

## **ELECTRICAL NOTES**

- UNLESS OTHERWISE NOTED, ALL UNDERGROUND FIELD POWER MULTIPLE AND SERIES CIRCUIT CONDUCTORS, WHETHER DIRECT BURIED OR IN DUCT/CONDUIT, SHALL BE FAA APPROVED L—824 TYPE. INSULATION VOLTAGE AND SIZE SHALL BE AS SPECIFIED.
- THE JOINTS OF THE L-823 CONNECTORS SHALL BE ENCLOSED BY A HEAT SHRINKABLE TUBING WITH CONTINUOUS INTERNAL ADHESIVE.
- L-823 TYPE II, TWO-CONDUCTOR SECONDARY CONNECTORS SHALL BE CLASS "A" (FACTORY MOLDED).
- THERE SHALL BE NO SPLICES IN THE SECONDARY CABLE(S) WITHIN THE STEMS OF A RUNWAY/TAKIMAY EDGE/THRESHOLD LIGHTING FIXTURES AND THE WIREWAY LEADING TO TAXIWAY SIGNS.
- DIRECT BURIED ISOLATION TRANSFORMERS SHALL BE BURIED AT A DEPTH OF 10 INCHES ON A LINE CROSSING THE LIGHT AND PERPENDICULAR TO THE RUNWAY/TAXIWAY CENTERLINE AT A LOCATION 12 INCHES FROM THE LIGHT OPPOSITE FROM THE RUNWAY/TAXIWAY EDGE.
- 6. A SLACK OF 3 FEET, MINIMUM, SHALL BE PROVIDED IN THE PRIMARY CABLE AT EACH TRANSFORMER/CONNECTOR TERMINATION. AT THE STAKE-MOUNTED LIGHTS, THE SLACK SHALL BE LOOSELY COILED IMMEDIATELY BELOW THE ISOLATION TRANSFORMERS.

- L-867 BASES SHALL BE SIZE B, 24" DEEP, CLASS I, UNLESS OTHERWISE NOTED.
- 8. BASE MOUNTED BREAKABLE COUPLINGS SHALL NOT HAVE WEEP HOLES TO THE OUTSIDE. PLUGGED HOLES SHALL NOT BE ACCEPTABLE. COUPLINGS SHALL HAVE A 1/4" DIAMETER. MINIMUM, OPENING FOR DRAINAGE FROM THE SPACE AROUND THE SECONDARY CONNECTOR INTO THE L-867 BASE.
- THE ELEVATION OF THE BREAKABLE COUPLING GROOVE SHALL NOT EXCEED 1-1/2" ABOVE THE EDGE OF THE COVER IN CASE OF BASE MOUNTED COUPLINGS, OR THE TOP OF THE STAKE IN CASE OF STAKE MOUNTED COUPLINGS.
- TOP OF THE STAKES SUPPORTING LIGHT FIXTURES SHALL BE FLUSH WITH THE SURROUNDING GRADE.
- 11. PLASTIC LIGHTING FIXTURE COMPONENTS, SUCH AS LAMP HEADS, STEMS, BREAKABLE COUPLINGS, BASE COVERS, BRACKETS, STAKES, SHALL NOT BE ACCEPTABLE. L-867 PLASTIC TRANSFORMER HOUSINGS ARE ACCEPTABLE. THE METAL THREADED FITTINGS SHALL BE SET IN THE FLANGE DURING CASTING PROCESS. BASE COVER BOLTS SHALL BE FABRICATED FROM 18-8 STAINLESS STEEL.

- BREAKING GROOVE OR BREAKABLE COUPLINGS SHALL NOT EXCEED 1-1/2" ABOVE GROUND LINE OR BASE COVER.
- COPPER CLAD GR. RODS 5/8" DIA. X 8'-0" LG. SHALL BE DRIVEN 1'-0" BELOW FINISHED GRADE & COUNTERPOISE CABLE SECURELY ATTACHED TO SAME GROUND RODS SHALL BE SPACED MAX. OF 1000' APART AND LOCATED NEAR FIXTURE.
- 3. ALL PROPOSED LIGHTS WILL BE PLACED 10' FROM THE EDGE OF FULL STRENGTH PAVEMENT UNLESS SHOWN OTHERWISE.
- ALL PROPOSED MEDIUM INTENSITY LIGHTING CABLE WILL BE LOCATED 12' FROM THE EDGE OF FULL STRENGTH PAVEMENT UNLESS SHOWN OTHERWISE, AND PLACED 18" BELOW FINISHED GRADE.
- 5. THE PROPOSED LIGHTING CABLE SHALL BE 1/C #8 5 KV UNDERGROUND CABLE IN UNIT DUCT AND SHALL BE PLOWED AND/OR TRENCHED IN PLACE.
- THE CONTRACTOR SHALL LOCATE AND PROTECT ALL EXISTING UNDERGROUND UTILITIES DURING CONSTRUCTION.
- 12. THE TOLERANCE FOR THE HEIGHT OF RUNWAY/TAXIWAY EDGE LIGHTS SHALL BE PLUS OR MINUS ONE (1) INCH. IN CASE OF STAKE MOUNTED LIGHTS, THE SPECIFIED LIGHTING FIXTURE HEIGHT SHALL BE MEASURED BETWEEN THE TOP OF THE STAKE AND THE TOP OF THE LENS. IN CASE OF BASE MOUNTED LIGHTS, THE SPECIFIED LIGHTING FIXTURE HEIGHT SHALL BE MEASURED BETWEEN THE TOP OF THE BASE FLANGE AND THE TOP OF THE LENS, THUS INCLUDING THE BASE COVER, THE FRANGIBLE COUPLING, THE STEM, THE LAMP HOUSING AND THE LENS.
- 13. THE TOLERANCE FOR THE LATERAL SPACING OF TAXIWAY EDGE LIGHTS (LIGHT LANE TO RUNWAY/TAXIWAY CENTERLINE) SHALL BE  $\pm$  ONE (1) INCH. THIS ALSO APPLIES AT INTERSECTIONS.
- THERE SHALL BE NO SPLICES BETWEEN THE ISOLATION TRANSFORMERS. L-823 CONNECTORS ARE ALLOWED AT TRANSFORMER CONNECTIONS ONLY, UNLESS OTHERWISE SHOWN.
- 15. THE CONTRACTOR SHALL ASCERTAIN THAT ALL LIGHTING SYSTEM COMPONENTS FURNISHED BY HIM (INCLUDING FAA APPROVED EQUIPMENT) ARE COMPATIBLE IN ALL RESPECTS WITH EACH OTHER AND THE REMAINDER OF THE NEW/EXISTING SYSTEM. ANY NON—COMPATIBLE COMPONENTS FURNISHED BY THIS CONTRACTOR SHALL BE REPLACED BY HIM AT NO ADDITIONAL COST TO THE AIRPORT SPONSOR WITH A SIMILAR UNIT, APPROVED BY THE ENGINEER (DIFFERENT MODEL OR DIFFERENT MANUFACTURER) THAT IS COMPATIBLE WITH THE REMAINDER OF THE AIRPORT LIGHTING SYSTEM,
- RELOCATE EXISTING TAXIWAY LIGHTS AS SHOWN. PROVIDE NEW STAKE AT RELOCATED STAKE—MOUNTED LIGHTS. REUSE EXISTING LENSES.
- 17. ALL EQUIPMENT SHALL BE GROUNDED TO EXISTING COUNTERPOISE LOOP

## LEGEND

- ---- EXISTING HIGH VOLTAGE CABLE
- \*\*\*\* EXISTING 4-WAY CONCRETE ENCASED DUCT
- ■■■ PROPOSED 4-WAY CONCRETE ENCASED DUCT
- (\$) EXISTING MEDIUM INTENSITY TAXIWAY LIGHT (STAKE MOUNTED
- (B) EXISTING MEDIUM INTENSITY TAXIWAY LIGHT (BASE MOUNTED)
- B PROPOSED MEDIUM INTENSITY TAXIWAY LIGHT (BASE MOUNTED) BLUE LENS
- B PROPOSED MEDIUM INTENSITY RUNWAY LIGHT (BASE MOUNTED)
- PROPOSED MEDIUM INTENSITY TAXIWAY LIGHT (STAKE MOUNTED)
- S PROPOSED MEDIUM INTENSITY RUNWAY LIGHT (STAKE MOUNTED)
- S EXISTING MEDIUM INTENSITY RUNWAY LIGHT (STAKE MOUNTED)
- B EXISTING MEDIUM INTENSITY RUNWAY LIGHT (BASE MOUNTED)
- EXISTING TAXIWAY GUIDANCE SIGN
- PROPOSED TAXIWAY GUIDANCE SIGN
- ER END OF RADIUS
- EL END OF LEAD-IN FILLET
- CL EXTENDED CENTERLINE
- △ EXISTING R.E.I.L.S. TO BE RELOCATED
- A RELOCATED R.E.I.L.S.
- REMOVE EXISTING STAKE MOUNTED LIGHT

DENOTES LENS COLOR

W= WHITE

A= AMBER

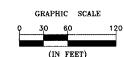
B= BLUE G= GREEN

R= RED

S EXISTING THRESHOLD LIGHTS
TO BE RELOCATED

RELOCATED THRESHOLD LIGHTS





DRAWN BY: JMT	CAD/.DWG: ELECTRIC XREF/.DWG:	REVISIONS	
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ELECTRICAL PLAN AND DETAILS

SCALE: AS NOTED SHEET 9

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