BEFORE INDEPENDENT HEARING COMMISSIONERS

IN CHRISTCHURCH

TE MAHERE Ā-ROHE I TŪTOHUA MŌ TE TĀONE O ŌTAUTAHI

IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of the hearing of submissions on Plan Change 14 (Housing and Business Choice) to the Christchurch District Plan

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STATEMENT OF PRIMARY EVIDENCE OF CHESSA STEVENS ON BEHALF OF CHRISTCHURCH CITY COUNCIL

QUALIFYING MATTER: HERITAGE
HERITAGE SITE: ST JAMES' CHURCH

Dated: 11 August 2023

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EXECUTIVE SUMMARY

1. My full name is **Francesca Louise Stevens**. I practice under my abbreviated name, Chessa Stevens. I am Principal Conservation Architect and National Built Heritage Lead at WSP New Zealand Ltd.

2. I have prepared this statement of evidence on behalf of the Christchurch City Council (the **Council**) in respect of submission #825 by the Church Property Trustees (**CPT**) on Plan Change 14 to the Christchurch District Plan (the **District Plan**; **PC14**).

3. Specifically, my evidence addresses the relief being sought at paragraph 13.1 of CPT's submission (and reiterated at item 6 of the appendix to CPT's submission) in relation to St James' Church that:

> *"The Church's heritage item (heritage item number 465) and heritage setting (heritage setting number 220) be removed from the Schedule of Significant Historic Heritage in Appendix 9.3.7.2 of the District Plan."*

4. Having performed site inspections and reviewed the relevant documentation, in my opinion St James' Church and Setting meet the threshold of "Highly Significant" as set down in Policy 9.3.2.2.1 (b) of the District Plan in their current condition. CPT has not provided an alternative assessment of significance that demonstrates otherwise.

5. I strongly disagree with the statement made in CPT's submission (at paragraph 12) that it would be "appropriate to demolish" the Church; and the statement (at paragraph 13) that the Church's heritage significance is "considerably diminished given its current state" and that "it no longer meets the criteria".

6. I believe that it is possible for St James' Church to be repaired and strengthened to a minimum of 34% NBS in such a way that it would continue to meet the threshold of "Highly Significant" as set down in Policy 9.3.2.2.1 (b) of the District Plan.

7. I believe that it is possible for St James' Church to be repaired and strengthened to a minimum of 67% NBS in such a way that it would continue to meet the threshold of "Significant" and may continue to meet the threshold of "Highly Significant", as set down in Policy 9.3.2.2.1 (b) of the District Plan.

8. It is possible to adapt St James' Church and Setting to serve a different use with minimal impact on its heritage significance. The most compatible or "appropriate" use would be a civic facility. However, a hospitality venue, events venue, commercial or retail space would present opportunities to generate revenue to finance the cost of repair and strengthening work.

9. It is my view that removing St James' Church (item number 465) and Setting (number 220) from Appendix 9.3.7.2 of the District Plan cannot be justified by Policies 9.3.2.2.1 or 9.3.2.2.8.

10. I therefore oppose the relief being sought at paragraph 13.1 and item 6 of Appendix 1 of CPT's submission. St James' Church and Setting should not be removed from Appendix 9.3.7.2 "Schedule of Significant Historic Heritage" of the District Plan (**Schedule**).

11. It remains open to CPT to make a case for demolition of St James' Church against Policy 9.3.2.2.8. However, CPT have presented no such case, nor any evidence to support demolition.

INTRODUCTION

12. My full name is **Francesca Louise Stevens**. I practice under my abbreviated name, Chessa Stevens. I am Principal Conservation Architect and National Built Heritage Lead at WSP New Zealand Ltd.

13. I have prepared this Statement of Evidence on behalf of the Council in respect of CPT"s submission (Submission #825) on PC 14. The submission relates specifically to St James' Church at 65 Riccarton Road.

14. Specifically, my evidence addresses the relief being sought at paragraph 13.1 of CPT's submission and item 6 of the appendix to the submission to remove St James' Church and Setting from the Schedule. I do not address any of the other matters raised in the appendix to the submission where no relief is being sought.

15. In preparing this evidence I have reviewed the following documents:

    (a) PC 14 Provisions as they relate to heritage (https://ccc.govt.nz/assets/Documents/The-Council/Plans-Strategies-Policies-Bylaws/Plans/district-plan/Proposed-changes/2023/PC13/Plan-Change-13-Rules-package-for-notification-2023-03-17-final.PDF);

(b) Section 32 Evaluation of PC 14 prepared by the Council, including appendices (https://www.ccc.govt.nz/assets/Documents/Consultation/2022/09-September/S32-Plan-Change-13-Historic-Heritage-Section-1.pdf);

(c) Draft Section 42A Report on heritage prepared by the Council, including appendices;

(d) Submission #825 on PC 14 from CPT (**Appendix 1**);

(e) draft evidence of Ms Clara Caponi as it relates to CPT's submission;

(f) assessment of costs by Rhodes + Associates Quantity Surveyors and Cost Consultants dated 25 July 2023 (**Appendix 2**);

(g) RAPID Assessment Form Level 2 for St James Church, 65 Riccarton Road, completed 25 February 2011 (**Appendix 3**);

(h) Strength and Repair Assessment for St James Church, Riccarton, prepared for Godfrey & Company by Aurecon New Zealand Ltd, dated 3 August 2011 (**Appendix 4**);

(i) Consent Documentation for Remediation of St James Church, Riccarton, Concept Issue, prepared for the Anglican Life Church Property Trust by Aurecon New Zealand Ltd, dated 23 April 2013 (**Appendix 5**);

(j) CERA Detailed Engineering Evaluation Review for St James Church at 65 Riccarton Road, dated 13 June 2014 (**Appendix 6**);

(k) Letter to Church Property Trustees from CERA identifying Continuing Concerns Regarding Occupancy of Building at 65 Riccarton Road, Christchurch, dated 17 June 2014 (**Appendix 7**);

(l) Heritage Assessment – Statement of Significance for Heritage Item Number 465, St James' Church and Setting – 65, 69 Riccarton Road (**Statement of Significance**) prepared by the Council, dated 1 November 2014 (**Appendix 8**);

(m) Heritage Item and Setting Aerial Map for Heritage Item Number 465 (**Appendix 9**);

(n) Notification of Earthquake Prone Building for 65 Riccarton Road, issued by the Council on 11 December 2017 under Section 133AL of the Building Act 2004 (**Appendix 10**);

(o) Notification of Earthquake Prone Building for 65 Riccarton Road, issued by the Council on 27 May 2019 under Section 133AL of the Building Act 2004 (**Appendix 11**);

(p) property file information for 69 Riccarton Road, including: application for resource consent for a change of use granted 1998; application for resource consent for subdivision granted in 2007;[1] and

(q) The ICOMOS NZ Charter for the Conservation of Places of Cultural Heritage Value (Revised 2010) (https://icomos.org.nz/wp-content/uploads/2020/12/NZ_Charter.pdf).

16. I made a visit to St James' Church to undertake a visual inspection of the exterior of the building on 18 July 2023. I have not inspected the interior, and have therefore relied on photographs.

17. I am authorised to provide this evidence on behalf of the Council.

QUALIFICATIONS AND EXPERIENCE

18. I have the following qualifications relevant to the evidence I shall give:

(a) I hold a Master of Arts with Distinction in Conservation Studies from the University of York, United Kingdom.

(b) I hold a Bachelor of Architecture with Honours from Victoria University of Wellington, New Zealand.

(c) I hold a Bachelor of Arts degree from Victoria University of Wellington, New Zealand.

(d) I am a Registered Architect with the New Zealand Registered Architects Board.

19. I have the following experience relevant to the evidence I shall give:

(a) I have approximately fifteen years' experience in architecture, specialising in heritage and historic buildings.

[1] This file contains several documents that have not been appended due to size but can be provided to the Panel on request.

(b) I have been employed in a specialist built heritage role at WSP (formerly Opus International Consultants) since 2015.

(c) My work includes, but is not limited to: heritage significance assessments; heritage effects assessments; conservation management plans; condition assessments; heritage inventories; schedules of work for restoration, repair and adaptive reuse; specifications for restoration, repair and adaptive reuse; detailing for restoration, repair and adaptive reuse; and expert witnessing in the area of built heritage.

(d) I undertake the above work for government ministries and departments, state sector organisations, local authorities, private sector clients, and trusts.

20. I have the following affiliations with professional organisations:

(a) I am a member of the Executive Board and Co-Secretary of ICOMOS New Zealand (the International Council of Monuments and Sites).

(b) I am an Architect member of the New Zealand Institute of Architects.

(c) I am a member of the Association of Preservation Technology.

CODE OF CONDUCT

21. While this is a Council hearing, I have read the Code of Conduct for Expert Witnesses (contained in the 2023 Practice Note) and agree to comply with it. Except where I state I rely on the evidence of another person, I confirm that the issues addressed in this statement of evidence are within my area of expertise, and I have not omitted to consider material facts known to me that might alter or detract from my expressed opinions.

SCOPE OF EVIDENCE

22. My statement of evidence is confined solely to CPT's submission and addresses the following matters taken from Policy 9.2.3.3.8:

(a) The heritage significance of St James' Church and Setting assessed in accordance with the criteria in Policy 9.3.2.2.1 (b).

(b) The impact of necessary repair and strengthening works on the heritage significance of St James' Church and Setting.

(c) The extent to which the cost or engineering requirements of the necessary repair and strengthening works are "unreasonable".

(d) Potential for adaptive reuse of St James' Church and Setting that would enable retention without diminution of its heritage significance.

CPT'S SUBMISSION

23. St James' Church and Setting are scheduled as a Highly Significant Heritage Item number 465 and Heritage Setting number 220 in the Schedule. The extent of the setting is defined in the Schedule. Other than the level of significance, which has changed from "Group 1" to "Highly Significant",[2] no changes relating to Item 465 or Setting 220 are proposed in PC 14.

24. Demolition of a Highly Significant Heritage Item is a non-complying activity in the District Plan (Section 9.3.4.1.5, Rule NC1). However, Objective 9.3.2.1.1 recognises the effect of engineering and financial factors on the ability of scheduled building owners to retain, restore and continue using them; and that that there are some circumstances where demolition may be justified. These circumstances are set out in Policy 9.3.2.2.8.

25. Policy 9.3.2.2.8, as amended by PC 14, is as follows:

Demolition of scheduled historic heritage

(a) When considering the appropriateness of the demolition of a heritage item scheduled in Appendix 9.3.7.2 or a defining building or contributory building in a heritage area scheduled in Appendix 9.3.7.3, have regard to the following matters:

(i) whether there is a threat to life and/or property for which interim protection measures would not remove that threat;

(ii) whether the extent of the work required to retain and/or repair the heritage item or building is of such a scale that the heritage values and integrity of the heritage item or building would be significantly compromised, and the heritage item would no longer meet the criteria for scheduling in Policy 9.3.2.2.1.

[2] This is a change of terminology introduced in Policy 9.3.2.2.1 of PC 13. "Group 1" has been replaced by "Highly Significant" and "Group 2" by "Significant". This does not change the overall effect of the Policy.

(iii) *whether the costs to retain the heritage item or building (particularly as a result of damage) would be unreasonable;*

(iv) *the ability to retain the overall heritage values and significance of the heritage item or building through a reduced degree of demolition; and*

(v) *the level of significance of the heritage item.*[3]

26. The Section 32 report states (at 6.2.15) the purpose of the proposed changes to Policy 9.3.2.2.8 (a) (ii):

> *Addition of threshold for "significantly compromised": "the heritage item would no longer meet the criteria for scheduling". In a similar way to the change proposed to the management policy to qualify the heritage outcome sought, it is proposed to qualify what is meant by heritage significance being compromised and the condition required to be met for demolition to be acceptable.*

27. As explained at paragraph 7 of CPT's submission, St James' Church was damaged in the Canterbury Earthquakes of 2010-11. It has been assessed as earthquake prone, and is subject to an Earthquake Prone Building Notice issued by Council in May 2019. The letter accompanying this Notice states that the building is "within the zero per cent to less than 20 per cent earthquake rating category".[4] It is not currently safe to be occupied. Work to ensure that the building is no longer earthquake prone is required to be complete by 11 June 2025.

28. CPT's submission (at paragraphs 8 and 9) states (emphasis added):

> *The Diocese continues to respond to changing demographics in the way it operates and the infrastructure required. In Christchurch this has included re-focusing the centres of operation for some parishes as a critical aspect of its core activities.*

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[3] Changes to Policy 9.3.2.2.8 introduced in PC 14 are underlined.

[4] It is assumed that this means 0-20% of the New Building Standard (NBS). Aurecon's 2013 concept report states (at section 3, page 5):

> *Detailed assessment of the church has shown it to have a global rating of about 50% NBS with the exception of the east gable end wall and chancel arch. This is a reasonable rating for a church of this age and construction type. The church has survived the earthquake events very well, which suggests that it may in reality rate closer to 67% NBS than the assessment shows.*

This conflicts with the 0-20% rating given in the EQPB notice.

Notably, the Riccarton parish merged with the Spreydon parish a number of years ago. The Diocese therefore has no use for the Church, the Site itself is redundant and surplus to the Diocese's uses.

29. CPT's submission (at paragraph 11) states:

CPT have investigated in depth the feasibility of reinstating the Church, however, none of the options are economically viable for the Diocese. The Diocese has also investigated the sale of the Site to developers who might otherwise wish to reinstate the Church themselves. CPT's resounding feedback from these market enquiries was that purchasers were reluctant to take on the risk of an extremely low NBS building, and the uncertainty around future use and potential cost of repair.

30. Although not stated by the submitter, the implication made at paragraph 11 is that the cost to retain the building would be "unreasonable" as per Policy 9.3.2.2.8 (a) (iii). No supporting evidence regarding the economic viability of reinstatement, or of the investigations into sale of the site, have been provided with the submission.

31. CPT's submission (at paragraph 12) states:

CPT consider that the Church would be appropriate to demolish, having regard to the matters listed in Policy 9.3.2.2.8 … (as amended by PC 13).

32. CPT's submission (at paragraph 13) states:

CPT consider that the Church's heritage status is considerably diminished given its current state of disrepair and it no longer meets the criteria for listing.

33. On the basis that they believe the Church no longer meets the criteria for scheduling, CPT are seeking (at paragraph 13.1) that:

The Church's heritage item (heritage item number 465) and heritage setting (heritage setting number 220) be removed from the Schedule of Significant Historic Heritage in Appendix 9.3.7.2 of the District Plan.

34. For reasons that will be explained below, in my opinion the heritage status of St James' Church and Setting are not diminished by their current condition to the extent that they no longer meet the criteria for scheduling.

35. Further, while the necessary earthquake repair and structural upgrade works required will likely have a negative impact on the heritage values and integrity of the building, it is my view that St James' Church and Setting would retain its heritage significance, and continue meet the criteria for scheduling as a "highly significant" item – or, as a minimum, a "significant" item after these works have been carried out.

36. It is also my opinion that the cost of retaining the building as a result of damage would not be unreasonable in this case.

37. Therefore, I do not agree with the submitter that the building (Item 465) and its setting (number 220) should be removed from the Schedule.

SIGNIFICANCE OF THE BUILDING

38. As above, St James' Church and Setting are scheduled as a 'Highly Significant' Heritage Item number 465 and Heritage Setting number 220 in Appendix 9.3.7.2 of the District Plan.

39. The threshold that an item is required to meet to qualify as a "Highly Significant" heritage item is set down in Policy 9.3.2.2.1 (b) (ii) of the District Plan as follows:

> *… to be categorised as meeting the level of 'Highly Significant' (Group 1), the historic heritage shall:*
>
> *(A) meet at least one of the heritage values in Appendix 9.3.7.1 at a highly significant level* [refer 40(a) to 40(f)]*; and*
>
> *(B) be of high overall significance to the Christchurch District (and may also be of significance nationally or internationally), because it conveys important aspects of the Christchurch District's cultural and historical themes and activities, and thereby makes a strong contribution to the Christchurch District's sense of place and identity; and*
>
> *(C) have a high degree of authenticity (based on physical and documentary evidence); and*
>
> *(D) have a high degree of integrity (particularly whole or intact heritage fabric and heritage values).*

40. The values in Appendix 9.3.7.1 are as follows:

(a) *Historical and social value:*
Historical and social values that demonstrate or are associated with: a particular person, group, organisation, institution, event, phase or activity; the continuity and/or change of a phase or activity; social, historical, traditional, economic, political or other patterns;

(b) *Cultural and spiritual value:*
Cultural and spiritual values that demonstrate or are associated with the distinctive characteristics of a way of life, philosophy, tradition, religion, or other belief, including: the symbolic or commemorative value of the place; significance to Tangata Whenua; and/or associations with an identifiable group and esteemed by this group for its cultural values;

(c) *Architectural and aesthetic value:*
Architectural and aesthetic values that demonstrate or are associated with: a particular style, period or designer, design values, form, scale, colour, texture and material of the place;

(d) *Technological and craftsmanship value:*
Technological and craftsmanship values that demonstrate or are associated with: the nature and use of materials, finishes and/or technological or constructional methods which were innovative, or of notable quality for the period;

(e) *Contextual value:*
Contextual values that demonstrate or are associated with: a relationship to the environment (constructed and natural), a landscape, setting, group, precinct or streetscape; a degree of consistency in terms of type, scale, form, materials, texture, colour, style and/or detail; recognised landmarks and landscape which are recognised and contribute to the unique identity of the environment; and

(f) *Archaeological and scientific significance value:*
Archaeological or scientific values that demonstrate or are associated with: the potential to provide information through physical or scientific evidence and understanding about social, historical, cultural, spiritual, technological or other values of past events, activities, structures or people.

41. As per their submission, CPT consider that the heritage significance of St James' Church and Setting is "considerably diminished given its current state of disrepair" to the extent that "it no longer meets the criteria" for scheduling. However, they have not provided an assessment of the building's condition, nor have they provided an assessment of the building and setting against the criteria in Policy 9.3.2.2.1 (b) (ii) to demonstrate their position.

42. With reference to the above, neither Policy 9.3.2.2.1 (b) (ii) nor Appendix 9.3.7.1 identify the *current* condition of an item or building as being a determinative criterion in assessing the heritage significance of that item or building, or its setting. Building condition may, however, be considered in assessing heritage value insofar as:

    (a) there may be features of a place that have been lost or modified through deterioration or remediation (temporary or permanent);and

    (b) this loss or modification impacts on (diminishes): its architectural, technological or contextual values; its authenticity or integrity; the extent to which it can be used, where a particular use contributes to its heritage values; or the extent to which it continues to provide evidence of history.

Current condition of the building and setting

43. In order to evaluate whether St James' Church and Setting "in its current state of disrepair" meets the threshold for scheduling as a "Highly Significant" heritage item, it is first necessary to understand its current condition.

44. St James' Church was damaged by the Canterbury Earthquakes of 2010-2011. The extent of this damage is summarised in section 3 of the *Strength and Repair Assessment* prepared by Aurecon in August 2011:

    (a) Both the east and west main gables have cracked at eaves level and the walls rocked out-of-plane around the cracked joint causing degradation of masonry at the joints. Mortar pointing at the cracked bed-joints have fallen on the ground and a few stones have become loose. [The gable ends were subsequently propped].

    (b) The top part of the chancel arch gable has displaced out of plane.

    (c) The chancel arch was damaged and was subsequently propped [internally with timber framing].

(d) A horizontal crack occurred on the side walls below the roof connections.

(e) Vertical cracks appeared at the lower sections of the side walls below windows.

(f) Mortar pointing between Oamaru stones in the buttresses and in the window frames has deteriorated.

45. In addition to the above, the stone crosses above the chancel gable and the east gable, and capstones along the top of the organ recess walls were also dislodged. At some point after 2014 (when the building was photographed for the Statement of Significance), the triangular cap stones to the chancel gable were removed and temporary flashings installed for weathertightness. Some loose stones have been left on the ground on the south side of the building.

46. None of the earthquake damage has been repaired, and all temporary propping remains in place.

47. Notwithstanding the earthquake damage, St James' Church "*is within the zero per cent to less than 20 per cent earthquake rating category for an earthquake prone building (EPB)*" according to the Earthquake Prone Building Notice issued by Council on 27 May 2019. As it is also a "priority building", the owner is required to carry out work to ensure that it is no longer earthquake prone by 11 June 2025.

48. The building has not been in use since the Canterbury Earthquakes of 2010-11. Although the grounds are regularly maintained, it appears that the building itself is less regularly attended to. I identified the following forms of deterioration on my site visit of 18 July 2023:

(a) Vegetation on the eastern end of the north side, particularly around the vestry, and at the western gable end has not been managed. There are shrubs and small trees rubbing against the building, trapping moisture and encouraging microbiological growth to develop. They may also be causing abrasion of the stonework, particularly the soft Oamaru stone. A climber has taken hold on the east side of the vestry and at the western end. Along with trapping moisture, the root systems of these climbers will be causing damage to the stone. Clumps of grass and weeds around the entire base of the building on all sides is trapping moisture and blocking ventilation grilles. This can be easily

addressed by removing vegetation from around the building, repairing stonework if required, and managing through maintenance.

(b) Microbiological growth has developed on the slate roof and stone walls where there is little to no sunlight exposure (such as on the south side), or where the level of moisture in the stonework is high either due to surrounding vegetation (such as around the vestry) or failure of spouting (such as on the buttresses of the north side). This can be addressed by cleaning the building, repairing stonework if required, and managing through maintenance and regular application of an appropriate biocide.

(c) Many of the gutters are blocked with significant plant growth. Water is overflowing regularly, as evidenced by the microbiological growth and staining consistently found below areas where gutters are visibly blocked. There is a gutter missing from the east side of the entrance porch, and part of the gutter on the south side (at the west end) has become detached. The main downpipe on the north side is separated from the feeder. This can be addressed by cleaning out and repairing gutters, checking all downpipes and ensuring they are properly connected, and managed through routine maintenance.

(d) Pigeons are roosting across the building, including within the temporary propping and in the tower, leaving significant volumes of acidic droppings on the stonework and slate roofing. This is a complex issue to resolve, but may temporarily be addressed with installation of deterrents such as bird spikes.

(e) There are some isolated areas where roof slates are broken, have slipped, or are missing; particularly where the gutters have become detached or are missing. This is easily repaired by refixing or installing new slates and refixing or replacing spouting (there are some roof slates stacked up on the southern side of the building).

(f) Isolated areas of loose or missing pointing are evident in the stonework; especially where the gable ends have fractured, and between Oamaru stone blocks around the windows and in the buttresses. This can be addressed with repointing.

(g) There are isolated areas of crust formation, scaling, delamination, and erosion of the Oamaru stone; particularly in the buttresses on both the

northern and southern sides of the building, and above the entrance porch. Some of this deterioration is simply the natural weathering of Oamaru stone, and does not generally need to be addressed, although the application of a lime-based shelter coat to severely affected stones may be considered. The presence of hard or inappropriate mortar, excessive moisture ingress and the presence of microbiological growth and vegetation are also causing or exacerbating erosion and delamination. Deterioration can be mitigated by ensuring that the building is shedding water appropriately, removing microbiological growth and vegetation, and repointing.

(h) Efflorescence is evident in some of the Oamaru stone on the corners of the tower. This can be addressed by cleaning using appropriate methods and managed through routine maintenance.

(i) There is some rust staining evident on the window frames at the east end which may be caused by runoff from the propping but is more likely being caused by runoff from the fixings for the protective glazing that has been placed in front of the stained glass windows. This can be addressed by cleaning using appropriate methods and managed through routine maintenance.

(j) The windows of the vestry are covered with plywood. This can be removed when the glazing is repaired.

(k) I have not had an opportunity to undertake observations from the interior as access has not been granted to me at the time of preparing this evidence. However, I hope to be able to obtain access prior to the hearing at which point I can update the Panel as to my findings.

49. Considering the seismic activity that the building has been subjected to, combined with over ten years of vacancy and minimal maintenance, St James' Church is, in my opinion, in remarkably sound condition overall. A similar observation was made in Aurecon's 2013 *Consent Documentation for Remediation of St James Church, Riccarton, Concept Issue,* which states (at section 3): "The church has survived the earthquake events very well".

Significance assessment of the building and setting

50. I have reviewed the Statement of Significance for St James' Church and Setting, which was prepared in 2014 – several years after the building was damaged in the Canterbury Earthquakes and had been left vacant.

51. Based on my review of the Statement of Significance, property file information and other historical documentation, and my site visit, I believe St James' Church and Setting, in their current state, meet the threshold for inclusion in as "Highly Significant" in Appendix 9.3.7.2 in the District Plan for the following reasons:

(a) St James' Church and Setting possess more than one of the values set down in Appendix 9.3.7.1 at a highly significant level:

(i) St James' Church and Setting have historical and social value derived from association with the Anglican church in Christchurch; as a response to the disruption and tragedy affected by World War I; and as the site of events significant to members of its congregation and community such as marriages, christenings, and funerals. These values remain even though the continuity of use of the place has been disrupted by its closure following the earthquakes.

(ii) The current condition of St James' Church means that it is not possible to carry out spiritual or commemorative activities within the building; and the congregation that worshipped at the building have been relocated. However, as a place of Anglican worship for c.90 years[5], the place is associated with the distinctive characteristics of the Christian religion, its traditions and ways of life. Constructed as a memorial to World War I, St James' also has considerable commemorative importance as a structure, regardless of its use. This is further enhanced by the World War II memorial and rose garden within the Setting. Therefore, St James' Church and Setting retain high cultural and spiritual values in its current condition.

(iii) St James' Church is a well-executed example of an "ecclesiologically correct" church – designed in the Gothic revival style, executed in stone, featuring a chancel not less than a third the length of the nave. On the exterior, the building's most striking features are the polychromatic stonework and pointed-arch windows with leaded and stained glass; and, on the north (street) side, the faceted vestry, small bell tower, and entrance

[5] The Church was officially opened in 1924; however, it has not been in use since the Canterbury Earthquakes of 2010-11.

porch. The style, form, scale, colour, texture and material of St James' remain largely unchanged despite the earthquake damage and deterioration that has occurred while the building has been vacant. Although the temporary props and vegetation obscure the building to a certain extent, it continues to hold high aesthetic and architectural value associated with a particular style. Further, St James' has high architectural value as the last church, and the only Anglican church, designed by one of New Zealand's foremost Edwardian architects, Alfred Luttrell; and for the heraldic paintings on the interior executed by architects Robert and Margaret Munro, the latter being Canterbury's first female architectural graduate. The building's current condition does not change these associations.

(iv) The composition and detailing of St James' Church confer high technological and craftsmanship value. The heraldic paintings on the interior, designed by the Munros and executed by Swiss church decorator Carl Gottini, are a unique feature of the building that demonstrate notable quality in their execution. Similarly, the stained glass windows, several of which were made in England, and the church bell, made locally, are examples of quality workmanship and use of materials.

(v) Although buildings have been added to the site of St James' over time, there remains a large open space around and, particularly, in front of the building, separating it from Riccarton Road. This open space distinguishes St James' Church and Setting from other properties in the vicinity; and, as a result, the place has contextual value as a unique feature within the streetscape of a highly built-up heavily trafficked arterial route. These values exist regardless of the building's current condition.

(b) St James' Church and Setting are of high overall significance to the Christchurch District because of the high cultural, spiritual, architectural, aesthetic, technological and craftsmanship values that it possesses. In developing Christchurch, the Canterbury Association aspired to create an Anglican city; and, as an Anglican parish church in one of the city's many historic suburbs, St James' Church and Setting convey some of the cultural and historical themes of the district. Many stone buildings constructed in the late 19th and early 20th centuries

were destroyed by or demolished as a result of the Canterbury Earthquakes in 2010-11; and those that remain, such as St James' Church, make a strong contribution to the district's identity.

(c) St James' Church and Setting have a high degree of authenticity, truthfully representing the original form, fabric, craftsmanship, location, context, and spiritual function of the place. A comparison between historic photographs and the extant building indicate that there have been few notable changes since it was opened in 1924, despite the earthquake damage and deterioration that has occurred since (compare **Figure 1** to **Figure 8**). The building was in continuous use as a church from 1924 until its closure due to damage following the Canterbury Earthquakes of 2010-11. While there has been some new construction on the western boundary and in the southeast corner of the site, the setting including the curved driveway, lawn and rose garden to the north of the Church remain largely unaltered (**Figure 9** and **Figure 10**).

Figure 1: St James' Church from the northeast, photographed by James D. Richardson. The date of the image is unknown but, as Richardson died in 1942, it is assumed to be c.1924-1940. Source: Auckland Libraries

Figure 2: St James' Church from the northwest, photographed by James D. Richardson. The date of the image is unknown but, as Richardson died in 1942, it is assumed to be c.1924-1940. Source: Auckland Libraries

Figure 3: St James' Church from the northwest, photographed by W. Neill. The date of the photograph is

Figure 4: St James' Church from the northwest, photographed by W. Neill. The date of the photograph is

unknown but assumed to be c.1950-60. Source: Archives NZ Ref. R24747612

unknown but assumed to be c.1950-60. Source: Archives NZ Ref. R24747613

Figure 5: 91ZM promotion photograph, 1989. Source: Canterbury Museum, 2019.10.9503

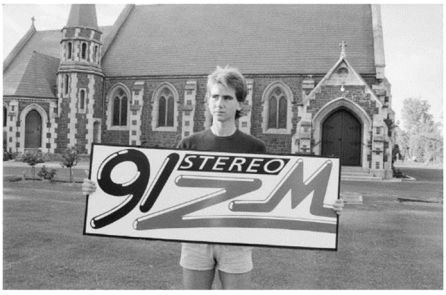

Figure 6: 91ZM promotion photograph, 1989. Source: Canterbury Museum, 2019.10.9530

Figure 7: St James' Church from the northeast, photographed by the author (18 July 2023). Although much of the exterior is concealed by temporary propping and vegetation, comparison with Figure 1 indicates that changes to the building since construction have been minimal.

Figure 8: St James' Church from the northwest, photographed by the author (18 July 2023). Comparison with Figure 2 to Figure 6 indicate that changes to the building since construction have been minimal.

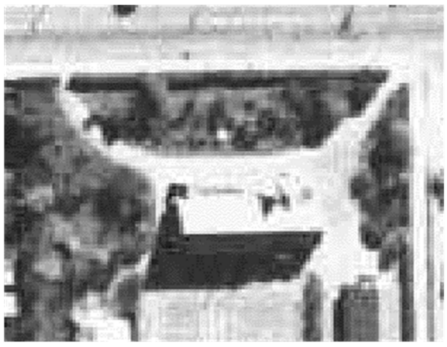

Figure 9: Aerial photo of St James' Church, 1940. Source: Retrolens

Figure 10: Current aerial photo of St James' Church. Source: Google Earth

(d) St James' Church and Setting have a high degree of integrity. Despite the damage caused by the Canterbury Earthquakes in 2010-11, the

building remains largely whole and intact in the physical sense. Where there has been damage at the gable-ends, the building fabric has been propped, minimising the risk of loss. The elements or areas of fabric that have been broken or dislodged make up a small percentage of the building in its entirety. The purpose of the Church, as well as the World War II memorial and rose garden, are easily legible, and continue to hold spiritual meaning and provide a sense of place even though they are not in use.

Summary of significance of St James' Church and Setting

52. In my view St James' Church and Setting meet the threshold of "Highly Significant" as set down in Policy 9.3.2.2.1 (b) of the District Plan in their current condition.

53. CPT's submission does not provide an alternative assessment of significance that demonstrates otherwise.

54. I strongly disagree with the statement made in CPT's submission (at paragraph 12) that it would be "appropriate to demolish" the church; and the statement (at paragraph 13) that the Church's heritage significance is "considerably diminished given its current state" and that "it no longer meets the criteria".

55. I therefore oppose the relief being sought at paragraph 13.1 and item 6 of Appendix 1 to CPT's submission. St James' Church (item number 465) and Setting (number 220) should not be removed from the Schedule.

IMPACT OF REPAIR AND STRENGTHENING ON HERITAGE VALUES

56. Policy 9.3.2.2.1 (c) (iii) of the District Plan acknowledges that there are circumstances where:

> *"the physical condition of the heritage item means that the restoration, reconstruction, maintenance, repair or upgrade work required would result in the heritage values and integrity of the heritage item being compromised to the extent that it would no longer retain its heritage significance".*

57. This may be because:

    (a) The extent of deconstruction required to make the item safe or to affect the necessary repairs or upgrade is not possible without destroying

historic fabric that then has to be replaced, impacting on architectural and aesthetic values, technological and craftsmanship values, authenticity and integrity.

(b) There are no like-for-like materials available to replace fabric that is damaged or cannot be reinstated or the fabric is irreplaceable (for example, if it has been crafted by hand), impacting on architectural and aesthetic values, technological and craftsmanship values, authenticity and integrity.

(c) The upgrade works required to bring the building up to the necessary standards are visible, thereby obscuring or concealing historic fabric, or permanently and negatively altering the design, form, style, scale, or materials, impacting on architectural and aesthetic values, technological and craftsmanship values, authenticity and integrity.

58. The *Consent Documentation for Remediation of St James' Church Concept Issue,* prepared by Aurecon in 2013, presents a scope of work for repairing earthquake damage and strengthening (upgrading) the church to 34% NBS or 67% NBS. I have used this report as the basis for evaluating the likely effect that the necessary repair and upgrade works will have on the heritage values, authenticity and integrity of St James' Church and Setting.

59. I note that the repair and upgrade works discussed below will not:

(a) Impact on the intangible values of the building – specifically historical and social, cultural and spiritual values – assuming that the building continues to be used as a church after the works are complete. Adaptive reuse and its impacts are discussed below.

(b) Impact directly on the setting (beyond the building itself) and therefore will not have a notable impact on contextual values.

(c) Impact directly on the archaeological or scientific values of the of the building or setting.

Chancel Arch and Wall

60. The gabled wall that incorporates the chancel arch requires both strengthening and repair.

61. A strength of 34% NBS for this part of the building can be achieved using fibre reinforced polymer (FRP) and helical wall ties and fixings (often referred

to by the product name "Helifix").[6] Installation will require some historic fabric to be removed but, at completion, the works would be largely concealed. Some deconstruction would be required, including removal of the engaged decorated timber trusses and plasterwork to the level of the nave walls be removed, and new fixings drilled through the masonry. The historic plasterwork would need to be replaced, but could replicate the original or existing detail using like-for-like materials. Historic and irreplaceable decorated timberwork could be reinstated once re-plastering was completed.

62. In the context of the overall building and setting, the impact that the work required to repair the chancel arch and wall and upgrade it to a strength of 34% NBS would have on the building's heritage fabric would be minimal. The architectural, aesthetic, technological and craftsmanship values, and the authenticity and integrity of this part of the building would be maintained.

63. For the chancel wall to achieve a strength of 67% NBS it is likely that visible interventions will be required: either in the form of post-tensioned steel rods on both sides of the arch, or in the form of steel beams shaped to fit the profile of the arch and fixed to the face of both walls inset from the arch or fixed to the intrados of the arch.[7]

64. Of these, the post-tensioned steel rods would require less fabric removal and may be less visually intrusive. Their installation could also be reversed in the future with relatively minimal repairs required to restore the wall to its current form. However, the rods would pass through the roof and the walls of the chancel which may present weathertightness issues and would result in an, albeit small, visible change to the building exterior. It is also likely that the engaged decorated timber trusses on both sides of the wall would need to be removed or cut back in some way to allow for the rods to be installed in close enough proximity to the masonry wall. The result would be a reduction in architectural, aesthetic, technological and craftsmanship values of the building. However, in the context of the building and setting as a whole, the reduction would not be so considerable that the overall significance of the place would be lost.

65. According to the *Consent Documentation for Remediation of St James' Church Concept Issue,* concealed post tensioned rods would not be viable in this location because of the confined wall space in which the rods would

[6] This is one of two options presented in Aurecon's 2013 report, Appendix A, p5
[7] These are the three options presented in Aurecon's 2013 report, Appendix A, p6

need to cross each other. The document is silent on whether it would be possible to achieve a strength of 67% NBS with a combination of concealed and unconcealed rods; for example: with rods concealed in the wall on the nave side and rods exposed on the chancel side, or vice versa. While more invasive and difficult to execute, this would reduce the visibility of the intervention and the associated impact on architectural, aesthetic, technological and craftsmanship values.

66. Alternatively, both steel beam options would alter a fundamental architectural element of the building's interior, being the chancel arch. The face-fixed option would require removal of the plaster moulding above the arch and the engaged decorated timber trusses on the chancel side, and these features could not be reinstated. The intrados-fixed option would damage and partially obscure the engaged columns at the spring-point of the arch. The result would be a reduction in architectural, aesthetic, technological and craftsmanship values, authenticity and integrity of the building.

West Gable Wall

67. The west gable wall does not need to be strengthened to achieve 34% NBS. However, cracking across the gable wall at eaves level needs to be stabilised. According to the *Consent Documentation for Remediation of St James' Church Concept Issue* this can be achieved by installing diagonal helical wall ties through the wall and steel straps on the interior of the wall. This can be done in such a way that the works can be concealed below a plastered finish to match the existing wall. The architectural, aesthetic, technological and craftsmanship values, and the authenticity and integrity of this part of the building would be maintained.

68. It is possible to strengthen the west gable wall to 67% NBS by installing multiple post-tensioned steel rods through the centre of the wall either side of the window. This would require the existing stone capping of the gable to be replaced by concrete, which would be a change to the external fabric and appearance of the building. However, if carefully detailed, the concrete capping could be designed to replicate the form of the stone capping, and coloured to align with the colour of the stone capping, reducing any obvious visual impact. Therefore, while this approach presents some risks that would need to be carefully managed, it is possible to achieve an outcome that has a minor effect on the architectural, aesthetic, technological and craftsmanship values, and the authenticity of the building.

69. Alternative methods of strengthening to 67% NBS are available, such as installing steel columns to the interior side of the wall, or installing steel rods to either side of the wall, but these would result in a visible change to the building. In particular, the option that includes installing rods on both sides of the wall would impact on the exterior of the building in a way that would be difficult to disguise. Therefore, these options would have a moderate impact on architectural, aesthetic, technological and craftsmanship values. However, in the context of the building and setting as a whole, the impact would not be so considerable that the overall significance of the place would be lost.

East Gable Wall

70. It is possible to strengthen the east gable to 34% NBS by installing multiple post-tensioned steel rods through the centre of the wall either side of the window. This will carry the same risks and have the same overall effect on heritage values as for the west gable wall (discussed above). However, because the wall incorporates a stepped arch, and is therefore of variable thickness, there is not sufficient width to install the number of rods that would be required to strengthen the wall to 67% NBS using this method.

71. To strengthen the east gable wall to 67% NBS, it would be necessary to tie the wall to the chancel wall using steel bars running below the roof; and to either install post tensioned vertical rods on both sides of the wall, or install steel columns on the interior face of the wall. In particular, the option that includes installing rods on both sides of the wall would impact on the exterior of the building in a way that would be difficult to disguise. Therefore, these options would have a moderate impact on architectural, aesthetic, technological and craftsmanship values. However, in the context of the building and setting as a whole, the impact would not be so considerable that the overall significance of the place would be lost.

Other Works

72. According to the *Consent Documentation for Remediation of St James' Church Concept Issue,* all other repair and strengthening works including works to the nave walls, building parapets, building foundations, and reinstatement of decoration can be carried out in such a way that the works are concealed once they have been completed.

Summary of impact of repair and strengthening on St James' heritage values

73. It is my opinion that it is possible for St James' Church to be repaired and strengthened to a minimum of 34% NBS in such a way that it would continue to meet the threshold of "Highly Significant" as set down in Policy 9.3.2.2.1 (b) of the District Plan. The restoration, reconstruction, maintenance, repair or upgrade work required would not "result in the heritage values and integrity of the heritage item being compromised to the extent that it would no longer retain its heritage significance".

74. It is not possible to strengthen the building to 67% NBS without visible interventions being made. These interventions will have variable effects on the building's heritage values. The worst-case scenario presented in the *Consent Documentation for Remediation of St James' Church Concept Issue* would result in the following visible interventions:

    (a) Stainless steel post-tensioned rods on both sides of the chancel wall, visible from the interior and (to a minimum extent) on the exterior, resulting in the removal of decorated timberwork on both sides of the wall on the interior, and creating penetrations through the roof and exterior walls of the chancel that will need to be weatherproofed.

    (b) Stainless steel post-tensioned rods to both sides of the gable end walls, visible from the exterior and interior; or stainless steel.

    (c) Steel tie rods across the nave at each timber truss location.

75. Together, these interventions will have a moderate impact on the architectural, aesthetic, technological and craftsmanship values of the building resulting from: the visible intrusion upon, and obscuration of, the original form and features of the building; and the modification or loss of significant fabric, particularly decorated timberwork. The interventions will have an impact on the building's authenticity as the original form and fabric will be modified by the removal and addition of materials. Similarly, the interventions will have an impact on the building's integrity, as it will remain largely whole and intact but with some additional visible structure.

76. Taking these effects into account, it is my view that it is possible for St James' Church to be repaired and strengthened to a minimum of 67% NBS in such a way that it would continue to meet the threshold of "Significant", and may continue to meet the threshold of "Highly Significant", as set down in Policy 9.3.2.2.1 (b) of the District Plan.

77. Therefore, it is my opinion that removing St James' Church (item number 465) and Setting (number 220) from the Schedule cannot be justified on the basis of Policy 9.3.2.2.1 (c) (iii).

ENGINEERING OR FINANCIAL FACTORS

78. Policy 9.3.2.2.1 (c) (iv) of the District Plan acknowledges that:

> "*there are engineering and financial factors related to the physical condition of the heritage item that would make it unreasonable or inappropriate to schedule the heritage item*".
>
> I assess this matter below.

Engineering factors

79. That St James' Church requires repair and strengthening work to be made safe for use is not disputed. The *Concept Issue of the Consent Documentation for Remediation of St James' Church* prepared by Aurecon in 2013 present options for repair and strengthening that can be designed in detail by appropriately experienced structural engineers and architects, and can be executed by a competent contractor. Similarly, I refer to the evidence of Ms Caponi which demonstrates that it is possible to strengthen the building using relatively common and well tested techniques. Therefore, I do not believe that it is unreasonable or inappropriate to schedule St James' Church and Setting on the basis of engineering factors.

Financial factors

80. I acknowledge that there will be a significant cost to repairing and strengthening the building. Paragraph 11 of CPT's submission states that repair and strengthening of the building are not "economically viable" for the Diocese. However, CPT has not provided any evidence in their submission that the costs of repairing the damage to the building and strengthening it to a minimum of >34%NBS would be "unreasonable" or "inappropriate" in the circumstances.

81. I refer to the findings of Rhodes + Associates Quantity Surveyors and Cost Consultants in their assessment dated 25 July 2023 that the cost of repairing and strengthening the building would be considerably less than the cost of replacement using like-for-like construction materials and techniques, or replication of the building in appropriate alternative materials.

82. Further, I note that there are a variety of options for repairing and strengthening the building that may be implemented, as demonstrated by the *Concept Issue of the Consent Documentation for Remediation of St James' Church* prepared by Aurecon in 2013 (discussed above). These will necessarily carry different costs that have not been estimated.

83. Grants for restoration works, including the preparation of documentation required to inform the scope of works and decisions about how to carry out the works, are available through the Department of Internal Affairs Lottery Environment and Heritage fund. CPT is eligible for this fund.

84. CPT's submission (at paragraph 11) states:

> *CPT have investigated in depth the feasibility of reinstating the Church, however, none of the options are economically viable for the Diocese. The Diocese has also investigated the sale of the Site to developers who might otherwise wish to reinstate the Church themselves. CPT's resounding feedback from these market enquiries was that purchasers were reluctant to take on the risk of an extremely low NBS building, and the uncertainty around future use and potential cost of repair.*

85. In my view, it is likely that the property would present a more attractive opportunity to the market if it was no longer earthquake prone (strengthened to >34% NBS).

Summary of engineering and financial factors impacting strengthening and repair

86. Based on the above, it is my opinion that removing St James' Church (item number 465) and Setting (number 220) from the Schedule cannot be justified in accordance with Policy 9.3.2.2.1 (c) (iv) of the District Plan.

POTENTIAL FOR ADAPTIVE REUSE

87. "Adaptive reuse" is the process of adapting a building or structure so that it can be used for a purpose that is different to the one for which it was designed and built.

88. In relation to adaptive reuse, the ICOMOS NZ Charter for the Conservation of Places of Cultural Heritage Value (Revised 2010) states (at Policies 8 and 21) that:

(a) The conservation of a place of cultural heritage value is usually facilitated by the place serving a useful purpose.[8]

(b) Where the use of a place is integral to its cultural heritage value, that use should be retained.[9]

(c) Where a change of use is proposed, the new use should be compatible with the cultural heritage value of the place.[10]

(d) Compatible use means a use which is consistent with the cultural heritage value of a place, and which has little or no adverse impact on its authenticity and integrity.[11]

(e) Any change should be the minimum necessary, should be substantially reversible, and should have little or no adverse effect on the cultural heritage value of the place.[12]

(f) Adaptation should not dominate or substantially obscure the original form and fabric, and should not adversely affect the setting of a place of cultural heritage value. New work should complement the original form and fabric.[13]

89. There are many examples, both nationally and internationally, of churches with heritage significance that have been adapted for different uses. Not all of these uses would be compatible (in the ICOMOS definition) with St James' Church. In particular, any conversion away from religious use will impact on the building's cultural and spiritual value.

90. However, if carefully planned and executed, St James' could be adapted for the following uses without significant adverse effects on historic and social value, architectural and aesthetic value, technological and craftsmanship value, contextual value, or archaeological and scientific value.

Hospitality venue

91. There are examples of churches that have been adapted into cafes, restaurants, or bars in Aotearoa and around the world. The large open space

[8] Policy 8: Use
[9] Policy 8: Use
[10] Policy 8: Use
[11] Definitions
[12] Policy 21: Adaptation
[13] Policy 21: Adaptation

of a church nave is easily adapted to this kind of use, relying primarily on changing moveable furniture.

92. Incorporating commercial kitchen and accessible bathroom facilities can present a challenge, although this can be dealt with through carefully designed building additions or ancillary buildings. For example, at St James', this could be achieved by adapting the adjacent building in the southeast corner of the site.

93. The north-facing garden and good space for parking within the St James' Setting lend themselves to use as a café; and its proximity to both commercial and retail businesses and residential streets suggest that a hospitality enterprise in this location could be successful. It would also provide a revenue stream to finance the cost of the repair and strengthening work.

94. Comparable examples include: The Church Café in Sanson, Clareville Bakery in Carterton, Fig Tree Café in Upper Hutt; Good Union in Cambridge; and Saints Public House in Te Kowhai.

Civic facility

95. Churches often lend themselves to conversion into civic facilities that such as libraries, museums, galleries, or community centres that require large open spaces that can flexibly accommodate large items of moveable furniture for storage, display, seating, or studying.

96. Churches can be adapted without the need for erecting walls, and freestanding furniture can be installed and moved around without damaging the building fabric. Arguably, civic use more in keeping with the ecclesiastical use for which St James' was designed than other uses, such as a hospitality venue or residential accommodation; however, the success of such facilities requires community investment in a way that commercial enterprises or private uses do not.

97. Ancillary facilities such as bathrooms and kitchenette could be accommodated within the vestry and/or in the building in the southeast corner of the site, or with a carefully designed addition to the rear of the building.

98. Comparable examples include: the Newtown Community and Cultural Centre, Wellington.

Commercial or retail space

99. As for civic facilities, churches can lend themselves to conversion into open plan offices for small businesses or shops because they provide a large open space that can be adapted with freestanding furniture.

100. As for a community facility, challenges exist with providing a bathroom and kitchenette for a commercial or retail space, but these could be resolved in the same manner. Commercial or retail use would also provide a revenue stream to finance the cost of the repair and strengthening work.

101. Comparable examples of past or present commercial conversions include: Birdwoods in Hawke's Bay; the Cambridge Country Store in Cambridge; Church Antiques and Allsorts in Eltham; Graham Brinsley's art studio in Arrowtown.

Events venue

102. Churches are easily adapted into venues that can be used for public events such as lectures or presentations, and for the kind of private events that would traditionally have been held in a church, such as weddings or funerals.

103. At St James', supporting functions could be provided for by other buildings on the site as they were when the church was operational. Hiring the place out as a venue would also provide a revenue stream to finance the cost of the repair and strengthening work.

104. Comparable examples of deconsecrated churches that provide mixed use venues include: The Old Church, Hawkes Bay; and Old St Paul's, Wellington.

Residential dwelling and boutique accommodation

105. This is a common form of adaptation for small historic churches in Aotearoa. The introduction of partition walls to create "rooms", the need to incorporate kitchens, bathrooms and laundries, and the integration of services (for example: cabling for additional power points and lighting, pipework for plumbing, ducting for ventilation, installation of heating) need to be planned carefully to avoid irreversible physical changes to the building that may diminish its architectural, aesthetic, technological and craftsmanship values, especially on the interior. However, this can also present opportunities.

106. At St James', residential conversion might enable visible strengthening solutions to be better concealed; for example: by constructing a wall below

the chancel arch. Residential conversion also restricts public access to the building and setting; and may have wider impacts on the setting caused by the erection of fencing for privacy.

107. For example, a stuff.co.nz article in September 2020 featured five examples of residential church conversions in Fielding, Lower Hutt, Wellington, Reefton, and Dunedin.[14] Other examples can be found across the country, from our largest city Auckland to small towns such as Naseby and settlements such as Waitarere Beach.

108. I acknowledge that residential conversion in this case may not present an attractive prospect because the cost of strengthening work needed may result in overcapitalisation, and rental income derived from the property (whether this be through a fixed term tenancy or boutique accommodation) would be unlikely to generate a revenue stream that sufficiently covered the cost of the work required.

Other international examples

109. Other international examples of adaptive reuse of churches include: manufacturing facilities, such as breweries or distilleries; recreational facilities such as climbing walls or skate "parks"; and educational facilities such as early childhood centres.

Summary of adaptive reuse options

110. It is possible to adapt St James' Church and Setting to serve a different use with minimal impact on its heritage significance. The most compatible or "appropriate" use would be a civic facility. However, a hospitality venue, events venue, commercial or retail space would present opportunities to generate revenue to finance the cost of repair and strengthening work.

CONCLUSION

111. In my opinion St James' Church (item number 465) and Setting (number 220) should not be removed from the Schedule because this cannot be justified under either Policy 9.3.2.2.1 or 9.3.2.2.8.

112. I therefore oppose the relief being sought at paragraph 13.1 and item 6 of Appendix 1 to CPT's submission. In my view, St James' Church (item

[14] https://www.stuff.co.nz/life-style/homed/houses/122828918/five-of-the-best-church-conversions-to-daydream-about-on-a-sunday

number 465) and Setting (number 220) should not be removed from the Schedule.

11 August 2023

Chessa Stevens

WSP Principal Conservation Architect and National Built Heritage Lead

APPENDIX 1

Our proposed Heritage Plan Change (PC13)

Submitter Details

First name: Jo **Last name:** Appleyard
Organisation: Church Property Trustees

On behalf of:

Postal address: Level 5, PwC Centre 60

Cashel Street
Suburb:

City:

Country: New Zealand

Postcode: 8140

Daytime Phone:

I could not
Gain an advantage in trade competition through this submission
I am not
directly affected by an effect of the subject matter of the submission that :
a. adversely affects the environment, and
b. does not relate to the trade competition or the effects of trade competitions.
Note to person making submission:

If you are a person who could gain an advantage in trade competition through the submission, your right to make a submission may be limited by clause 6(4) of Part 1 of Schedule 1 of the Resource Management Act 1991

Would you like to present your submission in person at a hearing?

- (•) Yes
- ( ) I do NOT wish to speak in support of my submission and ask that the following submission be fully considered.

Additional requirements for hearing:

Attached Documents

File
PC13 Submission - Church Property Trustees 3466-1225-7315

Form 5

SUBMISSION ON PUBLICLY NOTIFIED PROPOSAL FOR POLICY STATEMENT OR PLAN, CHANGE OR VARIATION

Clause 6 of Schedule 1, Resource Management Act 1991

To Christchurch City Council

Name of submitter: Church Property Trustees (*CPT*)

1 This is a submission on the proposed Heritage Plan Change 13 (*PC13*) to the Christchurch District Plan (the *District Plan*).

2 CPT could not gain an advantage in trade competition through this submission.

3 CPT's submission relates to the whole of PC13. The specific relief sought by CPT is set out at **Appendix 1** and elaborated on below.

4 CPT wishes to be heard in support of the submission.

5 If others make a similar submission, CPT will consider presenting a joint case with them at a hearing.

The St James Church

6 CPT owns land at 65 Riccarton Road (the *Site*), this is held on behalf of the Anglican Diocese of Christchurch (the *Diocese*). The Site houses the St James Church (the *Church*). The Church is listed as a 'Highly Significant' heritage item (heritage item number 465), within a heritage setting (heritage setting number 220) in the District Plan:

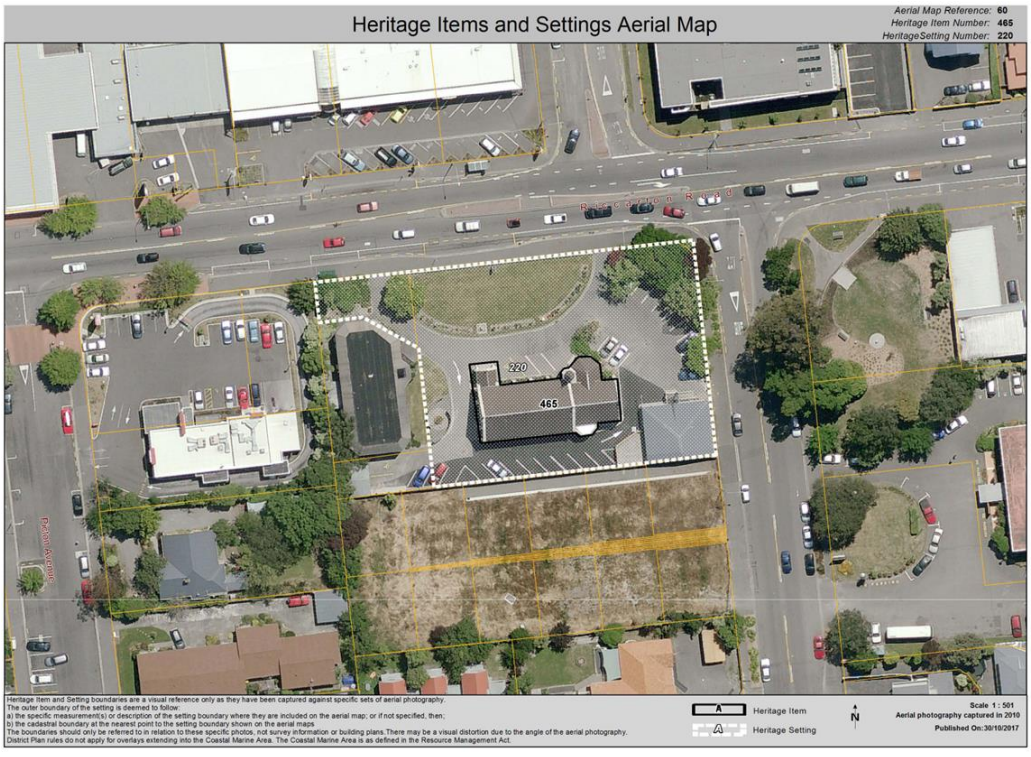

Figure 1: *The heritage item and setting on the Site, Heritage Items and Settings Aerial Map, Appendix 9.3.7.7 Christchurch District Plan.*

7 The Church was badly damaged during the Canterbury earthquakes and was listed as an Earthquake Prone Building having an NBS of less than 20% on 27 May 2019. The Church is currently in an extremely poor state of repair, and lacks the structural integrity required for its safe usage.

8 The Diocese continues to respond to changing demographics in the way it operates and the infrastructure required. In Christchurch this has included re-focussing the centres of operation for some parishes as a critical aspect of its core activities.

9 Notably, the Riccarton parish merged with the Spreydon parish a number of years ago. The Diocese therefore has no use for the Church, the Site itself is redundant and surplus to the Diocese's uses.

10 CPT hold a wide range of heritage assets throughout the City on behalf of the Diocese. It is one of the largest (if not the largest) private heritage owners in the South Island. Almost all of its heritage assets have been restored to better than pre-earthquake levels.

11 CPT have investigated in depth the feasibility of reinstating the Church, however, none of the options are economically viable for the Diocese. The Diocese has also investigated the sale of the Site to developers who might otherwise wish to reinstate the Church themselves. CPT's resounding feedback from these market enquiries was that purchasers were reluctant to take on the risk of an extremely low NBS building, and the uncertainty around future use and potential cost of repair.

12 CPT consider that the Church would be appropriate to demolish, having regard to the matters listed in Policy 9.3.2.2.8 which provides (as amended by PC13):

> ***9.3.2.2.8 Policy – Demolition of scheduled historic heritage ~~of heritage items~~***
>
> > *a. When considering the appropriateness of the demolition of a heritage item scheduled in Appendix 9.3.7.2 or a defining building or contributory building in a heritage area scheduled in Appendix 9.3.7.3, have regard to the following matters:*
> >
> > > *i. whether there is a threat to life and/or property for which interim protection measures would not remove that threat;*
> > >
> > > *ii. whether the extent of the work required to retain and/or repair the heritage item or building is of such a scale that the heritage values and integrity of the heritage item or building would be significantly compromised, and the heritage item would no longer meet the criteria for scheduling in Policy 9.3.2.2.1.*
> > >
> > > *iii. whether the costs to retain the heritage item or building (particularly as a result of damage) would be unreasonable;*
> > >
> > > *iv. the ability to retain the overall heritage values and significance of the heritage item or building through a reduced degree of demolition; and*
> > >
> > > *v. the level of significance of the heritage item.*

13 CPT consider that the Church's heritage status is considerably diminished given its current state of disrepair and it no longer meets the criteria for listing. CPT therefore seeks that:

13.1 The Church's heritage item (heritage item number 465) and heritage setting (heritage setting number 220) be removed from the Schedule of Significant Historic Heritage in Appendix 9.3.7.2 of the District Plan.

Signed for and on behalf of Church Property Trustees by its solicitors and authorised agents Chapman Tripp

_____

Jo Appleyard
Partner
12 May 2023

Address for service of submitter:

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APPENDIX 1

No.	Provision	Position	Submission	Relief Sought
1	Definition of 'Alteration'	Oppose	The definition has the effect of meaning that any change, modification or addition to a heritage item, heritage setting or heritage fabric, or a building in a heritage area will constitute an 'alteration' and trigger corresponding rules and consent requirements, irrespective of whether it impacts on heritage fabric. This will create unnecessary, costly and inefficient consent requirements, and provide no benefits in respective of heritage.	Retain status quo.
2	Definition of 'Demolition'	Oppose	The amended definition has the effect of meaning that any destruction of a non-substantial part of a building constitutes 'demolition' and triggers corresponding rules and consent requirements. This will create unnecessary, costly and inefficient consent requirements for inconsequential partial demolition work, create conflict with the definition of 'alteration', and provide no benefits in respective of heritage.	Retain status quo.
3	Definition of 'Heritage setting'	Oppose	The amended definition removes the wording that a setting *'together with the associated heritage item, has met the significance threshold'* and instead states that *'Heritage settings have not been assessed as meeting the significance threshold for scheduling'.* The submitter considers that heritage settings that	Retain status quo.

			do not meet the significance threshold for scheduling should not be listed, with associated regulatory requirements.	
4	Policy 9.3.2.2.8- Demolition of scheduled historic heritage	Oppose	The changes to clause (a)(ii) are opposed insofar that they introduce a new 'test' for evaluating the demolition of historic heritage that presents an unreasonable and inappropriate threshold that materially changes and undermines the policy. By way of example, the proposed wording may preclude the demolition of heritage items that are significantly (physically) compromised, on the basis of one or more (non-physical) heritage values (e.g. historical/social or cultural/spiritual value) remaining.	Retain status quo.
5	Matters of discretion 9.3.6.1(a)	Oppose	The submitter opposes the deletion of clause (a), given that damage incurred as a result of the Canterbury earthquakes of 2010 and 2011 including the costs of repair and reconstruction, remains a relevant matter for consideration.	Retain status quo for 9.3.6.1(a).
6	Appendix 9.3.7.2 Schedule of Significant Historic Heritage Items	Oppose	For the reasons stated in the covering submission, the listing of the item and setting at 65 Riccarton Road is inappropriate. Accordingly, this listing should be deleted.	Delete Heritage Item 465 and Heritage Setting 220 regarding 65 Riccarton Road from Appendix 9.3.7.2.
7	Appendix 9.3.7.4	Oppose	The exemptions provided in Appendix 9.3.7.4 are an important tool for incentivising the	Retain the status quo.

	Heritage item and heritage setting exemptions		adaptive reuse and ongoing protection of heritage items. As such, the amendments proposed to this appendix which reduce the extent of exemptions is inconsistent with the Plan's objectives in relation to heritage and section 6 of the Act.	

APPENDIX 2

Rhodes +Associates
Quantity Surveyors
Cost Consultants
rhodesqs.co.nz

Christchurch office
+64 3 366 1202
PO Box 1607, Cashel Street
Christchurch 8140
New Zealand

Queenstown office
+64 3 442 7706
PO Box 840, Queenstown 9348
New Zealand

25 July 2023

Te Hononga Civic Offices
53 Hereford Street
CHRISTCHURCH 8013

Attn: Amanda Ohs (e: Amanda.ohs@ccc.govt.nz)

Dear Amanda

3380/006 R1 –REPORT – HIN 465 – ST JAMES' CHURCH AND SETTING – 65, 69 RICCARTON ROAD CHRISTCHURCH

Please find enclosed our revised review for St James Church and Setting – 65, 69 Riccarton Road, Christchurch.

Should you have any queries, please do not hesitate to contact the writer

Yours faithfully

Phil Griffiths DipQS MNZIQS
Director
Rhodes + Associates Limited

Rhodes
+Associates

Quantity Surveyors
Cost Consultants

3380/006 - HIN 465 - ST JAMES CHURCH, 65, 69 RICCARTON ROAD

Elemental Estimate

25 July 2023

Christchurch City Council

QUALITY ASSURANCE INFORMATION

Report: ELEMENTAL ESTIMATE

Document: HIN 465 - ST JAMES CHURCH, 65, 69 RICCARTON ROAD

Ref: 3380/006

Date: 25 July 2023

Client: CHRISTCHURCH CITY COUNCIL

Lead QS: PHIL GRIFFITHS

Ver:	Date:	Prepared By:	Reviewed By:
	20/07/2023	Phil Griffiths	Lindsey Rhodes
R1	25/07/2023	Phil Griffiths	Lindsey Rhodes

EXECUTIVE SUMMARY

Rhodes + Associates Limited have been appointed by Christchurch City Council to provide a report for St James Church and Setting – 65, 69 Riccarton Road, Christchurch.

This report has been prepared specifically for Christchurch City Council. Rhodes + Associates Limited accepts no liability in the event this report is used for any other purpose or by any other party.

CLARIFICATIONS AND EXCLUSIONS

Rhodes + Associates Limited have not been requested to produce an estimate for the reinstatement and strengthening for St James Church and Setting – 65, 69 Riccarton Road, Christchurch and as such we have been requested to carry out a high-level review of the documentation from Aurecon provided by Christchurch City Council.

We would confirm that Rhodes + Associates have visited site to look at the external envelop only.

Building Description

St James Church was constructed between 1923 and 1924, is of cultural and spiritual significance. The building is of stone construction with a Welsh slate roof, has a gross floor area of approximately 293 m2 (measure estimated from a drawing contained within Aurecon's report and in accordance with NZIQS guidelines, see Appendix A).

Procurement

- It has been assumed the market is competitive with no adjustment included for inflationary factors associated with a major event
- The works are to be negotiated with a fixed lump sum contract

Review

This review has been carried out by Phil Griffiths, Director with Rhodes + Associated Limited who has a Diploma in Quantity Surveying, 25+ years' experience and is a Member of the NZIQS.

Repair and strengthening

Documentation from Aurecon has been provided which is a concept issue for the repair and strengthening of St James church although no pricing documentation has been provided.

Aurecon's report is split into the following sections:

2.1 - Work required to repair earthquake damage
2.2 - Work required to strengthen the building to 34% NBS strength
2.3 - Work required to strengthen the building to 67% NBS strength

In lieu of any financial information pertaining to the project and the fact that we have not been engaged to undertake any measurement and detailed estimate of the above we are only able to provide an extremely high-level guide for general repair and strengthening works on a square meter rate based on our experience with heritage projects and not in line with any detail provided within the Aurecon documentation.

We would suggest a guide of $18,000/m2 at current market rates. Given that the GFA is approximately 293 m2, this would give that a repair and strengthening estimate of around $5,274,000.

Replacement Cost

As noted above we have not been provided with any pricing documentation for this project.

The following assessments allow for demolition of the existing structure and exclude external works such as landscaping, carparks and the like. An allowance for and organ has been allowed to both 'Replacement like for like' and 'Replacement replica'

Replacement like for like (reconstruction using materials and methods of construction as close to the original as possible)

Given our experience on heritage projects we would suggest a guide of around $35,380/m2 at current market rates. Given that the GFA is approximately 293 m2, this would result in a replacement estimate of around $10,367,000.

Replacement replica (reconstruction using alternative materials and construction methods to achieve the overall look of the original)

Given our experience on heritage projects we would suggest a guide of around $20,520/m2 at current market rates. Given that the GFA is approximately 293 m2, this would result in a replacement estimate of around $6,013,000.

Replacement modern devotional building

A replacement with a modern structure with a medium standard of finish (which would bear no resemblance to the existing) from our recent experience would be in the region of $5,000/m2 at current market rates. GFA is approximately 293 m2, , this would result in a replacement estimate of around $1,465,000.

DOCUMENTATION

- Aurecon

  Consent Documentation for Remediation of St. James Church Riccarton – Concept Issue – April 2013

APPENDIX 3

Christchurch Eq. RAPID Assessment Form - LEVEL 1

Inspector Initials: W.M
Territorial Authority: Christchurch City
Date of Inspection: 25.2.11
Time: 2.15
Exterior Only: ✓
Exterior and Interior:

Building Name: Church House
Short Name:
Address: 67 Riccarton Rd
GPS Co-ordinates: S° E°
Contact Name: Sinclair Hughes
Contact Phone: 3436880

Storeys at and above ground level: 2
Below ground level:
Total gross floor area (m^2): 800
Year built: 80's
No of residential Units:

Photo Taken: ~~Yes~~ (No)

Type of Construction

- ☐ Timber frame
- ☑ Steel frame
- ☐ Tilt-up concrete
- ☐ Concrete frame
- ☐ RC frame with masonry infill
- ☐ Concrete shear wall
- ☐ Unreinforced masonry
- ☐ Reinforced masonry
- ☐ Confined masonry
- ☐ Other:

Primary Occupancy

- ☐ Dwelling
- ☐ Other residential
- ☐ Public assembly
- ☐ School
- ☐ Religious
- ☑ Commercial/ Offices
- ☐ Industrial
- ☐ Government
- ☐ Heritage Listed
- ☐ Other

Investigate the building for the conditions listed below:

Overall Hazards / Damage	Minor/None	Moderate	Severe	Comments
Collapse, partial collapse, off foundation	☑	☐	☐	
Building or storey leaning	☑	☐	☐	
Wall or other structural damage	☑	☐	☐	
Overhead falling hazard	☑	☐	☐	
Ground movement, settlement, slips	☑	☐	☐	
Neighbouring building hazard	☑	☐	☐	
Other	☐	☐	☐	

Choose a posting based on the evaluation and team judgement. Severe conditions affecting the whole building are grounds for an UNSAFE posting. Localised Severe and overall Moderate conditions may require a RESTRICTED USE. Place INSPECTED placard at main entrance. Post all other placards at every significant entrance.

INSPECTED *GREEN* ☑ RESTRICTED USE *YELLOW* ☐ UNSAFE *RED* ☐

Record any restriction on use or entry:

Further Action Recommended:

Tick the boxes below only if further actions are recommended

- ☐ Barricades are needed (state location):
- ☐ Level 2 or detailed engineering evaluation recommended
  - ☐ Structural ☐ Geotechnical ☐ Other:
- ☐ Other recommendations:

Estimated Overall Building Damage (Exclude Contents)

None	☐		
0-1 %	☑	31-60 %	☐
2-10 %	☐	61-99 %	☐
11-30 %	☐	100 %	☐

Sign here on completion: W. Mortlock
Date & Time: 2.15 25.2.11
ID:

75010104

Inspection ID _____ *(Office Use Only)* 75014900

Christchurch Eq RAPID Assessment Form - LEVEL 2

level (1)

Inspector Initials		Date	25-2-11	Final Posting (e.g. UNSAFE)	
Territorial Authority	Christchurch City	Time	1400		

Building Name Riccarton St James
Short Name Anglican Church
Address 65 Riccarton Rd
GPS Co-ordinates S° E°
Contact Name
Contact Phone

Type of Construction

- ☐ Timber frame
- ☐ Steel frame
- ☐ Tilt-up concrete
- ☐ Concrete frame
- ☐ RC frame with masonry infill
- ☐ Concrete shear wall
- ☑ Unreinforced masonry
- ☐ Reinforced masonry
- ☐ Confined masonry
- ☑ Other: Bluestone

Storeys at and above ground level: Below ground level:
Total gross floor area (m^2): Year built:
No of residential Units:
Photo Taken: Yes No

Primary Occupancy

- ☐ Dwelling
- ☐ Other residential
- ☐ Public assembly
- ☐ School
- ☑ Religious
- ☐ Commercial/ Offices
- ☐ Industrial
- ☐ Government
- ☐ Heritage Listed
- ☐ Other

Investigate the building for the conditions listed on page 1 and 2, and check the appropriate column. A sketch may be added on page 3

Overall Hazards / Damage	Minor/None	Moderate	Severe
Collapse, partial collapse, off foundation	☑	☐	☐
Building or storey leaning	☑	☐	☐
Wall or other structural damage	☑	☐	☐
Overhead falling hazard	☑	☐	☐
Ground movement, settlement, slips	☐	☐	☐
Neighbouring building hazard	☐	☐	☐
Electrical, gas, sewerage, water, hazmats	☐	☐	☐

Comments

Gable end cracked across - West & East Elevation - & ridge displaced.

Record any existing placard on this building:

Existing Placard Type (e.g. UNSAFE)

Choose a new posting based on the new evaluation and team judgement. Severe conditions affecting the whole building are grounds for an UNSAFE posting. Localised Severe and overall Moderate conditions may require a RESTRICTED USE. Place INSPECTED placard at main entrance. Post all other placards at every significant entrance. Transfer the chosen posting to the top of this page.

INSPECTED			RESTRICTED USE		UNSAFE		
GREEN	G1	G2	YELLOW	Y1	Y2	RED	R1	R2	R3

Record any restriction on use or entry:

Further Action Recommended:

Tick the boxes below only if further actions are recommended

- ☐ Barricades are needed (state location):
- ☐ Detailed engineering evaluation recommended
  - ☐ Structural ☐ Geotechnical ☐ Other:
- ☐ Other recommendations:

Estimated Overall Building Damage (Exclude Contents)

None	☐		
0-1 %	☐	31-60 %	☐
2-10 %	☑	61-99 %	☐
11-30 %	☐	100 %	☐

Sign here on completion

Date & Time 25-2-11
ID

Inspection ID: _____ *(Office Use Only)*

7501490

APPENDIX 4

St James Church, Riccarton

Strength and Repair Assessment for Godfrey & Company

Report ref:
213970
03 August 2011
Revision 0
Godfrey Ref 55875

aurecon

Document prepared by:

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Document control

aurecon

Document ID: 55875_213970_St_James riccarton _August 2011

Rev No	Date	Revision details	Typist	Author	Verifier	Approver
0	03 Aug 2011	1st issue	HD	HD	GKW	GKW

Contents

1. Introduction

At the invitation of Godfrey and Company structural engineers from Aurecon first inspected St James Church shortly after the 4 September 2010 Canterbury earthquake. Further inspections have been carried out after subsequent aftershocks and after the latest 13 June earthquakes.

Our scope of work became:

- Site inspections to review the damage to the church, to understand its construction and to assess the extent of repairs required;
- Temporary propping of the end gables and the chancel arch to secure the church against further damage; and
- Detailed structural analysis of the building to determine its strength and to determine whether or not it is earthquake prone and therefore requires strengthening;
- Concept strengthening design if the building proves to be earthquake prone.

2. Description of Church

The church is an unreinforced masonry building with composite stone-concrete-brick walls. The exterior wall skin is stone, with the thickness varying from 150 to 330 mm around the building. The interior layer is 2-leaf brick in the side walls and 1-leaf brick for the end gables. Between the interior and the exterior wall skins is an unreinforced concrete layer of good quality construction. The interior wall face has plaster finish, and the total wall thickness is around 620mm. The walls have a concrete strip foundation measuring approximately 800mm wide and 600mm deep constructed on a 2400mm wide concrete slab.

The church roof is steep with a pitch of about 52^{o}, and the roof load is supported by timber trusses bolted into the side walls. There is a masonry buttress supporting the side wall at each truss location. The trusses are positioned roughly 3400 mm apart.

3. Damage to Church

Much of the damage observed in the church building during our inspections originated from the 4 September 2010 earthquake, but the damage became slightly worse with subsequent earthquakes. The observed damage is summarised below:

- Both the east and west main gables have cracked at eaves level and the walls rocked out-of-plane around the cracked joint causing degradation of masonry at the joints. Mortar pointing at the cracked bed-joints have fallen on the ground and a few stones have become loose;
- The top part of the chancel arch gable has displaced out of plane;
- The chancel arch was damaged and was subsequently propped after the 22 February earthquake;
- A horizontal crack has occurred on the side walls below the roof connections;
- Vertical cracks have appeared at the lower sections of the side walls below windows; and
- Mortar pointing between Oamaru stones in the buttresses and in the window frames has deteriorated.

4. Strength Assessment

4.1 New Building Standard (NBS)

This is the earthquake standard that would apply to a new building of similar type and use if the building was designed to meet the latest design Codes of Practice. If the strength of a building is less than this level, then its strength is expressed as a percentage of NBS.

4.2 Earthquake Prone Buildings

A building can be considered to be earthquake prone if its strength is less than one third of the strength to which an equivalent new building would be designed, that is, less than 33%NBS. If the strength of a building exceeds 33%NBS then it does not need to be strengthened.

4.3 Christchurch City Council Earthquake Prone Building Policy 2010

The Christchurch City Council (CCC) already had in place an Earthquake Prone Building Policy (EPB Policy) requiring all earthquake prone buildings to be strengthened within a timeframe varying from 15 to 30 years. The level to which the buildings were required to be strengthened was 33%NBS.

As a result of the 4 September 2010 Canterbury earthquake the CCC raised the level that a building was required to be strengthened from 33% to 67% NBS but qualified this as a target level and noted that the actual strengthening level for each building will be determined in conjunction with the owners on a building-by-building basis. Factors that will be taken into account by the Council in determining the strengthening level include the cost of strengthening, the use to which the building is put, the level of danger posed by the building, and the extent of damage and repair required.

Irrespective of strengthening level, the threshold level that triggers a requirement to strengthen is if the existing strength of the building is less than 33%NBS.

4.4 Strength of Church Building

We established the church geometry by three-dimensional scanning of the church, and we analysed the church walls, the tower, and the roof diaphragm structures. We modelled walls as unreinforced concrete frames having a thickness equal to the measured thickness of concrete, and we assumed the remainder of wall thickness as added mass having no structural strength. We used the response spectrum method to carry out the related wall analyses, and we also analysed the church roof between the west gable and the chancel arch as a shear beam consistent with the seismic behaviour of timber diaphragms.

We checked the strength of the concrete walls for their capacity to resist in-plane forces (forces parallel to the wall).The minimum capacity of the west end gable wall was found to be 132% and 115%NBS, respectively for shear and for bending. The minimum capacity of the east gable end walls was obtained as 124% and 80%NBS, respectively for shear and for bending. The minimum capacity of the side walls was obtained as 234%NBS for bending and 157%NBS for shear.

We calculated the %NBS for the tower as being greater than 100% for both shear and bending actions. The %NBS was obtained as 74% and 53%, respectively for shear and bending in the main pillars below the chancel arch. The chancel arch itself is subject to pounding forces from roofs on both sides, and the %NBS is likely to be zero as the wall construction is likely to be unreinforced masonry at roof level. As a failure in the chancel arch poses serious life hazards, the post-cracking capacity of masonry that is conventionally utilised for regular wall piers and spandrels should be ignored.

The minimum capacity of the church side walls to remain stable when subjected to out-of-plane forces (forces perpendicular to the wall) is 75%NBS. We have made conservative assumptions that included ignoring the thickness of interior brick walls when evaluating the church walls for out-of-plane stability. We calculated the %NBS value for out-of-plane behaviour of east and west gable walls as 25% and

58%, respectively. The very low %NBS calculated for the east gable wall is due to the recess in the wall in the central area. We have assumed that the walls have positive connections to the roof as this assumption can be ascertained and connections added with relative ease during the church repair.

The roof diaphragm was assessed to have minimum deformation and strength capacities of 55%NBS and 72%NBS, respectively. We have ignored the increase in the diaphragm capacity due to the roof truss stiffness and strength.

In summary the strength of the church building is limited to 0 %NBS and 25 %NBS respectively by the chancel arch and by the out-of-plane stability of the east end gable wall. Because these values are less than 33%NBS the church is earthquake prone.

4.5 Strengthening of the church

Because the strength of the main building is less than 33%NBS the building must be strengthened to achieve a target level of 67% and the church repair should be done along with strengthening.

The work that would be required is as follows:

- Strengthen the pillars below the chancel arch for flexure by drilling from the eaves level and grouting reinforcing bars into the walls or post-tensioning the walls. This is a commonly used technique that has no impact on the heritage values of the building, is totally concealed and fire rated by the surrounding bricks, and which is cost effective because it makes maximum use of the existing materials (bricks) to carry the seismic loads as opposed to introducing new elements.
- Re-instate the integrity of the chancel arch by grout injecting and using twisted steel bars to reinforce the wall. Apply 30mm engineered cementitious composites (ECC) on the wall face to add strength against pounding forces from the roof.
- Strengthen and stiffen the timber roof diaphragm in the longitudinal direction by adding end chord elements parallel to the gable end walls. These elements are one or more continuous timber joists with steel straps nailed to the roof trusses and rafters at the diaphragms ends.
- Grout injecting and binding the wall skins together in the end gable walls to increase the effective wall thickness so that full rocking capacity of the end gables are utilised. Anchor the gable end walls back to roof.
- Pin top gable Oamaru stones and loose end gable Oamaru stones back to the church walls.
- The damage caused by the earthquake would need to be repaired.

We have scoped the work required to repair and strengthen the church in our drawings, copies of which are appended.

5. Heritage Issues

The church is Category 1 protected buildings under the Christchurch City Council (CCC) Plan, but is not under the Historic Places Trust Register. Consultation with CCC will be required prior to any work being undertaken.

5.1 Permitted Activity

Any restoration or repair of the buildings following earthquake damage will be assessed as a Permitted Activity, and therefore will not require Resource Consent provided the works undertaken will be “carried out in manner and design and with similar materials to those originally used and which does not detract from those features for which the item has been listed”. The nature of such works is

somewhat subjective, and would need to be discussed with the Council in order to confirm the Permitted Activity Status of the same.

5.2 Restricted Discretionary Activity

Repair/restoration works that do not otherwise qualify as a Permitted Activity will require consent as a Restricted Discretionary Activity where Council's discretion is limited to:

- Form, features and fabric of building and additions to building.
- Cladding of building.
- External colour of building.
- Location and size of buildings and structures on a site.

For all resource consent applications involving heritage buildings the following information is required:

- An explanation of the nature of the heritage resources affected, i.e. heritage building/place/site/waahi tapu;
- The specific location of the heritage resource, (preferably a map showing the location of the resource and area of impact the proposal has on the resource;
- A statement as to whether the activity will affect the whole/part of the heritage resource;
- An indication as to how adverse effects on heritage values will be mitigated;
- Where it is likely a significant adverse effect will result, a description of any possible alternative location or methods of undertaking the activity;
- What consultation (if any) has occurred with the New Zealand Historic Places Trust.

5.3 Strengthening

Strengthening of the buildings will be a Restricted Discretionary Activity.

Strengthening methods that do not mitigate any adverse impact on the heritage values of the buildings are unlikely to find favour from either the Council or the New Zealand Historic Places Trust.

6. Conclusions

Our conclusions are as follows:

- The church is earthquake prone as its current seismic capacity is less than 33%NBS
- There is a legal requirement for the church to be strengthened
- The CCC requires earthquake prone buildings to be strengthened to a target level of 67%NBS. We recommend strengthening be undertaken so that the target level of 67% is achieved as far as is practicable which also respecting the heritage aspects of the building.
- The church has suffered moderate damage during the earthquake which can be repaired.

7. Recommendations

We recommend that the work described in our report and on the drawings be costed in order for the church to decide whether to proceed with the work.

Should the church decide to proceed, detailed structural calculations, drawings, and specifications will need to be prepared for building consent. The services of a heritage architect will be needed to advise on heritage aspects of the work.

8. Limitations

Our site inspections have been limited in scope to visual inspections. No detailed testing of materials has been carried out apart from drilling some of the walls to determine their construction. We have not been able to inspect the structure where hidden by wall or ceiling linings. We have assumed that the structural elements we have inspected are typical.

Appendix A
Design Codes and Importance Level

A1. Design Codes

Our strength assessment of the building has been based on the following documents.

AS/NZS 1170 is the joint Australian / New Zealand code that provides design loadings for buildings. NZS 1170.5 2004 is part of this code and provides earthquake design loads for New Zealand.

NZS 4230:2004 has been used for calculation of unreinforced concrete strength properties.

There is no code that explicitly covers the strengthening of unreinforced masonry buildings. The New Zealand Society for Earthquake Engineering has filled this void with the Recommendations of a NZSEE Study Group on Earthquake Risk Buildings entitled “Assessment and Improvement of the Structural Performance of Buildings in Earthquakes”. While not a code as such, it is recognised by Territorial Authorities including the CCC which states in its 2010 EPB Policy that it is the “preferred basis for defining technical requirements and criteria”.

We have also used overseas codes and research papers to augment the above documents. In particular we have made extensive use of the latest research from Auckland University titled “Assessment and Improvement of Unreinforced Masonry Buildings for Earthquake Resistance” edited by Professor Jason Ingham and issued as a Draft Supplement to the NZSEE Study Group Recommendations.

A2. Importance Level

AS/NZS 1170 assigns five importance levels to the design of buildings which reflect the consequences of failure in terms of human life as well as economic, social and environmental consequences.

Normal buildings fall into importance level 2. Importance level 3 includes buildings that may contain people in crowds or contents that have a high value to the community. Buildings that are designed to importance level 3 are designed to seismic forces that are 30% higher than a similar building in importance level 2.

The church building is classified as importance level 2 in terms of AS/NZS 1170 as the church has a capacity of approximately 160 people.

The NZSEE Study Group Recommendations state that “Historical buildings of significant cultural significance should be assigned importance level 3 unless this classification would result in significant disruption to the historical fabric”. However this is not a legal requirement whereas AS/NZS 1170 is a mandatory legal requirement.

A3. Application of Importance Level to St James Church

An earthquake prone building is defined in legislation as a building having a strength of less than one third of that of an equivalent new building. The legislation does not require either the church to be considered as anything other than a normal building and therefore we have based our assessment as to whether it is earthquake prone on the church being classified as importance level 2. The fact that the NZSEE Study Group Recommendations state that such buildings should have a classification of importance level 3 relates to the strengthening of the buildings and has no relevance to the assessment as to whether the church is earthquake prone.

Therefore we have classified the church building as importance level 2 in determining whether it is earthquake prone.

Appendix B
Assumptions and References

B1 Assumptions

We have based our strength assessment on the following:

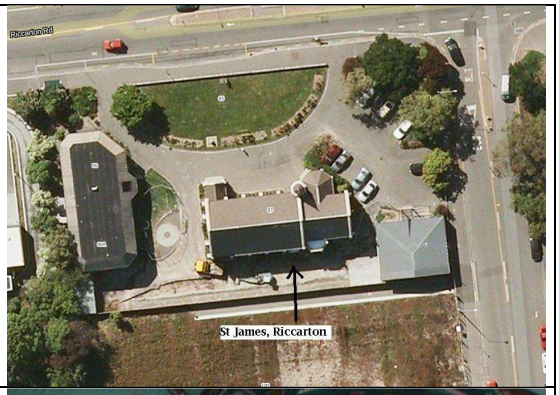
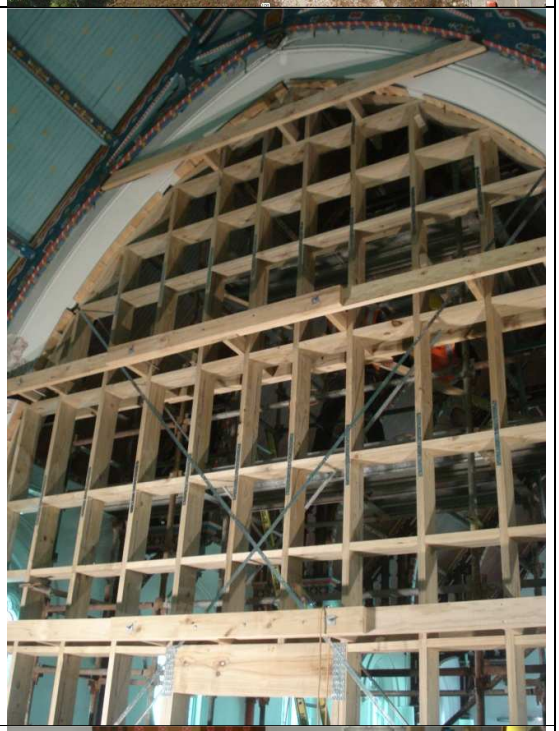
- Design loading to NZS 1170.5 2004
- Building classified as importance level 2
- Hazard factor Z = 0.3, soil class D, return period factor R = 1.0, near fault factor N(T,D) = 1.0
- Structural performance factor S = 1.0 for unreinforced masonry and concrete and S = 0.7 for timber diaphragms
- Ductility factor = 1.0 for unreinforced masonry and concrete and ductility factor = 2.0 for timber floor diaphragms
- The strength capacity of unreinforced concrete has been based on the NZS 4230.
- In accordance with NZSEE 2006 Study Group Recommendations we have reduced the in-plane forces on the walls by 35% when using 5% damping to provide the same level of force as would have been obtained using 15% damping.
- When considering the walls out-of-plane we have used 5% damping and we have used 5% damping for the timber floor diaphragms.
- The walls of the building have been modelled as frames consisting of piers and spandrels in accordance with the NZSEE 2006 Study Group Recommendations as most of the weight of the structure is concentrated in the walls. The walls have been analysed using response spectrum analysis.
- The NZSEE 2006 Study Group Recommendations and the University of Auckland Draft Supplement have been used, respectively, to calculate the in-plane and out-of-plane capacity of the walls.
- Masonry and timber diaphragm material properties have been assumed as the lesser values recommended by the NZSEE 2006 Study Group Recommendations and the University of Auckland Draft Supplement.
- We have assumed that the walls have positive connections to the roof. At the time of earthquake repair, the existence of such connections will need to be ascertained and connection anchors added if necessary.

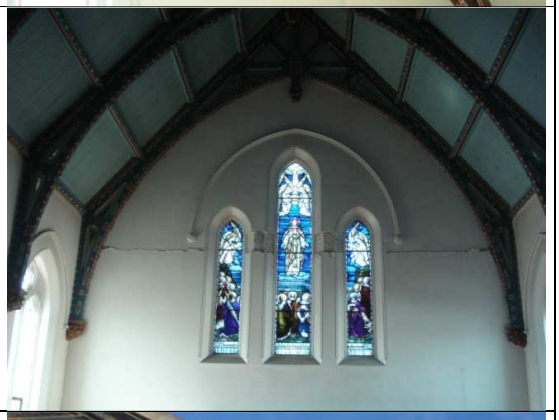
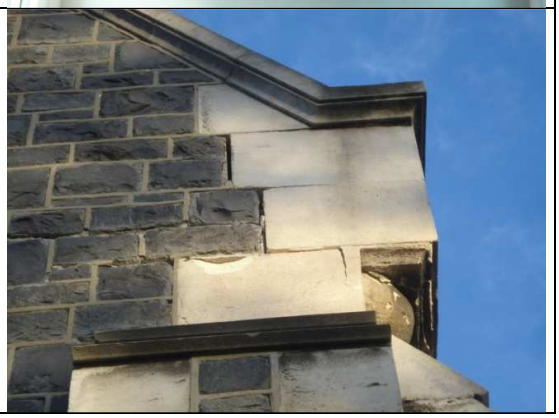
B2.Reference Documents

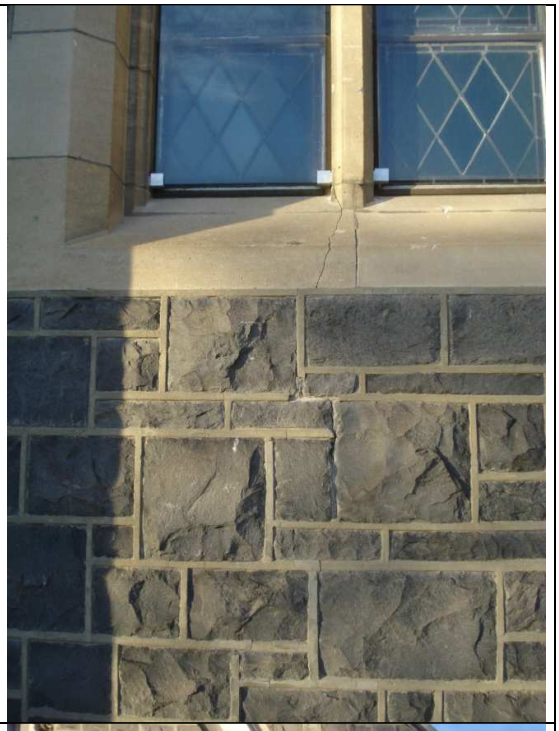
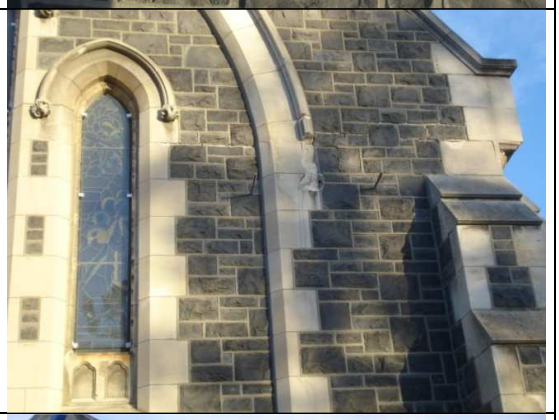
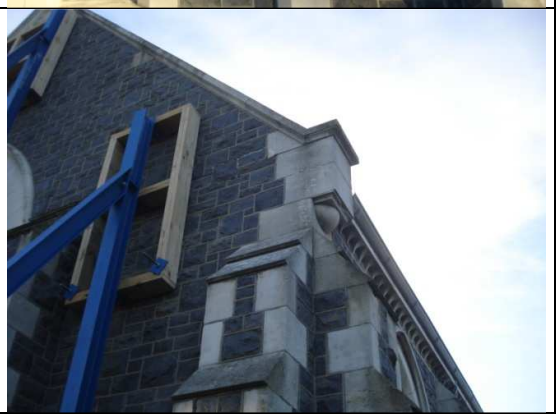
We have used the following reference documents:

- AS/NZS 1170.0,1, 5 and commentaries
- NZS 4230:2004.
- New Zealand Society for Earthquake Engineering 2006 Study Group Recommendations “Assessment and Improvement of the Structural Performance of Buildings in Earthquakes”
- Draft Supplement to the NZSEE 2006 Study Group Recommendations published by the University of Auckland “Assessment and Improvement of Unreinforced Masonry Buildings for Earthquake Resistance” and commentary.

Appendix C
Site Plan and Photographs

Site plan	
The chancel arch which was propped after February earthquake.	
Plaster has fallen off the propped chancel arch during the 13 June earthquake.	

Damage to top of north wall.	
Damage to interior brick skin of the west gable end wall	
Horizontal crack at eaves level in the east gable end wall; similar crack appeared in the west end gable wall.	
Displaced stonework at east gable wall.	

Vertical cracks below window on the north wall.	
The horizontal crack at east gable.	
The propped west gable.	

Slight chipping at the base of the north gable.	

APPENDIX 5

Consent Documentation for Remediation of St. James Church, Riccarton

Report ref: 213970
23 April 2013
Revision 1

CONCEPT ISSUE

aurecon

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Document control

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Document ID: Project 213970 St James Church, Riccarton Consent Documentation

Rev No	Date	Revision details	Typist	Author	Verifier	Approver
0	5 November 2012	Concept issue	MR	MR		
1	23 April 2013	Concept Issue including 34% NBS options	LH	LH	MR	

Contents

1. Introduction

Aurecon New Zealand has been commissioned by the Anglican Life Church Property Trust to provide design services and consent documentation to repair, and if necessary strengthen, earthquake damaged churches in the Christchurch region.

Aurecon's mandate is to carry out detailed assessments of the various churches, and ancillary buildings, to establish their ability to withstand seismic forces and to identify whether they are earthquake prone or earthquake risk buildings. Repair works, and strengthening to at least 67% NBS, are to be designed and documented. Options for strengthening to 34% of NBS strength are also included.

This report documents the work required for St. James Church located in Riccarton.

Note: *The church currently rates at about 50%NBS overall with the chancel arch and east gable rated as earthquake prone (<33% NBS).*

Bringing the church to a minimum of 67% NBS requires significant strengthening of the side walls, the gable end walls and in particular the chancel arch.

This report is issued only as a concept to show the extent of strengthening work. It will allow preliminary costing to be carried out by a QS, and enable a decision to be made by the various stakeholders on an agreed way forward. Proposed strengthening options have been reviewed by the Christchurch City Council Heritage Engineer and his preferences have been indicated

1.1 Description

St James church, constructed in 1923, is a Category 4 Heritage listed building (listed on the Christchurch District Plan). The nave walls, sanctuary walls and west gable are 620 mm thick unreinforced masonry constructed from basalt stone on the exterior (150 mm thick), an internal concrete core averaging 200 - 250 mm thick and two courses of brick (220 thick) with render on the interior face. The east gable wall is of similar construction but only 500 mm thick in the central window area.

Bell tower construction is similar to the nave walls except that the upper sections are solid concrete, possibly reinforced.

The walls of the church and bell tower have fairly substantial external stone buttresses.

The walls are supported by a concrete strip foundation measuring approximately 800mm wide and 600mm deep (to be confirmed).

The roof of the church is slate on timber sarking with timber purlins and rafters. The church has a wood floor supported on concrete piles.

1.2 Observed Damage

The church grounds have sustained no significant liquefaction or ground movement, there is no evidence of foundation damage. Observed damage to the structures is as follows:

- The east and west gable end walls are cracked and supported by steel shoring
- Render has fallen from the chancel arch and the arch is propped with timber
- Parapet capping stones above the chancel arch are dislodged

- There is minor to moderate cracking and localised damage to masonry throughout. Horizontal cracking is evident in the south wall below the roof eave connection

1.3 Geotechnical Information

The church precinct is located in ground zone TC-2 (yellow). No detailed investigation has been carried out, but a detailed investigation at the nearby Riccarton Mall has indicated the following:

`The Westfield Riccarton site is underlain be a sequence of materials consisting of interbedded alluvial sands, silts and sandy gravels overlying the Riccarton Gravel typically encountered at depths of 17-19m. An upper layer of sand and gravels of between 2 and 6 m in thickness is commonly encountered at a depth of 7.5 to 9 m, thinning from west to east across the site. The silty sands appear to vary from loose to firm in nature. The ground water table is in the order of 1.5m below ground surface.

In the recent sequence of earthquake events in Christchurch since September 2010 little or no liquefaction has been evident at the site to date. Estimates of peak ground accelerations at nearby Riccarton sites correspond to 0.2g for the September 2010 and February 2011 events and 0.3g for the June 2011 event. For ground shaking corresponding to 100%NBS at Importance Level 3, peak ground accelerations are expected to be in order of 0.44g. This equates to 0.3g pga for 67%NBS and 0.15g pga for a 34%NBS event.

The probability of liquefaction at the SLS earthquake (corresponding to 25 year return period) and a 34% NBS earthquake (≈50 year return period) is considered low. However under ground shaking corresponding to 67%NBS earthquake (≈300 year return period), some form of liquefaction can be expected, the extent of which is unclear'.

The above report implies that the church has already been subjected to a 67% NBS earthquake. No liquefaction or significant ground movements have occurred and the church has sustained only moderate damage, although the gable walls and chancel arch are propped. This suggests that the church is reasonably robust, but could perhaps be prone to more significant damage in a longer duration earthquake.

A basic geotechnical investigation was carried out on the 6th of November 2012, comprising two dynamic cone penetrometer tests. The investigation logs are included in Appendix B.

The cone penetrometer testing indicates an ultimate soil bearing capacity of 300kN/m^2 at 500mm depth.

These results demonstrate an acceptable soil bearing capacity, which corroborates the assumptions that were made in the structural assessment.

1.4 Earthquake Prone Building Assessment

We have based our remediation / strengthening designs on Aurecon report `Strength and Repair Assessment for Godfrey & Company', report 213970, rev 0, 3 August 2011 (refer to Appendix C).

The above assessment indicates the following:

Element	**% NBS**
Roof diaphragm	>67
Roof diaphragm connections to side walls, gable end walls and chancel arch	To be verified on site

Side (north and south) walls	
in-plane loading	100
Out of plane loading	somewhat >33 (reassessed from 74% in Report 3 Aug 2011, refer to Strengthening Calculations Sept/Oct 2012)
Gable end walls	
in plane loading	West = 100, East = 80
Out of plane loading	West = 58, East = 25
Chancel Arch	
Out of plane	>67%
In plane loading	<33
Bell Tower	>67

Therefore based on our assessment of the current structure we estimate:

- the church lateral load capacity is less than 33% NBS and as such is classified as an Earthquake-Prone Building under the Building Act.

2. Repair and Strengthening Work

2.1 Work Required to Repair Earthquake Damage

- Repair damage to East and West Gable Walls and Chancel Arch. Note that the damaged East Gable wall and Chancel Arch are both rated as Earthquake prone, and therefore repair works would need to incorporate strengthening to 34% NBS as noted below.
- Repair random minor to moderate cracking and localised damage of masonry walls throughout.
- Reinstate and fasten loose parapet capping stones
- Re-level the wood floor

2.2 Work Required to Strengthen the building to 34% NBS Strength

- Strengthen the chancel arch
- Strengthen the east gable wall

2.3 Work Required to Strengthen the building to 67% NBS Strength

- Strengthen the chancel arch.
- Strengthen the east and west gable end walls.
- Strengthen the side walls.

3. Issues of Note

Resilience of Church

Detailed assessment of the church has shown it to have a global rating of about 50% NBS with the exception of the east gable end wall and chancel arch. This is a reasonable rating for a church of this age and construction type. The church has survived the earthquake events very well, which suggests that it may in reality rate closer to 67% NBS than the assessment shows (refer to Section 1.3).

The strengthening work required to bring the church to 67% NBS is however quite extensive and requires careful consideration of costs versus benefits.

The intent of the Building Act is `to safeguard people from injury' and due diligence dictates an amount of strengthening to mitigate possible brittle and sudden failures rather than necessarily preservation of property for historical value.

It is very difficult to predict how an unreinforced masonry (URM) building, such as St James, will behave in a future event, especially if hidden structural damage has been caused by the recent shaking. URM buildings are not resilient structures and failures are likely to be sudden and significant when a certain load threshold is exceeded.

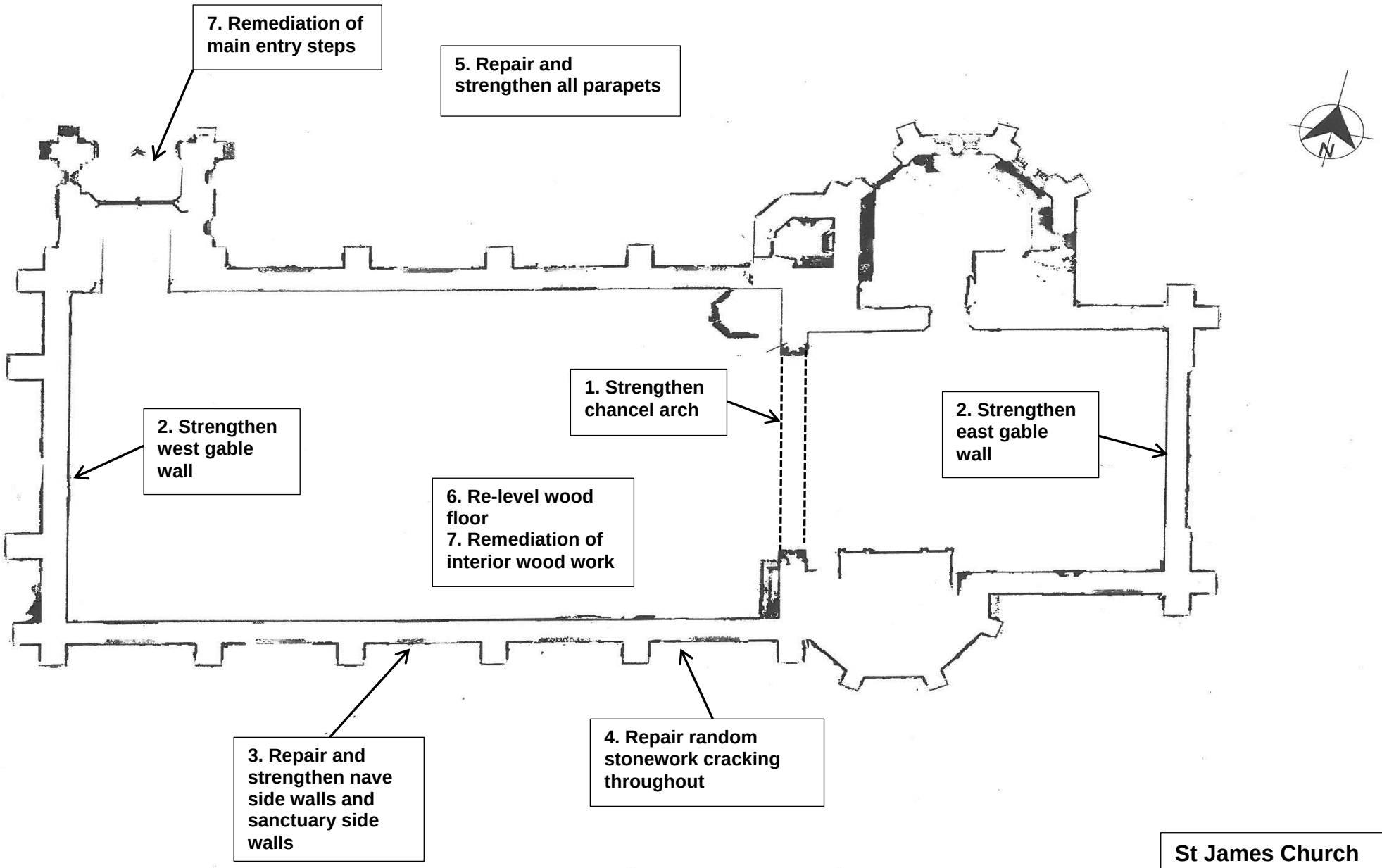
Specific elements requiring attention for resilience are the chancel arch, the gable walls and the side walls, but parapets and stone crosses on the roof are fall hazards and also deserve consideration.

The Scope of Work, Appendix A, therefore includes measures to improve the resilience of the church specifically targeting life safety rather than preservation of property.

Appendix A
Scope of Work

Scope of Work – Summary

Item		Description	Reference
Earthquake Strengthening and Repair of Damage			
1.	**Chancel Arch**	Repair and strengthen the chancel arch	Photos 1 to 1a and SK- 01 to 03 and SK 09-10 Appendix B
2.	**Gable Walls**	Repair and strengthen the east and west gable walls	Photos 2 to 2b and SK – 04 and 05 Appendix B
3.	**Side Walls**	Repair and strengthen the nave side walls	Photos 3 and 3a and SK – 06 to 08 Appendix B
4.	**Stonework**	Local repair of cracked and damaged interior and exterior stonework	Photo 4
5.	**Parapets**	Local repair and strengthening of parapets	Photos 5 to 5b
6.	**Floor re-levelling**	Re-level existing wood floor	Photo 6 and SK - 09 Appendix B
7.	**Other Issues**	- Possible remediation of Interior wood work - Repair main entry step damage - Reference should be made to the Architect drawings for extent of repairs and remediation methods for non-structural issues, watertightness issues and ground works (if any)	Photo 7 and 7a
Contingency items		- Possible remediation of connections between the roof and the side walls, gable end walls and chancel arch. During remediation work the Engineer is to be provided access to inspect the existing connections for adequacy	
General		- Contractor to note: St. James Church is a heritage listed building. Any proposed deviations from approved Drawings must have the approval of the Architect and Engineer prior to commencement of work	



St James Church Layout

Scope of Work cont'd

General view of St James Church (information only)

1. Repair and Strengthen the Chancel Arch

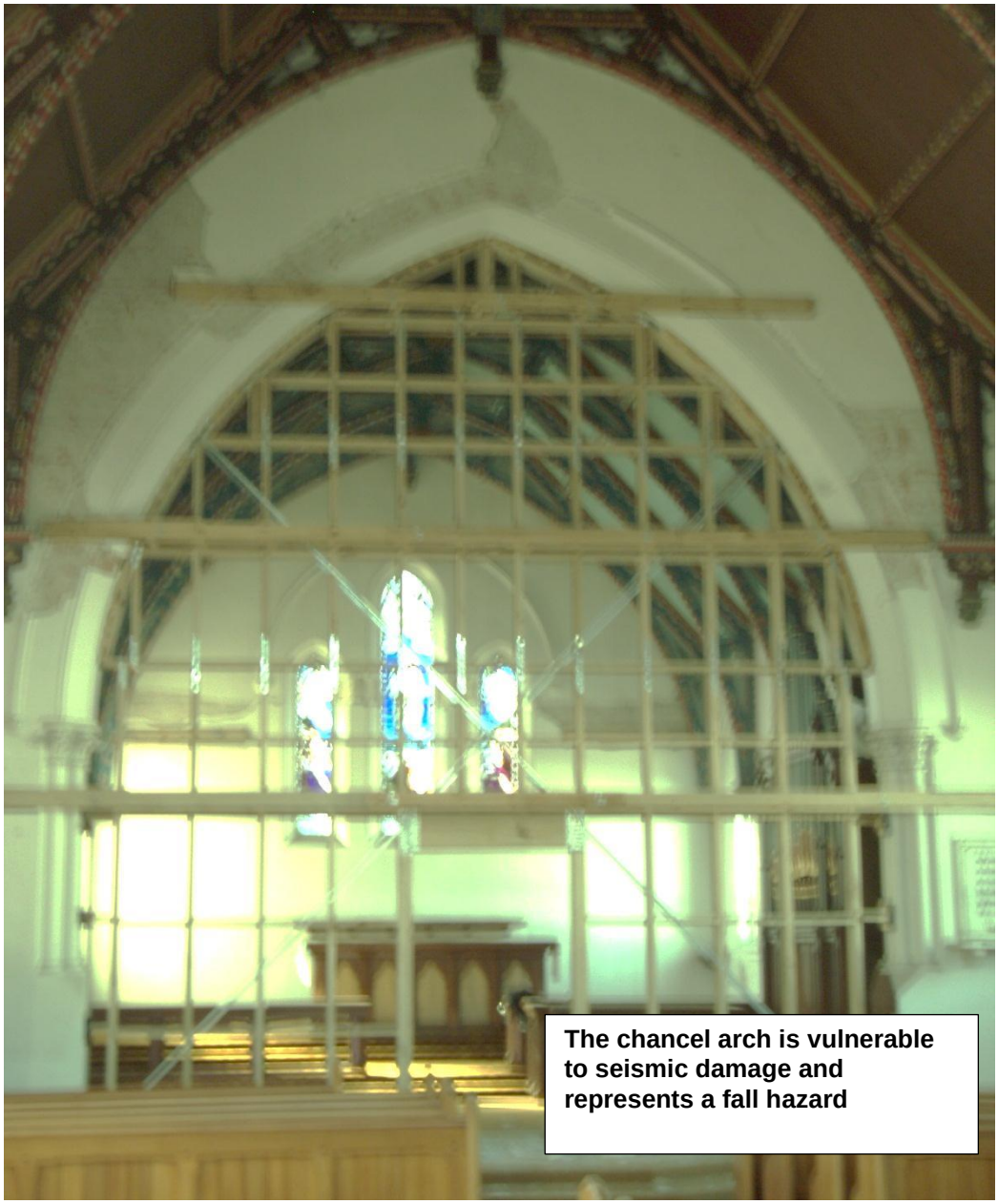


Photo 1 – General view of chancel arch (timber propped)

Photo 1a – Chancel arch, render damage and cracking at nave wall eave level

CHANCEL ARCH DAMAGE REPAIR INCLUDING STRENGTHENING TO 34% NBS:

Repair and strengthen the chancel arch to 34%NBS Strength using one of the following methods.

Option 1: FRP Strengthening and helifix anchors
Refer to Sketch SK-09.

- Prop roof beams and remove timber truss from sanctuary face of arch wall.
- Strip paint and plaster from arch surfaces to receive fabric.
- Repair cracks to masonry using low pressure epoxy injection.
- Install Sika glass fibre string anchors to predrilled holes in side faces of chancel arch.
- Install sika wrap 930G glass fibre fabric to faces of masonry
- Install helifix ties.
- Make good plasterwork to architect's requirements.
- Reinstate timber beam to Sanctuary face of arch.

Option 2: Apply recessed steel plate to both faces of arch, and tie masonry with helifix anchors.
Refer to Sketch SK-10

- Remove plaster from faces of wall
- Repair masonry cracks using low pressure epoxy injection.

- Cut recess into brick masonry
- Install continuous steel plate to face of arch with welded splices. Through bolt to masonry with M16 bolts.
- Install helifix ties.
- Make good plasterwork to architect's requirements.

CHANCEL ARCH STRENGTHENING TO 67% NBS:

Repair cracking and strengthen arch to 67% NBS using one of the following methods.

- Option 1: (Sketch SK01) Install post tensioned rods to keep the arch in compression and prevent blocks dislodging during a seismic event. Stainless steel rods are installed on both faces of the arch and would be exposed to view. The use of concealed steel strands drilled through the centre of the wall, in lieu of exposed strands, is not considered a viable alternative because the strands have to cross each other in a confined space. The potential down side to the use of post tensioned rods is the reduction of prestress over time due to creep. Periodic re-tensioning will likely be required. Option 1 is preferred by the CCC Heritage Engineer

- Option 2 and 3: (Sketches SK02 and SK03). Install steel support beams, shaped to the profile of the arch, to provide support to the arch and prevent blocks dislodging during a seismic event. These may not be attractive options, even if they could be concealed, because of the heritage designation of the church, but they do offer more positive support against fall hazards

2. Repair and Strengthen the East and West Gable Wall

Photo 2 – Exterior view of east gable showing propping (west gable is similar)

Photo 2a – Interior view of east gable – note cracking at nave wall eave level

Photo 2b – Interior view of west gable showing render damage (masonry cracking exists but is not visible on this photo)

WEST GABLE WALL DAMAGE REPAIR

The out of plan strength of the existing gable wall panel is above 34% NBS strength, however some work is required to repair the crack and damaged plaster.

Damaged or loose render is to be removed, especially where it is a potential fall hazard, and replaced with an approved proprietary product such as SIKA Monotop 412N, refer to note on SK - 01. This applies to all areas of the church.

If no strengthening work is to be undertaken, the eaves level cracking should be stabilised using the detail shown on sketch SK-11.

WEST GABLE WALL STRENGTHENING TO 34% NBS

Not Applicable

WEST GABLE WALL STRENGTHENING TO 67% NBS

Items above, plus strengthen to 67% NBS using one of the following methods.

- Option 1: See SK-05. Installation of post tensioned stainless vertical steel rods on the interior and exterior of the gable wall.

- Option 2: See SK-04. Installation of 310UC or 250UC columns on the inside faces of the gable walls. This is an intrusive solution, the columns will be visible even if they were to be encased, however, it is a more positive support than Option 1. CCC's Heritage Architect prefers this option because the exterior fabric of the church remains unchanged

- Option 3: . Installation of post tensioned stainless vertical steel rods through the centre of the wall is possible and would require 5 M25 stainless steel threaded rods on either side of the window. For this option a concrete capping beam would be required to the top of the wall to fix the core drilling rig. Wet drilling would be required to minimize vibration. The effect of wet drilling on surrounding timber and plaster work should be considered.

EAST GABLE WALL DAMAGE REPAIR INCLUDING STRENGTHENING TO 34% NBS

Damaged or loose render is to be removed, especially where it is a potential fall hazard, and replaced with an approved proprietary product such as SIKA Monotop 412N, refer to note on SK - 01. This applies to all areas of the church.

Strengthen to 34% NBS strength using one of the following methods.

- Option 1: See SK-05. Installation of post tensioned stainless vertical steel rods on the interior and exterior of the gable wall. M25 bars can be reduced to M20 bars.

- Option 2: See SK-04. Installation of 250UC columns on the inside faces of the gable walls.

- Option 3: Installation of post tensioned stainless vertical steel rods through the centre of the wall is possible. It would require 2 M20 stainless steel threaded rods on either side of the window, within the thicker section of wall. For this option a concrete capping beam would be required to the top of the wall to fix the core drilling rig. Wet drilling would be required to minimize vibration. The effect of wet drilling on surrounding timber and plaster work should be considered.

EAST GABLE WALL STRENGTHENING TO 67% NBS

Items above, plus,

Gable end walls are to be tied through to the chancel arch using 20mm diameter Macalloy bars running under the roof.

Strengthen to 67% NBS strength using one of the following methods. (It is noted that both of the available options result in visible new structure).

- Option 1: See SK-05. Installation of post tensioned stainless vertical steel rods on the interior and exterior of the gable wall.

- Option 2: See SK-04. Installation of 310UC or 250UC columns on the inside faces of the gable walls.

67% NBS strength cannot be achieved through core drilled post tensioned rods in this case as tensioning to this level would over compress the more slender section of wall to the centre of the gable.

3. Repair and Strengthen the Nave Side Walls

Photo 3 – general view of nave side walls

Photo 3a – brick work along top of side walls (opened for investigation purposes)

SIDE WALLS DAMAGE REPAIR

Remediation of brickwork along the tops of the nave walls is required, as shown on SK – 08 (scope of work includes the Sanctuary side walls also)

SIDE WALLS STRENGTHENING TO 34% NBS

Not Applicable.

SIDE WALLS STRENGTHENING 67% NBS:

Work required to strengthen the nave walls is shown on SK-06 and SK-07 in Appendix B. Two options have been considered, namely,

- Option 1: the installation of vertical post tensioned strands drilled through the centre of the wall.

- Option 2: the installation of an SHS steel post, recessed into the wall at each rafter location and tie rods similar to Option 1 (refer to SK – 07)

For both options, prevention of outward overturning of the walls should be achieved either by the installation of tie rods across the nave at eave level to tie the north and south walls together, or by increasing the size of the foundation. Both of these solutions are shown on SK-06.

4. Repair Cracked and Damaged Stonework

Photo 4 – Loose masonry and cracking on east gable wall, but random repair is required throughout the church walls and chancel arch

This is an earthquake damage repair item of work.

Work Required:

- The extent of work and method of repair is to be agreed on site with the Engineer and Architect
- Repair of stonework will depend on extent of damage, but could include the replacement of stone, stitching with Helifix anchors, raking and re-pointing mortar joints, low pressure cement grouting to fill cracks, or possibly epoxy grouting (using Sikadur Injectokit-TH or similar)

5. Repair and Strengthening of Parapets

Photo 5 – Dislodged capping stones over chancel arch

Photo 5a – Capping stone damage over chance arch

Photo 5b – view at roof level looking from chance arch (cross support will need stitching)

This Item of work comes under the categories of damage repair and of strengthening.
A comprehensive approach is required to mitigate against fall hazards, therefore the scope of works cannot be divided into the two categories.

Work Required:

- All parapets, gable end wall and chancel arch, are to be anchored with Helifix anchors similar to that shown on SK - 01

- Crosses are to be replaced with light weight replicas if acceptable to the church and Heritage Engineer. If not, the existing crosses will need to be anchored in place and strengthened to mitigate a fall hazard (Engineer to provide details if required)

6. Floor Re-Levelling

Photo 6 – General view under floor

This is an earthquake damage repair item of work.

Work Required:

- The existing wood floor is out of level and does not meet Department of Building and Housing guidelines for acceptability (refer to SK- 09, Appendix B)
- Re-level floor by adjusting floor supports to achieve a maximum floor gradient of 1:200 between any two points greater than 2m apart and no abrupt irregularities
- Ideally floor re-levelling should be carried out from under the floor to preserve the integrity of the `heritage' floor boards.
- Generally work on the floor will involve checking the vertical alignment of the internal supports. If existing supports are leaning at an angle of more than 50mm per 1m height then new supports will be required. Leans of less than this value are considered to be acceptable.
- For lifts up to 50mm at any support, fit H5 treated timber packing (preferably as a single thickness piece) and connect to the existing support top and the underside of the bearer.
- For lifts greater than 50mm at any support, new supports will be required to be fitted that may be connected directly to the existing bearers.
- Supports that have been lifted can be cut to the required height or the pile replaced.
- Inspect all supports to ensure their condition is acceptable (no rot, properly bearing) and supports and fixings are in accordance with NZS 3604 – Timber Framed Buildings
- The church may wish to install under floor insulation during the course of this work – refer to the architectural drawings for details (requirement to be confirmed)

7. Other Issues

Photo 7 – Interior wood work

This is an earthquake damage repair item of work.

Work Required:

- All timber work, especially the rafters are to be inspected by the Contractor for damage, especially to the bolted joints
- Work may involve resolving alignment issues, retightening bolts or replacing damaged bolts or timbers
- There could be remediation work required to connections between the roof and the side walls, gable end walls and chancel arch. During remediation work the Engineer is to be provided access to inspect the existing connections for adequacy

Photo 7a – Cracks in main entry steps

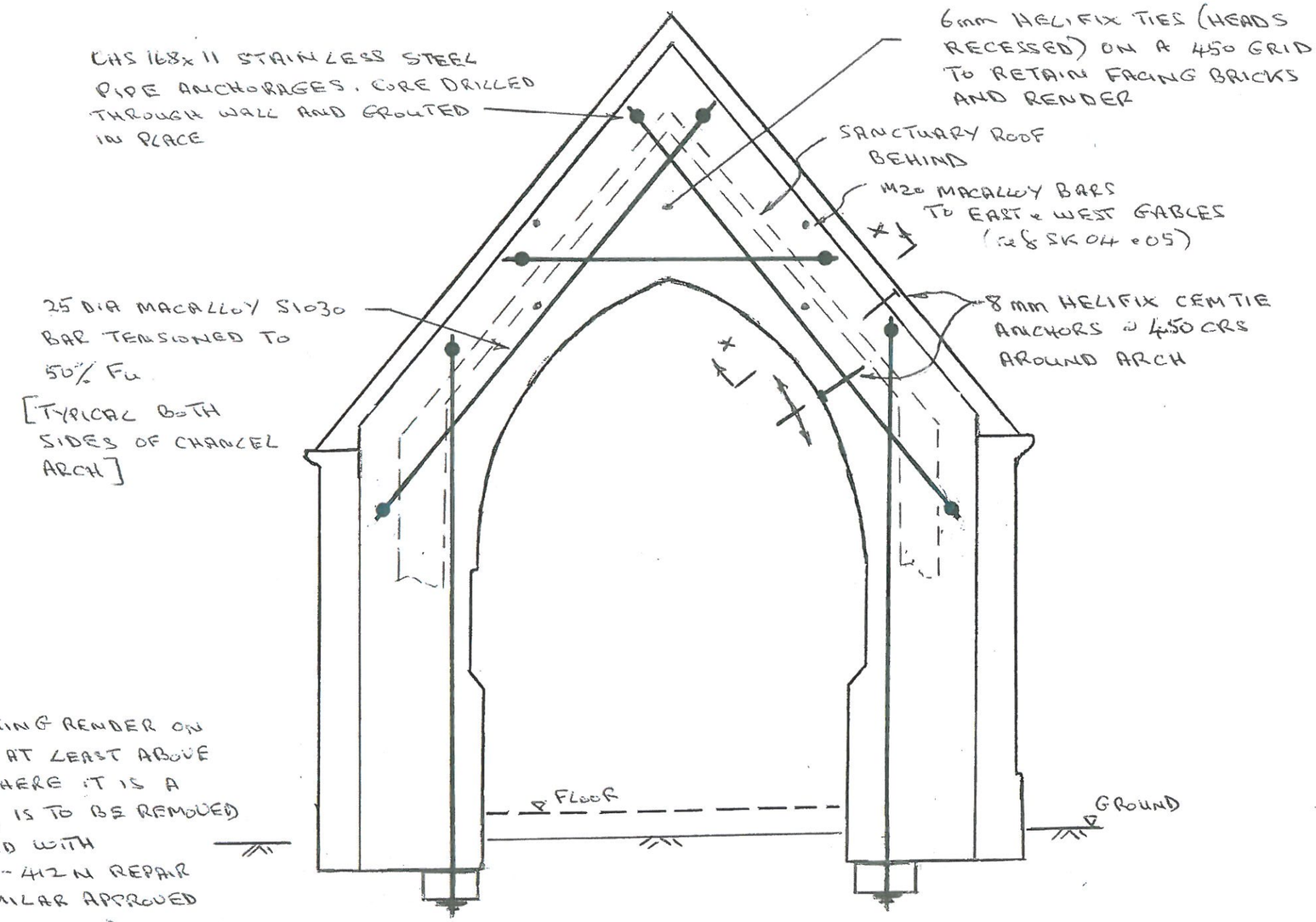
Work Required:

- The practicality of repairing the steps or rebuilding is to be reviewed on site with the Architect and Engineer

Appendix B

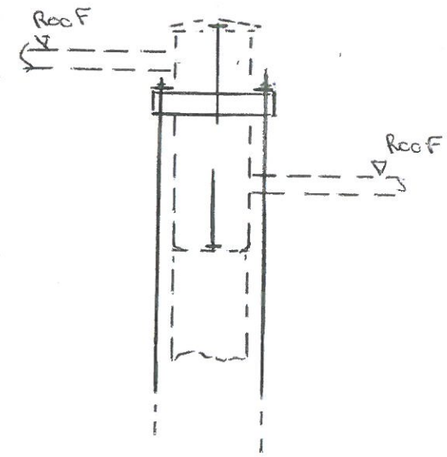
Drawings, Sketches,(Specification)

LATER



ELEVATION LOOKING EAST ON CHANCEL ARCH

(1:75)



SECTION X-X

NOTE: ALL EXISTING RENDER ON CHANCEL ARCH, AT LEAST ABOVE EAVE LEVEL WHERE IT IS A FALL HAZARD, IS TO BE REMOVED AND REINSTATED WITH SIKA MONOTOP-412 N REPAIR MORTAR OR SIMILAR APPROVED (TYPICAL ALL OPTIONS)

CRACK REMEDIATION IS REQUIRED PRIOR TO OTHER WORK ON THE CHANCEL (REFER TO SCOPE OF WORK ITEM 4)

AURECON

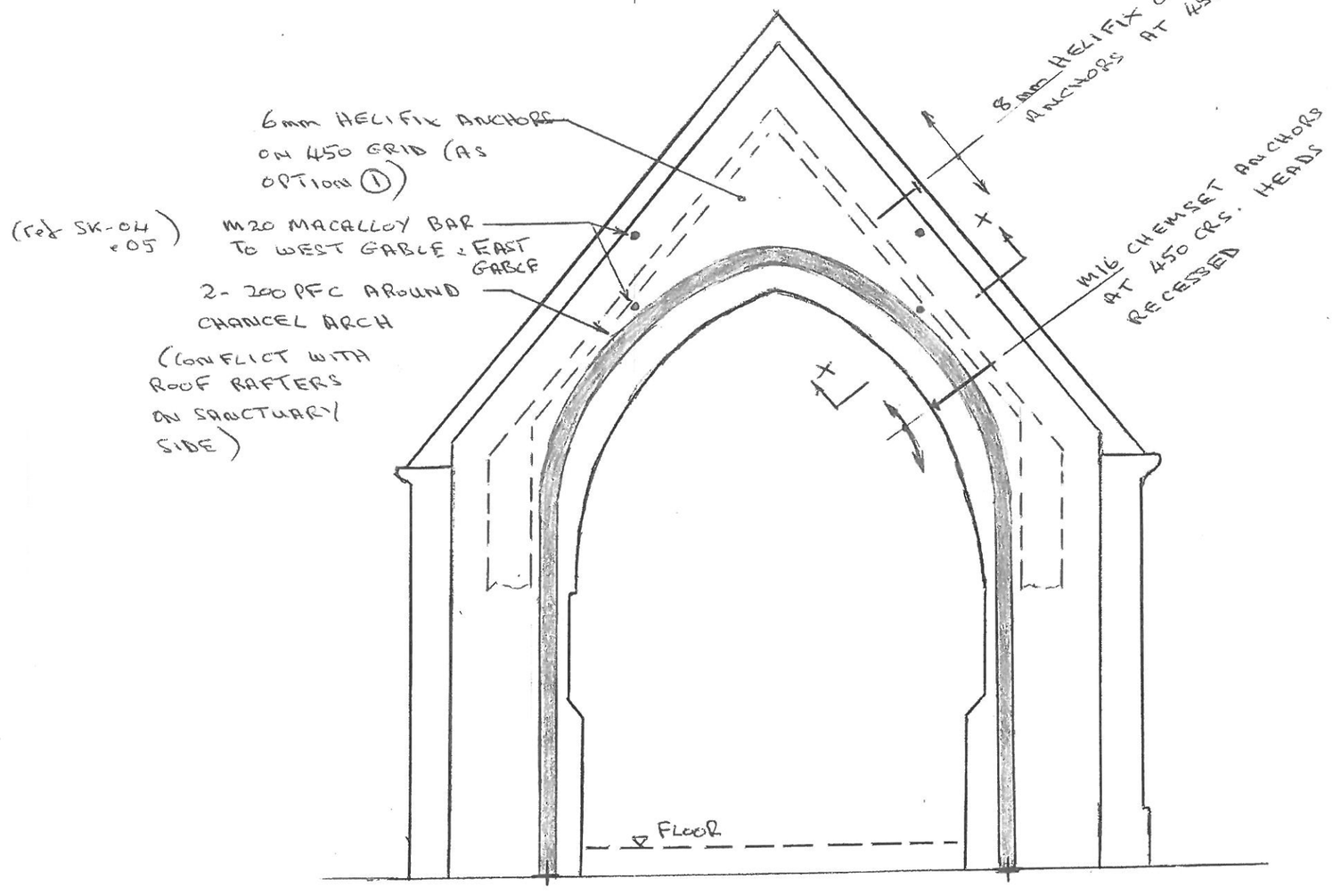
ST JAMES CHURCH - RICCARTON

CHANCEL ARCH REMEDIATION

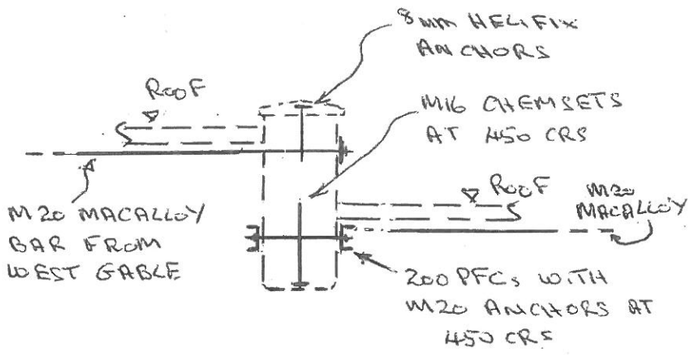
(*) OPTION (1) - PT BARS

SK-01 5 NOV/2012

(*) PREFERRED OPTION OF CCC HERITAGE ENGINEER



ELEVATION LOOKING EAST ON CHANCEL ARCH



SECTION X-X

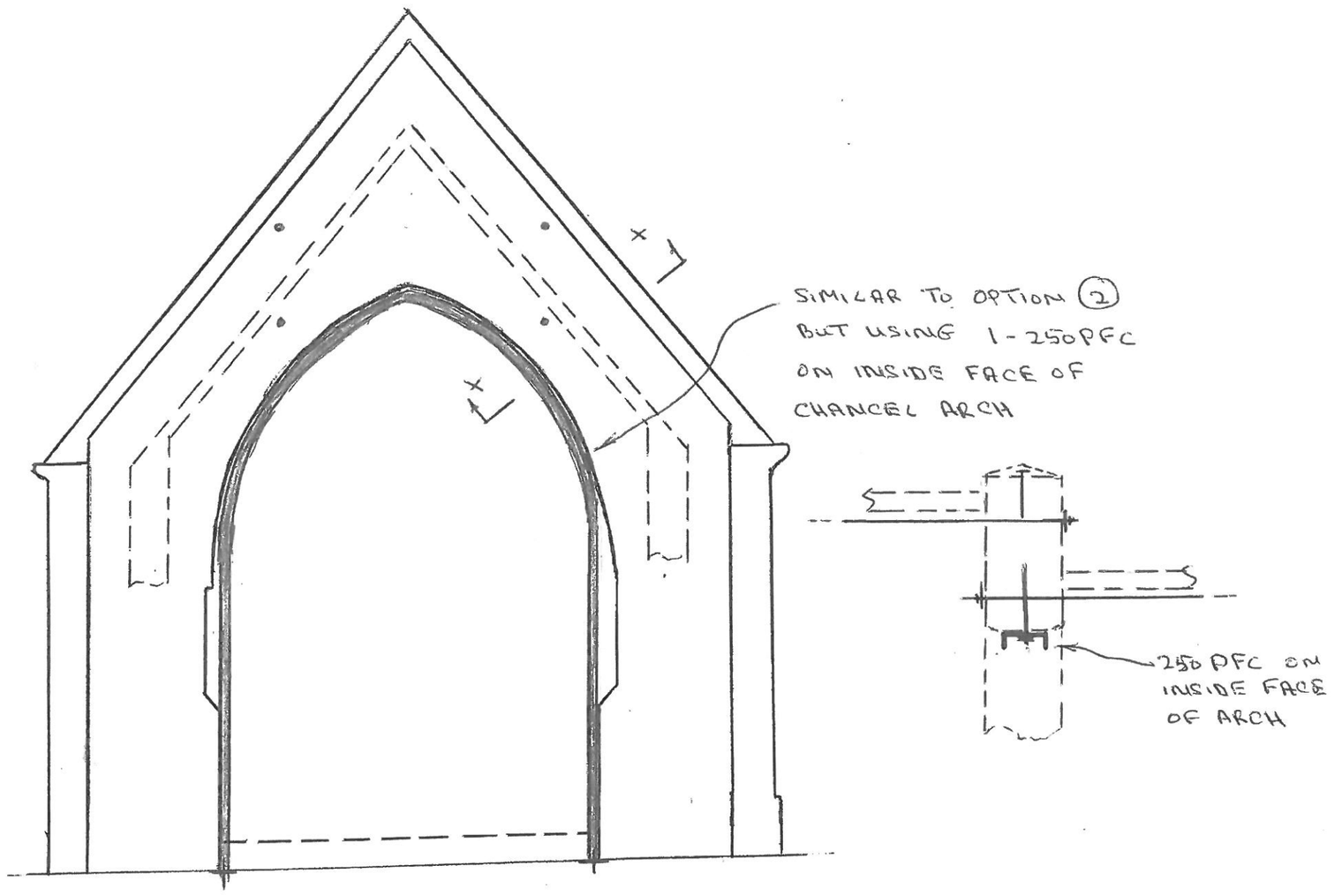
AURECON

ST JAMES CHURCH - RICCARTON

CHANCEL ARCH REMEDIATION

OPTION (2) - STEEL SUPPORT

SK-02 5 NOV 2012



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ST JAMES CHURCH - RICCARTON

CHANCEL ARCH REMEDIATION

OPTION (3) - STEEL SUPPORT

SK-03

5 NOV 2012

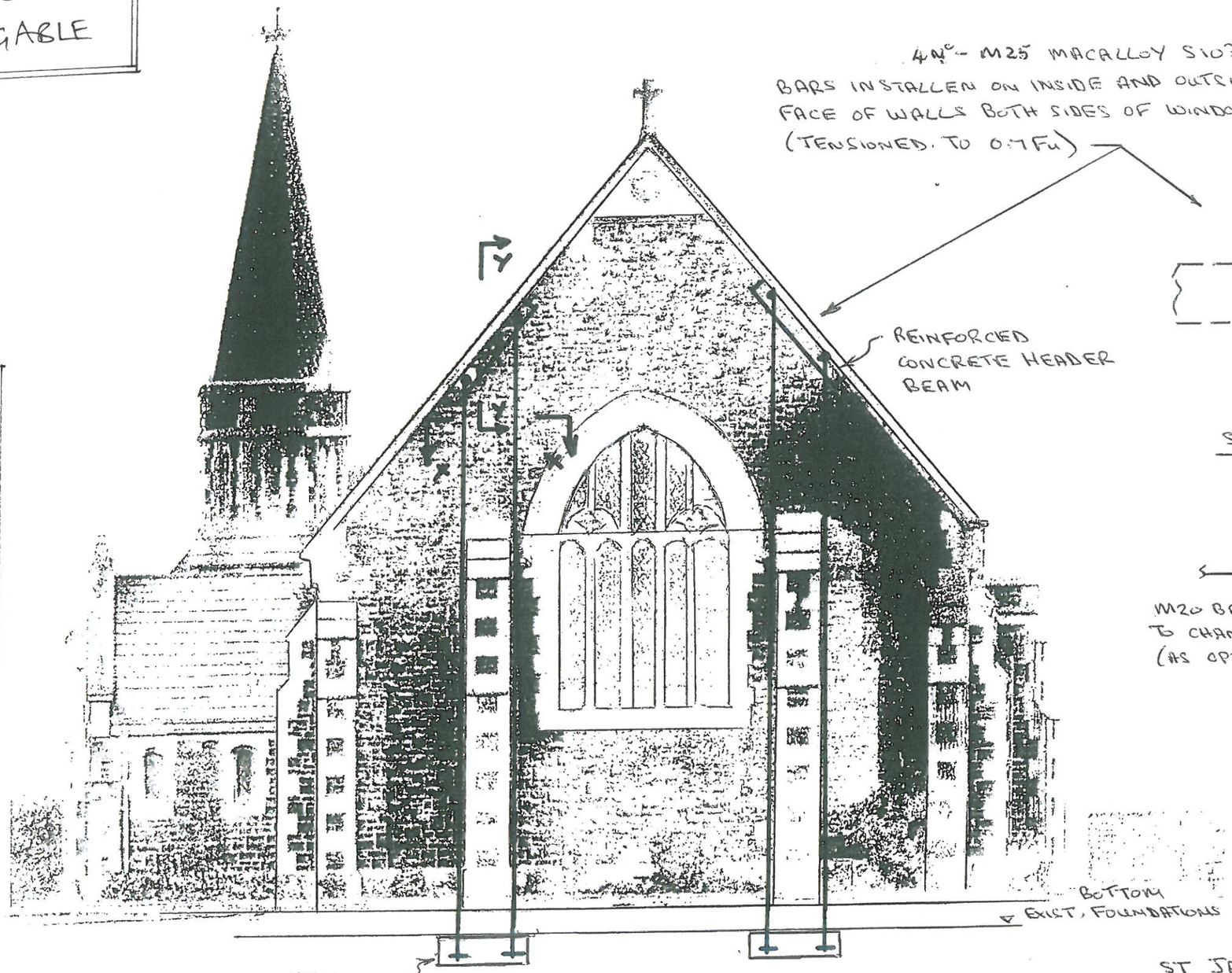
APPLIES TO 67%. STRENGTHENING FOR EAST GABLE AND WEST GABLE

FOR EAST GABLE STRENGTHENING TO 34% NBS REDUCE BARS TO M20

OPTION 3

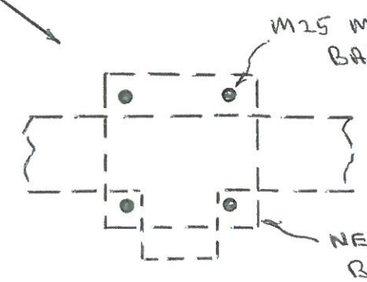
ALTERNATIVE INTERNAL POST TENSIONING

- FOR WEST GABLE 67% NBS STRENGTH COULD BE ACHIEVED USING 5 No. M25 BARS EACH SIDE OF WINDOW, BY CORE DRILLING TO CENTRE OF WALL
- FOR EAST GABLE 34% NBS STRENGTH COULD BE ACHIEVED USING 2 No. M20 BARS EACH SIDE OF WINDOW BY CORE DRILLING TO CENTRE OF WALL

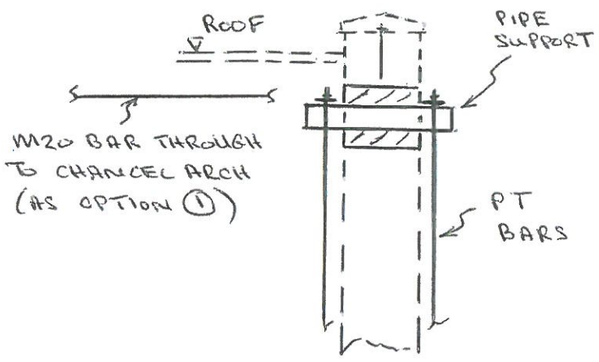


ELEVATION ON WEST GABLE WALL (1:75)

[EAST GABLE SIMILAR]



SECTION X-X



SECTION Y-Y

AURECON

ST JAMES CHURCH - RICCARTON

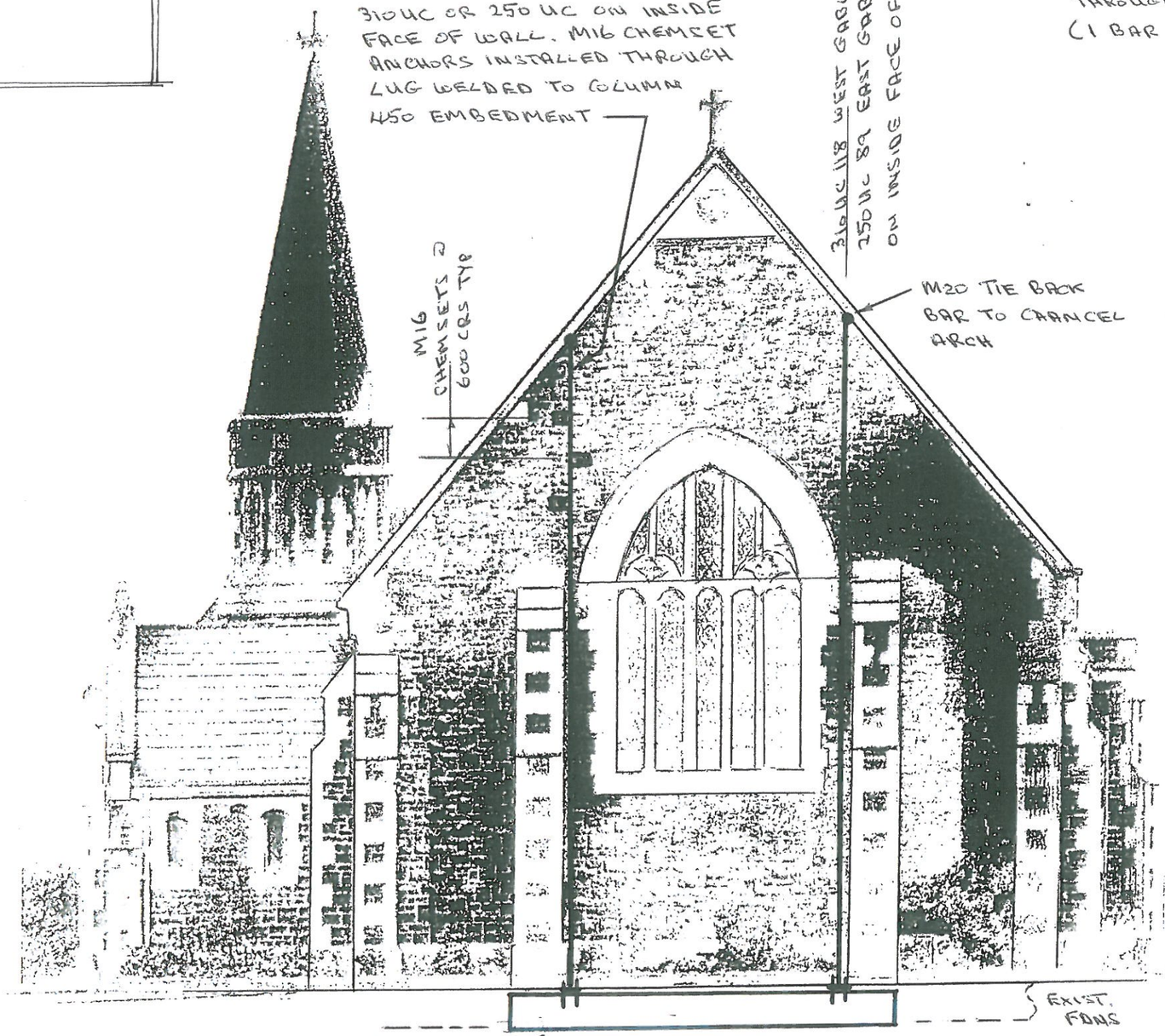
WEST GABLE WALL REMEDIATION

OPTION ② - PT BARS

SK-05 5 NOV 2012

REV A

APPLIES TO 67%, STRENGTHENING FOR EAST GABLE AND WEST GABLE

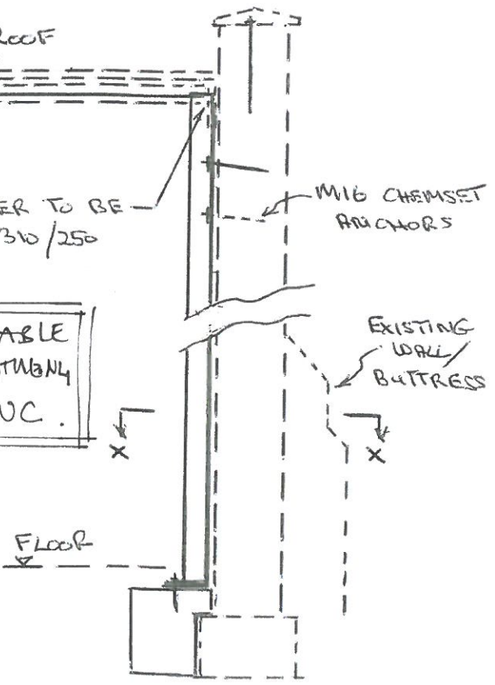


ELEVATION ON WEST GABLE
(1:75 APPROX)

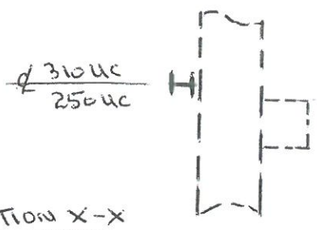
[EAST GABLE SIMILAR]

TIE BACK

2-M20 MACALLOY S1030 BARS RUNNING FROM STEEL UCS THROUGH TO CHANCEL ARCH (1 BAR PER UC)



FOR EAST GABLE 33% STRENGTHENING USE 250 UC.



SECTION X-X

⊛ PREFERRED OPTION OF CCC HERITAGE ENGINEER

NOTE:
RENDER TREATMENT SIMILAR TO SK-01

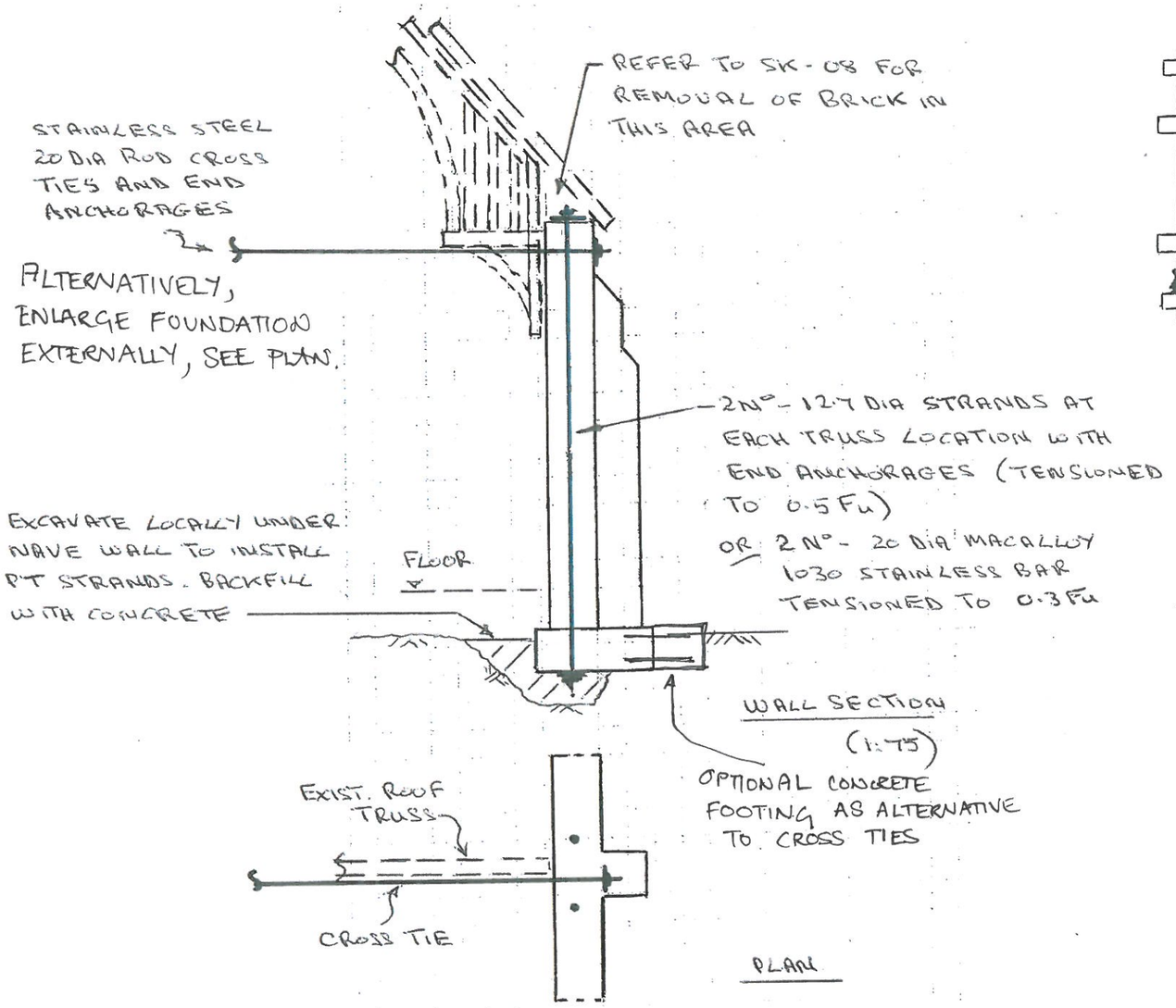
AUREON

ST JAMES CHURCH - RICCARTON

WEST GABLE WALL REMEDIATION

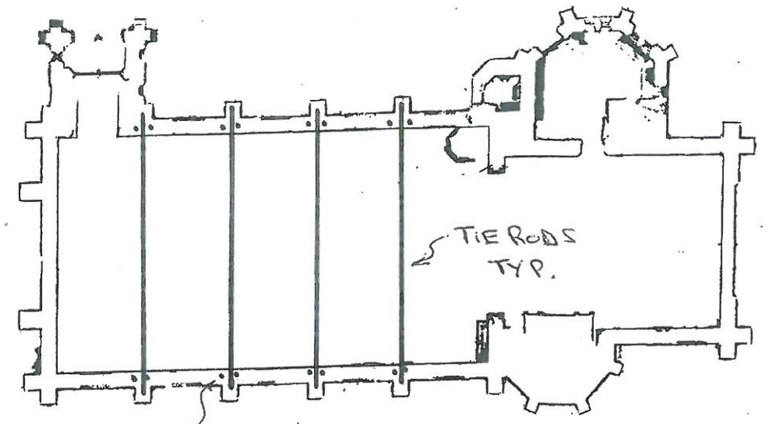
⊛ OPTION (1) - 310 UC SUPPORT

SK-04 REV A 5 NOV 2012

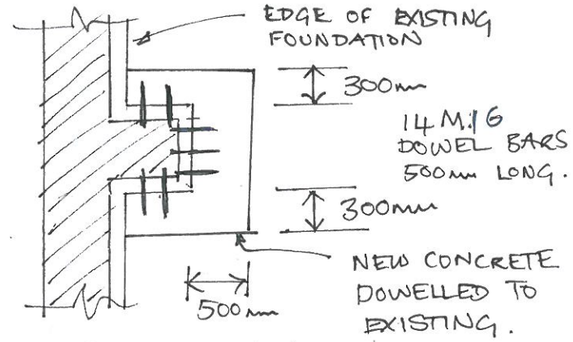


WALL SECTION (1:75)

PLAN



KEY PLAN



FOUNDATION PLAN (ALTERNATIVE TO CROSS TIES)

(*) ACCEPTABLE TO CCC HERITAGE ENGINEER

AURECON

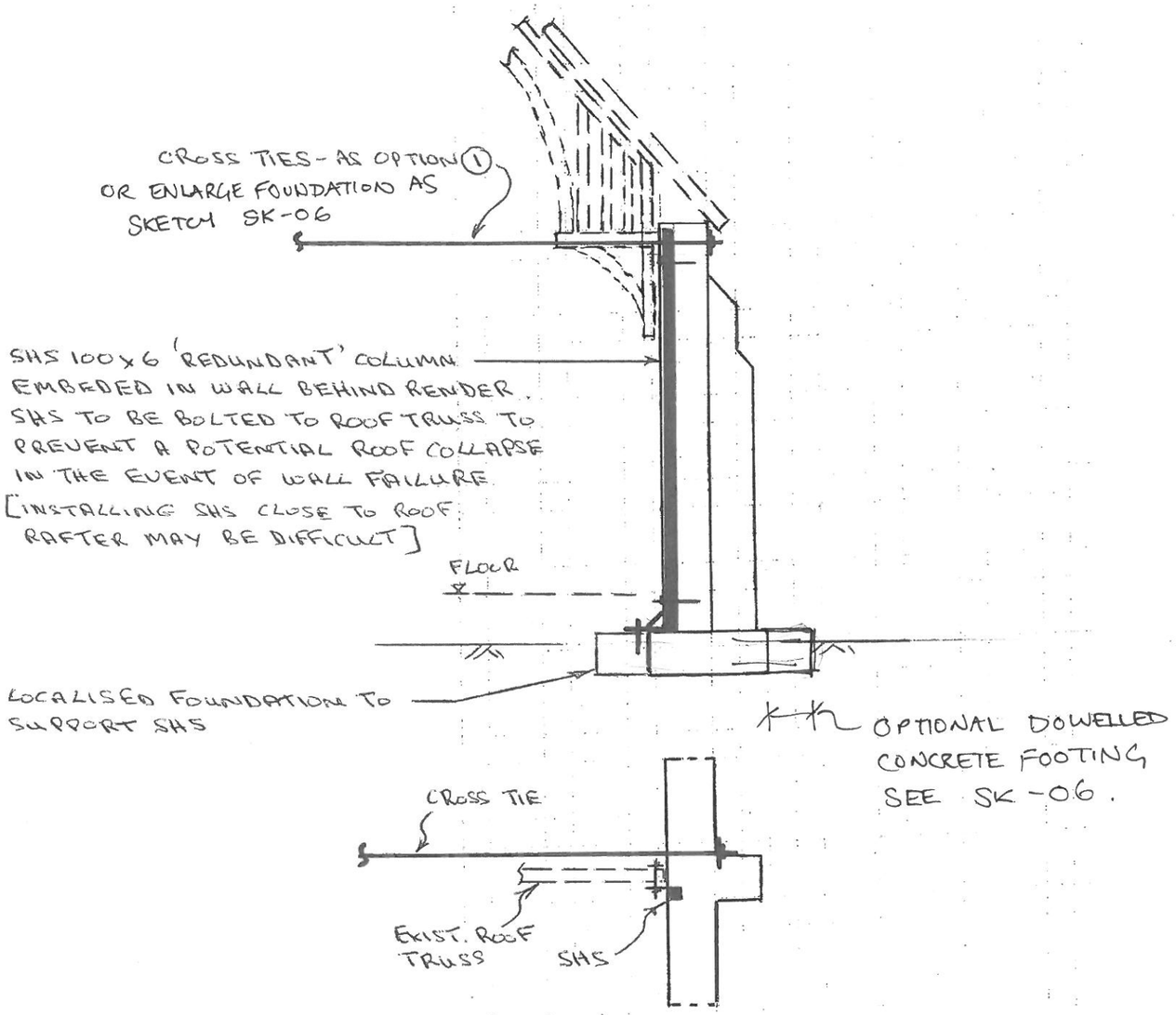
ST JAMES CHURCH - RICCARTON

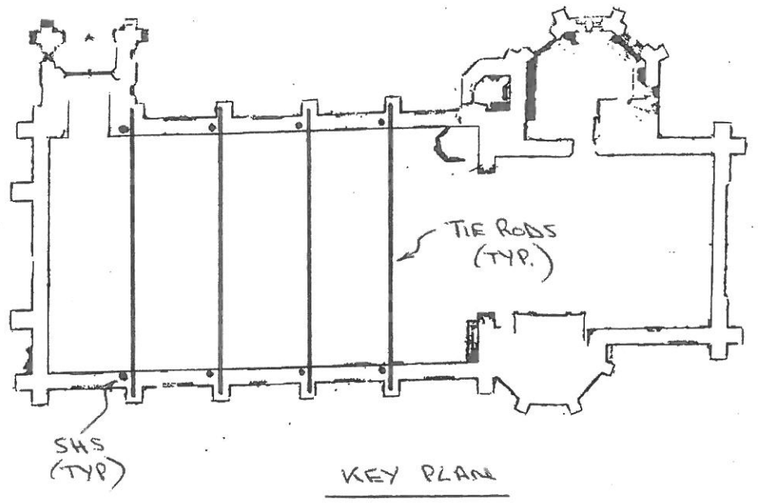
NAVE WALL REMEDIATION

(*) OPTION (1)

SK-06 REV A.

5 NOV 2012





KEY PLAN

(*) ACCEPTABLE TO CCC
HERITAGE ENGINEER

AURECON

ST JAMES CHURCH - RICCARTON

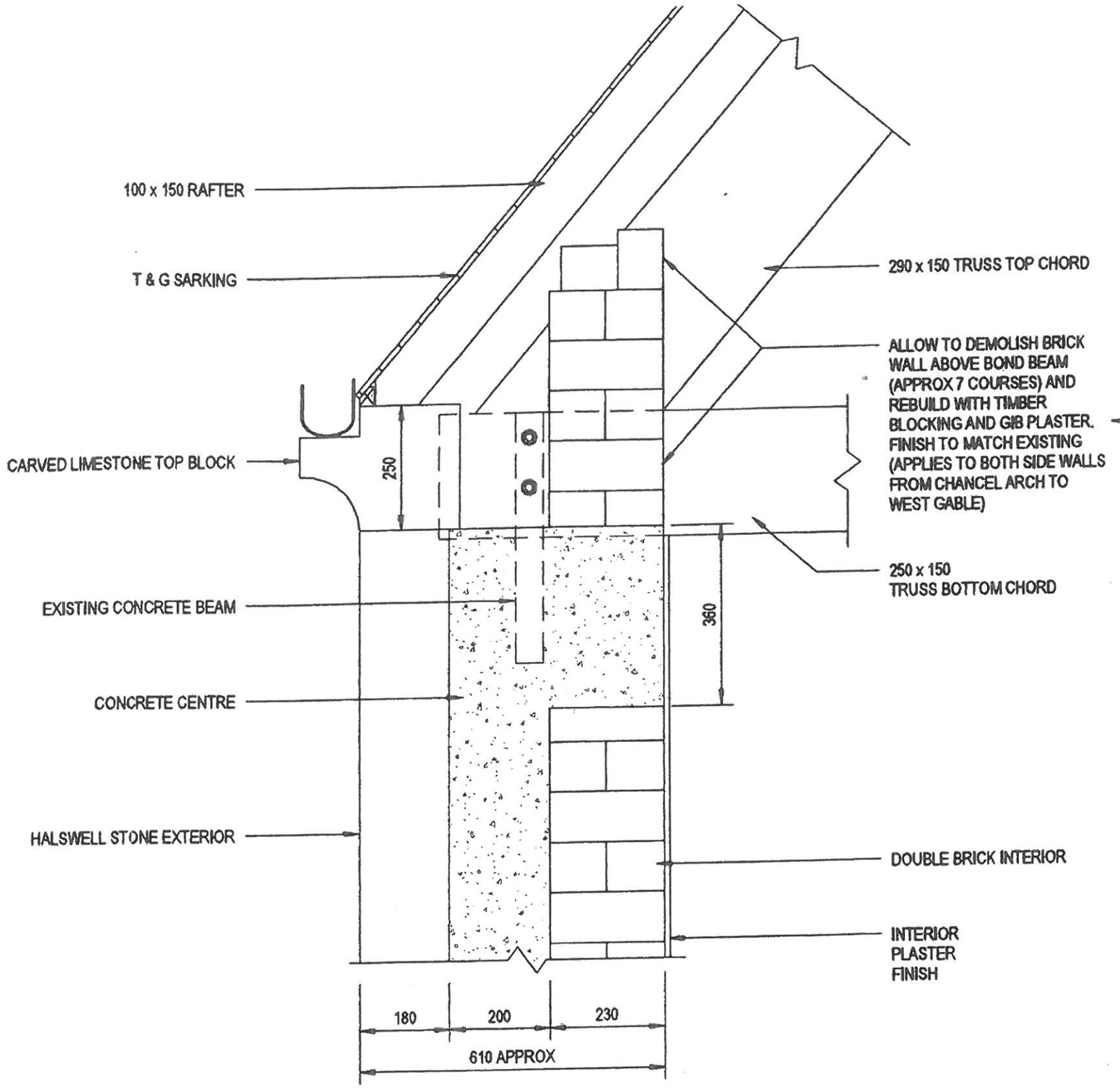
NAVE WALL REMEDIATION

(*) OPTION (2)

SK-07

REV A

5 NOV 2012



THIS ITEM MAY BECOME A STRUCTURAL TIMBER SHEAR WALL TO HELP WITH LATERAL LOAD TRANSFER FROM ROOF DIAPHRAGM INTO WALL

TYPICAL SECTION THROUGH NAVE WALL

(1:10)

AURECON

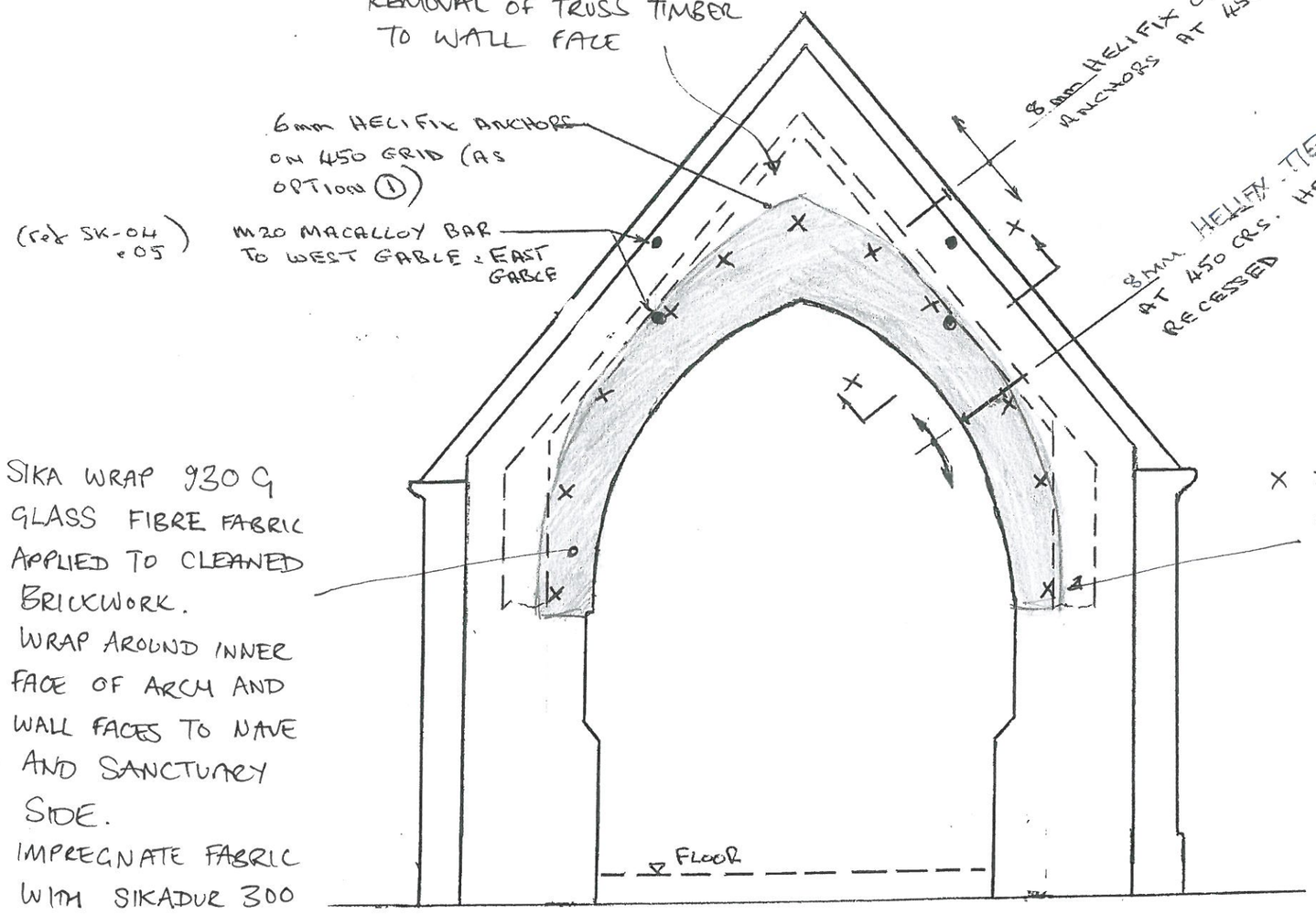
ST JAMES CHURCH - RICCARTON

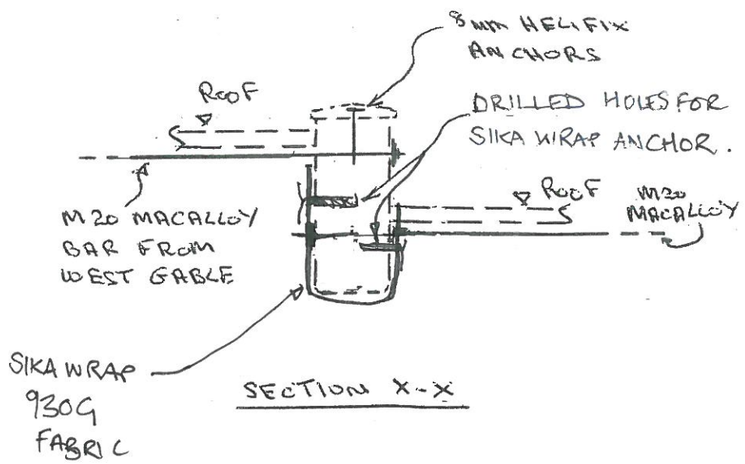
NAVE WALLS - REMEDIATION

REMOVAL OF BRICK ON TOP OF WALLS

SK - 08 5 NOV 2012

ROOF ON SANCTUARY SIDE TO BE TEMPORARILY PROPPED TO ALLOW TEMPORARY REMOVAL OF TRUSS TIMBER TO WALL FACE





SECTION X-X

SIKA WRAP 930 G GLASS FIBRE FABRIC APPLIED TO CLEANED BRICKWORK.
WRAP AROUND INNER FACE OF ARCH AND WALL FACES TO NAVE AND SANCTUARY SIDE.
IMPREGNATE FABRIC WITH SIKADUR 300 RESIN.

X DENOTES SIKA WRAP ANCHOR & GLASS FIBRE STRING EMBEDDED INTO 20mm DIAMETER, 200mm DEEP HOLES DRILLED INTO MASONRY FIXED WITH SIKA ANCHORFIX 3+ ADHESIVE INSTALL AT 800mm CENTRES TO BOTH SIDES OF ARCH.

ELEVATION LOOKING EAST ON CHANCEL ARCH

OPTION FOR STRENGTHENING CHANCEL ARCH TO 34% NBS STRENGTH USING GLASS FIBRE FABRIC.

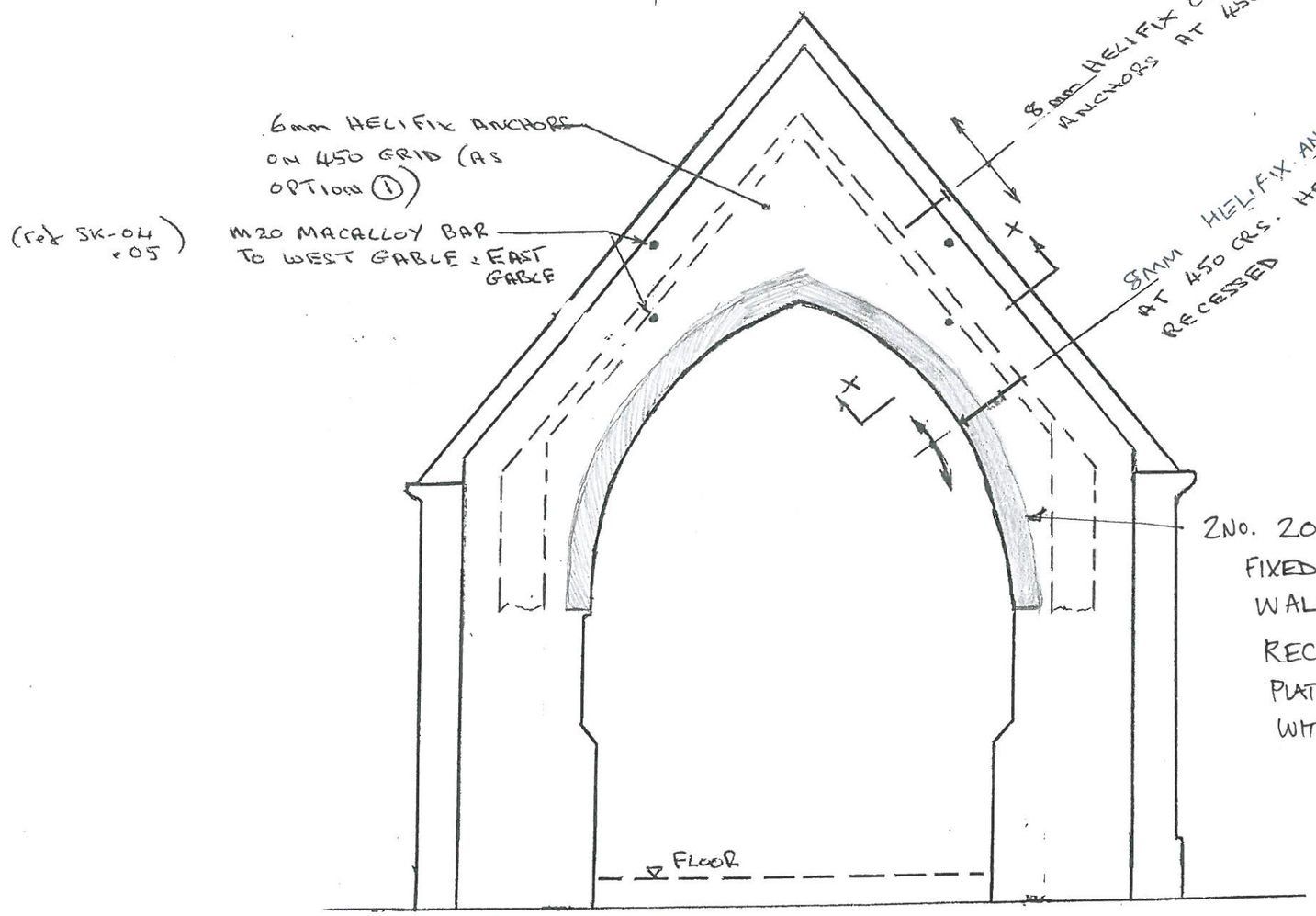
AURECON

ST JAMES CHURCH - RICCARTON

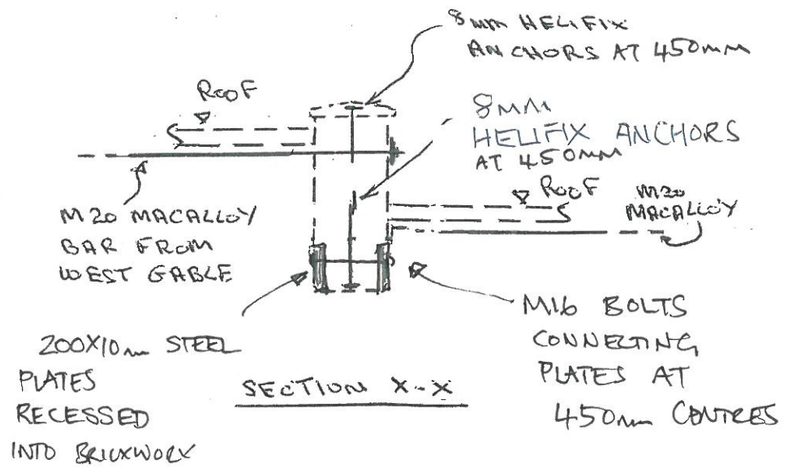
CHANCEL ARCH REMEDIATION

OPTION 1 34% - FRP STRENGTHENING

SK-09 APR 2013



ELEVATION LOOKING EAST ON CHANCEL ARCH



SECTION X-X

AURECON

ST JAMES CHURCH - RICCARTON

CHANCEL ARCH REMEDIATION

OPTION 2 34 - STEEL SUPPORT

SK- 10 APR 2013

EXTERNAL STONE FACE

INTERNAL BRICK FACE

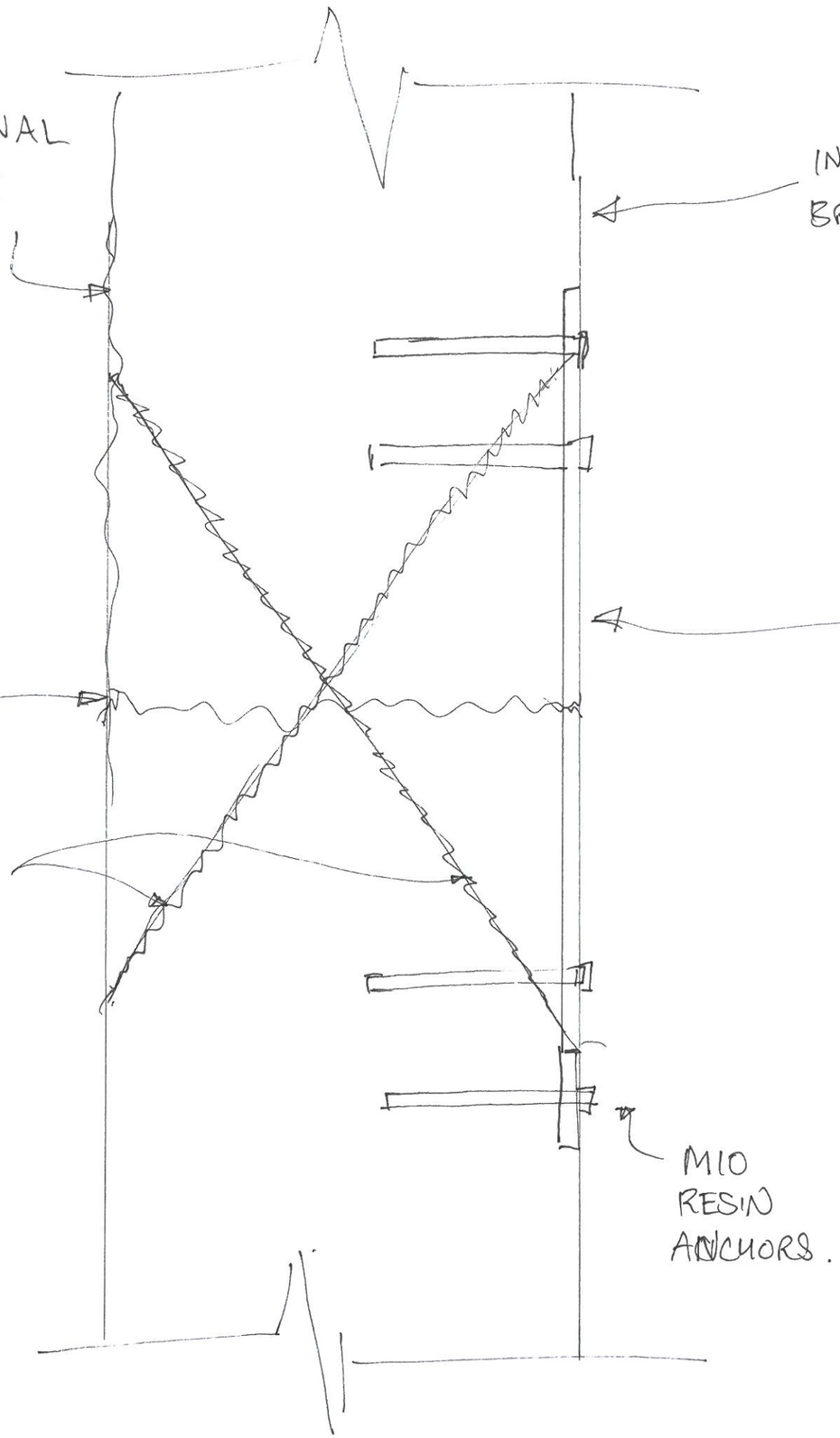
MAKE GOOD PLASTER OVER STRAPS.

EAVES LEVEL CRACK IN GABLE WALL

CHASE RECESS INTO WALL AND INSTALL 6mm THICK VERTICAL STRAPS AT 600mm SPACING

FIXED WITH 4 No. 10mm RESIN ANCHORS PER STRAP, 200mm LONG.
STRAP TO BE 60mm WIDE 1000mm LONG

INSTALL DIAGONAL 8mm HELIFIX TIES TO STITCH CRACK AT 450mm CENTRES



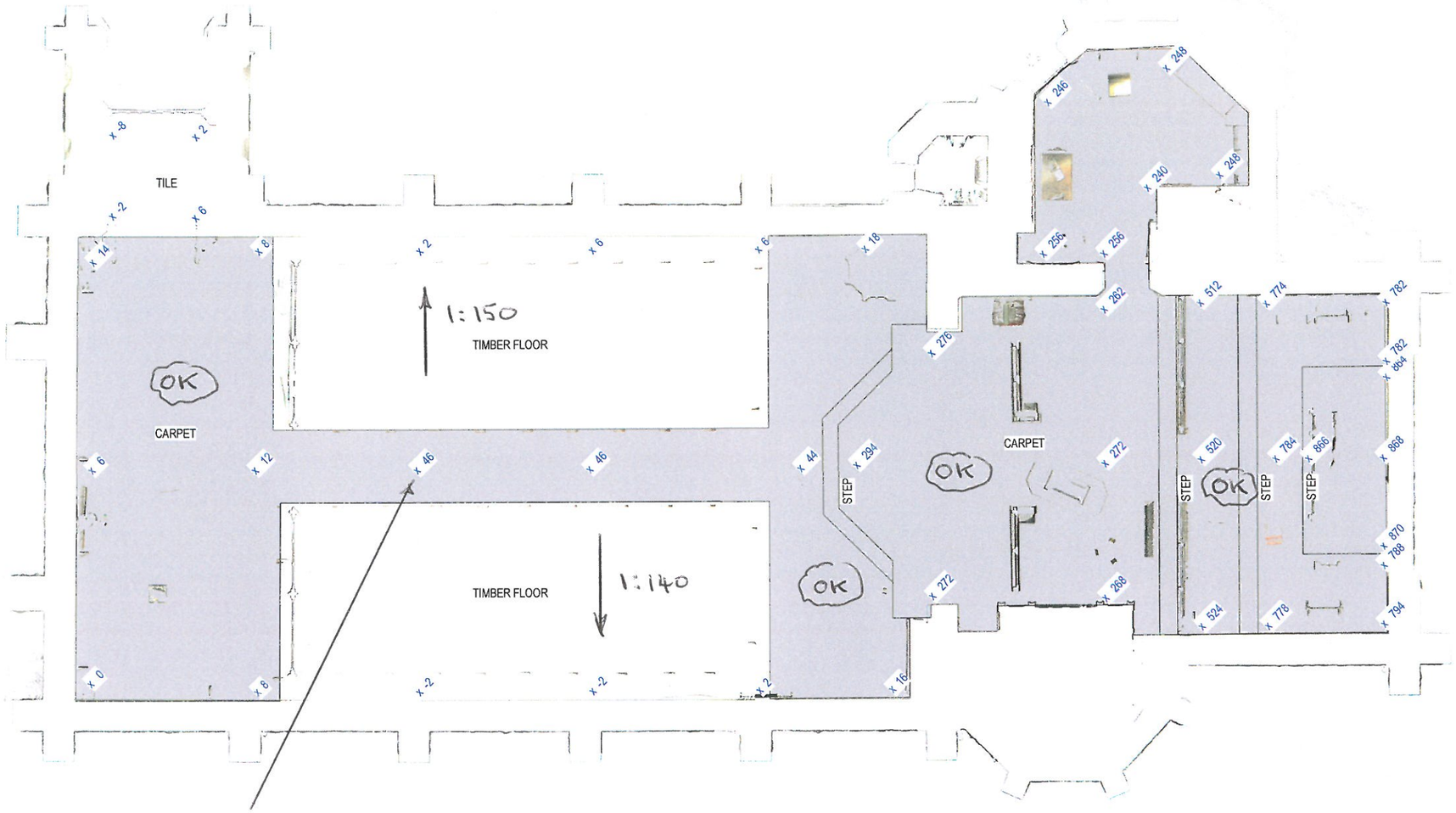
AURECON

ST JAMES CHURCH - RICCARTON

WEST GABLE ARCH

CRACK STABILISATION

SK-11 APR 2013.



REDUCE LEVELS ON CARPET BY 15 mm

FLOOR LEVELS (OCTOBER 2012)

SK-09

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www.aurecongroup.com

CLIENT	REV	DATE	REVISION DETAILS	APPROVAL

DRAWN	DESIGNED
T.DOWN	M.RICHARDS
CHECKED	
-	
APPROVED	DATE
Approver	

PROJECT
ST JAMES CHURCH
69 RICCARTON ROAD, CHRISCHURCH

TITLE
GROUND LEVEL SURVEY

PRELIMINARY
NOT FOR CONSTRUCTION

PROJECT No.	
213970	
SCALE	SIZE
1 : 50	A1
DRAWING No.	REV
SK-01-00	

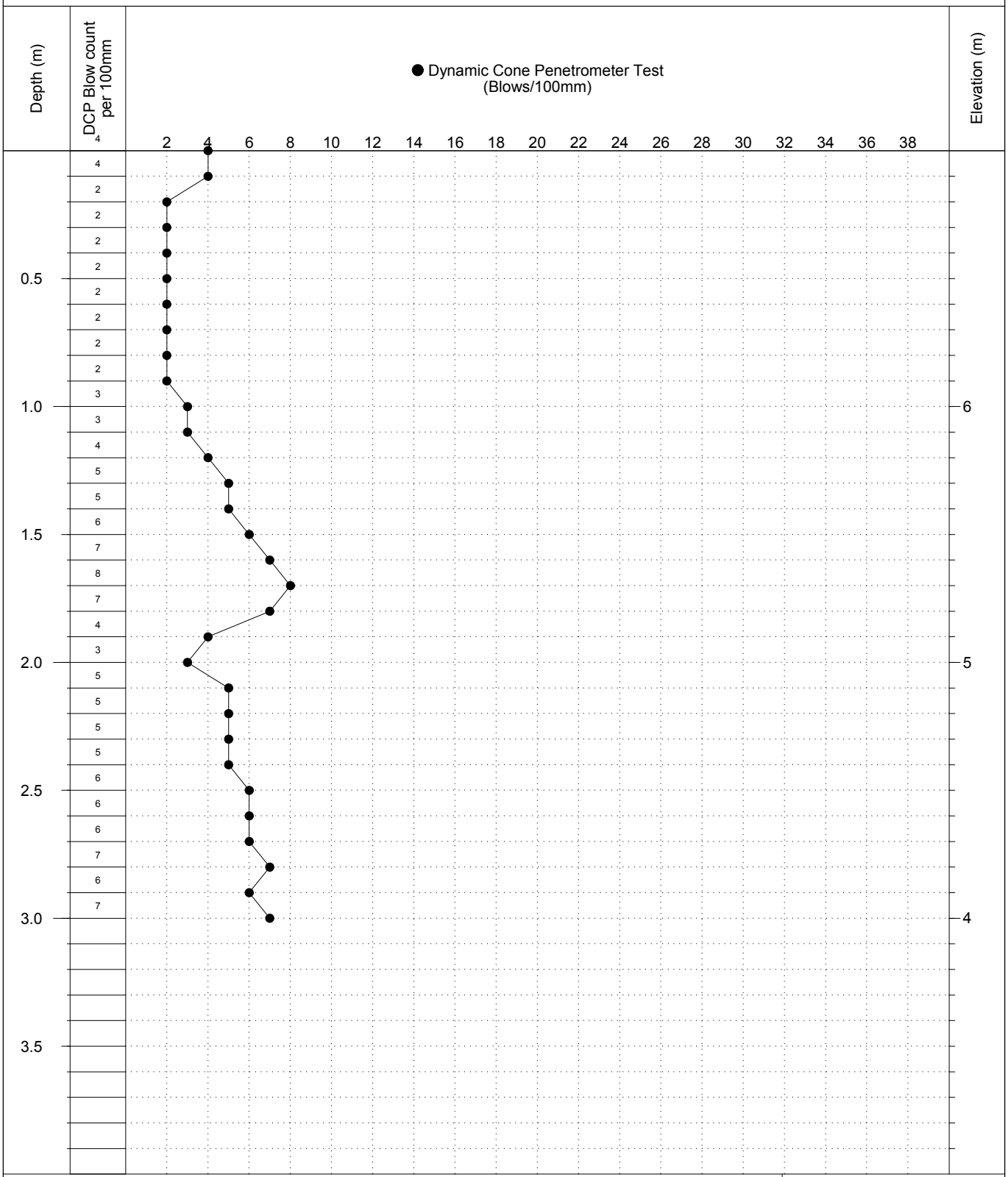

DCP02
DCP01
Mandeville St

aurecon
Aurecon (New Zealand) Limited
Unit 1, 150 Cavendish Rd
PO BOX 1061
Christchurch 8140
New Zealand
Telephone: +64 3 366 0821
www.aurecongroup.com
Facsimile: +64 3 379 6955
Email: christchurch@ap.aurecongroup.com

Client: **Anglican Churches Property Trust**
Project Name: **St James Church**
Location: **Riccarton Road, Christchurch**
Project Reference: **227592-015**

DCP1

DCP INFORMATION	CO-ORDINATES NZTM		
Method: Dynamic Cone (Scala) Penetrometer	Easting: 1568132 m Northing: 5180295 m Ground Level: 7 m	Date Started: 6/11/2012 Date Completed: 6/11/2012 Weather: Dry	Tested by: RG Input by: RG Checked by: AF Verified by: BJ



Remarks:
END OF DCP: Target depth reached

Coordinates located using handheld GPS equipment accurate to +/- 5m

Logged by: RG
Input by: RG
Checked by: AF
Verified by: BJ

Last Generated: 7/11/2012 11:42:46 a.m.

Database File: ST JAMES RICCARTON.GPJ, Library: AURECON CHRISTCHURCH 1.GLB, Data template: CHCH DATA TEMPLATE NOV 2010.GDT, Last Generated: 7/11/2012.

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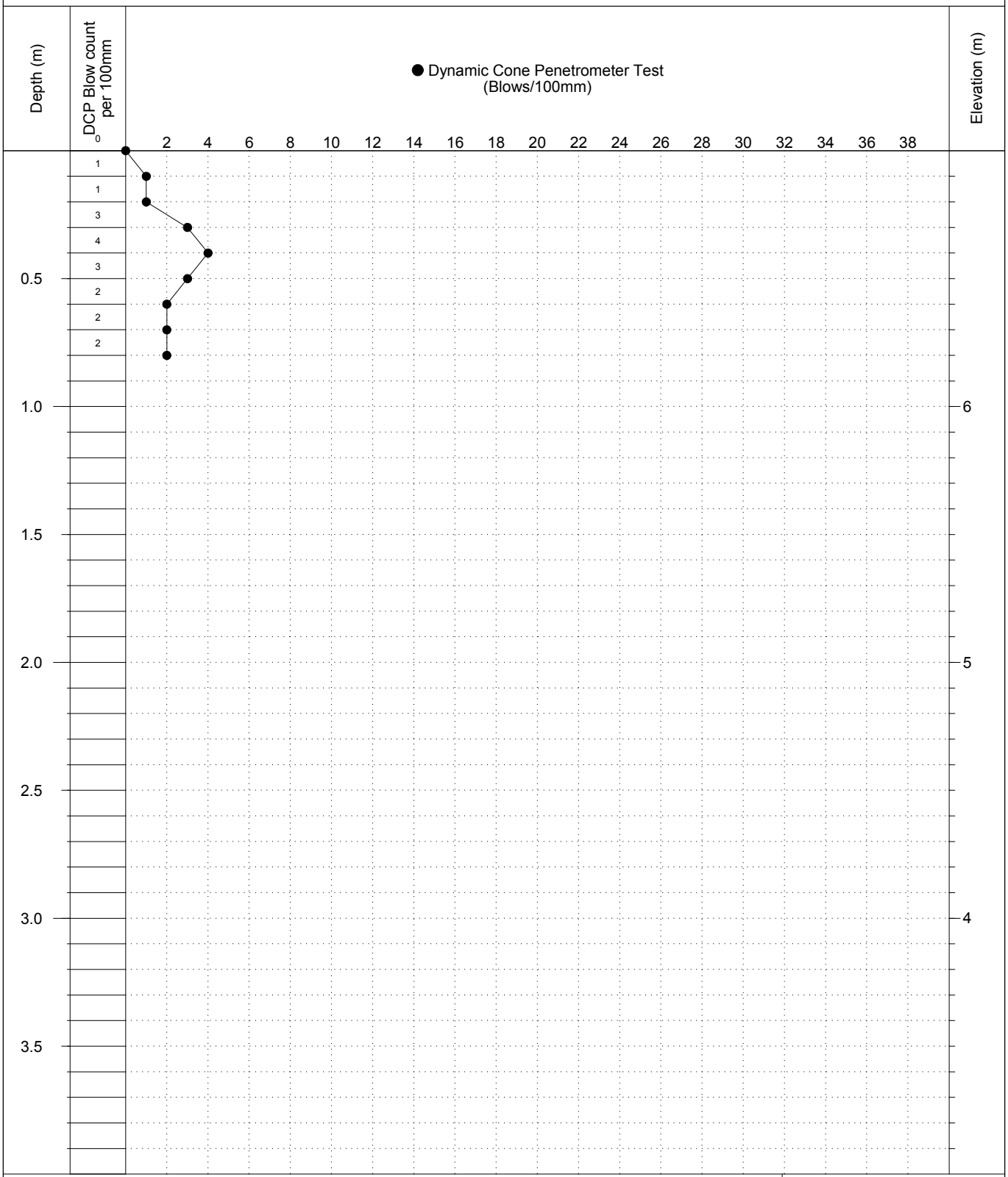
Aurecon (New Zealand) Limited
Unit 1, 150 Cavendish Rd
PO BOX 1061
Christchurch 8140
New Zealand
Telephone: +64 3 366 0821
www.aurecongroup.com
Facsimile: +64 3 379 6955
Email: christchurch@ap.aurecongroup.com

Client: **Anglican Churches Property Trust**
Project Name: **St James Church**
Location: **Riccarton Road, Christchurch**
Project Reference: **227592-015**

DCP2

DCP INFORMATION	CO-ORDINATES NZTM		
Method: Dynamic Cone (Scala) Penetrometer	Easting: 1568141 m Northing: 5180300 m Ground Level: 7 m	Date Started: 6/11/2012 Date Completed: 6/11/2012 Weather: Dry	Tested by: RG Input by: RG Checked by: AF Verified by: BJ



Remarks:
END OF DCP: Refusal

Refusal on inferred obstruction, after three attempts at location. Coordinates located using handheld GPS equipment accurate to +/- 5m.

Logged by: RG
Input by: RG
Checked by: AF
Verified by: BJ

Last Generated: 7/11/2012 11:42:46 a.m.

Database File: ST JAMES RICCARTON.GPJ, Library: AURECON CHRISTCHURCH 1.GLB, Data template: CHCH DATA TEMPLATE NOV 2010.GDT, Last Generated: 7/11/2012.

Appendix C
Detailed Seismic Assessment
(LATER)

Appendix D

Structural Calculations for Building Consent

(LATER)

Appendix E

Producer Statement PS1
Memorandum from Licensed Building Practitioner

(LATER)

APPENDIX 6

CERA

CANTERBURY EARTHQUAKE RECOVERY AUTHORITY

DETAILED ENGINEERING EVALUATION REVIEW

Date 13 6 14 CERA Reviewing Engineer Andrzej Suchanski CPEng

Address 65 Riccarton Rd

Building St James Church Imp Level 3

DEE by various engieers from Aurecon CPEng N x Y x Date 11 7 13 latest do

Documents Reviewed: 1 Meeting records, Concept for repiars and Strength and Repair aasessemnt Reports

2 No Excel Summary has been provided

ref	QUALITATIVE ASSESSMENT									NOTES
4.1.1	Rapid Assessment Placard Colour	G		Y	x	R				on S45 list
4.1.2	Drawing & Documentation Review	Y		N	x	N/A				
4.1.3	Foundation & Soils Review	Y	x	N		N/A				geotech testing
4.1.4	Likely Performance & Hot Spots Identified	Y		N		N/A	x			No DEE reports
4.1.5	Site Investigation Carried Out	Y	x	N		N/A				several
4.1.6	Geotechnical Evaluation	Y	x	N		N/A				geotech testing
4.1.7	Collapse Hazards or CSW s Identified	Y		N		N/A	x			No DEE reports
4.1.8	% New Building Standard	Pre EQ		%		Post EQ		%		see below
4.1.9	Substantial Damage Identified	Y	x	N		N/A				it appears from documents provided
	Options	No Further assessment				Mitigate Hazard/CSW				Quantitative Assessment x
	Standardised Electronic Report Form Provided	Y		N	x					not provided

ref	QUANTITATIVE ASSESSMENT									NOTES
4.2.1	Geotechnical Evaluation	Y	x	N		N/A				geotech testing
7.1.1	Building Address	Y	x	N		N/A				
7.1.2	Full Building Description	Y	x	N		N/A				partial only
7.1.3	Structural System Description	Y	x	N		N/A				partial only
7.1.4	Foundation & Soils Review	Y	x	N		N/A				geotech testing
7.1.5	Likely Performance & Hot Spots Identified	Y		N		N/A	x			not DEE reports
7.1.6	Damage Summary and Severity	Y	x	N		N/A				substantial damage from description
7.1.7	Intrusive Investigations	Y	x	N		N/A				
7.1.8	Damage Implications & Reasons	Y	x	N		N/A				
7.1.9	Generic Building/Material/Configuration Issues	Y		N		N/A	x			not DEE reports
7.1.10	Specific Review Statement	Y		N	x	N/A				
7.1.11	% New Building Standard	Pre EQ		%		Post EQ	25	%		pre not estimated
7.1.12	Repairs/Further Investigation Identified	Y	x	N		N/A				
7.1.13	Design Features Report	Y	x	N		N/A				
7.1.14	Retrofit Sketches/Details	Y	x	N		N/A				
7.1.15	Compliance Schedule Items	Y		N		N/A	x			at this stage

FURTHER NOTES The building seesm received substantial damage and is EP.

The documents provided are not DEEs but cover some parts of a DEE. Excel Summary has not been provided.

It appears that the owners intend to repair the church and the conceptual design has been carried out.

Some temporary strenghtening and propping has been carried out.

EVALUATOR'S SUMMARY		REVIEWER'S SUMMARY		NOTES
		Meets DEE Requirements		
Continued Occupation		Accept DEE/No Concerns		
Do Not Occupy	x	Continuing Concerns. S45 List	x	EPB
Reoccupy on Completion of Retrofit		Remove from S45 List		keep on S45
Demolition		Other		

CERA Engineer Andrzej Suchanski

Signed: Date: 13/6/14

CERA Engineering Team Leader

Signed: Date: 17/6/14

APPENDIX 7

CERA
Canterbury Earthquake Recovery Authority

17 June 2014

CHURCH PROPERTY TRUSTEES
C/- Aidan de Faoite - CPT Project Co-ordinator
PO Box 4438
Christchurch 8140

cptproject@anglicanlife.org.nz

Dear Aidan

Continuing Concerns Regarding Occupancy of Building – 65 Riccarton Road (aka: 67 Riccarton Road), Christchurch

The Canterbury Earthquake Recovery Authority (CERA) has received your Engineering Evaluation, titled Meeting Record and Repair Notes; Consent Documentation for Remediation of St. James Church, Riccarton; St James Church, Riccarton, Strength and Repair assessment for Godfrey and Company dated 11 July 2013, 23 April 2013 and 3 August 2011 respectively by various engineers from Auercon NZ Ltd, for the St James Church building at 65 Riccarton Road, LOT 2 DEPOSITED PLAN 396599 provided under section 29/51 of the Canterbury Earthquake Recovery Act.

CERA has reviewed the report and found that the documents and the building are not satisfactory due to the following issues:-

- The building has received damage during recent earthquakes and its estimated %NBS (New Building Standard) is lower than 33%, therefore, the building is Earthquake Prone.
- The documents provided do not constitute a Detailed Engineering Evaluation report which should cover the items as listed in the requirements stated in Section 7.1 of NZSEE Guidance on Detailed Engineering Evaluation of Earthquake Affected Non-residential Buildings in Canterbury Part 2.
- A completed Standardised Report Form in Excel format has not been provided.

Because of these issues we will leave in place the existing notice under Section 45 of the Canterbury Earthquake Recovery Act limiting access to and around the building to that for emergency purposes, damage assessment or making safe. Should you wish to have this access restriction lifted it will be necessary for you to address the above concerns and to provide us certification by a Chartered Professional Engineer that the building has been strengthened to greater than 33% NBS, or evidence that the building has been demolished.

CERA
Canterbury Earthquake Recovery Authority

You, as the building's owner are required to take all practical steps to ensure the safety of the building and the people around it. These steps should follow any recommendations of your engineer and may include restricting access into and around the building by fencing, placing warning signs or other means.

Further information on the requirements for the structural engineering reporting are available by contacting CERA at engineeringassessments@cera.govt.nz or on 03 354 2600.

Yours sincerely,

John Cumberpatch
General Manager Operations

APPENDIX 8

Christchurch City Council

DISTRICT PLAN – LISTED HERITAGE PLACE
HERITAGE ASSESSMENT – STATEMENT OF SIGNIFICANCE
HERITAGE ITEM NUMBER 465
ST JAMES' CHURCH AND SETTING – 65, 69 RICCARTON ROAD, CHRISTCHURCH

PHOTOGRAPH: M.VAIR-PIOVA, 22/12/2014

HISTORICAL AND SOCIAL SIGNIFICANCE

Historical and social values that demonstrate or are associated with: a particular person, group, organisation, institution, event, phase or activity; the continuity and/or change of a phase or activity; social, historical, traditional, economic, political or other patterns.

St James' Anglican Church has high historical and social significance for its association with the Anglican Diocese and within the Parish of St James' (est. 1910) which began as a mission district attached to St Michael and All Angels'. Services were held at Wharenui School until a site in Peverel Street was acquired and local architects Sydney and Alfred Luttrell oversaw the construction of a mission hall in 1906-7. The hall was later extended but 'the whole was totally destroyed by fire in July, 1921' A new location on the corner of Mandeville Street and Riccarton Road was then secured and plans were made for the construction of a new church.

Local architect Alfred Luttrell was a parishioner of St James' and he was commissioned to design a new church in an Early English Gothic Revival style. St James' was built as both a place of worship and a memorial to those who had fought and died in World War I. The

foundation stone was laid on 4 February 1923 and the church was officially opened by Archbishop Julius on St James' Day, 25 July 1924. It was the last and only Anglican church Luttrell designed, as he died in May 1924 without seeing the building completed. In January 1927 Sidney Luttrell called tenders for a brick and stone Sunday School Hall at St James'. The site developed into a complex of church buildings including the hall and a vicarage (1929). Church House was constructed on the site in 1987 to a design by architect John Warren who, like Luttrell, was also a parishioner. At the north entry the church has a memorial sundial with the names of the fallen and a standard rose garden which was established in the 1940s as a memorial to World War II soldiers. Each of the standard roses was planted in memory of a local soldier who had died in that war. In 1948 St James' itself became the mother church to another, St Hilda's further west on Riccarton Road.

St James' Church was damaged by the Canterbury earthquakes of 2010/11.

CULTURAL AND SPIRITUAL SIGNIFICANCE

Cultural and spiritual values that demonstrate or are associated with the distinctive characteristics of a way of life, philosophy, tradition, religion, or other belief, including: the symbolic or commemorative value of the place; significance to Tangata Whenua; and/or associations with an identifiable group and esteemed by this group for its cultural values.

St James' Church has cultural and spiritual significance as a place of Anglican Communion for 90 years. When the foundation stone of the church was laid, the font was dedicated to Nellie Luttrell, Alfred's daughter, who died in 1916 at the age of 22. The church has further high cultural significance as it was built as a war memorial to the fallen of World War I. The rose garden and sundial in front of the building are a memorial to local soldiers who lost their lives in the Second World War.

ARCHITECTURAL AND AESTHETIC SIGNIFICANCE

Architectural and aesthetic values that demonstrate or are associated with: a particular style, period or designer, design values, form, scale, colour, texture and material of the place.

St James' Church has high architectural and aesthetic significance as an Early English Gothic Revival design by well-known architect Alfred Luttrell. Brothers Alfred (1865-1924) and Sidney (1872-1932) Luttrell trained and established their practice in Tasmania before relocating to Christchurch in 1902. They quickly established a successful practice that specialised in commercial buildings, racecourse grandstands, and Catholic churches. The Luttrells introduced the skyscraper to New Zealand in the first decade of the 20th century and became the unofficial Catholic diocesan architects after FW Petre. St James' Church in Riccarton was the Luttrells' only Anglican church. It also has architectural significance because of its rarity given the number of Luttrell Brothers' building demolished after the 2010 and 2011 Canterbury earthquakes.

St James' is an Ecclesiologically correct stone church with a gabled Welsh slate roof. The church features polychromatic buttressing flanking lancet windows and a tower at the intersection of the nave and sanctuary. The building followed Luttrell's plans except for the addition of an extra bay in the nave that was requested by the Diocesan Standing Committee. The interior of the church has aesthetic significance for its timber ceiling with heraldic stencil paintings, which were carried out by architects Robert and Margaret Munro in 1950. Originally this decoration also extended to the walls but the wall painting was later covered over with white wash. Margaret Munro was Canterbury's first female architectural graduate although she did not register as an architect until after her husband's death in 1959. The Munros designed many houses as well as other buildings including the War Memorial

Chapel at St Andrew's College and the Oxford County Council buildings. St James' Church is believed to be one of only three buildings in Christchurch with English heraldic symbols forming an integral part of their interior decoration, the other two being the stone chamber of the Canterbury Provincial Council Chambers and the Sign of the Takahe.

TECHNOLOGICAL AND CRAFTSMANSHIP SIGNIFICANCE

Technological and craftsmanship values that demonstrate or are associated with: the nature and use of materials, finishes and/or technological or constructional methods which were innovative, or of notable quality for the period.

St James' Church has high technological and craftsmanship significance as an early 20th century masonry church with constructional polychromy incorporating Oamaru and Halswell stone. The interior is notable for its heraldic stencil paintings designed by Robert and Margaret Munro. The Munros cut stencils to their own designs and painters from the firm A E Brown and Company carried out the work, with FL Rose acting as foreman painter and Carl Gottini, a Swiss church decorator, contributing his skills. The wall decorations were lost to water seepage and repainting in the 1970s, however, the ceiling decoration remains.

The church also has high craftsmanship significance for a number of stained glass windows that were gifted as memorials. The Ascension window on the east wall was made by William Morris and Co, of Westminster, England in 1925. The two windows on the north wall, dating from 1924 and 1957, were made by John Hardman and Co of Birmingham. The last stained glass window was installed in 1987 and was designed and made in Christchurch by Rena Jarosewitsch, a German trained stained glass window maker. The church bell is thought to be the only steel bell in New Zealand and was made by Thomas Waddell's Sockburn plant, later Alloy Steel (*News Advertiser* 23 March 1987).

CONTEXTUAL SIGNIFICANCE

Contextual values that demonstrate or are associated with: a relationship to the environment (constructed and natural), a landscape, setting, group, precinct or streetscape; a degree of consistency in terms of type, scale, form, materials, texture, colour, style and/or detail; recognised landmarks and landscape which are recognised and contribute to the unique identity of the environment.

St James' Church has contextual significance as a stone church prominently located on one of the city's major arterial routes. The church grounds are open to the street and the building's high visibility was not been greatly affected by either the construction of Church House in 1987 (John Warren, architect) or the subdivision of the property in 2008.

There are planted areas on the site including a strawberry tree, a magnolia, a ribbonwood and a golden rain tree. With its spacious setting St James' Church provides an open green space within the context of the commercial development that has come to define Riccarton Road and Mandeville Street. The church also has contextual significance within the oeuvre of the Luttrell Brothers and the cohort of suburban churches in Christchurch, such as St Barnabas's Anglican Church on Fendalton Road, that reflect the development of faith communities as the city's population increased.

ARCHAEOLOGICAL AND SCIENTIFIC SIGNIFICANCE

Archaeological or scientific values that demonstrate or are associated with: the potential to provide information through physical or scientific evidence an understanding about social

historical, cultural, spiritual, technological or other values of past events, activities, structures or people.

St James' Church and setting are of archaeological significance because they have the potential to provide archaeological evidence relating to human activity on the site, possibly including that which occurred prior to 1900. Riccarton Road was a significant transport route from the earliest days of colonial settlement, connecting the city centre with Riccarton Bush and the Deans' estate. Research to date suggests that there may have been structures on the site prior to the erection of St James'.

ASSESSMENT STATEMENT

St James Church has high significance to the Christchurch District, including Banks Peninsula. It has historical and social significance as an expression of the early 20th century growth and development of the Anglican church in Christchurch. The church has high cultural and spiritual significance as a place of worship and as a World War I memorial. St James' has high architectural and aesthetic significance because it was designed by Alfred Luttrell, design principal of one of New Zealand's foremost Edwardian architectural practices. The Early English Gothic Revival building was Alfred Luttrell's last church design before his death in 1924. The interior has high technological and craftsmanship significance for its unique stencil painting, incorporating traditional Gothic and New Zealand symbolism, which was designed by local architects Robert and Margaret Munro. The stained glass windows in the church enhance its high technological and craftsmanship significance. The church has contextual significance for its prominent siting; place within the oeuvre of surviving examples of the Luttrell brothers' work; and relation to other masonry churches in the city. The garden setting, including memorial elements and listed trees, contributes to St James' landmark presence within lower Riccarton. The archaeological significance of the site may pertain to the colonial development of Riccarton Road.

REFERENCES:

Jean Ross *Faith and Vision. A short history of the Parish of Riccarton-St James 1906-1999* (Christchurch, 1999)

'Heraldic Symbols give Church Distinctive Décor' (*The Star* 5 October 1968)

Mary-Jane Duffy 'Emerging from Obscurity' (*Historic Places* March 1993)

AE McEwan 'From cottages to 'skyscrapers': the architecture of AE & ES Luttrell in Tasmania and New Zealand' MA thesis, university of Canterbury, 1988.

(*The Press* 25 July 1924, p. 11).

REPORT DATED: 1 NOVEMBER 2014

PLEASE NOTE THIS ASSESSMENT IS BASED ON INFORMATION AVAILABLE AT THE TIME OF WRITING. DUE TO THE ONGOING NATURE OF HERITAGE RESEARCH, FUTURE REASSESSMENT OF THIS HERITAGE ITEM MAY BE NECESSARY TO REFLECT ANY CHANGES IN KNOWLEDGE AND UNDERSTANDING OF ITS HERITAGE SIGNIFICANCE.

PLEASE USE IN CONJUNCTION WITH THE CCC HERITAGE FILES.

APPENDIX 9

Heritage Items and Settings Aerial Map

Aerial Map Reference: **60**
Heritage Item Number: **465**
HeritageSetting Number: **220**

Heritage Item and Setting boundaries are a visual reference only as they have been captured against specific sets of aerial photography.
The outer boundary of the setting is deemed to follow:
a) the specific measurement(s) or description of the setting boundary where they are included on the aerial map; or if not specified, then;
b) the cadastral boundary at the nearest point to the setting boundary shown on the aerial maps
The boundaries should only be referred to in relation to these specific photos, not survey information or building plans.There may be a visual distortion due to the angle of the aerial photography.
District Plan rules do not apply for overlays extending into the Coastal Marine Area. The Coastal Marine Area is as defined in the Resource Management Act.

A Heritage Item

A Heritage Setting

N

Scale 1 : 501
Aerial photography captured in 2010
Published On:30/10/2017

APPENDIX 10

EARTHQUAKE-PRONE BUILDING

Notice under section 133AL of the Building Act 2004

Christchurch City Council

43246

0% to less than 20% NBS

This notice is for -

The building situated at, 65 Riccarton Road, Christchurch,

Lot 2 DP 396599.

Building Name: St James Church

The building has been determined by Christchurch City Council as earthquake prone.

The building is not a priority building (as defined in section 133AE of the Building Act 2004).

The owner of the building is required to carry out building work to ensure that the building is no longer earthquake prone (seismic work). The owner is required to complete seismic work by: 11 December 2032.

The owner of the building may apply to Christchurch City Council, under section 133AN of the Building Act 2004, for an exemption from the requirement to carry out seismic work. The building must have certain characteristics to be granted an exemption (see the Building (Specified Systems, Change the Use, and Earthquake-prone Buildings) Regulations 2005).

The owner is not required to complete seismic work if Christchurch City Council determines or is satisfied, in accordance with section 133AQ of the Building Act 2004, that the building is not earthquake prone.

In the event that Christchurch City Council determines or is satisfied, in accordance with section 133AQ of the Building Act 2004, that the building is not earthquake prone, the owner is not required to complete the seismic work.

Signature:
Position: Robert Wright, Head of Building Consenting
On behalf of: Christchurch City Council
Date: 11 December 2017

Christchurch City Council

Church Property Trustees
PO Box 4438
Christchurch 8140

Building Act 2004 Section 133AL (EPB) Notice
Notification of Earthquake-Prone Building

Building Name: St James Church
Site Address: 65 Riccarton Road, Christchurch
Legal Description: Lot 2 DP 396599
Date: 11 December 2017

Dear Church Property Trustees,

Our records show that you either own or have an interest in the building described above.

If our information is incorrect, can you please let us know so we can update our records.

Your building is recorded as earthquake-prone after being assessed at less than 34 per cent of the New Building Standard (NBS) and will be at risk during a moderate earthquake. If the building or a section collapses, it will likely result in injury or death, along with damage to other buildings.

Your building is a Category zero per cent to less than 20 per cent earthquake-prone building. You have 15 years to fully strengthen or demolish your building from the date of the enclosed earthquake-prone building (EPB) notice.

By law, you must ensure the building is no longer earthquake-prone. Alternatively, you can demolish part or all of the building so that the remaining structure is no longer at risk.

However, this deadline will be reduced to seven years and six months if, following further special consultation, your building is listed as a “priority building”.

Along with notifying you of your legal obligations, we have enclosed an EPB notice, issued under section 133AL of the Building Act 2004.

You must display the EPB notice in a prominent place on the building (or nearby if your building is fenced), as required by section 133AP of the Building Act 2004.

Please ensure that you understand the enclosed notice and seek advice if necessary.

You can dispute our classification with the Ministry of Business, Innovation and Employment (MBIE). The ministry decision will be binding.

Any earthquake-related work is subject to our normal resource and building consent requirements. A suitably qualified person, such as a chartered structural engineer, can advise you on your options.

Your EPB notice will remain until a code compliance certificate has been issued. We can then remove your building from the earthquake-prone building register.

Can you please notify us if the work detailed in an existing exemption from consent has been carried out and also supply a Structural PS4, certifying the completion of strengthening work.

Christchurch City Council
Civic Offices, 53 Hereford Street
PO Box 73013
CHRISTCHURCH 8154

Owner responsibilities

If your building is regularly occupied by more than 20 people and you have a tenant that is

I. an early childhood education and care centre licensed under Part 26 of the Education Act 1989 or
II. a registered school or integrated school (within the meaning of the Education Act 1989) or
III. a private training establishment registered under Part 18 of the Education Act 1989 or
IV. a tertiary institution established under section 162 of the Education Act 1989

your building is defined by clause 133AE of the Building Act 2004 as a priority building and the timeframe for completing strengthening work will be reduced to 7 years and 6 months.

Please inform us if you have such a tenant.

Please note that you may have obligations under other legislation or your lease arrangements to advise tenants of the issue of the EBP notice.

Heritage buildings

Heritage buildings are subject to the same time frames for strengthening work.

We continue to support their upgrade through our Heritage Incentive Grants and rates-funded advice.

For more information, please contact our heritage advisors on 941 8999 or email heritage@ccc.govt.nz.

It you have further queries about your legal requirements, read the earthquake-prone building information on the MBIE website:

http://www.mbie.govt.nz/info-services/building-construction/safety-quality/earthquake-prone-buildings?searchterm=earthquake+prone+buildings

We look forward to working with you in keeping our city safe.

Earthquake Prone Building Team
Christchurch City Council
Civic Offices
Phone: 941 8999

Yours sincerely

Robert Wright
Head of Building Consents
CHRISTCHURCH CITY COUNCIL

Christchurch City Council
Civic Offices, 53 Hereford Street
PO Box 73013
CHRISTCHURCH 8154

APPENDIX 11

Christchurch City Council

03 941 8999

53 Hereford Street
Christchurch 8011

PO Box 73013
Christchurch 8154

ccc.govt.nz

27 May 2019

Church Property Trustees
PO Box 4438
Christchurch 8140

Dear Church Property Trustees

Earthquake prone building notice

Building Name: St James Church
Site Address: 65 Riccarton Road, Christchurch
Legal Description: Lot 2 DP 396599

Our records show that you either own or have an interest in the building described above. If this information is incorrect, can you please let us know so we can update our records.

This building is earthquake-prone. It has been assessed at less than 34 per cent of the New Building Standard (NBS) and will be at risk during a moderate earthquake. If the building or a section of it collapses, it will likely result in injury or death to persons in or near the building or will damage other buildings or property.

It is within the zero per cent to less than 20 per cent earthquake rating category for an earthquake prone building (EPB) and is now a priority building as defined by section 133AE of the Building Act 2004. The timeframe to carry out building work (seismic work) to ensure the building is no longer earthquake-prone has been reduced from 15 years to seven years and six months, the new date is on the attached EPB notice.

The EPB notice has to be displayed in a prominent place on the building or nearby if your building is fenced. If your building has more than one entrance used by the public please let us know and we will send you extra copies. Information about priority buildings, tenants, and heritage buildings is on the second page of this letter.

If you would like to talk to us or disagree with the classification you can call us on 03 941 8999 and ask to speak to a member of the earthquake prone buildings team. The MBIE website has helpful information for owners: **building.govt.nz/owners of potentially earthquake prone buildings**.

If the work in an existing exemption from consent has been carried out and you have a structural PS4 which certifies the completion of strengthening work, please send this information to us at **DEEs@ccc.govt.nz.**

Any earthquake-related work is subject to usual resource and building consent requirements. We encourage you to seek advice from a suitably qualified person, such as a chartered structural engineer on your options. When you have finished the work and you have a code compliance certificate we can remove your building from the earthquake-prone building register.

Yours sincerely

Robert Wright
Head of Building Consenting

B-590 LU 140319 LR 140319 v2

Owner responsibilities

If your building is regularly occupied by more than 20 people and you have a tenant that is

I. an early childhood education and care centre licensed under Part 26 of the Education Act 1989 or

II. a registered school or integrated school (within the meaning of the Education Act 1989) or

III. a private training establishment registered under Part 18 of the Education Act 1989 or

IV. a tertiary institution established under section 162 of the Education Act 1989

Your building is defined by clause 133AE of the Building Act 2004 as a priority building and the timeframe for completing strengthening work will be reduced to seven years and six months.

Please inform us if you have such a tenant.

Please note that you may have obligations under other legislation or your lease arrangements to advise tenants of the issue of the EBP notice.

Heritage buildings

Heritage buildings are subject to the same time frames for strengthening work.

We continue to support their upgrade through our Heritage Incentive Grants and rates-funded advice.

For more information, please contact our heritage advisors on 941 8999 or email **heritage@ccc.govt.nz**.

If you have further queries about your legal requirements, read the earthquake-prone building information on the MBIE website.

EARTHQUAKE-PRONE BUILDING

Christchurch City Council

Notice under section 133AL of the Building Act 2004

This notice is for -

The building situated at 65 Riccarton Road, Christchurch, Lot 2 DP 396599.

Building Name: St James Church

43246

0% to less than 20% NBS

The building has been determined by Christchurch City Council as earthquake prone.

The building is a priority building (as defined in section 133AE of the Building Act 2004).

The owner of the building is required to carry out building work to ensure that the building is no longer earthquake prone (seismic work). The owner is required to complete seismic work by: 11 June 2025.

The owner of the building may apply to Christchurch City Council, under section 133AN of the Building Act 2004, for an exemption from the requirement to carry out seismic work. The building must have certain characteristics to be granted an exemption (see the Building (Specified Systems, Change the Use, and Earthquake-prone Buildings) Regulations 2005).

The owner is not required to complete seismic work if Christchurch City Council determines or is satisfied, in accordance with section 133AQ of the Building Act 2004, that the building is not earthquake prone.

In the event that Christchurch City Council determines or is satisfied, in accordance with section 133AQ of the Building Act 2004, that the building is not earthquake prone, the owner is not required to complete the seismic work.

Signature:
Position: Robert Wright, Head of Building Consenting
On behalf of: Christchurch City Council
Date: 27 May 2019