

Date: 9/25/20
 Checked: MAM
 Drawn: TH
 REGISTERED ARCHITECT
 MICHAEL J. MCGOVERN, P.A.
 STATE OF NEW YORK
 License No. 022257-1

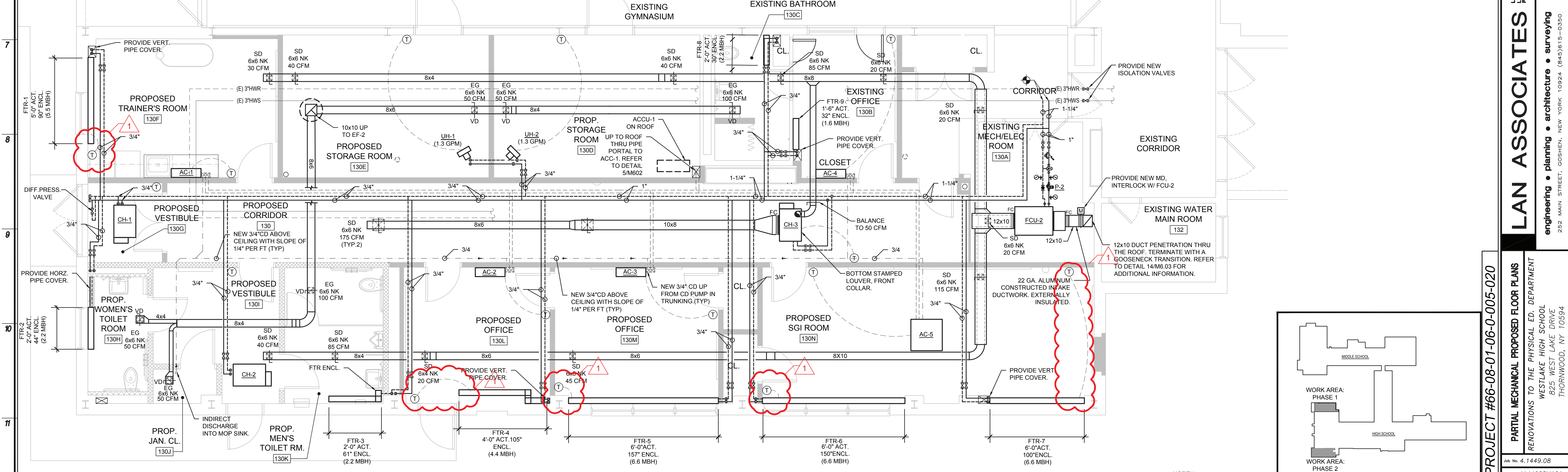
Revisions:
 1. NO CONFORMANCE SET 11/20/20
 2. NO ADDENDUM #3 1/22/21

UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DOCUMENT IS A VIOLATION OF SECTION 2209 OF THE NEW YORK STATE EDUCATION LAW. THESE DOCUMENTS REMAIN THE EXCLUSIVE PROPERTY OF THE ENGINEER, AND MAY NOT BE USED FOR ANY PURPOSE WHATSOEVER WITHOUT THE WRITTEN CONSENT OF THE ENGINEER.

LAN ASSOCIATES
 engineering • planning • architecture • surveying
 252 MAIN STREET, GOSHEN, NEW YORK 10924 (845) 615-0350

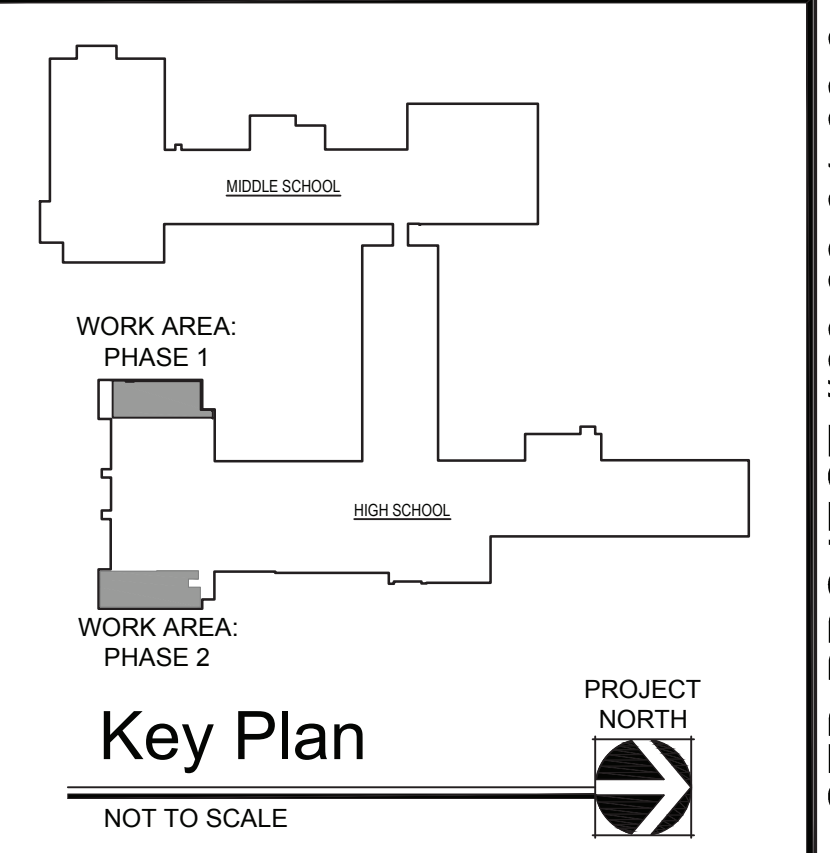
Partial (West) Proposed Plan

1
 M2.01
 1/4" = 1'-0"



Partial (East) Proposed Plan

2
 M2.01
 1/4" = 1'-0"



SED PROJECT #66-08-01-06-0-005-020
 PARTIAL MECHANICAL PROPOSED FLOOR PLANS
 RENOVATIONS TO THE PHYSICAL ED. DEPARTMENT
 WESTLAKE HIGH SCHOOL
 825 WEST LAKE DRIVE
 THORNWOOD, NY 10594
 Job No. 4.1449.08
 File No. 4144908M101
M2.01

EXHAUST FAN SCHEDULE (GREENHECK AS STANDARD)

TAG No.	QTY	CFM	ESP (IN.)	HP	RPM	ELECTRICAL DATA VOLT-PH-HZ	MODEL & MANUFACTURER	REMARKS
EF-1	1	1760	1.0	3/4	1725	208-3-60	GB-141-7 GREENHECK	BELT DRIVE CENTRIFUGAL ROOF MOUNTED, STANDARD MOTOR, NEMA-1 DISCONNECT SWITCH, BIRD SCREEN, 18" ROOF CURB & BACK DRAFT DAMPER, INTERLOCK W/ FCU-1. FAN TO BE CONNECTED TO (E) ALC ANDOVER BMS SYSTEM.
EF-2	1	400	0.75	1/4	1725	120-1-60	GB-101-4 GREENHECK	BELT DRIVE CENTRIFUGAL ROOF MOUNTED, STANDARD MOTOR, NEMA-1 DISCONNECT SWITCH, BIRD SCREEN, 18" ROOF CURB & BACK DRAFT DAMPER, INTERLOCK W/ FCU-2. FAN TO BE CONNECTED TO (E) ALC ANDOVER BMS SYSTEM.

DUCTLESS SPLIT-DX INDOOR AC/HEAT PUMP UNIT SCHEDULE (DAIKIN AS STANDARD)

TAG No.	AREA SERVED	AIR FLOW L-H (CFM)	OUTDOOR AIR (CFM)	COOLING			HEATING			ELECTRICAL DATA			DIMENSIONS LxWxH (IN)	APPROX. WEIGHT (LBS)	REFRIGERANT TYPE	REMARKS
				TBMH	SBMH	MBH	MODEL & MANUFACTURER	VOLT/PH-HZ	MCA	MOP						
AC-1	TRAINER'S ROOM 130F	180-290	-	11.0	8.3	13	FXAQ12PVJU	DAIKIN	208/1/60	0.4	15	31 x 12 x 9	30	R-410A	WALL-MOUNTED HEAT PUMP AC UNIT.	
AC-2	OFFICE 130M	180-290	-	11.0	8.3	13	FXAQ12PVJU	DAIKIN	208/1/60	0.4	15	31 x 12 x 9	30	R-410A	WALL-MOUNTED HEAT PUMP AC UNIT.	
AC-3	OFFICE 130L	175-280	-	8.0	7.0	8	FXAQ09PVJU	DAIKIN	208/1/60	0.4	15	31 x 12 x 9	30	R-410A	WALL-MOUNTED HEAT PUMP AC UNIT.	
AC-4	EXISTING OFFICE 130B	160-260	-	7.0	5.9	7	FXAQ07PVJU	DAIKIN	208/1/60	0.4	15	31 x 12 x 9	30	R-410A	WALL-MOUNTED HEAT PUMP AC UNIT.	
AC-5	SGI 130N	470-635	-	22.0	17.9	22.0	FXFQ24PVJU	DAIKIN	208/1/60	0.5	15	33 x 33 x 9	60	R-410A	CEILING-MOUNTED HEAT PUMP AC UNIT.	
AC-6	OFFICE 128D	160-260	-	7.0	7.0	7	CTXS07LVJU	DAIKIN	208/1/60	0.4	15	31 x 12 x 9	30	R-410A	WALL-MOUNTED HEAT PUMP AC UNIT.	
AC-7	OFFICE 128C	160-260	-	7.0	7.0	7	CTXS07LVJU	DAIKIN	208/1/60	0.4	15	31 x 12 x 9	30	R-410A	WALL-MOUNTED HEAT PUMP AC UNIT.	

- NOTES:
- FOR AC-1,2,3,4,6 & 7, PROVIDE WALL-MOUNTING PLATES, CONDENSATE PUMP W/ RESERVOIR SENSOR & ALARM CONTACT. PUMP TO BE POWERED BY AC UNIT.
 - PROVIDE PROPER REFRIGERANT FOR ALL UNITS.
 - INTERLOCK W/ RESPECTIVE ACCUS.
 - PROVIDE ONE (1) EXTRA SET OF WASHABLE FILTERS FOR EACH UNIT.
 - UNITS TO BE CONNECTED TO (E) ALC ANDOVER BMS SYSTEM.

OUTDOOR AIR-COOLED CONDENSING UNIT SCHEDULE (DAIKIN AS STANDARD)

TAG No.	LOCATION	UNIT SERVED	COOLING OPERATING TEMP. (°F)	HEATING OPERATING TEMP. (°F)	NOMINAL COOLING (MBH)	NOMINAL HEATING (MBH)	MODEL & MANUFACTURER	ELECTRICAL DATA VOLT/PH-HZ	COMPRESSOR NO.	COND. FAN NO.	MCA	MOP	REFRIGERANT TYPE	UNIT DIMENSIONS WxHxD (IN)	APPROX. WEIGHT (LBS)	SEER	REMARKS	
ACCU-1	ROOF	AC-1 THU 5	14 TO 115	-4 TO 75	59.0	63.0	RXTQ60TAVJU	DAIKIN	208/1/60	1	1	29.1	35	R-410A	36 x 53 x 13	225	18.0	SEE NOTES.
ACCU-2	ROOF	AC-6,7	14 TO 115	-4 TO 75	18	18.9	2MXS18NMVJU	DAIKIN	208/1/60	1	1	15.8	20	R-410A	34 x 28 x 12	125	18.9	SEE NOTES.

- NOTES:
- PROVIDE 24" HIGH, "PATE" MAKE (OR APPROVED EQUAL) EQUIPMENT ROOF SUPPORT CURBS FOR EACH UNIT.
 - PROVIDE W/ LOW AMBIENT CONTROL FOR ACCU-1 & 2.
 - INTERLOCK W/ RESPECTIVE AC UNITS FOR OPERATION.
 - ELECTRICAL CONTRACTOR SHALL FURNISH & INSTALL NEMA 3R DISCONNECT SWITCH & GFI CONVENIENCE OUTLET.
 - REFER TO ELECTRICAL DRAWINGS.
 - UNIT TO BE CONNECTED TO (E) ALC ANDOVER BMS SYSTEM.

FAN COIL UNIT SCHEDULE (GREENHECK AS STANDARD)

MARK No.	UNIT LOCATION	UNIT SIZE W x L x H	ELECTRICAL DATA VOLT-PH-HZ	HP	CFM	ESP IN	MIN OA CFM	COIL ROWS	HEATING				MODEL & MANUFACTURER	REMARKS	
									MBH	EWT/LWT	LAT °	GPM			
FC-1	WEST SIDE	40 x 44 x 21	208 - 3 - 60	180	1,650	1.0	1,650	2	137.4	180/160	85	14.2	3.3	TBH-16 GREENHECK	W/ WALL BOX, DUCT COLLAR, ASHARE CYCLE II CONTROL, 3-WAY CONTROL VALVE PIPING PACKAGE, REMOTE ROOM THERMOSTAT. UNIT TO BE CONNECTED TO (E) ALC ANDOVER BMS SYSTEM.
FC-2	EAST SIDE	30 x 40 x 21	208 - 3 - 60	120	610	0.75	610	2	52.4	180/160	87.4	5.4	7.2	TBH-08 GREENHECK	W/ WALL BOX, DUCT COLLAR, ASHARE CYCLE II CONTROL, 3-WAY CONTROL VALVE PIPING PACKAGE, REMOTE ROOM THERMOSTAT. UNIT TO BE CONNECTED TO (E) ALC ANDOVER BMS SYSTEM.

HOT WATER FINNED TUBE RADIATION SCHEDULE (STERLING AS STANDARD)

TAG NO.	LOCATION	TUBE SIZE	FIN PER FT.	ACTIVE ELEMENT LENGTH	BTU/HR-FT	TIERS	HOT WATER HEATING				MODEL & MANUFACTURER	REMARKS
							MBH	EWT (°F)	LWT (°F)	GPM		
FTR-1	TRAINER'S RM130F	3/4"	50	5'-0"	1,110	1	5.5	180	160	0.5	JVB-F STERLING	PROVIDE W/ WATER BRACKETS W/ HANGERS. 1,2,4,5.
FTR-2	WOMAN'S TOILET 130H	3/4"	50	2'-0"	1,110	1	2.2	180	160	0.5	JVB-F STERLING	PROVIDE W/ WATER BRACKETS W/ HANGERS. 1,2,3,5.
FTR-3	MEW'S BATHROOM 130K	3/4"	50	2'-0"	1,110	1	2.2	180	160	0.5	JVB-F STERLING	PROVIDE W/ WATER BRACKETS W/ HANGERS. 1,2,3,5.
FTR-4	OFFICE 130L	3/4"	50	5'-0"	1,110	1	5.5	180	160	0.5	JVB-F STERLING	PROVIDE W/ WATER BRACKETS W/ HANGERS. 1,2,4,5.
FTR-5	OFFICE 130M	3/4"	50	6'-0"	1,110	1	6.6	180	160	0.6	JVB-F STERLING	PROVIDE W/ WATER BRACKETS W/ HANGERS. 1,2,4,5.
FTR-6,7	SGI 130N	3/4"	50	6'-0"	1,110	1	6.6	180	160	0.6	JVB-F STERLING	PROVIDE W/ WATER BRACKETS W/ HANGERS. 1,2,4,5.
FTR-8	EXIST. TOILET	3/4"	50	2'-0"	1,110	1	2.2	180	160	0.5	JVB-F STERLING	PROVIDE W/ WATER BRACKETS W/ HANGERS. 1,2,3,5.
FTR-9	EXIST. OFFICE	3/4"	50	1'-6"	1,110	1	1.6	180	160	0.5	JVB-F STERLING	PROVIDE W/ WATER BRACKETS W/ HANGERS. 1,2,4,5.
FTR-10,11	GIRL'S/BOY'S BATHROOMS	3/4"	50	2'-6"	1,110	1	2.7	180	160	0.5	JVB-F STERLING	PROVIDE W/ WATER BRACKETS W/ HANGERS. 1,2,3,5.
FTR-12,13	OFFICE 129C/128D	3/4"	50	2'-6"	1,110	1	2.7	180	160	0.5	JVB-F STERLING	PROVIDE W/ WATER BRACKETS W/ HANGERS. 1,2,4,5.
FTR-14	BATHROOM 128E	3/4"	50	2'-0"	1,110	1	2.6	180	160	0.5	JVB-F STERLING	PROVIDE W/ WATER BRACKETS W/ HANGERS. 1,2,3,5.

- NOTES:
- ALL FTRs SHALL BE 14" H x 5-5/16" D. THE LENGTH INDICATED IN ABOVE SCHEDULE IS ACTIVE FINNED TUBE LENGTH. THE OVERALL LENGTH OF COVERS (ENCLOSURES) SHALL BE WALL TO WALL OR AS INDICATED ON FLOOR PLANS.
 - PROVIDE W/ MIN. 14 GAUGE GALVANIZED STEEL FRONT COVER, 18 GA. FULL HEIGHT BACK PANEL, AIR VENT, CORNER PIECES, SPLICE PLATES, END CAPS, VALVE ENCLOSURE COVERS, WALL TO WALL COVER WATER BRACKETS, AIR RESISTANT DAMPERS. ENCLOSURE SAME GAUGE AND FINISH AS COVERS WHERE INDICATED.
 - PROVIDE DANFOSS CONTROL VALVE W/ UNIT MOUNTED THERMOSTAT.
 - PROVIDE 2-WAY CONTROL VALVE W/ WALL MOUNTED THERMOSTAT.
 - FTR TO BE CONNECTED TO (E) ALC ANDOVER BMS SYSTEM.

HOT WATER CABINET HEATER SCHEDULE (TRANE AS STANDARD)

TAG NO.	AREA SERVED	S.A. CFM	O.A. CFM	HOT WATER HEATING			HP	ELECTRICAL DATA V - PH - HZ	FLA	MOP	MODEL & MANUFACTURER	DIMENSIONS (L x W x H) (IN)	APPROX. UNIT WEIGHT (LBS)	REMARKS		
				MBH	EWT (°F)	LWT (°F)										
CH-1,2	VESTIBULES	220	-	5.0	180	160	0.5	0.22	208 - 1 - 60	1.8	15	FF MODEL E	TRANE	34 x 25 x 10	100	SEE NOTES.
CH-3	CORRIDOR 130	350	50	5.3	180	160	0.5	0.22	208 - 1 - 60	1.9	15	FF MODEL C	TRANE	26 x 27 x 10	100	SEE NOTES.

- NOTES:
- PROVIDE W/ HW HEATING COIL, FACTORY INSTALLED DELUXE PIPING PACKAGE OPTION # W/ 2-WAY MODULATING CONTROL VALVE FOR EACH UNIT.
 - PROVIDE W/ ECM MOTOR, FILTERS, KEYLOCK PANEL & ACCESS DOOR, & DISCONNECT SWITCH FOR EACH UNIT.
 - PROVIDE W/ BOTTOM STAMPED INLET & OUTLET LOUVERS FOR CEILING-HUNG HORIZONTAL UNITS.
 - UNIT TO BE CONNECTED TO (E) ALC ANDOVER BMS SYSTEM.
 - ALL UNITS TO BE CONNECTED TO (E) ALC ANDOVER BMS SYSTEM.

HOT WATER UNIT HEATER SCHEDULE (REZNOR AS STANDARD)

TAG NO.	LOCATION	CFM	HP	HOT WATER HEATING				ELECTRICAL DATA V - PH - HZ	MODEL & MANUFACTURER	REMARKS	
				MBH	EWT (°F)	LWT (°F)	GPM				
UH-1,2	STORAGE 130E/130E	270	0.04	13	180	160	1.3	0.06	115 - 1 - 60	WS-18/24 REZNOR	PROVIDE W/ 4-WAY DIFFUSER, OSHA FAN GUARD, DISCONNECT SWITCH, TRANSFORMER, 2-WAY CONTROL VALVE & HEAVY DUTY THERMOSTAT. CONNECT TO (E) ALC ANDOVER BMS SYSTEM.

PUMP SCHEDULE

MARK No.	GPM	FT. HD.	HP	RPM	ELECTRIC DATA VOLT - PH - HZ	MODEL & MANUFACTURER	REMARKS
P - 1	14.2	15	1/6	3300	115-1-60	SERIES PL PL-45 BELL & GOSSETT	W/ FITTINGS PER SPECIFICATION. CONNECT PUMPS TO (E) ALC ANDOVER BMS SYSTEM.
P - 2	5.4	12	1/6	3300	115-1-60	SERIES PL PL-36 BELL & GOSSETT	W/ FITTINGS PER SPECIFICATION. CONNECT PUMPS TO (E) ALC ANDOVER BMS SYSTEM.

Date: 9/25/20
Checked: Value
Drawn: Value

REGISTERED ARCHITECT
MICHAEL J. MCGOVERN, R.A.
02227-1
STATE OF NEW YORK

Revisions:
B0 CONFORMANCE SET 11/26/20
B0 ADDENDUM #3 1/22/21

UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DOCUMENT IS A VIOLATION OF SECTION 2209 OF THE NEW YORK STATE EDUCATION LAW. THESE DOCUMENTS REMAIN THE EXCLUSIVE PROPERTY OF THE ENGINEER, AND MAY NOT BE USED FOR ANY PURPOSE WHATSOEVER WITHOUT THE WRITTEN CONSENT OF THE ENGINEER.

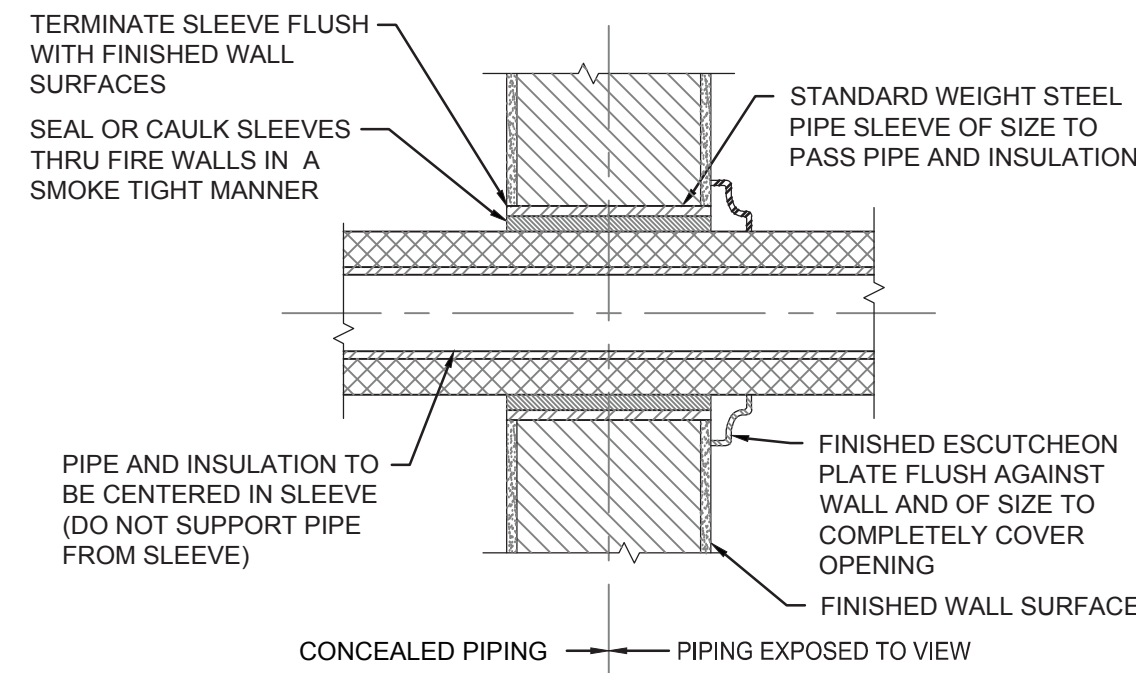
JLB
LAN ASSOCIATES
engineering • planning • architecture • surveying
252 MAIN STREET, GOSHEN, NEW YORK 10924 (845)818-0350

MECHANICAL SCHEDULES
RENOVATIONS TO THE PHYSICAL ED. DEPARTMENT
WESTLAKE HIGH SCHOOL
825 WEST LAKE DRIVE
THORNWOOD, NY 10594

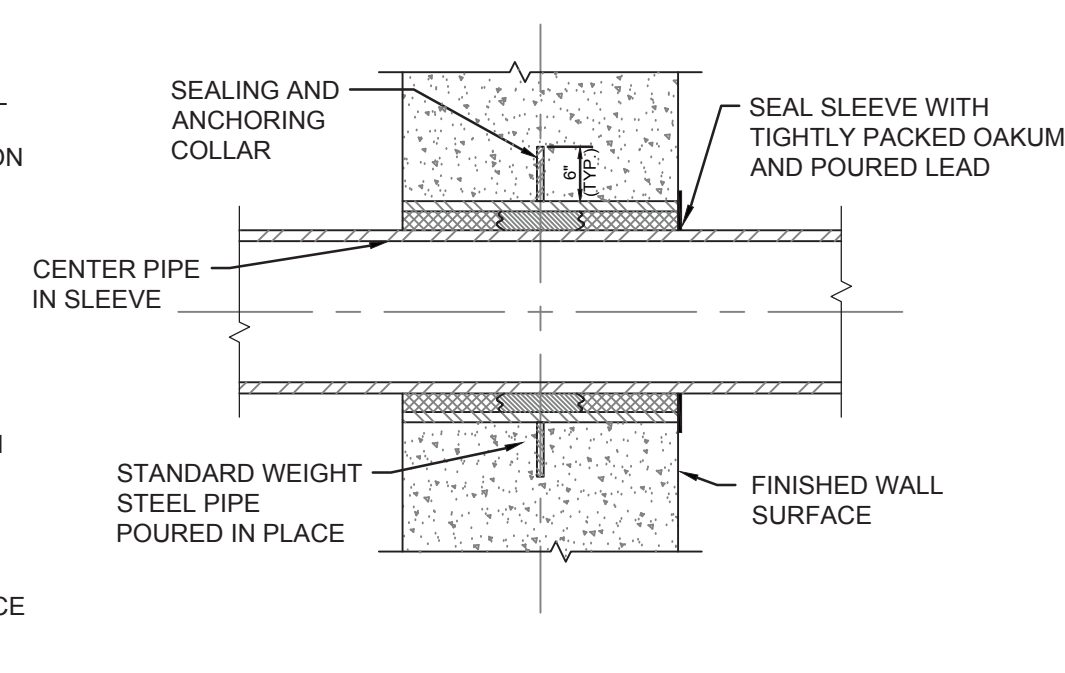
Job No. 4.1449.08
File No. 4144908M101

M6.01

SED PROJECT #66-08-01-06-0-005-020



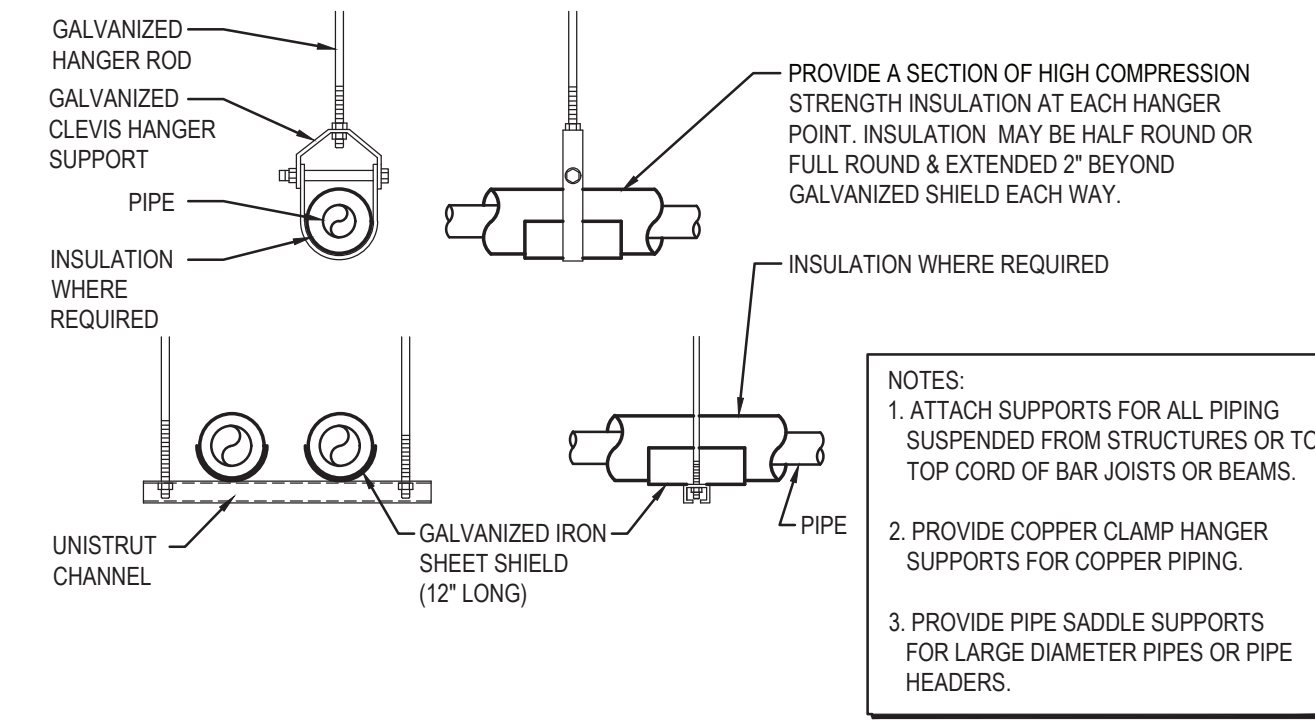
INTERIOR WALLS



EXTERIOR WALLS

9 PIPE SLEEVES THRU WALL DETAILS

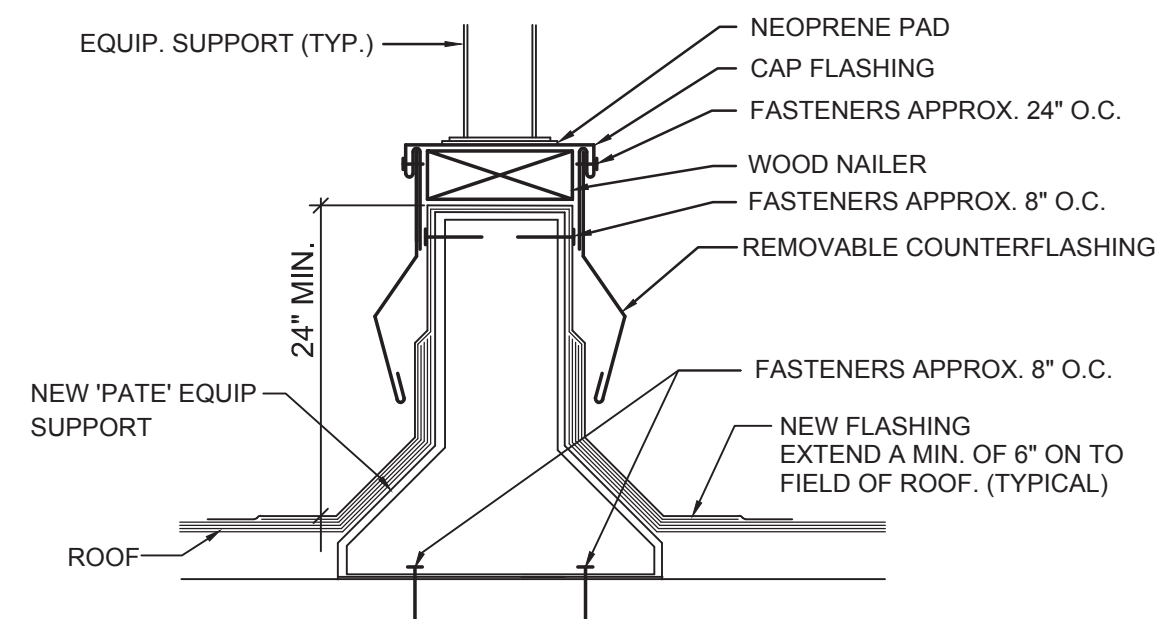
NOT TO SCALE



10 PIPE SUPPORT HANGERS

NOT TO SCALE

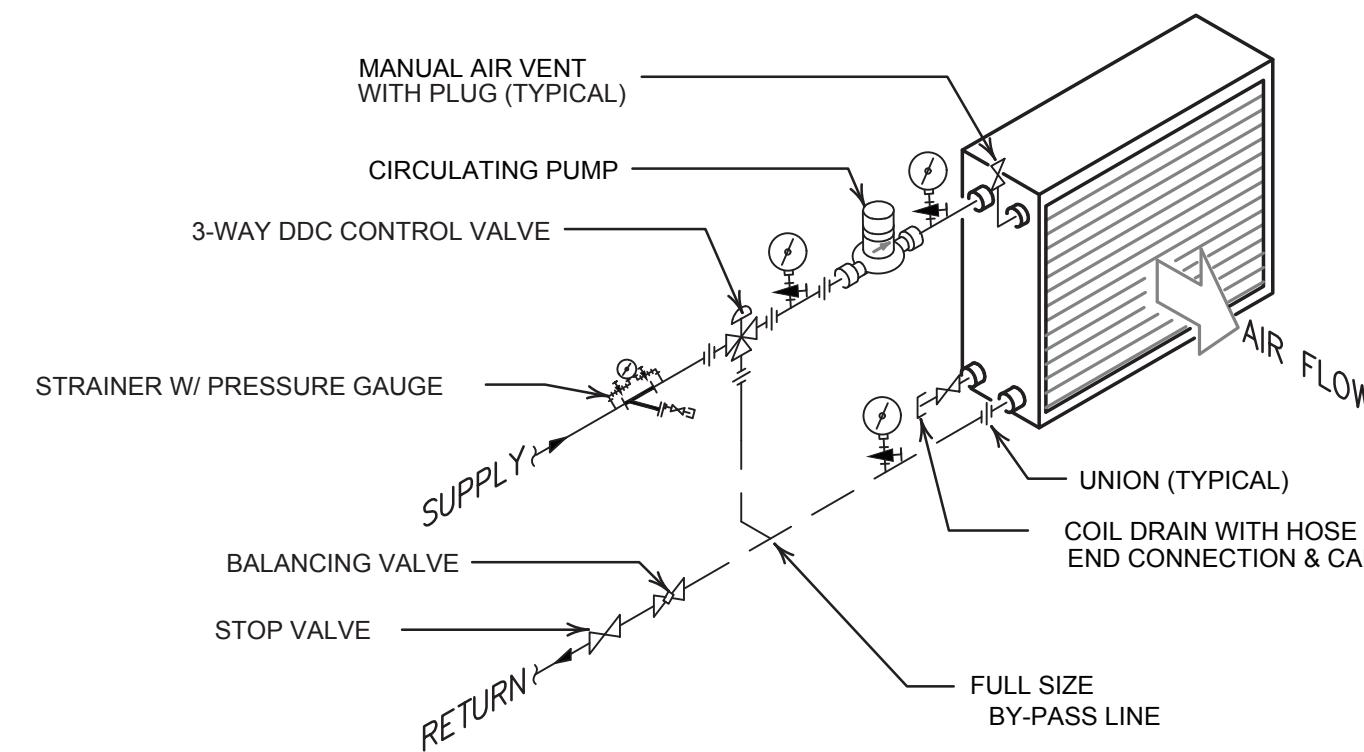
INSTALL NEW CURB PERPENDICULAR TO STEEL PLATES OF ROOF DECK. PROVIDE CRICKET IN ROOF TO DIVERT ROOF WATER AROUND CURBS.



11 EQUIPMENT SUPPORT DETAIL

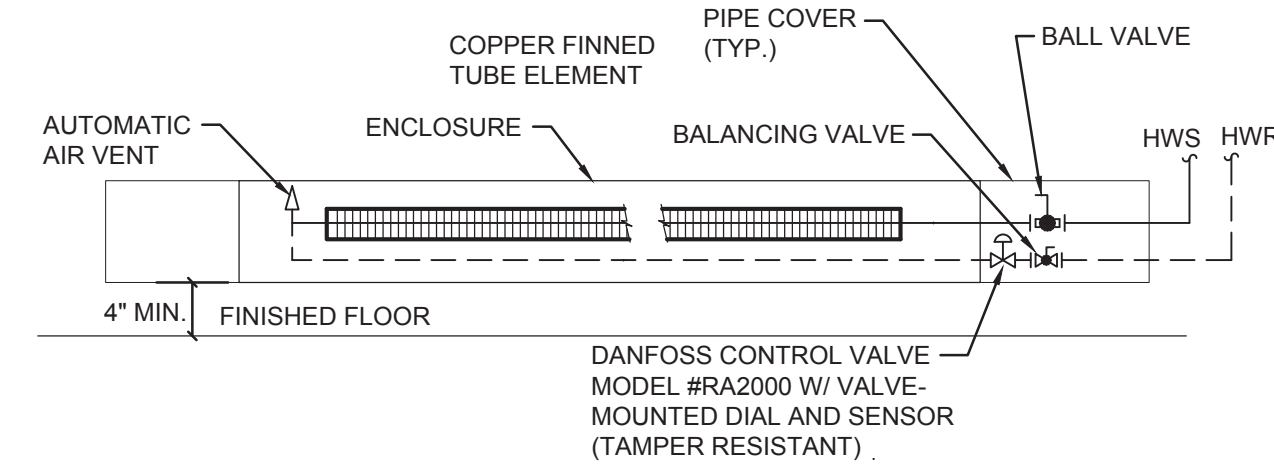
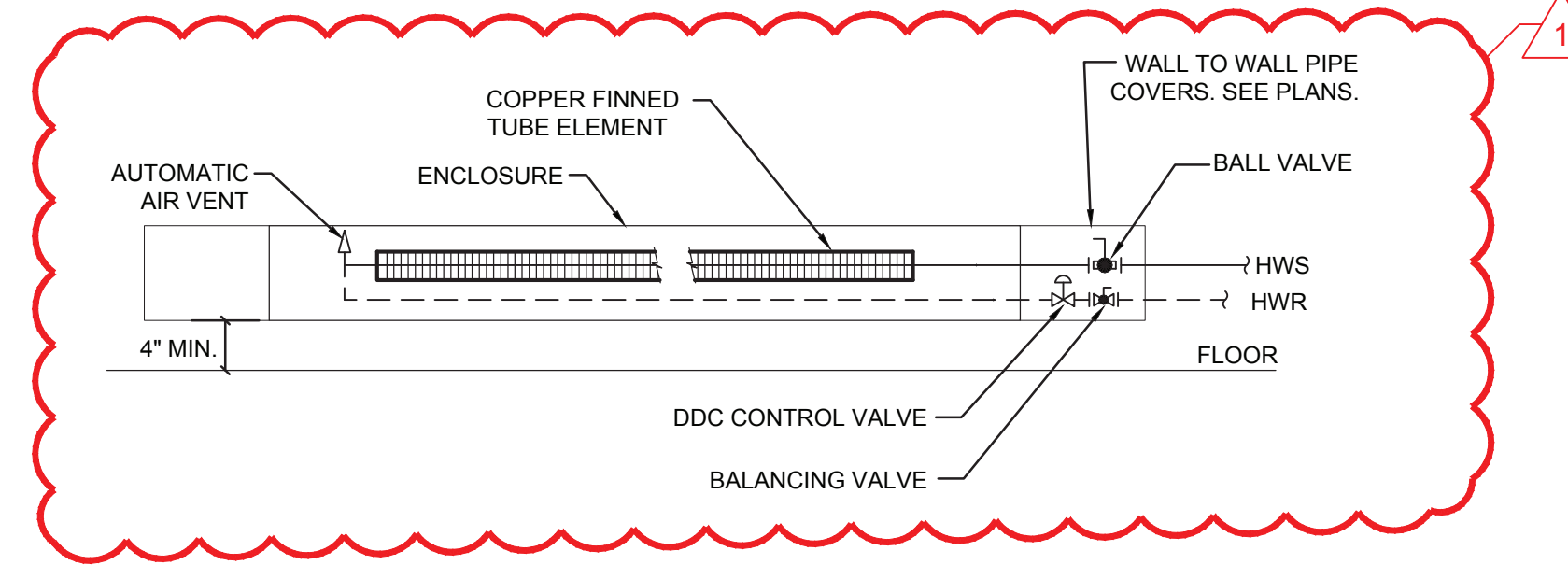
NOT TO SCALE

- NOTES:
- INSULATE ALL PIPING, VALVES, FITTINGS AND ACCESSORIES. RE: SPECIFICATIONS
 - INSTALL TEST PLUGS IN EASILY ACCESSIBLE LOCATIONS WITH MINIMUM OF 12" CLEARANCE IN FRONT.



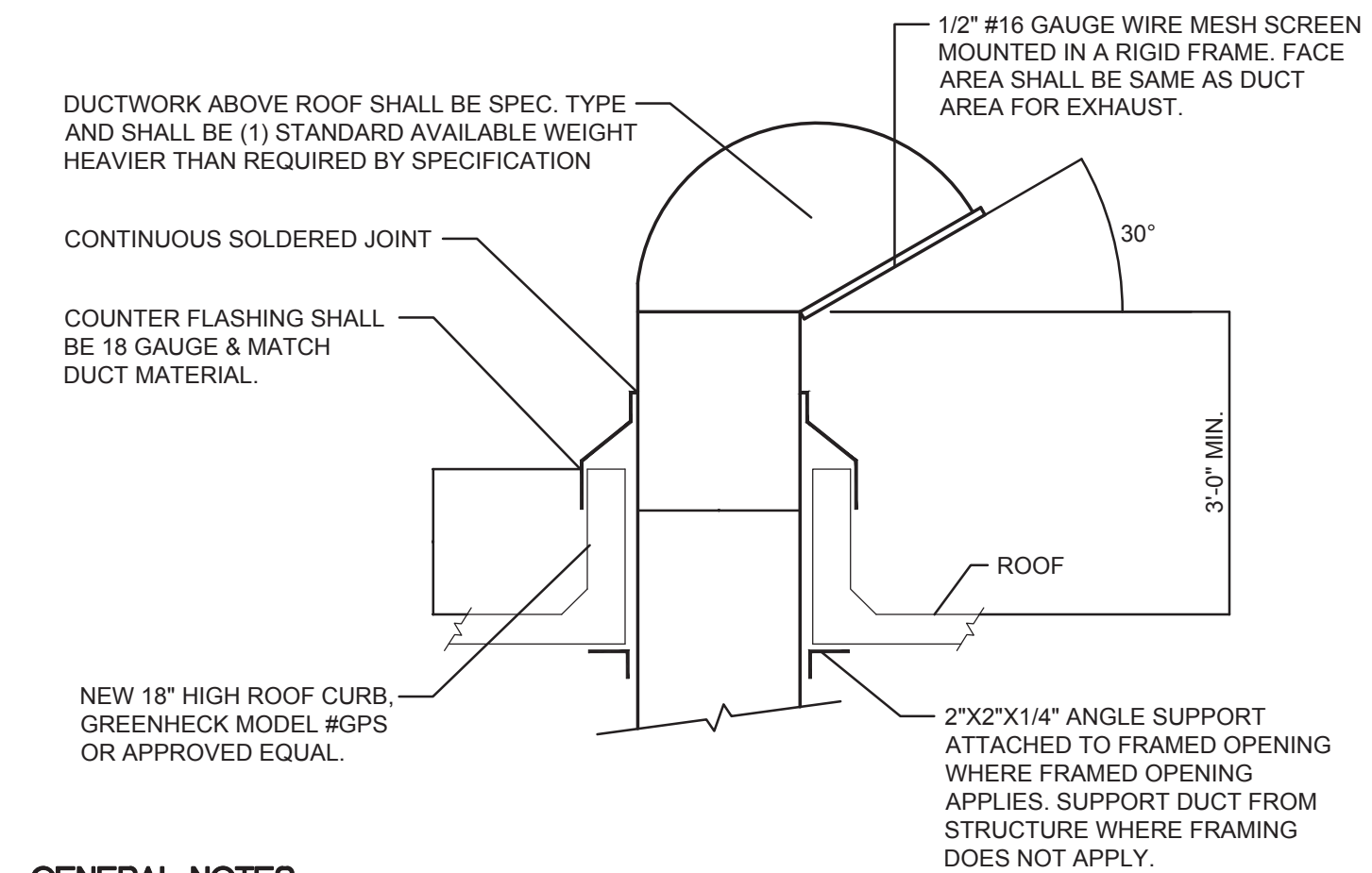
12 SECONDARY LOOP PIPING DETAIL

NOT TO SCALE



13 HOT WATER FTR PIPING W/ CONTROL VALVES DETAIL

NOT TO SCALE



GENERAL NOTES:

- ALL ROOFING ASSOCIATED WITH MECHANICAL WORK IS TO BE BY MECHANICAL CONTRACTOR. THIS INCLUDES CUTTING OF DECK, BLOCKING, CURBS, SUPPORTS ANGLES AND ROOFING PATCH BACK, FLASHING, ETC. (SEE DRAWING A2.03)
- MECHANICAL CONTRACTOR WILL HIRE A ROOFING SUBCONTRACTOR WHO IS CERTIFIED WITH THE EXISTING ROOF MANUFACTURER IN ORDER TO MAINTAIN THE EXISTING WARRANTY.

14 GOSSENECK VENT DETAIL

NOT TO SCALE

VENTILATION SCHEDULE

Room Name	Floor Area (Sq. Ft.)	Required O.A. per Sq. Ft.	Required O.A. For Space	No. of People	Required O.A. per Person	Required OA For Occupants	Total Min. O.A. Required (CFM)	Zone Air Effectiveness	Zone Min. O.A. Required (CFM)	Design		Remarks
										O.A. (CFM)	E.A. (CFM)	
WEST SIDE LOCKER ROOM												
GIRL'S LOCKER ROOM 128A	697	-	-	-	-	-	-	-	-	750	555	0.25/SF
BATHROOM 128F	190	-	-	-	-	-	-	-	-	-	250	50CFM/FIXT.
LOBBY	43	0.06	3	-	-	-	3	0.8	3	20	-	-
OFFICE 128D	115	0.06	7	1	5	5	12	0.8	15	20	-	-
BATHROOM 128G	200	-	-	-	-	-	-	-	-	-	250	50CFM/FIXT.
BOY'S LOCKER ROOM 128B	677	0.06	41	-	-	-	41	0.8	51	750	555	0.25/SF
OFFICE BATHROOM 128E	127	-	-	-	-	-	-	-	-	-	100	50CFM/FIXT.
OFFICE 128C	115	0.06	7	1	5	5	13	0.8	16	20	-	-
CORRIDOR TO LOCKER	60	0.06	4	-	-	-	-	-	4	20	-	DOOR TRANSFER
JANITOR'S CLOSET 128I	15	-	-	-	-	-	-	-	-	-	50	-
MECHANICAL ROOM 128H	247	0.12	30	-	10	-	30	0.8	37	70	-	50CFM/FIXT.
EAST SIDE												
TRAINER'S ROOM 130F	200	0.06	12	2	5	10	22	0.8	28	30	-	-
STORAGE 130E	224	0.12	27	-	-	-	27	0.8	34	40	50	-
STORAGE 130D	224	0.12	27	-	-	-	-	0.8	34	40	50	-
BATHROOM 130C	66	-	-	-	-	-	-	0.8	-	85	100	50CFM/SF/
OFFICE 130B	102	0.06	6	1	5	5	11	0.8	14	20	-	-
CORRIDOR	105	0.06	6	-	-	-	6	0.8	8	20	-	-
MECHANICAL ROOM 130A	125	0.12	15	-	-	-	-	-	15	20	-	-
CORRIDOR 130	477	0.06	29	-	-	-	29	0.8	36	50	-	-
VESTIVULE 130G	45	0.06	3	-	-	-	3	0.8	3	-	-	DOOR TRANSFER
WOME'S TOILET 130H	53	-	-	-	-	-	-	-	-	-	50	50CFM/FIXT.
JANITO'S CLOSET 130J	16	0.06	-	-	-	-	-	-	-	-	50	50CFM/FIXT.
VESTIVULE 130I	108	0.06	6	-	-	-	6	0.8	8	40	-	-
MEN'S BATHROOM 130K	99	-	-	-	-	-	-	-	-	85	100	50CFM/FIXT.
OFFICE 130L	150	0.06	9	1	5	5	14	0.8	18	20	-	-
OFFICE 130M	167	0.06	10	5	5	25	35	0.8	44	45	-	-
SGI ROOM 130N	343	0.12	41	10	5	50	91	0.8	114	115	-	-
TOTAL	4,990		281	21		105	342					

Date: 9/25/20
Checked: Value
Drawn: Value
MICHAEL J. MCGOVERN, P.A.
REGISTERED ARCHITECT
STATE OF NEW YORK
License No. 02227-1

Revisions:
1. BD CONFORMANCE SET 11/20/20
2. BD ADDENDUM #3 1/22/21

UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DOCUMENT IS A VIOLATION OF SECTION 2209 OF THE NEW YORK STATE EDUCATION LAW. THESE DOCUMENTS REMAIN THE EXCLUSIVE PROPERTY OF THE ENGINEER, AND MAY NOT BE USED FOR ANY PURPOSE WHATSOEVER WITHOUT THE WRITTEN CONSENT OF THE ENGINEER.

JJA
LAN ASSOCIATES
engineering • planning • architecture • surveying
252 MAIN STREET, GOSHEN, NEW YORK 10924 (845)815-0350

SED PROJECT #66-08-01-06-0-005-020
MECHANICAL DETAILS & VENT. SCHED.
RENOVATIONS TO THE PHYSICAL ED. DEPARTMENT
WESTLAKE HIGH SCHOOL
825 WEST LAKE DRIVE
THORNWOOD, NY 10594

Job No. 4.1449.08
File No. 4144908M101

M6.03