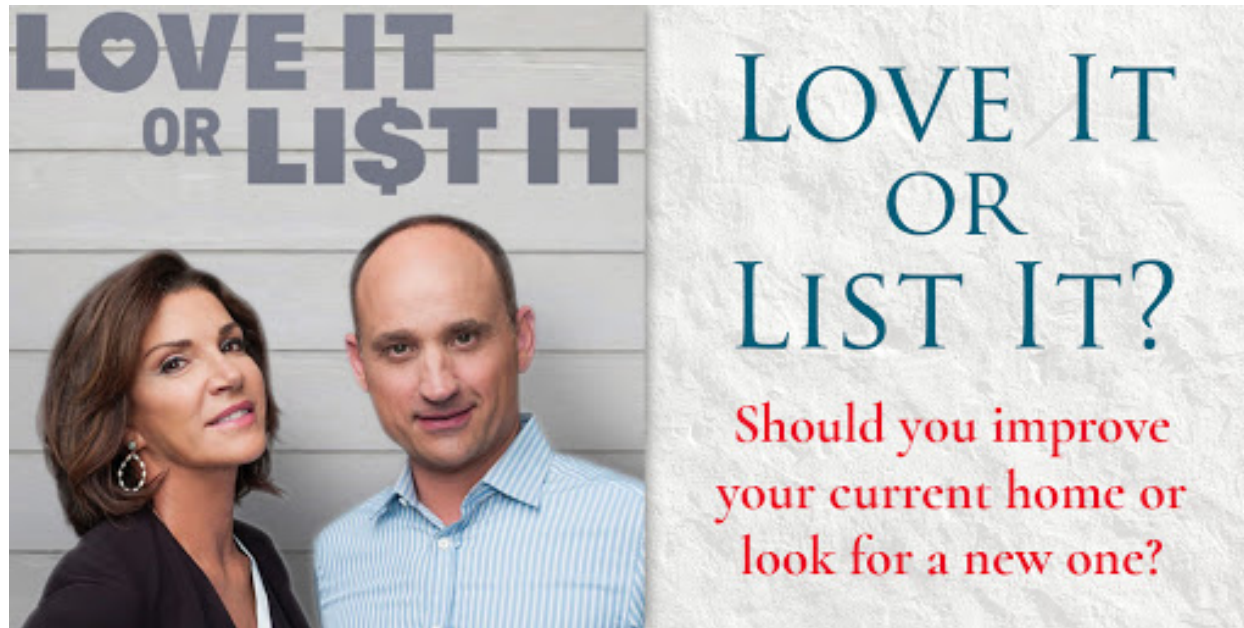
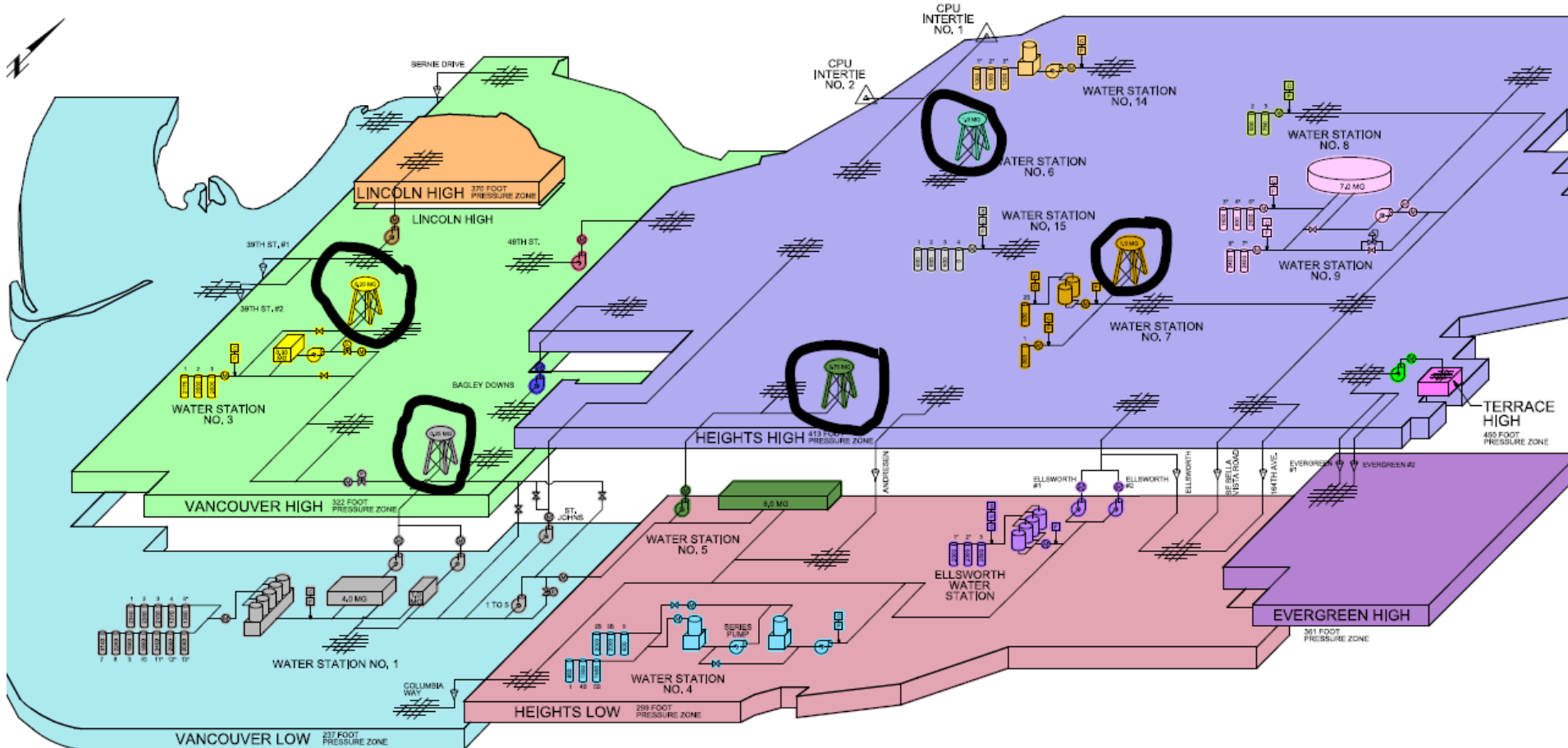


# LOVE IT (\$\$) OR LOSE IT (\$\$\$)?



# Vancouver Water System Overview



Five (5) Elevated Water Towers

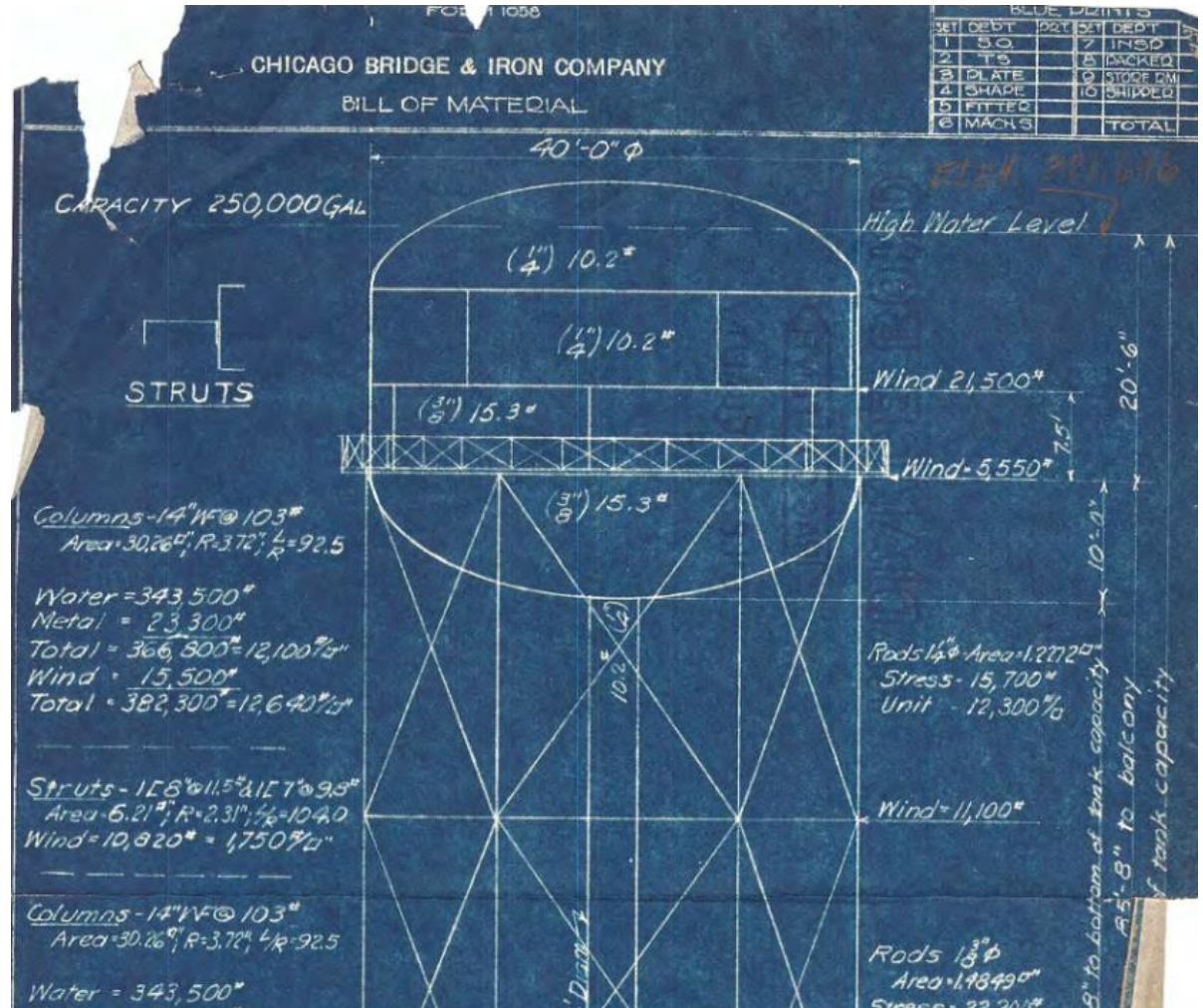
# Build Historical Profile

## WHAT?

- Material Properties
- Foundation Data
- As-Built Verification
- Design Criteria
- Original Design Criteria
- Condition

## WHERE?

- As-Built Drawings
- Shop Drawings
- Condition Reports
- Soils Reports
- Well Logs
- Repair Drawings
- Coatings Inspections
- Original Design Codes/Standards



# Fill in the Knowledge Gaps

- Geotechnical Investigations
- Condition Assessment
- Testing



# Seismic Evaluation – Logic Gate #1

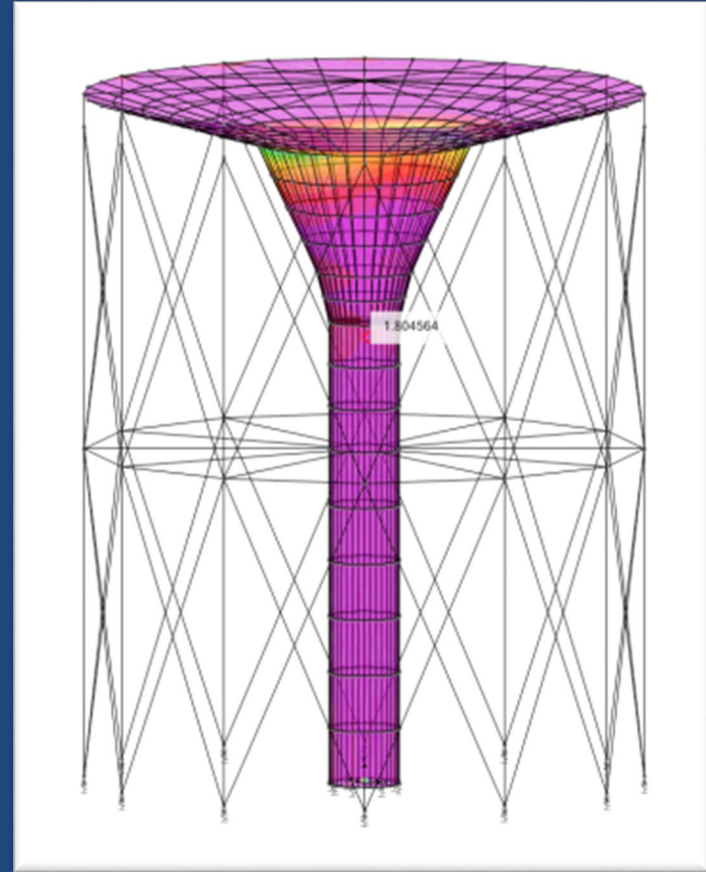
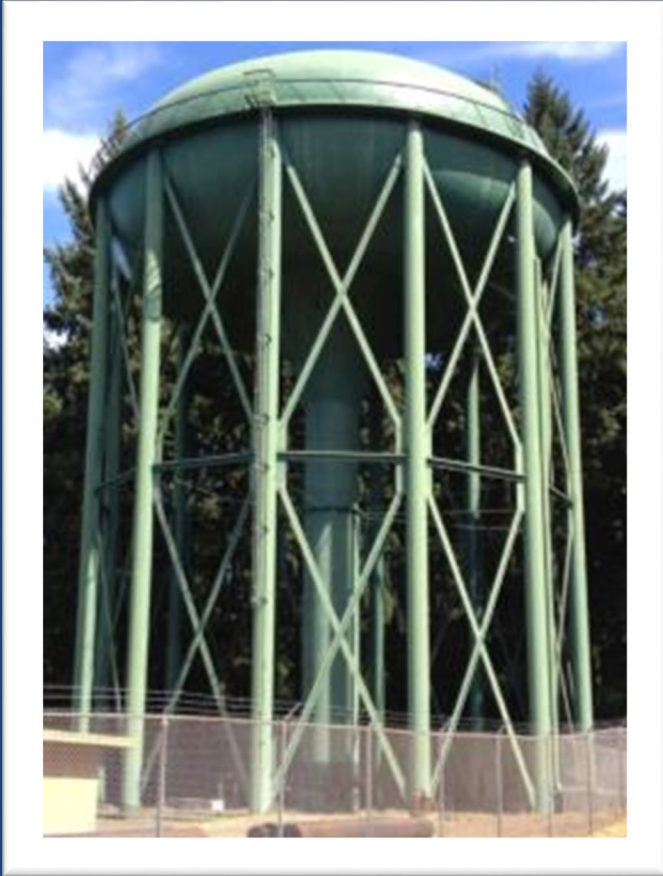


LOSE IT – 2020



LOVE IT – 2012 and 2021

# Structural Simulations



## POLL QUESTION 1

WHAT CHANNEL DOES “LOVE IT OR LIST IT” SHOW ON ORIGINALLY?

- a. ESPN
- b. National Geographic
- c. HGTV
- d. Comedy Channel

# Seismic Construction Project



Discovery - Drain Line must be rerouted!

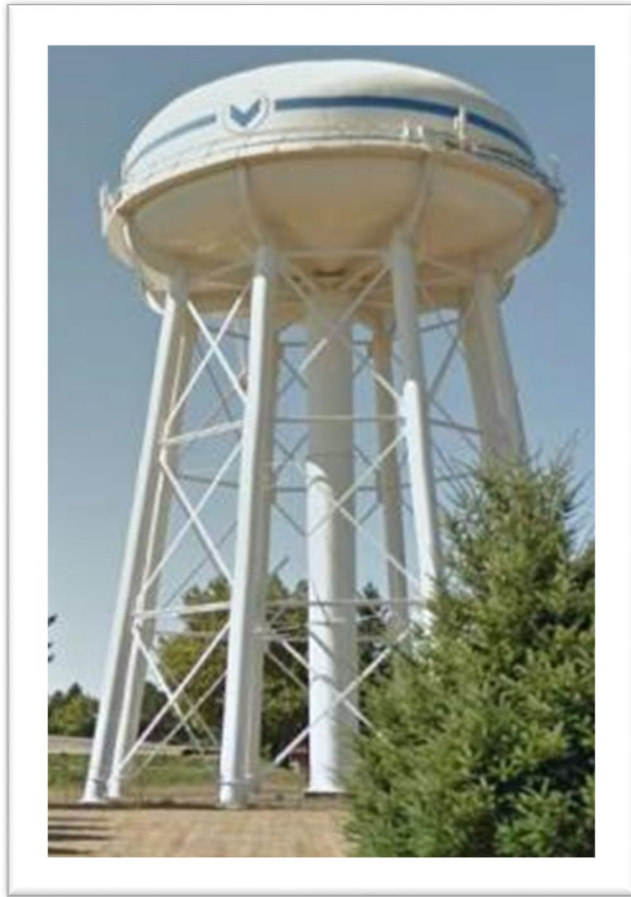


# Seismic Project – Foundations & Anchors

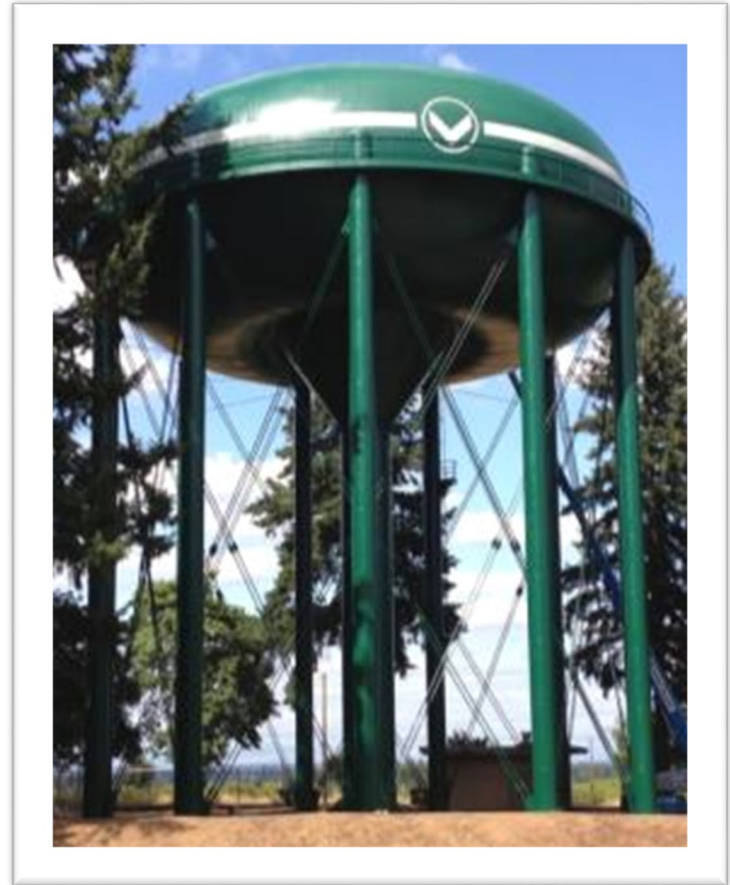


Anchors attached to the existing concrete, high up the pier and new concrete poured to secure piers.

# Coatings Evaluation – Longevity & Cost



OVERCOAT (\$) - 2010



BLAST & RECOAT (\$\$) - 2012

# Access Issues Evident during Evaluations



- Focused on commonly accessed locations – Roof Hatch, Vent and Obstruction Light
- Less intimidating access would increase operator trips.

# SCHEDULING CRITICAL – Shoulder Seasons



- Project Bids – July 2020
- First Field Activity – Jan 2021
- Final Field Activity – July 2021 (projected)

## POLL QUESTION 2

HOW MANY “LOVE IT OR LIST IT” SPINOFF SHOWS ARE THERE?

- a. ONE (1)
- b. FIVE (5)
- c. TEN
- d. NEGATIVE TEN

# Interior – Blast & Recoat

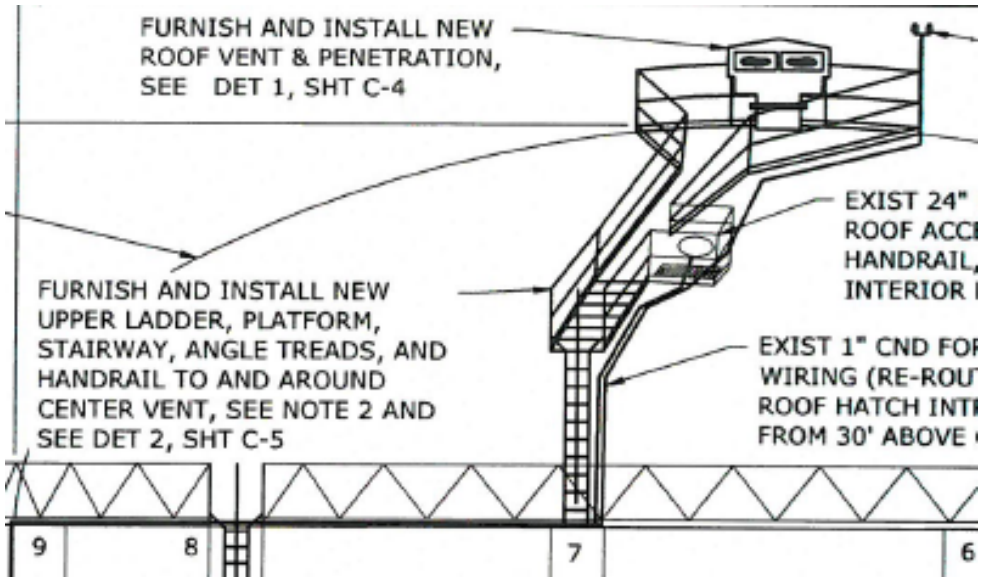


**BEFORE**

**AFTER**



# EXTERIOR – Access Improvements Installed



# SHOW ME THE MONEY \$\$\$



	Tower 5 (0.75 MG)	Tower 6 (1 MG)	Tower 7 (1 MG)	
	1955	1963	1968	
SEISMIC (2018)	\$350,000	\$470,000	\$560,000	
IMPROVEMENTS	Necessary??	\$450,000	Not Applicable	
Exterior COATING	\$200,000	\$350,000	\$700,000	2011/2021/2012
Interior COATING	\$500,000	\$570,000	\$600,000	PROJECTED
TOTAL	\$1,050,000	\$1,840,000	\$1,860,000	
COST/GALLON	\$1.40	\$1.84	\$1.86	



# Great View from the TOP

Special Thanks to COV  
Operators, Murraysmith and  
OBEC

Lee Contractors, Battle Ground

HCI Coatings, Vancouver

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