Proposal: Allow a single stair to meet egress requirements in taller buildings, subject to caps on units per floor and distance from each unit to stairwell.

Why?

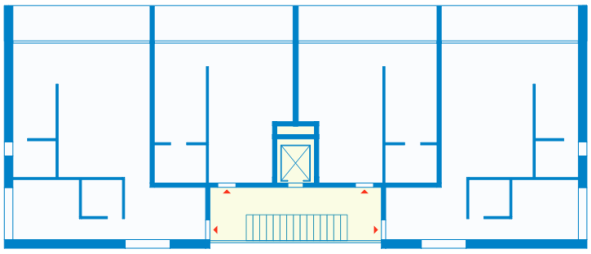
- Decrease construction costs.
- Provide more livable space per floor by reducing building volume for circulation.
    - Single stair "Point access block": 6.5% of floor plate for circulation
    - Single-loaded corridor with 2 stairs: 16% of floor plate for circulation
    - Double-loaded corridor with 2 stairs: 13% of floor plate for circulation.
- *Crunching the numbers:* Using the numbers above, an 800 sq ft apartment in a multifamily building with 2 exit stairs requires roughly twice (104 sq ft. vs. 52 sq ft) the floor area as the same sized apartment in a building with 1 set of exit stairs. If construction costs are $250/sf, that's a savings of ~$13K/unit in construction costs, not to mention the embodied energy of the materials and long-term reductions in heating, cooling and maintenance costs from additional floor area for circulation.
- Provide alternatives to double-loaded corridors, which don't allow units to get natural light from more than one side or benefit from cross-ventilation.
- Support a wider variety of unit types and sizes than found in buildings designed around double-loaded corridors – and provide greater flexibility for bedrooms to be located on the quiet side of a building that abuts a busy street.
- Support community-oriented designs, where doors open to shared central stairs (often with daylight or skylight and smoke/heat exhaust) rather than onto long hallways with stairs at each end.
- Unlock denser, more compact urban development patterns as lower carbon alternative to lower density, sprawling development.

Precedent

- Seattle, WA (up to 6 stories with single stair, capped at 4 units per floor)
- Germany (up to 4 per floor); Austria (up to 8 per floor); max travel distance of 115' to stairwell. Also Mexico, Japan…

More info

- https://www.larchlab.com/city-of-vancouver-report-on-point-access-blocks/
- https://slate.com/business/2021/12/staircases-floor-plan-twitter-housing-apartments.html



Diagrammatic Point Access Block floor plan, 93% efficient floor plate

Point Access Blocks, compact single stair buildings with units centered around the stairway, are one of the most basic building forms found in post-industrial cities. ***They provide compact, low-carbon, and livable multifamily housing.*** This report presents our research on the benefits of Point Access Blocks over other means of vertical access. These benefits include:

- **Increased livability**
- **Lower embodied carbon**
- **Lower operational carbon**
- **Lower cost**
- **Increased compactness**
- **Ability to cross ventilate**
- **Accessibility options for low-rise**
- **Elimination of long corridors**
- **No decrease in fire safety risk**
- **Unlocks small lot development**