

ADDENDUM NO. 4

July 9, 2024

**IPS Broad Ripple MS 717; Middle School Renovations
1115 Broad Ripple Ave.
Indianapolis, IN 46220**

TO: ALL BIDDERS OF RECORD

This Addendum forms a part of and modifies the Bidding Requirements, Contract Forms, Contract Conditions, the Specifications and the Drawings dated April 15, 2024, by Meticulous Design + Architecture. Acknowledge receipt of the Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

This Addendum consists of Pages ADD 4-1, and attached Lancer Associates Architecture Addendum No. 4 dated July 9, 2024, consisting of one (1) page, and Creative Engineering Solutions Addendum 4 dated July 9, 2024, consisting of two (2) pages, and Addendum Drawings: M607, E607, E611, E615, and E616.

A. SPECIFICATION SECTION 01 12 00 – MULTIPLE CONTRACT SUMMARY

1. Paragraph 3.03 Bid Categories

A. BID CATEGORY NO. 1 - GENERAL TRADES

Add the following Clarifications:

2. There is to be no flooring removal in Rooms C165, C165A, C165B, and C165C.
3. There is to be new CPT-1 and RB-1 for Rooms A2324B, A234D, and A236B.



ADDENDUM NO. 4

PROJECT: Indianapolis Public Schools
Broad Ripple MS 717 Renovation

PROJECT #: 23126

DATE: July 9, 2024



THIS ADDENDUM FORMS A PART OF THE CONTRACT DOCUMENTS AND IS ISSUED IN ACCORDANCE WITH THE INSTRUCTIONS TO BIDDERS. ACKNOWLEDGE RECEIPT OF THIS ADDENDUM BY SIGNING THE ADDENDUM ACKNOWLEDGMENT SECTION OF THE BID FORM.

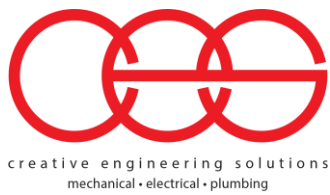
MEP Engineering Revisions

Reference the attached Addendum No. 4 from Creative Engineering Solutions, dated 07/09/2024. Attachments include revised drawings.

Attachments:

Addendum #4 for MEP from Creative Engineering Solutions – dated 07/09/2024, two (2) pages.
CES Addendum #3 drawings:

Dwg: M607	MECHANICAL SCHEDULES	Rev. 5, 07/08/24, Addendum #04
Dwg: E607	SCHEDULES	Rev. 4, 07/09/24, Addendum #04
Dwg: E611	PANELBOARD SCHEDULES – UNIT A	Rev. 4, 07/09/24, Addendum #04
Dwg: E615	PANELBOARD SCHEDULES – UNIT D	Rev. 4, 07/09/24, Addendum #04
Dwg: E616	PANELBOARD SCHEDULES – UNIT D	Rev. 4, 07/09/24, Addendum #04



PROJECT NAME: IPS BROAD RIPPLE MS 717 OWNER NAME: INDIANAPOLIS PUBLIC SCHOOL CORPORATION CES PROJECT NO. 2023-019.BMS ADDENDUM NO. 4 DATED: 7/9/2024	ARCHITECT PROJECT NO. 23126
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This Addendum consists of 2 Addendum pages and 5 attachment pages totaling 7 pages. This Addendum shall supplement, amend, and become part of the Bid Documents. All Bids shall be based on these modifications. Bidders shall acknowledge the receipt of this addendum on their Bid Form.

PART 1 - CHANGES TO THE PROJECT MANUAL

Modifications described herein shall be incorporated in the Project Manual. All other Work shall remain unchanged.

DIVISION 21 - FIRE SUPPRESSION DIVISION

None

DIVISION 22 – PLUMBING

None

DIVISION 23 - HEATING, VENTILATING, AND AIR-CONDITIONING(HVAC)

None

DIVISION 26 – ELECTRICAL

None

DIVISION 27 – COMMUNICATIONS

None

DIVISION 28 - ELECTRONIC SAFETY AND SECURITY

None

PART 2 - CHANGES TO THE DRAWINGS

Modifications described herein shall be incorporated in the Drawings. All other Work shall remain unchanged.

2.1 DRAWING SHEETS: ADDITIONS, DELETIONS AND REPLACEMENTS

Drawing No.

INDICATE ACTION: REPLACE (r), add

M-SERIES DRAWINGS

M607 – MECHANICAL SCHEDULES

DELETE AND REPLACE

P-SERIES DRAWINGS

None

E-SERIES DRAWINGS

E104A - PENTHOUSE ELECTRICAL PLAN - UNIT A

1. Provide feeder F200 from space 5 in distribution panel 'C' to HWP-1 VFD.
2. Provide feeder F200 from space 5 in distribution panel 'C' to HWP-1 VFD.
3. Provide feeder F200 from space 5 in distribution panel 'C' to HWP-1 VFD.

E403 – ENLARGED BOILER ROOM PLAN – UNIT D

1. Provide feeder F90 from spaces 6,8,10 in panelboard 'PH1A' to CWP-1
2. Provide feeder F90 from spaces 13,15,17 in panelboard 'PH1A' to CWP-1
3. Provide feeder F90 from spaces 19,21,23 in panelboard 'PH1A' to CWP-1

E607 - SCHEDULES

DELETE AND REPLACE

E611 - PANELBOARD SCHEDULES - UNIT A

DELETE AND REPLACE

E615 - PANELBOARD SCHEDULES - UNIT D

DELETE AND REPLACE

E616 - PANELBOARD SCHEDULES - UNIT D

DELETE AND REPLACE

END OF ADDENDUM NO 1

AIR COOLED CHILLER SCHEDULE - 23 64 23																																		
IDENTITY DATA			UNIT DIMENSIONS			WEIGHT (LBS)	CAPACITY		PERFORMANCE DATA		EVAPORATOR DATA							FLUID TYPE	COMPRESSOR DATA			REFRIGERANT DATA		CONDENSER FAN DATA		SOUND DATA		ELECTRICAL DATA						NOTES
MARK	MANUFACTURER	MODEL	L	W	H		NOMINAL (TONS)	EFFECTIVE (TONS)	EER	IPLV	FLOW (GPM)	MIN. FLOW (GPM)	EWI (°F)	LWT (°F)	AMBIENT (°F)	WPD (FT-WG)	FOULING FACTOR		TYPE	# OF CIRCUITS	VFD	TYPE	CHARGE (LB)	QTY	FAN RLA EACH	POWER (DBA)	PRESSURE (DBA)	VOLTS (V)	FREQ (HZ)	UNIT POWER (KW)	MCA (A)	MOCP (A)		
CH-1	TRANE	RTAF310	458"	87"	94"	18,503	310	-	10.6	16.5	495	323	60.0	45.0	95	6.8	0.0001	WATER	SCREW	NO	R-513A		2.50	104	76	460	3	60	351.0	599	700	1-6		
CH-2	TRANE	RTAF310	458"	87"	94"	18,503	310	-	10.6	16.5	495	323	60.0	45.0	95	6.8	0.0001	WATER	SCREW	NO	R-513A		2.50	104	76	460	3	60	351.0	599	700	1-6		
CH-3	TRANE	RTAF310	458"	87"	94"	18,503	310	-	10.6	16.5	495	323	60.0	45.0	95	6.8	0.0001	WATER	SCREW	NO	R-513A		2.50	104	76	460	3	60	351.0	599	700	1-6		

- AIR COOLED CHILLER SCHEDULE NOTES:**
- MANUFACTURER PROVIDED OVERCURRENT PROTECTED DISCONNECT.
 - SINGLE POINT POWER.
 - HIGH-FAULT 65 KA SCCR.
 - STARTER TYPE: ACROSS-THE-LINE. PROVIDE 120V/1PH HEATER FOR FREEZE PROTECTION OF BUNDLE.
 - HAIL GUARDS.
 - PIPE COVER PANELS / END PANELS.

AHU SCHEDULE																											
IDENTITY DATA					DIMENSIONS			SUPPLY FAN DATA							SUPPLY FAN SOUND POWER (OUTLET)								SUPPLY FAN ELECTRICAL DATA				
MARK	MANUFACTURER	MODEL	LOCATION	AREA SERVED	L	W	H	WEIGHT (LBS)	AIRFLOW (CFM)	ESP/TSP (IN-WG)	RPM	MOTOR				OCTAVE BAND								VOLT/PH/HZ	FLA (A)	MCA (A)	MOCP (A)
												QTY	HP	BHP		1	2	3	4	5	6	7	8				
AHU-4	TRANE	CSAA025	UNIT B	UNIT A & B	223.4"	80"	65"	5,170	12,000	1.5/4.8	1,819	1	15.0	13.6	96	87	97	91	89	91	86	73	460/3/60	18.1	-	-	
AHU-8	TRANE	CSAA014	UNIT D	UNIT D	173.3"	72"	45"	3,029	6,500	1.28/4.25	2,183	1	10.0	6.9	96	87	97	91	89	91	86	73	460/3/61	12.5	-	-	
AHU-9	-	-	UNIT D	GYM	-	-	-	-	14500	1/4	-	1	20.0	-	-	-	-	-	-	-	-	-	-	-	-	-	
AHU-20	TRANE	CSAA012	UNIT F	UNIT F	209.9"	66.5"	45"	3,293	5,670	2/5.44	1,970	1	7.5	7.4	96	87	97	91	89	91	86	73	460/3/62	9.8	-	-	

AHU SCHEDULE (CONTINUED)																									
HEATING COIL DATA												COOLING COIL DATA													
MARK	AIRFLOW (CFM)	CAPACITY (MBH)	FLOW (GPM)	EAT (°F) DB	LAT (°F) DB	WPD (FT-WG)	FACE VEL. (FPM)	APD (IN-WG)	ROWS	FPI	FLUID TYPE	TOTAL CAP. (MBH)	SENSIBLE CAP. (MBH)	FLOW (GPM)	EAT (°F) DB/WB	LAT (°F) DB/WB	EW7/LWT (°F)	WPD (FT-WG)	FACE VEL. (FPM)	APD (IN-WG)	ROWS	FPI	FLUID TYPE	NOTES	
AHU-4	12,000	1,020	52	-10	68.4	0.67	693	0.78	4	10.0	WATER	876	493	123	92/76	55/54.9	45/59.2	10.60	481	0.93	8	-	WATER	-	
AHU-8	6,500	499	25	0.0	70	0.79	695	0.40	4	10.0	WATER	255	170	35	92/76	55/54.9	45/59.6	1.40	476	0.39	4	-	WATER	-	
AHU-9																								1	
AHU-20	5,670	502	24.5	-10.0	71	0.34	0.34	0.84	4	12.0	WATER	414	233	58	92/76	55/54.9	45/59.2	10.50	461	0.89	8	-	WATER	-	

IPS #34 BOILER SCHEDULE - 23 52 16																					
IDENTITY DATA					HEATING DATA			GAS PRESSURE DATA			WATER DATA				ELECTRICAL DATA						
MARK	MANUFACTURER	MODEL	TYPE	WEIGHT (LBS)	INPUT (BTUH)	OUTPUT (BTUH)	EFF (%)	MINIMUM (PSI)	MAXIMUM (PSI)	FLOW (GPM)	WPD (FT-WG)	EWI (°F)	LWT (°F)	FLUID TYPE	VOLTS (V)	PHASE	FREQ (HZ)	FLA (A)	MOCP (A)	NOTES	
B-1	LOCHINVAR	FB-2001	CONDENSING	2,570	1,999	1,923	96.4	8	14	192	14.5	120	140	WATER	208	3	60	13	25	1-7	
B-2	LOCHINVAR	FB-2001	CONDENSING	2,570	1,999	1,923	96.4	8	14	192	14.5	120	140	WATER	208	3	60	13	25	1-7	
B-3	LOCHINVAR	FB-2001	CONDENSING	2,570	1,999	1,923	96.4	8	14	192	14.5	120	140	WATER	208	3	60	13	25	1-7	
B-4	LOCHINVAR	FB-2001	CONDENSING	2,570	1,999	1,923	96.4	8	14	192	14.5	120	140	WATER	208	3	60	13	25	1-7	
B-5	LOCHINVAR	FB-2001	CONDENSING	2,570	1,999	1,923	96.4	8	14	192	14.5	120	140	WATER	208	3	60	13	25	1-7	
B-6	LOCHINVAR	FB-2001	CONDENSING	2,570	1,999	1,923	96.4	8	14	192	14.5	120	140	WATER	208	3	60	13	25	1-7	
B-7	LOCHINVAR	FB-2001	CONDENSING	2,570	1,999	1,923	96.4	8	14	192	14.5	120	140	WATER	208	3	60	13	25	1-7	
B-8	LOCHINVAR	FB-2001	CONDENSING	2,570	1,999	1,923	96.4	8	14	192	14.5	120	140	WATER	208	3	60	13	25	1-7	

- BOILER SCHEDULE NOTES**
- SEE BOILER PIPING INSTALLATION DETAIL 4/M501.
 - MANUFATURER SHALL PROVIDE A FACTORY OR FIELD INSTALLED RELAY FOR PRIMARY PUMP CONTROL FOR EACH BOILER.
 - MANUFACTURER SHALL PROVIDE A BACNET COMMUNICATING MASTER BOILER CONTROLLER FOR CONTROL OF ALL BOILER IN EACH LOCATION.
 - MANUFACTURER SHALL PROVIDE A BOILER SUPPLY HEADER TEMPERATURE SENSOR FOR FIELD MOUNTING.
 - MANUFACTURER TO PROVIDE GAS PRESSURE REGULATOR(S) SIZED FOR BOILER.

IDENTITY DATA					PUMP SCHEDULE - 23 21 23													
MARK	MANUFACTURER	MODEL	IMPELLER SIZE (IN)	SYSTEM SERVED	WEIGHT (LBS)	TYPE	FLUID DATA				MOTOR DATA				ELECTRICAL DATA			
							FLUID TYPE	FLOW (GPM)	HEAD (FT-WG)	TEMP (°F)	EFF (%)	HP	BHP	SPEED (RPM)	VOLTS (V)	PH	FREQ (HZ)	NOTES
HWP-1	GRUNDFOS	NBS 050-135-4P	11.30	HW SECONDARY	500	BASE MOUNTED END SUCTION	WATER	960	125.0	140	82.0	50.0	38.8	1,775	208	3	60	1-3
HWP-2	GRUNDFOS	NBS 050-135-4P	11.30	HW SECONDARY	500	BASE MOUNTED END SUCTION	WATER	960	125.0	140	82.0	50.0	38.8	1,775	208	3	60	1-3
HWP-3	GRUNDFOS	NBS 050-135-4P	11.30	HW SECONDARY	500	BASE MOUNTED END SUCTION	WATER	960	125.0	140	82.0	50.0	38.8	1,775	208	3	60	1-3
BP-1	GRUNDFOS	400707 VL	5.60	B-1 PRIMARY	60	CLOSE COUPLED INLINE	WATER	195	25.0	140	76.0	2.0	1.7	1,760	208	3	60	3-4
BP-2	GRUNDFOS	400707 VL	5.60	B-2 PRIMARY	60	CLOSE COUPLED INLINE	WATER	195	25.0	140	76.0	2.0	1.7	1,760	208	3	60	3-4
BP-3	GRUNDFOS	400707 VL	5.60	B-3 PRIMARY	60	CLOSE COUPLED INLINE	WATER	195	25.0	140	76.0	2.0	1.7	1,760	208	3	60	3-4
BP-4	GRUNDFOS	400707 VL	5.60	B-3 PRIMARY	60	CLOSE COUPLED INLINE	WATER	195	25.0	140	76.0	2.0	1.7	1,760	208	3	60	3-4
BP-5	GRUNDFOS	400707 VL	5.60	B-3 PRIMARY	60	CLOSE COUPLED INLINE	WATER	195	25.0	140	76.0	2.0	1.7	1,760	208	3	60	3-4
BP-6	GRUNDFOS	400707 VL	5.60	B-3 PRIMARY	60	CLOSE COUPLED INLINE	WATER	195	25.0	140	76.0	2.0	1.7	1,760	208	3	60	3-4
BP-7	GRUNDFOS	400707 VL	5.60	B-3 PRIMARY	60	CLOSE COUPLED INLINE	WATER	195	25.0	140	76.0	2.0	1.7	1,760	208	3	60	3-4
BP-8	GRUNDFOS	400707 VL	5.60	B-3 PRIMARY	60	CLOSE COUPLED INLINE	WATER	195	25.0	140	76.0	2.0	1.7	1,760	208	3	60	3-4
CHP-1	GRUNDFOS	NBS 040-070-4P	6.85	CHW PRIMARY	496	BASE MOUNTED END SUCTION	WATER	495	35.0	68	84.2	7.5	6.2	1,750	460	3	60	1-3
CHP-2	GRUNDFOS	NBS 040-070-4P	6.85	CHW PRIMARY	496	BASE MOUNTED END SUCTION	WATER	495	35.0	68	84.2	7.5	6.2	1,750	460	3	60	1-3
CHP-3	GRUNDFOS	NBS 040-070-4P	6.85	CHW PRIMARY	496	BASE MOUNTED END SUCTION	WATER	495	35.0	68	84.2	7.5	6.2	1,750	460	3	60	1-3
CHP-4	GRUNDFOS	NBS 040-135-4P	11.81	CHW SECONDARY	800	BASE MOUNTED END SUCTION	WATER	870	125.0	68	80.8	40.0	35.4	1,770	460	3	60	1-3
CHP-5	GRUNDFOS	NBS 040-135-4P	11.81	CHW SECONDARY	800	BASE MOUNTED END SUCTION	WATER	870	125.0	68	80.8	40.0	35.4	1,770	460	3	60	1-3
CHP-6	GRUNDFOS	NBS 040-135-4P	11.81	CHW SECONDARY	800	BASE MOUNTED END SUCTION	WATER	870	125.0	68	80.8	40.0	35.4	1,770	460	3	60	1-3

- PUMP SCHEDULE NOTES:**
- TCC TO PROVIDE VFD.
 - PROVIDE WITH STRAINER.
 - PROVIDE WITH FULL SIZE IMPELLER.
 - HOA STARTER BY EC. BOILER CONTROLLER SHALL CONTROL PUMP START

EXPANSION TANK SCHEDULE - 23 21 16											
IDENTITY DATA				WEIGHT (LBS)	ACCEPTANCE VOLUME (GAL)	OPERATING TEMPERATURE		PRECHARGE PRESSURE (PSI)	MAXIMUM OPERATING PRESSURE		NOTES
MARK	MANUFACTURER	MODEL	SYSTEM SERVED			MIN (°F)	MAX (°F)		VALVE (PSI)	TANK (PSI)	
ET-1	BELL AND GOSSETT	B1400	HHW	3770	370	40	140	12	75	125	1-4
ET-2	BELL AND GOSSETT	B1400	HHW	3770	370	40	140	12	75	125	1-4
ET-3	BELL AND GOSSETT	B600	CHW	1676	158	40	140	12	75	125	1-4

- EXPANSION TANK SCHEDULE NOTES**
- ASME RATED.
 - PROVIDE WITH FLOOR MOUNTS.
 - BLADDER TANK.
 - MANUFACTURER TO PROVIDE AMSE PRESSURE RELIEF VALVE.

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LIGHT FIXTURE SCHEDULE												
LABEL	DESCRIPTION	VOLTAGE	SOURCE				MOUNTING	LENS/REFLECTOR	CERTIFICATIONS	ACCEPTABLE MANUFACTURERS	LABEL	
			TYPE	LUMENS	WATTS	CCT						
EM1	LED EMERGENCY LIGHT, 25" ON CENTER COVERAGE, ADJUSTABLE OPTICS, SELF DIAGNOSTIC, WHITE FINISH, SEALED NICKEL CADMIUM BATTERY.	120/277 V	LED	N/A	10 W	N/A	SURFACE/WALL	N/A	N/A	DUAL-LITE EZ-2i Spectron	EM1	
L1	2X4 LED FLAT PANEL, 0-10V DIMMING.	120/277 V	LED	5,000 LM	40 W	4000 K	RECESSED IN GRID	WHITE FROST ACRYLIC	DLC	LITHONIA CPX	L1	
L2	2X4 LED FLAT PANEL, 0-10V DIMMING, PROVIDE SURFACE MOUNT KIT.	120/277 V	LED	3,500 LM	20 W	4000 K	SURFACE/CEILING	WHITE FROST ACRYLIC	DLC	LITHONIA CPX	L2	
L3	2X2 LED FLAT PANEL, 0-10V DIMMING.	120/277 V	LED	4,600 LM	40 W	4000 K	RECESSED IN GRID	WHITE FROST ACRYLIC	DLC	LITHONIA CPX	L3	
L4	1X4 LED VANDAL RESISTANT TROFER, 0-10V DIMMING.	120/277 V	LED	3,000 LM	28 W	4000 K	RECESSED IN GYP	POLYCARBONATE LENS	DLC	LITHONIA VRTL	L4	
L5	1X4 LED FLAT PANEL, 0-10V DIMMING, PROVIDE SURFACE MOUNT KIT.	120/277 V	LED	3,000 LM	25 W	4000 K	SURFACE/CEILING	POLYCARBONATE LENS	DLC	LITHONIA CPX	L5	
L6	1X4 LED WET LOCATION TROFFER	120/277 V	LED	3,000 LM	25 W	4000 K	RECESSED IN GYP	POLYCARBONATE LENS	DLC	LITHONIA WRTL	L6	
L7	4" LENSED LED STRIP LIGHT, 0-10V DIMMING.	120/277 V	LED	4,000 LM	38 W	4000 K	CHAIN MOUNTED TO STRUCTURE	SEMI-FROSTED LENS	DLC	LITHONIA CSS	L7	
L8	4" LENSED LED STRIP LIGHT, 0-10V DIMMING.	120/277 V	LED	4,000 LM	38 W	4000 K	SURFACE/CEILING/WALL	SEMI-FROSTED LENS	DLC	LITHONIA CSS	L8	
L9	4" LENSED LED STRIP LIGHT, 0-10V DIMMING, WHITE FINISH.	120/277 V	LED	5,400 LM	45 W	4000 K	SURFACE/CEILING/WALL	SEMI-FROSTED LENS	DLC	LITHONIA CSS	L9	
L10	4" LENSED LED STRIP LIGHT, 0-10V DIMMING, WHITE FINISH.	120/277 V	LED	2,600 LM	25 W	4000 K	SURFACE MOUNTED	SEMI-FROSTED LENS	DLC	LITHONIA CSS	L10	
L11	2X4 LED VANDAL RESISTANT TROFER, 0-10V DIMMING.	120/277 V	LED	3,000 LM	24 W	4000 K	RECESSED IN GYP	WHITE FROST ACRYLIC	DLC	LITHONIA 2VRTL	L11	
L12A	8" LED CYLINDER, BLACK FINISH, WIDE DISTRIBUTION, APPROXIMATE LENGTH OF STEM IS 20", FIELD VERIFY.	120/277 V	LED	8,000 LM	75 W	4000 K	PENDANT/STEM	SEMI-SPECULAR CLEAR	ES	LITHONIA LDN8	L12A	
L12B	8" LED CYLINDER, BLACK FINISH, WIDE DISTRIBUTION.	120/277 V	LED	8,000 LM	75 W	4000 K	SURFACE/CEILING	SEMI-SPECULAR CLEAR	ES	LITHONIA LDN8	L12B	
L13	4" LENSED LED STRIP LIGHT, 0-10V DIMMING.	120/277 V	LED	1,500 LM	15 W	4000 K	PENDANT	FLUSH SATIN LENS	DLC	FOCAL POINT FSM4LS FINELITE HP4 PINNACLE EDGE	L13	
L14A	16" DIAMETER LED HIGHBAY, WHITE POLYESTER POWDER COAT FINISH, SAFETY CABLE, 0-10V DIMMING.	120/277 V	LED	27,000 LM	195 W	4000 K	PENDANT/STEM	POLYCARBONATE	DLC	LITHONIA CPRB	L14A	
L14B	16" DIAMETER LED HIGHBAY, WHITE POLYESTER POWDER COAT FINISH, SAFETY CABLE, 0-10V DIMMING.	120/277 V	LED	18,000 LM	132 W	4000 K	PENDANT/STEM	POLYCARBONATE	DLC	LITHONIA CPRB	L14B	
L14C	16" DIAMETER LED HIGHBAY, WHITE POLYESTER POWDER COAT FINISH, SAFETY CABLE, 0-10V DIMMING.	120/277 V	LED	24,000 LM	175 W	4000 K	PENDANT/STEM	POLYCARBONATE	DLC	LITHONIA CPRB	L14C	
L15	4" X 4" WALL MOUNTED, LINEAR, DIRECT LED FIXTURE, FLUSH LENS, WHITE FINISH, 0-10V DIMMING, U.L. LISTED WET LOCATION.	120/277 V	LED	3,000 LM	34 W	4000 K	SURFACE/WALL	TEMPERED CLEAR GLASS	N/A	LUMENWERX VIAWETW OCL UA1 SELUX L125	L15	
L16	VANDAL RESISTANT STAIRWELL LED WITH INTEGRAL OCCUPANCY SENSOR.	120/277 V	LED	3,779 LM	50 W	4000 K	SURFACE/CEILING	OPAL POLYCARBONATE	DLC	LUMINAIRE ENDEAVOR ESF18	L16	
L17	VANDAL RESISTANT STAIRWELL LED WITH INTEGRAL OCCUPANCY SENSOR.	120/277 V	LED	3,779 LM	50 W	4000 K	SURFACE/WALL	OPAL POLYCARBONATE	DLC	LUMINAIRE ENDEAVOR ESF18	L17	
L18	LED 13" DIA. SURFACE DOWNLIGHT.	120/277 V	LED	1,800 LM	20 W	4000 K	SURFACE/CEILING	ACRYLIC	ES	JUNO JSF	L18	
L19	4" LENSED LED STRIP LIGHT, 0-10V DIMMING WITH WIRE GUARD.	120/277 V	LED	4,000 LM	38 W	4000 K	CHAIN MOUNTED TO STRUCTURE	SEMI-FROSTED LENS	DLC	LITHONIA CSS	L19	
L20	LOW PROFILE LED WRAPAROUND, 0-10V DIMMING.	120/277 V	LED	5,000 LM	25 W	4000 K	SURFACE/CEILING	POLYCARBONATE LENS	DLC	LITHONIA FML4W	L20	
L21	1X4 LED FLAT PANEL, 0-10V DIMMING.	120/277 V	LED	4,500 LM	40 W	4000 K	RECESSED IN GRID	WHITE FROST ACRYLIC	DLC	LITHONIA CPX	L21	
L22	2X2 LED FLAT PANEL, 0-10V DIMMING.	120/277 V	LED	3,500 LM	30 W	4000 K	RECESSED IN GRID	WHITE FROST ACRYLIC	DLC	LITHONIA CPX	L22	
L23	LED MIRROR/VANITY FIXTURE WITH LAMPS (E26 BASE/A19 SIZE) AT 6" O. C., FINISH SELECTED BY A/E, FIELD VERIFY EXACT LENGTH, PROVIDE SQUARE WIRE GUARD, UL WET LABEL.	120/277 V	LED	N/A	0 W	2700 K	SURFACE/WALL	HEAT RESISTANT GLASS WITH DIE-CAST ALUMINUM GUARD	N/A	CELESTIAL AQUARIUS R	L23	
L24	VAPOR TIGHT LED STRIP LIGHT	120/277 V	LED	3,000 LM	25 W	4000 K	SURFACE/CEILING/WALL	POLYCARBONATE LENS	DLC	LITHONIA CSVT	L24	
L25	LED TAPE LIGHT FOR COVE LIGHTING, PROVIDE RIGID MOUNTING CHANNEL.	120/277 V	LED	240 LM/FT	11 W	4000 K	SURFACE	SEMI-FROSTED LENS	N/A	LINEAR LED 'XOO' CONTECH TLT BRUCK SABER	L25	
L26	16" DIAMETER LED HIGHBAY, WHITE POLYESTER POWDER COAT FINISH, ROUND, DECORATIVE SHIELD, WIDE DISTRIBUTION, 0-10V DIMMING.	120/277 V	LED	21,000 LM	148 W	4000 K	PENDANT/STEM	POLYCARBONATE LENS	DLC	LITHONIA CPRB	L26	
L27	4" LENSED LED STRIP LIGHT, 0-10V DIMMING, WHITE FINISH.	120/277 V	LED	5,400 LM	45 W	4000 K	CHAIN MOUNTED TO STRUCTURE	SEMI-FROSTED LENS	N/A	LITHONIA CSS	L27	
L28	LED RETROFIT KIT FOR THEATRICAL HOUSE LIGHTS, INCLUDE TOPS, REFLECTORS, ADAPTORS/EXTENDERS, AS NECESSARY TO FIT THE EXISTING FIXTURE HOUSING AND NOT PORTRUDE BELOW THE CEILING PLANE, PROVIDE TWO SPARES OF ATTIC STOCK OF EACH TYPE, COORDINATE WITH THE MANUFACTURER'S REPRESENTATIVE BEFORE ORDERING PRODUCT, MODULE SIZE AND WATTAGE MAY CHANGE BASED ON SIZE OF EXISTING HOUSING, THE THEATRICAL LIGHTING DISTRIBUTOR WILL PROVIDE ALL EQUIPMENT NECESSARY TO SAFELY ACCESS EACH FIXTURE FROM BELOW, THE THEATRICAL LIGHTING DISTRIBUTOR WILL PROVIDE A CREW TO MOVE AND MAINTAIN THE LIFT/ACCESS EQUIPMENT THROUGHOUT THE INSTALLATIONN PERIOD.	120/277 V	LED	5,668 LM	49 W	3000 K	RECESSED IN DRYWALL	N/A	ES	CANTO USA MOD#F: F2-120V-500-X-3.0K-80CRI	L28	
L29	2" LENSED LED STRIP LIGHT, 0-10V DIMMING, WHITE FINISH.	120/277 V	LED	2,600 LM	25 W	4000 K	WALL MOUNTED	SEMI-FROSTED LENS	N/A	LITHONIA CSS	L29	
X1	LED EXIT LIGHT, WHITE POLYCARBONATE HOUSING, DUAL FACE, RED LETTERS, SELF POWERED NICKEL-CADMIUM BATTERY, SELF DIAGNOSTIC/SELF-TESTING MODULE.	120/277 V	LED	N/A	5 W	N/A	UNIVERSAL	N/A	N/A	DUAL-LITE LXURWEI	X1	
X2	LED EXIT LIGHT, WHITE POLYCARBONATE HOUSING, SINGLE FACE, RED LETTERS, SELF POWERED NICKEL-CADMIUM BATTERY, SELF DIAGNOSTIC/SELF-TESTING MODULE.	120/277 V	LED	N/A	5 W	N/A	UNIVERSAL	N/A	N/A	DUAL-LITE LXURWEI	X2	
X3	LED EXIT LIGHT, WHITE POLYCARBONATE HOUSING, SINGLE FACE, RED LETTERS, SELF POWERED NICKEL-CADMIUM BATTERY, SELF DIAGNOSTIC/SELF-TESTING MODULE.	120/277 V	LED	N/A	5 W	N/A	UNIVERSAL	N/A	N/A	DUAL-LITE LXURWEI	X3	
X4	LED EXIT LIGHT, WHITE POLYCARBONATE HOUSING, SINGLE FACE, RED LETTERS, SELF POWERED NICKEL-CADMIUM BATTERY, SELF DIAGNOSTIC/SELF-TESTING MODULE, WITH WIRE GUARD.	120/277 V	LED	N/A	5 W	N/A	UNIVERSAL	VANDAL-RESISTANT POLYCARBONATE SHIELD WITH TAMPERPROOF SCREWS	N/A	DUAL-LITE LXURWEI	X4	
X5	LED EXIT LIGHT, BLACKPOLYCARBONATE HOUSING, SINGLE FACE, RED LETTERS, SELF POWERED NICKEL-CADMIUM BATTERY, SELF DIAGNOSTIC/SELF-TESTING MODULE.	120/277 V	LED	N/A	5 W	N/A	UNIVERSAL	N/A	N/A	DUAL-LITE LXURWEI	X5	
X6	LED COMBO EXIT/EMERGENCY LIGHT, BLACK POLYCARBONATE HOUSING, SINGLE FACE, RED LETTERS, SELF POWERED NICKEL-CADMIUM BATTERY, SELF DIAGNOSTIC/SELF-TESTING MODULE.	120/277 V	LED	N/A	5 W	N/A	UNIVERSAL	N/A	N/A	DUAL-LITE HCX	X6	

ENCLOSED SWITCHES & CIRCUIT BREAKERS SCHEDULE										
LABEL	EQUIPMENT SERVED	EQUIPMENT RATINGS					ACCESSORIES		REMARKS	
		VOLTAGE	POLES	AMPERAGE	FUSED	FUSE SIZE	NEMA ENCL	AUX. CONTACTS		SOLID NEUTRAL
DDS1	B-1	240 V	3	30 A	Yes	20A	1	(1) N.O. / N.C.	No	
DDS2	B-2	240 V	3	30 A	Yes	20A	1	(1) N.O. / N.C.	No	
DDS3	B-3	240 V	3	30 A	Yes	20A	1	(1) N.O. / N.C.	No	
DDS4	B-4	240 V	3	30 A	Yes	20A	1	(1) N.O. / N.C.	No	
DDS5	B-5	240 V	3	30 A	Yes	20A	1	(1) N.O. / N.C.	No	
DDS6	B-6	240 V	3	30 A	Yes	20A	1	(1) N.O. / N.C.	No	
DDS7	B-7	240 V	3	30 A	Yes	20A	1	(1) N.O. / N.C.	No	
DDS8	B-8	240 V	3	30 A	Yes	20A	1	(1) N.O. / N.C.	No	
DDS9	FIRE PUMP	600 V	3	400 A	Yes	250A	1	(1) N.O. / N.C.	No	SE RATED
FDS1	DIMMER	240 V	3	600 A	Yes	600A	1	(1) N.O. / N.C.	No	

ENCLOSED & VARIABLE-FREQUENCY MOTOR CONTROLLERS SCHEDULE												
LABEL	EQUIPMENT SERVED	EQUIPMENT RATINGS				NEMA ENCL	STARTER		DISCONNECT SWITCH		REMOTE CAPACITOR	REMARKS
		VOLTAGE	PHASE	HP	FLA		TYPE	NEMA SIZE	TYPE	FUSE SIZE		
DMS1	BP-1	208 V	3	2	7.8 A	1	FVNR	1	FUSIBLE	10	-	PROVIDE SINGLE PHASE PROTECTION, THE SINGLE PHASE PROTECTION SHALL BE PART OF THE OVERLOAD BLOCK, OVERLOADS SHALL BE ADJUSTABLE.
DMS2	BP-2	208 V	3	2	7.8 A	1	FVNR	1	FUSIBLE	10	-	PROVIDE SINGLE PHASE PROTECTION, THE SINGLE PHASE PROTECTION SHALL BE PART OF THE OVERLOAD BLOCK, OVERLOADS SHALL BE ADJUSTABLE.
DMS3	BP-3	208 V	3	2	7.8 A	1	FVNR	1	FUSIBLE	10	-	PROVIDE SINGLE PHASE PROTECTION, THE SINGLE PHASE PROTECTION SHALL BE PART OF THE OVERLOAD BLOCK, OVERLOADS SHALL BE ADJUSTABLE.
DMS4	BP-4	208 V	3	2	7.8 A	1	FVNR	1	FUSIBLE	10	-	PROVIDE SINGLE PHASE PROTECTION, THE SINGLE PHASE PROTECTION SHALL BE PART OF THE OVERLOAD BLOCK, OVERLOADS SHALL BE ADJUSTABLE.
DMS5	BP-5	208 V	3	2	7.8 A	1	FVNR	1	FUSIBLE	10	-	PROVIDE SINGLE PHASE PROTECTION, THE SINGLE PHASE PROTECTION SHALL BE PART OF THE OVERLOAD BLOCK, OVERLOADS SHALL BE ADJUSTABLE.
DMS6	BP-2	208 V	3	2	7.8 A	1	FVNR	1	FUSIBLE	10	-	PROVIDE SINGLE PHASE PROTECTION, THE SINGLE PHASE PROTECTION SHALL BE PART OF THE OVERLOAD BLOCK, OVERLOADS SHALL BE ADJUSTABLE.
DMS7	BP-7	208 V	3	2	7.8 A	1	FVNR	1	FUSIBLE	10	-	PROVIDE SINGLE PHASE PROTECTION, THE SINGLE PHASE PROTECTION SHALL BE PART OF THE OVERLOAD BLOCK, OVERLOADS SHALL BE ADJUSTABLE.
DMS8	BP-8	208 V	3	2	7.8 A	1	FVNR	1	FUSIBLE	10	-	PROVIDE SINGLE PHASE PROTECTION, THE SINGLE PHASE PROTECTION SHALL BE PART OF THE OVERLOAD BLOCK, OVERLOADS SHALL BE ADJUSTABLE.
VFD1	HWP-1	208 V	3	50	150.0 A	-	VFD	-	-	-	-	
VFD2	HWP-2	208 V	3	50	150.0 A	-	VFD	-	-	-	-	
VFD3	HWP-3	208 V	3	50	150.0 A	-	VFD	-	-	-	-	
VFD4	CHP-1	480 V	3	7.5	11.0 A	-	VFD	-	-	-	-	TCC FURNISHED, E.C. INSTALLED.
VFD5	CHP-2	480 V	3	7.5	11.0 A	-	VFD	-	-	-	-	TCC FURNISHED, E.C. INSTALLED.
VFD6	CHP-3	480 V	3	7.5	11.0 A	-	VFD	-	-	-	-	TCC FURNISHED, E.C. INSTALLED.
VFD7	CHP-4	480 V	3	40	52.0 A	-	VFD	-	-	-	-	
VFD8	CHP-5	480 V	3	40	52.0 A	-	VFD	-	-	-	-	
VFD9	CHP-6	480 V	3	40	52.0 A	-	VFD	-	-	-	-	

FUSED SWITCHBOARD SCHEDULE									
SWITCHBOARD: AFB				VOLTS: 480Y/277 V				MAINS RATING: 2500 A	
LOCATION: PENTHOUSE				PHASES: 3				MS RATING: MLO	
MOUNTING: FLOOR				WIRES: 4					
SUPPLY FROM: M				A/C RATING: 22K					
CKT NO.	CIRCUIT DESCRIPTION	P	FRAME SIZE	FUSE RATING	A	B	C	LOAD	REMARKS
1	CH-1	3	800 A	700 A	156.78	156.78	156.78	470.35	
2	CH-2	3	800 A	700 A	156.78	156.78	156.78	470.35	
3	CH-3	3	800 A	700 A	156.78	156.78	156.78	470.35	
4	PH1A	3	600 A	600 A	52.38	52.38	52.38	157.14	
5	AHU-1 50HP SUPPLY FAN	3	100 A	100 A	--	--	--	0.00	
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
					TOTAL LOAD:	522.73 kVA	522.73 kVA	522.73 kVA	
					TOTAL AMPS:	1887 A	1887 A	1887 A	
					TOTAL CONNECTED LOAD: 1,568.18 kVA				
					TOTAL DEMAND LOAD: 1,568.18 kVA				
					TOTAL CONNECTED AMPS: 1887 A				
					TOTAL DEMAND AMPS: 1,886 A				
LOAD CLASSIFICATION					CONNECTED LOAD (VA)		DEMAND FACTOR		ESTIMATE DEMAND (VA)
Mechanical - Motor					157140 VA		100.00%		157140 VA
Power - Continuous					1411038 VA		100.00%		1411038 VA

FUSED SWITCHBOARD SCHEDULE									
SWITCHBOARD: C			VOLTS: 208Y/120 V						
LOCATION: BOILER ROOM			PHASES: 3						
MOUNTING: FLOOR			WIRES: 4						
SUPPLY FROM: B			AIC RATING: 22K						
			MAINS RATING: 1600 A						
			MS RATING: MLO						
CKT NO.	CIRCUIT DESCRIPTION	P	FRAME SIZE	FUSE RATING	A	B	C	LOAD	REMARKS
1	BR-A	3	200 A	200 A	7.49	7.49	7.49	22.48	
2	BR	3	200 A	200 A	0.96	0.96	0.96	2.88	
3	ILD-4	3	800 A	800 A	0.00	0.00	0.00	0.00	
4	ILD-2	3	800 A	800 A	0.00	0.00	0.00	0.00	
5	HWP-1	3	200 A	200 A	18.01	18.01	18.01	54.04	
6	HWP-2	3	200 A	200 A	18.01	18.01	18.01	54.04	
7	HWP-3	3	200 A	200 A	18.01	18.01	18.01	54.04	
8	SPARE	3	200 A	200 A	---	---	---	0.00	
9	SPARE	3	200 A	200 A	---	---	---	0.00	
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
					TOTAL LOAD:	62.49 kVA	62.49 kVA	62.49 kVA	
					TOTAL AMPS:	521 A	521 A	521 A	
					TOTAL CONNECTED LOAD: 187.48 kVA				
					TOTAL CONNECTED AMPS: 521 A				
					TOTAL DEMAND LOAD: 187.48 kVA				
					TOTAL DEMAND AMPS: 520 A				
LOAD CLASSIFICATION					CONNECTED LOAD (VA)		DEMAND FACTOR		ESTIMATE DEMAND (VA)
Mechanical - Motor					187482 VA		100.00%		187482 VA
Power - Continuous					0 VA		0.00%		0 VA

