

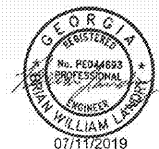
Order Forms@WMAJLDI.com

**GENERAL ELECTRICAL NOTES**

1. THE CONTRACTOR SHALL COORDINATE (AT LEAST 48 HOURS IN ADVANCE) INTERRUPTION OF SERVICE TO ACTIVE LIGHTING CIRCUITS WITH THE OWNER. ANY DAMAGE TO EXISTING AIRPORT CIRCUITS CAUSED BY THE CONTRACTOR'S EQUIPMENT OR PERSONNEL SHALL BE PROMPTLY REPAIRED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. ALL ACTIVE LIGHTING SYSTEMS FOR OPEN AIRCRAFT OPERATIONAL AREAS SHALL REMAIN READY FOR OPERATION DURING IFR WEATHER CONDITIONS AND DUSK TO DAWN.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES PRIOR TO THE BEGINNING OF CONSTRUCTION.
3. THE CONTRACTOR SHALL LOCATE ALL UTILITIES DURING CONSTRUCTION, AND HAND DIG WHEN WITHIN THREE (3) FEET OF ANY KNOWN OR SUSPECTED UNDERGROUND UTILITY.
4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL INVENTORY ALL LIGHTS, FIXTURES, SIGNS, ETC. WITHIN THE PROJECT LIMITS. THE CONTRACTOR SHALL ADVISE THE ENGINEER, IN WRITING, OF ANY DAMAGED LIGHT FIXTURES, SIGNS, OR UTILITIES PRIOR TO THE BEGINNING OF CONSTRUCTION.
5. THE LOCATION OF ALL UTILITIES SHOWN IS APPROXIMATE ONLY AND SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE BEGINNING CONSTRUCTION. NOT ALL UTILITIES ARE NECESSARILY SHOWN.
6. THE CONTRACTOR SHALL MEGGER THE EXISTING LIGHTING SYSTEMS PRIOR TO BEGINNING WORK ON THE EXISTING LIGHTING SYSTEMS. THIS SHALL INCLUDE ALL CIRCUITS (i.e. BEACON, PAPI's, WINDCONES, etc.). THIS WORK SHALL BE PERFORMED IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE, AND LOGGED IN THE DAILY REPORT.
7. ALL CABLES SHALL BE TAGGED AT EACH CONNECTION AND AT EACH ENTRANCE TO ALL DUCTS, HANDHOLES, AND PULL CANS.
8. CABLE MARKERS SHALL BE ALMETEK AMINI-TAGS KIT WITH BLACK STAMPED YELLOW POLYETHYLENE LETTERS OR APPROVED EQUIVALENT. ATTACH MARKERS WITH CABLE TIES.
9. THE CONTRACTOR SHALL HAVE A TONE GENERATOR TYPE CABLE TRACER, TO LOCATE EXISTING CABLES, ON SITE AT ALL TIMES.
10. ALL ELECTRICAL WORK SHALL BE COMPLETED IN ACCORDANCE WITH LOCAL CODE AND CURRENT NEC HANDBOOK.
11. THE CONTRACTOR SHALL BE REQUIRED TO CONNECT THE PROPOSED CIRCUITS TO THE EXISTING CIRCUITS AS ORDERED BY THE ENGINEER. ALL WORK REQUIRED TO MAKE THE CONNECTION TO THE EXISTING CIRCUITS SHALL BE INCIDENTAL TO THE PROJECT (I.E. SPLICE CONNECTIONS, PUNCHING INTO EXISTING MANHOLES FOR CONDUITS, ETC.).
12. ALL GROUND RODS AND OTHER UNDERGROUND GROUNDING CONNECTIONS SHALL BE EXOTHERMICALLY WELDED. EXOTHERMIC CONNECTIONS SHALL BE IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES. THE PROPOSED COUNTERPOISE SYSTEM SHALL BE CONNECTED WITH THE EXISTING SYSTEM AT ALL CROSSING POINTS.
13. THE CONTRACTOR SHALL MANUALLY LOCK OUT EACH CIRCUIT AT THE VAULT WHEN WORK IS BEING PERFORMED ON THE CIRCUIT. THE CIRCUIT SHALL BE TAGGED AND THE CONTRACTOR'S NAMES SHALL BE CLEARLY IDENTIFIED ON EACH TAG. THE CONTRACTOR SHALL HAVE A LOCK OUT KIT ON SITE AT ALL TIMES. THE OWNER'S REPRESENTATIVE SHALL BE NOTIFIED EACH TIME A CIRCUIT IS SECURED AND EACH TIME THE CIRCUIT IS RETURNED TO OPERATIONAL STATUS. THE CONTRACTOR MUST BE CERTIFIED AND TRAINED BY THE OWNER PRIOR TO PERFORMING WORK OR LOCK-OUT PROCEDURES IN THE ELECTRICAL VAULT.
14. ALL UNDERGROUND CONDUIT SHALL BE PVC SCHEDULE 40, UNLESS OTHERWISE NOTED. ALL UNDERGROUND CONDUITS SHALL BE APPROVED. ALL UNDERGROUND CONDUIT BENDS SHALL BE LONG RADIUS ANGLES.
15. WHERE PROPOSED CONDUIT IS TO BE CONNECTED TO EXISTING CONDUIT, THE CONTRACTOR SHALL MAKE THE CONNECTION USING MANUFACTURED COUPLINGS (NO SEPARATE PAY ITEM).
16. THE CONTRACTOR SHALL LOCATE EXISTING DUCTS WHICH WILL BE UTILIZED FOR THIS PROJECT. NOT ALL DUCTS ARE NECESSARILY SHOWN. DUCTS THAT ARE SHOWN ARE APPROXIMATE LOCATIONS.
17. THE CONTRACTOR SHALL CLEAN/SWAB OUT EXISTING DUCTS BEING USED. THE USE OF SEWER TAPE TO CLEAR OBSTRUCTIONS WITHIN CONCRETE ENCASED DUCTS SHOULD BE ANTICIPATED.
18. TAXIWAY "A" AND TAXIWAY "B" LIGHTS SHALL BE DE-ENERGIZED OR PROPERLY COVERED ON ALL CLOSED SEGMENTS OF TAXIWAY "A" AND TAXIWAY "B". REMOVING THE LAMP FROM FIXTURES SHALL NOT BE THE METHOD SELECTED.
19. ALL EXISTING ELECTRICAL EQUIPMENT REMOVED SHALL REMAIN THE PROPERTY OF THE OWNER AND STORED AT THE AIRPORT AT A LOCATION AS ORDERED BY THE ENGINEER AND/OR OWNER UNLESS OTHERWISE DIRECTED. ALL ELECTRICAL EQUIPMENT THAT THE OWNER DOES NOT WANT TO KEEP SHALL BE REMOVED BY THE CONTRACTOR AND AT THE CONTRACTOR'S EXPENSE.
20. AT THE BEGINNING OF THE PROJECT, THE CONTRACTOR SHALL FURNISH THE ENGINEER WITH TWO (2) COPIES OF ALL MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR ALL EQUIPMENT.
21. AT THE PROJECT COMPLETION, THE CONTRACTOR SHALL PROVIDE A COMPLETE MAINTENANCE MANUAL BOUND IN A THREE-RING NOTEBOOK. THE MANUAL SHALL CONTAIN THE FOLLOWING AS A MINIMUM.  
AS-BUILT WIRING SCHEMATICS  
EQUIPMENT SHOP DRAWINGS SUBMITTALS  
MANUFACTURE'S EQUIPMENT INSTALLATION INSTRUCTIONS  
MANUFACTURE'S MAINTENANCE INSTRUCTIONS  
WARRANTIES  
SPARE PARTS LISTS
22. THE CONTRACTOR SHALL FIELD STAKE ALL LIGHTS PRIOR TO INSTALLATION. ANY DISCREPANCIES IN ALIGNMENT OR LOCATION SHOULD BE RESOLVED PRIOR TO INSTALLATION. ANY LIGHTS WHICH ARE STAKED IN EXISTING DRAINS, SWALES OR DITCHES SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION PRIOR TO INSTALLATION OF THE LIGHTS.
23. THE CONTRACTOR SHALL INSTALL IDENTIFICATION TAGS ON ALL OF THE RUNWAY LIGHT FIXTURES. THE TAGS SHALL IDENTIFY THE LIGHTING CIRCUIT AND THE LIGHT NUMBER. THE CONTRACTOR SHALL COORDINATE THE CIRCUIT NUMBERING SYSTEM WITH THE AIRPORT MANAGER PRIOR TO ORDERING AND INSTALLING THE TAGS. THE CONTRACTOR SHALL PROVIDE A "RECORD DRAWING" SHOWING THE LIGHT DESIGNATIONS TO THE AIRPORT MANAGER AND THE ENGINEER.
24. EACH L-830 ISOLATION TRANSFORMER, L-823 CONNECTOR KIT AND 5KV, TYPE "C" CABLE INSTALLED ON THIS PROJECT AS A COMPLETE OR PARTIAL CIRCUIT SHALL BE TESTED AS AN OPERABLE CIRCUIT SYSTEM AND SHALL MEET THE REQUIREMENTS OF SECTION L-108 OF THE SPECIFICATIONS. THE INSULATION LEAKAGE OF THE L-830 ISOLATION TRANSFORMERS SHALL NOT EXCEED 0.2 MICROAMPS WHEN TESTED AT 16,000 VOLTS D.C. IN ACCORDANCE WITH FAA AC 160/6345-47. THE CONTRACTOR SHALL PROVIDE A CERTIFIED COPY OF THE MANUFACTURE'S TEST RESULTS FOR EACH LOT OF L-830 TRANSFORMERS USED ON THIS PROJECT.
25. CONTRACTOR SHALL COORDINATE THE QUANTITY OF CONDUIT INLETS REQUIRED IN EACH LIGHT BASE TO MATCH THE QUANTITY OF CONDUITS REQUIRED AT THE SPECIFIC LOCATIONS ON THE PLANS.
26. CONTRACTOR SHALL PROVIDE 3/8" CONDUIT STUBS CONNECTED TO EACH PULLCAN CONDUIT OUTLET WHERE CONTINUOUS CONDUITS ARE NOT USED. AFTER THE CABLE INSTALLATION IS COMPLETE, EACH CONDUIT STUB SHALL BE SEALED AT THE END OF THE CONDUIT WITH A SQUEEZE BUSHING WHERE THE DIRECT BURIED CABLE ENTERS THE CONDUIT.
27. AFTER ALL LOADS HAVE BEEN CONNECTED TO THE TAXIWAY REGULATORS, THE CONTRACTOR SHALL ADJUST THE REGULATOR LOAD TAPS. THE LOAD TAPS SHALL BE ADJUSTED TO WHERE THE MAXIMUM OUTPUT OF THE REGULATOR AT 100% INTENSITY SETTING IS ABOUT 500 WATTS ABOVE THE ACTUAL LOAD. THE CONTRACTOR SHALL LABEL THE REGULATOR TO INDICATE THAT THE TAPS HAVE BEEN ADJUSTED, AND LIST THE VALUE (IN KW) OF THE MAXIMUM OUTPUT.
28. THE CONTRACTOR SHALL SUPPLY SPARE PARTS AS LISTED ON THIS SHEET AND IN THE SPECIFICATIONS. THESE SPARE PARTS SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT AND NO SEPARATE PAYMENT SHALL BE MADE.
29. THE CONTRACTOR SHALL COMPACT ALL TRENCH LINES PER THE SPECIFICATIONS TO PREVENT SETTLEMENT ALONG THE TRENCH LINES.

**SPARE PARTS LIST**

1. ONE (1) FLUSH MOUNTED LIGHT ASSEMBLY
2. ONE (1) BASE MOUNTED LIGHT ASSEMBLY
3. FOUR (4) STAKE MOUNTED LIGHT ASSEMBLIES
4. TEN (10) REPLACEMENT LIGHT BULBS.
5. FIVE (5) SOLID BLUE GLOBES



**GENERAL ELECTRICAL NOTES**

GDOT PROJ. NO. XXX-XXXX-XX(XXX) HOUSTON  
PERRY-HOUSTON COUNTY AIRPORT  
PERRY, GEORGIA

REV.	DR.	CHK.	ISSUED FOR
	JEC	BWK	ISSUED FOR BID

**E0.11**

FILE NO. 36206-05