EXISTING AIR HANDLING UNIT SCHEDULE

ID	SUPPLY FAN AIR FLOW (CFM)	SUPPLY FAN E.SP. (IN H20)	RETURN FAN/AIRFLOW AIR FLOW (CFM)	RETURN FAN/AIRFLOW E.S.P. (IN H20)	DESIGN OUTSIDE AIRFLOW (CFM)
AHU-2	6000	2.00	6000	1.00	1200

SCHEDULE NOTES:

1. FOR REFERENCE ONLY

FAN POWERED VARIABLE AIR VOLUME TERMINAL UNIT SCHEDULE

ID	MANUFACTURER *	MODEL NO.	INLET SIZE	PRIMARY AIRFLOW MAX	PRIMARY AIRFLOW MIN	FAN AIRFLOW DESIGN	FAN MOTOR POWER	HEATING COIL CAP	HEATING COIL AIRSIDE DESIGN FLOW	HEATING COIL AIRSIDE LAT(db)	HEATING COIL WATERSIDE FLOW	VOLT	PH	REMARKS
FPB-2-1	TITUS	DTQP	12	1500 CFM	380 CFM	750 CFM	0.25 hp	41000 Btu/h	1130 CFM	99.0 °F	2.1 GPM	277 V	1	
FPB-2-2	TITUS	DTQP	12	800 CFM	200 CFM	400 CFM	0.17 hp	22000 Btu/h	600 CFM	99.0 °F	1.1 GPM	277 V	1	

FAN POWERED VAV BOX SCHEDULE NOTES:

1. MINIMUM INLET PRESSURE TO BOX SHALL BE 0.75"W.G.
2. MAXIMUM PRESSURE DROP THRU BOX (INCLUDING COIL) SHALL BE 0.25" S.P.
3. FURNISH BOXES WITH: DDC CONTROLS, ACOUSTICAL LINING, FILTER AND FRAME, THERMOSTAT, CONTROL VOLTAGE TRANSFORMER AND BE U.L. LABELED.
4. FAN SHALL PROVIDE 0.25" E.S.P.,NOT INCLUDING HOT WATER COIL.
5. BOXES SHALL BE PROVIDED WITH NIGHT SET BACK AND MORNING WARM UP CONTROLS.
6. DDC CONTROLS SHALL BE FURNISHED TO THE BOX MANUFACTURER BY THE CONTROLS VENDOR. BOX MANUFACTURER SHALL FACTORY MOUNT AND WIRE CONTROLS. INSTALLATION OF CONTROLS SHALL INCLUDE CONTROLS TRANSFORMER, FAN RELAY, CONTROL BOARD, AIR FLOW PROBE, CONTROL COVER, AND ALL WIRING AND LABOR FOR A COMPLETE AND OPERATIONAL SYSTEM.
7. EACH FAN BOX SHALL BE WIRED TO SHUT-DOWN UPON SMOKE SIGNAL ALONG WITH VAV AHU.
8. HW COIL PERFORMANCE BASED ON 2-ROW COIL WITH 180°F E.W.T AND 140°F L.W.T.
9. PROVIDE TWO SETS OF FILTERS. ONE FOR USE DURING CONSTRUCTION AND A SECOND SET TO BE INSTALLED AT BUILDING TURNOVER.

* MATCH EXISTING BUILDING STANDARD.

VARIABLE AIR VOLUME TERMINAL UNIT SCHEDULE

ID	MANUFACTURER *	MODEL NO. *	NECK SIZE	TYPE	PRIMARY AIRFLOW MAX	PRIMARY AIRFLOW MIN	HEATING COIL CAP	AIRSIDE DESIGN FLOW	AIRSIDE EAT(db)	AIRSIDE LAT(db)	WATERSIDE FLOW	WATERSIDE EWT	WATERSIDE LWT
VAV-2-1	TITUS	DESV	10	SINGLE DUCT	850 CFM	260 CFM	19000 Btu/h	430 CFM	55.0 °F	95.0 °F	1.0 GPM	180 °F	140 °F
VAV-2-2	TITUS	DESV	8	SINGLE DUCT	600 CFM	180 CFM	13000 Btu/h	300 CFM	55.0 °F	95.0 °F	1.0 GPM	180 °F	140 °F
VAV-2-3	TITUS	DESV	8	SINGLE DUCT	550 CFM	170 CFM	13000 Btu/h	280 CFM	55.0 °F	95.0 °F	1.0 GPM	180 °F	140 °F
VAV-2-4	TITUS	DESV	10	SINGLE DUCT	1100 CFM	330 CFM	24000 Btu/h	550 CFM	55.0 °F	95.0 °F	1.2 GPM	180 °F	140 °F
VAV-2-5	TITUS	DESV	8	SINGLE DUCT	550 CFM	170 CFM	13000 Btu/h	280 CFM	55.0 °F	95.0 °F	1.0 GPM	180 °F	140 °F
VAV-2-6	TITUS	DESV	10	SINGLE DUCT	800 CFM	240 CFM	18000 Btu/h	400 CFM	55.0 °F	95.0 °F	1.0 GPM	180 °F	140 °F
VAV-2-7	TITUS	DESV	10	SINGLE DUCT	725 CFM	200 CFM	16000 Btu/h	370 CFM	55.0 °F	95.0 °F	1.0 GPM	180 °F	140 °F

NOTES:

1. MINIMUM INLET PRESSURE TO BOX SHALL BE 0.75" W.G.
2. MAXIMUM PRESSURE DROP THROUGH BOX (INCLUDING COILS) SHALL BE 0.25" W.G.
3. FURNISH BOXES WITH: DDC CONTROLS (TO MATCH EXISTING BUILDING STANDARD), ACOUSTIC LINING, THERMOSTAT (TO MATCH EXISTING BUILDING STANDARD), ELECTRIC ACTUATOR, AIR FLOW SENSOR, AIR FLOW CONTROLLER, CONTROL VOLTAGE TRANSFORMER, 2-ROW HW COIL WITH CORRECT 'HAND' CONNECTION, SEE NEW WORK PLAN) AND BE U.L. LABELED.
4. VAV TERMINAL SHALL BE PROVIDED WITH PRIMARY AIR DUCT SENSOR FOR MORNING WARM UP SEQUENCE.
5. DDC CONTROLS SHALL BE FURNISHED TO THE BOX MANUFACTUER BY THE CONTROLS VENDOR. BOX MANUFACTURER SHALL FACTORY MOUNT AND WIRE CONTROLS. INSTALLATION OF CONTROLS SHALL INCLUDE CONTROLS TRANSFORMER, AIR FLOW PROBE, CONTROL COVER, AND ALL WIRING AND LABOR FOR A COMPLETE AND OPERATION SYSTEM.

* MATCH EXISTING BUILDING STANDARD.

VENTILATION CALCULATIONS (NCMC 2018, SECT 403):

OCCUPANCY CLASSIFICATION	PEOPLE O/A RATE IN BREATHING ZONE (CFM/PERSON)	AREA O/A RATE IN BREATHING ZONE (CFM/SQ. FT.)	DEFAULT OCCUPANCY DENSITY, PEOPLE PER 1000 SQ. FT.	EXHAUST AIRFLOW RATE (CFM/FIXTURE)	AREA (SQ. FT.)	CALCULATED OCCUPANCY (PEOPLE)	CALCULATED PEOPLE O/A (CFM)	CALCULATED AREA O/A (CFM)	CALCULATED AREA E/A (CFM)
OFFICE SPACE	5	0.06	5	-	1627	9	45	98	--
CONFERENCE ROOMS	5	0.06	50	-	1138	57	285	68	--
RECEPTION AREAS	5	0.06	30	-	326	10	50	20	--
LOBBY/PREFUNCTION	7.5	0.06	30	-	390	12	90	23	--
CORRIDORS	0	0.06	0	-	1231	0	0	74	--
STORAGE ROOMS	0	0.12	0	-	172	0	0	21	--
TOILET ROOMS	--	--	--	50	4	(FIXTURES)	--	--	200
			TOTAL OUTSIDE AIR REQUIRED (PEOPLE + AREA, CFM)				970		
			TOTAL OUTSIDE AIR PROVIDED (CFM)				1200 ✳		
				TOTAL EXHAUST AIR REQUIRED (CFM)					200
				TOTAL EXHAUST AIR PROVIDED (CFM)					300

✳ CONTRACTOR TO VERIFY EXISTING AIR HANDLER OA DAMPER POSITION, INTAKE VOLUME, AND SA/OA PERCENTAGE DURING PRE-DEMO TEST AND BALANCE. CONTRACTOR TO BALANCE AHU OA DAMPER TO PROVIDE REQUIRED OA AIRFLOW PERCENTAGE (COORDINATE WITH UNC PM PRIOR TO ADJUSTING OA DAMPER SETPOINT).

GRILLES, REGISTERS AND DIFFUSERS SCHEDULE

ID	DESCRIPTION	MANUF.	MODEL	FINISH	FACE SIZE	NECK SIZE	NOTES
A	PLAQUE DIFFUSER	TITUS	OMNI-AA	WHITE	24x24	6	
B	PLAQUE DIFFUSER	TITUS	OMNI-AA	WHITE	24x24	8	
D	PERFORATED	TITUS	PAR	WHITE	24x24	12	
F	LOUVERED DOUBLE DEFLECTION GRILLE	Titus	300FL	WHITE ENAMEL	---		SEE PLAN FOR DIMENSIONS

NOTES:

1. ALL CEILING AND WALL MOUNTED DEVICES SHALL BE FURNISHED WITH AN ENAMEL WHITE FINISH.
2. ALL DEVICES SHALL BE FURNISHED WITH FRAMES SUITABLE FOR TYPE OF INSTALLATION REQUIRED.

EXHAUST FAN SCHEDULE

ID	LOCATION	TYPE	CFM	APPROX. ESP	DRIVE TYPE	FAN RPM	ELECTRICAL DATA WATTS	ELECTRICAL DATA VOLTAGE-PHASEØ	ACCESSORIES	CONTROL TYPE
EF-1	WOMEN 236	GREENHECK MODEL B200	150	0.500	DIRECT	948	171	277 V-1Ø	A,B,F,G,O	2
EF-2	MEN 238	GREENHECK MODEL B200	150	0.500	DIRECT	948	171	277 V-1Ø	A,B,F,G,O	2

EXHAUST FAN SCHEDULE ACCESSORIES:

A. DISCONNECT SWITCH
B. GRAVITY BACKDRAFT DAMPER
C. MOTORIZED BACKDRAFT DAMPER
D. PREFAB, ROOF CURB
E. BIRDSCREEN
F. ACOUSTICAL LINING
G. HANGING BRACKETS WITH VIBRATION ISOLATION
H. WL, WALL LOUVER DISCHARGE
I. FCC OR GRS ROOF CAP (FLAT ROOF) OR RJ ROOF CAP (PITCHED ROOF)
J. WALL MOUNTING COLLAR
K. INLET GAUD
M. 2" WASHABLE ALUMINUM FILTERS
N. MOTORSIDE FAN GUARD
O. EXHAUST GRILLE
P. U.L. 762
Q. VENTED ROOF CURB EXTENSION
R. COMBINATION KITCHEN HOOD FAN CURB
S. INTERLOCK WITH FUME HOOD
T. PROVIDE DRAIN PLUG ACCESSORY
U. ROOF SUPPORT RAILS
V. VFD

EXHAUST FAN SCHEDULE CONTROLS:

1. WALL MOUNTED THERMOSTAT (REVERSE ACTING, SET FOR 80°)
2. INTERLOCK WITH ROOM LIGHT SWITCH (FAN SHALL OPERATE WHEN LIGHT IS ON IF ANY ROOM IS SERVED BY FAN)
3. WALL MOUNTED ON/OFF SWITCH WITH IDENTIFICATION LABEL
4. WALL MOUNTED MUSHROOM PUSH BUTTON SWITCH/STARTER WITH IDENTIFICATION LABEL
5. CONTROLLED BY BUILDING AUTOMATION SYSTEM
6. CONTINUOUS OPERATION
7. CONTROLLED BY THE FACP AND FIREMAN'S MANUAL OVER-RIDE CONTROL PANEL IN FIRE COMMAND ROOM. NO MECHANICAL CONTROL POINTS REQUIRED BY M.C. FOR SMOKE CONTROL FANS

EXHAUST FAN SCHEDULE NOTES:

1. ALL FANS SHALL BE U.L. LISTED AND LABELED AND SHALL BE AMCA CERTIFIED FOR SOUND AND AIR FLOW. ALL FANS INSTALLED INSIDE, ABOVE, OR ADJACENT TO OCCUPIED SPACES SHALL HAVE A MAXIMUM 9.0 INLET SONE LEVEL.
2. ALL FANS SHALL BE SUPPLIED BY ONE MANUFACTURER UNLESS NOTED OTHERWISE.
3. MECHANICAL CONTRACTOR SHALL PROVIDE MAGNETIC STARTER WITH AUXILIARY CONTACTS AS REQUIRED.
4. PROVIDE ALL DIRECT DRIVE FANS WITH SPEED CONTROLLERS.
5. BACKDRAFT DAMPER ON ROOF SUPPLY FANS SHALL BE MOTORIZED.

SEQUENCE OF OPERATION

MECHANICAL CONTRACTOR SHALL COORDINATE ALL BAS INTEGRATION REQUIREMENTS WITH EQUIPMENT VENDORS AND CONTROLS CONTRACTOR PRIOR TO PURCHASING EQUIPMENT AND PROVIDE ALL EQUIPMENT WITH COMMUNICATION/INTERFACE CARDS AS REQUIRED FOR SYSTEM INTEGRATION TO EXISTING BUILDING CONTROLS SYSTEM (JOHNSON CONTROLS).

THERMOSTATS & TEMPERATURE SENSORS

THERMOSTATS AND TEMPERATURE SENSORS SHALL BE PROVIDED WHERE INDICATED ON THE DRAWINGS, AND PER THE SPECIFICATIONS. THERMOSTATS TO 70°. THERMOSTATS SHALL HAVE A 3° RANGE IN WHICH THEY ARE SATISFIED (IF SET TO 70°, SATISFIED ANYWHERE BETWEEN 68.5° AND 71.5°). SLIDE BAR SHALL HAVE THE CAPABILITY TO ADJUST THE HEATING AND COOLING SETPOINTS BY 3° IN EITHER DIRECTION, BUT MAINTAIN A MINIMUM 4° SPREAD BETWEEN THE HEATING AND COOLING SETPOINT. UNOCCUPIED SETTINGS SHALL BE 85° COOLING AND 60° HEATING. ALL SETPOINTS SHALL BE VERIFIED WITH THE OWNER BEFORE PROGRAMMING, AND FULLY ADJUSTABLE THROUGH THE BAS.

VARIABLE AIR VOLUME BOXES

THE VARIABLE VOLUME (VAV) TERMINAL UNITS SHALL BE CONTROLLED INDEPENDENT OF SYSTEM PRESSURE FLUCTUATIONS BY AN APPLICATION SPECIFIC DDC CONTROLLER UTILIZING ELECTRIC ACTUATION.

OCCUPIED AND UNOCCUPIED OPERATIONS ARE THE SAME, A TEMPERATURE SENSOR SHALL BE UTILIZED TO MAINTAIN SPACE TEMPERATURE SETPOINT. UPON A RISE IN SPACE TEMPERATURE ABOVE SETPOINT, THE VOLUME DAMPER SHALL MODULATE OPEN AS REQUIRED TO MAINTAIN SPACE TEMPERATURE. UPON A DROP IN SPACE TEMPERATURE BELOW SETPOINT, THE VOLUME DAMPER SHALL MODULATE CLOSED UNTIL THE MINIMUM DAMPER POSITION IS REACHED. UPON CONTINUED DROP IN SPACE TEMPERATURE BELOW SETPOINT, THE HOT WATER CONTROL VALVE SHALL MODULATE OPEN TO THE HEATING COIL. IF THE SPACE TEMPERATURE DROPS ONE MORE DEGREE, THE TERMINAL UNIT DAMPER SHALL MODULATE OPEN UNTIL THE THE MAX HEATING CFM IS REACHED (AS INDICATED IN THE SCHEDULE). AS THE TEMPERATURE RISES ABOVE SETPOINT, THE HOT WATER CONTROL VALVE SHALL MODULATE CLOSED AND THE DAMPER SHALL RETURN TO THE MINIMUM POSITION.

WHEN WARM AIR IS SENSED BY THE TERMINAL UNIT DURING MORNING WARM-UP, THE DAMPER SHALL RESPOND TO THE SPACE TEMPERATURE. THE TERMINAL UNIT DAMPER SHALL OPEN TO HEATING SETPOINT ON A CALL FOR HEATING AND SHALL REMAIN CLOSED IF THE SPACE TEMPERATURE IS AT OR ABOVE OCCUPIED SETPOINT. HOT WATER CONTROL VALVE SHALL REMAIN CLOSED DURING MORNING WARM-UP.

THE TEMPERATURE SENSOR SHALL BE PROVIDED WITH AN OVERRIDE FUNCTION THAT WILL PLACE THE SYSTEM IN THE OCCUPIED MODE FOR A PERIOD OF UP TO 2 HOURS. THE OVERRIDE SHALL ACTIVATE THE SYSTEM AHU AS REQUIRED TO MAINTAIN SPACE TEMPERATURE.

FAN POWERED BOXES WITH ELECTRIC HEAT

TERMINAL UNIT "OCCUPIED/UNOCCUPIED" SCHEDULE SHALL BE DETERMINED BY IT'S ASSOCIATED AIR HANDLING UNIT SCHEDULE. TERMINAL UNITS ARE PROVIDED WITH A WALL MOUNTED TEMPERATURE SENSOR FOR CONTROL.

IN THE OCCUPIED MODE, THE SPACE TEMPERATURE SETPOINTS SHALL BE 75° F. FOR COOLING AND 70° F. FOR HEATING (ADJ). AS THE SPACE TEMPERATURE RISES ABOVE SETPOINT, THE PRIMARY AIR VALVE MODULATES OPEN TO THE MAXIMUM AIRFLOW TO MAINTAIN SETPOINT. AS SPACE TEMPERATURE DROPS TO SETPONT, THE PRIMARY AIR VALVE CLOSES TO THE MINIMUM AIRFLOW. ON A CONTINUED DROP IN SPACE TEMPERATURE BELOW SETPOINT, THE TERMINAL UNIT SUPPLY FAN IS STARTED, SUPPLYING PLENUM AIR TO THE SPACE. AS THE SPACE TEMPERATURE CONTINUES TO DROP BELOW SETPOINT, THE TERMINAL UNIT HOT WATER HEAING COIL CONTROL VALVE MODULATES TO MAINTAIN SPACE TEMPERATURE SETPOINT.

IN THE "UNOCCUPIED MODE", THE PRIMARY AIR VALVE SHALL CLOSE TO THE MINIMUM AIRFLOW POSITION. THE SPACE TEMPERATURE SENSOR SHALL BE USED TO PROVIDE "UNOCCUPIED" TEMPERATURE SETPOINTS OF 60° F. (ADJ) FOR HEATING AND 85° F. (ADJ) FOR COOLING. IF SYSTEM IS ACTIVATED BY THE UNOCCUPIED COOLING SETPOINT, THE ROOFTOP UNIT SHALL BE ACTIVATED N THE COOLING MODE WITH OUTSIDE AIR DAMPERS CLOSED AND THE TERMINAL UNIT SHALL OPERATE AS OUTLINED ABOVE FOR OCCUPIED COOLING. IF THE SYSTEM IS ACTIVATED BY THE UNOCCUPIED HEATING SETPOINT, TERMINAL UNIT FAN SHALL BE STARTED AND TERMINAL UNIT HOT WATER HEAING COIL CONTROL VALVE MODULATES AS REQUIRED TO SATISFY UNOCCUPIED SETPOINTS.

TERMINAL UNITS AND ASSOCIATED HOT WATER HEATING COILS SHALL OPERATE IN DEHUMIDIFICATION MODE (OCCUPIED OR UNOCCUPIED) TO PREVENT OVERCOOLING OF SPACE.

BAS SHALL PROVIDE TEMPERATURE SETPOINT ADJUSTMENT AS WELL MINIMUM AND MAXIMUM AIRFLOW ADJUSTMENTS THROUGH THE BAS SYSTEM INTERFACE.

INPUT/OUTPUT SUMMARY

INPUTS – ANALOG (MEASURED / CALC.)

SYSTEM, APPARATUS, OR AREA POINT DESCRIPTION	TEMPERATURE	PRESSURE	RH	KW	AIR FLOW	WATER FLOW	CO2	HERTZ	RPM	VOLTS	AMPS	SETPOINT ADJ.	KWH	ENTHALPY	RUN TIME	EFFICIENCY
VAV Box																
Volume Damper					X											
HW Valve																
Discharge Temp	X															
Over-ride																
Setpoint Adjust												X				
Space Temp	X															
Fan Powered Box																
Supply Fan																
HW Valve																
Discharge Temp	X															
Space Temp	X															
Over-ride																
Setpoint Adjust												X				

INPUTS – BINARY; OUTPUTS – DIGITAL / ANALOG

SYSTEM, APPARATUS, OR AREA POINT DESCRIPTION	STATUS	FILTER	SMOKE	FREEZE	AIR FLOW	METER	OVER-RIDE	OFF-ON	OFF-AUTO-ON	OFF-HI-LO	OPEN-CLOSE	DMPR. POS.	VALVE POS.	STEP CONTROL
VAV Box														
Volume Damper												X		
HW Valve													X	
Discharge Temp														
Over-ride														
Setpoint Adjust														
Space Temp														
Fan Powered Box														
Supply Fan	X							X						
HW Valve													X	
Discharge Temp														
Space Temp														
Over-ride							X							
Setpoint Adjust														

SYSTEM FEATURES – ALARMS / PROGRAMS / GENERAL

SYSTEM, APPARATUS, OR AREA POINT DESCRIPTION	HI ANALOG	LO ANALOG	HI BINARY	LO BINARY	PROOF	TIME SCHEDULING	DEMAND LIMITING	DUTY CYCLE	START/STOP OPT.	ENTHALPY OPT.	SMOKE CONTROL	TREND	ALARM INSTRUCT	MAIN. WK. ORD.	COLOR GRAPHIC	SUPPLMENT. NOTES
VAV Box																
Volume Damper																
HW Valve																
Discharge Temp																
Over-ride																
Setpoint Adjust																
Space Temp																
Fan Powered Box						X									X	
Supply Fan					X											
HW Valve																
Discharge Temp																
Space Temp																
Over-ride																
Setpoint Adjust																

GENERAL NOTE:

THE POINTS LIST PROVIDED IS INTENDED TO COMMUNICATE THE GENERAL DESIGN INTENT TO THE CONTROLS SUBCONTRACTOR AND IS NOT INTENDED TO BE COMPLETE. IN THE CONTROLS SUBMITTAL, THE SUBCONTRACTOR SHALL FULLY DEVELOP THE POINTS LIST FOR ALL SYSTEMS IDENTIFIED AND SHALL PRESENT ALL SETPOINTS, CONTROL PARAMETERS, AND ALARM POINTS. THE CONTROLS SUBCONTRACTOR SHALL INCORPORATE STANDARD FEATURES SUCH AS MINIMUM RUN TIME DELAYS AND DEAD BANDS FROM SETPOINTS TO PREVENT EQUIPMENT FROM SHORT CYCLING WHEN NEAR SETPOINTS. ALL MONITORED POINTS SHALL INCLUDE EARLY HIGH/LOW ALARM NOTIFICATIONS PRIOR TO HAVING TO TAKE CORRECTIVE ACTIONS OR EQUIPMENT SHUTDOWNS. TRANSMITTERS SHALL INCLUDE OUT-OF-RANGE, FAIL-SAFE POSITIONING FOR OPEN CIRCUITS OR LOSS OF COMMUNICATION. CONTROL CONTRACTOR SHALL SPECIFY TO FAIL DE-ENERGIZER, HOLD LAST STATE, OR DEFAULT TO A PREDETERMINED SETPOINT. THESE BASIC FEATURES THAT ARE NECESSARY AND ARE PART OF A COMPLETE CONTROLS INSTALLATION SHALL BE INCLUDED IN THE SCOPE OF SERVICES FOR DELIVERABLES AT NO ADDITIONAL COSTS TO THE OWNER.

EQUIVALENT MANUFACTURERS LISTING

LISTING OF MANUFACTURER'S NAME DOES NOT GUARANTEE APPROVAL. ALL EQUIPMENT MUST MEET OR EXCEED QUALITY AND CAPACITIES OF SPECIFIED EQUIPMENT. FINAL APPROVAL WILL BE BASED ON EQUIPMENT SUBMITTALS. ANY MANUFACTURER NOT LISTED BUT WISHING TO BID THIS PROJECT SHALL SUBMIT A WRITTEN REQUEST A MINIMUM OF 7 DAYS PRIOR TO BID DATE OR AS INDICATED IN THE SPECIFICATIONS, PRIOR APPROVAL IS REQUIRED FOR ALL MANUFACTURERS NOT LISTED.

(ALPHABETICAL ORDER)
AIR DISTRIBUTION: METAL*AIRE, NAILOR, PRICE, TITUS
VAV TERMINAL UNITS: NAILOR, PRICE & TITUS
EXHAUST FANS: GREENHECK, PENN-BARRY, COOK, TWIN CITY
LOUVER: GREENHECK, RUSKIN, POTTORFF
NOTE:
ALL COST ASSOCIATED WITH SUBSTITUTED EQUIPMENT TO COMPLY WITH BASIS OF DESIGN, INCLUDING PROVIDING MAINTENANCE ACCESS, CLEARANCE, PIPING, SHEET METAL, ELECTRICAL, REPLACEMENT OF SYSTEM COMPONENTS, BUILDING ALTERATIONS, ETC., SHALL BE INCLUDED IN THE ORIGINAL BASE BID. NO ADDITIONAL COST ASSOCIATED WITH SUBSTITUTED EQUIPMENT WILL BE APPROVED DURING CONSTRUCTION AND ALL COST WILL BE THE RESPONSIBILITY OF TH MECHANICAL CONTRACTOR.

BUY AMERICA PROGRAM REQUIREMENTS

ALL PRODUCTS PROVIDED ON THIS PROJECT MUST BE MANUFACTURED IN COMPLIANCE WITH THE BUY AMERICA PROGRAM FOR FEDERALLY FUNDED TRANSPORTATION PROJECTS PER CODE OF FEDERAL REGULATIONS 49 DFR 661. THESE REQUIREMENTS ARE DISTINCT AND DIFFERENT FROM THOSE OF THE BUY AMERICAN ACT OF 1933.

Optima # 19-0327
Sheet 2 of 8

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NO.	SUBMISSION	DATE
1	PERMIT/BID SET	11/08/19

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SHEET NAME: MECHANICAL SCHEDULES
SHEET NUMBER: M002

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