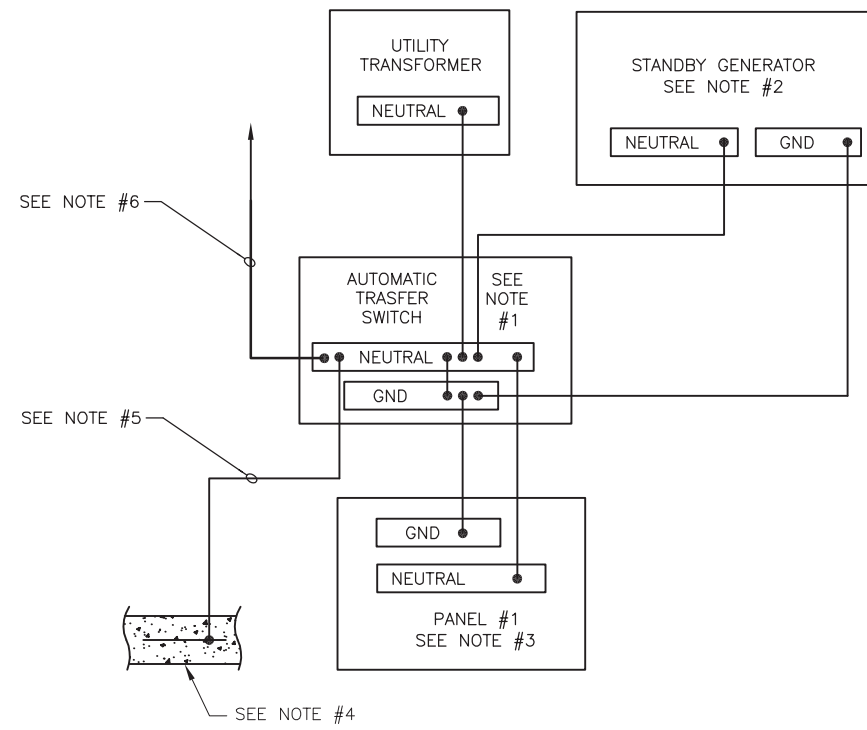
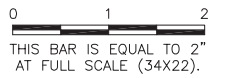


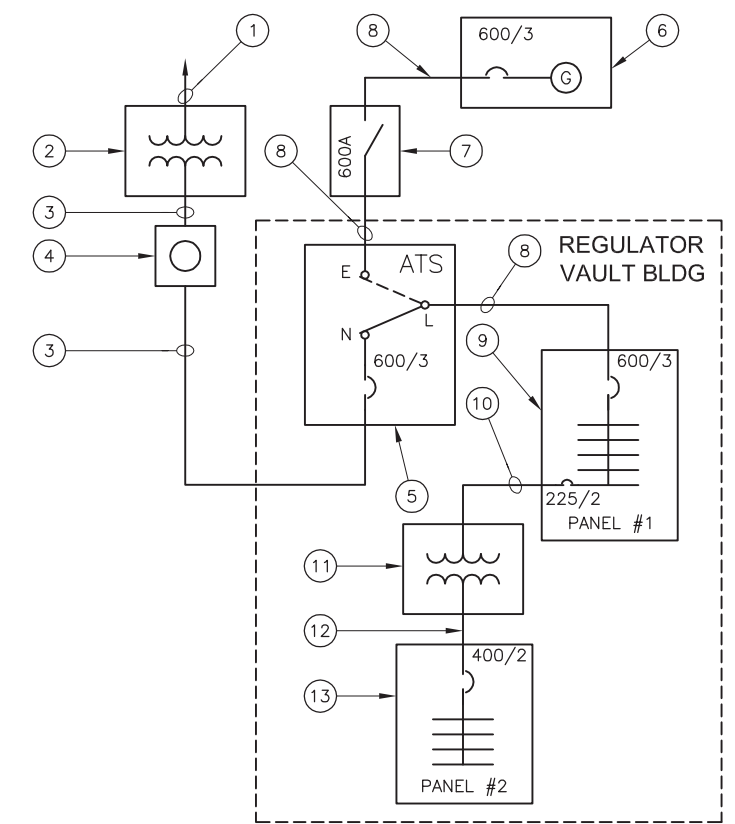
UN051

REVISIONS		
NUMBER	BY	DATE



1. BOND NEUTRAL BAR TO GROUND BAR IN SERVICE ENTRANCE RATED TRANSFER SWITCH.
2. DO NOT BOND NEUTRAL BAR TO GROUND BAR IN STANDBY GENERATOR.
3. DO NOT BOND NEUTRAL BAR TO GROUND BAR IN PANELBOARD.
4. CADWELD TO REBAR IN STRUCTURAL FOUNDATION (UFER GROUND).
5. #2/0 GROUNDING ELECTRODE CONDUCTOR. SEE SPECS.
6. #2/0 BARE COPPER WIRE TO VAULT GROUND RING. SEE "NEW VAULT DETAILS 1" FOR ADDITIONAL INFORMATION.

SYSTEM GROUNDING AND NEUTRAL WIRING



ONE-LINE DIAGRAM

ONE-LINE DIAGRAM KEYED NOTES

1. UNDERGROUND PRIMARY UTILITY SERVICE.
2. NEW 300 KVA TRANSFORMER, 4160V PRIMARY, 277Y/480V, 3-PHASE, 4-WIRE SECONDARY.
3. SERVICE ENTRANCE CONDUCTORS: TWO 4" SCHEDULE 40 PVC CONDUITS, EACH WITH THREE 350 MCM THWN, ONE 350 MCM NEUTRAL.
4. UTILITY METERING. INSTALL NEXT TO UTILITY TRANSFORMER PER UNIVERSITY REQUIREMENTS.
5. SERVICE ENTRANCE RATED AUTOMATIC TRANSFER SWITCH, 600A, 277Y/480V, 3P, WITH NEUTRAL BAR AND GROUND BAR. SEE GROUNDING AND BONDING DETAIL FOR ADDITIONAL INFORMATION.
6. DIESEL STANDBY GENERATOR, 250KW/300KVA, 277Y/480V, 3-PHASE, 4-WIRE, WITH 600A, 3P MAIN CIRCUIT BREAKER, WITH WEATHERPROOF HOUSING.
7. 600A, 3P, 600V UNFUSED DISCONNECT IN NEMA 3R ENCLOSURE. MOUNT TO VAULT WALL. PROVIDE ENGRAVED NAMEPLATE READING:
 STANDBY GENERATOR
8. TWO 4" CONDUITS, EACH WITH THREE 350 MCM THWN, ONE 350 MCM NEUTRAL, ONE #2/0 GROUND.
9. PANEL #1: 600A, 3P, 4W, 277Y/480V, WITH 600A, 3P MAIN BREAKER. SEE SCHEDULE FOR ADDITIONAL INFORMATION.
10. THREE #4/0 THWN, ONE #8 GROUND IN 2" FLEXIBLE METAL CONDUIT.
11. 75 KVA SINGLE-PHASE TRANSFORMER, 240X480V PRIMARY, 120X240V SECONDARY, RELOCATED FROM EXISTING AIRFIELD LIGHTING VAULT.
12. TWO 2" FLEXIBLE CONDUITS, EACH WITH TWO #3/0 THWN, ONE #3 GROUND.
13. DISTRIBUTION PANELBOARD #2, 42-POLE, 400A, 120/240V, 1-PHASE, 3-WIRE, WITH 400A, 2P MAIN CIRCUIT BREAKER. SEE SCHEDULE FOR ADDITIONAL INFORMATION.

WILLARD AIRPORT
UNIVERSITY OF ILLINOIS
NEW AIRFIELD LIGHTING VAULT
NEW VAULT DETAILS 5

© Copyright CMT, Inc.
CMT
 CRAWFORD, MURPHY & TILLY, INC.
 CONSULTING ENGINEERS
 License No. 184-000613

DESIGN BY:	WDP
DRAWN BY:	CMT
CHECKED BY:	JEH
APPROVED BY:	JEH
DATE:	APRIL 20, 2012
JOB No:	11059-03
IL. PROJ. NO. CMI-4100 AIP PROJ. NO. 3-17-0016-XX	
SHEET 55 OF 60 SHEETS	