WATT OR WIRE

WEATHERPROOF

WITH

WITHOUT

TRANSFER

XFMR TRANSFORMER

EACH

ELEVATION

EMERGENCY

ENVIRONMENT

EMERGENCY POWER OFF

ELECTRIC

EQUAL

EXAMPLE

EXCL EXCLUDE

EXIST EXISTING

EXH FN EXHAUST FAN

EXTERNAL

FAHRENHEIT

FIRE ALARM

FOOTCANDLE

FEEDER

FLEX FLEXIBLE

FIRE ALARM ANNUNCIATOR PANEL

FIRE ALARM CONTROL PANEL

EQUIPMENT

EQUIVALENT

EQUIP

EXT

FDR

ELECTRIC HEATER

 \bigcirc WIRING

SYMBOLS LEGEND FLR | WALL | CLG ANNOTATION LIGHT SWITCH -TITLE MARK DETAIL WITH PILOT LIGHT OR PLAN NO. - 1 E-201/SCALE: NTS FOUND IN E-201 SWITCH - WITH \$то THERMAL OVERLOAD DETAIL REFERENCE D DIMMER DETAIL NO. - 1 E-501 FOUND IN E-501 OCCUPANCY os SENSOR SECTION MARK PC PHOTOCELL SECTION NO. - 1 FOUND IN E-501 OCCUPANCY **SENSOR POWER** SHEET KEYNOTE PACK OR REVISION CLOUD OVERRIDE SWITCH (DELTA 1) POWER DETAIL DISTRIBUTION BOUNDARY B BOARD **E-201** DETAIL NO. - 2 **RECESSED PANEL** ----PANEL:CIRCUIT LP4:12 SURFACE MOUNTED POWER OUTLETS FLR | WALL | CLG RANSFORMER ① DUPLEX DISCONNECT SWITCH QUADRUPLEX SWITCH - MOTOR \$м GFCI DUPLEX RATED FUSED DISCONNECT SIMPLEX SWITCH | EMERGENCY MAGNETIC MOTOR DUPLEX STARTER | EMERGENCY STARTER -QUADRUPLEX DISCONNECT EMERGENCY SWITCH SIMPLEX MOTOR FLOOR BOX "X" (DESCRIBE AND SPEC BOX) VARIABLE VFD FREQUENCY DRIVE | (J) | JUNCTION BOX \bigcirc PULL BOX POKE THRU COUNTERTOR CABLE TRAY DUPLEX SINGLE LINE DIAGRAM ISOLATED GROUND DUPLEX CIRCUIT BREAKER ISOLATED GROUND SIMPLEX FUSE - INLINE EXPLOSION PROOF DUPLEX FUSE SWITCH ____ EXPLOSION PROOF FUSED - SWITCH BUS CIRCUIT BREAKER -SPLIT WIRE СВ **ENCLOSED** igotimesKIRK KEY INTERLOCK MULTI OUTLET SUSDUCT SURFACE RACEWAY SWITCHGEAR BUSWAY 3/4" CONDUIT WITH 2#12 **GROUND FAULT** WIRES, UON. GROUND WIRE (GFR) NOT SHOWN. 3/4" CONDUIT WITH 3#12 | WIRES, UON. GROUND WIRE AMMETER NOT SHOWN. 3/4" CONDUIT WITH 4#12 DIGITAL METER UON | WIRES, UON. GROUND WIRE NOT SHOWN. TRANSFORMER -CONDUIT HOMERUN TO PANEL BOARD 1LA WITH WYE-GROUNDED |||| - CIRCUIT 1,3,5 ATS - 3-POLE UON BP CAPPED CONDUIT WITH BYPASS ISOLATION CONDUIT RUN UNDERGROUND OR UNDER BATTERY THE FLOOR SLAB CONDUIT TURNING DOWN G GENERATOR CONDUIT TURNING UP CONDUIT BREAK XXXXX LIGHTING XXXXX FLR | WALL | CLG XXXXX RECESSED 2000 = AMPACITY DOWNLIGHT 3-NO, 4-SINGLE, 1X4 SURFACE -DOUBLE = 2000-5+ MOUNTED LIGHT NEUTRAL 1 2X4 SURFACE (+) = ADDITIONAL MOUNTED LIGHT INFO AS REQUIRED 4FT WALL MOUNTED GROUNDING SYSTEM GROUND TEST WELL $_{-}$ | 1X4 EMERGENCY GROUND CABLE CONNECTION ── | 2X4 EMERGENCY GROUND ROD - MIN. 3/4"Ø x LIGHT 10' LONG ─ 2X4 RECESSED GROUND PLATE - WALL [∬] LIGHT MOUNT GROUND PLATE - FLOOR EXIT SIGN 1 FACE MOUNT EXIT SIGN 1 FACE LEFT ARROW AIR TERMINAL - LIGHTNING ARRESTOR SWITCHES/CONTROLS **EQUIPMENT CONNECTION** FLR | WALL | CLG LIGHT SWITCH - TIME OPERATED LIGHT SWITCH SINGLE POLE

LIGHT SWITCH

LIGHT SWITCH - KEY

THREE WAY

OPERATED

GENERAL NOTES

1. ALL SYMBOLS SHOWN ON SYMBOL LIST ARE NOT NECESSARILY USED ON THIS PROJECT. ALL WORK SHALL BE IN ACCORDANCE WITH, BUT NOT LIMITED TO, STATE AND LOCAL AUTHORITIES HAVING JURISDICTION.

CUT AND PATCH TO MATCH ALL EXISTING CONSTRUCTION AS REQUIRED FOR THE PROPER INSTALLATION OF NEW ELECTRICAL WORK. ALL PATCHING SHALL BE OF THE SAME MATERIALS. WORKMANSHIP AND FINISH AS EXISTING AND SHALL ACCURATELY MATCH ALL SURROUNDING

UNLESS INSTRUCTED OTHERWISE, THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, LICENSES. AND FEES REQUIRED FOR INSTALLATION OF THE ELECTRICAL WORK. FURNISH FINAL CERTIFICATE OF INSPECTION OR WRITTEN EVIDENCE OF ACCEPTANCE BY INSPECTION

AUTHORITIES FOR ALL WORK INSTALLED. THE DRAWINGS INDICATE, IN A DIAGRAMMATIC MANNER, THE DESIRED LOCATIONS AND ARRANGEMENT OF THE COMPONENTS OF THE ELECTRICAL WORK. DETERMINE EXACT CONDUIT ROUTING, CONDUIT BENDS, AUXILIARY JUNCTION BOXES, SUPPORTS, AND UNDEFINED

CONSTRUCTION DETAILS, AS A JOB CONDITION TO BE INSTALLED IN ACCORDANCE WITH APPLICABLE CODE REQUIREMENTS. ALL ELECTRICAL MATERIALS SHALL BE NEW AND BEAR THE UNDERWRITERS (AND/OR EQUIVALENT

TESTING AGENCY) LABEL ALL WALL JUNCTION BOXES SHALL BE MOUNTED FLUSH WITH FINISHED FACE OF WALL. PROVIDE EXTENSION BOXES AT WALLS WITH APPLIED ACOUSTIC PANELS. ALL WALL JUNCTION BOXES SHALL BE INSTALLED WITH MOUNTING HOLES AT TOP AND BOTTOM, UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL PROVIDE PULL CORDS IN ALL EMPTY CONDUITS. WHERE MORE THAN ONE CONDUIT TERMINATES IN A JUNCTION BOX, THE ELECTRICAL CONTRACTOR SHALL IDENTIFY

EACH J-BOX AND CONDUIT IN A MANNER ALLOWING IDENTIFICATION OF J-BOXES CONDUITS AFTER

ALL WALL FINISHES HAVE BEEN APPLIED. PROVIDE FINISH TRIM ON ALL FLOOR ELECTRICAL BOXES. FINISH REQUIREMENTS SHALL BE

DETERMINED BY OWNER. 9. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE AND ALL LOCAL APPLICABLE CODES AND REGULATIONS.

10. MINIMUM SIZE OF CONDUITS SHALL BE $\frac{3}{4}$ ", MINIMUM SIZE OF CONDUCTORS SHALL BE #12 AWG,

11. ALL PANELS, SWITCHES, ETC. SHALL HAVE SUFFICIENT GUTTER SPACE AND LUGS TO

ACCOMMODATE CONDUCTORS SHOWN.

12. ALL CONDUCTORS SHALL BE COPPER TYPE THWN INSULATION. 13. .ALL JUNCTION BOXES AND PULL BOXES SHALL BE OF CODE GAUGE AND OF THE REQUIRED SIZE TO ACCOMMODATE NUMBER OF CONDUCTORS SHOWN.

 THE CONTRACTOR SHALL EXTEND WIRING FROM ALL JUNCTION BOXES, RECEPTACLES, SWITCHES. ETC. AND MAKE FINAL CONNECTION AS REQUIRED TO ALL EQUIPMENT REQUIRING ELECTRICAL

15. THE CONTRACTOR SHALL COORDINATE LOCATION OF ALL OUTLET BOXES FOR SWITCHES RECEPTACLES, SPEAKERS, ETC.

FOR ALL WIRING DEVICES VERIFY FINISH COLOR WITH OWNER. 17. PROVIDE TYPEWRITTEN PANEL SCHEDULES TO BE MOUNTED ON INSIDE OF ALL PANEL COVER

DOORS. SCHEDULE TO MATCH THOSE SHOWN ON DRAWINGS. 18. ALUMINUM CONDUCTORS SHALL NOT BE USED ON THIS PROJECT.

 TYPE MC OR AC CABLES SHALL BE USED FOR MOTOR AND LIGHT FIXTURE CONNECTIONS ONLY. THE LENGTH SHALL NOT EXCEED 6'. IN AREAS WHERE OTHER APPROVED WIRING METHODS ARE IMPRACTICAL, TYPE MC OR AC CABLE MAY BE USED WHERE APPROVED BY THE ENGINEER.

20. THESE DRAWINGS INDICATE THE FINISHED REQUIREMENTS FOR THE ELECTRICAL SYSTEMS. EQUIPMENT, LUMINAIRES, OUTLETS AND DEVICES. DUE TO STRUCTURAL CONDITIONS MECHANICAL DUCT OR PIPING INTERFERENCE, OR FOR OTHER REASONS, THE CONTRACTOR MAY DESIRE TO INSTALL THE WORK IN A MANNER DIFFERENT FROM THAT SHOWN. SUCH CHANGES SHALL BE PRESENTED TO THE OWNER'S REPRESENTATIVE FOR APPROVAL BEFORE PROCEEDING AND THE RECORD DRAWINGS SHALL BE ACCURATELY REVISED TO SHOW THE CHANGES AS

21. ALL WORK SHALL COMPLY WITH ALL GOVERNING CODES AND ORDINANCES

22. INTERCONNECT FIRE ALARM STROBE LIGHT (+80"AFF) WITH WIRE AND MINIMUM 1/2" CONDUIT AND ROUTE TO EXISTING LIFE SAFETY TERMINAL CABINET. STROBE LIGHT TYPE AND WIRING SHALL MATCH BUILDING STANDARD. CONTRACTOR TO COORDINATE WITH BUILDING FIRE ALARM SYSTEM

CONTRACTOR FOR POWER SUPPLY REQUIREMENTS. PROVIDE NEW POWER SUPPLY IF REQUIRED 23. EVERY OUTLET HEIGHT SHALL BE VERIFIED ON EACH WALL WITH THE INTERIOR PLANNING AND DESIGN DRAWINGS AND CABINET SHOP DRAWINGS TO ENSURE THE PROPER HEIGHT AND

LOCATION WITH RESPECT TO CABINETS, EQUIPMENT, ETC. 24. COORDINATE BOX LOCATION WITH EXISTING MILLWORK.

25. THE WORK OF THIS PROJECT INVOLVES ALTERATION OF THE EXISTING BUILDING TO ACHIEVE THE ARRANGEMENT INDICATED ON THE DRAWINGS. THE CONTRACTOR SHALL VISIT THE JOB SITE TO DETERMINE THE EXTENT OF WORK REQUIRED BY THE CONSTRUCTION ACTIVITIES, THE ARCHITECTURAL DRAWINGS SHOW THE CHANGES TO BE MADE. THE CONTRACTOR SHALL REVISE REARRANGE, REROUTE OR REMOVE EXISTING WIRING AS REQUIRED TO ACCOMMODATE THE CHANGES AND ADDITION SHOWN AND TO PROVIDE CONTINUING ELECTRICAL SERVICE TO THOSE EXISTING PORTIONS OF THE PROJECT WHICH ARE TO REMAIN IN OPERATION.

26. THE ALTERATION OF THE EXISTING BUILDING IS A COMPLEX WORK IN NATURE WHICH WILL REQUIRE ACCURATE PLANNING, CAREFUL PREPARATION AND EXECUTION, ATTENTION TO DETAIL AND CLOSE SUPERVISION BY THE CONTRACTOR. THE CONTRACTOR WILL BE REQUIRED TO DO HIS WORK IN FULL COOPERATION WITH THE OTHER CONSTRUCTION TRADES.

27. BEFORE SUBMITTING PROPOSALS FOR THIS WORK, EACH BIDDER SHALL BECOME FAMILIAR WITH DRAWINGS AND SHALL HAVE EXAMINED THE PREMISES AND BE AWARE OF ALL EXISTING CONDITIONS UNDER WHICH HE WILL BE OBLIGATED TO OPERATE IN PERFORMING HIS CONTRACT THE CONTRACTOR WILL NOT BE ENTITLED TO ANY EXTRA COMPENSATION FOR FAILURE TO ALLOW FOR ALL EXISTING CONDITIONS. SUBMITTING OF A BID OR PROPOSAL WILL BE CONSIDERED EVIDENCE OF THE FACT THAT CONTRACTOR IS FULLY AWARE OF THESE CONDITIONS AND IS ABLE TO COMPLETE ALL WORK REQUIRED BY THE DRAWINGS

28. ALL J-BOXES SHALL BE SIZED PER NEC TABLE 314-16(a).

MAINTAIN CIRCUIT CONTINUITY TO THOSE AREAS NOT AFFECTED BY THE ALTERATION. 30. CONTRACTOR SHALL PROVIDE COMPLETE RED LINED AS-BUILT DRAWINGS PRIOR TO COMPLETION OF PROJECT FOR REVIEW BY ENGINEER.

31. PROVIDE LIFE SAFETY SYSTEM COMPONENTS NECESSARY FOR A COMPLETE SYSTEM AS APPROVED BY FIRE MARSHALL AND OTHER ENFORCING AGENCIES HAVING JURISDICTION AND CONNECT TO EXISTING BASE BUILDING SYSTEM FOR PROPER OPERATION.

32. ALL STROBE LIGHT (WHERE APPLICABLE) SHALL HAVE MINIMUM 75 CANDELA LIGHT INTENSITY. UNLESS NOTED OTHERWISE.

33. THE ENTIRE INSTALLATION OF LIFE SAFETY SYSTEM INCLUDING MATERIALS AND EQUIPMENT SHALL BE COMPATIBLE WITH BASE BUILDING EQUIPMENT AND MEET OR EXCEED THE MINIMUM STANDARD AND REQUIREMENTS OF THE FOLLOWING:

U.L. LISTING SERVICES N.F.P.A. NATIONAL FIRE CODE

U.B.C. AS ACCEPTED AND OR MODIFIED BY LOCAL AUTHORITIES LOCAL CITY FIRE AND BUILDING CODE LOCAL CITY CODE

STATE OF FLORIDA REQUIREMENTS (FBC 2015 5TH EDITION, ETC)

34. A DUPLEX RECEPTACLE INSTALLED ON AN INDIVIDUAL 20A, CIRCUIT BREAKER SHALL HAVE 20A

35. INFORMATION ON AVAILABLE CIRCUITS TO BE USED FOR NEW WORK, ON EXISTING PANELBOARDS WAS OBTAINED FROM THE ORIGINAL DOCUMENTS. CONTRACTOR SHALL VERIFY ACCURACY AND REASSIGN CIRCUIT NUMBERS AS REQUIRED. UPDATE PANEL DIRECTORY WITH LATEST

36. ALL OUTLET, FACE PLATES (RECEPTACLE, SWITCHES, ETC.) COLOR AND MATERIAL SHALL BE

INFORMATION AND SWITCH-OFF ALL SPARE CIRCUIT BREAKERS.

SUBMITTED FOR APPROVAL.

37. PROVIDE MINIMUM 6" SEPARATION FOR BACK TO BACK OUTLET BOXES. 38. ALL RECESSED LUMINAIRES SHALL BE EQUIPPED WITH FRAMES AND SUPPORTS AS REQUIRED BY CEILING CONSTRUCTION. CONTRACTOR SHALL VERIFY CEILING TYPES PRIOR TO ORDERING RECESSED LUMINAIRES AND ENSURE CORRECT MOUNTING METHOD FOR CONDITIONS OF INSTALLATION. LUMINAIRES SHALL BE SEALED TO PREVENT LIGHT LEAKS, AND SHALL BE INSPECTED, APPROVED AND BEAR LABEL OF UNDERWRITERS LABORATORIES, INC.

39. CONTRACTOR SHALL LABEL ALL RECEPTACLES, J-BOXES, DISCONNECT SWITCH, SWITCHES, ETC., ACCORDING TO OWNER'S STANDARD. 40. ALL WORK SHALL CONFORM TO OWNERS STANDARDS AND BUILDING STANDARD SPECIFICATION.

41. ALL OUTLETS, J-BOXES, EQUIPMENT SHALL BE LABELED WITH CIRCUIT DESIGNATION. LABELS SHALL BE LAMINATED TYPE CONSTRUCTION (BROTHER P-TOUCH II). BACKGROUND AND LETTERING COLOR ON LABEL SHALL MATCH EXISTING IDENTIFICATION.

42. COORDINATE WITH PREFERRED OWNER'S VENDOR TO SCHEDULE ANY TESTING OF CIRCUITS IF REQUIRED.

43. GENERAL CONTRACTOR TO COORDINATE WITH BUILDING ENGINEER FOR PREFERRED SUB-CONTRACTOR.

44. CONTRACTOR TO PROVIDE EQUIPMENT GROUND(EG) CONDUCTOR FOR ALL CIRCUITS. EXTEND EQUIPMENT TO ALL ELECTRICAL DEVICES. PROVIDE EQUIPMENT GROUND BUS BAR IN PANELS. 45. REFER TO BUILDING STANDARD SPECIFICATION FOR ALL NEW EQUIPMENT INSTALLED.

46. ALL ARCHITECTURAL, MECHANICAL, ELECTRICAL AND NON-STRUCTURAL SYSTEMS, COMPONENTS AND ELEMENTS PERMANENTLY ATTACHED TO STRUCTURES, INCLUDING SUPPORTING STRUCTURES AND ATTACHMENTS AND NON-BUILDING STRUCTURES THAT ARE SUPPORTED BY OTHER STRUCTURES SHALL COMPLY WITH THE LATEST STATE BUILDING CODE.

ELECTRICAL SYSTEM AND EQUIPMENT

METHOD OF COMPLIANCE		☐ No Change to Building System
Prescriptive	Performance	☐ Energy Cost Budget
Lighting schedule		
Lamp type required in fixunumber of lamps in fixture ballast type used in the number of ballasts in fix total wattage per fixture total interior wattage spendinimum exterior source.	e SEE FIXTURE SCHEDULE ixture SEE FIXTURE SCHEDULI ure SEE FIXTURE SCHEDULE SEE FIXTURE SCHEDULE	DULE E
Equipment schedules with m	otors (not used for	r mechanical system)
motor horsepower number of phases minimum efficiency motor type # of poles	N/A N/A N/A N/A N/A	

2018 NC STATE BUILDING CODE: ENERGY CONSERVATION CODE (https://codes.iccsafe.org/content/NCECC2018)

STATUS LEGEND

LETTER ADJACENT TO DEVICES INDICATES STATUS AS FOLLOWS:

= EXISTING TO REMAIN, SYMBOL SHOWN THIN = EXISTING TO BE RELOCATED, SYMBOL SHOWN DASHED

= RELOCATED, SYMBOL SHOWN BOLD

= DEMOLISHED, SYMBOL SHOWN DASHED = NEW, SYMBOL SHOWN BOLD

= LUMINAIRE TYPE, SEE LUMINAIRE SCHEDULE

NOTE: DEVICES ARE NEW IF NO STATUS SHOWN

BRANCH CIRCUIT VOLTAGE DROP (3%)

UNLESS INDICATED OTHERWISE, THE CONTRACTOR SHALL PROVIDE MINIMUM SIZED BRANCH CIDCUIT CONDUCTODE DED THE TABLE DELOW

	CIRCUIT CONDUCTO	RS PER THE	IABLE BELC	OVV.	
Conductor			Circuit \	√oltage	
size (AWG)	Branch Circuit	120	208	240	277
	OCD (Amps)	Ma	aximum Allow	able Length (ft)
#12	15	82	142	164	189
#10	15	135	235	271	313
#8	15	205	356	411	474
#12	20	61	107	123	142
#10	20	102	176	203	234
#8	20	154	267	308	356
#10	30	103	178	205	237
#8	30	160	277	320	369

1. ASSUMING SINGLE PHASE CIRCUIT, 90% POWER FACTOR, UNCOATED COPPER CONDUCTORS IN STEEL RACEWAY FROM NEC CHAPTER 9, TABLE 9.

ASSUMING LOAD EQUAL TO 80% OF OCD RATING IS CONCENTRATED AT THE END OF THE CIRCUIT. LONGER BRANCH CIRCUIT LENGTHS SHALL BE ALLOWED WHEN THE CIRCUIT LOAD IS KNOWN AND THE CONTRACTOR HAS PROVIDED A VOLTAGE DROP CALCULATION. THE CALCULATION RESULTS SHALL BE MARKED ON THE AS-BUILT PLANS

Revisions

REV 2 ADDENDA 1

REV 1 WALK-THROUGH UPDATES

02-14-2024

HOOLS ORIUM

Date: 02-14-2024 Not for Construction

Design Development Construction Drawings

Revisions

Sheet Name **ELECTRICAL**

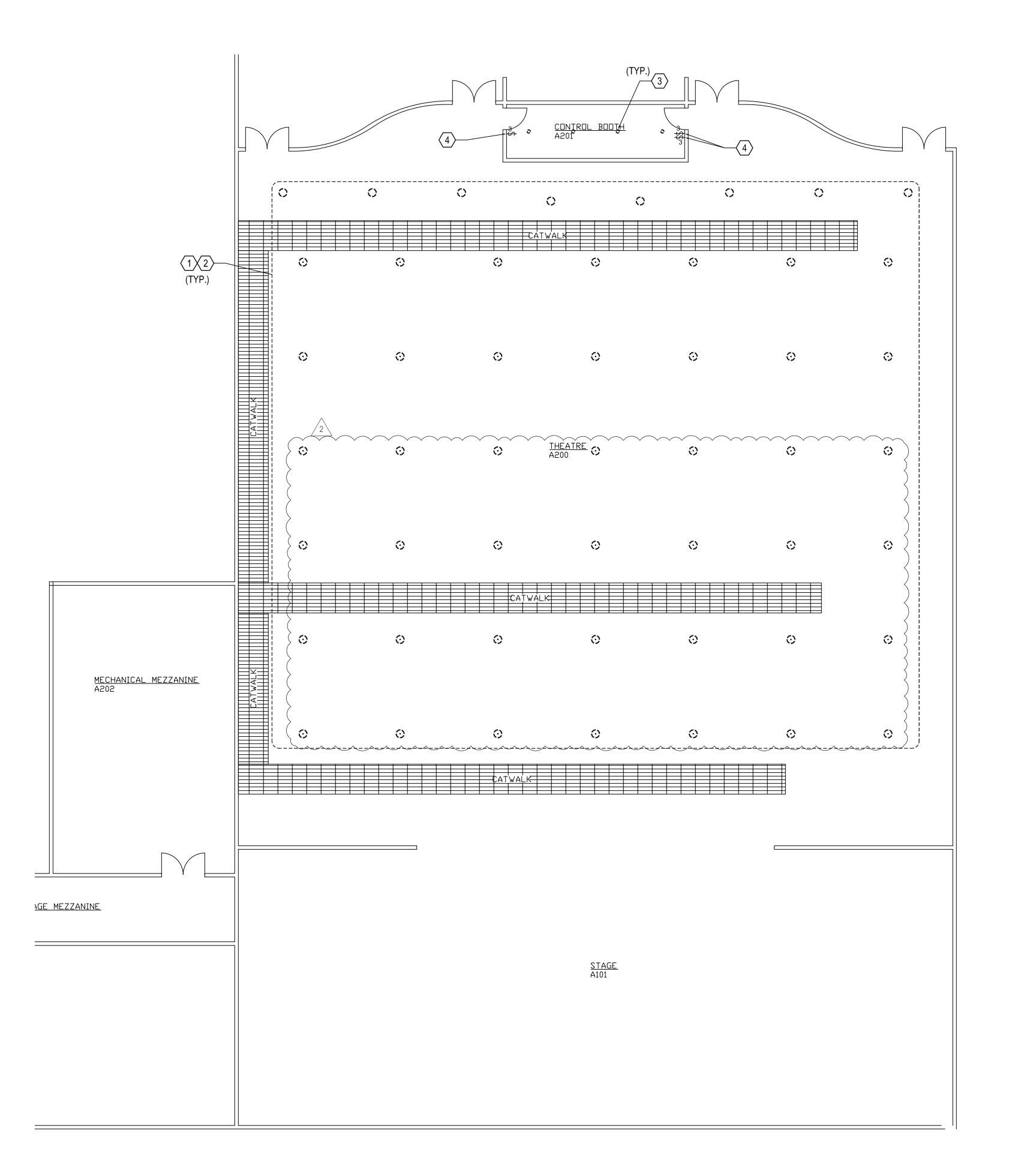
COVER SHEET

Sheet Number E-001



KEYED NOTES - POWER AND TELECOM (#)

- 1. DISCONNECT AND REMOVE EXISTING DISCONNECT SWITCH. MAINTAINED RELATED FEEDER FOR RECONNECTION.
- 2. DISCONNECT AND REMOVE EXISTING TRANSFORMER. DISCONNECT AND REMOVE EXISTING FEEDER CONDUCTORS BETWEEN DISCONNECT SWITCH AND TRANSFORMER. MAINTAIN RELATED CONDUIT FOR REUSE.
- 3. DISCONNECT AND REMOVE EXISTING SURFACE-MOUNTED RACEWAY INCLUDING RELATED WIRING DEVICES.



2 UPPER LEVEL AUDITORIUM DEMOLITION PART PLAN - LIGHTING ED-101 1/8" = 1'-0"

KEYED NOTES - LIGHTING (#)

- 1. DISCONNECT AND REMOVE EXISTING RECESSED DOWNLIGHT WITHIN DASHED BOUNDARY. DISCONNECT AND REMOVE RELATED LIGHTING BRANCH CIRCUITING.

 2. DISCONNECT AND REMOVE EXISTING PENDANT DOWNLIGHT WITHIN DASHED
- 2. DISCONNECT AND REMOVE EXISTING PENDANT DOWNLIGHT WITHIN DASHED BOUNDARY. DISCONNECT AND REMOVE RELATED LIGHTING BRANCH CIRCUITING.

 3. DISCONNECT AND REMOVE EXISTING RECESSED DOWNLIGHT. MAINTAIN RELATED LIGHTING BRANCH CIRCUITING FOR RECONNECTION.
- 4. DISCONNECT AND REMOVE EXISTING SWITCH. MAINTAIN MAINTAIN RELATED LIGHTING BRANCH CIRCUITING FOR RECONNECTION.

Revisions
REV 1 WALK-THROUGH UPDATES
REV 2 ADDENDA 1



Watlington

Engineering

Firm # P-23'
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/ictoria Watlington 1324 Bethel Rd Charlotte, NC 28208

VERSIDE HIGH SCHOOL AUDITORIUM UPGRA

Date: 02-14-2024

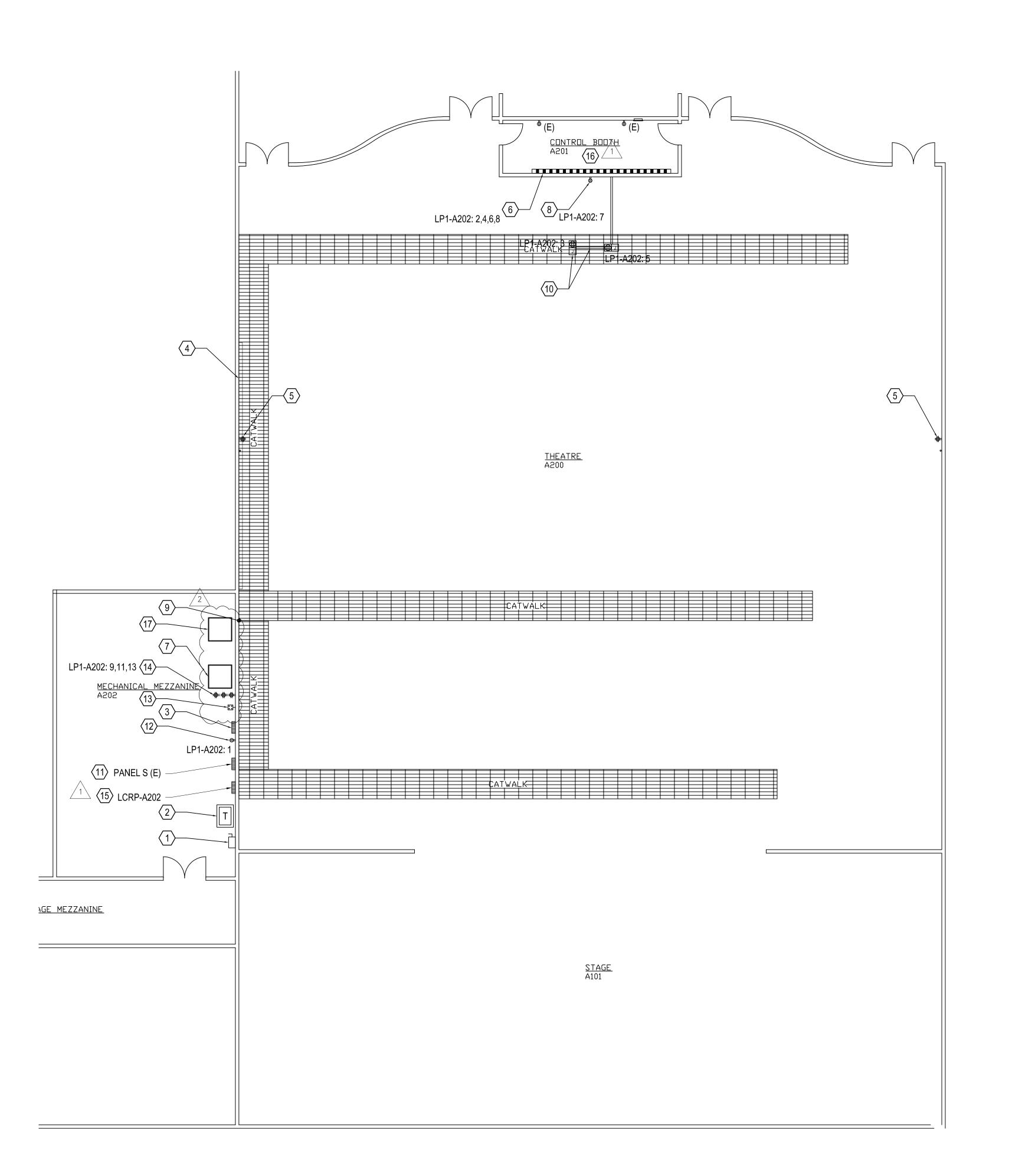
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Design Development

Construction Drawings

Revisions

Sheet Name
ELECTRICAL
UPPER LEVEL AUDITORIUM
DEMOLITION PART PLANS



1 UPPER LEVEL AUDITORIUM NEW WORK PART PLAN - POWER AND TELECOM 1/8" = 1'-0"

KEYED NOTES - POWER AND TELECOM (#)

TRAY PRIOR TO START OF WORK.

- 1. PROVIDE DISCONNECT SWITCH. RECONNECT TO EXISTING FEEDER MAINTAINED FROM DEMOLITION.
- 2. PROVIDE TRANSFORMER 'T-A202'. PROVIDE FEEDER CONDUCTORS AND CONDUIT BETWEEN DISCONNECT SWITCH AND PROPOSED PANELBOARD. RECONNECT EXISTING FEEDER MAINTAINED FROM DEMOLITION BETWEEN SUPPLY SIDE OF
- 3. PROVIDE PANELBOARD 'LP1-A202'. PROVIDE FEEDER CONDUCTORS AND CONDUIT BETWEEN PANELBOARD AND TRANSFORMER SECONDARY.
 4. PROVIDE BASKET TYPE CABLE TRAY. MOUNT ABOVE WALL SOUND CLOUD AT BOTTOM OF REAR WALL ACCESS PANEL. FIELD COORDINATE EXACT HEIGHT OF
- BASIS OF DESIGN: MPHUSKY #WB22-6-3M-EZ OR EQUIVALENT.

 5. PROVIDE SURFACE-MOUNTED, DUPLEX RECEPTACLE. EXTEND EXISTING LIGHTING BRANCH CIRCUIT FROM CLOSET BELOW TO DEVICE.
- 6. PROVIDE PRE-WIRED, DUAL-CHANNEL, SURFACE-MOUNTED RACEWAY FOR POWER AND TELECOMMUNICATIONS. PROVIDE DUPLEX RECEPTACLES AT ONE (1) FOOT SPACING BETWEEN EACH WIRING DEVICE. PROVIDE FOUR (4) BRANCH CIRCUITS. MAXIMUM NUMBER OF DUPLEX RECEPTACLES PERMITTED TO BE COMBINED ON A SINGLE BRANCH CIRCUIT SHALL BE FIVE (5) WIRING DEVICES UNLESS OTHERWISE NOTED. PROVIDE ADDITIONAL HARDWARE AND MATERIALS FOR A COMPLETE INSTALLATION AS REQUIRED. CONNECT TO PANEL AND CIRCUIT INDICATED. PROVIDE BRANCH CIRCUIT CONSISTING OF (2)#12, (1)#12G UNLESS OTHERWISE NOTED.
- BASIS OF DESIGN: LEGRAND 4000 DUAL-CHANNEL RACEWAY OR EQUIVALENT

 7. PROVIDE 45U CHANNEL RACKS WITH CABLE MANAGEMENT SYSTEM FOR AUDIO/VISUAL EQUIPMENT. FIELD COORDINATE EXACT LOCATION WITH OWNER PRIOR TO START OF WORK.
 - PROVIDE DUPLEX RECEPTACLE. SURFACE MOUNT AND INSTALL AT CENTER OF

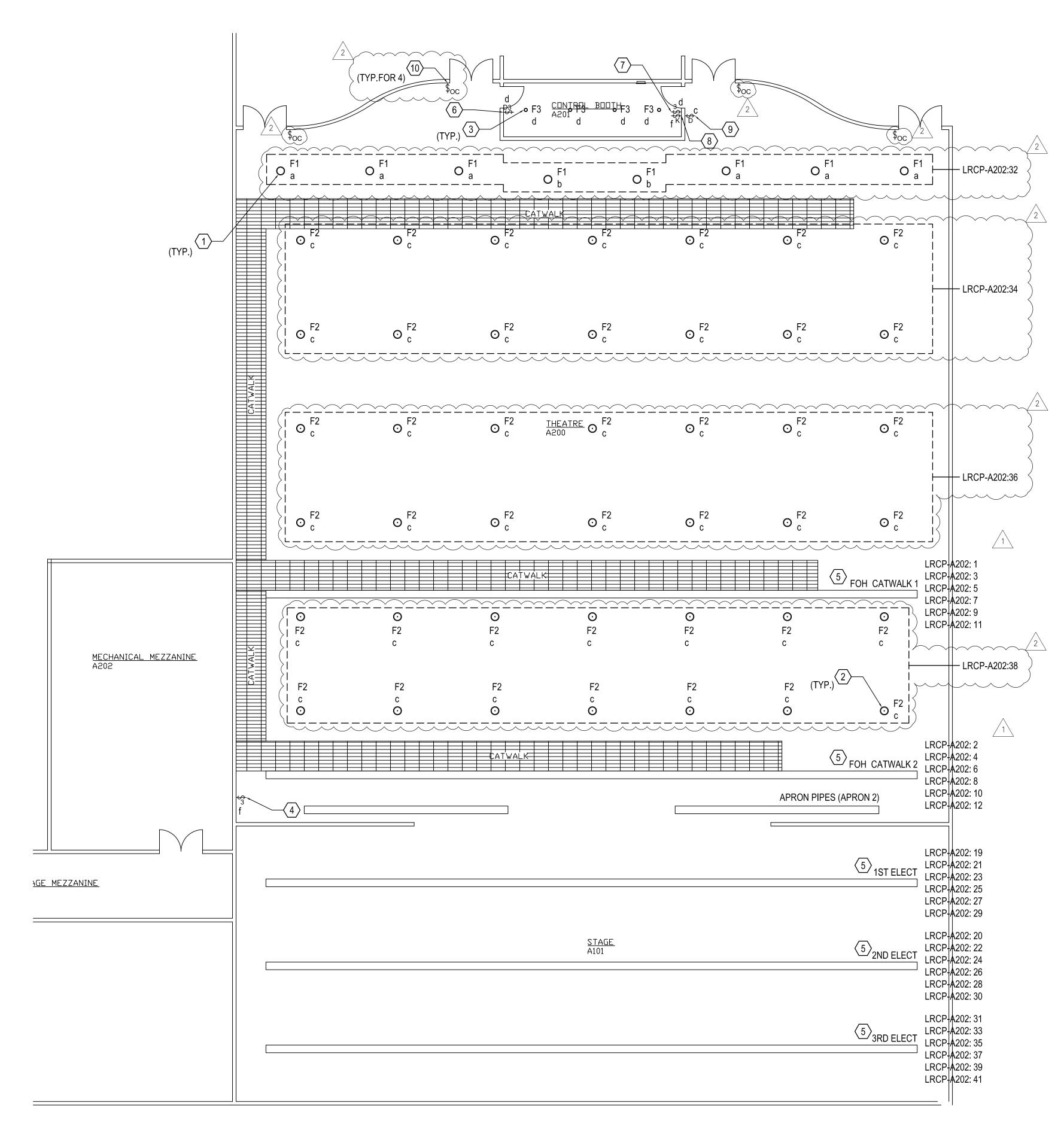
- EXTERIOR CONTROL BOOTH WALL AT 6" ABOVE WINDOW. CONNECT TO PANEL AND CIRCUIT INDICATED. PROVIDE BRANCH CIRCUIT CONSISTING OF (2)#12, (1)#12G IN 1/2"C.
- PROVIDE TWO (2) 4" WALL PENETRATIONS USING EZ PATH AND CATWALK AREA.
 COORDINATE EXACT LOCATION OF PENETRATIONS WITH CABLE TRAY LOCATION
- 10. PROVIDE SURFACE-MOUNTED, OVERFLOOR RACEWAY AND QUADRUPLEX RECEPTACLES AS INDICATED. PROVIDE BRANCH CIRCUIT CONSISTING OF (2)#12, (1)#12 IN 1/2"C. PROVIDE ADDITIONAL HARDWARE AND MATERIALS AS REQUIRED FOR A COMPLETE INSTALLATION. CONNECT TO PANEL AND CIRCUIT INDICATED. FIELD COORDINATE EXACT ROUTING WITH EXISTING CONDITIONS.
 BASIS OF DESIGN: LEGRAND WIREMOLD OFR OR EQUIVALENT
- 11. EXISTING PANEL 'S' SHALL REMAIN. RECONNECT EXISTING FEEDER MAINTAINED FROM DEMOLITION TO TRANSFORMER SECONDARY.
- 12. PROVIDE DUPLEX RECEPTACLE. PROVIDE BRANCH CIRCUIT CONSISTING OF
- (2)#12, (1)#12G IN 1/2"C. CONNECT TO PANEL AND CIRCUIT INDICATED.

 13. PROVIDE TELECOMMUNICATIONS GROUND BUS BAR.
- 14. PROVIDE QUADRUPLEX RECEPTACLE. PROVIDE DEDICATED BRANCH CIRCUIT CONSISTING OF (2)#12, (1)#12 IN 1/2"C. EACH. CONNECT TO PANEL CIRCUIT INDICATED (APPLICABLE TO THREE SEPARATE (3) WIRING DEVICES).
- 15. PROVIDE LIGHTING CONTROL RELAY PANEL (LRCP).

 BASIS OF DESIGN: ETC SENSOR IQ48 SURFACE MOUNTED PANEL. REFER TO
- 16. PROVIDE CONNECTIONS FOR 3-GANG CONTROL BOOTH 1250.1 PLUG-IN STATION, EOS APEX 5 CONTROL CONSOLE, AND UNISON PARADIGM PORTABLE 7" TOUCHSCREEN

SPECIFICATIONS AND REFERENCE DRAWINGS FOR ADDITIONAL INFORMATION.

17. PROVIDE 16U CHANNEL RACK WITH CABLE MANAGEMENT SYSTEM FOR LIGHTING CONTROL EQUIPMENT.



2 UPPER LEVEL AUDITORIUM NEW WORK PART PLAN - LIGHTING E-101 1/8" = 1'-0"

KEYED NOTES - LIGHTING (#)

- PROVIDE RECESSED DOWNLIGHT (APPLICABLE TO TYPE 'F1' LIGHT FIXTURES).
 CONNECT TO LIGHTING BRANCH AND CONTROL CIRCUITING INDICATED.
 PROVIDE PENDANT DOWNLIGHT (APPLICABLE TO TYPE 'F2' LIGHT FIXTURES).
- 2. PROVIDE PENDANT DOWNLIGHT (APPLICABLE TO TYPE P2 LIGHT PIXTURES).

 CONNECT TO LIGHTING BRANCH AND CONTROL CIRCUITING INDICATED.

 3. PROVIDE RECESSED DOWNLIGHT. RECONNECT TO EXISTING LIGHTING BRANCH CIRCUIT MAINTAINED FROM DEMOLITION. CONNECT TO CONTROL CIRCUITING
- 4. PROVIDE SWITCH ("CATWALK ENTRY") FOR CATWALK LIGHTING AT ENTRANCE TO CATWALK
- BASIS OF DESIGN: PARADIGM INSPIRE PI1002.
- 5. 50' RACEWAY FOR STAGE ELECTRONICS. FIELD COORDINATE EXACT LOCATIONS WITH EXISTING CONDITIONS. COORDINATE REQUIREMENTS WITH SPECIFICATIONS AND REFERENCE DRAWINGS.
- 6. PROVIDE THREE-WAY, DIMMER SWITCH. CONNECT TO EXISTING LIGHTING BRANCH AND CONTROL CIRCUITING MAINTAINED FROM DEMOLITION.
- 7. PROVIDE THREE-WAY LIGHT SWITCH. CONNECT TO EXISTING LIGHTING BRANCH AND CONTROL CIRCUITING MAINTAINED FROM DEMOLITION.

- 8. PROVIDE KEYED SWITCH. CONNECT TO EXISTING LIGHTING BRANCH AND
- CONTROL CIRCUITING MAINTAINED FROM DEMOLITION.
- 9. PROVIDE DIMMER SWITCH. CONNECT TO EXISTING LIGHTING BRANCH AND CONTROL CIRCUITING MAINTAINED FROM DEMOLITION.
- 10. PROVIDE WALL-MOUNTED OCCUPANCY SENSOR SWITCH AT ENTRY AS INDICATED.

 BASIS OF DESIGN: PARADIGM P-DOC-SM2

Date: 02-14-2024

Not for Construction

Revisions

REV 2 ADDENDA 1

REV 1 WALK-THROUGH UPDATES

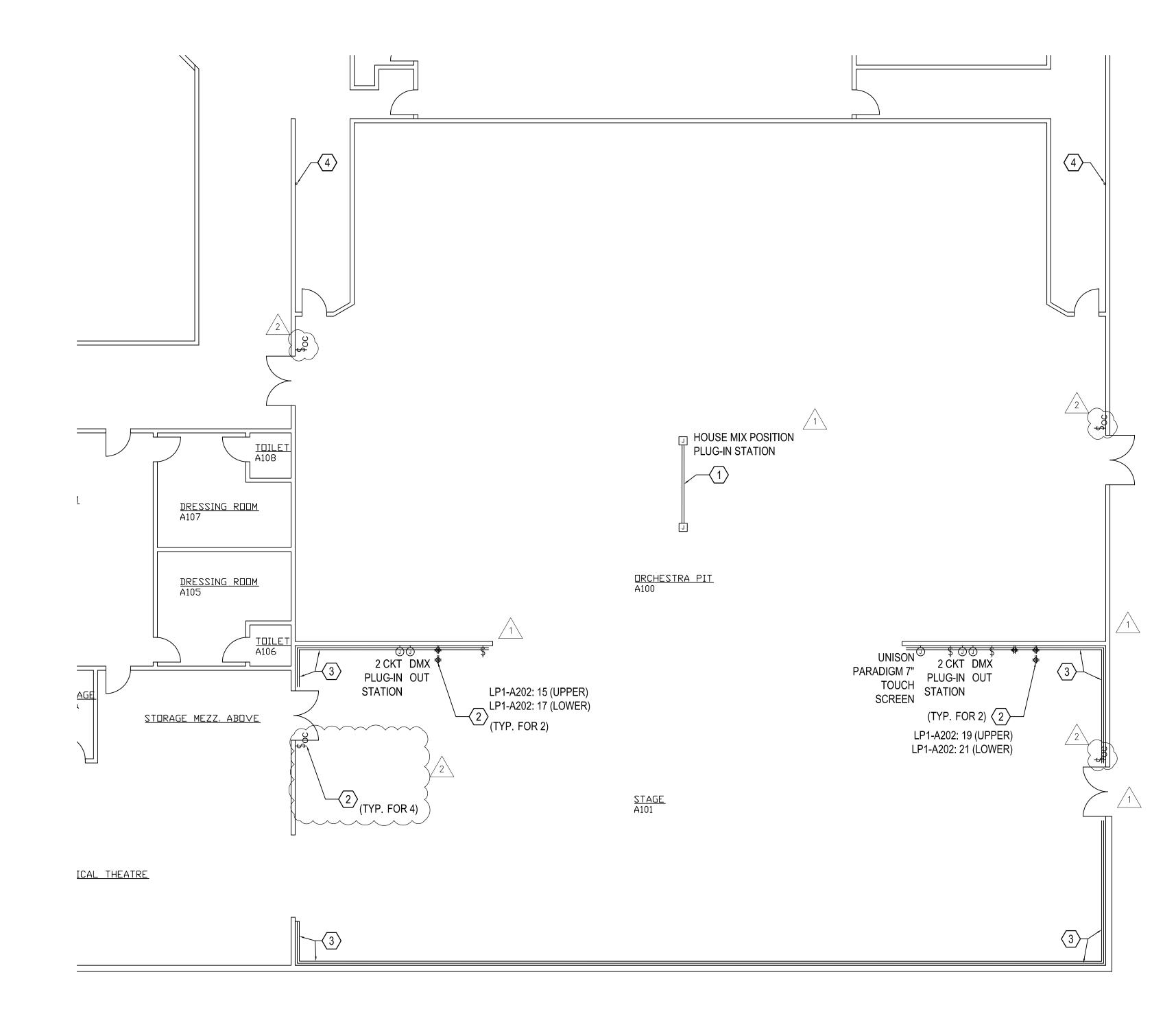
Design Development

SCHOOLS DITORIUM

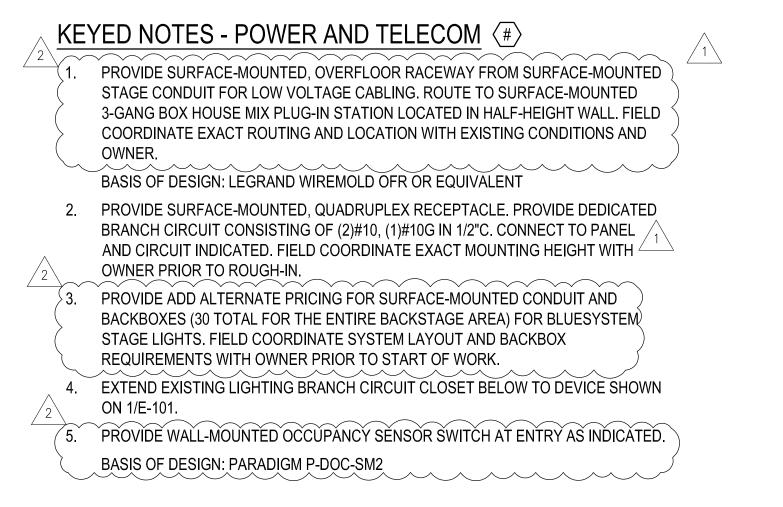
Construction Drawings
Revisions

Sheet Name
ELECTRICAL
UPPER LEVEL AUDITORIUM
NEW WORK PART PLANS

Sheet Number **E-101**







Revisions
REV 1 WALK-THROUGH UPDATES
REV 2 ADDENDA 1



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BURHAM PUBLIC SCHOOLS
RSIDE HIGH SCHOOL AUDITORIUM UPGRA

Date: 02-13-2024

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Design Development

Construction Drawings

Revisions

Sheet Name
ELECTRICAL
LOWER LEVEL AUDITORIUM
NEW WORK PART PLANS

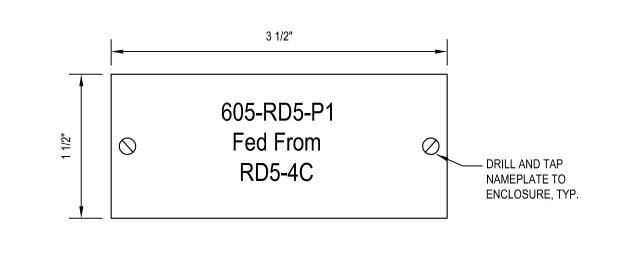
Sheet Number **E-102**

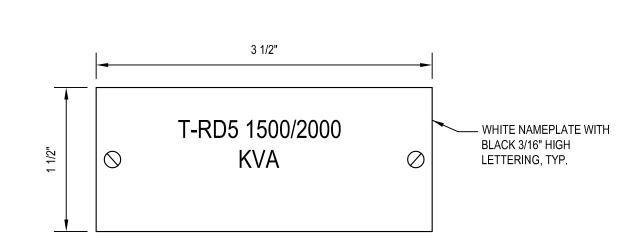
NOTE: THIS SKETCH IS A NON-PROPRIETARY GRAPHIC REPRESENTATION OF A LUMINAIRE THAT MAY MEET THE SPECIFICATION REQUIREMENTS. IT IS NOT INTENDED TO INDICATE A CERTAIN MANUFACTURER OR PREFERENCE.

LUMINAIRE REQUIREMENTS:

- 1. HOUSING COLD-ROLLED STEEL OR DIE CAST ALUMINUM, WITH HEAT SINK. APERTURE SIZE AND SHAPE AS INDICATED IN LUMINAIRE SCHEDULE.
- 2. LIGHT SOURCE SOLID STATE LEDS, 3500K CCT UON, MINIMUM 80 CRI UON, AND MINIMUM EFFICACY OF 70 LUMENS/WATT UON. INITIAL LUMEN OUTPUT AS INDICATED IN LUMINAIRE
- 3. DRIVER REPLACEABLE, INTEGRAL, HIGH-EFFICIENCY DIMMABLE DRIVER WITH MINIMUM 0.9 PF, OPERATING VOLTAGE OF 120-277V, THERMAL MANAGEMENT, AND < 20% THD. ON/OFF CONTROL AND FULLY DIMMABLE DOWN TO 10% MINIMUM OR AS INDICATED IN LUMINAIRE SCHEDULE.
- 4. CERTIFICATION UL LISTED FOR DRY OR DAMP LOCATION, ROHS COMPLIANT. COMPLIES WITH IES LM79, LM80 AND TM21 TESTING STANDARDS.
- 5. MOUNTING RECESSED IN HARD OR ACOUSTICAL TILE CEILING. PROVIDE T-BAR HANGERS FOR INSTALLATION IN ACOUSTICAL TILE CEILINGS OR TABS WHEN MOUNTING IN HARD CEILINGS.
- 6. OPTIONS EMERGENCY BATTERY BACK-UP, VARIOUS ACRYLIC OR POLYCARBONATE LENSES, REFLECTORS, LOUVERS AND TRIMS. VARIOUS BEAM ANGLES. IC RATED HOUSING.



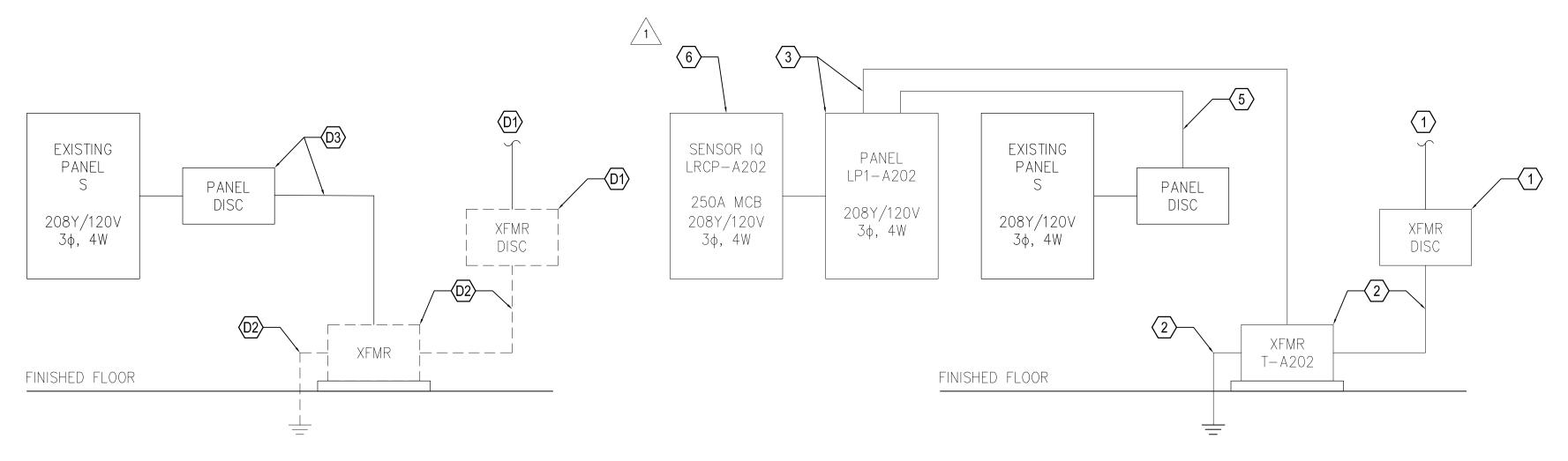






				LIGHT FIX	XTURE SCHE	EDULE			
FIXTURE SYMBOL	GENERIC DESCRIPTION	FIXTURE TAG	MANUFACTURER AND MODEL	MOUNTING/ HEIGHT	VOLTAGE	LIGHT SOURCE	COLOR TEMP.	CRI	NOTES
0	DOWNLIGHT	FA	LIGHT SOURCE #RL-120-WM-78-30K-120-J-R OR EQUIVALENT	RECESSED	120-277V	LED	30K	>80	1) PROVIDE ADDITIONAL INSTALLATION MATERIALS AND ACCESSORIES AS REQUIRED FOR A COMPLETE INSTALLATION (I.E. TRIM, EMERGENCY PROVISIONS, ETC.). 2) ENSURE THAT INTEGRAL CONTROLS ARE COMPATIBLE WITH THE LIGHTING CONTROL SYSTEM.
0	DOWNLIGHT	FB	LIGHT SOURCE #HL-120-B-78-30K-C-J-C OR EQUIVALENT	PENDANT	120-277V	LED	30K	80+	1) PROVIDE ADDITIONAL INSTALLATION MATERIALS AND ACCESSORIES AS REQUIRED FOR A COMPLETE INSTALLATION (I.E. TRIM, EMERGENCY PROVISIONS, ETC.). 2) ENSURE THAT INTEGRAL CONTROLS ARE COMPATIBLE WITH THE LIGHTING CONTROL SYSTEM. 3) FIELD COORDINATE MOUNTING HEIGHT TO MATCH ORIGINAL INSTALLATION.
0	DOWNLIGHT	FC	PORTIFOLIO #LD6B-15-DMX (HOUSING); #EU6B-1020-90-3500 (MODULE); 6LB-W-1-MB (TRIM) OR EQUIVALENT	RECESSED	120-277V	LED	TBD	TBD	PROVIDE ADDITIONAL INSTALLATION MATERIALS AND ACCESSORIES AS REQUIRED FOR A COMPLETE INSTALLATION (I.E. TRIM, EMERGENCY PROVISIONS, ETC.). 2) ENSURE THAT INTEGRAL CONTROLS ARE COMPATIBLE WITH THE LIGHTING CONTROL SYSTEM.

LIGHT FIXTURE SCHEDULE

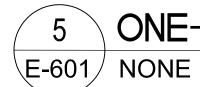


4 ONE-LINE RISER DIAGRAM - DEMOLITION NONE

KEYED NOTES - DEMOLITION (#)

SOURCE.

- 1. DISCONNECT AND REMOVE EXISTING DISCONNECT SWITCH. MAINTAIN FEEDER
- 2. DISCONNECT AND REMOVE EXISTING TRANSFORMER. DISCONNECT AND REMOVE FEEDER CONDUCTORS BETWEEN DISCONNECT SWITCH AND TRANSFORMER. MAINTAIN FEEDER CONDUIT FOR REUSE. DISCONNECT AND REMOVE EXISTING GROUNDING ELECTRODE CONDUCTOR.
- 3. EXISTING PANEL DISCONNECT SWITCH SHALL REMAIN. EXISTING FEEDER CIRCUIT CONDUCTORS AND CONDUIT BETWEEN DISCONNECT SWITCH AND TRANSFORMER SHALL BE RETAINED FOR RECONNECTION TO NEW POWER



ONE-LINE RISER DIAGRAM - NEW WORK

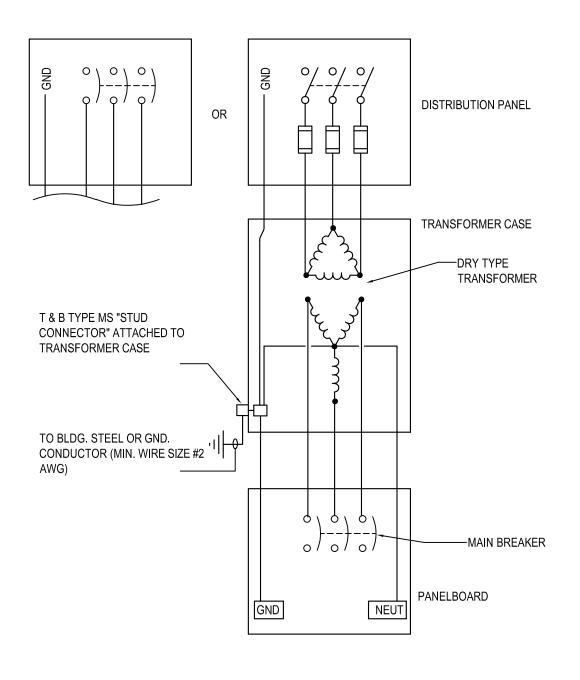
KEYED NOTES - NEW WORK (#)

- PROVIDE 200-AMP, 3-POLE, HEAVY DUTY FUSED DISCONNECT SWITCH WITH 20 FUSES IN NEMA 1 ENCLOSURE. CONNECT TO EXISTING FEEDER MAINTAINED FROM DEMOLITION.
- 2. PROVIDE 150 KVA, DRY-TYPE TRANSFORMER 'T-A202'. PROVIDE FEEDER CONDUCTORS AND CONDUIT BETWEEN DISCONNECT SWITCH AND TRANSFORMER CONSISTING OF (4)#3/0, (1)#4G IN 2-1/2"C. PROVIDE GROUNDING ELECTRODE CONDUCTOR CONSISTING OF #4 BARE COPPER CONDUCTOR. CONNECT TO EXISTING GROUNDING ELECTRODE SYSTEM.
- 3. PROVIDE PANELBOARD 'LP1-A202'. PROVIDE FEEDER CONDUCTORS AND CONDUIT CONSISTING OF TWO (2) SETS OF (4)#3/0, (1)#4G IN 3"C. BETWEEN TRANSFORMER AND PANELBOARD.

4. NOT USED.

- NOT USED.
 EXTEND EXISTING PANEL S DISCONNECT SWITCH FEEDER AND CONNECT TO PANEL LP1-A202 AS INDICATED. MATCH EXISTING CONDUCTOR AND CONDUIT
- SIZES AS REQUIRED.

 6. PROVIDE LIGHTING CONTROL RELAY PANEL 'LCRP-A202'. PROVIDE FEEDER CONDUCTORS AND CONDUIT CONSISTING OF (4)#250KCMIL, (1)#4G IN 2-1/2"C. AND CONNECT TO PANEL SOURCE INDICATED.



TYPICAL 3-PHASE PANEL AND TRANSFORMER GROUNDING DETAIL

E-601 NONE

	PANEL NAM	NAME LOCATION:			VOLTAGE: 208Y/120V 3 PHASE						MOUNTING / ENCLOSURE:	SURFACE / NEMA			
PAN	IEL 'LP1-/ (NEW)	4202'	MECHANICAL MEZZANINE A202 400A MCB												
AMPS	POLES	TYPE	CIRCUIT DESCRIPTION	KVA	СКТ	Α	В	С	СКТ	KVA	CIRCUIT DESCRIPTION	TYPE	POLES	AMPS	
20	1		RCPT - RM A202	0.18	1	1.08			2	0.90	SURFACE RACEWAY RCPT - RM A201		1	20	
20	1		FLOOR QUAD - RM A200	0.36	3		1.26		4	0.90	SURFACE RACEWAY RCPT - RM A201		1	20	
20	1		FLOOR QUAD - RM A200	0.36	5			1.26	6	0.90	SURFACE RACEWAY RCPT - RM A201		1	20	
20	1		RCPT - RM A200	0.18	7	1.08			8	0.90	SURFACE RACEWAY RCPT - RM A201		1	20	
20	1		QUAD UPPER - RM A202	0.50	9		0.50		10	0.00	SPARE		1	20	
20	1		QUAD MID - RM A202	0.50	11			0.50	12	0.00	SPARE		1	20	
20	1		QUAD LOWER - RM A202	0.50	13	14.90			14	14.40					
20	1		QUAD UPPER LEFT - RM A101	0.36	15		14.76		16	14.40	EXISTING PANEL S (AT 60% DEMAND)		3	200	
20	1		QUAD LOWER LEFT - RM A101	0.36	17			14.76	18	14.40					
20	1		QUAD UPPER RIGHT - RM A101	0.36	19	0.36			20	0.00	SPARE		1	20	
20	1		QUAD LOWER RIGHT - RM A101	0.36	21		0.36		22	0.00	SPARE		1	20	
20	1		SPARE	0.00	23			0.00	24	0.00	SPARE		1	20	
20	1		SPARE	0.00	25	0.00			26	0.00	SPARE		1	20	
20	1		SPARE	0.00	27		0.00		28	0.00	SPARE		1	20	
20	1		SPARE	0.00	29			0.00	30	0.00	SPARE		1	20	
20	1		SPARE	0.00	31	0.00			32	0.00	SPARE		1	20	
20	1		SPARE	0.00	33		0.00		34	0.00	SPARE		1	20	
20	1		SPARE	0.00	35			0.00	36	0.00	SPARE		1	20	
	1		SPACE	0.00	37	25.24			38	25.24					
	1		SPACE	0.00	39		24.44		40	24.44	NEW LRCP-A202		3	250	
	1		SPACE	0.00	41			24.44	42	24.44					
SHUNT 1	TRIP BREAK	ER		PHASE 1	TOTAL	42.66	41.32	40.96	KVA						
* GROUN	D FAULT CIF	RCUIT INTE	ERRUPTER BREAKER								TOTAL CONNECTED LOAD	124.94	KVA	347 A	
** ARC FA	AULT CIRCU	IT INTERRU	UPTER BREAKER								TOTAL DEMAND LOAD	124,94	KVA	347 A	

PANEL SCHEDULE: PANEL 'LP1-A202' (NEW)

- 1	PANEL NAME		LOCATION:		V	OLTAGE:	208Y	′120V	3 F	HASE	MOUNTING / ENCLOSURE:		SURFAC	E / NEMA 1
PANE	L 'LRCP- (NEW)	A202'	MECHANICAL MEZZANINE A202			;	250A MCE	3				NOTES: SENSOR IQ48 PANEL		
AMPS	POLES	TYPE	CIRCUIT DESCRIPTION	KVA	СКТ	А	В	С	СКТ	KVA	CIRCUIT DESCRIPTION	TYPE	POLES	AMPS
20	1		FOH CATWALK 1	1.92	1	3.84			2	1.92	FOH CATWALK 2		1	20
20	1		FOH CATWALK 1	1.92	3		3.84		4	1.92	FOH CATWALK 2		1	20
20	1		FOH CATWALK 1	1.92	5			3.84	6	1.92	FOH CATWALK 2		1	20
20	1		FOH CATWALK 1	1.92	7	3.84			8	1.92	FOH CATWALK 2		1	20
20	1		FOH CATWALK 1	1,92	9		3.84		10	1.92	FOH CATWALK 2		1	20
20	1		FOH CATWALK 1	1.92	11			3.84	12	1.92	FOH CATWALK 2		1	20
20	1		APRON PIPES (APRON 1)	1,92	13	3.84			14	1.92	APRON PIPES (APRON 2)		1	20
20	1		APRON PIPES (APRON 1)	1.92	15		3.84		16	1.92	APRON PIPES (APRON 2)		1	20
20	1		APRON PIPES (APRON 1)	1,92	17			3.84	18	1.92	APRON PIPES (APRON 2)		1	20
20	1		1ST ELECT	1.92	19	3.84			20	1.92	2ND ELECT		1	20
20	1		1ST ELECT	1.92	21		3.84		22	1.92	2ND ELECT		1	20
20	1		1ST ELECT	1.92	23			3.84	24	1.92	2ND ELECT		1	20
20	1		1ST ELECT	1.92	25	3.84			26	1.92	2ND ELECT		1	20
20	1		1ST ELECT	1.92	27		3.84		28	1.92	2ND ELECT		1	20
20	1		1ST ELECT	1,92	29			3.84	30	1.92	2ND ELECT		1	20
20	1		3RD ELECT	1.92	31	2.72			32	0.80	(HOUSE LTG		1	20
20	1		3RD ELECT	1,92	33		3.32		34	1.40 /	HOUSE LTG		1	20
20	1		3RD ELECT	1.92	35			3.32	36	1.40	HOUSE LTG		1	20
20	1		3RD ELECT	1.92	37	3.32			38	1.40	HOUSE LTG		1	20
20	1		3RD ELECT	1.92	39		1.92		40	0.00	SPARE			20
20	1		3RD ELECT	1.92	41			1.92	42	0.00	SPARE		1	20
20	1		SPARE		43				44		SPARE		1	20
20	1		SPARE		45				46		SPARE		1	20
20	1		SPARE		47				48		SPARE		1	20
3HUNT T	RIP BREAKE	:R		PHASE 1	OTAL	25.24	24.44	24.44	KVA					
GROUN	FAULT CIF	CUIT INTE	ERRUPTER BREAKER								TOTAL CONNECTED LOAD	74.12	KVA	206 A
* ARC FA	ULT CIRCUI	T INTERRI	UPTER BREAKER								TOTAL DEMAND LOAD	74.12	KVA	206 A

PANEL SCHEDULE: PANEL 'LP1-A202' (NEW)

Revisions

REV 1 WALK-THROUGH UPDATES

REV 2 ADDENDA 1

02-14-2024

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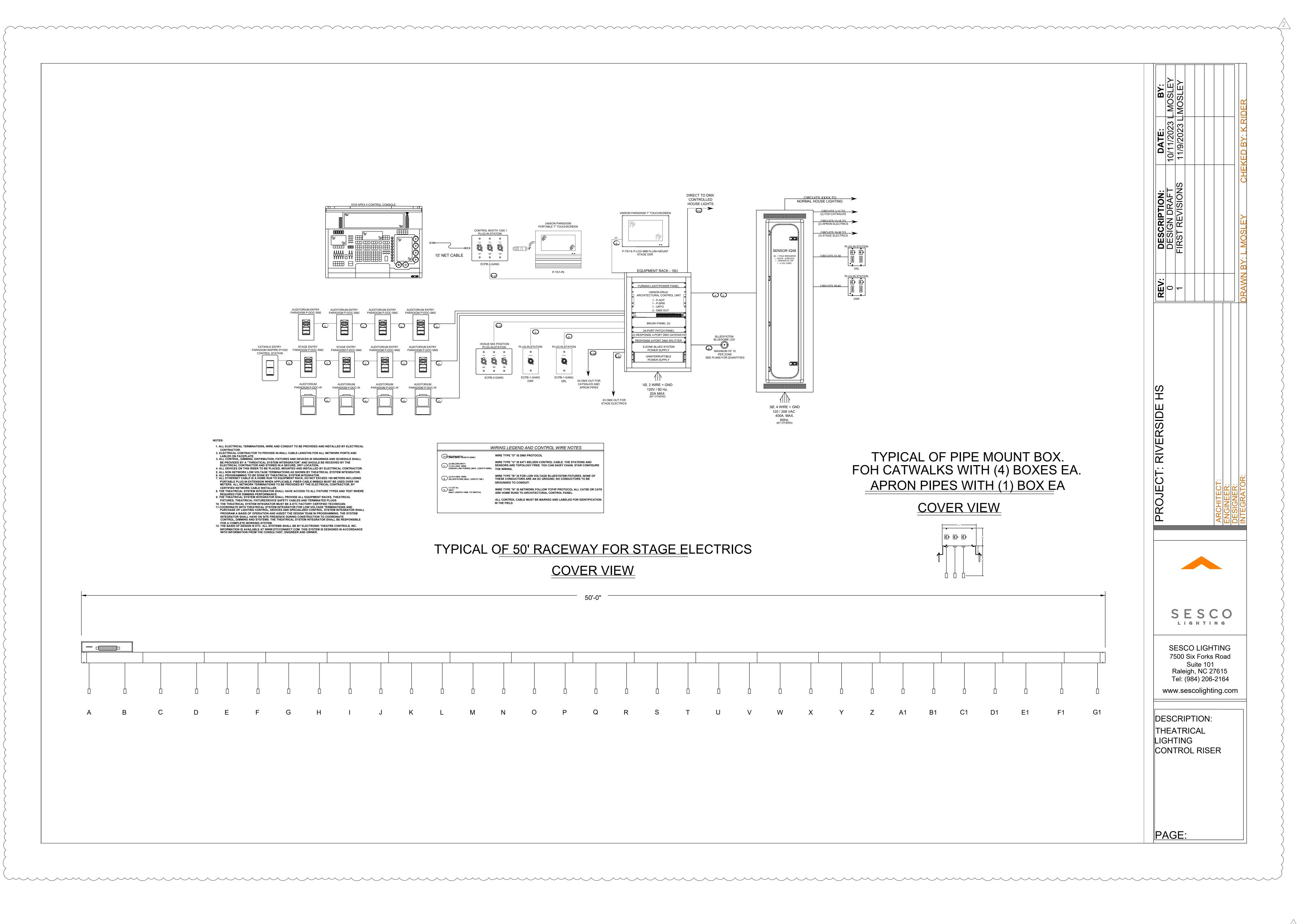
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Revisions

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DETAILS, SCHEDULES
AND RISER DIAGRAM

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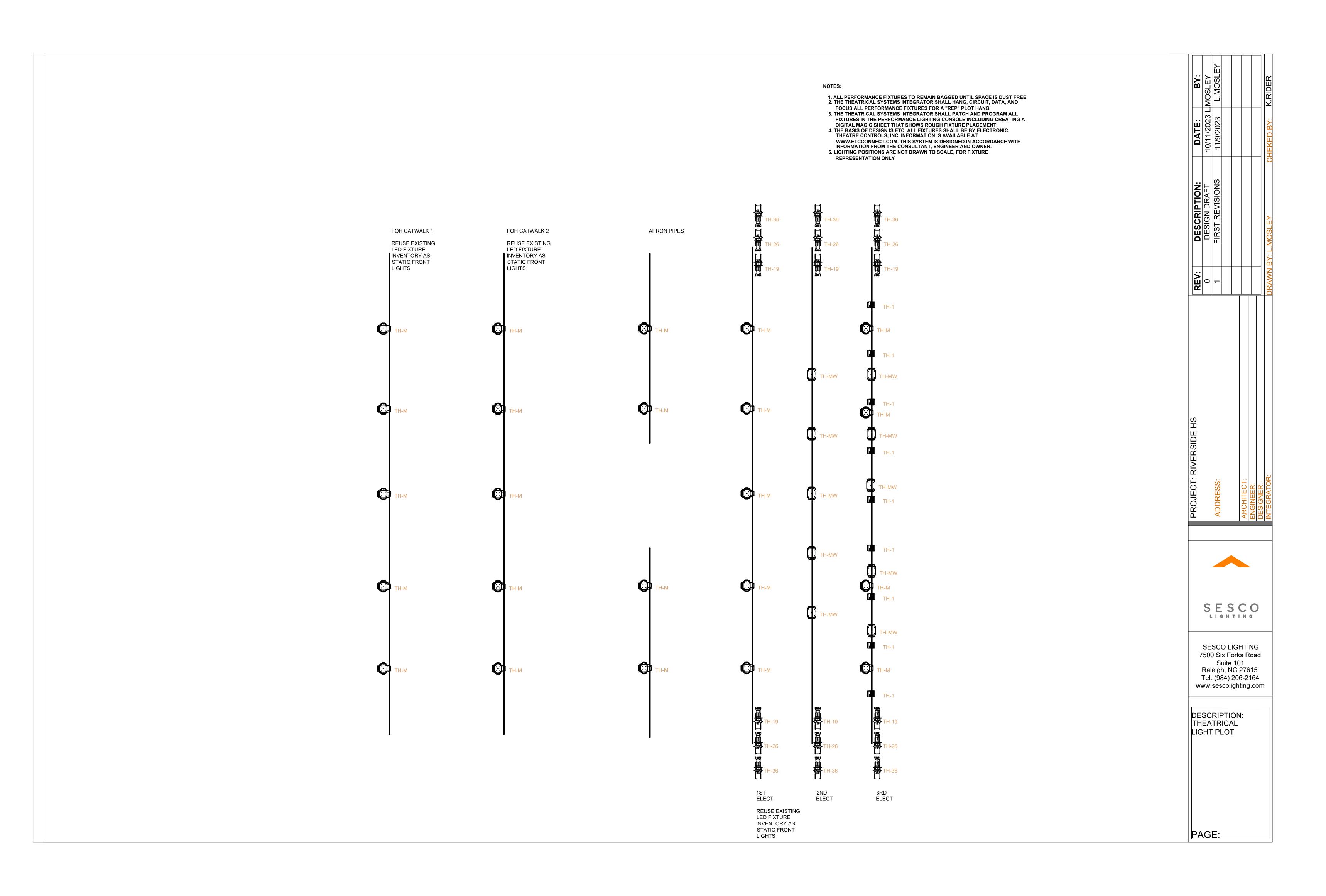
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