SafeHouse

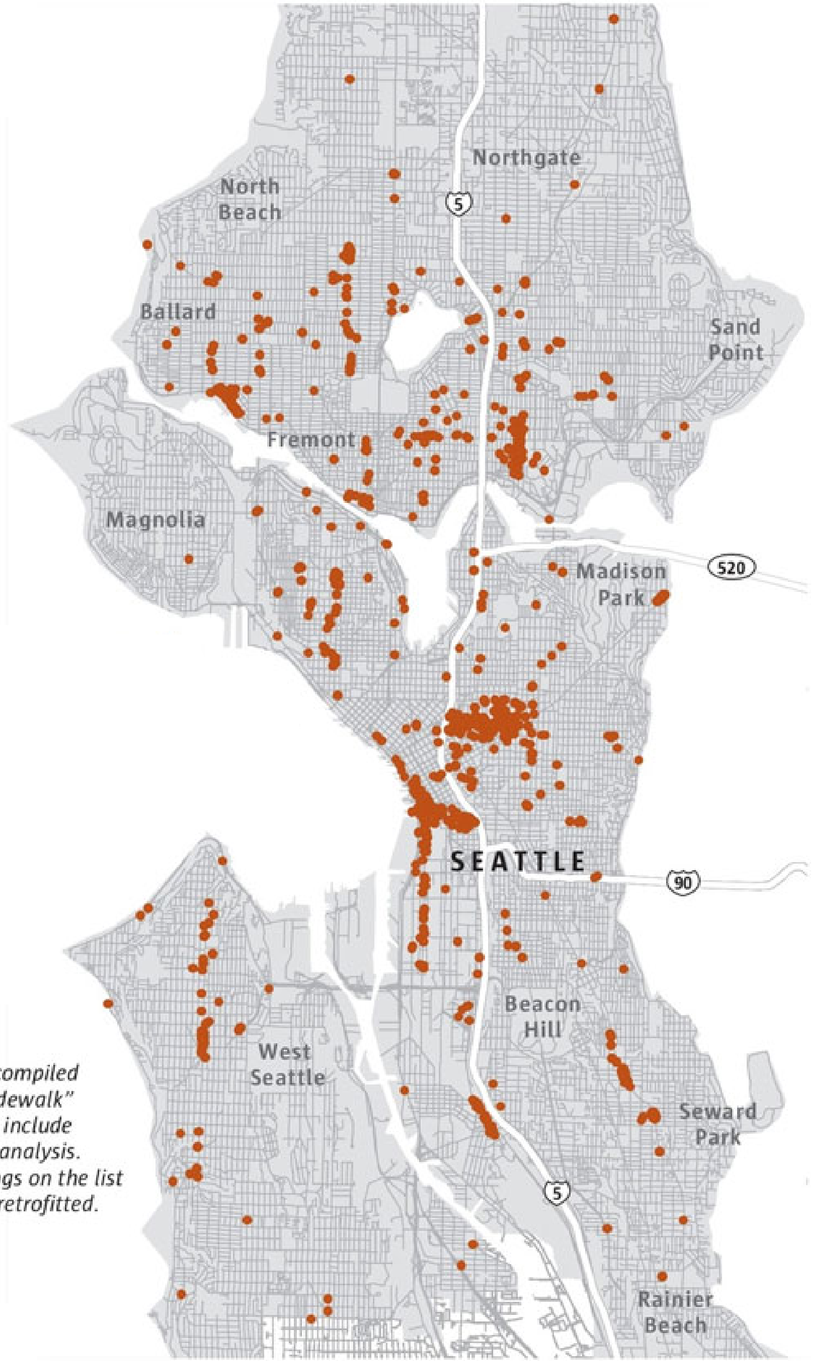
grassroots initiative for earthquake safety

Shaken but not Stirred

July 30, 2019

Earthquakes are the **most serious hazard facing Seattle.**

-www.seattle.gov



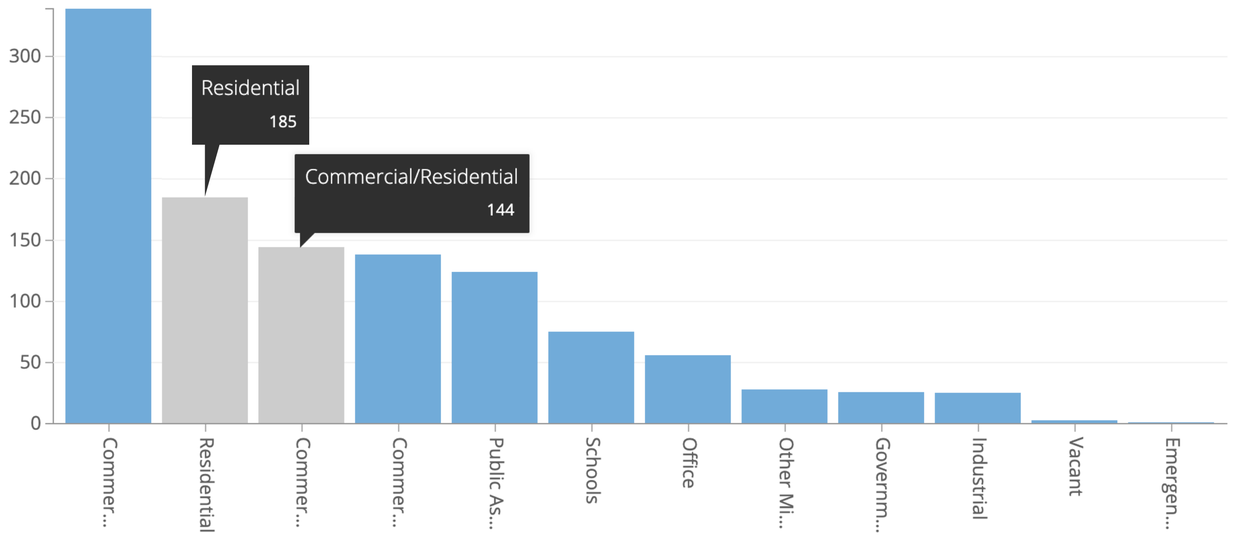
Note: The list was compiled mainly through "sidewalk" surveys, and didn't include detailed structural analysis. Some of the buildings on the list have already been retrofitted.

KELLY SHEA / THE SEATTLE TIMES

There are **more than 1,100 unreinforced brick and stone buildings** in Seattle and thousands more across the state.

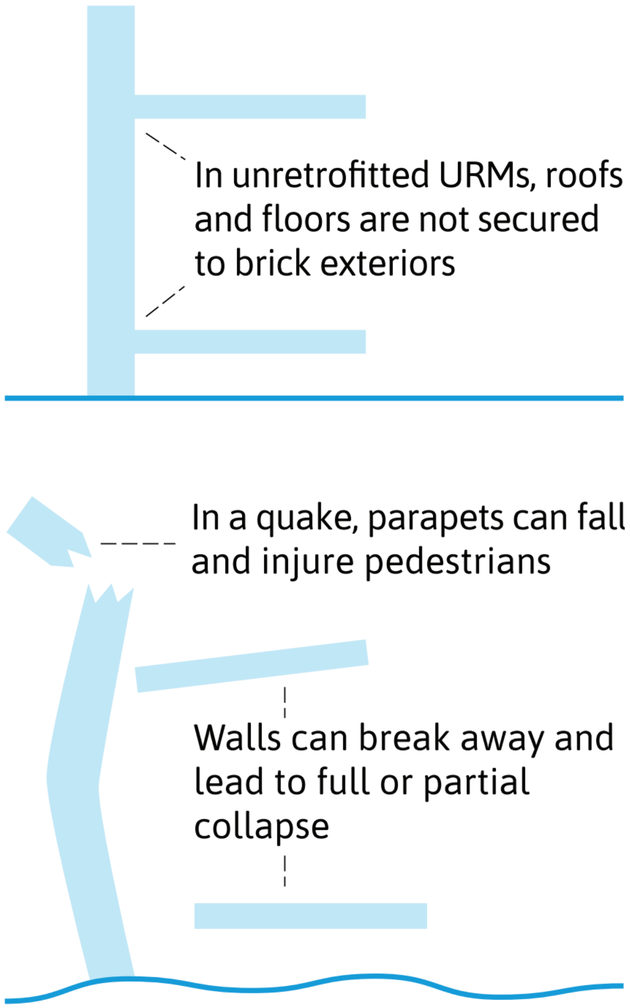
Total number of **occupants is estimated between 17,000 and 58,000**

● **Unreinforced Masonry Building**



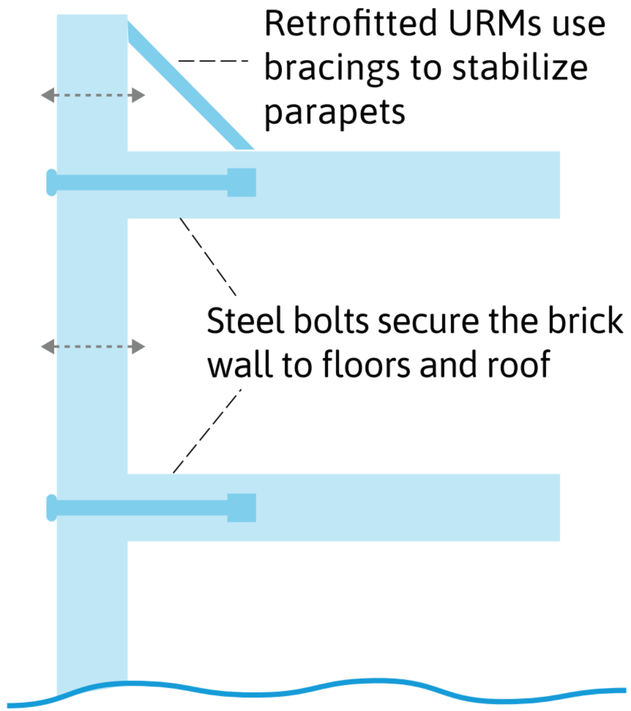
28% of the over 1,100 identified URM buildings are **Residential buildings**

Unreinforced Masonry Building are the type of construction **most likely to topple** in a quake.



Unreinforced Masonry Building in a Quake

VS.



With Retrofits

"**The sad thing is**, I can tell you absolutely that immediately **following the next big earthquake**, after these old buildings fall down, **there will be legislation passed** to address this issue. **We shouldn't have to wait** for a lot of people to be killed or injured to motivate us to **take action.**"

-Eric Holdeman
former director of King County's Office of Emergency Management

It's been **6 years** since an advisory committee recommended mandatory retrofits for **unreinforced brick and stone** buildings.

Presentation Outline (~8 minutes)

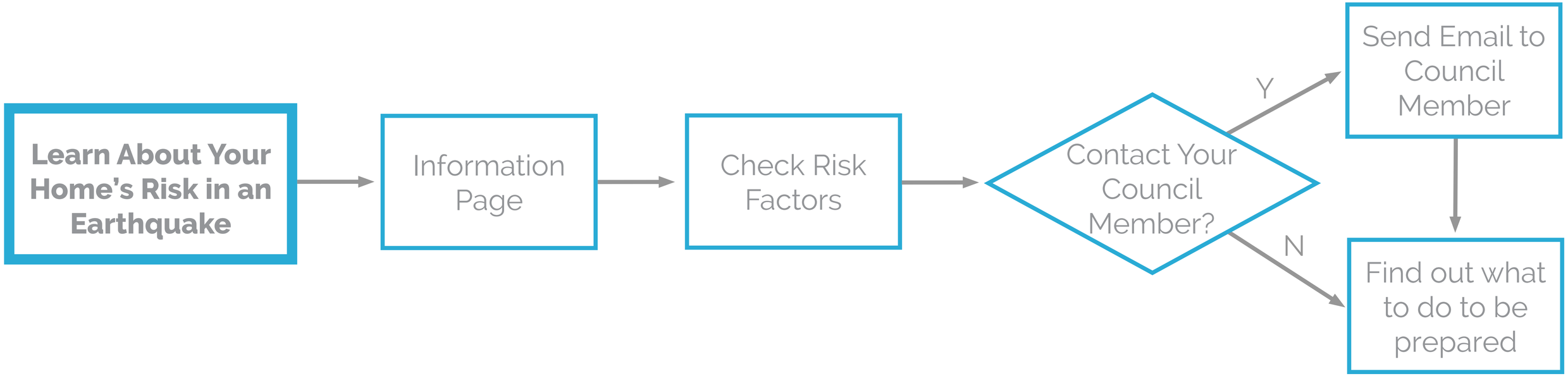
1. Design Process
   User Experience
   Demo Beta
2. Business Viability
3. Next Steps

Q&A

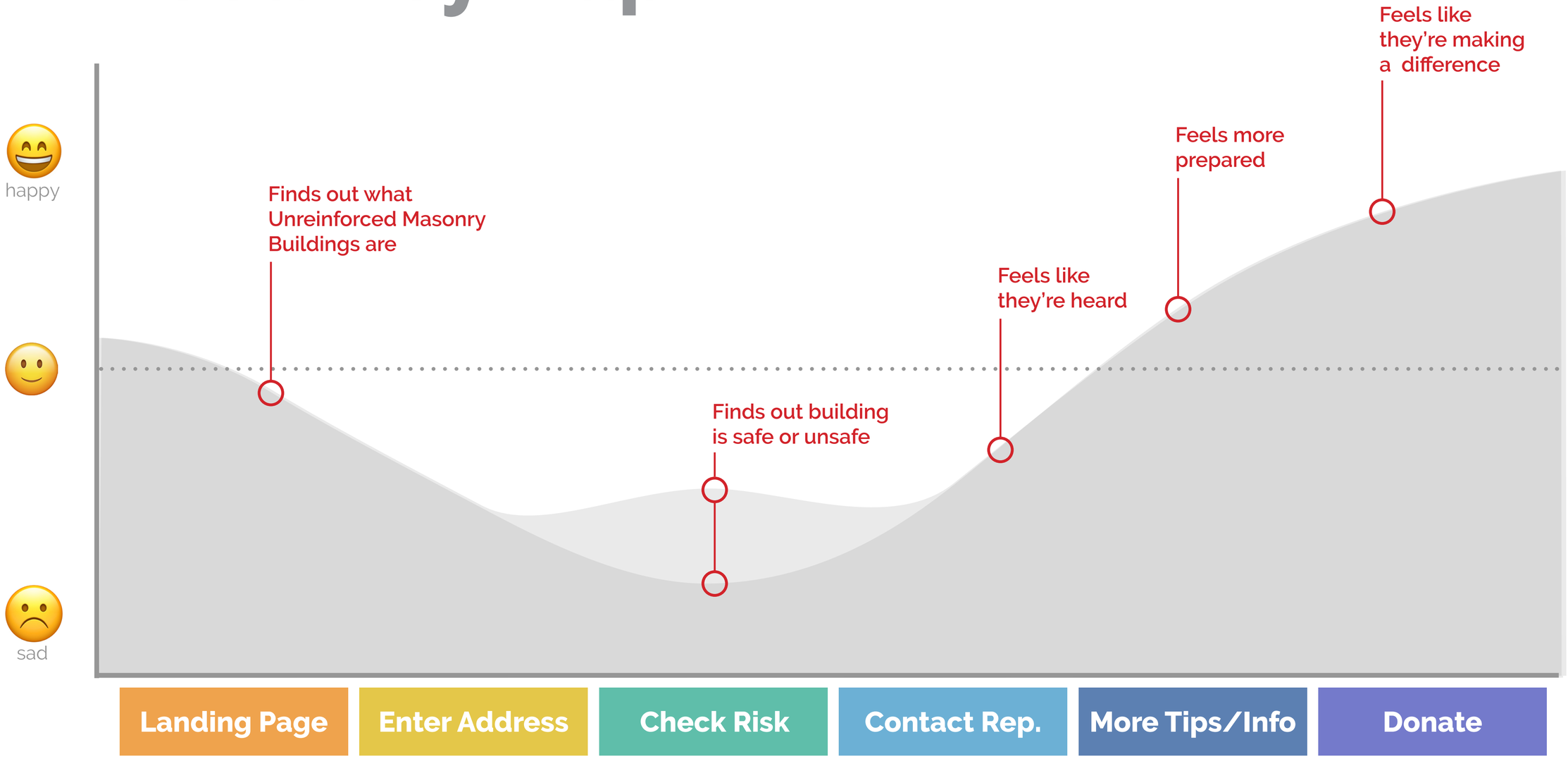
The Design

Napa Mill
Visitor Information
Opera House
Wine Train Station
Oxbow Public Market

User Flow


Learn About Your Home's Risk in an Earthquake
Information Page
Check Risk Factors
Contact Your Council Member?
Y
N
Send Email to Council Member
Find out what to do to be prepared

Journey Map


happy
sad
Finds out what Unreinforced Masonry Buildings are
Finds out building is safe or unsafe
Feels like they're heard
Feels more prepared
Feels like they're making a difference
Landing Page
Enter Address
Check Risk
Contact Rep.
More Tips/Info
Donate

Let's Demo

with...

Janet White

lives at: **212 Alaskan Way S**
email: **janetw@gmail.com**

Business Viability

Business Viability

WHAT's at stake:

Table 6: Full URM Inventory Retrofit Costs				
	Total	**Bolts+**	**Bolts++**	**Full Seismic**
Number of Buildings	944	215	344	385
% of Total URMs	100%	23%	36%	41%
Hard Costs	$819,800,000	$90,800,000	$96,100,000	$632,900,000
Sales Tax (10.1%)	$91,000,000	$10,000,000	$10,700,000	$70,300,000
Hard Costs Contingency (10%)	$82,000,000	$9,100,000	$9,600,000	$63,300,000
Total Hard Costs	**$992,800,000**	**$109,900,000**	**$116,400,000**	**$766,500,000**
Soft Costs (15%)	$149,000,000	$16,500,000	$17,500,000	$115,000,000
Soft Costs Contingency (10%)	$14,800,000	$1,600,000	$1,700,000	$11,500,000
Total Soft Costs	**$163,800,000**	**$18,100,000**	**$19,200,000**	**$126,500,000**
Total Construction Expenses	**$1,156,600,000**	**$128,000,000**	**$135,600,000**	**$893,000,000**
Relocation (Commercial)	$105,200,000	$19,500,000	$25,000,000	$60,700,000
Relocation (Residential)	14,300,000	$4,700,000	$3,500,000	$6,100,000
TOTAL (Including Relocation)	**$1,276,100,000**	**$152,200,000**	**$164,100,000**	**$959,800,000**

National Development Council - May 2019
http://www.seattle.gov/Documents/Departments/SDCI/Codes/ChangesToCodes/UnreinforcedMasonry/FundingURMRetrofits.pdf

Business Viability

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Sales Tax (10.1%)	$97[illegible]	$10,00[illegible]	$1[illegible]	$70,300,000
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$1.2 Billion

in Retrofit Construction and Relocation

National Development Council - May 2019
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Business Viability

WHO:

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Donations from the **Public concerned about home safety**

Manufactures and Steel Industry

Structural + Civil Engineers
Architects
General Contractors

Housing + Real Estate

Business Viability

WHO:

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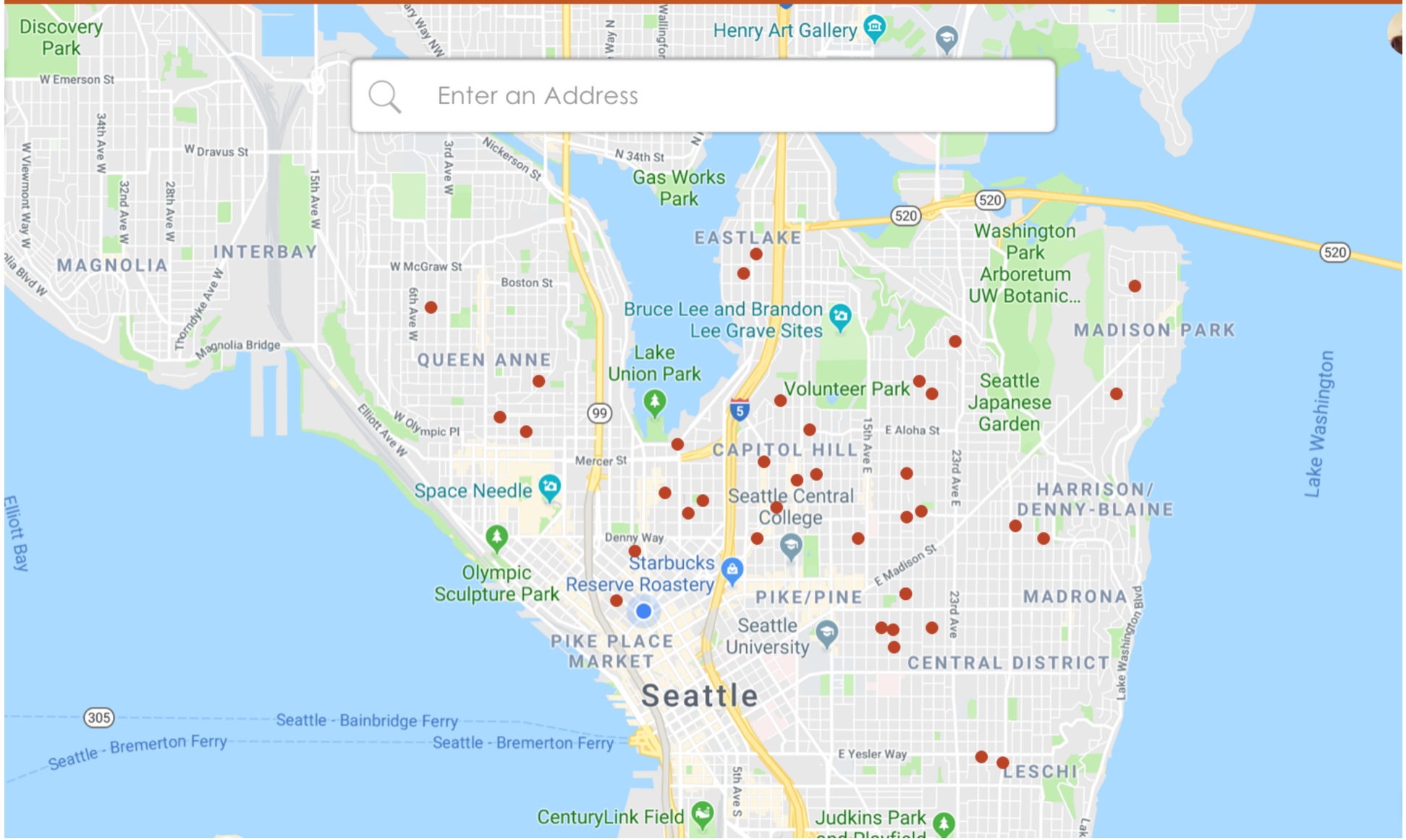
$14.3 Million

in Housing for Resident Relocation

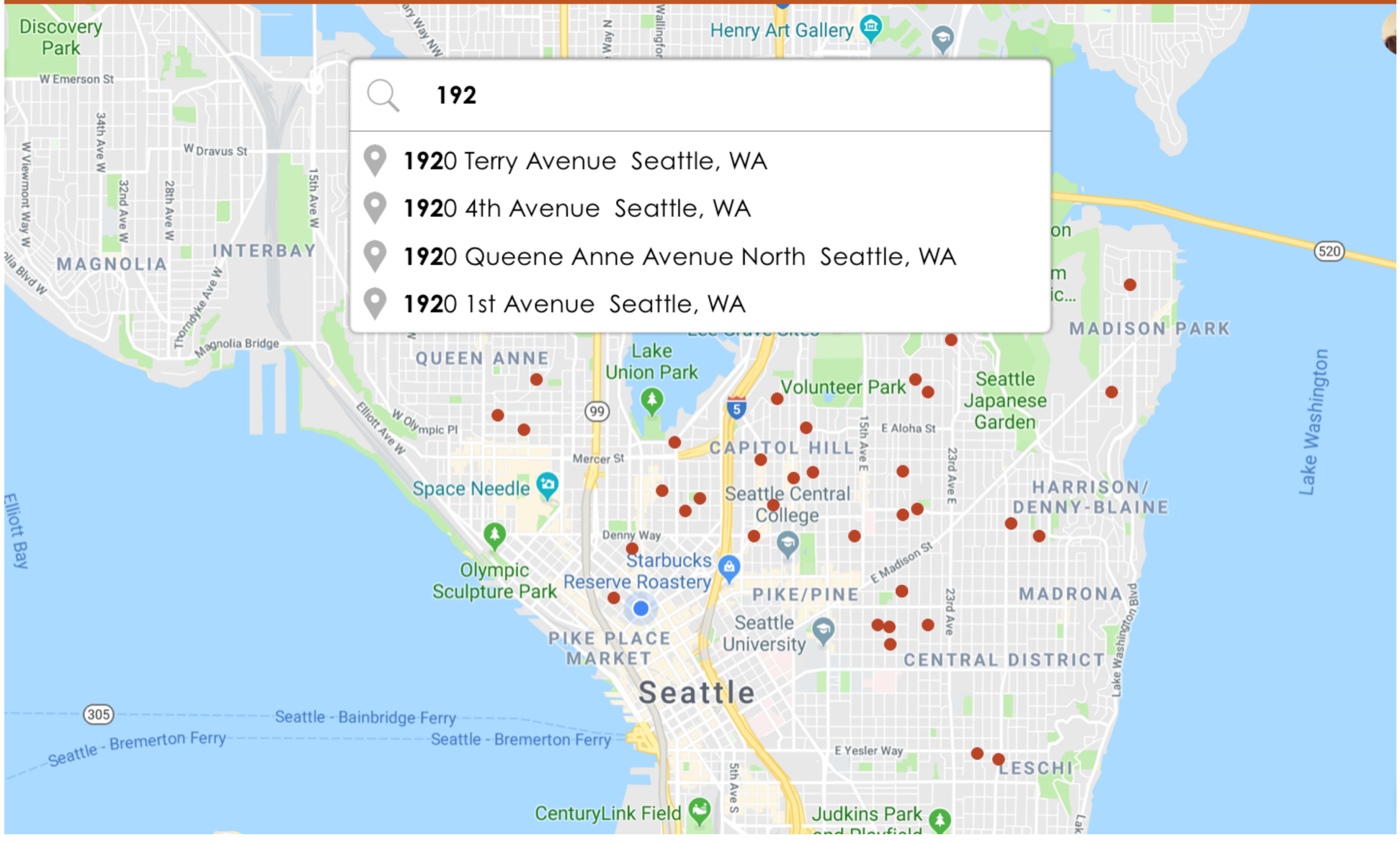
Next Steps

-Map search option
-Choose your Council Member
-Input auto fill (address)

Safe House


Enter an Address
Discovery Park
W Emerson St
Henry Art Gallery
W Dravus St
34th Ave W
32nd Ave W
28th Ave W
15th Ave W
3rd Ave W
Nickerson St
N 34th St
Gas Works Park
W Viewmont Way W
MAGNOLIA
INTERBAY
W McGraw St
Boston St
6th Ave W
Thorndyke Ave W
Magnolia Bridge
EASTLAKE
520
Washington Park Arboretum UW Botanic...
Bruce Lee and Brandon Lee Grave Sites
MADISON PARK
QUEEN ANNE
Lake Union Park
Volunteer Park
Seattle Japanese Garden
Lake Washington
Elliott Ave W
W Olympic Pl
99
5
E Aloha St
15th Ave E
23rd Ave E
CAPITOL HILL
Mercer St
Space Needle
Seattle Central College
HARRISON/ DENNY-BLAINE
Elliott Bay
Denny Way
Starbucks Reserve Roastery
Olympic Sculpture Park
E Madison St
PIKE/PINE
MADRONA
23rd Ave
Lake Washington Blvd
PIKE PLACE MARKET
Seattle University
CENTRAL DISTRICT
Seattle
305
Seattle - Bainbridge Ferry
Seattle - Bremerton Ferry
Seattle - Bremerton Ferry
E Yesler Way
LESCHI
5th Ave S
CenturyLink Field
Judkins Park

Safe House


192
1920 Terry Avenue Seattle, WA
1920 4th Avenue Seattle, WA
1920 Queene Anne Avenue North Seattle, WA
1920 1st Avenue Seattle, WA
Discovery Park
W Emerson St
W Dravus St
MAGNOLIA
INTERBAY
Magnolia Bridge
QUEEN ANNE
Lake Union Park
Henry Art Gallery
Volunteer Park
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MADISON PARK
CAPITOL HILL
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E Madison St
MADRONA
PIKE PLACE MARKET
Seattle University
CENTRAL DISTRICT
Seattle
Seattle - Bainbridge Ferry
Seattle - Bremerton Ferry
Seattle - Bremerton Ferry
E Yesler Way
LESCHI
CenturyLink Field
Judkins Park
Lake Washington
Elliott Bay
520
305
99
5

Safe House

Contact Your District Representative

- (●) Lisa Herbold | West Seattle, South Park
- ( ) Bruce Harrell | South Seattle, Georgetown
- ( ) Kshama Sawant | Central Seattle
- ( ) Abel Pacheco | Northeast Seattle
- ( ) Debora Juarez | North Seattle
- ( ) Mike O'Brien | Northwest Seattle

Lisa Herbold is the representative of your selected address.

First Name

Jane

Last Name

Doe

Your Message

Dear Ms. Herbold,

I'm concerned about the safety of myself as well as those around me, and am reaching out to address the issue of unreinforced masonry buildings in Seattle. I believe it is important to prioritize the safety of Seattle's inhabitants, so I hope my voice can be heard and we can move forward with implementing safer code rules for Unreinforced Masonry buildings. Thank you for your time, I hope this message reaches you well.

Sincere Regards,

Napa Mill
Visitor Information
Opera House
Wine Train Station
Oxbow Public Market

Q&A