

Project: POWDER MOUNTAIN CABIN 1000 CODE ANALYSIS

Project No.		x	User Input
Date:	10/14/2016	x	Auto Input
		Yes	Incorporated in the Project
		N/A	Not Applicable as part of this Project
		AGP	Above Grade Plane- story
		FDVA	Fire Department Vehicle Access
		FSD	Fire Separation Distance
		BO	Building Official

Planning & Zoning Official: WEBER COUNTY, UTAH
 Building Official: WEBER COUNTY, UTAH
 Plans Examiner: WEBER COUNTY, UTAH
 Engineering: WEBER COUNTY, UTAH
 Health Department: WEBER COUNTY, UTAH

Applicable Codes:

Year	Code	Description
2015	IBC	International Building Code, with Appendix "J"
2015	IFC	International Fire Code
2015	IRC	International Residential Code (Parts I-IV and IX)
2015	IPC	International Plumbing Code
2015	IMC	International Mechanical Code
2014	NEC	National Electrical Code
2015	IFGC	International Fuel Gas Code
2015	IECC	International Energy Conservation Code: Residential
2015	IECC	International Energy Conservation Code: Commercial
2009	ANSI	ICC/American National Standard A117.1 + FHA + ADAAG
Y		Amendments (State or Local) (Building Code Amend. at www.dopl.utah.gov)
		Title 18 of Salt Lake City Ordinances

Chapter 3 - Occupancy Classification

Occupancy Proposed	Stories	Occupancy	HRS * / F.S.
R3	2	R3	0 / 0

* Check Footnotes that May Apply c. Section 406.3.4

Chapter 4 - Special Requirements

406 Motor Related Occupancies
 Yes 420.2 Separation between R2 occupancies with 1 hour fire partition as per 708
 Yes 420.3 Horizontal Separation- Separation between units shall be 1 hour.

Chapter 6- Construction Type

Table 601	Table 601		
Occupancy	Type	Fire-Rating per Occupancy*	
R3	V8	Type:	V8
		Structural Frame	0
		Bearing Walls Ext.	0
		Bearing Walls Int.	0
		Nonbearing walls & part at ext.	0
		Nonbearing walls & part at int.	0
		Floor Construction - Second, members	0
		Floor Construction - Second, members	0

* Check footnotes that might apply

Table 602: Fire Resistance for Exterior wall/Fire Separation Distance	Fire Separ.	Const. Type	R3
Yes	x<5	All	1
Yes	5<=x<10	IA, Others	1
N/A	10<=x<30	IA, YA	1"
Yes	x>=30	All	0

Chapter 5 - General Building Heights and Areas Strategy

Mark which Strategy Taken:	Occ	Height (ft)	Story	Area (sf)	Area (sf)	Area (sf)
Accessory Occ:	R3	55	4*	UNLIMITED		1,332
Incidental Acc. Occ:						
Single Occ:						
Mixed Occ:						
Nonseparated Uses:						
Separated Uses:						

* 4 STORIES ALLOWED WITH FIRE SPRINKLERS PER NFPA 13 OR 13R

11 OCCUPANCY -

506.1 Area Calculation

A ₀	=	A ₁	+	A ₂	+	A ₃	+	A ₄	+	A ₅
A ₁	=	UNLIMITED		0.00		0		0		0
A ₂	=	UNLIMITED		0		0.0000		0		0
A ₃	=	UNLIMITED		0		0		0		0
A ₄	=	UNLIMITED		0		0		0		0
A ₅	=	UNLIMITED		0		0		0		0

506.2 Frontage Increase

I _f	=	F	-0.25	W	30			
I _f	=	60		102.5				
I _f	=	20		30				
I _f	=	0.585365854	+	-0.25	0.666666667	=	0.335365854	0.666666667
I _f	=	0.00						

NO AREA INCREASE TAKEN FOR SIDE YARDS

(Chp. 7) - Fire-Resistance Rated Construction (List Items)

No	704.2 Column Protection:	Primary structural frame individually protected.
No	704.3 Protection of the Primary Structural Frame other than columns:	Requires individual protection when carry more than two floors or one floor and one roof.
No	704.10 Exterior Structural Members:	Requires individual protection when carry more than two floors or one floor and one roof.
No	705 Exterior Walls:	705.2 Projections: Shall not extend closer to FSD than Table 705.2.
Yes	705.2.2 Type V-8	of any approved material
	705.2.3 Combustible projections	either: 1-hr rated construction, type V-8 construction.
No	712 Vertical Openings:	712.1, 2 Two-story openings: Allowed within individual dwelling unit
N/A	718 Concealed Spaces:	718.2 Fireblocking: Required throughout.
N/A	718.3 Draftstopping in floors:	718.3.3: Exception- Not required if building equipped throughout with an NFPA 13 automatic sprinkler system
N/A	718.4 Draftstopping in attics:	718.4.3: Exception- Not required if building equipped throughout with an NFPA 13 automatic sprinkler system

Chapter 8 - Finishes

Table 803.9 Interior Wall and Ceiling Finish Requirements by Occupancy: sprinklered

Group	Exiting Elements	Corridors	Rooms & enclosed Spaces
R3	B	C	C

Chapter 9 - Fire Protection Systems

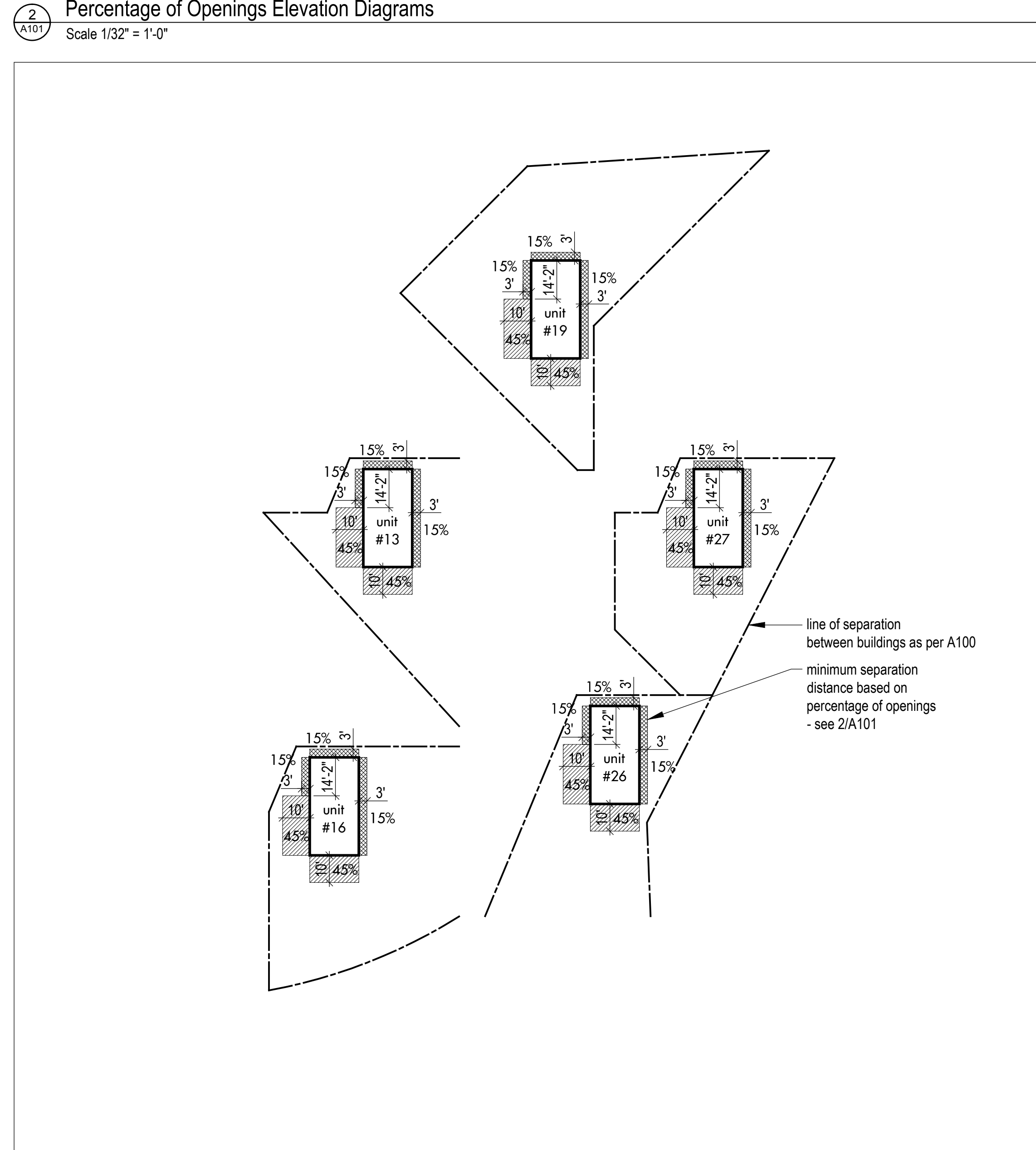
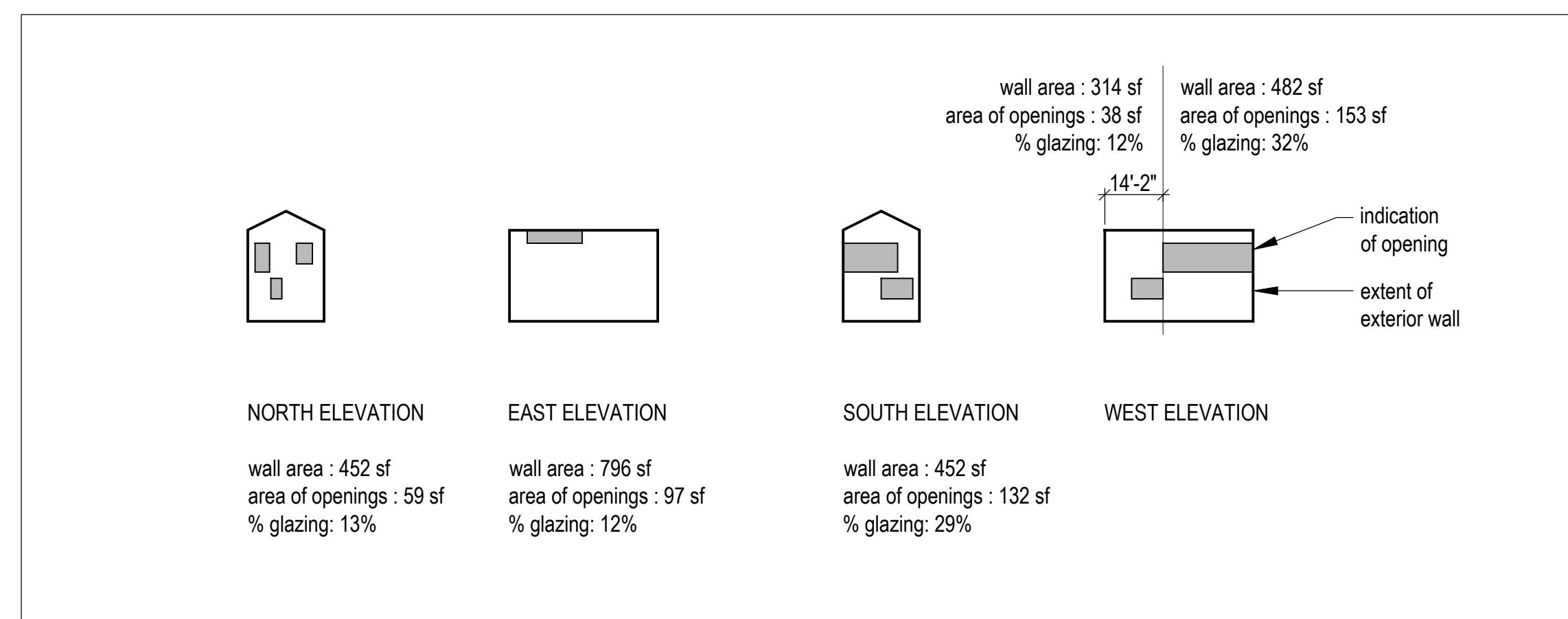
903.2 Automatic Sprinkler Systems Where Required:	R3	Required.
903.3.1 FS Standards: Install FS as per 903.3.1.1, 903.3.1.2 or 903.3.1.3:	N/A	
903.3.1.2 NFPA 13R sprinkler systems: Group R when ≤ 4 stories in height.	YES	903.3.1.2.1 Balconies and decks: Provide FS when bldg is of Type V const.
903.3.2 Quick-response and residential sprinklers: Install FS as per 903.3.1 in Group R dwelling units.	Yes	
906.1 Portable Fire Extinguishers where required:	R3	Required per Dwelling Unit- 1-A10-B:C
907.2 Fire Alarm and Detection Systems- Where required: Installed as per IBC and NFPA 72	R3	907.2.8: Not required, but exception 2 must be met

Chapter 10 - Means of Egress

Table 1004.1 - Occupant Load: See 'G' Sheets for floor plans showing occupant loads per space.	
1005 Egress Width: 0.3 x OL for stairs and 0.2 x OL for other egress components- See 'G' Sheets for floor plans showing stairs and egress components and width required and provided.	
1007 Accessible means of Egress	
Table 1017.2 - Exit access travel distance	R3 = 200' (NFPA 13R) = 400' (NFPA 13)
1016.1 - Unenclosed Stairs: exception #3- travel distance shall be measured from the most remote point in the building to an exit discharge.	N/A
1022 Interior exit stairways and ramps:	Yes
1- 1022.2: 1-hr fire barrier when ≤ 4 stories.	
2- Construct as per 1022.2 - 1020.10.	
(Chp. 11) Accessibility	
1103 Scope:	No
1103.2.3 Detached One and Two Family dwellings are exempt from Chapter 11	
1107.7 General Exceptions	No
1107.2.2 Multi-story units without elevator service are not required to have Type B, and are exempt.	
(Chp 12) Interior Environment	
1207 Sound Transmission:	Yes
1207.3 Structure-borne Sound: Dwelling unit must be separated with a floor/ceiling assemblies that have an STC rating ≥ 50 (45 if field tested).	
1207.2 Air-borne Sound: Dwelling unit must be separated with walls, partitions and floor/ceiling assemblies that have an IIC rating ≥ 50 (45 if field tested).	

building number	northwest corner natural grade elevation	northeast corner natural grade elevation	southwest corner natural grade elevation	southeast corner natural grade elevation	upper level floor elevation	height to building ridge	average building height (less than 35')
13	8783.05	8782.35	8771.40	8769.95	8791.00	8806.00	29.5
16	8743.15	8743.2	8735.11	8734.30	8754.00	8769.00	30.25
19	8810.00	8807	8795.30	8793.25	8821.00	8836.00	34.375
26	8695.10	8694.6	8686.10	8685.20	8707.00	8722.00	31.85
27	8710.75	8709.8	8705.40	8705.10	8721.00	8736.00	28.075

3 Height Restriction Chart
 Scale 1/32" = 1'-0"



Horizon Neighborhood CABINS

Submit Powder Mountain Eten Utah

MackKay-Lyons Sweetapple Architects Limited

2188 Göttingen St. Halifax, Nova Scotia Canada B3K 3B4

ph: (902) 429-1867 fax: (902) 429-6276

STATE OF UTAH
 Brian MackKay-Lyons
 No. 9809836
 LICENSED ARCHITECT

No.	Description	Date
01	Issued for FDN Permit	28.10.2016

Revision:

NOTES:

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 The use of this drawing shall be governed by standard copyright law as generally accepted in architectural practice.

ARCHITECT'S REQUIREMENTS AND APPROVALS:
 It is the Builder's responsibility to notify MackKay-Lyons Sweetapple Architects Ltd. and to seek prior written approval for materials and workmanship which deviates from instructions provided by the Architect.

ENGINEER'S REQUIREMENTS AND APPROVALS:
 It is the Builder's responsibility to notify MackKay-Lyons Sweetapple Architects Ltd. and to seek prior written approval for materials and workmanship which deviates from instructions provided by the Engineer.

AUTHORITIES' REQUIREMENTS AND APPROVALS:
 All materials and workmanship must comply with the requirements of all authorities having jurisdiction over the work. It is the Builder's responsibility to gain necessary approval from all relevant Authorities.

DIMENSIONS:
 All dimensions must be verified on site. Do not scale off drawings. Plans take precedent over elevations. In the absence of dimensions, or if discrepancies exist, consult Architect. All minimum dimensions are to comply with the National Building Code of Canada.

SHOP DRAWINGS:
 Submit shop drawings to the Architect and Engineer for approval prior to manufacture of prefabricated elements of the building.

Cabin 1000 - Code Review

scale: varies
 date: 16-07-04
 drawn: DP
 chkd: BML

A101

Project: POWDER MOUNTAIN CABIN 1500 CODE ANALYSIS

Project No.	16/11/2016	x	User Input
Date:		x	Auto Input
		Yes	Incorporated in the Project
		N/A	Not Applicable as part of this Project
		AGP	Above Grade Plane-story
		FDVA	Fire Department Vehicle Access
		FSD	Fire Separation Distance
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Chapter 3 - Occupancy Classification

Occupancy Proposed	Stories	Occupancy	HRS * / F.S.
R3	2	R3	0 / 0

* Check Footnotes that May Apply c. Section 406.3.4

Chapter 4 - Special Requirements

406 Motor Related Occupancies
 420.2 Separation between R2 occupancies with 1 hour fire partition as per 708
 420.3 Horizontal Separation- Separation between units shall be 1 hour.

Chapter 6- Construction Type

Table 601	Table 601	Table 601
Occupancy	Type	Fire-Rating per Occupancy*
R3	VB	VB
	Structural Frame	0
	Bearing Walls Ext.	0
	Bearing Walls Int.	0
	Nonbearing walls & part at ext.	0
	Nonbearing walls & part at int.	0
	Floor Construction + Second. members	0
	Roof Construction + Second. members	0

* Check footnotes that might apply

Table 602: Fire Resistance for Exterior wall/Fire Separation Distance		
Fire Separ.	Const. Type	R3
x<5	All	1
5<=x<10	IA, Others	1
10<=x<20	IA, VA	1
x>=30	All	0

Chapter 5 - General Building Heights and Areas Strategy

IBC 2015: Table 504.3, 504.4, 506.2	V-B	V-B	V-B	A ₂	A ₃
Mark which Strategy taken:	H ₁	S ₁	H ₂ (B)	Area (sf)	Area (sf)
Necessary Occ:	R3	50	4'	UNLIMITED	1,960
Incidental Acc. Occ:					
Single Occ:					
Mixed Occ:					
Nonseparated Uses:					
Separated Uses:					

* 4 STORIES ALLOWED WITH FIRE SPRINKLERS PER NFPA 13 OR 13R - 60ft. Maximum

OCCUPANCY - 506.1 Area Calculation

A₂ = (Total Building) A₁ + A₁ + A₁ + A₁

A₁ = Allowable Area per Floor
 A₂ = Tabular Area per Table 503 (square feet)
 A₁ = Area Increase due to frontage
 A₁ = Area Increase due to sprinkler protection

A₁ = UNLIMITED Table 503, Type V-B, Group R3 NFPA 13R
 A₁ = UNLIMITED Sec. 506.2 See calculation below
 A₁ = UNLIMITED Sec. 506.3 Fully Sprinkled: 200% for Multi-Story Building / 300% for Single Story

A₂ = UNLIMITED + 0 + 0.0000 + 0 + 0 + 0
 A₂ = UNLIMITED + 0 + 0 + 0 + 0 + 0 + 0
 A₂ = UNLIMITED sf ALLOWABLE AREA PER FLOOR
 A₂ = UNLIMITED sf ALLOWABLE AREA OF BUILDING

ACTUAL AREA < ALLOWABLE AREA PER FLOOR
 960 UNLIMITED OK, ALLOWABLE EXCEEDS ACTUAL

ACTUAL AREA < ALLOWABLE AREA PER BUILDING
 1,960 UNLIMITED OK, ALLOWABLE EXCEEDS ACTUAL

(Chp. 7)- Fire-Resistance Rated Construction (List Items)

No	704.2 Column Protection:	Primary structural frame individually protected.
No	704.3 Protection of the Primary Structural Frame other than columns:	Requires individual protection when carry more than two floors or one floor and one roof.
No	704.10 Exterior Structural Members:	Requires individual protection when carry more than two floors or one floor and one roof.
No	705 Exterior Walls:	
No	705.2 Projections:	Shall not extend closer to FSD than Table 705.2.
Yes	705.2.2 Type V-B of any approved material	
	705.2.3 Combustible projections either:	1-hr rated construction, type V-B construction.
No	705.5 Fire-resistance ratings:	> 10 ft. exterior wall rated for exposure from inside only ≤ 10 ft. exterior wall rated for exposure from both sides

No	712 Vertical Openings:	712.1.2 Two-story openings: Allowed within individual dwelling unit
Yes	718 Concealed Spaces:	718.4 Draftstopping in Attics - Required.

Chapter 8 - Finishes

Group	Exiting Elements	Corridors	Rooms & enclosed Spaces
R3	B	C	C

Chapter 9 - Fire Protection Systems

903.2 Automatic Sprinkler Systems Where Required:	R3	Required.
903.3.1 FS Standards: Install FS as per 903.3.1.1, 903.3.1.2 or 903.3.1.3:	N/A	
903.3.1.2 NFPA 13R sprinkler systems: Group R when ≤ 4 stories in height.	Yes	903.3.1.2.1 Balconies and decks: Provide FS when bldg is of Type V const.
903.3.2 Quick-response and residential sprinklers: Install FS as per 903.3.1 in Group R dwelling units.	Yes	
906.1 Portable Fire Extinguishers where required:		
907.2 Fire Alarm and Detection Systems- Where required: Installed as per IBC and NFPA 72	R3	Required per Dwelling Unit- 1-A-10-B-C
907.2.8 : Not required, but exception 2 must be met	R3	

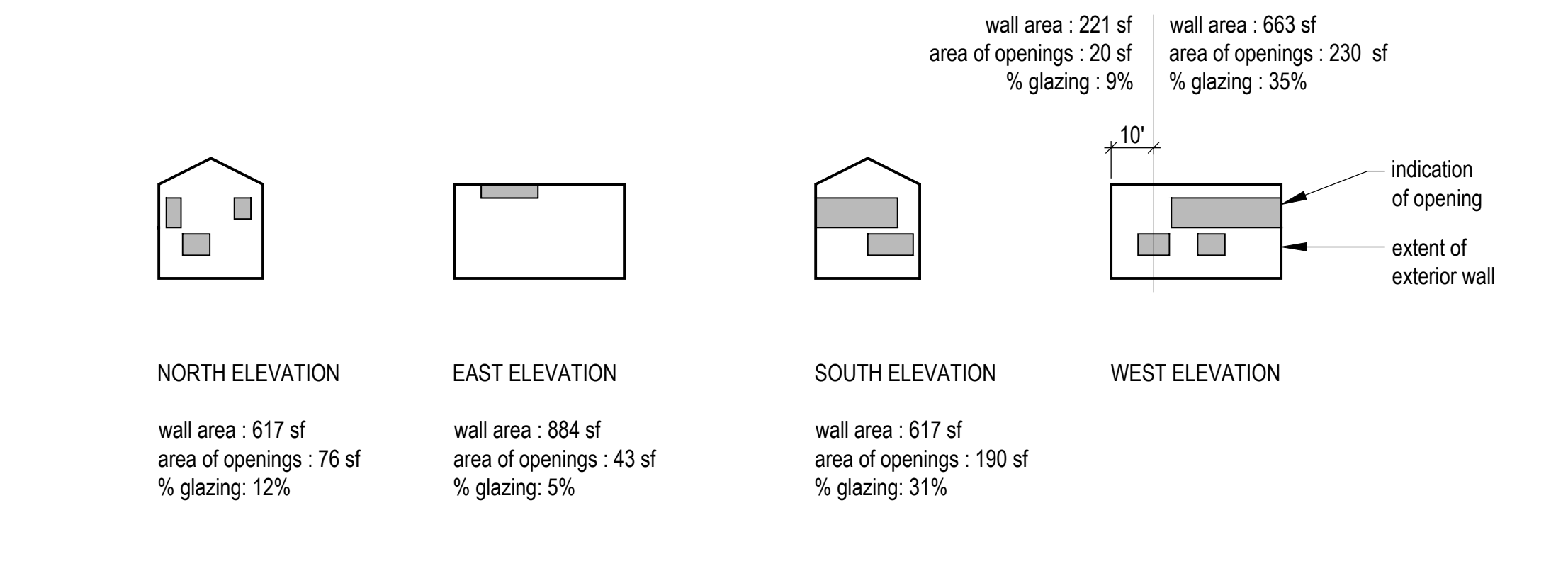
Class A, Ordinary Hazard:
 Rated: 2-A
 Max. ft. area/unit of A: 1,500 sf
 Max. ft. area/occupant: 11,000 sf
 Max. travel distance: 75 ft.

Chapter 10 - Means of Egress

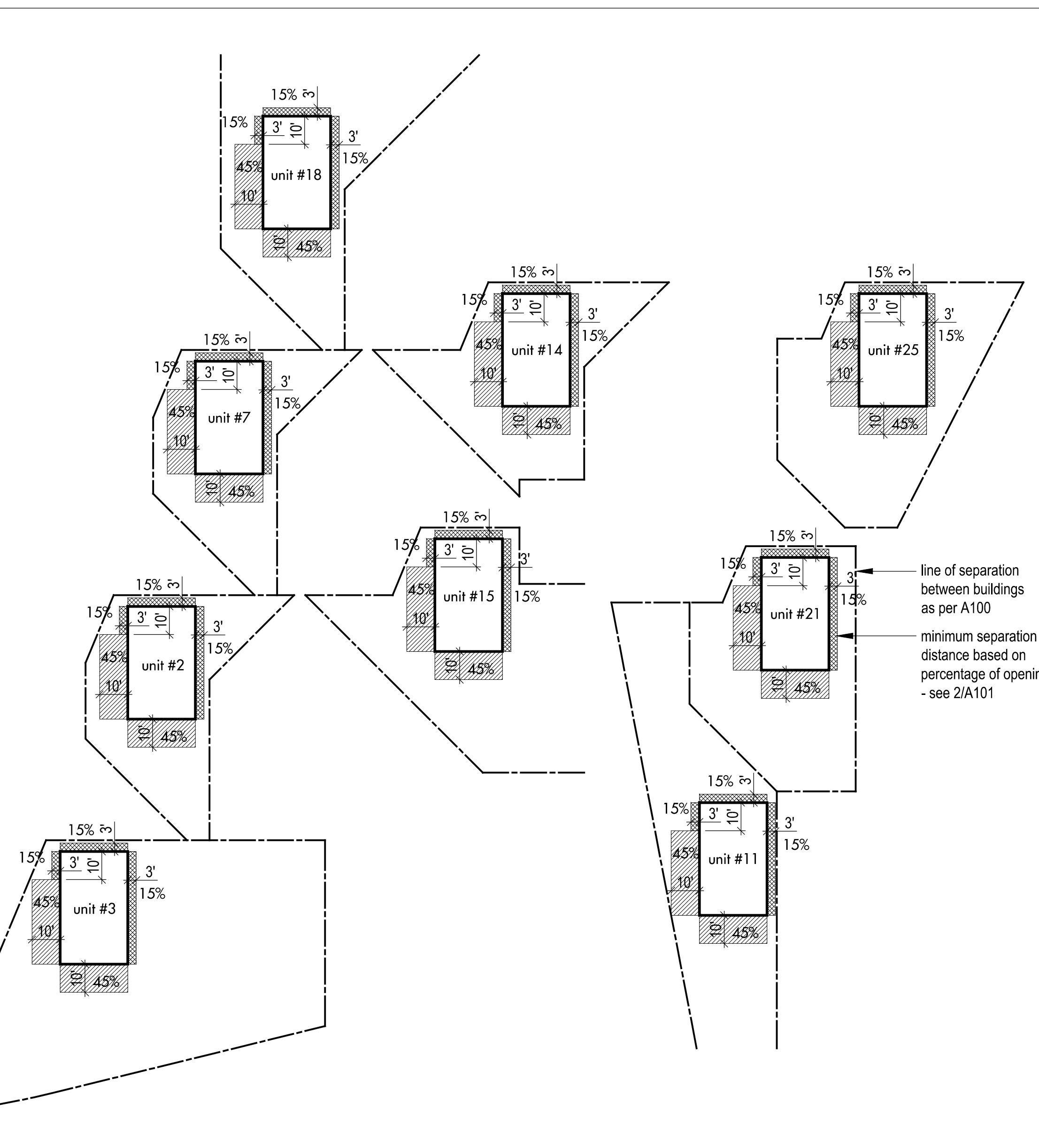
1004.1 - Occupant Load: See 'G' Sheets for floor plans showing occupant loads per space.
1005 Egress Width: 0.3 x OL for stairs and 0.2 x OL for other egress components- See 'G' Sheets for floor plans showing stairs and egress components and width required and provided.
1007 Accessible means of Egress
1007.1 Need (1) accessible means of egress/space or (2) per when two exits required.
1007.3 Stairways: Need clear width of 48" between handrails and incorporate 'area of refugees'. Exception #2 & #3: 48" and 'Area of Refugees' not required when NFPA 13 installed.
Table 1017.2 - Exit access travel distance
R3 = 200' (NFPA 13R) = 400' (NFPA 13)
1016.1 - Unenclosed Stairs; exception #3- travel distance shall be measured from the most remote point in the building to an exit discharge.
1022 Interior exit stairways and ramps:
1- 1022.2: 1-hr fire barrier when ≤ 4 stories. 2- Construct as per 1022.2 - 1020.10.
(Chp. 11) Accessibility
1103 Scope:
1103.2.3 Detached One and Two Family dwellings are exempt from Chapter 11
1107.7 General Exceptions
1107.2.2 Multi-story units without elevator service are not required to have Type B, and are exempt.
(Chp. 12) Interior Environment
1207 Sound Transmission:
1207.3 Structure-borne Sound: Dwelling unit must be separated with a floor/ceiling assemblies that have an STC rating ≥ 50 (45 if field tested).
1207.2 Air-borne Sound: Dwelling unit must be separated with walls, partitions and floor/ceiling assemblies that have an IIC rating ≥ 50 (45 if field tested).

building number	northwest corner natural grade elevation	northeast corner natural grade elevation	southwest corner natural grade elevation	southeast corner natural grade elevation	upper level floor elevation	height to building ridge	average building height (less than 35')
2	8770.65	8767.8	8756.00	8753.85	8778.00	8794.50	32.25
3	8739.90	8738.85	8725.45	8724.30	8748.00	8764.50	32.4
7	8798.05	8796.2	8784.00	8782.10	8808.00	8824.50	34.425
11	8711.50	8711.4	8703.55	8702.80	8725.00	8741.50	34.35
14	8786.85	8782.95	8775.30	8772.70	8798.00	8814.50	34.725
15	8766.30	8762.4	8753.75	8753.55	8778.00	8794.50	34.575
18	8823.15	8818.45	8810.15	8808.65	8834.00	8850.50	34.6
21	8723.35	8723.1	8718.25	8718.00	8736.00	8752.50	31.825
25	8720.05	8719.25	8714.65	8713.55	8735.00	8751.50	34.7

Height Restriction Chart
 Scale 1/32" = 1'-0"



Percentage of Openings Elevation Diagrams
 Scale 1/32" = 1'-0"



Separation Distance Plan Diagrams
 Scale 1/32" = 1'-0"

Horizon Neighborhood CABINS

Summit Powder Mountain Epic Utah

Mackay-Lyons Sweetapple Architects Limited

2188 Göttingen St.
 Halifax, Nova Scotia
 Canada B3K 3B4

ph: (902) 429-1867
 fax: (902) 429-6276

STATE OF UTAH
 Brian Mackay-Lyons
 No. 9809836
 LICENSED ARCHITECT

02	Issued for FDN Permit	16.11.2016
01	Issued for FDN Permit	14.10.2016
No.	Description	Date
Revision:		

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SHOP DRAWINGS:
 Submit shop drawings to the Architect and Engineer for approval prior to manufacture of prefabricated elements of the building.

Cabin 1500 - Code Review

scale: varies
 date: 16-07-04
 drawn: DP
 chkd: BML

A101

Project: POWDER MOUNTAIN CABIN 1500 + CODE ANALYSIS

Project No.	x	User Input
Date:	x	Auto Input
	Yes	Incorporated in the Project
	N/A	Not Applicable as part of this Project
	AGP	Above Grade Frame - story
	FSD	Fire Department Vehicle Access
	FSD	Fire Separation Distance
	BO	Building Official

Planning & Zoning Official: WEBER COUNTY, UTAH
 Building Official: WEBER COUNTY, UTAH
 Plans Examiner: WEBER COUNTY, UTAH
 Engineering: WEBER COUNTY, UTAH
 Health Department: WEBER COUNTY, UTAH

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Year	Code	Description
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2015	IMC	International Mechanical Code
2014	NEC	National Electrical Code
2015	IFGC	International Fuel Gas Code
2015	IECC	International Energy Conservation Code: Residential
2015	IECC	International Energy Conservation Code: Commercial
2009	ANSI	ICC/American National Standard A117.1 + FHA + ADAAG

Y Amendments (State or Local) (Building Code Amend. at www.dopl.utah.gov)
 Title 18 of Salt Lake City Ordinances

Chapter 3 - Occupancy Classification

*Table 508.4 Separation of Occupancies

Occupancy Proposed	Stories	Occupancy	HRS * / F.S.
R3	2	R3	0

* Check Footnotes that May Apply c. Section 406.3.4

Chapter 4 - Special Requirements

406 Motor Related Occupancies
 Yes 420.2 Separation between R2 occupancies with 1 hour fire partition as per 708
 Yes 420.3 Horizontal Separation- Separation between units shall be 1 hour.

Chapter 6 - Construction Type

Table 601	Table 601	Table 601
Occupancy	Type	Fire-Rating per Occupancy*
R3	VB	Type:
		Structural Frame
		Bearing Walls Ext.
		Bearing Walls Int.
		Nonbearing walls & part of ext.
		Nonbearing walls & part of int.
		Floor Construction + Second, members
		Roof Construction + Second, members

* Check footnotes that might apply

Table 602: Fire Resistance for Exterior wall/Fire Separation Distance

Fire Separ.	Const. Type	R3
Yes	All	1
Yes	50x10	1
N/A	105x30	1
Yes	x30	0

Chapter 5 - General Building Heights and Areas Strategy

IBC 2015: Table 504.3, 504.4, 506.2	IA, VA	IA, VA	IA/VA	A _c	A _o
Mark which Strategy Taken:	Occ	Height (ft)	Story	Area (sf)	Area (sf)
Necessary Occ.	R3	55	4*	UNLIMITED	2,250
Incidental Acc. Occ.					
X Single Occ.					
Mixed Occ.					
Nonseparated Uses:					
Separated Uses:					

* 4 STORIES ALLOWED WITH FIRE SPRINKLERS PER NFPA 13 OR 13R

11 OCCUPANCY -

506.1 Area Calculation

Aa = At + Af + As

Aa = Allowable Area per Floor
 At = Tabular Area per Table 503 (square feet)
 Af = Area increase due to frontage
 As = Area increase due to sprinkler protection

At = UNLIMITED Table 503: Type V-B, Group R3 NFPA 13R
 Af = 0.00 Sec. 506.2 See calculation below
 As = UNLIMITED Sec. 506.3 Fully Sprinkled: 200% for Multi-Story Building / 300% for Single Story

Aa = UNLIMITED + 0 + 0.0000 + 0 = 0

Aa = UNLIMITED + 0 + 0 = 0

Aa = UNLIMITED + ALLOWABLE AREA PER FLOOR
 x 2 Multiply by number of stories - 506.4 (Max. 300% increase)
 UNLIMITED ALLOWABLE AREA OF BUILDING

ACTUAL AREA < ALLOWABLE AREA PER FLOOR
 1,125 UNLIMITED OK, ALLOWABLE EXCEEDS ACTUAL

ACTUAL AREA < ALLOWABLE AREA PER BUILDING
 2,250 UNLIMITED OK, ALLOWABLE EXCEEDS ACTUAL

504.2 Frontage Increase

If = F/P - 0.25 W/30

If = Area increase due to frontage
 F = Building perimeter which fronts on a public way or open space having 20 feet minimum (feet)
 P = Perimeter of entire building
 W = Width of public way or open space (feet) in accordance with 506.2.1

F = 85 If
 P = 122.5 If
 W = 20 ft (30 FT IS THE LARGEST NUMBER THAT CAN BE USED)

If = 85 + -0.25 20
 122.5 30

If = 0.693877551 + -0.25 0.666666667 = 0.443877551 0.666666667

If = 0.00 NO AREA INCREASE TAKEN

(Chp. 7) - Fire-Resistance Rated Construction (List Items)

No	704.2 Column Protection:	Primary structural frame individually protected.
No	704.3 Protection of the Primary Structural Frame other than columns:	Requires individual protection when carry more than two floors or one floor and one roof.
No	704.10 Exterior Structural Members:	Requires individual protection when carry more than two floors or one floor and one roof.
No	705 Exterior Walls:	705.2 Projections: Shall not extend closer to FSD than Table 705.2.
Yes	705.2.2 Type V-B of any approved material	
Yes	705.2.3 Combustible projections either: 1-hr rated construction, type V-B construction,	
No	705.5 Fire-resistance ratings:	> 10 ft. exterior wall rated for exposure from inside only ≤ 10 ft. exterior wall rated for exposure from both sides
No	712 Vertical Openings:	712.1.2 Two-story openings: Allowed within individual dwelling unit
N/A	718 Concealed Spaces:	718.2 Fireblocking: Required throughout.
N/A	718.3 Draftstopping in floors:	718.3.3: Exception- Not required if building equipped throughout with an NFPA 13 automatic sprinkler system
N/A	718.4 Draftstopping in attics:	718.4.3: Exception- Not required if building equipped throughout with an NFPA 13 automatic sprinkler system

Chapter 8 - Finishes

Table 803.9 Interior Wall and Ceiling Finish Requirements by Occupancy: sprinklered

Group	Exiting Elements	Corridors	Rooms & enclosed Spaces
R3	B	C	C

Chapter 9 - Fire Protection Systems

903.2 Automatic Sprinkler Systems Where Required:

R3 Required.

N/A 903.3.1 FS Standards: Install FS as per 903.3.1.1, 903.3.1.2 or 903.3.1.3:

YES 903.3.1.2 NFPA 13R sprinkler systems: Group R when ≤ 4 stories in height, 903.3.1.2.1 Balconies and decks: Provide FS when bldg is of Type V const.

Yes 903.3.2 Quick-response and residential sprinklers: Install FS as per 903.3.1 in Group R dwelling units.

906.1 Portable Fire Extinguishers where required:

R3 Required per Dwelling Unit- 1-A:10-B:C

Class A, Ordinary Hazard:
 Rating: 2-A
 Max fir area/unit of A: 1,500 sf
 Max fir area/extinguisher: 11,200 sf
 Max travel distance: 75 ft.

907.2 Fire Alarm and Detection Systems- Where required: Installed as per IBC and NFPA 72

R3 907.2.8 : Not required, but exception 2 must be met

Chapter 10 - Means of Egress

Table 1004.1 - Occupant Load: See 'G' Sheets for floor plans showing occupant loads per space.

1005 Egress Width: 0.3 x OL for stairs and 0.2 x OL for other egress components- See 'G' Sheets for floor plans showing stairs and egress components and width required and provided.

1007 Accessible means of Egress
 1007.1 Need (1) accessible means of egress/space or (2) per when two exits required.
 1007.3 Stairways: Need clear width of 48" between handrails and incorporate 'area of refugees'. Exception #2 & #3: 48" and 'Area of Refugees' not required when NFPA 13 installed.

Yes Table 1017.2 - Exit access travel distance
 R3 = 200' (NFPA 13R)
 = 400' (NFPA 13)

N/A 1016.1 - Unenclosed Stairs: exception #3- travel distance shall be measured from the most remote point in the building to an exit discharge.

Yes 1022 Interior exit stairways and ramps:
 1- 1022.2: 1-Hr fire barrier when ≤ 4 stories.
 2- Construct as per 1022.2 - 1020.10.

(Chp. 11) Accessibility

No 1103 Scope:
 1103.2.3 Detached One and Two Family dwellings are exempt from Chapter 11

No 1107.7 General Exceptions
 1107.2.2 Multi-story units without elevator service are not required to have Type B, and are exempt.

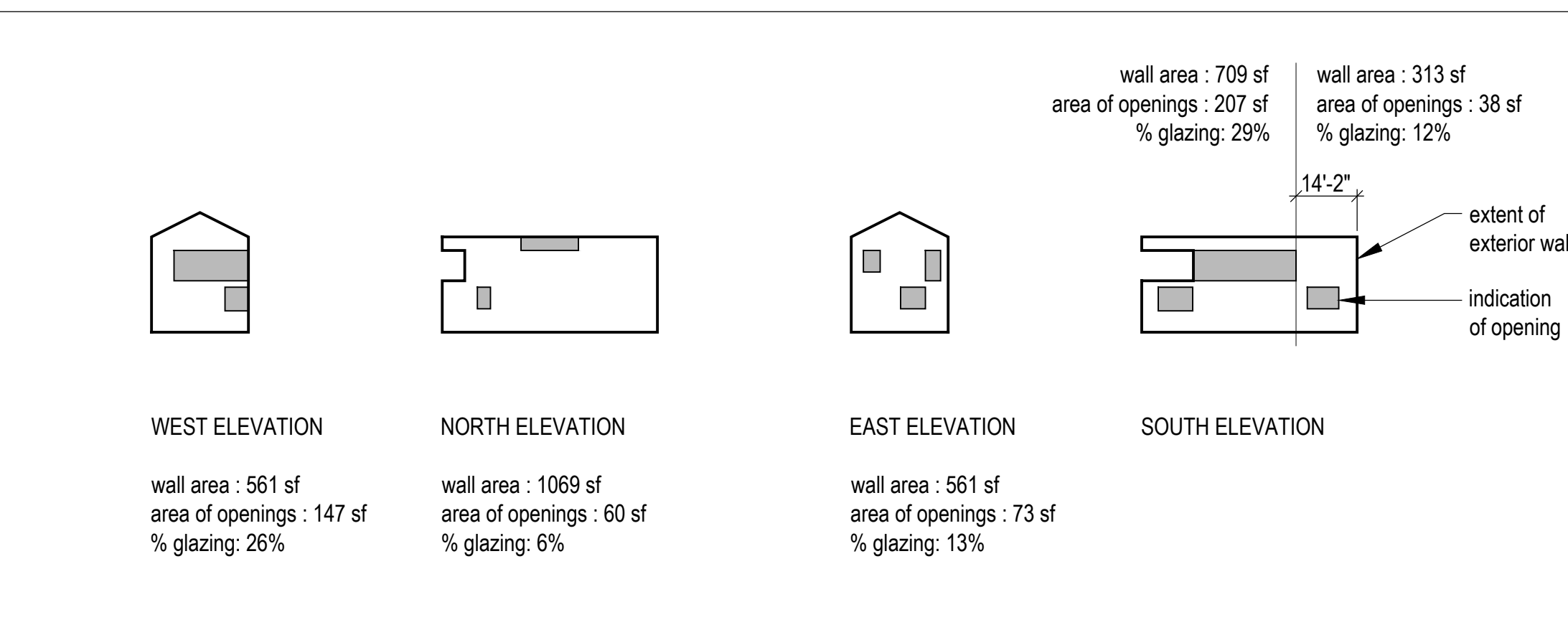
(Chp 12) Interior Environment

Yes 1207 Sound Transmission:
 1207.3 Structure-borne Sound: Dwelling unit must be separated with a floor/ceiling assemblies that have an STC rating ≥ 50 (45 if field tested).
 1207.2 Air-borne Sound: Dwelling unit must be separated with walls, partitions and floor/ceiling assemblies that have an IIC rating ≥ 50 (45 if field tested).

building number	northwest corner natural grade elevation	northeast corner natural grade elevation	southwest corner natural grade elevation	southeast corner natural grade elevation	upper level floor elevation	height to building ridge	average building height (less than 35')
6	8783.00	8774.65	8774.90	8768.00	8791.00	8806.75	31.25
9	8773.20	8768.9	8766.60	8763.00	8783.00	8798.75	30.65
10	8754.75	8750.2	8747.75	8745.15	8767.00	8782.75	32.8
12	8805.60	8794.8	8799.35	8788.25	8815.00	8830.75	33.825
17	8793.05	8791.21	8786.25	8785.60	8806.00	8821.75	32.425
20	8728.10	8727.15	8724.95	8724.25	8745.00	8760.75	34.575

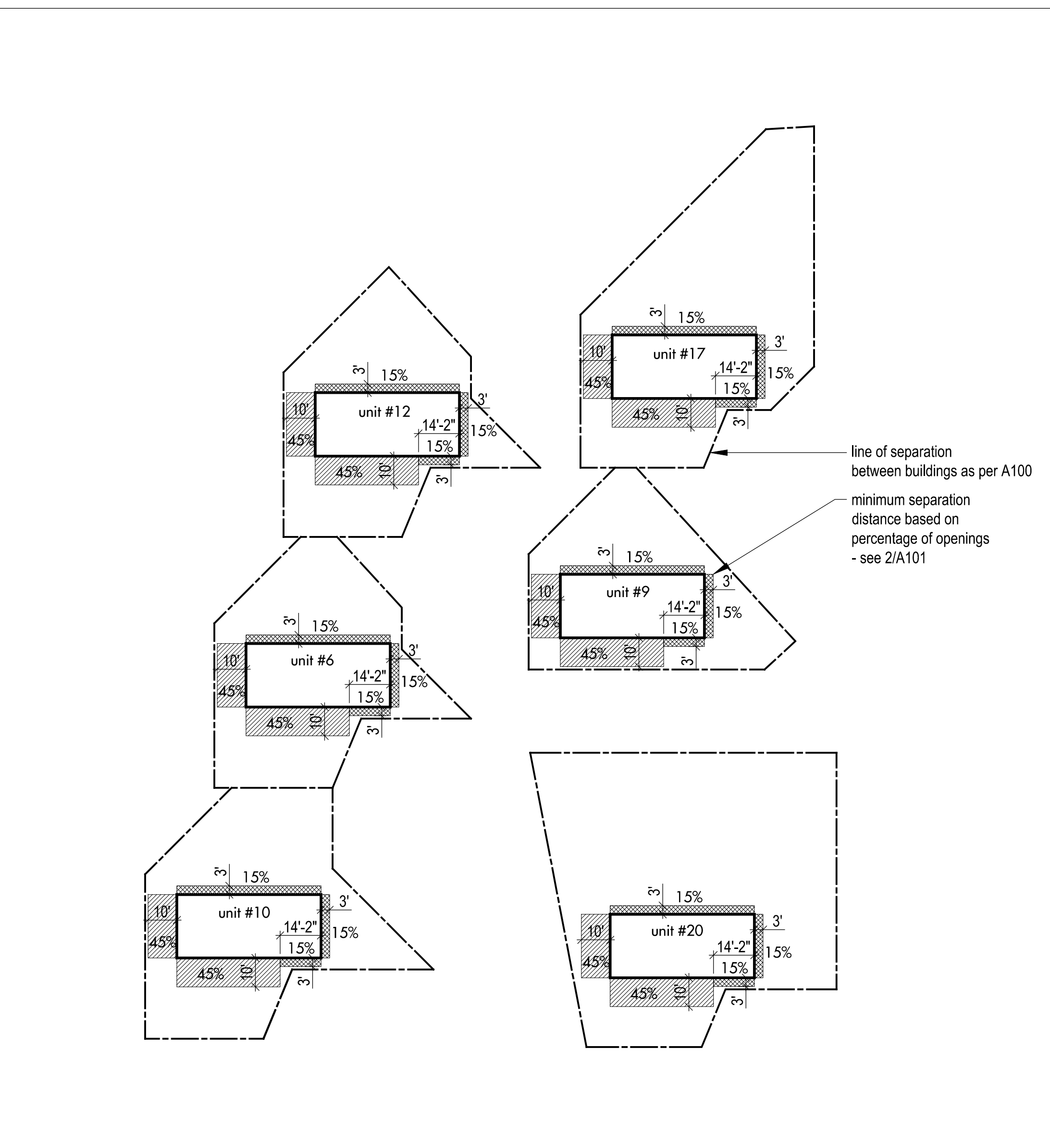
3 Height Restriction Chart

A101 nts



2 Percentage of Openings Elevation Diagrams

A101 Scale 1/32" = 1'-0"



1 Separation Distance Plan Diagrams

A101 Scale 1/32" = 1'-0"

Horizon Neighborhood CABINS

Summit Powder Mountain, Utah

Mackay-Lyons Sweetapple Architects Limited

2188 Göttingen St. Halifax, Nova Scotia Canada B3K 3B4

ph: (902) 429-1867 fax: (902) 429-6276

STATE OF UTAH
 Brian Mackay-Lyons
 No. 9809836
 LICENSED ARCHITECT

NOT FOR CONSTRUCTION

No.	Description	Date
01	Issued for FDN Permit	24.10.2016

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SHOP DRAWINGS:
 Submit shop drawings to the Architect and Engineer for approval prior to manufacture of prefabricated elements of the building.

Cabin 1500 plus - Code Review FSD, Finishes

scale: varies
 date: 16-07-04
 drawn: DP
 checked: BML

A101

4 Code Review

A101 nts

Project: POWDER MOUNTAIN CABIN 2500 CODE ANALYSIS

Project No.		x	User Input
Date:	16/11/2016	x	Auto Input
		Yes	Incorporated in the Project
		N/A	Not Applicable as part of this Project
		AGP	Above Grade Plane- story
		FDVA	Fire Department Vehicle Access
		FSD	Fire Separation Distance
		BO	Building Official

Planning & Zoning Official: WEBER COUNTY, UTAH
 Building Official: WEBER COUNTY, UTAH
 Plans Examiner: WEBER COUNTY, UTAH
 Engineering: WEBER COUNTY, UTAH
 Health Department: WEBER COUNTY, UTAH

Applicable Codes:

Year	Code	Description
2015	IBC	International Building Code, with Appendix "J"
2015	IFC	International Fire Code
2015	IRC	International Residential Code (Parts I-IV and IX)
2015	IPC	International Plumbing Code
2015	IMC	International Mechanical Code
2014	NEC	National Electrical Code
2015	IFGC	International Fuel Gas Code
2015	IECC	International Energy Conservation Code: Residential
2015	IECC	International Energy Conservation Code: Commercial
2009	ANSI	ICC/American National Standard A117.1 + FHA + ADAAG

Y Amendments (State or Local) (Building Code Amend. at www.dopl.utah.gov)
 Title 18 of Salt Lake City Ordinances

Chapter 3 - Occupancy Classification

Table 508.4 Separation of Occupancies

Occupancy Proposed	Stories	Occupancy	HRS * / F.S.
Residence	R3	R3	0 / 0

* Check Footnotes that May Apply c. Section 406.3.4

Chapter 4 - Special Requirements

406 Motor Related Occupancies
 N/A 420.2 Separation between R3 occupancies with 1 hour fire partition as per 708
 N/A 420.3 Horizontal Separation- Separation between units shall be 1 hour.

Chapter 6 - Construction Type

Table 601

Occupancy	Type	Fire-Rating per Occupancy*	R3
R3	V-B	Type:	V-B
		Structural Frame	0
		Bearing Walls Ext.	0
		Bearing Walls Int.	0
		Nonbearing walls & part at ext.	0
		Nonbearing walls & part at int.	0
		Floor Construction + Second, members	0
		Roof Construction + Second, members	0

* Check footnotes that might apply

Table 602: Fire Resistance for Exterior wall/Fire Separation Distance

Fire Separ.	Const. Type	R3
x<5	All	1
5≤x<10	IA, Others	1*
10≤x<30	IA, VA	1*
x≥30	All	0

Chapter 5 - General Building Heights and Areas Strategy

IBC 2015: Table 504.3, 504.4, 506.2

Mark which Strategy Taken:	Occ	H ₁	H ₂	A ₁	A ₂	A ₃	A ₄	A ₅	A ₆	A ₇	A ₈	A ₉	A ₁₀
Accessory Occ:	R3	50	4*	UNLIMITED									3,410

* 4 STORIES ALLOWED WITH FIRE SPRINKLERS PER NFPA 13 OR 13R - 60ft. Maximum

Table 503: Area Calculations

Symbol	Description	Value
A ₁	Allowable Area per Floor	UNLIMITED
A ₂	Tabular Area per Table 503 (square feet)	UNLIMITED
A ₃	Area increase due to setbacks	UNLIMITED
A ₄	Area increase due to sprinkler protection	UNLIMITED
A ₅	Allowable Area per Floor	UNLIMITED
A ₆	Allowable Area per Floor	UNLIMITED
A ₇	Allowable Area per Floor	UNLIMITED
A ₈	Allowable Area per Floor	UNLIMITED
A ₉	Allowable Area per Floor	UNLIMITED
A ₁₀	Allowable Area per Floor	UNLIMITED

ACTUAL AREA < ALLOWABLE AREA PER FLOOR

1,705 UNLIMITED OK, ALLOWABLE EXCEEDS ACTUAL

ACTUAL AREA < ALLOWABLE AREA PER BUILDING

3,410 UNLIMITED OK, ALLOWABLE EXCEEDS ACTUAL

(Chp. 7) - Fire-Resistance Rated Construction (List Items)

No	704.2 Column Protection:	Primary structural frame individually protected.
No	704.3 Protection of the Primary Structural Frame other than columns:	Requires individual protection when carry more than two floors or one floor and one roof.
No	704.10 Exterior Structural Members:	Requires individual protection when carry more than two floors or one floor and one roof.
No	705 Exterior Walls:	705.2 Projections: Shall not extend closer to FSD than Table 705.2. 705.2.2 Type V-B of any approved material 705.2.3 Combustible projections either: 1-hr rated construction, type V-B construction.

No 705.5 Fire-resistance ratings:
 > 10 ft. exterior wall rated for exposure from inside only
 ≤ 10 ft. exterior wall rated for exposure from both sides

No 712 Vertical Openings:
 712.1.2 Two-story openings: Allowed within individual dwelling unit

Yes 718 Concealed Spaces:
 718.4 Draftstopping in Attics - Required

Chapter 8 - Finishes

Table 803.9 Interior Wall and Ceiling Finish Requirements by Occupancy: sprinklered

Group	Exiting Elements	Corridors	Spaces
R3	B	C	C
R3	C	C	C
R3	C	C	C

Chapter 9 - Fire Protection Systems

903.2 Automatic Sprinkler Systems Where Required:

R3 Required.

Yes 903.2.11.1 Stories without openings: Provide a FS throughout all stories when floor area >1,500 sf or where openings are not provided as per Item 1 & 2.

Yes 903.2.11.1.3 Basements: Provide FS when openings are > 75' from openings as per 903.2.11.1

N/A 903.3.1 FS Standards: Install FS as per 903.3.1.1, 903.3.1.2 or 903.3.1.3:

YES 903.3.1.2 NFPA 13R sprinkler systems: Group R when ≤ 4 stories in height.
 906.1 Portable Fire Extinguishers where required:

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Height Restriction Chart

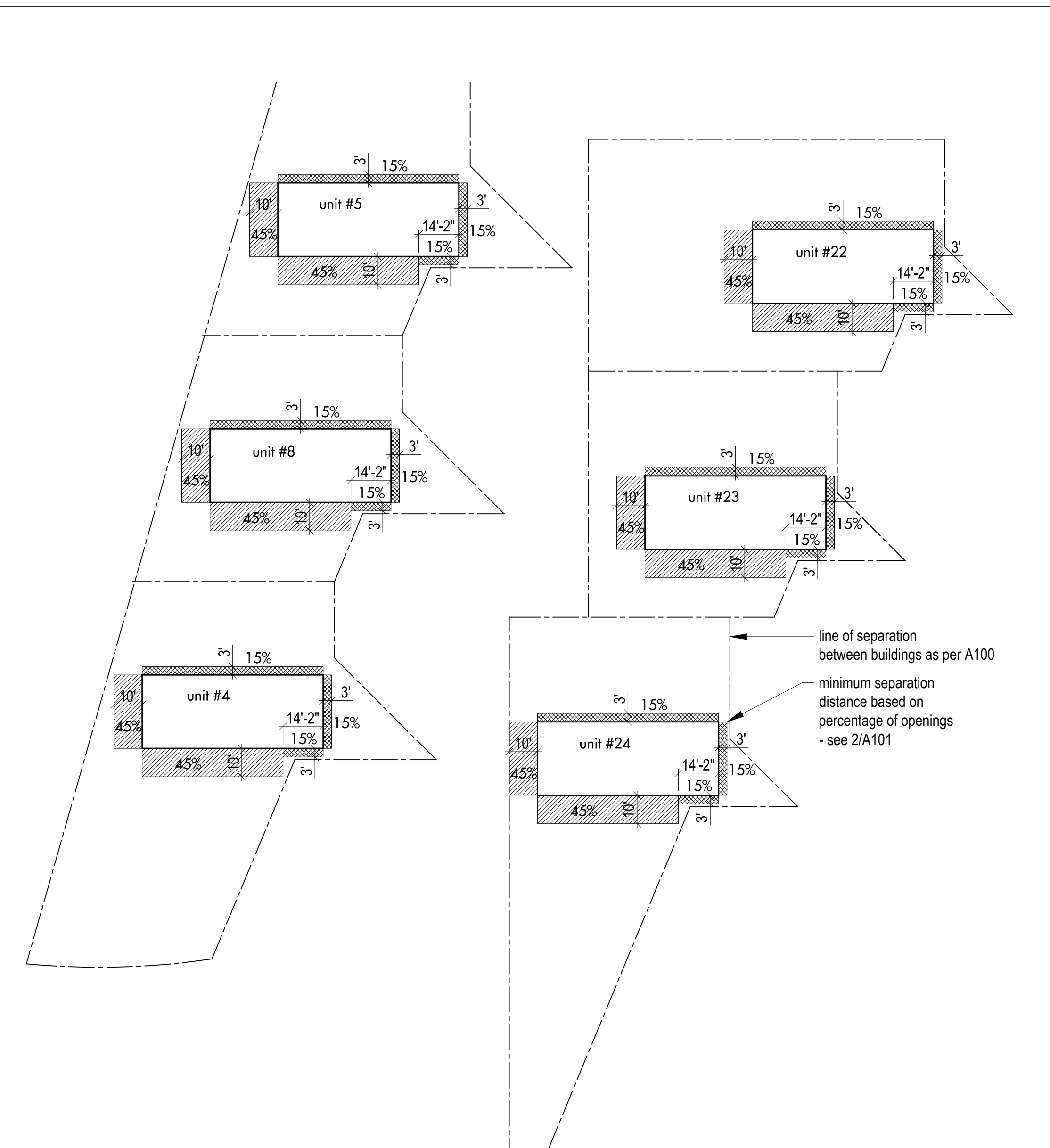
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8	8784.30	8781.55	8775.60	8772.90	8794.00	8810.88	32.275
22	8729.35	8726.85	8724.05	8721.35	8743.00	8759.88	34.525
23	8717.80	8714.65	8714.10	8711.45	8730.00	8746.88	32.25
24	8704.45	8702.7	8698.75	8696.90	8716.00	8732.88	32.2

Height Restriction Chart



Percentage of Openings Elevation Diagrams

Scale 1/32" = 1'-0"



Separation Distance Plan Diagrams

Scale 1/32" = 1'-0"

Horizon Neighborhood CABINS

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ph: (902) 429.1867 fax: (902) 429.6276

STATE OF UTAH

Brian MackKay-Lyons

No. 9809836

LICENSED ARCHITECT

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01	Issued for FDN Permit	14.10.2016
No.	Description	Date

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Cabin 2500 - Code Review

scale: varies
 date: 16-07-04
 drawn: DP
 ch'g'd: BML

A101