Application: 7577

Grand Paris Express L18 viaduct

Started at: 3/4/2026 08:09 PM - Finalized at: N/A

Page: Submitter Information

The submitter is the person entering the information on this project application. Please email estherbeery@concrete.org with your project name to ensure it has NOT already been nominated by another individual. Please do NOT use all capital letters in your submission. This form is not for research projects. View an award winning entry here. (https://www.concrete.org/portals/0/Files/PDF/EA_An_Award_Winning_Entry.pdf)

Submitter Last Name:

KON-SUN-TACK

Submitter First Name:

Olivier

Submitter Phone Number:

+33609741115

Submitter Email Address:

konsuntack.olivier@gmail.com

NOMINATOR: (ACI Chapters/ACI Allied Organizations may nominate one project per category)

Yes

Local ACI Chapter/Partner Nominator

ACI Paris Chapter

Official Chapter/Partner Nomination Seal

Download File (https://aciexcellence.secure-platform.com/file/28781/eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJtZWRpYUlkIjoyODc4MSwiYWxsb3dOb3RTaWduZWRVcmwiOiJGYWxzZSIsImlnbm9
unnamed.jpg)

ACI Chapter/Partner Representative Name

Olivier KON-SUN-TACK

Chapter/Partner Representative Email

konsuntack.olivier@gmail.com

Submitted on behalf of (are you filliing this out for a company on their behalf?):

VINCI Construction Grands Projets

Did this project win an award at the local ACI chapter/ACI Allied Organization level?

No

How did you hear about the ACI Excellence in Concrete Construction Awards?

Local ACI Chapter or Partner

Page: Project Demographics

Information will be published as provided. Make sure the project name and all other details are accurate. Please do NOT use all capital letters.

Short Project Name (5 words or less):

Grand Paris Express L18 viaduct

Category (If any portion of this was a restoration you may want to consider our "Repair & Restoration" catergory):

Bridges

Date of Project Completion:

11/30/2023

PROJECT ADDRESS:

Saclay Essonne 91400 FR

Project Address:

Saclay area – Southwest of Paris

Project Size (Dimensions, Area, Span):

Viaduct 6,634 m long x 9.7 m wide (215 spans); total deck area 64,350 m²; 1680 prefabricated segments; 215 piers

Concrete Quantity - Volume Area Tonnage:

103,000 m3 of concrete

Construction Work Duration (in months):

33 months

If applicable, how many stories is this structure

Page: Project Team

Entire winning project teams will be invited to the Awards Gala during the ACI Fall Convention. Please provide as much information as you can and **make sure company names are spelled correctly**. Information from this segment will be published as it is entered. Please do NOT use all capital letters. We will not publish all the information submitted.

(OWNER) Company Name:

Société des Grands Projets [SGP]]

(Owner) Company Website:

https://www.societedesgrandsprojets.fr/societe-grands-projets-accelerating-mobility

(Owner or Representative) - First/Given Name:

Vianney

(Owner or Representative) - Last/Family Name:

ELZIERE

(Owner or Representative) - Email Address

Vianney.elziere@sgp.fr

(Owner or Representative) - Assistant/Contact Person - Full Name:

(Owner or Representative) : Assistant/Contact Person Email Address:

(ARCHITECT FIRM) - Company Name:

EXPLORATIONS ARCHITECTURE / LAVIGNE & CHERON Architecture

(Architect Firm) - Company Website:

https://explorations-architecture.com/fr/ -- https://www.lavignecheron.com/

Architect Firm Representative [name and email] - Personal Email Address:

Yves Pages / Thomas Lavigne ; yves.pages@explorations-architecture.com / thomas.lavigne@lavignecheron.com

(ENGINEERING FIRM) - Company Name:

ICARE (a joint venture between ARTELIA, INGEROP, and ARCADIS)]

(Engineering Firm) - Company Website:

https://www.arteliagroup.com/ --- https://www.ingerop.fr/en/ -- https://www.arcadis.com/fr-fr

Engineering Firm Representative [name and email] - Personal Email Address:

Nastaran VIVAN; nastaran.vivan@arteliagroup.com

(GENERAL CONTRACTOR) - Company Name:

VINCI Construction Grands Projets - Joint venture

(General Contractor) - Company Website:

https://france.vinci-construction.com/fr/expertises/grands-projets/

General Contractor Representative [name and email] - Personal Email Address:

Jérôme Laclau/Aurelien Delevoye/Lionel Linger/Jean-François Orefici ; jerome.laclau@vinci-construction.com / Aurelien.delevoye@vinci-construction.com / lionel.linger@vinci-construction.com / jean-francois.orefici@vinci-construction.com

(CONCRETE CONTRACTOR) - Company Name:

(Concrete Contractor) - Company Website

Concrete ContractorRepresentative [name and email] - Personal Email Address:

(CONCRETE SUPPLIER) - Company Name:

Bétons Solutions Mobiles

(Concrete Supplier) - Company Website:

Didier Verdes ; Didier.verdes@betonparis.fr

Concrete Supplier Representative [name and email] - Personal Email Address:

(Additional 1) Company Name:

Dodin Campenon Bernard

(Additional 1) Service Provided:

Joint venture

Additional Company 1 Representative [name and email] - Personal Email Address:

Fabrice Marchisio/Alexandros Giannopoulos ; fabrice.marchisio@vinci-construction.com / alexandros.giannopoulos@vinci-construction.com

(Additional Company 2) Name:

Chantiers Modernes Construction - VINCI Construction France

(Additional Company 2) Service Provided:

Joint Venture

Additional Company 2 Representative [name and email] - Personal Email Address:

Karim Rahbani ; karim.rahbani@vinci-construction.com

(Additional Company 3) Name:

Freyssinet France

(Additional Company 3) Service Provided:

Joint Venture

Additional Company 3 Representative [name and email] - Personal Email Address:

Thibaut Hilly ; Thibaut.hilly@freyssinet.com

(Additional Company 4) Name:

RAZEL BEC

(Additional Company 4) Service Provided:

Additional Company 4 Representative [name and email] - Personal Email Address:

Jean-François Seguin ; jf.seguin@razel-bec.fayat.com

(Additional Company 5) Name:

Rincent Île-de-France Nord

(Additional Company 5) Service Provided:

Concrete Laboratory

Additional Company 5 Representative [name and email] - Personal Email Address:

Raphael da Conceiçao ; idfnord@rincent-idfnord.com

OTHER:

APC Ingénierie
Concrete Laboratory
Marc Pialat ; info@apc-ingenierie.com

Centre Technique VINCI Construction France
Concrete Laboratory
Paul-Alexandre Franco/François Cussigh; paul-alexandre.franco@vinci-construction.fr / francois.cussigh@vinci-construction.fr

Page: Description of Project

Provide a detailed description of your project in 300 words or less. This information will be judged and used in print materials. Information will be published as entered.

PROJECT DESCRIPTION

The Grand Paris Express project involves the construction of about 200 km of metro lines including line 18 aiming to connect one of Europe's most prestigious scientific and academic campuses to Paris. Part of this new line runs elevated on a 6.6 km-long viaduct. Along its alignment, the metro line crosses some major and congested national roads (RN 118) which require the use of special viaducts with maximum spans of 58 m.

The developed technical solution provided substantial savings in terms of quantities for concrete, prestressed steel, and reinforcement steel bars. This efficient Environment in Design strategy aims to eliminate unnecessary elements and substitute standard materials with lower carbon footprint high performance materials.

The viaduct architectural design features smooth lines, elliptical piers, and a curved deck to ensure the viaduct blends in as smoothly and harmoniously as possible with its surroundings. A total of 1680 segments were precast over 17 months starting only one year after project award, with a casting rate of 190 m³/day, producing 7 to 8 segments per day, and installing a complete span in just two days.

The viaduct comprises 178 typical spans (each split into 9 to 10 segments) ranging from 27 to 35 meters and a special cross-section designed to carry the two metro line tracks. The deck of constant height is composed of a single-cell box, prestressed concrete girder with a suspended bottom slab. This configuration provides a compact solution, minimizing the deck width thanks to the unique central emergency evacuation path, and can be easily integrated architecturally into an urban environment. Project includes as well special viaducts built using the balanced cantilever methodology and two additional continuous cast in place concrete spans structures to allow installation of cross overs. Piers are composed of double shafts, with ovoid section, to allow maximum transparency.

Page: Description of Concrete Usage within the Project

In 500 words or less, describe how the concrete was effectively utilized in the project, for example, to meet the end user requirements, to shorten the schedule, for sustainability (please indicate any certifications) Information will be judged and printed as entered.

CONCRETE USAGE

Concrete constituents and mix designs have been selected given the environment, the characteristics of the structures (massive structures), durability considerations (ASR, DEF, Sulphates attack, steel rebars corrosion) and aiming to reduce as much as possible overall CO2 emission by using as much as possible supplemental cementitious materials. Specific performances were required for the concrete used to pour the segments, which involved sometimes conflicting specifications in terms of concrete mix design and placement methods). Consequently, relevant mixes were designed to reach a balanced compromise between these requirements by the use of adequate content of ground granulated blast-furnace slag [GGBS] and limestone filler [LF] (refer to tables 1 & 2).
Implementation of performance-based approach (i.e. concrete assessment through durability indicators) was considered to optimize concrete mix designs in terms of overall performance (both strength and durability), facing quality, sustainability and cost.

The use of Self-Compacting-Concrete has been selected for the completion of both footings and piers to allow faster construction in a safer way (concrete injection from the bottom of the piers) and fair finish. This technical choice was an output of the Safety in Design exercise, part of VINCI's standard process, to minimize, from the design stage, works at height and limit health and safety risks. A tailor-made formwork reaching 12 m height has been procured for this activity, to be able to pour in a single lift the piers.
Precasting of deck matched segments allowed for a better management of the quality (reduced cover depth tolerances) and allow placing concrete pumped directly from the batching plant to minimize number of trucks and hence improve safety by preventing interactions risk in the casting area. It has, then, been decided to set up a dedicated batching plant to produce concrete for the precast segments and to back-up another nearby batching already delivering concrete to other jobsites of the "Société des Grands Projets" in the same areas using the same concrete raw constituents. Keeping to the construction schedule, while ensuring compliant concrete performance in both its fresh and hardened states, as well as the final appearance of the structure's surfaces, confirmed the relevance of these technical choices.

Page: Photos and Video

Photographs and videos are used as part of the judging process and should depict current safety standards and proper use of personal protective equipment. Photographs should not contain descriptions and should be high resolution of at least 300 dpi. A minimum of four (4) photographs are required, with a **maximum** of eight (8) photographs.

In additon to the four (4) photographs, **ACI requests that you include a 1 - 2 minute video** showing the construction of the project. **No animations will be accepted**. **AI photos will NOT be accepted.** Concrete and construction of concrete should be featured in some of the photos.

Photographs and footage will be use in promotional material and shown as a digital presentation at the Awards Gala.

PLEASE make photo names short if possible. It allows downloads on our end much faster, thanks!

Photo 1

Download File (https://aciexcellence.secure-platform.com/file/28805/eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJtZWRpYUlkIjoyODgwNSwiYWxsb3dOb3RTaWduZWRVcmwiOiJGYWxzZSIsImlnbm9
Table%201.jpg)

Photo 2

Download File (https://aciexcellence.secure-platform.com/file/28806/eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJtZWRpYUlkIjoyODgwNiwiYWxsb3dOb3RTaWduZWRVcmwiOiJGYWxzZSIsImlnbm9
Table%202.jpg)

Photo 3

Download File (https://aciexcellence.secure-platform.com/file/28807/eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJtZWRpYUlkIjoyODgwNywiYWxsb3dOb3RTaWduZWRVcmwiOiJGYWxzZSIsImlnbm9
ZCuN2gx5imVU96Nl8zXFQ?1-Precast%20segment%20yard.jpg)

Photo 4

Download File (https://aciexcellence.secure-platform.com/file/28810/eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJtZWRpYUlkIjoyODgxMCwiYWxsb3dOb3RTaWduZWRVcmwiOiJGYWxzZSIsImlnbm9
2-Launching%20girder.png)

Photo 5 (optional)

Download File (https://aciexcellence.secure-platform.com/file/28811/eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJtZWRpYUlkIjoyODgxMSwiYWxsb3dOb3RTaWduZWRVcmwiOiJGYWxzZSIsImlnbm9
3-RN118%20segmental%20bridge.JPG)

Photo 6 (optional)

Download File (https://aciexcellence.secure-platform.com/file/28812/eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJtZWRpYUlkIjoyODgxMiwiYWxsb3dOb3RTaWduZWRVcmwiOiJGYWxzZSIsImlnbm9
rMHjiNqJOO_Mpm_fIqQI?4-Bridge%20overview.jpg)

Photo 7 (optional)

Download File (https://aciexcellence.secure-platform.com/file/28813/eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJtZWRpYUlkIjoyODgxMywiYWxsb3dOb3RTaWduZWRVcmwiOiJGYWxzZSIsImlnbm9
fQso3_xnriHZAuLcofs?5-Bridge%20top%20overview.JPG)

Photo 8 (optional)

Download File (https://aciexcellence.secure-platform.com/file/28814/eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJtZWRpYUlkIjoyODgxNCwiYWxsb3dOb3RTaWduZWRVcmwiOiJGYWxzZSIsImlnbm9
6-Bridge%20top%20overview.jpg)

Video/Timelapse (optional)

Download File (https://aciexcellence.secure-platform.com/file/28782/eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJtZWRpYUlkIjoyODc4MiwiYWxsb3dOb3RTaWduZWRVcmwiOiJGYWxzZSIsImlnbm9
-jB5ZDzSMFJRN2FVk?Film%20L18.2.mp4)

Video/Timelapse 1 (optional)

No File Uploaded

Video/Timelapse 2 (optional)

No File Uploaded

URL link to project (optional)

Page: Award Recipient Information

The Project Owner and team will be notified if the project is a first or second place winner and invited to attend the Awards Gala, held during the ACI Fall Convention.

Page: Separate Waiver

Submitter grants the American Concrete Institute (“ACI”) usage of all photographs, information, graphics, ideas, or other information submitted to ACI (the "Submission"). ACI will not be required to treat any Submission as confidential. ACI will be entitled to use the Submission for any commercial or other purpose whatsoever without compensation to you or any other person sending the Submission.You acknowledge that you are responsible for whatever material you submit, and you, not ACI have full responsibility for the message, including its legality, reliability, appropriateness, originality, and copyright. You further agree that the decision of ACI and the judges in the competition regarding any award, or the decision not to issue an award, is final and not subject to challenge.ACI will not be liable for any damages or injury caused by, including but not limited to, special or consequential damages that result from the Submission, even if there is negligence or ACI or an authorized ACI representative has been advised of the possibility of such damages, or both. The above limitation or exclusion may not apply to you to the extent that applicable law may not allow the limitation or exclusion of liability for incidental or consequential damages. This agreement and waiver shall be construed, interpreted and enforced according to Michigan law, without regarding to conflict of laws principles.Please note, you must agree to the separate waiver in order to submit your project.

Waiver Agreement

Yes, I agree to the terms and conditions

Signature of Applicant:

Date Signed:

Page: Thank you for participating!

Thank you for participating in this year's ACI Excellence in Concrete Construction Awards program! After you save and finalize your application, it will be officially submitted. Judges will review between May and July. Once all scores have been submitted, the submitter will be informed of the status of your project (be sure to check your spam folder). **IMPORTANT DETAILS:** If your project is selected as a winner, the project team and the Chapter/International Partner will be invited to attend the Awards Gala, **October 12, 2026 in Atlanta, GA, USA**. Please contact Esther Beery with any questions or would like to sponsor email at Esther.Beery@concrete.org