



**ADDENDUM #02
TO
INVITATION TO BID #01 - EARLY RELEASE FOR ELECTRICAL EQUIPMENT**

ADDITION AND RENOVATIONS TO
OLD GREENWICH SCHOOL
285 SOUND BEACH AVENUE
OLD GREENWICH, CT 06870
GREENWICH PUBLIC SCHOOL BID # #2494-24
NOVEMBER 15, 2024

The Contract Documents for this Invitation to Bid are modified and/or supplemented as follows and should be included in the Subcontractor's lump sum bid as it relates to their Bid Package Scope of Work:

GENERAL INFORMATION

Bid Package Scope of Work:

1. **ALL Bidders shall** note, the bid due date has **NOT** changed and remains at **November 22, 2024 @ 11:00 AM EST.**
2. **FOR RECORD PRE-BID CONFERENCE AGENDA DATED 11/12/2024:** attached

Attendees	
Name	Company
Anthony DiMauro	Downes Construction
Joseph Ryan	Downes Construction
Steve Croteau	Silver Petrucelli + Associates
Arnold Veerasammy	Electrical Power Systems
Eugene Watts	Greenwich Public Schools
Lawrence Rosati	The Morganti Group
Steven Walker	HiReli LLC
Willie McBride	WC McBride Electric

3. **MEETING RECORDING FROM 11/12/2024:**
https://downesco.zoom.us/rec/share/xXzWq4MuUu0bCcJMMII1imnUVcRsW2dy6JftOg7ObfIWvrCbZ7ricuMOQXjCvIT.4cGn0POyTz_Z_N5V
Passcode: QP3&%aQG

ITB #01 - ADDENDUM #02 – ADDITION AND RENOVATIONS TO OLD GREENWICH SCHOOL

4. **CHANGES TO THE CONTRACT DRAWINGS:** The following changes to the Drawings and Project Specifications shall become a part of the Drawings and Project Specifications; superseding previously issued Drawings and Project Specifications to the extent modified by Bulletin #1.

a) Changes to the following Drawings

- E403 ELECTRICAL ONE LINE DIAGRAM – NORTH SIDE
- E404 ELECTRICAL ONE LINE DIAGRAM – SOUTH SIDE
- E501 ELECTRICAL PANEL SCHEDULES – FIRST FLOOR PART 'A'
- E505 ELECTRICAL PANEL SCHEDULES – THIRD FLOOR
- E506 ELECTRICAL PANEL SCHEDULES – PART 'A' THRU 'D'

b) Summary:

- Updated panel schedules.
- Switchboard SWBD-1 has been reduced from 2000 Amps to 1600 Amps

ALL BIDS FOR ALL BID PACKAGES ARE TO BE SUBMITTED VIA MAIL OR HAND DELIVERY IN SEALED ENVELOPES IN DUPLICATE by the date and time indicated, after which time no further bids will be accepted. All bidders must include the Project Name and Bid Package Number & Description on the envelopes (Example – GPS #2494-24 – Old Greenwich School – BP# 1.26.1 – Early Release for Electrical Equipment). Bids received will subsequently be publicly opened and read aloud at the Board of Education of The Town of Greenwich, Havemeyer Building, located at 290 Greenwich Ave, Greenwich, CT 06830 until **11:00 AM EST on Friday, November 22, 2024.**

END ADDENDUM 01

Attachments as indicated above.



PRE-BID WALTHROUGH AGENDA – PHASE #1

INVITATION TO BID #01

OLD GREENWICH SCHOOL: ADDITION AND ALTERATIONS
285 SOUND BEACH AVE, OLD GREENWICH CT 06870
LOCATION: ZOOM

<https://downesco.zoom.us/j/89473134746>

Meeting ID: 894 7313 4746

DATE – November 12, 2024
TIME – SCHEDULED 11:00 AM
NON – MANDATORY

1. INTRODUCTION

Owner: Old Greenwich Building Committee
Project Manager: The Morganti Group
Construction Managers: Downes Construction Company
Architect: Silver Petrucelli + Associates
Structural Engineer: Michael Horton Associates, Inc
Technology: D’Agostino & Associates
Civil / Hazardous Materials: Langan
MEP Engineer: Silver Petrucelli + Associates

2. PROJECT DESCRIPTION

This project is a **phased** construction project which includes the construction of a 7,635 SF new Addition and Renovations to the 71, 932 SF existing school.

This bid package is for the procurement of the Early Release Electrical Equipment so the material will be available as required. Items include:

Generator with Level 2 Sound Attenuated Enclosure
ATS-E
ATS-S
SWBD-1 - 480-volt w/CT & Main Switch and utility meter enclosure
SWBD-2 - 208-volt
TX-1
TX-1E
TX-S1
DP-E2
DP-S1
DP-S2
RP-SW (Wing D)
SPP-1D (Wing D)
60A Fused Disconnect Switch

3. BID DOCUMENTS

- Available to all interested bidders from Downes via SmartBid & ShareFile. Bid Documents Include:
 1. DOWNES Project Manual dated 11/01/2024
- Addenda will be issued to those bidders who received documents directly from Downes.

4. PACKAGES CURRENTLY OUT TO BID:

Bid Package	Description
Bid Package #1.26.1	Early Release Electrical Equipment

All bidders whose bids exceed \$1,000,000.00 shall hold a current DAS Contractor Prequalification Certificate (not a predetermination letter) from the Department of Administrative Services of the State of Connecticut according to Connecticut General Statutes Section 4a-100, 4b-101 and 4b-91. Bidders shall submit with their bids a current Update (bid) Statement. Failure to submit this item with the bid subjects your bid to disqualification. If you have any questions regarding these requirements contact the State of CT.DAS, at telephone number 860-713-5280 or visit their web site at www.das.state.ct.us

- 5. BID DUE DATE AND TIME – November 22, 2024 at 11:00 AM** Subject to change via Addenda.
One (1) original and One (1) copy.

- 6. LOCATION OF BIDS RECEIVED . ALL BIDS FOR ALL BID PACKAGES ARE TO BE SUBMITTED VIA MAIL OR HAND DELIVERY IN SEALED ENVELOPES IN DUPLICATE** by the date and time indicated, after which time no further bids will be accepted. All bidders must include the Project Name and Bid Package Number & Description on the envelopes (Example – GPS #2494-24– Old Greenwich School – BP# 1.26.1 – Early Release for Electrical Equipment). Bids received will subsequently be publicly opened and read aloud at the Board of Education of The Town of Greenwich, Havemeyer Building, located at 290 Greenwich Ave, Greenwich, CT 06830 until **11:00 AM EST on Friday, November 22, 2024.**

7. BID FORM REVIEW-

All bids for all bid packages are to be submitted by mail or via hand delivery, with all spaces filled in. Faxed bids will be rejected. Those bidders who are bidding more than one Bid Package Scope of Work should submit their bids on separate Bid Forms in separate, sealed envelopes unless they are submitting combined bids for which a space has been provided. The Bid Form must be accompanied by the following:

- A. Bid Security in the amount of Ten Percent (10%) of the Base Bid Sum (Bid Bond or Certified Check) as required. A bid bond is not required for (SA) and (SA/PLA) packages.
- B. Substitution Listing (As Applicable);
- C. Workman’s Compensation Experience Modification Factor (EMR) form from insurer;
- D. Non-Collusion Affidavit;
- E. Acknowledgement of Surety;
- F. Contractor’s Qualification Statement (AIA Document A305, 1986 Edition), provide past experience with projects of a similar nature and scope within the past 5 years;
- G. Proof of Insurance in accordance with Contract Requirements on Sample Accord Form

- 8. PERFORMANCE AND PAYMENT BONDS** – The successful bidders will be required to provide 100% Performance and Labor and Material Payment Bonds. Bidders are requested to indicate the added cost to the base bid of 100% Performance and Labor and Material Payment Bonds in the appropriate space on the bid form. The owner must be included as a “dual obligee” on all bonds. Surety companies providing performance and payment bond(s) must be licensed to do business in Connecticut and be approved as sureties on Government contract pursuant to U.S.

Treasury Circular No. 570, published annually in the Federal Register. 100% Performance and Labor and Material Payment Bonds not required for (SA) and (SA/PLA) packages.

9. **LIQUIDATED DAMAGES** – Liquidated Damages per **section 6.1.6 AIA133 – 2019** will be assessed per schedule phases. Individual trade partners will be held accountable for any slippage that will hold up millstones & completion as shown on the schedule. It is imperative that all documents required are turnover in a timely manner as to not allow missed dates on the phased schedules. These include but are not limited to the following: Contract execution, COI's, Submittals, RFI's, Fabrication timeline, attending meetings & manpower.
10. **PREVAILING WAGE RATES** - The State of Connecticut Department of Labor and all associated statutes and regulations shall govern labor wages on this project.
11. **TAX EXEMPT** - This project is tax-exempt. Reference Supplemental Instructions paragraph C.
12. **BIDDING REQUESTS FOR INFORMATION (RFI) REGARDING THE ABOVE TRADE PACKAGES** All questions regarding bidding procedures, bidding documents and construction procedures are to be directed in RFI form to the Construction Manager Downes Construction Company at OGSbid@Downesco.com. All answers will be published by written Addendum. Extension of the RFI deadline may only be revised by written addendum. Questions received verbally will not be answered. The RFI submission deadline is five (5) business days prior to the bid due date at 12 noon EST. RFI submission deadline may be extended by addenda at the CM's discretion.
13. **CERTIFIED PAYROLLS** – All Subcontractors shall note the following in regards to WEEKLY certified payrolls:
 - As this is a Prevailing Wage project, each Contractor must follow all the rules, guidelines and regulations set forth by the CT Department of Labor. Please read and adhere to all of the contents pertaining to Prevailing Wage as set forth in this document.
 - A reminder that Prevailing wages are updated (changed) every July 1st by the State Department of Labor. Each Contractor is responsible to find out the new rates and to make the appropriate changes on its first payroll after July 1st. Each Subcontractor is responsible for assuming and including wage increases in their lump sum bids accordingly. No change orders will be entertained as they relate to periodic prevailing wage rate increases.
 - Each contractor must send Certified Payroll submissions to *Certified Paychecks via email*. No hard copy originals will be required to be submitted to the consultant or Downes. The current email is payroll@certifiedpaycheck.com. (Contact is Kathy Wimmer at kwimmer@certifiedpaycheck.com).
 - Certified payrolls must be completely filled out Weekly basis and must be received by Thursday of the following week, otherwise no payment will be allowed without correct receipt of certified payrolls (obviously all appropriate standard State of CT forms must be used). Employee's Social Security numbers should not appear on the payrolls.
 - Each Contractor must send its completed Monthly Employment Utilization Report Form for the Commission on Human Rights and Opportunities. to *Certified Paychecks via email*. No hard copy originals will be required to be submitted to the consultant or Downes. The current email is payroll@certifiedpaycheck.com. (Contact is Kathy Wimmer at kwimmer@certifiedpaycheck.com). THESE REPORTS MUST BE SUBMITTED ALONG WITH THE CERTIFIED PAYROLLS.

- It is a state law that all private employees and apprentices who perform manual labor for a Contractor on a public building project must have completed the 10-hour Outreach Course in accordance with federal OSHA Training Institute standards, and for telecommunications workers, a 10-hour training course in accordance with federal OSHA standards, 29 CFR 1910.268. A Certification card is not compliant if it is more than 5 years old.
- Each Contractor must affix a copy of the construction safety course completion card to the first certified payroll submitted to the *Certified Paychecks* in accordance with Connecticut General Statute 31-53(f) on which such employee's name first appears.

14. INSURANCE – The successful bidder will be required to provide insurance in accordance with the limits set forth in Section 4 of Downes Supplemental Instructions or those indicated elsewhere in the Contract Documents. Whichever coverage may be higher. The successful bidder shall procure at their own expense Workmen's Compensation, Comprehensive General Liability, Automobile Liability and other insurance with coverage and limits as defined in the Contract Documents. Certificates of Insurance with the above coverage must be submitted before starting work on the project. Thirty (30) days notice is required before cancellation.

15. SUPPLEMENTAL INSTRUCTIONS

- DCC Supplemental Instructions and Old Greenwich School Building Committee Conditions are contained in Project Manual
- Bidders should review thoroughly.

16. CONTRACT AGREEMENT

- Sample A401 - 2017 Agreement Between Contractor and Subcontractor contained inside the Downes Project Manual.
- Contracts will be between Downes and Subcontractor.

17. JOBSITE SAFETY

- All Contractors will go through a jobsite safety orientation and be issued a sticker indicating completion of the orientation.
- All employees and visitors shall wear "Safety trained hard hat label identification" at all times while on the Old Greenwich School property. These hard hat labels will be numbered and used to identify each person on the jobsite. See Supplemental Instructions Paragraph R for additional information.

18. SCHEDULE & PHASING

- Phasing Plan and Schedule is attached as included in Downes Project Manual.
- Material Procurement and Long Lead Times – **Contractors to provide lead time information on the bid form as requested in the bid documents.**

19. CONSTRUCTION PARKING - There is no parking on the Construction Job Site

20. DISCUSSION/QUESTIONS

All questions to OGSbid@Downesco.com.

21. WALK-THROUGH-NA

ADDITION & ALTERATIONS – PRE-PURCHASE

**OLD GREENWICH SCHOOL
285 SOUND BEACH AVENUE
OLD GREENWICH, CT 06870
GPS BID #2494-24**

S/P+A PROJECT #22.382

DATE: November 15, 2024

The following changes to the Drawings and Project Specifications shall become a part of the Drawings and Project Specifications; superseding previously issued Drawings and Project Specifications to the extent modified by Bulletin #1.

Changes to the Drawings:

- The following ELECTRICAL drawings have been deleted in their entirety. New drawings (5) have been added and are attached as part of this bulletin*:
 - E403 ELECTRICAL ONE LINE DIAGRAM – NORTH SIDE
 - E404 ELECTRICAL ONE LINE DIAGRAM – SOUTH SIDE
 - E501 ELECTRICAL PANEL SCHEDULES – FIRST FLOOR PART 'A'
 - E505 ELECTRICAL PANEL SCHEDULES – THIRD FLOOR
 - E506 ELECTRICAL PANEL SCHEDULES – PART 'A' THRU 'D'

The bulletin consists of five (5) 30" x 42" drawings*.
End of Bulletin #1



CONDUCTOR NOTES:

1. ALL VALUES BASED ON COPPER CONDUCTORS.
2. **FEEDERS**
UPGRADE WIRE TO MAINTAIN MAXIMUM OF 2 % VOLTAGE DROP.
3. **BRANCH CIRCUITS**
UPGRADE WIRE TO MAINTAIN MAXIMUM OF 3 % VOLTAGE DROP.
4. NUMBER OF WIRES SHALL BE DETERMINED WITH EQUIPMENT ELECTRICAL NAMEPLATE CHARACTERISTICS.
5. WHERE NEUTRALS ARE REQUIRED, IT SHALL MATCH FEEDER CONDUCTOR SIZE.
6. USE CONDUCTOR (THWN/THHN) (3PH, 3W) WITH GROUND PRIMARY FEEDER FOR TRANSFORMERS.

TRANSFORMER NOTES:

1. BOND NEUTRAL OF TRANSFORMER SECONDARY TO TRANSFORMER CASE, WITH BONDING JUMPER.
2. GROUND THE CASING OF THE TRANSFORMER TO NEAREST AVAILABLE EFFECTIVELY GROUNDED WATER PIPE, STRUCTURAL STEEL AND/OR DRIVEN GROUND ROD IN ACCORDANCE WITH N.E.C. 250-30.
3. ALL CONDUCTOR SIZES ARE FOR COPPER CONDUCTORS, N.E.C. TABLE 310-15.
4. SECONDARY OVERCURRENT PROTECTION SHALL BE LOCATED WITHIN TEN (10) FEET OF THE TRANSFORMER SECONDARY TERMINALS EITHER IN A PANEL BOARD (MAIN BREAKER) OR AN INDIVIDUAL MOUNTED CIRCUIT BREAKER/DISCONNECT SWITCH.
5. TRANSFORMER BONDING JUMPER AND GROUNDING ELECTRODE CONDUCTOR.
6. 600KCMIL CONDUCTORS SHALL BE PROVIDED WITH MAC ADAPTERS AS REQUIRED TO COORDINATE WITH BREAKER LUG SIZES.

GENERAL NOTES

1. NEW PRIMARY SERVICE UNDERGROUND OVER TO EXISTING UTILITY POLE. CABLE BY EVERSOURCE IN (2) 4' CONDUITS BY CONTRACTOR. REFER TO SITE PLAN E140 FOR EXACT ROUTING.
2. NEW UTILITY COMPANY TRANSFORMER AND PAD, TRANSFORMER BY EVERSOURCE AND PAD BY CONTRACTOR PER EVERSOURCE STANDARDS. REFER TO DETAIL ON DRAWING E001.
3. NEW 1600 AMP SECONDARY FEEDER USING COPPER CONDUCTORS, PROVIDE (5) SETS OF (4) #400KCMIL IN (6) 3".
4. NEW 400 AMP GENERATOR DISTRIBUTION FEEDER USING COPPER CONDUCTORS, PROVIDE (4) #110 + #6G IN 2".
5. NEW 400 AMP GENERATOR DISTRIBUTION FEEDER USING COPPER CONDUCTORS, PROVIDE (4) #600KCMIL + #3G IN 4".
6. GENERATOR SHALL BE FURNISHED WITH TWO OUTPUT BREAKERS, A 125 AMP 3 POLE SERVING THE BUILDING EMERGENCY DISTRIBUTION AND A 400 AMP 3 POLE SERVING THE STAND-BY DISTRIBUTION.
7. PROVIDE (1) 1 1/2", 2 #12 & 12 #16 FOR GENERATOR REMOTE ANNUNCIATOR LOCATED IN CUSTIARIOS BUILDING 1042B.
8. FURNISH AND INSTALL (2) 1 1/2" FROM GENERATOR TO AUTOMATIC TRANSFER SWITCH FOR ENGINE START AND ALL REQUIRED CONTROL WIRING.

Branch Panel: LP-E2													
Location: CUST, CS2-01				Volts: 120/208 Single				A.I.C. Rating: 22,000					
Supply From: DP-E2				Phases: 3				Mains Type: MLO					
Mounting: Surface				Wires: 3				Mains Rating: 100 A					
Enclosure: Type 1								MCB Rating: 1 A					
Notes:													
CKT	Circuit Description	Wire & Conduit	Trip	Poles	A		B		Poles	Trip	Wire & Conduit	Circuit Description	CKT
1	Nitrogen Generator		20 A	1	1200	825			1	15 A		Lighting (2nd Flr. Media)	2
3	Lighting (2nd Floor)		15 A	1			770	1207	1	15 A		Lighting (1st Flr. B & C)	4
5	Lighting (3rd Floor)		15 A	1	731								6
7	Lighting (1st Flr. B & C)		15 A	1			531						8
9	Spare		20 A	1	0								10
11	Spare		20 A	1			0						12
Total Load:					2741 VA		2507 VA						
Total Amps:					26 A		24 A						
Legend:													
Load Classification			Connected Load		Demand Factor		Estimated Demand		Panel Totals				
Lighting			2792 VA		125.00%		3490 VA		Total Conn. Load: 5245 VA				
Other			1256 VA		101.23%		1272 VA		Total Est. Demand: 5958 VA				
Power			1200 VA		100.00%		1200 VA		Total Conn. Current: 25 A				
									Total Est. Demand Current: 29 A				
Notes:													

Branch Panel: RP-SW															
Location: STORAGE 1049D						Volts: 120/208 Wye						A.I.C. Rating: 22,000			
Supply From: SWBD-2						Phases: 3						Mains Type: MLO			
Mounting: Surface						Wires: 4						Mains Rating: 100 A			
Enclosure: Type 1												MCB Rating: 1 A			
Notes:															
CKT	Circuit Description	Wire & Conduit	Trip	Poles	A		B		C		Poles	Trip	Wire & Conduit	Circuit Description	CKT
1	Lights		15 A	1	549	549					1	15 A		Lights	2
3	Receptacles		20 A	1			720	540			1	20 A		Receptacles	4
5	Receptacles		20 A	1					720	720	1	20 A		Receptacles	6
7	Receptacles		20 A	1	540	720					1	20 A		Receptacles	8
9	Receptacles		20 A	1			720	720			1	20 A		Receptacles	10
11	Receptacles		20 A	1					720	720	1	20 A		Receptacles	12
13	Receptacles		20 A	1	900	800					1	20 A		J.B. (2) POD's	14
15							390				1	15 A		Lighting	16
17															18
19															20
21															22
23															24
25															26
27															28
29															30
Total Load:			4058 VA		3090 VA		2880 VA								
Total Amps:			34 A		26 A		24 A								
Legend:															
Load Classification			Connected Load		Demand Factor		Estimated Demand		Panel Totals						
Lighting			656 VA		125.00%		820 VA		Total Conn. Load: 10028 VA						
Other			832 VA		100.63%		837 VA		Total Est. Demand: 10197 VA						
Power			8540 VA		100.00%		8540 VA		Total Conn. Current: 28 A						
									Total Est. Demand Current: 26 A						
Notes:															

Branch Panel: LP-2S															
Location: CORRIDOR C301B					Volts: 120/208 Wye					A.I.C. Rating: EXISTING					
Supply From: MDP					Phases: 3					Mains Type: MLO					
Mounting: Recessed					Wires: 4					Mains Rating: 225 A					
Enclosure: Type 1										MCB Rating:					
Notes: (EXISTING PANEL)															
CKT	Circuit Description	Wire & Conduit	Trip	Poles	A		B		C		Poles	Trip	Wire & Conduit	Circuit Description	CKT
1	Existing Load		15 A	1	0	0					1	15 A		Existing Load	2
3	Existing Load		15 A	1			0	0			1	15 A		Existing Load	4
5	Existing Load		15 A	1					0	0	1	15 A		Existing Load	6
7	Existing Load		15 A	1	0	0					1	15 A		Existing Load	8
9	Existing Load		15 A	1			0	0			1	15 A		Existing Load	10
11	Existing Load		15 A	1					0	0	1	15 A		Existing Load	12
13	Existing Load		15 A	1	0	0					1	15 A		Spare	14
15	Existing Load		15 A	1			0	0			1	15 A		Existing Load	16
17	Existing Load		15 A	1					0	0	1	15 A		Existing Load	18
19	Existing Load		15 A	1	0	0					1	15 A		Existing Load	20
21	Existing Load		15 A	1			0	0			1	15 A		Existing Load	22
23	Spare		15 A	1					0	0	1	15 A		Existing Load	24
25	Spare		30 A	2	0	0					1	20 A		Existing Load	26
27	--	--	--	--	--	--	0	0			1	20 A		Existing Load	28
29	LP2S1		100 A	3					0	0	1	20 A		Existing Load	30
31	--	--	--	--	0	0					1	20 A		Spare	32
33	--	--	--	--	--	--	360	0			1	20 A		Spare	34
35	Spare		20 A	1					0	0	1	20 A		Spare	36
37	Space		--	1	--	--					1	--		Space	38
39	Space		--	1			--	--			1	--		Space	40
41	Space		--	1					--	--	1	--		Space	42
Total Load:			0 VA		360 VA		0 VA								
Total Amps:			0 A		3 A		0 A								
Legend:															
Load Classification			Connected Load		Demand Factor		Estimated Demand		Panel Totals						
Power			360 VA		100.00%		360 VA		Total Conn. Load: 360 VA						
									Total Est. Demand: 360 VA						
									Total Conn. Current: 1 A						
									Total Est. Demand Current: 1 A						
Notes:															

Branch Panel: LP2S1															
Location: CORRIDOR C301B					Volts: 120/208 Wye					A.I.C. Rating: EXISTING					
Supply From: LP-2S					Phases: 3					Mains Type: MLO					
Mounting: Recessed					Wires: 4					Mains Rating: 100 A					
Enclosure: Type 1										MCB Rating:					
Notes: (EXISTING PANEL)															
CKT	Circuit Description	Wire & Conduit	Trip	Poles	A		B		C		Poles	Trip	Wire & Conduit	Circuit Description	CKT
1	Existing Load		20 A	1	0	0					1	20 A		Existing Load	2
3	Existing Load		20 A	1			0	0			1	20 A		Existing Load	4
5	Existing Load		20 A	1					0	0	1	20 A		Existing Load	6
7	Existing Load		20 A	1	0	0					1	20 A		Existing Load	8
9	Existing Load		20 A	1			0	0			1	20 A		Existing Load	10
11	Existing Load		20 A	1					0	0	1	20 A		Existing Load	12
13	Existing Load		20 A	1	0	0					1	20 A		Existing Load	14
15	Existing Load		20 A	1			0	0			1	20 A		Existing Load	16
17	Existing Load		20 A	1					0	0	1	20 A		Spare	18
19	Spare		30 A	2	0	0					2	30 A		Spare	20
21		--	--	--			0	0			--	--	--		22
23	Spare		30 A	2					0	0	2	30 A		Spare	24
25	--	--	--	--	0	0				0	2	--	--	--	26
27	Existing Load		20 A	1			0	0			3	100 A		Surge Suppressor	28
29	Roof Receptacles		20 A	1					360	0	--	--	--	--	30
31	Space		--	1	--	0					--	--	--	--	32
33	Space		--	1			--	--			1	--	--	Space	34
35	Space		--	1					--	--	1	--	--	Space	36
37	Space		--	1	--	--	--	--			1	--	--	Space	38
39	Space		--	1			--	--			1	--	--	Space	40
41	Space		--	1			--	--		--	1	--	--	Space	42
			Total Load:		0 VA		0 VA		360 VA						
			Total Amps:		0 A		0 A		3 A						
Legend:															
Load Classification			Connected Load		Demand Factor		Estimated Demand		Panel Totals						
Power			360 VA		100.00%		360 VA		Total Conn. Load: 360 VA						
									Total Est. Demand: 360 VA						
									Total Conn. Current: 1 A						
									Total Est. Demand Current: 1 A						
Notes:															

Location: LIFT E1-02				Volts: 120/208 Vye				A.I.C. Rating: 22,000							
Supply From: DP-S2				Phases: 3				Mains Type: MLO							
Mounting: Surface				Wires: 4				Mains Rating: 400 A							
Enclosure: Type 1								MCB Rating: 1 A							
Notes:															
CKT	Circuit Description	Wire & Conduit	Trip	Poles	A		B		C		Poles	Trip	Wire & Conduit	Circuit Description	CKT
1	Recept. (I.T. Clos.)		20 A	1	360	360					1	20 A		Recept. (I.T. Clos.)	2
3	Lighting (Wing A)		15 A	1			416	460			1	15 A		Lighting (Wing A)	4
5	Lighting (Wing A)		15 A	1					510	600	1	20 A		JB - POD (Wing A)	6
7	SKP		60 A	2	0	440					2	15 A		VRF 1-A's	8
9	--	--	--	--			0	440			--	--	--	--	--
11	Recept. (I.T. Clos.)		20 A	1					360	1300	2	30 A		Recept. (I.B-30R)	10
13	CU-1		15 A	2	495	1300					--	--	--	--	12
15	--	--	--	--			495	360			1	20 A		Recept. (I.T. Clos.)	14
17	Receptacles (Wing A)		20 A	1					540	540	1	20 A		Receptacles (Wing A)	16
19	Receptacles (Wing A)		20 A	1	540	540					1	20 A		Receptacles	20
21	Receptacles (Wing A)		20 A	1			540	540			1	20 A		Receptacles (Wing A)	22
23	CU-3		30 A	3					2292	2292	3	30 A		CU-8	24
25	--	--	--	--	2292	2292					--	--	--	--	26
27	--	--	--	--			2292	2292			--	--	--	--	28
29	CU-10		30 A	3					2443	2443	3	30 A		CU-11	30
31	--	--	--	--	2443	2443					--	--	--	--	32
33	--	--	--	--			2443	2443			--	--	--	--	34
35	CU-5		30 A	3					2443	2443	3	30 A		CU-9	36
37	--	--	--	--	2443	2443					--	--	--	--	38
39	--	--	--	--			2443	2443			--	--	--	--	40
41	CU-AHU-1		60 A	3					5160	1000	3	15 A		EUH-1	42
43	--	--	--	--	5160	1000					--	--	--	--	44
45	--	--	--	--			5160	1000			--	--	--	--	46
47	EUH-2		15 A	3					1000					--	48
49	--	--	--	--							--	--	--	--	50
51	--	--	--	--	1000		1000				--	--	--	--	52
53	--	--	--	--							--	--	--	--	54
55	--	--	--	--							--	--	--	--	56
57	--	--	--	--							--	--	--	--	58
59	--	--	--	--							--	--	--	--	60
Total Load:					25551 VA		24767 VA		25366 VA						
Total Amps:					214 A		206 A		212 A						

Location: CORRIDOR C110C				Volts: 120/208 Wye				A.I.C. Rating: 22,000													
Supply From: DP-S2				Phases: 3				Mains Type: MLO													
Mounting: Recessed				Wires: 4				Mains Rating: 100 A													
Enclosure: Type 1								MCB Rating:													
Notes:																					
CKT	Circuit Description	Wire & Conduit	Trip	Poles	A		B		C		Poles	Trip	Wire & Conduit	Circuit Description	CKT						
1	J-B (POD)		20 A	1	300	540					1	20 A		Receptacles	2						
3	Lighting		15 A	1			382	540			1	20 A		Receptacles	4						
5	Lighting		15 A	1					408	544	1	15 A		Lighting	6						
7	Receptacles		20 A	1	780	180					1	20 A		Receptacles	8						
9	Receptacles		20 A	1			720	720			1	20 A		Receptacles	10						
11	Receptacles		20 A	1					900	900	1	20 A		Receptacles	12						
13	Receptacles		20 A	1	540	104					2	15 A		VRF-1-C's	14						
15	Receptacles		20 A	1			900	104			--	--	--	--	16						
17	UV-1 & UV-2		15 A	2					790						18						
19	--	--	--	--	790	375					2	30 A		Heat Trace Panel #4	20						
21	VRF-1-C's		15 A	2			228	375			--	--			22						
23	--	--	--	--					228	1088	2	30 A		Heat Trace Panel #3	24						
25											--	--	--	--	26						
27						1088									28						
29															30						
31															32						
33															34						
35															36						
37															38						
39															40						
41															42						
Total Load:					4697 VA		3969 VA		4858 VA												
Total Amps:					40 A		33 A		41 A												
Legend:																					
Load Classification			Connected Load		Demand Factor		Estimated Demand		Panel Totals												
Lighting			1334 VA		125.00%		1668 VA														
Power			12190 VA		100.00%		12190 VA														
									Total Conn. Load: 13524 VA												
									Total Est. Demand: 13857 VA												

Location: STORAGE 3009C Supply From: DP-S2 Mounting: Recessed Enclosure: Type 1										A.I.C. Rating: 22.000 Mains Type: MLO Mains Rating: 100 A MCB Rating: 1 A																						
Notes:																																
CKT	Circuit Description	Wire & Conduit	Trip	Poles	A		B		C		Poles	Trip	Wire & Conduit	Circuit Description	CKT																	
1	Receptacles (3rd Fir.)		20 A	1	540	720					1	20 A		Receptacles (3rd Fir.)	2																	
3	Lighting (3rd Fir.)		20 A	1			768	975			1	20 A		Lighting (3rd Fir.)	4																	
5	Lighting (3rd Fir.)		20 A	1					768	1359	1	20 A		Lighting (3rd Fir.)	6																	
7	Lighting (3rd Fir.)		20 A	1	1056	521					2	15 A		VRF-3-B's	8																	
9	VRF-3-C's		15 A	2			620	521			--	--	--	--	10																	
11	--	--	--	--					620	540	1	20 A		Receptacles (3rd Fir.)	12																	
13	Receptacles (3rd Fir.)		20 A	1	540	540					1	20 A		Receptacles (3rd Fir.)	14																	
15	Receptacles (3rd Fir.)		20 A	1			540	540			1	20 A		Receptacles (3rd Fir.)	16																	
17	Receptacles (3rd Fir.)		20 A	1					540	540	1	20 A		Receptacles (3rd Fir.)	18																	
19	Receptacles (3rd Fir.)		20 A	1		540	1000				3	15 A		EUIF-3	20																	
21	Receptacles (3rd Fir.)		20 A	1			540	1000			--	--	--	--	22																	
23	Power		20 A	1					540	1000	--	--	--	--	24																	
25	Spare		20 A	1	0	540					1	20 A		Power	26																	
27	Spare		20 A	1			0		0						28																	
29	Spare		20 A	1											30																	
Total Load:					5967 VA		5504 VA		5906 VA																							
Total Amps:					50 A		46 A		50 A																							
Legend:																																
Load Classification			Connected Load		Demand Factor		Estimated Demand		Panel Totals																							
Lighting			4925 VA		125.00%		6157 VA																									
Other			0 VA		0.00%		0 VA																									
Power			12482 VA		100.00%		12482 VA																									
										Total Conn. Load: 17407 VA																						
										Total Est. Demand: 16638 VA																						

[illegible][illegible]



CONDUCTOR NOTES:

1. ALL VALUES BASED ON COPPER CONDUCTORS.
2. **FEEDERS**
UPGRADE WIRE TO MAINTAIN MAXIMUM OF 2 % VOLTAGE DROP.
3. **BRANCH CIRCUITS**
UPGRADE WIRE TO MAINTAIN MAXIMUM OF 3 % VOLTAGE DROP.
4. NUMBER OF WIRES SHALL BE DETERMINED WITH EQUIPMENT ELECTRICAL NAMEPLATE CHARACTERISTICS.
5. WHERE NEUTRALS ARE REQUIRED, IT SHALL MATCH FEEDER CONDUCTOR SIZE.
6. USE CONDUCTOR (THWN/THHN) (3PH, 3WG) WITH GROUND PRIMARY FEEDER FOR TRANSFORMERS.

TRANSFORMER NOTES:

1. BOND NEUTRAL OF TRANSFORMER SECONDARY TO TRANSFORMER CASE, WITH BONDING JUMPER.
2. GROUND THE CASING OF THE TRANSFORMER TO NEAREST AVAILABLE EFFECTIVELY GROUNDED WATER PIPE, STRUCTURAL STEEL AND/OR DRIVEN GROUND ROD IN ACCORDANCE WITH N.E.C. 250-30.
3. ALL CONDUCTOR SIZES ARE FOR COPPER CONDUCTORS, N.E.C. TABLE 310-15.
4. SECONDARY OVERCURRENT PROTECTION SHALL BE LOCATED WITHIN TEN (10) FEET OF THE TRANSFORMER SECONDARY TERMINALS EITHER IN A PANEL BOARD (MAIN BREAKER) OR AN INDIVIDUAL MOUNTED CIRCUIT BREAKER/DISCONNECT SWITCH.
5. TRANSFORMER BONDING JUMPER AND GROUNDING ELECTRODE CONDUCTOR.
6. 600KCMIL CONDUCTORS SHALL BE PROVIDED WITH MAC ADAPTERS AS REQUIRED TO COORDINATE WITH BREAKER LUG SIZES.

GENERAL NOTES

1. NEW PRIMARY SERVICE UNDERGROUND OVER TO EXISTING UTILITY POLE. CABLE BY EVERSOURCE IN (2) 4' CONDUITS BY CONTRACTOR. REFER TO SITE PLAN E140 FOR EXACT ROUTING.
2. NEW UTILITY COMPANY TRANSFORMER AND PAD, TRANSFORMER BY EVERSOURCE AND PAD BY CONTRACTOR PER EVERSOURCE STANDARDS. REFER TO DETAIL ON DRAWING E001.
3. NEW 1600 AMP SECONDARY FEEDER USING COPPER CONDUCTORS, PROVIDE (5) SETS OF (4) #400KCMIL IN (6) 3".
4. NEW 400 AMP GENERATOR DISTRIBUTION FEEDER USING COPPER CONDUCTORS, PROVIDE (4) #110 + #6G IN 2".
5. NEW 400 AMP GENERATOR DISTRIBUTION FEEDER USING COPPER CONDUCTORS, PROVIDE (4) #600KCMIL + #3G IN 4".
6. GENERATOR SHALL BE FURNISHED WITH TWO OUTPUT BREAKERS, A 125 AMP 3 POLE SERVING THE BUILDING EMERGENCY DISTRIBUTION AND A 400 AMP 3 POLE SERVING THE STAND-BY DISTRIBUTION.
7. PROVIDE (1) 1 1/2", 2 #12 & 12 #16 FOR GENERATOR REMOTE ANNUNCIATOR LOCATED IN CUSTIARIOS BUILDING 1042B.
8. FURNISH AND INSTALL (2) 1 1/2" FROM GENERATOR TO AUTOMATIC TRANSFER SWITCH FOR ENGINE START AND ALL REQUIRED CONTROL WIRING.

Switchboard: SWBD-1

Location: ELECTRICAL 1016A

Supply From: MOUNTING: FLOOR

Enclosure:

Volts: 480/277 Wye

Phases: 3

Wires: 4

A.I.C. Rating: 65,000

Mains Type: MCB

Mains Rating: 1600 A

MCB Rating: 1600 A

Notes:

CKT	Circuit Description	# of Poles	Frame Size	Trip Rating	Load	Remarks
1	SWBD-2 VIA TX-1	3	800 A	600 A	68589 VA	
2	ATS-S	3	400 A	400 A	285099 VA	
3	ATS-E	3	225 A	125 A	8656 VA	
4	RTU-1	3	225 A	70 A	40968 VA	
5	CU-AHU-2	3	225 A	70 A	33240 VA	
6	DOAS-4	3	400 A	150 A	118833 VA	
7	DOAS-1	3	400 A	150 A	118833 VA	FEED WITH 2/0 WIRE
8	DOAS-2	3	225 A	25 A	15457 VA	
9	DOAS-3	3	225 A	25 A	15457 VA	
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
Total Conn. Load:					705129 VA	
Total Amps:					848 A	

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
Lighting	15244 VA	125.00%	19055 VA	
Lighting - Exterior	70 VA	125.00%	88 VA	
Other	4138 VA	102.42%	4238 VA	
Power	685322 VA	100.00%	685322 VA	
Receptacle	360 VA	100.00%	360 VA	
Total Conn. Load:				705129 VA
Total Est. Demand:				853 A

Notes:

Switchboard: SWBD-2

Location: ELECTRICAL 1016A

Supply From: TX-1

Mounting: FLOOR

Enclosure:

Volts: 120/208 Wye

Phases: 3

Wires: 4

A.I.C. Rating: 22,000

Mains Type: MCB

Mains Rating: 1000 A

MCB Rating: 1000 A

Notes:

CKT	Circuit Description	# of Poles	Frame Size	Trip Rating	Load	Remarks
1	MDP	3	800 A	600 A	27810 VA	
2	RP-SW	3	225 A	225 A	10028 VA	
3	KP1A & KP1B	3	400 A	225 A	180 VA	
4	SLP	3	400 A	200 A	0 VA	
5	CU-AHU-3	3	225 A	100 A	23760 VA	
6	ERV-1	2	100 A	15 A	811 VA	
7	EDH-1	3	100 A	25 A	6000 VA	
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
Total Conn. Load:					68589 VA	
Total Amps:					190 A	

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
Lighting	886 VA	125.00%	1107 VA	
Other	832 VA	100.63%	837 VA	
Power	66511 VA	100.00%	66511 VA	
Receptacle	360 VA	100.00%	360 VA	
Total Conn. Load:				68589 VA
Total Est. Demand:				190 A

Notes:

Branch Panel: DP-S1

Location: GENERATOR 1017A

Supply From: ATS-S

Mounting: Surface

Enclosure: Type 1

Volts: 480/277 Wye

Phases: 3

Wires: 4

A.I.C. Rating: 35,000

Mains Type: MCB

Mains Rating: 600 A

MCB Rating: 500 A

Notes:

CKT	Circuit Description	Wire & Conduit	Trip	Poles	A	B	C	Poles	Trip	Wire & Conduit	Circuit Description	CKT
1	DP-S2 VIA TX-S1		400 A	3	63993	5878			30 A		AHU-1	2
3	--	--	--	--		62261	5878		--	--	--	4
5	--	--	--	--			64579	5878	--	--	--	6
7	RTU-1		100 A	3	22160	3384			60 A		SPP-4	8
9	--	--	--	--		22160	3384		--	--	--	10
11	--	--	--	--			22160	3384	--	--	--	12
13												14
15												16
17												18
19												20
21												22
23												24
25												26
27												28
29												30
31												32
33												34
35												36
37												38
39												40
41												42
Total Load:					95415 VA	93683 VA			96001 VA			
Total Amps:					345 A	338 A			348 A			

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
Lighting	9694 VA	125.00%	12117 VA	
Other	1782 VA	105.61%	1882 VA	
Power	273623 VA	100.00%	273623 VA	
Total Conn. Load:				285099 VA
Total Est. Demand:				287622 VA
Total Conn. Current:				343 A
Total Est. Demand Current:				346 A

Notes:

Branch Panel: LP-E1

Location: LIFT E1-02

Supply From: DP-E2

Mounting: Surface

Enclosure: Type 1

Volts: 120/208 Wye

Phases: 3

Wires: 4

A.I.C. Rating: 22,000

Mains Type: MLO

Mains Rating: 100 A

MCB Rating: 1 A

Notes:

CKT	Circuit Description	Wire & Conduit	Trip	Poles	A	B	C	Poles	Trip	Wire & Conduit	Circuit Description	CKT
1	Lighting (Wing D)		15 A	1	399	0		1	20 A		Spare	2
3	Lighting (Gym)		15 A	1		889	0	1	20 A		Spare	4
5	Lighting (Wing A & B)		15 A	1			924	0	1	20 A	Spare	6
7												8
9												10
11												12
Total Load:					399 VA	889 VA	924 VA					
Total Amps:					3 A	8 A	8 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
Lighting	1878 VA	125.00%	2347 VA	
Other	268 VA	101.79%	272 VA	
Lighting - Exterior	70 VA	125.00%	88 VA	
Total Conn. Load:				2212 VA
Total Est. Demand:				2703 VA
Total Conn. Current:				8 A
Total Est. Demand Current:				8 A

Notes:

Branch Panel: DP-E2

Location: GENERATOR 1017A

Supply From: TX-E1

Mounting: Surface

Enclosure: Type 1

Volts: 120/208 Wye

Phases: 3

Wires: 4

A.I.C. Rating: 22,000

Mains Type: MCB

Mains Rating: 100 A

MCB Rating: 60A

Notes:

CKT	Circuit Description	Wire & Conduit	Trip	Poles	A	B	C	Poles	Trip	Wire & Conduit	Circuit Description	CKT
1	LP-E1		50 A	3	399	2741		2	60 A		LP-E2	2
3	--	--	--	--		889	2507		--	--	--	4
5	--	--	--	--			924	1200	1	20 A	Nitrogen Generator	6
7					0				1	20 A	Spare	8
9						0			1	20 A	Spare	10
11							0	1	20 A		Spare	12
13												14
15												16
17												18
19												20
21												22
23												24
Total Load:					3139 VA	3396 VA	2124 VA					
Total Amps:					27 A	30 A	18 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
Lighting	4667 VA	125.00%	5834 VA	
Other	1524 VA	101.02%	1539 VA	
Power	2400 VA	100.00%	2400 VA	
Lighting - Exterior	70 VA	125.00%	88 VA	
Total Conn. Load:				8656 VA
Total Est. Demand:				8955 VA
Total Conn. Current:				24 A
Total Est. Demand Current:				27 A

Notes:

Branch Panel: DP-S2

Location: GENERATOR 1017A

Supply From: TX-S1

Mounting: Surface

Enclosure: Type 1

Volts: 120/208 Wye

Phases: 3

Wires: 4

A.I.C. Rating: 22,000

Mains Type: MCB

Mains Rating: 800 A

MCB Rating: 700 A

Notes:

CKT	Circuit Description	Wire & Conduit	Trip	Poles	A	B	C	Poles	Trip	Wire & Conduit	Circuit Description	CKT
1	SPP-4		100 A	3	2807	4697		3	100 A		SPP-2	2
3	--	--	--	--		2805	3969		--	--	--	4
5	--	--	--	--			3600	4858	--	--	--	6
7	SPP-5		100 A	3	5997	6282		3	300 A		SDP1	8
9	--	--	--	--		5504	6562		--	--	--	10
11	--	--	--	--			5906	6018	--	--	--	12
13	SPP-1A		300 A	3	25551	2292		3	30 A		CU-2	14
15	--	--	--	--		24767	2292		--	--	--	16
17	--	--	--	--			25366	2292	--	--	--	18
19	CU-4		30 A	3	2443	13924		3	200 A		SPP-1D	20
21	--	--	--	--		2443	13919		--	--	--	22
23	--	--	--	--			2443	14097	--	--	--	24
25												26
27												28
29												30
31												32
33												34
35												36
37												38
39												40
41												42
Total Load:					63993 VA	62261 VA	64579 VA					
Total Amps:					535 A	519 A	540 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
Lighting	9694 VA	125.00%	12117 VA	
Other	1782 VA	105.61%	1882 VA	
Power	179357 VA	100.00%	179357 VA	
Total Conn. Load:				190832 VA
Total Est. Demand:				193356 VA
Total Conn. Current:				530 A
Total Est. Demand Current:				537 A

Notes:

Branch Panel: SKP

Location: KITCHEN / SERVERY 1002A

Supply From: SPP-1A

Mounting: Surface

Enclosure: Type 1

Volts: 120/208 Single

Phases: 1

Wires: 3

A.I.C. Rating: 22,000

Mains Type: MLO

Mains Rating: 100 A

MCB Rating:

Notes:

CKT	Circuit Description	Wire & Conduit	Trip	Poles	A	B	Poles	Trip	Wire & Conduit	Circuit Description	CKT
1	Exist. Load (Milk Disp.)		15 A	1	0	0	1	15 A		Exist. Load (Ice Cream...	2
3	Exist. Load (Ref.)		15 A	1		0	1	15 A		Exist. Load (2-Sec. Ref.)	4
5	Exist. Load (Walk-In)		15 A	1	0	0	1	20 A		Exist. Load (2-Sec. Freezer)	6
7	Exist. Load (Walk-In Heat...		20 A	1		0	2	30 A		Exist. Load (Walk-In Comp.)	8
9	Exist. Load (Walk-In Evap.)		20 A	2	0	0	--	--	--	--	10
11	--	--	--	--		0	1	20 A		Exist. Load (Cash Reg.)	12
13											14
15											16
17											18
19											20
Total Load:											

Branch Panel: LP-E2													
Location: CUST: CS2-01				Volts: 120/208 Single				A.I.C. Rating: 22,000					
Supply From: DP-E2				Phases: 1				Mains Type: MLO					
Mounting: Surface				Wires: 3				Mains Rating: 100 A					
Enclosure: Type 1								MCB Rating: 1 A					
Notes:													
CKT	Circuit Description	Wire & Conduit	Trip	Poles	A		B		Poles	Trip	Wire & Conduit	Circuit Description	CKT
1	Nitrogen Generator		20 A	1	1200	825			1	15 A		Lighting (2nd Flr. Media)	2
3	Lighting (2nd Floor)		15 A	1			770	1207	1	15 A		Lighting (1st Flr. B & C)	4
5	Lighting (3rd Floor)		15 A	1	731								6
7	Lighting (1st Flr. B & C)		15 A	1			531						8
9	Spare		20 A	1	0								10
11	Spare		20 A	1			0						12
Total Load:					2741 VA		2507 VA						
Total Amps:					26 A		24 A						
Legend:													
Load Classification			Connected Load		Demand Factor		Estimated Demand		Panel Totals				
Lighting			2792 VA		125.00%		3490 VA						
Other			1256 VA		101.23%		1272 VA		Total Conn. Load: 5245 VA				
Power			1200 VA		100.00%		1200 VA		Total Est. Demand: 5958 VA				
									Total Conn. Current: 25 A				
									Total Est. Demand Current: 29 A				
Notes:													

Branch Panel: RP-SW												
Location:				Volts: 120/208 Wye				A.I.C. Rating: 22,000				
Supply From: SWBD-2				Phases: 3				Mains Type: MLO				
Mounting: Surface				Wires: 4				Mains Rating: 100 A				
Enclosure: Type 1								MCB Rating: 1 A				
Notes:												
CKT	Circuit Description	Wire & Conduit	Trip	Poles	A	B	C	Poles	Trip	Wire & Conduit	Circuit Description	CKT
1	Lights		15 A	1	549	549		1	15 A		Lights	2
3	Receptacles		20 A	1		720	540		1	20 A	Receptacles	4
5	Receptacles		20 A	1			720	720	1	20 A	Receptacles	6
7	Receptacles		20 A	1	540	720			1	20 A	Receptacles	8
9	Receptacles		20 A	1		720	720		1	20 A	Receptacles	10
11	Receptacles		20 A	1			720	720	1	20 A	Receptacles	12
13/15/17/19/21/23/25/27/29	Receptacles		20 A	1	900	800			1	20 A	J.B. (2) POD's	14
						390			1	15 A	Lighting	16
Total Load:			4058 VA		3090 VA		2880 VA					
Total Amps:			34 A		26 A		24 A					
Legend:												
Load Classification		Connected Load		Demand Factor		Estimated Demand		Panel Totals				
Lighting		656 VA		125.00%		820 VA		Total Conn. Load: 10028 VA				
Other		832 VA		100.63%		837 VA		Total Est. Demand: 10197 VA				
Power		8540 VA		100.00%		8540 VA		Total Conn. Current: 28 A				
								Total Est. Demand Current: 28 A				
Notes:												

Branch Panel: LP-2S														
Location: CORRIDOR C301B				Volts: 120/208 Wye				A.I.C. Rating: EXISTING						
Supply From: MDP				Phases: 3				Mains Type: MLO						
Mounting: Recessed				Wires: 4				Mains Rating: 225 A						
Enclosure: Type 1								MCB Rating:						
Notes: (EXISTING PANEL)														
CKT	Circuit Description	Wire & Conduit	Trip	Poles	A	B	C	Poles	Trip	Wire & Conduit	Circuit Description	CKT		
1	Existing Load		15 A	1	0	0		1	15 A		Existing Load	2		
3	Existing Load		15 A	1		0	0	1	15 A		Existing Load	4		
5	Existing Load		15 A	1			0	0	1	15 A	Existing Load	6		
7	Existing Load		15 A	1	0	0		1	15 A		Existing Load	8		
9	Existing Load		15 A	1		0	0	1	15 A		Existing Load	10		
11	Existing Load		15 A	1			0	0	1	15 A	Existing Load	12		
13	Existing Load		15 A	1	0	0		1	15 A		Spare	14		
15	Existing Load		15 A	1		0	0	1	15 A		Existing Load	16		
17	Existing Load		15 A	1			0	0	1	15 A	Existing Load	18		
19	Existing Load		15 A	1	0	0		1	15 A		Existing Load	20		
21	Existing Load		15 A	1		0	0	1	15 A		Existing Load	22		
23	Spare		15 A	1			0	0	1	15 A	Existing Load	24		
25	Spare		30 A	2	0	0		1	20 A		Existing Load	26		
27	--	--	--	--		0	0	1	20 A		Existing Load	28		
29	LP2S1		100 A	3				0	0	1	20 A	Existing Load	30	
31	--	--	--	--	0	0		1	20 A		Spare	32		
33	--	--	--	--		360	0	1	20 A		Spare	34		
35	Spare		20 A	1			0	0	1	20 A	Spare	36		
37	Space		--	1	--	--		1	--		Space	38		
39	Space		--	1		--	--	1	--		Space	40		
41	Space		--	1			--	--	1	--	Space	42		
Total Load:			0 VA		360 VA		0 VA							
Total Amps:			0 A		3 A		0 A							
Legend:														
Load Classification			Connected Load	Demand Factor		Estimated Demand		Panel Totals						
Power			360 VA	100.00%		360 VA		Total Conn. Load: 360 VA						
								Total Est. Demand: 360 VA						
								Total Conn. Current: 1 A						
								Total Est. Demand Current: 1 A						
Notes:														

Branch Panel: LP2S1												
Location: CORRIDOR C301B						Volts: 120/208 Wye			A.I.C. Rating: EXISTING			
Supply From: LP-2S						Phases: 3			Mains Type: MLO			
Mounting: Recessed						Wires: 4			Mains Rating: 100 A			
Enclosure: Type 1									MCB Rating:			
Notes: (EXISTING PANEL)												
CKT	Circuit Description	Wire & Conduit	Trip	Poles	A	B	C	Poles	Trip	Wire & Conduit	Circuit Description	CKT
1	Existing Load		20 A	1	0	0		1	20 A		Existing Load	2
3	Existing Load		20 A	1		0	0	1	20 A		Existing Load	4
5	Existing Load		20 A	1			0	0	1	20 A	Existing Load	6
7	Existing Load		20 A	1	0	0		1	20 A		Existing Load	8
9	Existing Load		20 A	1		0	0	1	20 A		Existing Load	10
11	Existing Load		20 A	1			0	0	1	20 A	Existing Load	12
13	Existing Load		20 A	1	0	0		1	20 A		Existing Load	14
15	Existing Load		20 A	1		0	0	1	20 A		Existing Load	16
17	Existing Load		20 A	1			0	0	1	20 A	Spare	18
19	Spare		30 A	2	0	0		2	30 A		Spare	20
21	--	--	--	--		0	0	--	--	--	--	22
23	Spare		30 A	2			0	0	2	30 A	--	24
25	--	--	--	--	0	0		--	--	--	--	26
27	Existing Load		20 A	1		0	0	3	100 A		Surge Suppressor	28
29	Roof Receptacles		20 A	1			360	0	--	--	--	30
31	Space		--	1	--	0		--	--	--	--	32
33	Space		--	1			--	--	1	--	--	34
35	Space		--	1			--	--	1	--	--	36
37	Space		--	1	--	--		--	1	--	--	38
39	Space		--	1			--	--	1	--	--	40
41	Space		--	1			--	--	1	--	--	42
			Total Load:		0 VA	0 VA	360 VA					
			Total Amps:		0 A	0 A	3 A					
Legend:												
Load Classification			Connected Load	Demand Factor	Estimated Demand			Panel Totals				
Power			360 VA	100.00%	360 VA			Total Conn. Load: 360 VA				
								Total Est. Demand: 360 VA				
								Total Conn. Current: 1 A				
								Total Est. Demand Current: 1 A				
Notes:												

Branch Panel: SPP-1A																			
Location: LIFT E1-02					Volts: 120/208 Wye					A.I.C. Rating: 22,000									
Supply From: DP-52					Phases: 3					Mains Type: MLO									
Mounting: Surface					Wires: 4					Mains Rating: 400 A									
Enclosure: Type 1										MCB Rating: 1 A									
Notes:																			
CKT	Circuit Description	Wire & Conduit	Trip	Poles	A		B		C		Poles	Trip	Wire & Conduit	Circuit Description				CKT	
2	Recept. (I.T. Clos.)		20 A	1	360	360					1	20 A		Recept. (I.T. Clos.)				2	
3	Lighting (Wing A)		15 A	1			416	460			1	15 A		Lighting (Wing A)				4	
5	Lighting (Wing A)		15 A	1					510	600	1	20 A		JB - POD (Wing A)				6	
7	SKP		60 A	2	0	440					2	15 A		VRF 1-A's				8	
9	--	--	--	--			0	440			--	--	--	--				10	
11	Recept. (I.T. Clos.)		20 A	1					360	1300	2	30 A		Recept. (I,6-30R)				12	
13	CU-1		15 A	2	495	1300					--	--	--	--				14	
15	--	--	--	--			495	360			1	20 A		Recept. (I.T. Clos.)				16	
17	Receptacles (Wing A)		20 A	1					540	540	1	20 A		Receptacles (Wing A)				18	
19	Receptacles (Wing A)		20 A	1	540	540					1	20 A		Receptacles				20	
21	Receptacles (Wing A)		20 A	1			540	540			1	20 A		Receptacles (Wing A)				22	
23	CU-3		30 A	3					2292	2292	3	30 A		CU-8				24	
25	--	--	--	--	2292	2292					--	--	--	--				26	
27	--	--	--	--			2292	2292			--	--	--	--				28	
29	CU-10		30 A	3					2443	2443	3	30 A		CU-11				30	
31	--	--	--	--	2443	2443					--	--	--	--				32	
33	--	--	--	--			2443	2443			--	--	--	--				34	
35	CU-5		30 A	3					2443	2443	3	30 A		CU-9				36	
37	--	--	--	--	2443	2443					--	--	--	--				38	
39	--	--	--	--			2443	2443			--	--	--	--				40	
41	CU-AHU-1		60 A	3					5160	1000	3	15 A		EUH-1				42	
43	--	--	--	--	5160	1000				</									

Branch Panel: SPP-1C																				
Location: CORRIDOR C110C					Volts: 120/208 Wye			A.I.C. Rating: 22,000												
Supply From: DP:52					Phases: 3			Mains Type: MLO												
Mounting: Recessed					Wires: 4			Mains Rating: 100 A												
Enclosure: Type 1					MCB Rating:															
Notes:																				
CKT	Circuit Description	Wire & Conduit	Trip	Poles	A		B		C	Poles	Trip	Wire & Conduit	Circuit Description	CKT						
1	J.B. (POD)		20 A	1	300	540				1	20 A		Receptacles	2						
3	Lighting		15 A	1			382	540		1	20 A		Receptacles	4						
5	Lighting		15 A	1					408	544	1	15 A	Lighting	6						
7	Receptacles		20 A	1	780	180				1	20 A		Receptacles	8						
9	Receptacles		20 A	1			720	720		1	20 A		Receptacles	10						
11	Receptacles		20 A	1					900	900	1	20 A	Receptacles	12						
13	Receptacles		20 A	1	540	104				2	15 A		VRF-1-C's	14						
15	Receptacles		20 A	1			900	104		--	--	--	--	16						
17	UV-1 & UV-2		15 A	2					790					18						
19	--	--	--	--	790	375				2	30 A		Heat Trace Panel #4	20						
21	VRF-1-C's	--	15 A	2			228	375		--	--	--		22						
23	--	--	--	--					228	1088	2	30 A	Heat Trace Panel #3	24						
25						1088				--	--	--	--	26						
27														28						
29														30						
31														32						
33														34						
35														36						
37														38						
39														40						
41														42						
					Total Load:	4897 VA	3969 VA	4858 VA												
					Total Amps:	40 A	33 A	41 A												
Legend:																				
Load Classification					Connected Load		Demand Factor		Estimated Demand		Panel Totals									
Lighting					1334 VA		125.00%		1668 VA											
Power					12190 VA		100.00%		12190 VA		Total Conn. Load: 13524 VA									
										Total Est. Demand: 13857 VA										
										Total Conn. Current: 38 A										
										Total Est. Demand Current: 38 A										

Branch Panel: SPP-3																																		
Location: STORAGE 3009C					Volts: 120/208 Vye					A.I.C. Rating: 22,000					Maine Type: MLO																			
Supply From: DP-52					Phases: 3					Mains Rating: 100 A					MCB Rating: 1 A																			
Mounting: Recessed					Wires: 4																													
Enclosure: Type 1																																		
Notes:																																		
CKT	Circuit Description	Wire & Conduit	Trip	Poles	A		B		C		Poles	Trip	Wire & Conduit	Circuit Description	CKT																			
1	Receptacles (3rd Flr.)		20 A	1	540	720					1	20 A		Receptacles (3rd Flr.)	2																			
3	Lighting (3rd Flr.)		20 A	1			768	975			1	20 A		Lighting (3rd Flr.)	4																			
5	Lighting (3rd Flr.)		20 A	1					768	1359	1	20 A		Lighting (3rd Flr.)	6																			
7	Lighting (3rd Flr.)		20 A	1	1056	521					2	15 A		VRF-3-B's	8																			
9	VRF-3-C's		15 A	2			620	521			--	--	--	--	10																			
11	--	--	--	--					620	540	1	20 A		Receptacles (3rd Flr.)	12																			
13	Receptacles (3rd Flr.)		20 A	1	540	540					1	20 A		Receptacles (3rd Flr.)	14																			
15	Receptacles (3rd Flr.)		20 A	1			540	540			1	20 A		Receptacles (3rd Flr.)	16																			
17	Receptacles (3rd Flr.)		20 A	1					540	540	1	20 A		Receptacles (3rd Flr.)	18																			
19	Receptacles (3rd Flr.)		20 A	1	540	1000					3	15 A		ELUH-3	20																			
21	Receptacles (3rd Flr.)		20 A	1			540	1000			--	--	--	--	22																			
23	Power		20 A	1					540	1000	--	--	--	--	24																			
25	Spare		20 A	1	0	540					1	20 A		Power	26																			
27	Spare		20 A	1			0								28																			
29	Spare		20 A	1					0						30																			
					Total Load:		5987 VA		5504 VA		5906 VA																							
					Total Amps:		50 A		46 A		50 A																							
Legend:																																		
Load Classification					Connected Load		Demand Factor		Estimated Demand		Panel Totals																							
Lighting					4925 VA		125.00%		6157 VA																									
Other					0 VA																													

Branch Panel: SPP-1D																													
Location:					Volts: 120/208 Vye					A.I.C. Rating: 22,000																			
Supply From: DP-S2					Phases: 3					Mains Type: MLO					Mains Rating: 225 A														
Mounting: Surface					Wires: 4										MCB Rating: 1 A														
Enclosure: Type 1																													
Notes:																													
CKT	Circuit Description	Wire & Conduit	Trip	Poles	A		B		C		Poles	Trip	Wire & Conduit	Circuit Description	CKT														
1	Lighting (Wing D)		15 A	1	491	535					1	15 A		Lighting (Wing D)	2														
3	Receptacles (Wing D)		20 A	1			720	720			1	20 A		Receptacles (Wing D)	4														
5	Receptacles (Wing D)		20 A	1					720	898	2	15 A		FC-VR-3 & 4	6														
7	Receptacles (Wing D)		20 A	1	720	898					--	--	--	--	8														
9	VR-F-1-D's		15 A	2			288	911			2	15 A		FC-VR-1 & 2	10														
11	--	--	--	--					288	911	--	--	--	--	12														
13	CU-6		70 A	3	5640	5640					3	70 A		CU-7	14														
15	--	--	--	--			5640	5640			--	--	--	--	16														
17	--	--	--	--					5640	5640	--	--	--	--	18														
19															20														
21															22														
23															24														
25	Spare		20 A	1	0										26														
27	Spare		20 A	1			0								28														
29	Spare		20 A	1					0						30														
Total Load:					13924 VA		13919 VA		14097 VA																				
Total Amps:					116 A		116 A		117 A																				
Legend:																													
Load Classification					Connected Load		Demand Factor		Estimated Demand		Panel Totals																		
Lighting					194 VA		125.00%		243 VA																				
Other					832 VA		100.63%		837 VA																				

[illegible]