

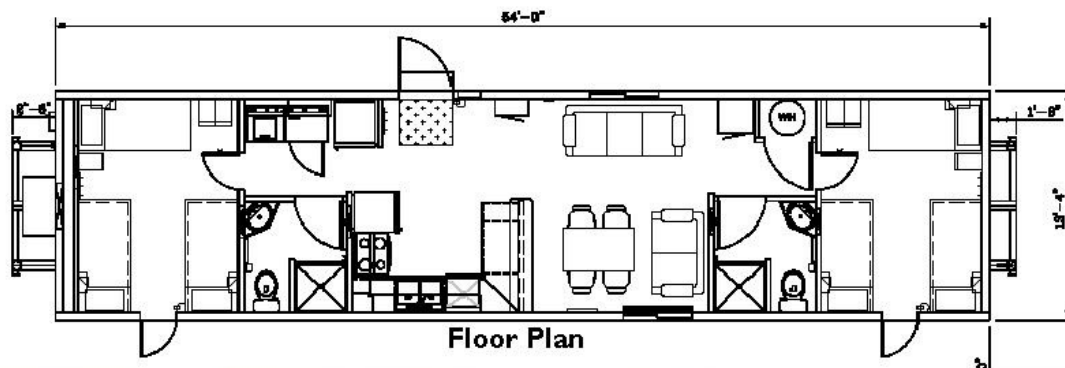
Crew Quarters

- Crew quarters arrive ready for immediate action
- First rate living conditions in the most extreme circumstances
- Keep your team comfortable and close to the jobsite
- Manage your team around the clock



Crew Quarter Features

- 2 bedrooms, 2 bathrooms, sleeps 10
- Fully furnished, flatware and bedding
- Complete kitchen with microwave & oven
- Dedicated wash room with washer and dryer
- Flat screen televisions with satellite



Kitchen



Bedroom

- Fully equipped 10 person accommodation
- Single unit package requires minimum 65 KVA
- Freight TBD by location
- Water and Septic can accommodate up to four units

ATCO Structures & Logistics

ATCO

13'-4" x 40' CREW QUARTERS PROJECT # 94383

THIS BUILDING IS INTENDED FOR USE AS
SLEEPING QUARTERS FOR 4 PEOPLE
NO MORE THAN 4 OCCUPANT AT A TIME

BUILDING CODES/COLORADO

1. INTERNATIONAL RESIDENTIAL CODE CODE 2006 ed.
2. NATIONAL ELECTRICAL CODE 2008 ed.
3. INTERNATIONAL PLUMBING CODE 2006 ed.
4. INTERNATIONAL MECHANICAL CODE 2006 ed.
5. INTERNATIONAL ENERGY CONSERVATION CODE 2009

OCCUPANCY _____ R3
 OCCUPANCY LOAD _____ 4
 CONSTRUCTION TYPE _____ VB
 FLOOR LIVE LOAD _____ 50 PSF
 ROOF LIVE LOAD _____ 100 PSF
 WIND LOAD _____ EXP.C
 _____ =110 MPH 3 SEC. GUST
 SIESMIC ZONE _____ 1B
 GAS TYPE _____ NONE
 GENERAL NOTES

1. STAIRS, RAMPS, ETC. BY OTHERS
2. ON PANEL BOX USE #4 BARE COPPER WIRE FROM GROUNDING LUG ON PANEL BOX TO SOLDERLESS GROUNDING BOLT THRU FRAME. EMPTY 1/2" PVC RACEWAY. (SAME LENGTH AS ENTRANCE) FOR CUSTOMER INSTALLED GROUND WIRE.
3. SERVICE GROUND BY OTHERS AS PER AS PER 2008 NEC (ARTICLE 250)
4. THE COMPLETED DATA PLATE IS ATTACHED IN THE VICINITY OF THE ELECTRICAL PANEL BOX, STATE LABEL IS AFFIXED TO THE BUILDING ON THE BOTTOM LEFT SIDE OF THE REAR WALL OF THE BUILDING
5. PLUMBING FACILITIES MUST BE PROVIDED IN A ADJAJENT BUILDING ON THE SAME PROPERTY AS PER LOCAL BUILDING DEPARTMENT REQUIREMENTS

DRAWING INDEX

CS	COVER SHEET
AA01	EQUIPMENT & LIST PAGE
A01	CONSTRUCTION PAGE
A02	FLOOR LAYOUT & CABINET DETAIL
ELEV	ELEVATIONS
DO1	CROSS SECTION
EO1	ELECTRICAL LAYOUT
EO2	ELECTRICAL LEGEND CALCULATIONS AND PANEL SHEDULES
MO1	PLUMBING LAYOUT & SCHEMATICS

REV	DATE	DESCRIPTION	BY
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NOTES:

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ATCO STRUCTURES & LOGISTICS (USA) INC.
1106 NORTH TEMPLE DRIVE
DIBOLL, TEXAS 75941
2400 BURKBURNETT ROAD
WICHITA FALLS, TEXAS 76306

PROJECT:

ATCO
13'-4"X40'
CREW QUARTERS

SPECIFICATION NUMBER

610138-05CQ

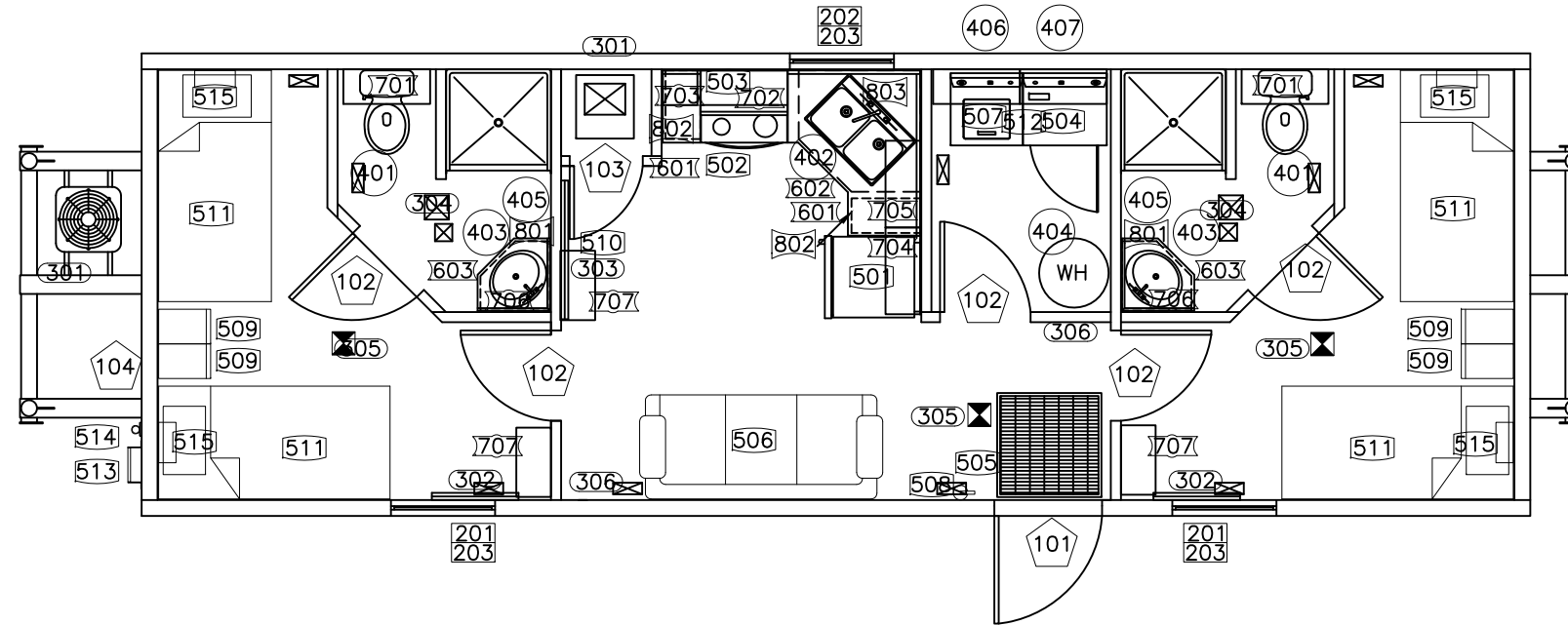
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COVER SHEET

DRAWING NO:

94383-01-CS

ATCO Structures & Logistics



	NO.	QTY.	SIZE	ITEM	DESCRIPTION		NO.	QTY.	SIZE	ITEM	DESCRIPTION
DOORS 100	101	1	36X80	EXTERIOR DOOR	20 GA PRE HUNG STEEL DOOR W/ 10X10 VP HARDWARE: (2) KASON COOLER/FREEZER HARDWARE (1)DEADBOLT (1)CHECKCHAIN	FURNISHINGS 500	501	1	16.5 CU FT	REFRIGERATOR	16.5 CU FT REFRIGERATOR
	102	5	30X80	INTERIOR DOOR	IMPERIAL OAK H.C. DOOR W/ METAL FRAME HARDWARE: (2) PRIVACY KNOB, (3) PASSAGE KNOB		502	1	-	RANGE	30" DOMESTIC RANGE
	103	1	24X80	INTERIOR DOOR	IMPERIAL OAK H.C. DOOR W/ METAL FRAME HARDWARE:(1) PASSAGE KNOB		503	1	-	HOOD	MICROWAVE W/ VENT HOOD
	104	1	-	BOX	LOCK BOX		504	1	-	DRYER	HEAVY DUTY DRYER
WINDOWS 200 201	201	2	36X60	WINDOW	INSULATED V.S. WHITE VINYL W/SCREEN- ARGON- EGRESS		505	1	31x36	PAN	ENTRY PAN W/ RUBBER MAT
	202	1	36X36	WINDOW	INSULATED V.S. WHITE VINYL W/SCREEN- ARGON		506	1	-	COUCH	3 PERSON NAGAHYDE COUCH
	203	3	-	BLINDS	VINYL MINI BLINDS		507	1	-	WASHER	HEAVY DUTY AUTOMATIC WASHER
MECHANICAL 300	301	1	15KW	HVAC	SPLIT SYSTEM 2.5 COOLING, 15KW HEAT, CLOSET MOUNT, SEALED GALVANIZED IN FLOOR DUCTWORK W/SUPPLY AIR GRILLES, GRILLES OVER DOORS; PROTECTIVE COVER OVER CONDENSER		508	1	#5	EXTINGUISHER	#5 ABC FIRE EXTINGUISHER
	302	2	500W	HEATER	BASEBOARD HEATER W/ INTEGRAL TSTAT		509	4	-	LOCKER	12X18X72 SINGLE METAL LOCKER
	303	1	1000W	HEATER	BASEBOARD HEATER W/ INTEGRAL TSTAT		510	1	32	TELEVISION	32" FLAT PANEL TELEVISION
	304	2	75 CFM	FAN	EXHAUST FAN		511	4	-	BED	36"X80" BED W/INNERSPRING MATTRESS & DRAWER BASE
	305	3	120V	DETECTOR	INNERCONNECTED SMOKE DETECTOR W/ BATTERY BACKUP	512	1	-	SHELVING	WIRE SHELVING	
	306	2	9V	DETECTOR	CO DETECTOR	513	1	-	LADDER	TUBULAR LADDER	
PLUMBING 400	401	2	-	WATER CLOSET	STANDARD WATER CLOSET W/ OPEN FRONT SEAT	514	1	-	POLE	STEEL TELESCOPING SATELLITE POLE	
	402	1	-	SINK	DOUBLE COMPARTMENT STAINLESS STEEL SINK	515	4	-	SHELF/LIGHT	PERSONAL SHELF/LIGHT COMBO	
	403	2	-	LAVATORY	COUNTER MOUNT LAVATORY	601	2	B12	CABINET	BASE CABINET	
	404	1	80 USG	WATER HEATER	80 GALLON ELECTRIC WATER HEATER	602	1	SBDC42	CABINET	BASE CABINET	
	405	2	36	SHOWER	FIBERGLASS SHOWER	603	2	SPVDC2435	CABINET	BASE CABINET	
	406	1	-	OUTLET	WASHER OUTLET W/ VALVES	701	2	W2724	CABINET	WALL CABINET	
	407	1	-	VENT	DRYER VENT	702	1	W301815	CABINET	WALL CABINET	
C-TOPS 800	801	2	2'-1"	COUNTERTOP	P'LAM COUNTERTOP	703	1	W1230	CABINET	WALL CABINET	
	802	2	1'-1"	COUNTERTOP	P'LAM COUNTERTOP	704	1	W3012	CABINET	WALL CABINET	
	803	1	3' 10-3/4"	COUNTERTOP	P'LAM COUNTERTOP	705	1	W3030	CABINET	WALL CABINET	
BASE CABINETS 600 WALL CABINETS 700	601	2	B12	CABINET	BASE CABINET	706	2	-	CABINET	CORNER MEDICINE CABINET W/ MIRROR	
	602	1	SBDC42	CABINET	BASE CABINET	707	3	W2418	CABINET	WALL CABINET NO DOOR	
	603	2	SPVDC2435	CABINET	BASE CABINET						
	701	2	W2724	CABINET	WALL CABINET						
	702	1	W301815	CABINET	WALL CABINET						
	703	1	W1230	CABINET	WALL CABINET						
	704	1	W3012	CABINET	WALL CABINET						

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1106 NORTH TEMPLE DRIVE
DIBOLL, TEXAS 75941
2400 BURKBURNETT ROAD
WICHITA FALLS, TEXAS 76306

PROJECT:

ATCO
13'-4"X40'
CREW QUARTERS

SPECIFICATION NUMBER

610138-05CQ

DRAWING TITLE:

EQUIPMENT PAGE

DRAWING NO:

94383-01-AA01



NOTES:
 1. ALL MEASUREMENTS ARE FROM RAW FRAMING MEMBER TO RAW FRAMING MEMBER, EXCEPT WHEN FINISHED I.D. IS CALLED OUT.
 2. ALL EXTERIOR WALLS ARE DRAWN AT 5-1/2" ALL INTERIOR WALLS ARE DRAWN AT 3-1/2" UNLESS OTHERWISE NOTED.
 3. ALL DOOR JAMBS ARE 3" AWAY FROM WALL UNLESS OTHERWISE NOTED.

⊙ - INDICATES SHEAR WALLS LOCATIONS
 SHEAR WALLS TO BE SHEATHED FULL HEIGHT BOTH SIDES TO BOTTOM OF RAFTERS AND BLOCKING INSTALLED IF NOT CONTINUOUS.

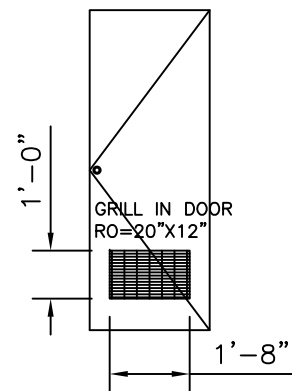
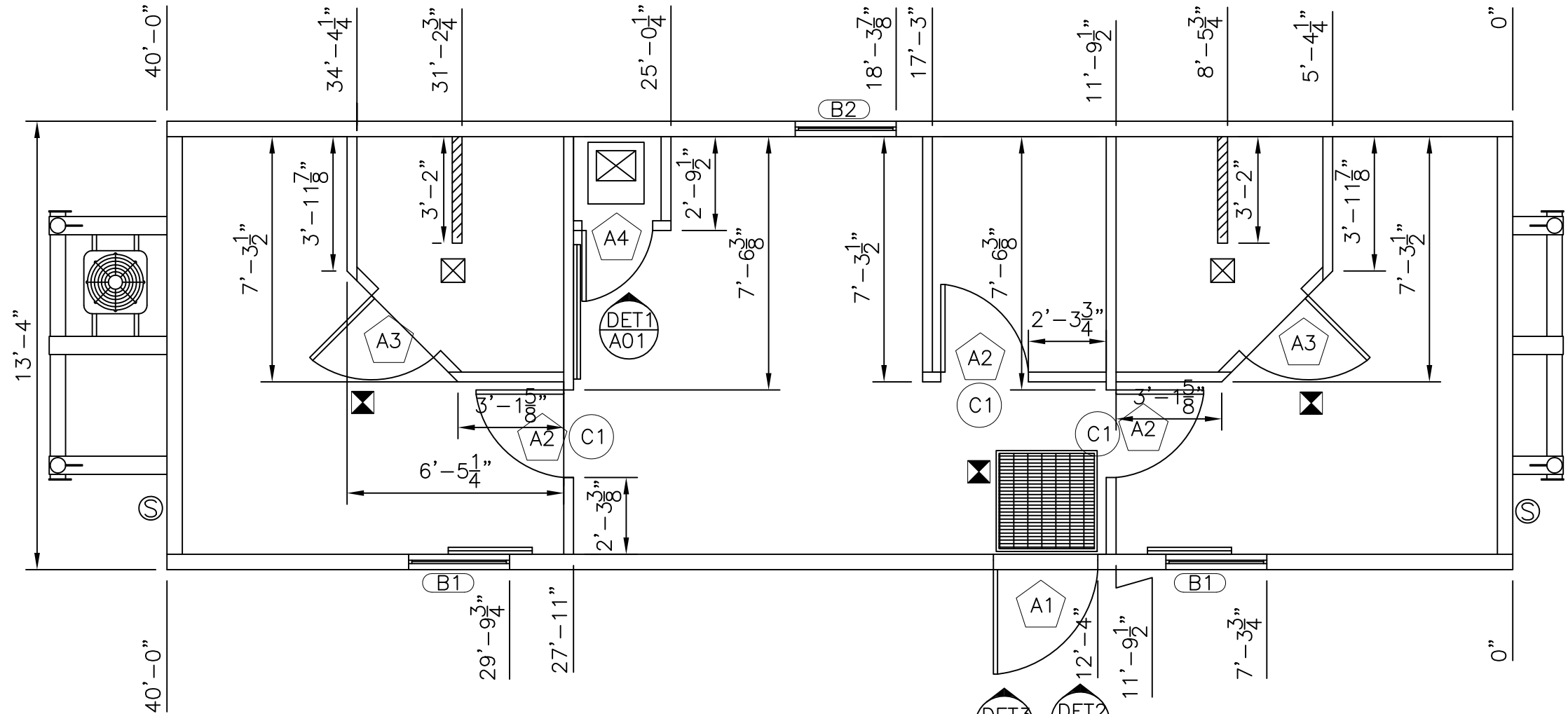
NOTES ON SHEAR WALLS:

- EXTERIOR OF SHEAR WALL TO BE COVERED WITH 1/2" CDX
- INTERIOR OF SHEAR WALL, IF WITHIN A PLENUM, TO BE COVERED WITH 1/2" PLAIN GYPSUM.
- INTERIOR OF SHEAR WALL, WITHOUT A PLENUM, TO BE COVERED WITH 3/8" VCG

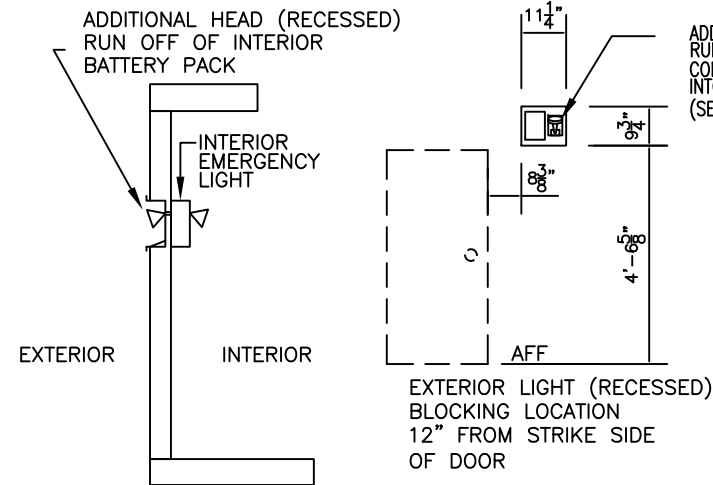
WALL LEGEND

- WALL HEIGHT TO BE 8'-0"
- WALL HEIGHT TO BE 7'-2"
- SHEAR WALL

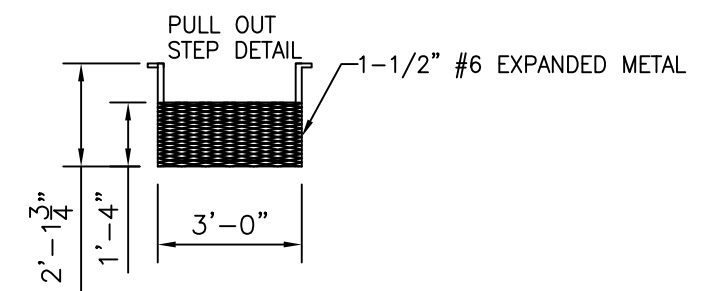
RO SCHEDULES		NO.	QTY.	RO	SILL HEIGHT
DOORS A	A1	1		36"X80"	N/A
	A2	3		31-1/4"X81"	N/A
	A3	2		31-1/4"X89"	7-1/4"
	A4	1		25-1/4"X81"	N/A
WINDOWS B	B1	2		35 1/2"X59 1/2"	20"
	B2	1		35 1/2"X35 1/2"	42"
R.O. 1/2" UNDERSIZE FOR VINYL					
MECH C	C1	3		15"x3"	84-1/2"



DET1 FURNACE DOOR DETAIL
 A01 SCALE AS NOTED



DET2 RECESSED EXTERIOR LIGHT DETAIL
 A01 SCALE AS NOTED



DET3 PULLOUT STEP DETAIL
 A01 SCALE AS NOTED

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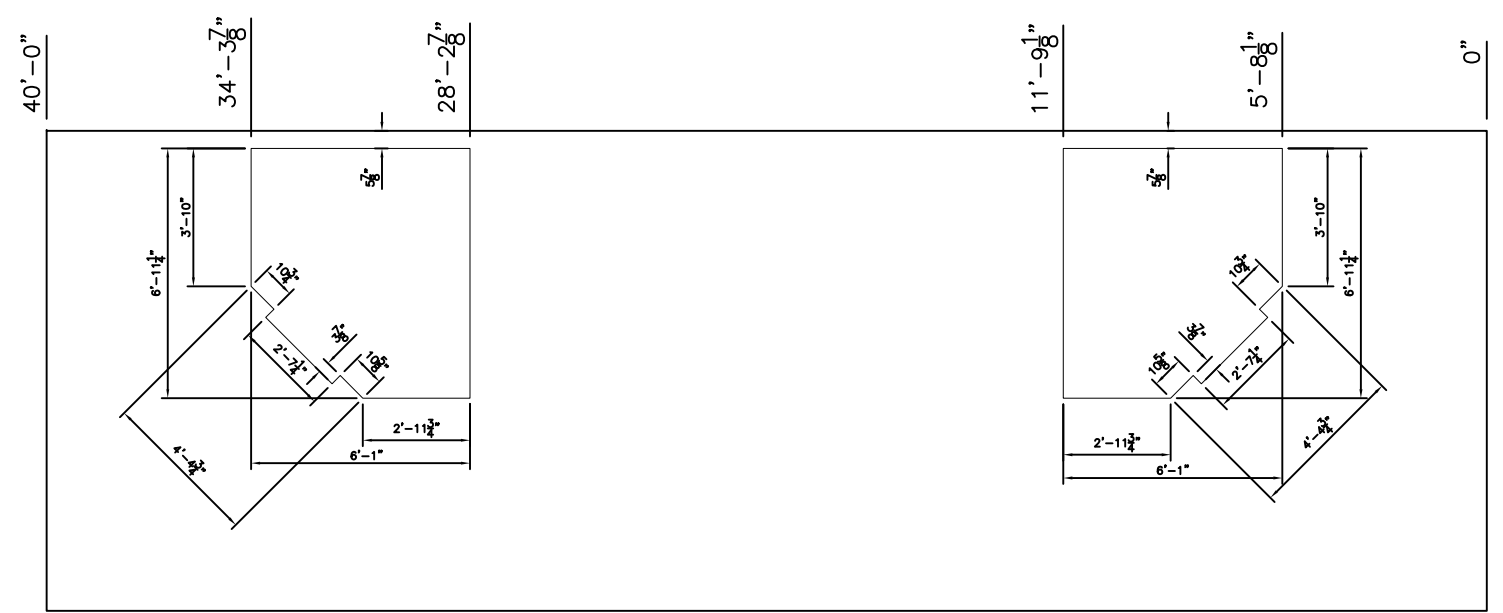
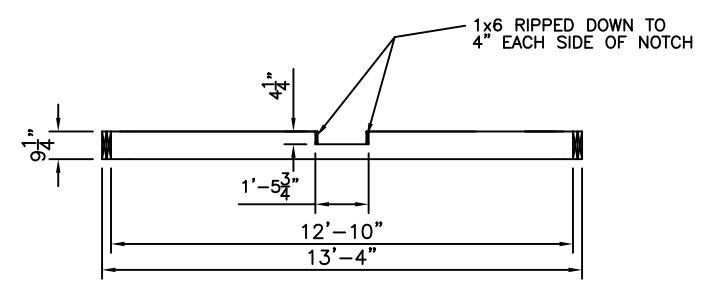
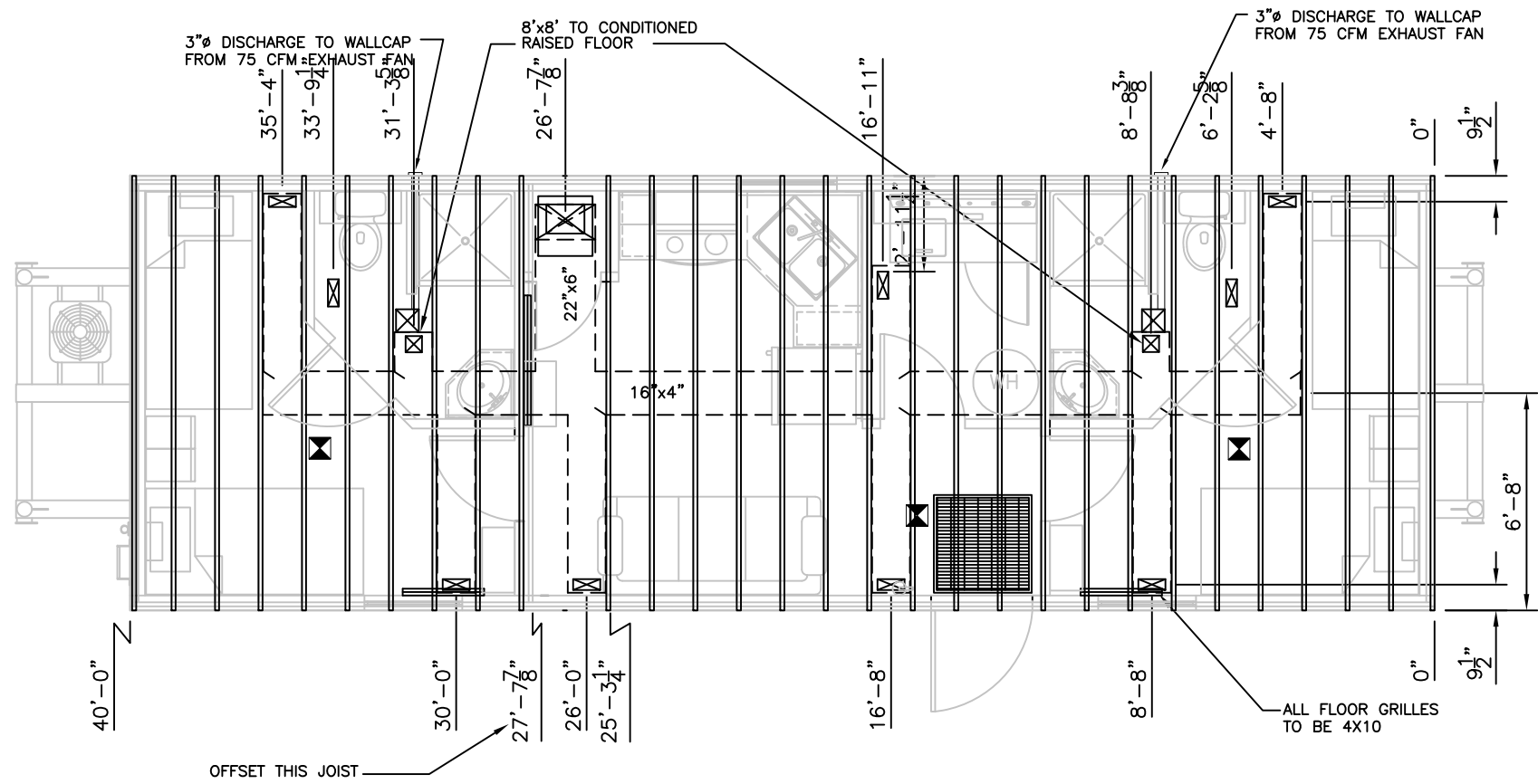
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 SCALE: 1/4"=1'-0"

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 1106 NORTH TEMPLE DRIVE
 DIBOLL, TEXAS 75941
 2400 BURKBURNETT ROAD
 WICHITA FALLS, TEXAS 76306
 PROJECT:
 ATCO
 13'-4"X40'
 CREW QUARTERS

SPECIFICATION NUMBER
 610138-05CQ
 DRAWING TITLE:
 -
 CONSTRUCTION PAGE
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 DRAWING NO:
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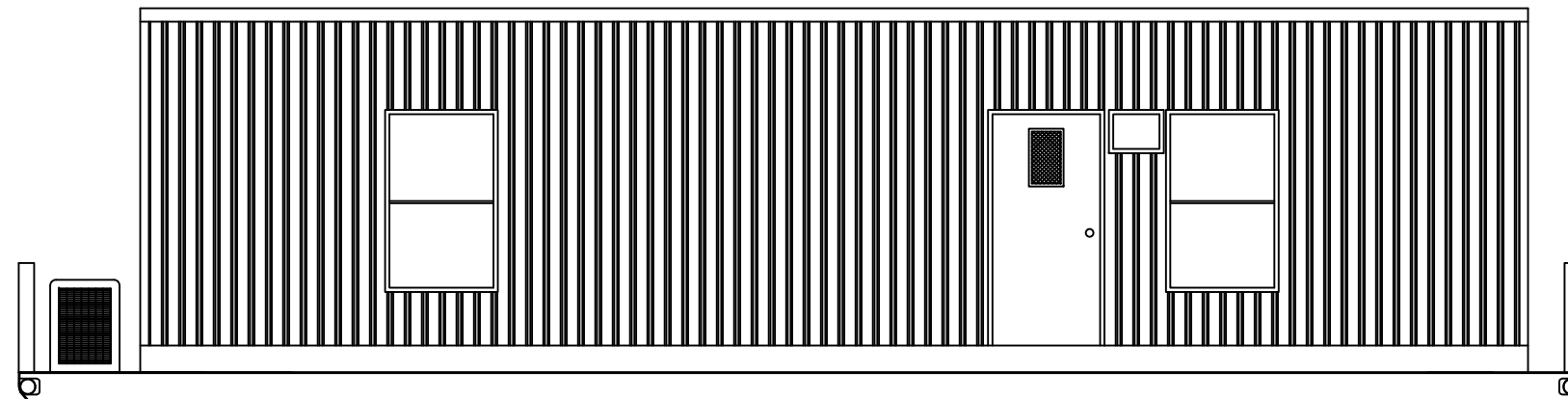
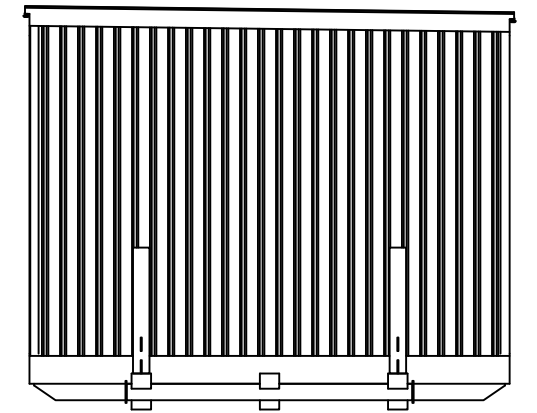
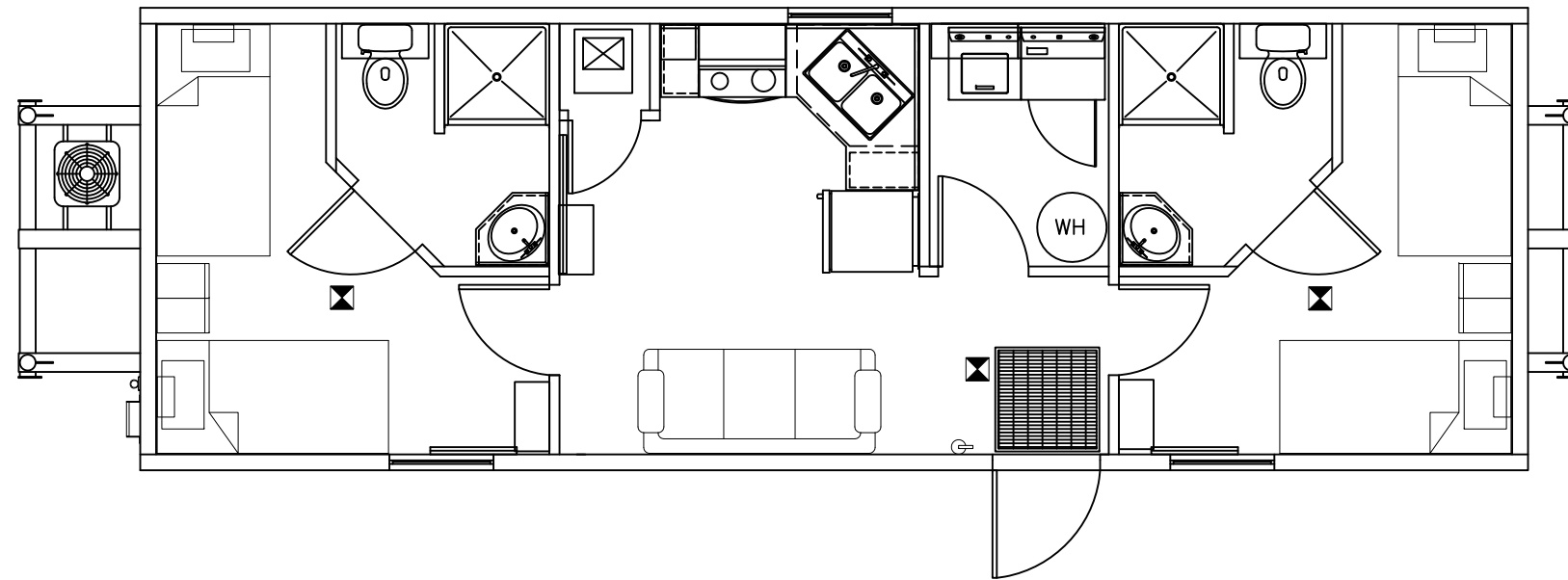
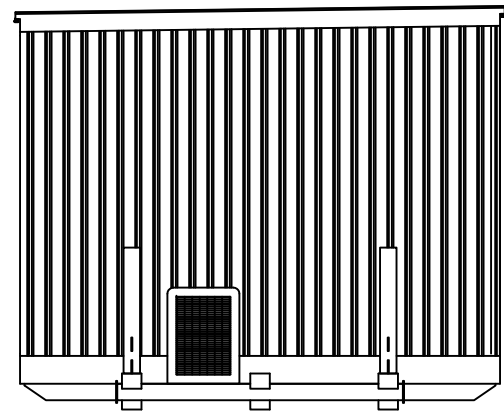
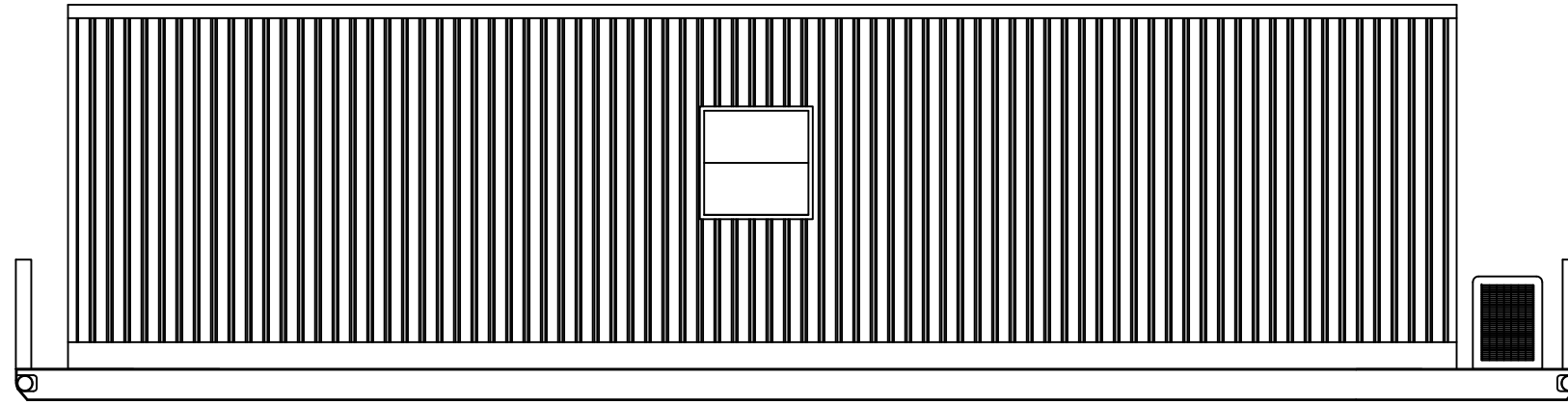
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 PROJECT:
 ATCO
 13'-4"X40"
 CREW QUARTERS

SPECIFICATION NUMBER
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 DRAWING TITLE:
 RAISED FLOOR &
 VENTILATION LAYOUT
 DRAWING NO:
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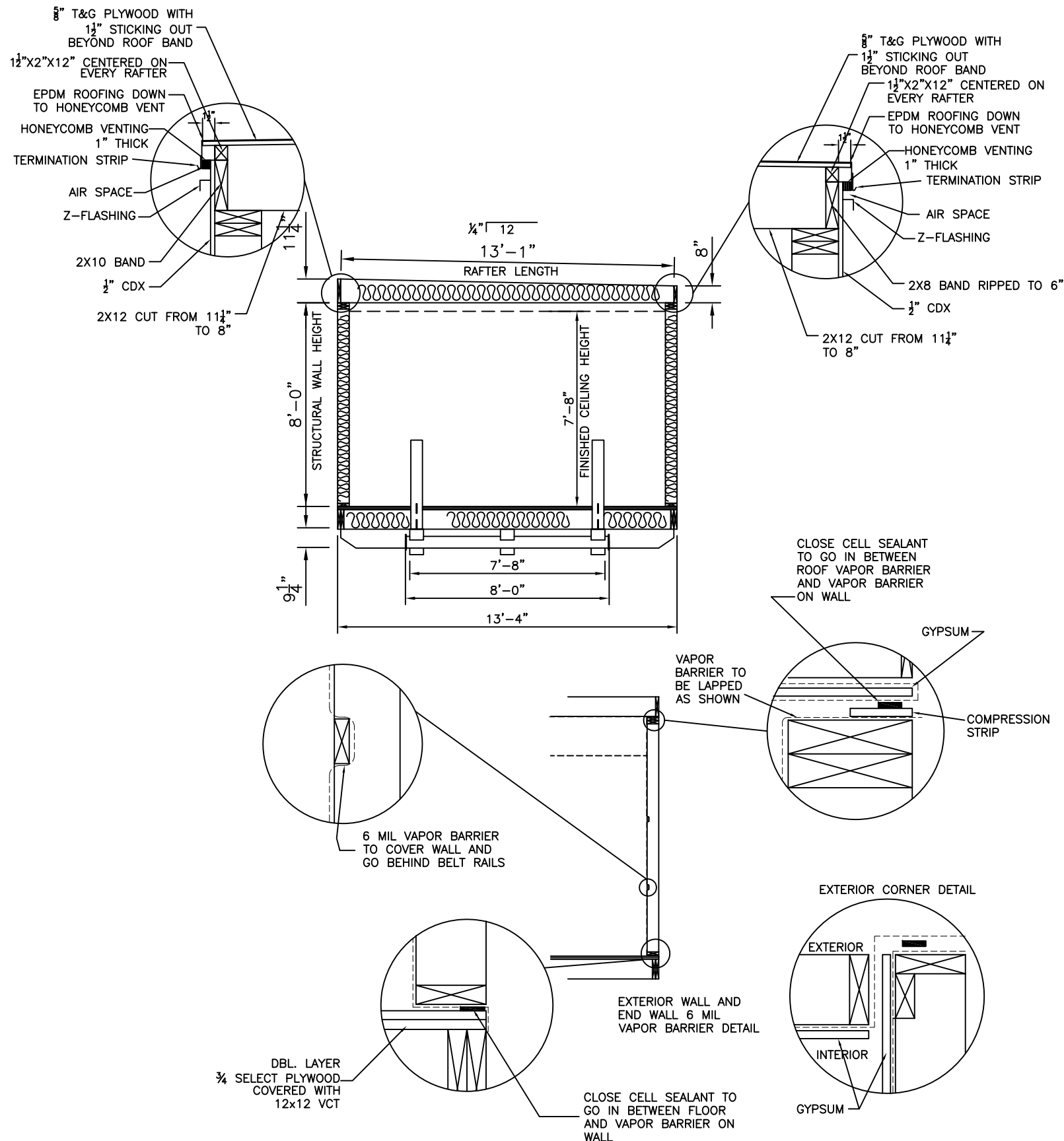
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-
ELEVATIONS
-

DRAWING NO:

94383-01-ELEV





FRAME	
Frame:	3 RUNNER 26# OUTRIGGER TYPE SKID, 3'-6" AND 1'-6" EXTENSIONS TO ENDS, PULL OUT STEP, OVERSIZED CORD BRACKETS, TUBULAR STEEL LADDER, & STEEL TELESCOPING SATELLITE POLE;
FLOORS	
Floor Joist:	2X10 SYP @ 16" O.C. DBL RIM JOIST
Insulation:	R-38 KRAFT FACED
Subfloor:	DBL LAYER 3/4" PLYWOOD
Undersheathing:	30 GA METAL BELLY PAN W/ 3/8" OSB
Floor Covering:	12X12 VINYL COMPOSITE TILE
Raised Floor:	2X8 RAISED FLOOR TO RESTROOM
EXTERIOR WALLS	
Wall Framing:	2X6 SYP @ 16" O.C.
Insulation:	R-21 KRAFT FACED
Ext. Sheathing:	1/2" CDX
Top Plate:	DOUBLE
Bottom Plate:	SINGLE
Interior Covering:	3/8" VCG
Belt Rails:	1X3 BELT RAILS W/POLY TO INTERIOR OF EXTERIOR WALLS
Vapor Barrier:	15# FELT
Base:	4" VINYL COVE BASE
Ext. Siding:	26 GA. COMM. SIDING W/ TRIM, & ANGLE IRON CORNERS TO FRONT
INTERIOR WALLS	
Wall Framing:	2X4 SYP @ 16" O.C.
Insulation:	-
Top Plate:	DOUBLE
Bottom Plate:	SINGLE
Interior:	3/8" VCG
FRP:	ABOVE SHOWER
Base:	4" VINYL COVE BASE
ROOFS	
Roof Framing:	2X12 TO 8" SYP @ 16" O.C.
Insulation:	R-38 UN FACED
Ceiling:	2X4 T GRID SUSPENDED CEILING (FIBERGLASS TO RESTROOM)
Roof Skinning:	.045 EPDM W/ TERMINATION STRIP TO PERIMETER
Roof Sheathing:	5/8 T&G SCREWED & SANDED
Roof Finish:	3/8" GYP W/ POLY TO BOTTOM OF RAFTERS
Roof Venting:	PER DETAILS
NOTE: FALL PROTECTION BRACKETS & CABLE NEEDED	

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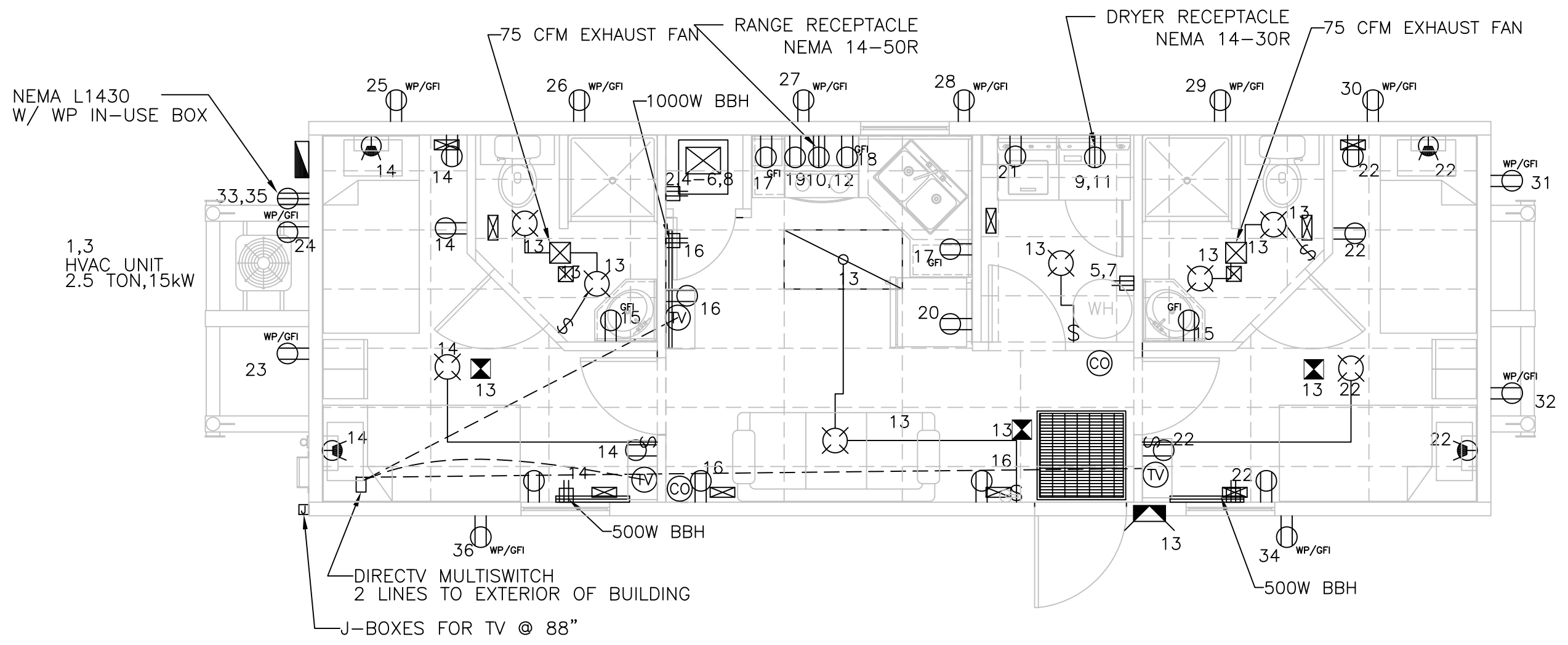
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CROSS SECTION

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ELECTRICAL LAYOUT

DRAWING NO:

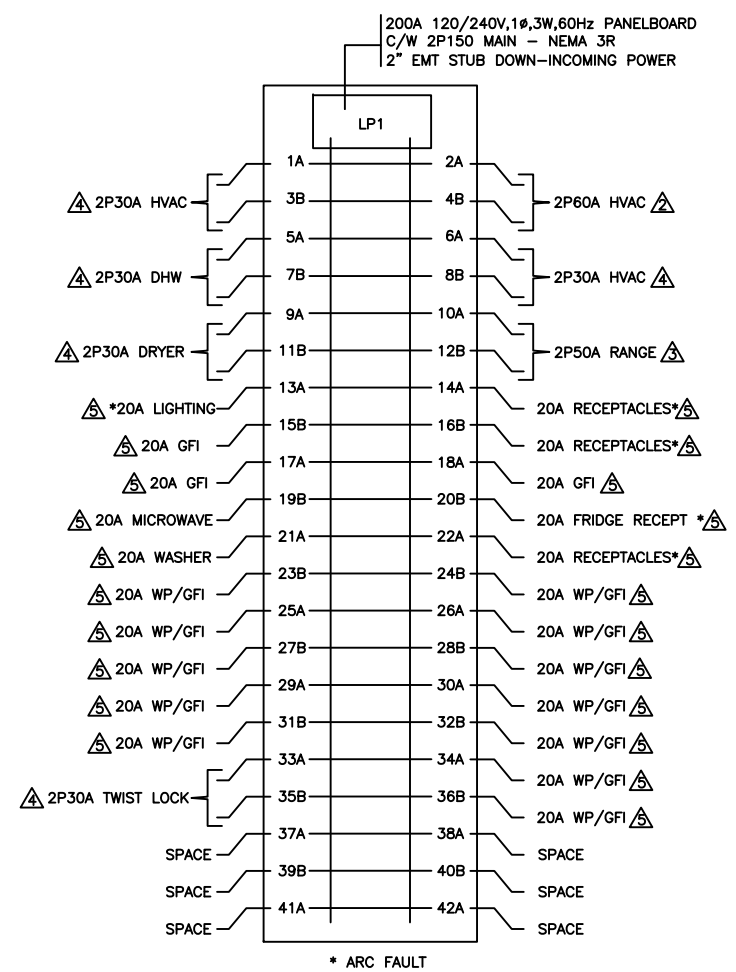
94383-01-E01



SYMBOL LEGEND & LOADS						
SYMBOL	DESCRIPTION	#	LOAD	AMPS	LUMENS	EFFICACY LUMENS/WATT
	2' x 4' T-8 FLUORESCENT TROFFER C/W 4@32W ES LAMPS - MAGNETIC BALLAST	1	124W	1.16A	2900	85.29
	EXTERIOR WP WALL LIGHT C/W 70W HPS LAMP & SWITCH CONTROL-LOW PROFILE	1	70W	0.58A	N.A.	N.A.
	SHELF/LIGHT COMBO	4	-	-	N.A.	N.A.
	INC. GLOBE C/W 60W A19 LAMP	8	60W	0.50A	N.A.	N.A.
	120V SMOKE DETECTOR W/ BATTERY BACKUP	3	-	-	-	-
	EXHAUST FAN-cfm AS NOTED	2	99W	0.83A	N.A.	N.A.
	POWER PANEL - NEMA3R	1	-	-	-	-
	20A/125V SINGLE POLE SWITCH	6	-	-	-	-
	20A/125V DUPLEX RECEPTACLE	14	180W	1.5A	-	-
	20A/125V CLASS 'A' GFCI RECEPTACLE	5	180W	1.5A	-	-
	20A/125V CLASS 'B' GFCI RECEPTACLE	12	180W	1.5A	-	-
	30A(50A)/125/250V NEMA 14-30R RECEPTACLE	2	4.0kW	16.67A	-	-
	HARD WIRED CONNECTION	5	-	-	-	-
	DATA OUTLET C/W 1/2" FLEX STUB UP	-	-	-	-	-
	9V CO DETECTOR @12" AFF	2	N.A.	N.A.	-	-
	TV OUTLET C/W RG6 CABLE BACK TO SAT. JB	3	N.A.	N.A.	-	-
N.A.	WATER HEATER	1	4.50kW	18.75	-	-
	500W BASEBOARD HEATER C/W B.I.T.	2	500W	4.16A	-	-
	1000W BASEBOARD HEATER C/W B.I.T.	1	1000W	8.33A	-	-

NOTES:
1. WIRING METHOD TO BE MC CABLE, COPPER, MINIMUM #12AWG.
2. BLANK SPACES IN PANEL MAY BE OMITTED TO MAKE USE OF SMALLER PANELS. BREAKER SIZE AND QUANTITY SHALL REMAIN THE SAME.
3. ALL ELECTRICAL CONNECTIONS TO BE MOUNTED 14" AFF UNLESS OTHERWISE SPECIFIED. ALL HEIGHTS ARE MEASURED TO THE BOTTOM OF THE BOX.
4. TELE/DATA OUTLETS ARE TO HAVE A 3/4" FLEXIBLE CONDUIT STUBBED UP INTO THE CEILING SPACE UNLESS NOTED.
5. ALL CONDUIT TO CONTAIN AN INSULATED GROUND CONDUCTOR SIZED AS REQUIRED BY 2008 N.E.C., MINIMUM #14 AWG.
6. ELECTRICAL INSTALLATION SHALL BE IN COMPLIANCE WITH 2008 N.E.C..
7. ALL WIRING IN RETURN AIR PLENUMS SHALL MEET RATING REQUIREMENTS OF 2008 N.E.C..
8. MOUNTING HEIGHTS FOR ALL WALL MOUNTED DEVICES SHALL BE FROM FINISHED FLOOR TO BOTTOM OF DEVICE BOX.
9. ALL 125 VOLT, 15 & 20 AMP RECEPTACLES SHALL BE LISTED TAMPER-RESISTANT RECEPTACLES(2008-NEC, ART.406-11)
10. ALL CIRCUITS SHALL BE PROTECTED BY A LISTED ARC-FAULT CIRCUIT INTERRUPTER (COMB. TYPE)
11. REMOVE ALL GROUNDING BONDS FROM APPLIANCES.
12. SMOKE DETECTORS ARE THE BE INNERCONNECTED.

STANDARD OUTLET MOUNTING HEIGHTS height in inches to bottom of box unless otherwise noted	
ELECTRICAL BOX TYPE	MOUNTING HEIGHT
RECEPTACLE	16
SWITCH	44
MICROWAVE RECEPTACLE	75
TV (top of box)	60
ANTENNA BOX	88
COUNTERTOP RECEPTACLE	44
LOWER BUNK LIGHT	40
UPPER BUNK LIGHT	83
BUNK LIGHT DIMMER	38
STOVE	16
PHONE	44
TELE/DATA	16
WATER HEATER	48
EXTERIOR LIGHT	78
EXTERIOR RECEPTACLE	16
WASHER	36
DRYER	36
THERMOSTAT(to centreline)	60
RADIO IN CABINET	58



LOAD CALCULATION TOTAL COMPLEX	
LP-1	
LIGHTING LOAD = 533sqft x 3.0VA	1 590 VA
APPLIANCE LOAD =	3 000 VA
HEATING LOAD 1@15kW =	15 000 VA
DHW HEATER LOAD =	4 500 VA
DRYER LOAD =	4 000 VA
RANGE LOAD =	9 000 VA
COMPLEX TOTAL LOAD =	37 090 VA
APPLICATION OF DEMAND FACTOR	
10 000 VA @ 100%	10 000 VA
27 090 VA @ 40%	10 836 VA
MINIMUM SERVICE SIZE	
20 836 VA/240V =	86.81A

- WIRING LEGEND
- 4 AWG THHN WIRE
 - 6 AWG THHN WIRE
 - 8 AWG THHN WIRE
 - 10 AWG THHN WIRE
 - 12 AWG THHN WIRE
 - 14 AWG THHN WIRE

REV	DATE	DESCRIPTION	BY
11JAN12		ISSUE FOR STATE REVIEW	GS

NOTES:

CUSTOMER ACCEPTANCE

- ACCEPTANCE AS DRAWN
 - ACCEPTANCE EXCEPT AS NOTED

BY: _____
DATE: _____

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DRAWN BY: GS
CHECKED BY: CR
DATE: 13DEC11
SCALE: NTS

ATCO STRUCTURES & LOGISTICS (USA) INC.
1106 NORTH TEMPLE DRIVE
DIBOLL, TEXAS 75941
2400 BURKBURNETT ROAD
WICHITA FALLS, TEXAS 76306

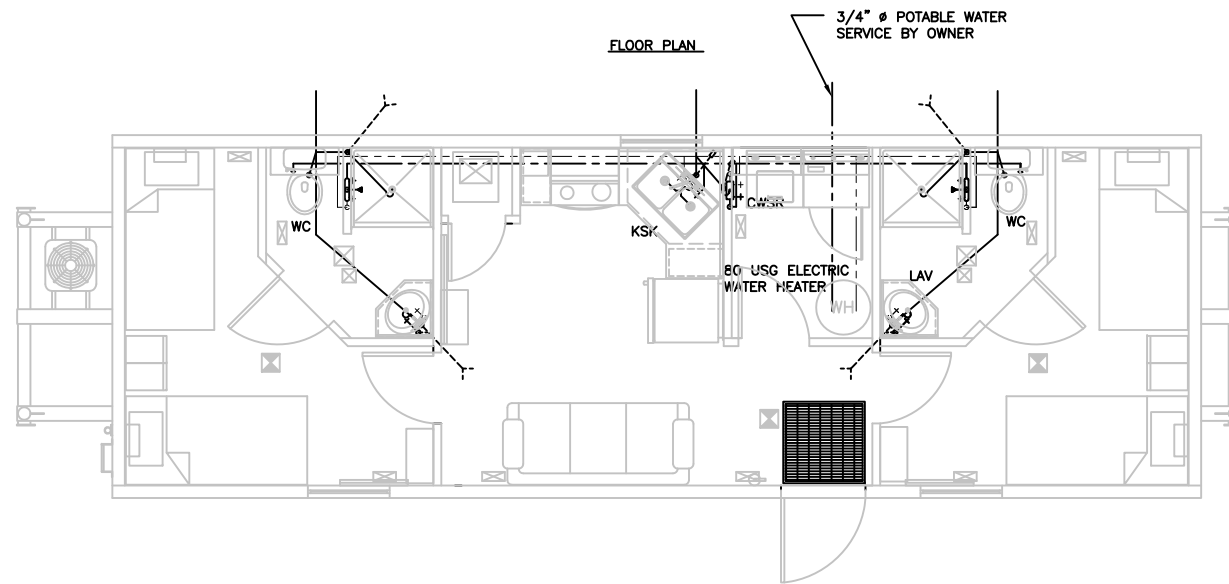
PROJECT:
ATCO
13'4"x40'
CREW QUARTERS

SPECIFICATION NUMBER
610138-05CQ

DRAWING TITLE:
ELECTRICAL PANEL, SCHEDULE,
CALCS, & LEGEND

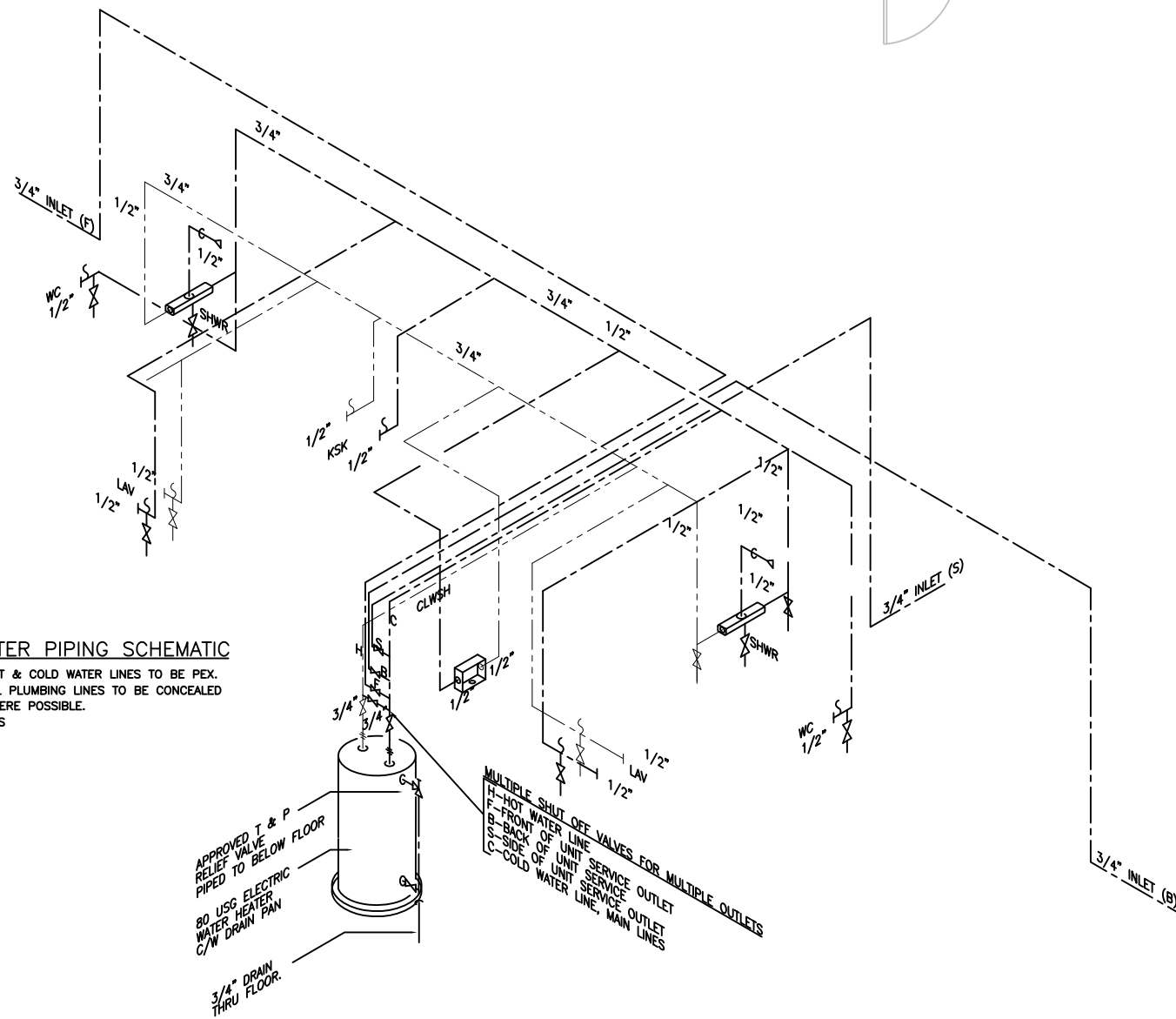
DRAWING NO:
94383-01-E02





LEGEND

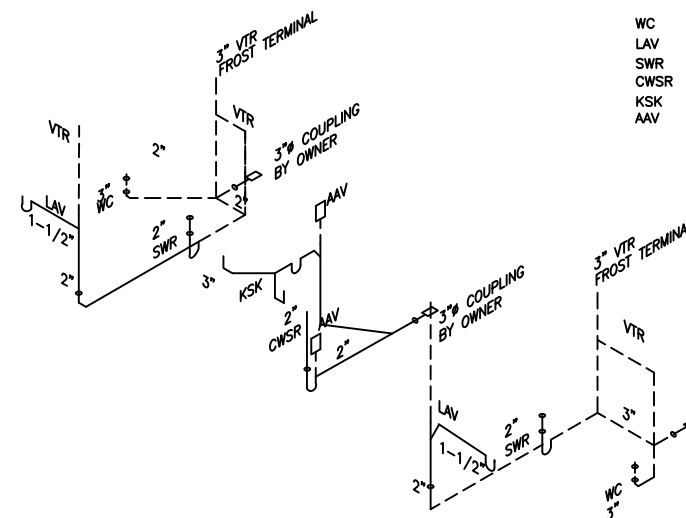
- DOMESTIC COLD WATER
- DOMESTIC HOT WATER
- DWV PIPING
- DWV PIPING UNDERFLOOR
- DWV VENT PIPING.
- WC — WATER CLOSET
- LAV — LAVATORY
- SWR — SHOWER
- CWSR — CLOTHES WASHER
- KSK — STAINLESS STEEL SINK
- AAV — AIR ADMITTANCE VALVE



WATER PIPING SCHEMATIC

- HOT & COLD WATER LINES TO BE PEX.
- ALL PLUMBING LINES TO BE CONCEALED WHERE POSSIBLE.
- NTS

APPROVED T & P RELIEF VALVE PIPED TO BELOW FLOOR
 80 USG ELECTRIC WATER HEATER W/ DRAIN PAN
 3/4" DRAIN THRU FLOOR.
 MULTIPLE SHUT OFF VALVES FOR MULTIPLE OUTLETS
 H—HOT WATER LINE
 F—FRONT OF UNIT SERVICE OUTLET
 B—BACK OF UNIT SERVICE OUTLET
 S—SIDE OF UNIT SERVICE OUTLET
 C—COLD WATER LINE, MAIN LINES



LEGEND

- DOMESTIC COLD WATER
- DOMESTIC HOT WATER
- DWV PIPING
- DWV PIPING UNDERFLOOR
- DWV VENT PIPING.
- WC — WATER CLOSET
- LAV — LAVATORY
- SWR — SHOWER
- CWSR — CLOTHES WASHER
- KSK — STAINLESS STEEL SINK
- AAV — AIR ADMITTANCE VALVE

DRAINAGE PIPING SCHEMATIC

- DRAIN LINES EXPOSED PVC
- NTS
- HARNESS AND INSULATION BY OTHERS
- ALL 3" VTRS TO BE 3" WITHIN 12" OF ROOF TOP TO PREVENT FROST CLOSURE

REV	DATE	DESCRIPTION	BY
1	11JAN12	ISSUE FOR STATE REVIEW	GS

NOTES:

CUSTOMER ACCEPTANCE

- ACCEPTANCE AS DRAWN
- ACCEPTANCE EXCEPT AS NOTED

BY: _____

DATE: _____

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DRAWN BY: GS

CHECKED BY: CR

DATE: 13DEC11

SCALE: NTS

ATCO STRUCTURES & LOGISTICS (USA) INC.
 1106 NORTH TEMPLE DRIVE
 DIBOLL, TEXAS 75941
 2400 BURKBURNETT ROAD
 WICHITA FALLS, TEXAS 76306

PROJECT:

ATCO
 13'-4"X40'
 CREW QUARTERS

SPECIFICATION NUMBER

610138-05CQ

DRAWING TITLE:

PLUMBING LAYOUT
& SCHEMATICS

DRAWING NO:

94383-01-M01





REScheck Software Version 4.4.2 Compliance Certificate

Project Title: 94383 13'4"x40' Atco Crew Quarter

Energy Code: **2009 IECC**
 Location: **Crested Butte, Colorado**
 Construction Type: **Single Family**
 Glazing Area Percentage: **3%**
 Heating Degree Days: **11292**
 Climate Zone: **7**

Construction Site:

Owner/Agent:

Designer/Contractor:

Lupe Sandoval
 ATCO Structures and Logistics
 1106 North Temple Drive
 Diboll, TX 75941
 936-829-6052
 lsandoval@atcoslusa.com

Compliance: **Passes using UA trade-off**

Compliance: **4.2% Better Than Code** Maximum UA: **95** Your UA: **91**

The % Better or Worse Than Code index reflects how close to compliance the house is based on code trade-off rules.
 It DOES NOT provide an estimate of energy use or cost relative to a minimum-code home.

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Glazing or Door U-Factor	UA
Floor 1: All-Wood Joist/Truss:Over Unconditioned Space	533	38.0	0.0		14
Wall 1: Wood Frame, 16" o.c.	853	21.0	0.0		46
Window 1: Vinyl Frame:Double Pane with Low-E	29			0.290	8
Door 1: Solid	20			0.350	7
Ceiling 1: Flat Ceiling or Scissor Truss	533	38.0	0.0		16

Compliance Statement: The proposed building design described here is consistent with the building plans, specifications, and other calculations submitted with the permit application. The proposed building has been designed to meet the 2009 IECC requirements in REScheck Version 4.4.2 and to comply with the mandatory requirements listed in the REScheck Inspection Checklist.

Drafter - Lupe Sandoval Lupe Sandoval Jan 11, 2011
 Name - Title Signature Date



REScheck Software Version 4.4.2 Inspection Checklist

Ceilings:

- Ceiling 1: Flat Ceiling or Scissor Truss, R-38.0 cavity insulation

Comments: _____

Above-Grade Walls:

- Wall 1: Wood Frame, 16" o.c., R-21.0 cavity insulation

Comments: _____

Windows:

- Window 1: Vinyl Frame: Double Pane with Low-E, U-factor: 0.290

For windows without labeled U-factors, describe features:

#Panels _____ Frame Type _____ Thermal Break? _____ Yes _____ No

Comments: _____

Doors:

- Door 1: Solid, U-factor: 0.350

Comments: _____

Floors:

- Floor 1: All-Wood Joist/Truss: Over Unconditioned Space, R-38.0 cavity insulation

Comments: _____

Floor insulation is installed in permanent contact with the underside of the subfloor decking.

Air Leakage:

- Joints (including rim joist junctions), attic access openings, penetrations, and all other such openings in the building envelope that are sources of air leakage are sealed with caulk, gasketed, weatherstripped or otherwise sealed with an air barrier material, suitable film or solid material.
- Air barrier and sealing exists on common walls between dwelling units, on exterior walls behind tubs/showers, and in openings between window/door jambs and framing.
- Recessed lights in the building thermal envelope are 1) type IC rated and ASTM E283 labeled and 2) sealed with a gasket or caulk between the housing and the interior wall or ceiling covering.
- Access doors separating conditioned from unconditioned space are weather-stripped and insulated (without insulation compression or damage) to at least the level of insulation on the surrounding surfaces. Where loose fill insulation exists, a baffle or retainer is installed to maintain insulation application.
- Wood-burning fireplaces have gasketed doors and outdoor combustion air.
- Automatic or gravity dampers are installed on all outdoor air intakes and exhausts.

Air Sealing and Insulation:

- Building envelope air tightness and insulation installation complies by either 1) a post rough-in blower door test result of less than 7 ACH at 50 pascals OR 2) the following items have been satisfied:
- (a) Air barriers and thermal barrier: Installed on outside of air-permeable insulation and breaks or joints in the air barrier are filled or repaired.
 - (b) Ceiling/attic: Air barrier in any dropped ceiling/soffit is substantially aligned with insulation and any gaps are sealed.
 - (c) Above-grade walls: Insulation is installed in substantial contact and continuous alignment with the building envelope air barrier.
 - (d) Floors: Air barrier is installed at any exposed edge of insulation.
 - (e) Plumbing and wiring: Insulation is placed between outside and pipes. Batt insulation is cut to fit around wiring and plumbing, or sprayed/blown insulation extends behind piping and wiring.
 - (f) Corners, headers, narrow framing cavities, and rim joists are insulated.
 - (g) Shower/tub on exterior wall: Insulation exists between showers/tubs and exterior wall.

Sunrooms:

- Sunrooms that are thermally isolated from the building envelope have a maximum fenestration U-factor of 0.50 and the maximum skylight U-factor of 0.75. New windows and doors separating the sunroom from conditioned space meet the building thermal envelope requirements.

Materials Identification and Installation:

- Materials and equipment are installed in accordance with the manufacturer's installation instructions.
- Insulation is installed in substantial contact with the surface being insulated and in a manner that achieves the rated R-value.
- Materials and equipment are identified so that compliance can be determined.
- Manufacturer manuals for all installed heating and cooling equipment and service water heating equipment have been provided.
- Insulation R-values and glazing U-factors are clearly marked on the building plans or specifications.

Duct Insulation:

- Supply ducts in attics are insulated to a minimum of R-8. All other ducts in unconditioned spaces or outside the building envelope are insulated to at least R-6.

Duct Construction and Testing:

- Building framing cavities are not used as supply ducts.
- All joints and seams of air ducts, air handlers, filter boxes, and building cavities used as return ducts are substantially airtight by means of tapes, mastics, liquid sealants, gasketing or other approved closure systems. Tapes, mastics, and fasteners are rated UL 181A or UL 181B and are labeled according to the duct construction. Metal duct connections with equipment and/or fittings are mechanically fastened. Crimp joints for round metal ducts have a contact lap of at least 1 1/2 inches and are fastened with a minimum of three equally spaced sheet-metal screws.

Exceptions:

Joint and seams covered with spray polyurethane foam.

Where a partially inaccessible duct connection exists, mechanical fasteners can be equally spaced on the exposed portion of the joint so as to prevent a hinge effect.

Continuously welded and locking-type longitudinal joints and seams on ducts operating at less than 2 in. w.g. (500 Pa).

- Duct tightness test has been performed and meets one of the following test criteria:
 - (1) Postconstruction leakage to outdoors test: Less than or equal to 42.6 cfm (8 cfm per 100 ft² of conditioned floor area).
 - (2) Postconstruction total leakage test (including air handler enclosure): Less than or equal to 64.0 cfm (12 cfm per 100 ft² of conditioned floor area).
 - (3) Rough-in total leakage test with air handler installed: Less than or equal to 32.0 cfm (6 cfm per 100 ft² of conditioned floor area).
 - (4) Rough-in total leakage test without air handler installed: Less than or equal to 21.3 cfm (4 cfm per 100 ft² of conditioned floor area).

Temperature Controls:

- Where the primary heating system is a forced air-furnace, at least one programmable thermostat is installed to control the primary heating system and has set-points initialized at 70 degree F for the heating cycle and 78 degree F for the cooling cycle.
- Heat pumps having supplementary electric-resistance heat have controls that prevent supplemental heat operation when the compressor can meet the heating load.

Heating and Cooling Equipment Sizing:

- Additional requirements for equipment sizing are included by an inspection for compliance with the International Residential Code.
- For systems serving multiple dwelling units documentation has been submitted demonstrating compliance with 2009 IECC Commercial Building Mechanical and/or Service Water Heating (Sections 503 and 504).

Circulating Service Hot Water Systems:

- Circulating service hot water pipes are insulated to R-2.
- Circulating service hot water systems include an automatic or accessible manual switch to turn off the circulating pump when the system is not in use.

Heating and Cooling Piping Insulation:

- HVAC piping conveying fluids above 105 degrees F or chilled fluids below 55 degrees F are insulated to R-3.

Swimming Pools:

- Heated swimming pools have an on/off heater switch.
- Pool heaters operating on natural gas or LPG have an electronic pilot light.
- Timer switches on pool heaters and pumps are present.

Exceptions:

Where public health standards require continuous pump operation.

Where pumps operate within solar- and/or waste-heat-recovery systems.

- Heated swimming pools have a cover on or at the water surface. For pools heated over 90 degrees F (32 degrees C) the cover has a minimum insulation value of R-12.

Exceptions:

Covers are not required when 60% of the heating energy is from site-recovered energy or solar energy source.

Lighting Requirements:

- A minimum of 50 percent of the lamps in permanently installed lighting fixtures can be categorized as one of the following:
 - (a) Compact fluorescent
 - (b) T-8 or smaller diameter linear fluorescent
 - (c) 40 lumens per watt for lamp wattage ≤ 15
 - (d) 50 lumens per watt for lamp wattage > 15 and ≤ 40
 - (e) 60 lumens per watt for lamp wattage > 40

Other Requirements:

- Snow- and ice-melting systems with energy supplied from the service to a building shall include automatic controls capable of shutting off the system when a) the pavement temperature is above 50 degrees F, b) no precipitation is falling, and c) the outdoor temperature is above 40 degrees F (a manual shutoff control is also permitted to satisfy requirement 'c').

Certificate:

- A permanent certificate is provided on or in the electrical distribution panel listing the predominant insulation R-values; window U-factors; type and efficiency of space-conditioning and water heating equipment. The certificate does not cover or obstruct the visibility of the circuit directory label, service disconnect label or other required labels.

NOTES TO FIELD: (Building Department Use Only)



2009 IECC Energy Efficiency Certificate

Insulation Rating	R-Value
-------------------	---------

Ceiling / Roof	38.00
Wall	21.00
Floor / Foundation	38.00
Ductwork (unconditioned spaces):	_____

Glass & Door Rating	U-Factor	SHGC
---------------------	----------	------

Window	0.29	0.29
Door	0.35	NA

Heating & Cooling Equipment	Efficiency
-----------------------------	------------

Heating System: _____	_____
Cooling System: _____	_____
Water Heater: _____	_____

Name: _____ Date: _____

Comments: