Warrnambool Christ Church



The place

STUDY

ASE

The Christ Church Complex in Warrnambool comprises



the church, rectory, hall, school building and stable, as well as a First World War stone memorial in the church grounds, all enclosed by a stone wall.

Designed by architect Nathaniel Billing, the original limestone church was completed in 1856. A porch, bell tower and other additions were made over subsequent decades. The tower was added in 1880 to a design by Melbourne architects Terry & Oakden and Warrnambool architect Andrew Kerr.

The complex is managed by the Parish of Warrnambool Council of the Anglican Diocese of Ballarat.





Location Warrnambool, City of Warrnambool

Traditional Owners

Eastern Maar People

Main Impacts



Sea levels **rising** by around **24 cm**



More **intense** downpours

Туре

19th century church complex, comprising:

- limestone masonry walls, stained glass and tiled roofs
- o garden with a memorial and plants.

Heritage Listing

Victorian Heritage Register





Interior paint was removed in January 2022 to enhance the breathability of the materials.

Heritage significance

The Christ Church Complex is significant for its association with the early history of the Anglican Church in Victoria and as a rare intact nineteenth century church complex combining religious, educational and recreational facilities. It is important architecturally as an example of the early work of architect Nathaniel Billing and for the involvement of architects Terry & Oakden and Andrew Kerr. Notable too are its visually cohesive design, with its fine Gothic detailing, use of locally quarried limestone and the quality of its interior decoration, fixtures and fittings.

Climate change impacts

Although the site is on high ground, local sea-level rise would affect the broader township area in which the complex is situated. Increased airborne salinity, which is already a major challenge because of the coastal location of the site and its vulnerable materials, will compound existing conservation issues.

The complex will experience more intense and frequent storms, higher daily and mean temperatures, and longer drought periods as a result of climate change.

Site vulnerability and heritage impacts

Climate change impacts will exacerbate conservation problems already experienced at the site. In particular, the soft limestone blocks and lime mortars used to construct the buildings are highly susceptible to salt penetration and weathering. The increasing intensity of storms will drive salt deeper into the walls and increase surface weathering, making conservation and maintenance even more difficult. Damage has already occurred to the church tower and walls, and deposits of salt on the inlaid tile work of the war memorial have had to be removed. Original paint schemes uncovered by recent conservation works will be threatened by an increase in levels of salinity and moisture.

There have also been unexpected indirect impacts at the site. For example, after severe bushfires in the Grampians (Gariwerd) region, cockatoos and corellas migrated to Warrnambool and caused physical damage to the soft limestone in buildings in the area including the church.

The site's exposed position leaves it vulnerable to damage caused by extreme weather. The existing gutters and site drainage systems could be overwhelmed in severe storms, causing flooding and associated damage to infrastructure.



Salt deposition on limestone from gutter and downpipe overflow.

Stained-glass windows facing north and west are particularly vulnerable to hailstorms, which are expected to be more frequent and severe. Lack of capacity in gutters and downpipes could result in overflowing gutters, allowing excess water to flow back into the building and causing water damage to the building fabric, interior finishes and fit-out.

The gardens surrounding the church, which provide a valued reflective green space for the wider community, will become more difficult to maintain in an increasingly hotter, drier and more storm-prone climate.

Current management for climate resilience

Although there is a conservation management plan for the site, including the interior of the church, it does not consider the effects of climate change.

The parish council is working with a consultant with expertise in materials conservation to mitigate the deterioration of the fabric. The proposed works include removing asbestos panelling and layers of acrylic and lead-based paint from porous stone surfaces to ensure breathability and allow the moisture content of the stone to be monitored. These conservation works are addressing the weathering and decaying of materials already caused by the slow accumulation of salt over time, but will help mitigate the acceleration of this problem that is expected under climate change.

In addition to existing conservation works, the addition of limewash or a similar porous substance is to be trialled to establish the rate of salt deposition.

Potential strategies for building resilience

A detailed survey and review of the fabric is needed to determine the materials, techniques and priorities for minimising water and salt penetration into the materials and preventing bird damage. Immediate actions that would improve climate resilience include:

 ensuring that gutters, downpipes and drains are cleaned as part of regular maintenance, and replaced if their condition risks further decay of buildings

- inspecting roofs annually to check for failing or dislodged fixings, flashings and capping, and effecting repairs promptly
- reviewing drainage and maintaining air drains around walls to minimise moisture against walls and reduce damp
- enlarging the gutter and downpipes to enhance the building's drainage capacity (using the same profile will have minimal visual impact).

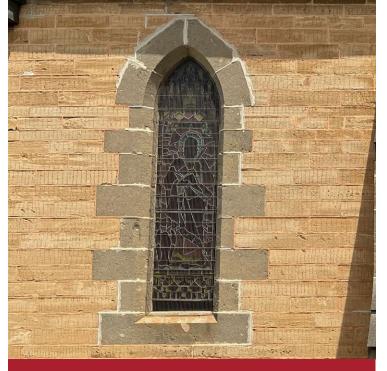
Other considerations for climate resilience at the site include installing discreet protection for stainedglass windows, reassessing roof and stormwater drainage capacity in the light of increased intensity of rainfall and storms, and developing water resilience strategies to safeguard plants and gardens.

It will be important to build awareness among the church community because conservation works, which will enhance the significance of the place, will also result in some changes in the appearance of the place, such as limewashing of the interior.



Entrance to church showing salt damage to limestone.





A stained-glass window on the western wall of the church. Note the protective mesh installed to protect the window from storms and other damage.

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