

ENTRY FORM



DVASE 2019 Excellence in Structural Engineering Awards Program

PROJECT CATEGORY (check one):

Buildings under \$5M		Buildings Over \$100M	
Buildings \$5M - \$15M		Other Structures Under \$1M	
Buildings \$15M - \$40M		Other Structures Over \$1M	
Buildings \$40M - \$100M	X	Single Family Home	

Approximate construction cost of facility submitted:	\$65 million
Name of Project:	American Water Corporate Headquarters
Location of Project:	Camden, New Jersey
Date construction was completed (M/Y):	December 2018
Structural Design Firm:	Thornton Tomasetti
Affiliation:	All entries must be submitted by DVASE member firms or members.
Architect:	Design Arch.: Robert A.M. Stern Architects, AOR: Kendall/Heaton Associates
General Contractor:	Driscoll/Jingoli, A Joint Venture

Company Logo (insert .jpg in box below)



Important Notes:

- Please .pdf your completed entry form and email to bsagusti@barrhorstman.com.
- Please also email separately 2-3 of the best .jpg images of your project, for the slide presentation at the May dinner and for the DVASE website. Include a brief (approx. 4 sentences) summary of the project for the DVASE Awards Presentation with this separate email.

- Provide a concise project description in the following box (one page maximum). Include the significant aspects of the project and their relationship to the judging criteria.

Ushering in a revitalization of Camden, New Jersey, the largest publicly traded U.S. water and wastewater utility company, American Water, has a new home in a headquarters building located on the Camden Waterfront of the Delaware River. Thornton Tomasetti provided structural engineering services to the architect of record, Kendall/Heaton Associates, for the project designed by Robert A.M. Stern Architects. Located between the Ben Franklin Bridge and Adventure Aquarium, the five-story, 220,000-square-foot headquarters provides panoramic views of the Philadelphia skyline to the more than 600 employees occupying the space and displays prominently as a showpiece to the popular Penn's Landing area of Philadelphia.

In their smart, sustainable new home, American Water employees will be able to work more collaboratively and efficiently, to better serve their customers. It will also bring in visitors and water experts from all over the world to Camden, given its national leadership role in the research, development, and deployment of groundbreaking water technology and tools to deal with emerging contaminants and other critical water policy issues.

The headquarters development was the first building to start construction as part of the \$1-billion Camden Waterfront development, a new, mixed-use neighborhood that plans to include nearly 2 million square feet of commercial office space, a hotel and residential structures.

Central to the building's design is its transparent four-story atrium, illuminated by a skylight and traversed by upper-level bridges, which frames views of the new riverfront park and the skyline across the Delaware River. A lantern at the north end of the building signals a gathering space adjacent to the building's fifth-floor training and conference facilities, opening to a large roof terrace. A skyline feature sign and an articulated metal-and-glass facade recall the site's industrial past. Visible through the transparent glass curtain wall, a traveling stair fosters face-to-face interaction throughout the dynamic workplace. It also features dual 50-foot waterfalls and a Learning and Innovation Center – an educational discovery space for visitors to explore and learn about all things water.

The building is a steel and composite metal deck floor system with a lateral system comprised of steel braced frames and moment frames at the north and south ends. Due to the length of the structure of more than 500 feet, an expansion joint was required at the south side of the atrium. To accommodate architectural constraints, our design used slide-bearing connections along the entire length of the expansion joint. The slide-bearing connections and detailing of the expansion joint required precise coordination between the design team, particularly at the atrium bridge and around the south elevator. Additionally, the location of the expansion joint caused an eccentricity in the lateral brace system, requiring the addition of moment frames to control building sway at the far ends.

Other project challenges included underground obstructions and a seven-foot storm sewer below the atrium. To address the obstructions, our engineers employed design flexibility and real-time analysis of the foundation system in a coordinated effort with the pile-contractor and their engineers. The design included a structural slab in lieu of a slab on grade in order to ensure the structure could span over the existing underground utilities. This structural slab system required framing numerous mechanical penetrations to meet the significant MEP demands of the atrium.

The project has achieved LEED Platinum Core and Shell certification and features solar window shades to maximize natural lighting, high-efficiency heating and cooling and an accessible green roof terrace.

- The following 5 pages (maximum) can be used to portray your project to the awards committee through photos, renderings, sketches, plans, etc...



Photo credit Hallkin/Mason Photography

American Water Headquarters Building



View of building from across the Delaware River



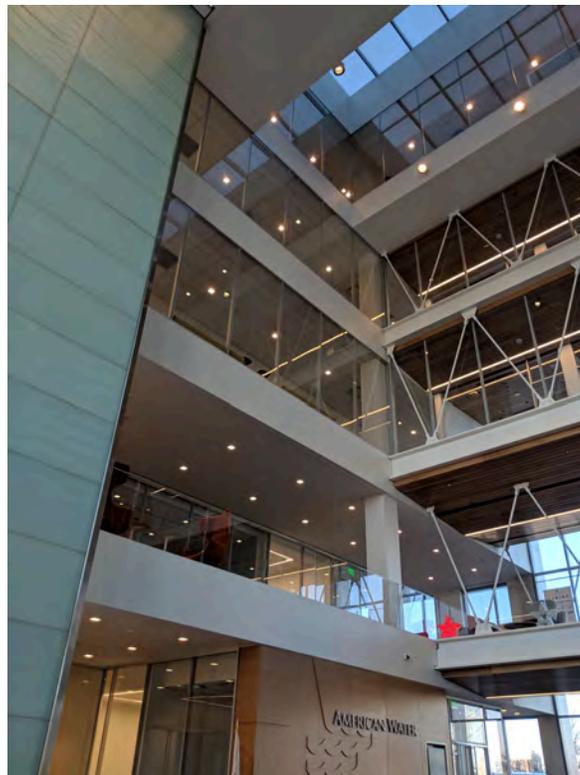
Roof Sign and views of Philadelphia Skyline across the Delaware River



One of two 50-foot water features in the atrium lobby



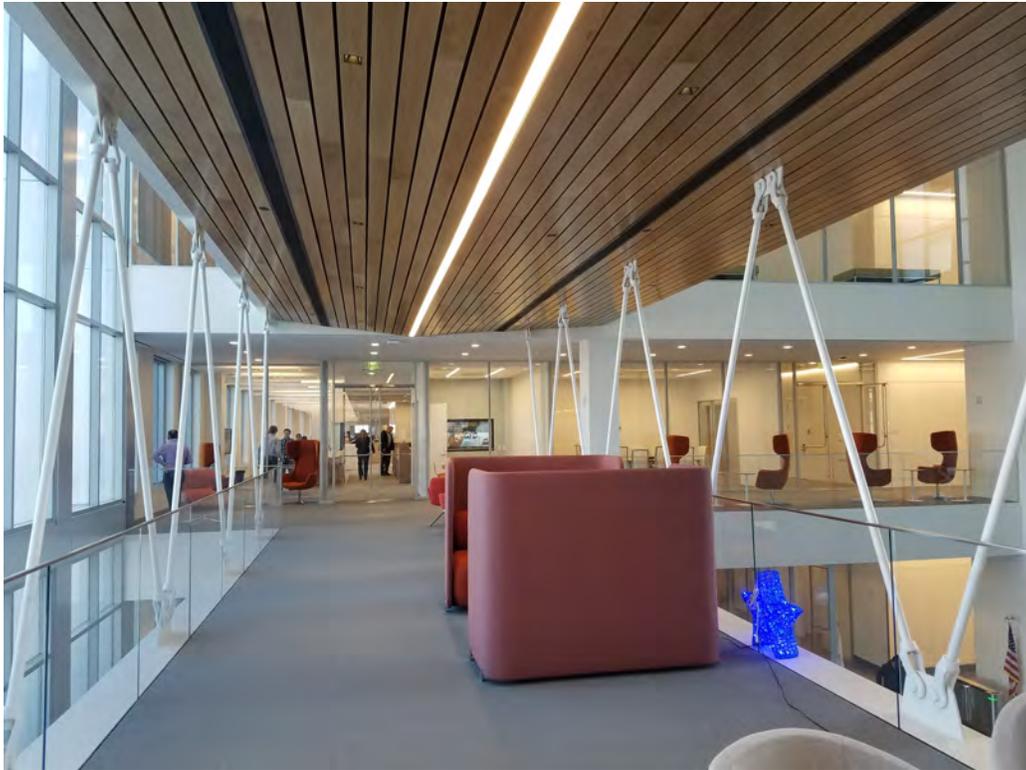
View of atrium and water features from the pedestrian bridge



View of pedestrian bridge from the atrium lobby



Pedestrian bridge



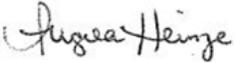
Pedestrian Bridge from Level 2

By signing, signatory agrees to the following and represents that he or she is authorized to sign for the structural design firm of record.

All entries become the property of DVASE and will not be returned. By entering, the entrant grants a royalty-free license to DVASE to use any copyrighted material submitted.

If selected as an award winner, you may be offered the opportunity to present your project at a DVASE breakfast seminar. Would you be willing to present to your colleagues? YES NO

Submitted by:

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