ADDENDUM 01

USM Brooks Center eSports Improvements

Date: October 11, 2024

To: Prospective Bidders From: University of Maine System

by and through

University of Southern Maine

PO Box 9300 Portland, ME 04104

This Addendum forms a part of the Contract Documents and modifies the original Bid Documents and Specifications dated September 17, 2024. Portions of the bid and contract documents not altered by this

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 may consist of the following:

- Questions with Response
- Specification Changes

Addendum remain in full force.

- Drawing Changes
- Non-Mandatory Pre-Bid Attendance List
- Photographs

QUESTIONS with RESPONSE:

RFI response list is attached

SPECIFICATION CHANGES

Section 000000 – Removed "-00" suffix from project number.

DRAWING CHANGES

GL101 – Add dimensions showing existing egress door remoteness per SFMO request

A121 – Relocate exit signs to align with electrical drawings

EL101 – Remove cove light at soffit between upper and lower level lounges

EP101 - CU-1 updated fuse size, Added EDH-1 disconnect, BC-1 disconnect removed

EP601 – Panel schedule updated, equipment added to panel and loads balanced

M-601 – Added electric duct heater schedule. Adjusted VRF outdoor and indoor schedules to reflect a heat pump VRF system instead of a heat recovery VRF system.

M-651 – Added electric duct heater sequence of operations. Adjusted VRF system sequence to reflect heat pump system instead of heat recovery. Adjusted VRF piping diagram to reflect new equipment selections and piping layout.

MH101 – Added electric duct heater in outside air duct serving FCU-1.

MP101 – Adjusted pipe routing to show a heat pump VRF system instead of a heat recovery VRF system. Removed branch circuit controller because heat pump system does not use a branch circuit controller.

PL101 – Removed condensate drainage line serving branch circuit controller from mechanical room.

NON-MANDATORY PRE-BID ATTENDANCE LIST:

Non-Mandatory Pre-Bid Attendance List is attached.

OTHER:

2024 Minimum Wage Rates are attached

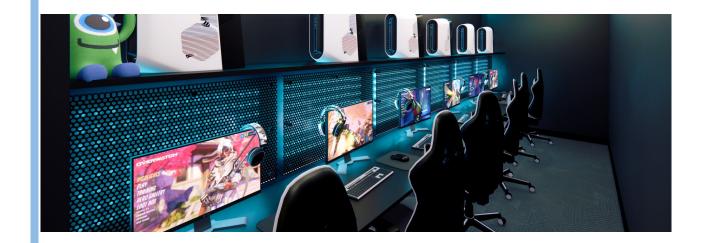
Photos of existing conditions per request:

- (3) Ground Floor storage space (location of telecom sleeves);
- (11) Basement Mechanical/Electrical Room (location of anticipated feeder run)

END OF ADDENDUM 01

PROJECT:	USM eSports Improvements
TYPE:	Bidder RFIs and Responses
DATE:	10/11/2024 Addendum 1
SMRT Proj. #	23101

) #	Spec/Dwg Reference	Discipline	Question	Response	From	Issued In
1		Owner	Improvements on Construction Summary Reports for the University of Southern Maine Brooks Center eSports Improvements does not call for sprinkler in the description. My understanding is that previously sprinkler has been called for in this project—is there now a limited scope, or just a limited description.	See documents for sprinkler scope	Matt McCammon (SMRT)	Addendum 01
2		Arch	Alternate says Private PC Room 103? Where is this room?	Intended to read "PC ROOM 102"	Matt McCammon (SMRT)	Addendum 01
3		Arch	Wall that louvers are being installed in is it a bearing wall?	Appears this particular wall was added post 1968, when the original building was built. Based on existing drawings and current photos, the 'stone' shown within the existing mechanical room was orignally the exterior finish. SMRT has confirmed with USM that this is not a bearing wall and is stud framing with unfinished drywall at the interior and a stucco finish on the exterior.	Matt McCammon (SMRT)	Addendum 01
4			As I'm reading the Demolition plans, half of the existing sprinkler system (PC, and Gaming Lounge) is getting demoed out and rebuilt (am I incorrect?); the other half is existing and remaining and just getting new heads (but possibly also needing to extend above and below coverage around the new ductworks). Do I have that correct?	In PC 102 and Gaming Lounge 101, we anticipate the existing system will require an extensive amount of re-work given the amount of new HVAC going into the space. In the Mechanical 110, we might need an additional head or 2 to accommodate new HVAC and obstructions to the sprinkler system in can might create. Yes, sprinkler heads are required above and below ceilings in Gorham.	Kerry Dineen (SMRT)	Addendum 01
5			Are you able to confirm the Architect's Project No. as the cover page of the bid specs outlines 23101-00 and the remainder of the specs details just 23101.	"-00" is an I nternal tracking number for accounting purposes. 23101 is the overall project. Update cover sheet issued for clarity	Matt McCammon (SMRT)	Addendum 01
6			1. What is the proposed budget for this project? 2. What is the anticipated project schedule? Is there a substantial and final completion date? 3. When is the anticipated award date for this project? 4. What testing does the contractor own? 5. Is builders risk required? 6. Specs show the 2021 Fair Minimum Wage Rates. Please provide updated wage rates for 2024. 7. Will any work be done off hours? 8. Are we able to schedule a site walkthrough for subcontractors? 9. Are there any photos on the lower level where the 400a feeder is to be run and the 4" telecom sleeves? 10. What is the deck height for this project? 11. The specs call for Coordination drawings or BIM model for sprinkler, HVAC, electrical and plumbing. Is this going to be required? Can an allowance be provided?	1. Range \$500k to \$1M 2. Refer to Section 01 100-2 3. TBD by Bid Results, but no sooner than 5 business days. 4. See specifications 5. No 6. See Attached 7. Generally not, but exceptions may arise for coordinated outages or prolonged interruptions. 8. No. Refer to Section 00 11 13-1 9. See attached, provided by USM. 10. Per existing drawings provided by USM, Upper Level to Level above is roughly 12'-0" slab to slab with what appears to be 3" slab supported by 24" deep joists 11. Yes. No.	Matt McCammon (SMRT), Tom Blanchard (USM	Addendum 01



Issued for Bid/Construction Specification Manual

USM - Brooks Center eSports Improvements

Gorham, ME



Submitted by: SMRT Architects and Engineers September 17, 2024 Project # 23101 smrtinc.com State of Maine Department of Labor - Bureau of Labor Standards Augusta, Maine 04333-0045 - Telephone (207) 623-7906

Wage Determination - In accordance with 26 MRS §1301 et. seq., this is a determination by the Bureau of Labor Standards, of the fair minimum wage rate to be paid to laborers and workers employed on the below titled project.

2024 Fair Minimum Wage Rates -- Building 2 Cumberland County (other than 1 or 2 family homes)

Occupational Title	Minimum Wage	Minimum Benefit	<u>Total</u>
Brickmasons And Blockmasons	\$34.00	\$4.49	\$38.49
Bulldozer Operator	\$31.50	\$7.53	\$39.03
Carpenter	\$28.23	\$19.37	\$47.60
Cement Masons And Concrete Finisher	\$23.00	\$2.82	\$25.82
Commercial Divers	\$30.00	\$4.62	\$34.62
Construction And Maintenance Painters	\$31.11	\$4.74	\$35.85
Construction Laborer	\$24.33	\$2.66	\$26.99
Crane And Tower Operators	\$40.00	\$10.86	\$50.86
Crushing Grinding And Polishing Machine Operators	\$23.00	\$4.94	\$27.94
Drywall And Ceiling Tile Installers	\$28.23	\$19.37	\$47.60
Earth Drillers - Except Oil And Gas	\$22.31	\$6.19	\$28.50
Electrical Power - Line Installer And Repairers	\$38.93	\$8.91	\$47.84
Electricians	\$38.51	\$6.97	\$45.48
Elevator Installers And Repairers	\$68.38	\$45.29	\$113.67
Excavating And Loading Machine And Dragline Operators	\$26.00	\$7.18	\$33.18
Excavator Operator	\$31.38	\$5.91	\$37.29
Fence Erectors	\$26.75	\$4.05	\$30.80
Flaggers	\$20.00	\$0.38	\$20.38
Floor Layers - Except Carpet/Wood/Hard Tiles	\$27.25	\$6.59	\$33.84
Glaziers	\$33.78	\$16.35	\$50.13
Grader/Scraper Operator	\$23.00	\$1.99	\$24.99
Hazardous Materials Removal Workers	\$21.50	\$1.99	\$23.49
Heating And Air Conditioning And Refrigeration Mechanics And Installers	\$33.10	\$5.86	\$38.96
Heavy And Tractor - Trailer Truck Drivers	\$23.38	\$2.11	\$25.49
Highway Maintenance Workers	\$20.00	\$0.00	\$20.00
Industrial Machinery Mechanics	\$31.25	\$1.01	\$32.26
Industrial Truck And Tractor Operators	\$29.25	\$4.06	\$33.31
Insulation Worker - Mechanical	\$23.00	\$3.59	\$26.59
Ironworker - Ornamental	\$30.83	\$24.97	\$55.80
Light Truck Or Delivery Services Drivers	\$23.34	\$1.67	\$25.01
Millwrights	\$33.75	\$8.78	\$42.53
Mobile Heavy Equipment Mechanics - Except Engines	\$27.75	\$4.89	\$32.64
Operating Engineers And Other Equipment Operators	\$24.00	\$2.38	\$26.38
Paver Operator	\$27.03	\$6.49	\$33.52
Pile-Driver Operators	\$32.75	\$1.95	\$34.70
Pipelayers	\$28.50	\$4.89	\$33.39
Plumbers Pipe Fitters And Steamfitters	\$29.50	\$5.56	\$35.06
Pump Operators - Except Wellhead Pumpers	\$31.49	\$32.08	\$63.57
Radio Cellular And Tower Equipment Installers	\$26.00	\$3.77	\$29.77
Reclaimer Operator	\$27.03	\$7.68	\$34.71
Reinforcing Iron And Rebar Workers	\$30.83	\$24.97	\$55.80
Riggers	\$29.25	\$7.79	\$37.04
Roofers	\$24.00	\$2.97	\$26.97
Screed/Wheelman	\$29.25	\$4.94	\$34.19
Sheet Metal Workers	\$25.00	\$4.71	\$29.71
Structural Iron And Steel Workers	\$30.83	\$24.97	\$55.80
Tapers	\$32.63	\$0.00	\$32.63
Telecommunications Equipment Installers And Repairers - Except Line Installers	\$28.23	\$19.37	\$47.60
Telecommunications Line Installers And Repairers	\$36.29	\$21.31	\$57.60
Tile And Marble Setters	\$27.75	\$6.73	\$34.48

Welders are classified as the trade to which welding is incidental (e.g. welding structural steel is Structural Iron and Steel Worker)

Apprentices – The minimum wage rates for registered apprentices are the rates recognized in the sponsorship agreement for registered apprentices working in the pertinent classification.

For any other specific trade on this project not listed above, contact the Bureau of Labor Standards for further clarification.

Title 26 §1310 requires that a clearly legible statement of all fair minimum wage and benefits rates to be paid the several classes of laborers, workers and mechanics employed on the construction on the public work must be kept posted in a prominent and easily accessible place at the site by each contractor and subcontractor subject to sections 1304 to 1313.

Appeal – Any person affected by the determination of these rates may appeal to the Commissioner of Labor by filing a written notice with the Commissioner stating the specific grounds of the objection within ten (10) days from the filing of these rates.

A true copy

Attest:

Scott R. Cotnoir

Wage & Hour Director
Bureau of Labor Standards

Scott R. Cotner

Expiration Date: 12-31-2024 Revision Date: 3-1-2024



CEILING PLAN NOTES:

CEILING PRODUCT LEGEND

ACOUSTIC CEILING TILE ACT-1 ARMSTRONG, CALLA SQUARE TEGULAR, 24" X 24", 15/16"

1. REFER TO G002 FOR GENERAL PROJECT NOTES. 2. REFER TO G002 FOR LEGENDS, ABBREVIATIONS, AND TYPICAL MOUNTING HEIGHTS.

3. REFER TO A101 FOR ACCESSORY LEGEND. 4. REFER TO MECHANICAL, ELECTRICAL AND PLUMBING

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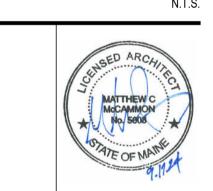
SMRT Architects and Engineers

75 Washington Ave., Suite 3A

Portland, Maine 04101

1.877.700.7678

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SEPTEMBER 17, 2024

REFLECTED CEILING PLAN

Original drawing is 30" x 42" - DO NOT SCALE CONTENTS OF THIS DRAWING. Sheet is intended to be PRINTED IN COLOR. SCALE: AS INDICATED DESIGNED BY: MM

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1 ADDENDUM 1

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LIGHTING PLAN

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LEVEL 1 POWER PLAN

1/4" = 1'-0"

1

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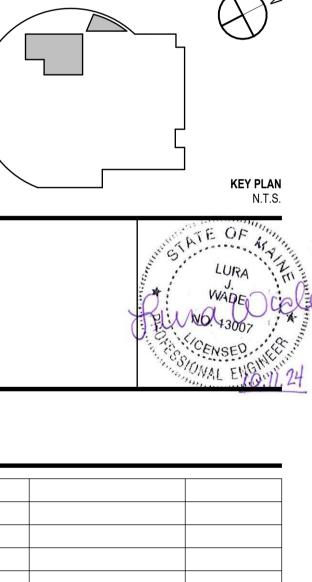
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ADDENDUM 1 10-11-2024

Description Date

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POWER PLAN

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SMRT PROJECT #: 23101 DRAWN BY: PCS

EP101

CT D.	DIRECTORY	BKR AMPS	POI F	A	В	С	Α	В	С	POLES	BKR AMPS	DIRECTOR	ov	CKT NO.
J.	LIGHTS RM 102	20 A	1	0.0 kVA			1.4 kVA			1	20 A	RECEPTACLES		2
3	LIGHTS RM 102	20 A	1		0.3 kVA			0.9 kVA		1	20 A	ACCENT LIGHTS		4
5	LIGHTS RM 101	20 A	1			0.8 kV		0.0 1077	1.4 kVA	1	20 A	ACCENT LIGHTS		6
,	DOOR ACTUATOR	20 A	1	0.5 kVA		0.0 100	1.4 kVA		1.11070	1	20 A	RECEPTACLES		8
,	RECEPTACLES RM 102	20 A	1		0.7 kVA		111107	1.4 kVA		1	20 A	RECEPTACLES		10
1	RECEPTACLES RM 102	20 A	1		0.7 1071	1.4 kV	A	1111111111111	1.5 kVA	1	20 A	RECEPTACLES		12
3	RECEPTACLES RM 102	20 A	1	1.1 kVA			0.2 kVA			1	20 A	FLOOR RECEPTACI		14
5	RECEPTACLES RM 102	20 A	1		1.6 kVA			1.4 kVA		1	20 A	RECEPTACLES		16
,	FLOOR RECEPTACLES RM 101	20 A	1			0.2 kV	A		1.3 kVA	1	20 A	RECEPTACLES	RM 101	18
)	SECURITY DEVICES	20 A	1	0.5 kVA			1.1 kVA			1	20 A	RECEPTACLES		20
	RECEPTACLES RM 101	20 A	1		1.1 kVA			0.3 kVA		2	15 A	FCU-2B		22
3	RECEPTACLES RM 102	20 A	1			1.4 kV	A		0.3 kVA					24
;	RECEPTACLES RM 102	20 A	1	1.4 kVA			0.4 kVA			2	15 A	ERV -1		26
,	FCU-1	15 A	2		0.2 kVA			0.4 kVA						28
)						0.2 kV	A		0.3 kVA	2	15 A	FCU-2A		30
	CU-1	50 A	3	5.7 kVA			0.3 kVA							32
3					5.7 kVA			0.3 kVA		2	15 A	FCU-2C		34
5						5.7 kV	A		0.3 kVA					36
7							1.5 kVA			2	20 A	EDH-1		38
)								1.5 kVA						40
														42
3														44
5														46
,														48
)														50
														52
3														54
5														56
,														58
)														60
TACE	420/200 M/va 2 DIJACE	1 MIDE			AMD	NIC T	OTAL KV	Λ Λ		45.0	PANEI	NO		
N BREA		4 WIRE		400	AMP E		OTAL KV			15.3 15.6		_ INO.	PP7	
	Surface			400 /	A AIVIE I		OTAL KV			14.7	LOCA	TION		
RATING							OTAL KV			45.6		TION	HALL (E) 109	
IXTING							OTAL INV	^		43.0				
es: POLE PA	ANEL - COPPER BUS													

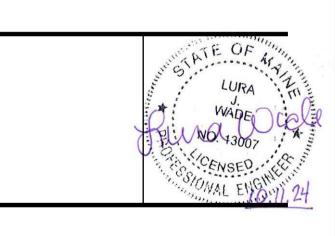
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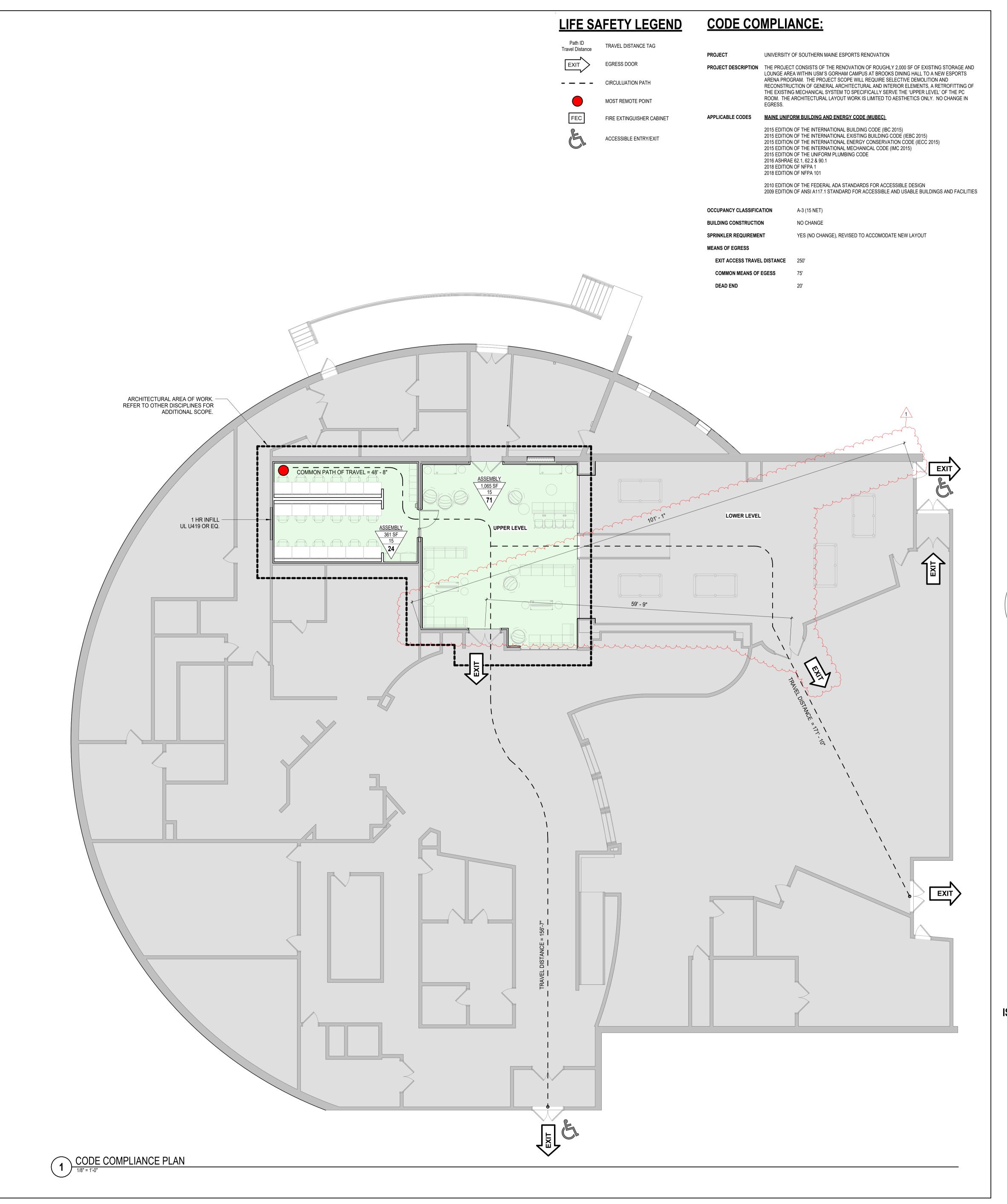
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PANEL SCHEDULES

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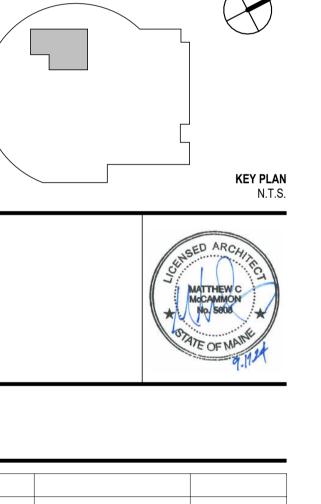
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SEPTEMBER 17, 2024

1 ADDENDUM #1

SHEET TITLE:

CODE COMPLIANCE PLAN

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SMRT PROJECT #: 23101 DRAWN BY: CBM

GL100

	14005									ELECTRIC (OUTI	DOOR)	
OUTDOOR TAG NUMBER	MODEL NUMBER	TYPE	LOCATION	DESIGN HEATING OUTDOOR AIR DB (°F)	DESIGN AMBIENT TEMP (°F	COMBINATION RATIO (%)	CORRECTED COOLING CAPACITY (MBH)	REQUIRED HEATING CAPACITY (ME	SH) MCA MES	MOCP HZ		MINIMUM EFFICENCY (EEF
CU-1	DAIKIN RXYQ144AATJB	R-410A	ON GRADE	-5.0	84.0	120.8	155	102	47.8	50 60	208 3	11.5
	SCHEDULE FOR PERFORMANC DOOR REFRIGERANT LINES SHA			OOR REFRIGERANT LINES SHALL BE PROT	ECTED BY A UV RESISTANT I	MATERIAL.						
4. PROVIDE REFRIGERAN	T CHARGE FOR SYSTEM PER M	ANUFACTURE	R'S RECOMMENDA	TIONS AND BASED ON ACTUAL INSTALLED	PIPE LENGTHS.							
5. VRF MANUFACTURER S	SUBMITTAL SHALL HAVE CORRE	CTED TOTAL/	SENSIBLE COOLIN	G CAPACITIES AND HEATING CAPACITIES T	AKING INTO ACCOUNT FOR D	DISTANCE LOSSES FOR FCU'S						
6. CONDENSING UNIT TO	BE PROVIDED WITH FIELD INST	ALLED WIND B	AFFLES AND TOP	HOOD FOR LOW AMBIENT OPERATION DOW	/N TO -4°F.							
7. CONDENSING UNIT TO	BE MOUNTED ON 24" STANDS F	ROVIDED BY N	MECHANICAL CONT	RACTOR TO BE SET ON CONCRETE EQUIP	MENT PAD. PROVIDE WITH SI	PRING ISOLATORS.						

دا				VR	F SYSTEM -		R UNIT PERF	ORMANCE DA	TA					
	T. 0	050/50	DANKIN MODEL #	INDOOR TVDE		505 (NI W 0)	HEATING (AT -5 DEG F)	COOLI	NG	INDOOR	SECTIO)N		
[ک	TAG NUMBER	SERVES	DAIKIN MODEL #	INDOOR TYPE	NOMINAL TONNAGE	ESP (IN W.C.)	TOTAL CAPACITY MBH	TOTAL CAPACITY (MBH)	SENSIBLE CAPACITY	CFM (DRY) HI-SPEED	МСА	МОР	V/PH/HZ	N
,	FCU-1	GAMING LOUNGE 101	FXSQ30TBVJU	DUCTED CONCEALED	2.5	0.6	35.2	29.2	19.1	810	1.8	15	208/1/60	SEE
ح	FCU-2A	PC ROOM 102	FXSQ48TBVJU	DUCTED CONCEALED	4	1.1	56.0	46.7	29.3	1305	2.8	15	208/1/60	SEE
۱ ۲	FCU-2B	PC ROOM 102	FXSQ48TBVJU	DUCTED CONCEALED	4	1.1	56.0	46.7	29.3	1305	2.8	15	208/1/60	SEE
≺	FCU-2C	PC ROOM 102	FXSQ48TBVJU	DUCTED CONCEALED	4	1.1	56.0	46.7	29.3	1305	2.8	15	208/1/60	SEE

the the test will be a second to the test of the test

2. PROVIDE INDOOR UNIT WITH INTEGRATED CONDENSATE PUMP HAVING RESERVOIR AND SENSOR. PROVIDE WITH UL508 CONDENSATE OVERFLOW SWITCH.

3. PROVIDE INSULATED LINE SET BETWEEN INDOOR UNITS AND OUTDOOR UNIT THAT INCLUDES WEATHER AND UV PROTECTIVE COATING.

4. PROVIDE FIELD INSTALLED MERV 8 FILTER RACK PER INDOOR UNIT.

5. INDOOR UNITS SHALL BE SERVED BY OUTDOOR CONDENSING UNIT, CU-1.

						EN	IERGY VEN	TILATOR	UNIT S	CHI	EDUL	E CON	IT.				
						WINTER CONDITIONS								SUMMER CONDITIONS			
TAG	ENTERING	CONDIT	IONS	LEAVING CO	ONDITIONS	ENERGY RECOVERY @ WINTER DESIGN	EFFECTIVENESS @	WINTED DESIGN	ENTERING	CONDI	TIONS	LEAVING C	CONDITIONS	ENERGY RECOVERY @ SUMMER DESIGN	EFFECTIVENESS @ \$	CLIMMED DECICN	NOTES:
IAG	OUTSIDE AIR	RETU	IRN AIR	SUPPL	Y AIR	ENERGY RECOVERY @ WINTER DESIGN	EFFECTIVENESS @	WINTER DESIGN	OUTSIDE AIR	RET	URN AIR	SUPP	PLY AIR	ENERGY RECOVERY @ SOMMER DESIGN	EFFECTIVENESS @ .	SUMMER DESIGN	NOTES.
	DB °F WB °F	DB °F	WB °F	DB °F	WB °F	TOTAL HEAT RECOVERED (BTU/H)	SENSIBLE %	TOTAL %	DB °F WB °F	DB °I	F WB °F	DB °F	WB °F	TOTAL HEAT RECOVERED (BTU/H)	SENSIBLE %	TOTAL %	
ERV-1	-5 -6	70	51.5	50.1	39.2	43,803	71.6	69.9	86.8 71.3	75	62.5	78.4	66.8	11,329	71.6	54	1-3
NOTES:	1 PROVIDE (2	2) 1 HP F	CM MOT	ORS (460/3)	FUSED DISC	ONNECT DOUBLE WALL CONSTRUCTION A	ND (2) FACTORY MOLL	NTED EII TER AI AF	PMS								

NOTES: 1. PROVIDE (2) 1 HP ECM MOTORS (460/3), FUSED DISCONNECT, DOUBLE WALL CONSTRUCTION, AND (2) FACTORY MOUNTED FILTER ALARMS.

2. PROVIDE ONE MOTORIZED DAMPER ON THE INTAKE AND ONE BACKDRAFT DAMPER ON THE RELIEF.

3. PROVIDE WITH ENHANCED CONTROLS FOR BACNET MS/TP COMMUNITION TO BMS.

						EN	ERGY R	ECO	VE	RY VEN	TILA	TOF	SCHEDULE						
TAG	LOCATION	AREA SERVED	04/64	(OEM)	DA/EA	(CEM)	SUPPL	Y FAN		EXHAL	JST FAN		ODEDATING WEIGHT (LDG)	CURRI V EU TER	EVIIALICE EILTED	ELECTRICAL R	EQUIREMENTS		NOTE
TAG	LOCATION	AREA SERVED	OA/SA	(CFIVI)	RA/EA	(CFM)	E.S.P (IN WC)	WATTS	RPM	E.S.P (IN WC)	WATTS	RPM	OPERATING WEIGHT (LBS)	SUPPLY FILTER	EXHAUST FILTER	V/PH	MCA	MODEL NO.	NOTES
ERV-1	MECHANICAL ROOM	PC ROOM & GAMING LOUNGE	675		675	5	1.25	341	2480	1.25	326	2446	275	MERV 8	MERV 8	208/1	3.9	RENEWAIRE HE10JINV	1-3
NOTES:	, ,	CM MOTORS (460/3), FUSED DIS						CTORY M	OUNTI	ED FILTER ALA	RMS.	1							

PROVIDE ONE MOTORIZED DAMPER ON THE INTAKE AND ONE BACKDRAFT DAMPER ON THE RELIEF.

3. PROVIDE WITH ENHANCED CONTROLS FOR BACNET MS/TP COMMUNITION TO BMS.

ŞΙ						ELE	ECTRIC	DUCT H	EATE	R SCHE	DULE			
							ELECTRIC I	HEATING COIL						
	TAG	SERVING	DUCT SIZE (IN)	CFM	kW	EAT °F	LAT °F	VOLTAGE/PH ASE	LINE AMPS	FUSE AMPS	MAX WEIGHT (LBS)	CONFIGURATION	MODEL NUMBER	NOTES
•	EDH-1	FCU-1	10	335	3	50.1	78.3	208/1	14.4	20	20	RHW3208-10	RENEWAIRE ZON-10-3208	1

					LOUVE	R SCH	IEDULE	•		
TAG	SERVICE	TYPE	AIRFLOW	APD	SIZE (IN) WxH	VELOCITY	FREE AREA	MATERIAL	TYP. UNIT MFG. & MODEL NO.	NOTES
LVR-1	ERU-1	EXHAUST AIR	675	0.04	32 X 16	478	42.4%	ALUMINIMUM	GREENHECK ESD-403	1-4
LVR-2	ERU-1	OUTSIDE AIR	675	0.01	40 X 24	200	47.8%	ALUMINIMUM	GREENHECK ESD-403	1-4

NOTES: 1. PROVIDE LOUVER WITH INSECT SCREEN.

2. PROVIDE WITH EXTENDED SILL AND KYNAR FINISH (COLOR BY ARCHITECT) 3. LOUVERS SHALL HAVE STANDARD FRAME CONSTRUCTION.

4. COORDINATE RADIUS/CURVE OF THE LOUVER WITH ARCHITECTURAL.

TAG	MAX CFM	NECK SIZE	TYPE	DELTA - P	MAX NC	MODEL NO.	NOTES
S-1	175	6" Ø	PLAQUE DIFFUSER	0.05	<20	PRICE SPD	1,2,3,6
S-2	280	8" Ø	PLAQUE DIFFUSER	0.04	<20	PRICE SPD	1,2,3,6
S-3	435	10" Ø	PLAQUE DIFFUSER	0.04	22	PRICE SPD	1,2,3,6
S-4	550	12" Ø	PLAQUE DIFFUSER	0.03	21	PRICE SPD	1,2,3,6
S-5	745	14" Ø	PLAQUE DIFFUSER	0.03	23	PRICE SPD	1,2,3,6
S-6	1040	15" Ø	PLAQUE DIFFUSER	0.05	30	PRICE SPD	1,2,3,6
R-1	185	10"x8"	LOUVERED RETURN	0.06	<20	PRICE 635	1,2,3,4,6
R-2	240	12"x8"	LOUVERED RETURN	0.06	<20	PRICE 635	1,2,3,4,6
R-3	365	16"x10"	LOUVERED RETURN	0.06	<20	PRICE 635	1,2,3,4,6
R-4	720	18"x16"	LOUVERED RETURN	0.06	22	PRICE 635	1,2,3,4,6
R-5	1330	24"x20"	LOUVERED RETURN	0.10	26	PRICE 635	1,2,3,4,6
R-6	1450	36"x18"	LOUVERED RETURN	0.05	20	PRICE 635	1,2,3,4,6
R-7	1885	42"x20"	LOUVERED RETURN	0.05	22	PRICE 635	1,2,3,4,6
E-1	195	8"x8"	LOUVERED EXHAUST	0.10	22	PRICE 635	1,2,3,6
E-2	250	10"x10"	LOUVERED EXHAUST	0.05	22	PRICE 635	1,2,3,6
E-3	1115	24"x18"	LOUVERED EXHAUST	0.05	22	PRICE 635	1,2,3,6

1. COORDINATE MOUNTING TYPE WITH INSTALLATION CONDITIONS.

2. ALUMINUM CONSTRUCTION.

3. PROVIDE CROSS NOTCH FOR STRADDLING T-BAR

6. RGDs TO HAVE CUSTOM COLOR (RE: ARCHITECTURAL)

4. OPPOSED BLADE DAMPER

5. PROVIDE INTEGRAL AIR SCOOP WHERE VOLUME DAMPER IS NOT SHOWN ON PLANS.

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SMRT PROJECT #: 23101 DRAWN BY: ERB

SHEET TITLE:

1 ADDENDUM 1 10/11/2024

ISSUED FOR BID/CONSTRUCTION

SEPTEMBER 17, 2024

MECHANICAL SCHEDULES

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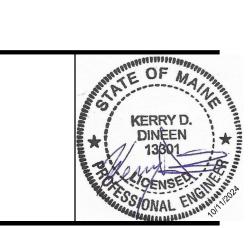
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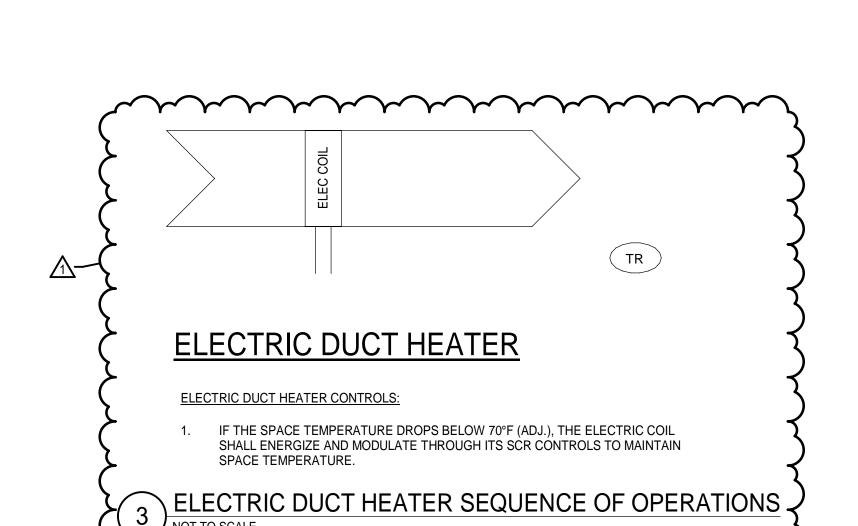
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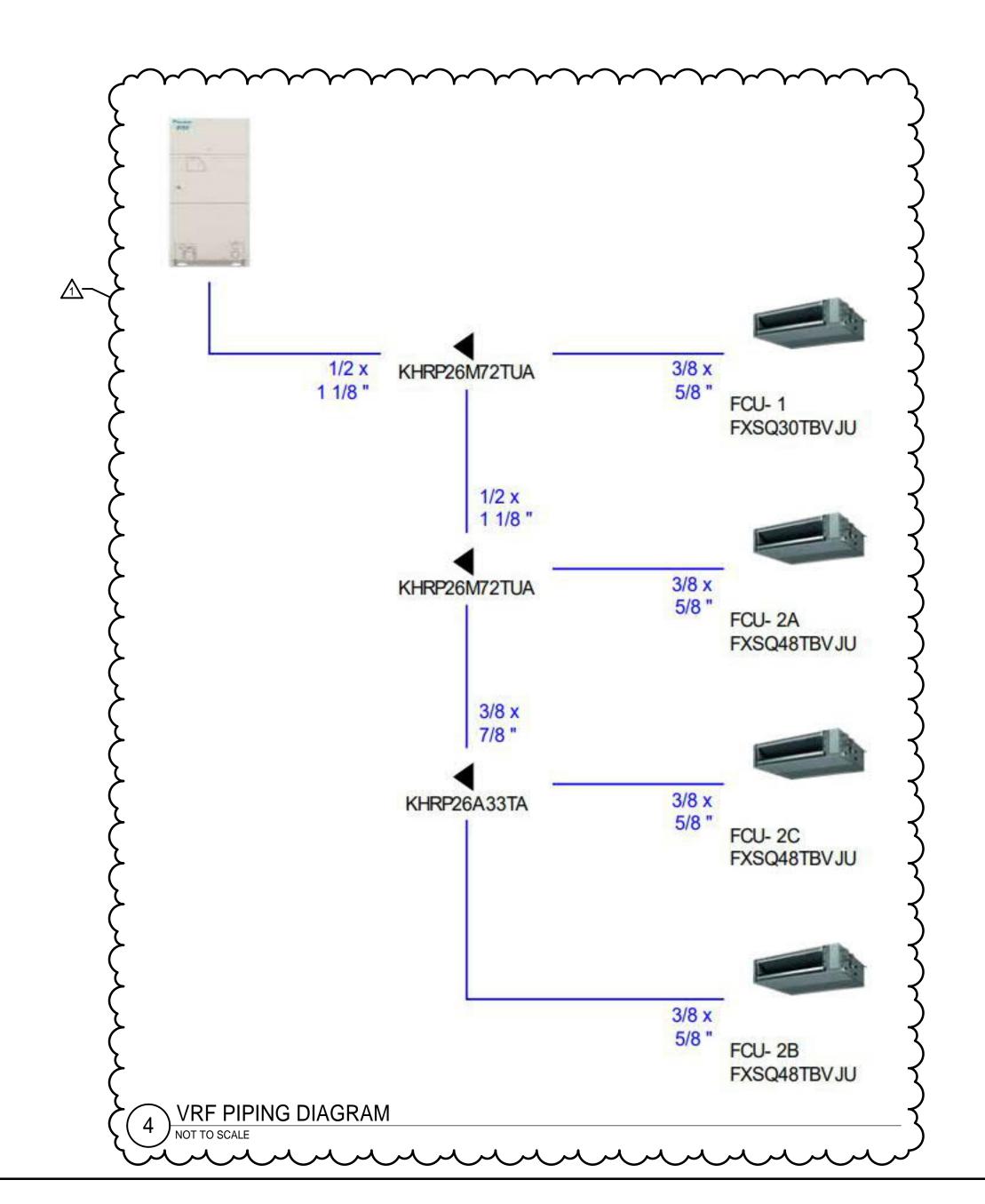
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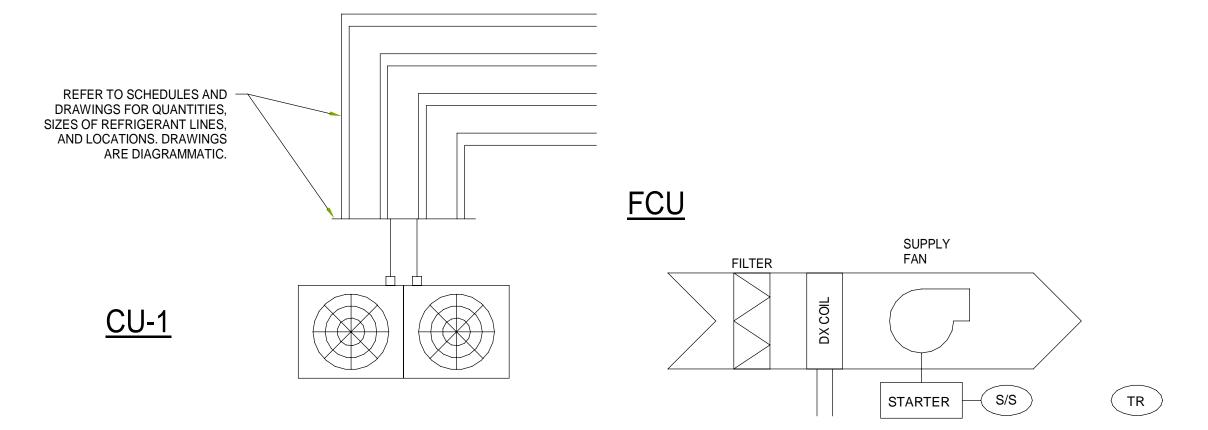
NOTES:

1. SEE SHEETS M-001 AND M-002 FOR LEGEND AND GENERAL NOTES.









FCU-1 THROUGH FCU-2C W/ CU-1

PUMP VRESYSTEMS SHALL BE CONTROLLED BY A COMBINATION OF THE MANUFACTURER'S PROVIDED CONTROLS. ATC CONTRACTOR SHALL

INTERFACE ALL NEW FCU'S, CU'S, AND THERMOSTATS TO MANUFACTURER'S CENTRALIZED CONTROLLER.

2. ANTI-RECYCLE TIME DELAYS AND SAFETIES ON COMPRESSORS SHALL BE PROVIDED BY THE MANUFACTURER.

- 3. ATC CONTRACTOR SHALL WIRE 3RD PARTY THERMOSTAT AND TEST UNIT MANUFACTURER'S CONTROLS. 3RD PARTY THERMOSTAT SHALL HAVE 2H/2C CAPABLE OF CONTROLLING THE BASEBOARD RADIATION OR RADIANT HEAT (WHERE APPLICABLE) AS THE 1ST MEANS OF HEATING AND THE FCU AS THE SECOND MEANS OF HEAT. PROVIDE MANUFACTURER'S 3RD PARTY THERMOSTAT ADAPTER FOR THESE LOCATIONS. AREAS ONLY SERVED BY FCU'S SHALL BE CONTROLLED VIA MANUFACTURER'S THERMOSTAT.
- 4. DURING SCHEDULED OCCUPIED HOURS, THE HEATING SETPOINT SHALL BE 70°F(ADJ.) AND THE COOLING SETPOINT SHALL BE 5°F (ADJ.) WARMER THAN THE HEATING SETPOINT.
- 5. COORDINATE OCCUPIED/UNOCUPPIED SCHEDULE (ADJ.) WITH OWNER.
- 6. PROVIDE NEW TEMPERATURE SENSORS (FURNISHED BY MANUFACTURER) WITH +/- 2°F LOCAL CONTROL AND PUSH BUTTON OVERRIDE (SET FOR 2 HOURS).

1. UPON RISE IN ROOM TEMPERATURE ABOVE THE ROOM COOLING SETPOINT, THE FAN COIL UNIT SHALL BE ENERGIZED TO MAINTAIN COOLING SET POINT. THE SUPPLY FAN SHALL ADJUST SPEED (LOW - MEDIUM - HIGH) AS REQUIRED TO MAINTAIN SET POINT.

UNOCCUPIED COOLING CONTROL: 1. THE AIR CONDITIONING SYSTEM SHALL BE DE-ENERGIZED.

1. UPON A DROP IN ROOM TEMPERATURE BELOW THE ROOM HEATING SETPOINT, THE FAN COIL UNIT SHALL BE ENERGIZED TO MAINTAIN SET POINT. THE SUPPLY FAN SHALL ADJUST SPEEDS (LOW - MEDIUM - HIGH) AS REQUIRED TO MAINTAIN SETPOINT.

UNOCCUPIED HEATING CONTROL: 1. IF WHEN THE UNIT IS OFF ANY ROOM TEMPERATURE SENSOR DROPS BELOW 55°F (ADJ.) THE FCU AND CU SHALL BE ENRGIZED TO MAINTAIN SETPOINT. WHEN ALL ROOMS RISE ABOVE 59°F (ADJ.) THE FCU AND

2. PROVIDE 2 HOUR (ADJ.) UNOCCUPIED OVERRIDE TO START THE UNITS IN OCCUPIED MODE. THE UNITS SHALL RETURN TO UNOCCUPIED AFTER OVERRIDE IS FINISHED.

WARM/UP/COOL DOWN CONTROL: PROVIDE OPTIMAL START CAPABILITY AND WARM-UP/ COOL DOWN CONTROL. THE UNITS SHALL BE ENERGIZED BETWEEN 5-60 MINUTES (ADJ.) BEFORE SCHEDULED OCCUPIED MODE BASED ON OPERATIONAL DATA HISTORY IN ORDER TO REACH THE SCHEDULED TEMPERATURE SETPOINT.

VRF SYSTEM SEQUENCE
NOT TO SCALE

<u>DEDICATED OUTSIDE AIR HANDLER WITH ENERGY RECOVERY SEQUENCE OF OPERATION</u>

DDC CONTROLLER:

• CONTROLLER WITH INTEGRAL LCD READOUT FOR CHANGING SET POINTS AND MONITORING UNIT OPERATION.

 PROVIDED WITH REQUIRED SENSORS AND PROGRAMMING. FACTORY PROGRAMMED, MOUNTED, AND TESTED.

INTEGRAL USB AND ETHERNET PORTS FOR UPDATING PROGRAMS AND RETRIEVING LOG FILES.

BMS INTERFACE: BACnet MS/TP

WHEN THE UNIT MAIN DISCONNECT IS CLOSED A DELAY OF 10 SECONDS (ADJ.) OCCURS FOR THE CONTROLLER TO COME ONLINE.

ERV UNIT START COMMAND:

• AN INPUT SIGNAL IS REQUIRED TO ENABLE THE UNIT OPERATION. THE UNIT WILL BE COMMANDED ON BY:

 ENABLE VIA CONTROLLER DISPLAY ALL TYPES OF INPUT THAT ARE ENABLED MUST BE TRUE BEFORE THE UNIT WILL START.

1. THE EXHAUST FAN STARTS AFTER A 3 SECOND DELAY (ADJ.). THE EXHAUST FAN WILL NOT START UNTIL THE DAMPER ACTUATOR END SWITCH CLOSES. 2. THE SUPPLY FAN STARTS AFTER A 6 SECOND DELAY (ADJ.). THE SUPPLY FAN WILL NOT START UNTIL THE DAMPER ACTUATOR END SWITCH CLOSES. 3. THE SUPPLY FAN, EXHAUST FAN ARE CONTROLLED BASED ON THE CHOSEN UNIT OPERATING MODES AND AIR CONDITIONS.

ERV UNIT STOP COMMAND:

 THE UNIT CAN THEN BE COMMANDED OFF BY: DISABLE VIA CONTROLLER DISPLAY

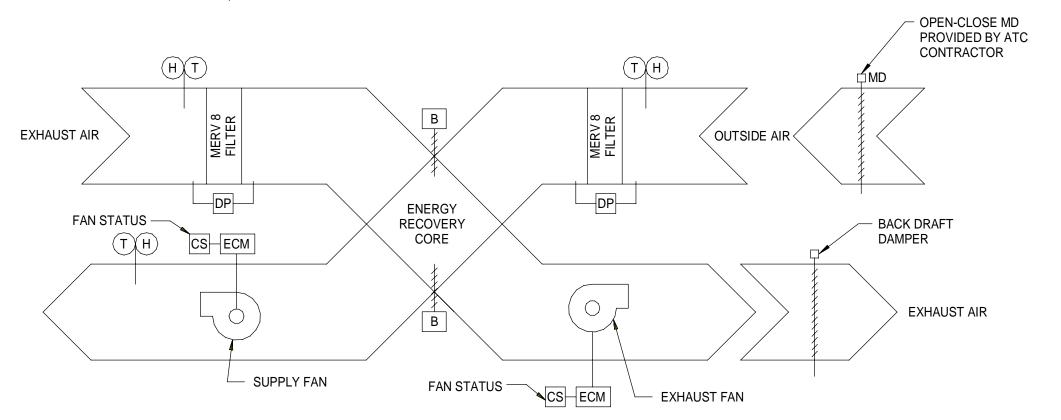
 SUPPLY FAN AND EXHAUST FAN ARE DE-ENERGIZED • ALL DAMPERS ARE UNPOWERED AND SPRING RETURN TO THEIR DEFAULT POSITION AFTER A 10 SECOND DELAY (ADJ.).

SUPPLY FAN OPERATION: THE SUPPLY FAN SPEED WILL BE CONTROLLED FOR:

- 1. FIXED PERCENTAGE OF MAX SPEED (0-100%) • THE UNIT WILL ATTEMPT TO START THE SUPPLY FAN WHEN THE SUPPLY FAN DELAY TIMER EXPIRES. WHEN THE SUPPLY FAN STARTS THE SUPPLY FAN ADJUSTABLE CURRENT SWITCH SHOULD CLOSE AND REMAIN CLOSED UNTIL THE FAN IS TURNED OFF.
- FIXED FAN SPEED OPTION: • THE ANALOG VOLTAGE COMMAND TO THE SUPPLY FAN ECM CAN BE SET FROM THE UNIT CONTROLLER DISPLAY OR PROVIDED BY THE BMS. THE ADJUSTABLE RANGE OF 0% TO 100% CORRESPOND TO THE MINIMUM AND MAXIMUM FAN OPERATING SPEED. THIS SUPPLY FAN OPERATION MODE CAN BE USED TO FIELD BALANCE THE SUPPLY AIR FLOW RATE.

EXHAUST FAN OPERATION: THE EXHAUST FAN SPEED WILL BE CONTROLLED FOR:

- 1. FIXED PERCENTAGE OF MAX SPEED (0-100%). • THE UNIT WILL ATTEMPT TO START THE EXHAUST FAN WHEN THE EXHAUST FAN DELAY TIMER EXPIRES. WHEN THE EXHAUST FAN STARTS THE EXHAUST FAN ADJUSTABLE CURRENT SWITCH SHOULD CLOSE AND REMAIN CLOSED UNTIL THE FAN IS TURNED OFF.
- AFTER A DELAY OF 90 SECONDS (ADJ.) FROM EXHAUST FAN START SIGNAL, IF EXHAUST FAN CURRENT SWITCH IS STILL OPEN THE EXHAUST FAN ALARM SHOULD BE SET TO TRUE. THE EXHAUST FAN STATUS SHALL BE SET TO TRUE ONLY WHEN THE EXHAUST FAN OUTPUT IS ON AND EXHAUST FAN CURRENT SWITCH IS CLOSED. THE EXHAUST FAN STATUS SHALL BE FALSE IN ALL OTHER CIRCUMSTANCES.
- THE ANALOG VOLTAGE COMMAND TO THE EXHAUST FAN ECM CAN BE SET FROM THE UNIT CONTROLLER DISPLAY OR PROVIDED BY THE BMS. THE ADJUSTABLE RANGE OF 0% TO 100% CORRESPOND TO THE MINIMUM AND MAXIMUM FAN OPERATING SPEED (0 VDC MINIMUM TO 10 VDC MAXIMUM, ADJUSTABLE). THIS EXHAUST FAN OPERATION MODE CAN BE USED TO FIELD BALANCE AIR FLOW RATE.



1 ERU SEQUENCE NOT TO SCALE

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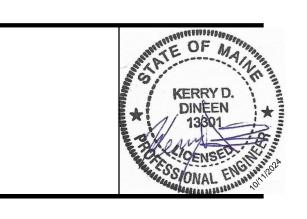
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NOTES:

1. SEE SHEET M-650 FOR LEGEND AND GENERAL NOTES.



1	ADDENDUM 1	10/11/2024

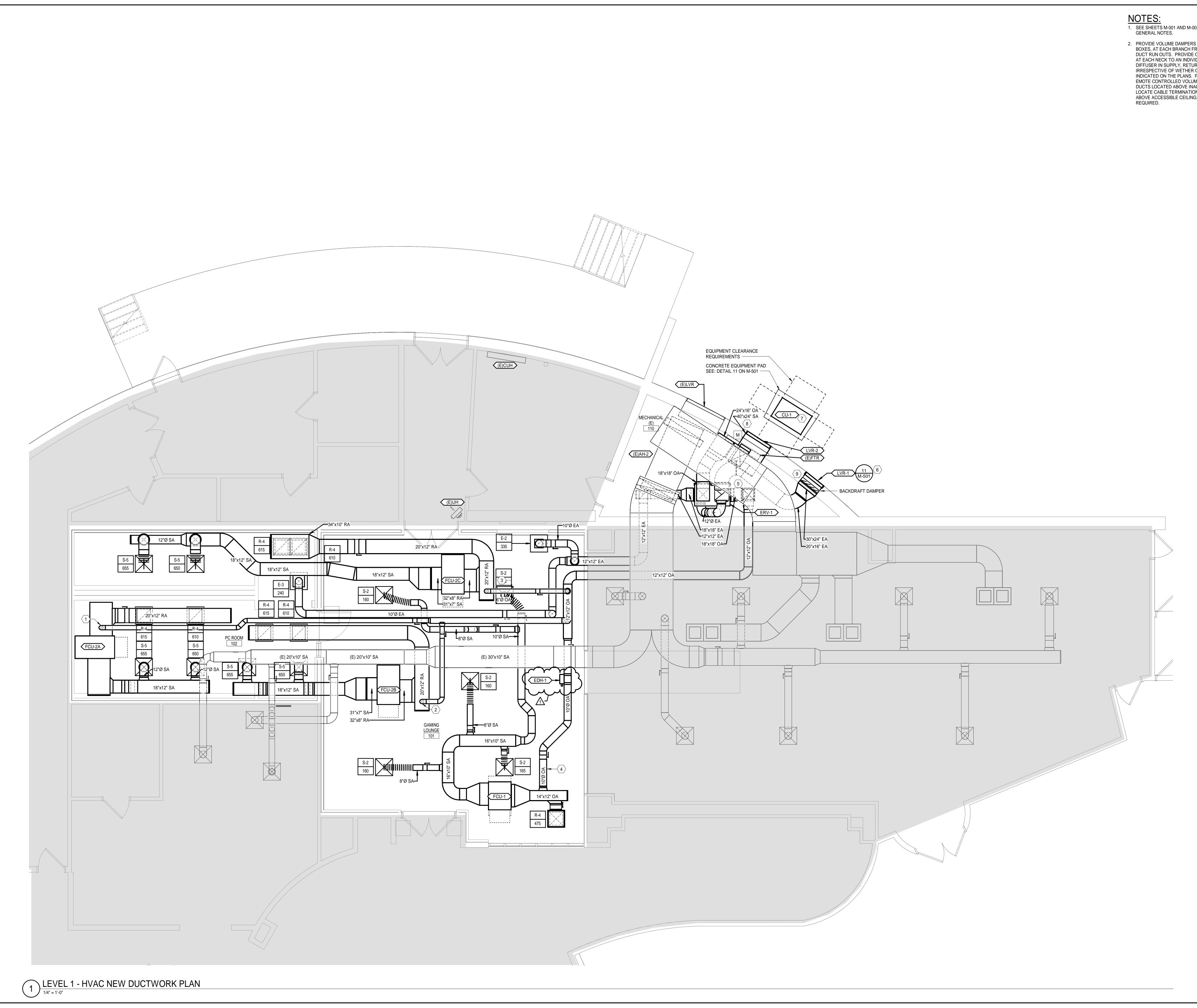
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MECHANICAL SEQUENCE OF OPERATIONS

SCALE: AS INDICATED DESIGNED BY: KDD SMRT PROJECT #: 23101 DRAWN BY: ERB

M-651



1. SEE SHEETS M-001 AND M-002 FOR LEGEND AND

2. PROVIDE VOLUME DAMPERS DOWN STREAM OF VAV BOXES, AT EACH BRANCH FROM MAIN DUCTWORK AND DUCT RUN OUTS. PROVIDE OPPOSED BLADE DAMPERS AT EACH NECK TO AN INDIVIDUAL REGISTER OR DIFFUSER IN SUPPLY, RETURN AND EXHAUST DUCTS IRRESPECTIVE OF WETHER OR NOT A DAMPER IS INDICATED ON THE PLANS. PROVIDE CABLE OPERATED EMOTE CONTROLLED VOLUME DAMPERS IN BRANCH DUCTS LOCATED ABOVE INACCESSIBLE CEILINGS. LOCATE CABLE TERMINATION IN ACCESSIBLE LOCATION ABOVE ACCESSIBLE CEILING. PROVIDE BLOCKING AS

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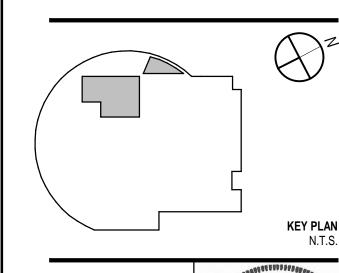
KEYNOTES

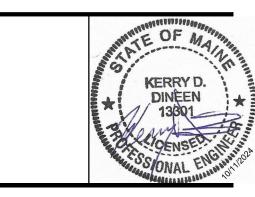
KEYNOTE

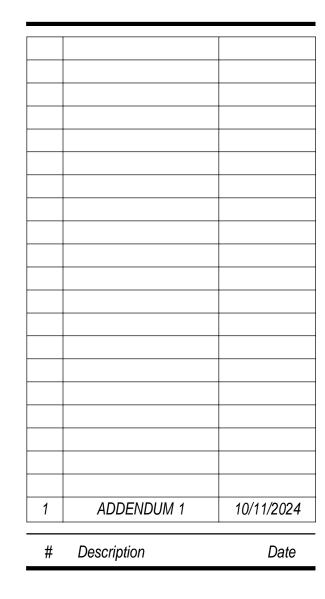
KEYNOTE DESCRIPTION 1 6" DIA OUTSIDE AIR FROM ERV-1 DUCTED INTO

- THE RETURN DUCT OF FCU-2A. BALANCE TO 80 2 6" DIA OUTSIDE AIR FROM ERV-1 DUCTED INTO
- THE RETURN DUCT OF FCU-2B. BALANCE TO 80 3 6" DIA OUTSIDE AIR FROM ERV-1 DUCTED INTO
- THE RETURN DUCT OF FCU-2C. BALANCE TO 80
- 4 10" DIA OUTSIDE AIR FROM ERV-1 DUCTED INTO THE RETURN DUCT OF FCU-1. BALANCE TO 335
- 5 SUPPLY DUCT MAIN TO SUPPLY DUCT CONNECTION ON ERU-1. 6 CONTRACTOR TO INSTALL LVR-1 MINIMUM 10'
- ABOVE ADJOINING GRADE AND MINIMUM 10' AWAY FROM NEW OUTSIDE AIR LOUVER. MOUNT ON CONCRETE EQUIPMENT PAD WITH 24" EQUIPMENT STANDS IN ACCORDANCE WITH MANUFACTURERS STANDARDS AND
- REQUIREMENTS. 8 OUTSIDE AIR PLENUM OFF NEW LOUVER SHALL BE 40"x24"x48" (WxHxD). PROVIDE DRAIN AND VALVE IN THE OUTSIDE AIR PLENUM AND PITCH
- 9 EXHAUST AIR PLENUM OFF NEW LOUVER SHALL BE 32"x16"x20" (WxHxD). PROVIDE DRAIN AND VALVE IN THE EXHAUST AIR PLENUM AND PITCH TOWARDS LOUVER.

TOWARDS LOUVER.





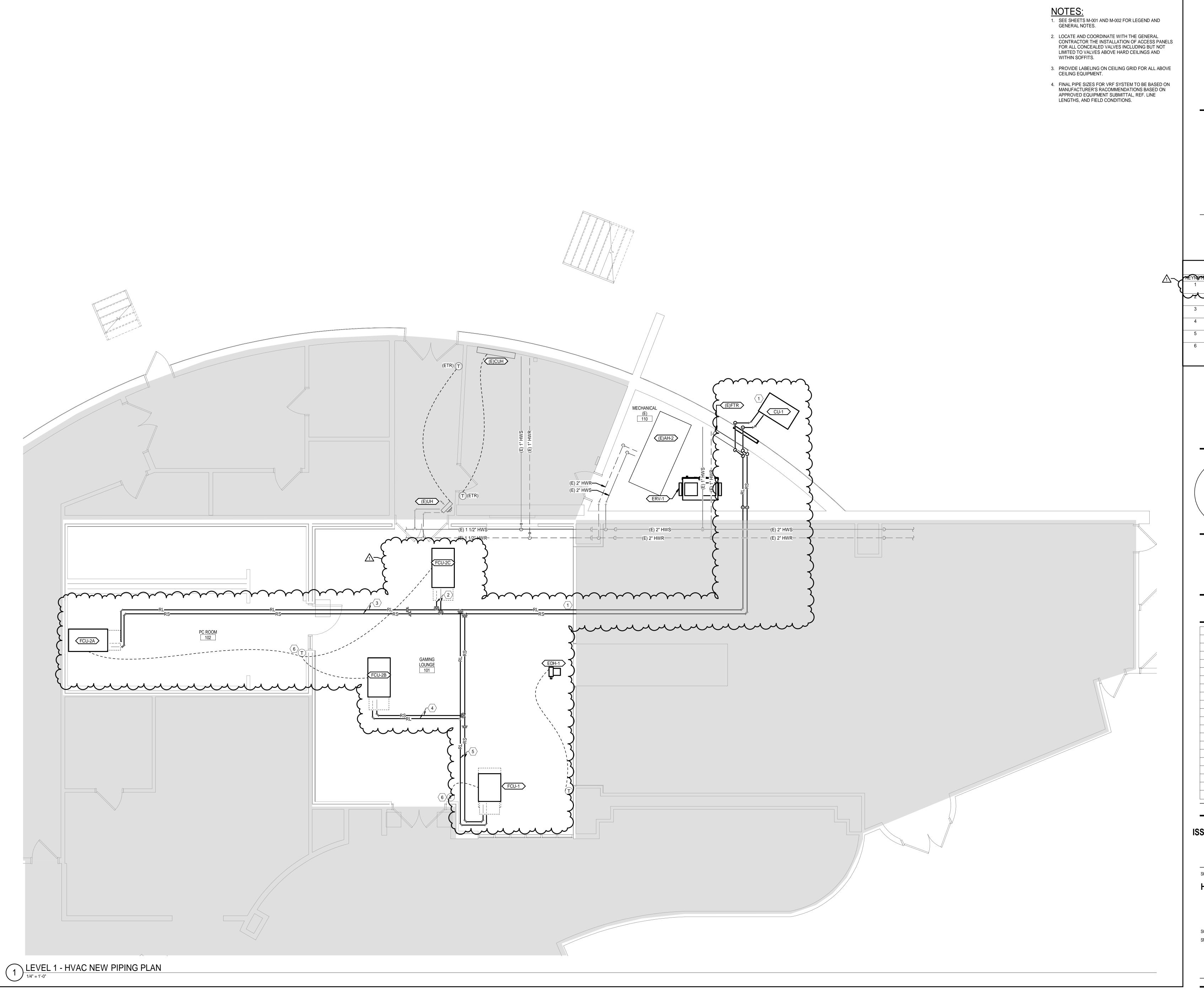


SEPTEMBER 17, 2024

HVAC DUCTWORK PLAN

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KEYNOTES

(LIQUID) X 5/8" (GAS)

REFRIGERANT LINE SIZES FOR FCU-2A: 3/8" (LIQUID) X 5/8" (GAS) 4 REFRIGERANT LINE SIZES FOR FCU-2B: 3/8"

(LIQUID) X 5/8" (GAS)

REFRIGERANT LINE SIZES FOR FCU-1: 3/8" (LIQUID) X 5/8" (GAS)

PRIOR TO INSTALLING VRF TEMPERATURE SENSORS, COORDINATE WITH GC, ARCHITECT, AND MECHANICAL ENGINEER FOR FINAL APPROVED LOCATIONS (TYP. FOR ALL).

ADDENDUM 1 10/11/2024 # Description

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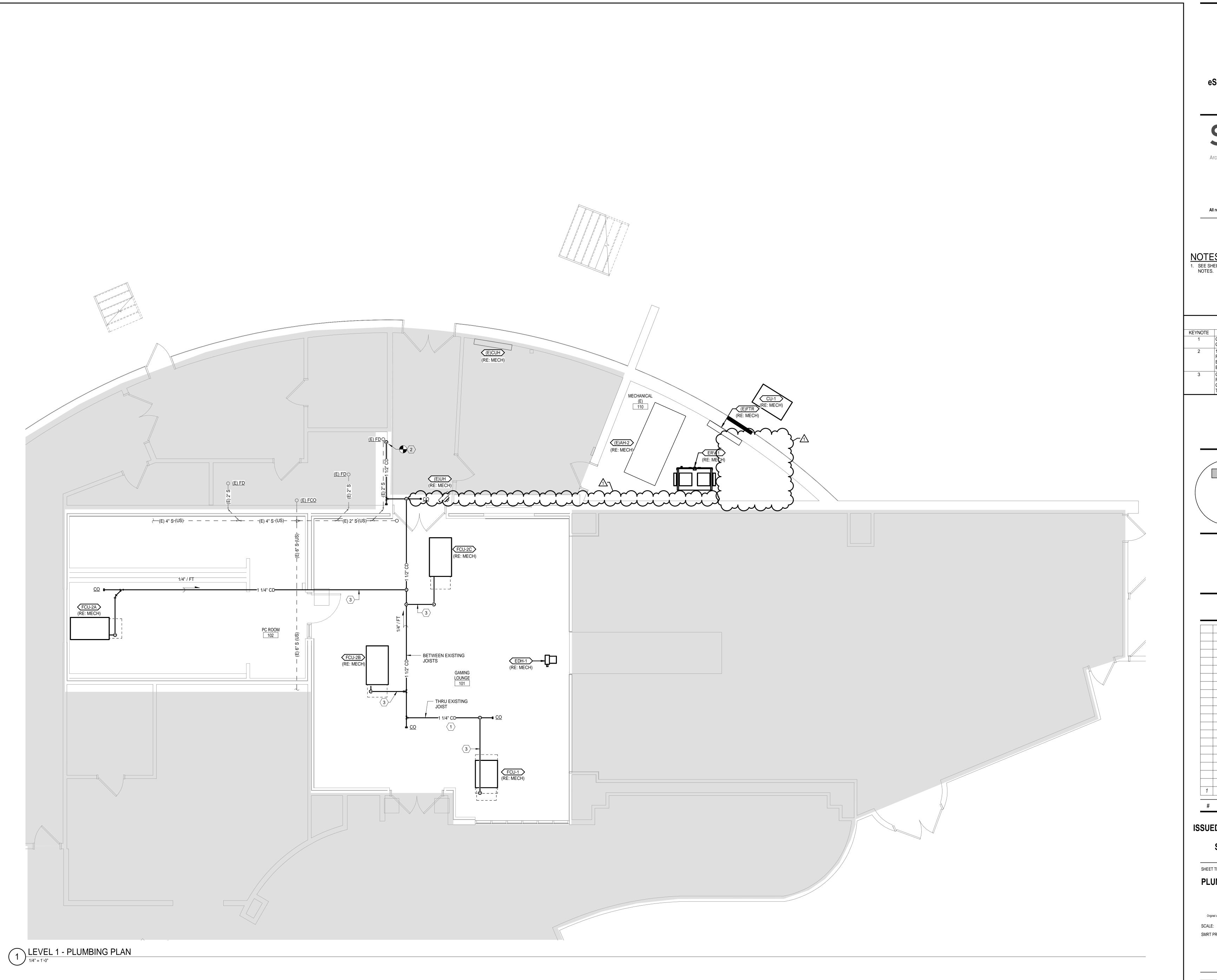
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HVAC PIPING PLAN

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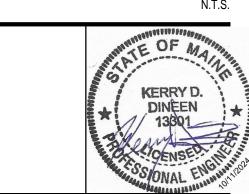
1. SEE SHEET P-001 AND P-002 FOR LEGEND AND GENERAL

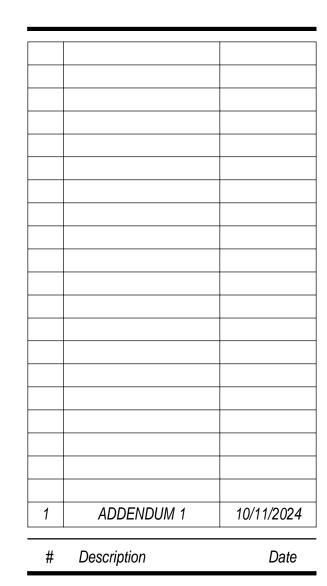
KEYNOTES

KEYNOTE DESCRIPTION

CONTRACTOR TO NOTIFY OWNER ABOUT CEILING DEMOLITION SCHEDULE.

1 1/2"CD DN ALONG WALL. SPILL INTO EXISTING FUNNEL DRAIN. CONTRACTOR TO VERIFY EXISTING CONDITIONS AND COORDINATE EXACT TIE-IN POINT DURING CONSTRUCTION. CONDENSATE DISCHARGE FROM INTEGRAL PUMP IN FAN COIL UNIT (SAME SIZE AS UNIT CONNECTION). LOCATE IN JOISTS SPACE TIGHT TO BOTTOM OF DECK





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PLUMBING DWV PIPING PLAN

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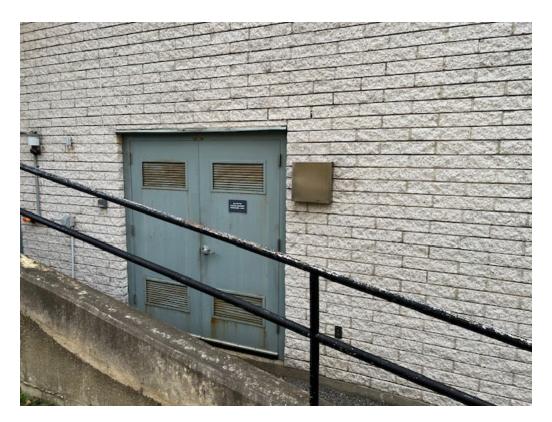
PRE-BID VISIT SIGN IN SHEET

USM Esports Arena | 09/25/24

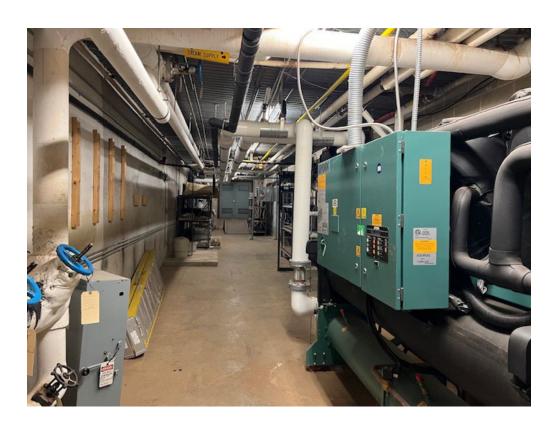
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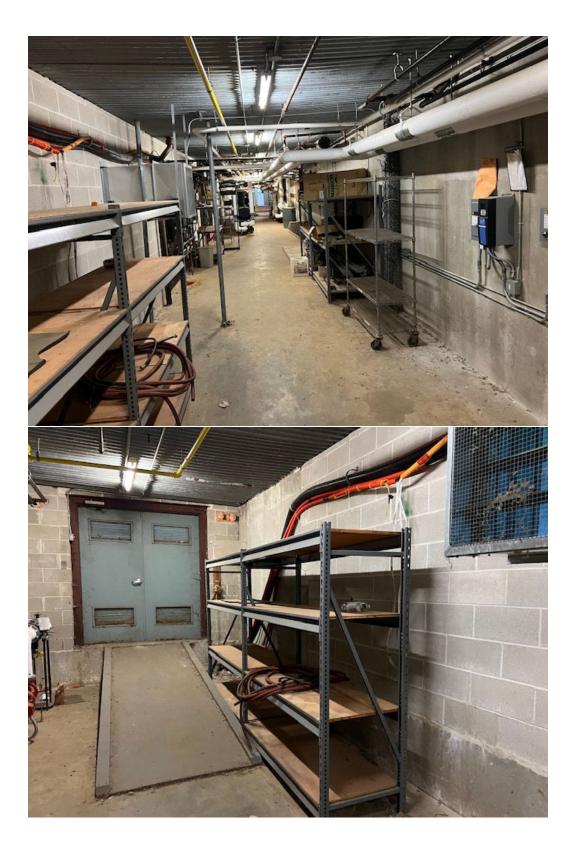
Name	Company	Contact Info
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Brian Labossier	Wright - Ryan	blabossier wright - Ry
Tyler Coffin	Wright - Ryan Doten's Construction	Tyler @ do tens, com
Jacob Milton	Optimum Construction	juilton@aptinum construction
\$1.		





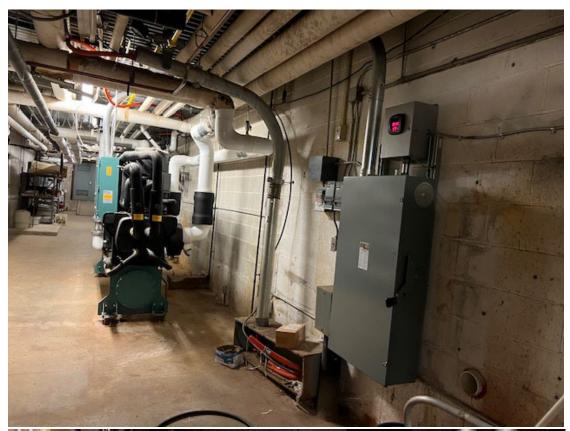
Exterior access to Mech/Elec Room - Basement











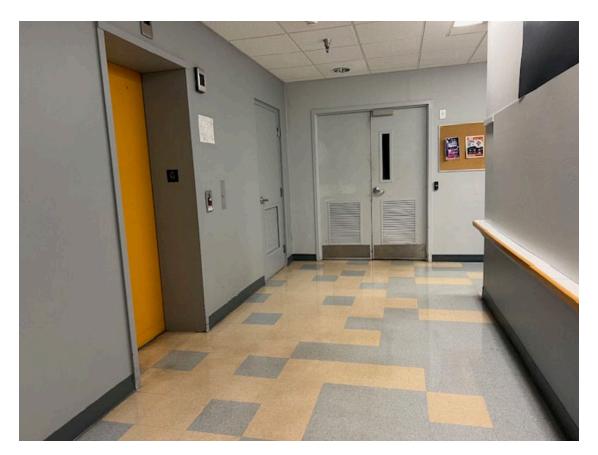






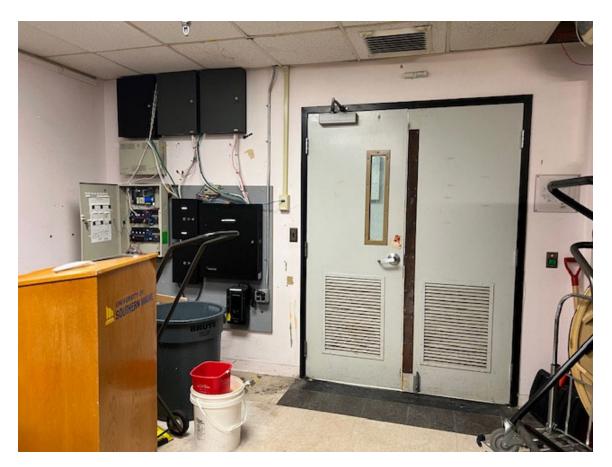


Interior views of Mech/Elec Room



Interior view of Corridor to Storage Room – Ground Floor





Interior views of Storage Room – Ground Floor