

**DOCUMENT 00 90 00  
ADDENDUM**

**ADDENDUM NO. [6]                      Date: May 22, 2018**

**RE:                      WESTERN TECHNICAL COLLEGE  
                             INDOOR SHOOTING RANGE  
                             11177 COUNTY RD A  
                             SPARTA, WI 54656**

**FROM:                HSR Associates, Inc  
                             100 Milwaukee Street  
                             La Crosse, WI 54603  
                             (608) 784-1830**

**To:       Prospective Bidders**

This addendum forms a part of the Contract Documents and modifies the original Bidding Documents dated May 2018. Acknowledge receipt of this Addendum in the space provided on the bid form. Failure to do so may subject the Bidder to disqualification.

This Addendum consists of [1] page, Revised Bid Form and [2] 24 x 36 Drawings.

**CHANGES TO BIDDING REQUIREMENTS, CONTRACT FORMS AND CONDITIONS OF THE CONTRACT**

1. Revised Bid Form attached hereto.

**CHANGES TO DRAWINGS**

1. Sheet M100R HVAC DUCTWORK PLAN, SECTIONS AND DETAILS 24 x 36 attached hereto
  - a. Revisions clouded on Drawing.
2. Sheet M101 HVAC PIPING PLAN
  - a. 1M101 HVAC PIPING PLAN – Heating pumps shall be HWP-1 AND HWP-2 in lieu of P-1 and P-2.
3. Sheet M600R1 HVAC SCHEDULES 24 x 36 attached hereto
  - a. Revisions clouded on Drawing.

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**DOCUMENT 00 41 00**

**BID FORM (Revised)**

BIDDER: \_\_\_\_\_

BID FOR SINGLE PRIME CONTRACT

PROJECT: **WESTERN TECHNICAL COLLEGE  
INDOOR SHOOTING RANGE  
11177 COUNTY RD A  
SPARTA, WI 54656**

TO: **WESTERN TECHNICAL COLLEGE  
400 SEVENTH STREET NORTH  
LA CROSSE, WISCONSIN 54601  
ATT: JAY McHENRY – DIRECTOR OF FACILITIES**

**BASE BID**

The undersigned, having examined the site where the Work is to be executed and become familiar with local conditions affecting the cost of the Work and carefully examined the Project Manual, the Project Drawings, all other Bidding Documents and Addenda thereto prepared by the AE, HSR Associates, Inc., hereby agrees to provide all labor, materials, equipment and services necessary for the complete and satisfactory execution of the ENTIRE WORK, in the time frame stipulated in these contract documents, for the Base Bid stipulated sum of:

\_\_\_\_\_  
\_\_\_\_\_ Dollars (\$\_\_\_\_\_.00)

The Base Bid stipulated sum, stated above, includes work by the following major subcontractors intended for Work on this Project:

**ALTERNATE BIDS**

The undersigned further agrees to perform the alternative portions of the Work as described in the Project Manual, Section 01 23 00 Alternates, for the following additions to or deductions from the Base Bid sum stipulated above:

Alternate No. 1: Brick Installation

Add / Deduct (circle applicable option) \_\_\_\_\_ Dollars (\$\_\_\_\_\_.00)

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## BIDDER'S CHOICE SUBSTITUTIONS

The following Bidder's Choice Substitution is proposed for your consideration subject to the requirements set forth in Document 00 22 13 Supplementary Instructions to Bidders, Subparagraph 3.3.4:

Substitution No. S1:

For substituting \_\_\_\_\_

\_\_\_\_\_

Type, Brand, Catalog No. \_\_\_\_\_

Manufacturer \_\_\_\_\_

Deduct from BASE BID \_\_\_\_\_ Dollars (\$\_\_\_\_\_.00)

In submitting this Bid, the undersigned agrees to:

1. Hold this Bid open for **60** days.
2. Accept the provisions of Instructions to Bidders regarding disposition of Bid Security.
3. Enter into and execute an Agreement, if awarded on the basis of this Bid, and to furnish Performance and Labor and Material Payment Bonds according to the Supplementary Conditions.
4. Accomplish work according to the Contract Documents.
5. Complete the work by the time stated in Section 01 10 00 Summary of the Work.

Receipt of the following Addenda and inclusion of their provisions in this Bid is hereby acknowledged:

Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_

Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_

Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_

Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_

Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_

Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_

Attached hereto are the required:

- a. ☐ Bid Security
- b. ☐ Certificate of Organization and Authority
- c. ☐ Non-Collusive Affidavit: An affidavit in proof that the undersigned has not entered into any collusion with any person in respect to this Bid or any other bid or the submitting of bids for the contract for which this bid is submitted.
- d. ☐ Certification of Non-segregated Facilities

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(Affix seal if  
Corporation)

FIRM NAME: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Official Address: \_\_\_\_\_

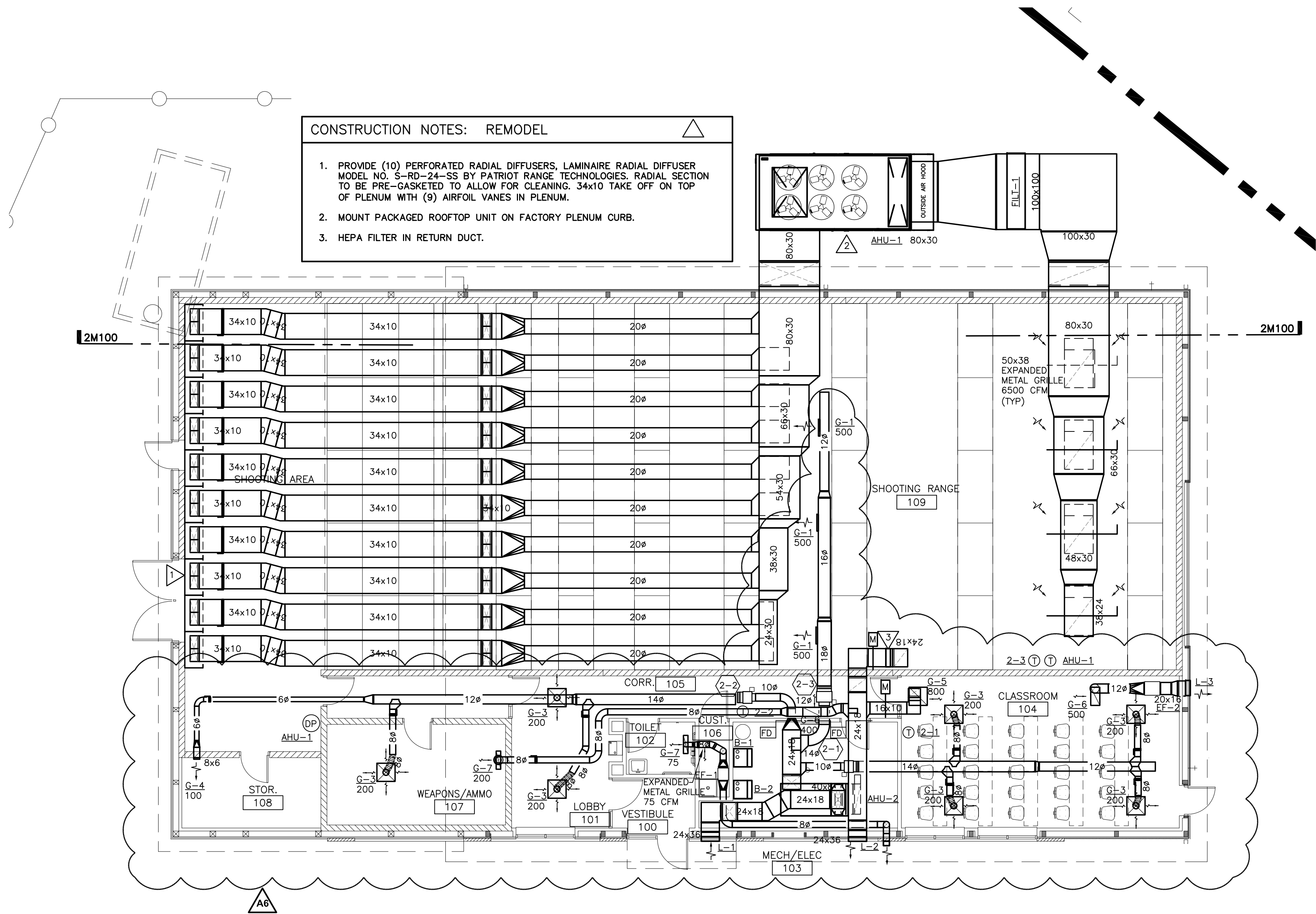
\_\_\_\_\_

Telephone: \_\_\_\_\_

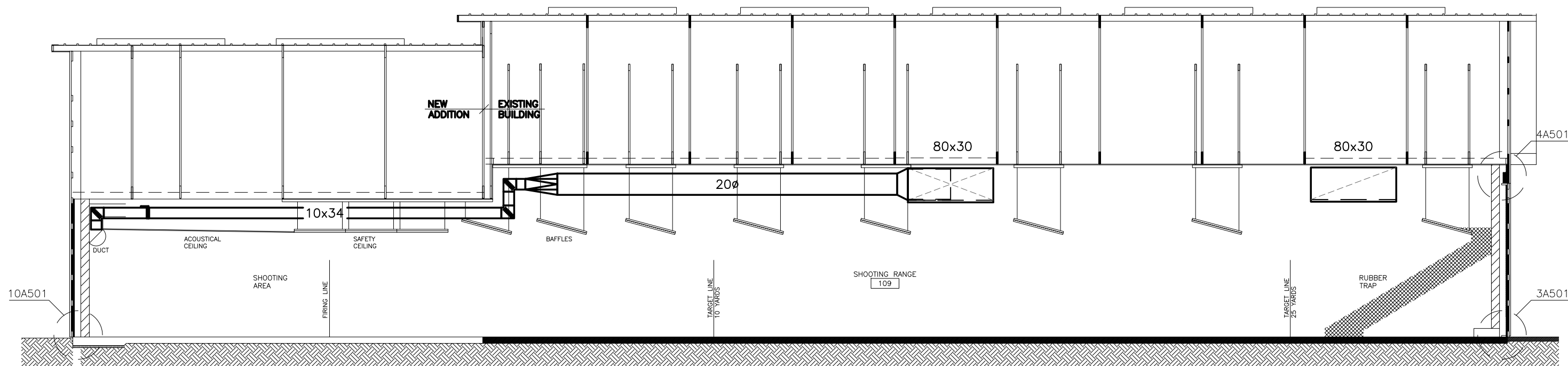
**END OF DOCUMENT 00 41 00**

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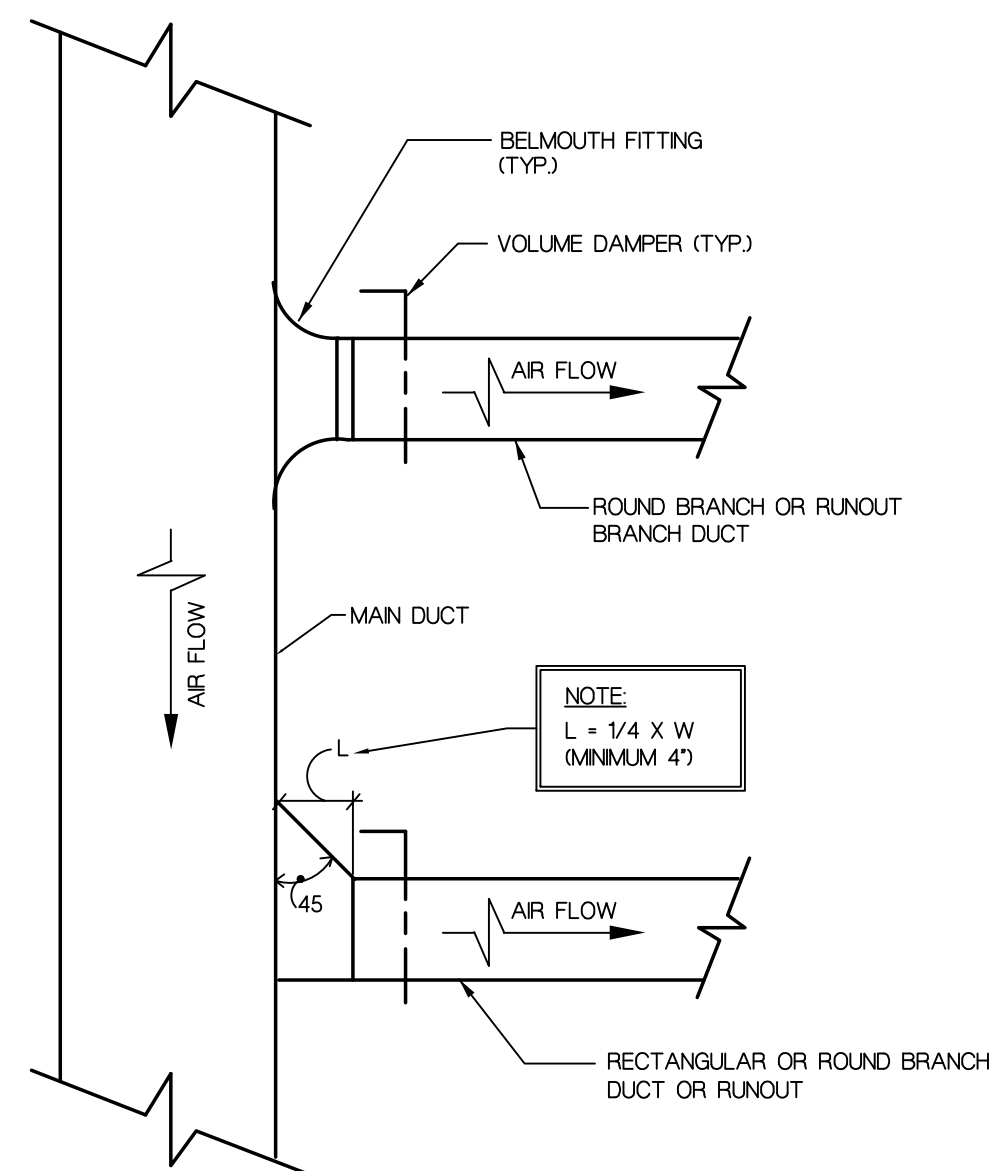




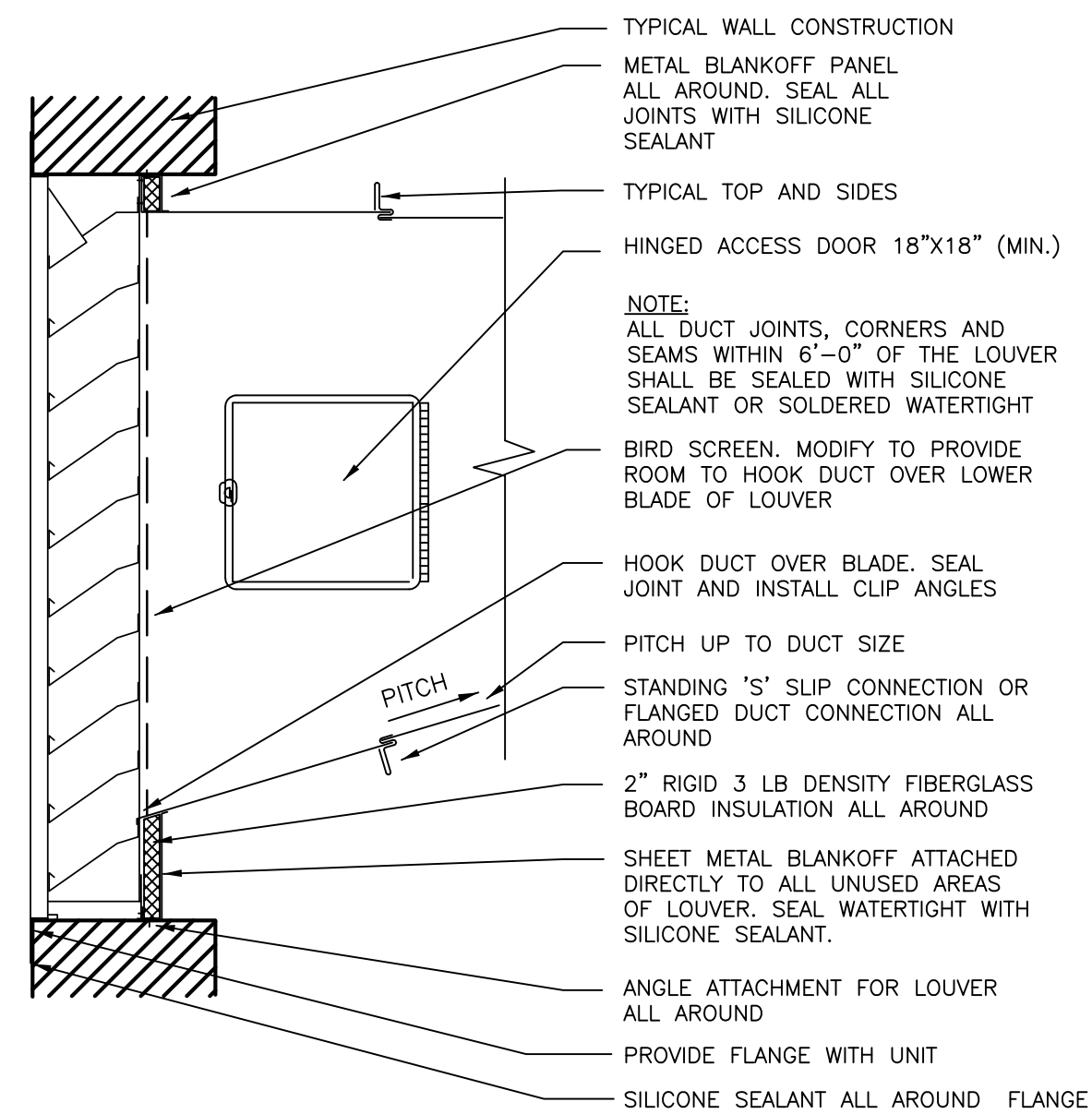
**1 HVAC DUCTWORK PLAN**  
1/8" = 1'-0"



**2 HVAC SECTION**  
1/8" = 1'-0"

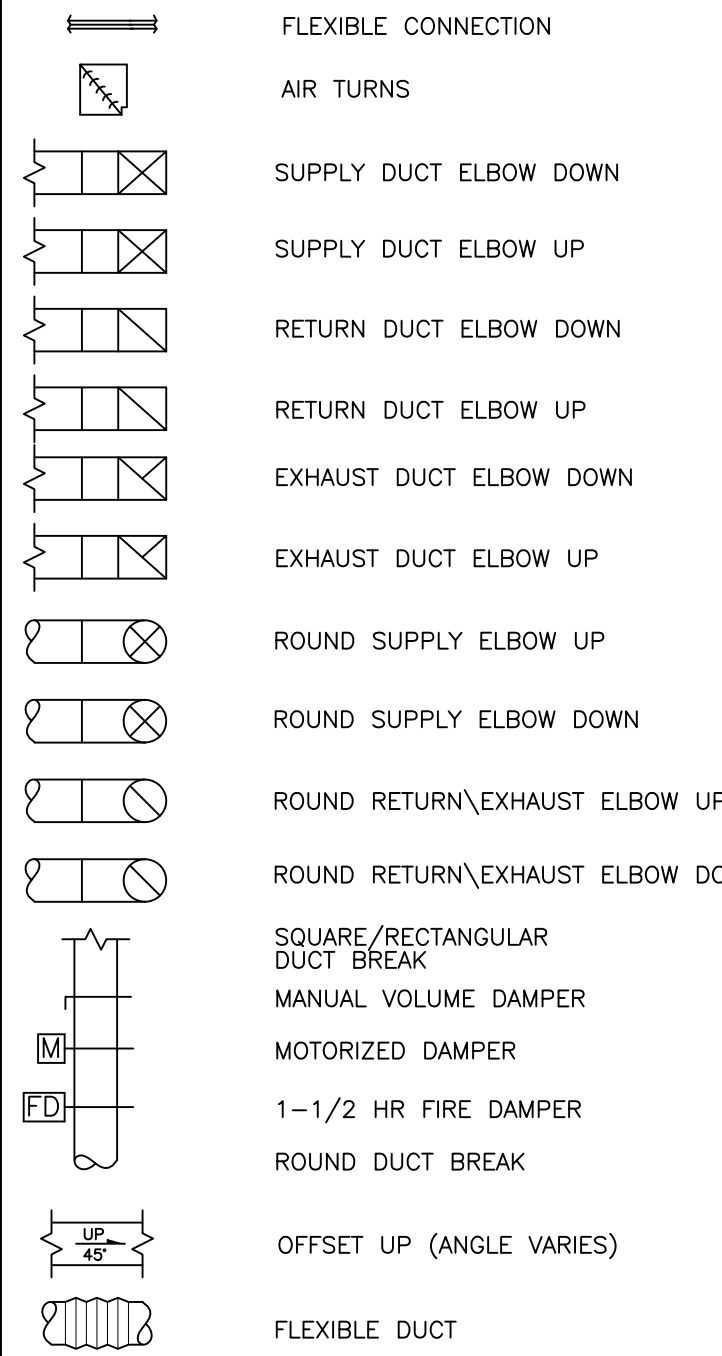


**3 TYPICAL BRANCH TAKE-OFF**  
NTS



**4 LOUVER INSTALLATION DETAIL**  
NTS

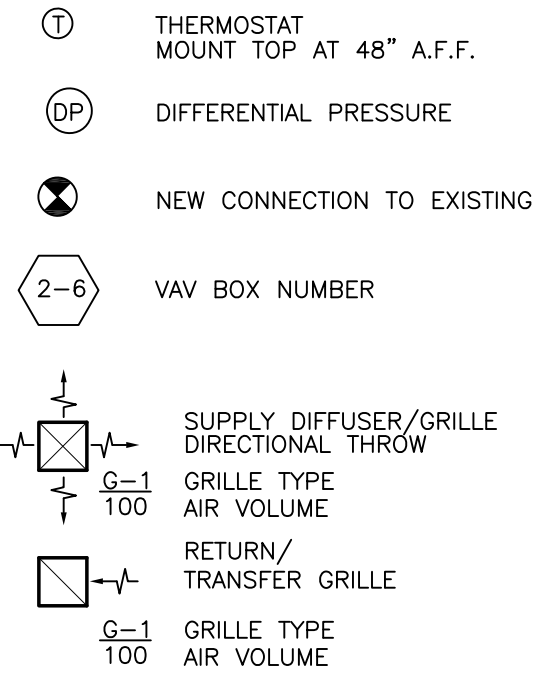
#### HVAC DUCTWORK SYMBOLS



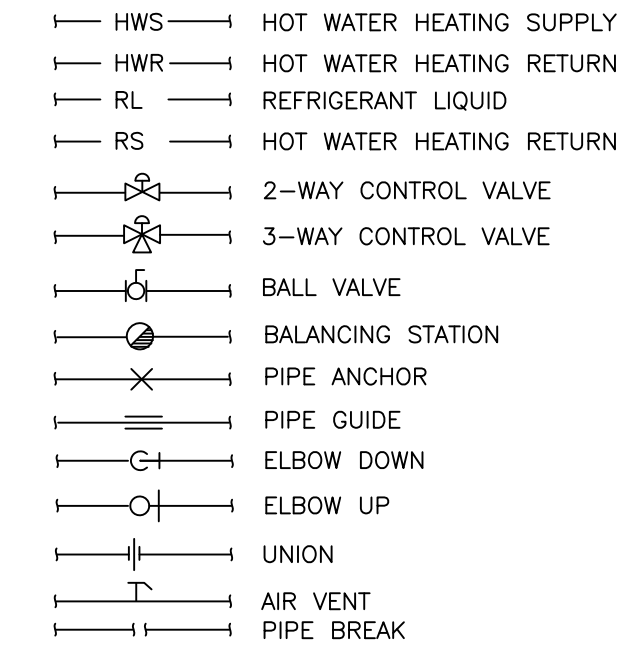
#### HVAC ABBREVIATIONS

CWH-1	CABINET HEATER
G-1	GRILLES, REGISTERS, AND DIFFUSERS
AHU-1	AIR HANDLING UNIT
ACU-1	AIR COOLED CONDENSING UNIT
B-1	BOILER
BWP-1	BOILER WATER PUMP
P-1	PUMP
GFS-1	GLYCOL FEED SYSTEM

#### HVAC SYMBOLS



#### HVAC PIPING SYMBOLS



ARCHITECTURE  
ENGINEERING  
INTERIOR DESIGN



**HSR ASSOCIATES INC.**  
100 MILWAUKEE STREET  
LA CROSSE, WISCONSIN  
PHONE: 608.784.1830  
FAX: 608.782.5844

WEB SITE: [www.hsrassociates.com](http://www.hsrassociates.com)

Consultant:

**WESTERN TECH. COLLEGE  
INDOOR SHOOTING RANGE**

1177 COUNTY ROAD A  
SPARTA, WISCONSIN 54656

Project Title:

HSR Project Number:

**18003**

Project Date:

**MAY 2018**

Drawn By:

Key Plan:

No.	Description	Date
A2	ADDENDUM #2	05/09/2018
A6	ADDENDUM #6	05/22/2018

Graphic Scale:

**VARIES**

Last Update:

**May 21, 2018**

**M100R**

## ROOFTOP HEATING/COOLING UNIT ON GRADE

UNIT NO.	MODEL NUMBER	NOMINAL TONS	TOTAL CFM	SUPPLY FAN (2)				GAS HEATING			HOT GAS REHEAT			COOLING DATA						MIN. O.A. %	RETURN/EXHAUST FAN (2)				REMARKS	
				E.S.P.	RPM	HP.	VOLT/PH	E.A.T.	INPUT MBH	OUTPUT MBH	L.A.T.*F		MBH	E.A.T.*F		L.A.T.*F		MBH			E.S.P.	RPM	HP.	VOLT/PH		
											DB.	WB.		DB.	WB.	TOTAL	SENS									
AHU-1	RN060-3-A-EBD-3-B	60	24000	1.50	1250	20	480/3	-20	1080	864	67.0	60.0	160.0	80.3	67.8	55.0	54.9	700.0	628.0	33.3	2.6	1750	20	480/3	1,2,3,4,5,6	
REMARKS:																										
1. SELECTION BASED ON PRODUCT BY AAO 2. UNIT SHALL HAVE OUTSIDE AIR ECONOMIZER (MODULATING 0 – 100%) 3. UNIT SHALL BE A DOWN-FLOW CONFIGURATION 4. INCLUDE POWERED CONVENIENCE OUTLET, 4” PLEATED MERV 13 UNIT FILTER AND STAINLESS STEEL HINGED ACCESS PANELS. 5. INSTALL UNIT ON FACTORY PLENUM CURB ON GRADE. UNIT OPERATING WEIGHT IS 8000 LBS. SEE PLANS. 6. PROVIDE GAS REGULATOR TO REDUCE 2 PSI GAS PRESSURE TO 14.0 INCHES W.C. (MAX.) 7. UNIT SHALL BE VARIABLE CAPACITY SCROLL WITH HIGH EFFICIENCY COMPRESSOR.																										

## AIR HANDLING UNIT

UNIT NO.	MODEL NUMBER	NOM. TONS	TOTAL SEN. CLG. MBH NET	TOTAL CAPACITY MBH	AMB. TEMP. DB/WB	ENT. TEMP. DB/WB	REFR. TYPE	CFM	E.S.P.	ANLGED FILTER	SUPPLY FAN (HP-VOL-T)	MIXING BOX	MIN. O.A. %	REMARKS
AHU-2	DESTINY 004	10	76	115	95/67	80/67	R-410A	3000	1.50	MERV 8	3 (480/3)	YES	24.2	1,2,3,4,5
REMARKS:														
1. SELECTION BASED ON DESTINY BY DAIKIN APPLIED 2. OUTSIDE AIR ECONOMIZER (MODULATING 0 - 100%) 3. UNIT SHALL BE HORIZONTAL CONFIGURATION 4. UNIT SHALL HAVE DIRECT DRIVE PLENUM FAN AND TOSHIBA VFD SHIPPED LOOSE. VFD INSTALLED BY ELECTRICAL. 5. INCLUDE FUSED DISCONNECT SWITCH														

## AIR COOLED CONDENSERS

UNIT NUMBER	SERVES	TOTAL CAPACITY (MBH)	CONDENSER DATA				ELECTRICAL DATA			BASIS OF MODEL NO.	REMARKS REF. NO.
			FAN NO.	FAN HP	NO. CKT	AMB. TEMP.	VOLTAGE	PHASE	MIN. CR. AMP.		
ACU-1	AHU-2	113.7	2	1/3	1	95	460	3	25	RCS-11-F-125-D	1,2,3,4
REMARKS:											
1. BASED ON PRODUCT BY DAIKIN APPLIED 2. SEE DETAIL 6M500 FOR INSTALLATION 3. PROVIDE VIBRATION ISOLATION 4. PROVIDE HIGH EFFICIENCY COPELAND SCROLLS WITH 50% UNLOADING											

## BOILERS

UNIT NUMBER	SERVES	SERIES	MODEL NO.	FUEL SOURCE	INPUT MBH	OUTPUT MBH	NET RATING MBH	VOLTAGE	THERMAL EFF.	PRESS. RELIEF VALVE	REMARKS REF. NO.
B-1	H.W. HEATING	PRESTIGE SOLO	SOLO 110	NAT. GAS	110	102	89	(120/1)	95.1	30 #	1,2
B-2	H.W. HEATING	PRESTIGE SOLO	SOLO 110	NAT. GAS	110	102	89	(120/1)	95.1	30 #	1,2
REMARKS:											
1. SEALED COMBUSTION BOILER SYSTEM BASED ON PRODUCT BY TRIANGLE TUBE 2. GAS PRESSURE TO BOILERS IS 7 INCHES. PROVIDE ALL REQUIRED REGULATORS (VENT TO OUTSIDE THRU ROOF) 3. SEE 3M101 FOR INSTALLATION.											

## PUMPS

PUMP NO.	ROOM LOCATION	SERVES	TYPE		MODEL NO.	GPM	TOTAL HEAD ( FEET )	SIZE IMPELLER ( INCHES )	MOTOR HP MAXIMUM	REMARKS REF. NO.
			IN-LINE	FLOOR MOUNTED						
HWP-1	103	HEATING	YES	-	MAGNA3 32-100F	30.4	20	STD	1/3 (120/1)	1
HWP-2	103	HEATING	YES	-	MAGNA3 32-100F	30.4	20	STD	1/3 (120/1)	1
BP-1	103	BOILER	YES	-	UPS 15-58FC	9	10	STD	1/25 (120/1)	1,2
BP-2	103	BOILER	YES	-	UPS 15-58FC	9	10	STD	1/25 (120/1)	1,2
REMARKS:										
1. BASED ON PRODUCT BY GRUNDFOS 2. SEE DETAIL 3M101 FOR INSTALLATION. 3. PUMP SHALL HAVE AUTO-ADAPT FEATURE										

## VAV BOXES

UNIT NO.	SERVES ROOM	MODEL NO.	INLET DUCT SIZE	MAX CFM	MIN COOLING CFM	MIN HEATING CFM	AVAILABLE DESIGN INLET S.P.	MAX UNIT S.P. DROP	DOWNSTREAM UNIT S.P. DROP	NC LEVEL (BOX RADIATED)	COL SIZING AND CAPACITY DATA								REMARK REF NO.		
											MAN COL TYPE	HTG FLOW RATE GPM	COL FLUID P.D. FT H2O	ENT. HW. TEMP.	LVG HW. TEMP.	ENT. AIR TEMP.	ROOM HTG SETPOINT	TOTAL MBH			
2-1	103 Classroom, 104	VCWF	10"ø	800	300	400	1.0	0.42	0.25	<30	4-ROW	3.6	1.16	140	120	44.0	72	29.0	1. 2. 3.		
2-2	101, 107, 108	VCWF	10"ø	700	400	400	1.0	0.34	0.25	<30	4-ROW	3.6	1.16	140	120	44.0	72	29.0	1. 2. 3.		
2-3	109 Shooting Range	VCWF	14"ø	1500	400	1500	1.0	0.39	0.25	<30	4-ROW	15.3	2.65	140	120	44.0	72	94.5	1. 4.		
NOTES:																					
1. REHEAT COILS SIZED WITH 30% PROPYLENE GLYCOL.																					
REMARKS:																					
1. BASED ON PRODUCT BY ETL.																					
2. UNIT WILL HAVE 2-WAY VALVE. SEE DETAIL 5M500.																					
3. HEATING COIL CAPACITY IS DETERMINED AT MINIMUM BOX CFM AND INCLUDES SPACE HEAT LOSS PLUS REHEAT LOAD.																					
4. HEATING COIL CAPACITY IS DETERMINED AT MAXIMUM BOX CFM AND INCLUDES SPACE HEAT LOSS PLUS REHEAT LOAD. UNIT WILL HAVE 3-WAY VALVE. SEE DETAIL 5M500.																					

## CABINET UNIT HEATER

UNIT TAG	ROOM NUMBER	MBH	MODEL NO.	SIZE	FULL DEPTH	RECESS DEPTH	CABINET		FRONT PANEL SIZE	GPM	CFM	HP	REMARKS REF.	
							WIDE	HIGH						
CUH-1	VESTIBULE	100	16.2	RW1-310	02	10	-	38.2	24	-	1.7	220	1/60(120/1)	1,2,3,4,5
REMARKS:														
1. BASED ON PRODUCT BY RITTLING 2. INSTALL CONTROL VALVE IN MECH/ELECT 103 3. CAPACITY IS BASED ON 200° E.W.T. ACTUAL E.W.T. 140°. CALCULATED HEAT LOSS IS 7.2 MBH. 4. PROVIDE 2-WAY CONTROL VALVE 5. PROVIDE STANDARD MOTOR														

## AIR DISTRIBUTION DEVICES

UNIT REF.	FIXTURE TYPE	SIZE	LOCATION	DAMPER	INLET SIZE	MODEL NUMBER	MOUNTING	REMARKS REF. NO.
G-1	SUPPLY	22 X 10	DUCT	OBD	20 X 8	DMGDR DBL DEFLECT	DUCT	1,4
G-2	SUPPLY	24 X 24	CEILING	RADIAL	8"ø	SERIES PLQ 4-WAY	SCREW	1,2,3
G-3	SUPPLY	24 X 24	CEILING	RADIAL	8"ø	SERIES PLQ 4-WAY	LAY-IN	1,2,3
G-4	SUPPLY	10 X 8	SIDEWALL	OBD	8 X 6	5880 H DBL DEFLECT	SCREW	1,4
G-5	RETURN	24 X 24	CEILING	NO	N/A	EGC-5 1/2" EGG CRATE	LAY-IN	1,4
G-6	RETURN/EXHAUST	24 X 12	CEILING	NO	N/A	EGC-5 1/2" EGG CRATE	LAY-IN	1,4
G-7	RETURN	24 X 6	CEILING	NO	N/A	EGC-5 1/2" EGG CRATE	SCREW	1,4
G-8	EXHAUST	24 X 6	CEILING	NO	N/A	EGC-5 1/2" EGG CRATE	LAY-IN	1,4
REMARKS:								
1. BASED ON PRODUCT BY KRUEGER 2. DIFFUSERS SHALL BE STEEL CONSTRUCTION 3. INCLUDE DIRECTIONAL BLOW PATTERN CONTROL TABS FOR DIFFUSERS SHOWN OTHER THAN 4-WAY THROW 4. GRILLES SHALL BE ALUMINUM CONSTRUCTION								

## LOUVERS

LOUVER REF. NO.	TYPE	SIZE W X H	FREE AREA SQ.FT.	MAX. SP.	MODEL NO.	TYPE OF BLADE	CONSTRUCTION				REMOV-ABLE CORE	SERVES UNIT NO.	REMARKS REF. NO.
							GALV. STEEL	ALUM.	OTHER	FRAME DEPTH			
L-1	INTAKE	24x48	4.4	0.07	ESD-635	DRAINABLE		X		6"	NO	AHU-2	1,2,3
L-2	RELIEF	24x48	4.4	0.06	ESD-635	DRAINABLE		X		6"	NO	AHU-2	1,2,3
L-3	EXHAUST	20x16	0.7	0.06	ESD-635	DRAINABLE		X		6"	NO	EF-2	1,2,3
REMARKS:													
1. BASED ON PRODUCT BY GREENHECK. 2. SEE DETAIL 4M100. 3. PROVIDE CLEAR ANODIZED ALUMINUM FINISH.													

## FANS

UNIT NUMBER	SERVES	FAN TYPE	LOCATION	MODEL NO.	DISCHARGE ARRANG.	CFM	MIN. CFM	EXT. STATIC PRESS.	HP (VOLTAGE)	ZONE LEVEL	REMARKS REF. NO.
EF-1	102, 106	EXHAUST	CUSTODIAN	106	CSP-B200	-	150	-	2.2 AMPS (120/1)	4.4	1,2
EF-2	104	EXHAUST	CLASSROOM	104	CSP-A710	-	500	-	4.4 AMPS (120/1)	9.5	1,3
REMARKS:											
1. BASED ON PRODUCT BY GREENHECK. 2. PROVIDE WALL CAP. INTERLOCK WITH AHU-2. 3. PILOT SWITCH BY ELECTRICAL. VAV BOX 2-1 SHALL DROP TO MINIMUM AND MOTORIZED RETURN AIR DAMPER SHALL CLOSE. 4. SEE DETAIL 8M500 FOR INSTALLATION.											

ARCHITECTURE  
ENGINEERING  
INTERIOR DESIGN



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Consultant:

WESTERN TECH. COLLEGE  
INDOOR SHOOTING RANGE

Project Title:

11177 COUNTY ROAD A  
SPARTA, WISCONSIN 54656

Sheet Title: HVAC SCHEDULES

HSR Project Number:

18003

Project Date:

MAY 2018

Drawn By:

KIM LEE

Key Plan:

Revisions:

No.	Description	Date
A2	ADDENDUM #2	05/09/2018
A4	ADDENDUM #4	05/18/2018
A6	ADDENDUM #6	05/21/2018

Graphic Scale:

VARIES

Last Update:

May 21, 2018

M600R1