

GENERAL NOTES AND SPECIFICATIONS

1. ALL ELECTRICAL DEVICES, FIXTURES, EQUIPMENT AND FEEDERS SHALL BE INSTALLED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, THE MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES, ALL APPLICABLE LOCAL AND STATE CODES, AMERICAN DISABILITIES ACT AND WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE.
2. PROVIDE ADDITIONAL SUPPORT FOR DEVICES, FIXTURES, EQUIPMENT AND FEEDERS WHERE THE BUILDING CONSTRUCTION IS NOT SUITABLE FOR DIRECT MOUNTING.
3. FIRESTOP, DRAFTSTOP, SMOKESTOP AND/OR PROTECT THE ANNULAR SPACE AROUND ALL PENETRATIONS THROUGH WALLS, PARTITIONS, FLOORS, CEILING, AND ROOFS IN ACCORDANCE WITH THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE, UL LISTING REQUIREMENT AND THE APPLICABLE BUILDING CODES. REFER TO THE ARCHITECTURAL DRAWINGS AND THE OWNER'S EXISTING AS-BUILT/RECORD DRAWINGS, VERIFY CONSTRUCTION RATINGS AND PROVIDE PENETRATION ASSEMBLIES SUITABLE FOR PARTICULAR CONSTRUCTION.
4. VERIFY CEILING SYSTEMS AND PROVIDE MOUNTING ACCESSORIES, TRIMS AND ALL REQUIRED MOUNTING HARDWARE TO SUIT THE PARTICULAR INSTALLATION.
5. PROTECT EXISTING UNDERGROUND AND BUILDING INTERIOR UTILITIES DURING CONSTRUCTION.
6. BRANCH CIRCUIT CONDUCTORS SHALL BE 12 AWG MINIMUM.
7. COORDINATE ANY AND ALL WORK WITH ALL OTHER TRADES PRIOR TO INSTALLATION SO AS TO AVOID CONFLICT DURING CONSTRUCTION.
8. ALL PANELS SHALL HAVE TYPED, COMPLETED DIRECTORIES INDICATING EQUIPMENT SERVED AND ROOM NUMBER (AS INDICATED ON FINAL BUILDING ROOM SIGNAGE) OF EQUIPMENT LOCATION, OR SPARE, OR SPACE.
9. MANUFACTURER'S NAME AND MODEL NUMBER ARE GIVEN FOR DESCRIPTIVE PURPOSES, TO INDICATE A QUALITY STANDARD AND ARE NOT INTENDED TO LIMIT PRODUCTS TO A PARTICULAR MANUFACTURER. PRODUCTS DEEMED EQUAL AND APPROVED BY THE DESIGNER WILL BE ACCEPTED.
10. ALL FEEDERS AND CIRCUITRY SHALL BE TORQUED PER THE PANEL, BREAKER, AND/OR PARTICULAR EQUIPMENT MANUFACTURER'S SPECIFICATIONS.
11. CIRCUITRY TO SWITCHES, RECEPTACLES, AND ALL OTHER DEVICES SHALL BE TERMINATED ON THE DEVICE'S SCREW TERMINALS.
12. MOUNTING HEIGHTS INDICATED ARE TO CENTER OF DEVICE, OUTLET, FIXTURE, OR EQUIPMENT UNLESS NOTED OTHERWISE.
13. ALL WIRE TERMINATIONS SHALL BE RATED FOR 75 DEGREE C.
14. ALL CONDUCTORS SHALL HAVE THHN/THWN INSULATION, UNLESS OTHERWISE NOTED.
15. ALL CONDUIT SHALL BE EMT, LFMC OR USE MC CABLE, UNLESS OTHERWISE NOTED.
16. ALL ELECTRICAL MATERIALS, DEVICES, APPLIANCES AND EQUIPMENT SHALL BE LABEL LISTED BY AN APPROVED THIRD PARTY TESTING AGENCY.
17. CONTRACTOR SHALL TAKE POSSESSION OF AND DISPOSE OF ALL EXISTING MATERIALS AND EQUIPMENT BEING DEMOLISHED AND/OR REMOVED. ALL ITEMS SHALL BE DISPOSED OF IN FULL COMPLIANCE WITH ALL APPLICABLE LAWS, RULES, AND REGULATIONS THAT APPLY. CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE DISPOSAL.

ABBREVIATIONS:

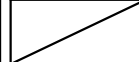



A	AMP
AFC	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AMPS INTERRUPTING CAPACITY
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BFF	BELOW FINISHED FLOOR
BFG	BELOW FINISHED GRADE
C	CONDUIT
cd	CANDELA
CKT	CIRCUIT
CU	COPPER
D	DEEP
DACT	DIGITAL ALARM COMMUNICATOR TERMINAL
DED	DEDICATED CIRCUIT
EG	EQUIPMENT GROUND
EX	EXISTING
EXT	EXTERIOR
FACP	FIRE ALARM CONTROL PANEL
FAA	FIRE ALARM REMOTE ANNUNCIATOR
FMC	FLEXIBLE METAL CONDUIT
GEC	GROUNDING ELECTRODE CONDUCTOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
H	HIGH
IBC	INTERNATIONAL BUILDING CODE
IG	ISOLATED GROUND
KW	KILOWATT
MBJ	MAIN BONDING JUMPER
MCB	MAIN CIRCUIT BREAKER
MDP	MAIN DISTRIBUTION PANEL
MLO	MAIN LUGS ONLY
MTP	MAIN TELECOMMUNICATIONS PANEL
N	NEUTRAL
NEC	NATIONAL ELECTRICAL CODE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
OC	ON CENTER
PC	PHOTOCELL
R	RELOCATED
TCL	TOTAL CONNECTED LOAD
TDL	TOTAL DEMAND LOAD
TVSS	TRANSIENT VOLTAGE SURGE & SPIKE
TYP	TYPICAL
UL	UNDERWRITERS LABORATORIES
UNO	UNLESS NOTED OTHERWISE
UPS	UNINTERRUPTED POWER SUPPLY
WP	WEATHERPROOF
XFMR	TRANSFORMER

ELECTRICAL LEGEND

	SINGLE POLE SWITCH, MOUNTED 44" AFF UNO MODIFIERS FOR SWITCHES: 3 = THREE WAY 4 = FOUR WAY DM = DIMMER SWITCH OC = OCCUPANT SENSOR
	120V DUPLEX RECEPTACLE, MOUNTED 18" AFF. UNO MODIFIERS FOR RECEPTACLES: GFI = GROUND FAULT CIRCUIT INTERRUPTER. WP = WEATHERPROOF
	120V SIMPLEX RECEPTACLE, MOUNTED 18" AFF. UNO
	120V QUAD RECEPTACLE, MOUNTED 18" AFF. UNO
	220V DUPLEX RECEPTACLE, MOUNTED 18" AFF. UNO
	PROJECTOR RECEPTACLE (CEILING MOUNTED)
	TELCO OUTLET MOUNTED 18" AFF UNO
	DATA/TELCO OUTLET MOUNTED 18" AFF UNO
	PHOTOELECTRIC CELL
	JUNCTION BOX
	FUSED DISCONNECT
	UNFUSED DISCONNECT
	WIRING SYSTEM—BRANCH OR FEEDER CIRCUIT
	WIRING SYSTEM—SWITCHED BRANCH OR FEEDER CIRCUIT
	BRANCH OR FEEDER CIRCUIT HOMERUN TO PANELBOARD, SWITCHBOARD, MOTOR CONTROL CENTER, ETC. SUBSCRIPT DENOTES PANELBOARD, SWITCHBOARD, MOTOR CONTROL CENTER, ETC. AND OVERCURRENT PROTECTION DEVICE NUMBER.
	HOMERUN — 120V OR 277V
	HOMERUN — 208V OR 480V

BUILDING CODE DATA

ELECTRICAL SYSTEM AND EQUIPMENTENERGY COST BUDGET	
METHOD OF COMPLIANCE:	<input checked="" type="checkbox"/> PRESCRIPTIVEPERFORMANCE
LIGHTING SCHEDULE	
LAMP TYPE REQUIRED IN FIXTURE:	REFER TO LIGHT FIXTURE SCHEDULE
NUMBER OF LAMPS IN FIXTURE:	REFER TO LIGHT FIXTURE SCHEDULE
BALLAST TYPE USED IN THE FIXTURE:	REFER TO LIGHT FIXTURE SCHEDULE
NUMBER OF BALLASTS IN FIXTURE:	REFER TO LIGHT FIXTURE SCHEDULE
TOTAL WATTAGE PER FIXTURE:	REFER TO LIGHT FIXTURE SCHEDULE
TOTAL INTERIOR WATTAGE SPECIFIED VS. ALLOWED: 855 W SPECIFIED VS. 1057 W ALLOWED	
TOTAL EXTERIOR WATTAGE SPECIFIED VS. ALLOWED: N/A	
EQUIPMENT SCHEDULES WITH MOTORS (NOT USED FOR MECHANICAL SYSTEMS)	
MOTOR HORSEPOWER:	N/A
NUMBER OF PHASES:	N/A
MINIMUM EFFICIENCY:	N/A
MOTOR TYPE:	N/A
NUMBER OF POLES:	N/A
DESIGNER STATEMENT:	
TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE DESIGN OF THIS BUILDING COMPLIES WITH THE ELECTRICAL SYSTEM AND EQUIPMENT REQUIREMENTS OF THE NORTH CAROLINA STATE ENERGY CODE.	
NAME:	JOHN W. MATHEWS
TITLE:	PROFESSIONAL ENGINEER

LIGHT FIXTURE SCHEDULE							
SYMBOL**	LABEL	# OF LAMPS	# OF BALLASTS	WATTS/ FIXTURE	VOLTAGE	DESCRIPTION	MANUFACTURER/CATALOG NUMBER *
	A	3	1	95	120	2'x4' 18 CELL PARABOLIC LAY-IN FLUORESCENT LIGHT FIXTURE	LITHONIA MODEL# 2PM3N-G-B-3-32-18-120-GEB OR OWNER APPROVED EQUIVALENT
	EB	2	N/A	1.2	120	EMERGENCY LIGHTING FIXTURE WITH ADJUSTABLE LAMPS AND BATTERY BACKUP	LITHONIA MODEL# ELM2 OR OWNER APPROVED EQUIVALENT
	EMR	EXISTING					
	EXC	EXISTING					
* - CATALOG PART NUMBERS SHOWN ARE FOR DESCRIPTIVE AND QUALITY STANDARDS ONLY, NOT TO BE USED FOR ORDERING WITHOUT VERIFICATION. ENGINEER SHALL NOT BE RESPONSIBLE FOR MISMATCHED OR INACCURATE PART NUMBERS.							

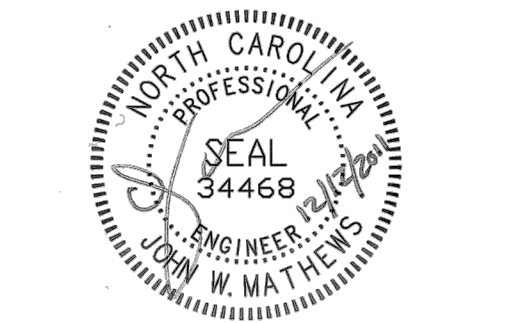
LOAD SERVED	KVA / Phase			CKT BRKR	CKT NO	NEUTRAL A B C	CKT NO	CKT BRKR	KVA / Phase			LOAD SERVED		
	A	B	C						A	B	C			
EXISTING SIGN	1.00	—	—	1P-20	1		2	1P-20	0.00	—	—	EXISTING SPARE		
EXISTING WAREHOUSE HEAT	—	0.23	—	1P-20	3		4	1P-20	—	0.00	—			
EXISTING FURNACE	—	—	1.66	1P-20	5		6	2P-40	—	—	2.08	EXISTING AC		
EXISTING LIGHTS	0.88	—	—	1P-20	7		8		2.08	—	—			
EXISTING RM 104 DBL RECP	—	0.36	—	1P-20	9		10	1P-20	—	0.00	—	EXISTING SPARE		
EXISTING LTS RM 105	—	—	1.31	1P-20	11		12	1P-20	—	—	1.20	EXISTING REFR		
EXISTING RM 105 RECP	0.90	—	—	1P-20	13		14	1P-20	0.86	—	—	EXISTING LIGHTS		
NEW CONFERENCE RM RECP	—	1.08	—	1P-20	15		16	1P-20	—	1.00	—	EXISTING DISHWASHER		
NEW OFFICE/BREAK RM RECP	—	—	1.08	1P-20	17		18	1P-20	—	—	0.54	EXISTING RM 104 RECP		
NEW IDF RECP	0.36	—	—	1P-20	19		20	1P-20	1.26	—	—	EXISTING RM 100+107 RECP		
NEW OFFICE RECP	—	0.72	—	1P-20	21		22	1P-20	—	1.08	—	EXISTING RM 101+106 RECP		
NEW CU-2	—	—	1.14	2P-40	23		24	1P-20	—	—	3.00	EXISTING WATER HEATER		
	1.14	—	—		25		26	1P-20	1.06	—	—		NEW AHU-2	
NEW BREAK/CONFERENCE LTS	—	0.85	—	1P-20	27		28	—	—	0.00	—			
	—	—	0.00		29		30	—	—	—	0.00			
	0.00	—	—		31		32	—	0.00	—	—			
	—	0.00	—		33		34	—	—	0.00	—			
	—	—	0.00		35		36	—	—	—	0.00			
	0.00	—	—		37		38	—	0.00	—	—			
	—	0.00	—		39		40	—	—	0.00	—			
	—	—	0.00		41		42	—	—	—	0.00			
SUB TOTAL	4.28	3.24	5.19						5.26	2.08	6.82	SUB TOTAL		
									9.54	5.32	12.01	TOTAL		
C/B TEMP. 75 C.	RATING			120/	208 V_3_PH_4_WIRE			LOAD TYPE		EXIST	KVA NEW	TOTAL	NEC DEM FACTOR	KVA DEMAND
MOUNTING FLUSH														
ISOLATED GROUND BUS	<input type="checkbox"/>	YES	<input type="checkbox"/>	X	NO			GENERAL LIGHTING		3.05	0.85	3.90	125%	4.88
MAIN CIRCUIT BREAKER	<input type="checkbox"/>	YES	<input type="checkbox"/>	X	NO			GENERAL USE				7.38	<=10 KVA@100%	7.38
SERVICE ENTR. RATED	<input type="checkbox"/>	YES	<input type="checkbox"/>	X	NO			RECEPT		4.14	3.24	0.00	>10KVA@50%	0.00
MINIMUM AIC (K AMPS)	225			MOTORS AND		LARGEST	4.16	2.28	6.44	125%				8.05
MCB RATING	N/A			EQUIPMENT		ALL OTHERS	1.89	1.06	2.95	100%				2.95
BUS RATING	225A			WATER HEATERS			3.00	0.00	3.00	125%				3.75
NEUTRAL RATING	100%			KITCHEN EQUIPMENT			2.20	0.00	2.20	100%				2.20
				EXTERIOR LIGHTS			0.00	0.00	0.00	100%				
				SIGN			1.00	0.00	1.00	125%				0.00
PANEL / FEEDER (TOTAL KVA)														29.21
(TOTAL KVA) X 1000 = TOTAL AMPS														
VOLTS X 1.732														81
EXISTING PANEL 'P1'														

RUSTY LONG, ARCHITECT

SUSTAINABLE | MODERN | DESIGN

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APEX, NC

RUSTY LONG ARCHITECT
1544 DIRKSON COURT
CARY, NC 27511
919-602-4180

REVISIONS

DATE: December 12, 2011
PROJECT #: 2011_JSB
DRAWN BY: JMB2
CHECKED BY: JWM

ELECTRICAL NOTES,
LEGENDS, &
SCHEDULES

ME002

☒ FOR CONSTRUCTION
☐ NOT FOR CONSTRUCTION