

CRCP CONCRETE REPAIR PROJECT -A2 BOUGHTON BYPASS PHASE ONE & TWO



LMS Highways deliver CRCP and various other carriageway repairs to the A2, Boughton Bypass in multi phase programme.

Starting in mid June 2021 and running over three consecutive weekends the LMS Highways team delivered CRCP repairs, joint sealing and thin bond repairs to both the East & Westbound carriageway of the A2, Boughton Bypass.

All sections of damaged carriageway were removed using either our 5 tonne vacuum lifting plate or our bespoke lifting bucket, which compared to traditional equipment are capable of lifting and removing large sections of concrete without the need for breaking down in advance.

9	12	113	550
Shifts on Site	Meters ³ of Thin Bond Repairs	Meters ³ of Concrete Installed	Linear Metres of Joint Sealing
	Installed		Installed

Once these sections are removed we then proceed with prepping the bays with rebar before the concrete can be poured. Continuously reinforced concrete pavement (CRCP) is constructed with steel reinforcing bars placed within the concrete, continuously along the entire length of the pavement. The result is a continuous, smooth-riding surface capable of withstanding the heaviest traffic loads and the most adverse weather conditions.



Just shy of ten weeks later, in early September LMS Highways returned to Boughton Bypass to begin phase two of the package repairs which were delivered over ten consecutive weekends. Over this time the crews removed & repaired approximately:

2,200+ 2,400+ 84,800+

Shifts on Site

Tonnes of Concrete Removed

Linear Metres of Joint Sealing Installed Meters³ of Thin Bond Repairs Installed



During phase two of this project we were occasionally faced with severe weather conditions causing flooding throughout the site. This poses an issue as it prevents the concrete from being installed and in turn would delay the entire program schedule. For large scale projects such as these our team spends weeks meticulous planning and choreographing every aspect to ensure it's delivered on time, on budget and with little to no disruption.

This prior planning ensures when we are faced with issues such as flooding, our teams have the measures in place to overcome and continue on with the project safely. Multiple water pumps were deployed to remove resting water from the bays and sandbag dams were placed to redirect the flowing water away from are working area.



Once the new bays are installed we then diamond saw cut the joints before applying primer and seal with a hot applied N1 sealant, this step prevents water ingress which in turn extends the service life of the new concrete bays.

Additional repairs were made to the surface cracking by performing Thin Bond Repairs. This is a repair designed to fix thin surface cracking due to pavement movement, repairing broken slab corners and to reform levels between slabs. Thin Bond Repairs are installed by firstly planing out the crack and surrounding area to the diameter of 200mm wide by 50mm deep. This is then primed and infilled using Maxi Crete, which is a BBA approved, resin based, flexible repair material.



The CRCP Bay Replacement process is implemented within a short period of time and provides a long expected service life.