GCAM - WELDING LAB EXPANSION

GEORGETOWN, SOUTH CAROLINA

OSE PROJECT#: H59-N219-CB

HORRY GEORGETOWN TECHNICAL COLLEGE

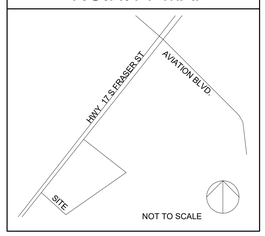
PROJECT TEAM

OWNER:	CIVIL ENGINEER:	adwarchitects	STRUCTURAL ENGINEER:	PLUMBING, MECHANICAL, ELECTRICAL, & FIRE PROTECTION:
HORRY-GEORGETOWN TECHNICAL COLLEGE 2050 Highway 501 East Conway, South Carolina 29526 www.hgtc.edu	NO CIVIL WORK IN SCOPE	environmentsforlife architecture planning interiors 2815 Coliseum Centre Drive, Suite 500 Charlotte, North Carolina 28217 p 704.379.1919 f 704.379.1920	NO STRUCTURAL WORK IN SCOPE	CMTA 8801 J.M. Keynes Drive, Suite 240 Charlotte, NC 28262 704.376.7072 www.cmta.com

DRAWING SYMBOLS

ELEVATION MARK	SIM / 1 / A101 — DETAIL NUMBER / SHEET NUMBER
SECTION MARK	SIM / 1 / A101 — DETAIL NUMBER / SHEET NUMBER
DETAIL CALLOUT MARK	SIM / 1 / A101 — DETAIL NUMBER / SHEET NUMBER
COLUMN GRID REFERENCE	0
ROOM NAME & NUMBER	ROOM NAME 808A
REVISION CLOUD & NUMBER	1
WALL TYPE	1
DOOR TYPE	101
WINDOW TYPE	1A
ELEVATION	
MATCH LINE	
FINISH MARK	A-A

VICINITY MAP



ISSUE DATES

REVIEW: 4/28/2023
BIDDING: 5/16/2023

RENDERING

SHEET INDEX

SC OSE - FORM 3E

2023 Edition

TABLE 3E CODE INFORMATION FOR ADDITIONS, ALTERATIONS, OR CHANGE OF OCCUPANCY TO AN EXISTING STRUCTURE

TYPE OF PROJECT:
☒ Alteration (IEBC Chaps. 7, 8 &9) ☐ Addition (IEBC Chap. 11) ☐ Change of Occupancy (IEBC Chap. 10)

METHOD OF COMPLIANCE:
(Check only one Option and all items that apply under that Option.)

☐ **Option 1: Prescriptive Compliance Method (IEBC Chapter 5)**

☒ **Option 2: Work Area Compliance Method (IEBC Chaps. 6-12)**
- ☒ Alteration Level 1, minor including reroofing (IEBC Chap. 7)
- ☐ Alteration Level 2, reconfigurations of space (IEBC Chap. 8)
- ☐ Alteration Level 3, work area exceeds 50% (IEBC Chap. 9)

Aggregate area of building: 30,424 SF
Work area: 1,149 SF

☐ **Option 3: Performance Compliance Method (IEBC Chap. 13)**

Original Building Code and Edition Applicable at time of Construction: IBC 2015

Existing Sprinkler System?	☒ Yes	☐ No
Existing Fire Alarm System?	☒ Manual	☐ Auto
Seismic Evaluation Required?	☐ Yes	☒ No
Major Facility Project? (See §48-52-810(10)(a))	☐ Yes	☒ No
Change of Occupancy:	☐ Yes	☒ No

Existing Occupancy Classification(s):
New Occupancy Classification(s):

Historic Building (IEBC Chapter 12):	☐ Yes	☒ No

☐ Preservation ☐ Rehabilitation ☐ Restoration ☐ Reconstruction

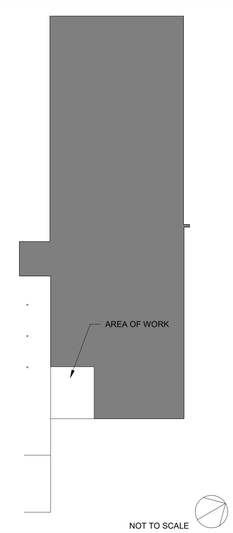
ABBREVIATIONS

A.F.F.	ABOVE FINISH FLOOR
APPROX.	APPROXIMATE
ARCH.	ARCHITECTURAL
AUTO.	AUTOMATIC
AUX.	AUXILIARY
AVG.	AVERAGE
B.O.	BOTTOM OF
BD.	BOARD
BLDG.	BUILDING
BOT.	BOTTOM
BRG.	BEARING
BTU.	BRITISH THERMAL UNITS
C.	CELSIUS
C.B.	CATCH BASIN
C.L.	CENTERLINE
C.L. TO C.L.	CENTERLINE TO CENTERLINE
CJ.	CONTROL JOINT
CLG.	CEILING
CLR.	CLEAR
CMU	CONCRETE MASONRY UNIT
CO2	CARBON MONOXIDE
COL.	COLUMN
CONC.	CONCRETE
CONST.	CONSTRUCTION
CST.	CONCRETE STAIN
CTR.	CENTER
CU. FT.	CUBIC FEET
CU. IN.	CUBIC INCHES
CU. YD.	CUBIC YARD
D.F.	DRINKING FOUNTAIN
D.S.	DOWN SPOUT
DBL.	DOUBLE
DEPT.	DEPARTMENT
DIA.	DIAMETER
DIM.	DIMENSION
DWG.	DRAWING
E.D.	EQUIPMENT DRAIN
E.E.	EMERGENCY EYEWASH
E.E.J.	EXTERIOR EXPANSION JOINT
E.F.	EXHAUST FAN
E.O.S.	EDGE OF SLAB
E.W.C.	ELECTRIC WATER COOLER
EA.	EACH
EL.	ELEVATION
ELEC.	ELECTRICAL
ELEV.	ELEVATOR
ENGR.	ENGINEER
EQ.	EQUAL
EQUIP.	EQUIPMENT
EXH.	EXHAUST
EXIST.	EXISTING
EXP.	EXPANSION
EXP. JT.	EXPANSION JOINT
F.	FAHRENHEIT
F.D.	FLOOR DRAIN
F.E.	FIRE EXTINGUISHER
F.E.C.	FIRE EXTINGUISHER CABINET
F.F.J.	FLOOR FORMED JOINT
F.J.	FLOOR JOINT
F.O.	FACE OF
F.O.C.	FACE OF CHANNEL
F.O.S.	FACE OF STUD
F.P.M.	FEET PER MINUTE
F.P.S.	FEET PER SECOND
F.R.	FLOOR RECEPTACLE
FAB.	FABRICATE
FED.	FEDERAL
FIG.	FIGURE
FIN.	FINISH
FIN. FLR.	FINISH FLOOR
FIN. GRD.	FINISH GRADE
FLR.	FLOOR
FT.	FEET
G.P.H.	GALLONS PER HOUR
G.P.M.	GALLONS PER MINUTE
G.W.B.	GYPSUM WALL BOARD
GA.	GAUGE
GAL.	GALLON
GALV.	GALVANIZE(D)
GEN.	GENERAL
GOV'T.	GOVERNMENT
GYP.	GYPSUM
GYP. BD.	GYPSUM BOARD
HDW.	HARDWARE
HGT.	HEIGHT
HORIZ.	HORIZONTAL
HR.	HOUR
HVAC	HEATING, VENTILATION, A/C
IN.	INCH
INFO.	INFORMATION
INSUL.	INSULATION
INV.	INVERT
JT.	JOINT
L.H.	LEFT HAND
L.H.R.	LEFT HAND REVERSE
L.L.	LIVE LOAD
LAB.	LABORATORY
LB.	POUND
M.H.	MAN HOLE
M.O.	MASONRY OPENING
MAINT.	MAINTENANCE
MAX.	MAXIMUM
MECH.	MECHANICAL
MEMO.	MEMORANDUM
MEZZ.	MEZZANINE
MFG.	MANUFACTURE(R)
MIN.	MINIMUM
MISC.	MISCELLANEOUS
MTL.	METAL
N.A.	NOT APPLICABLE
N.I.C.	NOT IN CONTRACT
N.T.S.	NOT TO SCALE
NEG.	NEGATIVE
NO.	NUMBER
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
O.F.C.I.	OWNER FURNISHED CONTRACTOR INSTALLED
O.F.O.I.	ONWER FINISHED OWNER INSTALLED
O.H.	OPPOSITE HAND
OPP.	OPPOSITE
P.A.	PUBLIC ADDRESS
P.S.F.	POUNDS PER SQUARE FOOT
P.S.I.	POUNDS PER SQUARE INCH
PL.	PLATE
PREFAB.	PREFABRICATED
PRELIM.	PRELIMINARY
PROJ.	PROJECT
PT.	POINT
R (RAD)	RADIUS
R.A.	RETURN AIR
R.D.	ROOF DRAIN
R.H.	RIGHT HAND
R.H.R.	RIGHT HAND REVERSE
REFRIG.	REFRIGERATOR
REINF.	REINFORCE
REQD.	REQUIRED
S.D.	STORM DRAIN
SHT.	SHEET
SIM.	SIMILAR
SPEC.	SPECIFICATION
SQ.	SQUARE
SQ. FT.	SQUARE FEET
SQ. IN.	SQUARE INCHES
ST.	STREET
STD.	STANDARD
STL.	STEEL
STRUCT.	STRUCTURAL
SYM.	SYMBOL
T&G	TONGUE & GROOVE
T.O.	TOP OF
T.V.	TELEVISION
TEL.	TELEPHONE
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
V.C.T.	VINYL COMPOSITION TILE
V.O.C.	VOLATILE ORGANIC COMPOUND
VERT.	VERTICAL
VOL.	VOLUME
W.C.	WATER CLOSET

DETAIL NUMBERING SYSTEM

20	16	12	08	04
19	15	11	07	03
18	14	10	06	02
17	13	09	05	01

KEY PLAN



BIDDING DOCUMENTS

STATE OF SOUTH CAROLINA — REGISTERED ARCHITECT — WILLIAM D. LAUER, JR. — Charleston, NC — 7454 — 5/16/2023

ADW ARCHITECTS, P.A. CORPORATE SEAL 1081 SOUTH CAROLINA

COVER SHEET

DATE: 05/16/2023
PROJECT NO: 23007
REVISIONS
NO: DATE: DESCRIPTION:

SHEET NUMBER

A000

ORIGINAL BUILDING CODE INFORMATION SHOWN FOR REFERENCE. NO CHANGE WITH CURRENT SCOPE OF WORK.

5.1.3 CODES AND STANDARDS

A. Starting July 1 2016, State design and construction must comply with the codes and standards, along with their published errata and other requirements listed in this Chapter.

B. If there is any conflict between the codes, standards, and/or regulations listed herein, the more stringent requirement controls.

C. Designers and Agency reviewers should ensure they have the latest errata for indicated editions to International Codes, other codes and standards.

D. Codes editions in force at the time of first submittal govern throughout the project, unless:

1. Otherwise permitted by OSE; or
2. Design is delayed for more than 6 months and OSE adopts editions that are more current in the interim. No project may use a code that is older than one previous adopted edition.

E. In accordance with SC Code Ann §§ 1-34-10 thru 70 & § 10-1-180, OSE has adopted the following codes:

1. International Building Code (IBC), 2015 Edition,
2. International Existing Building Code (IEBC), 2015 Edition,
3. International Fire Code (IFC), 2015 Edition,
4. International Energy Conservation Code (IECC), 2009 Edition,
5. International Fuel Gas Code (IFGC), 2015 Edition,
6. International Mechanical Code (IMC), 2015 Edition,
7. International Plumbing Code (IPC), 2015 Edition, with the following insertions:
   - **a.** Section 305.4.1, insert "18" and insert "18"
   - **b.** Section 903.1, insert "8"
8. International Private Sewage Disposal Code (IPSDC), 2015 Edition,
9. International Property Maintenance Code (IPMC), 2015 Edition,
10. International Residential Code for One and Two Family Dwellings (IRC), 2015 Edition, with the following insertions:
    - **a.** P2603.5.1, insert "12" and insert "24"
11. International Wildland – Urban Interface Code (IUWIC), 2015 Edition, *Note: The IUWIC does not supersede existing statutory requirements.*
12. International Code Council Performance Code (ICCPC), 2015 Edition, upon State Engineer's approval.
13. International Swimming Pool and Spa Code (ISPSC), 2015 Edition,
14. Standard for Bleachers, Folding and Telescopic Seating, and Grandstands, ICC 300-2012 Edition
15. National Electrical Code (NEC) [NFPA-70], 2014 Edition
16. National Electrical Safety Code, IEEE-C2-2012 Edition
17. Latest edition of the American National Standards Institute, Inc. (ANSI) document A117.1, Accessible and Useable Buildings and Facilities. Note that this standard is the standard adopted by the South Carolina Accessibility Act but this requirement does not relieve the Agency or the design professional from the Federal Statutory requirements that design and construction comply with the Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities. *See http://www.access-board.gov/guidelines-andstandards/buildings-and-sites/about-the-ada-standards/ada-standards*
18. State Fire Marshal rules, regulations, and policies. *See http://www.scfiremarshal.llronline.com*
19. South Carolina Elevator, Code, & Regulations.[1]: *See http://www.llr.state.sc.us/Labor/ElevatorAmusement/index.asp?file=bungee.htm*
20. State of SC Telephone Equipment Room and Communications/Data Systems Policies as formulated by the Division of State Information Technology (DSIT).
21. Governor's executive Order No. 82-19 (April 1982) – State of SC Building Standards in Floodplain Areas.
22. The South Carolina Modular Buildings Construction Act S.C. Code § 23-43-10 et. Seq.

TABLE 5-1 FLOOD HAZARD INFORMATION & FLOOD LOADS

FLOOD HAZARD AREA

Flood Map Information: Flood Zone: X (*A Floodplain Permit is required for A and V Zones*) — Community Number: 450085 — Panel Number: 0379 D

Is the Project Site in a 100-Year Flood Plain? Yes ☐ No ☒ — NGVD or FIRM

Base Flood Elevation 22.00 MSL — IBC 1612.3 and ASCE 24

Design Flood Elevation 22.00 MSL

NON HIGH-VELOCITY WAVE ACTION

Elevation of Lowest Proposed Floor 40.0 MSL — Meet ASCE 24 Section 2.6.2.1/ 2.6.2.2

Dry floodproofing Yes ☐ No ☐ — per ASCE 24

HIGH-VELOCITY WAVE ACTION

Elevation of bottom of Lowest Horizontal Structural Member of lowest floor _____ MSL

Flotation resistant Yes ☐ No ☐ per ASCE 24

Breakaway wall Yes ☐ No ☐ per ASCE 24

IBC 1612 and SE-510, as applicable

ZONING CERTIFICATION

"I hereby certify that, to the best of my knowledge, these plans comply with applicable zoning ordinances, and that plans have been submitted to appropriate authority for their review and/or approval."

Signed: _____ Architect/Engineer — Date: 12 MARCH 2018

If the project does not require a National Pollution Discharge Elimination System (NPDES) permit from SCDHEC, include the following certification on the Site Plan(s):

EROSION AND SEDIMENT REDUCTION/STORMWATER MANAGEMENT

Designer's Certification:

"I hereby certify that the measures in this plan are designed to control erosion, retain sediment on the site, and manage stormwater in a manner that neither any on-site nor off-site damage or problem is caused or increased, that all structural measures are designed to the minimum standards for health and safety, and that all the provisions of the plan are in compliance with the Regulations contained in Chapter 72, Article 2, SC Code of Regulations (Erosion and Sediment Reduction and Stormwater Management Regulations)."

Signed: _____ Engineer or Registered Landscape Architect (Circle one) — Date: 12 MARCH 2018

TABLE 5-2 SOILS & SITE

SOILS INVESTIGATION (If required) Yes ☒ No ☐ per IBC 1803.2

SOILS CLASSIFICATION

Site Class D — per IBC 1613.3.2

Classes Soil of Materials (UCS System) A — per IBC 1803.5.1

Allowable Footing Bearing Pressure 4000 psf

MINIMUM DESIGN SOIL BEARING LOAD N/A psf — per IBC table 1806.2

COMPACTION

Subgrade: 95 Percent — ☐ASTM D698 ☐ASTM D1557 ☒AASHTO (only for paving & roads)

Base: 95 Percent — ☐ASTM D698 ☐ASTM D1557 ☒AASHTO (only for paving & roads)

Other: _____ Percent — ☐ASTM D698 ☐ASTM D1557 ☐AASHTO (only for paving & roads)

MINIMUM DESIGN SOIL LATERAL LOAD N/A psf — per IBC 1610.1

FOOTINGS

Undisturbed footings Yes ☐ No ☐

Compacted Fill Material Yes ☐ No ☐ per IBC 1804.6

ELEVATIONS

Elevation of Water Table: _____ MSL

Elevation of lowest footing: _____ MSL

Elevation of lowest floor or basement: _____ MSL

TABLE 5-3 BASIC BUILDING CODE INFORMATION

CONSTRUCTION CLASSIFICATION	Type: II B	(IBC 602)	
OCCUPANCY CLASSIFICATION (indicate all) (Note IBC 504.2)	B	(IBC 302)	
MOST RESTRICTIVE OCCUPANCY CLASSIFICATION	N/A	(IBC Tables 504.3, 504.4 & 506.2)	
Does building require Incidental Use Area Separation?	Yes ☐ No ☒	(IBC 509.1)	
Does building have Accessory Occupancy (ies)? If so, what percent of story is Accessory Occupancy?	Yes ☐ No ☒	(IBC 508.2)	_____ SF _____ %
Mixed Occupancy	Yes ☐ No ☒	(IBC 508)	
Non separated	Yes ☐ No ☒	(IBC 508.3)	
Separated	Yes ☐ No ☒	(IBC 506.2.2) (IBC 506.2.4) (IBC 508.4)	
Fire Apparatus Access and Water Line	Yes ☒ No ☐	(IFC 503 & 507)	

OTHER FIRE PROTECTION SYSTEMS, DEVICES or FEATURES

If the building has any special or notable fire protection or safety feature or hazard the designers should list them here, describe the performance characteristics and refer to locations in construction documents. (e.g. fire extinguishers, smoke-evacuation/control/compartments. Note IBC 414.1.3.)

- Automatic Fire Protection Sprinklers
- Portable Fire Extinguishers

TABLE 5-4 BUILDING AREA

AREA LIMIT BY TABLE 506.2 OF IBC	92000 (area limitation per story)	SF
AREA INCREASES BY SECTION 506.2 AND 506.3 OF IBC — **EXPLANATION OF INCREASES:** N/A	_____ (maximum modified area per story)	SF
AREA AS ALLOWED IN IBC PER STORY — Story/Level: 1	92000	
Story/Level:		SF (area per story)
Story/Level:		SF (area per story)
Story/Level:		SF (area per story)
Story/Level:		SF (area per story)
TOTAL ALLOWED AREA OF BUILDING (summary of all stories)	92000	SF
AREA AS DESIGNED PER STORY — Story/Level: 1		SF (area per story)
Story/Level:		SF (area per story)
Story/Level:		SF (area per story)
Story/Level:		SF (area per story)
TOTAL DESIGNED AREA OF BUILDING	30424	SF

TABLE 5-5 BUILDING HEIGHT

	AS DESIGNED		AS ALLOWED BY IBC	
	In Feet	In Stories	In Feet	In Stories
PER TABLE 504.3	25' 8"	N/A	75'	N/A
PER TABLE 504.4	N/A	1	N/A	4
Total Height, including any Allowable Increase	N/A	N/A	N/A	N/A

TABLE 5-6 BUILDING DESIGN OCCUPANT LOAD

STORY/ LEVEL	FUNCTION OF SPACE (1)	A FLOOR AREA (2) (NSF or GSF)	B MAX AREA ALLOWED PER OCCUPANT (3) (NSF or GSF)	C OCCUPANTS ON FLOOR FOR THIS FUNCTION (4)	D DESIGN OCCUPANT LOAD (5)
1	BUSINESS - VOCATIONAL 1	8548	50	173	
	BUSINESS - VOCATIONAL 2	5338	50	89	
	BUSINESS - VOCATIONAL 3	4129	50	64	
	BUSINESS - AREAS	1,248	100	18	
	Subtotal Design Occupant Load for This Story				344
1	BUSINESS - ACCESSORY	1825	300	12	
	BUSINESS - CLASSROOM	796	20	40	
	BUSINESS - LOCKER ROOM	337	50	7	
	BUSINESS - ASSEMBLY UNCON.	1413	15	95	
	Subtotal Design Occupant Load for This Story				154
___					
	Subtotal Design Occupant Load for This Story				___
___					
	Subtotal Design Occupant Load for This Story				___
TOTAL BUILDING DESIGN OCCUPANT LOAD					498 (6)

FOOTNOTES:

1. Provide the complete name of the Function of Space using the left column of Table 1004.1.2 of the IBC (1)
2. Design Area per each occupant of this Function on this Story in either Gross (GSF) or Net (NSF) Square Footage (2)
3. Allowed Floor Areas in SF per Occupant per right column in Table 1004.1.2 of the IBC (3)
4. Divide Column A (2) by Column B (3) for each function and enter result, rounded up to the nearest whole person (4)
5. Subtotal all Column C values for this floor to yield the Design Occupant Load (5)
6. Total Building Design Occupant Load – sum of all Column D value (6)

TABLE 5-7 GENERAL FIRE PROTECTION REQUIREMENTS

SEPARATIONS		
Fireblocking Required	Yes ☐ No ☒	per IBC Section 718
Draftstopping Required	Yes ☐ No ☒	per IBC Section 718
Smoke Control System Required	Yes ☐ No ☒	per IBC Section 909
Smoke Barriers Required	Yes ☐ No ☒	per IBC Section 407 and 408
Smoke Partitions Required	Yes ☐ No ☒	per IBC Section 407
Fire Partition Required	Yes ☐ No ☒	per IBC Section 708
Fire Barrier Required	Yes ☐ No ☒	per IBC Section 707
ALARM & DETECTION		
Fire Alarm System Required	Yes ☒ No ☐	per IFC Section 907
Emergency Alarm System Required	Yes ☒ No ☐	per IFC 908
SUPPRESSION		
Standpipes Required	Yes ☐ No ☒	per IFC Section 905
Sprinklers Required	Yes ☐ No ☒	per IFC Section 903
Sprinklers Provided	Yes ☒ No ☐	____
Portable extinguishers required	Yes ☒ No ☐	per IFC 906
Other suppression systems required	Yes ☐ No ☒	per IFC 904
Smoke & heat vents required	Yes ☐ No ☒	per IFC 910

OTHER: ***(Indicate other provided fire and life safety features not listed above, if any)***

____

____

____

TABLE 5-8 FIRE RESISTANCE RATING OF BUILDING ELEMENTS

BUILDING ELEMENT	RATING AS REQUIRED (in hours)	RATING AS DESIGNED (in hours)	TESTING AGENCY & DESIGN NO. (UL, FM, etc)	DESIGNERS WALL/PARTITION KEY CODE
Primary Structural Frame (per IBC Table 601)	0	0	N/A	N/A
Bearing Walls — Exterior	0	0	N/A	N/A
Bearing Walls — Interior (per IBC Table 601)	0	0	N/A	N/A
Nonbearing Walls & Partitions — Exterior	0	0	N/A	N/A
Nonbearing Walls & Partitions — Interior (per IBC Table 601 & 602) Note footnote "d" from Table 601.	0	0	N/A	N/A
Floor Construction including supporting beams & joists (per IBC Table 601)	0	0	N/A	N/A
Roof Construction including supporting beams & joists (per IBC Table 601)	0	0	N/A	N/A
Fire Walls (per IBC Section 706)	0	0	N/A	N/A
Fire Barriers (per IBC Section 707)	0	0	N/A	N/A
Shaft Enclosures (per IBC Section 713)	0	0	N/A	N/A
Fire Partitions (per IBC Section 708)	0	0	N/A	N/A
Opening & Protective Listing by Category (fire shutters, doors, etc. per IBC Section 716)	0	0	N/A	N/A
Others (as required by Designer)	0	0	N/A	N/A

TABLE 5-9 STRUCTURAL DESIGN INFORMATION

RISK CATEGORY: II — IBC Table 1604.5

LIVE LOADS

Floor Live Load(s) - List the F_B for each occupancy/use.

Occupancy/Use: 6" - TYP SLAB ON GRADE — F_B = 400 PSF

Occupancy/Use: 8" - INDUSTRIAL SLAB ON GRADE — F_B = 1500 PSF

Occupancy/Use: _____ — F_B = ___ PSF

Occupancy/Use: _____ — F_B = ___ PSF

Roof Live Load R_B = 20 PSF

Ground Snow Load p_g = 10 PSF — IBC Figure 1608.2 (or ASCE 7)

WIND LOADS

Analysis Procedure: IBC 2015 — ASCE 7 or IBC 1609

Ultimate Design Wind Speed: V_{ULT} = 143 MPH — IBC Fig's. 1609.3(1)-(3)

Exposure Category: C — IBC 1609.4.3

Internal Pressure Coefficient: GC_{pi} = 0.18 — ASCE 7

External Pressure Coefficient: GC_p = VARIES — ASCE 7

Protection of Openings Required Yes ☒ No ☐ — IBC 1609.1.2

If "Yes", check one: Impact Resistant Glazing ☒ Impact Resistant Covering ☐

SEISMIC LOADS

Seismic Importance Factor: I_e = 1.0 — ASCE 7 Table 1.5-2

Site Class: D — IBC 1613.3.2

Mapped Spectral Response Accelerations: S_s = 0.77 S_1 = 0.26

Design Spectral Response Acceleration Parameters: S_{DS} = 0.61 S_{D1} = 0.32

Seismic Design Category: D — IBC Tables 1613.3.5(1) & 1613.3.5(2)

Basic Seismic Force Resisting System: STEEL SPECIAL BRACED FRAMES — ASCE 7 Chapter 12

Design Base Shear: 542 KIPS

Seismic Response Coefficient(s): C_s = .264 ASCE 7 Response Modification

Factor(s): R = 6 ASCE 7

Analysis Procedure: EQUIVELENT LATERAL FORCE

ARCHITECTURAL-MECHANICAL-ETC. LOADS

Provide as applicable: architectural items, mechanical, plumbing, etc. per ASCE 7

SPECIAL LOADS

Provide as applicable: abnormal items, moving loads, impact, hoisting, etc. per ASCE 7

*per IBC Chapter 16 and ASCE 7 -- Information may be shown on initial Structural Sheet of the drawings or on Sheet with other code information. List floor design loads on structural plans.

TABLE 5-10 PLUMBING INFORMATION

WATER SYSTEM: Service Line Size: 25 Inches; Peak Flow: 50 GPM; Total Demand: 203 No. Fixture Units

SANITARY SEWER SYSTEM: Loading: 1050 (DFU) GPD; Service Line Size: 4 Inches; Slope: 1/8" min inches/ft

MINIMUM PLUMBING FIXTURES REQUIRED/PROVIDED (Per IPC Section 403 & Table 403.1)

Occupancy Classification(s) (as shown in Table 5-3): BUSINESS

Total Building Design Occupant Load (as shown in Table 5-6): 498

1. Occupancy: BUSINESS — Total Load for this Occupancy: 498 — Male: 249 Female: 249

	Male-REQUIRED	Male-PROVIDED	Female-REQUIRED	Female-PROVIDED
Water Closets	6	4	6	6
Lavatories	4	4	4	4
Urinals*	0	2	0	0
OTHER FIXTURES (Per IPC Section 403 & Table 403.1)			**REQUIRED**	**PROVIDED**
Drinking Fountains			5	5
Unisex Toilet			____	____
Service Sink			1	1
Other (list) ____			____	____

2. Occupancy: _____ Total Load for this Occupancy: _____ Male: _____ Female: _____

	Male-REQUIRED	Male-PROVIDED	Female-REQUIRED	Female-PROVIDED
Water Closets	____	____	____	____
Lavatories	____	____	____	____
Urinals*	____	____	____	____
OTHER FIXTURES (Per IPC Section 403 & Table 403.1)			**REQUIRED**	**PROVIDED**
Drinking Fountains			____	____
Unisex Toilet			____	____
Service Sink			____	____
Other (list) ____			____	____

3. Occupancy: _____ Total Load for this Occupancy: _____ Male: _____ Female: _____

	Male-REQUIRED	Male-PROVIDED	Female-REQUIRED	Female-PROVIDED
Water Closets	____	____	____	____
Lavatories	____	____	____	____
Urinals*	____	____	____	____
OTHER FIXTURES (Per IPC Section 403 & Table 403.1)			**REQUIRED**	**PROVIDED**
Drinking Fountains			____	____
Unisex Toilet			____	____
Service Sink			____	____
Other (list) ____			____	____

* Urinals – See IPC 419.2

TABLE 5-11 MECHANICAL INFORMATION

AIR COMFORT SYSTEMS

Overall Thermal Transfer Value (OTTV): 2.72 Roof/15.16 Glass BTU/(HR x °F x SF)

Building Cooling Load: 306.1 SF / Ton

Building Heating Load: 28.5 BTU/(HR x SF)

OTHER LOADING FEATURES

Glass: U Factor: 0.45 — Window to wall ratio: 28.7

Insulation Values: Roof: 0.036 — Exterior Walls: 0.190 - Mass

Outside Air minimum while occupied: 5850 CFM — 277 Occupants

MECHANCIAL SYSTEMS, SERVICE SYSTEMS & EQUIPMENT

Briefly describe mechanical system: Rooftop packaged equipment with gas and electric heat.

(The above data shall be considered a minimum and any special attribute required to meet the mechanical codes.)

TABLE 5-12 ELECTRICAL INFORMATION

SERVICE TRANSFORMER: ☒ By Utility Company ☐ By Agency (if by Agency) _____ KVA Primary _____ Voltage/Phase

ELECTRICAL SERVICE INFORMATION

Service Voltage/Phase: 480/277v, 3 phase 2,000 Amperes

Service Entrance Conductors Size: 350 KCMIL x 7 Quantity per Phase

Total Connected Load: 1494.4 KVA

Estimated Maximum Demand: 1473.3 KVA

Available Fault Current in Symmetrical Amperes: BY UTILITY

Interrupting Capacity of Service Overcurrent Device: 65,000

Grounding Electrode System Components: GROUND RODS + COND. (NEC 250)

EMERGENCY SERVICE INFORMATION

Emergency Generator: Yes ☐ No ☒ _____ KVA _____ Voltage/Phase _____ Fuel

Exit/Emergency Lights Backup Power ☒ Integral Battery ☐ Generator

Fire Alarm System: ☒ Manual ☐ Automatic ☒ Addressable ☐ Class A ☒ Class B

LIGHTNING PROTECTION PROVIDED ☒ Yes ☐ No

COMMUNICATIONS COORDINATED ☐ Yes ☐ Not Required

Contact DSIT Network/Infrastructure Planning for applicability at (803) 896-0001

TABLE 5-13 DESIGN-RELATED CONSTRUCTION PERMITS/APPROVALS

The following list is not all-inclusive of every, permit and standards applicable to each project. Agencies and A/Es must delete non-applicable listings and add others for each specific project.

TYPE OF DEVELOPMENT	SC LAW OR REG.	WHERE TO OBTAIN PERMIT/APPROVAL	STATUS
Building construction, Zoning	6-7-10; 6-9-110	Local Authority	IN REVIEW
Fire Department (Local)	Various local	Servicing Fire Department	IN REVIEW
Fire Protection Sprinkler	40-10	State Fire Marshal	
Storm water discharge, erosion and sediment control	R61-9; R72-100-108	SCDHEC – Water Pollution Control; State Engineer; Local Authority	IN REVIEW

TABLE 5-14 STATEMENT OF SPECIAL INSPECTIONS S003 & S004

The Designer(s) of Record shall determine the material and/or work on the project requiring Special Inspections. The Special Inspection requirements shall be based on Section 1705 of the 2015 International Building Code. Any deviations from the requirements of Section 1705 must be approved by OSE

PROJECT NAME: HORRY GEORGETOWN TECHNICAL COLLEGE

PROJECT NUMBER: H59-6128-CA

MATERIAL	TYPE OF INSPECTION	FREQUENCY	SPECIFICATION REFERENCE	INSPECTION BY
____	____	____	____	____
____	____	____	____	____
____	____	____	____	____

adwarchitects
environments for life
architecture planning interiors
2815 COLISEUM CENTRE DRIVE
SUITE 500
CHARLOTTE, NORTH CAROLINA 28217
P704.379.1919
F704.379.1920
www.adwarchitects.com

HORRY GEORGETOWN TECHNICAL COLLEGE

GCAM - WELDING LAB EXPANSION

BIDDING DOCUMENTS

OSE PROJECT#: H59-N219-CB

CODE INFORMATION

DATE: 05/16/2023

PROJECT NO: 23007

REVISIONS

NO: DATE: DESCRIPTION:

STATE OF SOUTH CAROLINA — PROFESSIONAL ENGINEER — Charlotte, NC 7454 — REGISTERED ARCHITECT — 5/16/2023

ADW ARCHITECTS P.A. CORPORATE SEAL 1981 SOUTH CAROLINA

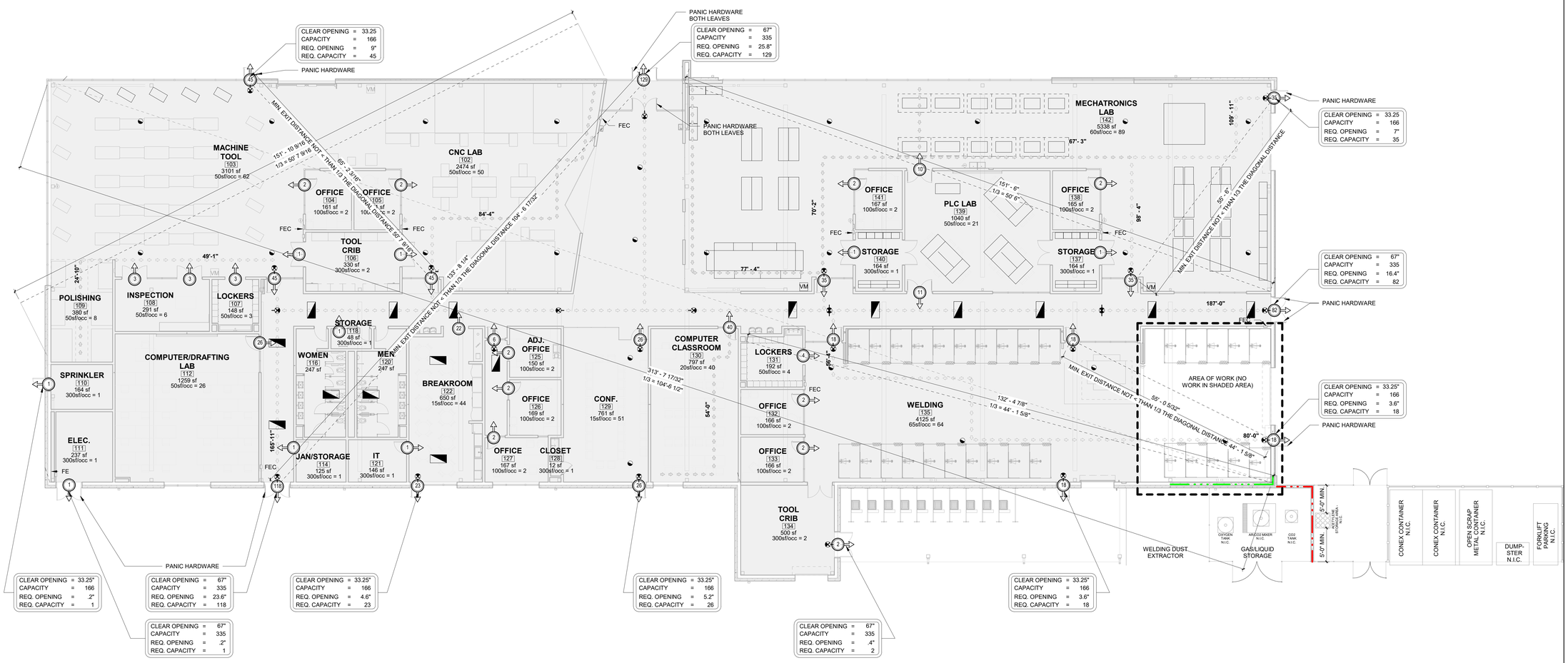
SHEET NUMBER

A001

LIFE SAFETY PLAN LEGEND:

- ASSUMED PROPERTY LINE
- COMMON PATH OF TRAVEL DISTANCE
- MAXIMUM TRAVEL DISTANCE
- n = MAXIMUM NUMBER OF OCCUPANTS, CALCULATED PER TABLE 1004.1
- FEC — SEMI RECESSED FIRE EXTINGUISHER CABINET
- LIGHT FIXTURE ON EMERGENCY CIRCUIT, LIFE SAFETY BRANCH
- LIGHT FIXTURE ON EMERGENCY CIRCUIT, LIFE SAFETY BRANCH
- EXIT LIGHT

ORIGINAL BUILDING LIFE SAFETY PLAN SHOWN FOR REFERENCE. NO CHANGE WITH CURRENT SCOPE OF WORK.



WALL PARTITION LEGEND:

1. REFER TO A003 FOR ALL INTERIOR PARTITION INFORMATION
2. 3 HR. FIRE RATING
3. 2 HR. FIRE RATING (6' FEET HIGH)
4. ALUMINUM CHAIN LINK FENCING

LIFE SAFETY PLAN 3/32" = 1'-0" 1

adwarchitects
environments for life
architecture planning interiors
2815 COLISEUM CENTRE DRIVE
SUITE 500
CHARLOTTE, NORTH CAROLINA 28217
P704.379.1919
F704.379.1920
www.adwarchitects.com

HORRY GEORGETOWN TECHNICAL COLLEGE

GCAM - WELDING LAB EXPANSION

BIDDING DOCUMENTS

OSE PROJECT#: H59-N219-CB

LIFE SAFETY PLAN

DATE: 05/16/2023
PROJECT NO: 23007

REVISIONS
NO: DATE: DESCRIPTION:

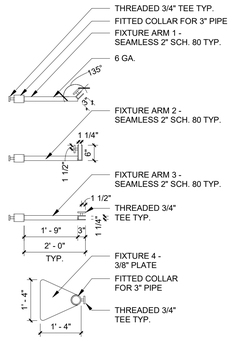
STATE OF SOUTH CAROLINA — WOODROW J. LAUER, JR. — Charleston, NC — 7454 — REGISTERED ARCHITECT — 5/16/2023

ADW ARCHITECTS P.A. CORPORATE SEAL 1981 SOUTH CAROLINA

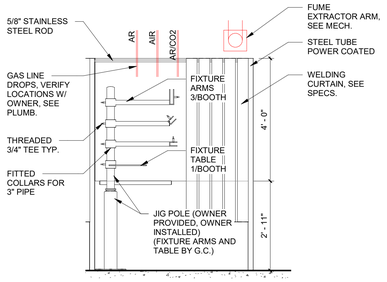
SHEET NUMBER

A002

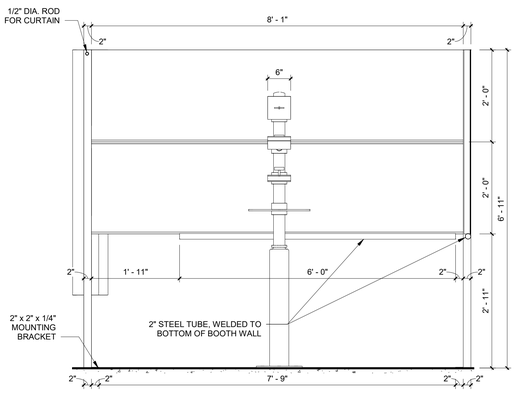
WELDING LAB EQUIPMENT SCHEDULE														
ITEM #	DESCRIPTION	QUANTITY	NEW/EXISTING	COMPRESSED AIR	WATER REQ.	GAS REQ.	ELECTRICAL CONNECTION	VOLTAGE PHASE	LOAD			DISCONNECT / FUSE	DATA REQ.	COMMENTS
									AMP	W	HP			
1	WELDING BOOTH - LINCOLN ELECTRIC (RED)	5	NEW	YES	NO	YES	YES	460/3PH - 110						COLOR: Sherwin Williams J2XR16517-437, MEET AAMA 2603 STANDARDS
2	WELDER - LINCOLN ELECTRIC	5	NEW	NO	NO	YES	YES	460/3PH						O.F.O.I
3	WELDING BOOTH - MILLER ELECTRIC (BLUE)	5	NEW	YES	NO	YES	YES	460/3PH - 110						COLOR: DuPont C5885, MEET AAMA 2603 STANDARDS
4	WELDER - MILLER ELECTRIC	5	NEW	NO	NO	YES	YES	460/3PH						O.F.O.I
14	JIG POLE	10	NEW	NO	NO	NO	NO	-						O.F.O.I (FIXTURE ARMS AND TABLE BY G.C.)
18	WELDING CURTAIN AND HOOKS	10	NEW	NO	NO	NO	NO	-						MATCH EXISTING (COORDINATE COLORS) (SEE SPECS)



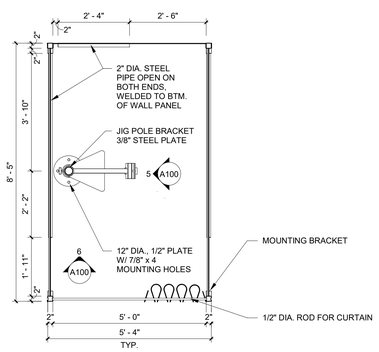
JIG FIXTURE DETAILS | 1/2" = 1'-0" 7



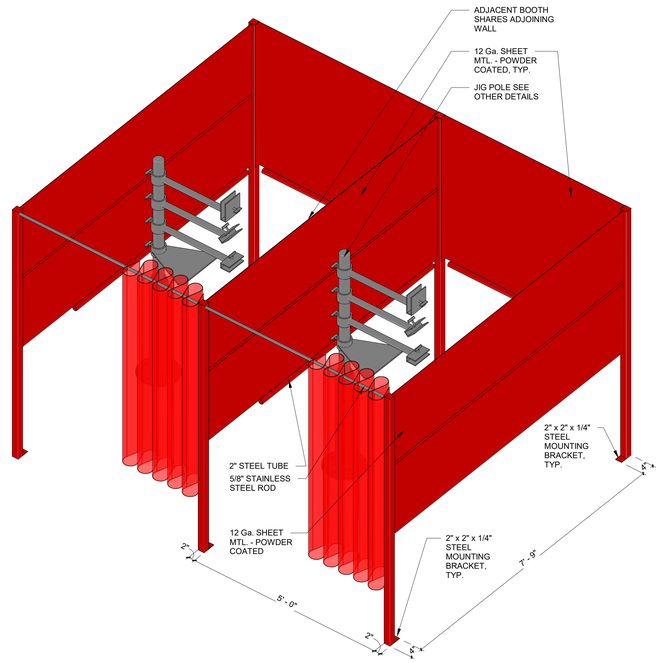
FRONT ELEVATION - WELDING BOOTH | 1/2" = 1'-0" 6



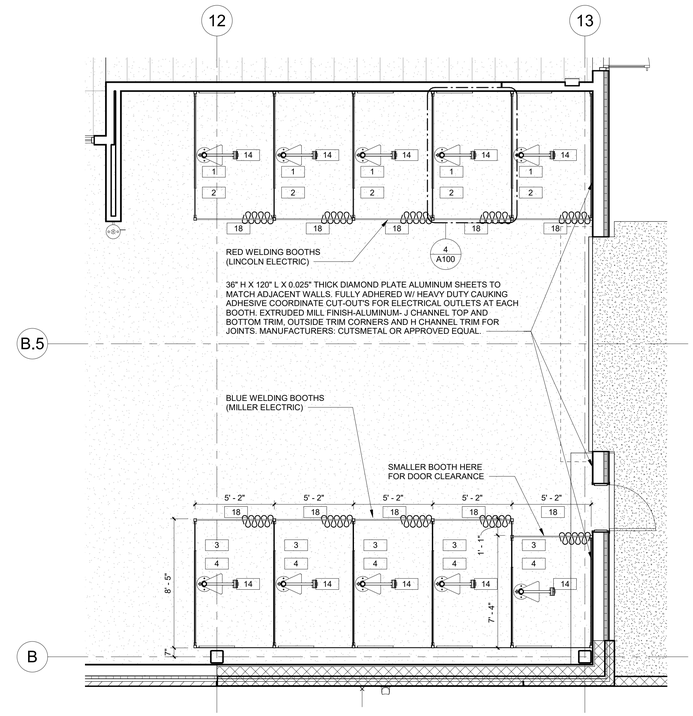
SIDE ELEVATION - WELDING BOOTH | 3/4" = 1'-0" 5



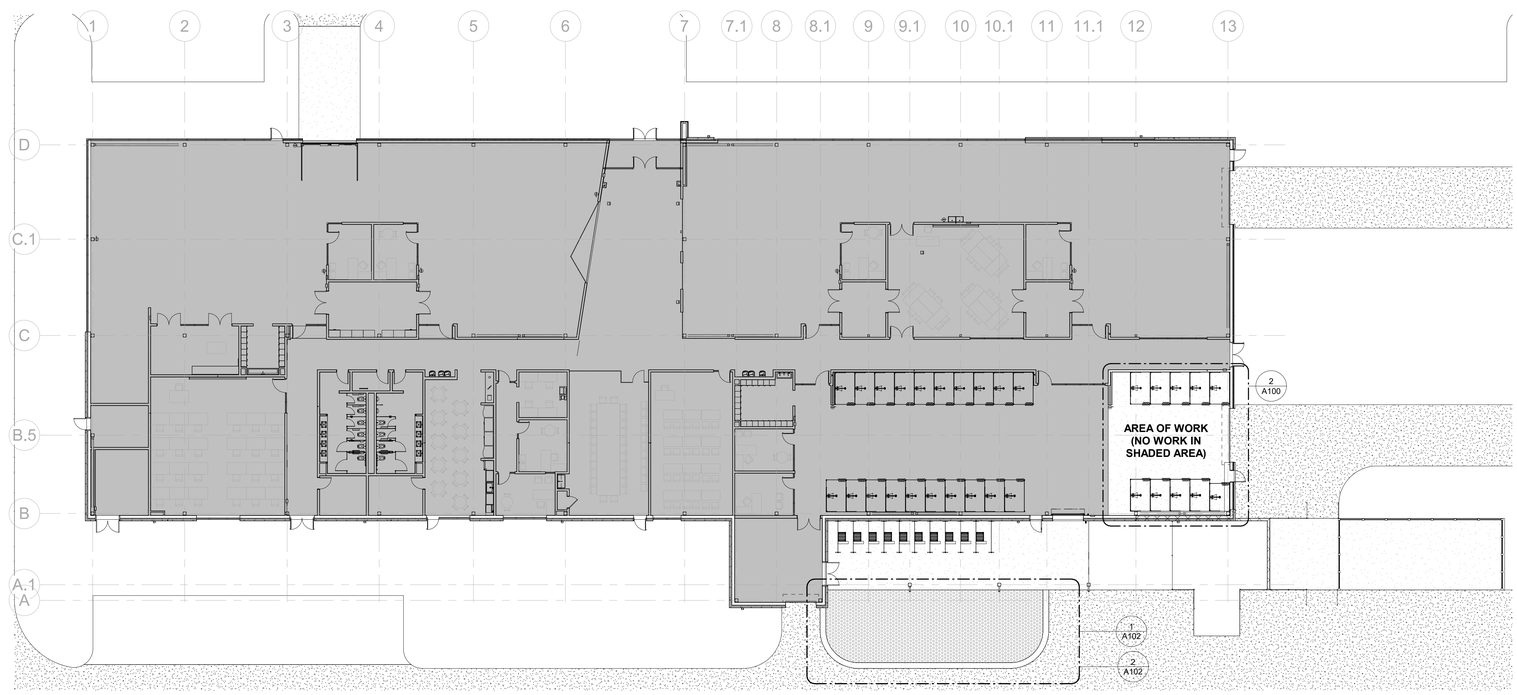
ENLARGED PLAN - WELDING BOOTH | 1/2" = 1'-0" 4



WELDING BOOTH AXONOMETRIC | NTS 3



ENLARGED FLOOR PLAN - WELDING EXPANSION | 1/4" = 1'-0" 2



FLOOR PLAN - WELDING EXPANSION | 1/16" = 1'-0" 1

adwarchitects
environments for life
architecture planning interiors
2815 COLISEUM CENTRE DRIVE
SUITE 500
CHARLOTTE, NORTH CAROLINA 28217
P704.379.1919
F704.379.1920
www.adwarchitects.com

HORRY GEORGETOWN TECHNICAL COLLEGE

GCAM - WELDING LAB EXPANSION

BIDDING DOCUMENTS

OSE PROJECT#: H59-N219-CB

WELDING EXPANSION PLANS AND DETAILS

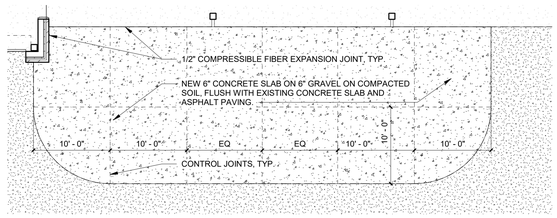
DATE: 05/16/2023
PROJECT NO: 23007

REVISIONS
NO: DATE: DESCRIPTION:

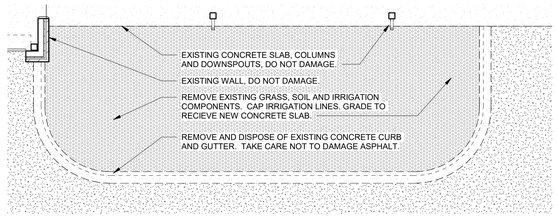
STATE OF SOUTH CAROLINA
JAMES L. LAUCK, JR.
Charleston, NC
7454
REGISTERED ARCHITECT
5/16/2023

ADW ARCHITECTS, P.A. CORPORATE SEAL 1981 SOUTH CAROLINA

SHEET NUMBER
A100



FLOOR PLAN - EXTERIOR SLAB 1/8" = 1'-0" 2



DEMOLITION PLAN - EXTERIOR SLAB 1/8" = 1'-0" 1

adwarchitects
environments for life
architecture planning interiors
2815 COLISEUM CENTRE DRIVE
SUITE 500
CHARLOTTE, NORTH CAROLINA 28217
P704.379.1919
F704.379.1920
www.adwarchitects.com

HORRY GEORGETOWN TECHNICAL COLLEGE

GCAM - WELDING LAB EXPANSION

BIDDING DOCUMENTS

OSE PROJECT#: H59-N219-CB

EXTERIOR CONCRETE SLAB

DATE: 05/16/2023
PROJECT NO: 23007

REVISIONS
NO: DATE: DESCRIPTION:

STATE OF SOUTH CAROLINA
WOODROW J. LAUER, JR.
Charlotte, NC
7454
REGISTERED ARCHITECT
5/16/2023

ADW ARCHITECTS, P.A. CORPORATE SEAL 1981 SOUTH CAROLINA

SHEET NUMBER

A102

SEISMIC AND WIND REQUIREMENTS
RISK CATEGORIES I, II & III
INFORMATION FOR IBC-2012 / ASCE 7-10

SEISMIC DESIGN CATEGORY D

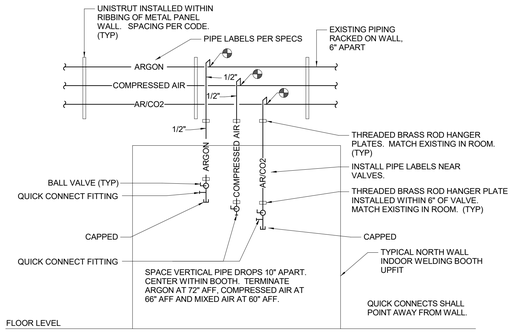
GENERAL NOTES

A. PER THE 2015 SOUTH CAROLINA BUILDING CODE, MECHANICAL, PLUMBING AND ELECTRICAL EQUIPMENT AND COMPONENTS, INCLUDING THEIR SUPPORTS AND ATTACHMENTS, SHALL BE DESIGNED FOR SEISMIC FORCES IN ACCORDANCE WITH CHAPTER 13 OF ASCE 7-10.
B. EXTERIOR EQUIPMENT (INLCUDING ROOF CURBS & ROOF RAILS) EXPOSED TO WIND SHALL BE DESIGNED AND INSTALLED TO RESIST THE WIND PRESSURES DETERMINED IN ACCORDANCE WITH CHAPTERS 26 TO 29 OF ASCE 7-10.
C. WHERE DESIGN FOR SEISMIC AND WIND LOADS IS REQUIRED, THE MORE DEMANDING FORCE MUST BE USED.
D. REFERENCE THE STRUCTURAL DRAWINGS FOR SITE SPECIFIC INFORMATION ON SEISMIC DESIGN CATEGORY, WIND SPEEDS, ETC.
E. SEE EQUIPMENT SCHEDULES AND DETAILS FOR SPECIFIC COMPONENT IMPORTANCE FACTOR DESIGNATIONS.
F. USE TABLE BELOW TO DETERMINE SEISMIC RESTRAINT REQUIREMENTS FOR EACH COMPONENT.
G. FOR ALL COMPONENTS REQUIRING SEISMIC RESTRAINT, THE COMPONENT SUPPORTS AND ATTACHMENTS SHALL BE DESIGNED BY A REGISTERED DESIGN PROFESSIONAL.
H. WHERE SEISMIC RESTRAINT IS REQUIRED, HOUSEKEEPING PADS NEEDED FOR THE INSTALLATION OF EQUIPMENT UNDER THIS CONTRACT MUST BE DESIGNED BY THE SEISMIC ENGINEER. DO NOT POUR ANY HOUSEKEEPING PADS PRIOR TO THE THE RECEIPT OF THE APPROVED SEISMIC SUBMITTAL.
I. SEISMIC RESTRAINTS FOR DUCTWORK, PIPING, CONDUIT, CABLE TRAY AND BUS DUCT MUST BE SHOWN ON LAYOUT DRAWINGS SHOWING SPECIFIC RESTRAINT LOCATIONS ALONG WITH ACCOMPANYING DETAILS AND CALCULATIONS.

COMPONENT IDENTIFICATION		COMPONENT IMPORTANCE FACTOR (Ip)			
		1.0		1.5	
		SEISMIC RESTRAINT REQUIREMENT	ASCE 7-10 REFERENCE	SEISMIC RESTRAINT REQUIREMENT	ASCE 7-10 REFERENCE
ROOF MOUNTED		RESTRAIN ALL (SEE NOTE 1)	13.1.4.6	RESTRAIN ALL	13.1.4.6
FLOOR MOUNTED		RESTRAIN ALL (SEE NOTES 1,2)	13.1.4.6	RESTRAIN ALL	13.1.4.6
WALL MOUNTED		RESTRAIN ALL (SEE NOTE 1,2)	13.1.4.6	RESTRAIN ALL	13.1.4.6
COMPONENT SUPPORTS		RESTRAIN ALL (SEE NOTE 1)	13.6.5	RESTRAIN ALL	13.6.5
SUSPENDED EQUIPMENT	INLINE W/ DUCT/PIPE	RESTRAIN IF >75 LBS PROVIDE FLEX. CONN. (SEE NOTE 3)	13.6.7	RESTRAIN IF >75 LBS PROVIDE FLEX. CONN. (SEE NOTE 3)	13.6.7
	NOT INLINE W/ DUCT/PIPE	RESTRAIN ALL (SEE NOTE 1)	13.1.4.6	RESTRAIN ALL	13.1.4.6
SUSPENDED DUCTILE PIPING (STEEL, ALUMINUM, COPPER, ETC.)		RESTRAIN IF > 3" (SEE NOTE 4)	13.6.8.3.3.c	RESTRAINT IF > 1" (SEE NOTE 4)	13.6.8.3.3.b
SUSPENDED NON DUCTILE PIPING (CAST IRON, PLASTIC, CERAMIC)		RESTRAIN ALL (SEE NOTE 4)	13.6.8.3.3	RESTRAIN ALL (SEE NOTE 4)	13.6.8.3.3
SUSPENDED PIPE ON TRAPEZE		RESTRAIN IF ANY PIPE ON TRAPEZE > 3" RESTRAIN IF TOTAL WEIGHT OF PIPES ON TRAPEZE > 10 LBS/FT (SEE NOTE 4)	13.6.8.3.1	RESTRAIN IF ANY PIPE ON TRAPEZE > 1" RESTRAIN IF TOTAL WEIGHT OF PIPES ON TRAPEZE > 10 LBS/FT (SEE NOTE 4)	13.6.8.3.1
DUCTWORK		RESTRAIN IF > 6 SQ.FT. AND > 17 LBS/FT (SEE NOTE 4,5)	13.6.7	RESTRAIN IF > 6 SQ.FT. AND > 17 LBS/FT (SEE NOTE 4,5)	13.6.7
MULTIPLE DUCTS ON TRAPEZE		RESTRAIN IF TOTAL WEIGHT OF DUCTS ON TRAPEZE > 10 LBS/FT (SEE NOTE 4,5)	13.6.7	RESTRAIN IF TOTAL WEIGHT OF DUCTS ON TRAPEZE > 10 LBS/FT (SEE NOTE 4,5)	13.6.7
SINGLE CONDUIT		RESTRAIN IF ≥ 2.5" (SEE NOTE 4)	13.6.5.6	RESTRAIN IF ≥ 2.5" (SEE NOTE 4)	13.6.5.6
CABLE TRAY/BUS DUCT/ TRAPEZED CONDUIT		RESTRAIN IF TOTAL WEIGHT OF RACEWAY > 10 LBS/FT (SEE NOTE 4)	13.6.5.6	RESTRAIN IF TOTAL WEIGHT OF RACEWAY > 10 LBS/FT (SEE NOTE 4)	13.6.5.6
PENDANT, LAY-IN, & CAN LIGHTS		REQUIRED (SEE NOTE 6)	13.5.6.2	REQUIRED (SEE NOTE 6)	13.5.6.2
COMPONENT CERTIFICATION		NOT REQUIRED	13.2.2	REQUIRED (SEE NOTE 7)	13.2.2

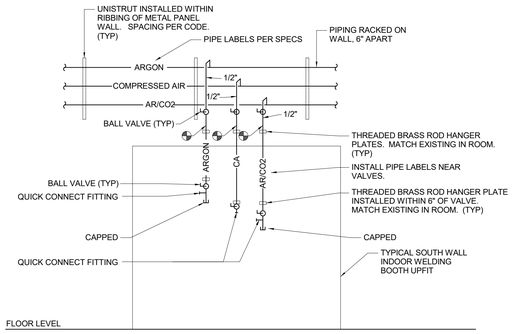
TABLE NOTES:

1. EQUIPMENT 20 LBS. OR LESS IS EXEMPT IF THE COMPONENT IS POSITIVELY ATTACHED TO THE STRUCTURE, AND FLEXIBLE CONNECTIONS ARE PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT.
2. RESTRAINTS ARE NOT REQUIRED IF THE COMPONENT WEIGHTS 400 LBS. OR LESS, IS MOUNTED WITH THE CENTER OF MASS AT 4 FT. OR LESS ABOVE A FLOOR, IS POSITIVELY ATTACHED TO THE STRUCTURE, AND HAS FLEXIBLE CONNECTIONS BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT.
3. FLEXIBLE CONNECTIONS REQUIRED FOR PIPE CONNECTIONS ONLY.
4. RESTRAINT IS NOT REQUIRED IF THE PIPING / DUCTWORK / CONDUIT IS SUPPORTED BY HANGERS AND EACH HANGER IN THE PIPING RUN IS 12 IN. OR LESS IN LENGTH FROM THE TOP OF THE PIPE TO THE SUPPORTING STRUCTURE. WHERE PIPES ARE SUPPORTED ON A TRAPEZE, THE TRAPEZE SHALL BE SUPPORTED BY HANGERS HAVING A LENGTH OF 12 IN. OR LESS. WHERE ROD HANGERS ARE USED, THEY SHALL BE EQUIPPED WITH SWIVELS, EYE NUTS OR OTHER DEVICES TO PREVENT BENDING IN THE ROD.
5. ALL DUCTWORK, REGARDLESS OF SIZE, DESIGNED TO CARRY TOXIC, HIGHLY TOXIC, OR EXPLOSIVE GASES OR USED FOR SMOKE CONTROL MUST BE RESTRAINED.
6. THE RESTRAINT OF PENDANT, LAY-IN, & CAN LIGHTS IS ADDRESSED IN ASTM C636 & E580.
7. COMPONENT CERTIFICATION MUST BE SUPPLIED BY THE EQUIPMENT MANUFACTURER AT TIME OF SUBMITTAL FOR REVIEW BY ENGINEER OF RECORD.



TYPICAL BOOTH GAS PIPE INSTALLATION FOR NORTH WALL WELDING AREA

SCALE: NONE



TYPICAL FUTURE BOOTH GAS PIPE INSTALLATION FOR SOUTH WALL WELDING AREA

SCALE: NONE

PLUMBING LEGEND

SYMBOL	DESCRIPTION
	COLD WATER
	HOT WATER - 110°
	HOT WATER RECIRCULATION
	VENT
SAN	SANITARY SEWER
G	NATURAL GAS (2 PSI)
140	HOT WATER - 140°
	FLOW ARROW
	WALL HYDRANT/HOSE BIBB
	SHUT-OFF VALVE
	HWR CIRCUIT SETTER OR GAS COCK
	CHECK VALVE
WCO	WALL CLEANOUT
FCO	FLOOR CLEANOUT
C.O.T.G.	CLEANOUT TO GRADE
VTR	VENT THRU ROOF
RD	ROOF DRAIN LEADER
DROP RISE	DROP OR RISE
	CAPPED CONNECTION
FD	FLOOR DRAIN
	VALVE IN RISER
8 P0.04	DETAIL SYMBOL INDICATING THE DETAIL NUMBER AND THE DETAIL LOCATION SHEET REFERENCE
HWR	HOT WATER RECIRCULATION - DOMESTIC
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
BAS	BUILDING AUTOMATION SYSTEM
BFF	BELOW FINISHED FLOOR
CW	COLD WATER
FM	FORCED MAIN
HW	HOT WATER
HWR	HOT WATER RECIRCULATION
SF	SQUARE FEET
WHA	WATER HAMMER ARRESTOR
	BALL VALVE
	SOLENOID VALVE
V	VENT
AV	ACID VENT
	EMERGENCY GAS SHUTOFF BUTTON
A	ACETYLENE
MA	MIXED GAS
AR	ARGON
O2	OXYGEN
PRD	PRIMARY ROOF DRAIN
ORD	OVERFLOW ROOF DRAIN
CO2	CARBON DIOXIDE
CA	COMPRESSED AIR
H	HOSE REEL
T/P	TEMPERATURE/PRESSURE
FD	FLOOR DRAIN
A	ACETYLENE PIPING
AR	ARGON PIPING
MA	MIXED AIR PIPING
CA	COMPRESSED AIR PIPING
O	OXYGEN PIPING
COTG	CLEANOUT TO GRADE
N GAS	NATURAL GAS
	CONNECT TO EXISTING OR CONNECT TO OWNER PROVIDED
MG	MIXED GAS

(EXISTING) SHOP AIR COMPRESSOR SYSTEM

SYMBOL	QTY	DESCRIPTION	SCFM	PSIG	HP	VOLTAGE	FULL LOAD AMPS	RECEIVER	MANUFACTURER/MODEL BASIS OF DESIGN	REMARKS
AC-1	1	SHOP AIR COMPRESSOR	100	120	25	460/3/60	73.5	240 GAL	INGERSOLL RAND UP6S-25-125	HORIZONTAL RECEIVER

INSTALL ON VIBRATION ISOLATION PADS ON A 6" HIGH CONCRETE HOUSEKEEPING PAD.
PROVIDE 120 PSI AIR TO SYSTEM TO MAINTAIN 90 PSI AT EQUIPMENT.

(EXISTING) SHOP AIR DRYER SYSTEM

SYMBOL	QTY	DESCRIPTION	SCFM	PDP	KW	VOLTAGE	MANUFACTURER/MODEL BASIS OF DESIGN	REMARKS
AD-1	1	SHOP AIR DRYER	100	35 DEGREE	1.1	115/1/60	INGERSOLL RAND D212EC	INCLUDES PREFILTER

RATED AT 100 PSIG INLET PRESSURE, 100 DEG F INLET TEMPERATURE, 100 DEG F AMBIENT TEMPERATURE.
UNIT MEASURES 52X36X42.5, TANK MEASURES 94X36X76.5.
INSTALL ON VIBRATION ISOLATION PADS ON A 4" HIGH CONCRETE HOUSEKEEPING PAD
RUN DRAIN LINE ALONG PERIMETER OF ROOM TO FLOOR DRAIN.
PRE-FILTER SHALL FILTER TO 1.0 MICRON AND BE RATED FOR COMPRESSOR FLOW.
OTHER EQUAL MANUFACTURERS INCLUDE: HANKISON, AND PNEUMATECH.

(EXISTING) HOSE REEL

SYMBOL	QTY	DESCRIPTION	MANUFACTURER/MODEL BASIS OF DESIGN	REMARKS
H	SEE DRAWINGS	HOSE REEL - 3/8" INNER DIAMETER HOSE. 35' FT LONG HOSE. RATED FOR RATED FOR 300 PSI. SAME HOSE REEL SHALL BE INSTALLED THROUGHOUT.	REELCRAFT RT635-OLP	SECURE TO STRUCTURE

ALTERNATE ACCEPTABLE MANUFACTURERS ARE COX REELS AND HUBBELL.

GENERAL NOTES:

1. ALL OPENINGS FOR PIPING PENETRATIONS ARE GENERALLY PROVIDED BY THE PLUMBING SUB-CONTRACTOR. EXCEPTIONS ARE COVERED BY NOTES AND DETAILS. THE LOCATION AND SIZE OF EACH OPENING SHALL BE FURNISHED TO THE GENERAL CONTRACTOR BY THE PLUMBING SUB-CONTRACTOR.
2. PIPE HANGERS AND CONCRETE INSERTS UTILIZED FOR THIS PROJECT SHALL BE PROVIDED BY THE PLUMBING SUB-CONTRACTOR. THIS INCLUDES ALL SUPPLEMENTAL STEEL, ETC.
3. COORDINATE VERTICAL PIPING WITH ARCHITECTURAL PLANS FOR EXACT LOCATION OF RISER.
4. COORDINATE SHUTDOWNS OF GAS SERVICES WITH OWNER.
5. NEW PIPE LABELS SHALL MATCH EXISTING LABELS.

DRAWING LIST - PLUMBING

Sheet Number	Sheet Name
P001	PLUMBING NOTES, SYMBOLS, SCHEDULES AND DETAILS
P101	FIRST FLOOR PLANS - EAST - PLUMBING
P201	MIXED GASES AND STORM PIPING ISOMETRIC - EAST

adwarchitects
environments for life
architecture planning interiors
2815 COLISEUM CENTRE DRIVE
SUITE 500
CHARLOTTE, NORTH CAROLINA 28217
P704.379.1919
F704.379.1920
www.adwarchitects.com

CMTA
A LEDENICE Company
8801 J.W. Keynes Drive, Suite 240 | Charlotte, NC 28262 | 704.378.7070 | cmta.com
CMTA License No. C02209

HORRY GEORGETOWN TECHNICAL COLLEGE

GCAM - WELDING LAB EXPANSION

BIDDING DOCUMENTS

OSE PROJECT#: H59-N219-CB

PLUMBING NOTES, SYMBOLS, SCHEDULES AND DETAILS

DATE: 05/16/2023
PROJECT NO: 23007

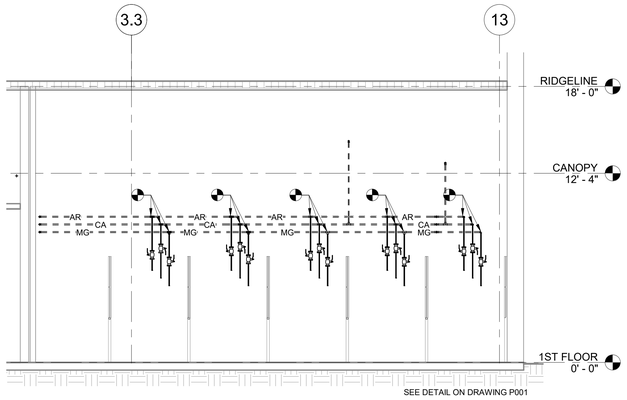
REVISIONS
NO: DATE: DESCRIPTION:

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER NO. 28761 JAMES CURRITE

223.006 05/16/2023

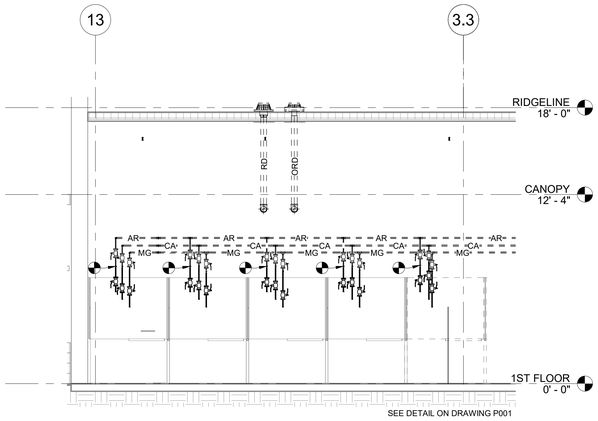
SHEET NUMBER

P001



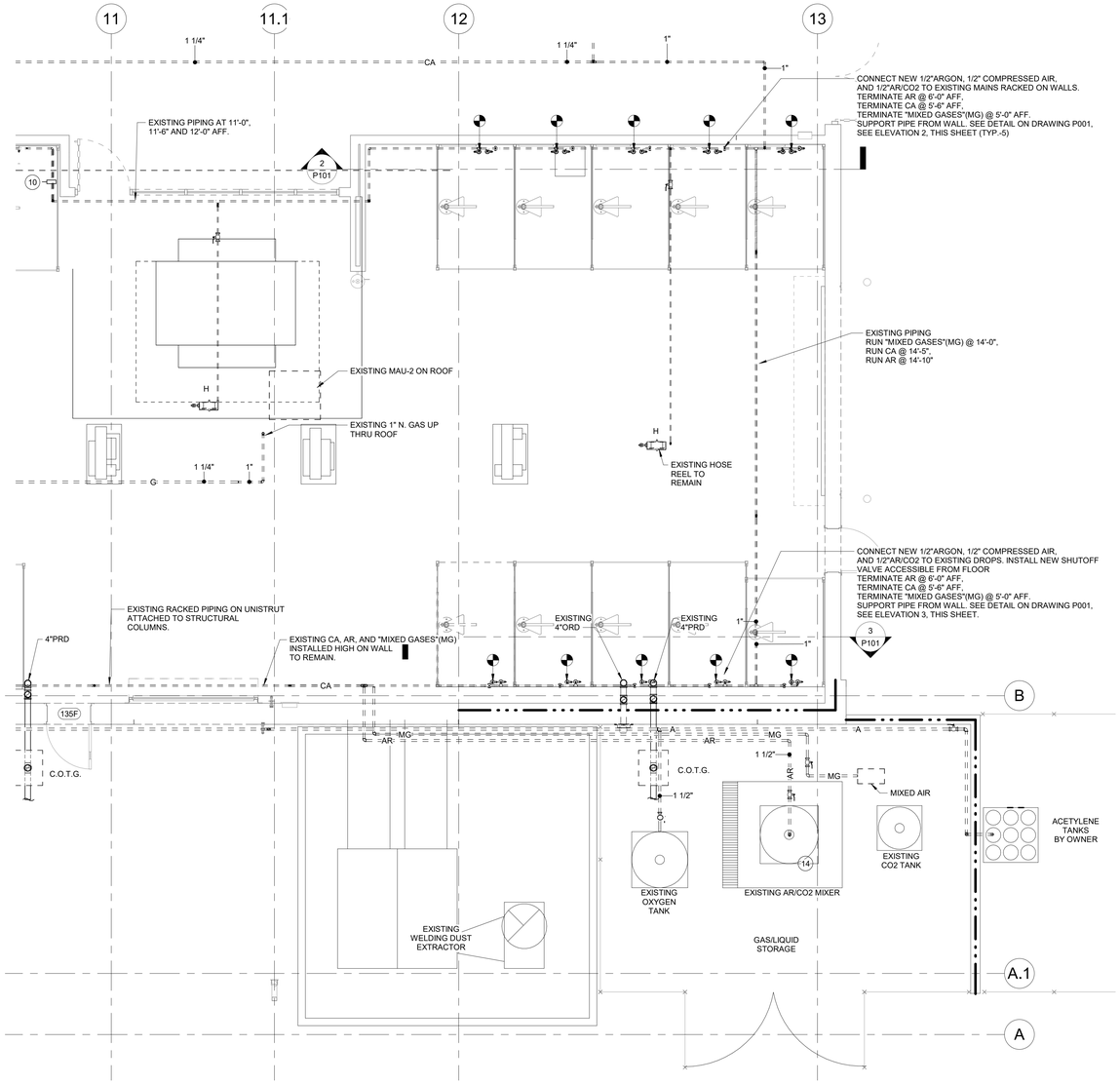
2 P101 SECTION 2 - NORTH WALL
1/4" = 1'-0"

1/4" = 1'-0" 2' 0 2' 4' 8'



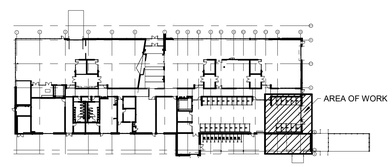
3 P101 SECTION 3 - SOUTH WALL
1/4" = 1'-0"

1/4" = 1'-0" 2' 0 2' 4' 8'



1 P101 FIRST FLOOR PLAN - EAST - GAS AND STORM PIPING
1/4" = 1'-0"

1/4" = 1'-0" 2' 0 2' 4' 8'



KEY PLAN

N

WALL PARTITION LEGEND:

- 3 HR. FIRE RATING
- 2 HR. FIRE RATING (6" FEET HIGH)
- ALUMINUM CHAIN LENGTH FENCING

adwarchitects
environments for life
architecture planning interiors
2815 COLISEUM CENTRE DRIVE
SUITE 500
CHARLOTTE, NORTH CAROLINA 28217
P704.379.1919
F704.379.1920
www.adwarchitects.com

CMTA
A LEDENCE Company
8801 J.W. Keynes Drive, Suite 240 | Charlotte, NC 28262 | 704.378.7070 | cmta.com
CMTA License No. C02209

HORRY GEORGETOWN TECHNICAL COLLEGE

GCAM - WELDING LAB EXPANSION

BIDDING DOCUMENTS

OSE PROJECT#: H59-N219-CB

FIRST FLOOR PLANS - EAST - PLUMBING

DATE: 05/16/2023
PROJECT NO: 23007

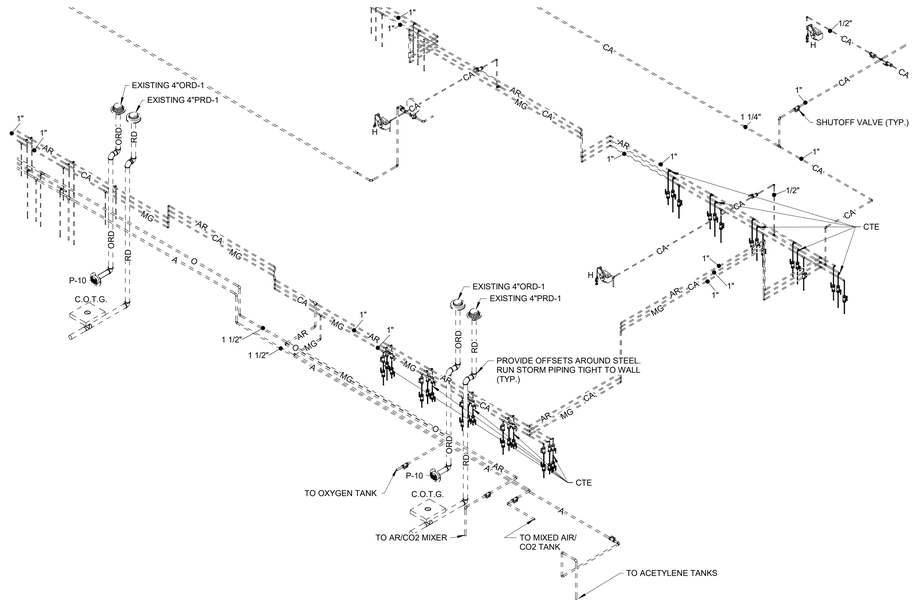
REVISIONS
NO: DATE: DESCRIPTION:

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER NO. 28761 JAMES CURRIE

223.006 05/16/2023

SHEET NUMBER

P101



1 P201 MIXED GASES AND STORM PIPING ISOMETRIC - EAST
NTS

adwarchitects
environments for life
architecture planning interiors
2815 COLISEUM CENTRE DRIVE
SUITE 500
CHARLOTTE, NORTH CAROLINA 28217
P704.379.1919
F704.379.1920
www.adwarchitects.com

CMTA
A LEGENCE Company
8801 J.W. Keynes Drive, Suite 240 | Charlotte, NC 28262 | 704.378.7070 | cmta.com
CMTA License No. C02209

HORRY GEORGETOWN TECHNICAL COLLEGE

GCAM - WELDING LAB EXPANSION

BIDDING DOCUMENTS

OSE PROJECT#: H59-N219-CB

MIXED GASES AND STORM PIPING ISOMETRIC - EAST

DATE: 05/16/2023
PROJECT NO: 23007

REVISIONS
NO: DATE: DESCRIPTION:

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER NO. 28761 JAMES CURRIE

223.006 05/16/2023

SHEET NUMBER

P201

GENERAL MECHANICAL NOTES

1. OPENINGS FOR DUCTWORK SHALL BE PROVIDED BY THE MECHANICAL SUB-CONTRACTOR. THE LOCATION AND SIZE OF EACH OPENING SHALL BE FURNISHED TO THE GENERAL CONTRACTOR BY THE DIVISION 23 SUB-CONTRACTOR.
2. THERMOSTATS, WALL SWITCHES, ETC. SHALL BE LOCATED AT THE SAME HEIGHT AS LIGHT SWITCHES (WITH 48" TO TOP MAXIMUM) IN ACCORDANCe. WITH ANSI A117.1-2017. COORDINATE PLACEMENT WITH THE ELECTRICAL SUB-CONTRACTOR.
3. ALL DOOR LOUVERS AND UNDERCUTS SHALL BE PROVIDED BY THE GENERAL CONTRACTOR. ARCHITECT TO SELECT.
4. ALL WIRING, CONTROL WIRING, AND CONDUIT SHALL BE CONCEALED IN FINISHED SPACES.
5. DUCT DIMENSIONS INDICATED ARE NET AIR STREAM INTERIOR DIMENSIONS OF DUCTWORK.
6. THE MAXIMUM LENGTH OF FLEXIBLE DUCTWORK SHALL NOT EXCEED 5'-0".
7. ALL OPENINGS THROUGH NON-RATED WALLS SHALL BE PROVIDED WITH SHEETMETAL SLEEVES.
8. REFER TO ARCHITECTURAL PLANS FOR FIRE RATING OF PARTICULAR WALLS, FLOORS AND FOR NON-RATED WALLS WHICH EXTEND TO STRUCTURE.
9. ALL ROOF CURBS SHALL BE PROVIDED BY THE DIVISION 23 SUB-CONTRACTOR AND SHALL BE APPROVED BY THE GENERAL CONTRACTOR.
10. COORDINATE VERTICAL DUCTWORK. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF RISERS.
11. FOR EXACT LOCATION OF GRILLES, DIFFUSERS, ETC., REFER TO ARCHITECTURAL REFLECTED CEILING PLANS.
12. THE DIVISION 23 SUB-CONTRACTOR SHALL PROVIDE TRANSITIONS AS REQUIRED TO MAKE DUCT CONNECTIONS FROM TERMINAL UNITS TO DUCTWORK WHERE DUCT SIZES ARE NOT SHOWN OR DO NOT MATCH INLET OPENINGS. TRANSITIONS SHALL HAVE A 7:1 RATIO.
13. RUN-OUTS TO SUPPLY, RETURN AND EXHAUST DISTRIBUTION DEVICES SHALL BE AS INDICATED ON THE PLANS. WHERE SIZE OF RUN-OUT IS NOT GIVEN, THE RUN-OUT SHALL HAVE AN AREA EQUAL TO THE DISTRIBUTION DEVICE NECK SIZE. NECK SIZE SHALL BE BASED ON NC 20 OR LESS.
14. WHERE DUCT PENETRATES FIRE WALL, AND WHERE FIRE DAMPERS ARE NOT REQUIRED, PROVIDE SHEET METAL SLEEVES AS DETAILED. PACK THE SPACE BETWEEN THE SLEEVES AND DUCT WITH FIRE PROOF SAFING.
15. ROOF OPENINGS AND THEIR ASSOCIATED MISCELLANEOUS STEEL SHALL BE PROVIDED BY THE GENERAL CONTRACTOR.
16. PROVIDE REMOTE MOUNTED YOUNG REGULATORS FOR BALANCING OF ALL VOLUME DAMPERS ABOVE ROOMS WITH DRY WALL CEILINGS.
17. THE GENERAL CONTRACTOR SHALL PROVIDE HORIZONTAL CHANNELS AS REQUIRED TO FRAME CEILING OPENINGS FOR STRIP DIFFUSERS. THE GENERAL CONTRACTOR SHALL POSITION HIS DIAGONAL BRACES TO AVOID DUCT AND PIPING. THE DIVISION 15B SUB-CONTRACTOR SHALL COORDINATE THESE ITEMS WITH THE GENERAL CONTRACTOR.
18. ALL LOW PRESSURE DUCTWORK ABOVE NON-LAY-IN CEILINGS SHALL BE RIGID SHEET METAL. NO FLEXIBLE DUCTWORK SHALL BE USED.
19. FILL CURBS OF ROOF TOP UNITS WITH (5) FIVE LAYERS OF 3/4" SHEETROCK, OVERLAPPING SEAMS.
20. ALL EQUIPMENT ROOF CURBS SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR AND SHALL BE AT LEAST 14" HIGH ABOVE TOP OF ROOFING. THOSE CURBS SHALL BE SEISMICALLY DESIGNED. CURB OPENINGS TO MATCH SIZE AND LOCATION OF ROOF OPENINGS. THESE CURBS SHALL ALSO BE VIBRATION ISOLATION TYPE IN ACCORDANCE WITH NOTE 2 UNDER ROOFTOP AIR CONDITIONING UNIT SCHEDULE ON SHEET M0.02.
21. PROVIDE INTERNAL LINER ELASTOMERIC ACOUSTICAL TYPE ON FIRST NOMINAL 20' OF SUPPLY AND RETURN DUCTWORK LEAVING AND ENTERING EACH ROOFTOP UNIT. AREAS LISTED ARE NET FREE AREAS, INCREASE DIMENSIONS AS REQUIRED TO MAINTAIN FREE AREA. EXTERNALLY INSULATE LINED SA/MPSA AS WELL.
22. ALL ROOF MOUNTED EQUIPMENT AND CURBS SHALL COMPLY WITH SEISMIC AND WIND SHEAR BRACING REQUIREMENTS. REFER TO IBC AND ASCE 7 FOR REQUIRMENTS.
23. PIPE HANGERS UTILIZED FOR THIS PROJECT SHALL BE PROVIDED BY THE DIVISION 23 SUB-CONTRACTOR. THIS INCLUDES ALL SUPPLEMENTAL STEEL, ETC.
24. MATERIALS EXPOSED WITHIN PLENUMS SHALL BE NON-COMBUSTIBLE OR SHALL HAVE A FLAME SPREAD INDEX PER IBC 602.3.1.
25. ALL DUCTWORK SHALL BE SEALED CLASS 'A' PER SMACNA STANDARDS.
26. ALL DUCTWORK PROVIDED WITH LAGGING SHALL BE SUPPORTED FROM SPRING HANGERS.
27. AT CONTRACTOR'S OPTION, AC DRAIN PIPING ON ROOF MAY BE SCHEDULE 40 PVC OR COPPER AS SPECIFIED.
28. SUPPLY AND RETURN REGISTERS IN THE WALLS SHALL BE FIELD PAINTED. COLOR SHALL BE SELECTED BY THE ARTCHITECT.
29. YOUNG REGULATORS USED FOR REMOTE BALANCING SHALL BE PROVIDED WITH A PREFINISHED FLAT WHITE COVER PLATE.
30. ALL EXPOSED NON-FABRIC DUCT TO BE SINGLE WALL WITH PAINT GRIP: PAINT TWO COATS ENAMEL, COLOR BY ARCHITECT.
31. MECHANICAL SUB CONTRACTOR SHALL REFER TO DIVISION 1 COMMISSIONING SPECIFICATIONS FOR ALL REQUIREMENTS AND INVOLVEMENT.

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

METHOD OF COMPLIANCE

Prescriptive [X] Energy Cost Budget [ ]

Thermal Zone: ZONE 3A

Exterior design conditions

winter dry bulb	25.4 °F
summer dry bulb	91.3 °Fdb / 78°Fwb

Interior design conditions

winter dry bulb	72 °F
summer dry bulb	75 °F
relative humidity	50 % R.H.

Building heating load: 602.7 MBH (ADD 600 MBH FOR WELDING MAKE UP AIR)

Building cooling load: 91.5 TONS (EXCLUDING WELDING 100%OA MODE LOAD)

Mechanical Spacing Conditioning System

Unitary: PACKAGED ROOF TOP UNITS

description of unit	DX COOLING ONLY
heating efficiency	SEE DRAWING M-002-3
cooling efficiency	SEE DRAWING M-002-3
heat output of unit	SEE DRAWINGS M-002/003
cooling output of unit	SEE DRAWINGS M-002/003

boiler: NOT APPLICABLE

total boiler output, if oversized, state reason.

chiller: NOT APPLICABLE

total chiller capacity, if oversized, state reason.

List equipment efficiencies

Equipment schedule with motors (mechanical systems)

motor horsepower	MOTOR CONTROL SCHEDULE THIS SHEET
number of phases	MOTOR CONTROL SCHEDULE THIS SHEET
minimum efficiency	MOTOR CONTROL SCHEDULE THIS SHEET
motor type	MOTOR CONTROL SCHEDULE THIS SHEET
# of poles	MOTOR CONTROL SCHEDULE THIS SHEET

DESIGNER STATEMENT:

To the best of my knowledge and belief, the design of this building complies with the mechanical systems, service systems and equipment requirements of the International Building Code, 2012.

Name: JAMES CURRIE, P.E.

Title: PRINCIPAL

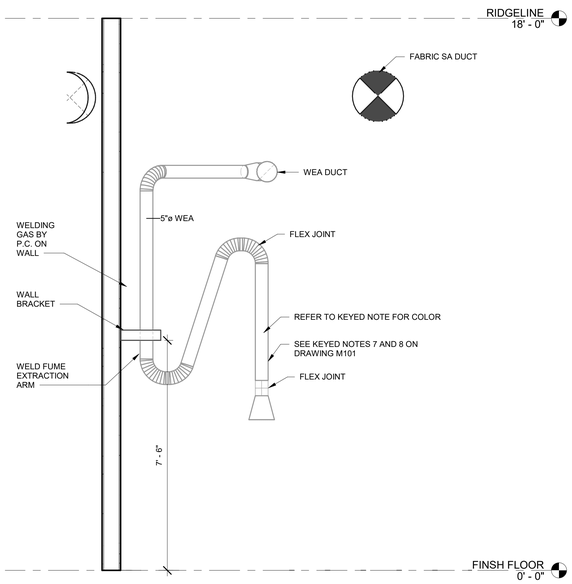
MECHANICAL SYMBOLS LEGEND

CD	SUPPLY AIR DUCT OR DIFFUSER
RG/EG	RETURN OR EXHAUST AIR DUCT OR GRILLE
CD-X	DEVICE DESIGNATION
XXX	CFM
8"x10"	RECTANGULAR DUCTWORK WIDTH x HEIGHT
8"x10"(L)	RECTANGULAR DUCTWORK WIDTH x HEIGHT LINED DUCT; (L) DUCT LINER
10"□	ROUND DUCT SIZE
	VANE ELBOW (DOUBLE WALL VANES)
7" 1	RECTANGULAR DUCTWORK TRANSITION
	DUCT/ AIR BLOWING UP TOWARD READER
	DUCT/ AIR BLOWING AWAY FROM READER
	DUCT/ AIR FLOW DOWN
	FLEXIBLE DUCT, MAX. 6'-0" LONG.
	EXHAUST OR RETURN REGISTER OR GRILLE
	CONICAL TAP WITHOUT VOLUME DAMPER (MPSA DUCT)
VD	SPIN-IN FITTING WITH VOLUME DAMPER (LOW PRESSURE DUCT ONLY)
VD	BRANCH TAKE-OFF WITH VOLUME DAMPER
MD	MANUAL ISOLATION DAMPER (NORMALLY CLOSED)
AD	MOTORIZED AUTOMATIC DAMPER

T	THERMOSTAT
S	WALL SWITCH
CO	CARBON MONOXIDE SENSOR
CO2	CARBON DIOXIDE SENSOR
O	WALL MOUNT - PUSHBUTTON OVERRIDE SWITCH TO BAS
DL	DOOR LOUVER
SD	DUCT DETECTOR
▶ FD	FIRE DAMPER W/ACCESS DOOR (WALL)
◆ FD	FIRE DAMPER W/ACCESS DOOR (FLOOR)
▲FD/SD	COMBINATION FIRE/SMOKE DAMPER W/ACCESS DOOR (WALL)
◆ FD/SD	COMBINATION FIRE/SMOKE DAMPER W/ACCESS DOOR (FLOOR)
▲SD	SMOKE DAMPER W/ACCESS DOOR (WALL)
◆ SD	SMOKE DAMPER W/ACCESS DOOR (FLOOR)
	ACCESS DOOR
OA	OUTDOOR AIR
SA	SUPPLY AIR
EA	EXHAUST AIR
RA	RETURN AIR
MPSA	MEDIUM PRESSURE SUPPLY AIR
RTU	PACKAGED ROOFTOP UNIT
AFF	ABOVE FINISHED FLOOR
M.C.	HVAC SUB-CONTRACTOR
G.C.	GENERAL SUB-CONTRACTOR
P.C.	PLUMBING SUB-CONTRACTOR
E.C.	ELECTRICAL SUB-CONTRACTOR
F.D.	FIRE DAMPER OR FLOOR DRAIN
B.O.W.	BAKED ON WHITE
NTS	NOT TO SCALE
O/U	OCCUPIED/UNOCCUPIED SWITCH
ZOS	ZONE OVERRIDE SWITCH

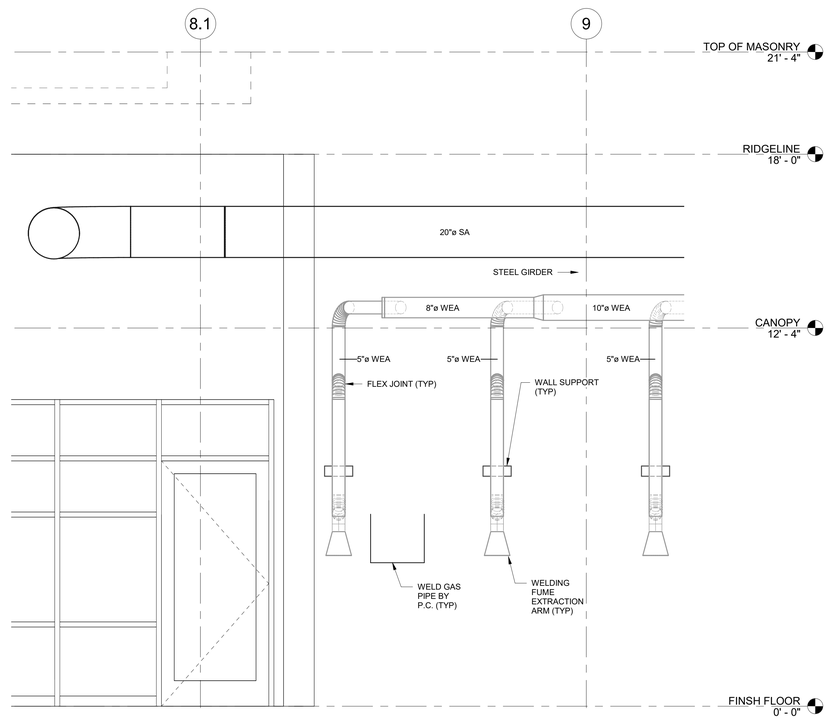
MECHANICAL DRAWING LIST

Sheet Number	Sheet Name
M001	LEGEND, SYMBOLS, NOTES AND DRAWING LIST - MECHANICAL
M101	FIRST FLOOR PLAN -EAST - HVAC DUCTWORK



2 M001 WELDING BOOTH SECTION
1/2" = 1'-0"

1/2" = 1'-0" 1' 0 1' 2' 4'



3 M001 ELEVATION AT WELDING BOOTHS
1/2" = 1'-0"

1/2" = 1'-0" 1' 0 1' 2' 4'

adwarchitects
environments for life
architecture planning interiors
2815 COLISEUM CENTRE DRIVE
SUITE 500
CHARLOTTE, NORTH CAROLINA 28217
P 704.379.1919
F 704.379.1920
www.adwarchitects.com

CMTA
A LEDENCE Company
8801 J.W. Keynes Drive, Suite 240 | Charlotte, NC 28262 | 704.378.7070 | cmta.com
CMTA License No. C02209

HORRY GEORGETOWN TECHNICAL COLLEGE

GCAM - WELDING LAB EXPANSION

BIDDING DOCUMENTS

OSE PROJECT#: H59-N219-CB

LEGEND, SYMBOLS, NOTES AND DRAWING LIST - MECHANICAL

DATE: 05/16/2023

PROJECT NO: 23007

REVISIONS

NO: DATE: DESCRIPTION:

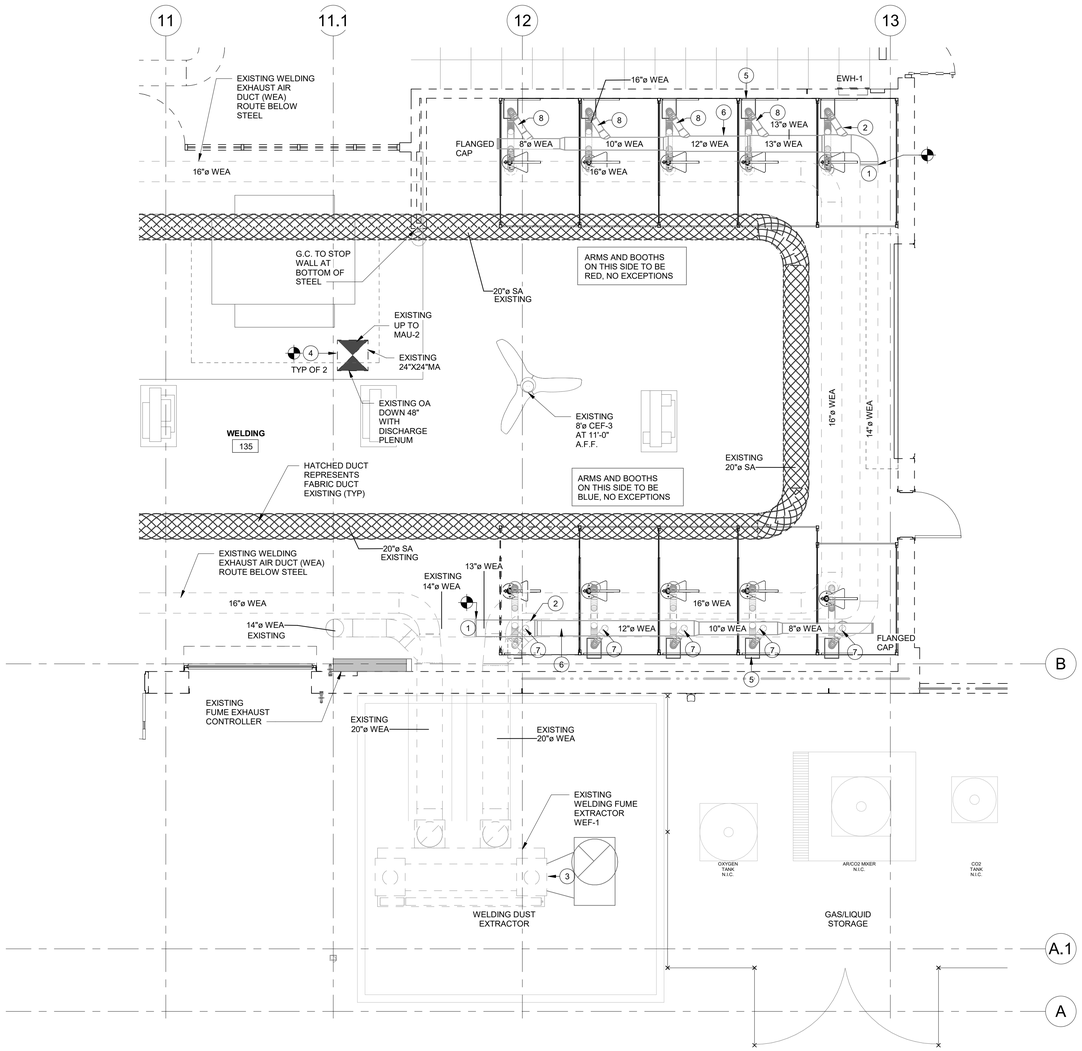
SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER NO. 28761 JAMES CURRIE

223.006 05/16/2023

SHEET NUMBER

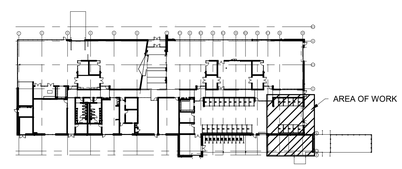
M001

MECHANICAL KEYED NOTES	
KEY VALUE	KEYNOTE TEXT
1	REMOVE VOLUME DAMPER AND INLET GRATING/BELLMOUTH. CONNECT DUCT TO MATCH EXISTING.
2	PROVIDE VOLUME DAMPER AT TAP TO NEW DUCT.
3	REBALANCE/RESET FUME EXHAUST FAN VFD TO PROVIDE A MINIMUM OF 600 CFM PER EXTRACTION ARM.
4	REMOVE CURRENT MESH AT OPENING. PROVIDE NEW DISCHARGE GRILLE AT 24"X24" TWO WAY DEFLECTION STAINLESS STEEL DISCHARGE GRILLE SIMILAR TO NAILOR 71DH.
5	PROVIDE WALL MOUNT AND ELEVATIONS OF ALL EXTRACTION ARMS TO MATCH EXISTING. FIELD VERIFY ELEVATIONS.
6	ROUTE DUCT HIGH IN STRUCTURAL BAY TO MATCH EXISTING.
7	PROVIDE FUME EXTRACTION ARM WITH WALL MOUNT BRACKET. ARM TO BE IAP MODEL FA-0160-H - 9' MINIMUM EXTENSION LENGTH. TUBE COLOR TO BE BLUE WITH BLACK FLEX AND HOOD FOR THIS SIDE, NO EXCEPTIONS.
8	PROVIDE FUME EXTRACTION ARM WITH WALL MOUNT BRACKET. ARM TO BE IAP MODEL IAP MODEL FA-106-H - 9' MINIMUM EXTENSION LENGTH. TUBE COLOR TO BE RED WITH BLACK FLEX AND HOOD FOR THIS SIDE, NO EXCEPTIONS.



1 M101 FIRST FLOOR PLAN - HVAC PLAN - EAST
1/4" = 1'-0"

2' 0 2' 4' 8'



KEY PLAN

N

WALL PARTITION LEGEND:	
	3 HR. FIRE RATING
	2 HR. FIRE RATING (6' FEET HIGH)
	ALUMINUM CHAIN LINK FENCING

adwarchitects
environments for life
architecture planning interiors
2815 COLISEUM CENTRE DRIVE
SUITE 500
CHARLOTTE, NORTH CAROLINA 28217
P704.379.1919
F704.379.1920
www.adwarchitects.com

CMTA
A LEGENCE Company
8801 J.M. Keynes Drive, Suite 240 | Charlotte, NC 28262 | 704.378.7070 | cmta.com
CMTA License No. C02209

HORRY GEORGETOWN TECHNICAL COLLEGE

GCAM - WELDING LAB EXPANSION

BIDDING DOCUMENTS

OSE PROJECT#: H59-N219-CB

FIRST FLOOR PLAN -EAST - HVAC DUCTWORK

DATE: 05/16/2023
PROJECT NO: 23007

REVISIONS
NO: DATE: DESCRIPTION:

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER NO. 28761 JAMES CURRIE

223.006 05/16/2023

SHEET NUMBER

M101

ELECTRICAL SYMBOL SCHEDULE

LIGHTING

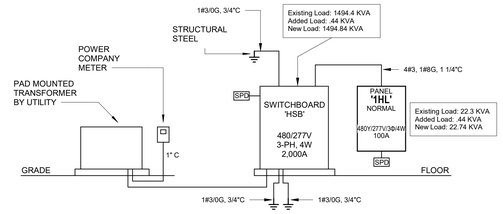
○	LIGHTING FIXTURE: CEILING, WALL, SUSPENDED, OR RECESS MOUNTED AS SCHEDULED. DRAWN APPROXIMATELY TO SCALE. PROVIDE OUTLET BOX TO FIT CONDITIONS.

TYPICAL LUMINAIRE NOTATIONS

(BHA-5)	NOTATION ON PARENTHESES NEXT TO AN ELECTRICAL DEVICE OR LUMINAIRE INDICATES THE PANEL AND BRANCH CIRCUIT SERVING THE ITEM. PROVIDE BRANCH CIRCUIT WIRING IN CONDUIT PER SPECIFICATIONS.

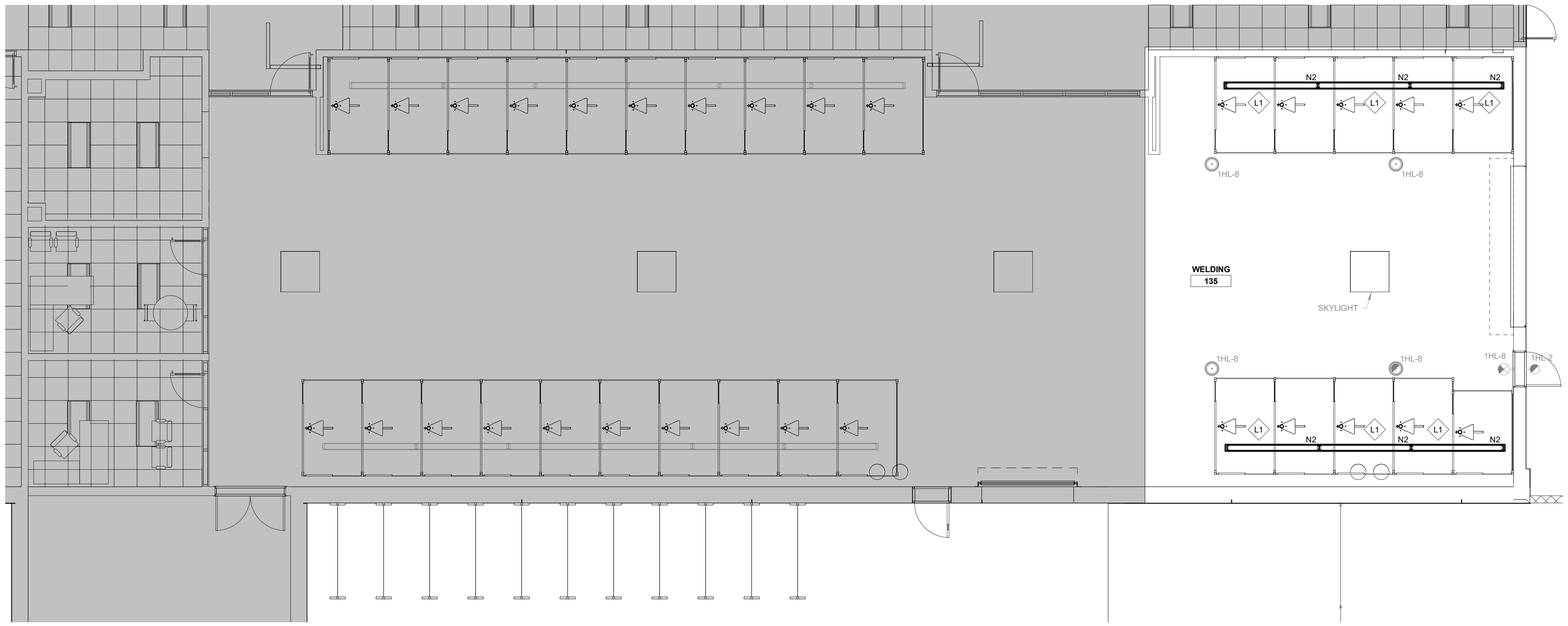
GENERAL NOTES

1. ELECTRICAL DEVICES AND EQUIPMENT SHALL BE U.L. APPROVED FOR USE WITH CONDUCTORS THAT HAVE INSULATION RATED FOR 75°C OR HIGHER. DERATING OF CONDUCTORS IS NOT ALLOWED.
2. ELECTRICAL CONDUCTORS SHALL BE COPPER, THWN/THHN, EXCEPT WHERE SPECIFICALLY NOTED OTHERWISE.
3. MINIMUM BRANCH CIRCUIT CONDUCTOR SIZE SHALL BE #12 AWG. REFER TO SPECIFICATIONS FOR MINIMUM ACCEPTABLE CONDUIT SIZE.
4. AN INDIVIDUAL GREEN INSULATED EQUIPMENT GROUNDING CONDUCTOR SHALL BE PROVIDED WITH EACH 120-VOLT OR HIGHER VOLTAGE CIRCUIT. SIZE CONDUCTOR AS SHOWN, OR, IF SIZE IS NOT GIVEN, PER NEC TABLES 250.122 AND 250.66, AS APPLICABLE. GROUNDING CONDUCTOR SHALL BE BONDED TO EACH METALLIC CONDUIT, EACH OUTLET BOX, AND TO TERMINATION EQUIPMENT.
5. PROVIDE CONDUITS AS SPECIFIED FOR ALL POWER CIRCUITS, SIZED PER NEC, NOT TO EXCEED 40% FILL.
6. RUN CONDUITS AS HIGH AS POSSIBLE, CONCEALED IN WALLS, ABOVE CEILING, BELOW GRADE OR UNDER SLAB BELOW VAPOR BARRIER, OR HIDDEN IN OVERHEAD STRUCTURE TO MAXIMUM EXTENT FEASIBLE. COORDINATE ROUTING OF CONDUITS WITH OTHER TRADES TO AVOID CONFLICTS. CONDUIT IN SLAB OR DECK IS NOT ALLOWED AS A WIRING METHOD, UNLESS OTHERWISE NOTED.
7. ALL WORK SHALL COMPLY WITH 2020 NEC.
8. ALL EQUIPMENT, FIXTURES AND MATERIALS USED IN THIS PROJECT SHALL BE LISTED BY AN INDEPENDENT TESTING LABORATORY ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION.
9. ALL NON-ENERGIZED CONDUCTIVE SURFACES OF MATERIALS THAT ARE PART OF THE ELECTRICAL SYSTEM SHALL BE BONDED TO INSULATED GROUNDING CONDUCTOR RUN WITH PHASE CONDUCTORS.
10. EACH 120 VOLT AND 277 VOLT BRANCH CIRCUIT SHALL BE PROVIDED WITH A SEPARATE, DEDICATED NEUTRAL CONDUCTOR WHETHER CIRCUIT IS RUN SINGLY OR GROUPED IN CONDUIT WITH OTHER CIRCUITS. NO MORE THAN THREE 120 VOLT OR 277 VOLT CIRCUITS MAY BE RUN TOGETHER IN A SINGLE CONDUIT.
11. PROVIDE CONDUIT PENETRATION OF RATED WALLS AND FLOOR IN ACCORDANCE WITH DETAILS AND SECTION 260539.
12. ELECTRICAL CIRCUITING SHOWN ON THESE DRAWINGS IS DIAGRAMMATIC AND IS NOT INTENDED TO DEPICT ACTUAL CONDUIT ROUTES. RUN CONDUITS PER SPECIFICATIONS, AND IN ACCORDANCE WITH NEC. REQUIREMENTS. CIRCUIT RUNS OTHER THAN THOSE NECESSARY FOR THE OPERATION OF EGRESS STAIRS AND PASSAGES ARE NOT PERMITTED TO PENETRATE THE RATED STAIR ENCLOSURE OR THE ASSOCIATED EXIT PASSAGEWAY.
13. DO NOT RUN ANY UN-RELATED POWER CONDUCTORS THROUGH TELECOM ROOM.
14. THE LOCATION OF ALL ABOVE CEILING LIGHTING CONTROLS INCLUDING OCCUPANCY SENSOR POWER PACKS/RELAYS AND EMERGENCY TRANSFER RELAYS SHALL HAVE THEIR LOCATION IDENTIFIED ON THE CEILING WITH PHENOLIC LABELS PER SPECIFICATION SECTION 260553.
15. CONTRACT DOCUMENTS ARE COMPLEMENTARY, AND WHAT IS REQUIRED BY ONE SHALL BE AS BINDING AS IF REQUIRED BY ALL. IN THE CASE OF A CONFLICT, DISAGREEMENT, OR AMBIGUITY, PROVIDE THE GREATER QUANTITY OF WORK.
16. NO CONDUIT SHALL BE RUN EXPOSED WITHOUT PRIOR APPROVAL BY THE ARCHITECT.



1 E001 PARTIAL POWER RISER DIAGRAM
NOT TO SCALE

NOTE: ALL EQUIPMENT SHOWN IS EXISTING TO REMAIN.



2 E001 WELDING EXPANSION - LIGHTING
3/16" = 1'-0"

4' 0 4' 8' 16'

N

GENERAL NOTES (LIGHTING):

A. REFER TO THE ARCHITECT'S REFLECTED CEILING PLANS, ELEVATIONS, AND CASEWORK DETAILS FOR EXACT LOCATIONS OF ALL WALL AND CEILING MOUNTED ELECTRICAL DEVICES.

B. CONTRACTOR SHALL FOLLOW BRANCH CIRCUITING LAY-OUT, AS INDICATED ON THE FLOOR PLANS, WITH A MAXIMUM OF THREE (3) BRANCH CIRCUITS PER HOMERUN. EACH BRANCH CIRCUIT SHALL BE PROVIDED WITH A DEDICATED NEUTRAL CONDUCTOR. DEDICATED NEUTRAL CONDUCTORS SHALL BE CONSIDERED CURRENT CARRYING. IF ADDITIONAL CONDUCTORS ARE RAN IN THE SAME CONDUIT WITH THOSE INDICATED, CONTRACTOR SHALL DERATE ALL CURRENT CARRYING CONDUCTORS PER N.E.C. #310.15(B)(3), AND UPSIZE CONDUIT AS REQUIRED PER N.E.C. #300.17 AND ANNEX C. MULTIWIRE BRANCH CIRCUITS AS DEFINED IN N.E.C #100 / 210.4 (CIRCUITS SHARING A COMMON NEUTRAL CONDUCTOR) SHALL NOT BE PERMITTED.

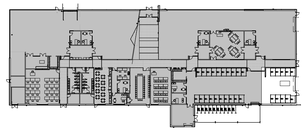
C. ALL LIGHTING FIXTURE LENSES, PARABOLIC LOUVERS, DOWNLIGHTING ALZAK CONES AND "PARACUBE" LOUVERS SHALL BE HANDLED WITH COTTON GLOVES DURING INSTALLATION AND LAMPING TO AVOID FINGERPRINTS OR DIRT DEPOSITS. IT IS PREFERRED THAT FIXTURES BE SHIPPED AND INSTALLED WITH CLEAR PLASTIC BAGS TO PROTECT LOUVERS. AT CLOSE OF PROJECT, AND AFTER CONSTRUCTION AIR FILTERS ARE CHANGED, REMOVE BAGS. ANY LOUVER OR CONE SHOWING DIRT OR FINGER PRINTS SHALL BE CLEANED WITH SOLVENT RECOMMENDED BY THE MANUFACTURER, OR REPLACED AS NECESSARY IN ORDER TO TURN OVER TO THE OWNER NEW FIXTURES AT OCCUPANCY.

KEYNOTES

NO.	DESCRIPTION
L1	NEW LIGHTING FIXTURE SHALL BE WIRED TO EXISTING BRANCH CIRCUIT 1HL-8 SERVING LIGHTING IN THE AREA WITH 2#10, #10G, 3/4"C.

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	BASIS OF DESIGN	MOUNTING	LAMPS	MINIMUM LUMENS	MAXIMUM WATTAGE	VOLTAGE
N2	8' LED STRIP. SUSPENDED FROM OVERHEAD STRUCTURE WITH CHAINS TO 12'-0" AFF TO BOTTOM OF FIXTURE.	WILLIAMS 76-8-L154/840-VBY-2-DRV-UNV	SUSPENDED	LED	15400	108	277



KEY PLAN

adwarchitects
environments for life
architecture planning interiors
2815 COLISEUM CENTRE DRIVE
SUITE 500
CHARLOTTE, NORTH CAROLINA 28217
P704.379.1919
F704.379.1920
www.adwarchitects.com

CMTA
A LEGENCE Company
8601 J.M. Keynes Drive, Suite 240 | Charlotte, NC 28262 | 704.376.7073 | cmta.com
CMTA License No. C02209

HORRY GEORGETOWN TECHNICAL COLLEGE

GCAM - WELDING LAB EXPANSION

BIDDING DOCUMENTS

OSE PROJECT#: H59-N219-CB

LEGEND, NOTES, SCHEDULES, PARTIAL POWER RISER, & LIGHTING PLAN

DATE: 05/16/2023
PROJECT NO: 23007

REVISIONS
NO: DATE: DESCRIPTION:

CAROLINA PROFESSIONAL ENGINEER SEAL NO. 27824 REGISTERED TYLER A. TUCKER

223.006 05/16/2023

SHEET NUMBER

E001