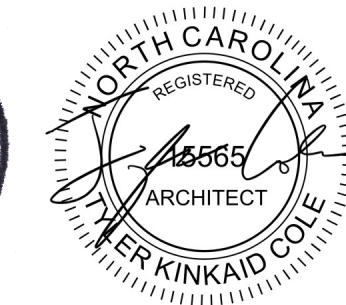


# DUKE ENERGY DUNN OPERATIONS CENTER

1269 Jonesboro Rd  
Harnett County, NC 28334

ISSUED FOR CONSTRUCTION  
05.24.2023  
9101-223870



## CIVIL LANDSCAPE

McADAMS  
2905 Meridian Parkway,  
Durham, NC 27713  
tel: 919.287.0892  
email: finch@mcadamsco.com

## STRUCTURAL

MMSA INC  
30 Patewood Dr. Suite 100  
Greenville, SC 29615  
tel: 864.331.1201  
fax: 864.331.1201  
email: msimpson@mmsainc.com

## ARCHITECTURAL

LS3P ASSOCIATES LTD.  
227 W Trade St. Ste 700  
Charlotte, NC 28202  
tel: 704.333.6686  
fax: 704.333.2926  
email: johnkincheloe@ls3p.com

## FIRE PROTECTION PLUMBING MECHANICAL ELECTRICAL

BARRETT WOODYARD ASSOCIATES  
420 Minuet Ln  
Charlotte, NC 28208  
tel: 704.357.9333  
email: slowery@barrettwoodyard.com

## SECURITY

PAYNTER  
3434 Edwards Mill Rd  
suite 112-345  
Raleigh, NC 27612  
tel: 919.995.0462  
email:  
bpaynter@paynterconsulting.com

2018 APPENDIX B BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS (EXCEPT 1 AND 2-FAMILY DWELLINGS AND TOWNHOUSES) (Reproduce the following data on the building plans sheet 1 or 2) (UPDATED 12-6-18)

Name of Project: Duke Energy Durn Operations Center
Address: 1269 Jonesboro Road, Durham, NC 27834
Zip Code: 27834
Owner / Authorized Agent: Mike Hardy, JLI
Phone #: 919-539-0441
E-Mail: Mike.Hardy@jli.com

LIFE SAFETY SYSTEM REQUIREMENTS
Emergency Lighting: C No, E Yes
Fire Alarm: C No, E Yes
Smoke Detection System: C No, E Yes
Carbon Monoxide Detection: C No, E Yes

2018 NC BUILDING CODE: New Building, Addition, 1st Time Interior Completion
2018 NC EXISTING BUILDING CODE: N/A, Prescriptive, Repair, Chapter 14

CONSTRUCTED: (date) NA, CURRENT OCCUPANCY (S) (Ch. 3): NA
RENOVATED: (date) NA, PROPOSED OCCUPANCY (S) (Ch. 3): BUSINESS / STORAGE

BASIC BUILDING DATA
Construction Type: I-A, I-B, I-C, I-D, I-E, I-F, I-G, I-H, I-I, I-J, I-K, I-L, I-M, I-N, I-O, I-P, I-Q, I-R, I-S, I-T, I-U, I-V, I-W, I-X, I-Y, I-Z
Sprinklers: NA, No, Partial, NFPA 13, NFPA 13R, NFPA 13D

Table with 4 columns: FLOOR, NEW (HEATED SF), NEW (UNHEATED SF), NEW (COVERED EXTERIOR SF), SUB-TOTAL. Rows for 3rd Floor, 2nd Floor, Mezzanine, 1st Floor, Basement, and TOTAL.

ALLOWABLE AREA
Primary Occupancy Classification(s): A-1, A-2, A-3, A-4, A-5
Secondary Occupancy Classification(s): B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z

Special Uses (Table 509):
Special Uses (Chapter 4 - List Code Sections):
Special Provisions (Chapter 5 - List Code Sections):
Mixed Occupancy: Yes, No, Non-Separated Use (508.3)
Separated Use (508.4) - See below for area calculations for each story.

Actual Area of Occupancy S-2 + Allowable Area of Occupancy B <= 1
10,080/38.345 + 11,514/24.636 = 26 + 47 = 73 < 100

Table with 5 columns: STORY DESCRIPTION, BLDG AREA PER STORY (ACTUAL), BLDG AREA, AREA FOR FRONTAGE INCREASE, ALLOWABLE AREA PER STORY OR UNLIMITED. Rows for OFFICES and GARAGE/STOR.

- 1. Frontage area increases from Section 506.2 are computed thus:
a. Perimeter which fronts a public way or open space having 20 feet minimum width 711 (F).
b. Total Building Perimeter = 834 (P).
c. Ratio (F/P) = .85 (F/P).
d. W = Minimum width of public way = 30 (W).

ALLOWABLE HEIGHT
Table with 3 columns: ALLOWABLE, SHOWN ON PLANS, CODE REFERENCE. Rows for Building Height in Feet and Building Height in Stories.

FIRE PROTECTION REQUIREMENTS
Table with 5 columns: BUILDING ELEMENT, FIRE SEPARATION DISTANCE (FEET), RATING, DETAIL, DESIGN # FOR RATED PENETRATION RATED JOINTS, SHEET # FOR RATED PENETRATION RATED JOINTS. Rows for Structural frame, Bearing Walls, Exterior, Interior, Nonbearing walls and Partitions, Floor Construction, etc.

PERCENTAGE OF WALL OPENING CALCULATIONS
Table with 4 columns: LINES, NORTH > 30°, EAST > 30°, SOUTH > 30°, WEST > 10° < 30°. Rows for Protection and Allowable Area.

NOTES TO PLAN REVIEWER

The scope of this project includes a new pre-engineered metal building and an associated material laydown storage yard. The pre-engineered metal building will be a nonseparated mixed use building, containing both office and storage occupancies, see the Appendix B for areas and separation calculations.
The PEMB shop drawings will be sealed by an engineer and provided by the General Contractor, the Structural drawings included in this package will cover the slab and foundation information and detailing.
The plumbing, mechanical, and electrical scope includes new fixtures and equipment to service the building function, and see PM&E drawings for information and detailed coding.

LIST OF SHEETS

- GENERAL
G-000 COVER SHEET
G-001 PROJECT INFORMATION SHEET\_NC
G-002 LIFE SAFETY PLAN
CIVIL
C-000 COVER SHEET
C-001 EXISTING CONDITIONS
C-101 EXISTING CONDITIONS
C-102 EXISTING CONDITIONS
C-103 EXISTING CONDITIONS
C-104 CLEARING AND DEMOLITION PLAN
C-200 OVERALL SITE PLAN
C-201 SITE PLAN 'A'
C-202 SITE PLAN 'B'
C-300 OVERALL GRADING AND STORM DRAINAGE PLAN
C-301 GRADING & STORM DRAINAGE PLAN 'A'
C-302 GRADING & STORM DRAINAGE PLAN 'B'
C-400 OVERALL UTILITY PLAN
C-401 UTILITY PLAN 'A'
C-402 UTILITY PLAN 'B'
C-603 EROSION CONTROL DETAILS
C-604 EROSION CONTROL DETAILS
C-605 EROSION CONTROL DETAILS
C-706 PLAN AND PROFILE STORM SEWER
C-708 PLAN AND PROFILE JONESBORO ROAD ACCESS
C-800 SITE DETAILS
C-801 SITE DETAILS
C-802 SITE DETAILS
C-803 WATER DETAILS
C-804 WATER DETAILS
C-805 SEWER DETAILS
C-806 SEWER DETAILS
C-807 STORM DRAINAGE DETAILS
C-808 STORM DRAINAGE DETAILS
C-809 SANITARY SEWER DETAILS
C-810 SANITARY SEWER DETAILS
C-811 SIGNAGE DETAILS
L-100 OVERALL PLANTING PLAN PHASE 2
L-200 OVERALL PLANTING PLAN

ARCHITECTURAL

- A-001 ARCHITECTURAL SITE PLAN
A-002 EXTERIOR SUB-SYSTEMS
A-003 PARTITION TYPES
A-011 OVERALL PLANS
A-101 PARTIAL PLAN - AREA A
A-102 PARTIAL PLAN - AREA B
A-103 OVERALL REFLECTED CEILING PLAN
A-121 REFLECTED CEILING PLAN AREA A
A-122 REFLECTED CEILING PLAN AREA B
A-151 ROOF PLAN
A-201 EXTERIOR ELEVATIONS
A-251 INTERIOR ELEVATIONS
A-301 BUILDING SECTIONS
A-351 WALL SECTIONS
A-352 WALL SECTIONS
A-353 WALL SECTIONS - TRUCK BAY
A-400 ENLARGED DUMPSTER ENCLOSURE
A-401 ENLARGED PLANS & CASEWORK ELEVATIONS
A-402 ENLARGED PLANS & CASEWORK ELEVATIONS
A-421 ENLARGED REFLECTED CEILING PLANS
A-511 SECTION DETAILS
A-512 SECTION DETAILS
A-513 ENTRY CANOPY DETAILS
A-514 ENTRY CANOPY AXONS
A-521 CEILING DETAILS
A-601 DOOR SCHEDULE - DOOR TYPE LEGEND & FRAME TYPES
A-602 DOOR AND FRAME DETAILS
A-603 WINDOW SCHEDULE & WINDOW TYPE LEGEND
A-701 FINISH PLAN
A-721 FINISH PLAN
A-731 FURNITURE PLAN
A-750 CASEWORK DETAILS

MECHANICAL

- M-001 SPECIFICATIONS - MECHANICAL
M-002 SPECIFICATIONS - MECHANICAL
M-003 SPECIFICATIONS - MECHANICAL
M-004 SPECIFICATIONS - MECHANICAL
M-005 SPECIFICATIONS - MECHANICAL
M-006 DETAILS - MECHANICAL
M-007 SCHEDULES - MECHANICAL
M-101 FIRST FLOOR PLAN - MECHANICAL

ELECTRICAL

- E-001 LEGENDS & DETAILS - ELECTRICAL
E-002 SPECIFICATIONS - ELECTRICAL
E-003 SPECIFICATIONS - ELECTRICAL
E-004 SPECIFICATIONS - ELECTRICAL
E-005 SPECIFICATIONS - ELECTRICAL
E-006 SPECIFICATIONS - ELECTRICAL
E-007 SPECIFICATIONS - ELECTRICAL
E-008 POWER RISER DIAGRAM & DETAILS
E-009 PANEL SCHEDULES - ELECTRICAL
E-010 PANEL SCHEDULES - ELECTRICAL
E-100 SITE PLAN - ELECTRICAL
E-101A TRUCK BAY FLOOR PLAN - ELECTRICAL
E-101B OPS CENTER FLOOR PLAN - ELECTRICAL
E-201A TRUCK BAY FLOOR PLAN - LIGHTING
E-201B OPS CENTER PLAN - LIGHTING
E-301A TRUCK BAY FLOOR PLAN - MECHANICAL CONNECTIONS
E-301B OPS FLOOR PLAN - MECHANICAL CONNECTIONS

PLUMBING

- P-001 SPECIFICATIONS - PLUMBING
P-002 SPECIFICATIONS - PLUMBING
P-003 NOTES & DETAILS - PLUMBING
P-101 FIRST FLOOR PLAN - SAN & VENT - PLUMBING
P-201 FIRST FLOOR PLAN - H&CW - PLUMBING

SECURITY

- EY-0002 PROJECT NOTES & INDEX SECURITY SYSTEMS
EY-0003 SIGN PACKAGE PHYSICAL SECURITY
EY-0110 BUILDING PLAN PHYSICAL SECURITY
EY-5001 INSTALLATION DETAILS PHYSICAL SECURITY
EY-5002 INSTALLATION DETAILS PHYSICAL SECURITY
EY-7001 CABLE RISER VIDEO MGMT SYSTEM
EY-7002 CABLE RISER ACCESS CONTROL SYSTEM

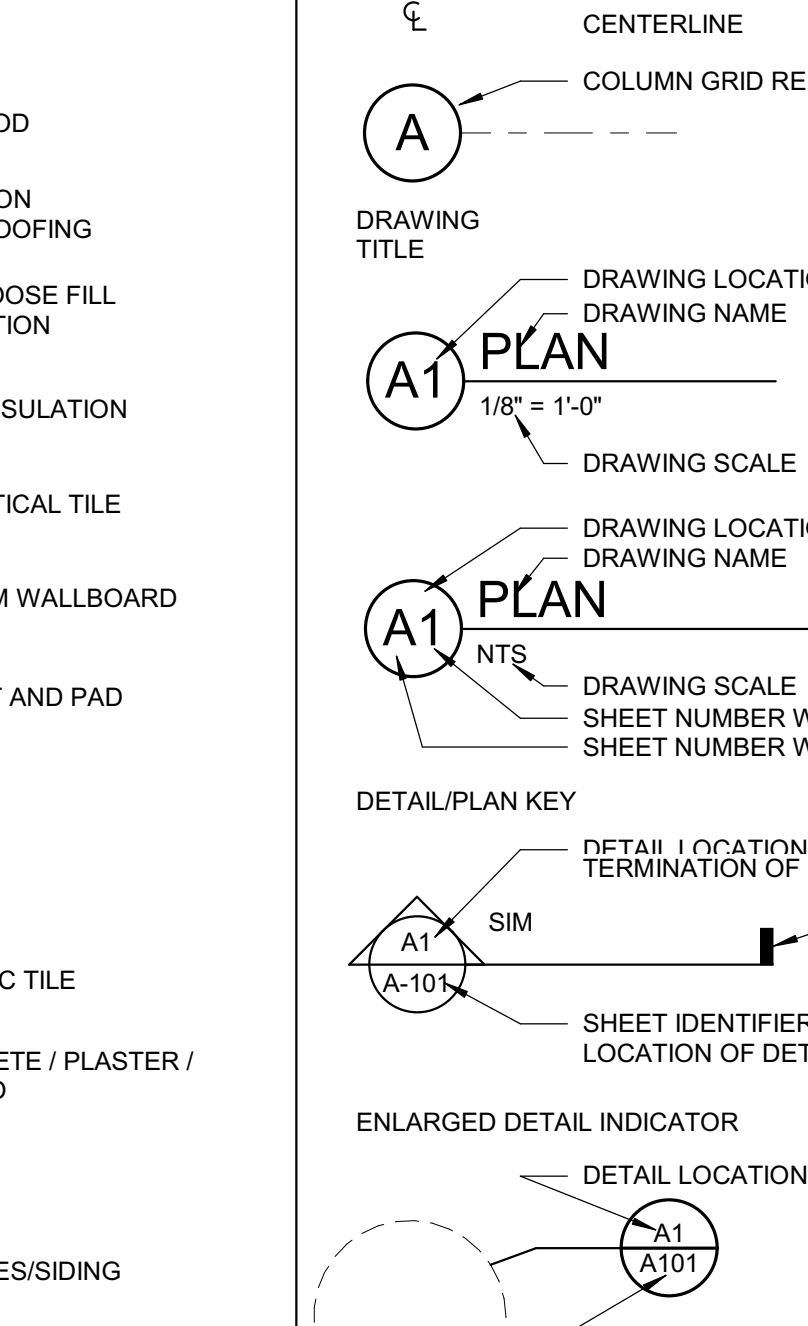
STRUCTURAL

- S-0001 GENERAL NOTES
S-0002 BASIS OF DESIGN
SB-0110 OVERALL FOUNDATION / SLAB PLAN
SF-0110 ROOF FRAMING PLAN
S-301 SECTIONS AND DETAILS
S-302 SECTIONS AND DETAILS

MATERIAL LEGEND

Table with 2 columns: PLAN AND SECTION, ELEVATION. Rows for EARTH, POROUS FILL, ROCK, LIGHTWEIGHT CONCRETE, STRUCTURAL CONCRETE, BRICK, CONC. MASONRY UNITS, PLASTER, CEMENT, SAND, GROUT, STEEL IRON, ALUMINUM, WOOD (FINISH), WOOD (ROUGH), WOOD BLOCKING.

GRAPHIC SYMBOL LEGEND

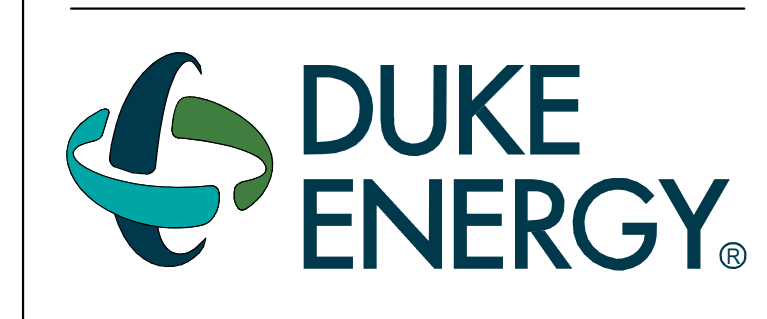


UDS SHEET DESIGNATORS AND SHEET ORDER

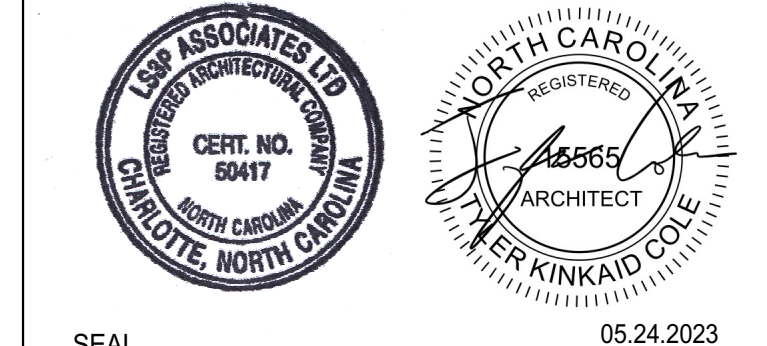
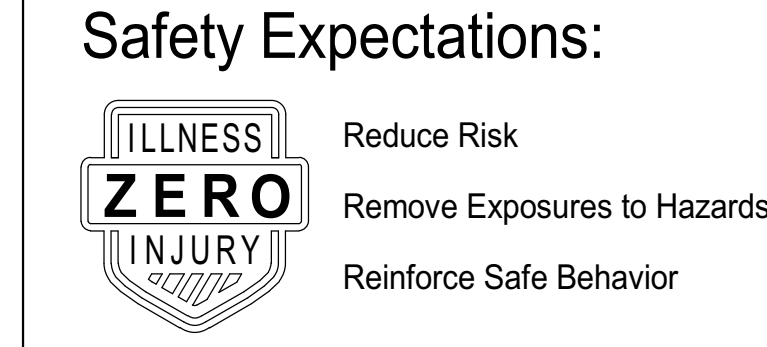
Table with 4 columns: LEVEL 1 - DISCIPLINE DESIGNATORS, LEVEL 2 - SHEET TYPE DESIGNATORS, LEVEL 3 - SHEET TYPE DESIGNATORS, LEVEL 4 - PLAN TYPE DESIGNATORS. Rows for G GENERAL, H HAZARDOUS MATERIALS, V SURVEY / MAPPING, B GEOTECHNICAL, C CIVIL, L LANDSCAPE, S STRUCTURAL, A ARCHITECTURAL, I INTERIORS, Q EQUIPMENT, F FIRE PROTECTION, P PLUMBING, M MECHANICAL, E ELECTRICAL, T TELECOMMUNICATIONS, R RESOURCE, 0 GENERAL / OVERALL, 1 PLANS, 2 ELEVATIONS, 3 SECTIONS, 4 LARGE SCALE VIEWS, 5 DETAIL LOCATION PLAN, 6 SCHEDULES & DIAGRAMS, 7 USER DEFINED, 8 ACCESS FLOOR GRID PLAN, 9 BUILDING AUTOMATION PLAN.

A-121
LEVEL 1 LEVEL 2 LEVEL 3 LEVEL 4 SEQUENCE

DRAWING NO. CFD-####-G-0001-41CC2B



MAILING ADDRESS: P.O. BOX 1007 CHARLOTTE, NC 28201



DUNN OPERATIONS CENTER

1269 Jonesboro Rd. Harnett County, NC 28334

OPERATIONS BUILDING

Table with 4 columns: MARK, DATE, REVISION, CLIENT CHANGES ISSUED FOR CONSTRUCTION. Rows for various revision dates and descriptions.

PROJECT NO: 9101-223870
DRAWING NUMBER: CFD-####-G-0001-41CC2B

ELECTRONIC FILE NAME:
DRAWN BY: Author

CHKD BY: Checker DATE: 05.24.2023

E-MAIL: JOHNKINCHELOE@LS3P.COM

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PROJECT INFORMATION SHEET\_NC SHEET NO. G-001

ISSUED FOR CONSTRUCTION

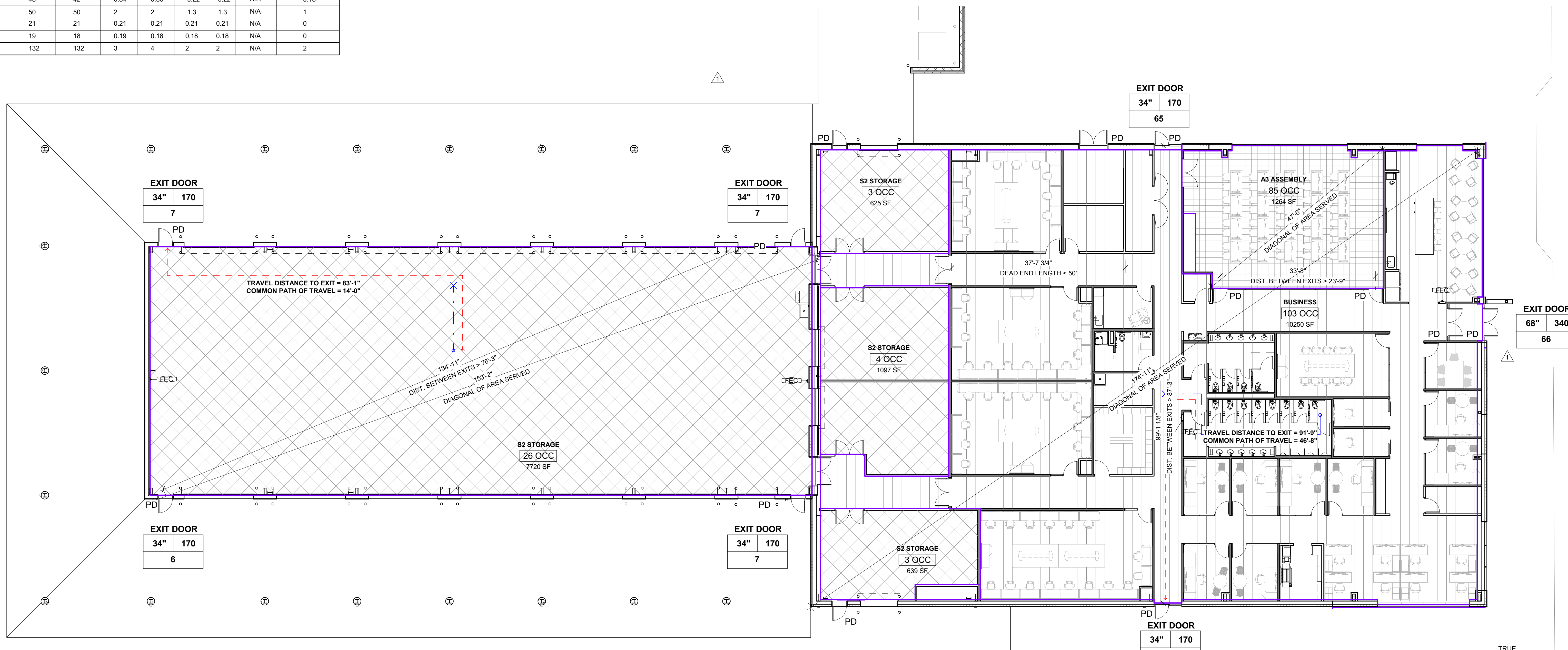
LIFE SAFETY AREA OCCUPANCY SCHEDULE

WT	AREA	AREA PER OCCUPANT	OCCUPANCY LOAD
A3 ASSEMBLY	1264 SF	15 SF	85
BUSINESS	10250 SF	100 SF	103
S2 STORAGE	10080 SF	300 SF	36
	21994 SF		223

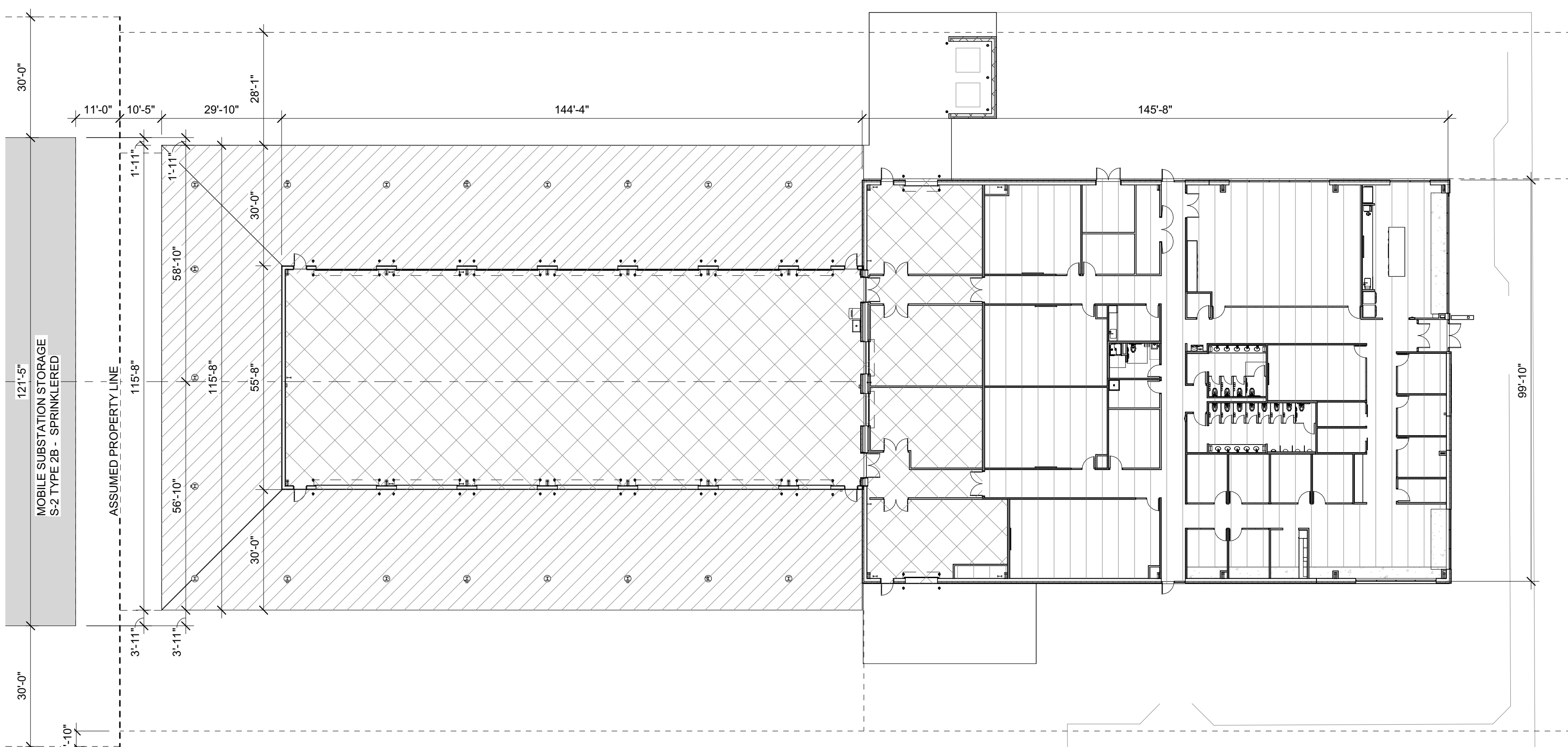
PLUMBING FIXTURES REQUIRED BY OCCUPANCY TYPE

PLUMBING OCCUPANCY KEY	OCCUPANTS	WATER CLOSETS		LAVATORIES		BATHING	DRINKING FOUNTAINS
		MALE	FEMALE	MALE	FEMALE		
A3 ASSEMBLY	85	43	42	0.34	0.66	0.22	0.22
BUSINESS	100	50	50	2	2	1.3	1.3
COVERED S2	42	21	21	0.21	0.21	0.21	N/A
S2 STORAGE	37	19	18	0.19	0.18	0.18	N/A
TOTALS	264	132	132	3	4	2	2

- A3 ASSEMBLY
- BUSINESS
- COVERED S2
- S2 STORAGE



D1 1ST FLOOR LIFE SAFETY PLAN  
3/32" = 1'-0"



A1 GROSS BUILDING AREA PLAN  
3/64" = 1'-0"

CODE COMPLIANCE LEGEND

- DISTANCE - EGRESS PATH
  - DISTANCE - COMMON PATH OF TRAVEL
  - DISTANCE - BETWEEN FIRE EXTINGUISHERS
  - PATH DISTANCE
  - PATH NUMBER
  - PATH
- ROOM NAME
- 1 OCC → OCCUPANCY LOAD
  - 150 SF → ROOM AREA
  - OCC Type / SF per OCC → OCCUPANCY LOAD FACTOR AND METHOD
  - OCC Type → OCCUPANCY GROUP
- EXIT DOOR
- 35" 175 → EXIT CAPACITY (DOOR EGRESS WIDTH / 2)
  - 100 → ANTICIPATED LOAD
  - 100 → EGRESS WIDTH
- EXIT STAIR
- 48" 160 → EXIT CAPACITY (STAIR EGRESS WIDTH / 30)
  - 100 → ANTICIPATED LOAD
  - 100 → EGRESS WIDTH
- HO HOLD OPEN
- PD PANIC DEVICE
- FIRE EXTINGUISHER CABINET WITH FIRE EXTINGUISHER
- EXIT SIGN

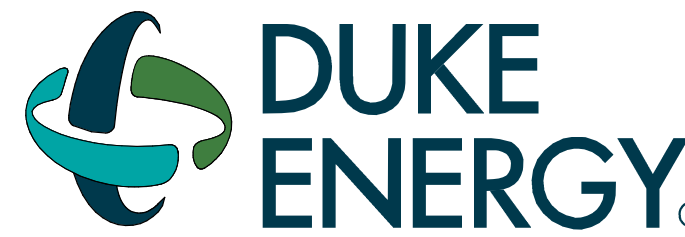
PARTITION LEGEND

- 1. ALL INTERIOR METAL STUD PARTITIONS TO BE TYPE A3SX U.N.O.
  - NON-RATED PARTITION W/O SOUND BATT INSULATION, SEE PARTITION SCHEDULE
  - NON-RATED PARTITION WITH SOUND BATT INSULATION, SEE PARTITION SCHEDULE
- NOTE: SEE SHEET A-003 FOR CONSTRUCTION OF PARTITION TYPES

LIFE SAFETY ROOM OCCUPANCY KEY

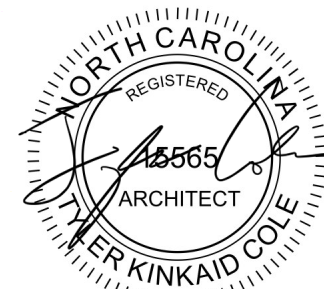
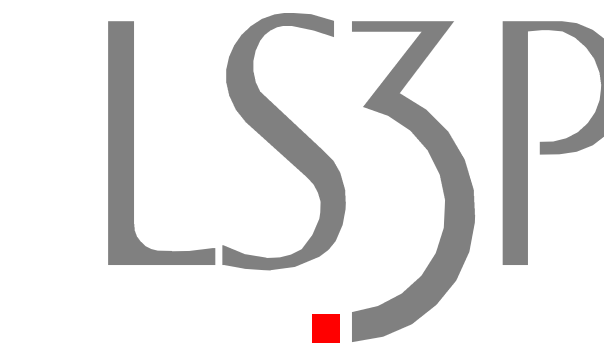
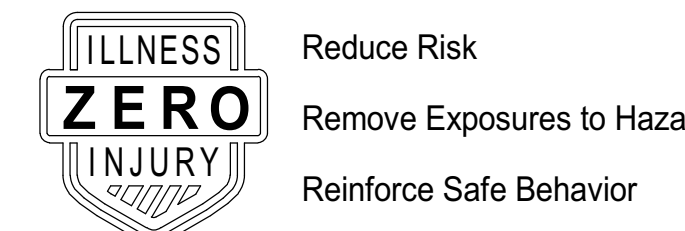
Occupancy Type	Area per Occupant
Assembly - Concentrated	7 SF
Assembly - Standing Space	5 SF
assembly - Unconcentrated	15 SF
Business	100 SF
Courtrrooms	40 SF
Dormitories	50 SF
Educational - Classroom	20 SF
Educational - Vocational	50 SF
Exercise Rooms	50 SF
Institutional - Inpatient	240 SF
Institutional - Outpatient	100 SF
Institutional - Sleeping	120 SF
Kitchens - Commercial	200 SF
Library - Reading	50 SF
Library - Stack	100 SF
Locker Rooms	50 SF
Mechanical Rooms	300 SF
Parking Garages	200 SF
Residential	200 SF
Stages and Platforms	15 SF
Storage Areas	300 SF

DRAWING NO. CFD-####-G-0100-41CC2B



MAILING ADDRESS:  
P.O. BOX 1007  
CHARLOTTE, NC 28201

Safety Expectations:



SEAL 05.24.2023

DUNN OPERATIONS CENTER

1269 Jonesboro Rd.  
Harnett County, NC 28334

OPERATIONS BUILDING

MARK	DATE	DRN BY	REVISION
1	09.22.23		CLIENT CHANGES
2	05.24.23		ISSUED FOR CONSTRUCTION

PROJECT NO: 9101-223870

DRAWING NUMBER

CFD-####-G-0100-41CC2B

ELECTRONIC FILE NAME:

DRAWN BY: Author

CHK'D BY: Checker DATE: 05.24.2023

E-MAIL: JOHNKINCHLOE@LS3P.COM

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SHEET TITLE:  
LIFE SAFETY PLAN

SHEET NO.

G-002

ISSUED FOR CONSTRUCTION