



City of Seattle Boards & Commissions Notice of Appointment

Appointee Name: <i>Lucas Whitesell</i>		
Board/Commission Name: <i>Seattle Design Commission</i>		Position Title: <i>Get Engaged member</i>
<input checked="" type="checkbox"/> Appointment OR <input type="checkbox"/> Reappointment		Council Confirmation required? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Appointing Authority: <input type="checkbox"/> Council <input checked="" type="checkbox"/> Mayor <input type="checkbox"/> Other: <i>Fill in appointing authority</i>	Date Appointed: <i>9/16/2019</i>	Term of Position: * <i>9/1/2019</i> to <i>8/31/2020</i> <input type="checkbox"/> <i>Serving remaining term of a vacant position</i>
Residential Neighborhood: <i>Capitol Hill</i>	Zip Code: <i>98122</i>	Contact Phone No.:
Background: <p>Lucas Whitesell is a structural engineer at Arup in Seattle. He grew up in Olympia, Washington, received his BS in Civil Engineering from the University of Washington, and graduated with a Master's in Structural Engineering from the University of California, Berkeley. His diverse project work as a professional engineer has given him experience in seismic design of buildings and hospitals, seismic assessments of existing buildings, modular design in high-seismic zones, structural design of permanent and temporary art installations, design of a public ferry terminal building in a high wind zone, and feature stair design for strength and serviceability. Outside of work Lucas is passionate about social issues and civic engagement. Through his involvement with community organizations confronting police violence, volunteering as a high school mentor, and canvassing for local and national political campaigns Lucas has found a passion for positively impacting his region by elevating community voices and engaging with folks from different backgrounds.</p>		
Authorizing Signature (original signature): 		Appointing Signatory: <i>Jenny A. Durkan</i> <i>Mayor of Seattle</i>

FILED
 CITY OF SEATTLE
 19 OCT - 1 AM 10:35
 CITY CLERK

*Term begin and end date is fixed and tied to the position and not the appointment date.

Lucas Whitesell, PE



Profession

Structural Engineer

Current Position

Engineer

Joined Arup

2015

Years of Experience

4

Qualifications

MS, Structural Engineering,
University of California, Berkeley,
2015

BS, Civil Engineering, University
of Washington, Seattle, 2014

PE, State of Washington

Professional Associations

Member, Structural Engineers
Association of Washington

Lucas Whitesell is a structural engineer in Arup's Seattle office. He received his BS in Civil Engineering from the University of Washington and graduated with a Master's in Structural Engineering from the University of California, Berkeley.

Since joining Arup, Lucas has been a part of the structural engineering teams in San Francisco and Seattle. His diverse project work has given him experience in seismic design of buildings and hospitals, modular design in high-seismic zones, structural design of permanent and temporary art installations, design of a public ferry terminal building in a high wind zone, and feature stair design for strength and serviceability. His technical skills include static and dynamic structural analysis, review and structural modeling of existing structures, modular seismic design, footfall vibration analysis for serviceability, and 3D geometry manipulation using Rhino and Grasshopper. Additionally, Lucas is experienced in close-coordination with architecture, construction, and other disciplines due to the irregular geometry, rapid timeline, and high visibility of many of the projects he's worked on. Lucas also has experience with the design review process, most notably the OSHPD design review process for hospitals in California.

Lucas has experience with structural design and inter-disciplinary coordination on a diverse variety of project types ranging from large-scale new and existing buildings to sculptures and other highly architectural projects.

PROJECT EXPERIENCE

Arts and Culture:

Sinewflex Net Sculpture, Beaverton, OR

Structural Design Engineer for the design of a permanent prestressed net sculpture within a two-story atrium of a corporate headquarters. Used dynamic, non-linear form-finding analysis to determine net slack lengths and specific prestress forces to achieve the artist's vision. Produced flattened, un-stressed net geometry for fabrication. Artist: Jenny Sabin Studio. Project is currently in fabrication.

Lumen @Constructo Tower, Santiago, Chile

Structural Design Engineer for two 10.5-meter-tall steel and rope tensegrity towers installed in the multi-story atrium of Mall Plaza in Santiago, Chile. This exhibition was an evolution of Jenny Sabin Studio's winning entry, Lumen, for MoMA and MoMA PS1 YAP 2017.

Cornell College of Human Ecology, *Polyform Sculpture*, Ithaca, NY

Structural engineering for a stainless steel and glass sculpture temporarily installed in several locations on the Cornell University Campus before taking its permanent place on the campus' new plaza at the College of Human Ecology. Dichroic film is used on the sculpture allowing for a flow of light, colors, and shades both in and outside the sculpture. Responsible for the structural design and detailing of metal sculpture and connections. Coordinated with façade engineer to design metal to glass interfaces. Artist: Jenny Sabin Studio.

Public Facilities:

Canal Street Ferry Terminal, New Orleans, LA

Structural Design Engineer for the new Canal Street Ferry Terminal in downtown New Orleans. The new terminal has a signature curved roof and glass façade and will connect with the Bus and Streetcar systems, offering easier transfers to and from the Canal Street-Algiers Point ferry. Responsible for the Structural design of the terminal. Utilized Rhino and Grasshopper to adapt the 2D structural roof scheme into 3D to closely match the architect's creative roof design. Assisted design coordination in-person and remotely with the architecture team regarding the roof geometry.

Commercial Property:

Space Needle Renovation, Seattle, WA

Structural Design Engineer for the preservation and renovation of the iconic Space Needle. This \$100m project reinvents both the Observation Deck and restaurant level, as well as update the Space Needle's internal systems. Reviewed original building drawings, structurally analyzed the existing structure, designed strengthening measures, and coordinated with architecture in addition to a multi-disciplinary in-house team of mechanical, electrical, and plumbing engineers.

F5 Tower, Seattle, WA

Structural Design Engineer on a new 44-story tower with 670,000ft² of office and hotel space and seven below-grade levels with a 334-car parking garage and a service loading dock. The earthquake resisting system is a dual system consisting of a concrete core plus perimeter steel mega-braces. Performed analysis and design of a steel roof structure with complex geometry and loading. Utilized Rhino 5 and RISA 3D to model and analyze the global roof behavior. Performed member design and connection detailing for three-dimensionally irregular connections.

Healthcare:

Loma Linda University Medical Center, Replacement Hospital, Loma Linda, CA

Structural Design Engineer through construction documents and OSPHD review for the 900,000ft² expansion of the existing hospital

building, including a new, 276-bed Adult Medical Center and a new 100-bed children's hospital tower, connected with the existing hospital. Coordinated heavily with architects and contractors during design. Performed analysis and design of several steel structures including a main entrance galleria and canopy, and two connector bridges between the existing hospital and the expansion. Prepared for-permit calculation packages and permit-comment-response packages during the years-long OSHPD permit review process. Participated in in-person meetings with OSHPD for review of Arup's design. Project is currently still under OSHPD permit review and construction has begun.

Modular Design:

CitizenM Hotel at 201 Westlake, Seattle, WA

Structural Engineer during construction administration for the 82,000ft², 264-key hotel in Seattle. The seven-story hotel includes six floors of prefabricated modular guestrooms over a reinforced concrete podium. The modular approach reduces on-site construction time and complexity while standing up to the rigors of Seattle's high-seismic zone and elevated energy code requirements. Arup's multidisciplinary design team worked closely with Gensler to create a solution that incorporated architecture, structure, and MEP systems for modular construction. Project is structurally complete and is undergoing fit-out.

Feature Stairs:

Confidential Spiral Stair, Kirkland, WA

Structural Design Engineer for a five-story, twenty-foot diameter steel and glass stair within a corporate headquarters. Participated in weekly design coordination meetings with architects and the surrounding building engineer due to the project's geometric complexity and rapid timeline. Performed structural analysis, connection design, and footfall vibration analysis. Project is currently in permit review.

(W)rapper Tower Grand Stair, Los Angeles, CA

Structural Design Engineer for the grand stair in a new 240' tall, 175,000ft² seismically-isolated office tower. The tower is "wrapped" in a curved steel box exoskeleton that acts as the building's gravity and lateral load carrying system. The use of this exoskeleton allows for the elimination of internal columns and provides an uninterrupted floor plan throughout while guaranteeing stability. Designed the main two-story steel feature stair which reads architecturally as an extension of the building's exoskeleton. Analyzed stair for strength, deflection, and footfall induced vibration response considering the effects of low-friction isolators at the stair's base. Project is currently under construction.

Seattle Design Commission

[Insert number of members] Members: Pursuant to [insert Ordinance/ Resolution number], [insert # of members subject to Council confirmation or type "all"] members subject to City Council confirmation, [insert number of years for each term]-year terms:

- # City Council-appointed
- # Mayor-appointed
- # Other Appointing Authority-appointed (specify):

Roster:

*D	**G	RD	Position No.	Position Title	Name	Term Begin Date	Term End Date	Term #	Appointed By
6	F	2	1.	Urban Planner	Brianna Holan	3/1/19	2/29/21	2	Mayor
9	M	3	2.	Get Engaged	Lucas Whitesell	9/1/19	8/31/20	1	Mayor
2	M	2	3.	Engineer (Civil/Transportation)	Justin Clark	3/1/18	2/29/20	1	Mayor
6	M	4	4.	At Large	Rick Krochalis	3/1/19	2/29/21	2	Mayor
6	M	1	5.	Architect	Mark Johnson	3/1/18	2/29/20	1	Mayor
5	F	5	6.	Landscape Architect	Vinita Sidhu	3/1/19	2/29/21	1	Mayor
6	F	6	7.	Architect	Elaine Wine	3/1/19	2/29/21	1	Mayor
6	M	7	8.	Urban Designer (Chair – 3/19)	Ben De Rubertis	3/1/18	2/29/20	2	Mayor
6	F	6	9.	Planner (Civil/Transportation)	Amalia Leighton Cody	3/1/19	2/29/21	1	Mayor
8	F	3	10.	Fine Artist	Laura Haddad	3/1/18	2/29/20	2	Mayor
			11.						
			12.						
			13.						
			14.						
			15.						

SELF-IDENTIFIED DIVERSITY CHART

					(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Male	Female	Transgender	NB/ O/ U	Asian	Black/ African American	Hispanic/ Latino	American Indian/ Alaska Native	Other	Caucasian/ Non- Hispanic	Pacific Islander	Middle Eastern	Multiracial
Mayor	5	5				1			1	6		1	1
Council													
Other													
Total													

Key:

- *D List the corresponding *Diversity Chart* number (1 through 9)
 - **G List *gender*, M= Male, F= Female, T= Transgender, NB= Non-Binary O= Other U= Unknown
 - RD Residential Council District number 1 through 7 or N/A
- Diversity information is self-identified and is voluntary.*