

2012 APPENDIX B BUILDING CODE SUMMARY

Name of Project: **ABC STORE AND WAREHOUSE**
Address: **1428 SOUTH JAKE ALEXANDER BLVD, SALISBURY, NC** **ROWAN COUNTY, NC**
Proposed Use: **COMMERCIAL BUSINESS - RETAIL SALES**
Owner/Authorized Agent: **TERRY OSBORNE- ABC**
Phone # **704.633.1641**
Owned By: ☒ City/County ☐ Private ☐ State
Code Enforcement Jurisdiction: ☐ City ☐ County ☐ State

LEAD DESIGN PROFESSIONAL: **WILLIAM R. BURGIN, AIA** **RAMSAY BURGIN SMITH ARCHITECTS, INC.**

FIRM	NAME	LICENSE #	TELEPHONE #
Architectural	RAMSAY BURGIN SMITH	WILLIAM R. BURGIN, AIA	3513 (704) 633.3121
Civil	SUMMEY ENGINEERING, INC.	H. MACK SUMMEY, JR., P.E.	26447 (336) 328.0422
Electrical	DESIGN ENGINEERING, INC.	DAVID S. SMITH, P.E.	11207 (336) 224.0100
Fire Alarm	DESIGN ENGINEERING, INC.	DAVID S. SMITH, P.E.	11207 (336) 224.0100
Plumbing	GAMWELL ENGINEERING	SAM COLLINS, P.E.	31024 (704) 638.6337
Mechanical	GAMWELL ENGINEERING	SAM COLLINS, P.E.	31024 (704) 638.6337
Sprinkler	N/A		
Structural	APPLIED BUILDING SCIENCES	ASHLEY AVERY, P.E.	27415 (828) 320.6464
Retaining Walls	N/A		

2012 EDITION OF NC CODE FOR: ☒ New Construction ☐ Addition ☐ Upfit
EXISTING: ☐ Reconstruction ☐ Alteration ☐ Repair ☐ Renovation
CONSTRUCTED: (date) _____ Original Use: _____
Renovated: (date) _____ Current Use: _____
Proposed Use: _____

BASIC BUILDING DATA:
Construction Type: ☐ I-A ☐ II-A ☐ III-A ☐ IV ☐ V-A
☐ I-B ☒ II-B ☐ III-B ☐ V-B
Sprinklers: ☒ No ☐ Partial ☐ Yes ☐ NFPA 13 ☐ NFPA 13R ☐ NFPA 13D
Standpipes: ☒ No ☐ Yes Class ☐ I ☐ II ☐ III ☐ Wet ☐ Dry
Fire District: ☒ No ☐ Yes (Primary) Flood Hazard Area: ☒ No ☐ Yes

Building Height (feet): 21ft MAX
GROSS BUILDING AREA:
FLOOR: EXISTING (Sq. Ft.) NEW (Sq. Ft.) Sub-Total
2nd FLOOR: N/A
MEZZANINE: N/A
1st FLOOR: T754 + 290 sq. ft.
BASEMENT: N/A
TOTAL: TOTAL = 8044 sq. ft.

ALLOWABLE AREA:
Occupancy: Mercantile ☒ Section 304
Accessory Occupancies: Not Applicable
Incidental Uses (Table 508.25): Not Applicable
Special Uses: Not Applicable
Special Provisions: Not Applicable
Mixed Occupancy: ☒ No ☐ Yes Separation: _____ Hr. Exception: _____
☐ Incidental Use Separation (508.2.5)
☐ Non-Separated Use (508.3)
☐ Separated Use (508.4)

M-MERCANTILE TYPE II (B)		(A)	(B)	(C)	(D)	(E)	(F)
Story No.	Description/Use	BLDG. AREA PER STORY (Actual)	TABLE 503 ² AREA	AREA FOR OPEN SPACE INCREASE ¹	AREA FOR SPRINKLER INCREASE ³	ALLOWABLE AREA OR UNLIMITED ³	MAXIMUM BUILDING AREA ⁴
Grade Floor 1	MERCANTILE	8044	per floor 12500	N/A	N/A	per floor 12500	Actual= 8044 sq. ft.

- 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 = (F)
b. Total Building Perimeter = (P)
c. Ratio (F/P) = (F/P)
d. W = Minimum width of public way = _____
e. Percent of frontage increase = $1 + 100 \left[\frac{F}{P} - 0.25 \right] \frac{1}{30}$ N/A
- The sprinkler increase per Section 506.3 is as follows:
Multi-story = 200 percent
Single-story = 300 percent
- Unlimited area applicable under conditions of Section 507.
- Maximum Building Area = total number of stories in the building x E (506.4)
- The maximum area of open parking garages must comply with Table 406.3.5.

ALLOWABLE HEIGHT				
	ALLOWABLE (Table 503)	INCREASE FOR SPRINKLER	Shown on Plans	Code Reference
Type of Construction	Type II B		Type II B	
Building Height in Feet	55ft	Feet= H+20' = N/A	21ft	
Building Height in Stories	2	Stories + 1 = N/A	1	

FIRE PROTECTION REQUIREMENTS

Building Element	Fire Separation Distance (Feet)	Rating		Detail # and Sheet	Design # for Rated Assembly	Design # for Rated Penetration	Design # for Rated Joints
		Req'd	Provided (w/ Reduction)				
Occupancy M TYPE II (B)							
Structural Frame, including columns, girders, trusses	N/A	O HR	O HR				
Bearing Walls							
Exterior North		O HR	O HR				
East		O HR	O HR				
West		O HR	O HR				
South		O HR	O HR				
Interior	N/A	O HR	O HR				
Non-Bearing Walls and Partitions							
Exterior North	>30	O HR	O HR				
East	>30	O HR	O HR				
West	>30	O HR	O HR				
South	>30	O HR	O HR				
Interior walls & partitions	N/A	O HR	O HR				
Floor construction including supporting beams and joists.		O HR	O HR				
Roof construction including supporting beams and joists.		O HR	O HR				
Shaft Enclosures -Exit	NOT APPLICABLE						
Shaft Enclosures -Other:							
Corridor Separation	NOT APPLICABLE						
Occupancy Separation	NOT APPLICABLE						
Party/Fire Wall Separation	NOT APPLICABLE						
Smoke Barrier Separation	NOT APPLICABLE						
Tenant Separation	NOT APPLICABLE						
Incidental Use Separation	NOT APPLICABLE						
Notes:	MAXIMUM ALLOWABLE QUANTITY PER CONTROL AREA OF HAZARDOUS MATERIALS [F] TABLE 307.1(i) footnote c The quantities of alcoholic beverages in retail and wholesale sales occupancies shall not be limited providing the liquids are packaged in individual containers not exceeding 1.3 gallons.						

LIFE SAFETY SYSTEM REQUIREMENTS

Emergency Lighting: ☐ No ☒ Yes
Exit Signs: ☐ No ☒ Yes
Fire Alarm: ☐ No ☒ Yes
Smoke Detections Systems: ☐ No ☒ Yes ☐ Partial _____
Panic Hardware: ☐ No ☒ Yes

LIFE SAFETY PLAN REQUIREMENTS

Life Safety Plan Sheet # SEE C1-01

- ☐ Fire and/or smoke rated wall locations (Chapter 7)
- ☒ Assumed and real property line locations
- ☐ Exterior wall opening area w respect to distance to assumed property lines (705.8)
- ☐ Existing structures within 30ft of proposed building
- ☒ Occupancy types for each area as it relates to occupant load (Table 1004.1.1)
- ☒ Exit access travel distances (1016)
- ☒ Common path of travel distances (1014.3 & 1028.8)
- ☐ Dead end lengths (1018.4)
- ☒ Clear exit widths for each door
- ☒ Max calculated occupant load capacity each exit door can accommodate (1005.1)
- ☒ Actual occupant load for each exit door
- ☒ Location of doors with panic hardware (1008.1.10)
- ☐ Location of doors with delayed egress locks and the amount of delay (1008.1.9.7)
- ☐ Location of doors with electromagnetic egress locks (1008.1.9.8)
- ☒ Location of doors with hold-open devices
- ☐ The square footage of each fire area (902)
- ☒ Note any code exceptions or table notes that may have utilized

ACCESSIBLE DWELLING UNITS - NOT APPLICABLE

ACCESSIBLE PARKING (SECTION 1106)

CITY OF SALISBURY - Land Development Ordinance					
Lot or Parking Area	Total # Parking Spaces Req'd	# Accessible Spaces Provided	Reg-Sit Aisle	VAN SPACE 132" Aisle 8' SPACE	Total # Accessible Provided
16	34	1	0	1	2
Total					
RETAIL: Minimum 2 SPACES / 1000 sq. ft. = 16 spaces					
RETAIL: Maximum 5 SPACES / 1000 sq. ft. = 34 spaces					
= 34 TOTAL SPACES PROVIDED					
with 5% BIKE = 2					

STRUCTURAL DESIGN - SEE STRUCTURAL

PLUMBING FIXTURE REQUIREMENTS (Table 2902.1):

USE OCCUPANCY - MERCANTILE	Waterclosets		Urinals		Lavatories		Showers/Tubs		Drinking Fountains	
	Male	Female	Male	Female	Male	Female	Male	Female	Regular	Accessible
SPACE NEW 160 Occupants										
Required Fixtures	1 M	1 F			1 M	1 F	0	0	1	and 1
Provided Fixtures	1 M	1 F			1 M	1 F	0	0	1	and 1

SPECIAL APPROVALS

Special Approvals: (Local Jurisdiction) CITY OF SALISBURY - Planning & Zoning: MAJOR SITE PLAN
ROWAN COUNTY - BUILDING INSPECTIONS
CITY OF SALISBURY - SALISBURY FIRE MARSHAL

SYMBOLS

or EARTH
 CRUSHED STONE or GRAVEL
 CONCRETE
 CONCRETE BLOCK (in section)
 CONCRETE BLOCK (in plan)
 BRICK
 STEEL
 GYPSUM BOARD WALLS (shown open on floor plans)
 HOLLOW METAL
 BATT INSULATION
 WOOD FRAMING or BLOCKING
 FINISH WOOD
 PLYWOOD

MISC. SYMBOLS

ROOM NO.

DOOR NO.

WINDOW TAG

FIRST FLOOR ELEV. 613.50'

"CABINET ELEVATION"

"ELEVATION"

"SECTION"

ENERGY REQUIREMENTS

The following data shall be considered minimum and any special attribute required to meet the energy code shall be provided. Each Designer shall furnish the required portions of the project information for the plan data sheet and shall sign the Designer's statement for the appropriate portion. As required by GS 143-151.33, if energy cost budget method, state the annual energy cost budget vs allowable annual energy cost budget.

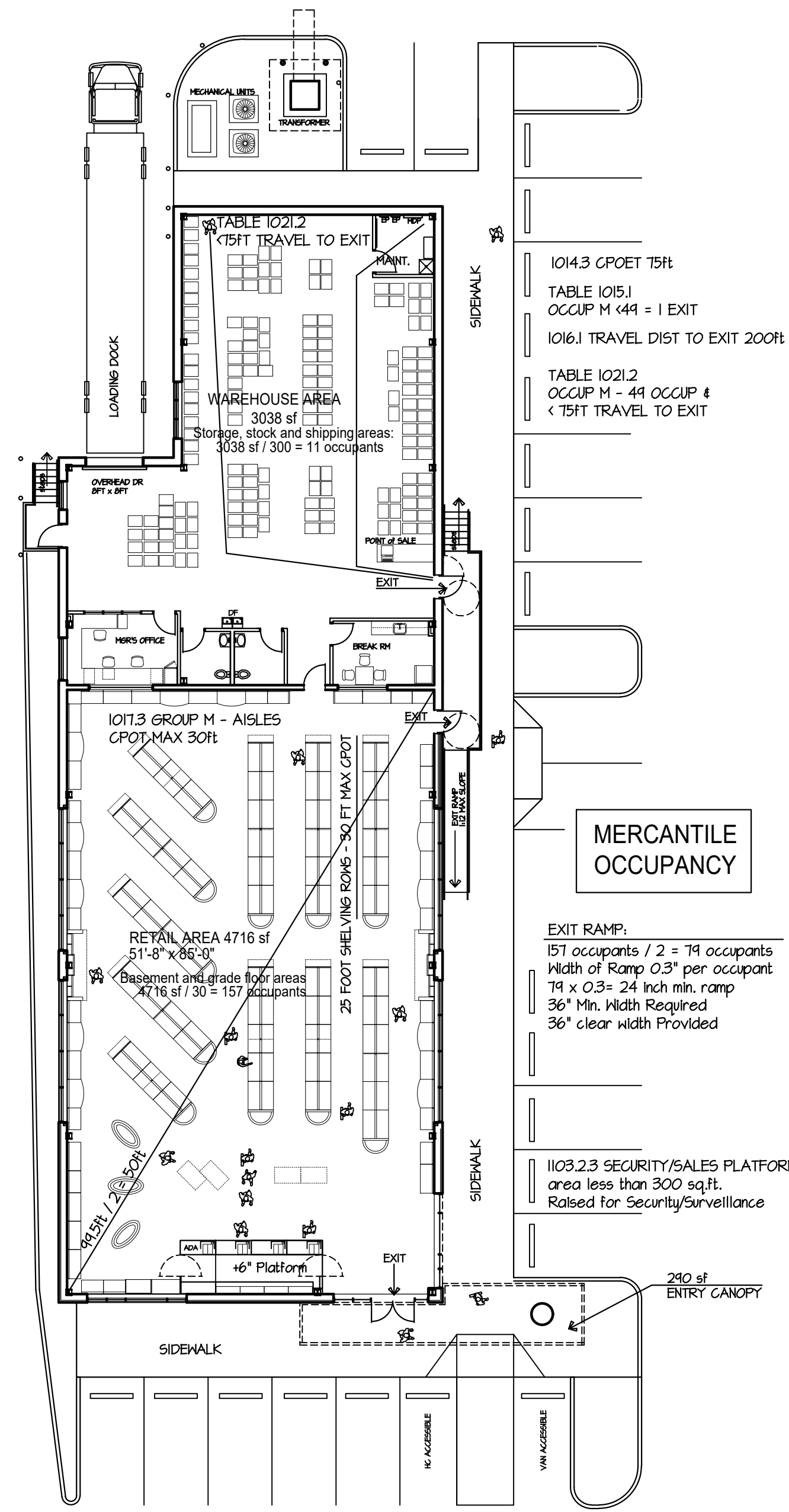
2012 NC ENERGY CONSERVATION CODE
TABLE 502.1.2 AND 502.2(i) CLIMATE ZONE 3 ROWAN
Method of Compliance: Prescriptive Performance Energy Cost Budget
CONVENTIONAL CONSTRUCTION -
Roof/ceiling Assembly (each assembly): Insulation entirely above deck. CODE REQUIRED R-25
Description of assembly Interior Air Film 3/4" Susp. Acous. Tile Ceiling 15" Metal Deck (2) Layers 2" Rigid Board Insulation White TPO Roof System Outside Air Film
U-Value of total assembly U=1/(1/6+1/76+1/25+1/25+5/9+1/7)= 1/27.04 U=.037
R-Value of insulation 5" Extruded Polystyrene Insulation = R-5/inch = R-25
Exterior Walls (each assembly): Walls, Above Grade - Metal Framed, R-13+R-15d
Description of assembly EXTERIOR WALL COMPOSITE
U-Value of total assembly U=1/(1/11+1/8+1/62+1/26+1/9+5/6+1/62)= 1/26.89 U=.037
R-Value of insulation 2" Extruded Polystyrene Insulation = R-5/inch = R-10d and inside wall Batt Insulation = R-1d = R-13 + R-10d
Openings (windows or doors with glazing):
U-Value of assembly U=.59
shading coefficient 0.63 = Table 102.5.2 (3) SHGC(.55) / 0.87
projection factor NONE
low e required, if applicable N/A
Door R-Values R=.3
Walls adjacent to unconditioned space (each assembly):
Description of assembly N/A
U-Value of total assembly N/A
R-Value of insulation N/A
Openings (windows or doors with glazing):
U-Value of assembly N/A
low e required, if applicable N/A
Door R-Values N/A
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
Floors slab on grade:
Slab-on-Grade Floors - Unheated Slabs c-15 for 24 inches
Description of assembly 4" SLAB ON VAPOR RETARDER ON 4" GRAVEL WITH 3" THK. X 2'-0" WIDE PERIMETER INSUL.
U-Value of total assembly 0.4 + 15 = 15.4 1/15.4 = 0.065
R-Value of insulation 3" Extruded Polystyrene Insulation = R-5/inch = R-15
Horizontal/vertical requirement for 24 inches slab heated NO

DESIGNER STATEMENT:
To the best of my knowledge and belief, the design of this building complies with the thermal envelope requirements of the North Carolina State Building Code, Volume X-Energy.

SIGNED: WILLIAM R. BURGIN, AIA
NAME: WILLIAM R. BURGIN, AIA
TITLE: ARCHITECT

MECHANICAL SUMMARY - See Mechanical

ELECTRICAL SUMMARY - See Electrical



TYPE II (B)
LIFE SAFETY PLANS
SCALE: 1/16" = 1'-0"

EXIT REQUIREMENTS: Number and Arrangement of Exits									
Floor	Room or Space	Min. # of Exits (1016.1)	Travel Distance (1016.1)	Arrangement Means of Egress (1016.2)	Actual Distance Shown on Plans	Actual Distance Shown on Plans	Actual Distance Shown on Plans	Actual Distance Shown on Plans	Actual Distance Shown on Plans
1	Mercantile	2	2	200ft	44ft	44/2= 50ft	82ft		
	Grade Floor Area								
	Storage & Stock Area	1	1	200ft	*13ft	1 Exit Req'd			

EXIT WIDTH: SEE C1-01 LIFE SAFETY PLANS									
Use Group or Space (1004.12)	(a) Area (sq. ft.)	(b) Area per Occupant (1004.1.1)	(c) Calculated Occup. Load	(d) Egress Width per Occupant	(e) Actual Width (1005.1)	(f) Actual Width (1005.1)	(g) Actual Width (1005.1)	(h) Actual Width (1005.1)	(i) Actual Width (1005.1)
MERCANTILE Floor Area	4716	30	= 157	0.3"	0.2"	N/A	32"	N/A	(2) doors 34" CLEAR
MERCANTILE Storage & Stock	3038	300	= 11	0.3"	0.2"	N/A	32"	N/A	(1) door 34"

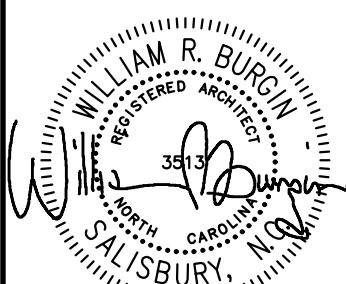
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COVER SHEET

BUILDING CODE DATA
INDEX OF DWGS
LIFE SAFETY PLAN

**Rowan/Kannapolis
ABC STORE &
WAREHOUSE**
Salisbury, NC



DWG
DRAWN BY
CHECKED BY
DATE
SHEET NO.
CONV. NO.

SHEET NO.

OF 1