

*KONtek Industries*

*New Madrid, Missouri*

11' - 9" X 20' - 0" X 10' - 4"

EQUIPMENT SHELTER

FOR

AT&T WIRELESS SYSTEMS

ST LOUIS

BLDG - A

APPLICABLE CODES:

1987 BOCA NATIONAL BUILDING CODE  
1987 BOCA NATIONAL MECHANICAL CODE  
1989 CABO MODEL ENERGY CODE  
1988 UNIFORM BUILDING CODE  
1988 UNIFORM MECHANICAL CODE  
1987 NATIONAL ELECTRIC CODE

MAXIMUM FLOOR LIVE LOAD: 125 PSF  
MAXIMUM FLOOR LIVE LOAD IN BATTERY AREA: 350 PSF  
MAXIMUM ROOF LIVE LOAD: 45 PSF  
OCCUPANCY / USE GROUP TYPE: BOCA - U, UBC - B2  
CONSTRUCTION TYPE: UBC-VN  
MINIMUM BUILDING SET BACK REQUIREMENTS:  
GREATER THAN 20 FEET FROM COMMON OR ASSUMED PROPERTY LINE  
SEISMIC ZONE: 3  
MAXIMUM WIND LOAD: 80 MPH

THIS BUILDING NOT INTENDED FOR HUMAN OCCUPANCY.

THIS BUILDING SHALL NOT BE LOCATED ON PROPERTY WHERE  
ACCESSIBILITY IS REQUIRED.

PLUMBING FACILITIES BASED ON LOCAL JURISDICTION.

BUILDING LOCATION: MISSOURI

SHEET INDEX

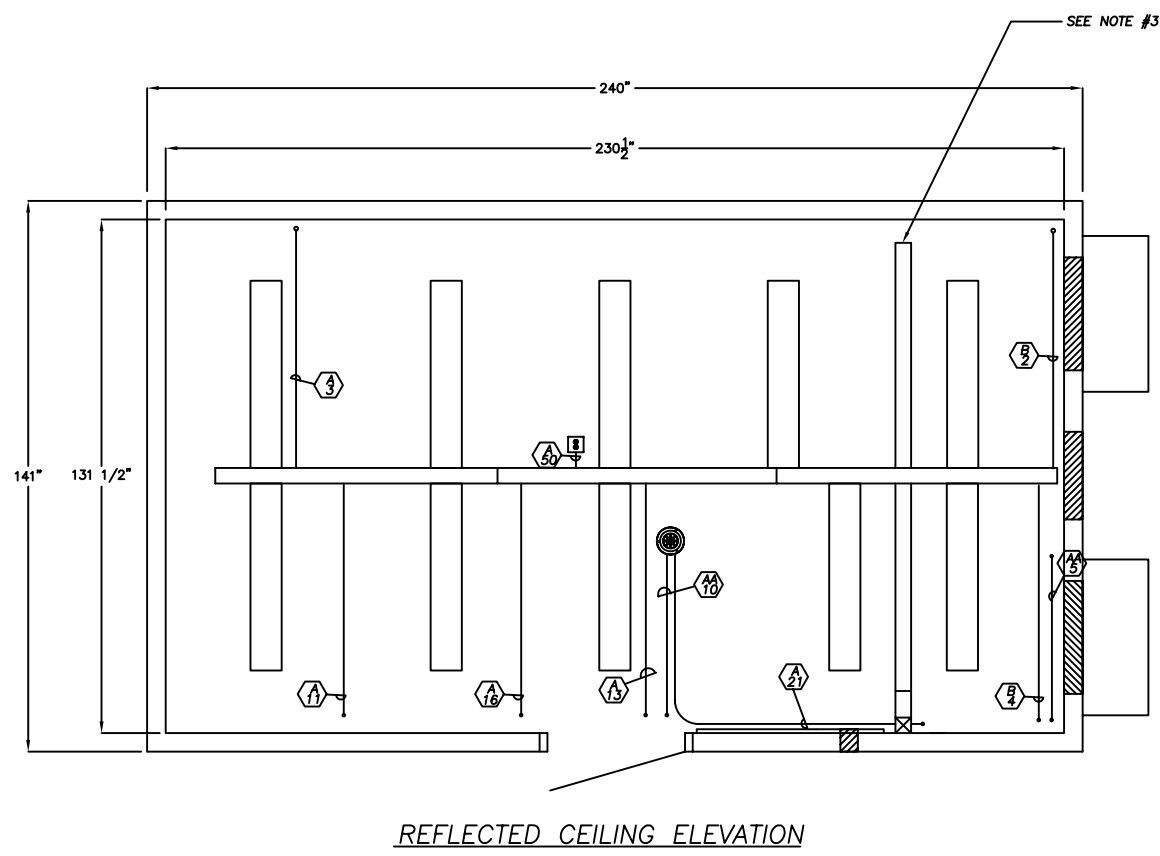
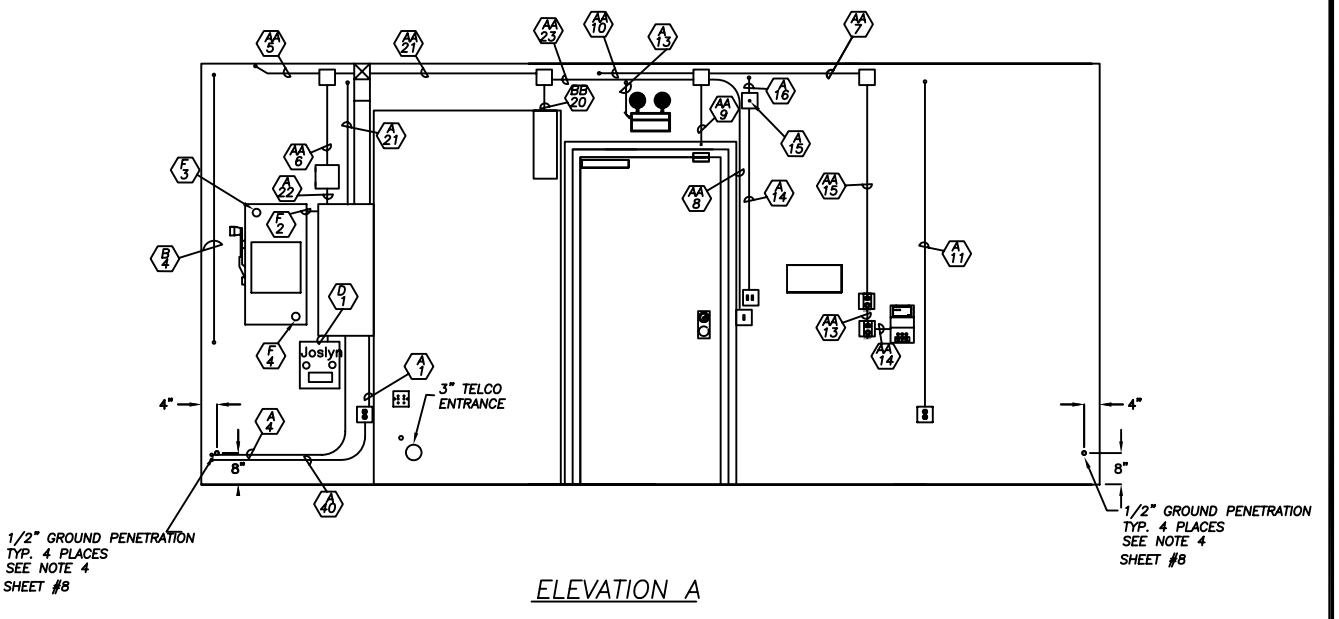
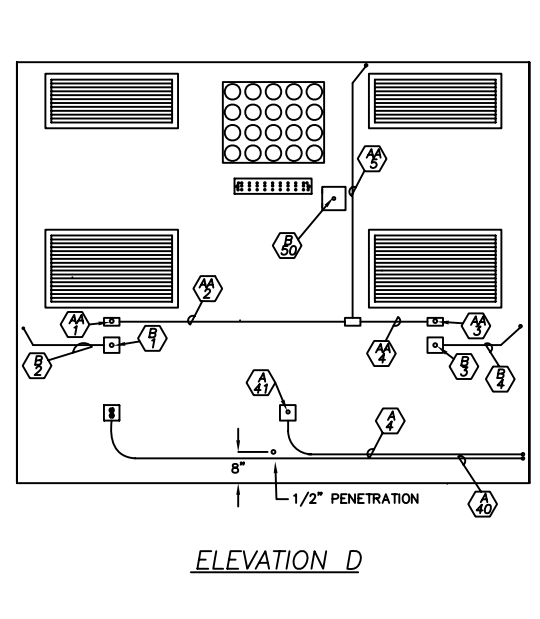
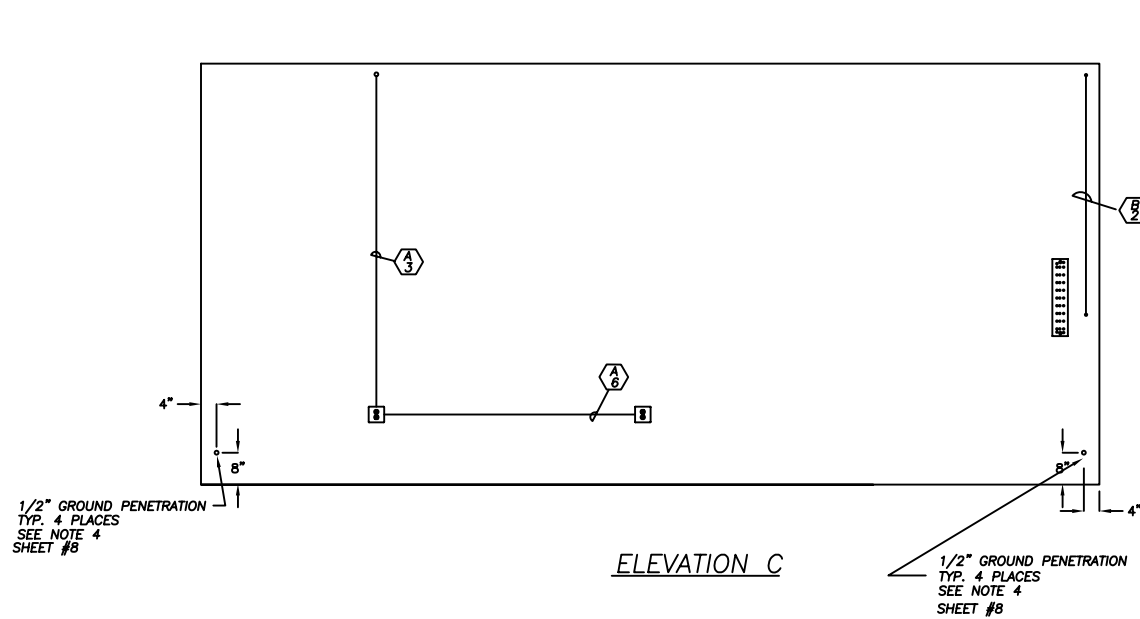
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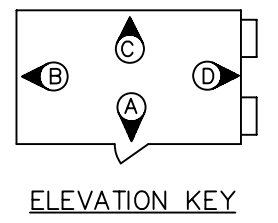
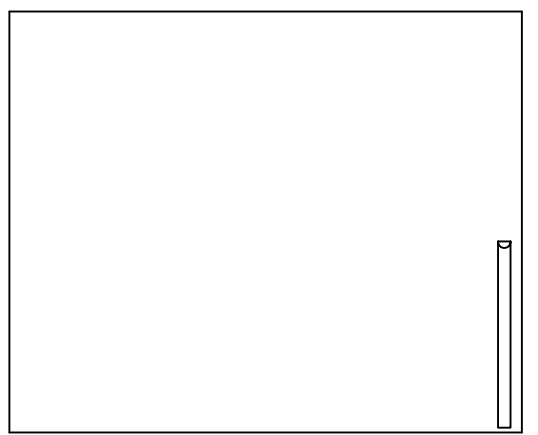






CONDUIT KEY		
A=1/2"	*AA=1/2"	**PA=1/2"
B=3/4"	*BB=3/4"	**PB=3/4"
C=1"	*CC=1"	**PC=1"
D=1 1/4"	*DD=1 1/4"	
E=1 1/2"	*EE=1 1/2"	
F=2"	*FF=2"	
G=2 1/2"	*GG=2 1/2"	
H=3"	*HH=3"	
* THERMOSTAT & ALARM CONDUIT		
** PVC CONDUIT		

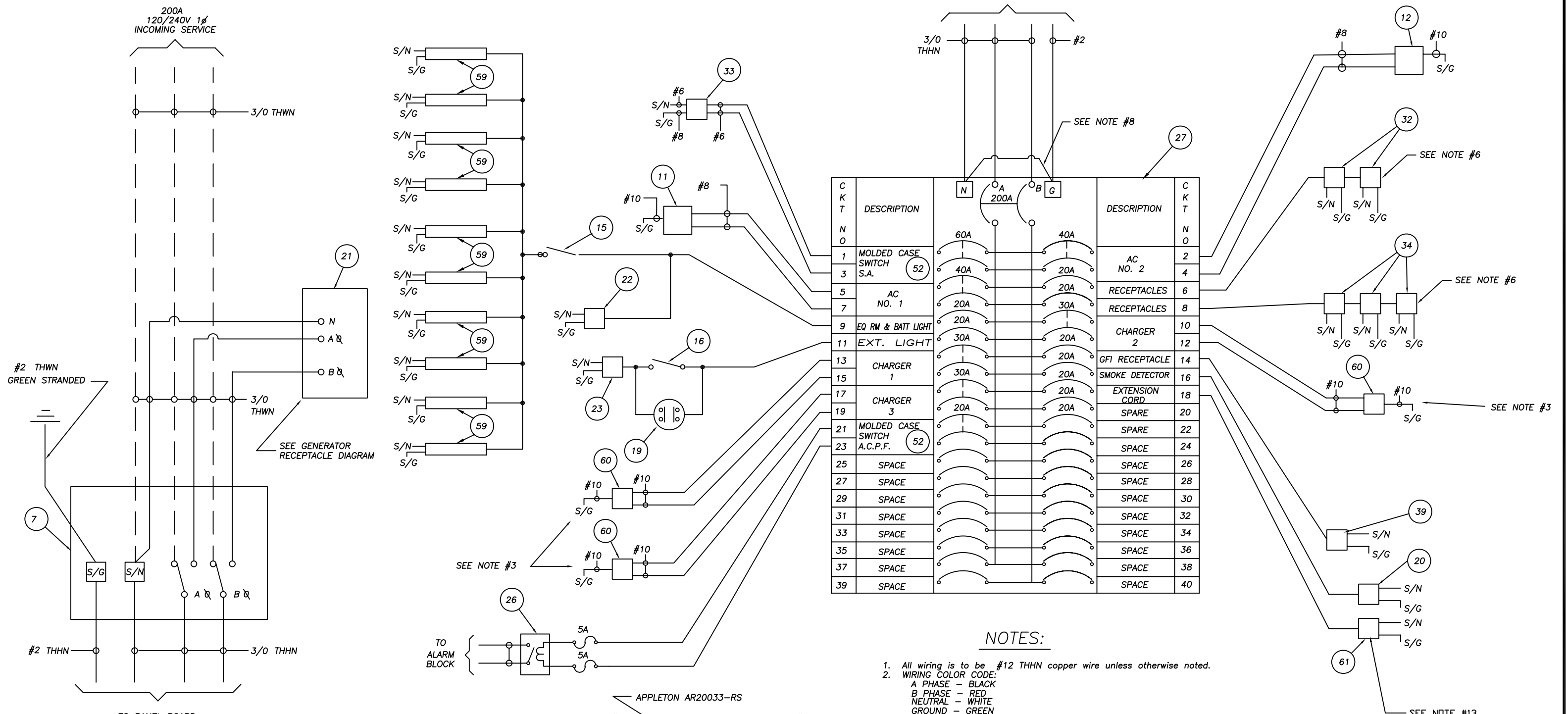
- NOTES:**
- ALL CONDUIT TO BE SUPPORTED AND SECURED PER NATIONAL ELECTRICAL CODE 1987 EDITION.
  - ALL RECEPTACLES ARE OF THE "GROUNDING" TYPE.
  - PULL WIRES FOR RECTIFIERS TO END OF WIREWAY RUN TO FLOOR WITH 5' EXTRA, COIL, TIE, & LABEL FOR SHIPMENT.



REV. BY DESCRIPTION DATE						1200 Dawson Road New Madrid, Missouri 63869		
This drawing and the information it contains are the property of KONtek. It is not to be copied or misused in any way.			QA/QC:	DR. BY: JP	DATE: 3-28-96	AT&T WIRELESS ST LOUIS BLDG-A		
			DATE:	CK. BY:	DATE:	11'-9" X 20'-0" X 10'-4"		
			DATE:	APP. BY:	DATE:	CONDUIT ELEVATIONS		
			PROJECT NO:			SCALE: 1/2"=1' SHT. NO: 3 DWG. NO.: D0471		

BUILDING NO.

SERVICE WIRING DETAIL



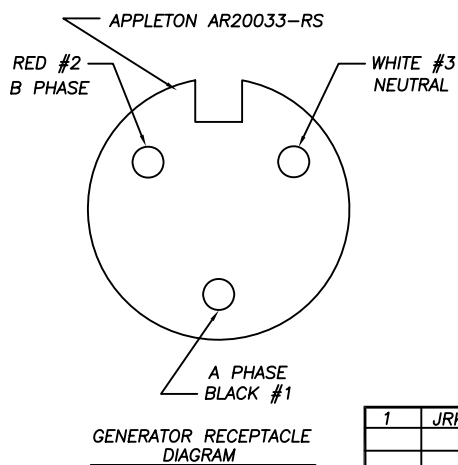
C K T N O	DESCRIPTION	200A				DESCRIPTION	C K T N O
		N	A	B	G		
1	MOLDED CASE SWITCH S.A. (52)	60A	40A	20A	20A	AC NO. 2	2
3	AC NO. 1	40A	20A	20A	20A	RECEPTACLES	4
5	AC NO. 1	20A	20A	30A	20A	RECEPTACLES	6
7	AC NO. 1	20A	20A	30A	20A	RECEPTACLES	8
9	EQ RM & BATT LIGHT	20A	20A	20A	20A	CHARGER 2	10
11	EXT. LIGHT	30A	20A	20A	20A	CHARGER 2	12
13	CHARGER 1	20A	20A	20A	20A	GFI RECEPTACLE	14
15	CHARGER 1	30A	20A	20A	20A	SMOKE DETECTOR	16
17	CHARGER 3	20A	20A	20A	20A	EXTENSION CORD	18
19	CHARGER 3	20A	20A	20A	20A	SPARE	20
21	MOLDED CASE SWITCH A.C.P.F. (52)					SPARE	22
23	A.C.P.F.					SPACE	24
25	SPACE					SPACE	26
27	SPACE					SPACE	28
29	SPACE					SPACE	30
31	SPACE					SPACE	32
33	SPACE					SPACE	34
35	SPACE					SPACE	36
37	SPACE					SPACE	38
39	SPACE					SPACE	40

NOTES:

- All wiring is to be #12 THHN copper wire unless otherwise noted.
- WIRING COLOR CODE:  
A PHASE - BLACK  
B PHASE - RED  
NEUTRAL - WHITE  
GROUND - GREEN  
SWITCH LEG - PHASE COLOR
- Pull wires to 4" x 4" wireway, item #60. Run wire to floor coil, tie, and label for shipment.
- All wiring to be installed per the 1987 National Electrical Code.
- Run a separate neutral and ground for each circuit.
- All receptacles to be of the "grounding" type.
- All wiring to be copper.
- Bond neutral and ground at load center. Disconnect all other bonding straps or devices.
- Smoke detector circuits to comply with NFPA #72 for dedicated breaker lock circuits.
- All electrical devices to be listed or labeled.
- All wire ampacities are based on table 310-16 of the N.E.C..
- All conduit fills to conform to chapter 9 of the N.E.C..
- Install duplex receptacle for extension cord reel. Hang reel, DO NOT plug in.

(WATTS OR VA)		DEVICES	CIRCUIT NUMBER				DEVICES	(WATTS OR VA)		
120V 1φ	240V 1φ		TRIP	1	2	A		TRIP	240V 1φ (A+B)	120V 10 (A)
	7200	MOLDED CASE SWITCH S.A. AC NO. 1	60A	A 1	A 2	A 4	40A	5200		
	5200	AC NO. 1	40A	A 5	A 6	A 8	20A	360		540
1125	125	EQ RM & BATT LIGHT	20A	A 9	A 10	A 10	30A	3200		
	3200	EXT. LIGHT	20A	B 11	B 12	B 12	20A	180		120
	3200	CHARGER NO. 1	30A	A 13	A 14	A 14	20A			
	3200	CHARGER NO. 1	30A	B 15	B 16	B 16	20A			
	3200	CHARGER NO. 3	30A	A 17	A 18	A 18	20A			
	1200	MOLDED CASE SWITCH A.C.P.F.	20A	B 19	B 20	B 20	20A			
		SPACE		A 21	A 22	A 22	20A			
		SPACE		B 23	B 24	B 24				
		SPACE		A 25	A 26	A 26				
		SPACE		B 27	B 28	B 28				
		SPACE		A 29	A 30	A 30				
		SPACE		B 31	B 32	B 32				
		SPACE		A 33	A 34	A 34				
		SPACE		B 35	B 36	B 36				
		SPACE		A 37	A 38	A 38				
		SPACE		B 39	B 40	B 40				

TOTAL = 31570 WATTS ÷ 240V = 131.54 AMPS



REV.	BY	DESCRIPTION	DATE
1	JRK	Rework receptacles/circuits (32,34,61)	6/30/99

BUILDING NO.

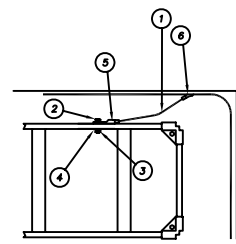
1200 Dawson Road  
New Madrid, Missouri 63869

AT&T WIRELESS ST LOUIS BLDG-A  
11'-9" X 20'-0" X 10'-4"  
ELECTRICAL SCHEMATICS  
SCALE: NTS SHT. NO: 4 DWG. NO.: D0471

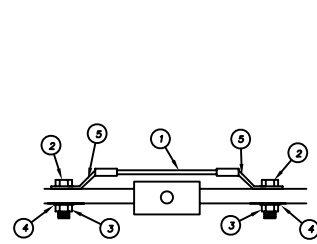
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QA/QC: [ ] DATE: 4-29-98  
DATE: [ ] CK. BY: [ ] DATE: [ ]  
DATE: [ ] APP. BY: [ ] DATE: [ ]

PROJECT NO: [ ]

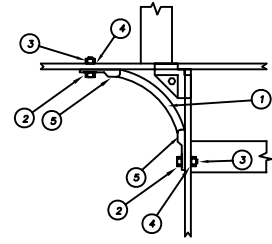


**DETAIL F**  
CABLE LADDER TO  
HALO KIT

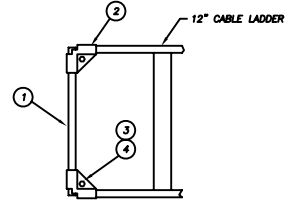


SPLICE GROUND DETAIL

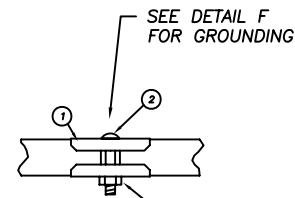
**DETAIL E**  
GROUND BOND



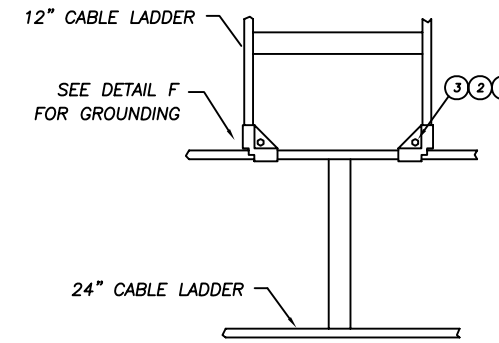
CORNER GROUND DETAIL



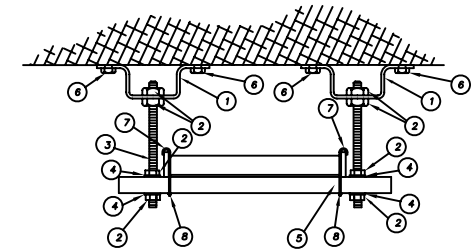
**DETAIL D**  
END CLOSING BAR



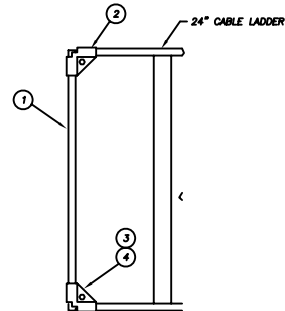
**DETAIL C**  
CABLE LADDER  
SPLICING DETAIL



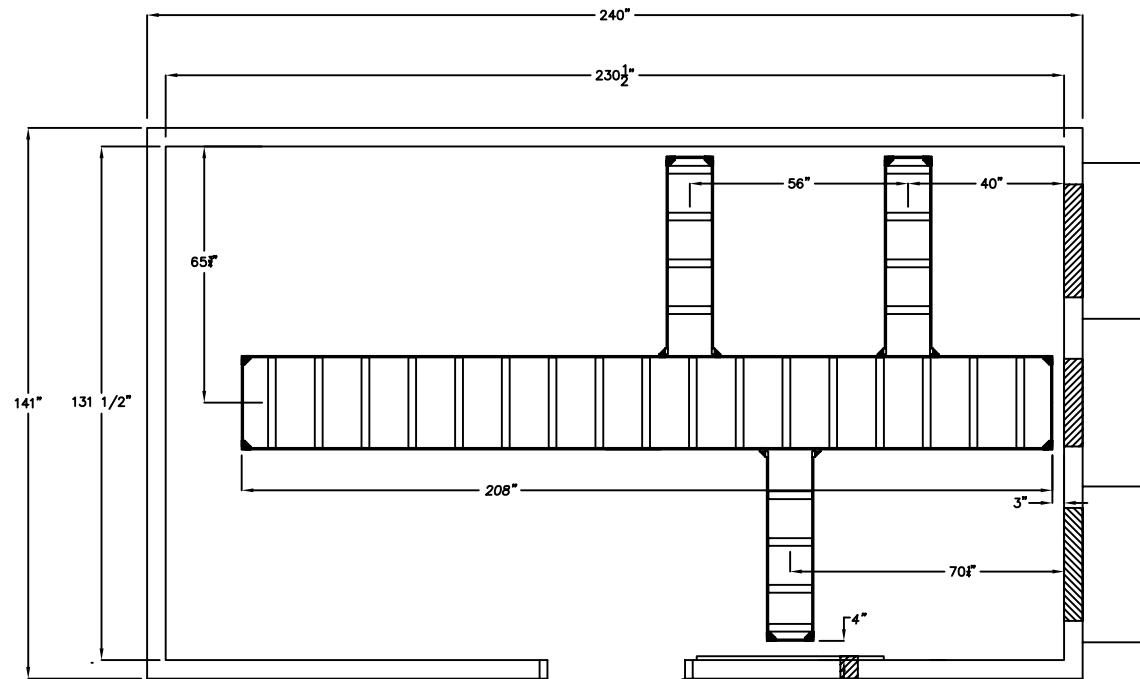
**DETAIL B**  
T JUNCTION KIT



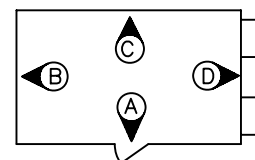
**DETAIL A**  
CEILING HANGER BRACKET



**DETAIL G**  
END CLOSING BAR



REFLECTED CEILING ELEVATION



ELEVATION KEY

**NOTES:**

1. CABLE LADDER IS INSTALLED AT 90° A.F.F.
2. CEILING HANGING BRACKETS MUST BE A MINIMUM OF 5" AND A MAXIMUM OF 7 FEET ON CENTER.
3. CABLE LADDER SHALL BE BONDED WITH #6 STRANDED GREEN WIRE. REMOVE PAINT AT LEAST 1/2" Ø AND APPLY NO-OX BEFORE ATTACHING GROUND LUG.
4. INSTALL HANGER BRACKET NO MORE THAN 12" FROM END OF LADDER.
5. INSTALL RUBBER CAPS ON ALL EXPOSED ENDS OF CABLE LADDER.
6. ALL CABLE LADDER IS TO BE INSTALLED PER ARTICLE 318 OF THE 1987 NATIONAL ELECTRIC CODE.

MATERIAL LIST			
DETAIL	ITEM NO.	QUANTITY	DESCRIPTION
	12"	15FT	12" GRAY CABLE LADDER
	24"	31FT	24" GRAY CABLE LADDER
DETAIL A		7	CEILING HANGER BRACKET KIT
	1	2	BRACKET
	2	6	5/8" NUT
	3	2 @ 23"	5/8" ALL THREAD
	4	6	5/8" LOCKWASHER
	5	1 @ 28"	SOLID UNISTRUT
	6	4	1/4" X 1 1/2" HH TAPCON
	7	2	1/4" X 2 1/4" J.- BOLT
	8	2	1/4"-20 NUT
DETAIL B		4	T JUNCTION KIT
	1	2	CORNER CLAMP
	2	2	BOLT
	3	2	NUT
DETAIL C		2	CABLE LADDER SPLICE KIT
	1	2	SPLICE CLAMP
	2	2	BOLT
	3	2	NUT
DETAIL D		3	12" END CLOSING BAR KIT
	1	3	12" END CLOSING BAR
	2	2	CORNER CLAMP
	3	2	BOLT
	3	2	NUT
DETAIL E		4	GROUND BOND KIT
	1	1 @ 8"	#6 STRANDED WIRE
	2	2	1/4" X 3/4" BOLT
	3	2	1/4" NUT
	4	2	DRAGON TOOTH WASHER
	5	2	T & B 1 7/8" SINGLE HOLE #6 BLUE LUG
DETAIL F		2	CABLE LADDER TO HALO KIT
	1	1	#6 STRANDED WIRE
	2	1	1/4" X 3/4" BOLT
	3	1	1/4" NUT
	4	1	DRAGON TOOTH WASHER
	5	1	T & B 1 7/8" SINGLE HOLE #6 BLUE LUG
	6	1	C -TAP #6 54730 PINK
DETAIL G		2	24" END CLOSING BAR KIT
	1	2	24" END CLOSING BAR
	2	2	CORNER CLAMP
	3	2	BOLT
	3	2	NUT

BUILDING NO.

		1200 Dawson Road New Madrid, Missouri 63869	
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REV. BY DESCRIPTION DATE			

**ALARM DESCRIPTION LEGEND**

LOW TEMP. ALARM: WHEN INSIDE TEMPERATURE FALLS BELOW CUSTOMER SPECIFIED SETTING ON THERMOSTAT, NORMALLY CLOSED CONTACT OPENS TO GIVE LOW TEMP ALARM.

HIGH TEMP. ALARM: WHEN INSIDE TEMPERATURE EXCEEDS CUSTOMER SPECIFIED SETTING ON THERMOSTAT, NORMALLY CLOSED CONTACT OPENS TO GIVE HIGH TEMP ALARM.

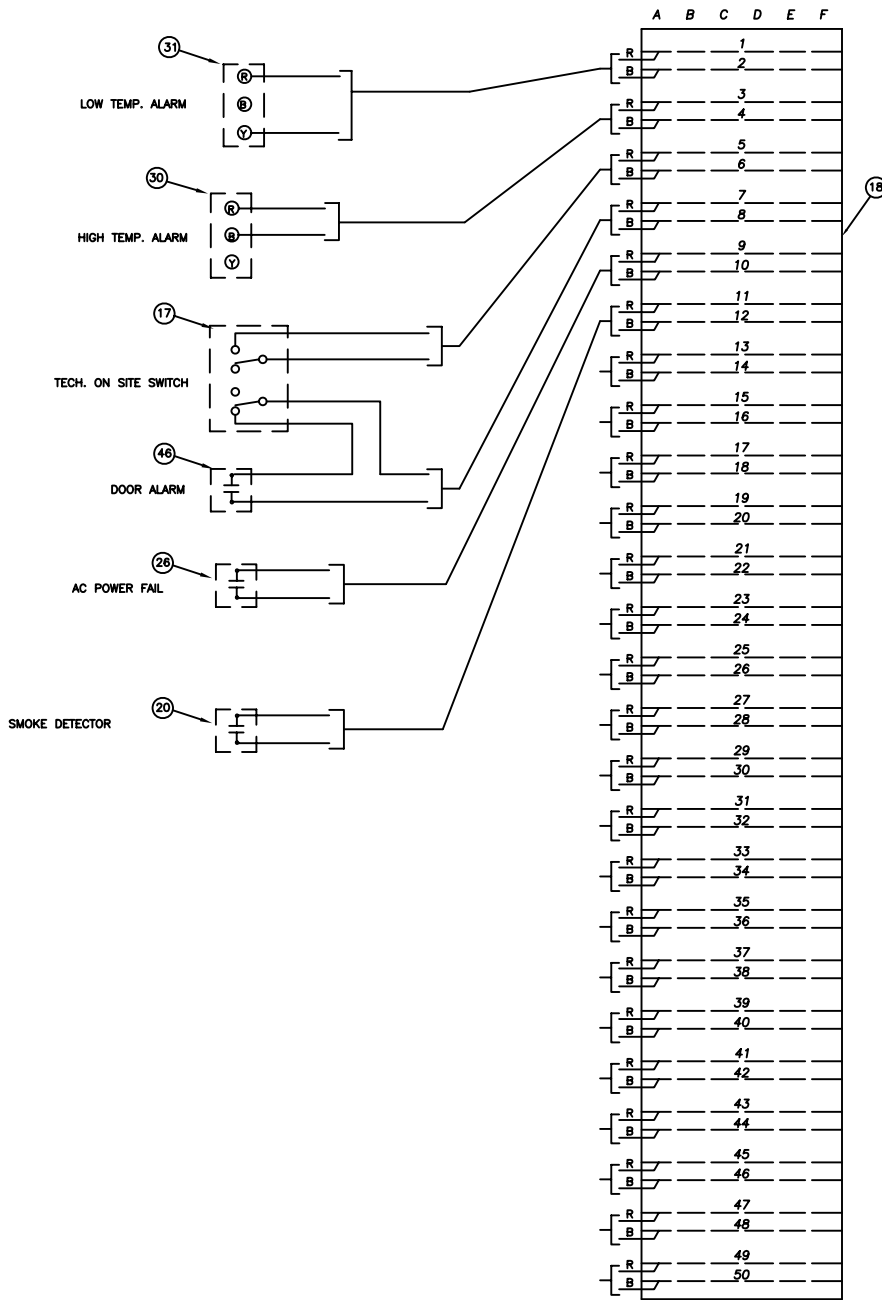
DOOR ALARM: NORMALLY OPEN CONTACT CLOSSES UPON OPENING OF EQUIPMENT ROOM DOOR

TECH. ON SITE SWITCH: TOGGING THE TECH. ON SITE SWITCH CLOSSES THE NORMALLY OPEN CONTACTS OF THE TECH. ON SITE ALARM AND OPENS THE CONTACTS TO THE DOOR ALARM THEREBY CAUSING THE DOOR ALARM TO GO NORMAL.

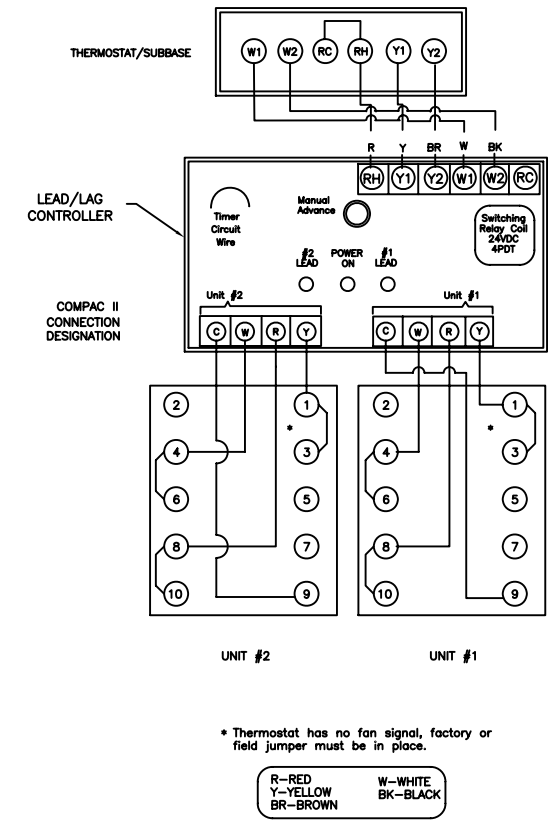
AC POWER FAIL: UPON LOSS OF POWER TO THE SHELTER, NORMALLY OPEN CONTACT INSIDE PANEL BOARD CLOSSES TO GIVE AN AC POWER FAIL ALARM.

SMOKE DETECTOR : NORMALLY OPEN CONTACT. CLOSSES UPON 4% OF IONIZED PARTICLES INTO DETECTOR CHAMBER

**ALARM TERMINATION DETAIL**



**ENVIRONMENTAL CONTROL WIRING DETAIL**



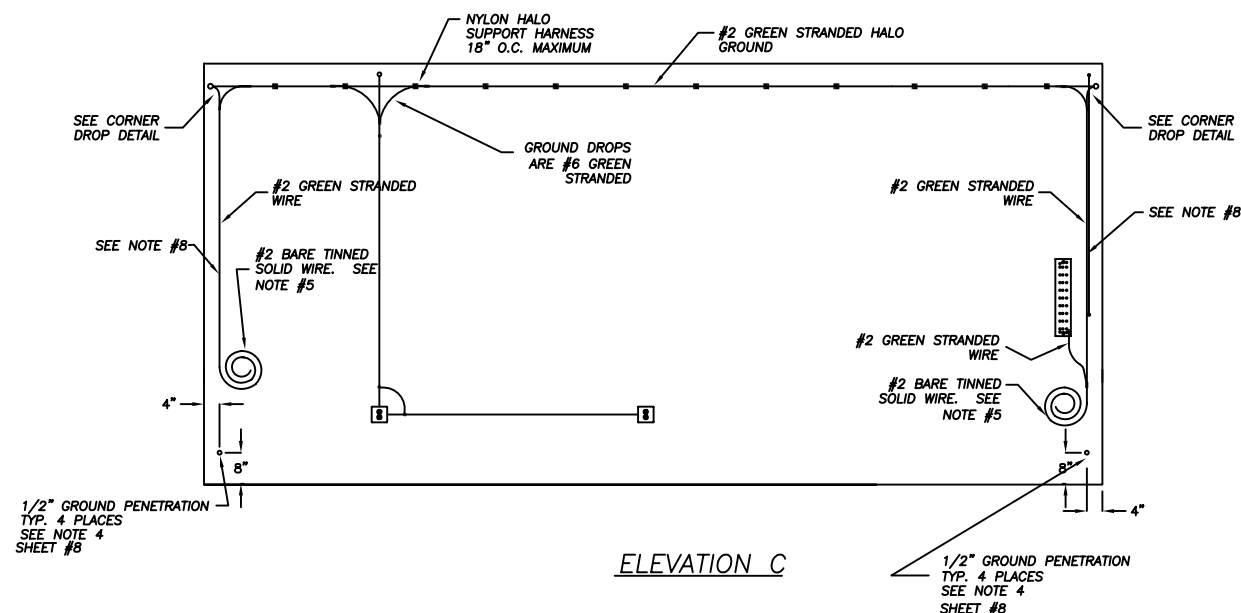
**NOTES:**

1. ALL ALARM WIRING TO BE #22 AWG 2-CONDUCTOR SOLID SHIELDED CABLE.
2. ALARM CONTACTS ARE SHOWN IN DE-ENERGIZED STATES.
3. THERMOSTAT WIRING TO BE 5-CONDUCTOR T-STAT WIRING.
4. ALARMS TO BE WIRED AS SHOWN

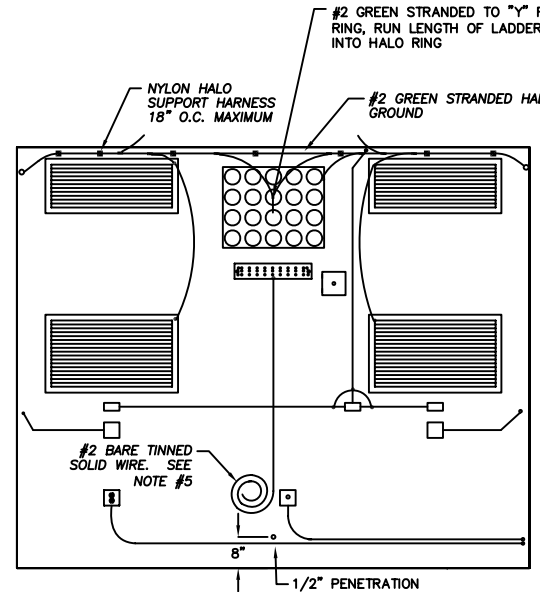
BUILDING NO.

			<b>KONtek Industries</b> 1200 Dawson Road New Madrid, Missouri 63869		
			QA/QC:	DR. BY:	DATE: 3-3-96
			DATE:	CK. BY:	DATE:
			PRO. BY:	PL. APP.:	DATE:
			DATE:	APP. BY:	DATE:
			PROJECT NO:	AT&T WIRELESS ST LOUIS BLDG-A	
			11'-9" X 20'-0" X 10'-4"		
			ALARM SCHEMATIC		
REV.	BY	DESCRIPTION	DATE	SCALE : NTS	SHT. NO: 6
				DWG. NO.: D0471	

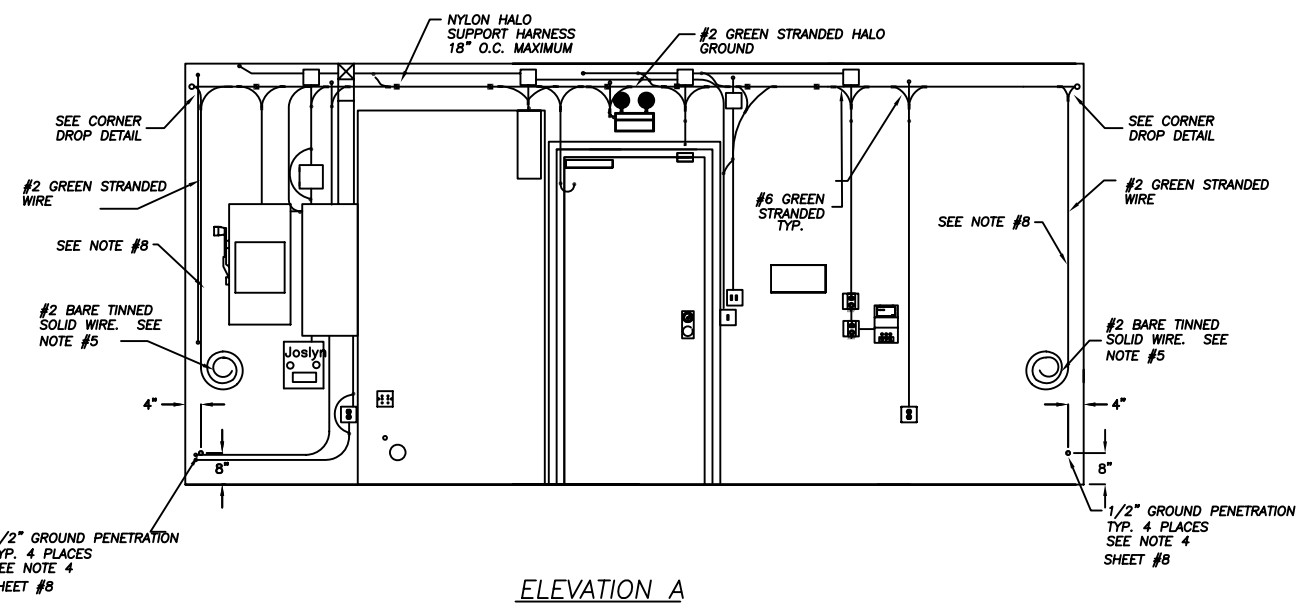




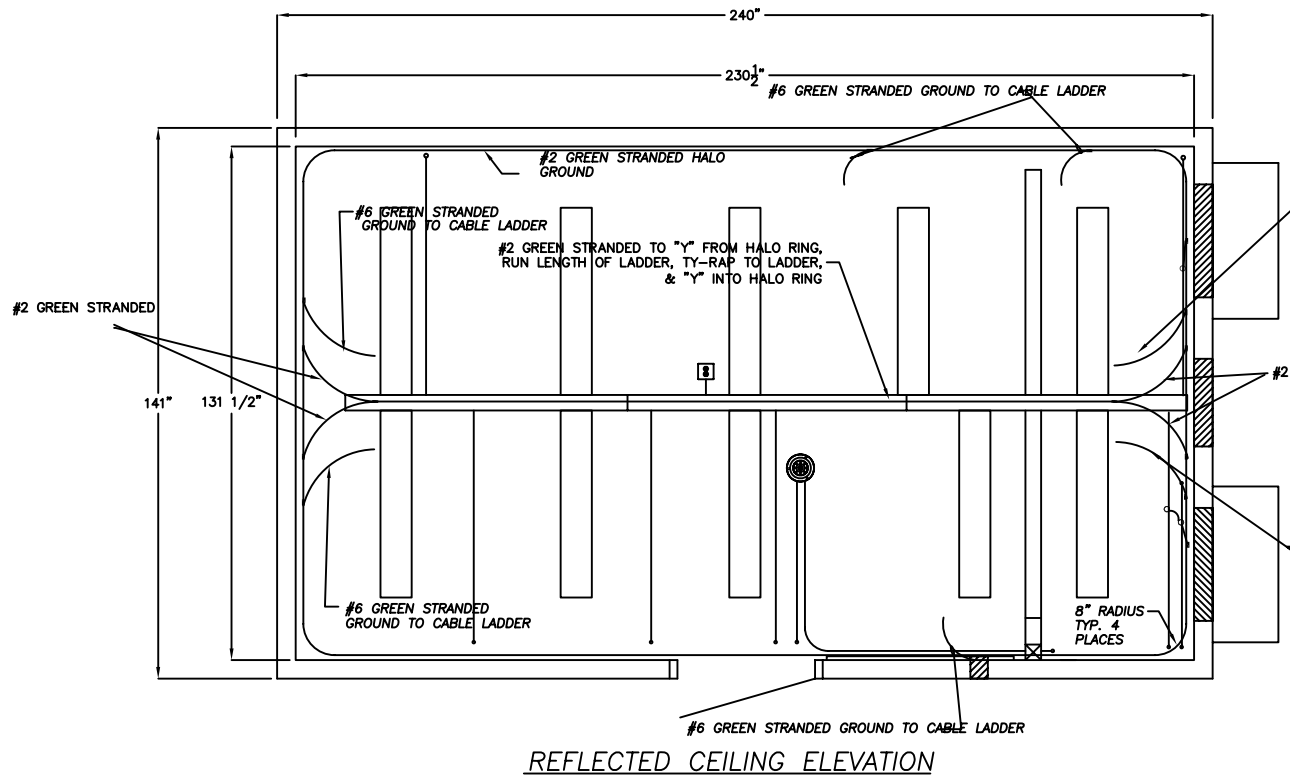
ELEVATION C



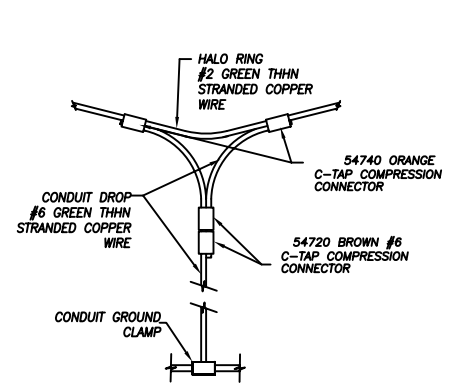
ELEVATION D



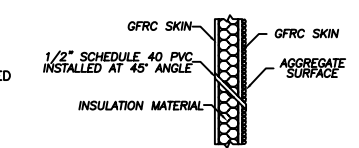
ELEVATION A



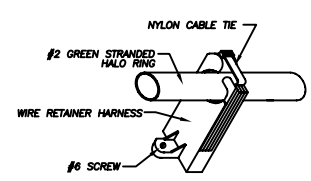
REFLECTED CEILING ELEVATION



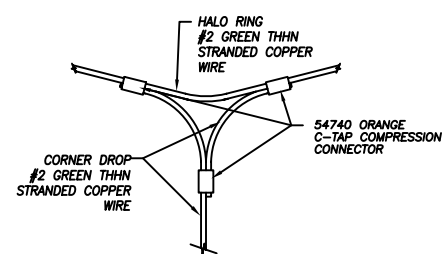
CONDUIT TAP DETAIL



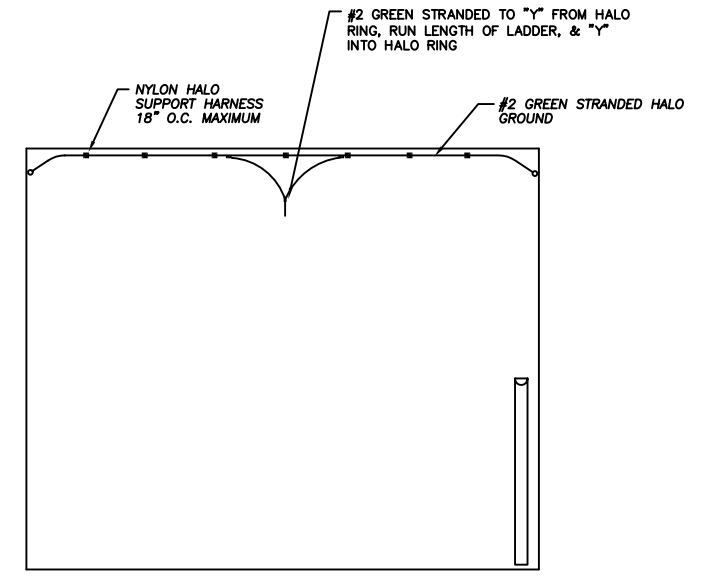
GROUND PENETRATION DETAIL



HALO SUPPORT HARNESS  
(TYP. FOR HALO RING AND DROPS)  
(REF. 75-56-X)



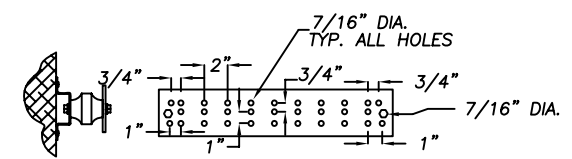
CORNER DROP DETAIL



ELEVATION B

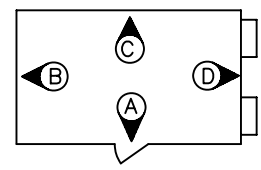
NOTES:

- HALO GROUND IS #2 AWG INSULATED GREEN STRANDED COPPER WIRE MOUNTED 6" BELOW CEILING HEIGHT. GROUND TAPS ARE #6 INSULATED GREEN STRANDED COPPER WIRE.
- HALO GROUND TO BE SECURED TO WALL USING HALO SUPPORT HARNESS AT 18" O.C. MAXIMUM. CORNER DROPS ARE SECURED TO WALL USING HALO SUPPORT HARNESS AT 24" O.C. MAXIMUM. SEE HALO SUPPORT HARNESS DETAIL.
- CONNECT ALL TAPS AND SPLICES USING T&B C-TAPS AS REQUIRED, SEE CONNECTOR KEY. TURN ALL C-TAP OPENINGS TOWARD CENTER OF BUILDING FOR INSPECTION.
- SEE HALO GROUND PENETRATION DETAIL FOR PVC INSTALLATION.
- CORNER DROPS ARE #2 GREEN STRANDED RUN DOWN TO 14" ABOVE FINISHED FLOOR. ATTACH 10 FEET OF #2 BARE TINNED SOLID COPPER WIRE TO CORNER DROPS USING A #54740 C-TAP (ORANGE). COIL AND TIE FOR SHIPMENT.
- USE OXIDE INHIBITING COMPOUND AT ALL SPLICES, TERMINATIONS, AND TAPS.
- INSTALL CONDUIT GROUND CLAMP T&B #3846 AT A UNIFORM DISTANCE OF 18" BELOW FINISHED CEILING TO CONDUIT WHENEVER POSSIBLE.
- USE PLASTIC WIRE CLIPS (#12-506) TO SECURE ALL CORNER DROPS TO WALL. SECURE CORNER DROPS AS CLOSE TO CORNER TRIM AS POSSIBLE.



INTERIOR GROUND BAR

CONNECTOR KEY			
LUG TYPE	WIRE SIZE	DISTANCE & TO	LUG PART NUMBER
2 HOLE	#6	5/8"	54852BE BLUE
1 HOLE	#6	5/8"	54905BE BLUE
2 HOLE	#2	3/4"	54850BE BROWN
1 HOLE	#2	3/4"	54942BE BROWN
MAIN WIRE	SECONDARY WIRE	LUG PART NUMBER	
C-TAP	#6	#6	54720 BROWN
C-TAP	#2	#6	54740 ORANGE



ELEVATION KEY

BUILDING NO.

REV.	BY	DESCRIPTION	DATE
1	JP	DELETED GROUND BAR FROM BELOW WAVEGUIDE	
		ALSO CORRESPONDING GROUND DROP AND PENETRATION	8-5-96
2	JP	ADDED GROUND BAR BELOW WAVEGUIDE	8-22-96

**KONtek Industries**

1200 Dawson Road  
New Madrid, Missouri 63869

AT&T WIRELESS ST LOUIS BLDG-A

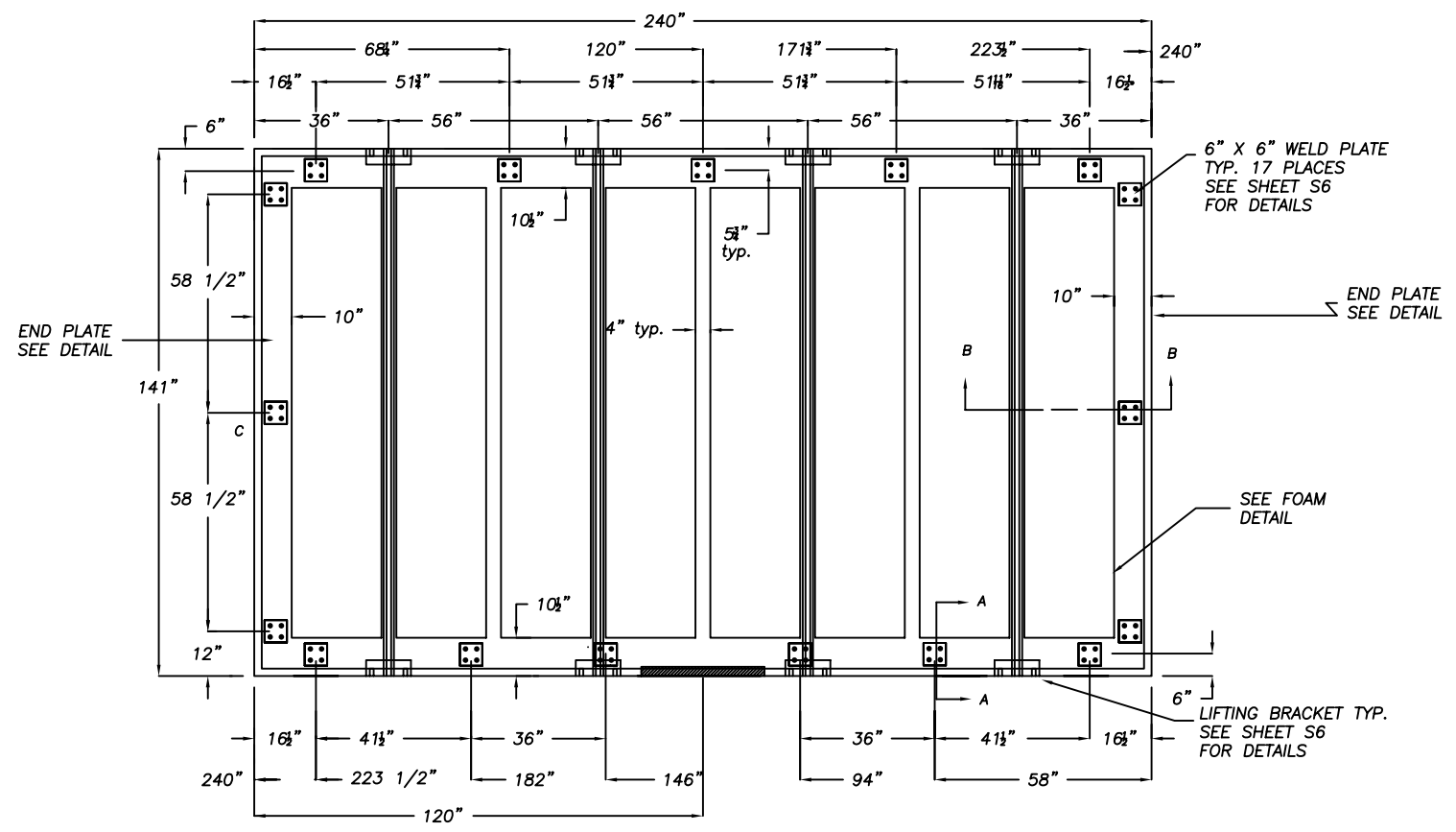
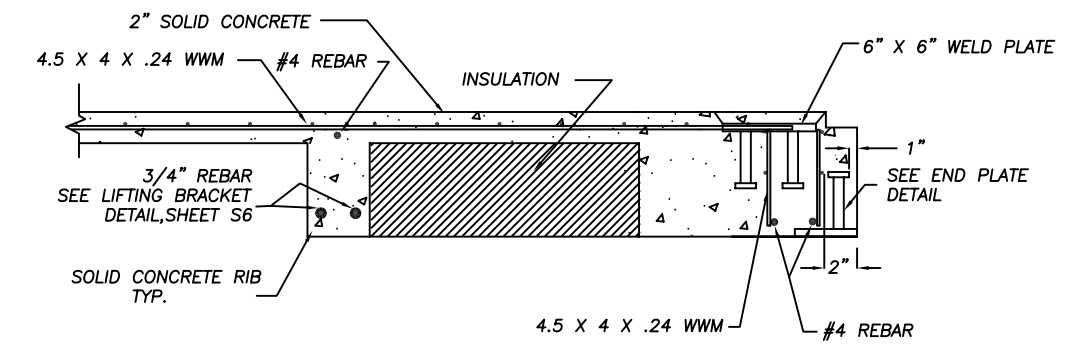
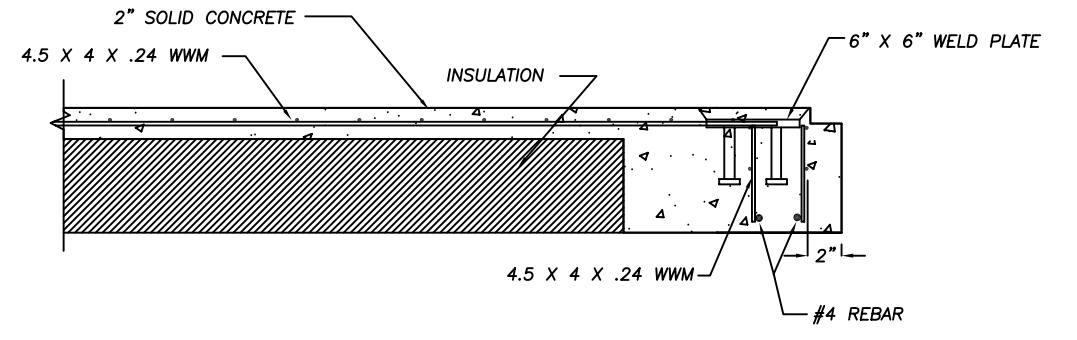
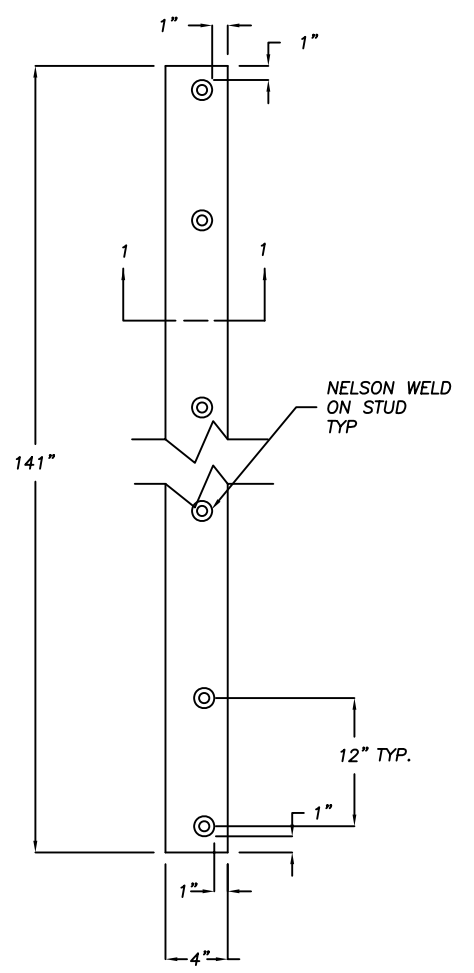
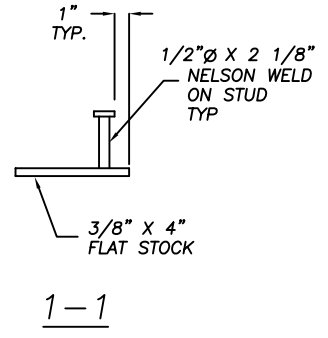
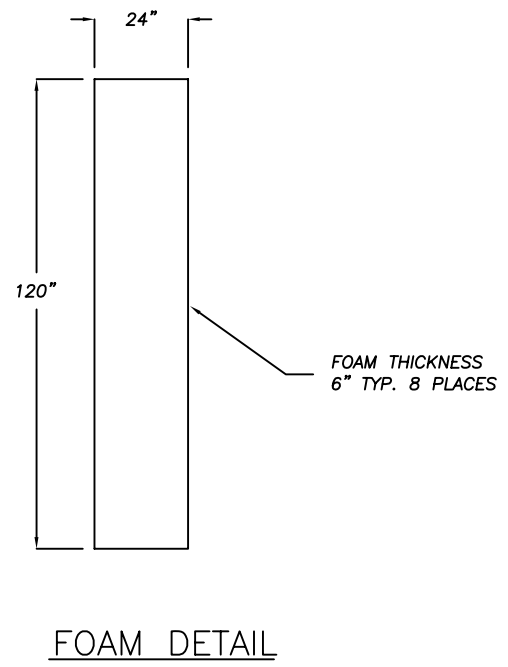
11'-9" X 20'-0" X 10'-4"

HALO GROUND DETAILS

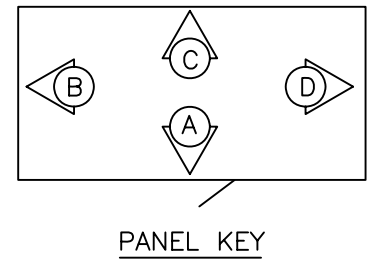
SCALE: 1/2"=1' SHT. NO: 8 DWG. NO.: D0471

QA/QC:	DR. BY: JP	DATE: 3-28-96
DATE:	CK. BY:	DATE:
REV. #:	APP. #:	DATE:
DATE:	APP. #:	DATE:
PROJECT NO:		





END PLATE DETAIL



- NOTES:**
1. SEE SHEET S6 FOR JOINT SECTIONS AND DETAILS.
  2. SEE SHEET S6 FOR LIFTING BRACKET DETAILS.
  3. MINIMUM CONCRETE COVERAGE FOR REBAR IS 3/4".
  4. PLACE 1 - #6 REBAR IN EACH CONCRETE RIB AS SHOWN IN SECTION DETAILS.
  5. RECESS ALL WELD PLATES 3/4" IN FLOOR.
  6. FLOOR TO BE CAST INTERIOR FACE UP.

BUILDING NO.

1	JP	ADDED END PLATES, SECTION, AND CORRESPONDING NOTES.	7-10-96		<b>KONtek Industries</b> 1200 Dawson Road New Madrid, Missouri 63869	DATE: 4-28-96 DATE: DATE: DATE:	AT&T WIRELESS ST LOUIS BULDG-A 11'-9" X 20'-0" X 10'-4" FLOOR STRUCTURAL DETAILS
REV.	BY	DESCRIPTION	DATE				







