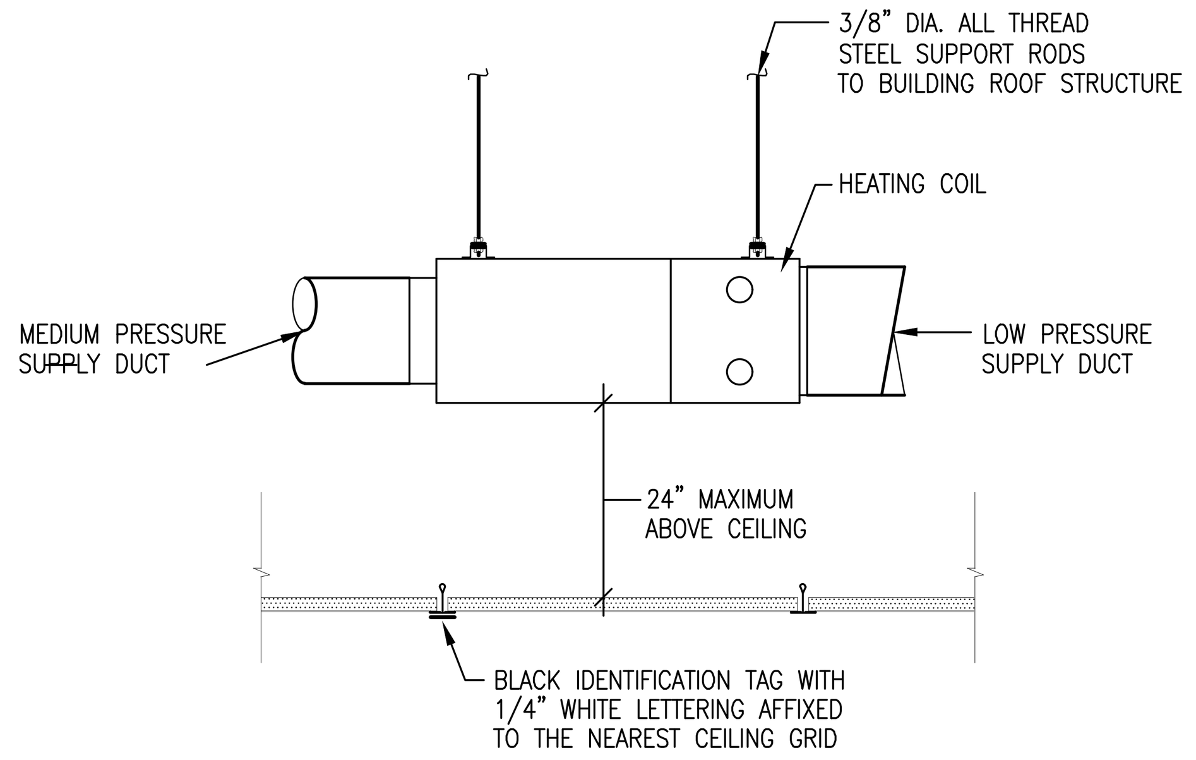
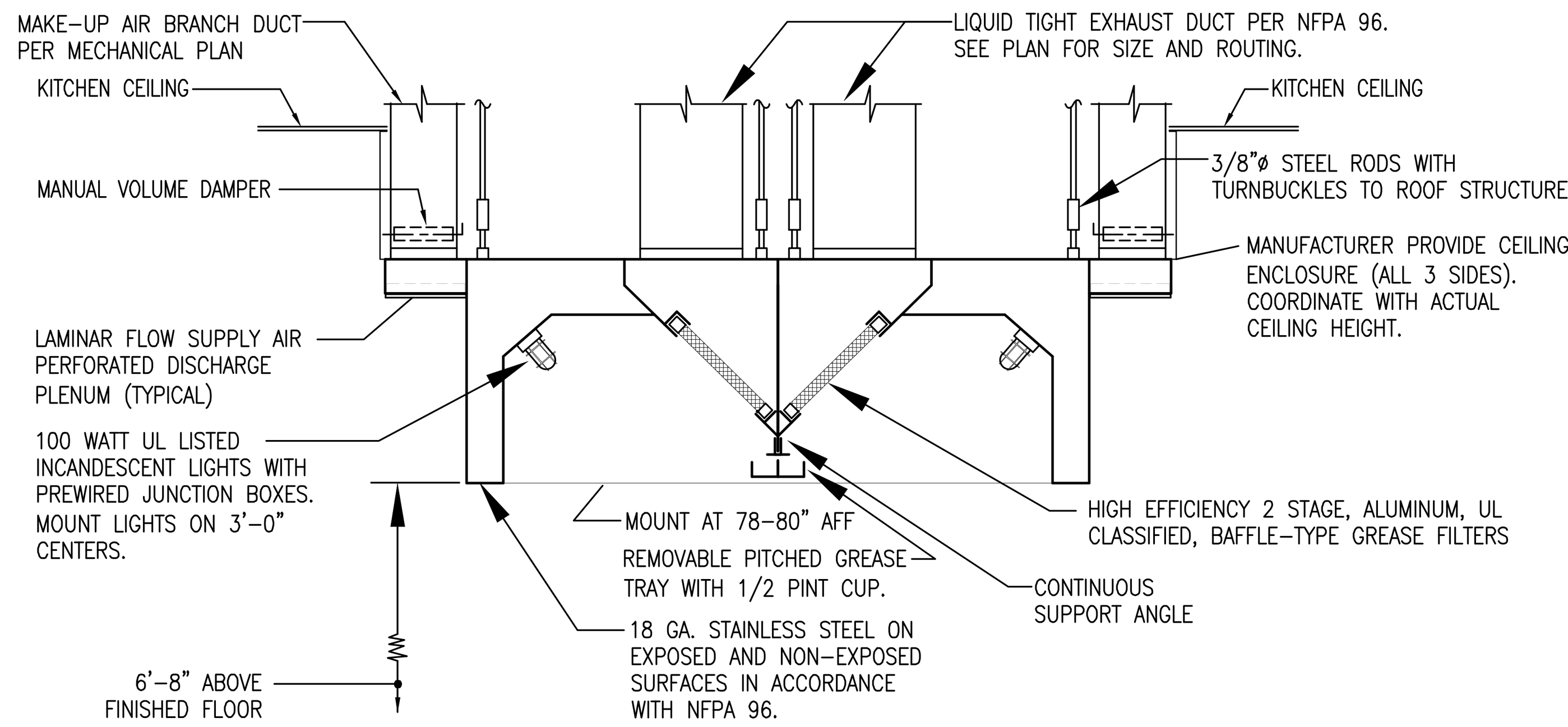


NOTE: SERVICE ACCESS FOR POWER AND CONTROL PANELS MUST BE COORDINATED WITH OTHER TRADES.

VAV BOX DETAIL

NOT TO SCALE



NOTES:
1. WIDTH OF HOOD SHALL BE 6" LARGER THAN LARGEST PIECE OF COOKING EQUIPMENT AND 12" LONGER THAN SUM OF COOKING EQUIPMENT LENGTHS WITH CONSIDERATION GIVEN TO CLEARANCE BETWEEN COOKING EQUIPMENT HOOD SUPPLIER SHALL PROVIDE. AUTOMATIC SHUT OFF, MANUAL RESET GAS VALVE SHALL NOT BE ELECTRONIC SOLENOID TYPE. GAS VALVE SHALL BE SPRING LOADED, MANUAL RESET TYPE.
2. KITCHEN HOOD TO BE PROVIDED BY OWNER AND INSTALLED BY MECHANICAL CONTRACTOR.
3. A CHEMICAL FIRE SUPPRESSION SYSTEM SHALL BE INCLUDED AS AN INTEGRAL PART OF THE HOOD SYSTEM. UPON ACTIVATION OF CHEMICAL SYSTEM SUPPLY FANS SHALL SHUT DOWN AND EXHAUST FANS SHALL OPERATE.
4. BOTH HOODS SHALL OPERATE SIMULTANEOUSLY SUCH THAT ALL SUPPLY AND EXHAUST FANS OPERATE AT SAME TIME.
5. PROVIDE AN INTEGRAL THERMAL SENSOR WITH HOOD CONTROLS TO AUTOMATICALLY ACTIVATE FANS AS COOKING EQUIPMENT IS ENERGIZED.
6. PROVIDE HIGH TEMPERATURE SENSOR WITH HOOD CONTROLS TO SHUT-OFF POWER AND GAS SERVICE TO HOODS.
7. PROVIDE ALL INTERCONNECTS AND RELAY CONTROL BOXES REQUIRED FOR HOOD CONTROL AND SPECIFICALLY FOR FIRE SUPPRESSION EQUIPMENT CONTROL SYSTEM.

TYPICAL TYPE I KITCHEN HOOD DETAIL

NOT TO SCALE

MECHANICAL LEGEND

CFM		CUBIC FEET PER MINUTE
MVD		MANUAL VOLUME DAMPER
PCD		PERFORATED CEILING DIFFUSER
TYP		TYPICAL
		FACTORY FABRICATED FLEXIBLE ROUND DUCT. MAX LENGTH SHALL BE 8 FT.
		SQUARE THROAT ELBOW IN RECTANGULAR DUCTWORK WITH DOUBLE WALL TURNING VANES. PROVIDE FOR ALL DUCTWORK 12" AND LARGER IN THE TURNING DIRECTION.
		BULLHEAD TEE WITH TURNING VANES AND SPLITTER DAMPER
		RECTANGULAR BRANCH DUCT TAKEOFF FROM RECTANGULAR MAIN DUCT. TAKEOFF SHALL BE MADE WITH A 45° COLLAR. SEE DETAIL.
		DUCT CONNECTION OVER AIR DEVICE
		MANUAL VOLUME DAMPER IN RECTANGULAR DUCT. PROVIDE WITH LOCKING QUADRANT REGULATOR.
		RECTANGULAR SUPPLY OR OUTSIDE AIR DUCT IN SECTION
		RECTANGULAR RETURN AIR DUCT IN SECTION
		RECTANGULAR EXHAUST AIR DUCT IN SECTION
		MANUAL VOLUME DAMPER (MVD)
		FIRE DAMPER WITH ACCESS DOOR (FD/AC)
12"ø CD 400 CFM		CEILING DIFFUSER WITH THROW INDICATORS. DIFFUSER SHALL BE SUITABLE FOR INSTALLATION IN GYPSUM OR LAY-IN CEILINGS. SIZE AND AIRFLOW AS INDICATED. PROVIDE WITH SQUARE TO ROUND NECK TRANSITION AS REQUIRED.
(T)		THERMOSTAT

FAN SCHEDULE

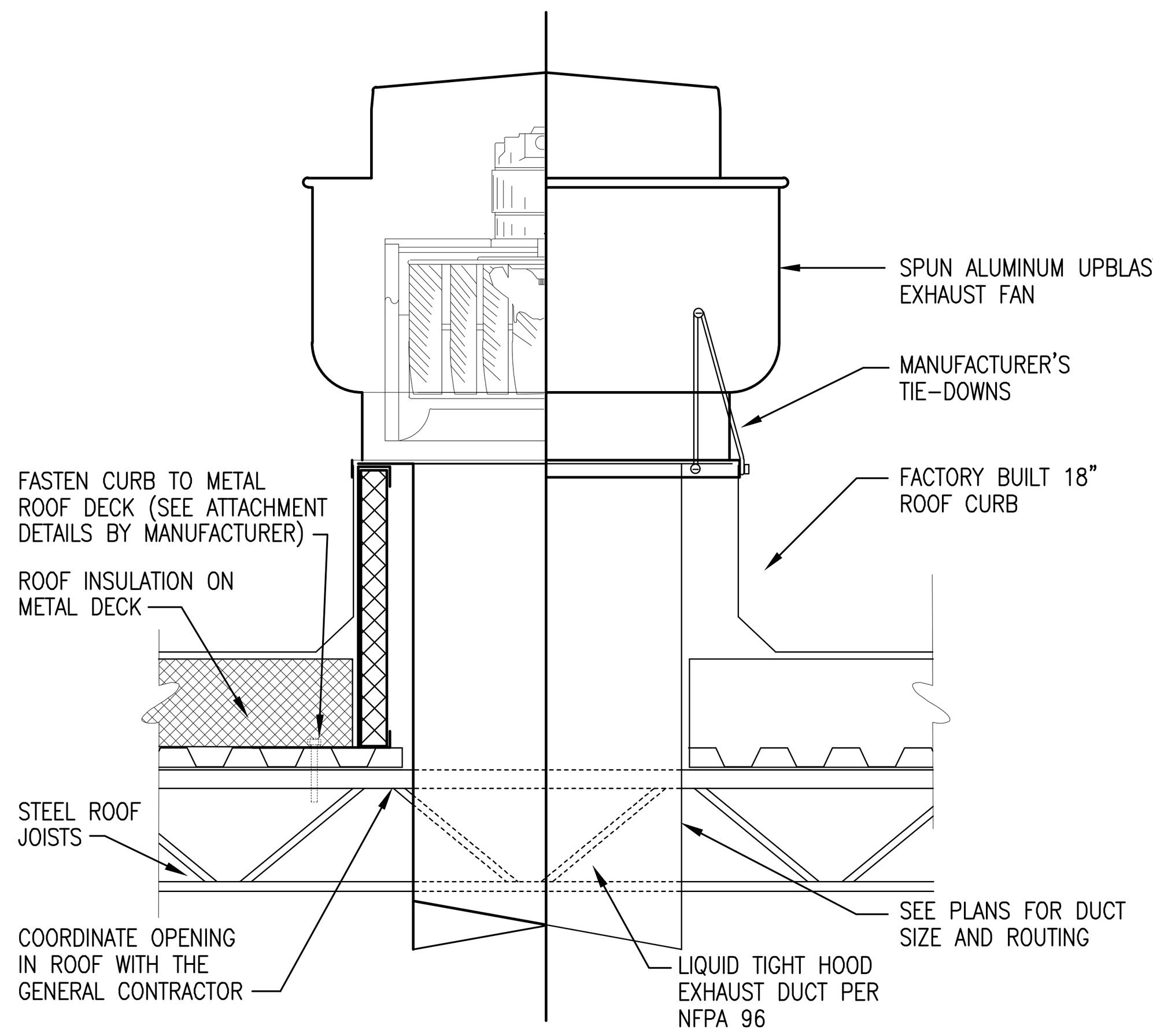
MARK #	TOTAL CFM	TSP IN WC	MAX RPM	TYPE DRIVE	TYPE FAN	CONTROL	INTERLOCK WITH	MOTOR HP/WATTS	MAX SONES	ELECTRICAL DATA			REMARKS
										VOLTS	Hz	PHASE	
BRKEF#1	3118	1.5"	1750	BELT	ROOF MOUNTED	INTERM.	BRKSF#1 HT SENSOR	2.0	16.0	208	60	3	(1)(2)(3)(4)
BRKSF#1	2580	0.75"	1750	BELT	ROOF MOUNTED	INTERM.	HOOD SWITCH	2.0	25.0	208	60	3	(1)(2)(3)(4)
BKKEF#1	4400	1.5"	1750	BELT	ROOF MOUNTED	INTERM.	BKKSF#1 HT SENSOR	1.5	16.0	208	60	1	(1)(2)(3)(4)
BKKSF#1	3700	0.75"	1750	BELT	ROOF MOUNTED	INTERM.	HOOD SWITCH	1.5	25.0	208	60	1	(1)(2)(3)(4)
BLKEF#1	4400	1.5"	1750	BELT	ROOF MOUNTED	INTERM.	BLKSF#1 HT SENSOR	2.0	16.0	208	60	3	(1)(2)(3)(4)
BLKSF#1	3700	0.75"	1750	BELT	ROOF MOUNTED	INTERM.	HOOD SWITCH	2.0	25.0	208	60	3	(1)(2)(3)(4)
DKEF#1	5160	1.5"	1750	BELT	ROOF MOUNTED	INTERM.	DKSF#1 HT SENSOR	2.0	16.0	240	60	1	(1)(2)(3)(4)
DKSF#1	4360	0.75"	1750	BELT	ROOF MOUNTED	INTERM.	HOOD SWITCH	2.0	25.0	240	60	1	(1)(2)(3)(4)
MKEF#1	3118	1.5"	1750	BELT	ROOF MOUNTED	INTERM.	MKSF#1 HT SENSOR	1.5	16.0	208	60	3	(1)(2)(3)(4)
MKSF#1	2580	0.75"	1750	BELT	ROOF MOUNTED	INTERM.	HOOD SWITCH	1.5	25.0	208	60	3	(1)(2)(3)(4)
VKEF#1	4408	1.5"	1750	BELT	ROOF MOUNTED	INTERM.	VKSF#1 HT SENSOR	2.0	16.0	208	60	3	(1)(2)(3)(4)
VKSF#1	3710	0.75"	1750	BELT	ROOF MOUNTED	INTERM.	HOOD SWITCH	2.0	25.0	208	60	3	(1)(2)(3)(4)
WKEF#1	4400	1.5"	1750	BELT	ROOF MOUNTED	INTERM.	WKSF#1 HT SENSOR	2.0	16.0	208	60	3	(1)(2)(3)(4)
WKSF#1	3700	0.75"	1750	BELT	ROOF MOUNTED	INTERM.	HOOD SWITCH	2.0	25.0	208	60	3	(1)(2)(3)(4)

NOTES:
(1) PROVIDE WITH FAN SPEED CONTROLLER. CONTROLLER SHALL BE MOUNTED TO FAN.
(2) PROVIDE WITH INTEGRAL DISCONNECT.
(3) PROVIDE MOTOR WITH THERMAL OVERLOAD.
(4) EQUIPMENT IS OWNER PROVIDED/CONTRACTOR INSTALLED. CONTRACTOR SHALL BE RESPONSIBLE FOR HANDLING, INSTALLATION AND CONNECTION OF UTILITIES. THIS INFORMATION IS PROVIDED FOR COORDINATION PURPOSES.

COMMERCIAL KITCHEN EXHAUST HOOD SCHEDULE

SCHOOL	HOOD TYPE	MAX COOKING TEMPERATURE	HOOD DIMENSIONS			EXHAUST RATE	SUPPLY RATE	VOLTS	REMARKS
			LENGTH	WIDTH	HEIGHT				
DAVIDSON	WALL MOUNTED (1 SIDE)	600°F	24'	5'	1.5'	5160	4360	120	(1)(2)
VIGOR	WALL MOUNTED (1 SIDE)	600°F	20.5'	5'	1.5'	4408	3710	120	(1)(2)
BAKER BLOUNT WILLIAMSON	ISLAND (2 SIDES)	600°F	11'	5'	1.5'	4400	3700	120	(1)(2)
BRYANT MONTGOMERY	WALL MOUNTED (1 SIDE)	600°F	14.5'	5'	1.5'	3118	2580	120	(1)(2)

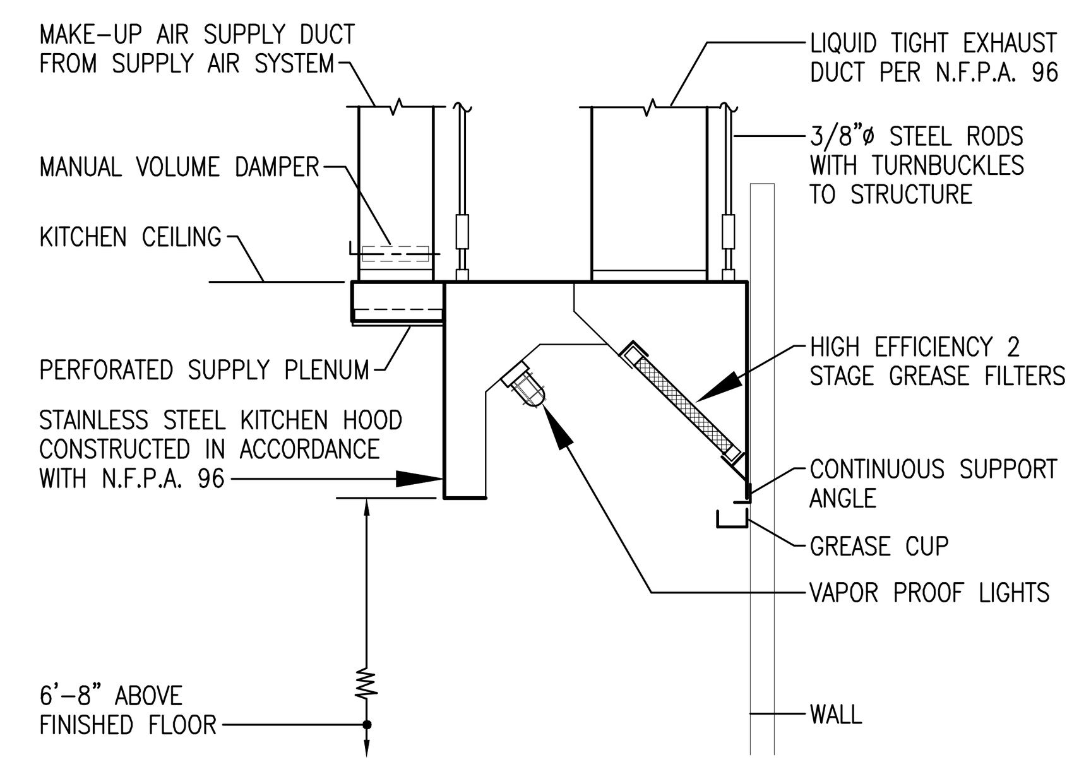
NOTES:
(1) PROVIDE WITH INTERNAL FIRE SUPPRESSION CHEMICAL CABINET AND SUPPLY AIR PLENUMS.
(2) EQUIPMENT IS OWNER PROVIDED/CONTRACTOR INSTALLED. CONTRACTOR SHALL BE RESPONSIBLE FOR HANDLING, INSTALLATION AND CONNECTION OF UTILITIES. THIS INFORMATION IS PROVIDED FOR COORDINATION PURPOSES.



NOTE: ATTACHMENT OF THE FAN TO THE CURB AND ATTACHMENT OF THE CURB TO THE ROOF DECK SHALL COMPLY WITH THE FAN MANUFACTURERS TESTED ATTACHMENT METHODS FOR THE 160 MPH WIND LOADING CRITERIA.

KITCHEN HOOD EXHAUST FAN DETAIL

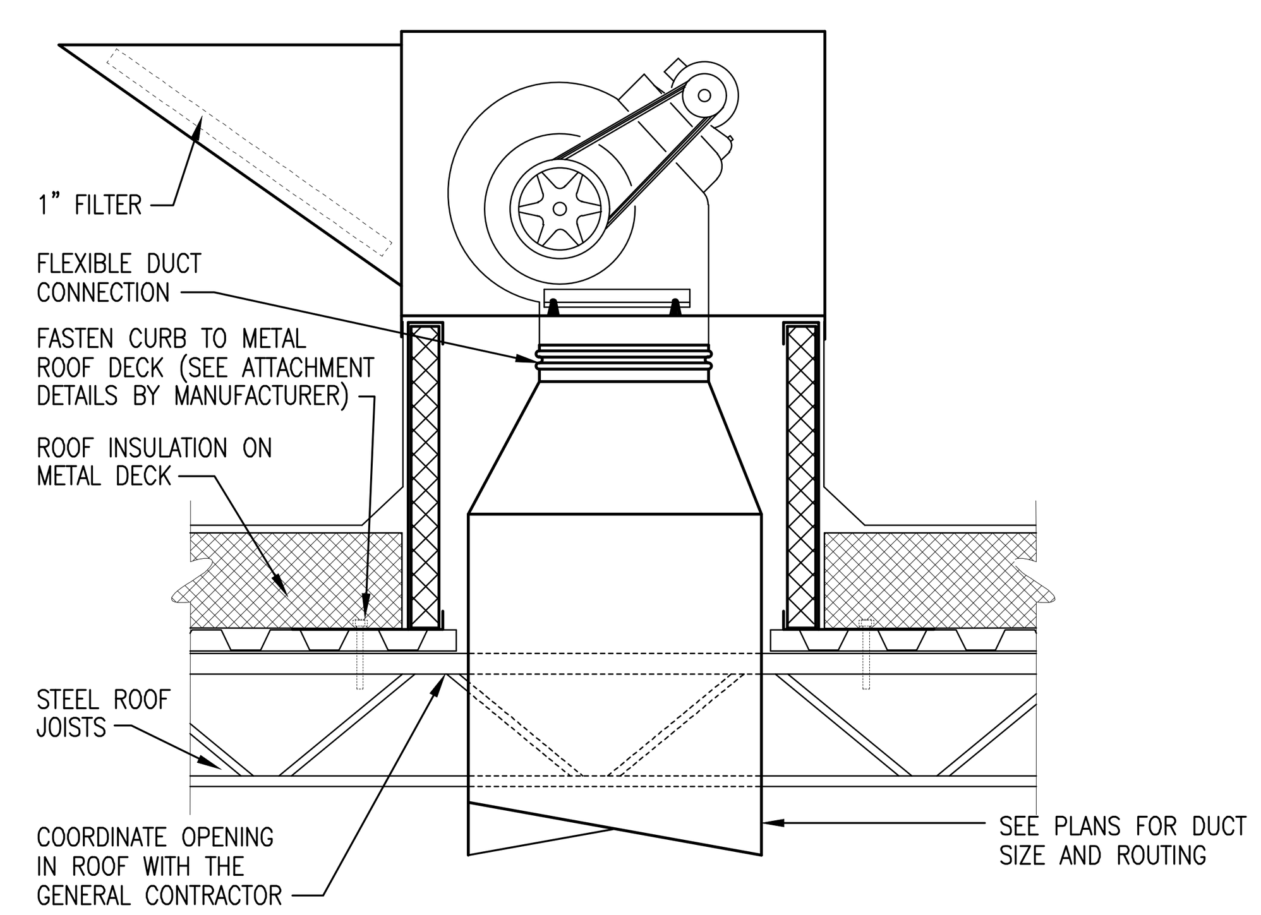
NOT TO SCALE



NOTE:
COORDINATE HOOD TYPE AND SIZE WITH OWNER AND KITCHEN EQUIPMENT PROVIDER PRIOR TO INSTALLATION.

TYPICAL KITCHEN HOOD DETAIL

NOT TO SCALE



NOTE: ATTACHMENT OF THE FAN TO THE CURB AND ATTACHMENT OF THE CURB TO THE ROOF DECK SHALL COMPLY WITH THE FAN MANUFACTURERS TESTED ATTACHMENT METHODS FOR THE 160 MPH WIND LOADING CRITERIA.

KITCHEN HOOD SUPPLY FAN DETAIL

NOT TO SCALE

KITCHEN HOOD AIR FLOW BALANCE SCHEDULE

ALMA BRYANT HIGH SCHOOL
BRKEF#1: 3118 CFM
BRKSF#1: 2580 CFM
DIFFERENTIAL: 538 CFM
DETERMINATION OF DIFFERENTIAL AIR FLOW AVAILABILITY: EXISTING CULINARY CLASSROOM HAS 4 EXISTING RANGES WITH INDIVIDUAL RESIDENTIAL STYLE EXHAUST HOODS/FANS. EXHAUST AIR FLOW RATES ARE 180 CFM (LOW SPEED) PER FAN. ACCORDINGLY, AIR FLOW AVAILABLE, AS A MINIMUM, IS 720 CFM. MAINTAINING AN AIR FLOW DIFFERENTIAL THROUGH THE NEW KITCHEN HOOD, AS 83% OF EXHAUST (538 CFM) PROVIDES FOR PROPER HOOD OPERATION WITHOUT IMPACTING OVERALL BUILDING PRESSURIZATION OF THE SCHOOL.

BAKER HIGH SCHOOL
BKKEF#1: 4400 CFM
BKKSF#1: 3700 CFM
DIFFERENTIAL: 700 CFM
DETERMINATION OF DIFFERENTIAL AIR FLOW AVAILABILITY: EXISTING CULINARY CLASSROOM HAS 7 EXISTING RANGES WITH INDIVIDUAL RESIDENTIAL STYLE EXHAUST HOODS/FANS. EXHAUST AIR FLOW RATES ARE 180 CFM (LOW SPEED) PER FAN. ACCORDINGLY, AIR FLOW AVAILABLE, AS A MINIMUM, IS 1260 CFM. MAINTAINING AN AIR FLOW DIFFERENTIAL THROUGH THE NEW KITCHEN HOOD, AS 85% OF EXHAUST (700 CFM) PROVIDES FOR PROPER HOOD OPERATION WITHOUT IMPACTING OVERALL BUILDING PRESSURIZATION OF THE SCHOOL.

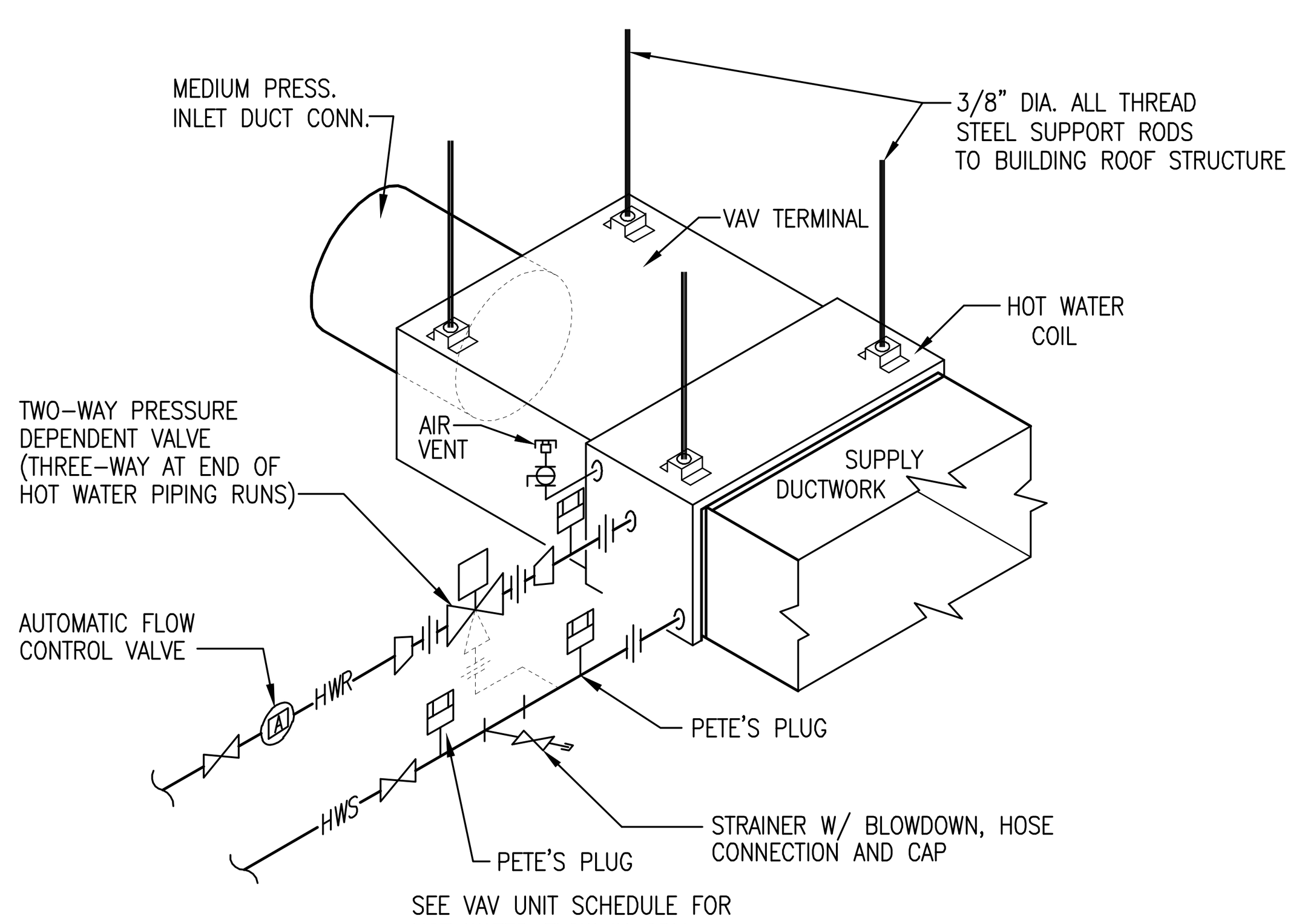
BLOUNT HIGH SCHOOL
BLKEF#1: 4400 CFM
BLKSF#1: 3700 CFM
DIFFERENTIAL: 700 CFM
DETERMINATION OF DIFFERENTIAL AIR FLOW AVAILABILITY: EXISTING CULINARY CLASSROOM HAS 6 EXISTING RANGES WITH INDIVIDUAL RESIDENTIAL STYLE EXHAUST HOODS/FANS. EXHAUST AIR FLOW RATES ARE 180 CFM (LOW SPEED) PER FAN. ACCORDINGLY, AIR FLOW AVAILABLE, AS A MINIMUM, IS 1080 CFM. MAINTAINING AN AIR FLOW DIFFERENTIAL THROUGH THE NEW KITCHEN HOOD, AS 85% OF EXHAUST (700 CFM) PROVIDES FOR PROPER HOOD OPERATION WITHOUT IMPACTING OVERALL BUILDING PRESSURIZATION OF THE SCHOOL.

DAVIDSON HIGH SCHOOL
DKEF#1: 5160 CFM
DKSF#1: 4360 CFM
DIFFERENTIAL: 800 CFM
DETERMINATION OF DIFFERENTIAL AIR FLOW AVAILABILITY: EXISTING CULINARY CLASSROOM HAS 8 EXISTING RANGES WITH INDIVIDUAL RESIDENTIAL STYLE EXHAUST HOODS/FANS. EXHAUST AIR FLOW RATES ARE 180 CFM (LOW SPEED) PER FAN. ACCORDINGLY, AIR FLOW AVAILABLE, AS A MINIMUM, IS 1440 CFM. MAINTAINING AN AIR FLOW DIFFERENTIAL THROUGH THE NEW KITCHEN HOOD, AS 85% OF EXHAUST (800 CFM) PROVIDES FOR PROPER HOOD OPERATION WITHOUT IMPACTING OVERALL BUILDING PRESSURIZATION OF THE SCHOOL.

MARY G. MONTGOMERY HIGH SCHOOL
MKEF#1: 3118 CFM
MKSF#1: 2580 CFM
DIFFERENTIAL: 538 CFM
DETERMINATION OF DIFFERENTIAL AIR FLOW AVAILABILITY: EXISTING CULINARY CLASSROOM HAS 6 EXISTING RANGES WITH INDIVIDUAL RESIDENTIAL STYLE EXHAUST HOODS/FANS. EXHAUST AIR FLOW RATES ARE 180 CFM (LOW SPEED) PER FAN. ACCORDINGLY, AIR FLOW AVAILABLE, AS A MINIMUM, IS 1080 CFM. MAINTAINING AN AIR FLOW DIFFERENTIAL THROUGH THE NEW KITCHEN HOOD, AS 83% OF EXHAUST (538 CFM) PROVIDES FOR PROPER HOOD OPERATION WITHOUT IMPACTING OVERALL BUILDING PRESSURIZATION OF THE SCHOOL.

VIGOR HIGH SCHOOL
VKEF#1: 4408 CFM
VKSF#1: 3710 CFM
DIFFERENTIAL: 698 CFM
DETERMINATION OF DIFFERENTIAL AIR FLOW AVAILABILITY: EXISTING CULINARY CLASSROOM HAS 5 EXISTING RANGES WITH INDIVIDUAL RESIDENTIAL STYLE EXHAUST HOODS/FANS. EXHAUST AIR FLOW RATES ARE 180 CFM (LOW SPEED) PER FAN. ACCORDINGLY, AIR FLOW AVAILABLE, AS A MINIMUM, IS 900 CFM. MAINTAINING AN AIR FLOW DIFFERENTIAL THROUGH THE NEW KITCHEN HOOD, AS 84% OF EXHAUST (698 CFM) PROVIDES FOR PROPER HOOD OPERATION WITHOUT IMPACTING OVERALL BUILDING PRESSURIZATION OF THE SCHOOL.

WILLIAMSON HIGH SCHOOL
WKEF#1: 4400 CFM
WKSF#1: 3710 CFM
DIFFERENTIAL: 700 CFM
DETERMINATION OF DIFFERENTIAL AIR FLOW AVAILABILITY: EXISTING CULINARY CLASSROOM HAS 5 EXISTING RANGES WITH INDIVIDUAL RESIDENTIAL STYLE EXHAUST HOODS/FANS. EXHAUST AIR FLOW RATES ARE 180 CFM (LOW SPEED) PER FAN. ACCORDINGLY, AIR FLOW AVAILABLE, AS A MINIMUM, IS 900 CFM. MAINTAINING AN AIR FLOW DIFFERENTIAL THROUGH THE NEW KITCHEN HOOD, AS 85% OF EXHAUST (698 CFM) PROVIDES FOR PROPER HOOD OPERATION WITHOUT IMPACTING OVERALL BUILDING PRESSURIZATION OF THE SCHOOL.

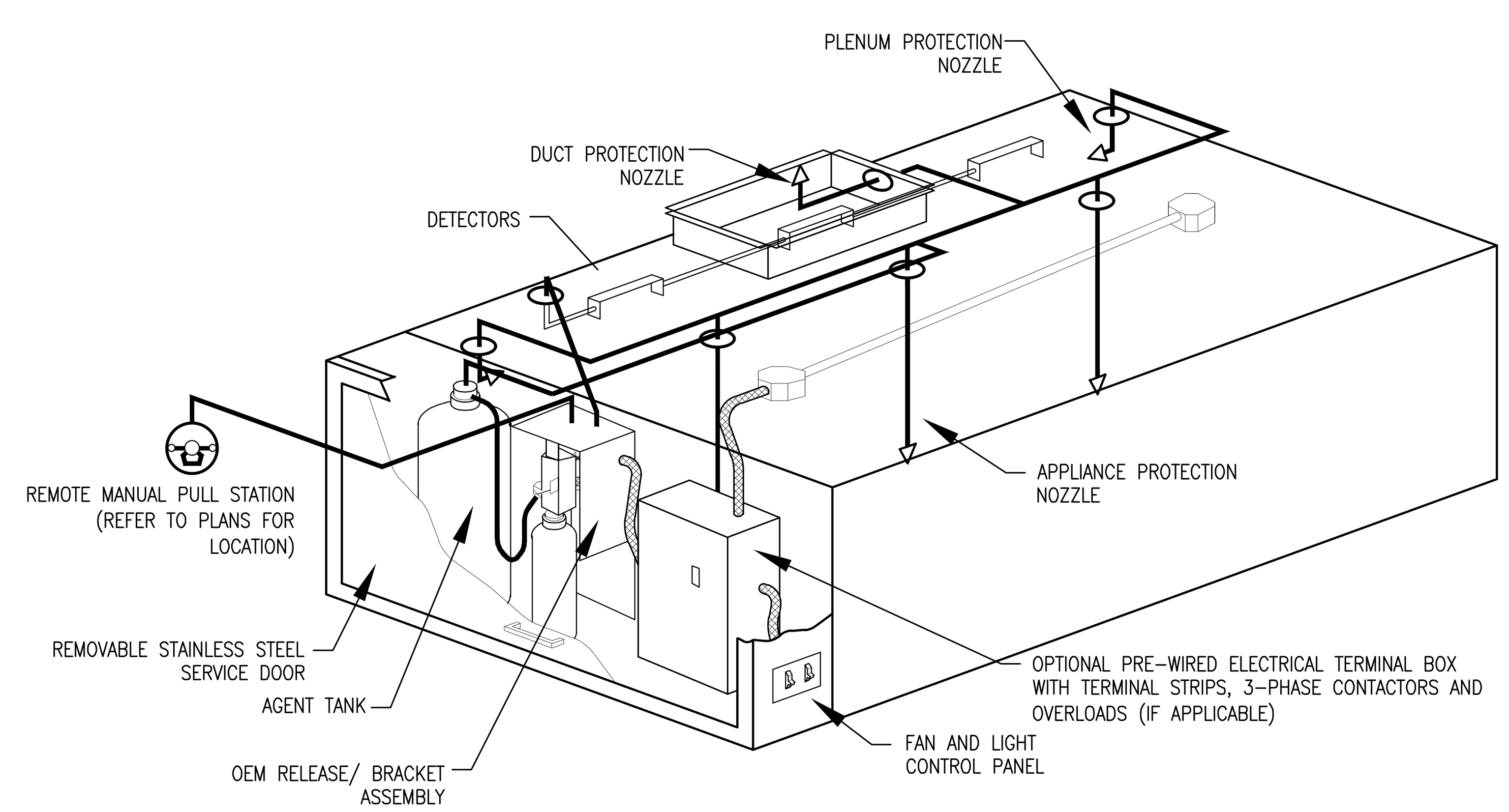


SEE VAV UNIT SCHEDULE FOR HOT WATER FLOW IN GPM

NOTES:
1. THE ENTIRE HOT WATER COIL ASSEMBLY WITH ALL HOT WATER PIPING FROM THE TWO WAY VALVE SHALL BE INSULATED. PROVIDE EXTERIOR DUCT INSULATION ON COIL ASSEMBLY AND 1" THICK FIBERGLASS WITH ALL SERVICE JACKET ON PIPING.

VAV BOX WITH REHEAT COIL DETAIL

NOT TO SCALE



TYPICAL FIRE SUPPRESION SYSTEM LAYOUT FOR TYPE 1 HOOD

NOT TO SCALE

NOTE: ALTERNATE CHEMICAL SYSTEMS ARE ACCEPTABLE SUBJECT TO UL CERTIFICATION AND MANUFACTURER'S APPROVAL.

H.M. YONGE & ASSOCIATES, INC.
CONSULTING ENGINEERS // EST. 1988
51 EAST GREGORY STREET, PENSACOLA, FLORIDA 32502, PHONE: (850)434-2661
253 ST. ANTHONY STREET, MOBILE, ALABAMA 36603, PHONE: (251)690-7446

MCPSS CULINARY ARTS RENOVATIONS
MOBILE COUNTY PUBLIC SCHOOL SYSTEM
CON DOCS
MOBILE COUNTY - 7 HIGH SCHOOL CAMPUS SITES
#2025-10

ARCHITECT OF RECORD :
allred stolarski architects
711 CHURCH STREET
OCEAN SPRINGS, MS 39564

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KITCHEN HOOD SCHEDULES AND DETAILS

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