



- ① (3) #4/0 & (1) #2 GND, 3" C
- ② (2) #3 & (1) #8 GND, 1" C
- ③ (2) #8 & (1) #10 GND, 3/4" C
- ④ (2) #10 & (1) #12 GND, 3/4" C
- ⑤ (2) #12 & (1) #12 GND, 3/4" C
- ⑥ #6 GND WIRE, 3/4" C
- ⑦ COPPER GROUND BUS
- ⑧ QUANTITY & CONTROL WIRE SIZE PER MANUFACTURER'S RECOMMENDATION, 1/2" RGS
- ⑨ #8 BARE COPPER GROUND
- ⑩ (4) #22 AWG, 1/2" C.

LEGEND

- ⊛ MAIN MATERIAL LIST KEY
- ⊞ ELECETRICAL NOTES KEY
- ◇ PHOTOELECTRIC DETECTOR
- IONIZATION DETECTOR
- ⊠ JUNCTION BOX
- ⊥ LIGHT SWITCH
- ⊕ QUAD RECEPTACLE
- ⊕ DUPLEX RECEPTACLE
- FLUORESCENT LIGHT FIXTURE
- CABLE TRAY
- COMMUNICATION EQUIPMENT RACK

EQUIPMENT LAYOUT
NOT TO SCALE

ELECTRICAL LAYOUT
NOT TO SCALE

| ITEM | DESCRIPTION |
|------|----------------------------------------------------------------------------------------|
| 1 | PREFABRICATED 10' W x 12' L x 9' H (INTERIOR DIMENSION) CONCRETE EQUIPMENT SHELTER |
| 2 | DOOR INTRUSION SENSOR |
| 3 | DUAL HVAC UNIT CONTROLLER |
| 4 | SINGLE POLE LIGHT SWITCH |
| 5 | DUPLEX RECEPTACLE |
| 6 | COMBINED EMERGENCY LIGHT W/ BATTERY BACKUP |
| 7 | 10 LB. CARBON DIOXIDE FIRE EXTINGUISHER, WALL MOUNTED |
| 8 | TWO POLE, DOUBLE THROW DISCONNECT SWITCH, 240 VAC, NEMA 1 ENCLOSURE |
| 9 | NORMAL POWER PANEL "PP", 120/240 VAC, 3W, 225 AMP PANEL |
| 10 | 35W HIGH PRESSURE SODIUM, VANDAL RESISTANT EXTERIOR MOUNTED FLOODLIGHT, WITH PHOTOCELL |
| 11 | 36" x 80" INSULATED HOLLOW METAL CORE DOOR AND FRAME |
| 12 | FLUORESCENT LIGHT, 2 LAMPS 30 WATTS EACH, 120 VOLT |
| 13 | LIEBERT INTELCOOL, 36,000 W/ GRILLS |
| 14 | CEILING MOUNTED SMOKE DETECTOR (IONIZATION TYPE) |
| 15 | CEILING MOUNTED SMOKE DETECTOR (PHOTOELECTRIC TYPE) |
| 16 | FIRST AID KIT |
| 17 | EYE WASH KIT |
| 18 | 66 ALARM BLOCKS, MODULE 50M - 1500W W/ 2 R66M 50 BLOCKS AND BLOCK COVERS |
| 19 | 12" CABLE TRAY (SEE SHEET COMM-95 FOR DETAILS) |
| 20 | FIRE ALARM PANEL |
| 21 | ALARM I/O MODULE |
| 22 | 4" x 4" x 10' WIREWAY |
| 23 | 4" x 4" x 20' WIREWAY |
| 24 | 4" x R" CORNER PIECE |
| 25 | 6" RECEPTACLE STRIP W/ OUTLETS EVERY 1' |
| 26 | CONDUIT ADAPTER |

| ITEM | DESCRIPTION |
|------|-----------------------------------------------------------------------------|
| 27 | ELBOW ADAPTER |
| 28 | END CAP |
| 29 | VANDAL PROOF CAGE FOR HVAC |
| 30 | REMOTE ANNUNCIATOR MODULE (PRE-PURCHASED) |
| 31 | FLOOR TILES - 1/2" x 12" x 12" COMMERCIAL TILE |
| 32 | BASE FINISH, 4" BLACK BASE COVER MOLD 10' x 12' SHELTER |
| 33 | 24" x 36" RUBBER MAT |
| 34 | INSULATION MATERIAL FOR 10' x 20' x 9' FIRE RESISTANT R-19 |
| 35 | 1/4" x 2" x 2" ANGLE PLATES AT EXTERIOR DOOR AND WALL FOR VANDAL PROOF LOCK |
| 36 | 1/2" CONDUIT |
| 37 | 1" CONDUIT |
| 38 | UPS SYSTEM, 10KVA, 240 VAC INPUT, 120 VOLT, 10 OUTPUT |
| 39 | INTERIOR COPPER GROUND BUS BAR (SEE SHEET COMM-77 FOR DETAILS) |
| 40 | INTERIOR GROUND SYSTEM - GROUND LEAD TO EXTERIOR GROUND SYSTEM |
| 41 | INTERIOR GROUND SYSTEM - NON-DIRECTIONAL SPLICE |
| 42 | INTERIOR GROUND SYSTEM - GROUND WALL SUPPORT |
| 43 | INTERIOR GROUND SYSTEM - GROUND BUS GROUND TAP |
| 44 | INTERIOR GROUND SYSTEM - CABLE LADDER BOND |
| 45 | INTERIOR GROUND SYSTEM - DOOR BONDING STRIP |
| 46 | INTERIOR GROUND SYSTEM - PVC 45% NIPPLE |
| 47 | UPS PANEL "UP", 120/240VAC, 2W, 100 AMP PANEL |
| 48 | STANDBY GENERAL PANEL "GP" |
| 49 | EQUIPMENT RACK (PAID FOR AS PART OF CCTV DISTRIBUTION SUBSYSTEM) |
| 50 | AUTOMATIC TRANSFER SWITCH (ATS) |
| 51 | WALL MOUNTED FIBER OPTIC TERMINATION PANEL |

NOTES:

- CONDUIT AND WIRING IS SHOWN DIAGRAMATIC. ACTUAL LOCATION OF EQUIPMENT AND HARDWARE SHALL BE SHOWN IN SHOP DRAWINGS AND SHALL BE APPROVED BY THE ENGINEER.
- CONTRACTOR SHALL MAINTAIN MINIMUM 36" CLEARANCE WHEN INSTALLING EQUIPMENT RACKS AND EQUIPMENT.
- ALL CABLE TRAY AND EQUIPMENT SHALL HAVE GROUND WIRE INSTALLED SIZED AS PER ELECTRICAL CODE REQUIREMENTS.
- SEE SHEETS COMM-121 THRU COMM-126 FOR FIBER OPTIC CABLE PATCHING AND TERMINATION DETAILS.
- ROUTE ALARM CABLE FROM ALARM OUTPUT DEVICES TO ALARM INPUT PANEL VIA CABLE TRAY. SEE SHEET COMM-88 FOR NUMBER AND TYPE OF ALARM INPUTS.
- COORDINATE CONDUIT ENTRANCE LOCATIONS AS DETAILED PER SHELTER SITE PLAN COMM-85.
- SEE COMMUNICATION DRAWINGS SHEET COMM-90 FOR EQUIPMENT RACK LAYOUT.

COMM-86

| REVISIONS | |
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| NAME | DATE |
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ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31st STREET to I-57

I-55 SHELTER (R01)
EQUIPMENT AND ELECTRICAL LAYOUT

SCALE: NOT TO SCALE
DATE: October 29, 2004

DRAWN BY: JM
CHECKED BY: CS



11/23/2004 12:47:35 PM