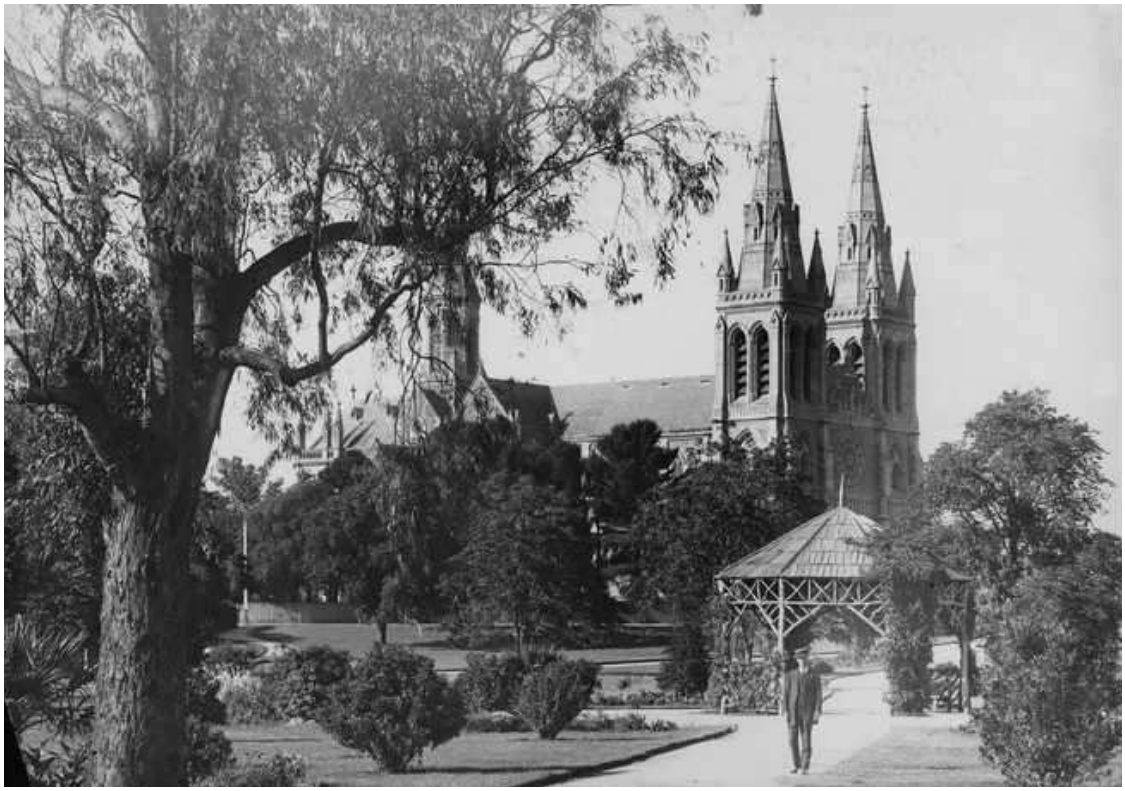

CONSERVATION STRATEGY

ST PETER'S CATHEDRAL NORTH ADELAIDE

March 2014

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***Note** – this report refers to the Front elevation as the East (Liturgical West) elevation. It therefore describes the Lady Chapel as the West Elevation, the car park the North Elevation, and the Memorial Garden the South Elevation.*

PROVIDED SEPARATELY:

Photographs of Cathedral - Provided on CD and labelled, as record of current condition

DILAPIDATION SURVEY OF CATHEDRAL
Plans and external elevations – A3 format - 33 drawings

Front cover photograph:
St. Peters Cathedral, seen from Pennington Park, North Adelaide, c1900
(Source: State Library of South Australia B766)

EXECUTIVE SUMMARY

St Peter's Cathedral was constructed in five major stages as follows:

Stage One – 1869-1878 (Sanctuary, Choir, Transepts and One Bay of the Nave)

Stage Two – 1890-1894 Lower Section of Three Bays of the Nave

Stage Three – 1899-1901 Upper Section of Three Bays of the Nave

Stage Four – 1901 - Towers & Spires

Stage Five – 1902-1904 Lady Chapel

It is recommended that this Conservation Strategy Plan becomes the primary guiding document for the conservation and ongoing management of the Cathedral, to ensure that all future decisions are carried out with regard to its cultural heritage significance. This report should be formally adopted by the Cathedral as its guiding policy document for the Cathedral.

The physical inspection of the Cathedral for the preparation of the separate dilapidation schedule was undertaken during October and November 2013. It should be noted that not all parts of the Cathedral could be accessed via the boom crane used due to limited reach at very high levels. These included the lantern cross, the very top of the front spires, and the section on the south elevation at the lantern crossing.

SUMMARY OF RECOMMENDATIONS

Heritage Significance and Conservation Objectives

St Peters Cathedral is included on the State Heritage Register and the Register of the National Estate. This report outlines its Statement of Cultural Significance, delineating the significant fabric and components (refer Section 3 this report).

Heritage Listing Implications

Any proposed works to the Cathedral will require Development Approval from the Adelaide City Council. As part of this approval process, reference will be made to the State Heritage Branch of South Australia for works (refer Section 8 of this report). All works should be undertaken to the direction of a Conservation Architect to ensure that significant fabric of the building is appropriately handled.

Structural Condition

An engineer's assessment has outlined that there are no immediate structural issues for the Cathedral and the building is in sound condition. However there are some works which are recommended to be undertaken, which can be summarised as follows: - refer Section 4.4 and Appendix 5.

The load bearing stone walls are generally in good condition, with little sign of cracking due to load bearing stresses, except for the arches supporting the lantern tower. These arches have cracking in the eastern vertical faces, probably caused by structural stresses.

The roof timbers within the nave roof are generally in very good condition.

The engineer outlines structural implications of the site observations, for "normal conditions" which exclude unusual loads from high winds and earthquakes, and for "extreme conditions" which include the forces from high winds and earthquake.

Recommendations for defects to be rectified as follows for "normal conditions"

- Provide plywood gusset plates to restrain the top of the central timber vertical in the roof trusses
- Replace the ceiling walkway and roof access platform
- Provide plywood strengthening plates along split roof timbers

- Review the condition of the roof crosses regularly (maximum biannually) for deterioration and repair as necessary, or alternatively carry out restorative work to all roof crosses now.

Under Extreme conditions the following recommendations are outlined:

- The arches supporting the lantern tower should be subject to examination (from a scaffolding tower) to check whether the cracking extends into the masonry, or whether the cracking is superficial.
- Secure appendages such as crosses and pinnacles
- Tie gable walls to the roof structure
- Reinforce the lower roof levels so that the roof structure can act as a diaphragm spanning between end walls, and tie the roof to the walls.
- Reinforce the upper roof structure above the ceiling level to act as a diaphragm and possibly strengthen the trusses
- Check the supporting arches of the lantern tower, possibly strengthen for lateral loads
- Check the eastern towers, steel internal framing probably required to strengthen above roof level.
- Check the piers and buttresses of the Chancel and Transept for lateral loads, probably reinforce.

Conservation Policies and Implementation

Section 4 of this report outlines the current condition of the Cathedral, Section 5 the associated Conservation Policies, and Section 6 the Recommended Conservation Actions.

Management Issues, Conservation and Maintenance Works

Section 7 of this report outlines recommended Management issues including the following:.

A systematic **program of maintenance** is required for the Cathedral to ensure that no elements deteriorate further. A **systematic archival system** also needs to be established for the Cathedral, holding the early drawings, reports and early photographs.
Once the priorities for works have been agreed these **will need to be documented** either as separate trade packages or a single contract for implementation as funds allow. This will require the **engagement of an experienced conservation architect** to undertake this documentation based on this report and Dilapidation Survey. Advice will also be needed by a stone consultant during the course of the works. The Cathedral will also need to **establish relevant committees** to ensure the implementation of the recommendations of this report.

Priorities and Key Recommendations – *Refer Section 8*

Following from the condition analysis and recommendations provided in Section 4, the following priorities are recommended:

Urgent Works

- **Current access arrangements for roof maintenance** - these are considered a high risk for both the Cathedral and the roofing contractor. A roof safety access audit inspection has been undertaken by Joe Tindal of Hallweld Bennett Pty Ltd. This report provides recommendations for making the maintenance and regular cleaning of gutters accord with current access standards. Currently these are not in accordance with current safety requirements, and therefore it is considered that the Cathedral is at risk should there be an accident (refer report Appendix 6). Refer also section 4.4 which outlines that the internal roof access passage flooring is not safe.

  Rectification of Splitting in the central vertical timber of the nave ceiling truss, and some opening of the top connection joint of the central vertical, repairs to minor splits in other timbers – as per engineers instructions

- **Roofing Works** – re-leading of ridges and flashing of clerestory and aisle gutters, and associated storm-water works. This would prevent any future leaks to the roof.

Priorities of remaining Conservation Work – given that an overall and comprehensive conservation project for the Cathedral is the ideal, it is also acknowledged that staging of works will be required as funds are made available.

Therefore this Conservation Strategy recommends priorities which are as follows:

High Priority Works

- **Front (East) Façade and Towers –** these are major works and would have the most visual impact, and therefore are seen as a high priority. Given the deteriorated condition of the limestone on the towers, there is some urgency in undertaking this work. Works would include all stone conservation and repairs, in addition to façade cleaning. Restoration of the leadlight windows in the tower room would be undertaken when the scaffolding is in place.
- **Insertion of "air drain" or section which allows base of the wall to breathe on north side of Cathedral –** where bitumen has been laid directly up to the base of the wall. (Refer Section 4.1)

Medium Priority Works

- **Stage Three: North façade Conservation Works** (excluding Lady Chapel section and including leadlight repair work and installation of window protection system).
- **Stage Four: South façade Conservation Works** (excluding Lady Chapel section and including leadlight repair work and installation of window protection system).
- **Stage Five: Internal repairs** associated with previous leaks.

Long Term Works

- **Stage Six: Lady Chapel Works** including leadlight repair work and installation of window protection system. As the Lady Chapel is the least visible section of the Cathedral, it is considered to be long term works.
- **Stage Seven: Conservation Works to limestone wall** separating Cathedral and Cathedral Office Complex.

1.0 INTRODUCTION

1.1 Background

St Peter's Cathedral is located on King William Road, being a prominent element as one travels up King William Road into North Adelaide. It is one of Adelaide's most significant ecclesiastical buildings. It was erected in five main stages between 1868 and 1904.

This report has been commissioned by the St Peter's Cathedral property committee.

This Conservation Strategy for St Peter's Cathedral focuses on the requirements and priorities for conservation of the Cathedral building, providing ongoing management and maintenance recommendations. It summarises existing information on the heritage significance of the building to provide the necessary background context, and focuses on the existing condition of the building, and the need to establish priorities for its conservation in the future. The report is to become the primary guiding document for the Cathedral.

The physical inspection of the cathedral for the preparation of this report and the separate dilapidation schedule was undertaken during October and November 2013.

1.2 Objectives of Conservation Strategy Document

The Conservation Strategy report aims to:

- Assist the Cathedral to meet their corporate objectives and statutory requirements.
- To be a primary guiding document for the Cathedral office for the conservation and future management of the Cathedral.
- Ensure that all future decisions are carried out with regard to the building's very high cultural heritage significance.
- Provide a basis for any future physical conservation works.
- Inform and guide stakeholders such as the Cathedral Steering Committee, the State Heritage Unit of South Australia, the Adelaide City Council and other relevant parties about the future for the complex.
- Develop forward looking policies in the context of current legislative requirements.
- Provide a basis for fundraising for a major Restoration Fund for the Cathedral.

1.3 Existing Heritage Listings

The Cathedral Church of St Peter's Adelaide is included on the Register of the National Estate (Place ID 6405) (Federal Government listing of significant places by the Australian Heritage Commission) and is included on the South Australian Heritage Register as a place of State Significance (Item No: 13612). Any conservation works to be undertaken to this building will therefore require Approval from the State Heritage Unit, and also from the Adelaide City Council where a Development Application will need to be made for any conservation works. Due to the significance of the building, any works carried out on the building need to be undertaken to the highest of conservation standards, as guided by this report.

1.4 Location of Site

St Peters Cathedral is located at 27 King William Road, North Adelaide.

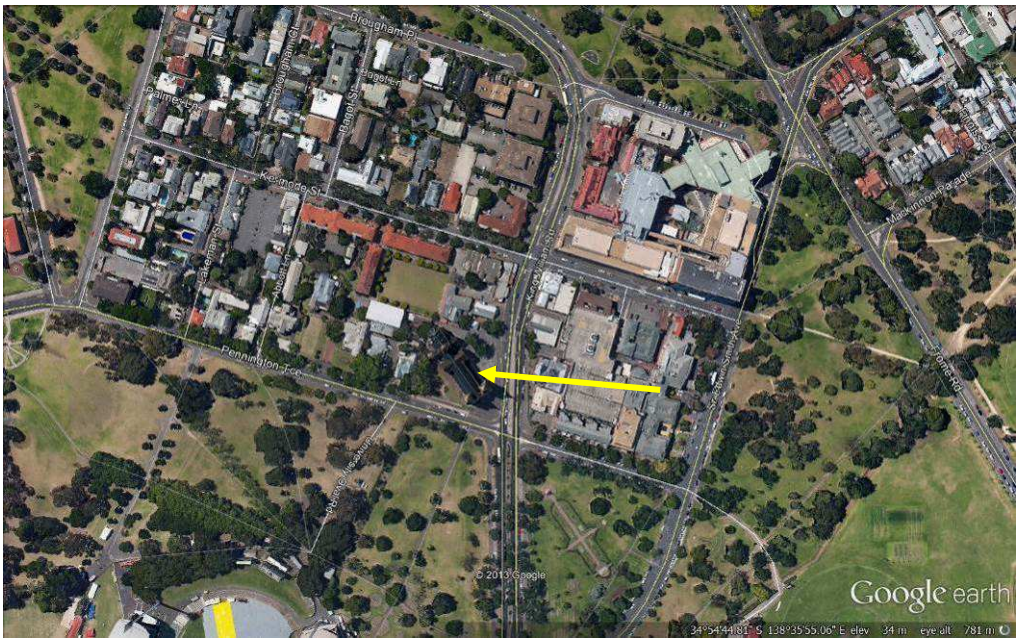


FIGURE 1: LOCATION OF ST PETER'S CATHEDRAL

1.5 Current Ownership and Management of the Cathedral

The Cathedral land and buildings are owned by the Diocese of Adelaide. The Cathedral management is governed by the Cathedral Ordinance of the Anglican Diocese of Adelaide http://www.adelaide.anglican.com.au/assets/Uploads/d08.pdf

The affairs of the Cathedral are governed by the Cathedral Council as follows: (extract from Ordinance)

> 20. (1) The Cathedral Council shall consist of:
> (a) The Bishop;
> (b) The Dean;
> (c) The Canon Pastor;
> (d) One member of the Church appointed by the Bishop;
> (e) One member of the Church appointed by the Diocesan Council;
> (f) The Churchwardens;
> (g) Six members of the Vestry who shall hold office for terms of two years, and of whom one shall be appointed by the Dean and two shall be elected by the Vestry at each Annual Vestry Meeting of the congregation; and
> (h) Up to three members of the Church appointed for a period of one year by the Cathedral Council.

For any recommended maintenance or conservation works, the relevant sections of the ordinance include sections 9, 17 (b), 19 (1), 21 & 23, and particularly 29 & 30 (where Diocesan Council has to give approval for any alterations etc to buildings.

> Contracts by Cathedral Council
> 30. The Cathedral Council shall not enter into any agreement contract or arrangement at any time for the maintenance of the Cathedral property or for the erection of any building on Cathedral property for an amount in excess of the amount fixed from time to time by the Diocesan Council without the prior written consent of the Diocesan Council. Unless the Diocesan Council shall otherwise determine, the amount referred to in this section shall be the amount fixed from time to time for the purposes of section 85 of the Parochial Administration Ordinance 1985.

A Property Committee deals with day to day maintenance of the Cathedral.

The Executive of the Cathedral Council at the time of this report preparation was:

- Frank Nelson – Dean
- Baden Teague - Warden
- Stephen Matthew – Warden
- Kevin Stracey – Treasurer
- Di Nicholls – Chair of Property Committee
- Angela Evans

1.6 Acknowledgements

The following people assisted greatly in the preparation of this document:

- Mark Butcher, Heritage Architect for the Cathedral from 1989 – 1993 – worked at Woods Bagot during this period and provided helpful feedback on works undertaken during that period.
- David Holliday, Woods Bagot – archivist, who assisted us in accessing and locating early and recent drawings of the cathedral
- Frank Nelson , Dean of St Peters Cathedral
- Denis Falland, Office and Facilities Manager
- Kate Palmrose, Secretary, St Peters Cathedral
- Kevin O'Sullivan and Simon Weidenhofer, Adelaide City Council

1.7 Authors of this Report

This report has been prepared by Elizabeth Vines Conservation Architect and Katrina McDougall Architectural Historian, with all report layout and project management by Stephanie Wheal.

Sub-consultants used during the preparation of this report were:

- Jim Mann, Stone Consultant and Stone Engineer
- Keith McAllister, Stone Conservation Consultant
- Jim Wilson, Structural Engineers
- Erni Tinesz – The Glass Foundry Lead Lights
- James Henry and Peter Norman, Slate Roofing specialists
- Joe Tindale, Roof Auditor
- Bob Friend, Quantity Surveyor

2.0 HISTORICAL OUTLINE AND ARCHITECTURAL ANALYSIS[1]

2.1 Historical Development of St Peter's Cathedral

2.1.1 Planning for the Cathedral 1847-1862

The declaration of a Cathedral Church for Adelaide was fist noted in the Letters Patent, issued under the hand of Queen Victoria and the Great Seal of Britain on 28 June 1847, via which the See of Adelaide was constituted. This identified Trinity Church as the first Cathedral Church in South Australia.

Bishop Augustus Short (the first Anglican Bishop of Adelaide) arrived in the Colony of South Australia on 28 December 1847, and brought with him plans for a Cathedral prepared by the English Architect William Butterfield. Bishop Short was enthroned in Trinity Church two days after his arrival. At a reception given by Governor Robe, he mentioned that the SPCK (Society for Promoting Christian Knowledge) had promised £1,000 towards the erection of a Cathedral in Adelaide. This sum was doubled by a benefaction by Captain William Allen, and another £300 was donated by Short. This fund was sufficient for the encouragement of the erection of a Cathedral.

In March, 1848, Governor Robe conveyed to the Bishop an acre of land in the centre of Victoria Square, as a site for the Cathedral. The Bishop took possession of the site, and in 1854 plans for a Cathedral Church on this site were prepared for Bishop Short by the English architects Habershon when he was in England. However, the Corporation of the City of Adelaide refused to recognise the Bishop's title to the land. Litigation followed and Bishop Short lost the case in 1855.

In 1862 land just over one acre in extent was purchased at the corner of Pennington Terrace and John Street (King William Road) for £1,052/10/- and in 1868 Bishop Short announced that he had decided to begin the erection of the Cathedral on the site. In 1876 Bishop Short travelled to Britain and while there obtained further plates from William Butterfield. However a disagreement arose between Bishop Short and William Butterfield on the selection and design of the external materials proposed for the Cathedral. The extensive use of polychrome and patterned brick, so much in fashion in Britain at the time, was viewed differently in the Colony where a more conservative approach prevailed. The impasse was resolved by Bishop Short purchasing the plans.

2.1.2 Stage One – 1869-1878 (Sanctuary, Choir, Transepts and One Bay of the Nave)

The design of the Cathedral as originally intended was similar to the Cathedral designed by the English architect, William Butterfield, for Perth, Scotland. Butterfield's design was described as *'... cruciform with transepts not projecting beyond the aisles and a low pyramid capped central tower,'* not dissimilar to Butterfield's design for the Cathedral Adelaide. In the first instance, the building was desired to be built of brick for the reasons of *'providing Cathedral character at the cheapest possible rate'.* Butterfield produced two revisions of the scheme. In 1869 Short engaged the architect Edward John Woods to modify the previous scheme.

Bishop Short requested Woods to revise Butterfield's Cathedral plans, due to the extensive use of coloured banding and detail, or polychrome work. This was in vogue in England, but rejected locally because of Colonial conservatism and the distance of South Australia from architectural developments in Europe. In order to be free to undertake the necessary design alterations, Short purchased the plans and the polychrome work and textural variety so favoured by Butterfield was replaced by simpler ashlar sandstone and limestone masonry.

When tenders for the Cathedral were called on the twenty second anniversary of the installation of Bishop Short, it was stated that *'the design is by Mr Butterfield, but it has been somewhat modified by Mr Woods ... to whom superintendence of the work has been entrusted.'* Internal dimensions of the first stage of the Cathedral were given as 168 ft x 58 ft, with a height of 70 ft to the ridge. An estimate of the cost of construction was given as between £20,000 and £25,000.

[1] Information in this section is adapted from the Woods Bagot Pty Ltd *Conservation Plan for the Cathedral Church of St Peter's*, March 1995 and Donovan, Marsden, Stark, *City of Adelaide Heritage Survey*, 1981-1986: Item No. 271, "St Peters Anglican Cathedral" Paul B Stark, Department of City Planning, 11 April 1984

The foundation stone was laid on 29 June 1869, by Bishop Short although the building remained incomplete until the early twentieth century. On 29 June 1876 the first divine service was held in the first completed portion of the Cathedral, the Sanctuary, Choir, Transepts and one bay of the Nave. The main contractors were Brown and Thompson, (previously English and Brown). On 1 January 1878, this section of the Cathedral was consecrated.

St. Peter's Cathedral, Adelaide, drawn by a clergyman from the design by Architect William Butterfield, 1860

(Source: State Library of South Australia B1974)

Architectural drawing of St. Peter's Cathedral, Adelaide, c1870 – note not yet built as such

(Source: State Library of South Australia B1979) – note prior to Lady Chapel

2.1.3 Stage Two – 1890-1894 Lower Section of Three Bays of the Nave

In 1890 the work of completion was begun by Bishop Kennion. The corner stone of the nave and towers was laid on 27 September 1890 by the Earl of Kintore, although the work, (for which JJ Leahy was responsible) ceased after completion of the lower nave wall levels in 1894 due to inadequate funds.

2.1.4 Stage Three – 1899-1901 Upper Section of Three Bays of the Nave

A bequest from the Estate of Sir Thomas Elder of £4,000 made in 1897 allowed tenders to be requested for the completion of the building, and a contract was let for £7,986 on 23 May 1899. The consecration of the completed nave took place on 14 July 1901.

2.1.5 Stage Four – 1901 - Towers & Spires

A donation of £10,000 was received from Robert Barr-Smith in 1901 to complete the towers and spires and incorporate an apse at the chancel end. WC Torode was the contractor for the erection of the spires. The towers and spires were completed and dedicated on 7 December 1902.

2.1.6 Stage Five – 1902-1904 Lady Chapel

The chancel of the Cathedral was extended by the erection of a Lady Chapel with vestries below through the generosity of Mrs Priscilla Simms, widow of a former Church warden. The consecration of this additional area, also designed by E J Woods, took place on 7 April, 1904. At this time, the porch facing Pennington Terrace and three Lady Chapel windows were consecrated, the windows being by the prominent London company of stained glass-makers, James Powell & Sons and the gift of Robert Barr-Smith.

2.1.7 Other Major Works and Items Funded by Appeals and Bequests

1910 – Reredos - Mrs Simms' gift (see Stage Five above) also provided for a Reredos, but this was unfinished for some years. It was designed by Mr J H Lyon, from Cambridge, UK, and completed and dedicated on 6 March 1910 by the fourth Bishop of Adelaide, Dr Arthur Nutter Thomas.

1927 – New organ, installation of electric lighting, new stalls, external landscaping - In early 1925 Bishop Thomas launched an appeal for a maintenance and endowment fund for the Cathedral to, among other things, provide for a new organ, the installation of electric lighting, new Canons and Choir Stalls, and external landscaping works to finish the Cathedral off. These works were dedicated in 1927. The major stained glass window in the Cathedral (in the North Transept) was also installed at about this time. Designed by CE Kempe and Company of London, it was dedicated on 15 August 1926.

1947 – Cathedral bells installed and dedicated - A bequest by Frederick Lakeman, a former warden of the Cathedral, enabled the Cathedral Bells to be acquired, These were dedicated on 29 June 1947 by Bishop Robin. The first peal was rung by a team of members of the New South Wales Change Ringers Association. The Tenor Bell, known as Great Frederick after Frederick Lakeman, is said to be the largest and heaviest bell in the southern hemisphere.

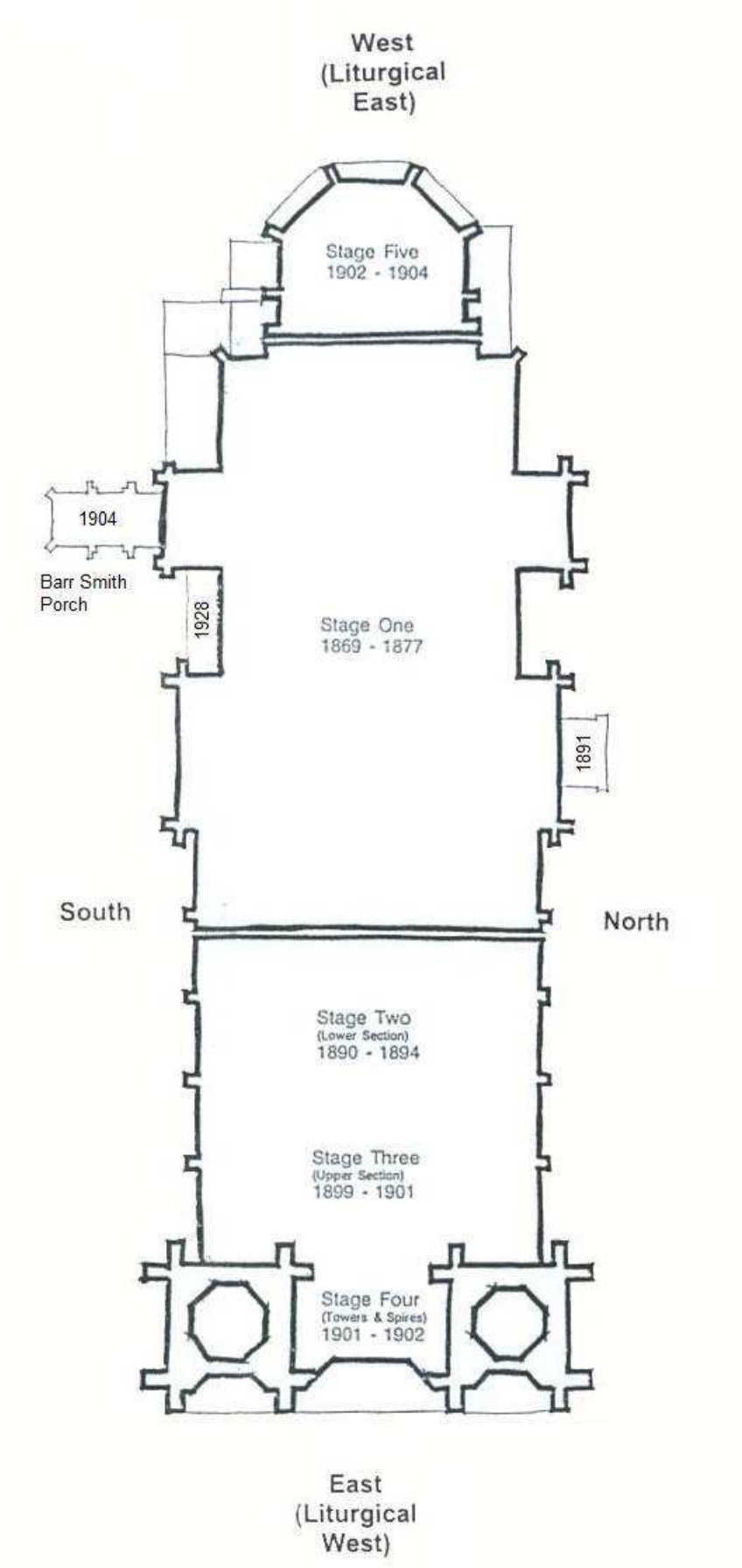


FIGURE 1: PLAN SHOWING STAGES OF CONSTRUCTION OF ST PETER'S CATHEDRAL (Not to Scale)

N (for report purposes)

2.1.8 Setting

The external setting was originally finalised as part of the works initiated under Bishop Thomas's Appeal in 1925. The stone wall to King William Road (then John Street) and the corrugated iron fence to Pennington Terrace were both removed and replaced by low masonry walls. A continuous cast iron fence was to have topped this low wall. However, a lack of funds is thought to have restricted its implementation to two small sections on either side of the main doors in the East Front. The old timber Church Hall was removed from its position on the Pennington Terrace lawn and relocated behind the Cathedral, becoming the John Dunn Music Room. The toilets next to the western fence (ie the fence between the Cathedral and the Manse) were removed and lawns laid out around the Memorial Cross. This work effectively completed the building of the Cathedral and constituted the finished Cathedral grounds layout.

The War Memorial Cross was erected in 1992 on the southern side of the Cathedral within a garden area designed especially to focus on the cross. This cross was a replica of that designed by the Englishmen Sir Reginald Bloomfield RA for the soldiers' cemeteries in France and Flanders.

St Peter's Cathedral, c1880 – Stage One

(Source: State Library of South Australia B62414_1_52)

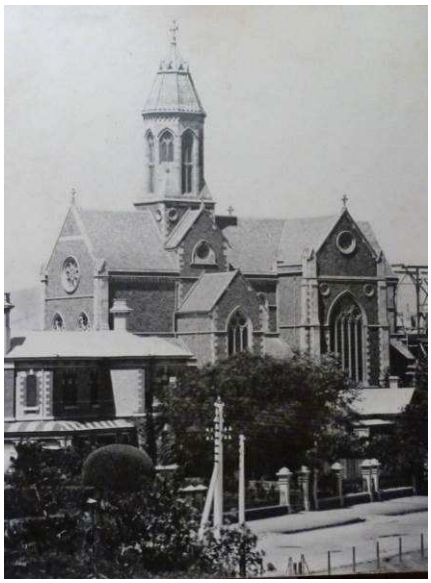
St Peter's Cathedral, c1880 – Stage One

Source: State Library of South Australia B4661)

St Peter's Cathedral, c1890 - Stage One

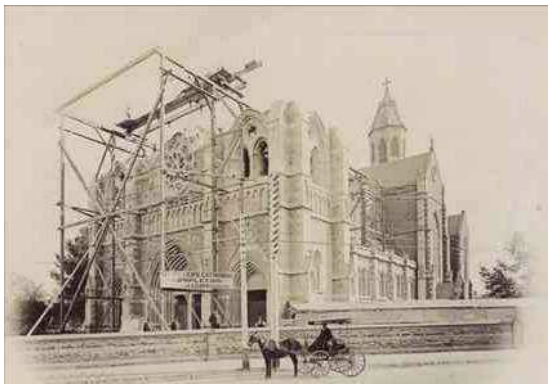
Only one bay of the nave erected

(Source: State Library of South Australia B5335)



View of construction, c1890 Note Nave roof framing on RHS

(Source: Anglican Church)

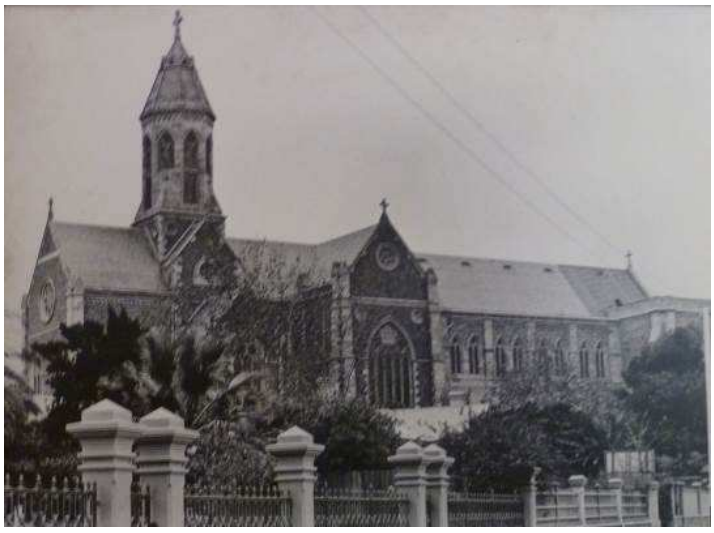


St Peter's Cathedral, c1890 - Stage Two

(Source: State Library of South Australia B22255)

St Peter's Cathedral, c1895 - Stage Two and Three

(Source: State Library of South Australia SR994_A1_26_7)



St Peter's Cathedral, c1895 - Stage Three (spires not yet built)

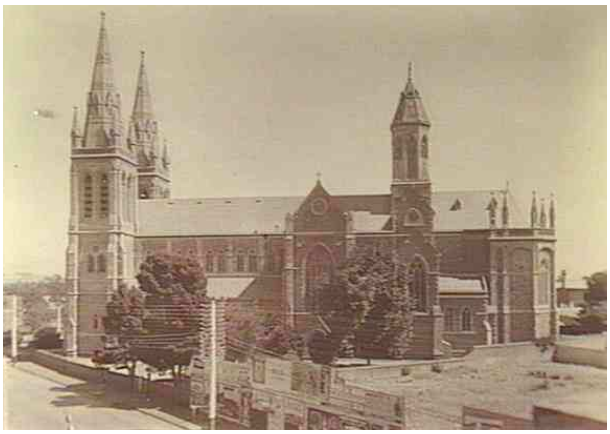
(Source: Anglican Church)

Construction of the Spires, c1900 – Stage Four

(Source: Anglican Church)

The completed nave, gallery and rose window in the east end, and baptismal font behind the seating at left, c1895 – Stage 4

(Source: State Library of South Australia SRG94_A1_26_11)



Looking towards St Peter's Cathedral - Stage 5

(Source: State Library of South Australia B4432)

Looking towards St Peter's Cathedral across public gardens in North Adelaide, c1910 - Stage 5

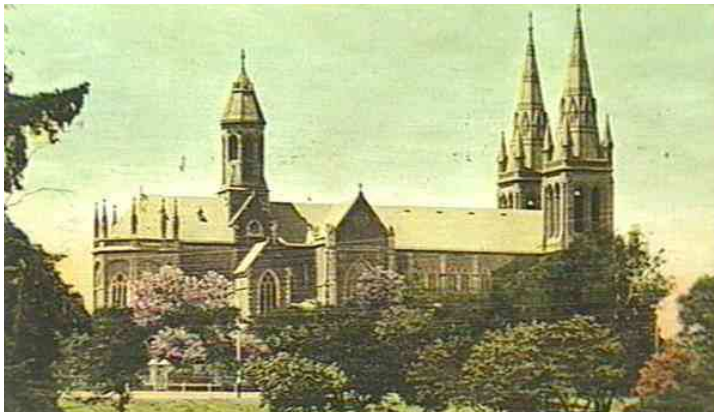
(Source: State Library of South Australia PRG280_1_13_396)

St Peter's Cathedral, c1920 - Stage 5

(Source: State Library of South Australia B15120)

Lady Chapel seen from grounds of St Mark's College, c1930

(Source: State Library of South Australia SRG94_A1_26_24)



Postcard of St Peters Cathedral and the Cross of Sacrifice, c1930

(Source: State Library of South Australia B42663)

Overhead view of St. Peter's Cathedral and the surrounding parklands in North Adelaide, South Australia, c1936

(Source: State Library of South Australia B64029)

c1940 view of St Peter's Cathedral

(Source: State Library of South Australia B23383)

2.2 Architectural Description and Analysis

The design of St Peter's Cathedral is a product of the two architects originally involved, William Butterfield and Edward John Woods. William Butterfield, an architect well known in Britain in the 1850's and 1860's, prepared the original plans for St Peter's Cathedral in 1866-67. His basic design, with the exception of the east front and Lady Chapel, is still discernible in St Peter's as it is seen today. However, the original plans were modified by Edward John Woods at the request of Bishop Short. EJ Woods was an Adelaide architect who had arrived in the colony a few years earlier from Britain. He revised the original design which allowed the first stage of construction to commence, and then extensively redesigned the east front, which in design terms was his major contribution to the overall design. He also designed the Lady Chapel which was added onto the western end of the Cathedral. EJ Woods supervised the building of the Cathedral, which was begun in 1869 and finished in 1904 with the completion of the Lady Chapel. Taking into account the changes that were made to the original plans, the finished design is arguably more attributable to EJ Woods than William Butterfield.

The relationship between William Butterfield's design and the modifications of EJ Woods reflect the differences that existed at that time between the infant colony of South Australia and the mature and confident society that was Great Britain. William Butterfield's design was an elegant and sophisticated design which expressed the architectural fashion of the day in Britain. His design for All Saints Church in Moorgate London is typical of his work. Colonial taste and fashion, however, were more conservative. Bishop Short could not accept the extensive use of polychrome and patterned brickwork that William Butterfield proposed for the exterior, and consequently this was changed to stone by EJ Woods. This was a major departure from William Butterfield's design. An additional bay was also added to the nave, windows were added to the aisles, and some decorative elements deleted from the top of the transepts. The East (liturgical west) Front was redesigned, and the Lady Chapel added to the western end of the Cathedral. The finished building was significantly different to that originally designed by William Butterfield.

The East (liturgical west) Front is of particular interest for its French influenced design. The taller towers and spires also made the lantern tower subservient to the west front, the opposite of that proposed by William Butterfield. The East Front dominates the Cathedral and that part of North Adelaide, and represents the popular image of the Cathedral. Situated at the 'top end' of King William Street, the imposing towers and spires of St Peter's contribute significantly to its landmark status in Adelaide.

A detailed analysis of the resolution of the design for St Peter's Cathedral and its 'French influence' is described in an article by Donald Leslie Johnson entitled *'French and English influences on the architecture of' St Peter's Cathedral, Adelaide*.' The respective influences are examined in quite some detail, including the relationship with Pugin's 1839 design for the Cathedral of St Chad in Birmingham, Notre Dame Cathedral in Paris, and the church of St Jean-Baptiste-de-Belleville, also in Paris. The latter was designed by the French architect Lassus as a 'miniature cathedral', and is very similar to St Peter's in the appearance of its east (liturgical west) front. Johnson attributes the 'French influence' seen in St Peter's in the follow of the east (liturgical west) front to EJ Woods, and notes the relatively faithful implementation of Butterfield's design elsewhere, allowing for the obvious fraternal changes and the additional nave bay.

The design of the east (liturgical west) front by EJ Woods was modified when it was actually built. The height was reduced by approximately 2½ metres, reputedly in the interests of economy and time saving. This became a much discussed alteration in subsequent years, and even today there are those who consider that this change compromised the dignity and effect of the west front.

The finished floor plan of the Cathedral is seen in Figure 2. The construction of this was carried out via a number of contracts, effectively spread over five stages. The last three were implemented more or less continuously, so in terms of actual building stages the construction of the Cathedral was achieved in three periods.

St Peter's Cathedral today is seen as being an important example of the Gothic Revival style in Australia. Erected over a period of thirty five years, it is indicative of Anglican architectural taste in Australia and more particularly South Australia during the mid to late Nineteenth Century. It exhibits a distinctive French influence in the west front, and to a lesser extent the exterior of the Lady Chapel. It is built primarily of Tea Tree Gully sandstone and Murray Bridge limestone.

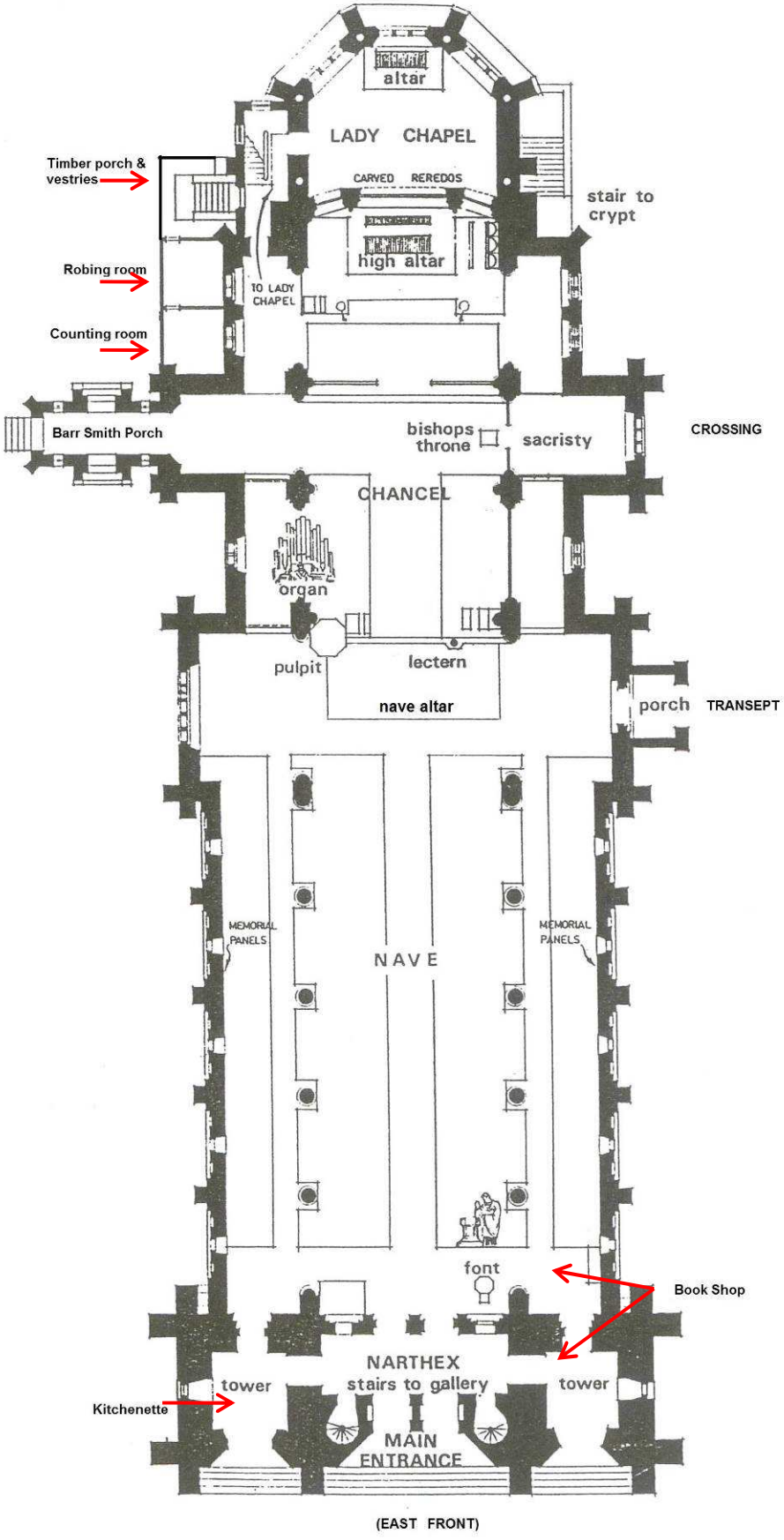


FIGURE 2: FLOOR PLAN OF ST PETER'S CATHEDRAL
(Not to Scale)

N

2.3 Walter Bagot's Descriptions 1907 - 1945

Walter Bagot, EJ Woods partner and Cathedral architect from 1907 to 1945, gave the following architectural description[2] of St Peter's Cathedral in June 1943:

> *The period of Gothic to which this Cathedral may be compared in style is that of the XIIIth Century known as 'Early English'. This applies to the Nave and Transepts commenced in 1869 but the main front hall built from 1890 - 1903 shows signs of the influence of French Gothic of the same Century. The Architect for the whole loathe structure was Edward John Woods, Fellow of the Royal Institute of British Architects 1840 - 1915.*
>
> *The building is cruciform with two transepts, the smaller of which is crowned by a Lantern Tower, 126 feet high. The larger transept is of very slight projection being designed for compact grouping of the congregation. Its extreme breadth is 72 feet.*
>
> *The nave is 30 feet wide and is of five bays and the internal width including the aisles is 58 feet. The height to the apex of the closed timber roof is 62 feet.*
>
> *The towers of the main front ant are 170 feet high. Above the Entrance Narthex is a gallery seating 160 persons.*
>
> *The original 'East End' terminated in a rectangular form but in 1903 the Apsidal Lady Chapel used for morning Communion was added and a Reredos 40 feet high erected to enclose the Sanctuary. This Reredos is richly carved in English Oak with figure sculpture heightened in colours and was executed by the Guild of St Swithin (England).*
>
> *The total length office Cathedral including the Lady Chapel is 232 feet.*
>
> *The exterior is finished in sand stone rubble of a warm brown tint with dressings of cut stone.*
>
> *The interior woodwork of Choir Stalls and panelling is in European Oak. The seating accommodation is normally 1,200 but as there are noticed stalls, up to 1,500 persons can be assembled for ceremonial occasions.*
>
> *The Organ by Hill, Norman and Beard of London has 40 stops and 4 manuals.*

Later in the same year, Walter Bagot gave a more detailed account of the background and resolution of the design of the Cathedral in a lecture entitled *'Architecture and the Growth of St Peter's Cathedral Adelaide*'.[3] Given his association with both his former partner and with the Cathedral itself the subsequent account of this lecture represents a valuable source of first hand information. Included in this lecture was a good description of the masonry:

> *Turning to building materials; the first portion, consisting of the sanctuary, choir, transepts and one bay of the Nave, is faced with hammer dressed rubble sandstone from Tea Tree Gully, with dressings and quoins of lighter coloured sandstone, similar to that used in the General Post Office and the Town Hall, which come from the same neighbourhood.*
>
> *... when the extension of the Nave was undertaken in 1890, it was built with dressings of Murray Bridge Limestone and all subsequent additions, notably the Lady Chapel, have been dressed with the Oolitic Limestone. Fortunately, the affect of time has been to assimilate the general appearance but the difference in tint and nature of the two stones is apparent upon close examination.*
>
> *The Mount Somers stone referred to in the Handbook was used for the balustrade of the gallery and for the caps of the porches, the pink shafts of the latter being a variety of the same stone.*
>
> *Bands of Pyrmont stone (NSW) are used in the spires.*
>
> *The base of the whole building is in Glen Osmond stone and the inner facing of the original structure is of the same material.*

---

[2] Notes held by Woods Bagot Architects, 1989

[3] From a pamphlet of the same name, published after a lecture given to the Friends of St Peter's Cathedral on 10 August 1934

Whilst William Butterfield prepared the original design, no account of the architecture of St Peter's Cathedral would be complete without a closer understanding and appreciation of Mr EJ Woods. The erection and completion of the Cathedral was his life's work, being Architect of the Cathedral from 1869 to 1915. He also became the Government Architect in the late 1870's. Walter Bagot had this to say of his former partner:

> *Mr Woods had a thorough sense craftsmanship, whether it was in the jointing of intricate cut stonework, the forging and casting or ironwork or the technique of woodwork and other crafts, he was 'aufait' and a repository of practical experience.*
>
> *He was a designer who knew how to design practically with a view to execution in the best and most durable manner and as such he carried on good traditions when there were no schools for architects and not many skilled artisans.*
>
> *Those who remember him personally will recall that he was small of stature and walked with a slight limp. This did not deter him, however, from frequently climbing the scaffolding to the summit of the spires above us, attired, as was his habit, in a tail coat and tall black beaver hat.*
>
> *His predilection was for the Gothic style and was much influenced by the works of the noted French Artist, Violet-Le-Duc, such influence can clearly be traced in details of the West front of the Cathedral.*

The Cathedral, solely executed by Woods, is his principal completed work, the one he most dearly loved and by which he would wish to be remembered.

In 1890 when work commenced on the second stage of the work, the decision was taken to finish the insides of the walls in brick and to cover these with a plastered and rendered finish. As the first stage had been finished with exposed rubble-stonework, the decision was also made to cover this up with a matching finish to compliment the second stage. This was a matter of some debate at the time and in later years Walter Bagot observed:

> *I can recall a time when the transept walls remained unstuccoed and his stonework showed inside.*
>
> *The inner structure of the aisles and clerestory was formed with brick and had it not been for this difference with the older work, might have been left exposed, as desired by Bishop Harmer.*
>
> *I think it may be regretted that the inside faces of the walls were not built in rubble stonework even if not of a very high finish, but we have always to remember that funds were not easily forthcoming and that, in the eagerness to complete the structure, much quality in material and detail had to be dispensed with.*

2.4 Summary Time Line – Including Recent Works

1866-67 Original Plans prepared by William Butterfield.

1867-69 Plans modified by Edward John Woods.

1869–77 ***First stage of construction***: chancel, the transepts and the first bay of the nave.

1890-94 ***Second stage of construction***: north porch, the footings to the extended nave and west front and a substantial amount of the nave. It was intended to be considerably more, but lack of funds forced a premature stop to the work.

1890 Inside exposed rubble-stonework walls of first stage of construction were covered up with a matching finish to compliment the second stage works.

1899-1901 ***Third stage of construction***: JJ Leahy completed the nave and west front up to the nave roof and halfway up the towers.

1901-02 ***Fourth stage of construction***: completion of the towers and spires by Walter Torode.

1902-04 ***Fifth and final stage of construction***: the Lady Chapel and vestries below, the south porch and temporary vestries. The eastern wall of the Cathedral was removed

and that end extended to accommodate the addition of the Lady Chapel. This included the locating of two new columns just east of where the original eastern wall had been positioned. The two original windows were removed and three new windows located in the new east end.

1903-4 Work began on installing a new Reredos to divide the body of the Cathedral from the Lady Chapel. This was located between the two new columns installed at the eastern end of the original Cathedral. The new Reredos had the effect of closing off the long inside view down the Cathedral, ie from the nave to the sanctuary. This made the eastern end darker and more 'closed in'.

1904 The original organ was removed and replaced by a second organ. The location of the new organ was such that is necessitated the building-in of the upper level of the northern minor transept. This meant that the stained glass window in that transept, the St Cecilia ceiling window, was effectively blocked from internal view.

1925 The original standard gas lamps located under the apex of each arch in the colonnade were removed and replaced by new electrical lighting. The new lights consisted of suspended electric lamp fittingly one fitting per bay, fixed to the timber ceiling of the aisles, at the canoe of each archway. A few of these remain today. The floor was patched with burgundy tiles marking the location of the original lights until 1993 when the floor tiling was relaid.

1925 The Pope Memorial window was installed in the northern major transept window.

1927 The Choir Stalls, Bishop's Throne and Canopy, and Canopy to the Pulpit were installed.

1928-29 The present organ was installed. A lean-to addition to house plant associated with the organ was erected between the major and minor transepts on the north side.

1930's The Sedilia (stone seats, found on the liturgical south side of an altar) were installed in memory of George Young, Dean of Adelaide.

1938 Part of one of the pinnacles to the Lady Chapel fell down and had to be replaced by a new section.

1938 The top of the southern spire was repaired with steel straps to hold it together.

1938 Extensive repairs were made to the floor tiling which had 'blown' in the heat of summer and become loose.

1938-39 The Cathedral roof was extensively renovated. A majority of the roof was replaced one third in Willunga slate and two thirds in Welsh slate. The Lady Chapel Roof, being more recent, had only minor repairs carried out to it.

1947 The present bells were installed in the southern tower of the east front.

1950 The electrical light fittings were upgraded with a combination of ceiling and wall-mounted spotlights and suspended fittings from 1950 onwards.

1950s The Adelaide City Council compulsorily acquired a triangle of land along the King William Road frontage to enable the road to be widened. This triangle began at the southern end of the Cathedral land, just where the granite section of the low masonry wall ends, and broadened into a kinked triangle at the north end. A new boundary wall was subsequently built and the vehicular entrance relocated a little to the north.

1951 The Sacristy was opened to commemorate the Centenary of the Diocese and in memory of Clara Frances, wife of the Reverend Radcliff.

1955 The Great Rood (crucifix) was installed in the chancel in memory of John Mortlock.

1960 The reseating of the Nave with new pews began.

1960s Floodlighting of the Reredos was installed.

1960s The cast iron fence at the front of-the Cathedral was removed. The garden and War Memorial Cross were also removed and the area bitumized and made into a car park.

1966 A new stained glass window was installed in the southern aisle/small chapel adjacent to the High Altar. This was in memory of Frederick and Alwena Bohm.

1970s Small gardens were located alongside the Nave walls on both sides between the open brick drain and the walls.

1970s An area of land to the north of the Cathedral grounds between the John Dunn Music Room and King William Road was incorporated into the Cathedral grounds. Part of the stone wall between the two properties was demolished to facilitate this and a new spoon drain installed. The area was planted with lawn and its southern side used for car parking.

1970s The radius of the corner formed by the junction of King William Road and Pennington Terrace was increased by the Adelaide City Council, reducing the area of forecourt in front of-the Cathedral.

1987 Glass doors were located in the front entrance doorway (western side of the narthex)

1988 Portions of the floor tiling to the Narthex were repaired and new glass doors installed. Cupboards were installed in the tea-room and bookshop adjacent to the Narthex.

1988 The electrical power supply was upgraded as the first stage of upgrading the lighting.

1989 The Lady Chapel altar was modified; survey of Cathedral undertaken by Mark Butcher, Woods Bagot, via a cherry picker. *Note Mark Butcher, heritage architect, employed specifically by Woods Bagot to be heritage architect in charge of Cathedral Restoration Project.* Partner at Woods Bagot, Bill Steele, commenced fund raising with Cathedral community, and overall raised $3 million for conservation works.

1990 A Cathedral Shop was established in the base of the King William Road West Front tower. Interior survey undertaken by Mark Butcher, Woods Bagot

Transept windows were restored.

1990 - 92 December 1990 - the crosses at the top of the King William Road-side West Front towers were removed, the stone was conserved and then the crosses were reinstated in 1992. Contractor: Baulderstone. (Specification for Restoring the West Front Spires, prepared Woods Bagot)

St Peters Cathedral Conservation Plan Stage One prepared by Woods Bagot Pty Ltd in association with Richard Falkinger Heritage Architect.

Organ Conservation Plan prepared by Roger Lewis curator

Note that the following works were undertaken under separate contracts direct with the Cathedral without an overall contractor for the works.

1991 - 92 Nave roof - repaired and re-slated existing roof (in Bugle (Cornish) slate) and Lady Chapel roof, copper flashings and new gutters and downpipes installed. New access hatch installed. Twelve new roof vents installed (drawings and specification prepared by Woods Bagot February 1991). Works undertaken in 1992-93 note that the transept roofs were excluded. These are in McLaren Vale slate, are very thick, and not in need of replacement. However, fixings are difficult.

General stone conservation at the upper level. Stone obtained from the Sunnyside Quarry, near Murray Bridge. All high levels were cleaned.

1992 The electrical power supply was upgraded at the lower level of the aisles via modifications to the existing timber wall panelling in the aisles. The paneling was extended on the side walls to conceal this wiring. Note that electrical supply to the roof was redesigned, and a new man hole installed with access walkways and rails, and new lighting installed in the roof.

Cleaning and stone repointing of the front spires and the lantern crossing tower undertaken (specification prepared by Woods Bagot)

1992/93 The Nave and Aisle floors restoration - retiled floor on a new concrete slab which incorporated in- floor electric heating.

(drawings and specification prepared by Woods Bagot August 1992)

1993 The crossing floor was rebuilt to form an extension of the raised floor between the choir stalls to accommodate a new altar. Slate steps salvaged and reused, supplemented with new slate.

1993 The clerestory windows were re- camed (re-leaded) by artist Cedar Prest. Transept windows also cleaned and repaired.

1993 A new Cathedral Office/Hall complex was built on the land immediately north of the Cathedral grounds, incorporating the present John Dunn Music Hall and retaining the existing trees. Architect Woods Bagot.

Mark Butcher left Woods Bagot as Cathedral $3 million conservation project was completed and hall complex completed

1996 Conservation works to front elevation and bell towers – nature of works not known but the interior of the towers did have falling damp on the inside (information provided by Mark Butcher)

2006 Lady Chapel pinnacles labeled, removed and stored at base of Cathedral due to unsound condition. *Documentation undertaken by Mc Dougall & Vines*.

2012 Assessment of Cathedral Spires – report by Wallbridge and Gilbert Engineers

Car park resurfaced with bitumen

2013 Conservation Planning Strategy prepared for future master planning and fund raising purposes (this document by McDougall & Vines)

2013 - September - one of the crosses fell off the end of the gable of the lantern tower and fell into the roof over the organ loft. This was separately repaired during the course of this report preparation. Work undertaken by Harrold and Kyte, engineer Jim Wilson.

2.5 Early Drawings of the Cathedral, Stages 1 – 5

The list in Appendix 2 has been compiled from those held at the office of Woods Bagot who were the Cathedral architects from 1869 until 2004. The most recent 1990s drawings have been scanned and filed for future reference by the Cathedral. The photos are filed chronologically according to date. No CAD drawings have been prepared in the past of the Cathedral.

2.6 Early Photographs of the Cathedral

Early photographs are an invaluable aid to conservation and maintenance works. The list in Appendix 3 has been compiled from those held at the State Library of South Australia in the Mortlock Pictorial Collection. All these photos have been copied electronically and filed digitally for future reference by the Cathedral. The photos are filed chronologically according to date. All photos have not been reproduced in this report, due to space constraints, but have been made available to the Cathedral.

3.0 STATEMENT OF CULTURAL SIGNIFICANCE OF ST PETER'S CATHEDRAL

3.1 Cultural Significance

St. Peter's Cathedral is considered to be of national cultural significance for the following reasons:

- The Cathedral's **historical** significance lies in its association with the establishment and consolidation of the Anglican Church in Adelaide and in South Australia and with Bishop Short's endeavours in this respect. Its erection and completion within thirty five years is an expression of the standing and position of the Anglican Church and its members in the infant colony of South Australia.
- The building of the Cathedral marked an important step in the development of South Australia, and reflects the growth and optimism of the colony at that time.
- The **social significance** of the Cathedral is evidenced by the significant financial contributions made towards the Cathedral's completion by prominent non-Anglican Adelaide citizens is indicative of the close nature of Adelaide society late last century. The use of Gothic styling and the concern for an appropriate external building material reflects the conservative nature of that society.
- The Cathedral's **architectural significance** is its demonstration of excellence of example of mid-to-late Nineteenth Century Gothic Revival style in South Australia and Australia. Its East (liturgical West) Front is of importance for being a rare expression of French architectural thought from the late Nineteenth Century, as espoused by Eugene-Emmanuel Viollet-le-Duc and Jean-Baptiste-Antoine Lassus. The Cathedral is notable for the high quality of its construction and craftsmanship
- The Cathedral is of **architectural significance** for its original design by the English architect William Butterfield and for the modification and extension of that design by the Adelaide architect, Edward John Woods. E J Woods, who also became Government Architect, supervised the erection and completion of the Cathedral over a thirty-five year period, allaying it his major life's work.
- The Cathedral has **landmark significance** as an important landmark building in Adelaide and for being a 'gateway'' building to North Adelaide. It is a major streetscape element, closing of the view down King William Street from the city and being a key corner building on Pennington Terrace.
- The Cathedral forms **part of an ecclesiastical group** of Anglican buildings located on both sides of King William Road. It is also adjacent to St Mark's College, another important Anglican institution. It is located in a part of lower North Adelaide which is notable for its intactness as a mid-to-late Victorian neighbourhood.

3.2 Delineation of Significant Fabric and Components

3.2.1 Site Elements

The following elements are considered to be the most significant parts of the site:

- The location of the Cathedral in relation to its surroundings.
- The current simple setting of the Cathedral.
- The sections of stone fencing between the Cathedral office and the Cathedral, and between the site and the Deans residence.

3.2.2 External Elements

All the exterior fabric of the church is significant in terms of the use of slate, stone and glass. Elements of particular significance include the towers, the rose window, stained glass windows, buttresses, and the aisles.

3.2.3 Internal Elements

The following internal elements are considered significant:

- The wall and ceiling surfaces and detailing.
- All joinery and finishes which are significant as follows: - wall panelling, organ joinery
- The furniture related to the functions of the cathedral including the pews, lecterns, altars, reredos, various cupboards and cabinets – which are of oak colour and clear stained finish. Note that oak colour consistency of furniture and joinery is important.
- The staircases, bell and associated mechanisms within the tower.
- Stained glass windows.

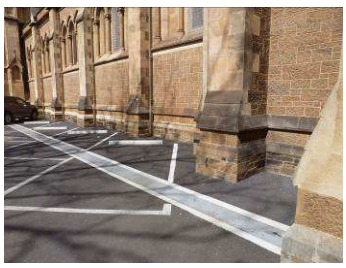
4.0 CURRENT CONDITION ASSESSMENT AND RECOMMENDATIONS

The physical inspection of the cathedral for the preparation of this section of the report and the separate dilapidation schedule was undertaken during October and November 2013. It should be noted that not all parts of the Cathedral could be accessed via the boom crane due to limited reach at very high levels. These included the lantern cross, the very top of the front spires, and the section on the south elevation at the lantern crossing, and the southern sections of the lady chapel upper levels.

4.1 Site Analysis and Recommendations

AERIAL VIEW OF SITE
(Source: Google Earth)

N

Analysis	Recommendations
St Peter's Cathedral is situated on King William Road at the base of the North Adelaide Hill (Montefiore Hill). The orientation of the Cathedral is such that the liturgical western main entrance is in fact the south east (known as east elevation in this report) and the Lady Chapel liturgical east end of the Cathedral is in fact the west elevation. The land has been graded nearly flat and the site is divided on the northern side into a parking area (recently bitumised in early 2013) and a memorial garden on the south west (installed in 2010). On the north of the site is the Cathedral Office and Close. This complex was erected around the Old Friends Meeting Hall, an early timber and iron structure (included on the State Heritage Register). The new buildings were constructed in 1992 to the design of Woods Bagot Architects (Architect at the time was Mark Butcher). The Cathedral was previously enclosed by fencing (as seen in early photographs), but gradually this has been removed, and there is a perimeter granite plinth at the front, with a stone rendered retaining wall retaining the car park area.	• Ensure that future development adjacent to, or surrounding the Cathedral site, does not visually dominate the building and is complementary in building form, materials, colours and proportions. • Monitor the base of the Cathedral wall where car parking has been bitumised. This sealing of the ground adjacent to the base of the wall will likely cause rising damp and will need to be rectified by cutting away the bitumen and creating an "air drain" which 'breathes' adjacent to the Cathedral.  *Bitumen paving to base of north wall*

Analysis	Recommendations
The Cathedral itself sits on a plinth of Glen Osmond bluestone banded with sandstone, and the ground level on the north car park side has been built up over the years. At the east entrance there are two wrought metal lights on granite bases, and wrought metal handrails to assist with access for the elderly. Landscaping is simple, with ivy planting at the south east end and the memorial gardens (containing lawn, roses, standardized figs in pots and gravel). On the south the Cathedral land is enclosed by a bluestone wall in a deteriorated condition (see photos) with brick capping. This wall is the dividing line between the Cathedral and the Deanery. The boundary is restricted and tight at the western Lady Chapel end, with a section of corrugated iron fencing and additional bluestone walling. The northern wall separating the Cathedral from the Cathedral Close is a mixture of limestone and bluestone in fair condition, although with random cement patching and areas where the stone has deteriorated and worn away.	 *Metal lights and balustrades* • Undertake repairs to the bluestone wall between the site and rectory on both sides of the wall, raking out hard cement and repointing in lime mortar, and inserting new select matching bluestone. • Undertake repairs to the limestone wall on both sides of the wall, raking out hard cement, and repointing in lime mortar, and inserting new select matching limestone.


Memorial Garden to south of Cathedral


Gravel paths adjacent to memorial garden


Memorial Garden to south of Cathedral


War Memorial Cross

Bluestone wall between Cathedral and Deanery

Limestone and bluestone wall between parking and the cathedral office area

Limestone and bluestone wall between parking and the cathedral office area.

Bluestone perimeter wall

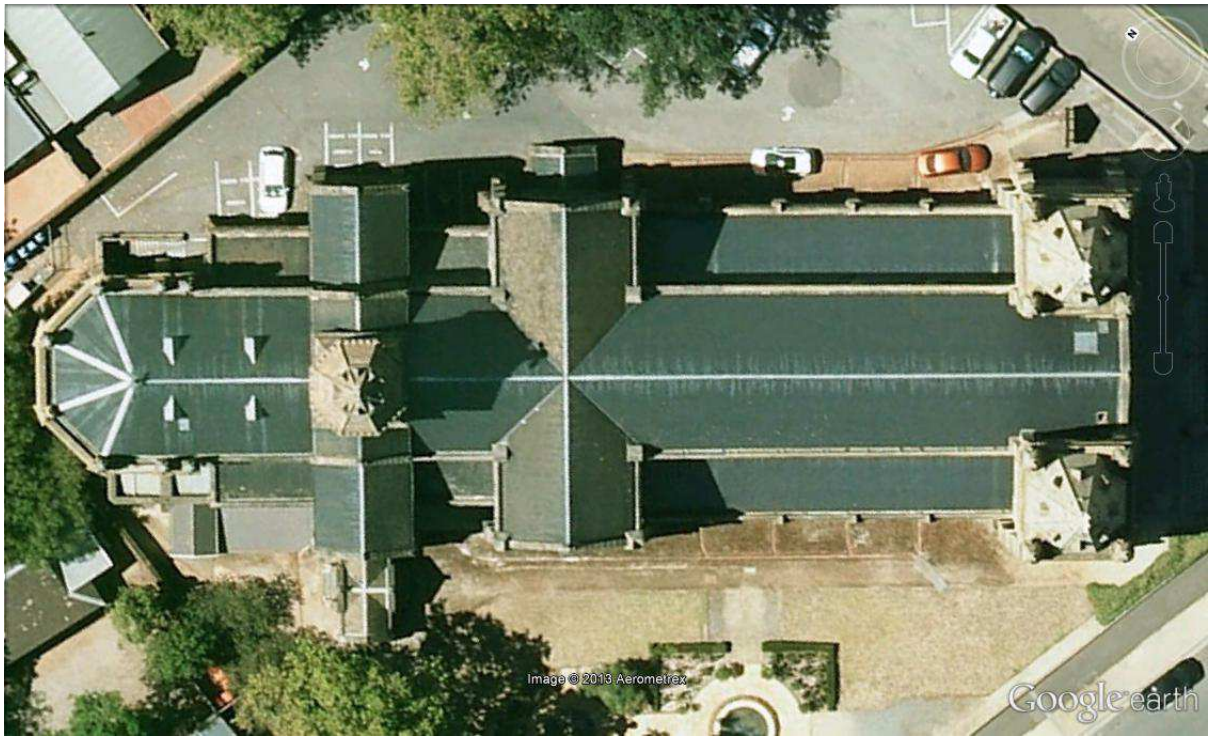
Current Cathedral signage

Ivy planting adjacent to Cathedral entrance

Cathedral Close

4.2 External Analysis and Recommendations

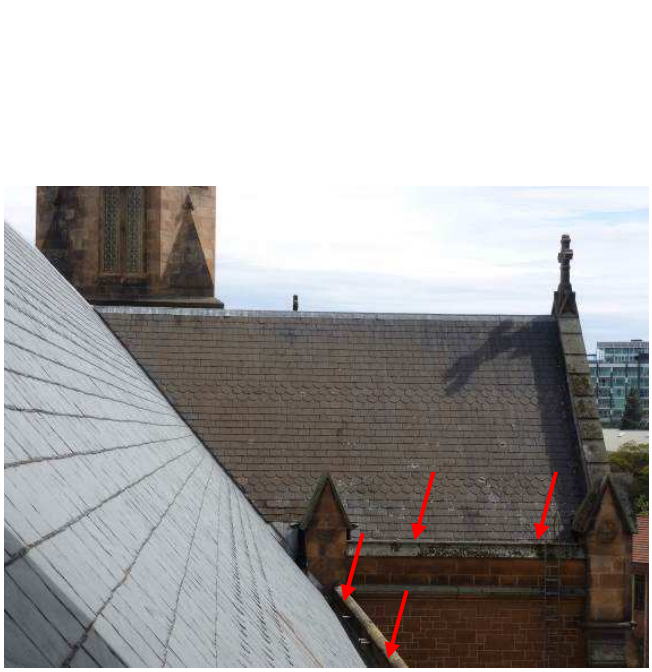
4.2.1 Roof and Stormwater



N (for report purposes) N (actual)

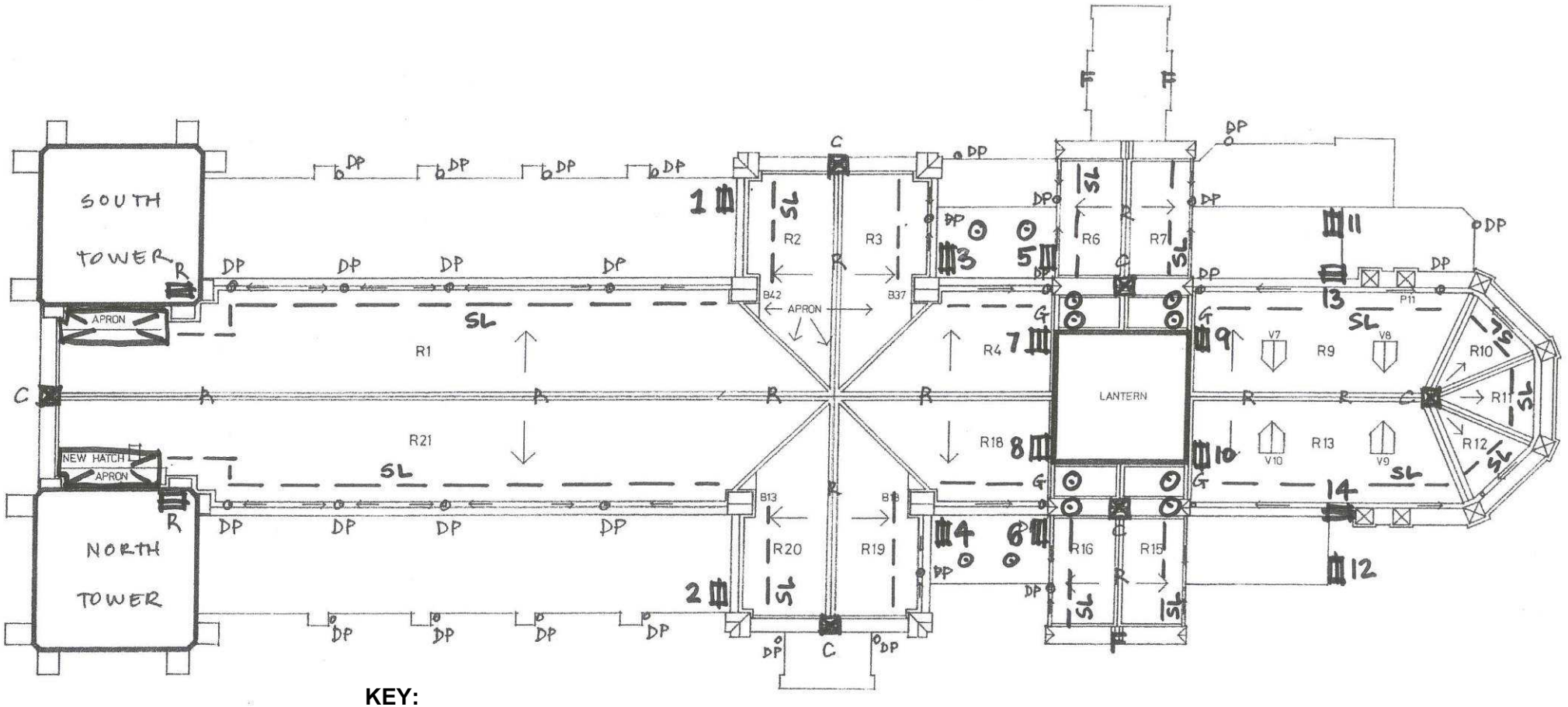
Analysis	Recommendations
The roof throughout is finished in Willunga slate or Welsh slate for Stage 2 onwards apart from the roof to the lower timber porch on the south elevation (which is sheeted in corrugated iron). The original section of roofing on the transept and lantern crossing still remains in Willunga slate. In 1991-92 the nave roof was re-roofed (including the Lady Chapel) in Cornish Slate (according to Woods Bagot specification this was Bugle slate, but current assessment says it is Port Maddock Welsh slate) During these works: • It appears that the vents on the nave roof were removed, although they still survive to the Lady Chapel roof. • The gutters were replaced in copper and copper downpipes were also installed. However, at the lower levels there are galvanized downpipes (as there has been problems with theft of copper at the lower levels). • Bolts were installed into the box gutters to allow for fixing of scaffolding. These are now redundant. Many of the gutters are box gutters, such as at the top of the nave and the aisles. These have all been replaced in copper. The surface mounted gutters (in quad profile, not ogee, which would have been original) are a	• All gutters are to be regularly maintained, with access to these gutters upgraded to current safety standards (refer Section 5.4.1). • All broken slates to be regularly repaired, and those with significant mineral staining are to be replaced. • Install safety anchor points to the roof and safety lines as per roof audit report – see Appendix 6. • Remove nave box gutter bolts (previous scaffold anchors) and repair. • Install lead capping to the nave and aisle parapets/ box gutters, to properly flash the parapets and gutters in this area. • Install upgraded internal roof walk way and maintenance system in accordance with current safety standards. Current walk way floor, being plywood which is deflecting, is not safe. • Replace internal tower gutters (inside north and south towers) now rusted out, and renew associated down pipe in copper to ensure discharge of tower roof water. • Any galvanised downpipes or spreaders should be changed to copper. Note - It is hard to ascertain which down pipes are

Analysis	Recommendations
mixture of copper at the upper levels and most lower levels. There are some painted galvanized gutters at the lower levels. Some of the lower down pipes have started to rust due to the runoff from the copper box gutters. There has been some theft of previous replaced copper down pipes at lower levels. There are no overflows of the box gutters. Access to the roof for cleaning is problematic and via egress through the front towers, and also via vertical ladders elsewhere. This is not in accordance with current safety standards. The roof does not currently leak (information provided by Office and Facilities Manager) although there is evidence of previous leakage. This has been due to blocking of gutters and downpipes. However, the Cathedral currently appears to be keeping these in good condition and cleaned out on a regular basis.	copper and which are galvanised at the upper level as they look the same) downpipes are galvanised some may be copper. • Install overflows to gutters, via coring of stone and inserting copper over flow pipes with "birds beak" ends. • Install expansion joints to the copper gutters, with joints soldered in. This prevents cracking to the gutters. • Install upgraded storm water discharge adjacent to the south elevation. This should discharge to the existing underground storm water.



Views of the roof, (see box gutter arrowed) problems of leakage internally are located at areas of box gutters, which, in the past, have not discharged water, and have overflowed. RHS photo shows down pipe which discharges from internal gutter in the tower

ROOF PLAN



0 2 4 6 8 10

Scale

KEY:

C x	Cross at roof apex
DP	Downpipe
F	Finial at roof apex
G	Surface mounted copper gutter
R	Ridge capping
SL	Static Line

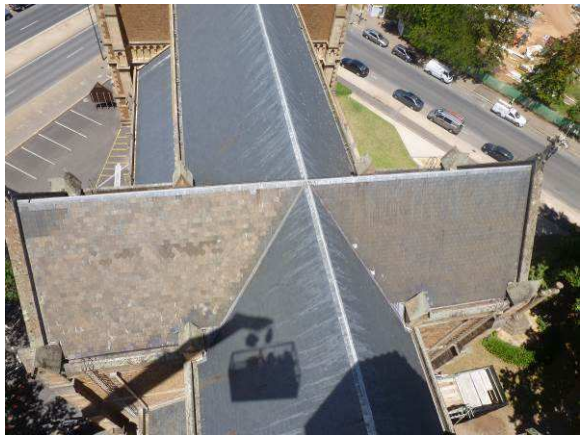
N ↓ (report purposes)

Ladders (numbers indicated)

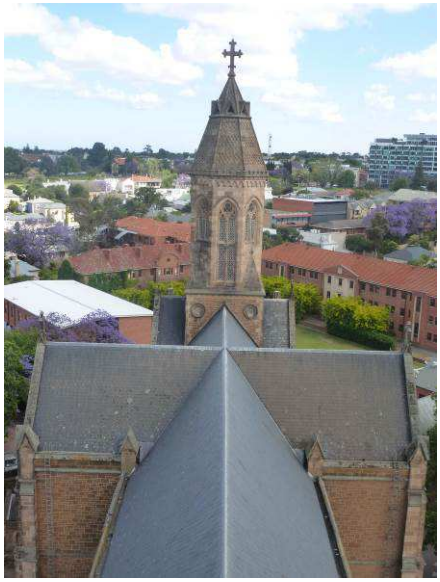
Roof mounted single anchor points

Roof access platform – to be replaced

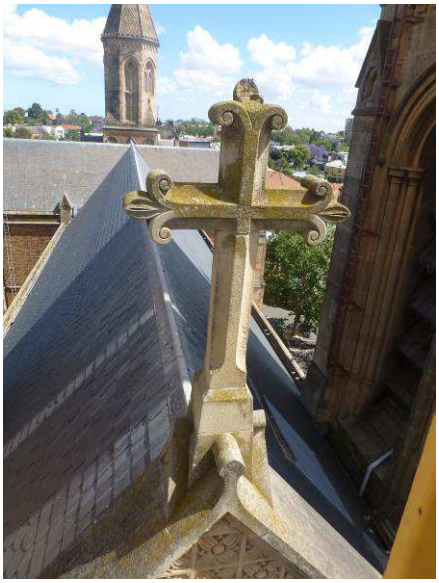
Redundant Ladders – install sign next to North and South Towers

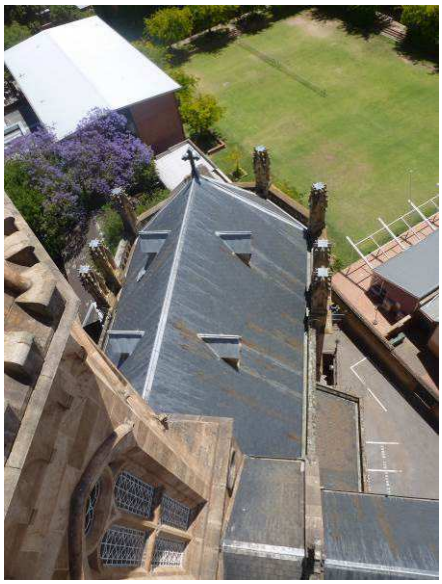
View down on box gutter between the towers. View of valleys and gutters at the location of the transepts



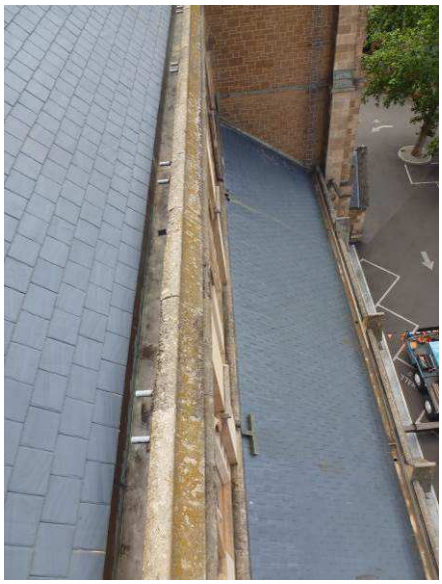
Roof next to lantern tower



Cross on the front east elevation – note cracked stone at apex



Lady Chapel Roof (which retains vents)



Nave clerestory gutter – showing scaffold bolts to be removed

Lady Chapel Roof

Detail to Lady Chapel roof - showing typical mineral staining

Access to the roof via hatch

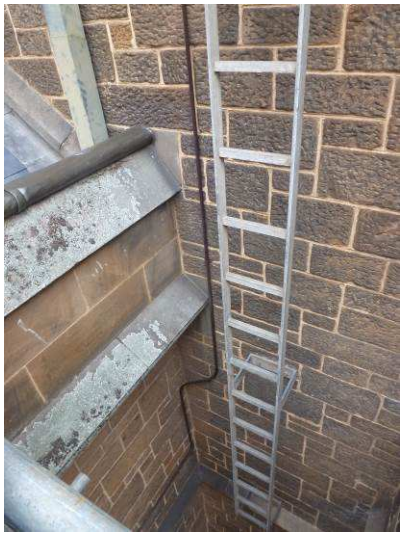
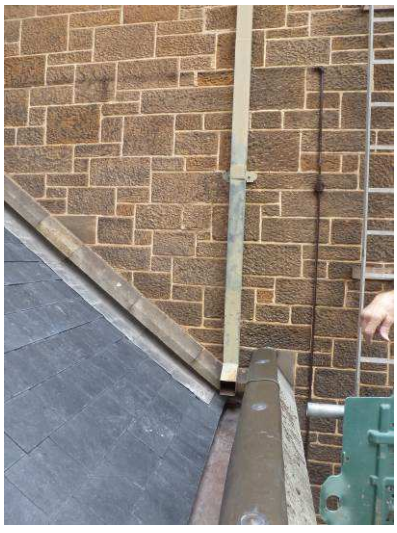
Roof drainage in the tower – internal down pipe inserted to collect water from upper internal gutter





Lead flashing over top of parapet, flashed into the copper gutter, detail of fixing of top of lead capping.

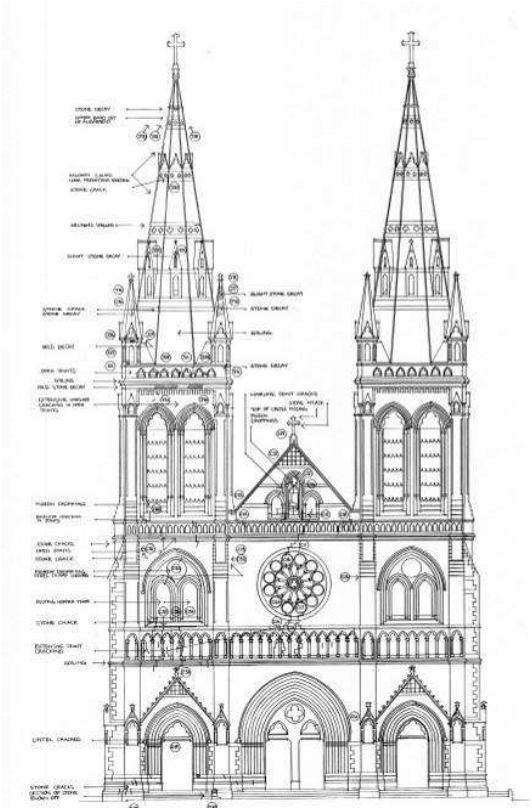

Copper soaker between the slate and the roof safety anchor points

Access ladders all require fall arrestors, galvanised down pipe into copper gutter

Repairs to south roof, after the Storm Damage of September 2013 – with trial leading of parapet, installation of anchor points, and insertion of copper over flow pipes

4.2.2 East (Liturgical West) Front Elevation

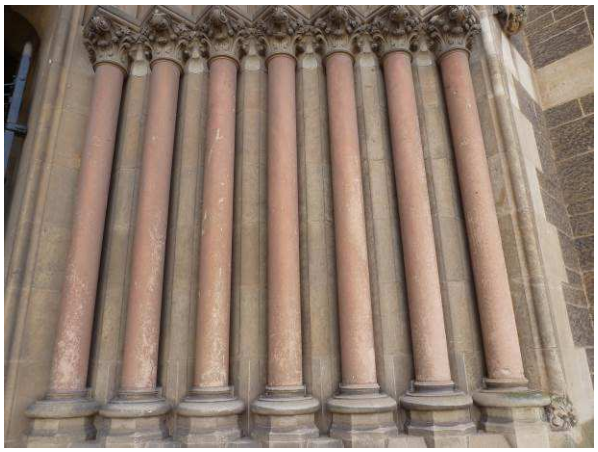


Analysis	Recommendations
The east elevation was constructed in 1901-1902, building up the lower levels of the nave extensions which had been added to the earlier nave extension (1890-1894). Early photos show this gradual staged building of the front façade. The walls are constructed in Tea Tree Gully Sandstone on a Glen Osmond Bluestone plinth. Dressings are in dressed sandstone and fossiliferous limestone. The spires have some Pyrmont sandstone bands. The handsome clear stained timber entrance doors are constructed in English Oak with original black wrought metal door furniture. The Cathedral is elevated with granite steps providing access from the front forecourt. Flanking the entry doors are sandstone round columns with skim rendered finish over a sandstone shaft – this was to achieve a contrasting terracotta finish to accentuate the door openings. Generally the front east façade is in sound condition with some areas of stone deterioration. However the façade stone is generally soiled and dirty. The major area of deterioration is in the tower blind balustrades where water collection behind this blind balustrade has caused marked stone deterioration. This deterioration also occurs in the pinnacles.	• General cleaning of the stone facade is required. • This elevation shows typical soiling and accumulation of lichen to the projecting sandstone and limestone dressings. Areas of accumulated moss and lichen on horizontal surfaces and buttress cappings should be removed using biocide. • Remove all cement mortar to bluestone plinth and repoint in lime mortar. • Indent sections of stone where these are deteriorated or missing. Install stone indent to top entrance step in plaza. • Undertake consolidation of friable and deteriorated limestone using lime mortars and lime mortar consolidation. In particular the balustrade and pinnacles require work. • Cracked stone lintols over the entrance doors (2) require pinning • Reinstate missing finial over entrance door • *Undertake all conservation works recommended in the dilapidation survey.*


Damaged stone at base of wall in the bluestone and limestone plinth

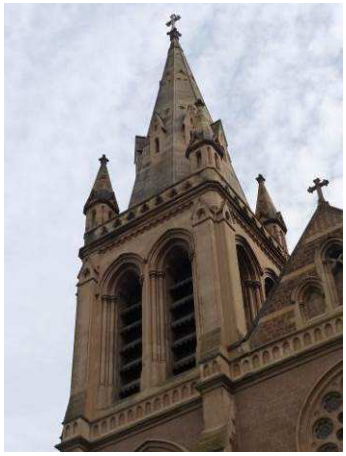
Cracked stone lintel over entry door

Typical stone fracture



Entry door columns –terracotta colour finish

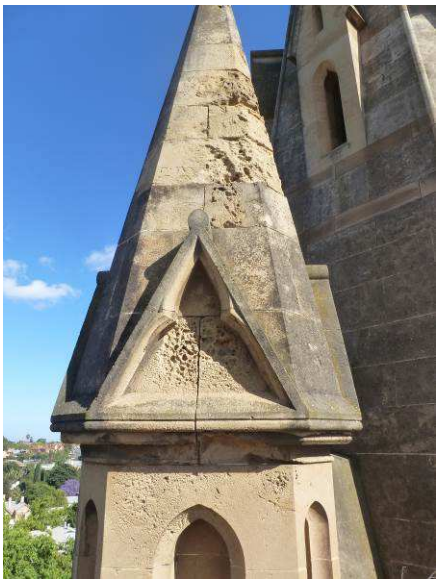
Tower blind balustrade - deteriorated limestone at the base of the spires




Towers and spires

Spire E1 – general view

Spire E1 – stone indent

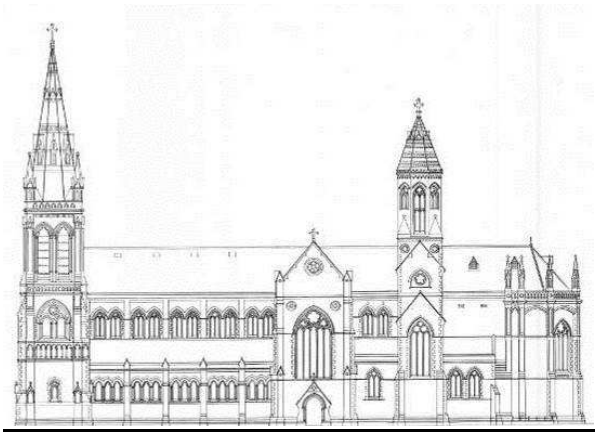


Tower E33 – showing water collection on ledge

Finial now missing adjacent front RHS entrance door

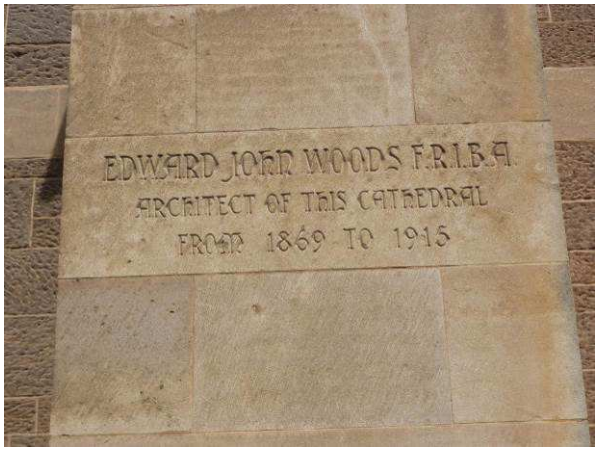
4.2.3 North Elevation

- ***Overall Elevation***



Analysis	Recommendations
The north elevation was constructed in stages. Stage One during 1869-1878 included the Sanctuary, the Choir, the Transepts and one bay only of the Nave. Between 1890-91 the remaining sections of the Nave were constructed, followed by the tower and spires in 1902. Finally the Lady Chapel was erected in 1902-1904. The use of the same materials and detailing makes the stages indistinguishable. Early photographs show the gradual staged building of this façade and the Cathedral as a whole. The walls are constructed in Tea Tree Gully Sandstone on a Glen Osmond Bluestone plinth. Dressings are in dressed sandstone and fossiliferous limestone. Generally the façade has been maintained well over time. The entry porch to the transept is dated 1891 and incorporates fine cast metal security gates, and well preserved pine access doors with wrought metal hinges. There is evidence of water penetration internally in the porch. Flanking the porch entrance are sandstone round columns similar to the east elevation, with skim rendered finish over a sandstone shaft – this was to achieve a contrasting terracotta finish to accentuate the door openings. *Note that the towers and spires are covered under the east elevation.* *Refer Section 4.2.4 Lady Chapel for discussion of north, west and south elevations of the Lady Chapel.*	• General cleaning of the stone facade is required. • This elevation shows typical soiling and accumulation of lichen to the projecting sandstone and limestone dressings. Areas of accumulated moss and lichen on horizontal surfaces and buttress cappings should be removed with using low pressure water, nonmetallic scrapers and brushes followed by the application of a biocide. • Remove all cement pointing mortar to bluestone plinth and repoint in lime mortar. The bluestone plinth has damaged stone and requires total repointing, with some selective stone replacement. • Box gutter behind stone parapet – refer roofing section. Internal leaks correspond to box gutter sections. • Rectify leakage through base of leadlight windows – shown internally (there is evidence internally of soiling and water ingress). • General soiling and build up of dirt and some lichen accumulation – being the north elevation, with greater exposure to sun, this build up is less than the south and east elevations. • *Undertake all conservation works recommended in the dilapidation survey.*

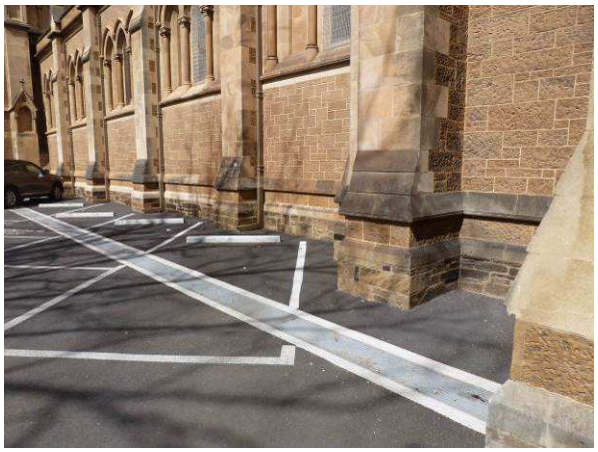
Nave



'Edward John Woods FRIBA Architect of this Cathedral from 1869 to 1915'

Damaged stone to plinth

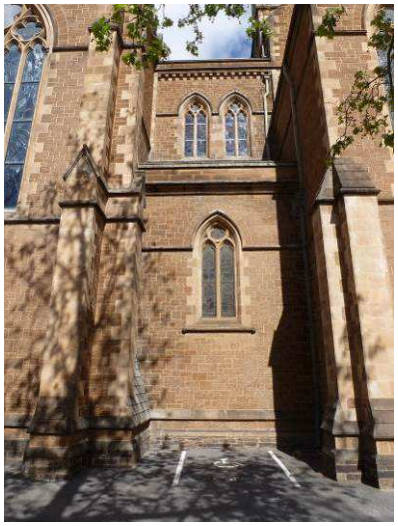
Bitumen sealing to base of wall

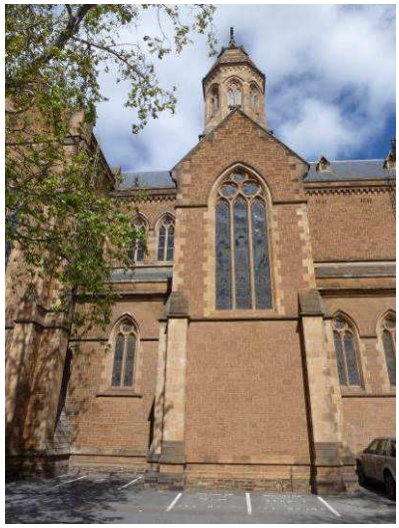


Bitumen to base of wall

Entry porch to transept

Entry porch to transept





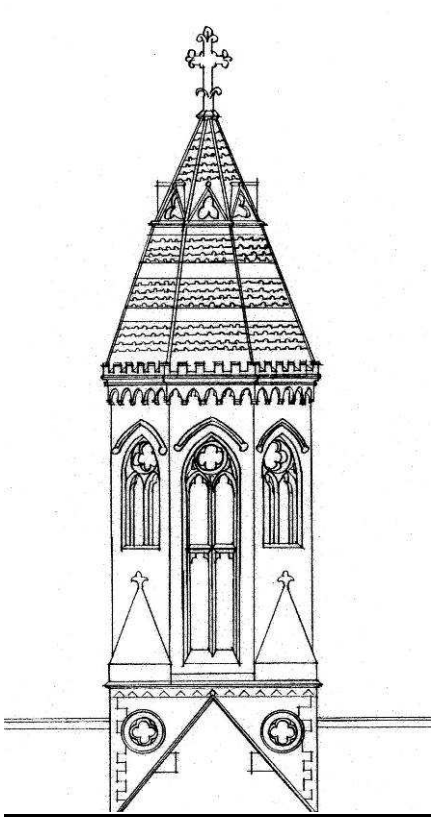
North elevation – parts

Entry porch door

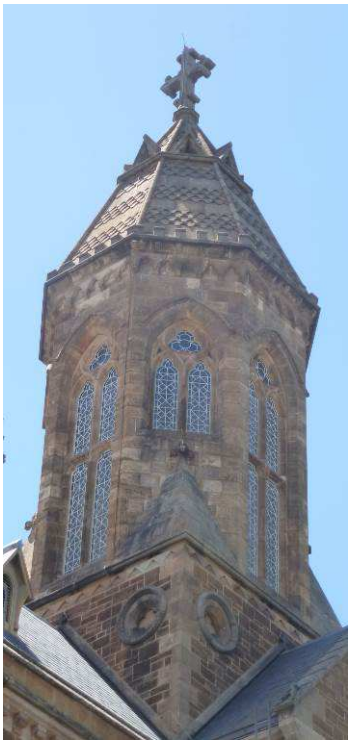
Western end of elevation, including Lady Chapel

Overall elevation

- ***Lantern Tower***

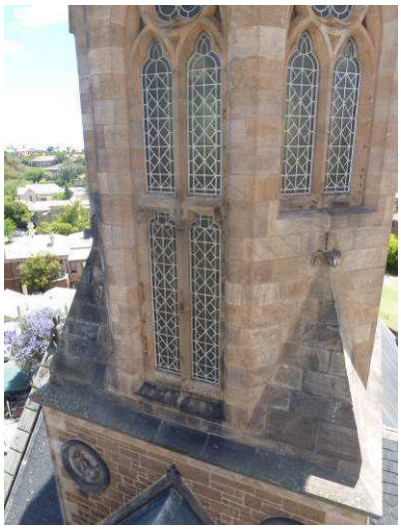


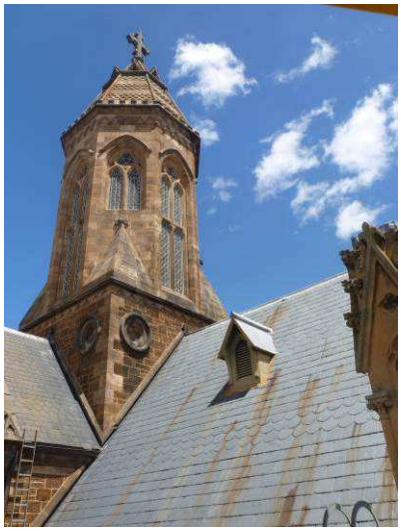
Lantern tower from the east.



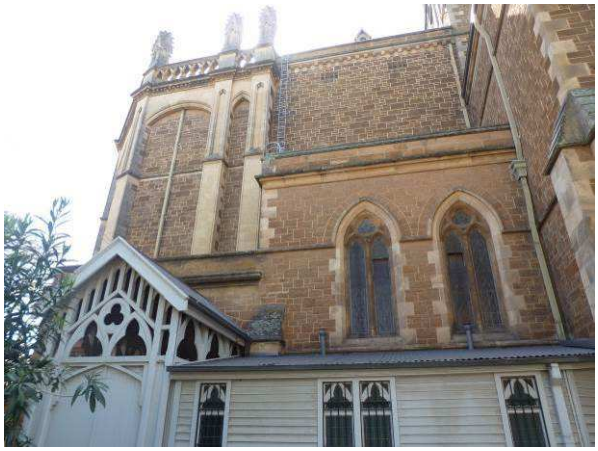
Lantern tower from the west

Analysis	**Recommendations**
The lantern tower is in very good condition, with conservation works undertaken in 1992. Stone is in good condition, and windows are also in good condition.	• *No immediate conservation works are required to the lantern tower. Note that connection of cross to top has not been checked as part of this survey, but was checked in 1992 works* • General works as outlined in the Dilapidation Survey drawings in the long term.





4.2.4 Lady Chapel (includes West Elevation)



View from south side

View from north side

Analysis	Recommendations
In 2004 the Cathedral commissioned a Condition Assessment and Brief Conservation Report for the Lady Chapel.[4] This was considered urgent at the time due to the seriously deteriorated condition of the limestone balustrade and pinnacles. There was concern about the safety of the pinnacles, which appeared to be loose in some situations. The Lady Chapel is constructed in three different wall materials: Glen Osmond Bluestone – plinth; Murray Bridge fossiliferous Limestone – balustrade, parapet, pinnacles, window frames and dressings to windows; and Tea Tree Gully Sandstone – (hen pecked to walls and dressed sandstone to the lower dressed sections of the Lady Chapel). The area of greatest concern for the Lady Chapel is the area of limestone, in particular the cornice, balustrade, and the top of the balustrading, all of which are deteriorated. There are eight pinnacles used as decorative finials to the top of the Lady Chapel, and these have been areas of great structural concern. In 2006 seven pinnacles tops were all removed (one had been removed earlier) and these are now located on the ground. Original drawings show that there were copper rods used to tie the pinnacles together, and pinnacle inspections undertaken in 2004 showed that there were iron clamps used to clamp together the stone courses. Both these methods of tying the pinnacles together failed due to rusting of the iron and expansion and explosion of associated stone. A timber porch and extension was added to the base of the Lady Chapel to the south elevation, and this is currently well maintained with regular painting occurring.	• Generally the wall sections and the roof of the Lady Chapel are in sound condition, but the cornice, balustrade and pinnacles are all in very poor condition. The issue of risk has been addressed by removal of the tops of the pinnacles. However, conservation works to the limestone cornice and balustrade are required to prevent ongoing deterioration. • The pinnacle tops need to be reinstated. They are all on the ground, some being incomplete, and require re carving and reinstatement. • As for the rest of the Cathedral, the bluestone base requires repointing with lime mortar. • General cleaning of all surfaces is recommended. • *Undertake all conservation works recommended in the dilapidation survey.* (Refer to previous and separate documentation for the conservation to the Lady Chapel and reinstatement of the pinnacles.)

[4] McDougall & Vines, *Lady Chapel, St Peters Cathedral, North Adelaide, Condition Assessment and Brief Conservation Report*, 2004

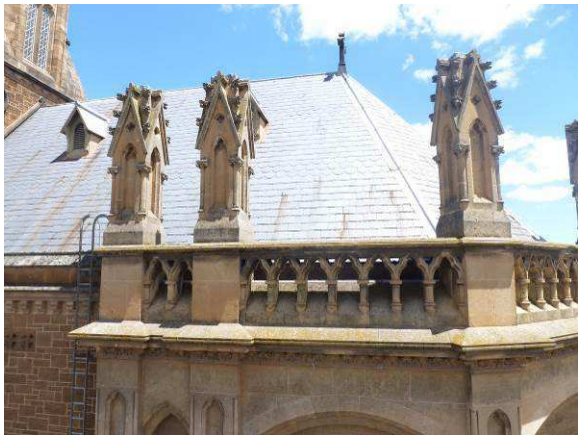
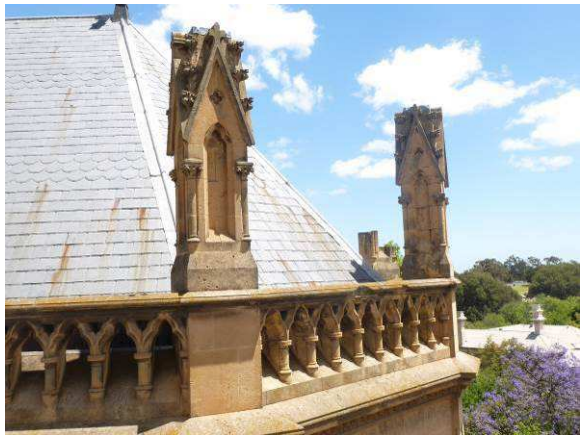

Base of the Lady Chapel

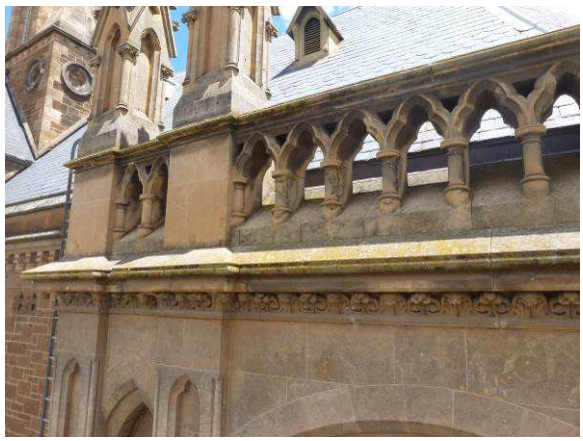

Views of deteriorated balustrade – photo taken in 2004

View of pinnacle now on the ground

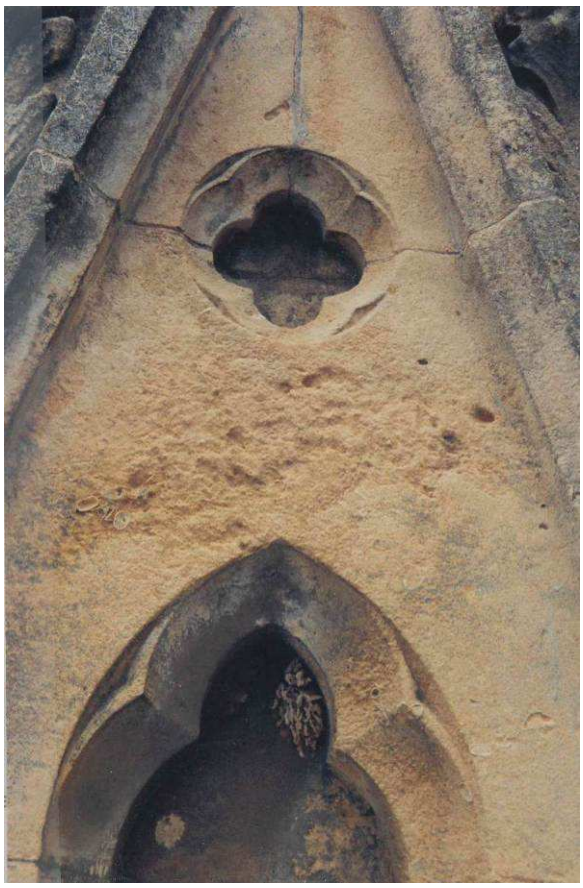
View of deteriorated cornice (photo taken in 2004)

DETERIORATION OF CORNICE, BALUSTRADE AND PINNACLES

DETERIORATION OF CORNICE, BALUSTRADE AND PINNACLES
(November 2013 photos)

Damage includes:

- Pitting & washing away of stone face
- Cement render repairs
- Deterioration of copper reinforcing rod

PINNACLES – SHOWING TYPICAL DAMAGE - pinnacle tops now located on the ground
(2004 photos)