ITEM	QTY	U/M	MANUFACTURER	PART NO.	DESCRIPTION	INSP.
1	1	EA	RUF*NEK	–	CONCRETE SHELTER SH[illegible] 10' x 13' x 9' I.D.	
2	AR	EA	THORO SYSTEMS	–	CONCRETE THOROGLAZ[illegible] SEALER/PAINT SYSTEM – RUF*NEK TAN	
3	AR	EA	–	–	CONCRETE ROOF MEME[illegible]NE – WHITE	
4	1	EA	RUF*NEK	–	SERIES 600 TIE-DOWN [illegible] (4 PLATES)	
5	17	EA	CELOTEX	THERMAX	INSULATION, 1 1/2" x [illegible] x 8' FOAM BOARD – R7.2 PER INCH.	
6	4	EA	NEWCOURT	–	PANELING, 3/8" x 4' x [illegible]0' FRP	
7	12	EA	NEWCOURT	–	PANELING, 3/8" x 4' x [illegible] FRP	
8	1	EA	NEWCOURT	–	TELCO BOARD, 3/4" x 4' x 4' FRP W/ TRIM	
9	130	SF	ARMSTRONG	51904	TILE, 1/8" x 12" x 12" [illegible]NYL – STERLING	
10	6	FT	NEWTON	2093-8	CABLE LADDER, 18" GO[illegible] CHROMATE W/ROUND RUNGS & HARDWARE	
11	30	FT	NEWTON	2093-6	CABLE LADDER, 12" GO[illegible] CHROMATE W/ROUND RUNGS & HARDWARE	
12	1	EA	MICROFLECT	B1118	WAVEGUIDE ENTRY POR[illegible] [illegible]Y. 12 – 4" PORTS – 3x4 CONFIG.	
13	3	EA	RUF*NEK	–	CABLE BRIDGE SUPPOR[illegible] [illegible]" x 3" ALUM. ANGLE	
14	8	FT	NEWTON	2093-2	CABLE LADDER, 6" GOL[illegible] CHROMATE W/ROUND RUNGS & HARDWARE	
15	1	EA	–	–	4" PVC NIPPLE THROUGH [illegible] WALL W/ 4" HALF COUPLING INSIDE	
16	1	EA	CECO	–	3070 RHRB 18 GA. GAL[illegible] STEEL DOOR W/ FRAME & CYL. PREP	PAINTED RUF*NEK TAN
17	1	EA	RUF*NEK	700656-2	DOOR CANOPY, 18" x 48" [illegible] GALV. STEEL	
18	1	BX	STANLEY	F8B	DOOR HINGE, 5" x 4 1/2" [illegible] STAINLESS STEEL W/ NRP.	
19	1	EA	NORTON	1604H-AL	HYDRAULIC DOOR CLOSER [illegible] ALUM. W/ 1688-AL DROP PLATE – HOLD	
20	1	EA	RUF*NEK	–	DOOR GROUND STRAP, #2 [illegible] GREEN STRANDED COPPER	
21	1	EA	TRILOGY	DL2700WPIC26D	DOOR LOCK (RHRB), 12 [illegible] PUSH BUTTON W/ KEY OVERRIDE	
22	1	EA	–	–	DOOR LATCH GUARD/PICK[illegible]PLATE	
23	2	EA	KASON	878	DOOR LATCH, CHROME [illegible]LATED OUTSIDE LEVER	
24	2	EA	KASON	893	DOOR LATCH, CHROME [illegible]LATED INSIDE RELEASE	
25	1	EA	–	–	DOOR THRESHOLD, 3'-0" [illegible] DOOR	
26	1	EA	MICROSWITCH	BZ-2RW82-A2	DOOR ALARM SWITCH W/ [illegible]RY CONTACTS	
27	2	EA	BARD	WA24-A05XPXXXJ	AIR CONDITIONER, 208/240V 1 PH. 24,000 BTU. 5 KW HEAT	
28	1	EA	BARD	MC91A	LEAD/LAG CONTROLLER [illegible] 24 HOUR TIMER	
29	1	EA	TSI OF FLORIDA	FR-0832-361-000-0	ALARM TERMINAL BLOCK [illegible]8 x 32 WIRE WRAP	
30	1	EA	GRAINGER	4T889	FIRE EXTINGUISHER, 10 LB [illegible] DRY CHEMICAL – RATED A:B:C	
31						
32	1	EA	BRK	4919	SMOKE DETECTOR, 120VAC [illegible] W/ RM-3 RELAY BASE	
33	1	EA	RUF*NEK	700165	COMMERCIAL POWER FAIL [illegible] ALARM, 240V/1PH.	
34	3	EA	NEWTON	3056	GROUND BAR KIT, 1/4" x 4" x 20" W/ INSULATORS & STAND-OFFS	PACK-UP FOR SHIPMENT
35						
36	125	FT	–	–	WIRE, #2 GREEN STRANDE[illegible] COPPER	
37	90	FT	–	–	WIRE, #2 SOLID COPPER [illegible]INNED	
38	1	EA	ATLANTIC SCIENTIFIC	11214	SURGE ARRESTER, 120/240V W/ ALARM CONTACTS	
39						
40	8	EA	–	–	RECEPTACLE, 20A/120V SPEC. GRADE DUPLEX – BROWN	
41	4	EA	LITHONIA	LB-240	LIGHT FIXTURE, 42" FLUORESCENT – 2 TUBE W/WRAP-AROUND LENS	INSTALLED & SECURED FOR SHIPMENT
42	8	EA	–	–	BULB, 40 WATT FLUORE[illegible]CENT	
43	1	EA	GRAINGER	2V566	EXT. LIGHT FIXTURE, [illegible]00A/120V INCANDESCENT W/ LENS	
44	1	EA	–	–	BULB, 100 WATT INCANDE[illegible]SCENT	
45	2	EA	–	–	LIGHT SWITCH, 120V/15A [illegible]PEC. GRADE SINGLE TOGGLE – BROWN	
46	1	EA	REGENT	MS401	MOTION SENSOR, 120V EX[illegible]TERIOR	
47	1	EA	JUNO	EL24-WH	EMERGENCY LIGHT, DUAL [illegible]IGHT	
48	1	EA	SQUARE D	Q0140M200	DISTRIBUTION PANEL, 200A [illegible]1P/3W 120/240VAC, 40 SPACE	
49	1	EA	SQUARE D	QOC40US	DISTRIBUTION PANEL COVER, 40 SPACE	
50	1	EA	SQUARE D	PK27GTA	GROUND BAR KIT	
51	1	EA	SQUARE D	Q0115	BREAKER, 15A/1 POLE [illegible] 120/240VAC	
52	7	EA	SQUARE D	Q0120	BREAKER, 20A/1 POLE [illegible] 120/240VAC	
53	1	EA	SQUARE D	Q0215	BREAKER, 15A/2 POLE [illegible] 208/240VAC	
54	2	EA	SQUARE D	Q0225	BREAKER, 25A/2 POLE [illegible] 208/240VAC	
55	3	EA	SQUARE D	Q0230	BREAKER, 30A/2 POLE [illegible] 208/240VAC	
56	1	EA	SQUARE D	Q0260	BREAKER, 60A/2 POLE [illegible] 208/240VAC	
57	1	EA	GENERAC	GTS015Y-2A2DNCN	AUTOMATIC TRANSFER S[illegible]TCH, 150A/240V DPST – NEMA 3R	
58	4	EA	SQUARE D	PK0GTA-2	GROUND LUG, 2 WIRE #[illegible]	
59	1	EA	SQUARE D	Q2-2200NRB	SWITCH ENCLOSURE, 20[illegible] 240V – NEMA 3R	
60	1	EA	SQUARE D	Q2L2150	MOLDED CASE SWITCH, [illegible]0A/240V	
61	1	EA	–	–	2" NIPPLE THROUGH WA[illegible] W/ LOCKNUTS & BUSHINGS EXT.	
62	1	EA	–	–	3/4" SEAL-TITE 4' LON[illegible] W/ 90° CONNECTORS	
63	3	EA	–	–	2" GROUNDING BUSHING [illegible]THREADED	
64	1	EA	SQUARE D	8501-KU13-V20	RELAY, 11 PIN SPADE/1[illegible]0VAC	
65	1	EA	SQUARE D	8501-NR82	RELAY BASE, 11 PIN SP[illegible] – PARALLEL	
66	2	EA	–	–	BOX, 6" x 6" x 4" W/ [illegible]NGED COVER – NEMA 1	
67	9	EA	–	–	UNISTRUT, 1 5/8" x 1 [illegible]/8" x 20" LONG	
68	1	EA	LEVITON	6599	RECEPTACLE, DUPLEX – [illegible]FI W/ WEATHERPROOF BOX AND COVER	
69	1	EA	–	–	4" PVC CAP – SCH. 40 [illegible]NON-THREADED	
70	2	EA	MYERS	–	2" WEATHERPROOF HUB[illegible]	
71	1	EA	–	–	1 1/2" PVC NIPPLE W[illegible]UPLINGS & EXT. CAP	
72	2	EA	RUF*NEK	–	BULKHEAD PLATE, 25 [illegible]x25 1/2" ALUM. (PATT. TO MATCH B1118)	PAINTED TO MATCH EXTERIOR
73						
74						
75						

HEAT LOSS (THERMAL) CALCULATIONS

COMBINED WALL, FLOOR & ROOF AREA: 674
LESS AREA OF OPENINGS: 21
TOTAL AREA: 653

OUTSIDE TEMP: 110° F.
INSIDE TEMP: 70° F.
DIFFERENCE: 40° F.

HEAT LOSS/HOUR = 653 SQ. FT. x 40 x 10
= 2612.0 B.T.U.

DOOR AREA = 21 SQ. FT.
U FACTOR/DOOR = 10

DOOR HEAT LOSS/HOUR = 21 x 40 x 10
= 84 B.T.U.

TOTAL SHELTER HEAT LOSS/HOUR: 2612.00 B.T.U.
DOOR HEAT LOSS/HOUR: 84.00 B.T.U.
TOTAL HEAT LOSS/HOUR: 2696.00 B.T.U.

AS BUILT
DATE 2-1-02 BY [illegible]

NOTES:

GENERAL – SHELTER [illegible] THE RUF*NEK STANDARD 600 SERIES CONSTRUCTION W/ 2x4 W[illegible] AND ROOF FURRING @ 16" O.C.

INTERIOR – (WALLS [illegible] FRP PANELING OVER 1 1/2" CELOTEX INSULATION
(CEILIN[illegible] FRP PANELING OVER 1 1/2" CELOTEX INSULATION
(FLOOR [illegible] TILE

EXTERIOR – (WALL[illegible] ACGREGATE CONCRETE – SEALED W/ THOROGLAZE
(ROOF[illegible] W/ THOROCOAT – WHITE
(TRIM) [illegible] W/ THOROCOAT – RUF*NEK TAN

ELECTRICAL – ALL EL[illegible] WIRING TO BE PER 1999 NEC CODE.

LOCATION – UNIT S[illegible] PLAN NOT AVAILABLE AT THIS TIME. UNIT SHALL BE LOCATE[illegible] CLOSER THAN 15' OF ASSUMED PROPERTY LINE PER U[illegible] 5-A, SBCCI TABLE 600 OR BOCA 705.2 CODES.

LABELS – STATE [illegible] LABEL, PFS LABEL (IF APPLICABLE) AND DATA PLATE [illegible] BE PERMANENTLY INSTALLED ON DISTRIBUTION PANEL.

DESIGN BASIS

CODES: UBC-1997,SBC-1997,NEC-1999
OCCUPANCY RATING: S-2, B
CONSTRUCTION TYPE: TYPE VN, IVUNP
FLOOR LOADING(LIVE): 250 PSF
ROOF LOADING(LIVE): 150 PSF
SEISMIC ZONE: 0
WIND ZONE: 104 MPH/41 PSF

NOTICE
THIS TECHNICAL DATA IS PROPRIETARY TO Ruf*Nek. IT SHALL NOT WITHOUT WRITTEN AUTHORIZATION BE USED, RELEASED OR DISCLOSED IN WHOLE OR PART OUTSIDE OF Ruf*Nek.

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Ruf*Nek Building Systems
3500 Mosley Road Fort Worth TX 467[illegible]
Aubrey, TX 76227 Austin, TX 78247
Phone: (940) 365-2200
Fax: (940) 365-2469
ANDRIEN CHOPLICK

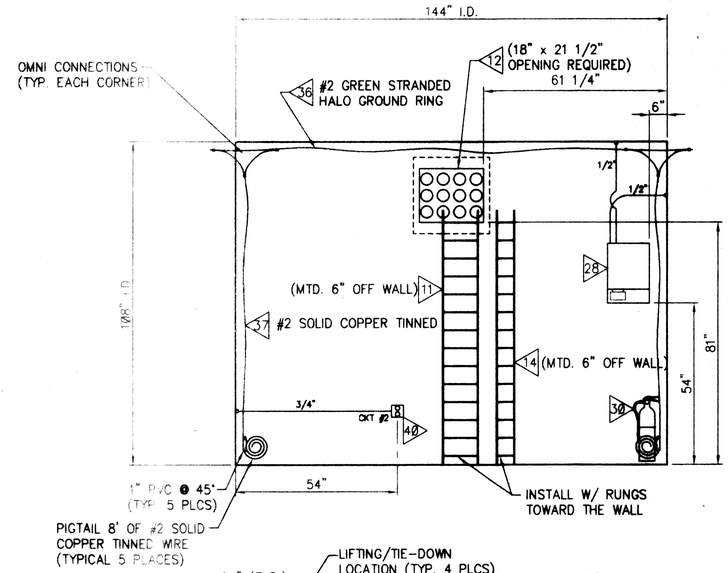
DATE 10/26/00
SCALE 1/4"=1'-0" 5-1/20
SHEET 1 OF 2

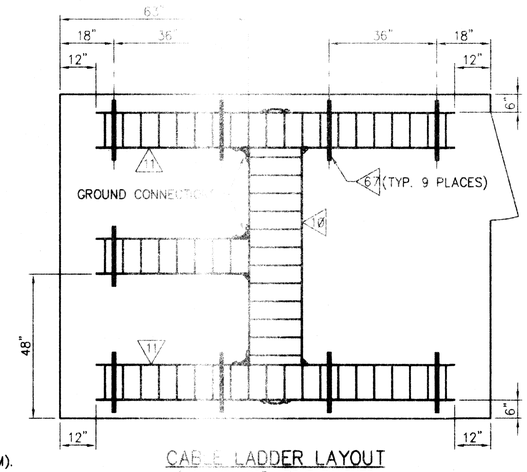
TITLE 10'00" x 13'00" x 9'ID SHELTER, CONCRETE
PROJECT VERIZON WIRELESS
LOCATION
DRAWING NO 402148
MODEL NO M-5474
SERIAL NO 55160-

A1

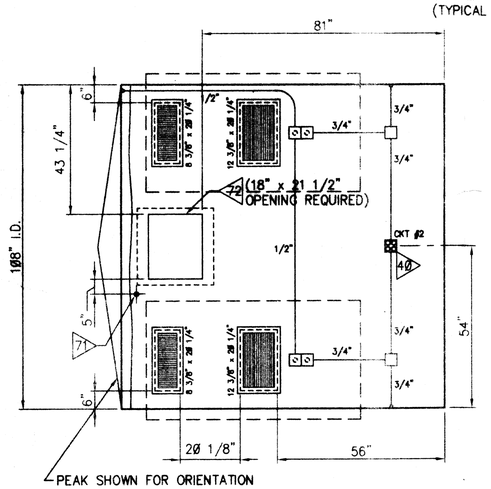
NOTES:

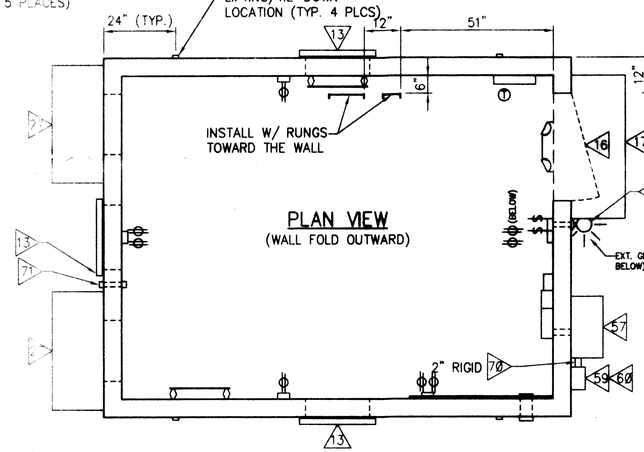
1. BOND CABLE LADDER TO HALO GROUND RING W/ #6 GREEN COPPER STRANDED WIRE. (TYPICAL 4 PLACES)
2. BOND ALL CABLE LADDER SPLICES AND TEES WITH #6 GREEN COPPER STRANDED WIRE.
3. BOND ALL METAL EQUIPMENT 6" x 6" AND LARGER TO HALO GROUND RING W/ #6 GREEN COPPER STRANDED WIRE.
4. BOND WAVEGUIDE ENTRIES TO MASTER GROUND BAR WITH #2 GREEN STRANDED WIRE.
5. BOND AC GROUND AND NEUTRAL BUS TO MASTER GROUND BAR WITH #2 GREEN STRANDED WIRE.
6. ALL GROUND CONNECTIONS AND LUGS SHALL BE TWO HOLE COMPRESSION TYPE.
7. PIGTAIL 6' OF WIRE @ END OF 6' OF 3/4" FLEX.
8. ALL LOCATIONS THAT THE #2 SOLID BARE COPPER TINNED GROUND DROPS COME IN CLOSE CONTACT WITH ANY OTHER METAL (I.E. CONDUIT, CABLE LADDER) SHALL BE ISOLATED BY USE OF INSULATING SHRINK WRAP.
9. AIR CONDITIONER CONDENSATION DRAIN HOSES SHALL BE EXTENDED TO REACH THE GROUND.
10. CADWELD A #2 BARE SOLID COPPER TINNED DROP TO ALL THREE GROUND BARS. DROP SHALL BE A 15' PIGTAIL FROM GROUND BAR. PACK-UP 2 GROUND BARS FOR SHIPMENT.
11. ALL CABLE LADDER SHALL BE MOUNTED @ 85" A.F.F. (TO THE BOTTOM).

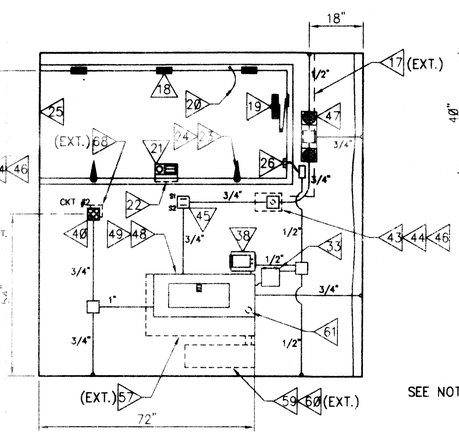


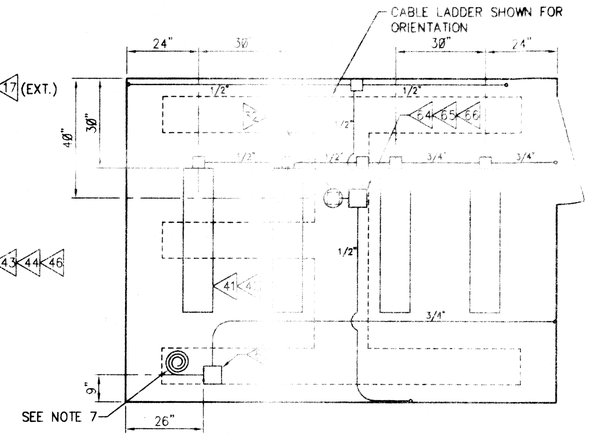


CABLE LADDER LAYOUT
(MOUNTED 85" ABOVE FINISHED FLOOR TO BOTTOM)

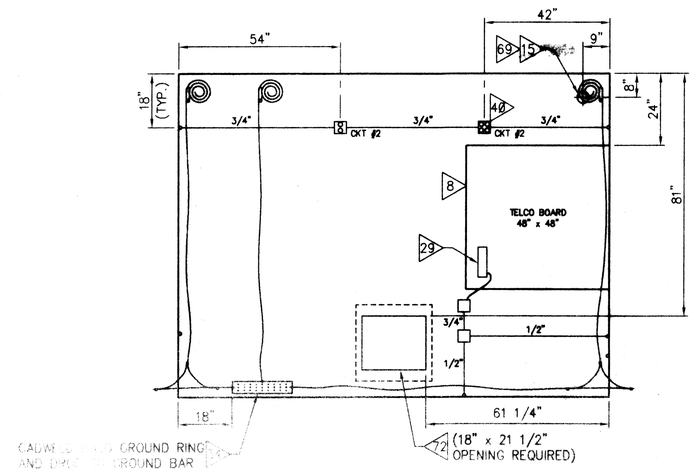








CEILING PLAN VIEW



10'00" x 13'00" x 9'10" SHELTER, CONCRETE

VERIZON WIRELESS

DRAWING NO. 482148

MODEL NO. M-5474

SERIAL NO. -

NOTICE
THIS TECHNICAL DATA IS PROPRIETARY TO RufNek Building Systems, Ltd. WITHOUT WRITTEN AUTHORIZATION, RELEASE OR USE IN WHOLE OR IN PART OUTSIDE

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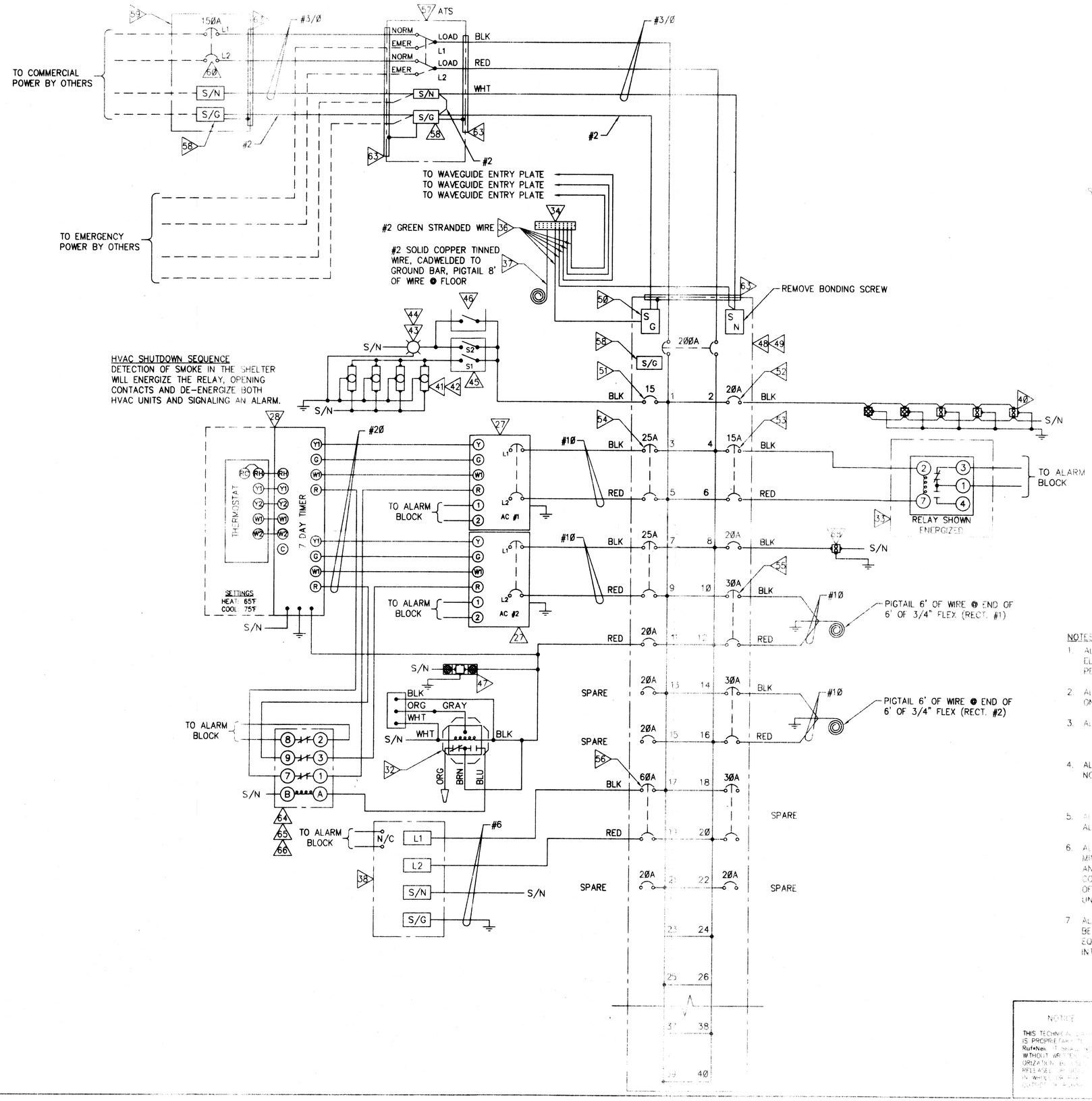
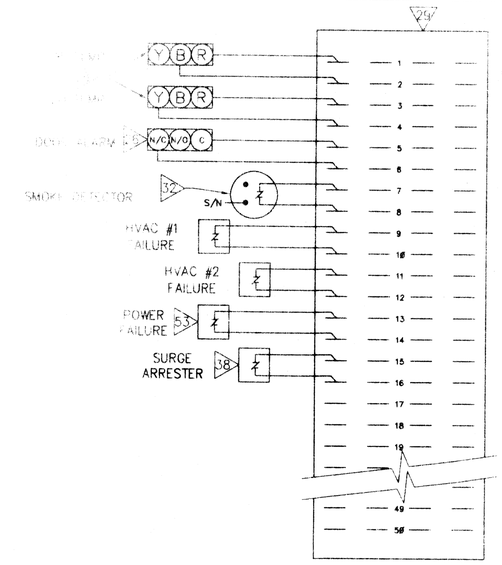
DRAWN BY: GRUFICK

DATE: 10/26/00

SHEET 2 OF 2

A2





ALARM SCHEMATIC

ALARM NOTES

1. ALL ALARM WIRE TO BE 24 GA SOLID (MIN.).
2. ALARMS WILL OPEN IN ALARM CONDITION, UNLESS NOTED.
3. LABEL INDIVIDUAL ALARMS AS LISTED.
4. CONNECT ALARMS TO LEFT SIDE OF "66" BLOCK.

NOTES:

1. ALL ELECTRICAL EQUIPMENT TO BE WIRED PER 1999 NATIONAL ELECTRICAL CODE. ALL ALARM WIRING TO BE CLASS II WIRING PER NEC 725, UNLESS OTHERWISE NOTED.
2. ALL EXPOSED WIRE #6 OR LARGER TO BE MARKED AT 24" ON CENTER, MAX.
3. ALL WIRE (UNLESS OTHERWISE NOTED) TO BE:
   - #12 AWG (COPPER) STRANDED
   - THHN, THWN OR THW.
4. ALL ALARM AND/OR THERMOSTAT WIRING (UNLESS OTHERWISE NOTED) TO BE:
   - #24 AWG (COPPER) SOLID (MIN.)
   - THHN, THWN OR THW.
5. ALL NEUTRAL WIRING TO BE WHITE (UNLESS OTHERWISE NOTED). ALL GROUND WIRING TO BE GREEN (UNLESS OTHERWISE NOTED).
6. ALL CONDUIT TO BE EMT OR RIGID, UNLESS OTHERWISE NOTED. MINIMUM SIZE OF CONDUIT AND FITTING TO BE 3/4" OR AS NOTED AND CONDUIT UPSIZING IS PERMITTED. WHERE APPLICABLE, 1/2" CONDUIT CAN BE USED FOR ALARM WIRING, SHORT NIPPLES AND OFFSETS. CONDUIT LAYOUT IS FOR REFERENCE AND MAY VARY, UNLESS OTHERWISE NOTED.
7. ALL BOXES, FIXTURES AND ELECTRICAL EQUIPMENT LOCATIONS TO BE ±1", UNLESS OTHERWISE NOTED. CONDUIT BOXES AND EQUIPMENT 6" x 6" OR SMALLER SHALL NOT BE INSTALLED ON INTERIOR TRIM.

NOTICE

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Division of Sheltering Systems, Ltd.

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Phone: (940) 365-2200
Fax: (940) 365-2469

ANDRIEN CHOPLICK

DATE: 10/26/00

SHEET 3 OF 3

TITLE: 10'00 x 13'00 x 9'40 SHELTER, CONCRETE

SUBJECT: VERIZON WIRELESS

DRAWING NO: 402148

MODEL NO: M-5474

SERIAL NO: -

A3