

#### EARLY RELEASE PACKAGE #2: HYDRONIC EQUIPMENT - ADDENDUM NO. 1 SBAC GAINESVILLE HIGH SCHOOL BUILDING 27 HVAC RENOVATION GAINESVILLE, FLORIDA

#### January 11, 2019 H2ENGINEERING PROJECT NO. 18-71

This Addendum forms a part of the Contract Documents and modifies the original Early Release Package #2, dated December 12, 2018 and revised January 11, 2019, as indicated below. This Addendum is in response to questions asked by prospective Bidders via email on January 1, 2019 and January 7, 2019. Bidders shall acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject Bidder to Disqualification.

This Addendum consists of a one (1) page narrative, two (2) revised drawing sheet, and nine (9) added drawing sheets.

#### **DRAWINGS:**

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#### **MECHANICAL DRAWINGS**

1-1

nem	1-1 A.	Replace sheet in its entirety
Item	1-2 A.	SHEET 2 of 11 Replace sheet in its entirety
Item	1-3 A.	SHEET 3 of 11 Added sheet in its entirety.
Item	1-4 A.	SHEET 4 of 11 Added sheet in its entirety.
Item	1-5 A.	SHEET 5 of 11 Added sheet in its entirety.
Item	1-6 A.	SHEET 6 of 11 Added sheet in its entirety.
Item	1-7 A.	SHEET 7 of 11 Added sheet in its entirety.
Item	1-8 A.	SHEET 8 of 11 Added sheet in its entirety.
Item	1-9 A.	SHEET 9 of 11 Added sheet in its entirety.
Item	1-10 A.	SHEET 10 of 11 Added sheet in its entirety.
Item	1-11 A.	SHEET 11 of 11 Added sheet in its entirety.

SHEET 1 of 11

### **END OF ADDENDUM #1 FOR ERP #2**

DESIGNATION	CH-1
REFRIGERATION CAPACITY NOMINAL (TONS)	100
REFRIGERATION CAPACITY REQUIRED (TONS)	102
ENT WATER TEMP (DEG F)	56
LVG WATER TEMP (DEG F)	44
EER/IPLV	10.5/17.0
AIR ENT CONDENSER (DEG F)	95
CHILLED WATER FLOW (GPM)	200
MAX WATER PRESSURE DROP (FT)	10
CHILLER FOULING FACTOR	0.0001
JNIT DATA	
NUMBER OF COMPRESSORS (#)	4
NUMBER OF FANS (#)	6
UNIT CAPACITY STEPS	4
COMPRESSOR STARTER TYPE	ACROSS THE LINE
REFRIGERANT TYPE	R-410A
ELECTRICAL DATA	
ELECTRICAL CHAR (V-PH)	208/3
UNIT MCA (A) - CIRCUIT 1	215
UNIT MOCP (A) - CIRCUIT 1	300
UNIT MCA (A) - CIRCUIT 2	248
UNIT MOCP (A) - CIRCUIT 2	300
MAX TOTAL INPUT POWER (KW)	118

NOTES (PROVIDE FOLLOWING OPTIONS):

- 1.) PROVIDE 120V/1 PHASE POWER CONNECTION FOR EVAPORATOR HEAT TAPE.
- 2.) PROVIDE MULTI-POINT POWER.

DESIGNATION	AHU-1W	AHU-2W	AHU-5W
AIR HANDLING UNIT DATA			
TOTAL SUPPLY AIR (CFM)	2300	5000	3100
OUTSIDE AIR (CFM)	300	900	500
FILTER SECTION DATA			
DAMPERS	NONE	NONE	NONE
FILTER ORIENTATION	ANGLED	ANGLED	ANGLED
TYPE OF FILTER	2" PLEATED MERV 13	2" PLEATED MERV 13	2" PLEATED MERV 13
COOLING COIL DATA - MAX 120 FPF, 10 ROWS AND MAX FLUID PRESSU	IRE DROP 10 FT		
TOTAL COOLING CAPACITY (MBTUH)	68.4	172.0	91.2
SENSIBLE COOLING CAPACITY (MBTUH)	59.7	130.0	80.2
AIR ENTERING COOLING COIL (DEB F DW/ DEG F WB)	75.9/62.4	75.8/63.8	75.8/62.2
AIR LEAVING COOLING COIL (DEB F DW/ DEG F WB)	52.0/51.8	52.0/51.8	52.0/51.8
AIR PRESSURE DROP ACROSS COIL (IN W.G.)	0.75	0.75	0.75
WATER FLOW (GPM)	8.6	22	12
CHILLED WATER ENTERING TEMPERATURE (DEG F)	44	44	44
CHILLED WATER LEAVING TEMPERATURE (DEG F)	60	60	60
MINIMUM FACE AREA (SF)	5	10	6.5
RUNOUT PIPE SIZE (IN)	1	2	1 1/4
AN SECTION DATA			
FAN TYPE	PLENUM	PLENUM	PLENUM
DRIVE TYPE	DIRECT	DIRECT	DIRECT
FAN QUANTITY (#)	1	1	1
EXTERNAL STATIC PRESSURE (IN W.G.)	2.0	2.0	2.0
TOTAL STATIC PRESSURE (IN W.G.)	3.5	3.5	3.5
TOTAL FAN MOTOR HORSEPOWER (HP)	3	7.5	5
ELECTRICAL CHAR (V/PH)	208/3	208/3	208/3
VARIABLE SPEED DRIVE	YES	YES	YES

NOTES:

1.) CHILLED WATER AIR HANDLING UNIT COOLING COILS SELECTED BASED ON NO SUPPORT FROM OAU.



PROJECT:
SBAC GAINESVILLE HIGH SCHOOL
BUILDING 27 HVAC RENOVATION

DESCRIPTION:

EARLY RELEASE PACKAGE #2: HYDRONIC EQUIPMENT

#### **REVISIONS:**

1/11/2019 ADDENDUM #1



DATE: 12-12-2018 SBAC #: H1710 PAGE: 1 OF 11



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H2E PROJECT No. 1871

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DESIGNATION	AHU-6W	AHU-1N	AHU-2N
IR HANDLING UNIT DATA			
TOTAL SUPPLY AIR (CFM)	5000	4000	6000
OUTSIDE AIR (CFM)	1200	1100	1100
ILTER SECTION DATA			
DAMPERS	NONE	NONE	NONE
FILTER ORIENTATION	ANGLED	ANGLED	ANGLED
TYPE OF FILTER	2" PLEATED MERV 13	2" PLEATED MERV 13	2" PLEATED MERV 13
COOLING COIL DATA - MAX 120 FPF, 10 ROWS AND MAX FLUID PRESSU	JRE DROP 10 FT		
TOTAL COOLING CAPACITY (MBTUH)	149.0	127.0	180.0
SENSIBLE COOLING CAPACITY (MBTUH)	129.0	103.0	155.0
AIR ENTERING COOLING COIL (DEB F DW/ DEG F WB)	75.8/62.4	75.7/63.0	75.8/62.5
AIR LEAVING COOLING COIL (DEB F DW/ DEG F WB)	52.0/51.8	52.0/51.8	52.0/51.8
AIR PRESSURE DROP ACROSS COIL (IN W.G.)	0.75	0.75	0.75
WATER FLOW (GPM)	19	16	23
CHILLED WATER ENTERING TEMPERATURE (DEG F)	44	44	44
CHILLED WATER LEAVING TEMPERATURE (DEG F)	60	60	60
MINIMUM FACE AREA (SF)	10.5	8.5	12.5
RUNOUT PIPE SIZE (IN)	1 1/2	1 1/2	2
AN SECTION DATA			
FAN TYPE	PLENUM	PLENUM	PLENUM
DRIVE TYPE	DIRECT	DIRECT	DIRECT
FAN QUANTITY (#)	1	1	1
EXTERNAL STATIC PRESSURE (IN W.G.)	2.0	2.0	2.0
TOTAL STATIC PRESSURE (IN W.G.)	3.5	3.5	3.5
TOTAL FAN MOTOR HORSEPOWER (HP)	7.5	5	7.5
ELECTRICAL CHAR (V/PH)	208/3	208/3	208/3
VARIABLE SPEED DRIVE	YES	YES	YES

NOTES:
1.) CHILLED WATER AIR HANDLING UNIT COOLING COILS SELECTED BASED ON NO SUPPORT FROM OAU.

DESIGNATION	OAU-1N	OAU-1W	OAU-4W
AIR HANDLING UNIT DATA			
TOTAL SUPPLY AIR (CFM)	2200	1200	1700
OUTSIDE AIR (CFM)	2200	1200	1700
FILTER SECTION DATA			
DAMPERS	NONE	NONE	NONE
FILTER ORIENTATION	ANGLED	ANGLED	ANGLED
TYPE OF FILTER	2" PLEATED MERV 13	2" PLEATED MERV 13	2" PLEATED MERV 13
COOLING COIL DATA - MAX 120 FPF, 10 ROWS AND MAX FLUID PRESSURE DROP 10 FT			
TOTAL COOLING CAPACITY (MBTUH)	207.0	113.0	160.0
SENSIBLE COOLING CAPACITY (MBTUH)	88.6	48.4	68.5
AIR ENTERING COOLING COIL (DEB F DW/ DEG F WB)	88.0/79.0	88.0/79.0	88.0/79.0
AIR LEAVING COOLING COIL (DEB F DW/ DEG F WB)	52.0/51.8	52.0/51.8	52.0/51.8
MAX AIR PRESSURE DROP ACROSS COIL (IN W.G.)	0.75	0.75	0.75
WATER FLOW (GPM)	26	15	20
CHILLED WATER ENTERING TEMPERATURE (DEG F)	44	44	44
CHILLED WATER LEAVING TEMPERATURE (DEG F)	60	60	60
MINIMUM FACE AREA (SF)	5.5	3	4
RUNOUT PIPE SIZE (IN)	2	1 1/2	1 1/2
HEAT PIPE COIL DATA - MAX 120 FPF			
AIR ENTERING PRE-COOLING COIL (DEB F DW/ DEG F WB)	88.0/79.0	88.0/79.0	88.0/79.0
AIR LEAVING PRE-COOLING COIL (DEB F DW/ DEG F WB)	75.3/75.3	75.3/75.3	75.3/75.3
AIR ENTERING RE-HEAT COIL (DEB F DW/ DEG F WB)	52.0/51.8	52.0/51.8	52.0/51.8
AIR LEAVING RE-HEAT COIL (DEB F DW/ DEG F WB)	67.0/58.0	67.0/58.0	67.0/58.0
MAX AIR PRESSURE DROP AT COIL (IN W.G.)	0.35	0.35	0.35
FAN SECTION DATA			
FAN TYPE	PLENUM	PLENUM	PLENUM
DRIVE TYPE	DIRECT	DIRECT	DIRECT
FAN QUANTITY (#)	1	1	1
EXTERNAL STATIC PRESSURE (IN W.G.)	1.0	1.0	1.0
TOTAL STATIC PRESSURE (IN W.G.)	3.50	3.50	3.50
TOTAL FAN MOTOR HORSEPOWER (HP)	2	1 1/2	2
ELECTRICAL CHAR (V/PH)	208/3	208/3	208/3
VARIABLE SPEED DRIVE	YES	YES	YES

## REPLACE SHEET IN ITS ENTIRETY

**REVISIONS:** 

1/11/2019 ADDENDUM #1

PROJECT:

SBAC GAINESVILLE HIGH SCHOOL **BUILDING 27 HVAC RENOVATION** 

**DESCRIPTION:** 

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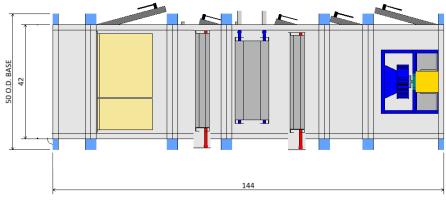
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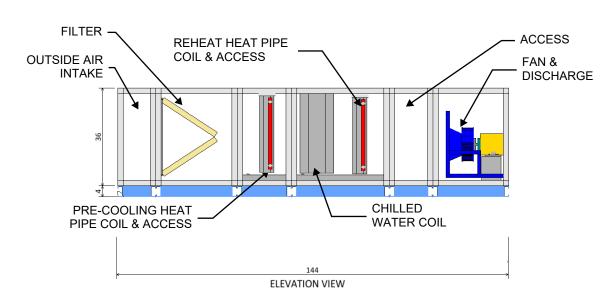
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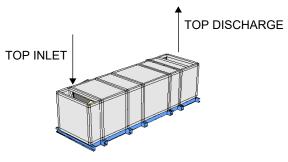
1.) CHILLED WATER DEDICATED OUTSIDE AIR COOLING COILS SIZED BASED ON NO HEAT PIPE PRE-COOLING SUPPORT.

## **OAU-1N**



PLAN VIEW





ISOMETRIC VIEW

ADDED SHEET IN ITS ENTIRETY

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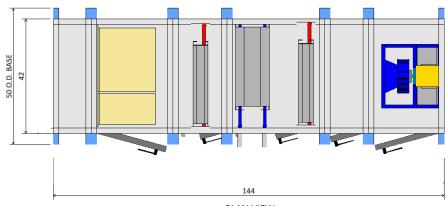


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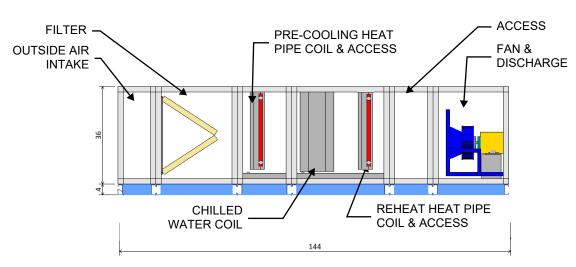
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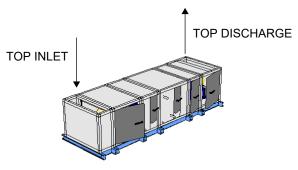
### OAU-4W



PLAN VIEW



**ELEVATION VIEW** 



ISOMETRIC VIEW

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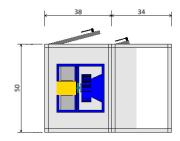
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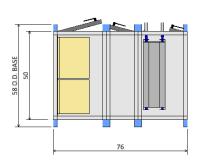
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### OAU-1W TOP DECK PLAN VIEW TOP DISCHARGE TOP INLET ISOMETRIC VIEW 114 **BOTTOM DECK PLAN VIEW** FAN & **DISCHARGE ACCESS CHILLED** WATER COIL PRE-COOLING HEAT PIPE COIL & ACCESS **TURNING & ACCESS** REHEAT HEAT PIPE ACCESS & OUTSIDE AIR INTAKE **COIL & ACCESS** FILTER -**ELEVATION VIEW REVISIONS:** ADDED SHEET IN ITS ENTIRETY 1/11/2019 ADDENDUM #1 114 EAST 5th AVENUE TALLAHASSEE, FL 32303 PHONE 850.224.7922 Alachua County www.H2Engineering.com PROJECT: Public Schools SBAC GAINESVILLE HIGH SCHOOL H2E PROJECT No. 1871 THIS DOCUMENT IS THE PROPERTY OF **BUILDING 27 HVAC RENOVATION** H2Engineering AND IS PREPARED AS AN INSTRUMENT OF SERVICE. ITS USE, REUSE **DESCRIPTION:** OR REPRODUCTION, EXCEPT BY WRITTEN AGREEMENT WITH H2ENGINEERING, INC., IS DATE: 12-12-2018 **EARLY RELEASE PACKAGE #2:** SBAC #: H1710 PROHIBITED. HYDRONIC EQUIPMENT 4 OF 11 PAGE: Florida Certificate of Authorization #2485

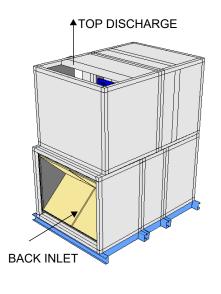
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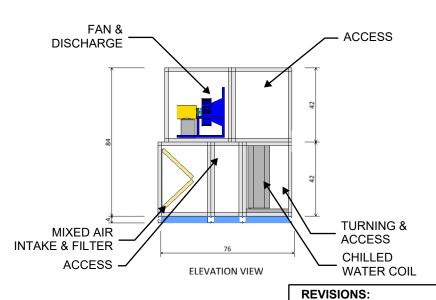
TOP DECK PLAN VIEW



**BOTTOM DECK PLAN VIEW** 



ISOMETRIC VIEW



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**DESCRIPTION:** 

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Alachua County Public Schools

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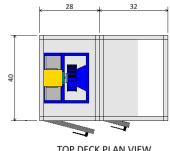


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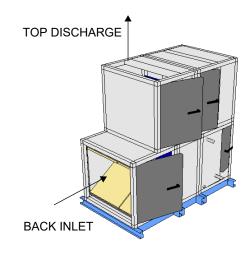
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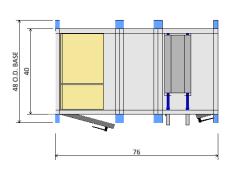
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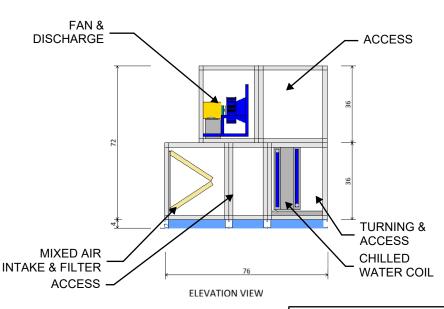
TOP DECK PLAN VIEW



ISOMETRIC VIEW



**BOTTOM DECK PLAN VIEW** 



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Alachua County Public Schools

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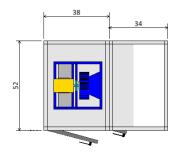


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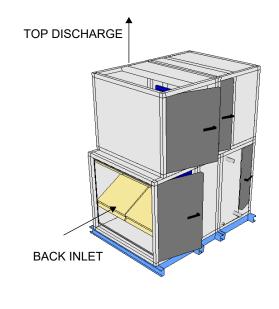
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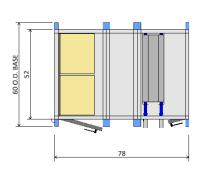
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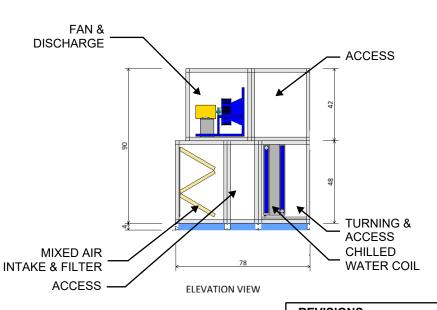
TOP DECK PLAN VIEW



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**BOTTOM DECK PLAN VIEW** 



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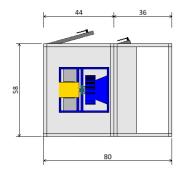


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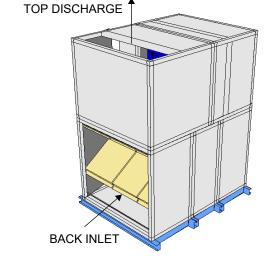
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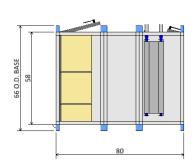
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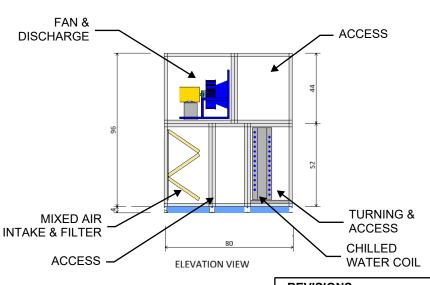
TOP DECK PLAN VIEW

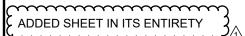


ISOMETRIC VIEW



**BOTTOM DECK PLAN VIEW** 





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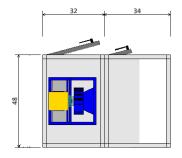


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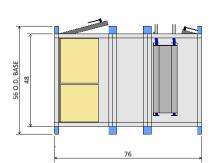
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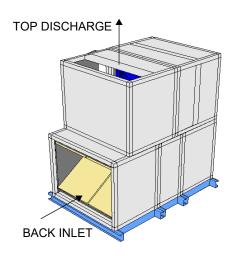
## **AHU-5W**



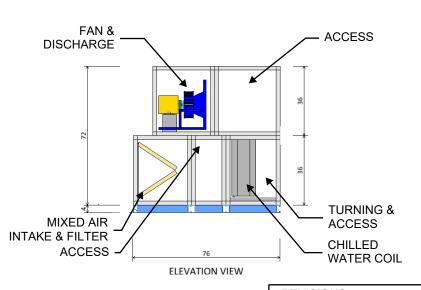
TOP DECK PLAN VIEW

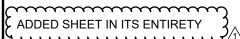


**BOTTOM DECK PLAN VIEW** 



ISOMETRIC VIEW





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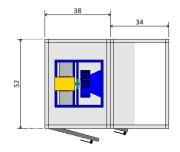


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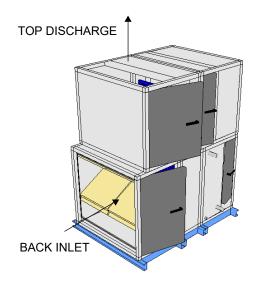
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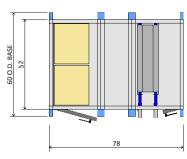
## AHU-6W



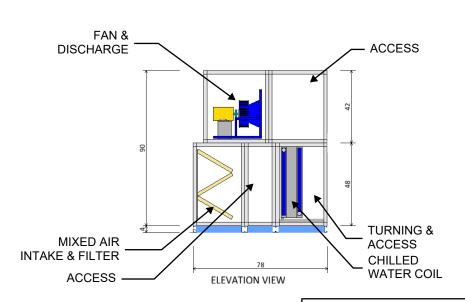
TOP DECK PLAN VIEW



ISOMETRIC VIEW



**BOTTOM DECK PLAN VIEW** 



## ADDED SHEET IN ITS ENTIRETY

### REVISIONS:

1/11/2019 ADDENDUM #1

PROJECT:

SBAC GAINESVILLE HIGH SCHOOL BUILDING 27 HVAC RENOVATION

**DESCRIPTION:** 

EARLY RELEASE PACKAGE #2: HYDRONIC EQUIPMENT

Alachua County Public Schools

> DATE: 12-12-2018 SBAC #: H1710 PAGE: 11 OF 11



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