CITY OF LOS ANGELES
CALIFORNIA

June 25th, 2025

Honorable Members of the City Council
City of Los Angeles City Hall, Room 395
Los Angeles, CA 90012

UPDATED REPORT ON AMENDMENTS TO THE LOS ANGELES BUILDING CODE PERMITTING SINGLE-EXIT, SINGLE-STAIRWAY, MULTIFAMILY RESIDENTIAL BUILDINGS OF UP TO SIX STORIES.

Honorable Councilmembers,

On April 2, 2025, the City Council adopted a motion (CF 25-0247, Raman - Yaroslavsky - Blumenfield) that instructed the Los Angeles Department of Building and Safety (LADBS), in consultation with the Los Angeles Fire Department (LAFD), the Department of City Planning (DCP), and with requested input from Livable Cities Initiative (LCI) and the American Institute of Architects Los Angeles (AIA LA), to present within 90 days modifications to the Los Angeles Building Code (LABC) which would allow for single-exit, single-stairway, multifamily unit residential buildings of up to six stories.

BACKGROUND

Various jurisdictions adopt and amend the International Building Code (IBC), which is developed by the International Code Council (ICC). These model codes, which the State of California adopts and modifies, currently allow for single-exit buildings up to three stories (California Building Code (CBC) 1006.3.4) with a maximum of four dwelling units per story.

In major cities with higher-density housing and smaller lot sizes, reducing the space allocated for egress stairs can create additional room for larger or additional dwelling units. Major cities such as New York, Seattle, Memphis, Austin, and Honolulu have amended their building codes to permit four-, five-, or six-story, single-exit apartment buildings containing up to four units per floor.

However, cities like New York, Seattle, Austin, and Honolulu have adopted regulations for single-exit buildings that include stricter requirements for building materials, shorter travel distance limits, and reduced building area per story, as well as stairway pressurization, among

other requirements. See Exhibit A for a comparison of regulations governing the construction of single-exit buildings up to six stories in height among various U.S. cities.

STATE AND LOCAL BUILDING CODES

In California, the California Building Standards Commission (CBSC) is responsible for publishing the California Building Standards Code, also known as Title 24 of the California Code of Regulations. This responsibility is mandated by the Health and Safety Code (HSC) Division 13, Part 2.5, starting with Section 18901. Currently, Title 24 consists of 12 parts that govern the design and construction of buildings throughout the State. Title 24 Part 2 is the California Building Code (CBC).

The Department of Housing and Community Development (HCD) is responsible for adopting building standards that apply to residential occupancies, such as apartments, as mandated by State law (see HSC Division 13, Part 1.5, starting with Section 17910).

Additionally, the Office of the State Fire Marshal (SFM) is responsible for adopting building standards focused on fire and panic safety for residential occupancies (refer to HSC Division 13, Part 1.5, starting with Section 17910).

Section 1006.3.4 in Chapter 10 of the CBC restricts apartment buildings to a maximum of three stories, with no more than four units on each story, when only one exit is provided. An amendment to this section of the CBC would be necessary to permit single-exit apartment buildings with more than three stories.

State law requires local jurisdictions to follow the current edition of Title 24, as indicated in HSC § 13145, 13146, 17960, 17961, 17962, 18948, and 19958; Gov. Code § 54350.

Various State laws, including HSC § 18941.5, permit local governments to enact ordinances that amend the building standards outlined in Title 24.

A local government may or may not adopt Title 24 by reference in their local ordinances. When a local government does not adopt Title 24 by ordinance, Title 24 becomes the applicable code for all building occupancies by default. This is specified in HSC § 17950, § 17958, and § 18938(b), and CBC, Chapter 1, Division 1, Section 1.1.3. The City of Los Angeles adopts and amends the CBC through its ordinances. Currently, the Los Angeles Municipal Code (LAMC) does not modify any sections of Chapter 10 of the CBC. Therefore, buildings in the City of Los Angeles must adhere to CBC Section 1006.3.4, limiting single-exit buildings to three stories and four units per story.

State law allows local governments to make amendments to building standards as long as express findings for each amendment, addition, or deletion based on local climatic, topographical, geological and environmental conditions (environmental in the case of amendments to the California Green Building Standards Code (Part 11 of Title 24)) are made. However, State law requires local amendments to the California Building Standards Code to be more restrictive than the standard provisions. The State law articulates this in HSC § 18941.5, § 17958.5, § 17958.7, CBC 1.1.8 and 1.8.6.2.

This would prevent a local government in California from proposing an amendment that is less restrictive than the CBC. Reducing the number of exits for buildings taller than three stories would be less stringent than the required State regulation. Although additional restrictions may be imposed on a building to provide more stringent requirements (such as stair pressurization, requiring only an NFPA 13 sprinkler system, and limiting the area per story, among other regulations), the number of exits required by State code would ultimately be reduced. LADBS will defer to the Office of the City Attorney regarding the legality of modifying the California Building Code to allow a single-exit stair in buildings over three stories, provided certain requirements are met, such as stairway pressurization, as well as other requirements similar to those in different jurisdictions (See Exhibit A).

AB 835

California AB 835 was signed into law in 2023, instructing the SFM to research and develop standards for single-stairway, multi-unit residential buildings with more than three stories. AB 835 requires the SFM to submit a report to the Senate Committee on Governmental Organization, the Assembly Committee on Emergency Management, the Joint Legislative Committee on Emergency Management, and the CBSC by January 1, 2026. The report would provide information on single-exit buildings over three stories, and may include the cost impacts of reducing the number of exits, a fire protection analysis of single-exit buildings, a code comparison between various cities' code requirements, a single-exit egress analysis, the history of single-exit buildings, and an examination of fire department capabilities in regards to responding to emergencies in single-exit buildings. LADBS staff participates in the SFM workgroup meetings and contributes to subcommittee discussions to present the City's perspective. The goal is to help develop regulations for the State to consider if it decides to amend the CBC and allow single-exit buildings that are over three stories tall.

LCI & AIA

LADBS consulted with the LCI and the AIA LA regarding regulations for residential buildings with a single exit that exceed three stories. According to LCI, the 2027 IBC is expected to introduce proposed changes allowing single-exit residential buildings of up to four stories. If California does not amend the relevant sections of the 2027 IBC to permit such buildings, the California Building Code (CBC) will allow single-exit buildings of over three stories starting in the 2028 edition, which will take effect on January 1, 2029.

LCI advocates for expanding the scope of single-exit buildings in Los Angeles beyond the proposed four-story limit, citing the City's firefighting capabilities. They suggest that Los Angeles adopt provisions similar to the E24-24 proposal (see Exhibit B) while allowing for taller, light-wood frame constructions without requiring direct aerial access to each unit. Please refer to LCI's letter in Exhibit C for more details.

Similarly, AIA LA supports allowing single-exit buildings beyond the three-story limit while limiting each level to four units and permitting the use of combustible or wood light-framing construction. AIA LA has cited several advantages of single-exit buildings that exceed three stories, including:

- Elimination of redundant stairs and associated corridors would increase leasable residential space, improving financial viability on smaller sites.

- A smaller stairwell footprint would allow for more flexible unit layouts and enable development on previously constrained lots.
- Single-exit buildings are well-suited for creating smaller apartment buildings and courtyard housing on infill sites.

According to AIA LA, allowing well-designed and fire-protected single-stair buildings of up to six stories could help Los Angeles better utilize many underused smaller parcels. This change would make multifamily housing financially feasible in areas where it was previously not possible. These strategic reforms to building codes have the potential to increase the housing supply significantly, encourage diverse urban designs, lower construction costs, reduce embodied carbon emissions, and ultimately contribute to a more affordable and vibrant city.

LOS ANGELES FIRE DEPARTMENT

Exit stairs serve a dual purpose: they provide safe exits for building occupants and facilitate access for Fire Department personnel during firefighting and rescue operations. LADBS will defer to the Los Angeles Fire Department regarding the impact of having a single stairway on their operations. The Los Angeles Fire Department will submit a separate report addressing this matter.

LADBS RECOMMENDATION

1. Obtain a formal determination from the Office of the City Attorney regarding the City's ability to make such a code revision.
2. Obtain input from the LAFD regarding the impact of having a single stairway on their operations and potential remedies for their concerns.

In consultation with the Fire Department, consider some or all of the following requirements and limitations to allow single-exit buildings of more than three stories:

3. Limit the number of stories to four and determine whether basements are permissible or shall be included in the story limit.
4. Limit the number of units per story to four.
5. Limit the maximum floor area per story to 4,000 square feet.
6. Require exit access to be provided via a rated corridor.
7. Mandate the installation of an NFPA 13 sprinkler system for the building.
8. Require the single exit discharge directly to a street or yard fronting onto a street. Where the exit discharge is via an egress court in a yard that does not front onto a street, require that the egress court width be equal to or exceed the egress court depth.
9. Require implementation of a fire alarm and notification system.
10. Require smoke and fire protection systems at all vertical openings, such as stairs and elevator hoistways.
11. Impose an exit access travel distance limitation and corridor exit access travel distance limitation.
12. Mandate emergency egress within all bedrooms regardless of code exceptions.
13. Disallow occupied roofs above the 4th floor—private roof deck allowance to be considered.
14. Impose occupancy and occupant load limits on any occupied roof above the second floor.

15. Limit other occupancy groups using the same single-exit stair.
16. Prohibit installation of any electrical outlets in the single-exit stair or corridor.
17. Require elevators with emergency power.
18. Where trash chutes are proposed, access to a trash chute must be from a separate room, not directly from the stairs or corridor.
19. Limit the number of single-exit conditions per building. Clarify that a Fire Wall cannot be used to create separate buildings to allow two single-exit buildings.
20. Only R2 occupancy may use the single-exit stair.

Should you have any questions, please contact Rodolfo Arias by email at rodolfo.arias@lacity.org.

Osama Younan, PE
General Manager
Department of Building and Safety

EXHIBIT A

Provision	2022 CBC Code (Base)	New York City 1006.3.2 (Option 1)	New York City 1006.3.2 (Option 2)	Seattle, 1006.3.3	ICC E24-24 (likely 2027 IBC)	WA State, Appendix Q	Honolulu, Exc 6	Austin, 1006.3.4.2	City of Memphis	Texas State law for Local Adoption	NFPA	State Fire Marshal Meeting Notes
Maximum Number of Stories	(3) 1006.3.4	4	6	6 (5 of R2)	4	6 (5 of R2)	6 (5 of R2)	5	6 (5 of R2)	6	4	
Highrise (height) Permitted	(N.R.) 403	N.R.	N.R.	N.R.	N.R.	No	N.R.	N.R.	N.R.	No	N.R.	
Dwelling Units per Story Maximum	(4) 1006.3.4	3	N.L.	4	4	4	4	4	4	4	4	
Maximum Building Area per Story (SF)	(N.R.) 503.1 and 506.1	2500	2000	N.R.	4000	N.R.	N.R.	4000	N.R.	N.R.	N.R.	
Type of Construction	(N.R.) 503.1, 504.1, 506.1 and 601.1	I or II	I or II	1-Hour Rated Construction	N.R.	IA, IB, IIA, IIIA, IV-(A,B,C,HT), VA	1-Hour Rated Construction	N.R.	N.R.	N.R.		Standard code requirement should be ok. No need to go beyond this.
Stairway Required to Roof Via Hatch/Ladder	(N.R.) 1011.12	Yes	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.		
Interior Exit Stairway Protection	(N.R.) 1023	2 Hr + 90 Min. Door	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	2 Hr + NFPA 13		
Travel Distance Limit From Unit Door to Stair (feet)	N.A.	N.R.	N.R.	20	N.R.	20	20	20	20	20		
Travel Distance Limit From Most Remote Point on Floor to Stair (feet)	(125) 1006 and 1017	50	50	125	125	125	125	125	125	125		
Direct Access to a Stairway or Through the Intermediate Corridor	N.A.	Corridor	Corridor	Corridor	Direct	Corridor	Corridor	N.R.	Corridor	1-Hour Corridor or Direct to Exit Stair		Either require corridor, or require that, direct access to stair doors for units, are prevented from being kept open.
Emergency Escape and Rescue Openings Required	(N.R.) 1031.2	No *	No	Yes	Yes	Yes	N.R.	Yes	N.R.	Yes		
Emergency Escape and Rescue Openings Fronting in a Public Way Required	N.A.	No *	No	No	No	No	No	No	No	N.R.		
NFPA 13 Fire Sprinkler System	(N.R., 13 or 13R) 903.2	13R	13 or 13R	13	13 or 13R	13	13	13 or 13R	N.R.	N.R.		Sprinklers will be required for single-exit buildings. ADU's using these provisins must be sprinklered. 13 or 13R should be fine. Secondary riser/water supply not needed.
Fire Alarm	(N.R.) 907.2	N.R.	N.R.	N.R.	Yes	Detection	N.R.	Detection	N.R.	Detection		Smoke detection is critical. Should we require only typcial smoke alarm or interconnected alarm system? Voice alarm system can be required but there is a high-cost for this. Manual pull alarms are a good idea, to alert all residents.
Non-Combustible Construction	(N.R.) 601 & Ch. 5	Yes	Yes	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	
Stairway Smoke Control Required	(N.R.) 1023.12 and 909	No	No	Yes	N.R.	Yes	Yes	N.R.	N.R.	N.R.		Ext. stair ok (from smoke control prespective). Vent (4 SF shaft) in corridor to vent corridor. Damper must connec to fire alarm to only activate that floor. Modeling may be required. Or, ensure that doors are truly closed (prevent smoke passage). But, slef-closing devices may be deafeted. To prevent this, add a magnetic door opening device to allow people to keep door open, upon alarm activation, magnet would relase to close door.
Elevator Hoistway Opening Protection Required	(N.R.) 3006.1	No	No	Yes	N.R.	Yes	Yes	N.R.	N.R.	N.R.		
Maximum Number of Single Exit Buildings Per Site (Property)	N.A.	N.L.	N.L.	2	N.R.	2	2	N.L.	N.L.	N.L.		
Exit Termination Egress Court Width	(N.R.) 1029	N.R.	N.R.	Court depth may not exceed width	N.R.	Court depth may not exceed width	Court depth may not exceed width	Court depth may not exceed width	N.R.	Court depth may not exceed width		
Other Occupancies Not Allowed for Single-Exit, R-2 Only	(N.R.) 1006.3.4 (Table 1006.3.4(2))	R-2 Only	R-2 Only	Yes	N.R.	Yes	Yes	Yes	Yes	N.R.		
Exterior Openings Within 10' Are Prohibited From Unrated Stair Openings	(N.R.) 1023.7	N.L.	N.L.	Yes	N.R.	Yes	Yes	N.R.	Yes	Yes		
Electrical Receptacles Prohibited in Stairway		No	No	No	Yes	No	No	Yes	No	Yes		Prohibit electrical outlets to prevent people from using outlets. For example, to prevent e-bike or e- devices being charged in the stairs.
Single Exit Serving Occupied Roof	(N.R.) 1006.3.4	N.R.	N.R.	Yes	N.R.	No, with exception.	N.R.	Yes if complies with 1006.3.4.2.	No	N.R.		
Minimum Stairway Width (in)	(N.R.) 1005.3 and 1011.2	N.R.	N.R.	N.R.	N.R.	N.R.	48	N.R.	N.R.	N.R.		
Elevators Required	(N.R.) 1009.2.1	No	N.R.	N.R.	N.R.	N.R.	N.R.	Yes	N.R.	N.R.		
Doorswing Required in path of Travel Into Stairway	(N.R.) 1010.1.2.1	No	No	Yes	No	Yes	Yes	Yes	N.R.	Yes		
Standpipe Required	(N.R.) 905	No	No	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.		
Egress Balcony is not Permitted	(N.R.) 1021	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.		
Elevator Emergency Power Exceptions not Allowed (Horizontal Exit)	(N.R.) 1009.2.1 and 1009.4	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.		LA City Specific: Require elevators and emergency power to allow F.D. to use elevator during emergency. Also, for 5-6 stories, during EMT emergency, gerney sized elevator is required.
Allow Exterior Exit Stairways as Single Exit	(N.R.) 1027	N.R.	N.R.	Yes	N.R.	Yes	N.R.	Yes	Yes	Yes		
Maximum Number of Occupants	(N.R.) 1004, 1005, 1006	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.		
Access to Trash Chute	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.		Trash chute should NOT be open to corridor. A separate room or space should be required.
FDC Connection Location Adjacent to/Visible From FD Vehicle Access	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	Yes	N.R.	N.R.		
Occupied Roof Allowed Above Maximum Story Limit	Table 1006.3.4(2)	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	Yes if complies with 1006.3.4.2.	No, separate code requiremnts apply.	N.R.		

N.A. - Not Applicable

N.L. - No Limit

N.R. - No Additional Requirement, refer back to applicable code.

* NYC requires the dwelling units to have at least one window facing the street or yard see itme 6.5 in section 1006.3.2 #6.

EXHIBIT B

FLOOR MODIFICATION
E24-24-SHAPIRO-MC1

Proponent: Jeffrey Shapiro, International Code Consultants, Self (jeff.shapiro@intlcodeconsultants.com)

2024 International Building Code

Revise as follows:

TABLE 1006.3.4(1)
STORIES AND OCCUPIABLE ROOFS WITH ONE EXIT OR ACCESS TO ONE EXIT FOR R-2 OCCUPANCIES

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STORY	OCCUPANCY	MAXIMUM NUMBER OF DWELLING UNITS	MAXIMUM EXIT ACCESS TRAVEL DISTANCE
Basement, first, second ~~or~~ third, or fourth story above grade plane and occupiable roofs over the first, ~~or~~ second, or third story above grade plane	R-2[a, b, c, d]	4 dwelling units	125 feet
~~Fourth~~ Fifth story above grade plane and higher	NP	NA	NA

d. 4-story buildings and 3-story buildings with an occupiable roof above the third story shall also comply with Section 1006.3.4.2.

Add new text as follows:

1006.3.4.2 Single exit four-story buildings with Group R-2 dwelling units. Four-story buildings with a single exit for Group R-2 dwelling units shall comply with Table 1006.3.4(1) and all of the following:

1. The *net floor area* of each floor shall not exceed 4,000 square feet (418.5 m^2).
2. Openings to the *interior exit stairway* enclosure shall be limited to those required for exit access into the enclosure from normally occupied spaces, those required for egress from the enclosure, and openings to the exterior. Elevators shall not open into the *interior exit stairway* enclosure.
3. A *manual fire alarm system* and *automatic smoke detection system* that activates the occupant notification system in accordance with Section 907.5 shall be provided. Smoke detectors shall be located in common spaces outside of *dwelling units*, including but not limited to gathering areas, laundry rooms, mechanical equipment rooms, storage rooms, interior *corridors*, *interior exit stairways*, and *exit passageways*.
4. Regardless of the stairway construction type, *automatic sprinkler* locations in *interior exit stairways* shall comply with the requirements of NFPA 13 for combustible stairways.
5. Electrical receptacles shall be prohibited in an *interior exit stairway*.

This floor modification is based on work of a joint FCAC/BCAC workgroup, which achieved consensus. The objective of this workgroup was bringing together interested parties in an effort to determine whether there is an opportunity for incremental progress in extending the current 3-story limit on R-2 single-exit buildings in the 2027 code. More immediately, the workgroup desired to achieve a recommendation of APPROVAL AS MODIFIED by the Means of Egress Committee at the Long Beach hearing, which may assist state and local jurisdictions that have pending requests to address this issue outside of the model code process.

Initially, E24-24 requested that the current 3-story limit on single-exit R-2 buildings be extended to 6 stories. CAH2 Comment 2 by the proponent revised that request by moving the proposal into an optional appendix available for adoption by jurisdictions choosing to allow such buildings, based in part on precedent of some U.S. cities and other countries.

This floor modification abandons the text of the original proposal and Comment 2 in favor of a simpler and more limited change in the body of the code. The primary changes are extending the current 3-story limit to 4-stories, not the originally suggested 6, and limiting the net floor area of each floor in 4-story buildings to 4,000 square feet. These are VERY small footprint buildings.

Following the last workgroup meeting, I modified the comment to always require that sprinklers are installed at each floor landing, which is normally only required by NFPA 13 for combustible stairways, and I removed a suggested limitation on the stair only serving 4 stories, which I initially added, because a 2-hour stair enclosure will always be required in these buildings.

ADDITIONAL BACKGROUND AND OVERALL JUSTIFICATION

It is important to bear in mind that there is a significant precedent in the U.S. for what is being recommended. NFPA 101 (Life Safety Code) has, for approximately 30 years, allowed 4-story single exit apartment buildings with similar, but fewer, requirements vs. what is being recommended for the I-Codes.

NFPA 101allows a 1-hour exit enclosure per 7.1.3.2.1 and 30.2.2.1.2; whereas, the IBC will require the enclosure to be 2-hour rated at 4-stories. NFPA does not specifically limit the floor area; whereas, this IBC comment will. And, the IBC will also add a requirement for a fire alarm system that includes both manual pull stations and smoke detection in areas outside of dwelling units.

While there was strong opposition to the initial E24-24 proposal, the scaled back recommendation to 4 stories with significant safety enhancements beyond what the IBC requires for 3 stories and beyond what NFPA 101 requires for 4 stories reasonably addresses concerns that have been raised.

SPECIFIC JUSTIFICATIONS FOR ITEMS 2-5

2. Clarifies the disallowance of openings into the exit enclosure that are not from occupied areas (prohibits direct access into the enclosure from storage rooms, trash rooms, elevators, etc.). These specific provisions are included vs. referencing IBC 1023.4 because it was felt that the provisions should be enhanced for single-exit buildings.

3. Overrides exceptions for manual alarms that would otherwise apply in Section 907 and adds a requirement for common area smoke detection to reduce time to detection and alarm and emergency responder notification.

4. Requires sprinklers at each landing in all cases. NFPA 13 would otherwise only require sprinklers at the top/bottom of the exit enclosure if stairs were of noncombustible construction.

5. Not allowing electrical receptacles in the stairway eliminates a source of power for charging micromobility devices in the stairway, reducing the associated fire risk.

EXHIBIT C

Dear Faruk Sezer and Rodolfo Arias,

Thank you for taking the time to meet with us on May 28, 2025, regarding the City Council-mandated suggestions for modifications to the city's building code to allow taller single-exit, single-stairway apartment buildings. Per our conversation, we would like to present to you the following opinions from our organizations regarding how Los Angeles should approach this issue.

CAL FIRE work group
The Office of the State Fire Marshal is currently holding monthly work group meetings on the topic, as mandated by the state legislature. We would encourage the Los Angeles Fire Department and Los Angeles Department of Building and Safety to attend those sessions, both to learn more about the topic and also to share the perspective of the state's largest city and one of its most housing-constrained.

Specific single-stair conditions
We feel that the six-story height limit being discussed is arbitrary, and not rooted in any existing thresholds in the California Building Code. We would urge you to expand the scope of consideration to any R-2 occupancy in a building not meeting the high-rise definition, as this more properly aligns with firefighting capability and existing code precedent.

Below that limit, we think it may be appropriate to apply different conditions to different heights. Late last year in Long Beach, the International Code Committee's Means of Egress Committee for the model International Building Code voted to approve a modification of the E24-24 proposal, allowing single-stair apartment buildings up to four stories. This language or something very similar is expected to be adopted into the 2027 model International Building Code. We think these should be the set of conditions under which single-stair apartment buildings are allowed at four stories (not to override the current rules for buildings up to three stories).

These rules were intended for adoption across the United States, by jurisdictions regardless of firefighting capabilities. Given Los Angeles's very strong firefighting capabilities – in response times, apparatus availability, career staffing, fire station density, and water availability – it would not be appropriate for the city to stop at the same language as rural areas with all-volunteer fire departments and only allow buildings up to four stories. Therefore we urge LADBS and LAFD to work with stakeholders to arrive at reasonable language to allow single-stair apartment buildings **beyond this four-story limit, up to the high-rise height limit.**

Above four stories, we would encourage Los Angeles to work with designers and developers to ensure financial feasibility for housing aimed at a range of incomes. Los Angeles has a culture, workforce, and supply chain geared towards light wood-frame construction, with the current

code requiring extensive mitigations to ensure the safety of combustible construction. Light wood-frame construction types should be allowed for single-stair buildings, within the limits currently prescribed for R-2 occupancies.

U.S. jurisdictions and those abroad do not as a rule require direct aerial apparatus access to each unit from the street (particularly when buildings are equipped with sprinklers and alarms, stairways are equipped with smoke control, etc.). Requiring this would seriously impair the ability to design more than two or three apartments per story and would be very problematic for Los Angeles's narrow but deep lots and buildings.

U.S. and foreign jurisdictions which build single-stair buildings also do not require wider exit stairs. There are some North American jurisdictions who have required them in recently enacted code sections, but few to no buildings have been built under these conditions. The spatial and dollar costs of wider stairs are very high – because of the geometry of landings and switchback stairs, the floor area occupied by the stairway increases at a rate faster than the width of the stairway. In other words, small increases in stair widths can lead to big additional costs.

Contrary to some assertions, the purpose of multiple exits in the current code is not for the fire department to be able to segregate simultaneous firefighter attack and occupant egress into different stairways. If this were the case, stairways would not be required to be remote from each other. There would also be some sort of permanent labeling of doors or required public announcement system in non-high-rise buildings to facilitate segregated flows. Finally, maximum exit access travel distances in CBC 1017.3 would be measured to the second nearest (or even farthest) exit, not "to the nearest exit" as is written in the current code. Because every exit in a two-stair building must be assumed to have occupants evacuating down it and cannot necessarily be closed off to evacuation, it is only logical to assume that minimum stairway widths in the current code would be adequate for rescue and firefighting operations in single-stair buildings as long as the number of occupants in the building is limited to that of no more than half the number that would be found in a two-stair building.

The United States has extremely expensive and large elevators, and for the mid-rise heights in question where firefighting does not depend on elevators, we would like to see designers continue to have the flexibility to provide elevators as they see fit. While we support the greater provision of elevators, this is a separate topic that should be left out of code language for single-stair buildings. It risks imperiling the project, especially for affordable housing, smaller lots, and lower heights.

So-called "chained point access blocks" – multiple single-stair conditions on a single site or even within a single structure, with appropriate fire-rated assemblies separating single-stair conditions – are a common typology in New York City, abroad, and even in U.S. suburbs throughout the country in the form of garden apartments. We would like to see the future code

section allow these for larger sites where designers find efficiencies in chaining multiple single-stair blocks together.

Exterior stairways are a commonly used solution in Seattle and other jurisdictions to ensure that smoke cannot accumulate in single stairways, and Los Angeles has a history of them for low-rise structures, given its mild climate. We would like them to remain an option (but not the only option) for single-stair buildings here as well. We have heard from designers that differing interpretations of certain code sections can make them difficult to implement today, and we would like either the code language proposed or bulletins related to it to clarify that they are not to be punished through application of, for example, exit access travel distance limits to travel down exterior exits themselves.

Equivalency

Because building codes do not have objective performance goals, new proposals must be judged against levels of protection afforded by currently adopted codes. It is important to judge single-stair proposals not against the same-sized building with two stairs – which is not realistic, and is not currently being built – but against more common and practical building types built under current codes.

One type is what is informally known in Los Angeles as the double duplex, common in areas of the city zoned for low-density multifamily. These are very large R-3 occupancies, often four stories tall, with two dwelling units in each building ("duplex"), with sometimes two built on each lot ("double"). They are built to the California Building Code, with dozens of rooms with en-suite bathrooms within a single dwelling unit rented out to individual tenants who share a kitchen and living room. They are built with lower levels of fire protection than required by, for example, Seattle's single-stair building code section (individually rented bedrooms open directly onto the stair, for example). On our call, LADBS indicated that they were unaware of the building type, lending credence to our belief that there have been no major fires and these buildings have generally proven to be safe.

Another type of building is the double-loaded corridor design for R-2 occupancies. While these have two exits, they are arranged at opposite ends of very long corridors, often with more occupants sharing a corridor on a single story than a six-story single-stair building would have in total across all stories. One Santa Fe – a very large double-loaded corridor in the Arts District – has even been described as a "skyscraper flipped on its side." The current California Building Code allows for occupant loads that could, in theory, have 100,000 square feet of apartments on a single story sharing just two exits. Practically speaking, travel distances might limit a two-stair building to around half this size. Either limit still leaves a vast corridor acting as a single smoke compartment, with huge numbers of residents at risk in the event of a fire that escapes containment by sprinklers and self-closing doors.

Development of a single-stair code section should consider the fact that single-stair buildings, by virtue of their limited floor plates, will tend to have far fewer occupants relying on each stairway than a typical double-loaded corridor building with two stairs and far more than twice as many occupants. If LADBS and LAFD are comfortable with current code limits for two-stair buildings – and we have heard no complaints from them about these – then they should be comfortable with much less risk in more compartmented single-stair buildings.

Fire service capacity

Many objections to taller single-stair buildings have been raised by smaller jurisdictions in more rural areas with volunteer fire departments, or with these departments in mind. While single-stair code sections in other cities are written to make buildings mostly self-reliant in the case of fires, the issue of rescues, fire service suppression, and general capabilities still comes up. Seattle's executive director of fire prevention expressed this view when she told *NFPA Journal*: "We were comfortable with [our single-stair code section] because we have a hydrant on every corner. We have a well-funded municipal career fire department with outstanding response times. We have a good complement of aerial ladders distributed throughout the city that we could put quickly on scene if we need to [effect] a rescue."

All of these descriptions apply equally to the Los Angeles Fire Department. Los Angeles has fire hydrants on every corner. We have a career fire department with an annual budget of over $920 million – very close to Seattle's in per capita terms. We have an extensive fleet of aerial truck companies, stationed throughout the city. LAFD proudly displays its Class 1 ISO rating on its apparatus. It is important for Los Angeles taxpayers to reap the rewards of our spending, and for the city to recognize its fire service capacity when developing its building code.

Use of fire loss data

The Los Angeles Fire Department, like those around the country, reports the outcomes of fires to the federal government through the National Fire Incident Reporting System. We would like to see this data used to evaluate how often fires develop into major incidents in modern apartment buildings built to recent codes with all of the passive and active systems that have been required. Real-life incident data collected over the years in our city should inform the development of single-stair code sections and evaluation of how likely various failures of existing required systems are. We should not rely solely on hypothetical arguments or anecdotes about what might happen in the event of failures of unknown likelihood in buildings that already contain multiple layers of protection.

Negative or limited recommendation

We believe that LADBS and LAFD can work together with stakeholders to make recommendations for code language to allow single-stair apartment buildings under buildable conditions up to at least six stories, and ideally up to the high-rise height limit. However, in the event that the department recommends otherwise, we would like to see an extensive, evidence-driven justification. If the city determines that state legislation does not allow the city to

allow taller single-stair buildings under either the body of its building code or alternative means, for example, we would like to see an explanation for why Seattle and New York City have been able to adopt building codes allowing such buildings despite similar language from their respective states (RCW 19.27.040 in Washington, and Sec. 379 of the New York State Uniform Fire Prevention Building Code Act). If the city determines that LAFD does not have the capacity of fire departments in other places that have or will soon allow single-stair apartment buildings above three stories (including Seattle, New York City, Honolulu, Vermont, Georgia, Minnesota, Puerto Rico, Knoxville, Memphis, and the entire nation through eventual likely adoption of the modification to E24-24), we would like to see a data-driven justification for this lack of capacity. If the city determines that very large R-3 duplexes have more safety features or lower risk than a single-stair R-2 occupancy over three stories built under a reasonable hypothetical code section, we would like to see evidence of that.

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