Asset management of structures

Creating a comprehensive, easy-to-use digital resource for bridge and structural inspections for AstraZeneca on the Avlon site.

AstraZeneca identified a need for a formal system to store design data, records and inspection reports for all bridges and related structures at the Avlon site. They also recognised that they needed a control mechanism to manage and control both load changes and structural deterioration on bridges. The overall aim was to ensure maintenance of structural integrity and fitness for purpose.

ABB were chosen to carry out thorough inspection and design checks of all bridges.

“…The system Structure Management System that ABB has developed for Avlon is simple to use and ensures that our pipebridges and other critical structures are compliant and fit for purpose. The annual inspections are very thorough and comprehensive and they allow us to prioritise any necessary repairs. The costs for doing this work are always agreed in advance and orders are placed prior to commencement of work. Nothing we do with ABB is ever a surprise…”

Martin Reid, Facilities Manager, AstraZeneca
Solution

ABB surveyed all 39 structures on site, measured them and carried out calculations against current codes. We provided working calculations and drawings for the structures. The survey found that a number of structures required strengthening. ABB designed the alterations and arranged and managed a steel work firm to implement these changes. For each of the structures a folder was compiled containing photos, calculations, inspection reports and records of repairs.

As part of the project a load change service was developed. This is used if changes to the plant are required i.e. installation of additional pipes or services to new or extended plants. AstraZeneca simply fill out a load change form which is then sent to ABB for checking, approval and recording.

Bi-yearly inspections are now carried out to check that the structures are fit for purpose.

Benefits

- Assurance that all structures were fit for purpose
- Ability to demonstrate legal compliance with modern codes and safety standards
- Future load changes managed effectively
- Complete records of design, inspection and maintenance for all bridges
- Improved financial planning for future site development and capital spending on infrastructure