

DENMARK HILL STATION

In September 2021, the new **Denmark Hill Station Entrance** was officially opened, and major station enhancements were revealed. A job which historically should have taken around five years from initial concept to completion, was condensed into 30 months, all against the back-drop of a global pandemic.



Denmark Hill Station is one of the busiest suburban stations in London, with over seven million passengers using the station each year. Sustained daily usage and significant footfall at peak periods (which is expected to grow exponentially over the next 20 years), meant the station needed upgrading. Prior to the upgrades, congestion when entering and exiting the station was a real issue, with passengers taking up to 10 minutes to leave the station.

INVVU Construction Consultants, were commissioned by Network Rail and Govia Thameslink Railway to design a new entrance to the station and upgrade existing facilities from GRIP 1 – 6 and provide support for the build process GRIP 7 – 8.

INVVU's enhancement designs included:

- A second entrance to the station to increase capacity and make entering and exiting much easier.
- New ticket gate line.
- New and extended canopies on the platforms to encourage passengers to move further down the station in adverse weather, making boarding/alighting the trains much easier and efficient.
- Decluttering the platforms – to open up passenger spaces.
- New PA systems.
- New customer information screens.
- Free to use 85 space secure cycle storage facility – partly funded by Kings College Hospital to improve the health and well-being of those using the station – staff, patients, visitors etc.
- Additional seating

These enhancements were designed incorporating the use of sustainable and innovative techniques/products, with the ultimate goal of delivering a station that was future proof, accessible for all and environmentally secure which provides a user-friendly and safe environment for passengers.

Denmark Hill Station is 'the first carbon positive station in Europe'. The installation of Photovol-taic (PV) panels on the station and canopy roofs, generate more than enough energy to power the station, with all surplus energy returned to the National Grid, adding to the Stations green credentials.

The project was delivered in record time due to the urgent need for the station enhance-ments; the safety of those using and working in the station.

Strong relationships developed with clients, collaborators, stakeholders, regulatory bodies and the local community before, during and after the completion of the project, helped facilitate the success of the project in terms of time, budget and quality. Creating and maintaining open and effective channels of communication throughout the project is, without doubt, one of the key contributors to the success of the project, and a true demonstration of best practice.

The importance of this project to Kings College Hospital and the Maudsley Hospital, adjacent to Denmark Hill Station, to provide a much needed improved and efficient service for hospital staff, patients and visitors could not be underestimated, and liaison with both hospitals was key throughout the project. This development was also of huge importance to the local community, who were involved from the beginning and as part of the project, a local art competition was run and from over 50 artists, one local artist was commissioned



When setting new standards in upgrading the popular but established South London train station to be Europe's first carbon positive station one needs new innovative products and solutions where function does not compromise on form.

The AluPlusSolar power roof supplied by Kalzip incorporates BIPVco's unique flexible solar modules 'Flextron'. These modules are embedded within the roof itself. Its aesthetic integration, light weight, seamless appearance, superior low light performance and being shatter proof fitted the design brief perfectly.

Paul Gribben of Gribben Solar Roofing who designed, supplied & installed the AluPlusSolar roof was really impressed with the ease of installation and its aesthetically pleasing finish.



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to complete community art-work at the new facility. Branding trends from local community societies, quotes, and poems are dotted around the station which gives the whole project a community feel.

The Denmark Hill Station enhancement project has received numerous award nominations, receiving 'Highly Commended' in the 'Sustainable Business' and 'Infrastructure Achievement of the Year' categories at the National Rail Awards, and in the Environment and Sustainability category at the Railway Innovation Awards. INVVU also won in the category of 'Most Sustainable Project of the Year' at the Structural Engineering Awards 2021. The project is also the winner of the Building Project of the Year under £10m SECBE Award at the 2022 Constructing Excellence Awards.

INVVU, a small SME, but growing multi-disciplinary consultancy was awarded this large and high priority building & infrastructure project and exceeded all expectations along with the appointed delivery team. Going above and beyond and challenging the norm of current procure-ment/delivery routes and design/construction approach. Organisations have certainly stood up and taken notice of how and why the project was such a success, delivered in record time and on budget. A small SME from Kent has achieved this and we hope will change, in small, part the industry forever.

Key achievements:

- Designing the 'first carbon positive station in Europe'.
- Delivering the design and build of a carbon positive station, fit for purpose and future proof, on time, on budget and of the highest quality, during a global pandemic.
- The creation and development of strong, positive client/ collaborator relationships which have resulted in the successful delivery of a multi-million-pound project, and the commissioning of further work from the client. ■

