



USL  
StructureCare

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Award winning & turn-key  
refurbishment solutions for  
car park structures



### Market Leaders In:

- Lightweight Deck Waterproofing Systems
- Expansion Joints
- Decorative Anti-Carbonation Coatings
- Mastic Asphalt
- Concrete Repairs & Corrosion Prevention
- Lighting and CCTV
- Barriers & Ticketing Machines
- DDA Compliance
- Structural Surveying and Testing
- Surface Car Parks



## Introduction

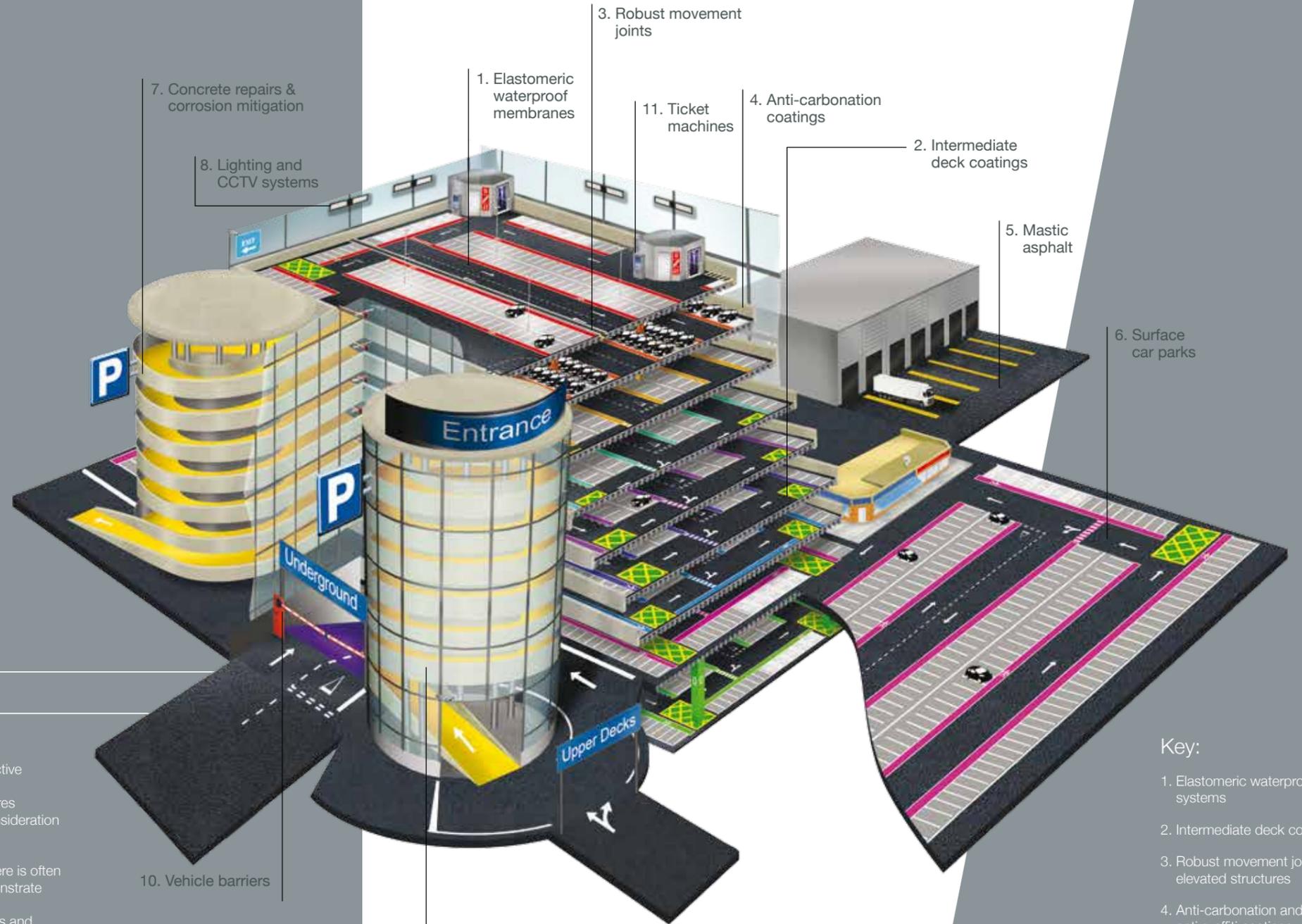
USL StructureCare forms part of the USL Group of companies established over 30 years ago. Evolving from the group's expertise in the field of structural waterproofing, USL StructureCare offer high quality bespoke solutions to owners and managers of multi-storey, rooftop and underground car parks as well as elevated service decks, and are proud to have won numerous industry related awards.

We recognise that car park facilities vary considerably in terms of age, condition, build-type and of course end user, and understand that a 'one size fits all' approach does not work.

Using a range of state of the art, high performance, proprietary systems, our directly employed and highly skilled workforce will therefore work with you, to find the right solution and methodology for your structure, taking into account factors unique to your car park.

Our key differentiator within this niche market, is derived from our strategic status as both manufacturer and installer of cutting edge and innovative products, allowing us to promote the unrivaled benefits of single point responsibility. These include concrete repair systems, protective coatings and sealants, expansion joints and the market leading DeckProtect+ coating system.





Key:

1. Elastomeric waterproofing systems
2. Intermediate deck coatings
3. Robust movement joints for elevated structures
4. Anti-carbonation and anti graffiti coatings
5. Mastic asphalt for elevated vehicle decks
6. Surface car parks
7. Specialised concrete repair techniques and corrosion mitigation
8. State of the art lighting and CCTV systems
9. Structural surveying and testing
10. Vehicle barriers
11. Ticket machines

Car Park Protection

The provision of user friendly, safe and aesthetically pleasing parking is a key factor in the success of any commercial development. However, the Multi Storey Car Park (MSCP) is a unique building with a range of specific problems that need to be addressed.

MSCP's are built using varying methods of construction with cost often being the primary consideration in their design. Accordingly, suitable protective measures are often sacrificed at construction phase, ignoring the ethos of life cycle costing principles.

The car park as a structure is unique. Extremes of cyclical loading, often on a daily basis, occur as the car park is filled on a morning and emptied by evening. Lacking a stable heat source, the structure feels the full force of daily and seasonal temperature variations.

Water and contaminants are easily introduced both directly through the open sides or indirectly via cars entering the structure. Harmful chlorides are deposited by cars and lead to chloride attack of the steel reinforcing bars. High concentrations of carbon gasses from exhaust fumes accelerate the carbonation of the concrete leading to further corrosion of the steel.

With this in mind, protective coatings and effective weatherproofing measures should be a primary consideration in a new structure.

In existing car parks, there is often visual evidence to demonstrate the effect of insufficient protection. Whilst repairs and protective coatings at this stage are often reactive measures, careful material specifications and good choice of experienced contractors can return the car park to a high level of decorative and structural well-being.



### Elastomeric Waterproofing Systems

USL StructureCare install a range of high quality, lightweight waterproofing systems to resolve issues of water ingress on the roof decks of multi storey car parks.

These deck coating systems are made up of a minimum of four elements, namely; a preconditioning primer coating, elastomeric membrane, wear course and a pigmented encapsulation or top coat.

Combined they provide a durable and fully trafficable deck coating system which not only prevents the ingress of harmful contaminants into the structure but can transform its appearance. The pigmented encapsulation coat allows differentiation to be made between various zones so that parking bays, running aisles and pedestrian walkways can be highlighted.

**Benefits: -**

- 100% effective waterproofing
- Lightweight thereby minimising dead load impact
- Spray application options allowing easy detailing of awkward areas and rapid cure
- Outstanding crack bridging capabilities
- Excellent bond strength to substrate
- Skid resistant
- Long service life
- Cost effective
- No requirement for secondary fleece/scrim banding

USL StructureCare also provide a wide range of deck coating systems designed specifically for installation on to the lower levels of a multi storey or basement car park.

Due to cars retaining considerable amounts of potentially contaminated water and the effects of water being driven in through the sides of these often partially exposed structures, these deck coating systems offer considerable protection for intermediate levels.

Commonly utilising a preconditioning or primer coat and a pigmented wear course they not only offer a cost effective barrier against the effects of the ingress of water and other contaminants but allow continuity of appearance to be retained throughout the entire car park if all levels are to be treated.

**Benefits: -**

- Fast track installation
- Solvent free
- Very low odour rating
- Easily maintained and cleaned
- Skid resistant
- Long service life
- Cost effective

### Intermediate Deck Waterproofing

### Movement Joints

USL StructureCare are market leaders in the manufacture, supply and installation of movement joints which have been carefully developed to provide a safe, efficient and economical method of sealing construction gaps. Our car park joints utilise the proven design technology successfully used in the Highways Agency approved BEJ range of expansion joints which are extensively used throughout Britain's motorway and truck road network.

**Applications:**

- Car parks including podium decks
- Footbridges
- Access and egress ramps
- Service decks

**Benefits: -**

- Over 30 years use in multi-storey car park protection and refurbishment
- Specialist labour force highly experienced in car park movement joint manufacture and installation
- Rapid curing products and expert phasing to minimize disruption in busy car parks.
- Proprietary and bespoke jointing solutions
- Installed in conjunction with all waterproofing systems
- Single Point Responsibility Guarantees

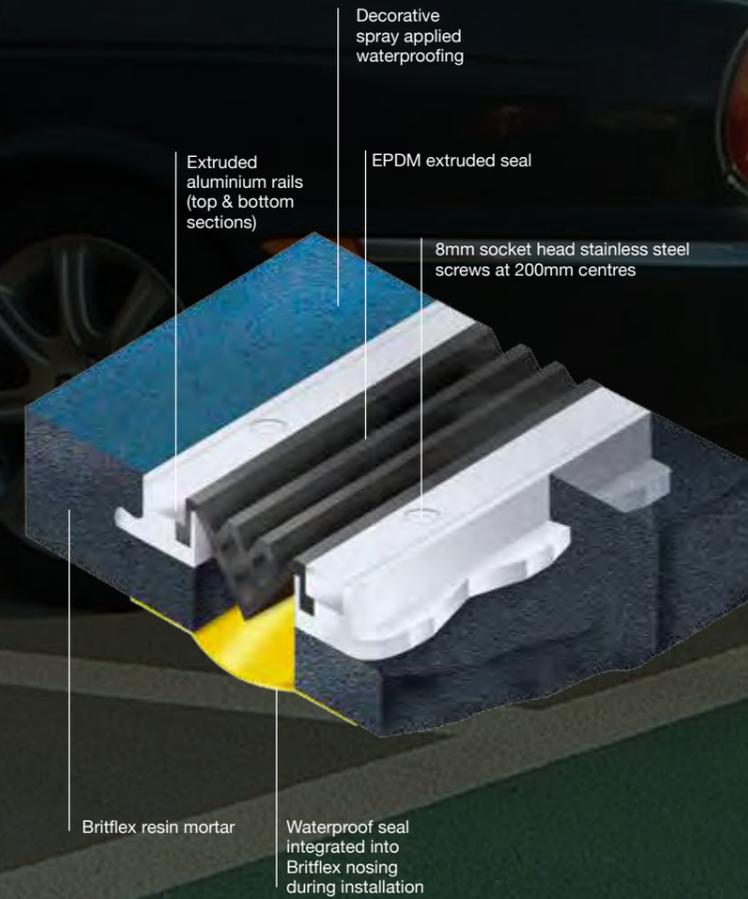
### Decorative Anti-Carbonation Coatings

An unpainted car park not only appears dull and uninviting to the parking public, but is also exposed to serious structural deterioration caused by the process of carbonation.

USL StructureCare undertake decoration and anti-carbonation processes using coatings designed to drastically reduce the diffusion rate of carbon dioxide into concrete. These systems also provide a highly durable, weather resistant surface which will maintain their anti-carbonation properties over many years.

**Benefits: -**

- Rapid curing
- Excellent adhesion to all surfaces
- Damaged areas can easily be re-coated and re-treated after many years
- Highly economical
- Extremely durable and weather resistant coatings
- Aesthetically pleasing
- Conforms to BS EN 1504





## Mastic Asphalt

USL are authorised installers of specially formulated mastic asphalt waterproofing and surfacing systems for car parks and elevated vehicle and service decks. These systems use advanced polymer technology to give the ideal combination of long term durability, increased fatigue resistance, improved temperature stability and ease of installation.

Applied by traditional asphalt techniques the system is a result of extensive research and development and the careful selection of polymers to provide improved performance in vehicle deck specifications.

The system is suitable for a number of applications including pedestrian walkways, car parks, HGV service decks and access ramps.

### Benefits: -

- BBA certification
- Advanced polymer modification
- Seamless waterproofing
- Long term durability
- Enhanced product stability across a wide temperature range
- High fatigue resistance - suitable to receive heavy goods vehicles
- Traditional application
- Manufactured in the UK under BS ISO 9000 Quality Assurance Scheme

USL StructureCare are able to offer a wide range of concrete repair services, ranging from traditional methods through to advanced solutions such as cathodic protection.

We are a leading specialist in the field of corrosion mitigation and prevention including galvanic and hybrid anodes, as well as ICCP.

Using a range of products and systems supplied by some of the world's largest construction chemical companies through to our own inter group company, Nufins, we are able to provide cost effective, technically advanced solutions for various repair criteria.

### Benefits: -

- Compliant with European Standard EN 1504
- Concrete repairs fully compatible with deck coating systems
- High build and lightweight repair systems available
- Corrosion Mitigation compliant with BS EN 12696

## Concrete Repair Solutions & Corrosion Mitigation



## Structural Surveys & Testing

USL StructureCare undertake detailed structural surveys and testing of multi storey car parks as required by our client's specific needs.

Testing can include reinforcement cover surveys, depth of carbonation measurements, half-cell potential measurements, and dust sample analysis to determine chloride ion and cement content.

These tests allow the client to fully understand the condition of their car park and form the basis of a repair scope of works and a Life Care Plan.

### Benefits: -

- State-of-the-art measuring and testing methods
- Highly qualified and experienced staff
- UKAS accredited testing
- Comprehensive, meaningful and iterative report format

Surface car parks are much more common than multi storey car parks. Defects including pot-holes, depressions, incorrect falls and aggregate loss can cause a real safety threat to the users of these facilities.

There are many potential options that can be provided when working with Asphalt or Macadam from full car park constructions to surface course replacements and overlays. Whatever you have in mind for your refurbishment there will be an Asphalt or Macadam system to suit practicalities and budgets.

We use a combination of the latest machine technologies and traditional hand lay methods tailored to making your refurbishment an easy transition.

### Benefits: -

- Quick to Lay
- Cost Effective
- Sustainable
- Durable
- Waterproof
- Versatile
- Maintainable
- Decorative & anti-slip walkways
- Areas can be utilised a few hours after laying
- In-house tactile paving and drainage solutions

## Surface Car Parks