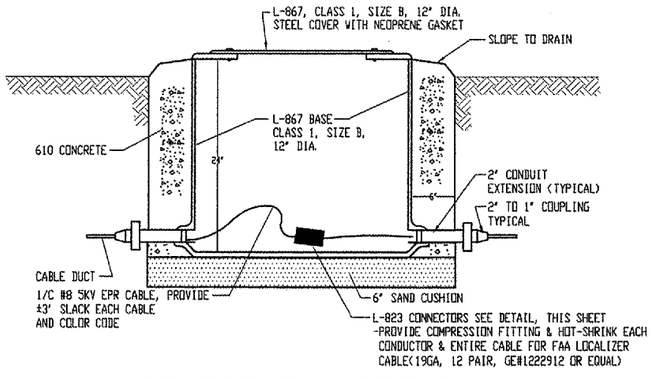
ELECTRICAL ABBREVIATIONS

ABBREVIATION	DESCRIPTION
C	CONDUIT
CB	CIRCUIT BREAKER
CKT	CIRCUIT
EMH	EXISTING MANHOLE
KW	KILOWATT
MITL	MEDIUM INTENSITY TAXIWAY LIGHTING
PH OR ø	PHASE
UE	UNDERGROUND ELECTRIC
V	VOLTS
W	WATTS
XFMR	TRANSFORMER
XP	EXPLOSION PROOF
(P)	PRESENT
(PX)	PRESENT TO BE REMOVED
(TYP)	TYPICAL

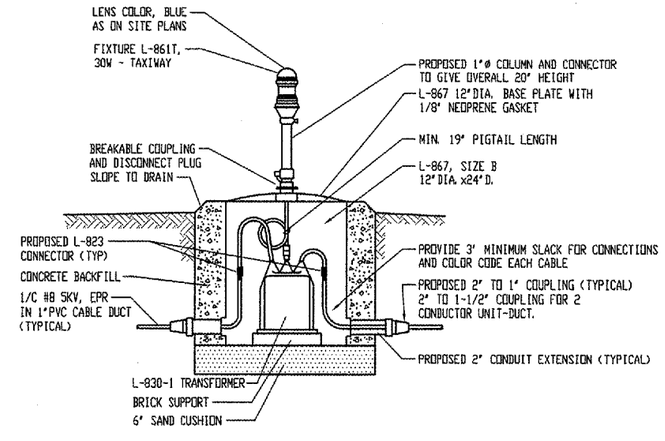
LIGHTING NOTES

1. UNLESS OTHERWISE NOTED, ALL UNDERGROUND FIELD POWER MULTIPLE AND SERIES CIRCUIT CONDUCTORS IN DUCT/CONDUIT SHALL BE #8 5KV, EPR AS SPECIFIED.
2. NO COMPONENTS OF PRIMARY CIRCUIT SUCH AS CABLE, CONNECTORS AND TRANSFORMERS SHALL BE BROUGHT ABOVE GROUND AT EDGE LIGHTS, SIGNS, ETC.
3. THERE SHALL BE NO EXPOSED POWER/CONTROL CABLES BETWEEN THE POINT WHERE THEY LEAVE THE UNDERGROUND OF L-867 BASES AND WHERE THEY ENTER THE EQUIPMENT (SUCH AS TAXIWAY SIGNS, ETC.) ENCLOSURES. THESE CABLES SHALL BE ENCLOSED IN RIGID CONDUIT OR IN FLEXIBLE, WATER-TIGHT CONDUIT WITH BREAKABLE COUPLING(S) AT THE GRADE OR THE HOUSING COVER, AS SHOWN IN APPLICABLE DETAILS.
4. THE JOINTS OF THE L-823 PRIMARY CONNECTORS SHALL BE WRAPPED WITH AT LEAST ONE LAYER OF RUBBER OR SYNTHETIC RUBBER TAPE AND ONE LAYER OF PLASTIC TAPE, ONE-HALF LAPPED, EXTENDING AT LEAST 1 1/2 INCHES ON EACH SIDE OF THE JOINT.
5. THE CABLE ENTRANCE INTO THE FIELD-ATTACHED L-823 CONNECTORS SHALL BE ENCLOSED BY A HEAT-SHRINKABLE TUBING WITH CONTINUOUS INTERNAL ADHESIVE.
6. L-823 TYPE II, TWO-CONDUCTOR SECONDARY CONNECTIONS SHALL BE CLASS "A" (FACTORY MOLDED).
7. THERE SHALL BE NO SPLICES IN THE SECONDARY CABLE(S) TO TAXIWAY SIGNS.
8. ELECTRICAL INSULATING GREASE SHALL BE APPLIED WITHIN THE L-823, SECONDARY, TWO CONDUCTOR CONNECTORS TO PREVENT WATER ENTRANCE. THESE CONNECTORS SHALL NOT BE TAPED.
9. A SLACK OF 3 FEET, MINIMUM, SHALL BE PROVIDED IN THE PRIMARY CABLE AT EACH TRANSFORMER/CONNECTOR TERMINATION.
10. DIRECTION OF PRIMARY CABLES SHALL BE IDENTIFIED BY COLOR CODING AS FOLLOWS: WHEN FACING LIGHT WITH BACK TO PAVEMENT, CABLE TO THE LEFT IS CODED RED AND CABLE TO RIGHT IS CODED BLUE. THIS APPLIES TO STAKE MOUNTED LIGHTS AND BASE MOUNTED LIGHTS WHERE THE BASE HAS ONLY ONE ENTRANCE.
11. L-867 BASES SHALL BE SIZE B, 24" DEEP, CLASS I, UNLESS OTHERWISE NOTED.
12. BASE MOUNTED BREAKABLE COUPLINGS SHALL NOT HAVE WEEP HOLES. PLUGGED UP HOLES SHALL NOT BE ACCEPTABLE.
13. 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.
14. WHERE THE BREAKABLE COUPLING IS NOT AN INTEGRAL PART OF THE LIGHT FIXTURE STEM OR MOUNTING LEG, A BEAD OF SILICON SEAL SHALL BE APPLIED COMPLETELY AROUND LIGHT STEM OR WIREWAY AT BREAKABLE COUPLING TO PROVIDE A WATERTIGHT SEAL.
15. EXISTING AND PROPOSED CABLES AND DUCTS ARE SHOWN DIAGRAMMATICALLY. EXISTING CABLE LOCATIONS SHALL BE FIELD VERIFIED. PROPOSED DUCTS SHALL BE A MINIMUM OF 15 FEET PARALLEL FROM EDGE OF RUNWAY.
16. PLASTIC LIGHTING FIXTURE COMPONENTS, SUCH AS LAMP HEADS, STEMS, BREAKABLE COUPLINGS, BASE COVERS, BRACKETS, STAKES, SHALL NOT BE 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.
17. THE TOLERANCE FOR THE HEIGHT OF TAXIWAY EDGE LIGHTS SHALL BE ± ONE (1) INCH. IN THE CASE OF BASE MOUNTED LIGHTS, THE SPECIFIED LIGHTING FIXTURE HEIGHT SHALL BE 20" MEASURED BETWEEN THE TOP OF THE BASE FLANGE AND THE TOP OF THE LENS. THIS INCLUDES THE BASE COVER, THE COUPLING, THE STEM, THE LAMP HOUSING AND THE LENS.
18. THE TOLERANCE FOR THE LATERAL SPACING (LIGHT LANE TO RUNWAY/TAXIWAY CENTER LINE) OF RUNWAY/TAXIWAY EDGE LIGHTS SHALL BE ± ONE (1) INCH. THIS ALSO APPLIES AT INTERSECTIONS TO LATERAL SPACING BETWEEN LIGHTS OF A RUNWAY/TAXIWAY AND THE INTERSECTING RUNWAY/TAXIWAY.
19. ALL ENTRANCES, USED AND UNUSED, INTO L-867 BASES SHALL BE PLUGGED FROM THE INSIDE WITH DUCT SEAL.
20. GALVANIZED/PAINTED EQUIPMENT/COMPONENT SURFACES SHALL NOT BE DAMAGED BY DRILLING, FILING, ETC. DRAIN HOLES IN METAL TRANSFORMER HOUSINGS SHALL NOT BE PROVIDED.
21. EDGE LIGHT NUMBERING TAGS SHALL BE FACING THE PAVEMENT.
22. CABLE DUCT MARKERS SHALL BE PRECAST CONCRETE OF THE SIZE SHOWN. LETTERS/NUMBERS/ARROWS FOR THE LEGEND TO BE IMPRESSED INTO THE TOPS OF THE MARKERS SHALL BE PRE-ASSEMBLED AND SECURED IN THE MOLD BEFORE THE CONCRETE IS POURED. LEGEND INSCRIBED BY HAND IN WET CONCRETE SHALL NOT BE ACCEPTABLE.
23. ALL UNDERGROUND CABLE RUNS SHALL BE IDENTIFIED BY CABLE MARKERS AT 200 FEET MAXIMUM SPACING, WITH AN ADDITIONAL MARKER ONLY AT BENDS OR TURNS OF THE CABLE RUN. CABLE MARKERS SHALL BE INSTALLED IMMEDIATELY ABOVE THE CABLE.
24. UNDERGROUND DIRECT BURY SPLICES SHALL NOT BE PERMITTED. ALL CABLE RUN AND HOME RUN SPLICES SHALL BE IN SPLICE CANS. SPLICES BETWEEN LIGHTS IN A CIRCUIT SHALL NOT BE PERMITTED.
25. THE CABLE MARKERS SHALL IDENTIFY THE CIRCUITS WHICH THE CABLES BELONG TO. SUCH AS RWY 9-27, TXY B, SCAN, ETC.
26. LOCATIONS OF ENDS OF ALL UNDERGROUND DUCTS SHALL BE IDENTIFIED IN PAVEMENT BY DUCT MARKERS.
27. CABLE DUCT ENTERING OR LEAVING SPLICE CANS AND LIGHT BASES SHALL UTILIZE DUCT/CONDUIT COUPLINGS TO PROVIDE A WATER TIGHT SEAL.
28. APPLY AN OXIDE INHIBITING, ANTI-SEIZING COMPOUND TO ALL SCREWS, NUTS AND BREAKAGE COUPLING THREADS.
29. THERE SHALL BE NO SPLICES BETWEEN THE ISOLATION TRANSFORMERS. L-823 CONNECTORS ARE ALLOWED AT TRANSFORMER CONNECTIONS ONLY, UNLESS OTHERWISE SHOWN.
30. CONCRETE USED FOR SLABS, FOOTINGS, BACKFILL AROUND TRANSFORMER HOUSINGS, MARKERS, ETC. SHALL BE 3000 PSI, MIN. 7 DAYS, AIR-ENTRAINED. (SPEC. 610)
31. ALL BOLTS AND SCREWS BROKEN ON SPLICE CANS AND LIGHT BASES SHALL BE REMOVED AND REPLACED.
32. EXISTING SPLICE CANS NOT SPECIFICALLY INDICATED TO BE REUSED, SHALL BE REMOVED.
33. ANY AND ALL MATERIALS REMOVED AND NOT REUSED SHALL REMAIN THE PROPERTY OF QCIA. THIS INCLUDES, BUT IS NOT LIMITED TO, WIRE, CABLE, CONDUIT, ELECTRICAL EQUIPMENT, SIGNS, SPLICE CANS, LIGHT FIXTURES, ETC.



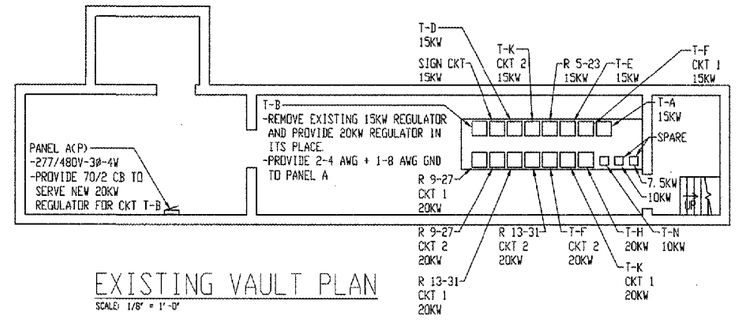
SPLICE CAN DETAIL

NO SCALE



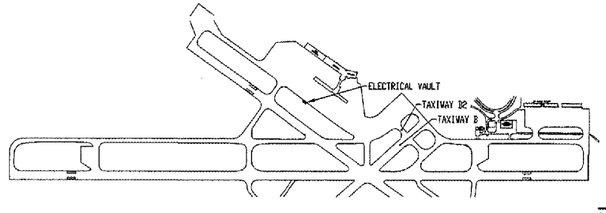
MEDIUM INTENSITY LIGHTING DETAIL

NO SCALE — MITL - TAXIWAY LIGHTING - 30W



EXISTING VAULT PLAN

SCALE: 1/8" = 1'-0"



PARTIAL KEY PLAN

SCALE: NONE

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QUAD CITY INTERNATIONAL AIRPORT
Moline, IL

REVISIONS		
NO.	ITEM	DATE

PLOTTING SCALE:	NONE
DRAWN BY:	CMR
CHECKED BY:	BRM
DATE:	JUNE 2005

McCLURE ENGINEERING ASSOCIATES, INC.
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Design Firm License: Illinois 184-000815

ELECTRICAL DETAILS

QUAD CITY INTERNATIONAL AIRPORT RECONSTRUCT TAXIWAYS B and B2 — MOLINE, ILLINOIS

FILE NAME: M:\2005\DWG\05-122-E9.DWG — JOB NUMBER: 01-29-05-065

SHEET NO. 17 OF 28