

Code Unlimited, LLC
12655 SW Center Street, Suite 350
Beaverton, Oregon 97005

6/11/2013

Jon Doe
Client
Address Line 1
Address Line 2
City, State, Zip

Project No. R09-001A

Re: Client existing conditions code evaluation

Dear John,

We have been requested to review existing stair conditions at Client Condominiums. The existing stairs have shown deterioration and the owners would like them replaced. In reviewing the existing conditions we established the code compliance path which the stairs were originally built.

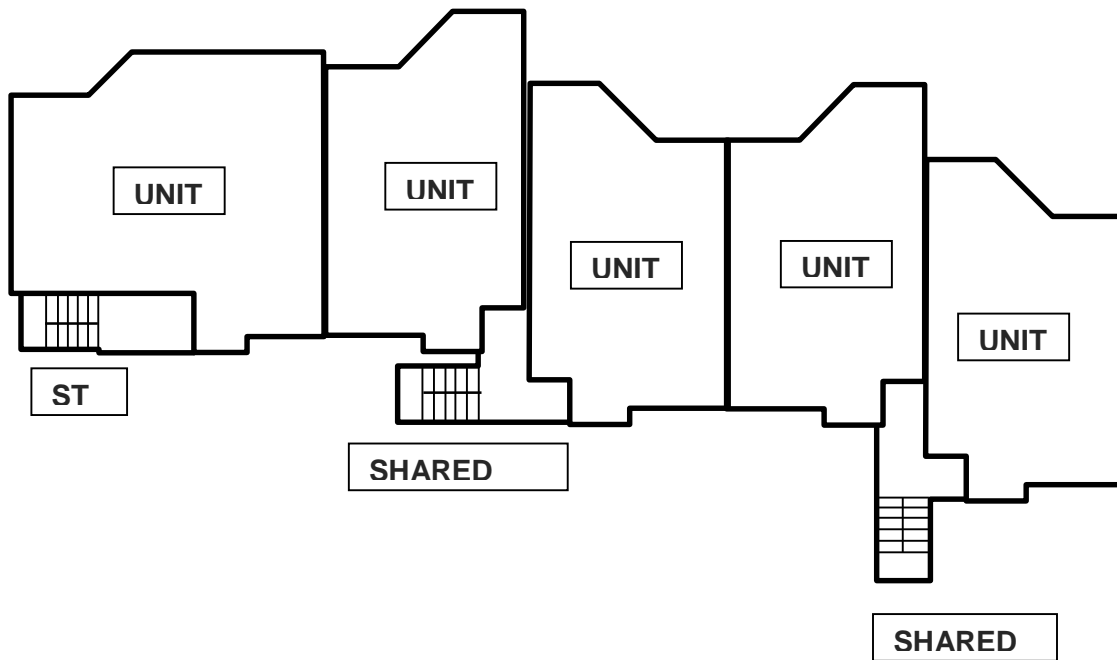
Applicable Codes and Standards

Universal Building Code 1976

- Chapter 13 – Requirements for Group R, Division 1 and 2 Occupancies
- Chapter 17 - Section 1716 - Guardrails
- Chapter 33 – Stairs, Exits and Occupancy Loads

Scope Overview

Client is an existing three story multi-family building with two residential units separated by a fire wall on each level. These units share 1 exterior stair for egress. One area in the complex has 5 units per floor connected by an exterior egress balcony with two stairways at each end of the exterior egress balcony. All stairs have been established to be compliant with the 1976 UBC, the applicable code at the time of construction. The project is assumed to have been permitted by the City of Portland and construction matches the plans in layout. All repairs are to be completed according to the same requirements as originally constructed.



Code Evaluation

Code Approach:

The building plans we have found date from 1979. We assume the building was therefore permitted under the 1976 UBC. Investigation of the building and the available documentation appears to meet all the requirements of 1976 UBC. Documentation on the micro-filmed plans states that in 1980 the project was inspected by Design Review Staff and found to be in compliance with Design Review Board requirements except for a few minor items.

Per 1976 UBC Chap 13, sec. 1301, the building is Group R, Division 1. The building is three stories and required to be not less than a one hour rated per section 1302(b). Therefore the building is of construction Type V- 1 hour and allowed to be 3 stories in height with and allowable area of 7,900 square feet per floor per tables 50C and 5-D. The first level is partially below grade but considered a story because at least 50% of its perimeter is over 6 ft. above grade per sec. 402.

According to Chapter 33, table 33-A, the occupant load of 300 s.f. per person provides an occupant load of 8 persons per floor between fire walls. Individual dwelling units are required to use an occupant load factor of 2 persons per bedroom if this results in a higher occupant load. Both calculations provide 8 occupants per floor allowing for 1 means of egress per floor. The second and third floors, each having an occupancy of less than 10, only require one exit per section 3302 (a) exception 2, where the occupant load is less than 10, and the total tributary occupant load (from the 3rd floor) is also less than 10.

The existing Exterior Stairs at Client are compliant to be a single mean of egress with at least 50% open on the long side per 3305(n). The existing Exterior Exit Balconies are compliant as a means of egress with at least 50% of the long side open and designed to prevent the accumulation of smoke per section 3302(c). Handrails and guardrails were installed to comply with sections 3305 and 1716 respectively.

Key Assumptions:

Our evaluation is based on the following assumptions:

- The building is construction type V- 1 hour.
- Building was constructed to comply with 1976 UBC.

Compliance Requirements:

The existing stairs currently comply with the following requirements. All repairs to the stairs will meet these requirements as a minimum:

1. Stairs shall be at least 36" wide.
2. Trim and each handrail shall not project more than 3 ½" into the required width.
3. Rise of the stairs shall not exceed 7 ½" and the run shall be at least 10".
4. Each landing shall have the same width as the stair.
5. Handrails shall be placed between 30" and 34" above the nosing of the tread.
6. Handrails shall extend at least 6" beyond top and bottom risers.
7. Stairs less than 44" in width may have one handrail.
8. Stairways shall be constructed of non-combustible material or of wood not less than 2" nominal dimension.
9. Guardrails shall not be less than 42" in height.
10. Stair railings may serve as guardrails.

Summary:

Based on the key assumptions it meets the requirements of the 1976 UBC and has remained unchanged since that time. The scope of this project is to repair and replace existing stairs and structure with equivalent materials in the same configuration. No remediation is required.

If you have any questions or concerns, please do not hesitate to contact me either by email at samir.mokashi@codeul.com or by phone at 503.488.5651.

Sincerely,

Samir Mokashi
Principal

EnclosureJon Doe