

Bid 643 New HVAC Modernization Project for Rio Mesa High School

BID CLARIFICATION ADDENDUM #1

Dated: December 30, 2020

All interested parties seeking to submit responses to the Oxnard Union High School District's Bid #638 shall execute the certification at the end of this addendum and shall attach the addendum to the documents submitted to the District.

The Oxnard Union High School District hereby amends Bid 643 New HVAC Modernization Project for Rio Mesa High School <u>as follows:</u>

- 1) <u>Question:</u> Where will the temporary power be pulled from? <u>Answer:</u> Temp. power can be pulled from existing panels
- 2) Please refer to <u>Attachment A</u> for Pre-Bid RFIs from Viola
- 3) Please refer to Attachment B for Architect's addendum 1
- **4)** INSTRUCTIONS TO BIDDERS, ITEM 41, ALLOWANCES, Document 00 72 13-xxv. <u>Allowance value shall be \$800,000 "IN LIEU OF" \$500,000 as shown below:</u>

Allowances: The Contractor (General Contractor) shall provide and incorporate an "Allowance" of \$800,000.00 (Eight Hundred Thousand US Dollars) into the base bid value submitted. This Allowance is for future and/or unforeseen conditions encountered during the contract duration.

<u>Note</u>: The Allowance shall be included/added in the Contract Base Bid Value of the General Contractor's proposal.

This value (\$800,000.00) will be designated as a line item within the contractor's schedule of values ("SOV"). The District shall have sole discretion to authorize all expenditures from the Allowance. The District shall issue directives to be used against the Allowance in the form of a Price Request ("PR"). All pricing in response to ("PR") for additional or unforeseen work shall include the direct cost of labor, materials, equipment, transportation, design fees, applicable markup, overall management and general condition costs, overhead and profit, taxes and insurance associated with ("Price Request"). Any unused Allowance or unused portion thereof shall be credited back to the District at the conclusion of work.

BIDDER'S CERTIFICATION

I acknowledge receipt of the foregoing Addendum # 1 and accept all conditions contained herein.

Date	ed: BIDI	DER:	
		(company/entity)	
By:		Printed Name:	
	(authorized representative signature)		
Title	e:		

Bid Clarification Addendum #1 <u>Attachment A</u> <u>Viola RFIs</u>

OUHSD Addendum #1 Bid 643 New HVAC Modernization Project for Rio Mesa High School



FICATION REQUES	Т		RFI #	001
Tim Viola			DATE:	12/17/2020
Bid 643 New HVAC Mo	dernization f	or Rio Mesa High	Spec #:	26 05 00
Oxnard Union High Sch	ool District		PGS:	1
Arvind Balaji & Karl Aldridge	EMAIL:	<u>abalaji@bernards.com,</u> kaldridge@bernards.com	FAX:	
	Tim Viola Bid 643 New HVAC Mc Oxnard Union High Scho Arvind Balaji & Karl	Bid 643 New HVAC Modernization f Oxnard Union High School District Arvind Balaji & Karl EMAIL:	Tim Viola Bid 643 New HVAC Modernization for Rio Mesa High Oxnard Union High School District Arvind Balaji & Karl EMAIL: abalaji@bernards.com,	Tim Viola DATE: Bid 643 New HVAC Modernization for Rio Mesa High Spec #: Oxnard Union High School District PGS: Arvind Balaji & Karl EMAIL: abalaji@bernards.com, FAX:

YOUR RESPONSE TO THE FOLLOWING BID CLARIFICATION REQUEST IS REQUIRED BY ASAP

An electrical contractor submitted the following questions:

- 1. Please clarify if panel NA is existing to remain or is being replaced.
- 2. Please clarify scope for Panel HVAC-J. It is not shown on the single line or building plan but is shown as new in the panel schedules.
- 3. Please clarify scope for panel BP. Panel schedules and building plan show it as new, but the single line shows it as existing to remain.
- 4. Please clarify scope for panel C1. Panel schedules and building plan show it as new, but it is not shown on the single line.
- 5. Sheet EB201D is listed on sheet index and the pdf page 326 file has same name, however it appears to be a duplicate of EB-201. Can this missing page please be provided?

Check here if additional pages attached

PROPOSED SOLUTION

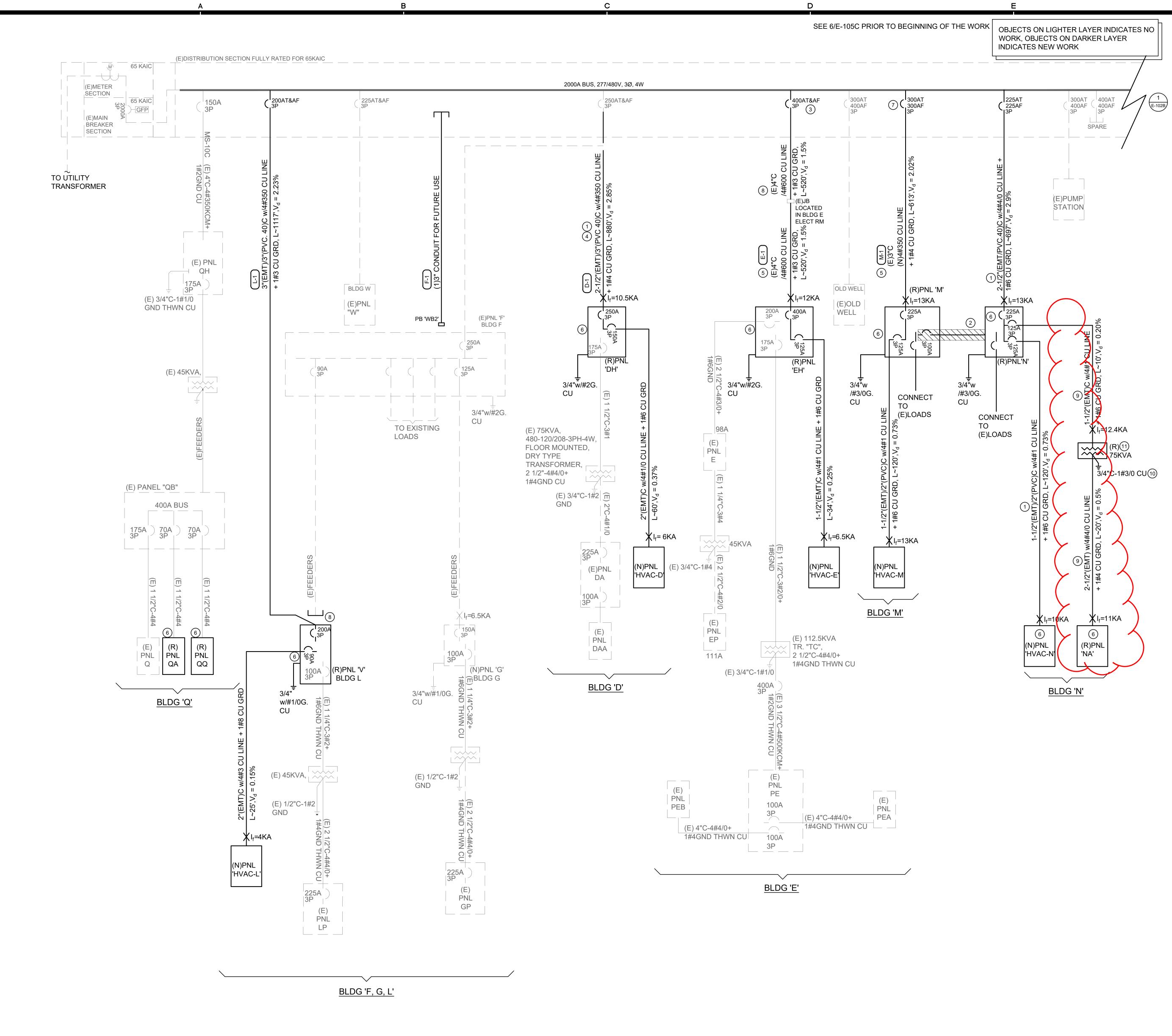
None currently.

Check here if additional pages attached

The following information is provided in response to your bid clarification request above. This is not a change order or an approval for extra work

5 - ATTACHED	IS EB201D					
	EL C1 ON SINGLE LINE, ALSO CHANGED AIC AND	SCCR TO 18KA, ALSO A	ADDED A NOTE IN (E)PC PAN	EL SCH SEE REVISED E102B, E106A		
3 - I BELIEVE Y CALLED OUT A	OU MEAN 'PB' AND NOT 'BP' WE DONT HAVE 'BP' S S REPLACED	SHOWN ON FLOOR PLA	NS OR PNL SCH, WE ARE RE	PLACING 'PB', SEE REVISED SINGLE LIN	E DIAGRAM E102B WITI	H PB BEING
2 - WE ARE NO E-106C	T USING HVAC-J ANYMORE, REVISED THE PNL SC	CH TO REMOVE HVAC-	J, SEE ATTACHED REVISED			
X'MER WILL NE						

P.O. Box 5624 / 1144 Commercial Ave., Oxnard, CA 93031 / 93030 Ph: (805) 487-3871 / Fax: (805) 487-3870



GENERAL NOTES

EXISTING CONDITIONS SHOWN ARE BASED ON AS-BUILT DRAWINGS & SITE-SURVEY. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS SHOWN PRIOR TO INSTALLATION OF ANY WORK.

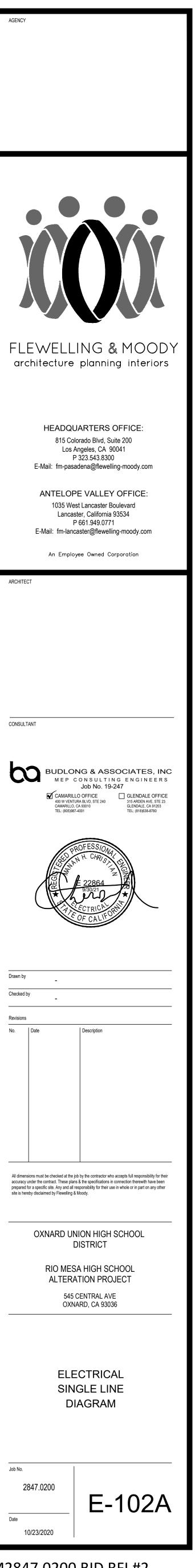
- THIS DRAWING IS DIAGRAMMATIC IN NATURE AND SHALL NOT BE SCALED TO DETERMINE THE EXACT LOCATION OR EXTENT OF THE WORK. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO THE START OF THE WORK.
- ALL ITEMS SHOWN ON SINGLE LINE DIAGRAM ARE NEW, UNLESS NOTES AS (E) FOR EXISTING.
- LENGTH OF FEEDERS SHOWN ON SINGLE LINE DIAGRAM ARE NOT TO BE USED FOR CONSTRUCTION OR BIDDING PURPOSE, CONTRACTOR TO VERIFY ACTUAL LENGTH REQUIRED.
- ALL EQUIPMENT SHALL BE LISTED AND LABELED BY A NATIONALLY RECOGNIZED TESTING LABORATORY AND SHALL BE INSTALLED AS PER LISTING OR LABELING.
- ALL DEVICES AND TERMINALS SHALL BE RATED FOR 75°C AND SHALL BE TORQUED TO MANUFACTURERS LISTED SPECIFICATIONS.
- ALL RACEWAYS SHALL CONTAIN A CODE-SIZED (CEC-250.122), INSULATED, GREEN, COPPER EQUIPMENT GROUNDING CONDUCTOR AND SHALL BE BONDED TO THE METALLIC COMPONENTS OF THE RACEWAY SYSTEM.
- ALL CONDUCTORS SHALL BE COPPER , AS NOTED, TYPE THWN/THHN 75° RATED

★ KEY NOTES

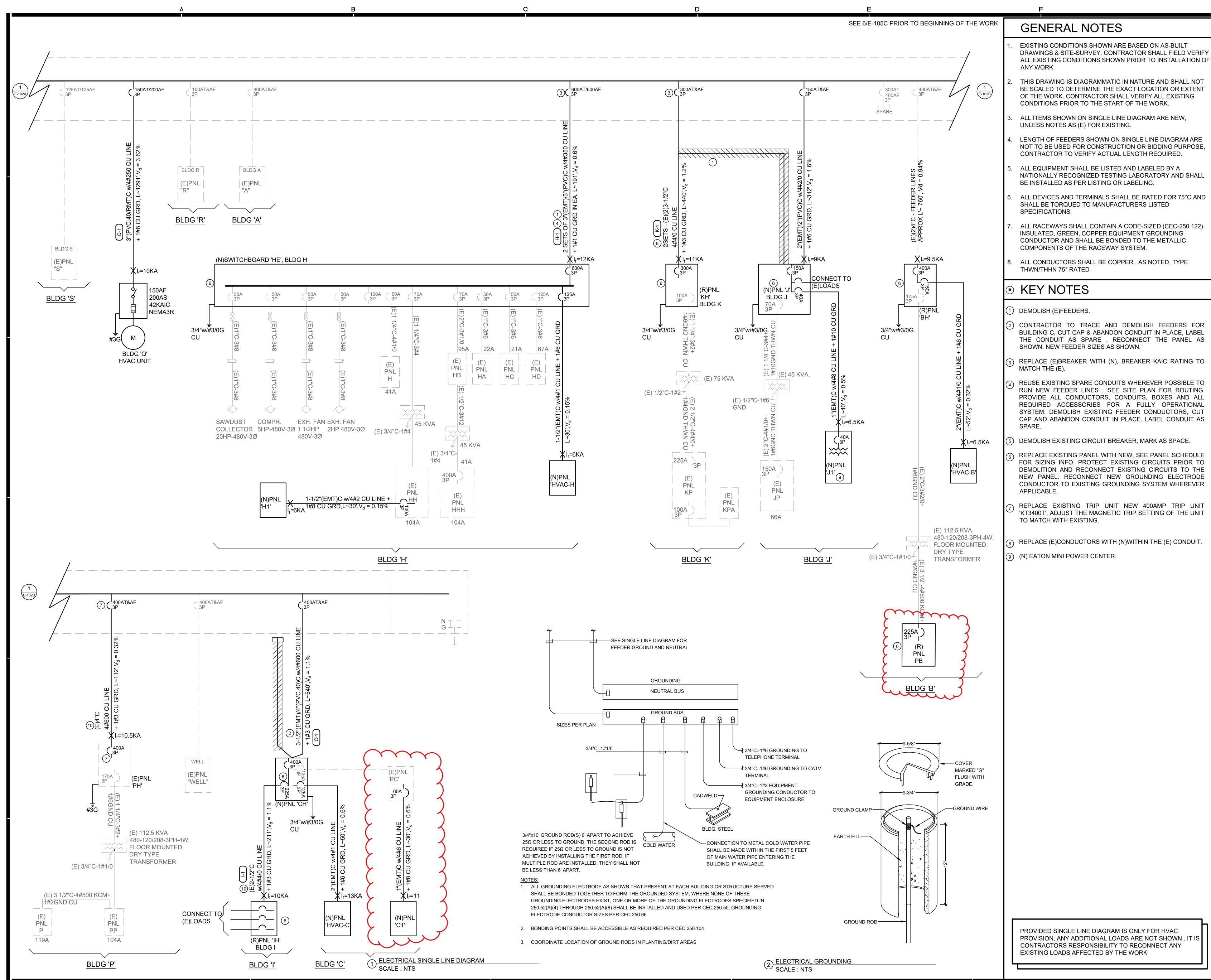
1) DEMOLISH (E)FEEDERS.

- DISCONNECT (E)PANEL FOR BUILDING N FROM PANEL M AND PROVIDE A (N) CONNECTION DIRECTLY FROM THE MAIN SWITCHBOARD WITH (N)FEEDERS AS SHOWN.
- REPLACE EXISTING TRIP UNIT NEW 400AMP TRIP UNIT 'KT3400T', ADJUST THE MAGNETIC TRIP SETTING OF THE UNIT TO MATCH WITH EXISTING.
- REUSE EXISTING SPARE CONDUITS WHEREVER POSSIBLE TO RUN NEW FEEDER LINES, SEE SITE PLAN FOR ROUTING PROVIDE ALL CONDUCTORS, CONDUITS, BOXES AND ALL REQUIRED ACCESSORIES FOR A FULLY OPERATIONAL SYSTEM. DEMOLISH EXISTING FEEDER CONDUCTORS, CUT CAP AND ABANDON CONDUIT IN PLACE. LABEL CONDUIT AS SPARE.
- REPLACE (E)CONDUCTORS WITH (N)WITHIN THE (E) CONDUIT
- REPLACE EXISTING PANEL WITH NEW, SEE PANEL SCHEDULE FOR SIZING INFO. PROTECT EXISTING CIRCUITS PRIOR TO DEMOLITION AND RECONNECT EXISTING CIRCUITS TO THE NEW PANEL. RECONNECT NEW GROUNDING ELECTRODE CONDUCTOR TO EXISTING GROUNDING SYSTEM WHEREVER APPLICABLE.
- REPLACE (E)BREAKER WITH (N), BREAKER KAIC RATING TO MATCH THE (E).
-) DISCONNECT PANEL FROM (E)FEEDER AND RECONNECT TO (N)FEEDER AS SHOWN. CUT, CAP AND ABANDON (E)FEEDERS IN PLACE, REMOVE CONDUCTORS. LABEL UPSTREAM FEEDER BREAKER LOCATED IN BUILDING 'F' AS SPARE
- DEMOLISH (E)FEEDERS AND REPLACED WITH (N)AS SHOWN
- (10) CONNECT (N)GROUNDING ELECTRODE CONDUCTOR TO (E)GROUNDING SYSTEM
- 1) REPLACE (E)TRANSFORMER WITH (N) IN PLACE

1 ELECTRICAL SINGLE LINE DIAGRAM SCALE : NTS

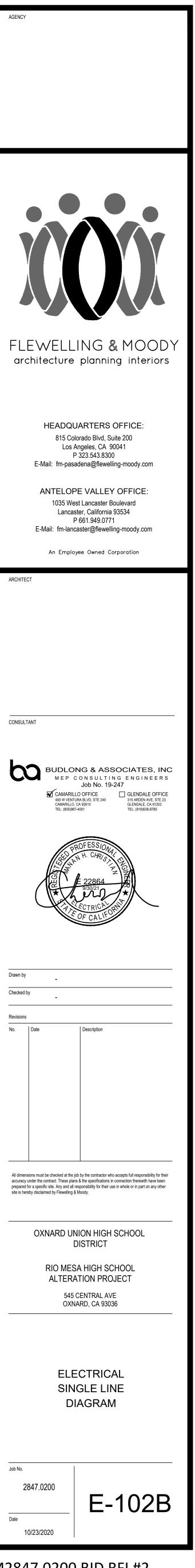


FM2847.0200 BID RFI #2









FM2847.0200 BID RFI #2

(E)	PANEL	.: PE	BL	120	/20	8 \	/Ol	_Т,	3	PH , 4	IW 400 AMF	SXI ، EXI	STIN	IG BI	JS
LOCA	ATION: EL	.EC. RC	OM 108	((PANE	L TO ⊢	AVEE	OLT-C	N BRE	EAKERS)		М	AIN:	400 Al	MP
MOUN	TING: SUR	FACE M	OUNTED								LOAD:	3.5	kVA	8	AMPS
СК	VA LO		LOAD DESCRIPTION	οι	JTLETS	з ск	T BKR	скт	BKR	OUTLETS	LOAD DESCRIPTION		/a loae		
	LINE A LINE	E B LINE	с	0	R	L P	Α	Α		LRC		LINE A	LINE B	LINE C	#
1			(E)LIGHTING			1	20	20			(E)LIGHTING				2
3			(E)LIGHTING			1	20	20			(E)LIGHTING	+			4
5			(E)EAST WATER HEATER			1	20	20			(E)LOAD	\square			6
7			(E)OUTLETS			1	20	20	1		(E)OUTLETS	\square			8
9			(E)OUTLETS			1	20	20	1		(E)OUTLETS				10
11			(E)OUTLETS			1	20	20	1		(E)OUTLETS				12
13			(E)OUTLETS			1	20	20	1		(E)OUTLETS				14
15			(E)OUTLETS			1	20	20	1		(E)OUTLETS				16
17			(E)OUTLETS			1	20	20	1		(E)HAND DRYER				18
19			(E)OUTLETS			1	20	20	1		(E)HAND DRYER				20
21			(E)OUTLETS			1	20	20	1		(E)HAND DRYER				22
23			(E)LIGHTING PANEL			1	20	20	1		(E)HAND DRYER				24
25			(E)HAND DRYER			1	20	20	1		(E)HAND DRYER				26
27			(E)HAND DRYER			1	20	20	1		(E)HAND DRYER				28
29		15	50 (N)BOOSTER FAN	1		1	20	20	1		(E)HAND DRYER				30
31			(E)PBLA			1	20	20	1		(E)FIRE ALARM				32
33			(E)PBLA			1	20				(N)HP - AQ-110		1560		34
35			(E)PBLA			1	20	15	2		-			1560	36
37			-					20	1		(E)WEST WATER HEATER				38
39	1	180	(N)NR		1	1	20				-				40
41			SPACE								-	+ +			42
	0 1	180 15	50 SUB - TOTALS								SUB - TOTAL	s o	1560	1560	
	I 1.										LINE TOTALS	s: 0	1740	1710	
:	2.										LCL ADDE	R 0	0	0	
:	3.										TOTAL VA PER PHAS	E O	1740	1710	
	4.												8	8	

(N [*]	PAN	EL:	BH		277	/480) \	/0	LT,	3	Ρ	H,	4\	N	40	0 AN	IP B	U	S
•	ATION:			N 40B					BOLT-C						N	IAIN:	400 A	١N	P
мои	NTING:	SURFA	CE MO	UNTED										LOAD:	302.0		363		
СК	\ \	/a loai	C	LOAD DESCRIPTION	οι	JTLETS	ск	T BKF	скт	BKR	0	UTLEI	rs	LOAD DESCRIPTION	<u>۱</u>	/a loai)		ск
#		LINE B	LINE C		0	R L	Ρ		A	Ρ	L	R	0		-	LINE B	LINE C		#
1	4432			(E)LOAD			1	20	┥┝━━━	_				(E)LOAD	4432				2
3		4432		(E)LOAD			1	20						(E)LOAD		4432			4
5			4432	(E)LOAD			1	20		1				(E)LOAD			4432		6
7	4432			(E)LOAD			1	20	20	1				(E)LOAD	4432				8
9		4432		(E)LOAD			1	20	20	1				(E)LOAD		4432			10
11			4432	(E)LOAD			1	20	20	1				(E)LOAD			4432		12
13	15000			(E)TRANSFORMER										(N)PANEL HVAC-B	36947			1	14
15		15000		-			3	100) 150	3				-		36947		1	16
17			15000	-										-			36947	1	18
19	3322			(E)LOAD										-					20
21		3322		-			3	15						SPACE					22
23			3322	-										SPACE					24
25				SPACE										SPACE					26
27				SPACE					1					SPACE					28
29				SPACE					1					SPACE					30
31				SPACE					1					SPACE					32
33				SPACE					1					SPACE					34
35				SPACE										SPACE					36
37				SPACE										(E)PANEL B	27680			1	38
39				SPACE			1		125	3				-		27680		1	40
41				SPACE		-	\square		11					-			27680	1	42
	27186	27186	27186	SUB - TOTALS			1	1		1	I			I SUB - TOTALS	5 73491	73491	73491		-
NOTE		SUBFEE		J										LINE TOTALS	: 100677	100677		4	
	2.	SCCR A		RATING OF THE PANEL TO MAT	ГСН ЕХІЯТ	NG PA	NE	L						LCL ADDEF		0	0	-	
	3.													TOTAL VA PER PHASE	-	100677	100677	1	
	4 .															363	363	-	

		IEL: C	<u>ц</u>	277	·//	80	V		т	2	D	Ц	1	W 400			DDE		211
		: JANITOF		211					∎∎, OLT-C					••			IAIN:		
		SURFACE			(17.0		011		021 0)		LOAD:	76.9			AMPS
		VA LOAD			UTLE	TS	скт	BKR	скт	BKR	0	UTLE	TS				/A LOAI		ск
# NT	LINE A	LINE B LIN	E C	0		L	Ρ	A	A	Ρ	L		0	LOAD DESCRIPTION		LINE A	LINE B	LINE C	NT #
1			(E)LOAD											(E)LOAD					2
СК # 1 3 5			-				3	50	50	3				-					4
			-											-					6
7			(E)LOAD											(E)LOAD					8
9 11			-				3	100	20	3				-					10
11			-											-					12
13			SPACE											(E)LOAD					14
15 17			SPACE						50	3				-					16
17			SPACE											-					18
19			SPACE											SPACE					20
21			SPACE											SPACE					22
23			SPACE							\square				(N)HVAC-C				25624	24
21 23 25 27 29 31 33 35 37 39 41			SPACE						125	3				-		25624			26
27			SPACE											-			25624		28
29			SPACE											SPACE					30
31			SPACE											(E)LOAD					32
33			SPACE						70	3				-					34
35			SPACE											-					36
37			SPACE											(E)LOAD					1 38
39			SPACE						225	3				-					40
41			SPACE											-					42
	0	0	0 SUB - TOTALS	I							1	1		SUB - 1	TOTALS	25624	25624	25624	
NOTE	:1.	SUBFEED B	REAKER											LINE T	OTALS:	25624	25624	25624	
	2.	EXISTING L	OAD 240AMPS + NEW LOAD 93 /	AMPS = 333	AMF	P S								LCL	ADDER	0	0	0	
	3.	SCCR AND	AIC RATING OF THE NEW PANE	L TO MATCH	EX	STIN	G							TOTAL VA PER	PHASE	25624	25624	25624	
	4.													LINE	AMPS	93	93	93	

	Ľ	2

400 AMP COPPER BUS

LOAD: 76.9 kVA 93 AMPS

3048 3048

3048

LOAD DESCRIPTION

POWER EXHAUSTS- RTU- C-52, 53 & 1995

POWER EXHAUSTS- RTU- C-54A & 59 1053

RTU - C-53

 Image: Second state
 Image: Second state
 POWER EXHAUSTS- RTU- C-54 & 55
 1330

 Image: Second state
 3
 15
 20
 3

VA LOAD

3048 4 3048 6

 LINE A
 LINE B
 LINE C
 NT
 #

 3048
 2

MAIN: 400A

3048 14 16

3048

1053 48 50

52

 3048
 20

 3048
 22

 3048
 22

 3048
 24

 1330
 26

 4 & 55
 1330
 26

 1330
 28

 1330
 30

 2, 53 & €
 1995
 32

 3 & 6
 1995
 32

 1995
 1995
 34

 1995
 36

 2771
 38

 2771
 40

 2771
 42

 \$59
 1053
 44

 1053
 46

______1053_____ ____________1053_____

SUB - TOTALS 15472.8 15472.8 15472.8

LINE TOTALS: 24862.1 24862.1 24862.1

С	

	PANE				4 77/ (P)						REAKER					ER B		
	NTING: SL			D		SCR					:22KA	,	LOAD:	110.8		133		
ж			1		оит	LETS	CK	T BKR	скт	BKR	ουπ	ETS			VA LOAD		с	— ж
# NT	LINE A	LINE B	LINE C	LOAD DESCRIPTION		R L			A			२ 0	LOAD DESCRIPTION	LINE A	LINE B	LINE C	NT	#
1	6375			RTU - B-20									RTU - B-21	4160			:	2
3		6375		-			3	25	20	3			-		4160	Í	4	4
5			6375	-									-			4160	6	6
7	3050			RTU - B-22									RTU - B-23	3050			1	8
9		3050		-			3	15	15	3			-		3050		1	10
1			3050	-			1						-			3050	1	12
3	3050			RTU - B-24									RTU - B-35	3050			1	14
5		3050		-			3	15	15	3			-		3050		1	16
17			3050	-			1						-			3050	1	18
9	3050			RTU - B-36		+				F			RTU - B-37	3050			2	20
21		3050		-		+	3	15	15	3			-		3050		2	22
23			3050	-			1						-			3050	2	24
25	3050			RTU - B-38						\mathbf{F}			RTU - B-39	3050			2	26
27		3050		-		-	3	15	15	3			-		3050		2	28
29			3050	-		-							-			3050	3	
31	3050			RTU - B-40		-	-		┨┝───	\vdash			POWER EXHAUSTS- RTU- B-22, 23 & 3	1995			3	
33		3050		-		+	3	15	20	3			-		1995		3	
35			3050	-		+	+						-			1995	3	
37	1995			POWER EXHAUSTS- RTU- B-24, 35 & 3	36	-	+			\vdash			POWER EXHAUSTS- RTU- B-21, 38 & 3	1995			3	
39		1995		-		-	3	20	20	3			-		1995			40
11		1000	1995	-		+	ſ			ľ			-		1000	1995	4	
13	914		1000	POWER EXHAUSTS- RTU- B-20 & 21			+						SPACE				4	
15	014	914				+	3	15		\vdash			SPACE			├───┼	4	
17		514	914			-	ſ						SPACE	<u> </u>			4	
+/ 19			514	- SPACE		_	+	-					SPACE			 	5	
						_			┨┝──							 		
51				SPACE		_	+	-					SPACE	<u> </u>		╡───┤	5	
53	24534	24534	71524	SPACE SUB - TOTALS									SPACE SUB - TOTALS	20350	20350	20250	5	4ر
		24534	∠4534	1000 - 101ALS									LINE TOTALS			20350 35907.2		
	2.												25% OF LARGERST MOTOR					
	3.												TOTAL VA PER PHASE	26047.2	26047.2	26047.2		

277/480 VOLT, 3 PH, 4W

(PANEL TO HAVE BOLT-ON BREAKERS)

SSCR: 22KA AIC:22KA

3 20 20 3 -

 Image: Constraint of the second system
 Image: Constraint of the second system
 Image: Constraint of the second system
 Image: Constraint of the second system

 Image: Constraint of the second system
 Image: Constraint of the second system
 Image: Constraint of the second system
 Image: Constraint of the second system

 Image: Constraint of the second system
 Image: Constraint of the second system
 Image: Constraint of the second system
 Image: Constraint of the second system

 Image: Constraint of the second system
 Image: Constraint of the second system
 Image: Constraint of the second system
 Image: Constraint of the second system

 Image: Constraint of the second system
 Image: Constraint of the second system
 Image: Constraint of the second system
 Image: Constraint of the second system

 Image: Constraint of the second system
 Image: Constraint of the second system
 Image: Constraint of the second system
 Image: Constraint of the second system

 Image: Constraint of the second system
 Image: Constraint of the second system
 Image: Constraint of the second system
 Image: Constraint of the second system

 Image: Constraint of the second system
 Image: Constraint of the second system
 Image: Constraint of the second system
 Image: Constraint of the second system

 Image: Constraint of the second system
 Image: Constraint of the second system
 Image: Constraint of the second system
 Image: Constraint of the second system

 Image: Constraint of t

(N)PANEL: HVAC-C

LOCATION: STORAGE 58A4

MOUNTING: SURFACE MOUNTED

 CK
 Image: NT
 VA LOAD
 LOAD

 #
 NT
 LINE A
 LINE B
 LINE C
 LOAD

 1
 3048
 RTU - C-52
 RTU - C-52

3048 -3048 -

 7
 3048
 RTU - C-54

 9
 3048

 9
 3040

 11
 3048

 13
 3048
 RTU - C-56

 15
 3048

 17
 3048

 19
 3048

 21
 3048

 23
 3048

 25
 3048

 27
 3048

 33
 1995

 37
 2271
 RTU - C-58A

 37
 2271
 R10-C-30

 39
 2271

 41
 2271

 43
 SPACE

 45
 SPACE

 47
 SPACE

1 SPACE 153 SPACE

15604.8 15604.8 15604.8 SUB - TOTALS

SUBFEED BREAKER

SPACE

3046

35 1995 -

NOTE: 1.

LOAD DESCRIPTION

 27
 3046
 3
 15
 20
 3

 29
 3048

 31
 1995
 POWER EXHAUSTS- RTU- C-56, 58 & 58A

 33
 1995
 3
 20
 3

	-	EL: F		120)/2	808	5 V		_ [,	3	P	Η,	4\	<i>N</i> 225 AMP				-
00	CATION:	CUSTO	DIAN 40B		(PA	NEL 1	то н	AVEE	OLT-O	NBF	REAK	(ERS)			N	IAIN:	225 /	٩N
טכ	INTING:	SURFACE	MOUNTED											LOAD:	6.6	kVA	15	5 A
NT		A LOAD	LOAD DESCRIPTIO		υπι			T BKR	СКТ		-	UTLET		LOAD DESCRIPTION	1	VA LOA		NT
	LINE A	LINE B LI		0	R	L	P	A	A	P	L	R			LINE A	LINE B	LINE C	;
			(E)LOAD		_	_	1	20	20	1				(E)LOAD	<u> </u>		<u> </u>	_
			(E)LOAD		_	-	1	20	20	1				(E)LOAD	<u> </u>		<u> </u>	_
			(E)LOAD				1	20	20	1				(E)LOAD	L		<u> </u>	_
			(E)LOAD				1	20	20	1				(E)LOAD			<u> </u>	
			(E)LOAD				1	20	20	1				(E)LOAD				
1			(E)LOAD				1	20	20	1				(E)LOAD				
3			(E)LOAD				1	20	20	1				(E)LOAD				
5			(E)LOAD				1	20	20	1				(E)LOAD				
7			(E)LOAD				1	20	20	1				(E)LOAD				
9			(E)LOAD				1	20	20	1				(E)LOAD				
1			(E)LOAD				1	20	20	1				(E)LOAD				
3			(E)LOAD				1	20	20					(E)LOAD				T
5			(E)LOAD				1	20	20	2				-				Γ
7			(E)LOAD				1	20	20	1				(E)LOAD				T
9			(E)LOAD											(E)LOAD				T
1			-				2	20	20	2				-				1
3			(E)LOAD				1	20						(E)LOAD				+
5			(E)LOAD				1	20	30	2				-				+
7			(E)LOAD			-	1	20						(E)LOAD				+
9			(E)LOAD						100	3				-				+
1			-				2	20						-				+
.3	150		(N)BOOSTER FANS	1		+	1	20						(N)HP - B-20D	2496			+
5		180	(N)NR		1	+	1	20	40	2				-		2496	;	+
7			SPACE		+	+			20	1		4		(N)SERVICE RECEPTACLES			720	+
9			SPACE		+	+			20	1		3		(N)SERVICE RECEPTACLES	540			+
1			SPACE											SPACE			+	+
3			SPACE			-								SPACE				+
	150	180	0 SUB - TOTALS											SUB - TOTALS	3036	2496	5 720	+
OTF			DN THE PANEL IS 120A PER AS BUIL	TS+NEWLY AD	DEC		AD 1	5A < 2	225A					LINE TOTALS:				4
		. ,	D KAIC RATING TO MATCH (E)PAI			_0/			,					LCL ADDER				4
	2. 3.			1										TOTAL VA PER PHASE				4
	3. 4.														L			-

N)	PAN	EL:	C1		12)/2	208	۶V	<u>'Ol</u>	_T,	3	Pł	Η,	4\	N	10	0 AN	IP B	US
ос	ATION:	JANIT	OR 62	D		(PA	NEL T	юн	AVEB	OLT-O	N BR	EAKI	ERS)				MAIN	: 60 A	MF
IOU	NTING: S	URFACE		NTED			sco	CR	: 18K	a aic	: 18	3KA			LOAD:	7.3	kVA	14	AMF
K NT	V LINE A	/A LOAC LINE B		LOAD DESCRIPTION				СК	T BKR A	скт	BKR P	ou L	R		LOAD DESCRIPTION		/A LOAD		NT
	150			BOOSTER FANS	3			1	20	20	1				EF - C-57	1130			
		360		NR & CP		2		1	20	20	1		3		SERVICE RECEPTACLES		540		
				SPACE						20	1		3		SERVICE RECEPTACLES			540	
				SPACE											SPACE				
				SPACE											SPACE				ŀ
			1560	HP - C-54B				2	15						SPACE				ŕ
	1560			-					15						SPACE				1
		1500		(E) LOAD				1	20						SPACE				1
				SPACE											SPACE				1
				SPACE											SPACE				2
	1710	1860	1560	SUB - TOTALS											SUB - TOTALS	1130	540	540	
DTE	:1.														LINE TOTALS:	2840	2400	2100	
	2.														LCL ADDER	0	0	0	
	3.														TOTAL VA PER PHASE	2840	2400	2100	
	4.														LINE AMPS	14	12	10	

(N)	PAN	EL:	DH		27	7/4	80	V	'OL	.T,	3	P۲	1, 4	N	25	0 AN	IP B	US
.00	ATION:	ELEC	TRICA	L ROOM 10		(PA	NEL T	юн	AVEB	OLT-OI	N BF	REAKE	RS)			MA	AIN: 2	50A
IOU	NTING:	SURFA		JNTED										LOAD:	192.0	kVA	231	AMPS
к		/a loai	C	LOAD DESCRIPTION		DUTLE	ETS	ск	r BKR	СКТЕ	BKR	OU	TLETS	LOAD DESCRIPTION	\ \	/a loae)	Cł
# NT	LINE A	LINE B	LINE C		С	R	L	Р	А	А	Ρ	L	R O		LINE A	LINE B	LINE C	NT #
	4432			(E)LOAD				1	20	20	1			(E)LOAD	4432			2
		4432		(E)LOAD				1	20	20	1			(E)LOAD		4432		4
			4432	(E)LOAD				1	20	20	1			(E)LOAD			4432	6
	11072			(E)LOAD										(E)LOAD	6717			8
,		11072		-				3	50	70	3			-		6717		1(
1			11072	-										-			6717	1:
3				SPACE										(N)PANEL HVAC-D	37362			14
5				SPACE						150	3			-		37362		1 10
7				SPACE										-			37362	18
9				SPACE										SPACE				20
1				SPACE										SPACE				22
3				SPACE										SPACE				24
	15504	15504	15504	SUB - TOTALS	I									SUB - TOTAL	S 48511	48511	48511	
ΟΤΕ	: 1	SUBFEE	ED BREA	KER										LINE TOTALS	64015	64015	64015	
	2													LCL ADDE	۲ 0	0	0	
	3													TOTAL VA PER PHAS	E 64015	64015	64015	
	4														S 231	231	231	

120/208 VOLT, 3 PH, 4W

| 2.
3.
4. | | | | | |
 | | | |
 |
 | | TOTAL VA I | PER PHASE
 | 25624.1 |
 | 25624.1 | | |
 | |
|----------------|--|--|--|--|--
--
--|---------------------|---|--|---
--
--	--
--
---|---|---|---
--|
| | | | | | |
 | | | |
 |
 | | |
 | |
 | | | |
 | |
| | | | | | |
 | | | |
 |
 | | |
 | |
 | | | |
 | |
| | | | | | |
 | | | |
 |
 | | |
 | |
 | | | |
 | |
| PANE | EL: F | łVAC | ;-D ; | 277 | /48 | 30
 | VC | DL | . T , | 3
 | Pł
 | 1, 4 | łW | 225 A
 | MP C | OPP
 | ER BI | <u>U</u> { | S |
 | |
| | | | 5 | | |
 | | | |
 |
 | | |
 | |
 | | | |
 | |
| | | | | | |
 | | | |
 |
 | | |
 | |
 | | | /PS |
 | |
| | | | LOAD DESCRIPTION | 0 | |
 | | | |
 |
 | | | ON
 | |
 | I . | NT | # |
 | |
| 3325 | | | RTU - D-1.1 | | |
 | | | |
 |
 | | RTU - D-1.2 |
 | 3325 |
 | | : | 2 |
 | |
| | 3325 | | - | | |
 | 3 1 | 5 | 15 | 3
 |
 | | - |
 | | 3325
 | | | 4 |
 | |
| | | | | | |
 | | | |
 |
 | | - |
 | |
 | 3325 | | 6 |
 | |
| 3325 | | | RTU - D-1.3 | | |
 | | | |
 |
 | | RTU - D-1.4 |
 | 3325 |
 | | _ | 8 |
 | |
| | 3325 | | - | | |
 | 3 1 | 5 | 15 | 3
 |
 | | - |
 | | 3325
 | | | 10 |
 | |
| 2040 | | | | | | _
 | _ | _ | |
 |
 | | - |
 | 2040 |
 | 3325 | _ | 12 |
 | |
| 3048 | 2049 | | R10 - D-2 | | | _
 | 2 1 | 5 | 15 | 2
 | \vdash
 | | RIU - D-3 |
 | 3048 | 2049
 | | _ | 1.
1(|
 | |
| | 3040 | 30/18 | - | | | -
 | 3 1 | 5 | 15 | 3
 |
 | | - |
 | | 3040
 | 3048 | _ | 18 |
 | |
| 3048 | | | | | | _
 | - | | |
 |
 | | -
RTU - D-5 |
 | 3048 |
 | | | 20 |
 | |
| | 3048 | | - | | | -
 | 3 1 | 5 | 15 | 3
 |
 | | - |
 | | 3048
 | | | 2 |
 | |
| | | | - | | |
 | | | |
 |
 | | - |
 | |
 | 3048 | _ | 2 |
 | |
| 3048 | | | RTU - D-16 | | | -
 | | | |
 |
 | | RTU - D-17 |
 | 3048 |
 | | | 20 |
 | |
| | 3048 | | - | | | -
 | 3 1 | 5 | 15 | 3
 |
 | | - |
 | | 3048
 | | 12 | 28 |
 | |
| | | 3048 | - | | |
 | | | |
 |
 | | - |
 | |
 | 3048 | : | 3(|
 | |
| 3048 | | | RTU - D-18 | | |
 | | | |
 |
 | | RTU - D-19 |
 | 3048 |
 | | : | 32 |
 | |
| | 3048 | | - | | |
 | 3 1 | 5 | 15 | 3
 |
 | | - |
 | | 3048
 | | | 34 |
 | |
| | | | | | |
 | | | |
 |
 | | - |
 | |
 | 3048 | | 36 |
 | |
| 1995 | | | POWER EXHAUSTS- RTU- D-5, 16 & 7 | 17 | |
 | | | |
 | \square
 | | POWER EXHAUSTS- RTU- | D-3, 4 & 18
 | 1995 |
 | | | 38 |
 | |
| | 1995 | | - | | |
 | 3 2 | 20 | 20 | 3
 |
 | | - |
 | | 1995
 | | | 40 |
 | |
| | | | | | |
 | | | |
 |
 | \square | - |
 | |
 | 1995 | | 42 |
 | |
| 1995 | 4005 | | POWER EXHAUSTS- RTU- D-1.3, 2 & | 19 | |
 | | | |
 |
 | - | POWER EXH RTU- D-1.1, | 1.2 & 1.4
 | 1995 | 4005
 | | | 4 |
 | |
| | 1995 | 4005 | - | | | -
 | 3 2 | 20 | 20 | 3
 | \vdash
 | + | - |
 | | 1995
 | 4005 | | 4 |
 | |
| | | 1995 | - | | |
 | | | |
 | I
 | | 1- |
 | |
 | 1995 | 14 | 48 |
 | |
| | | | SPACE | | |
 | | | |
 |
 | | SPACE |
 | |
 | | ┿ | 50 |
 | |
| | 3.
4.
PANE
ATION: (
TING: RE
3325
3325
3325
3325
3325
3324
3048
3048
3048
3048 | 3.
4.
A.
PANEL: H
ATION: CLASSE
TING: RECESSED
VA LOAD
LINE A LINE B
3325
3325
3325
3325
3325
3325
3325
3325
3325
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
3328
33048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048
3048 | 3. 4. 4. A. PANEL: HVAC ATION: CLASSROOM S VIING: RECESSED VA LOAD LINE A LINE B LINE A LINE B LINE A Salation 3325 3325 3325 3325 3325 3325 3048 3048 3048 3048 3048 3048 3048 3048 3048 3048 3048 3048 3048 3048 3048 3048 3048 3048 3048 3048 3048 3048 3048 3048 3048 3048 3048 3048 3048 3048 3048 3048 3048 3048 3048 3048 3048 1995 1995 1995 | 3. 4. A. PANEL: HVAC-D ATION: CLASSROOM 5 TING: RECESSED VA LOAD LINE A LINE B LINE A LINE B J325 RTU - D-1.1 3325 RTU - D-1.3 3326 RTU - D-1.3 3327 RTU - D-1.3 3328 - 3048 RTU - D-2 3048 RTU - D-1.3 3048 RTU - D-1.3 3048 - 3048 - 3048 - 3048 - 3048 - 3048 - 3048 - 3048 - 3048 - 3048 - | 3. 4. 4. 4. 2. 2. ATION: CLASSROOM 5 VA LOAD LOAD DESCRIPTION 0 0 3325 RTU - D-1.1 3325 RTU - D-1.1 3325 RTU - D-1.3 3048 RTU - D-1.3 3048 RTU - D-2 3048 RTU - D-1.6 3048 RTU - D-1.6 3048 RTU - D-1.6 3048 RTU - D-1.6 3048 POWER EXHAUSTS- RTU- D.5, 16 & 17 1995 POWER EXHAUSTS- RTU- D.1.3, 2 & 19 1995 POWER EXHAUSTS- RTU- D-1.3, 2 & 19 | 3. 4. 4. 4. ATION: CLASSROM 5 (PAN) ATION: CLASSROM 5 (PAN) JTINE: RECESSED SSC VA LOAD LOAD DESCRIPTION OUTLET ILNE A LINE B LINE C LOAD DESCRIPTION OUTLET 3325 RTU - D-1.1 I I 3325 RTU - D-1.3 I I 3325 RTU - D-2 I I 3048 RTU - D-2 I I 3048 RTU - D-16 I I 3048 RTU - D-18 I I 3048 POWER EXHAUSTS-RTU- D-5, 16 & 17 I I 3048 POWER EXHAUSTS-RTU- D-1.3, 2 & 19 I <td>3 4 4 </td> <td>3 4 4 277/480 VC ATION: CLASSROOM 5 (PANEL TO HAV NTING: RECESSED SSCR: 22KA VA LOAD LOAD DESCRIPTION O R L P 11NE A LINE B LINE C O R L P I 3325 RTU - D-1.1 O R L P I</td> <td>3 4 277/480 JUNE PANEL: HVAC-D 277/480 JUNE ATION: CLASSROOM 5 (PANEL TO HAVE BUTON UNAL DAD CMARE TO HAVE BUTON UNLETS CMARE TO HAVE BUTON SECE: 22KA 33225 CMULTETS CMULTETS 3325 CMULTETS CMULTETS 3048 CMULTETS CMULTETS CMULTETS CMULTETS</td> <td>Matrix Matrix Matrix Matrix Matrix A A A A A A A A A A A A A ATION: CLASSROOM 5 IPANEL TO HAVE BOLT-0 IPANEL TO HAVE BOLT-0 SSCR. 22K-1 A</td> <td>3. 4 277/480 VOLT, 3 PANEL: HVAC-D 277/480 VOLT, 3 ATION: CLASSROOM 5 (PANEL TO HAVE BOLT-ON BI
ITING: RECESSED VA LOAD OUTLETS CIT BKR VA LOAD OUTLETS CIT BKR INING: RECESSED SSCR: 22KA AK VA LOAD OUTLETS CIT BKR INING: RECESSED SUBLE CIT BKR AUDAD DESCRIPTION OUTLETS CIT BKR 3325 CIT AD 1 CIT AD 3 IS CIT BKR 3325 CIT AD 2 A A 3325 CIT AD 2 A B 3048 CIT AD 2 A A <td colspan<="" td=""><td>3. 4. 4. 277/480 VCLT, 3 5 ATION: CLASSROOM 5 (PANEL TO HAVE BOLTON BEAKE) (PANEL TO HAVE BOLTON BEAKE) VALOAD LOAD DESCRIPTION OVERTS RTW - D.1.1 OVERTS RTW - D.1.1 OVERTS OVERTS RTW - D.1.1 OVERTS OVERTS RTW - D.1.1 OVERTS OVERTS</td><td>3. 4. 4. 4.</td><td>3. TOTAL VA I 4 TOTAL VA I 4 TOTAL VA I 4 COLSPAN COLSPAN COLSPAN PANEL: HVAC-D COLSPAN COLSPAN COLSPAN COLSPAN ATION: CLASSSOD COLSPAN COLSPAN COLSPAN COLSPAN VA LOAD LINE C LOAD DESCRIPTION COLSPAN COLSPAN COLSPAN
 COLSPAN 3225 CIU - D-1 1 COLSPAN COLSPAN COLSPAN COLSPAN 3225 CIU - D-1 3 CIU - D-1 3 CIU - D-1 4 3225 CIU - D-1 3 CIU - D-1 4 CIU - D-1 4 3225 CIU - D-1 3 CIU - D-1 3 3226 CIU - D-1 3 CIU - D-1 4 3225 CIU - D-1 CIU - D-1 4 32325 CIU - D-1 CIU - D-1 CIU - D-1 <t< td=""><td>TOTAL VA PER PHASE A TOTAL VA PER PHASE A TOTAL VA PER PHASE A TOTAL VA PER PHASE PANEL: HVAC-D PANEL: WAC-D PANE A PANE A PANE A PANE A PANE A TOTAL VA PER PHASE ATION: CLASSROOM 5 (PANE A PANE A PANE A PANE A COLSE DESCRETION OILES COLSE DESCRETION OILES OILES LOAD DESCRETION VALOAD COLSE DESCRETION OILES OILES COLSE OF TON VALOAD COLSE OF TON OILES OILES COLSE OF TON VALOAD COLSE OF TON OILES OILES COLSE OF TON 3325 COLSE OF TON OILES OILES OILES COLSE OF TON 3325 <th col<="" td=""><td>3. TOTAL VA PER PHAGE 2682.1 4. LINE AMPS 2682.1 5. LINE AMPS 225 AMP C ATION: CLASSROM5 IMME. IOHWERGATON 225 AMP C ATION: CLASSROM5 IMME. IOHWERGATON COMBERANCE VA LOAD LOAD DESCRIPTION 0 RIC. 20 COMBERANCE LOAD 121 325 RTU-D-11 0 R 1 1 A P CHES LOAD DESCRIPTION 0 112 3 325 RTU-D-11 0 R 1 P 1 A P CHES LOAD DESCRIPTION 0 RIC. 20 3325 3325 CHU-D-12 3325 3325 RTU-D-13 0 3 15 15 3 0 1 1 3325 3325 RTU-D-13 0 3 15 15 3 15 1</td><td>3. TOTAL VA PER PHAGE 2682.41</td><td>3 TOTAL VA PER PHAGE 2566-21<!--</td--><td>3 3 1014 VA PRATE 2562.4<!--</td--></td></td></th></td></t<></td></td></td> | 3 4 4 | 3 4 4 277/480 VC ATION: CLASSROOM 5 (PANEL TO HAV NTING: RECESSED SSCR: 22KA VA LOAD LOAD DESCRIPTION O R L P 11NE A LINE B LINE C O R L P I 3325 RTU - D-1.1 O R L P I | 3 4 277/480 JUNE PANEL: HVAC-D 277/480 JUNE ATION: CLASSROOM 5 (PANEL TO HAVE BUTON UNAL DAD CMARE TO HAVE BUTON UNLETS CMARE TO HAVE BUTON SECE: 22KA 33225 CMULTETS CMULTETS 3325 CMULTETS CMULTETS 3048 CMULTETS CMULTETS CMULTETS CMULTETS | Matrix Matrix Matrix Matrix Matrix A A A A A A A A A A A A A ATION: CLASSROOM 5 IPANEL TO HAVE BOLT-0 IPANEL TO HAVE BOLT-0 SSCR. 22K-1 A | 3. 4 277/480 VOLT, 3 PANEL: HVAC-D 277/480 VOLT, 3 ATION: CLASSROOM 5 (PANEL TO HAVE BOLT-ON BI
ITING: RECESSED VA LOAD OUTLETS CIT BKR VA LOAD OUTLETS CIT BKR INING: RECESSED SSCR: 22KA AK VA LOAD OUTLETS CIT BKR INING: RECESSED SUBLE CIT BKR AUDAD DESCRIPTION OUTLETS CIT BKR 3325 CIT AD 1 CIT AD 3 IS CIT BKR 3325 CIT AD 2 A A 3325 CIT AD 2 A B 3048 CIT AD 2 A A <td colspan<="" td=""><td>3. 4. 4. 277/480 VCLT, 3 5 ATION: CLASSROOM 5 (PANEL TO HAVE BOLTON BEAKE) (PANEL TO HAVE BOLTON BEAKE) VALOAD LOAD DESCRIPTION OVERTS RTW - D.1.1 OVERTS RTW - D.1.1 OVERTS OVERTS RTW - D.1.1 OVERTS OVERTS RTW - D.1.1 OVERTS OVERTS</td><td>3. 4. 4.
4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4.</td><td>3. TOTAL VA I 4 TOTAL VA I 4 TOTAL VA I 4 COLSPAN COLSPAN COLSPAN PANEL: HVAC-D COLSPAN COLSPAN COLSPAN COLSPAN ATION: CLASSSOD COLSPAN COLSPAN COLSPAN COLSPAN VA LOAD LINE C LOAD DESCRIPTION COLSPAN COLSPAN COLSPAN COLSPAN 3225 CIU - D-1 1 COLSPAN COLSPAN COLSPAN COLSPAN 3225 CIU - D-1 3 CIU - D-1 3 CIU - D-1 4 3225 CIU - D-1 3 CIU - D-1 4 CIU - D-1 4 3225 CIU - D-1 3 CIU - D-1 3 3226 CIU - D-1 3 CIU - D-1 4 3225 CIU - D-1 CIU - D-1 4 32325 CIU - D-1 CIU - D-1 CIU - D-1 <t< td=""><td>TOTAL VA PER PHASE A TOTAL VA PER PHASE A TOTAL VA PER PHASE A TOTAL VA PER PHASE PANEL: HVAC-D PANEL: WAC-D PANE A PANE A PANE A PANE A PANE A TOTAL VA PER PHASE ATION: CLASSROOM 5 (PANE A PANE A PANE A PANE A COLSE DESCRETION OILES COLSE DESCRETION OILES OILES LOAD DESCRETION VALOAD COLSE DESCRETION OILES OILES COLSE OF TON VALOAD COLSE OF TON OILES OILES COLSE OF TON VALOAD COLSE OF TON OILES OILES COLSE OF TON 3325 COLSE OF TON OILES OILES OILES COLSE OF TON 3325 <th col<="" td=""><td>3. TOTAL VA PER PHAGE 2682.1 4. LINE AMPS 2682.1 5. LINE AMPS 225 AMP C ATION: CLASSROM5 IMME. IOHWERGATON 225 AMP C ATION: CLASSROM5 IMME. IOHWERGATON COMBERANCE VA LOAD LOAD DESCRIPTION 0 RIC. 20 COMBERANCE LOAD 121 325 RTU-D-11 0 R 1 1 A P CHES LOAD DESCRIPTION 0 112 3 325 RTU-D-11 0 R 1 P 1 A P CHES LOAD DESCRIPTION 0 RIC. 20 3325 3325 CHU-D-12 3325 3325 RTU-D-13 0 3 15 15 3 0 1 1 3325 3325 RTU-D-13 0 3 15 15 3 15 1</td><td>3. TOTAL VA PER PHAGE 2682.41</td><td>3 TOTAL VA PER PHAGE 2566-21<!--</td--><td>3 3 1014 VA PRATE 2562.4<!--</td--></td></td></th></td></t<></td></td> | <td>3. 4. 4. 277/480 VCLT, 3 5 ATION: CLASSROOM 5 (PANEL TO HAVE BOLTON BEAKE) (PANEL TO HAVE BOLTON BEAKE) VALOAD LOAD DESCRIPTION OVERTS RTW - D.1.1 OVERTS RTW - D.1.1 OVERTS OVERTS RTW - D.1.1 OVERTS OVERTS RTW - D.1.1 OVERTS OVERTS</td> <td>3. 4. 4. 4.</td> <td>3. TOTAL VA I 4 TOTAL VA I 4 TOTAL VA I 4 COLSPAN COLSPAN COLSPAN PANEL: HVAC-D COLSPAN COLSPAN COLSPAN COLSPAN ATION: CLASSSOD COLSPAN COLSPAN COLSPAN COLSPAN VA LOAD LINE C LOAD DESCRIPTION COLSPAN COLSPAN COLSPAN COLSPAN 3225 CIU - D-1 1 COLSPAN COLSPAN COLSPAN COLSPAN 3225 CIU - D-1 3 CIU - D-1 3 CIU - D-1 4 3225 CIU - D-1 3 CIU - D-1 4 CIU - D-1 4 3225 CIU - D-1 3 CIU - D-1 3 3226 CIU - D-1 3 CIU - D-1 4 3225 CIU - D-1 CIU - D-1 4 32325 CIU - D-1 CIU - D-1 CIU - D-1 <t< td=""><td>TOTAL VA PER PHASE A TOTAL VA PER PHASE A TOTAL VA PER PHASE A TOTAL VA PER PHASE PANEL: HVAC-D PANEL: WAC-D PANE A PANE A PANE A PANE A PANE A TOTAL VA PER PHASE ATION: CLASSROOM 5 (PANE A PANE A PANE A PANE A COLSE DESCRETION OILES COLSE DESCRETION OILES OILES LOAD DESCRETION VALOAD COLSE DESCRETION OILES OILES COLSE OF TON VALOAD COLSE OF TON OILES OILES COLSE OF TON VALOAD COLSE OF TON OILES OILES COLSE OF TON 3325 COLSE OF TON OILES OILES OILES COLSE OF TON 3325 <th col<="" td=""><td>3. TOTAL VA PER PHAGE 2682.1 4. LINE AMPS 2682.1 5. LINE AMPS 225 AMP C ATION: CLASSROM5 IMME. IOHWERGATON 225 AMP C ATION: CLASSROM5 IMME. IOHWERGATON COMBERANCE VA LOAD LOAD DESCRIPTION 0 RIC. 20 COMBERANCE LOAD 121 325 RTU-D-11 0 R 1 1 A P CHES LOAD DESCRIPTION 0 112 3 325 RTU-D-11 0 R 1 P 1 A P CHES LOAD DESCRIPTION 0 RIC. 20 3325 3325 CHU-D-12 3325 3325 RTU-D-13 0 3 15 15
3 0 1 1 3325 3325 RTU-D-13 0 3 15 15 3 15 1</td><td>3. TOTAL VA PER PHAGE 2682.41</td><td>3 TOTAL VA PER PHAGE 2566-21<!--</td--><td>3 3 1014 VA PRATE 2562.4<!--</td--></td></td></th></td></t<></td> | 3. 4. 4. 277/480 VCLT, 3 5 ATION: CLASSROOM 5 (PANEL TO HAVE BOLTON BEAKE) (PANEL TO HAVE BOLTON BEAKE) VALOAD LOAD DESCRIPTION OVERTS RTW - D.1.1 OVERTS RTW - D.1.1 OVERTS OVERTS RTW - D.1.1 OVERTS OVERTS RTW - D.1.1 OVERTS OVERTS | 3. 4. 4. 4. | 3. TOTAL VA I 4 TOTAL VA I 4 TOTAL VA I 4 COLSPAN COLSPAN COLSPAN PANEL: HVAC-D COLSPAN COLSPAN COLSPAN COLSPAN ATION: CLASSSOD COLSPAN COLSPAN COLSPAN COLSPAN VA LOAD LINE C LOAD DESCRIPTION COLSPAN COLSPAN COLSPAN COLSPAN 3225 CIU - D-1 1 COLSPAN COLSPAN COLSPAN COLSPAN 3225 CIU - D-1 3 CIU - D-1 3 CIU - D-1 4 3225 CIU - D-1 3 CIU - D-1 4 CIU - D-1 4 3225 CIU - D-1 3 CIU - D-1 3 3226 CIU - D-1 3 CIU - D-1 4 3225 CIU - D-1 CIU - D-1 4 32325 CIU - D-1 CIU - D-1 CIU - D-1 <t< td=""><td>TOTAL VA PER PHASE A TOTAL VA PER PHASE A TOTAL VA PER PHASE A TOTAL VA PER PHASE PANEL: HVAC-D PANEL: WAC-D PANE A PANE A PANE A PANE A PANE A TOTAL VA PER PHASE ATION: CLASSROOM 5 (PANE A PANE A PANE A PANE A COLSE DESCRETION OILES COLSE DESCRETION OILES OILES LOAD DESCRETION VALOAD COLSE DESCRETION OILES OILES COLSE OF TON VALOAD COLSE OF TON OILES OILES COLSE OF TON VALOAD COLSE OF TON OILES OILES COLSE OF TON 3325 COLSE OF TON OILES OILES OILES COLSE OF TON 3325 <th col<="" td=""><td>3. TOTAL VA PER PHAGE 2682.1 4. LINE AMPS 2682.1 5. LINE AMPS 225 AMP C ATION: CLASSROM5 IMME. IOHWERGATON 225 AMP C ATION: CLASSROM5 IMME. IOHWERGATON COMBERANCE VA LOAD LOAD DESCRIPTION 0 RIC. 20 COMBERANCE LOAD 121 325 RTU-D-11 0 R 1 1 A P CHES LOAD DESCRIPTION 0 112 3 325 RTU-D-11 0 R 1 P 1 A P CHES LOAD DESCRIPTION 0 RIC. 20 3325 3325 CHU-D-12 3325 3325 RTU-D-13 0 3 15 15 3 0 1 1 3325 3325 RTU-D-13 0 3 15 15 3 15 1</td><td>3. TOTAL VA PER PHAGE 2682.41</td><td>3 TOTAL VA PER PHAGE 2566-21
 2566-21 2566-21 2566-21 2566-21 2566-21 2566-21 2566-21 2566-21 2566-21 2566-21 2566-21 2566-21 2566-21 2566-21 2566-21 2566-21<!--</td--><td>3 3 1014 VA PRATE 2562.4<!--</td--></td></td></th></td></t<> | TOTAL VA PER PHASE A TOTAL VA PER PHASE A TOTAL VA PER PHASE A TOTAL VA PER PHASE PANEL: HVAC-D PANEL: WAC-D PANE A PANE A PANE A PANE A PANE A TOTAL VA PER PHASE ATION: CLASSROOM 5 (PANE A PANE A PANE A PANE A COLSE DESCRETION OILES COLSE DESCRETION OILES OILES LOAD DESCRETION VALOAD COLSE DESCRETION OILES OILES COLSE OF TON VALOAD COLSE OF TON OILES OILES COLSE OF TON VALOAD COLSE OF TON OILES OILES COLSE OF TON 3325 COLSE OF TON OILES OILES OILES COLSE OF TON 3325 <th col<="" td=""><td>3. TOTAL VA PER PHAGE 2682.1 4. LINE AMPS 2682.1 5. LINE AMPS 225 AMP C ATION: CLASSROM5 IMME. IOHWERGATON 225 AMP C ATION: CLASSROM5 IMME. IOHWERGATON COMBERANCE VA LOAD LOAD DESCRIPTION 0 RIC. 20 COMBERANCE LOAD 121 325 RTU-D-11 0 R 1 1 A P CHES LOAD DESCRIPTION 0 112 3 325 RTU-D-11 0 R 1 P 1 A P CHES LOAD DESCRIPTION 0 RIC. 20 3325 3325 CHU-D-12 3325 3325 RTU-D-13 0 3 15 15 3 0 1 1 3325 3325 RTU-D-13 0 3 15 15 3 15 1</td><td>3. TOTAL VA PER PHAGE 2682.41</td><td>3 TOTAL VA PER PHAGE 2566-21<!--</td--><td>3 3 1014 VA PRATE 2562.4<!--</td--></td></td></th> | <td>3. TOTAL VA PER PHAGE 2682.1 4. LINE AMPS 2682.1 5. LINE AMPS 225 AMP C ATION: CLASSROM5 IMME. IOHWERGATON 225 AMP C ATION: CLASSROM5 IMME. IOHWERGATON COMBERANCE VA LOAD LOAD DESCRIPTION 0 RIC. 20 COMBERANCE LOAD 121 325 RTU-D-11 0 R 1 1 A P CHES LOAD DESCRIPTION 0 112 3 325 RTU-D-11 0 R 1 P 1 A P CHES LOAD DESCRIPTION 0 RIC. 20 3325 3325 CHU-D-12 3325 3325 RTU-D-13 0 3 15 15 3 0 1 1 3325 3325 RTU-D-13 0 3 15 15 3 15 1</td> <td>3. TOTAL VA PER PHAGE 2682.41</td> <td>3 TOTAL VA PER PHAGE 2566-21
2566-21 2566-21<!--</td--><td>3 3 1014 VA PRATE 2562.4<!--</td--></td></td> | 3. TOTAL VA PER PHAGE 2682.1 4. LINE AMPS 2682.1 5. LINE AMPS 225 AMP C ATION: CLASSROM5 IMME. IOHWERGATON 225 AMP C ATION: CLASSROM5 IMME. IOHWERGATON COMBERANCE VA LOAD LOAD DESCRIPTION 0 RIC. 20 COMBERANCE LOAD 121 325 RTU-D-11 0 R 1 1 A P CHES LOAD DESCRIPTION 0 112 3 325 RTU-D-11 0 R 1 P 1 A P CHES LOAD DESCRIPTION 0 RIC. 20 3325 3325 CHU-D-12 3325 3325 RTU-D-13 0 3 15 15 3 0 1 1 3325 3325 RTU-D-13 0 3 15 15 3 15 1 | 3. TOTAL VA PER PHAGE 2682.41 | 3 TOTAL VA PER PHAGE 2566-21 </td <td>3 3 1014 VA PRATE 2562.4<!--</td--></td> | 3 3 1014 VA PRATE 2562.4 </td |

ск					
#	NT		LINE B		LOAD DES
1					(E)LOAD
3					(E)LOAD
5					(E)LOAD
7					(E)LOAD
9					(E)LOAD
11					(E)LOAD
13					(E)LOAD
15					(E)LOAD
17					-
19					(E)LOAD
21					-
23					(E)LOAD
25					-
27					(E)LOAD
29					-
31					(E)LOAD
33					(E)LOAD
35					(E)LOAD
37	2	2840			(N)PANEL C1
39			2400		-
41				2100	-

(E	E)	PAN	EL:	Ρ
LC MC		ATION: NTING:	SURFA	TOF .CE
ск	NT		/a loai	
#		LINE A	LINE B	LIN
1				

9 3325 - - 3 3 15 1 1 1 3325 - 3325 333	
7 3325 . RTU - D-1.3 .	
9 3325 - - 3 1 1 3 15 1 1 1 1 3325 - 3325 3335 - 33355 33355 33355	25
11	
13 3048 RU - D-2 1 1 1 1 1 1 1 1 1 3048 - 3048 - 3048 3048 3048 3048 3048 - 3048 3048 3048 - - 3048 - <t< td=""><td></td></t<>	
15 3048 - 3048 - 3048 304	25
19 3048 RTU - D-4 I RTU - D-5 3048 I 3048 21 3048 - 3048 - 3048 I I 3048 I	
19 3048 RTU - D-4 I RTU - D-5 3048 I 3048 21 3048 - 3048 - 3048 I I 3048 I	
21 3048 - 3048 - 3048 - 3048 3048 - 3048 3048 -	18
25 3048 RTU - D-16 A A A RTU - D-16 A A A B RTU - D-17 3048 A	
25 3048 RTU - D-16 A A A RTU - D-16 A A A B RTU - D-17 3048 A	
27 3048 - 3048 - 3048 3048 3048 3048 3048 3048 3048 - 100 100 100 100 100 100 100 100 100 100 100 100	18
39 1995 - 1995 - 1995 41 1995 - 1995 - 1995 43 1995 POWER EXHAUSTS- RTU- D-1.3, 2 & 19 - - POWER EXHAUSTS- RTU- D-1.3, 2 & 19 1995 45 1995 - - 1995 - 1995 47 1995 - - 1995 1995	
39 1995 - 1995 - 1995 41 1995 - 1995 - 1995 43 1995 POWER EXHAUSTS- RTU- D-1.3, 2 & 19 - - POWER EXHAUSTS- RTU- D-1.3, 2 & 19 1995 45 1995 - - 1995 - 1995 47 1995 - - 1995 1995	
39 1995 - 1995 - 1995 41 1995 - 1995 - 1995 43 1995 POWER EXHAUSTS- RTU- D-1.3, 2 & 19 - - POWER EXHAUSTS- RTU- D-1.3, 2 & 19 1995 45 1995 - - 1995 - 1995 47 1995 - - 1995 1995	18
39 1995 - 1995 - 1995 41 1995 - 1995 - 1995 43 1995 POWER EXHAUSTS- RTU- D-1.3, 2 & 19 - - POWER EXHAUSTS- RTU- D-1.3, 2 & 19 1995 45 1995 - - 1995 - 1995 47 1995 - - 1995 1995	
39 1995 - 1995 - 1995 41 1995 - 1995 - 1995 43 1995 POWER EXHAUSTS- RTU- D-1.3, 2 & 19 - - POWER EXHAUSTS- RTU- D-1.3, 2 & 19 1995 45 1995 - - 1995 - 1995 47 1995 - - 1995 1995	
39 1995 - 1995 - 1995 41 1995 - 1995 - 1995 43 1995 POWER EXHAUSTS- RTU- D-1.3, 2 & 19 - - POWER EXHAUSTS- RTU- D-1.3, 2 & 19 1995 45 1995 - - 1995 - 1995 47 1995 - - 1995 1995	18
41 1995 - 1995 - 1995 43 1995 POWER EXHAUSTS- RTU- D-1.3, 2 & 19 - POWER EXHAUSTS- RTU- D-1.3, 2 & 19 POWER EXHAUSTS- RTU- D-1.3, 2 & 19 1995 45 1995 - - 20 3 0 - 1995 47 1995 - - 1995 - 1995 1995	
43 1995 POWER EXHAUSTS- RTU- D-1.3, 2 & 19 A A POWER EXH RTU- D-1.1, 1.2 & 1.4 1995 45 1995 - - - 1995 - 1995 47 1995 - - 1995 - 1995 1995	
45 1995 - 3 20 3 - 1995 47 1995 - 1995 - 1995	¥5
45 1995 - - 1995 1995 47 1995 - - 1995 49 SPACE 0 SPACE 0	
47 1995 - 19 49 SPACE SPACE SPACE 19	
49 SPACE SPACE	¥5
51 SPACE SPACE	
53 SPACE SPACE	
22832 22832 22832 SUB - TOTALS SUB - TOTALS 22832 22822 2282	
NOTE: 1. PROVIDE LOCKABLE DOOR LINE TOTALS: 36531.2 365	
3. TOTAL VA PER PHASE 37362.5 3737562.5 37362.5 37375757757575775757575775757577575757	
	35

- PROVIDE LOCK-ON DEVICES ON BREAKERS SERVING SMOKE DETECTORS, OR ANY OTHER LIFE-SAFETY EQUIPMENTS THAT REQUIRE CONTINUOUS POWER SUPPLY.
- PROVIDE PERMANENT LABELS TO EACH PANELS.
- PROVIDE CIRCUIT TAGS TO EACH BRANCH CIRCUIT CONDUCTORS.
- PROVIDE A PANEL DIRECTORY.
- ALL PANELS SHALL BE CLEANED TO REMOVE DEBRIS AND FOREIGN PARTICLES AFTER FINAL INSTALLATION IS COMPLETE.
- PROVIDE P-TOUCH LABELS ON ELECTRICAL DEVICES TO INDICATE PANEL AND CIRCUIT.
- PROVIDE CIRCUIT ID ON BRANCH WIRING.
- LABEL SPACES AS "SPACE" AND SPARE BREAKERS AS "SPARE" FOR IDENTIFICATION PURPOSES.
- ALL NEW CIRCUIT BREAKERS SHALL MATCH EXISTING TYPE AND A.I.C. RATING. CONTRACTOR TO FIELD VERIFY AND PROVIDE NEW CIRCUIT BREAKERS FOR NEW CIRCUITS/LOADS AS REQUIRED.
- 10. CONTRACTOR SHALL VERIFY, PRIOR TO CONSTRUCTION, THE EXISTING CIRCUITS IN FIELD TO CONFIRM FINAL NUMBER OF AVAILABLE SPARE BREAKERS IN EXISTING PANELS. ANY DISCREPANCY IN QUANTITIES OF SPARES SHOWN ON DRAWING AND ACTUAL FINDINGS MUST BE REPORTED TO BUILDING ENGINEER FOR REVIEW.
- . CONTRACTOR SHALL PERMANENTLY LABEL ALL OUTLETS WITH CIRCUIT NUMBERS AND PROVIDE UPDATED PANEL SCHEDULES FOR ALL AFFECTED PANELS.
- 12. CONTRACTOR SHALL COORDINATE ALL REQUIRED SHUT DOWN OF SYSTEMS WITH BUILDING ENGINEER.
- 13. CONTRACTOR TO PROVIDE ARC FLASH LABELS ON ALL NEW PANELS. PLACE LABEL ON A VISIBLE AREA ON FRONT OF PANEL.
- 14. CONTRACTOR SHALL BALANCE THE PANELBOARDS SO THAT EACH LEG IS LESS THAN 10% OF UNBALANCED LOAD.
- 15. PROVIDE DEDICATED NEUTRALS FOR ALL MULTI-BRANCH CIRCUITS (NO HANDLE TIES) UNLESS OTHERWISE NOTED.
- 16. ALL NEW CIRCUIT BREAKERS SHALL MATCH EXISTING TYPE AND A.I.C. RATING. CONTRACTOR TO FIELD CONSULTANT VERIFY AND PROVIDE NEW CIRCUIT BREAKERS FOR NEW CIRCUITS/LOADS AS REQUIRED.

PANELS	SCHEDULE	
PBL	HVAC-B	PB
BH	HVAC-C	C1
		DH PC
CH	HVAC-D	ГU

CA	TION	: JANI	FOR 62	2D		(PAI	NEL T	ΌΗ	AVEB	OLT-C	NB	REAK	KERS	5)			M	IAIN:	400 A	M	P
INT	'ING:	SURFA	CE MOI	JNTED												LOAD:	7.3	kVA	14	AM	PS
-		VA LOAI		LOAD DESCRIPTION		OUTLE	ETS	ск	T BKR	скт	BKR	0	UTLE	ETS	LOAD DE	SCRIPTION		/a loae		NT	ск
Ľ	INE A	LINE B	LINE C		C	R	L	Ρ	Α	Α	Ρ	L	R	0			LINE A	LINE B	LINE C		#
				(E)LOAD				1	20	20	1				(E)LOAD						2
				(E)LOAD				1	20	20	1				(E)LOAD						4
				(E)LOAD				1	20	20	1				(E)LOAD						6
				(E)LOAD				1	20	20	1				(E)LOAD						8
				(E)LOAD				1	20	20	1				(E)LOAD						10
				(E)LOAD				1	20	20	1				(E)LOAD						12
				(E)LOAD				1	20	60	5				(E)LOAD						14
				(E)LOAD				_	~~	60	2				-						16
				-				2	60						(E)LOAD						18
				(E)LOAD						60	2				-						20
				-				2	60						(E)LOAD					;	22
				(E)LOAD						60	2				-					:	24
				-				2	60						(E)LOAD					:	26
				(E)LOAD						60	2				-					;	28
				-				2	20	20	1				(E)LOAD					:	30
				(E)LOAD				1	20	20	1				(E)LOAD					;	32
				(E)LOAD				1	20	20	1				(E)LOAD					:	34
				(E)LOAD				1	20	20	1				(E)LOAD					;	36
2	2840			(N)PANEL C1											(E)PNL PCC					:	38
		2400		-				3	60	100	3				-					<u>,</u>	40
			2100												-						42
	2840	2400	2100	SUB - TOTALS	Y		1			Y		Y	1	7		SUB - TOTALS	0	0	0	L	
⊑:1		(E) LOAI	O ON TH	I E PANEL IS 238A PER AS BUILTS+NEV	NLY AD	DED	LOA	D 1	5A<4	400A)	LINE TOTALS:	2840	2400	2100		
2		DISCON	INECT C	IRCUIT 37 FROM PNL PC AND RECOM	INECT	ІТ ТС	PN	L C	I, EXT	END	cor	NDU	сто	DRS	1	LCL ADDER	0	0	0		
3	Y	λ	λ	χχχχ	λ	2		3		X	1	Y		X	ло то	TAL VA PER PHASE	2840	2400	2100		
4																LINE AMPS	14	12	10		

400 AMP EXISTING BUS



(N)	PAN	EL:	KH		277	<mark>//48</mark>	0 \	/0	LT,	3	Pl	H, 4'	W 300 AN	IP CC)PPE	R B	US
_0C	ATION:	HEAT	ER RC	OOM K16		(PANEL	TOF	AVE	BOLT-C	N BR	REAK	(ERS)		N	1AIN:	300 A	MP
NOU	NTING:	SURFA	CE MOL	JNTED									LOAD	31.1	kVA	37	AMPS
к		/a loae		LOAD DESCRIPTION	0	UTLETS	CH	(T BKR	скт	BKR	0	UTLETS	LOAD DESCRIPTION		/a loai		К СК
#	LINE A	LINE B			0	R	- P	-	A	Р	L	RO		LINE A	LINE B	LINE C	#
1				(E)LOAD			1		20	1			(E)LOAD				2
3				(E)LOAD			1	20	20	1			(E)LOAD				4
5				(E)LOAD			1	20	20	1			(E)LOAD				6
7				(E)LOAD			_						(E)LOAD				8
9				-			3	15	15	3			-				10
1				-									-				12
3				(E)LOAD					20	1			(E)LOAD				14
5				-			3	15	20	1			(E)LOAD				16
7				-					20	1			(E)LOAD				18
9				(E)LOAD			1	20	20	2			(E)LOAD				20
21				(E)LOAD			1	20	1 20				-				22
23				(E)LOAD			1	20					(E)LOAD				24
25				(E)LOAD			1	20	20	2			-				26
27				(E)LOAD			1	20	20	1			(E)LOAD				28
29				(E)LOAD			1	20	20	1			(E)LOAD	+			30
31				(E)LOAD			1	20					(N)POWER EXHAUSTS- RTU- K-14	665			32
33				(E)LOAD			1	20	15	3			-	-	665		34
35				(E)LOAD			1	20					-	_		665	36
37				(E)LOAD									(E)LOAD	-			38
39				-			3	100	40	3			-	-			40
11				-									-				42
13	3602			(N)RTU - K-14									(N)CU - K-1	6100			44
15		3602		-			3	15	25	3			-	-	6100		46
17			3602	-									-	1		6100	48
19				SPACE									SPACE	+			50
51				SPACE									SPACE	-			52
53				SPACE									SPACE	_			54
	3602	3602	3602	SUB - TOTALS									SUB - TOTAL	S 6765	6765	6765	
IOTE	: 1.	SCCR A	ND AIC F	J RATING OF THE PANEL TO MATCH E	XISTING F	ANEL							LINE TOTAL	S: 10367	10367	10367	
	2.												LCL ADDE	R 0	0	0	
	3.												TOTAL VA PER PHAS	E 10367	10367	10367	
	4.												LINE AMP			37	

Α

.00	ATION: STORAGE 7	74B		(PANEL	TO H	AVE	BOLT-	ON B	REA	KERS)			MA	IN: 18	50
IOU	NTING: SURFACE MO	UNTED									LOAD:	31.4	kVA	57	AM
<	VA LOAD	LOAD DESCRIPTION	0	JTLETS	СК		я ск	BKR	6	DUTLETS	LOAD DESCRIPTION		'A LOAE		
NT	LINE A LINE B LINE C		0	R L		-	A	_	L	R O		LINE A	LINE B	LINE C	NT
		(E)LOAD			1	20	20	1			(E)LOAD				
		(E)LOAD			1	20	20	1			(E)LOAD				
		(E)LOAD			1	20	20	1			(E)LOAD				
		(E)LOAD			1	20	20	1			(E)LOAD				
		(E)LOAD			1	20	20	1			(E)LOAD				
		(E)LOAD			1	20	20	1			(E)LOAD				
3		(E)LOAD			1	20	20	1			(E)LOAD				
5		(E)LOAD			1	20	20	1			(E)LOAD				
7		(E)LOAD			1	20	20	1			(E)LOAD				
9		(E)LOAD			1	20	20	1			(E)LOAD				
1		(E)LOAD			1	20	20	1			(E)LOAD				
3		(E)LOAD			1	20	20	1			(E)LOAD				
5		(E)LOAD			1	20	30	1			(E)LOAD				
7		(E)LOAD			1	20	20	1			(E)LOAD				
9		(E)LOAD			1	20	20	1			(E)LOAD	++			
1		(E)LOAD			1	20					SPARE	+			_
3		(E)LOAD			1	20	70	3			-	+			
5		(E)LOAD			1	20	-11				-	++			
7		SPARE									(N)PANEL H1	11906			
9		SPARE			2	30	10	0 3			-		9797		
1		SPARE			1	20	-				-	++		9741	
	0 0 0	SUB - TOTALS	J						1		SUB - TOTAL	S 11906	9797	9741	
ΟΤΕ	:: 1.										LINE TOTALS	S: 11906	9797	9741	
	2.										LCL ADDE	R 0	0	0	
	3.										TOTAL VA PER PHAS	E 11906	9797	9741	
	4.										LINE AMP	s 57	47	47	

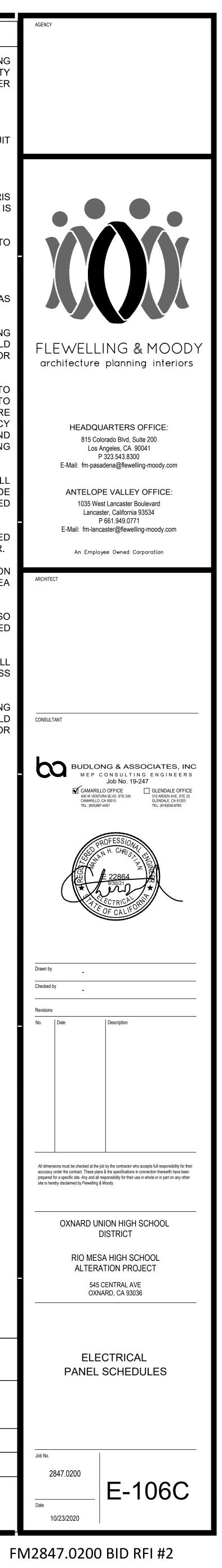
PANE	EL: P	IVAC	;-L	277	/4	80	V	0	_Т,	3	Ρ	Н,	4	W 10		ир с	OPP	ER Bl	JS
TION: E	ELECT		ROOM 4		(PAN	NEL TO	D H4	AVEE	BOLT-C	DN BI	REAM	KERS	S)				Ν	MAIN: 9)0A
FING: SU	IRFACE I	NOUNTEI	D		SS	CR: 2	22K	ΚA		Al	C:22	2KA		LC	DAD:	46.3	kVA	58	AMP
١	VA LOAD)	LOAD DESCRIPTION	0	UTLE	TS	скт	Г BKR	скт	BKR	0	UTLI	ETS	LOAD DESCRIPTION		١	VA LOAD		С
LINE A	LINE B	LINE C		0	R	L	Ρ	А	A	Ρ	L	R	0			LINE A	LINE B	LINE C	NT ;
7485			RTU - L-1											RTU - L-2		7485			1
	7485		-				3	30	30	3				-			7485		4
		7485	-											-				7485	6
500			MAU - L-12											MAU - L-20		500			1
	500		-				3	15	15	3				-			500		1
		500	-									\square		-				500	1
665			POWER EXHAUSTS- RTU- L-1 & 2						20	1	7			SITE LIGHTING		938			1
	665		-				3	15		\top			+	SPACE					1
		665	-											SPACE					1
			SPACE				+			+				SPACE					2
			SPACE				+			+		-		SPACE					2
			SPACE				+			+	-	-	-	SPACE					2
			SPACE				+			┢	-	\vdash	+	SPACE					2
			SPACE				_			-			_	SPACE					2
			SPACE				_			-	-	-	+	SPACE					2
8650	8650	9650	SUB - TOTALS											SUB - TC	TALC	8923	7985	7985	3
0050	0000	0000	308 - 101ALS											LINE TO			13308	13308	
2														25% OF LARGERST M					

D

LC	CA	TION:	EL:					2 0/2						PH, 4W PRIMARY: LOAD:	40A	D AN	SEC:							
ск # 1 3	NT L		A LOAI LINE B 1560	LINE	LOAD DESCRIPTION HP - J-11 -		R L	сктя - Р - 2	A	Скте	P	OU L	R	LOAD DESCRIPTION SPACE HP - J-02	LINE A	/A LOA LINE B 1560	LINE		<u>:</u> 2					
5 7 9					BOOSTER FANS SPACE SPACE	2		1						- SPACE SPACE			156	٤ 1	3					
11 13 15				36	NR AND CP SPACE SPACE		2	1	20	20	1		1	SERVICE RECEPTACLES SPACE SPACE			18	1						
17 19		1560	1560	66	SPACE SPACE SUB - TOTALS									SPACE SPACE SUB - TOTALS										
NO	TE: 1 2 3													LINE TOTALS: LCL ADDER TOTAL VA PER PHASE LINE AMPS	1560 0 1560 8	0 3120	240	0						
LC MC CK 1 3 5 7 9 11 13 15 17			EL: STOR SURFA A LOAI LINE B		JU9 UNTED LOAD DESCRIPTION SPACE (E)LOAD (E)LOAD (E)LOAD (E)LOAD (E)LOAD - - - (N)PANEL-J1	01	(PANEL	- P 1 1 1 3	VEE <u>вкк</u> <u>20</u> 20 20 20	CKT E	N ВRE Р 1 1 1 3		TLET		30.2	kVA /A LOA LINE B		1504 9 AMP C NT # 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	S K 2 4 5 3 0 2 4 6 8					
19 21 23 25		2400	3325	332	- RTU - J-1 5-			3	15	15	3			- RTU - J-10 -	1330 	3048	304	2 2 8 2 2	2					
23 27 29		5725	4885	644	SPACE SPACE SUB - TOTALS									SPACE SPACE SUB - TOTALS			437	2	8			IEL: I	_1	
NO	L TE: 1 2 3				C RATING OF THE NEW PANEL TO MATCH	EXIS	TING F	ANEL.						LINE TOTALS: LCL ADDER TOTAL VA PER PHASE	10103 0	9263 C	1082	3 0		MOU ск		VA LOAD		LOAD DESCRIP
	4													LINE AMPS						# 1 3 5	LINE A 1560	LINE B I 1560	HI -	P - L-15
																				7 9	1560	1456		= - L-17
																				11 13 15	360		SI	R & CP PACE
																				17 19	3480	3016	SI	PACE PACE JB - TOTALS
																				NOTE	2. 3.	<u> </u>		
																					4.			
																				(N)	PAN	EL: H		-M
																				LOC	ATION:		ERES W	VORKROOM 37
																				ик # 1 3		LINE B	LINE C	LOAD DESCRIF RTU - M-25 -
																				5 7 9	3048		3048	- RTU - M-27
																				11 13	332!	5	3048	- - RTU - M-37
																				15 17 19	332	3325	3325	- - RTU - M-30
																				21 23 25	3048	3325	3325	- - RTU - M-32
																				27 29 31	3048	3048	3048	-
																				33 35		3048	3048	-
																				37 39 41	174	1745	1745	
																				43 45 47				SPACE SPACE SPACE
																				49 51				SPACE SPACE
																				53 NOTE	2058 1. 2.	20587		SPACE SUB - TOTALS
																					3. 4.			

С

E		F		
		GENER	AL NOTES	
	1.	SMOKE DETEC	CTORS, OR ANY	BREAKERS SERVING OTHER LIFE-SAFETY ONTINUOUS POWER
	2.	PROVIDE PERM	IANENT LABELS TO E	EACH PANELS.
		CONDUCTORS.		H BRANCH CIRCUIT
		ALL PANELS S AND FOREIGN I		TO REMOVE DEBRIS NAL INSTALLATION IS
	6.		JCH LABELS ON ELE EL AND CIRCUIT.	CTRICAL DEVICES TO
	7.	PROVIDE CIRCU	UIT ID ON BRANCH W	/IRING.
	8.		S AS "SPACE" AND S DENTIFICATION PURF	PARE BREAKERS AS POSES.
	9.	TYPE AND A. VERIFY AND F	I.C. RATING. CON	ALL MATCH EXISTING TRACTOR TO FIELD SUIT BREAKERS FOR D.
	10.	CONFIRM FIN BREAKERS IN IN QUANTITIES	ON, THE EXISTING C IAL NUMBER OF EXISTING PANELS. S OF SPARES SHOW NGS MUST BE REPO	FY, PRIOR TO IRCUITS IN FIELD TO AVAILABLE SPARE ANY DISCREPANCY N ON DRAWING AND ORTED TO BUILDING
	11.	OUTLETS WIT	H CIRCUIT NUMB	ENTLY LABEL ALL ERS AND PROVIDE FOR ALL AFFECTED
	12.	CONTRACTOR		ATE ALL REQUIRED
	13.	CONTRACTOR	TO PROVIDE ARC ELS. PLACE LABEL	C FLASH LABELS ON ON A VISIBLE AREA
	14.			E PANELBOARDS SO 0% OF UNBALANCED
	15.		•	RALS FOR ALL NDLE TIES) UNLESS
	16.	TYPE AND A.	I.C. RATING. CON	ALL MATCH EXISTING TRACTOR TO FIELD SUIT BREAKERS FOR
		NEW CIRCUITS/	LOADS AS REQUIRE	D.
120/208 VOLT, 3 PH, 4W 100 AMP BUS				
(PANEL TO HAVE BOLT-ON BREAKERS) MAIN: LUG ONLY SCCR : 10KA AIC : 10KA LOAD: 16.7 kVA 31 AMPS				
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $				
2 15 20 1 4 SERVICE RECEPTACLES 720 6 20 2 2 2 5 5 6 8				
2 2 2 2 1 3 BOOSTER FANS 10 2 1 20 1 3 BOOSTER FANS 450 12 1 2 1 20 1 3 SPACE 14				
Image: Space Image: Space<				
SUB - TOTALS 3016 3016 1170 LINE TOTALS: 6496 6032 4186 LCL ADDER 0 0 0 TOTAL VA PER PHASE 6496 6032 4186 LINE AMPS 31 29 20				
277/480 VOLT, 3 PH, 4W 125 AMP COPPER BUS 37 (PANEL TO HAVE BOLT-ON BREAKERS) MAIN: 125A SSCR: 22KA AIC:22KA LOAD: 93.7 kVA 113 AMPS				
OUTLETS CKT BKR OUTLETS OUTLETS OUTLETS OUTLETS LOAD DESCRIPTION Image: CKT BKR Image: CKT BKR CKT BKR CKT BKR OUTLETS LOAD DESCRIPTION Image: CKT BKR Image: CKT BKR CK				
1 3 15 3 - 3048 4 1 </th <th></th> <th></th> <th></th> <th></th>				
3 15 3 - 3325 10 - - 3325 12 - 3325 12 10 14 14				
3 15 15 3 - 3325 16 - 3325 18 - 3325 18 20 RTU - M-31 2771 20				
Image: state				
3 15 3 - 3048 28 - 3048 28 - 3048 30 - 3048 30 - 3048 30 - 3048 30				
Image: Space state stat		PANEL	SCHEDULE	
Image: Separation of the separation		KH	J1	
Image: Space Image: Space <td< td=""><td></td><td>НН</td><td>J</td><td> L1</td></td<>		НН	J	 L1
TOTAL VA PER PHASE LINE AMPS 113 113 113	ŀ	HVAC-L		HVAC-M
			1	FN



MOUN ck		EL:			277/4	4Q(ע ר		_ ,	3 I	-н,	4VV	225 AN				
ск				L ROOM 66A	(PA	ANEL	TOF	AVE	BOLT-O	N BRE	AKERS)					225 A	
	NTING:			JNTED									LOAD		kVA	57	Ŧ
NT				LOAD DESCRIPTION				T BKR	СКТЕ				LOAD DESCRIPTION			D LINE C	-
#				(E)LOAD			1	20	20	1			_OAD				ł
3				(E)LOAD	+	_	1	20	20	1		. ,	OAD				ł
5				(E)LOAD	++		1	20	20	1			_OAD				t
7				(E)LOAD	++							(E)L	_OAD				t
9				-	++	+	3	25	100	3		-					t
11				-	+							-					t
13				(E)LOAD	+				20	1		(E)L	_OAD				t
15				-	+		3	100	20	1			_OAD				ł
17				-	+	-	1		20	1		(E)L	_OAD				t
19				(E)LOAD	++	+	1		20	1		(E)L	OAD				t
21				-	++	+	3	50	20	1		(E)L	OAD				t
23				-					20	1		(E)L	OAD				t
25				(E)LOAD			1	20	20	1		(E)L	OAD				t
27		3048		(N)RTU - I-62								(N)F	RTU - I-63		3602		t
29			3048	-			3	15	15	3		-				3602	ł
31	3048			-			1					-		3602			İ
33		3048		(N)RTU - I-66								(N)F	RTU - I-67		3048		t
35			3048	-			3	15	15	3		-				3048	ľ
37	3048			-								-		3048			Ī
39		1995		(N)POWER EXTS RTU- I-67, I-62, I-63								(N)F	POWER EXTS RTU- I-64 & I-66		1053		Ī
41			1995	-			3	20	15	3		-				1053	ľ
43	1995			-								-		1053			
45				SPACE								SPA	ACE				
47				SPACE								SPA	ACE				
49				SPACE								SPA	ACE				
51				SPACE								SPA					
53				SPACE								SPA					
	8091	8091	8091	SUB - TOTALS									SUB - TOTAL				4
NOTE:				RATING OF NEW PANEL TO MATCH EXIST												15794	+
		EXISTIN	g loai	D 140AMPS + NEW LOAD 48 AMPS =	188 AM	IPS											4
	3.												TOTAL VA PER PHAS			15794	4
-	4.												LINE AMP	S 57	57	57	

#					Ŭ	 		~		L .							
1				(E)LOAD			1	20				SPACE					2
3				(E)LOAD		-	1	20	20	1		(E)LOAD					4
5				(E)LOAD		-	1	20	20	1		(E)LOAD					6
7				(E)LOAD		7	1	20	20	1		(E)LOAD					8
9		3602		(N)RTU - P-07					20	1		(E)LOAD				-	10
11			3602	-		7:	3	15	20	1		(E)LOAD					12
13	3602			-								(N)RTU - P-1.1	7205				14
15				SPACE					30	3		-		7205			16
17				SPACE								-			7205		18
19				(E)LOAD								(E)LOAD				1	20
21				-		7:	3	70	100	3		-				;	22
23				-								-				:	24
25	7205			(N)RTU - P-1.2								(N)MAU - P-02	2355			:	26
27		7205		-		7:	3	30	15	3		-		2355		:	28
29			7205	-								-			2355	:	30
31	500			(N)RTU - P-1.2 POWER EXHAUST								(N)RTU - P-1.1 POWER EXHAUST	500			:	32
33		500		-		7:	3	15	15	3		-		500		:	34
35			500	-								-			500	:	36
37	700			(N)RTU - P-07 POWER EXHAUST								SPACE					38
39		700		-		一;	3	15				SPACE					10
41			700	-								SPACE				4	12
	12007	12007	12007	SUB - TOTALS								SUB - TOTALS	5 10060	10060	10060		
ΝΟΤ	E: 1.	(E)LOAD	240AMF	P + (N)LOAD 80AMP = 320AMP								LINE TOTALS	22067	22067	22067		
	2.											LCL ADDEF	२ ०	0	0		
	3.											TOTAL VA PER PHASE	22067	22067	22067		
	4.												s 80	80	80		

· · ·		EL:	v		277	/4	00	v		_∎,	5	Г	п,	4	vv	200 AMI				
-00	ATION:	ELEC	TRICA	AL ROOM 5		(PAI	NEL T	ΌΗ	AVEE	BOLT-0	ON BI	REAI	KERS	5)				MA	AIN: 20	00/
NON	NTING:	SURFA	CE MOI	JNTED												LOAD:	126.0	kVA	153	AMF
K		'A LOAE)	LOAD DESCRIPTION	c	UTLE	TS	ск	T BKR	скт	BKR	c	OUTLE	ETS	LOAD DESCRI	PTION	٧	/a loae		NT
¥ ^{N1}	LINE A	LINE B	LINE C		0	R	L	Ρ	Α	A	Ρ	L	R	0			LINE A	LINE B	LINE C	
	4432			(E)LOAD				1	20	20	1				(E)LOAD		4432			
		4432		(E)LOAD				1	20	20	1				(E)LOAD			4432		
;			4432	(E)LOAD				1	20	20	1				(E)LOAD				4432	
7	11072			(E)LOAD											(E)LOAD		3321			
		11072		-				3	50	15	3				-			3321		
1			11072	-											-				3321	
3	15930			(N)PANEL HVAC-L											(E)LOAD		3321			·
5		15179		-				3	90	15	3				-			3321		
7			15179	-											-				3321	
	31434	30683	30683	SUB - TOTALS	I		1		,							SUB - TOTALS	11074	11074	11074	
IOTE	:: 1 .			1												LINE TOTALS:	42508	41757	41757	
	2.															LCL ADDER	0	0	0	
	3.														TOTAL V	A PER PHASE	42508	41757	41757	
	4.															LINE AMPS	153	151	151	

ĹΕ)PA	NE	EL:	MA	1	120	/2	80	۷	'OL	.Т,	3	Pl	Η,	4	W 100 AMP	EXI	STIN	IG B	U	S
.0	САТК	ON:E	LECT	RICAL	ROOM 38		(PAN	NEL TO	D H4	AVE B	OLT-OI	۱BF	REAK	ERS))		MA	IN: LU	JG O	NL	Y
10	JNTING	G: S	URFAC	CE MOL	INTED											LOAD:	5.5	kVA	10	AN	IPS
ĸ	VT				LOAD DESCRIPTION		JTLE			BKR	СКТЕ		ol	JTLE		LOAD DESCRIPTION	-	A LOAD		NIT	ск
¥ 1		EAL	INE B	LINE C	SPACE	0	R	L	P	A	A 20	P 1	L	R	0	(N)EF- M-28	LINE A 670	LINE B	LINE C		# 2
3	_				(E)LOAD				1	20	20	1				(N)EF- M-29	0/0	830			4
5					(E)LOAD				' 1	20	20	1				(N)EF- M-30			670		6
7					SPACE						20	1				(N)EF- M-31	670				8
3	_				(E)LOAD				1	20	20	1				(N)EF- M-37		670			10
1	_				(E)LOAD				1	20						SPACE					12
3		720			(N)SERVICE RECEPTACLE		4		1	20		_				(E)LOAD					14
5			540		(N)SERVICE RECEPTACLE		3		1	20	30	2				-					16
7				360	(N)NR & CP		2		1	20	20	1				(N)FCPS-M			400	1	18
9					SPACE						20	1				(E)LOAD					20
1					SPACE						20	1				(E)LOAD					22
3					SPACE						20	1				(E)LOAD					24
	-	720	540	360	SUB - TOTALS											SUB - TOTALS	1340	1500	1070		
ΙΟΤ	E:1.	P	ROVIDE	ELOCK	ON DEVICE											LINE TOTALS:	2060	2040	1430		
	2.															LCL ADDER	0	0	0		
	3.															TOTAL VA PER PHASE	2060	2040			
	4.															LINE AMPS	10	10	7		

(N)PANEL: HVAC-N	C 277/480 VOLT, 3 PH, 4W	125 AMP COPPER BUS	D (N)PANEL: LOCATION:ELECT			VOLT, 3 PH	•	200 /
LOCATION: CHEMISTRY 11 MOUNTING: SURFACE MOUNTED	(PANEL TO HAVE BOLT-ON BREAKERS) SSCR: 22KA AIC:22KA	MAIN: 125A LOAD: 91.7 kVA 110 AMPS DESCRIPTION VA LOAD	MOUNTING: SURFAC		SCCR : 22K ION <u>outlets</u> ck O R L P			LC
# N1 LINE A LINE B LINE C 1 3048 RTU - N-6 3 3048 - 5 3048 -	O R L P A P L R O L CADAD L R O L R D <td>LINE A LINE B LINE C ** 3048 2 3048 4 3048 6</td> <td>3 720 5 7 7 830</td> <td></td> <td>1</td> <td>20 20 1 20 20 1 20 20 1 15 20 1</td> <td>(E)LOAD (E)LOAD (E)LOAD (E)LOAD</td> <td></td>	LINE A LINE B LINE C ** 3048 2 3048 4 3048 6	3 720 5 7 7 830		1	20 20 1 20 20 1 20 20 1 15 20 1	(E)LOAD (E)LOAD (E)LOAD (E)LOAD	
7 3048 RTU - N-8 9 3048 - 11 3048 -	3 15 15 3 -	3048 8 3048 10 3048 12	9 830 11 13 930	(E)LOAD 830 (E)LOAD (E)LOAD	1 1 1	15 20 1 15 20 1 15 15 1	(E)LOAD (E)LOAD (E)LOAD	
13 3048 RTU - N-10 15 3048 - 17 3048 -	Image: Constraint of the second state of th	3048 14 3048 16 3048 16 3048 18	15 900 17	(E)LOAD 720 (E)LOAD (E)LOAD		20 15 1 20 15 1 20 15 1	(E)LOAD (E)LOAD (E)LOAD	
19 3048 RTU - N-12 21 3048 - 23 3048 -	3 15 15 3 -	3048 20 3048 22 3048 22 3048 24	21 1340 23	1340 (E)LOAD (E)LOAD	1	20 20 1 20 20 2 20 20 2	(E)LOAD (E)LOAD -	
25 3048 RTU - N-14 27 3048 - 29 3048 - 31 2771 RTU - N-11A	3 15 15 3 -	3048 26 3048 28 3048 28 3048 30 STS- RTU- N-28, 13 & 1 1995	27 830 29	(E)LOAD 830 (E)LOAD (E)LOAD	1	20 20 2 20 100 100 2	(E)LOAD - (E)LOAD	
33 2771 - 35 2771 - 37 1995 POWER EXHAUSTS- RTU-	3 15 20 3 -	1995 34 1995 36 38 38	33 8000 35	- 670 EF-N-12 (N)HP - N-7A	1	20 20 15 20 1	- SPACE (N)EF- N-11	
39 1995 - 41 1995 - 43 SPACE -	3 20 SPACE SPACE SPACE SPACE SPACE	40 42 44	39 1560 41	- 670 (N)EF- N-9 (N)EF- N-10 (N)SERVICE RECEPTACLE	1	20 15 2 20 20 1 20 20 1	(N)HP - N-7B - (N)EF- N-11A 2 (N)BOOSTER FANS	<u> </u>
45 SPACE 47 SPACE 49 SPACE 51 SPACE	SPACE SPACE SPACE SPACE SPACE SPACE SPACE SPACE	46 48 50 52	47 1 49 51	400 (N)FCPS-N SPACE SPACE		20 20 1 20 20 1 100 3	2 (N)NR & CP (E)LOAD(SUBFEED	
53 SPACE 20006 20006 20006 SUB - TOTALS NOTE: 1.	SPACE	SUB - TOTALS 17235 17235 54 LINE TOTALS: 29792.8 29792.8 29792.8 DF LARGERST MOTOR 762 762 762		SPACE 6180 SUB - TOTALS E LOCK ON DEVICE				SUB - TO
2. 3. 4.		OTAL VA PER PHASE 30554.8 30554.8 30554.8 LINE AMPS 110 110 110	2. 3.	\	X	X	тот	LCL A AL VA PER P
				$\overline{\boldsymbol{\lambda}}$				
			(E)PANEL:	KPA	120/208 VC		4W	100 A
(N)PANEL: HVAC-Q	277/480 VOLT, 3 PH, 4W	225 AMP COPPER BUS	LOCATION: MOUNTING: SURFAC			E BOLT-ON BREAKERS)	s LOAD DESC	
LOCATION: STORAGE Q10 MOUNTING: SURFACE MOUNTED	(PANEL TO HAVE BOLT-ON BREAKERS) SSCR: 22KA AIC:22KA	MAIN: 200A LOAD: 123.1 kVA 148 AMPS DESCRIPTION VA LOAD	1 3 5	(E)LOAD (E)LOAD (E)LOAD	1 20 1 20	0 20 1 0 20 1 0 20 1	(E)LOAD (E)LOAD (E)LOAD	
# NI LINE A LINE B LINE C LONE D LONE D D<	O R L P A P L R O L CO L CO L CO L CO L R O L R O R L R O R L R O R L R O R L R O R L R O R L R O R L R O R L R O R L R O R L R O R L R O R L R O R L R O R L R O R L R O R D R D R D R D R D R D R D R D R D R D R D R D <td>LINE A LINE B LINE C # 3325 2 2 3325 3325 4</td> <td>7 9 11</td> <td>(E)LOAD (E)LOAD -</td> <td>2 30</td> <td>0 20 1</td> <td>(E)LOAD - (E)LOAD</td> <td></td>	LINE A LINE B LINE C # 3325 2 2 3325 3325 4	7 9 11	(E)LOAD (E)LOAD -	2 30	0 20 1	(E)LOAD - (E)LOAD	
S 36025 - 7 SPACE 9 SPACE 11 SPACE		3325 6 IST RTU- Q-7 700 8 700 10 700 12	13 15 17	(E)LOAD (E)LOAD (E)LOAD	1 20 1 20	0 20 1 0 20 1 0 20 1	(E)LOAD (E)LOAD (E)LOAD	
13 SPACE 15 SPACE 17 SPACE	SPACE SPACE SPACE SPACE SPACE SPACE	14 16 18	19 21 23 25	(N)EF - K-14 SPACE 360 (N)SERVICE RECEPTACLE (E)LOAD			(N)FCU K-3,4,5,7,9,10,11 - (N)FCU K-1,17,19,20,33	
19 SPACE 21 SPACE	SPACE SPACE SPACE	20	27 29	- 2184 (N)DOAS - K-01	2 60	0 20 1 3	(N)NR, CP & VRF (N)RTU - K-26(EXISTING) -)
23 SPACE	SPACE		31 2184					
25 SPACE 27 SPACE 29 SPACE	SPACE SPACE SPACE SPACE SPACE SPACE SPACE		31 2184 33	SPACE SPACE SPACE			SPACE SPACE SPACE	
25 SPACE 27 SPACE	SPACE SPACE SPACE SPACE SPACE SPACE	24 24 26 26 28 30 SUB - TOTALS 4025 4025 100 32040 32040 27 32040 32040 28 30 30 29 32040 32040 29 32040 32040 29 9006.25 9006.25 20 41046.3 41046.3 20 148 148	33	SPACE			SPACE	SUB - T
25 SPACE 27 SPACE 29 SPACE 36025 36025 NOTE: 1. 2.	SPACE SPACE SPACE SPACE SPACE SPACE	SUB - TOTALS 4025 4025 4025 LINE TOTALS: 32040 32040 32040 DF LARGERST MOTOR 9006.25 9006.25 9006.25 OTAL VA PER PHASE 41046.3 41046.3 41046.3	33	SPACE SPACE SPACE SPACE SPACE			SPACE SPACE SPACE SPACE	LINE TO LCL / DTAL VA PER I
25 SPACE 27 SPACE 29 SPACE 36025 36025 NOTE: 1. 2.	SPACE SPACE SPACE SPACE SPACE SPACE	SUB - TOTALS 4025 4025 4025 LINE TOTALS: 32040 32040 32040 DF LARGERST MOTOR 9006.25 9006.25 9006.25 OTAL VA PER PHASE 41046.3 41046.3 41046.3	33	SPACE SPACE SPACE SPACE SPACE			SPACE SPACE SPACE SPACE	LINE TO
25 SPACE 27 SPACE 29 SPACE 36025 36025 NOTE: 1. 2.	SPACE SPACE SPACE SPACE SPACE SPACE	SUB - TOTALS 4025 4025 4025 LINE TOTALS: 32040 32040 32040 DF LARGERST MOTOR 9006.25 9006.25 9006.25 OTAL VA PER PHASE 41046.3 41046.3 41046.3	33	SPACE SPACE SPACE 2544 SUB - TOTALS	120/208 VC	DLT, 3 PH, 4	SPACE SPACE SPACE SPACE TO	LINE TO LCL / DTAL VA PER I
25 SPACE 27 SPACE 29 SPACE 36025 36025 NOTE: 1. 2. 3. 4.	SPACE SPACE SPACE SPACE SPACE SPACE	SUB - TOTALS 4025 4025 4025 LINE TOTALS: 32040 32040 32040 DF LARGERST MOTOR 9006.25 9006.25 9006.25 OTAL VA PER PHASE 41046.3 41046.3 41046.3 LINE AMPS 148 148 148	33	SPACE SPACE SPACE 2544 SUB - TOTALS SUB - TOTALS SUB - TOTALS SUB - TOTALS	(PANEL TO HAVE		SPACE SPACE SPACE SPACE TO	
25 SPACE 27 SPACE 29 SPACE 36025 36025 36025 36025 NOTE: 1. 2. 3. 4.	Image: Space Space	SUB - TOTALS 4025 4025 4025 LINE TOTALS: 32040 32040 32040 DF LARGERST MOTOR 9006.25 9006.25 9006.25 OTAL VA PER PHASE 41046.3 41046.3 41046.3 LINE AMPS 148 148 148	33	SPACE SPACE SPACE 2544 SUB - TOTALS SUB - TOTALS SUB - TOTALS SUB - TOTALS	(PANEL TO HAVE N 00TLETS CKT BK O R L P A 1 20 1 1 20	'E BOLT-ON BREAKERS)	SPACE SPACE SPACE SPACE TO	
25 SPACE 27 SPACE 29 SPACE 36025 36025 36025 NOTE: 1. 2. 3. 4. 4. VICTOR Image: Constraint of the second secon	Image: Section of the section of th	Image: Sub - TOTALS 4025 4025 4025 SUB - TOTALS 32040 32040 32040 SUB - TOTALS: 32040 3406.3 41046.3 INE AMPS 148 148 148 148 INE AMPS 148 148 148 148 INE AMPS 148 148 148 148 INE AMPS MAIN: 100A MAIN: 100A LOAD: 16.7 kVA 31 AMPS DESCRIPTION VA LOAD umage: CK Umage: CK Umage: CK	33	SPACE SPACE SPACE 2544 SUB - TOTALS 2544 SUB - TOTALS SUB - TOTALS SUB - TOTALS SUB - TOTALS SUB - TOTALS SUB - TOTALS US - TOTALS SUB - TOTALS SUB - TOTALS SUB - TOTALS SUB - TOTALS SUB - TOTALS SUB - TOTALS	(PANEL TO HAVE OUTLETS CKT BK O R L P A O R L P A O R L P A O R L P A O R L P A O R L P A D I D I 20 I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I <thi< th=""> I I</thi<>	KR CKT BKR OUTLETS A P L R 0 20 1 1 10 20 1 1 10 20 1 1 10 20 1 1 10 20 1 1 10 20 1 1 10 20 1 1	SPACE SPACE SPACE SPACE SPACE TO Image: second	
25 Image: Space spac	Image: Sector of the sector	Image: Sub - TOTALS 4025 4025 4025 SUB - TOTALS 32040 32040 32040 SUB - TOTALS: 32040 3406.3 41046.3 LINE AMPS 148 148 148 148 LINE AMPS 148 148 148 148 SUB - TOTALS: MAIN: 100A MAIN: 100A LOAD: 16.7 kVA 31 AMPS DESCRIPTION VA LOAD ur CK	33	SPACE SPACE SPACE 2544 SUB - TOTALS	(PANEL TO HAVE N O R L P A C C R L P A C C C C C C C C C C C C C C C C C C	KR CKT BKR OUTLETS A P L R A P L R 20 1 1 1 10 20 1 1 1 10 20 1 1 1 10 20 1 1 1 10 20 1 1 1 10 20 1 1 1 10 20 1 1 1 10 20 1 1 1 10 20 1 1 1 10 20 3 1 1 10 20 3 1 1	SPACE SPACE SPACE SPACE SPACE TO Image: Constraint of the second se	
25 Image: Space spac	Image: Section of the section of th	Image: Sub - TOTALS 4025 4025 4025 SUB - TOTALS 32040 32040 32040 SUB - TOTALS: 32040 3406.3 41046.3 LINE AMPS 148 148 148 148 LINE AMPS 148 148 148 148 SUB - TOTALS: MAIN: 100A MAIN: 100A LOAD: 16.7 kVA 31 AMPS DESCRIPTION VA LOAD ur CK	33	SPACE SPACE SPACE 2544 SUB - TOTALS	(PANEL TO HAVE O R L P A O R L P A O R L P A O R L P A O R L P A O R L P A O R L P A O R L P A O R L P A O R L P A O R L P A O R L P A O R L P A O I I I I O I I I I I I I I I I I I I I I I I I I I I I I I <	KR CKT BKR OUTLETS A P L R A P L R A P L R 0 20 1 1 10 20 1 1 10 20 1 1 10 20 1 1 10 20 1 1 10 20 1 1 10 20 1 1 10 20 1 1 10 20 3 1 10 20 3 1 10 20 1 1 10 20 3 1 10 20 1 1 10 20 1 1	SPACE SPACE SPACE SPACE SPACE TO Image: Constraint of the second sec	
25 Image: Space spac	Image: Space spac	Image: Sub - TOTALS 4025 4025 4025 SUB - TOTALS 32040 32040 32040 SUB - TOTALS: 32040 3406.3 41046.3 LINE AMPS 148 148 148 148 LINE AMPS 148 148 148 148 SUB - TOTALS: MAIN: 100A MAIN: 100A LOAD: 16.7 kVA 31 AMPS DESCRIPTION VA LOAD ur CK	33	SPACE SPACE SPACE 2544 SUB - TOTALS	OUTLETS CKT BK O R L P A O R L P A O R L P A O R L P A O R L P A O R L P A O R L P A O R L P A O R L P A O R L P A O R L P A O I I 20 I I 20 I I I I I I 20 I I I I I I I I I I I I I I I I I I I I I I I I I I I I	KR CKT BKR OUTLETS A P L R A P L R 0 20 1 1 00 20 1 1 00 20 1 1 00 20 1 1 00 20 1 1 00 20 1 1 00 20 1 1 00 20 3 1 00 20 3 1 00 20 1 1 10 20 1 1 10 20 1 1 10 20 1 1 10 20 1 1 10 20 1 1	SPACE SPACE SPACE SPACE SPACE TO Image: Space state s	
25 Image: Section of the sectin of the section of the section of the section of the section of	Image: Section of the section of th	Image: Sub-Totals 4025 4006 2006 20	33	SPACE SPACE SPACE 2544 SUB - TOTALS	OUTLETS CKT BK O R L P A O R L P A O R L P A O R L P A O R L P A O R L P A O R L P A O R L P A O R L P A O R L P A O R L P A O I I 20 I I 20 O I I I I I 20 I I I I I I I I I I I I I I I I I I I I I I I I I I I I	KR CKT BKR OUTLETS A A P L R P A P L R P L R P A P L R P L <td>SPACE SPACE SPACE SPACE SPACE SPACE TO Image: Space state st</td> <td></td>	SPACE SPACE SPACE SPACE SPACE SPACE TO Image: Space state st	
25 Image: Space spac	Image: Section of the section of th	Image: Sub - TOTALS 4025 4025 4025 SUB - TOTALS 32040 32040 32040 SUB - TOTALS: 32040 3406.3 41046.3 LINE AMPS 148 148 148 148 LINE AMPS 148 148 148 148 SUB - TOTALS: MAIN: 100A MAIN: 100A LOAD: 16.7 kVA 31 AMPS DESCRIPTION VA LOAD ur CK	33	SPACE SPACE SPACE SPACE 2544 SUB - TOTALS PPP TY DINNING P09 E MOUNTED INE C (E)LOAD (E	OUTLETS CKT BK O R L P A O R L P A O R L P A O R L P A O R L P A O R L P A O R L P A O R L P A O R L P A O R L P A O R L P A O I I 20 I I 20 O I I I I I 20 I I I I I I I I I I I I I I I I I I I I I I I I I I I I	KR CKT BKR OUTLETS A A P L R P A P L R P L R P A P L R P L <td>SPACE SPACE SPACE SPACE SPACE SPACE TO Image: Space state sta</td> <td></td>	SPACE SPACE SPACE SPACE SPACE SPACE TO Image: Space state sta	
25 Image: Section of the sectin of the section of the section of the section of the section of	Image: Section of the section of th	SUB - TOTALS 4025 4025 4025 SUB - TOTALS 32040 32040 32040 SUB - TOTALS 4025 4005.3 41046.3 LINE AMPS 148 148 148 LINE AMPS 148 148 148 LOAD: 16.7 KVA 31 DESCRIPTION VA LOAD 17 rr VA LOAD VA LOAD 17 rr QUESCRIPTION VA LOAD 17 rr VA LOAD INE A LINE B LINE C 17 rr QUESCRIPTION VA LOAD 17 rr QUESCRIPTION INE A LINE B LINE C 17 rr QUESCRIPTION INE A LINE B LINE C 17 rr QUESCRIPTION INE A LINE B LINE C 17 rr QUESCRIPTION INE A LINE B LINE C <td< td=""><td>33 </td><td>SPACE SPACE SPACE 2544 SUB - TOTALS 2544 SUB - TOTALS</td><td>OUTLETS CKT BK O R L P A O R L P A O R L P A O R L P A O R L P A O R L P A O R L P A O R L P A O R L P A O R L P A O R L P A O I I 20 I I 20 O I I I I I 20 I I I I I I I I I I I I I I I I I I I I I I I I I I I I</td><td>KR CKT BKR OUTLETS A A P L R P A P L R P L R P A P L R P L<td>SPACE SPACE SPACE SPACE SPACE SPACE TO Image: Space state st</td><td></td></td></td<>	33	SPACE SPACE SPACE 2544 SUB - TOTALS 2544 SUB - TOTALS	OUTLETS CKT BK O R L P A O R L P A O R L P A O R L P A O R L P A O R L P A O R L P A O R L P A O R L P A O R L P A O R L P A O I I 20 I I 20 O I I I I I 20 I I I I I I I I I I I I I I I I I I I I I I I I I I I I	KR CKT BKR OUTLETS A A P L R P A P L R P L R P A P L R P L <td>SPACE SPACE SPACE SPACE SPACE SPACE TO Image: Space state st</td> <td></td>	SPACE SPACE SPACE SPACE SPACE SPACE TO Image: Space state st	
25 Image: style styl	Image: Section of the section of th	Image: Subsection of the section of the sectin of the section of the section of the section of the section of	33	SPACE SPACE SPACE 2544 SUB - TOTALS 2544 SUB - TOTALS	OUTLETS CKT BK O R L P A O R L P A O R L P A O R L P A O R L P A O R L P A O R L P A O R L P A O R L P A O R L P A O R L P A O I I 20 I I 20 O I I I I I 20 I I I I I I I I I I I I I I I I I I I I I I I I I I I I	KR CKT BKR OUTLETS A A P L R P A P L R P L R P A P L R P L <td>SPACE SPACE SPACE SPACE SPACE SPACE TO Image: Space state st</td> <td></td>	SPACE SPACE SPACE SPACE SPACE SPACE TO Image: Space state st	
27	Image: State in the image: State in	Init of the second s	33	SPACE SPACE SPACE 2544 SUB - TOTALS PPP: TY DINNING P09 E MOUNTED INE C LOAD DESCRIPTION (E)LOAD	O R L P A 0 R L P A 1 1 20 1 20 1 1 20 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 20 1 20 1 1 1 20 1 20 1 1 1	KR CKT BKR OUTLETS A P L R A P	SPACE TO SPACE SPACE	
ZE SPACE 27 Image: SPACE 28 SPACE 36025 36025 3025 36025 3.4 Image: SPACE 2.3.4 Image: SPACE 3.4 Image: SPACE 4. Image: SPACE 3.4 Image: SPACE 4. Image: SPACE 1 Image: SPACE	Image: State of the state	Image: Subset of the second	33	SPACE SPACE SPACE 2544 SUB - TOTALS PPP TY DINNING P09 E MOUNTED INE C LOAD DESCRIPTION (E)LOAD	O R L P A 0 R L P A 1 1 20 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 20 1 20 1 1 20 1 20 1 1 20 1 20 1 1 1 20	KR C KT BKR OUTLETS A P L R A	SPACE SPACE SPACE SPACE SPACE Image: SPACE SPACE SPACE Image: SPACE SPACE SPACE Image: SPACE SPACE Image: SPACE	
ZF SPACE 27 SPACE 28 SPACE 30025 36025 30025 36025 3.4 SPACE 3.4 SPACE 4. SPACE	Image: State in the image: State in	Image: Sub - TOTALS 4025 4026	33	SPACE SPACE SPACE 2544 SUB - TOTALS PPP TY DINNING P09 E MOUNTED INE C LOAD DESCRIPTION (E)LOAD	OUTLETS CKT BK 0 R L P A 1 1 20 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 20 1 20 1 1 1 20 1 20 1 1 1 1 20 1 2	KR CKT BKR OUTLETS A P L R A P	SPACE SPACE SPACE SPACE SPACE Image: SPACE SPACE SPACE Image: SPACE SPACE SPACE Image: SPACE SPACE Image: SPACE	
ZE SPACE 27 SPACE 29 SPACE 30025 36025 30025 36025 30025 36025 30025 36025 30025 36025 30025 36025 30025 36025 30027 36025 30027 36025 4 SPACE	Image: Section of the section of th	Image: Subset of the term of te	33	SPACE SPACE SPACE 2544 SUB - TOTALS PPP TY DIVING P09 E MOUNTED LOAD DESCRIPTION (E)LOAD SUB - TOTALS SPACE 1560 SUB - TOTALS SUB - TOTALS (E)LOAD DESCRIPTION (E)LOAD DESCRIPTION (E)LOAD (E)	OUTLETS CKT BK O R L P A O R L P A O R L P A I I I I I I I I I I I I I I I I I I I I I I	KR CKT BKR OUTLETS A P L R A P L R A P L R A P L R A P L R A P L R A P L R A P L R A P L R A P L R A P L R A P L R A P L R A P L R A P L R A P L R A P L R A P L R	SPACE TO SPACE	
ZS Image: SPACE 29 Image: SPACE 29 Image: SPACE 1 SPACE NOTE 1. 2. 3. 4. Image: SPACE SPACE 3. 4. Image: SPACE SPACE 3. Image: SPACE 4. Image: SPACE Image: SPACE SPACE A. Image: SPACE Image: SPACE Image: SPACE Image: SPACE Image: SPACE Image: SPACE Image: SPACE	Image: Section of the section of th	Image: Subset of the term of te	33	SPACE SPACE SPACE 2544 SUB - TOTALS PPP: TY DINING P09 E MOUNTED LOAD DESCRIPTION (E)LOAD <td>OUTLETS CKT BK 0 R L P A 1 1 20 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 <tr< td=""><td>KR CKT BKR OUTLETS A P L R A P</td><td>SPACE SPACE SPACE</td><td></td></tr<></td>	OUTLETS CKT BK 0 R L P A 1 1 20 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 <tr< td=""><td>KR CKT BKR OUTLETS A P L R A P</td><td>SPACE SPACE SPACE</td><td></td></tr<>	KR CKT BKR OUTLETS A P L R A P	SPACE	
Image: Subscription of the subscriptic subscriptic subscription of the subscription of the subscription	Image: Section of the section of th	Image: Note of the second s	33 I I I 35 I I I 39 I I I 39 I I I 41 I I I 2184 O NOTE: 1. I 3. I I I 3. I I I A. INTE: I. I I INOTE: I. I I I INOUNTING: SURFAC I I 3 I I I I 3 I I I I 3 I I I I 3 I I I I 3 I I I I 13 I I I I 14 I I I I 15 I I I I 14 I I I I 15 I I I I<	SPACESPACESPACESPACE2544SPACE2544SUB - TOTALSPPPTY DINNING P09EMOUTEDINE CLOAD DESCRIPTION(E)LOADSPACESPACE(DAD DESCRIPTION(E)LOAD(E)	OUTLETS CKT BK 0 R L P A 0 R L P A 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 1 20 1 1 1 1 20 1 1 1 1 20 1 1 1 1 20 1 1 1 1 20 1 1 1 1 1	KR CKT BKR OUTLETS A P L R A P	SPACE SPACE SPACE	
Image: Subscription of the second s	Image: Section of the section of th	Image: Note of the second s	33 I I I 37 I I I 39 I I I 39 I I I 39 I I I I 39 I I I I 31 I I I I 31 I I I I 2 3 I I I 3 I I I I 0 I I I I 1 I I I I 3 I I I I 3 I I I I 3 I I I I 3 I I I I 3 I I I I I 3 I I I I I 13 I I I I I 14 I I	SPACESPACESPACE2544SPACE2544SPACE2544SUB - TOTALSPPPInterment of the second seco	OUTLETS CKT BK 0 R L P A 1 1 20 1 20 1 1 1 20 1 20 1 1 1 20 1 20 1 1 1 20 1 20 1 1 1 20 1 20 1 1 1 20 1 20 1 1 1 20 1 20 1 1 1 20 1 20 1 1 1 20 1 20 1 1 1 20 1 20 1 1 1 1 20 1 20 1 1 1 1 20 1 20 1 1 1 1 1 20 20 20 1 1 1 1 1 1 20 20 20 1 1 <td>KR CKT BKR OUTLETS A P L R A P</td> <td>SPACE SPACE SPACE SPACE SPACE SPACE SPACE SPACE SPACE SPACE SPACE SPACE SPACE SPACE SPACE SPACE SPACE SPACE</td> <td></td>	KR CKT BKR OUTLETS A P L R A P	SPACE SPACE SPACE SPACE SPACE SPACE SPACE SPACE SPACE SPACE SPACE SPACE SPACE SPACE SPACE SPACE SPACE	
Image: style in the style interval	Image: State in the image: State in	Image: Note of the second se	33	SPACESPACESPACE2544SPACE2544SUB - TOTALS2544SUB - TOTALSTY DINNING P09E MOUTEDLOAD DESCRIPTIONINE CLOAD DESCRIPTION(E)LOAD <td< td=""><td>OUTLETS CKT BK 0 R L P A 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 20 1 20 1 1 1 20 1 20 1 1 1 20 1 20 1 1 1 20 1 20 1 1 1 1 20 1 20 1 1 1 1 20 1 20 1 1 1 1 1 1 1 <</td><td>KR CKT BKR OUTLETS A P L R A P</td><td>SPACE SPACE (E)LOAD (E)LOA</td><td></td></td<>	OUTLETS CKT BK 0 R L P A 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 1 20 1 1 20 1 20 1 1 1 20 1 20 1 1 1 20 1 20 1 1 1 20 1 20 1 1 1 1 20 1 20 1 1 1 1 20 1 20 1 1 1 1 1 1 1 <	KR CKT BKR OUTLETS A P L R A P	SPACE (E)LOAD (E)LOA	

						\	E							1				F		
	120									W 200 AMF						\square		GENERA	AL NOTES	
		scc	R:2 TS	2KA	а вкr	скт	AIC bkr	EAKEF : 22K out	A LETS		103.4	kVA VA LC	A OAD	5 AMP 197 AN		1.	•			BREAKERS SERVING
		R		P 1			P 1				LINE A 720	LINE		NE C NT	# 2 4					OTHER LIFE-SAFETY ONTINUOUS POWER
				1	20 20 15	20 20 20	1			(E)LOAD (E)LOAD (E)LOAD	1080			720	6 8	2.		-	IANENT LABELS TO E	ACH PANELS.
				1	15 15	20 20	1			(E)LOAD (E)LOAD			080	900	10 12	3.			UIT TAGS TO EAC	H BRANCH CIRCUIT
				1	15 20 20	15 15 15	1			(E)LOAD (E)LOAD (E)LOAD	830		830	830	14 16	K		CONDUCTORS.		
				1	20 20 20	15 15 20	1			(E)LOAD (E)LOAD (E)LOAD	830	L	670	030	20	4.)	-	IEL DIRECTORY.	TO REMOVE DEBRIS
					20 20	20	2			(E)LOAD -	1500			1500	24 26	K				NAL INSTALLATION IS
					20 20	20	2			(E)LOAD -			500	1500	28 30	6.			JCH LABELS ON ELE	CTRICAL DEVICES TO
				2 ⁻ 1	100 20	100	2 -			(E)LOAD - SPACE	8000		000		32 34 36	K				
				2	15	20 15				(N)EF- N-11 (N)HP - N-7B	670		560		38 40	7. 8.			JIT ID ON BRANCH W	IRING. PARE BREAKERS AS
ACLES		6		1	20 20 20	20 20	1			- (N)EF- N-11A 2 (N)BOOSTER FANS	670	L	300	1560	42	0.	/		ENTIFICATION PURP	
				1		20		:	2	(N)NR & CP (E)LOAD(SUBFEED NB)	9000			360	48 50	9.		TYPE AND A.	I.C. RATING. CONT	LL MATCH EXISTING
						100	3			-		111	1	0610	52 54				PROVIDE NEW CIRC	UIT BREAKERS FOR D.
										SUB - TOTALS LINE TOTALS: LCL ADDER	38180			7980 4160 0	-	10	۱.		SHALL VERIF	TY, PRIOR TO RCUITS IN FIELD TO
										TOTAL VA PER PHASE LINE AMPS	38180		070 2 197	4160 110				CONFIRM FIN	AL NUMBER OF	AVAILABLE SPARE ANY DISCREPANCY
																		ACTUAL FINDIN	NGS MUST BE REPO	N ON DRAWING AND DRTED TO BUILDING
																11		ENGINEER FOR		ENTLY LABEL ALL
1:		NEL .		AVE E	BOLT-	, 3 on bf		•	•W	2 100 AMP LOAD:	MA 12.2	AIN: 2 kV/	LUC	G BU G ONL 27 AN	Y			OUTLETS WIT	H CIRCUIT NUMBE	ERS AND PROVIDE OR ALL AFFECTED
PTION	OUTL OR		P 1 1		A 20 20	т вкр Р) 1) 1) 1		TLETS R () (E)	LOAD DESCRIPTION				NE C NT	# 2 4	12	-	CONTRACTOR	SHALL COORDINA F SYSTEMS WITH BU	TE ALL REQUIRED JILDING ENGINEER.
			1	20 20 30 20	30) 2			(E) - (E))LOAD					8 10 12 14	13			ELS. PLACE LABEL	FLASH LABELS ON ON A VISIBLE AREA
			1	20 20 20 20	20	_			(E (E)LOAD ;)LOAD ;)LOAD 1)FCU K-3,4,5,7,9,10,11	364		364		16 18 20	14		CONTRACTOR	SHALL BALANCE TH	E PANELBOARDS SO)% OF UNBALANCED
CLE	2			20 60		5 2		3	-	I)FCU K-1,17,19,20,33 I)NR, CP & VRF	260	0	540	260	22 24 26 28	15		PROVIDE DE	EDICATED NEUTF CIRCUITS (NO HAI	RALS FOR ALL NDLE TIES) UNLESS
			- 2	30	- 40) 2			- SF	I)RTU - K-26(EXISTING) PACE PACE	2850	0		2850	30 32 34 36	16			UIT BREAKERS SHA	LL MATCH EXISTING
									SF	PACE PACE PACE					38 40			VERIFY AND P		RACTOR TO FIELD UIT BREAKERS FOR D.
										SUB - TOTALS				3110 5654						
										LCL ADDEF TOTAL VA PER PHASE LINE AMPS	5658		0 904 4	0 5654 27						
											<u> </u>	<u>.</u>								
1	20/2 (PA					, 3			ŧW		r	MAI	IN: 1	50 AN	Р					
PTION	OUTL O R		Р		A	P		R (2				OAD	15 AI	1РS СК #					
			1	20 20 20	20) 1) 1) 1			(E	;)LOAD ;)LOAD ;)LOAD					2 4 6					
			3	30	20) 1) 1			(E	E)LOAD E)LOAD					8 10					
			+	20 20) 1) 3				E)LOAD					12 14 16					
				20	20	0 1			,	E)LOAD					18 20					
				15 20	20) 1) 1) 1			(E)LOAD :)LOAD :)LOAD					22 24 26					
				20	20) 1		3	(E	E)LOAD					28 30					
			1	20 20 25		0 1 5 2		_	_	:)LOAD I)HP - P-2.2		1	1560	1560	32 34 36					
CLES	3			25 20	20) 1) 1		2	2 CC	I)CP & NR ONDENSATE PUMP	360	_	300		38 40					
									SF	PACE SUB - TOTALS LINE TOTALS				1560 3120	42					
										LCL ADDEF TOTAL VA PER PHASE	1920	-		0 3120						
										LINE AMPS		9	12	15						
																1				
	120					-		PH Eakef			MA	IN:	LUG	GONL	Y					
RIPTION		UTLE		скт Р				OUT L				kVA VA LC	OAD	1.7	РS ск #					
					20	20	+			SPACE (E)LOAD					2					
					20 30	20 30			+	(E)LOAD (E)LOAD -					6 8 10					
				1	20	20 20	1			- (E)LOAD					12			PANEL S	SCHEDULE	INDEX
				1	20 20 20 30	20 20 20 30	1			(E)LOAD (E)LOAD (E)LOAD (E)LOAD					18 20 22 24			IH	HVAC-N	NA
				3	30	15	3			- POWER EXHAUST RTU- Q-7 SLIB TOTALS	330	2	220	220	24 26 28 30			PH	HVAC-Q	KPA
NEL TO MATCH	H EXIST	ΓING	PAN	EL						SUB - TOTALS LINE TOTALS: LCL ADDER	330 3329 0	32	0	220 3219 0					V1	PPP
										TOTAL VA PER PHASE LINE AMPS	3329 28		219 27	3219 27				V MA1	QA	QQ
																			W A	

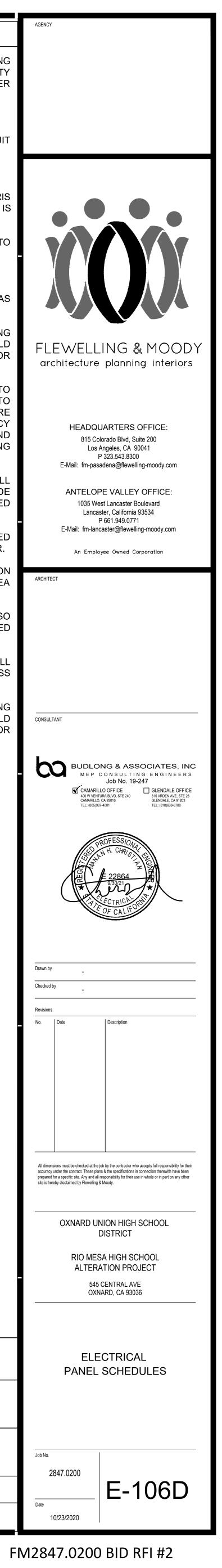


Image: 10 mining in the second in the sec	(Ε)ΡΑ LOCATIO	N: CUS	TODIA	N 40B	120						PH, akers)	4W	100 AMP		STIN: L	
	ск	VA LOA	.D												VA LOA	
Subcol Image: Subc	1 3			(E)LOAD						1		(E)LOAD				
ELCO Image: State of the state	5 7															
Image: bit is bit bit is bit bit is bit bit bit is bit is bit is bit	9 11															
PAREL: HF 277/480 VOLT, 3 PH, 4W 225 AMP EXISTING 1 30.00 1 30.00 1 30.00 1	13 15			()						_						
	17 19			(E)LOAD -				2 20	20	2		(E)LOAD -				
Image: Description Image: Description Image: Description Image: Description Image: Description Image: Description	21 23			(E)LOAD -				2 20	20	1						
0 0	25 27			(E)LOAD -				2 30				. ,				
	29	0 0) 0									SPACE	SUB - TOTALS	; O) ()
1 LLEANE 0 0 ATOMINISTICS RETAINING 25 AMP EXISTING MAIN LUE ATOMINISTICS RETAINING RETAINING MAIN LUE ATOMINISTICS RETAINING RETAINING RETAINING RETAINING ATOMINISTICS RETAINING RETAINING RETAINING RETAINING RETAINING ATOMINISTICS RETAINING RETAINING RETAINING RETAINING RETAINING RETAINING ATOMINISTICS RETAINING RETAINING RETAINING RETAINING RETAINING RETAINING RETAINING RETAINING ATOMINISTICS RETAINING RE	NOTE: 1. 2.			-												
																-
International conditional condition	LOCATIO	N: STOF	RAGE 7	UNTED		(PAN		HAVE	BOLT-C	N BRE	AKERS)		LOAD:	MAI 0.0	N: LU ^{kVA}	GS
Image: state in the state i							L	ΡA				0	DESCRIPTION			
Produit Produit <t< td=""><td>3 5</td><td></td><td></td><td>(E)LOAD</td><td></td><td></td><td></td><td>1 20</td><td>15</td><td>3</td><td></td><td>-</td><td></td><td></td><td></td><td></td></t<>	3 5			(E)LOAD				1 20	15	3		-				
Normality Normality Normality Normality Normality Normality Normality Normality Normality<	7 9			(E)LOAD				1 20	15	3		(E)LOAD -				
NAME NAME <th< td=""><td>11 13</td><td></td><td></td><td>(E)LOAD</td><td></td><td></td><td></td><td>1 20</td><td></td><td></td><td></td><td>- (E)LOAD</td><td></td><td></td><td></td><td></td></th<>	11 13			(E)LOAD				1 20				- (E)LOAD				
Description Description <thdescription< th=""> <thdescription< th=""></thdescription<></thdescription<>	15 17			(E)LOAD				1 20	15	3		-				
Bit Add Bit Add <t< td=""><td>19 21</td><td></td><td></td><td>(E)LOAD</td><td></td><td></td><td> </td><td>1 20</td><td>15</td><td>3</td><td></td><td>(E)LOAD -</td><td></td><td></td><td></td><td></td></t<>	19 21			(E)LOAD				1 20	15	3		(E)LOAD -				
Image: Section of the sectio	23 25 27			. ,												
Image: Second	27			-				3 15	20	1		SPARE				
Image: Second	31 33							3 15	20	1		(E)LOAD				
Image: series	35								20	+ +						
Vertrick (/ MOUNDER BREACER ULE TOTALS 0 0 3 VOTAL VA ECE PHAGE ULE TOTALS 0 0 4 VOTAL VA ECE PHAGE ULE TOTALS 0 0 4 VOTAL VA ECE PHAGE ULE TOTALS 0 0 4 VOTAL VA ECE PHAGE ULE TOTALS 0 0 4 VOTAL VA ECE PHAGE ULE TOTALS 0 0 4 VOTAL VA ECE PHAGE ULE TOTALS 0 0 4 VOTAL VA ECE PHAGE ULE TOTALS 0 0 1005 ULE TOTAL ISA VOTAL VA ECE PHAGE 0 0 1005 ULE TOTALS VOTAL VA ECE PHAGE 0 0 1005 ULE TOTALS VOTAL VA ECE PHAGE 0 0 0 1005 ULE TOTALS VOTAL VA ECE PHAGE 0						-		0 45	70			()				
ATTOR: LINE SUPPORT MAIN: MAIN: <th< th=""><th>41 NOTE: 1. 2. 3.</th><th></th><th></th><th>- - SUB - TOTALS</th><th></th><th></th><th></th><th>3 15</th><th>70</th><th>3</th><th></th><th>-</th><th>LINE TOTALS: LCL ADDER IOTAL VA PER PHASE</th><th>0</th><th>0</th><th></th></th<>	41 NOTE: 1. 2. 3.			- - SUB - TOTALS				3 15	70	3		-	LINE TOTALS: LCL ADDER IOTAL VA PER PHASE	0	0	
LINE AL LINE BLANE COUNCY ONE DESCRIPTION O I P A N P R N N P A N P R N N P A N P R N	41 NOTE: 1. 2. 3. 4.	VERTIC		- - SUB - TOTALS	277	7/4					<u>-</u>	- - -	LINE TOTALS: LCL ADDER TOTAL VA PER PHASE LINE AMPS	0	000000000000000000000000000000000000000	
Image: Second and the second	41 NOTE: 1. 2. 3. 4. (N)PA LOCATIO MOUNTING	NEL: N: ELEC : SURFA		- SUB - TOTALS DUNTED BREAKER			80		L T ,	×		- - -	LINE TOTALS: LCL ADDER TOTAL VA PER PHASE LINE AMPS	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		
Image: Section of the second of the second of the section of the section of the section		VERTIC VERTIC		- SUB - TOTALS DUNTED BREAKER	0	(PAN	80 ⊫⊥ TC		СКТ ,		AKERS)	- - - 1 4 W IB LOAD I	LINE TOTALS: LCL ADDER TOTAL VA PER PHASE LINE AMPS 225 AMI LOAD:	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		
Image: Space Image: Space<	41 NOTE: 1. 2. 3. 4. (N)PA IOCATIO MOUNTING CK NT LINE 1 3	VERTIC VERTIC		- SUB - TOTALS DUNTED BREAKER AL 15A UNTED LOAD DESCRIPTION (E)LOAD (E)LOAD	0	(PAN	80 ⊫ TC	VOI HAVE E CKT BKR P A 1 20 1 20	_Т, зост-с	3 F NBRE	AKERS)		LINE TOTALS: LCL ADDER TOTAL VA PER PHASE LINE AMPS 225 AMI LOAD:	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		
Image: Sepace Image: S	41 NOTE: 1. 2. 3. 4. (N)PA LOCATIO MOUNTING K NT LINE 1 3 5 7	VERTIC VERTIC		- SUB - TOTALS DUNTED BREAKER LOAD DESCRIPTION (E)LOAD (E)LOAD (E)LOAD (E)LOAD	0	(PAN	80 ⊮∎. TC	VOI HAVEE P A 1 20 1 20 1 20 1 20	СКТ А 20 20 20 20	3 F N BRE	AKERS)	- - - - - - - - - - - - - - - - - - -	LINE TOTALS: LCL ADDER TOTAL VA PER PHASE LINE AMPS 225 AMI LOAD:	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		
Image: SPACE Image: SPACE<	3. 4. (N)PA LOCATIO MOUNTING	VERTIC VERTIC		- - SUB - TOTALS DUNTED BREAKER AL 15A UNTED LOAD DESCRIPTION (E)LOAD (E)LOAD (E)LOAD (E)LOAD (E)LOAD (E)LOAD (E)LOAD	0	(PAN		VOI P A 1 20 1 20 1 20 1 20 1 20 1 20	Скт А 20 20 20 20 20	3 F P 1 1 1 1 1	AKERS)	- - <t< td=""><td>LINE TOTALS: LCL ADDER TOTAL VA PER PHASE LINE AMPS 225 AMI LOAD:</td><td>0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0</td><td></td><td></td></t<>	LINE TOTALS: LCL ADDER TOTAL VA PER PHASE LINE AMPS 225 AMI LOAD:	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		
33555 INIMACN Image: Source of the set	41 NOTE: 1. 2. 3. 4. (N)PA LOCATIO MOUNTING CK N # NT LINE 1 3 5 5 7 9 9 11	VERTIC VERTIC		- SUB - TOTALS DUNTED BREAKER LISA UNTED LOAD DESCRIPTION (E)LOAD (E)LOAD (E)LOAD (E)LOAD (E)LOAD (E)LOAD (E)LOAD (E)LOAD (E)LOAD (E)LOAD	0	(PAN		VOI P A 1 20 1 20 1 20 1 20 1 20 1 20	Скт А 20 20 20 20 20	3 F P 1 1 1 1 1	AKERS)	- - <t< td=""><td>LINE TOTALS: LCL ADDER TOTAL VA PER PHASE LINE AMPS 225 AMI LOAD:</td><td>0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0</td><td></td><td></td></t<>	LINE TOTALS: LCL ADDER TOTAL VA PER PHASE LINE AMPS 225 AMI LOAD:	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		
30555 30555 30555 30555 SUB-TOTALS 0 <th0< t<="" td=""><td>41 NOTE: 1. 2. 3. 4. (N)PA LOCATIO MOUNTING CK N # NT LINE 1 3 5 7 9 11 13 15 1 15</td><td>VERTIC VERTIC</td><td></td><td>- SUB - TOTALS DUNTED BREAKER LISA UNTED LOAD DESCRIPTION (E)LOAD (E)LOAD (E)LOAD (E)LOAD (E)LOAD (E)LOAD (E)LOAD (E)LOAD (E)LOAD SPACE SPACE SPACE SPACE</td><td>0</td><td>(PAN</td><td></td><td>VOI P A 1 20 1 20 1 20 1 20 1 20 1 20</td><td>СКТ А 20 20 20 20 20 20 20 20</td><td>3 F P 1 1 1 1 1 1 1</td><td>AKERS)</td><td>- <t< td=""><td>LINE TOTALS: LCL ADDER TOTAL VA PER PHASE LINE AMPS 225 AMI LOAD: DESCRIPTION</td><td>0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0</td><td></td><td></td></t<></td></th0<>	41 NOTE: 1. 2. 3. 4. (N)PA LOCATIO MOUNTING CK N # NT LINE 1 3 5 7 9 11 13 15 1 15	VERTIC VERTIC		- SUB - TOTALS DUNTED BREAKER LISA UNTED LOAD DESCRIPTION (E)LOAD (E)LOAD (E)LOAD (E)LOAD (E)LOAD (E)LOAD (E)LOAD (E)LOAD (E)LOAD SPACE SPACE SPACE SPACE	0	(PAN		VOI P A 1 20 1 20 1 20 1 20 1 20 1 20	СКТ А 20 20 20 20 20 20 20 20	3 F P 1 1 1 1 1 1 1	AKERS)	- - <t< td=""><td>LINE TOTALS: LCL ADDER TOTAL VA PER PHASE LINE AMPS 225 AMI LOAD: DESCRIPTION</td><td>0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0</td><td></td><td></td></t<>	LINE TOTALS: LCL ADDER TOTAL VA PER PHASE LINE AMPS 225 AMI LOAD: DESCRIPTION	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		
30555 30555 <td< td=""><td>41 </td><td>VERTIC</td><td></td><td>- SUB - TOTALS DUNTED BREAKER LOAD DESCRIPTION (E)LOAD (E)LOAD (E)LOAD (E)LOAD (E)LOAD (E)LOAD (E)LOAD (E)LOAD (E)LOAD (E)LOAD (E)LOAD SPACE SPACE SPACE SPACE SPACE SPACE</td><td>0</td><td>(PAN</td><td></td><td>VOI P A 1 20 1 20 1 20 1 20 1 20 1 20</td><td>СКТ А 20 20 20 20 20 20 20 20</td><td>3 F P 1 1 1 1 1 1 1</td><td>AKERS)</td><td>- - - - - - - - - - - - - - - - - - - -</td><td>LINE TOTALS: LCL ADDER TOTAL VA PER PHASE LINE AMPS 225 AMI LOAD: DESCRIPTION</td><td>0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0</td><td></td><td></td></td<>	41	VERTIC		- SUB - TOTALS DUNTED BREAKER LOAD DESCRIPTION (E)LOAD (E)LOAD (E)LOAD (E)LOAD (E)LOAD (E)LOAD (E)LOAD (E)LOAD (E)LOAD (E)LOAD (E)LOAD SPACE SPACE SPACE SPACE SPACE SPACE	0	(PAN		VOI P A 1 20 1 20 1 20 1 20 1 20 1 20	СКТ А 20 20 20 20 20 20 20 20	3 F P 1 1 1 1 1 1 1	AKERS)	- - - - - - - - - - - - - - - - - - - -	LINE TOTALS: LCL ADDER TOTAL VA PER PHASE LINE AMPS 225 AMI LOAD: DESCRIPTION	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		
S. EXISTING LOAD 80A + NEW LOAD 110 AMPS = 180AMPS TOTAL VA PRE PHASE 305555 30555 <td>41 </td> <td>VERTIC</td> <td></td> <td>- - SUB - TOTALS DUNTED BREAKER LOAD DESCRIPTION (E)LOAD (E)</td> <td>0</td> <td>(PAN</td> <td></td> <td>VOI HAVEE CKT BKR P A 1 20 1 20</td> <td>Скт А 20 20 20 20 20 20 20 20 20 20 20 20 20</td> <td>3 F P 1 1 1 1 1 1 1</td> <td>AKERS)</td> <td>- - -</td> <td>LINE TOTALS: LCL ADDER TOTAL VA PER PHASE LINE AMPS 225 AMI LOAD: DESCRIPTION</td> <td>0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0</td> <td></td> <td></td>	41	VERTIC		- - SUB - TOTALS DUNTED BREAKER LOAD DESCRIPTION (E)LOAD (E)	0	(PAN		VOI HAVEE CKT BKR P A 1 20 1 20	Скт А 20 20 20 20 20 20 20 20 20 20 20 20 20	3 F P 1 1 1 1 1 1 1	AKERS)	- - -	LINE TOTALS: LCL ADDER TOTAL VA PER PHASE LINE AMPS 225 AMI LOAD: DESCRIPTION	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		
PANEL: PH 277/480 VOLT, 3 PH, 4W 400 AMP EXISTING ATION: MECHANICAL P15 IPARE TO HAVE BOL TO NERRARER) MAIN: 40 INTING: SURFACE MOUNTED LOAD DESCRIPTION OUTERS ICAL DAD LOAD DESCRIPTION ICAL DAD VA LOAD LOAD DESCRIPTION OUTERS OUTERS ICAL DAD INTIGUES ICAL DAD ICAL	41	VERTIC	N CTRICA ACE MOU	- - SUB - TOTALS DUNTED BREAKER AL 15A UNTED LOAD DESCRIPTION (E)LOAD (E)LOA	0	(PAN		VOI HAVEE CKT BKR P A 1 20 1 20	Скт А 20 20 20 20 20 20 20 20 20 20 20 20 20	3 F P 1 1 1 1 1 1 1	AKERS)	- - -		0 0 0 0 0 0 0 0 0 0		
MANE CHANICAL P15 MAIL 1945																

4

D

С	

/IOUNTING	: SURFACE MOU	UNTED											LOAD:	0.0	kVA	0	AN
к	VA LOAD	LOAD DESCRIPTION	0	UTLET	ns c	кте	зкr	СКТЕ	3KR	οι	JTLE.	TS	LOAD DESCRIPTION	۱ ۱	/A LOA	D	Γ
	A LINE B LINE C		0	R		_	А	A	Ρ	L	R	0		LINE A	LINE B	LINE C	
1		(E)LOAD				_	20	20	1				(E)LOAD				L
3		(E)LOAD				_	20	20	1				(E)LOAD				
5		(E)LOAD			•	_	20	20	1				(E)LOAD				
7		(E)LOAD					20	20	1				(E)LOAD				
9		(E)LOAD			•	1	20	20	1				(E)LOAD				
1		(E)LOAD				_	20	20	1				(E)LOAD				
3		(E)LOAD				1	20	20	1				(E)LOAD				
5		(E)LOAD				_	20	20	1				(E)LOAD				
7		(E)LOAD				1	20	20	1				(E)LOAD				
9		(E)LOAD			•	1	20	20	1				(E)LOAD				
1		(E)LOAD			•	1	20	20	1				(E)LOAD				
3		(E)LOAD				1 2	20	20	1				(E)LOAD				
:5		(E)LOAD				1	20	30	1				(E)LOAD				
7		(E)LOAD				1	20	20	1				(E)LOAD				
9		(E)LOAD				1 2	20	20	1				(E)LOAD				
1		(E)LOAD				1 2	20	20	1				(E)LOAD				
3		(E)LOAD				1	20						(E)LOAD				
5		(E)LOAD				1	20	50	3				-				
7		(E)LOAD				1	20						-				
9		(E)LOAD				1 2	20	30	2				SPARE				
1		(E)LOAD				1	20	30	2				-				
	0 0 0	SUB - TOTALS	•										SUB - TOTALS	0	0	0	
OTE: 1.		_											LINE TOTALS:	0	0	0	1
2.													LCL ADDER	0	0	0	1
3.													TOTAL VA PER PHASE	0	0	0	1
4.													LINE AMPS	0	0	0	

	JNTING: SURFACE MO												LOAD:		kVA		AM
κ		LOAD DESCRIPTION		JTLET		ктв		СКТВ			UTLE		LOAD DESCRIPTION		/a loai		NT
¥	LINE A LINE B LINE C		0	R		-	A	A	Ρ	L	R	0		LINE A	LINE B	LINE C	
1		(E)LOAD					20	20	1				(E)LOAD				
3		(E)LOAD				1 2	20	20	1				(E)LOAD				
5		(E)LOAD				1 2	20	20	1				(E)LOAD				
7		(E)LOAD				1 2	20	20	1				(E)LOAD				
9		(E)LOAD				1 2	20	20	1				(E)LOAD				
1		(E)LOAD				1 2	20	20	1				(E)LOAD				
3		(E)LOAD				1 2	20	20	1				(E)LOAD				
5		(E)LOAD			•	1 2	20	20	1				(E)LOAD				
7		(E)LOAD				1 2	20	20	1				(E)LOAD				
9		(E)LOAD				1 2	20	20	1				(E)LOAD				
21		(E)LOAD				1 2	20	20	1				(E)LOAD				
23		(E)LOAD				1 2	20	20	1				(E)LOAD				
25		(E)LOAD				1 2	20	20	1				(E)LOAD				
27		(E)LOAD				3	30	20	1				(E)LOAD				
29		-			- 2	2	30	20	1				(E)LOAD				
	0 0 0	SUB - TOTALS											SUB - TOTALS	s 0	0	0	
IOT	E: 1.]											LINE TOTALS	0	0	0	
	2.													2 0	0	0	
	3.												TOTAL VA PER PHASE				
	4.																

	ATION:ELECTRICA			(PANEL					,	LOAD		1AIN: 22 kVA	0 4	
	VA LOAD								 					
NT		LOAD DESCRIPTION	0	R L	_	T BKR		BKR P	LETS R 0	LOAD DESCRIPTION			NEC	NT
		(E)LOAD			1	20	20	1		(E)LOAD				-
		(E)LOAD			1	20	20	1		(E)LOAD				
		(E)LOAD				40	20	1		(E)LOAD				
		-			- ²	40	20	1		(E)LOAD				
		(E)LOAD			1		20	1		(E)LOAD				
		-			2	30	20	1		(E)LOAD				
		(E)LOAD			1	20	20	1		(E)LOAD				
		(E)LOAD			1	20	20	1		(E)LOAD				
		(E)LOAD			1	20				(E)LOAD				
		(E)LOAD			1	20	30	2		-				
		(E)LOAD			1	20	20	1		(E)LOAD				
		(E)LOAD			1	20	20	1		(E)LOAD				
		(E)LOAD				50	20	1		(E)LOAD				
		-			2	50	30			(E)LOAD				
		(E)LOAD			1	20	1 30	2		-				
		(E)LOAD			1	20				(E)LOAD				
		(E)LOAD			2	60	100	3		-				-
		-			72	00				-				_
		(E)LOAD			1	20	20	1		(E)LOAD				
		(E)LOAD			1	20	20	1		(E)LOAD				
		(E)LOAD			1	20	20	1		(E)LOAD				
	0 0 0	SUB - TOTALS	I	 1		1			 	SUB - TOTAI	.s 0	0	0	_
TE:	1.	_								LINE TOTAL	S: 0	0	0	
	2.									LCL ADDE	R 0	0	0	
	3.									TOTAL VA PER PHAS	E 0	0	0	
	4.										s o	0	0	

	TON: ELECTRICA				NEL TO I					(0)	LOAD:	0.0	IVIA kva	NN: 22 ۵ 4	AMPS
K NT	VA LOAD	LOAD DESCRIPTION		DUTLE		KT BKR	скт			LETS			VA LOAD		ск
	NE A LINE B LINE C		0	R	LP		A	P	L	RO		LINE A	LINE B		#
		(E)LOAD			1		20	1			(E)LOAD				2
		(E)LOAD			1	20	20	1			(E)LOAD				4
		(E)LOAD			1	20	20	1			(E)LOAD				6
·		(E)LOAD			1	20	20	1			(E)LOAD				8
		(E)LOAD			1	20	20	1			(E)LOAD				10
1		(E)LOAD			1	20	20	1			(E)LOAD				12
3		(E)LOAD			1	20	20	1			(E)LOAD				14
5		(E)LOAD			1		20	1			(E)LOAD				16
7		(E)LOAD			1	20	20	1			(E)LOAD				18
9		(E)LOAD			1						(E)LOAD				20
1		(E)LOAD			1	20	50	3			-				22
3		(E)LOAD			1	20					-				24
5		(E)LOAD			1	20	20	1			(E)LOAD				26
7		(E)LOAD			1	15	20	1			(E)LOAD				28
9		(E)LOAD			1	15	20	1			(E)LOAD				30
1		(E)LOAD			1	15	15	1			(E)LOAD				32
3		(E)LOAD			1	15	15	1			(E)LOAD				34
5		(E)LOAD			1	15	15	1			(E)LOAD				36
7		(E)LOAD					20	1			(E)LOAD				38
9		-			3	30	20	1			(E)LOAD				40
1		-					20	1			(E)LOAD				42
3		(E)LOAD				20	20	1			(E)LOAD				44
5		(E)LOAD				20	20	1			(E)LOAD				46
7		(E)LOAD				20	20	1			(E)LOAD				48
	0 0 0	SUB - TOTALS	I							!	SUB - TOTALS	s 0	0	0	
OTE: 1.											LINE TOTALS	: 0	0	0	
2.											LCL ADDEF	२ ०	0	0	
3.											TOTAL VA PER PHASE		0	0	
														0	

.0C	ATION:	ELEC	TRICA	AL ROOM 38		(F	ANEL 1	ΓО Η	AVEB	OLT-O	N BF	REAK	ERS)			Ν	AIN:	300A	١M
IOU	NTING:	SURFA		JNTED											LOAD:	93.7		113	
к		/A LOA[LOAD DESCRIPTIO	N	ou	LETS	ск	T BKR	СКТІ	BKR	οι	TLET	s	LOAD DESCRIPTION	<u>۱</u>	/A LOA[2	
NT	LINE A	LINE B	LINE C			0	R L	Ρ	А	Α	Ρ	L	R	0		LINE A	LINE B	LINE C	NT
				SPACE											SPACE				
				SPACE											SPACE				
				(E)LOAD				1	20	20	1				(E)LOAD				
				(E)LOAD				1	20	20	1				(E)LOAD				
				(E)LOAD				1	20	20	1				(E)LOAD				
1				(E)LOAD				1	20	20	1				(E)LOAD				
3				(E)LOAD				1	20	20	1				(E)LOAD				
5				(E)LOAD				1	20	20	1				(E)LOAD				
7				SPACE											SPACE				
э				SPACE											SPACE				
1				SPACE											SPACE				
3				(E)LOAD											(E)LOAD				F
5				-				3	100	100	3				-				┢
,				-											-				┢
			31241	(N)HVAC-M						20	1				SPACE				┢
2	31241			-				3	125	20	1				SPACE				┢
3		31241		-						20	1				SPACE				┢
	31241	31241	31241	SUB - TOTALS											SUB - TOTALS	0	0	0	┢
ΟΤΕ	1.	SCCR A	ND AIC I] RATING OF THE PANEL TO MAT		IG									LINE TOTALS:	31241	31241	31241	
		SUBFE															0		ł
	3.														TOTAL VA PER PHASE		31241	31241	
	4.														LINE AMPS				ł

(E)PANEL: PPP LOCATION: FACULTY DINNING P09

ск		۱ <i>۱</i>	/a loai	C	LOAD DESCRIPTIO
#	NT	LINE A	LINE B	LINE C	
1					(E)LOAD
3					(E)LOAD
5					(E)LOAD
7					(E)LOAD
9					-
11					-
13					(E)LOAD
15					(E)LOAD
17					(E)LOAD
19					(E)LOAD
21					-
23					-
25					(E)LOAD
27					(E)LOAD
29					-
31					(E)LOAD
33					(E)LOAD
35				1560	(N)HP - P-2.1
37		1560			-
39			540		(N)SERVICE RECEPTACLE
41					SPACE
		1560	540	1560	SUB - TOTALS
NC	TE	1.			
		2.			
		3.			
		4.			

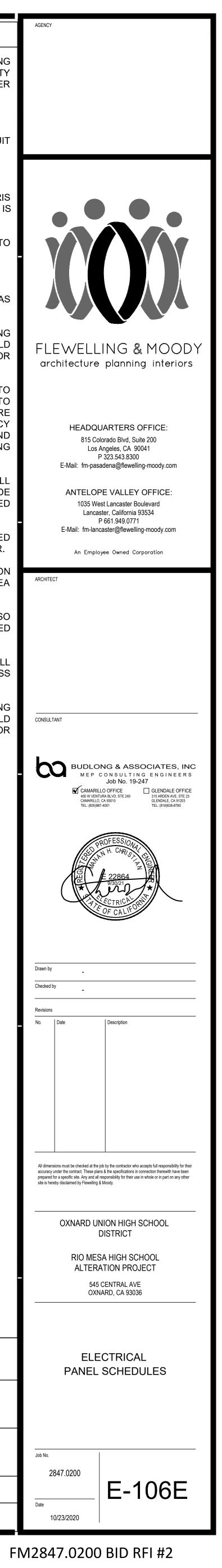
- PROVIDE LOCK-ON DEVICES ON BREAKERS SERVING SMOKE DETECTORS, OR ANY OTHER LIFE-SAFETY EQUIPMENTS THAT REQUIRE CONTINUOUS POWER SUPPLY.
- PROVIDE PERMANENT LABELS TO EACH PANELS.
- PROVIDE CIRCUIT TAGS TO EACH BRANCH CIRCUIT CONDUCTORS.
- PROVIDE A PANEL DIRECTORY.
- ALL PANELS SHALL BE CLEANED TO REMOVE DEBRIS AND FOREIGN PARTICLES AFTER FINAL INSTALLATION IS COMPLETE.
- PROVIDE P-TOUCH LABELS ON ELECTRICAL DEVICES TO INDICATE PANEL AND CIRCUIT.
- PROVIDE CIRCUIT ID ON BRANCH WIRING.
- LABEL SPACES AS "SPACE" AND SPARE BREAKERS AS "SPARE" FOR IDENTIFICATION PURPOSES.
- ALL NEW CIRCUIT BREAKERS SHALL MATCH EXISTING TYPE AND A.I.C. RATING. CONTRACTOR TO FIELD VERIFY AND PROVIDE NEW CIRCUIT BREAKERS FOR NEW CIRCUITS/LOADS AS REQUIRED.
- 10. CONTRACTOR SHALL VERIFY, PRIOR TO CONSTRUCTION, THE EXISTING CIRCUITS IN FIELD TO CONFIRM FINAL NUMBER OF AVAILABLE SPARE BREAKERS IN EXISTING PANELS. ANY DISCREPANCY IN QUANTITIES OF SPARES SHOWN ON DRAWING AND ACTUAL FINDINGS MUST BE REPORTED TO BUILDING ENGINEER FOR REVIEW.
- 11. CONTRACTOR SHALL PERMANENTLY LABEL ALL OUTLETS WITH CIRCUIT NUMBERS AND PROVIDE UPDATED PANEL SCHEDULES FOR ALL AFFECTED PANELS.
- 12. CONTRACTOR SHALL COORDINATE ALL REQUIRED SHUT DOWN OF SYSTEMS WITH BUILDING ENGINEER.
- 13. CONTRACTOR TO PROVIDE ARC FLASH LABELS ON ALL NEW PANELS. PLACE LABEL ON A VISIBLE AREA ON FRONT OF PANEL.
- 14. CONTRACTOR SHALL BALANCE THE PANELBOARDS SO THAT EACH LEG IS LESS THAN 10% OF UNBALANCED LOAD.
- 15. PROVIDE DEDICATED NEUTRALS FOR ALL MULTI-BRANCH CIRCUITS (NO HANDLE TIES) UNLESS OTHERWISE NOTED.
- 16. ALL NEW CIRCUIT BREAKERS SHALL MATCH EXISTING TYPE AND A.I.C. RATING. CONTRACTOR TO FIELD VERIFY AND PROVIDE NEW CIRCUIT BREAKERS FOR NEW CIRCUITS/LOADS AS REQUIRED.

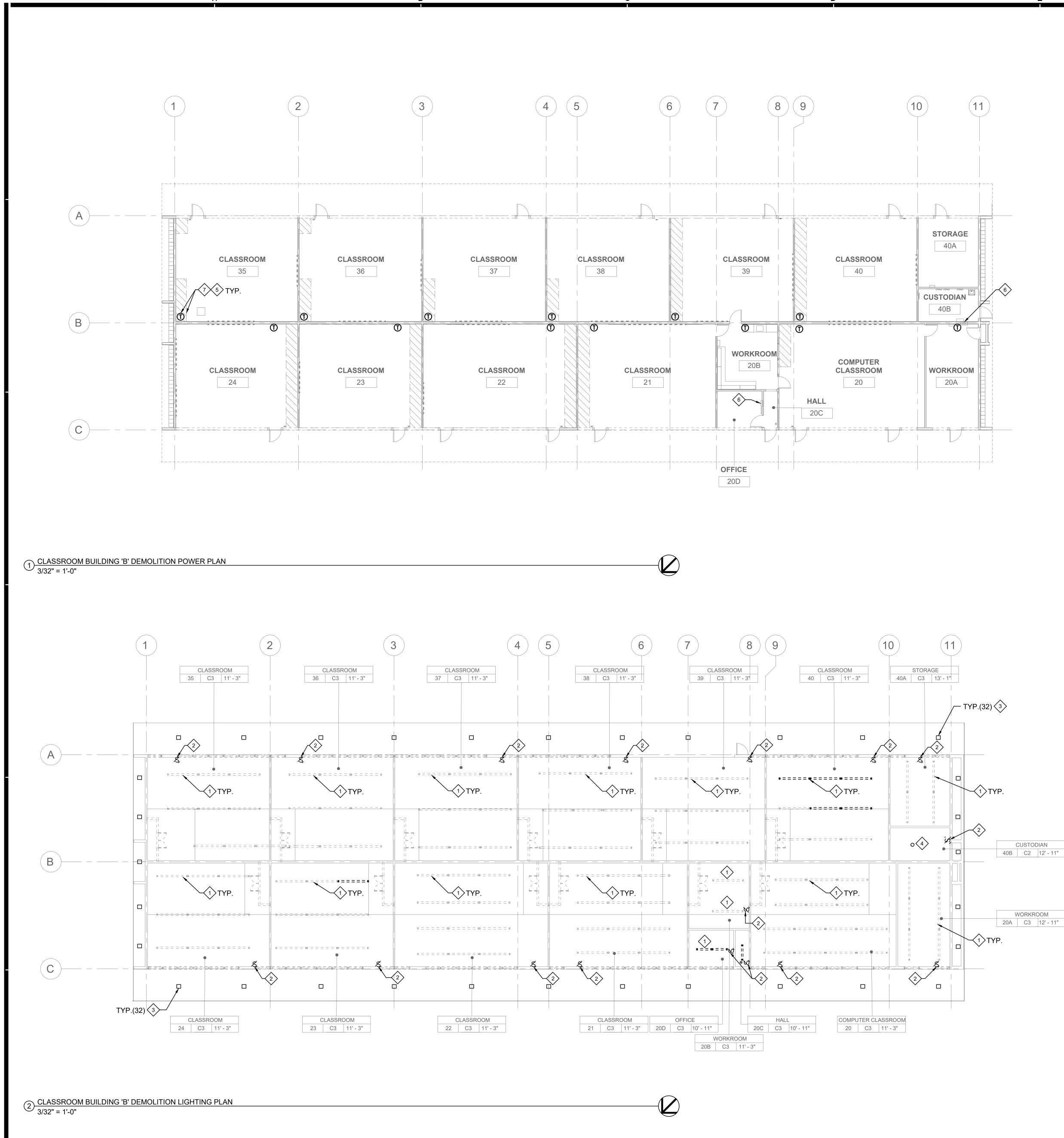
225 AMP EXISTING BUS MAIN: 150 AMP

120/208 VOLT, 3 PH, 4W (PANEL TO HAVE BOLT-ON BREAKERS)

											LOAD:	7.4	kVA	15	AN	PS
ION		JTLE	TS	<u> </u>	T BKR	СКТЕ		οι	JTLE		LOAD DESCRIPTION		/A LOAE		NT	ск
	0	R	L	P	A	A	P	L	R	0		LINE A	LINE B	LINE C		#
				1	20	20	1				(E)LOAD				_	2
				1	20	20	1				(E)LOAD					4
				1	20	20	1				(E)LOAD					6
						20	1				(E)LOAD					8
				3	30	20	1				(E)LOAD					10
						20	1				(E)LOAD					12
				1	20						(E)LOAD					14
				1	20	20	3				-					16
				1	20						-					18
						20	1				(E)LOAD					20
				3	15	20	1				(E)LOAD					22
						20	1				(E)LOAD					24
				1	20	20	1				(E)LOAD					26
					~	20	1		3		(E)LOAD					28
				1	20	20	1				(E)LOAD					30
				1	20	20	1				(E)LOAD					32
				1	20	0.5					(N)HP - P-2.2		1560			34
					05	25	2				-			1560		36
				2	25	20	1		2		(N)CP & NR	360				38
ES		3		1	20	20	1			2	CONDENSATE PUMP		300			40
											SPACE					42
											SUB - TOTALS	360	1860	1560		
											LINE TOTALS	1920	2400	3120		
											LCL ADDEF	: 0	0	0		
											TOTAL VA PER PHASE	1920	2400	3120		
											LINE AMPS	9	12	15		

PANEL S	SCHEDULE	INDEX
PBB	PCC	HE
HF	IP	Μ
N	MA	PPP
PH		







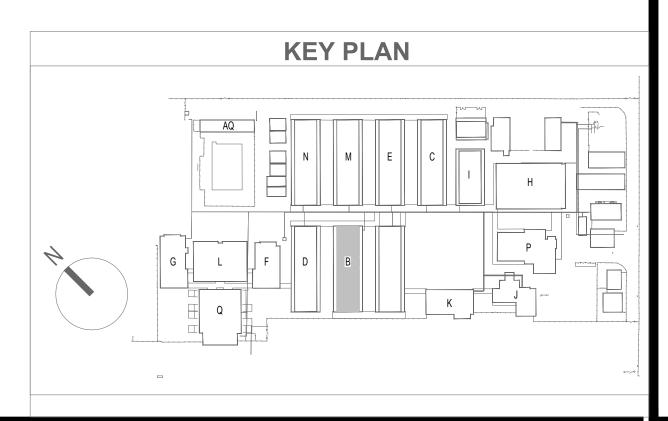


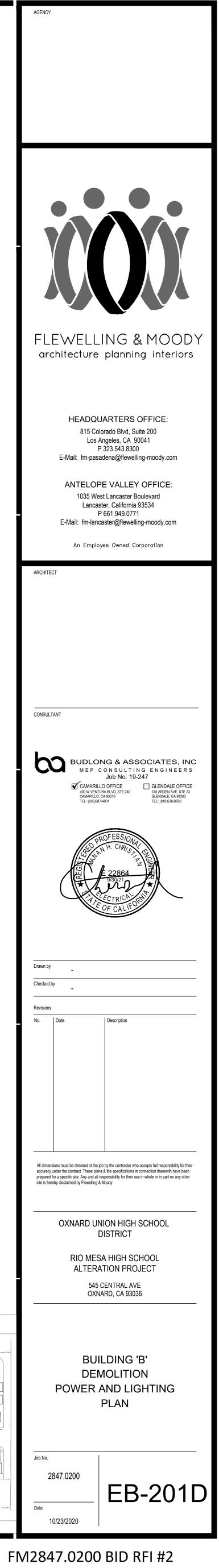
DEMOLITION GENERAL NOTES

- A. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO DEMOLITION OF ANY WORK.
- B. EACH UNIT SHOWN FOR DEMOLITION ON MECHANICAL PLANS IS TO BE COMPLETELY DISCONNECTED FOR DEMOLITION/REMOVAL. EXISTING DISCONNECTS AND CIRCUIT BREAKERS ARE TO BE SWITCHED OFF.
- C. AS A RESULT OF ANY DEMOLITION, ALLOW NO 'ORPHANED' OR ISOLATED DEVICES OUTSIDE OF WORK SCOPE AREA TO REMAIN DISCONNECTED. PROVIDE ANY NECESSARY NEW TERMINATIONS, CONDUCTORS, CONNECTIONS, CONDUIT, ETC.
- D. ANY CONDUITS NOT SUITABLE FOR REUSE SHALL NOT BE ABANDONED IN PLACE. REMOVE BACK TO FEEDING PANEL OR NEAREST PRECEDING JUNCTION BOX.
- PRIOR TO COMMENCING ANY WORK THE CONTRACTOR SHALL CONSULT WITH OWNER REPRESENTATIVE ELECTRICIAN AND CONDUCT THE NECESSARY PROTOCOLS FOR THE LOCK OUT/TAG OUT PROCEDURE AND DISABLING OF BEAM DETECTORS.

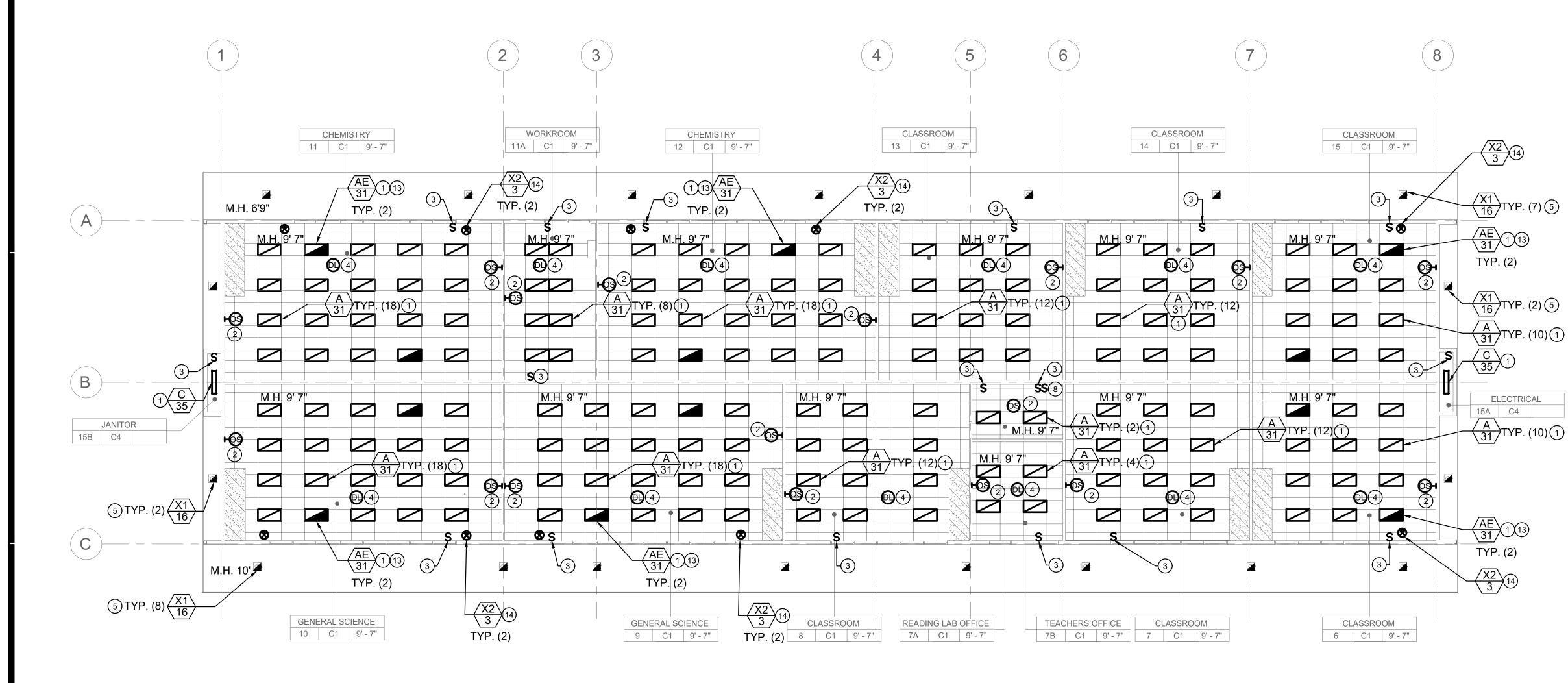
DEMOLITION KEY NOTES

- EXISTING PENDANT MOUNT LINEAR LIGHT FIXTURE TO BE REMOVED AND REPLACED WITH NEW LED FIXTURE AS SHOWN ON CONSTRUCTION PLAN. IDENTIFY AND PROTECT EXISTING CIRCUIT FOR RECONNECTION.
- EXISTING LIGHT SWITCH TO BE REMOVED. PROTECT AND IDENTIFY CONFIGURATION AND MAINTAIN SAME CONFIGURATION DURING CONSTRUCTION. NEW SWITCHES TO BE COMPATIBLE WITH WIRELESS OCCUPANCY SENSORS AS SHOWN ON CONSTRUCTION PLAN.
- EXISTING EXTERIOR LIGHT FIXTURE TO BE REMOVED AND REPLACED WITH NEW LED FIXTURE AS SHOWN ON CONSTRUCTION PLAN. IDENTIFY AND PROTECT EXISTING CIRCUIT FOR RECONNECTION.
- \wedge EXISTING CIRCULAR SURFACE MOUNT LIGHT FIXTURE TO BE REMOVED AND REPLACED WITH NEW LED FIXTURE AS SHOWN ON CONSTRUCTION PLAN. IDENTIFY AND PROTECT EXISTING CIRCUIT FOR RECONNECTION.
- EXISTING THERMOSTATS ASSOCIATED WITH THE FURNACE TO BE REMOVED, REMOVE ALL ASSOCIATED ACCESSORIES INCLUDING CONTROL CONDUCTORS. CUT. CAP AND ABANDON CONDUIT IN PLACE. LABEL CONDUIT AND ANY ASSOCIATED BREAKER AS "SPARE". FIELD VERIFY THE LOCATION OF THERMOSTAT. FIELD VERIFY THE EXACT LOCATION OF THERMOSTAT AND ASSOCIATED ACCESSORIES.
- EXISTING WALL/UNIT HEATERS TO BE REMOVED, REMOVE ALL ASSOCIATED ACCESSORIES INCLUDING EXISTING DISCONNECTS, CONDUCTORS. CUT, CAP AND ABANDON CONDUIT IN PLACE. LABEL CONDUIT AND THE ASSOCIATED BREAKER AS "SPARE". FIELD VERIFY THE EXACT LOCATION OF FURNACE AND ASSOCIATED ACCESSORIES.
- EXISTING FURNACE TO BE REMOVED, REMOVE ALL ASSOCIATED ACCESSORIES INCLUDING EXISTING DISCONNECTS, CONDUCTORS. CUT, CAP AND ABANDON CONDUIT IN PLACE. LABEL CONDUIT AND THE ASSOCIATED BREAKER AS "SPARE". FIELD VERIFY THE EXACT LOCATION OF FURNACE AND ASSOCIATED ACCESSORIES.



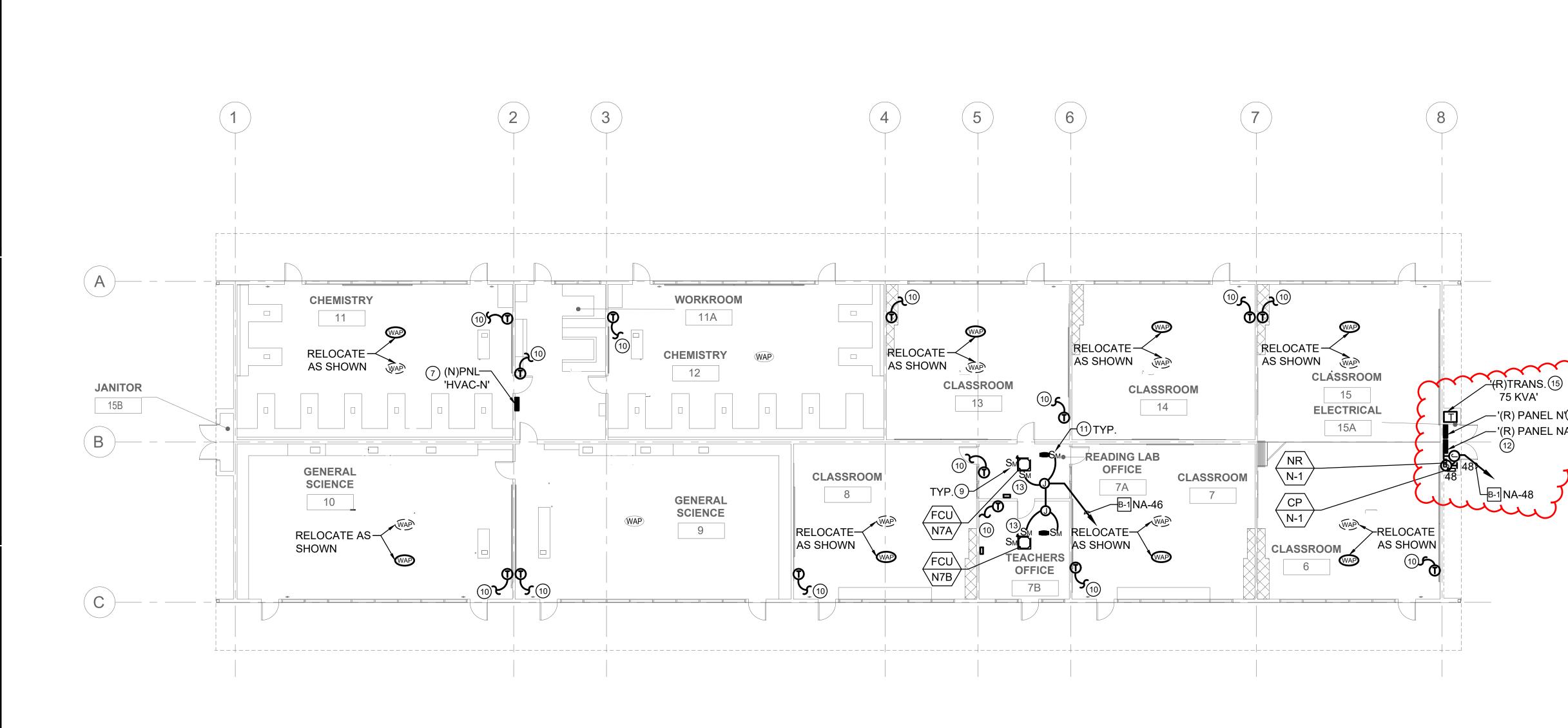






(1) CLASSROOM BUILDING 'N' RECONSTRUCTION POWER PLAN

¹/_{3/32}" = 1'-0"







- ALL EQUIPMENT SHALL BE LISTED AND LABELED BY A NATIONALLY RECOGNIZED TESTING LABORATORY AND SHALL BE INSTALLED AS PER LISTING OR LABELING.
- ALL TERMINALS SHALL BE TORQUED TO MANUFACTURERS LISTED SPECIFICATIONS.
- ALL RACEWAYS SHALL CONTAIN A CODE-SIZED (NEC-250), INSULATED, GREEN, COPPER EQUIPMENT GROUNDING CONDUCTOR AND SHALL BE BONDED TO THE METALLIC COMPONENTS OF THE RACEWAY SYSTEM.
- MARK ALL EXPOSED JUNCTION BOXES WITH THE PANEL AND CIRCUIT NUMBERS OF THE CIRCUITS ENCLOSED WITHIN THE JUNCTION BOX USING A PERMANENT, FELT TIP MARKER.
- ALL ELECTRICAL EQUIPMENTS LOCATED IN CEILING SPACES/WALL CAVITIES SHALL BE ACCESSIBLE BY AN ACCESS PANEL OR OTHER MEANS.
- ALL CONDUCTORS TO BE COPPER, TYPE THWN/THHN.
- ALL SWITCH LOCATIONS SHALL BE VERIFIED WITH ARCHITECT PRIOR TO ROUGH IN
- REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND QUANTITIES OF LIGHTS. PROVIDE THE REQUIRED AUXILIARY J-BOXES, PULL-BOXES OR HANDHOLES PER CEC
- 352.26/358.26 TO FACILITATE THE INSTALLATION OF BRANCH CIRCUIT WIRING OR FEEDERS, THERE SHALL NOT BE MORE THAN THE EQUIVALENT OF FOUR QUARTER BENDS(360 DEGREES TOTAL) BETWEEN PULL POINTS FOR EXAMPLE, CONDUIT BODIES AND BOXES.
- CONTRACTOR TO PROVIDE J-BOX FOR HVAC CONTROL PANEL SUPPLY AS SHOWN, COORDINATE WITH HVAC CONTROLS MFG AND PROVIDE ALL REQUIRED ACCESSORIES INCLUDING BUT NOT LIMITED TO CONDUITS, WIRES, EXTENSIONS, 24V TRANSFORMERS FOR A FULLY OPERATIONAL SYSTEM.
- CONTRACTOR SHALL PERMANENTLY LABEL ALL OUTLETS WITH CIRCUIT NUMBERS AND PROVIDE UPDATED PANEL SCHEDULES FOR ALL AFFECTED PANELS.
- CONTRACTOR SHALL COORDINATE ALL REQUIRED SHUT DOWN OF SYSTEMS WITH BUILDING ENGINEER.
- ALL OF THE EXTERIOR LIGHTING IS BEING REPLACED AS PART OF PROP 39, AND TIES INTO THE RAB LIGHTCLOUD, WHICH REPORTS TO THE DISTRICT EMS.
- PROVIDE SEISMIC BRACING TO ALL PENDANT MOUNTED LIGHTING FIXTURE THAT CAN NOT SWING FREELY BY 45 IN BOTH "X" AND "Y" DIRECTION WHETHER NOTED ON DRAWINGS OR NOT. SEE DETAIL 4/E-105A.

KEY NOTES

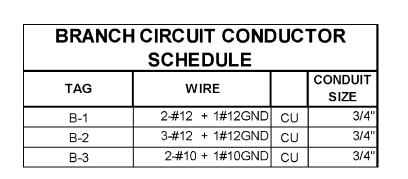
75 KVA'

B-1 NA-48

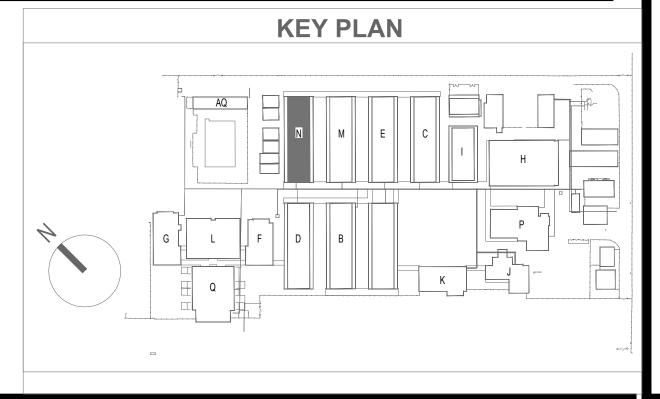
-'(R) PANEL N'(12)

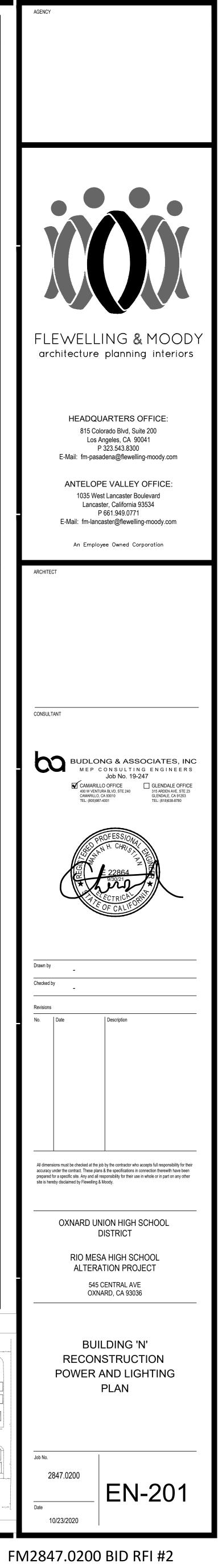
-'(R) PANEL NA'

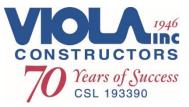
-) PROVIDE NEW LED LIGHT FIXTURE. CONNECT THE NEW FIXTURE TO THE EXISTING CIRCUIT IDENTIFIED DURING DEMOLITION. PROVIDE ALL NECESSARY CONDUIT AND CONDUCTOR EXTENSIONS AND ACCESSORIES AS NEEDED.
- (2) PROVIDE NEW LUTRON WALL MOUNTED OCCUPANCY SENSOR MODEL #LRF2-OWLB-P-WH. PROVIDE LUTRON POWER PACK MODEL #RMJS-8TN-DV-B AND OTHER ACCESSORIES AS NEEDED FOR FULL FUNCTIONALITY OF THE SENSOR. REFER TO LIGHTING CONTROLS DIAGRAM SHEET E-114.
- 3) PROVIDE NEW LUTRON PICO WIRELESS REMOTE SWITCH MODEL # PJ2-3BRL-GWH-L01. ADJUST THE NEW SWITCH HEIGHT TO 48" FROM FINISHED FLOOR. REFER TO 2/E114.
- (4) PROVIDE NEW LUTRON CEILING MOUNTED DAYLIGHT SENSOR MODEL #LRF2-DCRB-WH. PROVIDE LUTRON POWER PACK MODEL #RMJS-8TN-DV-B AND OTHER ACCESSORIES AS NEEDED FOR FULL FUNCTIONALITY OF THE SENSOR. REFER TO LIGHTING CONTROLS DIAGRAM SHEET E-114.
- 5) PROVIDE NEW EXTERIOR LIGHT FIXTURE WITH EMERGENCY BATTERY PACK (MINIMUM 90) MINUTES BATTERY RUN TIME). CONNECT TO NEAREST EXTERIOR LIGHTING CIRCUIT. PROVIDE ALL NECESSARY CONDUITS, CONDUCTORS AND ACCESSORIES FOR FULLY OPERATIONAL SYSTEM. PROVIDE A SEPARATE UN-SWITCHED HOT WIRE TO THE LIGHT FIXTURE.
- (6) PROVIDE 20-AMP MOTOR RATED SWITCH FOR CONDENSATE PUMP POWER, FIELD VERIFY THE LOCATION, REFER TO PLUMBING DETAIL 6 ON PLUMBING SHEET P-002.
- (7) REPLACE EXISTING WALL MOUNTED HEATER AND ALL ASSOCIATED ACCESSORIES AND PROVIDE NEW ELECTRICAL PANEL FOR HVAC DISTRIBUTION, SEE PANEL SCHEDULES FOR SIZING INFORMATION.
- (8) EXISTING LIGHT SWITCH TO REMAIN
- 9) INDOOR UNIT IS POWERED BY THE RESPECTIVE OUTDOOR UNIT, MOTOR RATED SWITCH IS PROVIDED FOR THE DISCONNECTION FROM THE OUTDOOR UNIT, MOUNT THE SWITCH PER CEC 440.14, FIELD VERIFY THE SWITCH LOCATION. PROVIDE 3/4" CONDUIT TO OUTDOOR UNIT FOR POWER WIRING.
- 10) PROVIDE WIREMOLD SERIES 2400 MOUNTED TO WALL AND 3/4" CONDUIT WITH PULL STRING WITHIN CEILING SPACE FOR CONTROL WIRING FROM THERMOSTAT TO ASSOCIATED 24V INTERFACE KIT, FAN COIL UNIT AND HEAT PUMP UNIT/ROOFTOP UNIT AS REQUIRED, PROVIDE NECESSARY ADAPTORS TO TRANSITION FROM CONDUIT TO RACEWAY. COORDINATE WITH HVAC CONTROLS CONTRACTOR. REFER TO MECHANICAL DRAWINGS FOR THE EXACT LOCATION OF THERMOSTATS.
-) 20AMP, 1P, 3/4HP MINIMUM, MOTOR RATED TOGGLE SWITCH FOR BOOSTER FAN DISCONNECTING MEANS, MOUNT THE SWITCH ON THE UNIT (NAME PLATE OF THE FAN SHALL BE VISIBLE) OR TO THE NEAREST STRUCTURAL MEMBER FROM THE FAN.
- REPLACE EXISTING PANEL WITH NEW, SEE PANEL SCHEDULE FOR SIZING INFO. PROTECT EXISTING CIRCUITS PRIOR TO DEMOLITION AND RECONNECT EXISTING CIRCUITS TO THE NEW PANEL. RECONNECT NEW GROUNDING ELECTRODE CONDUCTOR TO EXISTING GROUNDING SYSTEM WHEREVER APPLICABLE.
- (13) PROVIDE LIGHT FIXTURE WITH INTEGRATED BATTERY PACK. PROVIDE A SEPARATE UN-SWITCHED HOT WIRE TO THE LIGHT FIXTURE.
- 14) PROVIDE NEW EXIT SIGN WITH EMERGENCY BATTERY PACK (MINIMUM 90 MINUTES) RUNTIME). CONNECT TO NEAREST LIGHTING CIRCUIT. PROVIDE ALL NECESSARY CONDUITS, CONDUCTORS AND ACCESSORIES FOR A FULLY OPERATIONAL SYSTEM. PROVIDE A SEPARATE UN-SWITCH HOT WIRE TO THE FIXTURE.
- (15) REPLACE (E)TRANSFORMER WITH (N) IN PLACE



ELECTRICAL







RFI BI	D CLARI	FICATION REQUES	Τ		RFI #	002
REQUE	CSTED BY:	Tim Viola			DATE:	12/18/2020
PROJE	CT NAME:	Bid 643 New HVAC Mc	odernization	for Rio Mesa High	Spec #:	23 33 01
SUBMI	TTED TO:	Oxnard Union High Sch	ool District		PGS:	6
ATTEN	TION:	Arvind Balaji & Karl Aldridge	EMAIL:	abalaji@bernards.com, kaldridge@bernards.com	FAX:	
YOUR	RESPONSE	TO THE FOLLOWING I	BID CLARI	FICATION REQUEST IS RI	EQUIRED	BY ASAP
Ref. Duct	Silencers:					
to quantify 1) Are due	y and quote the out silencers requi	luct silencers. red for the return ducts?		scharge of the roof top units. Additi h basis of design model numbers?	onal informat	ion is required
				Check here if addition	al pages atta	iched 🛛
PROPOS None curr	SED SOLUT	ION				
				Check here if addition	al pages atta	uched
	0 0	ion is provided in response or extra work	e to your bid	clarification request above.	This is not a	a change
		1-007 with duct silencer sche Budlong & Associates - 12/18		dated specification section 23 33	3 01 without	strikethroughs.
By:				Check here if addition	al pages atta	iched
Name:		Titl	e:	CT Da	te: <u>12/</u>	22/2020

SECTION 23 33 01 AIR DUCT SILENCERS

PART 1 - GENERAL

- 1.1 Basis-of-Design Product: Silencers shall be Vibro-Acoustics or approved equal.
- 1.2 Alternate manufacturers must request and obtain written approval by the Engineer to bid the project at least 10 day prior to the bid due-date. As a condition of pre-approval, alternate manufacturers must submit to the Engineer a minimum of twenty (20) different HVAC silencer test reports. Each report shall be for a silencer tested in full accordance with the ASTM E-477-13 silencer test standard in an aero-acoustic test facility which is NVLAP accredited for the ASTM E477-13 standard. Each test shall have been conducted within the last 12 month period. A copy of the laboratory's NVLAP accreditation certificate must be included with the submitted reports. Any changes to the specifications must be submitted and approved in writing by the Engineer at least 10 days prior to the bid due-date.
- 1.3 If products other than those of the basis of design manufacturer are supplied on the project, the <u>purchasing contractor</u> assumes full performance, project schedule and monetary responsibility for meeting the project noise criteria, including any retrofit work that may be required
- 1.4 SUBMITTALS
 - A. Performance Data:
 - 1. Silencer manufacturer to provide submittal drawings detailing all duct silencer data specified in the mechanical drawing schedule.
 - 2. The silencer manufacturer shall provide, for approval, acoustical system calculations for all duct systems with silencers to demonstrate that the submitted silencers will reduce mechanical fan noise to following NC-Levels in the occupied space. Use sound power levels of actual equipment to be installed on project. Analysis shall include breakout noise calculations.
 - 3. Supplier shall be responsible for the overall system pressure loss of the installation based on duct conditions upstream and downstream of the silencer to ensure required airflow is provided. Supplier shall submit detailed pressure drop analysis for the installation and detailed procedure outlining methodology for site measurement of overall system pressure loss for approval prior to manufacture.
 - a. Silencer internal design will provide ideal pressure drop value as scheduled
 - b. Installed pressure drop including system effect is maintained at maximum as scheduled.
 - 4. Acoustical and pressure drop calculations must be supplied with PE/P.Eng stamp at the time of submittal
 - B. Source quality-control reports:
 - 1. Silencer manufacturer to provide a copy of their laboratory NVLAP accreditation certificate for the ASTM E-477-06a test standard with the submittals. Data from non-NVLAP accredited test facilities will not be accepted.

PART 2 - PRODUCTS

2.1 DUCT SILENCERS

A. General Requirements:

REQUEST LATEST VERSION OF SPECIFICATION FROM MANUFACTURER FOR DUCT SILENCERS TO HAVE NON-FIBROUS MATERIALS OF ANY KIND THAT MAY BECOME AIRBORN.

- Silencers shall be of the size, configuration, capacity and acoustic performance as scheduled on the drawings. All silencers shall be factory fabricated and supplied by the same manufacturer.
- 2. Transitions on inlet and outlet will not be accepted. Silencers shall fit the ducting system they are installed in without requiring duct fittings/transitions. Silencer inlet and outlet must match duct dimensions. See contract documents for silencer configuration. Non-basis of design suppliers must submit details of internal geometry of silencers to be supplied.
- 3. Silencer inlet and outlet connection dimensions must be equal to the duct sizes shown on the drawings. Duct transitions at silencers are not permitted unless shown on the contract drawings.
- 4. Silencers shall be constructed in accordance with ASHRAE and SMACNA standards for the pressure and velocity classification specified for the air distribution system in which it is installed. Material gauges noted in other sections are minimums. Material gauges shall be increased as required for the system pressure and velocity classification. The silencers shall not fail structurally when subjected to a differential air pressure of 8 inches water gauge.
- 5. All casing seams and joints shall be lock-formed and sealed or stitch welded and sealed except as noted in Section G below, to provide leakage-resistant construction. Airtight construction shall be achieved by use of a duct-sealing compound supplied and installed by the contractor at the jobsite.
- 6. All perforated steel shall be adequately stiffened to insure flatness and form.
- 7. Fire Performance Characteristics: Silencer assemblies, sealants, and acoustical spacer, shall have flame-spread index not exceeding 25 and smoke-developed index not exceeding 50 when tested according to ASTM E 84, NFPA 255 or UL 723.
- 8. Airstream Surfaces: Surfaces in contact with the airstream shall comply with requirements in ASHRAE 62.1-2007.
- B. Rectangular Silencers including models RD, RED: Outer casing shall be ASTM A 653/A 653M, G90 galvanized sheet steel. Gauge22 and Gauge 18 respectively. Inner perforated metal liner: ASTM A 653/A 653M, G90 galvanized sheet steel, Gauge 26 and Gauge 22

C. Principal Sound-Absorbing Mechanism:

1. Dissipative silencers:

a. Models RD, RED: type with acoustic media. Media shall be of acoustic quality, shot-free glass fiber insulation with long, resilient fibers bonded with a thermosetting resin. Glass fiber density and compression shall be as required to insure conformance with laboratory test data. Glass fiber shall be packed with a minimum of 15% compression during silencer assembly. Media shall be resilient such that it will not crumble or break, and conform to irregular surfaces. Media shall not cause or accelerate corrosion of aluminum or steel. Mineral wool will not be permitted as a substitute for glass fiber.

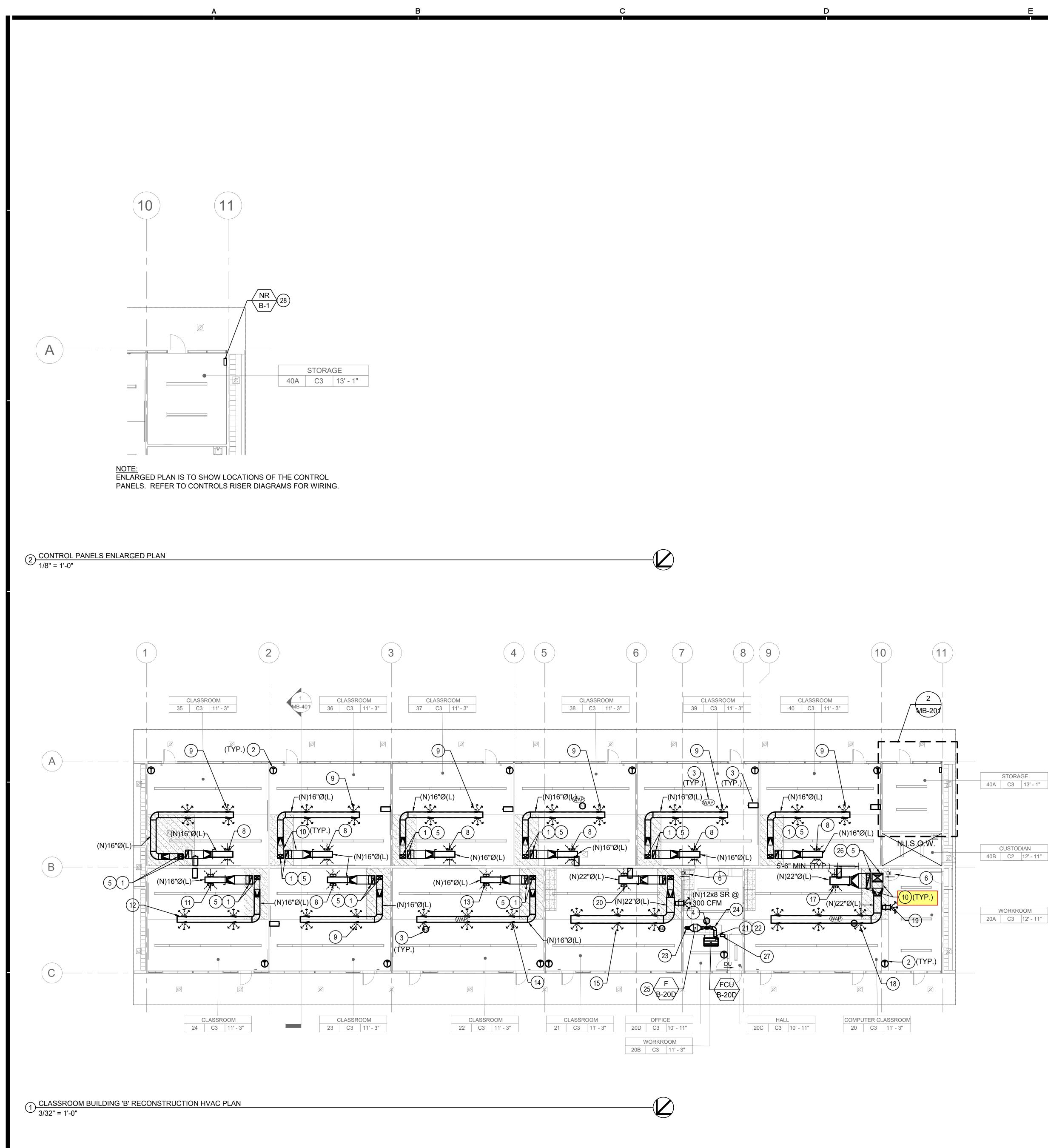
- A#03-120329
- D. HTL Casings: Where indicated on the silencer schedule, silencers shall have high transmission loss (HTL) walls externally applied and completely sealed to the silencer casing by the silencer manufacturer to assure quality controlled transmission loss. The HTL walls shall consist of media, airspace, mass and outer protective metal skin, as required, to obtain the specified room noise criteria. Standard acoustical panels will not be accepted as HTL walls. If requested by the Engineer, break-out noise calculations for each air handling and fan system shall be provided with the silencer submittal to insure compliance with the room noise criteria. Break-out noise calculations shall be based on the sound power levels of the specified equipment.

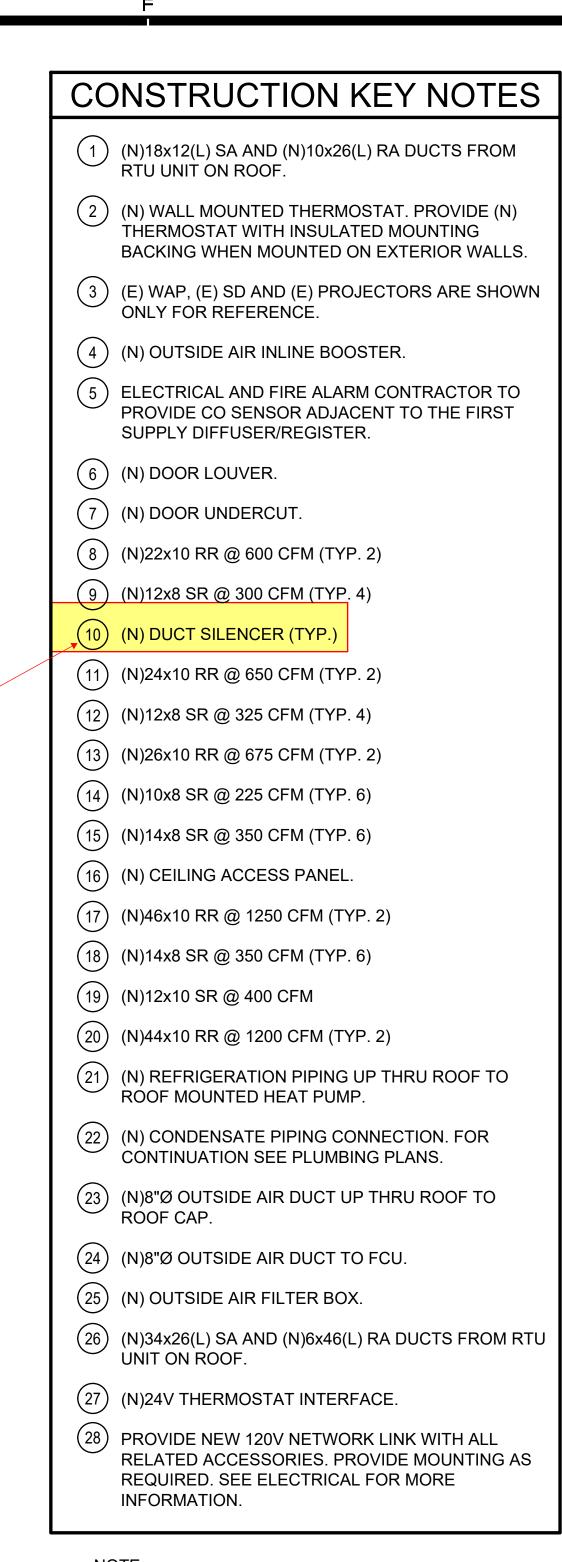
PART 3 - EXECUTION

3.1 INSTALLATION

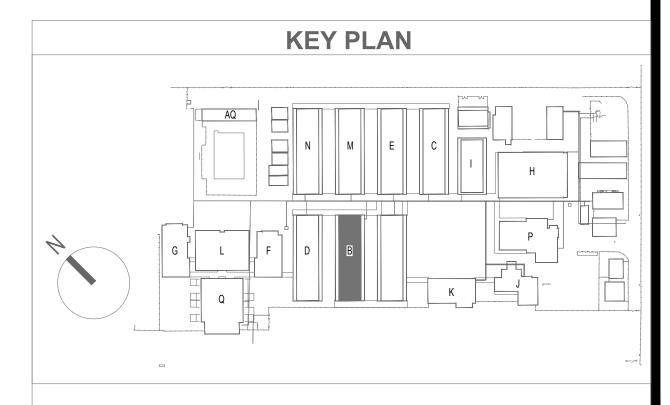
A. Install silencer according to manufacturer's written installation instructions.

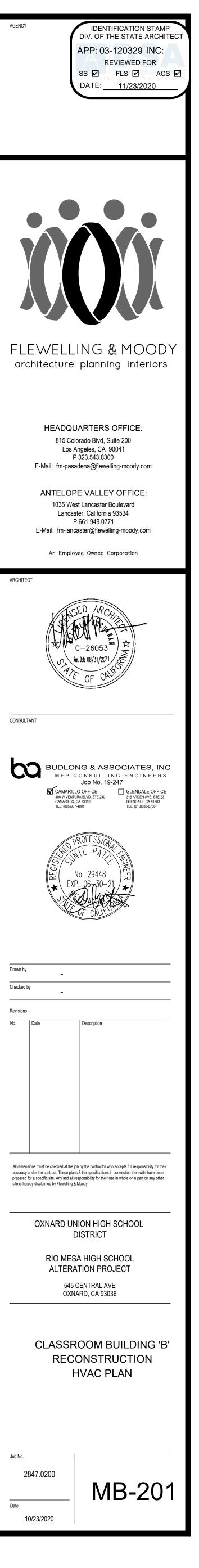
END OF SECTION

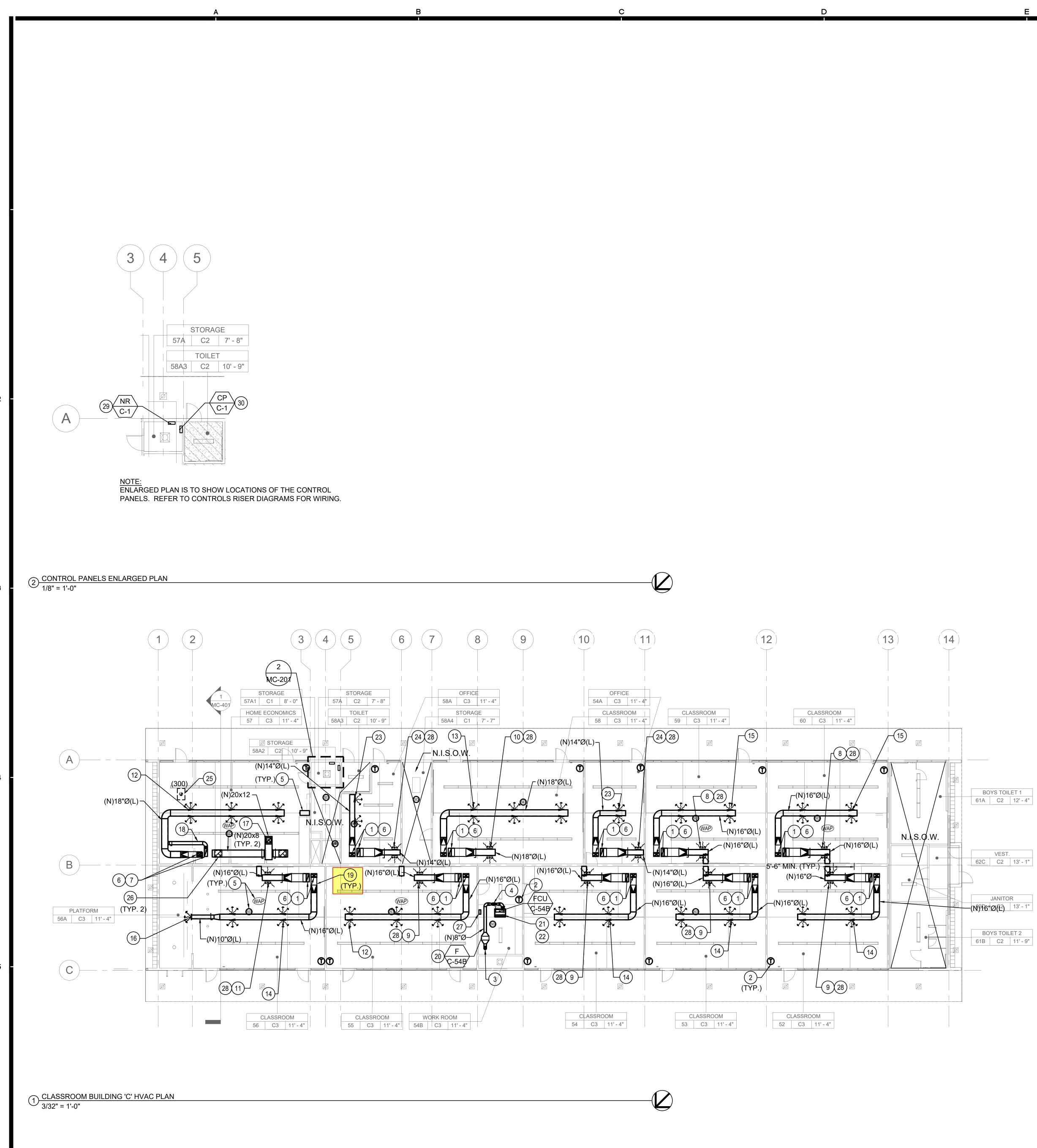




NOTE: CEILING FINISHES NOT SHOWN FOR CLARITY. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.

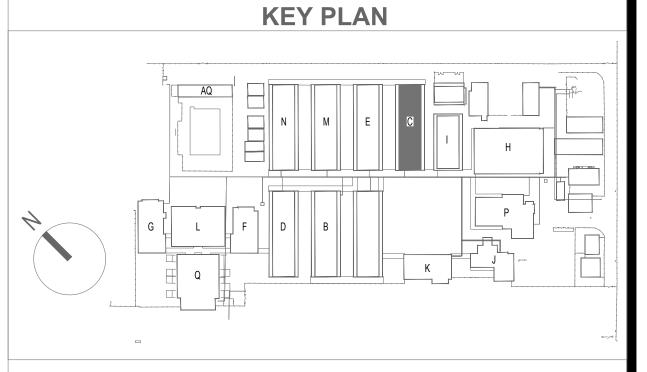


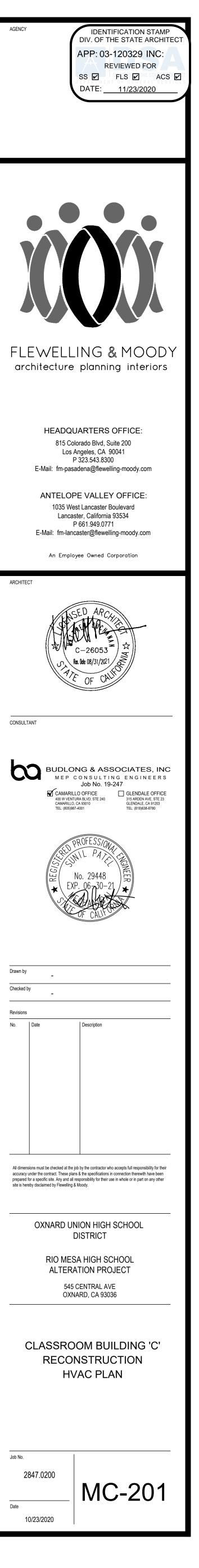




CC	NSTRUCTION KEY NOTES
1	(N)18x12 SA AND (N)10x26 RA DUCTS FROM RTU UNIT ON ROOF.
2	(N) WALL MOUNTED THERMOSTAT. PROVIDE (N) THERMOSTAT WITH INSULATED MOUNTING BACKING WHEN MOUNTED ON EXTERIOR WALLS.
(3)	(N)8"Ø OA DUCT UP THRU ROOF TO ROOF CAP.
4	(N) OUTSIDE AIR INLINE BOOSTER.
5	(E) WAP, SD AND PROJECTORS SHOWN FOR REFERENCE ONLY.
6	ELECTRICAL AND FIRE ALARM CONTRACTOR TO PROVIDE CO SENSOR ADJACENT TO THE FIRST SUPPLY DIFFUSER/REGISTER.
7	(N)18x12 SA AND (N)10x26 RA DUCTS FROM RTU UNIT ON ROOF. CAP RETURN DUCT BELOW (N)8x10 BY-PASS DUCT CONNECTION.
8	(N)24x10 RR @ 650 CFM (TYP.2)
9	(N)22x10 RR @ 600 CFM (TYP.2)
(10)	(N)26x10 RR @ 675 CFM (TYP.2)
(11)	(N)26x10 RR @ 700 CFM (TYP.2)
(12)	(N)8x8 SR @ 200 CFM (TYP.6)
(13)	(N)10x8 SR @ 225 CFM (TYP.6)
(14)	(N)12x8 SR @ 300 CFM (TYP.4)
(15)	(N)12x8 SR @ 325 CFM (TYP.4)
(16)	(N)8x8 SR @ 200 CFM
(17)	(N)16x16 EXHAUST DUCT UP TO EF/C-57 ON ROOF
(18)	(N)8x10(L) BY-PASS DUCT WITH MODULATING BY-PASS DAMPER CONTROLLED BY RTU APPLICATION CONTROLLER SET @ 300 CFM
(19)	(N) DUCT SILENCER (TYP.)
20	(N) OUTSIDE AIR FILTER BOX.
21	(N) REFRIGERANT PIPING UP THRU ROOF TO ROOF MOUNTED HEAT PUMP.
22	(N) CONDENSATE PIPING CONNECTION. FOR CONTINUATION SEE PLUMBING PLANS.
23	(N)14x8 SR @ 350 CFM (TYP.2)
24	(N)14x8 RR @ 350 CFM (TYP.2)
25)	(E) KITCHEN HOOD TO REMAIN. SHOWN FOR REFERENCE ONLY.
26	(N) EXHAUST CEILING REGISTER MIN. 450 CFM/MAX. 600 CFM EACH (TYP. 2)
27)	(N)24V THERMOSTAT INTERFACE.
28	PROXIMITY TO LIGHTS MAY REQUIRE BRACING.
29	PROVIDE NEW 120V NETWORK LINK WITH ALL RELATED ACCESSORIES. PROVIDE MOUNTING AS REQUIRED. SEE ELECTRICAL FOR MORE
	INFORMATION.
30	INFORMATION. PROVIDE NEW 120V CONTROL PANEL WITH ALL RELATED ACCESSORIES. PROVIDE MOUNTING AS REQUIRED. SEE ELECTRICAL FOR MORE INFORMATION.

NOTE: CEILING FINISHES NOT SHOWN FOR CLARITY. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.





SECTION 23 33 01 AIR DUCT SILENCERS

PART 1 - GENERAL

- 1.1 Basis-of-Design Product: Silencers shall be Vibro-Acoustics or approved equal.
- 1.2 Alternate manufacturers must request and obtain written approval by the Engineer to bid the project at least 10 day prior to the bid due-date. As a condition of pre-approval, alternate manufacturers must submit to the Engineer a minimum of twenty (20) different HVAC silencer test reports. Each report shall be for a silencer tested in full accordance with the ASTM E-477-13 silencer test standard in an aero-acoustic test facility which is NVLAP accredited for the ASTM E477-13 standard. Each test shall have been conducted within the last 12 month period. A copy of the laboratory's NVLAP accreditation certificate must be included with the submitted reports. Any changes to the specifications must be submitted and approved in writing by the Engineer at least 10 days prior to the bid due-date.
- 1.3 If products other than those of the basis of design manufacturer are supplied on the project, the <u>purchasing contractor</u> assumes full performance, project schedule and monetary responsibility for meeting the project noise criteria, including any retrofit work that may be required
- 1.4 SUBMITTALS
 - A. Performance Data:
 - 1. Silencer manufacturer to provide submittal drawings detailing all duct silencer data specified in the mechanical drawing schedule.
 - 2. The silencer manufacturer shall provide, for approval, acoustical system calculations for all duct systems with silencers to demonstrate that the submitted silencers will reduce mechanical fan noise to following NC-Levels in the occupied space. Use sound power levels of actual equipment to be installed on project. Analysis shall include breakout noise calculations.
 - 3. Supplier shall be responsible for the overall system pressure loss of the installation based on duct conditions upstream and downstream of the silencer to ensure required airflow is provided. Supplier shall submit detailed pressure drop analysis for the installation and detailed procedure outlining methodology for site measurement of overall system pressure loss for approval prior to manufacture.
 - a. Silencer internal design will provide ideal pressure drop value as scheduled
 - b. Installed pressure drop including system effect is maintained at maximum as scheduled.
 - 4. Acoustical and pressure drop calculations must be supplied with PE/P.Eng stamp at the time of submittal
 - B. Source quality-control reports:
 - 1. Silencer manufacturer to provide a copy of their laboratory NVLAP accreditation certificate for the ASTM E-477-06a test standard with the submittals. Data from non-NVLAP accredited test facilities will not be accepted.

PART 2 - PRODUCTS

2.1 DUCT SILENCERS

- A. General Requirements:
 - 1. Silencers shall be of the size, configuration, capacity and acoustic performance as scheduled on the drawings. All silencers shall be factory fabricated and supplied by the same manufacturer. Provide with non-fibrous materials.
 - Transitions on inlet and outlet will not be accepted. Silencers shall fit the ducting system they are installed in without requiring duct fittings/transitions. Silencer inlet and outlet must match duct dimensions. See contract documents for silencer configuration. Nonbasis of design suppliers must submit details of internal geometry of silencers to be supplied.
 - 3. Silencer inlet and outlet connection dimensions must be equal to the duct sizes shown on the drawings. Duct transitions at silencers are not permitted unless shown on the contract drawings.
 - 4. Silencers shall be constructed in accordance with ASHRAE and SMACNA standards for the pressure and velocity classification specified for the air distribution system in which it is installed. Material gauges noted in other sections are minimums. Material gauges shall be increased as required for the system pressure and velocity classification. The silencers shall not fail structurally when subjected to a differential air pressure of 8 inches water gauge.
 - 5. All casing seams and joints shall be lock-formed and sealed or stitch welded and sealed except as noted in Section G below, to provide leakage-resistant construction. Airtight construction shall be achieved by use of a duct-sealing compound supplied and installed by the contractor at the jobsite.
 - 6. All perforated steel shall be adequately stiffened to insure flatness and form.
 - 7. Fire-Performance Characteristics: Silencer assemblies, sealants, and acoustical spacer, shall have flame-spread index not exceeding 25 and smoke-developed index not exceeding 50 when tested according to ASTM E 84, NFPA 255 or UL 723.
 - 8. Airstream Surfaces: Surfaces in contact with the airstream shall comply with requirements in ASHRAE 62.1-2007.
- B. Rectangular Silencers including models RD, RED: Outer casing shall be ASTM A 653/A 653M, G90 galvanized sheet steel. Gauge22 and Gauge 18 respectively. Inner perforated metal liner: ASTM A 653/A 653M, G90 galvanized sheet steel, Gauge 26 and Gauge 22
- C. Principal Sound-Absorbing Mechanism:
 - 1. Dissipative silencers:
 - a. Models RD, RED: type with acoustic media. Media shall be of acoustic quality, shot-free glass fiber insulation with long, resilient fibers bonded with a thermosetting resin. Glass fiber density and compression shall be as required to insure conformance with laboratory test data. Glass fiber shall be packed with a

minimum of 15% compression during silencer assembly. Media shall be resilient such that it will not crumble or break, and conform to irregular surfaces. Media shall not cause or accelerate corrosion of aluminum or steel. Mineral wool will not be permitted as a substitute for glass fiber.

D. HTL Casings: Where indicated on the silencer schedule, silencers shall have high transmission loss (HTL) walls externally applied and completely sealed to the silencer casing by the silencer manufacturer to assure quality controlled transmission loss. The HTL walls shall consist of media, airspace, mass and outer protective metal skin, as required, to obtain the specified room noise criteria. Standard acoustical panels will not be accepted as HTL walls. If requested by the Engineer, break-out noise calculations for each air handling and fan system shall be provided with the silencer submittal to insure compliance with the room noise criteria. Break-out noise calculations shall be based on the sound power levels of the specified equipment.

PART 3 - EXECUTION

- 3.1 INSTALLATION
 - A. Install silencer according to manufacturer's written installation instructions.

END OF SECTION

Tag No.	Flow Rate (cfm)	PD (in.w.g.)	PD Sys Effects (in.w.g.)		Size (in)					1	ertion Los				Manufacturer	Model No.
RTU-B20-S	2500	0.09	0.15	Н 26	W 34	L 60	63 8	125 17	250 29	500 40	1000 40	2000 42	4000 29	8000 21	Vibro-Acoustics	REMB-LV-F8
RTU-B21-S RTU-B22-S	2400 1300	0.21 0.15	0.36 0.25	12 12	18 18	72 60	6 7	10 10	14 15	23 24	29 29	31 33	25 25	19 19	Vibro-Acoustics Vibro-Acoustics	
RTU-B24-S RTU-B23-S	1300 1200	0.15 0.2	0.25 0.34	12 12	18 18	60 60	7 8	10 12	15 21	24 27	29 29	33 34	25 25	19 18	Vibro-Acoustics Vibro-Acoustics	
RTU-B35-S RTU-B36-S	1200 1200	0.2 0.2	0.34 0.34	12 12	18 18	60 60	8 8	12 12	21 21	27 27	29 29	34 34	25 25	18 18	Vibro-Acoustics Vibro-Acoustics	REMB-UHV-F
RTU-B37-S RTU-B38-S	1200 1200	0.2	0.34 0.34	12 12	18 18	60 60	8 8	12 12	21 21	27 27	29 29	34 34	25 25	18 18	Vibro-Acoustics Vibro-Acoustics	
RTU-B39-S RTU-B40-S	1200 1200	0.2	0.34 0.34	12 12	18 18	60 60	8 8	12 12	21 21	27 27	29 29	34 34	25 25	18 18	Vibro-Acoustics Vibro-Acoustics	-
RTU-B21 R RTU-B20 R	-2400 -2500	0.18 0.18	0.31 0.3	10 12	26 46	36 60	4 10	7 14	12 25	19 32	24 37	18 38	12 28	8 20	Vibro-Acoustics Vibro-Acoustics	
RTU-B22 R RTU-B23 R	-1300 -1200	0.14 0.12	0.24 0.2	10 10	26 26	36 36	6 6	8 8	15 15	23 23	30 30	24 24	15 15	11 11	Vibro-Acoustics Vibro-Acoustics	
RTU-B24 R RTU-B35 R	-1300 -1200	0.14 0.12	0.24 0.2	10 10	26 26	36 36	6 6	8 8	15 15	23 23	30 30	24 24	15 15	11 11	Vibro-Acoustics Vibro-Acoustics	
RTU-B36 R RTU-B37 R	-1200 -1200	0.12	0.2	10 10	26 26	36 36	6 6	8 8	15 15	23 23	30 30	24 24	15 15	11 11	Vibro-Acoustics Vibro-Acoustics	RMB-LV-F9
RTU-B38 R RTU-B39 R	-1200 -1200	0.12 0.12	0.2	10 10	26 26	36 36	6 6	8 8	15 15	23 23	30 30	24 24	15 15	11 11	Vibro-Acoustics Vibro-Acoustics	
RTU-B40 R	-1200	0.12	0.2	10	26	36	6	8	15	23	30	24	15	11	Vibro-Acoustics	
RTU-C52-S RTU-C53-S	1200 1200	0.13	0.21	12 12	18 18	60 60	7 7	10 10	15 15	24 24	29 29	33 33	25 25	19 19	Vibro-Acoustics Vibro-Acoustics	-
RTU-C54-S RTU-C54A-S	1200 700	0.13	0.21 0.18	12 12	18 18	60 60	7 10	10 16	15 28	24 35	29 46	33 45	25 30	19 20	Vibro-Acoustics Vibro-Acoustics	-
RTU-C55-S RTU-C57-S	1200 1200	0.13	0.21 0.21	12 12	18 18	60 60	7 7	10 10	15 15	24 24	29 29	33 33	25 25	19 19	Vibro-Acoustics Vibro-Acoustics	REMB-MHV-I
RTU-C56-S RTU-C58-S	1400 1400	0.17	0.29 0.29	12 12	18 18	60 60	7 7	10 10	15 15	24 24	29 29	33 33	25 25	19 19	Vibro-Acoustics Vibro-Acoustics	-
RTU-C59-S RTU-C60-S	1300 1300	0.15	0.25	12 12	18 18	60 60	7	10 10	15 15	24 24	29 29	33 33	25 25	19 19	Vibro-Acoustics Vibro-Acoustics	-
RTU-C58A-S RTU-C52 R	700 -1200	0.11	0.18 0.26	12 26	18 10	60 36	10 5	16 8	28 15	35 19	46 20	45 16	30 12	20 10	Vibro-Acoustics Vibro-Acoustics	-
RTU-C53 R RTU-C54 R	-1200 -1200	0.07	0.26	26 26	10 10	36 36	5	8	15 15	19 19 10	20 20 20	16 16	12 12	10 10	Vibro-Acoustics Vibro-Acoustics	RMB-MLV-F
RTU-C55 R RTU-C57 R	-1200 -1200	0.07	0.26	26 10 26	10 26	36 48	5 6	8	15 13	19 18 17	20 27	16 23	12 18	10 17	Vibro-Acoustics Vibro-Acoustics	REMB-HV-F
RTU-C56 R RTU-C58 R	-1400 -1400 -1300	0.07 0.07 0.06	0.23 0.23 0.2	26 26 26	10 10 10	36 36 36	5 5 5	8 8 8	13 13 13	17 17 17	18 18 18	14 14 14	11 11 11	9 9 9	Vibro-Acoustics Vibro-Acoustics	•
RTU-C59 R RTU-C60 R RTU-C54A R	-1300 -1300 -700	0.06 0.06 0.04	0.2 0.2 0.13	26 26 26	10 10 10	36 36 36	5 5 6	8 8 9	13 13 17	17 17 21	18 18 23	14 14 18	11 11 13	9 9 11	Vibro-Acoustics Vibro-Acoustics Vibro-Acoustics	RMB-MV-F9
RTU-C54A R RTU-C58A R	-700 -700	0.04	0.13	26 26	10	36	6	9	17	21 21	23	18	13	11 11	Vibro-Acoustics Vibro-Acoustics	
RTU-D2-S RTU-D3-S	1200 1200	0.13	0.21	12 12	18 18	60 60	7 7	10 10	15 15	24 24	29 29	33 33	25 25	19 19	Vibro-Acoustics Vibro-Acoustics	
RTU-D4-S RTU-D5-S	1200 1200 1200	0.13	0.21	12 12 12	18 18	60 60	7	10 10 10	15 15 15	24 24 24	29 29 29	33 33	25 25 25	19 19 19	Vibro-Acoustics Vibro-Acoustics	•
RTU-D16-S RTU-D17-S	1200 1200 1200	0.13	0.21	12 12 12	18 18	60 60	7	10 10 10	15 15 15	24 24 24	29 29	33 33	25 25 25	19 19 19	Vibro-Acoustics Vibro-Acoustics	REMB-MHV-
RTU-D18-S RTU-D19-S	1200 1200	0.13	0.21	12 12	18 18	60 60	7	10 10	15 15	24 24	29 29	33 33	25 25	19 19	Vibro-Acoustics Vibro-Acoustics	1
RTU-D2-R RTU-D3-R	-1200 -1200	0.07	0.26	26 26	10 10	36 36	5	8	15 15	19 19	20 20	16 16	12 12	10 10	Vibro-Acoustics Vibro-Acoustics	-
RTU-D4-R RTU-D5-R	-1200 -1200	0.07 0.07	0.26	26 26	10 10	36 36	5 5	8 8	15 15	19 19	20 20	16 16	12 12	10 10	Vibro-Acoustics Vibro-Acoustics	
RTU-16-R RTU-17-R	-1200 -1200	0.07 0.07	0.26 0.26	26 26	10 10	36 36	5 5	8 8	15 15	19 19	20 20	16 16	12 12	10 10	Vibro-Acoustics Vibro-Acoustics	1 RIVIR-IVII V-F
RTU-18-R RTU-19-R	-1200 -1200	0.07 0.07	0.26	26 26	10 10	36 36	5 5	8 8	15 15	19 19	20 20	16 16	12 12	10 10	Vibro-Acoustics Vibro-Acoustics	-
RTU-E42-S	1200	0.13	0.21	12	18	60	7	10	15	24	29	33	25	19	Vibro-Acoustics	
RTU-E43-S RTU-E44-S	1200 1200	0.13 0.13	0.21 0.21	12 12	18 18	60 60	7 7	10 10	15 15	24 24	29 29	33 33	25 25	19 19	Vibro-Acoustics Vibro-Acoustics	-
RTU-E45-S RTU-E46-S	1200 1200	0.13	0.21 0.21	12 12	18 18	60 60	7 7	10 10	15 15	24 24	29 29	33 33	25 25	19 19	Vibro-Acoustics Vibro-Acoustics	-
RTU-E47-S RTU-E47A-S	1200 1200	0.13	0.21	12 12	18 18	60 60	7 7	10 10	15 15	24 24	29 29	33 33	25 25	19 19	Vibro-Acoustics Vibro-Acoustics	REMB-MHV-I
RTU-E48-S RTU-E49-S	1200 1200	0.13	0.21	12 12	18 18	60 60	7 7	10 10	15 15	24 24	29 29	33 33	25 25	19 19	Vibro-Acoustics Vibro-Acoustics	-
RTU-E50-S RTU-E51-S RTU-E42-R	1200 1200 -1200	0.13 0.13 0.07	0.21 0.21 0.26	12 12 26	18 18 10	60 60 36	7 7 5	10 10 8	15 15 15	24 24 19	29 29 20	33 33 16	25 25 12	19 19 10	Vibro-Acoustics Vibro-Acoustics Vibro-Acoustics	
RTU-E43-R RTU-E44-R	-1200 -1200 -1200	0.07	0.26	26 26 26	10 10 10	36 36 36	5	8 8	15 15 15	19 19 19	20 20 20	16 16 16	12 12 12	10 10 10	Vibro-Acoustics Vibro-Acoustics	-
RTU-E49-R RTU-E50-R	-1200 -1200 -1200	0.07	0.26	26 26 26	10 10 10	36 36 36	5	8	15 15 15	19 19 19	20 20 20	16 16 16	12 12 12	10 10 10	Vibro-Acoustics Vibro-Acoustics	RMB-MLV-F
RTU-E51-R	-1200	0.07	0.26	26	10	36	5	8	15	19	20	16	12	10	Vibro-Acoustics	-
RTU-H13-S RTU-H71-S	900 2400	0.15	0.26	12 12	18 18	60 72	9	14 10	25 14	32 23	38 29	39 31	28 25	19 19	Vibro-Acoustics Vibro-Acoustics	-
RTU-H72-S RTU-H74-S	1500 1750	0.17	0.28	12 12 12	18 18	60 60	6	9 9	14 14	22 22 22	27	28 28	24 24 24	18 18	Vibro-Acoustics Vibro-Acoustics	
RTU-H75-S RTU-H77-1-S	1200	0.13	0.21	12 12 12	18 18	60 60	7	10 10	15 15	24 24 24	29 29 29	33 33	25 25	19 19	Vibro-Acoustics Vibro-Acoustics	REMB-MLV-I
RTU-H77-2-S RTU-H76-S		0.16	0.27	12 12 12	18 18 18	60 60	7 9	10 10 14	15 15 25	24 24 32	29 38	33 39	25 25 28	19 19 19	Vibro-Acoustics Vibro-Acoustics]
RTU-H13-R RTU-H76-R	-900 -900	0.06	0.22	26 26	10 10	36 36	6 6	9 9	17 17	21 21	23 23	18 18	13 13	11 11	Vibro-Acoustics Vibro-Acoustics	
RTU-H71-R RTU-H72-R	-2400 -1500	0.07	0.25	26 26	10 10 10	36 36	3 5	4	8 13	16 17	26 18	19 14	12 11	8	Vibro-Acoustics Vibro-Acoustics	1
RTU-H74-R RTU-H75-R	-1750 -1200	0.06	0.22	26 26	10 10	36 36	4	7 8	11 15	16 19	16 20	12 16	10 12	8 10	Vibro-Acoustics Vibro-Acoustics	RMB-LV-F9
RTU-H77-1-R RTU-H77-2-R	-1350 -1350	0.06 0.06	0.22 0.22	26 26	10 10	36 36	5 5	8 8	13 13	17 17	18 18	14 14	11 11	9 9	Vibro-Acoustics Vibro-Acoustics	
RTU-I162-S	1200	0.13	0.21	12	18	60	7	10	15	24	29	33	25	19	Vibro-Acoustics	-
RTU-I166-S RTU-I167-S	1200 1200	0.13	0.21	12 12 12	18 18 19	60 60	7 7 7	10 10	15 15	24 24 24	29 29 29	33 33 22	25 25 25	19 19 10	Vibro-Acoustics Vibro-Acoustics	REMB-MHV-
RTU-I163-S RTU-I164-S	1550 700 2000	0.21	0.36	12 12 12	18 18 19	60 60	7 10	10 16	15 28	24 35	29 46 25	33 45 28	25 30	19 20	Vibro-Acoustics Vibro-Acoustics	
RTU-K14-S RTU-I162-R	2000 -1200 1200	0.19	0.32	12 26	18 10	60 36	5	8	11 15	19 19 19	25 20 20	28 16	23 12	16 10	Vibro-Acoustics Vibro-Acoustics	
RTU-I166-R RTU-I167-R RTU-I163-R	-1200 -1200 -1550	0.07 0.07 0.08	0.26 0.26 0.28	26 26 26	10 10 10	36 36 36	5 5 5	8 8 8	15 15 13	19 19 17	20 20 18	16 16 14	12 12 11	10 10 9	Vibro-Acoustics Vibro-Acoustics Vibro-Acoustics	RMB-MLV-F
RTU-I163-R RTU-I164-R	-1550 -700	0.08	0.28	26 26	10	36 36	6	9	13 17	17 21	18 23	14 18	11 13	9 11	Vibro-Acoustics Vibro-Acoustics	ייייגע איזער VIL V-F
RTU-K14-R	-2000	0.08	0.29	26	10	36	4	7	11	16	16	12	10	8	Vibro-Acoustics	
RTU-M26-S RTU-M27-S	1500 1500	0.2	0.33	12 12	18 18	60 60	7	10 10	15 15	24 24	29 29	33 33	25 25	19 19	Vibro-Acoustics Vibro-Acoustics	
RTU-M28-S RTU-M29-S	1500 1500 1500	0.2	0.33	12 12 12	18 18 18	60 60	7 7 7	10 10 10	15 15 15	24 24 24	29 29 29	33 33	25 25 25	19 19 19	Vibro-Acoustics Vibro-Acoustics]
RTU-M30-S RTU-M31-S	1500 1500 1500	0.2	0.33	12 12 12	18 18	60 60	7 7	10 10 10	15 15 15	24 24 24	29 29 29	33 33	25 25 25	19 19 19	Vibro-Acoustics Vibro-Acoustics	REMB-MHV-I
RTU-M32-S RTU-M33-S	1500 1500	0.2 0.2	0.33 0.33	12 12	18 18	60 60	7 7	10 10	15 15	24 24	29 29	33 33	25 25	19 19	Vibro-Acoustics Vibro-Acoustics	
RTU-M34-S RTU-M37-S	1950 900	0.18	0.31 0.26	12 12	18 18	60 60	5	8 14	11 25	19 32	25 38	28 39	23 28	16 19	Vibro-Acoustics Vibro-Acoustics	
RTU-M26-R RTU-M27-R	-1200 -1200	0.07 0.07	0.26 0.26	26 26	10 10	36 36	5	8 8	15 15	19 19	20 20	16 16	12 12	10 10	Vibro-Acoustics Vibro-Acoustics	
RTU-M32-R RTU-M33-R	-1200 -1200	0.07 0.07	0.26 0.26	26 26	10 10	36 36	5 5	8 8	15 15	19 19	20 20	16 16	12 12	10 10	Vibro-Acoustics Vibro-Acoustics	1
RTU-M34-R	-1950	0.08	0.28	26	10	36	4	7	11	16	16	12	10	8	Vibro-Acoustics	1

Α

									JLE	ER SCHEDL	ICT SILENC	DL					
	r Model No	— Manufacturer			s Hz	ertion Los	imum Inse	Min				Size (in)		PD Sys Effects	PD	Flow Rate	Tag No.
r NO.		Manufacturer	8000	4000	2000	1000	500	250	125	63	L	w	н	(in.w.g.)	(in.w.g.)	(cfm)	1 ag 110.
	S	Vibro-Acoustics	19	25	33	29	24	15	10	7	60	18	12	0.21	0.13	1200	RTU-N6-S
	:s	Vibro-Acoustics	19	25	33	29	24	15	10	7	60	18	12	0.21	0.13	1200	RTU-N7-S
	:S	Vibro-Acoustics	19	25	33	29	24	15	10	7	60	18	12	0.21	0.13	1200	RTU-N8-S
	s	Vibro-Acoustics	19	25	33	29	24	15	10	7	60	18	12	0.21	0.13	1200	RTU-N9-S
	:S	Vibro-Acoustics	19	25	33	29	24	15	10	7	60	18	12	0.21	0.13	1200	RTU-N10-S
1HV-F9	s REMB-MHV	Vibro-Acoustics	19	25	33	29	24	15	10	7	60	18	12	0.21	0.13	1200	RTU-N11-S
	s	Vibro-Acoustics	19	25	33	29	24	15	10	7	60	18	12	0.21	0.13	1200	RTU-N12-S
	s	Vibro-Acoustics	19	25	33	29	24	15	10	7	60	18	12	0.21	0.13	1200	RTU-N13-S
1,2	s	Vibro-Acoustics	19	25	33	29	24	15	10	7	60	18	12	0.21	0.13	1200	RTU-N14-S
	s	Vibro-Acoustics	19	25	33	29	24	15	10	7	60	18	12	0.21	0.13	1200	RTU-N15-S
	s	Vibro-Acoustics	20	30	45	46	35	28	16	10	60	18	12	0.29	0.17	900	RTU-N11A-S
	s	Vibro-Acoustics	10	12	16	20	19	15	8	5	36	10	26	0.26	0.07	-1200	RTU-N6-R
	s	Vibro-Acoustics	10	12	16	20	19	15	8	5	36	10	26	0.26	0.07	-1200	RTU-N7-R
	S DAD MUN	Vibro-Acoustics	10	12	16	20	19	15	8	5	36	10	26	0.26	0.07	-1200	RTU-N8-R
ILV-F9	RMB-MLV-	Vibro-Acoustics	10	12	16	20	19	15	8	5	36	10	26	0.26	0.07	-1200	RTU-N13-R
	s	Vibro-Acoustics	10	12	16	20	19	15	8	5	36	10	26	0.26	0.07	-1200	RTU-N14-R
	s	Vibro-Acoustics	10	12	16	20	19	15	8	5	36	10	26	0.26	0.07	-1200	RTU-N15-R

1. Contractor/Silencer Manufacturer shall provide acoustical analysis with PEng stamp showing silencer meets required NC-45-50 as scheduled during submittal review 2. Contractor/Silencer manufacturer must provide pressure drop calculations with PEng stamp to demonstrate the pressure drop including system effect as scheduled during submittal review 3. Alternative silencer manufacturer must provide silencer internal geometry for engineer's approval during submittal review 4. For Non-basis of Design product supplied, contractor is financially responsible to ensure noise control solution is delivered as per NC levels in spaces or dBA at specified distance 5. (HTL casing) equivalent to 14 ga should be used to cover breakout noise issues for all silencers

RED= Rectangular Elbow Dissipative

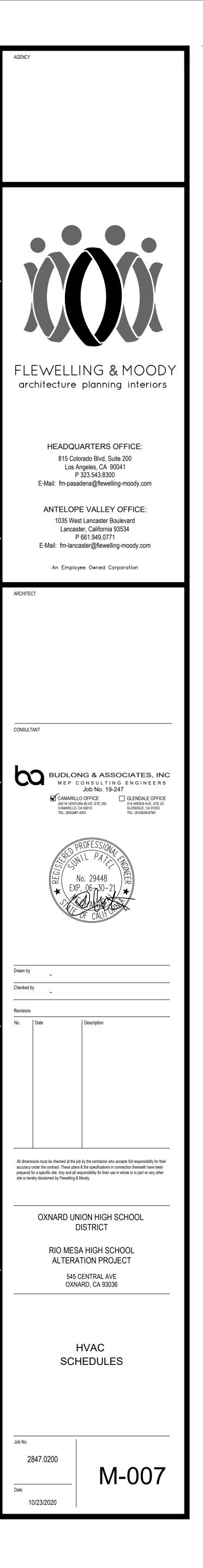
(+/-) The symbol (+) designates forward flow and the symbol (-) designates reverse flow. * The scheduled silencer pressure drop(s) are reported in accordance with ASTM E477 test methods. The pressure drop(s) are at IDEAL FLOW CONDITIONS (3-4 duct diameters of straight duct on silencer inlet and 4-5 duct diameters of staight duct on silencer outlet). Less than ideal conditions will result in increase in pressure drop - see VA representative for assistance.

Silencer Pressure Drop including estimated system effects based on less than ideal inlet and outlet flow conditions.

D

С

											EDULE RING COMPANY INC.
SUPPLY CE (ACOUSTICA OR EXPOSE	AL TILE ON	I PLASTER	CEILING		MODEL I SQUARE	DF (SURFA DP (T-BAR SUPPLY C PATTERN	CEILING EILING	G) (,	VAY)	SIDE SUPPLY REGISTER MODEL ECO20L (FOR ROUND DUCTS) DOUBLE DEFLECTION WITH 3/4" BLADE SPACING <u>NOTES:</u>
CFM RANGE	NECK SIZE	DIFFUSER SIZE	NECK VELOCITY	NC	FOR 10'-()" HIGH OF	MORE	CEILIN	NGS		1. PROVIDE WITH DIVERTING DAMPERS. 2. SEE DRAWINGS FOR SIZES.
0 - 125	6x6	10x10	>500	<20	CFM RANG	E NECK S		USER	NECK VELOCITY	NC	SIDE RETURN REGISTER MODEL ECO-P (FOR ROUND DUCTS) NOTE: OPTION TO USE ECO20L WITH FULLY OPEN BLADES
126 - 200	8x8	12x12	>500	<20	0 - 125	6x6	24	4x24	>500	<20	NOTES:
201 - 350	10x10	14x14	>500	21	126 - 275	9x9	24	4x24	>500	23	1. SEE DRAWINGS FOR SIZES.
351 - 500 501 - 675	12x12 14x14	16x16 18x18	>500 >500	23 24	276 - 500	12x1	2 2	4x24	>500	27	SIDEWALL SUPPLY REGISTER MODEL 20L (1/2" SPACING)
676 - 875	14x14 16x16	20x20	>500	24	501 - 775	15x1	5 24	4x24	>500	30	
876 - 1100	18x18	20x20	>500	20	776 - 112	5 18x1	3 24	4x24	>500	31	 PROVIDE WITH VOLUME DAMPERS. SEE DRAWINGS FOR SIZES.
1101 - 1375	20x20	24x24	>500	27	1126 - 152	5 21x2	1 24	4x24	>500	34	SIDEWALL RETURN/EXHAUST/TRANSFER REGISTER MODEL 30
NOTES: 1. PROVIDE I REQUIREE 2. SUPPLY D AND 4 WA 3. PROVIDE V	D). NFFUSER SC Y BLOW DE\	HEDULE APF /ICES.	PLIES TO 1,	2, 3	4-WAY 2. ALUMI 3. PROVI (IF RE- 4. PROVI	Y DIFFUSER BLOW DEVI NUM CONST DE (SRA) RC QUIRED). DE WITH VOI DE WITH THF	CES. RUCTION UND TO S	I. SQUARE MPERS.	E ADAPTER		 (45-L) (45° DEFLECTION AND 3/4" SPACING) <u>NOTES:</u> 1. PROVIDE WITH VOLUME DAMPERS. 2. SEE DRAWINGS FOR SIZES.
SUPPLY CE QC-L (T-BAI	-		DEL		FOR ACC	AND EXHA	TILE ON	PLAST	TER CEIL	NG	
CFM RANGE	NECK SIZE	DIFFUSER SIZE	NECK VELOCITY	NC	SPACINO	5-45-L (45° 6)	DEFLE		AND 1/2"		
0 - 125	6x6	24x24	>500	<20	CFM RANG	E NECK S	70 1	ISTER	NECK VELOCITY	NC	
126 - 200	8x8	24x24	>500	<20	0 - 75	6x6		8x8	>400	21	
201 - 350	10x10	24x24	>500	21	76 - 150	8x8	1	0x10	>400	24	
351 - 500	12x12	24x24	>500	23	151 - 225	10x10	1:	2x12	>400	26	
501 - 675	14x14	24x24	>500	24	226 - 350	12x12	14	4x14	>400	28	
676 - 875	16x16	24x24	>500	26	351 - 475	14x14	1	6x16	>400	29	
876 - 1100 1101 - 1375	18x18 20x20	24x24 24x24	>500 >500	27	476 - 650	16x16	1	8x18	>400	31	
<u>NOTES:</u> 1. PROVIDE I REQUIREE 2. SUPPLY D	I ROUND TO S D). DIFFUSER SC Y BLOW DEV CEILING DIFI ED.	GUARE ADA HEDULE APF /ICES. USERS WITI	L PTORS (IF PLIES TO 1, H FILLER P.	ŗ	REQU 2. PROVI PANEL		O SQUAF REGISTE D.	RS WITH	H FILLER	33	
ROUND SUF			SER MODI	EL	MODEL A	AND EXHA C35-L 24">	24" FOF	R T-BAI	R CEILIN		
CFM RANGE	NECK SIZE	DIFFUSER SIZE	NECK VELOCITY	NC	CFM	NECK DI	FFUSER	, NEC	ск	10	
0 - 100	6"Ø	12-3/4"Ø	>500	<20	RANGE	SIZE	SIZE	VELO		IC	
101 - 150	8"Ø	18-1/2"Ø	>500	<20	0 - 75	6x6	24x24	>40	00 2	1	
151 - 250	10"Ø	24-1/4"Ø	>500	<20	76 - 150	8x8	24x24	>40	00 2	4	
251 - 375	12"Ø	24-1/4"Ø	>500	<20	151 - 225	10x10	24x24	>40		6	4
376 - 600	15"Ø	35-1/2"Ø	>500	<20	226 - 350	12x12	24x24	>40		8	4
601 - 875	18"Ø	35-1/2"Ø	>500	<20	351 - 475	14x14	24x24	>40		9	4
876 - 1200 1201 - 1550	21"Ø 24"Ø	46-1/4"Ø 46-1/4"Ø	>500 >500	<20 <20	476 - 650	16x16	24x24	>40		1 2	4
1201 - 1330	24.0	40-1/4 Ø	2000	<20	REQUIF 2. PROVIE AS NEE	E CEILING F	EGISTER	S WITH	TORS (IF	3 NELS	



Bid Clarification Addendum #1 <u>Attachment B</u> <u>Architect's Addendum #1</u> <u>Rio Mesa HS</u>

OUHSD Addendum #1 Bid 643 New HVAC Modernization Project for Rio Mesa High School

Rio Mesa High School OXNARD UNION HIGH SCHOOL DISTRICT FM2847.0200 Page **1** of **3**

1035 Lancaster Blvd Lancaster, CA 93534 661. 949 . 0771 flewelling-moody.com



December 22, 2020

The following changes and/or clarifications shall be made to the drawings and specifications and all other conditions shall remain the same. All changes and/or clarifications provided shall be included in the scope of contracted work. Pursuant to PR13-01 all work that requires approval by the DSA shall not begin until said approvals are obtained.

SPECIFICATIONS

- 1. Specification Section 09 51 13 Acoustical Tile Ceilings:
 - a. **Revise** item 2.3A to read "Basis of design product: As indicated on the drawings."

DRAWINGS

- 1. Sheet T0.01
 - a. Add note: "The G.C. shall be responsible for providing all necessary demolition and new construction at restrooms & drinking fountains, including utility layout, sizing, and verification. Refer to corresponding architectural building sheets "A(Bldg Letter)-501" for required parameters and areas of scope. Include in bid amount both the cost of preparing shop drawings complying with all applicable codes for improvements shown and the cost of performing the work for each building. All new toilet partitions shall be HDPE, see specification."
 - b. Add note: "In addition to the extents of demolition & replacement shown on the architectural plans. G.C. shall remove all existing finishes required for installation of all duct hangers, blocking, and new structural members. All removed finishes shall be replaced, patched, repaired, and painted to match the existing adjacent finishes. Refer to structural drawings for member locations and Finish Schedules for finishes to match. Typical of all buildings"

- c. Add note: "Basis of design for all areas receiving 12x12 glued on tile shall be 'Armstrong 12x12 Straight Drilled Tile, Adhered' as manufactured by Classic Acoustical Tel No. 760-775-7745 Contact: Jacob."
- d. Add note: "Where Mechanical and Architectural dimensions conflict, the most restrictive dimension shall govern to ensure roof edge distance is a minimum of 10'-0" and minimum outdoor air intake clearances are maintained."
- e. Add note: "Coordinate with owner during the start of demolition. All electrical equipment and devices with salvage value as determined by the owner shall be delivered to the designated District warehouse without extra cost to the owner."
- f. Add note: "Contractor shall take precautions necessary to protect existing specialty flooring such as the gym wood floor, and wrestling mats. Provide protective plastic sheets, plywood sheathing, etc. to ensure floor is not damaged. Any damage resulting shall be repaired at no cost to District."

2. Sheet A1.01

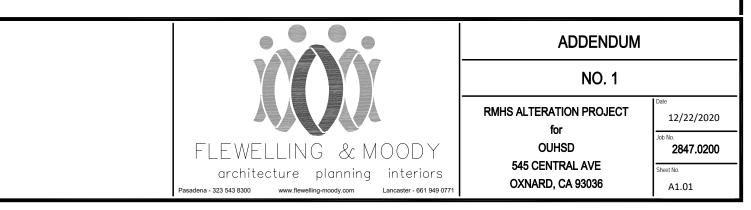
- Add note: "G.C. shall Patch & Repair existing built up roof membranes & existing roof shingles affected by project scope. Refer to Roof Type Table for roof type at each building. See typical roof details on sheet A9.04. Provide a separate square foot unit cost for cover board, insulation board, and sheathing replacement." See attachment 1A.
- b. Add note: "Where site utility distribution requires trenching at existing pavers, monuments, plaques, and similarly unique conditions, G.C. shall photo document existing condition, salvage and reinstall in place to like new condition."
- c. **Add** note: "Provide Transom Infill as per Addendum No.1 detail 14/A9.02 at all exterior doors buildings B, C, D, E, I, M, and N"
- d. Add notes to sheet A1.01 as shown in the clouded areas on Addendum No. 1 detail 1/-.
- 3. Sheet A1.05
 - a. Replace detail 10/A1.05 in its entirety with Addendum No.1 detail 10/-.
 - b. Replace detail 11/A1.05 in its entirety with Addendum No.1 detail 11/-.
- 4. Sheet A9.02
 - a. Add Addendum No. 1 detail 14/- to Sheet A9.02.
- 5. Sheet A9.03
 - a. Replace detail 13/A9.03 in its entirety with Addendum No. 1 detail 13/-.
 - b. Add detail 14/A9.03 as per Addendum No. 1 detail 14/-.
 - c. Add detail 15/A9.03 as per Addendum No. 1 detail 15/-.
- 6. Sheet S-102
 - a. **Add** note to detail 7/S102 to read "For thickened edge and additional requirements at RTU Q-1 equipment pad, see 10/A1.05"
- 7. Sheet S-303
 - a. Replace sheet S-303 in its entirety with Addendum No. 1 S-303.
- 8. Sheet SB-201
 - a. Revise RTU-B20 enlarged plan reference to 4/SB-201.
- 9. Sheet SQ-202
 - a. **Replace** sheet SQ-202 in its entirety with Addendum No. 1 SQ-202.
- 10. Sheet M-601
 - a. Replace detail 1/M-601 in its entirety with Addendum No. 1 detail 1/M-
 - 601.

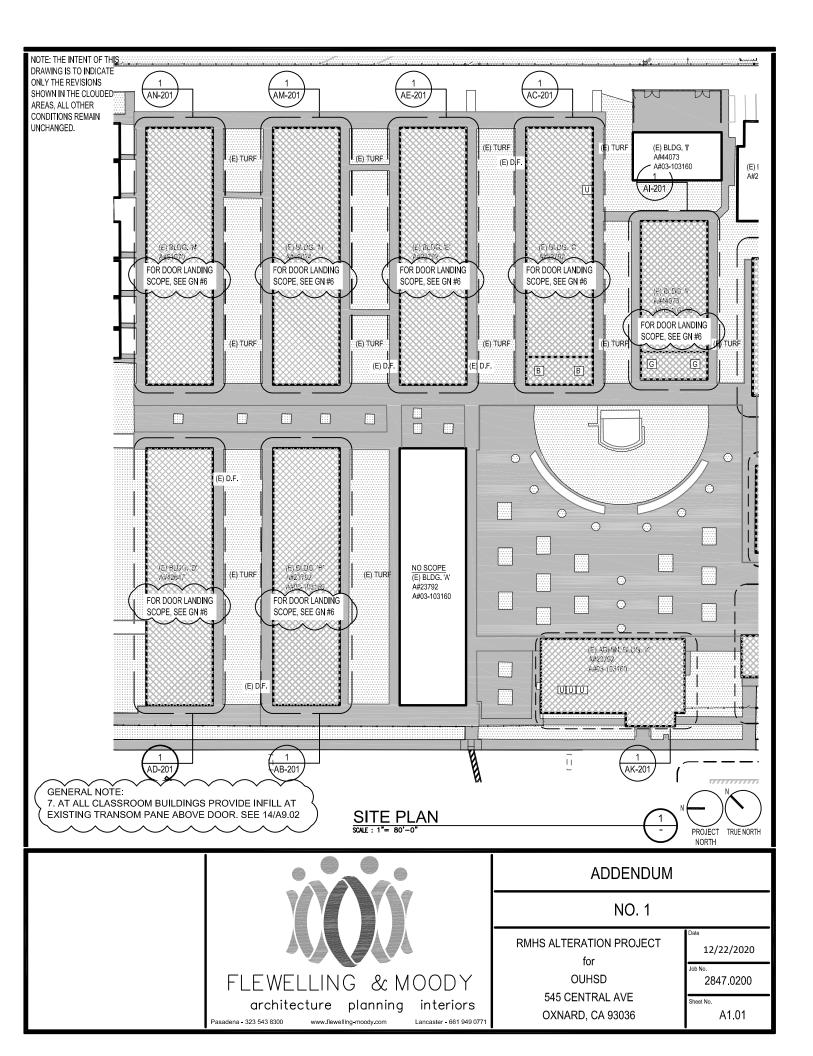
- 11. Sheet M-603
 - Revise detail 1/M-603 per clouded changes shown on Addendum No. 1 detail 3/M-603.
- 12. Sheet M-607
 - a. **Revised** sheet M-607 per clouded changes shown on Addendum No. 1 Sheet M-607.
- 13. Sheet MQ-201
 - a. **Replace** sheet MQ-201 in its entirety with Addendum No. 1 Sheet MQ-201.
- 14. Sheet MQ-202
 - a. **Replace** sheet MQ-202 in its entirety with Addendum No. 1 Sheet MQ-202.
- 15. Sheet MQ-401
 - a. **Replace** sheet MQ-401 in its entirety with Addendum No. 1 Sheet MQ-401.
- 16. Sheet PB-201
 - a. Revise sheet PB-201 in its entirety with Addendum No. 1 Sheet PB-201.
- 17. Sheet PQ-201
 - a. **Replace** sheet PQ-201 in its entirety with Addendum No. 1 Sheet PQ-201.
- 18. Sheet E-107F
 - a. Add Addendum No. 1 Sheet E-107F in its entirety.
- 19. Sheet E-107G
 - a. Add Addendum No. 1 Sheet E-107G in its entirety.
- 20. Sheet EB-201D
 - a. Add Addendum No. 1 Sheet EB-201D in its entirety.

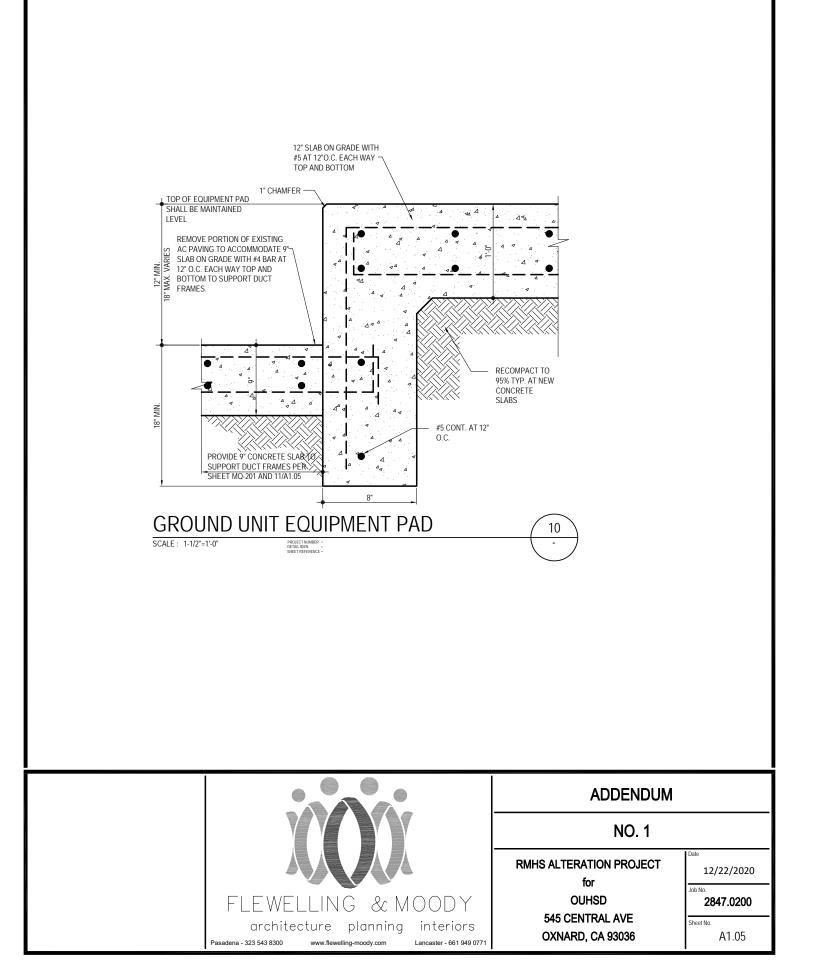
Flewelling & Moody, Irvine Carrillo

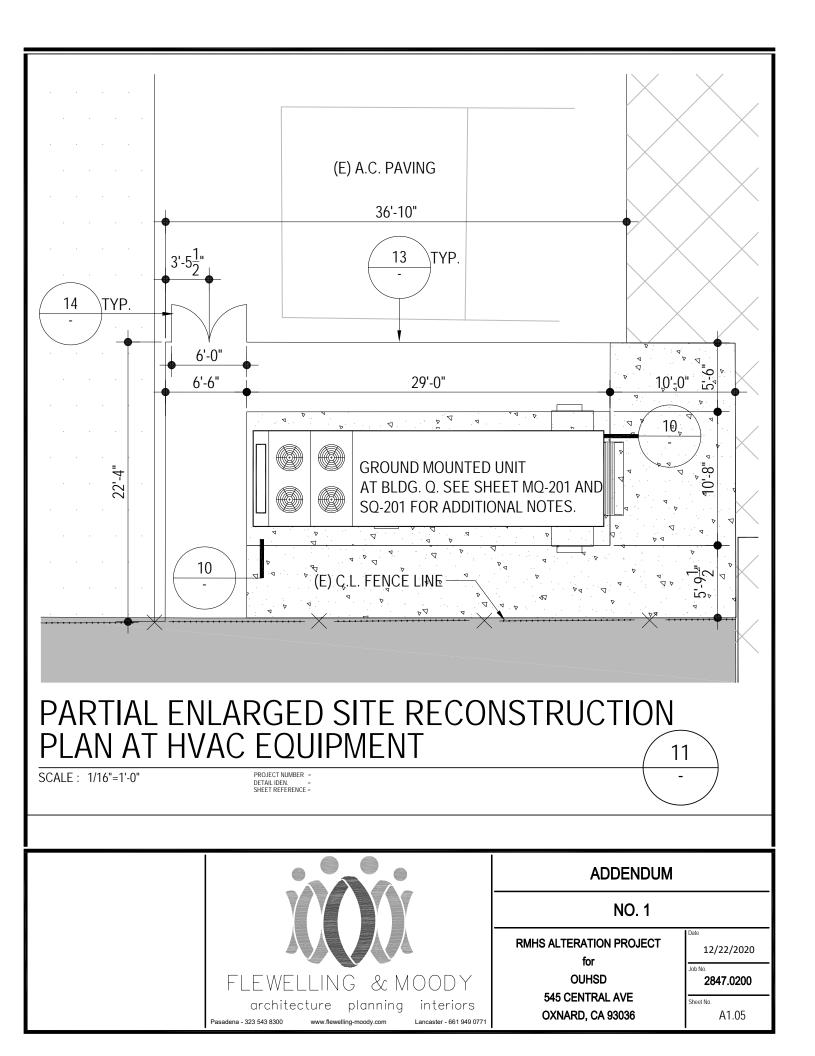
(E) ROOFII	NG TYPES
BUILDING	ROOFING TYPE
AQUATICS	BUILT-UP
В	BUILT-UP
С	BUILT-UP
D	BUILT-UP
E	BUILT-UP
Н	BUILT-UP
	BUILT-UP
J	BUILT-UP
К	BUILT-UP
L	BUILT-UP
Μ	BUILT-UP
Ν	BUILT-UP
Р	BUILT-UP
Q	BUILT-UP / SHINGLE
COVERED WALKWAY	BUILT-UP

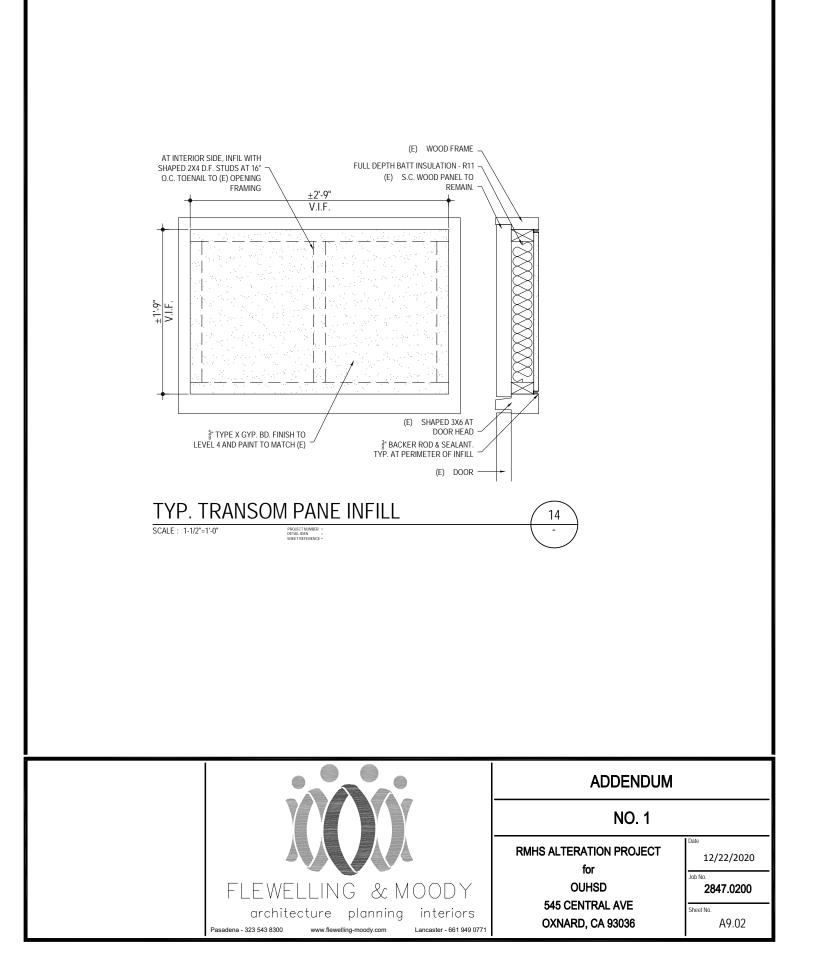
ATTACHMENT 1A

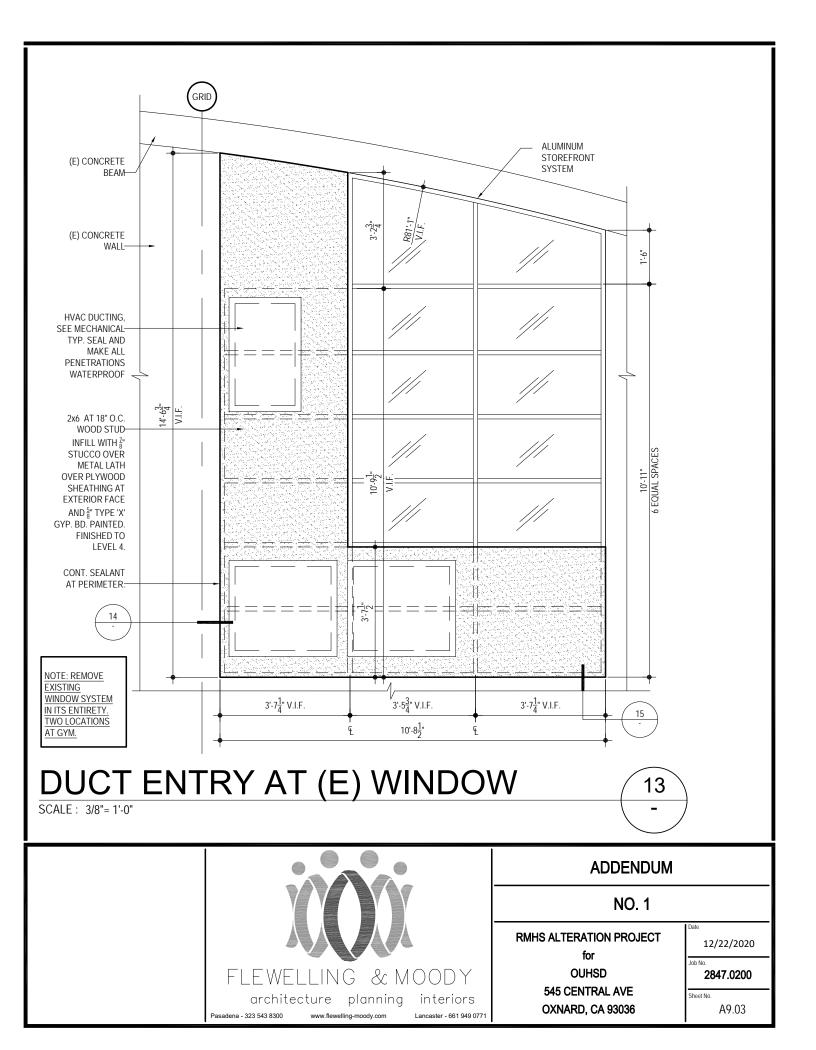


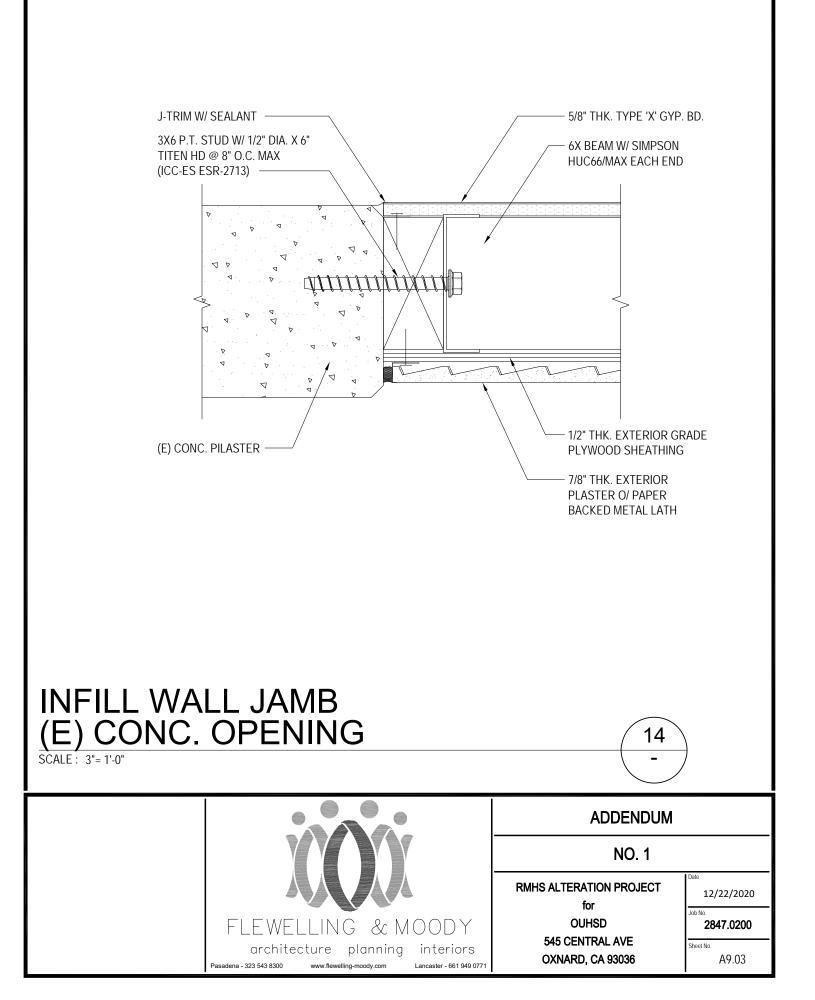


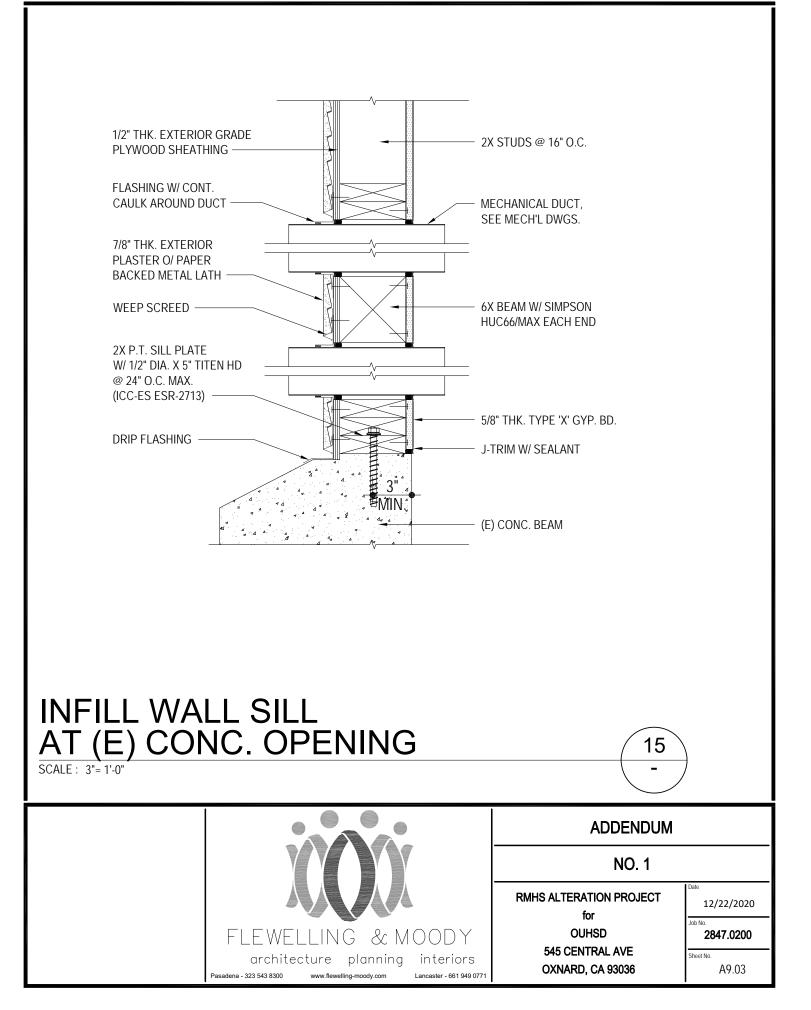


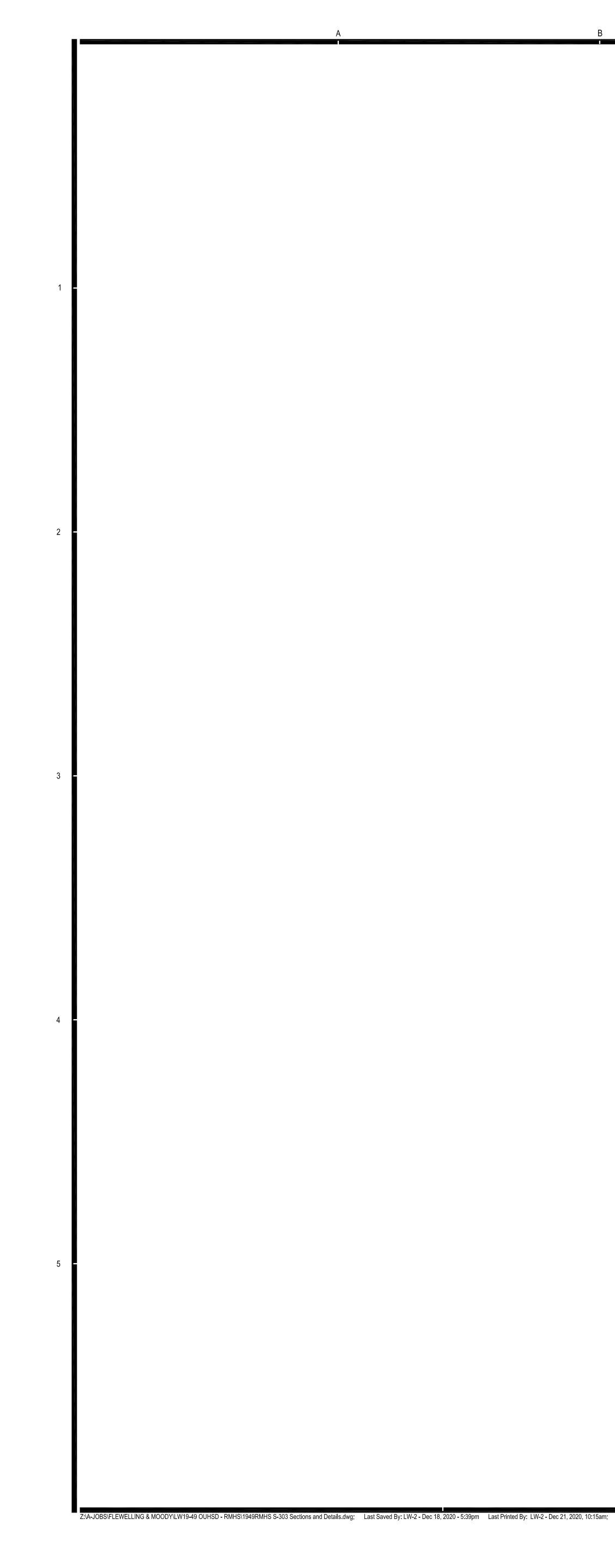


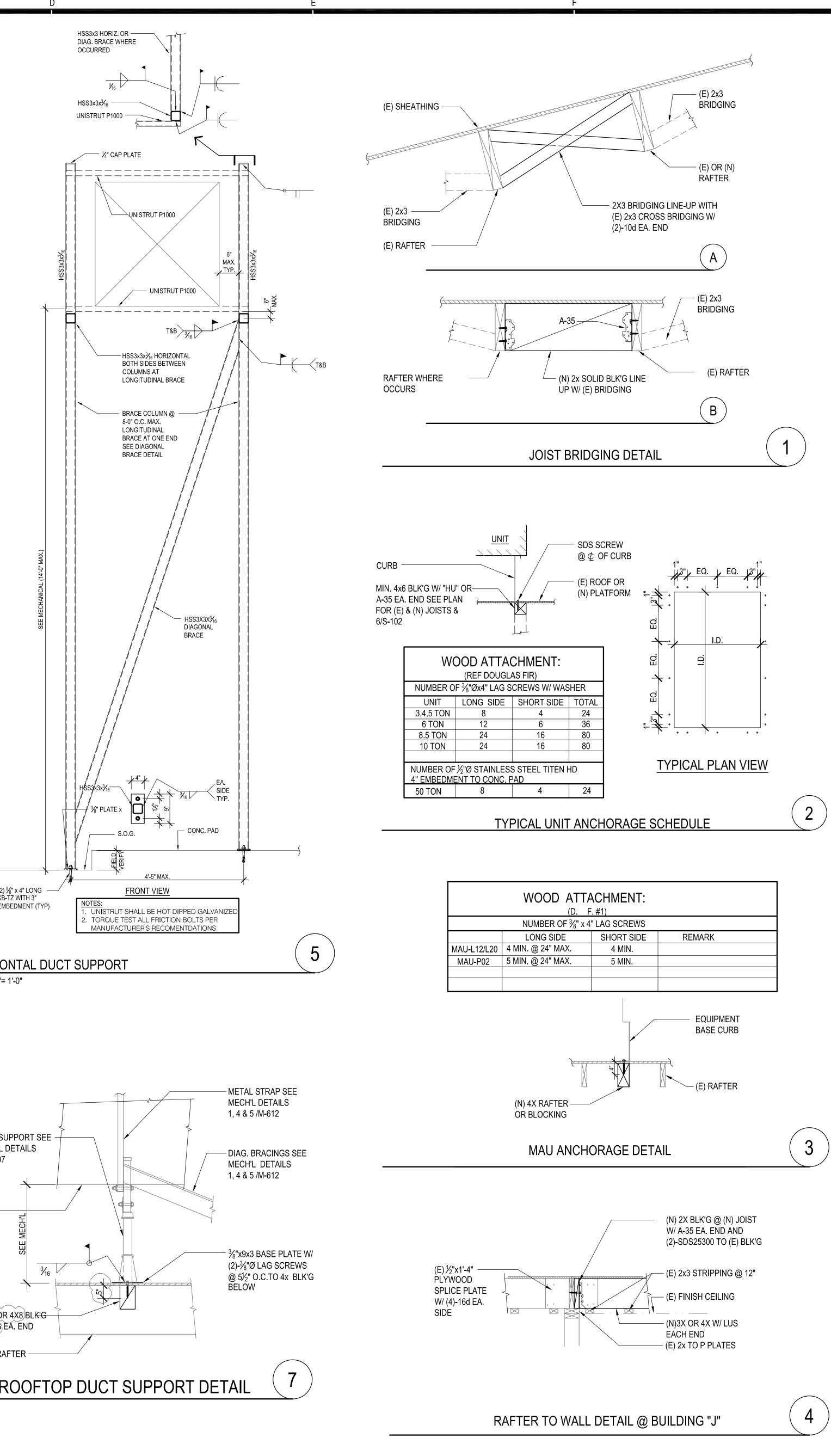




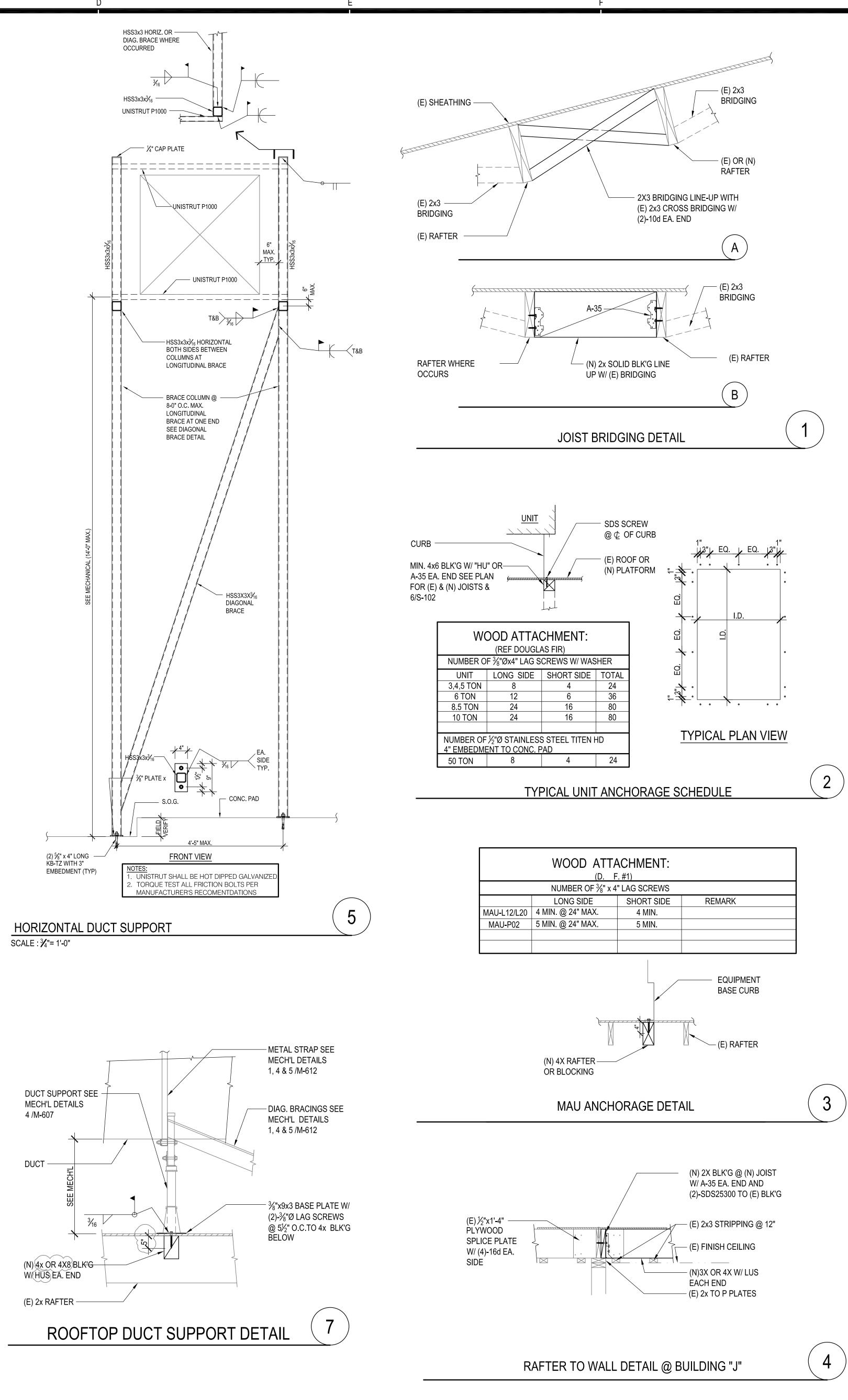




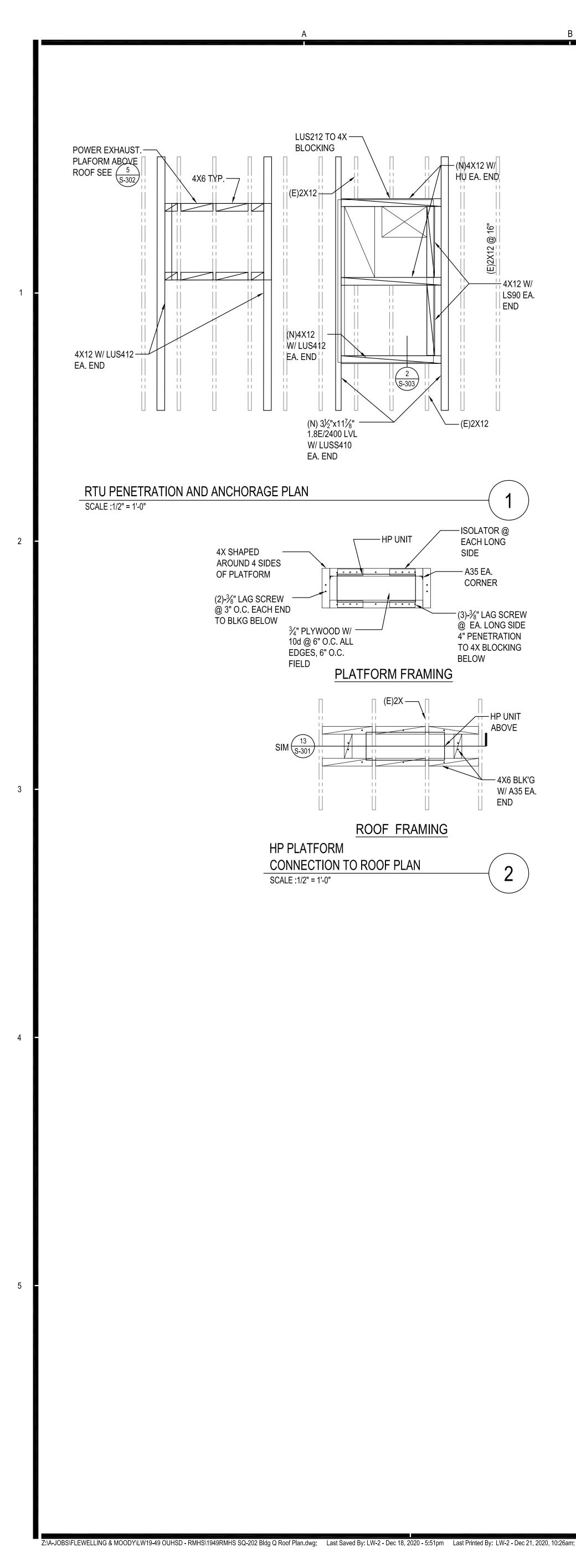


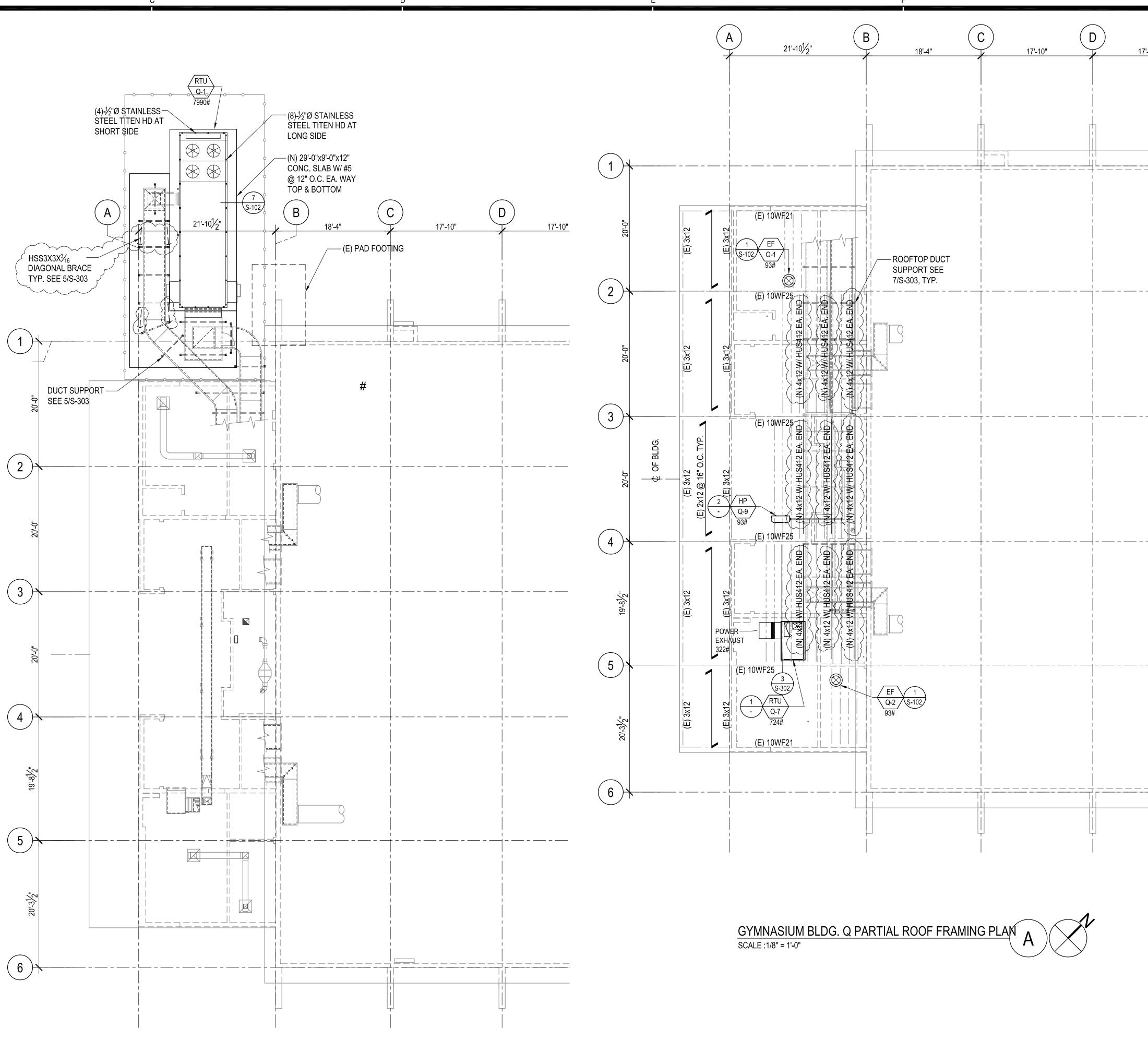




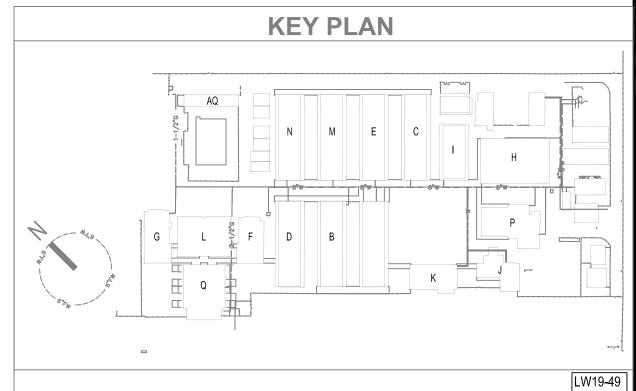


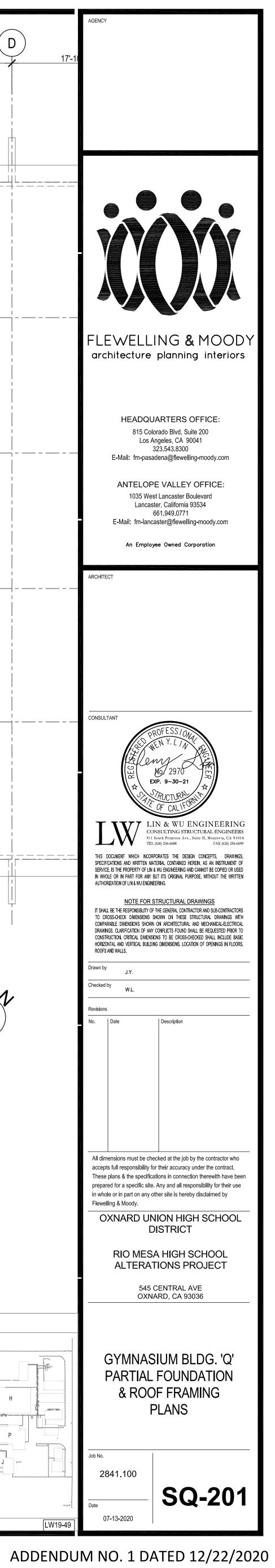
		AGENCY
<pre>crownerse planning interiors if children is a state of the state</pre>		
<text> Image: Distantion of the standing of the stand</text>		
	1	815 Colorado Blvd, Suite 200 Los Angeles, CA 90041 323.543.8300 E-Mail: fm-pasadena@flewelling-moody.com ANTELOPE VALLEY OFFICE: 1035 West Lancaster Boulevard Lancaster, California 93534 661.949.0771
<text></text>		
Revisions Nr. Date Description All dimensions must be checked at the job by the contractor who accepts full responsibility for their accuracy under the contract. These palenas & the specifications in connection threwith have been prepared for a specific site. Any and all responsibility for their accuracy under the contract. These palenas & the specifications in connection threwith have been prepared for a specific site. Any and all responsibility for their accuracy under the contract. These palenas & the specifications in connection threwith have been prepared for a specific site. Any and all responsibility for their accuracy under the contract. These palenas & the specifications in connection threwith have been prepared for a specific site. Any and all responsibility for their accuracy under the contract. These palenas & the specifications in connection threwith have been prepared for a specific site. Any and all responsibility for their accuracy under the contract. These palenas & the specifications in connection threwith have been prepared for a specific site. Any and all responsibility for their accuracy under the contract. These palenas & the specifications in connection threwith have been preventing & Modoy. OXNARD UNION HIGH SCHOOL DISTRICT Stot ScentTRAL AVE OXNARD, CA 930305 DETAILS DETAILS Jub No. Z841,100 Toru S-300.33	2	<image/>
3 accepts full responsibility for their accuracy under the contract. These plans & the specifications in connection therewith have been prepared for a specific site. Any and all responsibility for their use in whole or in part on any other site is hereby disclaimed by Flewelling & Moody. OXNARD UNION HIGH SCHOOL DISTRICT DISTRICT <th></th> <th>Revisions No. Date Description</th>		Revisions No. Date Description
4 Job No. 2841.100 Date 07-13-2020 S-303	3	accepts full responsibility for their accuracy under the contract. These plans & the specifications in connection therewith have been prepared for a specific site. Any and all responsibility for their use in whole or in part on any other site is hereby disclaimed by Flewelling & Moody. OXNARD UNION HIGH SCHOOL DISTRICT RIO MESA HIGH SCHOOL ALTERATIONS PROJECT 545 CENTRAL AVE
Date 07-13-2020		
		2841.100 S-303

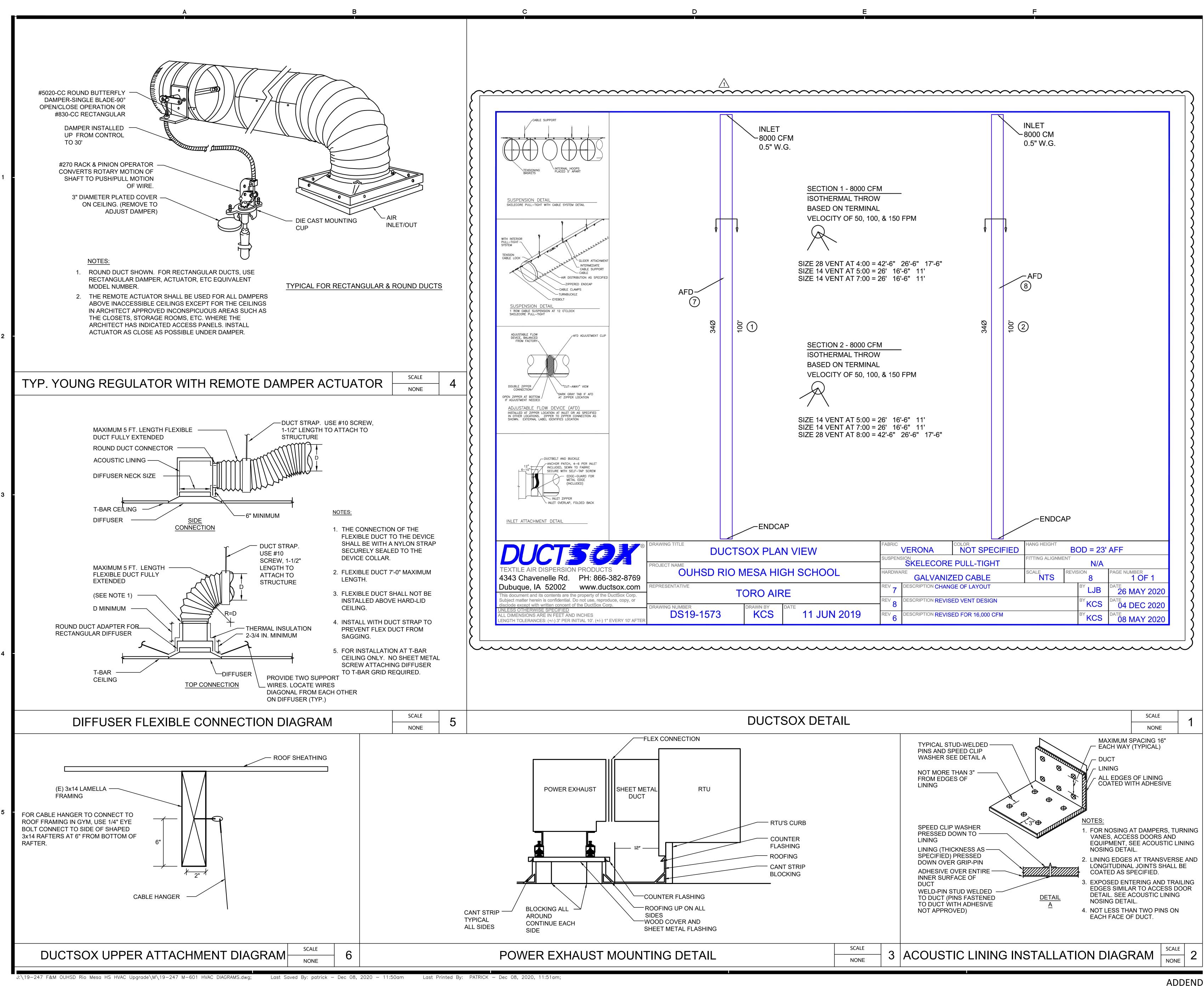


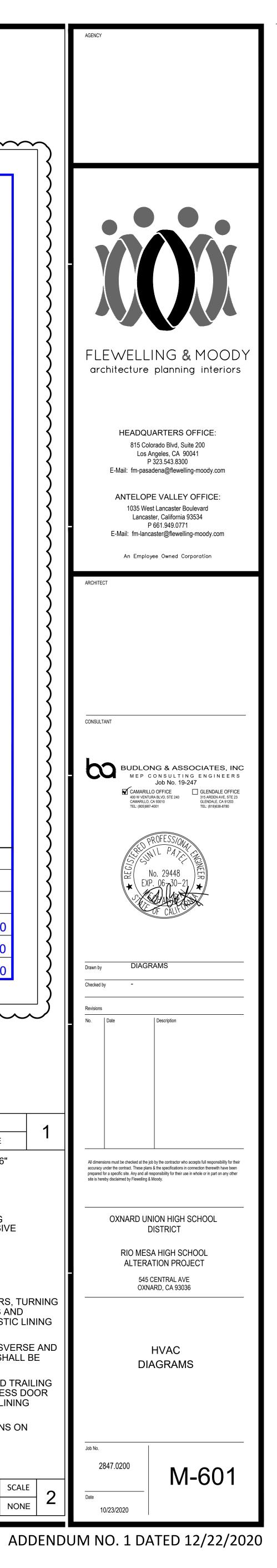


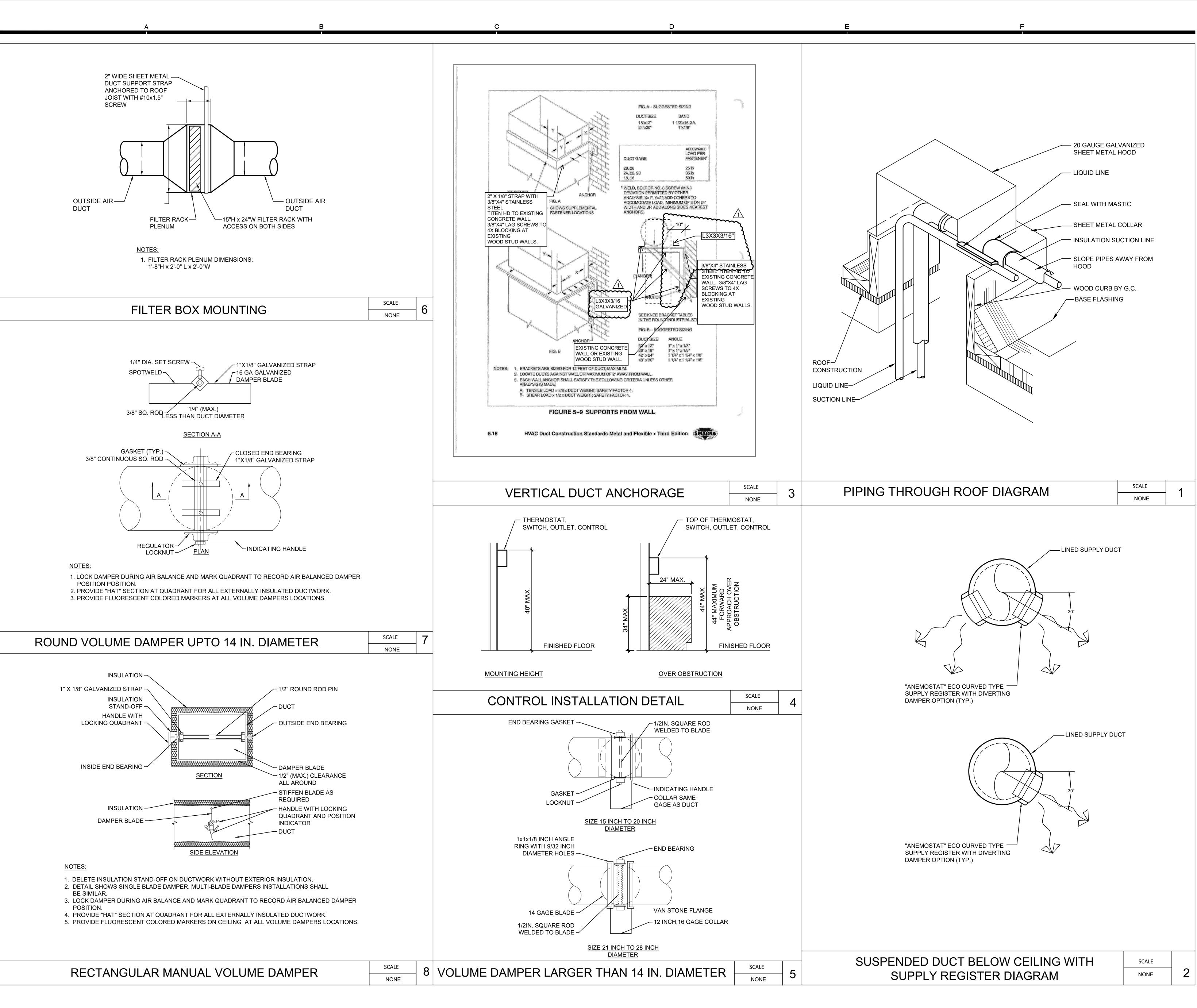
GYMNASIUM BLDG. Q PARTIAL FOUNDATION PLAN B

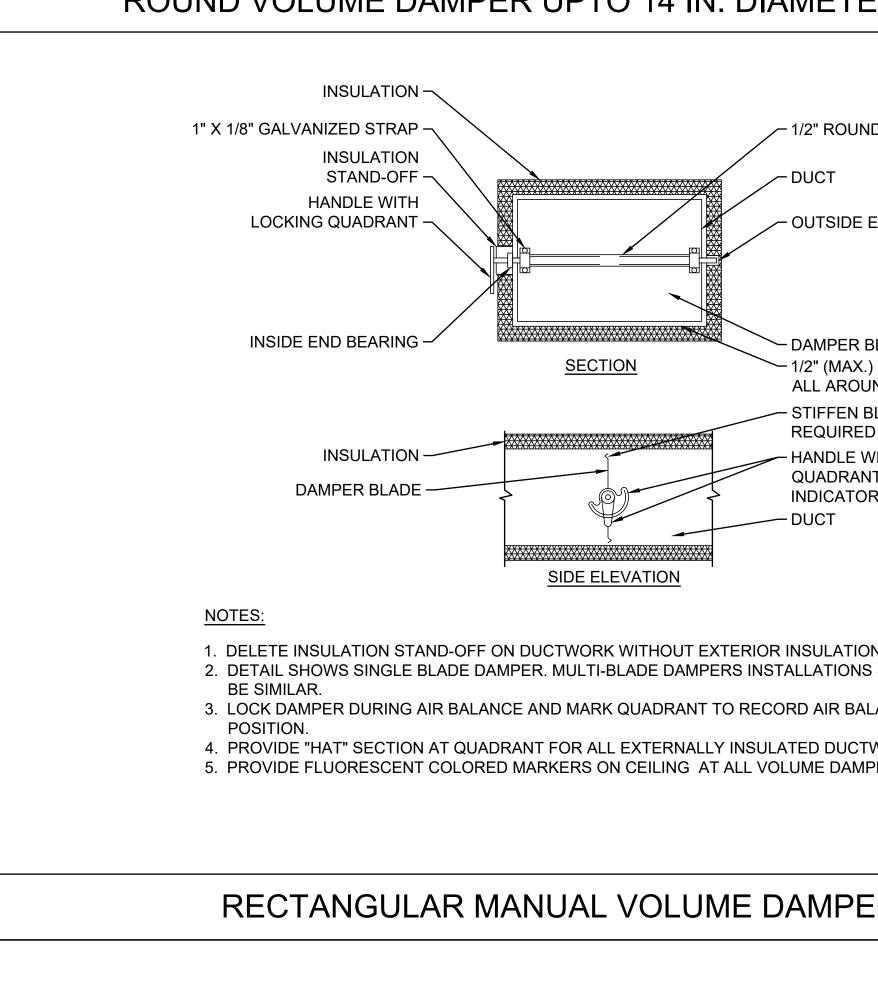












C:\Users\Patrick\AppData\Local\Temp\AcPublish_18028\19-247 M-603 HVAC DIAGRAMS.dwg;

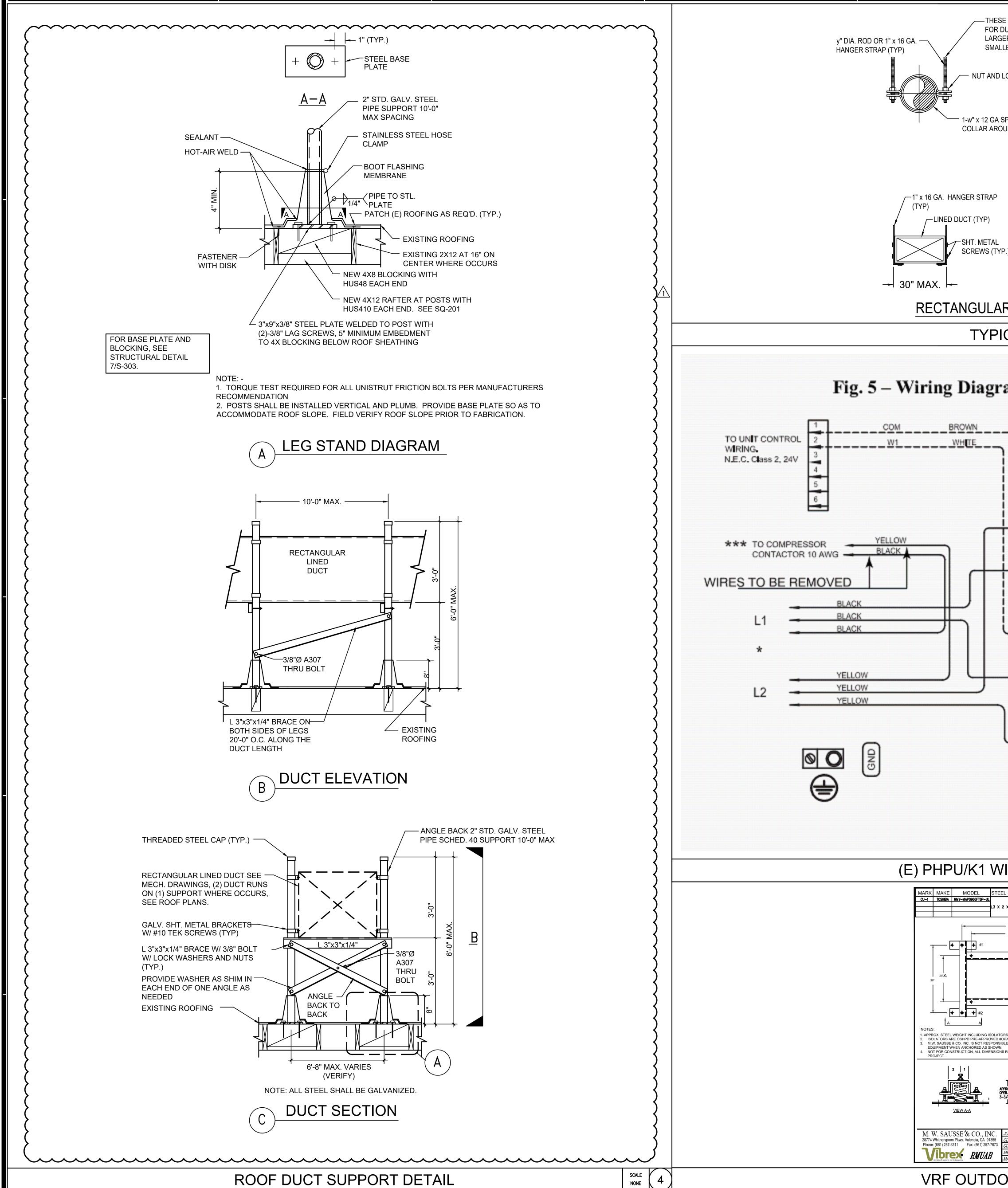
Last Saved By: Jayler — Jul 09, 2020 — 1:50pm











J:\19-247 F&M OUHSD Rio Mesa HS HVAC Upgrade\M\19-247 M-607 HVAC DIAGRAMS.dwg; Last Saved By: patrick — Dec 22, 2020 — 12:39pm



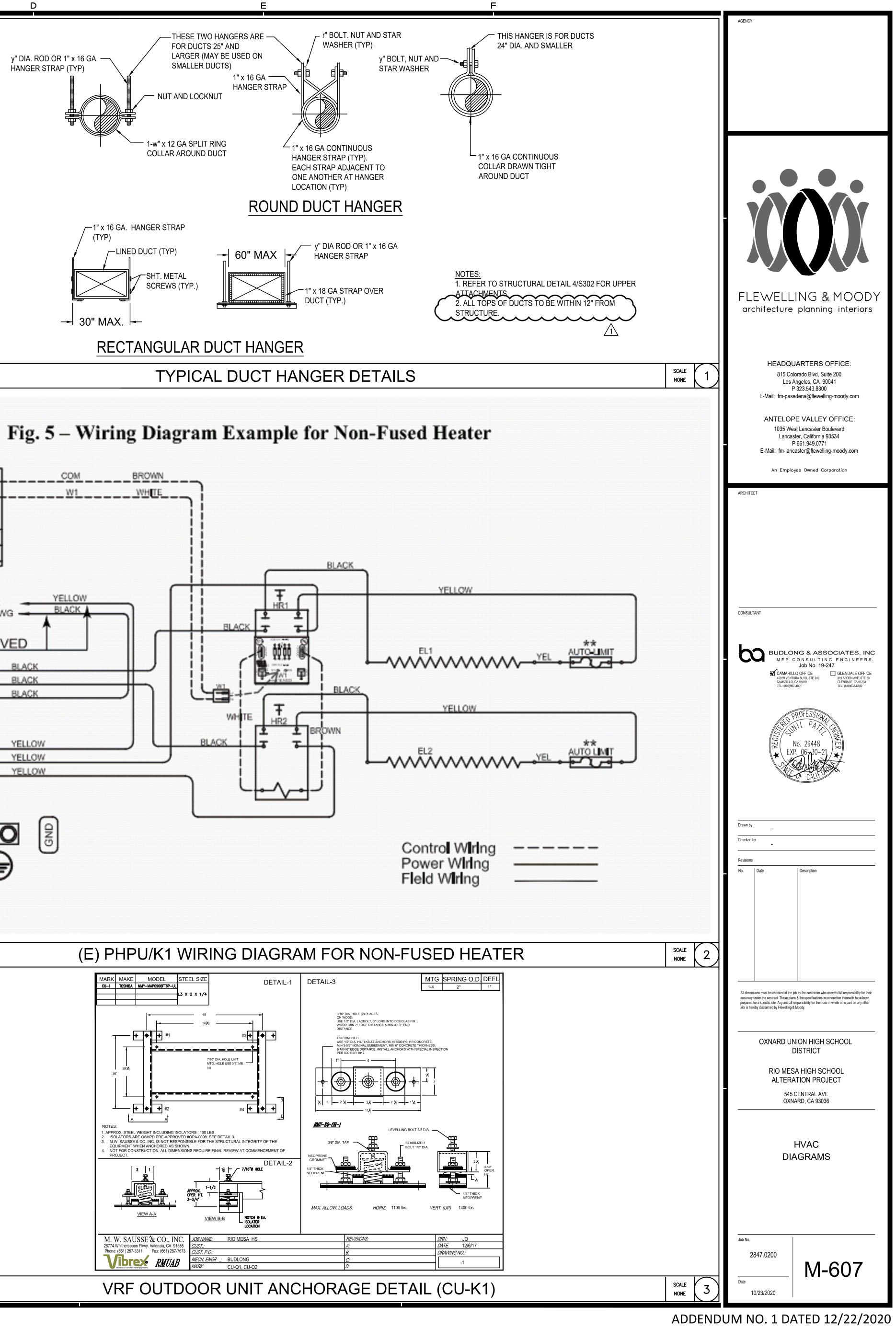


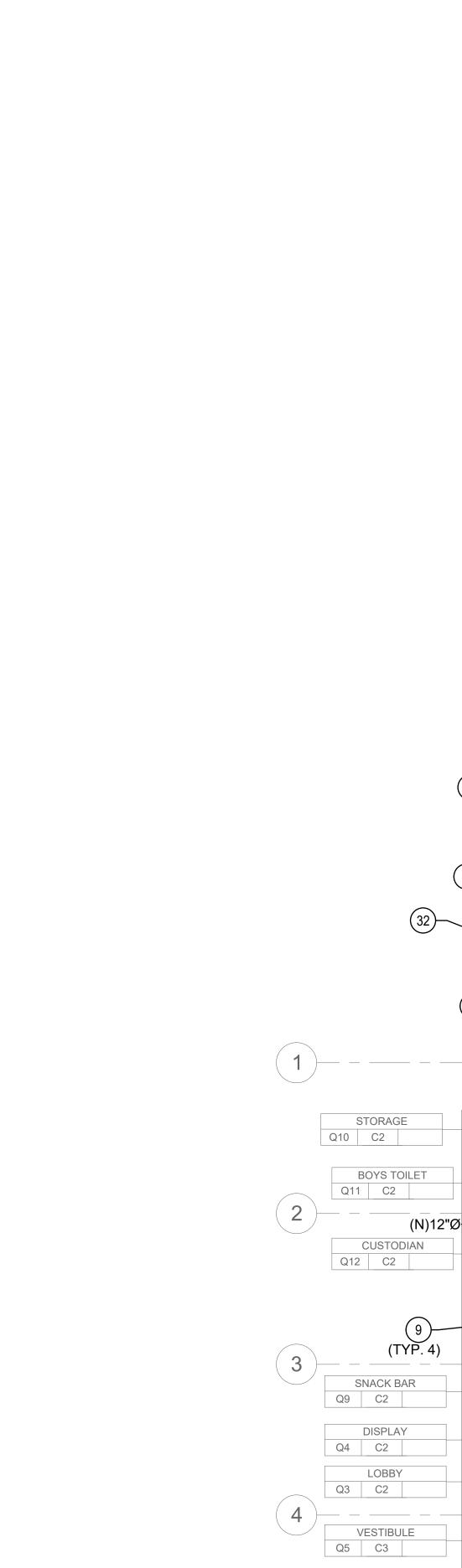
(TYP)

__ |+ |**+|**

NOTES:

Last Printed By: PATRICK — Dec 22, 2020, 12:40pm;





32-

GIRLS TOILET

EQUIPMENT

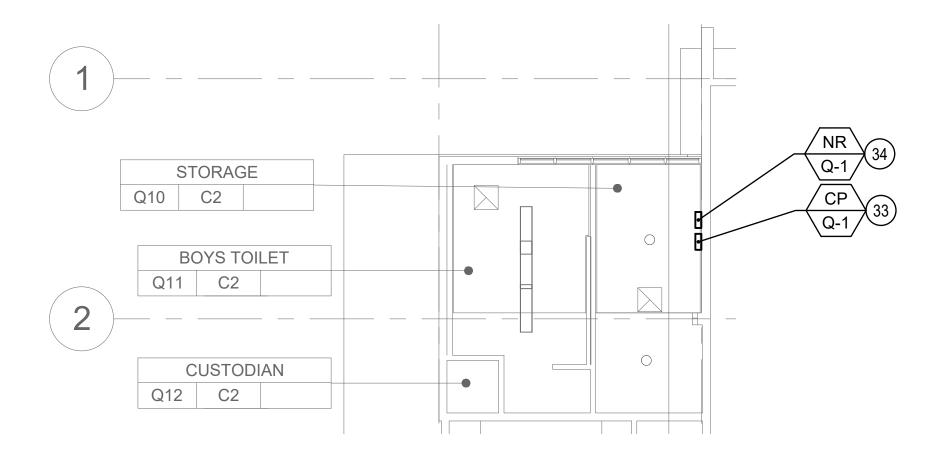
Q7 C2

5

6





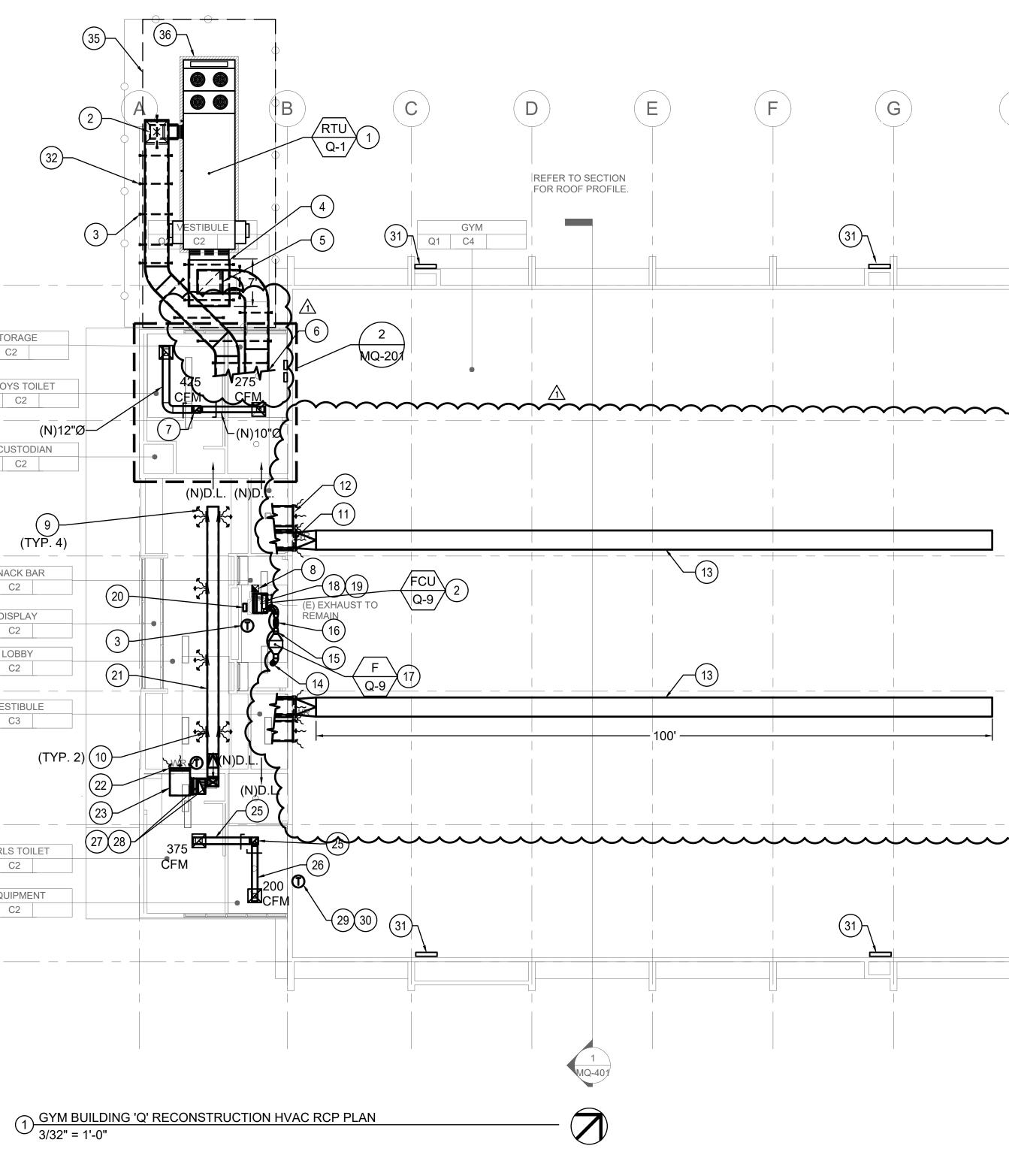


<u>NOTE:</u> ENLARGED PLAN IS TO SHOW LOCATIONS OF THE CONTROL PANELS. REFER TO CONTROLS RISER DIAGRAMS FOR WIRING.

2 CONTROL PANELS ENLARGED PLAN 1/8" = 1'-0"

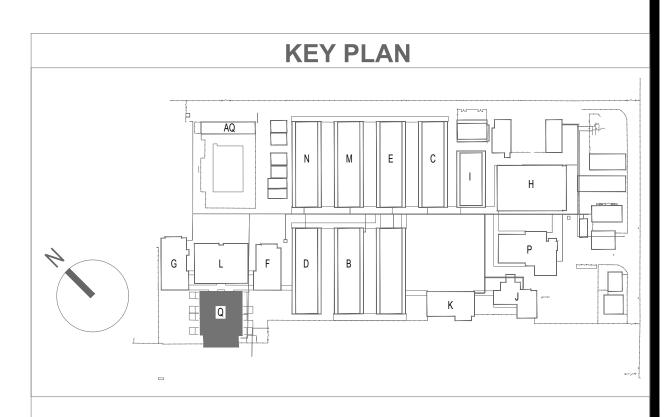
H

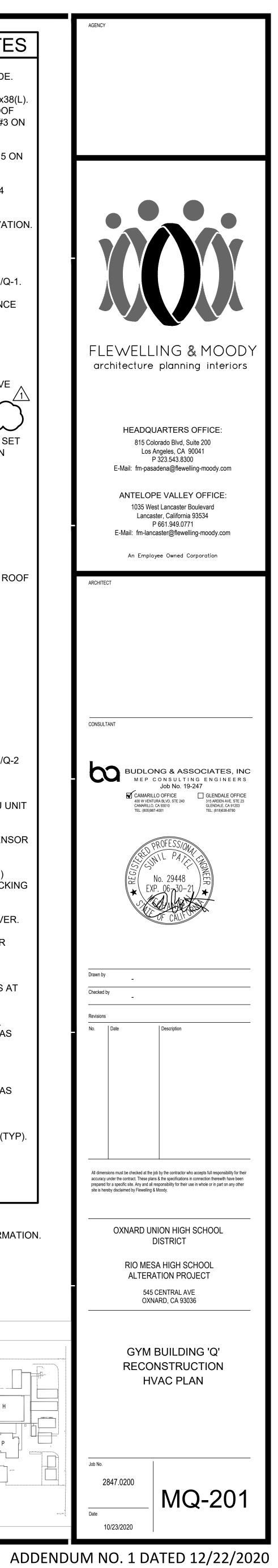
____ ___

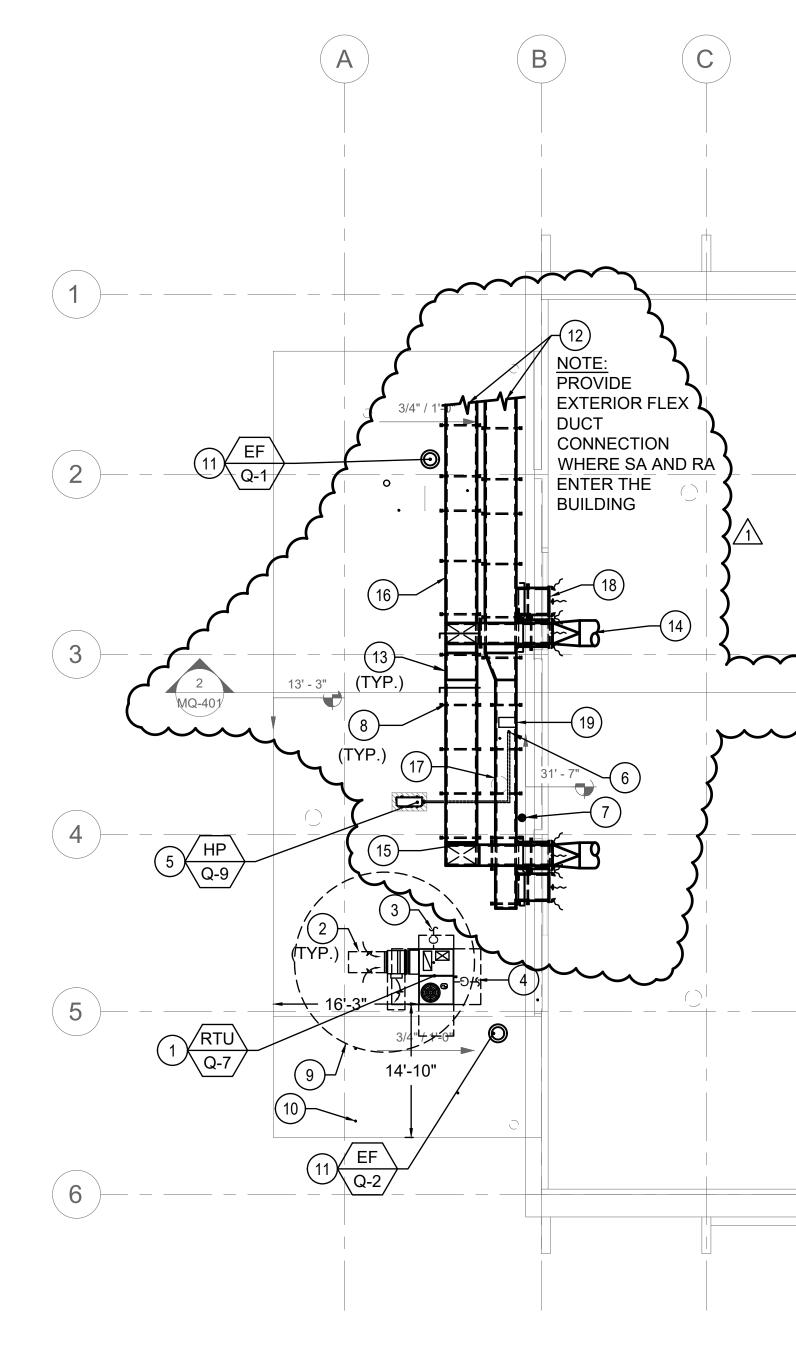


C	ONSTRUCTION KEY NOTES
(1)	(N) PACKAGED UNIT ON LEVELED PAD ON GRADE.
2	(N)22x54(L) SA DUCT TRANSITIONS UP TO (N)38x38(L). BOTTOM OF DUCT TO BE ABOVE ADJACENT ROOF LEVEL. FOR WALL ANCHORAGE SEE DIAGRAM #3 ON SHEET M-603.
3	FOR DUCT BRACING SEE STRUCTURAL DETAIL 5 ON SHEET S-303.
4	(N)68x28(L) RETURN AIR PLENUM WITH (N) 24x24 ACCESS DOOR.
5	(N)38x38(L) RA DUCT UP TO LOWER ROOF ELEVATION.
6	(N)38x38(L) SUPPLY AND RETURN DUCTS. FOR CONTINUATION SEE SHEET MQ-202.
7	(N)14x14 EXHAUST DUCT UP THRU ROOF TO EF/Q-1.
8	(E) EXHAUST REGISTER. SHOWN FOR REFERENCE ONLY.
9	(N)12x8 @ 300 CFM (TYP. 4)
10	(N)10x8 @ 225 CFM (TYP. 2)
(11)	(N)24x38(L) SUPPLY DUCT THRU WINDOW ABOVE RETURN REGISTER (TYP. 2)
	(N)32x36(L) RR @ 4000 CFM (TYP. 4)
13	(N)34"Ø SUPPLY DUCTSOX FABRIC DUCTWORK SET @ 3000 CFM AT 23'-0" A.F.F. SEE DIAGRAM #1 ON SHEET M601 (TYP. 2)
14	(N)8"Ø OUTSIDE AIR DUCT UP TO ROOF.
(15)	(N)8"Ø OUTSIDE AIR DUCT TO FCU.
(16)	(N) OUTSIDE AIR INLINE BOOSTER FAN.
(17)	(N) OUTSIDE AIR FILTER BOX .
(18)	(N) REFRIGERATION PIPING UP THRU ROOF TO ROOF MOUNTED HEAT PUMP.
(19)	(N) CONDENSATE PIPING CONNECTION. FOR CONTINUATION SEE PLUMBING PLANS.
20	(N)24V THERMOSTAT INTERFACE.
21	(N)18"Ø SUPPLY AIR DUCT.
22	(N)36x18 RR @ 1750 CFM
23	(N)36x18(L) EXHAUST PLENUM.
24	(N)12x8 EXHAUST DUCT.
(25)	(N)12x12 EXHAUST DUCT UP THRU ROOF TO EF/Q-2
(26)	(N)10x6 EXHAUST DUCT,.
(27)	(N)18x12 SA AND (N)10x26 RA DUCTS FROM RTU UNIT ON ROOF.
28	ELECTRICAL CONTRACTOR TO PROVIDE CO SENSOR ADJACENT TO THE FIRST SUPPLY DIFFUSER.
29	(N) WALL MOUNTED THERMOSTAT. PROVIDE (N) THERMOSTAT WITH INSULATED MOUNTING BACKING WHEN MOUNTED ON EXTERIOR WALLS.
30	PROVIDE THERMOSTAT WITH PROTECTIVE COVER.
31	INFILL/PATCH WALL AT DEMOLISHED RELIEF AIR ASSEMBLY OPENING TO MATCH EXISTING SURROUNDING AREA. SEE ARCHITECTURAL.
32	SEE 4/M-603 FOR 50 TON UNIT DUCT SUPPORTS AT GRADE.
33	PROVIDE NEW 120V CONTROL PANEL WITH ALL RELATED ACCESSORIES. PROVIDE MOUNTING AS REQUIRED. SEE ELECTRICAL FOR MORE INFORMATION.
34)	PROVIDE NEW 120V NETWORK LINK WITH ALL RELATED ACCESSORIES. PROVIDE MOUNTING AS REQUIRED. SEE ELECTRICAL FOR MORE INFORMATION.
35	HVAC EQUIPMENT MAINTENANCE CLEARANCE (TYP).
36	LEVELED CONCRETE PAD ON GRADE (SEE STRUCTURAL DWGS).

NOTE: CEILING FINISHES NOT SHOWN FOR CLARITY. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.

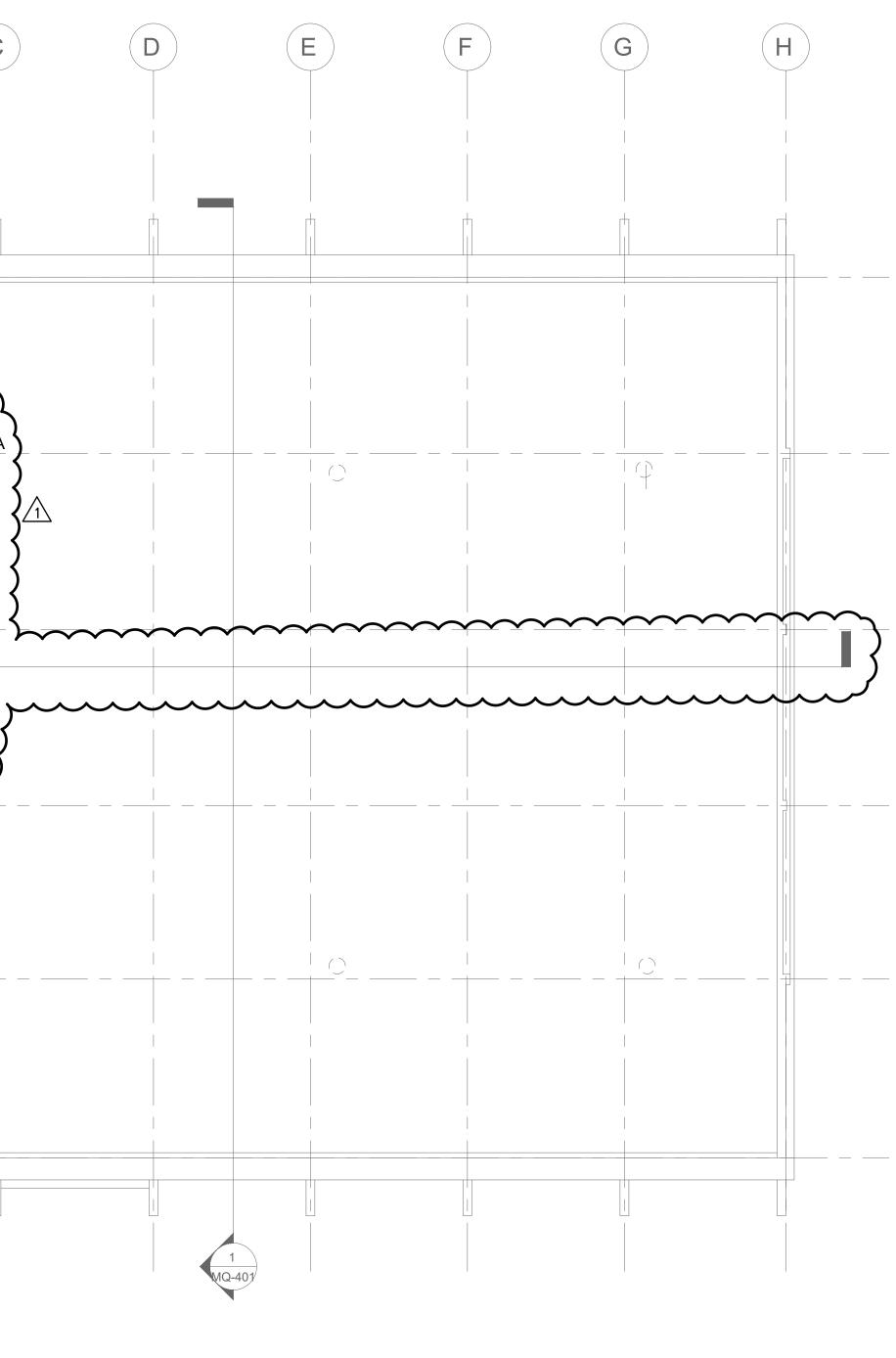






Α

 $\bigcirc \frac{\text{GYM BUILDING 'Q' HVAC ROOF PLAN}}{3/32" = 1'-0"}$

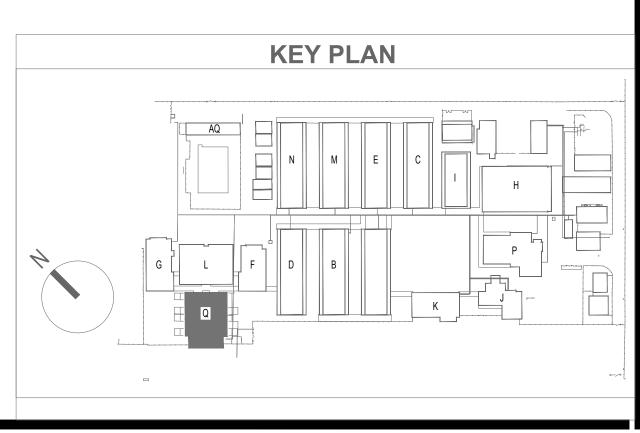


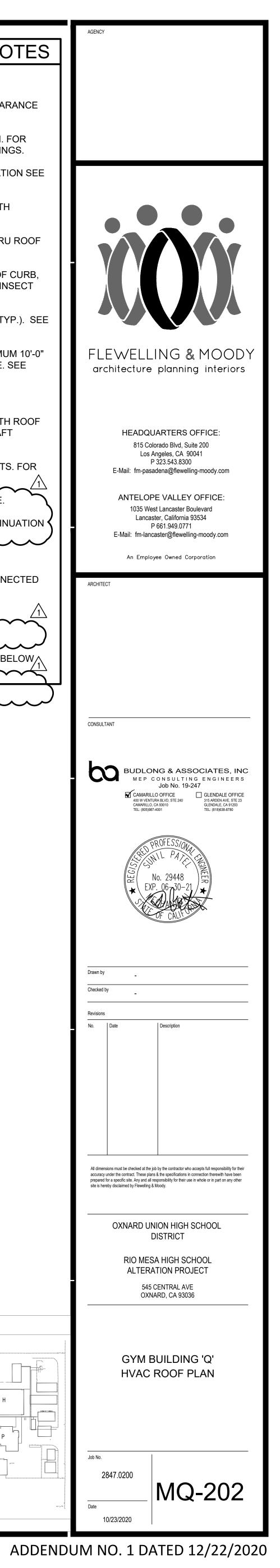
С

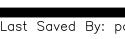
D

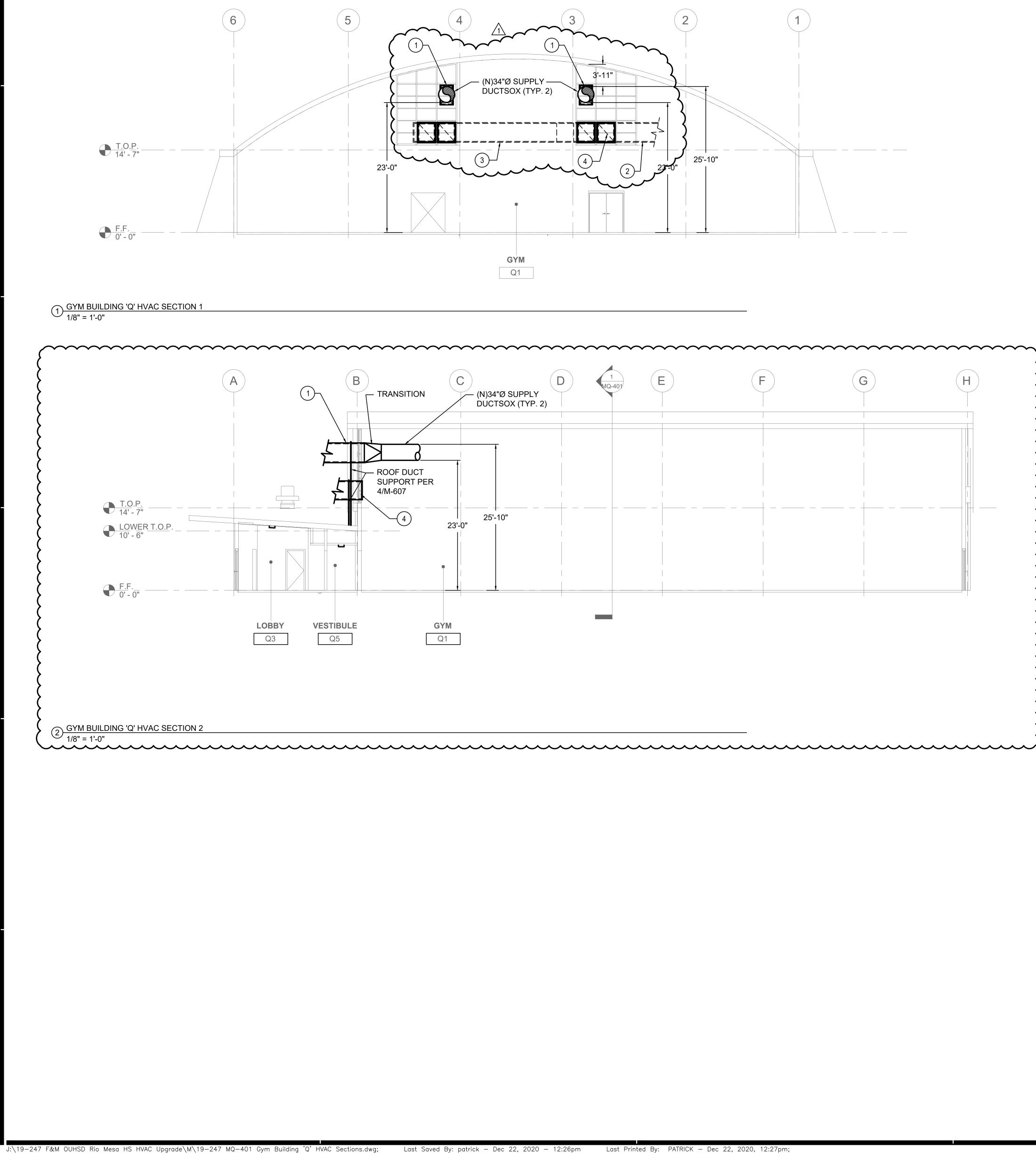


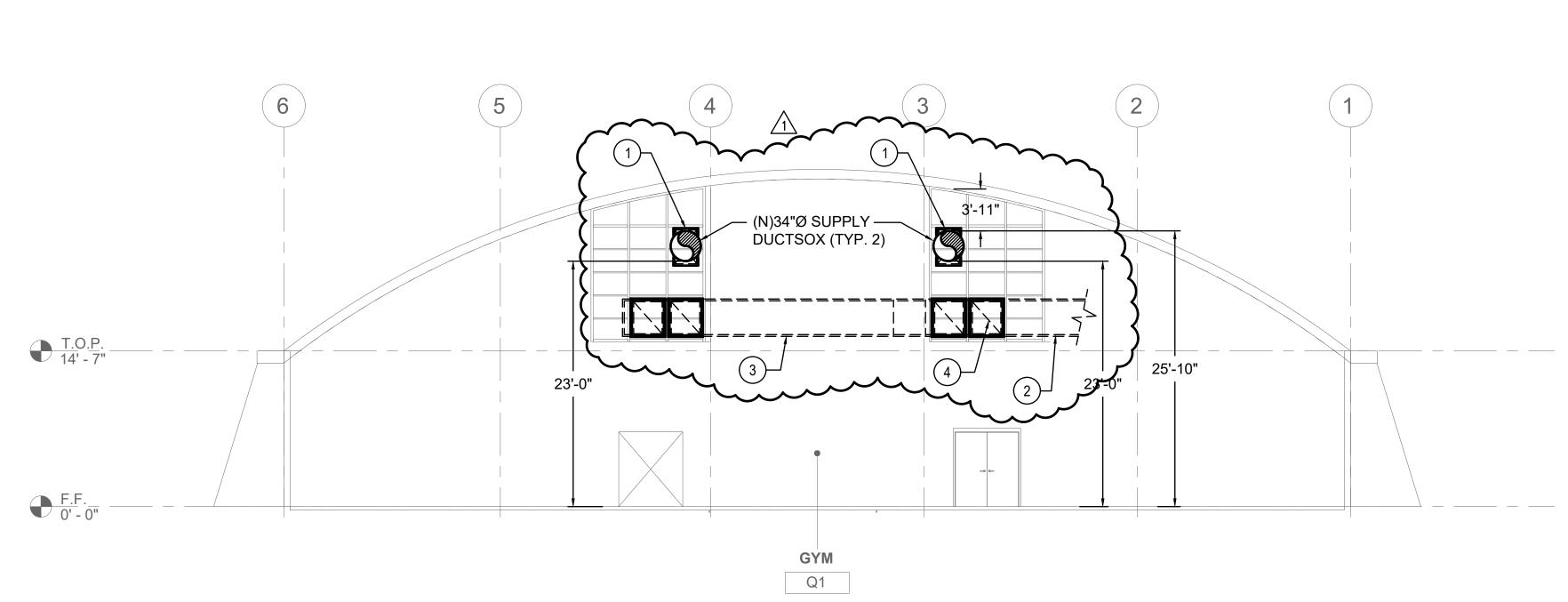
CO	NSTRUCTION KEY NOTES
1	(N) ROOFTOP UNIT.
2	HVAC EQUIPMENT MAINTENANCE CLEARANCE (TYP).
3	(N) CONDENSATE DRAIN CONNECTION. FOR CONTINUATION SEE PLUMBING DRAWINGS.
4	(N) GAS CONNECTION. FOR CONTINUATION SEE PLUMBING DRAWINGS.
5	(N) SINGLE SPLIT HEAT PUMP UNIT WITH LEVELED PLATFORM.
6	(N) REFRIGERATION PIPING DOWN THRU ROOF TO FAN/COIL UNIT.
7	(N)8"Ø OUTSIDE AIR INTAKE WITH ROOF CURB, ROOF CAP BACKDRAFT DAMPER AND INSECT SCREEN.
8	(N) ROOF MOUNTED DUCT SUPPORT (TYP.). SEE DETAIL 4 ON SHEET M-607.
9	RE-ROUTE (E) PLUMBING VENTS MINIMUM 10'-0" AWAY FROM ANY OUTSIDE AIR INTAKE. SEE PLUMBING DRAWINGS (TYP.)
(10)	(E) PLUMBING VENT TO REMAIN.
(11)	(N) ROOF MOUNTED EXHAUST FAN WITH ROOF CURB, INSECT SCREEN AND BACKDRAFT DAMPER.
	(N)38x38(L) SUPPLY AND RETURN DUCTS. FOR CONTINUATION SEE SHEET MQ-201
	ALL DUCTS ON ROOF TO BE 22-GAUGE.
	(N)34"Ø SUPPLY DUCTSOX. FOR CONTINUATION SEE SHEET MQ-201 (TYP. 2).
(15)	(N)38x24(L) SUPPLY AIR DUCT.
(16)	(N)24x38(L) SUPPLY DUCT BRACH CONNECTED FROM ABOVE MAIN DUCT.
(17)	(N)24x38(L) RETURN AIR DUCT.
	(N)32x36(L) RR @ 4000 CFM (TYP. 4)
(19)	(E) EXHAUST ROOF VENT TO REMAIN (BELOW









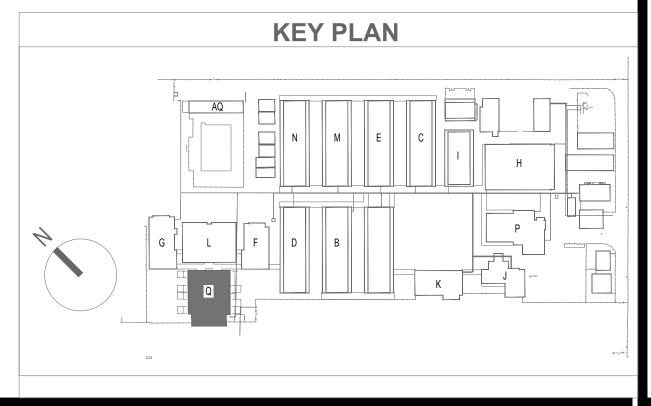


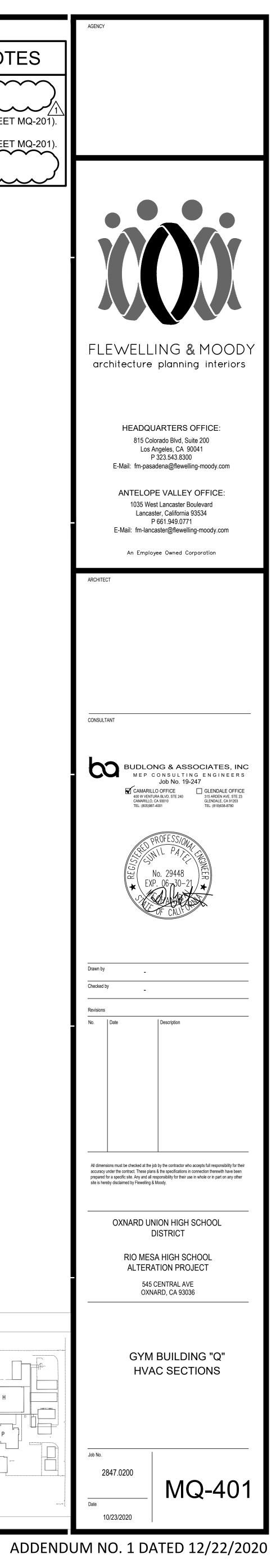
С

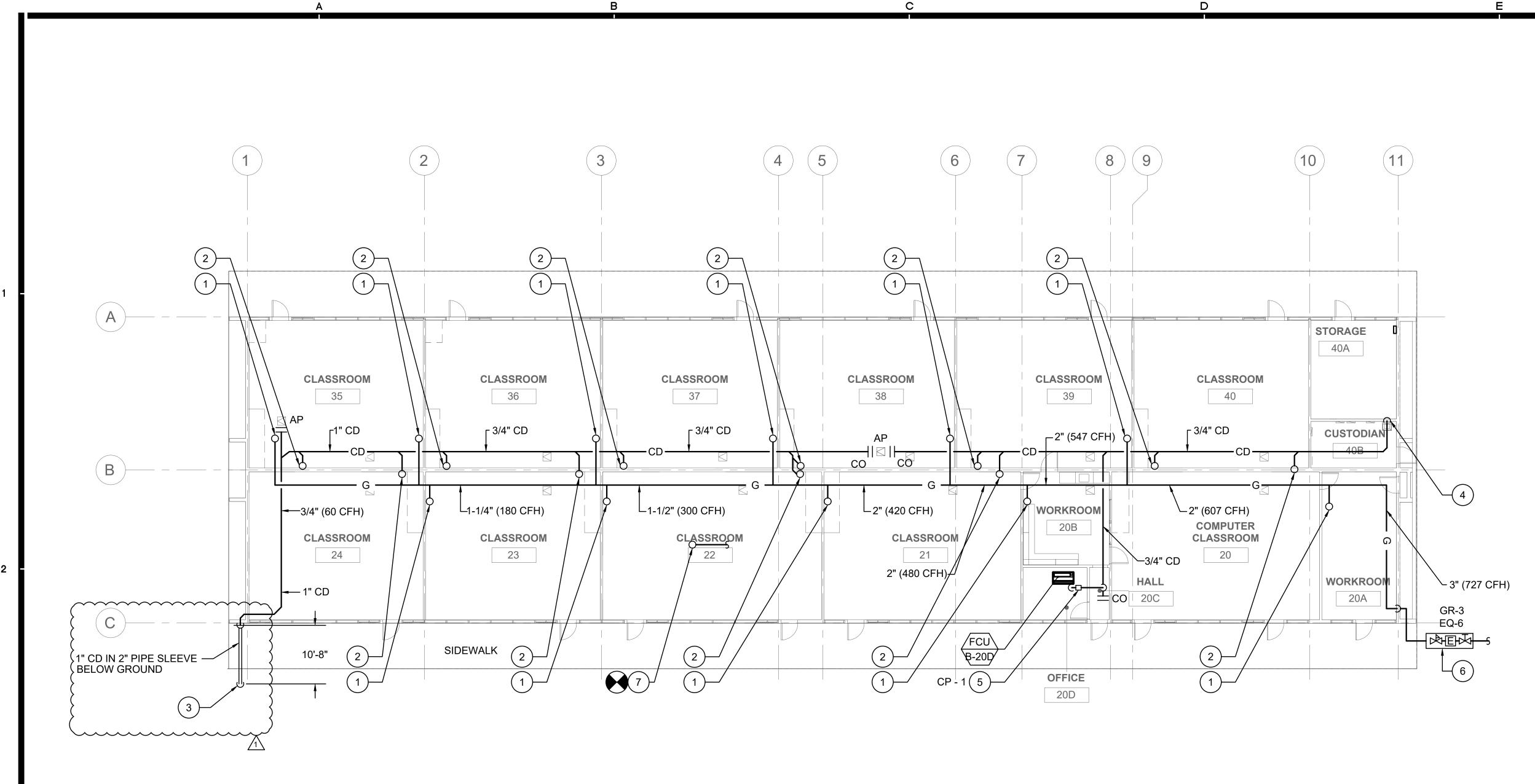
CONSTRUCTION KEY NOTES

- (N)24x38(L) SUPPLY DUCT THRU WINDOW .
- (2) (N)38x38(L) RETURN AIR DUCT BEYOND (SEE SHEET MQ-201)
- (3) (N)38x24(L) RETURN AIR DUCT BEYOND (SEE SHEET MQ-201).
- (4) (N)32x36(L) RR @ 4000 CFM (TYP. 4).

D







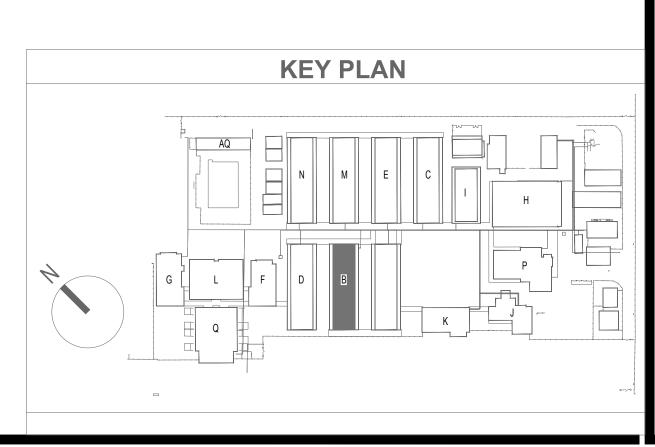
1 CLASSROOM BUILDING 'B' RECONSTRUCTION PLUMBING PLAN3/32" = 1'-0"

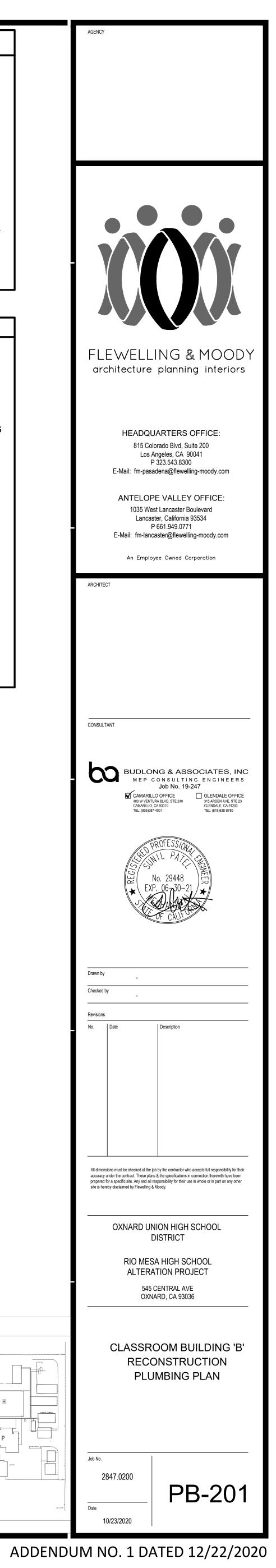


	GENERAL NOTES			
a.	THERE SHALL BE NO SERVICE INTERRUPTION.			
b.	PRIOR TO COMMENCING WORK CONTRACTOR SHALL VERIFY EXACT DEPTH AND LOCATION OF EXISTING GAS PIPING LINES AT THE FIELD.			
C.	ALL PIPING ON THIS PLAN SHALL BE CONCEALED INSIDE THE WALL, FLOOR OR CEILING UNLESS NOTED OTHERWISE.			
d.	REPAIR PAVING AFTER INSTALLATION AND INSPECTION OF UTILITIES INSTALLED. PAINT FLOOR TO MATCH PREVIOUS CONDITIONS.			
e.	ALL NEW PIPE PENETRATION AT THE ROOF SHALL BE PROPERLY SEALED BY THE INSTALLING ROOF CONTRACTOR. SEE ARCHITECTURAL DRAWINGS.			
	CONSTRUCTION KEY NOTES			
	PROVIDE GAS TO THE MECHANICAL UNIT LOCATED ON THE ROOF.			
2	PROVIDE CONDENSATE DRAIN TO THE MECHANICAL UNIT LOCATED ON ROOF.			
3	1" CD IN 2" PIPE SLEEVE TO DRY PIT PERDETAIL #8 P003. REPAIR SIDEWALK TO MATCH EXISTING CONDITIONS. VERIFY EXACT LOCATION IN FIELD.			
4	PROVIDE 3/4" PUMPED CONDENSATE DRAIN TO THE LAVATORY TAIL PIECE. (SEE DET.#3.1/P-002)			
5	CONDENSATE PUMP CONNECTED TO FAN COIL UNIT.			
6	PROVIDE NEW GAS PRESSURE REGULATOR, EARTHQUAKE VALVE AND SHUT-OFF VALVE.			
7	3/4" CW SUPPLY TO HOSE BIBB LOCATED ON ROOF. CONNECT WITH EXISTING WATER HEADER. CONTRACTOR TO VERIFY EXACT LOCATION ON FIELD.			

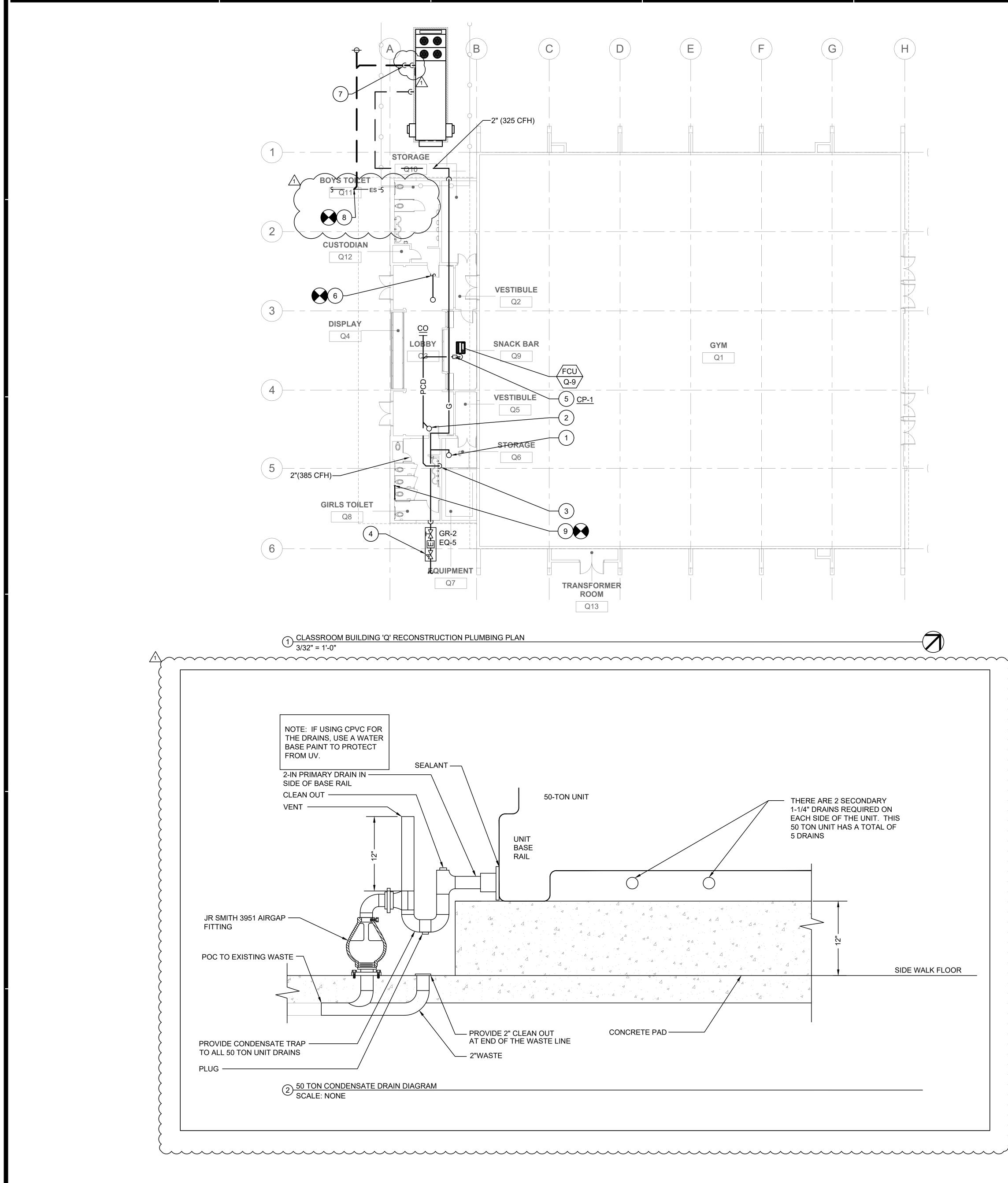
F

LOW PRESSURE GAS SIZING CHART			
250' TDL @ 8" W.C.			
PIPE	MAX. CFH		
1/2"	30		
3/4"	63		
1"	119		
1-1/4"	244		
1-1/2"	366		
2"	704		
3"	1980		
4"	4050		





С

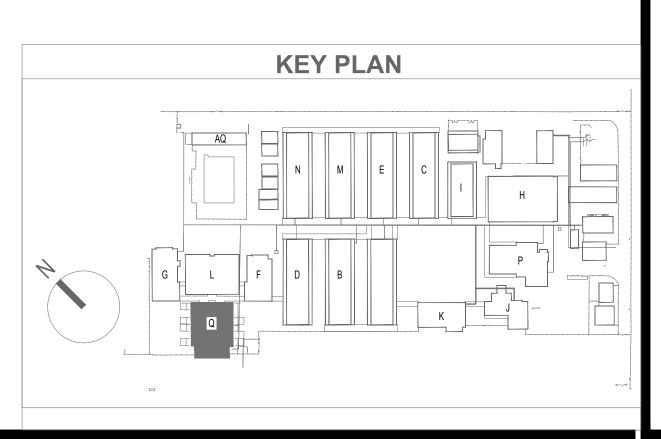


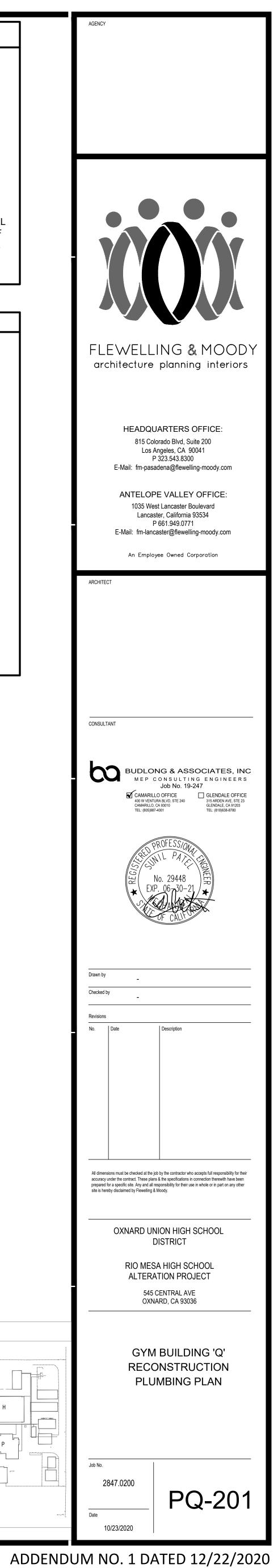
J:\19—247 F&M OUHSD Rio Mesa HS HVAC Upgrade\P\19—247 42. PQ—201 Classroom Building 'Q' Reconstruction Plumbing Plan.dwg; Last Saved By: patrick — Dec 09, 2020 — 9:44am

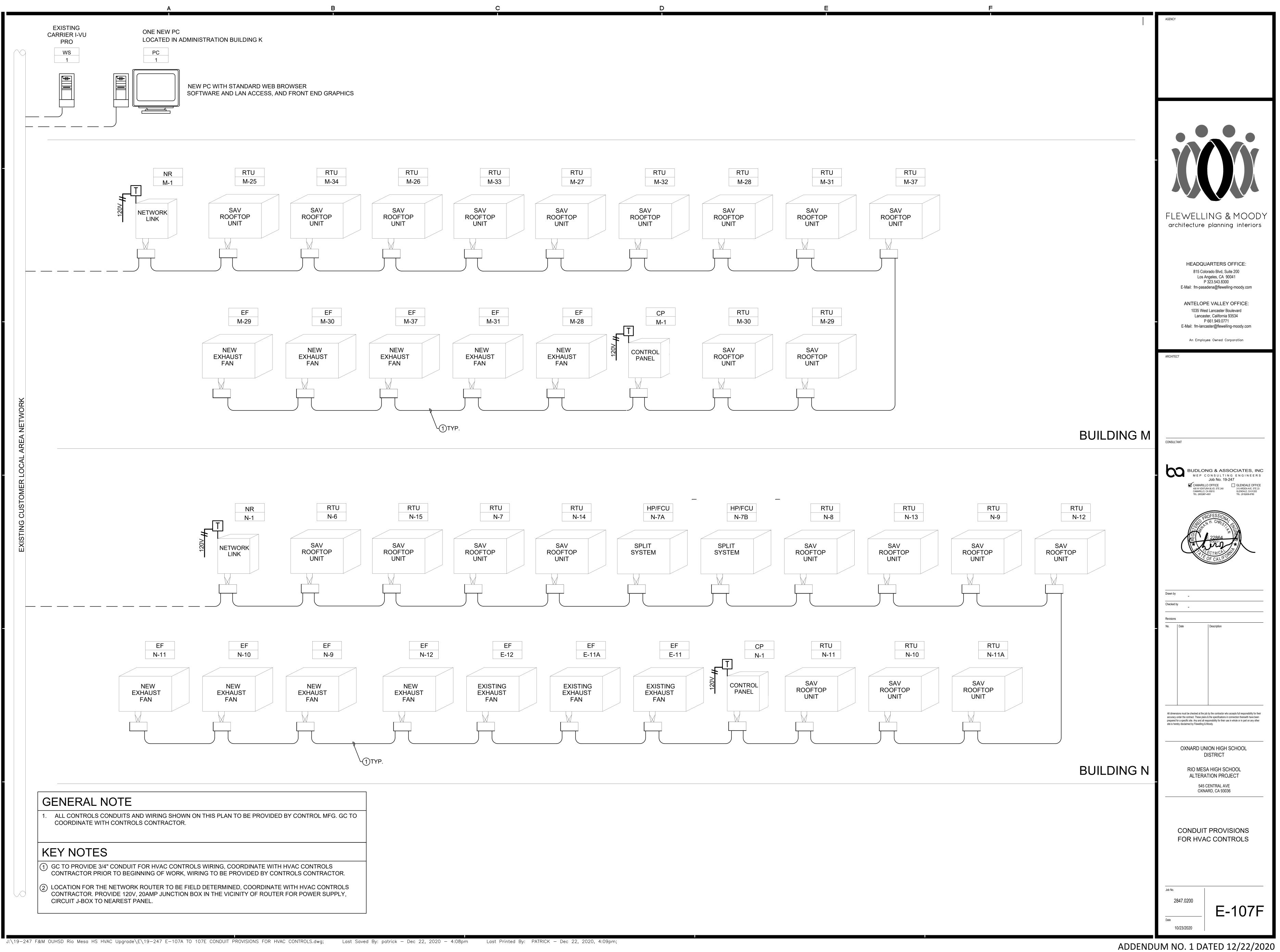
GENERAL NOTES		
a.	THERE SHALL BE NO SERVICE INTERRUPTION.	
b.	PRIOR TO COMMENCING WORK CONTRACTOR SHALL VERIFY EXACT DEPTH AND LOCATION OF EXISTING GAS PIPING LINES AT THE FIELD.	
C.	ALL PIPING ON THIS PLAN SHALL BE CONCEALED INSIDE THE WALL, FLOOR OR CEILING UNLESS NOTED OTHERWISE.	
d.	REPAIR PAVING AFTER INSTALLATION AND INSPECTION OF UTILITIES INSTALLED. PAINT FLOOR TO MATCH PREVIOUS CONDITIONS.	
e.	ALL NEW PIPE PENETRATION AT THE ROOF SHALL BE PROPERLY SEALED BY THE INSTALLING ROOF CONTRACTOR. SEE ARCHITECTURAL DRAWINGS.	
	CONSTRUCTION KEY NOTES	
1	PROVIDE GAS TO THE MECHANICAL UNIT LOCATED ON THE ROOF.	
2	PROVIDE CONDENSATE DRAIN TO THE MECHANICAL UNIT LOCATED ON ROOF.	
3	PROVIDE 3/4" PUMPED CONDENSATE DRAIN TO THE LAVATORY TAIL PIECE.	
4	PROVIDE NEW GAS PRESSURE REGULATOR, EARTHQUAKE VALVE AND SHUT-OFF VALVE.	
5	CONDENSATE PUMP CONNECTED TO FAN COIL UNIT.	
6	3/4" CW SUPPLY TO HOSE BIBB LOCATED ON ROOF. CONNECT WITH EXISTING WATER HEADER. CONTRACTOR TO VERIFY EXACT LOCATION ON FIELD.	
	DISCHARGE 2" CD TO AIR GAP FITTING. SEE DETAIL 2 ON THIS SHEET.	
8	MAKE CONNECTION TO ES LINE. CONTRACTOR TO VERIFY EXACT PIPE SIZE LOCATION IN FIELD.	
9	NEW VENT THROUGH ROOF LOCATION. VERIFY EXACT LOCATION IN THE FIELD.	

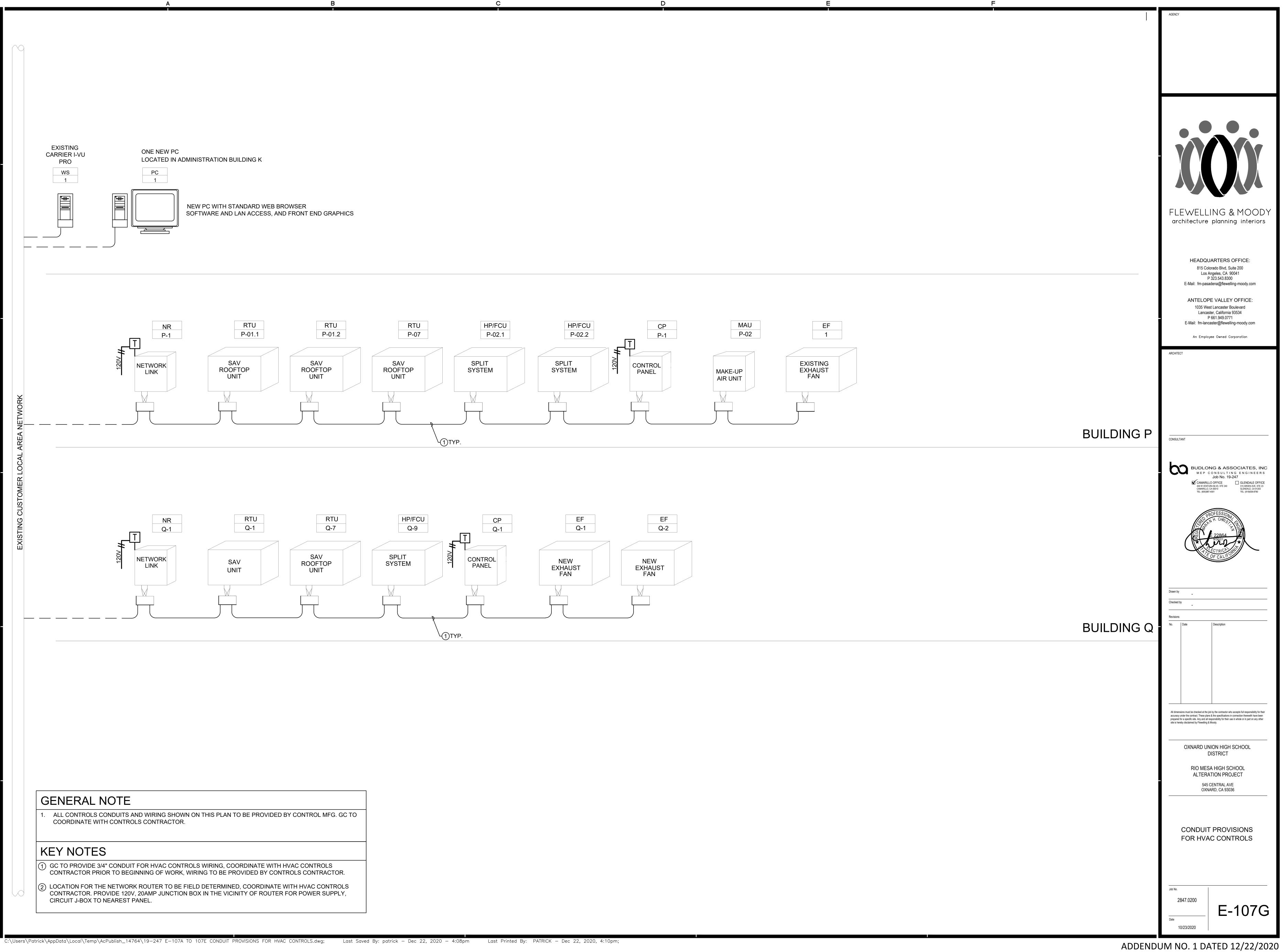
F

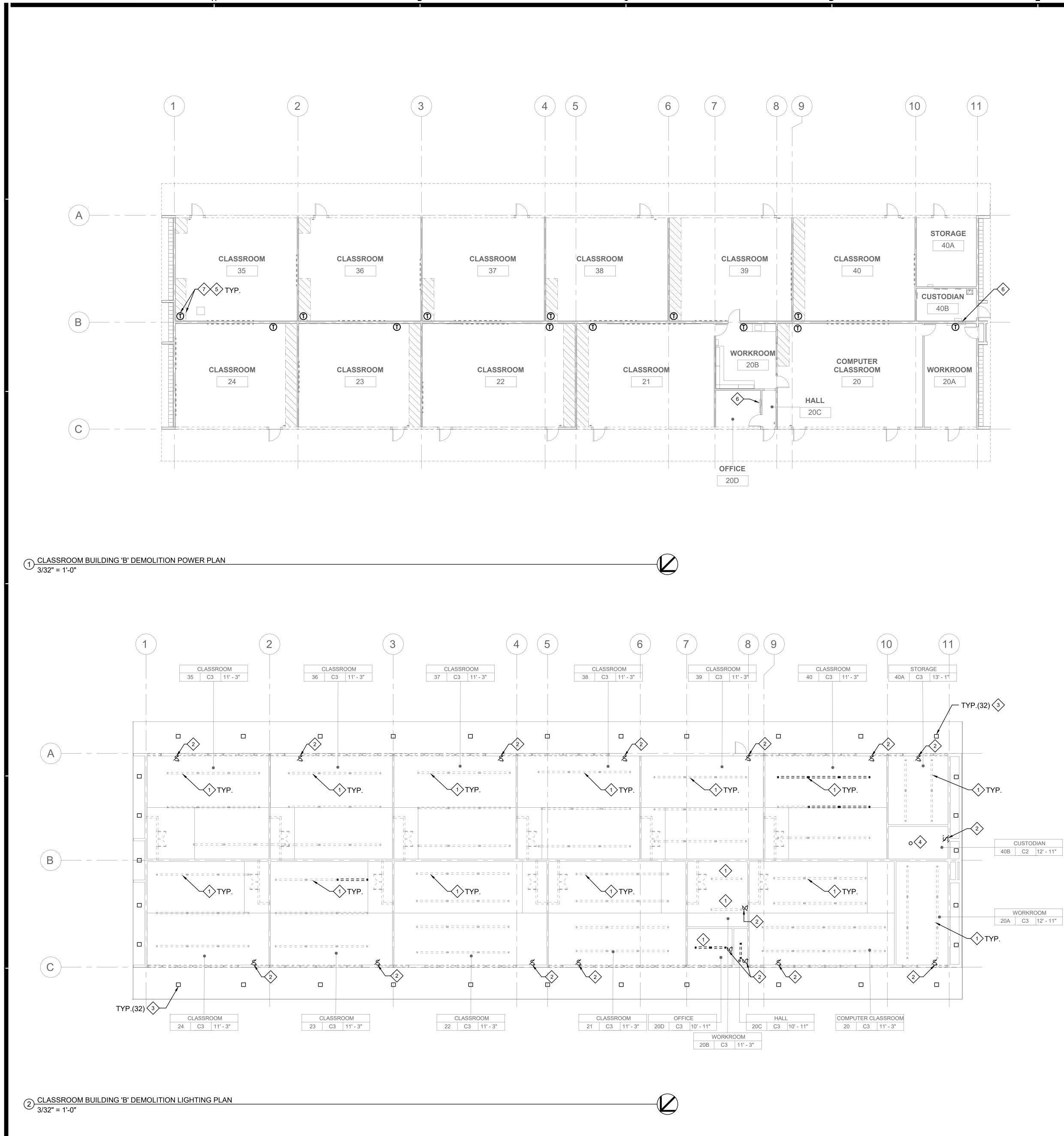
LOW PRESSURE GAS SIZING CHART			
150' TDL	150' TDL @ 8" W.C.		
PIPE	MAX. CFH		
1/2"	40		
3/4"	83		
1"	157		
1-1/4"	322		
1-1/2"	482		
2"	928		
3"	2610		
4"	5330		















DEMOLITION GENERAL NOTES

- A. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO DEMOLITION OF ANY WORK.
- B. EACH UNIT SHOWN FOR DEMOLITION ON MECHANICAL PLANS IS TO BE COMPLETELY DISCONNECTED FOR DEMOLITION/REMOVAL. EXISTING DISCONNECTS AND CIRCUIT BREAKERS ARE TO BE SWITCHED OFF.
- C. AS A RESULT OF ANY DEMOLITION, ALLOW NO 'ORPHANED' OR ISOLATED DEVICES OUTSIDE OF WORK SCOPE AREA TO REMAIN DISCONNECTED. PROVIDE ANY NECESSARY NEW TERMINATIONS, CONDUCTORS, CONNECTIONS, CONDUIT, ETC.
- D. ANY CONDUITS NOT SUITABLE FOR REUSE SHALL NOT BE ABANDONED IN PLACE. REMOVE BACK TO FEEDING PANEL OR NEAREST PRECEDING JUNCTION BOX.
- PRIOR TO COMMENCING ANY WORK THE CONTRACTOR SHALL CONSULT WITH OWNER REPRESENTATIVE ELECTRICIAN AND CONDUCT THE NECESSARY PROTOCOLS FOR THE LOCK OUT/TAG OUT PROCEDURE AND DISABLING OF BEAM DETECTORS.

DEMOLITION KEY NOTES

- EXISTING PENDANT MOUNT LINEAR LIGHT FIXTURE TO BE REMOVED AND REPLACED WITH NEW LED FIXTURE AS SHOWN ON CONSTRUCTION PLAN. IDENTIFY AND PROTECT EXISTING CIRCUIT FOR RECONNECTION.
- EXISTING LIGHT SWITCH TO BE REMOVED. PROTECT AND IDENTIFY CONFIGURATION AND MAINTAIN SAME CONFIGURATION DURING CONSTRUCTION. NEW SWITCHES TO BE COMPATIBLE WITH WIRELESS OCCUPANCY SENSORS AS SHOWN ON CONSTRUCTION PLAN.
- EXISTING EXTERIOR LIGHT FIXTURE TO BE REMOVED AND REPLACED WITH NEW LED FIXTURE AS SHOWN ON CONSTRUCTION PLAN. IDENTIFY AND PROTECT EXISTING CIRCUIT FOR RECONNECTION.
- \wedge EXISTING CIRCULAR SURFACE MOUNT LIGHT FIXTURE TO BE REMOVED AND REPLACED WITH NEW LED FIXTURE AS SHOWN ON CONSTRUCTION PLAN. IDENTIFY AND PROTECT EXISTING CIRCUIT FOR RECONNECTION.
- EXISTING THERMOSTATS ASSOCIATED WITH THE FURNACE TO BE REMOVED, REMOVE ALL ASSOCIATED ACCESSORIES INCLUDING CONTROL CONDUCTORS. CUT. CAP AND ABANDON CONDUIT IN PLACE. LABEL CONDUIT AND ANY ASSOCIATED BREAKER AS "SPARE". FIELD VERIFY THE LOCATION OF THERMOSTAT. FIELD VERIFY THE EXACT LOCATION OF THERMOSTAT AND ASSOCIATED ACCESSORIES.
- EXISTING WALL/UNIT HEATERS TO BE REMOVED, REMOVE ALL ASSOCIATED ACCESSORIES INCLUDING EXISTING DISCONNECTS, CONDUCTORS. CUT, CAP AND ABANDON CONDUIT IN PLACE. LABEL CONDUIT AND THE ASSOCIATED BREAKER AS "SPARE". FIELD VERIFY THE EXACT LOCATION OF FURNACE AND ASSOCIATED ACCESSORIES.
- EXISTING FURNACE TO BE REMOVED, REMOVE ALL ASSOCIATED ACCESSORIES INCLUDING EXISTING DISCONNECTS, CONDUCTORS. CUT, CAP AND ABANDON CONDUIT IN PLACE. LABEL CONDUIT AND THE ASSOCIATED BREAKER AS "SPARE". FIELD VERIFY THE EXACT LOCATION OF FURNACE AND ASSOCIATED ACCESSORIES.

