

Development Services

From Concept to Construction

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APPEAL SUMMARY

Status: Decision Rendered - Held over from ID 23841, item #1 (6/24/20) for additional information

Appeal ID: 24411	Project Address: 3100 NE Sandy Blvd
Hearing Date: 11/25/20	Appellant Name: David Howard
Case No.: B-016	Appellant Phone: 503.568.9648
Appeal Type: Building	Plans Examiner/Inspector: Steve Freeh
Project Type: commercial	Stories: 4 Occupancy: I1c2 Construction Type: III-A
Building/Business Name: MorningStar Senior Living	Fire Sprinklers: Yes - all locations
Appeal Involves: Erection of a new structure, Reconsideration of appeal	LUR or Permit Application No.: 20-144699-CO
Plan Submitted Option: pdf [File 1]	Proposed use: Senior Living

APPEAL INFORMATION SHEET

Appeal item 1

Code Section Chap 2

Requires

Chapter 2 Definition – Story Above Grade Plane. Definition Item 2 defines any story in which the finish surface of the floor above is more than 12' above grade as a story above grade plane. (See figures 1 & 2). In our particular case this creates a situation where the building height and number of stories is permitted if the 2nd floor elevation is 11'-11", but not if it is 12'-1" while the height of fire department access to the roof, and vertical egress distance remain unchanged (see figure 3).

Code Modification or Alternate Requested Consider the 2nd floor (see figure 4) the first story above grade plane due to on-grade egress and multiple fire compartments on this level.

Reconsideration Text:

Consider level 2 as the first story above the grade plane based on the provision of egress from the level 2 directly to grade.

Proposed Design

Provide (3) fire compartments separated by fire barriers as required for IIIA construction. Each fire compartment to have (1) exit directly on grade in addition to the two exit stairs required by code. All other height and story requirements are met. This reduces the total vertical travel distance, and increases the number of exits, while maintaining the intent of the code to limit the overall building height and number of stories.

Reconsideration Text:

In lieu of the Chapter 2 Definition – "Story Above Grade Plane. Definition Item 2 defines any story in which the finish surface of the floor above is more than 12' above grade as a story above grade

plane." Provide direct egress to grade from level 2 and consider Level 2 the first story above grade. In

Reason for alternative The code defines any story where the story above is more than 12' above the grade at any point a story above the grade plane. Generally, this would serve to limit the height and number of stories and thus the maximum vertical travel distance in a building (figure 1). However, because of our site configuration and the height of the propose building, changing the elevation of the second floor to less than 12' above the grade does not change the maximum vertical travel distance at all (figure 2). By providing at-grade exits at level two we have decreased the total vertical travel distance. The fire barriers provide an additional level of safety for the occupants by keep those egress points safe for longer.

Reconsideration Text:

Our proposed alternate to allow the entire building to be type IIIA construction.

APPEAL DECISION

Proposal for I-1, Condition 2 occupancy to be located on the 5th story above code defined grade plane: Denied. Proposal does not provide equivalent Life Safety protection.

Appellant may contact John Butler (503 865-6427) or e-mail at John.Butler@portlandoregon.gov with questions.

Pursuant to City Code Chapter 24.10, you may appeal this decision to the Building Code Board of Appeal within 90 calendar days of the date this decision is published. For information on the appeals process, go to www.portlandoregon.gov/bds/appealsinfo, call (503) 823-7300 or come in to the Development Services Center.

FIGURE 1 - TOTAL HEIGHT vs VERTICAL EGRESS TRAVEL DISTANCE

Regulation Requirement: Chapter 2 Definition – Story Above Grade Plane. Definition Item 2 defines any story in which the finish surface of the floor above is more than 12' above grade as a story above grade plane. (See figures 1 & 2) In our particular case this creates a situation where the building height and number of stories is permitted if the 2nd floor elevation is 11'-11", but not if it is 12'-1" while the height of fire department access to the roof, and vertical egress distance remain unchanged (see figure 3).

HEIGHT, BUILDING. The vertical distance from *grade plane* to the average height of the highest roof surface.

TABLE 504.3

ALLOWABLE BUILDING HEIGHT IN FEET ABOVE GRADE PLANE^a

OCCUPANCY CLASSIFICATION	SEE FOOTNOTES	TYPE OF CONSTRUCTION									
		TYPE I		TYPE II		TYPE III		TYPE IV HT	TYPE V		
		A	B	A	B	A	B		A	B	
A, B, E, F, M, S, U	NS ^b	UL	160	65	55	65	55	65	50	40	
	S	UL	180	85	75	85	75	85	70	60	
H-1, H-2, H-3, H-5	NS ^{c, d}	UL	160	65	55	65	55	65	50	40	
	S										
H-4	NS ^{c, d}	UL	160	65	55	65	55	65	50	40	
	S	UL	180	85	75	85	75	85	70	60	
I-1 Condition 1, I-3	NS ^{d, e}	UL	160	65	55	65	55	65	50	40	
	S	UL	180	85	75	85	75	85	70	60	
I-1 Condition 2, I-2	NS ^{d, e, f}	UL	160	65	55	65	55	65	50	40	
	S	UL	180	85	75	85	75	85	70	60	
I-4	NS ^{d, g}	UL	160	65	55	65	55	65	50	40	
	S	UL	180	85	75	85	75	85	70	60	
R ^h	NS ^d	UL	160	65	55	65	55	65	50	40	
	S13D	60	60	60	60	60	60	60	50	40	
	S13R	60	60	60	60	60	60	60	60	60	
	S	UL	180	85	75	85	75	85	70	60	

ROOF

LVL 5

LVL 4

LVL 3

LVL 2

LVL 1

54'-8" < 65'-0" OKAY PER CODE

45'-6" VERTICAL EGRESS TRAVEL

Grade plane
+10'-0"

Level of exit
discharge

0'-0" Grade at
1st floor

CANNOT EXIT TO
GRADE

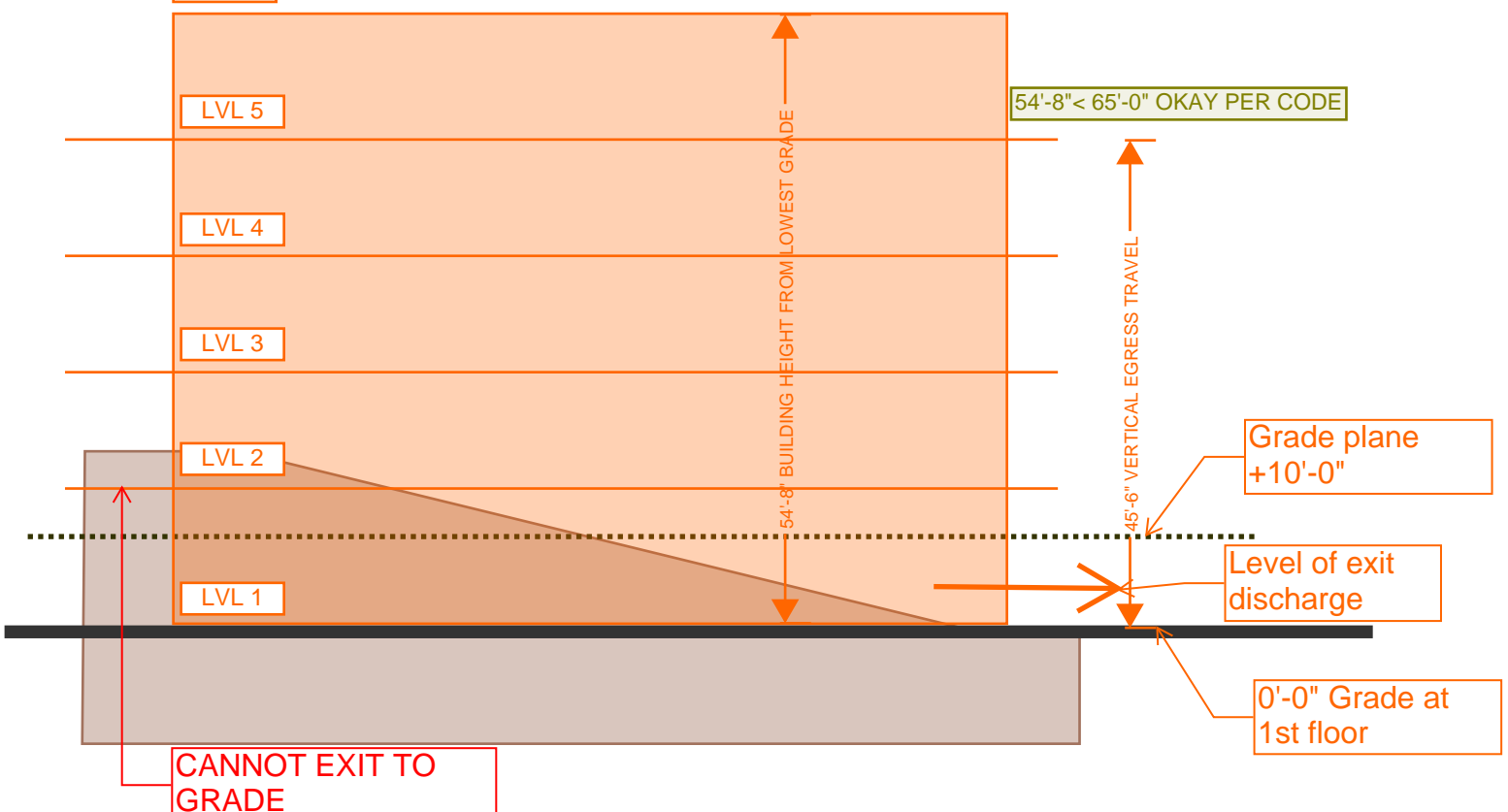


FIGURE 2 - TOTAL NUMBER OF STORIES vs GRADE PLANE

Regulation Requirement: Chapter 2 Definition – Story Above Grade Plane. Definition Item 2 defines any story in which the finish surface of the floor above is more than 12' above grade as a story above grade plane. (See figures 1 & 2) In our particular case this creates a situation where the building height and number of stories is permitted if the 2nd floor elevation is 11'-11", but not if it is 12'-1" while the height of fire department access to the roof, and vertical egress distance remain unchanged (see figure 3).

TABLE 504.4
ALLOWABLE NUMBER OF STORIES ABOVE GRADE PLANE^{a, b}

OCCUPANCY CLASSIFICATION	SEE FOOTNOTES	TYPE OF CONSTRUCTION							
		TYPE I		TYPE II		TYPE III		TYPE IV	
		A	B	A	B	A	B	HT	A B
I-1 Condition 2	NS ^{d, e}	UL	9	4	3	4	3	4	3 2
	S	UL	10	5	3				

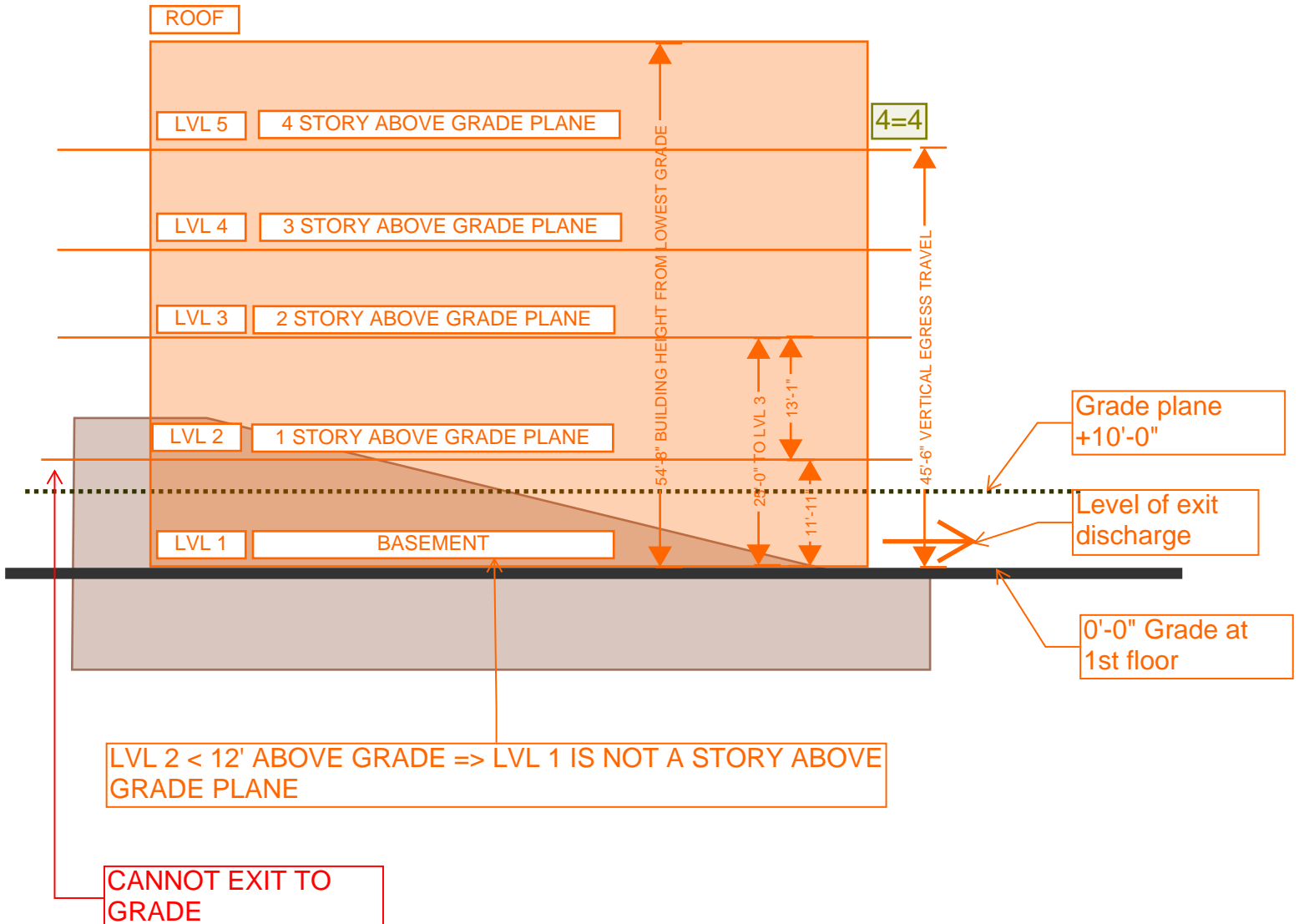


FIGURE 3 - TOTAL NUMBER OF STORIES vs GRADE PLANE

Regulation Requirement: Chapter 2 Definition – Story Above Grade Plane. Definition Item 2 defines any story in which the finish surface of the floor above is more than 12' above grade as a story above grade plane. (See figures 1 & 2) In our particular case this creates a situation where the building height and number of stories is permitted if the 2nd floor elevation is 11'-11", but not if it is 12'-1" while the height of fire department access to the roof, and vertical egress distance remain unchanged (see figure 3).

Changing the elevation of the first floor 11'-11" to 14'-9" would change the first floor to a story above the grade plane, but not change the building height, the elevation of fire department access to any but the 2nd floor, or the vertical egress distance. However, because of the way the code defines "story above a grade plane" this would change the number of stories above the grade plane, and would not be permissible.

STORY ABOVE GRADE PLANE. Any *story* having its finished floor surface entirely above *grade plane*, or in which the finished surface of the floor next above is:

1. More than 6 feet (1829 mm) above *grade plane*; or
2. More than 12 feet (3658 mm) above the finished ground level at any point.

