



CASE STUDY

Hychem futureproofs Sydney Harbour Bridge Cycleway Ramp

SUMMARY

Client

Transport for NSW

Location

Milsons Point, New South Wales

Challenge

Waterproofing a bridge deck beneath permanent architectural paving with zero tolerance for future remedial access.

Sector

Transport

Solution

A fully bonded, infrastructure-grade Matacryn RB solution providing long-term structural protection and reduced whole-of-life maintenance.

Outcome

The Matacryn® RB system significantly reduces the risk of reinforcement corrosion and extends the life of the structural concrete. The project successfully integrated infrastructure-grade protection with high-end architectural finishes, including public artwork.

Products

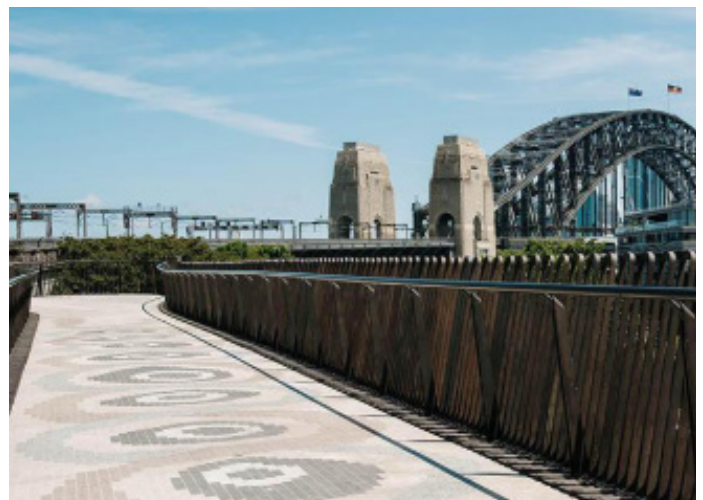
Matacryn® RB

Hychem Infrastructure, alongside Arenco and CPR Services, delivered a high-performance waterproofing solution for the Sydney Harbour Bridge Cycleway Ramp – Northern Access.

By implementing the advanced Matacryn® RB system, we have ensured long-term structural protection for this heritage-sensitive transport asset while supporting its complex architectural requirements.

The challenge

Delivered as part of Transport for NSW's cycling infrastructure upgrade program, the Northern Access Cycleway Ramp replaces a legacy stair-only connection with a continuous link at Milsons Point in Sydney. The primary engineering challenge involved installing waterproofing beneath permanent granite paving, which restricted the ability to access the membrane once construction was complete.



The system needed to resist high point loads imposed by stone pavers and ongoing maintenance activities, while accommodating structural movement and complex detailing associated with a bridge deck. These constraints demanded an approach aligned with long-term asset protection rather than short-term constructability.

The engineered solution

Hychem's engineers chose the Matacryn[®] RB system for this project due to its proven performance on bridge decks and high resistance to impact and indentation, making it appropriate for use beneath paver-supported finishes.

A critical feature of this system is its ability to form a seamless, fully bonded membrane that eliminates the risk of lateral water tracking, which is a vital consideration where future access is constrained.

The installation followed a disciplined, best-practice methodology where the concrete substrate was mechanically prepared to achieve a sound surface, with falls and drainage verified prior to membrane application.

A compatible primer was followed by the installation of the Matacryn[®] RB waterproofing membrane as a continuous layer, with particular attention given to detailing at changes of plane, parapets, and edge terminations to maintain continuity.

Following installation, protection and load-distribution layers were placed to isolate the waterproofing from construction damage and distribute loads from the granite paving system before the final architectural pavers and public artwork were installed.

Throughout the process, Hychem Infrastructure supported the principal contractor, Arenco, and specialist applicator, CPR Services, with system detailing, compliance guidance, and quality assurance oversight.

The outcome

The project successfully integrated infrastructure-grade protection with high-end architectural finishes, including public artwork.

By preventing moisture ingress and chloride penetration, the Matacryn[®] RB system significantly reduces the risk of reinforcement corrosion and extends the life of the structural concrete – a win-win for Transport for NSW.

The Sydney Harbour Bridge Cycleway Ramp now stands as a benchmark for achieving durable, low-risk outcomes where future access is limited. It's all part of the Hychem Infrastructure difference.

