GENERAL NOTES AND REQUIREMENTS.

1. WORKMANSHIP SHALL CONFORM TO NECA INSTALLATION STANDARDS INCLUDING NECA 1.
2. INSTALLATION SHALL COMPLY WITH NATIONAL ELECTRICAL CODE (NFPA 70), STATE BUILDING CODE, AND ALL REQUIREMENTS OF THE LOCAL INSPECTOR (FURNISH INSPECTION CERTIFICATE). ALL WORK SHALL BE BY LICENSED ELECTRICAL CONTRACTOR.
3. THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR FLOOR PLAN DIMENSIONS. DO NOT SCALE THESE DRAWINGS. THE LOCATION OF ALL WALL MOUNTED DEVICES, INCLUDING MOUNTING HEIGHTS, SHALL BE FIELD VERIFIED WITH THE ARCHITECT PRIOR TO INSTALLATION. COORDINATE LOCATIONS OF ALL LIGHT FIXTURES WITH THE REFLECTED CEILING PLANS. LIGHT FIXTURES INSTALLED IN MECHANICAL AREAS SHALL AVOID MECHANICAL PIPING, EQUIPMENT, DUCTWORK, ETC.
4. THE ELECTRICAL CONTRACTOR SHALL COORDINATE ANY AND ALL WORK WITH OTHER TRADES INVOLVED IN THE PROJECT, PRIOR TO INSTALLATION OF ELEC. EQUIPMENT, SO AS TO AVOID CONFLICTS DURING CONSTRUCTION AND TO ALLOW FOR OPTIMUM MAINTENANCE AND WORKING SPACE.
5. ALL BRANCH CIRCUITS SHALL BE IN 3/4" MINIMUM ZINC-COATED EMT, IMC, OR RMC AS PERMITTED OR REQUIRED BY THE NATIONAL ELECTRICAL CODE. LFMC (OR FMC AS PERMITTED) SHALL BE USED FOR FINAL CONNECTIONS TO EQUIPMENT SUBJECT TO VIBRATION. A DEDUCT PRICE FOR MC CABLE MAY BE OFFERED FOR APPROVAL, WHERE PERMITTED AND COMPLETELY CONCEALED FROM VIEW. SCHEDULE 40 PVC CONDUIT MAY BE USED FOR UNDERGROUND FEEDERS AND BRANCH CIRCUITS OR UNDERGROUND LOW VOLTAGE SYSTEM CONDUITS LOCATED BELOW THE FLOOR SLAB ON GRADE OR BURIED ON THE EXTERIOR OF THE BUILDING, OR IN CONCRETE BLOCK WALLS. PVC SCHEDULE 80 CONDUIT MAY BE USED ON THE BUILDING EXTERIOR WHERE PERMITTED. CONTRACTOR SHALL INCLUDE COST OF PAINTING ALL EXPOSED CONDUITS SUBJECT TO PUBLIC VIEW. CONDUIT SIZES NOTED ON THESE PLANS ARE BASED ON EMT CONDUIT. WHERE OTHER PERMITTED RACEWAY TYPES ARE USED, CONTRACTOR SHALL ADJUST CONDUIT SIZES AS NECESSARY BASED ON RACEWAY TYPE TO BE USED AND ALLOWABLE FILL. PROVIDE PULL WIRE IN ALL EMPTY CONDUIT. JUNCTION BOX COVERS SHALL BE PERMANENTLY LABELED AND CONDUIT SHALL BE LABELED EVERY 10'.
6. ALL CONDUCTORS SHALL BE COPPER TYPE THHN, OR XHHW, SOLID FOR #10 AWG OR #12 AWG, AND STRANDED FOR ALL LARGER SIZES. MINIMUM CONDUCTOR SIZE SHALL BE #12.
7. CONDUITS AND CABLES SHALL BE CONCEALED WHEREVER POSSIBLE BY EITHER ROUTING ABOVE CEILING, IN INTERSTITIAL SPACES OR RUNNING EXPOSED IN UNFINISHED SPACES AS MUCH AS FEASIBLE. CONDUITS MAY BE RUN EXPOSED IN MECHANICAL AREAS OR OTHER AREAS NOT SUBJECT TO PUBLIC VIEW WHERE APPROVED BY THE OWNER. WHEREVER CONDUITS OR CABLES ARE APPROVED TO BE EXPOSED, CONDUITS AND CABLES SHALL BE RUN PARALLEL OR PERPENDICULAR TO STRUCTURAL ELEMENTS AND SHALL BE RUN AND BUNDLED IN GROUPS, AND THE INSTALLATION SHALL BE NEAT AND ORDERLY. EVEN WHEN EXPOSED, CONDUITS AND CABLES SHALL BE ROUTED TO MINIMIZE VIEW FROM PERSONNEL. SEAL ALL PENETRATIONS AIR TIGHT AROUND ALL CONDUITS PASSING THROUGH WALLS OR FLOORS USING APPROPRIATE PENETRATION PROTECTION WHEN PASSING INTO OR THROUGH RATED ASSEMBLIES.
8. ALL WIRE AND CONDUIT SIZES ARE BASED ON 75° C THHN/THWN COPPER CONDUCTORS UNLESS OTHERWISE NOTED. ALL CONDUCTORS, TERMINATIONS & DEVICES SHALL BE RATED FOR MINIMUM 75°C. ALL CONDUCTOR AND CONDUIT SIZES ARE CALCULATED BASED ON INSTALLATION OF NO MORE THAN 3 CURRENT CARRYING CONDUCTORS PER CONDUIT, NEUTRAL(S) INCLUDED. UNLESS OTHERWISE NOTED, CONTRACTOR SHALL NOT INSTALL MORE THAN 3 CURRENT CARRYING CONDUCTORS PER CONDUIT WITH THE FOLLOWING EXCEPTION: UP TO 9 CURRENT CARRYING CONDUCTORS MAY BE USED IN A SINGLE RACEWAY WHERE PERMITTED BY THE NEC WHEN MINIMUM #12 AWG (THHN 90°C) IS USED AND WHEN ALL INCLUDED CIRCUITS ARE PROTECTED UPSTREAM BY 20 AMP OVERCURRENT DEVICES AND NO OTHER DERATING CONDITIONS EXIST.
9. ALL LIGHT FIXTURES SHALL BE SUPPORTED INDEPENDENTLY OF THE SUSPENDED CEILING SYSTEM.
10. WHERE BRANCH CIRCUIT TOTAL LENGTH IS GREATER THAN SIXTY FIVE (65') FEET FROM THE PANELBOARD, SEE VOLTAGE DROP SCHEDULE.
11. ALL MOUNTING HEIGHTS ARE GIVEN TO THE BOTTOM OF THE DEVICE UNLESS NOTED OTHERWISE.
12. ALL FUSES, DISCONNECT SWITCHES, AND BREAKER SIZES, SHOWN FOR MECHANICAL EQUIPMENT, SHALL BE VERIFIED BEFORE THE PURCHASE OR INSTALLATION OF SAID EQUIPMENT, WITH THE EQUIPMENT SUPPLIER AND THE MECHANICAL CONTRACTOR.
13. ALL DISCONNECT SWITCHES ARE TO BE FUSIBLE TYPE. FUSES SHALL BE THE APPROPRIATE TYPE FOR THE LOAD SERVED BY BUSSMAN OR EQUAL. UNLESS UNSUITABLE, FUSES RATED 1200A OR HIGHER SHALL BE CLASS L, FAST-ACTING, AND SHALL HAVE A CLEARING TIME OF 0.07 SECONDS AT THE AVAILABLE FAULT CURRENT PER NEC 240.67. SUBMIT FUSE TRIP CURVES ALONG WITH AVAILABLE FAULT CURRENT AT THE SERVICE ENTRANCE FOR ENGINEER VERIFICATION PRIOR TO BEGINNING WORK OR ORDERING EQUIPMENT. THE CONTRACTOR SHALL COMPARE ALL INSTALLED EQUIPMENT NAMEPLATE INFORMATION WITH THE ELECTRICAL PLANS AND NOTIFY THE ENGINEER IMMEDIATELY WITH ANY DISCREPANCIES. THE CONTRACTOR SHALL COORDINATE ALL FUSE SIZES WITH ACTUAL INSTALLED EQUIPMENT NAMEPLATE INFORMATION PRIOR TO PURCHASING OR INSTALLING FUSES. WHERE THE NAMEPLATE INFORMATION DOES NOT INDICATE AN OVERCURRENT PROTECTION SIZE OR MAXIMUM AMPACITY RATING, FUSES SHALL BE INSTALLED AS INDICATED ON THE ELECTRICAL PLANS WHERE IN AGREEMENT WITH NAMEPLATE DATA.
14. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL NECESSARY DISCONNECTS, SWITCHES, AND RECEPTACLES UNDER THE ELECTRICAL BID AND SHALL INCLUDE ALL NECESSARY CIRCUITS TO AND FINAL CONNECTIONS TO THE EQUIPMENT PROVIDED BY ALL SUPPLIERS, UNLESS NOTED OTHERWISE BY OTHER DISCIPLINES. COORDINATE CLOSELY.
15. ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED SO THAT ALL CODE-REQUIRED AND MANUFACTURER-RECOMMENDED SERVICING CLEARANCES ARE MAINTAINED. INSTALLATIONS SHALL FULLY COMPLY WITH NEC 110.26 AND NEC 408.18 FOR CLEARANCE REQUIREMENTS.
16. PROVIDE GROUNDING CONDUCTOR FOR ALL CIRCUITS PER N.E.C. AND BUILDING GROUND SHALL MEET ALL REQUIREMENTS OF NEC 250.
17. GROUND TELEPHONE EQUIPMENT PER NEC. IT IS NOTED THAT IF TELEPHONE SERVICE IS NOT LOCATED WITHIN 20' OF ELECTRICAL SERVICE, THEN PROVIDE SEPARATE GROUNDING ELECTRODE AS REQUIRED PER NEC 800.
18. THE ELECTRICAL CONTRACTOR SHALL PATCH ANY WALL, CEILING, OR FLOOR OPENINGS (OR PENETRATIONS) RESULTING FROM DEMOLITION OR NEW WORK IN EXISTING AREAS. ANY RATED CONSTRUCTIONS OR ASSEMBLIES AFFECTED SHALL BE PATCHED, PROTECTED AND REFINISHED AS NECESSARY TO MAINTAIN THE RATING.
19. ALL MULTIWIRE BRANCH CIRCUITS SHALL HAVE MULTIPOLE BREAKERS AS REQUIRED BY NEC 210.7.
20. ALL CIRCUITS SHALL MEGOHMMETER TESTED (NON-DESTRUCTIVE) PRIOR TO ENERGIZING.
21. ALL WALL OUTLET BOXES, RECEPTACLES, SWITCHES, COVERPLATES, ETC. SHALL BE COMMERCIAL GRADE, STANDARD OR HEAVY DUTY EXCEPT AS SPECIFIED. VERIFY COLOR / MATERIALS FOR ALL DEVICES AND COVERPLATES PRIOR TO PURCHASE. PROVIDE LABEL FOR EACH DEVICE IDENTIFYING THE CIRCUIT SERVING THE DEVICE. VERIFY IF LABEL SHOULD BE ON INSIDE OUR OUTSIDE FACE OF COVERPLATE WITH OWNER/TENANT. PER NEC 406.12 ALL 15 AND 20 AMPERE, 125V AND 250V NON-LOCKING RECEPTACLES SHALL BE LISTED TAMPER RESISTANT WHEN INSTALLED IN THE FOLLOWING AREAS: DWELLING UNITS IN AREAS SPECIFIED BY NEC 210.52 AND 550.13, GUEST ROOMS AND GUEST SUITES OF HOTELS AND MOTELS, CHILD CARE FACILITIES, PRESCHOOL AND ELEMENTARY EDUCATION FACILITIES, AND THE PATIENT ROOMS, BATHROOMS, PLAYROOMS AND ACTIVITY ROOMS OF PEDIATRIC UNITS OR SIMILAR FACILITIES.
22. THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY DISPOSING OF ALL WASTE MATERIALS, DEMO MATERIALS AND OTHER TRASH. THIS INCLUDES BUT IS NOT LIMITED TO PROPER DISPOSAL OF MERCURY CONTAINING LAMPS, RECYCLABLE MATERIALS ETC.
23. CONTRACTOR SHALL PROVIDE ENGINEER WITH SHOP DRAWINGS / SUBMITTAL DATA FOR LIGHTS, SWITCHGEAR, PANELS, ETC. IN EITHER EDITABLE PDF FORMAT, OR THREE HARD COPIES DELIVERED TO OUR OFFICE. MINIMUM EXPECTED REVIEW DURATION IS 2 WEEKS FROM DATE OF RECEIPT BY ENGINEER AND ALL SUBMISSIONS SHOULD INCLUDE AND ACKNOWLEDGE THIS REVIEW DURATION UNLESS OTHERWISE SPECIFICALLY DISCUSSED AND AGREED UPON IN ADVANCE.
24. IT IS THE <u>SOLE</u> RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE W/ ALL OTHER TRADES REGARDING VOLTAGES, LOADS, CIRCUIT BREAKERS, ETC. PRIOR TO BEGINNING ANY WORK.
25. AS USED ON THESE DOCUMENTS, THE WORD "PROVIDE" SHALL MEAN TO FURNISH AND INSTALL THE ITEM OR EQUIPMENT AND MAKE THE FINAL CONNECTION AS REQUIRED.
26. ALL PANELS SHALL BE COMMERCIAL GRADE FROM A REPUTABLE NATIONAL MANUFACTURER SUCH AS SQUARE D, G.E., SIEMENS AND CUTLER-HAMMER. PANELS SHALL BE RATED AS INDICATED ON PANEL SCHEDULES.
27. CONTRACTOR IS RESPONSIBLE TO COMPLY WITH ALL REQUIREMENTS OF THE 2018 NORTH CAROLINA BUILDING CODE, ACCESSIBILITY CODE WHICH ARE APPLICABLE TO THIS PROJECT REGARDLESS OF WHETHER ALL DETAILS ARE INDICATED ON PLANS.
28. CCE HAS RESERVED THE OPPORTUNITY TO CHOOSE THE SOFTWARE PACKAGE(S) OR OTHER MEANS DEEMED MOST EFFICIENT TO DELIVER THESE PLANS AND CONSIDERS ANY DIGITAL FILES OR SOFTWARE USED DURING THIS PROCESS AS INSTRUMENTS OF SERVICE, AND AS SUCH REMAIN THE SOLE PROPERTY OF CCE. THE CONTRACTOR SHOULD NOT ASSUME THAT DIGITAL FILES IN ANY FORMAT WILL BE MADE AVAILABLE DURING BIDDING OR AFTER AWARD. IF DIGITAL FILES ARE REQUESTED, CCE RESERVES THE RIGHT TO SELECTIVELY PROVIDE THEM WHEN AVAILABLE AND/OR REQUEST ADDITIONAL CONSIDERATION FOR THE TIME INCURRED TO PREPARE THEM.
29. CONTRACTOR SHALL VERIFY ALL AREAS THAT ARE USED AS A RETURN PLENUM WITH MECHANICAL CONTRACTOR AND PROVIDE PLENUM RATED CABLE FOR ALL CABLES NOT RUN IN METAL CONDUIT. THIS INCLUDES ALL TELECOMMUNICATIONS, FIRE ALARM, OR CONTROL WIRING ABOVE CEILING.
30. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE SEISMIC REQUIREMENTS.
31. ALL UNDERGROUND RACEWAY ENTERING THE BUILDING, (I.E. THROUGH A FOUNDATION WALL OR THROUGH THE FLOOR) SHALL BE SEALED IN ACCORDANCE WITH NEC 225.27 AND 300.5(G). RACEWAY SEALS AND SEALANTS SHALL BE APPROVED AND LISTED FOR THE SPECIFIC APPLICATION AND MATERIALS.
32. CONTRACTOR SHALL PROVIDE SUPPORT BUSHINGS/CONDUIT STOPS FOR VERTICAL BRANCH CIRCUITS AND FEEDERS WHERE REQUIRED PER NEC 300.19(A).
33. FOR BUILDINGS EQUIPPED WITH A BI-DIRECTIONAL ANTENNA SYSTEM (BDA), THE CONTRACTOR SHALL TEST THE AREAS OF CONSTRUCTION BEFORE AND AFTER CONSTRUCTION ACTIVITIES PER NC FIRE CODE SECTION 510.6.1 AND SUPPLEMENT THE EXISTING SYSTEM AS NECESSARY TO MEET THE REQUIREMENTS OF NC FIRE CODE SECTION 510.
34. ELECTRICAL BOXES AND WIRING SHALL NOT BE RECESSED INTO OR PENETRATE STRUCTURAL COLUMNS. BOXES/CONDUITS SHALL BE SURFACE MOUNTED TO COLUMN AND/OR RECESSED IN STUD WALL WHERE POSSIBLE. COORDINATE WITH ARCHITECT.
35. ALL RECEPTACLES, SWITCHES, AND ELECTRICAL DEVICES REQUIRED TO BE ADA ACCESSIBLE SHALL BE MOUNTED PER ANSI 117.1 SECTIONS 308 AND 309.
36. ALL EQUIPMENT CONNECTED TO OR ASSOCIATED WITH THE ELECTRICAL, FIRE ALARM OR TELECOM SYSTEMS OR OTHERWISE INCLUDED IN THE SCOPE OF WORK SHALL BE LISTED AND LABELED BY A THIRD PARTY ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION.
37. ALL NON-LOCKING TYPE 120 VOLT, 15 AND 20 AMP RECEPTACLES THAT ARE CONTROLLED BY AN AUTOMATIC CONTROL DEVICE OR THAT INCORPORATE CONTROL FEATURES THAT REMOVE POWER FROM THE OUTLET FOR THE PURPOSE OF ENERGY MANAGEMENT OR BUILDING AUTOMATION SHALL BE MARKED PER NEC 406.3(E).
38. ALL WIRING FOR THIS SPACE SHALL BE PER NEC 518.4

ELECTRICAL LEGEND

PLANS

SYMBOLS SHOWN BELOW ARE TO INDICATE NEW DEVICES OR NEW LOCATIONS OF EXISTING DEVICES. SEE LINETYPE LEGEND FOR DISTINCTION OF EXISTING DEVICES TO REMAIN AND DEMOLITION DEVICES.

HOME RUN TO PANEL / BRANCH CIRCUIT CONNECTION. SHORT CROSS LINES REPRESENT PHASE CONDUCTORS, LONG CROSS LINES REPRESENT GROUNDED CONDUCTORS, EQUIPMENT GROUND REQUIRED BUT NOT SHOWN. MINIMUM SIZE PER NEC REQUIREMENTS BASED ON CIRCUIT BREAKER / SCHEDULE / VOLTAGE DROP TABLE.

- SINGLE POLE WALL SWITCH
- 3-WAY WALL SWITCH
- 4-WAY WALL SWITCH

44" A.F.F. OR AS NOTED

LINE VOLTAGE MOTION-SENSING SWITCH. WATTSTOPPER #PW-301

ALL DUPLEX AND QUAD RECEPTACLES SHALL BE NEMA 5-20R UNLESS NOTED OTHERWISE.

- DUPLEX RECEPTACLE
- ISOLATED GROUND DUPLEX
- POWER RECEPTACLE
- QUAD RECEPTACLE

16" A.F.F. OR AS NOTED

TELECOMMUNICATIONS WALL OUTLET - 16" A.F.F. OR AS NOTED (RUN 3/4" EMT TO ACCESSIBLE POINT ABOVE CEILING.) PROVIDE PULL WIRE. OUTLETS, BUSHINGS, AND CABLES PROVIDED BY TENANT/ CABLING CONTRACTOR.

TELEPHONE BACKBOARD - 2'x4'x1" FIRE-TREATED PLYWOOD. PAINT GRAY (EXCEPT DO NOT PAINT OVER FIRE RATED LABEL)- PULL #6 GROUND WIRE AND TERMINATE WITH 1/4"x2"x12" GROUND BAR WITH HOLES EVERY 1". MOUNT TO BACKBOARD WITH STAND-OFF INSULATORS.

DISCONNECT SWITCH - FUSIBLE

MOTOR RATED SWITCH

JUNCTION BOX

ELECTRICAL PANEL

OVERHEAD FIXTURE OR AS NOTED. SEE FIXTURE SCHEDULE

DOWNLIGHT / PENDANT STYLE. SEE FIXTURE SCHEDULE.

WALL MOUNT. SEE FIXTURE SCHEDULE.

SLASHES OR HALF SHADING INDICATE FIXTURES CONNECTED AHEAD OF ALL SWITCHING TO OPERATE AS NIGHT LIGHTS (FIXTURES WILL BE ON 24/7).

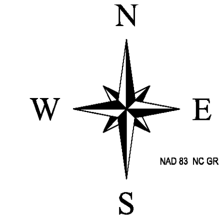
SEE WALL RATING LEGEND FOR WALL TYPES AND SYMBOLS.

DETAILS

- A — ELECTRICAL PANEL OR AS NOTED
- C.T. — C.T. CABINET
- M — METER BASE AND METER
- 200/3, 200A — FRAME SIZE, FUSE SIZE — FUSIBLE DISCONNECT, FRAME AND FUSE SIZE AS INDICATED.
- 20X4 — CONTACTOR, AMPACITY / POLES AS INDICATED
- SPD — SURGE PROTECTIVE DEVICE
- SERVICE GROUND

ELECTRICAL ABBREVIATIONS

A	INDICATES A DEVICE IS TO BE MOUNTED WITH BOTTOM OF BOX 1 1/2" ABOVE BACKSPLASH UNLESS NOTED OTHERWISE.
AFF	ABOVE FINISHED FLOOR
AG	COMBINATION OF 'A' AND 'G'
ARCH	ARCHITECT
C	INDICATES A DEVICE IS TO BE FLUSH MOUNTED IN CEILING TILE.
EC	ELECTRICAL CONTRACTOR
EX.	EXISTING
EXT.	EXTERIOR
FA	FIRE ALARM
FAH	FAHRENHEIT
FURN	FURNITURE
G	INDICATES A DEVICE WITH INTEGRAL GROUND FAULT INTERRUPTER (GFI) PROTECTION.
GFI	SAME AS 'G'
HG	HOSPITAL GRADE
IG	DEVICE SHALL HAVE ISOLATED GROUND AND WILL REQUIRE ISOLATED GROUND CIRCUITRY.
J.B.	JUNCTION BOX
MC	MC CABLE (WHEN REFERENCING NEC WIRING METHODS OR TYPE.)
MC	MECHANICAL CONTRACTOR (WHEN NOT REFERENCING NEC WIRING METHODS OR TYPE.)
MECH	MECHANICAL CONTRACTOR
NTS	NOT TO SCALE
OC	ON CENTER
PC	PLUMBING CONTRACTOR
PLUMB	PLUMBING CONTRACTOR
PROV	PROVIDED BY
S	INDICATES DEVICE IS TO BE SURFACE MOUNTED.
TP	TAMPER PROOF DEVICE. DEVICE SHALL BE APPROVED FOR USE IN AREA SHOWN (CHILD CARE ETC.)
U	INDICATES COMBINATION USB DUPLEX RECEPTACLE
W/	WITH
WP	INDICATES A DEVICE THAT RATED FOR EXTERIOR TEMPERATURES AND IS WEATHERPROOF OR WEATHER RESISTANT WITH AN APPROVED (IN-USE) WEATHERPROOF COVER.



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811 3 WORKING DAYS BEFORE YOU DIG FOR THE LOCATION OF UNDERGROUND FACILITIES
Know what's **below.** **Call** before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

VOLTAGE DROP SCHEDULE

120 VOLT BRANCH CIRCUITS UP TO 8 AMPS (<0.96 KVA)

RUN DISTANCE IN FEET	WIRE SIZE AWG
1' – 110'	#12
111' – 180'	#10
181' – 285'	#8
286' – 450'	#6

120 VOLT BRANCH CIRCUITS 9 AMPS TO 14 AMPS (1–1.68 KVA)

RUN DISTANCE IN FEET	WIRE SIZE AWG
1' – 65'	#12
66' – 100'	#10
101' – 165'	#8
166' – 260'	#6

277 VOLT BRANCH CIRCUITS UP TO 14 AMPS (<3.9 KVA)

RUN DISTANCE IN FEET	WIRE SIZE AWG
1' – 150'	#12
151' – 235'	#10
236' – 380'	#8
381' – 600'	#6

WIRE SIZES INDICATED IN GENERAL NOTES AND CONNECTIONS SCHEDULES ARE MINIMUM WIRE SIZES. CONTRACTOR SHALL UPSIZE WIRES BASED ON LOAD AND LENGTH OF RUN AS INDICATED IN SCHEDULE ABOVE.

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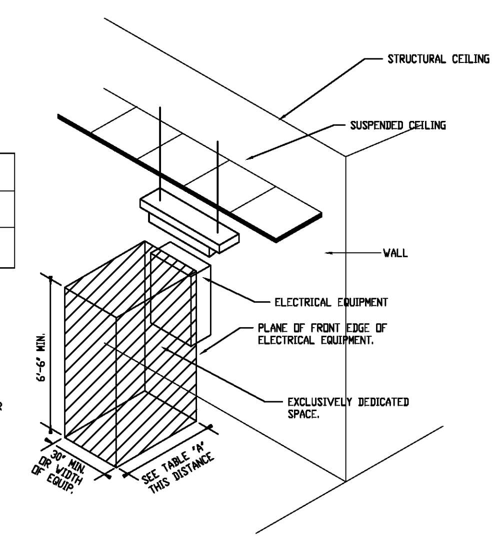
TABLE A - WORKING CLEARANCES

VOLTAGE TO GROUND NOMINAL	MINIMUM CLEAR DISTANCE (FEET) CONDITION: 1	2	3
0-150	3	3	3
151-800	3	3-1/2	4

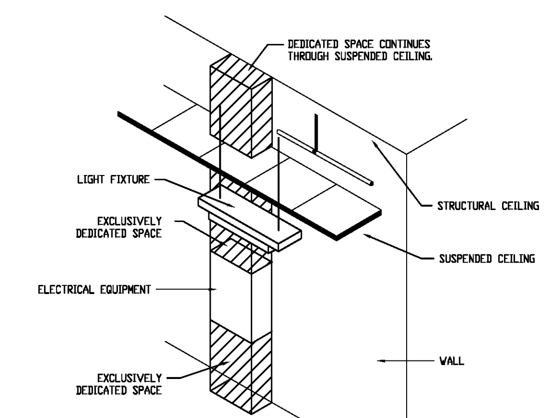
WHERE THE "CONDITIONS" ARE AS FOLLOWS:

1. EXPOSED LIVE PARTS ON ONE SIDE AND NO LIVE OR EXPOSED GROUNDED PARTS ON THE OTHER SIDE OF THE WORKING SPACE, OR EXPOSED LIVE PARTS ON BOTH SIDES EFFECTIVELY GUARDED BY WUITABLE WOOD OR OTHER INSULATING MATERIALS. INSULATED WIRE OR INSULATED BUSBARS OPERATING AT NOT OVER 300V SHALL NOT BE CONSIDERED LIVE PARTS.
2. EXPOSED LIVE PARTS ON ONE SIDE AND GROUNDED PARTS ON THE OTHER SIDE.
3. EXPOSED LIVE PARTS ON BOTH SIDES OF THE WORK SPACE (NOT GUARDED AS PROVIDED IN CONDITION 1) WITH THE OPERATOR BETWEEN.



NOTE:
THIS FIGURE ILLUSTRATES THE WORKING SPACE IN FRONT OF THE ELECTRICAL EQUIPMENT REQUIRED BY SECTION 110.26 OF THE NATIONAL ELECTRICAL CODE.

2 N.E.C. ART. 110.26 WORKING CLEARANCE FOR ELECTRICAL EQUIPMENT
SCALE: NONE



NOTE:
THIS FIGURE ILLUSTRATES THE ADDITIONAL EXCLUSIVELY DEDICATED SPACE REQUIRED OVER AND UNDER THE ELECTRICAL EQUIPMENT FOR THE CABLES, RACEWAYS, ETC. TO AND FROM THE ELECTRICAL EQUIPMENT REQUIRED BY SECTION 110.26(E) OF THE NATIONAL ELECTRICAL CODE.

1 NEC 110.26(E) DEDICATED SPACE FOR ELECTRICAL EQUIPMENT
SCALE: NONE

PROJECT: STATE EMPLOYEES' CREDIT UNION
CHARLOTTE - ALBEMARLE RD.
REMOTE ATM ADDITIONS

SHEET TITLE: ELECTRICAL COVER SHEET

PROJECT MANAGER	FIELD SURVEY DATE:
CHECKED BY:	DRAWING DATE: 2/6/2019
DRAWN BY:	JOB #: SE19.070

SHEET
E-0.1 of

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