ELECTRICAL ABBREVIATIONS

A	AMPERES OR AMP METER
AC	ALTERNATING CURRENT
AF	AMP FRAME
AFC	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AMPERE INTERRUPTING CAPACITY
ALT	ALTERNATE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ARCH	ARCHITECTURAL
AT	AMP TRIP
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAGE
BFC	BELOW FINISHED CEILING
BFG	BELOW FINISHED GRADE
C	CELSIUS; COIL
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION SYSTEM
CD/Cd	CANDELA
CLG	CEILING
COAX	COAXIAL CABLE
CONTR	CONTRACTOR
CT	CURRENT TRANSFORMER
CTV	CABLE TELEVISION
CU	COPPER
DWG	DRAWING
EC	ELECTRICAL CONTRACTOR
ECB	ENCLOSED CIRCUIT BREAKER
EF	EXHAUST FAN
EGC	EQUIPMENT GROUNDING CONDUCTOR
ELEC	ELECTRICAL
EM	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
EPO	EMERGENCY POWER OFF
ETR	EXISTNG TO REMAIN
EWC	ELECTRIC WATER COOLER
FACP	FIRE ALARM CONTROL PANEL
FATC	FIRE ALARM TERMINATION CABINET
FFE	FINISHED FLOOR ELEVATION
FL	FLOOR
FLA	FULL LOAD AMPS
FLC	FLEXIBLE LIQUIDTIGHT CONDUIT
FLEX	FLEXIBLE
FMC	FLEXIBLE METAL CONDUIT
FT	FEET; FOOT
FU	FUSE
GA	GAUGE; GAGE
GB	GROUND BUS
GC	GENERAL CONTRACTOR
GEC	GROUNDING ELECTRODE CONDUCTOR
GFI, GFCI	GROUND FAULT (CIRCUIT) INTERRUPTER
GND	GROUND
HD	HEAVY DUTY
HOA	HANDS-OFF-AUTOMATIC
HP	HORSEPOWER
HVAC	HEATING, VENTILATING & AIR CONDITIONING
HZ	HERTZ
IG	ISOLATED GROUND
IMC	INTERMEDIATE METAL CONDUIT
JB	JUNCTION BOX
KV	KILOVOLT
KVA	KILOVOLT AMPERE
KW	KILOWATT
KWH	KILOWATT HOUR
LED	LIGHT EMMITING DIODE
LRA	LOCKED ROTOR AMPS
LS	LIFE SAFETY
LTG	LIGHTING
M	MOTOR; METERING
MC	METAL CLAD
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CONTROL PROTECTOR
MCS	MOLDED CASE SWITCH
MH	MANHOLE
MIN	MINIMUM
MLO	MAIN LUG ONLY
N, NEU	NEUTRAL
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NF	NON-FUSED
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NO	NORMALLY OPEN; NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
OC	ON CENTER
OL	OVERLOAD
P	POLE
PB	PULL BOX
PC	PHOTOCELL
PF	POWER FACTOR
PH	PHASE
PNL	PANEL
PT	POINT; POTENTIAL TRANSFORMER
PUN	PER UNIT NAMEPLATE
PVC	POLYVINYL CHLORIDE (CONDUIT)
RD	ROUND

ELECTRICAL ABBREVIATIONS

REV	REVISION
RLA	RATED LOAD AMPS
RMC	RIDGID METAL CONDUIT
SN	SOLID NEUTRAL
SNAC	SIGNAL NOTIFICATION APPLIANCE CIRCUIT
SP	SURGE PROTECTED
SPD	SURGE PROTECTED DEVICE
SPDT	SINGLE POLE DOUBLE THROW
SPEC	SPECIFICATION
SPST	SINGLE POLE SINGLE THROW
SQ	SQUARE
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
TBB	TELEPHONE BACK BOARD
TELEC OM	TELECOMMUNICATIONS
TEMP	TEMPERATURE
THD	TOTAL HARMONIC DISTORTION
TV	TELEVISION
TYP	TYPICAL
UL	UNDERWRITERS LABORATORIES INC.
UNO	UNLESS NOTED OTHERWISE
V	VOLTAGE; VOLT
VAC	VOLTS ALTERNATING CURRENT
VDC	VOLTS DIRECT CURRENT
VFD	VARIABLE FREQUENCY DRIVE
VOL	VOLUME
W	WIRE
W/	WITH
WG	WIREGUARD
WP	WEATHERPROOF
XFMR	TRANSFORMER
XP	EXPLOSION PROOF
Z	IMPEDANCE
ø	ROUND; DIAMETER; PHASE

ELECTRICAL SYMBOLS

- WALL MTD LIGHTING FIXTURE AND OUTLET
- PENDANT LIGHTING FIXTURE AND OUTLET
- DOWNLIGHT LIGHTING FIXTURE AND OUTLET
- WALL MTD LIGHTING FIXTURE AND OUTLET
- PENDENT MOUNTED STRIP FIXTURE
- CEILING MTD LIGHTING FIXTURE AND OUTLET
- WALL MTD EXIT SIGN AND OUTLET, SINGLE FACE. ARROW INDICATES DIRECTION.
- CEILING MTD EXIT SIGN AND OUTLET, DUAL FACE. ARROWS INDICATE DIRECTION.
- EMERGENCY LIGHT BATTERY PACK - TWO HEAD UNIT.
- CEILING MOUNTED EMERGENCY BATTERY LIGHT
- EMERGENCY LIGHT REMOTE HEAD
- GROUND MOUNTED FLOODLIGHT AND OUTLET
- AREA LUMINAIR AND STANDARD
- FLUSH MTD TOGGLE SWITCH, SPST, 20A, 120/277V
- FLUSH MTD TOGGLE SWITCH, DPST, 20A, 120/277V
- FLUSH MTD 3-WAY TOGGLE SWITCH, 20A, 120/277V
- FLUSH MTD 4-WAY TOGGLE SWITCH, 20A, 120/277V
- FLUSH MTD DIMMER SWITCH, 20A, 120/277V
- FLUSH MTD KEY SWITCH, 20A, 120/277V
- FLUSH MOUNTED OCCUPANCY SENSOR SWITCH, 20A, 120/277V
- FLUSH MTD LIGHTED HANDLE TOGGLE SWITCH, SPST, 20A, 120V, LIGHT ON WITH OPEN SWITCH
- FLUSH MTD TOGGLE SWITCH WITH PILOT LIGHT. LIGHT ON WITH CLOSED SWITCH.
- TIMED SWITCH
- CEILING MTD DUAL TECHNOLOGY (IR, U) OCCUPANCY SENSOR SWITCH
- PHOTOCELL
- FLUSH MTD DUPLEX RECEPTACLE, 20A, 125V, 3W
- FLUSH MTD DUPLEX GFCI RECEPTACLE, 20A, 125V, 3W
- FLUSH MTD DUPLEX RECEPTACLE WITH DUPLEX USB OUTLETS, 20A, 125V, 3W
- FLUSH MTD SINGLE RECEPTACLE, 20A, 125V, 3W
- FLUSH MTD QUADRUPLEX RECEPTACLE, 20A, 125V, 3W
- FLUSH MTD DUPLEX RECEPTACLE, 20A, 125V, 3W, SPLIT WIRED WITH TOP OUTLET SWITCHED.
- FLUSH MTD DUPLEX RECEPTACLE, 20A, 125V, 3W, INSTALLED VERTICALLY 4" ABOVE BACKSPLASH OR COUNTERTOP IF NO BACKSPLASH EXISTS.
- FLUSH MTD QUADRUPLEX RECEPTACLE, 20A, 125V, 3W, INSTALLED VERTICALLY 4" ABOVE BACKSPLASH OR COUNTERTOP IF NO BACKSPLASH EXISTS.
- WALL MOUNTED POWER DEVICE
- FLOOR BOX WITH DEVICE(S). REFER TO SCHEDULES FOR MARK
- WALL MTD TELECOM OUTLET, REFER TO SCHEDULES FOR MARK
- CEILING MTD RECEPTACLE AND OUTLET, 20A, 125V
- CEILING MTD TELECOM OUTLET, REFER TO SCHEDULES FOR MARK
- CEILING MTD DUPLEX RECEPTACLE & TELECOM OUTLET, REFER TO SCHEDULES FOR MARK
- CEILING MTD PUBLIC ADDRESS SPEAKER
- FLUSH MTD VOLUME CONTROL FOR SPEAKER
- WALL MTD TELEVISION ANTENNA/ELECTRICAL OUTLET, REFER TO SCHEDULES FOR MARK
- (WIFI) WIRELESS ACCESS POINT.
- PANELBOARD, 250V LEVEL
- PANELBOARD, 600V LEVEL
- HOMERUN; ARROW HEADS INDICATE NUMBER OF CIRCUITS, LETTERS AND NUMBERS DESIGNATE PANEL AND CIRCUITS. SHORT TICK MARKS INDICATE NUMBER OF CURRENT CARRYING PHASE CONDUCTORS. LONG TICK MARK(S) INDICATE NEUTRAL(S). GROUNDING CONDUCTORS REQUIRED BY SPECIFICATIONS ARE NOT SHOWN. CONDUCTOR SIZES SPECIFIED ON THE PANEL SCHEDULES ARE MANDATORY FOR THE ENTIRE CIRCUIT EXCEPT WHERE SPECIFICATIONS REQUIRE A SIZE INCREASE FOR VOLTAGE DROP.
- SURFACE METAL RACEWAY WITH DEVICES, LETTER DESIGNATES TYPE
- PENDANT MTD, PLUG-IN BUS DUCT WITH PLUG-IN CIRCUIT BREAKER OR FUSIBLE SWITCH AND TAP BOX. DUCT AND SWITCH RATING AS NOTED.
- TOP # - DEVICE MAXIMUM RATING OR FRAME SIZE
  BOTTOM # - FUSE SIZE OR DEVICE SETTING
- DISCONNECT SWITCH.
- COMBINATION DISCONNECT SWITCH AND MAGNETIC MOTOR STARTER. SEE SCHEDULE OR NOTE.
- FLUSH MTD MANUAL MOTOR STARTER SWITCH WITHOUT OVERLOAD HEATERS
- MAGNETIC MOTOR STARTER
- 3 POLE CIRCUIT BREAKER IN ENCLOSURE. # INDICATES CB RATING.
- VARIABLE FREQUENCY DRIVE CONTROLLER, 40' AFF, PROVIDED BY HVAC OR PLUMBING CONTRACTOR AND WIRED BY ELECTRICAL CONTRACTOR
- MAGNETIC CONTACTOR, SIZE PER SCHEDULE
- JUNCTION, PULL, TAP OR OUTLET BOX (CODE SIZE)
- TIME CLOCK
- MAGNETIC RELAY, SIZE PER SCHEDULE

- FLUSH MOUNTED MUSHROOM HEAD PUSH BUTTON
- FLUSH MOUNTED PUSH BUTTON
- SUPPLEMENTAL GROUND BAR
- GROUND PER NEC
- ELECTRICAL DEMAND METER
- SURGE PROTECTION DEVICE
- WALL MTD FIRE ALARM PULL STATION
- SMOKE DETECTOR, CEILING MTD
- SMOKE DETECTOR FOR ELEVATOR RECALL, CEILING MTD
- SMOKE DETECTOR WITH SOUNDER BASE, CEILING MTD
- SMOKE DETECTOR, CEILING MTD, MULTI SENSOR
- CEILING MTD REMOTE ALARM INDICATOR LAMP
- CARBON MONOXIDE DETECTOR
- SMOKE DETECTOR, DUCT MTD (WITH RAIL)
- HEAT DETECTOR, CEILING MTD
- SMOKE DETECTOR, WALL MTD
- SMOKE DETECTOR WITH SOUNDER BASE, WALL MTD
- WALL MTD HEAT DETECTOR
- WALL MTD REMOTE ALARM INDICATOR LAMP (RAIL)
- WALL MTD HORN TYPE AUDIO/VISUAL APPLIANCE
- WALL MTD SPEAKER TYPE AUDIO/VISUAL APPLIANCE
- WALL MTD CHIME TYPE AUDIO/VISUAL APPLIANCE
- WALL MTD VISUAL ALARM APPLIANCE
- CEILING MTD HORN TYPE AUDIO/VISUAL ALARM APPLIANCE
- CEILING MTD SPEAKER TYPE AUDIO/VISUAL ALARM APPLIANCE
- CEILING MTD CHIME TYPE AUDIO/VISUAL ALARM APPLIANCE
- CEILING MTD FIRE ALARM VISUAL DEVICE
- DOOR HOLDER
- FIRE ALARM MONITOR MODULE
- FLOW SWITCH FIRE ALARM CONNECTION, SWITCH PROVIDED BY OTHERS
- TAMPER SWITCH FIRE ALARM CONNECTION, SWITCH PROVIDED BY OTHERS
- POST INDICATOR VALVE FIRE ALARM CONNECTION, VALVE PROVIDED BY OTHERS
- FIRE ALARM TEMPERATURE SENSOR
- FIRE ALARM CONTROL MODULE OR RELAY
- CEILING MTD FIRE ALARM SPEAKER
- CLOCK
- FIRE ALARM BELL; # INDICATED DIAMETER IN INCHES
- LINEAR BEAM TRANSMITTER
- LINEAR BEAM RECEIVER
- FIRE ALARM WALL MTD SPEAKER
- FIREMAN'S 2-WAY TELEPHONE
- FIRE ALARM ISOLATION MODULE
- FIRE ALARM ASPIRATION SMOKE DETECTOR
- DIGITAL ALARM COMMUNICATIONS TRANSMITTER
- FIRE ALARM ANNUNCIATOR PANEL
- FIRE ALARM CONTROL PANEL
- FIRE ALARM TERMINAL CABINET
- SUPPLEMENTAL NOTIFICATION APPLIANCE CABINET
- DOOR CONTROL ID TAG
- SECURITY SYSTEM KEYPAD, 42" AFF
- ACCESS CONTROL CARD READER
- SECURITY PANIC BUTTON
- CCTV SECURITY CAMERA WITH FIXED MOUNT
- CCTV SECURITY CAMERA WITH PTZ FEATURES
- CCTV DOME SECURITY CAMERA WITH 360 FEATURES
- EMERGENCY TELEPHONE
- MASTER RESCUE ASSISTANCE STATION
- RESCUE ASSISTANCE STATION
- RESCUE ASSISTANCE LIGHT
- CORD REEL
- NEW WORK
- EXISTING TO REMAIN
- EXISTING TO BE DEMOLISHED

ELECTRICAL GENERAL NOTES

1. ALL SYMBOLS AND ABBREVIATIONS MAY NOT BE UTILIZED FOR THIS PROJECT.
2. SYMBOLS NOT SHOWN ON THIS ELECTRICAL SYMBOL LEGEND ARE IDENTIFIED ON THE DRAWINGS WHERE THEY OCCUR.
3. UNLESS OTHERWISE INDICATED IN THE SPECIFICATIONS OR ON THE DRAWINGS, MOUNTING HEIGHT OF DEVICES IS TO BE THE CENTERLINE OF THE DEVICE.
4. UNLESS OTHERWISE INDICATED, SWITCHES AND SIMILAR DEVICES ARE TO BE LOCATED 42" AFF; RECEPTACLES ARE TO BE VERTICALLY MOUNTED AT 18" AFF WITH THE GROUNDING TERMINAL ON THE BOTTOM.
5. TELEPHONE & DATA OUTLETS ARE TO BE MOUNTED AT 18" AFF UNLESS OTHERWISEINDICATED. "W" INDICATES MOUNTING AT 42" AFF; "C" INDICATES MOUNTING ABOVECOUNTERTOP WITH ALIGNMENT AND HEIGHT AS INDICATED FOR RECEPTACLES SIMILARLY MOUNTED.
6. FIRE ALARM PULL STATIONS ARE TO BE VERTICALLY MOUNTED AT 42" AFF.
7. FIRE ALARM INDICATING APPLIANCES SHALL BE 15 Cd RATING, UNLESS NOTED OTHERWISE ON THE PLANS.
8. FIRE ALARM INDICATING APPLIANCES ARE TO BE MOUNTED WITH THE LOWER EDGE OF THE VISUAL ELEMENT AT 6'-8" AFF OR 6" BFC, WHICHEVER IS LOWER. WHERE DUCTWORK, CONDUIT, OR OTHER OBSTRUCTIONS BLOCK DIRECT VIEW OF APPLIANCE, MOUNT 6" BELOW SUCH OBSTRUCTIONS.
9. CEILING MOUNTED SMOKE DETECTORS ARE SHOWN IN APPROXIMATE LOCATION. COORDINATE EXACT LOCATION WITH CEILING FEATURES. WALL MOUNTED SMOKE DETECTORS ARE TO BE MOUNTED 10" BELOW FINISHED CEILING TO THE CENTER OF DEVICE AND A MINIMUM OF 12" FROM ADJACENT WALLS OR OTHER OBSTRUCTIONS.
10. COORDINATE SMOKE DETECTOR AND HEAT DETECTOR LOCATIONS WITH HVAC SUPPLY AND RETURN GRILLES. MAINTAIN 3'-0" CLEARANCE BETWEEN EDGE OF SUPPLY GRILL AND EDGE OF SMOKE DETECTOR.
11. UPPER CASE LETTER (OR LETTER/NUMBER COMBINATION) ADJACENT TO FIXTURE OR SWITCH DESIGNATES TYPE. SEE FIXTURE SCHEDULE FOR DETAILS.
12. LOWER CASE LETTER ADJACENT TO FIXTURE OR SWITCH DESIGNATES CONTROL RELATIONSHIP.
13. NUMBER ADJACENT TO FIXTURE, SWITCH, OR RECEPTACLE DESIGNATES CIRCUIT CONNECTION.
14. SINGLE DIAGONAL LINE ACROSS A FIXTURE INDICATES FIXTURE IS UNSWITCHED FOR 24 HOUR OPERATION.

ELECTRICAL DRAWING LIST

GENERAL SYMBOLS

- PLAN OR DETAIL NUMBER / SHEET NUMBER
- ELEVATION LETTER / SHOWN ON SHEET NUMBER
- SECTION NUMBER / SHOWN ON SHEET NUMBER
- DIMENSION LINE
- DETAIL NUMBER WITH SHEET NO.
- COLUMN NUMBER OR LETTER
- DRAWING REVISION NUMBER
- KEYED NOTE NUMBER
- CONNECT TO EXISTING
- REMOVE TO THIS POINT
- NORTH ARROW

ELECTRICAL CIRCUITING KEY

- X-#,#,# — AREA DEVICE HOMERUN WHERE INDICATED
- X-# — LOCAL DEVICE CIRCUIT DESIGNATION
- DEVICE AS INDICATED
- X-#,#,# — AREA LIGHTING HOMERUN WHERE INDICATED
- X-# — LOCAL LIGHTING CIRCUIT DESIGNATION, PER SWITCHING GROUP
- S — SWITCH TYPE AS INDICATED
- Y — DESIGNATION INDICATES TYPE OF LUMINAIRE
- SWITCHLEG BETWEEN LUMINAIRES
- X-# — EXIT LIGHT FIXTURE CIRCUIT DESIGNATION (UNSWITCHED)
- X-# / X-# — EMERGENCY LIGHT FIXTURE CIRCUIT DESIGNATION (UNSWITCHED)

HH
ARCHITECTURE
1100 Flower Court
Raleigh, NC 27609
Office 919.828.2301
Email office@hh-arch.com

Salas O'Brien
Salas O'Brien
North Carolina, Inc.
702 Oberlin Road, Suite 300
Raleigh, NC 27605
919-832-8118
salasobrien.com
license (NC): F-1434

NCMA - EAST BUILDING AND MUSEUM PARK IMPROVEMENTS
NC DEPARTMENT OF NATURAL AND CULTURAL RESOURCES
2110 BLUE RIDGE ROAD, RALEIGH, NC 27607
SCO PROJECT #22-25283-02A

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 039503 MATTHEW J. JOHNSON
06/30/2025

NO.	REVISION	DATE
1		

JOB NUMBER **22-028**
DATE ISSUED **07/03/25**
PROJECT STATUS **ISSUED FOR BID**
SHEET **STANDARDS, SYMBOLS & ABBREVIATIONS**

E001

1 E002 **ELECTRICAL SITE PLAN**
SCALE: 1" = 40'-0"
40' 20' 0 40' 80'

EXISTING UNDERGROUND UTILITIES WARNING

THE CONTRACTOR IS SOLELY RESPONSIBLE FOR LOCATING, PROTECTING, AND COORDINATING WITH OR ROUTING AROUND ALL EXISTING UTILITIES. LOCATIONS SHOWN ON THE EXISTING SITE PLAN ARE APPROXIMATE. BASED ON INFORMATION FROM PREVIOUS PROJECT DOCUMENTATION, AND SHOULD NOT BE CONSIDERED COMPLETE OR ACCURATE. THE CONTRACTOR MUST PROVIDE ALL NECESSARY LOCATING SERVICES PRIOR TO EXCAVATION. THE USE OF CURRENT TECHNOLOGY, EXPLORATORY EXCAVATION, AND SIGNIFICANT HAND EXCAVATION IS EXPECTED AND REQUIRED. ANY UNDERGROUND ITEMS DAMAGED BY THE CONTRACTOR MUST BE IMMEDIATELY REPAIRED AT THE CONTRACTOR'S EXPENSE.

SO DETAIL: IN0014

GENERAL NOTES TO E002

1 REFERENCE DRAWING AS100 FOR SITE LIGHTING LAYOUT AND LOCATION. SEE SHEETS LT00.1 THROUGH LT-05 FOR LIGHTING SCHEDULES AND DETAILS.

KEY NOTES TO E002

1 CAMERA PROVIDED BY OWNER TO BE ATTACHED TO POLE. ROUTE FIBER FROM AMPHITHEATER TO POLE LOCATION. COORDINATE TERMINATION WITH CAMERA MANUFACTURER. ISOLATE LOW VOLTAGE CABLES FROM LINE VOLTAGE CONDUCTORS WHERE ROUTED TOGETHER THROUGH POLE.

2 PAVILION FEEDER TO PENETRATE EXTERIOR WALL OF MUSEUM MECHANICAL ROOM. PROVIDE A THERMAL SEAL AS REQUIRED BY NEC 300.7(A). COORDINATE WITH EXISTING LOUVER LOCATION. CONTINUE PAVILION FEEDER THROUGH LOWER LEVEL MECHANICAL ROOM TO TERMINATION POINT AT PANEL NM2. REFER TO DRAWING ON E101.

3 PROVIDE UNDERGROUND RACEWAY FOR PAVILION FEEDER TO PH1 IN PAVILION ELECTRICAL ROOM. REFER TO DETAIL ON E302. COORDINATE EXISTING AND NEW UTILITY LOCATIONS WITH CIVIL DRAWINGS.

4 PROVIDE RECEPTACLE WITH LOCKABLE IN USE WEATHERPROOF COVER.

5 RECOMMENDED PATHWAY FOR UNDERGROUND RACEWAYS ENTERING AMPHITHEATER RESTROOM BUILDING ELECTRICAL ROOM.

6 DO NOT DISTURB EXISTING GROUND GRAPHICS. ROUTE UNDERGROUND RACEWAYS AS REQUIRED TO AVOID AREA.

7 EXISTING LIGHT FIXTURE TO BE DEMOLISHED IN THIS AREA. SEE ARCHITECTURAL PLAN FOR SPECIFIC LOCATION.

HH ARCHITECTURE
1100 Dresser Court
Raleigh, NC 27609
Office 919.828.2301
Email office@hh-arch.com

Salas O'Brien
Salas O'Brien
North Carolina, Inc.
702 Oberlin Road, Suite 300
Raleigh, NC 27605
919-832-8118
salasobrien.com
license (NC): F-1434

NCMA - EAST BUILDING AND MUSEUM PARK IMPROVEMENTS

NC DEPARTMENT OF NATURAL AND CULTURAL RESOURCES
2110 BLUE RIDGE ROAD, RALEIGH, NC 27607

SCO PROJECT #22-25283-02A

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 039503 MATTHEW J. JOHNSTON
06/30/2025

NO.	REVISION	DATE

JOB NUMBER **22-028**

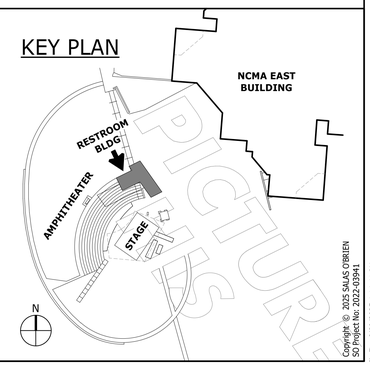
DATE ISSUED **07/03/25**

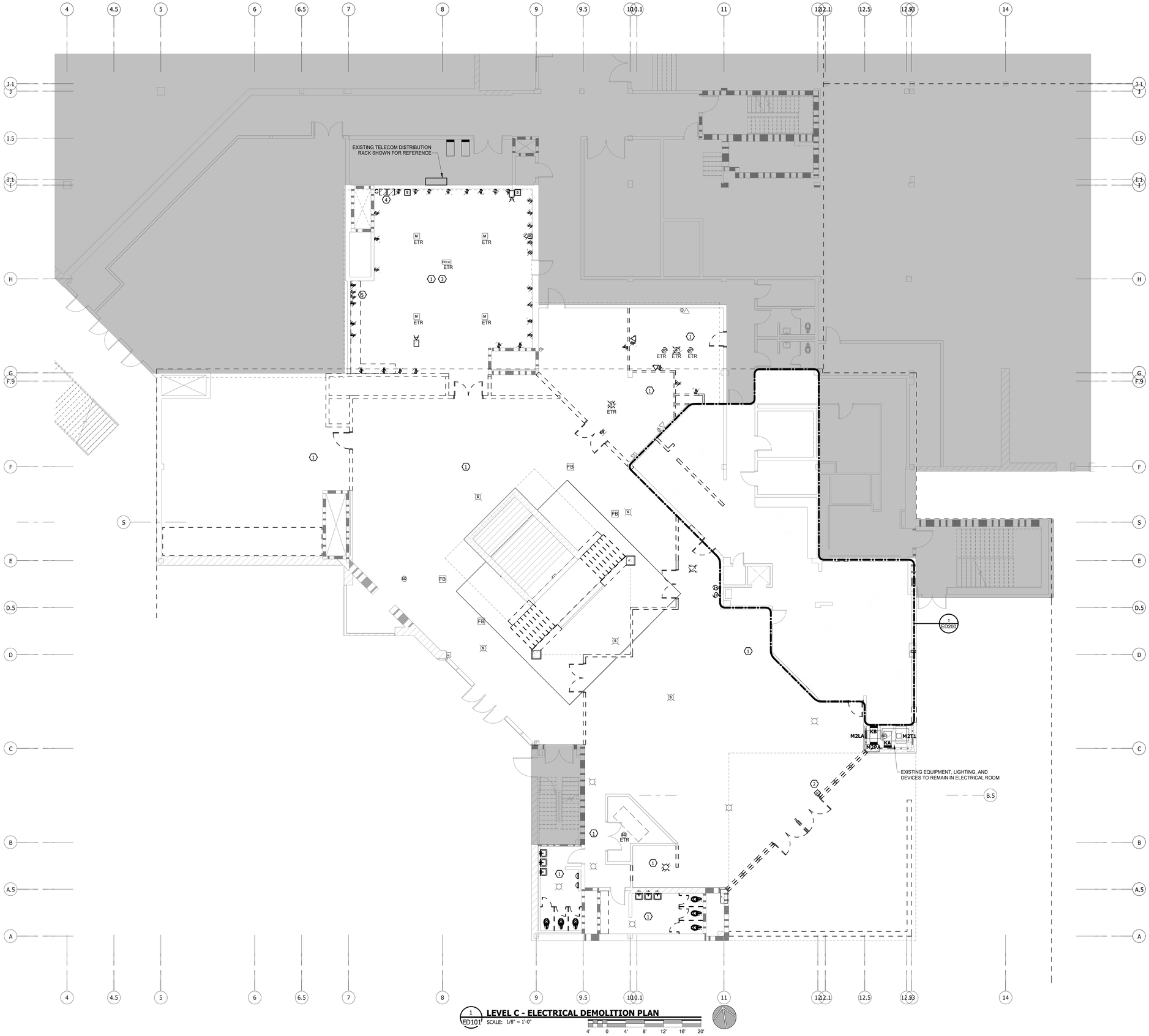
PROJECT STATUS **ISSUED FOR BID**

SHEET **ELECTRICAL SITE PLAN**

E002

KEY PLAN





1 ED101 **LEVEL C - ELECTRICAL DEMOLITION PLAN**
SCALE: 1/8" = 1'-0"
4' 0 4' 8' 12' 16' 20'

KEY NOTES TO ED101

1 EXISTING LIGHTING IN THIS SPACE TO BE DEMOLISHED. EXISTING CIRCUIT AND TO REMAIN, MAKE READY FOR RECONNECTION.

2 RELOCATE EXSITING FIRE ALARM PULL STATION TO NEW WALL SHOWN ON NEW WORK PLAN.

3 DEMOLISH EXISTING DUAL SECTION SURFACE MOUNTED RACEWAY AND DEVICES ON WALLS IN THIS ROOM. IDENTIFY EXISTING BRANCH CIRCUITS AND LEAVE FOR INSTALLATION TO NEW OUTLETS WITHIN NEW WALL FRAMING. REMOVE EXISTING LIGHT FIXTURES AND CONTROLS. REMOVE EXISTING DATA CABLES AND DEVICES.

4 LOCATION OF EXISTING AUDIO VISUAL CONTROLS EQUIPMENT AND CABLE CONNECTIONS. MEET WITH OWNER'S AUDIO VISUAL REPRESENTATIVE PRIOR TO DEMOLITION TO COORDINATE DEMOLITION AND RECONNECTION OF AV CONSOLE.

5 DEMOLISH EXISTING RECEPTACLES FOR BELOW COUNTER REFRIGERATORS. EXISTING CIRCUIT TO REMAIN, MAKE READY FOR RECONNECTION TO NEW RECEPTACLES. REPLACE CIRCUIT BREAKER WITH NEW GFI BREAKER.

ELECTRICAL DEMOLITION NOTES

(ER) EXISTING ELECTRICAL ITEM TO REMAIN. REFEED FROM EXISTING CIRCUITING IF DEMOLITION IN ADJACENT AREAS DISCONNECT EXISTING CIRCUITING.

(R) EXISTING ELECTRICAL ITEM TO BE REMOVED INCLUDING ALL WIRING, CONDUIT AND ASSOCIATED ELECTRICAL ITEMS.

1 ALL DEMOLITION WORK IS TO BE COORDINATED WITH PHASING OF CONSTRUCTION AND BID ALTERNATES AS OUTLINED ON ARCHITECTURAL SHEETS.

2 REMOVE ALL ELECTRICAL CONDUIT, CABLE, WIRING, DEVICES, JUNCTION BOXES, FITTINGS, AND RELATED ITEMS FROM ALL WALLS, CEILINGS, FLOORS, AND/OR PORTIONS OF SAME INDICATED AS BEING DEMOLISHED BY ANY DIVISION OF THE CONTRACT DOCUMENT SET OR INDICATED ELSEWHERE IN THE CONTRACT DOCUMENT SET AS REQUIRING ELECTRICAL DEMOLITION.

3 REMOVE ALL LIGHTING FIXTURES AND RELATED ITEMS FROM THE DEMOLITION AREA OR OTHER AREAS WHERE NEW LIGHTING FIXTURES ARE TO BE INSTALLED. EXISTING CONDUIT OR CABLE SERVING ITEMS OUTSIDE THE DEMOLITION AREA MAY REMAIN IF THEY ARE CONCEALED BY THE NEW CONSTRUCTION AND MEET THE SPECIFICATIONS REQUIREMENTS OF THE PRESENT PROJECT. NEW FIXTURES ARE TO BE SUPPLIED BY NEW (OR REUSED) CIRCUITS AS INDICATED.

4 EXTEND OR RELOCATE ALL EXISTING CIRCUITS AND RELATED ITEMS SERVING EXISTING UTILIZATION OR OTHER EQUIPMENT WHERE SUCH CIRCUITS OR ITEMS ARE DISRUPTED DUE TO DEMOLITION ACTIVITIES OF ANY DIVISION OF THIS PROJECT. RELOCATE ALL EXISTING JUNCTION BOXES OR SIMILAR ITEMS THAT WILL BE RENDERED INACCESSIBLE BY NEW CONSTRUCTION FURNISHED UNDER ANY DIVISION OF THIS PROJECT. PROVIDE ANY AND ALL TEMPORARY ELECTRICAL SUPPLY (SUPPLIES) AS NEEDED TO MEET THIS REQUIREMENT.

5 REMOVE ALL ABANDONED CIRCUITS BACK TO THE POINT OF SUPPLY OR BACK TO THE POINT WHERE OTHER REMAINING LOADS ARE CONNECTED. LABEL ANY UNUSED OVERCURRENT DEVICES AS "SPARE".

6 WHERE EQUIPMENT OR DEVICES ARE REMOVED AND NOT REPLACED BY A SIMILAR ITEM OR EQUIPMENT, REPAIR WALL SURFACES TO MATCH EXISTING SURROUNDING SURFACE. PAINT AS REQUIRED TO MATCH EXISTING FINISHES.

7 PROVIDE NEW SUPPORT(S) OR RE-SUPPORT AS REQUIRED ALL EXISTING CONDUIT, JUNCTION BOXES, CABLES, AND/OR OTHER ELECTRICAL ITEMS AS REQUIRED TO MEET THE SUPPORT REQUIREMENTS OF THE PRESENT PROJECT.

8 PROVIDE NEW, OR REWORK EXISTING, FIRE STOPPING AT ALL THROUGH-PENETRATIONS OF CONDUIT OR OTHER ELECTRICAL ITEMS THAT WILL REMAIN AT THE CONCLUSION OF THE PROJECT. FIRE STOPPING PROVIDED FOR EXISTING ITEMS MUST MEET THE REQUIREMENTS OF THE PRESENT PROJECT.

9 WHERE EXISTING FIXTURES ARE TO BE REUSED, USE MILD DETERGENT AND CLEAN ALL INTERIOR AND EXTERIOR SURFACES. REPLACE LAMPS AND BALLASTS AND ANY MISSING OR BROKEN ELECTRICAL PARTS. ALL FLUORESCENT LAMPS ARE TO BE COOL WHITE.

10 PROVIDE TEMPORARY WIRING AND CONNECTIONS TO MAINTAIN EXISTING SYSTEMS IN SERVICE DURING ALL PHASES OF CONSTRUCTION.

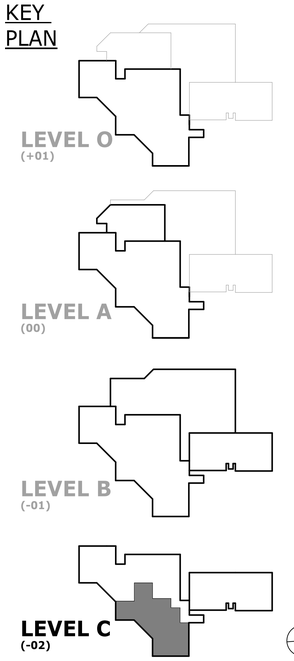
11 CIRCUIT NUMBERING IN PARENTHESIS ( ) ARE BASED ON PREVIOUS PROJECT DOCUMENTATION ARE PROVIDED IN GOOD FAITH AND ARE BELIEVED TO BE ACCURATE. CONTRACTOR IS TO VERIFY EXISTING CIRCUITING AND CONSULT ENGINEER IF SERIOUS DISCREPENSIES EXIST.

PLAN LEGEND

2-HOUR RATED FIRE BARRIER

AREA NOT IN SCOPE

KEY PLAN



HH
ARCHITECTURE
1100 Dresser Court
Raleigh, NC 27609
Office 919.828.2301
Email office@hh-arch-arch.com

Salas O'Brien
Salas O'Brien
North Carolina, Inc.
702 Oberlin Road, Suite 300
Raleigh, NC 27605
919-832-8118
salasobrien.com
license (NC): F-1434

NCMA - EAST BUILDING AND MUSEUM PARK IMPROVEMENTS

NC DEPARTMENT OF NATURAL AND CULTURAL RESOURCES
2110 BLUE RIDGE ROAD, RALEIGH, NC 27607

SCO PROJECT #22-25283-02A

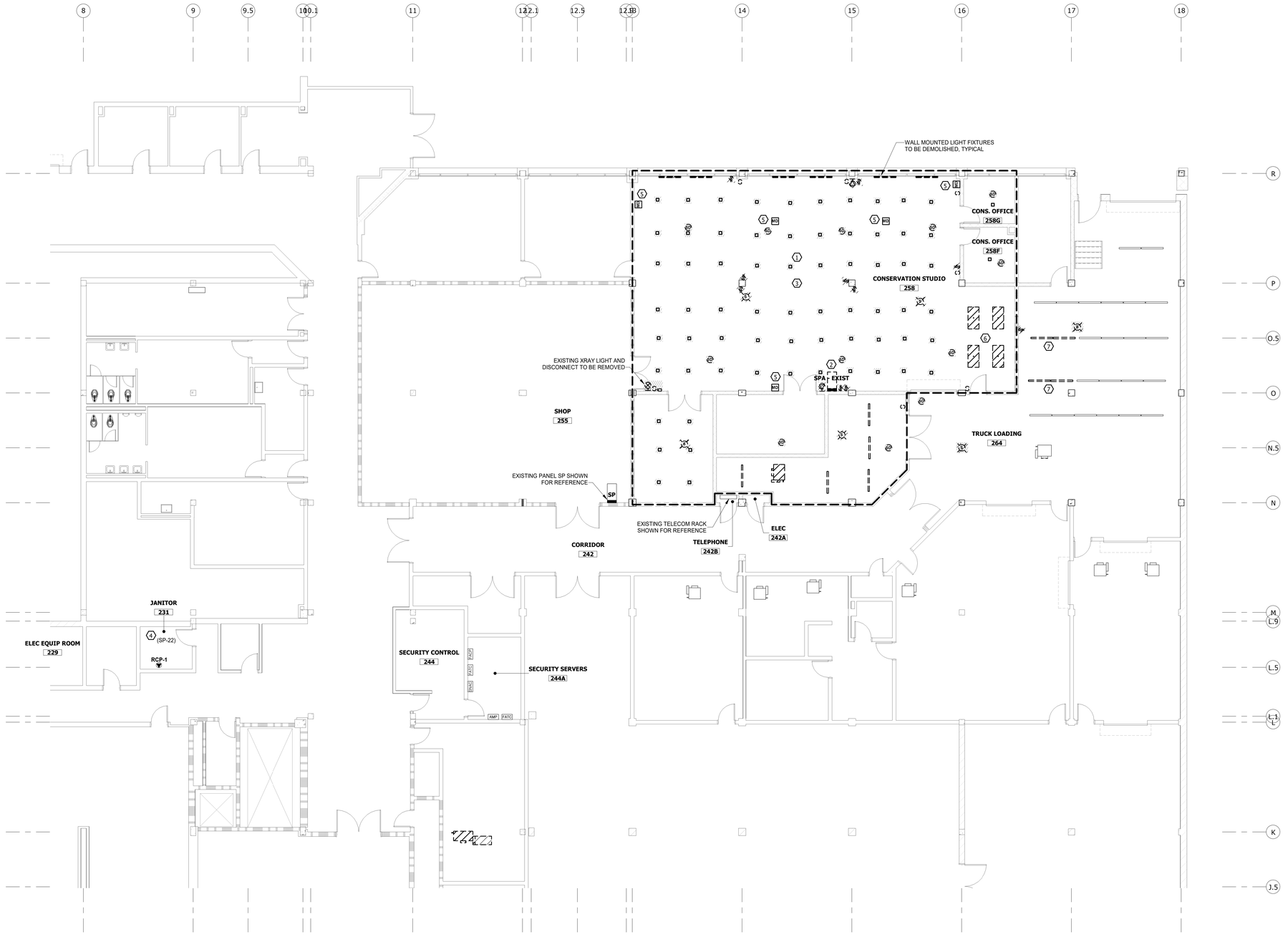
NORTH CAROLINA PROFESSIONAL SEAL 039503 ENGINEER MATTHEW J JOHNSTON
06/30/2025

NO.	REVISION	DATE

JOB NUMBER **22-028**
DATE ISSUED **07/03/25**
PROJECT STATUS **ISSUED FOR BID**
SHEET **LEVEL C - ELECTRICAL DEMOLITION PLAN**

ED101

Plot Time:6/30/2025 4:09:03 PM



1 ED102 **LEVEL B - CONSERVATION - ELECTRICAL DEMOLITION**
SCALE: 1/8" = 1'-0"

4' 0 4' 8' 12' 16' 20'

KEY NOTES TO ED102

1 REMOVE ALL EXISTING RECEPTACLES, LIGHT FIXTURES, LIGHTING CONTROL DEVICES, TELECOM DEVICES, AND FIRE ALARM DEVICES WITHIN THE DASHED LINE SHOWN ON THE DRAWING AND DISPOSE OFFSITE. DEMOLISH ALL ASSOCIATED CONDUIT AND CONDUCTORS UNLESS NOTED OTHERWISE. IDENTIFY DEMOLISHED CIRCUITS AND REMOVE BACK TO SOURCE.

2 DEMOLISH EXISTING PANEL SPA AND ASSOCIATED BRANCH CIRCUITS. REMOVE FEEDER BACK TO PANEL SP. EXISTING CIRCUIT BREAKER IN PANEL SP TO REMAIN.

3 LIGHTING CIRCUITS MILE-2-4, AND EMIL-27 TO REMAIN. DISCONNECT FROM DEMOLISHED LIGHT FIXTURES AND MAKE READY FOR FUTURE CONNECTION.

4 EXISTING WATER HEATER TO BE DEMOLISHED. DISCONNECT EXISTING CIRCUIT AND MAKE AVAILABLE FOR RECONNECTION TO NEW WATER HEATER.

5 EXISTING MOTION SENSOR. DISCONNECT AND RETURN TO OWNER. TYPICAL FOR ALL IN CONSERVATION SPACE.

6 DEMOLISH LIGHT FIXTURES AND POWER IN MEZANNINE SPACE ABOVE.

7 DEMOLISH LIGHT FIXTURES IN TRUCK LOADING AREA WHERE NEW CONSERVATION AREA EXPANDS. SEE NEW WORK PLAN FOR NEW WALL LAYOUT.

ELECTRICAL DEMOLITION NOTES

(ETR) EXISTING ELECTRICAL ITEM TO REMAIN. REFEED FROM EXISTING CIRCUITING IF DEMOLITION IN ADJACENT AREAS DISCONNECT EXISTING CIRCUITING.

(R) EXISTING ELECTRICAL ITEM TO BE REMOVED INCLUDING ALL WIRING, CONDUIT AND ASSOCIATED ELECTRICAL ITEMS.

1 ALL DEMOLITION WORK IS TO BE COORDINATED WITH PHASING OF CONSTRUCTION AND BID ALTERNATES AS OUTLINED ON ARCHITECTURAL SHEETS.

2 REMOVE ALL ELECTRICAL CONDUIT, CABLE, WIRING, DEVICES, JUNCTION BOXES, FITTINGS, AND RELATED ITEMS FROM ALL WALLS, CEILINGS, FLOORS, AND/OR PORTIONS OF SAME INDICATED AS BEING DEMOLISHED BY ANY DIVISION OF THE CONTRACT DOCUMENT SET OR INDICATED ELSEWHERE IN THE CONTRACT DOCUMENT SET AS REQUIRING ELECTRICAL DEMOLITION.

3 REMOVE ALL LIGHTING FIXTURES AND RELATED ITEMS FROM THE DEMOLITION AREA OR OTHER AREAS WHERE NEW LIGHTING FIXTURES ARE TO BE INSTALLED. EXISTING CONDUIT OR CABLE SERVING ITEMS OUTSIDE THE DEMOLITION AREA MAY REMAIN IF THEY ARE CONCEALED BY THE NEW CONSTRUCTION AND MEET THE SPECIFICATIONS REQUIREMENTS OF THE PRESENT PROJECT. NEW FIXTURES ARE TO BE SUPPLIED BY NEW (OR REUSED) CIRCUITS AS INDICATED.

4 EXTEND OR RELOCATE ALL EXISTING CIRCUITS AND RELATED ITEMS SERVING EXISTING UTILIZATION OR OTHER EQUIPMENT WHERE SUCH CIRCUITS OR ITEMS ARE DISRUPTED DUE TO DEMOLITION ACTIVITIES OF ANY DIVISION OF THIS PROJECT. RELOCATE ALL EXISTING JUNCTION BOXES OR SIMILAR ITEMS THAT WILL BE RENDERED INACCESSIBLE BY NEW CONSTRUCTION FURNISHED UNDER ANY DIVISION OF THIS PROJECT. PROVIDE ANY AND ALL TEMPORARY ELECTRICAL SUPPLY (SUPPLIES) AS NEEDED TO MEET THIS REQUIREMENT.

5 REMOVE ALL ABANDONED CIRCUITS BACK TO THE POINT OF SUPPLY OR BACK TO THE POINT WHERE OTHER REMAINING LOADS ARE CONNECTED. LABEL ANY UNUSED OVERCURRENT DEVICES AS "SPARE".

6 WHERE EQUIPMENT OR DEVICES ARE REMOVED AND NOT REPLACED BY A SIMILAR ITEM OR EQUIPMENT, REPAIR WALL SURFACES TO MATCH EXISTING SURROUNDING SURFACE. PAINT AS REQUIRED TO MATCH EXISTING FINISHES.

7 PROVIDE NEW SUPPORT(S) OR RE-SUPPORT AS REQUIRED ALL EXISTING CONDUIT, JUNCTION BOXES, CABLES, AND/OR OTHER ELECTRICAL ITEMS AS REQUIRED TO MEET THE SUPPORT REQUIREMENTS OF THE PRESENT PROJECT.

8 PROVIDE NEW, OR REWORK EXISTING, FIRE STOPPING AT ALL THROUGH-PENETRATIONS OF CONDUIT OR OTHER ELECTRICAL ITEMS THAT WILL REMAIN AT THE CONCLUSION OF THE PROJECT. FIRE STOPPING PROVIDED FOR EXISTING ITEMS MUST MEET THE REQUIREMENTS OF THE PRESENT PROJECT.

9 PROVIDE TEMPORARY WIRING AND CONNECTIONS TO MAINTAIN EXISTING SYSTEMS IN SERVICE DURING ALL PHASES OF CONSTRUCTION.

10 CIRCUIT NUMBERING IN PARENTHESIS ( ) ARE BASED ON PREVIOUS PROJECT DOCUMENTATION ARE PROVIDED IN GOOD FAITH AND ARE BELIEVED TO BE ACCURATE. CONTRACTOR IS TO VERIFY EXISTING CIRCUITING AND CONSULT ENGINEER IF SERIOUS DISCREPENSIES EXIST.

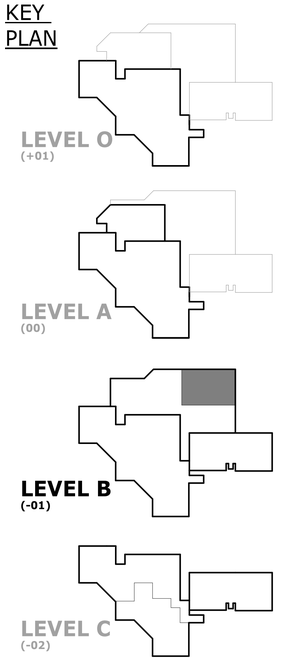
PLAN LEGEND

2-HOUR RATED FIRE BARRIER

BEJ BUILDING EXPANSION JOINT

AREA NOT IN SCOPE

KEY PLAN



HH ARCHITECTURE
1100 Dresser Court
Raleigh, NC 27609
Office 919.828.2301
Email office@hh-arch.com

Salas O'Brien
Salas O'Brien
North Carolina, Inc.
702 Oberlin Road, Suite 300
Raleigh, NC 27605
919-832-8118
salasobrien.com
license (NC): F-1434

NCMA - EAST BUILDING AND MUSEUM PARK IMPROVEMENTS
NC DEPARTMENT OF NATURAL AND CULTURAL RESOURCES
2110 BLUE RIDGE ROAD, RALEIGH, NC 27607
SCO PROJECT #22-25283-02A

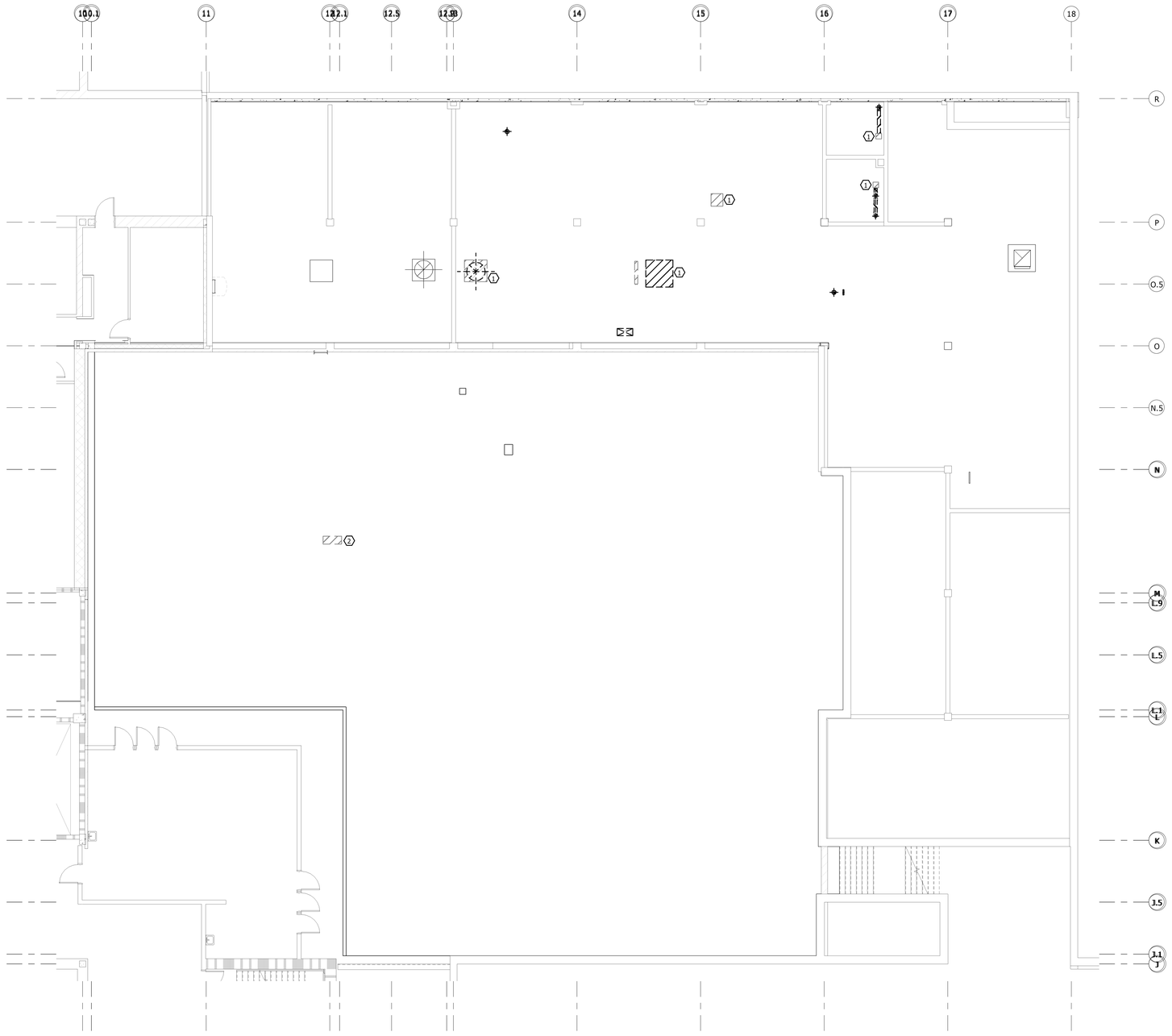
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 039503 MATTHEW J. JOHNSON
06/30/2025

NO.	REVISION	DATE
1		

JOB NUMBER **22-028**
DATE ISSUED **07/03/25**
PROJECT STATUS **ISSUED FOR BID**

SHEET **LEVEL B - CONSERVATION - ELECTRICAL DEMOLITION**

ED102



1 ED103 **LEVEL A - CONSERVATION - ELECTRICAL DEMOLITION**
SCALE: 1/8" = 1'-0"

4' 0 4' 8' 12' 16' 20'

KEY NOTES TO ED103

1 MECHANICAL EQUIPMENT TO BE DEMOLISHED. ELECTRICAL CONTRACTOR TO DISCONNECT CIRCUIT AND REMOVE WIRING BACK TO SOURCE.

2 MECHANICAL EQUIPMENT TO BE RELOCATED. EXTEND CIRCUIT TO NEW LOCATION AND RECONNECT CIRCUIT. SEE NEW WORK DRAWING FOR LOCATION.

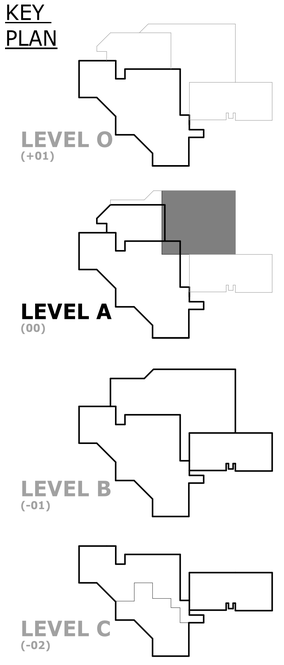
PLAN LEGEND

2-HOUR RATED FIRE BARRIER

BEJ BUILDING EXPANSION JOINT

AREA NOT IN SCOPE

KEY PLAN



HH
ARCHITECTURE
1100 Dresser Court
Raleigh, NC 27609
Office 919.828.2301
Email office@hh-arch.com

Salas O'Brien
Salas O'Brien
North Carolina, Inc.
702 Oberlin Road, Suite 300
Raleigh, NC 27605
919-832-8118
salasobrien.com
license (NC): F-1434

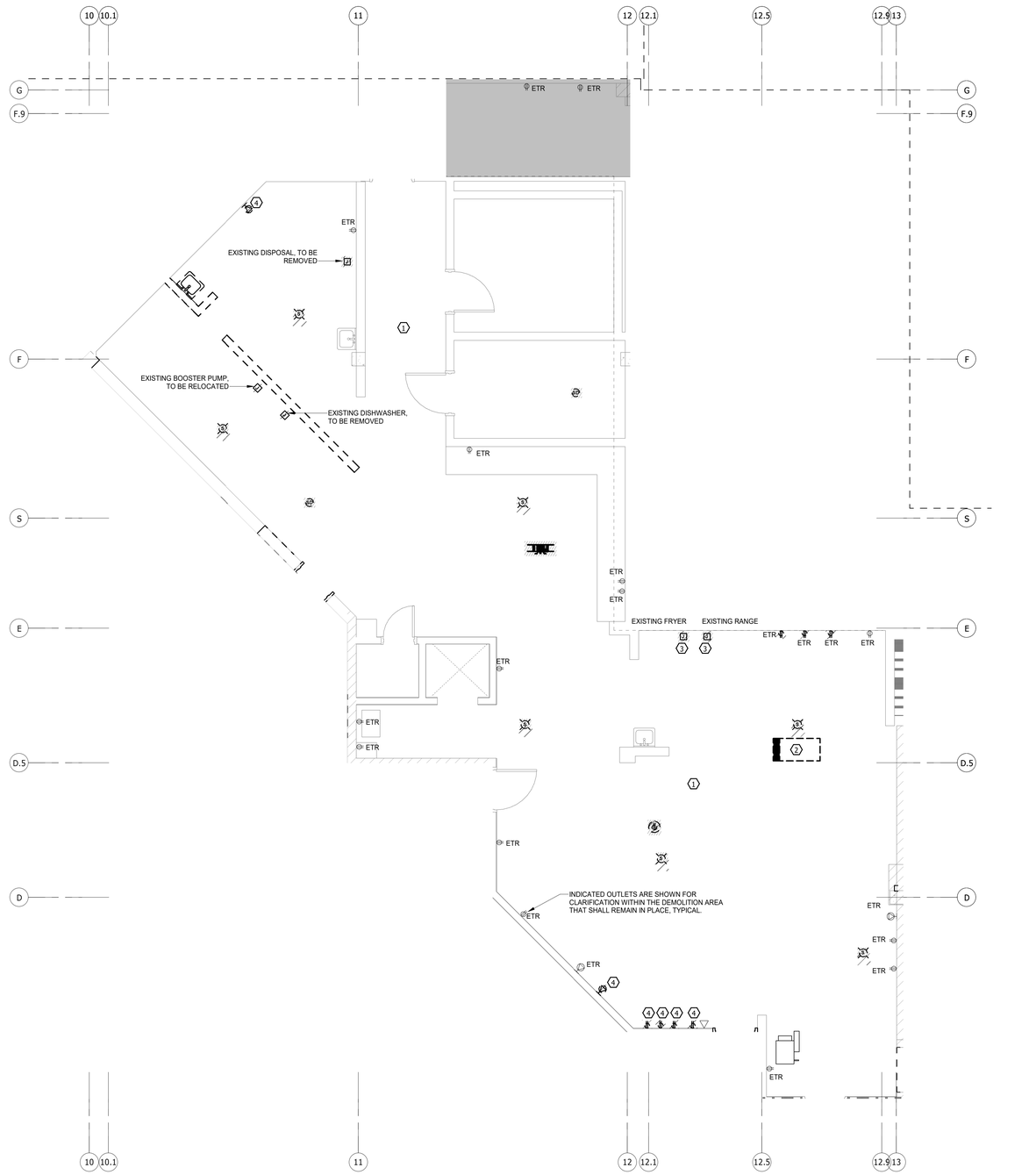
NCMA - EAST BUILDING AND MUSEUM PARK IMPROVEMENTS
NC DEPARTMENT OF NATURAL AND CULTURAL RESOURCES
2110 BLUE RIDGE ROAD, RALEIGH, NC 27607
SCO PROJECT #22-25283-02A

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 039503 MATTHEW J. JOHNSON
06/30/2025

NO.	REVISION	DATE
1		

JOB NUMBER **22-028**
DATE ISSUED **07/03/25**
PROJECT STATUS **ISSUED FOR BID**
SHEET **LEVEL A - CONSERVATION - ELECTRICAL DEMOLITION**

ED103



1 ED200 **LEVEL C - ENLARGED KITCHEN DEMOLITION**
SCALE: 1/4" = 1'-0"

4' 0 4' 8'

KEY NOTES TO ED200

1 EXISTING CEILING TO BE REMOVED. REMOVE ALL EXISTING CEILING MOUNTED LIGHTING, FIRE ALARM, AND RECEPTACLES IN THE DEMOLISHED KITCHEN CEILING. EXISTING LIGHTING CIRCUITS TO REMAIN AND MADE READY FOR RECONNECTION. EXISTING RECEPTACLE CIRCUITS SHALL BE REMOVED BACK TO SOURCE.

2 DEMOLISH EXISTING LOAD CENTER BENEATH COUNTER, FEEDER, AND ASSOCIATED CIRCUITS. PATCH FLOOR AS REQUIRED.

3 DEMOLISH CONNECTION TO EXISTING EQUIPMENT UNDER ALTERNATE BID #2. EXISTING CIRCUIT TO REMAIN AS PART OF BASE BID.

4 DEVICES TO BE DEMOLISHED, EXISTING CIRCUIT SHALL REMAIN. MAKE READY FOR RECONNECTION TO NEW DEVICE AS SHOWN ON NEW WORK DRAWING.

ELECTRICAL DEMOLITION NOTES

(ER) EXISTING ELECTRICAL ITEM TO REMAIN. REFEED FROM EXISTING CIRCUITING IF DEMOLITION IN ADJACENT AREAS DISCONNECT EXISTING CIRCUITING.

(R) EXISTING ELECTRICAL ITEM TO BE REMOVED INCLUDING ALL WIRING, CONDUIT AND ASSOCIATED ELECTRICAL ITEMS.

1 ALL DEMOLITION WORK IS TO BE COORDINATED WITH PHASING OF CONSTRUCTION AND BID ALTERNATES AS OUTLINED ON ARCHITECTURAL SHEETS.

2 REMOVE ALL ELECTRICAL CONDUIT, CABLE, WIRING, DEVICES, JUNCTION BOXES, FITTINGS, AND RELATED ITEMS FROM ALL WALLS, CEILINGS, FLOORS, AND/OR PORTIONS OF SAME INDICATED AS BEING DEMOLISHED BY ANY DIVISION OF THE CONTRACT DOCUMENT SET OR INDICATED ELSEWHERE IN THE CONTRACT DOCUMENT SET AS REQUIRING ELECTRICAL DEMOLITION.

3 REMOVE ALL LIGHTING FIXTURES AND RELATED ITEMS FROM THE DEMOLITION AREA OR OTHER AREAS WHERE NEW LIGHTING FIXTURES ARE TO BE INSTALLED. EXISTING CONDUIT OR CABLE SERVING ITEMS OUTSIDE THE DEMOLITION AREA MAY REMAIN IF THEY ARE CONCEALED BY THE NEW CONSTRUCTION AND MEET THE SPECIFICATIONS REQUIREMENTS OF THE PRESENT PROJECT. NEW FIXTURES ARE TO BE SUPPLIED BY NEW (OR REUSED) CIRCUITS AS INDICATED.

4 EXTEND OR RELOCATE ALL EXISTING CIRCUITS AND RELATED ITEMS SERVING EXISTING UTILIZATION OR OTHER EQUIPMENT WHERE SUCH CIRCUITS OR ITEMS ARE DISRUPTED DUE TO DEMOLITION ACTIVITIES OF ANY DIVISION OF THIS PROJECT. RELOCATE ALL EXISTING JUNCTION BOXES OR SIMILAR ITEMS THAT WILL BE RENDERED INACCESSIBLE BY NEW CONSTRUCTION FURNISHED UNDER ANY DIVISION OF THIS PROJECT. PROVIDE ANY AND ALL TEMPORARY ELECTRICAL SUPPLY (SUPPLIES) AS NEEDED TO MEET THIS REQUIREMENT.

5 REMOVE ALL ABANDONED CIRCUITS BACK TO THE POINT OF SUPPLY OR BACK TO THE POINT WHERE OTHER REMAINING LOADS ARE CONNECTED. LABEL ANY UNUSED OVERCURRENT DEVICES AS "SPARE".

6 WHERE EQUIPMENT OR DEVICES ARE REMOVED AND NOT REPLACED BY A SIMILAR ITEM OR EQUIPMENT, REPAIR WALL SURFACES TO MATCH EXISTING SURROUNDING SURFACE. PAINT AS REQUIRED TO MATCH EXISTING FINISHES.

7 PROVIDE NEW SUPPORT(S) OR RE-SUPPORT AS REQUIRED ALL EXISTING CONDUIT, JUNCTION BOXES, CABLES, AND/OR OTHER ELECTRICAL ITEMS AS REQUIRED TO MEET THE SUPPORT REQUIREMENTS OF THE PRESENT PROJECT.

8 PROVIDE NEW, OR REWORK EXISTING, FIRE STOPPING AT ALL THROUGH-PENETRATIONS OF CONDUIT OR OTHER ELECTRICAL ITEMS THAT WILL REMAIN AT THE CONCLUSION OF THE PROJECT. FIRE STOPPING PROVIDED FOR EXISTING ITEMS MUST MEET THE REQUIREMENTS OF THE PRESENT PROJECT.

9 WHERE EXISTING FIXTURES ARE TO BE REUSED, USE MILD DETERGENT AND CLEAN ALL INTERIOR AND EXTERIOR SURFACES. REPLACE LAMPS AND BALLASTS AND ANY MISSING OR BROKEN ELECTRICAL PARTS. ALL FLUORESCENT LAMPS ARE TO BE COOL WHITE.

10 PROVIDE TEMPORARY WIRING AND CONNECTIONS TO MAINTAIN EXISTING SYSTEMS IN SERVICE DURING ALL PHASES OF CONSTRUCTION.

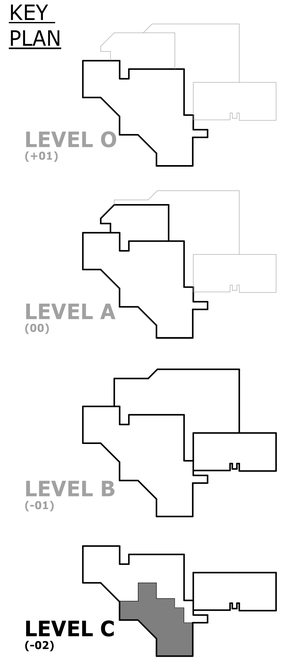
11 CIRCUIT NUMBERING IN PARENTHESIS ( ) ARE BASED ON PREVIOUS PROJECT DOCUMENTATION ARE PROVIDED IN GOOD FAITH AND ARE BELIEVED TO BE ACCURATE. CONTRACTOR IS TO VERIFY EXISTING CIRCUITING AND CONSULT ENGINEER IF SERIOUS DISCREPENSIES EXIST.

PLAN LEGEND

2-HOUR RATED FIRE BARRIER

AREA NOT IN SCOPE

KEY PLAN



HH
ARCHITECTURE
1100 Dresser Court
Raleigh, NC 27609
Office 919.828.2301
Email office@hh-arch.com

Salas O'Brien
Salas O'Brien
North Carolina, Inc.
702 Oberlin Road, Suite 300
Raleigh, NC 27605
919-832-8118
salasobrien.com
license (NC): F-1434

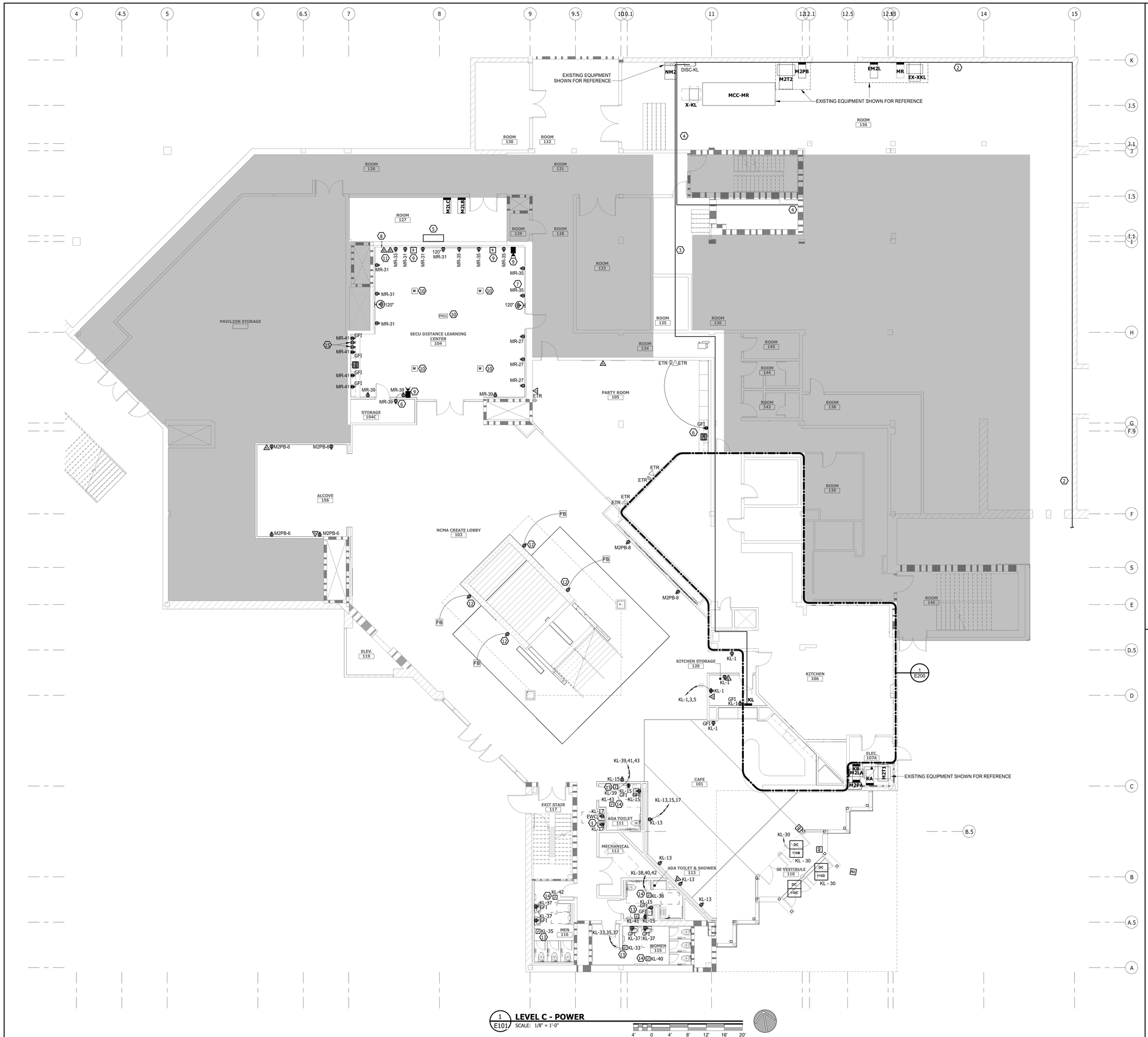
NCMA - EAST BUILDING AND MUSEUM PARK IMPROVEMENTS
NC DEPARTMENT OF NATURAL AND CULTURAL RESOURCES
2110 BLUE RIDGE ROAD, RALEIGH, NC 27607
SCO PROJECT #22-25283-02A

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 039503 MATTHEW J. JOHNSON
06/30/2025

NO.	REVISION	DATE

JOB NUMBER **22-028**
DATE ISSUED **07/03/25**
PROJECT STATUS **ISSUED FOR BID**
SHEET **LEVEL C - ENLARGED KITCHEN DEMOLITION**

ED200



1 E101 **LEVEL C - POWER**
SCALE: 1/8" = 1'-0"

4' 0 4' 8' 12' 16' 20'

KEY NOTES TO E101

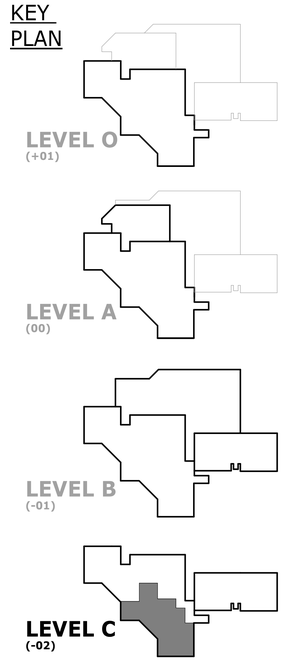
1. PROVIDE RECEPTACLES FOR ELECTRIC WATER COOLER. SEE DETAIL ON SHEET E300.
2. PROPOSED CONDUIT ROUTE FOR FEEDER TO PAVILION. ROUTE CONDUIT ALONG WALL OF MECHANICAL ROOM, AVOIDING LOFT FLOOR AND MAINTAINENCE LADDERS. EXISTING PIPING RACK LOCATED AT APPROXIMATELY 89" AFF. PENETRATE EXTERIOR WALL AVOIDING EXISTING LOUVER. SEE SITE PLAN FOR CONTINUATION.
3. PROPOSED CONDUIT ROUTE ABOVE CEILING FOR KITCHEN FEEDER. COORDINATE EXACT ROUTE IN FIELD.
4. PROPOSED CONDUIT ROUTE FOR UPPER CONSERVATION FEEDER. ROUTE THROUGH SHAFT UP TO ROOF. SEE CONTINUATION OF FEEDER ROUTE ACROSS ROOM ON UPPER CONSERVATION POWER DRAWING.
5. LOCATION OF EXISTING TELECOMMUNICATIONS RACK. ROUTE ALL NEW DATA CABLES IN THIS AREA BACK TO THIS LOCATION AND TERMINATE IN PATCH PANEL.
6. CONNECT NEW RECEPTACLE TO EXISTING CIRCUIT. EXTEND CONDUIT AND CONDUCTORS AS REQUIRED.
7. PROVIDE NEW DEVICES SHOWN RECESSED IN NEW WALLS. RECONNECT TO EXISTING CIRCUIT SERVING DEVICES IN SIMILAR LOCATION. TYPICAL FOR ALL IN THIS ROOM. EXTEND CONDUIT AND CONDUCTORS AS REQUIRED.
8. EXISTING CONDUIT PENETRATION FOR DATA CABLES ENTERING ROOM. EXTEND CONDUIT THROUGH NEW WALL. PROVIDE NEW CABLES FOR DATA OUTLETS IN ROOM 104.
9. REINSTALL EXISTING WALL MOUNTED AV DEVICE TO NEW WALL. RECONNECT EXISTING CABLES AS REQUIRED. COORDINATE WITH OWNER'S AV REPRESENTATIVE.
10. EXISTING CEILING MOUNTED AV DEVICE TO REMAIN. RECONNECT EXISTING CABLES AS REQUIRED. COORDINATE WITH OWNER'S AV REPRESENTATIVE.
11. REINSTALL EXISTING AV CONSOLE AND CABLES. COORDINATE CONNECTIONS WITH OWNER'S AV REPRESENTATIVE.
12. EXTEND EXISTING CIRCUIT FROM NEAREST EXISTING FLOORBOX TO NEW RECEPTACLE. CUT AND PATCH FLOOR AS REQUIRED.
13. CONNECT CIRCUIT TO HAND DRYER, COORDINATE CONNECTION WITH MANUFACTURER.
14. PROVIDE CIRCUIT WITH MOTOR RATED SWITCH ABOVE CEILING FOR FLUSH VALVE TRANSFORMER BY PLUMBING CONTRACTOR. COORDINATE EXACT LOCATION AND CONNECTIONS.
15. CONNECT NEW RECEPTACLES TO EXISTING CIRCUITS FOR BELOW COUNTER REFRIGERATORS. TRACE CIRCUIT BACK TO PANEL AND PROVIDE NEW GFI CIRCUIT BREAKER.

PLAN LEGEND

2-HOUR RATED FIRE BARRIER

AREA NOT IN SCOPE

KEY PLAN



HH
ARCHITECTURE
1100 Dresser Court
Raleigh, NC 27609
Office 919.828.2301
Email office@hh-arch.com

Salas O'Brien
Salas O'Brien
North Carolina, Inc.
702 Oberlin Road, Suite 300
Raleigh, NC 27605
919-832-8118
salasobrien.com
license (NC): F-1434

NCMA - EAST BUILDING AND MUSEUM PARK IMPROVEMENTS

NC DEPARTMENT OF NATURAL AND CULTURAL RESOURCES
2110 BLUE RIDGE ROAD, RALEIGH, NC 27607

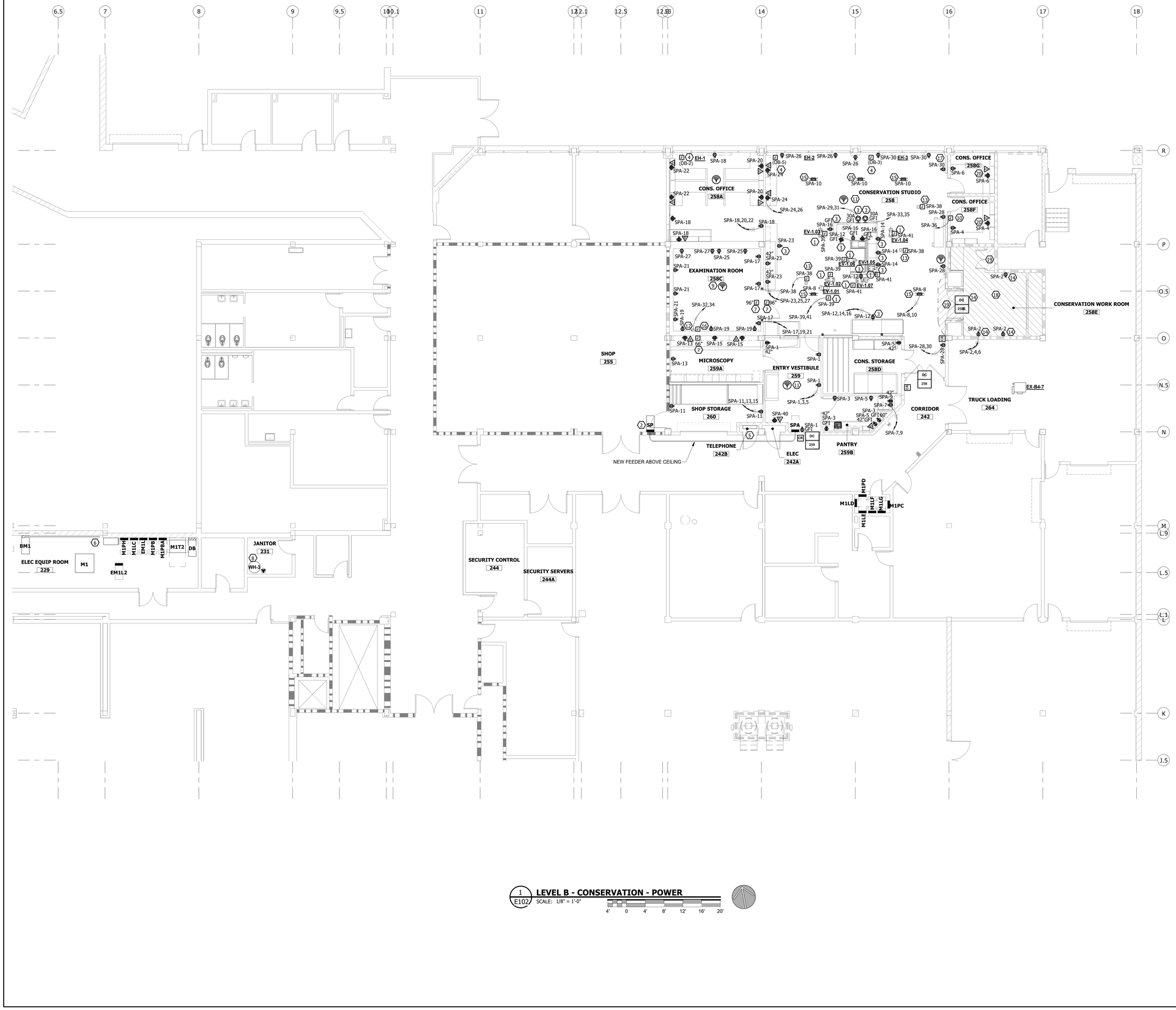
SCO PROJECT #22-25283-02A

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 039503 MATTHEW J JOHNSTON
06/30/2025

NO.	REVISION	DATE

JOB NUMBER **22-028**
DATE ISSUED **07/03/25**
PROJECT STATUS **ISSUED FOR BID**
SHEET **LEVEL C - POWER**

E101



1 E102 **LEVEL B - CONSERVATION - POWER**
SCALE: 1/8" = 1'-0"
4' 0 4' 8' 12' 16' 20'

KEY NOTES TO E102

1 CONNECT CIRCUIT TO LINE SIDE OF MECHANICAL DISCONNECTING MEANS.

2 EXISTING ELECTRICAL DISTRIBUTION PANEL, 400A, 208Y/120V, SYLVANIA GTE. MODIFY AS INDICTATED ON SHEET E600.

3 MOUNT OUTLET IN BASE OF CABINET. COORDINATE CONDUIT ROUTE AND RECEPTACLE MOUNTING/LOCATION WITH CABINET PROVIDER.

4 RECONNECT EXISTING CIRCUIT TO NEW HEATERS. COORDINATE CONNECTION WITH MECHANICAL CONTRACTOR.

5 PROVIDE NEW 48 PORT CAT6 PATCH PANEL IN EXISTING TELECOM RACK. ROUTE NEW CABLES FOR CONSERVATION AREA TO THIS PANEL. PROVIDE (2) 4" CONDUITS THROUGH FLOOR ABOVE FOR CABLES TO UPPER CONSERVATION AREA.

6 ROUTE CONDUIT UP TO CLASSROOM RTU ABOVE.

7 PROVIDE 4" X 4" X 3" JUNCTION BOX AT LISTED HEIGHT FOR XRAY SYSTEM BY OTHERS. COORDINATE INSTALLATION WITH EQUIMENT VENDOR. SEE DETAIL ON A622.

8 CONNECT NEW WATER HEATER TO EXISTING CIRCUIT SP-22.

9 ALL PENETRATIONS IN THIS ROOM SHALL BE COORDINATED WITH LEAD LINED WALLS AND CEILINGS TO MAINTAIN LINING.

10 PROVIDE CIRCUIT FOR TRAP PRIMER. COORDINATE CONNECTION WITH PLUMBING CONTRACTOR.

11 ROUTE 3/4" EMPTY CONDUIT WITH PULL STRING FROM ACCESS CONTROL BOX TO ABOVE CEILING FOR SPEAKER. COORDINATE EXACT LOCATION WITH ARCHITECT. SEE DETAIL ON SHEET E521.

12 PROVIDE 60A FRAME, 40A FUSED DISCONNECT FOR XRAY SYSTEM POWER. HARDWIRE CIRCUIT TO EQUIPMENT AND COORDINATE CONNECTIONS WITH EQUIPMENT VENDOR.

13 PROVIDE CIRCUIT TO LEAK DETECTOR BY PLUMBING. COORDINATE EXACT LOCATION AND CONNECTIONS WITH PLUMBING CONTRACTOR.

14 CONSERVATION WORK ROOM IS CONSIDERED A CLASS 1 DIVISION 1 SPACE. ALL ELECTRICAL DEVICES IN THIS ROOM SHALL BE PROVIDED WITH A SURFACE MOUNTED EXPLOSION PROOF BOX. ALL RACEWAYS SHALL BE SURFACE MOUNTED RMC WITH CONDUIT SEALS WITHIN 10' OF ROOM ENTRY AND 18" OF DEVICE BOXES. ORGANIZE CONDUITS NEATLY TO MAXIMIZE AVAILABLE WALL SPACE.

15 PROVIDE CEILING MOUNTED CORD REEL. CONSULT DETAIL ON E301 FOR SPECIFICS.

16 PROVIDE 10 POSITION TERMINAL BLOCK IN SURFACE MOUNTED ENCLOSURE FOR XRAY VENDOR CONNECTIONS. PROVIDE 3/4" RACEWAY FROM ENCLOSURE TO BOXES ABOVE DOOR WITH (2) #10 CONDUCTORS. PROVIDE 1/2" RACEWAY FROM ENCLOSURE TO ABOVE DOOR WITH (2) #16 CONDUCTORS. COORDINATE ALL CONNECTIONS AND REQUIREMENTS WITH XRAY VENDOR.

17 PROVIDE 20' COIL OF CAT 6A DATA CABLE FOR OWNER INSTALLED SECURITY CAMERA. ROUTE IN CONDUIT BACK TO ROOM 242B.

18 CONSERVATION WORKROOM 258E IS A CLASS 1, DIVISION 1 HAZARDOUS LOCATION. ALL ELECTRICAL DEVICES IN THIS ROOM MUST BE LISTED FOR USE IN THIS LOCATION. ELECTRICAL INSTALLATION WITHIN THIS SPACE MUST MEET REQUIREMENTS OF NEC 501.

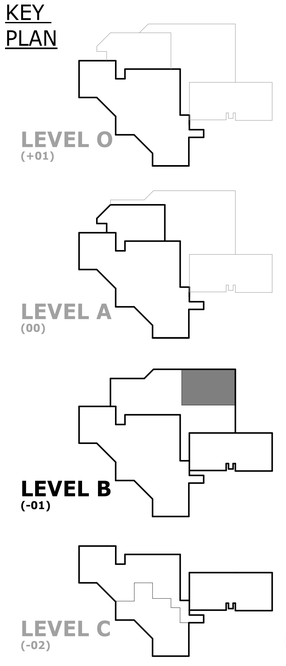
19 THE HATCHED AREA 5' HORIZONTALLY AND 3' VERTICALLY OUTSIDE OF THE DOOR TO CONSERVATION WORKROOM 258E IS A CLASS 1, DIVISION 2 HAZARDOUS LOCATION. ALL ELECTRICAL DEVICES IN THIS AREA MUST BE LISTED FOR USE IN THIS LOCATION. ELECTRICAL INSTALLATION WITHIN THIS SPACE MUST MEET REQUIREMENTS OF NEC 501.

20 MOUNT DEVICES IN BASE OF CABINET AS PART OF ALTERNATE BID #3. COORDINATE CONDUIT ROUTE AND DEVICE MOUNTING/LOCATION WITH CABINET PROVIDER. UNDER BASE BID, PROVIDE CONDUITS AND CONDUCTORS/CABLES TO JUNCTION BOXES WITH BLANK PLATE FOR FUTURE DEVICE CONNECTION.

PLAN LEGEND

- 2-HOUR RATED FIRE BARRIER
- (B3) BUILDING EXPANSION JOINT
- AREA NOT IN SCOPE

KEY PLAN



HH ARCHITECTURE
1100 Dresser Court
Raleigh, NC 27609
Office 919.828.2301
Email office@hh-arch.com

Salas O'Brien
Salas O'Brien North Carolina, Inc.
702 Oberlin Road, Suite 300
Raleigh, NC 27605
919-832-8118
salasobrien.com
license (NC): F-1434

NCMA - EAST BUILDING AND MUSEUM PARK IMPROVEMENTS

NC DEPARTMENT OF NATURAL AND CULTURAL RESOURCES
2110 BLUE RIDGE ROAD, RALEIGH, NC 27607

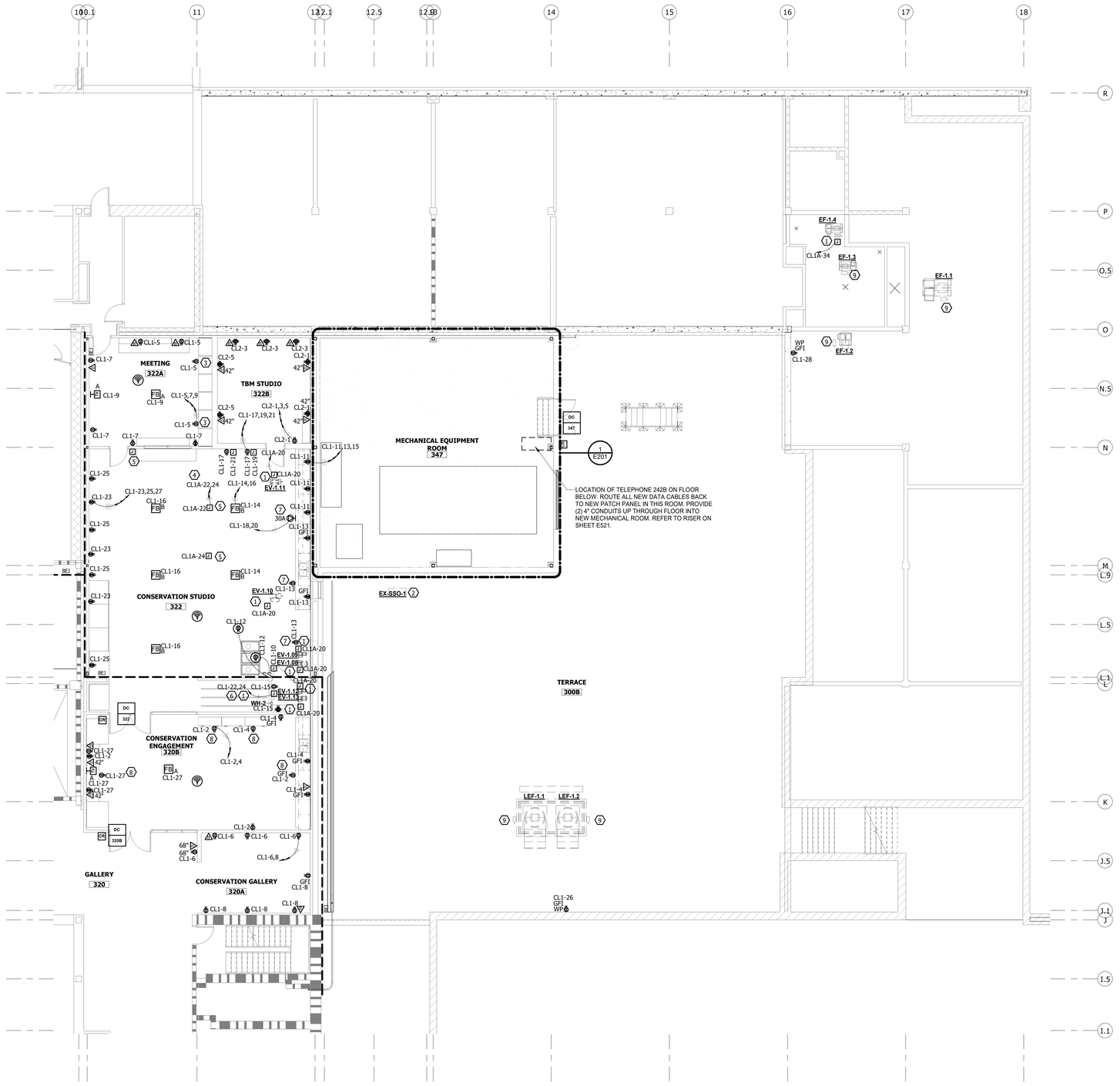
SCO PROJECT #22-25283-02A

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 039503 MATTHEW J. JOHNSON
06/30/2025

NO.	REVISION	DATE
1		

JOB NUMBER **22-028**
DATE ISSUED **07/03/25**
PROJECT STATUS **ISSUED FOR BID**
SHEET **LEVEL B - CONSERVATION - POWER**

E102



1 E103 **LEVEL A - CONSERVATION - POWER**
SCALE: 1/8" = 1'-0"
4' 0 4' 8' 12' 16' 20'

PROVIDE FLEXIBLE CONNECTIONS AS NEEDED AT EXPANSION JOINTS. PROVIDE BASIS OF DESIGN THOMAS & BETTS FOR ELECTRICAL SYSTEM OR APPROVED EQUIVALENT.

KEY NOTES TO E103

1 CONNECT CIRCUIT TO LINE SIDE OF MECHANICAL DISCONNECTING MEANS.

2 EXISTING CONDENSING UNIT TO BE RELOCATED. RECONNECT TO EXISTING CIRCUIT, EXTEND CONDUIT AND CONDUCTORS AS REQUIRED. COORDINATE CONNECTION WITH MECHANICAL CONTRACTOR.

3 MOUNT OUTLET IN BASE OF CABINET AS PART OF ALTERNATE BID #9. COORDINATE CONDUIT ROUTE AND RECEPTACLE MOUNTING/LOCATION WITH CABINET PROVIDER. UNDER BASE BID, PROVIDE CONDUIT AND CONDUCTORS TO JUNCTION BOX WITH BLANK PLATE FOR FUTURE DEVICE CONNECTION.

4 ROUTE 1" EMPTY CONDUIT WITH PULL STRING FROM DOORBELL LOCATION AT DOOR 320B TO ABOVE CEILING FOR SPEAKER.

5 PROVIDE CIRCUIT TO POWER SUPPLY FOR MOTORIZED SHADES. ROUTE EMPTY 3/4" CONDUIT WITH PULL STRING TO WALL BOX LOCATION FOR CONTROLS. COORDINATE EXACT LOCATION AND INSTALLATION WITH ARCHITECT.

6 PROVIDE CIRCUIT AS PART OF ALTERNATE #6.

7 MOUNT OUTLET IN BASE OF CABINET AS PART OF ALTERNATE BID #4. COORDINATE CONDUIT ROUTE AND RECEPTACLE MOUNTING/LOCATION WITH CABINET PROVIDER. UNDER BASE BID, PROVIDE CONDUIT AND CONDUCTORS TO JUNCTION BOX WITH BLANK PLATE FOR FUTURE DEVICE CONNECTION.

8 MOUNT OUTLET IN BASE OF CABINET AS PART OF ALTERNATE BID #5. COORDINATE CONDUIT ROUTE AND RECEPTACLE MOUNTING/LOCATION WITH CABINET PROVIDER. UNDER BASE BID, PROVIDE CONDUIT AND CONDUCTORS TO JUNCTION BOX WITH BLANK PLATE FOR FUTURE DEVICE CONNECTION.

9 DIVISION 26 POWER CONNECTION IS PROVIDED TO LINE SIDE OF VFD LOCATED IN MECHANICAL ROOM 347.

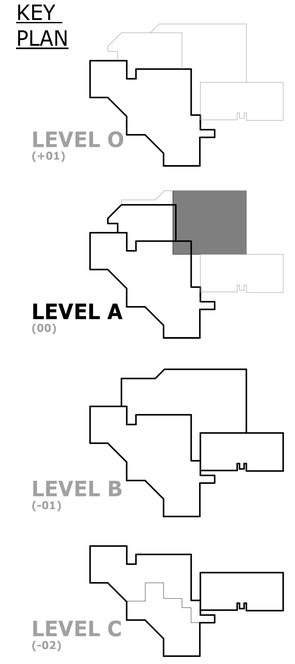
PLAN LEGEND

2-HOUR RATED FIRE BARRIER

BEJ BUILDING EXPANSION JOINT

AREA NOT IN SCOPE

KEY PLAN



HH ARCHITECTURE
1100 Dresser Court
Raleigh, NC 27609
Office 919.828.2301
Email office@hh-arch.com

Salas O'Brien
Salas O'Brien North Carolina, Inc.
702 Oberlin Road, Suite 300
Raleigh, NC 27605
919-832-8118
salasobrien.com
license (NC): F-1434

NCMA - EAST BUILDING AND MUSEUM PARK IMPROVEMENTS
NC DEPARTMENT OF NATURAL AND CULTURAL RESOURCES
2110 BLUE RIDGE ROAD, RALEIGH, NC 27607
SCO PROJECT #22-25283-02A

NORTH CAROLINA PROFESSIONAL SEAL 039503 ENGINEER MATTHEW J. JOHNSON
06/30/2025

NO.	REVISION	DATE
1		

JOB NUMBER **22-028**
DATE ISSUED **07/03/25**
PROJECT STATUS **ISSUED FOR BID**
SHEET **LEVEL A - CONSERVATION - POWER**

E103

1 E111 **LEVEL C - LIGHTING**
SCALE: 1/8" = 1'-0"

4' 0 4' 8' 12' 16' 20'

KEY NOTES TO E111

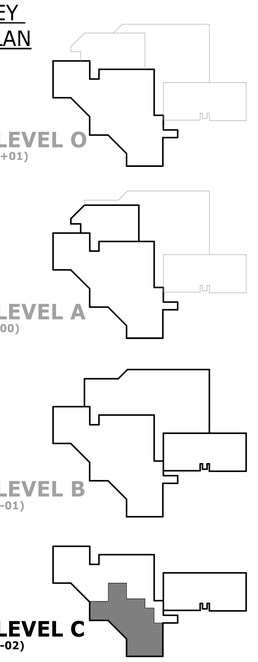
1. CONNECT NEW LIGHT FIXTURES SHOWN TO EXISTING NORMAL POWER LIGHTING CIRCUIT IN SPACE. EXTEND CONDUIT AND CONDUCTORS AS REQUIRED.
2. CONNECT NEW LIGHT FIXTURES SHOWN TO EXISTING EMERGENCY POWER LIGHTING CIRCUIT IN SPACE. EXTEND CONDUIT AND CONDUCTORS AS REQUIRED.
3. EMERGENCY LIGHT FIXTURE WIRED THROUGH UL924/1008 DEVICE TO EM2L-35.
4. ROUTE CIRCUIT FOR NEW LIGHT FIXUTURES FROM WALL. SEE CONDUIT ROUTING DETAIL ON SHEET E301.
5. PROVIDE LIGHT FIXTURE AS PART OF ALTERNATE BID #1.
6. EXISTING LIGHTING TRACKS MOUNTED WITHIN CONCRETE STRUCTURE SHOWN BY DASHED LINES. CONNECT EDISON PRICE FIXTURES INTO EXISTING TRACK. FOR NEW FIXTURES NOT COMPATIBLE WITH EXISTING LIGHTING TRACK, INTERCEPT CIRCUIT AHEAD OF TRACK AND EXTEND VIA SURFACE MOUNTED CONDUIT TO NEW LIGHT FIXTURES. ROUTE CONDUITS TIGHT TO BOTTOM OF STRUCTURE AS SHOWN IN DETAIL ON SHEET E302. TYPICAL FOR ALL LIGHTS.
7. CONNECT FIXTURE TO NEAREST EMERGENCY CIRCUIT. ROUTE CONDUIT ACROSS BOTTOM OF STRUCTURE AS SHOWN IN DETAIL ON SHEET E301.
8. PROVIDE 2000VA PHOTOCELL. MOUNT 10' AFG AWAY FROM ARTIFICIAL LIGHT SOURCES.
9. PROVIDE UL924/1008 DEVICES, REFER TO DETAIL ON SHEET E501. WIRE NORMAL AND EMERGENCY CIRCUITS THROUGH TRANSFER DEVICE. DEFAULT OUTPUT SHALL BE NORMAL POWER CIRCUIT, DEVICE SHALL SWITCH TO EMERGENCY CIRCUIT AND OVERRIDE CONTROLS UNDER EMERGENCY CONDITION.

PLAN LEGEND

2-HOUR RATED FIRE BARRIER

AREA NOT IN SCOPE

KEY PLAN



HH
ARCHITECTURE
1100 Dresser Court
Raleigh, NC 27609
Office 919.828.2301
Email office@hh-arch.com

Salas O'Brien
Salas O'Brien
North Carolina, Inc.
702 Oberlin Road, Suite 300
Raleigh, NC 27605
919-832-8118
salasobrien.com
license (NC): F-1434

NCMA - EAST BUILDING AND MUSEUM PARK IMPROVEMENTS

NC DEPARTMENT OF NATURAL AND CULTURAL RESOURCES
2110 BLUE RIDGE ROAD, RALEIGH, NC 27607

SCO PROJECT #22-25283-02A

NORTH CAROLINA PROFESSIONAL SEAL 039503 ENGINEER MATTHEW J. JOHNSON
06/30/2025

NO.	REVISION	DATE

JOB NUMBER
22-028

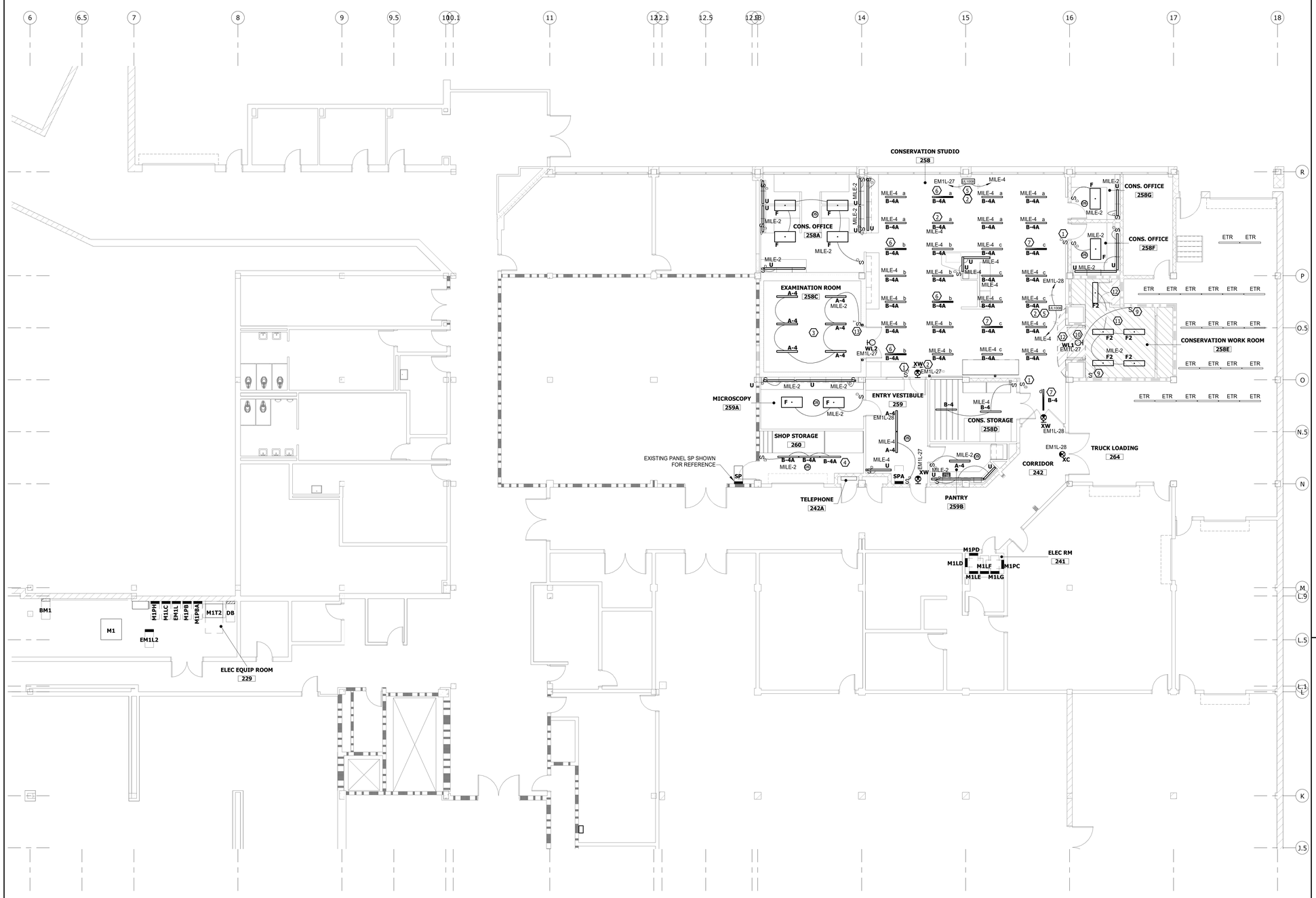
DATE ISSUED
07/03/25

PROJECT STATUS
ISSUED FOR BID

SHEET
LEVEL C - LIGHTING

E111

Plot Time:6/30/2025 4:08:27 PM



1 E112 **LEVEL B - CONSERVATION - LIGHTING**
SCALE: 1/8" = 1'-0"
4' 0 4' 8' 12' 16' 20'

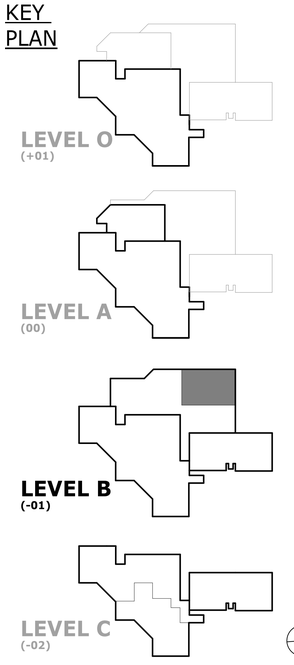
KEY NOTES TO E112

1. PROVIDE 4 SWITCHES TO CONTROL SWITCHING ZONES A,B,C, AND D. PROVIDE TIMER SWITCH HONEYWELL RPLS730B OR APPROVED EQUAL.
2. CONNECT TO EXISTING CIRCUIT LOCATED ABOVE CEILING. EXTEND CONDUIT AND CONDUCTORS AS REQUIRED. TYPICAL FOR ALL. FOR CIRCUITS LOCATED IN EXISTING LIGHTING TRACK EMBEDDED IN CONCRETE STRUCTURE, INTERCEPT CIRCUIT AHEAD OF TRACK AND EXTEND VIA SURFACE MOUNTED CONDUIT TO NEW LIGHT FIXTURES. ROUTE CONDUITS TIGHT TO BOTTOM OF STRUCTURE AS SHOWN IN DETAIL ON SHEET E302.
3. ALL PENETRATIONS IN THIS ROOM SHALL BE COORDINATED WITH LEAD LINED WALLS AND CEILING TO MAINTAIN LINING.
4. MOUNT FIXTURES AT 10'2" OR BOTTOM OF ADJACENT DUCTWORK.
5. PROVIDE UL924/1008 DEVICES, REFER TO DETAIL ON SHEET E501. WIRE NORMAL AND EMERGENCY CIRCUITS THROUGH TRANSFER DEVICE. DEFAULT OUTPUT SHALL BE NORMAL POWER CIRUIT. DEVICE SHALL SWITCH TO EMERGENCY CIRCUIT AND OVERRIDE CONTROLS UNDER EMERGENCY CONDITION.
6. EMERGENCY LIGHT FIXTURE WIRED THROUGH UL924/1008 DEVICE TO EM1L-27.
7. EMERGENCY LIGHT FIXTURE WIRED THROUGH UL924/1008 DEVICE TO EM1L-28.
9. PROVIDE LIGHT SWITCH WITH EXPLOSION PROOF BOX. RACEWAY BELOW SHALL BE SURFACE MOUNTED RMC WITH CONDUIT SEAL WITHIN 18" OF BOX.
10. MOUNT IN USE LIGHT TO 13' AFF AT THE BOTTOM TO CLEAR THE HAZARDOUS LOCATION AREA THAT EXTENDS 3' ABOVE THE DOOR.
11. CONSERVATION WORKROOM 258E IS A CLASS 1, DIVISION 1 HAZARDOUS LOCATION. ALL ELECTRICAL DEVICES IN THIS ROOM MUST BE LISTED FOR USE IN THIS LOCATION. ELECTRICAL INSTALLATION WITHIN THIS SPACE MUST MEET REQUIREMENTS OF NEC 501.
12. THE HATCHED AREA 5' HORIZONTALLY AND 3' VERTICALLY OUTSIDE OF THE DOOR TO CONSERVATION WORKROOM 258E IS A CLASS 1, DIVISION 2 HAZARDOUS LOCATION. ALL ELECTRICAL DEVICES IN THIS AREA MUST BE LISTED FOR USE IN THIS LOCATION. ELECTRICAL INSTALLATION WITHIN THIS SPACE MUST MEET REQUIREMENTS OF NEC 501.
13. PROVIDE TIMER SWITCH HONEYWELL RPLS730B OR APPROVED EQUAL.

PLAN LEGEND

- 2-HOUR RATED FIRE BARRIER
- BUILDING EXPANSION JOINT
- AREA NOT IN SCOPE

KEY PLAN



HH ARCHITECTURE
1100 Dresser Court
Raleigh, NC 27609
Office 919.828.2301
Email office@hh-arch.com

Salas O'Brien
Salas O'Brien
North Carolina, Inc.
702 Oberlin Road, Suite 300
Raleigh, NC 27605
919-832-8118
salasobrien.com
license (NC): F-1434

NCMA - EAST BUILDING AND MUSEUM PARK IMPROVEMENTS
NC DEPARTMENT OF NATURAL AND CULTURAL RESOURCES
2110 BLUE RIDGE ROAD, RALEIGH, NC 27607
SCO PROJECT #22-25283-02A

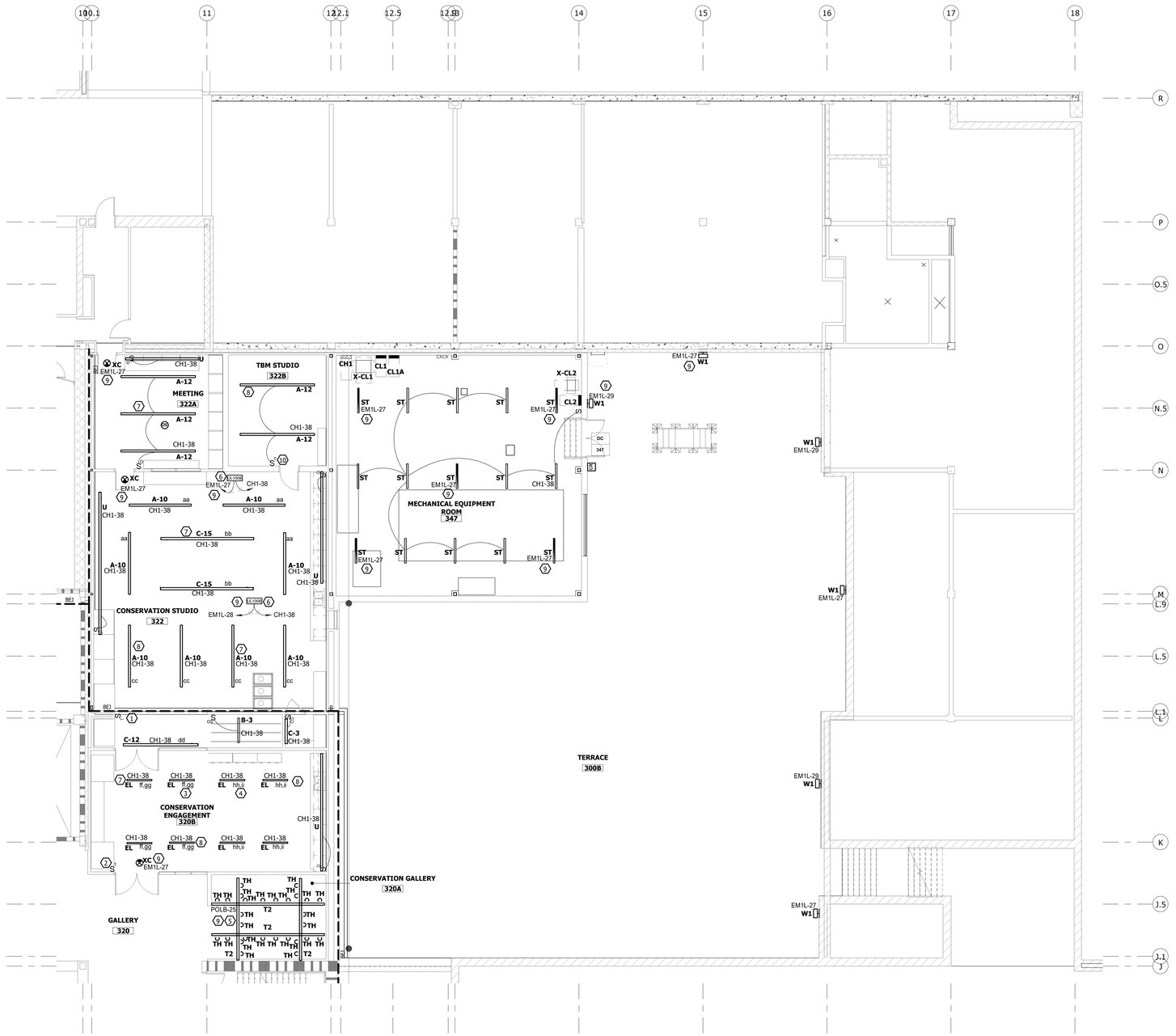
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 039503 MATTHEW J. JOHNSON
06/30/2025

NO.	REVISION	DATE
1		

JOB NUMBER **22-028**
DATE ISSUED **07/03/25**
PROJECT STATUS **ISSUED FOR BID**
SHEET **LEVEL B - CONSERVATION - LIGHTING**

E112

Plot Time:6/30/2025 4:04:56 PM



1 E113 **LEVEL A - CONSERVATION - LIGHTING**
SCALE: 1/8" = 1'-0"
4' 0 4' 8' 12' 16' 20'

KEY NOTES TO E113

1 PROVIDE 5 SWITCHES TO CONTROL SWITCHING ZONES aa, bb, cc, dd. PROVIDE TIMER SWITCH HONEYWELL RPLS730B OR APPROVED EQUAL. COORDINATE EXACT LOCATION WITH ARCHITECT.

2 PROVIDE 4 SWITCHES TO CONTROL SWITCHING ZONES ff, gg, hh, AND ii. PROVIDE TIMER SWITCH HONEYWELL RPLS730B OR APPROVED EQUAL.

3 ZONE ff SHALL CONTROL DOWNLIGHTING AND ZONE gg SHALL CONTROL UPLIGHTING. TYPICAL FOR ALL.

4 ZONE hh SHALL CONTROL DOWNLIGHTING, ZONE ii SHALL CONTROL UPLIGHTING. TYPICAL FOR ALL.

5 CONNECT EXISTING LOCAL CIRCUIT FROM EXISTING LIGHTING TRACKS TO NEW LIGHTING TRACKS. CIRCUITS CONTROLLED BY EXISTING BUILDING CONTACTOR. PROVIDE 200W CURRENT LIMITING DEVICE FOR EACH TRACK.

6 PROVIDE UL924/1008 DEVICES, REFER TO DETAIL ON SHEET E501. WIRE NORMAL AND EMERGENCY CIRCUITS THROUGH TRANSFER DEVICE. DEFAULT OUTPUT SHALL BE NORMAL POWER CIRCUIT, DEVICE SHALL SWITCH TO EMERGENCY CIRCUIT AND OVERRIDE CONTROLS UNDER EMERGENCY CONDITION.

7 EMERGENCY LIGHT FIXTURE WIRED THROUGH UL924/1008 DEVICE TO EM1L-27.

8 EMERGENCY LIGHT FIXTURE WIRED THROUGH UL924/1008 DEVICE TO EM1L-28.

9 CONNECT TO EXISTING CIRCUIT LOCATED ABOVE CEILING. EXTEND CONDUIT AND CONDUCTORS AS REQUIRED. TYPICAL FOR ALL. FOR CIRCUITS LOCATED IN EXISTING LIGHTING TRACK EMBEDDED IN CONCRETE STRUCTURE, INTERCEPT CIRCUIT AHEAD OF TRACK AND EXTEND VIA SURFACE MOUNTED CONDUIT TO NEW LIGHT FIXTURES. ROUTE CONDUITS TIGHT TO BOTTOM OF STRUCTURE AS SHOWN IN DETAIL ON SHEET E302.

10 PROVIDE TIMER SWITCH HONEYWELL RPLS730B OR APPROVED EQUAL. COORDINATE EXACT LOCATION WITH ARCHITECT.

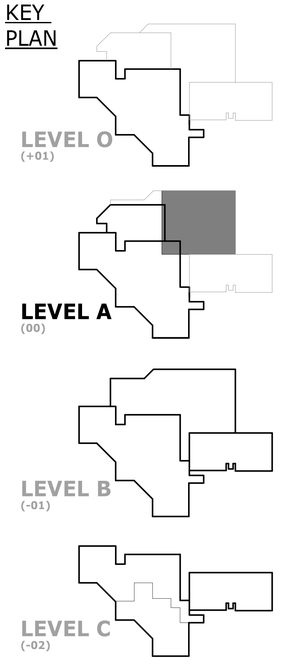
PLAN LEGEND

2-HOUR RATED FIRE BARRIER

BUILDING EXPANSION JOINT

AREA NOT IN SCOPE

KEY PLAN



HH ARCHITECTURE
1100 Dresser Court
Raleigh, NC 27609
Office 919.828.2301
Email office@hh-arch.com

Salas O'Brien
Salas O'Brien
North Carolina, Inc.
702 Oberlin Road, Suite 300
Raleigh, NC 27605
919-832-8118
salasobrien.com
license (NC): F-1434

NCMA - EAST BUILDING AND MUSEUM PARK IMPROVEMENTS
NC DEPARTMENT OF NATURAL AND CULTURAL RESOURCES
2110 BLUE RIDGE ROAD, RALEIGH, NC 27607
SCO PROJECT #22-25283-02A

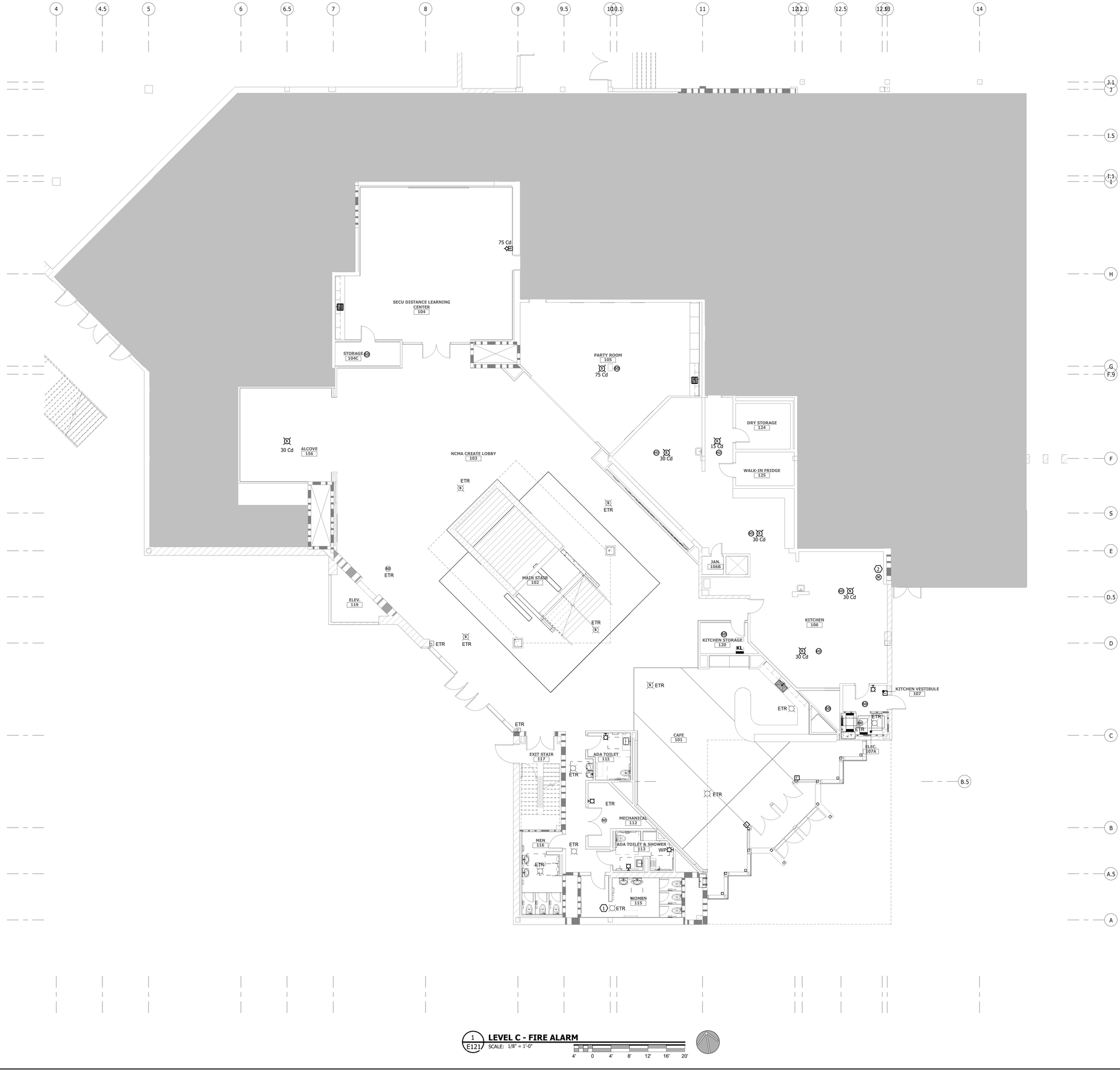
NORTH CAROLINA PROFESSIONAL SEAL 039503 ENGINEER MATTHEW J JOHNSTON
06/30/2025

NO.	REVISION	DATE
1		

JOB NUMBER **22-028**
DATE ISSUED **07/03/25**
PROJECT STATUS **ISSUED FOR BID**
SHEET **LEVEL A - CONSERVATION - LIGHTING**

Plot Time:6/30/2025 4:05:02 PM

E113



1 E121 **LEVEL C - FIRE ALARM**
SCALE: 1/8" = 1'-0"
4' 0 4' 8' 12' 16' 20'

KEY NOTES TO E121

1 CEILING TO BE REPLACED. REMOVE AND REINSTALL.

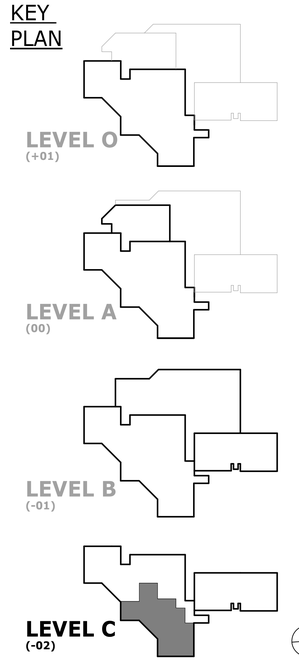
2 PROVIDE FIRE ALARM MODULE TO MONITOR CIRCUIT SERVING KITCHEN EQUIPMENT CONTACTOR FOR LOSS OF VOLTAGE. CONTACTOR SERVES CIRCUITS FOR KITCHEN EQUIPMENT UNDER KITCHEN HOOD.

PLAN LEGEND

2-HOUR RATED FIRE BARRIER

AREA NOT IN SCOPE

KEY PLAN



HH
ARCHITECTURE
1100 Dresser Court
Raleigh, NC 27609
Office 919.828.2301
Email office@hh-arch.com

Salas O'Brien
Salas O'Brien
North Carolina, Inc.
702 Oberlin Road, Suite 300
Raleigh, NC 27605
919-832-8118
salasobrien.com
license (NC): F-1434

NCMA - EAST BUILDING AND MUSEUM PARK IMPROVEMENTS

NC DEPARTMENT OF NATURAL AND CULTURAL RESOURCES
2110 BLUE RIDGE ROAD, RALEIGH, NC 27607

SCO PROJECT #22-25283-02A

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 039503 MATTHEW J JOHNSON
06/30/2025

NO.	REVISION	DATE

JOB NUMBER
22-028

DATE ISSUED
07/03/25

PROJECT STATUS
ISSUED FOR BID

SHEET
LEVEL C - FIRE ALARM

E121

1 E122 **LEVEL B - CONSERVATION - FIRE ALARM**
SCALE: 1/8" = 1'-0"
4' 0 4' 8' 12' 16' 20'

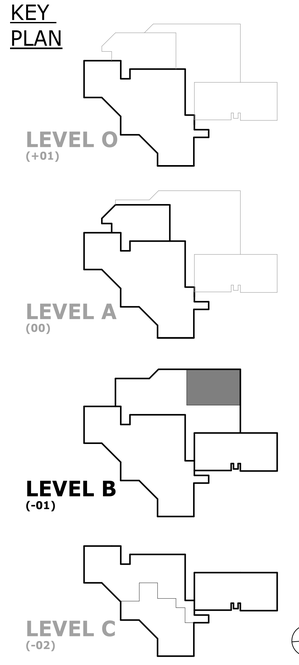
KEY NOTES TO E122

1. ALL PENETRATIONS IN THIS ROOM SHALL BE COORDINATED WITH LEAD LINED WALLS TO MAINTAIN LINING.
2. EXISTING NOTIFIER NFS 3030 FIRE ALARM EQUIPMENT LOCATED IN THIS ROOM.
3. PROVIDE FIRE ALARM MODULE TO MONITOR CONSERVATION WORK ROOM DRY CHEM CONTROLS.
4. CONSERVATION WORKROOM 258E IS A CLASS 1, DIVISION 1 HAZARDOUS LOCATION. ALL ELECTRICAL DEVICES IN THIS ROOM MUST BE LISTED FOR USE IN THIS LOCATION. ELECTRICAL INSTALLATION WITHIN THIS SPACE MUST MEET REQUIREMENTS OF NEC 501.
5. THE HATCHED AREA 5' HORIZONTALLY AND 3' VERTICALLY OUTSIDE OF THE DOOR TO CONSERVATION WORKROOM 258E IS A CLASS 1, DIVISION 2 HAZARDOUS LOCATION. ALL ELECTRICAL DEVICES IN THIS AREA MUST BE LISTED FOR USE IN THIS LOCATION. ELECTRICAL INSTALLATION WITHIN THIS SPACE MUST MEET REQUIREMENTS OF NEC 501.

PLAN LEGEND

- 2-HOUR RATED FIRE BARRIER
- BEJ BUILDING EXPANSION JOINT
- AREA NOT IN SCOPE

KEY PLAN



HH
ARCHITECTURE
1100 Dresser Court
Raleigh, NC 27609
Office 919.828.2301
Email office@hh-arch.com

Salas O'Brien
Salas O'Brien
North Carolina, Inc.
702 Oberlin Road, Suite 300
Raleigh, NC 27605
919-832-8118
salasobrien.com
license (NC): F-1434

NCMA - EAST BUILDING AND MUSEUM PARK IMPROVEMENTS

NC DEPARTMENT OF NATURAL AND CULTURAL RESOURCES
2110 BLUE RIDGE ROAD, RALEIGH, NC 27607

SCO PROJECT #22-25283-02A

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 039503 MATTHEW J. JOHNSON
06/30/2025

NO.	REVISION	DATE

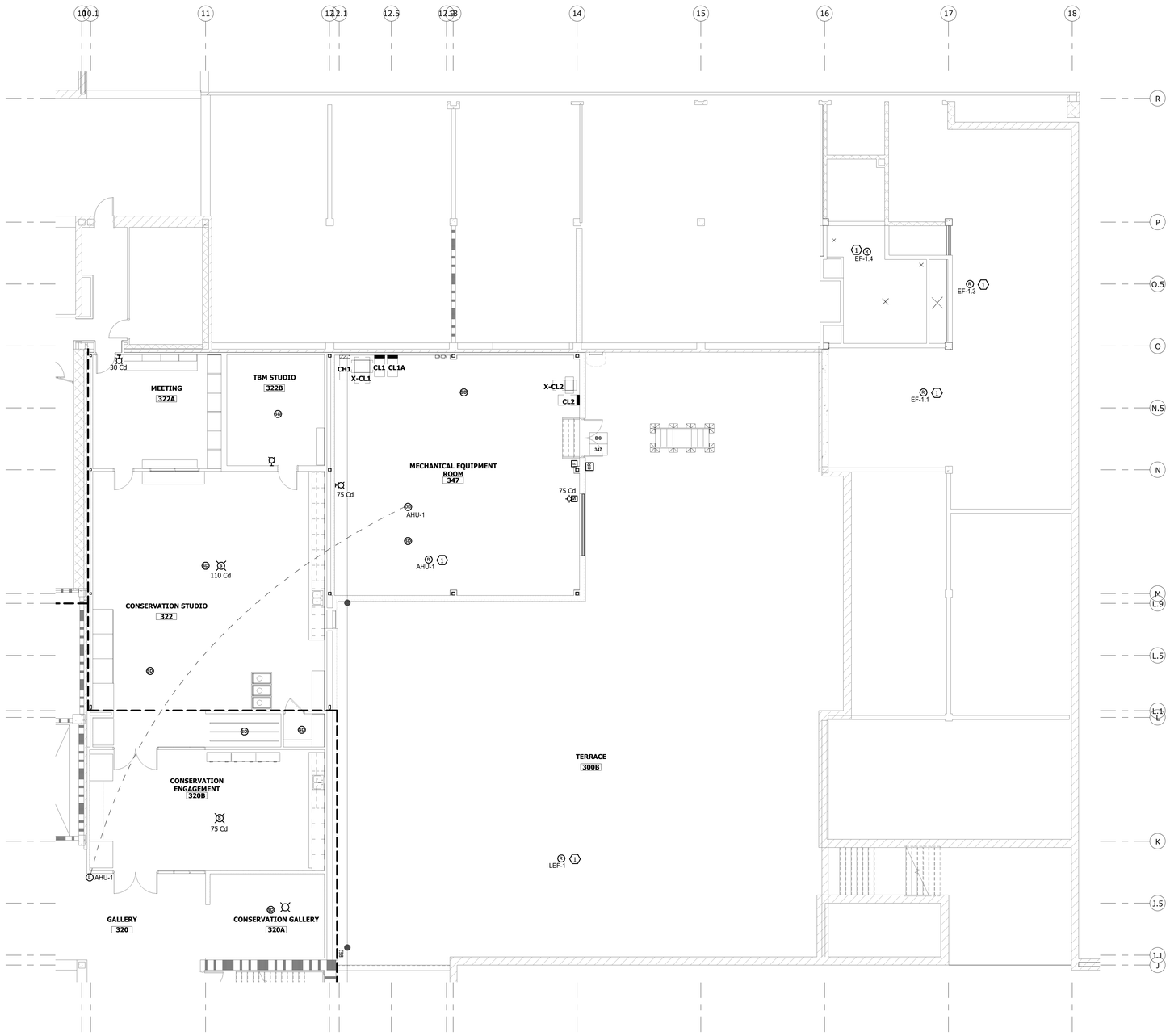
JOB NUMBER
22-028

DATE ISSUED
07/03/25

PROJECT STATUS
ISSUED FOR BID

SHEET
LEVEL B - CONSERVATION - FIRE ALARM

E122



1 E123 **LEVEL A - CONSERVATION - FIRE ALARM**
SCALE: 1/8" = 1'-0"
4' 0 4' 8' 12' 16' 20'

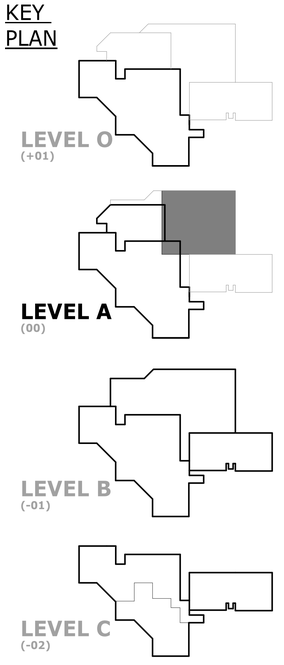
KEY NOTES TO E123

1 PROVIDE FIRE ALARM RELAY FOR MECHANICAL EQUIPMENT SHUTDOWN. REFER TO DETAILS ON SHEET E511.

PLAN LEGEND

- 2-HOUR RATED FIRE BARRIER
- BEJ BUILDING EXPANSION JOINT
- AREA NOT IN SCOPE

KEY PLAN



HH
ARCHITECTURE
1100 Dresser Court
Raleigh, NC 27609
Office 919.828.2301
Email office@hh-arch.com

Salas O'Brien
Salas O'Brien
North Carolina, Inc.
702 Oberlin Road, Suite 300
Raleigh, NC 27605
919-832-8118
salasobrien.com
license (NC): F-1434

NCMA - EAST BUILDING AND MUSEUM PARK IMPROVEMENTS

NC DEPARTMENT OF NATURAL AND CULTURAL RESOURCES
2110 BLUE RIDGE ROAD, RALEIGH, NC 27607

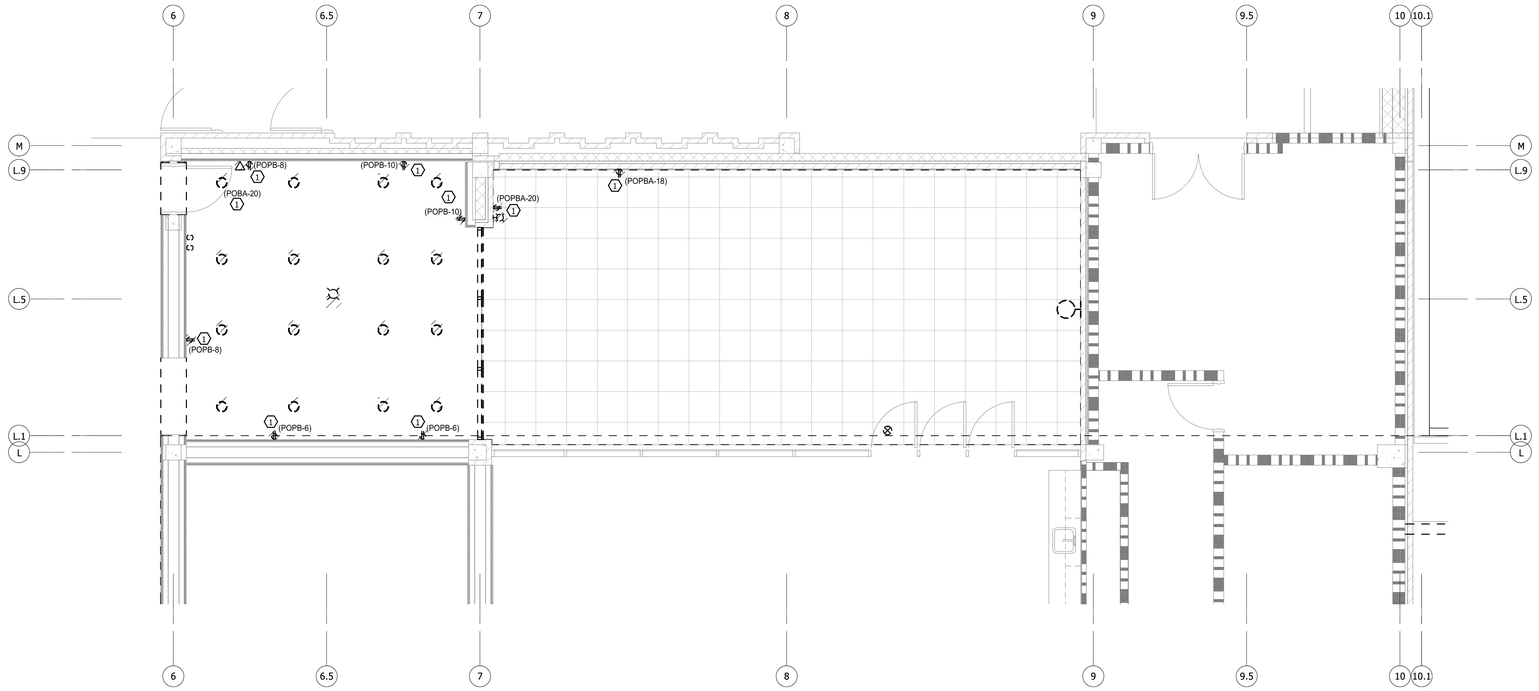
SCO PROJECT #22-25283-02A

NORTH CAROLINA PROFESSIONAL SEAL 039503 ENGINEER MATTHEW J JOHNSTON
06/30/2025

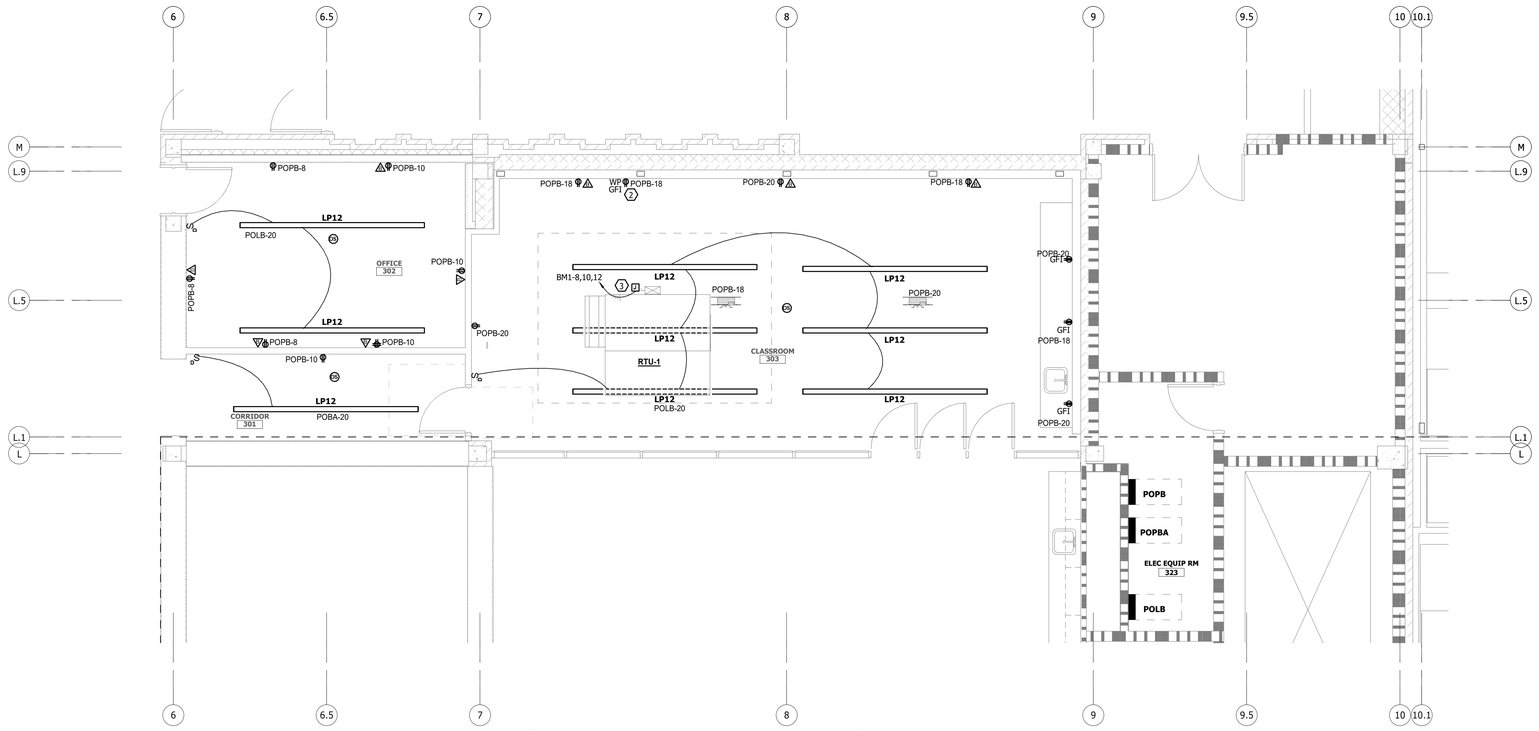
NO.	REVISION	DATE

JOB NUMBER
22-028
DATE ISSUED
07/03/25
PROJECT STATUS
ISSUED FOR BID
SHEET
LEVEL A - CONSERVATION - FIRE ALARM

E123



1 E131 **LEVEL A - CLASSROOM - DEMOLITION - ELECTRICAL**
SCALE: 1/4" = 1'-0"
4' 0 4' 8'



2 E131 **LEVEL A - CLASSROOM - ELECTRICAL**
SCALE: 1/4" = 1'-0"
4' 0 4' 8'

KEY NOTES TO E131

1 EXISTING CIRCUIT ASSOCIATED WITH DEMOLISHED DEVICE TO REMAIN FOR FUTURE USE.

2 MOUNT RECEPTACLE TO WALL ABOVE ROOF NEXT TO NEW RTU.

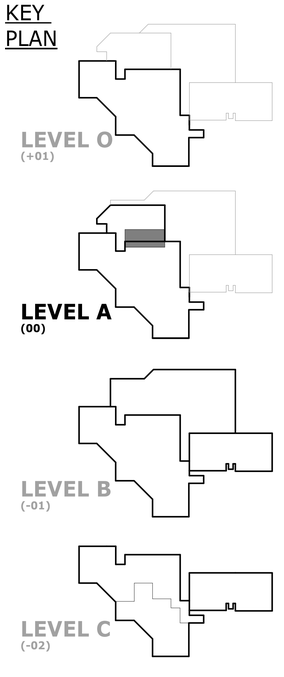
3 CONNECT CIRCUIT TO DISCONNECTING MEANS OF EQUIPMENT PROVIDED BY OTHER TRADES. REFER TO SHEET E102 FOR PANEL LOCATION AND CONDUIT ROUTING.

PLAN LEGEND

2-HOUR RATED FIRE BARRIER

AREA NOT IN SCOPE

KEY PLAN



HH
ARCHITECTURE
1100 Dresser Court
Raleigh, NC 27609
Office 919.828.2301
Email office@hh-arch.com

Salas O'Brien
Salas O'Brien
North Carolina, Inc.
702 Oberlin Road, Suite 300
Raleigh, NC 27605
919-832-8118
salasobrien.com
license (NC): F-1434

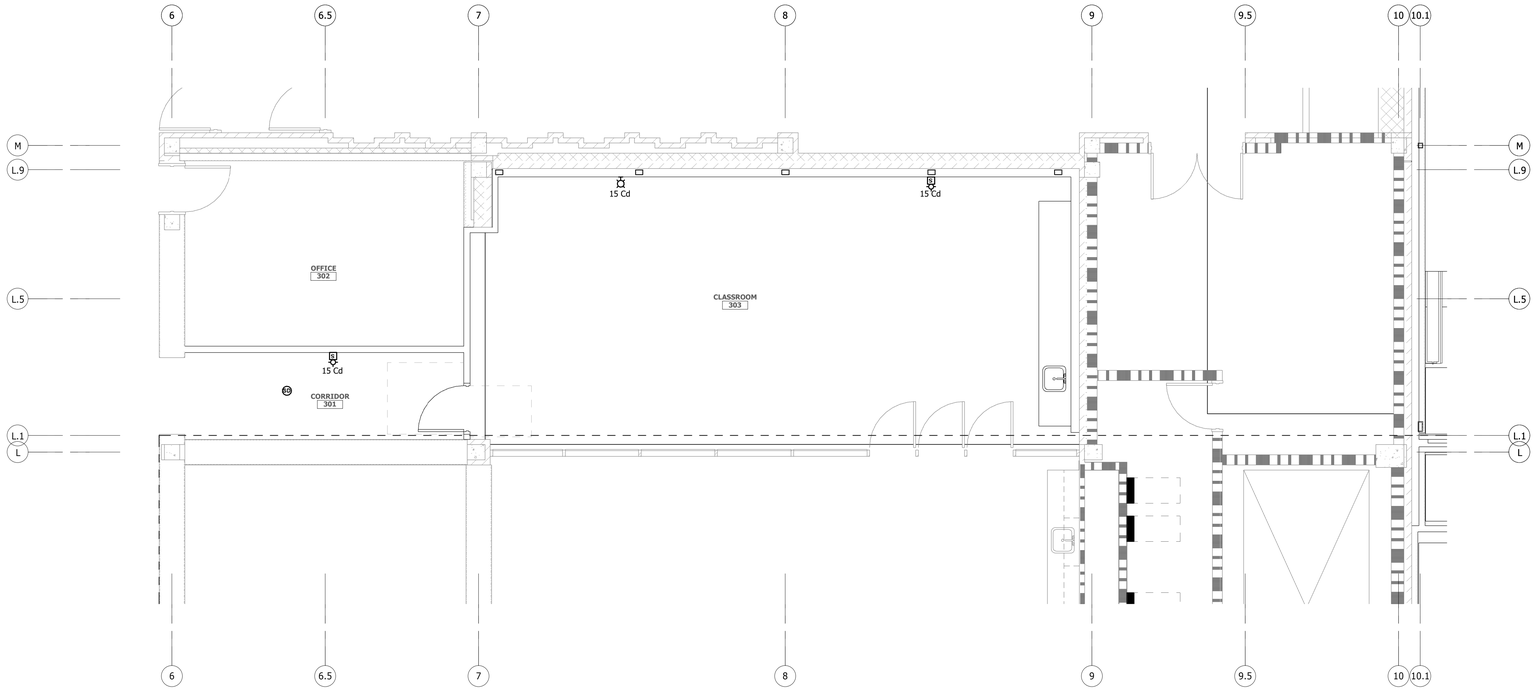
NCMA - EAST BUILDING AND MUSEUM PARK IMPROVEMENTS
NC DEPARTMENT OF NATURAL AND CULTURAL RESOURCES
2110 BLUE RIDGE ROAD, RALEIGH, NC 27607
SCO PROJECT #22-25283-02A

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 039503 MATTHEW J. JOHNSON
06/30/2025

NO.	REVISION	DATE

JOB NUMBER **22-028**
DATE ISSUED **07/03/25**
PROJECT STATUS **ISSUED FOR BID**
SHEET **LEVEL A - CLASSROOM - ELECTRICAL**

E131



1 E132 **LEVEL A - CLASSROOM - FIRE ALARM**
SCALE: 1/4" = 1'-0"
4' 0 4' 8'

PLAN LEGEND

2-HOUR RATED FIRE BARRIER

AREA NOT IN SCOPE

KEY PLAN

HH
ARCHITECTURE
1100 Dresser Court
Raleigh, NC 27609
Office 919.828.2301
Email office@hh-arch.com

Salas O'Brien
Salas O'Brien
North Carolina, Inc.
702 Oberlin Road, Suite 300
Raleigh, NC 27605
919-832-8118
salasobrien.com
license (NC): F-1434

NCMA - EAST BUILDING AND MUSEUM PARK IMPROVEMENTS

NC DEPARTMENT OF NATURAL AND CULTURAL RESOURCES
2110 BLUE RIDGE ROAD, RALEIGH, NC 27607

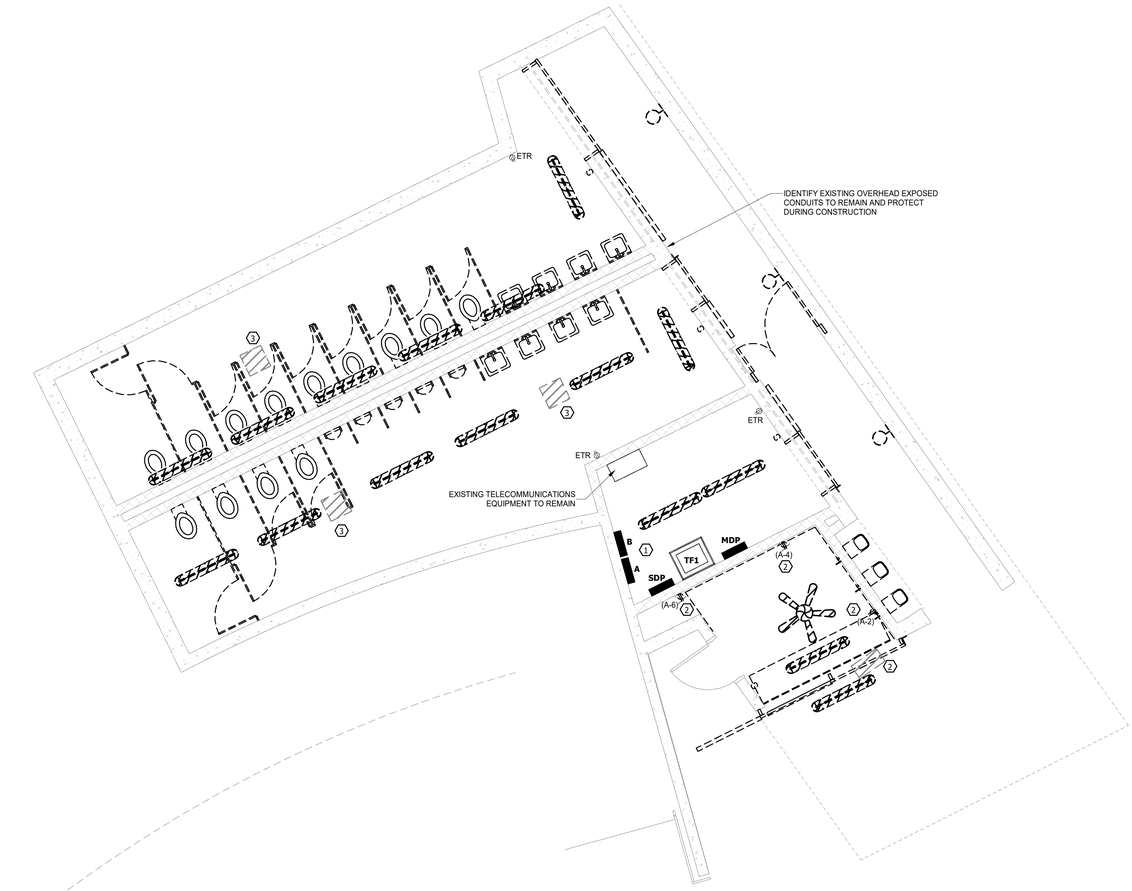
SCO PROJECT #22-25283-02A

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 039503 MATTHEW J. JOHNSON
06/30/2025

NO.	REVISION	DATE

JOB NUMBER
22-028
DATE ISSUED
07/03/25
PROJECT STATUS
ISSUED FOR BID
SHEET
LEVEL A - CLASSROOM - FIRE ALARM

E132



1 ED101.1 **AMPHITHEATER RESTROOMS - ELECTRICAL DEMOLITION**
SCALE: 1/4" = 1'-0"

4' 0 4' 8'

KEY NOTES TO ED101.1

1 ALL EXISTING ELECTRICAL EQUIPMENT TO REMAIN, INCLUDING PANELS, TRANSFORMERS AND CONTACTORS.

2 DEMOLISH EXISTING CIRCUITS BACK TO SOURCE. CIRCUIT BREAKER TO REMAIN FOR USE IN NEW WORK.

3 DEMOLISH CIRCUIT ASSOCIATED WITH HVAC EQUIPMENT TO BE REMOVED. REMOVE ASSOCIATED CIRCUIT BREAKER.

ELECTRICAL DEMOLITION NOTES

(ER) EXISTING ELECTRICAL ITEM TO REMAIN. REFEED FROM EXISTING CIRCUITING IF DEMOLITION IN ADJACENT AREAS DISCONNECT EXISTING CIRCUITING.

(R) EXISTING ELECTRICAL ITEM TO BE REMOVED INCLUDING ALL WIRING, CONDUIT AND ASSOCIATED ELECTRICAL ITEMS.

1 ALL DEMOLITION WORK IS TO BE COORDINATED WITH PHASING OF CONSTRUCTION AND BID ALTERNATES AS OUTLINED ON ARCHITECTURAL SHEETS.

2 REMOVE ALL ELECTRICAL CONDUIT, CABLE, WIRING, DEVICES, JUNCTION BOXES, FITTINGS, AND RELATED ITEMS FROM ALL WALLS, CEILINGS, FLOORS, AND/OR PORTIONS OF SAME INDICATED AS BEING DEMOLISHED BY ANY DIVISION OF THE CONTRACT DOCUMENT SET OR INDICATED ELSEWHERE IN THE CONTRACT DOCUMENT SET AS REQUIRING ELECTRICAL DEMOLITION.

3 REMOVE ALL LIGHTING FIXTURES AND RELATED ITEMS FROM THE DEMOLITION AREA OR OTHER AREAS WHERE NEW LIGHTING FIXTURES ARE TO BE INSTALLED. EXISTING CONDUIT OR CABLE SERVING ITEMS OUTSIDE THE DEMOLITION AREA MAY REMAIN IF THEY ARE CONCEALED BY THE NEW CONSTRUCTION AND MEET THE SPECIFICATIONS REQUIREMENTS OF THE PRESENT PROJECT. NEW FIXTURES ARE TO BE SUPPLIED BY NEW (OR REUSED) CIRCUITS AS INDICATED.

4 EXTEND OR RELOCATE ALL EXISTING CIRCUITS AND RELATED ITEMS SERVING EXISTING UTILIZATION OR OTHER EQUIPMENT WHERE SUCH CIRCUITS OR ITEMS ARE DISRUPTED DUE TO DEMOLITION ACTIVITIES OF ANY DIVISION OF THIS PROJECT. RELOCATE ALL EXISTING JUNCTION BOXES OR SIMILAR ITEMS THAT WILL BE RENDERED INACCESSIBLE BY NEW CONSTRUCTION FURNISHED UNDER ANY DIVISION OF THIS PROJECT. PROVIDE ANY AND ALL TEMPORARY ELECTRICAL SUPPLY (SUPPLIES) AS NEEDED TO MEET THIS REQUIREMENT.

5 REMOVE ALL ABANDONED CIRCUITS BACK TO THE POINT OF SUPPLY OR BACK TO THE POINT WHERE OTHER REMAINING LOADS ARE CONNECTED. LABEL ANY UNUSED OVERCURRENT DEVICES AS "SPARE".

6 WHERE EQUIPMENT OR DEVICES ARE REMOVED AND NOT REPLACED BY A SIMILAR ITEM OR EQUIPMENT, REPAIR WALL SURFACES TO MATCH EXISTING SURROUNDING SURFACE. PAINT AS REQUIRED TO MATCH EXISTING FINISHES.

7 PROVIDE NEW SUPPORT(S) OR RE-SUPPORT AS REQUIRED ALL EXISTING CONDUIT, JUNCTION BOXES, CABLES, AND/OR OTHER ELECTRICAL ITEMS AS REQUIRED TO MEET THE SUPPORT REQUIREMENTS OF THE PRESENT PROJECT.

8 PROVIDE NEW, OR REWORK EXISTING, FIRE STOPPING AT ALL THROUGH-PENETRATIONS OF CONDUIT OR OTHER ELECTRICAL ITEMS THAT WILL REMAIN AT THE CONCLUSION OF THE PROJECT. FIRE STOPPING PROVIDED FOR EXISTING ITEMS MUST MEET THE REQUIREMENTS OF THE PRESENT PROJECT.

9 WHERE EXISTING FIXTURES ARE TO BE REUSED, USE MILD DETERGENT AND CLEAN ALL INTERIOR AND EXTERIOR SURFACES. REPLACE LAMPS AND BALLAST'S AND ANY MISSING OR BROKEN ELECTRICAL PARTS. ALL FLUORESCENT LAMPS ARE TO BE COOL WHITE.

10 PROVIDE TEMPORARY WIRING AND CONNECTIONS TO MAINTAIN EXISTING SYSTEMS IN SERVICE DURING ALL PHASES OF CONSTRUCTION.

11 CIRCUIT NUMBERING IN PARENTHESIS ( ) ARE BASED ON PREVIOUS PROJECT DOCUMENTATION ARE PROVIDED IN GOOD FAITH AND ARE BELIEVED TO BE ACCURATE. CONTRACTOR IS TO VERIFY EXISTING CIRCUITING AND CONSULT ENGINEER IF SERIOUS DISCREPENSIES EXIST.

HH ARCHITECTURE
1100 Dresser Court
Raleigh, NC 27609
Office 919.828.2301
Email office@hh-arch.com

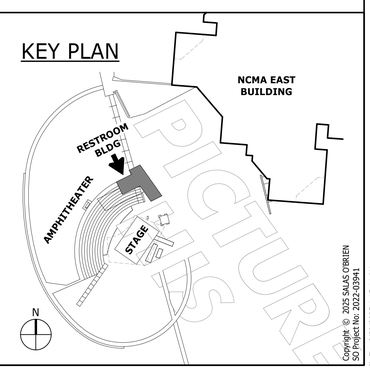
Salas O'Brien
Salas O'Brien
North Carolina, Inc.
702 Oberlin Road, Suite 300
Raleigh, NC 27605
919-832-8118
salasobrien.com
license (NC): F-1434

NCMA - EAST BUILDING AND MUSEUM PARK IMPROVEMENTS
NC DEPARTMENT OF NATURAL AND CULTURAL RESOURCES
2110 BLUE RIDGE ROAD, RALEIGH, NC 27607
SCO PROJECT #22-25283-02A

NORTH CAROLINA PROFESSIONAL SEAL 039503 ENGINEER MATTHEW J. JOHNSON
06/30/2025

NO.	REVISION	DATE

KEY PLAN



JOB NUMBER **22-028**
DATE ISSUED **07/03/25**
PROJECT STATUS **ISSUED FOR BID**
SHEET **AMPHITHEATER RESTROOMS - ELECTRICAL DEMOLITION**

ED101.1

1 E101.1 **AMPHITHEATER RESTROOMS - ELECTRICAL FLOORPLAN**

SCALE: 1/4" = 1'-0"

4' 0 4' 8'

GENERAL NOTES TO E101.1

1 ALL CONDUITS SHALL BE SURFACE MOUNTED TO EXISTING CONCRETE STRUCTURE. ROUTE CONDUITS PARALLEL OR PERPENDICULAR TO WALLS TIGHT TO STRUCTURE.

KEY NOTES TO E101.1

1 PROVIDE POWER CONNECTION TO EQUIPMENT PROVIDED BY OTHER TRADES.

2 EXISTING CIRCUIT TO REMAIN.

3 EXISTING TELECOMMUNICATIONS EQUIPMENT WITH SPARE FIBER CONNECTIONS. ROUTE FIBER FOR POLE MOUNTED CAMERAS AND WIFI ACCESS POINTS ON SITE BACK TO THIS LOCATION. SEE SITE PLAN FOR DEVICE LOCATIONS.

4 PROVIDE (2) SIX BUTTON MANUAL SWITCHES FOR CONTROL OF RELAY PANEL CONTROL ZONES.

5 CONNECT POWER AND DATA TO LRP.

HH
ARCHITECTURE
1100 Dresser Court
Raleigh, NC 27609
Office 919.828.2301
Email office@hh-arch.com

Salas O'Brien
Salas O'Brien
North Carolina, Inc.
702 Oberlin Road, Suite 300
Raleigh, NC 27605
919-832-8118
salasobrien.com
license (NC): F-1434

NCMA - EAST BUILDING AND MUSEUM PARK IMPROVEMENTS

NC DEPARTMENT OF NATURAL AND CULTURAL RESOURCES

2110 BLUE RIDGE ROAD, RALEIGH, NC 27607

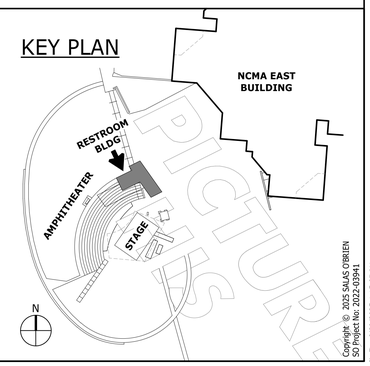
SCO PROJECT #22-25283-02A

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 039503 MATTHEW J. JOHNSON

06/30/2025

NO.	REVISION	DATE
1		

KEY PLAN



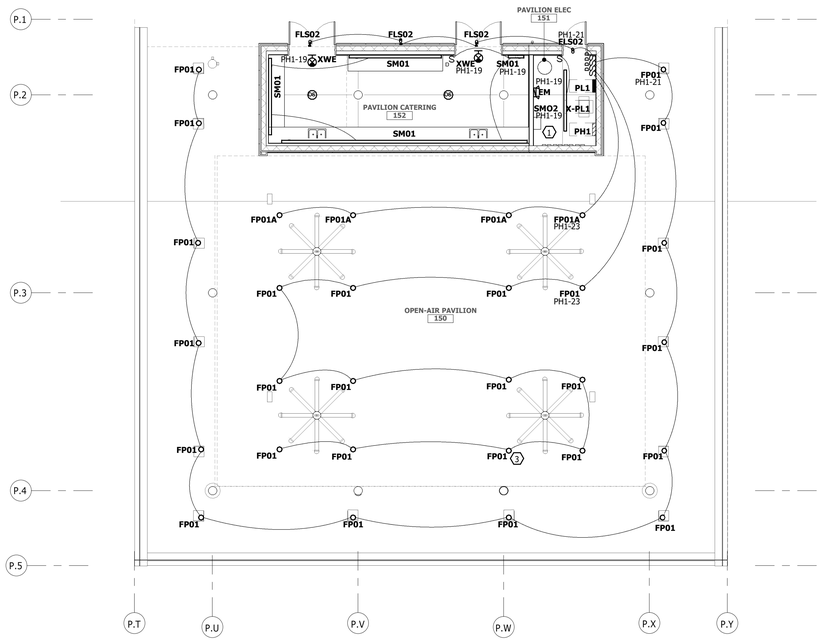
JOB NUMBER
22-028

DATE ISSUED
07/03/25

PROJECT STATUS
ISSUED FOR BID

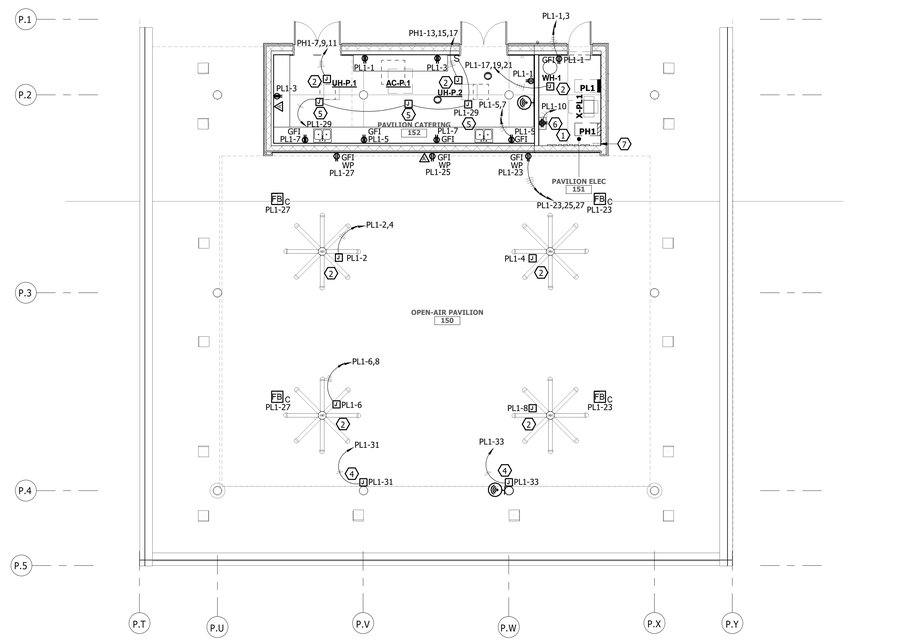
SHEET
AMPHITHEATER RESTROOMS - ELECTRICAL FLOORPLAN

E101.1



2 **PAVILION PLAN - LIGHTING**
E101.2 SCALE: 1/8" = 1'-0"

4' 0 4' 8' 12' 16' 20'



1 **PAVILION PLAN - POWER**
E101.2 SCALE: 1/8" = 1'-0"

4' 0 4' 8' 12' 16' 20'

KEY NOTES TO E101.2

1. PROVIDE REMOTE DRIVERS FOR LIGHT FIXTURES AND MOUNT TO WALL. LABEL DRIVER FOR FIXTURE TYPE AND LOCATION.
2. CONNECT CIRCUIT TO DISCONNECTING MEANS OF EQUIPMENT PROVIDED BY OTHER TRADES.
3. COORDINATE CONDUIT ROUTING TO LIGHT FIXTURES WITH PAVILION CEILING. DO NOT INSTALL ANY JUNCTION BOXES ABOVE INACCESSIBLE CEILING. TYPICAL FOR ALL.
4. PROVIDE CIRCUIT FOR FUTURE PROJECTOR CONNECTION. SURFACE MOUNT RACEWAY AND JUNCTION BOX TO COLUMN TIGHT TO STRUCTURE. ROUTE ADDITIONAL EMPTY 1-1/4" RACEWAY WITH PULL STRING BACK TO CATERING ROOM FOR FUTURE AV CONNECTIONS.
5. PROVIDE CIRCUIT FOR CEILING FANS. COORDINATE CONNECTIONS WITH VENDOR.
6. PROVIDE NEW WALL MOUNTED RACK FOR DATA CABLES IN PAVILION.
7. PROVIDE GROUNDING BAR. SEE DETAIL ON SHEET E302.

HH
ARCHITECTURE
1100 Dresser Court
Raleigh, NC 27609
Office 919.828.2301
Email office@hh-arch.com

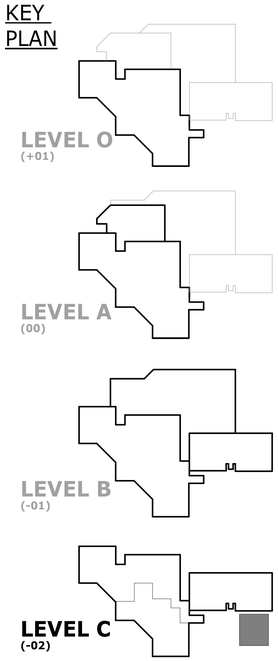
Salas O'Brien
Salas O'Brien
North Carolina, Inc.
702 Oberlin Road, Suite 300
Raleigh, NC 27605
919-832-8118
salasobrien.com
license (NC): F-1434

NCMA - EAST BUILDING AND MUSEUM PARK IMPROVEMENTS

NC DEPARTMENT OF NATURAL AND CULTURAL RESOURCES
2110 BLUE RIDGE ROAD, RALEIGH, NC 27607

SCO PROJECT #22-25283-02A

KEY PLAN



NORTH CAROLINA PROFESSIONAL SEAL 039503 ENGINEER MATTHEW J. JOHNSON
06/30/2025

NO.	REVISION	DATE

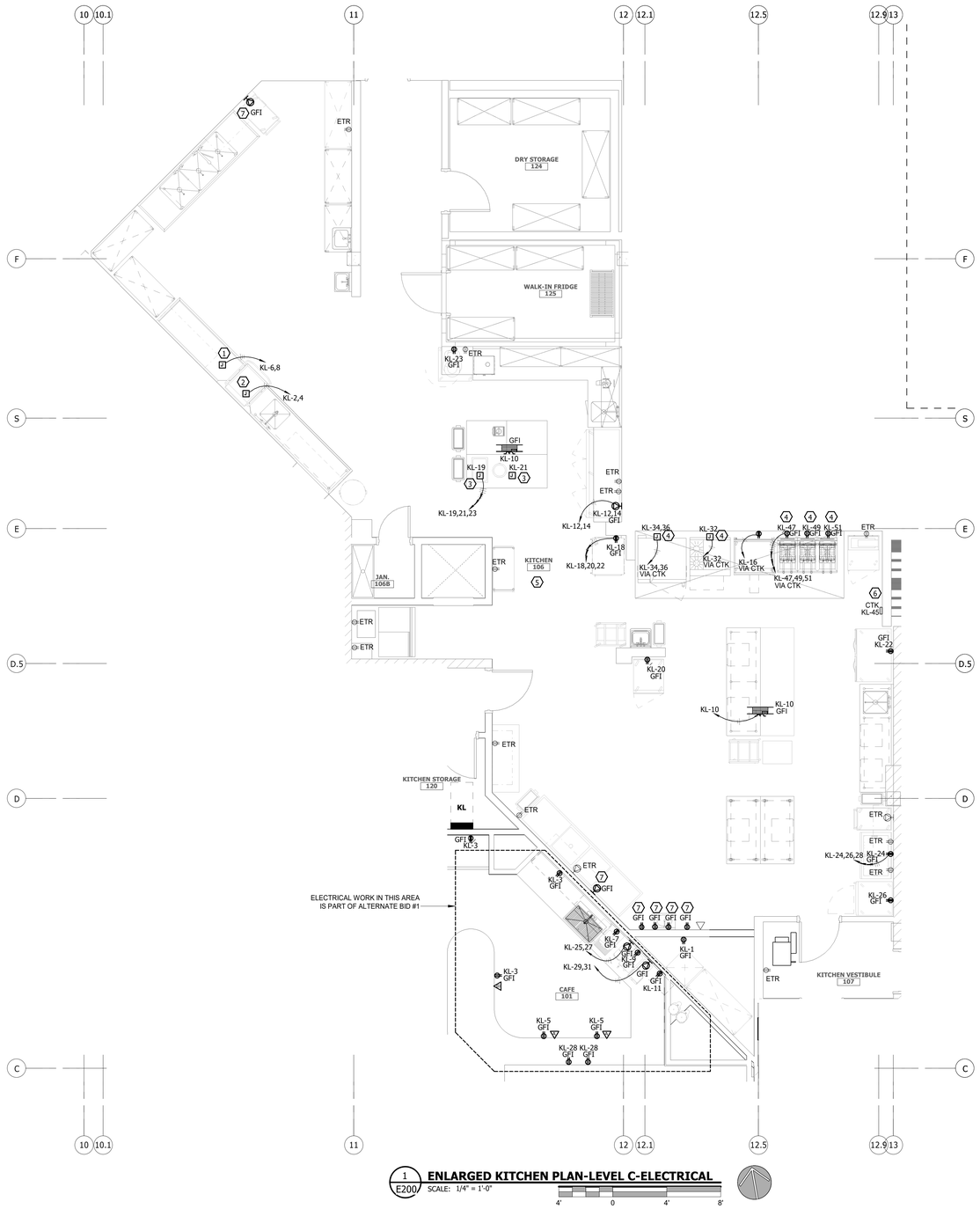
JOB NUMBER
22-028

DATE ISSUED
07/03/25

PROJECT STATUS
ISSUED FOR BID

SHEET
PAVILION PLAN

E101.2



1 E200 **ENLARGED KITCHEN PLAN-LEVEL C-ELECTRICAL**
SCALE: 1/4" = 1'-0"
4' 0 4' 8'

KEY NOTES TO E200

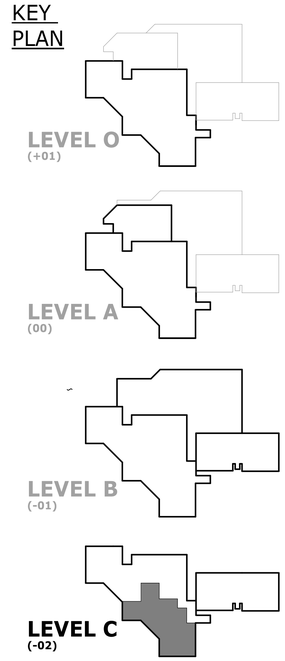
1. PROVIDE CIRCUIT FOR BOOSTER HEATER. COORDINATE CONNECTIONS WITH MANUFACTURER. ROUTE CIRCUIT BENEATH FLOOR.
2. PROVIDE CIRCUIT FOR DISHWASHER. COORDINATE CONNECTIONS WITH MANUFACTURER. ROUTE CIRCUIT BENEATH FLOOR.
3. PROVIDE CIRCUIT FOR SOUP WARMERS IN COUNTER. COORDINATE CONNECTIONS WITH MANUFACTURER. ROUTE CIRCUIT BENEATH FLOOR.
4. PROVIDE CIRCUITS FOR KITCHEN EQUIPMENT AS PART OF ALTERNATE BID #2. COORDINATE CONNECTIONS WITH FOOD SERVICE VENDOR. EXISTING EQUIPMENT AND DEVICES TO REMAIN UNDER BASE BID.
5. RE-SUPPORT ALL EXISTING RACEWAYS AND CABLES ABOVE CEILING TO MEET CURRENT PROJECT REQUIREMENTS. TYPICAL FOR WHOLE ROOM.
6. NEW KITCHEN CONTACTOR. SEE DETAILS ON E302 FOR SPECIFICS AND WIRING.
7. REPLACE EXISTING RECEPTACLE IN SAME LOCATION WITH NEW GFI DEVICE. RECONNECT TO EXISTING CIRCUIT.

PLAN LEGEND

2-HOUR RATED FIRE BARRIER

AREA NOT IN SCOPE

KEY PLAN



HH
ARCHITECTURE
1100 Dresser Court
Raleigh, NC 27609
Office 919.828.2301
Email office@hh-arch.com

Salas O'Brien
Salas O'Brien
North Carolina, Inc.
702 Oberlin Road, Suite 300
Raleigh, NC 27605
919-832-8118
salasobrien.com
license (NC): F-1434

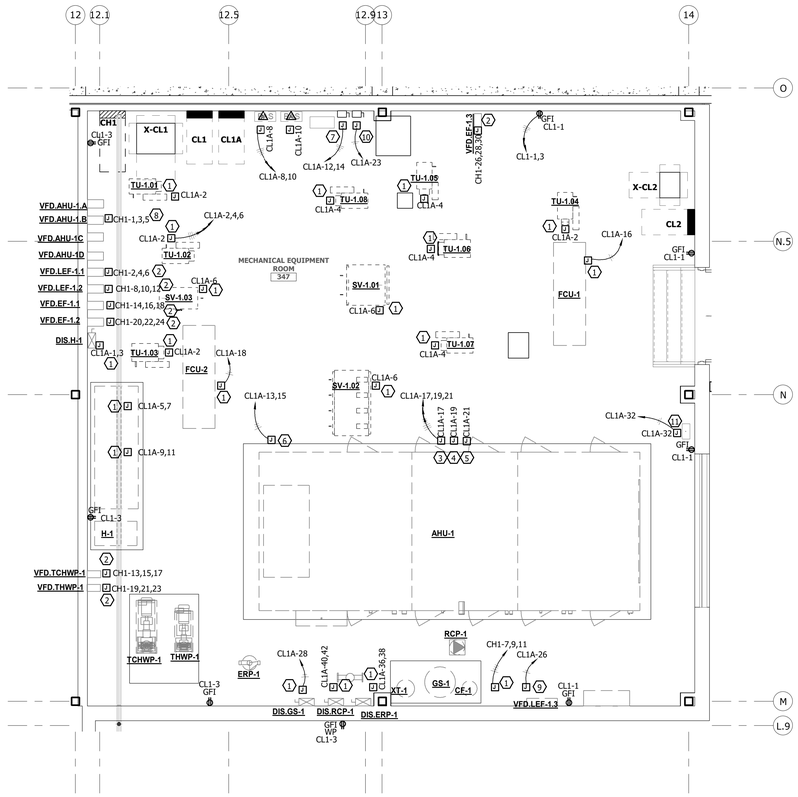
NCMA - EAST BUILDING AND MUSEUM PARK IMPROVEMENTS
NC DEPARTMENT OF NATURAL AND CULTURAL RESOURCES
2110 BLUE RIDGE ROAD, RALEIGH, NC 27607
SCO PROJECT #22-25283-02A

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 039503 MATTHEW J. JOHNSTON
06/30/2025

NO.	REVISION	DATE

JOB NUMBER **22-028**
DATE ISSUED **07/03/25**
PROJECT STATUS **ISSUED FOR BID**
SHEET **ENLARGED KITCHEN PLAN - LEVEL C ELECTRICAL**

E200



1 E201 **LEVEL A CONSERVATION - ENLARGED POWER**

SCALE: 1/4" = 1'-0"

4' 0 4' 8'

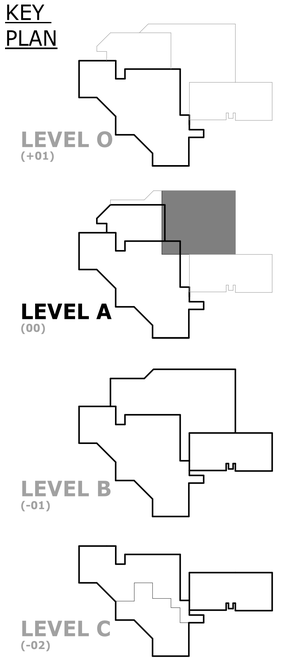
PLAN LEGEND

- 2-HOUR RATED FIRE BARRIER
- BEJ BUILDING EXPANSION JOINT
- AREA NOT IN SCOPE

KEY NOTES TO E201

1. CONNECT CIRCUIT TO LINE SIDE OF MECHANICAL DISCONNECTING MEANS.
2. CONNECT TO LINE SIDE OF VFD. UNIT DISCONNECT IS INTEGRAL WITH DRIVE ASSEMBLY.
3. PROVIDE CIRCUIT SERVING AHU-1 RECEPTACLES.
4. PROVIDE CIRCUIT SERVING AHU-1 LIGHTS.
5. PROVIDE CIRCUIT SERVING AHU-1 UV LIGHTS.
6. PROVIDE CIRCUIT FOR HUMIDIFIER ZONE CONTROLLER INSIDE AHU. COORDINATE EXACT LOCATION AND CONNECTIONS WITH MANUFACTURER.
7. PROVIDE 208V SINGLE PHASE 30A FRAME 20A FUSE DISCONNECT FOR FUTURE VACUUM PUMP.
8. PROVIDE CIRCUIT FOR VFDS AND ROUTE THROUGH GUTTER. TAP CIRCUIT AND CONNECT TO LINE SIDE OF EACH VFD. CONSULT DETAIL ON E301.
9. PROVIDE 120V CIRCUIT FOR HEAT TRACE CONTROL PANEL DISPLAY. COORDINATE CONNECTIONS WITH EQUIPMENT VENDOR.
10. PROVIDE 120V 30A FRAME 20A FUSE DISCONNECT FOR FUTURE VACUUM PUMP.
11. PROVIDE CIRCUIT FOR TRAP PRIMER. COORDINATE CONNECTIONS WITH PLUMBING CONTRACTOR.

KEY PLAN



HH ARCHITECTURE
1100 Dresser Court
Raleigh, NC 27609
Office 919.828.2301
Email office@hh-arch.com

Salas O'Brien
Salas O'Brien
North Carolina, Inc.
702 Oberlin Road, Suite 300
Raleigh, NC 27605
919-832-8118
salasobrien.com
license (NC): F-1434

NCMA - EAST BUILDING AND MUSEUM PARK IMPROVEMENTS
NC DEPARTMENT OF NATURAL AND CULTURAL RESOURCES
2110 BLUE RIDGE ROAD, RALEIGH, NC 27607
SCO PROJECT #22-25283-02A

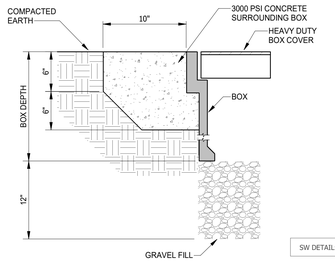
NORTH CAROLINA PROFESSIONAL SEAL 039503 ENGINEER MATTHEW J. JOHNSON
06/30/2025

NO.	REVISION	DATE

JOB NUMBER **22-028**
DATE ISSUED **07/03/25**
PROJECT STATUS **ISSUED FOR BID**

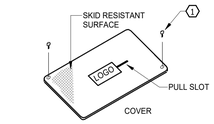
SHEET **ENLARGED PLANS - CONSERVATION**

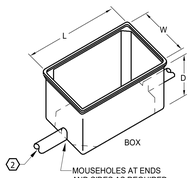
E201



SW DETAIL: OC0011

11 E300 UNDERGROUND ENCLOSURE INSTALLATION
SCALE: NTS





GENERAL NOTES :

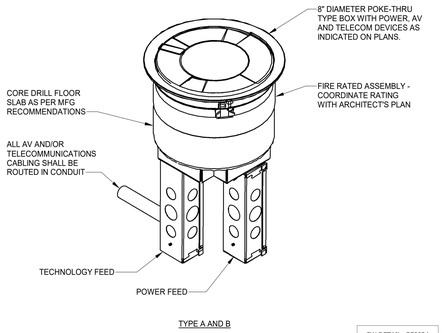
1. HEAVY WEAVE FIBERGLASS; BOX HAS OPEN BASE. PROVIDE GRAVEL FILL 12" DEEP BELOW BOX.
2. BOX DIMENSION IS 17" LONG x 10" WIDE x 11-1/4" DEEP.
3. PROVIDE BOX COVER LOGO, AS APPLICABLE.
4. BOX COVERS SHALL BE A HEAVY DUTY DESIGN, CAPABLE OF WITHSTANDING A LOAD OF 15,000 LBS. OVER A 10" SQUARE AREA.
5. SEE UNDERGROUND ENCLOSURE INSTALLATION DETAIL.

KEYED NOTES :

1. PROVIDE TAMPER RESISTANT STAINLESS STEEL COVER HOLD-DOWN BOLTS.
2. TYPICAL CONDUIT ENTRY.

SW DETAIL: OC0012

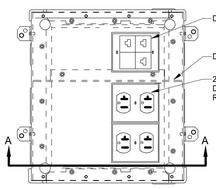
12 E300 TYPICAL UNDERGROUND ENCLOSURE
SCALE: NTS



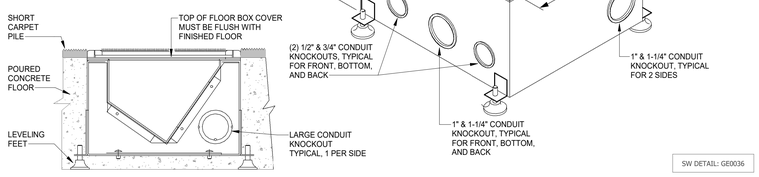
TYPE A AND B

SW DETAIL: GE0034

13 E300 POKE-THRU FLOOR OUTLET DETAIL
SCALE: NTS



TYPE C FLOOR BOX

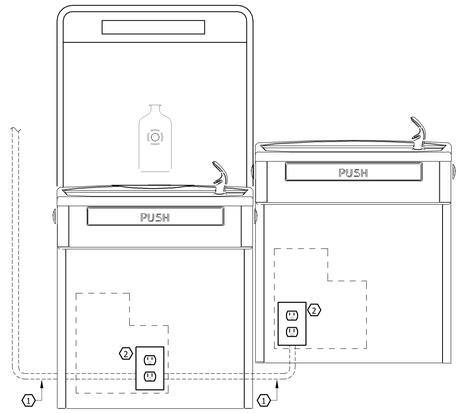


SECTION 'A'

ELECTRICAL FLOOR BOX SCHEDULE

Box Type	DUPLEX QTY	DATA TYPE/QTY	DATA CONDUIT SIZE	A/V SPACE	A/V CONDUIT SIZE	Comments
A	1	B	1"	1 GANG	1-1/4	POKE THROUGH TYPE BOX
B	1	B	1"	N/A	N/A	POKE THROUGH TYPE BOX
C	2	N/A	N/A	N/A	N/A	NEMA 6P RATED OUTDOOR BOX

14 E300 FLOOR BOX DETAIL
SCALE: NTS



KEYED NOTES :

1. GFI BREAKER PROTECTED CONDUCTORS WITHIN CONDUIT CONCEALED WITHIN WALL.
2. DUPLEX RECEPTACLE(S) WITH LABEL IDENTIFYING OUTLET AS GFI PROTECTED. LOCATE RECEPTACLE WITHIN EACH COOLER HOUSING. COORDINATE EXACT MOUNTING LOCATION OF EACH RECEPTACLE WITH EWC MANUFACTURER AND PLUMBING CONTRACTOR.

SW DETAIL: GE0038

8 E300 ELECTRIC WATER COOLER GFCI DETAIL
SCALE: NTS

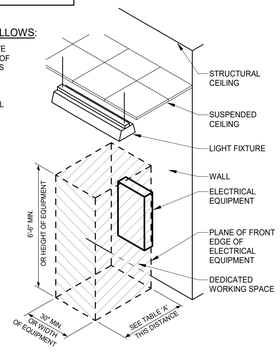
TABLE A - WORKING CLEARANCES			
NOMINAL VOLTAGE TO GROUND	MINIMUM CLEAR DISTANCE (FEET)		
	CONDITION 1	CONDITION 2	CONDITION 3
0-150	3	3	3
151-600	3	3 1/2	4

WHERE THE CONDITIONS ARE AS FOLLOWS:

1. EXPOSED LIVE PARTS ON ONE SIDE AND NO LIVE OR UNGROUNDED PARTS ON THE OTHER SIDE OF THE WORKING SPACE, OR EXPOSED LIVE PARTS ON BOTH SIDES EFFECTIVELY GUARDED BY SUITABLE 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.

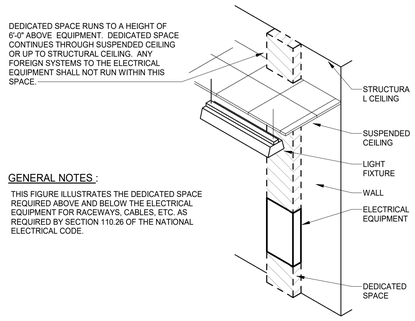
GENERAL NOTES :

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



SW DETAIL: GE0029

9 E300 WORKING CLEARANCES FOR ELECTRICAL EQUIPMENT
SCALE: NTS

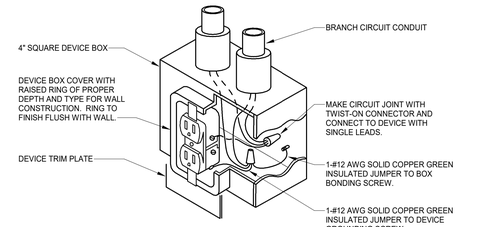


GENERAL NOTES :

1. THIS FIGURE ILLUSTRATES THE DEDICATED SPACE REQUIRED ABOVE AND BELOW THE ELECTRICAL EQUIPMENT FOR RACEWAYS, CABLES, ETC. AS REQUIRED BY SECTION 110.26 OF THE NATIONAL ELECTRICAL CODE.

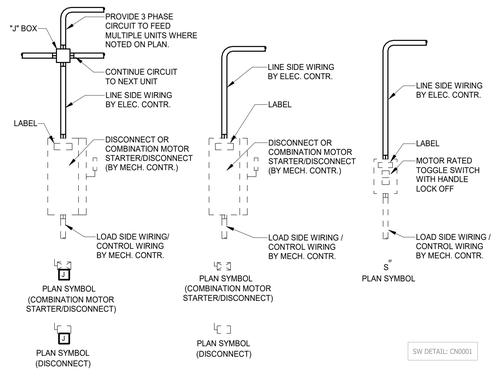
SW DETAIL: GE0030

10 E300 DEDICATED SPACE FOR ELECTRICAL EQUIPMENT
SCALE: NTS



SW DETAIL: GE0033

4 E300 RECEPTACLE GROUNDING DETAIL
SCALE: NTS

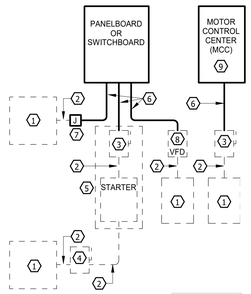


SW DETAIL: CN0001

5 E300 MECHANICAL UNIT WIRING DETAILS
SCALE: NTS

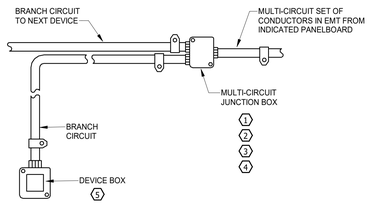
KEYED NOTES :

1. EQUIPMENT PROVIDED AND INSTALLED BY OTHER CONTRACTOR. CONTRACTOR SHALL MAKE ALL FINAL CONNECTIONS, START UP AND TEST EQUIPMENT.
2. CONDUIT & WIRING BY OTHER CONTRACTOR PROVIDING EQUIPMENT.
3. DISCONNECT PROVIDED AND INSTALLED BY CONTRACTOR PROVIDING EQUIPMENT.
4. IF AN ADDITIONAL DISCONNECT IS REQUIRED BY NEC, IT SHALL BE PROVIDED AND INSTALLED BY CONTRACTOR PROVIDING EQUIPMENT.
5. A COMBINATION STARTER MAY BE USED IN LIEU OF A SEPARATE DISCONNECT SWITCH AND STARTER. A COMBINATION STARTER SHALL BE PROVIDED AND INSTALLED BY THE OTHER CONTRACTOR PROVIDING THE EQUIPMENT.
6. FEEDER AND CONDUIT BY ELECTRICAL CONTRACTOR. SEE PANELBOARD SCHEDULES FOR WIRE AND BREAKER SIZES TO OTHER EQUIPMENT. TERMINATE FEEDER AT LINE SIDE OF DISCONNECTING MEANS.
7. JUNCTION BOX MAY BE SHOWN ON ELECTRICAL PLANS FOR SOME EQUIPMENT IF NO STARTER IS REQUIRED. INSTALL JUNCTION BOX ADJACENT TO THE EQUIPMENT AND PROVIDE LINE SIDE WIRING TO THE JUNCTION BOX. MOTOR RATED DISCONNECT SHALL BE PROVIDED BY CONTRACTOR PROVIDING EQUIPMENT WHERE REQUIRED BY CODE.
8. VARIABLE FREQUENCY DRIVE (VFD) PROVIDED AND INSTALLED BY OTHER CONTRACTOR PROVIDING EQUIPMENT. VFD IS SUPPLIED WITH INTEGRAL DISCONNECTING MEANS.
9. FOR PROJECTS UTILIZING A MOTOR CONTROL CENTER (MCC), THE STARTER, CIRCUIT BREAKER OR VFD IN THE MCC ARE PROVIDED BY THE ELECTRICAL CONTRACTOR.



SW DETAIL: CN0002

6 E300 MECHANICAL UNIT WIRING DETAILS
SCALE: NTS



KEYED NOTES:

1. PROVIDE DEDICATED NEUTRAL CONDUCTOR WITH EACH PHASE CONDUCTOR.
2. LABEL EACH PHASE CONDUCTOR AND MATING NEUTRAL CONDUCTOR AT ALL BOX LOCATIONS FOR IDENTIFICATION.
3. BOND GROUND CONDUCTOR TO ALL BOXES.
4. MULTI-CIRCUIT JUNCTION BOXES SHALL NOT BE USED FOR DEVICE LOCATIONS.
5. DEVICE BOX SHALL NOT BE USED FOR MULTI-CIRCUIT DISTRIBUTION.

SW DETAIL: GE0042

7 E300 MULTI-CIRCUIT HOMERUN WIRING DETAIL
SCALE: NTS

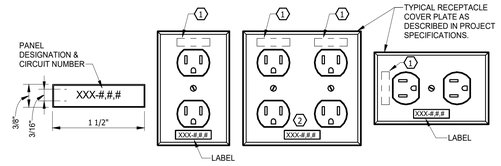


FIG. 1 - LABEL DIMENSIONS

FIG. 2 - LABEL LOCATION ON DEVICE PLATE

GENERAL NOTES :

1. LABELS ARE TO BE MACHINE PRODUCED USING A THERMAL TRANSFER PROCESS WITH DIMENSIONS AS SHOWN ABOVE. LABELS ARE TO BE SUITABLE FOR EITHER INDOOR OR OUTDOOR USE.
2. LABEL COLOR TO BE CLEAR WITH BLACK LETTERING.
3. LABELS ARE TO BE ATTACHED AS INDICATED ABOVE TO ALL PROJECT RECEPTACLE COVER PLATES.

KEYED NOTES :

1. WRITE PANEL DESIGNATION NUMBER ON DEVICE YOKE WITH A FINE TIP, PERMANENT MARKER AS AN AID TO PROPER FACEPLATE LOCATION. ALL MARKING ON DEVICES MUST BE COVERED BY FACEPLATE.
2. FOR DUPLEX RECEPTACLES CENTER LABEL IF BOTH DEVICES ARE SUPPLIED BY THE SAME CIRCUIT. IF DEVICES ARE SUPPLIED BY DIFFERENT CIRCUITS PROVIDE A LABEL BELOW EACH RECEPTACLE.

SW DETAIL: LA0002

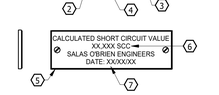
1 E300 DEVICE LABELS
SCALE: NTS

GENERAL NOTES :

1. INSTALL NEW LABELS ON ALL PROJECT EQUIPMENT (PANELBOARDS, ENCLOSED BREAKERS, DISCONNECTS, TRANSFORMERS).
2. CONSTRUCT LABELS FROM 2 COLOR PLASTIC LAMINATE. DIMENSIONS ARE 5" WIDE X 1 1/2" HIGH. TEXT HEIGHT IS 3/16", EXCEPT AS NOTED OTHERWISE.
3. LABEL COLORS ARE TO BE SELECTED FROM THE FOLLOWING CHOICES:

NORMAL SYSTEM 480Y/277V:	BLACK BACKGROUND/WHITE LETTERS
NORMAL SYSTEM 208Y/120V:	BLUE BACKGROUND/WHITE LETTERS
EMERGENCY:	GREEN BACKGROUND/WHITE LETTERS
OPTIONAL STANDBY:	YELLOW BACKGROUND/BLACK LETTERS

4. SECURE TO TOP CENTER OF EQUIPMENT COVER WITH #4-40 STAINLESS STEEL SCREWS WITH MATCHING NUTS AND LOCKWASHERS. USE OF ADHESIVES TO SECURE LABEL TO EQUIPMENT IS NOT ACCEPTABLE.



KEYED NOTES :

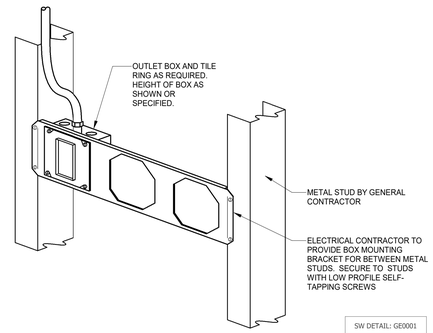
1. INSERT EQUIPMENT DESIGNATION WHERE X'S ARE INDICATED.
2. INSERT VOLTAGE WHERE X'S ARE INDICATED. POSSIBLE VOLTAGES ARE:

   "480Y/277"
   "208Y/120"
   "480: 208Y/120"
3. INSERT SUPPLY SOURCE DESIGNATION HERE.
4. INSERT SUPPLY SYSTEM WHERE X'S ARE INDICATED POSSIBLE CHOICES ARE:

   "NORMAL POWER"
   "EMERGENCY"
   "OPTIONAL STANDBY"
5. ADD THIS LABEL AT SERVICE EQUIPMENT, PANELBOARDS, MECHANICAL SYSTEM MOTOR CONTROLLERS (VARIABLE DRIVE UNITS).
6. INSERT VALUE INDICATED ON PROJECT ELECTRICAL DRAWINGS.
7. INSERT DATE OF PROJECT DRAWING BID SET.

SW DETAIL: LA0003 R2

2 E300 EQUIPMENT LABEL
SCALE: NTS



SW DETAIL: GE0001

3 E300 OUTLET BOX SUPPORT
SCALE: NTS

HH
ARCHITECTURE
1100 Dresser Court
Raleigh, NC 27609
Office 919.828.2301
Email office@hh-arch.com

Salas O'Brien
Salas O'Brien
North Carolina, Inc.
702 Oberlin Road, Suite 300
Raleigh, NC 27605
919-832-8118
salasobrien.com
license (NC): F-1434

NCMA - EAST BUILDING AND MUSEUM PARK IMPROVEMENTS

NC DEPARTMENT OF NATURAL AND CULTURAL RESOURCES
2110 BLUE RIDGE ROAD, RALEIGH, NC 27607

SCO PROJECT #22-25283-02A

NORTH CAROLINA PROFESSIONAL SEAL 039503 ENGINEER MATTHEW J. JOHNSON
06/30/2025

NO.	REVISION	DATE
1		

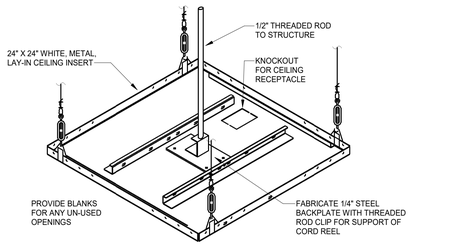
JOB NUMBER
22-028

DATE ISSUED
07/03/25

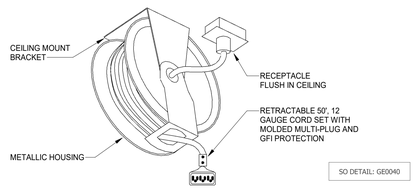
PROJECT STATUS
ISSUED FOR BID

SHEET
ELECTRICAL DETAILS

E300



SUPPORT PANEL FOR LAY-IN CEILING
(AS DETAILED ON ARCHITECTURAL PLANS)

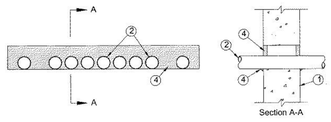


SO DETAIL: GE0040

5 E301 **RETRACTABLE CORD REEL WITH RECEPTACLE**
SCALE: NOT TO SCALE

System No. W-J-1100
December 09, 2008

F Rating — 2 Hr
T Ratings — 1/4, 3/4 and 1 Hr (See Items 2 and 4)



1. **Wall Assembly —** Min 6 in. (152 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m^3) concrete. Wall may also be constructed of any UL Classified **Concrete Blocks***. Max area of opening is 216 sq in. (0.14 m^2) with a max dimension of 36 in. (914 mm).

See **Concrete Blocks** (CAZT) category in the Fire Resistance Directory for names of manufacturers.

2. **Through Penetrants —** Multiple pipes or conduits installed in single layer array within the firestop system. The annular space between the pipes and conduits and the edges of the opening shall be min 0 in. (point contact) to max 2 in. (51 mm). The separation between pipes and conduits to be min 1/4 in. (6 mm) to max 3 in. (76 mm). Pipes and conduits to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipe or conduit may be used:

A. **Steel Pipe —** Nom 4 in. (102 mm) diam (or smaller) Schedule 5 (or heavier) steel pipe.
B. **Conduit —** Nom 4 in (102 mm) diam (or smaller) rigid steel conduit or steel electrical metallic tubing (EMT).

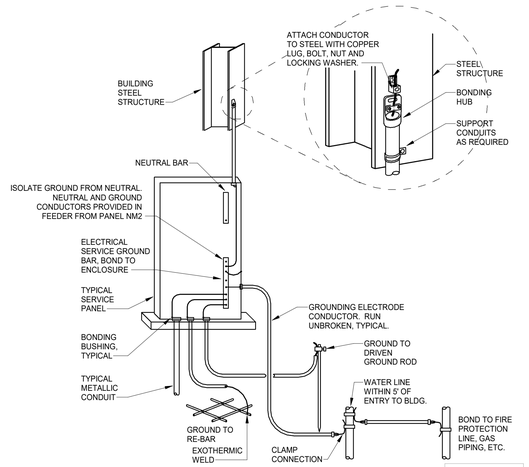
When nom diam of pipe or conduit is greater than 2 in. (51 mm), T Rating is 1/4 hr. Otherwise, T Rating is 3/4 hr or 1 hr as detailed in Item 4.

3. **Forming Material —** (Optional, Not Shown) - Foam backer rod, mineral wool batt insulation or glass fiber insulation packed into opening and recessed min 5/8 in. (16 mm) from each surface of the wall to accommodate fill material (Item 4).
4. **Fill, Void or Cavity Materials* - Sealant —** Min 5/8 in. (16 mm) thickness of fill material installed to completely fill annular space between pipes, conduits and gypsum wallboard flush with each surface of wall. Min 1/4 in. (6 mm) diam bead of fill material applied to the pipe/wall interface at the point contact locations on both sides of the wall.

SPECIFIED TECHNOLOGIES INC — SpecSeal LC150 Sealant, SpecSeal Series SSS Sealant, SpecSeal LCI Sealant, SpecSeal LE600 Sealant. **When SpecSeal LC150 Sealant or SpecSeal LE600 Sealant is used with max 2 in. (51 mm) diam pipe or conduit, T Rating is 3/4 hr. When SpecSeal LCI or SpecSeal Series SSS Sealant is used with max 2 in. (51 mm) diam pipe or conduit, T Rating is 1 hr.**

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2008-12-09

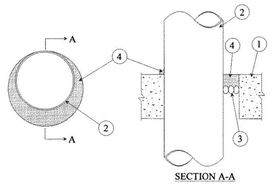


SO DETAIL: GN0010-R1

4 E301 **PANEL PH1 GROUNDING AND BONDING**
SCALE: NTS

System No. C-AJ-1044
March 15, 2007

F Ratings — 2, 3, and 4 Hr (See Items 2A and 4)
T Rating — 0 Hr
L Rating At Ambient — 2 CFM/sq ft
L Rating At 400 F — less than 1 CFM/sq ft
W Rating — Class 1 (See Item 4)



1. **Floor or Wall Assembly —** Lightweight or normal weight (100-150 pcf or 1600-2400 kg/m^3) concrete. Except as noted in table under Item 4, min thickness of solid concrete floor or wall assembly is 4-1/2 in. (114 mm). Floor may also be constructed of any min 6 in.(152 mm) thick UL Classified hollow core **Precast Concrete Units***. When floor is constructed of hollow core precast concrete units, packing material (Item 3) and caulk fill material (Item 4) to be installed symmetrically on both sides of floor, flush with floor surface. Wall assembly may also be constructed of any UL Classified **Concrete Blocks***. Max diam of opening in solid lightweight or normal weight concrete floor is 32 in. (813 mm). Max diam of opening in floor constructed of hollow-core precast concrete units is 7 in. (178 mm)

See **Concrete Blocks** (CAZT) and **Precast Concrete Units** (CFTV) categories in the Fire Resistance Directory for names of manufacturers.

1A. **Steel Sleeve —** (Optional, Not Shown) - Nom 16 in. (406 mm) diam (or smaller) Schedule 10 (or heavier) steel sleeve cast or grouted into floor or wall assembly. Sleeve may extend a max of 2 in. (51 mm) above top of floor or beyond either surface of wall. As an alternate, nom 16 in. (406 mm) diam (or smaller) min 0.028 (0.71 mm) thick galvanized sheet steel sleeve cast or grouted into floor or wall assembly flush with floor or wall surfaces.
2. **Through Penetrants —** One metallic pipe, conduit or tubing to be installed either concentrically or eccentrically within the firestop system. Max annular space between pipe, conduit or tubing and edge of through opening or sleeve is dependent on the parameters shown in Item 4. Min annular space between pipe or conduit and edge of through opening is 0 in. (point contact). Max annular space to be as shown in the table in Item 4. Pipe, conduit or tubing to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:

A. **Steel Pipe —** Nom 30 in. (762 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
B. **Iron Pipe —** Nom 30 in. (762 mm) diam (or smaller) cast or ductile iron pipe.
C. **Conduit —** Nom 6 in. (152 mm) diam (or smaller) rigid steel conduit.
D. **Conduit —** Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing.
E. **Copper Tubing —** Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tube.
F. **Copper Pipe —** Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe.

3. **Packing Material —** Polyethylene backer rod or nom 1 in. (25 mm) thickness of tightly-packed mineral wool batt or glass fiber insulation firmly packed into opening as a permanent form. Packing material to be recessed from top surface of floor or from both surfaces of wall as required to accommodate the required thickness of caulk fill material (Item 4).
3A. **Forming Material* —** As an alternate to the packing material in Item 3, nom 4 in. (102 mm) wide strips of min 1/2 in (13 mm) thick compressible mat to be stacked to a thickness greater than the width of the annular space and compression-fitted, edge-first, to fill the annular space to a min 4 in. (102 mm) depth. As an option, the strips of min 1/2 in. (13mm) thick compressible mat may be folded in half, lengthwise, and stacked to a thickness greater than the width of the annular space and compression-fitted, edge-first, to fill the annular space to a min 2 in. (51 mm) depth. Top of forming material to be recessed from top surface of floor or from both surfaces of wall as necessary to accommodate the required thickness of caulk fill material.

3M COMPANY — Fire Barrier Packing Material

4. **Fill, Void or Cavity Material* — Caulk, Sealant —** Applied to fill the annular space flush with top surface of floor. In wall assemblies, required caulk thickness to be installed symmetrically on both sides of wall, flush with wall surface. At point contact location between penetrant and sleeve or between penetrant and concrete, a min 1/4 in. (6 mm) diam bead of caulk shall be applied at top surface of floor and at both surfaces of wall. The hourly F Ratings and the min required caulk thicknesses are dependent upon a number of parameters, as shown in the following table:

Min Floor or Wall Thkns In.	Nom Pipe Tube or Conduit Diam In.	Max Annular Space In.	Min Caulk Thkns In.	F Rating Hr
2-1/2 (64)	1/2-12 (13-305)	1-3/8 (35)	1/2 (13)	2
2-1/2 (64)	1/2-12 (13-305)	3-1/4 (83)	1 (25)	2
4-1/2 (114)	1/2-6 (13-152)	1-3/8 (35)	1/4 (6) (a)	2
4-1/2 (114)	1/2-12 (13-305)	1-1/4 (32)	1/2 (13)	3
4-1/2 (114)	1/2-20 (13-508)	2 (51)	1 (25)	3
4-1/2 (114)	1/2-20 (13-508)	2 (51)	1 (25)	3
4-1/2 (114)	1/2-12 (13-305)	3-1/4 (83)	1 (25)	3
4-1/2 (114)	22-30 (558-762)	2 (51)	2 (51)	3
5-1/2 (140)	1/2-6 (13-152)	1-3/8 (35)	1 (25) (b)	4

(a)Min 2 in (51 mm) thickness of mineral wool batt insulation or forming material (Item 3A) required in annular space.
(b)Min 1 in. (25 mm) thickness of mineral wool batt insulation required in annular space on both sides of floor or wall assembly. Min 1 in.(25 mm) thickness of caulk to be installed flush with each surface of floor or wall assembly.
3M COMPANY — CP 25WB+ or FB-3000 WT.

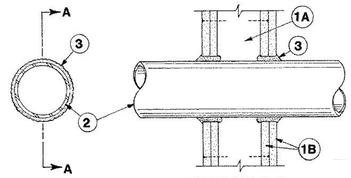
(Note - W Rating applies only when FB-3000 WT is used.)

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2007-03-15

System No. W-L-1001
June 15, 2005

F Ratings — 1, 2, 3 and 4 Hr (See Items 2 and 3)
T Ratings — 0, 1, 2, 3, and 4 Hr (See Item 3)
L Rating At Ambient — less than 1 CFM/sq ft
L Rating At 400 F — less than 1 CFM/sq ft



1. **Wall Assembly —** The 1, 2, 3 or 4 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall or Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. **Studs —** Wall framing may consist of either wood studs (max 2 h fire rated assemblies) or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC with nom 2 by 4 in. (51 by 102 mm) lumber end plates and cross braces. Steel studs to be min 3-5/8 in. (92 mm) wide by 1-3/8 in. (35 mm) deep channels spaced max 24 in. (610 mm) OC.
B. **Gypsum Board* —** Nom 1/2 or 5/8 in. (13 or 16 mm) thick, 4 ft. (122 cm) wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 26 in. (660 mm).

2. **Through-Penetrant —** One metallic pipe, conduit or tubing installed either concentrically or eccentrically within the firestop system. The annular space between pipe, conduit or tubing and periphery of opening shall be min of 0 in / (0 mm). (point contact) to max 2 in. (51 mm) Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:

A. **Steel Pipe —** Nom 24 in. (610 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
B. **Iron Pipe —** Nom 24 in. (610 mm) diam (or smaller) service weight (or heavier) cast iron soil pipe, nom 12 in (305 mm) diam (or smaller) or Class 50 (or heavier) ductile iron pressure pipe.
C. **Conduit —** Nom 6 in. (152 mm) diam (or smaller) steel conduit or nom 4 in (102 mm) diam (or smaller) steel electrical metallic tubing
D. **Copper Tubing —** Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing
E. **Copper Pipe —** Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe.
F. **Through Penetrating Product* —** Flexible Metal Piping The following types of steel flexible metal gas piping may be used:
1. Nom 2 in. (51 mm) diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

OMEGA FLEX INC

2. Nom 1 in. (25 mm) diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

GASTITE, DIV OF TITEFLEX

3. Nom 1 in. (25 mm) diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

WARD MFG L L C

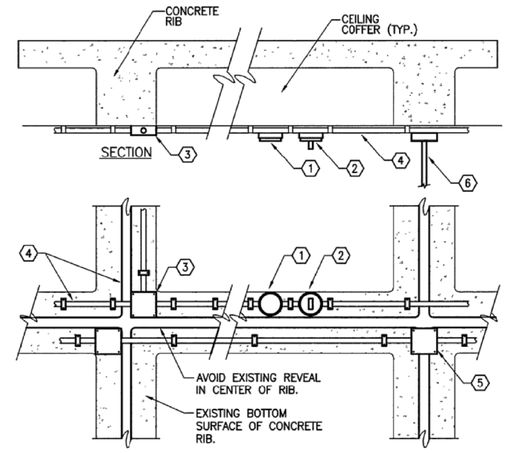
3. **Fill, Void or Cavity Material* — Caulk or Sealant —** Min 5/8. , 1-1/4,1-7/8 and 2-1/2 in. (16, 32, 48 and 64 mm) thickness of caulk for 1, 2, 3 and 4 hr rated assemblies, respectively, applied within annulus, flush with both surfaces of wall. Min 1/4 in. (6 mm) diam bead of caulk applied to gypsum board/penetrant interface at point contact location on both sides of wall. The hourly F Rating of the firestop system is dependent upon the hourly fire rating of the wall assembly in which it is installed, as shown in the following table. The hourly T Rating of the firestop system is dependent upon the type or size of the pipe or conduit and the hourly fire rating of the wall assembly in which it is installed, as tabulated below:

Max Pipe or Conduit Diam In (mm)	F Rating Hr	T Rating Hr
1 (25)	1 or 2	0+, 1 or 2
1 (25)	3 or 4	3 or 4
4 (102)	1 or 2	0
6 (152)	3 or 4	0
12 (305)	1 or 2	0

+When copper pipe is used, T Rating is 0 h.
3M COMPANY — CP 25WB+ or FB-3000 WT.

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2005-06-15



CEILING VIEW

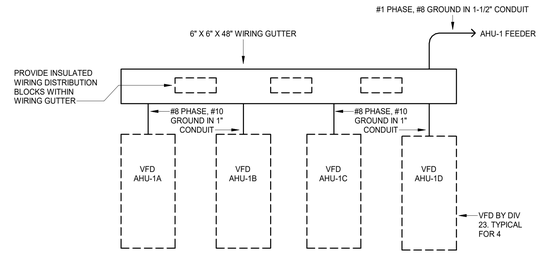
GENERAL NOTES TO 1/E301:

1. PROVIDE WHITE FIRE ALARM DEVICES.
2. PRE-PAINT ALL SURFACE RACEWAY, JUNCTION BOXES, AND STRAPS PRIOR TO INSTALLATION AT COFFERED CONSTRUCTION. FIRE ALARM JUNCTION BOXES SHALL BE PAINTED RED. EMERGENCY CIRCUIT JUNCTION BOXES SHALL BE LABELLED WITH PANEL AND CIRCUIT NUMBER.
3. COORDINATE ALL CONDUIT RUNS ALONG COFFER RIBS WITH EXISTING OR OTHER SYSTEM RACEWAYS.
4. NO POWER ACTUATED ANCHOR DEVICES ARE ALLOWED.

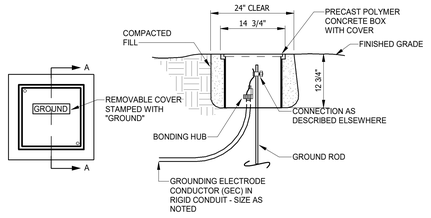
KEYED NOTES TO 1/E301:

1. PROVIDE SMOKE DETECTOR DEVICES AS PER PLANS. FIRE ALARM DEVICE BACKBOX SHALL BE PROVIDED BY DEVICE MFG.
2. PROVIDE SPEAKER STROBE DEVICES AS PER PLANS. FIRE ALARM DEVICE BACKBOX SHALL BE PROVIDED BY DEVICE MFG.
3. PROVIDE JUNCTION BOX WHERE REQUIRED AT INTERSECTIONS OF RIBS TO ALIGN ALL CONDUIT TURNS AT 90 DEGREE ANGLES.
4. ROUTE ALL CONDUIT TIGHT AND STRAIGHT TO COFFER RIB. RUN CONDUIT LINEAR AND KEEP ALL SECTIONS CONSISTENTLY ALONG ONE SIDE OF RIB REVEAL.
5. PROVIDE JUNCTION BOX FOR LIGHT FIXTURE SUPPORT WHERE REQUIRED.
6. SUSPENDED LIGHT FIXTURE OR EXIT SIGN AS REQUIRED BY PLANS.

1 E301 **CONDUIT ROUTING AT CEILING COFFERS**
SCALE: NTS



2 E301 **AHU GUTTER WIRING DETAIL**
SCALE: NTS



PLAN SECTION A-A

SO DETAIL: GN0006

3 E301 **GROUND ROD ENCLOSURE**
SCALE: NTS

HH
ARCHITECTURE
1100 Dresser Court
Raleigh, NC 27609
Office 919.828.2301
Email office@hh-arch.com

Salas O'Brien
Salas O'Brien
North Carolina, Inc.
702 Oberlin Road, Suite 300
Raleigh, NC 27605
919-832-8118
salasobrien.com
license (NC): F-1434

NCMA - EAST BUILDING AND MUSEUM PARK IMPROVEMENTS

NC DEPARTMENT OF NATURAL AND CULTURAL RESOURCES
2110 BLUE RIDGE ROAD, RALEIGH, NC 27607

SCO PROJECT #22-25283-02A

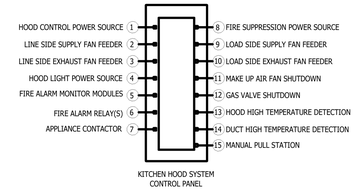
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 039503 MATTHEW L JOHNSON
06/30/2025

NO.	REVISION	DATE

JOB NUMBER
22-028
DATE ISSUED
07/03/25
PROJECT STATUS
ISSUED FOR BID

SHEET
ELECTRICAL DETAILS

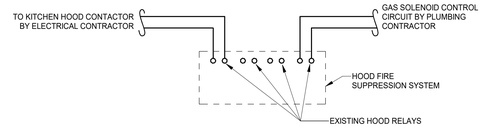
E301



FOOD SERVICE HOOD CONNECTION SCHEDULE

MARK	DESCRIPTION	RESPONSIBILITY	REMARKS
1	HOOD CONTROL POWER SOURCE	EXISTING	EXISTING
2	LINE SIDE SUPPLY FAN FEEDER	EXISTING	EXISTING
3	LINE SIDE EXHAUST FAN FEEDER	EXISTING	EXISTING
4	HOOD LIGHT POWER SOURCE	EXISTING	EXISTING
5	FIRE ALARM MONITOR MODULES	EXISTING	EXISTING
6	FIRE ALARM RELAY(S)	EXISTING	EXISTING
7	APPLIANCE CONTACTOR	ELECTRICAL DIVISION	ELECTRICAL DIVISION TO PROVIDE POWER CIRCUIT AND CONNECT HOOD OUTPUT SIGNAL TO APPLIANCE CONTACTOR. ALL APPLIANCES UNDER HOOD SHALL POWER DOWN FROM ACTIVATION OF HOOD SYSTEM.
8	FIRE SUPPRESSION POWER SOURCE	EXISTING	EXISTING
9	LOAD SIDE SUPPLY FAN(S) FEEDER(S)	EXISTING	EXISTING
10	LOAD SIDE EXHAUST FAN FEEDER	EXISTING	EXISTING
11	MAKE UP AIR FAN SHUTDOWN	EXISTING	EXISTING
12	GAS VALVE SHUTDOWN	PLUMBING DIVISION	MECHANICAL DIVISION PROVIDES VALVE FROM HOOD PACKAGE. PLUMBING DIVISION INSTALLS VALVE IN GAS PIPING. MECHANICAL DIVISION CONNECTS FOR SHUT DOWN (CABLE STYLE OPERATOR)
13	HOOD HIGH TEMPERATURE DETECTION	EXISTING	EXISTING
14	DUCT HIGH TEMPERATURE DETECTION	EXISTING	EXISTING
15	MANUAL PULL STATION CABLE	EXISTING	EXISTING

4 E302 KITCHEN HOOD CONNECTIONS
SCALE: NTS

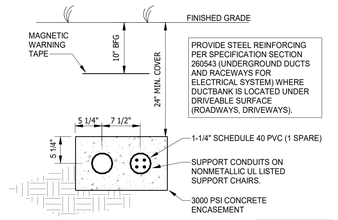


GENERAL NOTES :

1. ALL ELECTRICAL DEVICES UNDER HOOD AND HOOD SUPPLY FAN TO POWER DOWN THROUGH HOOD CONTROL RELAYS UPON ACTIVATION OF HOOD FIRE SUPPRESSION SYSTEM.
2. GAS SOLENOID PROVIDED BY PLUMBING CONTRACTOR. SOLENOID SHALL CLOSE UPON ACTIVATION OF HOOD FIRE SUPPRESSION SYSTEM.

SO DETAIL: GE0010

1 E302 KITCHEN HOOD WIRING SCHEMATIC
SCALE: NTS



SO DETAIL: OC0001 R1

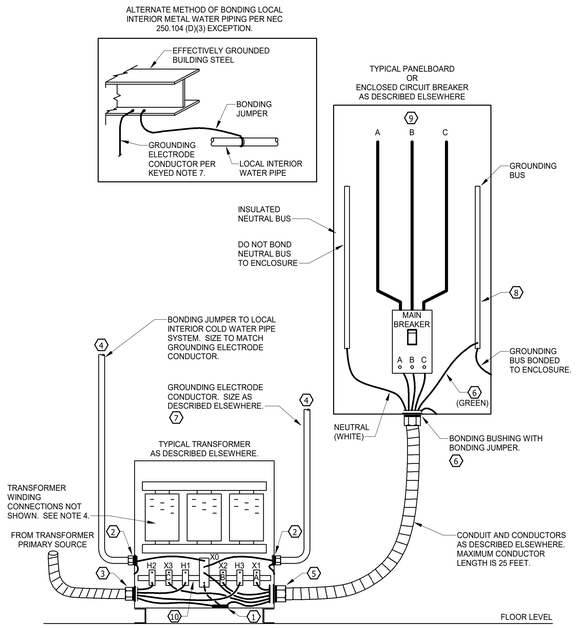
2 E302 FEEDER DUCT BANK SECTION
SCALE: NTS

GENERAL NOTES :

1. ADJUST TRANSFORMER TAPS TO PROVIDE NOMINAL SECONDARY VOLTAGE UNDER NORMAL TRANSFORMER LOAD CONDITIONS.
2. CONNECT TRANSFORMER SECONDARY TERMINALS TO OBTAIN A-B-C CLOCKWISE ROTATION AT THE PANELBOARD BUS. TRANSFORMER TERMINAL CONNECTIONS ARE TYPICAL; EXACT TERMINAL LOCATION MAY VARY WITH TRANSFORMER STYLE OR MANUFACTURER.
3. ALL CONNECTIONS TO TRANSFORMER OR PANELBOARD ENCLOSURES SHALL BE MADE WITH LISTED 75° C. TERMINALS. ALL TERMINALS SHALL BE BOLTED TO THE ENCLOSURE WITH SCREWS, LOCK WASHERS, AND NUTS. REMOVE ALL PAINT FROM ENCLOSURE SURFACES PRIOR TO MAKING TERMINATIONS. FURNISHED TERMINALS MAY BE USED IN LIEU OF CONTRACTOR INSTALLED LUGS.
4. THREE PHASE TRANSFORMER IS SHOWN. GROUNDING FOR SINGLE PHASE TRANSFORMERS IS IDENTICAL.
5. HOUSEKEEPING PAD BELOW TRANSFORMER NOT SHOWN.

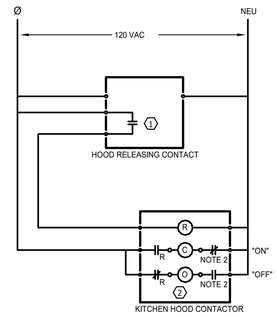
KEYED NOTES :

1. PROVIDE BONDING JUMPER TO PANELBOARD BY PASSING JUMPER THROUGH GROUND BAR SECURED TO TRANSFORMER ENCLOSURE. BAR SHALL NOT CONCEAL VENTILATION PROVISIONS IN ENCLOSURE.
2. USE A BONDING BUSHING AND JUMPER AT THIS CONDUIT TERMINATION. JUMPER SHOULD BE THE SAME SIZE AS THE GROUNDING CONDUCTOR CONTAINED IN THE CONDUIT.
3. CONDUCTORS TO TRANSFORMER PRIMARY ARE PHASE CONDUCTORS AND A GROUNDING CONDUCTOR. THESE CONDUCTORS ARE DESCRIBED ELSEWHERE. NO BONDING BUSHING IS REQUIRED AT THIS CONDUIT TERMINATION.
4. USE A BONDING HUB AT THE TERMINATION OF THIS GROUNDING CONDUCTOR CONDUIT RUN TO PHYSICALLY AND ELECTRICALLY CONNECT THE RACEWAY AND GROUND TO THE ELECTRODE. ELECTRICAL CONNECTION ALONE IS NOT ACCEPTABLE.
5. NO BONDING BUSHING IS REQUIRED AT THIS END OF PANELBOARD FEEDER.
6. DETERMINE THE SIZE OF THIS BONDING JUMPER FROM NEC TABLE 250.66 WITH TABLE ENTRY BASED ON THE SIZE OF THE CONDUCTORS SUPPLYING THE PANELBOARD.
7. EXTEND GROUNDING ELECTRODE CONDUCTOR TO EFFECTIVELY GROUNDED BUILDING STEEL OR METAL WATER PIPE WITHIN 5 FEET FROM POINT OF ENTRANCE INTO BUILDING.
8. GROUNDING BUS IS GENERALLY ATTACHED DIRECTLY TO PANELBOARD ENCLOSURE. IN THE ABSENCE OF SUCH A LISTED ATTACHMENT SIZE BONDING JUMPER AS DESCRIBED IN KEYED NOTE 6 ABOVE.
9. PANELBOARD OR ENCLOSED CIRCUIT BREAKER.
10. PROVIDE OVERSIZED NEUTRAL TERMINAL AS REQUIRED TO ACCOMMODATE BONDING CONNECTIONS.



SW DETAIL: GN0005 R1

5 E302 TYPICAL TRANSFORMER BONDING
SCALE: NTS



GENERAL NOTES :

1. MAIN CONTACTS NOT SHOWN AT CONTACTOR.
2. COIL CLEARING CONTACTS INTERLOCKED WITH MAIN CONTACTS.
3. ALL CONTROL CONDUCTORS ARE TO BE AWG #12.

KEYED NOTES :

1. KITCHEN HOOD FIRE SUPPRESSION CONTROL RELAY. CONTACTS AND RELAY COIL RATING IS TO MATCH KITCHEN HOOD REQUIREMENTS.
2. KITCHEN HOOD CONTACTOR. RATED FOR USE AT 120 VOLT, 20 AMP. PROVIDE MECHANICALLY HELD TYPE CONFIGURED FOR 2-WIRE 120 VAC CONTROL MOUNTED IN NEMA 1 ENCLOSURE.

SO DETAIL: CN0023

3 E302 KITCHEN HOOD CONTACTOR CTK
SCALE: NTS

HH
ARCHITECTURE
1100 Dresser Court
Raleigh, NC 27609
Office 919.828.2301
Email office@hh-arch.com

Salas O'Brien
Salas O'Brien
North Carolina, Inc.
702 Oberlin Road, Suite 300
Raleigh, NC 27605
919-832-8118
salasobrien.com
license (NC): F-1434

NCMA - EAST BUILDING AND MUSEUM PARK IMPROVEMENTS
NC DEPARTMENT OF NATURAL AND CULTURAL RESOURCES
2110 BLUE RIDGE ROAD, RALEIGH, NC 27607
SCO PROJECT #22-25283-02A

NORTH CAROLINA PROFESSIONAL SEAL 039503 ENGINEER MATTHEW J JOHNSTON
06/30/2025

NO.	REVISION	DATE

JOB NUMBER **22-028**
DATE ISSUED **07/03/25**
PROJECT STATUS **ISSUED FOR BID**
SHEET **ELECTRICAL DETAILS**

E302

PANEL ID: EM2L

VOLTAGE:	208Y/120	SERVICE EQUIP:	No	MOUNTING:	Surface
SOURCE: EDPS	AMPS: 150	MAIN:	MLO	TYPE:	SYLVANNIA GTE
LOCATION: ROOM 136	PANEL AIC: 10,000	APPROX. DIM:	EXISTING		

LOAD	NOTE	COND	Phase, Neu, Grd Size	POLE	BKR	CKT	A		B		C		CKT	BKR	POLE	Phase, Neu, Grd Size	COND	NOTE	LOAD
EXIT LIGHTS				1	20	1	300	160					2	20	1	1-#12, 1-#12, 1-#12	3/4		EM LIGHTING LOBBY 103
EM LIGHTING CAFE 101		3/4	1-#10, 1-#10, 1-#10	1	30	3			188	300			4	20	1				GLASS ELEVATOR...
LIGHT TRACK				1	30	5					300	500	6	20	1				FIRE BOOSTER PANEL
GLASS ELEVATOR LIGHTS				1	20	7	300	300					8	30	1				LIGHT TRACK
LIGHT TRACK				1	20	9			60	300			10	30	1				LIGHT TRACK
REC-COOLER-CORR 109				1	20	11					540	300	12	30	1				LIGHT TRACK-KITCHEN
LIGHTS-TOILET				1	20	13	300	150					14	30	1	1-#10, 1-#10, 1-#10	3/4		EM LIGHTING LOBBY 103
LIGHTS-TOILET				1	20	15			300	240			16	30	1	1-#10, 1-#10, 1-#10	3/4		EM LIGHTING LOBBY 103
LIGHT TRACK				1	30	17					300	300	18	20	1				ELEVATOR #1 LIGHTS
HVAC CONTROLS				1	20	19	300	300					20	20	1				LIGHTING
LIGHTS				1	20	21			300	300			22	20	1				CO2 PANEL
EMERGENCY LIGHTS				1	20	23					300	180	24	20	1	1-#12, 1-#12, 1-#12	3/4	1	LVL C EXTERIOR LIGHTING
PASSENGER ELEVATOR...				1	20	25	300	500					26	20	1				FACP APS A&B
FREIGHT ELEVATOR LIGHTS				1	20	27			300	300			28	20	1				GLASS ELEVATOR LIGHTS
HVAC MP581-11				1	20	29					1000	1000	30	20	1				HVAC MP581-4
HVAC MP581-110, BCU 2&3				1	20	31	1000	1000					32	20	1				HVAC MP581-2
HVAC MP581-2&3				1	20	33			1000	1000			34	20	1				HVAC MP581-3
EM LIGHTING 104, 105		3/4	1-#12, 1-#12, 1-#12	1	20	35					15	1000	36	20	1				HVAC MP581-5
REC-COOLER-CORR 109				1	20	37	540	--					38	--	1	--	--		SPACE
SPACE		--	--	1	--	39			--	--			40	--	1	--	--		SPACE
SPACE		--	--	1	--	41					--	--	42	--	1	--	--		SPACE
							5450 VA 47 A		4588 VA 38 A		5726 VA 49 A								

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Other	0 VA	0.00%	0 VA		
Power	14780 VA	100.00%	14780 VA	CONNECTED LOAD	15764 VA
Lighting	985 VA	100.00%	985 VA	DEMAND LOAD	15764 VA
				AVG. CONNECTED CURRENT	44 A
				AVG. DEMAND CURRENT	44 A

NOTES:

1. CONNECT NEW CIRCUIT TO EXISTING SPARE BREAKER.

PANEL ID: PH1

VOLTAGE:	480Y/277	SERVICE EQUIP:	No	MOUNTING:	SURFACE
SOURCE: NM2	AMPS: 100	PANEL AIC:	10,000	TYPE:	BOLT ON
LOCATION: PAVILION ELEC 151	MAIN: MCB	CALC SCC:	3,343	APPROX. DIM:	20"W X 5.75"D X 50"H

LOAD	NOTE	COND	Phase, Neu, Grd Size	POLE	BKR	CKT	A		B		C		CKT	BKR	POLE	Phase, Neu, Grd Size	COND	NOTE	LOAD
X-PL1				3	50	1	8300	--					2	--	1	--	--		SPACE
						3			10220	--			4	--	1	--	--		SPACE
						5					9120	--	6	--	1	--	--		SPACE
UH-P.1 PAVILION CATERING 152		3/4	3-#12, 1-#12, 1-#12	3	20	7	2000	--					8	--	1	--	--		SPACE
						9			2000	--			10	--	1	--	--		SPACE
						11					2000	--	12	--	1	--	--		SPACE
UH-P.2 PAVILION CATERING 152		3/4	3-#12, 1-#12, 1-#12	3	20	13	2000	--					14	--	1	--	--		SPACE
						15			2000	--			16	--	1	--	--		SPACE
						17					2000	--	18	--	1	--	--		SPACE
CATERING LIGHTING		3/4	1-#12, 1-#12, 1-#12	1	20	19	342	--					20	--	1	--	--		SPACE
OUTER PAVILION LIGHTING		3/4	1-#12, 1-#12, 1-#12	1	20	21			440	--			22	--	1	--	--		SPACE
INNER PAVILION LIGHTING		3/4	1-#12, 1-#12, 1-#12	1	20	23					448	--	24	--	1	--	--		SPACE
SPACE		--	--	1	--	25	--	--					26	--	1	--	--		SPACE
SPACE		--	--	1	--	27			--	--			28	--	1	--	--		SPACE
SPACE		--	--	1	--	29					--	--	30	--	1	--	--		SPACE
SPACE		--	--	1	--	31	--	--					32	--	1	--	--		SPACE
SPACE		--	--	1	--	33			--	--			34	--	1	--	--		SPACE
SPACE		--	--	1	--	35					--	--	36	--	1	--	--		SPACE
SPACE		--	--	1	--	37	--	0					38						
SPACE		--	--	1	--	39			--	0			40	30	3	--	--		SPD
SPACE		--	--	1	--	41					--	0	42						
							12642 VA 46 A		14660 VA 53 A		13568 VA 49 A								

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power	6400 VA	100.00%	6400 VA		
REC	4080 VA	100.00%	4080 VA	CONNECTED LOAD	40870 VA
Lighting	1230 VA	100.00%	1230 VA	DEMAND LOAD	40870 VA
Mechanical	29160 VA	100.00%	29160 VA	AVG. CONNECTED CURRENT	49 A
				AVG. DEMAND CURRENT	49 A

NOTES:

PANEL ID: BM1

VOLTAGE:	480Y/277	SERVICE EQUIP:	No	MOUNTING:	SURFACE
SOURCE: NPO	AMPS: 400	MAIN:	MLO	TYPE:	BOLT ON
LOCATION: TELEPHONE/...	PANEL AIC: 35,000	APPROX. DIM:	EXISTING		SQUARE D I-LINE

LOAD	NOTE	COND	Phase, Neu, Grd Size	POLE	BKR	CKT	A		B		C		CKT	BKR	POLE	Phase, Neu, Grd Size	COND	NOTE	LOAD
PANEL DB	2	--	--	3	100	1	18700	8730					2	400	3	--	--	2	XFMR TM1
						3			16300	10110			4						
						5					13000	11980	6						
PARKING LOT LTG	2	--	--	3	40	7	1920	10249					8	40	3	3-#8, 1-#8, 1-#10	1	1	RTU-1
						9			1920	10249			10						
						11					1920	10249	12						
SPACE		--	--	1	--	13	--	--					14	--	1	--	--		SPACE
SPACE		--	--	1	--	15			--	--			16	--	1	--	--		SPACE
SPACE		--	--	1	--	17					--	--	18	--	1	--	--		SPACE
SPACE		--	--	1	--	19	--	--					20	--	1	--	--		SPACE
SPACE		--	--	1	--	21			--	--			22	--	1	--	--		SPACE
SPACE		--	--	1	--	23					--	--	24	--	1	--	--		SPACE
SPACE		--	--	1	--	25	--	--					26	--	1	--	--		SPACE
SPACE		--	--	1	--	27			--	--			28	--	1	--	--		SPACE
							39599 VA 144 A		38579 VA 140 A		37149 VA 134 A								

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Spare	84580 VA	100.00%	84580 VA		
Mechanical	30747 VA	100.00%	30747 VA	CONNECTED LOAD	115327 VA
				DEMAND LOAD	115327 VA
				AVG. CONNECTED CURRENT	139 A
				AVG. DEMAND CURRENT	139 A

NOTES:

1. PROVIDE NEW CIRCUIT BREAKER, SIZED AS INDICATED. MATCH EXISTING MANUFACTURER AND AIC RATING.
2. EXISTING CIRCUIT TO REMAIN

PANEL ID: M2LB

VOLTAGE:	208Y/120	SERVICE EQUIP:	No	MOUNTING:	Surface
SOURCE: M2PB	AMPS: 150	MAIN:	MLO	TYPE:	SYLVANNIA GTE
LOCATION: ROOM 127	PANEL AIC: EXISTING	APPROX. DIM:	EXISTING		

LOAD	NOTE	COND	Phase, Neu, Grd Size	POLE	BKR	CKT	A		B		C		CKT	BKR	POLE	Phase, Neu, Grd Size	COND	NOTE	LOAD
TRACK LIGHTING		3/4	1-#10, 1-#10, 1-#10	1	30	1	288	30					2	30	1				TRACK LIGHTING
TRACK LIGHTING		3/4	1-#10, 1-#10, 1-#10	1	30	3			312	564			4	30	1	1-#10, 1-#10, 1-#10	3/4		TRACK LIGHTING
TRACK LIGHTING				1	20	5					300	300	6	20	1				TRACK LIGHTING
TRACK LIGHTING		3/4	1-#10, 1-#10, 1-#10	1	30	7	0	90					8	30	1				TRACK LIGHTING
TRACK LIGHTING				1	30	9			30	60			10	30	1				TRACK LIGHTING
TRACK LIGHTING		3/4	1-#10, 1-#10, 1-#10	1	30	11					564	30	12	30	1				TRACK LIGHTING
TRACK LIGHTING				1	30	13	30	300					14	20	1				TRACK LIGHTING
TRACK LIGHTING				1	30	15			60	300			16	20	1				TRACK LIGHTING
TRACK LIGHTING				1	20	17					300	60	18	30	1				TRACK LIGHTING
TRACK LIGHTING				1	20	19	300	0					20	30	1	--	--		SPARE
LIGHTING DIST LEARNING 104		3/4	1-#12, 1-#12, 1-#12	1	20	21			480	0			22	30	1	--	--		SPARE
LIGHTING DIST LEARNING 104		3/4	1-#12, 1-#12, 1-#12	1	20	23					60	0	24	20	1	--	--		SPARE
TRACK LIGHTING				1	20	25	300	0					26	20	1	--	--		SPARE
SPARE		--	--	1	20	27			0	0			28	20	1	--	--		SPARE
SPARE		--	--	1	20	29					0	0	30	20	1	--	--		SPARE
SPARE		--	--	1	20	31	0	0					32	20	1	--	--		SPARE
SPARE		--	--	1	20	33			0	0			34	20	1	--	--		SPARE
SPARE		--	--	1	20	35					0	0	36	20	1	--	--		SPARE
							1338 VA 11 A		1806 VA 15 A		1614 VA 14 A								

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Other	0 VA	0.00%	0 VA		
Lighting	4758 VA	100.00%	4758 VA	CONNECTED LOAD	4758 VA
				DEMAND LOAD	4758 VA
				AVG. CONNECTED CURRENT	13 A
				AVG. DEMAND CURRENT	13 A

NOTES:

PANEL ID: PL1

VOLTAGE:	208Y/120	SERVICE EQUIP:	No	MOUNTING:	Surface
SOURCE: X-PL1	AMPS: 100	PANEL AIC:	10,000	TYPE:	BOLT ON
LOCATION: PAVILION ELEC 151	MAIN: MCB	CALC SCC:	2,408	APPROX. DIM:	20"W X 5.75"D X 50"H

LOAD	NOTE	COND	Phase, Neu, Grd Size	POLE	BKR	CKT	A		B		C		CKT	BKR	POLE	Phase, Neu, Grd Size	COND	NOTE	LOAD
CATERING REC		3/4	1-#12, 1-#12, 1-#12	1	20	1	540	1200					2	20	1	1-#12, 1-#12, 1-#12	3/4		HSLV FAN
CATERING REC		--	1-#12, 1-#12, 1-#12	1	20	3			360	1200			4	20	1	1-#12, 1-#12, 1-#12	--		HSLV FAN
CATERING REC		3/4	1-#12, 1-#12, 1-#12	1	20	5					360	1200	6	20	1	1-#12, 1-#12, 1-#12	3/4		HSLV FAN
CATERING REC		--	1-#12, 1-#12, 1-#12	1	20	7	360	1200					8	20	1	1-#12, 1-#12, 1-#12	--		HSLV FAN
HP-P.1		1	2-#10, 1-#10, 1-#10	2	30	9			2880	180			10	20	1	1-#12, 1-#12, 1-#12	3/4		REC PAVILION ELEC 151
						11					2880	0	12	20	1	--	--		SPARE
HP-P.2		1	2-#12, 1-#12, 1-#12	2	15	13	1200	0					14	20	1	--	--		SPARE
						15			1200	0			16	20	1	--	--		SPARE
WH-1		1	3-#8, 1-#8, 1-#10	3	40	17					3000	0	18	20	1	--	--		SPARE
						19	3000	0					20	20	1	--	--		SPARE
						21			3000	0			22	20	1	--	--		SPARE
EXTERIOR PAVILION REC	1	3/4	1-#12, 1-#12, 1-#12	1	20	23					900	0	24	20	1	--	--		SPARE
EXTERIOR PAVILION REC		--	1-#12, 1-#12, 1-#12	1	20	25	300	0					26	20	1	--	--		SPARE
EXTERIOR PAVILION REC	1	--	1-#12, 1-#12, 1-#12	1	20	27			900	0			28	20	1	--	--		SPARE
CEILING FANS		3/4	1-#12, 1-#12, 1-#12	1	20	29					600	0	30	20	1	--	--		SPARE
PROJECTOR		3/4	1-#12, 1-#12, 1-#12	1	20	31	500	0					32	20	1	--	--		SPARE
PROJECTOR		3/4	1-#12, 1-#12, 1-#12	1	20	33			500	0			34	20	1	--	--		SPARE
SERVICE REC		3/4	1-#12, 1-#12, 1-#12	1	20	35					180	0	36	20	1	--	--		SPARE
SPACE		--	--	1	--	37	--	0					38						
SPACE		--	--	1	--	39			--	0			40	30	3	--	--		SPD
SPACE		--	--	1	--	41					--	0	42						
							8300 VA 69 A		10220 VA 86 A		9120 VA 77 A								

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power	6400 VA	100.00%	6400 VA		
REC	4080 VA	100.00%	4080 VA	CONNECTED LOAD	27640 VA
Mechanical	17160 VA	100.00%	17160 VA	DEMAND LOAD	27640 VA
				AVG. CONNECTED CURRENT	77 A
				AVG. DEMAND CURRENT	77 A

NOTES:

1. PROVIDE BREAKER WITH GFCI PROTECTION.

PANEL ID: NM2

VOLTAGE:	480Y/277	SERVICE EQUIP:	No	MOUNTING:	SURFACE
SOURCE: SERVICE DISCONNECT	AMPS: 1000	MAIN:	MLO	TYPE:	EXISTING
LOCATION: ROOM 136	PANEL AIC: 35,000	APPROX. DIM:	EXISTING		SQUARE D I-LINE

LOAD	NOTE	COND	Phase, Neu, Grd Size	POLE	BKR	CKT	A		B		C		CKT	BKR	POLE	Phase, Neu, Grd Size	COND	NOTE	LOAD
X-KL	1			3	110	1	17224	0					2	600	3	--	--	3	MCC-MR
						3			20650	0			4						
						5					23854	0	6						
PH1	1	1-1/2	3-#1, 1-#1, 1-#6	3	100	7	12642	0					8	600	3	--	--	3	NPO
						9			14660	0			10						
						11					13568	0	12						
CH1		3	3-#300, 1-#300, 1-#3	3	250	13	49956	--					14	--	1	--	--		SPACE
						15			47842	--			16	--	1	--	--		SPACE
						17					47842	--	18	--	1	--	--		SPACE
							79822 VA 288 A		83152 VA 302 A		85264 VA 310 A								

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power	161640 VA	100.00%	161640 VA		
REC	15200 VA	82.89%	12600 VA	CONNECTED LOAD	248237 VA
Lighting	1230 VA	100.00%	1230 VA	DEMAND LOAD	231285 VA
Kitchen Equipment	41008 VA	65.00%	26655 VA	AVG. CONNECTED CURRENT	299 A
Mechanical	29160 VA	100.00%	29160 VA	AVG. DEMAND CURRENT	278 A

NOTES:

1. PROVIDE NEW CIRCUIT BREAKER, SIZED AS INDICATED. MATCH EXISTING MANUFACTURER AND AIC RATING.
2. EXISTING LOADS DETERMINED FROM 12 MONTH MAXIMUM DEMAND READINGS FROM DUKE ENERGY.
3. EXISTING CIRCUIT TO REMAIN.

PANEL ID: M2LA

VOLTAGE:	208Y/120	SERVICE EQUIP:	No	MOUNTING:	Surface
SOURCE: M2PA	AMPS: 100	MAIN:	MLO	TYPE:	SYLVANNIA GTE
LOCATION: ELEC EQUIP RM 131	PANEL AIC: 10,000	APPROX. DIM:	EXISTING		

LOAD	NOTE	COND	Phase, Neu, Grd Size	POLE	BKR	CKT	A		B		C		CKT	BKR	POLE	Phase, Neu, Grd Size	COND	NOTE	LOAD
EXISTING				1	20	1	200	90					2	30	1	1-#10, 1-#10, 1-#10	3/4		TRACK LIGHTING
LIGHTING		3/4	1-#10, 1-#10, 1-#10	1	30	3			30	38			4	30	1	1-#10, 1-#10, 1-#10	3/4		TRACK LIGHTING
TRACK LIGHTING		3/4	1-#10, 1-#10, 1-#10	1	30	5					30	120	6	30	1	1-#10, 1-#10, 1-#10	3/4		TRACK LIGHTING
TRACK LIGHTING		3/4	1-#10, 1-#10, 1-#10	1	30	7	16	200					8	20	1				EXISTING
TRACK LIGHTING		3/4	1-#10, 1-#10, 1-#10	1	30	9			60	180			10	30	1	1-#10, 1-#10, 1-#10	3/4		TRACK LIGHTING
TRACK LIGHTING		3/4	1-#10, 1-#10, 1-#10	1	30	11					60	60	12	30	1	1-#10, 1-#10, 1-#10	3/4		TRACK LIGHTING
LIGHTING		3/4	1-#12, 1-#12, 1-#12	1	20	13	360	200					14	20	1				EXISTING
LIGHTING		3/4	1-#10, 1-#10, 1-#10	1	30	15			0	200			16	20	1				EXISTING
EXISTING				1	20	17					200	200	18	20	1				EXISTING
EXISTING				1	20	19	200	200					20	20	1				EXISTING
EXISTING				1	20	21			200	200			22	20	1				EXISTING
EXISTING				1	20	23					200	200	24	20	1				EXISTING
SPARE		--	--	1	20	25	0	0					26	20	1	--	--		SPARE
SPARE		--	--	1	20	27			0	--			28	--	1	--	--		SPACE
SPARE		--	--	1	20	29					0	--	30	--	1	--	--		SPACE
SPARE		--	--	1	20	31	0	--					32	--	1	--	--		SPACE
SPARE		--	--	1	20	33			0	--			34	--	1	--	--		SPACE
SPARE		--	--	1	20	35					0	--	36	--	1	--	--		SPACE
SPARE		--	--	1	20	37	0	--					38	--	1	--	--		SPACE
SPARE		--	--	1	20	39			0	--			40	--	1	--	--		SPACE
SPARE		--	--	1	20	41					0	--	42	--	1	--	--		SPACE
							1466 VA 12 A		908 VA 8 A		1070 VA 9 A								

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power	2400 VA	100.00%	2400 VA		
Lighting	1044 VA	100.00%	1044 VA	CONNECTED LOAD	3444 VA
				DEMAND LOAD	3444 VA
				AVG. CONNECTED CURRENT	10 A
				AVG. DEMAND CURRENT	10 A

NOTES:

PANEL ID: POPB

VOLTAGE:	208Y/120	SERVICE EQUIP:	No	MOUNTING:	Surface
SOURCE: PODP	AMPS: 225	MAIN:	MLO	TYPE:	SYLVANIA GTE
LOCATION: ELEC EQUIP RM 323	PANEL AIC: 10,000	APPROX. DIM:	EXISTING		

LOAD	NOTE	COND	Phase, Neu, Grd Size	POLE	BKR	CKT	A		B		C		CKT	BKR	POLE	Phase, Neu, Grd Size	COND	NOTE	LOAD
REC ROOM 381				1	20	1	540	540					2	20	1				REC ROOM 327
REC ROOM 381				1	20	3			540	540			4	20	1				LOBBY FLR BOX
S. DAMPER				1	20	5					500	540	6	20	1				REC ROOM 329
FLOOR REC				1	20	7	540	540					8	20	1	1-#10, 1-#10, 1-#10	3/4		REC ROOM 302
FLOOR REC				1	20	9			540	540			10	20	1	1-#10, 1-#10, 1-#10	3/4		REC ROOM 301, 302
FLOOR REC				1	20	11					540	540	12	20	1				REC ROOM 321, 331
FLOOR REC				1	20	13	540	540					14	20	1				REC PLATFORM 345
FLOOR REC				1	20	15			540	540			16	20	1				REC PLATFORM 345
FLOOR REC				1	20	17					540	540	18	20	1	1-#10, 1-#10, 1-#10	3/4		REC ROOM 303
REC ROOM 345				1	20	19	540	540					20	20	1	1-#10, 1-#10, 1-#10	3/4		REC ROOM 303
REC ROOM 338				1	20	21			540	540			22	20	1				REC ROOM 341,342
REC ROOM 338				1	20	23					540	540	24	20	1				REC ROOM 340
LTG ROOM 324				1	20	25	300	540					26	20	1				REC ROOM 346
SPARE PROJECTION BOOTH				1	20	27			500	540			28	20	1				REC LOBBY
SPARE PROJECTION BOOTH				1	20	29					500	540	30	20	1				REC ROOM 346
POPBA				3	70	31	6853	300					32	20	1				LTG ROOM 327
						33			6593	300			34	20	1				LTG ROOM 327
						35					6873	500	36	20	1				F/A PANEL
REC ROOM 324				1	20	37	540	540					38	20	1				REC ROOM 345
LOBBY REC				1	20	39			540	540			40	20	1				REC ROOM 345
LOBBY REC				1	20	41					540	300	42	20	1				ATRIUM LIGHTING
							13393 VA 112 A		13333 VA 111 A		13533 VA 113 A								

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power	15160 VA	100.00%	15160 VA		
REC	23000 VA	71.74%	16500 VA	CONNECTED LOAD	40260 VA
Lighting	2100 VA	100.00%	2100 VA	DEMAND LOAD	33760 VA
				AVG. CONNECTED CURRENT	112 A
				AVG. DEMAND CURRENT	94 A

NOTES:

PANEL ID: KL

VOLTAGE:	208Y/120	SERVICE EQUIP:	No	MOUNTING:	Surface
SOURCE: X-KL	AMPS: 225	PANEL AIC:	10,000	TYPE:	BOLT ON
LOCATION: KITCHEN OFFICES 120	MAIN: MLO	CALC SCC:	1,666	APPROX. DIM:	20" W x 5.75" D x 35" H

LOAD	NOTE	COND	Phase, Neu, Grd Size	POLE	BKR	CKT	A		B		C		CKT	BKR	POLE	Phase, Neu, Grd Size	COND	NOTE	LOAD
KITCHEN EQUIP RM REC		3/4	1-#12, 1-#12, 1-#12	1	20	1	1080	1000					2	20	2	2-#12, 1-#12, 1-#12	3/4	1,2	DISHWASHER
CAFE REC		--	1-#12, 1-#12, 1-#12	1	20	3			540	1000			4						
CAFE REC		--	1-#12, 1-#12, 1-#12	1	20	5					360	2500	6	50	2	2-#6, 1-#6, 1-#10	1	1,2	BOOSTER HEATER
REFRIGERATOR		3/4	1-#12, 1-#12, 1-#12	1	20	7	720	2500					8						
GRINDER		--	1-#12, 1-#12, 1-#12	1	20	9			1200	360			10	20	1	1-#12, 1-#12, 1-#12	3/4		CORD REELS KITCHEN...
TEA BREWER		--	1-#12, 1-#12, 1-#12	1	20	11					720	1093	12	20	2	2-#12, 1-#12, 1-#12	3/4		REFRIGERATOR
CAFE REC		3/4	1-#12, 1-#12, 1-#12	1	20	13	720	1093					14						
ADA BATHROOM REC		--	1-#12, 1-#12, 1-#12	1	20	15			900	1000			16	20	1	1-#12, 1-#12, 1-#12	3/4	1	REFRIGERATOR
WATER COOLER	1	--	1-#12, 1-#12, 1-#12	1	20	17					1440	2000	18	25	1	1-#10, 1-#10, 1-#10	3/4		HEATED CABINET
WARMER	1	3/4	1-#12, 1-#12, 1-#12	1	20	19	550	1000					20	20	1	1-#12, 1-#12, 1-#12	--		FREEZER
WARMER	1	--	1-#12, 1-#12, 1-#12	1	20	21			550	1000			22	20	1	1-#12, 1-#12, 1-#12	--		FREEZER
MIXER		--	1-#12, 1-#12, 1-#12	1	20	23					1000	1000	24	20	1	1-#12, 1-#12, 1-#12	3/4		FREEZER
COFFEE MACHINE		3/4	2-#10, 1-#10, 1-#10	2	30	25	2200	1000					26	20	1	1-#12, 1-#12, 1-#12	--		COOLER
						27			2200	1000			28	20	1	1-#12, 1-#12, 1-#12	--		THERMAL DISPENSER
COFFEE BREWER		3/4	2-#8, 1-#8, 1-#10	2	35	29					2642	200	30	20	1	1-#12, 1-#12, 1-#12	3/4		101,110 DOOR...
						31	2642	500					32	20	1	1-#12, 1-#12, 1-#12		1,2	BURNER KITCHEN 106
HAND DRYER	2	3/4	1-#12, 1-#12, 1-#12	1	20	33			500	8500			34	110	2	2-#1, 1-#1, 1-#6	1-1/2	2	COMBI OVEN KITCHEN 106
HAND DRYER	2	--	1-#12, 1-#12, 1-#12	1	20	35					500	8500	36						
REC ROOM 116, 115		--	1-#12, 1-#12, 1-#12	1	20	37	720	100					38	20	1	1-#12, 1-#12, 1-#12	3/4		FLUSH VALVES SHOW...
HAND DRYER	2	3/4	1-#12, 1-#12, 1-#12	1	20	39			500	100			40	20	1	1-#12, 1-#12, 1-#12	--		FLUSH VALVES WOME...
HAND DRYER	2	--	1-#12, 1-#12, 1-#12	1	20	41					500	100	42	20	1	1-#12, 1-#12, 1-#12	--		FLUSH VALVES MEN 116
FLUSH VALVES TOILET...		--	1-#12, 1-#12, 1-#12	1	20	43	100	--					44	--	1	--	--		SPACE
CONTACTOR CTK	3	3/4	1-#12, 1-#12, 1-#12	1	20	45			0	--			46	--	1	--	--		SPACE
FRYER KITCHEN 106		3/4	1-#12, 1-#12, 1-#12	1	20	47					1300	--	48	--	1	--	--		SPACE
FRYER KITCHEN 106		--	1-#12, 1-#12, 1-#12	1	20	49	1300	--					50	--	1	--	--		SPACE
FRYER KITCHEN 106		--	1-#12, 1-#12, 1-#12	1	20	51			1300	--			52	--	1	--	--		SPACE
SPARE		--	--	1	20	53					0	--	54	--	1	--	--		SPACE
SPARE		--	--	1	20	55	0	--					56	--	1	--	--		SPACE
SPARE		--	--	1	20	57			0	--			58	--	1	--	--		SPACE
SPARE		--	--	1	20	59					0	--	60	--	1	--	--		SPACE
SPARE		--	--	1	20	61	0	--					62	--	1	--	--		SPACE
SPARE		--	--	1	20	63			0	--			64	--	1	--	--		SPACE
SPARE		--	--	1	20	65					0	--	66	--	1	--	--		SPACE
SPARE		--	--	1	20	67	0	0					68						
SPARE		--	--	1	20	69			0	0			70	30	3	--	--		SPD
SPARE		--	--	1	20	71					0	0	72						
							17224 VA 144 A		20650 VA 176 A		23854 VA 203 A								

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power	9600 VA	100.00%	9600 VA		
REC	11120 VA	94.96%	10560 VA	CONNECTED LOAD	61728 VA
Kitchen Equipment	41008 VA	65.00%	26655 VA	DEMAND LOAD	46815 VA
				AVG. CONNECTED CURRENT	171 A
				AVG. DEMAND CURRENT	130 A

NOTES:

1. PROVIDE GFI BREAKER FOR CIRCUIT.
2. PROVIDE LOCK-OFF PROVISION.

PANEL KEY

EM2L	PH1	BM1
M2LB	PL1	NM2
M2LA	POPB	KL

HH
ARCHITECTURE
1100 Dresser Court
Raleigh, NC 27609
Office 919.828.2301
Email office@hh-arch.com

Salas O'Brien
Salas O'Brien
North Carolina, Inc.
702 Oberlin Road, Suite 300
Raleigh, NC 27605
919-832-8118
salasobrien.com
license (NC): F-1434

NCMA - EAST BUILDING AND MUSEUM PARK IMPROVEMENTS
NC DEPARTMENT OF NATURAL AND CULTURAL RESOURCES
2110 BLUE RIDGE ROAD, RALEIGH, NC 27607
SCO PROJECT #22-25283-02A

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 039503 MATTHEW J. JOHNSON
06/30/2025

NO.	REVISION	DATE

JOB NUMBER
22-028
DATE ISSUED
07/03/25
PROJECT STATUS
ISSUED FOR BID
SHEET
PANEL SCHEDULES - LEVEL C

E400

PANEL ID: KB

VOLTAGE: 208Y/120 | SERVICE EQUIP: No | MOUNTING: Surface
SOURCE: KA | AMPS: 100 | MAIN: MLO | TYPE: SYLVANIA GTE
LOCATION: ELEC. 107A | PANEL AIC: EXISTING | APPROX. DIM: EXISTING

LOAD	NOTE	COND	Phase, Neu, Grd Size	POLE	BKR	CKT	A	B	C	CKT	BKR	POLE	Phase, Neu, Grd Size	COND	NOTE	LOAD
KITCHEN LIGHTING		3/4	1-#12, 1-#12, 1-#12	1	20	1	300 300			2	20	1				LIGHTING FOOD PREP
LIGHTING				1	20	3		300 300		4	20	1				LIGHTING FOOD PREP
WATER HEATER				1	20	5			500 300	6	20	1				LIGHTS 124
WATER COOLER				1	20	7	300 300			8	20	1				KITCHEN REC
LIGHTS				1	20	9		300 500		10	20	1				KITCHEN REC
LIGHTS				1	20	11			300 500	12	20	1				KITCHEN REC
PLUG MOLD				1	20	13	300 500			14	20	1				FRYER
REC				1	20	15		300 300		16	20	1				FRYER
PLUG MOLD				1	20	17			300 300	18	20	1				FRYER
CASH REGISTER				1	20	19	300 300			20	20	1				COOLER
REC				1	20	21		300 500		22	20	1				ICE BIN
MIXER				1	20	23			300 500	24	20	1				SLICER
REC				1	20	25	300 300			26	20	1				REC 120
REC				1	20	27		300 300		28	20	1				COOLER
REC				1	20	29			300 300	30	20	1				COOLER
EXISTING				1	20	31	300 500			32	20	1				EXISTING
EXISTING				1	20	33		300 300		34	20	1				EXISTING
EXISTING				1	20	35			300 300	36	20	1				EXISTING
EXISTING				1	20	37	300 300			38	20	1				EXISTING
EXISTING				1	20	39		300 150		40	20	2				EXISTING
EXISTING				1	20	41			300 150	42						
							4600 VA	4450 VA	4650 VA							
							39 A	37 A	39 A							

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power	13700 VA	100.00%	13700 VA		
				CONNECTED LOAD	13700 VA
				DEMAND LOAD	13700 VA
				AVG. CONNECTED CURRENT	38 A
				AVG. DEMAND CURRENT	38 A

NOTES:

PANEL ID: EM1L

VOLTAGE: 208Y/120 | SERVICE EQUIP: No | MOUNTING: Surface
SOURCE: ELEC EQUIP RM 229 | AMPS: 225 | MAIN: MLO | TYPE: SYLVANIA GTE
LOCATION: EDPS | PANEL AIC: EXISTING | APPROX. DIM: EXISTING

LOAD	NOTE	COND	Phase, Neu, Grd Size	POLE	BKR	CKT	A	B	C	CKT	BKR	POLE	Phase, Neu, Grd Size	COND	NOTE	LOAD
LIGHT TRACK				1	30	1	0 300			2	30	1				ACCESS LOBBY E LIGHTS
LIGHTING VEST 110		3/4	1-#12, 1-#12, 1-#12	1	20	3		79 300		4	30	1				LTG STAIR #2
LIGHT TRACK				1	30	5			300 300	6	30	1				EXIT LTG NEW CORR
LIGHT TRACK				1	30	7	300 300			8	30	1				LTG 245,252,256,257
LIGHT TRACK				1	30	9		300 300		10	30	1				LTG CORR 227,232
LIGHT TRACK				1	30	11			300 300	12	30	1				LTG 258
LIGHT TRACK				1	30	13	300 300			14	30	1				LTG CORR 242
LIGHT TRACK				1	30	15		300 300		16	30	1				AC CONTROLS
EXIT LTG 223 SMOKE DOORS				1	30	17			300 300	18	20	1				USMD PANELS 221,256
LIGHT TRACK				1	20	19	300 300			20	20	1				LTG ROOM 230,231,244,244
LIGHT TRACK				1	20	21		300 300		22	20	1				LTG ROOM 221
LIGHT TRACK				1	20	23			300 300	24	20	1				LTG ROOM 229
LIGHT TRACK				1	20	25	300 300			26	20	1				LTG ROOM 221
EM LIGHTING CONSERVATION		3/4	1-#12, 1-#12, 1-#12	1	20	27		300 300		28	20	1				LIGHT TRACK EAST GALLERY
EM LIGHTING CONSERVATION		3/4	1-#12, 1-#12, 1-#12	1	20	29			300 300	30	20	1				LIGHT TRACK ROOM 239
LIGHT TRACK				1	20	31	300 300			32	20	1				LTG TRACK EAST GALLERY
LIGHT TRACK				1	20	33		300 300		34	20	1				LIGHT TRACK ROOM 239
LTG 206,206A,207				1	20	35			300 300	36	30	1				LTG TRACK EAST GALLERY
LIGHT STAIR #4				1	20	37	300 300			38	20	1				LTG PANEL CNTRL RM 244
LTG STAIR #1 RM 214, 213 S...				1	20	39		300 300		40	20	1				LTG CORR 219
LIGHT TRACK				1	20	41			300 300	42	20	1				AC CONTROLS
							3900 VA	3979 VA	4200 VA							
							33 A	33 A	35 A							

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power	12000 VA	100.00%	12000 VA		
Lighting	79 VA	100.00%	79 VA		
				CONNECTED LOAD	12079 VA
				DEMAND LOAD	12079 VA
				AVG. CONNECTED CURRENT	34 A
				AVG. DEMAND CURRENT	34 A

NOTES:

PANEL ID: M2PB

VOLTAGE: 208Y/120 | SERVICE EQUIP: No | MOUNTING: Surface
SOURCE: M2T2 | AMPS: 500 | MAIN: MCB | TYPE: SYLVANNIA GTE
LOCATION: ROOM 136 | PANEL AIC: EXISTING | APPROX. DIM: EXISTING

LOAD	NOTE	COND	Phase, Neu, Grd Size	POLE	BKR	CKT	A	B	C	CKT	BKR	POLE	Phase, Neu, Grd Size	COND	NOTE	LOAD
GALLERY/CONF. STORAGE...				1	20	1	540 540			2	20	1				GALLERY REC
GALLERY REC				1	20	3		540 540		4	20	1				GALLERY REC
GALLERY REC				1	20	5			540 540	6	20	1				GALLERY REC
LL CONF ROOM				1	20	7	300 540			8	20	1				GALLERY REC
LL CONF ROOM				1	20	9		300 540		10	20	1				GALLERY REC
LL CONF ROOM				1	20	11			300 540	12	20	1				GALLERY REC
REC BUSING STATION				1	20	13	540 540			14	20	1				REC ROOM 114
REC ROOM 113				1	20	15		540 300		16	20	1				EXISTING
REC ROOM 108				1	20	17			540 540	18	20	1				REC ROOM 114
REC ROOM 108 & 115				1	20	19	540 540			20	20	1				REC ROOM 114
REC				1	20	21		540 300		22	20	1				EXISTING
REC BUSING STATION				1	20	23			540 300	24	20	1				EXISTING
AHU 6 CONTROLS + LIGHTS				1	20	25	300 300			26	20	1				EXISTING
CORRIDOR 107 REC				1	20	27		540 300		28	20	1				ROOM 115/CORR 110 LTG
						29			1000 4567	30						
PANEL WTP				3	150	31	1000 4967			32	100	3				MR
						33		1000 4667		34						
						35			4050 1338	36						
M2LC				3	150	37	1800 1806			38	150	3				M2LB
						39		1500 1614		40						
							14253 VA	13221 VA	14795 VA							
							120 A	110 A	125 A							

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Other	0 VA	0.00%	0 VA		
Power	37510 VA	100.00%	37510 VA	CONNECTED LOAD	42268 VA
Lighting	4758 VA	100.00%	4758 VA	DEMAND LOAD	42268 VA
				AVG. CONNECTED CURRENT	117 A
				AVG. DEMAND CURRENT	117 A

NOTES:

PANEL ID: M2LC

VOLTAGE: 208Y/120 | SERVICE EQUIP: No | MOUNTING: Surface
SOURCE: M2PB | AMPS: 150 | MAIN: MLO | TYPE: EXISTING
LOCATION: ROOM 127 | PANEL AIC: EXISTING | APPROX. DIM: EXISTING

LOAD	NOTE	COND	Phase, Neu, Grd Size	POLE	BKR	CKT	A	B	C	CKT	BKR	POLE	Phase, Neu, Grd Size	COND	NOTE	LOAD
LIGHT TRACK				1	30	1	300 300			2	30	1				LIGHT TRACK
LIGHT TRACK				1	30	3		300 300		4	30	1				LIGHT TRACK
LIGHT TRACK				1	30	5			300 300	6	30	1				LIGHT TRACK
LIGHT TRACK				1	30	7	300 300			8	30	1				LIGHT TRACK
LIGHT TRACK				1	30	9		300 300		10	30	1				LIGHT TRACK
LIGHT TRACK				1	30	11			300 300	12	30	1				LIGHT TRACK
LIGHT TRACK				1	30	13	300 2250			14	30	1	1-#10,1-#10,1-#10	3/4		LIGHT TRACK ALCOVE 156
LIGHT TRACK				1	30	15		300 300		16	30	1				LIGHT TRACK
LIGHT TRACK				1	30	17			300 0	18	30	1	--	--		SPARE
LIGHT TRACK				1	30	19	300 0			20	30	1	--	--		SPARE
SPARE		--	--	1	20	21		0 0		22	20	1	--	--		SPARE
SPARE		--	--	1	20	23			0 0	24	20	1	--	--		SPARE
SPARE		--	--	1	20	25	0 0			26	20	1	--	--		SPARE
SPARE		--	--	1	20	27		0 0		28	20	1	--	--		SPARE
SPARE		--	--	1	20	29			0 0	30	20	1	--	--		SPARE
SPACE		--	--	1	--	31	-- --			32	--	1	--	--		SPACE
SPACE		--	--	1	--	33		-- --		34	--	1	--	--		SPACE
SPACE		--	--	1	--	35			--	36	--	1	--	--		SPACE
							4050 VA	1800 VA	1500 VA							
							34 A	15 A	13 A							

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power	7350 VA	100.00%	7350 VA		
				CONNECTED LOAD	7350 VA
				DEMAND LOAD	7350 VA
				AVG. CONNECTED CURRENT	20 A
				AVG. DEMAND CURRENT	20 A

NOTES:

PANEL ID: POPBA

VOLTAGE: 208Y/120 | SERVICE EQUIP: No | MOUNTING: Surface
SOURCE: POPB | AMPS: 100 | MAIN: MLO | TYPE: SYLVANIA GTE
LOCATION: ELEC EQUIP RM 323 | PANEL AIC: 10,000 | APPROX. DIM: EXISTING

LOAD	NOTE	COND	Phase, Neu, Grd Size	POLE	BKR	CKT	A	B	C	CKT	BKR	POLE	Phase, Neu, Grd Size	COND	NOTE	LOAD
						1	3333 360			2	20	1				REC ROOM 333A
PROJECTION BOOTH PANEL				3	50	3		3333 360		4	20	1				EXISTING
						5			3333 500	6	20	1				WATER HEATER ROOM 332
REC ROOM 338				1	20	7	360 500			8	20	1				WATER HEATER ROOM 334
LTG ROOM 338				1	20	9		300 500		10	20	1				WATER HEATER ROOM 317
SOUND SYSTEM RM 338				1	20	11			500 360	12	20	1				REC ROOM 326,319
REC ROOM 338				1	20	13	360 360			14	20	1				ATRIUM REC
REC ROOM 320A				1	20	15		360 360		16	20	1				ATRIUM REC
BASE BOARD HEATER RM...				1	20	17			500 360	18	20	1				ATRIUM REC
REC ROOM 320A				1	20	19	360 360			20	20	1				ATRIUM REC
REC ROOM 320A				1	20	21		360 300		22	20	1				LTG 329
AC CONTROLS				1	20	23			300 300	24	20	1				LTG 329
REC ROOM 338				1	20	25	360 500			26	20	1				BASE BOARD HEATER RM...
REC ROOM 338				1	20	27		360 360		28	20	1				REC ROOM 338
REC ROOM 338				1	20	29			360 360	30	20	1				REC ROOM 338
							6853 VA	6593 VA	6873 VA							
							57 A	55 A	58 A							

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power	13160 VA	100.00%	13160 VA		
REC	6260 VA	100.00%	6260 VA	CONNECTED LOAD	20320 VA
Lighting	900 VA	100.00%	900 VA	DEMAND LOAD	20320 VA
				AVG. CONNECTED CURRENT	56 A
				AVG. DEMAND CURRENT	56 A

NOTES:

PANEL ID: POLB

VOLTAGE: 208Y/120 | SERVICE EQUIP: No | MOUNTING: Surface
SOURCE: PODP | AMPS: 300 | MAIN: MLO | TYPE: SYLVANIA GTE
LOCATION: ELEC EQUIP RM 323 | PANEL AIC: 10,000 | APPROX. DIM: EXISTING

LOAD	NOTE	COND	Phase, Neu, Grd Size	POLE	BKR	CKT	A	B	C	CKT	BKR	POLE	Phase, Neu, Grd Size	COND	NOTE	LOAD
LIGHT TRACK				1	30	1	200 200			2	30	1				LIGHT TRACK
LIGHT TRACK				1	30	3		200 200		4	30	1				LIGHT TRACK
LIGHT TRACK				1	30	5			200 200	6	30	1				LIGHT TRACK
LIGHT TRACK				1	30	7	200 200			8	30	1				LIGHT TRACK
LIGHT TRACK				1	30	9		200 200		10	30	1				LIGHT TRACK
LIGHT TRACK				1	20	11			200 200	12	30	1				LIGHT TRACK
LIGHT TRACK				1	30	13	200 0			14	30	1	--	--		SPARE
LIGHT TRACK				1	30	15		200 200		16	30	1				LIGHT TRACK
LIGHT TRACK				1	30	17			200 200	18	30	1				LIGHT TRACK
LIGHT TRACK				1	30	19	200 200			20	30	1	1-#10, 1-#10, 1-#10	3/4		LIGHTING RM 301, 302, 303
LIGHT TRACK				1	30	21		200 200		22	30	1				LIGHT TRACK
LIGHT TRACK				1	30	23			200 200	24	30	1				LIGHT TRACK
LIGHT TRACK				1	30	25	200 200			26	30	1				LIGHT TRACK
LIGHT TRACK				1	20	27		200 0		28	30	1	--	--		SPARE
LIGHT TRACK				1	20	29			200 200	30	30	1				LIGHT TRACK
LIGHT TRACK				1	30	31	200 0			32	30	1	--	--		SPARE
LIGHT TRACK				1	30	33		200 0		34	30	1	--	--		SPARE
LIGHT TRACK				1	20	35			200 200	36	30	1				LIGHT TRACK
LIGHT TRACK				1	20	37	200 0			38	20	1	--	--		SPARE
LIGHT TRACK				1	20	39		200 0		40	20	1	--	--		SPARE
LIGHT TRACK				1	20	41			200 200	42	20	1				LIGHTING STUDIO 1
							2200 VA	2200 VA	2800 VA							
							18 A	18 A	23 A							

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power	7200 VA	100.00%	7200 VA		
				CONNECTED LOAD	7200 VA
				DEMAND LOAD	7200 VA
				AVG. CONNECTED CURRENT	20 A
				AVG. DEMAND CURRENT	20 A

NOTES:

PANEL ID: MR

VOLTAGE: 208Y/120 | SERVICE EQUIP: No | MOUNTING: Surface
SOURCE: M2PB | AMPS: 100 | MAIN: MLO | TYPE: GE CLASS A
LOCATION: ELEC EQUIP RM 323 | PANEL AIC: EXISTING | APPROX. DIM: EXISTING

LOAD	NOTE	COND	Phase, Neu, Grd Size	POLE	BKR	CKT	A	B	C	CKT	BKR	POLE	Phase, Neu, Grd Size	COND	NOTE	LOAD
LIGHTS T1&T2				1	20	1	300 300			2	20	1				LIGHTS T3
LIGHTS T1&T3				1	20	3		300 300		4	20	1				LIGHTS T4
LIGHTS T1&T4				1	20	5			300 300	6	20	1				ROOM 114 LIGHTS
CONDENSOR UNIT #2				1	20	7	500 300			8	20	1				ROOM 114 LIGHTS
CONDENSOR UNIT #3				1	20	9		500 300		10	20	1				TUNNEL ENTRANCE LIGHTS
AHU 5 LIGHTS				1	20	11			300 0	12	20	1				EXISTING
CONTROL EX2-11A				1	20	13	300 360			14	20	1				ROOM 120 RECS
CONTROL MPS81-18				1	20	15		300 800		16	20	1				MANHOLE SUMP PUMP
HW CIRCULATION PUMP				1	20	17			500 800	18	20	1				EXISTING
AIR RETURN				1	20	19	100 300			20	20	1				WATER TREATMENT
WATER TREATMENT				1	20	21		300 300		22	20	1				CONTROL MPS81-15,17
MEEFOG CONTROLS				1	20	23			300 300	24	20	1				T-3
WATER TREATMENT				1	20	25	300 500			26	20	1				KITCHEN EQUIPMENT
CONFRENCE ROOM RECS				1	20	27		360 500		28	20	1				KITCHEN EQUIPMENT
ROOM 120 RECS				1	20	29			360 500	30	20	1				EXISTING
						31	120 800			32	20	1				MANHOLE AUX SUMP PUMP
EXISTING				3	20	33		120 267		34						
						35			120 267	36	20	3				EXISTING
						37	120 267			38						
EXISTING				3	20	39		120 500		40						
						41			120 500	42	30	2				EXISTING
							4567 VA	4967 VA	4667 VA							
							38 A	42 A	39 A							

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power	14200 VA	100.00%	14200 VA		
				CONNECTED LOAD	14200 VA
				DEMAND LOAD	14200 VA
				AVG. CONNECTED CURRENT	39 A
				AVG. DEMAND CURRENT	39 A

NOTES:

PANEL KEY

KB	EM1L	M2PB
--	M2LC	POPBA
--	POLB	MR

HH
ARCHITECTURE
1100 Dresser Court
Raleigh, NC 27609
Office 919.828.2301
Email office@hh-arch.com

Salas O'Brien
Salas O'Brien
North Carolina, Inc.
702 Oberlin Road, Suite 300
Raleigh, NC 27605
919-832-8118
salasobrien.com
license (NC): F-1434

NCMA - EAST BUILDING AND MUSEUM PARK IMPROVEMENTS

NC DEPARTMENT OF NATURAL AND CULTURAL RESOURCES
2110 BLUE RIDGE ROAD, RALEIGH, NC 27607

SCO PROJECT #22-25283-02A

NORTH CAROLINA PROFESSIONAL SEAL 039503 ENGINEER MATTHEW J. JOHNSON
06/30/2025

NO.	REVISION	DATE

JOB NUMBER
22-028
DATE ISSUED
07/03/25
PROJECT STATUS
ISSUED FOR BID

SHEET
PANEL SCHEDULES - LEVEL C

E401

PANEL ID: M1LE

VOLTAGE: 208Y/120 | SERVICE EQUIP: No | MOUNTING: Surface
SOURCE: M1PC | AMPS: 100 | MAIN: MLO | TYPE: EXISTING
LOCATION: ELECTRICAL 241 | PANEL AIC: EXISTING | APPROX. DIM: EXISTING

LOAD	NOTE	COND	Phase, Neu, Grd Size	POLE	BKR	CKT	A	B	C	CKT	BKR	POLE	Phase, Neu, Grd Size	COND	NOTE	LOAD
CONSERVATION LTG				1	20	1	200	200		2	20	1	1-#12, 1-#12, 1-#12	3/4		CONSERVATION LTG
CONSERVATION LTG				1	20	3			200 200	4	20	1	1-#12, 1-#12, 1-#12	3/4		CONSERVATION LTG
CONSERVATION LTG				1	20	5			200 200	6	20	1				CONSERVATION LTG
CONSERVATION LTG				1	20	7	200 200			8	20	1				CONSERVATION LTG
CONSERVATION LTG				1	20	9			200 200	10	20	1				CONSERVATION LTG
CONSERVATION LTG				1	20	11			200 200	12	20	1				CONSERVATION LTG
CONSERVATION LTG				1	20	13	200 0			14	20	1	--	--		SPARE
SPARE	--	--	--	1	20	15		0 0		16	20	1	--	--		SPARE
SPARE	--	--	--	1	20	17			0 0	18	20	1	--	--		SPARE
SPARE	--	--	--	1	20	19	0 0			20	20	1	--	--		SPARE
SPARE	--	--	--	1	20	21		0 0		22	20	1	--	--		SPARE
SPARE	--	--	--	1	20	23			0 0	24	20	1	--	--		SPARE
SPACE	--	--	--	1	--	25	-- --			26	--	1	--	--		SPACE
SPACE	--	--	--	1	--	27		-- --		28	--	1	--	--		SPACE
SPACE	--	--	--	1	--	29			-- --	30	--	1	--	--		SPACE
SPACE	--	--	--	1	--	31	-- --			32	--	1	--	--		SPACE
SPACE	--	--	--	1	--	33		-- --		34	--	1	--	--		SPACE
SPACE	--	--	--	1	--	35			-- --	36	--	1	--	--		SPACE
							1000 VA	800 VA	800 VA							
							8 A	7 A	7 A							

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Lighting	2600 VA	125.00%	3250 VA		
				CONNECTED LOAD	2600 VA
				DEMAND LOAD	3250 VA
				AVG. CONNECTED CURRENT	7 A
				AVG. DEMAND CURRENT	9 A

NOTES:

PANEL ID: CL1A

VOLTAGE: 208Y/120 | SERVICE EQUIP: No | MOUNTING: Surface
SOURCE: CL1 | AMPS: 100 | PANEL AIC: 10,000 | TYPE: BOLT ON
LOCATION: MECH 347 | MAIN: MLO | CALC SCC: 5,293 | APPROX. DIM: 20"W X 5.75"D X 50"H

LOAD	NOTE	COND	Phase, Neu, Grd Size	POLE	BKR	CKT	A	B	C	CKT	BKR	POLE	Phase, Neu, Grd Size	COND	NOTE	LOAD
H-1		1	2-#8, 1-#8, 1-#10	2	35	1	1467 800			2	20	1	1-#12, 1-#12, 1-#12	3/4		TU-1,2,3,4
						3		1467 800		4	20	1	1-#12, 1-#12, 1-#12	--		TU- 5,6,7,8
RO SYSTEM		3/4	2-#12, 1-#12, 1-#12	2	20	5			915 600	6	20	1	1-#12, 1-#12, 1-#12	--		SV-1,2,3
						7	915 200			8	20	1	1-#12, 1-#12, 1-#12	3/4		BAS
RO PRETREATMENT SYSTEM		3/4	2-#12, 1-#12, 1-#12	2	20	9		219 200		10	20	1	1-#12, 1-#12, 1-#12	--		BAS
						11			219 915	12						
HUMIDIFIER ZONE CONTROLLER		3/4	2-#12, 1-#12, 1-#12	2	20	13	260 915			14	20	2	2-#12, 1-#12, 1-#12	3/4		FUTURE VAC
						15		260 1392		16	20	1	1-#12, 1-#12, 1-#12	3/4		FCU-1
AHU-1 AUXILIARY CIRCUIT		3/4	1-#12, 1-#12, 1-#12	1	20	17			600 1392	18	20	1	1-#12, 1-#12, 1-#12	3/4		FCU-2
AHU-1 AUXILIARY CIRCUIT		--	1-#12, 1-#12, 1-#12	1	20	19	600 1200			20	20	1	1-#12, 1-#12, 1-#12	3/4		EV-12,13,14,15,16,17
AHU-1 AUXILIARY CIRCUIT		--	1-#12, 1-#12, 1-#12	1	20	21		600 500		22	20	1	1-#12, 1-#12, 1-#12	3/4		MOTORIZED SHADES
VACUUM PUMP		3/4	1-#12, 1-#12, 1-#12	1	20	23			1000 500	24	20	1	1-#12, 1-#12, 1-#12	--		MOTORIZED SHADES
SPARE		--	--	1	20	25	0 200			26	20	1	1-#12, 1-#12, 1-#12	3/4	1	HEAT TRACE CTRL
SPARE		--	--	1	20	27		0 200		28	20	1	1-#12, 1-#12, 1-#12	3/4		GS-1
SPARE		--	--	1	20	29			0 0	30	20	1	--	--		SPARE
SPARE		--	--	1	20	31	0 100			32	20	1	1-#12, 1-#12, 1-#12	3/4		TRAP PRIMER
SPARE		--	--	1	20	33		0 696		34	15	1	1-#12, 1-#12, 1-#12	3/4		EF-1,4 (1/4 HP)
SPARE		--	--	1	20	35			0 780	36						
SPARE		--	--	1	20	37	0 780			38	20	2	2-#12, 1-#12, 1-#12	3/4		ERP-1 (2 HP)
SPARE		--	--	1	20	39		0 1102		40	20	2	2-#12, 1-#12, 1-#12	3/4		RCP-1 (3 HP)
SPARE		--	--	1	20	41			0 1102	42						
							7437 VA	7435 VA	8023 VA							
							62 A	62 A	67 A							

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power	2896 VA	100.00%	2896 VA		
Mechanical	19999 VA	100.00%	19999 VA		
				CONNECTED LOAD	22895 VA
				DEMAND LOAD	22895 VA
				AVG. CONNECTED CURRENT	64 A
				AVG. DEMAND CURRENT	64 A

NOTES:
1. PROVIDE BREAKER WITH GFPE PROTECTION.

PANEL ID: CL2

VOLTAGE: 208Y/120 | SERVICE EQUIP: No | MOUNTING: Surface
SOURCE: X-CL2 | AMPS: 60 | PANEL AIC: 10,000 | TYPE: BOLT ON
LOCATION: MECH 347 | MAIN: MCB | CALC SCC: 1,555 | APPROX. DIM: 20"W X 5.75"D X 50"H

LOAD	NOTE	COND	Phase, Neu, Grd Size	POLE	BKR	CKT	A	B	C	CKT	BKR	POLE	Phase, Neu, Grd Size	COND	NOTE	LOAD
REC 322B		3/4	1-#12, 1-#12, 1-#12	1	20	1	540 0			2	20	1	--	--		SPARE
REC 322B		--	1-#12, 1-#12, 1-#12	1	20	3		540 0		4	20	1	--	--		SPARE
REC 322B		--	1-#12, 1-#12, 1-#12	1	20	5			360 0	6	20	1	--	--		SPARE
SPARE		--	--	1	20	7	0 0			8	20	1	--	--		SPARE
SPARE		--	--	1	20	9		0 0		10	20	1	--	--		SPARE
SPARE		--	--	1	20	11			0 0	12	20	1	--	--		SPARE
SPARE		--	--	1	20	13	0 0			14	20	1	--	--		SPARE
SPARE		--	--	1	20	15		0 0		16	20	1	--	--		SPARE
SPARE		--	--	1	20	17			0 0	18	20	1	--	--		SPARE
SPARE		--	--	1	20	19	0 0			20	20	1	--	--		SPARE
SPARE		--	--	1	20	21		0 0		22	20	1	--	--		SPARE
SPARE		--	--	1	20	23			0 0	24	20	1	--	--		SPARE
SPARE		--	--	1	20	25	0 0			26	20	1	--	--		SPARE
SPARE		--	--	1	20	27		0 0		28	20	1	--	--		SPARE
SPARE		--	--	1	20	29			0 0	30	20	1	--	--		SPARE
SPARE		--	--	1	20	31	0 0			32	20	1	--	--		SPARE
SPARE		--	--	1	20	33		0 0		34	20	1	--	--		SPARE
SPARE		--	--	1	20	35			0 0	36	20	1	--	--		SPARE
SPARE		--	--	1	20	37	0 0			38						
SPARE		--	--	1	20	39		0 0		40	30	3	1-#10, 1-#10, 1-#10	3/4		SPD
SPARE		--	--	1	20	41			0 0	42						
							540 VA	540 VA	360 VA							
							5 A	5 A	3 A							

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
REC	1440 VA	100.00%	1440 VA		
				CONNECTED LOAD	1440 VA
				DEMAND LOAD	1440 VA
				AVG. CONNECTED CURRENT	4 A
				AVG. DEMAND CURRENT	4 A

NOTES:

PANEL ID: DB

VOLTAGE: 480Y/277 | SERVICE EQUIP: No | MOUNTING: SURFACE
SOURCE: BM1 | AMPS: 100 | MAIN: MLO | TYPE: EXISTING
LOCATION: TELEPHONE/... | PANEL AIC: EXISTING | APPROX. DIM: EXISTING

LOAD	NOTE	COND	Phase, Neu, Grd Size	POLE	BKR	CKT	A	B	C	CKT	BKR	POLE	Phase, Neu, Grd Size	COND	NOTE	LOAD
DRAFT BARR. 216				1	70	1	12200 6500			2	40	1				EH-1 258A
EH-2 258				1	40	3		6500 6500		4	40	1				DRAFT BARR. 256
EH-3 258				1	40	5			6500 6500	6	40	1				DRAFT BARR. 257
SPACE		--	--	1	--	7	-- --			8	--	1	--	--		SPACE
DRAFT BARR. 263				1	20	9		3300 --		10	--	1	--	--		SPACE
SPACE		--	--	1	--	11			-- --	12	--	1	--	--		SPACE
							18700 VA	16300 VA	13000 VA							
							69 A	61 A	47 A							

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power	48000 VA	100.00%	48000 VA		
				CONNECTED LOAD	48000 VA
				DEMAND LOAD	48000 VA
				AVG. CONNECTED CURRENT	58 A
				AVG. DEMAND CURRENT	58 A

NOTES:

PANEL ID: SPA

VOLTAGE: 208Y/120 | SERVICE EQUIP: No | MOUNTING: Surface
SOURCE: SP | AMPS: 150 | PANEL AIC: 10,000 | TYPE: BOLT ON
LOCATION: ENTRY VESTIBULE... | MAIN: MLO | CALC SCC: 6,997 | APPROX. DIM: 20"W X 5.75"D X 50"H

LOAD	NOTE	COND	Phase, Neu, Grd Size	POLE	BKR	CKT	A	B	C	CKT	BKR	POLE	Phase, Neu, Grd Size	COND	NOTE	LOAD
REC 259		3/4	1-#12, 1-#12, 1-#12	1	20	1	720 540			2	20	1	1-#12, 1-#12, 1-#12	3/4		REC 258E
REC 259B		--	1-#12, 1-#12, 1-#12	1	20	3		540 360		4	20	1	1-#12, 1-#12, 1-#12	--		REC 259F
REC 259B		--	1-#12, 1-#12, 1-#12	1	20	5			540 360	6	20	1	1-#12, 1-#12, 1-#12	--		REC 258G
REFRIGERATOR		3/4	1-#12, 1-#12, 1-#12	1	20	7	1000 360			8	20	1	1-#12, 1-#12, 1-#12	3/4		CLG REC 258
MICROWAVE		--	1-#12, 1-#12, 1-#12	1	20	9		1000 540		10	20	1	1-#12, 1-#12, 1-#12	--		CLG REC 258
REC 260		3/4	1-#12, 1-#12, 1-#12	1	20	11			360 540	12	20	1	1-#12, 1-#12, 1-#12	3/4		REC 258
REC 259A		--	1-#12, 1-#12, 1-#12	1	20	13	360 540			14	20	1	1-#12, 1-#12, 1-#12	--		REC 258
REC 259A		--	1-#12, 1-#12, 1-#12	1	20	15		360 540		16	20	1	1-#12, 1-#12, 1-#12	--		REC 258
REC 258C		3/4	1-#12, 1-#12, 1-#12	1	20	17			540 720	18	20	1	1-#12, 1-#12, 1-#12	3/4		REC 258A
REC 258C		--	1-#12, 1-#12, 1-#12	1	20	19	540 360			20	20	1	1-#12, 1-#12, 1-#12	--		REC 258A
REC 258C		--	1-#12, 1-#12, 1-#12	1	20	21		540 360		22	20	1	1-#12, 1-#12, 1-#12	--		REC 258A
REC 258		3/4	1-#12, 1-#12, 1-#12	1	20	23			540 360	24	20	1	1-#12, 1-#12, 1-#12	3/4		REC 258
REC 258C		--	1-#12, 1-#12, 1-#12	1	20	25	360 540			26	20	1	1-#12, 1-#12, 1-#12	--		REC 258
REC 258C		--	1-#12, 1-#12, 1-#12	1	20	27		360 540		28	20	1	1-#12, 1-#12, 1-#12	3/4		REC 258
FOTONA LASER		3/4	2-#10, 1-#10, 1-#10	2	30	29			2250 540	30	20	1	1-#12, 1-#12, 1-#12	--		REC 258
						31	2250 3120			32	40	2	2-#8, 1-#8, 1-#10	3/4		XRAY EXAMINATION ROOM 258C
HOT VACUUM TABLE		3/4	2-#10, 1-#10, 1-#10	2	30	33		2250 3120		34						
						35			2250 200	36	20	1	1-#12, 1-#12, 1-#12	3/4		TRAP PRIMER OFFICE 258F
REC MEZZANINE		3/4	1-#12, 1-#12, 1-#12	1	20	37	360 600			38	20	1	1-#12, 1-#12, 1-#12	3/4		LEAK DETECTORS
EV CONTROL		3/4	1-#12, 1-#12, 1-#12	1	20	39		800 360		40	20	1	1-#12, 1-#12, 1-#12	3/4		REC ENTRY VESTIBULE 259
EV CONTROL		--	1-#12, 1-#12, 1-#12	1	20	41			600 0	42	20	1	--	--		SPARE
SPARE		--	--	1	20	43	0 0			44	20	1	--	--		SPARE
SPARE		--	--	1	20	45		0 0		46	20	1	--	--		SPARE
SPARE		--	--	1	20	47			0 0	48	20	1	--	--		SPARE
SPARE		--	--	1	20	49	0 0			50	20	1	--	--		SPARE
SPARE		--	--	1	20	51		0 0		52	20	1	--	--		SPARE
SPARE		--	--	1	20	53			0 0	54	20	1	--	--		SPARE
							11650 VA	11670 VA	9800 VA							
							99 A	100 A	82 A							

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power	2200 VA	100.00%	2200 VA		
REC	24880 VA	70.26%	17340 VA	CONNECTED LOAD	33120 VA
Mechanical	6240 VA	100.00%	6240 VA	DEMAND LOAD	25780 VA
				AVG. CONNECTED CURRENT	92 A
				AVG. DEMAND CURRENT	72 A

NOTES:
1. PROVIDE LOCK ON CLIP. MARK CIRCUIT BREAKER RED TO INDICATE FIRE ALARM CIRCUIT.

PANEL ID: CH1

VOLTAGE: 480Y/277 | SERVICE EQUIP: No | MOUNTING: SURFACE
SOURCE: NM2 | AMPS: 250 | PANEL AIC: 10,000 | TYPE: BOLT ON
LOCATION: MECH 347 | MAIN: MLO | CALC SCC: 6,903 | APPROX. DIM: 20"W X 5.75"D X 50"H

LOAD	NOTE	COND	Phase, Neu, Grd Size	POLE	BKR	CKT	A	B	C	CKT	BKR	POLE	Phase, Neu, Grd Size	COND	NOTE	LOAD
						1	15512 5817			2						
AHU-1 (FOUR 10 HP)		1-1/2	3-#1, 1-#8	3	100	3		15512 5817		4	45	3	3-#6, 1-#10	1		LEF-1.1 (15 HP)
						5			15512 5817	6						
						7	2133 0			8						
HEAT TRACE CONTROL PANEL	1	1	3-#6, 1-#6, 1-#10	3	50	9		2133 0		10	45	3	3-#6, 1-#10	1		LEF-2.1 (15 HP)
						11			2133 0	12						
						13	2105 3047			14						
TCHWP-1 (5 HP)		3/4	3-#12, 1-#12	3	20	15		2105 3047		16	20	3	3-#12, 1-#12	3/4		EF-1.1 (7.5 HP)
						17			2105 3047	18						
						19	1330 443			20						
THWP-1 (3 HP)		3/4	3-#12, 1-#12	3	15	21		1330 443		22	15	3	3-#12, 1-#12	3/4		EF-1.2 (3/4 HP)
						23			1330 443	24						
						25	540 443			26						
X-CL2				3	30	27		540 443		28	15	3	3-#12, 1-#12	3/4		EF-1.3 (1 HP)
						29			360 443	30						
						31	15407 --			32	--	1	--	--		SPACE
X-CL1				3	110	33		17505 --		34	--	1	--	--		SPACE
						35			17663 --	36	--	1	--	--		SPACE
SPACE		--	--	1	--	37	-- 2239			38	20	1	1-#12, 1-#12, 1-#12	3/4		CONSERVATION LIGHTING
SPACE		--	--	1	--	39		-- --		40	--	1	--	--		SPACE
SPACE		--	--	1	--	41			-- --	42	--	1	--	--		SPACE
SPACE		--	--	1	--	43	-- --			44	--	1	--	--		SPACE
SPACE		--	--	1	--	45		-- --		46	--	1	--	--		SPACE
SPACE		--	--	1	--	47			-- --	48	--	1	--	--		SPACE
SPACE		--	--	1	--	49	-- 0			50						
SPACE		--	--	1	--	51		-- 0		52	30	3	1-#10, 1-#10, 1-#10	3/4		SPD
SPACE		--	--	1	--	53			-- 0	54						
							49017 VA	48876 VA	48854 VA							
							177 A	176 A	176 A							

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power	12696 VA	100.00%	12696 VA		
REC	19320 VA	75.88%	14660 VA	CONNECTED LOAD	146747 VA
Lighting	2239 VA	125.00%	2799 VA	DEMAND LOAD	142647 VA
Mechanical	112491 VA	100.00%	112491 VA	AVG. CONNECTED CURRENT	177 A
				AVG. DEMAND CURRENT	172 A

NOTES:
1. PROVIDE BREAKER WITH GFPE PROTECTION.

PANEL ID: CL1

VOLTAGE: 208Y/120 | SERVICE EQUIP: No | MOUNTING: Surface
SOURCE: X-CL1 | AMPS: 225 | PANEL AIC: 10,000 | TYPE: BOLT ON
LOCATION: MECH 347 | MAIN: MCB | CALC SCC: 5,722 | APPROX. DIM: 20"W X 5.75"D X 50"H

LOAD	NOTE	COND	Phase, Neu, Grd Size	POLE	BKR	CKT	A	B	C	CKT	BKR	POLE	Phase, Neu, Grd Size	COND	NOTE	LOAD
REC 347, ROOF REC		3/4	1-#12, 1-#12, 1-#12	1	20	1	720 720			2	20	1	1-#12, 1-#12, 1-#12	3/4		REC 320B
REC 347, ROOF REC		--	1-#12, 1-#12, 1-#12	1	20	3		720 720		4	20	1	1-#12, 1-#12, 1-#12	--		REC 320B
REC 322A		3/4	1-#12, 1-#12, 1-#12	1	20	5			720 720	6	20	1	1-#12, 1-#12, 1-#12	3/4		REC 320A
REC 322A		--	1-#12, 1-#12, 1-#12	1	20	7	720 720			8	20	1	1-#12, 1-#12, 1-#12	--		REC 320A
REC 322A		--	1-#12, 1-#12, 1-#12	1	20	9		660 500		10	20	1	1-#12, 1-#12, 1-#12	3/4		DI SYSTEM
REC 322		3/4	1-#12, 1-#12, 1-#12	1	20	11			540 360	12	20	1	1-#12, 1-#12, 1-#12	--		BLEACHING LIGHTS
REC 322		--	1-#12, 1-#12, 1-#12	1	20	13	720 720			14	20	1	1-#12, 1-#12, 1-#12	3/4		FLOOR BOX 322
REC 322		--	1-#12, 1-#12, 1-#12	1	20	15		360 1080		16	20	1	1-#12, 1-#12, 1-#12	--		FLOOR BOX 322
REC 322		3/4	1-#12, 1-#12, 1-#12	1	20	17			360 2250	18						
SUCTION TABLE		--	1-#12, 1-#12, 1-#12	1	20	19	500 2250			20	30	2	2-#10, 1-#10, 1-#10	3/4		FOTONA LASER
SUCTION PLATEN		--	1-#12, 1-#12, 1-#12	1	20	21		500 4150		22						
REC 322		3/4	1-#12, 1-#12, 1-#12	1	20	23			540 4150	24	60	2	2-#4, 1-#10	1		WH-2
REC 322		--	1-#12, 1-#12, 1-#12	1	20	25	720 180			26	20	1	1-#12, 1-#12, 1-#12	3/4		REC TERRACE 300B
REC 320B		--	1-#10, 1-#10, 1-#10	1	20	27		1200 180		28	20	1	1-#12, 1-#12, 1-#12	3/4		SERVICE REC
SPARE		--	--	1	20	29			0 0	30	20	1	--	--		SPARE
SPARE		--	--	1	20	31	0 0			32	20	1	--	--		SPARE
SPARE		--	--	1	20	33		0 0		34	20	1	--	--		SPARE
SPARE		--	--	1	20	35			0 0	36	20	1	--	--		SPARE
							37 7437 0			38						
CL2		1-1/2	3-#1, 1-#1, 1-#8	3	100	39		7435 0		40	30	3	1-#10, 1-#10, 1-#10	3/4		SPD
						41			8023 0	42						
							15407 VA	17505 VA	17663 VA							
							128 A	149 A	150 A							

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power	12696 VA	100.00%	12696 VA		
REC	17880 VA	77.96%	13940 VA	CONNECTED LOAD	50575 VA
Mechanical	19999 VA	100.00%	19999 VA	DEMAND LOAD	46635 VA
				AVG. CONNECTED CURRENT	140 A
				AVG. DEMAND CURRENT	129 A

NOTES:

PANEL KEY		
M1LE	CL1A	SPA
--	CL2	CH1
--	DB	CL1

HH
ARCHITECTURE
1100 Dresser Court
Raleigh, NC 27609
Office 919.828.2301
Email office@hh-arch.com

Salas O'Brien
Salas O'Brien
North Carolina, Inc.
702 Oberlin Road, Suite 300
Raleigh, NC 27605
919-832-8118
salasobrien.com
license (NC): F-1434

NCMA - EAST BUILDING AND MUSEUM PARK IMPROVEMENTS
NC DEPARTMENT OF NATURAL AND CULTURAL RESOURCES
2110 BLUE RIDGE ROAD, RALEIGH, NC 27607
SCO PROJECT #22-25283-02A

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 039503 MATTHEW J. JOHNSON
06/30/2025

NO.	REVISION	DATE
1		

JOB NUMBER **22-028**
DATE ISSUED **07/03/25**
PROJECT STATUS **ISSUED FOR BID**
SHEET **PANEL SCHEDULES - CONSERVATION**

E402

PANEL ID: C

VOLTAGE: 208Y/120 | SERVICE EQUIP: No | MOUNTING: Surface
SOURCE: MDP | AMPS: 100 | PANEL AIC: 10,000 | TYPE: BOLT ON
LOCATION: UTILITIES T101 | MAIN: MLO | CALC SCC: 4,157 | APPROX. DIM: 20"W X 5.75"D X 50"H

LOAD	NOTE	COND	Phase, Neu, Grd Size	POLE	BKR	CKT	A	B	C	CKT	BKR	POLE	Phase, Neu, Grd Size	COND	NOTE	LOAD
Z001 LIGHTING	1	1	1-#8, 1-#8, 1-#8	1	20	1	297 294			2	20	1	1-#8, 1-#8, 1-#8	1	1	Z006 LIGHTING
Z002 LIGHTING	1	1	1-#4, 1-#4, 1-#4	1	20	3		1344 264		4	20	1	1-#10, 1-#10, 1-#10	1	1	Z007 LIGHTING
Z003 LIGHTING	1	1	1-#10, 1-#10, 1-#10	1	20	5			147 112	6	20	1	1-#10, 1-#10, 1-#10	1	1	Z008 LIGHTING
Z004 LIGHTING	1	1	1-#10, 1-#10, 1-#10	1	20	7	114 126			8	20	1	1-#10, 1-#10, 1-#10	1	1	Z009 LIGHTING
Z005 LIGHTING	1	1	1-#10, 1-#10, 1-#10	1	20	9		228 252		10	20	1	1-#10, 1-#10, 1-#10	1	1	Z010 LIGHTING
SITE REC		1	1-#10, 1-#10, 1-#10	1	20	11			180 210	12	20	1	1-#10, 1-#10, 1-#10	1	1	Z011 LIGHTING
SITE REC		--	1-#10, 1-#10, 1-#10	1	20	13	180 180			14	20	1	1-#10, 1-#10, 1-#10	1		SITE REC
SITE REC		--	1-#10, 1-#10, 1-#10	1	20	15		180 180		16	20	1	1-#10, 1-#10, 1-#10	--		SITE REC
SITE REC		1	1-#10, 1-#10, 1-#10	1	20	17			180 180	18	20	1	1-#10, 1-#10, 1-#10	--		SITE REC
SITE REC		--	1-#10, 1-#10, 1-#10	1	20	19	180 180			20	20	1	1-#10, 1-#10, 1-#10	1		SITE REC
FAUCET POWER		3/4	1-#10, 1-#10, 1-#10	1	20	21		600 180		22	20	1	1-#10, 1-#10, 1-#10	--		SITE REC
FAUCET POWER		--	1-#10, 1-#10, 1-#10	1	20	23			600 180	24	20	1	1-#10, 1-#10, 1-#10	--		SITE REC
LRP POWER		3/4	1-#12, 1-#12, 1-#12	1	20	25	200 2500			26						
SPARE		--	--	1	20	27		0 2500		28	40	2	2-#8, 1-#10	1		UH-T.1
SPARE		--	--	1	20	29			0 2500	30						
SPARE		--	--	1	20	31	0 2500			32	40	2	2-#8, 1-#10	1		UH-T.4
SPARE		--	--	1	20	33		0 0		34	20	1	--	--		SPARE
SPARE		--	--	1	20	35			0 0	36	20	1	--	--		SPARE
SPARE		--	--	1	20	37	0 0			38						
SPARE		--	--	1	20	39		0 0		40	30	3	1-#10, 1-#10, 1-#10	3/4		SPD
SPARE		--	--	1	20	41			0 0	42						
							6751 VA	5728 VA	4289 VA							
							58 A	50 A	36 A							

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
Power	200 VA	100.00%	200 VA	
REC	3180 VA	100.00%	3180 VA	CONNECTED LOAD 16768 VA
Lighting	3388 VA	125.00%	4235 VA	DEMAND LOAD 17615 VA
Mechanical	10000 VA	100.00%	10000 VA	AVG. CONNECTED CURRENT 47 A
				AVG. DEMAND CURRENT 49 A

NOTES:
1. CONTROL SITE LIGHTING CIRCUIT WITH DEDICATED LIGHTING RELAY PANEL CONTROL ZONE AND MANUAL SWITCH.

PANEL ID: B

VOLTAGE: 208Y/120 | SERVICE EQUIP: No | MOUNTING: Surface
SOURCE: A | AMPS: 100 | MAIN: MLO | TYPE: BOLT ON
LOCATION: UTILITIES T101 | PANEL AIC: 22,000 | APPROX. DIM: EXISTING | SQUARE D NQOD

LOAD	NOTE	COND	Phase, Neu, Grd Size	POLE	BKR	CKT	A	B	C	CKT	BKR	POLE	Phase, Neu, Grd Size	COND	NOTE	LOAD
PLAZA TREE LIGHTS				1	20	1	500 0			2	20	1	--	--		SPARE
PLAZA TREE LIGHTS				1	20	3		500 500		4	20	1				NIGHTSCAPE TRANS.
PLAZA TREE LIGHTS				1	20	5			500 0	6	20	1	--	--		SPARE
E LIGHTS				1	20	7	500 456			8	20	1	1-#12, 1-#12, 1-#12	3/4		LIGHTING
SPARE		--	--	1	20	9		0 500		10	20	1				E LIGHTS
SPARE		--	--	1	20	11			0 500	12	20	1				E LIGHTS
SPARE		--	--	1	20	13	0 500			14	20	1				H LIGHTS
UPPER WALKWAY LIGHTS				1	20	15		500 500		16	20	1				H LIGHTS
UPPER WALKWAY LIGHTS				1	20	17			500 500	18	20	1				H LIGHTS
UPPER WALKWAY LIGHTS				1	20	19	500 500			20	20	1				H LIGHTS
SPARE		--	--	1	20	21		0 500		22	20	1				H LIGHTS
SPARE		--	--	1	20	23			0 500	24	20	1				H LIGHTS
SPARE		--	--	1	20	25	0 500			26	20	1				LOWER WALKWAY LIGHTS
SPARE		--	--	1	20	27		0 245		28	20	1	1-#12, 1-#12, 1-#12	3/4		LIGHTING
SPARE		--	--	1	20	29			0 1176	30	20	1				EF-1
STAIR LIGHTS				1	20	31	500 0			32	20	1	--	--		SPARE
STAIR LIGHTS				1	20	33		500 0		34	20	1	--	--		SPARE
STAIR LIGHTS				1	20	35			500 --	36	--	1	--	--		SPACE
SPACE		--	--	1	--	37	-- --			38	--	1	--	--		SPACE
SPACE		--	--	1	--	39		-- --		40	--	1	--	--		SPACE
AC-T.1		3/4	1-#12, 1-#12, 1-#12	1	15	41			500 --	42	--	1	--	--		SPACE
							3966 VA	3745 VA	4676 VA							
							33 A	31 A	39 A							

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
Power	10000 VA	100.00%	10000 VA	
Lighting	701 VA	125.00%	876 VA	CONNECTED LOAD 12377 VA
Mechanical	1676 VA	100.00%	1676 VA	DEMAND LOAD 12552 VA
				AVG. CONNECTED CURRENT 34 A
				AVG. DEMAND CURRENT 35 A

NOTES:

PANEL ID: MDP

VOLTAGE: 208Y/120 | SERVICE EQUIP: Yes | MOUNTING: Surface
SOURCE: UTILITY | AMPS: 400 | MAIN: MCB | TYPE: EXISTING
LOCATION: UTILITIES T101 | PANEL AIC: 22,000 | APPROX. DIM: EXISTING | SQUARE D I-LINE

LOAD	NOTE	COND	Phase, Neu, Grd Size	POLE	BKR	CKT	A	B	C	CKT	BKR	POLE	Phase, Neu, Grd Size	COND	NOTE	LOAD
						1	1 0	10200		2						
EXISTING	3	--	--	3	150	3		0 10200		4	150	3			3	SDP VIA TF1
						5			0 10200	6						
						7	13796 7333			8						
A	3			3	225	9		14865 7333		10	225	3			3	ST
						11			14636 7333	12						
						13	6751 --			14						
C	1	1-1/2	3-#1, 1-#1, 1-#8	3	100	15		5728 --		16	--	3	--	--		SPACE
						17			4289 --	18						
							38090 VA	38126 VA	36458 VA							
							319 A	320 A	304 A							

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
Power	75000 VA	100.00%	75000 VA	
REC	3900 VA	100.00%	3900 VA	CONNECTED LOAD 112565 VA
Lighting	4089 VA	125.00%	5111 VA	DEMAND LOAD 113697 VA
Mechanical	29676 VA	100.00%	29676 VA	AVG. CONNECTED CURRENT 313 A
				AVG. DEMAND CURRENT 316 A

NOTES:
1. PROVIDE NEW CIRCUIT BREAKER, SIZED AS INDICATED. MATCH EXISTING MANUFACTURER AND 22,000 AIC RATING.
2. EXISTING LOADS DETERMINED FROM 12 MONTH MAXIMUM DEMAND READINGS FROM DUKE ENERGY.
3. EXISTING CIRCUIT BREAKER AND FEEDER TO REMAIN.

PANEL ID: SDP

VOLTAGE: 208Y/120 | SERVICE EQUIP: No | MOUNTING: Surface
SOURCE: MDP | AMPS: 150 | MAIN: MCB | TYPE: EXISTING
LOCATION: UTILITIES T101 | PANEL AIC: 22,000 | APPROX. DIM: EXISTING | SQUARE D NQOD

LOAD	NOTE	COND	Phase, Neu, Grd Size	POLE	BKR	CKT	A	B	C	CKT	BKR	POLE	Phase, Neu, Grd Size	COND	NOTE	LOAD
EXISTING	2			1	20	1	200 --			2	--	1	--	--		SPACE
EXISTING	2			1	20	3		200 --		4	--	1	--	--		SPACE
EXISTING	2			1	20	5			200 --	6	--	1	--	--		SPACE
EXISTING	2			1	20	7	200 --			8	--	1	--	--		SPACE
EXISTING	2			1	20	9		200 --		10	--	1	--	--		SPACE
EXISTING	2			1	20	11			200 --	12	--	1	--	--		SPACE
						13	3600 200			14	20	1			2	EXISTING
HM	2			3	60	15		3600 200		16	20	1			2	EXISTING
						17			3600 200	18	20	1			2	EXISTING
SPACE		--	--	1	--	19	-- 6000			20						
SPACE		--	--	1	--	21		-- 6000		22	100	3			2	PB
SPACE		--	--	1	--	23			-- 6000	24						
SPACE		--	--	1	--	25	-- --			26	--	1	--	--		SPACE
SPACE		--	--	1	--	27		-- --		28	--	1	--	--		SPACE
SPACE		--	--	1	--	29			-- --	30	--	1	--	--		SPACE
							10200 VA	10200 VA	10200 VA							
							85 A	85 A	85 A							

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
Power	30600 VA	100.00%	30600 VA	
				CONNECTED LOAD 30600 VA
				DEMAND LOAD 30600 VA
				AVG. CONNECTED CURRENT 85 A
				AVG. DEMAND CURRENT 85 A

NOTES:
1. PROVIDE NEW CIRCUIT BREAKER, SIZED AS INDICATED. MATCH EXISTING MANUFACTURER AND AIC RATING.
2. EXISTING CIRCUIT TO REMAIN.

PANEL ID: A

VOLTAGE: 208Y/120 | SERVICE EQUIP: No | MOUNTING: Surface
SOURCE: MDP | AMPS: 225 | MAIN: MLO | TYPE: EXISTING
LOCATION: UTILITIES T101 | PANEL AIC: 22,000 | APPROX. DIM: EXISTING | SQUARE D NQOD

LOAD	NOTE	COND	Phase, Neu, Grd Size	POLE	BKR	CKT	A	B	C	CKT	BKR	POLE	Phase, Neu, Grd Size	COND	NOTE	LOAD
HALL LIGHTS	2			1	20	1	500 540			2	20	1	1-#12, 1-#12, 1-#12	3/4	3	CONCESSION REC
WOMEN'S RESTROOM	2			1	20	3		360 1000		4	20	1	1-#12, 1-#12, 1-#12	--	3	FRIDGE CABINET
MEN'S RESTROOM	2			1	20	5			360 1000	6	20	1	1-#12, 1-#12, 1-#12	--	3	MICROWAVE
UTILITY ROOM REC	2			1	20	7	180 360			8	20	1			2	TELEPHONE REC
GIFT SHOP LIGHTS/FAN	2			1	20	9		500 500		10	20	1			2	WOMEN'S HAND DRYER (1)
CONTROL PANEL BLEACHERS	2			1	20	11			500 500	12						
CONTROL PANEL BLEACHERS	2			1	20	13	500 500			14	20	2			2	WATER HEATER
EXISTING	2			1	20	15		200 500		16	20	1			2	MEN'S HAND DRYER
MECH RM LTG/EMERG LTG	2			1	20	17			500 200	18	20	1			2	EXISTING
MECH ROOM EXH FAN	2			1	20	19	100 100			20	20	1			2	BATHROOM EXH FAN
EXISTING	2			1	20	21		200 500		22	20	1			2	GFI RR AND HALL EMERG LTG
STAIRWAY LIGHTS	2			1	20	23			0 200	24	20	1			2	EXISTING
UH-T.2	1	1	1-#8, 1-#8, 1-#10	1	40	25	3000 200			26	20	1			2	EXISTING
UH-T.3	1	1	1-#8, 1-#8, 1-#10	1	40	27		3000 500		28	20	1			2	WOMEN'S HAND DRYER (2)
UH-T.5	1	1	1-#8, 1-#8, 1-#10	1	40	29			3000 500	30	20	1			2	LETTER E GFI
UH-T.6	1	1	1-#8, 1-#8, 1-#10	1	40	31	3000 500			32	20	2			2	CAFE CONCESSION AREA POWER
UH-T.7	1	1	1-#8, 1-#8, 1-#10	1	40	33		3000 500		34						
UH-T.8	1	1	1-#8, 1-#8, 1-#10	1	40	35			3000 200	36	20	1			2	EXISTING
						37	3956 360			38	20	1			2	UPPER LAWN RECS
B	2			3	100	39		3745 360		40	20	1			2	LOWER LAWN RECS
						41			4676 --	42	--	1	--	--		SPACE
							13796 VA	14865 VA	14636 VA							
							115 A	125 A	123 A							

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
Power	22200 VA	100.00%	22200 VA	
REC	720 VA	100.00%	720 VA	CONNECTED LOAD 43297 VA
Lighting	701 VA	125.00%	876 VA	DEMAND LOAD 43472 VA
Mechanical	19676 VA	100.00%	19676 VA	AVG. CONNECTED CURRENT 120 A
				AVG. DEMAND CURRENT 121 A

NOTES:
1. PROVIDE NEW CIRCUIT BREAKER, SIZED AS INDICATED. MATCH EXISTING MANUFACTURER AND AIC RATING.
2. EXISTING CIRCUIT TO REMAIN.
3. PROVIDE NEW GFI CIRCUIT BREAKER, SIZED AS INDICATED. MATCH EXISTING MANUFACTURER AND 22,000 AIC RATING.

PANEL KEY	
C	MDP
B	SDP
--	A

HH
ARCHITECTURE
1100 Preston Court
Raleigh, NC 27609
Office 919.828.2301
Email office@hh-arch.com

Salas O'Brien
Salas O'Brien
North Carolina, Inc.
702 Oberlin Road, Suite 300
Raleigh, NC 27605
919-832-8118
salasobrien.com
license (NC): F-1434

NCMA - EAST BUILDING AND MUSEUM PARK IMPROVEMENTS
NC DEPARTMENT OF NATURAL AND CULTURAL RESOURCES
2110 BLUE RIDGE ROAD, RALEIGH, NC 27607
SCO PROJECT #22-25283-02A

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 039503 MATTHEW J. JOHNSTON
06/30/2025

NO.	REVISION	DATE

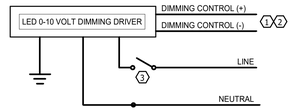
JOB NUMBER **22-028**
DATE ISSUED **07/03/25**
PROJECT STATUS **ISSUED FOR BID**

SHEET **PANEL SCHEDULES - AMPHITHEATER**

E403

LIGHTING FIXTURE SCHEDULE

TYPE MARK	DESCRIPTION	MOUNTING	LUMENS	VOLTAGE	WATTAGE	CONTROL	FIXTURE MEETING SPECIFICATION ML	COMMENTS	Image
A	4" CYLINDER ON STEM MOUNT	SURFACE	2500	120/277	30 VA	0-10V	EDISON PRICE MAXIMA CZS NSP-OBM	PROVIDE PREFERRED BRAND ALTERNATE FIXTURE COMPATIBLE WITH EXISTING LIGHTING TRACK	
D	4" WET LOCATION CYLINDER	SURFACE	2500	120/277	23 VA	0-10V	HEW - 4CR INTENSE - SS6 SERIES METEOR - RS6N SERIES	CLEAR DIFFUSE, WET LOCATION RATED	
E	CURVED LED PENDANT	PENDANT	1000/FT	120/277	9 VA/FOOT	0-10V	TECHOLED - BX-CURV FINELITE - HP4 SERIES TMS - 971LUCU SERIES		
E1	LED PENDANT	PENDANT	1000/FT	120/277	9 VA/FOOT	0-10V	TECHOLED - BX-CURV FINELITE - HP4 SERIES TMS - 971LUCU SERIES		
EM	WALL MOUNT EMERGENCY LIGHTING UNIT WITH HIGH OUTPUT BATTERY	SURFACE, WALL MOUNT	1100	120/277	5 VA	N/A	CHLORIDE CLU MULE SQ-80 BEGHELLI PACO		
F	ROUND PENDANT LED 13" WIDE 32" HIGH	PENDANT	2050	120/277	18 VA	0-10V	MODO LUCE - OMBRELLA PRANDINA -LANDING S70 SERIES OLEV - OVERFLY PLUS SERIES	PROVIDE BRASS FINISH	
FLS02	COMPACT LED EXTERIOR FLOOD LIGHT	SURFACE, EXTERIOR	4102	120/277	48 VA	0-10V	SEE LT SHEETS FOR COMPLETE LIGHTING SPEC		
FP01	6" PENDANT	PENDANT	5050	120/277	58 VA	0-10V	SEE LT SHEETS FOR COMPLETE LIGHTING SPEC		
FP01A	6" PENDANT	PENDANT	4459	120/277	58 VA	0-10V	SEE LT SHEETS FOR COMPLETE LIGHTING SPEC		

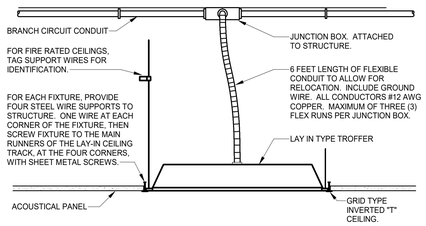


KEYED NOTES :

1. CAP DIMMING CONTROL LEADS WHERE FIXTURES ARE NOT REQUIRED TO BE DIMMED, AND ROVIDE LINE SIDE SWITCHLEG (NOT SHOWN).
2. PROVIDE 0-10 VOLT STANDARD CURRENT SINK 0-10 VOLT CONTROL DIMMER (IEC 60929) WHERE INDICATED (COMPATIBLE WITH LIGHT FIXTURES). PROVIDE 600 VOLT RATED CONTROL CONDUCTORS ROUTED WITH POWER CIRCUIT TO EACH FIXTURE DRIVER.
3. INTEGRAL DRIVER DISCONNECT.

SO DETAIL: CN0046

1 E500 0-10 VOLT DIMMING WIRING DETAIL
SCALE: NTS



SO DETAIL: GE0013

2 E500 LIGHTING FIXTURE MOUNTING DETAIL
SCALE: NTS

FIXTURE SCHEDULE NOTES:

1. THIS FIXTURE SCHEDULE IDENTIFIES A FIXTURE THAT MEETS THE SPECIFIED PERFORMANCE REQUIREMENTS AND A LEVEL OF QUALITY REQUIRED FOR THE PROJECT. **MANUFACTURER'S NAMES AND FIXTURE SERIES/MODELS IN SCHEDULE ARE NOT A BRAND NAME SPECIFICATION.** EQUIVALENT FIXTURES BY MANUFACTURERS OTHER THAN THOSE LISTED MAY BE SUBMITTED FOR THIS PROJECT.
2. PROVIDE LED DRIVERS SUITABLE FOR FULL RANGE DIMMING, INTEGRAL SURGE PROTECTION, CURRENT TOTAL HARMONIC DISTORTION (THD) OF <20% AND A POWER FACTOR >0.90. IN ADDITION, DRIVERS MUST BE RF SUPPRESSED FOR MINIMUM INJECTION OF FEEDBACK INTO SUPPLY LINES. MAXIMUM CURRENT THD AND MINIMUM POWER FACTOR MUST BE SUBMITTED AS A PART OF THE FIXTURE SUBMITTAL DATA.
3. UNLESS OTHERWISE INDICATED, PROVIDE SINGLE DRIVER PER FIXTURE.
4. PROVIDE MOUNTING FRAME AND RELATED ACCESSORIES FOR ALL FIXTURES AS REQUIRED TO MATCH CEILING CONSTRUCTION. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT CEILING CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR MODIFICATION OF FIXTURE SCHEDULE MANUFACTURER'S PART NUMBERS FOR PURPOSES OF MATCHING CEILING CONSTRUCTION.
5. PROVIDE DIMMING DRIVERS WHERE DIMMING CONTROLS ARE INDICATED ON THE PLANS.
6. ALL FIXTURES TO HAVE A COLOR TEMPERATURE OF 4000K UNLESS NOTED OTHERWISE.
7. UNLESS NOTED OTHERWISE, ALL FIXTURES SHALL INCLUDE INTEGRAL DRIVER.
8. ALL FIXTURES SHALL BE UL OR THIRD PARTY LISTED AS COMPLETE ASSEMBLY.
9. FOR LIGHT FIXTURES HAVING LINEAR VISUAL FEATURES (IE: CENTER BASKET, LOUVERS, ETC), COORDINATE AND ALIGN COMPONENTS IN A SIMILAR DIRECTION CONSISTENTLY ACROSS THE BUILDING SPACES.

SO DETAIL: IN0011 LED

LIGHTING FIXTURE SCHEDULE

TYPE MARK	DESCRIPTION	MOUNTING	LUMENS	VOLTAGE	WATTAGE	CONTROL	FIXTURE MEETING SPECIFICATION ML	COMMENTS	Image
H2	2X2 LAY-IN LED TROFFER WITH ACRYLIC CENTER LENS WITH INTEGRAL LINEAR PRISMS	RECESSED, GRID LAY-IN	2143	120/277	18 VA	0-10V	COLUMBIA LCAT22 LITHONIA DAY-BRITE CREE LSI INDUSTRIES	CURVED SHIELDING	
H4	2X4 LAY-IN LED TROFFER WITH ACRYLIC CENTER LENS WITH INTEGRAL LINEAR PRISMS	RECESSED, GRID LAY-IN	10000	120/277	39 VA	0-10V	DAYBRITE - DSRT SERIES HEW - LT SERIES FINELITE - HPR SERIES	CURVED SHIELDING, PROVIDE FLAT WASHABLE LENSES	
LP6	2" WIDE 6' LONG LINEAR DIRECT/INDIRECT PENDANT LED	PENDANT	500 LM UP/ 600 LM DOWN	120/277	11 VA/FOOT	0-10V	FINELITE - HP2 SERIES 3G - 2PLI SERIES BIRCHWOOD - NOLAN SERIES	PROVIDE 1" DROP LENS AND FINISH RAL 200-40-10	
LP8	2" WIDE 8' LONG LINEAR DIRECT/INDIRECT PENDANT LED	PENDANT	500 LM UP/ 600 LM DOWN	120/277	11 VA/FOOT	0-10V	FINELITE - HP2 SERIES 3G - 2PLI SERIES BIRCHWOOD - NOLAN SERIES	PROVIDE 1" DROP LENS AND FINISH RAL 200-40-10	
LP12	2" WIDE 12' LONG LINEAR DIRECT/INDIRECT PENDANT LED	PENDANT	500 LM UP/ 600 LM DOWN	120/277	11 VA/FOOT	0-10V	FINELITE - HP2 SERIES 3G - 2PLI SERIES BIRCHWOOD - NOLAN SERIES	PROVIDE 1" DROP LENS AND FINISH RAL 200-40-10	
LS4	2" WIDE 4' LONG SURFACE LINEAR LED	SURFACE	329 LM/FT	120/277	4 VA/FOOT	0-10V	FINELITE - HP2 SERIES 3G - 2PLI SERIES BIRCHWOOD - NOLAN SERIES		
LS6	2" WIDE 6' LONG SURFACE LINEAR LED	SURFACE	329 LM/FT	120/277	4 VA/FOOT	0-10V	FINELITE - HP2 SERIES 3G - 2PLI SERIES BIRCHWOOD - NOLAN SERIES		
P1	18" X 24" DECORATIVE PENDANT LED	PENDANT	800	120/277	10 VA	0-10V	LIGHTART - FRENCH CURVE SERIES SCOTT - PANAMA SERIES BYIBA - ZELDA ROUND SERIES		
P2	24" X 36" DECORATIVE PENDANT LED	PENDANT	800	120/277	10 VA	0-10V	LIGHTART - FRENCH CURVE SERIES SCOTT - PANAMA SERIES BYIBA - ZELDA ROUND SERIES		
P3	12" X 12" DECORATIVE PENDANT LED	PENDANT	800	120/277	10 VA	0-10V	LIGHTART - FRENCH CURVE SERIES SCOTT - PANAMA SERIES BYIBA - ZELDA ROUND SERIES		
S	34" WIDE 19" HIGH CYLINDER PENDANT	PENDANT	2373	120/277	25 VA	0-10V	LIGHTART - EMPIRE MODO LUCE - ALCO SERIES BYIBA - ACOUSTIC DRUM SERIES	PROVIDE WHITE CANOPY AND DUSK FINISH	
SC	RESTROOM SCONCE	SURFACE	2000	120/277	30 VA	0-10V	BDL - 1153070 MULLAN - MLBWL141 SERIES SCOTT - S3A75 Series		
SM01	3.5" WIDE SURFACE MOUNTED LINEAR LED	SURFACE, WALL MOUNT	750 LM/FOOT	120/277	5 VA/FOOT	0-10V	SEE LT SHEETS FOR COMPLETE LIGHTING SPEC		
SMO2	3.5" WIDE 8' LONG SURFACE MOUNT LINEAR LED	SURFACE	750 LM/FOOT	120/277	5 VA/FOOT	0-10V	SEE LT SHEETS FOR COMPLETE LIGHTING SPEC		
ST	LED LINEAR STRIP	SURFACE/SUSPENDED	4000	120/277	30 VA	0-10V	HEW - 75S DAYBRITE - FSS SERIES TGS - LSL SERIES		
T1	TRACK LIGHTING	TRACK	952	120/277	10 VA	0-10V	BINA - ELEMENT SERIES TECHO - MT SERIES BYIBA - MAGNETIC SERIES		
W1	EXTERIOR WALL PACK	SURFACE, WALL MOUNT	3000	120/277	23 VA	PHOTOCELL	GARDCO GWM-A07 LEDALUX MWP15-38W FC LIGHTING FCW1011	PROVIDE INTEGRAL PHOTOCELL	
W2	DECORATIVE EXTERIOR WALL LIGHT	SURFACE, WALL MOUNT	1500	120/277	14 VA	PHOTOCELL	DMF XCW-R TMS ESPADA VISA OW2400 SASS		
XC	EDGE LIT LED EXIT SIGN	CEILING	N/A	120/277	5 VA	N/A	MULE PVT CHLORIDE 44R SERIES BEGHELLI CRV	PROVIDE MIRROR BACK	
XW	EDGE LIT LED EXIT SIGN	WALL	N/A	120/277	5 VA	N/A	MULE PVT CHLORIDE 44R SERIES BEGHELLI CRV		
XWE	EDGE LIT LED EXIT SIGN	WALL	N/A	120/277	5 VA	N/A	MULE PVT CHLORIDE 44R SERIES BEGHELLI CRV	PROVIDE BATTERY BACKUP FOR 90 MINUTE OPERATION	

HH
ARCHITECTURE
1100 Dresser Court
Raleigh, NC 27609
Office 919.828.2301
Email office@hh-arch.com

Salas O'Brien
Salas O'Brien
North Carolina, Inc.
702 Oberlin Road, Suite 300
Raleigh, NC 27605
919-832-8118
salasobrien.com
license (NC): F-1434

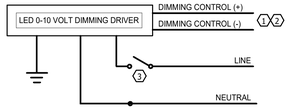
NCMA - EAST BUILDING AND MUSEUM PARK IMPROVEMENTS
NC DEPARTMENT OF NATURAL AND CULTURAL RESOURCES
2110 BLUE RIDGE ROAD, RALEIGH, NC 27607
SCO PROJECT #22-25283-02A

NORTH CAROLINA PROFESSIONAL SEAL 039503 ENGINEER MATTHEW J JOHNSTON
06/30/2025

NO.	REVISION	DATE

JOB NUMBER **22-028**
DATE ISSUED **07/03/25**
PROJECT STATUS **ISSUED FOR BID**
SHEET **LIGHTING FIXTURE SCHEDULE - LEVEL C**

E500



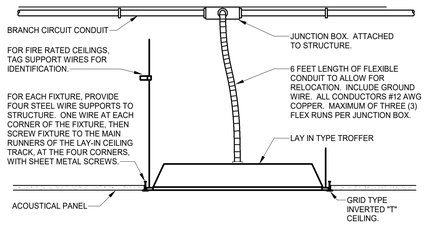
KEYED NOTES :

1. CAP DIMMING CONTROL LEADS WHERE FIXTURES ARE NOT REQUIRED TO BE DIMMED, AND ROVIDE LINE SIDE SWITCHLEG (NOT SHOWN).
2. PROVIDE 0-10 VOLT STANDARD CURRENT SINK 0-10 VOLT CONTROL DIMMER (IEC 60929) WHERE INDICATED (COMPATIBLE WITH LIGHT FIXTURES). PROVIDE 600 VOLT RATED CONTROL CONDUCTORS ROUTED WITH POWER CIRCUIT TO EACH FIXTURE DRIVER.
3. INTEGRAL DRIVER DISCONNECT.

SW DETAIL: CN0046

1 E501 0-10 VOLT DIMMING WIRING DETAIL

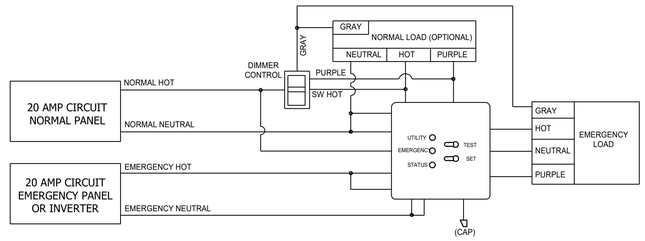
SCALE: NTS



SW DETAIL: GE0013

2 E501 LIGHTING FIXTURE MOUNTING DETAIL

SCALE: NTS



SW DETAIL: CN0047

3 E501 UL1008 0-10V DIM BRANCH CIRCUIT EMERGENCY LIGHTING TRANSFER SWITCH

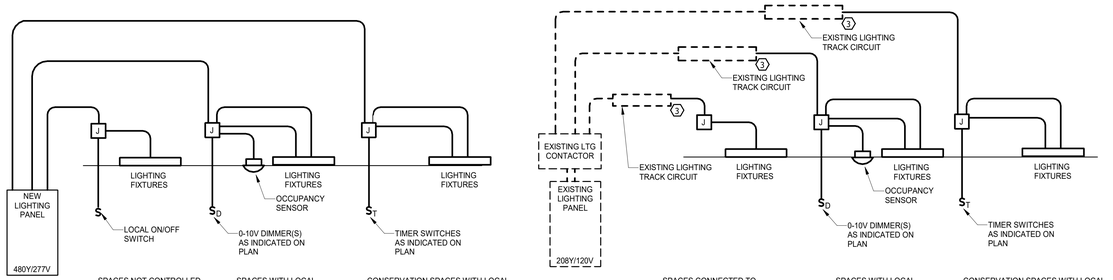
SCALE: NTS

GENERAL NOTES :

1. RISER INDICATES TYPICAL LIGHTING CONTROL METHODS EMPLOYED FOR THIS PROJECT.
2. REFER TO FLOOR PLANS FOR EXACT DEVICE QUANTITIES AND LOCATIONS.
3. PROVIDE ALL CLASS 2 WIRING BETWEEN FIXTURES AND CONTROL DEVICES IN 3/4" CONDUIT UNLESS NOTED OTHERWISE.

KEYED NOTES :

1. CIRCUITS AS DESIGNATED BY FLOOR PLANS. PROVIDE BRANCH CIRCUITS AND RACEWAYS AS REQUIRED BY PANEL SCHEDULE(S).
2. ROUTE BRANCH CIRCUITS TO LIGHTING PANEL AS INDICATED ON THE ELECTRICAL DRAWINGS.
3. CONDITION SHOWN APPLIES TO LIGHTS THAT ARE COMPATIBLE WITH EXISTING EDISON PRICE LIGHTING TRACK RECESSED IN CONCRETE STRUCTURE. WHERE FIXTURES ARE NOT ABLE TO CONNECT TO EXISTING TRACK, INTERCEPT LIGHTING CIRCUIT AHEAD OF TRACK AND AFTER AUTOMATIC CONTROLS OUTSIDE OF CONCRETE STRUCTURE AND EXTEND TO FIXTURE. SURFACE MOUNT CONDUIT FLUSH TO BOTTOM OF CONCRETE STRUCTURE RIBS.



4 E501 INTERIOR LIGHTING CONTROL RISER DIAGRAM

SCALE: NTS

SCHEDULE OF EVENTS

1. SPACES UTILIZING LOCAL AUTOMATIC CONTROL:
   a. PROVIDE SWITCHING CONFIGURATION AS SHOWN ON FLOOR PLANS (ON/OFF SWITCH, DIMMING SWITCH, TIMER SWITCH OR NO LOCAL SWITCHING) TO CONTROL THE GENERAL LIGHTING.
   b. WHERE APPLICABLE, ROUTE LIGHTING BRANCH CIRCUIT(S) TO LIGHT FIXTURES WITHIN SPACE AND CONTROL WITH 0-10 VOLT DIMMER. DIMMER SHALL INCORPORATE SLIDER FOR ILLUMINATION LEVEL AND TOGGLE FOR ON/OFF.
   c. PROVIDE OCCUPANCY SENSORS (AS REQUIRED PER MANUFACTURER LAYOUT) PER ROOM TO ALLOW LIGHTS TO TURN ON AND TO TURN OFF RELATIVE TO OCCUPANCY OF SPACE. WHERE LOCAL SWITCHING IS PROVIDED, OCCUPANTS SHALL BE PROVIDED THE ABILITY TO TURN LIGHTS OFF MANUALLY WHILE ROOM IS OCCUPIED.
2. SPACES NOT CONTROLLED BY BUILDING LIGHTING SYSTEM:
   a. ELECTRICAL ROOMS
   b. MECHANICAL ROOMS
3. SPACES UTILIZING BUILDING AUTOMATIC CONTROL SYSTEM:
   a. NEW LIGHTING PROVIDED IN RENOVATED AREAS, CONNECTING TO EXISTING CIRCUITS. THESE CIRCUITS ARE CONTROLLED BY EXISTING LIGHTING CONTACTOR.

SW DETAIL: CN0022 R

LIGHTING FIXTURE SCHEDULE

TYPE MARK	DESCRIPTION	MOUNTING	LUMENS	VOLTAGE	WATTAGE	CONTROL	FIXTURE MEETING SPECIFICATION	COMMENTS	Image
A-2	6" WIDE 2' LONG RECESSED NARROW APERTURE LINEAR LED	RECESSED	750 LM/FT	120/277	6 VA/FOOT	0-10V	FINELITE- HO4 RECESSED TECHOLED- C-CONCAVE-D LUMENWERX- CAVA LED	PROVIDE WHITE FINISH WITH OPEN REFLECTOR	
A-4	6" WIDE 4' LONG RECESSED NARROW APERTURE LINEAR LED	RECESSED, WALL MOUNT	750 LM/FT	120/277	6 VA/FOOT	0-10V	FINELITE- HO4 RECESSED TECHOLED- C-CONCAVE-D LUMENWERX- CAVA LED	PROVIDE WHITE FINISH WITH OPEN REFLECTOR	
A-10	6" WIDE 10' LONG RECESSED NARROW APERTURE LINEAR LED	RECESSED, WALL MOUNT	750 LM/FT	120/277	6 VA/FOOT	0-10V	FINELITE- HO4 RECESSED TECHOLED- C-CONCAVE-D LUMENWERX- CAVA LED	PROVIDE WHITE FINISH WITH OPEN REFLECTOR	
A-12	6" WIDE 12' LONG RECESSED NARROW APERTURE LINEAR LED	RECESSED, WALL MOUNT	750 LM/FT	120/277	6 VA/FOOT	0-10V	FINELITE- HO4 RECESSED TECHOLED- C-CONCAVE-D LUMENWERX- CAVA LED	PROVIDE WHITE FINISH WITH OPEN REFLECTOR	
B-3	2" WIDE 3' LONG SURFACE MOUNTED LINEAR LED	SURFACE	750 LM/FT	120/277	7 VA/FOOT	0-10V	FINELITE- HP2 SURFACE TECHOLED- BX-2 SERIES HE WILLIAMS- MX2S SERIES	PROVIDE WHITE FINISH	
B-4	2" WIDE 4' LONG SURFACE MOUNTED LINEAR LED	SURFACE	750 LM/FT	120/277	7 VA/FOOT	0-10V	FINELITE- HP2 SURFACE TECHOLED- BX-2 SERIES HE WILLIAMS- MX2S SERIES	PROVIDE WHITE FINISH	
B-4A	2" WIDE 4' LONG SURFACE MOUNTED LINEAR LED	SUSPENDED	750 LM/FT	120/277	7 VA/FOOT	0-10V	FINELITE- HP2 PENDANT TECHOLED- BX-2 SERIES HE WILLIAMS- MX2S SERIES	PROVIDE WHITE FINISH	
C-3	2" WIDE 3' LONG WALL MOUNTED LINEAR LED	RECESSED, WALL MOUNT	750 LM/FT	120/277	7 VA/FOOT	0-10V	FINELITE- HP2 RECESSED TECHOLED- BX-2 SERIES HE WILLIAMS- MX2R SERIES	PROVIDE ALUMINUM FINISH	
C-12	2" WIDE 12' LONG WALL MOUNTED LINEAR LED	RECESSED, WALL MOUNT	750 LM/FT	120/277	7 VA/FOOT	0-10V	FINELITE- HP2 RECESSED TECHOLED- BX-2 SERIES HE WILLIAMS- MX2R SERIES	PROVIDE WHITE FINISH	
C-15	2" WIDE 18' LONG WALL MOUNTED LED	RECESSED, WALL MOUNT	750 LM/FT	120/277	7 VA/FOOT	0-10V	FINELITE- HP2 RECESSED TECHOLED- BX-2 SERIES HE WILLIAMS- MX2R SERIES	PROVIDE WHITE FINISH	
EL	8" WIDE 4' LONG LINEAR DIRECT/INDIRECT PENDANT	PENDANT	875 LM/FT 60% DOWN/40% UP	120/277	31.5 VA	0-10V	FINELITE- S16 SERIES METALUMEN- RMEP8-2L40K TECHOLED- TP-DI-4	PROVIDE ALUMINUM FINISH	
F	2X4 LAY-IN LED FLAT PANEL	RECESSED, GRID LAY-IN	2909	120/277	30 VA	0-10V	HE WILLIAMS- BP-24 SIGNIFY- SBP LEDALUX- PNL		
F2	HAZARDOUS LOCATION 1X4 SURFACE MOUNTED LED	SURFACE	5600	120/277	40 VA	0-10V	BEGHELLI CASTEX 600 HAXLUX LI1 LED SPECGRADE ARIES-B	FIXTURE SHALL BE RATED FOR USE IN A CLASS 1 DIVISION 1 SPACE	
ST	LED LINEAR STRIP	SUSPENDED	5000	120/277	32 VA	0-10V	LITHONIA ZL1D ALPHALITE ILL-4L ELITE 4-OC4 HE WILLIAMS 7SS COLUMBIA MPS	ROUND DIFFUSED LENS	
T2	TRACK LIGHTING	TRACK	N/A	120/277	200 VA	0-10V	LITE LAB BUS-13R	PROVIDE 200W CURRENT LIIMITING DEVICE	
TH	TRACK LIGHTING HEADS	TRACK	1800	120/277	23 VA	0-10 V	LITE LAB C3P	PROVIDE FIXTURE COMPATIBLE WITH TRACK TA	
U	UNDER CABINET LED	SURFACE	242 LM/FT	120/277	2.8 VA/FOOT	0-10V	KELVIX- EZ-502 DIODE LED- DL-24V-ELX CONTECH- AFEX1012S+24V TAPE	PROVIDE SILVER FINISH	
W1	EXTERIOR WALL PACK	SURFACE, WALL MOUNT	3000	120/277	23 VA	PHOTOCELL	GARDCO GWM-A07 LEDALUX MWP15-38W FC LIGHTING FCW1011	PROVIDE INTEGRAL PHOTOCELL	
WL1	LASER IN USE SIGN	WALL	N/A	120/277	5 VA	N/A	LITHONIA LE P1RSW09 ISOLITE TLCG2-EM MULE SS-AL-U-R	PROVIDE CUSTOM GRAPHIC. MOUNT TO 11' AFF	LASER IN USE
WL2	XRAY IN USE SIGN	WALL	N/A	120/277	5 VA	N/A	LITHONIA LE P1RSW09 ISOLITE TLCG2-EM MULE SS-AL-U-R	PROVIDE CUSTOM GRAPHIC. MOUNT TO 11' AFF	X-RAY IN USE
XC	EDGE LIT LED EXIT SIGN	CEILING	N/A	120/277	5 VA	N/A	MULE PYT CHLORIDE 44R SERIES BEGHELLI CRV	PROVIDE MIRROR BACK	<EXIT>
XW	THERMOPLASTIC EXIT SIGN	WALL	N/A	120/277	5 VA	N/A	LITHONIA LHQM-R-HO ISOLITE MULE CHLORIDE	PROVIDE MIRROR BACK	EXIT

FIXTURE SCHEDULE NOTES:

1. THIS FIXTURE SCHEDULE IDENTIFIES A FIXTURE THAT MEETS THE SPECIFIED PERFORMANCE REQUIREMENTS AND A LEVEL OF QUALITY REQUIRED FOR THE PROJECT. **MANUFACTURER'S NAMES AND FIXTURE SERIES/MODELS IN SCHEDULE ARE NOT A BRAND NAME SPECIFICATION.** EQUIVALENT FIXTURES BY MANUFACTURERS OTHER THAN THOSE LISTED MAY BE SUBMITTED FOR THIS PROJECT.
2. PROVIDE LED DRIVERS SUITABLE FOR FULL RANGE DIMMING, INTEGRAL SURGE PROTECTION, CURRENT TOTAL HARMONIC DISTORTION (THD) OF <20% AND A POWER FACTOR >0.90. IN ADDITION, DRIVERS MUST BE RF SUPPRESSED FOR MINIMUM INJECTION OF FEEDBACK INTO SUPPLY LINES. MAXIMUM CURRENT THD AND MINIMUM POWER FACTOR MUST BE SUBMITTED AS A PART OF THE FIXTURE SUBMITTAL DATA.
3. UNLESS OTHERWISE INDICATED, PROVIDE SINGLE DRIVER PER FIXTURE.
4. PROVIDE MOUNTING FRAME AND RELATED ACCESSORIES FOR ALL FIXTURES AS REQUIRED TO MATCH CEILING CONSTRUCTION. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT CEILING CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR MODIFICATION OF FIXTURE SCHEDULE MANUFACTURER'S PART NUMBERS FOR PURPOSES OF MATCHING CEILING CONSTRUCTION.
5. PROVIDE DIMMING DRIVERS WHERE DIMMING CONTROLS ARE INDICATED ON THE PLANS.
6. ALL FIXTURES TO HAVE A COLOR TEMPERATURE OF 4000K UNLESS NOTED OTHERWISE.
7. UNLESS NOTED OTHERWISE, ALL FIXTURES SHALL INCLUDE INTEGRAL DRIVER.
8. ALL FIXTURES SHALL BE UL OR THIRD PARTY LISTED AS COMPLETE ASSEMBLY.
9. FOR LIGHT FIXTURES HAVING LINEAR VISUAL FEATURES (IE: CENTER BASKET, LOUVERS, ETC), COORDINATE AND ALIGN COMPONENTS IN A SIMILAR DIRECTION CONSISTENTLY ACROSS THE BUILDING SPACES.

SW DETAIL: IN0011 LED

HH ARCHITECTURE
1100 Dresser Court
Raleigh, NC 27609
Office 919.828.2301
Email office@hh-arch.com

Salas O'Brien
Salas O'Brien
North Carolina, Inc.
702 Oberlin Road, Suite 300
Raleigh, NC 27605
919-832-8118
salasobrien.com
license (NC): F-1434

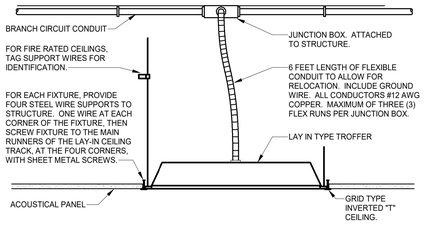
NCMA - EAST BUILDING AND MUSEUM PARK IMPROVEMENTS
NC DEPARTMENT OF NATURAL AND CULTURAL RESOURCES
2110 BLUE RIDGE ROAD, RALEIGH, NC 27607
SCO PROJECT #22-25283-02A

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 039503 MATTHEW J. JOHNSON
06/30/2025

NO.	REVISION	DATE
1		

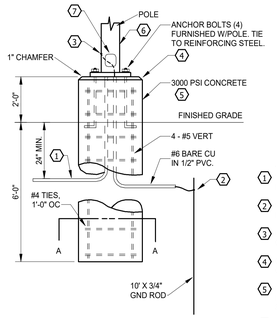
JOB NUMBER **22-028**
DATE ISSUED **07/03/25**
PROJECT STATUS **ISSUED FOR BID**
SHEET **LIGHTING FIXTURE SCHEDULE - CONSERVATION**

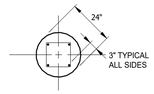
E501



SO DETAIL: GE0013

2 / E502 LIGHTING FIXTURE MOUNTING DETAIL
SCALE: NTS





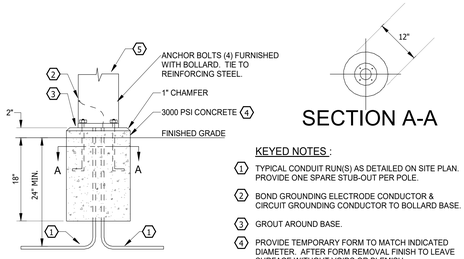
SECTION A-A

KEYED NOTES :

1. TYPICAL CONDUIT RUN(S) AS DETAILED ON SITE PLAN. PROVIDE ONE SPARE STUB-OUT PER POLE.
2. BOND GROUNDING ELECTRODE CONDUCTOR TO ROD USING CLAMP LISTED FOR DIRECT BURIAL.
3. BOND GROUNDING ELECTRODE CONDUCTOR & CIRCUIT GROUNDING CONDUCTOR TO POLE BASE.
4. GROUT AROUND POLE BASE. PROVIDE BOLT/NUT COVERS TO MATCH POLE COLOR & CONSTRUCTION.
5. PROVIDE TEMPORARY FORM TO MATCH INDICATED DIAMETER. AFTER FORM REMOVAL FINISH TO LEAVE SURFACE WITHOUT VOIDS OR BLEMISH.
6. CENTER POLE ON CONCRETE BASE. BOLT PATTERN IS TO MATCH POLE BASE.
7. HAND HOLE. ORIENT HAND HOLE AWAY FROM CURB WHERE SUCH IS POSSIBLE WITH OUT DISTURBING LUMINAIRE LOCATION(S) AS SHOWN ON THE PLANS.

SO DETAIL: OL0001

3 / E502 LIGHT POLE BASE DETAIL
SCALE: NTS



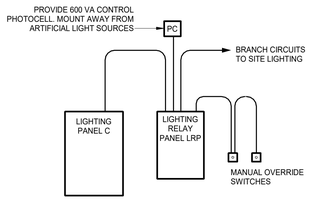
SECTION A-A

KEYED NOTES :

1. TYPICAL CONDUIT RUN(S) AS DETAILED ON SITE PLAN. PROVIDE ONE SPARE STUB-OUT PER POLE.
2. BOND GROUNDING ELECTRODE CONDUCTOR & CIRCUIT GROUNDING CONDUCTOR TO BOLLARD BASE.
3. GROUT AROUND BASE.
4. PROVIDE TEMPORARY FORM TO MATCH INDICATED DIAMETER. AFTER FORM REMOVAL FINISH TO LEAVE SURFACE WITHOUT VOIDS OR BLEMISH.
5. CENTER BOLLARD ON CONCRETE BASE. BOLT PATTERN IS TO MATCH BOLLARD BASE.

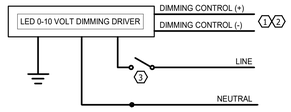
SO DETAIL: OL0003

4 / E502 LIGHT BOLLARD BASE DETAIL
SCALE: NTS



SO DETAIL: CN0021

5 / E502 SITE LIGHTING CONTROL RISER DIAGRAM
SCALE: NTS



KEYED NOTES :

1. CAP DIMMING CONTROL LEADS WHERE FIXTURES ARE NOT REQUIRED TO BE DIMMED, AND ROVIDE LINE SIDE SWITCHLEG (NOT SHOWN).
2. PROVIDE 0-10 VOLT STANDARD CURRENT SINK 0-10 VOLT CONTROL DIMMER (IEC 60929) WHERE INDICATED (COMPATIBLE WITH LIGHT FIXTURES). PROVIDE 600 VOLT RATED CONTROL CONDUCTORS ROUTED WITH POWER CIRCUIT TO EACH FIXTURE DRIVER.
3. INTEGRAL DRIVER DISCONNECT.

SO DETAIL: CN0046

1 / E502 0-10 VOLT DIMMING WIRING DETAIL
SCALE: 12" = 1'-0"

LIGHTING FIXTURE SCHEDULE

TYPE MARK	DESCRIPTION	MOUNTING	LUMENS	COLOR	VOLTAGE	WATTAGE	CONTROL	FIXTURE MEETING SPECIFICATION ML	SHIELDING TYPE	COMMENTS	Image
AA03	14' HIGH METAL POLE MOUNTED DOUBLE HEAD, AIMABLE FLOOD LIGHTS, SHIELDING ACCESSORIES	14' POLE, ULS RSA-4141	1508	3000	120/277	42 VA	0-10V	SEE LT SHEETS FOR COMPLETE LIGHTING SPEC	HOUSE SIDE SHIELD	COLOR AS SELECTED BY LANDSCAPE ARCHITECT	
AA04	14' HIGH METAL POLE MOUNTED TRIPLE HEAD, AIMABLE FLOOD LIGHTS, SHIELDING ACCESSORIES	14' POLE, ULS RSA-4141	1508	3000	120/277	63 VA	0-10V	SEE LT SHEETS FOR COMPLETE LIGHTING SPEC	HOUSE SIDE SHIELD	COLOR AS SELECTED BY LANDSCAPE ARCHITECT	
AA06	24' HIGH METAL POLE MOUNTED TRIPLE HEAD, AIMABLE FLOOD LIGHTS, SHIELDING ACCESSORIES	24' POLE	16441	3000	120/277	516 VA	0-10V	SEE LT SHEETS FOR COMPLETE LIGHTING SPEC	PROVIDE GLARE SHIELD	COLOR AS SELECTED BY LANDSCAPE ARCHITECT. PROVIDE POLE CLAMP AND HONEYCOMB LOUVER ACCESSORIES	
ACC01	30" HIGH EXTERIOR BOLLARD	EXTERIOR, SURFACE	800	3000	120/277	12 VA	0-10V	SEE LT SHEETS FOR COMPLETE LIGHTING SPEC			
AF01	14' HIGH METAL POLE MOUNTED FIXED GENERAL LIGHT WITH SHEILDING ACCESSORY	14' POLE, WE-EF 693-3325-T3X4	3452.3	3000	120/277	27 VA	0-10V	SEE LT SHEETS FOR COMPLETE LIGHTING SPEC	PROVIDE BACKLIGHT SHIELD	COLOR AS SELECTED BY LANDSCAPE ARCHITECT	
B	LINEAR NARROW APERTURE PENDANT	PENDANT	780 LM/FT	3000	120/277	7.5 VA/FOOT	0-10V	ARCHLIT-LEE STI DUET WE-EF-VLR120 BIRCHWOOD-KELSEY 125		COLOR AS SELECTED BY ARCHITECT. SUSPEND 2'	
B2	LINEAR NARROW APERTURE PENDANT	WALL	780 LM/FT	3000	120/277	7.5 VA/FOOT	0-10V	ARCHLIT-LEE STI DUET WE-EF-VLR120 BIRCHWOOD-KELSEY 125		COLOR AS SELECTED BY ARCHITECT. MOUNT TO 7' AFF.	
BL01	20" HIGH EXTERIOR BOLLARD	EXTERIOR, SURFACE	429	3000	120/277	19 VA	0-10V	SEE LT SHEETS FOR COMPLETE LIGHTING SPEC			
D1	ARCHITECTURAL EXTERIOR LED WALL SCONCE WITH UP AND DOWNLIGHT	WALL	1000 LM UP / 1000 LM DOWN	2700	120/277	30 VA	0-10V	METEOR-LANCE 4 PERFORMANCE IN LIGHTING-ALU WALL FC LIGHITNG-FCC 400	TEMPERED GLAZED GLASS	PROVIDE BLACK FINISH. MOUNT TO 8'6" AFF.	
D2	ARCHITECTURAL EXTERIOR LED WALL SCONCE WITH UP AND DOWNLIGHT	WALL	1000 LM UP / 1000 LM DOWN	2700	120/277	30 VA	0-10V	METEOR-LANCE 4 PERFORMANCE IN LIGHTING-ALU WALL FC LIGHITNG-FCC 400	TEMPERED GLAZED GLASS	PROVIDE BLACK FINISH. MOUNT TO 8'6" AFF.	
EM	WALL MOUNT EMERGENCY LIGHTING UNIT WITH HIGH OUTPUT BATTERY	WALL	1100	N/A	120/277	5 VA	N/A	CHLORIDE-CLU MULE-SQ-80 BEGHELLI-PACO		PROVIDE BATTERY BACKUP FOR 90 MINUTE OPERATION. MOUNT TO 7'6" AFF UNLESS NOTED OTHERWISE	
ST	LED LINEAR STRIP	SURFACE	5000	3500	120/277	32 VA	0-10V	HEW - 7SS DAYBRITE - FSS SERIES TGS - LSL SERIES	ROUND DIFFUSED LENS	SURFACE/PENDANT MOUNT AS INDICATED ON PLANS	
UPB01	6" RECESSED UPLIGHT	EXTERIOR, RECESSED	592	3000	120/277	8 VA	0-10V	SEE LT SHEETS FOR COMPLETE LIGHTING SPEC		COLOR AS SELECTED BY LANDSCAPE ARCHITECT	
W1	ARCHITECTURAL EXTERIOR WALL PACK	SURFACE	3500	3000	120/277	23 VA	PHOTOCELL	GARDCO GWM-A07 LEDALUX MWP15-38W FC LIGHTING FCW1011		COLOR AS SELECTED BY ARCHITECT. PROVIDE INTEGRAL PHOTOCELL CONTROL AND BATTERY BACKUP FOR 90 MINUTE OPERATION	
X	CAST ALUMINUM EXIT SIGN	CEILING	N/A	RED LETTERS	120/277	5 VA	N/A	CHLORIDE-45 SERIES BEGHELLI-FORMA MULE-MERIDIAN		PROVIDE BATTERY BACKUP FOR 90 MINUTE OPERATION	

FIXTURE SCHEDULE NOTES:

1. THIS FIXTURE SCHEDULE IDENTIFIES A FIXTURE THAT MEETS THE SPECIFIED PERFORMANCE REQUIREMENTS AND A LEVEL OF QUALITY REQUIRED FOR THE PROJECT. **MANUFACTURER'S NAMES AND FIXTURE SERIES/MODELS IN SCHEDULE ARE NOT A BRAND NAME SPECIFICATION.** EQUIVALENT FIXTURES BY MANUFACTURERS OTHER THAN THOSE LISTED MAY BE SUBMITTED FOR THIS PROJECT.
2. PROVIDE LED DRIVERS SUITABLE FOR FULL RANGE DIMMING, INTEGRAL SURGE PROTECTION, CURRENT TOTAL HARMONIC DISTORTION (THD) OF <20% AND A POWER FACTOR >0.90. IN ADDITION, DRIVERS MUST BE RF SUPPRESSED FOR MINIMUM INJECTION OF FEEDBACK INTO SUPPLY LINES. MAXIMUM CURRENT THD AND MINIMUM POWER FACTOR MUST BE SUBMITTED AS A PART OF THE FIXTURE SUBMITTAL DATA.
3. UNLESS OTHERWISE INDICATED, PROVIDE SINGLE DRIVER PER FIXTURE.
4. PROVIDE MOUNTING FRAME AND RELATED ACCESSORIES FOR ALL FIXTURES AS REQUIRED TO MATCH CEILING CONSTRUCTION. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT CEILING CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR MODIFICATION OF FIXTURE SCHEDULE MANUFACTURER'S PART NUMBERS FOR PURPOSES OF MATCHING CEILING CONSTRUCTION.
5. PROVIDE DIMMING DRIVERS WHERE DIMMING CONTROLS ARE INDICATED ON THE PLANS.
6. ALL FIXTURES TO HAVE A COLOR TEMPERATURE OF 4000K UNLESS NOTED OTHERWISE.
7. UNLESS NOTED OTHERWISE, ALL FIXTURES SHALL INCLUDE INTEGRAL DRIVER.
8. ALL FIXTURES SHALL BE UL OR THIRD PARTY LISTED AS COMPLETE ASSEMBLY.
9. FOR LIGHT FIXTURES HAVING LINEAR VISUAL FEATURES (IE: CENTER BASKET, LOUVERS, ETC), COORDINATE AND ALIGN COMPONENTS IN A SIMILAR DIRECTION CONSISTENTLY ACROSS THE BUILDING SPACES.

SO DETAIL: IN0011 LED

HH
ARCHITECTURE
1100 Dresser Court
Raleigh, NC 27609
Office 919.828.2301
Email office@hh-arch.com

Salas O'Brien
Salas O'Brien
North Carolina, Inc.
702 Oberlin Road, Suite 300
Raleigh, NC 27605
919-832-8118
salasobrien.com
license (NC): F-1434

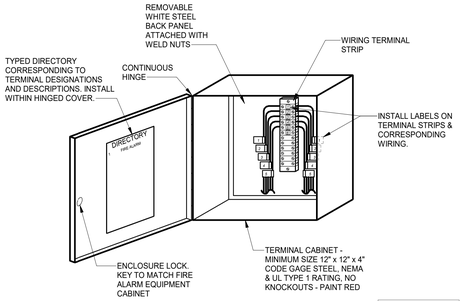
NCMA - EAST BUILDING AND MUSEUM PARK IMPROVEMENTS
NC DEPARTMENT OF NATURAL AND CULTURAL RESOURCES
2110 BLUE RIDGE ROAD, RALEIGH, NC 27607
SCO PROJECT #22-25283-02A

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 039503 MATTHEW J. JOHNSON
06/30/2025

NO.	REVISION	DATE

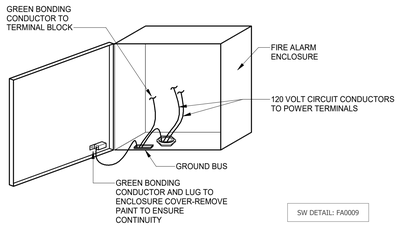
JOB NUMBER **22-028**
DATE ISSUED **07/03/25**
PROJECT STATUS **ISSUED FOR BID**
SHEET **LIGHTING FIXTURE SCHEDULE - AMPHITHEATER**

E502



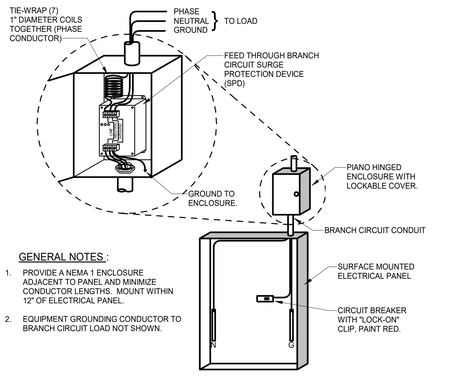
SW DETAIL: FA0008

5 E511 **FIRE ALARM TERMINATION CABINET (FATC)**
SCALE: NTS



SW DETAIL: FA0009

6 E511 **FIRE ALARM ENCLOSURE BONDING DETAIL**
SCALE: NTS



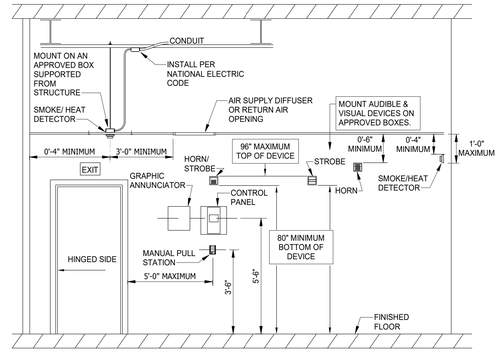
GENERAL NOTES :

1. PROVIDE A NEMA 1 ENCLOSURE ADJACENT TO PANEL AND MINIMIZE CONDUCTOR LENGTHS. MOUNT WITHIN 12" OF ELECTRICAL PANEL.
2. EQUIPMENT GROUNDING CONDUCTOR TO BRANCH CIRCUIT LOAD NOT SHOWN.

SW DETAIL: FA0006

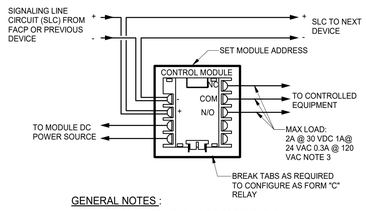
3 E511 **SURGE PROTECTION DEVICE WIRING DETAIL**
SCALE: NTS

NFPA 72 AND ADA DEVICE INSTALLATION REQUIREMENTS



SW DETAIL: FA0011

2 E511 **FIRE ALARM DEVICE MOUNTING DETAIL**
SCALE: NTS



GENERAL NOTES :

1. LOCATE CONTROL MODULE ADJACENT TO EQUIPMENT.
2. EXACT CONTROL MODULE CONFIGURATION VARIES WITH EQUIPMENT MANUFACTURER. COORDINATE CONNECTIONS AND WIRING WITH EXACT DEVICES INSTALLED.
3. CONTACTS SHALL BE RATED FOR INDUCTIVE LOADS. PROVIDE ADDITIONAL CONTROL RELAY WHERE CONTROL CIRCUIT LOAD EXCEEDS CONTACT RATINGS. ARRANGE WITH CONTROL CIRCUIT ACROSS N.O. (FAIL-SAFE) CONTACTS.

SW DETAIL: FA0004

7 E511 **AHU SHUTDOWN MODULE**
SCALE: NTS

SYSTEM OUTPUTS

CONTROL UNIT ANNUNCIATION	NOTIFICATION	REQUIRED FIRE SAFETY CONTROL	SUPPLEMENARY

ACTUATE COMMON ALARM SIGNAL INDICATOR | ACTUATE AUDIBLE ALARM SIGNAL | ACTUATE COMMON SUPERVISORY SIGNAL INDICATOR | ACTUATE AUDIBLE SUPERVISORY SIGNAL | ACTUATE COMMON TROUBLE SIGNAL INDICATOR | ACTUATE AUDIBLE COMMON TROUBLE SIGNAL | ACTUATE ALL ZONE ALARM INDICATOR | ACTUATE EVACUATION SIGNAL | DISPLAY ENTRY CHANGE OF STATUS | TRANSMIT FIRE ALARM SIGNAL TO SUPERVISING STATION | TRANSMIT SUPERVISORY SIGNAL TO SUPERVISING STATION | TRANSMIT TROUBLE SIGNAL TO SUPERVISING STATION | RELEASE MAGNETICALLY HELD DOORS | RELEASE SMOKE DAMPERS | RELEASE HVDEN EQUIPMENT CONTACTOR | ACTUATE FLASHER/STROBE LED INDICATORS | ACTUATE GRAPHICS SYSTEM | SHUTDOWN AHUS, EXHAUST FANS, FAN POWERED TUS ETC. | ACTUATE EXTERIOR STROBE

SYSTEM INPUTS

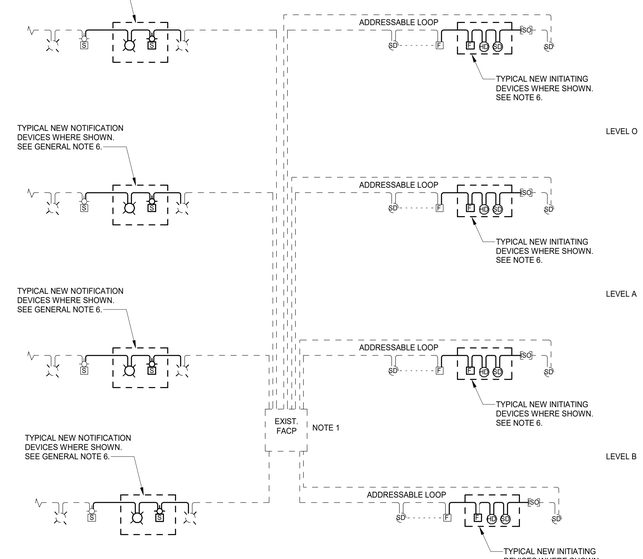
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	BB	CC	DD	EE	FF	GG	HH	II	JJ	
1	SMOKE DETECTORS	●	●					●		●	●	●										●	●						●	●	●	●						1
2	IN-DUCT SMOKE DETECTORS			●	●						●		●									●	●						●	●	●							2
3																																						3
4	THERMAL DETECTORS	●	●					●		●	●	●										●	●						●	●	●	●						4
5																																						5
6	PULL STATIONS	●	●					●		●	●	●										●	●						●	●	●	●						6
7																																						7
8	LOOP OPEN/SHORT CIRCUIT					●	●			●			●																●	●								8
9	LOOP GROUND FAULT					●	●			●			●																●	●								9
10	LOOP FAILURE					●	●			●			●																●	●								10
11																																						11
12	NAC OPEN/SHORT CIRCUIT					●	●			●			●																●	●								12
13	NAC GROUND FAULT					●	●			●			●																●	●								13
14	NAC FAILURE					●	●			●			●																●	●								14
15	LOSS OF AC POWER					●	●			●																			●	●								15
16	LOSS OF AC POWER (>3 HR)					●	●			●			●																●	●								16
17	BATTERY/CHARGER FAILURE					●	●			●			●																●	●								17
18	LOW BATTERY					●	●			●			●																●	●								18
19																																						19
20	OVERRIDE (AHU, DOORHOLDERS, ETC.)					●	●			●			●																●	●								20
21																																						21
22	KITCHEN HOOD ANSUL SYSTEM	●	●					●		●	●	●										●	●	●					●	●	●	●						22
23	LOSS OF AC POWER FOR KITCHEN CONTACTOR					●	●			●			●																●	●								23
24																																						24
25	CONSERVATION WORK ROOM DRY CHEM SYSTEM	●	●					●		●	●	●										●	●						●	●	●	●						25
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	BB	CC	DD	EE	FF	GG	HH	II	JJ	

GENERAL NOTES :

1. THE TENTATIVE FIRE ALARM CONTROL MATRIX SHOW HOW SYSTEM INPUTS ARE MAPPED TO SYSTEM OUTPUTS. THE MATRIX IS PROVIDED FOR GUIDANCE. THE CONTRACTOR SHALL SUBMIT AN ACTUAL CONTROL MATRIX THAT INDICATES ALL INITIATING DEVICES BY SOFTWARE ZONE AND ALL OUTPUT ACTIONS BY ANNUNCIATION ZONE. MULTIPLE INPUTS AND/OR OUTPUTS FROM SIMILAR BUT INDEPENDENT SOURCES. FOR EXAMPLE MULTIPLE ELEVATORS OR AIR HANDLING UNITS, SHALL BE SHOWN AS SEPARATE LINE ITEMS.
2. ● INDICATES THAT THE NAMED INPUT CAUSES THE NAMED OUTPUT TO OCCUR.
3. PROVIDE OVERRIDE FUNCTIONS FOR AHU BY-PASS, FIRE ALARM STROBES, DOOR-HOLDS, AND DAMPERS.

SW DETAIL: FA0020

4 E511 **FIRE ALARM CONTROL MATRIX**
SCALE: NTS



GENERAL NOTES :

1. EXISTING FIRE ALARM CONTROL PANEL IS A FULLY ADDRESSABLE NOTIFIER NFS 3030. DEVICES INSTALLED SHALL BE COMPATIBLE WITH EXISTING SYSTEM.
2. ALL FIRE ALARM SYSTEM MODIFICATIONS TO BE PERFORMED BY A FACTORY TRAINED AND APPROVED VENDOR AND TECHNICIANS.
3. VERIFY PROPER OPERATION OF FIRE ALARM SYSTEM AND COMPONENTS PRIOR TO STARTING WORK AND NOTIFY ENGINEER OF ANY IDENTIFIED PROBLEMS.
4. PROVIDE SEPARATE CONDUITS FOR OPPOSITE ENDS OF LOOP CONDUCTORS. DO NOT COMBINE LOOP CONDUCTORS INTO SINGLE CONDUIT RUNS EXCEPT AS PERMITTED BY THE SPECIFICATIONS.
5. RISER DIAGRAM SHOWS FUNCTIONAL CONNECTIONS. WORK REQUIRED ON FLOORS TO RELOCATE DEVICES, AS REQUIRED TO PERMIT FIRE PROTECTION WORK, IS NOT SHOWN. EXACT WIRING AND CONNECTIONS FOR ALL DEVICES (NEW AND REWORKED/RELOCATED) ARE TO BE PROVIDED AS A PART OF THE FIRE ALARM SHOP DRAWING SUBMITTAL PACKAGE SUPPLIED BY THE CONTRACTOR.
6. CONNECT NEW INITIATING DEVICES TO EXISTING ADDRESSABLE LOOP (IF AVAILABLE). PROVIDE ADDITIONAL ISOLATION MODULES AS NECESSARY FOR NEW EQUIPMENT SUCH THAT 20 DEVICES (MAX) ARE ISOLATED ALONG THE ENTIRE LOOP. PROVIDE ALL PROGRAMMING REQUIRED TO ACTUATE NEW DEVICES.
7. CONNECT NEW NAC DEVICES TO EXISTING NAC CIRUIT WHERE CAPACITY IS AVAILABLE. PROVIDE AND SUBMIT CALCULATIONS TO DEMONSTRATE CAPACITY (MAXIMUM 80% LOADING) IN EXISTING CIRCUITS WHERE DEVICES ARE TO BE ADDED. PROVIDE ADDITIONAL POWER SUPPLY WHERE EXISTING CIRCUITS LACK SUFFICIENT CAPACITY.
8. CONTRACTOR SHALL TAKE INITIAL STEPS TO ISOLATE FIRE ALARM DEVICES AND CIRCUITS IN THE PROJECT AREA TO PERMIT CONTRUCTION ACTIVITY. CIRCUIT INTEGRITY SHALL BE PROVISIONS AS REQUIRED TO MAINTAIN INTEGRITY AND OPERATION OF ALL FIRE ALARM CIRCUITS AND DEVICES OUTSIDE THE PROJECT AREA THROUGHOUT CONSTRUCTION
9. CONTRACTOR SHALL PROVIDE ALTERNATIVE MEANS OF PROTECTION IN BUILDING DURING ENTIRE TIME WHEN OCCUPIED AREAS OF BUILDING ARE EXPOSED TO A REDUCTION IN PROTECTION, EITHER WITH ALARM INITIATION CAPABILITY, OCCUPANT NOTIFICATION OR CONTROL FUNCTIONS RELATING TO GENERAL ALARM CONDITIONS. SUCH MEANS SHALL INCLUDE A FIRE WATCH AND/OR STAFFED PRESENCE IN THE BUILDING TO NOTIFY OCCUPANTS.
10. PERFORM A 10% TEST OF ALL EXISING DEVICES AND CIRCUITS FOLLOWING MODIFICATIONS TO THE EXISTING FIRE ALARM SYSTEM WHEN ISOLATING THE PROJECT AREA AND WHEN OTHER MODIFICATIONS IMPACTING THE SYSTEM PROGRAM ARE MADE DURING THE CONSTRUCTION DURATION.
11. AS PART OF INTEGRATING NEW WORK INTO THE OVERALL SYSTEM, COMPLETELY TEST ACTIVATION AND CONTROL RESPONSES (100%) FOR ALL NEW AND REWORKED DEVICES. IN ADDITION, TEST 10% OF ALL DEVICES ON EACH ADDRESSABLE LOOP IN SYSTEM. PROVIDE A PRINT OUT SHOWING RESULTS OF TEST AND SENSITIVITIES OF ALL SMOKE DETECTORS.

SW DETAIL: FA0021R1

1 E511 **FIRE ALARM RISER DIAGRAM**
SCALE: NTS

HH
ARCHITECTURE
1100 Dresser Court
Raleigh, NC 27609
Office 919.828.2301
Email office@hh-arch.com

Salas O'Brien
Salas O'Brien
North Carolina, Inc.
702 Oberlin Road, Suite 300
Raleigh, NC 27605
919-832-8118
salasobrien.com
license (NC): F-1434

NCMA - EAST BUILDING AND MUSEUM PARK IMPROVEMENTS

NC DEPARTMENT OF NATURAL AND CULTURAL RESOURCES
2110 BLUE RIDGE ROAD, RALEIGH, NC 27607

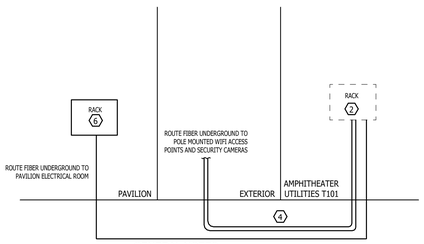
SCO PROJECT #22-25283-02A

NORTH CAROLINA PROFESSIONAL SEAL 039503 ENGINEER MATTHEW J. JOHNSON
06/30/2025

NO.	REVISION	DATE
1		

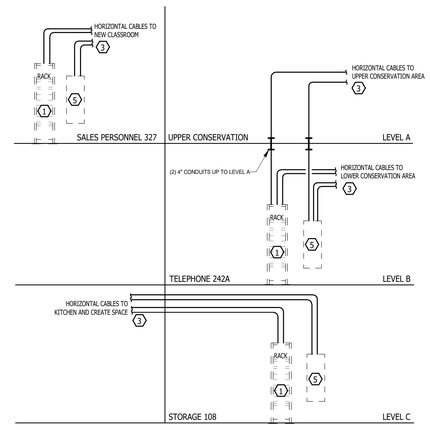
JOB NUMBER **22-028**
DATE ISSUED **07/03/25**
PROJECT STATUS **ISSUED FOR BID**
SHEET **FIRE ALARM SYSTEM**

E511



GENERAL NOTES :

1. CROSS CONNECTS FROM TELEPHONE DEMARC TO CONTRACTOR M66 BLOCKS ARE PROVIDED BY OWNER.
2. ACTIVE ELECTRONICS AND PATCH CORDS ARE PROVIDED AND INSTALLED BY OWNER.
3. FIRE SEAL ALL FLOOR PENETRATIONS.

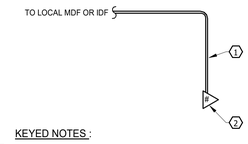


KEYED NOTES :

1. EXISTING TELECOMMUNICATIONS EQUIPMENT RACK. CONNECT NEW DATA CABLES INTO NEW PATCH PANELS.
2. EXISTING WALL MOUNTED TELECOMMUNICATIONS RACK WITH SPARE FIBER CONNECTIONS. PROVIDE NEW FIBER PATCH PANEL AND TERMINATE NEW FIBERS.
3. ROUTE CABLES IN 1" CONDUIT ABOVE CEILING WHERE AVAILABLE. WHERE NO CEILING EXISTS, MOUNT CONDUITS FLUSH TO BOTTOM OF SLAB STRUCTURE, AVOIDING EXISTING UTILITIES.
4. ROUTE NEW FIBER IN 1" CONDUIT UNDERGROUND TO SITE POLE DEVICE LOCATIONS. DEVICES BY OWNER, COORDINATE EXACT LOCATION AND CONNECTIONS WITH OWNER.
5. EXISTING VOICE M66 BLOCKS. CONNECT NEW CAT6 VOICE CABLES INTO AVAILABLE BLOCKS. PROVIDE NEW BLOCKS AS REQUIRED.
6. PROVIDE NEW WALL MOUNTED TELECOMMUNICATIONS RACK WITH CABLE MANAGEMENT AND NEW FIBER PATCH PANEL AND TERMINATE NEW FIBERS. ELECTRONIC COMPONENTS BY OWNER.

SD DETAIL: TD0021 R2

4 E521 TELECOMMUNICATIONS RISER
SCALE: NTS

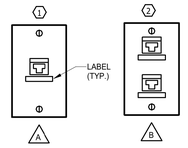


KEYED NOTES :

1. 1" CONDUIT TO LOCAL IDF. IF EXPOSED, ROUTE FLUSH TO BOTTOM OF STRUCTURE, AVOIDING EXISTING UTILITIES.
2. REFER TO THE TELECOMMUNICATIONS OUTLET SCHEDULE.

SW DETAIL: TD0004 R1

1 E521 TYPICAL TELECOM OUTLET
SCALE: NTS



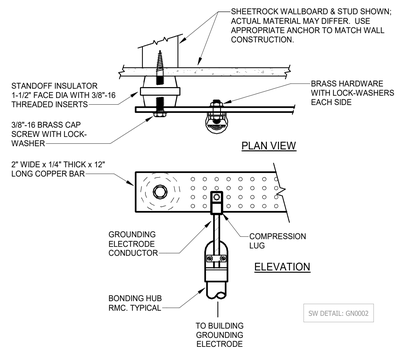
KEYED NOTES :

1. ROUTE CAT 6 CABLE (1 DATA) TO DESIGNATED TERMINATION POINT.
2. ROUTE CAT 6 CABLES. 1 DATA TO PATCH PANEL AND 1 VOICE TO M66 BLOCKS IN DESIGNATED EQUIPMENT ROOMS.
3. ROUTE CAT 6 CABLE (1 DATA) TO DESIGNATED TERMINATION POINT. PROVIDE 25' SERVICE LOOP IN ACCESSIBLE LOCATION FOR CONNECTION TO OWNER PROVIDED DEVICE.

TELECOMMUNICATIONS OUTLET SCHEDULE			
SYMBOL	PORTS	FUNCTION	CABLE
A	1	DATA	(1) CAT. 6 (1)
B	2	DATA/VOICE	(2) CAT. 6 (2)
(WAP)	1	DATA	(1) CAT. 6 (3)

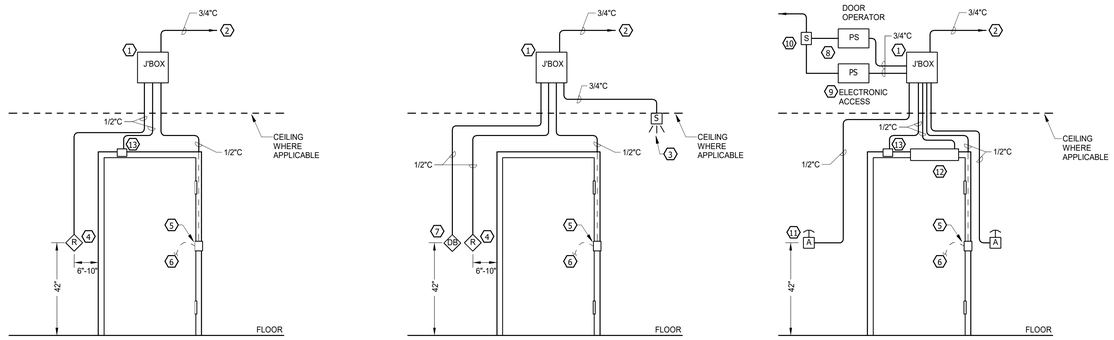
SW DETAIL: TD0006

2 E521 TYPICAL TELECOM OUTLETS SCHEDULE
SCALE: NTS



SW DETAIL: GN0002

5 E521 GROUNDING BUS DETAIL
SCALE: NTS



KEYED NOTES :

1. J'BOX FOR ALL LOW VOLTAGE WIRING.
2. RACEWAY TO ELECTRONIC ACCESS DOOR CONTROL UNIT.
3. SPEAKER BY ARCHITECT IN CEILING FOR DOORBELL NOTIFICATION. COORDINATE EXACT LOCATION AND CONDUIT ROUTE WITH ARCHITECT.
4. CARD READER BY ARCHITECT.
5. ELECTRIC TRANSFER HINGE.
6. TO HARDWARE SET ON DOOR, PUSH BAR OR MORTICE/LEVER. SET INCLUDES REQUEST FOR EXIT AT EGRESS DOORS.
7. DOOR BELL BY ARCHITECT.
8. POWER SUPPLY FOR DOOR OPERATOR. MAY ALSO BE LOCATED IN DOOR OPERATOR
9. POWER SUPPLY FOR ELECTRONIC ACCESS DEVICES. MAY ALSO BE LOCATED AT CENTRAL LOCATION.
10. PROVIDE SINGLE POLE DISCONNECT SWITCH FOR 120 VAC SUPPLY. SEE FLOOR PLAN FOR INDICATED CIRCUIT.
11. DOOR ACTUATOR.
12. ELECTRIC DOOR OPERATOR.
13. DOOR POSITION SWITCH FLUSH IN DOOR FRAME.

GENERAL NOTES :

1. ALL RACEWAYS AND BOXES PROVIDED BY ELECTRICAL CONTRACTOR. VERIFY REQUIREMENTS WITH HARDWARE AND ACCESS CONTROL EQUIPMENT.
2. ALL RACEWAYS SHALL BE CONCEALED ABOVE CEILINGS OR WITHIN WALLS. EXPOSED RACEWAYS SHALL BE PERMITTED IN AREAS WITH EXPOSED OVERHEAD CONSTRUCTION.
3. ALL NEW DEVICES SHALL BE COMPATIBLE WITH EXISTING ACCESS CONTROL SYSTEM.

SW DETAIL: GE0012 R2

3 E521 DOOR CONTROL DETAIL
SCALE: NTS

DOOR CONTROL EQUIPMENT MATRIX

Door ID	Detail Elevation	Door Contacts	Card Reader	Door Operator	Actuator	Comments
259	A	Yes	Yes	No	No	
258	B	Yes	Yes	No	No	
320B	B	Yes	Yes	No	No	
322	A	Yes	Yes	No	No	
101B	C	No	No	Yes	Yes	
110D	C	Yes	No	Yes	Yes	
347	A	Yes	Yes	No	No	
110C	A	Yes	No	No	No	
258E	A	Yes	Yes	No	No	

HH
ARCHITECTURE
1100 Dresser Court
Raleigh, NC 27609
Office 919.828.2301
Email office@hh-arch.com

Salas O'Brien
Salas O'Brien
North Carolina, Inc.
702 Oberlin Road, Suite 300
Raleigh, NC 27605
919-832-8118
salasobrien.com
license (NC): F-1434

NCMA - EAST BUILDING AND MUSEUM PARK IMPROVEMENTS
NC DEPARTMENT OF NATURAL AND CULTURAL RESOURCES
2110 BLUE RIDGE ROAD, RALEIGH, NC 27607
SCO PROJECT #22-25283-02A

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 039503 MATTHEW J. JOHNSON
06/30/2025

NO.	REVISION	DATE

JOB NUMBER
22-028
DATE ISSUED
07/03/25
PROJECT STATUS
ISSUED FOR BID
SHEET
TELECOM AND SECURITY SYSTEM

E521

ELECTRICAL LOAD SUMMARY - EAST BUILDING				
LOAD	CONNECTED KVA	DEMAND FACTOR	DEMAND KVA	AMP/PHASE
NEW LIGHTING	3.9	1.25	4.9	5.9
NEW RECEPTACLE	22.7	0.8	18.1	21.8
NEW MECHANICAL	139.6	1.00	139.6	167.9
NEW POWER	12.0	1.00	12.0	14.4
EXISTING	292.0	1.25	365.0	439.2
TOTAL	470.2		539.6	649.2

LOAD SUMMARY NOTES:

1. LOAD KVA VALUES ARE TOTAL OVER ALL THREE PHASES.
2. LOAD CURRENTS ARE EQUALLY DISTRIBUTED OVER ALL THREE PHASES AT THE SUPPLY VOLTAGE.
3. EAST BUILDING ELECTRICAL SERVICE IS 1000A AT 480Y/277V. STANDBY GENERATOR SERVING THE ENTIRE BUILDING IS 500 KW/ 625 KVA.
4. EXISTING DEMAND LOAD VALUE IS CALCULATED FROM THE PEAK DEMAND OBSERVED BY UTILITY COMPANY FROM LAST 12 MONTHS AND MULTIPLYING BY A FACTOR OF 1.25.

ELECTRICAL LOAD SUMMARY - AMPHITHEATER				
LOAD	CONNECTED KVA	DEMAND FACTOR	DEMAND KVA	AMP/PHASE
NEW LIGHTING	5.6	1.25	7.0	19.4
NEW RECEPTACLE	2.7	1.0	2.7	7.5
NEW HEATING	20.5	1.25	25.6	71.2
EXISTING	41.1	1.25	51.4	142.8
TOTAL	69.9		86.7	240.9

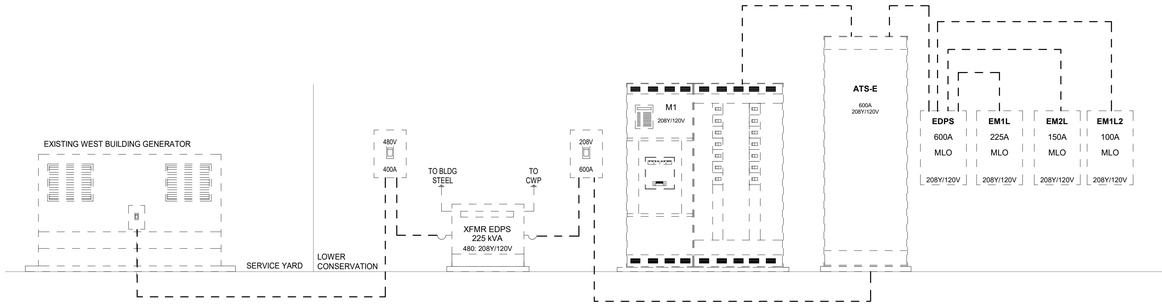
LOAD SUMMARY NOTES:

1. LOAD KVA VALUES ARE TOTAL OVER ALL THREE PHASES.
2. LOAD CURRENTS ARE EQUALLY DISTRIBUTED OVER ALL THREE PHASES AT THE SUPPLY VOLTAGE.
3. AMPHITHEATER ELECTRICAL SERVICE IS 400A AT 208Y/120V.
4. EXISTING DEMAND LOAD VALUE IS CALCULATED FROM THE PEAK DEMAND OBSERVED BY UTILITY COMPANY FROM LAST 12 MONTHS AND MULTIPLYING BY A FACTOR OF 1.25.

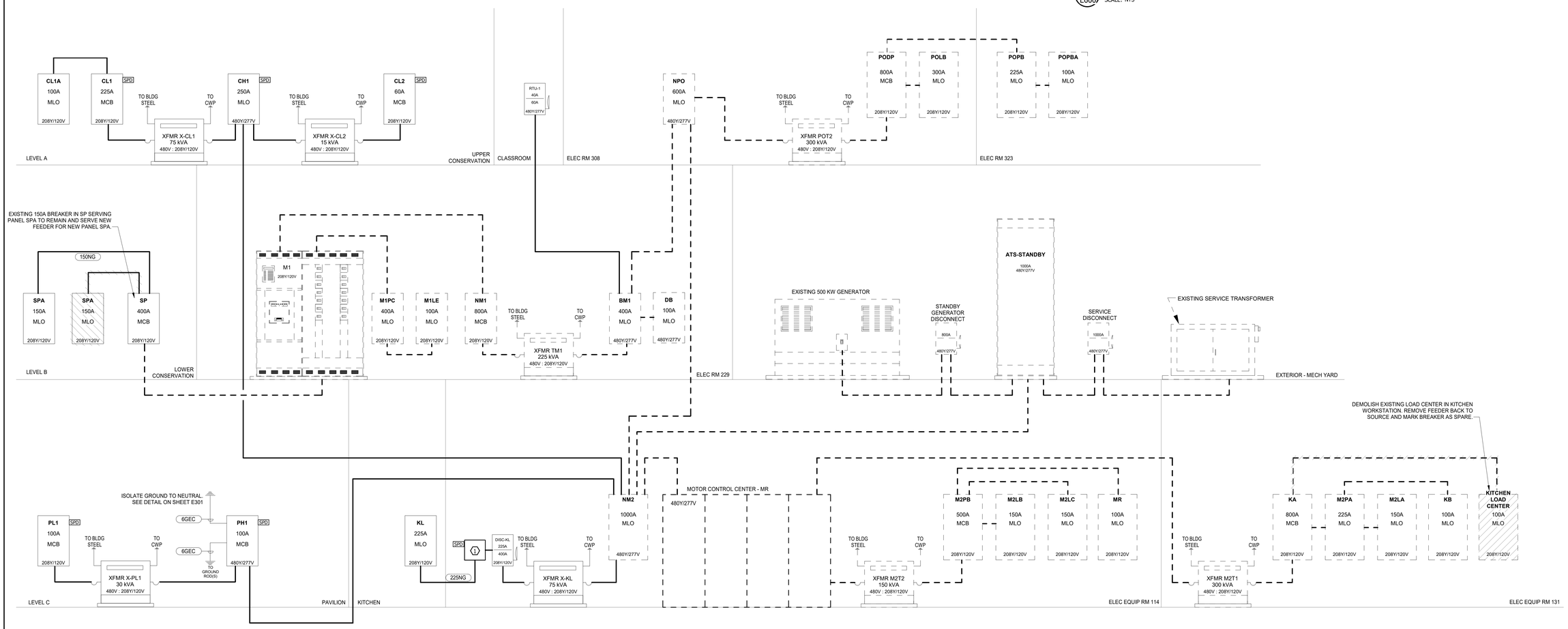
SO DETAIL: SC0001

ELECTRICAL TRANSFORMER SCHEDULE

NAME	SIZE	SUPPLY FROM	VOLTAGE	Primary Feeder Size	SECONDARY FEEDER	Grounding Electrode	IMPEDANCE	ROOM NAME	ROOM NUMBER
X-CL1	75 KVA	CH1	480:208Y/120	3-#1 PHASE & 1-#8 GND IN 1 1/2" C.	3-#4/0 PHASE, 1-#4/0 NEU, 1-#2 BONDING JUMPER IN 2-1/2" C.	1-#2 IN 1/2" RMC	3.5%-5.8%	MECH	347
X-CL2	15 KVA	CH1	480:208Y/120	3-#10 PHASE & 1-#10 GND IN 3/4" C.	3-#6 PHASE, 1-#6 NEU, & 1-#8 BONDING JUMPER IN 1" C.	1-#6 IN 1/2" RMC	3.5%-5.8%	MECH	347
X-PL1	30 KVA	PH1	480:208Y/120	3-#6 PHASE & 1-#10 GND IN 1" C.	3-#3 PHASE, 1-#3 NEU, & 1-#8 BONDING JUMPER IN 1 1/4" C.	1-#6 IN 1/2" RMC	3.5%-5.8%	PAVILION ELEC	151
X-KL	75 KVA	NM2	480:208Y/120	3-#1 PHASE & 1-#8 GND IN 1 1/2" C.	3-#4/0 PHASE, 1-#4/0 NEU, 1-#2 BONDING JUMPER IN 2-1/2" C.	1-#2 IN 1/2" RMC	3.5%-5.8%	ROOM	136



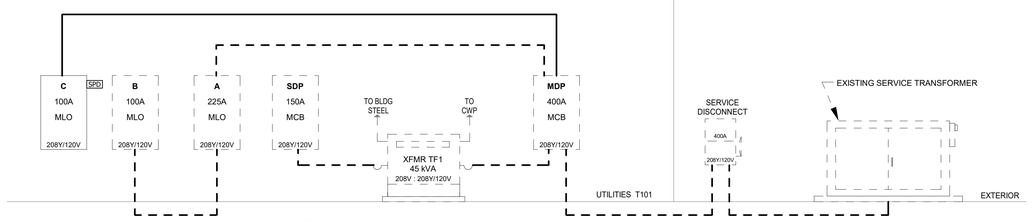
3 E600 **ELECTRICAL DISTRIBUTION RISER - EMERGENCY POWER**
SCALE: NTS



1 E600 **ELECTRICAL DISTRIBUTION RISER - EAST BUILDING**
SCALE: NTS

KEY NOTES TO E600

1 PROVIDE TYPE 1 SPD IN ENCLOSURE WITH TERMINAL BLOCKS TO CONNECT TO LOAD SIDE OF DISC-KL.



2 E600 **ELECTRICAL DISTRIBUTION RISER - AMPHITHEATER**
SCALE: NTS

ELECTRICAL FEEDER SCHEDULE		
Mark	Ampacity	Description
150NG	150A	3-#1/0 PHASE, 1-#1/0 NEU, & 1-#6 GND IN 2" C.
225NG	230A	3-#4/0 PHASE, 1-#4/0 NEU, & 1-#4 GND IN 2 1/2" C.
6GEC	N/A	GROUNDING ELECTRODE CONDUCTOR. 1-#6 IN 1/2" RMC. SEE NOTE 3.

NOTES TO FEEDER SCHEDULE:

1. ALL AMPACITIES ARE BASED ON 75° C. RATING. CONTRACTOR IS RESPONSIBLE FOR THE MODIFICATION OF CONDUCTOR SIZES AS NECESSARY TO MEET THE REQUIREMENTS OF NEC 110-14(C) WHERE TERMINATIONS ARE NOT LISTED AND LABELED FOR USE AT 75° C. THIS REQUIREMENT APPLIES TO TERMINATIONS IN BOTH NEW EQUIPMENT AND IN EXISTING EQUIPMENT TO WHICH TERMINATIONS ARE MADE AS A PART OF THIS PROJECT.
2. DESIGNATION "C" IN THE ABOVE TABLE REFERS TO "CONDUIT". SEE SPECIFICATIONS FOR EXACT TYPE OF RACEWAY REQUIRED. TYPE OF RACEWAY, UNLESS INDICATED IN TABLE OR ELSEWHERE IN THE DRAWINGS, IS TO BE DETERMINED BY USE CONDITIONS.
3. PROVIDE A BONDING BUSHING AT THE EQUIPMENT END OF THIS CONDUIT RUN AND A BONDING HUB AT THE CONNECTION TO THE GROUNDING ELECTRODE.

GENERAL NOTES TO POWER RISERS:

1. PROVIDE 4" (NOMINAL) THICK, 3000 PSI CONCRETE EQUIPMENT PAD FOR ALL FLOOR MOUNTED GEAR AND TRANSFORMERS. FNISH SMOOTH AND CHAMFER EDGES.
2. COORDINATE LOCAITIONS FOR ALL DRY TYPE TRANSFORMERS TO PROVIDE NEC MANDATED WORKING CLEARANCES AND PROVIDE CLEARANCES FROM WALLS AS RECOMMENDED BY PRODUCT MANUFACTURER TO PROMOTE AIR CIRCULATION (6" MIN.)

HH
ARCHITECTURE
1100 Dresser Court
Raleigh, NC 27609
Office 919.828.2301
Email office@hh-arch.com

Salas O'Brien
Salas O'Brien
North Carolina, Inc.
702 Oberlin Road, Suite 300
Raleigh, NC 27605
919-832-8118
salasobrien.com
license (NC): F-1434

NCMA - EAST BUILDING AND MUSEUM PARK IMPROVEMENTS
NC DEPARTMENT OF NATURAL AND CULTURAL RESOURCES
2110 BLUE RIDGE ROAD, RALEIGH, NC 27607
SCO PROJECT #22-25283-02A

NORTH CAROLINA PROFESSIONAL SEAL 039503 ENGINEER MATTHEW J. JOHNSON
06/30/2025

NO.	REVISION	DATE
1		

JOB NUMBER **22-028**
DATE ISSUED **07/03/25**
PROJECT STATUS **ISSUED FOR BID**
SHEET **ELECTRICAL DISTRIBUTION SYSTEM**

E600