

ENGINEERING DETAILS

REROOF REPORT

Project Number: 21-I-1043
Project Address: ~~5 Denham St, East Ipswich~~
Client: Townsend Building Services
Client Contact: John Gammon
Client Reference: B69710Q

Issued As:	Revision	Issue Date
Original Issue	0	31.08.21
Struts & strutting beams removed	1	31.08.21



Figure – Street view of residence

Site Assessment

A site assessment has been carried out on the property, both in person and as a desktop assessment. Refer to Appendix A for assessment photographs, Appendix B for site sketches and Appendix C for rectification typical details and sections.

Details relevant to the construction of the structure are as shown in Table 1:

Table 1 - Structural Characteristics

Criteria	Characteristic
Roof Material	Sheeting
Roof Pitch	15°
Roof Construction	Hardwood Rafters & Timber Battens
Number of Storeys	1
External Wall Finish	Cladding & Brickwork

Patcol's scope was to complete engineering checks and provide advice on existing roof cladding supports from top plate up and roof cladding fixings, any strengthening required and replacement of decayed or split timbers. This report does not cover other building aspects and does not represent a condition assessment of the building as a whole or any specific building element.

Table 2 – AS4055 Wind Load Analysis Parameters

Wind Actions	Parameters
Region	B
Terrain Category	TC3
Shielding Class	0.85 (FS)
Topographic Class	T0
Wind Class	N2

Roof Tie Down Upgrades

Based on the results of the Site Assessment the following upgrades are proposed. Note, the following proposal doesn't supersede any provisions of the relevant standards or the National Construction Code in any aspect. It remains the builder's responsibility to ensure conformity to the NCC, Australian Standards and Industry Best-Practice, and to ensure any perceived contradictions are clarified with the Engineer prior to works being carried out.

1. Check timber condition. Any decayed/split or otherwise damaged members or connections are to be reinstated as necessary with equivalent or better members in accordance with AS1684.3.
2. Where members requiring removal and replacement cannot be safely removed, new members may be lapped onto existing and fixed into existing with coach screws at 300 centres.
3. Loose nails or timber to timber joint details where fixing/timber has moved and been impaired should be rectified. Generally, fixings to be in accordance with AS1684.3.
4. Refer to Appendix B and Appendix C for typical tie down details and any other site specific upgrades required.

5. Sheeting replacement to be minimum 0.42 BMT. Site exposure deemed "benign", i.e. greater than 1km from breaking surf. Sarking is to be installed in all habitable areas and installed in accordance with manufacturer's specifications.
6. New metal roof battens to be screwed down into existing timber rafters at no greater than 900 crs with 2/M6-50mm Hex Head SDS.
7. All seasoned hardwood timber is to be predrilled, with the hole no greater than 80% of the diameter of the fastener being used.
8. Ridge ties to be installed ex 90x45 MGP12 or 100x45 LVL between every opposing rafter sets. 2/75mm No.14 Type 17 screws each end as per Appendix C.
9. Under-purlins and struts may be required as per details if nominated in Appendix B.
10. All hip & jack rafters to be screwed to hip-board with 2/No.14 Type 17 batten screws 75mm long. This is the same for both hip and valley locations.
11. All existing struts to be screwed to existing support with 2/No.14 Type 17 batten screws 75mm long.
12. Refer to QBCC – Repair of sheet metal rooves in cyclonic areas for confirmation of all the above details.
13. Any signs of corrosion to existing framing and connections should be assessed for capacity.

Any queries please contact the undersigned.

Yours sincerely,



Scott Thomas

Manager – B. Eng (Civil/Structural) RPEQ 16203

scott@patcol.com.au

Lot Details



3 Blackall Street East Ipswich QLD
4305 Australia

Details

Parcel Status	Registered
Parcel Type	Lot Parcel
Plan Number	SP165144
Lot Number	14
Locality	East Ipswich
State	QLD

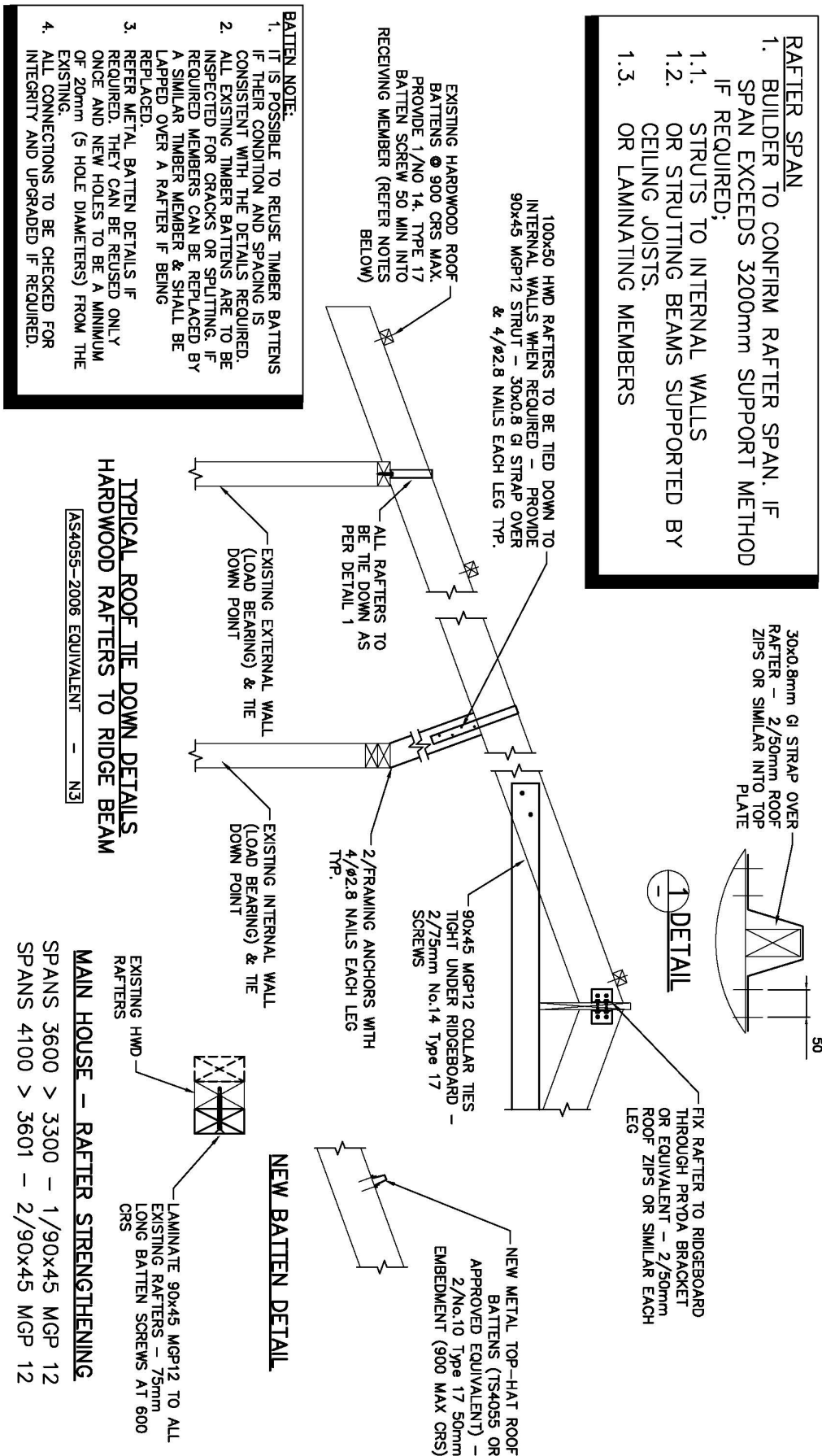
Appendix A – Site Photographs

No photos taken at the time of report

Appendix B – Site Sketches

The roof framing requires upgrades as nominated below in Appendix C. All of the connections need to be upgraded with screws, strapping and new metal battens required as per details.

Appendix C – Typical Sections/Details



Department of Housing and Public Works

Form 15—Compliance certificate for building design or specification

Version 4 – July 2017

NOTE: This is to be used for the purposes of section 10 of the *Building Act 1975* and/or section 46 of the *Building Regulation 2006*.

RESTRICTION: A building certifier (class B) can only give a compliance certificate about whether building work complies with the BCA or a provision of the Queensland Development Code (QDC). A building certifier (Class B) can not give a certificate regarding QDC boundary clearance and site cover provisions.

1. Property description

This section need only be completed if details of street address and property description are applicable.

E.g. in the case of (standard/generic) pool design/shell manufacture and/or patio and carport systems this section may not be applicable.

The description must identify all land the subject of the application.

The lot and plan details (e.g. SP/RP) are shown on title documents or a rates notice.

If the plan is not registered by title, provide previous lot and plan details.

Street address (include no., street, suburb/locality and postcode)

	Postcode 4305
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Lot and plan details (attach list if necessary)

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In which local government area is the land situated?

Ipswich City Council

2. Description of component/s certified

Clearly describe the extent of work covered by this certificate, e.g. all structural aspects of the steel roof beams.

Renovations to existing residence associated with reroofing of residence
Tie-down design
Roof framing design

3. Basis of certification

Detail the basis for giving the certificate and the extent to which tests, specifications, rules,

standards, codes of practice and other publications, were relied upon.

National Code of Construction
Building Code of Australia
AS1684 – Residential timber-framed construction
AS1170.2 – Wind Loads
AS4055 – Wind Loads for Housing

4. Reference documentation

Clearly identify any relevant documentation, e.g. numbered structural engineering plans.

Patcol Group Pty Ltd Reroof Report including proposed tie down details – refer to attached report 21-I-1034 (Rev 1)

LOCAL GOVERNMENT USE ONLY

Date received		Reference Number/s	
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5. Building certifier reference number	Building certifier reference number
6. Competent person details A competent person for building work, means a person who is assessed by the building certifier for the work as competent to practice in an aspect of the building and specification design, of the building work because of the individual's skill, experience and qualifications in the aspect. The competent person must also be registered or licensed under a law applying in the State to practice the aspect. If no relevant law requires the individual to be licensed or registered to be able to give the help, the certifier must assess the individual as having appropriate experience, qualifications or skills to be able to give the help. If the chief executive issues any guidelines for assessing a competent person, the building certifier must use the guidelines when assessing the person.	Name (in full) Scott Matthew Thomas Company name (if applicable) Patcol Group Pty Ltd Contact person Scott Thomas Phone no. (business hours) Mobile no. Fax no. 0447 672 924 Email address scott@patcol.com.au Postal address 186 Denham St, Rockhampton Postcode 4700 Licence or registration number (if applicable) RPEQ 16203
7. Signature of competent person This certificate must be signed by the individual assessed by the building certifier as competent.	Signature Scott Thomas Date 31.08.21

The *Building Act 1975* is administered by the Department of Housing and Public Works