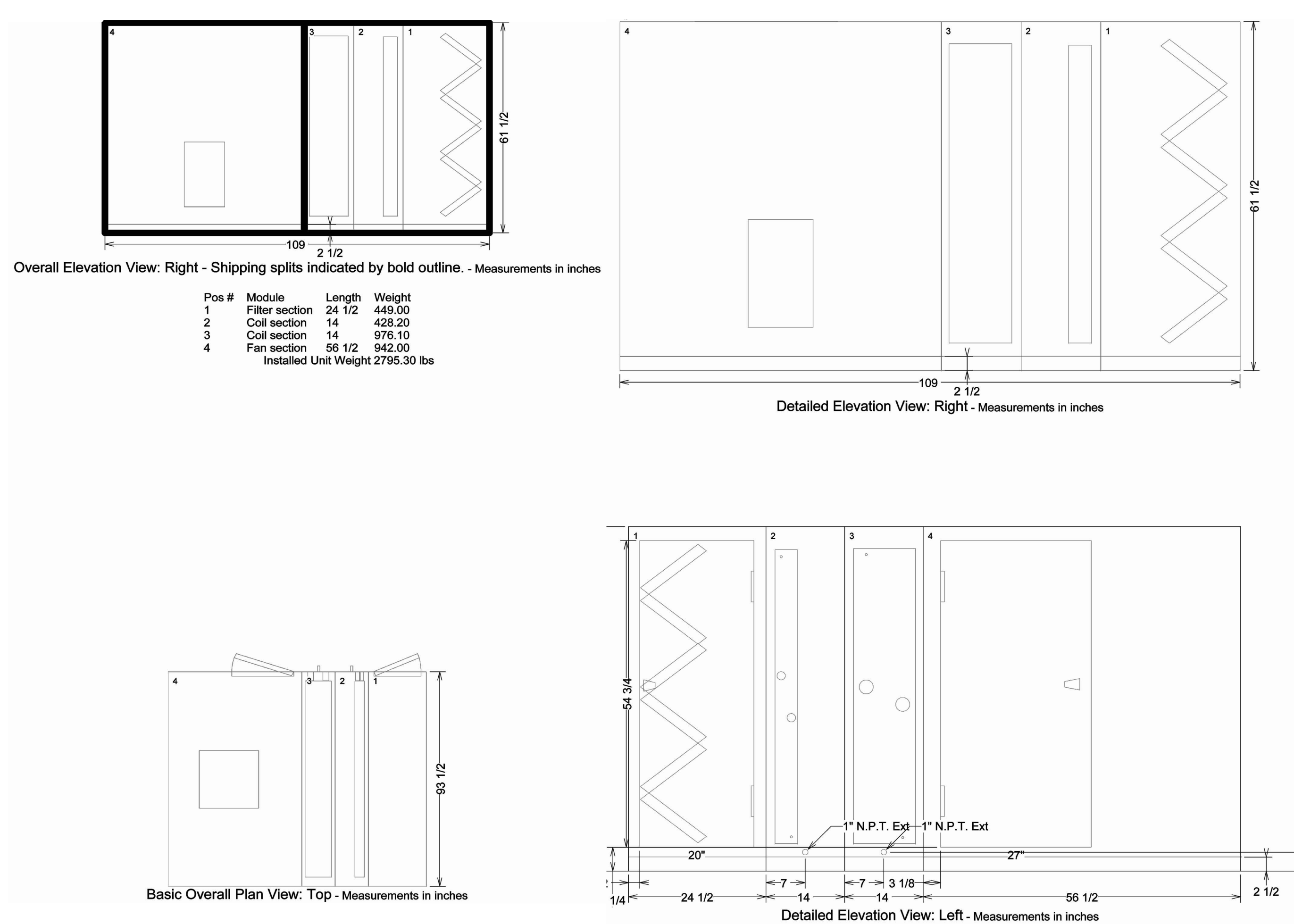


90-AHU-1 SPECIFICATIONS

Performance Climate Changer Quantity 1 Job Comments		Module Position: 0	
Unit level options		Module Position: 0	
Actual airflow	14200 cfm	Inlet and casing - 500 Hz	77 dB
Unit elevation	0.00 ft	Inlet and casing - 1K Hz	73 dB
Unit size	30	Inlet and casing - 2K Hz	70 dB
Integral base frame	2.5in. integral base frame	Inlet and casing - 4K Hz	63 dB
UL listed unit	UL listed unit	Inlet and casing - 8K Hz	57 dB
High voltage location	Right	Ducted inlet - 63 Hz	87 dB
Length	109.000 in	Ducted inlet - 125 Hz	80 dB
Width	93.500 in	Ducted inlet - 250 Hz	84 dB
Installed weight	2795.3 lb	Ducted inlet - 500 Hz	76 dB
Rigging weight	2547.4 lb	Ducted inlet - 1K Hz	72 dB
Single or front discharge - 63 Hz	96 dB	Ducted inlet - 2K Hz	69 dB
Single or front discharge - 125 Hz	91 dB	Ducted inlet - 4K Hz	61 dB
Single or front discharge - 250 Hz	92 dB	Ducted inlet - 8K Hz	48 dB
Single or front discharge - 500 Hz	87 dB	Casing - 63 Hz	85 dB
Single or front discharge - 1K Hz	87 dB	Casing - 125 Hz	80 dB
Single or front discharge - 2K Hz	82 dB	Casing - 250 Hz	71 dB
Single or front discharge - 4K Hz	76 dB	Casing - 500 Hz	73 dB
Single or front discharge - 8K Hz	68 dB	Casing - 1K Hz	76 dB
Inlet and casing - 63 Hz	89 dB	Casing - 2K Hz	59 dB
Inlet and casing - 125 Hz	84 dB	Casing - 4K Hz	44 dB
Inlet and casing - 250 Hz	84 dB	Casing - 8K Hz	44 dB
Controls and VFD/starter		Module Position: 0	
Factory controls package	No factory mount	LCD screen and keypad	No LCD
Automatic Selection	No auto selection	Design Sequence	A
Controller mounting	No mount	Prepackaged solution option used	MP common configuration not used
Controller type	No controller	Total number of control points	0 control points
Warranty		Module Position: 0	
Warranty section	Std. warranty only		
Filter section		Module Position: 1	
Section type	Filter	Filter area	56.67 sq ft
Unit size	30	Filter face velocity	251 f/min
Filter type	Angled filter	Filter pressure drop	0.555 in H2O
Filter frame	2in. filter frame	Filter section pressure drop	0.555 in H2O
Access door location	Left	Section length	24.500 in
Primary filter type.1	Pleated media - MERV 8	Section width	93.500 in
Design sequence	B	Section height	61.500 in
Filter airflow	14200 cfm	Section weight	449.0 lb
Filter condition	Mid-life		
Coil section		Module Position: 2	
Coil se [2]-1		Horizontal coil	30
Section type	Horizontal coil	Coil type	Water
Unit size	30	Coil fluid percentage	100.00 %
Section size	Medium	Target valve pressure drop	4.00 psig
Coil application	Heating coil	Coil type	UU
Changeover coil	No	Rows	8 rows
System type	Chilled water	Fin type	Delta flo H (Hi efficient)
Coil supply/cabinet side	Left	Fin material	Aluminum fins
Coil casing	Galvanized	Tube diameter	1/2in. tube diameter (12.7 mm)
Unit coil height	Galvanized	Tube mat/wall thickness	.016" (0.406mm) copper tubes
Drain pan	Galvanized	Corrosion resistant coating	None
Drain connection location	Left	Coil face velocity	475 f/min
Design sequence	B	Air pressure drop	0.810 in H2O
Apply ARI ranges		J trap dimension	1.819 in
Coil performance airflow	14200 cfm	J trap dimension	3.637 in
Coil elevation	0.00 ft	Leaving fluid temperature	53.00 F
Entering dry bulb	87.50 F	Fluid pressure drop	13.78 ft H2O
Entering wet bulb	72.50 F	Fluid volume	25.08 gal
Leaving dry bulb	53.44 F	Fluid velocity	3.74 f/s
Leaving wet bulb	53.13 F	Coil face area	29.90 sq ft
Sensible capacity	535.59 MBH	Coil rigging weight	497.4 lb
Total capacity	896.33 MBH	Coil installed weight	707.1 lb
Fin spacing	84 Per Foot	Coil section pressure drop	0.810 in H2O
Entering fluid temperature	43.00 F	Section length	14.000 in
Fluid temperature rise	10.00 F	Section height	61.500 in
Standard fluid flow rate	178.59 gpm	Section width	93.500 in
Coil fouling factor	0.00000 hr-sq ft-deg F/BU	Section weight	976.1 lb
Coil section		Module Position: 3	
Coil se [3]-1		Horizontal coil	30
Section type	Horizontal coil	Coil type	Water
Unit size	30	Coil fluid percentage	100.00 %
Section size	Medium	Target valve pressure drop	4.00 psig
Coil application	Cooling coil	Coil type	UU
Changeover coil	No	Rows	8 rows
System type	Chilled water	Fin type	Delta flo H (Hi efficient)
Coil supply/cabinet side	Left	Fin material	Aluminum fins
Coil casing	Galvanized	Tube diameter	1/2in. tube diameter (12.7 mm)
Unit coil height	Galvanized	Tube mat/wall thickness	.016" (0.406mm) copper tubes
Drain pan	Galvanized	Corrosion resistant coating	None
Drain connection location	Left	Coil face velocity	475 f/min
Design sequence	B	Air pressure drop	0.810 in H2O
Apply ARI ranges		J trap dimension	1.819 in
Coil performance airflow	14200 cfm	J trap dimension	3.637 in
Coil elevation	0.00 ft	Leaving fluid temperature	53.00 F
Entering dry bulb	87.50 F	Fluid pressure drop	13.78 ft H2O
Entering wet bulb	72.50 F	Fluid volume	25.08 gal
Leaving dry bulb	53.44 F	Fluid velocity	3.74 f/s
Leaving wet bulb	53.13 F	Coil face area	29.90 sq ft
Sensible capacity	535.59 MBH	Coil rigging weight	497.4 lb
Total capacity	896.33 MBH	Coil installed weight	707.1 lb
Fin spacing	84 Per Foot	Coil section pressure drop	0.810 in H2O
Entering fluid temperature	43.00 F	Section length	14.000 in
Fluid temperature rise	10.00 F	Section height	61.500 in
Standard fluid flow rate	178.59 gpm	Section width	93.500 in
Coil fouling factor	0.00000 hr-sq ft-deg F/BU	Section weight	976.1 lb
Fan section		Module Position: 4	
Fan sec [4]-1		Static pressure origin	Program calculated
Section type	Supply fan	Single or front discharge - 63 Hz	96 dB
Fan application	Supply fan	Single or front discharge - 125 Hz	91 dB
Unit size	30	Single or front discharge - 250 Hz	92 dB
Inlet location	Back inlet	Single or front discharge - 500 Hz	87 dB
Fan orientation	Top-back discharge	Single or front discharge - 1K Hz	87 dB
Fan discharge	Top back	Single or front discharge - 2K Hz	82 dB
Access door location	Left	Single or front discharge - 4K Hz	76 dB
Design sequence	D	Single or front discharge - 8K Hz	68 dB
Motor horsepower per fan	15 hp	Inlet and casing - 63 Hz	89 dB
Motor class	NEMA premium compliant ODP	Inlet and casing - 125 Hz	84 dB
Motor voltage	460V3	Inlet and casing - 250 Hz	84 dB
Overall ESP	60 cycles/sec	Inlet and casing - 500 Hz	77 dB
Cycle	1.5 fixed drive	Inlet and casing - 1K Hz	73 dB
Drive service factor	1.800	Inlet and casing - 2K Hz	70 dB
Motor RPM	14200 cfm	Inlet and casing - 4K Hz	63 dB
Fan airflow	14200 cfm	Inlet and casing - 8K Hz	67 dB
Fan pressure drop	1.500 in H2O	Ducted inlet - 63 Hz	87 dB
Unit entering ESP	0.750 in H2O	Ducted inlet - 125 Hz	80 dB
Unit discharge ESP	0.750 in H2O	Ducted inlet - 250 Hz	84 dB
Elevation	0.00 ft	Ducted inlet - 500 Hz	76 dB
Minimum temperature	40.00 F	Ducted inlet - 1K Hz	72 dB
Design temperature	70.00 F	Ducted inlet - 2K Hz	69 dB
Fan size and type	20in. diameter AF, class 1	Ducted inlet - 4K Hz	61 dB
Total brake horsepower	14.673 hp	Ducted inlet - 8K Hz	48 dB
Total brake horsepower at min temp	15.554 hp	Casing - 63 Hz	85 dB
Section static pressure	2.942 in H2O	Casing - 125 Hz	80 dB
Speed	2028 rpm	Casing - 250 Hz	71 dB
Outlet area	4.38 sq ft	Casing - 500 Hz	73 dB
Fan outlet velocity	3240 f/min	Casing - 1K Hz	76 dB
Fan module pressure drop	1.500 in H2O	Casing - 2K Hz	59 dB
Fan discharge loss pressure drop	0.000 in H2O	Casing - 4K Hz	44 dB
Section height	61.500 in	Casing - 8K Hz	44 dB
Section length	56.500 in		
Section width	93.500 in		
Section weight	942.0 lb		

90-AHU-1 DETAILS



90-AHU-1 - HVAC DETAILS AND SPECIFICATIONS - BUILDING 90

N.T.S.

WHORTON ENGINEERING, INC.
HVAC - PLUMBING - PROCESS CONTROL

RANDALL WHORTON, P.E.
PH 256/820-9897 FAX 256/820-9886

25 SUMMERALL GATE ROAD
ANNISTON, ALABAMA 36205

WHORTON ENGINEERING PROJECT NO. 10159

8218 Old Federal Road
TELEPHONE: (334) 270-0010

Montgomery, AL 36117
FAX: (334) 270-0040

Central Alabama Veterans Health Care System

Approved: _____

Approved: _____

Approved: _____

Approved: _____

Approved: _____

Approved: _____

Approved: _____

Approved: _____

Drawing Title
90-AHU-1 - HVAC DETAILS AND SPECIFICATIONS - BUILDING 90

Safety Officer
Clinical Representative

Project Title
HVAC MODIFICATIONS TO BUILDINGS 83, 90, & 93 TUSKEGEE, ALABAMA

Building Number
90

Checked
RDW

Drawn
JAD

Date
12/21/10

Project No.
619-10-445

Drawing No.
90M3.1

Dwg. 27 of 59