



**CASE STUDY**  
 Works: Demolition  
 Sector: Regeneration scheme

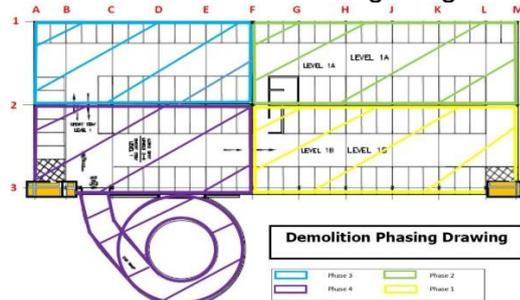
## Carlton Street Multi-Storey Car Park, Swindon

**OVERVIEW:** Lawson Demolition were awarded the contract for the demolition of Carlton Street multi-storey car park adjacent to Swindon’s bus station, the demolition of the Wyvern multi-storey car park and both associated footbridges, including the removal of Princes Street footbridge. It was a three-part project broken up into individual phases to ensure that the methodologies were clear. The project was part of a scheme to regenerate areas within Swindon town centre which were dilapidated and required demolition to transform the town.

**CHALLENGE:** Within this first phase of the works Lawson Demolition would have to remove the existing footbridge. This would require precision planning from Lawson Group’s specialist operatives. Working closely with the client, Lawson Group would have to ensure that minimal disruption would be caused to the bus station and the surrounding area. The bus station would have to remain live throughout the weekdays with one full day closure allowed the day after the night of the removal. Before demolition works could begin on the Multi-Storey Car Park, the rear and side elevations would have to be protected with scaffolding.



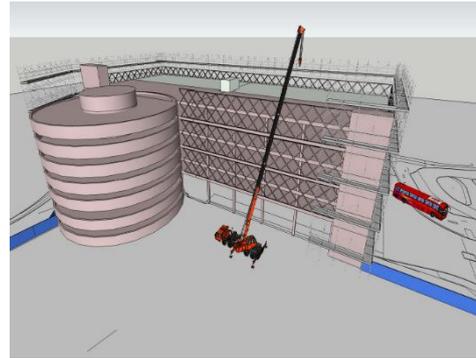
**SOLUTION:** The bridge was removed under a contracted lift which required two cranes to lift and lower the 36-tonne bridge to ground level. After the successful removal of the footbridge,



Lawson Group utilised the use of a crane to remove the steel beams, which each weighed three tonnes, from the top floors of the car park.

Utilising findings from the structural engineer’s report the structure was split into four phased sections for the purpose of the methodology and demolition sequence.

All of the demolition work undertaken by Lawson Group was carried out in accordance with the NFDC High Reach Guidance, bay by bay in a methodical manner ensuring that the structural integrity of the building was maintained. The sequence within the methodology entailed the external lattice to be removed and lowered to the ground. The Crane was used to lower the pre-cut beams.



This process was utilised multiple times to ensure that the entire sixth floor steel work frame was removed.

The location of this project was a heavily pedestrianised area; therefore, Lawson Group undertook this work at night so that the crane had the access to complete this work. The complexity of this project required Lawson Group's specialist equipment including a reach excavator, specialist demolition skid steer and remote controlled Brokk.



The second phase of works were between grid lines 1-2 M-F, again commencing on the fifth floor and working progressively

down to the first floor including the central staircase and lift.

Lawson Group entered into the third phase of demolition by working through the grid lines 1-2 A-F, again starting on the fifth floor working progressively down to the first floor.



The demolition of Carlton Street car park was a four phased plan, with the final phase of the demolition requiring the removal of grid lines 2-3 A-F starting on the fifth floor working progressively down to the first floor and included the removal of the staircase and lift located in the South East corner. Within the final phase of demolition, the spiral ramp was also demolished, utilising the high reach excavator starting at the top and working down. Further consideration was given to works dust suppression, a dust boss water dampening system was utilised and targeted water spraying from height. Furthermore, dust and noise monitoring was completed throughout the works.



**RESULT:** At the end of each of the phases, the demolition arisings were crushed on site to a 6F2 specification so that they could be reused on site for the redevelopment. Lawson Group anticipated recycling 100% of the waste generated at Carlton Street multi-storey car park. This target was reached as the materials within the build consisted of concrete and steel.

The bridge was demolished with minimal disruption to the local residents and road network, as requested by the client. Throughout the project the bus station remained live at times, Lawson Demolition's project team were committed to working with the client and neighbouring businesses. Carlton Street multi-storey was successfully demolished and cleared over a 16-week period and the site handed back to the client for the next stage of regeneration.

To find out more on how Lawson Group can help with your next demolition or asbestos removal project, call 01793 782000, email [enquiries@lawsongroup.co.uk](mailto:enquiries@lawsongroup.co.uk) or visit [www.lawsongroup.co.uk](http://www.lawsongroup.co.uk)