

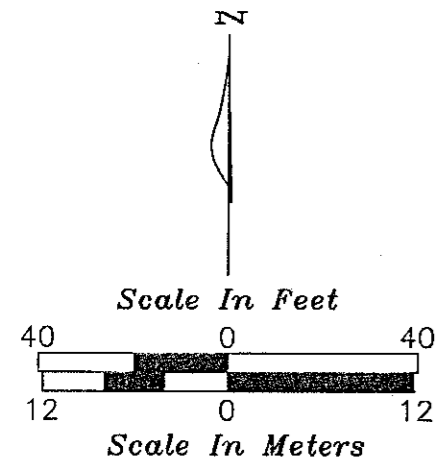
**LEGEND**

- PROPERTY BOUNDARY
- o.c. SANITARY SEWER CLEANOUT
- - - - SURROUNDING PROPERTY BOUNDARIES

**DIMENSIONS**

	1	2
A	69.6'	78.7'
B	66.2'	84.3'
C	66.3'	93.4'
D	64.8'	101.5'
E	104.7'	129.9'
F	109.6'	126.9'

NOTES: POINTS 1-2 ARE BUILDING CORNERS  
 POINTS A-B ARE CENTERS OF TANK LIDS  
 POINTS C-F ARE DRAINFIELD CORNERS



ROAD ADDRESS:  
 7795 THORPE ROAD

LEGAL DESCRIPTION:  
 LOT 50, YELLOWSTONE MOUNTAIN CLUB  
 PHASE 1 AND 2  
 SEC. 31, T. 6 S., R. 3 E., P.M.M.  
 GALLATIN COUNTY, MONTANA

GALLATIN COUNTY SEPTIC PERMIT #16868

SEPTIC SYSTEM INSTALLED BY RME  
 EXCAVATION

UNIFORM SQUIRT HEIGHT OBSERVED

NEW REQUIRED DRINKING WATER WELL NOT  
 INSTALLED AT TIME OF SITE VISIT

Gallatin City-County Health Department/  
 Environmental Health Services  
**ACCEPTED AS-BUILT**

Date: 7-20-2015 P.M.  
 # 16868

INSTALLED 1 - 40' AND 1 - 44'  
 LATERAL (TOTAL 84 LF) OF 1.5" DIA. SCH  
 40 PRESSURIZED DRAINFIELD LATERALS IN  
 3 FT WIDE GRAVELLESS TRENCHES AT 7  
 FEET ON CENTER.

MDEQ APPROVED DRAINFIELD AND  
 REPLACEMENT AREA

PROPOSED WELL  
 (NOT DRILLED AT TIME OF  
 CERTIFICATION)

EXISTING SHOP

GRAVEL DRIVEWAY AND  
 PARKING AREA

EXISTING WELL

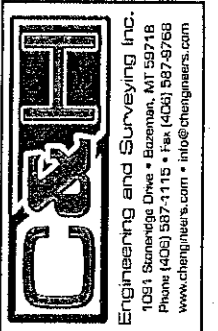
INSTALLED APPROX. 75 LF OF  
 4" DIA. SOLID SEWER PIPE  
 PLACED AT A MINIMUM SLOPE  
 OF 1/4" PER FOOT.

INSTALLED 1,500 GALLON CONCRETE COMBINATION  
 SEPTIC/DOSE TANK WITH EFFLUENT FILTER AND  
 ASHLAND EP40M-20 SUBMERSIBLE EFFLUENT PUMP

INSTALLED APPROX. 10 LF OF 2"  
 DIA. SCH 40 SOLID PRESSURIZED  
 TRANSPORT PIPE.

SEPTIC TANK AND  
 DRAINFIELD EASEMENT

THORPE ROAD



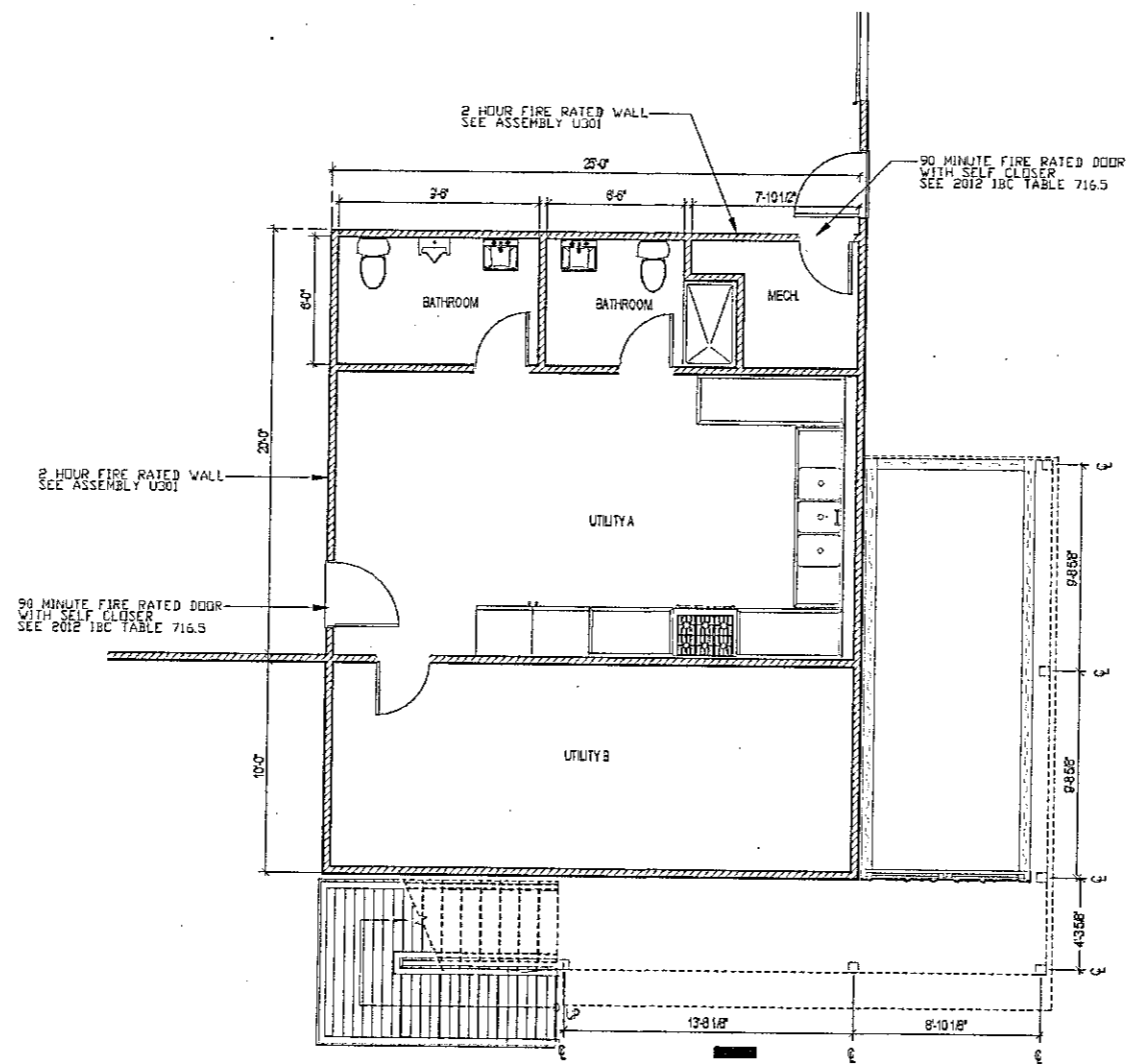
REGISTERED PROFESSIONAL ENGINEER  
 STATE OF MONTANA  
 No. 10000  
 EXPIRES 12/31/2015

**SEPTIC SYSTEM AS-BUILT**  
 7795 THORPE ROAD  
 GALLATIN COUNTY, MONTANA

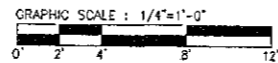
Drawing Date: 04/09/2015



PROJECT #15173

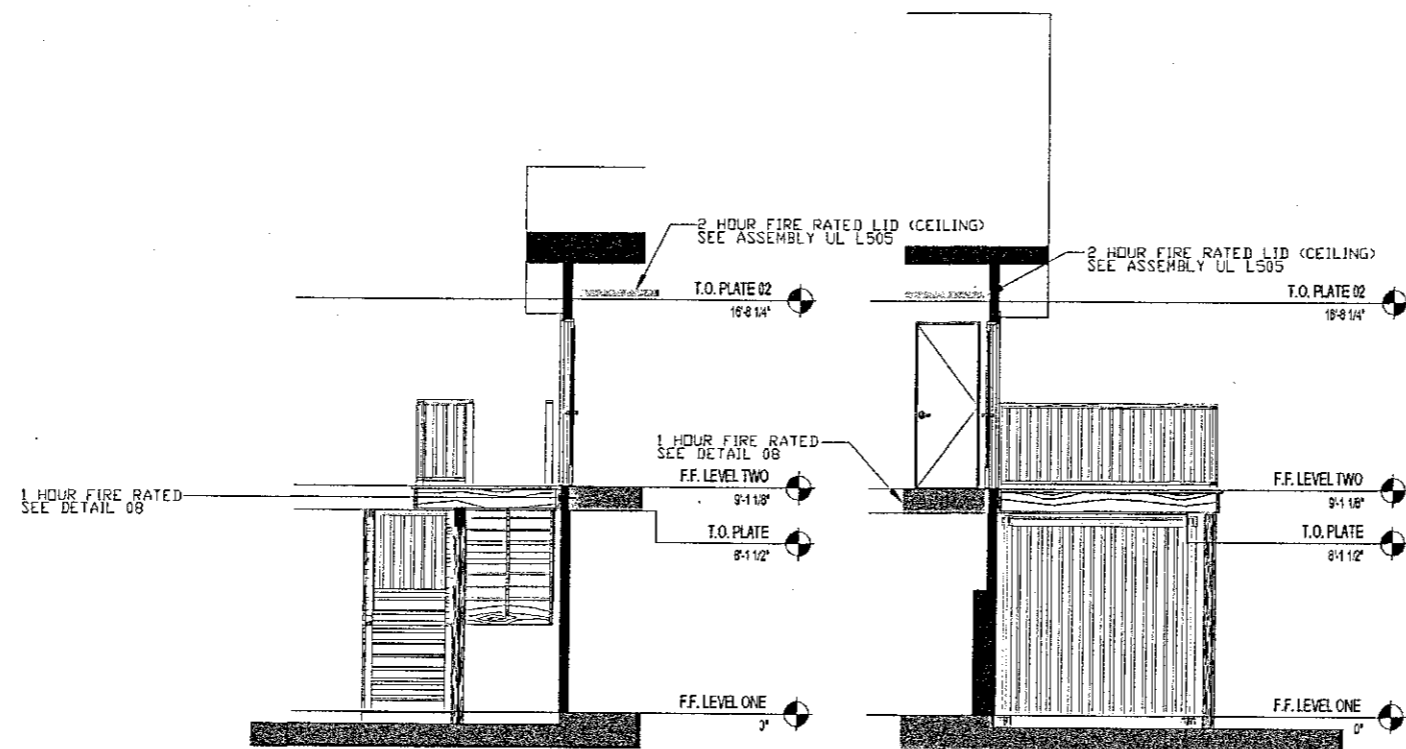


1ST FLOOR PLAN  
SCALE: 1/4" = 1'-0"

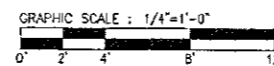


REV	DATE	DESCRIPTION
THE LOFT		
BELGRADE, MT		
1ST FLOOR PLAN		
DRAWN BY: WJC	JURISDICTION: STATE OF MONTANA	SCALE: AS NOTED
	DATE: 11/09/19	SHEET NAME: A-1
CUSTOMER: MB	JOB #: NA	SHEET #: 1 of 4





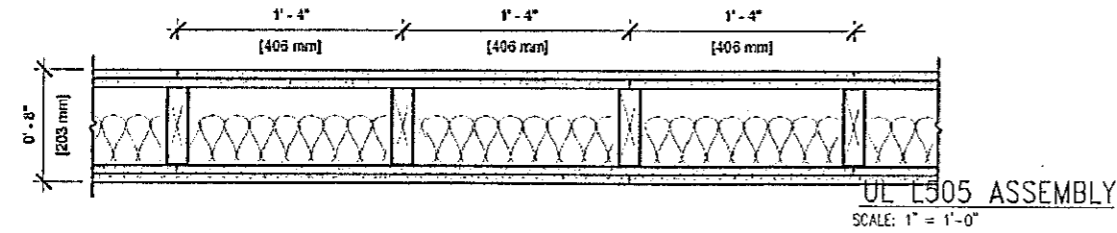
SECTION VIEWS  
SCALE: 1/4" = 1'-0"



REV	DATE	DESCRIPTION
THE LOFT		
BELGRADE, MT		
SECTION VIEWS		
DRAWN BY: WJC	JURISDICTION: STATE OF MONTANA	SCALE: AS NOTED
DATE: 11/09/19	JOB #:	SHEET NAME: A-3
CUSTOMER: MB	NA	SHEET #: 3 of 4

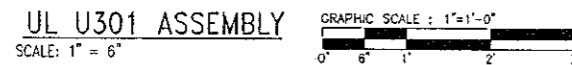
**UL DESIGN NO. U301**

FIRE RATING: 2 Hour  
 STC: 40  
 SOUND TEST: USG-151237  
 SYSTEM THICKNESS: 8"

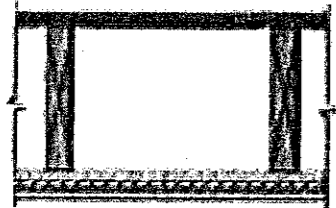


**ASSEMBLY OPTIONS:**

- GYP SUM BOARD: TWO LAYERS 5/8" THICK GYP SUM BOARD (UL TYPE ULIX™)
- WOOD STUDS: 2X6 WOOD STUDS, 16" O.C.
- INSULATION: 3-1/2" GLASS FIBER BATT INSULATION IN CAVITY
- GYP SUM BOARD: TWO LAYERS 5/8" THICK GYP SUM BOARD (UL TYPE ULIX™)



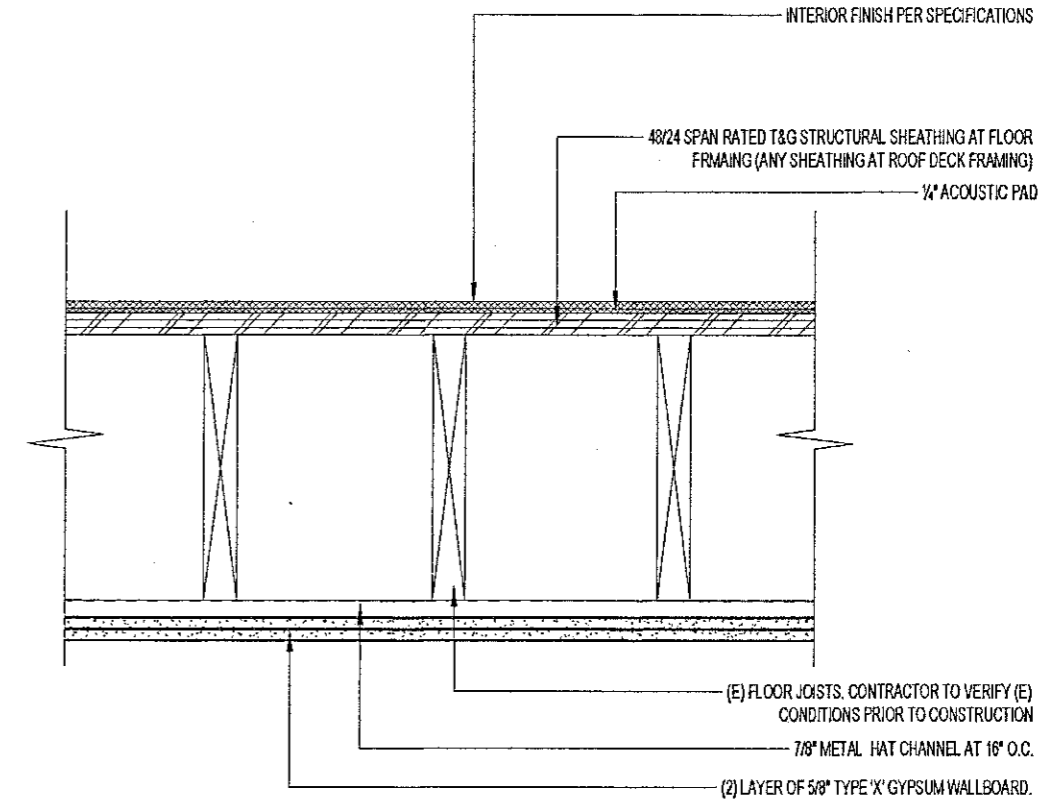
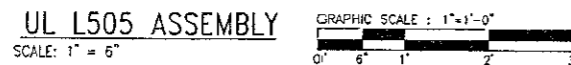
2 hr.



UL  
 GA

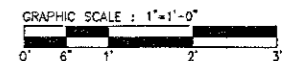
L505  
 FC 5724

5/8" (15.9 mm) Fire-Shield C Gypsum Wallboard, base layer nailed at right angles to 2 x 10 (38 mm x 241 mm) wood joists spaced 16" o.c. (406 mm), resilient furring channels spaced 24" o.c. (610 mm) and nailed through base board into and at right angles to joists. Face layer of 5/8" (15.9 mm) Fire-Shield C board screwed to furring channel. Nominal 1" (25.4 mm) T & G sub and finish floor. Optional floor systems consist of Floor Topping Mixture over plywood. Rating also applies with 5/8" (15.9 mm) Fire-Shield C Kal-Kore plaster base.

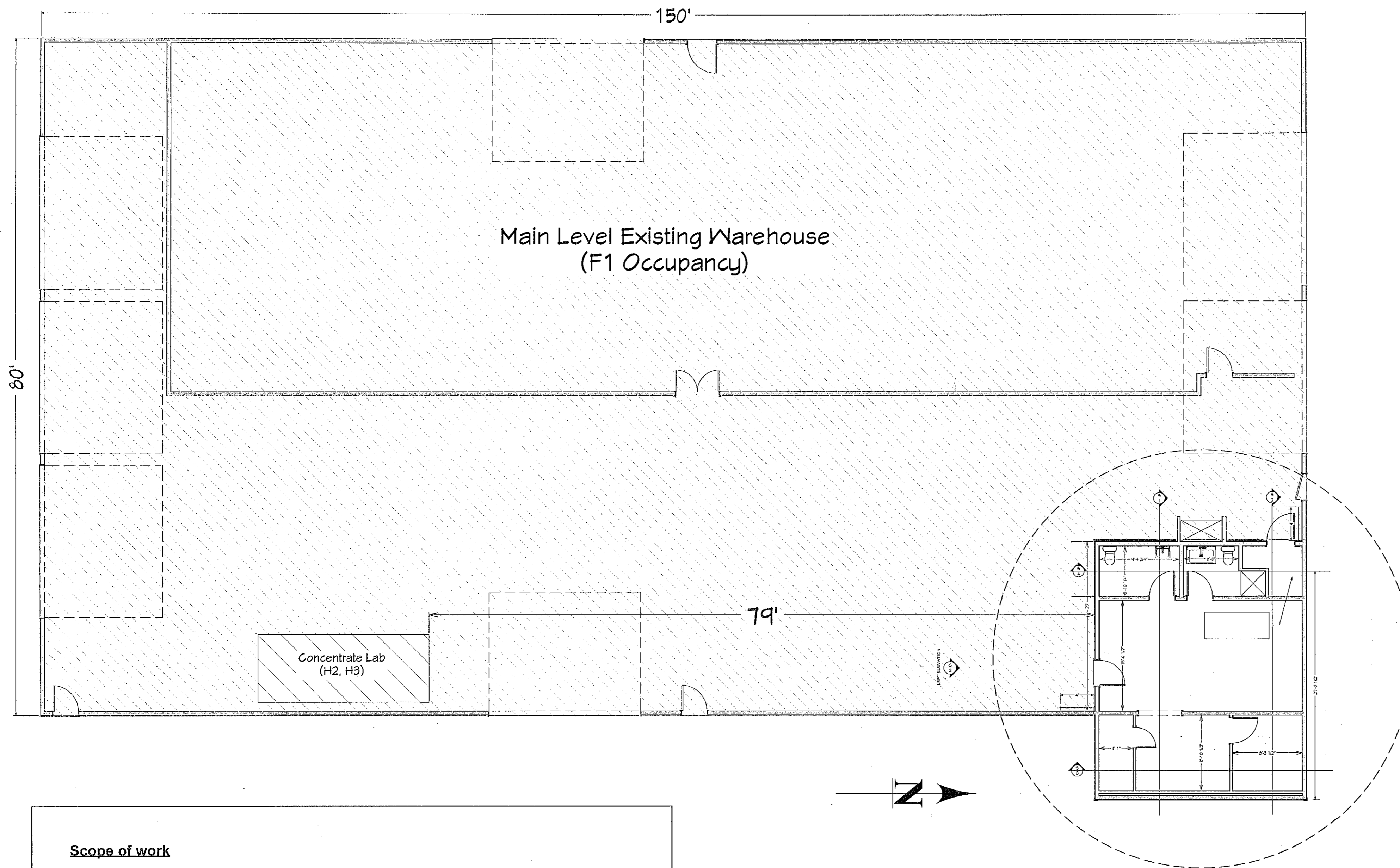


FLOOR AND CEILING ASSEMBLIES SEPARATING DWELLING UNITS WITHIN THE SAME BUILDING, WALL SEPARATING SLEEPING UNITS WITHIN THE SAME BUILDING AND WALL SEPARATING DWELLING OR SLEEPING UNITS FROM OTHER OCCUPANCIES TO THEM IN THE SAME BUILDING SHALL BE SEPARATED BY 1-HOUR FIRE PROTECTION IN ACCORDANCE WITH IBC SECTION 711. DWELLING UNIT SEPARATIONS SHALL HAVE A SOUND TRANSMISSION RATING (STC) OF NOT LESS THAN 50 AND AN IMPACT INSULATION CLASS (IIC) OF NOT LESS THAN 50 (45 IF FIELD TESTED) PER IBC 420; IBC 1207.

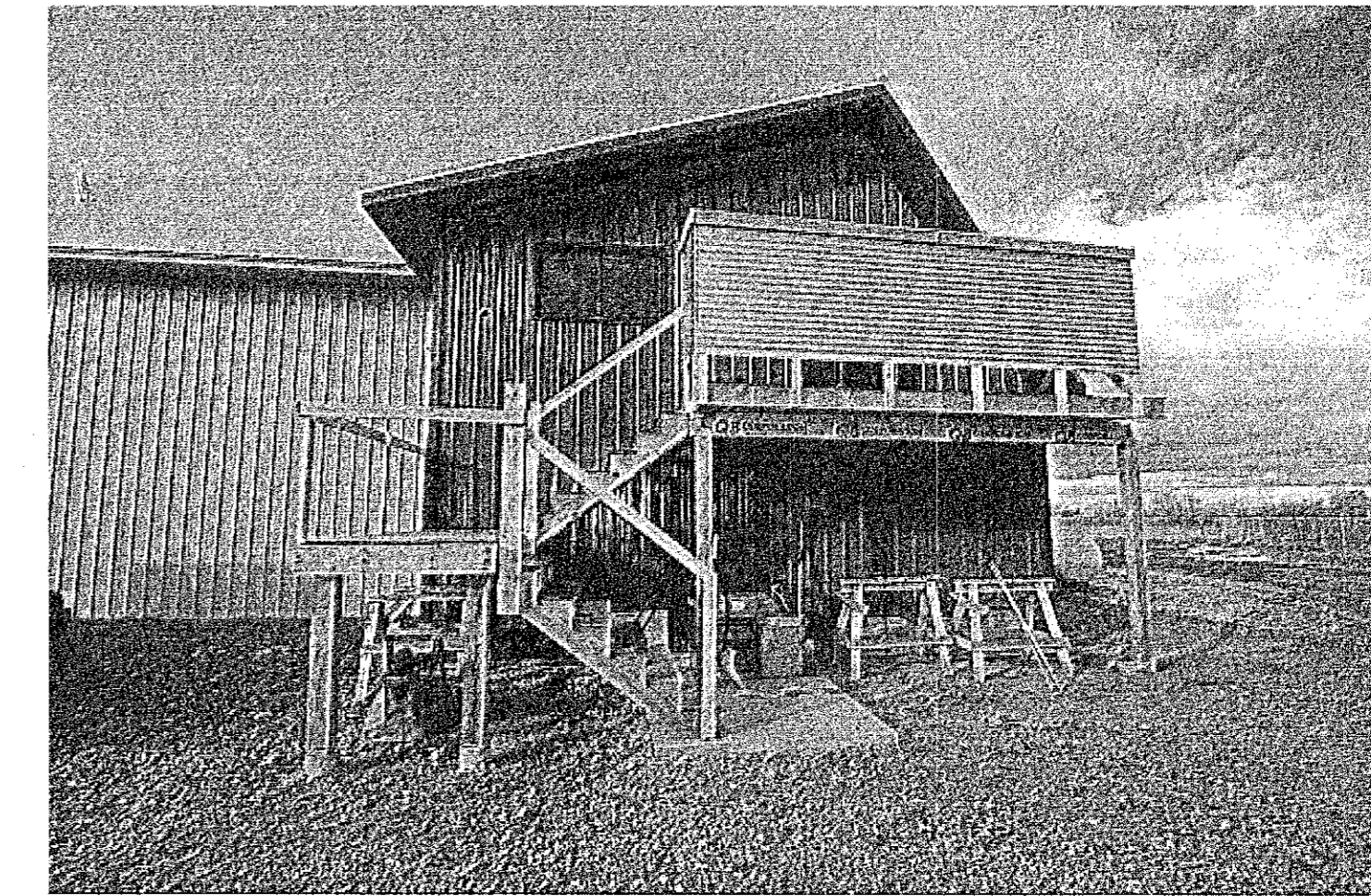
1 HR FLOOR ASSEMBLY B PER ESR-1774 ALTERNATIVE  
 SCALE: 1" = 1'-0"



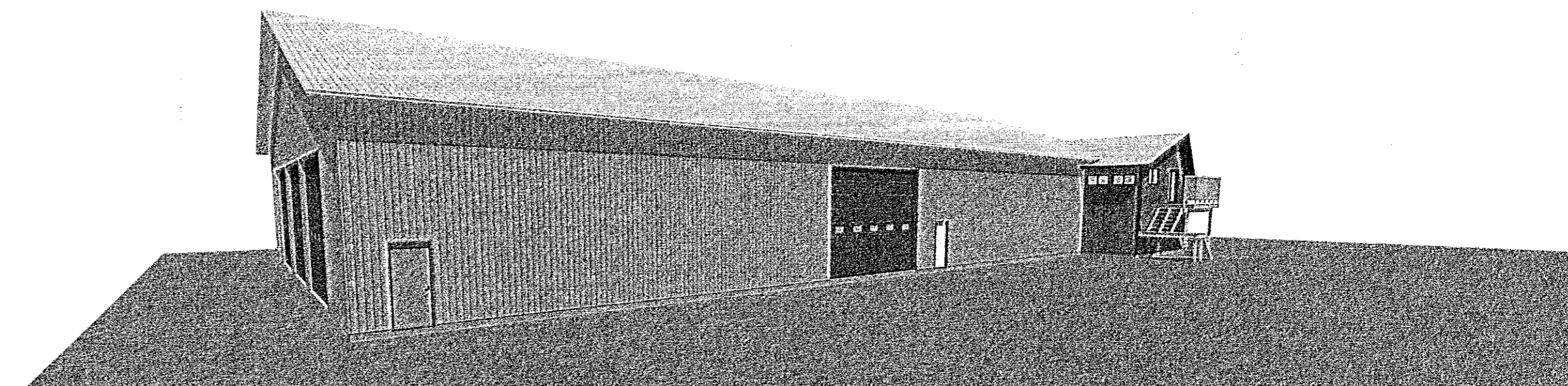
REV	DATE	DESCRIPTION
THE LOFT		
BELGRADE, MT		
DETAILS		
DRAWN BY: WJC	JURISDICTION: STATE OF MONTANA	SCALE: AS NOTED
DATE: 11/06/19	JOB #:N/A	SHEET NAME: A-4
CUSTOMER: MB		SHEET #: 4 of 4



Existing



Existing



**Scope of work**

This is 150 by 80 ft. grow warehouse (F-1 occupancy) with a 20 by 24 R3 / B carved out of the North east corner of the building. There is also an 8 by 20 ft. concentrate lab (H2/H3) located 79 ft. from the location of the R3/B with in the F-1 warehouse. The concentrate lab is housed within a metal shipping container.

Because of the carve out of 480 square ft. the F-1 facility is less than 12,000 square ft. and does not have to be sprinkled. Within the F-1 facility humidity, CO2, and fire loading are a concern. Table 508.4 of the 2012 IBC indicates that an F-1 and an R require a 2 hour fire separation. This is addressed in the wall and ceiling construction of the carve out and noted on the plans as to the type of fire separation. Both smoke detectors and CO2 detectors should be installed in the 1st and 2nd floors of the R3 construction.

The mechanical and electrical systems are isolated from the F-1 facility and the water system will have a backflow prevention installed to isolate the system from the possible chemical pollutants available in the F-1 facility. It is recommended that a positive air pressure be maintained in the R-3 facility to further isolate the occupants from possible adverse environmental concerns. If a small environmental fan was located on the northeast wall of the size of 80 - 120 cfm that was input air it would allow a positive air change between 2.4 hours and 1.6 hours.

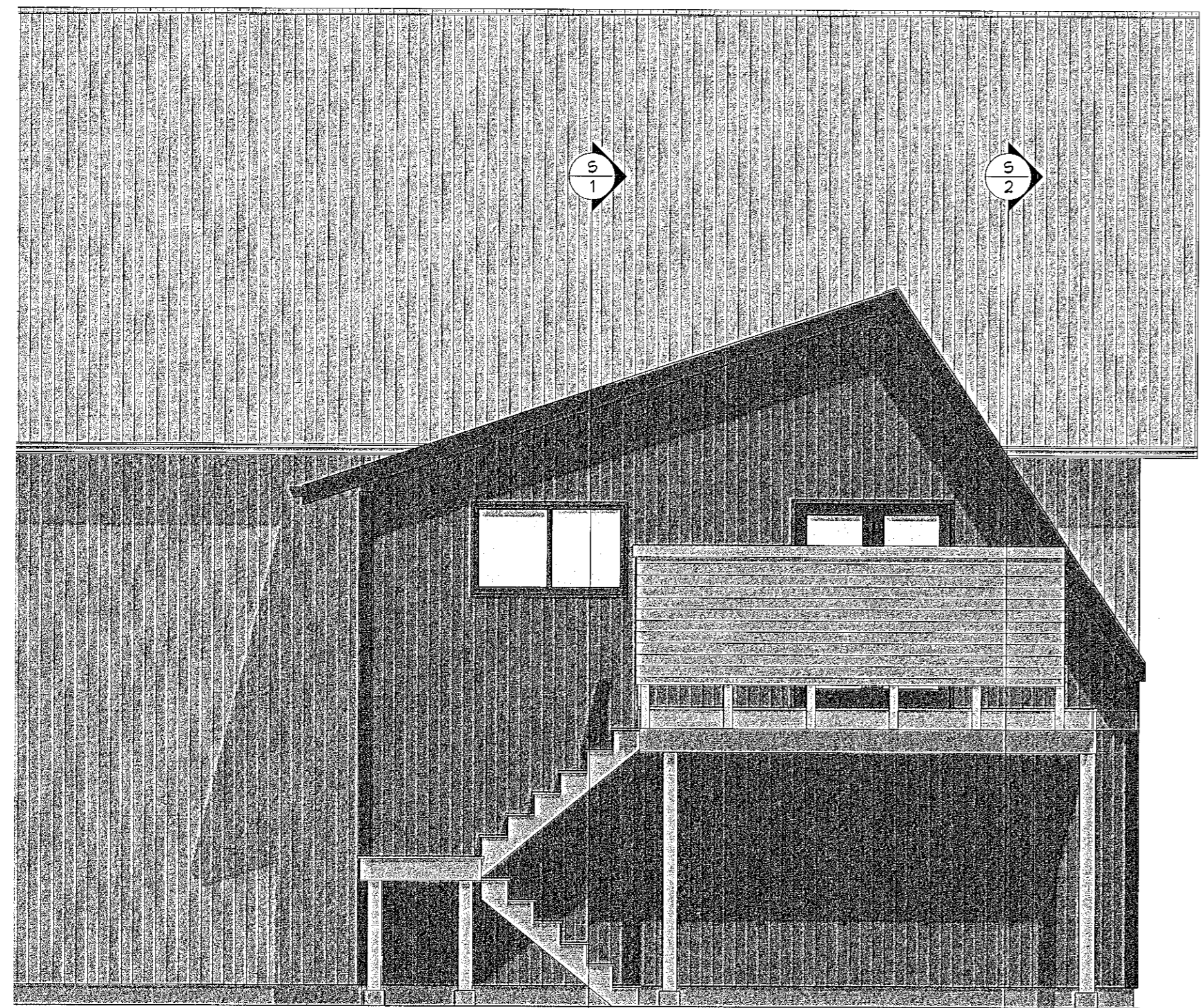
**Supporting documentation**

1. Overview - Marijuana Facilities and the building code
2. Occupancy classification - group F and R section 306 and 310
3. Table 508.4 required separation of occupancies
4. Various 2 hour wall separations
5. Various 2 hour floor / ceiling separations
6. Intumescent fire resistant coating ( Firefree 88) for use in mechanical room and roof ceiling of R3
7. Table 716.5 opening fire protection assemblies ( fire doors)

**Isolated Area**

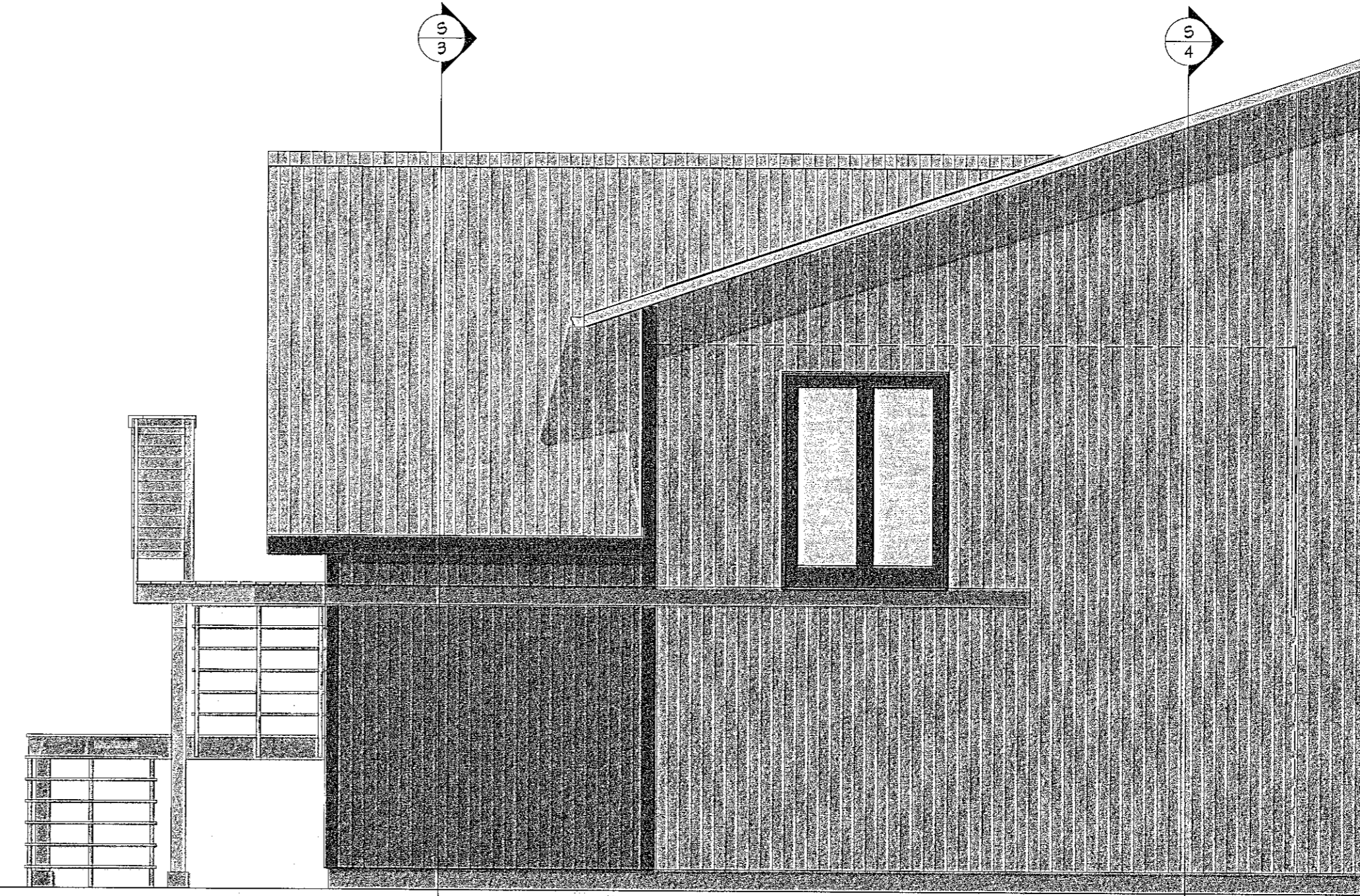
1st Level Worker Area/Storage,  
2nd Level Security Office - R3

Scale 3/32" = 1'



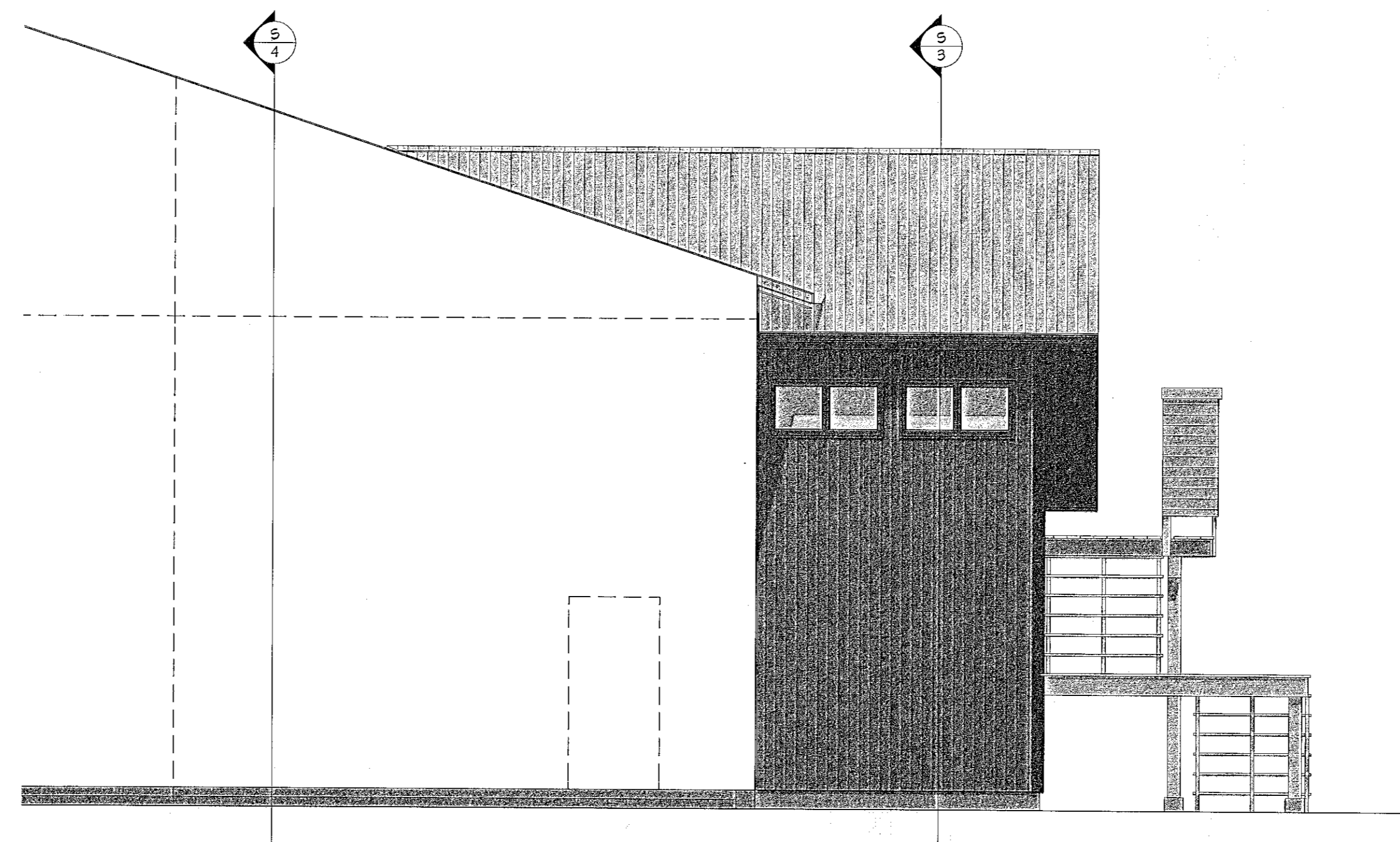
East Elevation

Scale 1/4" = 1'



North Elevation

Scale 1/4" = 1'



South Elevation

Scale 1/4" = 1'

Fire Protection Plan

7795 Thorpe Road

PAGE TITLE:

Elevations

DRAWN BY:

DATE:

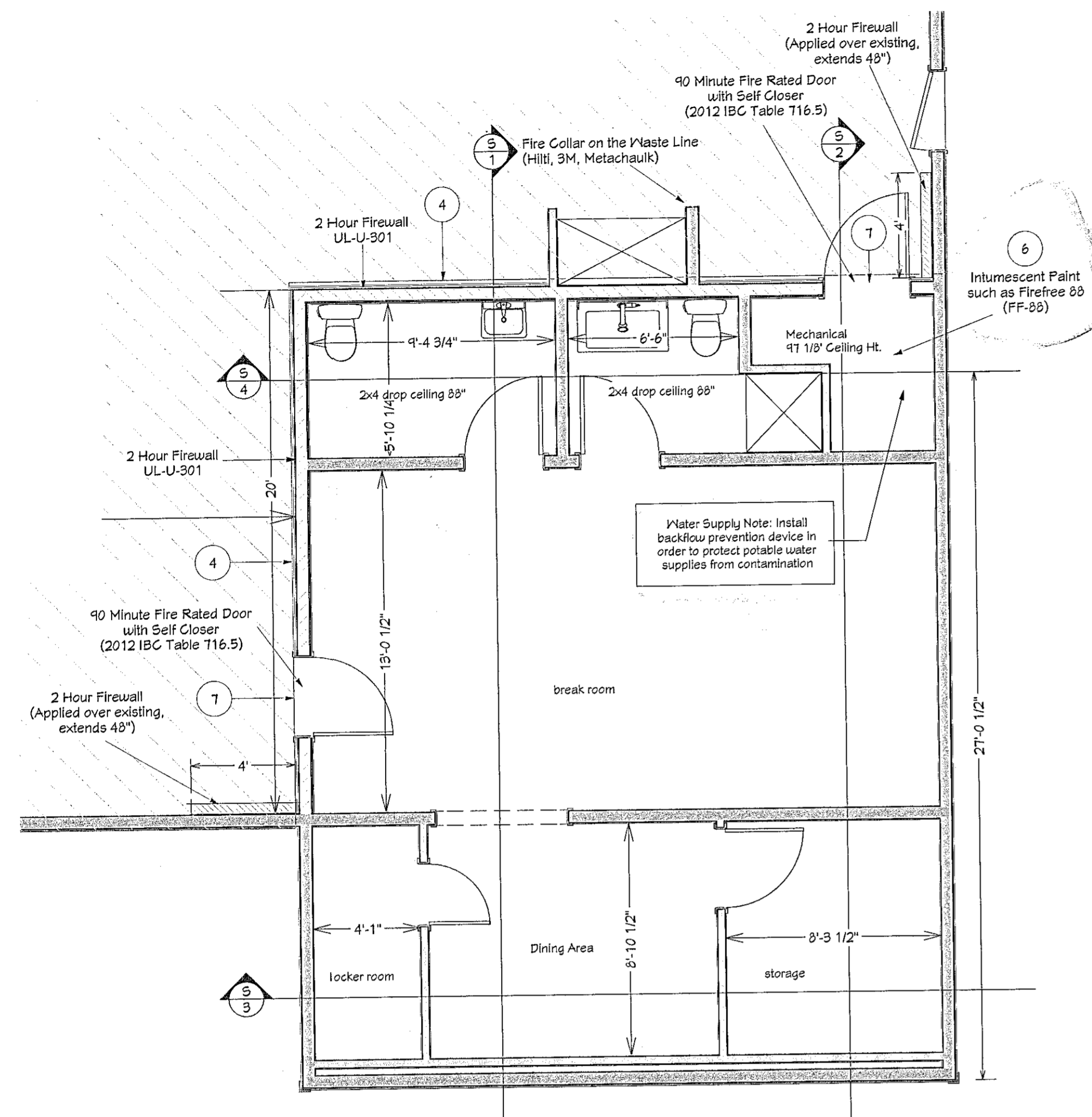
12/8/2019

SCALE:

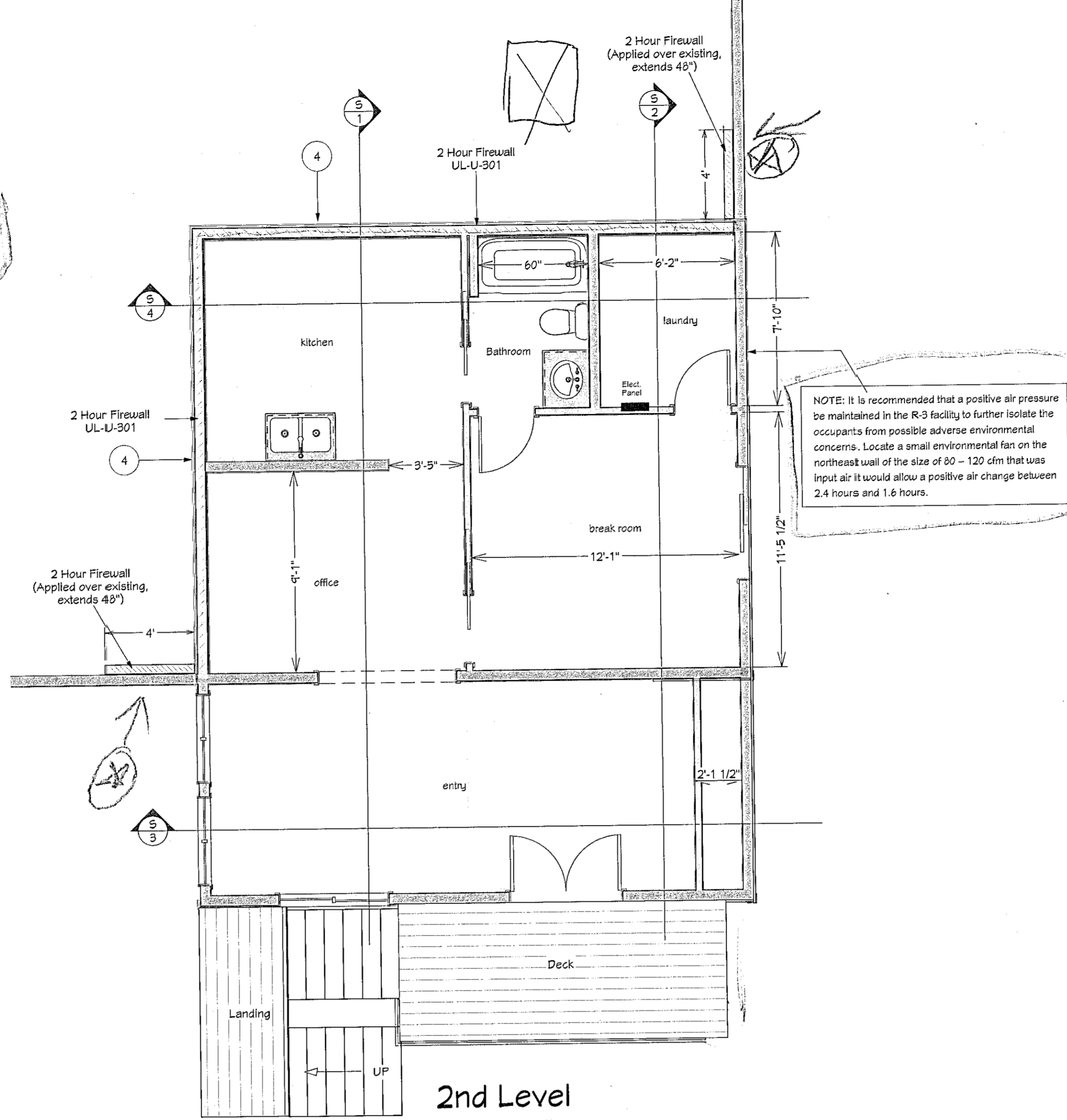
1/4" = 1'0"

SHEET #:

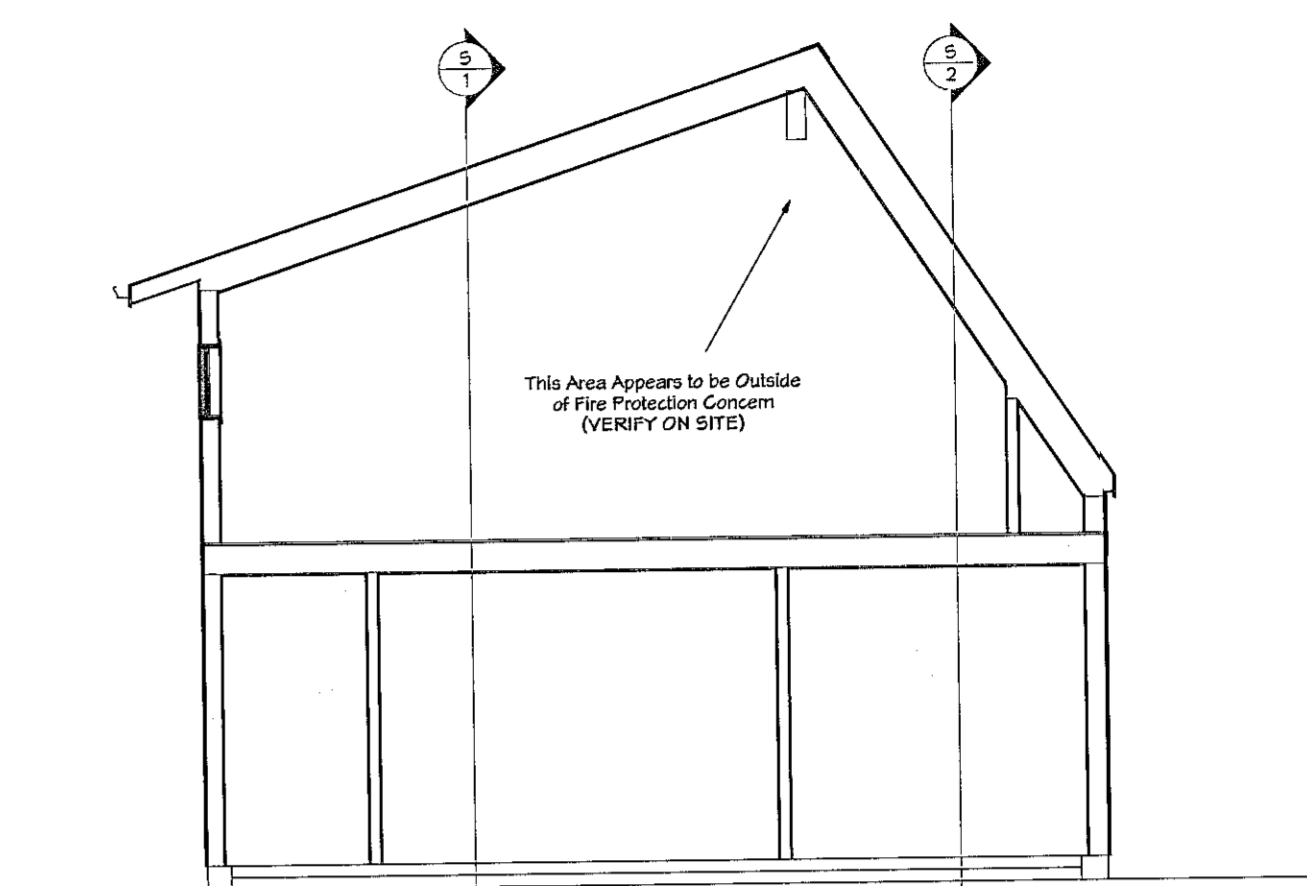
2



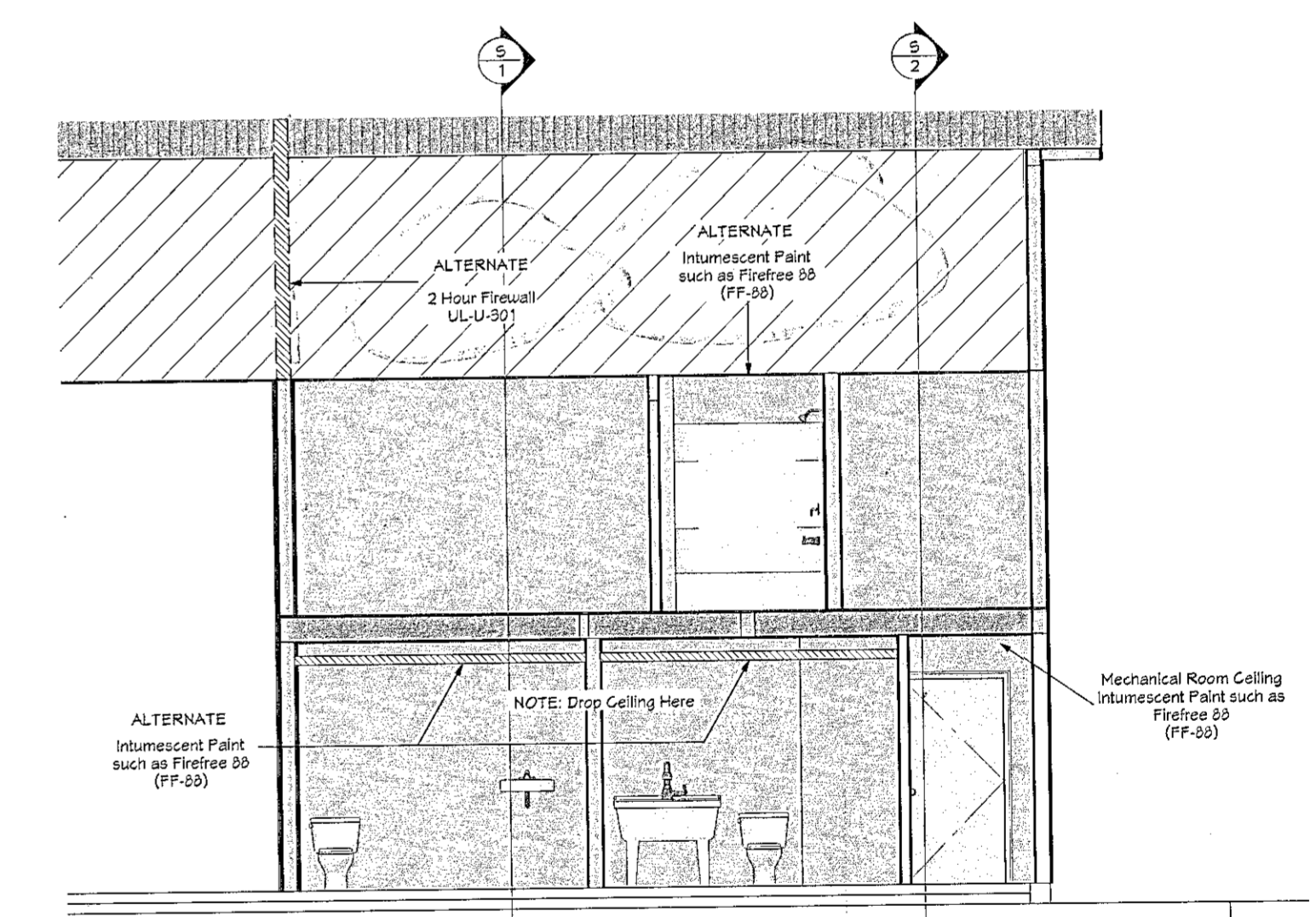
**1st Level**  
Scale 1/4" = 1'  
(Worker Area and Storage)



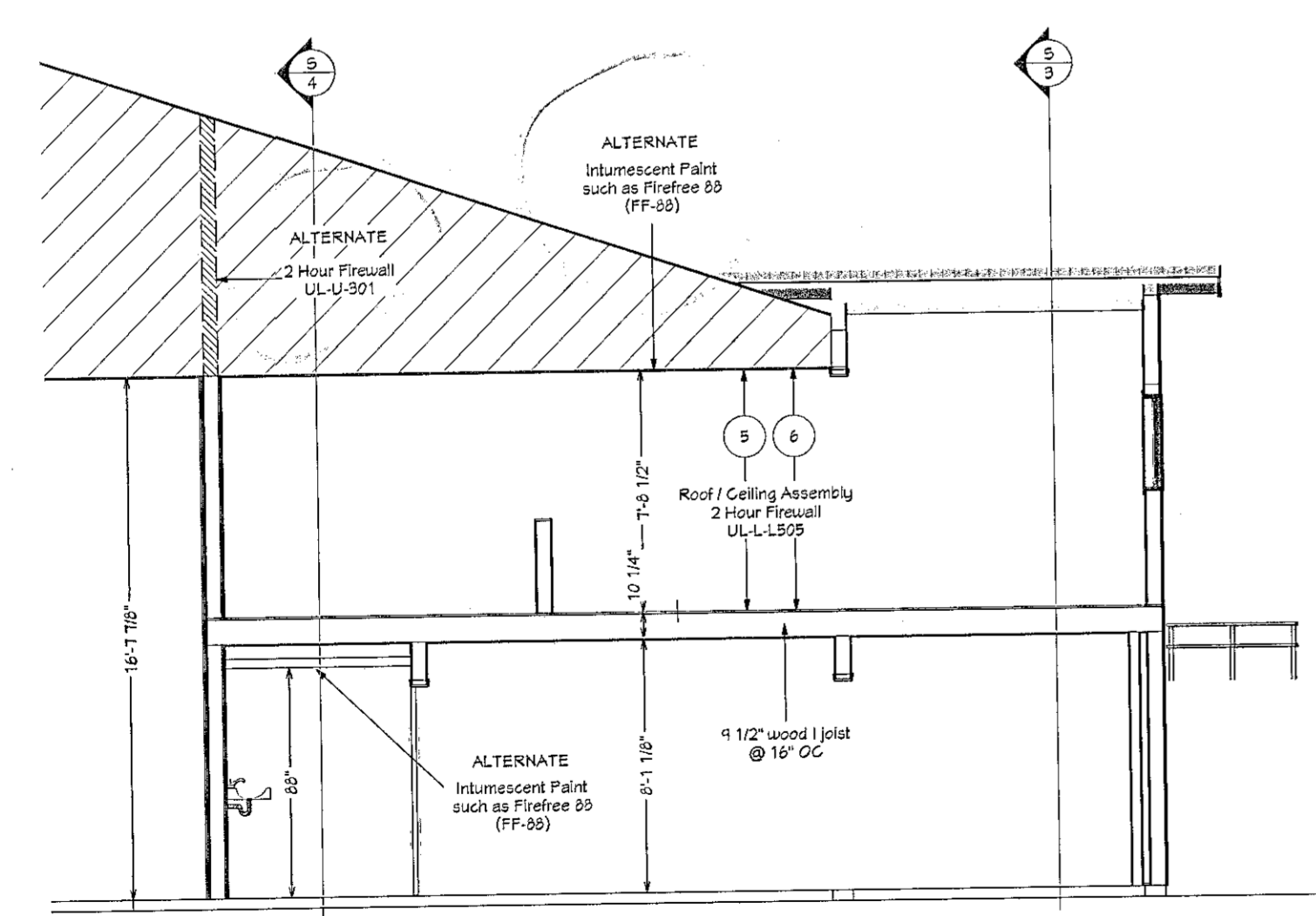
**2nd Level**  
Scale 1/4" = 1'  
(Security Office)



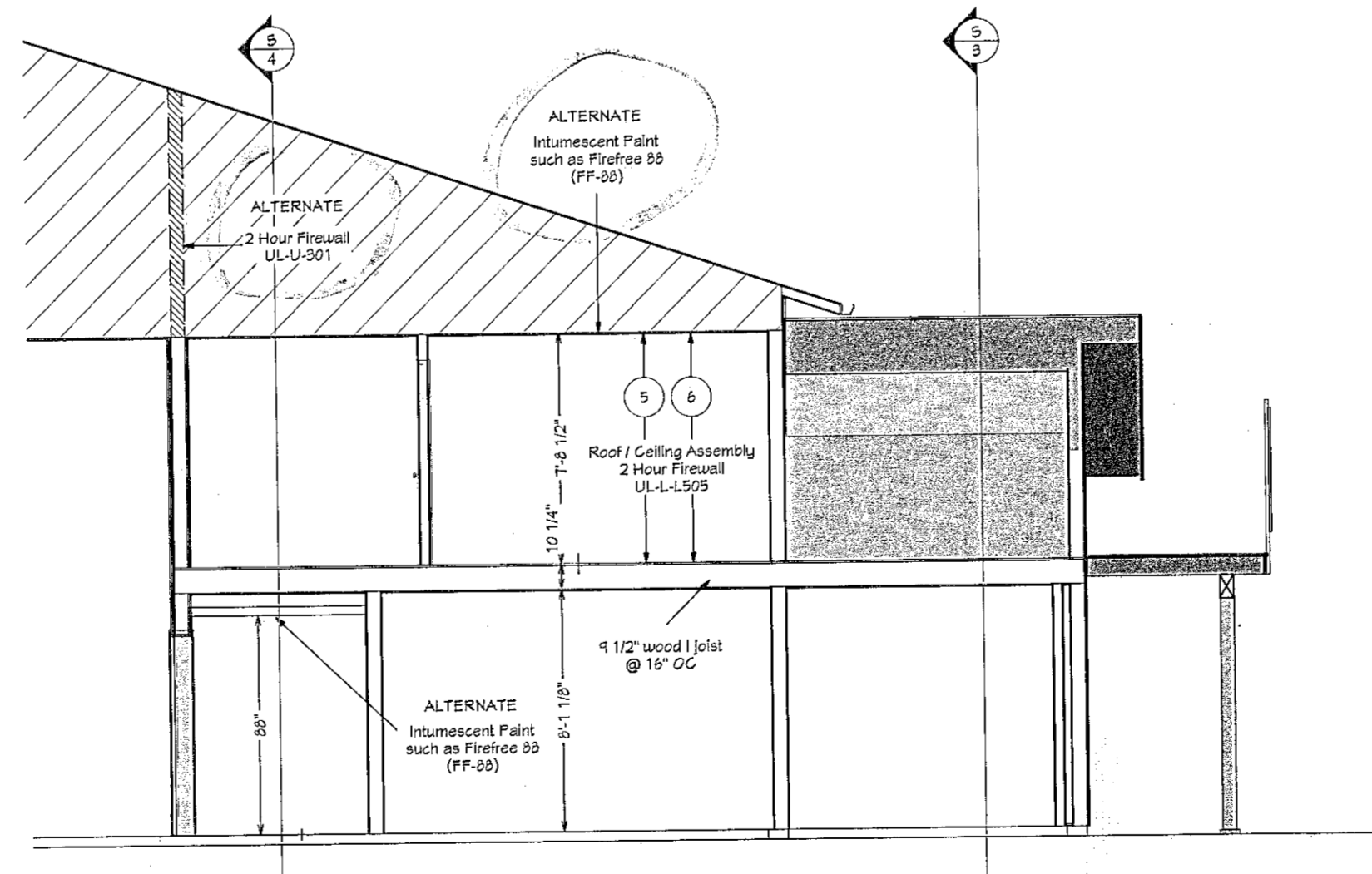
**S SECTION 3**  
Scale 3/16" = 1'



**S SECTION 4**  
Scale 3/16" = 1'



**S SECTION 1**  
Scale 3/16" = 1'



**S SECTION 2**  
Scale 3/16" = 1'

Scale 1/4" = 1'

# Fire Protection Plan

7795 Thorpe Road

PAGE TITLE:  
Plan View, Sections

DRAWN BY:
DATE: 12/8/2019
SCALE:
SHEET #: 3



# 6.

## Fire Resistant Coating

Firefree 88 paint is an intumescent fire-resistant coating that provides the fire-resistance ratings required by the International Building Code, per ASTM E 119 (1 and 2 hours), FM 4975, ASTM E 662-97, ASTM E 3675-98, ASTM E 162-98, ASTM E 1354-94, ASTM E 814, ASTM E 84, Room Corner Test (including UBC 8-2, NFPA 286, UBC 26-3), BS 476, 1530.4, and EN 13501-1.

- Cost efficient
- Fully tested and certified
- High performance
- Easy to use and apply
- Eco-friendly
- Usable on multiple substrates and assemblies
- Ahead of competition

FF88 Paint: High-Quality Intumescent Fire-Resistant Coating

### FF88 OVERVIEW

Firefree 88 ("FF88") is a premium-quality, water-based, nontoxic, thin film intumescent fire retardant and resistant paint. Our Firefree 88 paint is fully tested to provide fire ratings required by the International Building Code for wall assemblies, floor/ceilings assemblies, roof ceiling assemblies and individual structural members. With a proper intumescent fire resistant coating, a structure can withstand heat that would destroy most buildings, allowing vital time for occupants to exit in emergencies and for fire responders to save the building.

### Fully tested and certified

FF88 paint has been tested to multiple standards worldwide, including ASTM E119 (1 and 2 hours), FM 4975, ASTM E 662-97, ASTM E 3675-98, ASTM E 162-98, ASTM E 1354-94, ASTM E 814, ASTM E84, Room Corner Test including UBC 8-2, NFPA 286, UBC 26-3 (Part 1 of FM Class 4880), BS 476 in England, AS 1530.3, 1530.4, in Australia, EN 13501 in Poland, and SISR door test standards in Singapore. FF88 is listed and labeled by FM Approvals, listed and inspected by ICC, classified by UL and accepted by NY MEA.

FireFree 88 paint is the first coating to bring a true fire barrier to a wide variety of materials and assemblies. FF88 has been shown to withstand temperatures of up to 2000° Fahrenheit for up to two hours. As a result, FF88 provides a high level of fire protection which assists in (i) containing the fire to its room of origin, (ii) limiting smoke propagation and (iii) preserving structural integrity. Firefree 88 is simple to use. FF88 is a non-toxic, high-quality, water-based resistant (matte) paint with an excellent adhesion and durability and smooth architectural-grade finish (white, flat). It is easy to apply by roller, sprayer, or brush. In most cases, FF88 will be self-priming, thus resulting in additional cost savings. It is non-toxic, has low odor and may be tinted.

Our products are eco-friendly and safe. They have low VOCs (<36gr/liter) which is extremely low compared to the current EPA regulations of 250gr/liter (per ASTM 3960). It is even significantly lower than California's limit of 50gr/liter. This proves that they are non-toxic, non-flammable and environmentally friendly. Additionally, Firefree 88 qualifies for LEED v4, is Green Categorized under FM Approvals and meets Green Standards Performance under MPI GFS-01 and GFS-02.

### Usable on multiple substrates / assemblies

FF88 can be applied to most substrates used in the construction and transportation industries. These materials include wood, lathe and plaster, and gypsum board (sheetrock, plasterboard). This paint can also be applied to other materials, such as concrete, masonry, embossed/pressed metal tin, thin gauge metal, galvanized steel and aluminum, spray polyurethane foam (SPF), fiberglass, carbon fiber, plastics and other composite materials.

# 7.

## Opening Fire Protection Assemblies

TABLE 716.5  
OPENING FIRE PROTECTION ASSEMBLIES, RATINGS AND MARKINGS

TYPE OF ASSEMBLY	REQUIRED WALL ASSEMBLY RATING (hours)	MINIMUM FIRE DOOR AND FIRE SHUTTER ASSEMBLY RATING (hours)	DOOR VISION PANEL SIZE	FIRE RATED GLAZING MARKING DOOR VISION PANEL*	MINIMUM SIDELIGHT/TRANSOM ASSEMBLY RATING (hours)		FIRE-RATED GLAZING MARKING SIDELITE/TRANSOM PANEL	
					Fire protection	Fire resistance	Fire protection	Fire resistance
Fire walls and fire barriers having a required fire-resistance rating greater than 1 hour	4	3	Not Permitted	Not Permitted	Not Permitted	4	Not Permitted	W-240
	3	3 <sup>a</sup>	Not Permitted	Not Permitted	Not Permitted	3	Not Permitted	W-180
	2	1 1/2	100 sq. in. <sup>c</sup>	≤100 sq.in. = D-H-90 >100 sq.in. = D-H-W-90	Not Permitted	2	Not Permitted	W-120
	1 1/2	1 1/2	100 sq. in. <sup>c</sup>	≤100 sq.in. = D-H-90 >100 sq.in. = D-H-W-90	Not Permitted	1 1/2	Not Permitted	W-90
Shaft, exit enclosures and exit passageway walls	2	1 1/2	100 sq. in. <sup>c,d</sup>	≤100 sq.in. = D-H-90 >100 sq.in. = D-H-T or D-H-T-W-90	Not Permitted	2	Not Permitted	W-120
Fire barriers having a required fire-resistance rating of 1 hour: Enclosures for shafts, exit access stairways, exit access ramps, interior exit stairways, interior exit ramps and exit passageway walls	1	1	100 sq. in. <sup>c,d</sup>	≤100 sq.in. = D-H-60 >100 sq.in. = D-H-T-60 or D-H-T-W-60	Not Permitted	1	Not Permitted	W-60
					Fire protection			
Other fire barriers	1	1/4	Maximum size tested	D-H-NT-45	1/4		D-H-NT-45	
Fire partitions: Corridor walls	1	1/8	Maximum size tested	D-20	1/8		D-H-OH-45	
	0.5	1/8	Maximum size tested	D-20	1/8		D-H-OH-20	
Other fire partitions	1	1/4	Maximum size tested	D-H-45	1/4		D-H-45	
	0.5	1/8	Maximum size tested	D-H-20	1/8		D-H-20	

### FIRE AND SMOKE PROTECTION FEATURES

TABLE 716.5—continued  
OPENING FIRE PROTECTION ASSEMBLIES, RATINGS AND MARKINGS

TYPE OF ASSEMBLY	REQUIRED WALL ASSEMBLY RATING (hours)	MINIMUM FIRE DOOR AND FIRE SHUTTER ASSEMBLY RATING (hours)	DOOR VISION PANEL SIZE	FIRE RATED GLAZING MARKING DOOR VISION PANEL*	MINIMUM SIDELIGHT/TRANSOM ASSEMBLY RATING (hours)		FIRE-RATED GLAZING MARKING SIDELITE/TRANSOM PANEL		
					Fire protection	Fire resistance	Fire protection	Fire resistance	
Exterior walls	3	1 1/2	100 sq. in. <sup>c</sup>	≤100 sq.in. = D-H-90 >100 sq.in. = D-H-W-90	Not Permitted	3	Not Permitted	W-180	
	2	1 1/2	100 sq. in. <sup>c</sup>	≤100 sq.in. = D-H-90 >100 sq.in. = D-H-W-90	Not Permitted	2	Not Permitted	W-120	
						Fire Protection			
	1	1/4	Maximum size tested	D-H-45	1/4		D-H-45		
					Fire protection				
Smoke barriers	1	1/8	Maximum size tested	D-20	1/8		D-H-OH-15		

For SI: 1 square inch = 645.2 mm.

- Two doors, each with a fire protection rating of 1 1/2 hours, installed on opposite sides of the same opening in a fire wall, shall be deemed equivalent in fire protection rating to one 3-hour fire door.
- For testing requirements, see Section 716.6.3.
- Fire-resistance-rated glazing tested to ASTM E 119 in accordance with Section 716.2 shall be permitted, in the maximum size tested.
- Except where the building is equipped throughout with an automatic sprinkler and the fire-rated glazing meets the criteria established in Section 716.5.5.
- Under the column heading "Fire-rated glazing marking door vision panel," "W" refers to the fire-resistance rating of the glazing, not the frame.

PAGE TITLE:

Notes

DRAWN BY:

DATE:  
12/8/2019

SCALE:

SHEET #:

5