City of Sparks
"B" Street Amphitheater Renovation

Victorian Avenue
Sparks, NV

City of Sparks
431 Prater Way
Sparks, Nevada 89432

November 18, 2022

100% Construction Documents

M:\Acadven\2022 Projects\2208\0 Active\0A Drawings\042 Revit\2208 Sparks Amphitheater.rvt

11/17/2022 11:04:56 AM

Professional Seal

M. KLIPPEN
REGISTERED
No. 687
11-18-2022
ARCHITECT
STATE OF NEVADA

	Date	Revision

Consultant

H+K ARCHITECTS
5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262
P 775+332+6640
F 775+332+6642
hkarchitects.com

City of Sparks
"B" Street Amphitheater Renovation

Victorian Avenue
Sparks, NV

Title Sheet

November 18, 2022
H+K Project No: 2208

G100

Abbreviations

&	And
@	At
(e)	Existing
⊥	Perpendicular
#	Pound or Number

A

Adj.	Adjustable
Aggr.	Aggregate
Alt.	Alternate
Alum.	Aluminum
Approx.	Approximately
Arch.	Architectural/Architect
A.C.	Asphalt Concrete

B

Bm.	Beam
Blk.	Block
Blkg.	Blocking
Bd.	Board
B.O.	Bottom of
Bldg.	Building
B.U.R.	Built up Roofing

C

C.I.	Cast Iron
C.B.	Catch Basin
Clg.	Ceiling
Ctr.	Center
C.L.	Center Line
Cer.	Ceramic
C.O.	Cleanout
C.W.	Cold Water
Col.	Column
Conc.	Concrete
Conn.	Connection
Const.	Construction
C.J.	Construction Joint
Contin.	Continuous
Contr.	Contractor
Cu. Ft.	Cubic Foot

D

D.G.	Decomposed Granite
Dept.	Department
Det.	Detail
Dia.	Diameter
Diff.	Diffuser
Dim.	Dimension
Dbl.	Double
DN	Down
D.S.	Downspout
Dwg.	Drawing
D.F.	Drinking Fountain

E

Ea.	Each
Etc.	Etcetera
E.W.C.	Electric Water Cooler
Elec.	Electrical
Elev.	Elevation
Emer.	Emergency
Encl.	Enclosure
Eq.	Equal
Equip.	Equipment
Exh.	Exhaust
Exp.	Expansion
E.J.	Expansion Joint
Ext.	Exterior

F

F.O.	Face of
Fin.	Finish
F.G.	Finish Grade
F.E.	Fire Extinguisher
F.E.C.	Fire Extinguisher Cabinet
Fprf.	Fireproof(ing)
Fixt.	Fixture
Flash.	Flashing
Flr.	Floor
F.D.	Floor Drain
F.L.	Flow Line
Ft.	Foot
Ftg.	Footing
Fdn.	Foundation
FBO	Furnished by Others
Furr.	Furring
Fut.	Future

G

Galv.	Galvanized
G.I.	Galvanized Iron
Ga.	Gage
Gen.	General
Gl.	Glass
GLB	Glue-Laminated Beam
Gyp.	Gypsum

H

Ht.	Height
H.C.	Hollow Core
H.M.	Hollow Metal
Horiz.	Horizontal
H.B.	Hose Bibb
H.W.	Hot Water
Hr.	Hour

I

In.	Inch(es)
I.D.	Inside Diameter
Insul.	Insulation
Int.	Interior

J

Jt.	Joint

L

Lab	Laboratory
Lav.	Lavatory
Lt.	Light

M

Mfr.	Manufacturer
M.O.	Masonry Opening
Max.	Maximum
Mech.	Mechanical
Memb.	Membrane
Met.	Metal
Min.	Minimum
Misc.	Miscellaneous
MPH	Miles per hour
Mtd.	Mounted

N

Nom.	Nominal
N.I.C.	Not in Contract
N.T.S.	Not to Scale
No.	Number

O

O.C.	On Center
O.D.	Outside Diameter
O.H.	Opposite Hand

P

Pr.	Pair
P. Lam.	Plastic Laminate
Pl.	Plate
Plywd.	Plywood
Pt.	Point
Prefab.	Prefabricated
Prop.	Property
PSF	Pounds per square foot
PSI	Pounds per square inch

R

Rad.	Radius
Ref.	Reference
Reinf.	Reinforced
Req.	Required
R.A.	Return Air
Rev.	Revision
R.O.W.	Right of Way
R.D.	Roof Drain
Rm.	Room
R.O.	Rough Opening

S

Sched.	Schedule
Sect.	Section
Sht.	Sheet
Sim.	Similar
S.C.	Solid Core
Spec.	Specification
Sq.	Square
SF	Square foot
St. Stl.	Stainless Steel
Std.	Standard
Stl.	Steel
Stg.	Storage
Struct.	Structural
Susp.	Suspended
Sym.	Symmetrical

T

Tel.	Telephone
T.V.	Television
T.&G.	Tongue and Groove
T.C.	Top of Curb (or Concrete)
T.O.	Top of

U

U.N.O.	Unless Noted Otherwise

V

Vert.	Vertical
V.C.T.	Vinyl Composition Tile

W

W.C.	Water Closet
Wt.	Weight
W.F.	Wide Flange
Wdw.	Window
W/	With
W/O	Without
Wd.	Wood
W.J.	Weakened Plane Joint

Y

Yd.	Yard

General Notes

1. These general notes pertain to work described on all contract documents.
2. The contract documents consist of the owner-contractor agreement, the conditions of the contract (general, supplementary and other conditions), the drawings, the specifications, and all addenda issued prior to and all modifications issued after execution of the contract.
3. The work comprises the completed construction required by the contract documents and includes all labor necessary to produce such construction, and all materials and equipment incorporated or to be incorporated in such construction.
4. Shop drawings, product data and samples are not a part of the contract documents. The Architect will review them, but only for conformance with the design concept of the work and with the information given in the contract documents. The Contractor shall not be relieved of responsibility for any deviation from the requirements of the contract documents by the Architect's review of shop drawings, product data or samples.
5. The Contractor shall carefully study and compare the contract documents and shall at once report to the Architect any error, inconsistency or omission he may discover. The Contractor shall perform no portion of the work at any time without contract documents or, where required, approved shop drawings, product data or samples for such portion of the work.
6. All work is to conform with the contract documents. Drawings are NOT to be scaled for information. If unable to locate dimensions for any item of work, consult with the Architect before proceeding with construction.
7. In the event certain features of the construction are not fully shown on the contract documents, then their construction shall be of the same character as for similar conditions that are shown or called for and shall be reviewed by the Architect.
8. All work shall be performed within strict conformance to the minimum standards of the current edition of the adopted building codes of the authority having jurisdiction and all applicable national, state, and local laws, regulations, and ordinances.
9. The Contractor shall be responsible for the general safety during construction, and all work shall conform to pertinent safety regulations.
10. The Contractor shall coordinate locations of any and all mechanical, telephone, electrical, lighting and plumbing including all piping, ductwork and conduit. Coordinate all required clearances for installation and maintenance of the above equipment.
11. The Contractor shall supervise and direct the work, using his best skill and attention. He shall be solely responsible for all construction means, methods, techniques, sequences and procedures and for coordinating all portions of the work under the contract.
12. The Contractor shall be responsible for the acts and omissions of his employees, subcontractors, and their agents and employees, and other persons performing any work under a contract with the Contractor.
13. The Contractor shall pursue work in a continuous and diligent manner to ensure a timely completion of the project.
14. The Contractor at all times shall keep the premises free from accumulation of waste materials or rubbish caused by his operations. At the completion of the work he shall remove all his waste materials and rubbish from and about the project as well as all his tools, construction equipment, machinery, and surplus materials.
15. The Contractor shall be responsible for the location and/or protection of all existing and proposed piping, utilities, structures, adjacent streets and improvements during the period of construction.
16. Unless otherwise provided in the contract documents, the Contractor shall provide and pay for all labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for the proper execution and completion of the work.
17. Where conflicts occur, coordinate the layout and exact location of all partitions, doors, telephones, and electrical/communication outlets and switches with Architect in the field before proceeding with construction.
18. Where conflict is encountered between the contract documents that will materially affect the quality or extent of the work, such conflict shall be resolved to the satisfaction of the Architect before the affected items and/or material are purchased, fabricated and/or installed.
19. Where pre-manufactured or prefabricated items and/or materials are to be installed - the Contractor shall verify rough or finished dimensions in the field prior to purchase or fabrication.
20. The Contractor shall guarantee all work and materials to be free from defects for a minimum of one year from date of final acceptance, and promptly remedy such defects and any subsequent damage caused by the defects or repair thereof, at no expense to the owner. Guarantee periods of greater than one year may be required and contained within the contract documents.
21. Where any item and/or material is indicated in the contract documents, and not necessarily detailed in each specific case, but is required for a complete and professional installation - such item and/or material shall provided as if shown and detailed in full. Provide means to furnish and install.
22. Contractor is requested to visit the site as part of the pre-bid site visit to compare the drawings and specifications with any work in place, and inform himself of all conditions, including the work, if any, being performed. Failure to visit the site will in no way relieve the Contractor from necessity of furnishing any materials or performing any work in accordance with the drawings and specifications that may be required to complete the work without additional cost to the owner.
23. Existing conditions including material sizes, configurations, and locations as shown on the drawings may not be an exact illustration of existing as-built conditions. The Contractor shall include in his bid the cost of furnishing, installing, modifying, existing and/or new materials (minor in nature) required for a complete and professional installation that may be required by minor variations between existing conditions as shown, and actual as-built conditions.

Project Team

Owner:

City of Sparks Public Works
P.O. Box 857
Sparks, Nevada 89432
(775) 353-1528
Contact: Brian Cason, S.E., P.E.
bcason@cityofsparks.us

Architect:

H+K Architects
5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511
(775) 332-6640
Contact: Phil O'Keefe, A.I.A
phil@hkarchitects.com

Structural Engineer:

Lumos and Associates, Inc.
9222 Prototype Drive
Reno, Nevada 89521
775-827-6111
Contact: Terrence Tobey, P.E., S.E.
ttobey@lumosinc.com

Electrical Engineer:

PK Electrical, Inc.
681 Sierra Rose Drive, Suite B
Reno, Nevada 89511
(775) 826-9010
Contact: Mathew Stuart
mstuart@pkelectrical.com

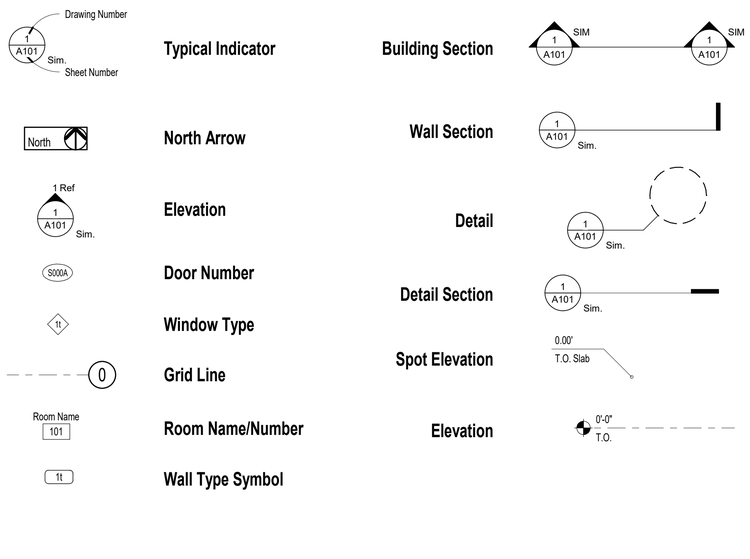
Design Criteria

Applicable Codes:

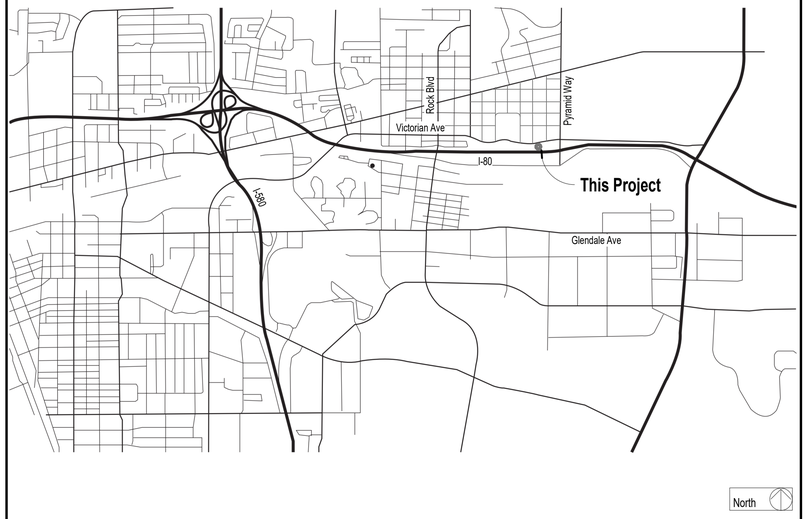
Building Code:	2018 International Building Codes (IBC)
Mechanical Code:	2018 Uniform Mechanical Code (UMC)
Plumbing Code:	2018 Uniform Plumbing Code (UPC)
Electrical Code:	2017 National Electrical Code (NEC)
Fire Code:	2018 International Fire Code, Vol. 1 (IFC)
Accessibility Codes:	2010 Americans with Disabilities Act, Accessibility Guidelines and 2017 ICC/ANSI 117.1
Energy Code:	2018 International Energy Conservation Code

Sheet Index

Symbols



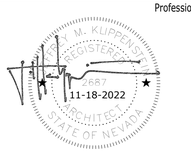
Vicinity Map



M:\Acadvwn2022 Projects\220810 Active\0A Drawings\0A3 Revit\2208 Sparks Amphitheater.rvt

11/17/2022 11:04:57 AM

Professional Seal



	Date	Revision

Consultant

H+K ARCHITECTS
5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262
P 775+332+6640
F 775+332+6642
hkarchitects.com

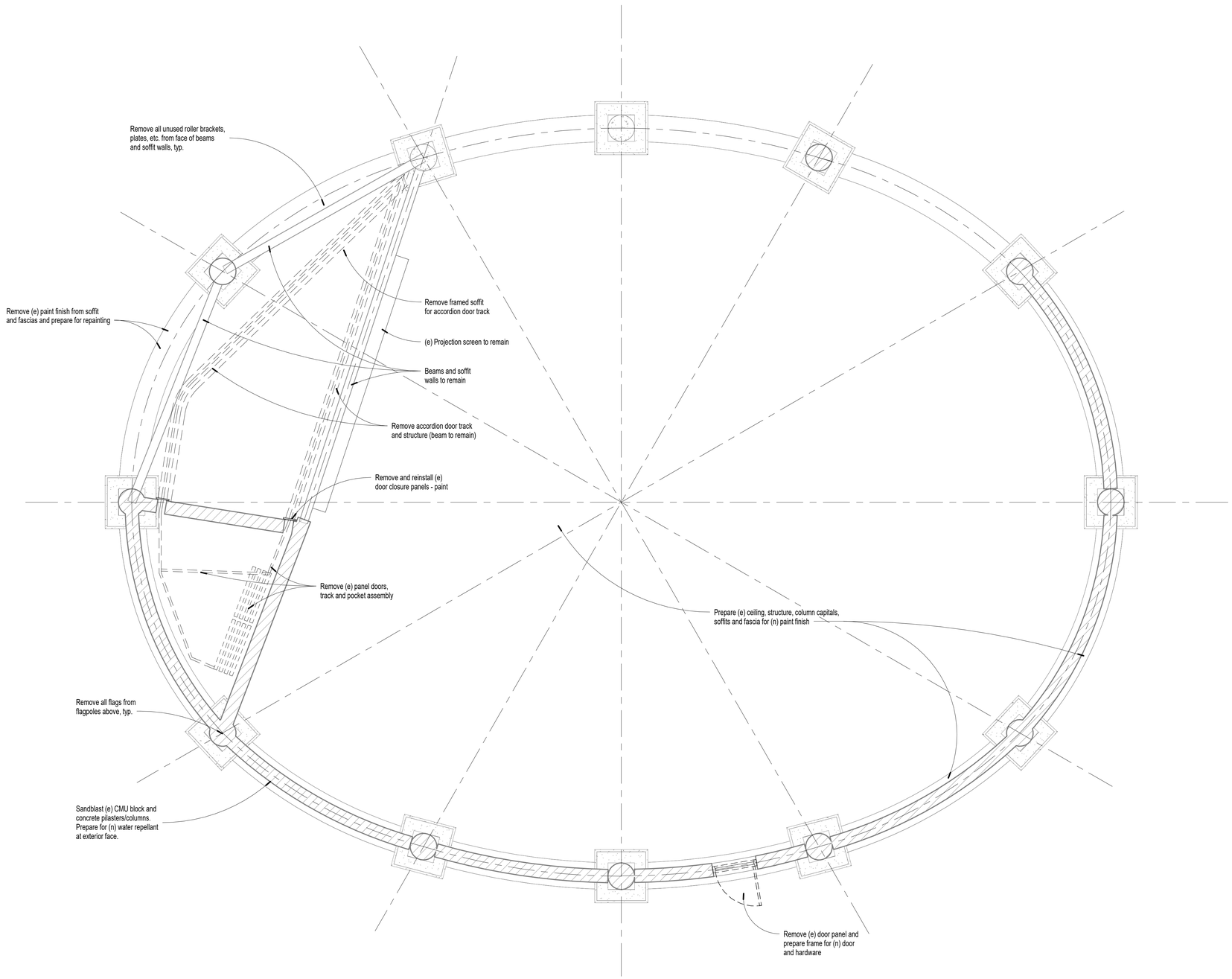
City of Sparks
"B" Street Amphitheater Renovation

Victorian Avenue
Sparks, NV

Project Data

November 18, 2022
H+K Project No: 2208

G101



1 Reflected Ceiling Demolition Plan

1/4" = 1'-0"

North

Demolition Notes

1. For the purpose of Architectural work, all items not shown to be removed or altered on this sheet shall remain in their existing condition. This pertains to all equipment and other consultant's work. See other disciplines for additional demolition and alterations to utilities. Notify the Architect of any components which vary from those shown on the drawings.
2. Some electrical devices, etc. are to be removed. Not all devices to be removed are indicated on this sheet.
3. There will be selective demolition for Structural and Electrical components. This demolition is to facilitate the replacement and/or new installation of Structural and Electrical components. Although this demolition may not appear specifically on this sheet, the Contractor shall include in his bid all demolition work for the removal of required building materials necessary for the installation of these components. See Structural and Electrical drawings for additional information pertaining to those disciplines.
4. Protect adjacent surfaces to remain from damage. Contractor is to repair or replace all items and finishes that are damaged or removed due to the installation or removal of any materials, fixtures, accessories or construction noted on these drawings. Repaired or replaced finishes shall match adjacent existing surfaces.
5. The Contractor shall remove (e) finishes as required. The location of this demolition is shown on the Demolition Plan. The Contractor shall be responsible for setting the exact limits of demolition required in order to perform his work. All finishes removed shall be patched, repaired, or replaced to match adjacent finishes.
6. Definitions:
   Remove: Detach items from existing construction and legally dispose of them off-site, unless indicated to be removed and salvaged or removed and reinstalled.
   Remove and salvage: Carefully detach from existing construction, in a manner to prevent damage and deliver to Owner for reuse.
   Remove and reinstall: Detach items from existing construction, prepare for reuse, and reinstall them where indicated.
   Existing to remain: Existing items of construction that are not to be permanently removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.
7. Remove all temporary fencing, walls and doors upon project completion. Repair all damage to adjacent surfaces and finishes.

Demolition Legend

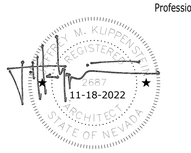
Walls, windows, doors, fixtures, etc. are to be removed and scrapped unless noted otherwise (U.N.O.).

Existing construction, equipment and fixtures to remain.

M:\Acadvim\2022 Projects\2208\0 Active\0A Drawings\0A2 Revit\2208 Sparks Amphitheater.rvt

11/17/2022 11:04:59 AM

Professional Seal



△	Date	Revision

Consultant

H+K ARCHITECTS
5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262
P 775+332+6640
F 775+332+6642
hkarchitects.com

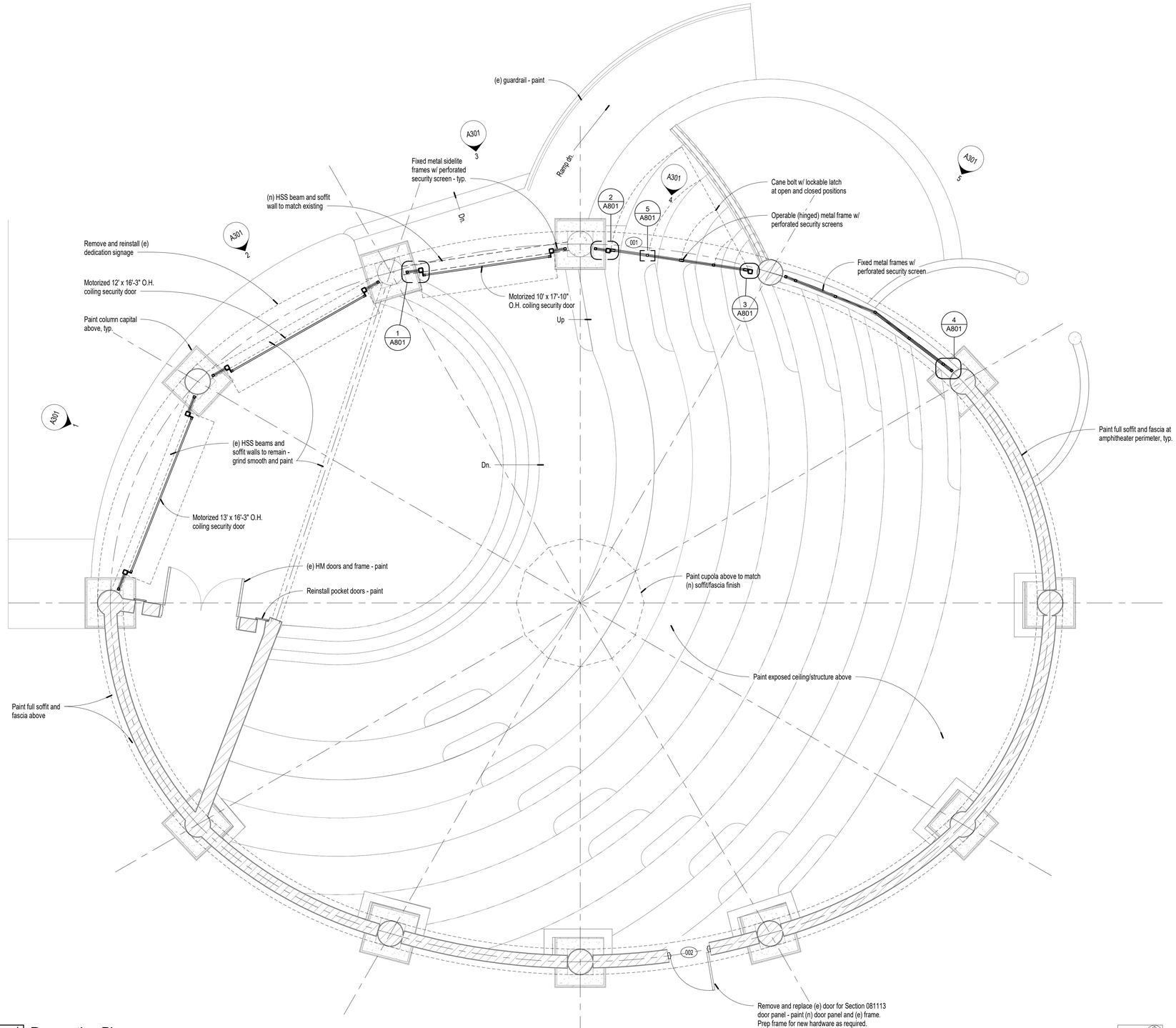
City of Sparks
"B" Street Amphitheater Renovation

Victorian Avenue
Sparks, NV

Reflected Ceiling Demolition Plan

November 18, 2022
H+K Project No: 2208

A101



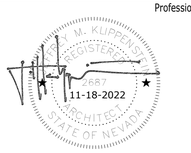
1 Renovation Plan

1/4" = 1'-0"

M:\Acadvwn\2022 Projects\2208\0 Active\0A Drawings\0A2 Revit\2208 Sparks Amphitheater.rvt

11/17/2022 11:05:00 AM

Professional Seal



Date	Revision

Consultant

H+K ARCHITECTS
5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262
P 775+332+6640
F 775+332+6642
hkarchitects.com

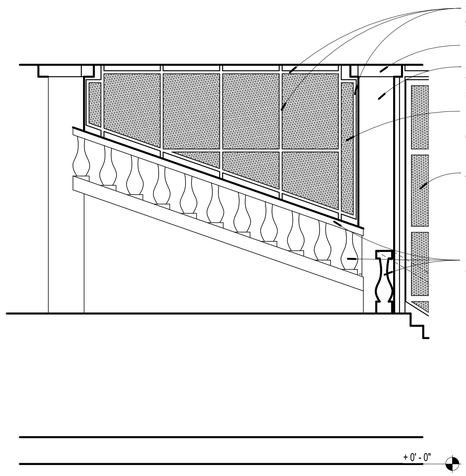
City of Sparks
"B" Street Amphitheater Renovation

Victorian Avenue
Sparks, NV

Floor Plan

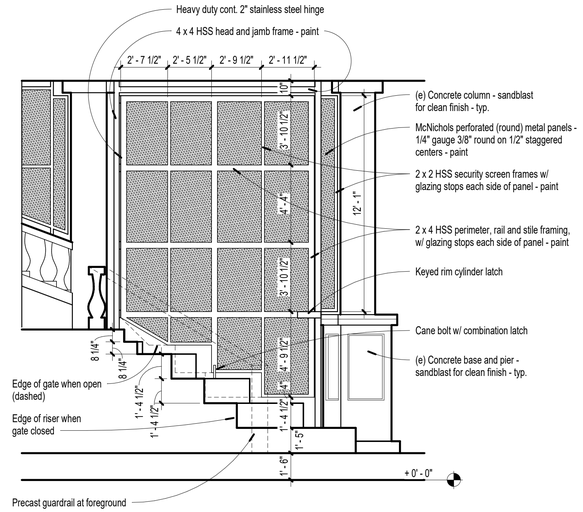
November 18, 2022
H+K Project No: 2208

A111



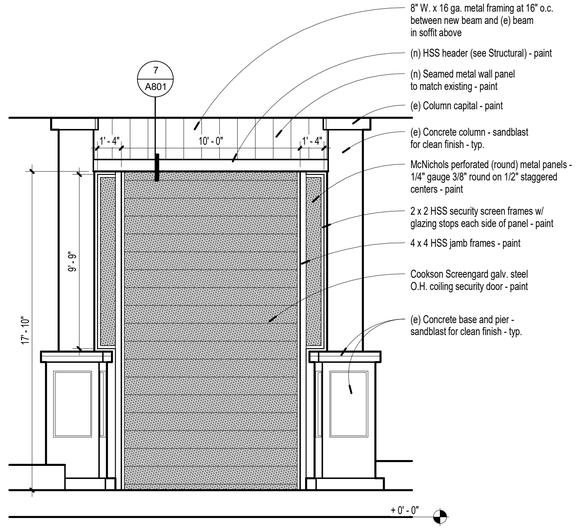
5 Fixed Panel Security Screen at Guardrail

1/4" = 1' - 0"



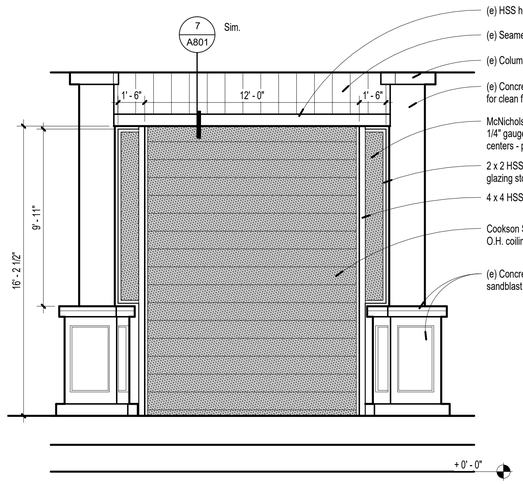
4 Hinged Panels at Tiered Seating

1/4" = 1' - 0"



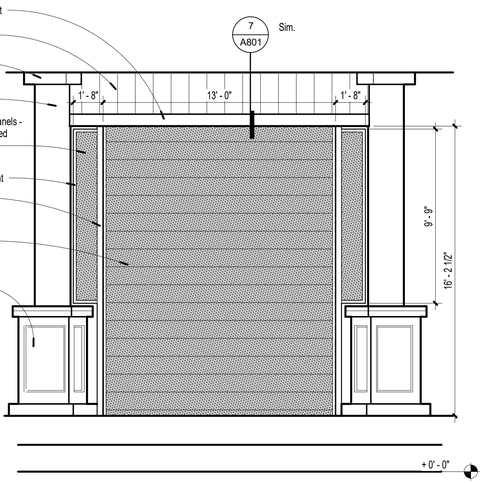
3 Coiling Door at Entrance

1/4" = 1' - 0"



2 Coiling Door at Stage Left

1/4" = 1' - 0"



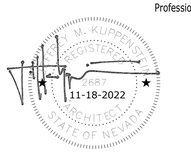
1 Coiling Door at Stage Right

1/4" = 1' - 0"

M:\Acadnet\2022 Projects\2208\0 Active\0A Drawings\042 Revit\2208 Sparks Amphitheater.rvt

11/17/2022 11:05:02 AM

Professional Seal



△ Date Revision

Consultant

H+K ARCHITECTS
5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262
P 775+332+6640
F 775+332+6642
hkarchitects.com

City of Sparks
"B" Street Amphitheater Renovation

Victorian Avenue
Sparks, NV

Elevations

November 18, 2022
H+K Project No: 2208

A301

Door Schedule

	DOORS							FRAME				DETAILS				Hardware	
Door Number	Width	Height	Pair	Material	Type	Glass	Door Rating	Material	Frame Rating	Elev.	Glass	Head	Strike	Hinge	Sill	Group	Comments
001	2' - 5 1/2"	6' - 0"														H1	
002	3' - 0"	7' - 0"			F											H2	

Door Hardware

Door Hardware Group H1

Qty.	Item	Description	Finish	Manufacturer
1	Cont. Hinge	112HD	US28	Ives
1	Deadbolt	B661P	626	Schlage
2	Padlock Cane Bolt	Per Gate Msanufacturer	TBD	TBD

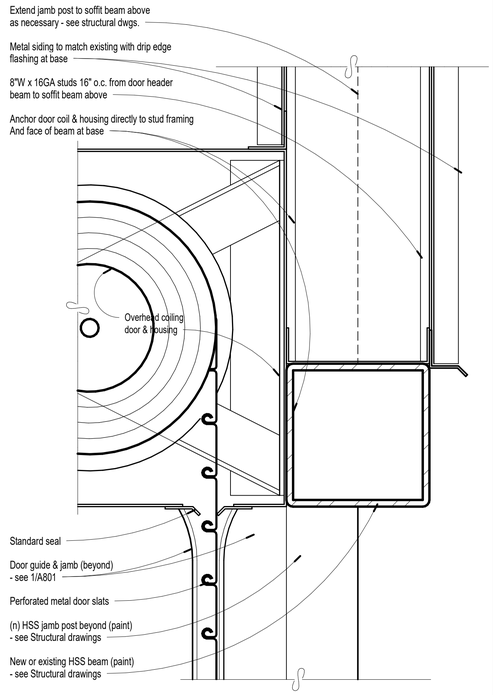
Door Hardware Group H2

Qty.	Item	Description	Finish	Manufacturer
1	Cont. Hinge	112HD	US28	Ives
1	Exit Device	99EO	US26D	Von Duprin
2	Deadbolt	B661P	626	Schlage
2	Cylinder	Keymark	626	Medeco
1	Closer	4040XP-3077CNS	AL-689	LCN
1	Lock Guard	LG10	630	Ives
1	Acoustic Seal	S88	GR	Pemko

Door Types and Notes

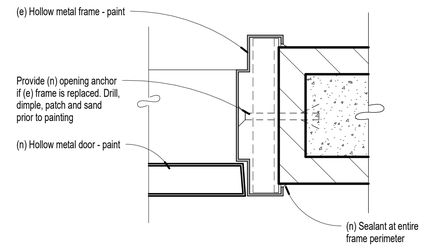
F

1. Contractor to field verify all opening dimensions and coordinate with existing frame door preparations.
2. Hardware supplier to coordinate final keying and cores with Owner.



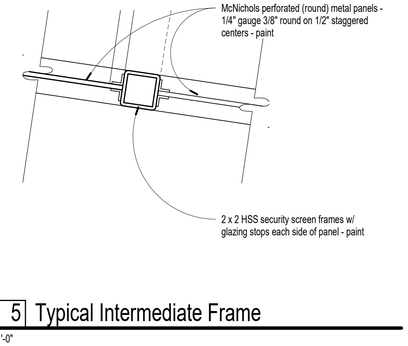
7 Overhead Door at Steel Beam

3" = 1'-0"



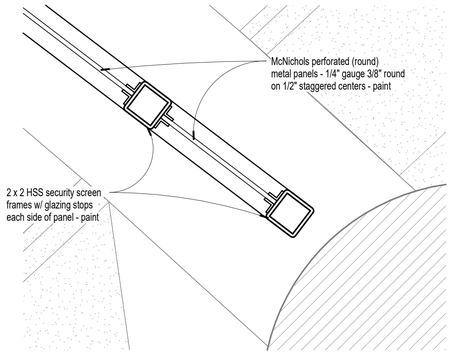
6 HM Jamb at CMU Wall

3" = 1'-0"



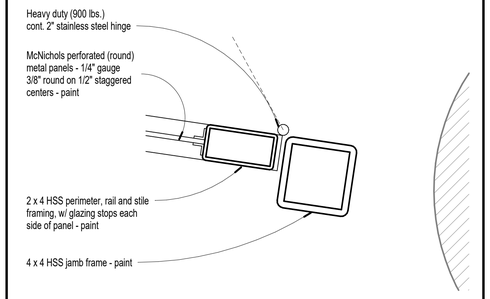
5 Typical Intermediate Frame

3" = 1'-0"



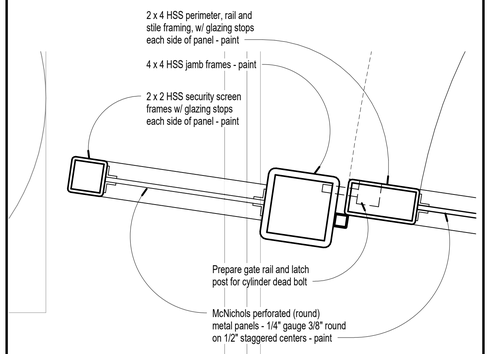
4 Jamb at Fixed Panel

3" = 1'-0"



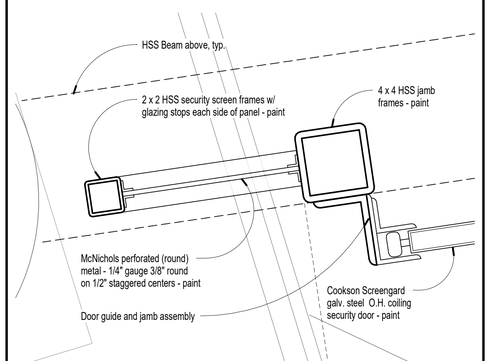
3 Jamb at Hinged Panels - Hinge

3" = 1'-0"



2 Jamb at Hinged Panels - Strike

3" = 1'-0"



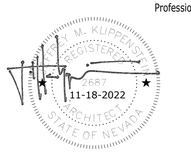
1 O.H. Coiling Door Jamb Detail

3" = 1'-0"

M:\Acadvinn\2022 Projects\2208\0 Active\0A Drawings\0A2 Revit\2208 Sparks Amphitheater.rvt

11/17/2022 11:05:03 AM

Professional Seal



Date	Revision

Consultant

H+K ARCHITECTS
5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262
P 775+332+6640
F 775+332+6642
hkarchitects.com

City of Sparks
"B" Street Amphitheater Renovation

Victorian Avenue
Sparks, NV

Details and Door Schedule

November 18, 2022
H+K Project No: 2208

A801

SECTION 071900 - WATER REPELLENTS

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes penetrating water-repellent treatment for cast-in-place concrete and CMU assemblies.

1.2 PERFORMANCE REQUIREMENTS

A. Water Absorption: Minimum 80 percent reduction of water absorption after 24 hours in comparison of treated and untreated specimens.
1. Cast-in Place Concrete: ASTM C 642.
2. Concrete Masonry Units: ASTM C 140.

B. Water Penetration and Leakage through Masonry: Minimum 90 percent reduction in leakage rate in comparison of treated and untreated specimens, according to ASTM E 514.

C. Durability: Maximum 5 percent loss of water-repellent properties after 2500 hours of weathering according to ASTM G 154 in comparison to water-repellent-treated specimens before weathering.

1.3 INFORMATIONAL SUBMITTALS

A. Product Certificates: For each type of water repellent, from manufacturer.

B. Warranty: Special warranty specified in this Section.

1.4 PROJECT CONDITIONS

A. Limitations: Proceed with application only when the following existing and forecasted weather and substrate conditions permit water repellents to be applied according to manufacturers' written instructions and warranty requirements:
1. Ambient temperature is above 40 deg F and below 100 deg F and will remain so for 24 hours.
2. Rain or snow is not predicted within 24 hours.
3. Not less than seven days have passed since surfaces were last wet.
4. Windy conditions do not exist that might cause water repellent to be blown onto vegetation or surfaces not intended to be treated.

1.5 WARRANTY

A. Special Warranty: Manufacturer's standard form in which manufacturer and applicator agree to repair or replace materials that fail to maintain water repellency specified in "Performance Requirements" Article within specified warranty period.
1. Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PENETRATING WATER REPELLENTS

A. Proprietary-Blend, Penetrating Water Repellent: Clear, consisting of 1 or several different resins (silanes or siloxanes), polymers, stearates, or oils plus other compounds or products of components; and with 5 lb/gal. (600 g/L) or less VOCs.
1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
a. Hydrozo, a division of ChemRex; Enviroseal Double 7 VOC.
b. L&M Construction Chemicals, Inc. Hydroblock.
c. Evonik-Degussa Corp; Chem-trete PB-VOC.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Applicator present, for compliance with requirements and conditions affecting performance of the Work.
1. Verify that surfaces are clean and dry according to water-repellent manufacturer's requirements. Check moisture content in three representative locations by method recommended by manufacturer.
2. Inspect for previously applied treatments that may inhibit penetration or performance of water repellents.
3. Verify that there is no efflorescence or other removable residues that would be trapped beneath the application of water repellent.
4. Verify that required repairs are complete, cured, and dry before applying water repellent.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Cleaning: Before application of water repellent, clean substrate of substances that could impair penetration or performance of product according to water-repellent manufacturer's written instructions and as follows:
1. Cast-in-Place Concrete and Concrete Unit Masonry: Remove oil, curing compounds, laitance, and other substances that inhibit penetration or performance of water repellents according to ASTM E 1857.

B. Protect adjoining work, including mortar and sealant bond surfaces, from spillage or blow-over of water repellent. Cover live vegetation.

3.3 APPLICATION

A. Apply a second saturation coating, repeating first application. Comply with manufacturer's written instructions for limitations on drying time between coats and after rainstorm wetting of surfaces between coats. Consult manufacturer's technical representative if written instructions are not applicable to Project conditions.

3.4 FIELD QUALITY CONTROL

A. Coverage Test: In the presence of Architect, hose down a dry, repellent-treated surface to verify complete and uniform product application. A change in surface color will indicate incomplete application.
1. Notify Architect seven days in advance of the dates and times when surfaces will be tested.
2. Reapply water repellent until coverage test indicates complete coverage.

3.5 CLEANING

A. Immediately clean water repellent from adjoining surfaces and surfaces soiled or damaged by water-repellent application as work progresses. Correct damage to work of other trades caused by water-repellent application, as approved by Architect.

B. Comply with manufacturer's written cleaning instructions.

END OF SECTION 071900

SECTION 074214 - FORMED METAL WALL PANELS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Pre-formed, exposed-fastener, flat seam metal wall panel system including anchor clips, fasteners, flashing and trim.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for each type of panel and accessory.

B. Shop Drawings:

1. Accessories: Include details of the flashing, trim, and anchorage systems, at a scale of not less than 1-1/2 inches per 12 inches.

1.3 DELIVERY, STORAGE, AND HANDLING

A. Deliver components, metal panels, and other manufactured items so as not to be damaged or deformed. Package metal panels for protection during transportation and handling.

B. Stack metal panels horizontally on platforms or pallets, covered with suitable weathertight and ventilated covering. Store metal panels to ensure dryness, with positive slope for drainage of water. Do not store metal panels in contact with other materials that might cause staining, denting, or other surface damage.

C. Retain strippable protective covering on metal panels during installation.

1.4 FIELD CONDITIONS

A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit assembly of metal panels to be performed according to manufacturers' written instructions and warranty requirements.

1.5 COORDINATION

A. Coordinate metal panel installation with rain drainage work, flashing, trim, construction of soffits, and other adjoining work to provide a leakproof, secure, and noncorrosive installation.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Design Loads: Design Loads shall be calculated in accordance with ASCE 7-05 by a professional engineer.

B. Structural Capacity: The structural capacity for the panel system to resist all applicable loads, including wind loads, shall be determined in accordance with AISI SG-02-1. The calculated allowable panel capacity shall exceed the design load for all combinations of loading as required by ASCE 7-05.

C. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes by preventing buckling, opening of joints, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.

1. Temperature Change (Range): 120 deg F 67 deg C.

2.2 EXPOSED-FASTENER, LAP-SEAM METAL WALL PANELS

A. General: Provide factory-formed metal panels designed to be field assembled by lapping side edges of adjacent panels and mechanically attaching panels to supports using exposed fasteners at side laps. Include accessories required for weathertight installation.

B. Corrugated-Profile, Exposed-Fastener Metal Wall Panels: Match existing wall panel profile.

1. Manufacturers: Subject to compliance with requirements, provided products by basis-of-design manufacturer, or other manufacturers offering products that comply with the specified requirements:

a. American Buildings – A Nucor Company.
1) Long Span III Panel System

2. Metallic-Coated Steel Sheet: Zinc-coated (galvanized) steel sheet complying with ASTM A 653/A 653M, G90 coating designation, or aluminum-zinc alloy-coated steel sheet complying with ASTM A 792/A 792M, Class AZ50 coating designation; structural quality. Prepainted by the coil-coating process to comply with ASTM A 755/A 755M.

a. Nominal Thickness: 0.276 inches.
b. Exterior Finish: Two-coat fluoropolymer.
c. Color: Match existing color.

2.3 MISCELLANEOUS MATERIALS

A. Panel Accessories: Provide components required for a complete, weathertight panel system including trim, copings, fasciae, mullions, sills, corner units, clips, flashings, sealants, gaskets, fillers, closure strips, and similar items. Match material and finish of metal panels.

B. Flashing and Trim: Provide flashing and trim formed from same material as metal panels as required to seal against weather and to provide finished appearance. Locations include, but are not limited to, bases, drips, sills, jambs, corners, endwalls, framed openings, rakes, fasciae, parapet caps, soffits, reveals, and fillers. Finish flashing and trim with same finish system as adjacent metal panels.

C. Panel Fasteners: Stainless steel self-tapping screws designed to withstand design loads. Provide exposed fasteners with heads matching color of metal panels by means of factory-applied coating. Provide neoprene bonded sealing washers with finish to match panel color for exposed fasteners.

D. Lap Fasteners: Panel fasteners which are used to stitch panels together at panel laps shall be stainless steel self-tapping screws with neoprene bonded washers painted to match panel color in size as recommended by manufacturer.

E. Exposed Trim Fasteners: Stainless-steel fasteners painted to match panel color as recommended by manufacturer.

F. Panel Sealants: Provide sealant type recommended by manufacturer that are compatible with panel materials, are nonstaining, and do not damage panel finish.

1. Sealant Tape: Pressure-sensitive, 100 percent solids, gray polyisobutylene compound sealant tape with release-paper backing. Provide permanently elastic, nonsag, nontoxic, nonstaining tape 1/2 inch wide and 1/8 inch thick.
2. Joint Sealant: ASTM C 920; elastomeric polyurethane or silicone sealant; of type, grade, class, and use classifications required to seal joints in metal panels and remain weathertight; and as recommended in writing by metal panel manufacturer.
3. Exposed Applications: Tripolymer of polyurethane sealant or equal in color as selected by Architect from manufacturer's standard range.

2.4 FINISHES

A. Steel Panels and Accessories:

1. Two-Coat Fluoropolymer: AAMA 621. Fluoropolymer finish containing not less than 70 percent PVDF resin by weight in color coat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
2. Concealed Finish: Apply pretreatment and manufacturer's standard white or light-colored acrylic or polyester backer finish consisting of prime coat and wash coat with a minimum total dry film thickness of 0.5 mil.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, metal panel supports, and other conditions affecting performance of the Work.

1. Examine wall framing to verify that girts, angles, channels, studs, and other structural panel support members and anchorage have been installed within alignment tolerances required by metal wall panel manufacturer.

B. Examine rough-in for components and systems penetrating metal panels to verify actual locations of penetrations relative to seam locations of metal panels before installation.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Miscellaneous Supports: Install subframing, furring, and other miscellaneous panel support members and anchorages according to ASTM C 754 and metal panel manufacturer's written recommendations.

3.3 METAL PANEL INSTALLATION

A. General: Install metal panels according to manufacturer's written instructions in orientation, sizes, and locations indicated. Install panels perpendicular to supports unless otherwise indicated. Anchor metal panels and other components of the Work securely in place, with provisions for thermal and structural movement.

1. Shim or otherwise plumb substrates receiving metal panels.
2. Flash and seal metal panels at perimeter of all openings. Fasten with self-tapping screws. Do not begin installation until flashings that will be concealed by metal panels are installed.
3. Install screw fasteners in predrilled holes.
4. Locate and space fastenings in uniform vertical and horizontal alignment.
5. Install flashing and trim as metal panel work proceeds.
6. Locate panel splices over, but not attached to, structural supports. Stagger panel splices and end laps to avoid a four-panel lap splice condition.
7. Align bottoms of metal panels and fasten with blind rivets, bolts, or self-tapping screws. Fasten flashings and trim around openings and similar elements with self-tapping screws.
8. Provide weathertight escutcheons for pipe- and conduit-penetrating panels.

B. Fasteners:

1. Steel Panels: Use stainless-steel fasteners for surfaces exposed to the exterior; use galvanized-steel fasteners for surfaces exposed to the interior.

C. Metal Protection: Where dissimilar metals contact each other or corrosive substrates, protect against galvanic action as recommended in writing by metal panel manufacturer.

D. Lap-Seam Metal Panels: Fasten metal panels to supports with fasteners at each lapped joint at location and spacing recommended by manufacturer.

1. Lap ribbed or fluted sheets one full rib. Apply panels and associated items true to line for neat and weathertight enclosure.
2. Provide metal-backed washers under heads of exposed fasteners bearing on weather side of metal panels.
3. Locate and space exposed fasteners in uniform vertical and horizontal alignment. Use proper tools to obtain controlled uniform compression for positive seal without rupture of washer.
4. Install screw fasteners with power tools having controlled torque adjusted to compress washer tightly without damage to washer, screw threads, or panels. Install screws in predrilled holes.
5. Flash and seal panels with weather closures at perimeter of all openings.
6. Install components required for a complete metal panel system including trim, copings, corners, seam covers, flashings, sealants, gaskets, fillers, closure strips, and similar items. Provide types indicated by metal wall panel manufacturer; or, if not indicated, provide types recommended by metal panel manufacturer.

E. Flashing and Trim: Comply with performance requirements, manufacturer's written installation instructions, and SMACNA's "Architectural Sheet Metal Manual." Provide concealed fasteners where possible, and set units true to line and level as indicated. Install work with laps, joints, and seams that are permanently watertight.

1. Install exposed flashing and trim that is without buckling and tool marks, and that is true to line and levels indicated, with exposed edges folded back to form hems. Install sheet metal flashing and trim to fit substrates and achieve waterproof performance.

3.4 CLEANING AND PROTECTION

A. Remove temporary protective coverings and strippable films, if any, as metal panels are installed, unless otherwise indicated in manufacturer's written installation instructions. On completion of metal panel installation, clean finished surfaces as recommended by metal panel manufacturer. Maintain in a clean condition during construction.

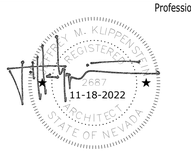
B. Replace metal panels that have been damaged or have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.

END OF SECTION 074214

M:\Acadevin\2022 Projects\220810 Active\0A Drawings\0A2 Revit\2208 Sparks Amphitheater.rvt

11/17/2022 11:05:03 AM

Professional Seal



△ Date Revision

Consultant

H+K ARCHITECTS
5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262
P 775+332+6640
F 775+332+6642
hkarchitects.com

City of Sparks
"B" Street Amphitheater Renovation

Victorian Avenue
Sparks, NV

Specifications

November 18, 2022
H+K Project No: 2208

A802

SECTION 081113 – STEEL DOORS AND FRAMES

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes hollow-metal work.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

1.3 DELIVERY, STORAGE, AND HANDLING

A. Store hollow-metal work vertically under cover at Project site with head up. Place on minimum 4-inch-high wood blocking.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements,available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. Steelcraft; an Allegion Brand (basis-of-design)
2. Curries Company; ASSA ABLOY

2.2 EXTERIOR HOLLOW-METAL DOORS AND FRAMES

A. Construct exterior doors and frames to comply with the standards indicated for materials, fabrication, hardware locations, hardware reinforcement, tolerances, and clearances, and as specified.

B. Maximum-Duty Doors and Frames: SDI A250.8, Level 4.

1. Physical Performance: Level A according to SDI A250.4.
2. Doors:
   a. Type: As indicated in the Door and Frame Schedule.
   b. Thickness: 1-3/4 inches
   c. Face: Metallic-coated steel sheet, minimum thickness of 0.067 inch, with minimum A40 coating.
   d. Edge Construction: Model 2, Seamless.
   e. Core: Manufacturer's standard polystyrene, polyurethane, polyisocyanurate, mineral-board, or vertical steel-stiffener core at manufacturer's discretion.
3. Frames:
   a. Materials: Metallic-coated steel sheet, minimum thickness of 0.067 inch, with minimum A40 coating.
   b. Construction: Full profile welded, ground smooth to match frame texture.
4. Exposed Finish: Prime for field painting.

2.3 MATERIALS

A. Cold-Rolled Steel Sheet: ASTM A 1008/A 1008M, Commercial Steel (CS), Type B; suitable for exposed applications.

B. Hot-Rolled Steel Sheet: ASTM A 1011/A 1011M, Commercial Steel (CS), Type B; free of scale, pitting, or surface defects; pickled and oiled.

C. Metallic-Coated Steel Sheet: ASTM A 653/A 653M, Commercial Steel (CS), Type B.

D. Inserts, Bolts, and Fasteners: Hot-dip galvanized according to ASTM A 153/A 153M.

E. Mineral-Fiber Insulation: ASTM C 665, Type I (blankets without membrane facing); consisting of fibers manufactured from slag or rock wool; with maximum flame-spread and smoke-developed indexes of 25 and 50, respectively; passing ASTM E 136 for combustion characteristics.

2.4 FABRICATION

A. Fabricate hollow-metal work to be rigid and free of defects, warp, or buckle. Accurately form metal to required sizes and profiles, with minimum radius for metal thickness.

B. Hollow-Metal Doors:

1. Vertical Edges for Single-Acting Doors: Provide beveled or square edges at manufacturer's discretion.
2. Top Edge Closures: Close top edges of doors with flush closures of same material as face sheets.
3. Bottom Edge Closures: Close bottom edges of doors with end closures or channels of same material as face sheets. Provie weep-hole openings in bottom of door to permit moisture to escape. Seal joints in to edges of doors against water penetration.

C. Fabricate concealed stiffeners and edge channels from either cold- or hot-rolled steel sheet.

D. Hardware Preparation: Factory prepare hollow-metal work to receive templated mortised hardware; include cutouts, reinforcement, mortising, drilling, and tapping according to SDI A250.6, the Door Hardware Schedule, and templates.

1. Reinforce doors and frames to receive nontemplated, mortised, and surface-mounted door hardware.
2. Comply with applicable requirements in SDI A250.6 and BHMA A156.115 for preparation of hollow-metal work for hardware.

2.5 STEEL FINISHES

A. Prime Finish: Clean, pretreat, and apply manufacturer's standard primer.

1. Shop Primer: Manufacturer's standard, fast-curing, lead- and chromate-free primer complying with SDI A250.10; recommended by primer manufacturer for substrate; compatible with substrate and field-applied coatings despite prolonged exposure.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.

B. Examine roughing-in for embedded and built-in anchors to verify actual locations before frame installation.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Drill and tap doors and frames to receive nontemplated, mortised, and surface-mounted door hardware.

3.3 INSTALLATION

A. General: Install hollow-metal work plumb, rigid, properly aligned, and securely fastened in place. Comply with Drawings and manufacturer's written instructions.

B. Hollow-Metal Doors: Fit hollow-metal doors accurately in frames, within clearances specified below. Shim as necessary.

1. Non-Fire-Rated Steel Doors:
   a. Between Door and Frame Jambs and Head: 1/8 inch plus or minus 1/32 inch.
   b. Between Edges of Pairs of Doors: 1/8 inch to 1/4 inch plus or minus 1/32 inch.
   c. At Bottom of Door: 3/4 inch typical, 1/4 inch at raised thresholds, plus or minus 1/32 inch.
   d. Between Door Face and Stop: 1/16 inch to 1/8 inch plus or minus 1/32 inch.

3.4 ADJUSTING AND CLEANING

A. Final Adjustments: Check and readjust operating hardware items immediately before final inspection. Leave work in complete and proper operating condition. Remove and replace defective work, including hollow-metal work that is warped, bowed, or otherwise unacceptable.

B. Prime-Coat Touchup: Immediately after erection, sand smooth rusted or damaged areas of prime coat and apply touchup of compatible air-drying, rust-inhibitive primer.

END OF SECTION 081113

SECTION 083323 - OVERHEAD COILING DOORS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Service doors.

1.2 ACTION SUBMITTALS

A. Product and Maintenance Data: For each type and size of overhead coiling door and accessory.

B. Shop Drawings: For each installation and for special components not dimensioned or detailed in manufacturer's product data.

1. Include points of attachment and their corresponding static and dynamic loads imposed on structure.
2. Show locations of controls, locking devices detectors or replaceable fusible links, and other accessories.
3. Include diagrams for power, signal, and control wiring.

1.3 QUALITY ASSURANCE

A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer for both installation and maintenance of units required for this Project.

1.4 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace components of doors that fail in materials or workmanship within specified warranty period.

1. Warranty Period: Two years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Structural Performance, Exterior Doors: Capable of withstanding the following design wind loads:

1. Design Wind Load: 37.0 PSF.
2. Testing: According to ASTM E330/E330M.

B. Seismic Performance: Overhead coiling doors withstand the effects of earthquake motions determined according to[ASCE/SEI 7.

2.2 DOOR ASSEMBLY

A. Service Door: Overhead coiling door formed with curtain of interlocking metal slats.

1. CornellCookson, Inc. (basis-of-design)
2. Or equal.

B. Operation Cycles: Door components and operators capable of operating for not less than 50,000 cycles.

C. Door Curtain Material: Galvanized steel .

D. Door Curtain Slats: Flat profile slats of 3-1/4 inch center-to-center height.

1. Perforated Slats: Approximately 1/8-inch pinholes with 22% minimum open space.

E. Bottom Bar: Two angles, each not less than 1-1/2 by 1-1/2 by 1/8 inch thick; fabricated from hot-dip galvanized steel and finished to match door.

F. Curtain Jamb Guides: Galvanized steel with exposed finish matching curtain slats.

G. Hood: Galvanized steel .

1. Mounting: Face of HSS steel beam.

H. Locking Devices: Equip door with locking device assembly .

1. Locking Device Assembly: Cremone-type, both jamb side locking bars, operable from inside with thumbturn.

I. Electric Door Operator:

1. Usage Classification: Standard duty, up to 25 cycles per hour and 90 cycles per day .
2. Safety: Listed according to UL 325 by a qualified testing agency for commercial or industrial use.
3. Motor Exposure: Exterior.
4. Motor Electrical Characteristics:
   a. Horsepower: 1 hp.
   b. Voltage: 240V, 1 phase.
5. Emergency Manual Operation: Push-up type.
6. Obstruction-Detection Device: Automatic photoelectric sensor .
7. Control Stations: Where indicated on Drawings .

J. Door Finish:

1. Factory Prime Finish: Prepared for high-performance intermediate and finish coating compliant with MPI EXT 5.1F coating system (MPI #101 prime coat).

2.3 MATERIALS, GENERAL

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

2.4 DOOR CURTAIN MATERIALS AND CONSTRUCTION

A. Door Curtains: Fabricate overhead coiling-door curtain of interlocking metal slats, designed to withstand wind loading indicated, in a continuous length for width of door without splices. Unless otherwise indicated, provide slats of thickness and mechanical properties recommended by door manufacturer for performance, size, and type of door indicated, and as follows:

B. Curtain Jamb Guides: Manufacturer's standard angles or channels and angles of same material and finish as curtain slats unless otherwise indicated, with sufficient depth and strength to retain curtain, to allow curtain to operate smoothly, and to withstand loading. Slot bolt holes for guide adjustment. Provide removable stops on guides to prevent overtravel of curtain.

2.5 HOODS

A. General: Form sheet metal hood to entirely enclose coiled curtain and operating mechanism at opening head. Contour to fit end brackets to which hood is attached. Roll and reinforce top and bottom edges for stiffness. Form closed ends for surface-mounted hoods and fascia for any portion of between-jamb mounting projecting beyond wall face. Equip hood with intermediate support brackets as required to prevent sagging.

2.6 LOCKING DEVICES

A. Slide Bolt: Fabricate with side-locking bolts to engage through slots in tracks for locking by padlock, located on both left and right jamb sides, operable from coil side.

B. Locking Device Assembly: Fabricate with cylinder lock, spring-loaded dead bolt, operating handle, cam plate, and adjustable locking bars to engage through slots in tracks.

1. Lock Cylinders: Manufacturer's standard 6-pin cylinder.
2. Keys: Six (6) for each cylinder.

C. Safety Interlock Switch: Equip power-operated doors with safety interlock switch to disengage power supply when door is locked.

2.7 COUNTERBALANCE MECHANISM

A. General: Counterbalance doors by means of manufacturer's standard mechanism with an adjustable-tension, steel helical torsion spring mounted around a steel shaft and contained in a spring barrel connected to top of curtain with barrel rings. Use grease-sealed bearings or self-lubricating graphite bearings for rotating members.

B. Brackets: Manufacturer's standard mounting brackets of either cast iron or cold-rolled steel plate.

2.8 ELECTRIC DOOR OPERATORS

A. General: Electric door operator assembly of size and capacity recommended and provided by door manufacturer for door and operation-cycles requirement specified, with electric motor and factory-prewired motor controls, starter, gear-reduction unit, solenoid-operated brake, clutch, control stations, control devices, integral gearing for locking door, and accessories required for proper operation.

1. Comply with NFPA 70.
2. Control equipment complying with NEMA ICS 1, NEMA ICS 2, and NEMA ICS 6, with NFPA 70 Class 2 control circuit, maximum 24-V.

B. Usage Classification: Electric operator and components capable of operating for not less than number of cycles per hour indicated for each door.

C. Motors: Reversible-type motor with exposure indicated for each door assembly.

1. Electrical Characteristics: Minimum as indicated for each door assembly. If not indicated, large enough to start, accelerate, and operate door in either direction from any position, at a speed not less than 8 in./sec. and not more than 12 in./sec., without exceeding nameplate ratings or service factor.
2. Operating Controls, Controllers, Disconnect Switches, Wiring Devices, and Wiring: Manufacturer's standard unless otherwise indicated.

D. Obstruction-Detection Devices: External entrapment protection consisting of indicated automatic safety sensor capable of protecting full width of door opening.

1. Photoelectric Sensor: Manufacturer's standard system designed to detect an obstruction in door opening without contact between door and obstruction.
   a. Self-Monitoring Type: Designed to interface with door operator control circuit to detect damage to or disconnection of sensing device. When self-monitoring feature is activated, door closes only with sustained or constant pressure on close button.

E. Control Station: Three-button control station in fixed location with momentary-contact push-button controls labeled "Open" and "Stop" and sustained- or constant-pressure push-button control labeled "Close."

1. Exterior-Mounted Units: Full-guarded, standard-duty, surface-mounted, weatherproof type, NEMA ICS 6, Type 4 enclosure, key operated.

F. Emergency Manual Operation: Equip each electrically powered door with capability for emergency manual operation. Design manual mechanism so required force for door operation does not exceed 30 lbf.

G. Emergency Operation Disconnect Device: Equip operator with hand-operated disconnect mechanism for automatically engaging manual operator and releasing brake for emergency manual operation while disconnecting motor without affecting timing of limit switch. Mount mechanism so it is accessible from floor level. Include interlock device to automatically prevent motor from operating when emergency operator is engaged.

H. Motor Removal: Design operator so motor may be removed without disturbing limit-switch adjustment and without affecting emergency manual operation.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

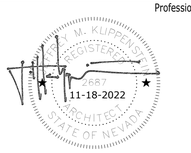
A. Install overhead coiling doors and operating equipment complete with necessary hardware, anchors, inserts, hangers, and equipment supports; according to manufacturer's written instructions and as specified. Install per UL 325.

3.2 DEMONSTRATION

A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain overhead coiling doors.

END OF SECTION 083323

Professional Seal



△ Date Revision

Consultant

H+K ARCHITECTS
5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262
P 775+332+6640
F 775+332+6642
hkarchitects.com

City of Sparks
"B" Street Amphitheater Renovation

Victorian Avenue
Sparks, NV

Specifications

November 18, 2022
H+K Project No: 2208

A803

SECTION 092216 - NON-LOAD-BEARING STEEL FRAMING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Non-load-bearing steel framing systems for exterior metal panel assemblies.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

PART 2 - PRODUCTS

2.1 FRAMING SYSTEMS

A. Framing Members, General: Comply with ASTM C 754 for conditions indicated.

1. Steel Sheet Components: Comply with ASTM C 645 requirements for metal unless otherwise indicated.
2. Protective Coating: Coating with equivalent corrosion resistance of ASTM A 653/A 653M, G40 (Z120), hot-dip galvanized unless otherwise indicated.

B. Studs and Tracks: ASTM C 645. Use steel studs and tracks..

1. Steel Studs and Runners:

a. Minimum Base-Metal Thickness: 54mil (16ga).
b. Depth: As indicated on Drawings.

C. Flat Strap and Backing Plate: Steel sheet for blocking and bracing in length and width indicated.

1. Minimum Base-Metal Thickness: 54mil (16ga).

2.2 AUXILIARY MATERIALS

A. General: Provide auxiliary materials that comply with referenced installation standards.

1. Fasteners for Metal Framing: Of type, material, size, corrosion resistance, holding power, and other properties required to fasten steel members to substrates.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas and substrates, with Installer present, and including welded hollow-metal frames, cast-in anchors, and structural framing, for compliance with requirements and other conditions affecting performance of the Work.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION, GENERAL

A. Install supplementary framing, and blocking to support fixtures, equipment services, heavy trim, grab bars, toilet accessories, furnishings, or similar construction.

B. Install bracing at terminations in assemblies.

3.3 INSTALLING FRAMED ASSEMBLIES

A. Install framing system components according to spacings indicated, but not greater than spacings required by referenced installation standards for assembly types.

B. Where studs are installed directly against exterior masonry, concretes or dissimilar metals at exterior walls, install isolation strip between studs and exterior wall.

C. Install studs so flanges within framing system point in same direction.

D. Install tracks (runners) at bottom and top supports. Extend framing full height to structural supports. Continue framing around penetrations.

1. Curved Partitions:

a. Bend track to uniform curve and locate straight lengths so they are tangent to arcs.
b. Begin and end each arc with a stud, and space intermediate studs equally along arcs. On straight lengths of no fewer than two studs at ends of arcs, place studs 6 inches (150 mm) o.c.

E. Installation Tolerance: Install each framing member so fastening surfaces vary not more than 1/8 inch (3 mm) from the plane formed by faces of adjacent framing.

END OF SECTION 092216

SECTION 099600 - HIGH-PERFORMANCE COATING

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes surface preparation and application of high-performance coating system.

1. Exterior Substrate:
a. Steel.
b. Wood.

1.2 SUBMITTALS

A. Product Data: For each type of product indicated. Include preparation requirements and application instructions. Provide printout of current "MPI Approved Products List" for each product category specified, with the proposed product highlighted.

B. Samples: For each type of coating system and in each color indicated.

1.3 MAINTENANCE MATERIAL SUBMITTALS

A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

1. Coatings: 5 percent, but not less than 1 gal. (3.8 L) of each material and color applied.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Store materials not in use in tightly covered containers in well-ventilated areas with ambient temperatures continuously maintained at not less than 45 deg F (7 deg C).

1. Maintain containers in clean condition, free of foreign materials and residue.
2. Remove rags and waste from storage areas daily.

1.5 FIELD CONDITIONS

A. Apply coatings only when temperature of surfaces to be coated and surrounding air temperatures are between 50 and 95 deg F (10 and 35 deg C).

B. Do not apply coatings when relative humidity exceeds 85 percent; at temperatures less than 5 deg F (3 deg C) above the dew point; or to damp or wet surfaces.

C. Do not apply exterior coatings in snow, rain, fog, or mist.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. Benjamin Moore & Co.
2. Sherwin-Williams Company (The).
3. PPG Paints, PPG Industries, Inc.

2.2 HIGH-PERFORMANCE COATINGS, GENERAL

A. MPI Standards: Products shall comply with MPI standards indicated and shall be listed in its "MPI Approved Products Lists".

B. Material Compatibility:

1. Provide materials for use within each coating system that are compatible with one another, and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
2. For each coat in a coating system, provide products recommended in writing by manufacturers of topcoat for use in coating system and on substrate indicated.
3. Provide products of same manufacturer for each coat in a coating system.

C. Gloss Level 5 (Semi Gloss): 35 to 70 units at 60 degrees, according to ASTM D 523

D. Colors: Match Architect's sample(s). Intent is for ceilings, fascia/soffit, and new improvements to each have a distinct color.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates and conditions, with Applicator present, for compliance with requirements for conditions affecting performance of the Work.

B. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.

C. Proceed with coating application only after unsatisfactory conditions have been corrected.

1. Beginning coating application constitutes Contractor's acceptance of substrates and conditions.

3.2 PREPARATION

A. Comply with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual" applicable to substrates indicated.

B. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.

1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection.

C. Blast or otherwise clean substrates of substances that could impair bond of coatings, including rust, dirt, oil, grease, dust, and incompatible paints and encapsulants.

1. Remove incompatible primers and reprime substrate with compatible primers or apply tie coat as required to produce coating systems indicated.
2. filler. Sand smooth when dried.

3.3 APPLICATION

A. Apply high-performance coatings according to manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual."

B. Tint each undercoat a lighter shade to facilitate identification of each coat if multiple coats of the same material are to be applied. Tint undercoats to match color of finish coat, but provide sufficient difference in shade of undercoats to distinguish each separate coat.

C. If undercoats or other conditions show through final coat, apply additional coats until cured film has a uniform coating finish, color, and appearance.

D. Apply coatings to produce surface films without cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness, or other surface imperfections. Produce sharp color breaks.

3.4 CLEANING AND PROTECTION

A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.

B. After completing coating application, clean spattered surfaces. Remove spattered coatings by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.

C. Protect work of other trades against damage from coating operation. Correct damage by cleaning, repairing, replacing, and recoating, as approved by Architect, and leave in an undamaged condition.

D. At completion of construction activities of other trades, touch up and restore damaged or defaced coated surfaces.

3.5 EXTERIOR HIGH-PERFORMANCE COATING SCHEDULE

A. Steel Substrates:

1. Epoxy System: MPI EXT 5.1F

a. Prime Coat: Epoxy, anti-corrosive, for metal (MPI #101).
b. Intermediate Coat: Epoxy, high build, low gloss (MPI #108).
c. Topcoat: Epoxy deck coating (MPI #77) - Gloss Level 5.

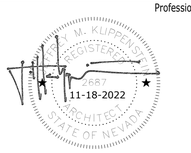
B. Wood Substrates: Wood trim and board siding.

1. Pigmented Polyurethane System: MPI EXT 6.3H

a. Prime Coat: Polyurethane, two component, pigmented, gloss, matching topcoat.
b. Intermediate Coat: Repeat Prime Coat.
c. Topcoat: Polyurethane, two component, pigmented (MPI #72).

END OF SECTION 099600

Professional Seal



△	Date	Revision

Consultant

H+K ARCHITECTS
5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262
P 775+332+6640
F 775+332+6642
hkarchitects.com

City of Sparks
"B" Street Amphitheater Renovation

Victorian Avenue
Sparks, NV

Specifications

November 18, 2022
H+K Project No: 2208

A804

STRUCTURAL DRAWING ABBREVIATION LIST

A.B.	- ANCHOR BOLT
ABT.	- ABOUT
A.F.F.	- ABOVE FINISHED FLOOR
AGGR.	- AGGREGATE
APPROX.	- APPROXIMATE
ARCH	- ARCHITECTURAL
B.B.PL	- BOTTOM OF BASE PLATE
B.C.	- BOLT CIRCLE
BLKG	- BLOCKING
BM	- BEAM
B.N.	- BOUNDARY NAILING
B.S.	- BOTH SIDES
BOF	- BOTTOM OF FOOTING
BOT. (OR BTM.)	- BOTTOM
BTWN	- BETWEEN
BW	- BOTH WAYS
C-C	- CENTER TO CENTER
C.I.P.	- CAST-IN-PLACE
CJ	- CONTROL JOINT
C.L. (OR ℄)	- CENTERLINE
CLR.	- CLEAR
CMU	- CONCRETE MASONRY UNIT
CONC.	- CONCRETE
CONT.	- CONTINUOUS
DBA	- DEFORMED BAR ANCHOR
DIA. (OR Ø)	- DIAMETER
DO (OR 'do')	- REPEAT INDICATED STRUCT. MEMBER
DWG.	- DRAWING
DWL	- DOWEL
EA.	- EACH
E.F.	- EACH FACE
EL. (OR ELEV.)	- ELEVATION
EMBED.	- EMBEDMENT
E.N.	- EDGE NAILING
EQ	- EQUAL
E.W.	- EACH WAY
(E)	- EXISTING
FD	- FLOOR DRAIN
F.F.	- FAR FACE
F. FL.	- FINISHED FLOOR
F.N.	- FIELD NAILING
F.O.	- FACE OF
F.S.	- FAR SIDE
FTG	- FOOTING
GA	- GAGE
GALV.	- GALVANIZED
HDR	- HEADER
H.P.	- HIGH POINT
HSA	- HEADED STUD ANCHOR
H.S.B.	- HIGH STRENGTH BOLT
I.D.	- INSIDE DIAMETER
INV. (OR I.E.)	- INVERT (INVERT ELEVATION)
I.F.	- INSIDE FACE
K	- KIP
L.P.	- LOW POINT
L.L.V.	- LONG LEG VERTICAL
MAX	- MAXIMUM
MB	- MACHINE BOLT
MECH.	- MECHANICAL
MIN.	- MINIMUM
(N)	- NEW
N.F.	- NEAR FACE
N.I.C.	- NOT IN CONTRACT
N.S.	- NEAR SIDE
N.T.S.	- NOT TO SCALE
O.F.	- OUTSIDE FACE
O.C.	- ON CENTER
OPP.	- OPPOSITE
PL. (OR ℙ)	- PLATE
P.T.	- PRESSURE TREATED
RD	- ROOF DRAIN
REINF	- REINFORCING
REQ'S	- REQUIREMENTS
SAD	- SEE ARCHITECTURAL DRAWINGS
S.A.P.	- SHOP ASSEMBLED PIECE
SCJ	- SLAB CONTROL JOINT
SIM	- SIMILAR
SQ.	- SQUARE
STD	- STANDARD
STRUCT.	- STRUCTURAL
SW	- SHEAR WALL
SYM.	- SYMMETRICAL
T & B	- TOP AND BOTTOM PIECE
TJ	- TIED JOINT
T.O.C.	- TOP OF CONCRETE
T.O.L.	- TOP OF LEDGER
T.O.M.	- TOP OF MASONRY
T.O.S.	- TOP OF STEEL
T.O.W.	- TOP OF WALL
TC	- TOP OF CURB
TRANS.	- TRANSVERSE
TYP.	- TYPICAL
U.N.O.	- UNLESS NOTED OTHERWISE
VERT.	- VERTICAL
W.P.	- WORK POINT
W/	- WITH
W/O	- WITHOUT
WS	- WATERSTOP
WWF	- WELDED WIRE FABRIC
#	- SIZE OF DEFORMED REINFORCING BAR
@	- CENTER TO CENTER SPACING

SYMBOLS

VIEW IN SECTION

MATERIAL	NEW
CONCRETE	
STRUCTURAL STEEL	
BRICK OR BLOCK	
GROUT	
PLYWOOD SHEATHING	
WOOD STRUCTURAL	
GRAVEL BASE/MATERIAL	
SOIL	
STRUCTURAL FILL	
RIP-RAP	
EPOXY ANCHOR	
EXPANSION ANCHOR	

VIEW IN PLAN

WOOD GRAIN FINISH

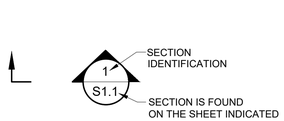
TREAD PLATE

GRATING

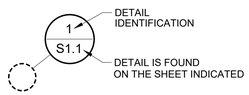
BUILDING MATERIALS LEGEND

NOT TO SCALE

NOTE: EXISTING MATERIALS WILL BE SHOWN SCREENED.



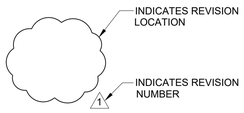
SECTION



DETAIL

DRAWING CROSS-REFERENCE

NOT TO SCALE



REVISION NOTATIONS

NOT TO SCALE

STRUCTURAL NOTES

1. BASIS OF DESIGN

A. CODE: INTERNATIONAL BUILDING CODE, 2018 EDITION
ASCE/SEI STANDARD 7-16

B. WIND LOADS

- BASIC WIND DESIGN SPEED, V — 120 MPH
- RISK CATEGORY — II
- EXPOSURE — C
- WIND FORCE, F — 37.0 PSF

2. GENERAL

A. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THESE SPECIFICATIONS, THE REFERENCED CODES AND THE REQUIREMENTS OF THE CITY OF SPARKS.

B. THE GENERAL CONTRACTOR SHALL REFER TO DRAWINGS AND/OR SPECIFICATIONS BY OTHER MEMBERS OF THE DESIGN TEAM FOR ALL ADDITIONAL INFORMATION PERTINENT TO THE CONSTRUCTION OF THE PROJECT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO THOROUGHLY REVIEW THESE DOCUMENTS PRIOR TO CONSTRUCTION AND TO VERIFY ALL PROJECT REQUIREMENTS.

C. WHERE DISCREPANCIES OCCUR BETWEEN THE PLANS, DETAILS, AND STRUCTURAL NOTES, NOTIFY THE ENGINEER IMMEDIATELY FOR RESOLUTION.

D. NOTES AND DETAILS NOTED AS "TYPICAL" SHALL BE USED WHEREVER APPLICABLE. SPECIFIC NOTES AND DETAILS TAKE PRECEDENCE OVER TYPICAL NOTES AND DETAILS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BECOME FAMILIAR WITH ALL DETAILS AND TO ENSURE THAT THEY ARE USED WHERE NECESSARY.

E. SHOULD CLARIFICATIONS REGARDING THE INTENT OF THE DESIGN BE REQUIRED, THE CONTRACTOR SHALL SUBMIT REQUESTS FOR INFORMATION (RFI'S) TO THE ENGINEER. RFI'S SHALL INCLUDE A DETAILED WRITTEN STATEMENT THAT INDICATES THE SPECIFIC DRAWINGS OR SPECIFICATIONS IN NEED OF CLARIFICATION AND THE NATURE OF THE CLARIFICATION REQUIRED. THE ENGINEER SHALL RESPOND IN WRITING AND ISSUE CLARIFICATIONS AS NECESSARY. RESPONSES TO RFI'S ARE NOT TO BE CONSIDERED AS APPROVED CHANGE ORDERS.

F. THE CONTRACT DOCUMENTS REPRESENT THE FINISHED STRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, PROCEDURES, AND SEQUENCE OF CONSTRUCTION. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO PROVIDE ALL MEASURES REQUIRED TO PROTECT THE STRUCTURE, WORKMEN, AND OTHER PERSONS DURING CONSTRUCTION AND TO PROVIDE ADEQUATE SHORING AND BRACING TO MAINTAIN THE INTEGRITY OF ALL ELEMENTS OF THE STRUCTURE AND EACH AFFECTED SYSTEM DURING CONSTRUCTION. DESIGN OF SHORING, BRACING, SCAFFOLDING, ETC. WHICH ARE REQUIRED TO FACILITATE THE MEANS AND METHODS OF CONSTRUCTION SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

G. THE DRAWINGS SHALL NOT BE SCALED. THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR USING SCALED DIMENSIONS WHICH HAVE NOT BEEN VERIFIED.

H. CHANGES OR DEVIATIONS FROM THE STRUCTURAL DRAWINGS ARE NOT ALLOWED WITHOUT WRITTEN AUTHORIZATION FROM THE ENGINEER.

3. SUBMITTALS

A. AT LEAST TWO WEEKS PRIOR TO PROCEEDING WITH THE APPLICABLE PORTION OF THE WORK, THE CONTRACTOR SHALL SUBMIT THE FOLLOWING FOR REVIEW:

- STRUCTURAL STEEL SHOP DRAWINGS
- AWS CERTIFICATION FOR WELDERS
- EPOXY ADHESIVE ICC REPORT

THE ENGINEER IS NOT RESPONSIBLE FOR DELAYS DUE TO SUBMITTALS WHICH ARE NOT PROVIDED TWO WEEKS IN ADVANCE.

B. SHOP DRAWINGS ARE INTERPRETATIONS OF AND ARE SUPPLEMENTAL TO THE DESIGN DRAWINGS. THEIR INTENT IS TO DEMONSTRATE THAT THE CONTRACTOR HAS UNDERSTOOD THE DESIGN CONCEPT AND TO PROVIDE DETAILED INFORMATION NECESSARY FOR THE FABRICATION, ASSEMBLY, AND INSTALLATION OF THE PRODUCTS AND MATERIALS SPECIFIED. NEITHER THE SHOP DRAWINGS NOR COMMENTS PLACED ON THEM BY THE ENGINEER SHALL BE CONSTRUED AS CHANGE ORDERS.

C. REVIEW OF SUBMITTALS BY THE ENGINEER IS FOR GENERAL COMPLIANCE WITH THE DESIGN INTENT ONLY AND DOES NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR COMPLETING THE WORK IN ACCORDANCE WITH THE DRAWINGS, SPECIFICATIONS AND IBC.

4. ALTERNATIVES (SUBSTITUTIONS)

A. THE ENGINEER WILL CONSIDER ALTERNATIVES FOR STRUCTURAL MATERIALS AND PROCEDURES AS SPECIFIED IN THE CONTRACT DOCUMENTS PROVIDED THE ALTERNATIVE DOES NOT CAUSE AN INCREASE IN COST OR DELAY THE PROJECT IN ANY MANNER. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DEMONSTRATE THAT ALL ALTERNATIVES ARE EQUIVALENT IN STRENGTH, PERFORMANCE, AND DURABILITY TO THE MATERIALS OR PROCEDURES SPECIFIED IN THE CONTRACT DOCUMENTS. STRUCTURAL CALCULATIONS AS PREPARED BY OTHERS SHALL BE SUBMITTED AS REQUIRED BY THE ENGINEER TO DEMONSTRATE COMPLIANCE WITH THESE REQUIREMENTS.

B. THE ENGINEER'S WRITTEN APPROVAL IS REQUIRED PRIOR TO USING ANY ALTERNATIVE. CONSIDERATION OF ANY ALTERNATIVE SUBMITTAL SHALL NOT IMPLY ADVANCE ACCEPTANCE BY THE ENGINEER.

C. THE ENGINEER WILL REQUIRE SUFFICIENT TIME TO ADEQUATELY EVALUATE ANY PROPOSED ALTERNATIVE. THE CONTRACTOR SHALL SUBMIT AN ALTERNATIVE SUBMITTAL SUFFICIENTLY IN ADVANCE TO AVOID DELAY TO THE WORK. THE ENGINEER RESERVES THE RIGHT TO REJECT ANY ALTERNATIVE. SUCH REJECTION SHALL NOT BE GROUNDS FOR DELAYS IN WORK OR AN INCREASE IN THE CONTRACT AMOUNT.

D. ALTERNATIVE SUBMITTALS SHALL BE SUBMITTED TO THE ENGINEER AS STAND-ALONE DOCUMENTS INDEPENDENT OF SHOP DRAWINGS, MATERIAL CERTIFICATIONS, AND OTHER SUBMITTAL REQUIREMENTS. AS A MINIMUM, EACH ALTERNATIVE SUBMITTAL SHALL CONFORM TO, BUT NOT BE LIMITED TO, THE FOLLOWING REQUIREMENTS:

- ALTERNATIVE SUBMITTALS SHALL BE EQUIVALENT IN ALL RESPECTS TO THE SPECIFIED ITEM AND SHALL COMPLY WITH ALL APPLICABLE CODES AND REGULATIONS.
- ALTERNATIVE SUBMITTALS SHALL NOT ALTER OR MODIFY THE DESIGN INTENT, FUNCTION, PERFORMANCE, APPEARANCE, OR PROPORTIONS OF THE SPECIFIED ITEM.
- ALTERNATIVE SUBMITTALS SHALL INCLUDE LEGIBLE, COMPLETE, AND PROPERLY COORDINATED TECHNICAL DATA, SUCH AS ICC EVALUATION REPORTS, AS WELL AS OTHER RELEVANT INFORMATION REQUIRED BY THE ENGINEER TO ADEQUATELY EVALUATE THE ALTERNATIVE. THE CONTRACTOR SHALL PROMPTLY SUBMIT ADDITIONAL DATA AS DIRECTED BY THE ENGINEER, AT NO ADDITIONAL COST TO THE OWNER.

E. THE ENGINEER'S ACCEPTANCE OF AN ALTERNATIVE SHALL NOT RELIEVE THE CONTRACTOR FROM RESPONSIBILITY FOR COMPLIANCE WITH ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS. THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL COORDINATE AND OTHERWISE BE RESPONSIBLE FOR ANY CHANGES IN THE WORK OF SUB-CONTRACTORS AND ALL OTHER AFFECTED PARTIES, WHICH MAY BE CAUSED BY THE ACCEPTANCE OF AN ALTERNATIVE.

5. THREADED RODS

A. THREADED RODS USED IN EPOXY ANCHORS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F1554 GRADE 36 AND SHALL BE SUPPLIED WITH NUTS CONFORMING TO ASTM A563, GRADE A AND WITH WASHERS CONFORMING TO ASTM F436. THREADED RODS, NUTS AND WASHERS EXPOSED TO WEATHER SHALL BE HOT-DIPPED GALVANIZED.

B. THREADED RODS SHALL BE CLEAN, STRAIGHT AND FREE OF INDENTATIONS AND OTHER DEFECTS ALONG THEIR LENGTHS.

C. THREADED ROD PROJECTION ABOVE THE ADJACENT SURFACE SHALL BE AS REQUIRED TO ALLOW INSTALLATION OF A FULLY ENGAGED NUT AND WASHER.

6. EPOXY ANCHORS IN CONCRETE

A. EPOXY ANCHORS PLACED IN CONCRETE SHALL UTILIZE SET-3G ADHESIVE ANCHOR SYSTEM (ICC-ES ESR-4057) AS MANUFACTURED BY SIMPSON STRONG-TIE. THE EPOXY SYSTEM SHALL NOT BE CHANGED WITHOUT PRIOR APPROVAL OF THE ENGINEER.

B. EPOXY ANCHOR INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH THE WRITTEN REQUIREMENTS OF THE MANUFACTURER.

THE FOLLOWING ITEMS ARE OF PARTICULAR IMPORTANCE:

- HOLE PREPARATION INCLUDING DRILL BIT DIAMETER
- CARTRIDGE EXPIRATION DATE AND PREPARATION
- FILLING OF THE HOLE
- TIGHTENING

C. ADJUST THE LOCATION OF EPOXY ANCHORS AS NECESSARY TO AVOID EXISTING REINFORCING STEEL. CUTTING OF REINFORCING STEEL IS NOT PERMITTED WITHOUT WRITTEN APPROVAL OF THE ENGINEER.

D. EPOXY DOWELS SHALL HAVE MINIMUM EMBEDMENT'S AS NOTED ON THE DRAWINGS.

E. PERIODIC SPECIAL INSPECTION IS REQUIRED FOR ALL EPOXY ANCHOR INSTALLATIONS.

7. THREADED CONCRETE ANCHORS

A. THREADED CONCRETE ANCHORS SHALL BE STEEL SCREW ANCHORS SUITABLE FOR ANCHORING INTO CONCRETE AND AS MANUFACTURED BY TAPCON OR PRE-APPROVED EQUAL. ANCHORS SHALL HAVE A CURRENT ICC-ES/ESR REPORT.

B. CONCRETE ANCHOR INSTALLATION SHALL BE PER THE MANUFACTURER'S WRITTEN INSTRUCTIONS.

C. PERIODIC SPECIAL INSPECTION IS REQUIRED FOR ALL CONCRETE ANCHOR INSTALLATIONS.

8. STRUCTURAL STEEL

A. ALL WORK SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE "SPECIFICATIONS FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS" AS ADOPTED BY THE AMERICAN INSTITUTE FOR STEEL CONSTRUCTION.

B. STRUCTURAL STEEL PLATES AND SHAPES SHALL CONFORM TO ASTM A36 OR A572.

C. PIPE SECTIONS SHALL CONFORM TO ASTM A501 OR ASTM A 53 TYPE E, OR S, GRADE B.

D. HSS SECTIONS SHALL CONFORM TO ASTM A500, GRADE C.

E. AS A MINIMUM, BOLTS WHICH ARE NOT HIGH STRENGTH SHALL CONFORM TO ASTM A307, GRADE A AND SHALL BE SIZED AS INDICATED. NUTS AND WASHERS SHALL CONFORM TO ASTM A563A HEX AND ASTM F844, RESPECTIVELY.

F. UNLESS OTHERWISE NOTED, HOLES FOR BOLTS SHALL BE 1/16" LARGER THAN THE NOMINAL DIAMETER OF THE BOLT AND SHALL BE PUNCHED AND/OR DRILLED. GAS CUT HOLES WILL NOT BE ALLOWED.

G. ALL WELDING SHALL BE PERFORMED BY WELDER'S CERTIFIED FOR THE WELD TYPES AND POSITIONS REQUIRED.

H. WELDING MATERIALS AND PROCEDURES SHALL BE IN CONFORMANCE WITH THE AMERICAN WELDING SOCIETY'S STRUCTURAL WELDING CODE AWS D1.1. WELDING ELECTRODES SHALL BE E70XX, UNLESS ALLOWED OTHERWISE BY AWS. MINIMUM WELD SIZE SHALL BE IN ACCORDANCE WITH THE FOLLOWING TABLE.

TABLE J2.4
MINIMUM SIZE OF FILLET WELDS

THICKNESS OF THICKER PART JOINED (IN.)	MIN. SIZE OF FILLET WELD (IN.)
LESS THAN 3/16	1/8
3/16 TO 1/2	3/16
OVER 1/2 TO 3/4	1/4
OVER 3 /4	5/16

I. PENETRATIONS THROUGH THE FLANGES OF HSS COLUMNS ARE NOT PERMITTED WITHOUT THE APPROVAL OF THE ENGINEER.

J. ALL STRUCTURAL STEEL WORK EXCEPT THAT STEEL TO BE EMBEDDED IN CONCRETE SHALL BE SHOP PAINTED OR OTHERWISE PROTECTED AS DIRECTED BY THE ARCHITECT.

STRUCTURAL SYSTEM SPECIAL INSPECTION REQUIREMENTS

A. THE FOLLOWING INSPECTIONS ARE REQUIRED IN ACCORDANCE WITH THE 2018 INTERNATIONAL BUILDING CODE, CHAPTER 17. THESE INSPECTIONS ARE IN ADDITION TO ANY OTHER INSPECTIONS PERFORMED ON THE PROJECT. ADDITIONAL INSPECTIONS MAY BE REQUIRED BY OTHER MEMBERS OF THE DESIGN TEAM.

B. INDIVIDUALS PERFORMING THESE INSPECTIONS SHALL BE QUALIFIED AND APPROVED BY THE GOVERNING JURISDICTION PRIOR TO PERFORMING ANY INSPECTIONS.

C. THE CONTRACTOR SHALL COORDINATE ALL ACTIVITIES REQUIRING INSPECTION WITH THE SPECIAL INSPECTOR.

D. THE SPECIAL INSPECTION AND TESTING FIRM SHALL SUBMIT THE FOLLOWING TO ORMAT AND THE STRUCTURAL ENGINEER FOR THEIR RECORDS:

- SPECIAL INSPECTION REPORTS
- TESTING REPORTS

E. SPECIAL INSPECTIONS:

1. EPOXY-TYPE ADHESIVE CONNECTIONS:

ANCHORS ARE SUBJECT TO PERIODIC INSPECTION. THE SPECIAL INSPECTOR MUST BE ON-SITE INITIALLY DURING THE ANCHOR INSTALLATION TO VERIFY:

- ANCHOR TYPE
- ANCHOR DIAMETER AND LENGTH
- HOLE LOCATION, DIAMETER AND DEPTH
- HOLE CLEANING PROCEDURE
- ANCHOR SPACINGS AND EDGE DISTANCES
- ANCHOR EMBEDMENT
- TIGHTENING TORQUE
- ADHESIVE TYPE AND EXPIRATION DATE
- ADHESIVE INSTALLATION METHOD IS IN ACCORDANCE WITH SIMPSON'S WRITTEN INSTRUCTIONS

THE SPECIAL INSPECTOR MUST VERIFY THE INITIAL INSTALLATIONS OF EACH TYPE AND SIZE OF ANCHOR. SUBSEQUENT INSTALLATIONS OF THE SAME ANCHOR TYPE AND SIZE BY THE SAME PERSONNEL IS PERMITTED TO BE PERFORMED IN THE ABSENCE OF THE SPECIAL INSPECTOR. ANY CHANGE IN THE ANCHOR SIZE OR THE PERSONNEL PERFORMING THE INSTALLATION REQUIRES AN INITIAL INSPECTION.

FOR ONGOING INSTALLATIONS OVER AN EXTENDED PERIOD OF TIME, THE SPECIAL INSPECTOR MUST MAKE REGULAR INSPECTIONS TO CONFIRM CORRECT HANDLING AND INSTALLATION OF THE PRODUCT.

2. THREADED CONCRETE ANCHOR INSTALLATION

ANCHORS ARE SUBJECT TO PERIODIC INSPECTION. THE SPECIAL INSPECTOR MUST BE ON-SITE DURING THE ANCHOR INSTALLATION TO VERIFY THAT THE ANCHOR INSTALLATION COMPLIES WITH THE PRODUCT'S ESR REPORT.

3. WELDING:

IN ACCORDANCE WITH IBC SECTION 1705.2 AND AS FOLLOWS:

- PERIODIC INSPECTION IN ACCORDANCE WITH AISC 360 TABLES N5.4-1, N5.4-2 AND N5.4-3.

FIELD WELDS WILL BE VISUALLY INSPECTED ACCORDING TO AWS D1.1. IN ADDITION TO VISUAL INSPECTION, FIELD WELDS WILL BE TESTED AND INSPECTED ACCORDING TO AWS D1.1 AND THE FOLLOWING INSPECTION PROCEDURES, AT TESTING AGENCY'S OPTION:

- LIQUID PENETRANT INSPECTION: ASTM E 165.
- MAGNETIC PARTICLE INSPECTION: ASTM E 709; PERFORMED ON ROOT PASS AND ON FINISHED WELD. CRACKS OR ZONES OF INCOMPLETE FUSION OR PENETRATION WILL NOT BE ACCEPTED.
- ULTRASONIC INSPECTION: ASTM E 164.
- RADIOGRAPHIC INSPECTION: ASTM E 94.

DISCONTINUITIES IN WELDS CREATED BY ERROR OR BY FABRICATION OR ERECTION OPERATIONS, SUCH AS TACK WELDS, ERECTION AIDS, AIR-ARC GOUGING AND FLAME CUTTING, SHALL BE REPAIRED AS REQUIRED BY THE ENGINEER.

F. THE CONTRACTOR SHALL MAINTAIN COPIES OF ALL APPLICABLE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND ICC REPORTS FOR PROPRIETARY MATERIALS AT THE PROJECT SITE. THIS INFORMATION SHALL BE MADE AVAILABLE TO THE SPECIAL INSPECTOR UPON REQUEST.

G. UPON COMPLETION OF CONSTRUCTION, THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL REPORT TO ORMAT AND TO LUMOS & ASSOCIATES. THE REPORT SHALL INDICATE THE EXTENT TO WHICH THE INSPECTED WORK WAS COMPLETED IN ACCORDANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS. NON-COMPLIANT WORK SHALL HAVE BEEN CORRECTED PRIOR TO COMPLETION OF CONSTRUCTION.

EXPIRES JUNE 30, 2024
PROFESSIONAL ENGINEER STATE OF NEVADA
TERRENCE R. TOBY 11-18-22 STRUCTURAL No. 05941
TERRENCE R. TOBY, S.E.

Professional Seal

ISSUED FOR PERMIT

△	Date	Revision

LUMOS & ASSOCIATES
9222 PROTOTYPE DRIVE
RENO, NV 89521
TEL: 775.827.6111
WWW.LUMOSINC.COM
INFO@LUMOSINC.COM

Consultant
PROJECT NUMBER 10767.000

H+K ARCHITECTS
5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262
P 775+332+6640
F 775+332+6642
hkarchitects.com

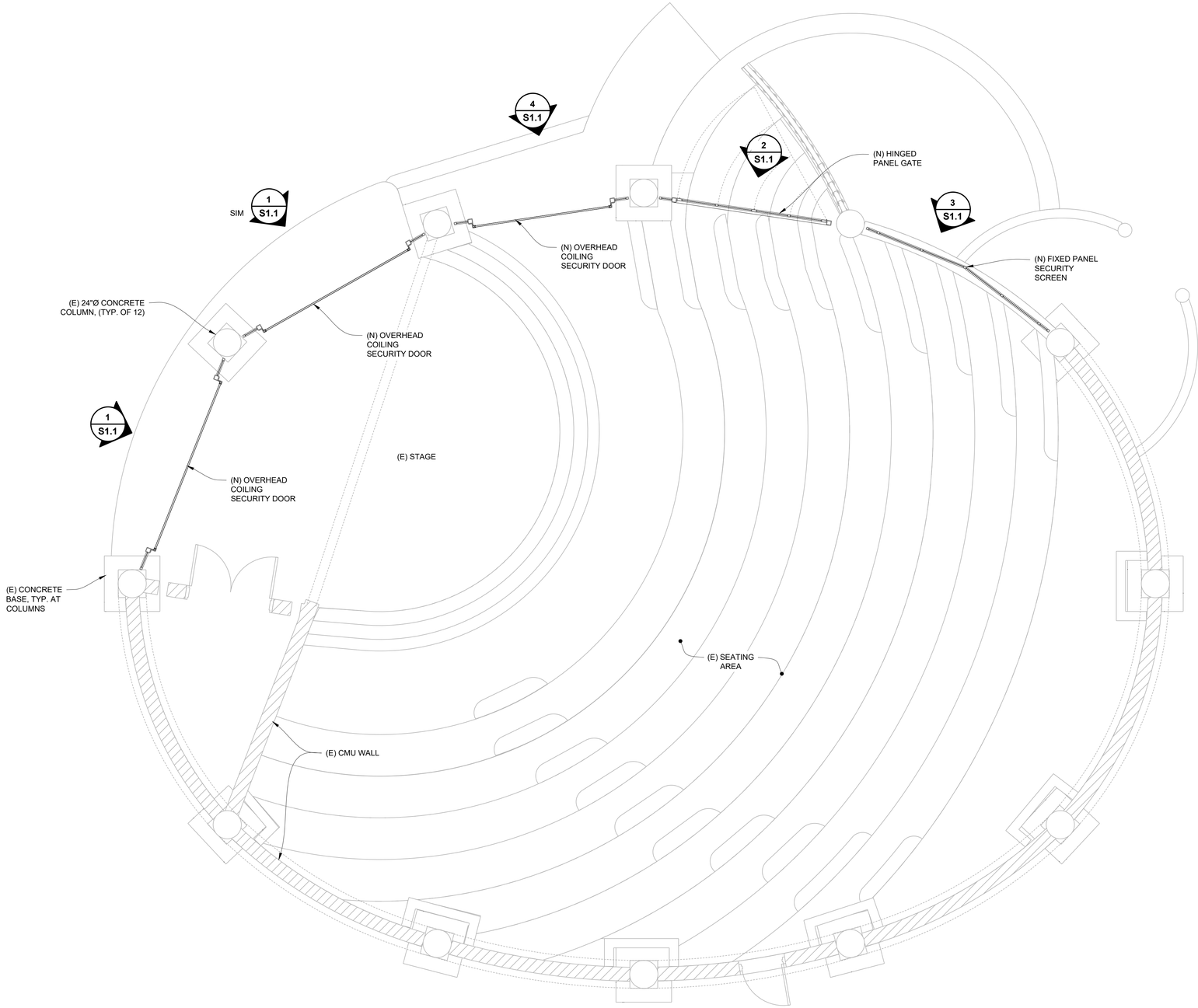
City of Sparks
"B" Street Amphitheater Renovation

Sparks, NV

STRUCTURAL NOTES

NOVEMBER 18, 2022
H+K Project No: 2208

S0.1



1 S1.0 **FLOOR PLAN**

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

EXPIRES: JUNE 30, 2024
PROFESSIONAL ENGINEER - STATE OF NEVADA
TERRENCE R. TOBEY
11-18-22
STRUCTURAL
No. 0594
TERRENCE R. TOBEY, S.E.

Professional Seal

ISSUED FOR PERMIT

Date	Revision

LUMOS & ASSOCIATES
9222 PROTOTYPE DRIVE
RENO, NV 89521
TEL: 775.827.6111
WWW.LUMOSINC.COM
INFO@LUMOSINC.COM

Consultant
PROJECT NUMBER 10767.000

H+K ARCHITECTS
5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262
P 775+332+6640
F 775+332+6642
hkarchitects.com

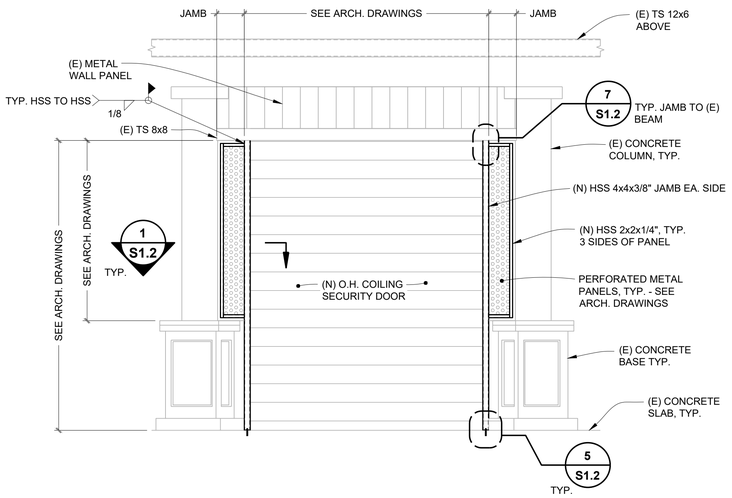
City of Sparks
"B" Street Amphitheater Renovation

Sparks, NV

FLOOR PLAN

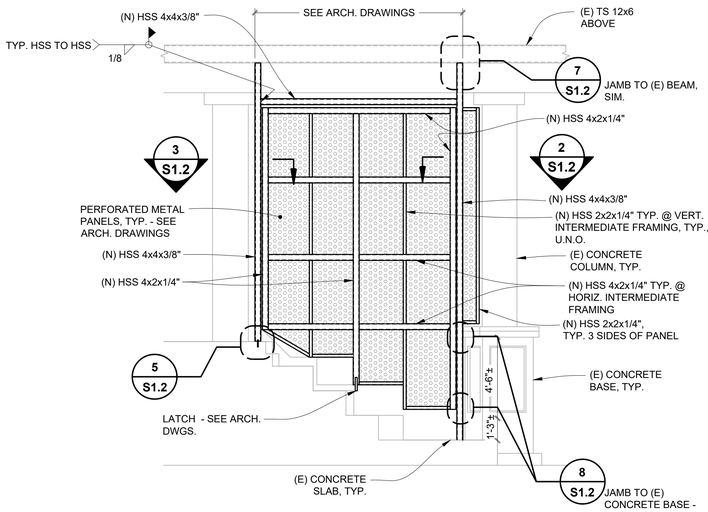
NOVEMBER 18, 2022
H+K Project No: 2208

S1.0



TYPICAL OVERHEAD COILING DOOR ELEVATION

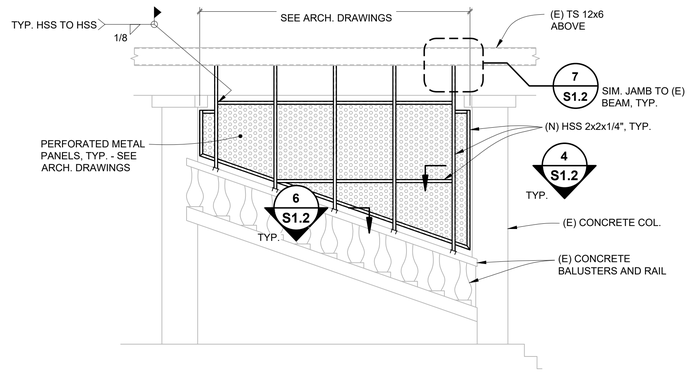
1 S1.1 — SCALE: 1/4" = 1'-0"



HINGED PANELS AT TIERED SEATING ELEVATION

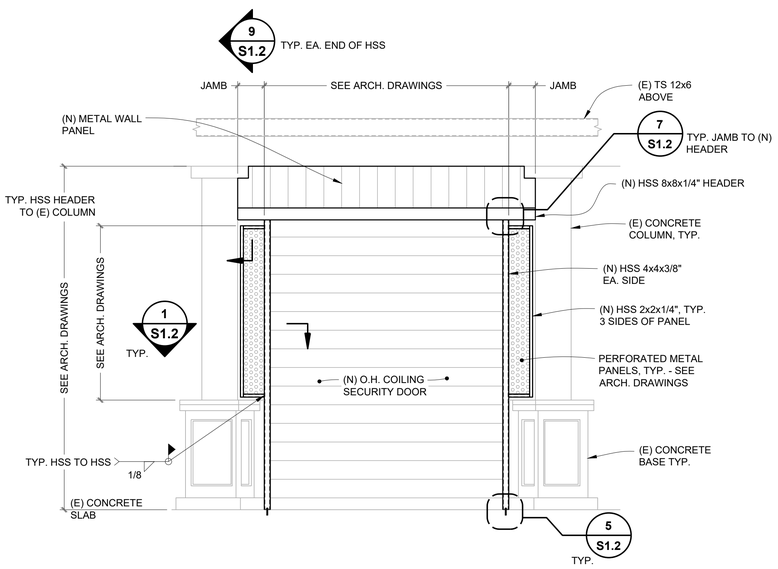
2 S1.1 — SCALE: 1/4" = 1'-0"

NOTES:
1. ADJUST CONNECTION LOCATION AS REQUIRED IN FIELD. COORD. WITH THE ARCHITECT.
2. GRIND OR OTHERWISE ADDRESS EXPOSED WELDS TO PROVIDE A FINISHED APPEARANCE PER THE ARCHITECT'S REQUIREMENTS.



FIXED PANEL SECURITY SCREEN ELEVATION

3 S1.1 — SCALE: 1/4" = 1'-0"



OVERHEAD COILING DOOR AT ENTRANCE ELEVATION

4 S1.1 — SCALE: 1/4" = 1'-0"

NOTE: 1. VERIFY ALL DIMENSIONS & DETAILS WITH THE ARCH. DRAWINGS.

EXPIRES JUNE 30, 2024
PROFESSIONAL ENGINEER - STATE OF NEVADA
TERRENCE R. TOBEY
11-18-22
STRUCTURAL
No. 05941
TERRENCE R. TOBEY, S.E.

Professional Seal

ISSUED FOR PERMIT

	Date	Revision

LUMOS & ASSOCIATES
9222 PROTOTYPE DRIVE
RENO, NV 89521
TEL: 775.827.6111
WWW.LUMOSINC.COM
INFO@LUMOSINC.COM

Consultant
PROJECT NUMBER 10767.000

H+K ARCHITECTS
5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262
P 775+332+6640
F 775+332+6642
hkarchitects.com

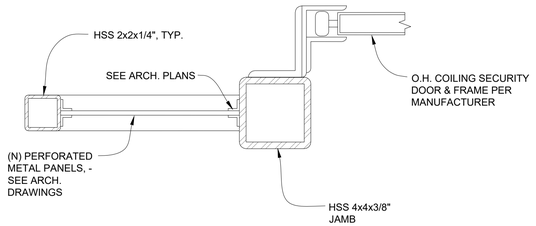
City of Sparks
"B" Street Amphitheater Renovation

Sparks, NV

ELEVATIONS

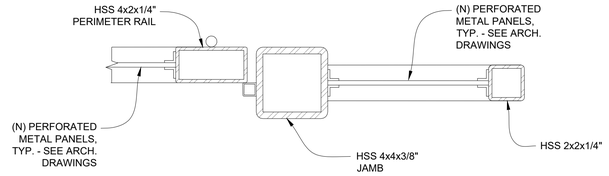
NOVEMBER 18, 2022
H+K Project No: 2208

S1.1



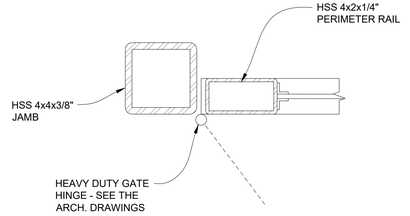
TYPICAL O.H. COILING DOOR JAMB DETAIL

1 S1.2 — SCALE: 3" = 1'-0"



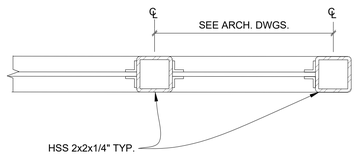
JAMB AT HINGED PANEL - STRIKE

2 S1.2 — SCALE: 3" = 1'-0"



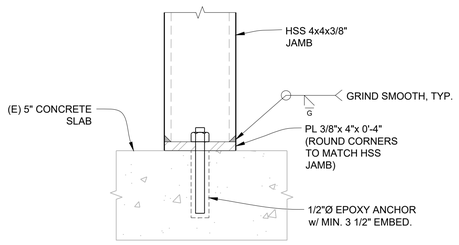
JAMB AT HINGED PANEL - HINGE

3 S1.2 — SCALE: 3" = 1'-0"



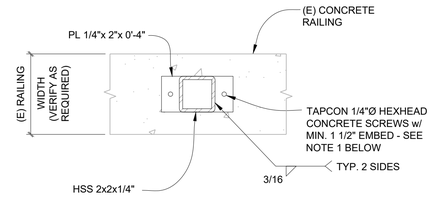
FRAMING AT FIXED PANEL SECURITY SCREEN

4 S1.2 — SCALE: 3" = 1'-0"



HSS COLUMN TO CONCRETE

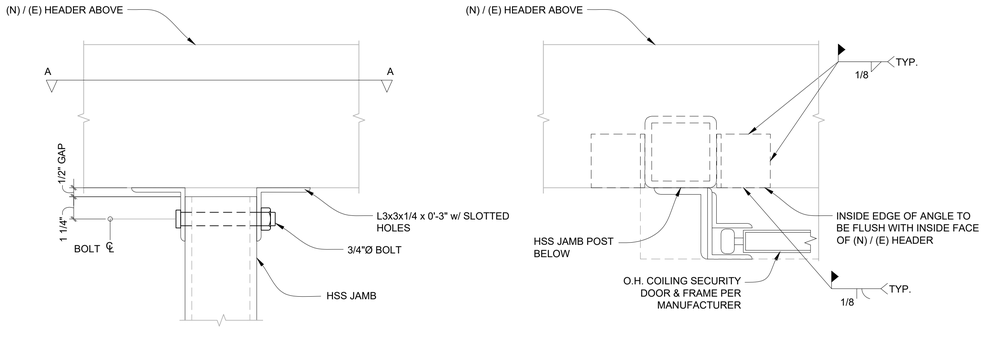
5 S1.2 — SCALE: 3" = 1'-0"



ANCHOR TO (E) CONCRETE RAIL

6 S1.2 — SCALE: 3" = 1'-0"

NOTES: 1. PRE-DRILL HOLES PER THE MANUF. RECOMMENDATIONS DRILLING SHALL BE PERFORMED TO AVOID DAMAGE TO THE RAILING.

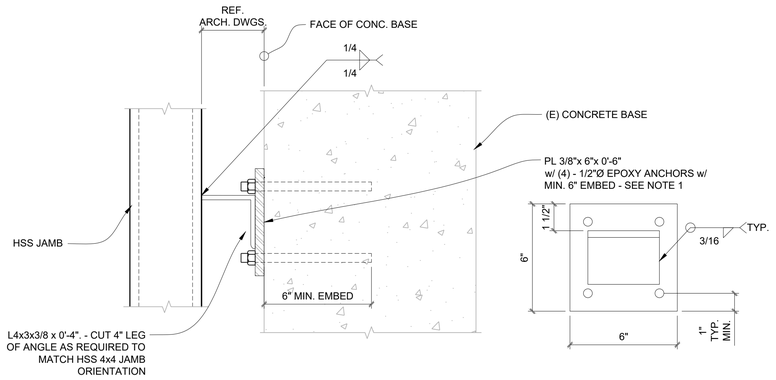


FRONT VIEW — PLAN VIEW A-A

HSS JAMB TO (E) / (N) HEADER

7 S1.2 — SCALE: 3" = 1'-0"

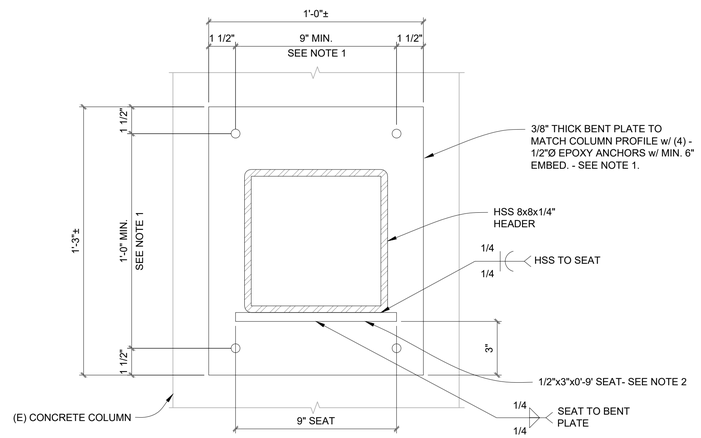
NOTES: 1. FOR SIM. TYPE CONNECTION, COILING DOOR ASSEMBLY IS NOT REQUIRED. COORD. WITH ARCH. DRAWINGS.



JAMB TO (E) CONC. BASE

8 S1.2 — SCALE: 3" = 1'-0"

NOTES: 1. DRILL HOLES ON PLATE AFTER ANCHORS HAVE BEEN INSTALLED. ADJUST ANCHOR SPACING TO AVOID (E) REINFORCING.



(N) HSS HEADER TO (E) CONC. COLUMN

9 S1.2 — SCALE: 3" = 1'-0"

NOTES: 1. DRILL HOLES ON PLATE AFTER ANCHORS HAVE BEEN INSTALLED. ADJUST ANCHOR SPACING TO AVOID (E) REINFORCING.
2. CUT THE SEAT TO MATCH BENT PLATE PROFILE. SEAT WIDTH SHALL BE MIN. 3"

EXPIRES: JUNE 30, 2024
PROFESSIONAL ENGINEER — STATE OF NEVADA — TERRENCE R. TOBEY — 11-18-22 — STRUCTURAL — No. 0594
TERRENCE R. TOBEY, S.E.

Professional Seal

ISSUED FOR PERMIT

△ Date Revision

LUMOS & ASSOCIATES
9222 PROTOTYPE DRIVE
RENO, NV 89521
TEL: 775.827.6111
WWW.LUMOSINC.COM
INFO@LUMOSINC.COM

Consultant
PROJECT NUMBER 10767.000

H+K ARCHITECTS
5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262
P 775+332+6640
F 775+332+6642
hkarchitects.com

City of Sparks
"B" Street Amphitheater Renovation

Sparks, NV

DETAILS

NOVEMBER 18, 2022
H+K Project No: 2208

S1.2

DRAWING SCHEDULE

SHEET	DESCRIPTION	
E001	ELECTRICAL LEGEND & DRAWING SCHEDULE	●
E002	ELECTRICAL SPECIFICATIONS	●
E003	FIXTURE SCHEDULE & IECC CALCULATIONS	●
E004	PARTIAL ONELINE DIAGRAM & PANEL SCHEDULES	●
E101	ELECTRICAL DEMOLITION PLAN	●
E201	LIGHTING PLAN	●
E301	POWER PLAN	●
	TOTAL SHEETS IN ISSUE:	7

ELECTRICAL LEGEND

- PANELBOARD: SURFACE MOUNTED
- PANELBOARD: FLUSH MOUNTED
- SWITCHBOARD OR DISTRIBUTION PANEL
- XFR TRANSFORMER
- PULLBOX / VAULT
- MOTOR STARTER
- COMBINATION MOTOR STARTER
- COMBINATION MOTOR STARTER PROVIDED BY OTHERS
- F DISCONNECT SWITCH - FUSIBLE (FUSED PER EQUIP. NAMEPLATE)
- N DISCONNECT SWITCH - NON-FUSIBLE
- DISCONNECT SWITCH PROVIDED BY OTHERS
- VARIABLE FREQUENCY DRIVE
- VARIABLE FREQUENCY DRIVE PROVIDED BY OTHERS
- PUSH BUTTON CONTROL (COORDINATE TYPE WITH EQUIPMENT)
- M REMOTE METER

- S SINGLE POLE SWITCH 48" AFF
- S_3 THREE WAY SWITCH 48" AFF
- S_4 FOUR WAY SWITCH 48" AFF
- S_K KEY OPERATED SWITCH 48"
- S_L SWITCH WITH LIGHTED HANDLE
- S_M MANUAL MOTOR STARTER
- S_P SWITCH WITH PILOT LIGHT 48" AFF
- S_T TIME WALL SWITCH EQUAL TO HUMMELL DT2000W 48" AFF
- D DIMMER OPERATED SWITCH 48" AFF
- OCCUPANCY SENSOR - WALL MOUNTED 48" AFF - EQUAL TO SENSOR SWITCH WSX
- ^{D} 0-10V DIMMING OCCUPANCY SENSOR - WALL MOUNTED 48" AFF - EQUAL TO SENSOR SWITCH WSX-D
- OS OCCUPANCY SENSOR - CEILING MOUNTED. PROVIDE WITH POWER PACK PER MFG REQUIREMENTS.
- CONTACTOR OR RELAY
- PC PHOTOELECTRIC CELL (ON ROOF FACING NORTH UNO)
- TC TIMECLOCK

- CONDUIT/RACEWAY IN WALL OR ABOVE CEILING
- CONDUIT/RACEWAY BELOW GRADE OR BELOW FLOOR
- BREAK OR RUN CONTINUES
- —OH— OVERHEAD SERVICE
- — P — PRIMARY
- — S — SECONDARY
- — C — COMMUNICATIONS OR SIGNAL
- — T — TELEPHONE
- —TV— TELEVISION
- — • — LOW VOLTAGE AND/OR CONTROL WIRING
- -✱-✱- EMERGENCY CIRCUIT
- CONDUIT/RACEWAY STUB OUT: MARK AND CAP (SITE)
- CONDUIT/RACEWAY SLEEVE
- - -

20	SINGLE POLE CIRCUIT BREAKER	E	= EQUIPMENT
20/2	TWO POLE CIRCUIT BREAKER	H	= ELECTRIC HEAT
20/3	THREE POLE CIRCUIT BREAKER	K	= KITCHEN EQUIP
20A	ARC FAULT CIRCUIT BREAKER	L	= LIGHTING
20C	CONTROLLABLE CIRCUIT BREAKER	M	= MOTOR
20G	GFI CIRCUIT BREAKER	MI	= LARGEST MOTOR
		R	= RECEPTACLES

- SINGLE RECEPTACLE: 20A, 125V, NEMA 5-20, +18" AFF
- DUPLEX RECEPTACLE: 20A, 125V, NEMA 5-20, +18" AFF
- DUPLEX RECEPTACLE: HALF SWITCHED, +18" AFF
- DUPLEX RECEPTACLE GFI TYPE - 20A, 125V, NEMA 5-20 GFI +18" AFF
- QUAD RECEPTACLE: 20A, 125V, NEMA 5-20, +18" AFF
- ISOLATED GROUND TYPE RECEPTACLE (ORANGE TRIANGLE), 20A, 125V, NEMA 5-20IG, +18" AFF
- COMBO DUAL USB CHARGER / DUPLEX RECEPTACLE, 5.1A, (1) TYPE A & (1) TYPE C USB (3.1, 3.0, 2.0 AND 1.1 COMPATIBLE), 20A, 125V, NEMA 5-20R, +18AFF
- QUAD USB CHARGER, 5.1A, (2) TYPE A & (2) TYPE C USB (3.1, 3.0, 2.0 AND 1.1 COMPATIBLE), +18AFF
- SPECIAL PURPOSE RECEPTACLE: SEE DWGS FOR NEMA CONFIGURATION
- DUPLEX RECEPTACLE: FLOOR MOUNTED
- QUAD RECEPTACLE: FLOOR MOUNTED
- DUPLEX RECEPTACLE: CEILING MOUNTED
- QUAD RECEPTACLE: CEILING MOUNTED
- BLANK GFCI PROTECTIVE DEVICE IN READILY ACCESSIBLE LOCATION (LABEL PROTECTED DEVICES)
- DUPLEX "CLOCK" RECEPTACLE: 125V, NEMA 5-20R, +60" AFF
- X" DEVICE MOUNTED AT NON-STANDARD HEIGHT. IF NO HEIGHT SHOWN VERIFY HEIGHT WITH ARCHITECT
- MULTI-OUTLET ASSEMBLY: SPACING PER DWGS

- DATA / VOICE OUTLET: 18" AFF - 1 VOICE, 1 DATA JACK, 2 BLANKS
- DATA / VOICE OUTLET: FLOOR MOUNTED
- MULTI-OUTLET ASSEMBLY: SPACING PER DWGS
- TELEPHONE OUTLET: 18" AFF
- DATA OUTLET: 18" AFF
- DEVICE MOUNTED AT NON-STANDARD HEIGHT. IF NO HEIGHT SHOWN VERIFY HEIGHT WITH ARCHITECT
- S SPEAKER
- TV TELEVISION OUTLET: 18" AFF (UNO)
- TELEPHONE TERMINAL BOARD (TTB)
- VC VOLUME CONTROL
- GROUNDING BAR

* FIXTURE SCHEDULE HAS PRECEDENCE *
(SUBTEXT ADJACENT FIXTURES INDICATE CONTROL ZONE TYPICAL)

- X LENSED TROFFER
- VOLUMETRIC TROFFER
- FLANGED TROFFER
- SURFACE MOUNT TROFFER
- STRIP FIXTURE
- DOWNLIGHT
- WALL PACK
- POLE MOUNT
- EMERGENCY LIGHTING UNIT
- EXIT SIGN FIXTURE - SHADED AREA DENOTES LIGHTED FACE - ARROWS INDICATE DIRECTION
- SHADING INDICATES EGRESS FIXTURE

- T THERMOSTAT (PROVIDED BY MECH. CONTRACTOR UNO)
- J JUNCTION BOX (SIZE AS REQUIRED UNO)
- 3 SHEET NOTE DESIGNATION
- F1 FIXTURE DESIGNATION: F1=TYPE (SEE FIXTURE SCH.)
- 3 REVISION DELTA: NUMBER REPRESENTS REVISION
- 1253 FEEDER DESIGNATION
- AHU 2 EQUIPMENT CONNECTION

- GFP GROUND FAULT INTERRUPTER DEVICE
- M METERING DEVICE
- RM REMOTE METER
- ST SHUNT TRIP DEVICE
- TRANSFORMER
- CURRENT TRANSFORMER
- G GENERATOR
- M MOTOR - # INDICATES HP
- INTERRUPTER SWITCH
- GFI GROUND FAULT RELAY W/ CT OR SENSOR
- FUSE
- CIRCUIT BREAKER
- DRAWOUT CIRCUIT BREAKER
- A B TRANSFER SWITCH (A=AUTOMATIC, M=MANUAL) # FOR POLES 2, 3 OR 4
- SPD SURGE PROTECTION DEVICE

- NORMALLY OPEN (NO) CONTACT
- NORMALLY CLOSED (NC) CONTACT
- C COIL - VOLTAGE PER CONTROL DIAGRAMS
- R PILOT LIGHT (LED) PUSH-TO-TEST. LETTER INDICATES COLOR (R=RED, G=GREEN, A=AMBER, Y=YELLOW)
- PILOT LIGHT (LED) NON PUSH-TO-TEST
- THERMAL OVERLOAD
- MAGNETIC OVERLOAD
- PUSH BUTTON NORMALLY OPEN (NO)
- PUSH BUTTON NORMALLY CLOSED (NC)
- H O A HAND-OFF-AUTO (HOA) SELECTOR SWITCH
- LIMIT SWITCH NORMALLY OPEN (NO)
- LIMIT SWITCH NORMALLY CLOSED (NC)
- R PUSH BUTTON ILLUMINATED (LED)

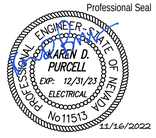
- TICS = NO. OF #12 WIRES (UNO) IF MORE THAN TWO WITHIN RACEWAY. GROUNDING CONDUCTOR (NOT SHOWN) ALWAYS REQUIRED.
  - ISOLATED GROUNDING CONDUCTOR
  - NEUTRAL CONDUCTOR
  - PHASE CONDUCTOR(S)
- BRANCH CIRCUIT (WHEN TIC MARKS ARE NOT SHOWN) = (1) PHASE, (1) NEUTRAL AND (1) GROUNDING CONDUCTOR
- HOMERUN TO PANELBOARD OR DEVICE
- HA-(1,3,5,3N)G HOMERUN CIRCUIT DESIGNATION
  - GROUNDING CONDUCTOR
  - NEUTRAL CONDUCTOR (N=1, 2N=2 NEUTRALS, 3N=3 NEUTRALS)
  - PHASE CONDUCTOR(S)
  - PANELBOARD DESIGNATION
- HA-(1,3,5)G HOMERUN CIRCUIT DESIGNATION (3 PHASE CIRCUIT SHOWN)
  - GROUNDING CONDUCTOR
  - PHASE CONDUCTOR(S)
  - PANELBOARD DESIGNATION

A	AMPS
ADA	AMERICANS WITH DISABILITIES ACT
AFC	ABOVE FINISHED CEILING
AFCI	ARC-FAULT CIRCUIT INTERRUPTER
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHJ	AUTHORITY HAVING JURISDICTION
AIC	AMP INTERRUPTING CAPACITY
AL	ALUMINUM
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BC	BARE COPPER
BKR	BREAKER
C	CONDUIT/RACEWAY
CEC	CALIFORNIA ENERGY COMMISSION
CKT	CIRCUIT
CLG	CEILING
CO	CONDUIT/RACEWAY ONLY
CT	CURRENT TRANSFORMER
CU	COPPER
DB	DISTRIBUTION BOARD
DDC	DIRECT DIGITAL CONTROLLER
DPDT	DOUBLE-POLE, DOUBLE-THROW
DPST	DOUBLE-POLE, SINGLE-THROW
DWG	DRAWING
(E)	EXISTING TO REMAIN
ELEC	ELECTRICAL
EM	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
(F)	FUTURE
FLA	FULL LOAD AMPS
FMC	FLEXIBLE METAL CONDUIT (STEEL)
FPEN	FUSE PER EQUIP. NAMEPLATE
GFI	GROUND FAULT INTERRUPT
GFR	GROUND FAULT RELAY
GND	GROUND
HID	HIGH INTENSITY DISCHARGE
HOA	HAND-OFF-AUTO SWITCH
HP	HORSEPOWER
HSKP	HOUSEKEEPING
IMC	INTERMEDIATE METAL CONDUIT
J-BOX	JUNCTION BOX
K	kcmil (300K = 300 kcmil)
KVA	KILOVOLT AMPS
KW	KILOWATT
LTG	LIGHTING
IG	ISOLATED GROUND
MCB	MAIN CIRCUIT BREAKER
MCM	THOUSAND CIRCULAR MILS
MFG	MANUFACTURER
MLO	MAIN LUGS ONLY
MS	MOTOR STARTER
MSB	MAIN SWITCHBOARD
MTS	MANUAL TRANSFER SWITCH
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION
NIC	NOT IN CONTRACT
NL	NIGHTLIGHT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
NVE	NV ENERGY
P	POLE
PH#	PHASE
PV	PHOTOVOLTAIC
PNL	PANEL
PTC	PV USA TEST CONDITIONS
PWR	POWER
(R)	RELOCATE/RELOCATED
(RR)	REMOVE AND REPLACE
RAC	RIGID ALUMINUM CONDUIT
RFC	RIGID FIBERGLASS CONDUIT
RSC	RIGID STEEL CONDUIT
SE	SERVICE ENTRANCE
SPD	SURGE PROTECTION DEVICE
SPDT	SINGLE-POLE, DOUBLE-THROW
SPST	SINGLE-POLE, SINGLE-THROW
STC	STANDARD TEST CONDITIONS
SW	SWITCH
TE	TELECOM
TTB	TELEPHONE TERMINATION BOARD
TYP	TYPICAL
UL	UNDERWRITER'S LABORATORY
UNO	UNLESS NOTED OTHERWISE
UNSW	UNSWITCHED
UPS	UNINTERRUPTED POWER SUPPLY
V	VOLTS
VA	VOLT AMPS
VFD	VARIABLE FREQUENCY DRIVE
W	WATTS
WP	WEATHER PROOF
(X)	EXISTING TO BE REMOVED
XFMR OR XF	TRANSFORMER

NOTE: THIS IS A MASTER SYMBOL LIST. IT MAY BE THAT NOT ALL SYMBOLS SHOWN ARE USED WITHIN THIS SET OF PLANS. HEIGHTS GIVEN ARE TO TOP OF BOX.

2283-001.dwg November 16, 2022 5:09 PM

Professional Seal



Date Revision

Consultant

PK Electrical, Inc.
Engineering · Design · Consulting
681 Sierra Rose Drive, Suite B | Reno, NV 89511 | 775.826.9010
4601 DTC Boulevard, Suite 740 | Denver, CO 80237 | 720.481.3290
pkelectrical.com
22132

H+K ARCHITECTS
5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262
P 775+332+6640
F 775+332+6642
hkarchitects.com

City of Sparks
"B" Street Amphitheater Renovation

Sparks, NV

Electrical Legend & Drawing Schedule

November 18, 2022
H+K Project No: 2208

E001

SECTION 260000 ELECTRICAL SPECIFICATIONS

ITEM DESCRIPTION

PART 1 - GENERAL

1.1 SUMMARY
- THE WORK UNDER THIS DIVISION SHALL CONSIST OF ALL LABOR, MATERIALS, EQUIPMENT, SERVICES AND RELATED ACCESSORIES, ETC. NECESSARY AND REQUIRED TO COMPLETE ALL WORK AS SHOWN OR INFERRED ON THE DRAWINGS AND IN THE SPECIFICATIONS (CONTRACT DOCUMENTS).
- PROVIDE FIXED ELECTRICAL EQUIPMENT, EXCEPT WHERE SPECIFICALLY NOTED OTHERWISE.
- PROVIDE EQUIPMENT AND/OR WIRING NORMALLY FURNISHED OR REQUIRED FOR COMPLETE ELECTRICAL SYSTEMS BUT NOT SPECIFICALLY SPECIFIED ON THE DRAWINGS AND/OR IN SPECIFICATIONS, AS THOUGH SPECIFIED BY BOTH.
- ALL EQUIPMENT AND WIRING SHALL BE NEW, EXCEPT WHERE SPECIFICALLY SHOWN OR SPECIFIED OTHERWISE.

1.2 RELATED WORK SPECIFIED ELSEWHERE

COORDINATION: THE CIVIL, ARCHITECTURAL, MECHANICAL, KITCHEN AND INTERIOR DRAWINGS CONTAIN DETAIL DESCRIPTIONS, CIRCUITING AND CONNECTION REQUIREMENTS WHICH ARE PART OF DIVISION 26 RESPONSIBILITIES. ELECTRICAL CONTRACTOR SHOULD NOT SUBMIT BIDS ON THIS PROJECT BEFORE REVIEWING ALL PROJECT DRAWINGS, SPECIFICATIONS AND ADDENDA.

1.3 ADOPTED CODES
- INTERNATIONAL BUILDING CODE (IBC) PUBLISHED BY THE INTERNATIONAL CODE COUNCIL (ICC).
- NATIONAL ELECTRICAL CODE (NEC) PUBLISHED BY THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA).
- INTERNATIONAL FIRE CODE (IFC) PUBLISHED BY THE INTERNATIONAL CODE COUNCIL.
- NATIONAL FIRE CODES (NFPA STANDARDS) PUBLISHED BY THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) AS REFERENCED IN THE 2006 INTERNATIONAL FIRE CODE.
- INTERNATIONAL ENERGY CONSERVATION CODE (IECC) PUBLISHED BY THE INTERNATIONAL CODE COUNCIL. ASHRAE / IESNA STANDARD 90.1-2004 IS INCORPORATED BY REFERENCE.
- ALL APPLICABLE PROVISIONS OF THE NEVADA REVISED STATUTES (NRS) AND THE NEVADA ADMINISTRATIVE CODE (NAC), INCLUDING THOSE LISTED BELOW.
- THE MOST CURRENT REGULATIONS OF THE STATE FIRE MARSHAL, NEVADA DEPARTMENT OF PUBLIC SAFETY, CARSON CITY, NEVADA (NAC CHAPTER 477, STATE FIRE MARSHAL).
- THE MOST CURRENT EDITION OF THE AMERICANS WITH DISABILITIES ACT (ADA) PUBLISHED BY THE UNITED STATES DEPARTMENT OF JUSTICE INCLUDING THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG)

1.4 DEFINITIONS

PROVIDE	FURNISH, INSTALL, CONNECT AND TEST UNTIL COMPLETE
WIRE	FURNISH ALL NECESSARY WIRING, CONNECT AND TEST UNTIL COMPLETE
INSTALL	FURNISH, SET IN PLACE, WIRE AND TEST UNTIL COMPLETE
WORK	MATERIALS COMPLETELY INSTALLED, CONNECTED, AND TESTED UNTIL COMPLETE
EQUAL	ACCEPTABLE EQUAL AS DETERMINED BY THE ENGINEER

1.5 REQUIREMENTS OF REGULATORY AGENCIES
- OBTAIN AND PAY FOR ALL PERMITS AND INSPECTIONS REQUIRED FOR THE WORK. COMPLY WITH ALL ORDINANCES PERTAINING TO WORK DESCRIBED HEREIN. PAY ALL EXPENSES ARISING FROM THE PROCUREMENT OF THESE CERTIFICATES AND INCLUDE IN THE BASE CONTRACT PRICE.
- INSTALL WORK UNDER THIS DIVISION PER DRAWINGS, SPECIFICATIONS, LATEST ADOPTED EDITION OF THE NATIONAL ELECTRICAL CODE, (NFPA-70) INCLUDING LOCAL AMENDMENTS AND INTERPRETATIONS, LOCAL ADOPTED BUILDING CODES, AND ANY SPECIAL CODES HAVING JURISDICTION OVER SPECIFIC PORTIONS OF WORK WITHIN COMPLETE INSTALLATION. IN EVENT OF CONFLICT, INSTALL WORK PER MOST STRINGENT CODE REQUIREMENTS DETERMINED BY ENGINEER. THIS DOES NOT RELIEVE THE CONTRACTOR FROM FURNISHING AND INSTALLING WORK SHOWN OR SPECIFIED WHICH MAY EXCEED THE REQUIREMENTS OF SUCH ORDINANCES, LAWS, REGULATIONS AND CODES.
- ALL MATERIALS, PRODUCTS, DEVICES, FIXTURES, FORMS OR TYPES OF CONSTRUCTION INCLUDED IN THIS PROJECT SHALL MEET OR EXCEED THE PUBLISHED REQUIREMENTS OF NATIONAL ELECTRICAL CODE (NEC), AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI), INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE) AND NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATIONS (NEMA). ALL EQUIPMENT SHALL BEAR THE UNDERWRITER'S LABORATORIES (UL) LABEL OR EQUIVALENT FROM APPROVED INDEPENDENT TESTING LABORATORY.
- ARRANGE, PAY FEES FOR AND COMPLETE WORK TO PASS REQUIRED TESTS BY AGENCIES HAVING AUTHORITY OVER WORK. DELIVER TO ENGINEER COPIES OF THE CERTIFICATES OF INSPECTION AND APPROVAL ISSUED BY AUTHORITIES AND PROVIDE ORIGINAL COPY OF EACH CERTIFICATE TO OWNER.
- WHEN REQUIRED BY LAW OR REGULATIONS, THE GOVERNMENTAL AGENCY HAVING JURISDICTION FOR INSPECTIONS SHALL BE GIVEN REASONABLE NOTICE AND OPPORTUNITY TO INSPECT THE WORK. ANY WORK THAT IS ENCLOSED OR COVERED UP BEFORE SUCH INSPECTION AND TEST SHALL BE UNCOVERED AT THE CONTRACTOR'S EXPENSE; AFTER IT HAS BEEN INSPECTED, THE CONTRACTOR SHALL RESTORE THE WORK TO ITS ORIGINAL CONDITION AT HIS OWN EXPENSE.

1.6 DRAWINGS AND SPECIFICATIONS
- DRAWINGS AND SPECIFICATIONS ARE COMPLEMENTARY. WORK CALLED FOR BY ONE IS BINDING AS IF CALLED FOR BY BOTH. ANY DISCREPANCIES BETWEEN DRAWINGS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION DURING THE BIDDING PERIOD. NO ALLOWANCE SHALL SUBSEQUENTLY BE MADE TO THE CONTRACTOR BY REASON OF HIS FAILURE TO HAVE BROUGHT SAID DISCREPANCIES TO THE ATTENTION OF THE CONSULTANT DURING THE BIDDING PERIOD OR BY REASON OF ANY ERROR ON THE CONTRACTOR'S PART.
- DRAWINGS ARE SCHEMATIC AND DIAGRAMMATIC IN NATURE. DRAWINGS SHOW GENERAL RUN OF CIRCUITS AND APPROXIMATE LOCATION OF EQUIPMENT. THE CONTRACTOR SHALL REVIEW DRAWINGS OF ALL TRADES TO ASSURE COORDINATION PRIOR TO PLACEMENT OF WORK. RIGHT IS RESERVED TO CHANGE LOCATION OF EQUIPMENT AND DEVICES, AND ROUTING OF CONDUITS WITHIN 10 FEET, WITHOUT EXTRA COST TO OWNER (PRIOR TO ROUGH-IN).
- USE DIMENSIONS IN FIGURES, SHOP DRAWINGS, ETC. AND ACTUAL SITE MEASUREMENTS IN PREFERENCE TO SCALED DIMENSIONS. DO NOT SCALE DRAWINGS FOR EXACT SIZES OR LOCATIONS - USE DIMENSIONED DETAILS OR ACTUAL FIELD CONDITIONS. VERIFY ITEM MOUNTING HEIGHTS AS REQUIRED BY PROJECT CONDITIONS PRIOR TO ROUGH-IN.
- THE ARCHITECTURAL DRAWINGS SHALL TAKE PRECEDENCE OVER ALL OTHER DRAWINGS IN MATTERS OF DIMENSIONS. DISCREPANCIES BETWEEN DIFFERENT DRAWINGS OR BETWEEN DRAWINGS AND SPECIFICATIONS, OR REGULATIONS AND CODES GOVERNING THE INSTALLATION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IN WRITING FOR DETERMINATION.
- LAYOUT EQUIPMENT AS SHOWN ON DRAWINGS AS CLOSE AS POSSIBLE. VERIFY ACCESS REQUIREMENTS FOR EQUIPMENT ACTUALLY FURNISHED,AND ADJUST LAYOUT TO COMPLY WITH NEC 110. RIGHT IS RESERVED TO CHANGE LAYOUT WITHIN 10 FEET WITHOUT ADDITIONAL COST (PRIOR TO ROUGH-IN).
- ALL DEVICES, LIGHT FIXTURES, ETC. LOCATED IN CEILING TILES SHALL BE LOCATED IN THE CENTER OF THE CEILING TILE UNLESS SPECIFICALLY NOTED OR APPROVED TO DO OTHERWISE.
- THE CONTRACTOR IS RESPONSIBLE TO FIELD MEASURE AND CONFIRM THE MOUNTING HEIGHTS AND LOCATION OF ELECTRICAL EQUIPMENT WITH RESPECT TO COUNTERS, DOORWAYS, AND OTHER ARCHITECTURAL, MECHANICAL OR STRUCTURAL WORK. DO NOT SCALE DISTANCES OFF THE ELECTRICAL DRAWINGS. USE ACTUAL BUILDING DIMENSIONS.
- EXECUTION OF CONTRACT IS EVIDENCE THAT CONTRACTOR HAS EXAMINED ALL EXISTING CONDITIONS, DRAWINGS AND SPECIFICATIONS RELATED TO WORK, AND IS INFORMED AS TO EXTENT AND CHARACTER OF WORK. LATER CLAIMS FOR LABOR AND MATERIALS REQUIRED DUE TO DIFFICULTIES ENCOUNTERED, WHICH COULD HAVE BEEN FORESEEN HAD EXAMINATION BEEN MADE, WILL NOT BE RECOGNIZED.
- ALL WORK CALLED FOR IN THIS SECTION OF THE PLANS AND SPECIFICATIONS SHALL BE PERFORMED UNDER THIS SECTION, REGARDLESS OF WHETHER SUCH WORK MAY ALSO HAVE BEEN CALLED FOR IN OTHER SECTION(S). DISCREPANCIES IN OR CONFLICTS AMONG THE VARIOUS PARTS OF THE CONTRACT DRAWINGS SHALL NOT RELIEVE CONTRACTOR OF HIS OBLIGATION TO PERFORM.
- NO ATTEMPT HAS BEEN MADE TO ESTABLISH THE REQUIRED SECTIONS OR SPLITS OF EQUIPMENT RELATIVE TO THE SIZE OF ACCESS INTO THE SPACE, BUILDING, ETC. CONTRACTOR SHALL ESTABLISH ALL SAID SPLITS, SECTIONS, ETC. NECESSARY TO INSTALL EQUIPMENT COMPLETE WITHOUT UNDUE DISASSEMBLY OF EQUIPMENT OR DEMOLITION OF BUILDING PARTS AT SITE OF WORK.
- CHARGES FOR EXTRA WORK ARE NOT ALLOWED UNLESS WORK IS AUTHORIZED BY WRITTEN ORDER FROM THE OWNER'S REPRESENTATIVE APPROVING CHARGES FOR WORK.
- CHECK ALL DOOR SWINGS SO LIGHTING CONTROL DEVICES ARE NOT LOCATED BEHIND DOORS. RELOCATE DEVICES AS REQUIRED WITH THE CONSULTANT'S REVIEW.

1.7 COPYRIGHT

THESE PLANS, SPECIFICATIONS, AND ALL RELATED ADDENDA AND DOCUMENTS CONSTITUTE COPYRIGHT MATERIALS OF PK ELECTRICAL. ALL RIGHTS CONFERRED BY THE COPYRIGHT AND SIMILAR LAWS ARE RESERVED TO PK ELECTRICAL. THESE MATERIALS SHALL REMAIN THE SOLE PROPERTY OF PK ELECTRICAL AND MAY NOT BE REPRODUCED, DISTRIBUTED TO OTHERS OR USED FOR ANY PURPOSE WHATSOEVER WITHOUT THE PRIOR WRITTEN CONSENT OF PK ELECTRICAL.

1.8 SUBMITTALS

BEFORE ORDERING ANY EQUIPMENT, CONTRACTOR SHALL SUBMIT SIX COPIES OF FACTORY SHOP DRAWINGS FOR ALL LIGHTING FIXTURES, LIGHTING CONTROLS, SWITCHGEAR, PANELS, CIRCUIT BREAKERS, MOTOR CONTROLLERS, DISCONNECTS WIRING DEVICES, PLATES, RACEWAYS AND FITTINGS, ETC. PROPOSED FOR THIS PROJECT.

1.9 SUBSTITUTIONS

PROPOSED SUBSTITUTIONS SHALL BE EQUAL OR SUPERIOR TO SPECIFIED ITEMS IN ALL RESPECTS. DETERMINATION OF EQUALITY RESTS SOLELY WITH ENGINEER. SUBSTITUTIONS MUST BE SUBMITTED A MINIMUM OF 10 WORKING DAYS PRIOR TO BID FOR CONSIDERATION. PROPOSED SUBSTITUTIONS PROVIDED LATER WILL NOT BE REVIEWED OR ALLOWED. BID SUBSTITUTED MATERIAL WILL ONLY BE ALLOWED IF ACCEPTED IN WRITING BY ENGINEER.

1.10 EXAMINATION OF SITE AND EXISTING CONDITIONS

BEFORE SUBMITTING A PROPOSAL, CONTRACTOR SHALL EXAMINE THE SITE AND FAMILIARIZE HIMSELF WITH THE EXISTING CONDITIONS AND LIMITATIONS. NO EXTRAS WILL BE ALLOWED BECAUSE OF THE CONTRACTOR'S MISUNDERSTANDING OF THE AMOUNT OF WORK INVOLVED OR HIS LACK OF KNOWLEDGE OF ANY SITE CONDITIONS WHICH MAY AFFECT HIS WORK. ANY APPARENT VARIANCE OF THE DRAWINGS OR SPECIFICATIONS FROM THE EXISTING CONDITIONS AT THE SITE SHALL BE CALLED TO ATTENTION OF THE ENGINEER BEFORE SUBMITTING A PROPOSAL.

1.11 EXISTING OUTLETS

EXISTING OUTLETS AND CIRCUITING NOT IN CONFLICT WITH NEW CONDITIONS SHALL REMAIN. EXTEND OUTLETS TO NEW SURFACES, CAULK AND PROVIDE JUMBO PLATES AS REQUIRED TO PRESENT A SERVICEABLE AND FINISHED APPEARANCE.

1.12 EXISTING SWITCHGEAR

REUSE EXISTING SWITCHGEAR AND PANELS IN PLACE WHERE SO INDICATED. MODIFY AS REQUIRED TO ACCOMMODATE NEW WORK. PROVIDE NEW CIRCUIT BREAKERS AND/OR FUSES AS REQUIRED. MATCH AIC RATINGS. REARRANGE EXISTING CIRCUITS WITHIN PANELS TO AGREE WITH NEW PANEL SCHEDULES. TRACE AND IDENTIFY ALL EXISTING CIRCUITS ON NEW RECORD PANEL SCHEDULES.

1.13 EXISTING PANELBOARDS
- RING OUT CIRCUITS IN EXISTING PANELS. WHERE ADDITIONAL CIRCUITS ARE NEEDED REUSE CIRCUITS AVAILABLE FOR REUSE. INSTALL NEW BREAKERS AS INDICATED ON DRAWINGS. MATCH AIC RATINGS.
- TAG UNUSED CIRCUITS AS SPARE.
- WHERE EXISTING CIRCUITS ARE INDICATED TO BE REUSED, USE SENSING MEASURING DEVICES TO VERIFY THAT CIRCUITS FEEDING PROJECT AREA ARE NOT IN USE OR OVERLOADED.
- REMOVE EXISTING WIRE NO LONGER IN USE FROM PANEL TO EQUIPMENT.
- PROVIDE NEW UPDATED TYPED DIRECTORIES.

PART 2 - PRODUCTS

2.1 MATERIALS
- ALL MATERIAL SHALL BE NEW, AND HAVE A UL LABEL WHERE AVAILABLE. IF UL LABEL IS NOT AVAILABLE, MATERIAL SHALL BE MANUFACTURED IN ACCORDANCE WITH APPLICABLE NEMA, IEEE AND FEDERAL STANDARDS. USE UL LABELED COMPONENTS IN ASSEMBLIES THAT DO NOT HAVE OVERALL UL LABEL. ALL EQUIPMENT SHALL COMPLY WITH THE TERMS "LISTED AND LABELED" AS DEFINED IN THE NEC 70, ARTICLE 100. SUBMIT LETTER STATING COMPLIANCE WITH THESE REQUIREMENTS.
- UTILIZE ONE OF THE MANUFACTURERS LISTED TO FURNISH ALL OF THE MAJOR EQUIPMENT (I.E. PANELS, TRANSFORMERS, BUS DUCT, SWITCHGEAR, CIRCUIT BREAKERS, ETC.) REQUIRED FOR THIS PROJECT.
- ALL MATERIAL AND EQUIPMENT SHALL BE NEW AND OF THE HIGHEST QUALITY AVAILABLE ("SPECIFICATION GRADE"). SERVICE EQUIPMENT SHALL BE FACTORY-ASSEMBLED COMMERCIAL-GRADE, CONFIGURED PER SERVING UTILITY STANDARDS. WIRING DEVICES SHALL BE SPECIFICATION GRADE WITH NYLON PLATES, WHITE UNLESS OTHERWISE NOTED, RAISED STEEL BOX COVERS MAY BE USED IN UTILITY AREAS.
- ALL EQUIPMENT AND CIRCUITING ACCESSIBLE BY THE PUBLIC SHALL BE TAMPER-PROOF AND VANDAL RESISTANT. OPENABLE DEVICES AND EQUIPMENT SHALL BE PADLOCKABLE.

2.2 DISTRIBUTION EQUIPMENT

DISTRIBUTION EQUIPMENT SHALL BE DEAD-FRONT, PANELBOARD OR SWITCHBOARD TYPE AS INDICATED, UL-LABELED AND ENCLOSED IN A NEMA HOUSING APPROPRIATE TO ITS LOCATION AND APPLICATION WITH HINGED WIREWAY COVERS. BUSSING, DEVICE FINGERS AND LUGS SHALL BE COPPER UNLESS INDICATED ON DRAWINGS. AIC RATINGS SHOWN ON PLANS ARE MINIMUM RATINGS; CIRCUIT BREAKERS SHALL BE IN EXCESS OF THE AVAILABLE FAULT CURRENT. SERIES-RATING OF UPSTREAM AND DOWNSTREAM CIRCUIT BREAKERS TO ACHIEVE REQUIRED FAULT CURRENT RATINGS IS PROHIBITED UNLESS APPROVED BY ENGINEER IN WRITING.

2.3 PANELBOARDS

PANELS SHALL HAVE FLUSH MONO-FLAT TRIM, LOCKING DOOR-IN-DOOR HINGED COVERS AND BOLT-ON CIRCUIT BREAKERS. BUSSING SHALL BE COPPER UNLESS INDICATED ON DRAWINGS. FLUSH-MOUNTED PANELS SHALL HAVE EMPTY CONDUITS STUBBED TO ACCESSIBLE ATTIC SPACE: ONE 1" CONDUIT FOR EACH FOUR SPARE/SPACE CIRCUITS. PROVIDE ONE TYPED AND ONE SPARE PANEL SCHEDULE FOR OWNER'S USE. SCHEDULES SHALL BE TWO COLUMN TYPE WITH ODD CIRCUIT NUMBERS ON THE LEFT AND EVEN NUMBERS ON THE RIGHT.

2.4 TRANSFORMERS

TRANSFORMERS SHALL BE SELF VENTILATED DRY-TYPE WITH COPPER BUSSING UNLESS INDICATED OTHERWISE AND SHALL BE UL LISTED AS SUITABLE FOR INSTALLATION IN INTERIOR LOCATIONS. INSULATION SHALL BE MINIMUM 220 DEGREE CELSIUS OPERATION. PROVIDE SIX 2 1/2% VOLTAGE ADJUSTING TAPS - TWO ABOVE AND FOUR BELOW RATED PRIMARY VOLTAGE. IMPEDANCE FOR UNITS ABOVE 15KVA SHALL BE MINIMUM 5%. TRANSFORMERS SHALL BE CONNECTED WITH SEALTIGHT FLEXIBLE CONDUIT WITH SEPARATE INTERNAL GROUND WIRE.

2.5 CIRCUITING

ALL WIRING SHALL BE IN CONDUIT, CONCEALED EXCEPT WHERE NOTED. EMT WITH STEEL SET SCREW INSULATED-THROAT FITTINGS SHALL BE USED IN DRY, PROTECTED INTERIOR LOCATIONS. PVC SCHEDULE 40 SHALL BE USED BELOW GRADE AT MINIMUM-24". WRAPPED RIGID ELBOWS AND RISERS SHALL BE USED FOR ALL THROUGH-GRADE AND CONCRETE SLAB TRANSITIONS AND STUB-UPS. RGS OR IMC CONDUIT WITH THREADED FITTINGS SHALL BE USED IN ALL LOCATIONS WHERE EXPOSED TO THE ELEMENTS OR SUBJECT TO PHYSICAL DAMAGE. FMC MAY BE USED FOR FINAL CONNECTION TO LIGHTING FIXTURE FROM J-BOX. FIXTURE WHIPS MAY NOT EXCEED 6' IN LENGTH. METAL CLAD CABLE (TYPE MC) WILL BE ACCEPTABLE FOR SINGLE CIRCUIT BRANCH CIRCUITING, FLEXIBLE WHIPS FROM JUNCTION BOXES TO LIGHTING FIXTURES AND WITHIN CASEWORK. TYPE MC CABLE MAY NOT BE USED FOR HOMERUNS. ENT IS NOT ALLOWED. CONNECT RECESSED AND SUSPENDED LIGHTING FIXTURES, MOTORIZED AND VIBRATING EQUIPMENT WITH STEEL FLEX. ALL CONDUIT SHALL HAVE PULL CORD IF OTHERWISE EMPTY. CONNECT PUMP MOTORS WITH LIQUID TIGHT FLEXIBLE METAL CONDUIT.

2.6 WIRING
- WIRE SHALL BE COPPER UNLESS OTHERWISE INDICATED. MINIMUM WIRE SIZE SHALL BE #12 AWG. WHERE ALUMINUM IS ALLOWED, WIRE SHALL BE TERMINATED IN AN INSULATED CU/AL RATED COMPRESSION TERMINAL FITTING (MAC-ADAPT OR EQUAL). INSULATION SHALL BE THW, THWN OR THHN.
- UNLESS OTHERWISE REQUIRED BY LOCAL ORDINANCES, GROUND WIRES SHALL BE GREEN, NEUTRAL WIRES SHALL BE WHITE (120V) OR GREY (277V) AND PHASE WIRES SHALL BE BLACK (PHASE A), RED (PHASE B), AND BLUE (PHASE C) FOR A 120/208 VOLT SYSTEM AND BROWN (PHASE A), ORANGE (PHASE B), AND YELLOW (PHASE C) FOR A 277/480 VOLT SYSTEM.

2.7 FUSES

FUSES SHALL BE SIZED PER ACTUAL NAMEPLATE OF EQUIPMENT SERVED. FUSES SHALL BE DUAL-ELEMENT, CURRENT-LIMITING, AND SHALL BE INTERCHANGEABLE BETWEEN FRAME SIZES WITH STANDARD FACTORY FUSE REDUCERS. FUSES SHALL BE AS FOLLOWS UNLESS OTHERWISE INDICATED:
- CIRCUITS 601 TO 6000 AMPERES SHALL BE PROTECTED BY CURRENT LIMITING BUSSMANN LOW-PEAK TIME-DELAY FUSES KRP-C - UL CLASS L.
- CIRCUITS 0 TO 600 AMPERES SHALL BE PROTECTED BY CURRENT LIMITING BUSSMANN LOW-PEAK DUAL-ELEMENT FUSES LPN-RK (600 VOLTS) - UL CLASS RK1.
- ALL DUAL-ELEMENT FUSES SHALL HAVE SEPARATE OVERLOAD AND SHORT-CIRCUIT ELEMENTS.
- PROVIDE SPARE FUSE CABINET AFTER THE COMPLETION OF THE PROJECT WITH ONE SET OF SPARE FUSES FOR EVERY SIZE USED.

2.8 WIRING DEVICES

WIRING DEVICES SHALL BE AS FOLLOWS:
- RECEPTACLES - 120V, 20A, NEMA 5-20R, SPECIFICATION GRADE, SIDE AND BACK WIRED WITH CLAMP TYPE TERMINALS, NYLON, WHITE, 2 POLE, 3 WIRE GROUNDING.
- SWITCHES - 120V/277V, 20A, WHITE, HEAVY DUTY, SILENT TYPE SPECIFICATIONS GRADE.
- DEVICE PLATE SHALL BE NYLON, WHITE COLOR WITH MATCHING SCREWS.
- RECEPTACLES IN WET LOCATIONS SHALL BE INSTALLED WITH A HINGED OUTLET COVER/ENCLOSURE CLEARLY MARKED SUITABLE FOR WET LOCATIONS WHILE IN USE AND UL LISTED EQUAL TO TAY MAC SPECIFICATIONS GRADE.

PART 3 - EXECUTION

3.1 VISIT TO SITE

VISIT SITE, AND SURVEY EXISTING CONDITIONS AFFECTING WORK PRIOR TO BID. INCLUDE NECESSARY MATERIALS AND LABOR TO ACCOMPLISH THE ELECTRICAL WORK, INCLUDING RELOCATION OF EXISTING SERVICES AND UTILITIES ON BUILDING SITE IN BID. NO CONSIDERATION SHALL BE GIVEN TO FUTURE CLAIMS DUE TO EXISTING CONDITIONS. ANY DISCREPANCIES OR INTERFERENCES SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER.

3.2 WORKMANSHIP
- ALL WORK PERFORMED SHALL BE FIRST CLASS WORK IN EVERY ASPECT. THE WORK SHALL BE PERFORMED BY MECHANICS SKILLED IN THEIR RESPECTIVE TRADES, WHO SHALL AT ALL TIMES BE UNDER THE SUPERVISION OF COMPETENT PERSONS. ALL WORK SHALL BE INSTALLED TO COMPLY WITH NECA'S "STANDARD OF INSTALLATION."
- IN ADDITION TO THE MATERIALS SPECIFIED ELSEWHERE, FURNISH AND INSTALL ALL OTHER MISCELLANEOUS ITEMS NECESSARY FOR THE COMPLETION OF THE WORK TO THE EXTENT THAT ALL SYSTEMS ARE COMPLETE AND OPERATIVE.
- ALL WORK UNDER THIS SECTION SHALL BE PERFORMED IN COOPERATION WITH THE WORK PERFORMED UNDER ALL OTHER SECTIONS OF THE SPECIFICATIONS FOR THE PROJECT IN ORDER TO AVOID INTERFERENCE WITH OTHER WORK AND TO SECURE THE PROPER INSTALLATION OF ALL WORK. REFER THE DRAWINGS AND SPECIFICATIONS COVERING THE WORK TO BE PERFORMED UNDER ALL SECTIONS, SO THAT THE RELATION AND EXTENT OF THE WORK OF THIS SECTION WITH RESPECT TO THE WORK OF ALL OTHER SECTIONS IS UNDERSTOOD. GIVE RIGHT OF WAY TO RACEWAYS AND PIPING SYSTEMS INSTALLED AT A REQUIRED SLOPE.
- CONDUIT SYSTEMS MUST BE COMPLETE PRIOR TO INSTALLATION OF WIRING.

3.3 CHANGE ORDERS
- ADDITIONAL WORK MAY BE REQUIRED ON THE PROJECT WHICH IS OUTSIDE THE SCOPE OF THE CONTRACT. SUCH ADDITIONAL WORK WILL BE DESCRIBED IN SUPPLEMENTAL INSTRUCTIONS AND/OR CLARIFICATIONS, TO BE ESTIMATED AND PRICED BY THE CONTRACTOR, AND ACCEPTED BY THE OWNER, PRIOR TO COMMENCING WORK. PROPOSALS SHALL INCLUDE A LIST OF QUANTITIES OF ALL MATERIAL BEING USED WITH UNIT COSTS BROKEN DOWN INTO MATERIAL AND LABOR COSTS PER UNIT. CONTRACTOR SHALL PROVIDE ACTUAL EQUIPMENT QUOTES WHEN REQUESTED BY ENGINEER.
- MATERIAL COSTS AND LABOR UNITS SHALL NOT EXCEED THE LATEST EDITION OF RS MEANS ELECTRICAL COST DATA.

3.4 GUARANTEE
- FURNISH THE OWNER A WRITTEN GUARANTEE, STATING THAT IF THE WORKMANSHIP AND/OR MATERIAL EXECUTED UNDER THIS DIVISION IS PROVEN DEFECTIVE WITHIN (1) YEAR AFTER THE FINAL ACCEPTANCE BY THE OWNER, SUCH DEFECTS AND OTHER WORK DAMAGED WILL BE REPAIRED AND/OR REPLACED. SUBMIT WITH OPERATION AND MAINTENANCE MANUALS.
- OBTAIN FROM THE VARIOUS MANUFACTURERS OR VENDORS GUARANTEES OR WARRANTIES FOR THEIR PARTICULAR EQUIPMENT OR COMPONENTS, AND DELIVER THEM TO THE OWNER. ALL GUARANTEES AND WARRANTIES PROVIDED SHALL BE REFERENCED TO THIS PROJECT.
- IN EVENT THAT SYSTEMS ARE PLACED IN OPERATION IN SEVERAL PHASES AT THE OWNER'S REQUEST, GUARANTEE WILL BEGIN ON DATE EACH SYSTEM OR ITEM OF EQUIPMENT IS ACCEPTED FOR SERVICE BY THE OWNER. PROVIDE O&M MANUALS FOR ALL EQUIPMENT WHEN EQUIPMENT IS ACCEPTED FOR SERVICE BY THE OWNER.
- ALL GUARANTEES AND WARRANTIES SHALL INCLUDE LABOR AND MATERIAL AT THE SITE OF INSTALLATION FOR THE DURATION OF THE GUARANTEE PERIOD.

3.5 OBSERVATIONS OF WORK AND DEMONSTRATION OF OPERATION (ACCEPTANCE)
- AT ALL OBSERVATIONS OF WORK, OPEN PANEL COVERS, JUNCTION BOX COVERS, PULL BOX COVERS, DEVICE COVERS, AND OTHER EQUIPMENT WITH REMOVABLE PLATES FOR OBSERVATION AS REQUESTED BY AHJ OR ENGINEER. PROVIDE SUFFICIENT PERSONNEL TO EXPEDITE COVER REMOVAL AND REPLACEMENT.
- CONTRACTOR TO DEMONSTRATE OPERATION OF NEW EQUIPMENT AND/OR SYSTEMS TO SATISFACTION OF OWNER/ENGINEER. CONTRACTOR TO HAVE MANUFACTURER AVAILABLE FOR DEMONSTRATION OF EQUIPMENT AND/OR SYSTEMS WHERE REQUESTED BY OWNER/ENGINEER. FURNISH AFFIDAVIT SIGNED BY OWNER'S REPRESENTATIVE INDICATING THAT DEMONSTRATION OF OPERATION HAS BEEN PERFORMED.

3.6 COOPERATION
- CAREFULLY COORDINATE WORK WITH OTHER CONTRACTORS AND SUBCONTRACTORS. REFER CONFLICTS BETWEEN TRADES TO ENGINEER. PROVIDE NECESSARY INFORMATION TO OTHER TRADES FOR SUCH COORDINATION. SUCH INFORMATION SHALL INCLUDE SHOP DRAWINGS, PRODUCT DATA AND ALL OTHER REQUIRED DATA. PROVIDE A SYSTEM ERECTION/COORDINATION DRAWING SHOWING ELECTRICAL, HVAC, PLUMBING AND ARCHITECTURAL FOR INSTALLATION IN CONGESTED AREAS, WHEN REQUESTED.
- WHENEVER SUCH INFORMATION IS NOT PROVIDED IN A TIMELY MANNER OR WHENEVER SUCH INFORMATION IS INCORRECT, THIS CONTRACTOR SHALL BEAR ALL COSTS FOR PROVIDING OR CORRECTING AFFECTED WORK OF RELATED TRADES WITH NO CHANGE TO THE CONTRACT PRICE OR CONSTRUCTION SCHEDULE.
- WORK TO BE INSTALLED AS PROGRESS OF PROJECT WILL ALLOW. SCHEDULE OF WORK DETERMINED BY GENERAL CONTRACTOR, OWNER, AND/OR ARCHITECT/ENGINEER.

3.7 COORDINATION OF UTILITY SERVICES
- DRAWINGS INDICATE PROPOSED SERVICE LAYOUTS. THE CONTRACTOR SHALL PROVIDE ALL CONCRETE STRUCTURES, PULLBOXES, VAULTS, TRENCHING, RACEWAYS, PROTECTIVE BOLLARDS, ETC., AS REQUIRED PER NV ENERGY STANDARDS (ELECTRICAL UTILITY), AT&T (TELEPHONE COMPANY) AND CHARTER (CATV UTILITY) STANDARDS.
- CONTRACTOR IS RESPONSIBLE FOR SUBMITTING PROJECT DRAWINGS, APPLICATION, AND EQUIPMENT SHOP DRAWINGS TO THE UTILITY. UTILITY FEES TO BE PAID BY PROJECT OWNER.

3.8 HVAC CONTROL WIRING
- CONTROL WIRING INCLUDING LOW VOLTAGE AND LINE VOLTAGE INTERLOCK WIRING WILL BE FURNISHED AND INSTALLED UNDER DIVISION 15, EXCEPT WHERE SPECIFICALLY SHOWN OTHERWISE. CAREFULLY COORDINATE POWER AND CONTROL WIRING INTERFACE.
- THIS CONTRACTOR SHALL OBTAIN FROM DIVISION 15 ALL WIRING DIAGRAMS ASSOCIATED WITH THE HVAC WORK AND FURNISH ALL POWER AND 120V CONTROL WIRING, DISCONNECTS AND STARTERS FOR EQUIPMENT NOT ALREADY PACKAGED WITH THESE ITEMS. THE CONTRACTOR SHALL INCLUDE IN HIS BID CONNECTIONS, DISCONNECTS AND CIRCUITING FOR ALL ADDED AND RELOCATED EQUIPMENT AS DIRECTED BY THE TEMPERATURE CONTROLS CONTRACTOR EVEN IF IT IS NOT SHOWN ON THE BID DOCUMENTS. ALL WIRING AND CONDUIT ASSOCIATED WITH THE HVAC TEMPERATURE CONTROL SYSTEM IS INCLUDED UNDER DIVISION 15. WIRING AND CONDUIT SHALL COMPLY WITH DIVISION 16. ALL ELECTRICAL WORK ASSOCIATED WITH THE HVAC SYSTEM SHALL BE DONE UNDER THE SUPERVISION OF DIVISION 15.

3.9 STARTERS

SEPARATELY MOUNTED STARTERS ARE FURNISHED AND INSTALLED UNDER DIVISION 16 UNLESS SPECIFICALLY SHOWN OTHERWISE. ALL POWER WIRING, FUSES, THERMAL OVERLOADS, AND DISCONNECT SWITCHES AND CONNECTION OF ALL MOTORS IS UNDER THIS DIVISION. PROVIDE THE PROPER FUSING AND THERMAL OVERLOADS AS RECOMMENDED BY THE MANUFACTURER OF THE EQUIPMENT.

3.10 DELIVERY, STORAGE AND HANDLING
- DELIVER EQUIPMENT AND MATERIALS TO JOB SITE IN ORIGINAL, UNOPENED, LABELED CONTAINER. PRODUCTS SHALL BE PROPERLY IDENTIFIED WITH NAMES, MODEL NUMBERS, TYPES, GRADES, COMPLIANCE LABELS AND OTHER INFORMATION NEEDED FOR IDENTIFICATION. STORE TO PREVENT DAMAGE AND INJURY. STORE MATERIALS TO PREVENT CORRODING. STORE FINISHED MATERIALS AND EQUIPMENT TO PREVENT STAINING AND DISCOLORING. STORE MATERIALS AFFECTED BY CONDENSATION IN WARM DRY AREAS. PROVIDE HEATERS. CONTRACTOR SHALL VERIFY THE AVAILABILITY OF ON SITE STORAGE SPACE, IF NO ON SITE STORAGE SPACE IS AVAILABLE THEN THE CONTRACTOR SHALL COVER THE COST FOR OFF SITE STORAGE. MATERIALS STORED AT THE PROJECT SITE THAT BECOMES SOILED WITH CONSTRUCTION DIRT, CONCRETE, OR MOISTURE SHALL BE REMOVED FROM THE SITE AND REPLACED WITH NEW. DO NOT INSTALL SOILED MATERIAL.
- INSTALL EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS. CONFLICTS BETWEEN CONTRACT DOCUMENTS AND THESE RECOMMENDATIONS SHALL BE REFERRED TO ENGINEER FOR REMEDY.
- ELECTRICAL OR ELECTRONIC EQUIPMENT THAT HAS BEEN DAMAGED, EXPOSED TO WEATHER OR IS, IN THE OPINION OF THE ENGINEER OR ARCHITECT, OTHERWISE UNSUITABLE BECAUSE OF IMPROPER FABRICATION, STORAGE OR INSTALLATION SHALL BE REMOVED AND REPLACED BY THIS CONTRACTOR AT HIS EXPENSE.

3.11 ANCHORS
- PROVIDE ANCHORS FOR ALL EQUIPMENT, RACEWAYS, HANGERS, ETC. TO SAFELY SUPPORT WEIGHT OF ITEM INVOLVED PLUS 100% FOR DEAD LOADS. LIVE LOADS SHALL BE CONSIDERED IN ADDITION TO DEAD LOADS.
- ANCHORS TO CONSIST OF EXPANSION TYPE DEVICES SIMILAR TO "REDHEAD" OR LEAD EXPANSION ANCHORS. PLASTIC ANCHORS ARE NOT ACCEPTABLE.
- USE PRESET ANCHOR STEEL INSERTS IN CONCRETE SLABS. PROVIDE PRESET ANCHOR SIZE AND TYPE FOR ANTICIPATED OR SPECIFIED ROD/BOLT SIZE AND LIVE/DEAD LOAD.

3.12 HOUSEKEEPING PADS

FURNISH 2500 # CONCRETE PADS, 4" HIGH (INTERIOR LOCATIONS) OR 6" HIGH (EXTERIOR LOCATIONS) UNLESS OTHERWISE NOTED, FOR ALL FREESTANDING EQUIPMENT, I.E. SWITCHBOARDS, PANELS, CONTROL PANELS, MOTOR CONTROL CENTERS, TRANSFORMERS, ETC. PADS SHALL HAVE 1" X 45° CHAMFERED EDGES, AND SHALL EXTEND 2" TO 4" BEYOND EQUIPMENT MOUNTINGS.

3.13 CLEANING AND PAINTING
- CLEAN EQUIPMENT FURNISHED IN THIS DIVISION AFTER COMPLETION OF WORK. CLEAN WIPE THE INTERIOR OF ALL CONDUIT, PULLBOXES, JUNCTION BOXES, OUTLET BOXES, AND PANELBOARD BACKBOXES SOILED WITH DIRT AND DEBRIS PRIOR TO INSTALLATION OF WIRING.
- TOUCH-UP OR RE-PAINT DAMAGED PAINTED FINISHES AS DETERMINED BY THE ENGINEER.

3.14 RECORD DRAWINGS
- CONTRACTOR SHALL PROVIDE, PRIOR TO FINAL ACCEPTANCE AND OBSERVATION, ONE-SET OF REVISED RECORD ELECTRICAL CONSTRUCTION DOCUMENTS ON REPRODUCIBLE MEDIUM. ALSO INCLUDE THE FOLLOWING INFORMATION:
  EXACT ROUTING OF ALL CONDUITS LARGER THAN ONE INCH.
  EXACT LOCATION OF ALL SERVICE GROUNDING/ BONDING CONNECTIONS.
  CONTRACTORS NAME, ADDRESS, AND TELEPHONE NUMBER.
- RECORD NOTATIONS SHALL BE CLEARLY DRAWN AT A DRAFTING APPEARANCE EQUAL TO THE ORIGINAL DRAWINGS. CONTRACTOR SHALL ALSO PROVIDE ALL OPERATING AND MAINTENANCE MANUALS PRIOR TO FINAL PAYMENT.

3.15 TESTING

PRIOR TO PLACING IN SERVICES, ALL ELECTRICAL SYSTEMS SHALL BE TESTED FOR OPENS, GROUNDS, AND PHASE ROTATION. THE MAIN SERVICE GROUND AND ALL LOCAL TRANSFORMER MADE GROUNDS SHALL BE MEGGER-TESTED. PROVIDE GFI TESTING FOR SERVICE SWITCHBOARD.

3.16 IDENTIFICATION
- PROVIDE ENGRAVED NAMEPLATES FOR ALL SWITCHBOARDS, PANELS, TRANSFORMERS, DISCONNECTS, MOTOR STARTERS, CONTACTORS, TIME SWITCHES AND CABINETS. NAMEPLATES SHALL BE WHITE LETTERS ON BLACK FOR NORMAL EQUIPMENT AND WHITE LETTERS ON RED FOR EMERGENCY EQUIPMENT. NAMEPLATES SHALL INCLUDE THE FOLLOWING INFORMATION AS APPLICABLE:
  DESIGNATION (I.E. PANEL A); FUNCTION (I.E. AIR HANDLER AH-1); VOLTAGE, PHASE, WIRE (I.E. 480 VOLT, 3 PHASE, 4W); FEEDER SIZE (I.E. 4-#4/0 THWN CU IN 2" C); SOURCE (I.E. SWITCHBOARDS MSB).
- JUNCTION, PULL AND CONNECTION BOXES: IDENTIFICATION OF SYSTEMS AND CIRCUITS SHALL INDICATE SYSTEM VOLTAGE AND CONTAINED CIRCUITS ON OUTSIDE OF BOX COVER. USE SELF-ADHESIVE MARKING TAPE LABELS AT EXPOSED LOCATIONS AND INDELIBLE BLACK MARKER AT CONCEALED BOXES. ALL FIRE ALARM BOXES SHALL HAVE COVERS PAINTED RED. ALL TEMPERATURE CONTROL BOXES SHALL HAVE COVERS PAINTED BLUE.
- BRANCH CIRCUIT CONDUCTORS SHALL BE IDENTIFIED IN EACH JUNCTION BOX AND PULL BOX WITH WIRE MARKERS AS MANUFACTURED BY T&B, PANDUIT, 3M, OR IDEAL TO INDICATE PANEL/CIRCUIT NUMBER.
- JUNCTION BOX COVERS IN BRANCH CIRCUIT WIRING SHALL BE LABELED WITH PANEL AND CIRCUIT NUMBERS. JUNCTION BOX COVERS FOR SPECIAL SYSTEMS SHALL BE LABELED WITH SYSTEM NAME AND OTHER IDENTIFICATION AS DIRECTED; FOR EXAMPLE, "FIRE ALARM-ZONE 1". WHERE BOXES ARE INSTALLED FLUSH MOUNTED IN FINISHED AREAS OR SURFACE MOUNTED IN UNFINISHED AREAS, LABELING SHALL BE WITH ENGRAVED PLASTIC NAMEPLATE AS SPECIFIED HEREIN. WHERE BOXES ARE INSTALLED ABOVE ACCESSIBLE CEILINGS, LABELING MAY BE NEAT HAND WRITTEN LETTERING WITH INDELIBLE MARKER.
- DEVICE PLATES - SWITCHES AND RECEPTACLES: IDENTIFY THE PANELBOARD AND BRANCH CIRCUIT NUMBER FROM WHICH SERVED ON THE FRONT OF THE DEVICE PLATE WITH PERMANENT POLYESTER TAPE. LOCATE ALL LABELS AT THE BOTTOM OF THE PLATE IN THE SAME LOCATION THROUGHOUT.

3.17 SUSPENDED CEILING SYSTEMS

ALL LAY-IN FIXTURES SHALL BE INDEPENDENTLY SUPPORTED BY TWO #12 SLACK WIRES ATTACHED TO TWO OPPOSITE CORNERS OF THE FIXTURE PER IBC & NEC REQUIREMENTS. THESE WIRES SHALL BE SECURED TO THE STRUCTURAL FRAMING SUCH THAT FAILURE OF THE SUSPENDED CEILING SHALL NOT ALLOW THE FIXTURE TO DROP.

3.18 ONGOING OPERATION

CONDUCT WORK TO MINIMIZE DISRUPTION OF OWNER'S ONGOING OPERATIONS. PROVIDE BARRICADES, NOISE ABATEMENT AND DUST CONTAINMENT MEASURES TO ENSURE THE SAFETY AND COMFORT OF PATRONS, STAFF, AND WORKERS. INTERRUPTIONS OF EXISTING POWER, COMMUNICATIONS OR FIRE ALARM SYSTEMS SHALL BE PERFORMED ONLY AT SUCH TIMES AS DIRECTED BY GENERAL CONTRACTOR / OWNER. OUTAGES SHALL BE MOMENTARY IN NATURE. EACH SUCH OUTAGE (OR OPERATION WHICH MAY POSE RISK OF AN ACCIDENTAL OUTAGE) SHALL BE SCHEDULED 48 HOURS IN ADVANCE.

3.19 FLEXIBLE CONNECTIONS

PROVIDE FLEXIBLE ELECTRICAL CONDUIT AND CONDUCTORS HAVING A SLACK, 90-DEGREE BEND OR LOOP IN ANY PLANE BETWEEN CONNECTIONS AT ALL VIBRATION ISOLATED EQUIPMENT AND THE FIRST ATTACHMENT TO BUILDING STRUCTURE OR CABINETS, PANELS OR BOXES MOUNTED THEREON.

3.20 DISPOSAL PROCEDURES (FLUORESCENT BULBS, BALLASTS, AND LIGHT FIXTURES)
- THESE MATERIALS DO NOT REQUIRE SPECIAL TRAINING TO REMOVE OR PACKAGE.
- THE CONTRACTOR SHALL CONTRACT WITH WASTE MANAGEMENT LAMPTRACKER OR SIMILAR RECYCLING COMPANY TO RECYCLE THE LAMPS (FLUORESCENT BULBS) AND BALLASTS REMOVED DURING THE PROJECT. THE COSTS TO RECYCLE THESE MATERIALS IS THE RESPONSIBILITY OF THE CONTRACTOR. THE DISPOSAL AND COSTS OF NON-REGULATED MATERIALS (LIGHT FIXTURES) IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR IS REQUIRED TO RECYCLE AS MUCH MATERIAL AS POSSIBLE.

3.21 SALVAGE

ALL EXISTING EQUIPMENT REMOVED DURING THE COURSE OF THIS PROJECT SHALL BE OFFERED TO OWNER FOR SALVAGE. ANY EQUIPMENT SELECTED BY OWNER SHALL BE DELIVERED TO OWNER ON SITE. ALL REMAINING EQUIPMENT BECOMES THE PROPERTY OF THIS CONTRACTOR AND SHALL BE REMOVED FROM THE SITE.

3.22 SEISMIC PROTECTION
- THIS PROJECT IS SUBJECT TO THE SEISMIC BRACING REQUIREMENT OF THE INTERNATIONAL BUILDING CODE, 2012 EDITION. THE FOLLOWING CRITERIA ARE APPLICABLE TO THIS PROJECT:
  SEISMIC USE GROUP: II; SEISMIC CLASS CATEGORY: D; SEISMIC DESIGN CATEGORY: D.
- IT IS RECOMMENDED THAT THE CONTRACTOR ENLIST THE SERVICES OF A QUALIFIED SEISMIC BRACING VENDOR/ SUPPLIER. PROVIDE BRACING FOR IDENTIFIED EQUIPMENT AND SYSTEM.
- ELECTRICAL EQUIPMENT: ELECTRICAL EQUIPMENT SHALL INCLUDE THE FOLLOWING ITEMS TO THE EXTENT REQUIRED ON THE DRAWINGS OR IN OTHER SECTIONS OF THESE SPECIFICATIONS TO BE SEISMICALLY PROTECTED:
  LIGHT FIXTURES, TRANSFORMERS, SWITCHBOARDS, PANELBOARDS.
- ELECTRICAL SYSTEMS: THE FOLLOWING ELECTRICAL SYSTEMS SHALL BE SEISMICALLY PROTECTED IN ACCORDANCE WITH THIS SPECIFICATION:
  LIGHTING, POWER, SECURITY, COMMUNICATIONS AND FIRE ALARM.
- CONDUITS REQUIRING NO SPECIAL SEISMIC RESTRAINTS: SEISMIC RESTRAINTS MAY BE OMITTED FROM ELECTRICAL CONDUIT LESS THAN 2-1/2 INCHES TRADE SIZE. ALL OTHER INTERIOR CONDUIT SHALL BE SEISMICALLY PROTECTED AS SPECIFIED.

END OF SECTION 260000

22132-002.dwg November 16, 2022 5:00 PM

Professional Seal

KAREN D. PURCELL
EXP: 12/31/23
ELECTRICAL
No 11513
11/16/2022

△ Date Revision

Consultant

PK Electrical, Inc.
Engineering · Design · Consulting
681 Sierra Rose Drive, Suite B | Reno, NV 89511 | 775.826.9010
4601 DTC Boulevard, Suite 740 | Denver, CO 80237 | 720.481.3290
pkelectrical.com
22132

H+K ARCHITECTS
5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262
P 775+332+6640
F 775+332+6642
hkarchitects.com

City of Sparks
"B" Street Amphitheater Renovation

Sparks, NV

Electrical Specifications

November 18, 2022
H+K Project No: 2208

E002

COMcheck Software Version 4.1.5.3

Interior Lighting Compliance Certificate

Project Information

Energy Code: 2018 IECC
Project Title:
Project Type: Alteration

Construction Site: Owner/Agent: Designer/Contractor:

Allowed Interior Lighting Power

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts (B X C)
1-Restrooms (Common Space Types:Restrooms)	183	0.85	156
2-Electrical (Common Space Types:Electrical/Mechanical)	127	0.43	55
		Total Allowed Watts =	210

Proposed Interior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
Restrooms (Common Space Types:Restrooms 183 sq.ft.)				
LED 2: L1: STRIP: Other:	1	4	36	143
Electrical (Common Space Types:Electrical/Mechanical 127 sq.ft.)				
LED 1: L1: STRIP: Other:	1	1	36	36
			Total Proposed Watts =	179

Interior Lighting PASSES

Interior Lighting Compliance Statement

Compliance Statement: The proposed interior lighting alteration project represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2018 IECC requirements in COMcheck Version 4.1.5.3 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title Signature Date

Project Title: Report date: 11/14/22
Data filename: K:\2022\22132 - City of Sparks Victorian Amphitheater Lighting Upgrade\02. Design\B. Lighting\02. Lighting Calcs\b. Energy Compliance Calcs (IECC)\22132.cck Page 1 of 7

COMcheck Software Version 4.1.5.3

Exterior Lighting Compliance Certificate

Project Information

Energy Code: 2018 IECC
Project Title:
Project Type: Alteration
Exterior Lighting Zone 2 (Light industrial area with limited nighttime use (LZ2))

Construction Site: Owner/Agent: Designer/Contractor:

Allowed Exterior Lighting Power

A Area/Surface Category	B Quantity	C Allowed Watts / Unit	D Tradable Wattage	E Allowed Watts (B X C)
ENTRY (Entry canopy)	1116 ft2	0.25	Yes	279
EXIT (Entry canopy)	80 ft2	0.25	Yes	20
			Total Tradable Watts (a) =	299
			Total Allowed Watts =	299
			Total Allowed Supplemental Watts (b) =	400

(a) Wattage tradeoffs are only allowed between tradable areas/surfaces.
(b) A supplemental allowance equal to 400 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces.

Proposed Exterior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
ENTRY (Entry canopy 1116 ft2): Tradable Wattage				
LED 1: L3: CYLINDER: Other:	1	15	8	117
EXIT (Entry canopy 80 ft2): Tradable Wattage				
LED 2: L2: WALL: Other:	1	2	19	38
			Total Tradable Proposed Watts =	155

Exterior Lighting PASSES

Exterior Lighting Compliance Statement

Compliance Statement: The proposed exterior lighting alteration project represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed exterior lighting systems have been designed to meet the 2018 IECC requirements in COMcheck Version 4.1.5.3 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title Signature Date

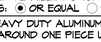
Project Title: Report date: 11/14/22
Data filename: K:\2022\22132 - City of Sparks Victorian Amphitheater Lighting Upgrade\02. Design\B. Lighting\02. Lighting Calcs\b. Energy Compliance Calcs (IECC)\22132.cck Page 2 of 7

LIGHTING FIXTURE SCHEDULE

LIGHTING FIXTURE CATALOG NUMBERS ARE SERIES TYPE ONLY. PROVIDE TRIMS, BALLASTS, MOUNTING EQUIPMENT, FITTINGS AND LAMPS AS REQUIRED BY THE SPECIFICATIONS AND PROJECT CONDITIONS FOR A COMPLETE INSTALLATION. THIS IS NOT A STANDALONE SCHEDULE AND FIXTURES MUST INCORPORATE ALL WORK INDICATED OR IMPLIED THROUGHOUT THE DRAWINGS AND SPECIFICATIONS.

SUBSTITUTION: DEFINITIONS

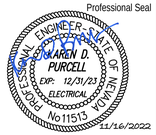
- (•) OR EQUAL = EQUAL OR SUPERIOR TO SPECIFIED IN ALL RESPECTS WILL BE ALLOWED. ENGINEER'S PRE-BID APPROVAL IS NOT REQUIRED. PROPOSED EQUAL FIXTURES ARE SUBJECT TO REVIEW DURING THE STANDARD SUBMITTAL PROCESS.
- (•) NO EQUAL = PROVIDE SPECIFIED FIXTURE. SUBSTITUTIONS ARE NOT ALLOWED.
- (•) SUBJECT TO REVIEW = EQUAL OR SUPERIOR TO SPECIFIED IN ALL RESPECTS MAY BE ALLOWED ONLY WITH ENGINEER'S APPROVAL. ALL SUBSTITUTIONS MUST BE SUBMITTED AS REQUIRED BY SPECIFICATIONS AND ACCOMPANIED WITH POINT BY POINT LIGHTING CALCULATIONS. DETERMINATION OF EQUAL IS ENGINEER'S SOLE DISCRETION.

TYPE	SYMBOL	DESCRIPTION AND MANUFACTURER
L1 55.8		LINEAR STRIP, ROUND ACRYLIC LENS, 4' LENGTH, ON OFF DRIVER. LAMP: LED, 5,200LM, 4000K, 80CRI VOLTAGE: 120 MANUFACTURER: HE WILLIAMS 76R 4 L52 8 40 (MOUNTING AS NECESSARY) DRV 120 SUBSTITUTIONS: (•) OR EQUAL ( ) SUBJECT TO REVIEW ( ) NO EQUAL
L2 19		ONE PIECE HEAVY DUTY ALUMINUM EYELID DEEP PROFILE HOUSING. HOUSING FLANGE INTERLOCKS AROUND ONE PIECE UV STABILIZED HIGH IMPACT POLYCARBONATE LENS. MINIMUM 5 YEAR REPLACEMENT WARRANTY. WITH INTEGRAL COLD WEATHER BATTERY BACKUP DRIVER. LAMP: LED, 1349LM, 4000K, 80CRI VOLTAGE: 120 MANUFACTURER: KENALL H612ED DB 15L40K 120 LEL-GN SUBSTITUTIONS: (•) OR EQUAL ( ) SUBJECT TO REVIEW ( ) NO EQUAL
L3 7.8		SURFACE MOUNTED WET LOCATION WHITE SOLID BODY CYLINDER NOMINAL 4.8" DIAMETER. WITH SOLITE LENS. INTEGRAL DRIVER. 70 DEGREE BEAM DISTRIBUTION. LAMP: LED, 1013LM, 4000K, 80CRI VOLTAGE: 120 MANUFACTURER: PATHWAY LIGHTING C815 V 10 4 W L5 WD WL MN 1 SUBSTITUTIONS: (•) OR EQUAL ( ) SUBJECT TO REVIEW ( ) NO EQUAL

LIGHTING SYSTEM FOOTCANDLE LEVELS ARE BASED ON THE UTILIZATION OF STANDARD REFLECTANCES OF 80-50-20 (CEILING-WALL-FLOOR) PER I.E.S. (ILLUMINATED ENGINEERING SOCIETY). THE ROOM SURFACES ARE USED AS AN INTEGRAL COMPONENT OF THE LIGHTING SYSTEMS. THE REFLECTANCE OF THE SURFACE PAINT COLOR, MATERIAL, AND OTHER ROOM SURFACES, DIRECTLY AFFECTS THE DELIVERY OF LIGHT TO THE WORK PLANE. A SIGNIFICANT DROP IN OVERALL LIGHTING LEVELS WILL OCCUR IF REFLECTANCES ARE LOWERED. THE ARCHITECT/OWNER SHALL NOTIFY THE ENGINEER IMMEDIATELY IF FINISHES DO NOT FALL INLINE WITH THE REFLECTANCES MENTIONED ABOVE.

2330-005 fixture schedule test.dwg November 16, 2022 3:00 PM

Professional Seal



Date Revision

Consultant

PK Electrical, Inc.
Engineering · Design · Consulting
681 Sierra Rose Drive, Suite B | Reno, NV 89511 | 775.826.9010
4601 DTC Boulevard, Suite 740 | Denver, CO 80237 | 720.481.3290
pkelectrical.com
22132

H+K ARCHITECTS
5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262
P 775+332+6640
F 775+332+6642
hkarchitects.com

City of Sparks
"B" Street Amphitheater Renovation

Sparks, NV

Fixture Schedule and IECC Calculations

November 18, 2022
H+K Project No: 2208

E003

PANEL:	(E) 'A'	LOCATION:	ELECTRICAL ROOM

TYPE	DESCRIPTION	LOAD	BKR	CIR	A	B	CIR	BKR	LOAD	DESCRIPTION	TYPE
E	(E) LOAD	1200	60/2	1	1450		2	20	250	(E) LOAD	E
E	(E) LOAD	1200	X	3		1450	4	50/2	250	(E) LOAD	E
E	(E) LOAD	250	20	5	500		6	X	250	(E) LOAD	E
E	(E) LOAD	250	20	7		500	8	20	250	(E) LOAD	E
E	(E) LOAD	250	20	9	500		10	20	250	(E) GFCI PLUGS@SPEAKER	E
E	(E) LOAD	250	20	11		500	12	20	250	(E) (GFCI)	E
E	(E) LOAD	250	20	13	500		14	20	250	EXISTING	E
E	(E) LOAD	250	20	15		500	16	20	250	(E) (GFCI)	E
E	(E) LOAD	250	20	17	500		18		250	[3]	
E	(E) LOAD	250	20	19		500	20		250	[3]	
E	(E) LOAD	250	20	21	500		22	20	250	(E) (GFCI) PLANTER PLUG	E
E	(E) LOAD	250	20	23		500	24	20	250	EXISTING	E
E	(E) (GFCI)	250	20	25	500		26	20	250	(E) (GFCI)	E
E	(E) 'AA'	5000	100/2	27		5250	28	60	250	(E) LOAD	E
E	X	4450	X	29	4700		30	X	250	X	E
E	(E) 'AB'	2250	100/2	31		2500	32	20/2	250	(E) LOAD	E
E	X	2250	X	33	2500		34	X	250	X	E
E	(E) LOAD	250	20	35		500	36	20	250	(E) LOAD	E
E	(E) LOAD	250	20	37	500		38	20	250	(E) LOAD	E
E	(E) LOAD	1000	50	39		2000	40	50/2	1000	(E) LOAD	E
E	(E) LOAD	1000	X	41	2000		42	X	1000	X	E
					12150	14200					

COPPER BUS SIZE:	400	GROUND:	STANDARD		NOTES:
VOLTAGE:	240	MOUNTING:	SURFACE		1 NEW LOADS ARE SHOWN BOLD
PHASE:	1	ENCLOSURE:	NEMA 1		2 (E) LOADS ARE ESTIMATED.
WIRE:	2	# OF 1-POLE CIRCUITS	40		[3] PROVIDE NEW BLANK IN (E)
LUGS:	MLO	CONNECTED KVA:		26.4	OPENING.
BREAKER AIC RATING:	EXISTING	CONNECTED AMPS:		109.8	
NEUTRAL:	100%	NET KVA:		27.9	
FEEDER OCPD SIZE:	400	NET AMPS:		116.0	

PANEL:	(E) 'AA'	LOCATION:	ELECTRICAL ROOM

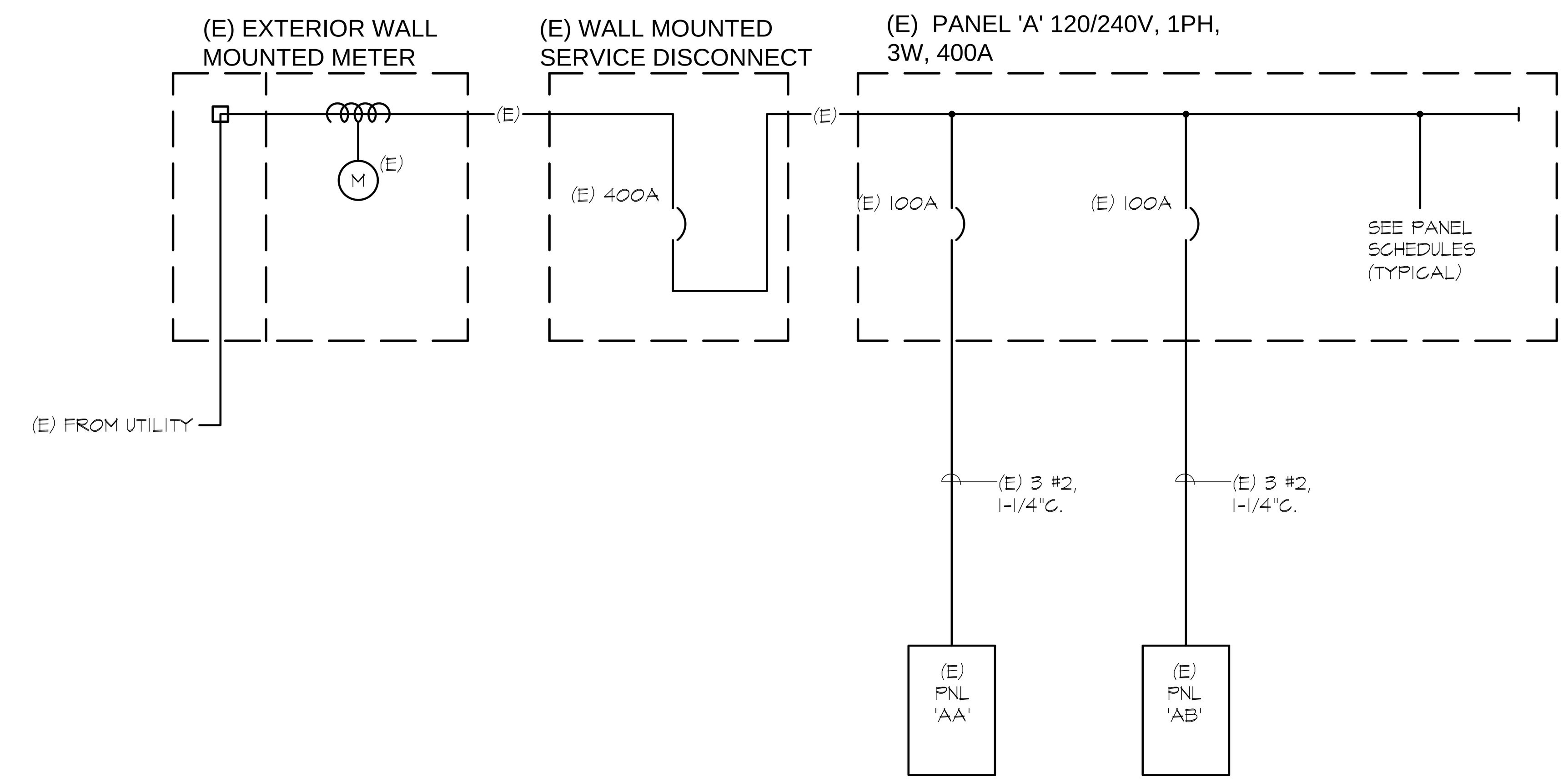
TYPE	DESCRIPTION	LOAD	BKR	CIR	A	B	CIR	BKR	LOAD	DESCRIPTION	TYPE
L	(E) LIGHTS, FRONT SOFFIT	250	20	1	300		2	**20**	**50**	**LIGHTING CONTROLS**	**E**
L	(E) LIGHTS, OUTSIDE WALL	250	20	3		250	4			(E) SPACE	
L	(E) LIGHTS, INSIDE SOFFIT	250	20	5	500		6	20/2	250	(E) LIGHTS AND POLE	L
L	(E) LIGHTS, INSIDE SOFFIT	250	20	7		500	8	X	250	X	L
L	(E) LIGHTS, INSIDE SOFFIT	250	20	9	500		10	20	250	(E) LIGHTS & POLE (GFCI)	L,R
L	(E) LIGHTS, INSIDE SOFFIT	250	20	11		500	12	20	250	(E) GFCI, TRELLIS LIGHTS	L
L	(E) GFCI, LIGHTS STATUE	250	20	13	500		14	20	250	(E) XMAS TREE	E
	(E) SPACE			15		900	16	**20/2**	**900**	**[3] DOOR MOTOR**	**M**
	(E) SPACE			17	900		18	**X**	**900**	**X**	**M**
E	(E) LOAD	250	20	19		1150	20	**20/2***	**900**	**[3] DOOR MOTOR**	**M**
E	(E) LOAD	250	20	21	1150		22	**X**	**900**	**X**	**M**
E	(E) LOAD	250	20	23		1150	24	**20/2***	**900**	**[3] DOOR MOTOR**	**M**
R	(E) USED GFCI	250	20	25	1150		26	**X**	**900**	**X**	**M**
	(E) SPACE			27		0	28			(E) SPACE	
	(E) SPACE			29	0		30			(E) SPACE	
					5000	4450					

COPPER BUS SIZE:	225	GROUND:	STANDARD		NOTES:
VOLTAGE:	240	MOUNTING:	SURFACE		1 NEW LOADS ARE SHOWN BOLD
PHASE:	1	ENCLOSURE:	NEMA 1		2 (E) LOADS ARE ESTIMATED.
WIRE:	2	# OF 1-POLE CIRCUITS	40		[3] PROVIDE NEW BREAKERS
LUGS:	MLO	CONNECTED KVA:		9.5	
BREAKER AIC RATING:	EXISTING	CONNECTED AMPS:		39.4	
NEUTRAL:	100%	NET KVA:		9.2	
FEEDER OCPD SIZE:	100	NET AMPS:		38.3	

PANEL:	(E) 'AB'	LOCATION:	ELECTRICAL ROOM

TYPE	DESCRIPTION	LOAD	BKR	CIR	A	B	CIR	BKR	LOAD	DESCRIPTION	TYPE
R	(E) RECEPTACLES (GFCI)	250	20	1	500		2	20	250	(E) (GFCI)	R
R	(E) RECEPTACLES (GFCI)	250	20	3		500	4	20	250	(E) LIGHT BARS (GFCI)	L
R	(E) RECEPTACLES (GFCI)	250	20	5	500		6	20	250	(E) LIGHT BARS (GFCI)	L
L	(E) K LEG LIGHTS	250	20	7		500	8	20	250	(E) LIGHT BARS	L
E	(E) NO 1 POLE	1000	50/2	9	1250		10	20	250	(E) LIGHT BARS	L
E	X	1000	X	11		1250	12	20	250	(E) LOAD	E
					2250	2250					

COPPER BUS SIZE:	100	GROUND:	STANDARD		NOTES:
VOLTAGE:	240	MOUNTING:	SURFACE		SHOWN FOR REFERENCE ONLY.
PHASE:	1	ENCLOSURE:	NEMA 1		
WIRE:	2	# OF 1-POLE CIRCUITS	40		
LUGS:	MLO	CONNECTED KVA:		4.5	
BREAKER AIC RATING:	EXISTING	CONNECTED AMPS:		18.8	
NEUTRAL:	100%	NET KVA:		4.5	
FEEDER OCPD SIZE:	100	NET AMPS:		18.8	



NOTE: PROVIDED FOR REFERENCE ONLY.
REFER TO PANEL SCHEDULES FOR MODIFIED LOADS.

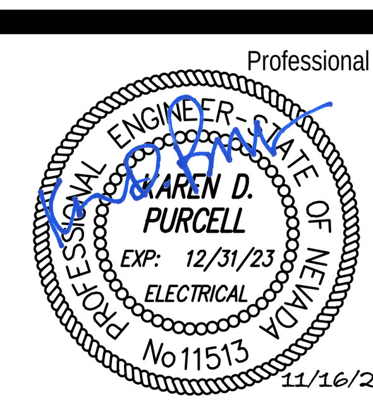
A / E004

PARTIAL SINGLE LINE DIAGRAM

SCALE: NONE

2252-004 - oneline panel schedule.dwg November 16, 2022 5:00 PM

Professional Seal



Date Revision

Consultant

PK Electrical, Inc.
Engineering · Design · Consulting
681 Sierra Rose Drive, Suite B | Reno, NV 89511 | 775.826.9010
4601 DTC Boulevard, Suite 740 | Denver, CO 80237 | 720.481.3290
pkelectrical.com 22132

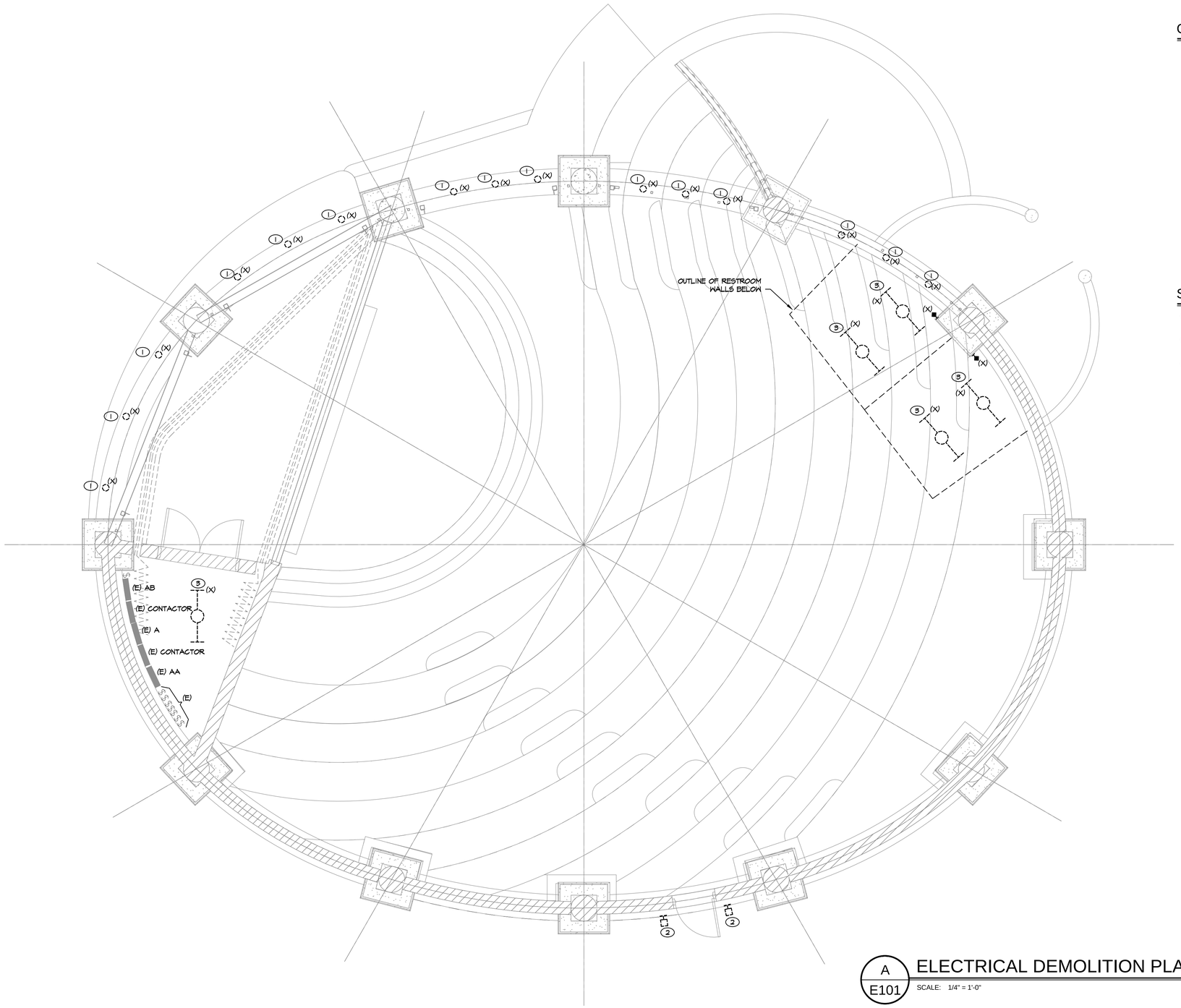
H+K ARCHITECTS
5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262
P 775+332+6640
F 775+332+6642
hkarchitects.com

City of Sparks
"B" Street Amphitheater Renovation
Sparks, NV

Partial Oneline Diagram
& Panel Schedules

November 18, 2022
H+K Project No: 2208

E004



GENERAL NOTES

1. THIS DRAWING REPRESENTS THE EXISTING LIGHTING, POWER AND COMMUNICATIONS SYSTEMS WITHIN THE EXISTING BUILDING (AREA TO BE REMODELED). THE CONTRACTOR IS RESPONSIBLE FOR REMOVING, RELOCATING AND REWIRING ALL EQUIPMENT AS INDICATED ON THE DRAWINGS, INCLUDING EQUIPMENT THAT LIES WITHIN WALLS AND CEILINGS TO BE DEMOLISHED OR REMODELED.
2. (X) AND/OR DASHED LINES INDICATE EXISTING EQUIPMENT TO BE REMOVED, (R) AND/OR DASHED LINES INDICATE EXISTING EQUIPMENT TO BE RELOCATED, (E) AND/OR SOLID HALFTONE LINES INDICATE EXISTING EQUIPMENT TO REMAIN UNLESS NOTED OTHERWISE.
3. SALVAGEABLE ITEMS REMOVED DURING DEMOLITION SHALL BE OFFERED TO OWNER PRIOR TO DISPOSAL OR REMOVAL FROM SITE.
4. EXISTING CIRCUITS AS INDICATED ARE BASED ON CASUAL FIELD OBSERVATION AND INFORMATION PER RECORD DRAWINGS AND SHALL BE FIELD VERIFIED BY ELECTRICAL CONTRACTOR PRIOR TO START OF DEMOLITION WORK.
5. THE CONTRACTOR MAY SALVAGE AND REUSE EXISTING BOXES AND CONDUIT WHERE POSSIBLE. DAMAGED CONDUIT, FITTINGS BOXES, ETC. MAY NOT BE RE-USED. NEW CIRCUITING AS INDICATED ON THE DRAWINGS IS SHOWN FOR INTENT ONLY AND MAY VARY BASED ON ACTUAL FIELD CONDITIONS (NEW CIRCUITING SHALL MATCH EXISTING WHERE POSSIBLE TO UTILIZE EXISTING HOME-RUN CONDUITS, ETC.). KEEP AS-BUILT DRAWINGS CURRENT WITH ANY DEVIATION IN CIRCUITING FROM WHAT IS INDICATED WITHIN THESE PLANS.
6. THE CONTRACTOR SHALL REMOVE FROM THE JOB SITE ALL DISCARDED AND ABANDONED MATERIALS LEFT OVER FROM DEMOLITION AND INSTALLATION. THIS INCLUDES, BUT IS NOT LIMITED TO, CONDUIT, FASTENERS AND BOXES. MATERIALS EMBEDDED IN GRADE AND / OR CONCRETE MAY BE ABANDONED IN PLACE. ALL ABANDONED CONDUIT SHALL BE CAPPED.

SHEET NOTES

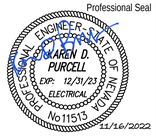
1. REMOVE FIXTURE COMPLETE TO ALLOW FOR INSTALLATION OF ROLL UP DOORS. RETAIN EXISTING CIRCUITING FOR EXTENSION TO NEW LIGHTING.
2. REMOVE REMAINING FIXTURE HOUSING AND RETAIN EXISTING CIRCUITING FOR EXTENSION TO NEW LIGHTING.
3. REMOVE FIXTURE AND CONTROL. RETAIN CIRCUITING FOR EXTENSION NEW LIGHTING.

A E101 ELECTRICAL DEMOLITION PLAN

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

2208-01 - demo.dwg November 16, 2022 5:00 PM

Professional Seal



Date	Revision

Consultant

PK Electrical, Inc.
Engineering · Design · Consulting
681 Sierra Rose Drive, Suite B | Reno, NV 89511 | 775.826.9010
4601 DTC Boulevard, Suite 740 | Denver, CO 80237 | 720.481.3290
pkelectrical.com
22132

H+K ARCHITECTS
5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262
P 775+332+6640
F 775+332+6642
hkarchitects.com

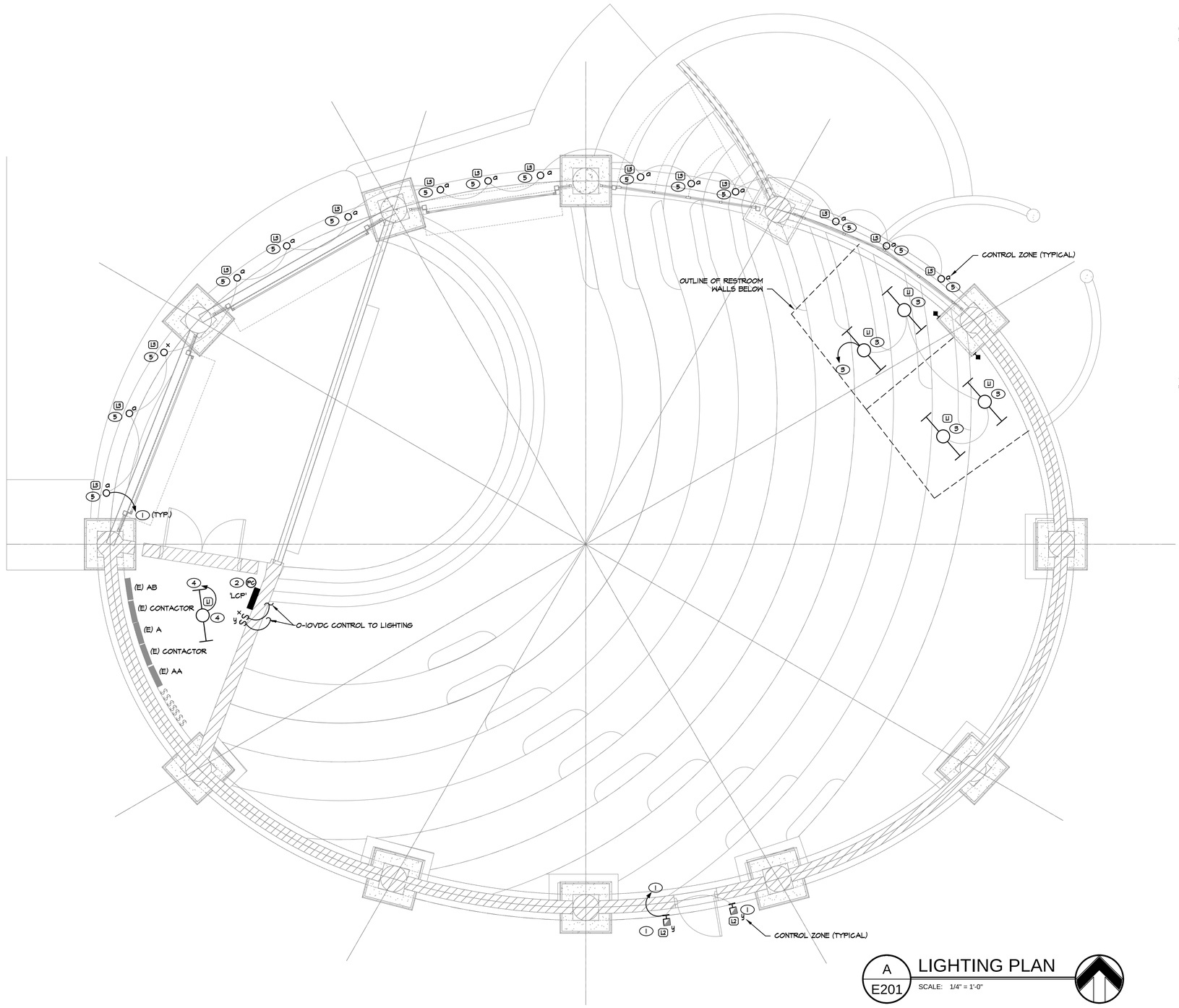
City of Sparks
"B" Street Amphitheater Renovation

Sparks, NV

Electrical Demolition Plan

November 18, 2022
H+K Project No: 2208

E101



A E201 LIGHTING PLAN

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

GENERAL NOTES

1. I. (E) AND/OR SOLID HALFTONE LINES INDICATE EXISTING EQUIPMENT, (R) AND/OR DASHED LINES INDICATE RELOCATED EQUIPMENT, (N) AND/OR SOLID LINES INDICATE NEW EQUIPMENT UNLESS NOTED OTHERWISE.
2. LIGHTING FIXTURES DESIGNATED AS 'EMERGENCY' SHALL BE WIRED TO OPERATE WITH LOCAL SWITCHING UNDER NORMAL POWER CONDITIONS AND SHALL OPERATE VIA EMERGENCY BATTERY PACK UPON LOSS OF BUILDING UTILITY POWER ONLY, UNLESS NOTED OTHERWISE.
3. EXIT SIGNS SHALL BE WIRED AHEAD OF LOCAL SWITCHING AND LIGHTING CONTROL PANEL FOR CONTINUOUS OPERATION. EXIT SIGNS SHALL BE WALL-MOUNTED ABOVE DOORS WHERE PRACTICAL. PROVIDE ADDITIONAL EXIT SIGNS AS NECESSARY FOR APPROVAL BY THE AUTHORITY HAVING JURISDICTION, PER ARCHITECT'S FINAL PATH OF EGRESS / EXITING PLAN.
4. ELECTRICAL CONDUITS SHALL BE RUN CONCEALED WHERE BUILDING CONSTRUCTION ALLOWS. ANY EXPOSED CONDUIT SHALL BE APPROVED BY THE ARCHITECT PRIOR TO INSTALLATION. ANY EXPOSED CONDUIT, FITTING, SUPPORTS, ETC SHALL BE PAINTED TO MATCH THE SURFACE ON WHICH THEY ARE INSTALLED.
5. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS, SECTIONS, ELEVATIONS, ETC. FOR EXACT LOCATION OF LIGHTING FIXTURES.
6. EXACT LOCATION AND MOUNTING HEIGHT OF EXTERIOR BUILDING-MOUNTED FIXTURES SHALL BE COORDINATED WITH ARCHITECT PRIOR TO ROUGH-IN.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING FINAL FIXTURE LOCATIONS, ABOVE-CEILING HOUSING CLEARANCES, ETC. WITH MECHANICAL, PLUMBING, SPRINKLER CONTRACTOR AND OTHER TRADES PRIOR TO ROUGH-IN.
8. PROVIDE MULTIPLE-GANG FACEPLATES AS NECESSARY WHERE TWO OR MORE LIGHT SWITCHES ARE INDICATED IN A COMMON LOCATION. SINGLE-GANG FACEPLATES FOR A GROUP OF LIGHT SWITCHES ARE NOT PERMITTED.
9. PROVIDE STAINLESS STEEL DEVICE PLATES IN KITCHEN AND ROUGH-SERVICE AREAS.
10. CONDUIT FOR BUILDING-MOUNTED LIGHT FIXTURES SHALL BE ROUTED THROUGH INTERIOR OF BUILDING.
11. LIGHT FIXTURE BACKBOXES SHALL BE RECESSED.

SHEET NOTES

1. INTERCEPT AND EXTEND EXISTING CIRCUITING TO NEW FIXTURES. REROUTE CIRCUITING THROUGH NEW LIGHTING CONTROL RELAY PANEL TO CONTROL INDICATED ZONES ON AND OFF PER ZONE AS SHOWN. PROVIDE MANUAL 0-10VDC RAISE AND LOWER CONTROL TO TYPE L5 FIXTURES. SET TIMECLOCK AS PER OWNERS SCHEDULE.
2. PHOTOCELL ON ROOF FACING NORTH OR AS PER THE MANUFACTURES RECOMMENDATIONS. CONNECT TO LIGHTING CONTROL PANEL. REFER TO SHEET E501 FOR LIGHTING CONTROL PANEL 'LCP'.
3. FIXTURES LOCATED IN EXISTING RESTROOMS. INTERCEPT AND EXTEND EXISTING CIRCUITING TO NEW LIGHTING. PROVIDE AND CONTROL AS SHOWN UTILIZING EXISTING CONTROL CONDUIT AND BACKBOXES TO HOUSE NEW OCCUPANCY SENSORS.
4. INTERCEPT AND EXTEND EXISTING CIRCUITING TO NEW LIGHTING. CONTROL AS SHOWN.
5. LIGHTING IS TO BE MOUNTED IN FRONT OF NEW DOORS. COORDINATE WITH NEW DOORS PRIOR TO ROUGH-IN. PROVIDE MATERIALS AS NECESSARY TO SURFACE MOUNT LIGHTING. REFER TO ARCHITECTURAL.

22132-201 - lighting.dwg November 16, 2022 5:00 PM

Professional Seal

STATE OF NEVADA PROFESSIONAL ENGINEER KAREN D. PURCELL EXP: 12/31/23 ELECTRICAL No 11513 11/16/2022

Date Revision

Consultant

PK Electrical, Inc.
Engineering · Design · Consulting
681 Sierra Rose Drive, Suite B | Reno, NV 89511 | 775.826.9010
4601 DTC Boulevard, Suite 740 | Denver, CO 80237 | 720.481.3290
pkelectrical.com
22132

H+K ARCHITECTS
5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262
P 775+332+6640
F 775+332+6642
hkarchitects.com

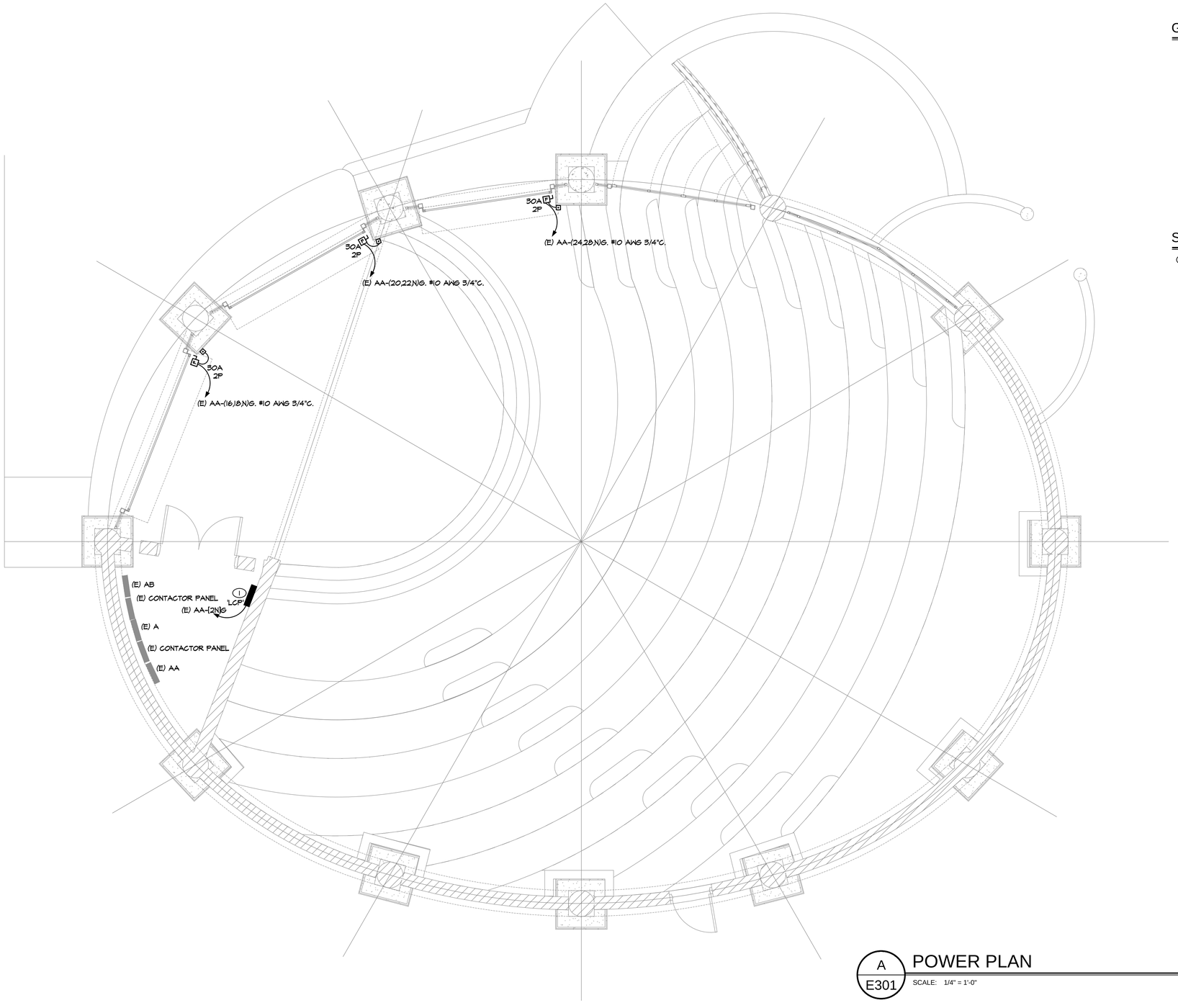
City of Sparks
"B" Street Amphitheater Renovation

Sparks, NV

Lighting Plan

November 18, 2022
H+K Project No: 2208

E201



A E301 POWER PLAN

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

GENERAL NOTES

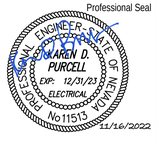
1. I. (E) AND/OR SOLID HALFTONE LINES INDICATE EXISTING EQUIPMENT, (R) AND/OR DASHED LINES INDICATE RELOCATED EQUIPMENT, (N) AND/OR SOLID LINES INDICATE NEW EQUIPMENT UNLESS NOTED OTHERWISE.
2. CONTRACTOR SHALL COORDINATE FINAL RECEPTACLE LOCATIONS WITH TELECOM OUTLETS PRIOR TO ROUGH-IN. EACH TELECOM OUTLET SHALL HAVE A RECEPTACLE LOCATED WITHIN 12", MEASURED FROM CENTER OF DEVICES.
3. PROVIDE CONNECTIONS AND CONTROLS COMPLETE TO MOTORS AND SYSTEMS.
4. COORDINATE EXACT MOUNTING HEIGHTS AND LOCATIONS OF GENERAL RECEPTACLES, SPECIAL OUTLETS AND DISCONNECT SWITCHES IN SHOP AREAS WITH OWNER AND EQUIPMENT SUPPLIERS PRIOR TO ROUGH-IN.
5. CONDUITS FOR ROOF-MOUNTED DEVICES AND EQUIPMENT SHALL BE RUN BELOW ROOF DECK/SYSTEM. ROOF MOUNTED CONDUITS WILL ONLY BE CONSIDERED AND APPROVED IN WRITING BY THE ARCHITECT/ENGINEER.
6. VERIFY EXACT ELECTRICAL REQUIREMENTS, PLUG CONFIGURATIONS, ETC., AND FINAL LOCATIONS OF OWNER-PROVIDED EQUIPMENT WITH OWNER'S REPRESENTATIVE PRIOR TO ORDERING OF MATERIALS AND ROUGH-IN.

SHEET NOTES

1. SURFACE MOUNTED NLIGHT ARP LIGHTING CONTROL PANEL 'LCP' WITH 6 RELAYS. SET TIME CLOCK AS PER OWNERS DIRECTION. SEE SHEET E201 FOR PHOTOCELL.

2205-301 - power.dwg November 18, 2022 5:00 PM

Professional Seal



Date Revision

Consultant

PK Electrical, Inc.
Engineering · Design · Consulting
681 Sierra Rose Drive, Suite B | Reno, NV 89511 | 775.826.9010
4601 DTC Boulevard, Suite 740 | Denver, CO 80237 | 720.481.3290
pkelectrical.com
22132

H+K ARCHITECTS
5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262
P 775+332+6640
F 775+332+6642
hkarchitects.com

City of Sparks
"B" Street Amphitheater Renovation

Sparks, NV

Power Plan

November 18, 2022
H+K Project No: 2208

E301