

APPLICABLE CODES AND STANDARDS

2021 INTERNATIONAL BUILDING CODE
 2021 INTERNATIONAL EXISTING BUILDING CODE - CHAPTER 12
 2021 INTERNATIONAL FIRE CODE
 2021 INTERNATIONAL PLUMBING CODE
 2021 INTERNATIONAL MECHANICAL CODE
 2021 INTERNATIONAL ENERGY CONSERVATION CODE
 NFPA 70 NEC - NATIONAL ELECTRICAL CODE
 NFPA 72 - NATIONAL FIRE ALARM CODE
 NFPA 90A - INSTALLATION OF AIR CONDITIONING AND VENTILATING SYSTEMS
 NFPA 13 2022 - STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS
 ASHRAE 90.1 - ENERGY STANDARD FOR BUILDINGS
 2021 ICC/ANSI 117.1 STANDARDS
 ARCHITECTURAL BARRIERS ACT ACCESSIBILITY STANDARDS (ABAAS)
 NPS RM 58

BUILDING LIFE SAFETY FEATURES

THE FOLLOWING IS A LIST OF FIRE AND LIFE SAFETY FEATURES INCORPORATED INTO THE PLANNED BUILDING REHABILITATION.

- BUILDINGS OF CONSTRUCTION TYPE II-B
- EGRESS SYSTEM COMPLYING WITH 2021 IBC
- FULLY AUTOMATIC SPRINKLER SYSTEM WITH ALARM SUPERVISION
- AN APPROVED FIRE ALARM SYSTEM TO BE PROVIDED PER NFPA 72
- PORTABLE FIRE EXTINGUISHERS WILL BE PROVIDED
- SMOKE DETECTION AT HVAC UNITS WHERE APPLICABLE
- AUTOMATIC SHUTDOWNS AT HVAC UNITS WHERE APPLICABLE
- EMERGENCY POWER FOR EXIT LIGHTING
- EMERGENCY GENERATOR POWER FOR FIRE PUMP

ACTUAL BUILDING AREA

FLOOR AREA PER FLOOR, TOTAL FLOOR (NO CHANGE IN SQUARE FOOTAGE);
 BASEMENT: 8,739 GSF (6,154 GSF WITHOUT CRAWL SPACE)
 FIRST FLOOR: 9,492 GSF
 SECOND FLOOR: 5,431 GSF
 THIRD FLOOR: 9,492 GSF

TOTAL: 33,154 GSF

TYPE OF CONSTRUCTION

TYPE II-B, (CURRENTLY UNSPRINKLED) PROPOSED TO BE SPRINKLED
 - SECTION 602.2 PAGE 85

OCCUPANCY CLASSIFICATION

USE GROUP A-3 RECREATION / A-2 MEETING SPACE / GROUP B BUSINESS
 - SECTION 393, PAGE 23
 - SECTION 304, PAGE 24
 - EXISTING BUILDING IS NON-SEPARATED A2/A3/B/ACCESSORY S1, PER SECTION 508.3
 - BASEMENT: A3 (POOL DECK); B (MECHANICAL AND SUPPORT SPACES)
 - FIRST FLOOR: A3 (LOBBY AND SUN PORCH); B (REMAINDER OF FLOOR)
 - SECOND FLOOR: B
 - THIRD FLOOR: A2 (ROYCROFT ROOM); B (REMAINDER OF FLOOR)

OCCUPANT LOADS

OCCUPANT LOAD FACTORS (TABLE 1004.5)
 ACCESSORY STORAGE AREAS/MECHANICAL: 300 SF GROSS / PERSON
 ASSEMBLY, UNCONCENTRATED: 15 SF NET / PERSON
 ASSEMBLY, CONCENTRATED: 7 SF NET / PERSON
 BUSINESS: 150 SF GROSS / PERSON

ALLOWABLE BUILDING HEIGHT

1011.6.2 IBC - CHANGE OF OCCUPANCY TO EQUAL OR LESSER HAZARD, BUILDING HEIGHT, AND AREA ARE ACCEPTABLE.

ACTUAL BUILDING HEIGHT

3 STORIES, APPROX. 99'-11 1/2"

BASIC ALLOWABLE AREA

28,500 SF ABOVE GRADE
 - IBC SECTION 506.2

ACTUAL ALLOWABLE AREA PER STORY

4,766 GSF (FIRST FLOOR) OTHER FLOORS ARE LESS

CHANGE OF USE

NO CHANGE OF USE.

ALTERATIONS

THERE IS MINOR RECONFIGURATION ON THE BASEMENT, FIRST FLOOR AND SECOND FLOOR. CONFIGURATION IS LESS THAN 50%.

IBC SECTION 603: THE RECONFIGURATION OR EXTENSION OF ANY SYSTEM WHERE THE WORK AREA IS EQUAL TO OR LESS THAN 50% OF THE BUILDING AREA.

MIXED USE AND OCCUPANCY

NON-SEPARATED OCCUPANCIES ARE ALLOWED GIVEN THAT THE MOST RESTRICTIVE PROVISIONS OF CHAPTER 9 APPLY TO THE ENTIRE BUILDING
 - IBC SECTION 508.3.2, PAGE 61

NUMBER OF EXITS CAN STAY IN A SINGLE-TENANT BUILDING
 - IBC SECTION 804.4.1

EXISTING VERTICAL OPENINGS SHALL COMPLY WITH PROVISIONS OF SECTIONS 802.2.1, 802.2.2, AND 802.2.3
 - IBC SECTION 802.2.1 - EXCEPTIONS: 3) NOT REQUIRED WHEN CONNECTING A MAIN FLOOR AND MEZZANINE. 3.2) ALL CONDITIONS MET
 - IBC SECTION 1203.6 - IN BUILDINGS OF THREE STORIES OR LESS, EXIT ENCLOSURE CONSTRUCTION SHALL LIMIT THE SPREAD OF SMOKE BY THE USE OF TIGHT-FITTING DOORS AND SOLID ELEMENTS. SUCH ELEMENTS ARE NOT REQUIRED TO HAVE A FIRE-RESISTANCE RATING.1

ACCESSIBILITY

ACCESSIBLE ROUTE IS REQUIRED AND PROVIDED AT THE FIRST FLOOR LEVEL OF THE BUILDING

ACTIVE FIRE PROTECTION

AN AUTOMATIC FIRE SPRINKLER SYSTEM WILL BE INCORPORATED INTO THE DESIGN, BUT PER IBC 1011.2.1 CODE IS NOT REQUIRED.

STANDPIPES: NOT REQUIRED (SECTION 905)

FIRE ALARM SYSTEM WITH VOICE ALARM COMMUNICATION SYSTEM: NOT REQUIRED (SECTION 907.2.3 AND SECTION 907.6)

SMOKE DETECTION: NOT REQUIRED (SECTION 907) BUT IS REQUIRED BY NPS AND WILL BE INSTALLED

EXIT SIGNS: REQUIRED, TWO OR MORE EXITS ARE REQUIRED (SECTION 1013)

EMERGENCY LIGHTING: REQUIRED, A MINIMUM AVERAGE OF 1 FOOT-CANDLE (SECTION 1008)

PORTABLE FIRE EXTINGUISHERS REQUIRED (SECTION 906.1)

FIRE-RESISTIVE REQUIREMENTS FOR ELEMENTS OF THE STRUCTURE:

CONSTRUCTION TYPE II-B
 STRUCTURAL FRAME: 0-HOUR
 BEARING WALL EXTERIOR: 0-HOUR
 BEARING WALLS INTERIOR: 0-HOUR
 NON-BEARING WALLS INTERIOR: 0-HOUR
 FLOOR CONSTRUCTION: 0-HOUR
 ROOF CONSTRUCTION: 0-HOUR
 VERTICAL SHAFTS: REFER TO SECTION 1203.6 - SMOKE GASKETING PROVIDED

COMBUSTIBLE MATERIALS IN TYPE II CONSTRUCTION:
 ALLOWABLE MATERIALS PER SECTIONS 603.1.1 THROUGH 603.1.3

MEANS OF EGRESS:
 THIS IS A SINGLE TENANT BUILDING; THEREFORE, THE EXISTING NUMBER OF EXITS CAN REMAIN
 - SECTION 804.4.1

CODE EQUIVALENCY CONCEPTS

EXTERIOR WALL FIRE RESISTANCE RATINGS:
 FIRE SEPARATION DISTANCE: 30'-0"
 - TABLE 704.8, PAGE 92

ALLOWABLE UNPROTECTED OPENING AREA:
 - GREATER THAN 25'- TO 30' = 70% OPEN
 - GREATER THAN 30' = NO LIMIT

CODE EQUIVALENCY CONCEPT - EXISTING VERTICAL OPENINGS AND STAIR ENCLOSURES
 CODE EQUIVALENCY CONCEPT TO COMPLY WITH IBC 1203.6 STAIRWAY ENCLOSURE REQUIRES BUILDINGS OF THREE STORIES OR LESS TO LIMIT SPREAD OF SMOKE BY USE OF TIGHT-FITTING DOORS AND SOLID ELEMENTS. SUCH ELEMENTS ARE NOT REQUIRED TO HAVE A FIRE-RESISTANCE RATING. NOT REQUIRED, PER IBC SECTION 1203.2. ALSO, PER IBC SECTION 802.2.3 SUPPLEMENTAL STAIRWAY ENCLOSURE IS NOT REQUIRED, PER THE EXCEPTION. HOWEVER, THE PLANS WILL PROVIDE DOORS AT THE BASEMENT, SECOND, AND THIRD FLOORS AT THE STAIR ENCLOSURE.

EXIT SIGNS

WHERE EXIT SIGNS ARE REQUIRED (SECTION 1013)

WHEN TWO OR MORE EXITS FROM A STORY OR AREA ARE REQUIRED EXIT SIGNS SHALL BE INSTALLED. EXIT SIGNS SHALL BE READILY VISIBLE FROM ANY DIRECTION OF APPROACH. EXIT SIGNS SHALL BE LOCATED AS NECESSARY TO CLEARLY INDICATE THE DIRECTION OF EGRESS TRAVEL. NO POINT SHALL BE MORE THAN 100 FEET FROM THE NEAREST VISIBLE SIGN.

GRAPHICS

THE COLOR AND DESIGN OF LETTERING ON EXIT SIGNS SHALL BE IN HIGH CONTRAST WITH THEIR BACKGROUND. WORDS ON THE SIGN SHALL BE IN BLOCK LETTERS 6 INCHES IN HEIGHT WITH A STROKE OF NOT LESS THAN 1/4 INCH.

ILLUMINATION

SIGNS SHALL BE INTERNALLY OR EXTERNALLY ILLUMINATED BY TWO ELECTRIC LAMPS OR SHALL BE OF AN APPROVED SELF-LUMINOUS TYPE. EXIT SIGNS SHALL BE ILLUMINATED AT ALL TIMES.

POWER SOURCE

TO ENSURE CONTINUED ILLUMINATION FOR A DURATION OF NOT LESS THAN 90 MINUTES IN CASE OF PRIMARY POWER LOSS, THE SIGN ILLUMINATION MEANS SHALL BE CONNECTED TO AN EMERGENCY POWER SYSTEM.

DOORS

LOCK OR LATCH (SECTION 1010.1.9.3)

EXIT DOORS SHALL BE OPENABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR ANY SPECIAL KNOWLEDGE OF EFFORT.

MANUALLY OPERATED EDGE OR SURFACE MOUNTED FLUSH BOLTS AND SURFACE MOUNTED BOLTS ARE PROHIBITED.

PANIC HARDWARE (SECTION 1010.1.10)

PANIC HARDWARE: REQUIRED (E OCCUPANCIES GREATER THAN 50 OCCUPANTS)

FLOOR LEVEL AT DOORS (SECTION 1010.1.5)

REGARDLESS OF OCCUPANT LOAD, THERE SHALL BE A FLOOR OR LANDING ON EACH SIDE OF A DOOR. THRESHOLDS AT DOORWAYS SHALL NOT EXCEED 0.5 INCHES. THRESHOLDS GREATER THAN 0.25 INCHES SHALL BE BEVELED.

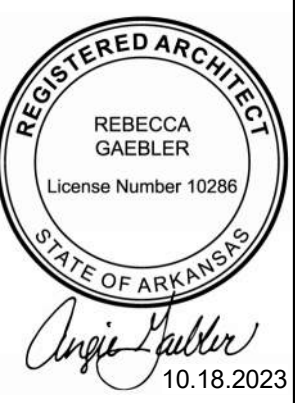
LANDING AT DOORS (SECTION 1010.1.6)

LANDINGS SHALL HAVE A WIDTH NOT LESS THAN THE WIDTH OF THE STAIRWAY OR THE WIDTH OF THE DOOR, WHICHEVER IS THE GREATER. DOORS IN THE FULLY OPEN POSITION SHALL NOT REDUCE A REQUIRED DIMENSION BY MORE THAN 7 INCHES. WHEN LANDINGS SERVE AN OCCUPANT LOAD OF 50 OR MORE, DOORS IN ANY POSITION SHALL NOT REDUCE THE LANDING DIMENSION TO LESS THAN ONE HALF ITS REQUIRED WIDTH. LANDINGS SHALL HAVE A LENGTH MEASURED IN THE DIRECTION OF TRAVEL OF NOT LESS THAN 44 INCHES

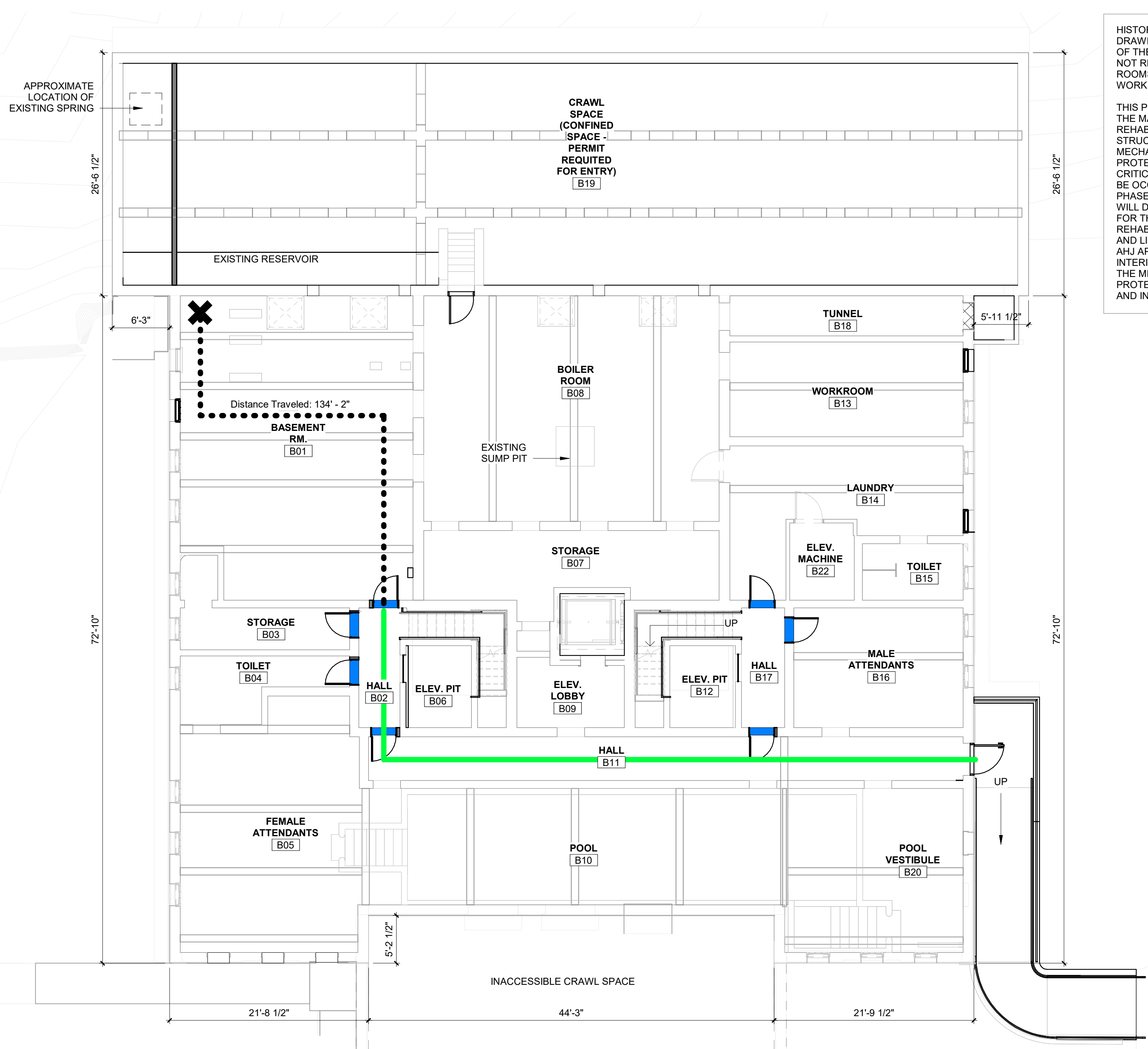
CODE PLAN LEGEND

- SMOKE SEALS/GASKETING REQUIRED AT DOOR
- TRAVEL DISTANCE AND COMMON PATH OF TRAVEL
- 1 HR FIRE RATED
- COMMON PATH OF TRAVEL

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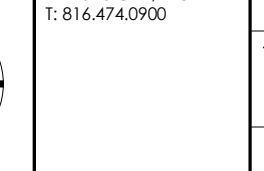
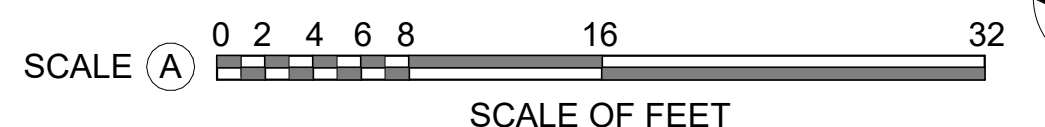
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HISTORIC ROOM NAMES HAVE BEEN USED ON THESE DRAWINGS TO ILLUSTRATE THE HISTORIC FUNCTIONS OF THE BATHHOUSE SPACES. THESE ROOM NAMES DO NOT REFLECT THE ANTICIPATED FUTURE USE OF THE ROOMS AS PART OF THIS PHASE OF REHABILITATION WORK.

THIS PROJECT REPRESENTS A PARTIAL WHITE BOX OF THE MAURICE BUILDING, FOCUSING ON THE EXTERIOR REHABILITATION, INSTALLATION OF NEW UTILITIES, STRUCTURAL STABILIZATION, INSTALLATION OF NEW MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION SYSTEMS, AND REHABILITATION OF CRITICAL PRIMARY SPACES. THE BUILDING WILL NOT BE OCCUPIABLE UPON COMPLETION OF THIS FIRST PHASE OF REHABILITATION. A FUTURE LEASEHOLDER WILL DETERMINE THE FINAL USE AND OCCUPANCY FOR THE BUILDING AND WILL COMPLETE PROPOSED REHABILITATION PLANS, INCLUDING UPDATED CODE AND LIFE SAFETY REVIEW. FOR THE NPS REGIONAL AHJ APPROVAL, THAT SCOPE OF WORK WILL INCLUDE INTERIOR REHABILITATION AND CUSTOMIZATION OF THE MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION SYSTEMS TO ADDRESS THE NEW USE AND INTERIOR LAYOUT.

1 CODE ANALYSIS BASEMENT FLOOR PLAN
 A0.03 1/8" = 1'-0" SCALE (A)



A/E FIRMS PRIME/ARCH: STRATA ARCHITECTURE 1701 OAK STREET, SUITE 100 KANSAS CITY, MO 1-816-474-0900	DESIGNED: CA/AG	SUB SHEET NO. 01 A0.03	TITLE OF SHEET MAURICE BATHHOUSE CODE ANALYSIS	DRAWING NO. 128 182951
	CADD: CA/ZA/EM		PMIS/PKG NO. 318915	
	TECH. REVIEW: AG		SHEET 16 OF 286	
	DATE: 10.27.2023		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	

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