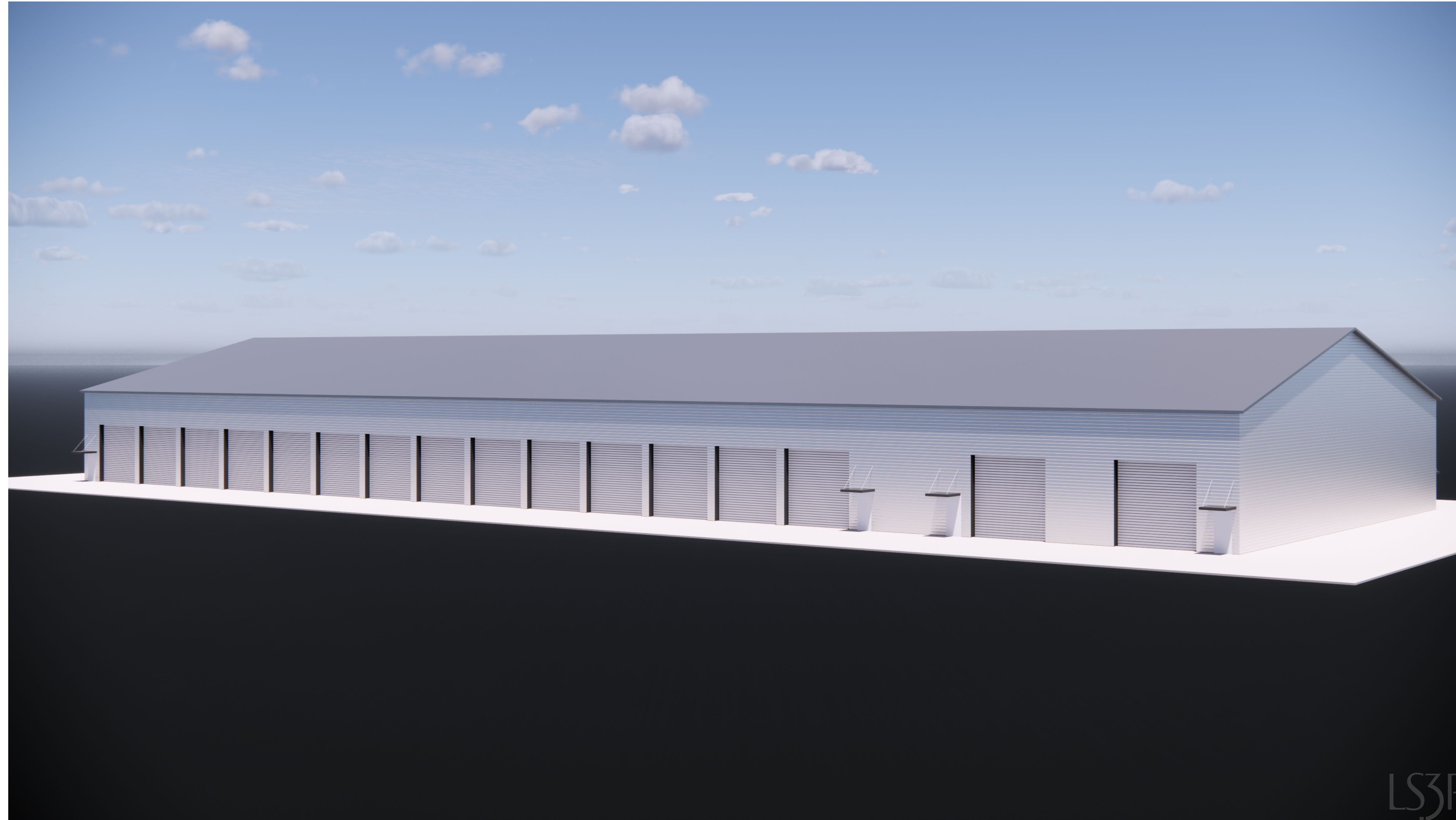
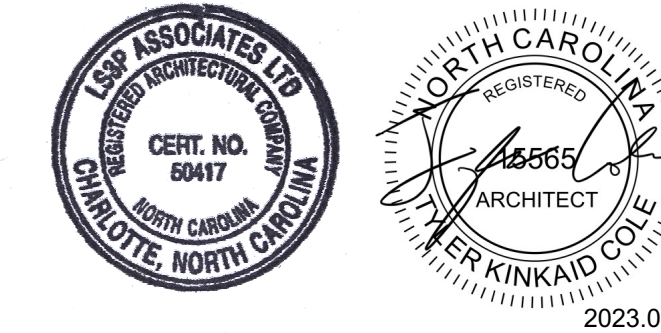


DUKE ENERGY DUNN MOBILE SUBSTATION STORAGE

1269 Jonesboro Rd
Harnett County, NC 28334

ISSUED FOR CONSTRUCTION
2023.05.24
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: tylercole@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 Mobile Substation Storage
Address: 1269 Jonesboro Road
Zip Code: 28334
Owner / Authorized Agent: John Jacobs, JLL
Phone #: 984-233-3298
E-Mail: John.Jacobs@jll.com

2018 NC BUILDING CODE: New Building
2018 NC EXISTING BUILDING CODE: N/A
CONSTRUCTED: (date) N/A
RENOVATED: (date) N/A

OCCUPANCY CATEGORY (Table 604.5)
Current: N/A
Proposed: N/A

BASIC BUILDING DATA
Construction Type: I-A, I-B, II-A, II-B, III-A, III-B, IV, V-A, V-B
Sprinklers: N/A
Standpipes: N/A
Primary Fire District: N/A

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, TOTAL.

ALLOWABLE AREA
Primary Occupancy Classification(s): Business
Secondary Occupancy Classification(s): Educational

Incidental Uses (Table 509):
Special Uses (Chapter 4 - List Code Sections):
Special Provisions (Chapter 5 - List Code Sections):

Table with 5 columns: STORY DESCRIPTION NO. AND USE, BLDG AREA PER STORY (ACTUAL), BLDG AREA PER STORY (TABLE 506.2), AREA FOR FRONTAGE INCREASE, ALLOWABLE AREA PER STORY OR UNLIMITED. Row for 1st GARAGE/STOR.

Table with 5 columns: STORY DESCRIPTION NO. AND USE, BLDG AREA PER STORY (ACTUAL), BLDG AREA PER STORY (TABLE 506.2), AREA FOR FRONTAGE INCREASE, ALLOWABLE AREA PER STORY OR UNLIMITED. Row for 1st S-2 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, 867 (F).
b. Total Building Perimeter = 381 (P).

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

Table with 7 columns: BUILDING ELEMENT, FIRE SEPARATION DISTANCE (FEET), RATING, DETAIL #, DESIGN #, SHEET # FOR RATED PENETRATION, SHEET # FOR RATED JOINTS. Rows for Structural frame, Bearing Walls, Nonbearing Walls and Partitions, Floor Construction, etc.

Table with 4 columns: FIRE PROTECTION, DEGREE OF OPENINGS, ALLOWABLE AREA (%), ACTUAL SHOWN ON PLANS (%). Rows for NORTH/SOUTH, EAST/WEST.

Table with 4 columns: FIRE SEPARATION DISTANCE (FEET) FROM PROPERTY LINES, PROPERTY LINES, NORTH/SOUTH, EAST/WEST. Rows for NORTH/SOUTH, EAST/WEST.

NOTES TO PLAN REVIEWER

This is a new pre-engineered metal building warehouse for truck storage and maintenance. The primary occupancy is S-2 Warehouse / Storage with a minor B Business accessory occupancy. This building will be constructed at the same time as the Operations Center building (permitted separately) which will include the completed parking lot for the entire site, see Civil for reference of complete site work scope.

The Truck Bays will be used for storing vehicles and no repair work will be done in that portion of the building. The Service Bays will have repair work performed on vehicles and equipment, all bays will be equipped with aerial floor drains and tied into an inlet collector, see Plumbing drawings for reference.

The entire building will be fully accessible.
The thermal envelope of the building is exempt per section C402.1.1 Low Energy Buildings of the 2018 NC Energy Building Code, however we will be providing insulation for occupant comfort and energy reduction purposes per client standards. The Thermal Energy section of the Appendix B has been filed out for contractor scoping and construction purposes only.

LIST OF SHEETS

GENERAL

- G-000 COVER SHEET
G-001 PROJECT INFORMATION SHEET_NC
G-003 LIFE SAFETY PLAN

CIVIL

McADAMS
2905 Meridian Parkway, Durham, NC 27713
tel: 919.287.0882
email: covill@mcadams.com

ARCHITECTURAL

- C-0.00 COVER SHEET
C-1.00 EXISTING CONDITIONS
C-1.01 EXISTING CONDITIONS
C-1.02 EXISTING CONDITIONS
C-1.03 EXISTING CONDITIONS
C-1.04 CLEARING AND DEMOLITION PLAN
C-2.00 OVERALL SITE PLAN
C-2.01 SITE PLAN A
C-2.02 SITE PLAN B
C-3.00 OVERALL GRADING AND STORM DRAINAGE PLAN
C-3.01 GRADING AND STORM DRAINAGE PLAN A
C-3.02 GRADING AND STORM DRAINAGE PLAN B
C-4.00 OVERALL UTILITY PLAN
C-4.01 UTILITY PLAN A
C-4.02 UTILITY PLAN B
C-6.00 OVERALL EROSION CONTROL PLAN PHASE 1
C-6.01 OVERALL EROSION CONTROL PLAN PHASE 2
C-6.02 OVERALL EROSION CONTROL PLAN PHASE 3
C-6.03 EROSION CONTROL DETAILS
C-6.04 EROSION CONTROL DETAILS
C-6.05 EROSION CONTROL DETAILS
C-7.00 PLAN & PROFILE - STORM SEWER
C-7.01 PLAN & PROFILE - STORM SEWER
C-7.02 PLAN & PROFILE - STORM SEWER
C-7.03 PLAN & PROFILE - STORM SEWER
C-7.04 PLAN & PROFILE - STORM SEWER
C-7.05 PLAN & PROFILE - STORM SEWER
C-7.07 PLAN & PROFILE - SANITARY SEWER
C-8.00 SITE DETAILS
C-8.01 SITE DETAILS
C-8.02 SITE DETAILS
C-8.03 WATER DETAILS
C-8.04 WATER DETAILS
C-8.05 SEWER DETAILS
C-8.06 SEWER DETAILS
C-8.07 STORM DRAINAGE DETAILS
C-8.08 STORM DRAINAGE DETAILS
C-8.09 SANITARY SEWER DETAILS
C-8.10 SANITARY SEWER DETAILS
C-8.11 SIGNAGE DETAILS
C-9.00 STORMWATER CONTROL MEASURE '1' PLAN VIEW
C-9.01 STORMWATER CONTROL MEASURE '1' DETAILS
C-9.02 STORMWATER CONTROL MEASURE '1' DETAILS
C-9.03 STORMWATER CONTROL MEASURE '1' DETAILS
C-9.04 STORMWATER CONTROL MEASURE '1' LANDSCAPE PLAN
C-9.05 STORMWATER CONTROL MEASURE '2' PLAN VIEW
C-9.06 STORMWATER CONTROL MEASURE '2' DETAILS
C-9.07 STORMWATER CONTROL MEASURE '2' DETAILS
C-9.08 STORMWATER CONTROL MEASURE '2' DETAILS
C-9.09 STORMWATER CONTROL MEASURE '2' LANDSCAPE PLAN
L1.00 OVERALL PLANTING PLAN PHASE 2
L1.01 OVERALL PLANTING PLAN

STRUCTURAL

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

- S-0001 GENERAL NOTES
S-0002 BASIS OF DESIGN
SF-0110 OVERALL FOUNDATION SLAB PLAN
SF-0111 CRANE LOCATION PLAN
SF-0120 ROOF FRAMING PLAN
S-201 BUILDING SECTIONS
S-301 SECTIONS AND DETAILS

FIRE PROTECTION

- F-0001 SPECIFICATIONS & DETAILS - FIRE PROTECTION
F-101 FIRST FLOOR PLAN - FIRE PROTECTION

PLUMBING

- P-0001 SPECIFICATIONS - PLUMBING
P-0002 SPECIFICATIONS - PLUMBING
P-0003 NOTES & DETAILS - PLUMBING
P-101 FIRST FLOOR PLAN - SAN & VENT - PLUMBING
P-201 FIRST FLOOR PLAN - H&CV - PLUMBING

MECHANICAL

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

- M-0001 SPECIFICATIONS - MECHANICAL
M-0002 SPECIFICATIONS - MECHANICAL
M-0003 SPECIFICATIONS - MECHANICAL
M-0004 SCHEDULES, ABBREVIATIONS & NOTES - MECHANICAL
M-0005 DETAILS - MECHANICAL
M-101 FIRST FLOOR PLAN - MECHANICAL

ELECTRICAL

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

- E-001 LEGENDS AND 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-101 MOBILE SUBSTATION FLOOR PLAN - ELECTRICAL
E-201 MOBILE SUBSTATION FLOOR PLAN - LIGHTING

SECURITY

PAYNTER
3434 Edwards Mill Rd
suite 112.345
Raleigh, NC 27612
tel: 919.995.0462
email: bpaynter@paynterconsulting.com

- EY-0002 PROJECT NOTES & INDEX SECURITY SYSTEMS
EY-0003 SIGN PACKAGE PHYSICAL SECURITY
EY-0002 GATE ACCESS PLAN PHYSICAL SECURITY
EY-0110 MOBILE SUBSTATION STORAGE PHYSICAL SECURITY
EY-5001 INSTALLATION DETAILS PHYSICAL SECURITY
EY-5002 INSTALLATION DETAILS PHYSICAL SECURITY
EY-5003 INSTALLATION DETAILS PHYSICAL SECURITY
EY-5004 INSTALLATION DETAILS PHYSICAL SECURITY
EY-5005 INSTALLATION DETAILS PHYSICAL SECURITY
EY-5006 INSTALLATION DETAILS PHYSICAL SECURITY
EY-7001 RISER DIAGRAM VEHICLE GATES
EY-7002 RISER DIAGRAM BUILDING ACCESS CONTROL SYSTEM
EY-7003 RISER DIAGRAM BUILDING VIDEO MGMT SYSTEM

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

LIFE SAFETY PLAN REQUIREMENTS
Life Safety Plan Sheet #: G-003
Fire and/or smoke rated wall locations (Chapter 7)
Assumed and real property line locations (if not on the site plan)
Exterior wall opening areas with respect to distances to assumed property lines (705.8)
Occupancy Use for each area as it relates to occupant load calculation (Table 1004.1.2)
Occupant loads for each area
Clear exit widths for each exit door
Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.3)
Actual occupant load for each exit door

ACCESSIBLE DWELLING UNITS (SECTION 1107)
TOTAL ACCESSIBLE UNITS: 25
ACCESSIBLE PARKING (SECTION 1106)
TOTAL # OF PARKING SPACES PROVIDED: 25

Table with 10 columns: TYPE A UNITS, TYPE B UNITS, TYPE C UNITS, TYPE D UNITS, TYPE E UNITS, TYPE F UNITS, TYPE G UNITS, TYPE H UNITS, TYPE I UNITS, TYPE J UNITS. Row for TOTAL ACCESSIBLE UNITS.

Table with 5 columns: LOT OR PARKING AREA, TOTAL # OF PARKING SPACES REQUIRED, TOTAL # OF ACCESSIBLE SPACES PROVIDED, TOTAL # OF REGULAR SPACES PROVIDED, TOTAL # OF ACCESSIBLE SPACES PROVIDED. Row for TOTAL.

Table with 10 columns: USE, WATERCLOSETS, URINALS, LAVATORIES, SHOWERS, DRINKING FOUNTAINS, REGULAR, ACCESSIBLE. Row for SPACE NEW REQD.

SPECIAL APPROVALS (Local Jurisdiction, Department of Insurance, OSC, DPI, DHHS, ICC, etc., describe below)
ENERGY REQUIREMENTS:
ENERGY SUMMARY

Existing building envelope complies with code: No
Climate Zone: N/A
Method of Compliance: Energy Code - Prescriptive
Thermal Envelope: (Prescriptive Method Only)

Roof/Ceiling Assembly (each assembly)
Description of assembly: SEE DETAIL R2 ON A-002
U-Value of total assembly: 0.17
R-Value of insulation: R19.5

Walls below grade (each assembly)
Description of assembly: N/A
U-Value of total assembly: N/A
R-Value of insulation: N/A

Floors over unconditioned space (each assembly)
Description of assembly: N/A
U-Value of total assembly: N/A
R-Value of insulation: N/A

SEISMIC DESIGN CATEGORY: D
Provide the following Seismic Design Parameters:
Occupancy Category (Table 604.5) D
Spectral Response Acceleration: S_s 1.73, S_1 8.4

LATERAL DESIGN CONTROL: N/A
SOIL BEARING CAPACITY: 2500 psf
MECHANICAL DESIGN (PROVIDE ON MECHANICAL SHEETS IF APPLICABLE)
MECHANICAL SUMMARY

Thermal Zone: winter dry bulb: 18 deg F
Interior design conditions: winter dry bulb: 70 deg F
Building heating load: 00
Mechanical Spacing Conditioning System: Unit: 00

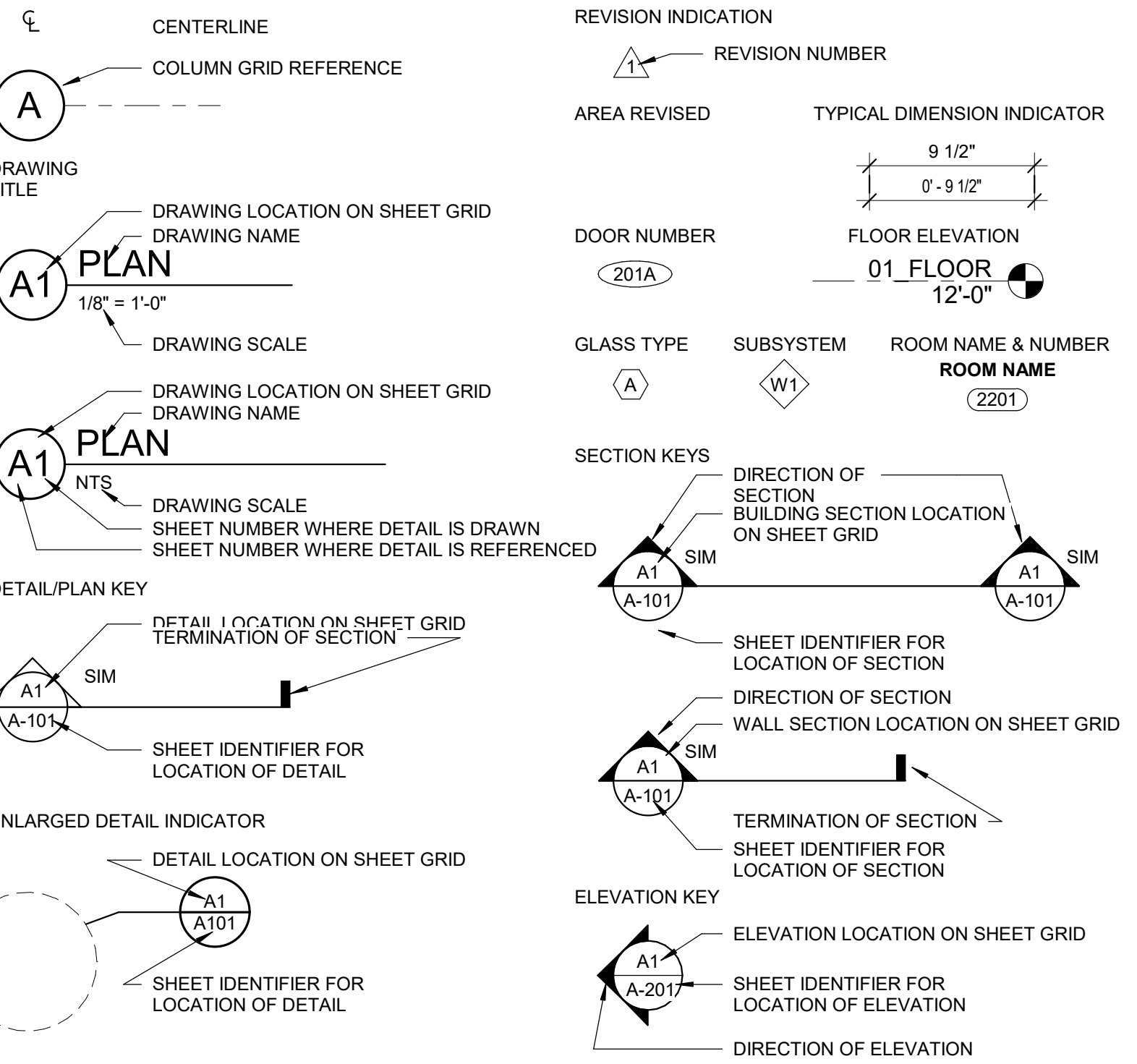
ELECTRICAL DESIGN (PROVIDE ON ELECTRICAL SHEETS IF APPLICABLE)
ELECTRICAL SUMMARY
ELECTRICAL SYSTEM AND EQUIPMENT
Method of Compliance: Energy Code - Prescriptive

Lighting schedule (each fixture type)
Additional Required Prescriptive Compliance:
406.2 More Efficient Mechanical Equipment
406.3 Reduced Lighting Power Density
406.4 Energy Recovery Ventilation Systems
406.5 Higher Efficiency Service Water Heating
406.6 On-Site Supply of Renewable Energy

MATERIAL LEGEND

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

GRAPHIC SYMBOL LEGEND

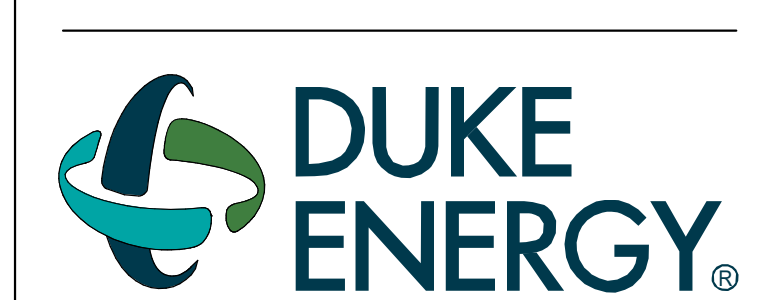


UDS SHEET DESIGNATORS AND SHEET ORDER

Table with 4 columns: LEVEL 1 - DISCIPLINE DESIGNATORS, LEVEL 2 - SHEET TYPE DESIGNATORS, LEVEL 3 - SHEET TYPE DESIGNATORS, LEVEL 4 - PLAN TYPE DESIGNATORS. Lists designators like G GENERAL, H HAZARDOUS MATERIALS, V SURVEY / MAPPING, B GEOTECHNICAL, C CIVIL, L LANDSCAPE, S STRUCTURAL, A ARCHITECTURAL, I INTERIORS, Q EQUIPMENT.

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

DRAWING NO. CFD-####-G-001-41CC2B



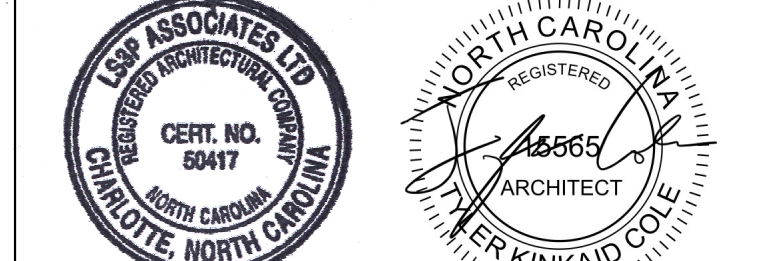
MAILING ADDRESS: P.O. BOX 1007 CHARLOTTE, NC 28201

Safety Expectations:



227 W. Trade St. Suite 700 Charlotte, NC 28202

F



2023.05.24

DUNN OPERATIONS CENTER

1269 Jonesboro Rd Harnett County, NC 28334

MOBILE SUB. STORAGE

PROJECT INFORMATION SHEET_NC

Table with 4 columns: MARK, DATE, OWNER, CHANGES. Rows for 1 through 10.

PROJECT NO: 9101-223870
DRAWING NUMBER: CFD-####-G-001-41CC2B
ELECTRONIC FILE NAME:

DRAWN BY: TKC
CHKD BY: RA DATE: 2023.05.24

E-MAIL: tylercole@ls3p.com

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SHEET TITLE: PROJECT INFORMATION SHEET_NC

SHEET NO. G-001

ISSUED FOR CONSTRUCTION

SCHEDULE	AREA	AREA PER OCCUPANT	OCCUPANCY LOAD PER AREA
TRUCK BAY/S-2 WAREHOUSE	34880 SF	500 SF	70
SERVICE BAY/S-2 WAREHOUSE	7768 SF	500 SF	17
S-2 STORAGE	1184 SF	300 SF	4
TOTALS			91

PLUMBING OCCUPANCY KEY	OCCUPANTS	MALE OCCUPANTS	FEMALE OCCUPANTS	WATER CLOSETS	LAVATORIES	BATHING	DRINKING FOUNTAINS
S-2 / STORAGE / WAREHOUSE	91	46	45	.45	.45	.45	0
TOTALS	91	46	45	.45	.45	.45	0

CODE COMPLIANCE LEGEND

DISTANCE - EGRESS PATH
 DISTANCE - COMMON PATH OF TRAVEL
 DISTANCE - BETWEEN FIRE EXTINGUISHERS
 PATH DISTANCE
 PATH NUMBER
 PATH

ROOM NAME
 ROOM NAME
 OCCUPANCY LOAD
 ROOM AREA
 OCCUPANCY LOAD FACTOR AND METHOD
 OCCUPANCY GROUP

EXIT DOOR
 EXIT CAPACITY (DOOR EGRESS WIDTH / .2)
 ANTICIPATED LOAD
 EGRESS WIDTH

EXIT STAIR
 EXIT CAPACITY (STAIR EGRESS WIDTH / .30)
 ANTICIPATED LOAD
 EGRESS WIDTH

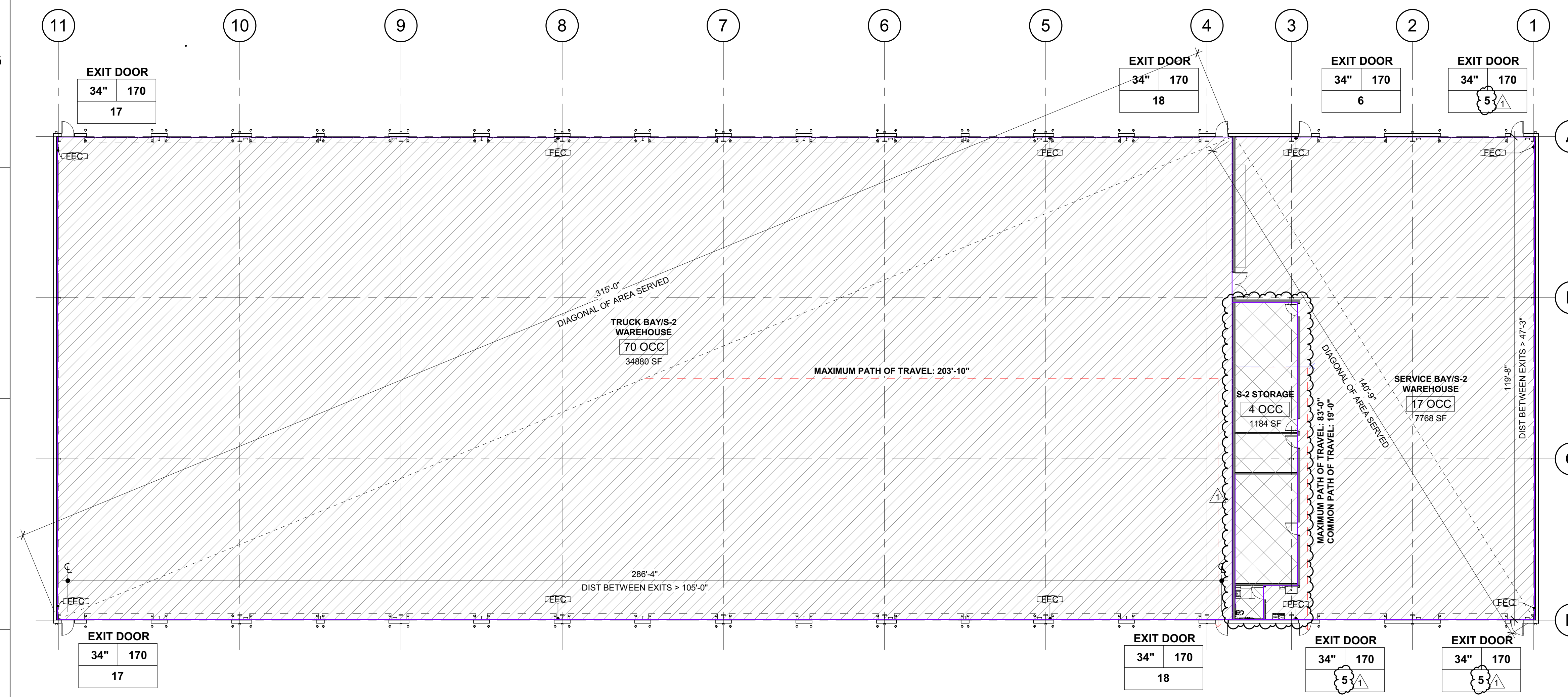
FIRE EXTINGUISHER CABINET WITH FIRE EXTINGUISHER

PARTITION LEGEND

1. ALL EXTERIOR WALLS TO BE W1 U.N.O.
 2. ALL INTERIOR METAL STUD PARTITIONS TO BE TYPE A6SX U.N.O.

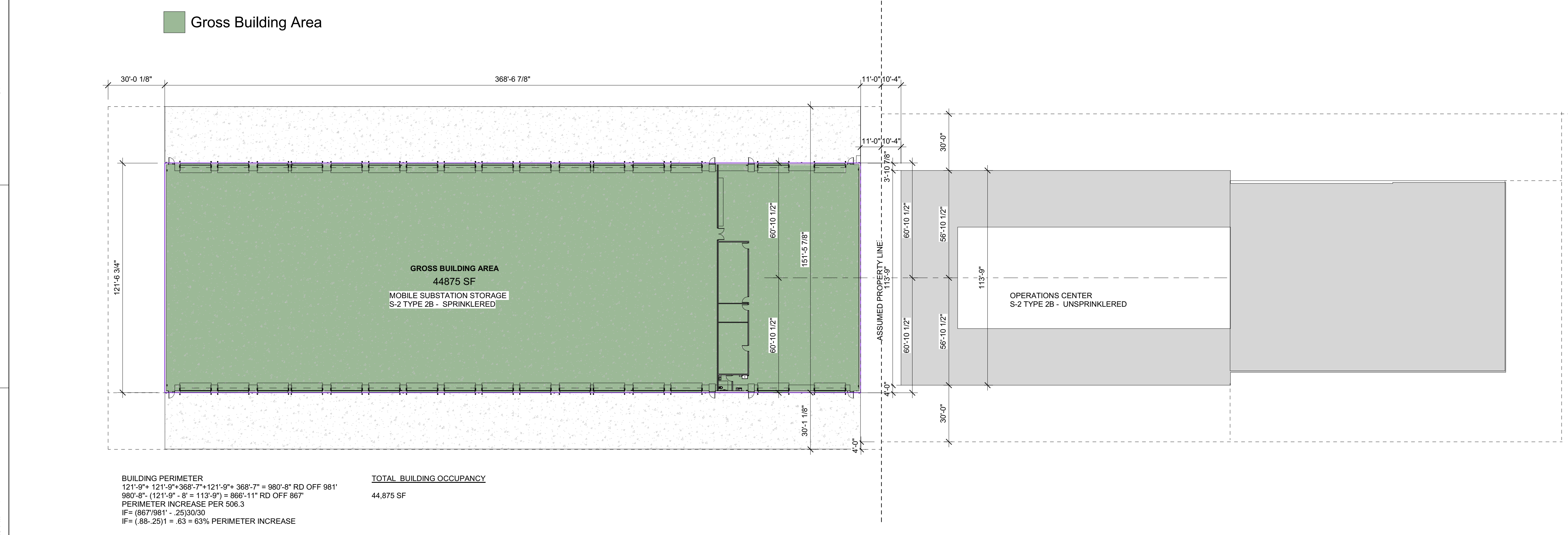
NON-RATED PARTITION TO 6' ABOVE CEILING, U.N.O.
 NON-RATED PARTITION TO DECK

NOTE: SEE SHEET A002 FOR CONSTRUCTION OF PARTITION TYPES



- OFFICE/ BUSINESS
- S-2 STORAGE
- SERVICE BAY/S-2 WAREHOUSE
- TRUCK BAY/S-2 WAREHOUSE

A1 1ST FLOOR - LIFE SAFETY PLAN
1/16" = 1'-0"



1 1ST FLOOR - GROSS BUILDING AREA
1" = 30'-0"

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
Courtrooms	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:

Reduce Risk
Remove Exposures to Hazards
Reinforce Safe Behavior

227 W. Trade St. Suite 700
Charlotte, NC 28202

2023.05.24

DUNN OPERATIONS CENTER

1269 Jonesboro Rd
Harnett County, NC 28334

MOBILE SUB. STORAGE

MARK	DATE	DRN BY	REVISION
1	06.29.23	TKC	OWNER CHANGES
2	05.24.23	TKC	ISSUED FOR CONSTRUCTION

PROJECT NO: 9101-223870
DRAWING NUMBER: CFD-####-G-0100-41CC2B

ELECTRONIC FILE NAME:

DRAWN BY: TKC

CHK'D BY: RA DATE: 2023.05.24

E-MAIL: tylercole@ls3p.com

SHEET TITLE: **LIFE SAFETY PLAN**

SHEET NO. **G-003**

ISSUED FOR CONSTRUCTION