

# Celebrating a decade of architecture and engineering excellence

These amazing projects from around the world are celebrated for their ingenuity and ability to adapt and deliver forward-thinking solutions in their time while still helping us build better futures today.

USA, 2020 AEC Excellence Winner

## South Beach Psychiatric Center New Inpatient Building

STV and Architectural Resources

### OUTCOME

#### Rebuilding Better

Destroyed by Hurricane Sandy, the facility was rebuilt to the highest care standards within challenging flood-prone terrain.

### PROJECT

#### Healthcare

The new 262-bed building provides modern in-patient care in a healing setting at the 51-acre campus in Staten Island, NY. The 5-story, 221,000-sq. ft. building was designed on pilings to protect from flood risk and was rapidly converted into an emergency COVID-19 support facility.

### HIGHLIGHTS

Pandemic facility conversion plans were delivered in **2 DAYS**.

Facility was converted into a COVID-19 support center in **2 WEEKS**.

The ground was raised **20 FEET** above sea level in FEMA high-risk zone.

### IN THEIR OWN WORDS

"One of the biggest challenges to a successful project is maintaining communication throughout the lifecycle. With BIM, we can all speak the same language—whether it is with the stakeholders, the contractors, or the engineers."

— Jared Oakley, AIA, Project Manager / Project Architect, Architectural Resources

Sweden, 2019 AEC Excellence Winner

## European Spallation Source

ÅF Infrastructure, Sweco Architects and Skanska Sverige AB

### OUTCOME

#### Setting the Bar for Sustainability

The first-of-its-kind research center, the ESS will affect the world in ways we can't yet fathom. When construction completes in 2025, it will be the world's most advanced neutron source.

### PROJECT

#### Research Facility

One of Europe's largest building projects with a budget of over \$1.8 billion, the ESS is bringing together thousands of people from around the globe for breakthrough scientific research and collaboration.

### HIGHLIGHTS

It's a **FIRST-OF-ITS-KIND** research facility.

Design team members from **13 COUNTRIES** collaborated using Autodesk technology.

The **65,000-SQ-METER** research facility is one of Europe's largest.

### IN THEIR OWN WORDS

"We have an outstanding team, the cooperation and support of our member nations, and a shared commitment to deliver a world-class research facility. But we've definitely given ourselves an advantage on every level: quality, efficiency, speed, productivity, and cost-effectiveness by selecting the right BIM software."

— Kristian Gerdtsen, Design Manager at Skanska for ESS

USA, 2018 AEC Excellence Winner

## Brown University, Engineering Research Center

KieranTimberlake, BuroHappold Engineering, Shawmut Construction

### OUTCOME

#### The Power of IPD and BIM

Dispersed designers and stakeholders used connected BIM to collaborate in one common data environment and drive a new Integrated Project Delivery model.

### PROJECT

#### Research Center

The new 80,000-sq. ft. facility features modern research labs, an imaging suite, and flexible shared workspaces. It's one of the first projects delivered with the Integrated Project Delivery model, where the owner, architect, and contractor were mutually responsible for project success.

### HIGHLIGHTS

Key stakeholders coordinated together across **6 CITIES**.

The project achieved **25% ABOVE STANDARD** energy efficiency, earning LEED Gold certification.

Engineers saved on average **20 HOURS/WEEK** with cloud collaboration workflows.

### IN THEIR OWN WORDS

"With robust, cloud-based BIM, everyone could see behind the curtain and understand what everyone else was doing. The construction manager could better understand what the MEP did what they did, the architects understood exactly what the architects were contributing, and so on. Everyone was on the same page, and there were no surprises."

— Paul McGilly, Associate Principal/BIM Manager, BuroHappold Engineering

Israel, 2017 AEC Excellence Winner

## The Porter School of Environmental Studies

Geotectura, Axelrod-Grobman Architects, NCA, Assa Aharoni Consulting Engineers

### OUTCOME

#### Building a Better Future

Israel's first LEED Platinum-certified project features an Eco-Wall that generates power for the whole structure, thermo-active flooring, on-site greywater recycling, and more.

### PROJECT

#### Environmental School

Among the greenest projects in the world, the 43,056-sq. ft. building at Tel Aviv University was built to reflect the environmental vision of its founders, achieving LEED Platinum certification and five stars in the Israeli Green Code 5281.

### HIGHLIGHTS

The project achieved **92 POINTS** to earn LEED Platinum certification.

Thermo solar fields and Eco-Wall delivered **60% ENERGY SAVINGS**.

They used **40 FEWER TONS** of refrigeration cooling capacity compared to the standard.

### IN THEIR OWN WORDS

"BIM helped us to fulfill the vision of building one of the greenest projects in the world. The Porter School of Environmental Studies shows the power of BIM to improve the design and sustainability aspects during the planning and after completion of building. No matter the scale, budget, or program of your next project, it should share the same sustainable values and adopt BIM to meet the current and upcoming challenges."

— Joseph Cory, Professor and Architect, Geotectura

China, 2016 AEC Excellence Winner

## Phoenix International Media Center

Beijing Institute of Architectural Design, Ltd, Co.

### OUTCOME

#### Going All In with BIM

Among the first projects in China to implement BIM, the sophisticated and complex design was made possible through close collaboration with project consultants, fabricators, and contractors to meet the site's constraints while delivering a stunning media center.

### PROJECT

#### Media Center

Just 55 meters high, the home of Phoenix Satellite Television is among the most visually breathtaking buildings in Beijing. Inspired by the endlessly curving form of a Möbius strip, the building blends space and structure harmoniously, leaving visitors to enjoy such a striking form.

### HIGHLIGHTS

The design and install of the glass curtainwall saved **\$9 MILLION**.

The project is a **FIRST OF ITS KIND** to implement BIM in China.

**ZERO DOCUMENTS** were printed using all-digital BIM processes.

### IN THEIR OWN WORDS

"Some buildings with complex forms separate the internal space from the form, but we took an integrated approach. The outer shell of the structural ribs bears the load of the entire building and textures light within the building. BIM brought the team together and gave us the insight we needed to use the complex shape to improve building performance."

— Zewu Zhou of Beijing Institute of Architectural Design