BID SET SUBMITTAL TEXAS A&M UNIVERSITY CORPUS CHRISTI PERFORMING ART CENTER (PAC) INTERIOR RENOVATIONS SSC SERVICES PROJECT # 1520051

NORTH

VICINITY MAP

Occide Earth

PERFORMING ARTS

CENTER (PAC)

CAMPUS MAP



TEXAS A&M UNIVERSITY CORPUS CHRISTI



SFORMING ARTS CENTER VTERIOR RENOVATION PROJECT NO: 1520051



ISSUE

MK DATE DESCRIPTION

1/11/21 SD SUBMITTAL

10/6/21 65% DESIGN

2/22/22 100% ELEC

7/15/22 BID SET

SHEET DATA

PROJECT NUMBER:

20148

DRAWN BY:

TC

ISSUE DATE:

7/15/22

ADDRESS
Texas A&M University
- Corpus Christi

NORTH

SHEET
COVER SHEET
G00.00

ADJ Adjacent AFF Above Finished Floor AGGR Aggregate **AL ALUM Aluminum ALT** Alternate ANOD Anodized

APPROX Approximate ARCH Architectural B.M. Bench Mark BD Board **BETW Between** BF Backface **BG** Bumper Guard **BL Bed Locator**

BL Building Line **BLDG** Building BLKG Blocking BM Beam **BOT Bottom**

BR Bumper Rail BRG Bearing **BSMT** Basement BU ROD Back-Up Rod **BUR Built-Up Roof**

BW Bearing Wall C Compact Parking Space

CDR Card Reader **CEM Cement CER Ceramic** CG Corner Guard CIP Cast In Place **CJ** Control Joint **CJ** Construction Joint

CL Center Line CLG Ceiling **CLR Clear CMU Concrete Masonry Unit**

CO Contracting Officer COL Column **COMM** Communications

CONC Concrete **CONN** Connection **CONST** Construction CONT Continuous **COORD** Coordinate

COOR Corridor

COR Contracting Officer's Representative

CR Cold Rolled CR Crash Rail CSK Countersunk CT Ceramic Tile

CTD Centered CTR Center CW Curtain Wall

D Depth

DBA Deformed Bar Anchor DET Detail DIA Diameter DIAPH Diaphragm DIM Dimension **DJ** Deflection Joint DL Dead Load DN Down DRG Drawing

DS Down Spout **DWGS** Drawings **DWLS Dowels** EA Each

EF Each Face EIFS Exterior Insulation and Finish System

EJ Expansion Joint EL Elevation **ELEC Electric ELEV Elevator** EQ Equal **EQUIP** Equipment **ESC** Escalator

EW Each Way **EWC Electric Water Cooler**

EXIST Existing **EXP BLT, Expansion Bolt**

EXT Exterior FD Floor Drain FDN Foundation

FE Fire Extinguisher FEC Fire Extinguisher Cabinet FF Finish Floor **FHC Fire Hose Cabinet**

FIN Finish FIN FLR Finish Floor FLR Floor FS Far Side FT Foot

FTG Footing FV Field Verify **FVC** Fire Valve Cabinet GA Gauge **GALV** Galvanized GB Grade Beam

GEN General GFRC Glass-Fiber Reinforced Concrete

GI Galvanized Iron GL Glass GND Ground GR Grade

GRG Glass-Reinforced Gypsum

GYP BD Gypsum Board HB Hose Bib **HD** Heavy Duty **HDW Hardware HDWD** Hardwood HK Hook **HM Hollow Metal HOR** Horizontal **HP High Point** HR Hour

HS Headed Stud HSKP Housekeeping HT Height **HW Hand Wash ID** Inside Diameter

INSUL Insulation INT Interior JT Joint K Kips (1000 LB) KO Knock-Out KP Kickplate

KPD Keypad KSF Kips Per Square Foot

L Angle LAV Lavatory LG Long LKB Lockable LL Live Load LLH Long Leg Hor. LLV Long Leg Vertical LOC Location

LP Low Point LT Light LWC Lightweight Concrete

MAS Masonry MAT'L Material MAX Maximum MECH Mechanical MEMB Membrane MFG Manufacturer MIN Minimum

MISC Miscellaneous MO Masonry Opening MOD BIT Modified Bitumen

MOD Modified MSL Mean Sea Level MTL Metal N/A Not Applicable NA Not Available NIC Not in Contract NOM Nominal NS Near Side

NTS Not to Scale **NWC Normal Weight Concrete**

OA Over All OC On Center OD Outside Diam. OD Overflow Drain

OFCI Owner Furnished, Contractor Installed

OFOI Owner Furnished, Owner Installed OH Opposite Hand OPNG Opening OPP Opposite **OSF** Outside Face P LAM Plastic Laminate PC Precast Concrete PCF Pounds per Cubic Foot

PENT Penthouse

PL Property Line

PL Plate PLUMB Plumbing

PLYWD Plywood PP Push Plate

POL Polished **PORT CEM Portland Cement**

PR Pair PREFAB Prefabricated

PSF Pounds per Square Foot PSI Pounds per Square Inch

PT Point PTD Painted R Riser RAD Radius

RCP Reflected Ceiling Plan **RD** Roof Drain REBAR Reinforcing Bar

RECP Receptacle REF Refer or Reference REINF Reinforcing **RELOC** Relocate/Relocated

REQ'D Required RFVC Recessed Fire Valve Cab RM Room

RO Rough Opening SAB Sound Attenuation Blanket SBC Standard Building Code SCHED Schedule

SDL Superimposed Dead Load SECT Section SHR Shower SHT Sheet

SHW Shower SIM Similar SO Structural Opening SOG Slab on Grade SP Stand Pipe

SPA Space, Spacing SPEC Specification SQ Square SS Stainless Steel

STA Station STC Sound Transmission Class

STD Standard STIFF Stiffener STIR Stirrup STL Steel STRUC Structural SYM Symmetrical SYS System

T Tread T&B Top and Bottom TAS Texas Accessibility Standards

TC Top of Curb TEL Telephone TEMP Temperature THK Thick

TLT Toilet TOB Top of Beam **TOC** Top of Concrete TOF Top of Footing TOP Top of Parapet TOS Top of Slab TOSTL Top of Steel

TW Top of Wall TYP Typical **UNO Unless Noted Otherwise**

VAR Varies **VCT Vinyl Composition Tile**

VERT Vertical VEST Vestibule VWC Vinvl Wall Covering W/ With

W/O Without W Width W.P. Waterproof(ing) WD Wood

WF Wide Flange WL Wind Load WP Work Point

WWF Welded Wire Fabric

CODE INFORMATION:

APPLICABLE CODES:

2015 IBC - INTERNATIONAL BUILDING CODE 2021 IECC - INTERNATIONAL ENERGY CONVERSTAION CODE 2018 NFPA - NATIONAL FIRE PROTECTION ASSOCIATION 2014 NEC - NATIONAL ELECTRICAL CODE 2012 TAS - TEXAS ACCESSIBILITY STANDARDS

ARCHITECTURAL SYMBOLS:

SOUND ATTENUATION INDICATIOR XX/AX.XX **DETAIL/SHEET ELEVATION SYMBOL SECTION CUT SYMBOL** XX/AX.XX - DETAIL/SHEET NUMBER DETAIL/ **SHEETNUMBER** CONSTRUCTION **DETAIL SYMBOL**

(X)—— – —— NEW COLUMN COLUMN REFERENCE **EXISTING COLUMN**



DRAWING TITLE

DRAWING REVISION

1ST FLOOR PLAN

CONTRACTOR RESPONSIBILITIES AND CONFLICTS:

- GENERAL CONTRACTOR SHALL EXAMINE THE FULL CONTRACT DOCUMENTS PRIOR TO BID, ANY ITEMS, SYSTEMS, EQUIPMENT OR ELEMENTS OF THE DESIGN INDICATED IN ONE OF THE DISCIPLINE DRAWINGS AND NOT THE OTHER(S) SHALL BE CONSIDERED PART OF THE CONTRACT DOCUMENTS AND NOT A CONFLICT. GENERAL CONTRACTOR SHALL REVIEW THE DRAWINGS DURING BIDDING PERIOD AND ISSUE A "REQUEST FOR INFORMATION" (RFI) REQUESTING CLARIFICATION(S). ANY CONFLICT RESULTING FROM THE MISSING/CONFLICTING INFORMATION(S) THAT WAS/WERE NOT BROUGHT UP TO THE ATTENTION OF THE PROJECT MANAGER DURING BID SHALL BE PROVIDED TO TEXAS A & M UNIVERSITY CORPUS CHRISTI AT NO ADDITIONAL COST.
- 2. IF AN ITEM OR SYSTEM IS EITHER SHOWN OR SPECIFIED IN ANY PORTION OF THE DRAWINGS AND/OR SPECIFICATIONS, ALL MATERIAL, LABOR, AND EQUIPMENT REQUIRED FOR THE PROPER INSTALLATION OF SUCH ITEM OR SYSTEM AND NEEDED TO MAKE A COMPLETE OPERATING INSTALLATION WHETHER OR NOT DETAILED OR SPECIFIED IN THE DRAWINGS/SPECIFICATIONS, SHALL BE PROVIDED AT NO ADDITIONAL COST TO TEXAS A & M UNIVERSITY CORPUS CHRISTI.
- ANY CONFLICT BETWEEN DESIGNS ELEMENTS THAT ARE GRAPHICALLY INDICATED BUT NOT LOCATED BY DIMENSIONS ON DRAWINGS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO COORDINATE DURING CONSTRUCTION. ANY CONFLICT RESULTING FROM SUCH INSTANCE(S) SHALL BE NOT BE CONSIDERED A CHANGE ORDER AND WORK SHALL BE PROVIDED TO TEXAS A & M UNIVERSITY AT NO ADDITIONAL COST.

SHEET INDEX:

GENERAL INFORMATION

G00.00 COVER SHEET G01.01 GENERAL INFORMATION

ARCHITECTURAL DRAWINGS

D02.01 DEMO 1ST FLOOR PLAN D02.02 DEMO 2ND FLOOR PLAN D02.03 DEMO 3RD FLOOR PLAN A02.01 NEW 1ST FLOOR A02.02 NEW 2ND FLOOR A02.03 NEW 3RD FLOOR

A03.01 1ST FLR CONSTRUCTION & FINISH PLAN A03.02 2ND FLR CONSTRUCTION & FINISH PLAN A03.03 3RD FLR CONSTRUCTION & FINISH PLAN A05.03 SCHEDULE & DETAILS

ELECTRICAL DRAWINGS

E0.00 ELECTRICAL LEGENDS AND ABBREVIATIONS

E1.01 ELECTRICAL AISLE LIGHTING PLAN - LEVEL 1 E1.02 ELECTRICAL AISLE LIGHTING PLAN - LEVEL 2

E1.03 ELECTRICAL AISLE LIGHTING PLAN - LEVEL 3 E2.01 ELECTRICAL LIGHTING PLAN - LEVEL 1

E2.02 ELECTRICAL LIGHTING PLAN - LEVEL 2 E2.03 ELECTRICAL LIGHTING PLAN - LEVEL 3

E3.00 ELECTRICAL DISTRIBUTION DIAGRAM AND SCHEDULES

E4.00 DIMMING CABINET SCHEDULE E4.01 DIMMING CABINET SCHEDULE

E4.02 ELECTRICAL SPECIFICATIONS

ALTERNATE BIDS:

 PROVIDE PRICING TO REMOVE AND REPLACE EXISTING THEATER SEATING WITH THE NEW SELECTED SEATING.

PROVIDE PRICING TO REMOVE AND SALVAGE ALL LOOSE CHAIRS.

• PROVIDE PRICING TO REMOVE AND REPLACE ALL SHEET VINYL FLOORING UNDER THE SEATING ON FLOORS 1-3, INCLUDING THE REMOVAL OF ALL TILE FLOORING, WOOD BASE, VINYL BASE, CARPET TRANSITIONS, AND EDGE NOSING AS REQUIRED IN AREA OF WORK. CARPETED AREAS ARE TO REMAIN.

 PROVIDE PRICING TO PROVIDE AND INSTALL NEW LED AISLE LIGHTING AT NEW END PANELS WHERE AISLE LIGHTING PREVIOUSLY EXISTED.

ALTERNATE BID #1 (DEDUCTIVE FROM BASE BID)

PROVIDE PRICING TO REMOVE AND REPLACE ONLY SEATING AND AISLE LIGHTING ON

ALTERNATE BID #2

 PROVIDE PRICING FOR INSTALLING NEW LED AISLE LIGHTING AT FIXED SEATING END PANELS ON ALL LEVELS SO ALL END PANELS HAVE LED AISLE LIGHTING. INCLUDE DEMOLITION, REPAIR, AND ALTERATION OF EXISTING CEILING, FLOOR, AND ELECTRICAL SYSTEM TO ACCOMMODATE NEW ELECTRICAL CIRCUITING, REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.

ALTERNATE BID #3

 REPLACE LAMPS IN EXISTING HOUSE LIGHTING FIXTURES WITH DIMMABLE LAMPS COMPATIBLE WITH EXISTING THEATRICAL DIMMING CONTROLS SYSTEM

 REPLACE EXISTING THEATRICAL HOUSE LIGHTING DIMMING MODULES WITH NEW DIMMING MODULES COMPATIBLE WITH NEW DIMMABLE LAMPS

ALTERNATE BID #4

 REVISE EXISTING HOUSE LIGHTING CONTROL ZONES BEHIND STAGE AREA WITH THE ADDITION OF NEW SEPARATE LIGHTING CONTROL ZONES

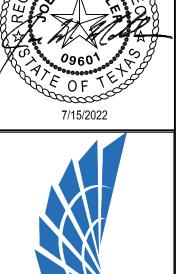
ALTERNATE BID #5

 PROVIDE PRICING FOR STAINING AND REFINISHING OF THE STAGE WOOD FLOORING. STAGE EXTENSIONS, STAGE ENTRY WOOD STEPS, AND WOOD BASE THAT IS ASSOCIATED. WOOD WALL PANELS AND TRIM IS EXCLUDED.

GENERAL NOTES:

- FIELD VERIFICATION: PRIOR TO SCHEDULING OF WORK AND COMMENCING CONSTRUCTION, CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS SHOWN. CONTRACTOR SHALL NOTIFY ARCHITECT OF ANY DISCREPANCIES OF EQUIPMENT, DIMENSIONS OR MATERIALS ON DRAWINGS.
- LEGEND: ALL SYMBOLS AND ABBREVIATIONS USED ON THE DRAWINGS ARE CONSIDERED CONSTRUCTION STANDARDS. IF THE CONTRACTOR HAS ANY QUESTIONS REGARDING THE SAME OR THEIR EXACT MEANING. THE ARCHITECT SHALL BE NOTIFIED FOR CLARIFICATION.
- HORIZONTAL DIMENSIONS: DIMENSIONS ON THE DRAWINGS ARE TO CENTER LINE OF COLUMN, GRID LINES OR TO THE FACE OF FINISH AS INDICATED ON THE DRAWINGS, UNLESS NOTED OTHERWISE.





TEXAS A&M UNIVERSITY SSC

R V ERFORMING. INTERIOR RE



10000 RICHMOND SUITE 100 HOUSTON, TX 77042 713-629-6100

ISSUE MK DATE DESCRIPTION 10/6/21 65% DESIGN 100% ELEC BID SET

SHEET DATA

ROJECT NUMBER:

20148 DRAWN BY:

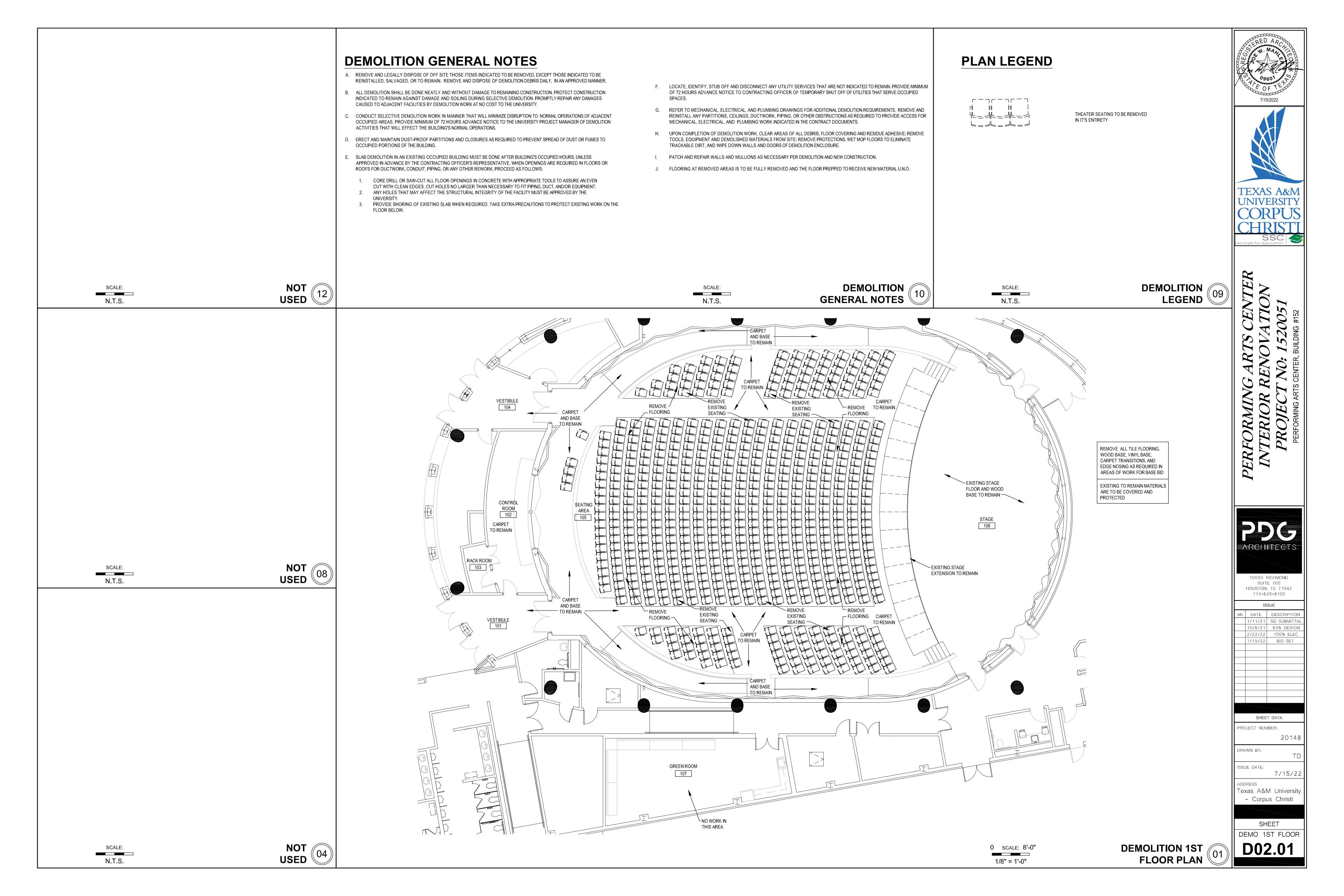
SSUE DATE: 7/15/22

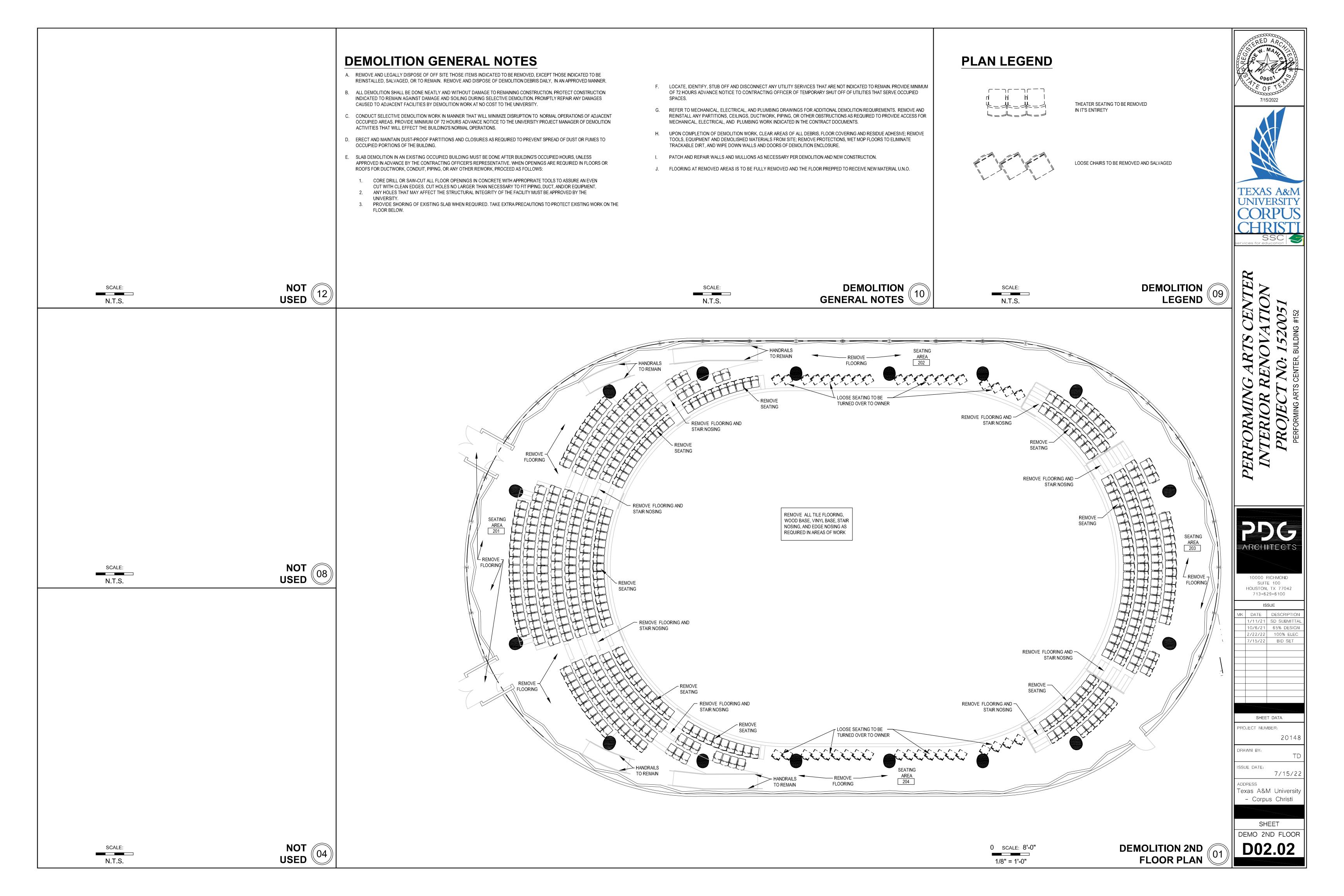
exas A&M University

- Corpus Christi

SHEET

GENERAL INFO G01.01





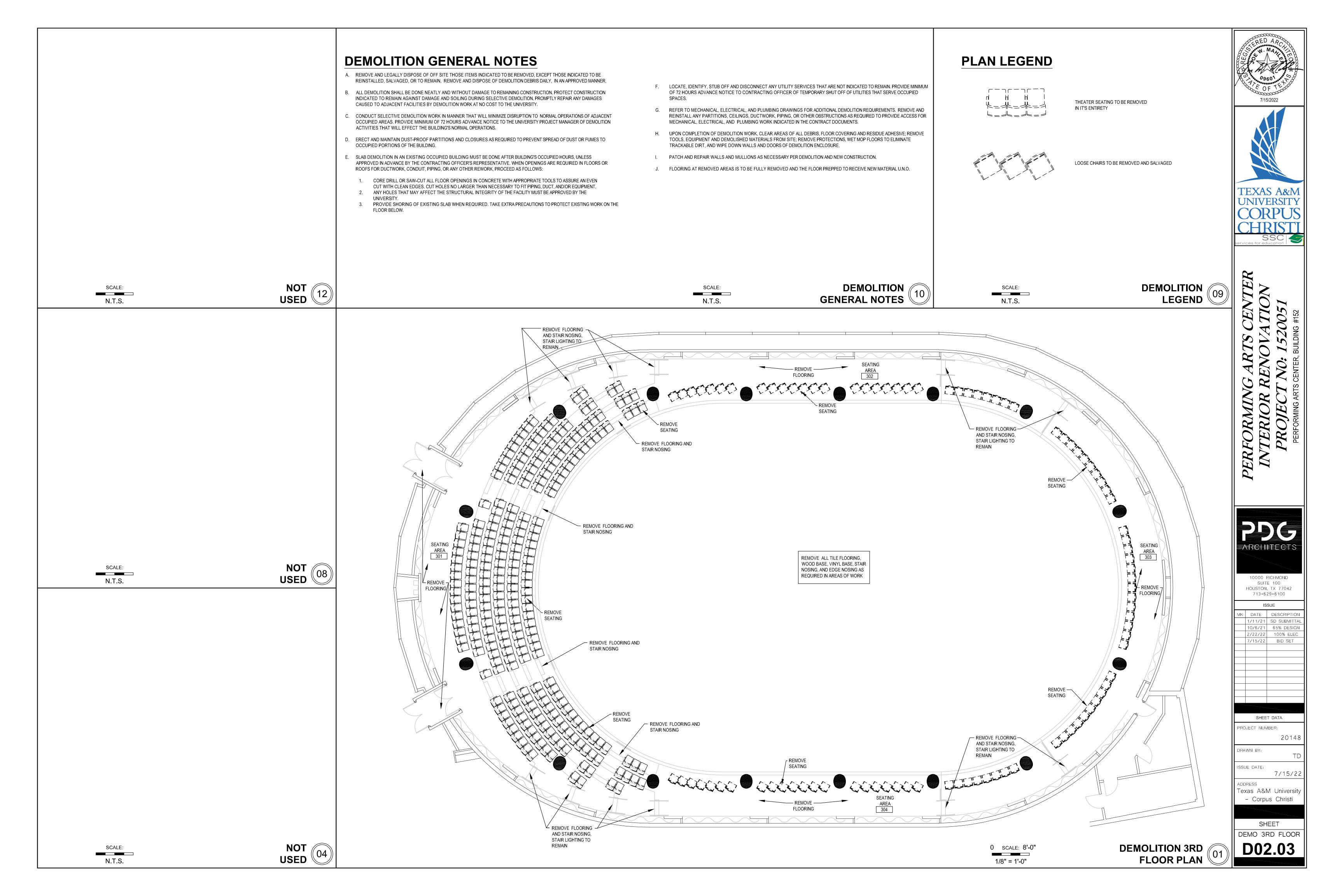


Table 221.2.1. Number of Wheelchair Spaces in Assembly Areas

Number of Seats	Minimum Number of Required Wheelchair Spaces				
4 to 25	1				
26 to 50	2				
51 to 150	4				
151 to 300	5				
301 to 500	6				
501 to 5000	6, plus 1 for each 150, or fraction thereof, between 501 through 5000				
5001 and over	36, plus 1 for each 200, or fraction thereof, over 5000				

802.1.2 Width. A single wheelchair space shall be 36 inches (915 mm) wide minimum. Where two adjacent wheelchair spaces are provided, each wheelchair space shall be 33 inches (840 mm) wide minimum.

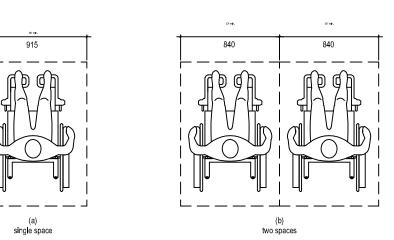


Figure 802.1.2 Width of Wheelchair Spaces in Assembly Areas

802.1.3 Depth. Where a wheelchair space can be entered from the front or rear, the wheelchair space shall be 48 inches (1220 mm) deep minimum. Where a wheelchair space can be entered only from the side, the wheelchair space shall be 60 inches (1525 mm) deep minimum.

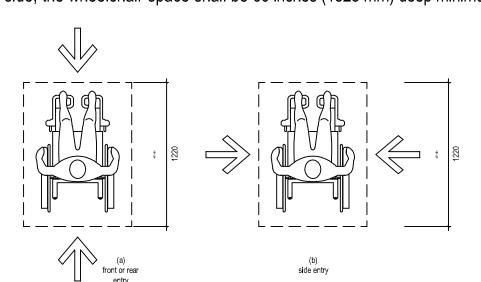


Figure 802.1.3 Depth of Wheelchair Spaces in Assembly Areas

SCALE:	
	I
N.T.S.	

N.T.S.

TAS ACCESSIBILITY REQUIREMENTS 08

NOTES TO SHEET

SCALE:

N.T.S.

- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE NFPA 101 LIFE SAFETY CODE (2018 EDITION) AND THE 2015
- DO NOT SCALE DRAWINGS, DIMENSIONS GOVERN. LARGE SCALE DETAILS GOVERN OVER SMALL SCALE. DRYWALL IS DIMENSIONED TO FINISH FACE OF WALL.
- VERIFY ALL DIMENSIONS IN THE FIELD, CONTACT UNIVERSITY PROJECT MANGER IF DISCREPANCIES ARE DISCOVERED PRIOR
- THE CONTRACTOR SHALL PROVIDE CONCEALED ACCESS PANELS AT ALL LOCATIONS WHICH MAY REQUIRE SERVICING ACCESS SUCH AS TO ANY VALVES, CLEANOUTS, DAMPERS, A/C UNITS, ETC. SUBMIT SAMPLE FOR REVIEW.
- ROOM NUMBERS ARE FOR REFERENCE ONLY AND DO NOT NECESSARILY REPRESENT EXISTING BUILDING ROOM NUMBERS.
- ALL CONSTRUCTION WORK SHALL BE COORDINATED WITH THE UNIVERSITY AND ADJACENT DEPARTMENTS PRIOR TO
- RESTRICT AND CONTAIN DUST AND DEBRIS GENERATED FROM ALL DEMOLITION, ALTERATIONS, AND CONSTRUCTION BY MEANS OF TEMPORARY PARTITIONS OR BARRIERS AS REQUIRED.

GENERAL

NOTES

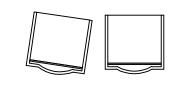
CLEAN ALL NEW SURFACES PRIOR TO OCCUPANCY OF SPACE. ALL TRASH, CONSTRUCTION DEBRIS, TOOLS, ETC. SHALL BE REMOVED PRIOR TO OCCUPANCY OF SPACE.

LEGEND

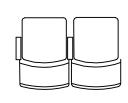
ADA TRANSFER ARM



AISLE LIGHT



LOOSE CHAIRS (BY OTHERS)



FIXED THEATER SEAT: SERIES SEATING, ACADEMY MODEL OR APPROVED EQUAL



N.T.S.

REMOVABLE THEATER SEAT: SERIES SEATING, ACADEMY MODEL OR APPROVED EQUAL

LEGEND (

FIXED 622 1ST FLOOR 2ND FLOOR 430 3RD FLOOR 248

TEXAS A&M UNIVERSITY CORPUS CHRISTI

PERFROMNING ARTS CENTER SEATING COUNT

*FIXED SEATING VENDOR IS TO VERIFY SEATING COUNT

N.T.S.

1/8" = 1'-0"



SEATING COUNT V



TEXAS A&N



SUITE 100 HOUSTON, TX 77042 713-629-6100

K DATE DESCRIPTION 10/6/21 65% DESIGN 100% ELEC

BID SET

SHEET DATA PROJECT NUMBER:

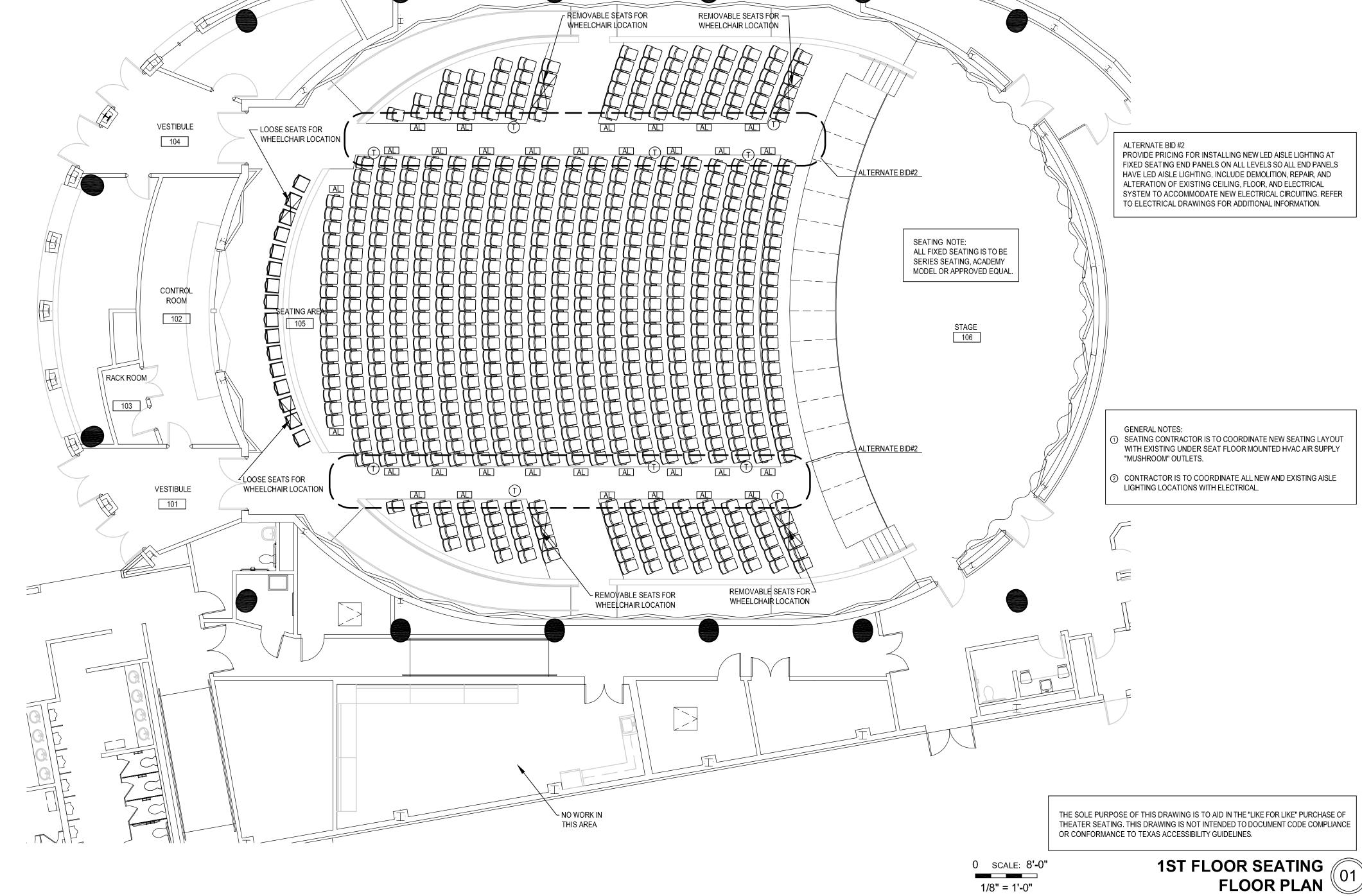
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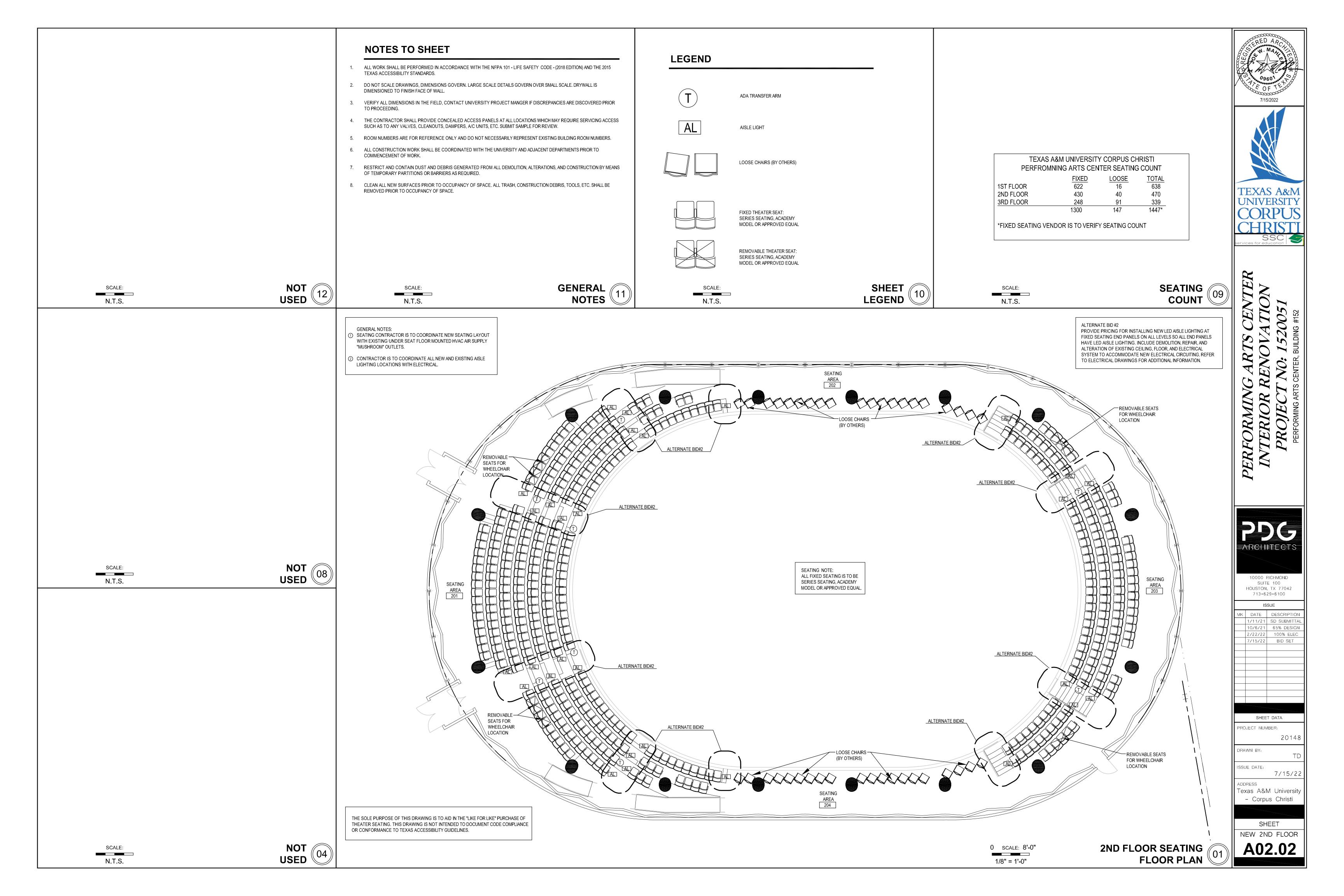
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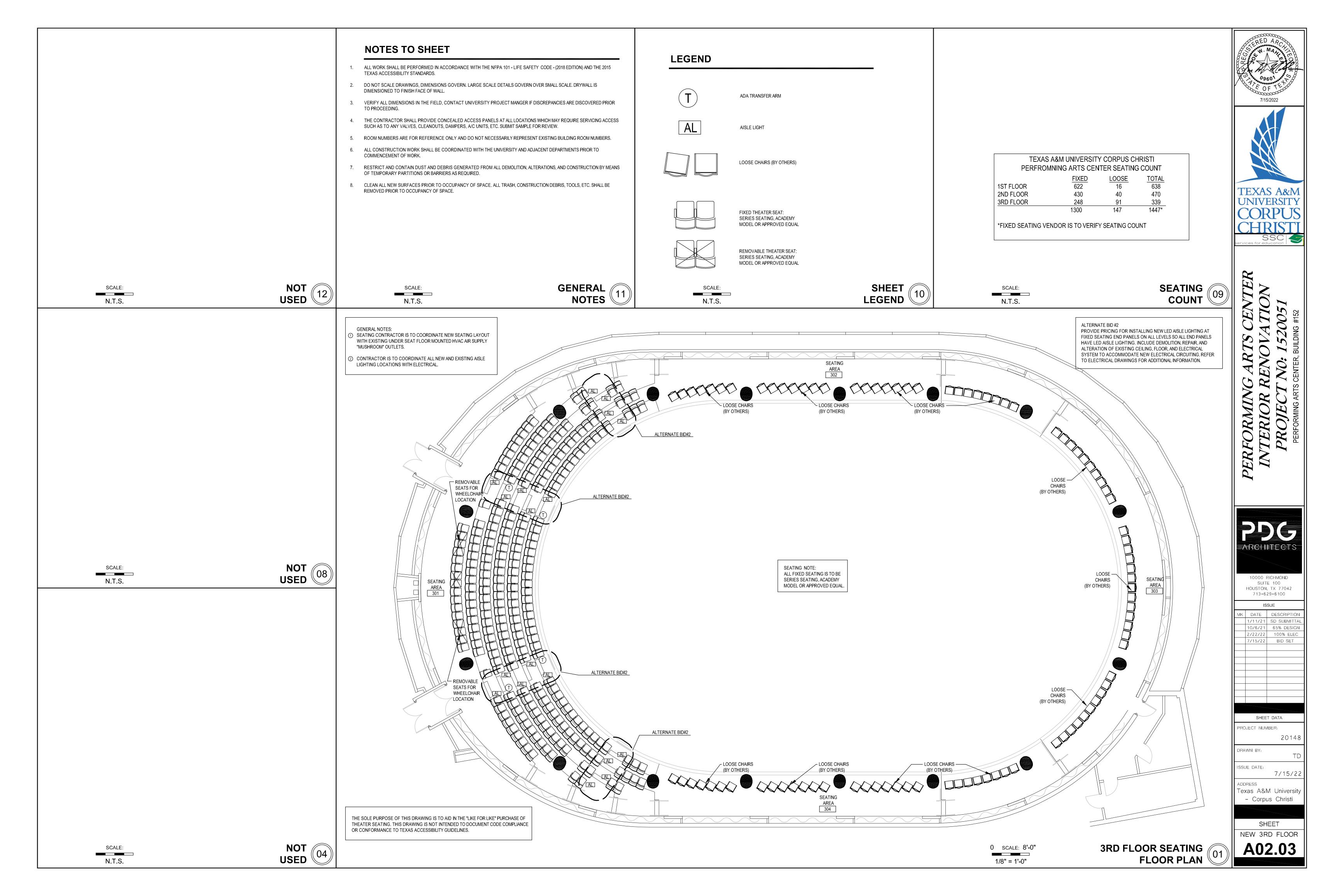
Texas A&M University Corpus Christi

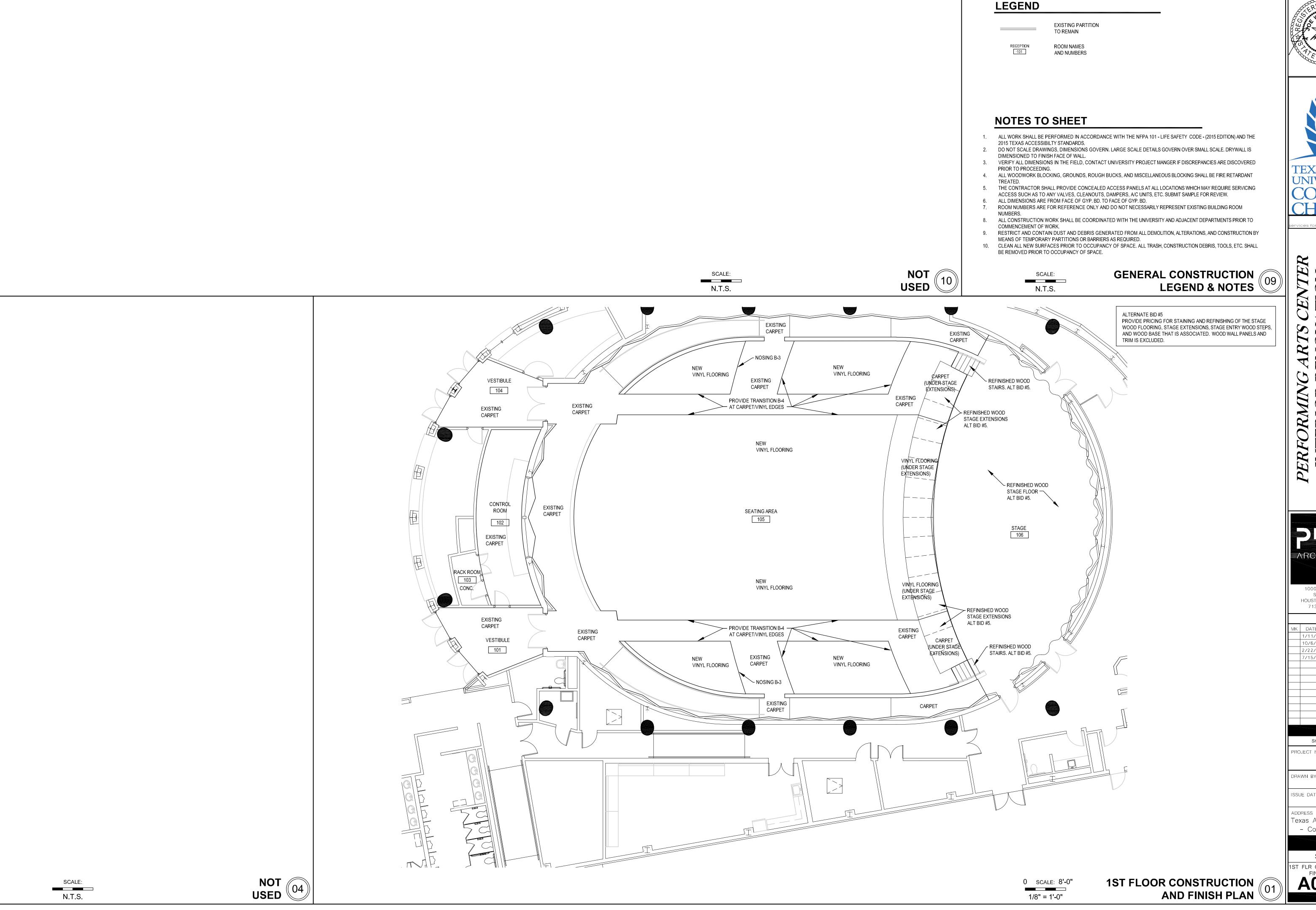
SHEET NEW 1ST FLOOR

A02.01











SSC



10000 RICHMOND SUITE 100 HOUSTON, TX 77042 713-629-6100

ISSUE MK DATE DESCRIPTIO 10/6/21 65% DESIGN 2/22/22 100% ELEC 7/15/22 BID SET

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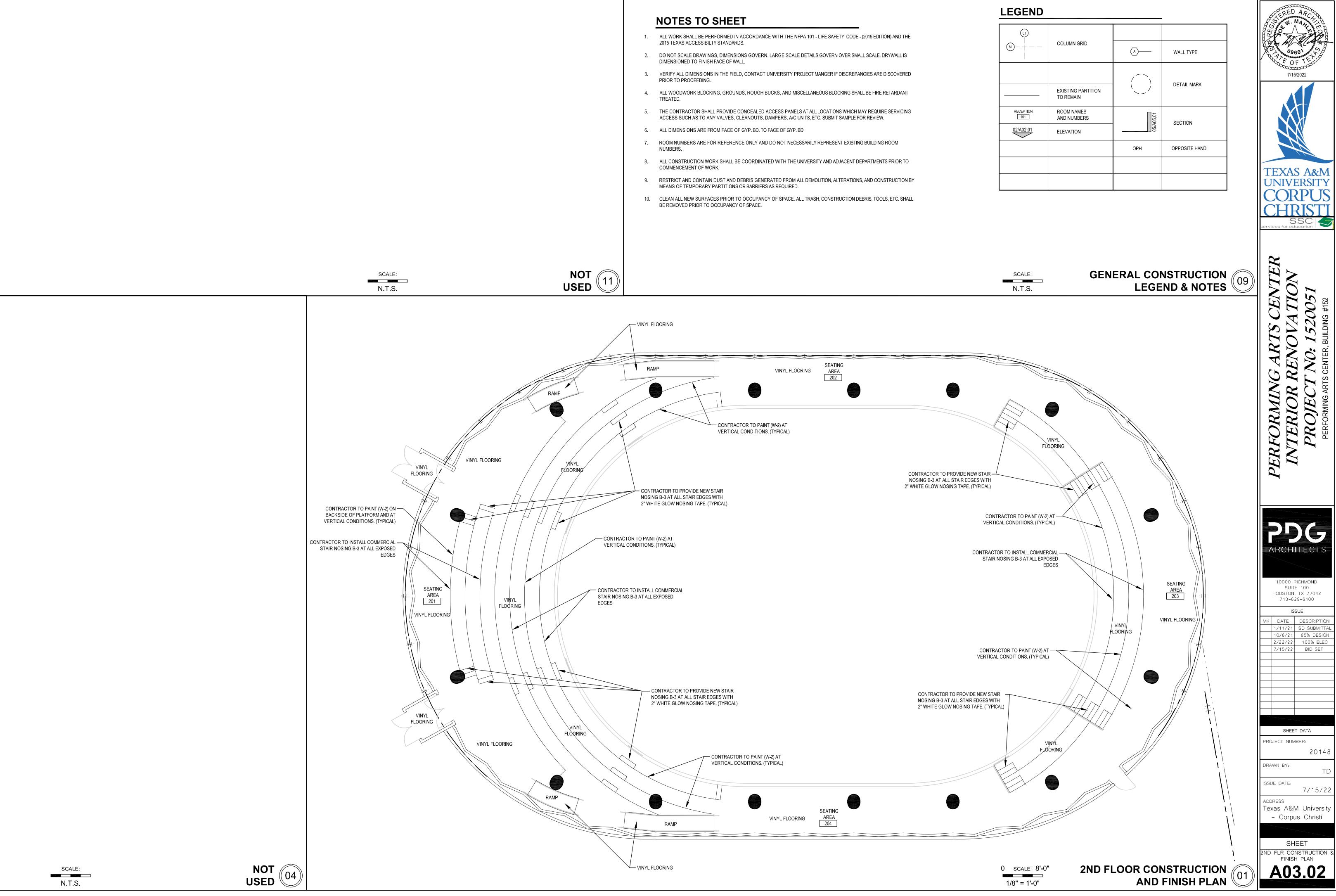
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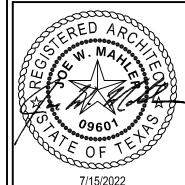
ISSUE DATE: 7/15/22

Texas A&M University Corpus Christi

SHEET

1ST FLR CONSTRUCTION & FINISH PLAN A03.01





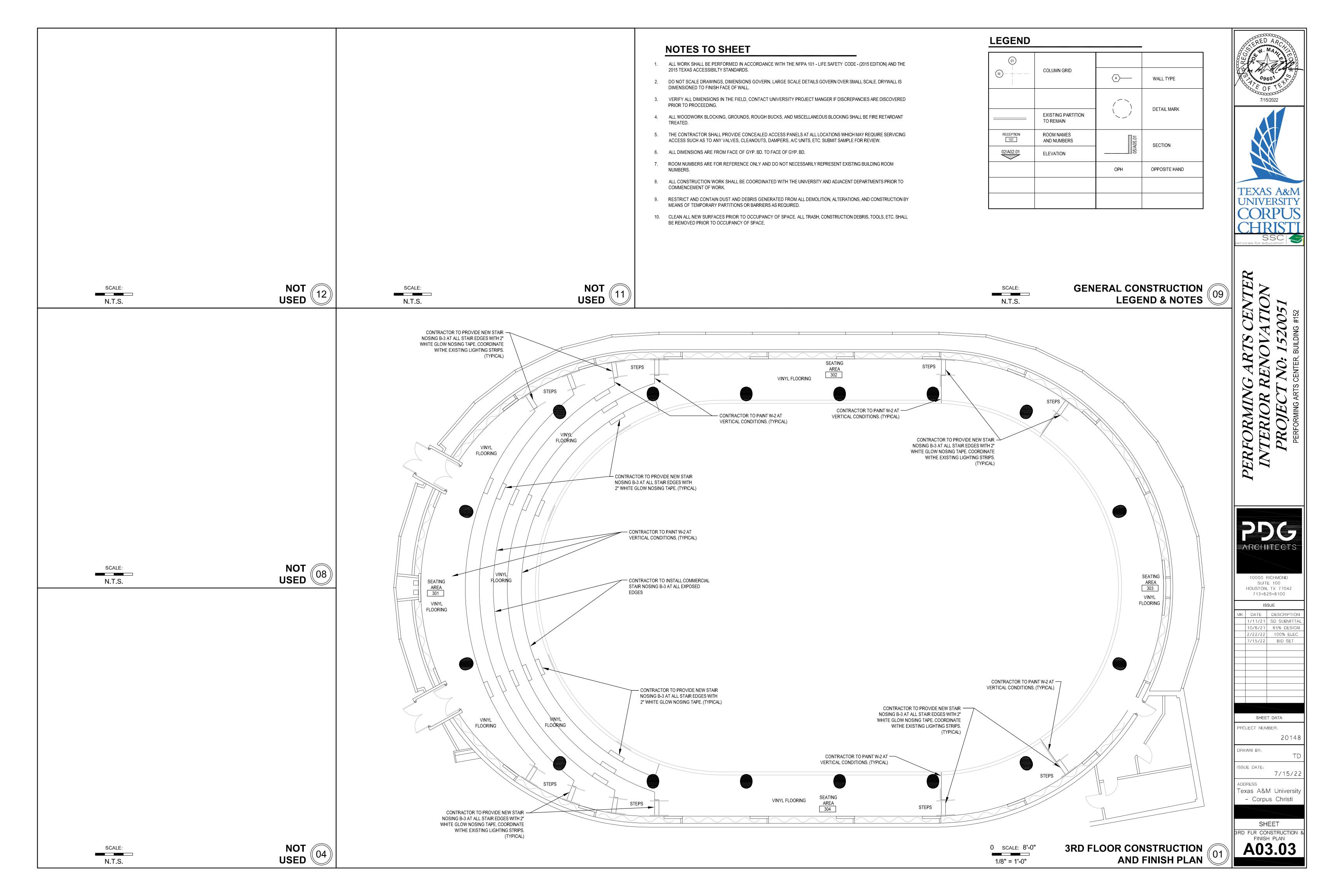


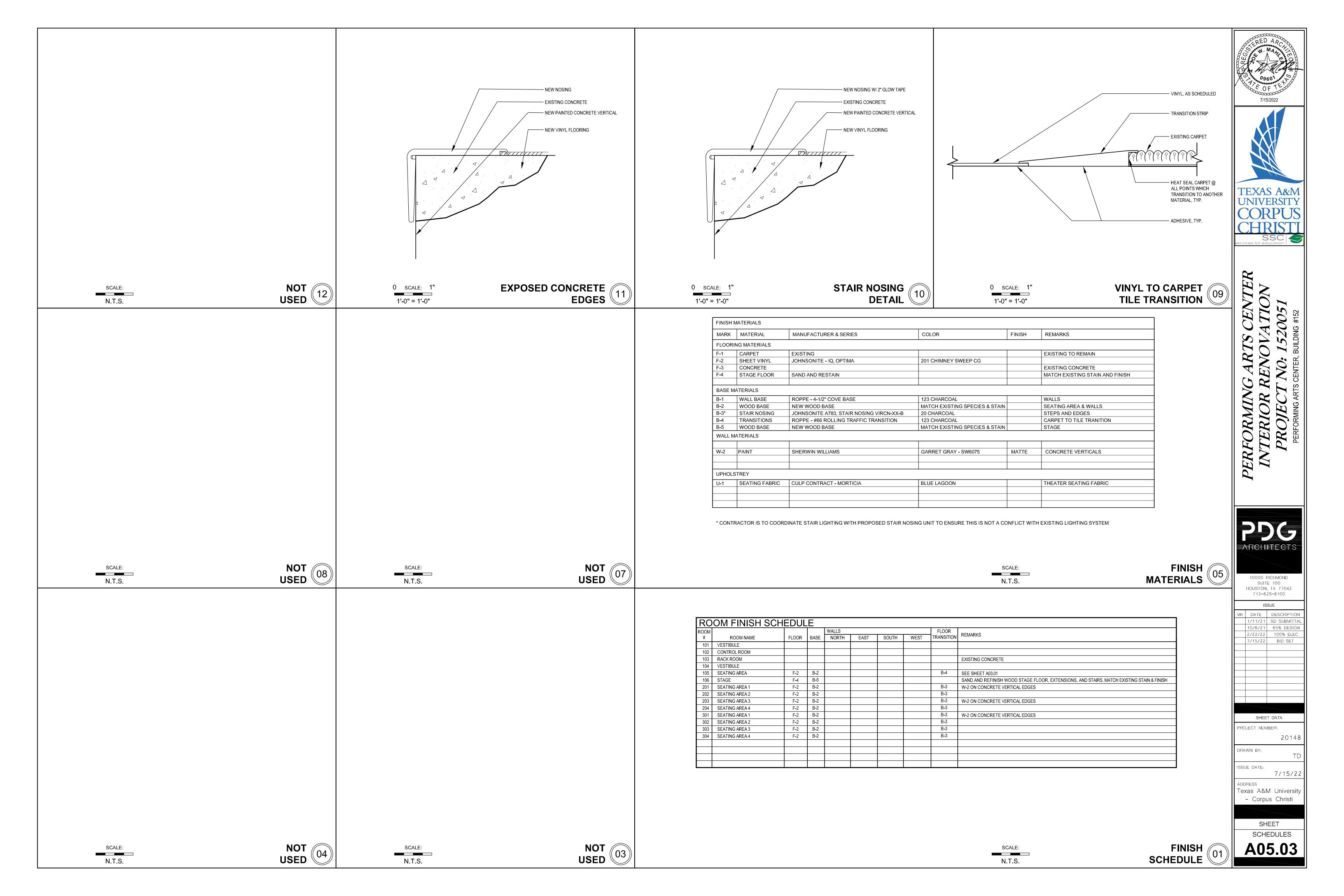
10000 RICHMOND HOUSTON, TX 77042 713-629-6100

MK DATE DESCRIPTION 1/11/21 SD SUBMITTA 10/6/21 65% DESIGN 2/22/22 100% ELEC 7/15/22 BID SET

20148

Texas A&M University





(E) , E	EXISTING TO REMAIN
(N) , N (R) , R	NEW RELOCATED
Α	AMPERES
A.F.F, AFF A.I.C, AIC	ABOVE FINISHED FLOOR AMPERE INTERRUPTING CAPACITY
A.T.S, ATS	AUTOMATIC TRANSFER SWITCH
A/V ACCU	AUDIO VISUAL AIR COOLED CONDENSING UNIT
AF AHU	AMPERES FUSE AIR-HANDLING UNIT
AL	ALUMINUM
ANN AT/AF	ANNUNICIATOR AMPERES TRIP/AMPERES FRAME
AWG	AMERICAN GAUGE WIRE
BMS BS	BUILDING MANAGEMENT SYSTEM BRANCH SELECTOR
C.T.B, CTB	CABLE TAP BOX
C.U, CU CATV	CONDENSING UNIT (MECHANICAL EQUIPMENT) CABLE ANTENNA TELEVISION
CB CCTV	CIRCUIT BREAKER
CFCI	CLOSED CIRCUIT TELEVISION CONTRACTOR FURNISHED CONTRACTOR INSTALLED
CH CHWP	CHILLER CHILLED WATER PUMP
CKT	CIRCUIT
CLG CRAC	CEILING COMPUTER ROOM AIR-HANDLING UNIT
CU	COPPER (CONDUCTOR MATERIAL)
D.A.S., DAS	CONDENSER WATER PUMP DIGITAL ANTENNA SYSTEM
D.S., DS	DISCONNECT SWITCH
DISC	DISCONNECT DOUBLE POLE SINGLE THROW
DPDT	DOUBLE POLE DOUBLE THROW
DPST DW	DOUBLE POLE SINGLE THROW DISHWASHER
DWG EC	DRAWING EMPTY CONDUIT
ECB	ENCLOSED CIRCUIT BREAKER
EDF EF	ELECTRIC DRINKING FOUNTAIN EXHAUST FAN
ELEV	ELEVATOR
EMS	EMERGENCY ENERGY MANAGEMENT SYSTEM
EMT	ELECTRICAL METALLIC CONDUIT
EQPT, EQPMT, EQUIP	EQUIPMENT
ERU EUH	ENERGY RECOVERY UNIT ELECTRIC UNIT HEATER
EWC	ELECTRIC WATER COOLER
EWH F.A., FA	ELECTRIC WATER HEATER FIRE ALARM
F.L.C., FLC	FULL LOAD CURRENT
FBO FCU	FURNISHED BY OTHERS FAN COIL UNIT
FMC FPTU	FLEXIBLE METAL CONDUIT FAN POWERED TERMINAL UNIT
FSD	FREQUENCY SPEED DRIVE
GFCI, GFI GND., G.	GROUND FAULT CIRCUIT INTERRUPTER GROUND
GYP. BD.	GYPSUM BOARD
HID HP	HIGH INTENSITY DISCHARGE HEAT PUMP (MECHANICAL EQUIPMENT)
HP, hp HTR	HORSEPOWER HEATER
HVAC	HEATING, VENTILATION, AND AIR-CONDITIONING
HWCP IDF	HOT WATER CIRCULATING PUMP INTERMEDIATED DISTRIBUTION FRAME
IG	ISOLATED GROUND
JB KAIC	JUNCTION BOX KILOAMPERE INTERRUPTING CAPACITY
kcmil, MCM	THOUSAND CIRCULAR MIL
kV, KV kVA, KVA	KILOVOLT- KILOVOLT-AMPERE
kW, KW	KILOWATT
LC	LIGHTING CONTACTOR LIGHTING
M.C.A., MCA M.C.B., MCB	MINIMUM CIRCUIT AMPACITY MAIN CIRCUIT BREAKER
M.C.C., MCC	MOTOR CONTROL CENTER
M.LO., MLO M.T.S., MTS	MAIN LUG ONLY MANUAL TRANSFER SWITCH
MAU, MAHU	MAKE-UP AIR-HANDLING UNIT
MC MDF	METAL CLAD MAIN DISTRIBUTION FRAME
MECH	MECHANICAL
MTD MTG	MOUNTED MOUNTING
MW	MICROWAVE
N.C., NC N.E.C., NEC	NORMALLY CLOSED NATIONAL ELECTRICAL CODE
N.I.C., NIC N.O., NO	NOT IN CONTRACT NORMALLY OPEN
N.T.S., NTS	NOT TO SCALE
NEMA NF	NATIONAL EQUIPMENT MANUFACTURER'S ASSOCIATION NON-FUSED
OAHU	OUTSIDE AIR-HANDLING UNIT
OFCI OFOI	OWNER FURNISHED CONTRACTOR INSTALLED OWNER FURNISHED OWNER INSTALLED
Р	POLE
PC PH	PHOTOCELL PHASE
PNL	PANEL/PANELBOARD
PNLBD PVC	PANELBOARD POLYVINAL CHLORIDE
RAC	RIGID ALUMINUM CONDUIT
RCP RSC	RECIRCULATING PUMP RIGID STEEL CONDUIT
RTU	ROOF TOP UNIT
SCCR SHT	SHORT-CIRCUIT CURRENT RATING SHEET
SP	SUMP PUMP
SPD SPDT	SURGE PROTECTIVE DEVICE SINGLE POLE DOUBLE THROW
	SPECIFICATION

ELE	CTRICAL ABBREVIATIONS
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
TC	TIMECLOCK
TEL	TELEPHONE
TR	TAMPER RESISTANT
TTB	TELEPHONE TERMINAL BOARD
TV	TELEVISIONS
TYP, (TYP)	TYPICAL
U.C., UC	UNDERCOUNDER
U.G., UG	UNDERGROUND
U.N.O., UNO	UNLESS NOTED OTHERWISE
UH	UNIT HEATER
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLTS
VA	VOLT AMPERES
VAV	VARIABLE AIR VOLUME
VFD	VARIABLE FREQUENCY DRIVE
VRF	VARIABLE REFRIGERANT FLOW
W	WIRE
WG	WIRE GUARD
WP	WEATHERPROOF
WSHP	WATER SOURCE HEAT PUMP
XFMR	TRANSFORMER

SYMBOLS	FIRE ALARM DESCRIPTION							
FACP	FIRE ALARM CONTROL PANEL.							
FAAP	FIRE ALARM ANNUNCIATOR PANEL.							
FEP	FIRE ALARM REMOTE POWER SUPPLY.							
DAS	DIGITAL ANTENNA SYSTEM.							
CL	A.D.A. COMPLIANT CEILING MOUNTED FIRE ALARM VISUAL SIGNAL DEVICE.							
	A.D.A. COMPLIANT WALL MOUNTED FIRE ALARM VISUAL STROBE DEVICE.							
CL	CEILING MOUNTED FIRE ALARM AUDIBLE SIGNAL.							
	WALL MOUNTED FIRE ALARM AUDIBLE SIGNAL.							
F	FIRE ALARM PULL STATION.							
CL	A.D.A. COMPLIANT CEILING MOUNTED COMBINATION AUDIBLE/VISUAL SIGNAL DEVICE.							
▼ F	FIREMAN'S TELEPHONE JACK.							
<u>(S)</u>	SMOKE DETECTOR.							
Θ	HEAT DETECTOR.							
$\bigcirc_{\overline{X}}$	DUCT SMOKE DETECTOR.							
⟨CM⟩	FIRE ALARM CONTROL MODULE.							
<mm></mm>	FIRE ALARM MONITOR MODULE							
FS	FIRE ALARM SPRINKLER WATER FLOW SWITCH.							
TS FIRE ALARM SPRINKLER TAMPER SWITCH.								
L	COMBINATION MOTOR STARTER							
	PANELBOARD - FLUSH MOUNTED							
	PANELBOARD - SURFACE MOUNTED							
CR	CARD READER. REFERENCE SECURITY CONSULTANT'S DRAWINGS FOR EXAC ROUGH-IN REQUIREMENTS.							
Ĵ	JUNCTION BOX, MOUNTED ABOVE CEILING OR FLUSH IN WALL, UNLESS NOTED OTHERWISE.							
	SURFACE MOUNTED RACEWAY. REFERENCE DRAWINGS FOR RACEWAY TYPE REQUIRED. REFERENCE ARCHITECTURAL DRAWINGS FOR ADDITIONAL DETAILS FOR RACEWAY INSTALLATION.							
	RACEWAY CAPPED.							
	RACEWAY CONTINUATION.							
	SINGLE PHASE MOTOR.							
/①/	THREE PHASE MOTOR.							
VFD	VARIABLE FREQUENCY DRIVE.							
GAP	REMOTE GENERATOR ANNUNCIATOR PANEL.							

	LIGHTING LEGEND
SYMBOLS	DESCRIPTION
\square_{X}^{x}	2'x2' LUMINAIRE. UPPERCASE SYMBOL ADJACENT TO LUMINAIRE DENOTES FIXTURE TYPE. WHERE NOTED, LOWER CASE SYMBOL ADJACENT TO LUMINAIRE DENOTES LIGHTING CONTROL DEVICE SERVING LUMINAIRE. REFER TO LUMINAIRE SCHEDULE FOR FIXTURE SPECIFICATIONS AND MOUNTING.
\square_X^x	2'x4' LUMINAIRE. UPPERCASE SYMBOL ADJACENT TO LUMINAIRE DENOTES FIXTURE TYPE. WHERE NOTED, LOWER CASE SYMBOL ADJACENT TO LUMINAIRE DENOTES LIGHTING CONTROL DEVICE SERVING LUMINAIRE. REFER TO LUMINAIRE SCHEDULE FOR FIXTURE SPECIFICATIONS AND MOUNTING.
x	1'x4' LUMINAIRE. UPPERCASE SYMBOL ADJACENT TO LUMINAIRE DENOTES FIXTURE TYPE. WHERE NOTED, LOWER CASE SYMBOL ADJACENT TO LUMINAIRE DENOTES LIGHTING CONTROL DEVICE SERVING LUMINAIRE. REFER TO LUMINAIRE SCHEDULE FOR FIXTURE SPECIFICATIONS AND MOUNTING.
\bigcirc_X^X	DOWNLIGHT. UPPERCASE SYMBOL ADJACENT TO LUMINAIRE DENOTES FIXTURE TYPE. WHERE NOTED, LOWER CASE SYMBOL ADJACENT TO LUMINAIRE DENOTES LIGHTING CONTROL DEVICE SERVING LUMINAIRE. REFER TO LUMINAIRE SCHEDULE FOR FIXTURE SPECIFICATIONS AND MOUNTING.
Ôx	WALLWASHER. UPPERCASE SYMBOL ADJACENT TO LUMINAIRE DENOTES FIXTURE TYPE. WHERE NOTED, LOWER CASE SYMBOL ADJACENT TO LUMINAIRE DENOTES LIGHTING CONTROL DEVICE SERVING LUMINAIRE. REFER TO LUMINAIRE SCHEDULE FOR FIXTURE SPECIFICATIONS AND MOUNTING.
x	STRIP LUMINAIRE. UPPERCASE SYMBOL ADJACENT TO LUMINAIRE DENOTES FIXTURE TYPE. WHERE NOTED, LOWER CASE SYMBOL ADJACENT TO LUMINAIRE DENOTES LIGHTING CONTROL DEVICE SERVING LUMINAIRE. REFER TO LUMINAIRE SCHEDULE FOR FIXTURE SPECIFICATIONS AND MOUNTING.
^x	COVE LUMINAIRE. UPPERCASE SYMBOL ADJACENT TO LUMINAIRE DENOTES FIXTURE TYPE. WHERE NOTED, LOWER CASE SYMBOL ADJACENT TO LUMINAIRE DENOTES LIGHTING CONTROL DEVICE SERVING LUMINAIRE. REFER TO LUMINAIRE SCHEDULE FOR FIXTURE SPECIFICATIONS AND MOUNTING. REFERENCE ARCHITECTURAL DRAWINGS FOR EXACT COVE LIGHTING LENGTH(S).
<u> </u>	TRACK LIGHTING. UPPERCASE SYMBOL ADJACENT TO LUMINAIRE DENOTES FIXTURE TYPE. WHERE NOTED, LOWER CASE SYMBOL ADJACENT TO LUMINAIRE DENOTES LIGHTING CONTROL DEVICE SERVING LUMINAIRE. REFER TO LUMINAIRE SCHEDULE FOR FIXTURE SPECIFICATIONS AND MOUNTING. REFERENCE ARCHITECTURAL DRAWINGS FOR EXACT TRACK LIGHTING LENGTH(S).
• _X	EXIT SIGN. UPPERCASE SYMBOL ADJACENT TO LUMINAIRE DENOTES FIXTURE TYPE. WHERE NOTED REFER TO LUMINAIRE SCHEDULE FOR FIXTURE SPECIFICATIONS AND MOUNTING. REFERENCE ELECTRICAL PLANS FOR NUMBER OF FACES AND DIRECTIONAL CHEVRONS.
$X \otimes_X^{x}$	EMERGENCY LIGHTING LUMINAIRE CONNECTED TO EMERGENCY POWER SOURCE. UPPERCASE SYMBOL ADJACENT TO LUMINAIRE DENOTES FIXTURE TYPE. REFER TO LUMINAIRE SCHEDULE FOR FIXTURE SPECIFICATIONS AND MOUNTING. REFERENCE ELECTRICAL LIGHTING PLANS FOR EMERGENCY POWER SOURCE SERVING FIXTURE.
₩x	EMERGENCY LUMINAIRE EQUIPPED WITH 90-MINUTE EMERGENCY BATTERY BACK- UP. REFER TO LUMINAIRE SCHEDULE FOR FIXTURE SPECIFICATIONS AND MOUNTING.
\$	SINGLE POLE SWITCH
\$3	THREE WAY SWITCH
\$ <u>4</u> \$k	FOUR WAY SWITCH SINGLE POLE SWITCH KEY OPERATED
\$D	DIMMER SWITCH
\$ıT_	INTERVAL TIMER CONTROL SWITCH
\$P	SINGLE POLE SWITCH WITH PILOT LIGHT OCCUPANCY SENSOR SWITCH
⇒os \$vs	VACANCY SENSOR SWITCH
 \$M	MOTOR RATED SWITCH
•	PUSH BUTTON SWITCH (MUSHROOM BUTTON)
(ELO)	EMERGENCY LIGHTING CONTROLLER: UL924 EMERGENCY LIGHTING RELAY
	DAYLIGHT SENSOR
<u>os</u>	OCCUPANCY SENSOR - CEILING MOUNT
VS	VACANCY SENSOR - CEILING MOUNT
PP	POWER PACK/ROOM CONTROLLER
SYMBOLS	POWER
	DESCRIPTION DUDI BY DESCRIPTION S. AMERICAN DE CONTROL TYPE
Ф	DUPLEX RECEPTACLE; 125V, 20 AMP, 3-WIRE GROUNDED TYPE [NEMA 5-20R].
GFCI	GROUND FAULT CIRCUIT INTERRUPTER DUPLEX RECEPTACLE; 125V, 20 AMP, 3-WIRE GROUNDED TYPE [NEMA 5-20R].
⊕GFCI WP	120V. QUADPLEX RECEPTACLE - (REFER TO RECEPTACLE ABBREVIATIONS FOR EXCEPTIONS)
\oplus^{S}	SWITCHED DUPLEX RECEPTACLE; 125V, 20 AMP, 3-WIRE GROUNDED TYPE [NEMA 5-20R] CONTROLLED WITH LIGHTING CONTROL SERVING AREA.
⊕ ^{TR}	TAMPER RESISTANT DUPLEX RECEPTACLE; 125V, 20 AMP, 3-WIRE GROUNDED TYPE [NEMA 5-20R]
⊕AC	DUPLEX RECEPTACLE LOCATED ABOVE COUNTER; 125V, 20 AMP, 3-WIRE GROUNDED TYPE [NEMA 5-20R]. REFERENCE ARCHITECTURAL DRAWINGS AND DETAILS FOR MOUNTING HEIGHT AND RECEPTACLE ORIENTATION.
#	QUADRAPLEX RECEPTACLE GANGED UNDER A COMMON COVERPLATE; (2) 125V, 20 AMP, 3-WIRE GROUNDED TYPE [(2)NEMA 5-20R]
φ	SPECIAL PURPOSE RECEPTACLE. REFERENCE DRAWINGS FOR VOLTAGE, AMPERES, PHASE, AND NEMA CONFIGURATION.
	CEILING MOUNTED DUPLEX RECEPTACLE; 125V, 20 AMP, 3-WIRE GROUNDED
	TYPE [NEMA 5-20R]. CEILING MOUNTED QUADRAPLEX RECEPTACLE GANGED UNDER A COMMON
	COVERPLATE; (2) 125V, 20 AMP, 3-WIRE GROUNDED TYPE [(2)NEMA 5-20R] FLUSH MOUNTED FLOOR BOX/POKE-THROUGH DEVICE EQUIPPED WITH ELECTRICAL
•	RECEPTACLE(S) AND VOICE/DATA CAPABILITIES. REFERENCE DRAWINGS FOR FLOOR BOX/POKE-THROUGH DEVICE TYPE REQUIRED. REFERENCE ARCHITECTURAL DRAWINGS FOR DIMENSIONAL INFORMATION IDENTIFYING EXACT LOCATION.
•	TELEPHONE OUTLET. FURNISH AND INSTALL SINGLE GANG JUNCTION BOX, MUD RING, AND 1" CONDUIT WITH PULLSTRING ROUTED TO AN ACCESSIBLE LOCATION ABOVE CEILING. INSTALL NYLON BUSHING ON END OF CONDUIT.
	WALL MOUNTED TELEPHONE OUTLET. FURNISH AND INSTALL SINGLE GANG JUNCTION BOX, SINGLE GANG MUD RING, AND 1" CONDUIT WITH PULLSTRING ROUTED TO AN ACCESSIBLE LOCATION ABOVE CEILING. INSTALL NYLON BUSHING ON END OF CONDUIT.
▼W	
▼ W	DATA OUTLET. FURNISH AND INSTALL DOUBLE GANG JUNCTION BOX, MUD RING, AND 1" CONDUIT WITH PULLSTRING ROUTED TO AN ACCESSIBLE LOCATION ABOVE CEILING. INSTALL NYLON BUSHING ON END OF CONDUIT. COMBINATION VOICE/DATA OUTLET. REFERENCE VOICE/DATA CONSULTANT'S DRAWINGS

ELECTRICAL SYMBOLS LEGEND

ELECTRICAL GENERAL NOTES

- 1 THE SPECIFICATIONS SHALL APPLY TO ALL WORK SHOWN ON THIS DRAWING, UNLESS OTHERWISE INDICATED.
- ALL ELECTRICAL WORK METHODS AND INSTALLATIONS SHALL BE IN ACCORDANCE WITH APPLICABLE LOCAL CODES AND ORDINANCES, THE EDITION OF THE NATIONAL ELECTRICAL CODE (N.E.C.) IN EFFECT, STANDARDS, BUILDING AND INSPECTION REGULATION OF ALL OFFICIALS HAVING JURISTICTION. WORK SHALL BE EXECUTED BY EXPERIENCED ELECTRICIANS WHO ARE LICENSED IN THE JURIDICTION WHERE THE PROJECT IS LOCATED. ALL INSTALLATIONS SHALL BE IN A WORKMANLIKE MANNER.
- PRIOR TO COMMENCEMENT OF WORK, SECURE ALL NECESSARY PERMITS, PAY LEGAL FEES AND COMPLY WITH ALL NATIONAL, STATE AND MUNICIPAL LAWS, CODES AND ORDINANCES RELATING TO BUILDING AND PUBLIC SAFETY. ELECTRICAL CONTRACTOR SHALL OBTAIN REQUIRED PERMITS AND PAY ALL FEES.
- THE CONTRACTOR SHALL INCLUDE IN THE WORK, WITHOUT EXTRA COST, ANY LABOR, MATERIALS, SERVICES, APPARATUS, AND DRAWINGS IN ADDITION TO CONTRACT DOCUMENTS, IN ORDER TO COMPLY WITH ALL APPLICABLE LAWS, INDICATED AND/OR SPECIFIED. PROVIDE ALL ELECTRICAL EQUIPMENT WITH ALL NECESSARY ASSOCIATED ACCESSORIES AND CONDUIT INFRASTRUCTURE AS REQUIRED TO ENSURE A COMPLETE AND OPERATIONAL SYSTEM AT NO ADDITIONAL COST TO
- IN THE EVENT OF A CONFLICT BETWEEN THE DRAWINGS AND SPECIFICATIONS, THE GREATER AMOUNT OF WORK SHALL BE PRICED. BRING THE CONFLICT TO THE ATTENTION OF THE ENGINEER AND REQUEST DIRECTION PRIOR TO SUBMITTING BID.
- IF MATERIAL OR EQUIPMENT IS INSTALLED BEFORE IT IS APPROVED, THE CONTRACTOR SHALL BE LIABLE FOR ITS REMOVAL AND REPLACEMENT AT NO ADDITIONAL CHARGE OR IF IN THE OPINION OF THE ARCHITECT OR ENGINEER, THE MATERIAL OR EQUIPMENT DOES NOT MEET THE INTENT OF THE DRAWINGS AND SPECIFICATIONS.
- 7 REFER TO ARCHITECTURAL DRAWINGS FOR EXACT QUANTITY AND LOCATION OF LUMINAIRES PRIOR TO SUBMITTING BID AND COMMENCEMENT OF WORK. REPORT ANY DISCREPANCIES TO THE ARCHITECT IMMEDIATELY. LUMINAIRES SHALL BE INDIVIDUALLY SUPPORTED FROM THE STRUCTURAL FRAMING MEMBERS ABOVE.
- VERIFY DOOR SWINGS PRIOR TO INSTALLING LIGHTING CONTROL(S). LIGHTING CONTROL(S) SHALL NOT BE INSTALLED IN LOCATION WHERE THE DOOR WILL CONFLICT WITH ACCESSIBILITY OF OPERATION OF CONTROL(S). GANG ALL SWITCHES SHOWN TO BE INSTALLED AT SAME LOCATION UNDER A SINGLE COVER PLATE. PROVIDE BARRIERS IN SWITCH BOX, AS REQUIRED, TO SEPARATE 120V CIRCUITS FROM 277V CIRCUITS AND 277V CIRCUITS OF DIFFERENT PHASE.
- 120V CIRCUITS FROM 277V CIRCUITS AND 277V CIRCUITS OF DIFFERENT PHASE.

 9 REFER TO ARCHITECTURAL DRAWINGS FOR EXACT HEIGHT AND LOCATION OF ALL FLOOR AND WALL RECEPTACLES. REFER TO ARCHITECTURAL DRAWINGS FOR VERTICAL OR HORIZONTAL INSTALLATION OF ALL RECEPTACLES.
- DATA/TELEPHONE CABLE IN RETURN AIR PLENUM SHALL BE PLENUM RATED OR INSTALLED IN CONDUIT. ALL DATA/TELEPHONE OUTLETS SHALL BE PROVIDED WITH PULL STRINGS.
 CONTRACTOR SHALL LOCATE ALL ELECTRICAL AND TELEPHONE OUTLETS WITHIN THE LIMITS OF THE TENANT FURNITURE PLAN PROVIDED BY THE ARCHITECT. CONTRACTOR SHALL MARK INTENDED LOCATION OF ALL RECEPTACLES PRIOR TO INSTALLATION, THEN SHALL NOTIFY ARCHITECT AND OWNER FOR APPROVAL BEFORE PROCEEDING.
- 12 INSTALLATION OF EQUIPMENT, COMPONENTS AND WIRING FOR ELECTRICAL SYSTEMS SHALL BE IN ACCORDANCE WITH REQUIREMENTS OF EQUIPMENT MANUFACTURER.
- DELIVER PRODUCTS TO PROJECT SITE IDENTIFIED WITH NAMES, MODEL NUMBERS, TYPES, GRADES, COMPLIANCE LABELS, AND OTHER INFORMATION NEEDED FOR DISTINCT IDENTIFICATION; ADEQUATELY PACKAGED AND PROTECTED TO PREVENT DAMAGE DURING SHIPMENT, STORAGE, AND HANDLING. PROTECT STORED EQUIPMENT AND MATERIALS FROM DAMAGE. COMPLY WITH MANUFACTURER'S RIGGING AND MOVING INSTRUCTIONS FOR UNLOADING EQUIPMENT AND MOVING INTO FINAL LOCATION.
- 14 CONTRACTOR TO COORDINATE WITH MECHANICAL, PLUMBING AND OTHER TRADES TO PROVIDE ALL EQUIPMENT ASSOCIATED WITH THEIR RESPECTIVE TRADES WITH NECESSARY WIRING AND CONDUIT INFRASTRUCTURE FOR ALL SENSORS, AND CONTROL SYSTEMS, AS REQUIRED.
- 15 CONTRACTOR TO COORDINATE ELECTRICAL WORK TO AVOID INTERFERENCE BETWEEN ALL OTHER
- 16 CONTRACTOR SHALL NOTIFY OWNER OF ANY REQUIRED SHUT DOWNS AND COORDINATE THESE WITH OWNER. DOWNTIME SHALL BE HELD TO A MINIMUM.
- 17 CONTRACTOR SHALL PROVIDE NEW TYPED CIRCUIT DIRECTORY CARD AT PANELS. CIRCUITS SHALL BE LABELED TO CORRESPOND TO THE CIRCUITS SHOWN ON THE DRAWINGS.
- PROTECT EQUIPMENT AND WORK FROM DAMAGE DURING HANDLING AND INSTALLATION UNTIL COMPLETION OF PROJECT, DOWNTIME SHALL BE HELD TO A MINIMUM
- COMPLETION OF PROJECT. DOWNTIME SHALL BE HELD TO A MINIMUM.

 19 REMOVE ALL EXCESS MATERIAL AND DEBRIS FROM SITE. ALL EQUIPMENT SHALL BE CLEANED
- UPON COMPLETION OF WORK.

 20 ALL SYSTEMS SHALL BE COMPLETE AND WORKING AT COMPLETION OF CONSTRUCTION. TEST AND ADJUST EQUIPMENT AND SYSTEMS INSTALLED AND DEMONSTRATE PROPER OPERATION TO OWNER'S REPRESENTATIVE. NO EQUIPMENT SHALL BE TESTED OR OPERATED FOR ANY PURPOSE UNTIL IT HAS BEEN FULLY PREPARED FOR OPERATION IN ACCORDANCE WITH MANUFACTURER'S
- FURNISH OWNER WITH COMPLETE OPERATING MANUALS AND INSTRUCTIONS FOR ALL EQUIPMENT FURNISHED UNDER THIS CONTRACT.
- FURNISH A COMPLETE SET OF "RECORD DRAWINGS" RELECTING AS INSTALLED CONDITIONS.

 "RECORD DRAWINGS" SHALL INDICATE ALL INSTALLED CONDITIONS OF SYSTEMS WITHIN THIS
 DISCIPLINE. DRAWINGS SHALL BE OF SIMILAR SCALE AS THE CONSTRUCTION DOCUMENTS AND
 INCLUDE DETAILS AS NECESSARY TO CLEARLY REFLECT THE INSTALLED CONDITION. DRAWINGS
 SHALL BE IN A COMPLETE AND CONSECUTIVE SET. SUPPLEMENTAL SKETCHES AND LOOSE
 PAPERWORK WILL NOT BE ACCEPTABLE. THE CONTRACTOR SHALL COMPLY WITH THE ENGINEERS
 COMMENTS TO PRODUCE A CLEAR AND CONCISE SET OF DRAWINGS. DRAWINGS SHALL BE
 SUBMITTED IN BOTH HARD COPY AND ELECTRONIC (AS REQUIRED BY OWNER) FORMATS.

IECC-2015

IECC - 2015
C408.3 LIGHTING SYSTEM FUNCTIONAL TESTING. CONTROLS FOR AUTOMATIC LIGHTING SYSTEMS SHALL COMPLY WITH THIS SECTION.

C408.3.1 FUNCTIONAL TESTING.

PRIOR TO PASSING FINAL INSPECTION, THE REGISTERED DESIGN PROFESSIONAL SHALL PROVIDE EVIDENCE THAT THE LIGHTING CONTROL SYSTEMS HAVE BEEN TESTED TO ENSURE THAT CONTROL HARDWARE AND SOFTWARE ARE CALIBRATED, ADJUSTED, PROGRAMMED AND IN PROPER WORKING CONDITION IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS AND MANUFACTURER'S INSTRUCTIONS. FUNCTIONAL TESTING SHALL BE IN ACCORDANCE WITH SECTIONS C408.3.1.1 AND C408.3.1.2 FOR THE APPLICABLE CONTROL TYPE.

C408.3.1.1 OCCUPANT SENSOR CONTROLS. WHERE OCCUPANT SENSOR CONTROLS ARE PROVIDED, THE FOLLOWING PROCEDURES

SHALL BE PERFORMED:

1. CERTIFY THAT THE OCCUPANT SENSOR HAS BEEN LOCATED AND AIMED IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS.

2. FOR PROJECTS WITH SEVEN OR FEWER OCCUPANT SENSORS, EACH SENSOR SHALL BE

3. FOR PROJECTS WITH MORE THAN SEVEN OCCUPANT SENSORS, TESTING SHALL BE DONE FOR EACH UNIQUE COMBINATION OF SENSOR TYPE AND SPACE GEOMETRY. WHERE MULTIPLES OF EACH UNIQUE COMBINATION OF SENSOR TYPE AND SPACE GEOMETRY ARE PROVIDED, NOT LESS THAN 10 PERCENT, BUT IN NO CASE LESS THAN ONE, OF EACH COMBINATION SHALL BE TESTED UNLESS THE CODE OFFICIAL OR DESIGN PROFESSIONAL REQUIRES A HIGHER PERCENTAGE TO BE TESTED. WHERE 30 PERCENT OR MORE OF THE TESTED CONTROLS FAIL, ALL REMAINING IDENTICAL COMBINATIONS SHALL BE TESTED.

FOR OCCUPANT SENSOR CONTROLS TO BE TESTED, VERIFY THE FOLLOWING: 3.1. WHERE OCCUPANT SENSOR CONTROLS INCLUDE STATUS INDICATORS, VERIFY CORRECT

OPERATION.
3.2. THE CONTROLLED LIGHTS TURN OFF OR DOWN TO THE PERMITTED LEVEL WITHIN THE REQUIRED TIME.

3.3. FOR AUTO-ON OCCUPANT SENSOR CONTROLS, THE LIGHTS TURN ON TO THE PERMITTED LEVEL WHEN AN OCCUPANT ENTERS THE SPACE.
3.4. FOR MANUAL-ON OCCUPANT SENSOR CONTROLS, THE LIGHTS TURN ON ONLY WHEN

MANUALLY ACTIVATED.

3.5. THE LIGHTS ARE NOT INCORRECTLY TURNED ON BY MOVEMENT IN ADJACENT AREAS OR

C408.3.1.2 TIME-SWITCH CONTROLS.

BY HVAC OPERATION.

WHERE TIME-SWITCH CONTROLS ARE PROVIDED, THE FOLLOWING PROCEDURES SHALL BE PERFORMED:

1. CONFIRM THAT THE TIME-SWITCH CONTROL IS PROGRAMMED WITH ACCURATE WEEKDAY, WEEKEND AND HOLIDAY SCHEDULES.
2. PROVIDE DOCUMENTATION TO THE OWNER OF TIME-SWITCH CONTROLS PROGRAMMING

INCLUDING WEEKDAY, WEEKEND, HOLIDAY SCHEDULES, AND SET-UP AND PREFERENCE

PROGRAM SETTINGS.

3. VERIFY THE CORRECT TIME AND DATE IN THE TIME SWITCH.

4. VERIFY THAT ANY BATTERY BACK-UP IS INSTALLED AND ENERGIZED.

5. VERIFY THAT THE OVERRIDE TIME LIMIT IS SET TO NOT MORE THAN 2 HOURS.

6. SIMULATE OCCUPIED CONDITION. VERIFY AND DOCUMENT THE FOLLOWING:

6.1. ALL LIGHTS CAN BE TURNED ON AND OFF BY THEIR RESPECTIVE AREA CONTROL SWITCH.

IS LOCATED.

7. SIMULATE UNOCCUPIED CONDITION. VERIFY AND DOCUMENT THE FOLLOWING:
7.1. NONEXEMPT LIGHTING TURNS OFF.

7.2. MANUAL OVERRIDE SWITCH ALLOWS ONLY THE LIGHTS IN THE ENCLOSED SPACE WHERE THE OVERRIDE SWITCH IS LOCATED TO TURN ON OR REMAIN ON UNTIL THE NEXT SCHEDULED SHUTOFF OCCURS.

3.2. THE SWITCH ONLY OPERATES LIGHTING IN THE ENCLOSED SPACE IN WHICH THE SWITCH

8. ADDITIONAL TESTING AS SPECIFIED BY THE REGISTERED DESIGN PROFESSIONAL.

C408.3.1.3 DAYLIGHT RESPONSIVE CONTROLS.

WHERE DAYLIGHT RESPONSIVE CONTROLS ARE PROVIDED, THE FOLLOWING SHALL BE VERIFIED:

1. CONTROL DEVICES HAVE BEEN PROPERLY LOCATED, FIELD CALIBRATED AND SET FOR ACCURATE SETPOINTS AND THRESHOLD LIGHT LEVELS.

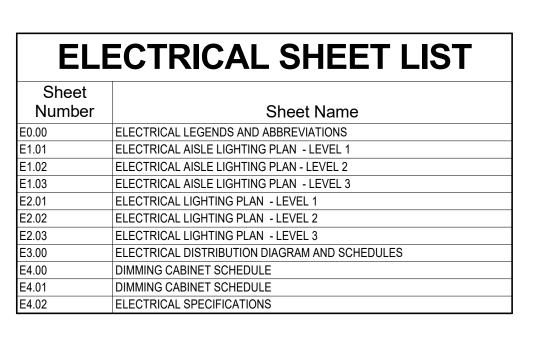
2. DAYLIGHT CONTROLLED LIGHTING LOADS ADJUST TO LIGHT LEVEL SET POINTS IN

RESPONSE TO AVAILABLE DAYLIGHT.

3. THE LOCATIONS OF CALIBRATION ADJUSTMENT EQUIPMENT ARE READILY ACCESSIBLE ONLY TO AUTHORIZED PERSONNEL.

C408.3.2 DOCUMENTATION REQUIREMENTS.

THE CONSTRUCTION DOCUMENTS SHALL SPECIFY THAT DOCUMENTS CERTIFYING THAT THE INSTALLED LIGHTING CONTROLS MEET DOCUMENTED PERFORMANCE CRITERIA OF SECTION C405 ARE TO BE PROVIDED TO THE BUILDING OWNER WITHIN 90 DAYS FROM THE DATE OF RECEIPT OF THE CERTIFICATE OF OCCUPANCY.



KEVIN J. SCHMIDT

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OT.14.2022

Kum J. Schmidt. 07.14.2023

COLLABORATIVE ENGINEERING GROUP 8904 Fairbanks N. Houston, Suite 201

Houston, Texas 77064 281.598.1170 www.collaborative-engr.com Firm No. F12678

PERFORMING ARTS CENTER
INTERIOR RENOVATION
PROJECT NO: 1520051
PERFORMING ARTS CENTER, BUILDING #152

PDG ARCHITECTS

> 10000 RICHMOND SUITE 100 HOUSTON, TX 77042 713-629-6100

ISSUE

MK DATE DESCRIPTION

1/11/21 SD SUBMITTAL

10/6/21 65% DESIGN

2/22/22 100% ELEC

7/14/22 BID SET

SHEET DATA

PROJECT NUMBER:
20148

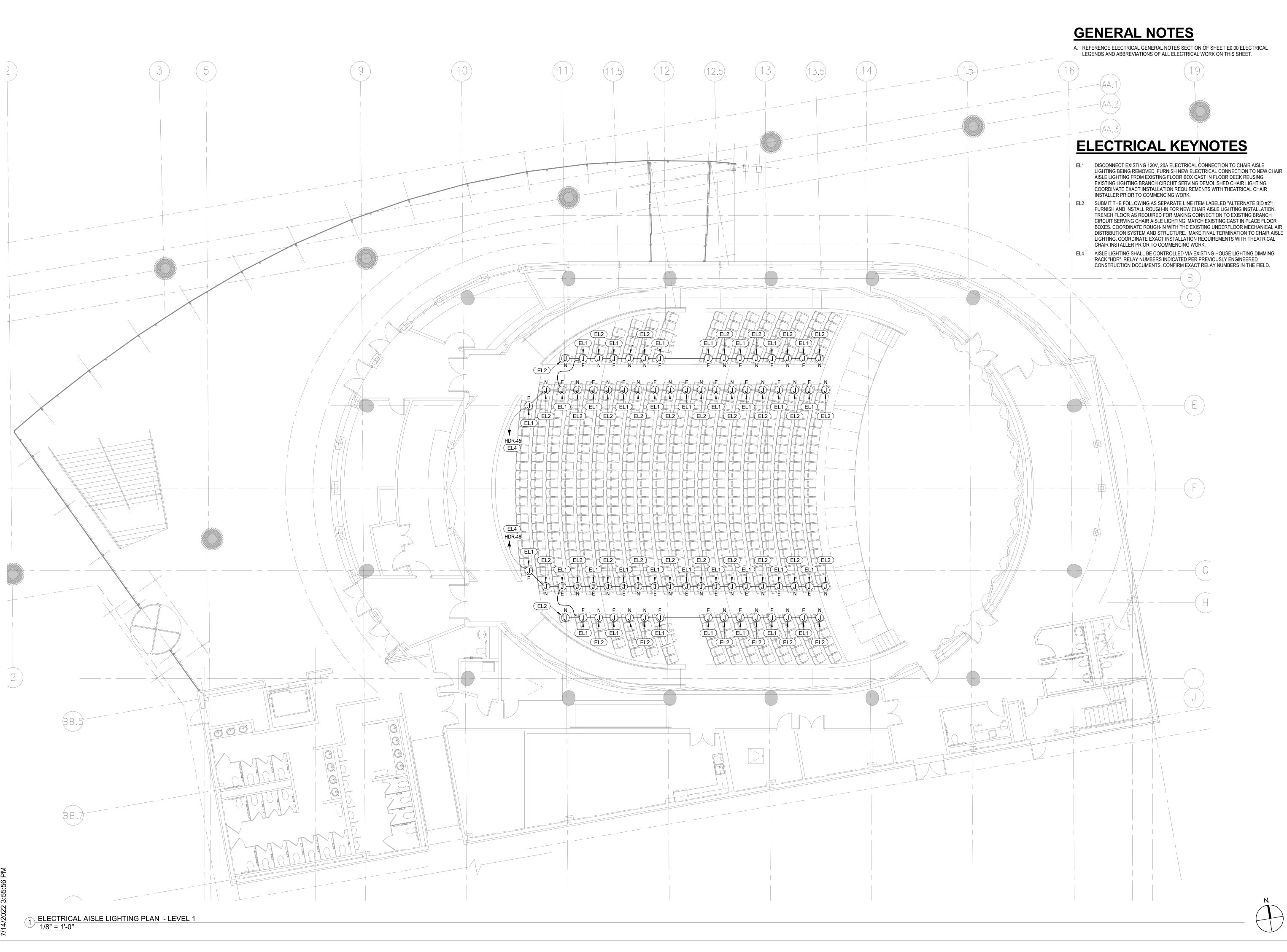
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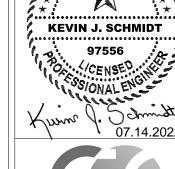
ISSUE DATE: 05/20/22

ADDRESS
Texas A&M University
Corpus Christi

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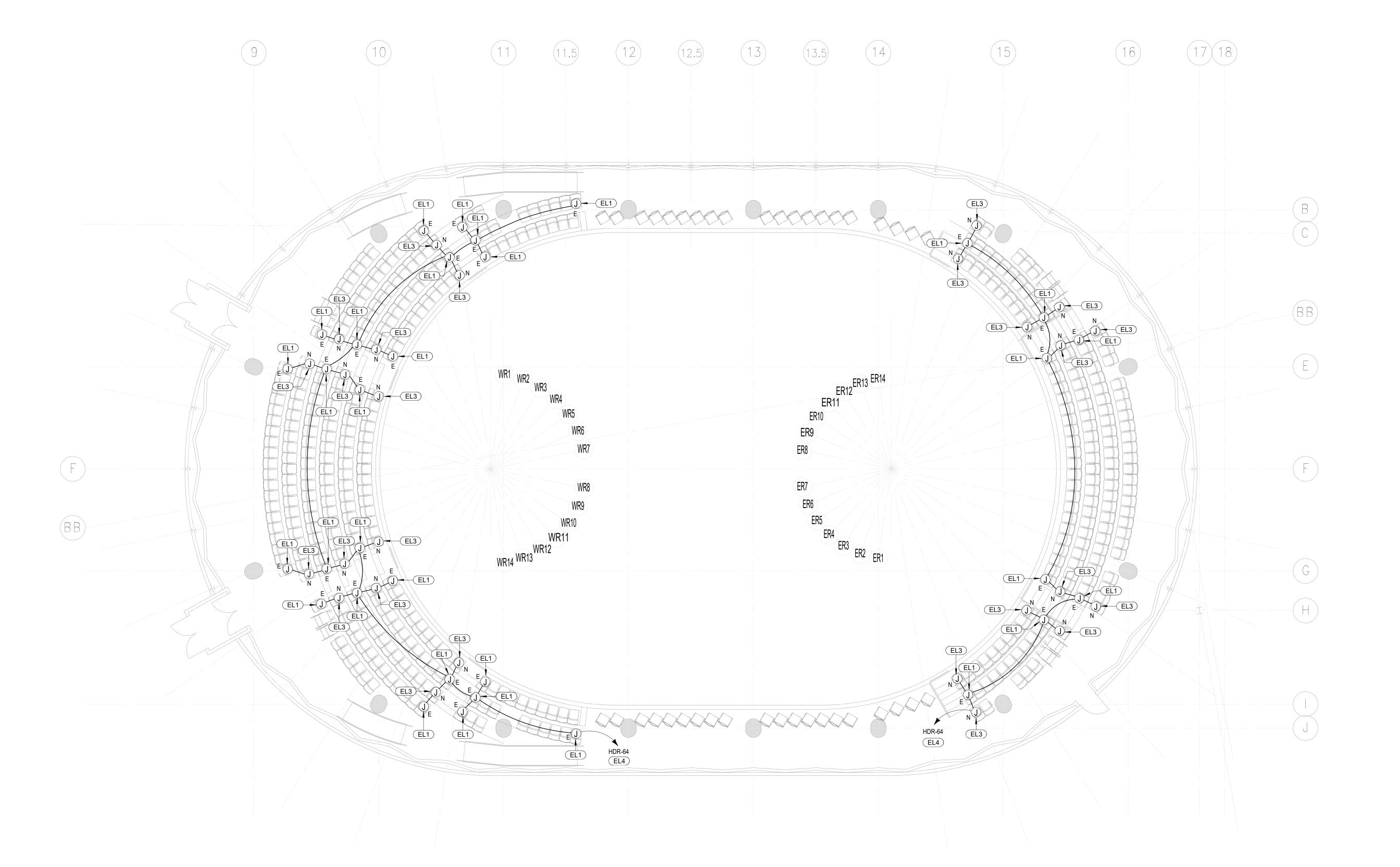
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Texas A&M University
Corpus Christi

E1.01

A. REFERENCE ELECTRICAL GENERAL NOTES SECTION OF SHEET E0.00 ELECTRICAL LEGENDS AND ABBREVIATIONS OF ALL ELECTRICAL WORK ON THIS SHEET.

ELECTRICAL KEYNOTES

- EL1 DISCONNECT EXISTING 120V, 20A ELECTRICAL CONNECTION TO CHAIR AISLE LIGHTING BEING REMOVED. FURNISH NEW ELECTRICAL CONNECTION TO NEW CHAIR AISLE LIGHTING FROM EXISTING FLOOR BOX CAST IN FLOOR DECK REUSING EXISTING LIGHTING BRANCH CIRCUIT SERVING DEMOLISHED CHAIR LIGHTING. COORDINATE EXACT INSTALLATION REQUIREMENTS WITH THEATRICAL CHAIR INSTALLER PRIOR TO COMMENCING WORK.
- EL3 SUBMIT THE FOLLOWING AS SEPARATE LINE ITEM LABELED "ALTERNATE BID #2": FURNISH AND INSTALL ROUGH-IN FOR NEW CHAIR AISLE LIGHTING INSTALLATION. CORE FLOOR AS REQUIRED FOR MAKING CONNECTION TO EXISTING BRANCH CIRCUIT SERVING CHAIR AISLE LIGHTING. COORDINATE ROUGH-IN WITH THE EXISTING STRUCTURE. MAKE FINAL TERMINATION TO CHAIR AISLE LIGHTING. RESTORE FINISHES REMOVED FOR ACCESSING ELECTRICAL CONNECTIONS TO ORIGINAL CONDITION. COORDINATE EXACT INSTALLATION REQUIREMENTS WITH THEATRICAL CHAIR INSTALLER PRIOR TO COMMENCING WORK. RESTORE EXISTING GYP. CEILING BACK TO ITS ORIGINAL CONDITION ON FLOOR BELOW CAUSED BY ANY DAMAGE CREATED BY THE NEW AISLE LIGHTING ELECTRICAL ROUGH-IN.
- AISLE LIGHTING SHALL BE CONTROLLED VIA EXISTING HOUSE LIGHTING DIMMING RACK "HDR". RELAY NUMBERS INDICATED PER PREVIOUSLY ENGINEERED CONSTRUCTION DOCUMENTS. CONFIRM EXACT RELAY NUMBERS IN THE FIELD.





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ISSUE DATE: 05/20/22

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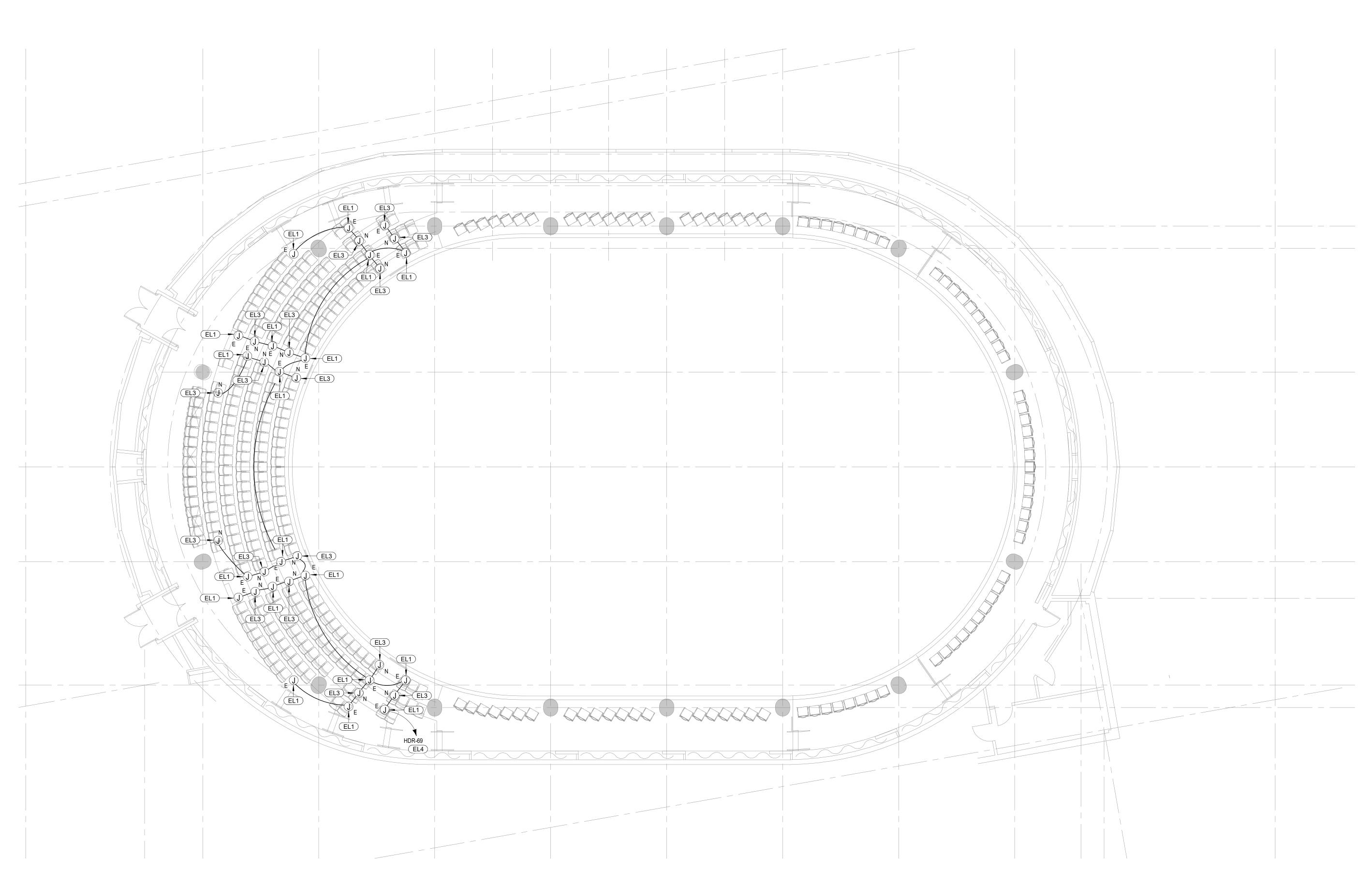
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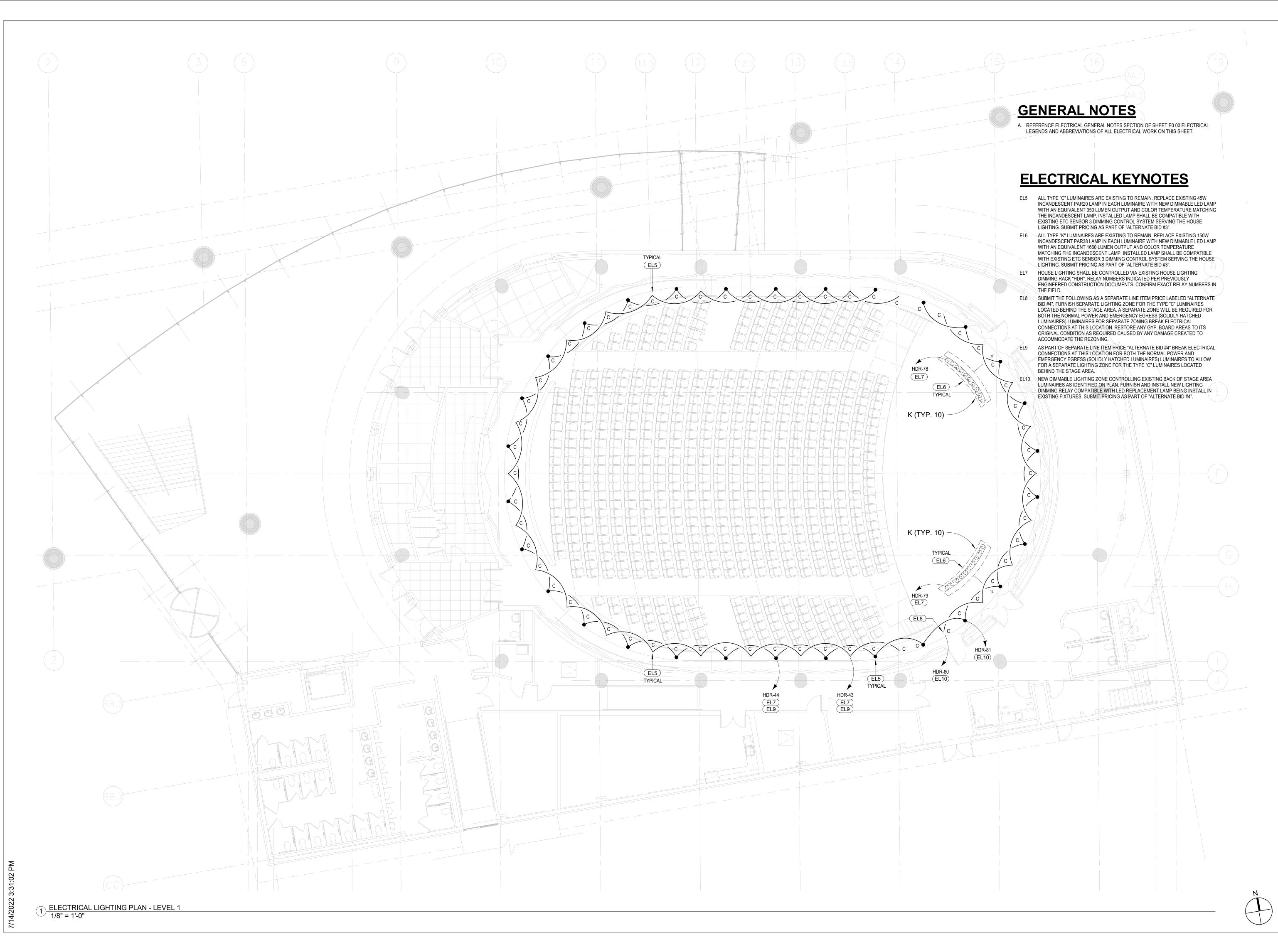
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Texas A&M University Corpus Christi







COLLABORATIVE ENGINEERING GROUP

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8904 Fairbanks N. Houston,

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IOR RENOVATION
JECT NO: 1520051
RMING ARTS CENTER, BUILDING #152



10000 RICHMOND SUITE 100 HOUSTON, TX 77042 713-629-6100

ISSUE

K DATE DESCRIPTION

1/11/21 SD SUBMITTAL

10/6/21 65% DESIGN

2/22/22 100% ELEC

7/14/22 BID SET

SHEET DATA

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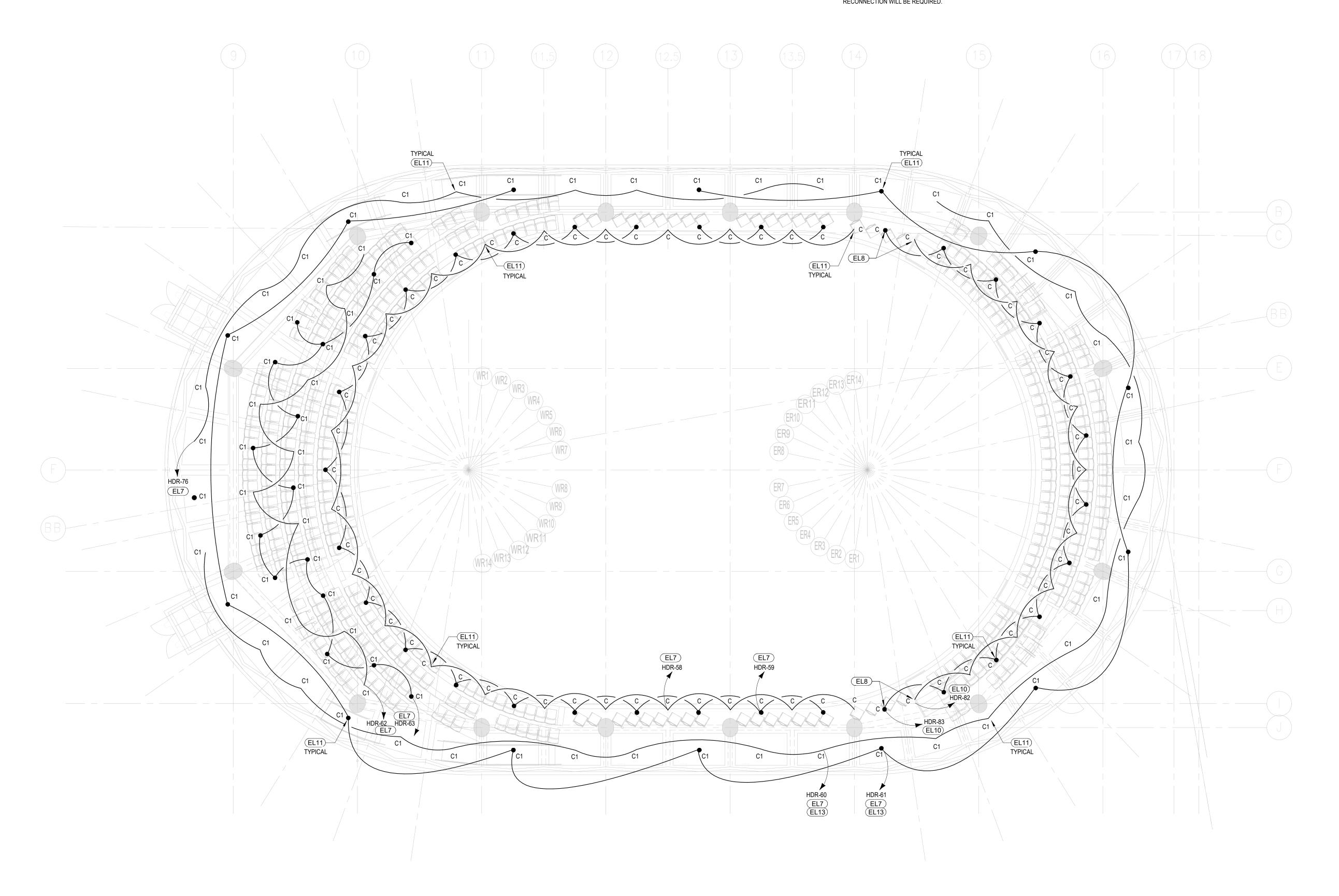
SHEET

E2.01

A. REFERENCE ELECTRICAL GENERAL NOTES SECTION OF SHEET E0.00 ELECTRICAL LEGENDS AND ABBREVIATIONS OF ALL ELECTRICAL WORK ON THIS SHEET.

ELECTRICAL KEYNOTES

- EL7 HOUSE LIGHTING SHALL BE CONTROLLED VIA EXISTING HOUSE LIGHTING DIMMING RACK "HDR". RELAY NUMBERS INDICATED PER PREVIOUSLY ENGINEERED CONSTRUCTION DOCUMENTS. CONFIRM EXACT RELAY NUMBERS IN THE FIELD.
- SUBMIT THE FOLLOWING AS A SEPARATE LINE ITEM PRICE LABELED "ALTERNATE BID #4". FURNISH SEPARATE LIGHTING ZONE FOR THE TYPE "C" LUMINAIRES LOCATED BEHIND THE STAGE AREA. A SEPARATE ZONE WILL BE REQUIRED FOR BOTH THE NORMAL POWER AND EMERGENCY EGRESS (SOLIDLY HATCHED LUMINAIRES) LUMINAIRES FOR SEPARATE ZONING BREAK ELECTRICAL CONNECTIONS AT THIS LOCATION. RESTORE ANY GYP. BOARD AREAS TO ITS ORIGINAL CONDITION AS REQUIRED CAUSED BY ANY DAMAGE CREATED TO ACCOMMODATE THE REZONING.
- EL10 NEW DIMMABLE LIGHTING ZONE CONTROLLING EXISTING BACK OF STAGE AREA LUMINAIRES AS IDENTIFIED ON PLAN. FURNISH AND INSTALL NEW LIGHTING DIMMING RELAY COMPATIBLE WITH LED REPLACEMENT LAMP BEING INSTALL IN EXISTING FIXTURES. SUBMIT PRICING AS PART OF "ALTERNATE BID #4".
- EL11 ALL TYPE "C" AND "C1" LUMINAIRES ARE EXISTING TO REMAIN. REPLACE EXISTING 45W INCANDESCENT PAR20 LAMP IN EACH LUMINAIRE WITH NEW DIMMABLE LED LAMP WITH AN EQUIVALENT 350 LUMEN OUTPUT AND COLOR TEMPERATURE MATCHING THE INCANDESCENT LAMP. INSTALLED LAMP SHALL BE COMPATIBLE WITH EXISTING ETC SENSOR 3 DIMMING CONTROL SYSTEM SERVING THE HOUSE LIGHTING. SUBMIT PRICING AS PART OF "ALTERNATE BID #3".
- EL13 AS PART OF SEPARATE LINE ITEM PRICE LABELED "ALTERNATE BID #4" RECONNECT ANY NORMAL POWER AND EMERGENCY EGRESS (SOLIDLY HATCHED LUMINAIRES) LUMINAIRES DISCONNECTED BY THE WORK ASSOCIATED WITH STAGE AREA LIGHTING REZONING. RECONNECTED NORMAL POWER LUMINAIRES ARE TO BE CONTROLLED VIA HDR-58 AND THE EMERGENCY EGRESS LUMINAIRES ARE TO BE CONNECTED TO HDR-59. FIELD VERIFY EXACT LOCATIONS WHERE RECONNECTION WILL BE REQUIRED.







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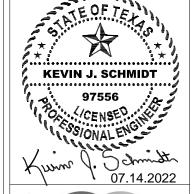
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- EL7 HOUSE LIGHTING SHALL BE CONTROLLED VIA EXISTING HOUSE LIGHTING DIMMING RACK "HDR". RELAY NUMBERS INDICATED PER PREVIOUSLY ENGINEERED CONSTRUCTION DOCUMENTS. CONFIRM EXACT RELAY NUMBERS IN THE FIELD.
- EL12 ALL TYPE "B" LUMINAIRES ARE EXISTING TO REMAIN. REPLACE EXISTING 45W INCANDESCENT PAR20 LAMP IN EACH LUMINAIRE WITH NEW DIMMABLE LED LAMP WITH AN EQUIVALENT 350 LUMEN OUTPUT AND COLOR TEMPERATURE MATCHING THE INCANDESCENT LAMP. INSTALLED LAMP SHALL BE COMPATIBLE WITH EXISTING ETC SENSOR 3 DIMMING CONTROL SYSTEM SERVING THE HOUSE LIGHTING. SUBMIT PRICING AS PART OF "ALTERNATE BID #3".



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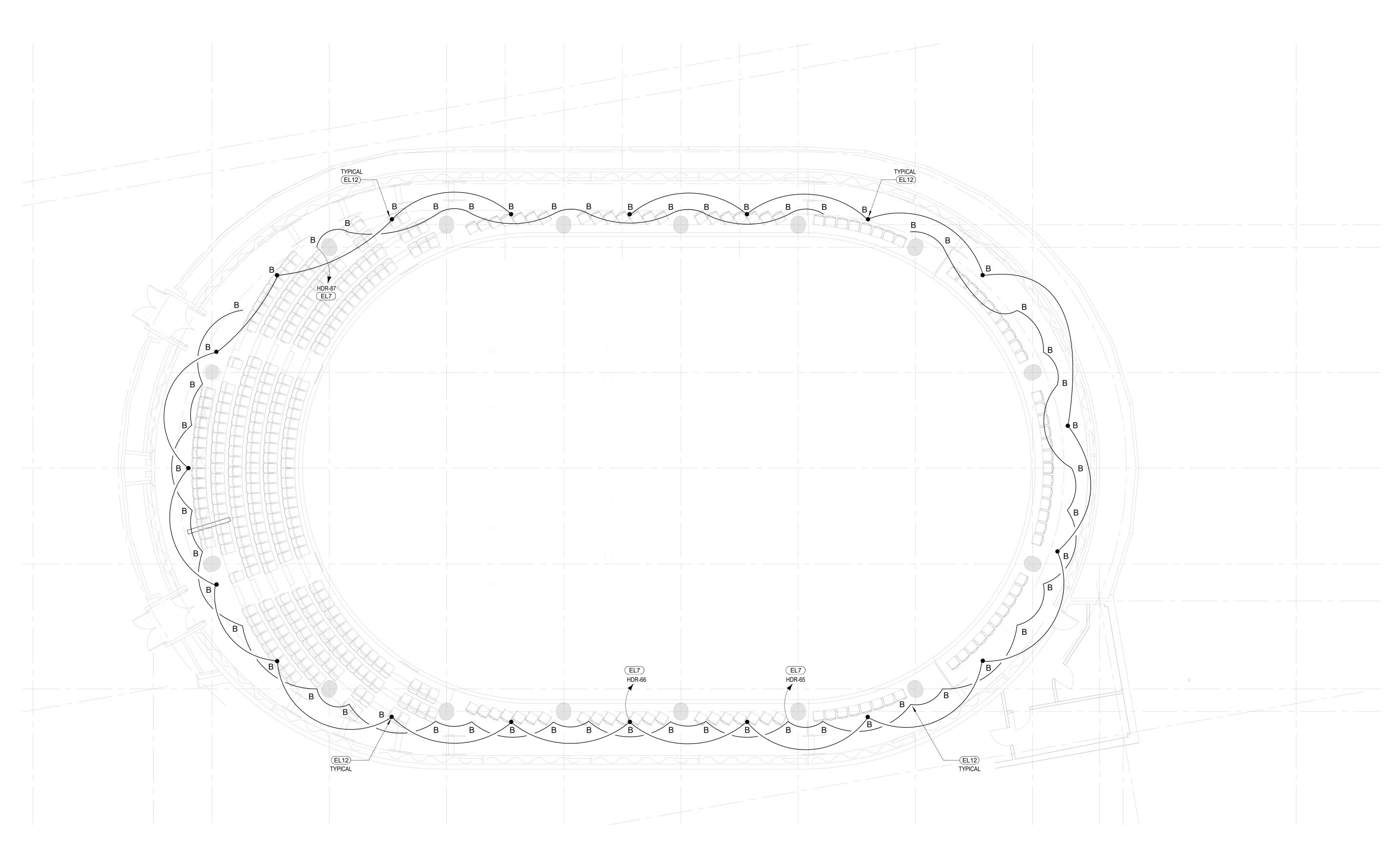
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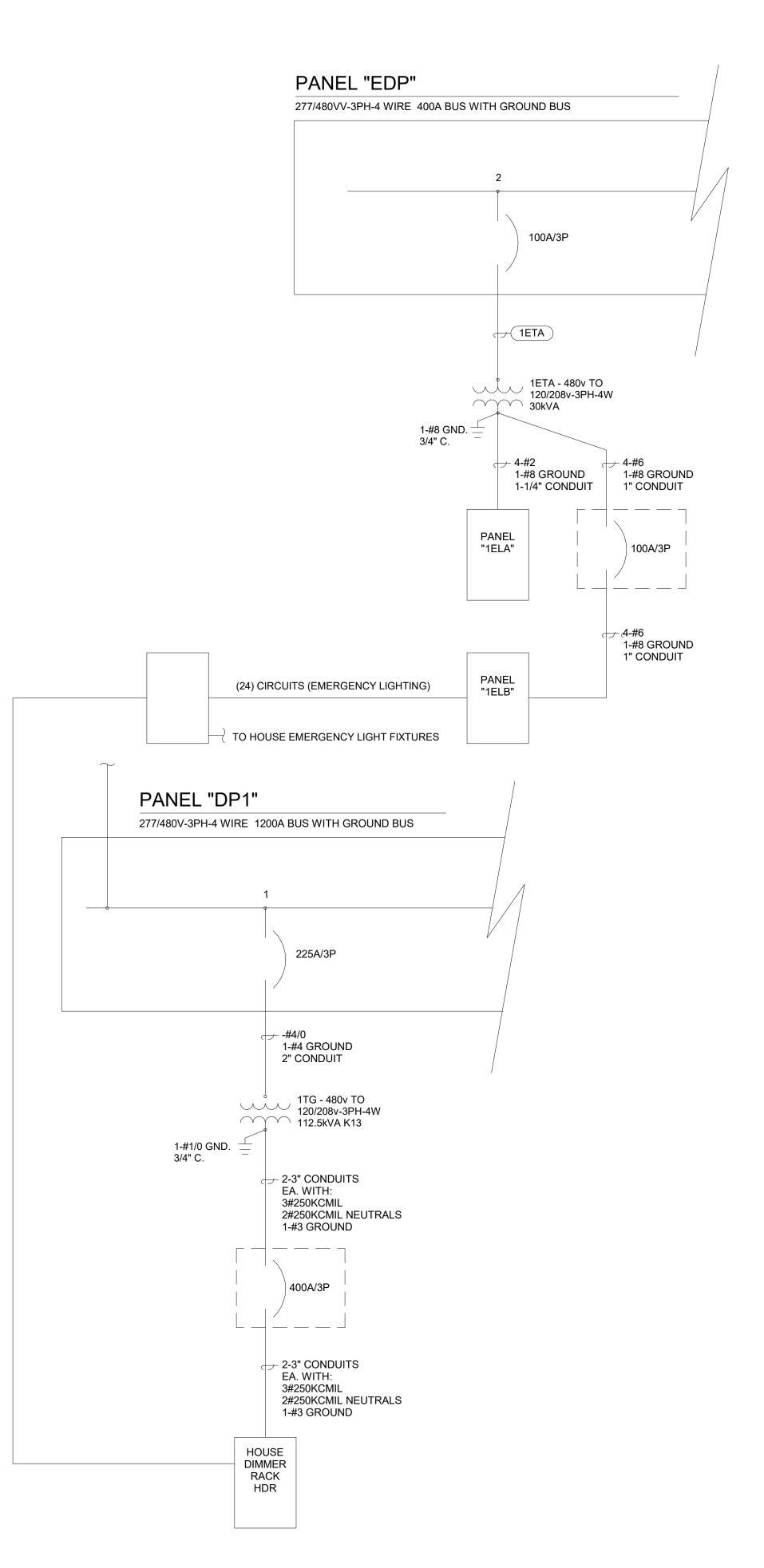
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Texas A&M University Corpus Christi





 ${\underline{\sf NOTE}}$: ALL ELECTRICAL DISTRIBUTION EQUIPMENT SHOWN IS EXISTING.

2 PARTIAL ELECTRICAL DISTRIBUTION DIAGRAM NONE

			LUMI	NAIR	E SCHEDULE
TYPE	MANUFACTURER SPECIFICATION NUMBER	LAMP/CCT	FIXTURE VOLTAGE	MOUNTING	DESCRIPTION
В	MICHAEL'S LIGHTING	50W PAR20	120V	PENDANT	CUSTOM FIXTURE WITH GLASS SHADE ANGELO 81342, MOUNTED TO 2 1/4" DIA X 6"L COPPER TUBING HUNG FROM JBOX WITH 36"L COPPER STEM. PORCELAIN SOCKET.
С	MICHAEL'S LIGHTING	50W PAR20	120V	SURFACE	CUSTOM FIXTURE OVAL COPPER FACEPLATE W/OPEN PORCELAIN SOCKET GLASS SHADE ANGELO 81342, MOUNTED ON ANGLED COPPER TUBING.
C1	MICHAEL'S LIGHTING	50W PAR20	120V	SURFACE	CUSTOM FIXTURE WITH GLASS SHADE ANGELO 81342, MOUNTED TO JBOX AND 6" DIA COPPER FACEPLATE WITH 2 1/4" DIA X 2"L COPPER TUBING. PORCELAIN SOCKET.
K	CAPRI LIGHTING #R15-R53	100W A19 IF	120V	RECESSED	8" DIA, FRESNEL LENSED INCANDESCENT DOWNLIGHT WITH BLACK TRIM

S: 1. ALL LUMINAIRES IDENTIFIED IN LUMINAIRE SCHEDULE ARE EXISTING TO REMAIN. FIXTURE TYPES INCLUDED FOR REFERENCE ONLY. INFORMATION SHOWN IS BASED ON PREVIOUSLY ENGINEERED SET OF CONSTRUCTION DOCUMENTS.

KEVIN J. SCHMIDT

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CENSE

07.14.2022

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KTOKMING AKIS CEIVI NTERIOR RENOVATION PROJECT NO: 1520051 PERFORMING ARTS CENTER, BUILDING #152



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ELECTRICAL KEYNOTES

REPLACE EXISTING ETC SENSOR 3 120V, 20A DUAL CHANNEL INCANDESCENT DIMMING RELAY MODULE WITH NEW 120V, 20A DUAL CHANNEL LED DIMMING MODULE COMPATIBLE FOR CONTROL OF LED RETROFIT LAMP BEING INSTALLED IN EXISTING LUMINAIRES. RELOCATE DIMMING CONTROL ZONES, AS REQUIRED, TO ACCOMMODATE THE DUAL CHANNEL RELAY. COORDINATE RELOCATION OF ZONES WITH THEATRICAL LIGHTING PROGRAMMER PRIOR TO COMMENCING WORK. SUBMIT PRICING AS PART OF "ALTERNATE BID #3".

GENERAL NOTES

1. INFORMATION FURNISHED IN THE HOUSE LIGHTING DIMMER RACK (HDR) SCHEDULE BASED ON PREVIOUSLY ENGINEERED CONSTRUCTION DOCUMENTS. CONTRACTOR SHALL FIELD COORDINATE EXISTING FIELD CONDITIONS PRIOR TO COMMENCING WORK. CONTRACTOR SHALL INFORM ENGINEER OF RECORD OF ANY INFORMATION ON CONSTRUCTION DOCUMENTS CONFLICTING WITH EXISTING FIELD CONDITIONS PRIOR TO COMMENCING WORK.

	HOUSE LIG	SHTING D	IMMER RA	CK (HDR)	SCHEDUL	.E
DIMMER NUMBER	AREA LOCATION AND LOAD DESCRIPTION	CIRCUIT NUMBER	CONNECTED LOAD (VA)	LOAD TYPE	POWER SOURCE	REMARKS
1	FAR CATWALK	NON-DIM A	VARIES	VARIES	NORMAL	NON DIMMED
2	NEAR CATWALK	NON-DIM A			NORMAL	
3	HIGH LIGHTING RING	NON-DIM C			NORMAL	
4	HIGH LIGHTING RING	NON-DIM D			NORMAL	
5	HIGH LIGHTING RING	NON-DIM E			NORMAL	
6	HIGH LIGHTING RING	NON-DIM F			NORMAL	
7	HIGH LIGHTING RING	NON-DIM G			NORMAL	
8	HIGH LIGHTING RING	NON-DIM H			NORMAL	
9	FAR CATWALK	NON-DIM A			NORMAL	
10	PLATFORM LEVEL	NON-DIM K			NORMAL	
11	FAR CATWALK RECEPTACLES	WL-1			NORMAL	
12	NEAR CATWALK RECEPTACLES	WL-2			NORMAL	
13	HIGH LIGHTING RING RECEPTACLES	WL-3			NORMAL	
14	HIGH LIGHTING RING RECEPTACLES	WL-4			NORMAL	
15	HIGH LIGHTING RING RECEPTACLES	WL-5			NORMAL	
16	HIGH LIGHTING RING RECEPTACLES	WL-6			NORMAL	
17	HIGH LIGHTING RING RECEPTACLES	WL-7			NORMAL	
18	HIGH LIGHTING RING RECEPTACLES	WL-8			NORMAL	
19	HIGH LIGHTING RING RECEPTACLES	WL-9			NORMAL	
20	PLATFORM LEVEL RECEPTACLES	WL-10	V	V	NORMAL	
21	CONTROL BOOTH LIGHTS	WL-11	210	FLUORESCENT	NORMAL	
22	CATWALK LIGHTS	WL-12	660	FLUORESCENT	NORMAL	
23	BACK PLATFORM CORRIDOR LIGHTS	WL-13A	1050	FLUORESCENT	NORMAL	
24	PANEL BOARD LIGHTS	WL-14	200	INCANDESCENT	NORMAL	
25	PLATFORM FLOOD LIGHTS	WL-15A	1000	INCANDESCENT	NORMAL	
26	PLATFORM FLOOD LIGHTS	WL-15B	1000	INCANDESCENT	NORMAL	
27	CATWALK RUNNING LIGHTS	RL-1	800	INCANDESCENT	NORMAL	
28	BACK PLATFORM CORRIDOR RUNNING LIGHTS	RL-3A	1050	INCANDESCENT	NORMAL	
29	BACK PLATFORM CORRIDOR RUNNING LIGHTS	RL-3B	900	INCANDESCENT	NORMAL	
30	1ST FLOOR LOBBY TYPES "FK" & "FK-B"	HL-	520	FLUORESCENT	NORMAL	
31	1ST FLOOR LOBBY TYPES "FK" & "FK-B"	HL-2	450	FLUORESCENT	NORMAL/EMERGENCY	CONNECTED TO EMERGENCY TRANSFER PANEL AND CIRCUIT 1ELB-2
32	PLATFORM 1ST FLOOR TYPE "E"	HL-3A	540	FLUORESCENT	NORMAL	

		HOUSE LIGHTING DIMMER RACK (HDR) SCHEDULE (CONT'D)							
	DIMMER NUMBER	AREA LOCATION AND LOAD DESCRIPTION	CIRCUIT NUMBER	CONNECTED LOAD (VA)	LOAD TYPE	POWER SOURCE	REMARKS		
	33	PLATFORM 1ST FLOOR TYPE "E"	HL-3B	360	FLUORESCENT	NORMAL/EMERGENCY	CONNECTED TO EMERGENCY TRANSFER PANEL AND CIRCUIT 1ELB-4		
	34	CONCERT HALL TYPE "G" LEVEL 1	HL-4	600	INCANDESCENT	NORMAL/EMERGENCY	CONNECTED TO EMERGENCY TRANSFER PANEL AND CIRCUIT 1ELB-6		
	35	S.L.L. 1ST FLOOR TYPE "D"	HL-5	400	INCANDESCENT	NORMAL/EMERGENCY	CONNECTED TO EMERGENCY TRANSFER PANEL AND CIRCUIT 1ELB-8		
	36	1ST FLOOR TYPE "F"	HL-6	400	INCANDESCENT	NORMAL			
	37	4TH FLOOR TYPE "B1"	HL-7A	1350	INCANDESCENT	NORMAL			
	38	4TH FLOOR TYPE "B1"	HL-7B	1350	INCANDESCENT	NORMAL			
	39	4TH FLOOR TYPE "B1"	HL-7C	1350	INCANDESCENT	NORMAL			
	40	4TH FLOOR TYPE "B1"	HL-7D	900	INCANDESCENT	NORMAL			
	41	4TH FLOOR TYPE "B1"	HL-7E	900	INCANDESCENT	NORMAL			
	42	4TH FLOOR TYPE "B1"	HL-7F	1350	INCANDESCENT	NORMAL			
1	43	CONCERT HALL TYPE "C" 2ND LEVEL	HL-8A	1050	LED REPLACEMENT LAMP	NORMAL			
1	44	CONCERT HALL TYPE "C" 2ND LEVEL	HL-8B	1050	LED REPLACEMENT LAMP	NORMAL/EMERGENCY	CONNECTED TO EMERGENCY TRANSFER PANEL AND CIRCUIT 1ELB-10		
	45	CONCERT HALL SEAT LIGHTS	HL-9A	760	LED	NORMAL/EMERGENCY	CONNECTED TO EMERGENCY TRANSFER		
1	46	CONCERT HALL SEAT LIGHTS	HL-9B	760	LED	NORMAL/EMERGENCY	CONNECTED TO EMERGENCY TRANSFER		
	47	EXTERIOR LIGHTS TYPE "HA"	HL-10A	1440	HPS	NORMAL			
	48	INTERIOR LIGHTS TYPE "HA"	HL-10B	900	HPS	NORMAL			
	49	VESTIBULE TYPE "F"	HL-11	400	INCANDESCENT	NORMAL/EMERGENCY	CONNECTED TO EMERGENCY TRANSFER PANEL AND CIRCUIT 1ELB-16		
	50	2ND FLOOR LOBBY TYPE "F"	HL-12	400	INCANDESCENT	NORMAL			
	51	2ND FLOOR LOBBY TYPES "FK" & FK-B"	HL-13	390	FLUORESCENT	NORMAL/EMERGENCY	CONNECTED TO EMERGENCY TRANSFER PANEL AND CIRCUIT 1ELB-18		
	52	2ND FLOOR TYPE "D"	HL-14	300	INCANDESCENT	NORMAL/EMERGENCY	CONNECTED TO EMERGENCY TRANSFER PANEL AND CIRCUIT 1ELB-20		
	53	2ND FLOOR TYPES "FK" & "FK-B"	HL-15A	520	FLUORESCENT	NORMAL			
	54	STAIR TYPE "FJ"	HL-15B	600	FLUORESCENT	NORMAL			
	55	2ND FLOOR TYPE "E"	HL-16A	360	FLUORESCENT	NORMAL			
	56	2ND FLOOR TYPE "E"	HL-16B	480	FLUORESCENT	NORMAL/EMERGENCY	CONNECTED TO EMERGENCY TRANSFER PANEL AND CIRCUIT 1ELB-22		
	57	2ND FLOOR TYPE "G"	HL-17	1000	INCANDESCENT	NORMAL/EMERGENCY	CONNECTED TO EMERGENCY TRANSFER		
1	58	2ND FLOOR TYPE "C"	HL-18A	1050	LED REPLACEMENT LAMP	NORMAL			
1	59	2ND FLOOR TYPE "C"	HL-18B	1050	LED REPLACEMENT LAMP	NORMAL/EMERGENCY	CONNECTED TO EMERGENCY TRANSFER		
1	60	2ND FLOOR TYPE "C1"	HL-19A	1500	LED REPLACEMENT LAMP	NORMAL			
1	61	2ND FLOOR TYPE "C1"	HL-19B	900	LED REPLACEMENT LAMP	NORMAL/EMERGENCY	CONNECTED TO EMERGENCY TRANSFER PANEL AND CIRCUIT 1ELB-28		
1	62	2ND FLOOR TYPE "C1"	HL-19C	550	LED REPLACEMENT LAMP	NORMAL	OINOUTI ILLU-20		
1	63	2ND FLOOR TYPE "C1"	HL-19D	750	LED REPLACEMENT LAMP	NORMAL/EMERGENCY	CONNECTED TO EMERGENCY TRANSFER PANEL AND CIRCUIT 1ELB-30		
1	64	2ND FLOOR SEAT LIGHTS	HL-20	600	LED	NORMAL/EMERGENCY	CONNECTED TO EMERGENCY TRANSFER PANEL AND CIRCUIT 1ELB-1		

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ELECTRICAL KEYNOTES

E1 REPLACE EXISTING ETC SENSOR 3 120V, 20A DUAL CHANNEL INCANDESCENT DIMMING RELAY MODULE WITH NEW 120V, 20A DUAL CHANNEL LED DIMMING MODULE COMPATIBLE FOR CONTROL OF LED RETROFIT LAMP BEING INSTALLED IN EXISTING LUMINAIRES. RELOCATE DIMMING CONTROL ZONES, AS REQUIRED, TO ACCOMMODATE THE DUAL CHANNEL RELAY. COORDINATE RELOCATION OF ZONES WITH THEATRICAL LIGHTING PROGRAMMER PRIOR TO COMMENCING WORK. SUBMIT PRICING AS PART OF "ALTERNATE BID #3".

E2 FURNISH AND INSTALL ETC SENSOR 3 120V, 20A DUAL CHANNEL LED DIMMING MODULE COMPATIBLE FOR CONTROL OF LED RETROFIT LAMP BEING INSTALLED IN EXISTING LUMINAIRES. RELOCATE DIMMING CONTROL ZONES, AS REQUIRED, TO ACCOMMODATE THE DUAL CHANNEL RELAY. COORDINATE RELOCATION OF ZONES WITH THEATRICAL LIGHTING PROGRAMMER PRIOR TO COMMENCING WORK. SUBMIT PRICING AS PART OF "ALTERNATE BID #4".

AREA LOCATION AND

LOAD DESCRIPTION

3RD FLOOR TYPE "B"

3RD FLOOR TYPE "B"

BACK PLATFORM CORRIDOR LIGHTS

3RD FLOOR TYPE "F"

3RD FLOOR SEAT LIGHTS

3RD FLOOR TYPE "G"

3RD FLOOR TYPE "D"

4TH FLOOR TYPE "FK"

3RD FLOOR TYPE "A"

3RD FLOOR TYPE "A"

3RD FLOOR TYPE "A"

3RD FLOOR TYPE "C1"

3RD FLOOR TYPE "G1"

1ST FLOOR TYPE "K"

1ST FLOOR TYPE "K"

CONCERT HALL TYPE "C" 2ND LEVEL

CONCERT HALL TYPE "C" 2ND LEVEL

2ND FLOOR TYPE "C"

2ND FLOOR TYPE "C"

3RD FLOOR TYPE "B"

NUMBER

(E1)

(E1)

E1

E2

E2

E2

E1

HOUSE LIGHTING DIMMER RACK (HDR) SCHEDULE (CONT'D)

LOAD TYPE

LED REPLACEMENT

LED REPLACEMENT

LAMP

FLUORESCENT

INCANDESCENT

LED

INCANDESCENT

INCANDESCENT

INCANDESCENT

INCANDESCENT

INCANDESCENT

INCANDESCENT

LED REPLACEMENT

LED REPLACEMENT

LED REPLACEMENT LAMP

LED REPLACEMENT

LED REPLACEMENT

LED REPLACEMENT LAMP

LED REPLACEMENT LAMP

LED REPLACEMENT

CONNECTED LOAD

(VA)

1500

400

450

400

450

575

520

1500

1125

1125

1500

1500

450

450

600

600

NUMBER

HL-21A

HL-21B

WL-13B

HL-22

HL-23

HL-24

HL-25

HL-26

HL-27A

HL-27B

HL-27C

HL-28A

HL-28B

HL-8C

HL-8D

HL-18C

HL-18D

GENERAL NOTES

SOURCE

NORMAL

NORMAL/EMERGENCY

NORMAL/EMERGENCY

NORMAL/EMERGENCY

NORMAL/EMERGENCY

NORMAL

NORMAL/EMERGENCY

NORMAL/EMERGENCY

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REMARKS

CONNECTED TO EMERGENCY TRANSFER

PANEL AND CIRCUIT 1ELB-3

CONNECTED TO EMERGENCY TRANSFER

PANEL AND CIRCUIT 1ELB-17

CONNECTED TO EMERGENCY TRANSFER PANEL AND CIRCUIT 1ELB-5

CONNECTED TO EMERGENCY TRANSFER

PANEL AND CIRCUIT 1ELB-7

CONNECTED TO EMERGENCY TRANSFER

PANEL AND CIRCUIT 1ELB-9

CONNECTED TO EMERGENCY TRANSFER PANEL AND CIRCUIT 1ELB-21

CONNECTED TO EMERGENCY TRANSFER

PANEL AND CIRCUIT 1ELB-11

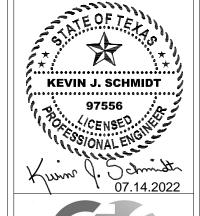
CONNECTED TO EMERGENCY TRANSFER PANEL AND CIRCUIT 1ELB-15

CONNECTED TO EMERGENCY TRANSFER

PANEL AND CIRCUIT 1ELB-10

CONNECTED TO EMERGENCY TRANSFER

PANEL AND CIRCUIT 1ELB-26



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DIMMING CABINET SCHEDULE

NO SCALE

B. REFERENCES: THE STANDARDS MENTIONED HEREIN WILL BE REFERRED TO IN THE DESIGN OF MECHANICAL SYSTEMS. THE ENGINEER WILL SELECT APPROPRIATE SECTIONS OF THE STANDARDS TO BE APPLIED IN ACCORDANCE WITH ESTABLISHED ENGINEERING PRINCIPLES AND PRACTICES.

1. NFPA-70: NATIONAL ELECTRICAL CODE. 2011 EDITION NFPA-101: LIFE SAFETY CODE 101. 2014 EDITION

OTHER APPLICABLE SECTIONS OF NFPA TEXAS ACCESSIBLITIES STANDARDS (TAS)

AMERICANS WITH DISABILITIES ACT (ADA)

SITE CONDITIONS: BEFORE SUBMITTING ANY PROPOSAL, EXAMINE THE PROPOSED SITE AND DETERMINE ANY CONDITIONS THAT MAY AFFECT THE WORK. NO ALLOWANCE SHALL BE MADE FOR FAILURE TO MAKE SUCH

D. THE CONTRACTOR IS RESPONSIBLE FOR ALL WORK, MATERIALS, AND LABOR TO SATISFY A COMPLETE WORKING SYSTEM WHETHER SPECIFIED OR IMPLIED.

THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH ALL OTHER TRADES INCLUDING ARCHITECTURAL STRUCTURAL, CIVIL, MECHANICAL, AND ELECTRICAL. F. DO NOT SCALE FROM THE ENGINEERED DRAWINGS. REFER TO THE DIMENSIONED DRAWINGS OF THE ARCHITECT

FOR EXACT LOCATIONS OF FIXTURES, EQUIPMENT, ETC. G. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND INSPECTIONS REQUIRED FOR THE INSTALLATION OF WORK AND PAY ALL INCIDENTAL CHARGES.

H. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING ALL TESTS NECESSARY TO PREVENT CONCEALMENT OF DEFECTIVE OR IMPROPER WORK. UPON COMPLETION OF WORK, TEST INSTALLATION

THOROUGHLY AND RENDER IT FROM LEAKS OR IMPROPER CONNECTIONS. I. PROTECT EQUIPMENT AND WORK FROM DAMAGE DURING HANDLING AND INSTALLATION UNTIL COMPLETION OF CONSTRUCTION. REMOVE ALL EXCESS DEBRIS AND CLEAN ALL EQUIPMENT UPON COMPLETION OF WORK. TOUCH UP WITH PAINT WHERE REQUIRED.

J. TEMPORARY LIGHTS AND POWER: PROVIDE A TEMPORARY ELECTRICAL LIGHTING AND POWER DISTRIBUTION SYSTEM OF ADEQUATE SIZE TO PROPERLY SERVE THE FOLLOWING REQUIREMENTS, INCLUDING ADEQUATE FEEDER SIZES TO PREVENT EXCESSIVE VOLTAGE DROP. TEMPORARY WORK SHALL BE INSTALLED IN A NEAT AND SAFE MANNER IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE, ARTICLE 305, NFPA 241, AND AS REQUIRED BY OSHA OR APPLICABLE LOCAL SAFETY

K. IDENTIFICATION OF EQUIPMENT: IDENTIFY ELECTRICAL EQUIPMENT WITH PERMANENTLY ATTACHED BLACK (NORMAL POWER), PHENOLIC PLATES WITH 1/4" WHITE ENGRAVED LETTERING ON THE FACE OF EACH, ATTACHED WITH TWO SHEET METAL SCREWS. COLORS SHALL MATCH EXISTING SCHEME PRESENTLY USED THROUGHOUT THE FACILITY.

WARNING SIGNS: PROVIDE WARNING SIGNS CALLED FOR BY NFPA 70, BY OSHA AND BY THE LIST INCLUDED BELOW.

CONTROL SYSTEMS AND INTERLOCK WIRING:

CONTROL SYSTEMS, COMPONENTS AND CONTROL AND INTERLOCK WIRING FOR MECHANICAL EQUIPMENT WILL BE FURNISHED UNDER DIVISION 23. CONTROL DEVICES INCLUDING, BUT NOT LIMITED TO, THERMOSTATS, FAN SPEED AND LEVEL CONTROL SWITCHES, RELAYS AND ELECTRO-PNEUMATIC SWITCHES SHALL BE FURNISHED UNDER

2. PROVIDE POWER WIRING TO STARTERS AND CONTACTORS UNDER DIVISION 26. POWER WIRING TO MAGNETIC STARTERS SHALL CONSIST OF WIRING TO THE LINE SIDE TERMINALS OF THE MAGNETIC STARTER OR CONTACTOR AND WIRING AWAY FROM THE LOAD SIDE TERMINALS TO THE EQUIPMENT, EXCEPT WHERE SUCH WIRING IS INSTALLED PRE-WIRED BY-THE EQUIPMENT VENDOR SUCH AS FOR ROOFTOP A/C UNITS.

a. POWER WIRING TO 120-1-60 AND 277-1-60 VOLT FANS, UNIT HEATERS, FAN-COIL UNITS AND PUMPS SHALL INCLUDE ALL PORTIONS OF THE BRANCH CIRCUIT, EXCEPT WIRING INSIDE AN AUTOMATIC TEMPERATURE CONTROL PANEL (ATC) OR DIRECT DIGITAL CONTROL PANEL (DDC) OR MAGNETIC STARTER. SUCH INTERNAL WIRING SHALL BE FURNISHED UNDER DIVISION 23.

a. FURNISH DUCT MOUNTED SMOKE DETECTORS.

b. PROVIDE WIRING AMONG DETECTORS, FIRE ALARM SYSTEM, MAGNETIC STARTERS AND RELAYS, ATC c. INSTALL LINE VOLTAGE COMPONENTS.

4. SEE CONTROLS SECTION OF DIVISION 23.

UNDER DIVISION 28:

LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES:

PROVIDE 98% CONDUCTIVITY COPPER CONDUCTORS WITH 600-VOLT INSULATION.

FOR CONDUCTORS NO. 12 AWG AND NO. 10 AWG, PROVIDE STRANDED TYPE THWN OR THHN. FOR CONDUCTORS NO. 14 AWG AND SMALLER, PROVIDE SOLID TYPE THHN. WHERE STRANDED CONDUCTORS

ARE USED, MAXIMUM STRANDING SHALL BE 7 FOR #16 AND #18; 19 FOR #14. 4. FOR CONDUCTORS NO. 8 AWG AND LARGER, PROVIDE STRANDED TYPE THHN, OR THWN APPLIED CONSISTENTLY

WITH INSULATION RATINGS AND NEC REQUIREMENTS 5. PROVIDE WHITE OR GRAY COLORED NEUTRAL CONDUCTORS; PROVIDE COLOR CODED PHASE CONDUCTORS. MINIMUM CONDUCTOR SIZE SHALL BE #12 FOR POWER WIRING; #14 FOR HARD WIRED CONTROLS UNLESS

OTHERWISE SPECIFIED. PROVIDE DIGITAL COMMUNICATION, NETWORK CABLING, AND OTHER LOW VOLTAGE SYSTEMS WIRING AS DIRECTED ELSEWHERE IN THIS SPECIFICATION.

260526 GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS:

INSTALLATION REQUIREMENTS:

CONTINUITY.

GENERAL a. CLEAN ALL CONDUCTIVE SURFACES ON EQUIPMENT TO BE GROUNDED, TO ASSURE GOOD ELECTRICAL

b. EFFECTIVELY BOND ALL GROUNDING CONDUCTORS TO GROUNDING ELECTRODES, EQUIPMENT

ENCLOSURES AND GROUND BUSSES. c. LOCATE ALL GROUNDING ATTACHMENTS AWAY FROM AREAS SUBJECT TO PHYSICAL DAMAGE. PROVIDE

PROTECTIVE COVERING AS REQUIRED. d. ALL PVC CONDUIT SHALL HAVE SEPARATE GROUND WIRE INSTALLED IN ACCORDANCE WITH TABLE 250-122

OF THE NATIONAL ELECTRICAL CODE.

MAIN SWITCHBOARD/BUILDING GROUND:

a. MAIN SERVICE SWITCHBOARD SHALL BE BONDED TO INCOMING MAIN WATER LINE WITH HEAVY DUTY GROUND CLAMP IN ACCORDANCE WITH ARTICLE NO. 250-66 OF NATIONAL ELECTRICAL CODE. BONDING CONDUCTOR SHALL BE SIZED IN ACCORDANCE WITH TABLE 250-66 OF NATIONAL ELECTRICAL CODE AND SHALL BE INSULATED.

b. BUILDING STEEL SHALL BE CONNECTED TO GROUND BUS ON MAIN SERVICE WITH A CONDUCTOR THE SAME AS SPECIFIED ABOVE. c. GROUNDING ELECTRODE CONDUCTORS SPECIFIED HEREIN SHALL BE INSTALLED WITHOUT CONDUIT, IN

GENERAL. WHERE EXPOSED TO POTENTIAL PHYSICAL DAMAGE. INSTALL THE CONDUCTOR IN SCHEDULE 80

3. FEEDER/BRANCH CIRCUITS: a. FEEDER CIRCUITS TO PANELS SHALL HAVE A SEPARATE GREEN GROUNDING CONDUCTOR IN CONDUIT

SIZED IN ACCORDANCE WITH TABLE 250-122 OF THE NATIONAL ELECTRICAL CODE. b. BRANCH CIRCUITS SHALL HAVE A SEPARATE GREEN GROUNDING CONDUCTOR INSTALLED IN SAME CONDUIT AS PHASE AND NEUTRAL CONDUCTOR FROM PANEL GROUND BUS TO DEVICE. INSTALL AN EQUAL NUMBER OF GROUNDING AND NEUTRAL CONDUCTORS. THE GROUNDING CONDUCTOR SHALL BE SIZED IN

ACCORDANCE WITH TABLE 250-122 OF THE NATIONAL ELECTRICAL CODE. c. BOND THE RECEPTACLE GROUND PIN TO ITS BOX USING A BONDING JUMPER, EXCEPT WHERE ISOLATED GROUND RECEPTACLES ARE REQUIRED.

d. FLEXIBLE CONDUIT WILL NOT BE APPROVED AS A GROUNDING MEANS. FLEXIBLE CONDUIT SHALL HAVE A JUMPER WIRE SIZED TO AMPACITY OF BRANCH BREAKER AND CONNECTED TO CONDUIT SYSTEM ON BOTH ENDS. THIS APPLIES TO FIXTURES, MOTORS, CONTROLS AND OTHER DEVICES. TRANSFORMERS:

a. GROUND SECONDARY NEUTRAL OF TRANSFORMERS TO GROUNDING CONDUCTOR IN PRIMARY FEEDER, SIZED IN ACCORDANCE WITH TABLE 250-66 OF THE NATIONAL ELECTRICAL CODE, AND TO GROUNDING ELECTRODE SYSTEM AS INDICATED ON THE DRAWINGS, COLD WATER MAIN, 1 1/2 INCH OR LARGER. BOND ACROSS ANY DIELECTRIC UNIONS BETWEEN POINT OF CONNECTION AND DOMESTIC WATER ENTRANCE.

HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS:

ACCEPTABLE MANUFACTURERS: ERICO PRODUCTS. INC.

STEEL CITY.

MINERALLAC. RAYCO FASTENERS. TYPES OF SUPPORTING DEVICES:

PROVIDE A COMPLETE SYSTEM OF SUPPORTING DEVICES AND HANGERS FOR SUPPORT OR BRACING OF CONDUIT, ELECTRICAL EQUIPMENT.

RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS:

ACCEPTABLE MANUFACTURERS FOR RACEWAYS AND CONDUIT: EMT, IMC, AND RIGID CONDUIT SHALL BE HOT DIPPED, GALVANIZED, OR ELECTROGALVANIZED STEEL BY ALLIED,

GENERAL ELECTRIC, REPUBLIC, TRIANGLE, OR WHEATLAND. SURFACE METAL RACEWAYS SHALL BE WIREMOLD.

ASSOCIATED COUPLINGS, CONNECTORS AND FITTINGS SHALL BE STEEL AS MANUFACTURED BY RACO OR

4. ERICKSON COUPLINGS SHALL BE USED WHERE NEITHER LENGTH OF CONDUIT CAN BE ROTATED. EMT BOX CONNECTORS SHALL BE SET SCREW OR COMPRESSION FITTINGS.

CONDUIT, CONNECTORS, COUPLINGS AND FITTINGS SHALL BE UL LISTED AND LABELED. ELECTRICAL METALLIC TUBING (EMT):

1. USE ELECTRIC METALLIC TUBING (EMT) WHERE DRAWINGS CALL FOR CONDUIT TO BE: a. CONCEALED IN WALLS.

INSTALLED ABOVE SUSPENDED CEILINGS.

INSTALLED EXPOSED, ABOVE 6 FEET. INTERMEDIATE METAL CONDUIT (IMC):

USE INTERMEDIATE METAL CONDUIT (IMC) WHERE DRAWINGS CALL FOR CONDUIT TO BE:

INSTALLED IN HAZARDOUS AREAS. INSTALLED IN CONCRETE SLABS AT GROUND FLOOR.

INSTALLED EXPOSED BELOW 6 FEET. INSTALLED IN WET LOCATIONS.

RIGID STEEL CONDUIT (RSC): USE RIGID STEEL CONDUIT WHERE DRAWINGS CALL FOR CONDUIT TO BE:

EXPOSED TO SEVERE MECHANICAL DAMAGE.

FLEXIBLE METAL CONDUIT: PROVIDE FLEXIBLE METAL CONDUIT FOR TERMINATION AT EQUIPMENT SUBJECT TO MOTION AND VIBRATION.

CONDUIT SHALL BE ELECTRICALLY CONTINUOUS FROM OUTLET OR CONDUIT END TO UTILIZATION EQUIPMENT LENGTH SHALL NOT EXCEED 6 FEET.

MAXIMUM LENGTH CONCEALED IN WALLS SHALL BE 3 FEET. WHERE EXPOSED TO CONTINUOUS OR INTERMITTENT MOISTURE, CONDUIT SHALL BE LIQUID TIGHT

ACCEPTABLE MANUFACTURERS FOR OUTLET BOXES: NATIONAL, APPLETON, RACO, GENERAL ELECTRIC, STEEL

UNDERGROUND DUCTS AND RACEWAYS FOR ELECTRICAL SYSTEMS: ACCEPTABLE MANUFACTURERS CARLON CANTEX WHERE INSTALLED UNDERGROUND. SCHEDULE 40 PVC.

SLEEVES AND SLEEVE SEALS FOR ELECTRICAL RACEWAYS AND CABLING: PROVIDE U.L. LISTED FIRESTOP SEALING SYSTEMS AT ALL ELECTRICAL PENETRATIONS OF RATED FLOORS AND

LIGHTING CONTROL DEVICES:

PROVIDE SWITCHING FOR BUILDING AUTOMATIC LIGHTING SHUTOFF PER ENERGY CODE. WATT STOPPER LIGHTING INTEGRATOR SERIES, OR APPROVED EQUAL FROM LUTRON SOFTSWITCH SERIES. B. OCCUPANCY SENSOR: PROVIDE OCCUPANCY SENSOR FOR AUTOMATIC LIGHT CONTROL IN EACH ROOM LESS

THAN 250 SQUARE FEET.

ACCEPTABLE MANUFACTURERS: ABB, EATON, SCHNEIDER ELECTRIC, SQUARE D, SIEMENS.

EQUIPMENT REQUIREMENTS: TRANSFORMERS SHALL BE VENTILATED. 115 DEGREE C. RISE, CAPABLE OF CONTINUOUS 15% OVERLOAD NOT TO

TRANSFORMERS SHALL HAVE CAPACITY, VOLTAGE AND PHASE RATINGS SHOWN ON DRAWINGS PROVIDE 2. 5% FCBN TAPS FOR RATINGS THROUGH 10KVA AND TWO ABOVE AND FOUR BELOW, FOR RATINGS

4. TRANSFORMER CORES FOR SHALL BE-VISIBLY GROUNDED BY THE MANUFACTURER TO THE ENCLOSURE BY MEANS OF A FLEXIBLE GROUNDING CONDUCTOR SIZED IN ACCORDANCE WITH UL AND NEC.

5. K-RATED NON-LINEAR LOAD TRANSFORMERS SHALL BE CONSTRUCTED OF INSULATING MATERIALS EXCEEDING NEMA ST20 STANDARDS AND SHALL COMPLY WITH 220 DEGREE C., UL COMPONENT RECOGNIZED INSULATION SYSTEMS REQUIREMENTS.

ACCEPTABLE MANUFACTURERS: SEIMENS

SCHNEIDER ELECTRIC, SQUARE D PANELBOARD TYPES:

BRANCH-CIRCUIT PANELBOARDS FOR 120/208 VOLTS, 3-PHASE, 4-WIRE SERVICE: GE TYPE AQ WITH CIRCUIT

BREAKERS RATED 10.000 AIC. 2. BRANCH-CIRCUIT PANELBOARDS FOR 277/480 VOLTS, 3-PHASE, 4-WIRE SERVICE: GE TYPE AE WITH CIRCUIT

BREAKERS RATED 14,000 AIC.

3. DISTRIBUTION PANELBOARDS FOR 120/208 VOLT, 3-PHASE, 4-WIRE SERVICE: GE SCP DISTRIBUTION TYPE. PROVIDE BREAKERS IN ACCORDANCE WITH THE FOLLOWING TABLE:

FRAME SIZE MIN. SYM. INTER. CAPACITY AT 240 VOLTS

100 AMP 18,000 AMP 250 AMP 25,000 AMP 400 AMP 42.000 AMP

800 AMP 42,000 AMP 4. DISTRIBUTION PANELBOARDS FOR 277/480 VOLT, 3-PHASE, 4-WIRE SERVICE: GE SCP DISTRIBUTION TYPE.

PROVIDE CIRCUIT BREAKERS IN ACCORDANCE WITH THE FOLLOWING TABLE:

100 AMP 14,000 AMP

250 AMP 25.000 AMP

400 AMP 30,000 AMP 800 AMP

30 000 AMP 5. PROVIDE CIRCUIT BREAKERS OF THE INTERRUPTING RATING SHOWN ON THE DRAWINGS WHERE THE AVAILABLE

FRAME SIZE MIN. SYM. INTER. CAPACITY AT 480 VOLTS

FAULT CURRENT EXCEEDS RATINGS SHOWN IN THE TABLE ABOVE. 6. BUS BARS SHALL BE COPPER.

262726 WIRING DEVICES: ACCEPTABLE MANUFACTURERS:

ARROW HART B. EAGLE

HUBBELL D. LEVITON PASS AND SEYMOUR.

4. LEVITON NUMBERS ARE USED UNLESS OTHERWISE NOTED, BUT PRODUCTS OF EQUIVALENT QUALITY BY NAMED MANUFACTURERS WILL BE ACCEPTABLE. B. SWITCHES:

1. 15-AMP. 120/277 VAC:

SINGLE POLE: LEVITON NO. 1201-1. THREE-WAY: LEVITON NO. 1203-1.

SINGLE POLE. WEATHERPROOF: LEVITON NO. 1201 WITH STEEL CITY NO. SWI-C WEATHERPROOF PLATE. SINGLE POLE WITH PILOT LIGHT (120 VAC): LEVITON NO. 1201-PL. INCANDESCENT DIMMERS:

a. INCANDESCENT DIMMERS: LEVITON SERIES 60.000, 120-VOLT, 800, 1000, 1500, OR 2000 WATTS AS REQUIRED FOR LOAD.

OCCUPANCY SENSORS WATTSTOPPER DT-300. RECEPTACLES:

20-AMP. 125 VAC RECEPTACLES:

a. LEVITON NO. 5362. MISCELLANEOUS DEVICES:

MANUAL MOTOR STARTER WITH THERMAL UNIT: SQUARE "D" CLASS 2510.

ENCLOSED SWITCHES AND CIRCUIT BREAKERS:

ACCEPTABLE MANUFACTURERS: SQUARE D.

ARR

CUTLER-HAMMER/WESTINGHOUSE.

PROVIDE SQUARE D SERIES HU-660, SIX-POLE SAFETY SWITCHES FOR PART-WINDING OR TWO-SPEED MOTORS

KEVIN J. SCHMIDT

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ISSUE

MK	DATE	DESCRIPTION
	1/11/21	SD SUBMITTAL
	10/6/21	65% DESIGN
	2/22/22	100% ELEC
	7/14/22	BID SET

SHEET DATA PROJECT NUMBER: 20148

DRAWN BY: SC

ISSUE DATE: 05/20/22

Texas A&M University

Corpus Christi