# West Coast District Health Board

## Te Poari Hauora a Rohe o Tai Poutini

*Corporate Office*
*High Street, Greymouth 7840*

*Telephone 03 769-7400*
*Fax 03 769-7791*


11 January 2019

[redacted]

[redacted]

**RE Official information request WCDHB 9256**

We refer to your email dated 28 November 2018 to Ministry of Health requesting the following information under the Official Information Act. I note that the Ministry of Health subsequently partially transferred this request (i.e. questions 1 and 3) to West Coast DHB on 6th December 2018.

1. **Any District Health Board Seismic Report's for 2018**
   We have not obtained any seismic reports for 2018. We attach rapid assessments for the buildings at Buller, Grey and Reefton Hospitals that were obtained in 2016. The accompanying commentary from the structural engineer was "*I didn't see anything of concern structurally and there was no obvious structural damage observed*".

3. **Any information related to non-structural seismic restraints provided by DHBs**
   We have not obtained any specific reports related to non-structural seismic restraints

I trust that this satisfies your interest in this matter.

Please note that this response, or an edited version of this response, may be published on the West Coast DHB website after your receipt of this response.

Yours sincerely

Ralph La Salle
**Acting Executive Director**
**Planning, Funding & Decision Support**

23 November 2016

**Opus International Consultants Ltd**

**P** +64 3 769 9330

Greymouth Office
23 High Street
PO Box 365, Greymouth 7840
New Zealand

Craig Shaw
Maintenance Manager
West Coast District Health Board
P O Box 387
Greymouth

Ref: 6-WWESE.10

## Property inspected – Buller Hospital Buildings (various)

Dear Craig,

This report confirms the verbal advice provided to you on 23 November 2016 in relation to the rapid structural assessments Opus undertook of the Buller Hospital Buildings listed below (on Tuesday 22 November 2016) following the M7.8 earthquake which occurred on 14 November 2016:

- Boiler House Building,
- Physiotherapy Building,
- Physiotherapy / Mental Health Link Building,
- Mental Health and East / West Wing Office Building,
- Redundant Kitchen / Cafeteria Building,
- Clinical Services Building,
- Foote Ward Building,
- Kitchen Building,
- Radiology Building,
- Dunsford Ward and Café Building,
- Linen Store,
- Electrical Substation Building,
- Mortuary Building.

The scope of our rapid structural assessments comprised of a brief visual inspection of the Buildings to ascertain the level of damage sustained to the primary structure and a brief external visual inspection of the neighbouring buildings and structures which we reasonably believe may impact the seismic performance of the Building. The scope of our inspection is further detailed in the Earthquake Rapid Assessment Forms, which are attached to this letter.

### Inspection Summary

In summary, our inspections noted the following observed damage:

- Negligible damage noted to buildings. Some cracking may have anecdotally worsened but generally no evidence of new damage to building.

Unless noted otherwise on the Earthquake Rapid Assessment Forms, we have not inspected any non-structural hazards.

Based on our inspections, it is our assessment that the Building's seismic performance has not been significantly affected. The Buildings listed may therefore be occupied on the same basis as prior to the Earthquake. However, if you become aware of any changes in seismic performance of the neighbouring buildings or structures, please contact us immediately as the change may impact this assessment. In addition, aftershocks may cause more damage that may change this assessment and warrant further inspection of the building and/or neighbouring buildings or structures.

Although it is our assessment that the seismic performance of the buildings listed has not been significantly affected, if you are aware that a Building was Earthquake Prone or is subject to strengthening requirements, we recommend that you review the strengthening actions to ensure that they are still fit for purpose.

Do not hesitate to contact me if you require any further assistance.

Regards

Jason Davidson, Senior Structural Engineer, CPEng 229742

Encl.: Earthquake Rapid Assessment Forms

# EARTHQUAKE RAPID ASSESSMENT FORM

Complex Residential and all Non-Residential Buildings Level 2

## ASSESSMENT

*Fields with asterisks (*) are mandatory, others are optional.*

1 Assessor Name*: JASON DAVIDSON

Assessor ID*:

Authority*: WCDHB

2 Assessment Date* (Day / Month / Year): 22 / 11 / 16

Assessment Time* (Hour / Minute, to nearest half hour): 08 40

A ☑ AM B ☐ PM

## BUILDING IDENTIFICATION

3 Building Name: BOILERHOUSE

Unit / Number*: / 

Street*:

City/Town*: WESTPORT

GPS (Degree with 5 decimals after comma) South: - , East: ,

Other ID or access:

Photo taken A ☐ No B ☐ Yes Photo ID.

4 Contact Name: TONY ROBERTS

Type: A ☐ Owner B ☐ Tenant C ☑ Other

Phone (with area code): (027) 2248312

5 Existing Placard*: ☑ None ☐ W ☐ Y1 ☐ Y2 ☐ R1 ☐ R2

Date* (Day / Month / Year):

Team ID*:

## BUILDING DESCRIPTION

6

| Dimensions | Constr. Age | Building Type | Structure Type | Cladding Type |
|---|---|---|---|---|
| Storeys above ground incl. ground floor: 01 + mezzanine | A ☐ <1935 | A ☐ Complex residential | A ☐ Timber frame | A ☑ Brick veneer |
| Storeys below ground: 00 | B ☑ 1935-1976 1955 | B ☐ School | B ☑ Steel frame | B ☑ Concrete panels |
| Footprint (m²): ~200 | C ☐ 1977-1984 | C ☐ Commercial/Office | C ☑ Concrete frame | C ☐ Steel |
| | D ☐ 1985-2000 | D ☐ Industrial | D ☑ Concrete shear wall | D ☐ Glass |
| | E ☐ >2000 | E ☑ Critical facility | E ☐ Tilt-up concrete | E ☐ Lightweight |
| | F ☐ Unknown | F ☐ Public assembly | F ☐ Reinforced masonry | F ☐ Other: |
| | | G ☐ Other: | G ☐ Unreinforced masonry | |
| | | | H ☐ Other: | |

## EXTERNAL RISKS

7

| Potential Cause* | A Yes | B No |
|---|---|---|
| 1 Objects falling from adjacent buildings. Adjacent building ID or address: | ☐ | ☑ |
| 2 Land instability above | ☐ | ☑ |
| 3 Land instability below | ☐ | ☑ |
| 4 Other | ☐ | ☑ |

If required add sketch on separate page showing extent and nature of the external risk factors.

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## DAMAGE ASSESSMENT

**8**

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Overall Hazard*** | N/A | A | B | C | D |
| 1 Collapse or partial collapse | ○ | ○ | ✓ | ○ | ○ |
| 2 Building or storey leaning | ○ | ○ | ✓ | ○ | ○ |
| 3 Other: | ○ | ○ | ✓ | ○ | ○ |
| **Structural Hazards*** | N/A | A | B | C | D |
| 4 Foundations | ○ | ○ | ✓ | ○ | ○ |
| 5 **Roofs, floors** | ○ | ○ | ✓ | ○ | ○ |
| 6 Gravity systems (columns, beams, etc) | ○ | ○ | ✓ | ○ | ○ |
| 7 Lateral systems (walls, frames, braces) | ○ | ○ | ✓ | ○ | ○ |
| 8 Diaphragms, horizontal bracing | ○ | ○ | ✓ | ○ | ○ |
| 9 Precast connections | ○ | ○ | ✓ | ○ | ○ |
| 10 Other: | ✓ | ○ | ○ | ○ | ○ |

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Non-structural Hazards*** | N/A | A | B | C | D |
| 11 Parapets, ornamentation, chimneys | ○ | ○ | ✓ | ○ | ○ |
| 12 Cladding, glazing | ○ | ○ | ✓ | ○ | ○ |
| 13 **Ceilings, light fixtures** | ○ | ○ | ✓ | ○ | ○ |
| 14 Interior walls, partitions | ○ | ○ | ✓ | ○ | ○ |
| 15 Access/egress (elevators, stairs, exits) | ○ | ○ | ✓ | ○ | ○ |
| 16 **Significant fire saftey** concerns | ○ | ○ | ✓ | ○ | ○ |
| 17 Utilities (e.g. gas, electricity, waste water, plumbing) | ○ | ○ | ✓ | ○ | ○ |
| 18 Other: | ✓ | ○ | ○ | ○ | ○ |

Comments:

**9** Estimated Damage A ✓ None B ○ 0-10% C ○ 11-30% D ○ 31-60% E ○ 61-100%

## SUGGESTED FURTHER ACTIONS

**10**

| Recommended further Assessment* | Safety Cordon* | Barricades* | Urgency of suggested action* |
|---|---|---|---|
| A ✓ None<br>B ○ Level 2 Rapid Assessment (tick below if particular expertise is required)<br>B1 ○ Structural Engineer<br>B2 ○ Geotechnical Engineer<br>B3 ○ Other:<br>C ○ Further evaluation to be arranged by building owner: | A ✓ None required<br>B ○ Cordon required<br>Describe extent (add diagram on separate sheet if required) | A ✓ None required<br>B ○ Barricades already in place<br>C ○ Barricades required<br>Describe extent (add diagram on separate sheet if required) | A ○ Standard<br>B ○ Immediate action required |

## SUMMARY

**11**

| Observed Damage | Level 2 Rapid Assessment Outcome* |
|---|---|
| **Light or no damage** | W ✓ **CAN BE USED** (From assessment no known dangers) |
| **Moderate damage** | Y1 ○ **RESTRICTED ACCESS TO PART(S) OF THE BUILDING ONLY** |
| | Y2 ○ **RESTRICTED ACCESS – SHORT TERM ENTRY ONLY with or without supervision**<br>Access to be supervised A ○ Yes B ○ No |
| **Heavy damage** | R1 ○ **ENTRY PROHIBITED (At risk from external factors)** |
| | R2 ○ **ENTRY PROHIBITED (Severe damage to building)** |

**12**

| Survey Extent* | |
|---|---|
| Exterior | A ○ Partial |
| | B ✓ Complete |
| Interior | C ○ Not accessed |
| | D ✓ Partial |
| | E ○ Complete |

Assessor Signature* [signature]

## NOTES

**13** Some historical cracking in external walls. some cracking may have opened up wider but difficult to determine.

If required add a sketch on a separate sheet of paper showing building damage, access restrictions or cordoning areas. Identify the building on the sketch and staple the sheet to this assessment form.

**Sketch included on separate page?** ○ Yes ✓ No

# EARTHQUAKE RAPID ASSESSMENT FORM

Complex Residential and all Non-Residential Buildings Level 2

## ASSESSMENT

*Fields with asterisks (*) are mandatory, others are optional.*

1 Assessor Name*: JASON DAVIDSON

Assessor ID*:

Authority*: NCDHB

2 Assessment Date*: 22/1/16 (Day / Month / Year)

Assessment Time*: 0900 (Hour / Minute, to nearest half hour) A ☑ AM B ○ PM

## BUILDING IDENTIFICATION

3 Building Name: PHYSIOTHERAPY

Unit / Number*: /

Street*:

City/Town*: WESTPORT

GPS (Degree with 5 decimals after comma) South -, East ,

Other ID or access:

Photo taken A ○ No B ○ Yes Photo ID.

4 Contact Name: TONY ROBERTS

Type A ○ Owner B ○ Tenant C ☑ Other

Phone (with area code): (027) 2248312

5 Existing Placard*: ☑ None ○ W ○ Y1 ○ Y2 ○ R1 ○ R2

Date* (Day / Month / Year)

Team ID*:

## BUILDING DESCRIPTION

6

| Dimensions | Constr. Age | Building Type | Structure Type | Cladding Type |
|---|---|---|---|---|
| Storeys above ground incl. ground floor: 01 | A ○ <1935 | A ○ Complex residential | A ☑ Timber frame | A ☑ Brick veneer |
| Storeys below ground: 00 | B ☑ 1935-1976 1959 | B ○ School | B ○ Steel frame | B ○ Concrete panels |
| Footprint (m²): | C ○ 1977-1984 | C ○ Commercial/Office | C ○ Concrete frame | C ○ Steel |
| | D ○ 1985-2000 | D ○ Industrial | D ○ Concrete shear wall | D ○ Glass |
| | E ○ >2000 | E ☑ Critical facility | E ○ Tilt-up concrete | E ○ Lightweight |
| | F ○ Unknown | F ○ Public assembly | F ○ Reinforced masonry | F ○ Other: |
| | | G ○ Other: | G ○ Unreinforced masonry | |
| | | | H ○ Other: | |

## EXTERNAL RISKS

7

| Potential Cause* | A Yes | B No |
|---|---|---|
| 1 Objects falling from adjacent buildings. Adjacent building ID or address: | ○ | ☑ |
| 2 Land instability above | ○ | ☑ |
| 3 Land instability below | ○ | ☑ |
| 4 Other | ○ | ☑ |

If required add sketch on separate page showing extent and nature of the external risk factors.

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## DAMAGE ASSESSMENT

**8**

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Overall Hazard*** | N/A | A | B | C | D |
| 1 Collapse or partial collapse | ○ | ○ | ✓ | ○ | ○ |
| 2 Building or storey leaning | ○ | ○ | ✓ | ○ | ○ |
| 3 Other: | ✓ | ○ | ○ | ○ | ○ |
| **Structural Hazards*** | N/A | A | B | C | D |
| 4 Foundations | ○ | ○ | ✓ | ○ | ○ |
| 5 **Roofs, floors** | ○ | ○ | ✓ | ○ | ○ |
| 6 Gravity systems (columns, beams, etc) | ○ | ○ | ✓ | ○ | ○ |
| 7 Lateral systems (walls, frames, braces) | ○ | ○ | ✓ | ○ | ○ |
| 8 Diaphragms, horizontal bracing | ○ | ○ | ✓ | ○ | ○ |
| 9 Precast connections | ○ | ○ | ✓ | ○ | ○ |
| 10 Other: | ✓ | ○ | ○ | ○ | ○ |

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Non-structural Hazards*** | N/A | A | B | C | D |
| 11 Parapets, ornamentation, chimneys | ✓ | ○ | ○ | ○ | ○ |
| 12 Cladding, glazing | ○ | ○ | ✓ | ○ | ○ |
| 13 **Ceilings, light fixtures** | ○ | ○ | ✓ | ○ | ○ |
| 14 Interior walls, partitions | ○ | ○ | ✓ | ○ | ○ |
| 15 Access/egress (elevators, stairs, exits) | ○ | ○ | ✓ | ○ | ○ |
| 16 **Significant fire saftey** concerns | ○ | ○ | ✓ | ○ | ○ |
| 17 Utilities (e.g. gas, electricity, waste water, plumbing) | ✓ | ○ | ○ | ○ | ○ |
| 18 Other: | ○ | ○ | ○ | ○ | ○ |

Comments: some historical settlement may have worsened as a result of EQ. Difficult to determine.

**9** Estimated Damage A ○ None B ✓ 0-10% C ○ 11-30% D ○ 31-60% E ○ 61-100%

## SUGGESTED FURTHER ACTIONS

**10**

| Recommended further Assessment* | Safety Cordon* | Barricades* | Urgency of suggested action* |
|---|---|---|---|
| A ✓ None | A ✓ None required | A ✓ None required | A ○ Standard |
| B ○ Level 2 Rapid Assessment (tick below if particular expertise is required) | B ○ Cordon required | B ○ Barricades already in place | B ○ Immediate action required |
| B1 ○ Structural Engineer | Describe extent (add diagram on separate sheet if required) | C ○ Barricades required | |
| B2 ○ Geotechnical Engineer | | Describe extent (add diagram on separate sheet if required) | |
| B3 ○ Other: | | | |
| C ○ Further evaluation to be arranged by building owner: | | | |

## SUMMARY

**11**

| Observed Damage | Level 2 Rapid Assessment Outcome* |
|---|---|
| **Light or no damage** | W ✓ **CAN BE USED** (From assessment no known dangers) |
| **Moderate damage** | Y1 ○ **RESTRICTED ACCESS TO PART(S) OF THE BUILDING ONLY** |
| | Y2 ○ **RESTRICTED ACCESS – SHORT TERM ENTRY ONLY with or without supervision** Access to be supervised A ○ Yes B ○ No |
| **Heavy damage** | R1 ○ **ENTRY PROHIBITED (At risk from external factors)** |
| | R2 ○ **ENTRY PROHIBITED (Severe damage to building)** |

**12**

| Survey Extent* | |
|---|---|
| Exterior | A ○ Partial |
| | B ✓ Complete |
| Interior | C ○ Not accessed |
| | D ✓ Partial |
| | E ○ Complete |

Assessor Signature* [signature]

## NOTES

**13** Historical settlement of ground around piles @ western end up to 300mm. Cracking in veneer on northern wall may be worse. Eastern wing of physio (extension) with pool setting away from building.

If required add a sketch on a separate sheet of paper showing building damage, access restrictions or cordoning areas. Identify the building on the sketch and staple the sheet to this assessment form.

**Sketch included on separate page?** ○ Yes ○ No

# EARTHQUAKE RAPID ASSESSMENT FORM

Complex Residential and all Non-Residential Buildings Level 2

## ASSESSMENT

*Fields with asterisks (*) are mandatory, others are optional.*

1 Assessor Name*: JASON DAVIDSON

Assessor ID*:

Authority*: NCOHB

2 Assessment Date*: 22/11/16 (Day / Month / Year)

Assessment Time*: 0915 (Hour / Minute, to nearest half hour) A (✓) AM B ( ) PM

## BUILDING IDENTIFICATION

3 Building Name: PHYSIOTHERAPY/MENTAL HEALTH LINK

Unit / Number*: /

Street*:

City/Town*: WESTPORT

GPS (Degree with 5 decimals after comma) South -, East ,

Other ID or access: Photo taken A ( ) No B (✓) Yes Photo ID.

4 Contact Name: TONY ROBERTS

Type: A ( ) Owner B ( ) Tenant C (✓) Other

Phone (with area code): (027) 2248312

5 Existing Placard*: (✓) None ( ) W ( ) Y1 ( ) Y2 ( ) R1 ( ) R2 Date* (Day / Month / Year) Team ID*

## BUILDING DESCRIPTION

6

| Dimensions | Constr. Age | Building Type | Structure Type | Cladding Type |
|---|---|---|---|---|
| Storeys above ground incl. ground floor: 1 | A ( ) <1935 | A ( ) Complex residential | A (✓) Timber frame | A ( ) Brick veneer |
| Storeys below ground: 0 | B (✓) 1935-1976 | B ( ) School | B ( ) Steel frame | B ( ) Concrete panels |
| Footprint (m²): ~100 | C ( ) 1977-1984 | C ( ) Commercial/Office | C ( ) Concrete frame | C ( ) Steel |
| | D ( ) 1985-2000 | D ( ) Industrial | D ( ) Concrete shear wall | D ( ) Glass |
| | E ( ) >2000 | E (✓) Critical facility | E ( ) Tilt-up concrete | E (✓) Lightweight |
| | F ( ) Unknown | F ( ) Public assembly | F ( ) Reinforced masonry | F ( ) Other: timber board & batten |
| | | G ( ) Other: | G ( ) Unreinforced masonry | |
| | | | H ( ) Other: | |

## EXTERNAL RISKS

7

| Potential Cause* | A Yes | B No |
|---|---|---|
| 1 Objects falling from adjacent buildings. Adjacent building ID or address: | ( ) | (✓) |
| 2 Land instability above | ( ) | (✓) |
| 3 Land instability below | ( ) | (✓) |
| 4 Other | ( ) | (✓) |

If required add sketch on separate page showing extent and nature of the external risk factors.

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## DAMAGE ASSESSMENT

**8**

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Overall Hazard*** | N/A | A | B | C | D |
| 1 Collapse or partial collapse | ○ | ○ | ✓ | ○ | ○ |
| 2 Building or storey leaning | ○ | ○ | ✓ | ○ | ○ |
| 3 Other: | ✓ | ○ | ○ | ○ | ○ |
| **Structural Hazards*** | N/A | A | B | C | D |
| 4 Foundations | ○ | ○ | ✓ | ○ | ○ |
| 5 **Roofs, floors** | ○ | ○ | ✓ | ○ | ○ |
| 6 Gravity systems (columns, beams, etc) | ○ | ○ | ✓ | ○ | ○ |
| 7 Lateral systems (walls, frames, braces) | ○ | ○ | ✓ | ○ | ○ |
| 8 Diaphragms, horizontal bracing | ○ | ○ | ✓ | ○ | ○ |
| 9 Precast connections | ✓ | ○ | ○ | ○ | ○ |
| 10 Other: | ✓ | ○ | ○ | ○ | ○ |

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Non-structural Hazards*** | N/A | A | B | C | D |
| 11 Parapets, ornamentation, chimneys | ✓ | ○ | ○ | ○ | ○ |
| 12 Cladding, glazing | ○ | ○ | ✓ | ○ | ○ |
| 13 **Ceilings, light fixtures** | ○ | ○ | ✓ | ○ | ○ |
| 14 Interior walls, partitions | ○ | ○ | ✓ | ○ | ○ |
| 15 Access/egress (elevators, stairs, exits) | ○ | ○ | ✓ | ○ | ○ |
| 16 **Significant fire saftey** concerns | ○ | ○ | ✓ | ○ | ○ |
| 17 Utilities (e.g. gas, electricity, waste water, plumbing) | ✓ | ○ | ○ | ○ | ○ |
| 18 Other: | ○ | ○ | ○ | ○ | ○ |

Comments: Some cracking in ceiling (historic). Crack @ junction with old kitchen (pre-existing) may have worsened.

**9** Estimated Damage A ✓ None B ○ 0-10% C ○ 11-30% D ○ 31-60% E ○ 61-100%

## SUGGESTED FURTHER ACTIONS

**10**

| Recommended further Assessment* | Safety Cordon* | Barricades* | Urgency of suggested action* |
|---|---|---|---|
| A ✓ None | A ✓ None required | A ✓ None required | A ○ Standard |
| B ○ Level 2 Rapid Assessment (tick below if particular expertise is required) | B ○ Cordon required | B ○ Barricades already in place | B ○ Immediate action required |
| B1 ○ Structural Engineer | Describe extent (add diagram on separate sheet if required) | C ○ Barricades required | |
| B2 ○ Geotechnical Engineer | | Describe extent (add diagram on separate sheet if required) | |
| B3 ○ Other: | | | |
| C ○ Further evaluation to be arranged by building owner: | | | |

## SUMMARY

**11**

| Observed Damage | Level 2 Rapid Assessment Outcome* |
|---|---|
| **Light or no damage** | W ✓ **CAN BE USED** (From assessment no known dangers) |
| **Moderate damage** | Y1 ○ **RESTRICTED ACCESS TO PART(S) OF THE BUILDING ONLY** |
| | Y2 ○ **RESTRICTED ACCESS – SHORT TERM ENTRY ONLY with or without supervision** Access to be supervised A ○ Yes B ○ No |
| **Heavy damage** | R1 ○ **ENTRY PROHIBITED (At risk from external factors)** |
| | R2 ○ **ENTRY PROHIBITED (Severe damage to building)** |

**12**

| Survey Extent* | |
|---|---|
| Exterior | A ○ Partial |
| | B ✓ Complete |
| Interior | C ○ Not accessed |
| | D ○ Partial |
| | E ✓ Complete |

Assessor Signature* [signature]

## NOTES

**13**

If required add a sketch on a separate sheet of paper showing building damage, access restrictions or cordoning areas. Identify the building on the sketch and staple the sheet to this assessment form.

**Sketch included on separate page?** ○ Yes ✓ No

# EARTHQUAKE RAPID ASSESSMENT FORM

Complex Residential and all Non-Residential Buildings Level 2

## ASSESSMENT

*Fields with asterisks (*) are mandatory, others are optional.*

1 Assessor Name* JASON DAVIDSON

Assessor ID* [ ] Authority* WCOHB

2 Assessment Date* 22/11/16 (Day / Month / Year)

Assessment Time* 0930 (Hour / Minute *(to nearest half hour)*) A (✓) AM B ( ) PM

## BUILDING IDENTIFICATION

3 Building Name MENTAL HEALTH & EAST WEST WING OFFICE BUILDING

Unit / Number* [ ] / [ ]

Street* [ ]

City/Town* WESTPORT

GPS (Degree with 5 decimals after comma) South [-][ ], [ ] East [ ], [ ]

Other ID or access [ ] Photo taken A ( ) No B ( ) Yes Photo ID. [ ]

4 Contact Name TONY ROBERTS

Type A ( ) Owner B ( ) Tenant C (✓) Other [ ]

Phone (with area code) (027) 2248312

5 Existing Placard* (✓) None ( ) W ( ) Y1 ( ) Y2 ( ) R1 ( ) R2 Date* [ ] (Day / Month / Year) Team ID* [ ]

## BUILDING DESCRIPTION

6

| Dimensions | Constr. Age | Building Type | Structure Type | Cladding Type |
|---|---|---|---|---|
| Storeys above ground incl. ground floor: 01 | A (✓) <1935 | A ( ) Complex residential | A ( ) Timber frame | A ( ) Brick veneer |
| Storeys below ground: 00 | B ( ) 1935-1976 | B ( ) School | B ( ) Steel frame | B ( ) Concrete panels |
| Footprint (m²): 800 | C ( ) 1977-1984 | C ( ) Commercial/Office | C ( ) Concrete frame | C ( ) Steel |
| | D ( ) 1985-2000 | D ( ) Industrial | D ( ) Concrete shear wall | D ( ) Glass |
| | E ( ) >2000 | E ( ) Critical facility | E ( ) Tilt-up concrete | E ( ) Lightweight |
| | F ( ) Unknown | F ( ) Public assembly | F ( ) Reinforced masonry | F ( ) Other: |
| | | G (✓) Other: Non essential Hospital Building. | G (✓) Unreinforced masonry | |
| | | | H ( ) Other: | |

## EXTERNAL RISKS

7

| Potential Cause* | A Yes | B No |
|---|---|---|
| 1 Objects falling from adjacent buildings. Adjacent building ID or address: | ( ) | (✓) |
| 2 Land instability above | ( ) | (✓) |
| 3 Land instability below | ( ) | (✓) |
| 4 Other | ( ) | (✓) |

If required add sketch on separate page showing extent and nature of the external risk factors.

VERSION 01 - APRIL 2014

## DAMAGE ASSESSMENT

**8**

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Overall Hazard*** | N/A | A | B | C | D |
| 1 Collapse or partial collapse | ○ | ○ | ✓ | ○ | ○ |
| 2 Building or storey leaning | ○ | ○ | ✓ | ○ | ○ |
| 3 Other: | ✓ | ○ | ○ | ○ | ○ |
| **Structural Hazards*** | N/A | A | B | C | D |
| 4 Foundations | ○ | ○ | ✓ | ○ | ○ |
| 5 **Roofs, floors** | ○ | ○ | ✓ | ○ | ○ |
| 6 Gravity systems (columns, beams, etc) | ○ | ○ | ✓ | ○ | ○ |
| 7 Lateral systems (walls, frames, braces) | ○ | ○ | ✓ | ○ | ○ |
| 8 Diaphragms, horizontal bracing | ○ | ○ | ✓ | ○ | ○ |
| 9 Precast connections | ✓ | ○ | ○ | ○ | ○ |
| 10 Other: | ✓ | ○ | ○ | ○ | ○ |

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Non-structural Hazards*** | N/A | A | B | C | D |
| 11 Parapets, ornamentation, chimneys | ✓ | ○ | ○ | ○ | ○ |
| 12 Cladding, glazing | ○ | ○ | ✓ | ○ | ○ |
| 13 **Ceilings, light fixtures** | ○ | ○ | ✓ | ○ | ○ |
| 14 Interior walls, partitions | ○ | ○ | ✓ | ○ | ○ |
| 15 Access/egress (elevators, stairs, exits) | ○ | ○ | ✓ | ○ | ○ |
| 16 **Significant fire saftey** concerns | ○ | ○ | ✓ | ○ | ○ |
| 17 Utilities (e.g. gas, electricity, waste water, plumbing) | ✓ | ○ | ○ | ○ | ○ |
| 18 Other: | ✓ | ○ | ○ | ○ | ○ |

Comments:

**9** Estimated Damage A ✓ None B ○ 0-10% C ○ 11-30% D ○ 31-60% E ○ 61-100%

## SUGGESTED FURTHER ACTIONS

**10**

| Recommended further Assessment* | Safety Cordon* | Barricades* | Urgency of suggested action* |
|---|---|---|---|
| A ✓ None<br>B ○ Level 2 Rapid Assessment (tick below if particular expertise is required)<br>B1 ○ Structural Engineer<br>B2 ○ Geotechnical Engineer<br>B3 ○ Other:<br>C ○ Further evaluation to be arranged by building owner: | A ✓ None required<br>B ○ Cordon required<br>Describe extent (add diagram on separate sheet if required) | A ✓ None required<br>B ○ Barricades already in place<br>C ○ Barricades required<br>Describe extent (add diagram on separate sheet if required) | A ○ Standard<br>B ○ Immediate action required |

## SUMMARY

**11**

| Observed Damage | Level 2 Rapid Assessment Outcome* |
|---|---|
| **Light or no damage** | W ✓ **CAN BE USED** (From assessment no known dangers) |
| **Moderate damage** | Y1 ○ **RESTRICTED ACCESS TO PART(S) OF THE BUILDING ONLY** |
| | Y2 ○ **RESTRICTED ACCESS – SHORT TERM ENTRY ONLY with or without supervision**<br>Access to be supervised A ○ Yes B ○ No |
| **Heavy damage** | R1 ○ **ENTRY PROHIBITED (At risk from external factors)** |
| | R2 ○ **ENTRY PROHIBITED (Severe damage to building)** |

**12**

| Survey Extent* | |
|---|---|
| Exterior | A ○ Partial |
| | B ✓ Complete |
| Interior | C ○ Not accessed |
| | D ✓ Partial |
| | E ○ Complete |

Assessor Signature* [signature]

## NOTES

**13** Pre-existing cracking in foundations. Ext. brick walls have been strengthened.

If required add a sketch on a separate sheet of paper showing building damage, access restrictions or cordoning areas. Identify the building on the sketch and staple the sheet to this assessment form.

**Sketch included on separate page?** ○ Yes ✓ No

# EARTHQUAKE RAPID ASSESSMENT FORM

Complex Residential and all Non-Residential Buildings Level 2

## ASSESSMENT

*Fields with asterisks (*) are mandatory, others are optional.*

1 Assessor Name* JASON DAVIDSON

Assessor ID* Authority* WCOHB

2 Assessment Date* 22 / 11 / 16 (Day / Month / Year)

Assessment Time* 0940 (Hour / Minute *(to nearest half hour)*) A ☑ AM B ◯ PM

## BUILDING IDENTIFICATION

3 Building Name REDUNDANT KITCHEN/CAFETERIA

Unit / Number* / 

Street*

City/Town* WESTPORT

GPS (Degree with 5 decimals after comma) South - , East ,

Other ID or access Photo taken A ◯ No B ◯ Yes Photo ID.

4 Contact Name TONY ROBERTS

Type A ◯ Owner B ◯ Tenant C ☑ Other

Phone (with area code) (027) 2248312

5 Existing Placard* ☑ None ◯ W ◯ Y1 ◯ Y2 ◯ R1 ◯ R2 Date* (Day / Month / Year) Team ID*

## BUILDING DESCRIPTION

6

| Dimensions | Constr. Age | Building Type | Structure Type | Cladding Type |
|---|---|---|---|---|
| Storeys above ground incl. ground floor | A ☑ <1935 | A ◯ Complex residential | A ◯ Timber frame | A ☑ Brick veneer |
| Storeys below ground | B ◯ 1935-1976 | B ◯ School | B ◯ Steel frame | B ◯ Concrete panels |
| Footprint (m²) | C ◯ 1977-1984 | C ◯ Commercial/Office | C ◯ Concrete frame | C ◯ Steel |
| | D ◯ 1985-2000 | D ◯ Industrial | D ◯ Concrete shear wall | D ◯ Glass |
| | E ◯ >2000 | E ☑ Critical facility | E ◯ Tilt-up concrete | E ◯ Lightweight |
| | F ◯ Unknown | F ◯ Public assembly | F ◯ Reinforced masonry | F ◯ Other: |
| | | G ◯ Other: | G ☑ Unreinforced masonry | |
| | | | H ◯ Other: | |

## EXTERNAL RISKS

7

| Potential Cause* | A Yes | B No |
|---|---|---|
| 1 Objects falling from adjacent buildings. Adjacent building ID or address: | ◯ | ☑ |
| 2 Land instability above | ◯ | ☑ |
| 3 Land instability below | ◯ | ☑ |
| 4 Other | ◯ | ☑ |

If required add sketch on separate page showing extent and nature of the external risk factors.

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## DAMAGE ASSESSMENT

**8**

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Overall Hazard*** | N/A | A | B | C | D |
| 1 Collapse or partial collapse | ○ | ○ | ✓ | ○ | ○ |
| 2 Building or storey leaning | ○ | ○ | ✓ | ○ | ○ |
| 3 Other: | ✓ | ○ | ○ | ○ | ○ |
| **Structural Hazards*** | N/A | A | B | C | D |
| 4 Foundations | ○ | ○ | ✓ | ○ | ○ |
| 5 **Roofs, floors** | ○ | ○ | ✓ | ○ | ○ |
| 6 Gravity systems (columns, beams, etc) | ○ | ○ | ✓ | ○ | ○ |
| 7 Lateral systems (walls, frames, braces) | ○ | ○ | ✓ | ○ | ○ |
| 8 Diaphragms, horizontal bracing | ○ | ○ | ✓ | ○ | ○ |
| 9 Precast connections | ✓ | ○ | ○ | ○ | ○ |
| 10 Other: | ✓ | ○ | ○ | ○ | ○ |

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Non-structural Hazards*** | N/A | A | B | C | D |
| 11 Parapets, ornamentation, chimneys | ✓ | ○ | ○ | ○ | ○ |
| 12 Cladding, glazing | ○ | ○ | ✓ | ○ | ○ |
| 13 **Ceilings, light fixtures** | ○ | ○ | ✓ | ○ | ○ |
| 14 Interior walls, partitions | ○ | ○ | ✓ | ○ | ○ |
| 15 Access/egress (elevators, stairs, exits) | ○ | ○ | ✓ | ○ | ○ |
| 16 **Significant fire saftey** concerns | ○ | ○ | ✓ | ○ | ○ |
| 17 Utilities (e.g. gas, electricity, waste water, plumbing) | ✓ | ○ | ○ | ○ | ○ |
| 18 Other: | ✓ | ○ | ○ | ○ | ○ |

Comments:

**9** Estimated Damage A ✓ None B ○ 0-10% C ○ 11-30% D ○ 31-60% E ○ 61-100%

## SUGGESTED FURTHER ACTIONS

**10**

| Recommended further Assessment* | Safety Cordon* | Barricades* | Urgency of suggested action* |
|---|---|---|---|
| A ✓ None | A ✓ None required | A ✓ None required | A ○ Standard |
| B ○ Level 2 Rapid Assessment (tick below if particular expertise is required) | B ○ Cordon required | B ○ Barricades already in place | B ○ Immediate action required |
| B1 ○ Structural Engineer | Describe extent (add diagram on separate sheet if required) | C ○ Barricades required | |
| B2 ○ Geotechnical Engineer | | Describe extent (add diagram on separate sheet if required) | |
| B3 ○ Other: | | | |
| C ○ Further evaluation to be arranged by building owner: | | | |

## SUMMARY

**11**

| Observed Damage | Level 2 Rapid Assessment Outcome* |
|---|---|
| **Light or no damage** | W ✓ **CAN BE USED** (From assessment no known dangers) |
| **Moderate damage** | Y1 ○ **RESTRICTED ACCESS TO PART(S) OF THE BUILDING ONLY** |
| | Y2 ○ **RESTRICTED ACCESS – SHORT TERM ENTRY ONLY with or without supervision** Access to be supervised A ○ Yes B ○ No |
| **Heavy damage** | R1 ○ **ENTRY PROHIBITED (At risk from external factors)** |
| | R2 ○ **ENTRY PROHIBITED (Severe damage to building)** |

**12**

| Survey Extent* | |
|---|---|
| Exterior | A ✓ Partial |
| | B ○ Complete |
| Interior | C ○ Not accessed |
| | D ✓ Partial |
| | E ○ Complete |

Assessor Signature* J-D

## NOTES

**13** crack on western wall alongside corridor may have worsened. Difficult to tell.

If required add a sketch on a separate sheet of paper showing building damage, access restrictions or cordoning areas. Identify the building on the sketch and staple the sheet to this assessment form.

**Sketch included on separate page?** ○ Yes ✓ No

# EARTHQUAKE RAPID ASSESSMENT FORM

Complex Residential and all Non-Residential Buildings Level 2

## ASSESSMENT

*Fields with asterisks (*) are mandatory, others are optional.*

1 Assessor Name*: JASON DAVIDSON

Assessor ID*:

Authority*: WCOHB

2 Assessment Date*: 22 / 11 / 16 (Day / Month / Year)

Assessment Time*: 10 05 (Hour / Minute *(to nearest half hour)*) A ☑ AM B ☐ PM

## BUILDING IDENTIFICATION

3 Building Name: CLINICAL SERVICES

Unit / Number*: / 

Street*:

City/Town*: WESTPORT

GPS (Degree with 5 decimals after comma) South - , East ,

Other ID or access: Photo taken A ☐ No B ☐ Yes Photo ID.

4 Contact Name: TONY ROBERTS

Type: A ☐ Owner B ☐ Tenant C ☑ Other

Phone (with area code): (027) 2248312

5 Existing Placard*: ☑ None ☐ W ☐ Y1 ☐ Y2 ☐ R1 ☐ R2 Date* (Day / Month / Year) Team ID*

## BUILDING DESCRIPTION

6

| Dimensions | Constr. Age | Building Type | Structure Type | Cladding Type |
|---|---|---|---|---|
| Storeys above ground incl. ground floor: 01 | A ☐ <1935 | A ☐ Complex residential | A ☑ Timber frame | A ☑ Brick veneer |
| Storeys below ground: 00 | B ☑ 1935-1976 | B ☐ School | B ☐ Steel frame | B ☐ Concrete panels |
| Footprint (m²): 400 | C ☐ 1977-1984 | C ☐ Commercial/Office | C ☐ Concrete frame | C ☐ Steel |
| | D ☐ 1985-2000 | D ☐ Industrial | D ☐ Concrete shear wall | D ☐ Glass |
| | E ☐ >2000 | E ☑ Critical facility | E ☐ Tilt-up concrete | E ☐ Lightweight |
| | F ☐ Unknown | F ☐ Public assembly | F ☐ Reinforced masonry | F ☐ Other: |
| | | G ☐ Other: | G ☐ Unreinforced masonry | |
| | | | H ☐ Other: | |

## EXTERNAL RISKS

7

| Potential Cause* | A Yes | B No |
|---|---|---|
| 1 Objects falling from adjacent buildings. Adjacent building ID or address: | ☐ | ☑ |
| 2 Land instability above | ☐ | ☑ |
| 3 Land instability below | ☐ | ☑ |
| 4 Other | ☐ | ☑ |

If required add sketch on separate page showing extent and nature of the external risk factors.

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## DAMAGE ASSESSMENT

**8**

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Overall Hazard*** | N/A | A | B | C | D |
| 1 Collapse or partial collapse | ○ | ○ | ✓ | ○ | ○ |
| 2 Building or storey leaning | ○ | ○ | ✓ | ○ | ○ |
| 3 Other: | ✓ | ○ | ○ | ○ | ○ |
| **Structural Hazards*** | N/A | A | B | C | D |
| 4 Foundations | ○ | ○ | ✓ | ○ | ○ |
| 5 **Roofs, floors** | ○ | ○ | ✓ | ○ | ○ |
| 6 Gravity systems (columns, beams, etc) | ✓ | ○ | ○ | ○ | ○ |
| 7 Lateral systems (walls, frames, braces) | ○ | ○ | ✓ | ○ | ○ |
| 8 Diaphragms, horizontal bracing | ○ | ○ | ✓ | ○ | ○ |
| 9 Precast connections | ✓ | ○ | ○ | ○ | ○ |
| 10 Other: | ✓ | ○ | ○ | ○ | ○ |

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Non-structural Hazards*** | N/A | A | B | C | D |
| 11 Parapets, ornamentation, chimneys | ✓ | ○ | ○ | ○ | ○ |
| 12 Cladding, glazing | ○ | ○ | ✓ | ○ | ○ |
| 13 **Ceilings, light fixtures** | ○ | ○ | ✓ | ○ | ○ |
| 14 Interior walls, partitions | ○ | ○ | ✓ | ○ | ○ |
| 15 Access/egress (elevators, stairs, exits) | ○ | ○ | ✓ | ○ | ○ |
| 16 **Significant fire saftey** concerns | ○ | ○ | ✓ | ○ | ○ |
| 17 Utilities (e.g. gas, electricity, waste water, plumbing) | ✓ | ○ | ○ | ○ | ○ |
| 18 Other: | ✓ | ○ | ○ | ○ | ○ |

Comments:

**9** Estimated Damage A ✓ None B ○ 0-10% C ○ 11-30% D ○ 31-60% E ○ 61-100%

## SUGGESTED FURTHER ACTIONS

**10**

| Recommended further Assessment* | Safety Cordon* | Barricades* | Urgency of suggested action* |
|---|---|---|---|
| A ✓ None | A ✓ None required | A ✓ None required | A ○ Standard |
| B ○ Level 2 Rapid Assessment (tick below if particular expertise is required) | B ○ Cordon required | B ○ Barricades already in place | B ○ Immediate action required |
| B1 ○ Structural Engineer | Describe extent (add diagram on separate sheet if required) | C ○ Barricades required | |
| B2 ○ Geotechnical Engineer | | Describe extent (add diagram on separate sheet if required) | |
| B3 ○ Other: | | | |
| C ○ Further evaluation to be arranged by building owner: | | | |

## SUMMARY

**11**

| Observed Damage | Level 2 Rapid Assessment Outcome* |
|---|---|
| **Light or no damage** | W ✓ **CAN BE USED** (From assessment no known dangers) |
| **Moderate damage** | Y1 ○ **RESTRICTED ACCESS TO PART(S) OF THE BUILDING ONLY** |
| | Y2 ○ **RESTRICTED ACCESS – SHORT TERM ENTRY ONLY with or without supervision** Access to be supervised A ○ Yes B ○ No |
| **Heavy damage** | R1 ○ **ENTRY PROHIBITED (At risk from external factors)** |
| | R2 ○ **ENTRY PROHIBITED (Severe damage to building)** |

**12**

| Survey Extent* | |
|---|---|
| Exterior | A ○ Partial |
| | B ✓ Complete |
| Interior | C ○ Not accessed |
| | D ✓ Partial |
| | E ○ Complete |

Assessor Signature* [signature]

## NOTES

**13** two minor cracks noted in veneer on north + east walls. Most likely pre-existing. Nails (x2) sitting proud of ceiling in treatment room. Recommend check on ceiling by maintenance staff to look @ cause & repair as required.

If required add a sketch on a separate sheet of paper showing building damage, access restrictions or cordoning areas. Identify the building on the sketch and staple the sheet to this assessment form.

**Sketch included on separate page?** ○ Yes ✓ No

# EARTHQUAKE RAPID ASSESSMENT FORM

Complex Residential and all Non-Residential Buildings Level 2

## ASSESSMENT

*Fields with asterisks (*) are mandatory, others are optional.*

1 Assessor Name*: JASON DAVIDSON

Assessor ID*:

Authority*: WCOHB

2 Assessment Date*: 22/11/16 (Day / Month / Year)

Assessment Time*: 1015 (Hour / Minute *(to nearest half hour)*) A ☑ AM B ○ PM

## BUILDING IDENTIFICATION

3 Building Name: FOOTE NARD

Unit / Number*: / 

Street*:

City/Town*: WESTPORT

GPS (Degree with 5 decimals after comma) South -, East ,

Other ID or access:

Photo taken A ○ No B ○ Yes Photo ID.

4 Contact Name: TONY ROBERTS

Type A ○ Owner B ○ Tenant C ☑ Other

Phone (with area code): (027) 2248312

5 Existing Placard* ☑ None ○ W ○ Y1 ○ Y2 ○ R1 ○ R2 Date* (Day / Month / Year) Team ID*

## BUILDING DESCRIPTION

6

| Dimensions | Constr. Age | Building Type | Structure Type | Cladding Type |
|---|---|---|---|---|
| Storeys above ground incl. ground floor: 01 | A ○ <1935 | A ○ Complex residential | A ☑ Timber frame | A ☑ Brick veneer |
| Storeys below ground: 00 | B ☑ 1935-1976 | B ○ School | B ○ Steel frame | B ○ Concrete panels |
| Footprint (m²): 500 | C ○ 1977-1984 | C ○ Commercial/Office | C ○ Concrete frame | C ○ Steel |
| | D ○ 1985-2000 | D ○ Industrial | D ☑ Concrete shear wall | D ○ Glass |
| | E ○ >2000 | E ☑ Critical facility | E ○ Tilt-up concrete | E ☑ Lightweight |
| | F ○ Unknown | F ○ Public assembly | F ○ Reinforced masonry | F ○ Other: |
| | | G ○ Other: | G ○ Unreinforced masonry | |
| | | | H ○ Other: | |

## EXTERNAL RISKS

7

| Potential Cause* | A Yes | B No |
|---|---|---|
| 1 Objects falling from adjacent buildings. Adjacent building ID or address: | ○ | ☑ |
| 2 Land instability above | ○ | ☑ |
| 3 Land instability below | ○ | ☑ |
| 4 Other | ○ | ☑ |

If required add sketch on separate page showing extent and nature of the external risk factors.

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## DAMAGE ASSESSMENT

**8**

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Overall Hazard*** | N/A | A | B | C | D |
| 1 Collapse or partial collapse | ○ | ○ | ✓ | ○ | ○ |
| 2 Building or storey leaning | ○ | ○ | ✓ | ○ | ○ |
| 3 Other: | ✓ | ○ | ○ | ○ | ○ |
| **Structural Hazards*** | N/A | A | B | C | D |
| 4 Foundations | ○ | ○ | ✓ | ○ | ○ |
| 5 **Roofs, floors** | ○ | ○ | ✓ | ○ | ○ |
| 6 Gravity systems (columns, beams, etc) | ✓ | ○ | ○ | ○ | ○ |
| 7 Lateral systems (walls, frames, braces) | ○ | ○ | ✓ | ○ | ○ |
| 8 Diaphragms, horizontal bracing | ○ | ○ | ✓ | ○ | ○ |
| 9 Precast connections | ✓ | ○ | ○ | ○ | ○ |
| 10 Other: | ✓ | ○ | ○ | ○ | ○ |

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Non-structural Hazards*** | N/A | A | B | C | D |
| 11 Parapets, ornamentation, chimneys | ✓ | ○ | ○ | ○ | ○ |
| 12 Cladding, glazing | ○ | ○ | ✓ | ○ | ○ |
| 13 **Ceilings, light fixtures** | ○ | ○ | ✓ | ○ | ○ |
| 14 Interior walls, partitions | ○ | ○ | ✓ | ○ | ○ |
| 15 Access/egress (elevators, stairs, exits) | ○ | ○ | ✓ | ○ | ○ |
| 16 **Significant fire saftey** concerns | ○ | ○ | ✓ | ○ | ○ |
| 17 Utilities (e.g. gas, electricity, waste water, plumbing) | ✓ | ○ | ○ | ○ | ○ |
| 18 Other: | ✓ | ○ | ○ | ○ | ○ |

Comments:

**9** Estimated Damage A ✓ None B ○ 0-10% C ○ 11-30% D ○ 31-60% E ○ 61-100%

## SUGGESTED FURTHER ACTIONS

**10**

| Recommended further Assessment* | Safety Cordon* | Barricades* | Urgency of suggested action* |
|---|---|---|---|
| A ✓ None<br>B ○ Level 2 Rapid Assessment (tick below if particular expertise is required)<br>B1 ○ Structural Engineer<br>B2 ○ Geotechnical Engineer<br>B3 ○ Other:<br>C ○ Further evaluation to be arranged by building owner: | A ✓ None required<br>B ○ Cordon required<br>Describe extent (add diagram on separate sheet if required) | A ✓ None required<br>B ○ Barricades already in place<br>C ○ Barricades required<br>Describe extent (add diagram on separate sheet if required) | A ○ Standard<br>B ○ Immediate action required |

## SUMMARY

**11**

| Observed Damage | Level 2 Rapid Assessment Outcome* |
|---|---|
| **Light or no damage** | W ✓ **CAN BE USED** (From assessment no known dangers) |
| **Moderate damage** | Y1 ○ **RESTRICTED ACCESS TO PART(S) OF THE BUILDING ONLY** |
| | Y2 ○ **RESTRICTED ACCESS – SHORT TERM ENTRY ONLY with or without supervision**<br>Access to be supervised A ○ Yes B ○ No |
| **Heavy damage** | R1 ○ **ENTRY PROHIBITED (At risk from external factors)** |
| | R2 ○ **ENTRY PROHIBITED (Severe damage to building)** |

**12**

| Survey Extent* | |
|---|---|
| Exterior | A ○ Partial |
| | B ✓ Complete |
| Interior | C ○ Not accessed |
| | D ✓ Partial |
| | E ○ Complete |

Assessor Signature*

## NOTES

**13** No evidence of EQ. damage. Inspected foundations through tunnels. No evidence of movement around foundations.

If required add a sketch on a separate sheet of paper showing building damage, access restrictions or cordoning areas. Identify the building on the sketch and staple the sheet to this assessment form.

**Sketch included on separate page?** ○ Yes ✓ No

# EARTHQUAKE RAPID ASSESSMENT FORM

Complex Residential and all Non-Residential Buildings Level 2

## ASSESSMENT

*Fields with asterisks (*) are mandatory, others are optional.*

1 Assessor Name*: JASON DAVIDSON

Assessor ID*:

Authority*: WCOHB

2 Assessment Date* (Day / Month / Year): 22 / 11 / 16

Assessment Time* (Hour / Minute, to nearest half hour): 10 45

A (✓) AM  B ( ) PM

## BUILDING IDENTIFICATION

3 Building Name: KITCHEN

Unit / Number*: / 

Street*:

City/Town*: WESTPORT

GPS (Degree with 5 decimals after comma) South: - , East: ,

Other ID or access:

Photo taken A ( ) No B ( ) Yes Photo ID.:

4 Contact Name: TONY ROBERTS

Type: A ( ) Owner B ( ) Tenant C (✓) Other

Phone (with area code): (027) 2248312

5 Existing Placard*: (✓) None ( ) W ( ) Y1 ( ) Y2 ( ) R1 ( ) R2

Date* (Day / Month / Year):

Team ID*:

## BUILDING DESCRIPTION

6

| Dimensions | Constr. Age | Building Type | Structure Type | Cladding Type |
|---|---|---|---|---|
| Storeys above ground incl. ground floor: 1 | A ( ) <1935 | A ( ) Complex residential | A (✓) Timber frame | A (✓) Brick veneer |
| Storeys below ground: 0 | B (✓) 1935-1976 | B ( ) School | B ( ) Steel frame | B ( ) Concrete panels |
| Footprint (m²): 300 | C ( ) 1977-1984 | C ( ) Commercial/Office | C ( ) Concrete frame | C ( ) Steel |
| | D ( ) 1985-2000 | D ( ) Industrial | D ( ) Concrete shear wall | D ( ) Glass |
| | E ( ) >2000 | E (✓) Critical facility | E ( ) Tilt-up concrete | E ( ) Lightweight |
| | F ( ) Unknown | F ( ) Public assembly | F ( ) Reinforced masonry | F ( ) Other: |
| | | G ( ) Other: | G ( ) Unreinforced masonry | |
| | | | H ( ) Other: | |

## EXTERNAL RISKS

7

| Potential Cause* | A Yes | B No |
|---|---|---|
| 1 Objects falling from adjacent buildings. Adjacent building ID or address: | ( ) | (✓) |
| 2 Land instability above | ( ) | (✓) |
| 3 Land instability below | ( ) | (✓) |
| 4 Other | ( ) | (✓) |

If required add sketch on separate page showing extent and nature of the external risk factors.

VERSION 01 – APRIL 2014

## DAMAGE ASSESSMENT

**8**

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Overall Hazard*** | N/A | A | B | C | D |
| 1 Collapse or partial collapse | ○ | ○ | ✓ | ○ | ○ |
| 2 Building or storey leaning | ○ | ○ | ✓ | ○ | ○ |
| 3 Other: | ✓ | ○ | ○ | ○ | ○ |
| **Structural Hazards*** | N/A | A | B | C | D |
| 4 Foundations | ○ | ○ | ✓ | ○ | ○ |
| 5 **Roofs, floors** | ○ | ○ | ✓ | ○ | ○ |
| 6 Gravity systems (columns, beams, etc) | ✓ | ○ | ○ | ○ | ○ |
| 7 Lateral systems (walls, frames, braces) | ○ | ○ | ✓ | ○ | ○ |
| 8 Diaphragms, horizontal bracing | ○ | ○ | ✓ | ○ | ○ |
| 9 Precast connections | ✓ | ○ | ○ | ○ | ○ |
| 10 Other: | ✓ | ○ | ○ | ○ | ○ |

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Non-structural Hazards*** | N/A | A | B | C | D |
| 11 Parapets, ornamentation, chimneys | ✓ | ○ | ○ | ○ | ○ |
| 12 Cladding, glazing | ○ | ○ | ✓ | ○ | ○ |
| 13 **Ceilings, light fixtures** | ○ | ○ | ✓ | ○ | ○ |
| 14 Interior walls, partitions | ○ | ○ | ✓ | ○ | ○ |
| 15 Access/egress (elevators, stairs, exits) | ○ | ○ | ✓ | ○ | ○ |
| 16 **Significant fire saftey** concerns | ○ | ○ | ✓ | ○ | ○ |
| 17 Utilities (e.g. gas, electricity, waste water, plumbing) | ✓ | ○ | ○ | ○ | ○ |
| 18 Other: | ✓ | ○ | ○ | ○ | ○ |

Comments:

**9** Estimated Damage A ✓ None B ○ 0-10% C ○ 11-30% D ○ 31-60% E ○ 61-100%

## SUGGESTED FURTHER ACTIONS

**10**

| Recommended further Assessment* | Safety Cordon* | Barricades* | Urgency of suggested action* |
|---|---|---|---|
| A ✓ None | A ✓ None required | A ✓ None required | A ○ Standard |
| B ○ Level 2 Rapid Assessment (tick below if particular expertise is required) | B ○ Cordon required | B ○ Barricades already in place | B ○ Immediate action required |
| B1 ○ Structural Engineer | Describe extent (add diagram on separate sheet if required) | C ○ Barricades required | |
| B2 ○ Geotechnical Engineer | | Describe extent (add diagram on separate sheet if required) | |
| B3 ○ Other: | | | |
| C ○ Further evaluation to be arranged by building owner: | | | |

## SUMMARY

**11**

| Observed Damage | Level 2 Rapid Assessment Outcome* |
|---|---|
| **Light or no damage** | W ✓ **CAN BE USED** (From assessment no known dangers) |
| **Moderate damage** | Y1 ○ **RESTRICTED ACCESS TO PART(S) OF THE BUILDING ONLY** |
| | Y2 ○ **RESTRICTED ACCESS – SHORT TERM ENTRY ONLY with or without supervision** Access to be supervised A ○ Yes B ○ No |
| **Heavy damage** | R1 ○ **ENTRY PROHIBITED (At risk from external factors)** |
| | R2 ○ **ENTRY PROHIBITED (Severe damage to building)** |

**12**

| Survey Extent* | |
|---|---|
| Exterior | A ○ Partial |
| | B ✓ Complete |
| Interior | C ○ Not accessed |
| | D ✓ Partial |
| | E ○ Complete |

Assessor Signature*

## NOTES

**13** No evdeme of any EQ. related damage. Did not access main kitchen area.

If required add a sketch on a separate sheet of paper showing building damage, access restrictions or cordoning areas. Identify the building on the sketch and staple the sheet to this assessment form.

**Sketch included on separate page?** ○ Yes ✓ No

# EARTHQUAKE RAPID ASSESSMENT FORM

Complex Residential and all Non-Residential Buildings Level 2

## ASSESSMENT

*Fields with asterisks (*) are mandatory, others are optional.*

1 Assessor Name*: JASON DAVIDSON

Assessor ID*:

Authority*: WCDHB

2 Assessment Date* (Day / Month / Year): 22 / 11 / 16

Assessment Time* (Hour / Minute, to nearest half hour): 1055

A ☑ AM B ☐ PM

## BUILDING IDENTIFICATION

3 Building Name: RADIOLOGY

Unit / Number*: / 

Street*:

City/Town*: WESTPORT

GPS (Degree with 5 decimals after comma) South: - , East: ,

Other ID or access:

Photo taken A ☐ No B ☑ Yes Photo ID.:

4 Contact Name: TONY ROBERTS

Type: A ☐ Owner B ☐ Tenant C ☑ Other

Phone (with area code): (027) 2248312

5 Existing Placard*: ☐ None ☐ W ☐ Y1 ☐ Y2 ☐ R1 ☐ R2

Date* (Day / Month / Year):

Team ID*:

## BUILDING DESCRIPTION

6

| Dimensions | Constr. Age | Building Type | Structure Type | Cladding Type |
|---|---|---|---|---|
| Storeys above ground incl. ground floor: 01 | A ☑ <1935 | A ☐ Complex residential | A ☑ Timber frame | A ☑ Brick veneer |
| Storeys below ground: 00 | B ☐ 1935-1976 | B ☐ School | B ☐ Steel frame | B ☐ Concrete panels |
| Footprint (m²): 130 | C ☐ 1977-1984 | C ☐ Commercial/Office | C ☐ Concrete frame | C ☐ Steel |
| | D ☐ 1985-2000 | D ☐ Industrial | D ☐ Concrete shear wall | D ☐ Glass |
| | E ☐ >2000 | E ☑ Critical facility | E ☐ Tilt-up concrete | E ☐ Lightweight |
| | F ☐ Unknown | F ☐ Public assembly | F ☐ Reinforced masonry | F ☐ Other: |
| | | G ☐ Other: | G ☑ Unreinforced masonry | |
| | | | H ☐ Other: | |

## EXTERNAL RISKS

7

| Potential Cause* | A Yes | B No |
|---|---|---|
| 1 Objects falling from adjacent buildings. Adjacent building ID or address: | ☐ | ☑ |
| 2 Land instability above | ☐ | ☑ |
| 3 Land instability below | ☐ | ☑ |
| 4 Other | ☐ | ☑ |

If required add sketch on separate page showing extent and nature of the external risk factors.

VERSION 01 – APRIL 2014

## DAMAGE ASSESSMENT

**8**

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Overall Hazard*** | N/A | A | B | C | D |
| 1 Collapse or partial collapse | ○ | ○ | ✓ | ○ | ○ |
| 2 Building or storey leaning | ○ | ○ | ✓ | ○ | ○ |
| 3 Other: | ✓ | ○ | ○ | ○ | ○ |
| **Structural Hazards*** | N/A | A | B | C | D |
| 4 Foundations | ○ | ○ | ✓ | ○ | ○ |
| 5 **Roofs, floors** | ○ | ○ | ✓ | ○ | ○ |
| 6 Gravity systems (columns, beams, etc) | ✓ | ○ | ○ | ○ | ○ |
| 7 Lateral systems (walls, frames, braces) | ○ | ○ | ✓ | ○ | ○ |
| 8 Diaphragms, horizontal bracing | ○ | ○ | ✓ | ○ | ○ |
| 9 Precast connections | ✓ | ○ | ○ | ○ | ○ |
| 10 Other: | ✓ | ○ | ○ | ○ | ○ |

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Non-structural Hazards*** | N/A | A | B | C | D |
| 11 Parapets, ornamentation, chimneys | ✓ | ○ | ○ | ○ | ○ |
| 12 Cladding, glazing | ○ | ○ | ✓ | ○ | ○ |
| 13 **Ceilings, light fixtures** | ○ | ○ | ✓ | ○ | ○ |
| 14 Interior walls, partitions | ○ | ○ | ✓ | ○ | ○ |
| 15 Access/egress (elevators, stairs, exits) | ○ | ○ | ✓ | ○ | ○ |
| 16 **Significant fire saftey** concerns | ○ | ○ | ✓ | ○ | ○ |
| 17 Utilities (e.g. gas, electricity, waste water, plumbing) | ✓ | ○ | ○ | ○ | ○ |
| 18 Other: | ✓ | ○ | ○ | ○ | ○ |

Comments:

**9** Estimated Damage A ✓ None B ○ 0-10% C ○ 11-30% D ○ 31-60% E ○ 61-100%

## SUGGESTED FURTHER ACTIONS

**10**

| Recommended further Assessment* | Safety Cordon* | Barricades* | Urgency of suggested action* |
|---|---|---|---|
| A ✓ None<br>B ○ Level 2 Rapid Assessment (tick below if particular expertise is required)<br>B1 ○ Structural Engineer<br>B2 ○ Geotechnical Engineer<br>B3 ○ Other:<br>C ○ Further evaluation to be arranged by building owner: | A ✓ None required<br>B ○ Cordon required<br>Describe extent (add diagram on separate sheet if required) | A ✓ None required<br>B ○ Barricades already in place<br>C ○ Barricades required<br>Describe extent (add diagram on separate sheet if required) | A ○ Standard<br>B ○ Immediate action required |

## SUMMARY

**11**

| Observed Damage | Level 2 Rapid Assessment Outcome* |
|---|---|
| **Light or no damage** | W ✓ **CAN BE USED** (From assessment no known dangers) |
| **Moderate damage** | Y1 ○ **RESTRICTED ACCESS TO PART(S) OF THE BUILDING ONLY** |
| | Y2 ○ **RESTRICTED ACCESS – SHORT TERM ENTRY ONLY with or without supervision**<br>Access to be supervised A ○ Yes B ○ No |
| **Heavy damage** | R1 ○ **ENTRY PROHIBITED (At risk from external factors)** |
| | R2 ○ **ENTRY PROHIBITED (Severe damage to building)** |

**12**

| Survey Extent* | |
|---|---|
| Exterior | A ○ Partial |
| | B ✓ Complete |
| Interior | C ○ Not accessed |
| | D ✓ Partial |
| | E ○ Complete |

Assessor Signature* [signature]

## NOTES

**13** No damage noted.

If required add a sketch on a separate sheet of paper showing building damage, access restrictions or cordoning areas. Identify the building on the sketch and staple the sheet to this assessment form.

**Sketch included on separate page?** ○ Yes ✓ No

# EARTHQUAKE RAPID ASSESSMENT FORM

Complex Residential and all Non-Residential Buildings Level 2

## ASSESSMENT

*Fields with asterisks (*) are mandatory, others are optional.*

1 Assessor Name*: JASON DAVIDSON

Assessor ID*:

Authority*: WCOHB

2 Assessment Date* (Day / Month / Year): 22 / 11 / 16

Assessment Time* (Hour / Minute, to nearest half hour): 11 05

A (✓) AM  B ( ) PM

## BUILDING IDENTIFICATION

3 Building Name: DUNSFORD WARD & CAFE

Unit / Number*: / 

Street*:

City/Town*: WESTPORT

GPS (Degree with 5 decimals after comma) South: -  ,  East:  , 

Other ID or access:  Photo taken A ( ) No B ( ) Yes  Photo ID.

4 Contact Name: TONY ROBERTS

Type: A ( ) Owner  B ( ) Tenant  C (✓) Other

Phone (with area code): (027) 2248312

5 Existing Placard*: (✓) None  ( ) W  ( ) Y1  ( ) Y2  ( ) R1  ( ) R2

Date* (Day / Month / Year):  Team ID*:

## BUILDING DESCRIPTION

6

| Dimensions | Constr. Age | Building Type | Structure Type | Cladding Type |
|---|---|---|---|---|
| Storeys above ground incl. ground floor: 01 | A ( ) <1935 | A ( ) Complex residential | A (✓) Timber frame | A (✓) Brick veneer |
| Storeys below ground: 00 | B (✓) 1935-1976 | B ( ) School | B ( ) Steel frame | B ( ) Concrete panels |
| Footprint (m²): | C ( ) 1977-1984 | C ( ) Commercial/Office | C ( ) Concrete frame | C ( ) Steel |
| | D ( ) 1985-2000 | D ( ) Industrial | D ( ) Concrete shear wall | D ( ) Glass |
| | E ( ) >2000 | E (✓) Critical facility | E ( ) Tilt-up concrete | E ( ) Lightweight |
| | F ( ) Unknown | F ( ) Public assembly | F ( ) Reinforced masonry | F ( ) Other: |
| | | G ( ) Other: | G ( ) Unreinforced masonry | |
| | | | H ( ) Other: | |

## EXTERNAL RISKS

7

| Potential Cause* | A Yes | B No |
|---|---|---|
| 1 Objects falling from adjacent buildings. Adjacent building ID or address: | ( ) | (✓) |
| 2 Land instability above | ( ) | (✓) |
| 3 Land instability below | ( ) | (✓) |
| 4 Other | ( ) | (✓) |

If required add sketch on separate page showing extent and nature of the external risk factors.

VERSION 01 – APRIL 2014

## DAMAGE ASSESSMENT

**8**

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Overall Hazard*** | N/A | A | B | C | D |
| 1 Collapse or partial collapse | ○ | ○ | ✓ | ○ | ○ |
| 2 Building or storey leaning | ○ | ○ | ✓ | ○ | ○ |
| 3 Other: | ✓ | ○ | ○ | ○ | ○ |
| **Structural Hazards*** | N/A | A | B | C | D |
| 4 Foundations | ○ | ○ | ✓ | ○ | ○ |
| 5 **Roofs, floors** | ○ | ○ | ✓ | ○ | ○ |
| 6 Gravity systems (columns, beams, etc) | ✓ | ○ | ○ | ○ | ○ |
| 7 Lateral systems (walls, frames, braces) | ○ | ○ | ✓ | ○ | ○ |
| 8 Diaphragms, horizontal bracing | ○ | ○ | ✓ | ○ | ○ |
| 9 Precast connections | ✓ | ○ | ○ | ○ | ○ |
| 10 Other: | ✓ | ○ | ○ | ○ | ○ |

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Non-structural Hazards*** | N/A | A | B | C | D |
| 11 Parapets, ornamentation, chimneys | ✓ | ○ | ○ | ○ | ○ |
| 12 Cladding, glazing | ○ | ○ | ✓ | ○ | ○ |
| 13 **Ceilings, light fixtures** | ○ | ○ | ✓ | ○ | ○ |
| 14 Interior walls, partitions | ○ | ○ | ✓ | ○ | ○ |
| 15 Access/egress (elevators, stairs, exits) | ○ | ○ | ✓ | ○ | ○ |
| 16 **Significant fire saftey** concerns | ○ | ○ | ✓ | ○ | ○ |
| 17 Utilities (e.g. gas, electricity, waste water, plumbing) | ✓ | ○ | ○ | ○ | ○ |
| 18 Other: | ✓ | ○ | ○ | ○ | ○ |

Comments:

**9** Estimated Damage A ✓ None B ○ 0-10% C ○ 11-30% D ○ 31-60% E ○ 61-100%

## SUGGESTED FURTHER ACTIONS

**10**

| Recommended further Assessment* | Safety Cordon* | Barricades* | Urgency of suggested action* |
|---|---|---|---|
| A ✓ None<br>B ○ Level 2 Rapid Assessment<br>(tick below if particular expertise is required)<br>B1 ○ Structural Engineer<br>B2 ○ Geotechnical Engineer<br>B3 ○ Other:<br>C ○ Further evaluation to be arranged by building owner: | A ✓ None required<br>B ○ Cordon required<br>Describe extent (add diagram on separate sheet if required) | A ✓ None required<br>B ○ Barricades already in place<br>C ○ Barricades required<br>Describe extent (add diagram on separate sheet if required) | A ○ Standard<br>B ○ Immediate action required |

## SUMMARY

**11**

| Observed Damage | Level 2 Rapid Assessment Outcome* |
|---|---|
| **Light or no damage** | W ✓ **CAN BE USED** (From assessment no known dangers) |
| **Moderate damage** | Y1 ○ **RESTRICTED ACCESS TO PART(S) OF THE BUILDING ONLY** |
| | Y2 ○ **RESTRICTED ACCESS – SHORT TERM ENTRY ONLY with or without supervision**<br>Access to be supervised A ○ Yes B ○ No |
| **Heavy damage** | R1 ○ **ENTRY PROHIBITED (At risk from external factors)** |
| | R2 ○ **ENTRY PROHIBITED (Severe damage to building)** |

**12**

| Survey Extent* | |
|---|---|
| Exterior | A ○ Partial |
| | B ✓ Complete |
| Interior | C ○ Not accessed |
| | D ✓ Partial |
| | E ○ Complete |

Assessor Signature* [signature]

## NOTES

**13** No obvious EQ. Damage.

If required add a sketch on a separate sheet of paper showing building damage, access restrictions or cordoning areas. Identify the building on the sketch and staple the sheet to this assessment form.

**Sketch included on separate page?** ○ Yes ✓ No

# EARTHQUAKE RAPID ASSESSMENT FORM

Complex Residential and all Non-Residential Buildings Level 2

## ASSESSMENT

*Fields with asterisks (*) are mandatory, others are optional.*

1 Assessor Name*: JASON DAVIDSON

Assessor ID*:

Authority*: WCDHB

2 Assessment Date*: 22/11/16 (Day / Month / Year)

Assessment Time*: 11 20 (Hour / Minute *(to nearest half hour)*) A ☑ AM B ☐ PM

## BUILDING IDENTIFICATION

3 Building Name: LINEN STORE

Unit / Number*: / 

Street*:

City/Town*: WESTPORT

GPS (Degree with 5 decimals after comma) South -, East ,

Other ID or access: Photo taken A ☐ No B ☑ Yes Photo ID.

4 Contact Name: TONY ROBERTS

Type: A ☐ Owner B ☐ Tenant C ☑ Other

Phone (with area code): (027) 2248312

5 Existing Placard*: ☐ None ☐ W ☐ Y1 ☐ Y2 ☐ R1 ☐ R2 Date* (Day / Month / Year) Team ID*

## BUILDING DESCRIPTION

6

| Dimensions | Constr. Age | Building Type | Structure Type | Cladding Type |
|---|---|---|---|---|
| Storeys above ground incl. ground floor: 01 | A ☑ <1935 | A ☐ Complex residential | A ☑ Timber frame | A ☐ Brick veneer |
| Storeys below ground: 00 | B ☐ 1935-1976 | B ☐ School | B ☐ Steel frame | B ☐ Concrete panels |
| Footprint (m²): 200 | C ☐ 1977-1984 | C ☐ Commercial/Office | C ☐ Concrete frame | C ☐ Steel |
| | D ☐ 1985-2000 | D ☐ Industrial | D ☐ Concrete shear wall | D ☐ Glass |
| | E ☐ >2000 | E ☑ Critical facility | E ☐ Tilt-up concrete | E ☑ Lightweight |
| | F ☐ Unknown | F ☐ Public assembly | F ☐ Reinforced masonry | F ☐ Other: Timber. |
| | | G ☐ Other: | G ☐ Unreinforced masonry | |
| | | | H ☐ Other: | |

## EXTERNAL RISKS

7

| Potential Cause* | A Yes | B No |
|---|---|---|
| 1 Objects falling from adjacent buildings. Adjacent building ID or address: | ☐ | ☑ |
| 2 Land instability above | ☐ | ☑ |
| 3 Land instability below | ☐ | ☑ |
| 4 Other | ☐ | ☑ |

If required add sketch on separate page showing extent and nature of the external risk factors.

VERSION 01 – APRIL 2014

## DAMAGE ASSESSMENT

**8**

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Overall Hazard*** | N/A | A | B | C | D |
| 1 Collapse or partial collapse | ○ | ○ | ✓ | ○ | ○ |
| 2 Building or storey leaning | ○ | ○ | ✓ | ○ | ○ |
| 3 Other: | ✓ | ○ | ○ | ○ | ○ |
| **Structural Hazards*** | N/A | A | B | C | D |
| 4 Foundations | ○ | ○ | ✓ | ○ | ○ |
| 5 **Roofs, floors** | ○ | ○ | ✓ | ○ | ○ |
| 6 Gravity systems (columns, beams, etc) | ✓ | ○ | ○ | ○ | ○ |
| 7 Lateral systems (walls, frames, braces) | ○ | ○ | ✓ | ○ | ○ |
| 8 Diaphragms, horizontal bracing | ○ | ○ | ✓ | ○ | ○ |
| 9 Precast connections | ✓ | ○ | ○ | ○ | ○ |
| 10 Other: | ✓ | ○ | ○ | ○ | ○ |

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Non-structural Hazards*** | N/A | A | B | C | D |
| 11 Parapets, ornamentation, chimneys | ✓ | ○ | ○ | ○ | ○ |
| 12 Cladding, glazing | ○ | ○ | ✓ | ○ | ○ |
| 13 **Ceilings, light fixtures** | ○ | ○ | ✓ | ○ | ○ |
| 14 Interior walls, partitions | ○ | ○ | ✓ | ○ | ○ |
| 15 Access/egress (elevators, stairs, exits) | ○ | ○ | ✓ | ○ | ○ |
| 16 **Significant fire saftey** concerns | ○ | ○ | ✓ | ○ | ○ |
| 17 Utilities (e.g. gas, electricity, waste water, plumbing) | ✓ | ○ | ○ | ○ | ○ |
| 18 Other: | ✓ | ○ | ○ | ○ | ○ |

Comments:

**9** Estimated Damage A ✓ None B ○ 0-10% C ○ 11-30% D ○ 31-60% E ○ 61-100%

## SUGGESTED FURTHER ACTIONS

**10**

| Recommended further Assessment* | Safety Cordon* | Barricades* | Urgency of suggested action* |
|---|---|---|---|
| A ✓ None<br>B ○ Level 2 Rapid Assessment (tick below if particular expertise is required)<br>B1 ○ Structural Engineer<br>B2 ○ Geotechnical Engineer<br>B3 ○ Other:<br>C ○ Further evaluation to be arranged by building owner: | A ✓ None required<br>B ○ Cordon required<br>Describe extent (add diagram on separate sheet if required) | A ✓ None required<br>B ○ Barricades already in place<br>C ○ Barricades required<br>Describe extent (add diagram on separate sheet if required) | A ○ Standard<br>B ○ Immediate action required |

## SUMMARY

**11**

| Observed Damage | Level 2 Rapid Assessment Outcome* |
|---|---|
| **Light or no damage** | W ✓ **CAN BE USED** (From assessment no known dangers) |
| **Moderate damage** | Y1 ○ **RESTRICTED ACCESS TO PART(S) OF THE BUILDING ONLY** |
| | Y2 ○ **RESTRICTED ACCESS – SHORT TERM ENTRY ONLY with or without supervision**<br>Access to be supervised A ○ Yes B ○ No |
| **Heavy damage** | R1 ○ **ENTRY PROHIBITED (At risk from external factors)** |
| | R2 ○ **ENTRY PROHIBITED (Severe damage to building)** |

**12**

| Survey Extent* | |
|---|---|
| Exterior | A ○ Partial |
| | B ✓ Complete |
| Interior | C ○ Not accessed |
| | D ✓ Partial |
| | E ○ Complete |

Assessor Signature* FDL

## NOTES

**13** Historic cracking in perimeter foundation.

If required add a sketch on a separate sheet of paper showing building damage, access restrictions or cordoning areas. Identify the building on the sketch and staple the sheet to this assessment form.

**Sketch included on separate page?** ○ Yes ✓ No

# EARTHQUAKE RAPID ASSESSMENT FORM

Complex Residential and all Non-Residential Buildings Level 2

## ASSESSMENT

*Fields with asterisks (*) are mandatory, others are optional.*

1 Assessor Name*: JASON DAVIDSON

Assessor ID*:

Authority*: NCOHB

2 Assessment Date* (Day Month Year): 22 11 16

Assessment Time* (Hour Minute, to nearest half hour): 11 30 — A ☑ AM B ☐ PM

## BUILDING IDENTIFICATION

3 Building Name: ELECTRICAL SUBSTATION

Unit / Number*: /

Street*:

City/Town*: WESTPORT

GPS (Degree with 5 decimals after comma) South: − , East: ,

Other ID or access:

Photo taken A ☐ No B ☑ Yes Photo ID.:

4 Contact Name: TONY ROBERTS

Type: A ☐ Owner B ☐ Tenant C ☑ Other

Phone (with area code): (027) 2248312

5 Existing Placard*: ☑ None ☐ W ☐ Y1 ☐ Y2 ☐ R1 ☐ R2

Date* (Day Month Year):

Team ID*:

## BUILDING DESCRIPTION

6

| Dimensions | Constr. Age | Building Type | Structure Type | Cladding Type |
|---|---|---|---|---|
| Storeys above ground incl. ground floor: 01 | A ☐ <1935 | A ☐ Complex residential | A ☐ Timber frame | A ☐ Brick veneer |
| Storeys below ground: 00 | B ☑ 1935-1976 | B ☐ School | B ☐ Steel frame | B ☑ Concrete panels |
| Footprint (m²): 30 | C ☐ 1977-1984 | C ☐ Commercial/Office | C ☐ Concrete frame | C ☐ Steel |
| | D ☐ 1985-2000 | D ☐ Industrial | D ☑ Concrete shear wall | D ☐ Glass |
| | E ☐ >2000 | E ☑ Critical facility | E ☐ Tilt-up concrete | E ☐ Lightweight |
| | F ☐ Unknown | F ☐ Public assembly | F ☐ Reinforced masonry | F ☐ Other: |
| | | G ☐ Other: | G ☐ Unreinforced masonry | |
| | | | H ☐ Other: | |

## EXTERNAL RISKS

7

| Potential Cause* | A Yes | B No |
|---|---|---|
| 1 Objects falling from adjacent buildings. Adjacent building ID or address: | ☐ | ☑ |
| 2 Land instability above | ☐ | ☑ |
| 3 Land instability below | ☐ | ☑ |
| 4 Other | ☐ | ☑ |

If required add sketch on separate page showing extent and nature of the external risk factors.

VERSION 01 – APRIL 2014

## DAMAGE ASSESSMENT

**8**

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Overall Hazard*** | N/A | A | B | C | D |
| 1 Collapse or partial collapse | ○ | ○ | ✓ | ○ | ○ |
| 2 Building or storey leaning | ○ | ○ | ✓ | ○ | ○ |
| 3 Other: | ✓ | ○ | ○ | ○ | ○ |
| **Structural Hazards*** | N/A | A | B | C | D |
| 4 Foundations | ○ | ○ | ✓ | ○ | ○ |
| 5 **Roofs, floors** | ○ | ○ | ✓ | ○ | ○ |
| 6 Gravity systems (columns, beams, etc) | ✓ | ○ | ○ | ○ | ○ |
| 7 Lateral systems (walls, frames, braces) | ○ | ○ | ✓ | ○ | ○ |
| 8 Diaphragms, horizontal bracing | ○ | ○ | ✓ | ○ | ○ |
| 9 Precast connections | ✓ | ○ | ○ | ○ | ○ |
| 10 Other: | ✓ | ○ | ○ | ○ | ○ |

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Non-structural Hazards*** | N/A | A | B | C | D |
| 11 Parapets, ornamentation, chimneys | ✓ | ○ | ○ | ○ | ○ |
| 12 Cladding, glazing | ○ | ○ | ✓ | ○ | ○ |
| 13 **Ceilings, light fixtures** | ○ | ✓ | ○ | ○ | ○ |
| 14 Interior walls, partitions | ○ | ✓ | ○ | ○ | ○ |
| 15 Access/egress (elevators, stairs, exits) | ○ | ✓ | ○ | ○ | ○ |
| 16 **Significant fire saftey** concerns | ○ | ✓ | ○ | ○ | ○ |
| 17 Utilities (e.g. gas, electricity, waste water, plumbing) | ✓ | ○ | ○ | ○ | ○ |
| 18 Other: | ○ | ○ | ○ | ○ | ○ |

Comments:

**9** Estimated Damage A ✓ None B ○ 0-10% C ○ 11-30% D ○ 31-60% E ○ 61-100%

## SUGGESTED FURTHER ACTIONS

**10**

| Recommended further Assessment* | Safety Cordon* | Barricades* | Urgency of suggested action* |
|---|---|---|---|
| A ✓ None<br>B ○ Level 2 Rapid Assessment (tick below if particular expertise is required)<br>B1 ○ Structural Engineer<br>B2 ○ Geotechnical Engineer<br>B3 ○ Other:<br>C ○ Further evaluation to be arranged by building owner: | A ✓ None required<br>B ○ Cordon required<br>Describe extent (add diagram on separate sheet if required) | A ✓ None required<br>B ○ Barricades already in place<br>C ○ Barricades required<br>Describe extent (add diagram on separate sheet if required) | A ○ Standard<br>B ○ Immediate action required |

## SUMMARY

**11**

| Observed Damage | Level 2 Rapid Assessment Outcome* |
|---|---|
| **Light or no damage** | W ✓ **CAN BE USED** (From assessment no known dangers) |
| **Moderate damage** | Y1 ○ **RESTRICTED ACCESS TO PART(S) OF THE BUILDING ONLY** |
| | Y2 ○ **RESTRICTED ACCESS – SHORT TERM ENTRY ONLY with or without supervision**<br>Access to be supervised A ○ Yes B ○ No |
| **Heavy damage** | R1 ○ **ENTRY PROHIBITED (At risk from external factors)** |
| | R2 ○ **ENTRY PROHIBITED (Severe damage to building)** |

**12**

| Survey Extent* | |
|---|---|
| Exterior | A ✓ Partial |
| | B ○ Complete |
| Interior | C ✓ Not accessed |
| | D ○ Partial |
| | E ○ Complete |

Assessor Signature* [signature]

## NOTES

**13** No obvious EQ. damage. substation is a very robust looking building.

If required add a sketch on a separate sheet of paper showing building damage, access restrictions or cordoning areas. Identify the building on the sketch and staple the sheet to this assessment form.

**Sketch included on separate page?** ○ Yes ✓ No

# EARTHQUAKE RAPID ASSESSMENT FORM

Complex Residential and all Non-Residential Buildings Level 2

## ASSESSMENT

*Fields with asterisks (*) are mandatory, others are optional.*

1 Assessor Name*: JASON DAVIDSON

Assessor ID*:

Authority*: NCDHB

2 Assessment Date*: 22/11/16 (Day / Month / Year)

Assessment Time*: 1140 (Hour / Minute, to nearest half hour) A (✓) AM B ( ) PM

## BUILDING IDENTIFICATION

3 Building Name: MORTUARY

Unit / Number*: / 

Street*:

City/Town*: WESTPORT

GPS (Degree with 5 decimals after comma) South -, East ,

Other ID or access:

Photo taken A ( ) No B (✓) Yes Photo ID.

4 Contact Name: TONY ROBERTS

Type A ( ) Owner B ( ) Tenant C (✓) Other MAINTENANCE

Phone (with area code): (027) 2248312

5 Existing Placard*: (✓) None ( ) W ( ) Y1 ( ) Y2 ( ) R1 ( ) R2

Date* (Day / Month / Year)

Team ID*:

## BUILDING DESCRIPTION

6

| Dimensions | Constr. Age | Building Type | Structure Type | Cladding Type |
|---|---|---|---|---|
| Storeys above ground incl. ground floor: 01 | A ( ) <1935 | A ( ) Complex residential | A ( ) Timber frame | A (✓) Brick veneer |
| Storeys below ground: 00 | B (✓) 1935-1976 | B ( ) School | B ( ) Steel frame | B (✓) Concrete panels |
| Footprint (m²): 50 | C ( ) 1977-1984 | C ( ) Commercial/Office | C (✓) Concrete frame | C ( ) Steel |
| | D ( ) 1985-2000 | D ( ) Industrial | D (✓) Concrete shear wall | D ( ) Glass |
| | E ( ) >2000 | E ( ) Critical facility | E ( ) Tilt-up concrete | E ( ) Lightweight |
| | F ( ) Unknown | F ( ) Public assembly | F ( ) Reinforced masonry | F ( ) Other: |
| | | G (✓) Other: Mortuary | G (✓) Unreinforced masonry | |
| | | | H ( ) Other: | |

## EXTERNAL RISKS

7

| Potential Cause* | A Yes | B No |
|---|---|---|
| 1 Objects falling from adjacent buildings. Adjacent building ID or address: | ( ) | (✓) |
| 2 Land instability above | ( ) | (✓) |
| 3 Land instability below | ( ) | (✓) |
| 4 Other | ( ) | (✓) |

If required add sketch on separate page showing extent and nature of the external risk factors.

VERSION 01 – APRIL 2014

## DAMAGE ASSESSMENT

**8**

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Overall Hazard*** | N/A | A | B | C | D |
| 1 Collapse or partial collapse | ○ | ○ | ✓ | ○ | ○ |
| 2 Building or storey leaning | ○ | ○ | ✓ | ○ | ○ |
| 3 Other: | ○ | ○ | ✓ | ○ | ○ |
| **Structural Hazards*** | N/A | A | B | C | D |
| 4 Foundations | ○ | ○ | ✓ | ○ | ○ |
| 5 **Roofs, floors** | ○ | ○ | ✓ | ○ | ○ |
| 6 Gravity systems (columns, beams, etc) | ○ | ○ | ✓ | ○ | ○ |
| 7 Lateral systems (walls, frames, braces) | ○ | ○ | ✓ | ○ | ○ |
| 8 Diaphragms, horizontal bracing | ○ | ✓ | ○ | ○ | ○ |
| 9 Precast connections | ✓ | ○ | ○ | ○ | ○ |
| 10 Other: | ✓ | ○ | ○ | ○ | ○ |

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Non-structural Hazards*** | N/A | A | B | C | D |
| 11 Parapets, ornamentation, chimneys | ✓ | ○ | ○ | ○ | ○ |
| 12 Cladding, glazing | ○ | ○ | ✓ | ○ | ○ |
| 13 **Ceilings, light fixtures** | ○ | ✓ | ○ | ○ | ○ |
| 14 Interior walls, partitions | ○ | ✓ | ○ | ○ | ○ |
| 15 Access/egress (elevators, stairs, exits) | ○ | ✓ | ○ | ○ | ○ |
| 16 **Significant fire saftey** concerns | ✓ | ○ | ○ | ○ | ○ |
| 17 Utilities (e.g. gas, electricity, waste water, plumbing) | ✓ | ○ | ○ | ○ | ○ |
| 18 Other: | ○ | ○ | ○ | ○ | ○ |

Comments: Vertical crack in northern wall, possibly due to settlement. Existing but may have widened?

**9** Estimated Damage A ○ None B ✓ 0-10% C ○ 11-30% D ○ 31-60% E ○ 61-100%

## SUGGESTED FURTHER ACTIONS

**10**

| Recommended further Assessment* | Safety Cordon* | Barricades* | Urgency of suggested action* |
|---|---|---|---|
| A ✓ None<br>B ○ Level 2 Rapid Assessment (tick below if particular expertise is required)<br>B1 ○ Structural Engineer<br>B2 ○ Geotechnical Engineer<br>B3 ○ Other:<br>C ○ Further evaluation to be arranged by building owner: | A ✓ None required<br>B ○ Cordon required<br>Describe extent (add diagram on separate sheet if required) | A ✓ None required<br>B ○ Barricades already in place<br>C ○ Barricades required<br>Describe extent (add diagram on separate sheet if required) | A ○ Standard<br>B ○ Immediate action required |

## SUMMARY

**11**

| Observed Damage | Level 2 Rapid Assessment Outcome* |
|---|---|
| **Light or no damage** | W ✓ **CAN BE USED** (From assessment no known dangers) |
| **Moderate damage** | Y1 ○ **RESTRICTED ACCESS TO PART(S) OF THE BUILDING ONLY** |
| | Y2 ○ **RESTRICTED ACCESS – SHORT TERM ENTRY ONLY with or without supervision**<br>Access to be supervised A ○ Yes B ○ No |
| **Heavy damage** | R1 ○ **ENTRY PROHIBITED (At risk from external factors)** |
| | R2 ○ **ENTRY PROHIBITED (Severe damage to building)** |

**12**

| Survey Extent* | |
|---|---|
| Exterior | A ○ Partial |
| | B ✓ Complete |
| Interior | C ✓ Not accessed |
| | D ○ Partial |
| | E ○ Complete |

Assessor Signature* [signature]

## NOTES

**13**

If required add a sketch on a separate sheet of paper showing building damage, access restrictions or cordoning areas. Identify the building on the sketch and staple the sheet to this assessment form.

**Sketch included on separate page?** ○ Yes ○ No

23 November 2016

**Opus International Consultants Ltd**

**P** +64 3 769 9330

Greymouth Office
23 High Street
PO Box 365, Greymouth 7840
New Zealand

Craig Shaw
Maintenance Manager
West Coast District Health Board
P O Box 387
Greymouth

Ref: 6-WWESE.10

## Property inspected – Reefton Hospital Buildings (various)

Dear Craig,

This report confirms the verbal advice provided to you on 23 November 2016 in relation to the rapid structural assessment Opus undertook of the Reefton Hospital Buildings listed below (on Tuesday 22 November 2016) following the M7.8 earthquake which occurred on 14 November 2016:

- Concrete Water Tanks,
- Chimney Stack,
- Boiler House Building,
- Workshop Building

The scope of our rapid structural assessment comprised of a brief visual inspection of the Buildings listed to ascertain the level of damage sustained to the primary structure and a brief external visual inspection of the neighbouring buildings and structures which we reasonably believe may impact the seismic performance of the Building. The scope of our inspection is further detailed in the Earthquake Rapid Assessment Forms, which are attached to this letter.

**Inspection Summary**

In summary, our inspections noted the following observed damage:

- No earthquake damage noted to buildings.
- Although not earthquake related, it was observed that the concrete roof of the workshop is in a very poor state. Water is leaking through cracks in the concrete and there is significant calcification of the concrete evident. This water will also lead to deterioration of the steel reinforcing and we recommend that this leaking be addressed before it becomes a structural issue.
- In addition to the above buildings which were inspected, we completed a walk around of the main timber framed hospital building. We did not observe any earthquake damage in this additional inspection.

Unless noted otherwise on the Earthquake Rapid Assessment Forms, we have not inspected any non-structural hazards.

Based on our inspections, it is our assessment that the Building's seismic performance has not been significantly affected. The Buildings listed may therefore be occupied on the same basis as prior to the Earthquake. However, if you become aware of any changes in seismic performance of the neighbouring buildings or structures, please contact us immediately as the change may impact this assessment. In addition, aftershocks may cause more damage that may change this assessment and warrant further inspection of the building and/or neighbouring buildings or structures.

Although it is our assessment that the seismic performance of the buildings listed has not been significantly affected, if you are aware that a Building was Earthquake Prone or is subject to strengthening requirements, we recommend that you review the strengthening actions to ensure that they are still fit for purpose.

Do not hesitate to contact me if you require any further assistance.

Regards

Jason Davidson, Senior Structural Engineer, CPEng 229742

Encl.: Earthquake Rapid Assessment Forms – Reefton Hospital

# EARTHQUAKE RAPID ASSESSMENT FORM

Complex Residential and all Non-Residential Buildings Level 2

## ASSESSMENT

*Fields with asterisks (*) are mandatory, others are optional.*

1 Assessor Name*: JASON DAVIDSON

Assessor ID*:

Authority*: WCOHB

2 Assessment Date*: 22/11/16 (Day / Month / Year)

Assessment Time*: 01:45 (Hour / Minute *(to nearest half hour)*) A ○ AM B ✓ PM

## BUILDING IDENTIFICATION

3 Building Name: WATER TANKS

Unit / Number*: /

Street*: BROADWAY

City/Town*: REEFTON

GPS (Degree with 5 decimals after comma) South: -, East: ,

Other ID or access:

Photo taken A ○ No B ✓ Yes Photo ID.

4 Contact Name: ALLY CANOE

Type: A ○ Owner B ○ Tenant C ✓ Other MAINTENANCE.

Phone (with area code): (027) 2458166

5 Existing Placard*: ✓ None ○ W ○ Y1 ○ Y2 ○ R1 ○ R2 Date* (Day / Month / Year) Team ID*

## BUILDING DESCRIPTION

6

| Dimensions | Constr. Age | Building Type | Structure Type | Cladding Type |
|---|---|---|---|---|
| Storeys above ground incl. ground floor: 01 | A ○ <1935 | A ○ Complex residential | A ○ Timber frame | A ○ Brick veneer |
| Storeys below ground: 00 | B ✓ 1935-1976 | B ○ School | B ○ Steel frame | B ○ Concrete panels |
| Footprint (m²): 15 | C ○ 1977-1984 | C ○ Commercial/Office | C ○ Concrete frame | C ○ Steel |
| | D ○ 1985-2000 | D ○ Industrial | D ○ Concrete shear wall | D ○ Glass |
| | E ○ >2000 | E ○ Critical facility | E ○ Tilt-up concrete | E ○ Lightweight |
| | F ○ Unknown | F ○ Public assembly | F ○ Reinforced masonry | F ○ Other: CONCRETE |
| | | G ○ Other: WATER TANKS | G ○ Unreinforced masonry | |
| | | | H ✓ Other: CONCRETE PRECAST TANKS. | |

## EXTERNAL RISKS

7

| Potential Cause* | A Yes | B No |
|---|---|---|
| 1 Objects falling from adjacent buildings. Adjacent building ID or address: | ○ | ✓ |
| 2 Land instability above | ○ | ✓ |
| 3 Land instability below | ○ | ✓ |
| 4 Other | ○ | ✓ |

If required add sketch on separate page showing extent and nature of the external risk factors.

VERSION 01 – APRIL 2014

## DAMAGE ASSESSMENT

**8**

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Overall Hazard*** | N/A | A | B | C | D |
| 1 Collapse or partial collapse | ○ | ○ | ✓ | ○ | ○ |
| 2 Building or storey leaning | ○ | ○ | ✓ | ○ | ○ |
| 3 Other: | ✓ | ○ | ○ | ○ | ○ |
| **Structural Hazards*** | N/A | A | B | C | D |
| 4 Foundations | ○ | ○ | ✓ | ○ | ○ |
| 5 **Roofs, floors** | ○ | ○ | ✓ | ○ | ○ |
| 6 Gravity systems (columns, beams, etc) | ✓ | ○ | ○ | ○ | ○ |
| 7 Lateral systems (walls, frames, braces) | ○ | ○ | ✓ | ○ | ○ |
| 8 Diaphragms, horizontal bracing | ✓ | ○ | ○ | ○ | ○ |
| 9 Precast connections | ✓ | ○ | ○ | ○ | ○ |
| 10 Other: | ✓ | ○ | ○ | ○ | ○ |

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Non-structural Hazards*** | N/A | A | B | C | D |
| 11 Parapets, ornamentation, chimneys | ✓ | ○ | ○ | ○ | ○ |
| 12 Cladding, glazing | ✓ | ○ | ○ | ○ | ○ |
| 13 **Ceilings, light fixtures** | ✓ | ○ | ○ | ○ | ○ |
| 14 Interior walls, partitions | ✓ | ○ | ○ | ○ | ○ |
| 15 Access/egress (elevators, stairs, exits) | ✓ | ○ | ○ | ○ | ○ |
| 16 **Significant fire saftey** concerns | ✓ | ○ | ○ | ○ | ○ |
| 17 Utilities (e.g. gas, electricity, waste water, plumbing) | ✓ | ○ | ○ | ○ | ○ |
| 18 Other: | ✓ | ○ | ○ | ○ | ○ |

Comments: No leaking of tanks since EQ.

**9** Estimated Damage A ✓ None B ○ 0-10% C ○ 11-30% D ○ 31-60% E ○ 61-100%

## SUGGESTED FURTHER ACTIONS

**10**

| Recommended further Assessment* | Safety Cordon* | Barricades* | Urgency of suggested action* |
|---|---|---|---|
| A ✓ None | A ✓ None required | A ✓ None required | A ○ Standard |
| B ○ Level 2 Rapid Assessment (tick below if particular expertise is required) | B ○ Cordon required | B ○ Barricades already in place | B ○ Immediate action required |
| B1 ○ Structural Engineer | Describe extent (add diagram on separate sheet if required) | C ○ Barricades required | |
| B2 ○ Geotechnical Engineer | | Describe extent (add diagram on separate sheet if required) | |
| B3 ○ Other: | | | |
| C ○ Further evaluation to be arranged by building owner: | | | |

## SUMMARY

**11**

| Observed Damage | Level 2 Rapid Assessment Outcome* |
|---|---|
| **Light or no damage** | W ✓ **CAN BE USED** (From assessment no known dangers) |
| **Moderate damage** | Y1 ○ **RESTRICTED ACCESS TO PART(S) OF THE BUILDING ONLY** |
| | Y2 ○ **RESTRICTED ACCESS – SHORT TERM ENTRY ONLY with or without supervision** Access to be supervised A ○ Yes B ○ No |
| **Heavy damage** | R1 ○ **ENTRY PROHIBITED (At risk from external factors)** |
| | R2 ○ **ENTRY PROHIBITED (Severe damage to building)** |

**12**

| Survey Extent* | | |
|---|---|---|
| Exterior | A ○ | Partial |
| | B ✓ | Complete |
| Interior | C ✓ | Not accessed |
| | D ○ | Partial |
| | E ○ | Complete |

Assessor Signature*

## NOTES

**13** concrete water tanks. No evidence of movement around tanks at ground level.

If required add a sketch on a separate sheet of paper showing building damage, access restrictions or cordoning areas. Identify the building on the sketch and staple the sheet to this assessment form.

**Sketch included on separate page?** ○ Yes ✓ No

# EARTHQUAKE RAPID ASSESSMENT FORM

Complex Residential and all Non-Residential Buildings Level 2

## ASSESSMENT

*Fields with asterisks (*) are mandatory, others are optional.*

1 Assessor Name*: JASON DAVIDSON

Assessor ID*:

Authority*: NCDMB

2 Assessment Date*: 22 / 11 / 16 (Day / Month / Year)

Assessment Time*: 0200 (Hour / Minute, to nearest half hour) A ○ AM B ✓ PM

## BUILDING IDENTIFICATION

3 Building Name: CHIMNEY STACK

Unit / Number*: /

Street*: BROADWAY STREET

City/Town*: KEETON

GPS (Degree with 5 decimals after comma) South: - , East: ,

Other ID or access:

Photo taken A ○ No B ✓ Yes Photo ID.:

4 Contact Name: ALLY CADDIE

Type: A ○ Owner B ○ Tenant C ✓ Other: MAINTENANCE

Phone (with area code): (027) 2458166

5 Existing Placard*: ✓ None ○ W ○ Y1 ○ Y2 ○ R1 ○ R2

Date* (Day / Month / Year):

Team ID*:

## BUILDING DESCRIPTION

6

| Dimensions | Constr. Age | Building Type | Structure Type | Cladding Type |
|---|---|---|---|---|
| Storeys above ground incl. ground floor: N/A | A ○ <1935 | A ○ Complex residential | A ○ Timber frame | A ○ Brick veneer |
| Storeys below ground: 0 | B ✓ 1935-1976 | B ○ School | B ○ Steel frame | B ○ Concrete panels |
| Footprint (m²): 3 | C ○ 1977-1984 | C ○ Commercial/Office | C ○ Concrete frame | C ○ Steel |
| | D ○ 1985-2000 | D ○ Industrial | D ○ Concrete shear wall | D ○ Glass |
| | E ○ >2000 | E ✓ Critical facility | E ○ Tilt-up concrete | E ○ Lightweight |
| | F ○ Unknown | F ○ Public assembly | F ○ Reinforced masonry | F ○ Other: N/A |
| | | G ✓ Other: CHIMNEY STACK | G ○ Unreinforced masonry | |
| | | | H ✓ Other: CONCRETE | |

## EXTERNAL RISKS

7

| Potential Cause* | A Yes | B No |
|---|---|---|
| 1 Objects falling from adjacent buildings. Adjacent building ID or address: | ○ | ✓ |
| 2 Land instability above | ○ | ✓ |
| 3 Land instability below | ○ | ✓ |
| 4 Other | ○ | ✓ |

If required add sketch on separate page showing extent and nature of the external risk factors.

VERSION 01 – APRIL 2014

## DAMAGE ASSESSMENT

**8**

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Overall Hazard*** | N/A | A | B | C | D |
| 1 Collapse or partial collapse | ○ | ○ | ✓ | ○ | ○ |
| 2 Building or storey leaning | ○ | ○ | ✓ | ○ | ○ |
| 3 Other: | ✓ | ○ | ○ | ○ | ○ |
| **Structural Hazards*** | N/A | A | B | C | D |
| 4 Foundations | ○ | ○ | ✓ | ○ | ○ |
| 5 **Roofs, floors** | ✓ | ○ | ○ | ○ | ○ |
| 6 Gravity systems (columns, beams, etc) | ✓ | ○ | ○ | ○ | ○ |
| 7 Lateral systems (walls, frames, braces) | ✓ | ○ | ○ | ○ | ○ |
| 8 Diaphragms, horizontal bracing | ✓ | ○ | ○ | ○ | ○ |
| 9 Precast connections | ✓ | ○ | ○ | ○ | ○ |
| 10 Other: | ✓ | ○ | ○ | ○ | ○ |

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Non-structural Hazards*** | N/A | A | B | C | D |
| 11 Parapets, ornamentation, chimneys | ○ | ○ | ✓ | ○ | ○ |
| 12 Cladding, glazing | ✓ | ○ | ○ | ○ | ○ |
| 13 **Ceilings, light fixtures** | ✓ | ○ | ○ | ○ | ○ |
| 14 Interior walls, partitions | ✓ | ○ | ○ | ○ | ○ |
| 15 Access/egress (elevators, stairs, exits) | ✓ | ○ | ○ | ○ | ○ |
| 16 **Significant fire saftey** concerns | ✓ | ○ | ○ | ○ | ○ |
| 17 Utilities (e.g. gas, electricity, waste water, plumbing) | ✓ | ○ | ○ | ○ | ○ |
| 18 Other: | ✓ | ○ | ○ | ○ | ○ |

Comments: old cracking and spalling of concrete evident. No fresh looking cracks near ground level. Ally has checked verticality of stairs.

**9** Estimated Damage A ✓ None B ○ 0-10% C ○ 11-30% D ○ 31-60% E ○ 61-100%

## SUGGESTED FURTHER ACTIONS

**10**

| Recommended further Assessment* | Safety Cordon* | Barricades* | Urgency of suggested action* |
|---|---|---|---|
| A ✓ None | A ✓ None required | A ✓ None required | A ○ Standard |
| B ○ Level 2 Rapid Assessment (tick below if particular expertise is required) | B ○ Cordon required | B ○ Barricades already in place | B ○ Immediate action required |
| B1 ○ Structural Engineer | Describe extent (add diagram on separate sheet if required) | C ○ Barricades required | |
| B2 ○ Geotechnical Engineer | | Describe extent (add diagram on separate sheet if required) | |
| B3 ○ Other: | | | |
| C ○ Further evaluation to be arranged by building owner: | | | |

## SUMMARY

**11**

| Observed Damage | Level 2 Rapid Assessment Outcome* |
|---|---|
| **Light or no damage** | W ✓ **CAN BE USED** (From assessment no known dangers) |
| **Moderate damage** | Y1 ○ **RESTRICTED ACCESS TO PART(S) OF THE BUILDING ONLY** |
| | Y2 ○ **RESTRICTED ACCESS – SHORT TERM ENTRY ONLY with or without supervision** Access to be supervised A ○ Yes B ○ No |
| **Heavy damage** | R1 ○ **ENTRY PROHIBITED (At risk from external factors)** |
| | R2 ○ **ENTRY PROHIBITED (Severe damage to building)** |

**12**

| Survey Extent* | |
|---|---|
| Exterior | A ✓ Partial |
| | B ○ Complete |
| Interior | C ✓ Not accessed |
| | D ○ Partial |
| | E ○ Complete |

Assessor Signature* JDL

## NOTES

**13** some cracking around chimney but does not appear Rexcard. More along cold joints in concrete pours. No evidence of foundation movement. some concrete spalling due to reinforcing corrosion. (~70' tall)

If required add a sketch on a separate sheet of paper showing building damage, access restrictions or cordoning areas. Identify the building on the sketch and staple the sheet to this assessment form.

**Sketch included on separate page?** ○ Yes ✓ No

# EARTHQUAKE RAPID ASSESSMENT FORM

Complex Residential and all Non-Residential Buildings Level 2

## ASSESSMENT

*Fields with asterisks (*) are mandatory, others are optional.*

1 Assessor Name*: JASON DAVIDSON

Assessor ID*:

Authority*: WCOHB

2 Assessment Date*: 22/11/16 (Day / Month / Year)

Assessment Time*: 0210 (Hour / Minute, to nearest half hour) A ○ AM B ✓ PM

## BUILDING IDENTIFICATION

3 Building Name: BOILER HOUSE

Unit / Number*: /

Street*: BROADWAY

City/Town*: KEEPTON

GPS (Degree with 5 decimals after comma) South -, East ,

Other ID or access:

Photo taken A ○ No B ✓ Yes Photo ID.

4 Contact Name: ALLY CADDIE

Type: A ○ Owner B ○ Tenant C ✓ Other MAINTENANCE.

Phone (with area code): (027) 2458166

5 Existing Placard*: ✓ None ○ W ○ Y1 ○ Y2 ○ R1 ○ R2 Date* (Day / Month / Year) Team ID*

## BUILDING DESCRIPTION

6

| Dimensions | Constr. Age | Building Type | Structure Type | Cladding Type |
|---|---|---|---|---|
| Storeys above ground incl. ground floor: 01 | A ○ <1935 | A ○ Complex residential | A ○ Timber frame | A ○ Brick veneer |
| Storeys below ground: 00 | B ✓ 1935-1976 | B ○ School | B ○ Steel frame | B ✓ Concrete panels |
| Footprint (m²): 200 | C ○ 1977-1984 | C ○ Commercial/Office | C ✓ Concrete frame | C ○ Steel |
| | D ○ 1985-2000 | D ○ Industrial | D ✓ Concrete shear wall | D ○ Glass |
| | E ○ >2000 | E ○ Critical facility | E ○ Tilt-up concrete | E ○ Lightweight |
| | F ○ Unknown | F ○ Public assembly | F ○ Reinforced masonry | F ○ Other: |
| | | G ○ Other: Boiler House | G ○ Unreinforced masonry | |
| | | | H ○ Other: | |

## EXTERNAL RISKS

7

| Potential Cause* | A Yes | B No |
|---|---|---|
| 1 Objects falling from adjacent buildings. Adjacent building ID or address: | ○ | ✓ |
| 2 Land instability above | ○ | ✓ |
| 3 Land instability below | ○ | ✓ |
| 4 Other | ○ | ✓ |

If required add sketch on separate page showing extent and nature of the external risk factors.

VERSION 01 – APRIL 2014

## DAMAGE ASSESSMENT

**8**

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Overall Hazard*** | N/A | A | B | C | D |
| 1 Collapse or partial collapse | ○ | ○ | ✓ | ○ | ○ |
| 2 Building or storey leaning | ○ | ○ | ✓ | ○ | ○ |
| 3 Other: | ✓ | ○ | ○ | ○ | ○ |
| **Structural Hazards*** | N/A | A | B | C | D |
| 4 Foundations | ○ | ○ | ✓ | ○ | ○ |
| 5 **Roofs, floors** | ○ | ○ | ✓ | ○ | ○ |
| 6 Gravity systems (columns, beams, etc) | ○ | ○ | ✓ | ○ | ○ |
| 7 Lateral systems (walls, frames, braces) | ○ | ○ | ✓ | ○ | ○ |
| 8 Diaphragms, horizontal bracing | ○ | ○ | ✓ | ○ | ○ |
| 9 Precast connections | ✓ | ○ | ○ | ○ | ○ |
| 10 Other: | ✓ | ○ | ○ | ○ | ○ |

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Non-structural Hazards*** | N/A | A | B | C | D |
| 11 Parapets, ornamentation, chimneys | ✓ | ○ | ○ | ○ | ○ |
| 12 Cladding, glazing | ○ | ○ | ✓ | ○ | ○ |
| 13 **Ceilings, light fixtures** | ✓ | ○ | ○ | ○ | ○ |
| 14 Interior walls, partitions | ○ | ○ | ✓ | ○ | ○ |
| 15 Access/egress (elevators, stairs, exits) | ✓ | ○ | ○ | ○ | ○ |
| 16 **Significant fire saftey** concerns | ○ | ○ | ✓ | ○ | ○ |
| 17 Utilities (e.g. gas, electricity, waste water, plumbing) | ✓ | ○ | ○ | ○ | ○ |
| 18 Other: | ✓ | ○ | ○ | ○ | ○ |

Comments:

**9** Estimated Damage A ✓ None B ○ 0-10% C ○ 11-30% D ○ 31-60% E ○ 61-100%

## SUGGESTED FURTHER ACTIONS

**10**

| Recommended further Assessment* | Safety Cordon* | Barricades* | Urgency of suggested action* |
|---|---|---|---|
| A ✓ None | A ✓ None required | A ✓ None required | A ○ Standard |
| B ○ Level 2 Rapid Assessment (tick below if particular expertise is required) | B ○ Cordon required | B ○ Barricades already in place | B ○ Immediate action required |
| B1 ○ Structural Engineer | Describe extent (add diagram on separate sheet if required) | C ○ Barricades required | |
| B2 ○ Geotechnical Engineer | | Describe extent (add diagram on separate sheet if required) | |
| B3 ○ Other: | | | |
| C ○ Further evaluation to be arranged by building owner: | | | |

## SUMMARY

**11**

| Observed Damage | Level 2 Rapid Assessment Outcome* |
|---|---|
| **Light or no damage** | W ✓ **CAN BE USED** (From assessment no known dangers) |
| **Moderate damage** | Y1 ○ **RESTRICTED ACCESS TO PART(S) OF THE BUILDING ONLY** |
| | Y2 ○ **RESTRICTED ACCESS – SHORT TERM ENTRY ONLY with or without supervision** Access to be supervised A ○ Yes B ○ No |
| **Heavy damage** | R1 ○ **ENTRY PROHIBITED (At risk from external factors)** |
| | R2 ○ **ENTRY PROHIBITED (Severe damage to building)** |

**12**

| Survey Extent* | | |
|---|---|---|
| Exterior | A | ✓ Partial |
| | B | ○ Complete |
| Interior | C | ○ Not accessed |
| | D | ○ Partial |
| | E | ✓ Complete |

Assessor Signature* [signature]

## NOTES

**13** No evidence of EQ. Damage. All cracking etc. appears old.

If required add a sketch on a separate sheet of paper showing building damage, access restrictions or cordoning areas. Identify the building on the sketch and staple the sheet to this assessment form.

**Sketch included on separate page?** ○ Yes ○ No

# EARTHQUAKE RAPID ASSESSMENT FORM

Complex Residential and all Non-Residential Buildings Level 2

## ASSESSMENT

*Fields with asterisks (*) are mandatory, others are optional.*

1 Assessor Name*: JASON DAVIDSON

Assessor ID*:

Authority*: WCOHB

2 Assessment Date*: 22/1/16 (Day / Month / Year)

Assessment Time*: 0230 (Hour / Minute, to nearest half hour) A ○ AM B ✓ PM

## BUILDING IDENTIFICATION

3 Building Name: WORKSHOP

Unit / Number*: /

Street*: BROADWAY

City/Town*: REEFTON

GPS (Degree with 5 decimals after comma) South -, East ,

Other ID or access:

Photo taken A ○ No B ✓ Yes Photo ID.

4 Contact Name: ALLY CANDIE

Type A ○ Owner B ○ Tenant C ✓ Other MAINTENANCE

Phone (with area code): (027) 2458166

5 Existing Placard*: ✓ None ○ W ○ Y1 ○ Y2 ○ R1 ○ R2

Date* (Day / Month / Year)

Team ID*

## BUILDING DESCRIPTION

6

| Dimensions | Constr. Age | Building Type | Structure Type | Cladding Type |
|---|---|---|---|---|
| Storeys above ground incl. ground floor: 01 | A ○ <1935 | A ○ Complex residential | A ○ Timber frame | A ○ Brick veneer |
| Storeys below ground: 00 | B ✓ 1935-1976 | B ○ School | B ○ Steel frame | B ✓ Concrete panels |
| Footprint (m²): 200 | C ○ 1977-1984 | C ○ Commercial/Office | C ✓ Concrete frame | C ○ Steel |
| | D ○ 1985-2000 | D ○ Industrial | D ✓ Concrete shear wall | D ○ Glass |
| | E ○ >2000 | E ○ Critical facility | E ○ Tilt-up concrete | E ○ Lightweight |
| | F ○ Unknown | F ○ Public assembly | F ○ Reinforced masonry | F ○ Other: |
| | | G ✓ Other: Hospital workshop | G ○ Unreinforced masonry | |
| | | | H ○ Other: | |

## EXTERNAL RISKS

7

| Potential Cause* | A Yes | B No |
|---|---|---|
| 1 Objects falling from adjacent buildings. Adjacent building ID or address: | ○ | ✓ |
| 2 Land instability above | ○ | ✓ |
| 3 Land instability below | ○ | ✓ |
| 4 Other | ○ | ✓ |

If required add sketch on separate page showing extent and nature of the external risk factors.

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## DAMAGE ASSESSMENT

**8**

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Overall Hazard*** | N/A | A | B | C | D |
| 1 Collapse or partial collapse | ○ | ○ | ✓ | ○ | ○ |
| 2 Building or storey leaning | ○ | ○ | ✓ | ○ | ○ |
| 3 Other: | ✓ | ○ | ○ | ○ | ○ |
| **Structural Hazards*** | N/A | A | B | C | D |
| 4 Foundations | ○ | ○ | ✓ | ○ | ○ |
| 5 **Roofs, floors** | ○ | ○ | ✓ | ○ | ○ |
| 6 Gravity systems (columns, beams, etc) | ○ | ○ | ✓ | ○ | ○ |
| 7 Lateral systems (walls, frames, braces) | ○ | ○ | ✓ | ○ | ○ |
| 8 Diaphragms, horizontal bracing | ○ | ○ | ✓ | ○ | ○ |
| 9 Precast connections | ✓ | ○ | ○ | ○ | ○ |
| 10 Other: | ✓ | ○ | ○ | ○ | ○ |

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Non-structural Hazards*** | N/A | A | B | C | D |
| 11 Parapets, ornamentation, chimneys | ✓ | ○ | ○ | ○ | ○ |
| 12 Cladding, glazing | ○ | ○ | ✓ | ○ | ○ |
| 13 **Ceilings, light fixtures** | ○ | ○ | ✓ | ○ | ○ |
| 14 Interior walls, partitions | ○ | ○ | ✓ | ○ | ○ |
| 15 Access/egress (elevators, stairs, exits) | ○ | ○ | ✓ | ○ | ○ |
| 16 **Significant fire saftey** concerns | ○ | ○ | ✓ | ○ | ○ |
| 17 Utilities (e.g. gas, electricity, waste water, plumbing) | ✓ | ○ | ○ | ○ | ○ |
| 18 Other: | ✓ | ○ | ○ | ○ | ○ |

Comments: Roof of workshop building is in a very poor state.

**9** Estimated Damage A ✓ None B ○ 0-10% C ○ 11-30% D ○ 31-60% E ○ 61-100%

## SUGGESTED FURTHER ACTIONS

**10**

| Recommended further Assessment* | Safety Cordon* | Barricades* | Urgency of suggested action* |
|---|---|---|---|
| A ✓ None | A ✓ None required | A ✓ None required | A ○ Standard |
| B ○ Level 2 Rapid Assessment (tick below if particular expertise is required) | B ○ Cordon required | B ○ Barricades already in place | B ○ Immediate action required |
| B1 ○ Structural Engineer | Describe extent (add diagram on separate sheet if required) | C ○ Barricades required | |
| B2 ○ Geotechnical Engineer | | Describe extent (add diagram on separate sheet if required) | |
| B3 ○ Other: | | | |
| C ○ Further evaluation to be arranged by building owner: | | | |

## SUMMARY

**11**

| Observed Damage | Level 2 Rapid Assessment Outcome* |
|---|---|
| **Light or no damage** | W ✓ **CAN BE USED** (From assessment no known dangers) |
| **Moderate damage** | Y1 ○ **RESTRICTED ACCESS TO PART(S) OF THE BUILDING ONLY** |
| | Y2 ○ **RESTRICTED ACCESS – SHORT TERM ENTRY ONLY with or without supervision** Access to be supervised A ○ Yes B ○ No |
| **Heavy damage** | R1 ○ **ENTRY PROHIBITED (At risk from external factors)** |
| | R2 ○ **ENTRY PROHIBITED (Severe damage to building)** |

**12**

| Survey Extent* | |
|---|---|
| Exterior | A ○ Partial |
| | B ✓ Complete |
| Interior | C ○ Not accessed |
| | D ✓ Partial |
| | E ○ Complete |

Assessor Signature* FDL

## NOTES

**13** Large number of old cracks throughout building. Flat concrete roof is leaking, likely leading to deterioration of reinforcing steel. Recommend addressing leaking roof

If required add a sketch on a separate sheet of paper showing building damage, access restrictions or cordoning areas. Identify the building on the sketch and staple the sheet to this assessment form.

**Sketch included on separate page?** ○ Yes ✓ No

23 November 2016

**Opus International Consultants Ltd**

**P** +64 3 769 9330

Greymouth Office
23 High Street
PO Box 365, Greymouth 7840
New Zealand

Craig Shaw
Maintenance Manager
West Coast District Health Board
P O Box 387
Greymouth

Ref: 6-WWESE.10

## Property inspected – Grey Hospital Buildings (various)

Dear Craig,

This report confirms the verbal advice provided to you on 23 November 2016 in relation to the rapid structural assessments Opus undertook of the Grey Hospital Buildings listed below (on Wednesday 23 November 2016) following the M7.8 earthquake which occurred on 14 November 2016:

- Boiler House Building,
- Acute and Community Mental Health Building,
- Laboratory Building,
- ED / Clinical Services Building,
- Morice Ward Building (Wards 1 and 2 North Building),
- Hannan Ward Building (Wards 3 and 4 Building),
- Kitchen Block Building,
- Child and Adolescent Mental Health Services (CAMHS).

The scope of our rapid structural assessments comprised of a brief visual inspection of the Buildings to ascertain the level of damage sustained to the primary structure and a brief external visual inspection of the neighbouring buildings and structures which we reasonably believe may impact the seismic performance of the Building.

Prior to carrying out these inspections we reviewed the original Opus Detailed Seismic Assessment Reports completed for these buildings (c2012-c2013) to confirm weaknesses identified in the assessments so that we could pay particular attention to these items in our inspection. We also reviewed previous photos of the Boiler House to assess whether there had been any increase in cracking at the junction between the Boiler House and Generator Buildings, and along the eastern wall of the Boiler House building.

The scope of our inspection is further detailed in the Earthquake Rapid Assessment Forms, which are attached to this letter.

**Inspection Summary**

In summary, our inspections noted the following observed damage:

- Negligible damage noted to buildings. Some cracking may have anecdotally worsened but generally no evidence of new damage to building.

Unless noted otherwise on the Earthquake Rapid Assessment Forms, we have not inspected any non-structural hazards.

Based on our inspections, it is our assessment that the Building's seismic performance has not been significantly affected. The Buildings listed may therefore be occupied on the same basis as prior to the Earthquake. However, if you become aware of any changes in seismic performance of the neighbouring buildings or structures, please contact us immediately as the change may impact this assessment. In addition, aftershocks may cause more damage that may change this assessment and warrant further inspection of the building and/or neighbouring buildings or structures.

Although it is our assessment that the seismic performance of the buildings listed has not been significantly affected, if you are aware that a Building was Earthquake Prone or is subject to strengthening requirements, we recommend that you review the strengthening actions to ensure that they are still fit for purpose.

We also recommend building maintenance staff carry out a full walk through of the entire hospital to identify any loose / damaged ceiling tiles so that these can be immediately repaired or replaced.

Do not hesitate to contact me if you require any further assistance.

Regards

Jason Davidson, Senior Structural Engineer, CPEng 229742

Encl.: Earthquake Rapid Assessment Forms

# EARTHQUAKE RAPID ASSESSMENT FORM

Complex Residential and all Non-Residential Buildings Level 2

## ASSESSMENT

*Fields with asterisks (*) are mandatory, others are optional.*

1 Assessor Name*: JASON DAVIDSON
Assessor ID*:
Authority*: NCDHB

2 Assessment Date*: 23 / 11 / 16 (Day / Month / Year)
Assessment Time*: 1000 (Hour / Minute, to nearest half hour) A ☑ AM B ○ PM

## BUILDING IDENTIFICATION

3 Building Name: BOILER HOUSE
Unit / Number*: / 
Street*:
City/Town*: GREYMOUTH
GPS (Degree with 5 decimals after comma) South: - , East: ,
Other ID or access:
Photo taken A ○ No B ☑ Yes Photo ID.

4 Contact Name: CRAIG SHAN
Type: A ○ Owner B ○ Tenant C ☑ Other MAINTENANCE MANAGER.
Phone (with area code): (027) 7687004

5 Existing Placard*: ☑ None ○ W ○ Y1 ○ Y2 ○ R1 ○ R2
Date* (Day / Month / Year):
Team ID*:

## BUILDING DESCRIPTION

6

| Dimensions | Constr. Age | Building Type | Structure Type | Cladding Type |
|---|---|---|---|---|
| Storeys above ground incl. ground floor: 01 | A ○ <1935 | A ○ Complex residential | A ○ Timber frame | A ☑ Brick veneer |
| Storeys below ground: 01 | B ☑ 1935-1976 | B ○ School | B ○ Steel frame | B ○ Concrete panels |
| Footprint (m²): 300 | C ○ 1977-1984 | C ○ Commercial/Office | C ☑ Concrete frame | C ○ Steel |
| | D ○ 1985-2000 | D ○ Industrial | D ○ Concrete shear wall | D ○ Glass |
| | E ○ >2000 | E ○ Critical facility | E ○ Tilt-up concrete | E ○ Lightweight |
| | F ○ Unknown | F ○ Public assembly | F ○ Reinforced masonry | F ○ Other: |
| | | G ☑ Other: Hospital/ Boiler House. | G ☑ Unreinforced masonry | |
| | | | H ○ Other: | |

## EXTERNAL RISKS

7

| Potential Cause* | A Yes | B No |
|---|---|---|
| 1 Objects falling from adjacent buildings. Adjacent building ID or address: | ○ | ☑ |
| 2 Land instability above | ○ | ☑ |
| 3 Land instability below | ○ | ☑ |
| 4 Other | ○ | ☑ |

If required add sketch on separate page showing extent and nature of the external risk factors.

VERSION 01 – APRIL 2014

## DAMAGE ASSESSMENT

**8**

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Overall Hazard*** | N/A | A | B | C | D |
| 1 Collapse or partial collapse | ○ | ○ | ✓ | ○ | ○ |
| 2 Building or storey leaning | ○ | ○ | ✓ | ○ | ○ |
| 3 Other: | ✓ | ○ | ○ | ○ | ○ |
| **Structural Hazards*** | N/A | A | B | C | D |
| 4 Foundations | ○ | ○ | ✓ | ○ | ○ |
| 5 **Roofs, floors** | ○ | ○ | ✓ | ○ | ○ |
| 6 Gravity systems (columns, beams, etc) | ○ | ○ | ✓ | ○ | ○ |
| 7 Lateral systems (walls, frames, braces) | ○ | ○ | ✓ | ○ | ○ |
| 8 Diaphragms, horizontal bracing | ○ | ○ | ✓ | ○ | ○ |
| 9 Precast connections | ○ | ○ | ✓ | ○ | ○ |
| 10 Other: | ✓ | ○ | ○ | ○ | ○ |

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Non-structural Hazards*** | N/A | A | B | C | D |
| 11 Parapets, ornamentation, chimneys | ○ | ○ | ✓ | ○ | ○ |
| 12 Cladding, glazing | ○ | ○ | ✓ | ○ | ○ |
| 13 **Ceilings, light fixtures** | ✓ | ○ | ○ | ○ | ○ |
| 14 Interior walls, partitions | ○ | ○ | ✓ | ○ | ○ |
| 15 Access/egress (elevators, stairs, exits) | ○ | ○ | ✓ | ○ | ○ |
| 16 **Significant fire saftey** concerns | ○ | ○ | ✓ | ○ | ○ |
| 17 Utilities (e.g. gas, electricity, waste water, plumbing) | ✓ | ○ | ○ | ○ | ○ |
| 18 Other: | ✓ | ○ | ○ | ○ | ○ |

Comments: Cracking in walls appears pre-existing

**9** Estimated Damage A ✓ None B ○ 0-10% C ○ 11-30% D ○ 31-60% E ○ 61-100%

## SUGGESTED FURTHER ACTIONS

**10**

| Recommended further Assessment* | Safety Cordon* | Barricades* | Urgency of suggested action* |
|---|---|---|---|
| A ✓ None | A ✓ None required | A ✓ None required | A ○ Standard |
| B ○ Level 2 Rapid Assessment (tick below if particular expertise is required) | B ○ Cordon required | B ○ Barricades already in place | B ○ Immediate action required |
| B1 ○ Structural Engineer | Describe extent (add diagram on separate sheet if required) | C ○ Barricades required | |
| B2 ○ Geotechnical Engineer | | Describe extent (add diagram on separate sheet if required) | |
| B3 ○ Other: | | | |
| C ○ Further evaluation to be arranged by building owner: | | | |

## SUMMARY

**11**

| Observed Damage | Level 2 Rapid Assessment Outcome* |
|---|---|
| **Light or no damage** | W ✓ **CAN BE USED** (From assessment no known dangers) |
| **Moderate damage** | Y1 ○ **RESTRICTED ACCESS TO PART(S) OF THE BUILDING ONLY** |
| | Y2 ○ **RESTRICTED ACCESS – SHORT TERM ENTRY ONLY with or without supervision** Access to be supervised A ○ Yes B ○ No |
| **Heavy damage** | R1 ○ **ENTRY PROHIBITED (At risk from external factors)** |
| | R2 ○ **ENTRY PROHIBITED (Severe damage to building)** |

**12**

| Survey Extent* | |
|---|---|
| Exterior | A ○ Partial |
| | B ✓ Complete |
| Interior | C ○ Not accessed |
| | D ✓ Partial |
| | E ○ Complete |

Assessor Signature* [signature]

## NOTES

**13** Crack in northern wall of Generator shed. Reviewed March 2012 photos and cracking in Generator shed and back wall of Boiler House appears the same.

If required add a sketch on a separate sheet of paper showing building damage, access restrictions or cordoning areas. Identify the building on the sketch and staple the sheet to this assessment form.

**Sketch included on separate page?** ○ Yes ✓ No

# EARTHQUAKE RAPID ASSESSMENT FORM

Complex Residential and all Non-Residential Buildings Level 2

## ASSESSMENT

*Fields with asterisks (*) are mandatory, others are optional.*

1 Assessor Name*: JASON DAVIDSON

Assessor ID*:

Authority*: NCDHB

2 Assessment Date* (Day / Month / Year): 23 / 11 / 16

Assessment Time* (Hour / Minute, to nearest half hour): 1030

A (✓) AM B ( ) PM

## BUILDING IDENTIFICATION

3 Building Name: ACUTE & COMMUNITY MENTAL HEALTH

Unit / Number*: / 

Street*:

City/Town*: GREYMOUTH

GPS (Degree with 5 decimals after comma) South: - , East: ,

Other ID or access:

Photo taken A ( ) No B (✓) Yes Photo ID.:

4 Contact Name: CRAIG SHAW

Type: A ( ) Owner B ( ) Tenant C (✓) Other: MAINTENANCE MANAGER

Phone (with area code): (027) 768 7004

5 Existing Placard*: (✓) None ( ) W ( ) Y1 ( ) Y2 ( ) R1 ( ) R2

Date* (Day / Month / Year):

Team ID*:

## BUILDING DESCRIPTION

6

| Dimensions | Constr. Age | Building Type | Structure Type | Cladding Type |
|---|---|---|---|---|
| Storeys above ground incl. ground floor: 02 + plant room | A ( ) <1935 | A ( ) Complex residential | A (✓) Timber frame | A (✓) Brick veneer |
| Storeys below ground: 01 | B ( ) 1935-1976 | B ( ) School | B ( ) Steel frame | B ( ) Concrete panels |
| Footprint (m²): 1240 | C (✓) 1977-1984 | C ( ) Commercial/Office | C (✓) Concrete frame | C ( ) Steel |
| | D ( ) 1985-2000 | D ( ) Industrial | D (✓) Concrete shear wall | D ( ) Glass |
| | E ( ) >2000 | E ( ) Critical facility | E ( ) Tilt-up concrete | E ( ) Lightweight |
| | F ( ) Unknown | F ( ) Public assembly | F ( ) Reinforced masonry | F ( ) Other: |
| | | G (✓) Other: Hospital, non-essential | G ( ) Unreinforced masonry | |
| | | | H ( ) Other: | |

## EXTERNAL RISKS

7

| Potential Cause* | A Yes | B No |
|---|---|---|
| 1 Objects falling from adjacent buildings. Adjacent building ID or address: | ( ) | (✓) |
| 2 Land instability above | ( ) | (✓) |
| 3 Land instability below | ( ) | (✓) |
| 4 Other | ( ) | (✓) |

If required add sketch on separate page showing extent and nature of the external risk factors.

VERSION 01 – APRIL 2014

## DAMAGE ASSESSMENT

**8**

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Overall Hazard*** | N/A | A | B | C | D |
| 1 Collapse or partial collapse | ○ | ○ | ✓ | ○ | ○ |
| 2 Building or storey leaning | ○ | ○ | ✓ | ○ | ○ |
| 3 Other: | ✓ | ○ | ○ | ○ | ○ |
| **Structural Hazards*** | N/A | A | B | C | D |
| 4 Foundations | ○ | ○ | ✓ | ○ | ○ |
| 5 **Roofs, floors** | ○ | ○ | ✓ | ○ | ○ |
| 6 Gravity systems (columns, beams, etc) | ○ | ○ | ✓ | ○ | ○ |
| 7 Lateral systems (walls, frames, braces) | ○ | ○ | ✓ | ○ | ○ |
| 8 Diaphragms, horizontal bracing | ○ | ○ | ✓ | ○ | ○ |
| 9 Precast connections | ✓ | ○ | ○ | ○ | ○ |
| 10 Other: | ✓ | ○ | ○ | ○ | ○ |

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Non-structural Hazards*** | N/A | A | B | C | D |
| 11 Parapets, ornamentation, chimneys | ✓ | ○ | ○ | ○ | ○ |
| 12 Cladding, glazing | ○ | ○ | ✓ | ○ | ○ |
| 13 **Ceilings, light fixtures** | ○ | ○ | ✓ | ○ | ○ |
| 14 Interior walls, partitions | ○ | ○ | ✓ | ○ | ○ |
| 15 Access/egress (elevators, stairs, exits) | ○ | ○ | ✓ | ○ | ○ |
| 16 **Significant fire saftey** concerns | ○ | ○ | ✓ | ○ | ○ |
| 17 Utilities (e.g. gas, electricity, waste water, plumbing) | ✓ | ○ | ○ | ○ | ○ |
| 18 Other: | ✓ | ○ | ○ | ○ | ○ |

Comments: Recommend walkover by WCDHB to check ceiling tiles.

**9** Estimated Damage A ✓ None B ○ 0-10% C ○ 11-30% D ○ 31-60% E ○ 61-100%

## SUGGESTED FURTHER ACTIONS

**10**

| Recommended further Assessment* | Safety Cordon* | Barricades* | Urgency of suggested action* |
|---|---|---|---|
| A ✓ None | A ✓ None required | A ✓ None required | A ○ Standard |
| B ○ Level 2 Rapid Assessment (tick below if particular expertise is required) | B ○ Cordon required | B ○ Barricades already in place | B ○ Immediate action required |
| B1 ○ Structural Engineer | Describe extent (add diagram on separate sheet if required) | C ○ Barricades required | |
| B2 ○ Geotechnical Engineer | | Describe extent (add diagram on separate sheet if required) | |
| B3 ○ Other: | | | |
| C ○ Further evaluation to be arranged by building owner: | | | |

## SUMMARY

**11**

| Observed Damage | Level 2 Rapid Assessment Outcome* |
|---|---|
| **Light or no damage** | W ✓ **CAN BE USED** (From assessment no known dangers) |
| **Moderate damage** | Y1 ○ **RESTRICTED ACCESS TO PART(S) OF THE BUILDING ONLY** |
| | Y2 ○ **RESTRICTED ACCESS – SHORT TERM ENTRY ONLY with or without supervision** Access to be supervised A ○ Yes B ○ No |
| **Heavy damage** | R1 ○ **ENTRY PROHIBITED (At risk from external factors)** |
| | R2 ○ **ENTRY PROHIBITED (Severe damage to building)** |

**12**

| Survey Extent* | |
|---|---|
| Exterior | A ✓ Partial |
| | B ○ Complete |
| Interior | C ○ Not accessed |
| | D ✓ Partial |
| | E ○ Complete |

Assessor Signature* [signature]

## NOTES

**13** Inspected timber framed walls @ first floor level (critical elements – refer DSA). No evidence of movement / damage.

If required add a sketch on a separate sheet of paper showing building damage, access restrictions or cordoning areas. Identify the building on the sketch and staple the sheet to this assessment form.

**Sketch included on separate page?** ○ Yes ✓ No

# EARTHQUAKE RAPID ASSESSMENT FORM

Complex Residential and all Non-Residential Buildings Level 2

## ASSESSMENT

*Fields with asterisks (*) are mandatory, others are optional.*

1 Assessor Name*: JASON DAVIDSON

Assessor ID*:

Authority*: NCDHB

2 Assessment Date* (Day Month Year): 23 11 16

Assessment Time* (Hour Minute, to nearest half hour): 11 00 A ☑ AM B ☐ PM

## BUILDING IDENTIFICATION

3 Building Name: LABORATORY

Unit / Number*: / 

Street*:

City/Town*: GREYMOUTH

GPS (Degree with 5 decimals after comma) South: - , East: ,

Other ID or access:

Photo taken A ☐ No B ☑ Yes Photo ID.:

4 Contact Name: CRAIG SHAW

Type: A ☐ Owner B ☐ Tenant C ☑ Other: MAINTENANCE MANAGER

Phone (with area code): (0 27 ) 768 7004

5 Existing Placard*: ☑ None ☐ W ☐ Y1 ☐ Y2 ☐ R1 ☐ R2

Date* (Day Month Year):

Team ID*:

## BUILDING DESCRIPTION

6

| Dimensions | Constr. Age | Building Type | Structure Type | Cladding Type |
|---|---|---|---|---|
| Storeys above ground incl. ground floor: | A ☐ <1935 | A ☐ Complex residential | A ☐ Timber frame | A ☑ Brick veneer |
| Storeys below ground: | B ☑ 1935-1976 | B ☐ School | B ☐ Steel frame | B ☐ Concrete panels |
| Footprint (m²): 830 | C ☐ 1977-1984 | C ☐ Commercial/Office | C ☑ Concrete frame | C ☐ Steel |
| | D ☐ 1985-2000 | D ☐ Industrial | D ☑ Concrete shear wall | D ☐ Glass |
| | E ☐ >2000 | E ☐ Critical facility | E ☐ Tilt-up concrete | E ☐ Lightweight |
| | F ☐ Unknown | F ☐ Public assembly | F ☐ Reinforced masonry | F ☐ Other: |
| | | G ☑ Other: Hospital – non-essential | G ☐ Unreinforced masonry | |
| | | | H ☐ Other: | |

## EXTERNAL RISKS

7

| Potential Cause* | A Yes | B No |
|---|---|---|
| 1 Objects falling from adjacent buildings. Adjacent building ID or address: | ☐ | ☑ |
| 2 Land instability above | ☐ | ☑ |
| 3 Land instability below | ☐ | ☑ |
| 4 Other | ☐ | ☑ |

If required add sketch on separate page showing extent and nature of the external risk factors.

VERSION 01 – APRIL 2014

## DAMAGE ASSESSMENT

**8**

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Overall Hazard*** | N/A | A | B | C | D |
| 1 Collapse or partial collapse | ○ | ○ | ✓ | ○ | ○ |
| 2 Building or storey leaning | ○ | ○ | ✓ | ○ | ○ |
| 3 Other: | ✓ | ○ | ○ | ○ | ○ |
| **Structural Hazards*** | N/A | A | B | C | D |
| 4 Foundations | ○ | ○ | ✓ | ○ | ○ |
| 5 **Roofs, floors** | ○ | ○ | ✓ | ○ | ○ |
| 6 Gravity systems (columns, beams, etc) | ○ | ○ | ✓ | ○ | ○ |
| 7 Lateral systems (walls, frames, braces) | ○ | ○ | ✓ | ○ | ○ |
| 8 Diaphragms, horizontal bracing | ○ | ○ | ✓ | ○ | ○ |
| 9 Precast connections | ✓ | ○ | ○ | ○ | ○ |
| 10 Other: | ✓ | ○ | ○ | ○ | ○ |

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Non-structural Hazards*** | N/A | A | B | C | D |
| 11 Parapets, ornamentation, chimneys | ✓ | ○ | ○ | ○ | ○ |
| 12 Cladding, glazing | ○ | ○ | ✓ | ○ | ○ |
| 13 **Ceilings, light fixtures** | ○ | ○ | ✓ | ○ | ○ |
| 14 Interior walls, partitions | ○ | ○ | ✓ | ○ | ○ |
| 15 Access/egress (elevators, stairs, exits) | ○ | ○ | ✓ | ○ | ○ |
| 16 **Significant fire saftey** concerns | ○ | ○ | ✓ | ○ | ○ |
| 17 Utilities (e.g. gas, electricity, waste water, plumbing) | ✓ | ○ | ○ | ○ | ○ |
| 18 Other: | ✓ | ○ | ○ | ○ | ○ |

Comments: checked trusses + connections in roof. No signs of damage.

**9** Estimated Damage A ✓ None B ○ 0-10% C ○ 11-30% D ○ 31-60% E ○ 61-100%

## SUGGESTED FURTHER ACTIONS

**10**

| Recommended further Assessment* | Safety Cordon* | Barricades* | Urgency of suggested action* |
|---|---|---|---|
| A ✓ None | A ✓ None required | A ✓ None required | A ○ Standard |
| B ○ Level 2 Rapid Assessment (tick below if particular expertise is required) | B ○ Cordon required | B ○ Barricades already in place | B ○ Immediate action required |
| B1 ○ Structural Engineer | Describe extent (add diagram on separate sheet if required) | C ○ Barricades required | |
| B2 ○ Geotechnical Engineer | | Describe extent (add diagram on separate sheet if required) | |
| B3 ○ Other: | | | |
| C ○ Further evaluation to be arranged by building owner: | | | |

## SUMMARY

**11**

| Observed Damage | Level 2 Rapid Assessment Outcome* |
|---|---|
| **Light or no damage** | W ✓ **CAN BE USED** (From assessment no known dangers) |
| **Moderate damage** | Y1 ○ **RESTRICTED ACCESS TO PART(S) OF THE BUILDING ONLY** |
| | Y2 ○ **RESTRICTED ACCESS – SHORT TERM ENTRY ONLY with or without supervision** Access to be supervised A ○ Yes B ○ No |
| **Heavy damage** | R1 ○ **ENTRY PROHIBITED (At risk from external factors)** |
| | R2 ○ **ENTRY PROHIBITED (Severe damage to building)** |

**12**

| Survey Extent* | |
|---|---|
| Exterior | A ✓ Partial |
| | B ○ Complete |
| Interior | C ○ Not accessed |
| | D ✓ Partial |
| | E ○ Complete |

Assessor Signature* [signature]

## NOTES

**13** Inspected short columns on southern wall and roof trusses + connection near mid span of ext. wall. No evidence of damage / movement.

If required add a sketch on a separate sheet of paper showing building damage, access restrictions or cordoning areas. Identify the building on the sketch and staple the sheet to this assessment form.

**Sketch included on separate page?** ○ Yes ✓ No

# EARTHQUAKE RAPID ASSESSMENT FORM

Complex Residential and all Non-Residential Buildings Level 2

## ASSESSMENT

*Fields with asterisks (*) are mandatory, others are optional.*

1 Assessor Name*: JASON DAVIDSON

Assessor ID*:

Authority*: NCOHB

2 Assessment Date* (Day Month Year): 23 / 1 / 16

Assessment Time* (Hour Minute, to nearest half hour): 1115 A (✓) AM B ( ) PM

## BUILDING IDENTIFICATION

3 Building Name: EO / CLINICAL SERVICES BUILDING.

Unit / Number*: /

Street*:

City/Town*: GREYMOUTH

GPS (Degree with 5 decimals after comma) South: - , East: ,

Other ID or access:

Photo taken A ( ) No B (✓) Yes Photo ID.

4 Contact Name: CRAIG SHAN

Type: A ( ) Owner B ( ) Tenant C (✓) Other MAINTENANCE MANAGER

Phone (with area code): (027) 7685004

5 Existing Placard*: (✓) None ( ) W ( ) Y1 ( ) Y2 ( ) R1 ( ) R2

Date* (Day Month Year):

Team ID*:

## BUILDING DESCRIPTION

6

| Dimensions | Constr. Age | Building Type | Structure Type | Cladding Type |
|---|---|---|---|---|
| Storeys above ground incl. ground floor: 01 + plant room | A ( ) <1935 | A ( ) Complex residential | A ( ) Timber frame | A (✓) Brick veneer |
| Storeys below ground: 00 | B (✓) 1935-1976 | B ( ) School | B (✓) Steel frame | B ( ) Concrete panels |
| Footprint (m²): 1500 | C ( ) 1977-1984 | C ( ) Commercial/Office | C (✓) Concrete frame | C ( ) Steel |
| | D ( ) 1985-2000 | D ( ) Industrial | D ( ) Concrete shear wall | D (✓) Glass |
| | E ( ) >2000 | E (✓) Critical facility | E ( ) Tilt-up concrete | E ( ) Lightweight |
| | F ( ) Unknown | F ( ) Public assembly | F ( ) Reinforced masonry | F ( ) Other: |
| | | G ( ) Other: | G ( ) Unreinforced masonry | |
| | | | H ( ) Other: | |

## EXTERNAL RISKS

7

| Potential Cause* | A Yes | B No |
|---|---|---|
| 1 Objects falling from adjacent buildings. Adjacent building ID or address: | ( ) | (✓) |
| 2 Land instability above | ( ) | (✓) |
| 3 Land instability below | ( ) | (✓) |
| 4 Other | ( ) | (✓) |

If required add sketch on separate page showing extent and nature of the external risk factors.

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## DAMAGE ASSESSMENT

**8**

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Overall Hazard*** | N/A | A | B | C | D |
| 1 Collapse or partial collapse | ○ | ○ | ✓ | ○ | ○ |
| 2 Building or storey leaning | ○ | ○ | ✓ | ○ | ○ |
| 3 Other: | ✓ | ○ | ○ | ○ | ○ |
| **Structural Hazards*** | N/A | A | B | C | D |
| 4 Foundations | ○ | ○ | ✓ | ○ | ○ |
| 5 **Roofs, floors** | ○ | ○ | ✓ | ○ | ○ |
| 6 Gravity systems (columns, beams, etc) | ○ | ○ | ✓ | ○ | ○ |
| 7 Lateral systems (walls, frames, braces) | ○ | ○ | ✓ | ○ | ○ |
| 8 Diaphragms, horizontal bracing | ○ | ○ | ✓ | ○ | ○ |
| 9 Precast connections | ✓ | ○ | ○ | ○ | ○ |
| 10 Other: | ✓ | ○ | ○ | ○ | ○ |

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Non-structural Hazards*** | N/A | A | B | C | D |
| 11 Parapets, ornamentation, chimneys | ✓ | ○ | ○ | ○ | ○ |
| 12 Cladding, glazing | ○ | ○ | ✓ | ○ | ○ |
| 13 **Ceilings, light fixtures** | ○ | ○ | ✓ | ○ | ○ |
| 14 Interior walls, partitions | ○ | ○ | ✓ | ○ | ○ |
| 15 Access/egress (elevators, stairs, exits) | ○ | ○ | ✓ | ○ | ○ |
| 16 **Significant fire saftey** concerns | ○ | ○ | ✓ | ○ | ○ |
| 17 Utilities (e.g. gas, electricity, waste water, plumbing) | ✓ | ○ | ○ | ○ | ○ |
| 18 Other: | ✓ | ○ | ○ | ○ | ○ |

Comments:

**9** Estimated Damage A ✓ None B ○ 0-10% C ○ 11-30% D ○ 31-60% E ○ 61-100%

## SUGGESTED FURTHER ACTIONS

**10**

| Recommended further Assessment* | Safety Cordon* | Barricades* | Urgency of suggested action* |
|---|---|---|---|
| A ✓ None | A ✓ None required | A ✓ None required | A ○ Standard |
| B ○ Level 2 Rapid Assessment (tick below if particular expertise is required) | B ○ Cordon required | B ○ Barricades already in place | B ○ Immediate action required |
| B1 ○ Structural Engineer | Describe extent (add diagram on separate sheet if required) | C ○ Barricades required | |
| B2 ○ Geotechnical Engineer | | Describe extent (add diagram on separate sheet if required) | |
| B3 ○ Other: | | | |
| C ○ Further evaluation to be arranged by building owner: | | | |

## SUMMARY

**11**

| Observed Damage | Level 2 Rapid Assessment Outcome* |
|---|---|
| **Light or no damage** | W ✓ **CAN BE USED** (From assessment no known dangers) |
| **Moderate damage** | Y1 ○ **RESTRICTED ACCESS TO PART(S) OF THE BUILDING ONLY** |
| | Y2 ○ **RESTRICTED ACCESS – SHORT TERM ENTRY ONLY with or without supervision** Access to be supervised A ○ Yes B ○ No |
| **Heavy damage** | R1 ○ **ENTRY PROHIBITED (At risk from external factors)** |
| | R2 ○ **ENTRY PROHIBITED (Severe damage to building)** |

**12**

| Survey Extent* | |
|---|---|
| Exterior | A ✓ Partial |
| | B ○ Complete |
| Interior | C ○ Not accessed |
| | D ✓ Partial |
| | E ○ Complete |

Assessor Signature* JDL

## NOTES

**13** Inspected external columns. No evidence of cracking.

If required add a sketch on a separate sheet of paper showing building damage, access restrictions or cordoning areas. Identify the building on the sketch and staple the sheet to this assessment form.

**Sketch included on separate page?** ○ Yes ✓ No

# EARTHQUAKE RAPID ASSESSMENT FORM

Complex Residential and all Non-Residential Buildings Level 2

## ASSESSMENT

*Fields with asterisks (*) are mandatory, others are optional.*

1 Assessor Name*: JASON DAVIDSON

Assessor ID*:

Authority*: WCOMB

2 Assessment Date*: 23 / 1 / 16 (Day / Month / Year)

Assessment Time*: 11 30 (Hour / Minute, to nearest half hour) A ☑ AM B ○ PM

## BUILDING IDENTIFICATION

3 Building Name: MOLICE WARD (NARROS 1&2 NORTH)

Unit / Number*: / 

Street*:

City/Town*: GREYMOUTH

GPS (Degree with 5 decimals after comma) South -, East ,

Other ID or access:

Photo taken A ○ No B ☑ Yes Photo ID.

4 Contact Name: CRAIG SHAN

Type: A ○ Owner B ○ Tenant C ☑ Other MAINTENANCE MANAGER

Phone (with area code): (027) 765 7004

5 Existing Placard*: ☑ None ○ W ○ Y1 ○ Y2 ○ R1 ○ R2

Date* (Day / Month / Year):

Team ID*:

## BUILDING DESCRIPTION

6

| Dimensions | Constr. Age | Building Type | Structure Type | Cladding Type |
|---|---|---|---|---|
| Storeys above ground incl. ground floor: 03 | A ○ <1935 | A ○ Complex residential | A ○ Timber frame | A ☑ Brick veneer |
| Storeys below ground: 01 | B ☑ 1935-1976 | B ○ School | B ○ Steel frame | B ☑ Concrete panels |
| Footprint (m²): 530 | C ○ 1977-1984 | C ○ Commercial/Office | C ☑ Concrete frame | C ○ Steel |
| | D ○ 1985-2000 | D ○ Industrial | D ☑ Concrete shear wall | D ☑ Glass |
| | E ○ >2000 | E ○ Critical facility | E ○ Tilt-up concrete | E ○ Lightweight |
| | F ○ Unknown | F ○ Public assembly | F ○ Reinforced masonry | F ○ Other: |
| | | G ☑ Other: Hospital - Non essential | G ○ Unreinforced masonry | |
| | | | H ○ Other: | |

## EXTERNAL RISKS

7

| Potential Cause* | A Yes | B No |
|---|---|---|
| 1 Objects falling from adjacent buildings. Adjacent building ID or address: | ○ | ☑ |
| 2 Land instability above | ○ | ☑ |
| 3 Land instability below | ○ | ☑ |
| 4 Other | ○ | ☑ |

If required add sketch on separate page showing extent and nature of the external risk factors.

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## DAMAGE ASSESSMENT

**8**

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Overall Hazard*** | N/A | A | B | C | D |
| 1 Collapse or partial collapse | ○ | ○ | ✓ | ○ | ○ |
| 2 Building or storey leaning | ○ | ○ | ✓ | ○ | ○ |
| 3 Other: | ✓ | ○ | ○ | ○ | ○ |
| **Structural Hazards*** | N/A | A | B | C | D |
| 4 Foundations | ○ | ○ | ✓ | ○ | ○ |
| 5 **Roofs, floors** | ○ | ○ | ✓ | ○ | ○ |
| 6 Gravity systems (columns, beams, etc) | ○ | ○ | ✓ | ○ | ○ |
| 7 Lateral systems (walls, frames, braces) | ○ | ○ | ✓ | ○ | ○ |
| 8 Diaphragms, horizontal bracing | ○ | ○ | ✓ | ○ | ○ |
| 9 Precast connections | ✓ | ○ | ○ | ○ | ○ |
| 10 Other: | ✓ | ○ | ○ | ○ | ○ |

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Non-structural Hazards*** | N/A | A | B | C | D |
| 11 Parapets, ornamentation, chimneys | ✓ | ○ | ○ | ○ | ○ |
| 12 Cladding, glazing | ○ | ○ | ✓ | ○ | ○ |
| 13 **Ceilings, light fixtures** | ✓ | ○ | ○ | ○ | ○ |
| 14 Interior walls, partitions | ✓ | ○ | ○ | ○ | ○ |
| 15 Access/egress (elevators, stairs, exits) | ○ | ○ | ✓ | ○ | ○ |
| 16 **Significant fire saftey** concerns | ○ | ○ | ✓ | ○ | ○ |
| 17 Utilities (e.g. gas, electricity, waste water, plumbing) | ✓ | ○ | ○ | ○ | ○ |
| 18 Other: | ✓ | ○ | ○ | ○ | ○ |

Comments: No evidence of movement @ seismic separation between buildings

**9** Estimated Damage A ✓ None B ○ 0-10% C ○ 11-30% D ○ 31-60% E ○ 61-100%

## SUGGESTED FURTHER ACTIONS

**10**

| Recommended further Assessment* | Safety Cordon* | Barricades* | Urgency of suggested action* |
|---|---|---|---|
| A ✓ None | A ✓ None required | A ✓ None required | A ○ Standard |
| B ○ Level 2 Rapid Assessment (tick below if particular expertise is required) | B ○ Cordon required | B ○ Barricades already in place | B ○ Immediate action required |
| B1 ○ Structural Engineer | Describe extent (add diagram on separate sheet if required) | C ○ Barricades required | |
| B2 ○ Geotechnical Engineer | | Describe extent (add diagram on separate sheet if required) | |
| B3 ○ Other: | | | |
| C ○ Further evaluation to be arranged by building owner: | | | |

## SUMMARY

**11**

| Observed Damage | Level 2 Rapid Assessment Outcome* |
|---|---|
| **Light or no damage** | W ✓ **CAN BE USED** (From assessment no known dangers) |
| **Moderate damage** | Y1 ○ **RESTRICTED ACCESS TO PART(S) OF THE BUILDING ONLY** |
| | Y2 ○ **RESTRICTED ACCESS – SHORT TERM ENTRY ONLY with or without supervision** Access to be supervised A ○ Yes B ○ No |
| **Heavy damage** | R1 ○ **ENTRY PROHIBITED (At risk from external factors)** |
| | R2 ○ **ENTRY PROHIBITED (Severe damage to building)** |

**12**

| Survey Extent* | |
|---|---|
| Exterior | A ✓ Partial |
| | B ○ Complete |
| Interior | C ○ Not accessed |
| | D ✓ Partial |
| | E ○ Complete |

Assessor Signature* [signature]

## NOTES

**13** Building now vacant.

If required add a sketch on a separate sheet of paper showing building damage, access restrictions or cordoning areas. Identify the building on the sketch and staple the sheet to this assessment form.

**Sketch included on separate page?** ○ Yes ○ No

# EARTHQUAKE RAPID ASSESSMENT FORM

Complex Residential and all Non-Residential Buildings Level 2

## ASSESSMENT

*Fields with asterisks (*) are mandatory, others are optional.*

1 Assessor Name*: JASON DAVIDSON

Assessor ID*:

Authority*: WCOHB

2 Assessment Date* (Day Month Year): 23 11 16

Assessment Time* (Hour Minute, to nearest half hour): 11 40 — A (✓) AM B ( ) PM

## BUILDING IDENTIFICATION

3 Building Name: HANNAN WARD (NAROS 3 24)

Unit / Number*: / 

Street*:

City/Town*: GREYMOUTH

GPS (Degree with 5 decimals after comma) South: − , East: ,

Other ID or access:

Photo taken A ( ) No B ( ) Yes Photo ID.

4 Contact Name: CRAIG SHAW

Type: A ( ) Owner B ( ) Tenant C (✓) Other: MAINTENANCE MANAGER

Phone (with area code): (0 27) 768 7004

5 Existing Placard*: (✓) None ( ) W ( ) Y1 ( ) Y2 ( ) R1 ( ) R2

Date* (Day Month Year):

Team ID*:

## BUILDING DESCRIPTION

6

| Dimensions | Constr. Age | Building Type | Structure Type | Cladding Type |
|---|---|---|---|---|
| Storeys above ground incl. ground floor: 02 | A ( ) <1935 | A ( ) Complex residential | A ( ) Timber frame | A (✓) Brick veneer |
| Storeys below ground: 01 | B (✓) 1935-1976 | B ( ) School | B ( ) Steel frame | B ( ) Concrete panels |
| Footprint (m²): 1200 | C ( ) 1977-1984 | C ( ) Commercial/Office | C (✓) Concrete frame | C ( ) Steel |
| | D ( ) 1985-2000 | D ( ) Industrial | D (✓) Concrete shear wall | D ( ) Glass |
| | E ( ) >2000 | E ( ) Critical facility | E ( ) Tilt-up concrete | E ( ) Lightweight |
| | F ( ) Unknown | F ( ) Public assembly | F ( ) Reinforced masonry | F ( ) Other: |
| | | G (✓) Other: hospital, non-essential | G ( ) Unreinforced masonry | |
| | | | H ( ) Other: | |

## EXTERNAL RISKS

7

| Potential Cause* | A Yes | B No |
|---|---|---|
| 1 Objects falling from adjacent buildings. Adjacent building ID or address: | ( ) | (✓) |
| 2 Land instability above | ( ) | (✓) |
| 3 Land instability below | ( ) | (✓) |
| 4 Other | ( ) | (✓) |

If required add sketch on separate page showing extent and nature of the external risk factors.

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## DAMAGE ASSESSMENT

**8**

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Overall Hazard*** | N/A | A | B | C | D |
| 1 Collapse or partial collapse | ○ | ○ | ✓ | ○ | ○ |
| 2 Building or storey leaning | ○ | ○ | ✓ | ○ | ○ |
| 3 Other: | ✓ | ○ | ○ | ○ | ○ |
| **Structural Hazards*** | N/A | A | B | C | D |
| 4 Foundations | ○ | ○ | ✓ | ○ | ○ |
| 5 **Roofs, floors** | ○ | ○ | ✓ | ○ | ○ |
| 6 Gravity systems (columns, beams, etc) | ○ | ○ | ✓ | ○ | ○ |
| 7 Lateral systems (walls, frames, braces) | ○ | ○ | ✓ | ○ | ○ |
| 8 Diaphragms, horizontal bracing | ○ | ○ | ✓ | ○ | ○ |
| 9 Precast connections | ✓ | ○ | ○ | ○ | ○ |
| 10 Other: | ✓ | ○ | ○ | ○ | ○ |

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Non-structural Hazards*** | N/A | A | B | C | D |
| 11 Parapets, ornamentation, chimneys | ✓ | ○ | ○ | ○ | ○ |
| 12 Cladding, glazing | ○ | ○ | ✓ | ○ | ○ |
| 13 **Ceilings, light fixtures** | ○ | ○ | ✓ | ○ | ○ |
| 14 Interior walls, partitions | ○ | ○ | ✓ | ○ | ○ |
| 15 Access/egress (elevators, stairs, exits) | ○ | ○ | ✓ | ○ | ○ |
| 16 **Significant fire saftey** concerns | ○ | ○ | ✓ | ○ | ○ |
| 17 Utilities (e.g. gas, electricity, waste water, plumbing) | ✓ | ○ | ○ | ○ | ○ |
| 18 Other: | ✓ | ○ | ○ | ○ | ○ |

Comments:

**9** Estimated Damage A ✓ None B ○ 0-10% C ○ 11-30% D ○ 31-60% E ○ 61-100%

## SUGGESTED FURTHER ACTIONS

**10**

| Recommended further Assessment* | Safety Cordon* | Barricades* | Urgency of suggested action* |
|---|---|---|---|
| A ✓ None | A ✓ None required | A ✓ None required | A ○ Standard |
| B ○ Level 2 Rapid Assessment (tick below if particular expertise is required) | B ○ Cordon required | B ○ Barricades already in place | B ○ Immediate action required |
| B1 ○ Structural Engineer | Describe extent (add diagram on separate sheet if required) | C ○ Barricades required | |
| B2 ○ Geotechnical Engineer | | Describe extent (add diagram on separate sheet if required) | |
| B3 ○ Other: | | | |
| C ○ Further evaluation to be arranged by building owner: | | | |

## SUMMARY

**11**

| Observed Damage | Level 2 Rapid Assessment Outcome* |
|---|---|
| **Light or no damage** | W ✓ **CAN BE USED** (From assessment no known dangers) |
| **Moderate damage** | Y1 ○ **RESTRICTED ACCESS TO PART(S) OF THE BUILDING ONLY** |
| | Y2 ○ **RESTRICTED ACCESS – SHORT TERM ENTRY ONLY with or without supervision** Access to be supervised A ○ Yes B ○ No |
| **Heavy damage** | R1 ○ **ENTRY PROHIBITED (At risk from external factors)** |
| | R2 ○ **ENTRY PROHIBITED (Severe damage to building)** |

**12**

| Survey Extent* | |
|---|---|
| Exterior | A ✓ Partial |
| | B ○ Complete |
| Interior | C ○ Not accessed |
| | D ✓ Partial |
| | E ○ Complete |

Assessor Signature*

## NOTES

**13** Fine cracking in strengthened walls @ LG Level. Appears shrinkage related.

If required add a sketch on a separate sheet of paper showing building damage, access restrictions or cordoning areas. Identify the building on the sketch and staple the sheet to this assessment form.

**Sketch included on separate page?** ○ Yes ○ No

# EARTHQUAKE RAPID ASSESSMENT FORM

Complex Residential and all Non-Residential Buildings Level 2

## ASSESSMENT

*Fields with asterisks (*) are mandatory, others are optional.*

1 Assessor Name*: JASON DAVIDSON

Assessor ID*:

Authority*: NCDHB

2 Assessment Date*: 23 / 11 / 16 (Day / Month / Year)

Assessment Time*: 1200 (Hour Minute, to nearest half hour) A ☑ AM B ☐ PM

## BUILDING IDENTIFICATION

3 Building Name: KITCHEN BLOCK

Unit / Number*: / 

Street*:

City/Town*: GREYMOUTH

GPS (Degree with 5 decimals after comma) South -, East ,

Other ID or access:

Photo taken A ☐ No B ☑ Yes Photo ID.

4 Contact Name: CRAIG SHAW

Type: A ☐ Owner B ☐ Tenant C ☑ Other MAINTENANCE MANAGER

Phone (with area code): (027) 7687004

5 Existing Placard*: ☑ None ☐ W ☐ Y1 ☐ Y2 ☐ R1 ☐ R2

Date* (Day Month Year):

Team ID*:

## BUILDING DESCRIPTION

6

| Dimensions | Constr. Age | Building Type | Structure Type | Cladding Type |
|---|---|---|---|---|
| Storeys above ground incl. ground floor: 01 | A ☐ <1935 | A ☐ Complex residential | A ☐ Timber frame | A ☑ Brick veneer |
| Storeys below ground: 01 plant room | B ☑ 1935-1976 | B ☐ School | B ☐ Steel frame | B ☑ Concrete panels |
| Footprint (m²): 150 | C ☐ 1977-1984 | C ☐ Commercial/Office | C ☐ Concrete frame | C ☐ Steel |
| | D ☐ 1985-2000 | D ☐ Industrial | D ☑ Concrete shear wall | D ☐ Glass |
| | E ☐ >2000 | E ☑ Critical facility | E ☐ Tilt-up concrete | E ☐ Lightweight |
| | F ☐ Unknown | F ☐ Public assembly | F ☐ Reinforced masonry | F ☐ Other: |
| | | G ☐ Other: Kitchen | G ☑ Unreinforced masonry | |
| | | | H ☐ Other: | |

## EXTERNAL RISKS

7

| Potential Cause* | A Yes | B No |
|---|---|---|
| 1 Objects falling from adjacent buildings. Adjacent building ID or address: | ☐ | ☑ |
| 2 Land instability above | ☐ | ☑ |
| 3 Land instability below | ☐ | ☑ |
| 4 Other | ☐ | ☑ |

If required add sketch on separate page showing extent and nature of the external risk factors.

VERSION 01 – APRIL 2014

## DAMAGE ASSESSMENT

**8**

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Overall Hazard*** | N/A | A | B | C | D |
| 1 Collapse or partial collapse | ○ | ○ | ✓ | ○ | ○ |
| 2 Building or storey leaning | ○ | ○ | ✓ | ○ | ○ |
| 3 Other: | ✓ | ○ | ○ | ○ | ○ |
| **Structural Hazards*** | N/A | A | B | C | D |
| 4 Foundations | ○ | ○ | ✓ | ○ | ○ |
| 5 Roofs, floors | ○ | ○ | ✓ | ○ | ○ |
| 6 Gravity systems (columns, beams, etc) | ○ | ○ | ✓ | ○ | ○ |
| 7 Lateral systems (walls, frames, braces) | ○ | ○ | ✓ | ○ | ○ |
| 8 Diaphragms, horizontal bracing | ○ | ○ | ✓ | ○ | ○ |
| 9 Precast connections | ✓ | ○ | ○ | ○ | ○ |
| 10 Other: | ✓ | ○ | ○ | ○ | ○ |

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Non-structural Hazards*** | N/A | A | B | C | D |
| 11 Parapets, ornamentation, chimneys | ✓ | ○ | ○ | ○ | ○ |
| 12 Cladding, glazing | ○ | ○ | ✓ | ○ | ○ |
| 13 Ceilings, light fixtures | ○ | ○ | ✓ | ○ | ○ |
| 14 Interior walls, partitions | ○ | ○ | ✓ | ○ | ○ |
| 15 Access/egress (elevators, stairs, exits) | ○ | ○ | ✓ | ○ | ○ |
| 16 Significant fire saftey concerns | ○ | ○ | ✓ | ○ | ○ |
| 17 Utilities (e.g. gas, electricity, waste water, plumbing) | ✓ | ○ | ○ | ○ | ○ |
| 18 Other: | ✓ | ○ | ○ | ○ | ○ |

Comments: Some pre existing cracking around doors to corridor. Small crack opposite external doorway

**9** Estimated Damage A ○ None B ✓ 0-10% C ○ 11-30% D ○ 31-60% E ○ 61-100%

## SUGGESTED FURTHER ACTIONS

**10**

| Recommended further Assessment* | Safety Cordon* | Barricades* | Urgency of suggested action* |
|---|---|---|---|
| A ✓ None<br>B ○ Level 2 Rapid Assessment (tick below if particular expertise is required)<br>B1 ○ Structural Engineer<br>B2 ○ Geotechnical Engineer<br>B3 ○ Other:<br>C ○ Further evaluation to be arranged by building owner: | A ✓ None required<br>B ○ Cordon required<br>Describe extent (add diagram on separate sheet if required) | A ✓ None required<br>B ○ Barricades already in place<br>C ○ Barricades required<br>Describe extent (add diagram on separate sheet if required) | A ○ Standard<br>B ○ Immediate action required |

## SUMMARY

**11**

| Observed Damage | Level 2 Rapid Assessment Outcome* |
|---|---|
| **Light or no damage** | W ✓ **CAN BE USED** (From assessment no known dangers) |
| **Moderate damage** | Y1 ○ **RESTRICTED ACCESS TO PART(S) OF THE BUILDING ONLY** |
| | Y2 ○ **RESTRICTED ACCESS – SHORT TERM ENTRY ONLY with or without supervision**<br>Access to be supervised A ○ Yes B ○ No |
| **Heavy damage** | R1 ○ **ENTRY PROHIBITED (At risk from external factors)** |
| | R2 ○ **ENTRY PROHIBITED (Severe damage to building)** |

**12**

| Survey Extent* | | |
|---|---|---|
| Exterior | A ✓ | Partial |
| | B ○ | Complete |
| Interior | C ○ | Not accessed |
| | D ✓ | Partial |
| | E ○ | Complete |

Assessor Signature* [signature]

## NOTES

**13**

If required add a sketch on a separate sheet of paper showing building damage, access restrictions or cordoning areas. Identify the building on the sketch and staple the sheet to this assessment form.

**Sketch included on separate page?** ○ Yes ○ No

# EARTHQUAKE RAPID ASSESSMENT FORM

Complex Residential and all Non-Residential Buildings Level 2

## ASSESSMENT

*Fields with asterisks (*) are mandatory, others are optional.*

1 Assessor Name*: JASON DAVIDSON

Assessor ID*:

Authority*: NCOHB

2 Assessment Date*: 23 / 11 / 16 (Day / Month / Year)

Assessment Time*: 12 25 (Hour / Minute *(to nearest half hour)*) A ☑ AM B ☐ PM

## BUILDING IDENTIFICATION

3 Building Name: CHILD & ADOLESCENT MENTAL HEALTH SERVICES (CAMHS)

Unit / Number*: 107 /

Street*: COWPER STREET

City/Town*: GREYMOUTH

GPS (Degree with 5 decimals after comma) South -, East ,

Other ID or access:

Photo taken A ☐ No B ☑ Yes Photo ID.

4 Contact Name: CRAIG SHAW

Type: A ☐ Owner B ☐ Tenant C ☑ Other MAINTENANCE MANAGER

Phone (with area code): (027) 7687004

5 Existing Placard*: ☑ None ☐ W ☐ Y1 ☐ Y2 ☐ R1 ☐ R2

Date* (Day / Month / Year):

Team ID*:

## BUILDING DESCRIPTION

6

| Dimensions | Constr. Age | Building Type | Structure Type | Cladding Type |
|---|---|---|---|---|
| Storeys above ground incl. ground floor: 02 | A ☐ <1935 | A ☐ Complex residential | A ☐ Timber frame | A ☐ Brick veneer |
| Storeys below ground: 00 | B ☑ 1935-1976 | B ☐ School | B ☐ Steel frame | B ☑ Concrete panels |
| Footprint (m²): 150 | C ☐ 1977-1984 | C ☐ Commercial/Office | C ☑ Concrete frame | C ☐ Steel |
| | D ☐ 1985-2000 | D ☐ Industrial | D ☑ Concrete shear wall | D ☐ Glass |
| | E ☐ >2000 | E ☐ Critical facility | E ☐ Tilt-up concrete | E ☐ Lightweight |
| | F ☐ Unknown | F ☐ Public assembly | F ☐ Reinforced masonry | F ☐ Other: |
| | | G ☑ Other: Hospital non-essential | G ☐ Unreinforced masonry | |
| | | | H ☐ Other: | |

## EXTERNAL RISKS

7

| Potential Cause* | A Yes | B No |
|---|---|---|
| 1 Objects falling from adjacent buildings. Adjacent building ID or address: | ☐ | ☑ |
| 2 Land instability above | ☐ | ☑ |
| 3 Land instability below | ☐ | ☑ |
| 4 Other | ☐ | ☑ |

If required add sketch on separate page showing extent and nature of the external risk factors.

VERSION 01 – APRIL 2014

## DAMAGE ASSESSMENT

**8**

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Overall Hazard*** | N/A | A | B | C | D |
| 1 Collapse or partial collapse | ○ | ○ | ✓ | ○ | ○ |
| 2 Building or storey leaning | ○ | ○ | ✓ | ○ | ○ |
| 3 Other: | ✓ | ○ | ○ | ○ | ○ |
| **Structural Hazards*** | N/A | A | B | C | D |
| 4 Foundations | ○ | ○ | ✓ | ○ | ○ |
| 5 **Roofs, floors** | ○ | ○ | ✓ | ○ | ○ |
| 6 Gravity systems (columns, beams, etc) | ○ | ○ | ✓ | ○ | ○ |
| 7 Lateral systems (walls, frames, braces) | ○ | ○ | ✓ | ○ | ○ |
| 8 Diaphragms, horizontal bracing | ○ | ○ | ✓ | ○ | ○ |
| 9 Precast connections | ✓ | ○ | ○ | ○ | ○ |
| 10 Other: | ✓ | ○ | ○ | ○ | ○ |

| | Damage | | | | |
|---|---|---|---|---|---|
| | N/A | Unknown | Minor or None | Moderate | Severe |
| **Non-structural Hazards*** | N/A | A | B | C | D |
| 11 Parapets, ornamentation, chimneys | ✓ | ○ | ○ | ○ | ○ |
| 12 Cladding, glazing | ○ | ○ | ✓ | ○ | ○ |
| 13 **Ceilings, light fixtures** | ✓ | ○ | ○ | ○ | ○ |
| 14 Interior walls, partitions | ✓ | ○ | ○ | ○ | ○ |
| 15 Access/egress (elevators, stairs, exits) | ✓ | ○ | ○ | ○ | ○ |
| 16 **Significant fire saftey** concerns | ✓ | ○ | ○ | ○ | ○ |
| 17 Utilities (e.g. gas, electricity, waste water, plumbing) | ✓ | ○ | ○ | ○ | ○ |
| 18 Other: | ✓ | ○ | ○ | ○ | ○ |

Comments:

**9** Estimated Damage A ✓ None B ○ 0-10% C ○ 11-30% D ○ 31-60% E ○ 61-100%

## SUGGESTED FURTHER ACTIONS

**10**

| Recommended further Assessment* | Safety Cordon* | Barricades* | Urgency of suggested action* |
|---|---|---|---|
| A ✓ None | A ✓ None required | A ✓ None required | A ○ Standard |
| B ○ Level 2 Rapid Assessment (tick below if particular expertise is required) | B ○ Cordon required | B ○ Barricades already in place | B ○ Immediate action required |
| B1 ○ Structural Engineer | Describe extent (add diagram on separate sheet if required) | C ○ Barricades required | |
| B2 ○ Geotechnical Engineer | | Describe extent (add diagram on separate sheet if required) | |
| B3 ○ Other: | | | |
| C ○ Further evaluation to be arranged by building owner: | | | |

## SUMMARY

**11**

| Observed Damage | Level 2 Rapid Assessment Outcome* |
|---|---|
| **Light or no damage** | W ✓ **CAN BE USED** (From assessment no known dangers) |
| **Moderate damage** | Y1 ○ **RESTRICTED ACCESS TO PART(S) OF THE BUILDING ONLY** |
| | Y2 ○ **RESTRICTED ACCESS – SHORT TERM ENTRY ONLY with or without supervision** Access to be supervised A ○ Yes B ○ No |
| **Heavy damage** | R1 ○ **ENTRY PROHIBITED (At risk from external factors)** |
| | R2 ○ **ENTRY PROHIBITED (Severe damage to building)** |

**12**

| Survey Extent* | | |
|---|---|---|
| Exterior | A | ✓ Partial |
| | B | ○ Complete |
| Interior | C | ✓ Not accessed |
| | D | ○ Partial |
| | E | ○ Complete |

Assessor Signature*

## NOTES

**13** checked connection between original build + extension. No evidence of movement.

If required add a sketch on a separate sheet of paper showing building damage, access restrictions or cordoning areas. Identify the building on the sketch and staple the sheet to this assessment form.

**Sketch included on separate page?** ○ Yes ✓ No