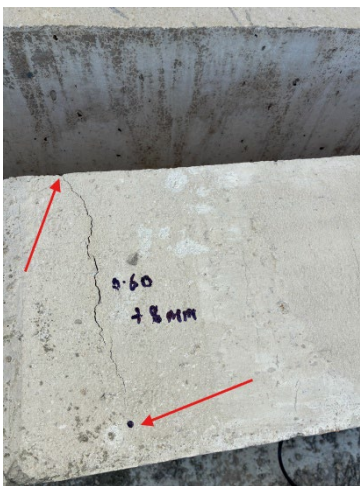
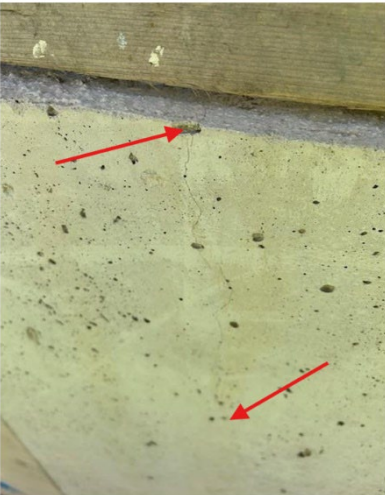




Concrete Cracking Swimming Pools

Initial inspection of Swimming pool walls & Scum Channels.

During the initial inspection of the swimming pool structure, several cracks were identified in the main pool walls and scum channels. Cracking was observed along the tops of scum channels, on the upper sections of the pool walls, adjacent to construction joints, and in isolated areas extending down the wall face.



The structural engineer inspected the cracking and confirmed that cracks located at construction joints measuring 0.2 mm to 0.25 mm were generally acceptable, as a hydrophilic water bar strip had been incorporated within the joint.

However, cracks identified on the top surfaces of walls and within the scum channels measured between 0.5 mm and 0.8 mm, exceeding the project crack width limit of 0.2 mm.

Likely Cause

The excessive cracking was attributed to plastic shrinkage caused by rapid moisture loss from the concrete surface. Contributing factors included high wind conditions during and after concrete placement, accelerated surface drying, inadequate protection of exposed concrete surfaces, and insufficient curing measures during critical early-age concrete strength development.



Cracks exceeded the project specification limit of 0.2 mm.

Remedial repairs were required, including shot blasting and surface preparation works. Additional costs were incurred and follow-on trades experienced programme delays.

Insert key information here:

- Fully understand the structural design requirements, crack width limits, and project specifications before commencing works.
- Review weather forecasts before concrete pours and implement additional controls during hot, dry, or windy conditions.
- Ensure adequate resources and materials are available to commence curing immediately after finishing operations.
- Apply approved curing methods, including continuous water curing, spray-applied curing compounds, protective coverings, membranes, and windbreaks where required.
- Protect exposed horizontal concrete surfaces from rapid evaporation.
- Monitor curing effectiveness and record inspections during the curing period.

☐	Brickwork / Blockwork	☐	Design	☐	DFMA (Offsite Manufacture)	☒	Doors & Windows	☐	Drainage	☐	Electrical	☐	FFE (Furnishings, Fixing & Equipment)
☒	Fire & Lightening	☒	Floor Coverings	☐	Frames & Superstructure	☐	Internal Walls, Partitions & Ceilings	☐	Joinery & General Carpentry	☐	Miscellaneous	☐	Painting
☐	Public Health (Water)	☐	Roads, Paths, Paving & Surfacing	☐	Roof	☐	Services & Systems	☐	Site Preparation Works	☐	Substructure	☐	Walling (Tiling & Finished)

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