

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	50-3HBK	LASALLE	492	257
ILLINOIS FED. AID PROJECT				

TEMPORARY ROADWAY LIGHTING BILL OF MATERIALS		
ITEM	UNIT	TOTAL
UNIT DUCT, 600V, 2-1C NO.4, 1/C NO.6 GROUND, (XLP-TYPE USE), 1" DIA. POLYETHYLENE	FOOT	1,624
AERIAL CABLE, 2-1/C NO. 2 WITH MESSENGER WIRE	FOOT	2,360
AERIAL CABLE, 2-1/C NO. 4 WITH MESSENGER WIRE	FOOT	1,790
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	1,574
LUMINAIRE, SODIUM VAPOR, MULTI-MOUNT, 250 WATT	EACH	21
LIGHT POLE, WOOD, 60 FOOT, CLASS 4	EACH	22
REMOVAL OF TEMPORARY LIGHTING UNIT	EACH	22
REMOVAL OF LIGHTING UNIT, NO SALVAGE	EACH	17
REMOVAL OF POLE FOUNDATION	EACH	16
REMOVAL OF LIGHTING CONTROLLER	EACH	1
REMOVAL OF ELECTRIC SERVICE INSTALLATION	EACH	1
REMOVAL OF LIGHTING CONTROLLER FOUNDATION	EACH	1

ROADWAY LIGHTING BILL OF MATERIALS		
ITEM	UNIT	TOTAL
ELECTRIC SERVICE INSTALLATION	EACH	1
CONDUIT PUSHED, 3" DIA., PVC	FOOT	428
CONDUIT PUSHED, 4" DIA., PVC	FOOT	380
JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 12" X 10" X 6"	EACH	1
UNIT DUCT, 600V, 2-1C NO.4, 1/C NO.6 GROUND, (XLP-TYPE USE), 1" DIA. POLYETHYLENE	FOOT	6,269
UNIT DUCT, 600V, 2-1C NO.6, 1/C NO.8 GROUND, (XLP-TYPE USE), 1" DIA. POLYETHYLENE	FOOT	2,502
UNIT DUCT, 600V, 2-1C NO.2, 1/C NO.4 GROUND, (XLP-TYPE USE), 1 1/4" DIA. POLYETHYLENE	FOOT	8,038
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	15,501
LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 400 WATT	EACH	9
LUMINAIRE, SODIUM VAPOR, HIGH MAST, HORIZONTAL MOUNT, 400 WATT	EACH	114
UNDERPASS LUMINAIRE, 150 WATT, HIGH PRESSURE SODIUM VAPOR	EACH	4
SIGN LIGHTING (HIGH PRESSURE SODIUM)	EACH	3
LIGHTING CONTROLLER, BASE MOUNTED, 480VOLT, 200AMP	EACH	1
LIGHT POLE, ALUMINUM, 50 FT. M.H., 15 FT. DAVIT ARM	EACH	9
LIGHT TOWER, 100 FT. MOUNTING HEIGHT, LUMINAIRE MT. - 4	EACH	3
LIGHT TOWER, 100 FT. MOUNTING HEIGHT, LUMINAIRE MT. - 6	EACH	17
LIGHT POLE FOUNDATION METAL, 15" BOLT CIRCLE, 8" X 8"	EACH	9
LIGHT TOWER FOUNDATION, 48" DIAMETER	FOOT	310
BREAKAWAY DEVICE, COUPLING, WITH STAINLESS STEEL SCREEN	EACH	36

GENERAL LIGHTING NOTES

- ALL PROPOSED LIGHTING UNITS SHALL BE LABELED ACCORDING TO THE STANDARD SPECIFICATIONS, WITH POLE NUMBERS ATTACHED WITH STAINLESS STEEL BANDING. LIGHTING UNIT NUMBERING SHALL BE AS DIRECTED BY THE ENGINEER.
- EXISTING LIGHT POLES AND FOUNDATIONS TO BE REMOVED, AND ALL ASSOCIATED HARDWARE AND APPURTENANCES, SHALL NOT BE SALVAGED BUT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OFF SITE AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE ELECTRICAL WORK WITH OTHER TRADES.
- CONTRACTOR SHALL INSTALL LIGHT POLES AND LIGHT TOWERS AT THE LOCATIONS INDICATED ON THE PLANS, MAINTAINING ADEQUATE CLEARANCE FROM OVERHEAD UTILITY LINES. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY CLEARANCES PER THE NATIONAL ELECTRICAL SAFETY CODE AND/OR THE REQUIREMENTS OF THE UTILITY COMPANIES. THE LOCATION OF BURIED AND ABOVE GROUND UTILITIES SHOWN ARE APPROXIMATE AND ARE SHOWN FOR INFORMATION ONLY. REROUTING, DISCONNECTION, RELOCATION, PROTECTION ETC., OF ANY UTILITIES MUST BE COORDINATED BETWEEN THE CONTRACTOR, UTILITY COMPANY, AND OWNER. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR UNCOVERING OR HAND DIGGING AROUND UTILITIES AS NECESSARY. THE COST OF THIS WORK IS TO BE INCLUDED WITH THE "TRENCH AND BACKFILL FOR ELECTRICAL WORK" PAY ITEM.
- ALL PROPOSED LIGHT POLES TO BE INSTALLED AT A MINIMUM OF 15 FEET BEHIND THE EDGE OF PAVEMENT. NO POLES OR TOWERS TO BE INSTALLED IN THE FLOWLINE OF DITCH. POLE SETBACK TO BE INCREASED IF NECESSARY AS DIRECTED BY THE ENGINEER.
- THERE IS NO LUMINAIRE AIMING DIAGRAM. AIM ALL HIGH MAST LUMINAIRES TO BE PERPENDICULAR TO THE CENTERLINE OF THE ROADWAY. AIM TO MAINLINE FOR TOWERS LOCATED ON THE MAINLINE, AIM TO RAMP FOR THE FOUR TOWERS LOCATED ON THE RAMPS, AND AIM TO THE CROSSROAD FOR THE TWO TOWERS LOCATED AT THE RAMP TERMINALS.
- TEMPORARY LIGHTING SHALL BE INSTALLED AND MADE FULLY OPERATIONAL PRIOR TO ROADWAY CONSTRUCTION. THE CONTRACTOR SHALL RELOCATE THE TEMPORARY LIGHTING FACILITIES THROUGHOUT THE VARIOUS STAGES OF CONSTRUCTION ACCORDING TO SECTION 844 AND THE COST OF THIS WORK SHALL BE INCLUDED IN THE "LIGHT POLE, WOOD, 60 FOOT, CLASS 4" PAY ITEM. ADDITIONAL AERIAL CABLE SPANS SHALL BE FURNISHED AND INSTALLED AS DIRECTED BY THE ENGINEER, AND THE COST OF THIS WORK SHALL BE INCLUDED IN THE ASSOCIATED AERIAL CABLE PAY ITEMS.
- THE CONTRACTOR SHALL FURNISH TO THE ENGINEER THE NAMES AND PHONE NUMBERS OF TWO PEERSONS RESPONSIBLE FOR CALL-OUT WORK ON THE LIGHTING SYSTEM ON A 24/7 BASIS AND REPAIRS SHALL BE MADE ON A NEXT DAY BASIS TO KEEP ALL LIGHTS FUNCTIONING EVERY NIGHT. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THIS WORK. TEMPORARY LIGHTING WILL BE LEFT IN PLACE UNTIL IT'S REMOVAL IS APPROVED BY THE ENGINEER.

ILLINOIS DEPARTMENT OF TRANSPORTATION
LUMINAIRE PERFORMANCE TABLE - UNDERPASS

1/1/03

GIVEN CONDITIONS		
ROADWAY DATA:	Pavement Width	36 FT
	Number Of Lanes	3
	Median Width	N/A
	IES Surface Classification	R3
	Q-Zero Value	.07
LIGHT POLE DATA:	Mounting Height	16 FT
	Mast Arm Length	N/A
	Pole Set-Back From Edge Of Pavement	9 FT
LUMINAIRE DATA:	Lamp Type	HPS
	Lamp Lumens	16,000
	IES Vertical Distribution	Very Short
	IES Control Of Distribution	Non-Cutoff
	IES Lateral Distribution	4
	Total Light Loss Factor	0.684
LAYOUT DATA:	Spacing	45 FT
	Configuration	Single Side
	Luminaire Overhang Over Edge Of Pavement Lane	N/A

NOTE: Variations from the above specified IES distribution pattern may be requested and acceptance of variations will be subject to review by the Engineer based on how well the performance requirements are met.

PERFORMANCE REQUIREMENTS

NOTE: These performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

ILLUMINATION:	Average Horizontal Illumination, (E _{av})	0.9 fc
	Uniformity Ratio, (E _{min} /E _{max})	3.0
LUMINANCE:	Average Luminance: (L _{av})	0.6 Cd/m ²
	Uniformity Ratios: (L _{min} /L _{max})	3.5
	(L _{min} /L _{max})	6.0
	Maximum Veiling Luminance Ratio: (L _v /L _{av})	0.3

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ILLINOIS DEPARTMENT OF TRANSPORTATION
LUMINAIRE PERFORMANCE TABLE - CONVENTIONAL

1/1/03

GIVEN CONDITIONS		
ROADWAY DATA:	Pavement Width	43 FT
	Number Of Lanes	3
	Median Width	N/A
	IES Surface Classification	R3
	Q-Zero Value	.07
LIGHT POLE DATA:	Mounting Height	50 FT
	Mast Arm Length	15 FT
	Pole Set-Back From Edge Of Pavement	15 FT
LUMINAIRE DATA:	Lamp Type	HPS
	Lamp Lumens	50,000
	IES Vertical Distribution	M
	IES Control Of Distribution	FC
	IES Lateral Distribution	3
	Total Light Loss Factor	0.684
LAYOUT DATA:	Spacing	450 FT
	Configuration	Staggered
	Luminaire Overhang Over Edge Of Pavement Lane	0 FT

NOTE: Variations from the above specified IES distribution pattern may be requested and acceptance of variations will be subject to review by the Engineer based on how well the performance requirements are met.

PERFORMANCE REQUIREMENTS

NOTE: These performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

ILLUMINATION:	Average Horizontal Illumination, (E _{av})	0.9 fc
	Uniformity Ratio, (E _{min} /E _{max})	3.0
LUMINANCE:	Average Luminance: (L _{av})	0.6 Cd/m ²
	Uniformity Ratios: (L _{min} /L _{max})	3.5
	(L _{min} /L _{max})	6.0
	Maximum Veiling Luminance Ratio: (L _v /L _{av})	0.3

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ILLINOIS DEPARTMENT OF TRANSPORTATION
LUMINAIRE PERFORMANCE TABLE - HIGH MAST

1/1/03

GIVEN CONDITIONS		
ROADWAY DATA:	Pavement Width	36 FT
	Number Of Lanes	3
	Median Width	24 FT
	IES Surface Classification	R3
	Q-Zero Value	.07
LIGHT POLE DATA:	Mounting Height	100 FT
	Mast Arm Length	N/A
	Pole Set-Back From Edge Of Pavement	50 FT
	Luminaires Per Ring	6
LUMINAIRE DATA:	Lamp Type	HPS
	Lamp Lumens	50,000
	IES Vertical Distribution	M
	IES Control Of Distribution	Cutoff
	IES Lateral Distribution	3
	Total Light Loss Factor	0.684
LAYOUT DATA:	Spacing	667 FT
	Configuration	Staggered
	Luminaire Overhang Over Edge Of Pavement Lane	N/A

NOTE: Variations from the above specified IES distribution pattern may be requested and acceptance of variations will be subject to review by the Engineer based on how well the performance requirements are met.

PERFORMANCE REQUIREMENTS

NOTE: These performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

ILLUMINATION:	Average Horizontal Illumination, (E _{av})	0.9 fc
	Uniformity Ratio, (E _{min} /E _{max})	3.0
LUMINANCE:	Average Luminance: (L _{av})	0.6 Cd/m ²
	Uniformity Ratios: (L _{min} /L _{max})	3.5
	(L _{min} /L _{max})	6.0
	Maximum Veiling Luminance Ratio: (L _v /L _{av})	0.3

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ILLINOIS DEPARTMENT OF TRANSPORTATION
**BILL OF MATERIALS,
GENERAL NOTES,
AND
PERFORMANCE REQUIREMENTS**