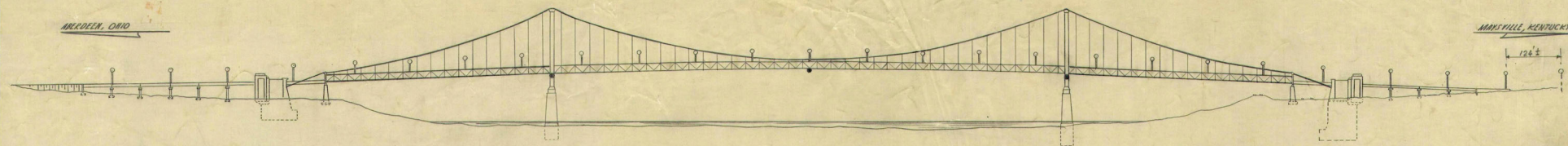
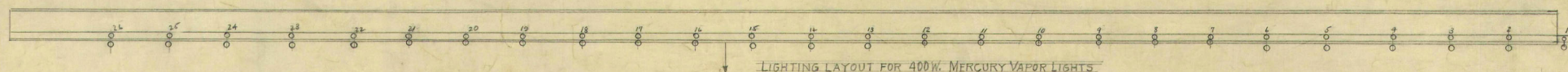


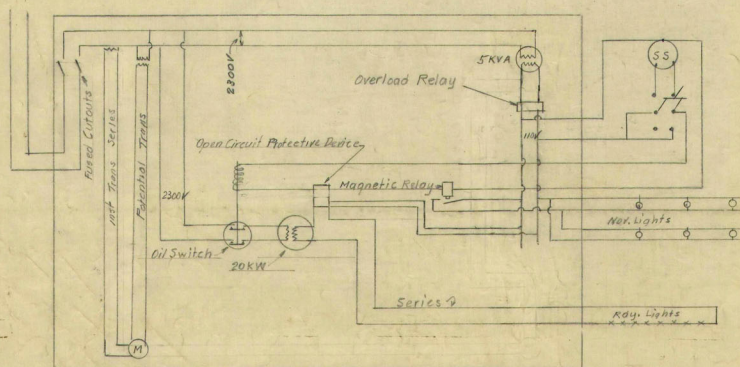
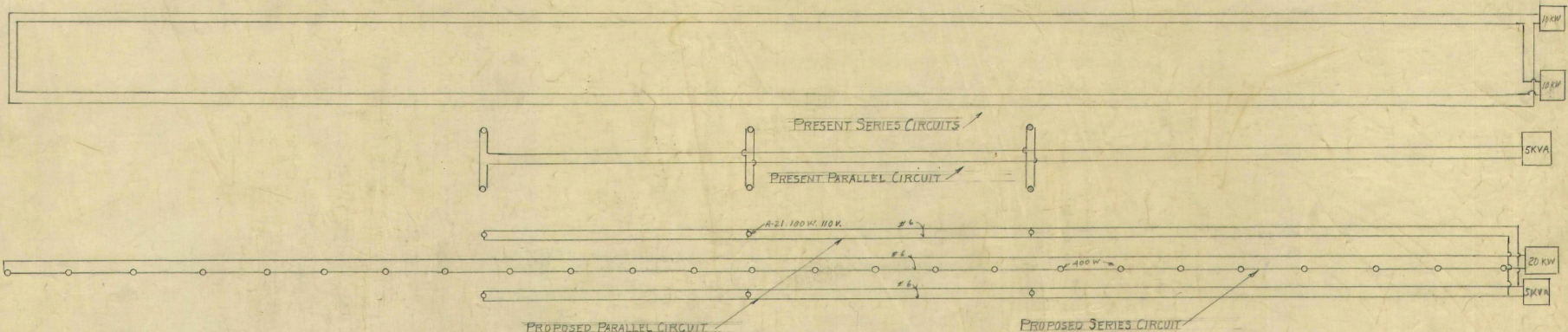
FED. ROAD DIST.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KY.				



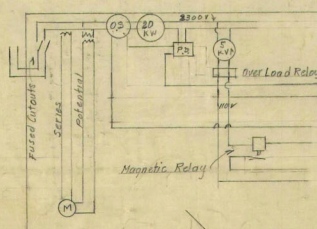
ELEVATION



LIGHTING LAYOUT FOR 400W. MERCURY VAPOR LIGHTS



SUB-STATION WIRING



Place all equipment in back of Cage. Change wiring to make instruments more accessible. Bottom of cage very dirty. Clean.

ESTIMATE OF QUANTITIES

FURNISH & INSTALL LIGHTING SYSTEM COMPLETE WITH ALL ACCESSORIES LUMP SUM
1000 NO. 10 FLAME NO. 10 WIRE, 5000 V LUMP SUM

* IT IS ASSUMED THAT THERE IS SUFFICIENT 5000 V WIRE IN GOOD CONDITION ON THE BRIDGE TO REWIRE ACCORDING TO THIS PLAN. THE LUMP SUM BIDS FOR THIS PROJECT ASSUMES THAT NO ADDITIONAL 5000 V WIRE WILL BE REQUIRED. IF ADDITIONAL WIRE IS REQUIRED IT IS TO BE PAID FOR EXTRA. AT A PRICE OF \$1.00 PER 1000' FOR 5000 V FLAME NO. 10 WIRE.

SHEET 1 OF 2

NAVIGATION & ROADWAY LIGHTS FOR BRIDGE OVER OHIO RIVER

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
MASON
MAYSVILLE KY.-ABERDEEN OHIO

ROAD PROJECT NO.
BRIDGE NUMBER **M.P. 81-4015-1** DRAWING NO. 13726 INDEX

DESIGNED BY	CHECKED BY	DATE	REVIEWED BY	DATE
DRAWN BY	CHECKED BY	DATE	REVIEWED BY	DATE
INCHES BY	CHECKED BY	DATE	REVIEWED BY	DATE

GENERAL NOTE

SPECIFICATIONS: KENTUCKY DEPARTMENT OF HIGHWAYS, 1956 EDITION WITH AMENDMENTS.

SCOPE OF WORK: REVISE PRESENT ROADWAY AND NAVIGATION LIGHTING SYSTEMS OF THE SUSPENSION BRIDGE. THE PRESENT ROADWAY LIGHTING SYSTEM CONSIST OF TWO SERIES CIRCUITS WITH EACH CIRCUIT CONNECTED TO A 10 KW TRANSFORMER. ALTERNATE LIGHTS ON EACH SIDE ON ALTERNATE SERIES SYSTEMS. PLANS ARE PREPARED TO ELIMINATE ONE SERIES SYSTEM AND PUT 26 400 W. MERCURY VAPOR LAMPS ON DOWN STEAM SIDE (SIDEWALK SIDE). ALL OLD LIGHT STANDARDS ON BOTH SIDES TO BE REMOVED AND ALL HOLES IN TOP CROSS UPSTREAM SIDE TO BE COVERED WITH A METAL COVER TO PREVENT WATER ENTERING TOP CROSS. (SEE PLANS FOR DETAIL). USE 20 KW TRANSFORMER FROM C. & O. BRIDGE CINCINNATI. OIL SHOULD BE TESTED BEFORE NEW INSTALLATION.

WIRE: ALL WIRE IS ARMORED CABLE, ASSUMED TO BE GOOD. SOME TWO YEARS AGO THE CABLE WAS CHECKED WITH A MEGGER AND FOUND TO BE SATISFACTORY. THIS CABLE TO BE CHECKED AGAIN BY A MEGGER AND IF FOUND TO BE SATISFACTORY TO BE USED. DEFECTIVE WIRE ON SERIES CIRCUIT TO BE REPLACED WITH 5000 VOLT SUPER CORONOL GEOPRENE. PARALLEL CIRCUIT TO BE 600 V FLAMENOL WIRE. WIRE FROM BALLAST TO LIGHTS TO BE #12 FLAMENOL.

SUB-STATION: THIS STATION TO BE REARRANGED ACCORDING TO SKETCH TO MAKE IT MORE ACCESSIBLE. FLOOR TO BE THOROUGHLY CLEANED.

MATERIAL SPECIFICATIONS: REFERENCE TO MANUFACTURER'S BRAND NAME AND TYPE OF MATERIAL SPECIFIED HEREIN IS MADE FOR THE PURPOSE OF OBTAINING GOOD STANDARD MATERIAL. ANY OTHER MAKE OR BRAND OF SIMILAR DESIGN AND EQUAL QUALITY MAY BE USED PROVIDED THAT, IF SUBSTITUTIONS ARE MADE, WRITTEN CONSENT MUST BE HAD FROM THE DEPARTMENT OF HIGHWAYS BEFORE WORK BEGINS. THE CONTRACTOR SHALL FURNISH IN TRIPPLICATE, FOR APPROVAL BY THE DEPARTMENT OF HIGHWAYS, DRAWINGS, CUTS, OR CATALOG SHOWING ALL MATERIALS TO BE USED.

CROSSOVERS: EXISTING CROSSOVER CIRCUITS AT NAVIGATION LIGHTS TO BE REMOVED. OLD SERIES SYSTEM BEYOND NAVIGATION LIGHTS TO BE REMOVED.

STRUCTURAL STEEL: ALL STRUCTURAL STEEL TO MEET A.S.T.M. A7-56T SPECIFICATIONS. THE CONTRACTOR TO FURNISH IN TRIPPLICATE NOTARIZED STATEMENTS THAT ALL STEEL MEETS THESE SPECIFICATIONS.

NAVIGATION LAMPS: TO BE ADELAKE NO. 1331 AND TO HAVE ALUMINUM FRAMES. LENS TO BE 8" FRESNEL. EACH LAMP TO BE EQUIPPED WITH A RELAY TO SWITCH CURRENT FROM MAIN LIGHT TO AUXILIARY LIGHT WHEN MAIN LIGHT FAILS. RELAY TO BE OF SUCH A CAPACITY THAT IT WILL CARRY 100 W 120 V LAMP INDEFINITELY WITHOUT BURNING, STICKING OR OVERHEATING THE COIL. GLOBES TO BE A 21 100 WATT WITH A LAMP CENTER OF 3-7/8".

POLE HEIGHT: ALL 400 W MERCURY VAPOR LUMINAIRES TO BE MOUNTED OF 28'-0" ± OVER ROADWAY.

OLD MATERIALS TO BE REUSED: WIRE, IF IN GOOD CONDITION AFTER MEGGER TESTED, 5 KVA TRANSFORMER, OIL SWITCH, METER TRANSFORMERS, FUSED CUTOUTS, AND SUN SWITCH.

PAINT: ALL NEW STEEL, BURNT OR ABRASSED PLACES TO BE CLEANED AND GIVEN ONE COAT OF #1 RED LEAD PAINT AND ONE OF ALUMINUM PAINT.

TEST: AFTER NEW INSTALLATION THERE SHALL BE A MEGGER TEST FOR SHORTS AND GROUNDS.

OLD MATERIAL: ALL OLD MATERIAL NOT REUSED, SUCH AS WIRE, OIL SWITCHES, TRANSFORMERS, CUTOUTS, LAMP POSTS, ETC., TO BE REMOVED AND TURNED OVER TO THE DEPARTMENT OF HIGHWAYS.

WELDING: HOLES IN TOP CROSS UPSTREAM SIDE TO HAVE 1/4" PLATES WELDED OVER ALL HOLES AT OLD STANDARD LOCATIONS. ALL WELDING TO BE DONE IN ACCORDANCE WITH THE CURRENT SPECIFICATIONS FOR WELDING HIGHWAY AND RAILWAY BRIDGES OF THE AMERICAN WELDING SOCIETY.

DAMAGE TO BRIDGE: CONTRACTOR SHALL NOT IMPAIR STRENGTH OF BRIDGE BY DRILLING OR CUTTING WITHOUT WRITTEN CONSENT OF THE ENGINEER EXCEPT AS SHOWN ON PLANS.

NAVIGATION LIGHTS: THE CONTRACTOR SHALL KEEP THE PARALLEL LIGHTING SYSTEM IN WORKING CONDITION EVERY NIGHT FROM TIME HE COMMENCES WORK UNTIL ACCEPTED BY THE DEPARTMENT.

LIGHT STANDARD: A NEW LIGHT STANDARD TO BE ERRECTED AT LIGHT #1 APPROXIMATELY 124 FEET FROM LIGHT #2. A CONCRETE BASE 1'-6" x 1'-6" x 3'-0" TO BE POURED FOR THIS BASE, WITH BOLTS PLACED IN CONCRETE TO ANCHOR POLE AND A 2" DUCT FOR WIRE TO ENTER POLE BASE. WIRE FOR #2 TO #1 TO BE #6 SUPER CORONOL GEOPRENE 5000 V. WIRE TO BE BURIED DIRECTLY IN GROUND. NO. CONDUIT. EXCESS MATERIAL AND EQUIPMENT IN SUB-STATION TO BE REMOVED AND TURNED OVER TO THE DEPARTMENT OF HIGHWAYS.

LUMP SUM BID: THE LUMP SUM BID FOR THIS ITEM OF WORK SHALL BE FULL COMPENSATION FOR ALL MATERIAL, FABRICATION, ERECTION, WELDING, FITTING, EQUIPMENT, TOOLS AND ALL LABOR AND INCIDENTALS NOT CALLED FOR, FOR A COMPLETE REVISING ROADWAY AND NAVIGATION LIGHTS ACCORDING TO PLANS AND SPECIFICATIONS.

WORKMANSHIP: ALL WORK TO BE DONE IN A WORKMANSHIP LIKE MANNER.

APPROXIMATE BILL OF MATERIAL

No.	Description
26	Mercury Vapor Luminaires 1F5 Type II
26	400 Watt EI Globes
26	Ballast, GE. I.L.H. No. 95A20J1
1	Open Circuit Protective Device G.E. Cat No. 3PE12B1
1	Magnetic Relay Square D Class 8502, AG-11, NEMA Type I
1	Overload Relay Square D Class 9065 Type 30-1
300'	No. 6-5000V. Super Corincol Geoprene Wire
6	Aluminum Navigation Lamps, Adams & Westlake Co's Adalake
1	Electric Bridge Lamps No. 1331 With 8" Fresnel Lenses.
12	A-21, 10 W - 115/125 V Filament Globes With 3 1/4" Light Centers
2000'	No. 12-600V. Flamenol Wire (Ballast to Lights)
1	20 KW. Series Transformer from C. & O. Bridge at Cincinnati
5	Type I Light Standards
12	" 2 "
7	" 3 "
2	" 4 "
2	Con. Pole Base 1 1/2 x 1 1/2 x 3'-0" with Anchor Bolts
5	Plates P1 (see detail)
12	" P2 " "
7	" P3 " "
16	" P4 " "
16	Pipe caps for 2 1/2" pipe

SHEET 3 OF 3

COMMONWEALTH OF KENTUCKY	
DEPARTMENT OF HIGHWAYS	
FRANKFORT COUNTY OF	
MASON	
MAY SVILLE KY - ABERDEEN OHIO	
ROAD	
STATION	PROJECT NO.
BRIDGE NUMBER	DRAWING
M.P. 81-4015-1	No. 13786
	INDEX