	15+12	EDEN PARK	LT																58						204									
	L10	15+12 50' LT	POWER SERVICE L10	EDEN PARK	LT																									1						
	L10	15+12 50' LT	15+07 52' LT	EDEN PARK	LT															11		5		63												
	SERVICE	15+07 52' LT	31+47 LT SB READING	EDEN PARK	LT/LT										1												183		115						3	
		31+47		SB READING	LT										1													1								
			TOTAL SHEET 12 OF 16			3	5	9	1	1	1	20	5	1	5	9	5	1	2	109	63	1110	2241	7520	14	1	1467	1	414	1	3	3	40	12	1

SUB–SUMMARY

EC–1 C:\88090\88090S1J.DWG OCTOBER–20–1994 USER: RGARDNER TIME:15:39
REL 12

CALC. BY DATE	HAM–71–1.30/9.00	OHIO
CHKD. BY DATE		F.H.W.A. REGION 5

LIGHTING QUANTITIES SUB–SUMMARY

HAM–71–1.30/9.00
SECTION 1
13 of 16

CALCULATED BY: [signature] DATE: 10-21-94

CHECKED BY: Gerald A. Petrie DATE: 10-21-94

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	ITEM 625 LIGHT POLE DESIGN A10B40 EA.	ITEM 625 LIGHT POLE DESIGN A10B40D EA.	ITEM 625 LIGHT POLE DESIGN AT15B41.7 EA.	ITEM 625 LIGHT POLE DESIGN A8B40 EA.	ITEM 625 VARIABLE HEIGHT STANDARD EA.	ITEM 625 LUMINAIRE, STYLE B, TYPE III, 200 WATT HPS, 713.11, 240 VOLT EA.	ITEM 625 LIGHT POLE FOUNDATION, 24" X 8' DEEP EA.	ITEM 625 PULL BOX CONCRETE, 18" EA.	ITEM 625 GROUND ROD EA.	ITEM 625 MEDIAN LIGHT POLE FOUNDATION, 8' DEEP, AS PER PLAN EA.	ITEM 625 MEDIAN PULL BOX EA.	ITEM 625 CONDUIT, 2", 713.04 L.F.	ITEM 625 CONDUIT, 3", 713.04 L.F.	ITEM 625 TRENCH 24" DEEP L.F.	ITEM 625 POLE AND BRACKET CABLE NO. 10 L.F.	ITEM 625 DISTRIBUTION CABLE NO. 4 AWG, 5000 VOLT L.F.	ITEM SPEC. 625 JUNCTION BOX EXTENSION "A" EA.	ITEM 625 1–1/2" DUCT CABLE WITH 3 NO. 4 AWG 5000 VOLT CABLES L.F.	ITEM 625 REMOTE PHOTOCELL "B" EA.	ITEM 625 EXISTING CONDUIT CLEANED L.F.	ITEM 625 CONNECTOR KIT TYPE VII A EA.	ITEM 625 CONNECTOR KIT TYPE VII B EA.	ITEM 625 CONNECTOR KIT TYPE VII C EA.	ITEM 625 CONNECTOR KIT TYPE II EA.	ITEM 625 CONNECTOR KIT TYPE III EA.	ITEM 625 CABLE SPLICING KIT EA.
179	L11B	185+74	187+45	NB I–71	LT					1	1									95	543	1							2	
		187+45	189+20	NB I–71	LT	1					1									100	555	1							2	
		189+20	191+03	NB I–71	LT	1					1									100	579	1							2	
		191+03	192+95	NB I–71	LT	1					1									100	606	1							2	
		192+95	193+00	NB I–71	LT	1					1									100	45	1							2	
180		193+00	194+44	NB I–71	LT																432	1								
		194+44	194+89	NB I–71	LT																165	1					3			
		194+89	196+95	NB I–71	LT				1		1									96	648	1							2	
		196+95	198+39	NB I–71	LT				1		1									96	462	1			148				2	
		198+39	198+54	NB I–71	LT/LT								1					19	15		75									3
		198+54	199+38	NB I–71	LT											1					282				3					
		199+38	202+08	NB I–71	LT		1				1			1	1					100	840								2	
		202+08		NB I–71	LT		1				1			1	1					100									2	
		194+44	17+02 EDEN PARK	NB I–71	LT/DN																120				50					
182		17+02	195+00 FLORENCE	EDEN PARK	LT																267				170					3
179	L11A	186+75	188+33	NB I–71	RT	1					1									100	504	1							2	
		188+33	190+13	NB I–71	RT	1					1									100	570	1							2	
		190+13	191+96	NB I–71	RT	1					1									100	579	1							2	
		191+96	193+00	NB I–71	RT	1					1									100	342	1							2	
180		193+00	193+92	NB I–71	RT																276									
		193+92	194+45	NB I–71	RT	1					1									100	189	1		1					2	
		194+45	195+90	NB I–71	RT																465	1					3			
		195+90	198+00	NB I–71	RT	1					1									100	660	2							2	
		198+00	199+38	NB I–71	RT	1					1									100	414	1							2	
		199+38	200+75	NB I–71	RT								1					137					147							
		200+75		NB I–71	RT			1			1	1		1						114									2	
180	L11A	194+45	195+02 FLORENCE	NB I–71	RT/DN															140	105				50					
			TOTAL SHEET 13 OF 16			11	2	1	2	1	17	1	2	3	2	1			19	152	1841	9723	18	147	1	418	3	6	34	6	

EL 12 EC–1 C:\88090\88090S1K.DWG OCTOBER–20–1994 USER: RGARDNER TIME: 15:38

CALC. BY ____ DATE ____
CHKD. BY ____ DATE ____

HAM-71-1.30/9.00 | OHIO | F.H.W.A. REGION 5 | 166 / 401

LIGHTING QUANTITIES SUB-SUMMARY

HAM-71-1.30/9.00
SECTION 1
14 of 16

CALCULATED BY: [illegible] DATE: 10-21-94
CHECKED BY: Donald A. Petric DATE: 10-21-94

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	ITEM 625 LIGHT POLE DESIGN AT10B36.7 EA.		ITEM 632 COMBINATION STRAIN POLE, TYPE TC-81.10, DESIGN 3, AS PER PLAN EA.	REUSE OF MESSENGER CABLE, AS PER PLAN EA.	ITEM 625 BRACKET ARM, 15' AS PER PLAN EA.	BRACKET ARM, 15' EA.		LIGHT POLE DESIGN AT15B36.7 EA.				LUMINAIRE, STYLE B, TYPE III, 200 WATT H.P.S. 713.11, 240 VOLT EA.	LIGHT POLE FOUNDATION, 24" X 8' DEEP EA.	LIGHT POLE FOUNDATION, 24" X 10' DEEP EA.	PULL BOX CONCRETE, 18" EA.	UNDERPASS LUMINAIRE 150 WATT H.P.S. 240 VOLT AS PER PLAN EA.	GROUND ROD EA.	ELECTRIC SERVICE CONNECTION TO PEDESTAL LIGHT, AS PER PLAN EA.	CONDUIT, 2", 713.04 L.F.	202 REMOVE UNDERPASS LUMINAIRE SUPPORTS EA.	REFURBISH SIGN SERVICE "A", AS PER PLAN EA.	CONDUIT, 2", 713.04, AS PER PLAN L.F.	SERVICE TO UNDERPASS LIGHTING REFURBISHED, AS PER PLAN EA.	TRENCH IN PAVED AREA, TYPE "A" L.F.	SPEC. REMOTE PHOTOCELL "C" EA.	ITEM 625 TRENCH 24" DEEP L.F.	POLE AND BRACKET CABLE NO. 10 L.F.	DISTRIBUTION CABLE NO. 4 AWG, 5000 VOLT L.F.	ELECTRIC SERVICE CONNECTION EA.	REMOTE PHOTOCELL "A" EA.	EXISTING CONDUIT CLEANED L.F.	632 SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG. L.F.	ITEM 625 1-1/2" DUCT CABLE WITH 3 NO. 4 AWG 5000 VOLT CABLES L.F.	POWER SERVICE "C", AS PER PLAN EA.	CONNECTOR KIT TYPE XII A	B	C	CONNECTOR KIT TYPE II	III	CABLE SPLICING KIT EA.	JUNCTUIN BOX EA.
182	CL10A	9+96	11+79	EDEN PARK	RT															1							1			40		143					193							3	
		11+79	11+83	EDEN PARK	RT/LT		1										1	1				1								4			94				84				2			
		10+12	11+83	EDEN PARK	LT		1										1	1				1								40		131	94				181				2			
		11+83	13+10	EDEN PARK	LT															1										6		127					137						3	
		13+10	13+38	EDEN PARK	LT		1										1	1				1								6		28	94				38				2			
		13+38	31+23 SB READING	EDEN PARK	LT															1										6		37					47						3	
		31+23	32+87 NB READING	SB READING	LT															1													249			75							3	
		32+87	14+90 EDEN PARK	NB READING	CL																			1						13						70	70						3	
		14+90	14+96	EDEN PARK	LT			1	1		1						1		1			1								5		20	104				30				2	1		
		14+96	33+83 NB READING	EDEN PARK	LT															1										5		100					110						3	
		33+83	35+43	NB READING	RT		1										1	1				1								6		160	94				170				2			
		35+43	35+82	NB READING	RT															1										6		39					49						3	
		35+82		NB READING	RT		1										1	1				1											94								2			
		14+96	15+15 52' LT	EDEN PARK	LT																									18		10					38							
		191+63	192+66	RAMP RA	LT																	1				1		103	1				339							3			1
		192+66	193+00	RAMP RA	LT																	3				3		44	1				162							3			1
		31+35	193+00 RAMP RA	NB READING	LT/UP						1						1															30	75			50				3			
		193+00	193+18	RAMP RA	LT																							18					84							3			1
		193+18	194+77	RAMP RA	LT																	1				1		159	1				507		1					3			1
		194+77	15+15 50' LT EDEN PK	RAMP RA	LT/DN																							25					105							3			1
		189+67	191+22	SB I-71	LT																	3				3		255	1				795							3			1
		191+22	192+77	SB I-71	LT																	3				3		155	1				495							3			1
		192+77	194+74	SB I-71	LT																	2				2		197	1				621							3			1
	↓	194+74	15+63 LT EDEN PARK	SB I-71	LT/DN																							30					120							3			1
	CL10A	16+49	16+45	EDEN PARK	RT																				6					6					73								
		16+45	16+35	EDEN PARK	RT/LT			1	1		1						1		1				1								6	104			90		101			2			
		195+08	16+35 EDEN PARK	RAMP RB	LT									1			1	1					1								68	104					78			2			
		16+35	15+63	EDEN PARK	LT																										78					88						3	
		15+63	15+15 52' LT	EDEN PARK	LT																										54					64						3	
		15+15 52' LT	15+15 50' LT	EDEN PARK	LT																																					3	
	↓	15+15 50' LT	POWER SERVICE CL10	EDEN PARK	LT																																			1			
↓	CL10	15+15 50' LT	15+07 52' LT	EDEN PARK	LT																				16					8			78										
180	–	41+90	42+60	READING	RT															1										70				1			80						3	
↓	–	42+60		READING	RT															1											1											3	
			TOTAL SHEET 14 OF 16			5		2	2	1	2		1				9	6	2	11	13	8	1	22	13	1	986	6	233	1	1007	812	3630	1	1	355	73	1558	1	30	16	1	36	9

REL 12 EC-1 C:\88090\8809051N.DWG OCTOBER-20-1994 USER: RGARDNER TIME:15:48

LIGHTING QUANTITIES SUB-SUMMARY

HAM-71-1.30/9.00
SECTION 1
15 of 16

CALCULATED BY: [illegible] DATE: 10-21-94
CHECKED BY: Donald A. Petric DATE: 10-21-94

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	ITEM 625 LIGHT POLE DESIGN AT8B41.7 EA.	LIGHT POLE DESIGN A4B40 EA.	LUMINAIRE, STYLE B, TYPE III, 200 WATT H.P.S. 713.11, 240 VOLT EA.	LIGHT POLE DESIGN AT10B41.7 EA.	LIGHT POLE FOUNDATION 24" X 10' EA.	GLARE SHIELD EA.	LUMINAIRE, STYLE B, TYPE II, 200 WATT H.P.S. 713.11, 240 VOLT EA.	LIGHT POLE FOUNDATION, 24" X 8' DEEP EA.	UNDERPASS LUMINAIRE 150 WATT H.P.S. 240 VOLT AS PER PLAN EA.	PULL BOX CONCRETE, 18" EA.	PULL BOX CONCRETE, 24" EA.	GROUND ROD EA.	CONDUIT, 2", 713.04, AS PER PLAN L.F.	202 REMOVE UNDERPASS LUMINAIRE AND SUPPORTS EA.	SERVICE TO "A" LIGHTING AS PER PLAN EA.	REFURBISH SIGN SERVICE "A", AS PER PLAN EA.	CONDUIT, 2", 713.04 L.F.	CONDUIT, JACKED OR DRILLED UNDER PAVEMENT, 3" L.F.	TRENCH IN PAVED AREA, TYPE A L.F.		TRENCH 24" DEEP L.F.	POLE AND BRACKET CABLE NO. 10 L.F.	DISTRIBUTION CABLE NO. 4 AWG, 5000 VOLT L.F.	EXISTING CONDUIT CLEANED L.F	JUNCTION BOX EXTENSION "A" EA.	ELECTRIC SERVICE EA.	1-1/2" DUCT CABLE WITH 3 NO. 4 AWG 5000 VOLT CABLES L.F.	ELECTRIC SERVICE CONNECTION TO PEDESTAL LIGHT, AS PER PLAN EA.	CONNECTOR KIT TYPE VIII A EA.	CONNECTOR KIT TYPE VIII B EA.	CONNECTOR KIT TYPE VIII C EA.	POWER SERVICE "C", AS PER PLAN EA.	CONNECTOR KIT TYPE II EA.	CONNECTOR KIT TYPE III EA.	CABLE SPLICING KIT EA.	JUNCTION BOX EA.
179	L11C	187+35	187+50 RAMP RE	RAMP RC	RT										1						1					15													3	
		187+50	189+40	RAMP RE	RT			1	1		1		1				1									190	104			2		200								
		189+40	191+35	RAMP RE	RT				1	1		1					1									195	104			2		205								
		191+35		RAMP RE	RT				1	1		1					1									163				2		173								
		190+27	192+16	RAMP RB	RT		1	1																			93	627		1						2				
182		192+16	193+21	RAMP RB	RT		1					1															93	345	105	1						2				
		28+26	29+21	NB READING	LT/RT	1				1		1					1									108	100		145			158			2				
		29+21	193+21 RAMP RB	NB READING	RT	1				1		1					1									197	100		240			245			2				
		193+76	193+21	RAMP RB	RT										1													195	55				1				3	
		193+21	192+98 RAMP RE	RAMP RB	RT/RT																							147	50								3	
		192+98	193+04	RAMP RE	RT																					6						16							3	
		193+04	195+00 FLORENCE	RAMP RE	RT			1	1				1				1							64	10	74	103					182			2				
	L11	195+00		FLORENCE	RT											1																					6	
		195+02 90° RT	POWER SERVICE L11	FLORENCE	RT																														1				
182	CL11A	194+11	194+44	NB I-71	LT							1						33	1	1							129								3				1
		194+44	194+89	NB I-71	LT													45									165								3				1
		194+89		NB I-71	LT							3							3	1															3				1
		194+44	17+05 LT EDEN PARK	NB I-71	LT/DOWN													25									105												
		17+05	194+95 RT FLORENCE	EDEN PARK	LT																			39	10	53						102					3		
		194+95	194+99	FLORENCE	RT										1																						3	
		194+99	194+45 RT NB I-71	FLORENCE	RT/UP													25									105												
		194+45	195+90	NB I-71	RT													145									465								3				1
		195+90		NB I-71	RT							5							5	1															3				
		19+28	194+95 RT FLORENCE	EDEN PARK	LT										1						1			5		152						167					3	
		194+99	POWER SERVICE CL11	FLORENCE	RT																														1				
	L11	195+02	194+95	FLORENCE	RT																		11			7		63											
	CL11	194+99	194+95	FLORENCE	RT																		8			4		54											
	SERVICE	194+95	18+30	EDEN PARK	LT																							240	49								3	
		18+30		EDEN PARK	LT										1										1														
			TOTAL SHEET 15 OF 16			2	2	3	4	4	1	5	2	9	5	1	6	273	9	3	2	19	103	25	1164	697	2640	644	2	1	1473	1		15	2	16	30	4

MEL 12 EC-1 C:\88090\88090S1M.DWG OCTOBER-20-1994 USER: RGARDNER TIME:15:40

CALC. BY DATE	HAM–71–1.30/9.00	OHIO	168
CHKD. BY DATE		F.H.W.A. REGION 5	401

LIGHTING QUANTITIES SUB–SUMMARY

HAM–71–1.30/9.00
SECTION 1
16 of 16

CALCULATED BY: RUFF & P DATE: 10-21-94
CHECKED BY: Donald A. Petric DATE: 10-21-94

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	ITEM 625 LIGHT POLE DESIGN AT15B41.7 EA.	LIGHT POLE DESIGN A10B40D EA.	LIGHT POLE DESIGN A12B15B40D EA.				VARIABLE HEIGHT STANDARD EA.		GLARE SHIELD EA.	LUMINAIRE, STYLE B, TYPE III, 200 WATT H.P.S. 775.11, 240 VOLT EA.	LIGHT POLE FOUNDATION, 24" X 8' DEEP EA.		PULL BOX CONCRETE, 18" EA.		GROUND ROD EA.		MEDIAN LIGHT POLE FOUNDATION, 8' DEEP, AS PER PLAN EA.	MEDIAN PULL BOX EA.	TRENCH IN PAVED AREA, TYPE A L.F.	CONDUIT, 2", 713.04 L.F.			CONDUIT, 3", 713.04 L.F.	TRENCH 24" DEEP L.F.	POLE AND BRACKET CABLE NO. 10 L.F.	CONNECTION TO EXISTING CONDUIT EA.	DISTRIBUTION CABLE NO. 4 AWG, 5000 VOLT L.F.	REFURBISH SIGN SERVICE "A", AS PER PLAN EA.	ELECTRIC SERVICE EA.	1-1/2" DUCT CABLE WITH 3 NO. 4 AWG 5000 VOLT CABLES L.F.	CONNECTOR KIT TYPE VIII A	B	C EA.	EXISTING CONDUIT CLEANED L.F.	POWER SERVICE EA.	CONNECTOR KIT TYPE II	III EA.	CABLE SPLICING KIT EA.
180	L8A	204+48	206+28	NB I–71	LT		1								1					1		1								100		567							2		
		206+28	206+87	NB I–71	LT																		1									210					3				
		206+87		NB I–71	LT		1								1					1		1								100									2		
		206+28	206+60 RT SB I–71	NB I–71	LT																					18			16		84									
		206+60	208+00	SB I–71	RT		1								1					1		1								100		552							2		
181		208+00	209+28	SB I–71	RT																											384									
		209+28	211+68	SB I–71	RT				1						2					1		1								158		747							2		
		211+68	211+76	SB I–71	RT				1					2	2					1		1								158		54							2		
		211+76	214+31	CL I–71					1						2					1		1								158		795							2		
180	L8A	203+28	205+68	NB I–71	RT		1								1	1				1										240	114					250					2		
		205+68	208+00	NB I–71	RT		1								1	1				1										232	114					242					2		
181		208+00	210+48	NB I–71	RT		1								1	1				1										248	114					258					2		
		210+48	210+98 108' RT	NB I–71	RT		1								1	1				1										78	114					88					2		
		210+98 108' RT	211+76	NB I–71	RT													1												107				1		117							3
		211+76	212+98	NB I–71	RT													1												122						132							3
		212+98		NB I–71	RT		1								1	1				1											114									2		
		211+76	211+76 RT SB I–71	NB I–71	RT/RT																											300						195				
		211+76	211+76 LT SB I–71	SB I–71	RT																		1									246						10				
		211+76	211+76 84' LT	SB I–71	LT													1															48						80				
		208+20	210+80	SB I–71	LT							1			1					1										260	83					270					2		
		210+80	211+76 84' LT	SB I–71	LT							1			1					1										128	95					138					2		
		211+76 84' LT	212+52	SB I–71	LT													1												76						86							3
		212+52	213+32	SB I–71	LT													1												80				1		90							3
		213+32		SB I–71	LT							1			1					1											98									2		
		211+76 84' LT	211+85 120' LT	SB I–71	LT																								36	36			138									
		211+85 120' LT		SB I–71	LT													1																									3
	L8	211+88 120' LT	POWER SERVICE L8	SB I–71	LT																																			1		
	L8	211+88 120' LT	211+76 120' LT	SB I–71	LT																				12	18			18			84										
	CL8A	10+10	211+79 120' LT	McGREGOR	LT																				6	6							1	114					20				3
		211+79 120' LT	211+82 120' LT	SB I–71	LT													1																									
		211+82 120' LT	POWER SERVICE CL8	SB I–71	LT																																			1		
	CL8	211+82 120' LT	211+76 120' LT	SB I–71	LT																				6	2						66										
	SERVICE	211+76 120' LT	211+76 162' LT	SB I–71	LT													1														156						10				3
		211+76 162' LT	ELECTRIC SERVICE	SB I–71	LT													1																1									
			TOTAL SHEET 16 OF 16			5	3	3				3		2	17	5		9		14		6	2	24	44			54	1623	1620	1	4545	2	1	1671	3	315	2	28		21	

EC-1 C:\88090\88090S1L.DWG OCTOBER-20-1994 USER: RGARDNER TIME:15:39
EL 12

3470 Ohio E 168-229

CALC. BY		HAM-71-1.30/9.00	OHIO	169 401
DATE			F.H.W.A. REGION 5	
CHKD. BY				
DATE				

50 0 50 100 150
GRAPHIC SCALE IN FEET

7+37 FC

134+00 LT SB I-71
TRAFFIC PB AND RECESSED TRAFFIC CONTROLLER TO REMAIN

133+84 LT SB I-71

BEGIN PROJECT
135+50 I.R. 71
S.L.M. 1.30±

14+75 RT SENTINAL ST

CONTROL CENTER L2 & TRANSFORMER NO. 2
137+75 SB 48' L I-71

CONTROL CENTER L3 & TRANSFORMER NO. 3
137+75 SB 40.5' L I-71
MAINTAIN TRAFFIC LIGHT CONTROLLER CIRCUIT

137+42 LT SB I-71

ABANDONED PRIMARY SERVICE JUNCTION BOX TO BE ABANDONED

EXISTING CONDUIT ATTACHED BELOW DECK TO BE REMOVED

CONDUIT UNDER SLAB TO JB

EMPTY 3" CONDUIT

EXISTING CITY CIRCUIT C-865M SHARES PULL BOX WITH EXISTING STATE CIRCUIT

EXISTING 2" CONDUIT BELOW DECK TO BE REMOVED

7+50 FC
DISCONNECT EXIST. CIRC. & CAREFULLY REMOVE CABLE FROM TRENCH ON EAST SIDE OF PULL BOX TO 10' EAST OF PULL BOX LOCATION FOR CONNECTIONS IN PROPOSED PULL BOX.

EXISTING TRAFFIC CONTROLLER

EXISTING 2" CONDUIT BELOW DECK TO BE REMOVED

147+75 RT A

140+10 RT NB I-71

12+23 LT CULVERT

139+60 RT NB I-71

TRAFFIC SIGNAL POLE

144+84 RT NB I-71

135+91 47.5 RT B

136+38 RT NB I-71

137+02 47.5' RT B

138+07 LT B

139+48 RT B

150+56 RT A

150+62 LT A JB

151+74 RT A

TRANSFORMER NO. 1
14+24 EGGLESTON 56' R

Match Line Sta. 149+00

CONTROL CENTER CL1-A, 14+25 56' R EGGLESTON. 3" RIGID CONDUIT RISER UP TO JB ON UNDER SIDE OF SLAB W/ 2" C. EA. TO PRIMARY JB 145+35 & LIGHT 144+84 MAINTAIN TRAFFIC LIGHT CONTROLLER CIRCUIT.

DEMOLITION LEGEND

- EXIST PHOTOCELL TO BE REMOVED
- EXIST PULL BOX TO BE REMOVED U.N.O. *
- EXIST WALL OR BARRIER J.B. TO REMAIN
- EXIST TRUSS O.H. SIGN TO REMAIN
- EXIST O.H. SIGN TO REMAIN
- EXIST. 200 W H.P.S. BASE TO BE REMOVED U.N.O.
- EXIST. 200 W H.P.S. BASE TO BE REMOVED U.N.O.
- EXIST 200 W H.P.S., BRACKET AND LUMINAIRE ONLY (WALL MOUNTED) TO BE REMOVED U.N.O.
- EXIST 200 W H.P.S., STRUCTURE, BARRIER OR WALL MTD. J.B. TO BE REMOVED. ADJACENT RECESSED J.B. TO REMAIN
- EXIST LUMINAIRE AND GLARE SHIELD TO BE REMOVED
- EXIST POST TOP MOUNTED LUMINAIRE, TYPE V DISTRIBUTION
- EXIST SURFACE MOUNTED PENDANT TYPE UNDERPASS LUMINAIRE TO REMAIN. TYPE V DISTRIBUTION
- EXIST 400 W MERCURY VAPOR LUMINAIRE ON UTILITY POLE OWNED BY C.G. & E.
- PE EXIST PRIMARY CONDUCTORS
- EXIST CIRCUIT CONDUCTORS TO BE MAINTAINED
- EXIST CIRCUIT CONDUCTORS TO BE ABANDONED
- EXIST BURIED CONDUIT TO REMAIN, MAINTAIN EXISTING CIRCUIT CONDUCTORS
- EXIST BURIED CONDUIT TO REMAIN,
- EXIST CIRCUIT CONDUCTORS IN EXISTING STRUCTURE CONDUIT TO BE REMOVED
- EXIST CIRCUIT CONDUCTORS IN EXISTING BURIED CONDUIT TO BE REMOVED
- EXIST CONTROL CENTER TO BE REMOVED
- EXIST CONTROL CENTER TO REMAIN
- EXIST TRANSFORMER TO REMAIN
- JUNCTION BOX, SURFACE MOUNTED
- EXIST UNDERPASS LUMINAIRE TO REMAIN
- EXIST SIGN TO REMAIN, NO POWER REQUIREMENTS
- R SUBSCRIPT "R" INDICATES DEVICE TO REMAIN
- EXIST (POWER SERVICE FOR SIGN) TO BE REMOVED

* U.N.O. DENOTES UNLESS NOTED OTHERWISE

DEMOLITION

STA. 134+00 TO STA. 149+00 N.B.

REL. 12 EC-1 C:\88090\E134-149.DWG OCTOBER-20-1994 USER: MBAKER TIME: 09:31

CALC. BY		HAM–71–1.30/9.00	OHIO	170 401
CHKD. BY			F.H.W.A. REGION 5	
DATE				

50 0 50 100 150
GRAPHIC SCALE IN FEET

EXISTING CIRCUIT CL4–A CONTROL CENTER
9+26.5 47' LT GILBERT AVE. TO REMAIN.

EXISTING CIRCUIT CL4–A TO REMAIN

EXISTING OVERHEAD TELEPHONE
LINE TO REMAIN

150+28 LT I–71

158+15 LT SB I–71

40+60 RT GF

157+90 LT SB I–71

EXISTING CIRCUIT CL4–A TO REMAIN

162+21 LT SB I–71

160+55 LT SB I–71

39+04 RT GF

Match Line Sta. 149+00

Match Line Sta. 164+00

COURT ST.

SOUTHBOUND GILBERT AVE.

NORTHBOUND GILBERT AVE.

Southbound GILBERT AVE.

Northbound GILBERT AVE.

SOUTHBOUND I–471

SOUTHBOUND I–71

NORTHBOUND I–71

NORTHBOUND I–471

Bridge No. HAM–71–0154L

Bridge No. HAM–71–0154R

BRIDGE No. HAM–71–0182N

BRIDGE No. HAM–71–0192

RAMP GF

RAMP GG

RAMP GD

149+42 RT I–71

Ex. Concrete Median

Exist. Retaining Wall No. 16

VAN METER ST.

WAPELHAM ST.

154+63 RT NB I–471

LUMINAIRE AND BRACKET
MOUNTED ON RETAINING WALL

155+90 CL NB I–71

155+90 RT NB I–71

157+72 RT NB I–471

158+03 RT NB I–71

158+00 RT NB I–471

160+70 RT NB I–471

VAN METER

8+85 RT VAN METER

CIRCUIT L5 CONTROL CENTER
8+82 RT VAN METER STREET

161+16 RT GD

Location of Existing and Proposed Fence

151+10 RT NB I–71

151+40 LT SB I–71
REMOVE EXIST SIGN CKT & 2"
CONDUIT FROM BARRIER JB TO JB
MOUNTED UNDERNEATH PEDESTRIAN BRIDGE TO BE REMOVED.
REMOVE SIGN CIRCUIT CONDUCTORS BACK TO
60 AMP CONTROL CENTER CL4 @ 9+26.5 47' L
GILBERT AVE. MAINTAIN EXISTING PEDESTRIAN
BRIDGE LIGHTING CIRCUITS.

151+98 RT NB I–471

DEMOLITION

STA. 149+00 TO STA. 164+00 N.B.

REL 12 EC–1 C:\80090\E149–164.DWG OCTOBER–20–1994 USER: MBAKER TIME:10:12

CALC. BY		HAM–71–1.30/9.00	OHIO	171
DATE			F.H.W.A. REGION 5	401
CHKD. BY				
DATE				

50 0 50 100 150
GRAPHIC SCALE IN FEET

29+92 LT GF
30+30 RT GF
MATCH LINE ℄ READING ROAD
18+35 LIBERTY
13TH STREET
LIBERTY STREET
22
31
32
8+45 LT READING
7+80 LT READING
MATCH LINE ℄ READING ROAD
RAMP GF
RAMP GG
34+11 RT GF
P.B. NOT FOUND
MAINTAIN TRAFFIC CONTROL CIRCUITS. COORDINATE EXACT LOCATION WITH LIGHTING CIRCUITS.
24+56 LT SB GILBERT
169+80 LT GA
173+57 LT GA
173+66 59' LT SB I–71
173+60 LT NB I–71
27+50 LT SB GILBERT
31+20 RT GILBERT
32+63 LT GILBERT
MAINTAIN EXISTING LIGHTING CIRCUIT FOR NORTHBOUND GILBERT AVE.
MAINTAIN EXISTING LIGHTING CIRCUIT FOR SOUTHBOUND GILBERT AVE.
CIRCUIT L7 CONTROL CENTER
174+98 69' RT N.B. 71
TRAFFIC CONTROL P.B. WITH #12 LIGHTING CIRCUIT
TRAFFIC CONTROLLER TO REMAIN
Match Line Sta. 164+00 N.B.
Match Line Sta. 179+00 N.B.
SOUTHBOUND GILBERT AVE.
NORTHBOUND GILBERT AVE.
SOUTHBOUND I–71
NORTHBOUND I–71
RAMP GA
RAMP GD
Exist. Retaining Wall No. 21
164+26 RT GD
165+60 RT NB I–71
168+51 RT RAMP GD
168+52 RT NB I–71
171+13 CL NB I–71
Bridge No. HAM–22–0145
2" C.
L.A.R/W

10+43 CL EL
10+67 48' LT EL
13+33 39' RT SB READING
10+89 LT EL(N)
14+11 SB READING
14+17 RT SB READING
15+40 RT NB READING
TRAFFIC P.B. TO REMAIN
11+35 LT EL(N)
11+34 45' LT EL(N)
12+40 LT EL(N)
175+20 LT SB I–71
13+20 RT ELSINORE
CIRCUIT L6 CONTROL CENTER
13+25 ELSINOR PLACE
13+25 54' RT ELSINORE
176+37 RT RD
177+63 LT SB I–71
176+52 LT GA
176+33 NB I–71
15+62 RT ELSINORE
178+85 RT SB I–71
178+82 RT NB I–71
SB READING RD.
NB READING RD.
ELSINORE PL.
Penn. R.R. Bridge (Abandoned)
Bridge No. HAM–71–0221
Bridge No. HAM–71–0220
RAMP RD
NORTHBOUND I–71

DEMOLITION

STA. 164+00 TO STA. 179+00 N.B.

REL 12 EC-1 C:\BRIDGE\E164-179.DWG OCTOBER-20-1994 USER: MBAKER TIME:10:14

CALC. BY DATE	HAM–71–1.30/9.00	OHIO
CHKD. BY DATE		F.H.W.A. REGION 5

172 / 401

50 0 50 100 150
GRAPHIC SCALE IN FEET

16+87 LT SB READING
18+90 LT SB READING
19+36 SB READING
CIRCUIT L9 CONTROL CENTER
19+39 S.B. READING
400 W M.V. LUMINAIRE ON UTILITY POLE OWNED BY C.G. & E. TYPICAL
22+64 RT SB READING
187+84 RT GA
188+86 RT GA
28+26 LT NB READING
190+33 LT RA
31+35 LT NB READING
193+00 LT RA
9+96 RT EP
10+12 LT EP
11+83 LT EP
11+83 RT EP
182+48 LT GA
180+18 LT GA
184+52 LT GA
184+61 LT RF
193+18 LT RA
29+14 LT NB READING
193+21 RT RB
193+04 RT RE
29+21 RT NB READING
29+14 RT NB READING
Match Line Sta. 179+00 N.B.
Match Line Sta. 193+00 N.B.
Bridge No. HAM–71–0228
Bridge No. HAM–71–0233R
Bridge No. HAM–71–0243L
Bridge No. HAM–42–0264R
Bridge No. HAM–71–0243R
Bridge No. HAM–42–0257R
NORTHBOUND I–71
SOUTHBOUND I–71
NORTHBOUND READING RD.
SOUTHBOUND READING RD.
WORCHESTER ST.
Exist Retaining Wall No. 24
Exist Retaining Wall No. 31
Exist Retaining Wall No. 32
Exist Retaining Wall No. 33
Exist Retaining Wall No. 34
Exist Retaining Wall No. 35
Exist Retaining Wall No. 36
Exist Retaining Wall No. 37
Exist Retaining Wall No. 38
Exist Retaining Wall No. 39
RAMP GA
RAMP RA
RAMP RB
RAMP RC
RAMP RD
RAMP RE
RAMP RF
L A R/W
179+84 LT RAMP RC
182+18 LT RB
182+86 RT RD
21+08 RT NB READING
185+74 LT NB I–71
186+26 LT RF
22+67 LT NB READING
184+43 RT NB I–71
EXIST EMPTY 2" CONDUIT TO REMAIN
187+50 RT RE
26+24 LT NB READING
190+27 RT RB

CODED NOTE

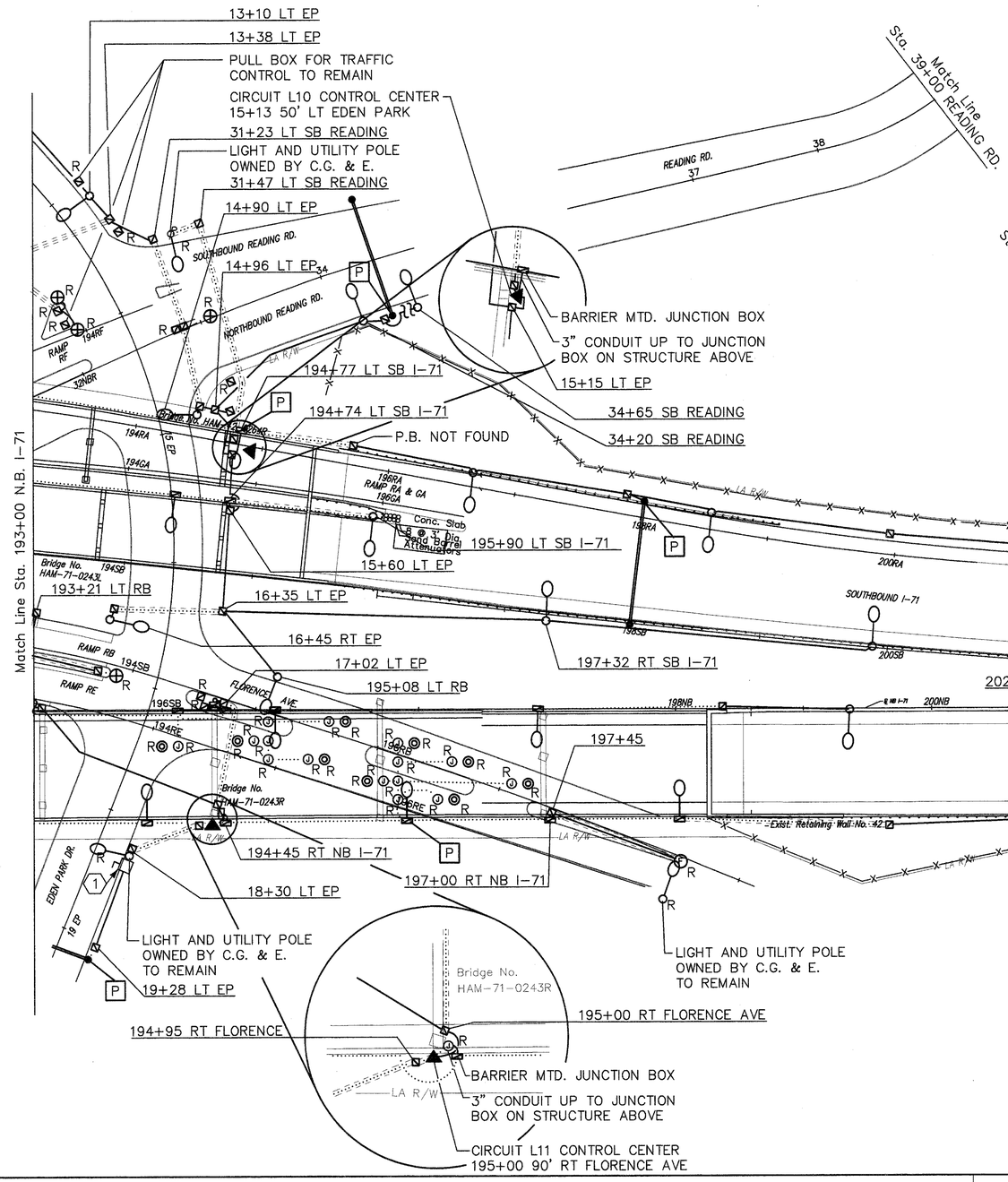
1. TWO PARALLEL 3" RIGID METAL CONDUITS. REMOVE CONDUCTORS IN NORTHERN CONDUIT ONLY. SOUTHERN CONDUIT TO BE ABANDONED.

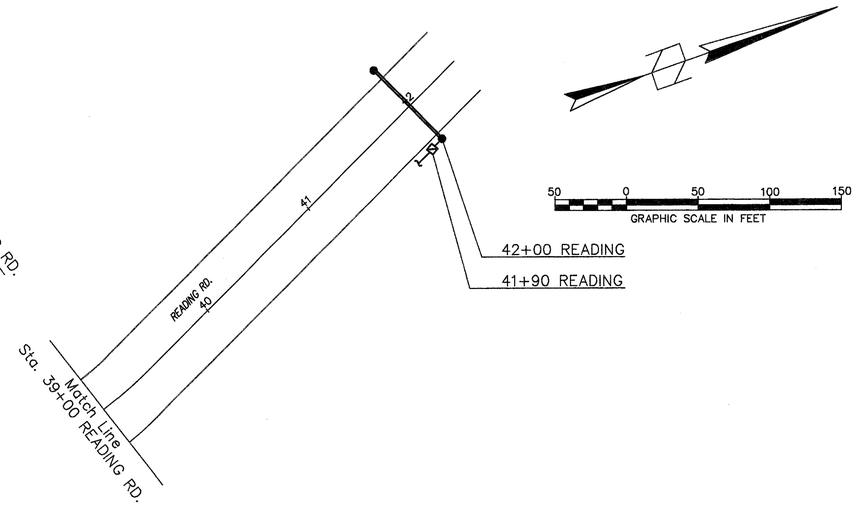
DEMOLITION

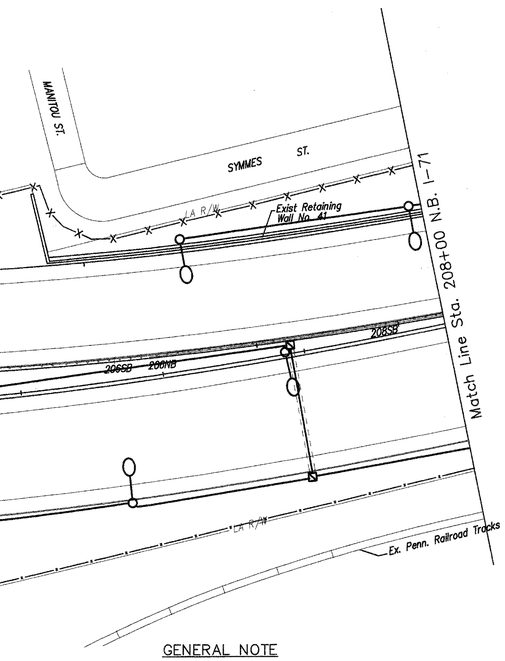
STA. 179+00 TO STA. 193+00 N.B.

REL 12 EC-1 C:\98090\E179-193.DWG OCTOBER-20-1994 USER: MBAKER TIME:10:22

CALC. BY DATE	HAM-71-1.30/9.00	OHIO	173 / 401
CHKD. BY DATE		F.H.W.A. REGION 5	







GENERAL NOTE

1. REFER TO GENERAL NOTES SHEET FOR "VERIFICATION OF EXISTING CONDITIONS".

CODED NOTE

1. EXISTING POWER SERVICE FOR SIGN TO BE REMOVED.

DEMOLITION

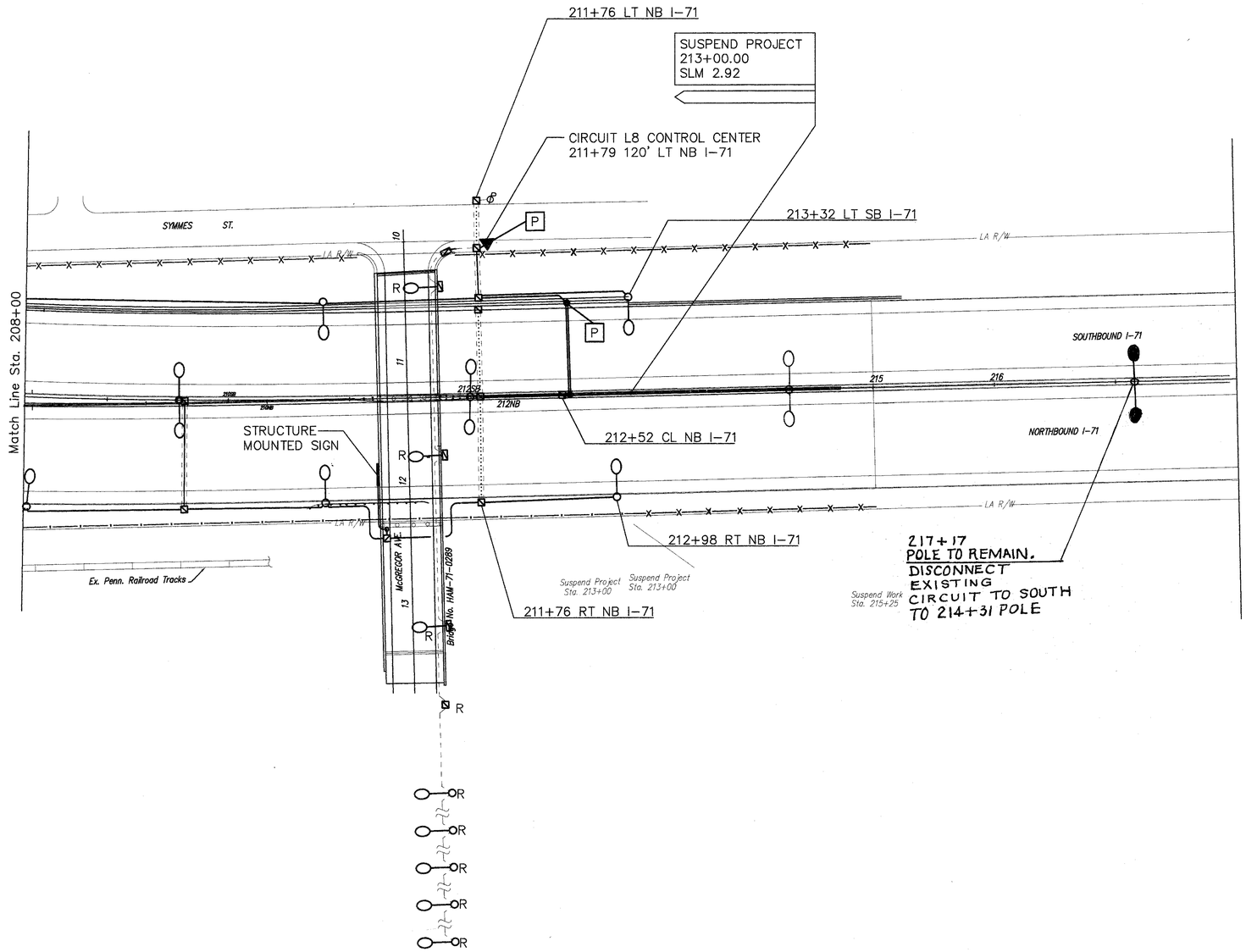
STA. 193+00 TO STA. 208+00 N.B.

REL 12 EC-1 C:\88090\E193-208.DWG OCTOBER-20-1994 USER: MBAKER TIME:10:23

CALC. BY DATE	HAM–71–1.30/9.00	OHIO
CHKD. BY DATE		F.H.W.A. REGION 5

174
401

50 0 50 100 150
GRAPHIC SCALE IN FEET



DEMOLITION

STA. 208+00 TO STA. 218+00 N.B.

REL 12 EC–1 C:\38090\E208–218.DWG OCTOBER–20–1994 USER: MBAKER TIME:10:26

CALC. BY		HAM–71–1.30/9.00	OHIO	175/401
DATE			F.H.W.A. REGION 5	
CHKD. BY				
DATE				

7+07 FC
SIGN 1075 W

7+17 FC
PB

7+57 FC
PB

BEGIN PROJECT
135+50 I.R. 71
S.L.M. 1.30±

134+00 LT SB I–71
TRAFFIC CONTROL PB
AND RECESSED TRAFFIC
CONTROLLER TO REMAIN

139+64 LT SB I–71
JB TO BE ABANDONED

139+18 LT SB I–71
JB

138+79 LT SB I–71
JB

138+10 LT SB I–71
JB TO BE ABANDONED

139+62 LT NB I–71
MEDIAN PB

139+30 LT NB I–71
TRANSITION JB

11+82 RT SENTINEL
PB (SIGN DISC. IN WALL)

134+92 LT SB I–71
SIGN 1050 W

137+55 NB I–71
L2–A2 TYPE III

139+20 NB I–71
L2–A3 TYPE III

141+55 LT SB I–71
JB TO BE ABANDONED

140+00 LT SB I–71
JB

140+45 LT SB I–71
JB

141+35 LT SB I–71
JB

142+27 RT SB I–71
SIGN 350 W

142+27 LT SB I–71
JB

144+63 LT SB I–71
JB

145+35 LT SB I–71
JB

145+35 LT SB I–71
JB TO BE ABANDONED

145+85 LT SB I–71
JB

146+32 LT SB I–71
JB

147+20 LT SB I–71
JB

147+79 LT SB I–71
JB

148+55 LT SB I–71
JB

50 0 50 100 150
GRAPHIC SCALE IN FEET

CODED NOTES:

1. EXISTING 2" GALV. CONDUIT ATTACHED BELOW BRIDGE DECK.
2. PROPOSED 2" GALV. CONDUIT ATTACHED TO PIER CAP BELOW BRIDGE DECK.
3. FOR CONTINUATION OF CIRCUIT TO CONTROL CENTER BELOW, SEE SHEET 176/401 AND DETAIL SHEET 220/401.

SENTINEL ST.
COMMERCIAL SQ.
CULVERT ST.
EXISTING 3" STRUCTURE CONDUIT
EGGLESTON AVE.
EX. R.R. TRACKS
SOUTHBOUND I–71
NORTHBOUND I–71
TUNNEL HAM–71–0130
Bridge No. HAM–71–0044
Bridge No. HAM–71–0044
L.A. R/W
CIR L2–B
CIR L2–A
CIR L3–B
RAMP E
RAMP B
RAMP A
Ret. Wall No. 14
EXIST TRAFFIC CONTROLLER
3:1 DOWN
77°15'
90°
COLUMBIA PARKWAY VIADUCT
E. FIFTH ST. & FC
Match Line Sta. 149+00

139+43 RT NB I–71
PB

139+60 NB RT I–71
JB

EXISTING 2" STRUCTURE CONDUIT

149+22 LT A
L2–B5 TYPE II

139+48 RT B
L2–B7 TYPE II

150+56 RT A
L2–B3 TYPE III, II

150+62 LT A
JB

137+74 RT B
SIGN 525 W

137+84 RT B
PB

135+91 RT B
L2–B1 TYPE III

136+00 NB I–71
L2–A1

136+62 NB I–71
JB

137+02 RT B
L2–B2 TYPE III

151+74 RT A
L2–B4 TYPE II

143+56 LT NB I–71
L2–A5 TYPE III

144+84 RT NB I–71
JB

143+36 RT NB I–71
L2–B10 TYPE III

145+84 LT NB I–71
L2–A6 TYPE III

142+78 RT NB I–71
JB

141+91 RT NB I–71
L2–B9 TYPE III

141+28 LT NB I–71
L2–A4 TYPE III

141+78 RT B
JB

147+75 LT A
L2–B6 TYPE II

140+84 RT B
L2–B8 TYPE II

142+02 RT A
JB

140+00 LT NB I–71
SIGN 500 W

146+30 RT NB I–71
JB

147+10 RT NB I–71
JB

148+12 LT NB I–71
L2–A7 TYPE III

147+85 RT NB I–71
JB

FOR LOCATIONS OF CONTROL CENTERS CL1, L2, CL3 AND UNDERPASS LIGHTING, SEE SHEET 176/401

PROPOSED LEGEND

- P — PROPOSED PHOTOCELL
- PROPOSED PULL BOX
- PROPOSED BARRIER JUNCTION BOX
- EXIST WALL OR BARRIER J.B. TO REMAIN
- EXIST TRUSS O.H. SIGN TO REMAIN
- EXIST O.H. SIGN TO REMAIN
- REERECTED 200 W H.P.S. LUMINAIRE
- REERECTED 2–200 W H.P.S. LUMINAIRES
- N — REERECTED 200 W H.P.S. LUMINAIRE STRUCTURE, BARRIER OR WALL MTD. ADJACENT TO EXISTING J.B.
- REERECTED LUMINAIRE WITH GLARE SHIELD
- REFURBISHED 150 W H.P.S. UNDERPASS LUMINAIRE
- EXISTING POST TOP MOUNTED LUMINAIRE, TYPE V DISTRIBUTION
- PROPOSED 2–310 W H.P.S. LUMINAIRES
- PROPOSED 200 W H.P.S. LUMINAIRE
- REERECTED 200 W H.P.S. LUMINAIRE, WALL MTD, BRACKET ONLY
- CONNECTION TO EXISTING AT THIS LOCATION
- EXIST 400 WATT MECURY VAPOR LUMINAIRE ON UTILITY POLE OWNED BY C.G. & E.
- C.G. & E. UTILITY POLE
- PROPOSED LIGHT TOWER, 6–400 W H.P.S., TYPE V DISTRIBUTION. 100' NOMINAL M.H.
- PROPOSED LIGHT TOWER, 4–400 W H.P.S., TYPE III DISTRIBUTION. 100' NOMINAL M.H. ARROWS INDICATE ORIENTATION
- REFURBISHED SURFACE MOUNTED PENDANT TYPE UNDERPASS LUMINAIRE. TYPE V DISTRIBUTION.
- -PE- EXISTING PRIMARY CONDUCTORS TO REMAIN
- #2 — PROPOSED CIRCUIT CONDUCTORS. HASH MARKS INDICATE QTY OF CONDUCTORS. NUMBER DENOTES WIRE SIZE IF OTHER THAN #4 AWG.
- EXIST CIRCUIT CONDUCTORS TO BE MAINTAINED
- PROPOSED CIRCUIT CONDUCTORS IN NEW CONDUIT
- PROPOSED CIRCUIT CONDUCTORS IN EXISTING BURIED CONDUIT
- EXIST BURIED CONDUIT TO REMAIN, MAINTAIN EXISTING CIRCUIT CONDUCTORS
- ABANDONDED BURIED CONDUIT
- PROPOSED CONTROL CENTER
- EXIST CONTROL CENTER TO REMAIN
- T — EXIST TRANSFORMER TO REMAIN
- J — JUNCTION BOX, SURFACE MOUNTED
- R — SUBSCRIPT "R" INDICATES EXISTING TO REMAIN

STA. 134+00 TO STA. 149+00 N.B.

CALC. BY		HAM–71–1.30/9.00	OHIO	176/401
CHKD. BY			F.H.W.A. REGION 5	
DATE				

EXISTING JUNCTION BOX TO REMAIN

14+75 RT SENTINEL
PB

PROPOSED 1 1/2" CONDUIT ATTATCHED TO ABUTMENT WALL

137+75 LT SB I–71
JUNCTION BOX

EXISTING CITY OF CINCINNATI TRANSFORMER NO. 3 AND ENCLOSED CONTROL CENTER CL3
137+75 40.5' LT SB I–71
CIRCUIT CL3–A, MAINTAIN TRAFFIC CONTROLLER CIRCUIT

137+75 LT SB I–71
PB

EXISTING CONDUIT UP TO EXISTING BARRIER MOUNTED JUNCTION BOX CIR. L2–B

EXISTING STATE OF OHIO TRANSFORMER NO. 2 AND ENCLOSED CONTROL CENTER L2
137+75 48' LT SB I–71
CIRCUIT L2–A, L2–B
SEE DETAIL, SHEET 220/401.

EXISTING 2" CONDUIT UP TO WALL MOUNTED LUMINAIRE ON COLUMN

EXISTING STATE OF OHIO CONTROL CENTER L2

EXISTING CITY OF CINCINNATI CONTROL CENTER CL3

BEGIN PROJECT
135+50 I.R. 71
S.L.M. 1.30±

CIR L2–A & L2–B
139+62 LT NB I–71
JUNCTION BOX

CIR L2–B

CIR CL3–A

TRAFFIC CONTROL PB TO REMAIN

12+90 31' RT
PB

141+78 RT B
JB

141+91 RT NB I–71
JB

140+84 RT B
JB

12+23 24' LT CULVERT
PB

138+79 LT SB I–71
JB

140+00 LT SB I–71
JB

139+18 LT SB I–71
JB

140+45 LT SB I–71
JB

EXIST 175 WATT M.V. TO REMAIN

15+45 49' R
EGGLESTON AVE.

EXISTING PRIMARY CIRCUIT CONDUCTORS IN 2" METAL CONDUIT ATTACHED TO STRUCTURE FROM XFMR #1 TO XFMR #2 TO REMAIN

CIR CL1–A

CIR CL1–B

TRAFFIC SIGNAL PØLE

143+36 RT NB I–71
JB

142+78 RT NB I–71
JB

144+84 RT NB I–71
JB

141+35 LT SB I–71
JB

144+63 LT SB I–71
JB

15+45 49' RT EGGLESTON
PB

146+32 LT SB I–71
JB

145+35 LT SB I–71
JB

148+55 LT SB I–71
JB

147+79 LT SB I–71
JB

147+10 RT NB I–71
JB

146+30 RT NB I–71
JB

EXISTING CITY OF CINCINNATI CONTROL CENTER CL1

Bridge No. HAM–71–0154

Match Line Sta. 149+00

EXISTING STRUCTURE MOUNTED CONDUIT

PROPOSED 2" STRUCTURE MOUNTED CONDUIT.

EXISTING CITY OF CINCINNATI TRANSFORMER NO. 1 AND ENCLOSED CONTROL CENTER CL1
14+25 56' RT EGGLESTON.
CIRCUIT CL1–A, CL1–B

EXISTING 2" STRUCTURE MOUNTED CONDUIT TO REMAIN CIR. CL1–B

PROPOSED 2" STRUCTURE MOUNTED CONDUIT

EXISTING 2" STRUCTURE MOUNTED CONDUIT AND PRIMARY CONDUCTORS TO REMAIN. PRIMARY CONDUCTORS FEED XFMR'S NO. 2 & 3.

GRAPHIC SCALE IN FEET
50 0 50 100 150

CODED NOTES

1. SEE DETAIL, SHEET 220/401.
2. EXISTING 2" CONDUIT UP TO EXISTING JUNCTION BOX.

UNDERPASS LIGHTING

STA. 134+00 TO STA. 149+00 N.B.

CALC. BY DATE	HAM–71–1.30/9.00	OHIO
CHKD. BY DATE		F.H.W.A. REGION 5

177
401

50 0 50 100 150
GRAPHIC SCALE IN FEET

CODED NOTES:
1. EXISTING 2" STRUCTURE CONDUIT.

CITY OF CINCINNATI
EXISTING CONTROL CENTER CL4
9+26.5 47' L GILBERT AVE. TO REMAIN.

EXISTING CIRCUIT CL4–A TO REMAIN

150+28 LT SB I–71
L5–B1 TYPE II, 175' CCW

150+40 CL NB I–71
L5–A1 TYPE III

150+23 CL NB I–71
TRANSITION JB

154+32 LT NB I–71
JB

153+70 LT SB I–71
L5–B3 TYPE II, 180' CW

152+00 LT SB I–71
L5–B2 TYPE II, 180' CW

152+37 LT SB I–71
SIGN 1050 W
JB

17+75 RT NB GILBERT
SIGN 100 W

155+65 LT SB I–71
L5–B4 TYPE II, 180' CW

158+92 LT SB I–71
JB

155+90 CL NB I–71
JB

155+90 RT NB I–71
JB

158+15 LT NB I–71
JB

40+60 RT GF
JB

157+90 LT SB I–71
JB

35+98 RT GF
L5–B7 TYPE II

162+74 RT SB I–71
TRANSITION JB

162+32 LT SB I–71
L5–A8 TYPE II

162+30 RT SB I–71
L5–A7 TYPE III

36+92 RT GF
JB

37+87 RT GF
L5–B6 TYPE III

39+04 RT GF
JB

160+30 LT SB I–71
ABANDON JB

162+75 CL SB I–71
JB

162+75 LT SB I–71
JB

EXISTING CIRCUIT
CL4–A TO REMAIN

35+04 RT GF
JB

Match Line Sta. 149+00

Match Line Sta. 164+00

SOUTHBOUND I–71

NORTHBOUND I–71

SOUTHBOUND GILBERT AVE.

NORTHBOUND GILBERT AVE.

Southbound GILBERT AVE.

Northbound GILBERT AVE.

SOUTHBOUND I–471

NORTHBOUND–471

VAN METER ST.

WAREHAM ST.

COUNT ST.

Ex. Concrete Median

Exist. Retaining Wall No. 16

Pedestrian Bridge

BRIDGE No. HAM–71–0154R

BRIDGE No. HAM–71–0182N

BRIDGE No. HAM–71–0192

BRIDGE No. HAM–71–0193

Location of Existing and Proposed Fence

CIR L5–B

CIR L5–A

CIR L5–A, B

CIR L5–A & L5–B

CIR L5–C

CIR L5–A=3 #2, L5–B=3 #4

CIR L7–A

RAMP GG

RAMP GF

150+28 RT NB I–471
EXISTING TO REMAIN

149+42 RT I–71
JB

152+42 CL NB I–71
L5–A2 TYPE III

151+98 RT NB I–471
L5–C1 TYPE II (WALL MTD)

153+38.5 RT NB I–471
L5–C2 TYPE II (WALL MTD)

154+80 CL NB I–71
L5–A3 TYPE III

154+63 RT NB I–471
JB

155+75 CL NB I–71
SIGN 500 W

48+07 LT GG
L5–C3 TYPE II

155+80 RT NB I–471
SIGN 500 W

157+30 CL NB I–71
L5–A4 TYPE III

158+00 LT SB I–71
L5–B5 TYPE III, 180' CW

46+27 LT GG
L5–C4 TYPE II

158+15 CL NB I–71
JB

159+66.5 LT GD
PB

159+38 RT SB I–71
TRANSITION JB

44+47 LT GG
L5–C5 TYPE II

159+40 RT NB I–471
L5–A12

159+80 RT SB I–71
L5–A6 TYPE III

42+80 LT GG
L5–C6 TYPE II

42+60 RT GG
PB

42+60 LT GG
PB

8+82 LT VAN METER
PB

STATE OF OHIO CONTROL CENTER L5
8+82 LT VAN METER STREET
CIRCUITS L5–A, L5–B & L5–C

160+55 LT SB I–71

162+85 LT SB I–71
SIGN 1225 W
VERIFY LOCATION

161+16 LT GD
PB

161+25 RT GD
PB

161+16 RT GD
PB

42+63 LT GG
PB

161+09 RT NB I–71
L5–A13

160+70 RT NB I–471
PB

8+85 LT VAN METER
PB

41+00 LT GG
L5–C7 TYPE II

40+72 LT GG
PB

8+85 LT VAN METER
PB

162+47 RT GD
L7–A1 TYPE II

8+85 RT VAN METER
PB

39+12 LT GG
L5–C8 TYPE II

39+92 LT GG
JB

STA. 149+00 TO STA. 164+00 N.B.

CALC. BY			
DATE		HAM–71–1.30/9.00	OHIO
CHKD. BY			F.H.W.A. REGION 5
DATE			

178 / 401

GRAPHIC SCALE IN FEET 50 0 50 100 150

29+92 LT GF
PB
30+30 RT GF
L5–B10 TYPE II
18+25 LIBERTY
PB
18+35 LIBERTY
SIGN 875 W
13TH STREET
LIBERTY STREET
MATCH LINE ℄ READING ROAD
RAMP GF
RAMP GG
32+19 RT GF
L5–B9 TYPE II
33+24 RT GF
JB
34+00 LT GG
L5–C11 TYPE II
34+11 RT GF
L5–B8 TYPE II
CIR L5–B
CIR L5–C
18" STM.
30+30.5 RT GG
PB
7+80 LT READING
SIGN 375 W
30+97 LT GG
L5–C13 TYPE II
32+44 LT GG
L5–C12 TYPE II
173+92 NB I–71
JB FOR UNDERPASS
6" X 12" X 8"
SURFACE MTD
JUNCTION BOX
DRILL THROUGH RETAINING WALL AND PROVIDE WATER TIGHT SEAL AROUND 2" RIGID METAL CONDUIT. CIRCUIT CL7–A
32+59 LT GILBERT
PB
7+70 LT READING
PB
8+45 LT READING
PB
READING ROAD
PROPOSED 2" RIGID METAL CONDUIT ATTACHED TO STRUCTURE
STM & SAN COMB.
CIR CL7–A
CIR L7–A
174+98 73' RT NB I–71
PB
175+01 73' RT NB I–71
PB
MAINTAIN TRAFFIC CONTROL CIRCUITS. COORDINATE EXACT LOCATION WITH LIGHTING CIRCUITS.
24+56 LT SB GILBERT *
L6–A7 TYPE III
168+75 LT GA
L6–A8 TYPE III
169+80 GA
PB
34+89 LT GG
JB
25GBS
25GBN
RAMP GA
SOUTHBOUND GILBERT AVE.
NORTHBOUND GILBERT AVE.
164+35 NB I–71
L5–A9 TYPE III
36+56 LT GG
JB
35+70 LT GG
L5–C10 TYPE II
27+75 SB GILBERT *
L6–A6, TYPE III
166+15 NB I–71
L5–A10 TYPE III
SOUTHBOUND I–71
NORTHBOUND I–71
Bridge No. Ham–71–0202
Match Line Sta. 164+00 N.B.
168+25 NB I–71
L5–A11 TYPE III
167+86 GD
L7–A4 TYPE II
164+26 GD
L7–A2 TYPE II
Exist. Retaining Wall No. 21
166+06 GD
L7–A3 TYPE II
37+42 LT GG
L5–C9 TYPE II
38+27 LT GG
JB
169+66 GD
L7–A5 TYPE II
169+80 SB I–71
L6–A3 TYPE III
171+00 GD
L7–A6 TYPE III
171+13 LT NB I–71
PB
171+70 LT SB I–71
JB
172+62 NB I–71
PB
172+10 LT SB I–71
JB
171+03 CL NB I–71
SIGN 500 W
33+19 LT GILBERT
INSERT "A"
NTS
EXISTING TRAFFIC CONTROLLER TO REMAIN
33+45 LT GILBERT
PB (TRAFFIC CONTROL)
172+20 LT SB I–71
SIGN 350 W
171+50 LT GA
L6–A9 TYPE II
173+57 LT GA
PB
173+73 LT SB I–71
JB
172+83 SB I–71
L6–A4 TYPE III
174+46 NB I–71
JB
32+63 LT GILBERT
PB
174+78 NB I–71
L7–A7 TYPE III
STATE OF OHIO CONTROL CENTER L7 174+98 69' RT NB I–71 CIRCUIT L7–A
CITY OF CINCINNATI CONTROL CENTER CL7 175+01 69' RT NB I–71 CIRCUIT CL7–A
175+22 NB I–71
JB FOR UNDERPASS
175+04 NB I–71
PB
15+62 RT EL
PB
CIR L7–A
16+68 RT EL
TRAFFIC P.B. TO REMAIN
10+67 48' LT EL
PB
11+32 48' LT EL
PB
11+39 45' LT EL(N)
SIGN 275 W
STATE OF OHIO CONTROL CENTER L6 13+25 ELSINOR PLACE CIRCUIT L6–A
13+25 54' RT EL
PB
174+20 SB I–71
L6–A5 TYPE III
173+66 NB I–71
L6–A1 TYPE III
173+65 LT GA
L6–A10 TYPE III
CIR L6–A
RET WALL #28
PIER NO. 2
PIER NO. 1
Bridge No. Ham–71–0221
Penn. R.R. Bridge (Northbound)
SOUTHBOUND I–71
NORTHBOUND I–71
173+66 10' LT NB I–71
PB
MAINTAIN EXISTING LIGHTING CIRCUIT FOR GILBERT AVE.
CIR L7–A
CIR CL7–A
STATE OF OHIO CONTROL CENTER L7
CITY OF CINCINNATI CONTROL CENTER CL7
10+94 EL(N)
L9–B2 TYPE III
11+35 LT EL(N)
PB
10+64 48' LT EL
76°30' CLOCKWISE
L9–B3 TYPE III
10+43 CL EL
PB
13+29 RT SB READING
L9–B1 TYPE III
13+33 39' RT SB READING
PB
13+33 62' RT SB READING
PB
14+11 SB READING
PB
14+17 RT SB READING
PB
14+70 10' LT NB READING
L9–A15 TYPE III
14+79 SB READING
SB READING RD.
NB READING RD.
175+50 RT RD
SIGN 450 W
175+56 RT RD
PB
15+40 RT NB READING
PB
CIR L9–A
176+37 RD
L9–C1 TYPE II
16+35 NB READING
L9–B5 TYPE II
14+20 SB READING
SIGN 200 W
12+40 EL(N)
L9–B4 TYPE III
177+63 SB I–71
L9–A7 TYPE III
175+15 LT SB I–71
JB
ELSINORE PL.
Northbound Bridge No. Ham–71–0220
Southbound Bridge No. Ham–71–0221
176+52 GA
L9–A12 TYPE II
CIR L9–B
178+97 RT GA
JB
CIR L9–C
177+97 RT GA
JB
Match Line Sta. 179+00 N.B.
176+33 SB I–71
L6–A2 TYPE III
176+30 NB I–71
L7–A8 TYPE III
177+63 RD
L9–C2 TYPE II
178+85 SB I–71
L9–C12 TYPE III
178+82 NB I–71
L9–C8 TYPE III
177+62 NB I–71
L7–A9 TYPE III
TRAFFIC CONTROL P.B. WITH #12 LIGHTING CIRCUIT
175+05 LT NB I–71
PB

* A 10' BRACKET ARM LENGTH AND 35' MOUNTING HEIGHT IS USED TO MATCH EXISITING LIGHT POLES.

CODED NOTES:

1. SEE INSERT "A".

STA. 164+00 TO STA. 179+00 N.B.

CALC. BY DATE	HAM–71–1.30/9.00	OHIO F.H.W.A. REGION 5	179 / 401
CHKD. BY DATE			

50 0 50 100 150
GRAPHIC SCALE IN FEET

CODED NOTES

1. FOR CONTINUATION OF CIRCUIT TO CONTROL CENTER, SEE SHEET 182/401.

181+25 LT SB I–71
L9–A9 TYPE III

180+61 LT SB I–71
SIGN 700 W

180+51 LT SB I–71
PB

180+18 LT GA
L9–A13 TYPE II

179+96 LT SB I–71
L9–A8 TYPE III

16+32 RT SB READING
L9–A16 TYPE III

19+33 RT SB READING
PB

19+15 LT SB READING
SIGN 275 W

182+35 LT GA
L9–A14 TYPE II

19+05 LT SB READING
PB

182+18 LT RB
L9–A1 TYPE II

CIR L9–B=3 #2
& L9–C=3 #4

CIR L9–A

CIR L9A

19+33 LT SB READING
PB

19+36 LT SB READING
PB

STATE OF OHIO CONTROL CENTER L9
19+39 S.B. READING
CIRCUIT L9–A, L9–B & L9–C

19+36 RT SB READING
PB

182+48 LT GA
PB

19+55 RT SB READING
L9–A17 TYPE III

184+52 LT GA
L9–A18 TYPE II

182+48 RT GA
PB

183+00 LT SB I–71
L9–A10 TYPE III

186+46 LT SB I–71
L10–B1 TYPE III

186+26 LT RF
L9–A3 TYPE II

22+64 RT SB READING
L9–A19 TYPE III

184+73 LT SB I–71
L9–A11 TYPE III

400 W M.V. LUMINAIRE ON UTILITY POLE OWNED BY C.G. & E. TYPICAL

188+86 RT GA
L10–B2 TYPE III

188+16 LT SB I–71
L10–B3 TYPE III

26+24 LT NB READING
L9–A6 TYPE III

190+33 LT RA
L10–A1 TYPE III

189+67 LT SB I–71
L10–B4 TYPE III

192+77 LT SB I–71
L10–B6 TYPE III

192+09 LT RA
SIGN 1050 W

191+63 LT RA
L10–A2 TYPE III

191+22 LT SB I–71
L10–B5 TYPE III

DORCHESTER ST.

192+66 LT RA
JB

193+00 LT RA
JB

CIR L10–A

193+18 LT RA
L10–A3 TYPE III

CIR L10–B

CIR L11–C

CIR L11–B

192+95 LT NB I–71
L11–B5 TYPE III

CIR L11–A

191+35 RT RE
L11–C3 TYPE II

18+92 RT NB READING
L9–B7 TYPE II

17+61 RT NB READING
L9–B6 TYPE II

Match Line Sta. 179+00 N.B.

Match Line Sta. 193+00 N.B.

Bridge No. HAM–71–0228

Bridge No. HAM–71–0235R

Bridge No. HAM–71–0243L

Bridge No. HAM–71–0243R

Bridge No. HAM–42–0264R

Bridge No. HAM–42–0257R

Exist Retaining Wall No. 24

Exist Retaining Wall No. 31

Exist Retaining Wall No. 32

Exist Retaining Wall No. 33

Exist Retaining Wall No. 34

Exist Retaining Wall No. 35

Exist. Retaining Wall No. 36

Exist. Retaining Wall No. 37

Exist Retaining Wall No. 38

Exist Retaining Wall No. 39

SOUTHBOUND READING RD.

NORTHBOUND READING RD.

SOUTHBOUND I–71

NORTHBOUND I–71

NORTHBOUND I–71

12' BRACKET
SOUTHBOUND I–71

182+45 RT GA
JB

183+78 RT RB
SIGN 250 W

183+88 RT RB
PB

182+67 RT SB I–71
RB

184+61 LT RF
PB

184+38 LT RB
L9–A2 TYPE II

20+76 RT NB READING
JB

187+84 LT SB I–71
PB

187+50 RT RE
L11–C1 TYPE III

187+25 RT RC
SIGN 700 W

181+68 LT RC
SIGN 525 W

181+73 LT RC
PB

182+67 11' LT RC
PB

182+67 LT RC
JB

22+67 NB READING
L9–A4 TYPE II

187+45 LT NB I–71
L11–B2 TYPE III

187+35 RT RC
PB

EXIST EMPTY 2" CONDUIT TO REMAIN

186+75 RT NB I–71
L11–A1 TYPE III

189+40 RT RE
L11–C2 TYPE II

188+33 RT NB I–71
L11–A2 TYPE III

190+13 RT NB I–71
L11–A3 TYPE III

189+20 LT NB I–71
L11–B3 TYPE III

190+27 RT RB
L11–C6 TYPE III

191+03 LT NB I–71
L11–B4 TYPE III

191+96 RT NB I–71
L11–A4 TYPE III

178+95 RT RD
L9–C3 TYPE II

179+82 LT NB I–71
PB

179+84 LT NB I–71
L9–C13 TYPE III

179+55 RT RD
PB

180+25 RT RD
L9–C4 TYPE II

180+90 RT NB I–71
L9–C9 TYPE III

182+05 LT NB I–71
L9–C14 TYPE III

181+52 RT RD
L9–C5 TYPE II

182+64 RT SB I–71
PB

182+73 RT NB I–71
PB

182+80 RT RD
L9–C6 TYPE II

182+86 RT RD
PB

182+87 RT NB I–71
L9–C10 TYPE III

21+08 RT NB READING
L9–B8 TYPE II

184+81 RT RD
L9–C7 TYPE II

184+43 RT NB I–71
L9–C11 TYPE III

185+74 LT NB I–71
L11–B1 TYPE III

24+46 LT NB READING
L9–A5 TYPE II

STA. 179+00 TO STA. 193+00 N.B.

CALC. BY		HAM–71–1.30/9.00	OHIO	180/401
CHKD. BY			F.H.W.A. REGION 5	
DATE				

CODED NOTE

1. EXTEND 2" GALV. CONDUIT FROM EXISTING CONDUIT INTO LIGHT POLE FOUNDATION.
2. FOR CONTINUATION OF CIRCUIT TO CONTROL CENTER BELOW, SEE SHEET 182/401.

50 0 50 100 150
GRAPHIC SCALE IN FEET

194+31 SB I–71
L10–B7 TYPE III

194+77 LT RA
L10–A4 TYPE II

194+74 LT SB I–71
JB

Sta. 39+00 Match Line READING RD.

SOUTHBOUND READING RD.

NORTHBOUND READING RD.

READING RD.

RAMP RF

194RF

32NBR

CIR L10–A

Bridge No. HAM–71–0243R

194RA

15 EP

194CA

CIR L10–B

Bridge No. HAM–71–0243L

194SB

RAMP RB

CIR L11–B

196SB

FLORENCE AVE.

194RE

CIR L11–A

EDEN PARK DR.

19 EP

3 #4 & 4 #12 P.E. CONTROL CABLES

193+92 NB I–71
L11–A5 TYPE III

194+11 LT NB I–71
JB

194+45 RT NB I–71
JB

194+44 LT NB I–71
JB

195+87 RT SB I–71
JB

196+55 LT SB I–71
L10–A5 TYPE II

197+78 LT SB I–71
PB

197+32 RT SB I 71
L10–B9 TYPE III

197+88 SB I–71
SIGN 1200 W

195+90 RT SB I–71
L10–B8 TYPE III

196RA

RAMP RA & GA

196GA

198RA

196SB

198SB

196RB

196RE

195+90 RT NB I–71
L11–A6 TYPE III

194+89 LT NB I–71
L11–B6 TYPE III

197+00 RT NB I–71
JB

196+95 LT NB I–71
L11–B7 TYPE III

198+55 SB I–71
L10–A6 TYPE III

198+39 LT NB I–71
PB

199+38 LT NB I–71
L11–B8 TYPE III

199+88 RT SB I–71
L10–B10 TYPE III

198NB

198+54 LT NB I–71
JB

198+00 NB I–71
L11–A7 TYPE III

Exist. Retaining Wall No. 42

199+38 RT NB I–71
PB

200+75 RT NB I–71
L11–A8 TYPE III

200RA

SOUTHBOUND I–71

200SB

200NB

201+25 LT SB I–71
L10–A7 TYPE III

202+08 LT NB I–71
L11–B9 TYPE III

202+58 RT SB I–71
L10–B11 TYPE III

203+64 LT SB I–71
L10–A8 TYPE III

202SB

202NB

206+60 RT SB I–71
L8–A8 TYPE III

205+10 LT SB I–71
L10–A9 TYPE III

204SB

204NB

NORTHBOUND I–71

203+28 RT NB I–71
L8–A1 TYPE III

204+48 LT NB I–71
L8–A6 TYPE III

MANITOU ST.

208+20 LT SB I–71
L8–A11 TYPE III

SYMMES ST.

Exist Retaining Wall No. 41

CIR L8–A

206SB

206NB

208SB

Match Line Sta. 208+00 N.B. I–71

CIR L8–A

Ex. Penn. Railroad Tracks

206+87 LT NB I–71
L8–A7 TYPE III

206+28 LT NB I–71
JB

205+68 RT NB I–71
L8–A2 TYPE III

42+70 READING
SIGN 200 W

42+60 READING
PB

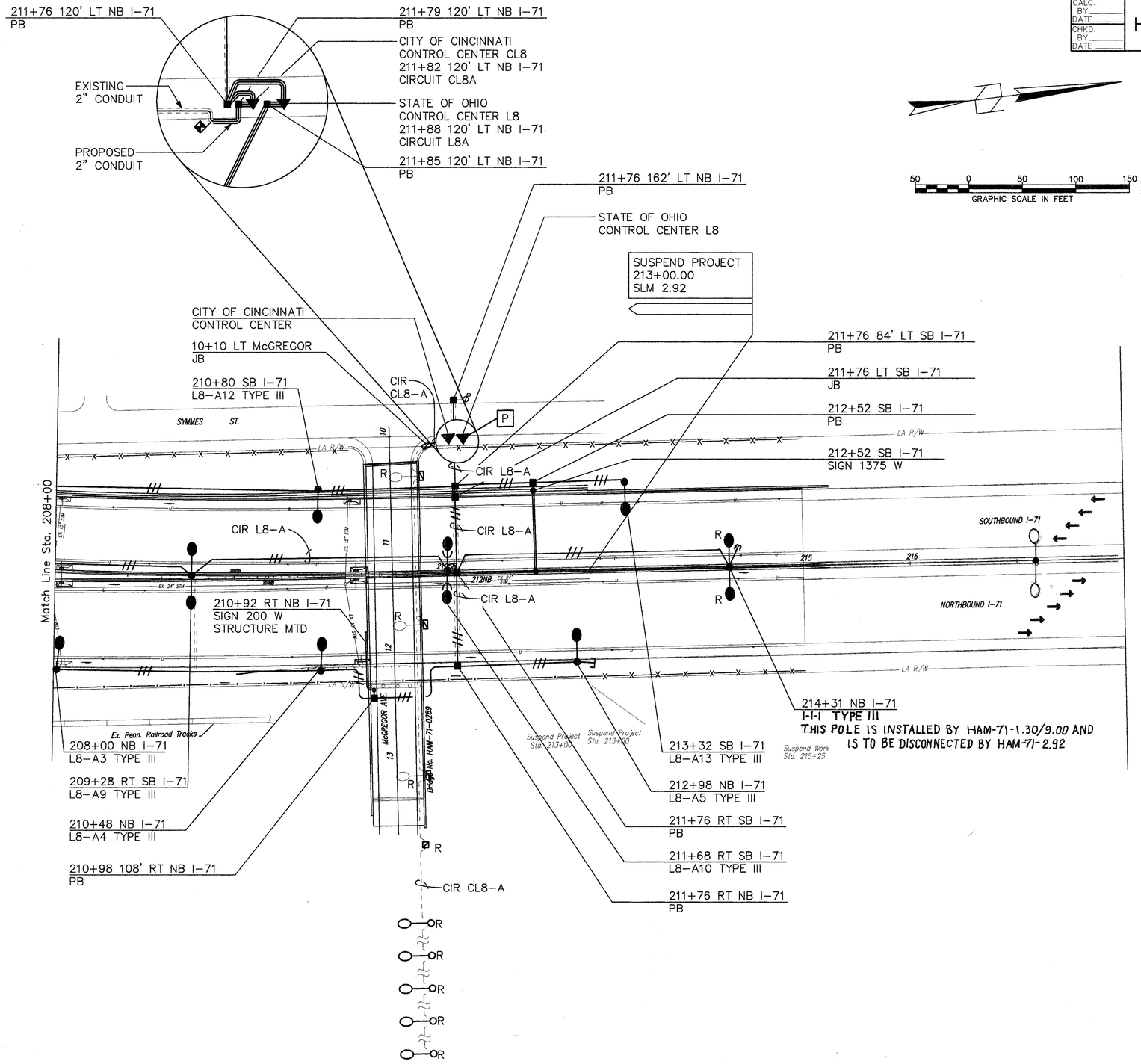
41+90 READING
PB

Sta. 39+00 Match Line READING RD.

FOR LOCATIONS OF CONTROL CENTERS L10, CL10, L11, CL11 AND UNDERPASS LIGHTING, SEE SHEET 182/401.

STA. 193+00 TO STA. 208+00 N.B.

CALC. BY		HAM-71-1.30/9.00	OHIO	181
DATE			F.H.W.A. REGION 5	401
CHKD. BY				
DATE				



STA. 208+00 TO STA. 218+00 N.B.

CALC. BY		HAM–71–1.30/9.00	OHIO	182/401
CHKD. BY			F.H.W.A. REGION 5	
DATE				

GENERAL NOTES:

1. ALL DEVICES ON DORCHESTER ST. ARE IDENTIFIED AS STATIONED ON EDEN PARK. THIS IS CONSISTENT WITH THE STATIONING SHOWN ON THE EXISTING CONSTRUCTION DOCUMENTS FOR THIS PROJECT.
2. REFER TO GENERAL NOTES SHEET FOR "VERIFICATION OF EXISTING CONDITIONS".

CODED NOTES:

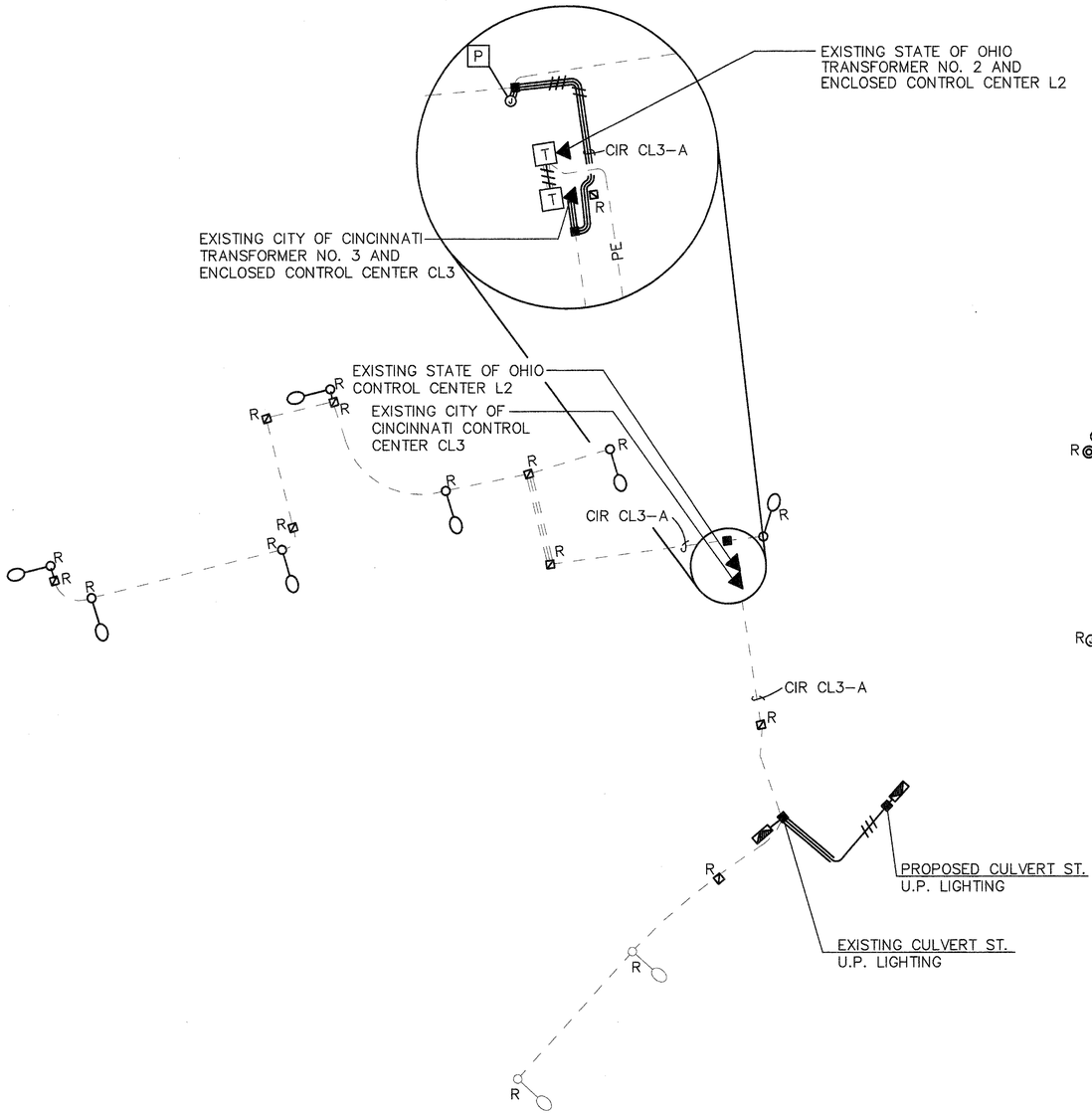
1. SEE INSERT "A" THIS SHEET.
2. SEE INSERT "B" THIS SHEET.
3. FOR CONTINUATION OF CIRCUIT, SEE SHEET 179/401.
4. FOR CONTINUATION OF CIRCUIT, SEE SHEET 180/401.

GRAPHIC SCALE IN FEET 50 0 50 100 150

9+93 RT EP
SIGN 100 W
9+96 RT EP
PB
10+12 LT EP
CL10–A2 TYPE III
11+79 RT EP
CL10–A1 TYPE III
DORCHESTER ST.
11+83 LT EP
PB
30+00 LT SB READING
PB
13+10 LT EP
CL10–A3 TYPE III
PULL BOX FOR TRAFFIC TO REMAIN (TYPICAL)
13+38 LT EP
PB
31+23 LT SB READING
PB
LIGHT AND UTILITY POLE
OWNED BY C.G. & E.
LIGHT IS ON A UTILITY CIRCUIT
31+47 LT SB READING
PB
32+87 CL NB READING
PB
14+96 40' LT EP
PB
33+83 RT NB READING
CL10–A5 TYPE III
35+82 RT NB READING
CL10–A6 TYPE III
See Sht. 180/401
35+53 RT NB READING
SIGN 375 W
35+43 RT NB READING
PB
STATE OF OHIO CONTROL CENTER L10
15+12 50' LT EDEN PARK CIRCUITS
L10–A, L10–B & L10–C
192+77 LT SB I–71
JB
191+63 LT RA
JB
191+22 LT SB I–71
JB
28+26 LT NB READING
L11–C7 TYPE II
189+67 LT SB I–71
JB
13+80 RT EP
PB
14+90 LT EP
CL10–A4 TYPE III
Southbound READING RD.
192+66 LT RA
JB
RAMP RF
CIR CL10–A
STATE OF OHIO
CONTROL CENTER L10
CITY OF CINCINNATI
CONTROL CENTER CL10
Bridge No. HAM–42–0264R
Bridge No. HAM–71–0243L
CIR CL10–A
16+45 RT EP
CL10–A7 TYPE III
CIR L11–C
193+21 RT RB
PB
Ramp RB
Ramp RC
Bridge No. HAM–42–0257R
EXISTING 3" CONDUIT
CIR L11–C
Ramp RE
192+98 RT RE
PB
193+04 RT RE
L11–C4 TYPE III
Bridge No. HAM–71–0243R
29+21 RT NB READING
L11–C8 TYPE II
192+16 RT RB
L11–C5 TYPE II
16+49 RT EP
EXISTING TRAFFIC
CONTROL PULL BOX
193+76 RT RE
PB
CIR L10–B
4
194+11 LT NB I–71
JB
195+08 LT RB
CL10–A8 TYPE III
CIR CL10–A
16+35 LT EP
PB
RAMP RA & GA
Southbound I–71
194+89 LT NB I–71
JB
CIR CL11–A
18+30 LT EP
PB
LIGHT AND UTILITY POLE
OWNED BY C.G. & E.
TO REMAIN
19+28 LT EP
PB
19+31 LT EP
SIGN 100 W
194+45 RT NB I–71
JB CIR CL11–A
194+95 RT FLORENCE AVE
PB
194+95 RT FLORENCE AVE
PB
CITY OF CINCINNATI CONTROL CENTER CL11
194+99 90' RT FLORENCE AVE
CIRCUIT CL11–A
FLORENCE AVE.
195+90 RT NB I–71
JB
195+00 RT FLORENCE AVE.
PB
CIR L11–B
CIR L11–C
CIR L11–B & L11–C
EXISTING 2" CONDUIT UP TO JUNCTION BOX ON STRUCTURE ABOVE. CIR. L11–A WITH 3 #4 AND 4 #10 P.E. CONTROL WIRES
STATE OF OHIO CONTROL CENTER L11
195+02 90' RT FLORENCE AVE.
CIRCUITS L11–A, L11–B & L11–C
LIGHT AND UTILITY POLE
OWNED BY C.G. & E.
TO REMAIN
FLUSH MOUNTED
ISLAND LIGHT TO
BE ABANDONED
15+07 52' LT EDEN PARK
PB
15+12 52' LT EDEN PARK
PB
CIR L10–B
CIR CL10–A
CITY OF CINCINNATI
CONTROL CENTER CL10
15+15 50' LT EDEN PARK
CIRCUITS CL10–A
194+77 LT RA
JB CIR CL10–A
EXISTING 2" CONDUIT UP
TO JUNCTION BOX ON
STRUCTURE ABOVE, CIR
L10–A WITH 3 #4 AND 4
#10 P.E. CONTROL WIRES
15+15 52' LT EDEN PARK
PB
15+60 45' LT EDEN PARK
PB
194+74 LT SB I–71
JB CIR CL10–A
CIR CL10–A
CIR L10–B
15+63 45' LT EDEN PARK
PB
193+18 LT RA
JB
LUMINAIRE CL10–A9
WITH 15' BRACKET ARM
MOUNTED ON COLUMN
NEAR 31+35 5' LT
NORTHBOUND
READING, TYPE III DIST
193+00 LT RA
JB
EXISTING 2"
GALV. CONDUIT
DOWN TO
LUMINAIRE
INSERT "A"
NTS
EXISTING 2"
GALV. CONDUIT
DOWN TO PULL BOX
EXISTING TRAFFIC
CONTROL DEVICES
TO REMAIN
17+02 54' LT EP
PB
17+05 54' LT EP
PB
CIR CL11–A
CIR L11–B
194+44 LT NB I–71
JB
INSERT "B"
NTS

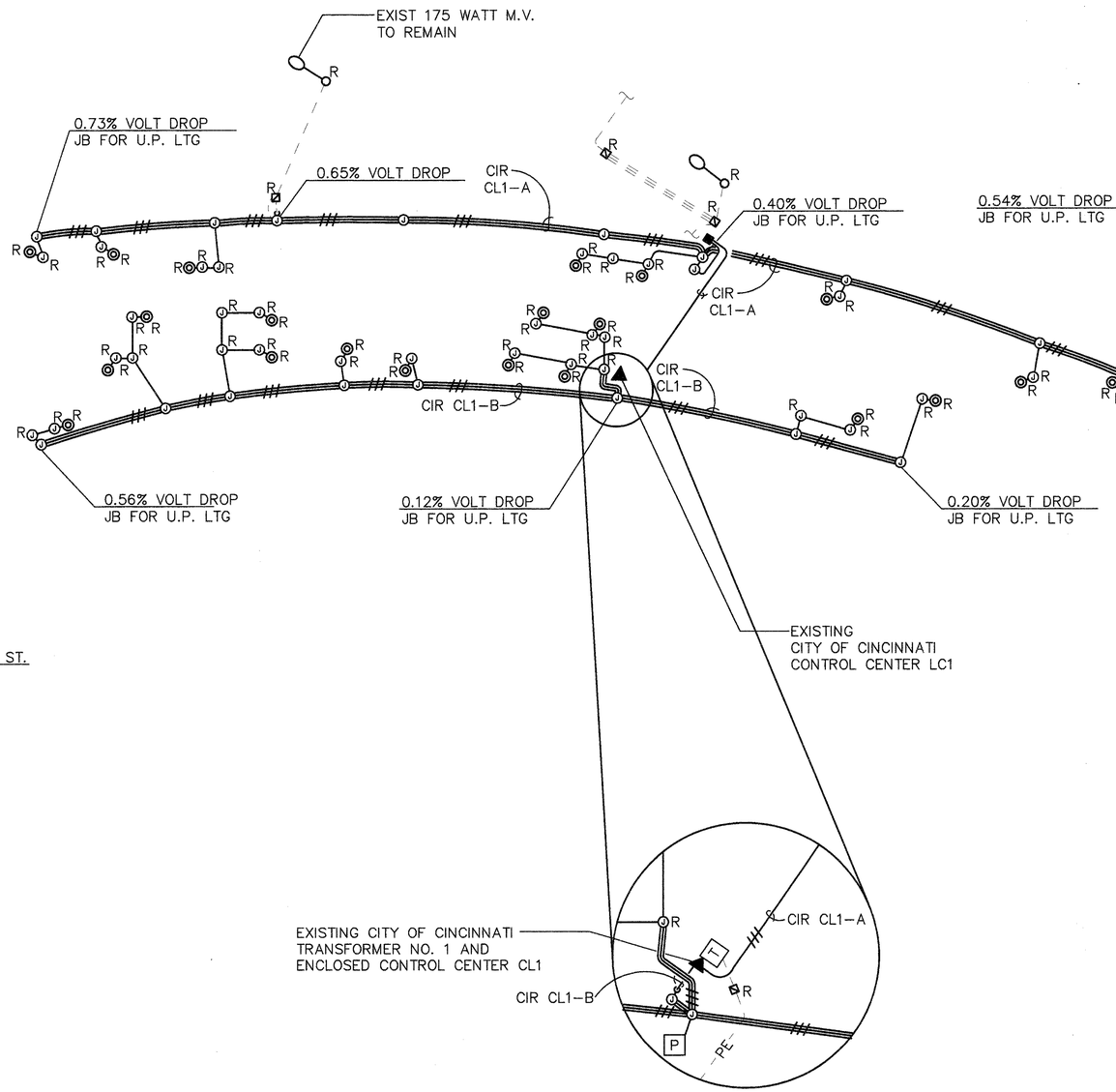
CALC. BY DATE	HAM–71–1.30/9.00	OHIO
CHKD. BY DATE		F.H.W.A. REGION 5

183
401



A VOLTAGE DROP CALCULATION FOR CIRCUIT CL3–A WAS NOT DONE DUE TO THE SIGNIFICANT REMOVAL OF EXISTING LIGHTING LOAD.

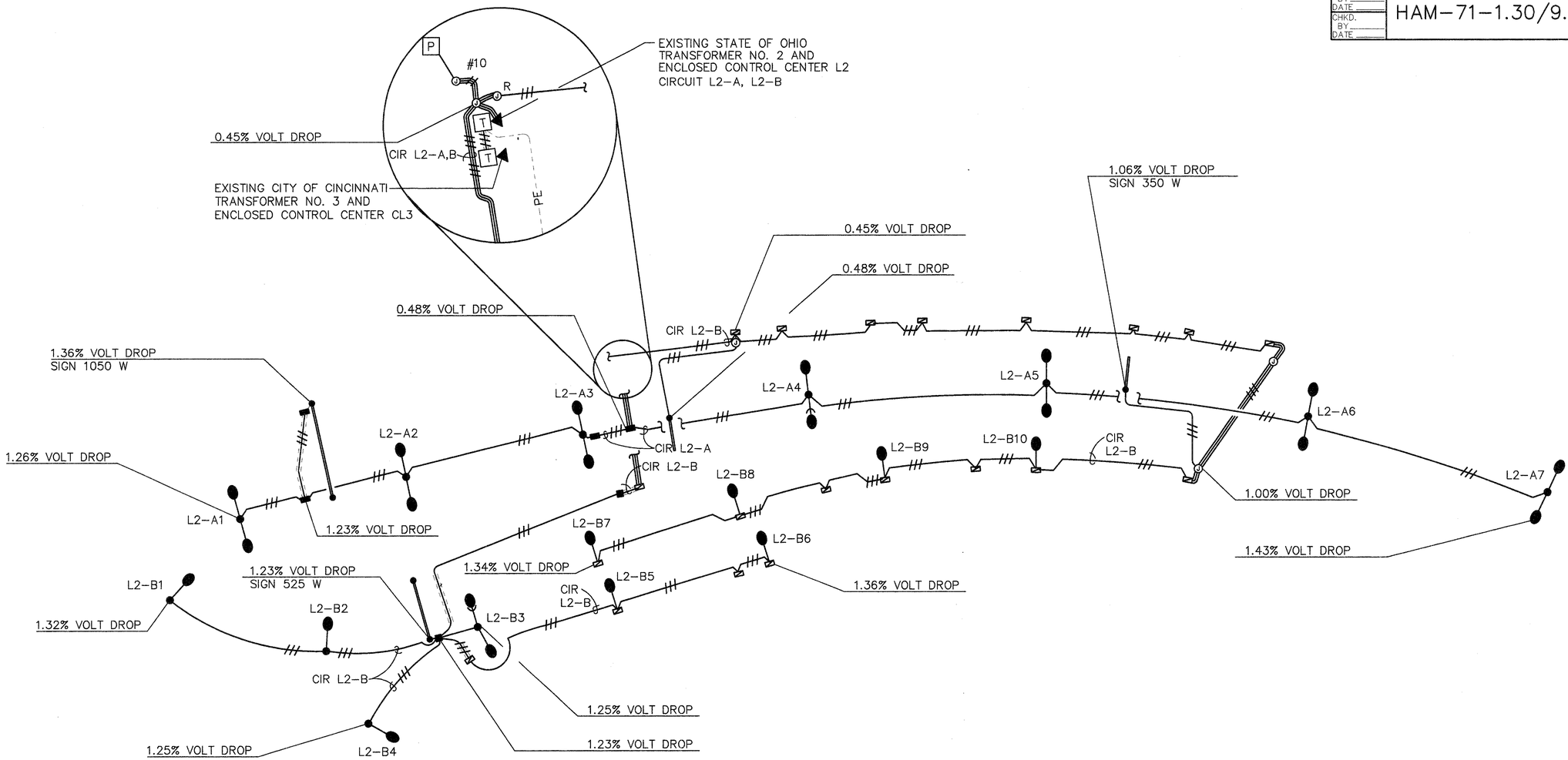
CONTROL CENTER CL3
CIRCUIT CL3–A NTS



CONTROL CENTER CL1
CIRCUIT CL1–A, CL1–B NTS

REL 12 EC-1 C:\88090\V134-UP.DWG OCTOBER-20-1994 USER: MBAKER TIME:10:27

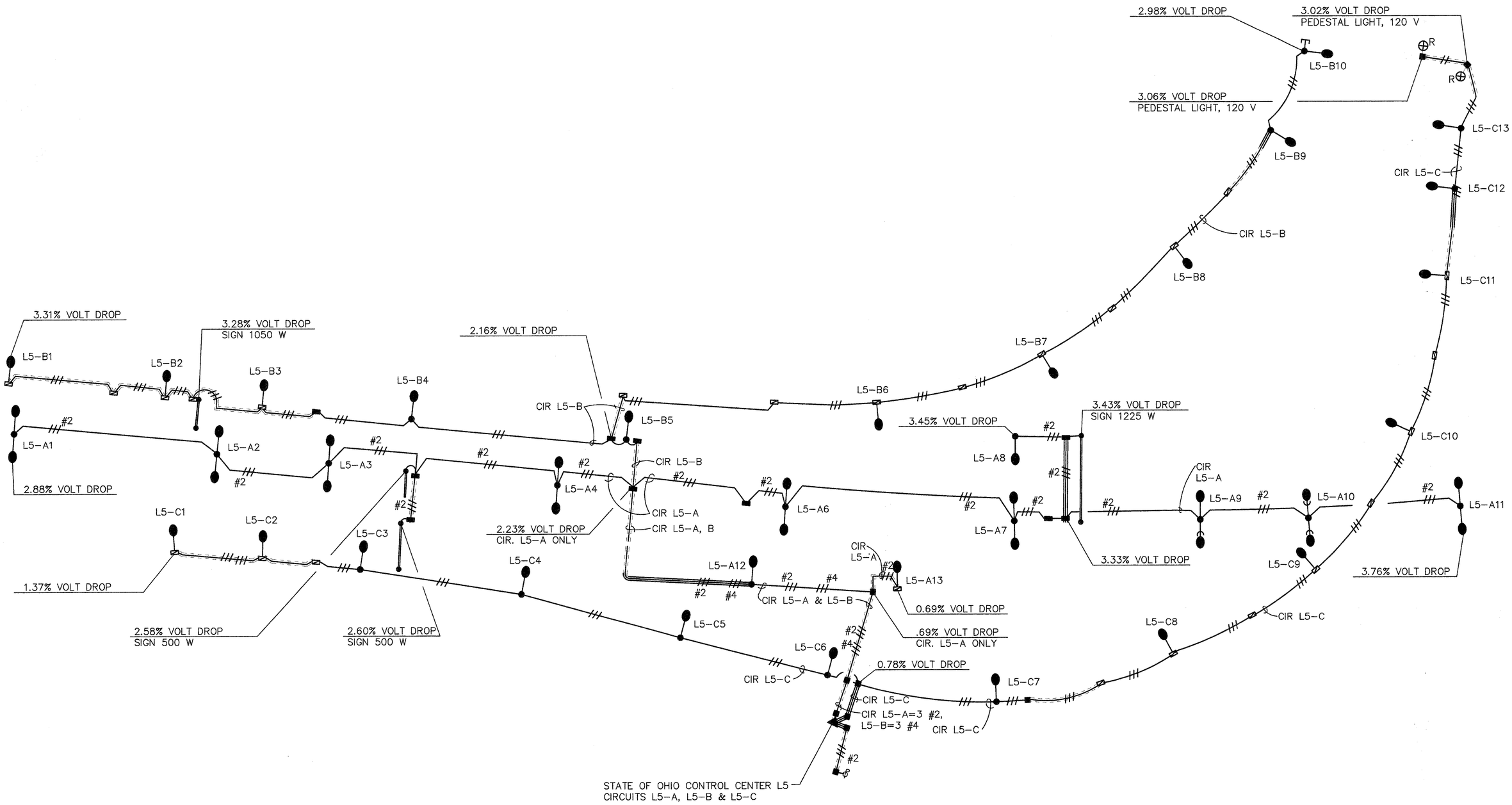
CALC. BY		HAM–71–1.30/9.00	OHIO	184
CHKD. BY			F.H.W.A. REGION 5	401



CONTROL CENTER L2
CIRCUIT L2–A, L2–B NTS

EL-1 G:\DGN\V8I\DWG\OCTOBER-20-1994 USER: MBARLY TIME: 10:29

CALC. BY DATE	HAM–71–1.30/9.00	OHIO	185 401
CHKD. BY DATE		F.H.W.A. REGION 5	

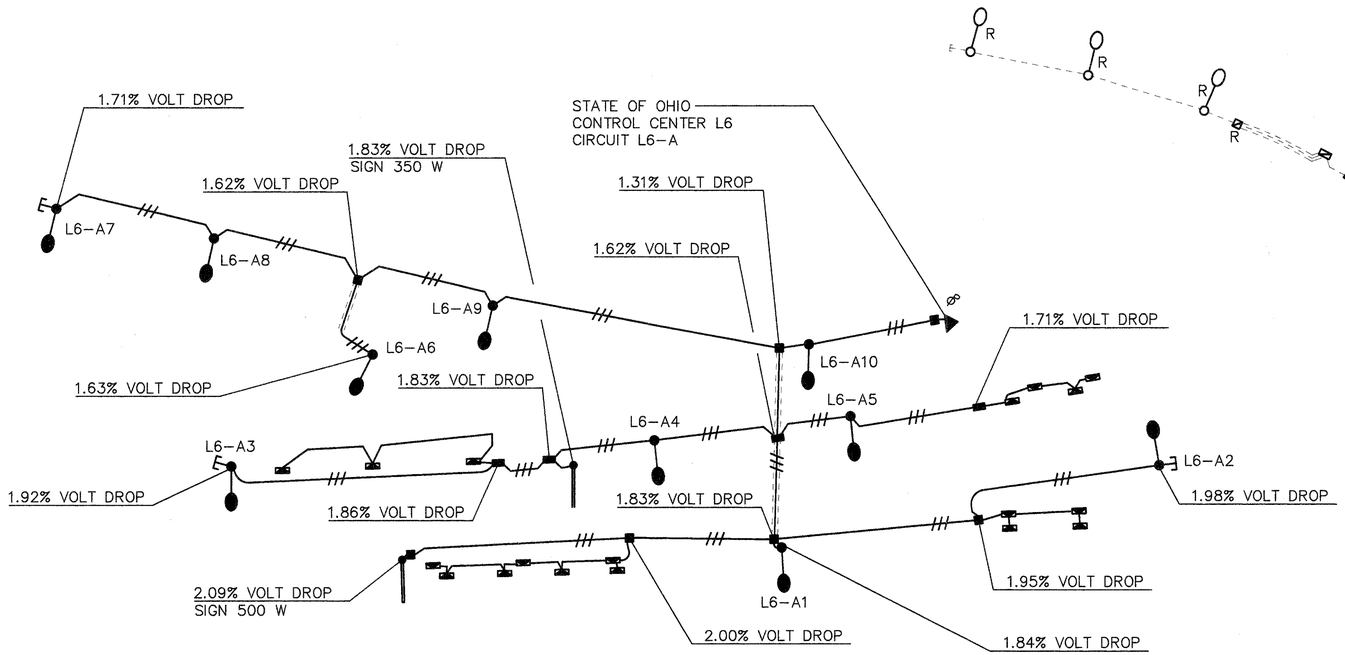


CONTROL CENTER L5

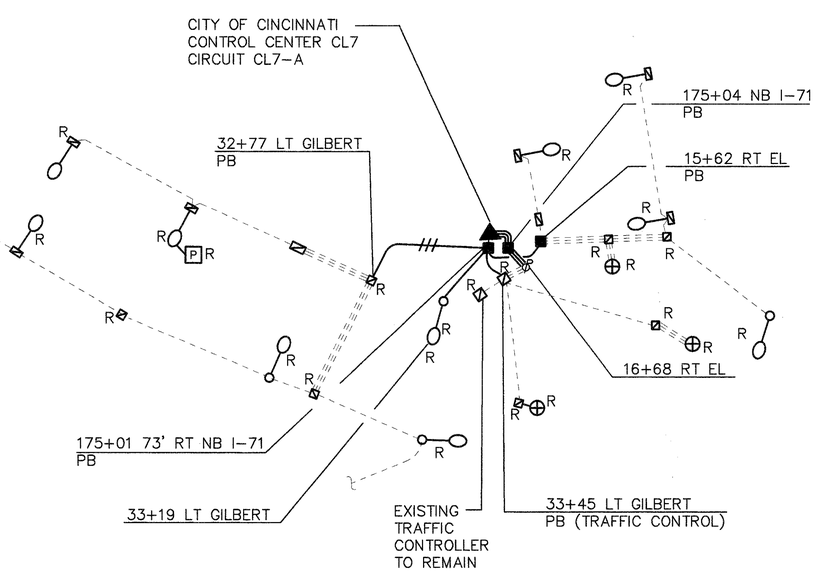
CIRCUIT L5–A, L5–B, L5–C NTS

EC-1 C:\8800\V1491.DWG OCTOBER-20-1994 USER: MBAKER TIME: 10:32
REL 12

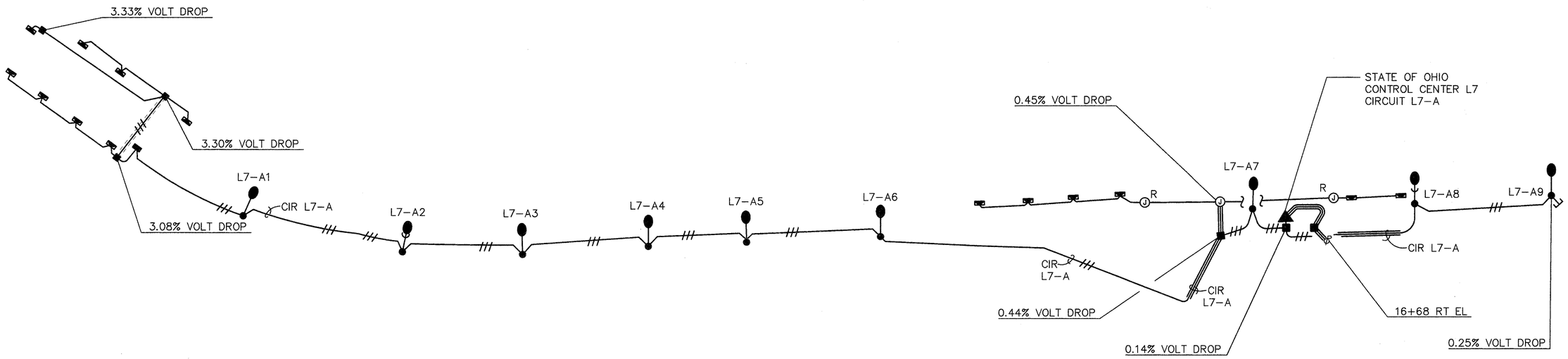
CALC. BY		HAM–71–1.30/9.00	OHIO	186
CHKD. BY			F.H.W.A. REGION 5	401
DATE	DATE			



CONTROL CENTER L6
CIRCUIT L6–A NTS



CONTROL CENTER CL7
CIRCUIT CL7–A NTS

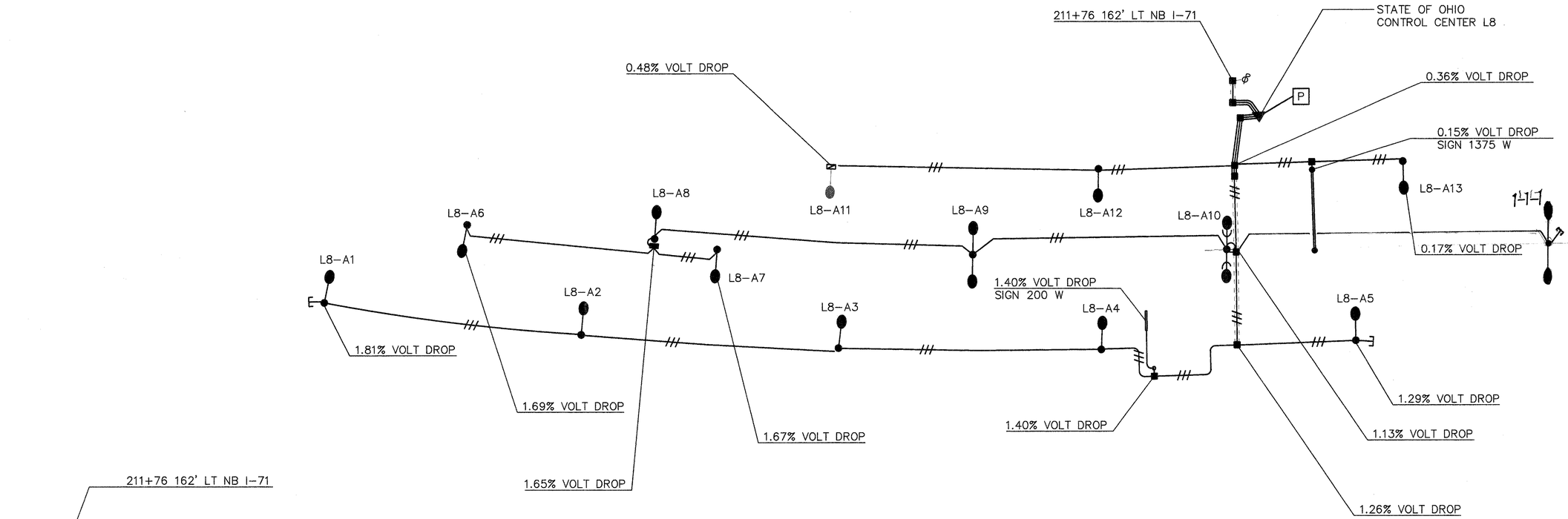


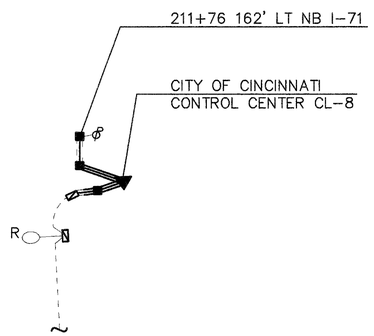
CONTROL CENTER L7
CIRCUIT L7–A NTS

EC–1 C:\98090\V104.DWG OCTOBER–20–1994 USER: MBAKER TIME: 10:33

CALC. BY DATE	HAM–71–1.30/9.00	OHIO
CHKD. BY DATE		F.H.W.A. REGION 5

187/401





A VOLTAGE DROP CALCULATION FOR CIRCUIT CL8 WAS NOT DONE DUE TO NO LOAD MODIFICATIONS.

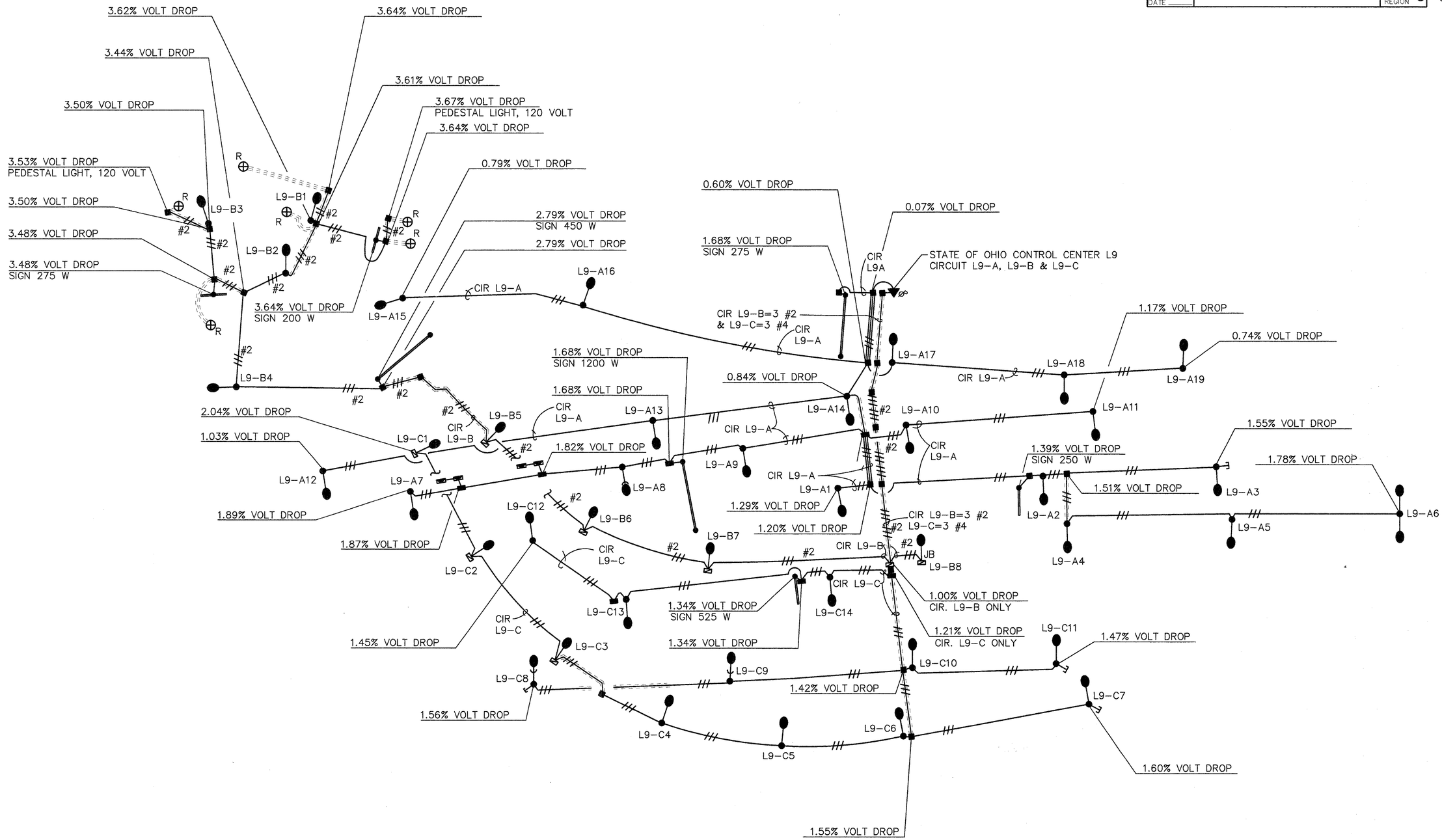
CONTROL CENTER CL8
CIRCUIT CL8–A NTS

CONTROL CENTER L8
CIRCUIT L8–A NTS

CIRCUIT SCHEMATICS

EC–1 C:\88090\V208.DWG OCTOBER–20–1994 USER: MBAKER TIME:10:40
XL 12

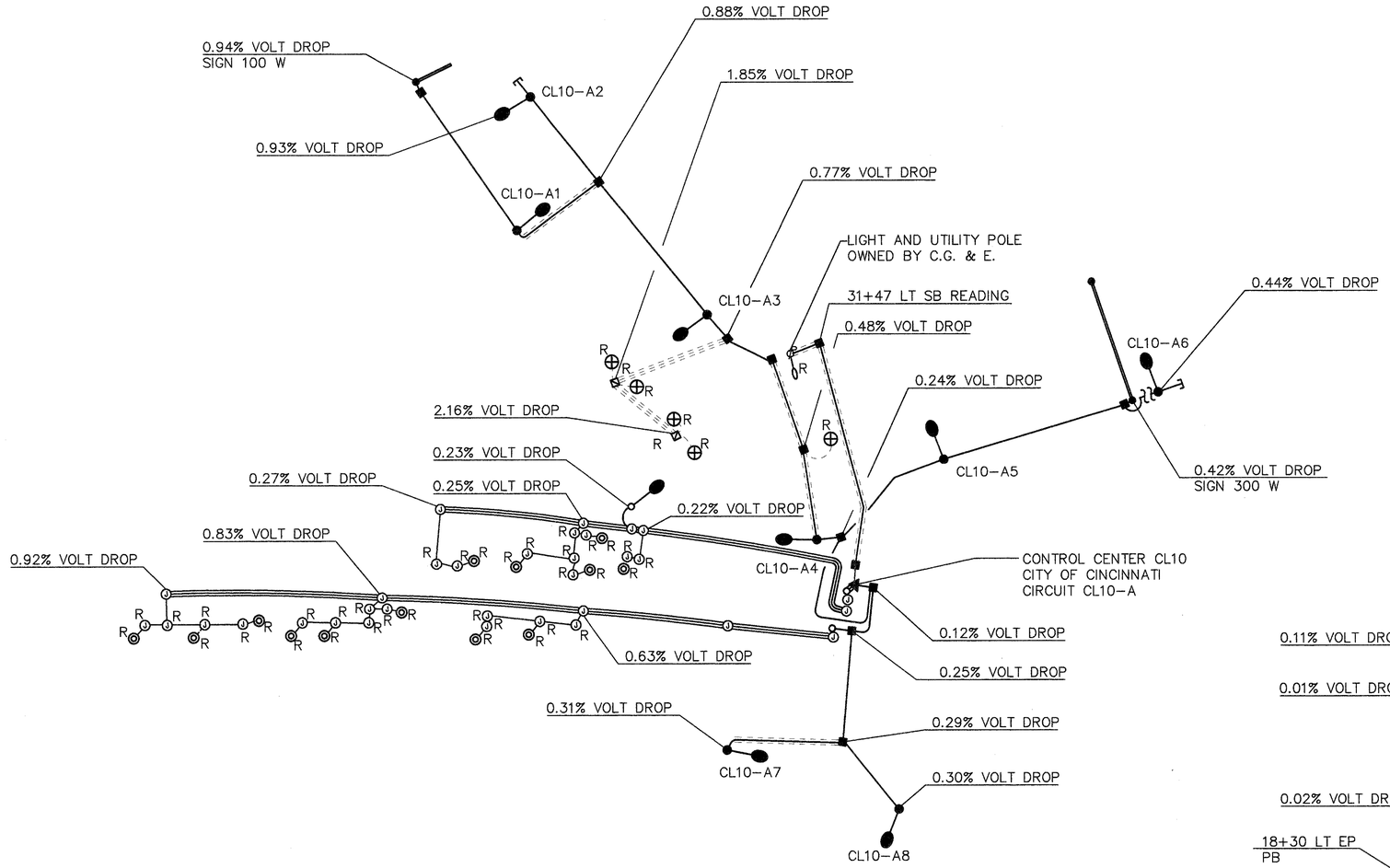
CALC. BY		HAM–71–1.30/9.00	OHIO	188
DATE			F.H.W.A. REGION 5	401
CHKD. BY				
DATE				



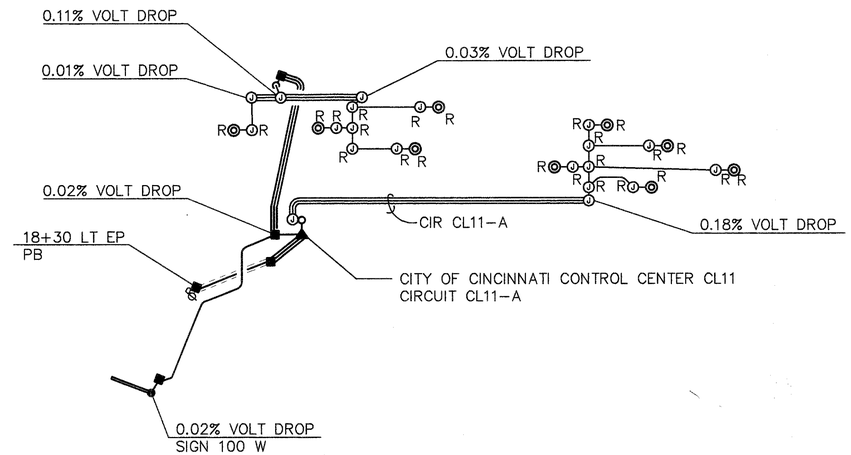
CONTROL CENTER L9

CIRCUIT L9–A, L9–B, L9–C NTS

CALC. BY		HAM–71–1.30/9.00	OHIO	189 401
CHKD. BY			F.H.W.A. REGION 5	
DATE				



CONTROL CENTER CL10
CIRCUIT CL10–A NTS

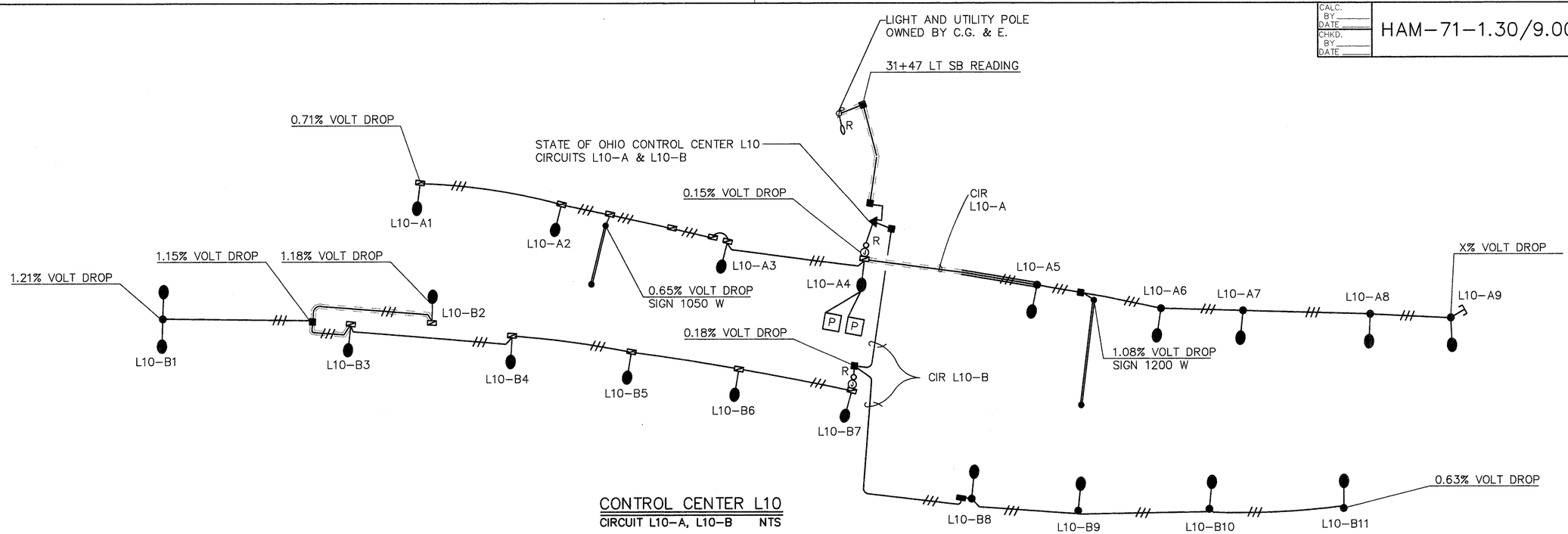


CONTROL CENTER CL11
CIRCUIT CL11–A, CL11–B NTS

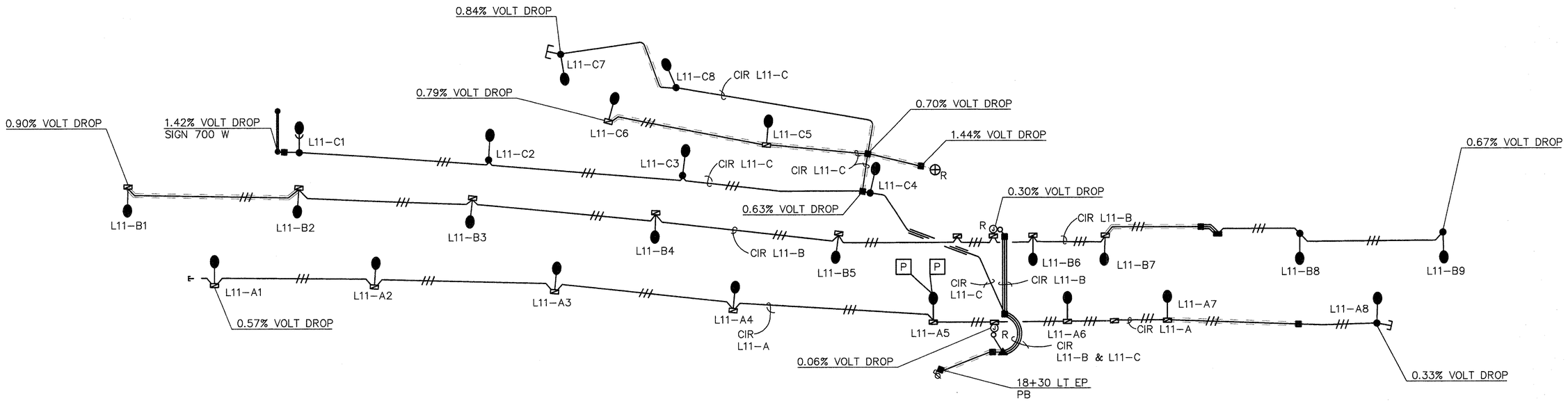
CIRCUIT SCHEMATICS

EL 12 EL-1 V: \DGN\V193-0P.DGN DGNUSER-20-1994 USER: MARCK TIME: 10:39

CALC. BY / DATE	HAM–71–1.30/9.00	OHIO	190/401
CHKD. BY / DATE		F.H.W.A. REGION 5	



CONTROL CENTER L10
CIRCUIT L10–A, L10–B NTS



CONTROL CENTER L11
CIRCUIT L11–A, L11–B NTS

EL 12 C:\DGN\V8DGN\V8DGNS OCTOBER-20-1994 USER: WBAKER TIME: 10:37

CALC. BY DATE	HAM–71–1.30/9.00	OHIO
CHKD. BY DATE		F.H.W.A. REGION 5

191
401

LIGHTING QUANTITIES SUB–SUMMARY

HAM–71–1.30/9.00
SECTION 2
1 of 5

CALCULATED BY: [signature] DATE: 10-21-94
CHECKED BY: Donald A. Petrie DATE: 10-21-94

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	ITEM 202 LIGHT POLE REMOVED EA.	ITEM 202 LIGHT POLE FOUNDATION REMOVED EA.	ITEM 202 LUMINAIRE REMOVED EA.		ITEM 202 PULL BOX REMOVED EA.	ITEM SPECIAL DISCONNECT EXISTING CIRCUIT EA.	ITEM SPECIAL WIRE TERMINATION AT PILASTER EA.		ITEM 202 POWER SERVICE REMOVED EA.		
197		456+15		I–71	LT					1						
198		460+85	468+85	I–71	LT	6	5	6		1		1				
		19+10	17+50	RAMP A	RT	2	2	2								
		461+10	469+65	I–71	RT	6	5	6		2		1				
		470+85	5+30 LT RAMP B	I–71	RT	1	1	1		1						
		48+10		REDBANK	LT									1		
		5+30	8+25	RAMP B	RT	2	2	2		1						
199		10+30	11+80	RAMP B	RT	2	2	2								
199		13+70	6+60	RAMP A	RT	5	3	5				2				
200		13+30	82+45 LT REDBANK	RAMP B	RT	5	5	5								
		0+95	6+25	RAMP D	RT	4	4	4		2						
		5+30		RAMP D	LT					1						
		5+40		RAMP A	RT	1	1	1		1						
201		490+20	500+10	I–71	RT	3	3	3		2						
		4+90	497+65 I–71	RAMP C	RT	3	3	3		3						
		494+85	495+33	I–71	LT	1	1	1		1						
202		504+90	513+00	I–71	LT	3	3	3		1						
202		517+05		I–71	RT	1	1	1								
203		518+80	521+60	I–71	RT	3	1	3				2				
		6+75	6+90	RAMP F	RT	1	1	1		1						
		18+20	22+02	RAMP F	RT	2	2	2		1						
		523+30		I–71	RT	1	1	1								
		45+70		STEWART	RT	1	1	1								
		50+38	52+30	STEWART	RT	2	2	2								
		49+70		STEWART	LT	1	1	1								
		55+10		STEWART	LT					1				1		
		2+55	1+15	RAMP E	RT	2	2	2								
204		540+40		I–71	LT					1						
205		550+10		I–71	LT					1	1					
			TOTAL SHEET 1 OF 5			58	52	58		22	1	6		2		

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE

EL 12 EC-1 P:\ELEDWG\96090\96090SU1.DWG OCTOBER-17-1994 USER: RGARDNER TIME:20:28

LIGHTING QUANTITIES SUB-SUMMARY

HAM-71-1.30/9.00
SECTION 2
2 of 5

CALCULATED BY: Robert F. [signature] DATE: 10-21-94
CHECKED BY: Gerald A. Petrie DATE: 10-21-94

ITEM 625

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	LIGHT POLE DESIGN ST15B20B51.7 (EA.)	LIGHT POLE DESIGN AT8B41.7 (EA.)			LIGHT TOWER, BBBB 100' (EA.)	LIGHT TOWER, BBBBBB 100' (EA.)		LUMINAIRE, STYLE C, TYPE II, 310 WATT H.P.S. 713.11, 480 VOLT (EA.)	LUMINAIRE, ASYMMETRIC, 400 WATT H.P.S., 713.21, 480 VOLT (EA.)	LUMINAIRE, SYMMETRIC, 400 WATT H.P.S., 713.21, 480 VOLT (EA.)			LIGHT POLE FOUNDATION "A", 24" X 10' DEEP, AS PER PLAN (EA.)	LIGHT TOWER MAINTENANCE PLATFORM, TYPE A (EA.)	PULL BOX CONCRETE, 18" (EA.)	PULL BOX CONCRETE, 18", AS PER PLAN (EA.)	GROUND ROD (EA.)	LIGHT TOWER FOUNDATION GRADING (EA.)	LIGHT TOWER FOUNDATION "A", 36" X 25' DEEP, AS PER PLAN (EA.)	CONDUIT, 2", 713.04 (L.F.)	CONDUIT, JACKED OR DRILLED UNDER PAVEMENT, 3" (L.F.)	REFURBISH SIGN SERVICE "A", AS PER PLAN (EA.)	EXISTING CONDUIT CLEANED (L.F.)	JUNCTION BOX EXTENSION "A" (EA.)	TRENCH 12" DEEP (L.F.)	TRENCH 24" DEEP (L.F.)	POLE AND BRACKET CABLE NO. 10 (L.F.)	DISTRIBUTION CABLE NO. 1/0 AWG, 5000 VOLT (L.F.)	DISTRIBUTION CABLE NO. 4 AWG, 5000 VOLT (L.F.)			1-1/2" DUCT CABLE WITH 2 NO. 1/0 AWG 5000 VOLT CABLES (L.F.)	1-1/2" DUCT CABLE WITH 2 NO. 4 AWG 5000 VOLT CABLES (L.F.)		CONNECTOR KIT TYPE VII B (EA.)	CONNECTOR KIT TYPE II (EA.)	CONNECTOR KIT TYPE III (EA.)	CABLE SPLICING KIT (EA.)	PORTABLE POWER UNIT (EA.)
206	L21-A	438+11	441+38	I-71	LT	1							2					1				1			327					327		204		674							1	1		
		441+38	444+65	I-71	LT	1							2					1				1			327					327		204		674							1	1		
		444+65	445+00	I-71	LT	1							2					1				1			35					35		204		90							1	1		
207		445+00	447+92	I-71	LT																				292					292				584										
		447+92	451+19	I-71	LT	1							2					1				1			327					327		204		674							1	1		
		451+19	454+46	I-71	LT	1							2					1				1			327					327		204		674							1	1		
		454+46	456+15	I-71	LT	1							2					1				1			169					169		204		358							1	1		
		456+15		I-71	LT/LT															1						66	1							152									2	
		456+15	457+73	I-71	LT																1				158					158				336									2	
		457+73	460+00	I-71	LT	1							2					1				1			227					227		204		474							1	1		
208		460+00	461+00	I-71	LT																				100					100				200										
		461+00	461+15	I-71	LT	1							2					1				1			15					15		204		50							1	1		
		461+15		I-71	RT/LT															1						72								164									2	
		461+15	463+40	I-71	LT																1				225					225				470									2	
		463+40	465+30	I-71	LT																1				190					190				380										
		465+30	467+15	I-71	LT					1				4								2		1	185					185				370										1
		467+15		I-71	LT/RT																1							80						188										
	L21-B	467+15	467+90	I-71	RT																							85					170										2	
		467+90	469+65	I-71	RT																						1	185	2				370							2				
		469+65	470+80	I-71	RT/LT															1						72		70			141						257						2	
		470+80	473+20	I-71	LT					1				4								2		1	240					240			500											
		473+20	475+00	I-71	LT																1				180					180			360											
		468+85		I-71	LT																							190	1															
209		475+00	475+60	I-71	LT																				60					60			120											
		475+60	479+25	I-71	LT						1				6							2		1	365					365			750											
		479+25	481+45	I-71	LT																1				220					220			460										2	
		481+45	484+15	I-71	LT						1				6							2		1	270					270			560											
		484+15	486+30	I-71	LT																1				215					215			430											
		486+30		I-71	LT/LT						1				6				1			2		1		64					38						112							
		486+30	488+00	I-71	LT																1				170					170			360										2	
211		488+00	488+85	I-71	LT																				85					85			170											
		488+85	491+40	I-71	LT																1				255					255			510											
		491+40	493+80	I-71	LT						1				6							2		1	240					240			500											
		493+80	496+20	I-71	LT																1				240					240			480											
		496+20	497+18	I-71	LT					1				4								2		1	98					98			216											
		1+25	497+18 I-71	RAMP C	RT/LT															1						83							186										2	
	–	3+63		RAMP C	LT/RT																							40																
	–	495+33		I-71	LT/RT																							165																
			TOTAL SHEET 2 OF 5			8				3	4		16	12	24			8	1	4	10	22		7	5542	357	2	815	3	5542	179	1632	6142	6512			369			2	8	8	18	1

EC-1 F:\ELECDWG\88090\88090S2A.DWG OCTOBER-17-1994 USER: RGARDNER TIME: 20:29
REL 12

LIGHTING QUANTITIES SUB-SUMMARY

HAM-71-1.30/9.00
SECTION 2
3 of 5

CALCULATED BY: [signature] DATE: 10-21-94
CHECKED BY: Gerald A. Petric DATE: 10-21-94

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	LIGHT POLE DESIGN ST15B20B51.7	LIGHT POLE DESIGN AT12B41.7	LIGHT POLE DESIGN A8BB40D	LIGHT TOWER FOUNDATION "B", 36" X 25' DEEP, AS PER PLAN	LIGHT TOWER FOUNDATION GRADING	LIGHT TOWER, BBBBBB 100'		LUMINAIRE, STYLE C, TYPE II, 310 WATT H.P.S. 713.11, 480 VOLT	LUMINAIRE, SYMMETRIC, 400 WATT H.P.S., 713.21, 480 VOLT	LUMINAIRE, STYLE B, TYPE II, 200 WATT H.P.S. 713.11, 480 VOLT	LIGHT POLE FOUNDATION, 24" X 8' DEEP	LIGHT POLE FOUNDATION "A", 24" X 10' DEEP, AS PER PLAN	PULL BOX CONCRETE, 18"	PULL BOX CONCRETE, 18", AS PER PLAN	GROUND ROD	LIGHT TOWER FOUNDATION, 36" X 25' DEEP	MEDIAN PULL BOX	REFURBISH SIGN SERVICE "A", AS PER PLAN	CONDUIT, 2", 713.04	CONDUIT, 3", 713.04	CONDUIT, JACKED OR DRILLED UNDER PAVEMENT, 3"	JUNCTION BOX EXTENSION "A"	TRENCH 12" DEEP	TRENCH 24" DEEP	POLE AND BRACKET CABLE NO. 10	DISTRIBUTION CABLE NO. 1/0 AWG, 5000 VOLT	DISTRIBUTION CABLE NO. 4 AWG, 5000 VOLT	MEDIAN LIGHT POLE FOUNDATION, 8' DEEP	1-1/2" DUCT CABLE WITH 2 NO. 1/0 AWG 5000 VOLT CABLES	1-1/2" DUCT CABLE WITH 2 NO. 4 AWG 5000 VOLT CABLES	CONNECTION TO EXISTING CONDUIT	EXISTING CONDUIT CLEANED	LUMINAIRE, STYLE B, TYPE II, 200 WATT H.P.S. 713.11, 240 VOLT	POWER SERVICE	CONNECTOR KIT TYPE VII A	CONNECTOR KIT TYPE VII B	CONNECTOR KIT TYPE VII C	CONNECTOR KIT TYPE II	CONNECTOR KIT TYPE III	CABLE SPLICING KIT	
						ITEM 625																					SPEC	ITEM 625															ITEM 625			
						EA.	EA.	EA.	EA.	EA.	EA.		EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	L.F.	L.F.	L.F.	EA.	L.F.	L.F.	L.F.	L.F.	L.F.	EA.	L.F.	L.F.	EA.	L.F.	EA.	EA.	EA.			EA.		EA.	
211	L21-B	497+18	500+00	I-71	LT														1					282				282			584														2	
211		500+10	500+00	I-71	RT/LT													1					1			82					184														2	
211		500+00	503+00	I-71	LT	1							2				1			1				300				300		204													1	1		
209		479+25	6+00 RAMP A	I-71	LT																					70			230					310												
210		6+00	4+70	RAMP A	LT																								130					130												
		4+70	2+53	RAMP A	LT					1	1			6						2	1								220					230												
		2+53	2+53 LT RAMP A	RAMP D	RT													1					1			62					144														2	
		2+53	0+59	RAMP A	LT													1											194					204											2	
		0+59	84+50 REDBANK	RAMP A	LT																	1									444									2						
		84+50		REDBANK	LT				1		1			6						2																										
		5+30		LT/RT	RAMP D																																45									
208	L21	467+15	48+05 REDBANK	I-71	RT																				93				93		186	186														
		48+05		REDBANK	LT													1																											4	
		48+10	POWER SERVICE L21	REDBANK	LT																																		1							
210	CL21-A	81+57	79+32	REDBANK	CL			1												1										128		470	1					2					1	1		
		79+32	76+87	REDBANK	CL			1												1										128		510	1					2					1	1		
		76+87	76+85	REDBANK	CL			1												1										128		24	1					2					1	1		
		76+85	75+44	REDBANK	CL/RT																	1				42			141						222					2						
		75+44		REDBANK	RT													1																											2	
		75+39	POWER SERVICE CL21	REDBANK	RT																																		1							
212	L22-A	503+00	503+20	I-71	LT																			20				20																		
		503+20	504+95	I-71	LT	1							2				1			1				175				175		204		370											1	1		
		504+95		I-71	LT/LT													1					1			76						172													2	
		504+95	506+40	I-71	LT														1					145				145				310													2	
		506+40	509+60	I-71	LT	1							2				1			1				320				320		204		660											1	1		
		509+60	512+75	I-71	LT	1							2				1			1				315				315		204		650											1	1		
		512+75	515+90	I-71	LT	1							2				1			1				315				315		204		650											1	1		
		515+90	518+00	I-71	LT	1							2				1			1				210				210		204		440											1	1		
213		518+00	519+08	I-71	LT																			108				108				216														
		519+08	519+90	I-71	LT/RT	1							2				1			1						93				204		402				1	100						1	1		
		519+90		I-71	RT																		1				1													2						
212		515+90	9+50 RAMP E	I-71	LT																					92			16						118											
		9+50	7+16	RAMP E	RT		1								1	1				1									234	108					244						2		1	1		
213		7+16	4+83	RAMP E	RT		1								1	1				1									233	108					243								1	1		
		4+83	2+50	RAMP E	RT		1								1	1				1									233	108					243								1	1		
		2+50	0+95	RAMP E	RT		1								1	1				1									155	108					165								1	1		
		0+95	55+10 LT STEWART	RAMP E	RT		1								1	1				1									122	108					132								1	1		
	–	520+40	521+60	I-71	RT																						2																			
			TOTAL SHEET 3 OF 5			7	5	3	1	1	2		14	12	5	5	7	6	2	19	1	2	4	2190	93	517	3	2190	2001	2352	1542	5060	3	874	1367	1	145	6	2	6	2		15	15	18	

REL 12 EC-1 F:\ELECDWG\88090\88090S2B.DWG OCTOBER-17-1994 USER: RGARDNER TIME:20:29

CALC. BY ____ DATE ____
CHKD. BY ____ DATE ____

HAM-71-1.30/9.00

OHIO F.H.W.A. REGION 5

194 / 401

LIGHTING QUANTITIES SUB-SUMMARY

HAM-71-1.30/9.00
SECTION 2
4 of 5

CALCULATED BY: [illegible] DATE: 10-21-94
CHECKED BY: David A. Petrie DATE: 10-21-94

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	ITEM 625: LIGHT POLE DESIGN ST15B20B51.7 EA.	LIGHT POLE DESIGN ST18B8B51.7 EA.	LIGHT POLE DESIGN ST15B8B51.7 EA.	LIGHT POLE DESIGN AT10B41.7 EA.	LIGHT POLE DESIGN AT6B41.7 EA.	LIGHT POLE DESIGN A18BB71.7, AS PER PLAN EA.		LUMINAIRE, STYLE C, TYPE II, 310 WATT H.P.S. 713.11, 480 VOLT EA.	LUMINAIRE, STYLE B, TYPE II, 200 WATT H.P.S. 713.11, 480 VOLT EA.		LIGHT POLE FOUNDATION "B", 24" X 10' DEEP, AS PER PLAN EA.	LIGHT POLE FOUNDATION, 24" X 8' DEEP EA.	LIGHT POLE FOUNDATION "A", 24" X 10' DEEP, AS PER PLAN EA.	LIGHT POLE FOUNDATION, 36" X 35' DEEP EA.	PULL BOX CONCRETE, 18" EA.	PULL BOX CONCRETE, 18", AS PER PLAN EA.	GROUND ROD EA.			202: CONDUIT, 2", 713.04 L.F.	CONDUIT, JACKED OR DRILLED UNDER PAVEMENT, 3" L.F.		TRENCH 12" DEEP L.F.	TRENCH 24" DEEP L.F.	POLE AND BRACKET CABLE NO. 10 L.F.	DISTRIBUTION CABLE NO. 2 AWG, 5000 VOLT L.F.	DISTRIBUTION CABLE NO. 4 AWG, 5000 VOLT L.F.			1-1/2" DUCT CABLE WITH 2 NO. 2 AWG 5000 VOLT CABLES L.F.	1-1/2" DUCT CABLE WITH 2 NO. 4 AWG 5000 VOLT CABLES L.F.	REMOVAL AND REPLACEMENT OF MEDIAN BARRIER CAP L.F.	ITEM 625: POWER SERVICE EA.	CONNECTOR KIT TYPE II EA.	CONNECTOR KIT TYPE III EA.	CABLE SPLICING KIT EA.
213	L22-B	7+25	9+40	RAMP F	RT					1				1			1					1								215	96						225			1	1	
		9+40	11+45	RAMP F	RT					1				1			1					1								205	96						215			1	1	
		11+45	13+53	RAMP F	RT					1				1			1					1								208	96						218			1	1	
		13+53	15+81	RAMP F	RT					1				1			1					1								228	96						238			1	1	
		15+81	18+00	RAMP F	RT					1				1			1					1								219	96						229			1	1	
		18+00	18+65	RAMP F	RT					1				1								1								65	96						75			1	1	
		1+90	18+65 RT RAMP F	RAMP F1	RT				1					1			1					1								42	104						85			1	1	1
		18+65	19+87	RAMP F	RT																1								122							132					2
		19+87	522+26 CL I-71	RAMP F	RT					1				1			1					1								365	96						375			1	1	
		522+26	51+95 RT STEWART	I-71	CL						1		2						1			1								150	252						160			1	1	
		51+95	55+10	STEWART	RT/LT																1								65			315			390						2
	L22	55+10		STEWART	LT																1																					2
	L22	55+10	POWER SERVICE L22	STEWART	LT																																			1			
	L22-B	51+95	523+61 RT I-71	STEWART	RT																								70			96			176						
		523+61	525+45	I-71	RT																1								184			184		388						2
		525+45	528+64	I-71	RT	1							2				1				1								319			319	204	658					1	1	
		528+64	531+83	I-71	RT	1							2				1				1								319			319	204	658					1	1	
		531+83	532+00	I-71	RT	1							2				1				1								17			17	204	54					1	1	
214		532+00	535+02	I-71	RT																								302			302		604							
		535+02	538+21	I-71	RT	1							2				1				1								319			319	204	658					1	1	
		538+21	540+40	I-71	RT	1							2				1				1								219			219	204	458					1	1	
		540+40		I-71	LT/RT																1									64				148							2
		540+40	541+40	I-71	RT																1								100			100		220						2
		541+40	544+59	I-71	RT	1							2				1				1								319			319	204	658					1	1	
		544+59	546+00	I-71	RT	1							2				1				1								141			141	204	302					1	1	
215		546+00	547+75 CL I-71	I-71	RT/CL																								175			175		350							
		547+75	548+50 LT I-71	I-71	CL/LT		1						2				1				1								75				75	212	170					1	1	
		548+50	550+90 CL I-71	I-71	LT/CL																1								240			240		480							
		550+90	553+90 RT I-71	I-71	CL/RT		1						2			1					1								300			300		620					1	1	
		553+90	556+85	I-71	RT			1					2			1					1								295			295		610					1	1	
		556+85	559+80	I-71	RT			1					2			1					1								295			295		610					1	1	
		559+80		I-71	RT			1					2			1					1																				1	1	
	–	548+25	559+85	I-71	CL																																1160					
		548+50		I-71	CL/RT																								70				160								2
		548+50	550+10	I-71	RT																			2							160			170						2
			TOTAL SHEET 4 OF 5			7	2	3	1	7	1		26	8		4	8	8	1	6	3	21				3619	302		2414	3595	2668	7806			736	1952	1160	1	21	21	14

EC-1 F:\ELECDWG\88090\88090S2C.DWG OCTOBER-17-1994 USER: RGARDNER TIME: 20:30
KEL 12

CALC. BY		HAM–71–1.30/9.00	OHIO	195
DATE			F.H.W.A. REGION 5	401
CHKD. BY				
DATE				

LIGHTING QUANTITIES SUB–SUMMARY

HAM–71–1.30/9.00
SECTION 2
5 of 5

CALCULATED BY: [signature] DATE: 10-21-94
CHECKED BY: Donald A. Petrie DATE: 10-21-94

SHEET NO.	REFERENCE NO.	STATION FROM	STATION TO	LOCATION	SIDE	ITEM 625 LIGHT POLE DESIGN AT10B41.7 EA.	GLARE SHIELD EA.	LUMINAIRE, STYLE B, TYPE II, 200 WATT H.P.S. 713.11, 480 VOLT EA.	LUMINAIRE, STYLE B, TYPE II, 200 WATT H.P.S. 713.11, 480 VOLT EA.	LUMINAIRE, UNDERPASS, 100 WATT H.P.S., 713.13 EA.	LIGHT POLE FOUNDATION, 24" X 8' DEEP EA.	PULL BOX CONCRETE, 18" EA.	GROUND ROD EA.	CONDUIT, 3", 713.04 L.F.	CONDUIT, JACKED OR DRILLED UNDER PAVEMENT, 3" L.F.	TRENCH 24" DEEP L.F.	POLE AND BRACKET CABLE NO. 10 L.F.	DISTRIBUTION CABLE NO. 4 AWG, 5000 VOLT L.F.	SERVICE TO UNDERPASS LIGHTING EA.	1–1/2" DUCT CABLE WITH 2 NO. 4 AWG 5000 VOLT CABLES L.F.	SPEC EXISTING CONDUIT CLEANED EA.	ITEM 625 POWER SERVICE EA.	CONNECTOR KIT TYPE II EA.	CONNECTOR KIT TYPE III EA.	CABLE SPLICING KIT EA.
213	CL22–A	45+26	47+07	STEWART	RT/LT	1		1			1		1		55	190	104			255			1	1	
		47+07	49+67	STEWART	LT	1		1			1		1	260		260	104	540					1	1	
		49+67	51+28	STEWART	LT					3		1		161		161		342	2						2
		51+28	51+40	STEWART	LT/RT	1	1				1		1		66	30	104			106			1	1	
		21+63	50+42 RT STEWART	RAMP F	RT	1	1		1		1		1	182		182	104	384					1	1	
		50+42	51+40	STEWART	RT					3		1		103		103		226	2						2
		51+40	52+43	STEWART	RT							1				106				116					2
		52+43	55+35	STEWART	RT	1		1			1		1			292	104			302			1	1	
		55+35	55+15	STEWART	RT/LT	1		1			1		1		65	27				102			1	1	
		56+80	55+15	STEWART	LT	1		1			1		1			165	104			175			1	1	
		55+15		STEWART	LT							1													2
		55+15	POWER SERVICE CL22	STEWART	LT																	1			
			TOTAL SHEET 5 OF 5			7	2	6	1	6	7	4	7	706	186	1516	624	1492	4	1056		1	7	7	8

EC–1 F:\LEEDWG\88090\88090S20.DWG OCTOBER–17–1994 USER: RGARDNER TIME: 20:31

CALC. BY DATE	HAM–71–1.30/9.00	OHIO
CHKD. BY DATE		F.H.W.A. REGION 5

196/401

50 0 50 100 150
GRAPHIC SCALE IN FEET

RESUME WORK
Sta. 435+07.72 Ah.

RESUME PROJECT
Sta. 436+82.72

S.L.M. 9.00

STATION EQUATION
Sta. 434+25.00 Bk. =
Sta. 435+07.72 Ah.
Meet Existing Pavement with BP–5 Butt Joint

Begin Type D Concrete Barrier

434+20 I–71
2–200 W, HPS A15BB20
EXISTING

431+45 I–71
2–200 W, HPS, A15BB20
EXISTING

LA R/W

SOUTHBOUND I–71

NORTHBOUND I–71

430 434 436 440

Match Line – Sta. 445+00

DEMOLITION LEGEND

- EXIST PHOTOCELL TO BE REMOVED
- EXIST P.B. TO BE REMOVED UNLESS NOTED OTHERWISE
- EXIST WALL OR BARRIER J.B. TO REMAIN
- EXIST TRUSS O.H. SIGN TO REMAIN
- EXIST O.H. SIGN TO REMAIN
- EXIST. 200 W H.P.S. TO BE REMOVED U.N.O.
- EXIST. 200 W H.P.S. TO BE REMOVED U.N.O.
- EXIST 200 W H.P.S., BRACKET AND LUMINAIRE ONLY (WALL MOUNTED) TO BE REMOVED U.N.O.
- EXIST 200 W H.P.S., STRUCTURE, BARRIER OR WALL MTD. TO BE REMOVED. ADJACENT RECESSED J.B. TO REMAIN
- EXIST LUMINAIRE AND GLARE SHIELD TO BE REMOVED
- EXIST POST TOP MOUNTED LUMINAIRE, TYPE V DISTRIBUTION
- EXIST SURFACE MOUNTED PENDANT TYPE UNDERPASS LUMINAIRE TO REMAIN. TYPE V DISTRIBUTION
- EXIST 400 W MERCURY VAPOR LUMINAIRE ON UTILITY POLE OWNED BY C.G. & E.
- —PE— EXIST PRIMARY CONDUCTORS
- EXIST CIRCUIT CONDUCTORS TO BE MAINTAINED
- EXIST CIRCUIT CONDUCTORS TO BE ABANDONED
- EXIST BURIED CONDUIT TO REMAIN, MAINTAIN EXISTING CIRCUIT CONDUCTORS
- EXIST BURIED CONDUIT TO REMAIN,
- EXIST CIRCUIT CONDUCTORS IN EXISTING STRUCTURE CONDUIT TO BE REMOVED
- EXIST CIRCUIT CONDUCTORS IN EXISTING BURIED CONDUIT TO BE REMOVED
- EXIST CONTROL CENTER TO BE REMOVED
- EXIST CONTROL CENTER TO REMAIN
- EXIST TRANSFORMER TO REMAIN
- JUNCTION BOX, SURFACE MOUNTED
- EXIST UNDERPASS LUMINAIRE TO BE REMOVED
- EXIST SIGN TO REMAIN, NO POWER REQUIREMENTS
- R SUBSCRIPT "R" INDICATES DEVICE TO REMAIN
- EXIST (POWER SERVICE FOR SIGN) TO BE REMOVED

U.N.O. DENOTES UNLESS NOTED OTHERWISE

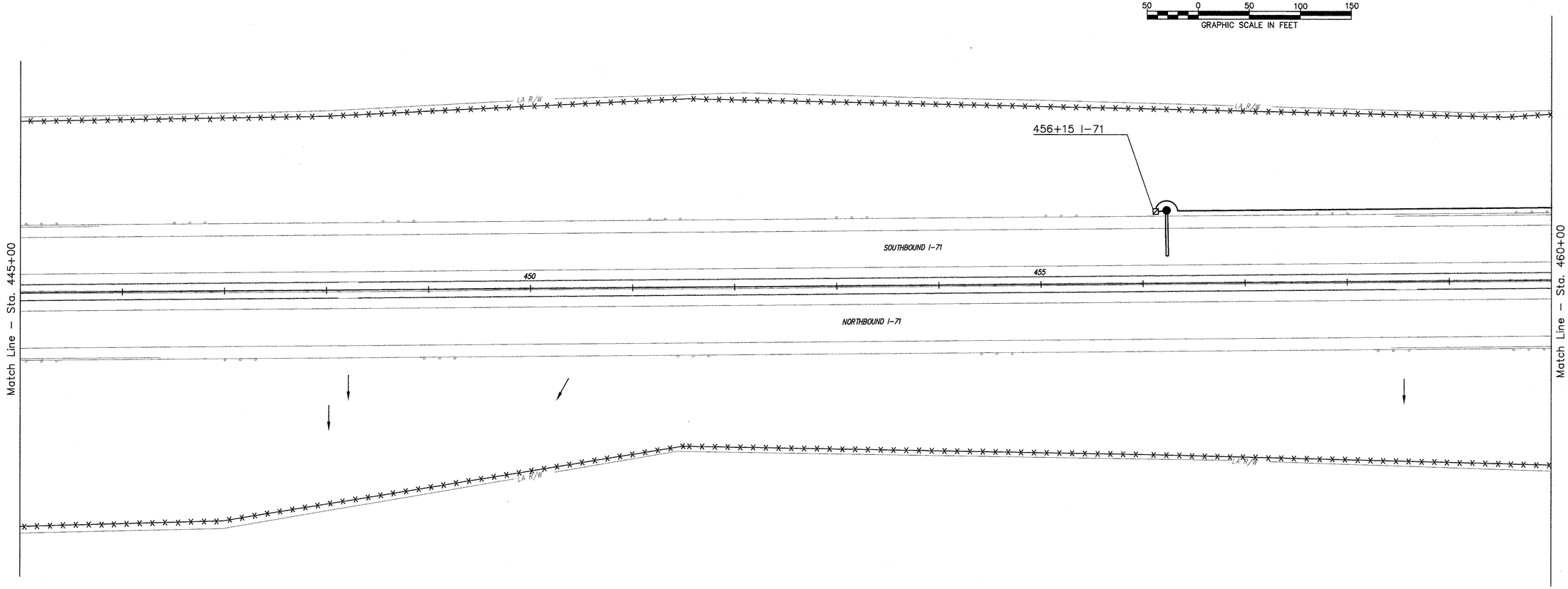
DEMOLITION

STA. 429+00 TO 445+00

CALC. BY DATE	HAM–71–1.30/9.00	OHIO
CHKD. BY DATE		F.H.W.A. REGION 5

197
401

50 0 50 100 150
GRAPHIC SCALE IN FEET



DEMOLITION

STA. 445+00 TO STA. 460+00

REL 12 EC–1 F:\ELECDWG\88090\E445–460.DWG OCTOBER–17–1994 USER: RGARDNER TIME:20:59

CALC. BY DATE	HAM–71–1.30/9.00	OHIO
CHKD. BY DATE		F.H.W.A. REGION 5

198/401

50 0 50 100 150
GRAPHIC SCALE IN FEET

460+85 I–71

Match Line –Sta. 460+00

SOUTHBOUND I–71

NORTHBOUND I–71

461+10 I–71

465

Bridge No. HAM–71–0965L

ROAD

468+85 I–71

19+10 RAMP A

17+50 RAMP A

RAMP A

16A

18A

Match Line –Sta. 14+00A

Match Line –Sta. 475+00

470

470+85 I–71

6B

RAMP B

8B

2B

4B

R

Bridge No. HAM–71–0965R

RED BANK

469+65 I–71

5+30 RAMP B

8+25 RAMP B

Match Line –Sta. 9+00B

LA R/W

STATE OF OHIO CONTROL CENTER
48+10 30' LT RED BANK RD.

DEMOLITION

STA. 460+00 TO STA. 475+00

REL 12 EC-1 F:\ELEC\DWG\98090\E-460-475.DWG OCTOBER-17-1994 USER: RGARDNER TIME:21:00

CALC. BY		HAM-71-1.30/9.00	OHIO	199 401
DATE			F.H.W.A. REGION 5	
CHKD. BY				
DATE				

50 0 50 100 150
GRAPHIC SCALE IN FEET

Match Line Sta. 14+00A
13+70 RAMP A
RAMP A
12A
LA R/W
EXISTING 2" CONDUIT IN STRUCTURE
Bridge No. HAM-71-0986
Bridge No. HAM-71-0987
Match Line Sta. 11+00C
RAMP C
12C
14C
16C
18C
Match Line Sta. 488+00
Match Line Sta. 475+00
10A
20C
EXISTING 2" CONDUIT IN STRUCTURE
SOUTHBOUND I-71
480
485
NORTHBOUND I-71
14D
12D
10D
RAMP D
Match Line Sta. 9+00D
Match Line Sta. 9+00B
10B
10+30 RAMP B
RAMP B
11+80 RAMP B
LA R/W
Match Line Sta. 12+00B
Match Line Sta. 24+00C
RAMP C
22C
RAMP A
6+60 RAMP A
Match Line Sta. 6+00A

DEMOLITION

STA. 475+00 TO STA. 488+00

REL 12 EC-1 F:\ELECDWG\86090\E475-488.DWG OCTOBER-17-1994 USER: ROARDNER TIME:21:01

CALC. BY DATE	HAM-71-1.30/9.00	OHIO
CHKD. BY DATE		F.H.W.A. REGION 5

200
401

50 0 50 100 150
GRAPHIC SCALE IN FEET

Match Line Sta. 12+00B

13+30 RAMP B

CHAIN LINK FENCE

LA R/W

RAMP B

RAMP C

14B

26C

16B

28C

Match Line Sta. 24+00C

5+40 RAMP A

5+30 RAMP A

6+25 RAMP D

Match Line Sta. 6+00A

RAMP A

RAMP D

4A

4D

6D

8D

2A

2D

Match Line Sta. 9+00D

82+45 REDBANK

0+95 RAMP D

Location of Existing and Proposed Fence

LA R/W

84

84

86

82

SB RED BANK EXPWY

NB RED BANK EXPWY

Match Line Sta. 80+00

LA R/W

LA R/W

LA R/W

BEGIN WORK
STA. 74+25
Red Bank Expwy.

Ex. Conctete Barrier
Type A, Modified

72

74

76

78

SB RED BANK EXPWY

NB RED BANK EXPWY

Match Line Sta. 80+00

DEMOLITION

RED BANK EXPWY INTERCHANGE

EC-1 F:\ELECDWG\88090\EREDRAMP.DWG OCTOBER-17-1994 USER: RGARDNER TIME:21:26

24 of 25 Tech Cec-1-0 25

CALC. BY ____ DATE ____	HAM-71-1.30/9.00	OHIO
CHKD. BY ____ DATE ____		F.H.W.A. REGION 5

201
401

50 0 50 100 150
GRAPHIC SCALE IN FEET

Match Line Sta. 11+00C

Match Line Sta. 488+00

Match Line Sta. 503+00

Village of Silverton
Corporation Line

Hamilton County
Corporation Line Village of Silverton

L.A. R/W

10C
RAMP C
8C
6C
4C
2C

4+90 RAMP C
495+33 I-71
497+65 I-71
494+85 I-71

SOUTHBOUND I-71

490
495
500

NORTHBOUND I-71

RAMP D

490+20 I-71
500+10 I-71

DEMOLITION

STA. 488+00 TO STA. 503+00

EC-1 F:\ELECDWG\88090\E488--503.DWG OCTOBER-17-1994 USER: RGARDNER TIME:21:02

12

CALC. BY DATE	HAM–71–1.30/9.00	OHIO
CHKD. BY DATE		F.H.W.A. REGION 5

202
401

50 0 50 100 150
GRAPHIC SCALE IN FEET

L.A.R/W

504+90 I–71

513+00 I–71

8E

10E

RAMP E

515

510

505

SOUTHBOUND I–71

NORTHBOUND I–71

Match Line Sta. 503+00

Match Line Sta. 518+00

517+05 I–71

STEWART RD.

DEMOLITION

STA. 503+00 TO STA. 518+00

REL 12 EC-1 F:\ELECDWG\88090\E503-518.DWG OCTOBER-17-1994 USER: ROARDNER TIME:21:08

CALC. BY		HAM–71–1.30/9.00	OHIO	203 401
CHKD. BY			F.H.W.A. REGION 5	
DATE				

50 0 50 100 150
GRAPHIC SCALE IN FEET

2+55 RAMP E
1+15 RAMP E
Match Line Sta. 54+00
52+30 STEWART
50+38 STEWART
49+70 STEWART
523+30 I–71
521+60 I–71
6+90 RAMP F
6+75 RAMP F
EXISTING 2" CONDUIT IN STRUCTURE
22+02 RAMP F
518+80 I–71
18+20 RAMP F
45+70 STEWART
Match Line Sta. 518+00
Match Line Sta. 532+00
STATE OF OHIO CONTROL CENTER 55+10 LT STEWART
Match Line Sta. 54+00
L A R/W
RAMP E
STEWART RD.
SOUTHBOUND I–71
NORTHBOUND I–71
RAMP F
RAMP F I 71
SILVERTON CORPORATION LIMITS
MADEIRA CORPORATION LIMITS

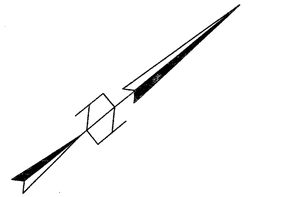
DEMOLITION

STA. 518+00 TO STA. 532+00

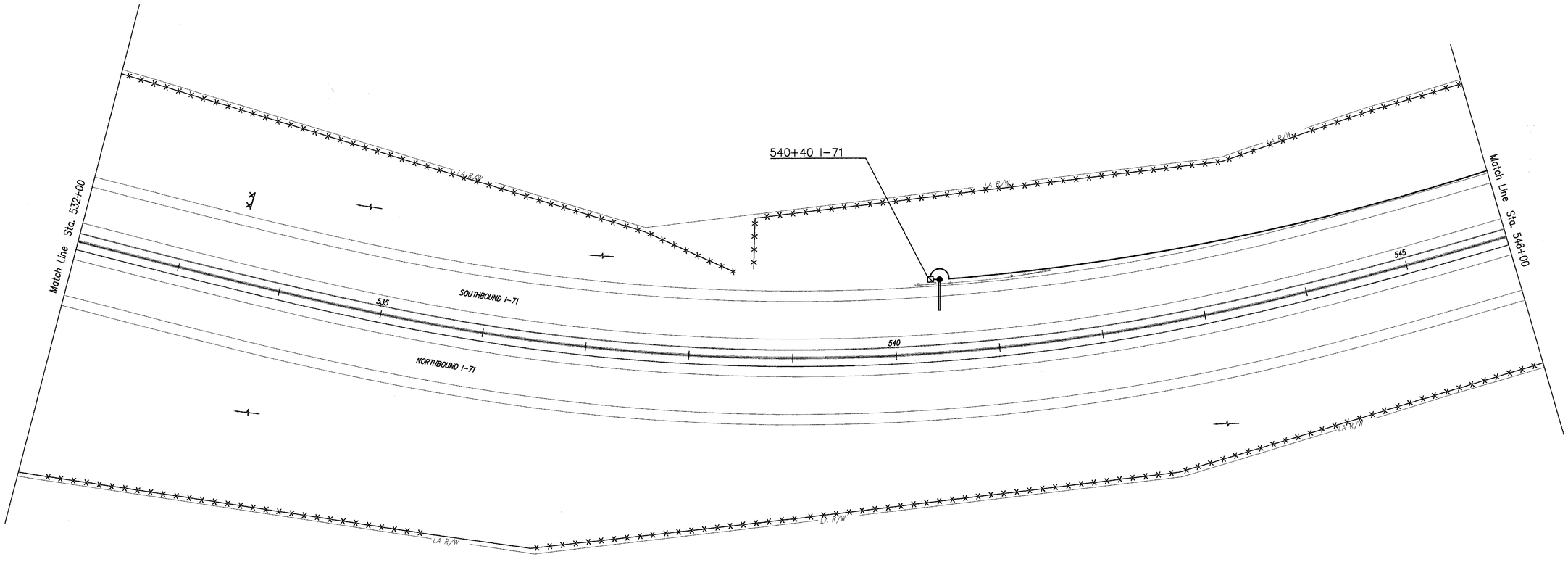
REL 12 EC–1 F:\ELECDWG\88090\E518–532.DWG OCTOBER–17–1994 USER: RGARDNER TIME:21:08

CALC. BY DATE	HAM–71–1.30/9.00	OHIO
CHKD. BY DATE		F.H.W.A. REGION 5

204
401



50 0 50 100 150
GRAPHIC SCALE IN FEET

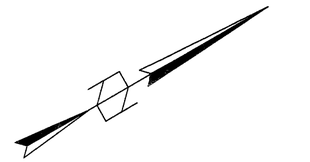


DEMOLITION

STA. 532+00 TO STA. 546+00

REL 12 EC–1 F:\ELECDWG\88090\ES32–546.DWG OCTOBER–17–1994 USER: RGARDNER TIME: 21:20

CALC. BY DATE	HAM–71–1.30/9.00	OHIO	205/401
CHKD. BY DATE		F.H.W.A. REGION 5	



50 0 50 100 150
GRAPHIC SCALE IN FEET

END WORK
Sta. 548+35.98

END PROJECT
548+35 I.R. 71
SLM 11.01

End Concrete Median Removal
Meet Existing Concrete Barrier
End Barrier Guardrail Removal

LA R/W

550+10 LT I–71

SOUTHBOUND I–71

NORTHBOUND I–71

550

555

Match Line Sta. 546+00

EXISTING CIRCUIT "AC" TO REMAIN

LA R/W

550+10 RT I–71
TO REMAIN

550+00 RT I–71
EXISTING OVERHEAD SIGN TO REMAIN

Match Line Sta. 560+00

562+36 LT I–71
200 W, 34.2'
EXISTING

Match Line Sta. 560+00

EUCLID ROAD

HAM–71–1127

EXISTING CIRCUIT "AC" TO REMAIN

EXISTING CIRCUIT "AC" TO REMAIN

561+94 RT I–71
200 W, 34.2'
EXISTING

562+24 RT I–71
EXISTING SIGN

DEMOLITION

STA. 546+00 TO 561+00

REL 12 EC–1 F:\ELECDWG\88090\E546–561.DWG OCTOBER–17–1994 USER: RGARDNER TIME:21:21

CALC. BY		HAM–71–1.30/9.00	OHIO	206 401
CHKD. BY			F.H.W.A. REGION 5	
DATE				

50 0 50 100 150
GRAPHIC SCALE IN FEET

RESUME WORK
Sta. 435+07.72 Ah.

RESUME PROJECT
Sta. 436+82.72

S.L.M. 9.00

STATION EQUATION
Sta. 434+25.00 Bk. =
Sta. 435+07.72 Ah.
Meet Existing Pavement with BP–5 Butt Joint

Begin Type D Concrete Barrier

434+20 I–71
2–200 W, HPS A15BB40
EXISTING

438+11 3' LT I–71
L21–A1, TYPE II

LA R/W

SOUTHBOUND I–71

NORTHBOUND I–71

430 434 436 440

Match Line – Sta. 445+00

431+45 I–71
2–200 W, HPS, A15BB40
EXISTING

444+65 3' LT I–71
L21–A3, TYPE II

441+38 3' LT I–71
L21–A2, TYPE II

PROPOSED LEGEND

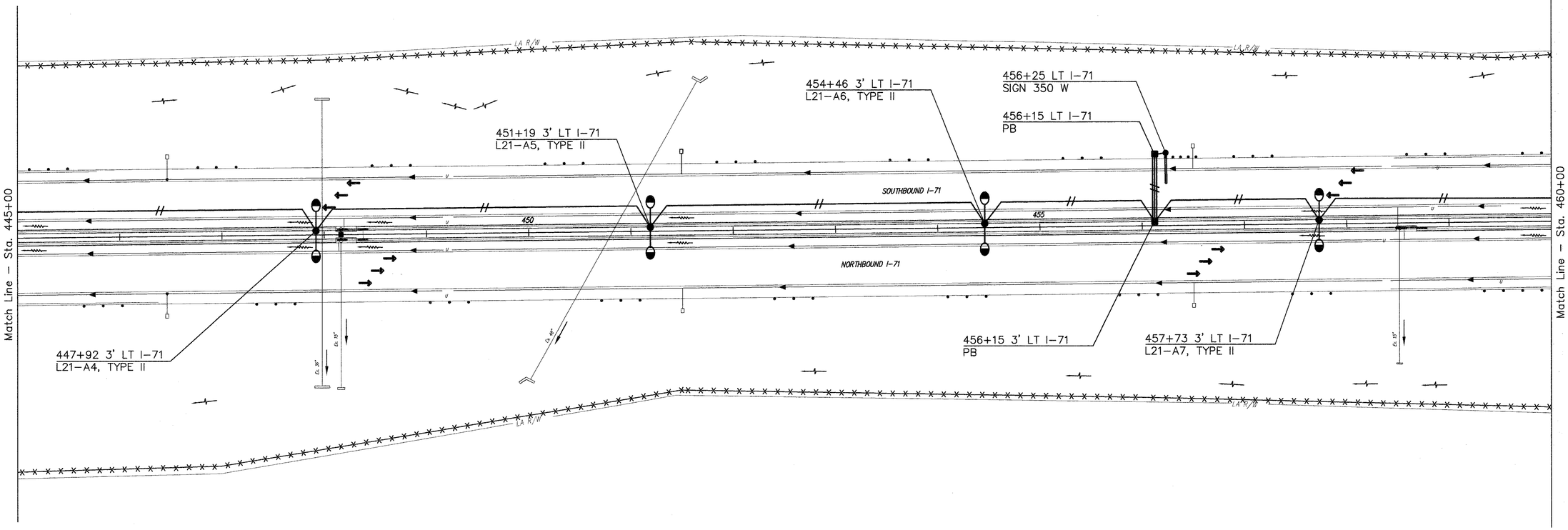
- PROPOSED PHOTOCELL
- PROPOSED PULL BOX
- PROPOSED BARRIER JUNCTION BOX
- EXIST WALL OR BARRIER J.B. TO REMAIN
- EXIST TRUSS O.H. SIGN TO REMAIN
- EXIST O.H. SIGN TO REMAIN
- REERECTED 200 W H.P.S. LUMINAIRE
- REERECTED 2–200 W H.P.S. LUMINAIRES
- REERECTED 200 W H.P.S. LUMINAIRE STRUCTURE, BARRIER OR WALL MTD. ADJACENT TO EXISTING J.B.
- REERECTED LUMINAIRE WITH GLARE SHIELD
- REFURBISHED 150 W H.P.S. UNDERPASS LUMINAIRE
- EXISTING POST TOP MOUNTED LUMINAIRE, TYPE V DISTRIBUTION
- PROPOSED 2–310 W H.P.S. LUMINAIRES
- PROPOSED 200 W H.P.S. LUMINAIRE
- REERECTED 200 W H.P.S. LUMINAIRE, WALL MTD, BRACKET ONLY
- PROPOSED 2–200 W H.P.S. LUMINAIRES
- EXISTING 2–200 W H.P.S. LUMINAIRES
- CONNECTION TO EXISTING AT THIS LOCATION
- EXIST 400 WATT MECURY VAPOR LUMINAIRE ON UTILITY POLE OWNED BY C.G. & E.
- C.G. & E. UTILITY POLE
- PROPOSED LIGHT TOWER, 6–400 W H.P.S., TYPE V DISTRIBUTION. 100' NOMINAL M.H.
- PROPOSED LIGHT TOWER, 4–400 W H.P.S., TYPE III DISTRIBUTION. 100' NOMINAL M.H. ARROWS INDICATE ORIENTATION
- REFURBISHED SURFACE MOUNTED PENDANT TYPE UNDERPASS LUMINAIRE. TYPE V DISTRIBUTION.
- –PE– EXISTING PRIMARY CONDUCTORS TO REMAIN
- //2 PROPOSED CIRCUIT CONDUCTORS. HASH MARKS INDICATE QTY OF CONDUCTORS. NUMBER DENOTES WIRE SIZE IF OTHER THAN #4 AWG.
- EXIST CIRCUIT CONDUCTORS TO BE MAINTAINED
- PROPOSED CIRCUIT CONDUCTORS IN NEW CONDUIT
- PROPOSED CIRCUIT CONDUCTORS IN EXISTING BURIED CONDUIT
- EXIST BURIED CONDUIT TO REMAIN, MAINTAIN EXISTING CIRCUIT CONDUCTORS
- ABANDONDED BURIED CONDUIT
- PROPOSED CONTROL CENTER
- EXIST CONTROL CENTER TO REMAIN
- T EXIST TRANSFORMER TO REMAIN
- J JUNCTION BOX, SURFACE MOUNTED
- R SUBSCRIPT "R" INDICATES EXISTING TO REMAIN

REL 12 EC–7 F:\ELECDWG\98090\N429–445.DWG OCTOBER–18–1994 USER: RGARDNER TIME:13:50

STA. 429+00 TO STA. 445+00

CALC. BY DATE	HAM–71–1.30/9.00	OHIO	207 401
CHKD. BY DATE		F.H.W.A. REGION 5	

50 0 50 100 150
GRAPHIC SCALE IN FEET



STA. 445+00 TO STA. 460+00

REL 12 EC–7 F:\ELECDWG\88090\N445–460.DWG OCTOBER–18–1994 USER: RGARDNER TIME:13:54

CALC. BY DATE	HAM–71–1.30/9.00	OHIO
CHKD. BY DATE		F.H.W.A. REGION 5

208
401

50 0 50 100 150
GRAPHIC SCALE IN FEET

Match Line –Sta. 460+00

461+00 3' LT I–71
L21–A8, TYPE II

461+15 3' LT I–71
PB

467+90 RT I–71
SIGN 875 W
AND JB

468+85 LT I–71
JB

EXISTING 2" CONDUIT
IN STRUCTURE

Match Line –Sta. 14+00A

RAMP A

16A

SOUTHBOUND I–71

NORTHBOUND I–71

465

Bridge No.
HAM–71–0965L

RAMP

18A

#1/0

470

463+40 3' LT I–71
PB

465+30 3' LT I–71
L21–A9

467+15 3' LT I–71
PB

473+20 3' LT
PB

Match Line –Sta. 475+00

461+05 RT I–71
SIGN 525 W

461+15 RT I–71
PB

#1/0 2B

#1/0 4B

6B

RAMP B

8B

#1/0

Bridge No.
HAM–71–0965R

467+15 RT I–71
PB

CIR L21–A=2 #4
L21–B=2 #1/0

RED BANK

EXIST 2"
CONDUIT IN
STRUCTURE

469+65 RT I–71
PB

470+80 3' LT I–71
L21–B1

468+55 RT I–71
JB

Match Line –Sta. 9+00B

48+05 30' LT RED BANK RD.
PB

STATE OF OHIO
CONTROL CENTER L21
48+10 30' LT RED BANK RD.
CIRCUITS L21–A, L21–B

STA. 460+00 TO STA. 475+00

REL 12 EC–1 F:\ELECDWG\88090\H460–475.DWG OCTOBER–17–1994 USER: RGARDNER TIME: 21:30

CALC. BY ____ DATE ____
CHKD. BY ____ DATE ____

HAM-71-1.30/9.00

OHIO
F.H.W.A. REGION 5

209
401

50 0 50 100 150
GRAPHIC SCALE IN FEET

475+60 3' LT I-71
L21-B2

Match Line Sta. 14+00A

LA R/W

RAMP A

12A

10+75 RT RAMP A
JB

EXISTING 2" CONDUIT IN STRUCTURE

17+85 RT RAMP C
JB

RAMP C

14C

16C

12C

+25, 4" Tee
fl 4" UD = 651.22

Match Line Sta. 11+00C

486+30 105' LT I-71
L21-B4

486+30 3' LT I-71
PB

#1/0

Match Line Sta. 488+00

479+25 3' LT I-71
PB

Match Line Sta. 475+00

Bridge No. HAM-71-0986

Bridge No. HAM-71-0987

18C

481+45 3' LT I-71
L21-B3

19+80 RT RAMP C
JB

EXISTING 2" CONDUIT IN STRUCTURE

SOUTHBOUND I-71

NORTHBOUND I-71

485

480

140

120

100

EXISTING 2" CONDUIT IN STRUCTURE

Match Line Sta. 9+00B

10B

RAMP B

9+35 RT RAMP A
JB

20C

RAMP C

RAMP A

Match Line Sta. 12+00B

Match Line Sta. 24+00C

Match Line Sta. 6+00A

Match Line Sta. 9+00D

RAMP D

484+15 3' RT I-71
PB

STA. 475+00 TO STA. 488+00

REL 12 EC-1 F:\ELECDWG\88090\N475-488.DWG OCTOBER-20-1994 USER: RGARDNER TIME:11:14

CALC. BY		HAM–71–1.30/9.00	OHIO	210 401
CHKD. BY			F.H.W.A. REGION 5	
DATE				

50 0 50 100 150
GRAPHIC SCALE IN FEET

Match Line Sta. 12+00B

Match Line Sta. 24+00C

4+70 65' LT RAMP A
L21–B8

Match Line Sta. 6+00A

CHAIN LINK FENCE

L A R/W

RAMP B

RAMP C

RAMP A

RAMP D

#1/0

2+53 LT RAMP A
PB

5+30 LT/RT RAMP D

Match Line Sta. 9+00D

81+57 ℄ REDBANK
CL21–A1, TYPE II

84+50 ℄ REDBANK
BARRIER MOUNTED
L21–B9

Ex. 12"

Ex. 12"

Ex. 10"ø RCBC

Location of Existing and Proposed Fence

Ex. 36"

2+43 RT RAMP A
SIGN 700 W

2+53 RT RAMP D
PB

Ex. 15"

0+59 LT RAMP A
JB

Match Line Sta. 80+00

SB RED BANK EXPWY

NB RED BANK EXPWY

BEGIN WORK
STA. 74+25
Red Bank Expwy.

76+85 ℄ REDBANK
PB

73+47 LT REDBANK
EXISTING

79+32 ℄ REDBANK
CL21–A2, TYPE II

76+87 ℄ REDBANK
CL21–A3, TYPE II

75+24 RT REDBANK
EXISTING

75+44 RT REDBANK
PB

CITY OF CINCINNATI
HAMILTON COUNTY
CORP LINE

HAMILTON COUNTY CONTROL CENTER CL21
STATION 75+39 RT REDBANK EXPRESSWAY
CIRCUIT CL21–A

RED BANK EXPWY INTERCHANGE

REL 12 EC–7 F:\ELECDWG\98090\REDRAMP.DWG OCTOBER–18–1994 USER: RGARDNER TIME:13:59

CALC. BY DATE	HAM–71–1.30/9.00	OHIO
CHKD. BY DATE		F.H.W.A. REGION 5

211
401

50 0 50 100 150
GRAPHIC SCALE IN FEET

Match Line Sta. 488+00

Match Line Sta. 503+00

Village of Silverton
Corporation Line

Hamilton County
Corporation Line Village of Silverton

L.A. R/W

10C
RAMP C
8C
6C
4C
2C

RAMP D

SOUTHBOUND I–71

NORTHBOUND I–71

490

495

#1/0

3+63 LT/RT RAMP C

1+35 RT RAMP C
SIGN 525 W

1+25 RT RAMP C
PB

488+85 3' LT
PB

491+40 3' LT I–71
L21–B5

493+80 3' LT
PB

495+33 LT/RT I–71

496+20 3' LT I–71
L21–B6

497+18 3' LT I–71
PB

500+00 3' LT I–71
L21–B7, TYPE II

PROVIDE 2" EMPTY CONDUIT FOR FUTURE USE

500+10 3' RT I–71
PB

500+00 3' RT I–71
SIGN 350 W

Ex. 12"

Ex. 24"

Ex. 18"

STA. 488+00 TO STA. 503+00

REL 12 EC–7 F:\ELECDWG\88090\H488–503.DWG OCTOBER–18–1994 USER: ROARDNER TIME:13:56

CALC. BY DATE	HAM–71–1.30/9.00	OHIO
CHKD. BY DATE		F.H.W.A. REGION 5

212/401

50 0 50 100 150
GRAPHIC SCALE IN FEET

504+95 LT I–71
PB

505+05 LT I–71
SIGN 525 W

509+60 3' LT I–71
L22–A3, TYPE II

9+50 RT RAMP E
L22–A7, TYPE II

SOUTHBOUND I–71

NORTHBOUND I–71

RAMP E

Match Line Sta. 503+00

Match Line Sta. 518+00

515+90 3' LT
L22–A5, TYPE II

512+75 3' LT I–71
L22–A4, TYPE II

506+40 3' LT I–71
L22–A2, TYPE II

504+95 3' LT I–71
PB

503+20 3' LT I–71
L22–A1, TYPE II

STEWART RD.

STA. 503+00 TO STA. 518+00

REL 12 EC–7 F:\ELECDWG\68090\N503–518.DWG OCTOBER–18–1994 USER: ROARDNER TIME:13:56

CALC. BY DATE	HAM–71–1.30/9.00	OHIO
CHKD. BY DATE		F.H.W.A. REGION 5

213/401

50 0 50 100 150
GRAPHIC SCALE IN FEET

CODED NOTES:

1. EXISTING 2" STRUCTURE CONDUIT.
2. A DEEP DRAINAGE DITCH BEGINS TO FORM APPROXIMATELY 12' RIGHT OF EDGE OF PAVEMENT ON RAMP F.

VILLAGE OF SILVERTON CIRCUITS SHALL BE IN A SEPARATE TRENCH FROM STATE CIRCUITS. MAINTAIN A MINIMUM OF 4 FEET SEPARATION BETWEEN STATE AND VILLAGE CIRCUITS.

0+95 RT E
L22–A11, TYPE II

2+50 RT E
L22–A10, TYPE II

4+83 RT E
L22–A9, TYPE II

7+16 RT E
L22–A8, TYPE II

519+08 3' LT I–71
L22–A6, TYPE II

47+07 LT STEWART
CL22–A2, TYPE III

45+26 RT STEWART
CL22–A1, TYPE III

42+84 RT STEWART
EXISTING

Match Line Sta. 518+00

Match Line Sta. 54+00

51+28 LT STEWART
CL22–A3, TYPE III

51+40 RT STEWART
PB

49+67 LT STEWART
PB. SEE SHEET 228/401
FOR U.P. LIGHTING

52+43 RT STEWART
CL22–A5, TYPE III

51+95 RT STEWART
PB

CIR. CL22–A
CIR. L22–B

Bridge No.
HAM–71–0163 RT/LT

50+42 RT STEWART
PB. SEE SHEET 228/401
FOR U.P. LIGHTING

521+60 RT I–71

520+40 RT I–71

21+63 RT F
CL22–A4, TYPE II

520+00 RT I–71
SIGN 1050 W

519+90 RT I–71
STRUCTURE JUNCTION BOX
EXISTING

19+87 RT F
L22–B7, TYPE II
UNDERHUNG 3'

1+90 RT F'
L22–B9, TYPE II

18+65 RT F
PB

18+00 RT F
L22–B6, TYPE II
UNDERHUNG 3'

13+53 RT F
L22–B4, TYPE II
UNDERHUNG 3'

15+81 RT F
L22–B5, TYPE II
UNDERHUNG 3'

7+25 RT F
L22–B1, TYPE II
UNDERHUNG 3'

9+40 RT F
L22–B2, TYPE II
UNDERHUNG 3'

11+45 RT F
L22–B3, TYPE II
UNDERHUNG 3'

522+26 CL I–71
L22–B8, TYPE II

523+61 3' RT I–71
PB

525+45 3' RT I–71
L22–B10, TYPE II

528+64 3' RT I–71
L22–B11, TYPE II

531+83 3' RT I–71
L22–B12, TYPE II

Match Line Sta. 532+00

SOUTHBOUND I–71

NORTHBOUND I–71

RAMP E

RAMP F

STEWART RD.

L.A. R/W

SILVERTON CORPORATION LIMITS

MADEIRA CORPORATION LIMITS

VILLAGE OF SILVERTON
CONTROL CENTER CL22
55+15 LT STEWART,
CIRCUIT CL22–A

CIR. CL22–A

56+80 LT STEWART
CL22–A7, TYPE III

55+15 LT STEWART
PB

55+35 RT STEWART
CL22–A6, TYPE III

STATE OF OHIO
CONTROL CENTER L22
55+10 LT STEWART,
CIRCUITS L22–A,
L22–B

CIR. L22–A

55+10 LT STEWART
PB

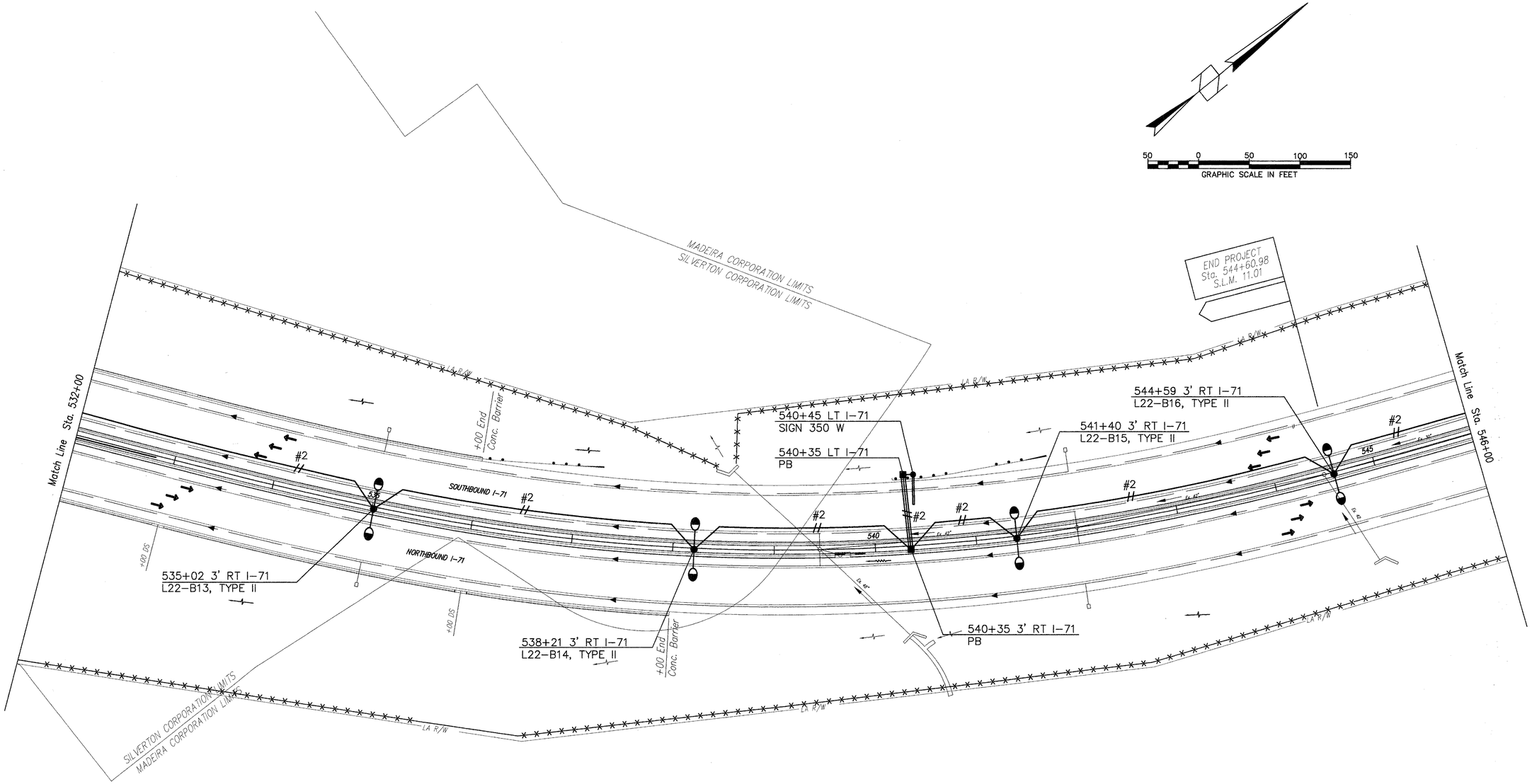
CIR. CL22–A
CIR. L22–B

Match Line Sta. 54+00

REL 12 FC–1 F:\ELECDWG\88090\N518–532.DWG OCTOBER–17–1994 USER: RGARDNER TIME: 21:34

STA. 518+00 TO STA. 532+00

CALC. BY DATE	HAM–71–1.30/9.00	OHIO	214 401
CHKD. BY DATE		F.H.W.A. REGION 5	

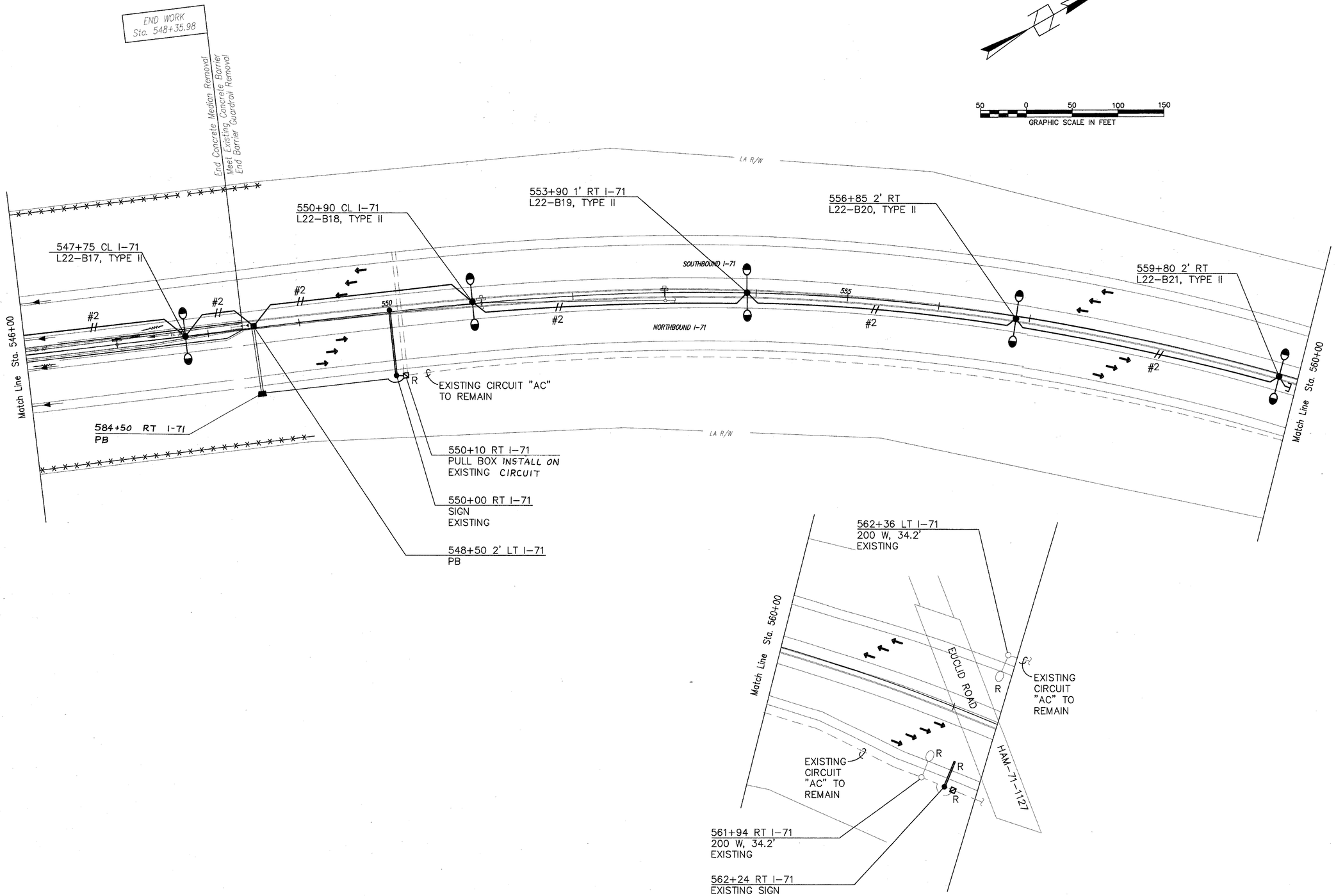


STA. 532+00 TO STA. 546+00

REL 12 EC–7 F:\ELECDWG\88090\N532–546.DWG OCTOBER–18–1994 USER: RGARDNER TIME:13:58

CALC. BY DATE	HAM–71–1.30/9.00	OHIO
CHKD. BY DATE		F.H.W.A. REGION 5

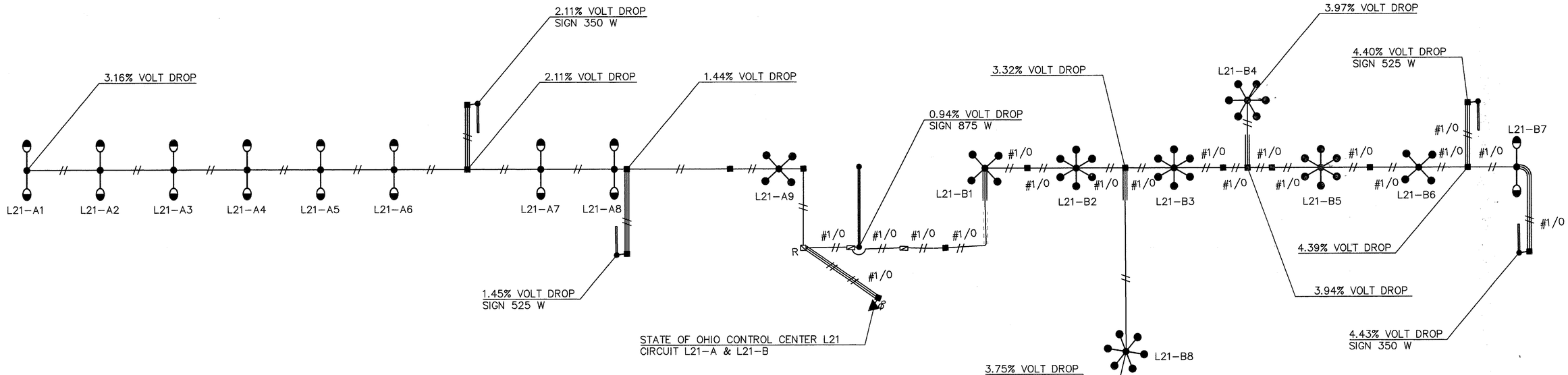
215/401



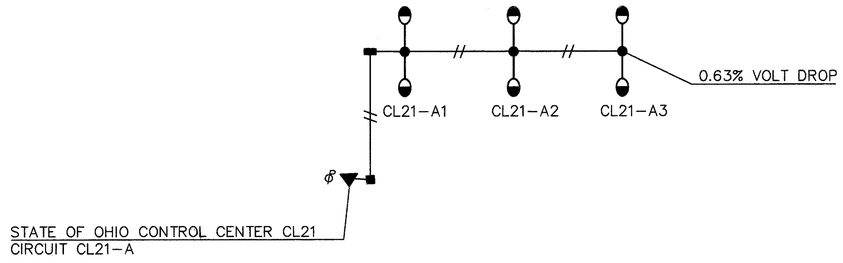
STA. 546+00 TO STA. 561+00

REL 12 EC-7 F:\ELEODWG\88090\N546-561.DWG OCTOBER-18-1994 USER: RGARDNER TIME:13:58

CALC. BY DATE	HAM–71–1.30/9.00	OHIO F.H.W.A. REGION 5	216 401
CHKD. BY DATE			



CONTROL CENTER L21
CIRCUIT L21–A, L21–B NTS



CONTROL CENTER CL21
CIRCUIT CL21–A NTS

CIRCUIT SCHEMATICS

EC-1 F:\ELL\DWG\98090\VL21.DWG OCTOBER-1/-1994 USER: MGAYDNER TIME: 27:39
SHEET 12

CALC. BY DATE	HAM–71–1.30/9.00	OHIO
CHKD. BY DATE		F.H.W.A. REGION 5

217
401

STATE OF OHIO
CONTROL CENTER L22
55+10 LT STEWART, CIRCUITS L22–A, L22–B

CIR. L22–A

L22–A1
L22–A2
L22–A3
L22–A4
L22–A5
L22–A6
L22–A7
L22–A8
L22–A9
L22–A10
L22–A11

2.56% VOLT DROP
SIGN 525 W

2.55% VOLT DROP

2.59% VOLT DROP

1.90% VOLT DROP
L22–A5, TYPE II

#2

CIR. L22–B

0.69% VOLT DROP

2.83% VOLT DROP
SIGN 350 W

3.64% VOLT DROP

L22–B8
L22–B10
L22–B11
L22–B12
L22–B13
L22–B14
L22–B15
L22–B16
L22–B17
L22–B18
L22–B19
L22–B20
L22–B21

2.16% VOLT DROP
SIGN 1050 W

2.83% VOLT DROP

L22–B1

1.23% VOLT DROP

L22–B2

L22–B3

L22–B4

L22–B5

L22–B6

L22–B7

1.02% VOLT DROP

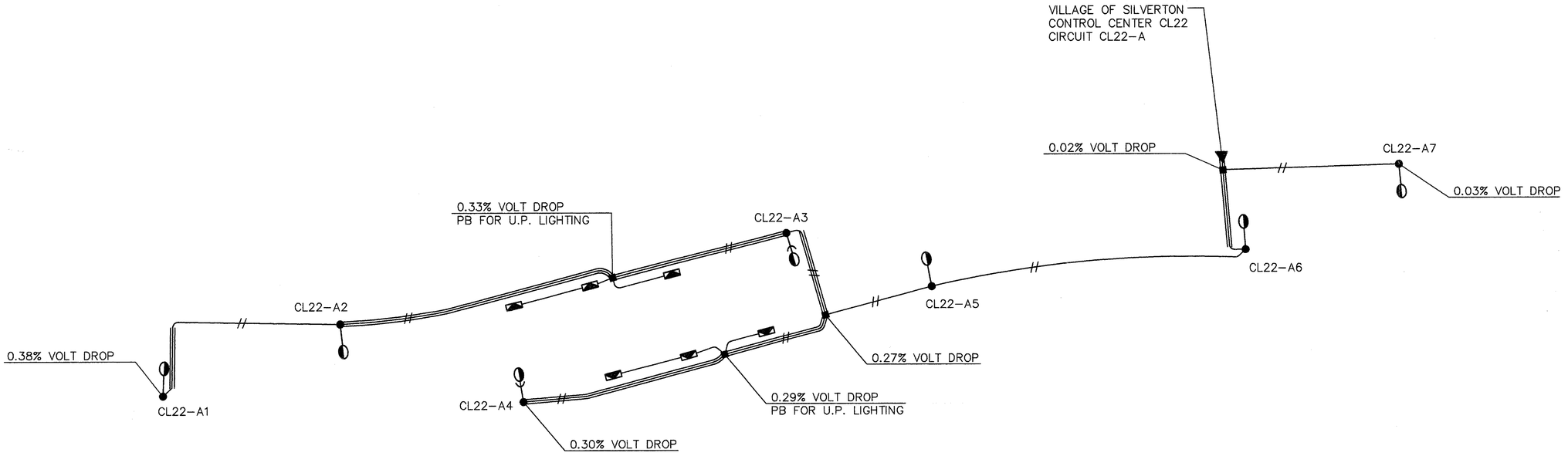
L22–B9

1.01% VOLT DROP
PB

CONTROL CENTER L22
CIRCUIT L22–A & B NTS

EC-1 F:\ELECDWG\88090\VL22.DWG OCTOBER-17-1994 USER: RGARDNER TIME:23:00
EL 12

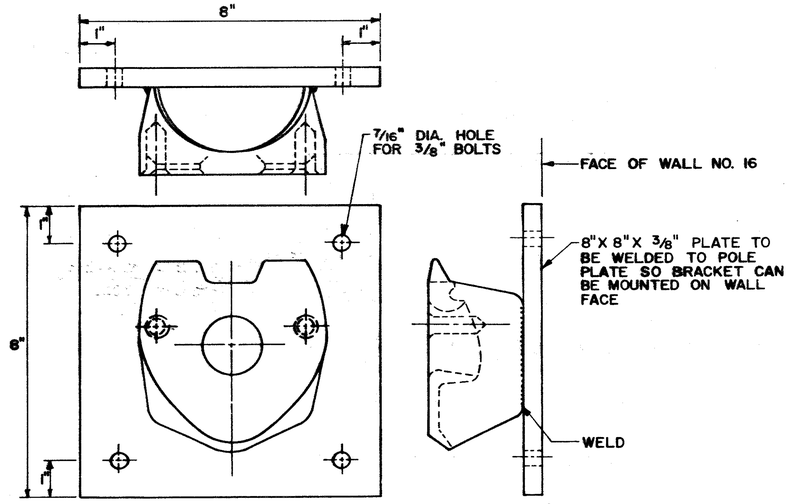
CALC. BY ____ DATE ____	HAM-71-1.30/9.00	OHIO	218
CHKD. BY ____ DATE ____		F.H.W.A. REGION 5	401



CONTROL CENTER CL22

CIRCUIT CL22-A NTS

REL 12 EC-1 F:\ELECDWG\88090\VCL22.DWG OCTOBER-17-1994 USER: RGARDNER TIME: 22:09



MODIFIED POLE PLATE

VARIABLE HEIGHT STANDARDS

WALL NO.	POLE NO.	LIGHT POLE DESIGN	EXISTING ANCHOR BOLT DATA		
			BOLT CIRCLE DIA.	PROJECTION ABOVE FOUNDATION	SIZE
10	L5-C3	A15B15.7	10"	2 1/4"	1"X40"
10	L5-C4	A15B25	10"	2 1/4"	1"X40"
10	L5-C5	A15B31.5	10"	2 1/4"	1"X40"
15	L5-B1	A15B24.2	11.5"	2 3/4"	1 1/4"X48"
15	L5-B2	A15B32.4	11.5"	2 3/4"	1 1/4"X48"
15	L5-B3	A15B37.8	11.5"	2 3/4"	1 1/4"X48"
28	L6-A5	A10B39.2	11.5"	2 3/4"	1 1/4"X48"
21	L7-A3	A15B37.2	11"	2 5/8"	1"X40"
21	L7-A4	A15B29.5	10.5"	2 5/8"	1"X40"
21	L7-A5	A15B33.6	11"	2 5/8"	1"X40"
22	L7-A7	A15B15.7	8"	2"	3/4"X30"
23	L7-A8	A15B15.4	8"	2"	3/4"X30"
23	L7-A9	A15B17.4	8"	2"	3/4"X30"
41	L8-A11	A15B26.2	10"	2 1/4"	1"X40"
41	L8-A12	A15B32.4	11"	2 5/8"	1"X40"
41	L8-A13	A15B34	11"	2 5/8"	1"X40"
34	L9-A4	A10B39.2	11"	2 5/8"	1 1/4"X48"
34	L9-A5	A10B29.2	11"	2 5/8"	1 1/4"X48"
24	L9-C8	A15B20.4	8"	2"	3/4"X30"
25	L9-C9	A15B34.2	11"	2 5/8"	1 1/4"X48"
37	L10-B2	A10B40	11"	2 5/8"	1 1/4"X48"

NOTE: BRACKET ARM UPSWEEP FOR EACH VARIABLE HEIGHT STANDARD SHALL MATCH ADJACENT STANDARDS.

THESE LIGHT STANDARDS ARE CARRIED TO THE SUB-SUMMARY SHEETS AS VARIABLE HEIGHT STANDARDS.

CONTROL CENTER DATA

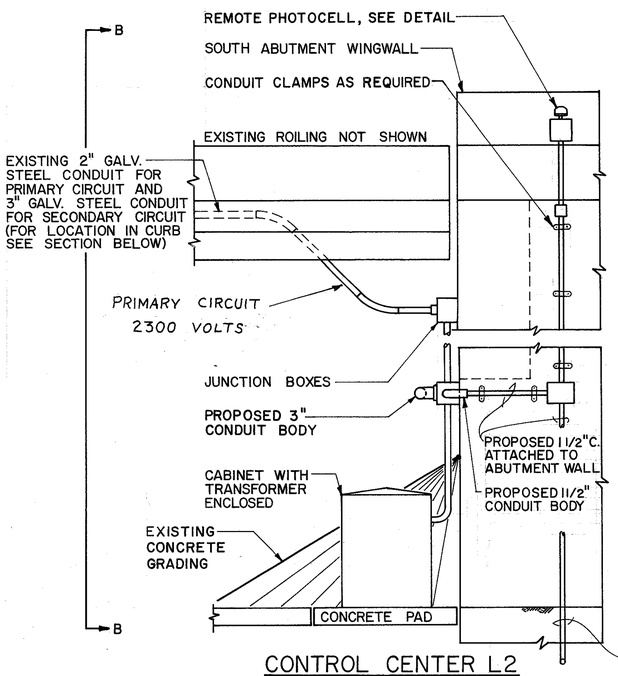
POWER SERVICE	CONNECTED LOAD KVA	SERVICE ENTRANCE CONDUCTOR SIZE-AWG	TYPE OF SERVICE	ENCLOSURE RATING AMPS	CIRCUIT NUMBER	CIRCUIT LOAD AMPS	CIRCUIT FUSE SIZE AMPS	MAINTAINING AGENCY
CL1	4.76	#4	120/240 VOLT, 3W, 1ø GROUNDED NEUTRAL	30	A	8.1	30	CITY OF CINCINNATI
					B	11.7	30	
CL3	-	#4	120/240 VOLT, 3W, 1ø GROUNDED NEUTRAL	30	A	EXISTING	30	CITY OF CINCINNATI
					B	EXISTING	30	
L2	9.40	#4	120/240 VOLT, 3W, 1ø GROUNDED NEUTRAL	60	A	20.72	30	ODOT
					B	18.43	30	
L5	15.37	#2	120/240 VOLT, 3W, 1ø GROUNDED NEUTRAL	100	A	31.53	60	ODOT
					B	15.7	30	
					C	16.79	30	
L6	6.19	#4	120/240 VOLT, 3W, 1ø GROUNDED NEUTRAL	60	A	25.77	60	ODOT
L7	4.32	#4	120/240 VOLT, 3W, 1ø GROUNDED NEUTRAL	30	A	17.97	30	ODOT
CL7	-	#4	120/240 VOLT, 3W, 1ø GROUNDED NEUTRAL	30	A	EXISTING	30	CITY OF CINCINNATI
L8	5.7	#4	120/240 VOLT, 3W, 1ø GROUNDED NEUTRAL	60	A	23.75	30	ODOT
CL8	-	#4	120/240 VOLT, 3W, 1ø GROUNDED NEUTRAL	30	A	EXISTING	30	CITY OF CINCINNATI
L9	16.78	#2	120/240 VOLT, 3W, 1ø GROUNDED NEUTRAL	100	A	30.49	60	ODOT
					B	23.81	30	
					C	16.22	30	
L10	7.73	#4	120/240 VOLT, 3W, 1ø GROUNDED NEUTRAL	60	A	19.83	30	ODOT
					B	12.36	30	
CL10	7.41	#4	120/240 VOLT, 3W, 1ø GROUNDED NEUTRAL	60	A	30.87	60	CITY OF CINCINNATI
L11	7.45	#4	120/240 VOLT, 3W, 1ø GROUNDED NEUTRAL	60	A	8.24	30	ODOT
					B	9.27	30	
					C	13.54	30	
CL11	2.09	#4	120/240 VOLT, 3W, 1ø GROUNDED NEUTRAL	30	A	8.7	30	CITY OF CINCINNATI
L21	33.07	#2	480 VOLT, 2W, 1ø GROUNDED NEUTRAL	100	A	18.8	30	ODOT
					B	50.1	100	
CL21	1.49	#4	120/240 VOLT, 3W, 1ø GROUNDED NEUTRAL	30	A	6.18	30	HAMILTON COUNTY
L22	20.54	#4	480 VOLT, 2W, 1ø GROUNDED NEUTRAL	60	A	16.75	30	ODOT
					B	26.04	60	
CL22	2.68	#4	480 VOLT, 2W, 1ø GROUNDED NEUTRAL	30	A	5.57	30	VILLAGE OF SILVERTON

BRUNING 44-232 75653

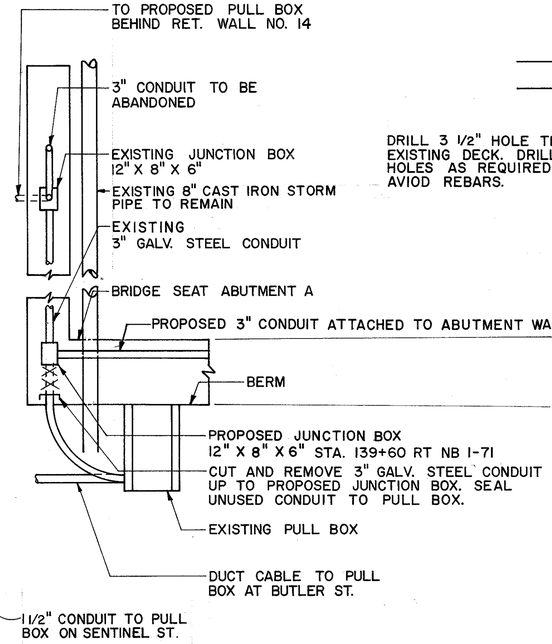
F.H.W.A. REGION	STATE	PROJECT	
15	OHIO		

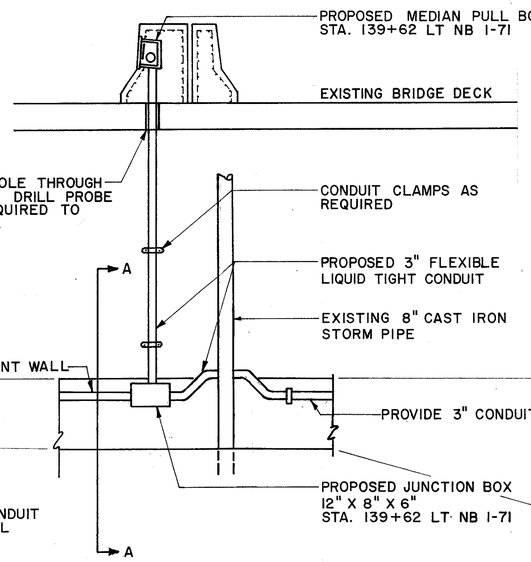
220
401

HAMILTON COUNTY
HAM-71-1.30/9.00

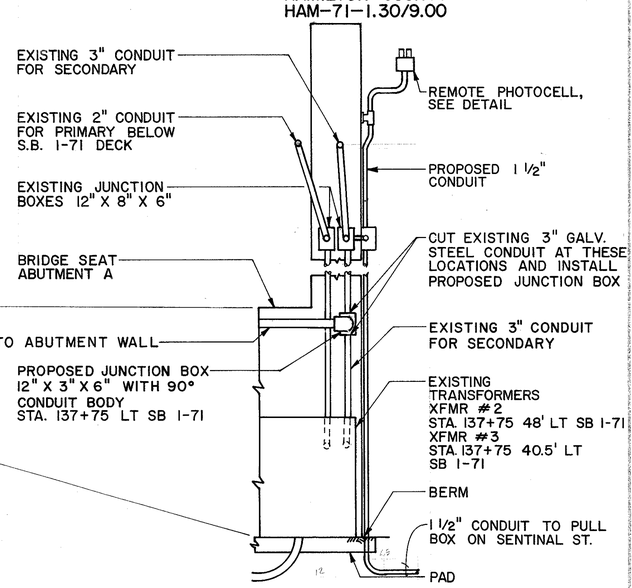


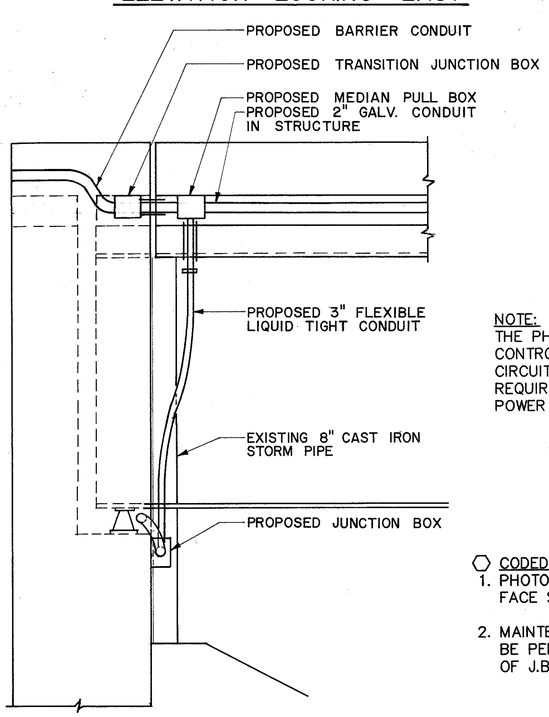
CONTROL CENTER L2
ELEVATION LOOKING EAST





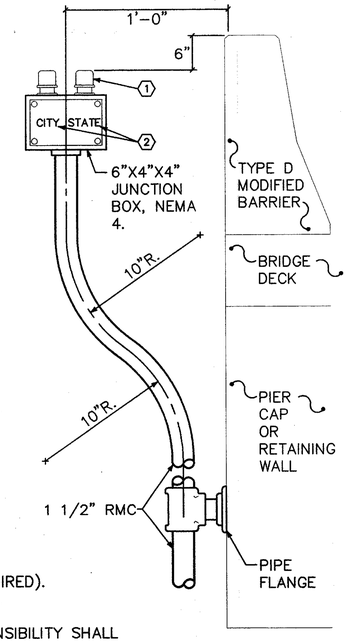
ELEVATION B-B





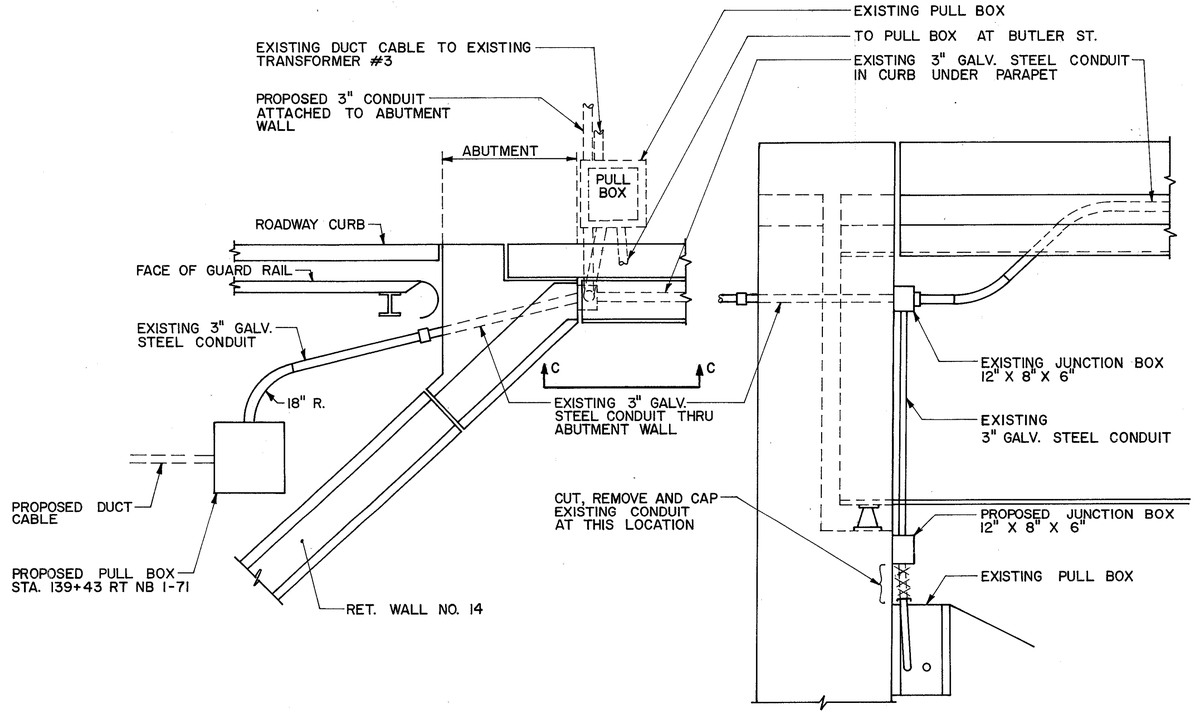
ELEVATION A-A

NOTE:
THE PHOTOCELL TO CONTROL STATE CIRCUITS IS NOT REQUIRED FOR POWER SERVICE "CL1".



REMOTE PHOTOCELL "A", AS PER PLAN

⬡ CODED NOTES
1. PHOTOCELL (AS REQUIRED). FACE SENSOR NORTH.
2. MAINTENANCE RESPONSIBILITY SHALL BE PERMENANTLY MARKED ON FACE OF J.B. FOR EACH PHOTOCELL



PLAN AT HAM-71-0154R SOUTH ABUTMENT WALL AND RETAINING WALL NO. 14

ELEVATION C-C

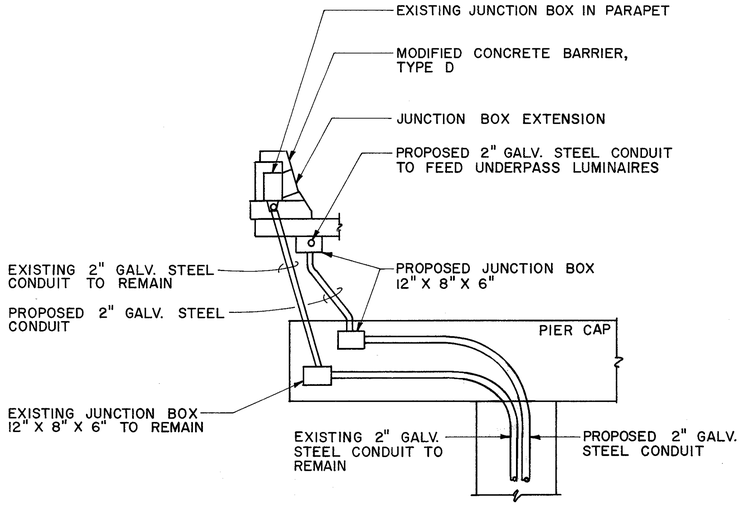
MODIFICATION TO EXISTING CIRCUIT RACEWAY "A"

BRUNING A1 (30) 1E/DA

REVISION #	STATE	PROJECT	
5	OHIO		

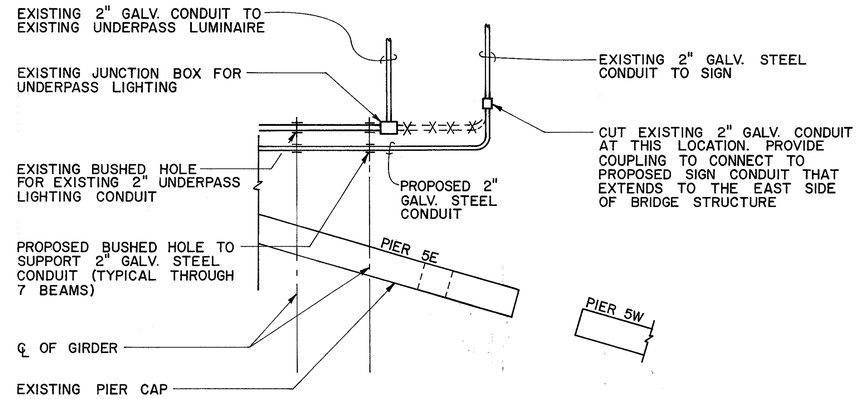
221
401

HAMILTON COUNTY
HAM-71-1.30/9.00



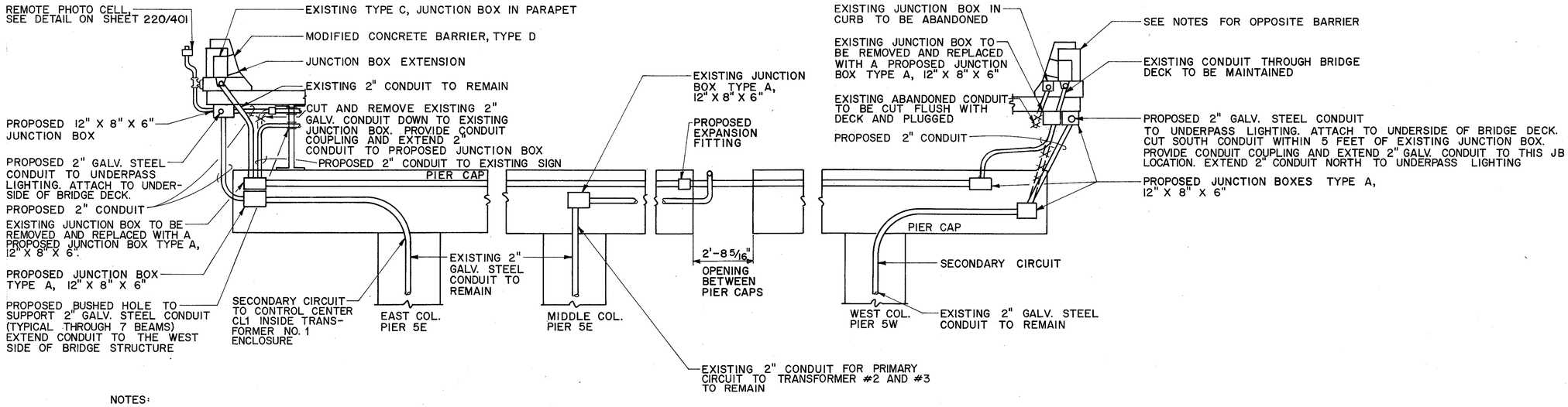
DETAIL OF CONDUIT ROUTING UP TO BRIDGE STRUCTURE

TYPICAL OF CIRCUITS L10, LC10, L11 & CL11
(OPPOSITE HAND SIMILAR)



ENLARGED PLAN

WEST SIDE OF BRIDGE STRUCTURE
HAM-71-0154R



NOTES:

1. ATTACH JUNCTION BOXES TO PIER CAP WITH 4-1/4" EXPANSION BOLTS.
2. ATTACH CONDUITS TO PIER CAPS AND COLUMNS WITH GALV. STEEL PIPE STRAPS AND EXPANSION BOLTS AT APPROX. SIX FOOT INTERVALS.

PARTIAL ELEVATION OF PIERS 5E & 5W (LOOKING SOUTH)

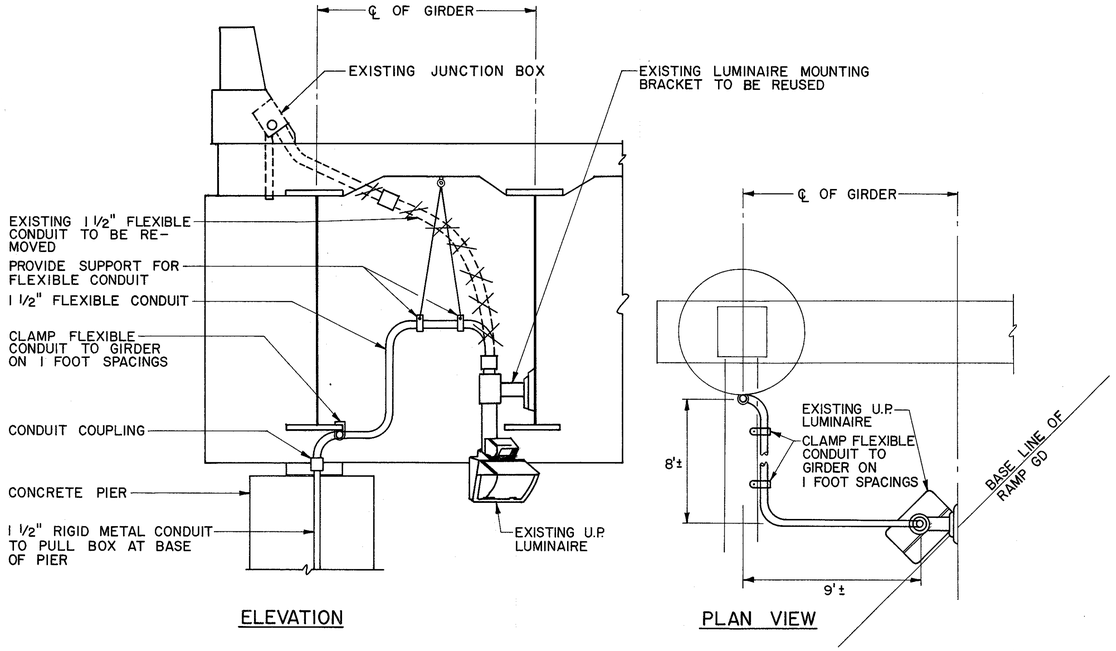
HAM-71-0154 R/L

BRUNING 44-135 75855

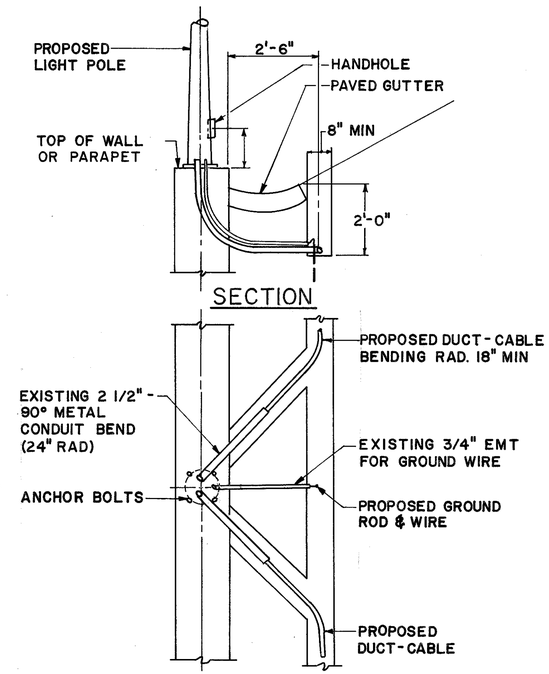
F.H.W.A. REGION	STATE	PROJECT	
5	OHIO		

222
401

HAMILTON COUNTY
HAM-71-1.30/9.00

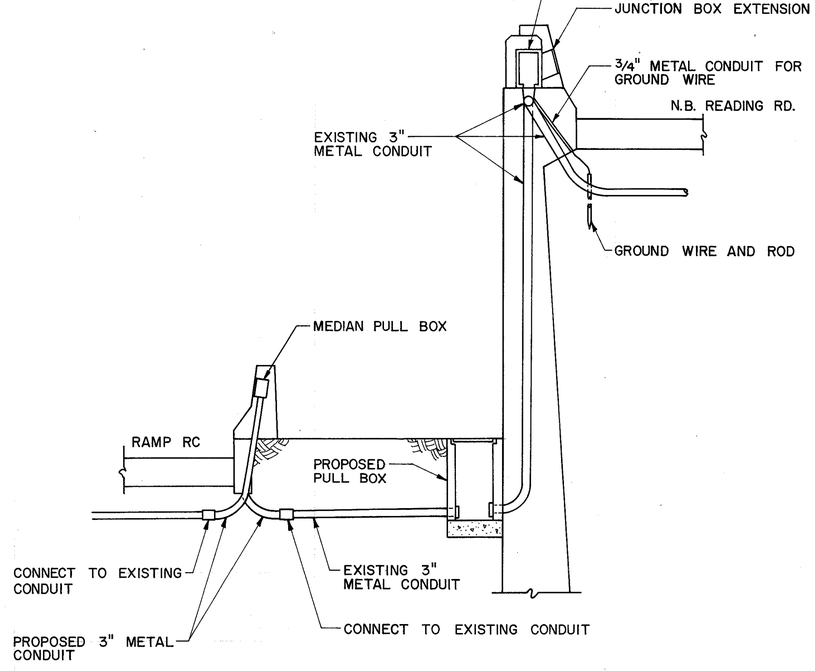


UNDERPASS LIGHTING AT 159+66.5 LT RAMP GD

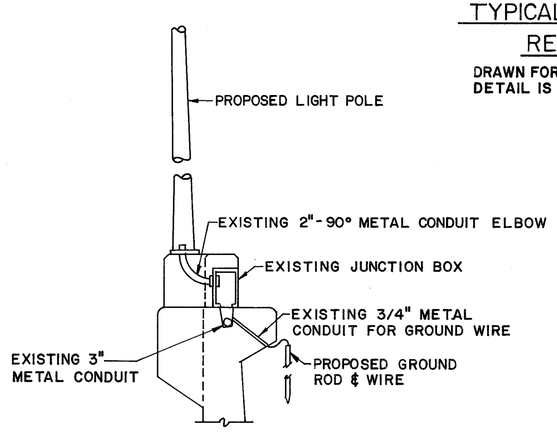


TYPICAL INSTALLATION AT RETAINING WALLS

**DRAWN FOR DITCH SECTION BEHIND WALL
DETAIL IS SAME WHEN DITCH IS OMITTED**



SECTION THRU RETAINING WALL NO. 31



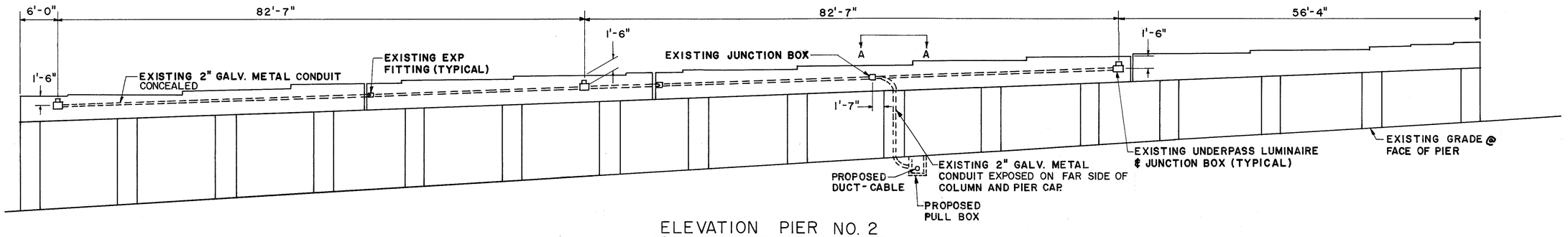
TYPICAL INSTALLATION AT RETAINING WALLS WITH INTEGRAL CURB

DRAWING 14 422 7655C

F.H.W.A. REGION	STATE	PROJECT	
5	OHIO		

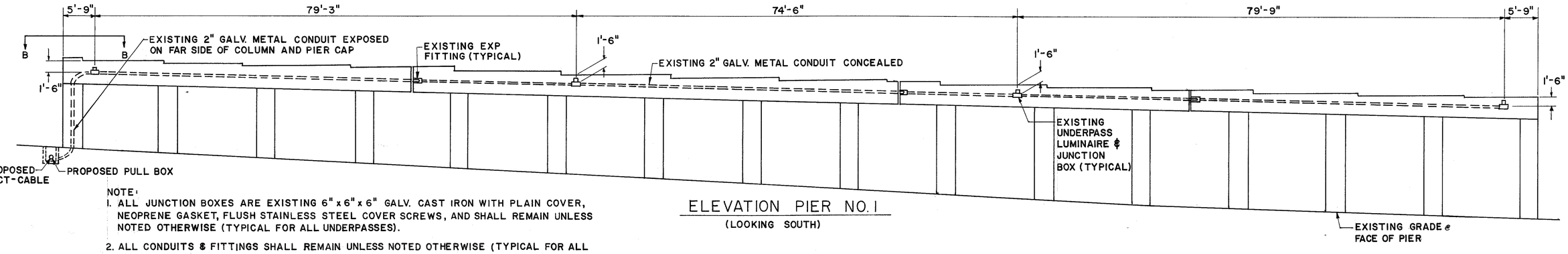
223
401

HAMILTON COUNTY
HAM-71-1.30/9.00



ELEVATION PIER NO. 2

(LOOKING NORTH)

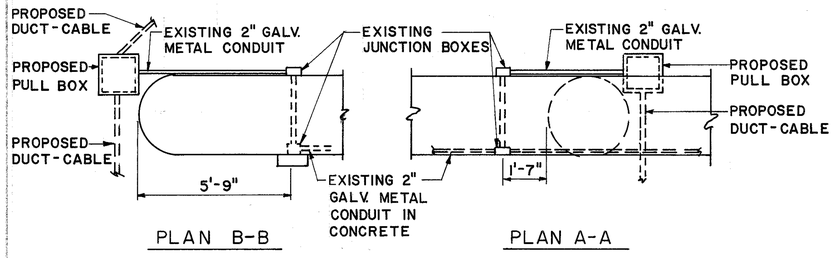


ELEVATION PIER NO. 1

(LOOKING SOUTH)

NOTE:

1. ALL JUNCTION BOXES ARE EXISTING 6" x 6" x 6" GALV. CAST IRON WITH PLAIN COVER, NEOPRENE GASKET, FLUSH STAINLESS STEEL COVER SCREWS, AND SHALL REMAIN UNLESS NOTED OTHERWISE (TYPICAL FOR ALL UNDERPASSES).
2. ALL CONDUITS & FITTINGS SHALL REMAIN UNLESS NOTED OTHERWISE (TYPICAL FOR ALL UNDERPASSES).



PLAN B-B

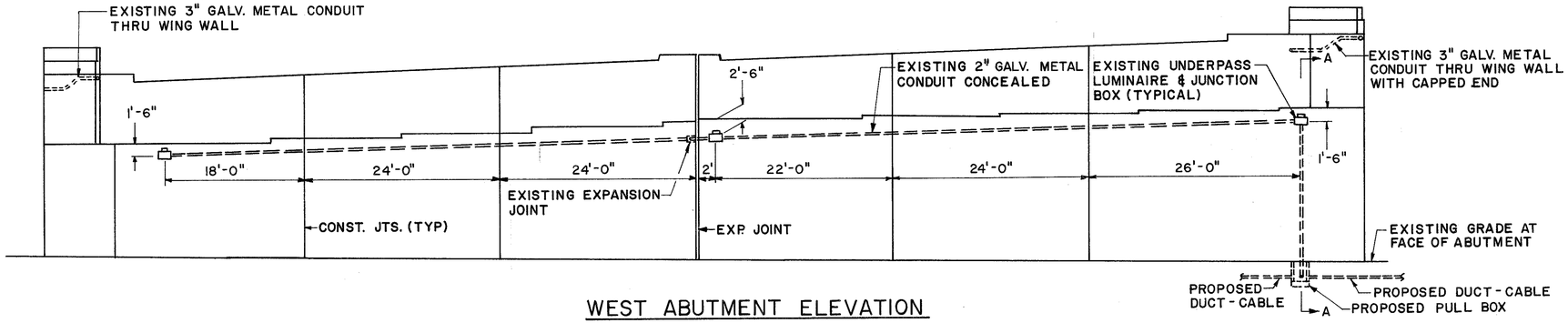
PLAN A-A

BRUNING M-234-73693

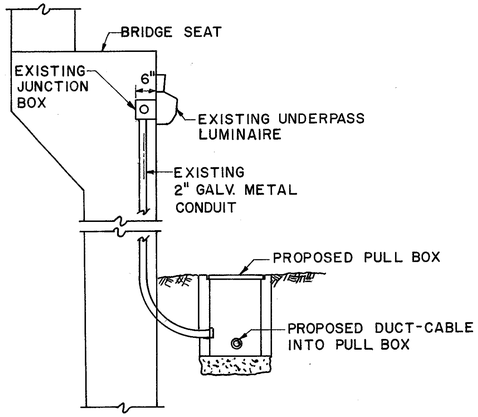
FEDERAL HIGHWAY	STATE	PROJECT	
5	OHIO		

224
401

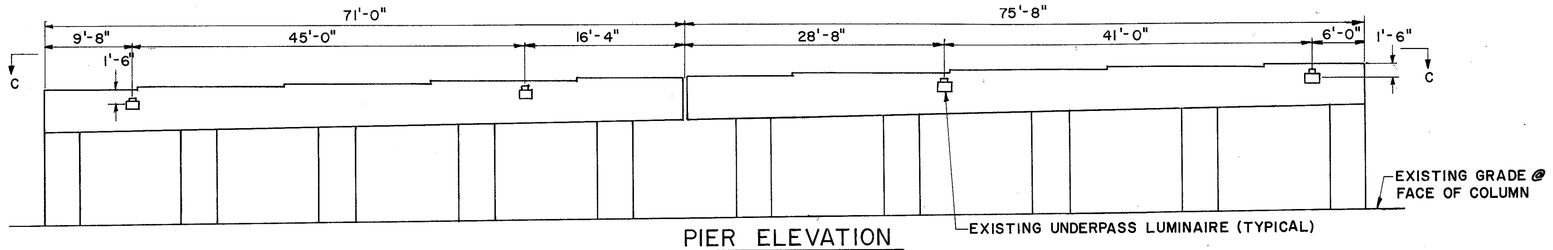
HAMILTON COUNTY
HAM-71-1.30/9.00



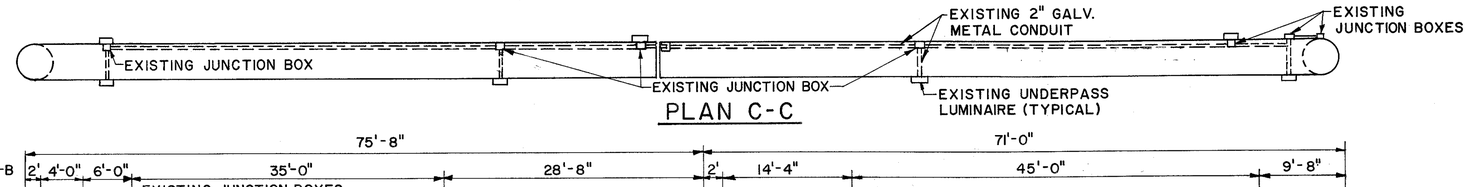
WEST ABUTMENT ELEVATION



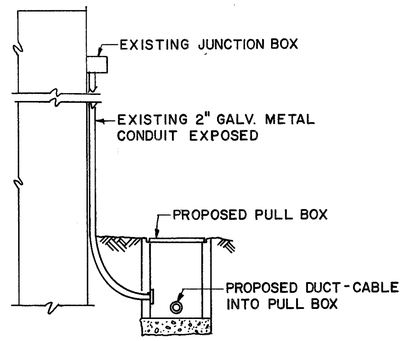
SECTION A-A



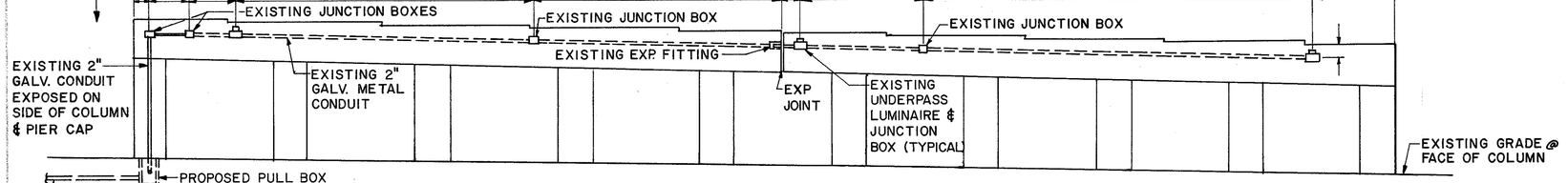
PIER ELEVATION
(LOOKING WEST)



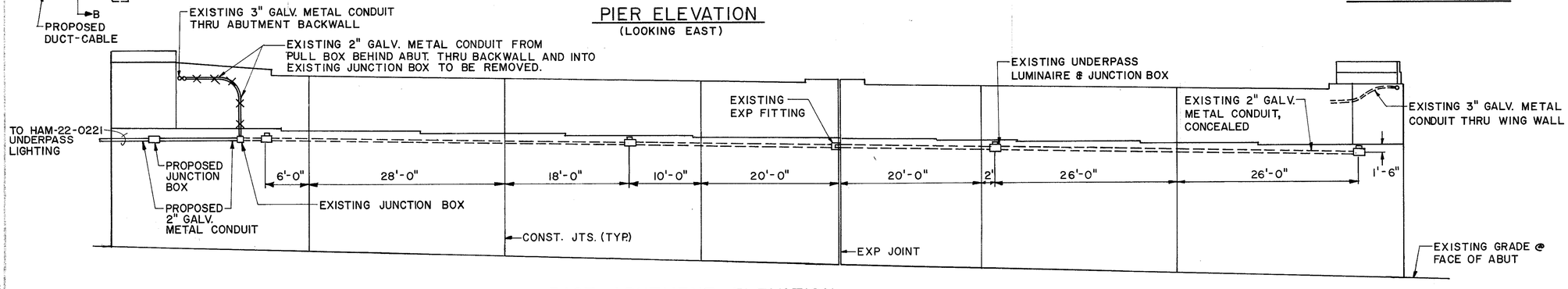
PLAN C-C



ELEVATION B-B



PIER ELEVATION
(LOOKING EAST)

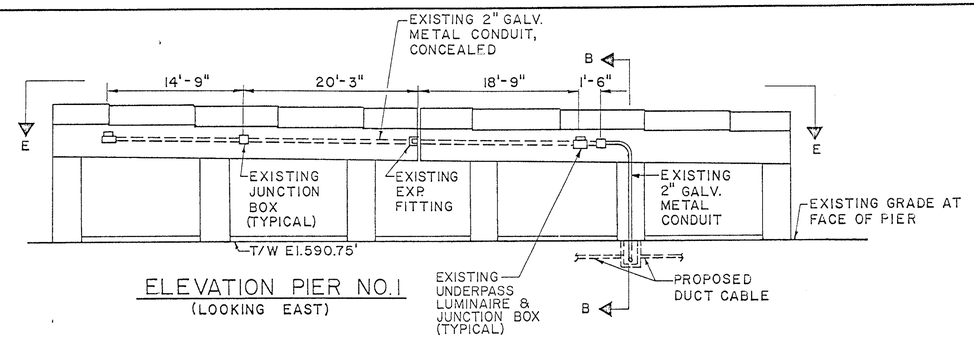


EAST ABUTMENT ELEVATION

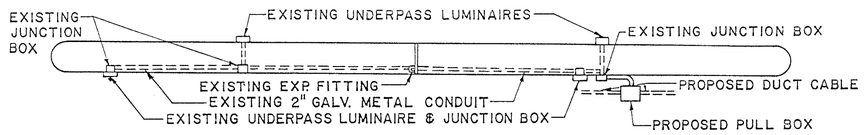
F.H.W.A. REGION	STATE	PROJECT	
5	OHIO		

225/401

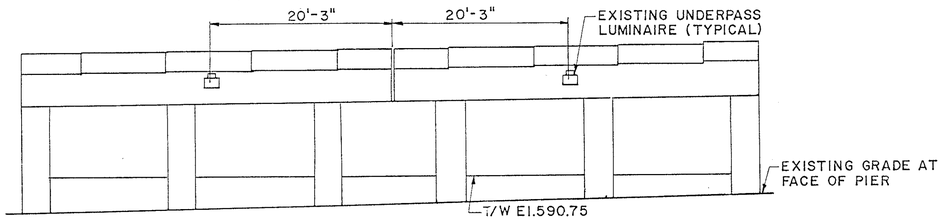
HAMILTON COUNTY
HAM-71-1.30/9.00



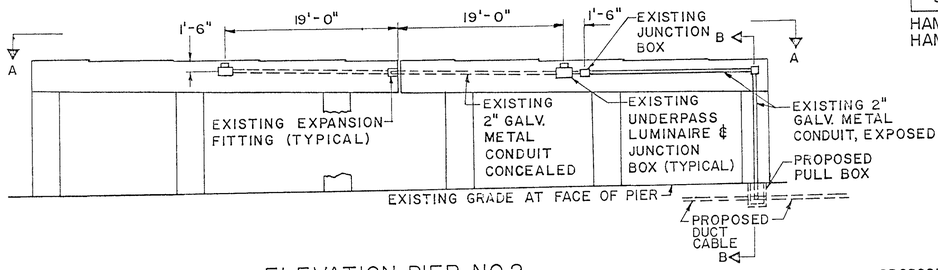
ELEVATION PIER NO.1
(LOOKING EAST)



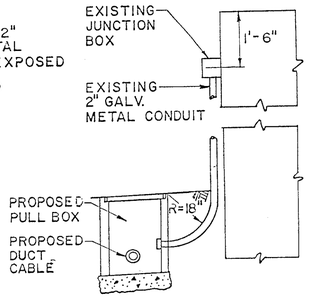
PLAN E-E



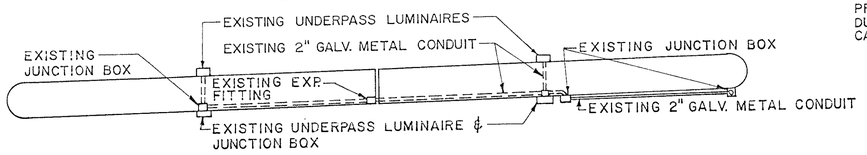
ELEVATION PIER NO.1
(LOOKING WEST)

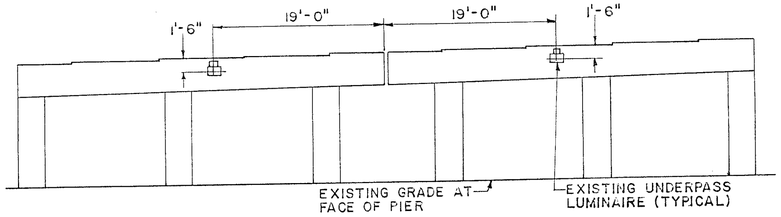


ELEVATION PIER NO.2
(LOOKING EAST)

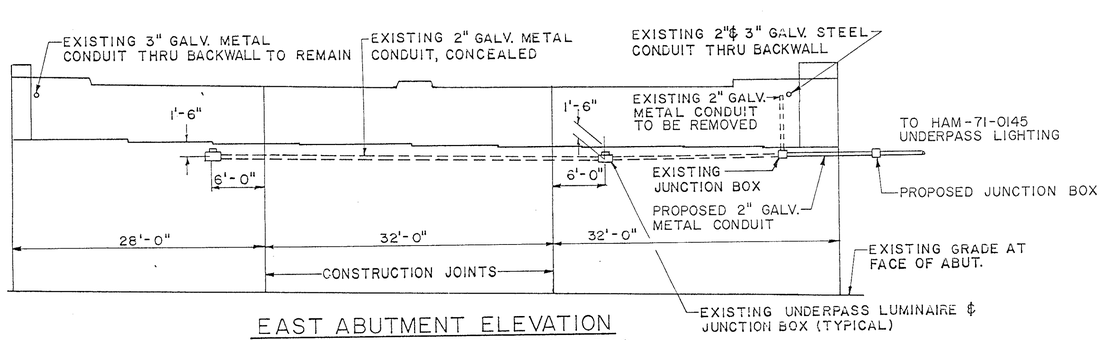


SECTION B-B

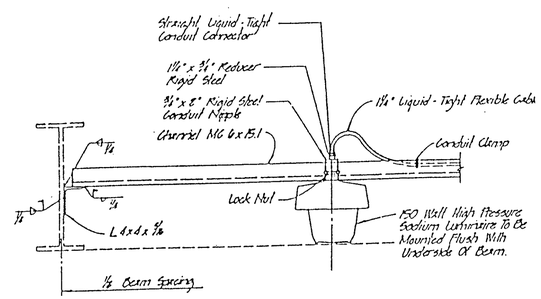




ELEVATION PIER NO.2
(LOOKING WEST)



EAST ABUTMENT ELEVATION
(WEST ABUT. IS SIMILAR EXECPT THERE ARE NO UNDERPASS LIGHTS.)



LUMINAIRE ATTACHMENT DETAIL (Typical)

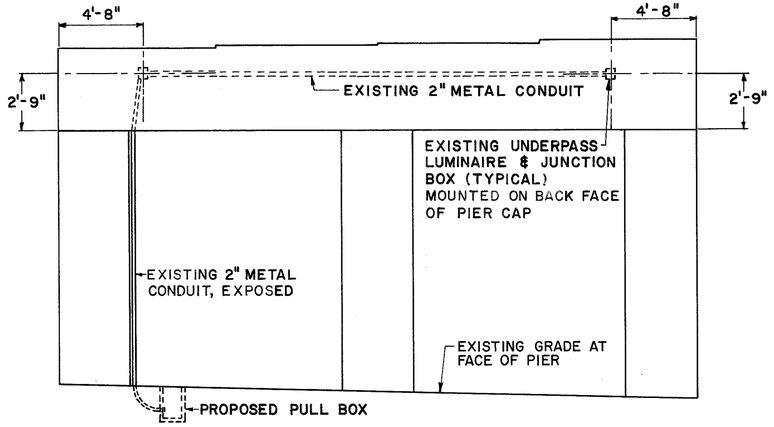
BRUNING 44 232 75653

KORDA/NEMETH ENGINEERING, INC.

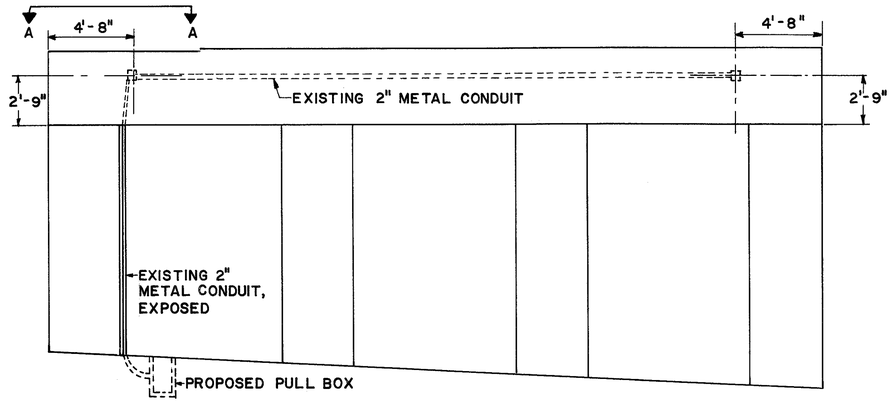
UNDERPASS LIGHTING

BRIDGE NO. HAM-71-0221

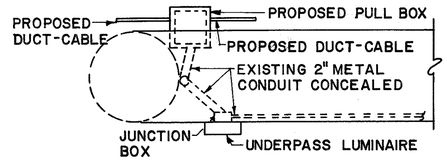
HAMILTON COUNTY
HAM-71-1.30/9.00



ELEVATION PIER NO I
(LOOKING EAST)
BRIDGE NO. HAM.-71-0228

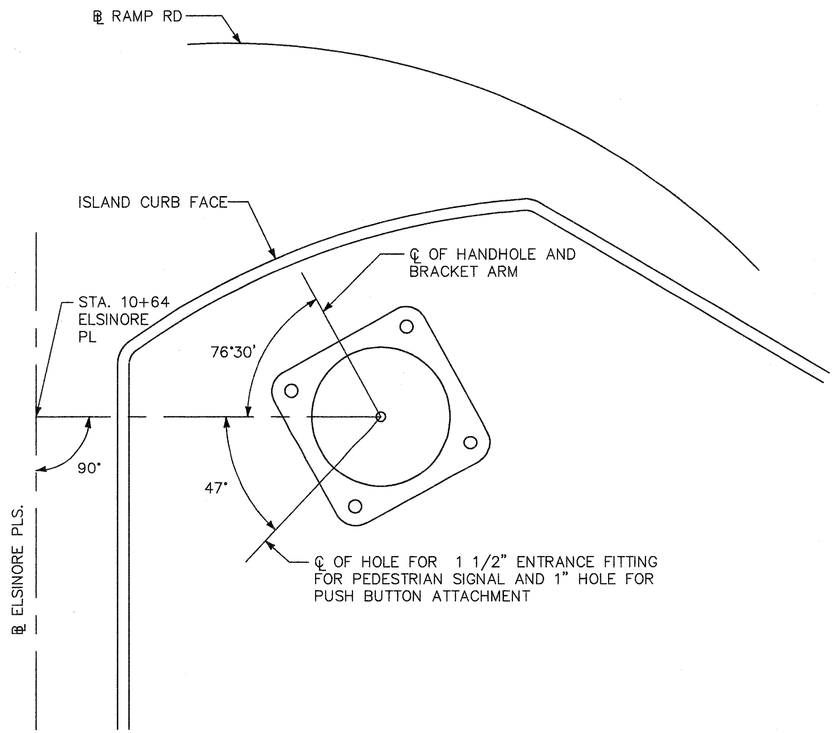


ELEVATION PIER NO. I
(LOOKING EAST)
BRIDGE NO. HAM.-42-0235R

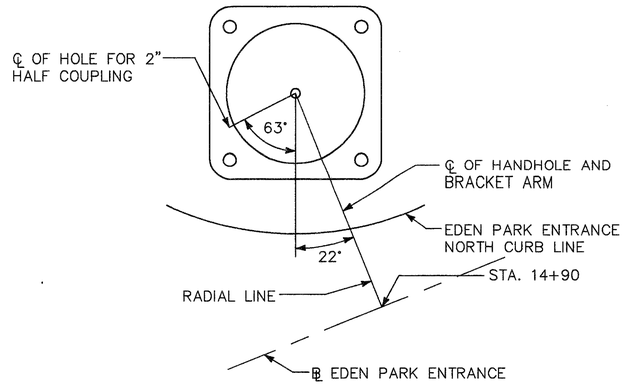


PLAN A-A

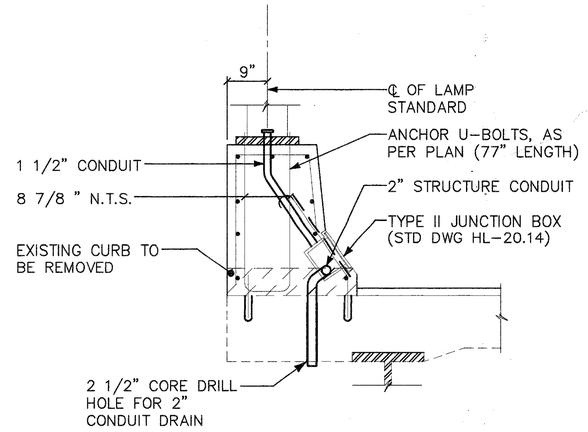
BRUNING 44-132 79853



POLE L9-B3

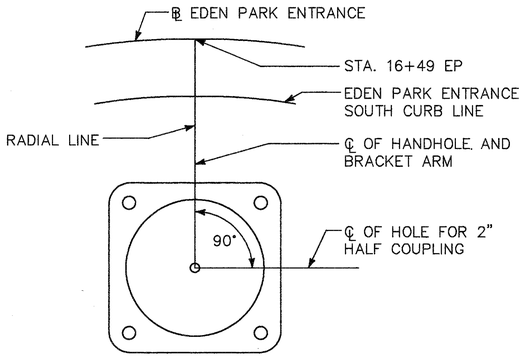


POLE CL10-A4

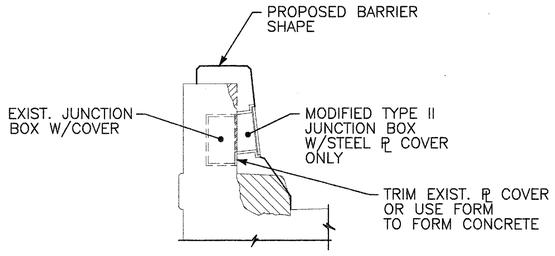


LIGHT POLE PILASTER FOR BRIDGE NO. HAM-71-0154 RT

(BRIDGE NO. HAM-71-0192 IS OPPOSSITE)

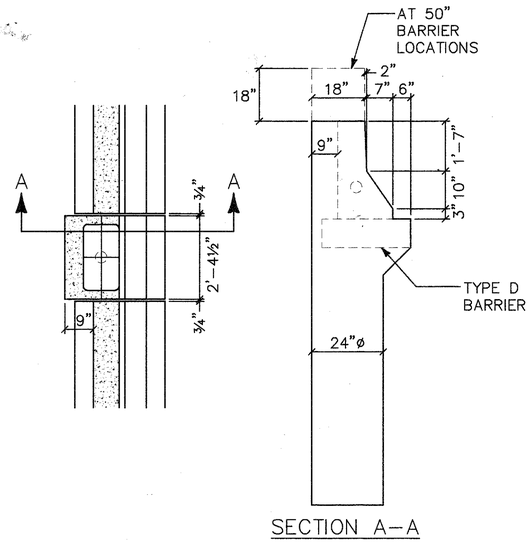


POLE CL10-A7



THE PROPOSED JUNCTION BOX SHALL BE MADE FROM A TYPE II JUNCTION BOX BY REMOVING THE FACE OPPOSITE OF THE OPENING & PORTIONS OF THE WALLS. THE EXIST. JUNCTION BOX SHALL BE ACCESSED THROUGH A NEW OPENING ON THE PROPOSED BARRIER SHAPE'S FACE. THE EXTENSION SHALL BE ATTACHED TO THE FORMWORK FOR PLACEMENT. ALL WORK TO BE INCLUDED IN PRICE BID FOR ITEM SPECIAL "JUNCTION BOX EXTENSION "A"".

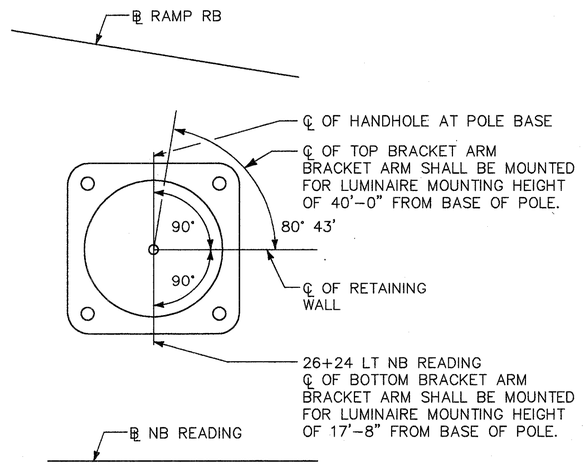
JUNCTION BOX EXTENSION



SECTION A-A

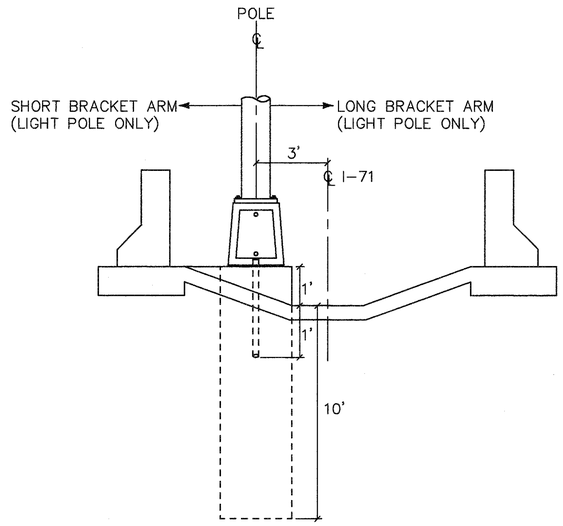
MEDIAN LIGHT POLE FOUNDATION 8' DEEP, AS PER PLAN

(MEDIAN LIGHT POLE FOUNDATION, 10' DEEP, AS PER PLAN IS SIMILAR)

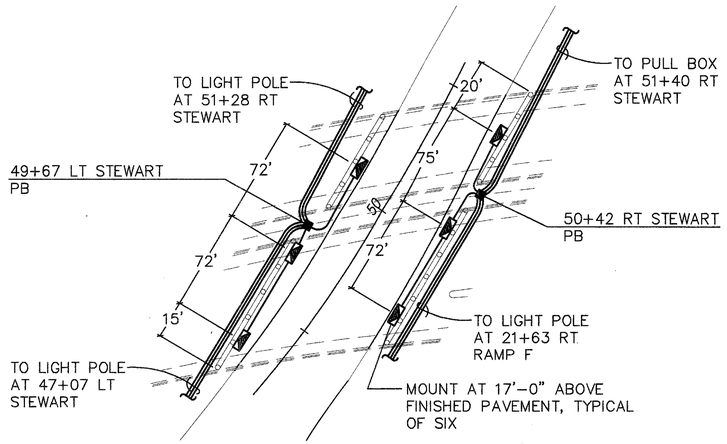


LIGHT POLE DESIGN A10BB40, AS PER PLAN

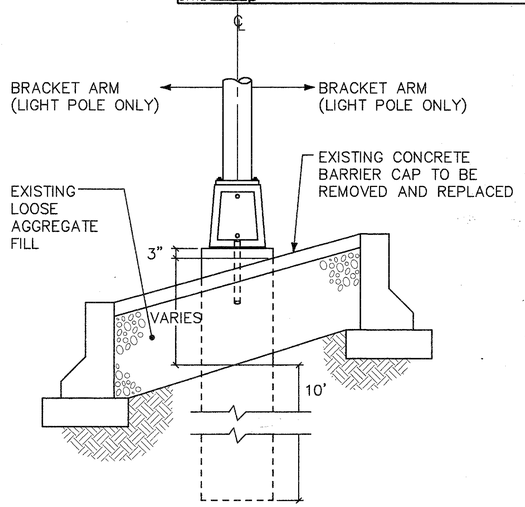
REL 12 EC-4 I:\ELLDWG\48090\POLE.DWG OCTOBER-21-1994 USER: REARDNER TIME:12:58



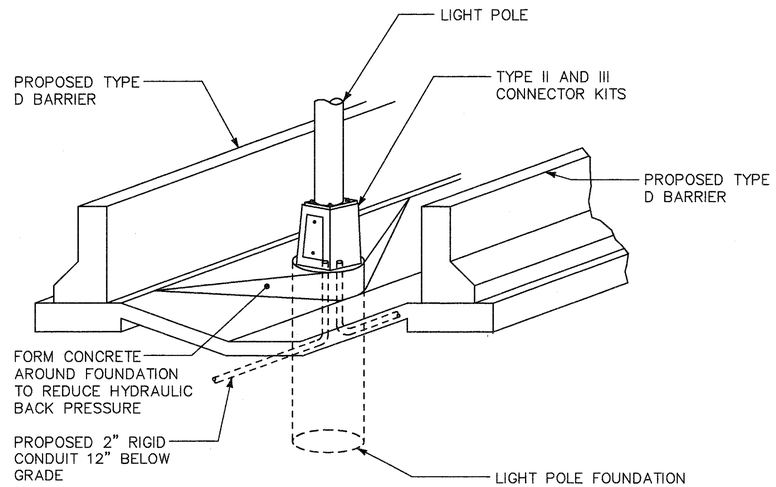
FRONT VIEW
(OPPOSITE HAND SIMILAR)



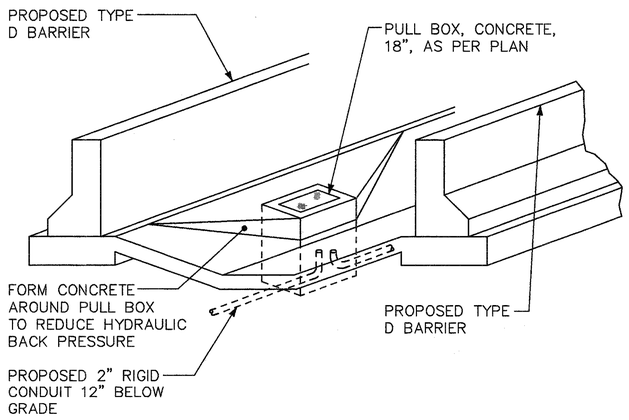
STEWART ROAD UNDERPASS LIGHTING
HAM-71-0168 RT/LT



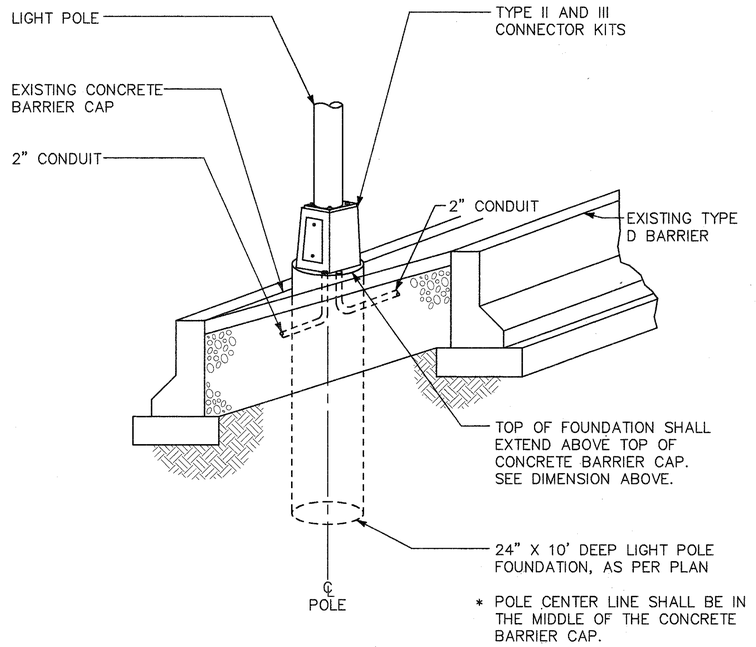
FRONT VIEW



LIGHT POLE FOUNDATION "A", 24" X 10' DEEP, AS PER PLAN
LIGHT TOWER FOUNDATION "A", 36" X 25' DEEP, AS PER PLAN (SIMILAR)
(OPPOSITE HAND SIMILAR)



PULL BOX, CONCRETE, 18", AS PER PLAN



LIGHT POLE FOUNDATION "B", 24" X 10' DEEP, AS PER PLAN

REL 12 EC-4 F:\ELECDWG\88090\88090LLP.DWG OCTOBER-21-1994 USER: RGARDNER TIME:12:56