04-25-14 LETTING ITEM 072

STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

FAI ROUTE 70 (1-70) SECTION 60–13–RA–L

SILVER LAKE REST AREA RAMP LIGHTING REPLACEMENT MADISON COUNTY

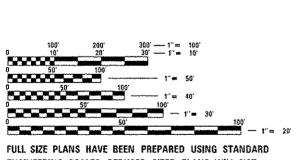
C-98-002-14

INDEX OF SHEETS

- 1. COVER SHEET
- 2. SUMMARY OF QUANTITIES AND GENERAL NOTES
- 3. 400W HORIZONTAL MOUNT LUMINAIRE PERFORMANCE TABLE AND AND POLE IDENTIFICATION SIGN PANEL DETAILS
- 4-6. LIGHTING REPLACEMENT PLANS

STANDARDS

280001-07 701101-04 701106-02 701400-07 701401-08 701411-08 701428 701456-03 821101 830001-02 836001-02 838001



1-70 WESTBOUND SITE SALINE TOWNSHIP

I-70 EASTBOUND SITE SALINE TOWNSHIP STA. 1595+00 TO STA.1626+00

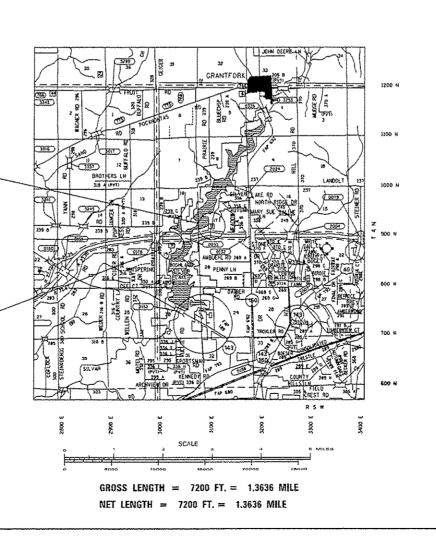
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123

OR 811

PROJECT ENGINEER: P. LEBEAU 618-346-3179 SQUAD LEADER: M. PRESTON 618-346-3143

CONTRACT NO. 76G77



D-98-004-14



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED

20

DEFUTY DIRECTOR OF HIGHWAYS, REGION FIVE ENGINEER

ENGINEER OF DESIGN AND ENVIRONMENT

ENGINEER OF DESIGN AND ENVIRONMENT

DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

SUMMARY OF QUANTITIES

	SUMMARY OF QUANTITIES		URBAN	0021	STRUCTION TYPE	LUUE
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	100% STATE		
67100100	MOBILIZATION	L SUM	1	1		
70100205	TRAFFIC CONTROL AND PROTECTION,	EACH	8	8		
	STANDARD 701401	Andreas Andrea		A. W. C.		
70100420	TRAFFIC CONTROL AND PROTECTION,	EACH	8	8		
	STANDARD 701411					
70100825	TRAFFIC CONTROL AND PROTECTION,	L SUM	1	. 1		
	STANDARD 701456					
82102400	LUMINAIRE, SODIUM VAPOR, HORIZONTAL	EACH	17	17		
	MOUNT, 400 WATT	2000 AND 200				~~~~~
83010600	LIGHT POLE, ALUMINUM, 50 FT. M.H., 15 FT.	EACH	**************************************	17		
	MAST ARM	***************************************				
83800650	BREAKAWAY DEVICE. COUPLING WITH	EACH	52	52		
	STAINLESS STEEL SCREEN					
84200600	REMOVAL OF LIGHTING UNIT, NO SALVAGE	EACH	17	17		
>						·
		1				

GENERAL LIGHTING NOTES

- 1. 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.
- 2. EXISTING LIGHT POLES 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
- 3. CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE ELECTRICAL WORK WITH OTHER TRADES.
- 4. CONTRACTOR SHALL INSTALL LIGHT POLES 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 CONTRACTOR SHALL NOTIFY THE ENGINEER OF ALL CONFLICTS BETWEEN PROPOSED LIGHT POLE LOCATIONS AND UTILITY LINES. 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.
- 5. NO LIGHTING CIRCUIT OR PORTION THEREOF SHALL BE REMOVED FROM NIGHTTIME OPERATION WITHOUT APPROVAL OF THE ENGINEER.
- 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE LIGHTING SYSTEM UNTIL TOOT HAS TAKEN ACCEPTANCE OF THE SYSTEM. ALL EXISTING CIRCUITS AND CABLES TO THE LIGHT POLES SHALL BE MAINTAINED AS NEEDED AND THIS WORK SHALL BE INCIDENTAL TO THE CONTRACT.
- 7. BREAKAWAY DEVICES SHALL NOT BE INSTALLED FOR POLES LOCATED BEHIND THE
- 8. CONTRACTOR SHALL INSPECT EXISTING FOUNDATIONS AND ANCHOR BOLTS BEFORE INSTALLING NEW LIGHT POLES, FOUNDATIONS THAT SHOW OBVIOUS CONCRETE AND ANCHOR BOLT DETERIORATION (HEAVY SPALL, CRACKS, MISALIGNMENT, ETC.) SHALL BE REPLACED IN KIND. EXISTING UNIT DUCT RUNS ENTERING AFFECTED FOUNDATION SHALL BE REPLACED IN KIND IF CURRENT SLACK IS INSUFFICIENT ACCORDING TO ARTICLE 816,03 OF THE STANDARD SPECIFICATIONS.
 FOUNDATIONS THAT SHOW NEGLIGIBLE CONCRETE AND ANCHOR BOLT DETERIORATION WILL BE REUSED ALONG WITH THE EXISTING BOLTS AND HARDWARE.
- 9. CONTRACTOR SHALL VERIFY THE COMPATIBILITY OF EXISTING FOUNDATIONS AND ANCHOR RODS WITH NEW BREAKAWAY COUPLINGS AND POLES.
- 10. BREAKAWAY COUPLINGS SHALL NOT BE REUSED.
- 11. STAINLESS STEEL SCREEN INSTALLED AROUND BREAKAWAY COUPLINGS OR ANCHOR RODS AND NUTS SHALL BE ACCORDING TO ARTICLE 1070.04(A)(2)C OF THE STANDARD SPECIFICATIONS EXCEPT THE MINIMUM WIRE DIAMETER SHALL BE AWG NO. 16 (1.6 MM).
- 12. ILLINOIS STATE LAW REQUIRES A 48 HOUR NOTICE BE GIVEN TO UTILITIES BEFORE DIGGING, FIELD MARKING OF FACILITIES MAY BE OBTAINED BY CONTACTING JOINT UTILITY LOCATING INFORMATION (J.U.L.I.E) OR FOR NON-MEMBERS, THE UTILITY COMPANY DIRECTLY. AGENCIES KNOWN TO HAVE FACILITIES WITHIN THE PROJECT AREA ARE AS FOLLOWS:

- BOND MADISON WATER COMPANY (WATER)
 CHARTER COMMUNICATIONS, INC. (CABLE TV)
 FRONTIER NORTH, INC. (COMMUNICATIONS)
 CITY OF HIGHLAND (WATER & SANITARY SEWER)
 CITY OF HIGHLAND (ELECTRIC)
- MEMBERS OF J.U.L.I.E. ARE INDICATED BY AN "*". THE (J.U.L.I.E.) SYSTEM NUMBERS ARE (800)-892-0123 AND 811. NON-J.U.L.I.E. MEMBERS MUST BE NOTIFIED INDIVIDUALLY.
- 13. IF THE ENGINEER JUDGES THE CONTRACTOR RESPONSIBLE FOR LANDSCAPE, SIDEWALK, PAVEMENT, SHOULDER, DRAINAGE ITEM AND/OR SAFETY RELATED ITEM DAMAGE, THE ENGINEER WILL ALSO JUDGE THE EXTENT OF THE REQUIRED RESTORATION, THE CONTRACTOR SHALL RESTORE THE DAMAGE, AS DIRECTED BY THE ENGINEER AT THE CONTRCTOR'S EXPENSE.
- 14. COORDINATION WITH THE DEPARTMENT'S BUREAU OF OPERATIONS IS REQUIRED BEFORE ANY TRENCHING SHALL BE DONE TO LOCATE HIGHWAY LIGHTING/PUMP STATION/ITS FACILITIES AND TO COORDINATE OTHER FIELD ACTIVITIES.
- 15. THE DEPARTMENT STRONGLY ENCOURAGES THE PRIME CONTRACTOR AND THEIR APPROVED SUB-CONTRACTORS TO HIRE MINORITY, WOMEN AND DISADVANTAGED INDIVIDUALS FROM ITS FEDERALLY FUNDED HIGHWAY CONSTRUCTION CAREERS TRAINING PROGRAM (HCCTP) TO HELP MEET WORKFORCE AND TRAINEE GOALS. THIS PROGRAM IS TRAINING MINORITIES, WOMEN AND DISADVANTAGED INDIVIDUALS IN HIGHWAY CONSTRUCTION-RELATED SKILLS, E.G., MATH FOR THE TRADES, JOB READINESS, TECHNICAL SKILLS COURSEWORK (CARPENTRY, CONCRETE FLATWORK, BLUEPRINT READING, SITE PLANS, SITE WORK, TOOLS USE, ETC.) AND OSHA 10 HOUR CERTIFICATION, TO PREPARE THEM FOR A CAREER IN THE HIGHWAY CONSTRUCTION TRADES. GRADUATES ARE WELL-TRAINED AND READY TO BECOME PRODUCTIVE ENTRY-LEVEL CONSTRUCTION WORKERS. CONTACT THE DISTRICT 8 EEO OFFICE AT 618-346-3360 AND/OR THE HCCTP COORDINATOR AT 618-874-6528 TO LEARN MORE ABOUT THE PROGRAM AND FOR ASSISTANCE IN MEETING WORKFORCE AND TRAINEE GOALS.

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	FILE HAME :	USER NAME 2 prostonne	DESIGNED -	REVISED -	
1	ei\pv_vonk\pvidot\prestonne\d0352384\d8	76g77-sht-light-dgn	DRAWN -	REVISED -	
	PLOT SCALE = 180,2000 // in.		CHECKED -	REVISED -	
		PLOT DATE * 12/5/2013	DATE -	REVISED -	

STATE	OF	ILLINOIS
DEPARTMENT ()F 7	TRANSPORTATION

SILVER LAKE REST AREA				F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
SUMMARY OF QUANTITIES AND GENERAL NOTES		70	60-13-RA-L	MADISON	6	2			
							CONTRACT	NO.	76G77
SCALE:	SHEET	0F	SHEETS STA.	TO STA.		ILLINOIS FED. A			

ILLINOIS DEPARTMENT OF TRANSPORTATION 400W HORIZONTAL MOUNT LUMINAIRE PERFORMANCE TABLE

GIVEN CONDITIONS

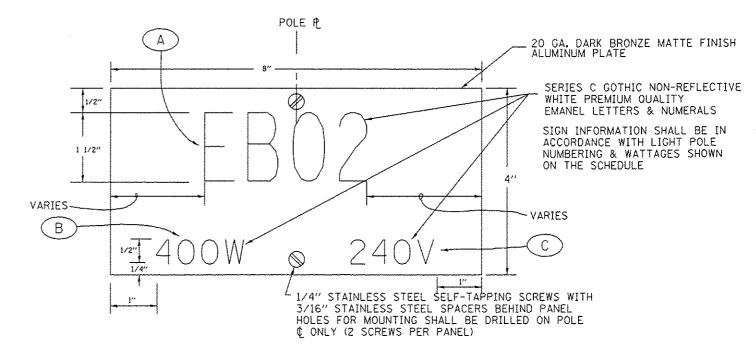
ROADWAY DATA:	Povement Width	16 FT
	Number Of Lanes (In Direction of Travel)	1
-	Median Width	N/A
	IES Surface Classification	R3
	Q-Zero Value	.07
LIGHT POLE DATA:	Mounting Height	50 FT
	Most Arm Length	15 FT
	Pole Set-Back From Edge Of Pavement	30 FT
LUMINAIRE DATA:	Lamp Type	HPS
	Lomp Lumens	50000
	IES Vertical Distribution	М
	IES Control of Distribution	FC
	IES Lateral Distribution	2
	Total Light Loss Factor	0.684
LAYOUT DATA:	Spacing	280 FT
	Configuration	One Side
	Luminaire Overhang Over Edge	
	Of Povement Lane	-15 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 Harizontal I Uniformity Ratio, (E		3.0	<u>fc</u>
LUMINANCE:	Average Luminance:	(LAve)	0.40	Cd/m²
	Uniformity Ratios:	(LAve/LMIn)	3.5	
		(LMax/LMin)	6,0	
	Maximum Velling			
	Luminance Ratio:	(LY/LAve)	0.3	



TYPICAL POLE IDENTIFICATION SIGN PANEL (NOT TO SCALE)

SCHEDULE OF LIGHT TOWER & LIGHT POLE IDENTIFICATION SIGN PANELS

MESSAGE AREA						
A	В	0	A	В	0	
EBI	8 X 400W	240V	WB I	8 X 400W/	240V	
EB 2	400 W	240V	WB 2	400 W	240V	
EB 3	400 W	240V	WB3	400 W	240V	
EB 4	400 W	240V	WB4	400 W	240V	
EB 5	400 N	240V	WB 5	400 W	240V	
EB 6	400 W	240V	WB 6	400 W	240V	
EB 7	400 ฟ	240V	WB7	400 W	240V	
EB 8	400 W	240V	WB 8	400 W	240V	
			WB 9	400 W	240V	
			WB 10	400 W	240V	
			WB 11	400 W	240V	

POLE IDENTIFICATION SIGN PANEL DETAILS

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- 1	o:\pw_work\pwidot\prestonme\d0352304\d8	76g77-sht-light.dgn	DRAWN -	REVISED -	
-		PLOT SCALE = 100.00000 '/ in.	CHECKED -	REVISED -	
-		PLOT DATE = 12/5/2013	DATE -	REVISED -	Ĺ

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

-				LAKE RES		
						RFORMANCE TABLE NEL DETAILS
	SCALE:	SHEET NO.	0F	SHEETS	STA,	TO STA.

F.A.I. SECTION COUNTY TOTAL SHEET NO.

70 60-13-RA-L MADISON 6 3

CONTRACT NO. 76GT7

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