



Report to URM Retrofit Policy Committee

CONFIRMED URM LIST VALIDATION

URM List Validation

- ▶ Hired structural engineer to validate list
- ▶ Started validation April 2015
- ▶ Completed April 2016
- ▶ Report to Policy Committee available online
 - ▶ Contains extensive analysis of data

Validation Process

- ▶ Map Buildings, remove duplicates
- ▶ Additional buildings found through: field investigation; Streetview; church, school, and public building searches; and Sandborn Fire Insurance Map research
- ▶ Review permit records for demolitions
- ▶ View Buildings in Google Streetview
 - ▶ Header courses or rosettes = confirmed, unless other evidence shows another building type
- ▶ Review building photos from previous studies
- ▶ Field visits to buildings that couldn't be verified via Streetview or photo
- ▶ Microfiche and online permit research for building type validation and seismic retrofit permit records

Confirmed URM List

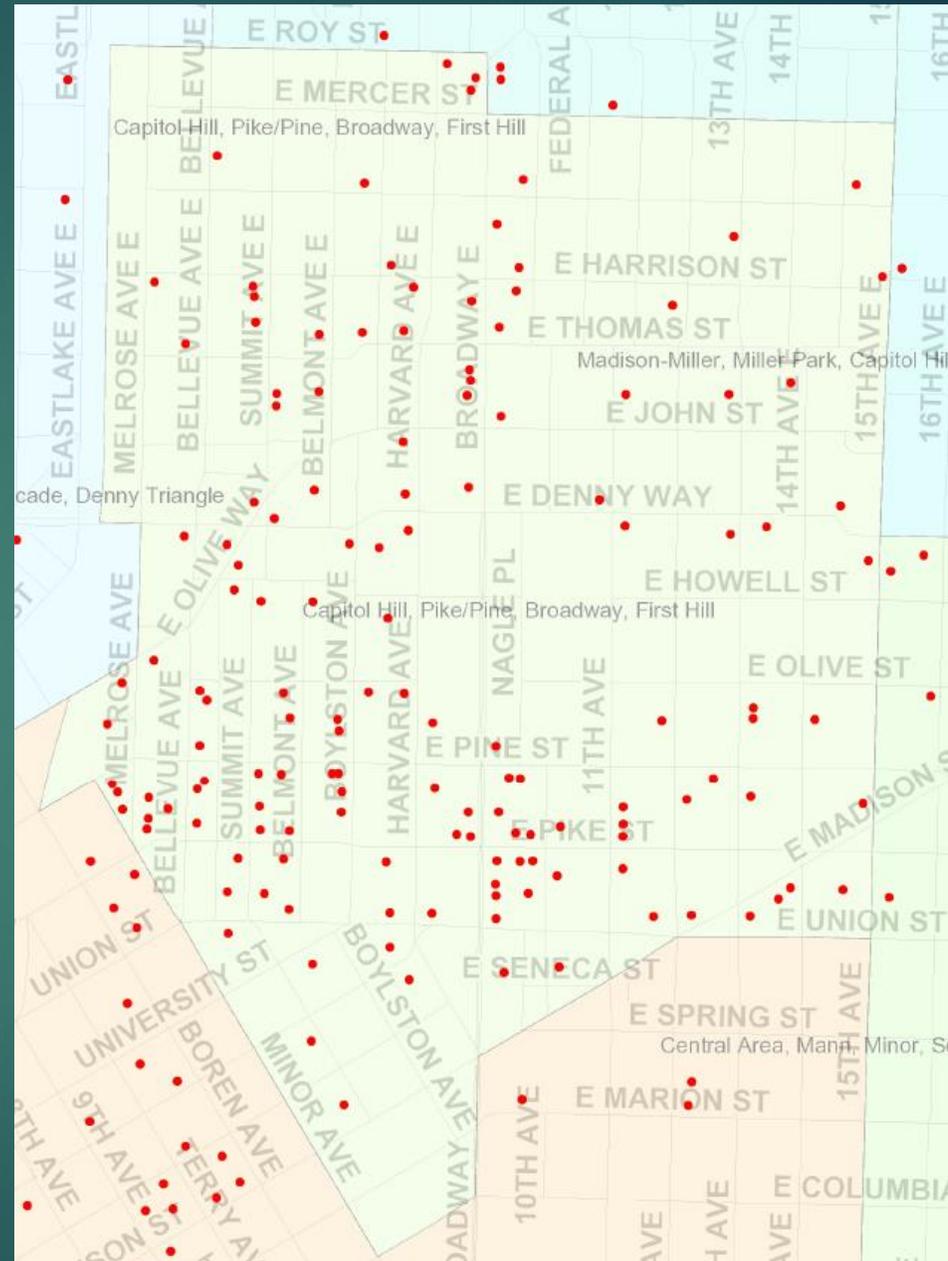
- ▶ Posted to seattle.gov/dpd/urm and data.seattle.gov
- ▶ Updated monthly

CONFIRMED URM LIST

Preliminary Risk Category	Neighborhood	Address	Year Built	Stories	Retrofit Level	Occupancy Type	Occupant Load	Confirmation Source
M	Alki/Admiral	1321 Harbor Ave SW	1915	1	No visible	C	2	Ph
M	Alki/Admiral	2124 California Ave SW	1928	3	No visible	R	2	GSV
M	Alki/Admiral	2306 42nd Ave SW	1909	2	Visible	G	2	Ph-R
M	Alki/Admiral	4029 Beach Dr SW	1928	1	No visible	C/R	1	Field
M	Ballard	1100 NW Leary Way	1932	1	No visible	C	2	GSV
M	Ballard	1766 NW Market St	1906	2	No visible	C/O	2	SIM
M	Ballard	1836 NW Market St	1926	1	Sub Alt	C	2	Field
M	Ballard	1903 NW Market St	1909	3	No visible	C/R	3	Field
H	Ballard	2000 NW Market St	1924	2	No visible	P	3	Field
M	Ballard	2016 NW Market St	1906	2	No visible	C/O	2	Field
M	Ballard	2021 NW 58th St	1900	3	Permit	R	2	GSV
M	Ballard	2026 NW Market St	1904	2	No visible	C	3	Field
M	Ballard	2032 NW Market St	1928	1	No visible	C	3	Field
M	Ballard	2056 NW Market St	1925	3	No visible	C/R	3	GSV
M	Ballard	2116 NW Vernon Pl	1912	1	No visible	O	2	Field
M	Ballard	2215 NW Market St	1903	2	No visible	C/O	2	GSV
M	Ballard	2220 NW Market St	1927	1	No visible	C	3	GSV
M	Ballard	2228 NW Market St	1928	2	No visible	C	2	Field

Neighborhood map

- ▶ Capital Hill
- ▶ From Report to Policy Committee



Interactive Map Based Information

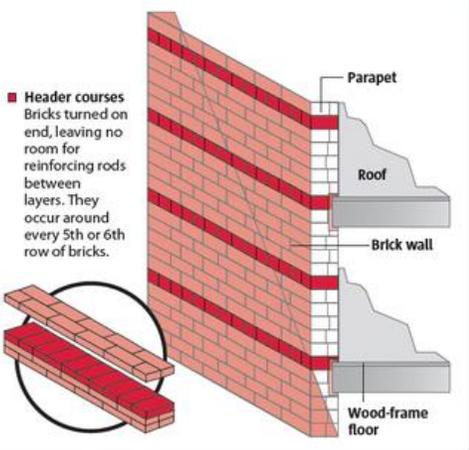
- ▶ Data available graphically through the Seattle Hazard Explorer
- ▶ Link on Hazards page of the Office of Emergency Management website

Seattle Hazard Explorer

Welcome and Introduction | Earthquakes | Tsunamis/ Seiches | Liquefaction | Landslides | **Unreinforced Masonry Buildings** | Flood

What is a URM?

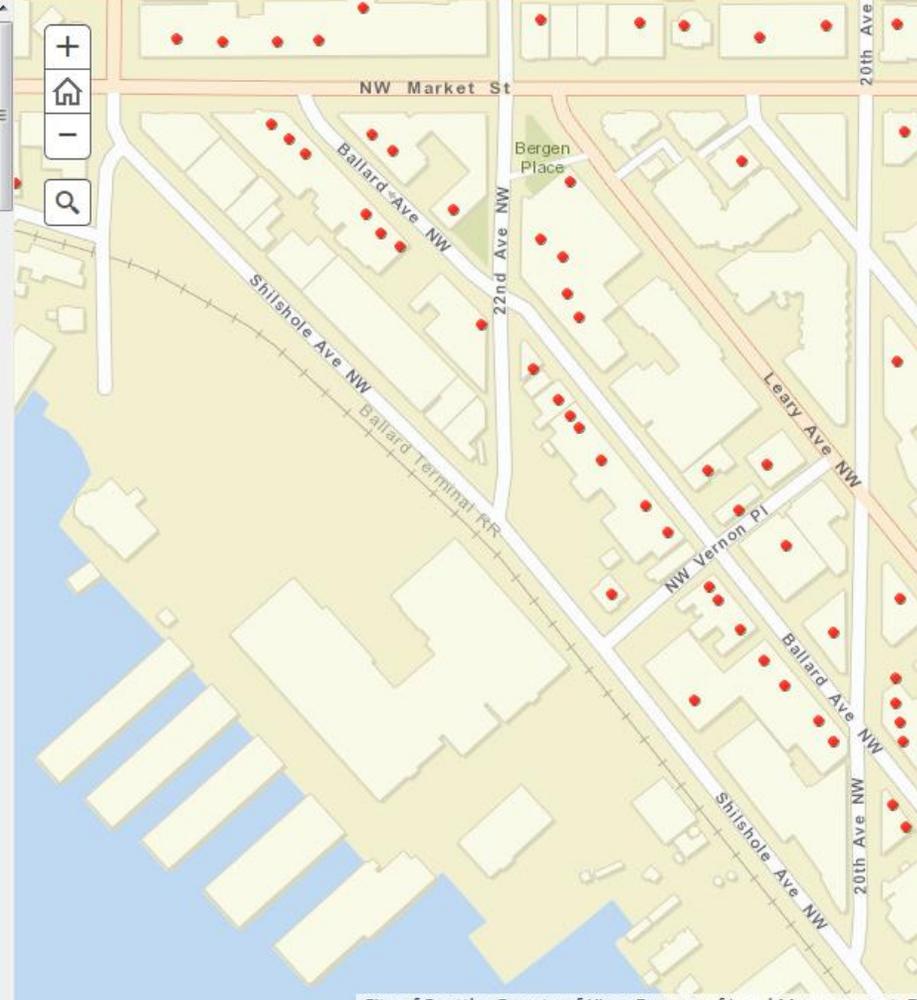
Unreinforced masonry buildings (URMs), are old brick buildings typically built prior to 1945. Because these buildings were not built using modern building codes, they are much more likely to experience damage or collapse during an earthquake. Most URMs have brick walls and wood-frame floors and roofs. A tell-tale sign of URM construction is what's called header courses—lines of bricks turned on end. Seattle has an estimated 1164 URMs throughout the city, and many can be found in historic neighborhoods such as Pioneer Square, the International District, Capitol Hill, Columbia City and Ballard.



■ Header courses
Bricks turned on end, leaving no room for reinforcing rods between layers. They occur around every 5th or 6th row of bricks.

Parapet
Roof
Brick wall
Wood-frame floor

During an Earthquake



City of Seattle, County of King, Bureau of Land Management, Es

Key Findings from Data Analysis

Median Building Height—2 stories



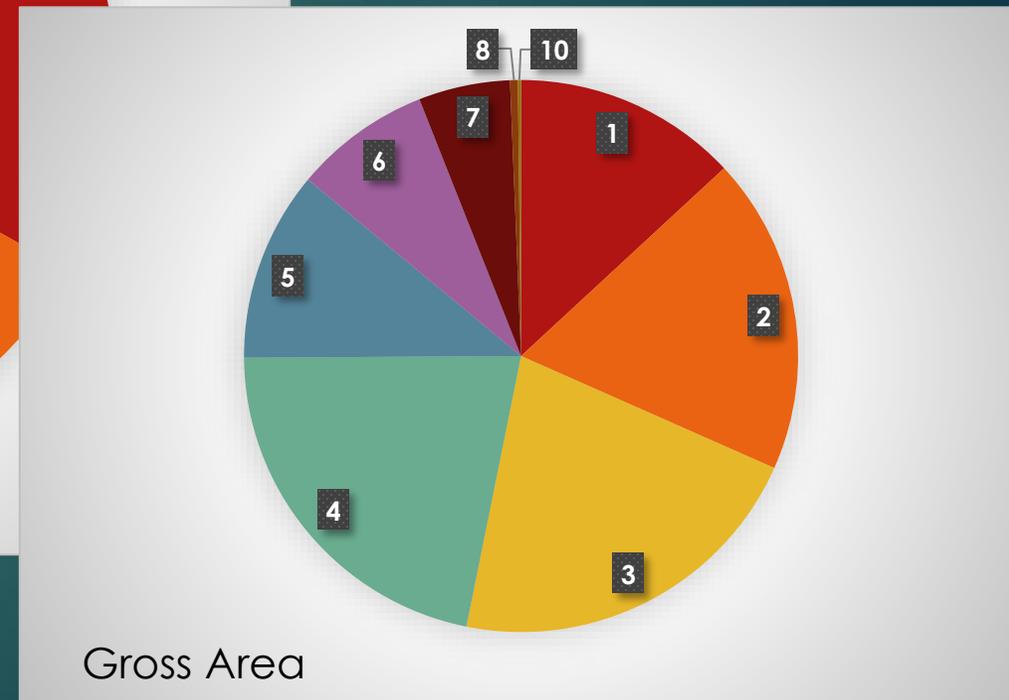
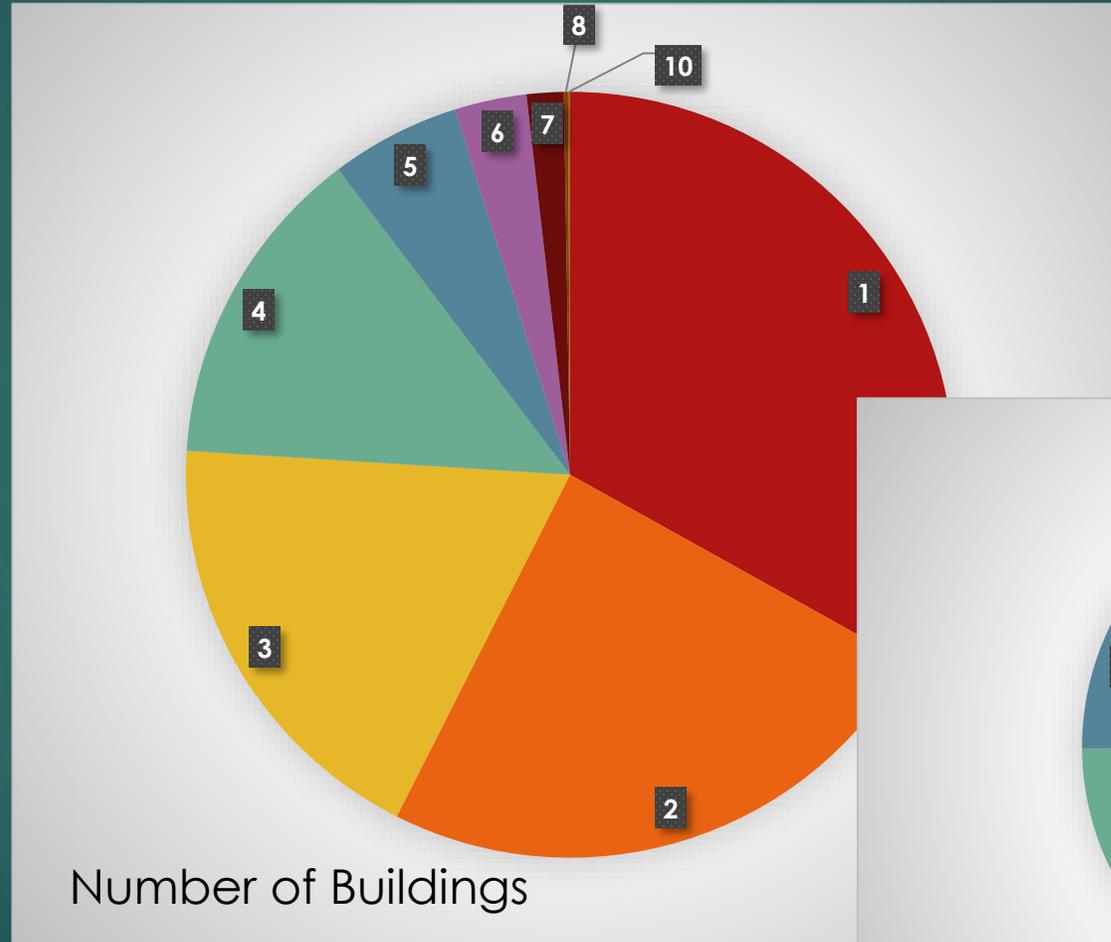
How many URM buildings are there?

1154 URM s

26.2 million square feet

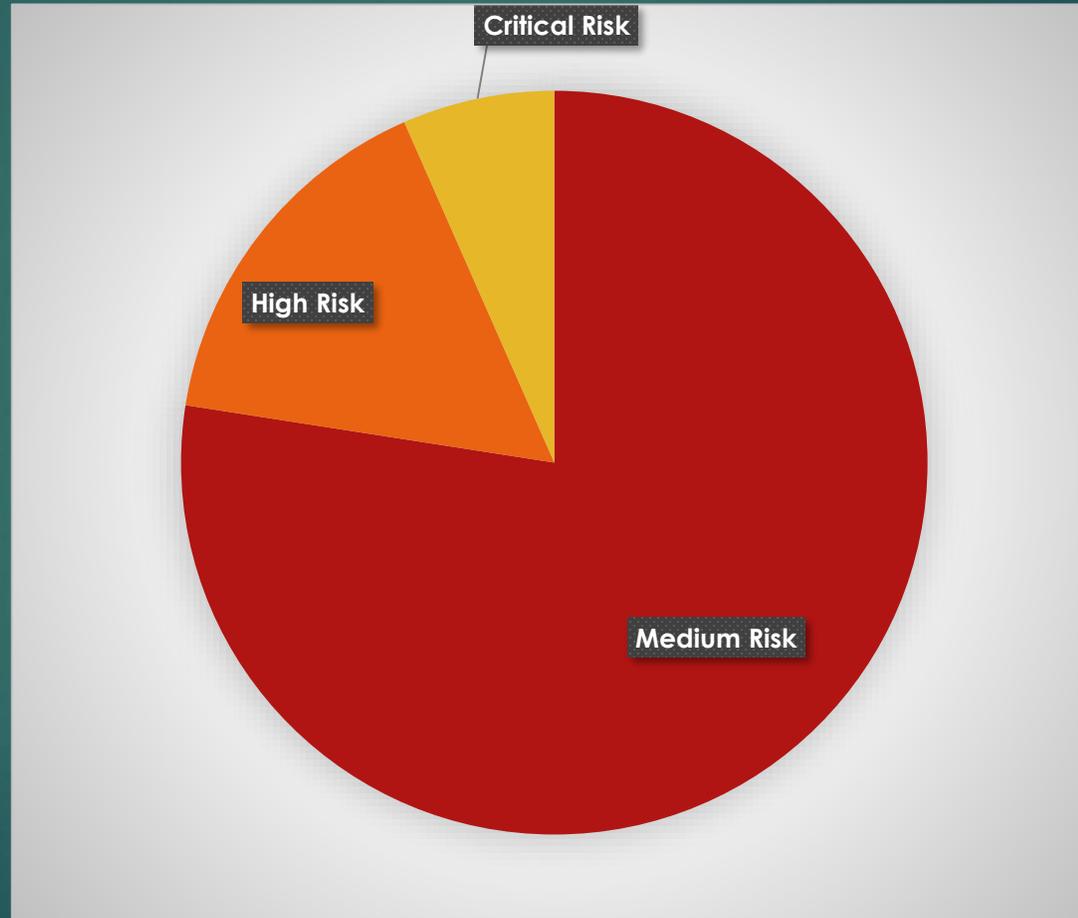
How tall are the buildings?

Number of Stories



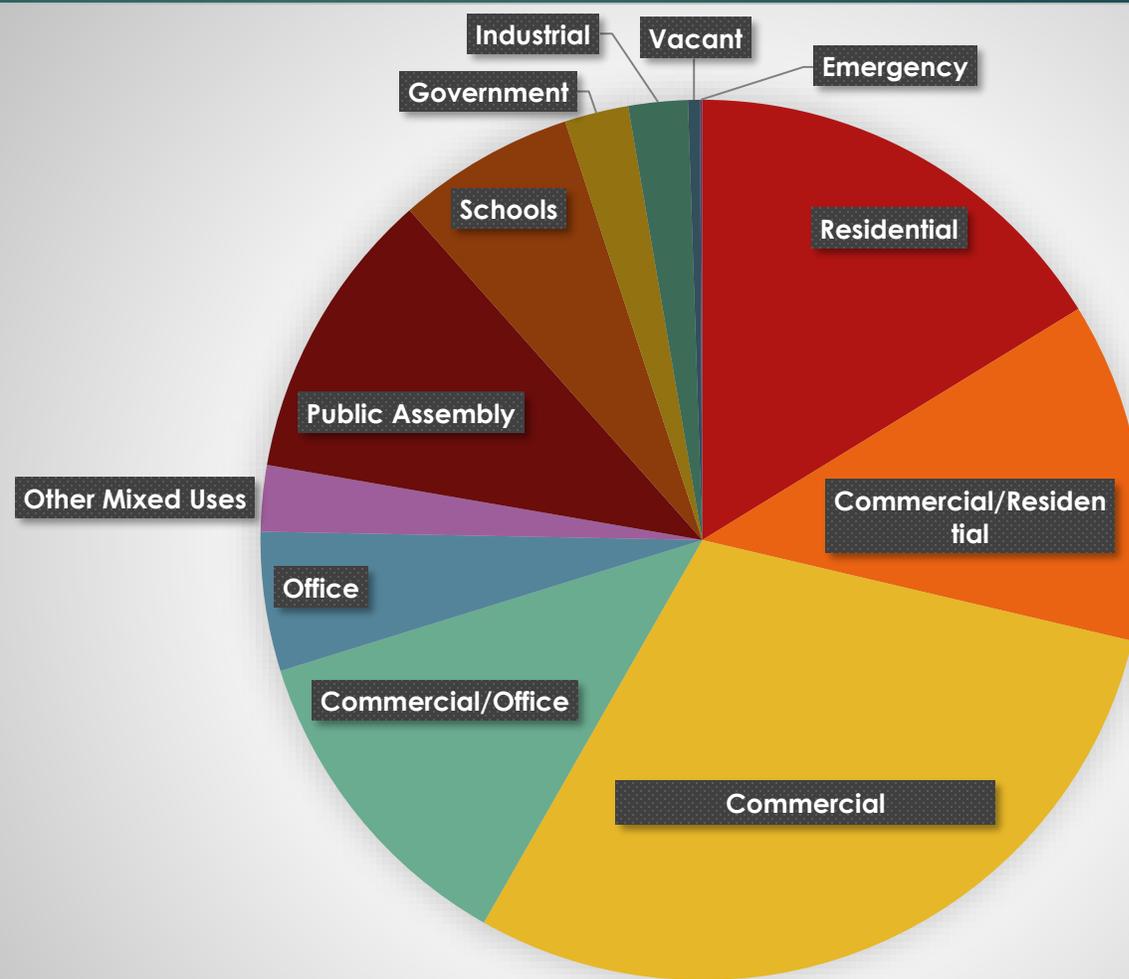
What's the risk?

Risk Categories

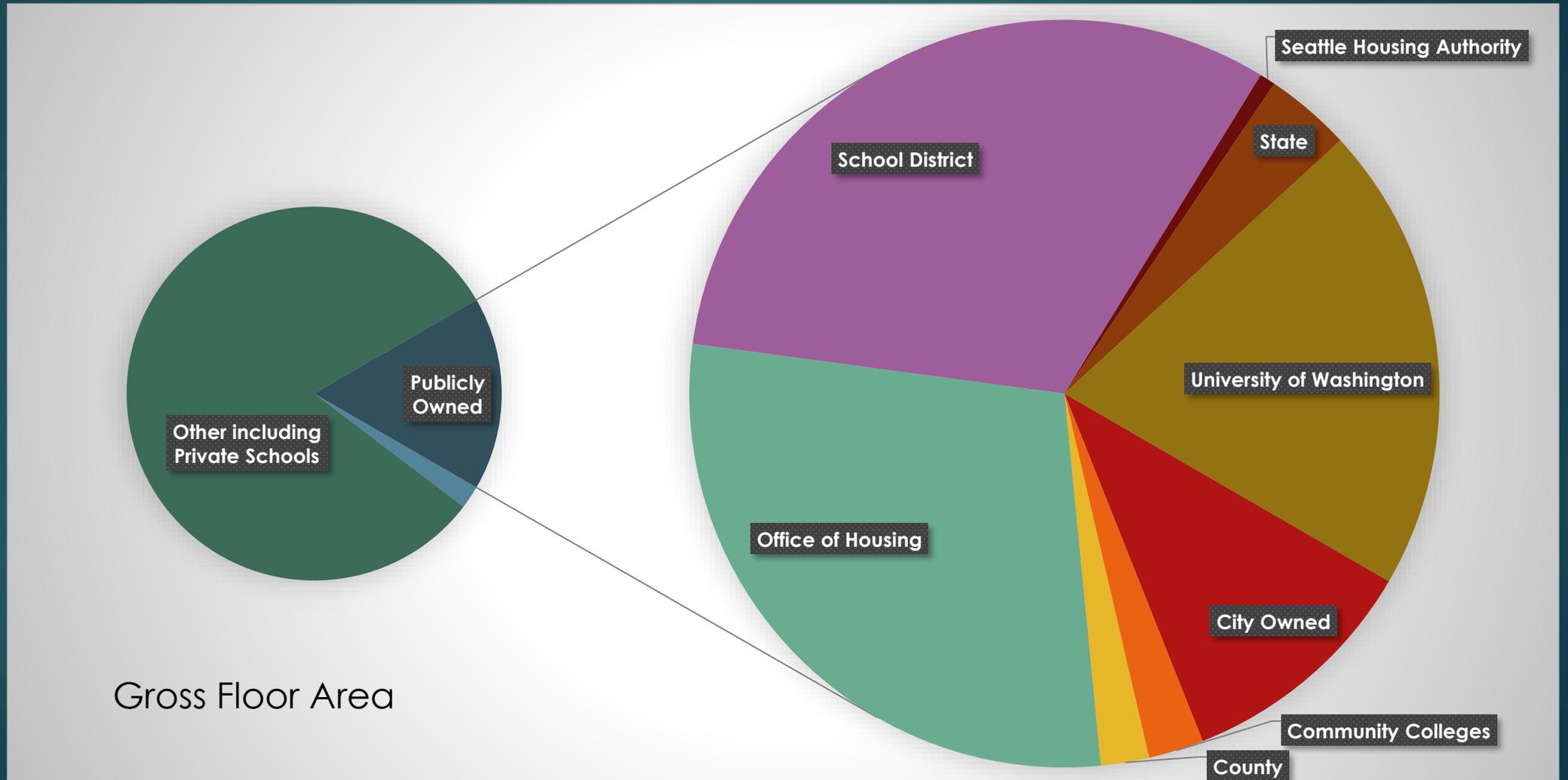


Who uses the URM's?

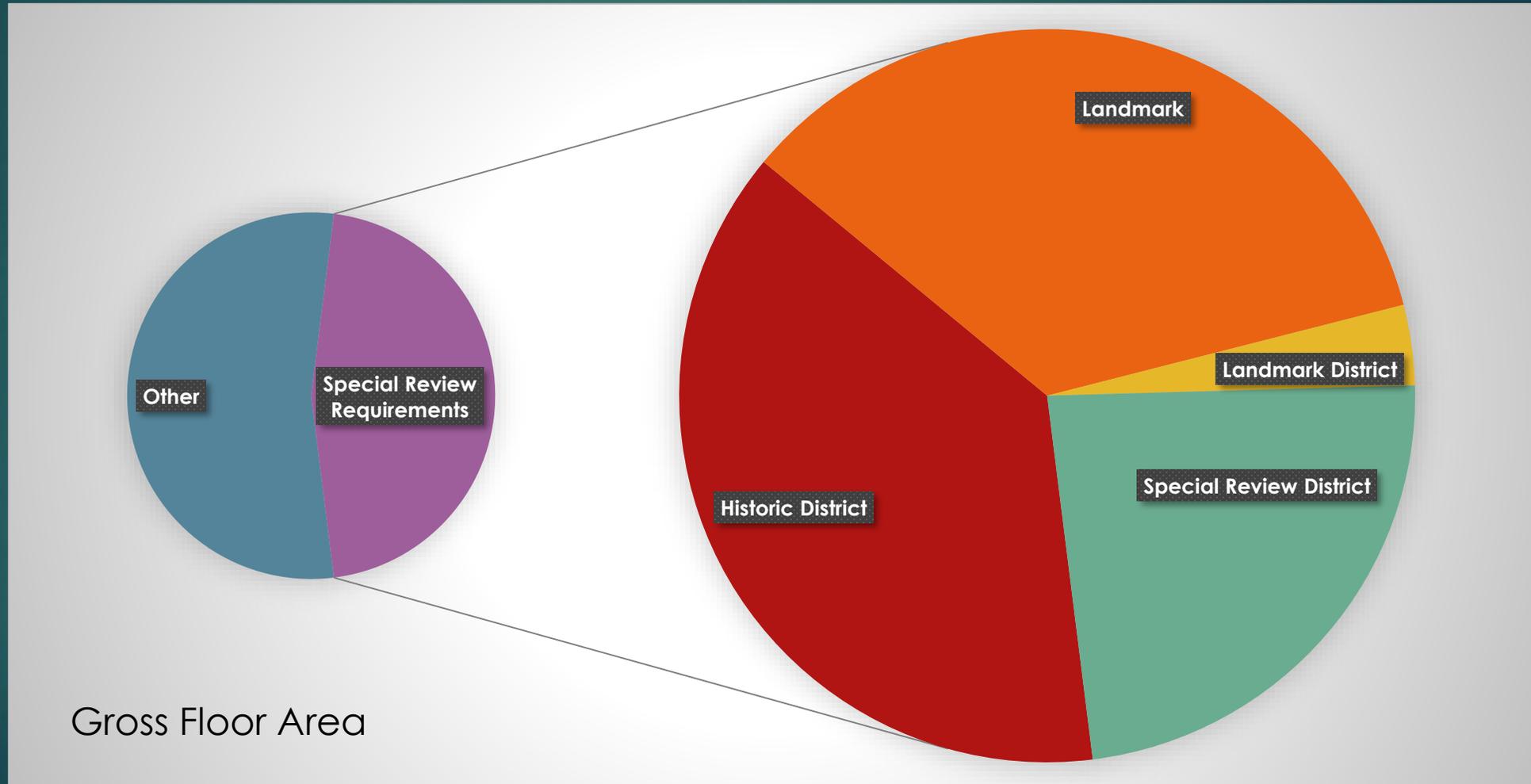
Occupancy types



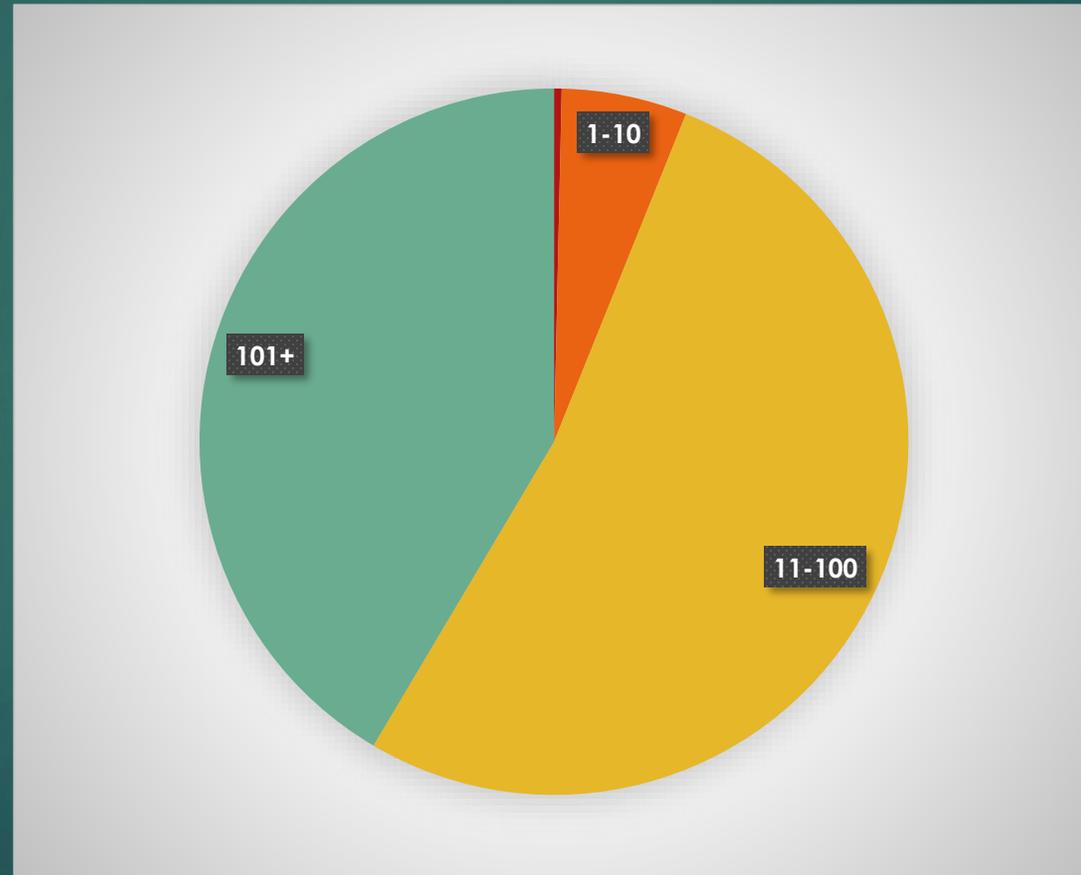
How much of the area is publicly owned?



How many of the URMs have historic review requirements?

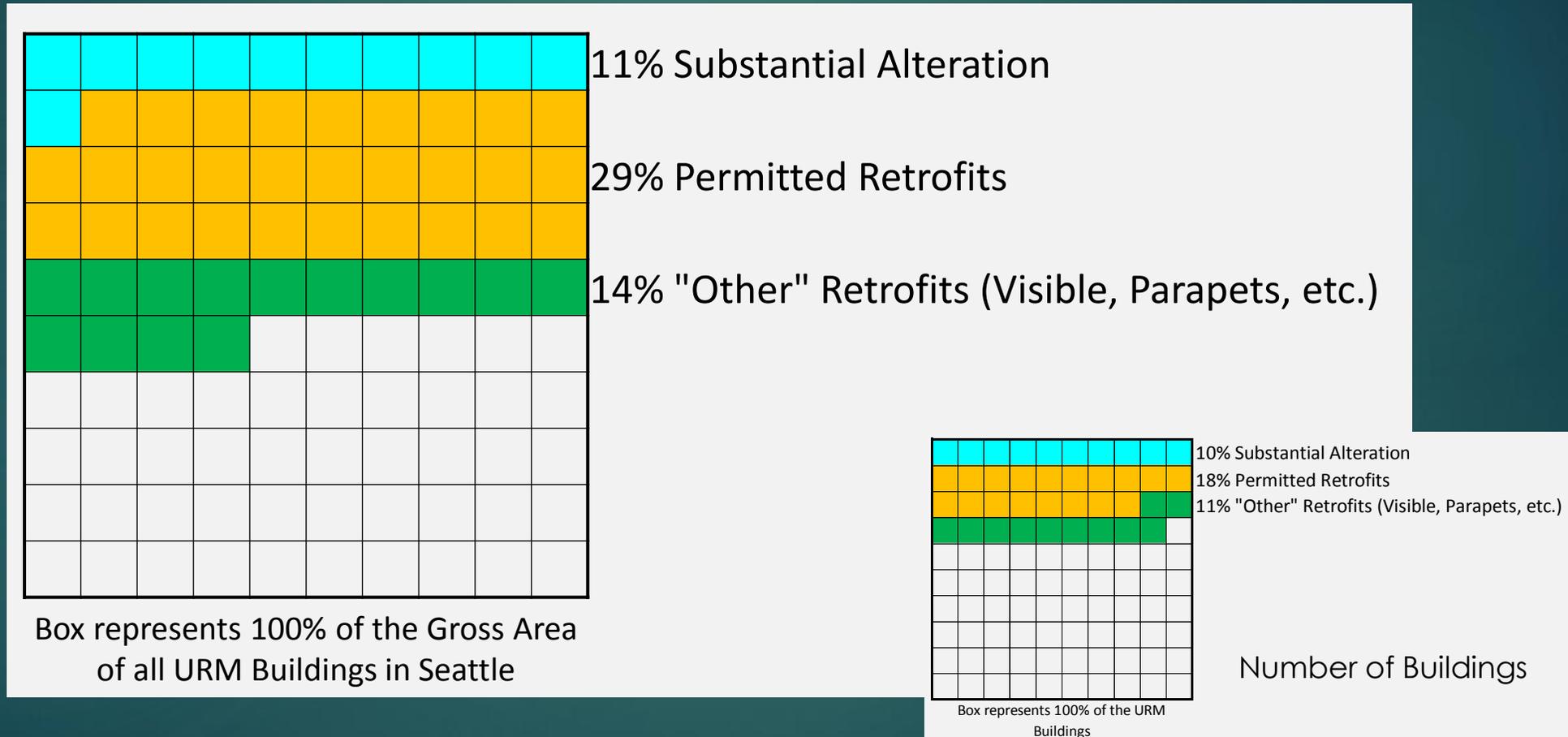


How many people are estimated to live/work in each URM?



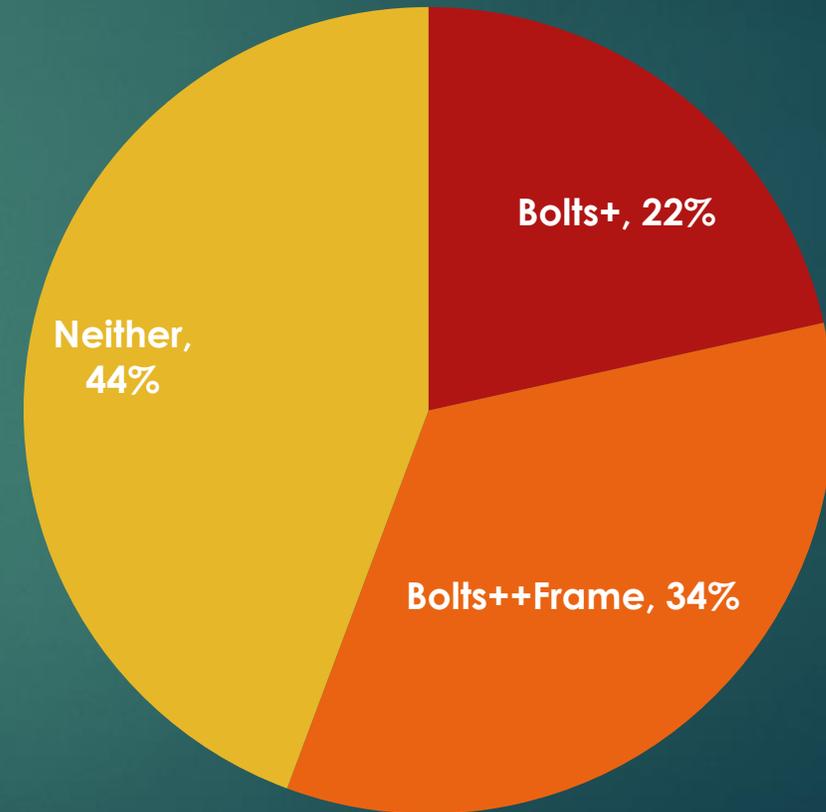
How many URMs are retrofitted?

Retrofit status—Gross Area versus Number of Buildings



How many URMs qualify for Bolts Plus?

Buildings qualifying for Bolts Plus or Bolts Plus, Plus Frame



Questions?

