

2018 APPENDIX B BUILDING CODE SUMMARY

Name of Project: Word Afire Ministries
 Address: 1503 Denim Road Erwin, NC Zip Code: 28339
 Proposed Use: Church
 Owner or Authorized Agent: Vivian Cogdell Phone # E-Mail:
 Owned By: City / County Private State
 Code Enforcement Jurisdiction: City County Harnett State

LEAD DESIGN PROFESSIONAL: Joe T. Smith, Jr.

DESIGNER FIRM	NAME	LICENSE #	TELEPHONE #	E-MAIL
Building	Smith Engineering & Design	Joe T. Smith, Jr.	24916 (919)-736-2141	smithengineeringnc@hotmail.com
Civil				
Electrical				
Fire Alarm				
Plumbing				
Mechanical				
Sprinkler-Standpipe				
Structural				
Retaining Walls >5' High				
Other				

2018 NC BUILDING CODE: New Construction Shell/Core 1st Time Interior Completion
 Addition Phased Construction-Shell Core
2018 NC EXISTING CODE: Prescriptive Alteration Level I Historic Property
 Repair Alteration Level II Change of Use
 Chapter 14 Alteration Level III

CONSTRUCTED: (date) _____ **CURRENT USE(s)** (Ch. 3) _____ **R**
RENOVATED: (date) _____ **PROPOSED USE(s)** (Ch. 3) _____ **A-3**

BUILDING DATA

Construction Type: (check all that apply) I-A II-A III-A IV V-A
 I-B II-B III-B V-B

Sprinklers: NO Partial NFPA 13 NFPA 13R NFPA 13D

Standpipes: NO Class: I II III Wet Dry

Primary Fire District: NO YES (Primary) **Flood Hazard Area:** No YES

Special Inspections Required: NO YES

GROSS BUILDING AREA TABLE

FLOOR	EXISTING (SQ. FT.)	NEW (SQ. FT.)	SUB-TOTAL
3rd Floor			
2nd Floor			
Mezzanine			
1st Floor (Upper Level)	6,500	0	6,500
Basement (Lower Level)			
TOTAL:	6,500	0	6,500

ALLOWABLE AREA THIS TENANT SPACE = 3,381 SQ.FT.

Primary Occupancy: A-1 A-2 A-3 A-4 A-5
 Business Educational Factory F-1 Moderate F-2 Low Hazardous H-1 Detonate H-2 Deflagrate H-3 Combust H-4 Health H-5 HMP Institutional I-1 I-2 I-3 I-4
 I-3 Condition 1 2 I-2 Condition 1 2 I-1 Condition 1 2 3 4 5
 Mercantile Residential R-1 R-2 R-3 R-4 Storage S-1 Moderate S-2 Low High-Piled Parking Garage Open Enclosed Repair Garage Utility and Misc.

Accessory Occupancy Classification(s): _____
Incidental Uses: (Table 509) _____
 This separation is not exempt as a Nonseparated Use (see exceptions).
Special Uses: (Chapter 4 - List Code Sections): _____
Special Provisions: (Chapter 5 - List Code Sections): _____

Mixed Occupancy: NO YES Secondary occupancy type(s): **B** Separation: **0** Hour Exception: **508.3**
 Non-Separated Use (508.3)
 The required type of construction for the building shall be determined by applying the height and area limitations for each of the applicable occupancies to the entire building. The most restrictive type of construction, so determined, shall apply to the entire building.
 Separated Use (508.4) See below for area calculations for each story, the area of the occupancy shall be such that the sum of the ratios of the actual floor area of each use divided by the allowable floor area for each use shall not exceed 1.

$$\frac{\text{Actual Area of Occupancy A}}{\text{Allowable Area of Occupancy A}} + \frac{\text{Actual Area of Occupancy B}}{\text{Allowable Area of Occupancy B}} = \leq 1.0$$

$$\frac{N/A}{N/A} + \frac{N/A}{N/A} = N/A \leq 1.0$$

STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 506.2* AREA	(C) AREA FOR FRONTAGE INCREASE ^{1,5}	(D) ALLOWABLE AREA PER STORY OR UNLIMITED ^{2,3}
1	Church	6,500	6,000	4,500	10,500

¹Frontage area increases from Section 506.2 are computed thus:
 a. Perimeter which fronts a public way or open space having 20 feet minimum width = 360' (P)
 b. Total Building Perimeter = 360' (P)
 c. Ratio (P/P) = 1 (P/P)
 d. W = Minimum width of public way = 30' (W)
 e. Percent of frontage increase $\frac{1}{4} = 100 [(P/P - 0.25) \times W/30] = 75$ (%)

²Unlimited area applicable under conditions of Section 507.
³Maximum Building Area = total number of stories in the building x D (maximum 3 stories) (506.2).
⁴The maximum area of parking garages must comply with 406.5.4. The maximum area of air traffic control towers must comply with Table 412.3.1.
⁵Frontage increase is based on the un-sprinklered area value in Table 506.2.

ALLOWABLE HEIGHT

	ALLOWABLE	SHOWN ON PLANS	CODE REFERENCE
Building Height in Feet (Table 504.3)	40'-0"	16'-0"	
Building Height in Stories (Table 504.4)	1	1	

1. Provide code reference if the "Shown on Plans" quantity is not based on Table 504.3 or 504.4.

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
		REQUIRED	PROVIDED (W/ N/A * REDUCTION)				
Structural frame, including columns, girders, trusses	0 HOUR	0 HOUR	0 HOUR				
Bearing walls							
Exterior							
North	N/A	0 HOUR	N/A				
East	N/A	0 HOUR	N/A				
West	N/A	0 HOUR	N/A				
South	N/A	0 HOUR	N/A				
Interior	0 HOUR	0 HOUR	0 HOUR				
Nonbearing walls and partitions							
Exterior							
North	>30'	0 HOUR	0 HOUR				
East	>30'	0 HOUR	0 HOUR				
West	>30'	0 HOUR	0 HOUR				
South	>30'	0 HOUR	0 HOUR				
Interior walls and partitions	0 HOUR	0 HOUR	0 HOUR				
Floor Construction including supporting beams and joists	0 HOUR	0 HOUR	0 HOUR				
Roof Construction including supporting beams and joists	0 HOUR	0 HOUR	0 HOUR				
Roof Ceiling Assembly	N/A	N/A	N/A				
Columns Supporting Roof	0 HOUR	0 HOUR	0 HOUR				
Shafts Enclosures - Exit	N/A	N/A	N/A				
Shafts Enclosures - Other	N/A	N/A	N/A				
Corridor Separation	0 HOUR	0 HOUR	0 HOUR				
Occupancy/Fire Barrier Separation	0 HOUR	0 HOUR	0 HOUR				
Party/Fire Wall Separation	N/A	N/A	N/A				
Smoke Barrier Separation	N/A	N/A	N/A				
Smoke Partition	N/A	N/A	N/A				
Tenant/Dwelling Unit/ Sleeping Unit Separation	N/A	N/A	N/A				
Incidental Use Separation	N/A	N/A	N/A				

*Indicates section number permitting reduction.

PERCENTAGE OF WALL OPENING CALCULATIONS

FIRE SEPARATION DISTANCE (feet) FROM PROPERTY LINES	DEGREE OF OPENINGS PROTECTION (TABLE 705.8)	ALLOWABLE AREA (%)	ACTUAL SHOWN ON PLANS (%)
>30'	Unprotected, Non-sprinklered	No Limit	<50%

LIFE SAFETY SYSTEM REQUIREMENTS

Emergency Lighting: No Yes
 Exit Signs: No Yes
 Fire Alarm: No Yes
 Smoke Detection Systems: No Yes
 Carbon Monoxide Detection: No Yes

LIFE SAFETY PLAN REQUIREMENTS

Life Safety Plan Sheet #: LF-1

- Fire and/or smoke rated wall locations (Chapter 7)
- Assumed and real property line locations
- Exterior wall opening area with respect to distance 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
- Exit access travel distances (1017)
- Common path of travel distances [Tables 1006.2.1 & 1006.3.2(1)]
- Dead end lengths (1020.4)
- 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
- A separate schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for purposes of occupancy separation
- Location of doors with panic hardware (1010.1.10)
- Location of doors with delayed egress locks and the amount of delay (1010.1.9.7)
- Location of doors with electromagnetic egress locks (1010.1.9.9)
- Location of doors equipped with hold-open devices
- Location of emergency escape windows (1030)
- The square footage of each fire area (202)
- The square footage of each smoke compartment for Occupancy Classification I-2 (407.5)
- Note any code exceptions or table notes that may have been utilized regarding the items above

ACCESSIBLE DWELLING UNITS (SECTION 1107)

TOTAL UNITS	ACCESSIBLE UNITS REQUIRED	ACCESSIBLE UNITS PROVIDED	TYPE A UNITS REQUIRED	TYPE A UNITS PROVIDED	TYPE B UNITS REQUIRED	TYPE B UNITS PROVIDED	TOTAL ACCESSIBLE UNITS PROVIDED
N/A							

ACCESSIBLE PARKING (SECTION 1106)

LOT OR PARKING AREA	TOTAL # PARKING SPACES		# ACCESSIBLE SPACES PROVIDED			TOTAL # ACCESSIBLE SPACES PROVIDED
	REQUIRED	PROVIDED	REGULAR WITH 5' ACCESS AISLE	132" ACCESS AISLE	VAN SPACES WITH # ACCESS AISLE	
Existing						
TOTAL						

PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1)

USE	WATER CLOSETS			URINALS	LAVATORIES			UTILITY SINK	DRINKING FOUNTAINS	
	MALE	FEMALE	UNISEX		MALE	FEMALE	UNISEX		REGULAR	ACCESSIBLE
EXISTING	0	0	0	0	0	0	0	0	0	0
NEW	1	4	0	1	2	2	0	0	1	1
REQUIRED	1	2	0	0	1	1	0	0	1	1

SPECIAL APPROVALS

Special approval: (Local Jurisdiction, Department of Insurance, OSC, DPI, DHHS, ICC, etc., describe below)

STRUCTURAL DESIGN

DESIGN LOADS: Existing Building

Importance Factor: I II III IV
 Snow (I_s): _____
 Seismic (I_e): _____
 Live Loads: Roof _____
 Mezzanine _____
 Floor _____
 Ground Snow Load: _____
 Wind Loads: Basic Wind Speed _____
 Exposure Category _____

SEISMIC CATEGORY A B C D

Provide the following Seismic Design Parameters:
 Occupancy Category (Table 1604.5) I II III IV
 Spectral Response Acceleration S_s _____ %g S₁ _____ %g
 Site Classification (ASCE-7) A B C D E F
 Data source: Field Test Presumptive Historical Data

Basic Structural System: (check one)
 Bearing Wall Dual W/ Special Moment Frame
 Building Frame Dual W/ Intermediate R/C or Special Steel
 Moment Frame Inverted Pendulum

Analysis Procedure: Simplified Equivalent Lateral Force Dynamic
 Architectural, Mechanical, Components Anchored? Yes No

LATERAL DESIGN CONTROL: Earthquake Wind

SOIL BEARING CAPACITIES:
 Field Test (provide copy of test report) _____ psf
 Presumptive Bearing Capacity _____ psf
 Pile Size, Type, and Capacity _____

ENERGY REQUIREMENTS:

The following data shall be considered minimum and any special attribute required to meet the energy code shall also be provided. Each Designer shall furnish the required portions of the project information for the plan data sheet. If performance method, state the annual energy cost for the standard reference design vs annual energy cost for the proposed design.

Existing building envelope complies with code: (If checked, the remainder of this section is not applicable.)
 Exempt Building: Provide code or statutory reference: _____
 Climate Zone: 3 4 5
 Method of Compliance:
 Energy Code: Performance Prescriptive Trade-Off
 ASHRAE 90.1: Performance Prescriptive Trade-Off
 Other: Performance (specify source) _____

THERMAL ENVELOPE:

Roof/Ceiling Assembly (each assembly)
 Description of Assembly _____
 U-value of Total Assembly _____
 R-value of Insulation _____
 Skylights in each assembly _____
 U-Value of skylight _____
 Total square footage of skylights in each assembly _____

Exterior Walls (each assembly)
 Description of Assembly _____
 U-value of Total Assembly _____
 R-value of Insulation _____
 Openings (windows or doors with glazing) _____
 U-Value of assembly _____
 Solar heat gain coefficient: _____
 Projection factor: _____
 Door R-Value: _____

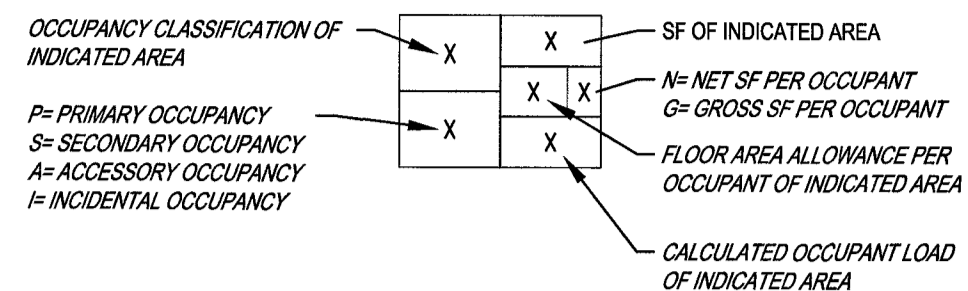
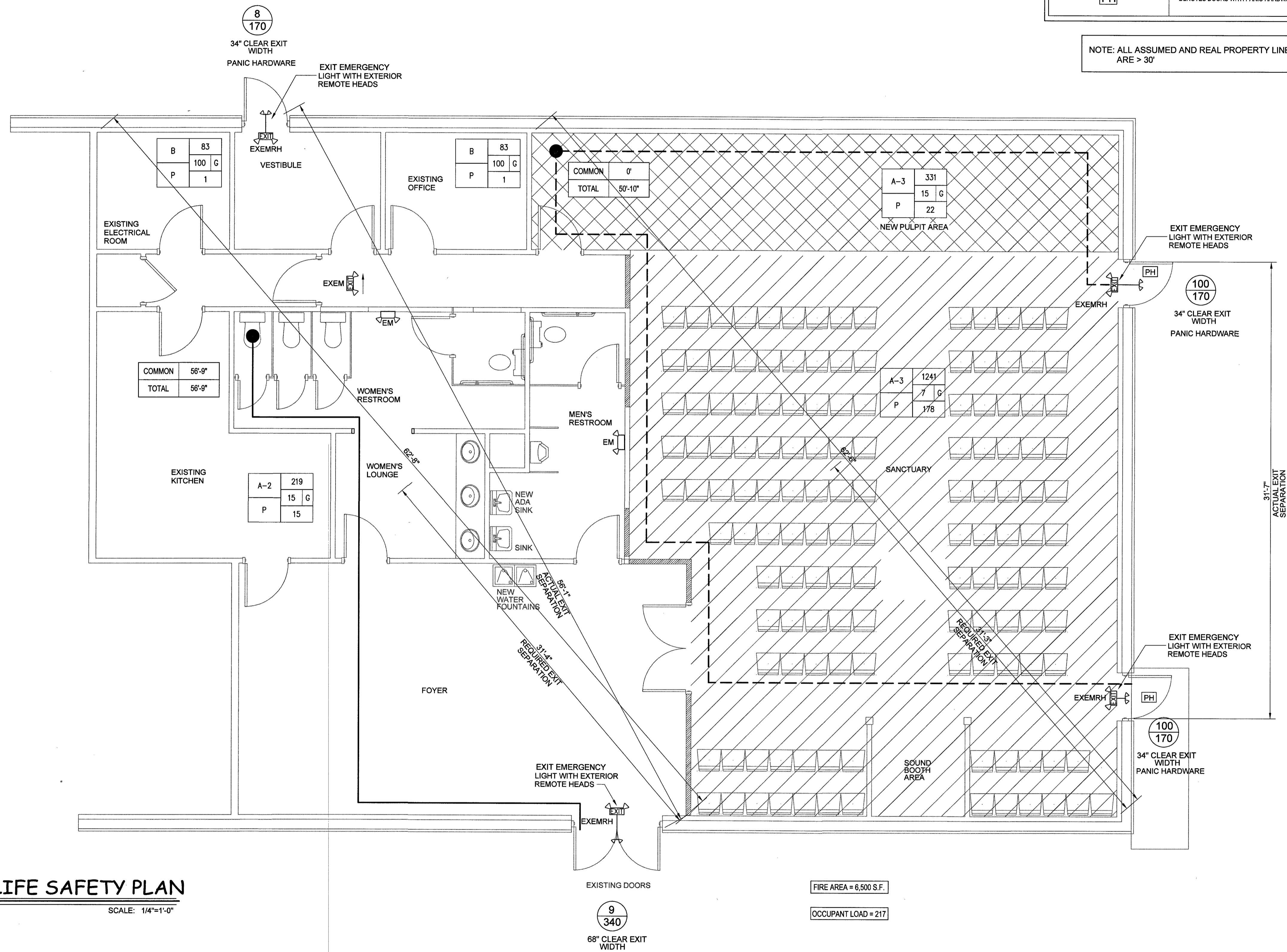
Walls below grade (each assembly)
 Description of Assembly _____
 U-value of Total Assembly _____
 R-value of Insulation _____

Floors over unconditioned space (each assembly)
 Description of Assembly _____
 U-value of Total Assembly _____
 R-value of Insulation _____

Floors slab on grade
 Description of Assembly _____
 U-value of Total Assembly _____
 R-value of Insulation _____
 Horizontal/vertical requirement _____
 Slab heated _____

Reviewed for Fire Code Compliance
 Leslie Jackson
 05/22/2023 7:28:24 AM

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 Corporation License No. C-2241
 Phone: 919.736.2141 Fax: 919.736.2142
 WORD AFIRE MINISTRIES
 1503 Denim Road
 Erwin, NC 28339
 DATE: 5 May 2023
 DRAWN BY: J.S.
 SCALE: N.T.S.
T-1

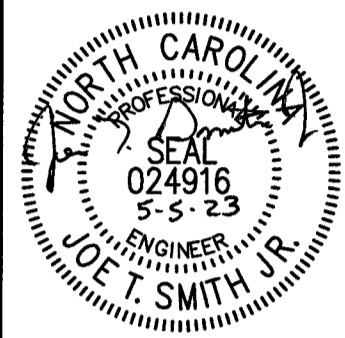


LEGEND	
SYMBOL	DESCRIPTION
---	COMMON PATH OF EXIT EGRESS TRAVEL
---	ROUTE OF TOTAL EXIT ACCESS TRAVEL DISTANCE
(X)	REQUIRED OCCUPANT CAPACITY OF DOOR
(X)	ACTUAL OCCUPANT CAPACITY OF DOOR
[PH]	DENOTES DOORS WITH PANIC HARDWARE

NOTE: ALL ASSUMED AND REAL PROPERTY LINES ARE > 30'

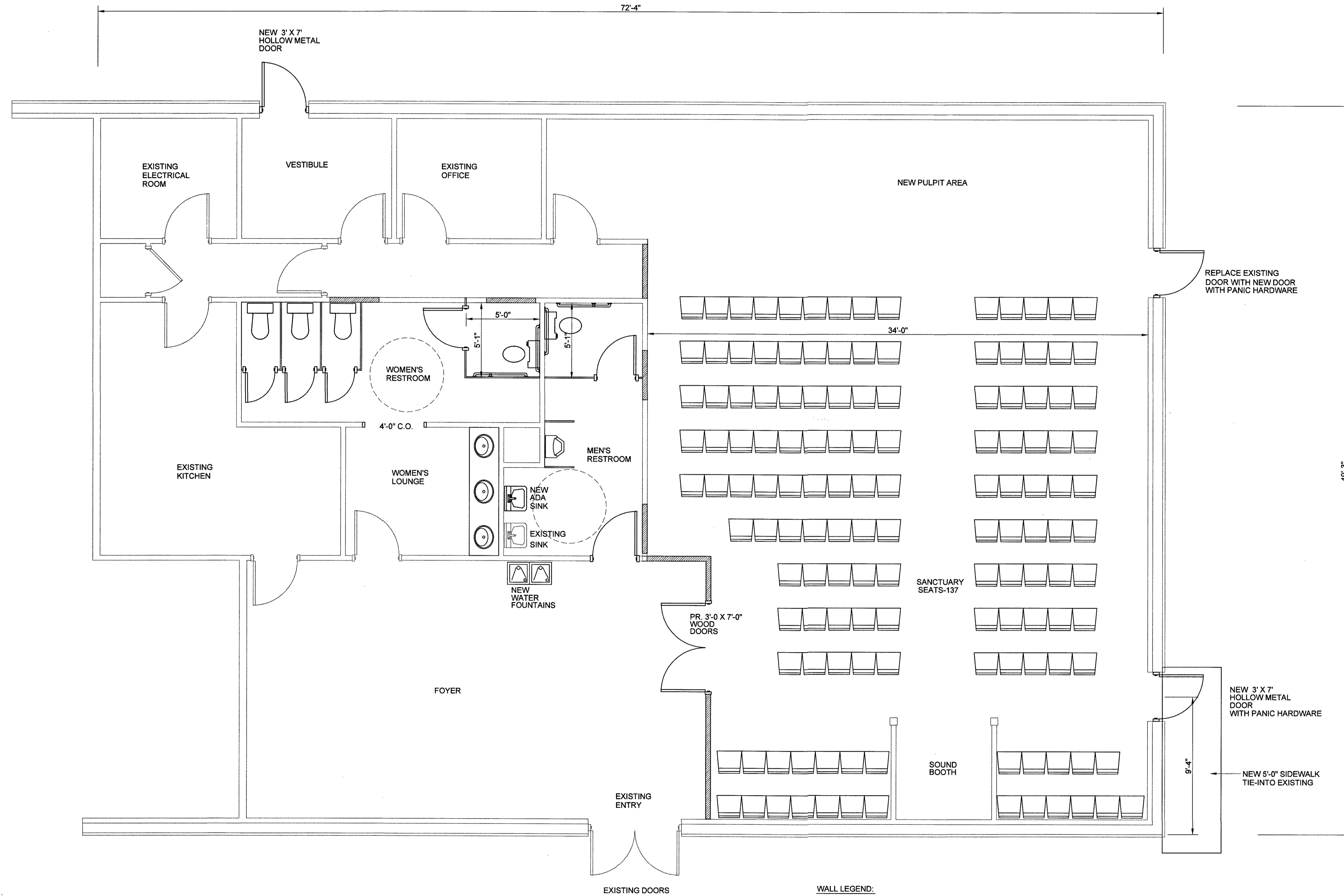
1 LS-1 LIFE SAFETY PLAN
SCALE: 1/4"=1'-0"

FIRE AREA = 6,500 S.F.
OCCUPANT LOAD = 217



REV.	DATE	DESCRIPTION

Word Afire Ministries
1503 Denim Road
Erwin, NC 28339



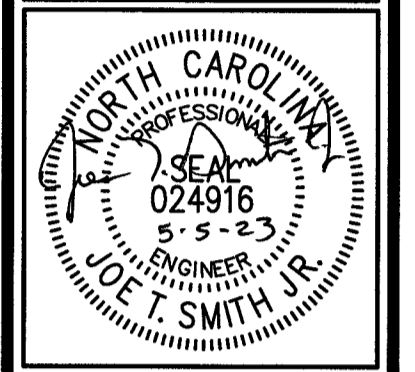
1
G-2

FLOOR PLAN

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

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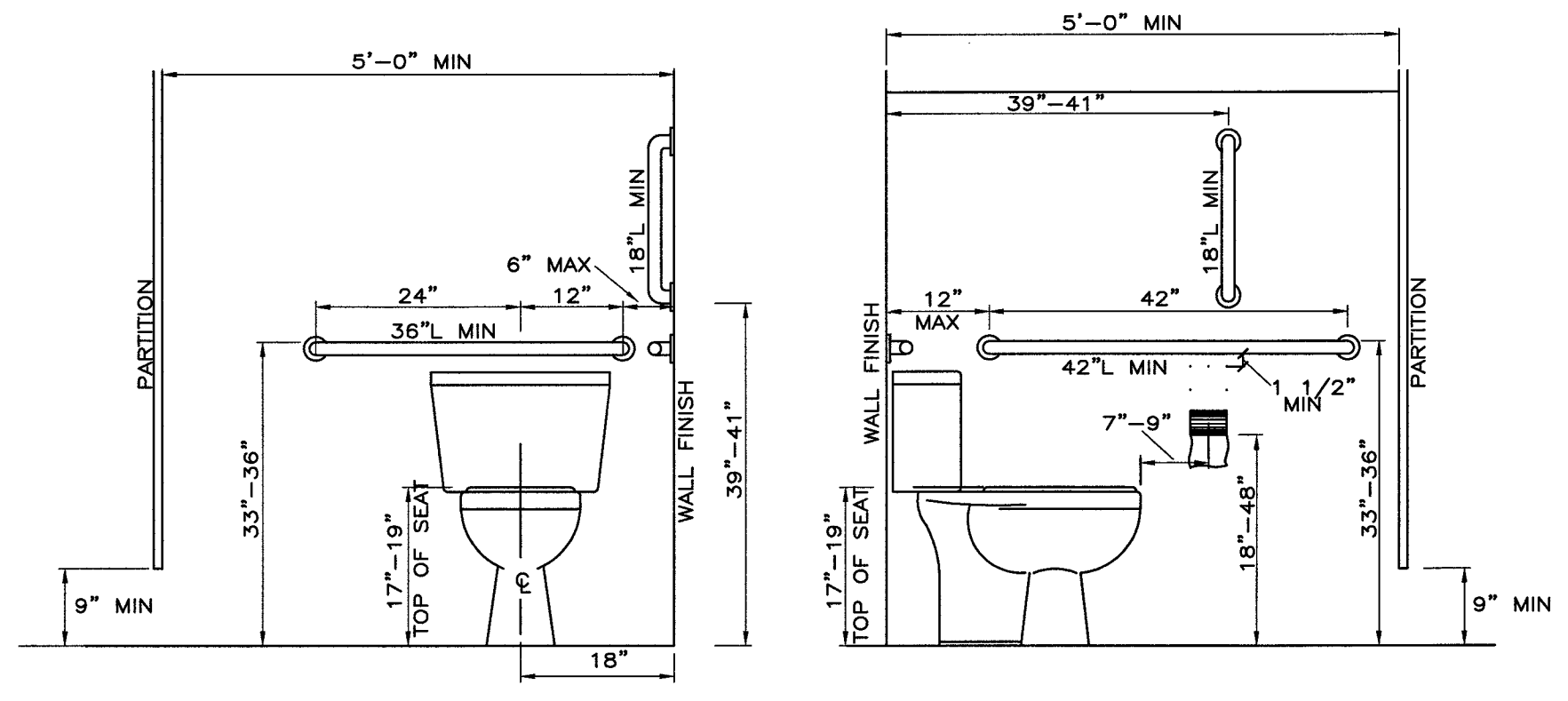
REV.	DATE	DESCRIPTION

Word Afire Ministries

1503 Denim Road
Erwin, NC

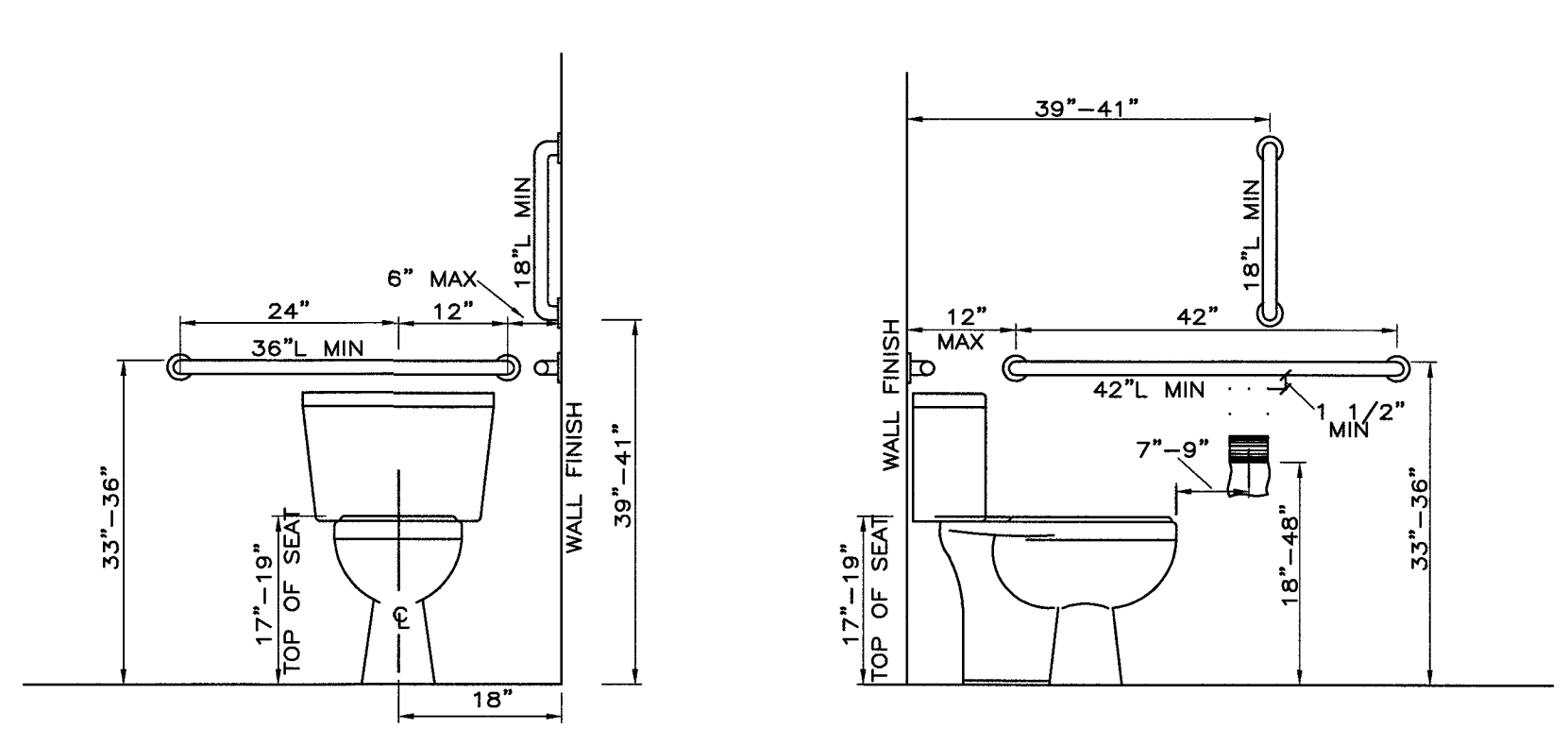
DATE: 5 May 2023
 DRAWN BY: J.S.
 SCALE: 1/4" = 1'-0"

G-2



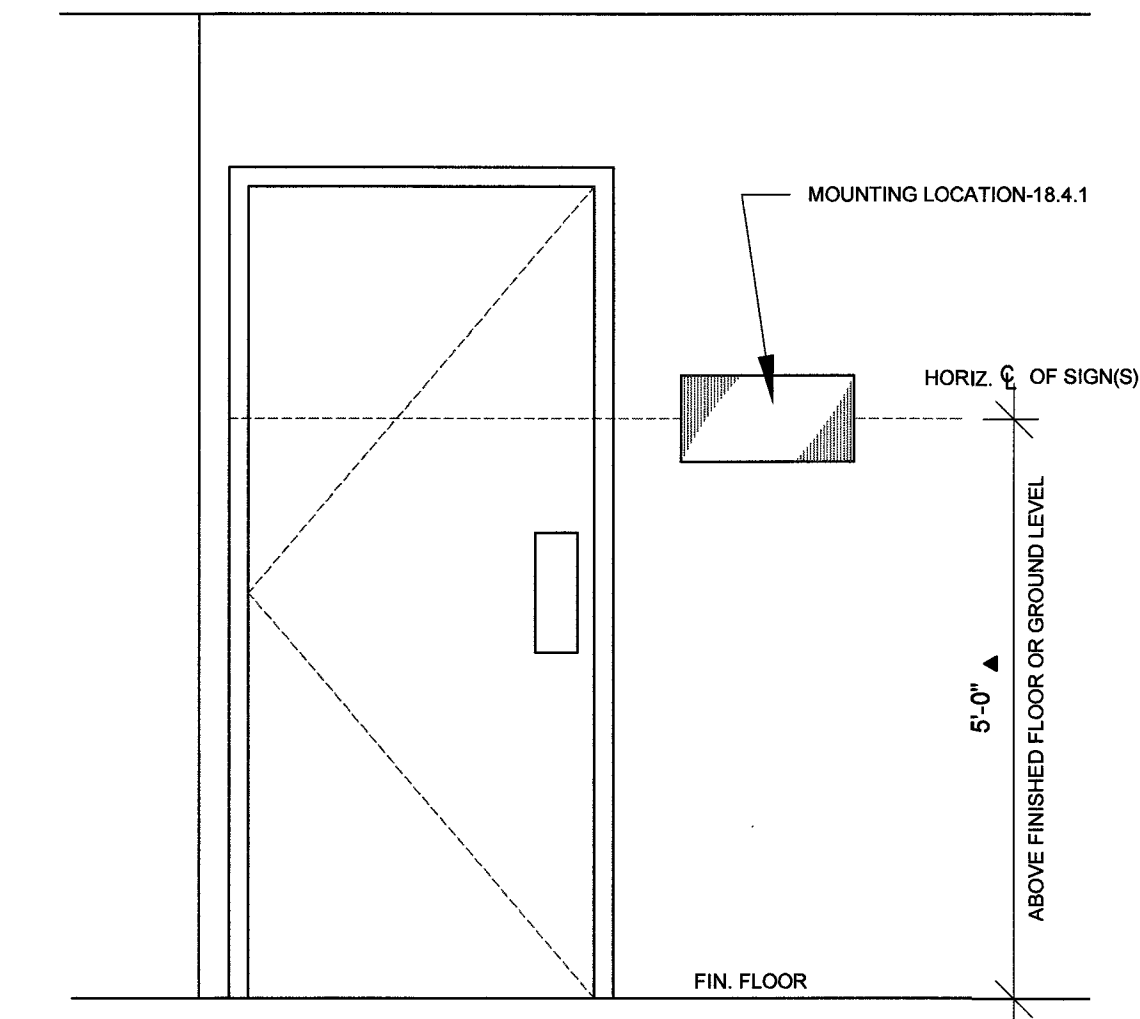
FRONT ELEVATION SIDE ELEVATION

TOILET ELEVATIONS FOR MULTIPLE STALL RESTROOMS
(ADA REQUIREMENTS)

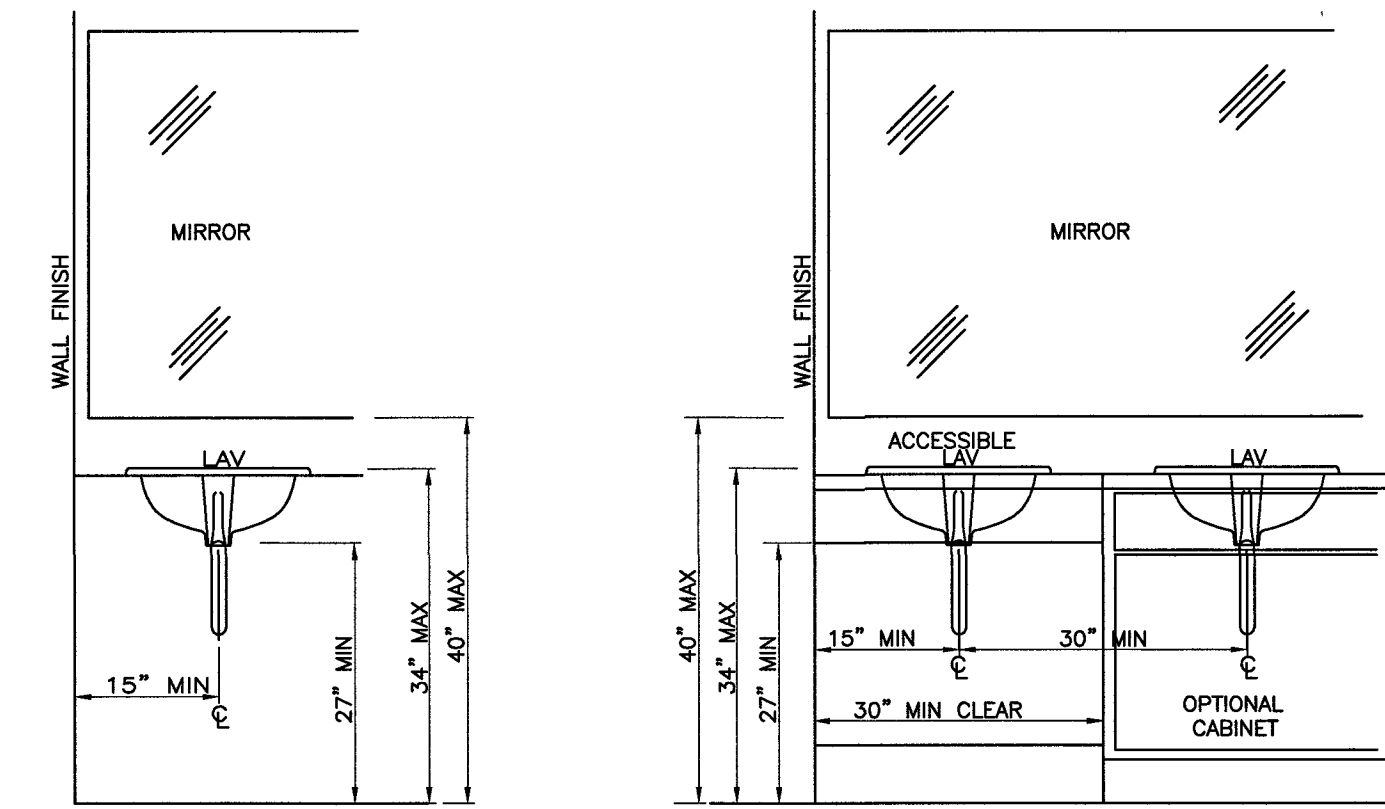


FRONT ELEVATION SIDE ELEVATION

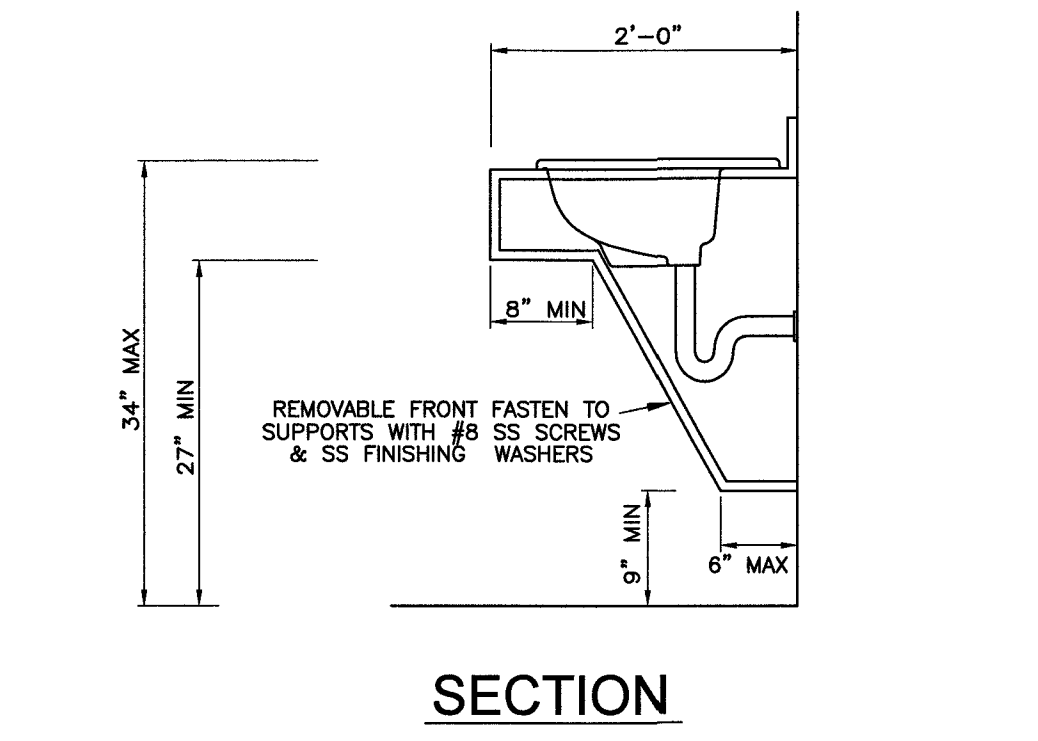
TOILET ELEVATIONS FOR SINGLE RESTROOMS
(ADA REQUIREMENTS)



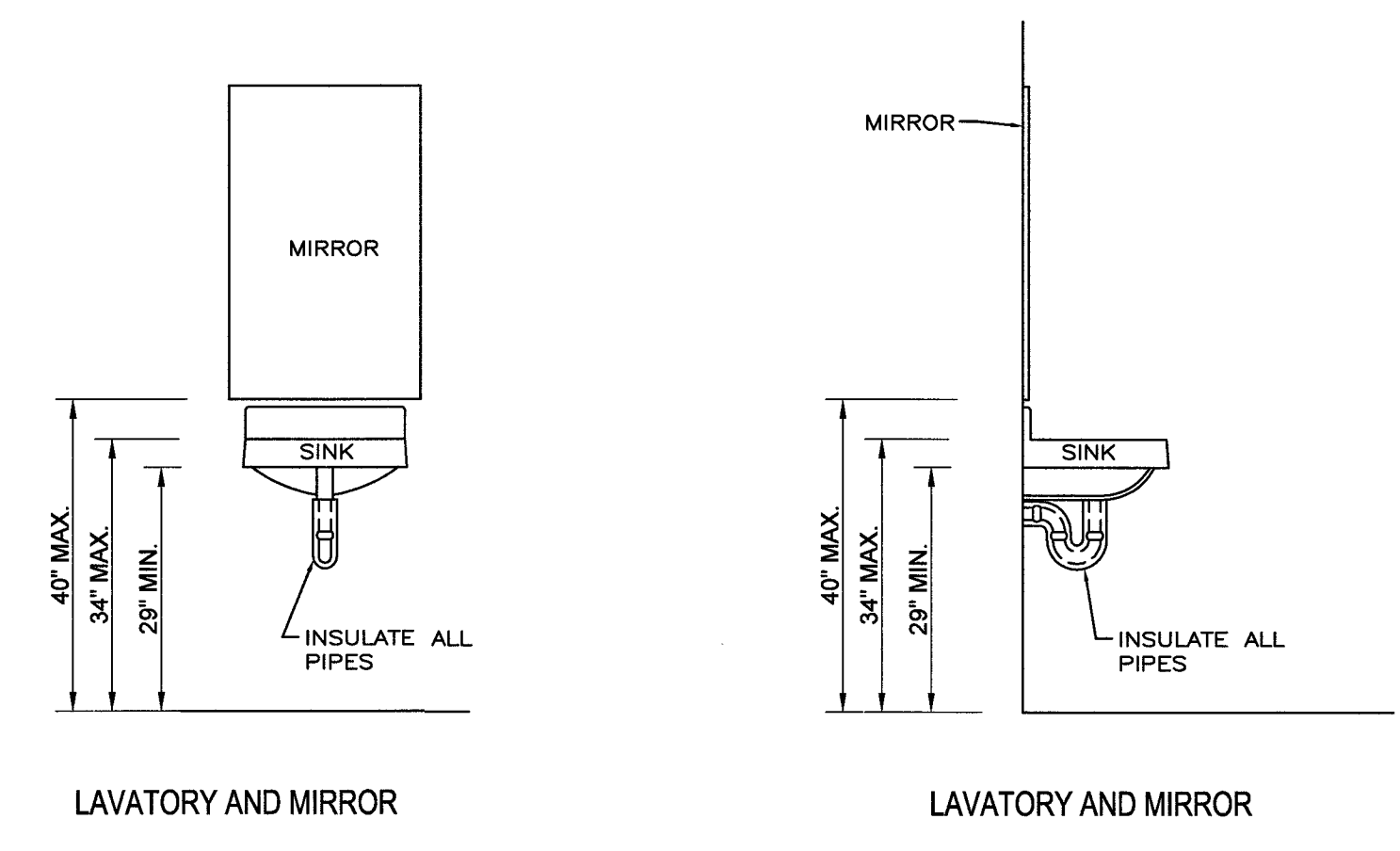
SIGNAGE MOUNTING LOCATION & HEIGHT
(ADA REQUIREMENTS)



SINGLE VANITY MULTIPLE VANTIES

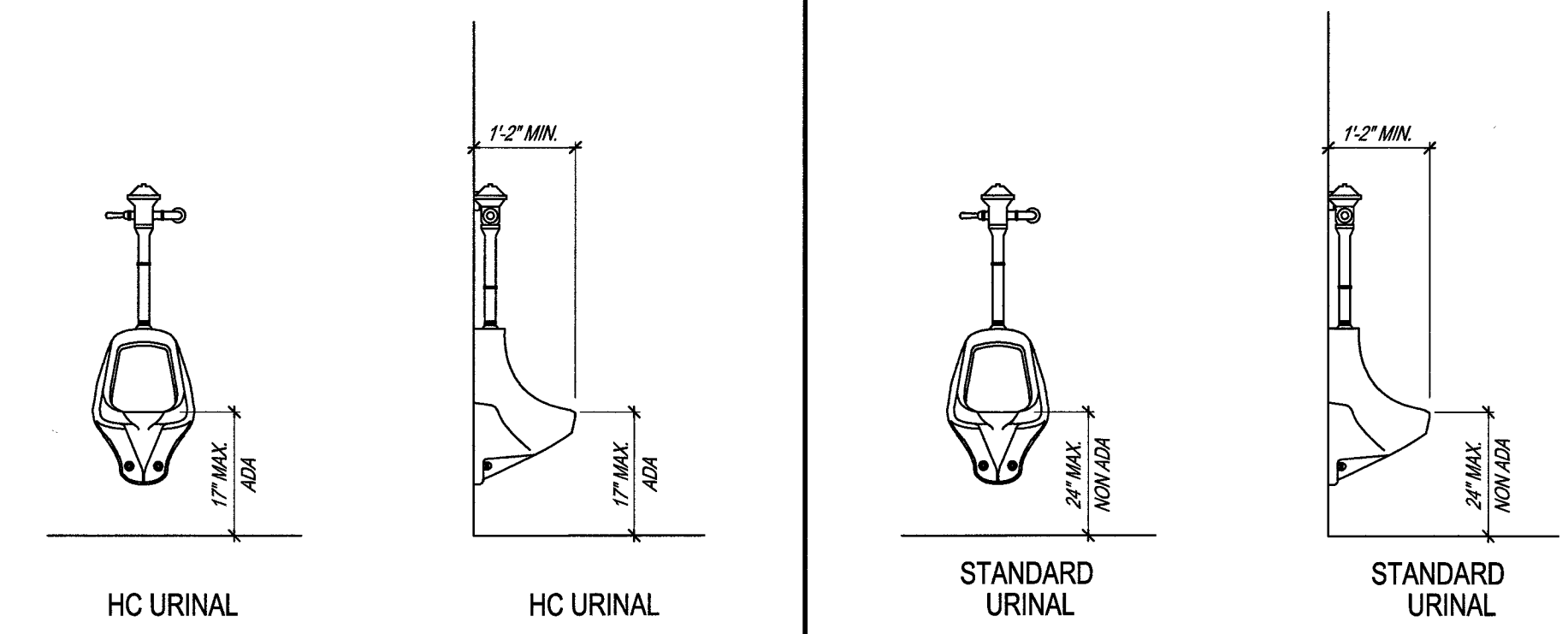


CABINET MOUNTED VANITY DETAILS
(ADA REQUIREMENTS)



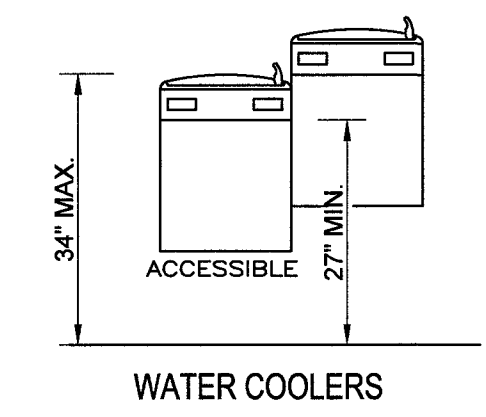
LAVATORY AND MIRROR LAVATORY AND MIRROR

WALL HUNG LAVATORY DETAILS

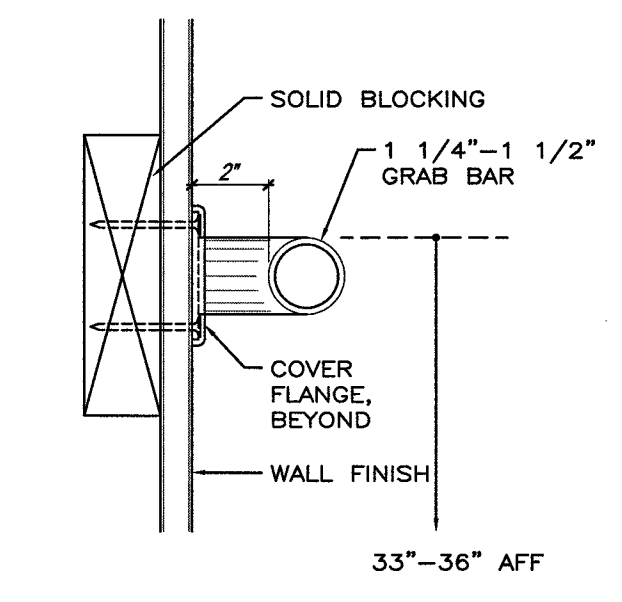


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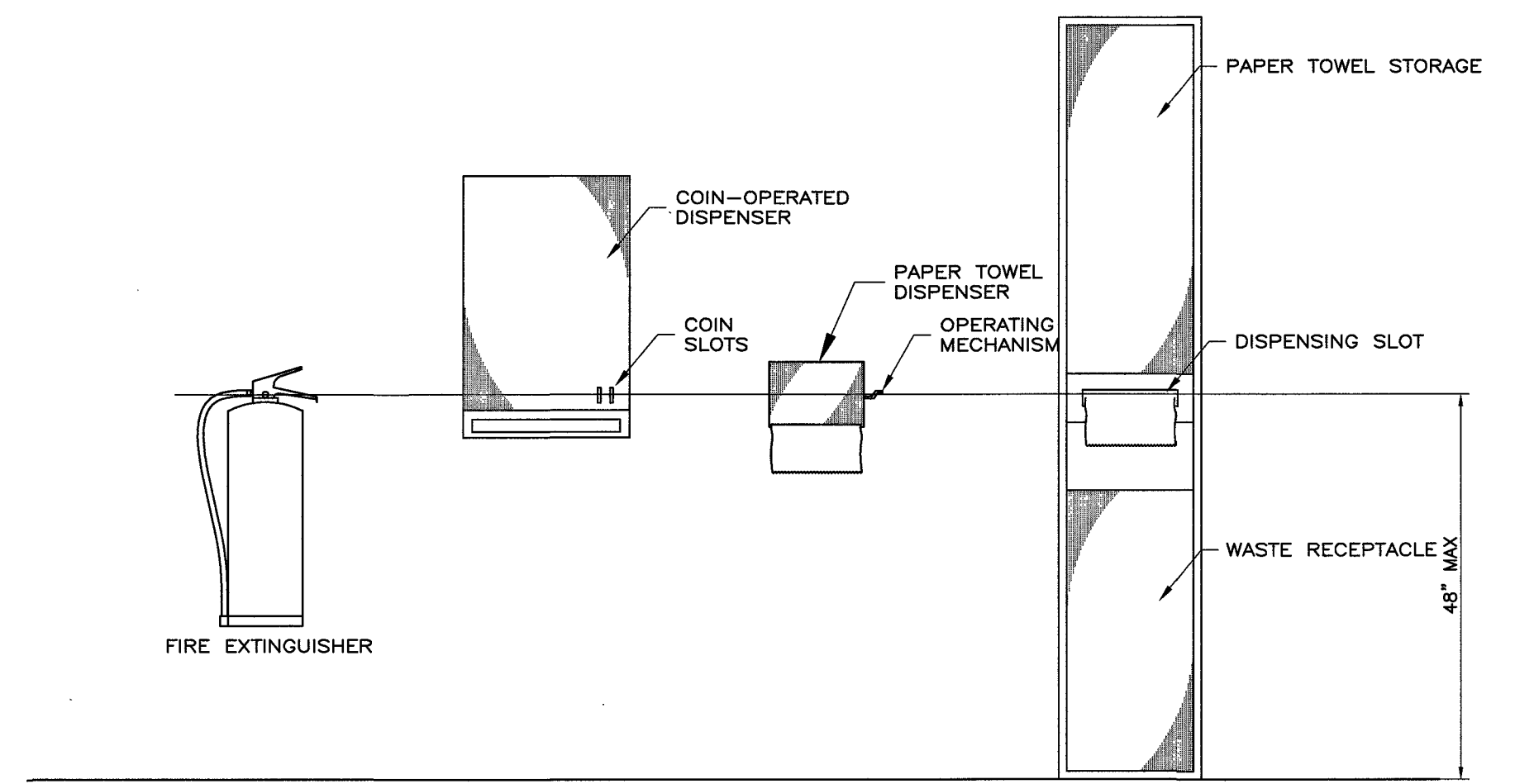
URINAL DETAILS



WATER COOLER DETAILS
(ADA REQUIREMENTS)

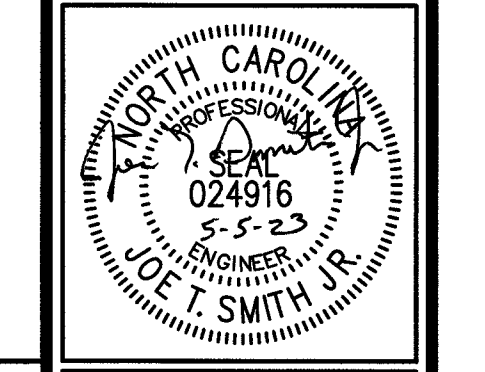


GRAB BAR DETAIL
(ADA REQUIREMENTS)



DISPENSERS
(ADA REQUIREMENTS)

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