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			2018 APPENDIX B BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS (EXCEPT 1 AND 2-FAMILY DWELLINGS AND TOWNHOUSES) (Reproduce the following data on the building plans sheet 1 or 2)	Mixed Occupancy: No Yes Separation: Hr. Exception: Image: Non-Separated Use (508.3) - The required type of construction for the building shall be determined by applying the height and area limitations for each of the applicable occupancies to the entire building. The most restrictive type of construction, so determined, shall apply to the entire building. Image: Separated Use (508.4) - See below for area calculations for each story, the area of the occupancy shall be such that the sum of the ratios of the actual floor area of each use divided by the allowable floor area for each shall not exceed 1.
			Name of Project: Coastal Carolina Community College Institutional Support Services Building Generator Replacement Address: 444 Western Boulevard, Jacksonville North Carolina Zip code: 28546 Owner/Authorized Agent: BMH Architects Phone #: (910) 762-2621 E-mail: murray@bmharch.com	Area of Occupancy A + Area of Occupancy B <1
			Owned by: City / County Code Enforcement Jurisdiction: City Jacksonville County County Contact: John D. Murray ,AIA	STORY NO. DESCRIPTION (A) (B) (C) 1,5 (D) 2,3 AND USE BLDG AREA TABLE AREA FOR AREA PER PER STORY 506.2 4 FRONTAGE STORY OR
			DESIGNER FIRM NAME LICENSE # TELE. # E-MAIL Architectural Bowman Murray Hemingway John D. Murray 6437 910-762-2621 murray@bmharch.com Civil	ISS -1 Business 15,006 23,000 INCREASE 1 UNLIMITED ISS -2 Business 4,329 23,000 om Image: Solution of the solut
			Fire Alarm Plumbing Mechanical CBHF Engineers David Hahn 23551 910-791-4000 dhahn@cbhfengineers.com Sprinkler-Standpipe Structural	¹ Frontage area increases from Section 506.3 are computed thus: a. Perimeter which fronts a public way or open space having 20 feet minimum width =(F) b. Total Building Perimeter =(P)
			Retaining Walls > 5' High	c. Ratio (F/P) =(F/P) d. W = Minimum width of public way =(W) e. Percent of frontage increase $I = f_100 [F/P - 0.25] \times W/30 =(\%)$
			2018 NC BUILDING CODE: New Building Addition Renovation 1st Time Interior Completion 1st Time Interior Completion Shell/Core - Contact the local inspection jurisdiction for possible additional procedures and requirements Phased Construction - Shell/Core - Contact the local inspection	 ⁴ Unlimited area applicable under conditions of Section 507. ³ Maximum Building Area = total number of stories in the building x D (maximum 3 stories) (506.2). ⁴ The maximum area of open parking garages must comply with Table 406.5.4. ⁵ Frontage increase is based on the unsprinklered area value in Table 506.2.
			2018 NC BUILDING CODE: EXISTING: Prescriptive Repair Chapter 14	ALLOWABLE HEIGHT
			Alteration: Level I Level II Level III Historic Change of Use Property Change of Use CONSTRUCTED: (date) 2013 CURRENT OCCUPANCY(S) (Ch.3): Business	BUILDING HEIGHT IN FEET (TABLE 504.3) ² 35' 37' BUILDING HEIGHT IN STORIES (TABLE 504.4) ³ 3 2
			RENOVATED: 2024 PROPOSED OCCUPANCY(S) (Cn.3) : Business (date) RISK CATEGORY (Table 1604.5) Current: I II III IV Proposed: I II III IV	¹ Provide code reference if the "Shown on Plans" quantity is not based on Table 504.3 or 504.4. ² The maximum height of air traffic control towers must comply with table 412.3.1. ³ The maximum height of open parking garages must comply with table 406.5.4.
			BASIC BUILDING DATA: Construction Type: I-A II-A III-A (check all that apply) I-B	FIRE PROTECTION REQUIREMENTS (NOT APPLICABLE)
			Sprinklers: No Partial Yes NFPA 13 NFPA 13R NFPA 13D Standpipes: No Yes Class I II Wet Dry Fire District: No Yes Flood Hazard Area: No Yes	LIFE SAFETY SYSTEM REQUIREMENTS (NOT APPLICABLE)
			Special Inspections Required: No Yes (Contact the local inspection jurisdiction for additional procedures and requirements.) Gross Building Area Table	ACCESSIBLE DWELING UNITS (SECTION 1107) (NOT APPLICABLE) ACCESSIBLE PARKING (SECTION 1106) (NOT APPLICABLE)
			FLOOREXISTING (SQ. FT.)NEW (SQ. FT.)SUB-TOTAL3rd Floor	PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1) (NOT APPLICABLE)
			1st Floor 15,006 0 15,006 Basement	ENERGY SUMMARY (NOT APPLICABLE)
			ALLOWABLE AREA Primary Occupancy Classification(s): Assembly A-1 A-2 A-3 A-4 A-5	(NOT APPLICABLE) MECHANICAL DESIGN (NOT APPLICABLE)
			Business Educational Factory F-1 Moderate F-2 Low	ELECTRICAL DESIGN (NOT APPLICABLE)
			HazardousH-1 DetonateH-2 DeflagrateH-3 CombustH-4 HealthH-5 HPMInstitutionalI-1 Condition12I-2 Condition12	SPECIAL APPROVALS Special approval: (Local Jurisdiction, Department of Insurance, OSC, DPI, DHHS, etc., describe below) North Carolina State Construction Office City of Jacksonville
			I-3 Condition 1 2 3 4 5 I-4 Condition Mercantile I-1 Condition Residential R-1 R-2 R-3 R-4 Storage Storage S-1 Moderate S-2 Low High-piled Parking Garage Open Enclosed Repair Garage	ENERGY SUMMARY ENERGY REQUIREMENTS: The following data shall be considered minimum and any special attribute required to meet the North Carolina Energy Conservation Code shall also be provided. Each Designer shall furnish the required portions of the project information for the plan data sheet. If performance method, state the annual energy cost for the standard reference design vs annual energy cost for the proposed design. Existing building envelope complies with code: Image: Mo Yes (The remainder of this section is not applicable) Exempt Building: No Yes (Provide code or statutory reference): 2018 NC EXISTING BC 708.1
			Ottility and Miscellaneous Image: Comparison of the section of th	Climate Zone: 🔀 3A 🗌 4A 📄 5A

2018 APPENDIX B **BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS**

Name of Project: Coa	stal Carolina Commu	nity Coll	ege Institutional Su	upport Servi	ces Building Gene	erator Replacement
Owner/Authorized Age	ent: BMH Architects		Phone #:	(910) 762-2	 621 E-m	ail:murray@bmharch.com
Owned by:		City / C	ounty	Priv	ate	State
Code Enforcement Ju	risdiction:	City _	Jacksonville	_ 🗌 Cor	inty	
CONTACT: John	D. Murray ,AIA					
DESIGNER Architectural	FIRM Bowman Murray Hem	ingway _	NAME John D. Murray	LICENSE # 6437	TELE. # 910-762-2621	E-MAIL murray@bmharch.com
Electrical Fire Alarm	CBHF Engineers		Duncan McFadyer	8433	910-791-4000	dmcfadyen@cbhfengineer
Plumbing Mechanical Sprinkler-Standpipe	CBHF Engineers		David Hahn	23551	910-791-4000	dhahn@cbhfengineers.cor
Structural Retaining Walls > 5'	 High					
Other						
("Other" should includ	e firms and individual	s such a	is truss, precast, pi	re-engineere	ed, interior design	ers, etc.)
2018 NC BUILDING (CODE:	New	v Building Time Interior Com Il/Core - Contact th cedures and require sed Construction - diction for possible	Addition pletion he local inspo ements Shell/Core e additional p	ection jurisdiction	novation for possible additional l inspection equirements.
2018 NC BUILDING (CODE: EXISTING: Alteration:	Pres	scriptive el I oric	Repair	Cha Leve Cha	pter 14 el III inge of Use
CONSTRUCTE	D: (date) 2013	Prop		CUPANCY	S) (Ch.3) : Bu	siness
RENOVATED:	2024		PROPOSED O	CCUPANC	Υ(S) (Ch.3) : Βυ	siness
(date)			- • • -			–
RISK CATEGORY (Ta	able 1604.5)		Current:] IV] IV
BASIC BUILDING DA	NTA:					
Construction Type:	C	I-A	🔲 II-A	· [III-A	
(check all that apply)	C] І-В	II-E	з [III-B	V-B
Sprinklers:	No C	Partial	Yes	s 🔲 NI	FPA 13 🔲 NF	PA 13R 🔲 NFPA 13D
Standpipes:	No C	Yes	Class 🔲 I	 "	🖾 III 🛛	Wet Dry
Fire District:	No C	Yes	Flood	Hazard Area	a: 🗙 No	Yes
Special Inspections	Required:	No	Yes (C for add	Contact the lo ditional proce	ocal inspection jur edures and requir	isdiction ements.)
		Gros	s Building Area Ta	able		
FLOOR 3rd Floor	EXISTING (SQ. F	Г.)	NEW ((SQ. FT.)		SUB-TOTAL
2nd Floor	4,329		0			4,329
Mezzanine 1st Floor	15,006		0			15,006
Basement						
TOTAL						
		,	ALLOWABLE ARE	EA		
Primary Occupancy	Classification(s):	_		-		
Assembly	A-1 A-2		-3 L A-4 L	A-5		
Business						
Educational						
Factory	F-1 Moderate	– F-	2 Low			
Hazardous	H-1 Detonate	Пн	2 Deflagrate	H-3 Com	bust 🔲 H-4 H	lealth 🔲 H-5 HPM
Institutional	I-1 Condition	1	C	2		
[I-2 Condition	1	C	2		
[I-3 Condition	1	C	2	3	4 5
1	I-4 Condition		_		_	
Mercantile	I-1 Condition					
Residential	_ 	П R-	-3 П R-4			
Storage I	S-1 Moderate			High-pile	d	
	Darking Coross				-	
					- рап Сагаде	
		L				
Accessory Occupan	cy Classification(s):	N/A				
Special Lloss (Chart	or 4 - List Code Sam	tionali	Ν/Δ			
Special Provisions	(Chapter 5 - Liet Cov	<u>le Secti</u>	ons): N/A			

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Mixed Occupancy: No Non-Separated Use (5 by applying the height a building. The most restr Separated Use (508.4) shall be such that the su floor area for each shall Area of Occupancy Allowable Area of Occup STORY NO. DESCRIPTION AND USE	Yes Separation 08.3) - The required type of ond area limitations for each interactions for each interaction of the ratios of the actual of the ratios of the actual not exceed 1. - See below for area calculum of the ratios of the actual not exceed 1. A + A + A + Allowal (A) BLDG AREA PER STORY (ACTUAL)	:Hr. If construction for the applicable so determined, shall allations for each stand al floor area of each ea of Occupancy E ble Area of Occupana (B) TABLE 506.2 4 AREA	Exception: he building shall to occupancies to the all apply to the end ory, the area of th ch use divided by $\frac{3}{ancy B} \leq 1$ (C) = 1,5 AREA FOR FRONTAGE = 1 INCREASE	e determined he entire tire building. e occupancy the allowable = <1.00 (D) 2,3 AREA PER STORY OR UNLIMITED	File Number: BP25-0000070 Approval Date: 04/30/25 WARNENS WARNEN WARNENS	A
ISS -1 Business ISS -2 Business ¹ Frontage area increases from Section 50 a. Perimeter which fronts a pub b. Total Building Perimeter c. Ratio (F/P) = d. W = Minimum width of public e. Percent of frontage increase ² Unlimited area applicable under condition ³ Maximum Building Area = total number o ⁴ The maximum area of open parking gara ⁵ Frontage increase is based on the unspr	$15,006$ $4,329$ $6.3 \text{ are computed thus:}$ $ic way or open space havi = (P) (F/P) way = (W) I = f \ 100 \ [F/P - 0.25] \times V f \text{ stories in the building x D} ges must comply with Table ALLOWABLE HEIG$	23,000 23,000 ing 20 feet minimu W/30 = (maximum 3 stori le 406.5.4. e 506.2. GHT SHOWN ON I	m width = (%) es) (506.2).		BOWMAN MURRAY HEMINGWAY A R C H I T E C T S 514 Market Street Wilmington, NC 28401 Tel - (910) 762-2621	- B
BUILDING HEIGHT IN FEET (TABLE 504.3) ² BUILDING HEIGHT IN STORIES (TABLE 504.4) ³ ¹ Provide code reference if the "Shown on ² The maximum height of air traffic control ³ The maximum height of open parking ga	35' 35' 3 Plans" quantity is not base towers must comply with tat rages must comply with tat FIRE PROTECTION REQU (NOT APPLICAB LIFE SAFETY SYSTEM RI (NOT APPLICAS ESSIBLE DWELING UNITS (NOT APPLICAS ACCESSIBLE PARKING (S	37' 2 ed on Table 504.3 o able 412.3.1. ole 406.5.4. JIREMENTS LE) EQUIREMENTS BLE) S (SECTION 1107 BLE) SECTION 1106)	or 504.4.	REFERENCE	mmunity College Services Building placement ulevard arolina 28546 38-01A	С
PLUME	(NOT APPLICAI ING FIXTURE REQUIREN (NOT APPLI ENERGY SUM (NOT APPLIC STRUCTURAL DES (NOT APPLICABL MECHANICAL DES (NOT APPLICABL ELECTRICAL DESI (NOT APPLICABL SPECIAL APPI partment of Insurance, OS	BLE) MENTS (TABLE 29 ICABLE) MMARY CABLE) SIGN E) SIGN E) IGN E) ROVALS C, DPI, DHHS, etc	902.1))	Coastal Carolina Col Coastal Carolina Col Institutional Support Generator Rej 444 Western Bo Jacksonville, North C SCO # 24-280	D
City of Jacksonville ENERGY REQUIREMENTS: The following data shall be considered Conservation Code shall also be provide the plan data sheet. If performance me energy cost for the proposed design. Existing building envelope complies Exempt Building: No Climate Zone: 3A	ENERGY SUMM/ minimum and any special ded. Each Designer shall fu thod, state the annual ener with code:	ARY attribute required f urnish the required rgy cost for the sta No Yes tory reference:) 20	to meet the North portions of the pr andard reference of (The remainder of thi 118 NC EXISTING	Carolina Energy oject information for design vs annual s section is not applicable) BC 708.1	REV. DATE DESCRIPTION Project Manager Drawn By CWG Date Reviewed By JDM 4-16-2025 JDM Project ID Sheet Title Sheet Title Sheet No. CS-2	E



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		PLUMBING GENERAL NOTES
		. SCOPE OF WORK: THESE DRAWINGS AND ACCOMPANYING SPECIFICATIONS DESCRIBE SCOPE OF WORK REQUIRED FOR PLUMBING SYSTEMS. LABOR AND MATERIAL SHALL BE PROVIDED AS REQUIRED FOR A COMPLETE, WORKMANLIKE
		INSTALLATION OF ALL SYSTEMS SHOWN ON DIAGRAMMATIC DRAWINGS AND/OR AS SPECIFIED HEREIN. 2. CONTRACTOR: THE WORD "CONTRACTOR", "PLUMBING CONTRACTOR", AND "P.C." AS USED HEREIN SHALL MEAN THE
Δ		3. DRAWINGS: DRAWINGS ARE DIAGRAMMATIC AND MAY NOT COMPLETELY DESCRIBE EVERY DETAIL OF THE INSTALLATION. HOWEVER, CONTRACTOR IS RESPONSIBLE FOR FURNISHING COMPLETE SYSTEMS INCLUDING ALL REQUIRED EQUIPMENT AND ACCESSORIES TO OBTAIN FULLY FUNCTIONING PLUMBING SYSTEMS.
A		 CODE COMPLIANCE: COMPLY WITH THE LATEST EDITIONS OF THE FOLLOWING STANDARDS AND CODES, INSOFAR AS THEY APPLY:
		NORTH CAROLINA STATE BUILDING CODE (CODE), LATEST EDITION AND REVISIONS.
		 LOCAL JURISDICTION REQUIREMENTS. 5. PERMITS AND INSPECTIONS: OBTAIN ALL PERMITS, LICENSES, INSPECTIONS, ETC., REQUIRED FOR WORK AND PAY FOR SAME. FURNISH A FINAL CERTIFICATE OF INSPECTION AND APPROVAL FROM THE AUTHORITY HAVING JURISDICTION PRIOR TO ACCEPTANCE OF THE WORK
		5. SUPERVISION: PROVIDE SKILLED SUPERINTENDENTS TO SUPERVISE THE WORK FROM THE BEGINNING TO
		7. PROGRESS OF WORK: PERFORM WORK IN ACCORDANCE WITH SCHEDULE AND REQUIREMENTS OF THE GENERAL CONTRACTOR, UNDER NO CIRCUMSTANCES SHALL THIS CONTRACTOR DELAY THE OVERALL PROJECT SCHEDULE.
		3. COORDINATION: COORDINATE PLUMBING WORK WITH THE WORK OF OTHER TRADES. LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE UNLESS SPECIFICALLY DIMENSIONED. ARRANGE PLUMBING SO AS NOT TO INTERFERE WITH THE WORK OF OTHER TRADES. VERIFY ACTUAL BUILDING STRUCTURE PRIOR TO DUCT FABRICATION AND ADJUST LAYOUT AS REQUIRED. INCLUDE ALL OFFSETS IN DUCTS, FITTINGS, PIPING, ETC. AS REQUIRED TO PROPERLY INSTALL EQUIPMENT.
		 EQUIPMENT LOCATIONS: DETERMINE EXACT EQUIPMENT AND MATERIALS LOCATIONS TO PROVIDE BEST ARRANGEMENT AND TO FACILITATE PROPER MAINTENANCE AND SERVICING OF EQUIPMENT.
В		0. LISTING AND LABELING: ALL EQUIPMENT SHALL BE LABELED OR LISTED BY UL OR OTHER APPROVED TESTING AGENCY WHERE REQUIRED.
		1. STORAGE SPACE: CONSULT WITH THE GENERAL CONTRACTOR REGARDING JOB SITE STORAGE FOR PLUMBING MATERIALS TO BE INSTALLED UNDER THIS PROJECT. STORAGE SPACE MUST BE SECURED AND CONTRACTOR'S REPRESENTATIVE MUST BE ON JOB BEFORE ANY MATERIAL MAY BE RECEIVED.
		2. CLEANUP: REMOVE ALL DEBRIS GENERATED IN THE ACCOMPLISHMENT OF WORK UNDER THIS PROJECT. CLEAN, REPLACE OR REPAIR ALL SURFACES SOILED OR DAMAGED DURING THE COURSE OF THE WORK. REMOVE DEBRIS DAILY SO TO MAINTAIN SAFE WORKING CONDITIONS.
		3. RECORD DRAWINGS: MAINTAIN ONE SET OF "RED-LINED" RECORD DRAWINGS ON SITE AT ALL TIMES AND PROVIDE DRAWINGS TO ARCHITECT/ENGINEER PRIOR TO FINAL INSPECTION.
		 A. WORK UNDER THIS CONTRACT IS TO BE PERFORMED IN AN EXISTING BUILDING. BUILDING LAYOUT INDICATED IS DEVELOPED FROM EXISTING RECORD DOCUMENTS AND LIMITED FIELD VERIFICATION FOR THE PURPOSES OF DESCRIBING THE WORK. VERIFY ALL EXISTING CONDITIONS AND ADJUST WORK AS REQUIRED TO SUIT ACTUAL
		FIELD CONDITIONS. B. PERFORM ALL WORK IN ACCORDANCE WITH SAFETY REGULATIONS.
		C. DO NOT CUT ANY STRUCTURAL MEMBERS WITHOUT EXPRESS WRITTEN INSTRUCTIONS FROM ARCHITECT/ENGINEER. PROVIDE CUTTING AND PATCHING FOR EXISTING FINISHES AS REQUIRED.
		D. COORDINATE INSTALLATION OF NEW PLUMBING SYSTEMS WITH EXISTING BUILDING SYSTEMS. ADJUST ARRANGEMENTS AS REQUIRED TO ACCOMMODATE INTERFERENCES.
С		E. THE SECOND FLOOR IS TO REMAIN OPEN DURING CONSTRUCTION. PLUMBING SYSTEMS SERVING THE SECOND FLOOR MUST REMAIN OPERATIONAL AT ALL TIMES UNLESS SHUTDOWN IS COORDINATED WITH THE OWNER.
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PLUMBING DEMOLITION NOTES

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1. THE PLUMBING CONTRACTOR SHALL REVIEW THE DRAWINGS AND SPECIFICATIONS FOR DEMOLITION REQUIREMENTS AND LAYOUT HIS WORK IN A COMPATIBLE AND COMPLEMENTARY MANNER. REMOVE ALL FIXTURES, EQUIPMENT, PIPING, SUPPORTS, ACCESSORIES, ETC. MADE OBSOLETE BY THESE ALTERATIONS AS SHOWN IN THE PLUMBING DRAWINGS. ALL ITEMS TO BE REMOVED OR MODIFIED MAY NOT BE SHOWN, HOWEVER, THIS CONTRACTOR SHALL REMOVE ANY PLUMBING WORK AS REQUIRED BY THE CONSTRUCTION OR AS DIRECTED BY THE OWNER OR THE ENGINEER. SURVEY THE AFFECTED AREAS BEFORE SUBMITTING A BID.

2. ALL EXISTING PLUMBING FIXTURES, EQUIPMENT AND PIPING SHALL REMAIN UNLESS SPECIFICALLY NOTED TO BE REMOVED.

3. THESE DRAWINGS ARE COMPILED BY THE ARCHITECT/ENGINEER FROM THE OWNER'S AS-BUILT RECORD DRAWINGS AND LIMITED FIELD VERIFICATION OF EXISTING CONDITIONS FOR THE PURPOSE OF INDICATING THE WORK REQUIRED AND ARE BELIEVED TO BE CORRECT. NOTWITHSTANDING, THE PLUMBING CONTRACTOR SHALL VERIFY ALL PIPING, FIXTURE LOCATIONS, DIMENSIONS, MATERIALS AND ALL FIELD CONDITIONS AFFECTING HIS WORK.

- 4. WHERE PLUMBING SYSTEMS PASS THROUGH THE DEMOLITION AREAS TO SERVE OTHER PORTIONS OF THE PREMISES, THEY SHALL REMAIN OR BE SUITABLY RELOCATED AND THE SYSTEM RESTORED TO NORMAL OPERATION. ADVISE THE ARCHITECT/ENGINEER IMMEDIATELY IF SUCH CONDITIONS ARE UNCOVERED BEFORE PROCEEDING WITH ADDITIONAL WORK.
- 5. PROTECT ALL EXISTING LIFE SAFETY SYSTEMS, FIRE ALARM AND PUBLIC ADDRESS SYSTEMS AND MAINTAIN THEM IN OPERATION THROUGHOUT THE PROGRESS OF THE WORK. NOTIFY THE OWNER AND ARCHITECT/ENGINEER IN WRITING WHEN SHUTDOWNS ARE REQUIRED PRIOR TO ANY OUTAGE OF SERVICE. WHERE THE DURATION OF A PROPOSED OUTAGE CANNOT BE TOLERATED BY THE OWNER, PROVIDE TEMPORARY CONNECTIONS AS REQUIRED TO MAINTAIN SERVICE.

6. SURVEY THE EFFECTED AREAS BEFORE SUBMITTING A BID AS ALL EXISTING CONDITIONS CANNOT BE COMPLETELY DEPICTED ON THE DRAWINGS AND SOME UNUSUAL CONDITIONS MAY EXIST.

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PLUMBING LEGE	ND		
CA	COMPRESSED AIR PIPING CONDENSATE PIPING		
140'F140'F	DOMESTIC 140°F WATER PIPING	Engineer	s. PLLC
140R	DOMESTIC 140°F RETURN WATER PIPING	2246 Yaupon Drive	Phone: 910.791.4000
	DOMESTIC COLD WATER PIPING	Wilmington, NC 28401	Fax: 910.791.5266
	DOMESTIC HOT WATER CIRCOLATION FIFING	© Copyright 2025CBHF Engineers, PLLC	www.contengineers.com
F F	FILTERED WATER PIPING		
SP	FIRE SPRINKLER PIPING		
FM	FORCE MAIN PIPING		
LP	LP GAS PIPING		
GW	GREASE WASTE PIPING		
MCA			
N2	02 (0XYGEN) PIPING		
OD	OVERFLOW ROOF DRAIN PIPING		
RD	ROOF DRAIN PIPING		
	SANITARY VENT PIPING		
TT	SANITARY WASTE PIPING		
TP	TRAP PRIMER PIPING		
VAC	VACUUM PIPING		
NPW	NON-POTABLE WATER		
	BACKFLOW PREVENTION DEVICE		
	BALL VALVE		
ö	CIRCUIT SETTER (BALANCING VALVE)		
₽	CIRCULATION PUMP		
FCOO	FLOOR CLEANOUT		
FD G	FLOOR DRAIN		
FS	FLOOR SINK		
	GAS-REGULATOR VALVE		
X			
GCOD			
	HOSE BIBB		
	PIPE CAP		
 	PIPE ELBOW		
;	PIPE ELBOW DOWN		
+ @	PIPE ELBOW UP		
	PIPE TEE		
	PIPE TEE DOWN		
	PIPE TEE UP		
SP (P)	SUMP PUMP		
	DEMOLITION KEYED NOTE TAG		
	HATCHING INDICATES ITEMS TO BE DEMOLISHED		
1	NEW WORK KEYED NOTE		
	POINT OF CONNECTION - NEW TO EXISTING		
	PRESSURE REDUCING VALVE		
	SOLENOID VALVE		
	THERMOSTATIC MIXING VALVE		
WCOI	WALL CLEANOUT		
т wн	WALL HYDRANT		
	WASHING MACHINE BOX		
* "X"	WATER HAMMER ARRESTOR		
NOTE: ALL ITEMS LISTED IN THIS S	L SCHEDULE MAY NOT BE USED IN PROJECT	l	

ANDTOVAN File Nur Α BOWMAN MURRAY HEMINGWAY ARCHITECTS 514 Market Street Wilmington, NC 28401 Tel - (910) 762-2621 В SCO ID# 24-28038-01A 23551 "VGINE DM. HA 04/16/2025 С Coastal Carolina Community College Institutional Support Services Building Generator Replacement 46 444 Western Boulevard acksonville, North Carolina 28 SCO # 24-28038-01A Ja D DATE DESCRIPTION Drawn By JBS Project Manager Reviewed By DMH Date 04-16-2025 Project ID Sheet Title GENERAL NOTES, E LEGEND, ABBREVIATIONS Sheet No. P0.1



ELECTRI	CAL LEGEND		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
		69	CEILING MOUNTE 2 = SECOND CC
R	CEILING FAN, SEE LIGHTING FIXTURE SCHEDULE FOR TYPE	-63-	CEILING MOUNTE 2 = SECOND CC
	2x4 LIGHT FIXTURE RECESSED OR SURFACE MOUNTED	Q	WALL MOUNTED 2 = SECOND CC
		ģ	WALL MOUNTED OCCUPANCY SEN INSTALL WHERE
0	2x2 LIGHT FIXTURE, RECESSED OR SURFACE MOUNTED	-@-	WALL MOUNTED
0	4FT OR 8FT LIGHT FIXTURE, RECESSED OR SURFACE MOUNTED		INSTALL WHERE
0	4FT OR 8FT CHANNEL LIGHT FIXTURE, SUSPENDED OR SURFACE MOUNTED	O\$	CONTROL, 180° C
	UNDER COUNTER LIGHT FIXTURE	092	CONTROL, 180° C
dþ dþ	DIRECT/INDIRECT FIXTURE, SUSPENDED	О\$₽	ON/OFF CONTRO UNLESS OTHERV
<u>, , , ,</u>	TRACK WITH LIGHT KIT	O\$F	WALL MOUNTED CONTROL, 180° C MOUNTED AT 46"
O	RECESSED LIGHT FIXTURE	\$т	WALL MOUNTED
¤	SURFACE LIGHT FIXTURE		RECEPTACLE. DU
Å	RECESSED WALL WASH LIGHT FIXTURE	₩ ∰∪	RECEPTACLE, DU
<u>Q</u>	WALL MOUNTED LIGHT FIXTURE	Ð	RECEPTACLE, DU
♦	EXIT SIGN, SINGLE FACE, CEILING, CHEVRON INDICATES DIRECTION.	₽U	RECEPTACLE, QU MOUNTED 16"AFI
	EXIT SIGN, DOUBLE FACE, CEILING MOUNTED, CHEVRON INDICATES DIRECTION.	₽	RECEPTACLE, QU
	EXIT SIGN W/EMERGENCY LIGHTING UNIT, CEILING MOUNTED, CHEVRON INDICATES DIRECTION.	± ₩	RECEPTACLE, QU
$\mathbf{\nabla}$	EXIT SIGN, SINGLE FACE, WALL/END MOUNTED, CHEVRON INDICATES DIRECTION.	ш Ш	RECEPTACLE, DU
\$ ፼ \$	EXIT SIGN, DOUBLE FACE, WALL/END MOUNTED, CHEVRON INDICATES DIRECTION.	ー 王 曲	RECEPTACLE, QU
	EXIT SIGN W/EMERGENCY LIGHTING UNIT, WALL/END MOUNTED, CHEVRON INDICATES DIRECTION.	田 田 田	RECEPTACLE, QU
4_}		₩ Ø	MOUNTED 6" ABC
	SWITCHED"	L	RECEPTAGLE, 23
\$\$	EMERGENCY LIGHTING UNIT, 2-HEAD WITH BATTERY BACK-UP, CEILING MOUNTED, "NOT SWITCHED"		**FOR ALL RECE +XX"- INDICA ELECTRICA
	**FOR ALL LIGHTING FIXTURE TYPES ABOVE: LETTER ADJACENT TO FIXTURE INDICATES FIXTURE TYPE, SEE LIGHTING FIXTURE SCHEDULE		WP - LISTED TR - TAMPEF S - INDICATE
\frown	POWER & SWITCH LEG		H - DEVICE M U - USB IN-W
	UNSWITCHED LEG	30A/3/3R,	DISCONNECT SW
	CONDUIT, HOME RUN TO PANEL BOARD		FNCLOSED BREA
P	PHOTOCELL, REMOTE MOUNTED, 120V, 10 SECOND TIME DELAY, UL WET LOCATION, RATED FOR 1500 W @ 120 VAC AND 4000 W @ 277 VAC (FOR USE WITH LAMP SOURCE(S) SHOWN.	Св	##A = BREAKER
\$	SWITCH, SINGLE POLE, 120/277VAC, 20A, MOUNTED AT 46" AFF UNLESS OTHERWISE NOTED, SEE ELECTRICAL DEVICES MOUNTING HEIGHT DETAIL. LOWER CASE LETTER INDICATES FIXTURE SWITCHING, WHEN INDICATED.	"Equip" ☑ #AMP HMCP (#⊔D) ☑	STARTER. FULL
\$3	3-WAY SWITCH, 120/277 VAC, 20A, MOUNTED AT 46" AFF UNLESS OTHERWISE NOTED SEE ELECTRICAL DEVICES MOUNTING HEIGHT DETAIL. LOWER CASE LETTER INDICATES FIXTURE SWITCHING, WHEN INDICATED.	(#ПР) •• NEMA # "Equip" #AMP □	COMBINATION ST
\$4	4-WAY SWITCH 120/277 VAC, 20A, MOUNTED AT 46" AFF UNLESS OTHERWISE NOTED SEE ELECTRICAL DEVICES MOUNTING HEIGHT DETAIL. LOWER CASE LETTER INDICATES FIXTURE SWITCHING, WHEN INDICATED.	HMCP 🛛 (#HP) NEMA #	INDICATED ON D
Å	WEATHERPROOF SWITCH, SINGLE POLE 120/277 VAC, 20A, MOUNTED AT 46" AFF UNLESS	M\$##	AND SIZE WITH E ## = AMPERAGI

DIMMER SWITCH, 0-10V OR LINE VOLTAGE RATING AS REQUIRED BY LIGHTING FIXTURE(S). LINE VOLTAGE RATED DIMMERS MUST BE 1500W FOR 120 VAC AND 4000W 277VAC MINIMUM.

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OTHERWISE NOTED.

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CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR, 360° COVERAGE		DESCRIPTION
2 = SECOND CONTACT TO BE PROVIDED FOR CONNECTION TO BUILDING MANAGEMENT CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR, LONG RANGE COVERAGE		
2 = SECOND CONTACT TO BE PROVIDED FOR CONNECTION TO BUILDING MANAGEMENT		PANELBOARD, SURFACE OR RECESSED MOUNTED AS SHOWN. SIZE, RATINGS, AND MOUNTING AS INDICATED ON PANEL SCHEDULE. CONTRACTOR IS RESPONSIBLE FOR REQUIRED CLEARANCE IN FRONT OF ELECTRICAL PANEL. SEE NEC TABLE 110.26
2 = SECOND CONTACT TO BE PROVIDED FOR CONNECTION TO BUILDING MANAGEMENT		WORKING SPACES FOR ADDITIONAL CLEARANCE CONDITIONS.
OCCUPANCY SENSOR, LOW VOLTAGE (24VDC) 19mA DRAW, LONG RANGE SENSOR. INSTALL WHERE FREE OF OBSTRUCTIONS.	**	GROUND BUS, "E" INDICATES ELECTRICAL GROUND BAR, "TG" INDICATES TELECOMMUNICATIONS GROUND BAR
WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR, PIR TECHNOLOGY OCCUPANCY SENSOR, LOW VOLTAGE (24VDC) 19mA DRAW, TWO SIDED AISLEWAY. INSTALL WHERE FREE OF OBSTRUCTIONS.		CABLE TRAY, LADDER TYPE
WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR, SINGLE BUTTON ON/OFF CONTROL, 180° COVERAGE, MOUNTED AT 46" AFF UNLESS OTHERWISE NOTED.		HAND HOLE, IN GRADE, TIER RATING AS INDICATED ON DRAWING
WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR, DUAL BUTTON ON/OFF CONTROL, 180° COVERAGE, MOUNTED AT 46" AFF UNLESS OTHERWISE NOTED.		DEMOLITION KEY NOTE SYMBOL KEY NOTE SYMBOL
WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR, DUAL BUTTON ON/OFF CONTROL WITH 0-10V DIMMING, 180° COVERAGE, MOUNTED AT 46" AFF UNLESS OTHERWISE NOTED.	$\overline{\underline{\land}}$	
WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR, DUAL BUTTON ON/OFF CONTROL, 180° COVERAGE, ADDITIONAL POWER SUPPLY FOR FAN OPERATION,	보	+##" - INDICATES MOUNTING HEIGHT OF DEVICE IN INCHES AFF (if given)
MOUNTED AT 46" AFF UNLESS OTHERWISE NOTED.		JUNCTION BOX - FLOOR MOUNTED
CONTROL, MOUNTED AT 46" AFF UNLESS OTHERWISE NOTED.		1 HOUR RATED FIRE WALL
RECEPTACLE, DUPLEX, 120VAC, 20A, MOUNTED 16" AFF, UNLESS OTHERWISE NOTED.		1 HOUR RATED FIRE WALL - EXISTING
RECEPTACLE, DUPLEX, 120VAC, 20A, WITH A-USB AND C-USB CHARGING CAPABILITY, MOUNTED 16" AFF, UNLESS OTHERWISE NOTED.	▲	2 HOUR RATED FIRE WALL - EXISTING
RECEPTACLE, DUPLEX, 120VAC, 20A, MOUNTED 6" ABOVE COUNTER TOP OR BACK SPLASH.		
RECEPTACLE, QUADPLEX, 120VAC, 20A, WITH A-USB AND C-USB CHARGING CAPABILITY MOUNTED 16"AFF UNLESS OTHERWISE NOTED .		
RECEPTACLE, QUADPLEX, 120VAC, 20A MOUNTED 16"AFF UNLESS OTHERWISE NOTED .		
RECEPTACLE, QUADPLEX, 120VAC, 20A, MOUNTED 6" ABOVE COUNTER TOP OR BACK SPLASH.		
RECEPTACLE, DUPLEX, GROUND FAULT CIRCUIT INTERRUPTER TYPE, 120VAC, 20A, MOUNTED 16" AFF, UNLESS OTHERWISE NOTED.		
RECEPTACLE, DUPLEX, GROUND FAULT CIRCUIT INTERRUPTER TYPE, 120VAC, 20A, MOUNTED 6" ABOVE COUNTER TOP OR BACK SPLASH.		
RECEPTACLE, QUADPLEX, GROUND FAULT CIRCUIT INTERRUPTER TYPE, 120VAC, 20A MOUNTED 16"AFF UNLESS OTHERWISE NOTED.		
RECEPTACLE, QUADPLEX, GROUND FAULT CIRCUIT INTERRUPTER TYPE, 120VAC, 20A, MOUNTED 6" ABOVE COUNTER TOP OR BACK SPLASH.		
RECEPTACLE, 250VAC, 2 POLE, 3 WIRE, WALL MOUNTED		
**FOR ALL RECEPTACLE TYPES ABOVE:		
ELECTRICAL MOUNTING HEIGHT OF DEVICE IN INCHES AFF (IF GIVEN) (SEE ELECTRICAL MOUNTING HEIGHT DETAIL) WP - LISTED WEATHER-RESISTANT TYPE DEVICE WITH WEATHERPROOF IN USE COVER		
TR - TAMPER RESISTANT S - INDICATES THE TOP RECEPTACLE OF THE DEVICE IS CONTROLLED VIA WALL SWITCH		
U - USB IN-WALL CHARGER		
DISCONNECT SWITCH, FUSED, HEAVY DUTY, SIZE AS INDICATED ON DRAWINGS ##A = DISCONNECT SIZE / # = NUMBER OF POLES / # = NEMA RATING, / ##AF = FUSE SIZE		
ENCLOSED BREAKER, SIZE AS INDICATED ON DRAWINGS ##A = BREAKER SIZE / # = NUMBER OF POLES / # = NEMA RATING		
VARIABLE FREQUENCY DRIVE (VFD)		
STARTER, FULL VOLTAGE, SIZE AS INDICATED ON DRAWINGS		
COMBINATION STARTER WITH CIRCUIT BREAKER DISCONNECT, FULL VOLTAGE, SIZE AS INDICATED ON DRAWINGS		
MANUAL MOTOR STARTER, ELECTRICAL CONTRACTOR SHALL COORDINATE POLES AND SIZE WITH EQUIPMENT ## = AMPERAGE RATING WHEN INDICATED ON DRAWING		

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File Number: BP25-00000707 Approval Date: 04/30/25

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	REV. DATE DESCRIPTION
	Project Manager Drawn By RDM WPJ
	Date Reviewed By 04-16-2025 WPJ
	Project ID
	Sheet Title ELECTRICAL ABBREVIATIONS AND LEGEND
	E-0.1

TYPICAL	ABBREVIATIONS:
A, AMP	
AFG	ABOVE FINISHED FLOOR ABOVE FINISHED GRADE
AHU AIC	AIR HANDLING UNIT
ATS	AUTOMATIC TRANSFER SWITCH
AWG BOF	AMERICAN WIRE GAUGE BOTTOM OF FIXTURE
BRKR	BREAKER
C, CND CAB	CABINET
CAT	
CKT	CIRCUIT
CLG CU	CEILING COPPER
EF	EXHAUST FAN
EMT	ELECTRICAL METALLIC TUBING
ENCL EQ EQIP	
EWC	ELECTRIC WATER COOLER
EVVH FA	ELECTRIC WATER HEATER FIRE ALARM
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FBO	FURNISHED BY OTHERS
FLA FLR	FULL LOAD AMPS FLOOR
FWE	FURNISHED WITH EQUIPMENT
GEN G, GND	GROUND
GFI, GFCI HH	GROUND FAULT CIRCUIT INTERRUPTER
HP	HORSE POWER
HTR Hz	HEATER HERTZ
IMC	
K	THOUSAND
Kcmil KVA	THOUSAND CIRCULAR MILLS KILOVOLT AMPERE
KW	KILOWATTS
KWH LP	LIGHTING PANEL, LIGHT POLE
LTG MCB	LIGHTING MAIN CIRCUIT BREAKER
MDP	MAIN DISTRIBUTION PANEL
MFR MH	MANUFACTURER MANHOLE
MLO	MAIN LUGS ONLY
MTG	MOUNTING
N, NEUT N/A	NEUTRAL NOT APPLICABLE
NEC	NATIONAL ELECTRIC CODE
NIC	NIGHT LIGHT
NTS P	NOT TO SCALE
PA	PUBLIC ADDRESS
PB PF	PULL BOX, PUSH-BUTTON POWER FACTOR
PH,	PHASE
PNL	PANEL POWER PANEL, POWER POLE
PWR RECPT.RCP	POWER RECEPTACLE
REQ'D	REQUIRED
RGS RM	RIGID GALVANIZED STEEL CONDUIT ROOM
SH	SHEET SURFACE MOUNTED
SPEC	SPECIFICATION
SS SST	SELECTOR SWITCH STAINLESS STEEL
SW	SWITCH
TYP	TYPICAL
UG, UGND UH	UNDERGROUND UNIT HEATER
UON	UNLESS OTHERWISE NOTED
V	VOLTS
VFD W	VARIABLE FREQUENCY DRIVE WIRE, WATT
WH	WATT-HOUR
VVP XFMR	TRANSFORMER
(X)	EXISTING

F			
	 THE EXISTING ELECTRICAL SYSTEMS DEPICTED ON THESE DRAWINGS HAVE BEEN COMPILED BY THE ENGINEER FROM THE OWNER'S RECORD DRAWINGS AND LIMITED FIELD VERIFICATION OF EXISTING CONDITIONS FOR THE PURPOSE OF INDICATING THE WORK REQUIRED AND ARE BELIEVED TO BE CORRECT. NOTWITHSTANDING, THE CONTRACTOR SHALL VERIFY ALL CIRCUITS, WIRING, CONDUIT, DIMENSIONS, POINTS OF ACCESS AND ALL FIELD CONDITIONS AFFECTING HIS WORK. BEGINNING OF DEMOLITION MEANS THE CONTRACTOR ACCERTS EXISTING CONDITIONS 	16. FEEDE UNLES 17. KEEP COND DEVIC	ER CONDUCTORS SHALL BE C SS SPLICING IS SPECIFICALLY BRANCH CIRCUIT CONDUCTO UCTORS SHALL BE CONTINU E BOXES, ETC., UNLESS NOT
	 UNLESS SPECIFICALLY NOTED OTHERWISE, SYSTEMS PROVIDED OR INSTALLED BY THE CONTRACTOR SHALL BE COMPLETE AND FULLY-FUNCTIONING AFTER INSTALLATION. INCIDENTAL COMPONENTS MAY NOT BE SHOWN, AND ALL WORK WHICH MAY BE REASONABLY IMPLIED AS BEING INCIDENTAL TO THIS WORK, BUT REQUIRED FOR THE PROPER OPERATION OF THE EQUIPMENT OR SYSTEM, SHALL BE PROVIDED AT NO 	BE CC WILL E AND P MECH USE S	NTINUOUS FROM THE PERMIS NTINUOUS FROM THE LAST (BE PERMITTED IN PANELBOAH ERMITTED, INSTALL SPLICES ANICAL STRENGTH AND INSU PLICE AND TAP CONNECTOR
	ADDITIONAL COST TO THE OWNER. ADDITIONAL CIRCUITS SHALL BE PROVIDED AND INSTALLED WHEREVER NEEDED TO CONFORM TO THE SPECIFIC REQUIREMENTS OF	18. DO NO	T PULL CONDUCTORS UNTIL
	 EQUIPMENT. BIDDERS SHALL HAVE A WORKING KNOWLEDGE OF LOCAL CODES AND ORDINANCES AND SHALL INCLUDE IN THEIR BIDS THE COSTS FOR ALL WORK INSTALLED IN STRICT ACCORDANCE WITH GOVERNING CODES, THE CONSTRUCTION DOCUMENTS NOTWITHSTANDING 	19. WHER AWG (3/4" M DRAW 3% VC	E SIZE IS NOT SHOWN ON TH DR #10 AWG MINIMUM PHASE NIMUM RACEWAY. REFER TO INGS AND INCREASE CONDU ILTAGE DROP.
	4. THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH THE EXISTING	20. UNDE	RGROUND SPLICES, WHERE
	ELECTRICAL SYSTEMS AND THE EXISTING BUILDING. THE SUBMISSION OF THE PROPOSAL BY THE CONTRACTOR SHALL BE CONSIDERED EVIDENCE THAT HE OR HIS REPRESENTATIVE HAS VISITED THE SITE AND BUILDINGS AND NOTED THE LOCATION AND CONDITIONS UNDER WHICH THE WORK WILL BE PERFORMED AND THAT HE TAKES FULL RESPONSIBILITY OF ALL FACTORS GOVERNING HIS WORK. NO EXTRAS WILL BE CONSIDERED BECAUSE OF ADDITIONAL WORK NECESSITATED BY EXISTING JOB CONDITIONS THAT ARE NOT INDICATED ON THE DRAWINGS	21. TRENO 22. TRENO COMP 23. MARK	CHING: DIRECT BURIED RAC CH IN COMPLIANCE WITH LOO ACTION AND RESOD GRASSI ER TAPE: ALL UNDERGROUN
	 ALL WORK SHALL BE DONE BY SKILLED MECHANICS AND SHALL PRESENT A NEAT, TRIM AND WORKMANLIKE FINISH WHEN COMPLETED. 	BELOV BACKI LESS	V FINISHED GRADE. TAPE SH NG SUITABLE FOR USE WITH THAN 8 INCHES AND 4 MILS T
	 DO NOT SCALE ELECTRICAL DRAWINGS. FIELD VERIFY ALL DIMENSIONS AS LOCATIONS SHOWN ARE APPROXIMATE. 	UNDEI 24. CIRCL	RGROUND LINE BELOW.
	7. UNLESS DIMENSIONED, LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE. IF NOT DIMENSIONED ON THE ELECTRICAL DRAWINGS, VERIFY EXACT LOCATION WITH THE ENGINEER AND/OR THE OWNER PRIOR TO ROUGH-IN.	MOLD ALL NI CIRCU AND B	ED CASE, UL LISTED AND SH ECESSARY MOUNTING HARE IT BREAKERS. NEW CIRCUI E RATED CONSISTENT WITH
	8. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING COMPLETE ELECTRICAL CONNECTIONS AS THE DRAWINGS DO NOT PROVIDE EXACT DETAILS AS TO ELEVATIONS AND LOCATIONS OF VARIOUS FITTINGS, CONDUIT, ETC., AND DO NOT SHOW ALL OFFSETS AND OTHER INSTALLATION DETAILS, ALL WHICH MAY BE REQUIRED. ADJUST LOCATIONS AS REQUIRED TO SERVE THE INTENDED PURPOSE AND TO AVOID CONFLICTS AND INTERFERENCES WITH EXISTING CONDITIONS.	25. PROVI MODIF THE P NUMB	GS. ACCESSORIES SHALL B D AND FIELD INSTALLABLE. DE REVISED TYPED CIRCUIT FIED BY THIS CONSTRUCTION ANELBOARD DOOR POCKET ERS IN ADDITION TO THE GE
	9. UNLESS NOTED OTHERWISE, THE EXACT ROUTING OF FEEDER AND BRANCH CIRCUIT RACEWAYS AND CABLES IS THE RESPONSIBILITY OF THE CONTRACTOR. RISER AND	ON TH BALAN	E DRAWINGS. REVISE DIRE ICE PHASE LOADS.
	GENERAL CIRCUIT ARRANGEMENTS ARE SHOWN SCHEMATICALLY/DIAGRAMMATICALLY ONLY. THE CONTRACTOR SHALL ROUTE CONDUITS AND CABLES AS REQUIRED BY THE CONDITIONS OF THE INSTALLATION.	36. ALL E	QUIPMENT SHOWN DOTTED
	 EQUIPMENT SHALL BE SUITABLE FOR ITS APPLICATION (E.G., WHEN INSTALLED IN THE EXTERIOR, IT SHALL BE WEATHERPROOF, ETC.) ALL EXTERIOR WIRING DEVICES, OUTLETS, BOXES, ETC. SHALL BE WEATHERPROOF. LIGHTING FIXTURES SHALL BE APPROPRIATELY RATED AND LISTED FOR THE ENVIRONMENT. 	38. THE LA PUBLIS DEVIA	LLATION DETAILS. AYOUT AND PLACEMENT OF SHED EQUIPMENT SIZES AN TIONS FROM CONFIGURATIO
	11. TEMPORARY POWER CONNECTIONS AS REQUIRED SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER. ALL TEMPORARY EQUIPMENT WIRING SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE. THE CONTRACTOR SHALL PROVIDE DETAILS, METHODS, MATERIALS, ETC. TO THE ARCHITECT/ENGINEER FOR APPROVAL PRIOR TO MAKING TEMPORARY CONNECTIONS. FURNISH AND INSTALL ALL EQUIPMENT AND MATERIALS INCLUDING CONTROL EQUIPMENT, MOTOR STARTERS, BRANCH AND FEEDER CIRCUIT BREAKERS, PANELBOARDS, TRANSFORMERS, ETC. FOR TEMPORARY POWER. COORDINATE WITH THE ELECTRICAL	39. THE C ALL EC COND DONE PRIOR BE PE	MENT. ONTRACTOR SHALL PERFOR QUIPMENT AS REQUIRED AN ITION WHERE CUTTING AND IN A THOROUGHLY WORKM. TO BREAKING OUT SECTIO RFORMED BY TRADESMEN B
	 CONTINUOUS SERVICE IS REQUIRED ON ALL EXISTING CIRCUITS AND OUTLETS AFFECTED BY THESE CHANGES, EXCEPT WHERE THE OWNER WILL PERMIT AN OUTAGE FOR A SPECIFIC TIME. OBTAIN OWNER'S WRITTEN PERMISSION BEFORE REMOVING ANY CIRCUIT FROM 	40. INSTA PATCI	LL WORK AT SUCH TIME AS HING.
	CONTINUOUS SERVICE.	41. CUT C	PENINGS ONLY LARGE ENO
	ACCESS CONTROL, PUBLIC ADDRESS AND SIMILAR SYSTEMS AND MAINTAIN THEM IN OPERATION THROUGHOUT THE PROGRESS OF THE WORK. NOTIFY THE OWNER AND ARCHITECT/ENGINEER IN WRITING IF SHUTDOWNS ARE REQUIRED OBTAIN THE OWNER'S	VERIF	ICATION OF EXISTING WIRIN S IS THE RESPONSIBILITY OF
	WRITTEN PERMISSION PRIOR TO ANY OUTAGE OF SERVICE. WHERE THE DURATION OF A PROPOSED OUTAGE CANNOT BE TOLERATED BY THE OWNER, PROVIDE TEMPORARY CONNECTIONS AS REQUIRED TO MAINTAIN SERVICE.	43. MAINT AFFEC	AIN CONTINUITY OF ALL EXI CTED BY THIS WORK.
	 ALL ELECTRICAL DISTRIBUTION EQUIPMENT SHALL, AS A MINIMUM, BE PROVIDED WITH SHORT CIRCUIT WITHSTAND AND INTERRUPTING RATINGS AS SHOWN IN THE DRAWINGS. SAFETY: 	44. SECU THIS C EXPOS ABANI ABANI	RE ALL CIRCUITS, RACEWAY CONSTRUCTION, ARE ABAND SED RACEWAYS AND WIRING DONED/UNUSED RACEWAYS DONED/UNUSED WIRING IN (
	 COMPLY WITH OSHA AND NEC ARC FLASH HAZARD PROTECTION REQUIREMENTS. FOR EQUIPMENT BEING REMOVED AND REPLACED, THE CONTRACTOR SHALL DE-ENERGIZE THE EQUIPMENT AND MAKE IT SAFE PRIOR TO REMOVAL AND COMPLY WITH OSHA REQUIREMENTS FOR LOCKING-OUT AND TAGGING EQUIPMENT TO PREVENT INADVERTENT RE-ENERGIZING. 	POINT (VOICI WIRIN ABANI UNUSI	OF USAGE. THE ACCESSIB E, DATA, VIDEO, ALARM, ETC G AND EQUIPMENT SERVE C DONED/UNUSED KNOCKOUT ED OUTLETS THAT WILL REM
	3. WHERE EQUIPMENT IS BEING REMOVED, BUT NOT REPLACED, REMOVE THE CONDUCTORS FEEDING THE EQUIPMENT BACK TO THE POINT WHERE THEY RECEIVE POWER. REMOVE ACCESSIBLE CONDUITS. ABANDON IN PLACE INACCESSIBLE CONDUITS. AFTER REMOVAL OF EQUIPMENT, REPAIR ANY OPENING LEFT TO MATCH SURROUNDING WALLS, CEILINGS, OR FLOORS TO THE ENGINEER'S SATISFACTION.	45. TRACI RELOO SYSTE	SHALL BE IN STRICT ACCO OUT EXISTING WIRING THA CATION OR REMOVAL WORK
	 COORDINATE WITH THE OTHER TRADES, PRIOR TO BID, AND INCLUDE IN THE BASE BID THE ELECTRICAL DISCONNECTION OF ANY EQUIPMENT BEING DEMOLISHED, EVEN IF NOT EXPLICITLY SHOWN. UNLESS NOTED OTHERWISE, REMOVE ALL DEMOLISHED EQUIPMENT FROM THE PROPERTY. 	46. PROVI EQUIP	DE ALL ELECTRICAL RELOC MENT FOR THE EXISTING F/

INUOUS WITHOUT SLICE FROM SOURCE TO LOAD, ROVED BY THE ARCHITECT/ENGINEER.

PLICES TO A MINIMUM. ALL BRANCH CIRCUIT WITHOUT SPLICE BETWEEN JUNCTION, OUTLET, THERWISE. DO NOT SPLICE BRANCH CIRCUIT OF THE ARCHITECT/ENGINEER. HOMERUNS SHALL ET BOX TO THE SERVING PANELBOARD. NO SPLICING ABINETS, SAFETY SWITCHES, ETC. WHERE REQUIRED TAPES THAT POSSESS EQUIVALENT OR BETTER ON RATINGS THAN CONDUCTORS BEING SPLICED.

CONDUIT SYSTEM IS COMPLETE IN EVERY DETAIL.

RAWINGS, BRANCH CIRCUITS SHALL CONSIST OF #12 JTRAL AND EQUIPMENT GROUND CONDUCTORS IN E "MINIMUM CONDUCTORS SIZE CHART" ON THE RS SIZES AS REQUIRED TO MAINTAIN A MAXIMUM OF

IFICALLY NOTED, SHALL BE POTTED.

YS SHALL BE 24" DEEP TO THE TOP OF THE RACEWAY.

ODES AND REGULATIONS. BACKFILL TO 95% EAS TO MATCH EXISTING.

NDUCTORS SHALL BE IDENTIFIED BY UNDERGROUND Y ABOVE THE CONDUCTORS AT 6 TO 8 INCHES E PERMANENT BRIGHT-COLORED, CONTINUOUS FOIL AL DETECTION DEVICES, FOR DIRECT BURIAL NOT PRINTED LEGEND SHALL BE INDICATIVE OF TYPE OF

ISTALLED IN EXISTING PANELBOARDS SHALL BE E RATED AS SHOWN ON THE DRAWINGS. PROVIDE E AND ACCESSORIES AS REQUIRED TO INSTALL NEW AKERS SHALL MATCH EXISTING TYPES INSTALLED EXISTING EQUIPMENT TO MAINTAIN EQUIPMENT OVIDED AS NOTED OR REQUIRED AND SHALL BE UL

ECTORY FOR EACH BRANCH CIRCUIT PANELBOARD IAL TYPED PANELBOARD DIRECTORIES INSTALLED IN IL INCLUDE FINAL ACTUAL ROOM NAMES AND IL DESCRIPTION SHOWN ON THE PANEL SCHEDULES Y TO REFLECT CIRCUITING CHANGES REQUIRED TO

SHED IS BY OTHERS OR IS EXISTING, AS NOTED.

TO SHOW THE NUMBER OF FITTINGS, OR OTHER

TRICAL DISTRIBUTION EQUIPMENT IS BASED ON ALL BE FOLLOWED AS CLOSELY AS POSSIBLE. HOWN IS THE RESPONSIBILITY OF THE CONTRACTOR. EQUIRED CLEARANCES FOR ALL ELECTRICAL

L CUTTING AND PATCHING NECESSARY TO INSTALL ALL REESTABLISH ALL FINISHES TO THEIR ORIGINAL HING OCCUR. ALL CUTTING AND PATCHING SHALL BE P MANNER. SAW CUT CONCRETE AND MASONRY LL PATCHING MATERIALS AND WORKMANSHIP SHALL IENCED IN THAT WORK. ALL WORK SHALL BE CHITECT/ENGINEER.

QUIRE THE MINIMUM AMOUNT TO CUTTING AND

TO ALLOW EASY INSTALLATION OF RACEWAYS.

S FOR CONVENIENCE PURPOSES ONLY. STINATION, TERMINATION AND ADDITIONS OF NEW CONTRACTOR.

CIRCUITS TO REMAIN OR PORTIONS THEREOF

BLE AND CONDUCTORS THAT, AS A RESULT FROM O OR UNUSED. REMOVE ABANDONED/UNUSED K TO POINT OF CONCEALMENT INCLUDING /E ACCESSIBLE CEILINGS. REMOVE

EALED RACEWAYS BACK TO SOURCE OR NEAREST ORTIONS OF ABANDONED/UNUSED FREE RUN CABLES ALL BE REMOVED. VERIFY THAT ABANDONED/UNUSED ABANDONED/UNUSED FACILITIES. BLANK REMAINING BOXES. INSTALL BLANK PLATES FOR ALL AS A RESULT OF THIS CONSTRUCTION. ALL SUCH CE WITH ALL APPLICABLE CODES AND ORDINANCES.

O BE RELOCATED, OR REMOVED AND PERFORM THE EQUIRED FOR A COMPLETE OPERATING AND SAFE

WORK ASSOCIATED WITH THE RELOCATING OF ES, INCLUDING DISCONNECTING ALL EXISTING G NEW WIRING AND RACEWAYS TO THE RELOCATED

ESTIMATED LOAD SUMMARY

FROM DUKE ENERGY RECORDS FOR THE 12 MONTH PERIOD 12/31/24 - 1/22/25, THE MAXIMUM RECORDED DEMAND WAS 56.96 KW ON 6/06/24. ADJUSTING FOR AN ESTIMATED 0.8 POWER FACTOR, THE MAXIMUM DEMAND IS 71.2 KVA. APPLYING A 25% ADJUSTMENT FOR NEC ARTICLE 220.87, THE TOTAL DEMAND IS 89 KVA, OR 247 AMPERES. THEREFORE, IT IS REASONABLE TO REFEED THE EXISTING DISTRIBUTION SYSTEM AT 800 AMPERES (259% OF THE MAXIMUM RECORDED DEMAND AT 80% OF THE NEW SE LISTED ATS3 RATING). REFEEDING ATS1 AT 100A INSTEAD OF THE EXISTING 125A IS ALSO REASONABLE AS THE RECORD DRAWINGS INDICATE A TOTAL LOAD OF APPROX. 9.3 KVA OR 26A. SIMILARILY, ATS2 CAN BE REFED AT 300A INSTEAD OF THE EXISTING 350A AS THE RECORD DRAWINGS INDICATE A TOTAL LOAD OF APPROX. 78 KVA OR 217A.

MINIMUM CONDUCTORS SIZE CHART PROVIDE THE FOLLOWING MINIMUM SIZES FOR BRANCH CIRCUIT CONDUCTOR SINGLE PHASE CIRCUITS TH BRANCH BRANCH CIRCUIT VOLTAGE CONDUCTOR CIRCUIT CONDUCTOR CIRCUIT MAXIMUM ALLOWABLE CIRCUIT LENGTH (FEET) SIZE BREAKER TRIP SIZE BREAKER TRIP (AWG) (AMPERES) 120 208 240 277 (AWG) (AMPERES) #12 141 163 188 15 81 #12 15 135 234 270 312 #10 15 #10 15 355 409 #8 15 204 473 #12 20 #12 20 61 106 122 141 #10 20 202 20 175 233 #10 101 #10 30 266 307 354 153 #8 20 #8 30 117 135 155 #10 30 67 #8 40 177 #8 30 102 204 236 #6 40

4

 #8
 30

 #8
 40

 #6
 40

 #8
 50

 #6
 50

 #6
 60

 #4
 60

NOTES:

- 1. CONDUCTOR LENGTHS ARE BASED ON SINGLE & THREE PHASE, 90% POWER FACTOR LOADS USING 75°C COPPER CONDUCTORS IN EMT RACEWAYS TO ACHIEVE NO MORE THAN 3 PERCENT VOLTAGE DROP.
- 2. CALCULATIONS ASSUME LOADS OF 80% OF CIRCUIT BREAKER TRIP (12A, 16A & 24A, 32A, 40A & 48A, RESPECTIVELY) ARE CONCENTRATED AT THE END OF THE CIRCUITS.
- 3. IF LOAD CHARACTERISTICS DIFFER FROM ABOVE, CALCULATE USING KNOWN CHARACTERISTICS AND SUBMIT CALCULATIONS TO THE ARCHITECT/ENGINEER DOCUMENTING 3% OR LESS VOLTAGE DROP UNDER THE ACTUAL LOAD CONDITIONS.

4. WHEN A DEDICATED SINGLE LOAD LESS THAN NOTED ABOVE IS KNOWN, THE CONTRACTOR MAY UTILIZE SMALLER CONDUCTORS UPON SUBMISSION OF VOLTAGE DROP CALCULATIONS DOCUMENTING 3% OR LESS VOLTAGE DROP. THE MINIMUM LOAD SHALL BE ASSUMED TO BE 60% OF THE CB TRIP RATING REGARDLESS OF ACTUAL DEDICATED LOAD.

5. USE THE LARGER OF THE THIS TABLE.



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RS	S:			
R	EE PHASE C	RCUITS		
>	MAXIMUM	CIRCUIT ALLOWABLE	VOLTAGE CIRCUIT LEN	NGTH (FEET)
		208	240	480
		163	188	377
		270	312	624
		122	141	283
		202	234	468
		135	156	312
		205	236	473
		153	177	354
		239	276	553
		123	142	283
		191	221	442
		159	184	368
		245	283	567

5. USE THE LARGER OF THE CONDUCTORS INDICATED ON THE DRAWINGS OR

- -File Number: BP25-0000070 Α BOWMAN MURRAY HEMINGWAY ARCHITECTS 514 Market Street Wilmington, NC 28401 Tel - (910) 762-2621 В SCO ID# 24-28038-01A WAY CARO. EESS/ SEAL 4/16/2025 С ge Coastal Carolina Community Coll Institutional Support Services Build Generator Replacement A Ja Boulevi Carolir 3038-01 44 Western F nville, North SCO # 24-28 We 44 4 D DATE DESCRIPTION Project Manager Drawn By RDM WPJ Reviewed By)ate WPJ 04-16-2025 Project ID Sheet Title ELECTRICAL Е GENERAL NOTES AND DETAILS Sheet No. E-0.2







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Panel E Type: LOAD SERVED EMERG LIGHTS & EMERG LIGHTS & EMERG LIGHTS & GENERATOR BA GENERATOR BA GENERATOR JAC RECEPTACLE GE AREA-OF-REFUG FIRE ALARM PAN SPARE SPARE SPARE SPARE SPARE	07,108,120,121 2,106,C01,C02,C03,C04.L01 103,114,115,116,117C,C05 117,117D,117F,118,119 ITERY CHARGER EXET HEATER ENERATOR E SYSTEM IEL	208 MOUNT: FEED: NEMA - LOAD 4 675 600 640 325 900 1,500 240 900 900 900 900	120 SURFACE TOP 1 CKT BKR TRIP/POLES 20/1 20/1 20/1 20/1 20/1 20/1 20/1 20/1	VOLT\$ ENCLC CKT CKT 7 9 11 13 5 7 9 11 13 15 17 19 21 23 25 27	3, 3 DSURE PH/ A 1,100 325 240	PHASE, SE LOAD ' B 1 1,112 900 900	4 VA C 1,310 1,500 900	WIRE CKT # 2 4 6 8 10 12 14 16 18 20 22 24 26 28	CKT BKR TRIP/POLES 20/1 20/1 20/1 20/1 20/1 20/1 20/1 20/1	PROVIDE IF CHECKED LOAD VA 425 512 670	XX EC XX 10 UL ISC EMERG L EMERG L EMERG L EMERG L EMERG L SPARE SPARE SPARE SPARE SPARE SPARE SPARE SPARE SPARE SPARE	UIPMENT (0 % NEU SE LABEL DLATED GR RVED GHTS EXT GHTS EXT GHT - 2ND	GROUND BU TRAL BUS COUND BAR ERIOR FLOOR	5
SPARE SPARE NOTES (AS APPL 1. COORDINATE 2. PROVIDE AND DEMAND SUMMA TOTAL RECEPTA RECEPTACL LIGHTING MISCELLANEOUS OTHER EQUIPME LARGEST MOTOF HVAC EQUIPMEN KITCHEN EQUIPM	ICABLE): CIRCUIT BREAKER TRIP WITH E INSTALL NEW CIRCUIT BREAKE RY: CLES (VA) = 240 ES FIRST 10 KVA ES > 10 KVA S EQUIPMENT SNT (CONTINUOUS) R IT (FLA = MCA X 0.8) MENT TOTAL CONNECTED (VA) TOTAL DEMAND (AMPERES)	EQUIPMENT R CONN. (VA) 240 3,847 4,200) 8,287	20/1 20/1 DEMAND FACTOR 1.00 0.50 1.25 1.00 1.25 1.25 1.00 1.25 1.00	21 29	1,665 14 20% DEMAND (VA) 240 4,809 5,250 10,299 28.6	2,912 24 35%	3,710 31 45%	26 30 TTL PI TTL PI PHASE	HASE VA HASE AMPS E BALANCE	125 125 42	A. BUS ((A. MAIN L KAIC MIN	OPPER, U JGS AND/O MUM RATII	NO) DR FEEDER NG	RATING
	NOTE: ARRANGE SCHEDULES. AG AND ELECTRICA CONSTRUCTION DOCUMENTATIO	E PANELE REEMEN L FLOOR N OF THE	BOARD BRA T OF CIRC PLANS IS WING THE E AS-BUILT	ANCH (UIT BR REQUI CIRCU CONE	CIRCUIT REAKER RED IN ITRY FC DITIONS,	BREAKE (POLE) M ORDER ⁻ IR RECC TYPICA	ERS AS NUMBEI TO AVO DRD DR/ L.	SHOV RS WI DID CC AWING	VN ON THE TH THE PA ONFUSION G PURPOS	E ABOVE NEL SCH DURING ES AND /		ΤE		

TVDE	208	120		\$ 2	DHASE	4				vv	EQUIRMENT CROUND BUS
TTPE:		SUPEACE		p, 3	FRASE,	4	VVIRE	-			
	FEED.	TOP	-							~~	
	NEMA -	1	FNCL	OSURE	7				ONLOKED		ISOLATED GROUND BAR
	LOAD	CKT BKR	CKT	P	ASE LOAD) VA	СКТ	CKT BKR	LOAD		
LOAD SERVED	VA	TRIP/POLES	#	A	В			VA	LOAD SERVED		
EMERG LIGHTS 107,108,120,121	675	20/1	1	1,100			2	20/1	425	EMER	RG LIGHTS EXTERIOR
EMERG LIGHT 102,106,C01,C02,C03,C04.L01	600	20/1	3		1,112		4	20/1	512	EMER	RG LIGHTS EXTERIOR
EMERG LIGHTS 103, 114, 115,116,117C,C05	640	20/1	5			1,310	6	20/1	670	EMER	RG LIGHT - 2ND FLOOR
EMERG LIGHTS 117,117D,117F,118,119	325	20/1	7	505			8	20/1	180	E-G E	QUIPMENT RACK RECEPTACLE (NOTE 2)
SPARE (NOTE 3)		20/1	9		150		10	20/1	150	E-G E	NCLOSURE LIGHTS (NOTE 2)
SPARE (NOTE 3)		20/1	11			900	12	20/1	900	E-G D	OCKING STAT /BATT. CHARGER (NOTE 2)
SPARE (NOTE 3)		20/1	13				14	20/1		SPAR	RE
AREA-OF-REFUGE SYSTEM	900	20/1	15		900		16	20/1		SPAR	RE
FIRE ALARM PANEL	900	20/1	17			900	18	20/1		SPAR	RE
SPARE		20/1	19				20	20/1		SPAR	RE
SPARE		20/1	21		1,500		22	30/2	1,500	E-G S	ET BLOCK HEATER (NOTE4)
SPARE		20/1	23			1,500	24		1,500		
SPARE		20/1	25				26	30/3		SPAR	RE
SPARE		20/1	27				28				
SPARE		20/1	29				30				
NOTES (AS APPLICABLE):				1,605	3,662	4,610	TTL F	PHASE VA	125	A. BL	JS (COPPER, UNO)
1. COORDINATE CIRCUIT BREAKER TRIP WIT	H EQUIPMENT			13	31	38	TTL F	PHASE AMPS	125	A. MA	IN LUGS AND/OR FEEDER RATING
2. CONNECT TO EXISTING SPARE CIRCUIT BE	REAKER			16%	37%	47%	PHAS	SE BALANCE	42	KAIC	MINIMUM RATING
	CONN.	DEMAND		DEMAN)	ADDITIC	NAL N	OTES (AS APP	LICABLE)		
DEMAND SUMMARY:	(VA)	FACTOR		(VA)		3. INDIC	ATE EX	ISTING CIRCU	JIT BREAKE	R AS "	'SPARE"
TOTAL RECEPTACLES (VA) =	180				_	4. PROV	IDE AN	ID INSTALL NE	TALL NEW GFCI CIRCUIT BREAKER		
RECEPTACLES FIRST 10 KVA	180	1.00		180							
RECEPTACLES > 10 KVA		0.50									
LIGHTING	3,997	1.25		4,996							
MISCELLANEOUS EQUIPMENT		1.00									
OTHER EQUIPMENT (CONTINUOUS)	5,700	1.25		7,125							
LARGEST MOTOR		1.25									
HVAC EQUIPMENT (FLA = MCA X 0.8)		1.00									
KITCHEN EQUIPMENT		1.00									
TOTAL CONNECTED (VA) 9,877	_			_						
TOTAL DEMAND (VA)			12,301							
				04.4							



3	4

