

# Structural engineering showcase 2020

Presented by the  
Structural Awards

The Structural Awards have celebrated the very best of structural engineering for more than 50 years. In this unusual year, we are doing things a little differently by showcasing all the submissions online as a celebration of global engineering achievements.



**Martin Powell**  
Chief Executive, Institution of Structural Engineers

**AS A STRAIGHT BUSINESS DECISION**, cancelling the Structural Awards 2020 was not difficult to take.

All of us have been caught up in this strangest of years and the constantly creeping timelines of lifted restrictions followed by re-imposition of new guidelines. In the end, the financial ramifications of proceeding with an event that is no respecter of social distancing was far too great for the Institution as a charity to risk. Regrettably, as we reach the originally scheduled date, that decision has been vindicated.

The annual Awards are, however, far more than a simple business decision and herein lay the really difficult challenge in setting aside some fabulous entries and losing the opportunity to celebrate the brilliant achievements of structural engineers who enable society to benefit from the creation of truly world-leading structures. My goodness, with the challenges of a pandemic, we all need an opportunity to celebrate; to light a beacon over the work of the profession and to showcase international excellence in structural engineering.

In their place, we hope you will welcome not a true substitute to donning your 'glad rags', but nonetheless a genuine celebration not of a shortlisted few, but of the entire repertoire of excellent project submissions. By going virtual, we are instead opening the doors for many more to join in with our 2020 celebration of excellence, and at the same time introducing some new features for this new-look showcase.

No online substitution Award event for us. This will be different, as will be our 2021 bumper Awards ceremony, which will feature the very best of two years' entries into one evening of celebration in 12 months' time.

We hope you will enjoy all of the 2020 projects in our online celebration – nothing of course to stop you dressing for the occasion!



**Tim Ibell**  
Chair of the Structural Awards Judging Panel

**I'M PLEASED THAT**, despite these challenging times, or perhaps because of them, we have an opportunity to look at the Structural Awards from a different perspective in 2020. Instead of concentrating on the shortlisted projects, this year we are showcasing how all the entries illustrate the global appeal, expertise and variety of our profession.

All the projects will be reviewed and judged next year alongside the 2021 entries under the Structural Awards categories. But for this year, we have grouped them under four structural showcase themes of:

- | Achieving architectural vision
- | Challenging construction
- | Creative design
- | Sustainable leadership

The showcase is a unique opportunity to see the entries before the judging panel starts its deliberations, and to mark out your ones to watch. You can also vote for your favourite entries at [www.istructe.org/structural-awards-2020/](http://www.istructe.org/structural-awards-2020/)

As we face the climate emergency, I'm so pleased to see how many projects have embraced the many and varied drivers of sustainability. It is clear that our colleagues are working hard to retain existing structures and to embrace the circular economy. They do this while adding societal benefit.

Our profession's response to the climate emergency is the most critical priority for us and I believe that the Structural Awards can and must play a leadership role in change. I'll be talking about this and giving an insight into the judging process during a webinar on Friday 6 November – do watch the recording after the event if you weren't able to view it live.

I sincerely hope that you are as inspired as I am by this showcase of global structural engineering achievement. This year is a great opportunity to see 'behind the scenes' of the Structural Awards and to join in the fun of comparing and contrasting some of the best that our profession has to offer.



## DON'T FORGET TO VOTE

This year you have the unique opportunity to vote for your favourite projects online. To get started, please visit [www.istructe.org/structural-awards-2020/](http://www.istructe.org/structural-awards-2020/). Voting closes **30 November**.

# Achieving architectural vision

Showcasing structures created through a close collaboration between engineer and architect.



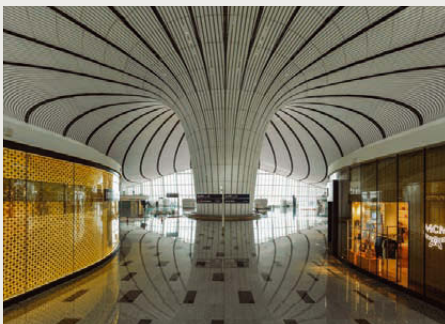
**Apple Aventura**  
*Aventura, USA*  
Submitted by: Foster + Partners



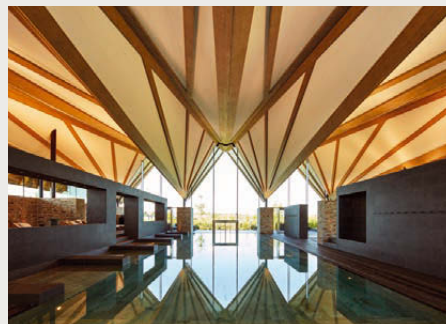
**Cheng Shifa Art Museum**  
*Shanghai, China*  
Submitted by: Tongji Architectural Design (Group) Co., Ltd



**Meeting House**  
*Aspen, USA*  
Submitted by: AKT II



**Beijing Daxing International Airport Terminal**  
*Beijing, China*  
Submitted by: Beijing Institute of Architectural Design



**Great Northern Golf & Wellness**  
*Kerteminde, Denmark*  
Submitted by: Søren Jensen Consulting Engineers



**One Hennessy**  
*Wan Chai, Hong Kong*  
Submitted by: Ove Arup & Partners Hong Kong Ltd



**Chapel of Sound**  
*Hebei, China*  
Submitted by: Arup



**Jewel Changi Airport**  
*Singapore*  
Submitted by: Buro Happold



**Shanghai Shimao International Plaza**  
*Shanghai, China*  
Submitted by: East China Architectural Design & Research Institute





See more about the projects and vote for your favourite online at [www.istructe.org/structural-awards-2020/](http://www.istructe.org/structural-awards-2020/)



**Shijiazhuang International Convention and Exhibition Center**

*Shijiazhuang, China*

**Submitted by:** Architecture Design & Research Institute of Tsinghua University



**The Address Residence Sky Views**

*Dubai, United Arab Emirates*

**Submitted by:** NORR Group Consultants International Ltd



**Tocumen International Airport**

*Panama City, Panama*

**Submitted by:** Foster + Partners



**Skyboat**

*Guangxi, China*

**Submitted by:** XinY Structural Consultants



**The Twist**

*Kistefos, Norway*

**Submitted by:** AKT II



**Zhangjiang International Brain Imaging Centre**

*Shanghai, China*

**Submitted by:** Tongji Architectural Design (Group) Co., Ltd



**St Philips Footbridge**

*Bristol, UK*

**Submitted by:** Knight Architects



**Tianjin CTF Finance Centre**

*Tianjin, China*

**Submitted by:** Skidmore, Owings & Merrill



**Zhengzhou Greenland Central Plaza**

*Zhengzhou, China*

**Submitted by:** Tongji Architectural Design (Group) Co., Ltd

LANCIE MCNULTY

AKTII

SETH POWERS

# Challenging construction

Showcasing structures that overcame challenging site conditions, extreme environmental factors and short construction sequences.

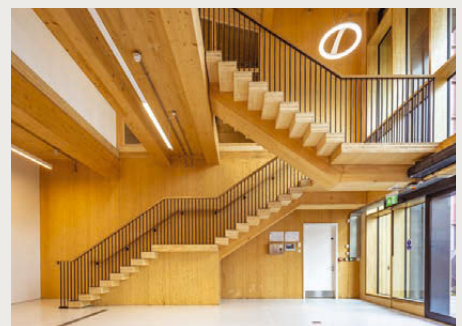


QUINTIN LAKE

**Arter Contemporary Art Gallery**  
Istanbul, Turkey  
Submitted by: Thornton Tomasetti



**Christchurch Town Hall**  
Christchurch, New Zealand  
Submitted by: Holmes Consulting LP



**King's Cross Sports Hall – Q2**  
London, UK  
Submitted by: Arup



**Boeing Goldcare Gatwick – Aircraft Hangar**  
Gatwick, UK  
Submitted by: Mott MacDonald



PAUL TIERNEY

**IAA Visual Control Tower**  
Dublin, Ireland  
Submitted by: Arup



**North Coast Studio**  
Port of Spain, Trinidad & Tobago  
Submitted by: GL&SS



**Bridgewater Place Wind Amelioration Scheme**  
Leeds, UK  
Submitted by: Buro Happold



**Iona SkyDome**  
UK  
Submitted by: Eckersley O'Callaghan



**North Terminal Mezzanine**  
Gatwick, UK  
Submitted by: Webb Yates Engineers



FADI ASMAR



**One Manhattan West**

*New York, USA*

Submitted by: Skidmore, Owings & Merrill



**Shangyin Opera House**

*Shanghai, China*

Submitted by: Tongji Architectural Design (Group) Co., Ltd



**Transformation of Acland House**

*Oxford, UK*

Submitted by: Eckersley O'Callaghan



**Princelet Street**

*London, UK*

Submitted by: Heyne Tillett Steel



**Skiing Platform**

*Soldeu, Andorra*

Submitted by: Helium Engineering



**Wimbledon Court No.1 Redevelopment**

*London, UK*

Submitted by: Thornton Tomasetti



**Principal Tower**

*London, UK*

Submitted by: WSP



**St James' Garden**

*London, UK*

Submitted by: RDG Engineering



**Royal College of Obstetricians and Gynaecologists – Union Street**

*London, UK*

Submitted by: Integral Engineering Design



**The Tide**

*London, UK*

Submitted by: AKT II

JEFF MOORE

See more about the projects and vote for your favourite online at [www.istructe.org/structural-awards-2020/](http://www.istructe.org/structural-awards-2020/)

**Structural Engineering Showcase 2020**  
Presented by the Structural Awards

The Structural Awards have celebrated the very best of structural engineering for more than 50 years. This year we are doing things a little differently by showcasing all submissions online, not just shortlisted projects.

Viewed together, they demonstrate the global nature of our profession. Their scope and scale show the integral role structural engineers play in shaping the world around us. We look forward to judging and bestowing the winners as part of a combined Structural Awards in 2021.

As part of our online celebration we'd like to give you a taste of what it's like to be a judge. This year you have the unique opportunity to vote for your favourite projects.



# Creative design

Showcasing unique structures that required a creative approach to engineering design and/or the use of digital design tools.



## DONUT

Qingdao, China

Submitted by: XinY Structural Consultants



## 138 P.C. Hoofstraat – The Looking Glass

Amsterdam, The Netherlands

Submitted by: Arup



## Aston Martin at Goodwood Festival of Speed

West Sussex, UK

Submitted by: Diales Technical



## Estée Lauder Companies Pavilion CIIIE 2019

Shanghai, China

Submitted by: Dongqi Architects



## A House for Theo and Oskar

Surrey, UK

Submitted by: Engenuiti



## Balmain House

Sydney, Australia

Submitted by: Partridge



## Future Tree

Esslingen, Switzerland

Submitted by: Basler & Hofmann AG



## Advanced Product Creation Centre – Jaguar Land Rover

Gaydon, UK

Submitted by: Buro Happold



## Camp Adventure Forest Tower

Haslev, Denmark

Submitted by: Arup



## Heartspace – University of Sheffield

Sheffield, UK

Submitted by: Arup

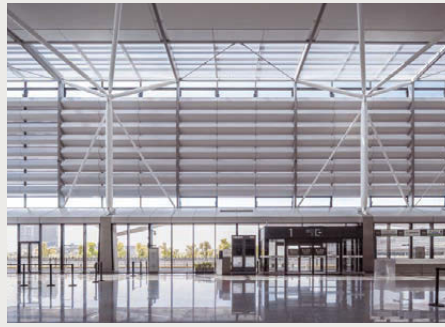
BOND BRYAN ARCHITECTS



ADAM MORIK



**IOC Olympic House**  
 Lausanne, Switzerland  
 Submitted by: INGENI



**Renovation of Shanghai Hongqiao International Airport Terminal 1**  
 Shanghai, China  
 Submitted by: East China Architectural Design and Research Institute



**The Academy Museum of Motion Pictures**  
 Los Angeles, USA  
 Submitted by: Buro Happold



**Lille Langebro**  
 Copenhagen, Denmark  
 Submitted by: Buro Happold



**Rose Fitzgerald Kennedy Bridge over the River Barrow**  
 Wexford and Kilkenny, Ireland  
 Submitted by: Arup



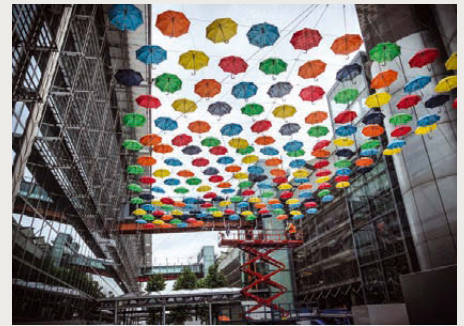
**The Viper Elevated Walkway at the Newt in Somers**  
 Castle Cary, UK  
 Submitted by: Henry Fagan & Partners



**Mary Elmes Bridge**  
 Cork City, Ireland  
 Submitted by: Arup



**Skyventure**  
 Abu Dhabi, United Arab Emirates  
 Submitted by: Inhabit



**Umbrella Project, Heathrow Airport**  
 Heathrow, UK  
 Submitted by: BakerHicks

ARUP



**Raffles City Chongqing**  
 Chongqing, China  
 Submitted by: Arup



**Stroud Christian Community Chapel**  
 Gloucestershire, UK  
 Submitted by: Corbett & Tasker Ltd



**Windermere Jetty Museum**  
 Lake District, UK  
 Submitted by: Arup

CHRISTIAN RICHTER

ARUP



# Sustainable leadership

Showcasing projects that championed sustainable techniques, retained existing structures, embraced the circular economy and benefited society.



BENNY CHAN FOTOWORKS

**1 Finsbury Avenue**  
London, UK  
Submitted by: Arup



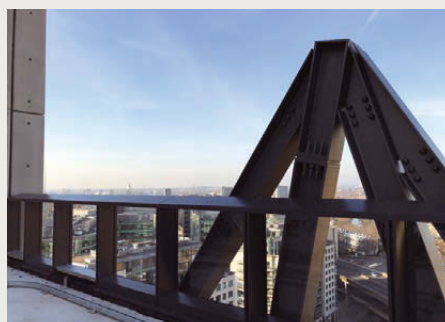
**Billie Jean King Main Library**  
California, USA  
Submitted by: Skidmore, Owings & Merrill



**Elizabeth Line OLE Gantry Rigorous Assessments**  
South East England, UK  
Submitted by: Buro Happold



**33 & 34 Trumpington Street**  
Cambridge, UK  
Submitted by: Wright Consulting Limited



**Brunel Building**  
London, UK  
Submitted by: Arup



**Guinness Storehouse Gravity Bar Extension**  
Dublin, Ireland  
Submitted by: Arup



**Bath School of Art & Design – former Herman Miller Factory**  
Bath, UK  
Submitted by: Mann Williams



**Dorset House**  
Bristol, UK  
Submitted by: Element Structures



**Hilton House**  
Manchester, UK  
Submitted by: WML consulting





**Hobhouse**  
London, UK  
Submitted by: Thornton Tomasetti



**The Silverstone Experience**  
Northamptonshire, UK  
Submitted by: Mann Williams



**Water Street Bridge**  
London, UK  
Submitted by: COWI



**King's Scholars Pond Sewer Rehabilitation**  
London, UK  
Submitted by: Transport for London



**The Spinningfields Pavilion**  
Manchester, UK  
Submitted by: Engenuiti



**Wooden Roof**  
London, UK  
Submitted by: Webb Yates Engineers



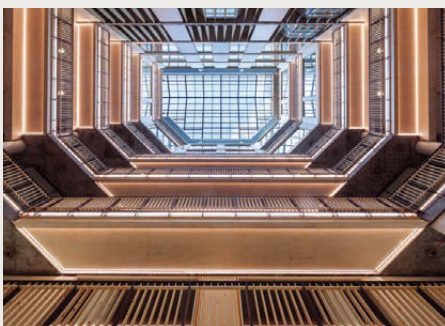
**National Automotive Innovation Centre**  
Warwick, UK  
Submitted by: Arup



**The Standard**  
London, UK  
Submitted by: Heyne Tillett Steel



**York House**  
London, UK  
Submitted by: Webb Yates Engineers



**Republic Masterplan**  
London, UK  
Submitted by: Heyne Tillett Steel



**Venue on the Green Youth Centre**  
East Sussex, UK  
Submitted by: Corbett & Tasker Ltd

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