ELECTRICAL SPECIFICATIONS

PART 1: GENERAL

- A. PROVIDE ALL WORK AND MATERIALS FOR THE INSTALLATION OF COMPLETE WIRING SYSTEMS AS SPECIFIED HEREIN AND INDICATED ON THE DRAWINGS.
- B. ALL ELECTRICAL PERMITS AND INSPECTION FEES SHALL BE OBTAINED AND PAID FOR BY THE ELECTRICAL CONTRACTOR.
- C. ELECTRICAL CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIALS FOR ONE YEAR EFFECTIVE THE DAY THE PROJECT IS ACCEPTED BY THE OWNER.
- D. WORK SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE, OSHA, STATE BUILDING CODE AND ALL OTHER APPLICABLE LOCAL REQUIREMENTS. ALL WORK SHALL COMPLY WITH THE LATEST ADDITION OF NECA STANDARDS OF INSTALLATION.
- E. ALL MATERIALS, DEVICES, AND APPLIANCES SHALL BE NEW, EXCEPT WHERE OTHERWISE NOTED, AND SHALL BE LISTED BY AN APPROVED TESTING AGENCY WHERE SUCH A LISTING IS AVAILABLE. FACTORY ASSEMBLED EQUIPMENT SHALL BE LISTED AND LABELED AS AN ASSEMBLY, ANY EQUIPMENT NOT LISTED SHALL HAVE PRIOR APPROVAL FROM THE LOCAL AUTHORITY HAVING JURISDICTION. ALL MATERIALS SHALL COMPLY WITH APPLICABLE ANSI, IEEE AND NEMA STANDARDS.
- F. PROVIDE ALL CUTTING, PATCHING, CHANNELING AND CHASING FOR INSTALLATION OF WORK AND REPAIR ANY DAMAGE OF EXISTING OR NEW INSTALLATIONS AT THE CONTRACTORS
- G. SHOP DRAWINGS AND CATALOG DATA SHALL BE SUBMITTED FOR APPROVAL PRIOR TO BEGINNING WORK. SUBMIT FOUR COPIES OF SHOP DRAWINGS FOR LIGHTING FIXTURES, LAMPS, BALLASTS AND PANELBOARDS. SUBMIT FOUR COPIED OF CATALOG DATA FOR DISCONNECT SWITCHES AND WIRING DEVICES.
- H. PROVIDE ENGRAVED PHENOLIC NAMEPLATES FOR PANELBOARDS, WIRING TROUGHS, AND FUSED SWITCHES, WHITE LETTERS ON BLACK FOR 120/208 VOLT SYSTEMS. LABEL ALL BREAKERS INSIDE THE PANEL NEXT TO THE BREAKER USING THE NUMBER SCHEME INDICATED ON THE DRAWINGS.
- I. AN ELECTRICAL INSPECTION CERTIFICATE SHALL BE ISSUED BY THE LOCAL INSPECTION AUTHORITIES BEFORE APPROVAL FOR FINAL PAYMENT.
- J. THE CONDUIT AND NEUTRAL SYSTEM SHALL BE GROUNDED AT THE MAIN SERVICE EQUIPMENT. GROUNDING ELECTRODE SYSTEM SHALL BE INSTALLED PER N.E.C. ARTICLE 250 AND AS INDICATED ON THE DRAWINGS.
- K. WIRING SHALL BE TESTED FOR CONTINUITY AND GROUNDS BEFORE BEING ENERGIZED. FAULTY WIRING SHALL BE REPLACED AT NO ADDITIONAL EXPENSE TO THE OWNER.
- L. IF, DURING THE COURSE OF WORK, THE ELECTRICAL CONTRACTOR DISCOVERS A PROBLEM WITH THE PERFORMANCE OF THE INSTALLATION RELATIVE TO THE PLANS AND SPECIFICATIONS OR NEC OR OTHER CODES, THE CONTRACTOR SHALL IMMEDIATELY BRING THE PROBLEM TO THE ATTENTION OF THE ARCHITECT OR ENGINEER FOR RESOLUTION PRIOR TO THE EXECUTION OF THE WORK.
- M. THE ELECTRICAL CONTRACTOR SHALL CONNECT ALL EQUIPMENT REQUIRING ELECTRICAL CONNECTIONS, UNLESS OTHERWISE NOTED, EXCEPT FOR CONTROL WIRING FOR EQUIPMENT NOT PROVIDED BY THE ELECTRICAL CONTRACTOR. CONTROL WIRING FOR SUCH EQUIPMENT SHALL BE PROVIDED BY THE RESPECTIVE DISCIPLINE.
- N. COORDINATE LOCATION AND REQUIREMENTS FOR ELECTRICAL SERVICE WITH THE POWER COMPANY. WHERE MORE THAN ONE SERVICE IS SUPPLIED TO A BUILDING, PROVIDE IDENTIFICATION AT EACH SERVICE PER NEC 230-2(B) AND AS INDICATED ON THE DRAWINGS.
- O. COORDINATE LOCATION AND REQUIREMENTS FOR TELEPHONE SERVICE WITH THE TELEPHONE COMPANY AND AS INDICATED ON THE DRAWINGS.
- P. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PROVIDING TEMPORARY POWER.

PART 2: RACEWAY

- A. CONDUIT SHALL BE ZINC-COATED EMT INDOORS. EMT FITTINGS SHALL BE STEEL SCREW. MINIMUM SIZE SHALL BE %"C. UNLESS OTHERWISE NOTED. USE SCHEDULE 40 PV(OUTDOORS ABOVE 8'-0" OR BELOW GRADE. USE IMC WHERE REQUIRED BY CODE OR
- B. SUPPORT ALL CONDUITS WITH STRAPS AND CLAMPS. RUN ALL CONDUIT PARALLEL OR PERPENDICULAR TO BUILDING WALLS.
- C. JUNCTION AND PULL BOXES SHALL BE CODE GAUGE GALVANIZED SHEET METAL.
- D. LIQUID-TIGHT FLEXIBLE METAL CONDUIT SHALL BE USED FOR EQUIPMENT CONNECTIONS, BUT NOT AS A WIRING METHOD OTHERWISE.
- E. MC CABLE MAY BE USED AS A WIRING METHOD WHERE ALLOWED BY CODE.
- F. RACEWAY PENETRATIONS THROUGH FLOOR SLABS AND FIRE-RATED WALLS SHALL BE FILLED WITH IMPERVIOUS, NON-SHRINK GROUT SUFFICIENTLY TIGHT TO PREVENT THE TRANSFER OF SMOKE, WATER, AND DUST. ROOF PENETRATIONS SHALL BE WITHIN THE EQUIPMENT CURB
- G. CONDUIT INSTALLED UNDERGROUND OR IN CONCRETE SHALL HAVE JOINTS MADE WATER-TIGHT BY USE OF POLYTETRA-FLUOROETHYLENE TAPE. APPROVED SEALS SHALL BE PROVIDED IN HAZARDOUS LOCATIONS AS REQUIRED BY THE N.E.C.

PART 3: CONDUCTORS

- A. ALL CONDUCTORS SHALL BE SINGLE CONDUCTOR COPPER. THHN/THWN. SOLID FOR SIZES #14 THROUGH #10. THHN/THWN STRANDED FOR SIZES #8 AND LARGER.
- B. BRANCH CIRCUITS SHALL NOT BE SMALLER THAN #12 AWG. CONTROL WIRING MAY BE #14
- C. WIRING TO LIGHTING FIXTURES SHALL BE AS REQUIRED BY UL LABEL.
- D. ALL BRANCH CIRCUIT CONDUITS OR CABLE ASSEMBLIES SHALL CONTAIN AN INSULATED GREEN GROUNDING CONDUCTOR SIZED PER NEC 250-122.
- E. ALL CONDUCTORS INSTALLED IN VERTICAL RACEWAYS SHALL BE SUPPORTED AT INTERVALS AS REQUIRED PER NEC ARTICLE 300-19.
- F. ALL EQUIPMENT AND DEVICE TERMINATIONS SHALL BE UL LISTED FOR USE WITH 75°C
- INSULATED CONDUCTORS AT THEIR 75°C AMPACITY.
- G. EITHER PROVIDE A SEPARATE NEUTRAL FOR EACH PHASE CONDUCTOR IN ALL BRANCH CIRCUITS OR 20A -1P BREAKER WITH HANDLE TIE FOR 20A CIRCUITS THAT SHARE COMMON NEUTRAL.

PART 4: DISCONNECT SWITCHES

A. DISCONNECT SWITCHES SHALL BE HEAVY-DUTY TYPE IN NEMA 1 ENCLOSURES (UNLESS OTHERWISE INDICATED), FUSED OR NON-FUSED AS INDICATED. FUSED SWITCHES SHALL HAVE REJECTION-TYPE FUSE CLIPS. SWITCHES SHALL BE SQUARE D, OR EQUAL. FUSES SHALL BE CLASS R-5, TIME DELAY. A SET OF 3 SPARE FUSES OF EACH SIZE AND TYPE SHALL BE FURNISHED TO THE OWNER.

PART 5: WIRING DEVICES

A. WIRING DEVICES SHALL BE COLOR SELECTED BY ARCHITECT/OWNER WITH MATCHING PLASTIC COVER PLATES, SPECIFICATION GRADE AS INDICATED BELOW, EQUAL TO THE COOPER QUALITY INDICATED.

TOGGLE SWITCHES SHALL BE AS FOLLOWS:

SINGLE POLE 20 AMP

COOPER 1221 THREE WAY 20 AMP **COOPER 1223**

DUPLEX RECEPTACLES SHALL HAVE A NYLON FACE AND SHALL BE AS FOLLOWS:

15 AMP DUPLEX COOPER 5252 20 AMP DUPLEX **COOPER 5362** 15 AMP DUPLEX-GFCI COOPER GF5262 20 AMP DUPLEX-GFCI COOPER GF5362

- B. DUPLEX RECEPTACLES ON DEDICATED CIRCUIT SHALL BE 20 AMP. OTHER DUPLEX
- C. OUTLET BOXES SHALL NOT BE MOUNTED BACK-TO-BACK.
- D. A MAXIMUM OF 10 RECEPTACLES SHALL BE ON EACH BRANCH CIRCUIT.

RECEPTACLES MAY BE 15 AMP, UNLESS OTHERWISE NOTED.

- E. WEATHERPROOF COVERS SHALL HAVE A LID SO THAT PLUGS MAY BE INSTALLED WITHOUT COMPROMISING THE WP FUNCTION, EQUAL TO INTERMATIC GUARDIAN ONE #WP102OC.
- F. ALL OUTLETS (INCLUDING TELEPHONE, CABLE TV AND DATA) SHALL HAVE COVER PLATES, BLANK IF NOT USED.

PART 6: PANELBOARDS

- A. PANELBOARDS SHALL BE DEAD-FRONT SAFETY TYPE. ALL CIRCUIT BREAKERS SHALL BE MOLDED-CASE, BOLT-ON, AUTOMATIC THERMAL MAGNETIC TYPE, CALIBRATED FOR 40°C, OR AMBIENT COMPENSATION. CABINET SHALL BE 20 INCHES WIDE MINIMUM, WITH NOT LESS THAT 4-INCH WIRING GUTTERS AT TOP, SIDES, AND BOTTOM, SQUARE D "NF", "NQOD", OR EQUAL. BUS SHALL BE ALUMINUM WITH RATINGS AS INDICATED ON DRAWINGS. LUGS SHALL BE SIZED TO ACCOMMODATE CONDUCTORS INDICATED ON THE POWER RISER DIAGRAM.
- B. PROVIDE HANDLE LOCK-ON DEVICES ON ALL CIRCUIT BREAKERS CONNECTED TO EMERGENCY, EXIT, AND NIGHT LIGHTING, FIRE ALARM, TELEPHONE AND SECURITY SYSTEMS.
- C. CIRCUIT BREAKERS USED FOR SWITCHING OF LIGHTING OR SIGN CIRCUITS SHALL BE SWITCHING DUTY RATED AND SHALL BE MARKED "SWD"

PART 7: LIGHT FIXTURES

- A. CATALOG NUMBERS GIVEN DENOTE MINIMUM QUALITY AND PERFORMANCE REQUIRED. EQUAL EQUIPMENT BY OTHER MANUFACTURERS IS ACCEPTABLE AS INDICATED ON THE LIGHT
- B. LAY-IN FIXTURES SHALL BE SUSPENDED FROM STRUCTURE WITH WIRES AT ALL CORNERS. DO NOT SUPPORT FROM CEILING GRID.
- C. SEE ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF LIGHT FIXTURES.

D. ALL RECESSED LIGHTING FIXTURES SHALL BE THERMALLY PROTECTED. PART 8: TELEPHONE/DATA SYSTEM

- A. FURNISH AND INSTALL A COMPLETE TELEPHONE/DATA CONDUIT SYSTEM AS INDICATED ON THE DRAWINGS. ALL OUTLET BOXES FOR TELEPHONE AND/OR DATA JACKS SHALL BE DOUBLE GANG WITH A SINGLE-GANG OPENING.
- B. PULL AND LEAVE IN EACH CONDUIT ONE PULL CORD FOR PULLING IN CABLE. ALL WIRING, OUTLETS AND EQUIPMENT SHALL BE PROVIDED AND INSTALLED BY THE OWNERS TELE/DATA
- C. TELEPHONE SERVICE CONDUITS SHALL BE PROVIDED TO THE PROPERTY LINE OR AS INDICATED ON THE DRAWINGS
- D. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL A #6 AWG GREEN COPPER WIRE IN A 3/4" CONDUIT FROM THE NEAREST COLD WATER METAL MAIN TO A LUG AT THE TELEPHONE/DATA BACKBOARD

PART 9: LIGHTING CONTROLS

- F. FURNISH AND INSTALL AN ELECTRONIC TIME CONTROLLER WHERE INDICATED. CONTROLLER SHALL BE CAPABLE OF SWITCHING 40 AMPERES PER POLE CONTINUOUSLY AT 120 VOLTS AND SHALL BE SPST (DPST, 3PST, DPTDT, SPDT, AS REQUIRED).
- G. TIME CONTROLLER SHALL HAVE THE FOLLOWING:
- G.1. A MINIMUM 7-DAY CLOCK G.2. BE CAPABLE OF BEING SET FOR SEVEN DIFFERENT DAY TYPES PER WEEK.
- G.3. INCORPORATES AN AUTOMATIC HOLIDAY "SHUTOFF" FEATURE, WHICH TURNS OFF ALL CONTROLLED LIGHTING LOADS FOR AT LEAST 24 HOURS AND THEN RESUMES NORMALLY SCHEDULED OPERATIONS. G.4. HAVE PROGRAM BACKUP CAPABILITIES, WHICH PREVENT THE LOSS OF PROGRAM AND
- TIME SETTINGS FOR AT LEAST 10 HOURS, IF POWER IS INTERRUPTED.
- G.5. INCLUDE A OVERRIDE SWITCH THAT COMPLIES WITH THE FOLLOWING:

SHALL BE A MANUAL CONTROL.

- WHEN INITIATED, SHALL PERMIT THE CONTROLLED LIGHTING TO REMAIN ON FOR NOT MORE THAN 2 HOURS.
- ANY INDIVIDUAL OVVERIDE SHALL NOT CONTROL THE LIGHTING FOR AN AREA NOT LARGER THAN 5,000 SQUARE FEET.
- H. LIGHTING CONTACTORS SHALL SWITCH A LOAD AT 120 VOLTS, 60 HZ AND SHALL HAVE THE NUMBER OF POLES INDICATED ON THE DRAWINGS. THE CONTACTOR SHALL BE CONTINUOUSLY RATED 20 AMPERES PER POLE FOR ALL TYPES OF BALLAST AND TUNGSTEN LIGHTING AND RESISTANCE LOADS.
- ALL LIGHTING CONTACTORS SHALL BE ELECTRICALLY HELD AND HAVE A NEMA 1 ENCLOSURE UNLESS OTHERWISE NOTED.

PART 11: FIRE STOPPING

- A. ALL PENETRATIONS OF NON-RATED PENETRATIONS SHALL BE SEALED WITH RATED MATERIALS MEETING ASTM E-814.
- B. PROVIDE FIRE STOPPING DEVICE(S) OR SYSTEM(S) WHICH HAVE BEEN TESTED AND LISTED AS COMPLYING WITH ASTM E-814. INSTALL THE DEVICE(S) OR SYSTEM(S) IN ACCORDANCE WITH THE CONDITIONS OF THEIR LISTING. PROVIDE THE APPROPRIATE DEVICE(S) OR SYSTEM(S) WITH AN "F" RATING EQUAL TO THE RATING OF THE ASSEMBLY BEING PENETRATED.
- C. DEVICE(S) AND/OR SYSTEM(S) SHALL BE BY HILTI, 3M OR EQUIVALENT.
- WHERE OPENINGS FOR INSTALLATION OF ELECTRICAL BOXES EXCEEDS 16 SQUARE INCHES IN RATED WALLS OR PARTITIONS, THE OPENING SHALL BE PROTECTED AS REQUIRED BY THE APPROPRIATE WALL LISTING TYPE.

PART 12: SITE VISIT

A. EACH BIDDER SHALL VISIT THE PROJECT SITE PRIOR TO BID AND FAMILIARIZE HIMSELF WITH THE EXISTING CONDITIONS. FAILURE TO VISIT THE SITE SHALL NOT EXCUSE THE CONTRACTOR FROM PERFORMING THE REQUIRED WORK NOR SHALL IT BE AN ACCEPTABLE REASON FOR REQUESTING ADDITIONS TO THE CONTRACT.

ELECTRICAL SYMBOLS SCHEDULE

CONDUIT AND/OR WIRING SYSTEM CONCEALED IN CONSTRUCTION IN FINISHED AREAS, EXPOSED IN UNFINISHED AREAS.

— — — CONDUIT AND/OR WIRING SYSTEM CONCEALED BELOW FLOOR OR FLOOR SLAB.

CONDUIT STUB. TERMINATE WITH BUSHING OR CAP IF UNDERGROUND.

■ BREAK IN CONDUIT, SEE PLAN FOR CONTINUATION.

NON-RIGID RACEWAY SYSTEM BRANCH CIRCUIT HOMERUN TO PANEL

JUNCTION BOX SIZED PER NEC.

- SINGLE POLE SWITCH, 20 AMP, 120/277 VOLT, COOPER 1221, OR EQUAL.
- THREE WAY SWITCH, 20 AMP, 120/277 VOLT, COOPER 1223, OR EQUAL.
- LEVITON RENOIR II SERIES, OR EQUAL. 3-WAY DIMMER SWITCH SUITABLE FOR USE WITH MULTIPLE DIMMING TYPES. CONTRACTOR SHALL COORDINATE WITH EACH FIXTURE TYPE PRIOR TO USE.
- WALL MOUNTED, PIR/MICORPHONICS TECHNOLOGY DIMMING OCCUPANCY SWITCH, 120/277 VOLT, SUITABLE FOR USE WITH MULTIPLE DIMMING TYPES. DIMMER SWITCH SHALL MATCH FIXTURE TYPE. LUTRON MAESTRO SERIES, OR EQUAL WITH 15 FT MINOR MOTION COVERAGE, MINIMUM.
- WALL MOUNTED, PIR/MICORPHONICS TECHNOLOGY OCCUPANCY SENSOR, 120/277 VOLT, LUTRON MAESTRO SERIES, OR EQUAL WITH 15 FT MINOR MOTION COVERAGE, MINIMUM.
- DIMMER SWITCH, LUTRON OR EQUAL, DIMMER SWITCH SHALL MATCH RESPECTIVE DIMMING CHARACTERISTIC OF LUMINIARE. CONTRACTOR SHALL PROVIDE LOW VOLTAGE CABLES AS REQUIRED.
- FAN CONTROLLER PER FAN MANUFACTURER'S RECOMMENDATIONS.
- FRACTIONAL HORSEPOWER MANUAL MOTOR STARTER WITH O.L.'S
- DUPLEX RECEPTACLE, 15 AMP, 120 VOLT (USE 20 AMP FOR SINGLE RECEPTACLE
- ON A CIRCUIT.) MOUNT 18" A.F.F., U.O.N., COOPER 5252 OR EQUAL. DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER BACKSPLASH, OR AT 48" A.F.F.
- DOUBLE DUPLEX RECEPTACLE MOUNT AT 18" A.F.F. TWO NEMA 5-15R DUPLEX RECEPTACLES IN A COMMON BOX AND COVER PLATE.
- GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE. NEMA 5-20R DUPLEX. ALL RECEPTACLES INSTALLED OUTSIDE, WITHIN 6' OF A SINK OR IN A KITCHEN SHALL
- WEATHERPROOF RECEPTACLE. NEMA 5-15R DUPLEX. COVER SHALL BE COOPER
- #1991 WHERE MOUNTED HORIZONTAL AND #4966 WHERE MOUNTED VERTICAL.
- DUPLEX RECEPTACLE MOUNTED IN "F" FOR FLOOR AND "C" FOR CEILING. FLOOR BOX SHALL BE CAST ALUMINUM WITH BRASS COVER. "ASW" FOR ABOVE SHOW WINDOW.
- FRACTIONAL HORSEPOWER MOTOR CONNECTION.

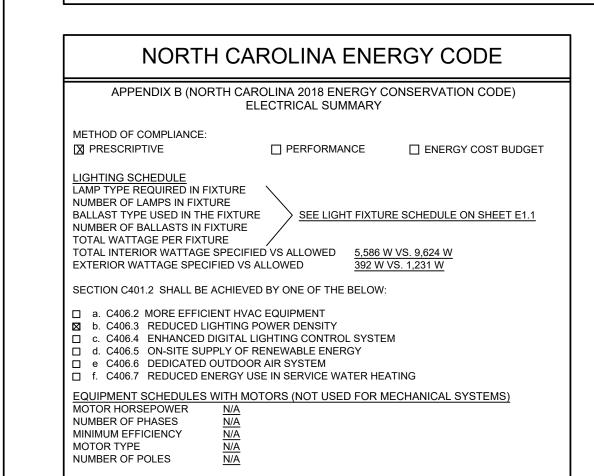
U.O.N., COOPER 5252 OR EQUAL

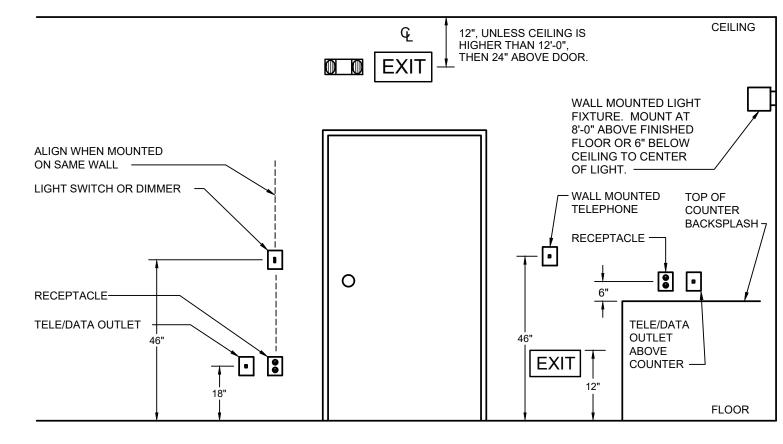
- CONNECTION FOR WATER HEATER, VOLTAGE, PHASE AND SIZE AS INDICATED.
- TELE/DATA OUTLET, DOUBLE GANG BOX WITH SINGLE GANG OPENING, MOUNT AT 18" A.F.F. WITH 3/4" E.C. TO ABOVE ACCESSIBLE CEILING. CABLE PROVIDED BY OTHERS.
- TELE/DATA OUTLET MOUNTED IN "F" FOR FLOOR AND "C" FOR CEILING. FLOOR BOX SHALL BE CAST ALUMINUM WITH BRASS COVER.
- STRIP FLUORESCENT LIGHT FIXTURE. LETTER INDICATES TYPE, SEE LIGHT FIXTURE SCHEDULE. INDEPENDENTLY SUPPORT FIXTURE TO STRUCTURE UNLESS MOUNTED ON STRUCTURAL CEILING.
- WALL MOUNTED LIGHT FIXTURE. LETTER INDICATES TYPE, SEE LIGHT FIXTURE SCHEDULE.
- ROUND, RECESSED OR SURFACE MOUNTED WALL WASH FIXTURE. LETTER INDICATES TYPE. SEE LIGHT FIXTURE SCHEDULE. INDEPENDENTLY SUPPORT FIXTURE TO STRUCTURE UNLESS SURFACE MOUNTED TO A STRUCTURAL CEILING.
- FIXTURE WITH INTEGRAL 600 LUMEN BATTERY INVERTER AND/OR ON EMERGENCY LIGHTING CIRCUIT. LETTER INDICATES TYPE, SEE LIGHT FIXTURE SCHEDULE FOR TYPE AND FOR BATTERY REQUIREMENT. SUPPORT FIXTURES IN SAME MANNER AS
- WALL MOUNTED EMERGENCY LIGHTING BATTERY PACK FIXTURE, SEE LIGHT FIXTURE
- CEILING OR WALL MOUNTED EXIT SIGN RESPECTIVELY. SOLID SPACES INDICATE FACES. PROVIDE ARROWS AS INDICATED ON PLANS. SEE LIGHT FIXTURE SCHEDULE. WALL MOUNTED COMBINATION EMERGENCY BATTERY PACK AND EXIT SIGN. SEE LIGHT
- FIXTURE SCHEDULE. FUSED DISCONNECT SWITCH, SIZE AS INDICATED ON DRAWINGS, FUSE
- PER NAMEPLATE DATA OR AS INDICATED, NEMA 1 ENCLOSURE U.O.N. LIGHTING AND/OR POWER PANEL BOARD, SURFACE MOUNTED WITH REQUIRED CODE CLEARANCE. SEE PANEL SCHEDULE FOR AMPERAGE.
- PLYWOOD TELEPHONE OR DATA BACKBOARD. SIZE AS INDICATED ON THE RESPECTIVE
- WALL MOUNTED UTILITY METER.
- AFF ABOVE FINISHED FLOOR CONDUIT ELECTRIC WATER COOLER FULL LOAD AMPS
- GROUND FAULT CIRCUIT INTERRUPTER GROUND KVA KILOVOLT AMPERE
- THOUSAND CIRCULAR MILS KW KILOWATT MCB MAIN CIRCUIT BREAKER MISCELLANEOUS
- MLO MAIN LUGS ONLY MANUAL TRANSFER SWITCH MTS N/A NOT APPLICABLE
- NEC NATIONAL ELECTRIC CODE NUMBER NOT TO SCALE NTS
- POLE PHASE PNL PANELBOARD SWITCH
- TELE/DATA TELEPHONE/DATA TYPICAL UNDERGROUND UG
- VOLT UON UNLESS OTHERWISE NOTED WEATHERPROOF NEMA 3R ENCLOSURE

SEE DEVICE MOUNTING ELEVATION FOR MOUNTING HEIGHTS. 2. SEE SPECIFICATIONS FOR DEVICE COLOR AND COVER PLATE STYLE.

GENERAL NOTES

- ELECTRICAL CONTRACTOR SHALL REVIEW ENTIRE SET OF CONTRACT DOCUMENTS INCLUDING BUT NOT NECESSARILY LIMITED TO ALL ARCHITECTURAL, STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND ENTIRE PROJECT MANUAL. ELECTRICAL CONTRACTOR SHALL ACKNOWLEDGE AND INCLUDE IN THE SCOPE OF WORK (CONTRACT) ALL CONDITIONS PERTINENT TO THE COMPLETION OF THE ELECTRICAL WORK. ELECTRICAL CONTRACTOR SHALL FULLY COORDINATE ELECTRICAL WORK WITH THE INSTALLATION OF WORK BY ALL OTHER TRADES AND MAKE NECESSARY FIELD ADJUSTMENTS AS REQUIRED TO ACCOMODATE THE ELECTRICAL INSTALLATION. ALL OF THE ABOVE SHALL BE INCLUDED IN THE SCOPE OF WORK AT NO ADDITIONAL COST TO THE OWNER.
- VERIFY ALL REQUIREMENTS AND COORDINATE EXACT LOCATION OF INCOMING ELECTRICAL SERVICE WITH LOCAL POWER COMPANY PRIOR TO PROJECT START-UP. NOTIFY ENGINEER OF ANY CHANGES AS MAY BE REQUIRED.
- ENGRAVED, LAMINATED PLASTIC IDENTIFICATION PLATES SHALL BE FURNISHED AND INSTALLED ON ALL PANELS AND SWITCHGEAR. PLATES SHALL BE AFFIXED TO FRONT PANELS, INDICATING PANEL NAME, VOLTAGE AND AMPERAGE. PROVIDE UPDATED PANEL DIRECTORIES FOR ALL PANELS.
- ELECTRICAL CONTRACTOR SHALL CAREFULLY EXAMINE THE DRAWINGS AND SPECIFICATIONS, VISIT THE SITE OF THE WORK, AND FULLY INFORM HIMSELF AS TO ALL CONDITIONS AND MATTERS THAT CAN, IN ANY WAY AFFECT THE WORK OR THE COST THEREOF, SHOULD THE CONTRACTOR FIND DISCREPANCIES IN, OR OMISSIONS FROM, THE DRAWINGS, SPECIFICATIONS OR OTHER DOCUMENTS OR BE IN DOUBT AS TO THEIR MEANING, NOTIFY THE ARCHTIECT/ENGINEER AT ONCE, IN WRITING, OF ANY DISCREPENCIES BETWEEN EXISTING CONDITIONS AND NEW WORK, OR BETWEEN ELECTRICAL WORK AND THE WORK OF OTHER TRADES PRIOR AND OBTAIN CLARIFICATION PRIOR TO SUBMITTING ANY BID. LACK OF SUCH NOTIFICATION SHALL BE CONSTRUED TO INDICATE NO DISCREPANCIES OR CONFLICTS EXIST. ADDITIONAL COMPENSATION WILL NOT BE GRANTED AFTER AWARD OF CONTRACT FOR ANY WORK REQUIRED TO COMPLY WITH THESE REQUIREMETNS.
- SHARED NEUTRALS ARE NOT ALLOWED. EACH CIRCUIT SHALL HAVE ITS OWN INDEPENDENT NEUTRAL. EACH CONDUIT RUN SHALL CONTAIN A GROUND WIRE. CONDUIT ONLY IS NOT AN
- TO G.C. AND ALL SUBCONTRACTORS: NO PRICING SHOULD BE DONE FROM A PARTIAL SET AND NO CHANGE ORDER WILL BE ALLOWED FOR PRICING BASED ONLY ON A PARTIAL SET OF REVIEW OF A SINGLE TRADE'S DRAWINGS. ALL TRADES SHOULD CROSS REFERENCE ARCHITECTURAL SHEETS AND ALL OTHER TRADES FOR ADDITIONAL INFORMATION, CLARIFICATIONS AND COORDINATION REQUIRED- TYP. RELATED TO PRICING RELATED TO ANY CONTRADICTIONS THAT MAY BE FOUND IN THE DOCUMENT SET BIDDERS SHOULD INCLUDE THE MOST RESTRICTIVE (I.E. MOST EXPENSIVE) AS PART OF THE BID. ALL BIDS AND PRICING IN THEIR ENTIRETY SHALL BE BASED SOLELY ON THE FULL AND COMPLETE SET OF CONSTRUCTION DOCUMENTS ISSUED FOR THIS SPECIFIC PROJECT- TYP. NO CHANGE ORDER OR MODIFICATION TO THE CONTRACT DOCUMENTS SHALL BE MADE OR CONSIDERED BASED ON G.C. OR SUBCONTRACTOR ASSUMPTIONS BASED ON REVIEW OF A PARTIAL SET OR PAST PROJECT COMPARISONS- TYP.
- CONTRACTOR IS RESPONSIBLE FOR ISSUES THAT ARISE IN THE FIELD DUE TO THE SELECTION OF ALTERNATE EQUIPMENT TO WHAT IS SPECIFIED WITHIN THIS SET OF DRAWINGS. THIS INCLUDES, BUT IS NOT LIMITED TO: DEMAND OVERLOADS, INSUFFICIENT SPACE ALLOCATIONS, AND EQUIPMENT





1. ALL DIMENSIONS ARE TO CENTER LINE OF DEVICE, **UNLESS OTHERWISE NOTED**



WAVE ENGINEERING 3540 TORINGDON WAY, SUITE 200 CHARLOTTE, NC 28277 980.256.7728 INFO@WAVE-ENGINEERING.COM NC CORP. LICENSE #P-1621

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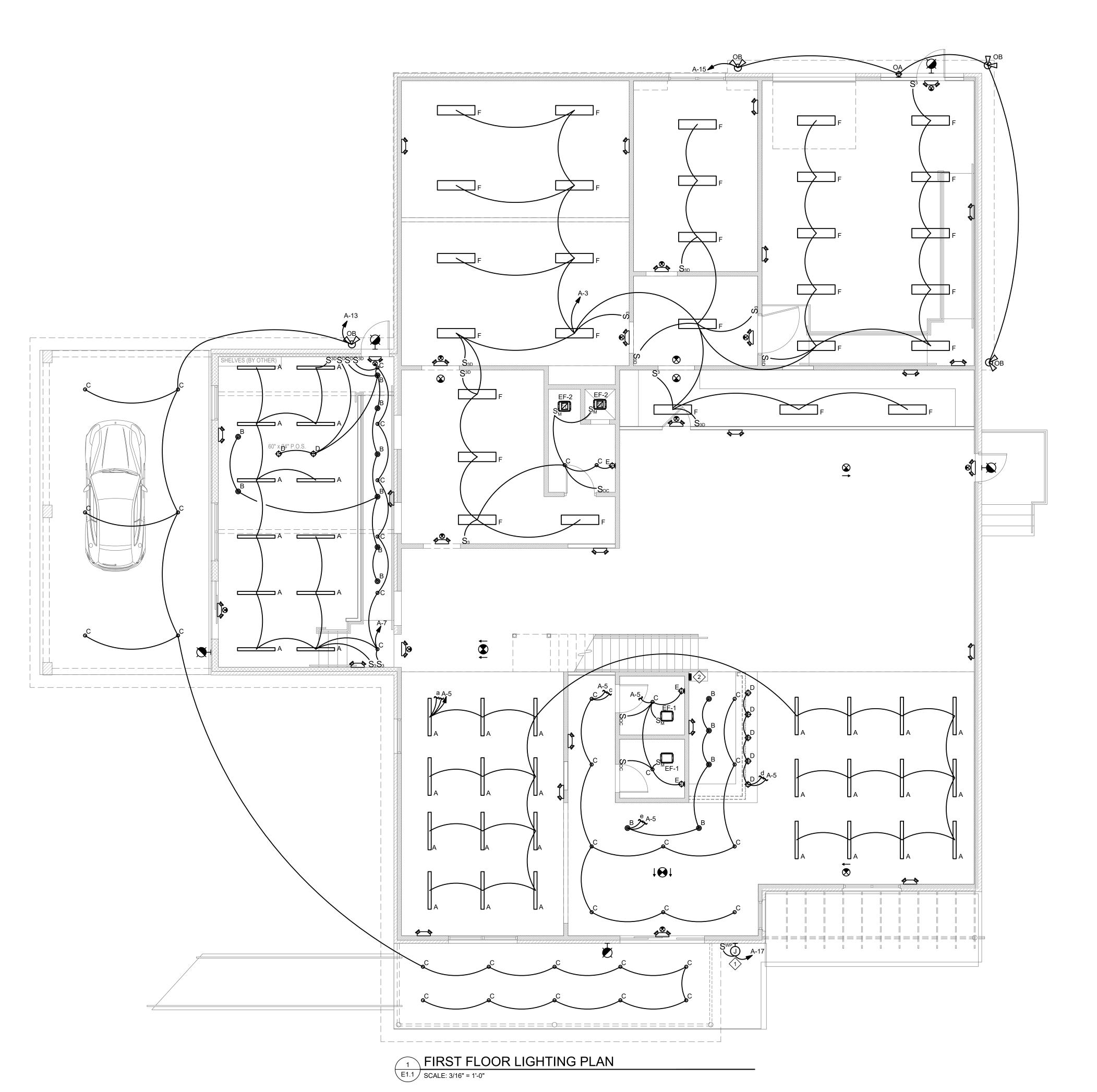
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PROJECT NO: DRAWN BY: 21167 MDR SCALE: ISSUE DATE: AS NOTED 10/01/2021

REVISIONS:

SHEET NUMBER:



GENERAL NOTES THIS SHEET

- ALL EMERGENCY/EGRESS FIXTURES SHALL BE
 CONNECTED TO LOCAL CIRCUIT SERVING RESPECTIVE
 AREA AND AHEAD OF ALL CONTROLS.

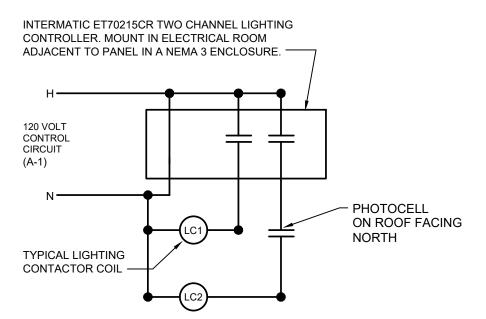
 AREA FIRST SHALL OF THE SERVING RESPECTIVE AREA FIRST SHALL CONTROLS.
- THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING 0-10V CONDUCTORS FROM DIMMER SWITCHES TO ALL 0-10V LIGHTING AS REQUIRED.
 COORDINATE SWITCH LOCATIONS WITH
- OWNER/ARCHITECT PRIOR TO ROUGH-IN WORK.

 4. ALL CONNECTIONS SHALL BE COORDINATED WITH OTHER TRADES, FIELD LOCATIONS AND SHOP DRAWINGS PRIOR TO ANY ROUGH-IN WORK.
- . COORDINATE PLACEMENT OF GENERAL WIRING DEVICES WITH ARCHITECTURAL ELEVATIONS PRIOR TO ROUGH-IN WORK.

☼ KEYED NOTES THIS SHEET.

 THE CONTRACTOR SHALL PROVIDE CONNECTION FOR NEW TENANT SIGN AS REQUIRED FOR OPERATION AND CONNECT TO TIME CLOCK AND PHOTOCELL ON ROOF FACING NORTH. VERIFY LOCATION IN FIELD WITH OWNER.
 FIELD COORDINATE LOCATION OF DIMMER SWITCH BANK WITH OWNER/ARCHITECT PRIOR TO ANY ROUGH-IN WORK AND/OR PRICING. FIELD LOCATION MAY DIFFER FROM LOCATION INDICATED HERE IN. SEE DETAIL 3 THIS

SHEET FOR CIRCUIT IDENTIFICATION.

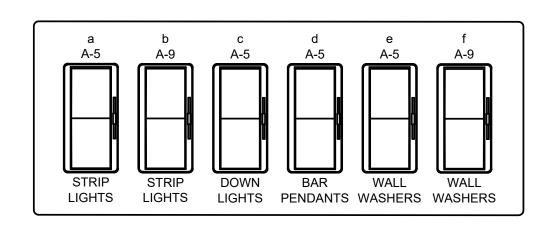


SEE PART 9 OF ELECTRICAL SPECIFICATIONS ON SHEET E0.1 FOR SPECIFICATIONS

CONTACTOR	COIL VOLTAGE	POLES	CIRCUITS SWITCHED
LC1	120	6	A-3,5,7,9,11
LC2	120	3	A-13,15,17

LIGHTING CONTROL DETAIL

E1.1 NO SCALE



3 DIMMER BANK DETAIL E101 NO SCALE

NO SC

- NOTE:

 1. DIMMER TYPE SHALL BE COORDINATE WITH SELECTED LUMINAIRES PRIOR TO ANY ROUGH IN WORK. 0-10V DIMMING WIRES, PHASE
- CONDUCTORS & DRIVER TYPES SHALL MATCH RESPECTIVE FIXTURES.

 2. DIMMERS SHALL BE ALIGNED AND SQUARE IN MOUNTING AS CONFIGURED. BARRIERS PROVIDED WHERE REQUIRED. FIELD COORDINATE PLACEMENT OF DIMMERS WITH OWNER PRIOR TO PROJECT
- 3. AS AN ALTERNATE, THE CONTRACTOR SHALL PROVIDE OWNER WITH DIMMING PANEL SOLUTION WITH ONE(1) MASTER STATION, LOCATED IN OFFICE & TWO (2) REMOTE SCENE CONTROLLERS. FACTORY START-UP, OWNER TRAINING & ONE (1) REVISIT SHALL BE INCLUDED IN PRICING.

WAVE ENGINEERING
3540 TORINGDON WAY, SUITE 200
CHARLOTTE, NC 28277
980.256.7728

INFO@WAVE-ENGINEERING.COM NC CORP. LICENSE #P-1621

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10/08/2021

SPIRITED CYCLIST

16601 OLD STATESVILLE ROAF
HUNTERSVILLE, NC 28078

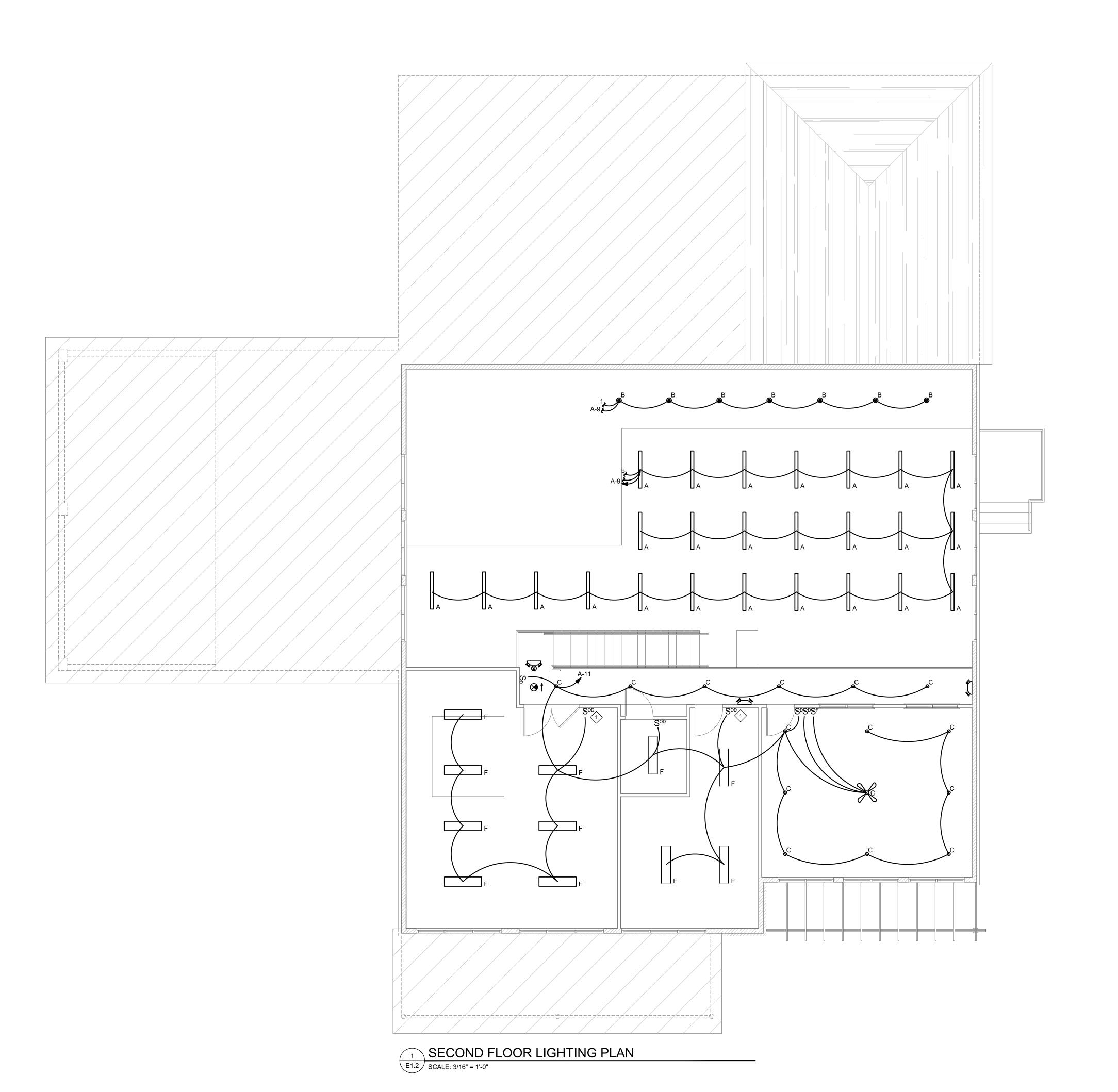
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SCALE: ISSUE DATE:
AS NOTED 10/01/2021

REVISIONS:

SHEET NUMBER:

E1.1



GENERAL NOTES THIS SHEET

- ALL EMERGENCY/EGRESS FIXTURES SHALL BE CONNECTED TO LOCAL CIRCUIT SERVING RESPECTIVE
- AREA AND AHEAD OF ALL CONTROLS.

 2. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING 0-10V CONDUCTORS FROM DIMMER SWITCHES TO ALL 0-10V LIGHTING AS REQUIRED.
- COORDINATE SWITCH LOCATIONS WITH OWNER/ARCHITECT PRIOR TO ROUGH-IN WORK.
- 4. ALL CONNECTIONS SHALL BE COORDINATED WITH OTHER TRADES, FIELD LOCATIONS AND SHOP DRAWINGS PRIOR TO ANY ROUGH-IN WORK.
- 5. COORDINATE PLACEMENT OF GENERAL WIRING DEVICES WITH ARCHITECTURAL ELEVATIONS PRIOR TO ROUGH-IN WORK.

 MANUAL ON/OFF. SET TIME OUT OF SENSOR TO TURN LIGHTS OFF AFTER 30 MINUTES. WAVE ENGINEERING
3540 TORINGDON WAY, SUITE 200
CHARLOTTE, NC 28277
980.256.7728
INFO@WAVE-ENGINEERING.COM
NC CORP. LICENSE #P-1621

— PRELIMINARY — NOT FOR CONSTRUCTION — OR PRICING —

10/08/2021

SPIRITED CYCLIST

16601 OLD STATESVILLE ROAD
HUNTERSVILLE, NC 28078
SHETTILE:
SECOND FLOOR LIGHTING PLAN

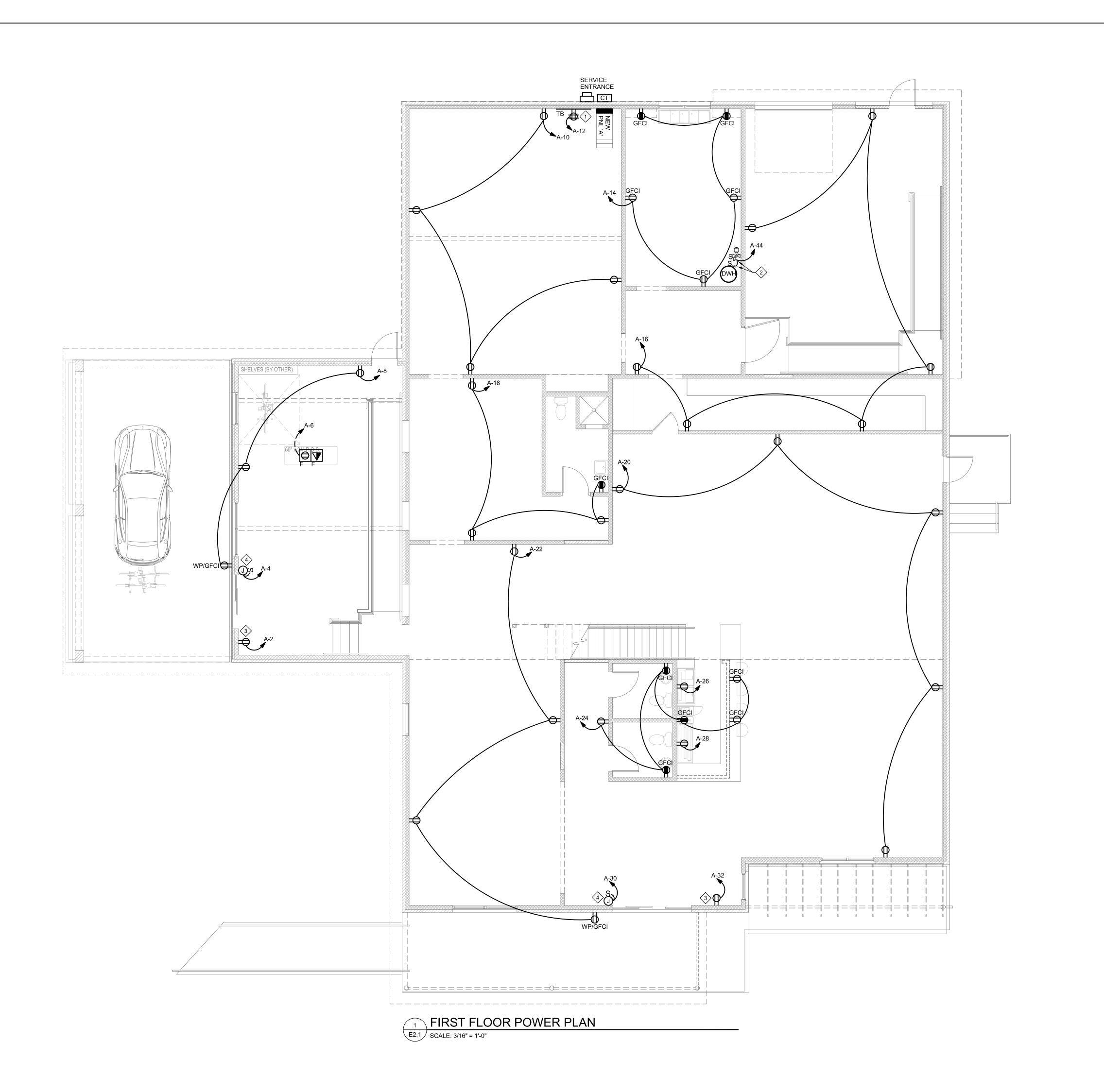
PROJECT NO: DRAWN BY:
21167 MDR

SCALE: ISSUE DATE:
AS NOTED 10/01/2021

REVISIONS:

SHEET NUMBER:

E1.2



GENERAL NOTES THIS SHEET

- ALL CONNECTIONS SHALL BE COORDINATED WITH OTHER TRADES, FIELD LOCATIONS AND SHOP DRAWINGS PRIOR TO ANY ROUGH-IN WORK.
 COORDINATE PLACEMENT OF GENERAL WIRING DEVICES WITH ARCHITECTURAL ELEVATIONS PRIOR TO ROUGH-IN WORK
- 3. ITEMS SHOWN AS DASHED OR MARKED 'EX' ARE EXISTING TO REMAIN UNLESS OTHERWISE NOTED.

> KEYED NOTES THIS SHEET

EC TO COORDINATE LOCATION OF TELEPHONE BOARD WITH OWNER / ARCHITECT PRIOR TO ANY ROUGH IN WORK. MOUNT HIGH ON WALL ABOVE SHELVING.
 COORDINATE LOCATION OF ELECTRICAL FOR WATER HEATER AND HOT WATER CIRCULATION PUMP WITH PLUMBING CONTRACTOR PRIOR TO ROUGH-IN WORK.
 PROVIDE RECEPTACLE FOR SIGNAGE PER NEC 600.5(A).
 PROVIDE CONNECTION AND DISCONNECTING MEANS FOR POWER AT AUTOMATIC DOOR. COORDINATE LOCATION WITH MANUFACTURE PRIOR TO ROUGH-IN.

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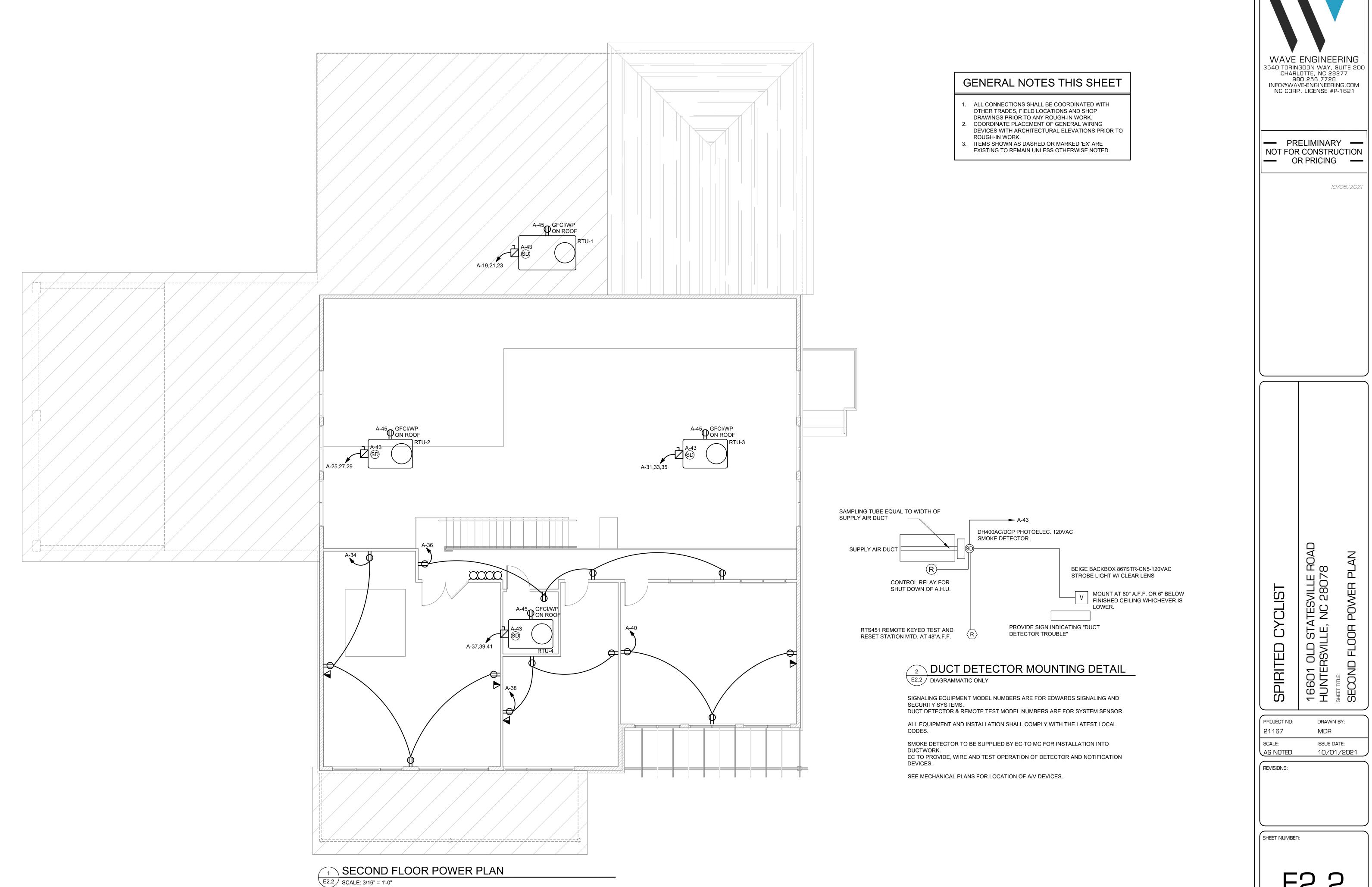
PROJECT NO: DRAWN BY:
21167 MDR

SCALE: ISSUE DATE:
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REVISIONS:

SHEET NUMBER:

E2.1



— PRELIMINARY — NOT FOR CONSTRUCTION — OR PRICING —

WAVE ENGINEERING

10/08/2021

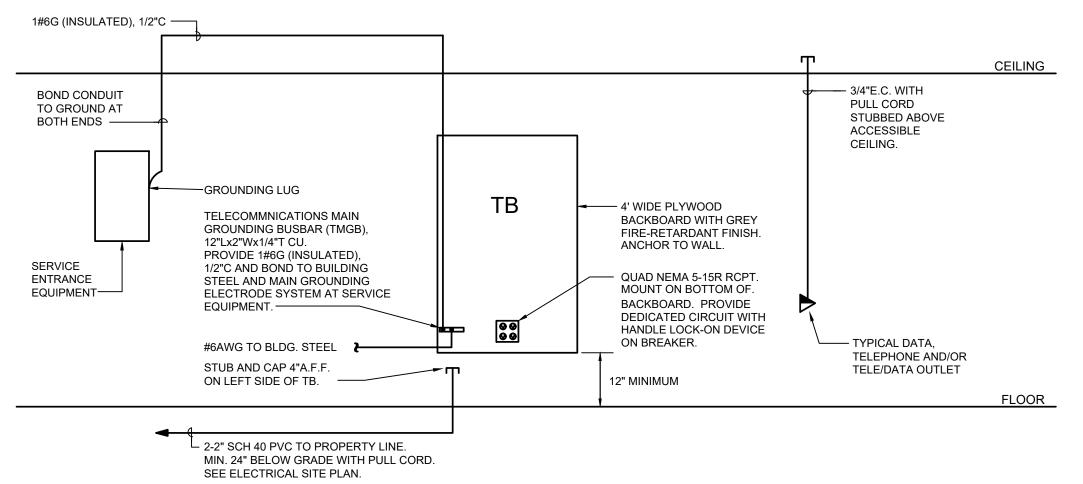
STATESVILLE FLLE, NC 28078 16601 OLD (SHETTINE) SHETTINE: SECOND FLO SPIRITED

PROJECT NO: DRAWN BY: 21167 MDR SCALE: ISSUE DATE: AS NOTED 10/01/2021

REVISIONS:

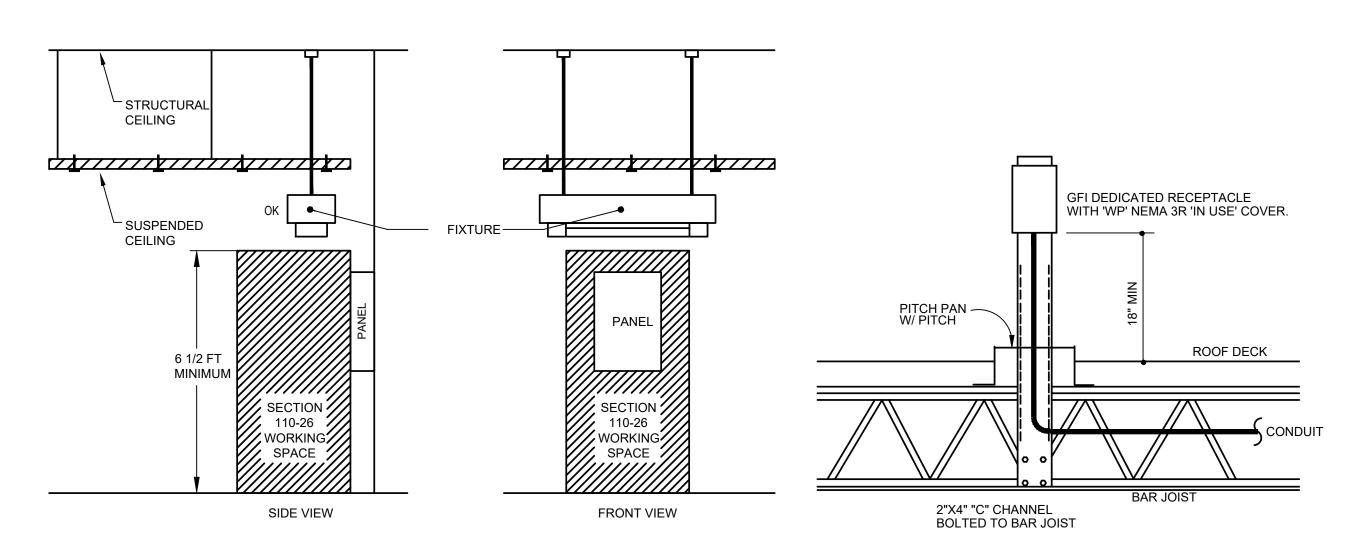
SHEET NUMBER:

E2.2



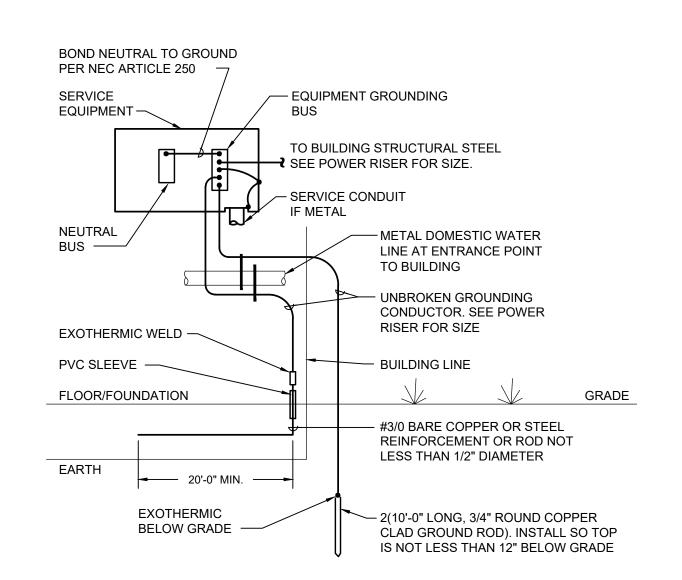
- 1. FLOOR PLANS INDICATE THE EXACT QUANTITY AND LOCATION OF
- ALL TELEPHONE AND/OR DATA OUTLETS. 2. ALL TELEPHONE AND/OR DATA WIRING AND EQUIPMENT SHALL BE
- PROVIDED BY THE OWNER'S TELE/DATA SUPPLIER.
- TELEPHONE RISER DIAGRAM

E3.1 NO SCALE



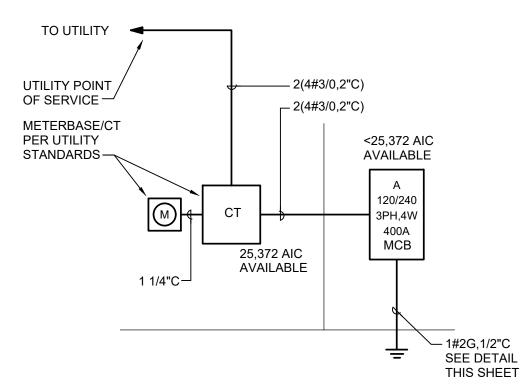
WORKING CLEARANCE FOR ELECTRICAL EQUIPMENT E3.1 NEC ARTICLE 110.26

ROOFTOP RECEPTACLE DETAIL E-301 NO SCALE



RESISTANCE TO GROUND SHALL BE LESS THAN 25 OHMS





NEW POWER RISER DIAGRAM

E3.1 NO SCALE

- 1. THE CONTRACTOR SHALL COORDINATE FAULT CURRENT STUDY WITH FIELD CONFIRMED TRANSFORMER FAULT CURRENT, PER UTILITY. PANELBOARDS AND GEAR SHALL MATCH FAULT CURRENT OF STUDY. PHENOLIC LABELS INDICATING RESPECTIVE FAULT CURRENT SHALL BE MECHANICALLY FASTENED TO PANEL. PROVIDE ARC-FLASH WARNING LABELS THAT COMPLY WITH NEC 110.16.
- 2. FAULT CURRENT RATINGS SHOWN HERE ARE BASED ON 150KVA TRANSFORMER, LOCATED 50 FEET FROM SERVICE ENTRANCE. NOTIFY ENGINEER ON RECORD IF FIELD DETERMINED FAULT CURRENT RATINGS ARE DIFFERENT FROM SHOWN ABOVE. SEE NOTE 1.
- 3. COORDINATE TRANSFORMER CONFIGURATION WITH OWNER/UTILITY COMPANY PRIOR TO ROUGH-IN WORK. FAULT CALCULATIONS BASED ON POLE MOUNTED TRANSFORMER.

			LIGH	IT FIXTURE SCH	IEDUL	_E	
TYPE	MANUFACTURER	CATALOG#	LUMENS/LAMPS	DRIVER/BALLASTS	WATTS	VOLTAGE	DESCRIPTION
А	LITHONIA OR EQUAL	ZL1D L48 SERIES	5000 LUMENS, LED, 3500K	0-10V DIMMING DRIVER	41W	MVOLT	4' LED STRIP FIXTURE. WHITE FINISH DROP LENS DIFFUSER. PROVIDE MOUNTING ACCESSORIES AS REQUIRED FOR MOUNTING APPLICATION. FIXTURE TO BE MOUNTED SUCH THAT LIGHT SOURCE IS NO MORE THAN 10' A.F.F.
В	LITHONIA OR EQUAL	EVO6WW SERIES	1500 LUMENS, LED, 3500K	0-10V DIMMING DRIVER	15W	MVOLT	6" RECESSED LED WALL WASH. CLEAR REFLECTOR WITH SEMI-SPECULAR FINISH. ARCHITECT SHALL VERIFY TRIM COLOR & FINISH PRIOR TO ORDERING.
С	LITHONIA OR EQUAL	EVO4 SERIES	1500 LUMENS, LED, 3500K	0-10V DIMMING DRIVER	14W	MVOLT	4" RECESSED LED DOWNLIGHT. CLEAR REFLECTOR WITH SEMI-SPECULAR FINISH. ARCHITECT SHALL VERIFY TRIM COLOR & FINISH PRIOR TO ORDERING.
D	TO BE SELECTED BY OWNER/ARCHITECT			DIMMING · ·	60W MAX	120V	DECORATIVE PENDANT TO BE SELECTED BY OWNER/ARCHITECT. VERIFY ALLOWANCE PRIOR TO ORDERING.
E	TO BE SELECTED BY OWNER/ARCHITECT			DIMMING	60W MAX	120V	DECORATIVE VANITY FIXTURE TO BE SELECTED BY OWNER/ARCHITECT. VERIFY ALLOWANCE PRIOR TO ORDERING
F	LITHONIA OR EQUAL	CPANL 1X4 SERIES .	4400 LUMENS, LED, 3500K	0-10V DIMMING DRIVER	41W	MVOLT	1X4 FLAT PANEL FIXTURE WITH FLAT ACRTYLIC DIFFUSER. PROVIDE MOUNTING ACCESSORIES AS REQUIRED FOR MOUNTING APPLICATION. FIXTURE TO BE MOUNTED SUCH THAT LIGHT SOURCE IS NO MORE THAN 10' A.F.F.
G	MODERN FORMS OR EQUAL	FR-W1805 SERIES .	1013 LUMENS, LED, 3500K	DIMMING · ·	69W	MVOLT	CEILING MOUNTED FAN WITH INTEGRAL LED. COORDINATE FINISHES, MOUNTING, AND, OPTIONS WITH OWNER PRIOR TO ORDERING. PROVIDE SEPARATE SWITCHING FOR LIGHT AND FAN CONTROLS.
OA	TO BE SELECTED BY OWNER/ARCHITECT	· ·		DIMMING · ·	60W MAX	120V	DECORATIVE EXTERIOR SCONCE TO BE SELECTED BY OWNER/ARCHITECT. VERIFY ALLOWANCE PRIOR TO ORDERING. FIXTURE MUST BE WET LOCATION RATED.
ОВ	HUBBELL OUTDOOR OR EQUAL	ML-2L3K-1	2104 LUMENS, LED, 3000K	· ·	27W	120V	WALL MOUNTED, TWIN LED FLOOD LIGHT WITH MOTION SENSOR AND PHOTOCELL. COORDINATE WITH ARCHITECTURAL ELEVATIONS PRIOR TO ROUGH-IN. COORDINATE FINISHES, MOUNTING, AND OPTIONS WITH OWNER PRIOR TO ORDERING.
4⊗6	DUAL LITE OR EQUAL	LT SERIES	LED HO LED OPTION	ELECTRONIC	3W/FACE 14W	120V	WALL MOUNTED COMBO EMERG/LED EXIT SIGN WITH POLYCARBONATE HOUSING WITH SELF-CONTAINED POWERPACK FOR 90MIN OPERATION. NICAD BATTERY. RED LETTERS. (VERIFY COLOR WITH ARCH/INTERIORS)
⊗	DUAL LITE OR EQUAL	LE/LES SERIES	LED	ELECTRONIC	2.5W/FACE	120V	LED EDGE LIT EXIT SIGN WITH SELF-CONTAINED POWER PACK FOR 90MIN FUNCTION. NICAD BATTERY & RED LETTERS. (VERIFY LETTER COLOR WITH ARCH/INTERIORS) PROVIDE 2 AT EACH LOCATION. (ONE FOR LOW LEVEL EGRESS LIGHTING).
2	DUAL LITE OR EQUAL	EV4D-02WAL SERIES	2-1.8W LED	ELECTRONIC	10W	120V	WALL MOUNTED SELF CONTAINED EMERGENCY LIGHT POLYCARBONATE HOUSING WITH SELF-CONTAINED POWER PACK FOR 90MIN. OPERATION. (VERIFY COLOR WITH ARCH/INTERIORS)
7	DUAL LITE OR EQUAL	PG SERIES	TWO LAMPS INCLUDED		10W	120V	EXTERIOR EMERGENCY LIGHT WITH BATTERY BACKUP, TWO LAMPS AND UL WET LABEL, VERIFY FINISH. 90 MINUTE EMERGENCY BATTERY BACKUP (VERIFY COLOR WITH ARCH/INTERIORS)

FIXTURE NOTES:

- SUBSTITUTIONS MUST BE EQUAL IN CONSTRUCTION, FINISH, ENERGY USAGE AND PHOTOMETRY. ALL SUBSTITUTIONS SHALL BE SUBMITTED TO THE ENGINEER, WITH CUTSHEETS AND PHOTOMETRY. THE ENGINEER MUST RECEIVE THESE WITH TIME ALLOWED TO REVIEW AND ISSUE A WRITTEN APPROVAL BACK
- TO THE SUBMITTING PARTY TEN(10) DAYS PRIOR TO BID. SUBSTITUTE FIXTURES SHALL BE LISTED SEPARATELY AND UNIT PRICED AT TIME OF BID, SO THAT THE ENGINEER AND OWNER CAN MAKE AN INFORMED DECISION. NO SUBSTITUTIONS WILL BE CONSIDERED AFTER THE 10 DAY PRIOR BID PROCESS ENDED.
- 2. SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT FIXTURE LOCATIONS.
- 3. ALIGN ALL HORIZONTAL LUMINAIRES SO THAT THE LIGHT SOURCES ARE ALIGNED IN THE SAME DIRECTION.
- 4. SUSPEND ALL FOUR CORNERS WITH WIRE TO STRUCTURE. DO
- NOT ALLOW GRID ALONE TO SUPPORT FIXTURE. 5. WHERE FIXTURE IS INDICATED AS EMERGENCY PROVIDE AN
- 1100 LUMEN INVERTER BATTERY PACK.
- 6. FIXTURE FLANGES AND TRIMS SHALL MATCH CEILING TYPES.

VOLTAGE DROP SCHEDULE
O VOLT BRANCH CIRCUITS UP TO 8 AMPS

120 VOLT BRANCH CIRCUITS UP TO 8 AMPS						
RUN D	ISTANC	E IN FEET	WIRE SIZE AWG			
1'	_	120'	#12			
121'	-	190'	#10			
191'	-	300'	#8			
301'	-	470'	#6			

120 VOLT	BRANC	CH CIRCUITS 9 AMPS TO 14 AM	MPS
RUN DIST	TANCE I	N FEET	WIRE SIZE AWG
1'	-	65'	#12
66'	-	110'	#10
111'	-	170'	#8

171' - 270'

391' - 620'

277 VOL	_T BRAI	NCH CIRCUITS UP TO 14 AMPS	
RUN DIS	STANCE	IN FEET	WIRE SIZE AWG
1'	-	160'	#12
161'	-	250'	#10
251'	-	390'	#8

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

MECH/ELEC SCHEDULE					
<u>ITEM</u>	(WATTS) MCA	MOCP	<u>VOLTAGE</u>	DISCONNECT	
<u>EF-1</u>	(19.4)	-	120V,1Ø	S _M SWITCH W/LIGHTS	
<u>EF-2</u>	(54.4)	-	120V,1Ø	S _M SWITCH W/LIGHTS	
<u>RTU-1</u>	46.1	60	208V,3Ø	60/F60-3P-3R	
RTU-2	30.0	45	208V,3Ø	60/F45-3P-3R	
<u>RTU-3</u>	30.0	45	208V,3Ø	60/F45-3P-3R	
RTU-4	30.0	45	208V,3Ø	60/F45-3P-3R	
<u>DWH</u>	GAS	20	120V,1Ø	S _M	
NOTE:					

EC TO COORDINATE WITH MC AND PROVIDE ELECTRICAL CONNECTIONS AS REQUIRED FOR PER MANUFACTURES STAMPED DATA PLATES FOR A COMPLETE AND

OPERATIONAL MECHANICAL/ELECTRICAL SYSTEM.

NEW PANELBOARD SCHEDULE - 'A' AIC: 42,000 NOTES: AIC: 42,000 NOTES: 42,000 NOTES: 42,000 NOTES: 42,0	1 20	СКТ
COND WIRE TRIP SIZE SIZE SIZE DESCRIPTION LTG REC MTR A/C HTG KIT MISC BC MTR A/C HTG KIT MISC SIZE SI	1 20	CKT
TRIP	1 20	CKT
1	1 20	
1.0 1.0 1.0 1.0 1.2		
1		2
7 20	1 20	4
20	1 20	6
1 20 1 12 1/2" INTERIOR LIGHTING 0.7	1 20	8
3 20 1 12 1/2" EXTERIOR LIGHTING 0.5	1 20	10
5 20 1 12 1/2" EXTERIOR LIGHTING 0.1 1.1 RECEPTACLES 1/2" 12 7 20 1 12 1/2" SIGNAGE 1.2 0.7 RECEPTACLES 1/2" 12 9 - - 5.5 0.9 RECEPTACLES 1/2" 12 1 60 3 6 1" RTU-1 5.5 0.7 RECEPTACLES 1/2" 12 3 - - 5.5 0.7 RECEPTACLES 1/2" 12 5 - - 3.6 1.1 RECEPTACLES 1/2" 12 1 - 3.6 1.1 RECEPTACLES 1/2" 12 1 - 3.6 1.1 RECEPTACLES 1/2" 12 1 - 3.6 1.2 BAR COOLER * 1/2" 12 1 - 3.6 1.2 BAR COOLER * 1/2" 12 2 3.6 1.2 3.6 3.6 3 45 3 8 3/4" RTU-3 3.6 3.6 3	1 20	12
7 20 1 12 1/2" SIGNAGE 1.2	1 20	14
9	1 20	16
1 60 3 6 1" RTU-1 5.5	1 20	18
3	1 20	20
5	1 20	22
7 45 3 8 3/4" RTU-2 3.6 1.2 BAR COOLER * 1/2" 12 9 - 1.0 AUTO DOOR ~ 1/2" 12 12 13 45 3 8 3/4" RTU-3 3.6 1 1.2 SIGNAGE RECEPT 1/2" 12 12 12 12 12 12 12 12 12 12 12 12 12	1 20	24
7 45 3 8 3/4" RTU-2 3.6 1.2 BAR COOLER * 1/2" 12 9 - 1.0 AUTO DOOR ~ 1/2" 12 12 13 45 3 8 3/4" RTU-3 3.6 1 1.2 SIGNAGE RECEPT 1/2" 12 12 12 12 12 12 12 12 12 12 12 12 12	1 20	26
1	1 20	28
1	1 20	30
3 45 3 8 3/4" RTU-3 3.6 0.7 RECEPTACLES 1/2" 12	1 20	
	1 20	
	1 20	
7 - 3.6 0.5 RECEPTACLES 1/2" 12	1 20	
9 45 3 8 3/4" RTU-4 3.6 0.5 RECEPTACLES 1/2" 12	1 20	
3.6 SPACE	. 20	42
3 20 1 12 1/2" SMKE DUCT DETECT ~ 0.2 0.5 DWH/HWCP * 1/2" 12	1 20	
5 20 1 12 1/2" ROOFTOP RECEPTS 0.7 SPACE	. 20	46
7 SPACE SPACE SPACE		48
9 20 1 SPARE SPARE	1 20	
1 20 1 SPARE SPARE	1 20	
3 20 1 SPARE SPARE	1 20	10.00
S 20		76.8
ECEPTACLES (KVA): 9.9 DEMAND LOAD (KVA):		79.3
OTORS (KVA): 0.1 PHASE A 25 208.7		
C (KVA): 49.0 PHASE B 26 212.9 CONNECTED LOAD (AMPS):		213.3
EATING (KVA): 0.0 PHASE C 26 218.8 DEMAND LOAD (AMPS): TCHEN (KVA): 0.0 KVA AMPS		220.1
TCHEN (KVA): 0.0 KVA AMPS SCELLANEOUS (KVA): 8.1		
DTES: 1. DESIGN BASED ON SQUARE D EQUIPMENT. 2. * - INDICATES GFCI RATED BREAKER. 3. ~ - INDICATES BREAKER WITH A LOCK-ON DEVICE.		

CONTRACTOR TO PROVIDE GFCI RECEPTACLES IN LIEU OF GFI BREAKER WHERE GFCI RECEPTACLES ARE READILY ACCESSIBLE AT WIRING DEVICE OR GFCI BREAKERS ARE UNAVAILABLE.

PNL 'A'					,,,	
LIGHTING	9.73	KVAX	125	%	=	12.2 KVA
RECEPTACTOTAL	9.90	KVA				
1ST	10.00	KVAX	100	%	=	9.9 KVA
REMAIN	0.00	KVAX	50	%	=	0.0 KVA
MOTORS	0.10	KVAX	125	%	=	0.1 KV
A/C	49.00	KVAX	100	%	=	49.0 KVA
HEATING	0.00	KVAX	100	%	=	0.0 KVA
LOCKED-OUT LOAD		KVAX	100	%	=	0.0 KVA
KITCHEN	0.00	KVAX	65	%	=	0.0 KVA
MISCELLANEOUS	8.10	KVAX	100	%	=	8.1 KVA
TOTAL =	220 1	amps			_	79.3 KVA

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STATESVILLE I LLE, NC 28078 OLD RSVIL 16601 (HUNTER

PROJECT NO: DRAWN BY: 21167 MDR SCALE: ISSUE DATE: AS NOTED 10/01/2021

REVISIONS:

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SHEET NUMBER:

E3.