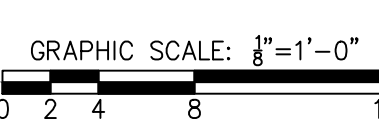


A



- ① BATTERY BACKUP FROM INV10 LOCATED IN ELEC LN 139.
- ② FED FROM RECEPTACLE CIRCUIT IN ELEVATOR PIT.
- ③ SINGLE SIDED EXIT SIGN INTENDED FOR EGRESS OUT OF VIP TERRACE 177 INTO BUILDING.

Landscape Architecture = L
HARGREAVES JONES
 180 Varick Street, Suite 204, New York, NY 10014
www.hargreavesjonesla.com
 NC License #C-513

Acoustic/Theater/AV = AT
OAP.P.C.
77 Water Street, New York NY 10015
www.arup.com

Environmental Engineering = EE
SOIL & ENVIRONMENTAL CONSULTANTS, PA
 8412 Falls of Neuse Road, Suite 104, Raleigh, NC 27615
www.sandec.com
EAGLE RESOURCES
 215 West Moore Street, Southport, NC 28461
www.eagleresources.com

Landscape Soil = LS
LANDIS, PLLC
 3908 Bentley Brook Dr. Raleigh, NC 27612
www.landispllc.com

Fire Protection = FP
CHEATHAM & ASSOCIATES, PA
 3412 Enterprise Drive, Wilmington NC 28405
www.cheathampa.com
 NC License #C-1073

www.andrewengineers.com

Water Fountain Design = WF
DELTA FOUNTAINS
11494 Columbia Park Dr. W., Suite 4, Jacksonville, FL32258
www.deltafountains.com



NO.	DESCRIPTION	DATE
1	30% CONSTRUCTION DOCUMENTS P3 & P4	06/07/2019
2	60% CONSTRUCTION DOCUMENTS P3	07/26/2019
3	95% CONSTRUCTION DOCUMENTS P3 & P4	12/04/2019



SHEET TITLE

SHEET NO. _____

**NORTH
WATERFRONT
PARK**
10 COWAN STREET
WILMINGTON, NORTH CAROLINA

Lighting Design = EL
TILLOTSON DESIGN ASSOCIATES
 40 Worth Street, Room 703, New York NY 10013
www.tillotsondesign.com

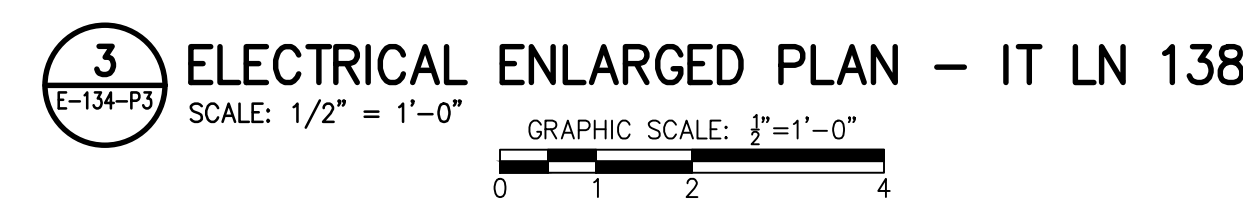
PROGRESS DRAWING
DO NOT USE FOR CONSTRUCTION

KEY MAP



SHEET NO. _____

E-134-P3



N

M

L

K

J

I

H

G

F

E

D

C

B

A

LUMINAIRE SCHEDULE										
CALLOUT	SYMBOL	DESCRIPTION	LAMP	BALLAST	VOLTS	MOUNTING	MANUFACTURER / MODEL	NOTES	CALLOUT	
B2		2x4, ARCHITECTURAL LENSED, INDIRECT	(1) 40W LED	LED DIMMABLE DRIVER	120V 1P 2W	RECESSED	COLUMBIA #LCAT SERIES DAYBRITE #2EV SERIES METALUX #24CZ SERIES	4300 NOMINAL LUMENS. 3000K COLOR TEMPERATURE.	B2	
B3		2x4, ARCHITECTURAL LENSED, INDIRECT	(1) 47W LED	LED DIMMABLE DRIVER	120V 1P 2W	RECESSED	COLUMBIA #LCAT SERIES DAYBRITE #2EV SERIES METALUX #24CZ SERIES	5300 NOMINAL LUMENS. 3000K COLOR TEMPERATURE.	B3	
EG		EMERGENCY EGRESS, BATTERY	(2) 4W MR 16 LED	BATTERY	120V 1P 2W	SURFACE	EMERGILITE #COMPACT PREMIER SERIES CHLORIDE #TFU SERIES LIGHTALARMS #COMPACT GRANDE SERIES	CONNECT TO NEAREST UNSWITCHED LIGHT CIRCUIT IN SAME SPACE. THESE FIXTURES ARE NOT TAGGED WITH "EG" ON THE DRAWINGS; ONLY THE SYMBOL IS USED. DESIGN CRITERIA: 50 FT SPACING, UTILIZING 6 FT WDE PATH, 80/50/20 REFLECTANCES, MAINTAINING 1 FC AVG AND 0.1 FC MINIMUM.	EG	
H		4' GASKETED LED, VERTICALLY MOUNTED	(1) 40W LED	LED DRIVER	120V 1P 2W	WALL; 8'-0" AFF	PARAMOUNT #CO SERIES PHILIPS EQUIVALENT FAILSAFE #HVS12 SERIES	4000 NOMINAL LUMENS. 3000K COLOR TEMPERATURE. STAINLESS STEEL MOUNTING HARDWARE & LENS CLAMPS. VERTICALLY MOUNTED. COORDINATE LOCATION WITH ELEVATOR INSTALLER / VENDOR.	H	
I3		4' INDUSTRIAL	(1) 40W LED	LED DIMMABLE DRIVER	120V 1P 2W	PENDANT/SURFACE	COLUMBIA #LCL SERIES DAYBRITE #LF SERIES METALUX #SNLED SERIES	5300 NOMINAL LUMENS. 3000K COLOR TEMPERATURE. WIRE GUARD.	I3	
INV10		INVERTER, EGRESS LIGHTING	N/A	BATTERY	120V 1P 2W	SURFACE	EMERG-LITE #EMUI SERIES IOTA #IIS SERIES LIGHTALARMS #LMUI SERIES	INVERTER FOR BATTERY BACKUP OF EGRESS LIGHTING; 100W FOR 90 MINUTES (MINIMUM). INCLUDE SELF-DIAGNOSTIC OPTION. LOCATE ABOVE CEILING - PROVIDE LABEL ON CEILING GRID BELOW INSTALLED LOCATION "LIGHTING INVERTER".	INV10	
INV25		INVERTER, EGRESS LIGHTING	N/A	BATTERY	120V 1P 2W	SURFACE	EMERG-LITE #EMUI SERIES IOTA #IIS SERIES LIGHTALARMS #LMUI SERIES	INVERTER FOR BATTERY BACKUP OF EGRESS LIGHTING; 250W FOR 90 MINUTES (MINIMUM). INCLUDE SELF-DIAGNOSTIC OPTION.	INV25	
R6		6" RECESSED CAN	(1) 20W LED	LED DIMMABLE DRIVER	120V 1P 2W	RECESSED	PRESCOLITE #F6LED SERIES LIGHTOLIER #LGR SERIES PORTFOLIO #LD6A SERIES	2000 NOMINAL LUMENS. 3000K COLOR TEMPERATURE. SELF-FLANGED LENSED REFLECTOR TRIM; LOW IRIDESCENT CLEAR FINISH.	R6	
R6S		6" RECESSED CAN, SHOWER LIGHT	(1) 20W LED	ELECTRONIC	120V 1P 2W	RECESSED	PRESCOLITE #F6LED SERIES LIGHTOLIER #LGR SERIES PORTFOLIO #LD6A SERIES	WET LOCATION LISTED. 2000 NOMINAL LUMENS. 3000K COLOR TEMPERATURE. SELF-FLANGED LENSED REFLECTOR TRIM; LOW IRIDESCENT CLEAR FINISH.	R6S	
ST		LED, STAIR LIGHT, DIRECT/INDIRECT, INTEGRAL BATTERY BACKUP	(1) 43W LED	BATTERY	120V 1P 2W	WALL; 10' ABOVE LANDING	FINELITE #HP4-WM-DIW SERIES LEDALITE #TRUGROOVE SERIES NEO-RAY #DEFINE 4 SERIES	4000 NOMINAL LUMENS. 3000K COLOR TEMPERATURE. DIRECT/INDIRECT. SEE FLOOR PLAN FOR OVERALL LENGTH. INTEGRAL OCCUPANCY SENSOR.	ST	
TC-2		FLOOD LIGHT	(1) 50W LED	LED DIMMABLE DRIVER	120V 1P 2W	POLE; SEE PLAN	BEGA LIGHTING #77-653-K3-70775 WE-EF #FLC240LED SERIES LUMENPULSE #LUMENBEAM SERIES	3000K COLOR TEMPERATURE. 50 DEGREE BEAM SPREAD. 180 DEGREE GLARE SHIELD.	TC-2	
TG		4" RECESSED CAN	(1) 21W LED	LED DIMMABLE DRIVER	120V 1P 2W	RECESSED	LUCEIFER #4RTFS-2-00-WH-90C-19A-2-3-NIC-AN4 WITH 2/08 USAI #BEVELED MINI SERIES LF ILLUMINATION #VF 150 SERIES	1350 NOMINAL LUMENS. 3000K COLOR TEMPERATURE. FROSTED SOFT FOCUS LENS. HONEYCOMB LOUVER. FINISH SELECTION BY ARCHITECT. SEE NOTE 1.	TG	
TK		SURFACE MOUNTED LINEAR UPLIGHT	(1) 32W LED	LED DIMMABLE DRIVER	120V 1P 2W	WALL	AMERLUX #LIN2.5D-A16-PL-SM-7-92-XX-HW-IND-XX-0-10V SELUX #M125 DIRECT SERIES LUMENWERX #VA WET LED SERIES	719 NOMINAL LUMENS. FROSTED LENS. COORDINATE FINISH SELECTION WITH ARCHITECT. 92 CRI. COORDINATE MOUNTING HEIGHT WITH ARCHITECT. SEE PLAN FOR OVERALL LENGTH. SEE NOTE 1.	TK	
TK-1		SURFACE MOUNTED LINEAR UPLIGHT	(1) 40W LED	LED DIMMABLE DRIVER	120V 1P 2W	WALL	AMERLUX #LIN2.5D-A16-PL-SM-10-92-XX-HW-IND-XX-0-10V SELUX #M125 DIRECT SERIES LUMENWERX #VA WET LED SERIES	968 NOMINAL LUMENS. FROSTED LENS. COORDINATE FINISH SELECTION WITH ARCHITECT. 92 CRI. COORDINATE MOUNTING HEIGHT WITH ARCHITECT. SEE PLAN FOR OVERALL LENGTH. SEE NOTE 1.	TK-1	
TP		HANDRAIL LIGHT	(1) 32W LED	LED DIMMABLE DRIVER	120V 1P 2W	WALL; MTD AS HIGH AS POSSIBLE	AMERLUX #LIN2.5D-A16-PL-WM-7-92-XX-HW-IND-XX-0-10V SELUX #M125 DIRECT SERIES LUMENWERX #VA WET LED SERIES	FROSTED LENS. 3000K COLOR TEMPERATURE. COORDINATE FINISH SELECTION WITH ARCHITECT. 92 CRI. COORDINATE MOUNTING HEIGHT WITH ARCHITECT. SEE PLAN FOR OVERALL LENGTH. SEE NOTE 1.	TP	
TP-1		HANDRAIL LIGHT	(1) 32W LED	LED DIMMABLE DRIVER	120V 1P 2W	CEILING	AMERLUX #LIN2.5D-A16-PL-WM-7-92-XX-HW-IND-XX-0-10V SELUX #M125 DIRECT SERIES LUMENWERX #VA WET LED SERIES	FROSTED LENS. 3000K COLOR TEMPERATURE. COORDINATE FINISH SELECTION WITH ARCHITECT. 92 CRI. COORDINATE MOUNTING HEIGHT WITH ARCHITECT. SEE PLAN FOR OVERALL LENGTH. SEE NOTE 1.	TP-1	
TQ-1		6" RECESSED DOWNLIGHT, MUD-FLANGE	(1) 26W LED	LED DRIVER	120V 1P 2W	RECESSED	REGGIANI #TRYBECA ROUND A.CCCEK.HW/12.12.V.OMR01.162* DMF LIGHTING #ORDSS SERIES USAI #BEVELED 2.2 SERIES	FLUSH LENS. 3000K COLOR TEMPERATURE. COORDINATE TRIM FINISH WITH ARCHITECT. TRIMLESS MUD-FLANGE. SEE NOTE 1.	TQ-1	
TW		4" RECESSED CAN	(1) 21W LED	LED DIMMABLE DRIVER	120V 1P 2W	RECESSED	LUCEIFER #TRAXION 4-F4RTWM-2-WH-90C-19A-2-WW-NIC-AN4 USAI #BEVEL LED MINI SERIES LF ILLUMINATION #VF 150 SERIES	933 NOMINAL LUMENS. 3000K COLOR TEMPERATURE. FLUSH TRIMLESS. FINISH SELECTION BY ARCHITECT. VERIFY CEILING TYPE WITH ARCHITECT. SEE NOTE 1.	TW	
TX		ADJUSTABLE CYLINDER	(1) 26W LED	LED DRIVER	120V 1P 2W	SURFACE	BEGA #66-978-BLK ARCLUCE #NTIS SERIES BK LIGHTING #DENALI SERIES	ADD ALTERNATE #4. 1800 NOMINAL LUMENS. 3000K COLOR TEMPERATURE.	TX-ALT	
TXE		ADJUSTABLE CYLINDER, BACKED UP BY BATTERY INVERTER	(1) 26W LED	LED DRIVER	120V 1P 2W	SURFACE	BEGA #66-978-BLK ARCLUCE #NTIS SERIES BK LIGHTING #DENALI SERIES	ADD ALTERNATE #4. 1800 NOMINAL LUMENS. 3000K COLOR TEMPERATURE.	TXE-ALT	
TY		STEP LIGHT	(1) 11W LED	LED DRIVER	120V 1P 2W	WALL; RECESSED	BEGA #33-053-K3-BLK ERCO #AXIS WALKLIGHT SERIES COLE LIGHTING #600 SERIES	231 NOMINAL LUMENS. 3000K COLOR TEMPERATURE. WALL RECESSED STEP LIGHT. IP65 RATED. SEE NOTE 1.	TY	
TZ		FLEXIBLE LED STRIP	(1) 46W LED	LED DRIVER	120V 1P 2W	WALL; RECESSED WITH #13000051-01 MOUNTING BRACKET	VARIOLED #HYDRA-HD25-WB-22-IP67 LUMINI #BOSSCA WET SERIES Q-TRAN #BOXA-SW SERIES	600 NOMINAL LUMENS. 2900K COLOR TEMPERATURE. FLEXIBLE LED STRIP (WITH NO VISIBLE LED DIODE IMAGING). COORDINATE REMOTE DRIVER LOCATION WITH ARCHITECT. IP67 RATED. SEE PLAN FOR FIXTURE LENGTH. SEE NOTE 1.	TZ	
V		2' VANITY LIGHT	(1) 15W LED	LED DIMMABLE DRIVER	120V 1P 2W	WALL	FINELITE #HP4-WM-D SERIES LEDALITE #TRUGROOVE SERIES NEORAY #DEFINE 4 SERIES	1500 NOMINAL LUMENS. 3000K COLOR TEMPERATURE. COORDINATE MOUNTING HEIGHT WITH ARCHITECT. FINISH SELECTION BY ARCHITECT.	V	
W		WALL PACK	(1) 15W LED	LED DRIVER	120V 1P 2W	WALL	BARRON #WLZ SERIES RAB #BRISK-S SERIES LUMARK #XTOR SERIES	1700 NOMINAL LUMENS. 3000K COLOR TEMPERATURE. FINISH SELECTION BY ARCHITECT.	W	
WB		WALL PACK, BACKED UP BY BATTERY INVERTER	(1) 14W LED	LED DRIVER	120V 1P 2W	WALL	BARRON #WLZ SERIES LUMARK #XTOR SERIES RAB #BRISK-S SERIES	1700 NOMINAL LUMENS. 3000K COLOR TEMPERATURE. FINISH SELECTION BY ARCHITECT.	WB	
X		EXIT SIGN, EDGE LIT, BATTERY BACKUP	(2) 1W LED	BATTERY	120V 1P 2W	UNIVERSAL	DUAL-LITE #LE SERIES LIGHTALARMS #SIMPLICITY SERIES PATHWAY #LTX SERIES	NICAD BATTERY; CONNECT TO NEAREST UNSWITCHED LIGHT CIRCUIT IN SAME SPACE. THESE FIXTURES ARE NOT TAGGED WITH "X" ON THE DRAWINGS; ONLY THE SYMBOL IS USED.	X	
XW		EXIT SIGN, BATTERY BACKUP, WET LOCATION	(2) 1W LED	BATTERY	120V 1P 2W	WALL	DUAL-LITE #LN4XRWE CHLORIDE #ERGOLD SERIES SURE-LITES #LPXW SERIES	CONNECT TO NEAREST UNSWITCHED LIGHT CIRCUIT IN SAME SPACE.	XW	
NOTES: 1. LIGHTING FIXTURE SELECTION AND LAYOUT WAS PERFORMED BY TILLOTSON DESIGN ASSOCIATES. INCLUSION HERE IS NOT INTENDED TO REPRESENT THAT THE FIXTURE SELECTION AND LAYOUT IS THE WORK PRODUCT OF CHEATHAM & ASSOCIATES, PA. 2. COORDINATE FINAL FINISH SELECTION WITH ARCHITECT AND LANDSCAPE ARCHITECT.										

LIGHTING RELAY / SWITCHING SCHEDULE				
	PANEL	LCPL		
CIRCUIT	SWITCHED ZONE	AREA / DESCRIPTION	SWITCHED OUTPUTS	NOTES
BHLL-2	1	VIP TERRACE 177	YES	PHOTOCELL/TIMELOCK
	2	EXIT	NO	
BHLL-4	3	VIP VESTIBULE 175	YES	TIMELOCK
	4	EGRESS LIGHTS, EXIT	NO	
BHLL-6	5	STAR 150, CORRIDOR 155, SHOWERS, CORRIDOR 172	YES	TIMELOCK
	6	EGRESS LIGHTS, EXITS	YES	
BHLL-7	7	STAR A 136	NO	
	8	EGRESS LIGHTS, EXITS	NO	
	9	EXTERIOR EGRESS LIGHTS	YES	PHOTOCELL
BHLL-8	10	DRESSING 161, DRESSING 163, DRESSING 165	YES	TIMELOCK
	11	EGRESS LIGHTS	NO	
BHLL-9	12	EGRESS LIGHTS, EXITS	YES	PHOTOCELL
	13	EXTERIOR EGRESS LIGHTS	YES	TIMELOCK
BHLL-10	14	DRESSING 167, DRESSING 169, DRESSING 171	YES	
	15	EGRESS LIGHTS	NO	
BHLL-11	16	EXTERIOR LIGHTS	YES	PHOTOCELL
BHLL-12	17	CORRIDOR 155, SHOWER 1 156, SHOWER 2 157, SHOWER 3 158, SHOWER 4 159	YES	TIMELOCK
	18	EGRESS LIGHTS, EXITS	NO	
BHLL-13	19	IT LN 136, ELEC LN 139, MECH/FIRE PUMP 140, STAR B 141, VIP VESTIBULE 142, VESTIBULE 145, ELEV MACH 146	YES	TIMELOCK
	20	EGRESS LIGHTS, EXITS	NO	
	21	EXTERIOR EGRESS LIGHTS	YES	PHOTOCELL
BHLL-14	22	EXTERIOR LIGHTS	YES	PHOTOCELL
BHLL-15	23	VIP VESTIBULE 142	YES	TIMELOCK
BHLL-17	24	EGRESS LIGHTS, EXITS	NO	
	25	EXTERIOR EGRESS LIGHTS	YES	PHOTOCELL
	26	EXTERIOR LIGHTS	YES	TIMELOCK/PHOTOCELL
	27	SPARE RELAY		
	28	SPARE RELAY		
	29	SPARE RELAY		
	30	SPARE RELAY		
* ALL CIRCUITS SWITCHED ON BY MASTER SWITCH				
** ALL CIRCUITS SWITCHED ON BY FIRE ALARM ACTIVATION				

LIGHTING RELAY / SWITCHING SCHEDULE				
	PANEL	LCPW		
CIRCUIT	SWITCHED ZONE	AREA / DESCRIPTION	SWITCHED OUTPUTS	NOTES
BHLW-2.4	1	SITE LIGHTING	YES	PHOTOCELL/TIMELOCK
BHLW-5.7	2	SITE LIGHTING	YES	PHOTOCELL/TIMELOCK
BHLW-6.8	3	SITE LIGHTING	YES	PHOTOCELL/TIMELOCK
BHLW-9.11	4	SITE LIGHTING	YES	PHOTOCELL/TIMELOCK
BHLW-12	5	STAGE LIGHTING	YES	TIMELOCK
BHLW-13.15	6	SITE LIGHTING	YES	PHOTOCELL/TIMELOCK
BHLW-14	7	BUS LIGHTING	YES	TIMELOCK
BHLW-16	8	STAGE COLUMN LIGHTING	YES	TIMELOCK
BHLW-17.19	9	SITE LIGHTING	YES	PHOTOCELL/TIMELOCK
BHLW-18	10	STEP LIGHTING	YES	PHOTOCELL/TIMELOCK
BHLW-20	11	STEP LIGHTING	YES	PHOTOCELL/TIMELOCK
BHLW-21	12	STEP LIGHTING	YES	PHOTOCELL/TIMELOCK
BHLW-22	13	STEP LIGHTING	YES	PHOTOCELL/TIMELOCK
BHLW-23	14	STEP LIGHTING	YES	PHOTOCELL/TIMELOCK
BHLW-24	15	STEP LIGHTING	YES	PHOTOCELL/TIMELOCK
BHLW-25	16	SITE LIGHTING	YES	PHOTOCELL/TIMELOCK
BHLW-27	17	EGRESS LIGHTS ELEC COW 149	NO	
	18	EXTERIOR LIGHTING	YES	PHOTOCELL
	19	SPARE RELAY		
	20	SPARE RELAY		
	21	SPARE RELAY		
	22	SPARE RELAY		
	23	SPARE RELAY		
	24	SPARE RELAY		
* ALL CIRCUITS SWITCHED ON BY MASTER SWITCH				
** ALL CIRCUITS SWITCHED ON BY FIRE ALARM ACTIVATION				

TILLOTSON DESIGN ASSOCIATES						
North Waterfront Park 95% Construction Documentation Phase 3 Stage Building 08/22/2019						
CONTROL GROUP: Stage Building (Zone B)						
Timesclock Control with Daylight Sensors integrated into BMS with Local Overrides						
Control Zone	Fixture Type	Quantity	Unit Load (lamp wattage only)	Load (watts)	Dimmer Type (separate)	Zone Description
B1-3	TK-1	17	17	10W	0-10V	SURFACE MOUNTED LED LINEAR DOWNLIGHT
B1-6	TS	19	14	0.266 kw	ELV	RECESSED LED DOWNLIGHT
B1-7	TP-1	16	7	0.112 kw	0-10V	PENDANT MOUNTED LED LINEAR
B1-8	TG	1	21	0.021 kw	0-10V	FLUSH RECESSED DOWNLIGHT
B1-9	TP	60.5	7	0.424 kw	0-10V	WALL MOUNTED LED LINEAR
B1-10	TP	47.25	7	0.331 kw	0-10V	WALL MOUNTED LED LINEAR
B1-11	TG	1	21	0.021 kw	0-10V	FLUSH RECESSED DOWNLIGHT
B2-1	TY	11	4	0.046 kw	0-10V	WALL RECESSED STEP LIGHT
B2-2	TZ	6	21	0.126 kw	0-10V	SURFACE MOUNT LINEAR LED
B2-3	TW	3	21	0.063 kw	0-10V	RECESSED LED WALL WASHER
B2-4	TK-1	1	10	0.350 kw	0-10V	SURFACE MOUNTED LED LINEAR DOWNLIGHT
B2-5	TK	6.5	7	0.046 kw	0-10V	RECESSED LED WALL WASHER
B2-6	TO-1	1	24	0.000 kw	0-10V	FLUSH RECESSED DOWNLIGHT
B2-7	TO-1	1	24	0.024 kw	0-10V	FLUSH RECESSED DOWNLIGHT
B2-8	TK	6.5	7	0.046 kw	0-10V	SURFACE MOUNTED LED LINEAR DOWNLIGHT
Total			2,044 kw			

NORTH WATERFRONT PARK

10 COWAN STREET
WILMINGTON, NORTH CAROLINA

CITY OF WILMINGTON
Community Services Department
P.O. Box 1810, Wilmington, North Carolina 28402
City of Wilmington Project Code 3CPRK1860

Landscaping Architecture = L
HARGREAVES JONES
168 Varick Street, Suite 204, New York, NY 10014
www.hargreavesjonesia.com
NC License #C-513

Architecture = A
SAGE & COOMBE ARCHITECTS
12-15 Vestry Street, 5th Floor, New York, NY 10013
www.sageandcoombe.com

Acoustic/Theater/AV = AT
OAP/P.C.
77 Water Street, New York NY 10015
www.arup.com

Civil Engineering = C
Structural Engineering = S
Geotechnical Engineering = G
STEWART
223 S. West Street, Suite 1100, Raleigh, NC 27603
www.stewartinc.com
NC License #C-1051

Environmental Engineering = EE
SOIL & ENVIRONMENTAL CONSULTANTS, PA
8412 Falls of Neuse Road, Suite 104, Raleigh, NC 27615
www.sandec.com
EAGLE RESOURCES
215 West Moore Street, Southport, NC 28461
www.eagleresources.com

Irrigation = I
CLARK IRRIGATION DESIGN & CONSULTING, INC
P.O. Box 693, Lenoir, VA 24553
www.clarkirrigationdesign.com

Landscaping Soil = LS
LANDIS, PLLC
3508 Bentley Brook Dr. Raleigh, NC 27612
www.landispllc.com

Mechanical Engineering = M
Electrical Engineering = E
Plumbing Engineering = P
Fire Protection = FP
CHEATHAM & ASSOCIATES, PA
3412 Enterprise Drive, Wilmington NC 28405
www.cheathampa.com
NC License #C-1073

Marine Structural Engineering = SM
ANDREW CONSULTING ENGINEERS
3511 Peachtree Avenue, Suite 300, Wilmington, NC 28403
www.andrewengineers.com

Water Fountain Design = WF
DELTA FOUNTAINS
11494 Columbia Park Dr. W., Suite 4, Jacksonville, FL 32258
www.deltafountains.com

Lighting Design = EL
TILLOTSON DESIGN ASSOCIATES
40 Worth Street, Room 703, New York NY 10013
www.tilotsondesign.com

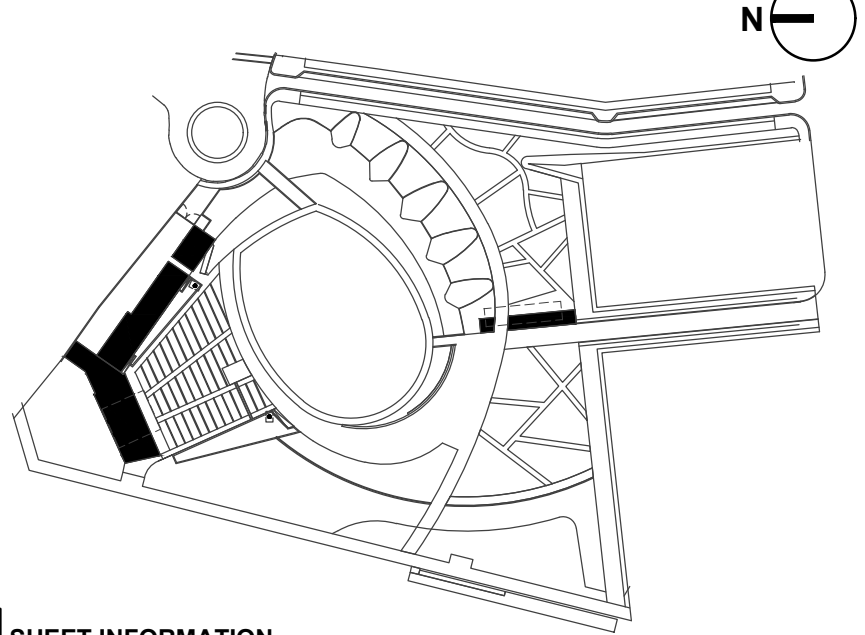
SEAL/SIGNATURE
CAPA 17109

PROGRESS DRAWINGS
DO NOT USE FOR CONSTRUCTION

ISSUE/REVISIONS

NO.	DESCRIPTION	DATE
1	30% CONSTRUCTION DOCUMENTS P3 & P4	08/07/2019
2	60% CONSTRUCTION DOCUMENTS P3	07/26/2019
3	95% CONSTRUCTION DOCUMENTS P3 & P4	12/04/2019

KEY MAP



SHEET INFORMATION
Project No.: NWP 1701
Drawn By: MFS
Checked By: MAC
Date: 12/04/2019
Scale: As indicated

SHEET TITLE

ELECTRICAL SCHEDULES

SHEET

MDPW

ROOM:			VOLTS: 208Y/120V 3P 4W			AIC: 22,000					
MOUNTING: SURFACE			BUS AMPS: 800			MAIN BKR: 800					
FED FROM: UTILITY XFMR			NEUTRAL: 100%			LUGS: STANDARD					
NOTE: ULSE LISTED AND LABELED											
CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA			CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA		
			A	B	C				A	B	C
1	100/3	PANEL CW	6.61			2	400/3	PANEL BHPW	11.7		
3				4.93		4				11.1	
5					7.48	6					7.8
7	300/3	PANEL FD	0			8	200/3	FUSED DISCONNECT WF	19		
9				0		10				19	
11					0	12					19
13	20/3	SPARE	0			14	20/1	SPARE	0		
15				0		16	20/1	SPARE		0	
17					0	18	20/1	SPARE			0
19	20/3	SPARE	0			20	20/1	SPARE	0	0	
21				0		22	20/1	SPARE			0
23					0	24	20/1	SPARE			0
25	60/3	SPD-MDPW	0			26	20/1	SPARE	0		
27				0		28	20/1	SPARE		0	
29						30	20/1	SPARE			0
31	20/1	SPARE	0			32	20/1	SPARE	0		
33	20/1	SPARE		0		34	20/1	SPARE		0	
35	20/1	SPARE			0	36	20/1	SPARE			0
37	20/1	SPARE	0			38	225/3	PANEL BHLW	1.73		
39	20/1	SPARE		0		40				1.44	
41	20/1	SPARE			0	42					2.43
						TOTAL CONNECTED KVA BY PHASE			39	36.5	36.7
						TOTAL CONNECTED AMPS BY PHASE			325	304	306

BHLW

ROOM: MOUNTING: SURFACE FED FROM: MDPW NOTE: ULSE LISTED AND LABELED			VOLTS: 208Y/120V 3P 4W BUS AMPS: 225 NEUTRAL: 100%			AIC: 35,000 MAIN BKR: MLO LUGS: STANDARD					
CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA			CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA		
			A	B	C				A	B	C
1	20/2	SPARE	0			2	20/2	LIGHTING	0.3		
3				0		4				0.3	
5	20/2	LIGHTING			0.22	6	20/2	LIGHTING		0.65	0.65
7			0.22			8			0.65		
9	20/2	LIGHTING		0.12		10	20/1	SPARE		0	
11					0.12	12	20/1	STAGE INVERTER, LIGHTING			1.22
13	20/2	LIGHTING	0.18			14	20/1	LIGHTING	0.1		
15				0.18		16	20/1	LIGHTING		0.44	
17	20/2	LIGHTING			0.027	18	20/1	STEP LTG			0.052
19			0.027			20	20/1	STEP LTG	0.13		
21	20/1	STEP LTG		0.247		22	20/1	STEP LTG		0.039	
23	20/1	STEP LTG			0.104	24	20/1	STEP LTG			0.039
25	20/1	LTG	0.12			26	20/1	SPARE	0		
27	20/1	EGRESS, LTG, LTG-WALLPACK		0.116		28	20/1	SPARE		0	
29	20/1	SPARE			0	30	20/1	SPARE			0
31	20/1	SPARE	0			32	20/1	SPARE	0		
33	20/1	SPARE		0		34	20/1	SPARE		0	
35	20/1	SPARE			0	36	20/1	SPARE			0
37	30/3	SPD-BHLW	0			38	20/1	SPARE	0	0	
39				0		40	20/1	SPARE		0	
41					0	42	20/1	SPARE			0
						TOTAL CONNECTED KVA BY PHASE			1.73	1.44	2.43
						TOTAL CONNECTED AMPS BY PHASE			14.5	12.1	20.6

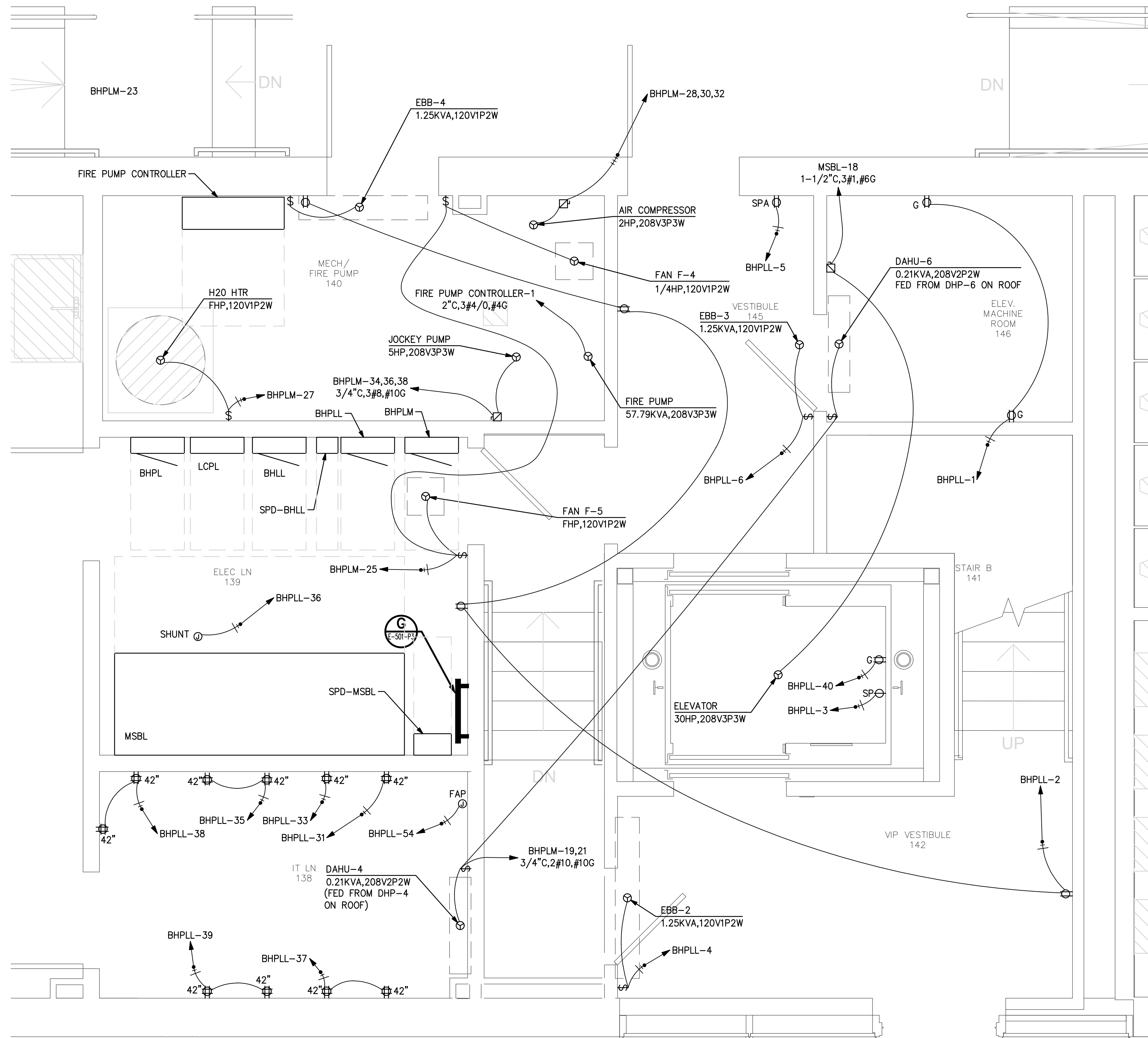
BHPW

ROOM:			VOLTS: 208Y/120V 3P 4W			AIC: 10,000					
MOUNTING: SURFACE			BUS AMPS: 400			MAIN BKR: 400					
FED FROM: MDPW			NEUTRAL: 100%			LUGS: STANDARD					
NOTE:											
CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA			CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA		
			A	B	C				A	B	C
1	20/1	REC-HOT BOX	1.5			2	25/1	FAN F-7, REC	2.38		
3	20/1	REC-HOT BOX		1.5		4	20/1	HAND DRYER		1.8	
5	20/3	EFH-3			1	6	20/1	HAND DRYER			1.8
7			1			8	20/1	HAND DRYER	1.8		
9				1		10	20/1	HAND DRYER		1.8	
11	20/3	EFH-4			1	12	20/1	SPARE			0
13			1			14	20/1	SPARE	0		
15				1		16	20/1	SPARE		0	
17	20/3	EFH-5			1	18	20/1	SPARE			0
19			1			20	20/1	SPARE	0		
21				1		22	20/1	SPARE		0	
23	20/3	EFH-6			1	24	20/1	SPARE			0
25			1			26	20/1	SPARE	0		
27				1		28	20/1	SPARE		0	
29	20/3	EFH-7			1	30	20/1	SPARE			0
31			1			32	20/1	SPARE	0		
33				1		34	20/1	SPARE		0	
35	20/3	EFH-8			1	36	20/1	SPARE			0
37			1			38	20/1	SPARE	0		
39				1		40	20/1	SPARE		0	
41	20/1	SPARE			0	42	20/1	SPARE			0
43	20/1	SPARE	0			44	20/1	SPARE	0		
45	20/1	SPARE		0		46	20/1	SPARE		0	
47	20/1	SPARE			0	48	20/1	SPARE			0
49	20/1	SPARE	0			50	20/1	SPARE	0		
51	20/1	SPARE		0		52	20/1	SPARE			0
53	20/1	SPARE			0	54	20/1	SPARE			0
						TOTAL CONNECTED KVA BY PHASE			11.7	11.1	7.8
						TOTAL CONNECTED AMPS BY PHASE			97.3	92.5	65
			CONN KVA	CALC KVA					CONN KVA	CALC KVA	
LIGHTING			0	0	(125%)	CONTINUOUS			3	3.75	(125%)
LARGEST MOTOR			1.66	2.07	(125%)	HEATING			18	18	(100%)
OTHER MOTORS			0	0	(100%)	COOLING			0	0	(N/A)
RECEPTACLES			0.72	0.72	(50%>10)	NONCONTINUOUS			7.2	7.2	(100%)
KITCHEN EQUIP			0	0	(N/A)	DIVERSE			0	0	(N/A)
						METERED DEMAND			0	0	(125%)
						TOTAL KVA			30.6	31.7	
						BALANCED 3-PHASE AMPS				88.1	

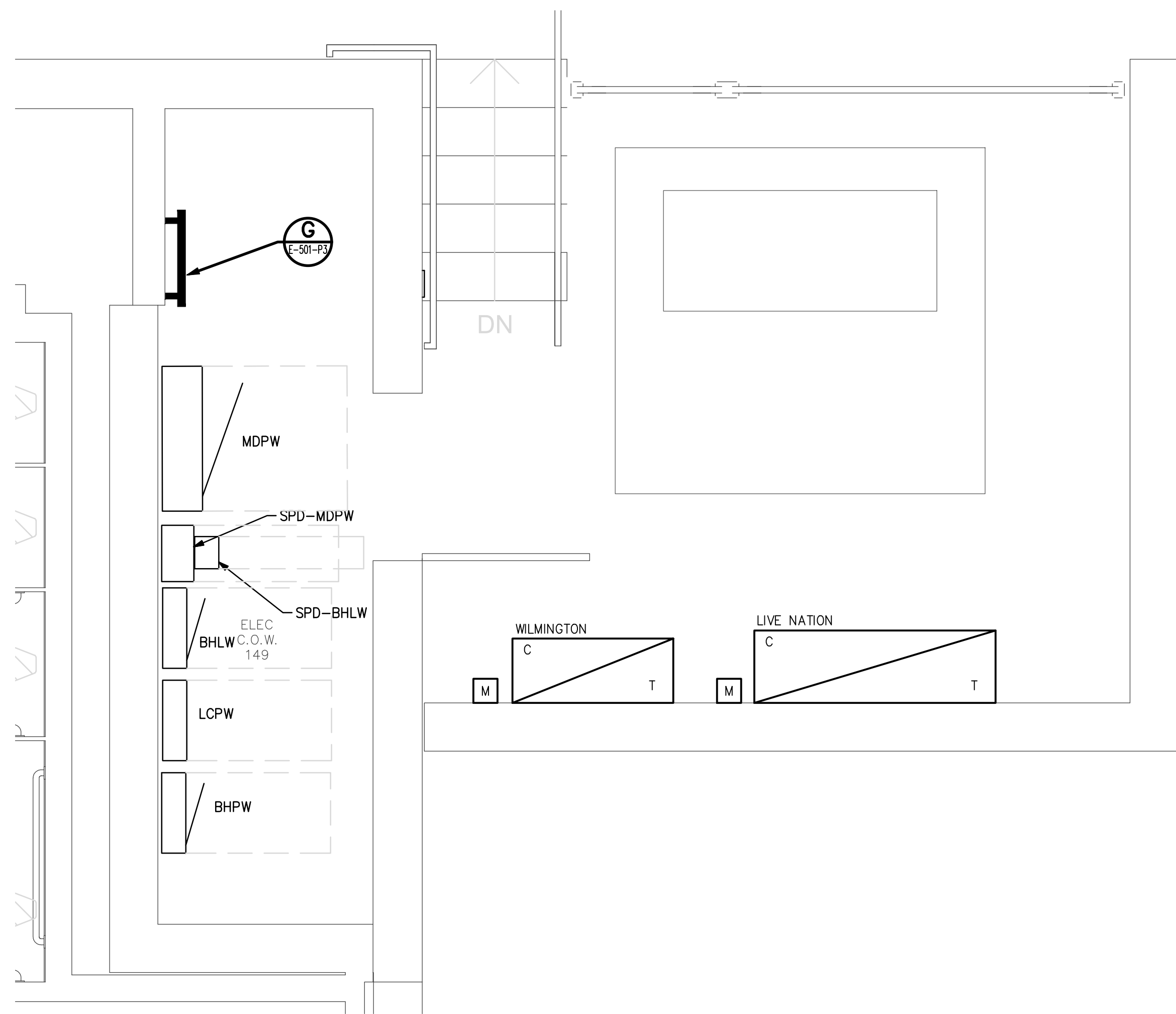
PHASE 3 - STAGE BUILDING
EQUIPMENT CIRCUITRY SCHEDULE

CALLOUT	VOLTS	CIRCUIT	WIRE CALLOUT
AIR COMPRESSOR	208V 3P 3W	BHPLM-28,30,32	3/4"C,3#12,#12G
DAHU-4	208V 2P 2W	BHPLM-19,21	3/4"C,2#10,#10G
DAHU-5	208V 2P 2W	BHPLM-19,21	3/4"C,2#10,#10G
DAHU-6	208V 2P 2W	BHPLM-19,21	3/4"C,2#10,#10G
DHP-4	208V 2P 2W	BHPLM-19,21	3/4"C,2#10,#10G
DHP-5	208V 2P 2W	BHPLM-45,47	3/4"C,2#10,#10G
DHP-6	208V 2P 2W	BHPLM-41,43	3/4"C,2#10,#10G
DOAS-1	208V 3P 3W	BHPLM-29,31,33	1-1/4"C,3#3,#8G
EBB-2	120V 1P 2W	BHPLL-4	3/4"C,1#12,#12N,#12G
EBB-3	120V 1P 2W	BHPLL-6	3/4"C,1#12,#12N,#12G
EBB-4	120V 1P 2W	BHPLM-23	3/4"C,1#12,#12N,#12G
EBB-5	120V 1P 2W	BHPLL-32	3/4"C,1#12,#12N,#12G
EBB-6	120V 1P 2W	BHPLL-32	3/4"C,1#12,#12N,#12G
EFH-3	208V 3P 3W	BHPW-5,7,9	3/4"C,3#12,#12G
EFH-4	208V 3P 3W	BHPW-11,13,15	3/4"C,3#12,#12G
EFH-5	208V 3P 3W	BHPW-17,19,21	3/4"C,3#8,#8G
EFH-6	208V 3P 3W	BHPW-23,25,27	3/4"C,3#12,#12G
EFH-7	208V 3P 3W	BHPW-29,31,33	3/4"C,3#12,#12G
EFH-8	208V 3P 3W	BHPW-35,37,39	3/4"C,3#12,#12G
ELEVATOR	208V 3P 3W	MSBL-18	1-1/2"C,3#1,#6G
ELEVATOR CAB LTS	120V 1P 2W	BHLL-19	3/4"C,1#12,#12N,#12G
FAN F-4	120V 1P 2W	BHPLM-25	3/4"C,1#12,#12N,#12G
FAN F-5	120V 1P 2W	BHPLM-25	3/4"C,1#12,#12N,#12G
FAN F-7	120V 1P 2W	BHPW-2	3/4"C,1#10,#10N,#10G
FIRE PUMP	208V 3P 3W	FIRE PUMP CONTROLLER-1	2"C,3#4/0,#4G
H2O HTR	120V 1P 2W	BHPLM-27	3/4"C,1#12,#12N,#12G
H2O HTR	208V 3P 3W	BHPLM-35,37,39	1"C,3#6,#10G
HP-1	208V 2P 2W	BHPLM-16,18	3/4"C,3#8,#10G
HP-2	208V 2P 2W	BHPLM-20,22	3/4"C,2#10,#10G
HP-3	208V 2P 2W	BHPLM-24,26	3/4"C,2#10,#10G
JOCKEY PUMP	208V 3P 3W	BHPLM-34,36,38	3/4"C,3#8,#10G
SSAHU-1	208V 3P 3W	BHPLM-1,3,5	3/4"C,2#10,#10G
SSAHU-2	208V 3P 3W	BHPLM-1,3,15	3/4"C,3#8,#10G
SSAHU-3	208V 3P 3W	BHPLM-1,9,11	3/4"C,2#10,#10G
VRF-1	208V 2P 2W	BHPLM-2,4	3/4"C,2#12,#12G
VRF-2	208V 2P 2W	BHPLM-2,4	3/4"C,2#12,#12G
VRF-3	208V 2P 2W	BHPLM-2,4	3/4"C,2#12,#12G
VRF-4	208V 2P 2W	BHPLM-2,4	3/4"C,2#12,#12G
VRF-5	208V 2P 2W	BHPLM-2,4	3/4"C,2#12,#12G
VRF-6	208V 2P 2W	BHPLM-2,4	3/4"C,2#12,#12G
VRF-7	208V 2P 2W	BHPLM-6,8	3/4"C,2#12,#12G
VRF-8	208V 2P 2W	BHPLM-6,8	3/4"C,2#12,#12G
VRF-9	208V 2P 2W	BHPLM-6,8	3/4"C,2#12,#12G
VRF-10	208V 2P 2W	BHPLM-6,8	3/4"C,2#12,#12G
VRF-11	208V 2P 2W	BHPLM-6,8	3/4"C,2#12,#12G
VRFOODU-1	208V 3P 3W	BHPLM-1,10,12,14	3/4"C,3#8,#10G

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1 ELECTRICAL ENLARGED PLAN
SCALE: 1/2" = 1'-0"
GRAPHIC SCALE: 1/2" = 1'-0"
PLAN NORTH TRUE NORTH



2 ELECTRICAL ENLARGED PLAN
SCALE: 1/2" = 1'-0"
GRAPHIC SCALE: 1/2" = 1'-0"
PLAN NORTH TRUE NORTH

PROJECT INFORMATION

NORTH WATERFRONT PARK

10 COWAN STREET
WILMINGTON, NORTH CAROLINA

CITY OF WILMINGTON
Community Services Department
P.O. Box 1810, Wilmington, North Carolina 28402
City of Wilmington Project Code 3CPRK1860

Landscape Architecture = L
HARGREAVES JONES
180 Varick Street, Suite 204, New York, NY 10014
www.hargreavesjonesla.com
NC License #C-513

Architecture = A
SAGE & COOMBE ARCHITECTS
12-15 Vestry Street, 9th Floor, New York, NY 10013
www.sageandcoombe.com

Acoustic/Theater/AV = AT
OAP.P.C.
77 Water Street, New York NY 10015
www.anup.com

Civil Engineering = C
Structural Engineering = S
Geotechnical Engineering = G
STEWART
223 S. West Street, Suite 1100, Raleigh, NC 27603
www.stewartinc.com
NC License #C-1051

Environmental Engineering = EE
SOIL & ENVIRONMENTAL CONSULTANTS, PA
8412 Falls of Neuse Road, Suite 104, Raleigh, NC 27615
www.sandec.com
EAGLE RESOURCES
215 West Moore Street, Southport, NC 28461
www.eagleresources.com

Irrigation = I
CLARK IRRIGATION DESIGN & CONSULTING, INC
P.O. Box 693, Lenoir, NC 28553
www.clarkirrigationdesign.com

Landscape Soil = LS
LANDIS, PLLC
3808 Bentley Brook Dr. Raleigh, NC 27612
www.landispllc.com

Mechanical Engineering = M
Electrical Engineering = E
Plumbing Engineering = P
Fire Protection = FP
CHEATHAM & ASSOCIATES, PA
3412 Enterprise Drive, Wilmington NC 28405
www.cheathamco.com
NC License #C-1073

Marine Structural Engineering = SM
ANDREW CONSULTING ENGINEERS
3811 Peachtree Avenue, Suite 300, Wilmington, NC 28403
www.andrewengineers.com

Water Fountain Design = WF
DELTA FOUNTAINS
11494 Columbia Park Dr. W., Suite 4, Jacksonville, FL 32258
www.deltafountains.com

Lighting Design = EL
LILLOSON DESIGN ASSOCIATES
40 Worth Street, Room 703, New York NY 10013
www.lillosondesign.com

SEAL/SIGNATURE

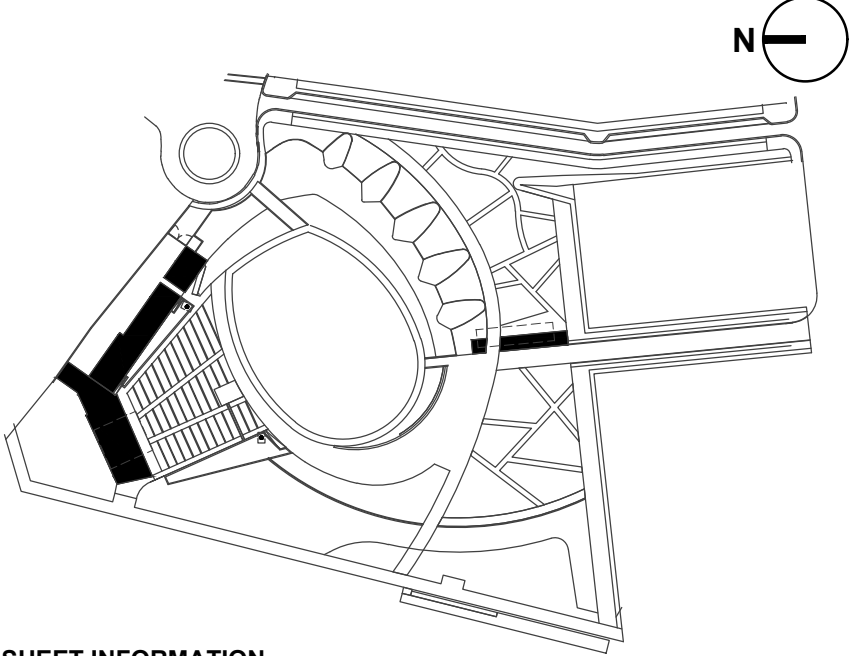
CAPA 17109

PROGRESS DRAWINGS
DO NOT USE FOR CONSTRUCTION

ISSUE/REVISIONS

NO.	DESCRIPTION	DATE
1	30% CONSTRUCTION DOCUMENTS P3 & P4	06/07/2019
2	60% CONSTRUCTION DOCUMENTS P3	07/26/2019
3	95% CONSTRUCTION DOCUMENTS P3 & P4	12/04/2019

KEY MAP



SHEET INFORMATION

Project No.: NWP 1701
Drawn By: MPS
Checked By: MAC
Date: 12/04/2019
Scale: As indicated

SHEET TITLE

ELECTRICAL
ENLARGED PLANS -
STAGE BUILDING

SHEET NO.

E-401-P3

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A

The diagram illustrates the wiring for the FAP (Intelligent, Addressable) unit. It shows the following connections:

- Data Cable:** A 3/4" data cable connects to the TVSS terminal.
- Telephone Cables:** Two 3/4" telephone cables connect to the SS terminals.
- Alarm Cables:** A #14 fire alarm cable connects to the TVSS terminal, and a #18 fire alarm cable connects to the SS terminal.
- Factory Connection:** A 120V to factory NPL entry connection panel P1 (Ckt #53) connects to the TVSS terminal.
- Output Cables:** The TVSS terminal connects to a #14 fire alarm cable for notification appliance circuit devices, and the SS terminal connects to a #18 fire alarm cable for signaling line circuit devices.

NO SCALE

NOTE
INSTALL 3/4" FIRE ALARM CABLE IN WALLS OR WHERE EXPOSED IN FINISHED OR UNFINISHED SPACES.
INSTALL CABLE WITHOUT CONDUIT WHERE CONCEALED ABOVE CEILINGS.



E-701-P3