

**NUMBERED LEGEND**

- ① CONCRETE FOUNDATION AND 12"x18" EQUIPMENT SHELTER, PER SHEET 13.
- ② 3-1/C #2 TYPE U.S.E. 120/240V, SINGLE-PHASE SECONDARY INCOMING POWER CABLES IN CONTINUOUS 2" RIGID CONDUIT FROM TRANSFORMER TO METER BASE ④. CONDUIT AND SECONDARY CABLES BY CONTRACTOR.
- ③ 25KVA TRANSFORMER WITH PRIMARY CABLE TO IT (BY COMED).
- ④ METER BASE AND TROUGH WITH 1.5" NIPPLE THROUGH WALL BEHIND METER BASE, 3-1/C #2 TYPE XLP-USE POWER CABLES FROM METER TO ⑧. THE METER SHALL BE BY COMED.
- ⑤ GALVANIZED RIGID STEEL FROST HEAVE COUPLINGS (APPLETON) WITH 8" MIN TRAVEL AND BONDING JUMPERS. (TYPICAL)
- ⑥ SURGE SUPPRESSOR LIGHTNING PROTECTION CORP. #LPC 20206-7, WITH 2 UL-RATED 60-A CLASS J TIME DELAY FUSES HAVING 200 KAIC INTERRUPTING CAPACITY.
- ⑦ 1-#2 GREEN GROUNDING ELECTRODE CONDUCTOR FROM ⑧ IN 1" GALVANIZED RIGID STEEL CONDUIT WITH SWEEP ELBOW. CONTRACTOR SHALL LOOP THROUGH GROUNDING BUSHING AT EACH END OF CONDUIT.
- ⑧ POWER PANEL, SQUARE "D" CAT. NO. NQ0D20M100CU IN NEMA 1 ENCLOSURE WITH BOLT ON BREAKERS. SEE DETAIL "1" ON SHEET 14.
- ⑨ POWER INTERFACE JB, 6"x6"x4" NEMA 3R, HOFFMAN CATALOG NUMBER A-6R64 WITH 2" NIPPLE THROUGH WALL.
- ⑩ 3-1/C #12 TYPE U.S.E. POWER CABLES AND 1-#2 BARE GROUND IN 2" DIA GALVANIZED RIGID STEEL CONDUIT TO 5' BEYOND THE COUNTERPOISE TO LOCALIZER ANTENNA. SEE SHEET 13.
- ⑪ 36"x30"x12" R.F. AND CONTROL INTERFACE BOX, NEMA 3R, HOFFMAN CATALOG NUMBER A-36R3012 WITH A 2 1/2" NIPPLE THROUGH WALL. (SEE NOTE 2)
- ⑫ 2-1/2" HELIAX CABLES (ANDREW CORP. #LDF4-50A) AND 1-12 PR #19 SHIELDED CONTROL CABLE IN 4" DIA GALVANIZED RIGID STEEL CONDUIT TO 5' BEYOND THE COUNTERPOISE, THEN BY DIRECT BURIAL TO LOCALIZER ANTENNA. SEE SHEETS 13 AND 16.
- ⑬ OUTDOOR LIGHTING FIXTURE, 50W. HIGH PRESSURE SODIUM, HOLOPHANE, CATALOG NUMBER WP2A050HP12GRP WITH PHOTO CONTROL AND MOTION DETECTOR.
- ⑭ LIGHT FIXTURE, FLUORESCENT, SURFACE MOUNT, 120V, 2-36W BULBS, GUTH CATALOG NUMBER ACR6596, WITH G.E. NUMBER 89G635 RF SUPPRESSOR AND LOW TEMPERATURE STARTERS.
- ⑮ ILS EQUIPMENT GROUND CONDUCTOR, 1-#2 GREEN WITH YELLOW STRIPES. LEAVE 15' TAIL IN ⑪ AND RUN DIRECTLY TO GROUND ELECTRODE.
- ⑯ 12"x6"x1/4" COPPER MAIN GROUND PLATE (SEE NOTE 8).
- ⑰ WALL MOUNTED ENVIRONMENTAL CONTROL UNIT, 11,100 BTUH AIR CONDITIONER, 3.6KW HEATSTRIP, BARD CATALOG #WA121-A03EX4XXJ WITH SUPPLY AND RETURN GRILL AND 2-STAGE HEATING/COOLING THERMOSTAT.
- ⑱ FLIGHT CHECK ANTENNA SUPPORT, 1 1/4" RIGID GALVANIZED CONDUIT, CAP END. FOR USE BY OTHERS. THE TOP OF THIS ANTENNA SUPPORT SHALL BE 12" ABOVE THE ELEVATION OF THE SHELTER ROOF PEAK. THE ANTENNA SUPPORT SHALL HAVE A DOUBLE BEND TO AVOID PENETRATING THE ROOF. THE ANTENNA SUPPORT SHALL BE CLAMPED TO THE FASCIA AT THE END OF THE ROOF.
- ⑲ INSTALL COMPLETE LIGHTNING PROTECTION PER SHEET 16.
- ⑳ 2" GALVANIZED RIGID STEEL PIPE DOOR STOP TO 4' BELOW GRADE. PIPE SHALL HAVE A LATCHING HOOK AND DOOR SHALL HAVE AN EYEBOLT.
- ㉑ 2'x4'x3/4" PLYWOOD TYPE AC BENCH TOP. SET TABLE TOP SO THAT IT DOES NOT INTERFERE WITH OPERATION OF ⑧.
- ㉒ BENCH SUPPORT BRACKETS, UNISTRUT CATALOG NUMBER P2499 (RIGHT & LEFT) - 1 EACH MOUNT THESE TO OTHER UNISTRUT MOUNTED ON THE WALL.
- ㉓ 2" RIGID GALVANIZED CONDUIT FROM ⑳ TO ㉔ TO 5' BEYOND UNDERGROUND COUNTERPOISE. AFTER THIS ALL CABLES DIRECT EARTH BURIED.
- ㉔ RACK CONVENIENCE OUTLET.
- ㉕ LOCALIZER RACK.
- ㉖ LOCALIZER JUNCTION BOX.
- ㉗ BATTERY RACK.
- ㉘ RMM CONTROL JUNCTION BOX, 24"x24"x6.62" NEMA 1, HOFFMAN CAT. NO. "A-24N24ALP" WITH TERMINAL STRIPS PER FAA SPECIFICATION FAA-GL-918C, PARAGRAPH 16A.19.
- ㉙ TELCO SERVICE (BY SBC).
- ㉚ ERMM BATTERY BACK-UP ASSEMBLY.
- ㉛ 1 1/2" EMT CONDUIT FROM ⑧ TO ⑨ WITH 3-1/C #12 TYPE USE POWER CABLES AND #2 BARE.
- ㉜ DOOR SENSOR.
- ㉝ SMOKE DETECTOR.
- ㉞ 16"x12"x6" NEMA 3R JUNCTION BOX, HOFFMAN #A-16R126HCR.
- ㉟ NOT USED.
- ㊱ DMEL ANTENNA FOUNDATION AND MAST AND OBSTRUCTION LIGHTS.
- ㊲ 2" RIGID GALVANIZED CONDUIT 7' ABOVE GRADE.
- ㊳ 2" NIPPLE THRU WALL WITH BUSHING.
- ㊴ 6"x6"x4" D PULLBOX WITH HINGED COVER (HOFFMAN #A-HE6 X 6 X 4)(SEE NOTE 6).
- ㊵ 3/4" DIA EMT TO ⑧ CONTAINING A 3/8" NYLON PULL STRING.
- ㊶ (2) 500 KCMIL GREEN GROUND CABLES. EXOTHERMIC WELDED TO EARTH ELECTRODE SYSTEM (EES) AND ATTACHED TO MAIN GROUND PLATE WITH DOUBLE BOLT CRIMPED LUGS.
- ㊷ 12"x6"x1/4" COPPER MULTI-POINT GROUND PLATE (SEE NOTE 9).
- ㊸ (1) 500 KCMIL GREEN/ORANGE GROUND CABLE. EXOTHERMIC WELDED TO EARTH ELECTRODE SYSTEM (EES) AND ATTACHED TO MULTI-POINT GROUND PLATE WITH DOUBLE BOLT CRIMPED LUG.

**NOTES**

1. ALL CONDUIT, RECEPTACLES, LIGHT FIXTURES, HEATER, POWER PANEL, AND ENVIRONMENTAL PANEL SHALL BE SURFACE MOUNTED.
2. ALL WALL PENETRATIONS SHALL BE CAULKED WITH SILICONE CAULK.
3. 15' CABLE TAILS OF 12 PR #19 SHIELDED CONTROL CABLE AND 5' TAILS OF 1/2" HELIAX (ANDREW CORP #LDF4-50A) CABLES INSIDE THE CONTROL BOX FOR TERMINATION BY OTHERS.
4. THE CONTRACTOR SHALL LEAVE 15' OF 12 PR #19 SHIELDED CONTROL CABLE AT ANTENNA ARRAY END AND IN THE SHELTER'S RF JUNCTION BOX. THE CONTRACTOR SHALL INSTALL A SEPARATE STRIP OF BLOCKS FOR EACH CABLE. THE TERMINAL BLOCKS SHALL BE MINIATURE STYLE (1/4" O.C.) NYLON BLOCKS WITH TUBULAR CONDUCTOR CLAMPS. APPROVED FOR THIS PURPOSE ARE BUCHANAN CATALOG NUMBER 15 VINYL MARKING STRIP WITH CATALOG NUMBER 16 NYLON HOLDING PLUGS. OTHER BLOCKS, AND ACCESSORIES REQUIRE CATALOG CUTS, AND RESIDENT ENGINEER'S APPROVAL BEFORE PROCUREMENT.
5. ALL RIGID GALVANIZED STEEL UNDERGROUND CONDUIT, EXCEPT FOR GROUNDING ELECTRODE CONDUIT SHALL EXTEND 5'-0" MINIMUM BEYOND THE BUILDING'S COUNTERPOISE. AFTER THIS POINT, CABLES SHALL BE DIRECT EARTH BURIED UNLESS OTHERWISE DESIGNATED.
6. PROVIDE HOLE WITH RUBBER GROMMET ON WEST SIDE OF PULL BOX TO ACCEPT 3/8" S/D CORD. INSTALL PULL BOX IMMEDIATELY EAST OF NIPPLE THRU WALL.
7. THE CONTRACTOR SHALL COORDINATE WITH COMED AND SBC REGARDING INSTALLATION OF UTILITY SERVICE AND THE COST SHALL BE INCIDENTAL TO THE CONTRACT.
8. GROUND PLATE SHALL BE STANDOFF MOUNTED WITH CLEAR PLASTIC COVER WITH GREEN STRIPES AROUND PERIMETER AND LABELED "MAIN GROUND PLATE".
9. MULTI-POINT GROUND PLATE SHALL BE STANDOFF MOUNTED WITH CLEAR PLASTIC COVER WITH GREEN/ORANGE STRIPES AROUND PERIMETER AND LABELED "MULTI-POINT GROUND PLATE".

WHERE SPECIFIC MANUFACTURERS OF EQUIPMENT ARE GIVEN, THE CONTRACTOR MAY SUBMIT ALTERNATE EQUIPMENT EQUAL TO THAT PROPOSED FOR CONSIDERATION BY THE ENGINEER.

**REVISIONS**

NUMBER	BY	DATE

0 1 2  
 THIS BAR IS EQUAL TO 2"  
 AT FULL SCALE (34x22).

LANSING MUNICIPAL AIRPORT  
 LANSING, ILLINOIS  
 INSTALL RUNWAY 36 LOCALIZER  
 NUMBERED LEGEND

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DRAWN BY:	JRO
CHECKED BY:	AB
APPROVED BY:	
DATE:	06/22/05
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IL PROJECT: ICQ-3482 A.I.P. PROJECT: 3-17-0121-B23	
SHEET 15 OF 18 SHEETS	