The Lexicon, Bracknell

Life Care Plan leads to comprehensive fast track refurbishment

Princess Square Multi-Storey Car Park

The Bracknell Regeneration Partnership is a joint venture between Legal & General Capital and Schroder UK Real Estate Fund.
The Lexicon represents one of the biggest town centre regenerations in the UK. In addition to 70 new shops and restaurants, the project also encompasses improvements to the existing High Street buildings and the restoration and extension of local landmark, The Bull. Princess Square multi-storey car park, which is located within the confines of The Lexicon, required a comprehensive and extremely fast track & turn-key refurbishment - it was crucial therefore that this refurbishment acted as a gateway for the ‘Lexicon’.

Princess Square MSCP in Bracknell was the UK’s very first car park to adopt the intuitive and BPA award winning Reportal LCP software in 2012. Reportal had forecast a refurbishment would be required in 2017. This refurbishment had been forecast to include structural concrete repairs to the primary fabric, and also re-waterproofing of the decks to prevent leaking into the retail stores beneath.

Also recommended in the LCP, was the benefit of replacing the lighting system due to the potential reduction in CO2 and cost associated with energy use.

These works were referred to as the ‘core’ works as they were required to safeguard the value of Princess Square MSCP and also the shopping centre served by the car park.

In addition to the aforementioned improvements the car park facility needed to suitably complement the soon to be opened ‘Lexicon’, and provide a safe, clean and user friendly structure. Satisfying the needs of key tenant Sainsbury’s was also very high on the list of priorities.

Numerous water leaks were evident in Sainsbury’s, due to the store being located directly below Level 1 of the defective car park. Without rectifying this issue, there was a risk Sainsbury’s would not renew their lease.

Protecting the value of the asset was also a key focus, as this had arguably begun to fall due to the dilapidated condition of the concrete structure and failure of previously installed coatings.

Why was the refurbishment needed?

Princess Square MSCP in Bracknell was the UK’s very first car park to adopt the intuitive and BPA award winning Reportal LCP software in 2012. Reportal had forecast a refurbishment would be required in 2017.

This refurbishment had been forecast to include structural concrete repairs to the primary fabric, and also re-waterproofing of the decks to prevent leaking into the retail stores beneath.

Also recommended in the LCP, was the benefit of replacing the lighting system due to the potential reduction in CO2 and cost associated with energy use.

These works were referred to as the ‘core’ works as they were required to safeguard the value of Princess Square MSCP and also the shopping centre served by the car park.

In addition to the aforementioned improvements the car park facility needed to suitably complement the soon to be opened ‘Lexicon’, and provide a safe, clean and user friendly structure. Satisfying the needs of key tenant Sainsbury’s was also very high on the list of priorities.

Numerous water leaks were evident in Sainsbury’s, due to the store being located directly below Level 1 of the defective car park. Without rectifying this issue, there was a risk Sainsbury’s would not renew their lease.

Protecting the value of the asset was also a key focus, as this had arguably begun to fall due to the dilapidated condition of the concrete structure and failure of previously installed coatings.
The key problems identified included spalling concrete (combination of low cover and no protective coatings), lack of waterproofing and effective drainage, poor pedestrian way-finding and a general lack of attention to detail. Lighting inefficiencies had also been identified, as well as a need to improve the external facades of the structure. The fast track two-stage tender process therefore identified the need for concrete repairs and protective waterproof coatings, as well as a number of sub contract packages to improve aesthetics and safety.

During early 2017 Stripe were commissioned to produce a cost plan and outline design, to capture not only the works required as identified in the LCP, but also some improvement works which were required to align the car park to the development of Bracknell town centre being completed (i.e. the Lexicon).
The project team were focused on minimising risk, primarily by sourcing materials and finishes from as few suppliers as possible. Fortunately, Main Contractor USL StructureCare, are the UK’s only single point responsibility specialist, being both manufacturer and installer of:

- Concrete repair materials - to repair the spalled and deteriorated structure
- Corrosion mitigation works - to stop further corrosion of steel reinforcement
- Anti-carbonation coatings - to protect future deterioration of the structure
- Protective deck waterproofing - prevent further water ingress and introduce colour and way-finding
- Expansion joints - allowing the structure to move whilst eliminating water ingress
- Cementitious renders - to improve aesthetics around stairwells and communal areas
- GRP trolley bays and protective lighting surrounds
- Stairwell coatings - anti-slip and decorative coatings
- Recycled ACO-type drainage channels
By introducing Stripe Consultants Reportal Life Care Plan (LCP) software in 2012, the deterioration of the car park structure had been ‘mapped’ for over 5 years. This made scoping of the works far easier, allowing the £1.7m project to be procured extremely quickly. This also enabled the project to be finished in a timely manner and way ahead of traditional refurbishments of a similar size.

Once the works had been completed and the asset value of the structure protected, the LCP will remain in place and any future works identified communicated to now incumbent specialist USL StructureCare.

One of the key drivers for the project was ensuring a suitable enhancement of the external elevations adhering to local planning. Stripe Consultants along with USL StructureCare liaised closely with Bracknell Forest Council, ensuring any treatments were sensitive and aesthetically pleasing.

As small portions of the car park exterior had undergone minor improvements a few years before using a composite Trespa-type cladding, a matching system was used to clad the remaining brick elevations. The design of the cladding was chosen to complement the “Lexicon” branding and provide a vibrant yet sympathetic appearance.

As well as cladding the external elevations, the unsightly and dated glazed asbestos sheeted atrium’s were ‘wrapped’ using a specialist vinyl-wrap system. This enabled the existing frame to remain in place, and avoided the potentially hazardous removal of asbestos sheets. The Avery Dennison ‘red wine’ vinyl-wrap also comes with a 10 year guarantee, removing any on-going maintenance for the car park owners.

Shows innovative solutions to engineering challenges

It’s a wrap! - Aesthetic treatment of the exterior
A large part of the project included replacing all internal light fittings with sensor-controlled LED's. Key considerations during the tender process and during construction included:

- USL's local office in Andover being only 46 miles away therefore reducing unnecessary travel during construction.
- UK manufactured repair materials, paints, expansion joints, GRP trolley bays, waterproofing and light fittings therefore massively reducing carbon footprint.

The site was very busy and with the key stakeholder very keen to ensure customers using the asset during the works were not put at risk or were not dissuaded from using the facility, USL's delivery plan was identified to be of value. This included very clear traffic management plans, professional signage and full height, fully sheeted heras fencing clearly separating work areas from the general public. Low odour coatings were used throughout to remove the risk of strong and unpleasant smelling smells during application.

Well lit and well planned - Lighting Refurbishment and Clear Circulation

A large part of the project included replacing all internal light fittings with sensor-controlled LED's. The new installation, controlled via tablet-friendly software, included wireless fittings and motion sensors, and was designed to be efficient, cost effective and to minimise future running costs. The completely new signage and way-finding package, designed by leading car park specialist The Velvet Principal has created a far more user friendly car park similar to The Trinity car park in Leeds which was recognised at the British Awards in 2014. By installing protective and coloured deck coatings in contrasting colours to all parking levels, clear demarcation has now been provided for driving aisles, parking bays and pedestrian walkways.

Environmental considerations during construction

Key considerations during the tender process and during construction included:

- USL's local office in Andover being only 46 miles away therefore reducing unnecessary travel during construction.
- UK manufactured repair materials, paints, expansion joints, GRP trolley bays, waterproofing and light fittings therefore massively reducing carbon footprint.

Dust and noise suppression plant was utilised where necessary, meaning the public using the car park were not exposed to unpleasant or unfamiliar conditions.
Having proactively initiated a LCP process in 2012, the client and their advisors were able to predict with accuracy, the most appropriate time to complete the core works. Any earlier than 2017, and there would have been some residual value remaining from the last refurbishment. The exception was the concrete repairs which (due to their nature) required some action ahead of 2017. As such the life-care plan was used to set a yearly budget for the urgent repairs to be completed on an annual basis. As a result there were a small number of concrete repairs carried out each year for the 3 years leading up to the main core works in 2017.

Each year via the LCP, the condition of the concrete was assessed and only as many repairs that needed to be carried out that year (on a risk assessed based approach) were completed. This ensured maximum value was derived from the core works (due to economies of scale) without presenting a risk to those using the car park prior to the 2017 works being completed.

The refurbishment of Princess Square MSCP typified a comprehensive repair & fit-out. The only works excluded from USL’s package included Parking Equipment and Lift Refurbishment, both of which were scheduled to take place outside of the main contract. The Lexicon | Bracknell

On-going infrastructure maintenance

How the project was funded and overall cost

The Bracknell Regeneration Partnership signed off on a budget cost which the works were not to exceed. Stripe Consulting produced a scoping document and then completed a fast-track two-stage tender process which saw USL StructureCare awarded the contract to complete the works on a very compressed programme and to a strict budget.

The overall budget for the complete refurbishment package was £1.7m. This equates to only £3000/space. This compares to £4750/space for the 2017 Best Refurbishment winner, Civic Centre in Wolverhampton where only structural repairs/coatings took place.
The £1.7m refurbishment of 568 space Princess Square Car Park Bracknell is a great example of a fast track turn key project conceived via the implementation of a web based Life Care Plan. Not only did the scheme involve a considerable amount of structural repair and specialist coatings, but new lighting, signage, drainage and external cladding was also incorporated and delivered in only 12 weeks.

The project was delivered on time and on budget and represents the second car park scheme completed for Schroders by USL StructureCare.
The Lexicon, Bracknell
Princess Square Multi-Storey Car Park

USL Group, Head Office
Kingston House, 3 Walton Road, Pattinson North,
Washington, Tyne & Wear, NE38 8QA, UK

t: +44 (0)191 416 1530 f: +44 (0)191 415 4377
www.usluk.com