

Ohio Museum Complex HVAC Lin Hall, The Ridges – Ohio University Athens, Ohio

10/29/24

ADDENDUM 01 - REBID

Addendum to the drawings and specifications for: Ohio Museum Complex HVAC

This addendum supplements and amends the drawings and specifications and shall become part of the contract documents. The contractor shall acknowledge receipt of this addendum on the Bid Form and incorporate the information herein contained in the preparation of his/her proposal.

GENERAL

- 1. Sign in sheet and agenda from the pre-bid meeting is attached with this addendum.
- 2. Project Bid Opening is November 5 at 11:15 am. Paper Bids must be submitted to the Athens County Commissioners – No email bids are accepted.

SPECIFICATIONS

- 1. The Bid Form is attached with this addendum.
- 2. Section 23 21 23.16 End Suction Pumps is to be deleted from the specifications.

DRAWINGS

- Revised Sheet H6 attached is to replace previously issued sheet.
 Revised Sheet E3 attached is to replace previously issued sheet. Removed air filter, and associated circuit and coded notes 15; updated coded notes 7.
- 3. Revised Sheet E4 attached is to replace previously issued sheet. Removed air filter, and associated circuit and coded notes 12; updated coded notes 7
- 4. Revised Sheet E5 attached is to replace previously issued sheet. Updated feeder for Panel 3A on One Line Diagram; updated coded notes no. 11.
- 5. Revised Sheet E6 attached is to replace previously issued sheet. Deleted Starter Schedule; updated panel schedules for Panel 2B, 3B and 4B.

CONTRACTOR QUESTIONS

- 1. Are coil kits acceptable?
 - PEA response: Coil kits may be used at VAV reheat boxes if all components of the VAV piping detail are included as required. No sweat valve connections or dielectric unions are permitted in piping system.
- 2. Is scanning and BIM modeling required as noted in specification? PEA Response: Scanning of space and BIM modeling for ducts are not required. Scaled duct dimensional drawings with elevations and coordination with existing sprinkler lines shall be submitted for review and approval.
- 3. Need more information on trap primer location. PEA Response: Trap primer location to be on wall of third floor mechanical room.
- 4. Is the chiller alternate in the bid? PEA Response: The chiller alternate is no longer part of the bid. The specification section 23 62 13 and any drawing notes related to the chiller shall be deleted in its entirety.

- 5. Are the filtration units still an alternate bid? PEA Response: The polarized media filtration units are no longer included as an alternate in the bid. The schedule notes and the equipment notes shall be deleted from the bid. Specification section 23 75 05 shall be deleted from the project documents.
- 6. Are the humidifier units still an alternate bid? PEA Response: Yes, the electrode type humidifiers and softened water supply piping are still a part of the bid. This shall be Alternate H-1 since the filtration system alternate has been deleted. See revised drawing Sheet H-6.

Add Dri-Steem electrode model XL humidifier as product equal to specification section 23 18 29.13.

During the pre-bid walkthrough a reference was made to RO water which is incorrect. The supply water to the humidifiers will be from the existing soft water system.

- 7. Is a 6010 stick weld process for root pass on steel piping joints permitted in lieu of tungsten (TIG) weld root pass?

 PEA Response: Yes, a 6010 stick weld process is acceptable for root pass on chilled water and heating hot water pipe fittings.
- 8. The spec notes that copper pipe and fittings for 4" and less shall have joints that are SilFos. Would sweat joints be acceptable for 2" and down?

 PEA Response: Yes, sweat joints with 95/5 solder are acceptable on joints 2" inch and smaller.

 Do not sweat valves as this type of valve is not permitted.
- Note #44 on sheet H6 says cross hatched duct is to be double wall. There is no cross hatch duct on the plans. PEA Response: Double wall duct was deleted from the scope. See revised sheet H6.

END OF ADDENDUM 01



MEETING SIGN IN SHEET

	12	
Name	Company	Email
Mike House	GTC	Mikehouse@gte.cc
Address 970 West Walnut St	Phone/ Cell	Fax
Camal Winchester OH 43110	614-207-3062	
Name	Company	Email
Eric Male	BCT	emaleobicontrols.com
Address 383 N. Liberty St.	Phone/ Cell	Fax
Powell, 64 43065	614-306-0227	
Name	Company	Email
Ryan Holbrook	BCI	rholbrook@bcicontrols.c.
Address	Phone/ Cell	Fax
383 ~ 216 or 27 = + Power, 14 43065	614-504-6357	
-		
Name	Company	Email
Jacob Smith	Ameresco	Jesmith@ameresco.com
Address	Phone/ Cell	Fax
640 Lakeriew Plaza Blod.	614-813-8252	
worthington, of 43085	011 0202	
•		
Name	Company	Email
John Weyers	Premier Energy	sneyers eprenier mch. com
John Meyers Address 2099 E State St.	Prenier Energy Phone/ Cell	smeyers epremier mch. com



26 East Park Drive, Ste 101, Athens, Ohio 45701 33 N Grant Ave, Ste 150, Columbus, Ohio 43215

Name	Company	Email
James Beatty	Premier Energy	ibeatty@premiermch.com
Address	Phone/ Cell	Fax
#2099 & State St. Athens, OH 45701	614-653-2720	, , ,
Name	Company	Email
RayReynolds	Airclaus	RAY@Airclaus.ce
Address 24 State St.	Phone/ Cell 740 - 448 - 7278	Fax
Anceville, OH 457	11 740-778-1210	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Name	Company	Email
Trent Douthett	A.J. Stockmeister	tdouthette stockmeister.com
Address 700 E. Main St.	Phone/ Cell	Fax
Jackson OH 45640	614-218-7284	
- 101-70		
Name	Company	Email
Matt Edwards	Squer Group, LLC Phonel Cell	medwards a squer-inc.com
Address 1/05 SChrock Rd	Phone/ Cell	Fax
teal suite 700 Columbus Onio	614-206-5152	
Name Jeff Senkins	Company LIAPCAP	Email jeff. jenhingeh-purporg
Address	Phone/ Cell	Fax
	1.2	

BRIAN OGLE

PRATER ENGINEEZING BOGLE @ PRATERENGR. 614-302-0746

Zach Walton

KAL Electric (740) 593-8720

dick@Kalelectric.com



26 East Park Drive, Ste 101, Athens, Ohio 45701 33 N Grant Ave, Ste 150, Columbus, Ohio 43215

MEETING SIGN IN SHEET

Name	Company	Email
North Son	HARCAP	Nuthan. Simens Olagrage.
Address	Phone/ Cell	Fax
Address 22 New St Glowsty	740-517-5169	
Name	Company	Email
Name	Company	Lilian
Address	Phone/ Cell	Fax
		24.
Name	Company	Email
Address	Phone/ Cell	Fax
Address	Filone/ Cell	Fax
Name	Company	Email
Address	Phone/ Cell	Fax
Name	Company	Email
Address	Phone/ Cell	Fax
5-7	3 0000171 7 201	

26 East Park Drive, Ste 101, Athens, Ohio 45701 33 N Grant Ave, Ste 150, Columbus, Ohio 43215

Name	Company	Email	
Address	Phone/ Cell	Fax	
Name	Company	Email	
	, sompany		
Address	Phone/ Cell	Fax	
Name		Farait	-
Name	Company	Email	
Address	Phone/ Cell	Fax	
Name	Company	Email	
Address	Phone/ Cell	Fax	
Name	Company	Email	
Address	Phone/ Cell	Fax	

Ohio Museum Complex HVAC Improvements Lin Hall, Ohio University Athens, Ohio 45701

NOTE 1 The wording of this Proposal shall be retained throughout, without change, alterations or addition. Any change in the wording may cause the proposal to be rejected.

FORM of PROPOSAL - REBID

TO:	Athens Cour 15 South Co Athens, Ohio	urt St.	mmissioners 1					
SUBMI	TTED BY:				 			
			(Name	of Contractin	g Company sul	bmitting b	id)	
"Specif	ications" dated Improvement	l Rebid s prepa	09/09/2024 and	l "Rebid Draw nitects and In	vings" dated 09/ Iterior Designer	09/2024 f s, 26 East	or the Ohio I Park Drive,	nentary Conditions," Museum Complex Suite 101, Athens, da:
	Addendum N	o	Date		Addendum No	·	Date	
	Addendum N	0	Date		Addendum No		_Date	·
the und	lersigned prop	oses to		rials and per	form all of the l	abor nece	ssary for th	ction of said project, e performance and ned above.
ITEM 1	: GENERA	L TRA	DES CONTRAC	CT, includes	all work in draw	ings and	specification	18
	TOTAL B	ID, ALI	L Labor and Mat	erials, for the	sum of \$			
	Total Sur	n in wo	ords:					·····
ITEM 2	: ALTERN	ATE H	2, Humidifiers					
	TOTAL B	ID, ALI	L Labor and Mat	erials, for the	sum of \$			
	Total Sur	n in wo	ords:					

It is understood and agreed that all Work to be performed under the contract shall be completed within 300 calendar days, with milestones as noted in instructions to bidders unless an extension of time is granted by the Owner in accordance with the Contract Documents.

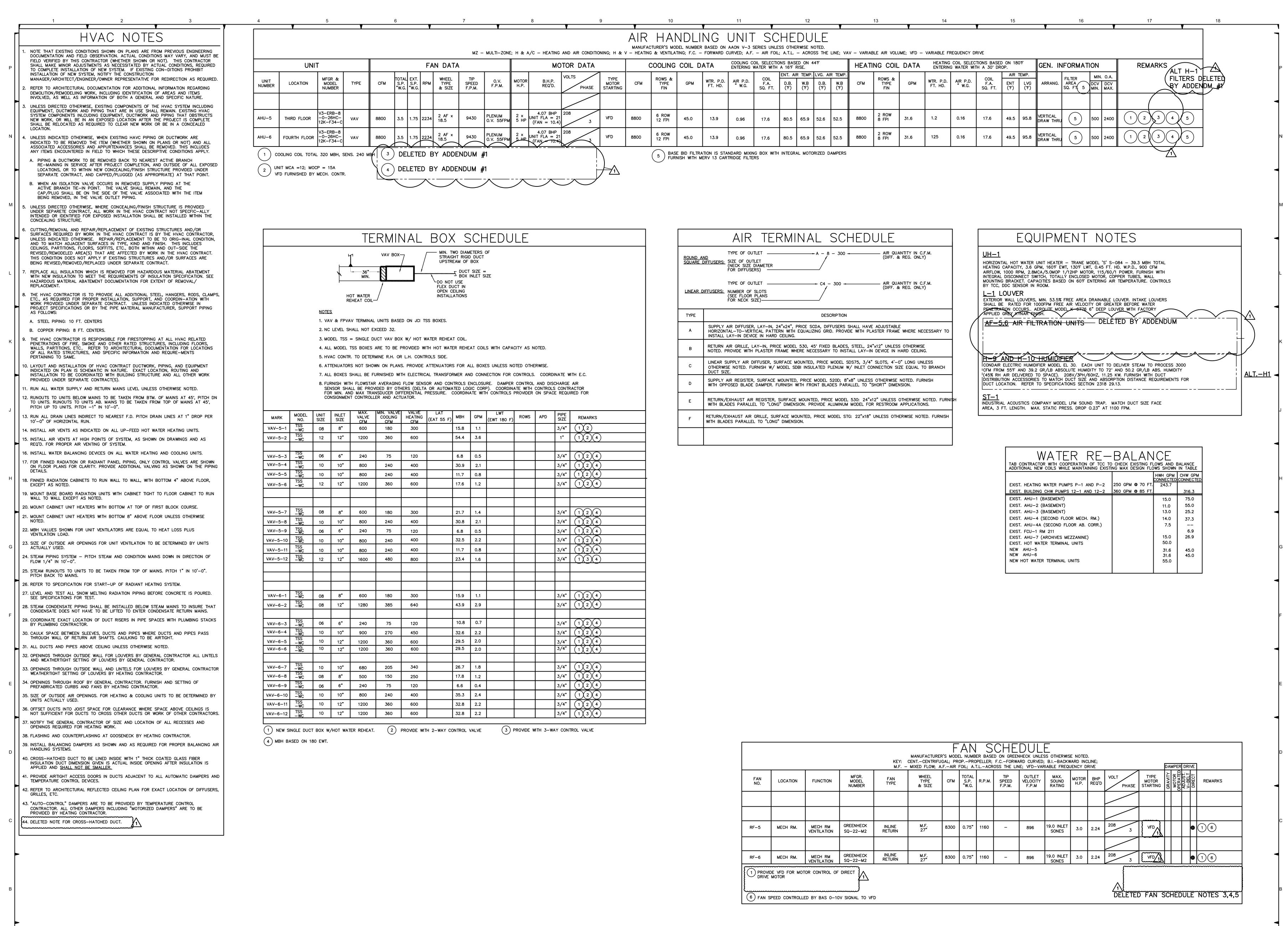
BIDDER'S CERTIFICATION

The Bidder hereby acknowledges that the following representations in this bid are material and not mere recitals:

- 1. Bidder has read and understands the Contract Documents and agrees to comply with all requirements of the Contract Documents, regardless of whether the Bidder has actual knowledge of the requirements and regardless of any statement or omission made by the Bidder which might indicate a contrary intention.
- 2. The Bidder represents that the bid is based upon the Standards specified by the Contract Documents.
- 3. Bidder has visited the site, become familiar with local conditions and has correlated personal observations about the requirements of the Contract Documents. The Bidder has no outstanding questions regarding the interpretation of the Contract Documents.
- 4. The Bidder and each person signing on behalf of the Bidder certifies, and in the case of a joint or combined bid, each party thereto certifies as to such party's organization, under penalty of perjury, that to the best of the undersigned's knowledge and belief: (a) the base Bid have been arrived at independently without collusion, consultation, communication or agreement, for the purpose of restricting competition as to any matter relating to such Base Bid, Unit Prices or Alternate bid with any other Bidder; (b) unless otherwise required by law, the Base Bid, any Unit Prices and any Alternate bid in the bid have not been knowingly disclosed by the Bidder and will not knowingly be disclosed by the Bidder prior to the bid opening, directly or indirectly, to any other Bidder who would have any interest in the Base Bid, Unit Prices or Alternate bid; (c) no attempt has been made or will be made by the Bidder to induce any other individual, partnership or corporation to submit or not submit a bid for the purpose of restricting competition.
- 5. Bidder certifies that upon the award of the Contract, the Contractor will make a good faith effort to ensure that all of the Contractor's employees, while working on property, will not purchase, transfer, use or possess illegal drugs or alcohol or abuse prescription drugs in any way.
- 6. Bidder agrees to furnish any information requested by the Owner to evaluate the responsibility of the Bidder.
- 7. Bidder agrees to submit the following submittals, within seven (7) days of the date of the Notice of Award, for execution of the Agreement:
 - 7.1 Workers Compensation Certificate;
 - 7.2 Certificate of Insurance (ACORD form is acceptable) and copy of additional insured endorsement.

If the Bidder is a corporation, partnership or sole proprietorship, an officer, partner or principal of the Bidder, as applicable, shall print or type the legal name of the Bidder on the line provided and sign the Bid Form. If the Bidder is a joint venture, an officer, partner or principal, as applicable, of each member of the joint venture shall print or type the legal name of the applicable member on the line provided and sign the Bid Form.. All signatures must be original.

President or owners name:	
Authorized Signature:	
Company Name:	
Mailing Address:	
Phone Number:	
Facsimile Number:	
Email Address:	
Where Incorporated:	
Federal Identification Number:	
Contact for Contract processing:	
ΔΩΓ	OITIONAL SIGNATURE FOR JOINT VENTURE
ABB	THOUNE GIOTATIONE I ON BOINT VENTONE
President or owners name:	
Authorized Signature:	
Company Name:	
Mailing Address:	
Phone Number:	
Facsimile Number:	
Email Address:	
Where Incorporated:	
Federal Identification Number:	



ARCHITECTS & DESIGNERS 26 E. Park Drive. Athens. Ohio 45701 ONLINE www.bdtaid.com

BDT PROJECT NO: 23002 All reproduction & intellectual property rights reserved © 2023 In association with:

ROFESSIONAL SEAL TE OF TIM PRATER E-51932

9/9/24 ISSUED FOR RE-BIDDING 10/29/24 ADDENDUM #1

OHIO MUSEUM COMPLEX

OU LIN HALL HVAC 100 RIDGES CIR. ATHENS, OHIO 45701

PROJECT NUMBER 23002 10/31/23

HVAC SCHEDULES AND DETAILS

H6-23069.DWG

PRATER

DESIGNED BY DRAWN BY
B. OGLE BHO

6130 Wilcox Road Dublin, Ohio 43016

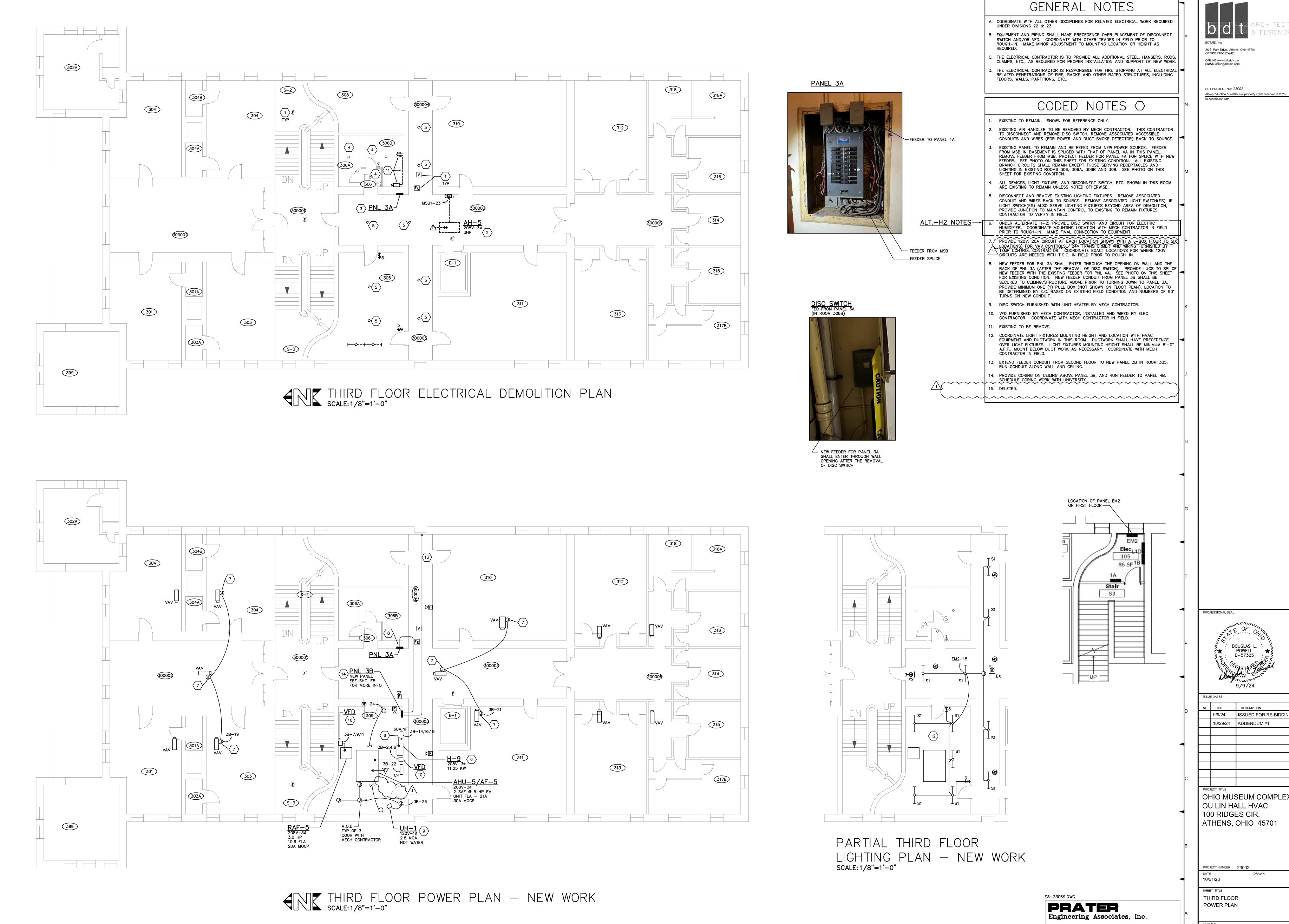
Engineering Associates, Inc.

(614) 766 4896

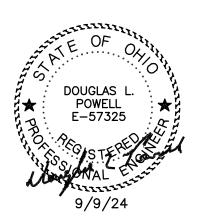
praterengineering.com

CHECKED BY JOB NUM.
J. LOCKARD, P.E. 23069

H6



26 E. Park Drive, Athens, Ohio 45701 **OFFICE** 740-592-2420



ISSUED FOR RE-BIDDING 10/29/24 | ADDENDUM #1

OHIO MUSEUM COMPLEX OU LIN HALL HVAC 100 RIDGES CIR.

ATHENS, OHIO 45701

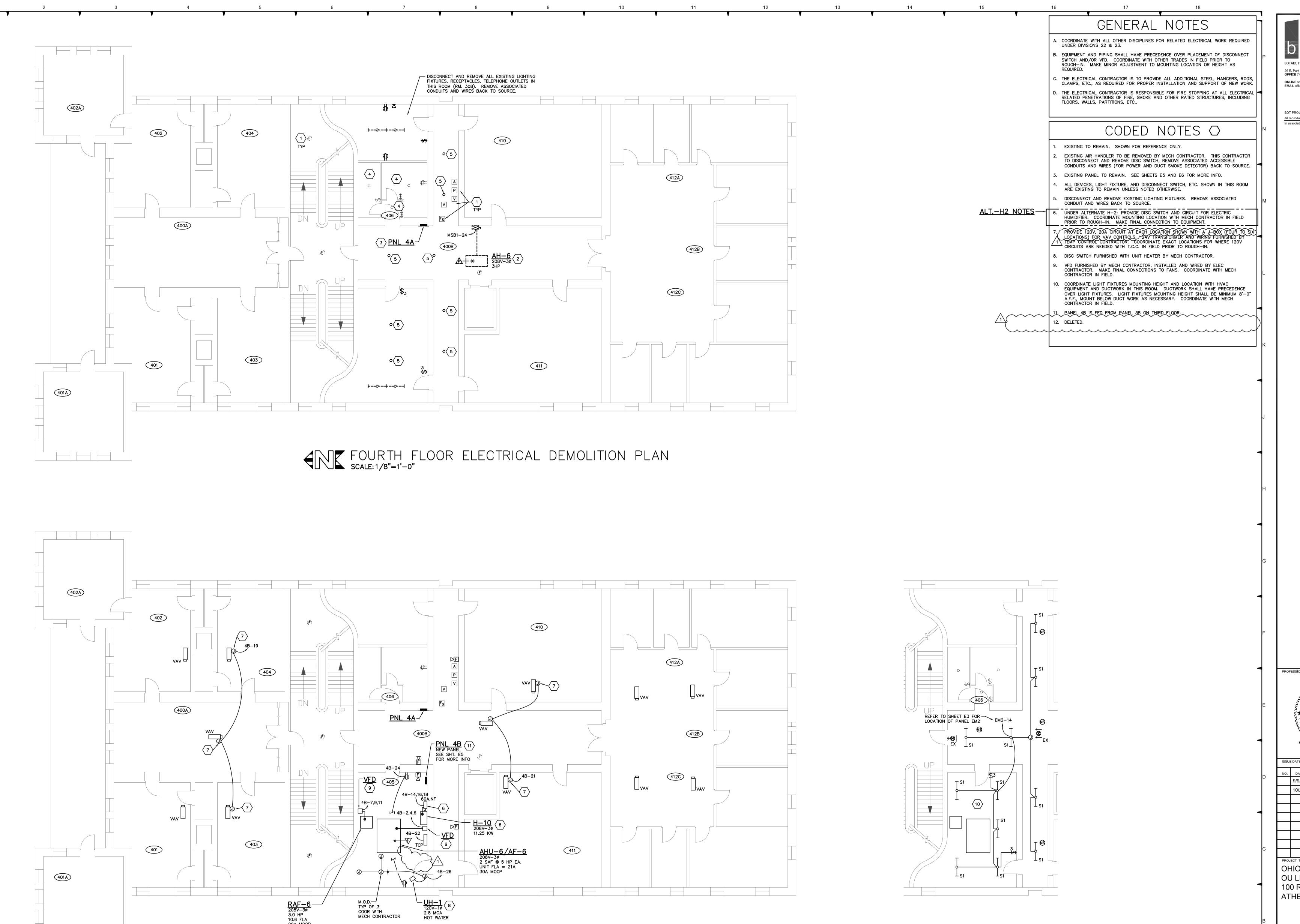
E3

(614) 766 4896 praterengineering.com

CHECKED BY DLP

6130 Wilcox Road Dublin, Ohio 43016

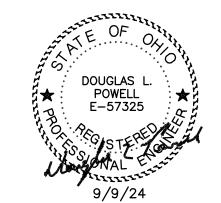
DESIGNED BY DRAWN BY
C. TONG CKT



FOURTH FLOOR POWER PLAN — NEW WORK scale: 1/8"=1'-0"

26 E. Park Drive, Athens, Ohio 45701 **OFFICE** 740-592-2420 ONLINE www.bdtaid.com EMAIL office@bdtaid.com

BDT PROJECT NO: 23002 All reproduction & intellectual property rights reserved © 2023 In association with:



Э.	DATE	DESCRIPTION
	9/9/24	ISSUED FOR RE-BIDDING
	10/29/24	ADDENDUM #1

OHIO MUSEUM COMPLEX OU LIN HALL HVAC 100 RIDGES CIR. ATHENS, OHIO 45701

PROJECT NUMBER 23002 10/31/23

PARTIAL FOURTH FLOOR

LIGHTING PLAN — NEW WORK SCALE: 1/8"=1'-0"

E4-23069.DWG

6130 Wilcox Road Dublin, Ohio 43016

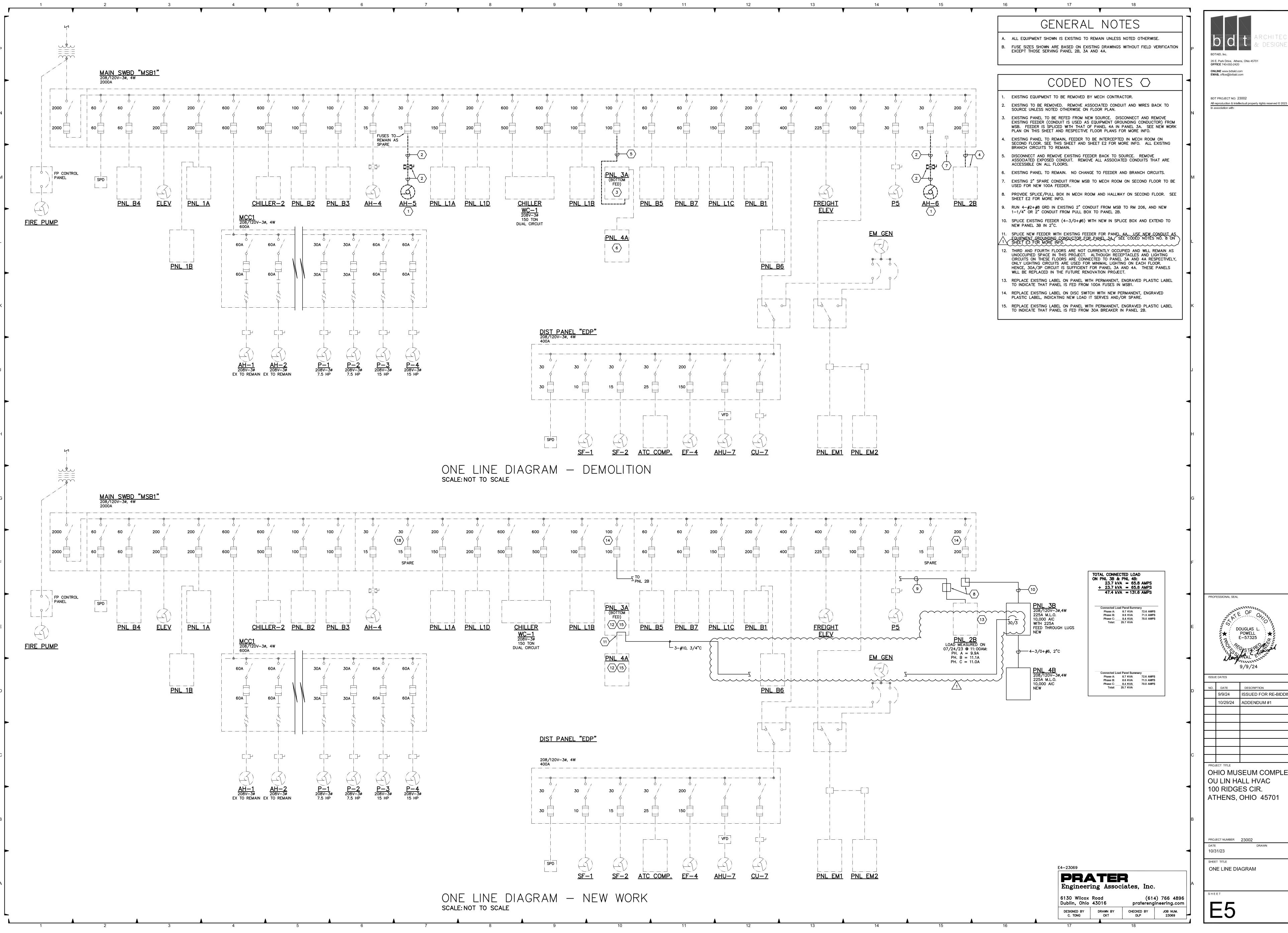
DESIGNED BY DRAWN BY
C. TONG CKT

PRATER
Engineering Associates, Inc.

(614) 766 4896 praterengineering.com

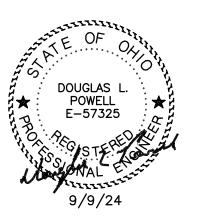
CHECKED BY DLP

FOURTH FLOOR POWER PLAN





26 E. Park Drive, Athens, Ohio 45701



ISSUED FOR RE-BIDDING 10/29/24 ADDENDUM #1

OHIO MUSEUM COMPLEX OU LIN HALL HVAC ATHENS, OHIO 45701

ONE LINE DIAGRAM

LIGHTING FIXTURE SCHEDULE

NOTE: FIXTURE NUMBER, LETTER PREFIX INDICATES TYPE OF MOUNTING AS FOLLOWS: CL-CEILING MOUNTED; S-STEM SUSPENDED; W-WALL MOUNTED; R-CEILING RECESSED; WR-WALL RECESSED; CV-COVE MOUNTED; UC-UNDER CABINET; RF-ROOF MOUNTED; SL-SITE LIGHT; GR-GROUND; CH-CHAIN SUSPENDED; P-PENDANT

FIXTURE NUMBER	DESCRIPTION	MANUFACTURER	CATALOG NUMBER	LAMPS	REMARKS
S1	4' LED STRIPLIGHT SEMI FROST LENSE	COOPER DAYBRITE LSI	4SNLED-LD5-53SL-LN-UNV-L840-CD	41W LED 5300 LUMENS 4000K	CHAIN HUNG MOUNT AT 10' A.F.F COORDINATE WITH HVAC DUCTWOR
EX	LED EXIT UNIVERSAL MOUNTED RED LETTERING AC ONLY	SURE-LITES CHLORIDE DAYBRITE	LPX6	1.2W LED	PENDANT MOUNT AT 9' A.F.F. WALL MOUNT AT 1'-0' ABOVE DOC

ADDITIONAL SPECIFICATIONS: EQUIVALENT FIXTURES, BY THE FOLLOWING MANUFACTURERS, MAY BE FURNISHED AT THE CONTRACTOR'S OPTION: HUBBELL LIGHTING, PHILLIPS LIGHTING, ACUITY BRANDS, GE CURRENT, H.E. WILLIAMS, NORA, LITON OR ABB LIGHTING.

		Panel ID:	PANEL	3B	Vo	ltage:	208	- /	120	Panel Ty	/pe:			
		Location:	RM 306		P	Phase:	3			Enclosu	re:	NEMA-1		
		Mounting:	SURFA	CE		Wire:	4	4						
		Main Type:	Main Type: M.L.O. Main Size: 225 Amps											
	PROV	PANEL. 'IDE 225A FEED THROUGH LI ROVIDE CIRCUIT BREAKER A EFFER TO ONE LINE DIAGRAI	ND WIF	RING IF AL	.T. H-2 IS									
			СКТ	CKT	CONN.				CONN.	СКТ	СКТ			
GND	WIRE	BRANCH CIRCUIT	BKR	BKR	LOAD	СКТ	PHASE	скт	LOAD	BKR	BKR	BRANCH CIRCUIT	WIRE	GNE
	SIZE	DESCRIPTION	SIZE	OPTION	(KVA)	NO.		NO.	(KVA)	OPTION		DESCRIPTION	SIZE	
-	-	SPARE	30/3		0.000	1	Α	2	2.520		30/3	AHU-5/AF-5	10	10
-	-	-	-		0.000	3	В	4	2.520		-	-	10	-
-	-	-	-		0.000	5	С	6	2.520		-	-	10	-
12	12	RAF-5	20/3		1.584	7	Α	8	0.000		15/3	SPARE	12	12
-	12	-	-		1.584	9	В	10	0.000		-	-	12	-
-	12	-	-		1.584	11	С	12	0.000		-	-	12	-
-	-	SPARE	30/3		0.000	13	Α	14	3.750		* 40/3	* H-9	8	10
-	-	-	-		0.000	15	В	16	3.750		-	-	8	-
-	-	-	-		0.000	17	С	18	3.750		-	-	10	-
12	12	VAV CONTROL - NORTH	20/1		0.360	19	Α	20	0.000		15/1	SPARE	12	12
12-	12	VAY CONTROL - SOUTH	20/1		0.360	21	В	22	0.360		20/1	TCP - AHU-5	12	12
<u>, </u>	L -	SPACE			0.000	23	С	24	0.360		20/1	REC - RM 305	12	12
	-	SPARE	20/1		0.000	25	Α	26	0.500		15/1	RM 305 - UH-1, M.O.D	12	12
-	-	SPARE	20/1		0.000	27	В	28	0.000		-	SPACE	-	-
-	-	SPARE	20/1		0.000	29	С	30	0.000		-	SPACE	-	-
-	-	SPARE	20/1		0.000	31	Α	32	0.000		-	SPACE	-	-
-	-	SPARE	20/1		0.000	33	В	34	0.000		-	SPACE	-	-
-	-	SPACE	-		0.000	35	С	36	0.000		~~	SPACE	~~	
-	-	SPACE	-		0.000	37	Α	38	1.540	NEW	30/3	* EXISTING	**	**
-	-	SPACE	-		0.000	39	В	40	1.540		-	PANEL 3A, 4A	**	-
-	-	SPACE	-		0.000	41	С	42	1.540		-	-	**	-
					Pha Pha Pha	ected ase A: ase B: ase C: Total:	10.1 9.8	KVA KVA KVA KVA	85.5 84.3	AMPS AMPS AMPS	HT - Ha LO - Lo GF - G EX - Ex	ter Options (If Used): andle Tie ock-On Device ND Fault CKT Interrupter kisting to Remain hunt Trip Breaker		

		Panel ID	: PANEL	. 2B	Vo	ltage:	208	1	120	Panel Ty	/pe:					
		Location	Р	hase:	3			Enclosure:		re: NEMA-1						
		Mounting	nting: SURFACE Wire				Wire: 4									
		Main Type	: M.C.B.		Main	Size:	200 Amps									
	EXISTI	NG PANEL. LOADS SHOWN	I OBTAIN	ED FROM	EXISTING	ENGII	NEERING	DRAV	VINGS.							
	ALL BF	REAKERS SHWON ARE EXIS	STING TO	REMAIN	UNLESS N	OTED	OTHERW	/ISE.								
	* NEW	LOAD ADDED TO PANEL.														
	** = RE	FER TO ONE LINE DIAGRA				VIRE	SIZES			1	ı					
			CKT	CKT	CONN.				CONN.	CKT	CKT					
	WIRE	BRANCH CIRCUIT	BKR	BKR	LOAD		PHASE		LOAD	BKR	BKR	BRANCH CIRCUIT	WIRE			
	SIZE	DESCRIPTION	SIZE	OPTION	(KVA)	NO.		NO.	(KVA)	OPTION		DESCRIPTION	SIZE			
EX	EX	RAF-1	20/3	EX	1.321	1	A	2	1.321	EX	20/3	AHU-4A	EX	EX		
-	EX		-		1.321	3	В	4	1.321			-	EX	-		
-	EX		-		1.321	5	С	6	1.321		-	-	EX	-		
EX	EX	TEL BOARD	20/1	EX	0.360	7	Α	8	0.720	EX	20/1	REC 202A	EX	EX		
EX	EX	REC 20003	20/1	EX	0.900	9	В	10	0.900	EX	20/1	REC 202	EX	EX		
EX	EX	REC 2004	20/1	EX	0.900	11	С	12	0.720	EX	20/1	REC 20002	EX	EX		
EX	EX	LTG 200034, EX / EGR	20/1	EX	1.280	13	Α	14	0.540	EX	20/1	REC 20002	EX	EX		
EX	EX	LTG 210	20/1	EX	1.336	15	В	16	0.500	EX	20/1	PROJECTOR	EX	EX		
EX	EX	LTG 201, 203	20/1	EX	1.000	17	С	18	1.421	EX	20/1	LTG CLASSRM, EXT/EGR	EX	EX		
EX	EX	HONEYWELL PANEL	20/1	EX	0.500	19	Α	20	1.500	EX	20/1	LTG 204	EX	EX		
EX	EX	LTG 20002	20/1	EX	1.000	21	В	22	0.574	EX	20/1	LTG 202A	EX	EX		
EX	EX	LTG 20002	20/1	EX	1.000	23	С	24	0.500	LO, EX	20/1	DOOR HOL, F/SMK DAMPER	EX	EX		
EX	EX	PROJECTOR	20/1	EX	1.000	25	Α	26	0.000		20/1	EX LOAD	-	-		
-	-	EX LOAD	20/2	EX	0.360	27	В	28	0.300	EX	20/1	* VAV CONTROLS	12	12		
-	-		-		0.360	29	С	30	0.000		20/1	SPARE	-	-		
-	-	EX LOAD	20/1	EX	0.360	31	A	32	0.000		20/1	SPARE	-	-		
EX	EX	DOOR CONTROL	20/1	EX	0.360	33	В	34	0.000		20/1	SPARE	-	_		
-	-	EX LOAD	20/1	EX	0.360	35	С	36	0.000		20/1	SPARE O				
-	-	EX LOAD	20/1	EX	0.360	37	A	38	0.180		20/1	COND PUMP	-	-		
-	-	EX LOAD	20/1	EX	0.360	39	В	40	0.000		20/1	SPARE	-	-		
-	-	EX LOAD	20/1	EX	0.360	41	C	42	1.000		25/1	DEHUMIDIFIER	EX	EX		
							Load Pan		-			(er Options (If Used):				
						ase A:		KVA		AMPS		andle Tie				
						se B:		KVA		AMPS		ock-On Device				
					Pha	ase C:	10.3	KVA	85.5	AMPS	GF - G	ND Fault CKT Interrupter				

Total: 28.9 KVA

EX - Existing to Remain

SH - Shunt Trip Breaker

			Panel ID: Location: Mounting: Main Type:	RM 406 SURFA	i	F	oltage: Phase: Wire: Size:	208 3 4		120	Panel Ty Enclosu	-	NEMA-1		
			PANEL. "HROUGH PANEL 3B	IVI.L.O.		IVIAII	i Size.	223	Amps	•					
			ROVIDE CIRCUIT BREAKER A EFER TO ONE LINE DIAGRA												
				СКТ	СКТ	CONN.				CONN.	СКТ	СКТ			T
GN	۱D۱	NIRE	BRANCH CIRCUIT	BKR	BKR	LOAD	СКТ	PHASE	СКТ	LOAD	BKR	BKR	BRANCH CIRCUIT	WIRE	GND
SIZ	ZE :	SIZE	DESCRIPTION	SIZE	OPTION	(KVA)	NO.		NO.	(KVA)	OPTION	SIZE	DESCRIPTION	SIZE	SIZE
-	.	-	SPARE	30/3		0.000	1	Α	2	2.520		30/3	AHU-6/AF-6	10	10
-		-	=	-		0.000	3	В	4	2.520		-	_	10	-
-		-	-	-		0.000	5	С	6	2.520		-	-	10	-
-		-	RAF-6	20/3		1.584	7	Α	8	0.000		15/3	SPARE	12	12
-		-	-	-		1.584	9	В	10	0.000		-	-	12	-
_		-	-	_		1.584	11	С	12	0.000		-	-	12	-
-	.	-	SPARE	30/3		0.000	13	Α	14	3.750		* 40/3	* H-10	8	10
-		-	-	-		0.000	15	В	16	3.750		_	-	8	-
-		-	-	-		0.000	17	С	18	3.750		-	-	8	-
12	2	12	VAV CONTROL - NORTH	20/1		0.360	19	Α	20	0.000		15/1	SPARE	-	-
1	2	12	VAV CONTROL - SOUTH	20/1		0.360	21	В	22	0.360		20/1	TCP - AHU-6	12	12
_		-	SPACE			0,000	23	С	24	0.360		20/1	REC - RM 405	12	12
<u> </u>	_	<u>-</u> \	SPARE	20/1		0.000	25	Α	26	0.500		20/1	RM 405 - UH-1, M.O.D.	12	12
-		-	SPARE	20/1		0.000	27	В	28	0.000		-	SPACE	-	-
-		-	SPARE	20/1		0.000	29	С	30	0.000		-	SPACE	-	-
_	.	-	SPARE	20/1		0.000	31	Α	32	0.000		-	SPACE	-	-
-	.	-	SPARE	20/1		0.000	33	В	34	0.000		-	SPACE	_	-
-		-	SPACE	-		0.000	35	С	36	0.000		-	SPACE	_	-
-		-	SPACE	-		0.000	37	Α	38	0.000		-	SPACE	-	-
-		-	SPACE	-		0.000	39	В	40	0.000		-	SPACE	-	-
-		-	SPACE	-		0.000	41	С	42	0.000		-	SPACE	-	-
		•				Conn	ected	Load Par	el Su	mmary		Breal	ker Options (If Used):		
						Pha	ase A:	8.7	KVA	72.6	AMPS	HT - H	andle Tie		
						Pha	ase B:		KVA		AMPS	LO - Lo	ock-On Device		
						Pha	ase C:		KVA		AMPS	GF - G	ND Fault CKT Interrupter		
							Total:		KVA	•			xisting to Remain		
													hunt Trip Breaker		

		I diloi i				itage.	200	,	120	I dilci i y	-			
			n: RM 105			hase:				Enclosu	re:	NEMA-1		
		Mounting	j: SURFA	CE		Wire:								
		Main Type	e: M.L.O.		Main	Size:	60	Amps	3					
		IG PANEL TO REMAIN.												
	ALL BRE	EAKERS SHOWN ARE EXI	STING UN	NLESS NO	TED OTHE	RWIS	E.							
	* = NEW	I LOAD, EXISTING BREAK	KER											
			OVE	OI/T	000101		I		000101	OLIT	OVE	T	1	
			CKT	CKT	CONN.	01/7		01/7	CONN.	CKT	CKT			
	WIRE	BRANCH CIRCUIT	BKR	BKR	LOAD		PHASE		LOAD	BKR	BKR	BRANCH CIRCUIT	WIRE	
	SIZE	DESCRIPTION	SIZE	OPTION	(KVA)	NO.		NO.	(KVA)	OPTION		DESCRIPTION	SIZE	_
EX	EX	EX LOAD	20/1	EX	0.000	1	A	2	0.000	EX	20/1	EX LOAD	EX	
EX	EX	EX LOAD	20/1	EX	0.000	3	В	4	0.000	EX	20/1	EX LOAD	EX	
EX	EX	EX LOAD	20/1	EX	0.000	5	С	6	0.000	EX	20/1	EX LOAD	EX	_
EX	EX	EX LOAD	20/1	EX	0.000	7	A	8	0.000	EX	20/1	EX LOAD	EX	
EX	EX	EX LOAD	20/1	EX	0.000	9	В	10	0.000	EX	20/1	EX LOAD	EX	
EX	EX	EX LOAD	20/1	EX	0.000	11	С	12	0.500	EX	20/1	* EXIT, LIGHT - 3RD FLOOR		12
EX	EX	EX LOAD	20/1	EX	0.000	13	Α	14	0.500	EX	20/1	* EXIT, LIGHT - 4TH FLOOR	12	12
-	-	SPACE			0.000	15	В	16	0.000	EX	20/1	SPARE	-	
-	-	SPACE	-		0.000	17	С	18	0.000	EX	20/1	SPARE		
_	-	SPACE	-		0.000	19	Α	20	0.000		20/1	ADA DOOR OPERATOR	EX	E
														\perp
							Load Par		-			ker Options (If Used):		
						ase A:		KVA				andle Tie		
					Pha	ase B:	0.0	KVA	0.0	AMPS	LO - L	ock-On Device		
					Pha	ase C:	0.5	KVA	4.2	2 AMPS		ND Fault CKT Interrupter		
						Total:	1.0	KVA				xisting to Remain		
											SH - S	hunt Trip Breaker		

Voltage: 208 / 120

Panel Type: ---

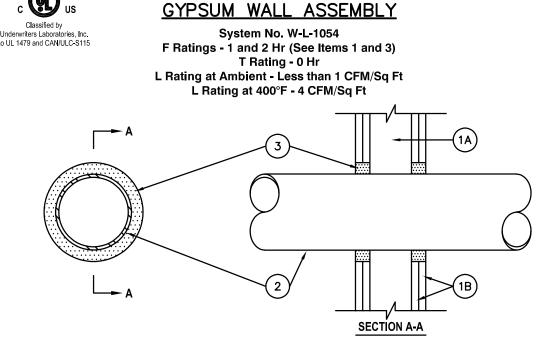
Panel ID: PANEL EM2

ELECTRICAL ABBREVIATIONS

AWG	AMERICAN WIRE GAUGE	FIX	FIXTURE
Α	AMPERE	G.C.	GENERAL CONTRACTOR
AFF	ABOVE FINISHED FLOOR	GRD	GROUND
AFG	ABOVE FINISHED GRADE	LTG	LIGHTING
BFG	BELOW FINISHED GRADE	MFGR	MANUFACTURER
CLG	CEILING	MECH	MECHANICAL
CIRC	CIRCUIT	PNL	PANEL
С	CONDUIT	RECEPT	RECEPTACLE
CONN	CONNECTION / CONNECTOR	REQ'D	REQUIRED
CONTR	CONTRACTOR	SW	SWITCH
CONT	CONTROL	TCP	TEMPERATURE CONTROL PAN
COOR	COORDINATE	TELE	TELEPHONE
DTL	DETAIL	TFMR	TRANSFORMER
DISC	DISCONNECT	TYP	TYPICAL
E.C.	ELECTRICAL CONTRACTOR	U.O.N.	UNLESS OTHERWISE NOTED
E	EXISTING TO REMAIN	WP	WEATHERPROOF
FDR	FEEDER		

FIRE STOPPING DETAILS

RATED WALLS METAL PIPE THROUGH



1. Wall Assembly -- The 1 or 2 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300 or U400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features: A. Studs -- Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC. Steel studs to be min 2-1/2 in. wide and spaced max 24 in. OC. When steel studs are used and the diam of opening exceeds the width of stud cavity, the opening shall be

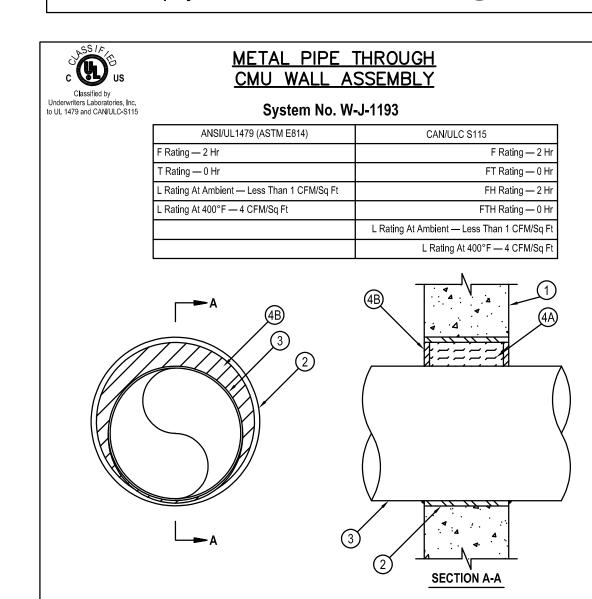
framed on all sides using lengths of steel stud installed between the vertical studs and screw-attached to the steel studs at each end. The framed opening in the wall shall be 4 to 6 in. wider and 4 to 6 in. higher than the diam of the penetrating item such that, when the penetrating item is installed in the opening, a 2 to 3 in. clearance is present between the penetrating item and the framing on all four sides. B. Gypsum Board* – 5/8 in. thick, 4 ft wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 32-1/4 in. for steel stud walls. Max diam of opening is 14-1/2 in. for wood stud walls. The F Rating of the firestop system is equal to the fire rating of the wall assembly.

2. Through-Penetrants -- One metallic pipe, conduit or tubing to be installed either concentrically or eccentrically within the firestop system. The annular space shall be min 0 in. to max 2-1/4 in. Pipe may be installed with continuous point contact. Pipe, conduit or tubing may be installed at an angle not greater than 45 degrees from perpendicular. Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used: A. Steel Pipe - Nom 30 in diam (or smaller) Schedule 10 (or heavier) steel pipe. B. Iron Pipe – Nom 30 in. diam (or smaller) cast or ductile iron pipe.

C. Conduit – Nom 4 in diam (or smaller) steel electrical metallic tubing or 6 in. diam steel conduit. D. Copper Tubing -- Nom 6 in. diam (or smaller) Type L (or heavier) copper tubing. E. Copper Pipe -- Nom 6 in. diam (or smaller) regular (or heavier) copper pipe. 3. Fill. Void or Cavity Material* -- Sealant -- Min 5/8 in, thickness of fill material applied within the annulus, flush with both surfaces of wall. At the point or continuous contact locations between pipe and wall, a min 1/2 in. diam bead of fill material shall be applied at the pipe wall interface on both surfaces of wall HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC -- FS-One Sealant

*Bearing the UL Classification Mark

Reproduced by HILTI, Inc. Courtesy of Underwriters Laboratories, Inc. December 4, 2002



1. Wall Assembly — Min 6 in. (127 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening is 16 in. (406 mm). See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers. 2. Steel Sleeve — Nom 16 in. (406 mm) diam (or smaller) Schedule 40 (or lighter) steel sleeve friction fitted into opening. Length of steel sleeve to be equal to the thickness of wall. 3. Through Penetrants — One metallic pipe, tubing or conduit to be installed concentrically or eccentrically within opening. The annular space

between the pipes and conduits and the edges of the opening shall be min 0 in. (0 mm, point contact) to max 3-7/8 in. (98 mm). Through penetrant to be rigidly supported on both sides of wall assembly. The following types and sizes of through penetrants may be used: A. Steel Pipe — Nom 12 in. (305 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe. B. Iron Pipe — Nom 12 in. (305 mm) diam (or smaller) cast or ductile iron pipe.

C. Copper Tubing — Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tube. D. Copper Pipe — Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe. E. Conduit — Nom 6 in. (152 mm) diam (or smaller) electrical metallic tubing (EMT) or rigid steel conduit. 4. Firestop System — The firestop system shall consist of the following:

A. Packing Material — Min 5 in. (1 mm) thickness of min 4 pcf (64 kg/m3) mineral wool batt insulation firmly packed into opening as a permanent form. Packing material to be recessed from both surfaces of wall to accommodate the required thickness of fill material. B. Fill Void or Cavity Materials* — Sealant — Min 1/2 in. (13 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall. Min 1/4 in. (6 mm) diam bead of fill material applied to the through penetrant/steel sleeve interface at the point contact locations on both sides of the wall.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or FS-ONE MAX Intumescent Sealant * Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada),

OCCUPANCY SENSOR LEGEND

- LOW VOLTAGE CEILING MOUNTED SELF-ADJUSTING DUAL TECHNOLOGY VACANCY SENSOR WITH 360° FIELD OF VIEW. SET TO AUTO ON/AUTO OFF. GREENGATE OAC-DT-1000 OR APPROVED EQUAL.
- JUNCTION BOX MOUNTED POWER PACK (AS REQUIRED). 120/277 VOLT INPUT, 20A LOAD RATING, 24VAC, 150 mA OUTPUT OR COMPATIBLE WITH OCCUPANCY SENSOR. INSTALL ABOVE ACCESSIBLE CEILING. POWER PACKS MAY NOT SHOWN ON PLANS, PROVIDE AS REQUIRED.
- FIELD ADJUST SETTINGS.
- . INSTALL PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
- 3. APPROVED EQUALS SHALL BE BY PHILIPS, WATT-STOPPER, ACUITY CONTROLS.
- 4. CEILING AND/OR WALL MOUNTED VACANCY SENSORS, SENSOR SWITCHES/DIMMERS AND POWER PACKS SHALL BE COMPATIBLE WITH LIGHT FIXTURES.
- 5. ALL SWITCH/DIMMER COVER PLATES SHALL BE WHITE.

	16	17 18	
•		Y Y	
		ELECTRICAL LEGEND)
	SYMBOL		HGT. TO CENTER OTHERWISE NOTED
		RECESSED OR SUSPENDED LUMINAIRE/LIGHT FIXTURE REFER TO THE LIGHTING FIXTURE SCHEDULE	SEE DRAWINGS
	ᅵ	POLE MTD. LIGHT FIXTURE	SEE DRAWINGS
	<u> </u>	WALL MTD. LGHT FIXTURE	SEE DRAWINGS
	\$	WALL MTD. EXIT LIGHT	AB DOOR
	⊕ ↑ (★) ↓ ⊕	CEILING MOUNTED EXIT LIGHT W/ DIRECTIONAL ARROWS	_
	o\$20 o\$20	CEILING OR WALL MTD. EXIT-EM LIGHT COMBO UNIT	CLG / AB DOOF
	<u> </u>	EMERGENCY REMOTE HEADS	CLG / AB DOOF
	 	EMERGENCY BATTERY UNIT	90"
	⇒	DUPLEX RECEPTACLE	18"
	•	POWER AND VOICE/DATA POKE THROUGH	FLOOR MTD.
	⇒ WP	DUPLEX RECEPTACLE WEATHERPROOF / GROUND FAULT	18"
	⇒ GF	DUPLEX RECEPTACLE W/ GROUND FAULT INTERRUPTER	18"
	₩	220V RECEPTACLE	18"
		DOUBLE DUPLEX RECEPTACLE	18"
	•	20A POWER ONLY FLOOR BOX	FLOOR
	○ ○ ○ F	JUNCTION BOX; WALL / CEILING MOUNTED: FLOOR MOUNTED	SEE DRAWINGS
	Рв	PULL BOX	SEE DRAWINGS
	\$ \$3 \$4	TOGGLE SWITCH - SINGLE, 3-WAY & 4-WAY	42"
	\$k \$wp	TOGGLE SWITCH $- K = OPERATED$, WP = WEATHERPROOF	42"
	⊠ M ₂	WALL BOX FOR "VOICE/DATA" OUTLET, 1-PORT, 2-PORT WITH 1"C. TO ABOVE CEILING OR TO 8' A.F.F WHEN CONDUIT IS SURFACE MOUNTED, UNLESS A LARGER CONDUIT IS INDICATED	18"
	⋈w	WALL TELEPHONE OUTLET	48"
	⋈ ^{WAP}	WIRELESS ACCESS POINT	CEILING
	③	MOTOR - 1 PHASE	AS REQUIRED
	3	MOTOR - 3 PHASE	AS REQUIRED
	9	MOTORIZED DAMPER - 1 PHASE	AS REQUIRED
		ELECTRICAL PANEL - SURFACE MOUNT, FLUSH MOUNT	6'-0" TO TOP
		PLYWOOD TELEPHONE BACKBOARD	SEE DRAWINGS
		SAFETY SWITCH	AS REQUIRED
	\bowtie	MAGNETIC MOTOR STARTER	AS REQUIRED
	⊠	COMBINATION MOTOR STARTER	AS REQUIRED
	→	MANUAL MOTOR STARTING SWITCH W/ PILOT LIGHT	42"
	— MANUAL MOTOR CONTROLLER/DISCONNECT		42"
	(T)	LINE VOLTAGE THERMOSTAT	60"
	F	FIRE ALARM MANUAL PULL STATION	42"
	E∀	FIRE ALARM SIGNAL - AUDIO VISUAL	80"
	E⊲ _{clg}	FIRE ALARM SIGNAL - AUDIO VISUAL	CEILING
	ED-(-	FIRE ALARM SIGNAL - STROBE ONLY	80"

SMOKE DETECTOR - DUCT MOUNTED

SPRINKLER SYSTEM TAMPER SWITCH

DRY PIPE LOW AIR PRESSURE SWITCH

SPRINKLER SYSTEM FLOW SWITCH

DUCT SMOKE DETECTOR W/ SMOKE DAMPER

DUCT SMOKE DETECTOR REMOTE TEST SWITCH

WIRED FURNITURE FEED JUNCTION BOX - WALL

FURNITURE FEED VOICE/DATA CONNECTION - WALL

SMOKE DETECTOR - CEILING

HEAT DETECTOR - CEILING

FIRE ALARM BELL

PUSH BUTTON

GROUND BAR

DRY PIPE ALARM SWITCH

VALVE SUPERVISORY SWITCH

FIRE ALARM TELEPHONE JACK

DOOR AUTO OPERATOR PUSH PAD DOOR HARDWARE AUTO OPERATOR

ACCESS CONTROL CARD READER

DOOR HARDWARE POWER SUPPLY

ACCESS CONTROL SAFE CONTACT SWITCH

(WITH 3/4" C. TO HEADEND EQUIPMENT)

FLUSH WALL BOX FOR "CCTV" UNLESS NOTED OTHERWISE

E5-23069

PRATER

6130 Wilcox Road

C. TONG

Dublin, Ohio 43016

DESIGNED BY DRAWN BY
C. TONG CKT

Engineering Associates, Inc.

ELECTRIC POWER TRANSFER

CONTACT SWITCH

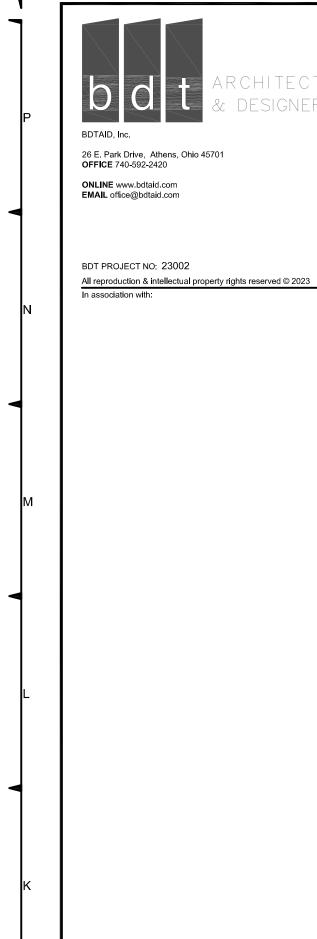
ELECTRIC HINGE

MAGNETIC LOCK

PANIC HARDWARE

POWER METER

ELECTRIC STRIKE/LOCK



PROFESSIONAL SEAL

SEE DRAWINGS

18" U.N.O.

18" U.N.O.

AB. DOOR

AS REQUIRED

TOP DOOR FRAME

AS REQUIRED

AS REQUIRED

AS REQUIRED AS REQUIRED

AS REQUIRED

AT EQUIPMENT

SEE DRAWINGS

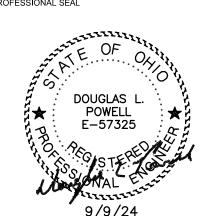
SEE DRAWINGS

(614) 766 4896

JOB NUM. 23069

praterengineering.com

CHECKED BY DLP



ISSUE DATES

NO.	DATE	DESCRIPTION	
	9/9/24	ISSUED FOR RE-BIDDING	
	10/29/24	ADDENDUM #1	

OHIO MUSEUM COMPLEX OU LIN HALL HVAC 100 RIDGES CIR. ATHENS, OHIO 45701

PROJECT NUMBER 23002 10/31/23

ELECTRICAL LEGEND ABBREVIATIONS SCHEDULES