

aurecon

Little River Service Centre

Qualitative Engineering Evaluation

Christchurch City

Prepared for:

Reference: 228602

Council

Revision: 2

Date: 23 August 2012

Functional Location ID: BU 3662 001 EQ2

Address: 4236 Christchurch Akaroa Road

Document Control Record

Document prepared by:

Aurecon New Zealand Limited Level 2, 518 Colombo street Christchurch Central 8011 PO Box 1061 Christchurch 8140 New Zealand

T +64 3 375 0761

F +64 3 379 6955

E christchurch@aurecongroup.com

W aurecongroup.com

A person using Aurecon documents or data accepts the risk of:

- Using the documents or data in electronic form without requesting and checking them for accuracy against the original hard copy version.
- b) Using the documents or data for any purpose not agreed to in writing by Aurecon.

Docu	ment control				į	aurecon
Report	t Title	Qualitative Engineering Eval	uation			
Functi	onal Location ID	BU 3662 001 EQ2	Project Numb	per	228602	
File Pa	ıth	P:\ 228602 - Little River Serv	rice Centre.docx	(
Client		Christchurch City Council	Client Contac	et .	Michael She	ffield
Rev	Date	Revision Details/Status	Prepared	Author	Verifier	Approver
1	23 August 2012	Final	H. Burnett	H. Burnett	L. Howard	L. Howard
_						
Curren	nt Revision	2				

Approval			
Author Signature	Baut	Approver Signature	Affinal (
Name	Hugh Burnett	Name	Lee Howard
Title	Structural Engineer	Title	Senior Structural Engineer

Contents

Ex	ecutiv	e Summary	1
1	Intro	oduction	2
	1.1	General	2
2	Des	cription of the Building	2
	2.1	Building Age and Configuration	2
	2.2	Building Structural Systems Vertical and Horizontal	2
	2.3	Reference Building Type	3
	2.4	Building Foundation System and Soil Conditions	3
	2.5	Available Structural Documentation and Inspection Priorities	3
	2.6	Available Survey Information	3
3	Stru	ctural Investigation	3
	3.1	Summary of Building Damage	3
	3.2	Record of Intrusive Investigation	4
	3.3	Damage Discussion	4
4	Buil	ding Review Summary	4
	4.1	Building Review Statement	4
	4.2	Critical Structural Weaknesses	4
5	Buil	ding Strength (Refer to Appendix C for background information)	4
	5.1	General	4
	5.2	Initial %NBS Assessment	5
	5.3	Results Discussion	5
6	Con	clusions and Recommendations	5
7	Expl	lanatory Statement	6

Appendices

Appendix A Site Map, Photos and Levels Survey Results

Appendix B References

Appendix C Strength Assessment Explanation

Appendix D Background and Legal Framework

Appendix E Standard Reporting Spread Sheet

Executive Summary

This is a summary of the Qualitative Engineering Evaluation for the Little River Service Centre building and is based on the Detailed Engineering Evaluation Procedure document issued by the Engineering Advisory Group on 19 July 2011, visual inspections, available structural documentation and summary calculations as appropriate.

Building Details	Name	Little River S	ervice	Centre			
			CIVIOC	Contro			
Building Location ID	BU 3662 0	01 EQ2			Multiple	e Building Site	Y
Building Address	4236 Chris	tchurch Akaroa Road			No. of r	residential units	0
Soil Technical Category	NA	Importance Level		2	Approx	imate Year Built	1938
Foot Print (m²)	230	Stories above grou	ınd	1	Stories	below ground	0
Type of Construction	Heavy roof piles.	, light timber framed v	valls, con	crete perime	ter found	ation, timber floor on	isolated
Qualitative L4 Repor	rt Results	Summary					
Building Occupied	Y	The Little River Serv	ice Cent	re is currently	y in use.		
Suitable for Continued Occupancy	Y	The Little River Serv	vice Cent	re is suitable	for conti	nued occupation.	
Key Damage Summary	Y	Refer to summary o	f building	damage sec	ction 3.1 ı	report body.	
Critical Structural Weaknesses (CSW)	N	There were no critic	al structu	ral weaknes	ses found	i.	
Levels Survey Results	Y	Floor Levels are with	hin tolera	nce.			
Building %NBS From Analysis	77%	Based on an analys	is of brac	ing capacity	and dem	and.	
Qualitative L4 Repor	rt Recom	mendations					
Geotechnical Survey Required	N	Geotechnical survey	/ not requ	ired due to l	ack of ob	served ground damaç	ge on site.
Proceed to L5 Quantitative DEE	N	Quantitative DEE no	ot require	d for this stru	ıcture.		
Approval							
Author Signature	Baa	the state of the s	Approv	er Signatur	e	Affins	
Name	Hugh Burn	ett	Name			Lee Howard	
Title	Structural E	Engineer	Title			Senior Structural En	gineer

1 Introduction

1.1 General

On 9 May 2012 Aurecon engineers visited the Little River Service Centre to carry out a qualitative building damage assessment on behalf of Christchurch City Council. Detailed visual inspections were carried out to assess the damage caused by the earthquakes on 4 September 2010, 22 February 2011, 13 June 2011, 23 December and related aftershocks.

The scope of work included:

- Assessment of the nature and extent of the building damage.
- Visual assessment of the building strength particularly with respect to safety of occupants if the building is currently occupied.
- Assessment of requirements for detailed engineering evaluation including geotechnical investigation, level survey and any areas where linings and floor coverings need removal to expose structural damage.

This report outlines the results of our Qualitative Assessment of damage to the Little River Service Centre and is based on the Detailed Engineering Evaluation Procedure document issued by the Structural Advisory Group on 19 July 2011, visual inspections, available structural documentation and summary calculations as appropriate.

2 Description of the Building

2.1 Building Age and Configuration

Built in 1938 the Little River Service Centre is a converted single storey house. The building has a heavy concrete tile roof, weatherboard clad timber framed walls, a concrete perimeter foundation wall and a suspended timber floor on piles. As is typical of this style and age of building there is a separate outhouse and storage structure attached to the main building by a covered walkway. The outhouse structure is of similar construction but has solid concrete slab foundation. The approximate floor area of the building is 160 square metres. It is an importance level 2 structure in accordance with NZS 1170 Part 0:2002.

2.2 Building Structural Systems Vertical and Horizontal

The Little River Service Centre is a very simple structure. Its heavy tile roof is supported on timber rafters that transfer loads to load bearing walls. Load bearing walls are supported on timber bearers and either isolated piles for the internal walls or the concrete perimeter foundation walls for the external walls. Lateral loads are resisted by lined timber framed walls in each direction. Internally the walls and ceiling are lined with a combination of Pinex fibrous board and plaster board. Externally the walls are clad with weather boards.

2.3 Reference Building Type

The Little River Service Centre is a basic house typical of its age and style. It was not subject to specific engineering design; rather it was constructed to a reliable formula known to achieve the performance and aesthetic objectives of the time it was built. Little River Service Centre does however suffer from some deferred maintenance issues. Decay was observed in several locations on exterior of the building.

2.4 Building Foundation System and Soil Conditions

The Little River Service Centre has, as discussed above, concrete perimeter foundation walls and isolated piles supporting a suspended timber floor. The land and surrounds of Little River Service Centre are zoned Port Hills and Banks Peninsula and are unlikely to be susceptible to liquefaction or differential settlement. Additionally there are no signs in the vicinity of Little River Service Centre of liquefaction bulges, boils or subsidence.

2.5 Available Structural Documentation and Inspection Priorities

No architectural or structural drawings were available for the Little River Service Centre. Inspection priorities related to a review of potential damage to foundations and consideration of wall bracing adequacy. Additionally there was potential for non-structural damage to linings. The generic building type for the Little River Service Centre is a 1930s timber framed house and this type of structure has performed fairly well during the Canterbury Earthquakes.

2.6 Available Survey Information

We undertook a floor levels survey to establish the amount of settlement that has occurred. The results of the survey are presented on the attached drawings in Appendix A. All of the levels were taken on top of the existing floor coverings which will have introduced some variation.

The Department of Building and Housing (DBH) published "Revised guidance on repairing and rebuilding houses affected by the Canterbury earthquake sequence" in November 2011. This document recommends some form of relevelling or rebuilding of the floor if the slope is greater than 0.5% for any two points more than 2m apart, or there is significant cracking of the floor or the variation in level over the floor plan is greater than 50mm.

The floor levels for the Little River Service Centre were found to be within acceptable levels once variations resulting from differing floor coverings are taken into account.

3 Structural Investigation

3.1 Summary of Building Damage

The Little River Service Centre was in use at the time the damage assessment was carried out.

The Little River Service Centre has performed well and has only suffered minor cosmetic damage. There was also some minor age related damage to the building. Summarized as follows:

- · Minor cracking in the internal linings
- Minor age related damage to external weatherboards

3.2 Record of Intrusive Investigation

The extent of damage was relatively minor and therefore, an intrusive investigation was neither warranted nor undertaken for Little River Service Centre.

3.3 Damage Discussion

There was only minor observed damage to the Little River Service Centre as a result of seismic actions. This is hardly surprising as buildings of this nature are flexible and have high inherent ductility. Damage to the wall linings is a common occurrence in this type of construction and occurs as plaster board is relatively brittle causing cracks to develop with a limited amount of movement

The Little River Service Centre has suffered only minor damage due to seismic actions; in addition the age related damage is relatively minor and has not reduced the seismic capacity significantly.

4 Building Review Summary

4.1 Building Review Statement

As noted above no intrusive investigations were carried out for the Little River Service Centre. Because of the generic nature of the building a significant amount of information can be inferred from an external and internal inspection. The piles were unable to be directly inspected as access beneath the floor could not be gained however there were no signs of movement in the floor to indicate any damage to the piles so this was not considered necessary.

4.2 Critical Structural Weaknesses

No specific critical structural weaknesses were identified as part of the building qualitative assessment.

5 Building Strength (Refer to Appendix C for background information)

5.1 General

The Little River Service Centre is, as discussed above, a typical example of its generic style, 1930's house built from timber. It is of a type of building that, due to its light weight, flexibility and natural ductility, has typically performed well. The Little River Service Centre is not an exception to this, it has performed well and there is only minor damage to the building related to the recent earthquakes. There are also some minor issues related to the age of the building as noted above.

5.2 Initial %NBS Assessment

The Little River Service Centre has not been subject to specific engineering design and the initial evaluation procedure or IEP is not an appropriate method of assessment for this building. Nevertheless an estimate of lateral load capacity can be made by adopting assumed values for strengths of existing materials and calculating the capacity of existing walls.

Selected assessment seismic parameters are tabulated in the Table below.

Table 1: Parameters used in the Seismic Assessment

Seismic Parameter	Quantity	Comment/Reference
Site Soil Class	D	NZS 1170.5:2004, Clause 3.1.3, Deep or Soft Soil
Site Hazard Factor, Z	0.30	DBH Info Sheet on Seismicity Changes (Effective 19 May 2011)
Return period Factor, R_u	1	NZS 1170.5:2004, Table 3.5
Ductility Factor in Transverse Direction, μ	3	Plasterboard lined lightweight timber framed walls
Ductility Factor in Longitudinal Direction, μ	3	Plasterboard lined lightweight timber framed walls

The seismic demand for the Little River Service Centre has been calculated based on the current code requirements of NZS 3604:2011. The capacity of the existing walls in the building was calculated from assumed strengths of existing materials and the number and length of walls present for both the north – south and east – west directions. The seismic demand was then compared with the building capacity in these directions. The building was found to have a sufficient number and length of walls in both the north – south and east – west directions to achieve a capacity greater than 77% NBS.

5.3 Results Discussion

Analysis shows that the Little River Service Centre is capable of achieving 77% NBS and is thus considered a low risk building. This is not surprising as lightweight single story construction like that of Little River Service Centre produces a low seismic demand which when combined with a large number of well distributed walls providing seismic resistance produces a structure with good seismic performance and relatively good torsional stability.

6 Conclusions and Recommendations

The land below the Little River Service Centre is zoned as Port Hills and Banks Peninsula and as such is not expected to be prone to liquefaction and settlement. Additionally there is no local evidence of settlement and liquefaction in the surrounding land. The levels survey carried out showed that the floor levels were within allowable tolerances when variations in the levels due to differing floor coverings are considered.

As there is no clear evidence of any liquefaction or ground movement in the vicinity of the Little River Service Centre a geotechnical investigation is currently not considered necessary.

The building is currently occupied and in use and in our opinion the Little River Service Centre is considered suitable for continued occupation.

7 Explanatory Statement

The inspections of the building discussed in this report have been undertaken to assess structural earthquake damage. No analysis has been undertaken to assess the strength of the building or to determine whether or not it complies with the relevant building codes, except to the extent that Aurecon expressly indicates otherwise in the report. Aurecon has not made any assessment of structural stability or building safety in connection with future aftershocks or earthquakes – which have the potential to damage the building and to jeopardise the safety of those either inside or adjacent to the building, except to the extent that Aurecon expressly indicates otherwise in the report.

This report is necessarily limited by the restricted ability to carry out inspections due to potential structural instabilities/safety considerations, and the time available to carry out such inspections. The report does not address defects that are not reasonably discoverable on visual inspection, including defects in inaccessible places and latent defects. Where site inspections were made, they were restricted to external inspections and, where practicable, limited internal visual inspections.

To carry out the structural review, existing building drawings were obtained from the Christchurch City Council records. We have assumed that the building has been constructed in accordance with the drawings.

While this report may assist the client in assessing whether the building should be strengthened, that decision is the sole responsibility of the client.

This review has been prepared by Aurecon at the request of its client and is exclusively for the client's use. It is not possible to make a proper assessment of this review without a clear understanding of the terms of engagement under which it has been prepared, including the scope of the instructions and directions given to and the assumptions made by Aurecon. The report will not address issues which would need to be considered for another party if that party's particular circumstances, requirements and experience were known and, further, may make assumptions about matters of which a third party is not aware. No responsibility or liability to any third party is accepted for any loss or damage whatsoever arising out of the use of or reliance on this report by any third party.

Without limiting any of the above, Aurecon's liability, whether under the law of contract, tort, statute, equity or otherwise, is limited as set out in the terms of the engagement with the client.

Appendices



Appendix A

Site Map, Photos and Levels Survey Results

9 May 2012 - Little River Service Centre site photographs

Location of Little River Service Centre. Aerial photograph of Little River Service Centre. Building northern elevation. Building western elevation.



Building eastern elevation.



Internal view of building.



Internal view of building.



Internal view of building.



Minor cracking to internal linings.





FLOOR LEVELS PLAN Christchurch City Council S-01-00 1

Appendix B

References

- Standards New Zealand, "AS/NZS 1170 Parts 0,1 and 5 and commentaries"
- Standards New Zealand, "NZS 3604:2011: Timber Framed Structures"
- Standards New Zealand, "NZS 4229:1999, Concrete Masonry Buildings Not Requiring Specific Design"
- Standards New Zealand, "NZS 3404:1997, Steel Structures Standard"
- Standards New Zealand, "NZS 3101:2006, Concrete Structures Standard"
- New Zealand Society for Earthquake Engineering (NZSEE), "Assessment and Improvement of the Structural Performance of Buildings in Earthquakes June 2006"
- Engineering Advisory Group, "Guidance on Detailed Engineering Evaluation of Earthquake Affected Non-Residential Buildings in Canterbury. Part 2 Evaluation Procedure. Revision 5, 19 July 2011"

Appendix C

Strength Assessment Explanation

New building standard (NBS)

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

Earthquake Prone Buildings

A building can be considered to be earthquake prone if its strength is less than one third of the strength to which an equivalent new building would be designed, that is, less than 33%NBS (as defined by the New Zealand Building Act). If the building strength exceeds 33%NBS but is less than 67%NBS the building is considered at risk.

Christchurch City Council Earthquake Prone Building Policy 2010

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

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

Irrespective of strengthening level, the threshold level that triggers a requirement to strengthen is 33%NBS.

As part of any building consent application fire and disabled access provisions will need to be assessed.

Christchurch Seismicity

The level of seismicity within the current New Zealand loading code (AS/NZS 1170) is related to the seismic zone factor. The zone factor varies depending on the location of the building within NZ. Prior to the 22nd February 2011 earthquake the zone factor for Christchurch was 0.22. Following the earthquake the seismic zone factor (level of seismicity) in the Christchurch and surrounding areas has been increased to 0.3. This is a 36% increase.

For this assessment, the building's earthquake resistance is compared with the current New Zealand Building Code requirements for a new building constructed on the site. This is expressed as a percentage of new building standard (%NBS). The new building standard load requirements have been determined in accordance with the current earthquake loading standard (NZS 1170.5:2004 Structural design actions - Earthquake actions - New Zealand).

The likely capacity of this building has been derived in accordance with the New Zealand Society for Earthquake Engineering (NZSEE) guidelines 'Assessment and Improvement of the Structural Performance of Buildings in Earthquakes' (AISPBE), 2006. These guidelines provide an Initial Evaluation Procedure that assesses a buildings capacity based on a comparison of loading codes from when the building was designed and currently. It is a quick high-level procedure that can be used when undertaking a Qualitative analysis of a building. The guidelines also provide guidance on calculating a modified Ultimate Limit State capacity of the building which is much more accurate and can be used when undertaking a Quantitative analysis.

The New Zealand Society for Earthquake Engineering has proposed a way for classifying earthquake risk for existing buildings in terms of %NBS and this is shown in Figure C1 below.

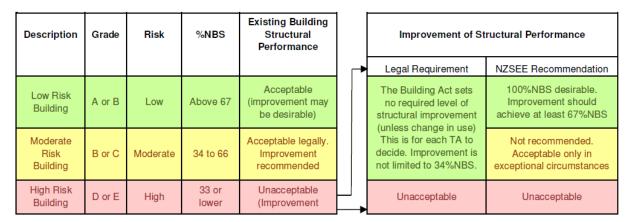


Figure C1: NZSEE Risk Classifications Extracted from table 2.2 of the NZSEE 2006 AISPBE Guidelines

Table C1 below compares the percentage NBS to the relative risk of the building failing in a seismic event with a 10% probability of exceedance in 50 years (i.e. 0.2% in the next year). It is noted that the current seismic risk in Christchurch results in a 6% probability of exceedance in the next year.

Table C1: Relative Risk of Building Failure In A

Percentage of New Building Standard (%NBS)	Relative Risk (Approximate)
>100	<1 time
80-100	1-2 times
67-80	2-5 times
33-67	5-10 times
20-33	10-25 times
<20	>25 times

Appendix D

Background and Legal Framework

Background

Aurecon has been engaged by the Christchurch City Council (CCC) to undertake a detailed engineering evaluation of the building

This report is a Qualitative Assessment of the building structure, and is based on the Detailed Engineering Evaluation Procedure document (draft) issued by the Structural Advisory Group on 19 July 2011.

A qualitative assessment involves inspections of the building and a desktop review of existing structural and geotechnical information, including existing drawings and calculations, if available.

The purpose of the assessment is to determine the likely building performance and damage patterns, to identify any potential critical structural weaknesses or collapse hazards, and to make an initial assessment of the likely building strength in terms of percentage of new building standard (%NBS).

At the time of this report, no intrusive site investigation, detailed analysis, or modelling of the building structure had been carried out. Construction drawings were made available, and these have been considered in our evaluation of the building. The building description below is based on a review of the drawings and our visual inspections.

Compliance

This section contains a brief summary of the requirements of the various statutes and authorities that control activities in relation to buildings in Christchurch at present.

Canterbury Earthquake Recovery Authority (CERA)

CERA was established on 28 March 2011 to take control of the recovery of Christchurch using powers established by the Canterbury Earthquake Recovery Act enacted on 18 April 2011. This act gives the Chief Executive Officer of CERA wide powers in relation to building safety, demolition and repair. Two relevant sections are:

Section 38 - Works

This section outlines a process in which the chief executive can give notice that a building is to be demolished and if the owner does not carry out the demolition, the chief executive can commission the demolition and recover the costs from the owner or by placing a charge on the owners' land.

Section 51 – Requiring Structural Survey

This section enables the chief executive to require a building owner, insurer or mortgagee carry out a full structural survey before the building is re-occupied.

We understand that CERA will require a detailed engineering evaluation to be carried out for all buildings (other than those exempt from the Earthquake Prone Building definition in the Building Act). It is anticipated that CERA will adopt the Detailed Engineering Evaluation Procedure document (draft) issued by the Structural Advisory Group on 19 July 2011. This document sets out a methodology for both qualitative and quantitative assessments.

The qualitative assessment is a desk-top and site inspection assessment. It is based on a thorough visual inspection of the building coupled with a review of available documentation such as drawings and specifications. The quantitative assessment involves analytical calculation of the buildings strength and may require non-destructive or destructive material testing, geotechnical testing and intrusive investigation.

It is anticipated that factors determining the extent of evaluation and strengthening level required will include:

- The importance level and occupancy of the building
- The placard status and amount of damage
- The age and structural type of the building
- Consideration of any critical structural weaknesses
- The extent of any earthquake damage

Building Act

Several sections of the Building Act are relevant when considering structural requirements:

Section 112 - Alterations

This section requires that an existing building complies with the relevant sections of the Building Code to at least the extent that it did prior to any alteration. This effectively means that a building cannot be weakened as a result of an alteration (including partial demolition).

Section 115 - Change of Use

This section requires that the territorial authority (in this case Christchurch City Council (CCC)) be satisfied that the building with a new use complies with the relevant sections of the Building Code 'as near as is reasonably practicable'. Regarding seismic capacity 'as near as reasonably practicable' has previously been interpreted by CCC as achieving a minimum of 67%NBS however where practical achieving 100%NBS is desirable. The New Zealand Society for Earthquake Engineering (NZSEE) recommend a minimum of 67%NBS.

Section 121 - Dangerous Buildings

The definition of dangerous building in the Act was extended by the Canterbury Earthquake (Building Act) Order 2010, and it now defines a building as dangerous if:

- in the ordinary course of events (excluding the occurrence of an earthquake), the building is likely to cause injury or death or damage to other property; or
- in the event of fire, injury or death to any persons in the building or on other property is likely because of fire hazard or the occupancy of the building; or
- there is a risk that the building could collapse or otherwise cause injury or death as a result of earthquake shaking that is less than a 'moderate earthquake' (refer to Section 122 below); or
- · there is a risk that that other property could collapse or otherwise cause injury or death; or
- a territorial authority has not been able to undertake an inspection to determine whether the building is dangerous.

Section 122 - Earthquake Prone Buildings

This section defines a building as earthquake prone if its ultimate capacity would be exceeded in a 'moderate earthquake' and it would be likely to collapse causing injury or death, or damage to other property. A moderate earthquake is defined by the building regulations as one that would generate ground shaking 33% of the shaking used to design an equivalent new building.

Section 124 - Powers of Territorial Authorities

This section gives the territorial authority the power to require strengthening work within specified timeframes or to close and prevent occupancy to any building defined as dangerous or earthquake prone.

Section 131 - Earthquake Prone Building Policy

This section requires the territorial authority to adopt a specific policy for earthquake prone, dangerous and insanitary buildings.

Christchurch City Council Policy

Christchurch City Council adopted their Earthquake Prone, Dangerous and Insanitary Building Policy in 2006. This policy was amended immediately following the Darfield Earthquake of the 4th September 2010.

The 2010 amendment includes the following:

- A process for identifying, categorising and prioritising Earthquake Prone Buildings, commencing on 1 July 2012;
- A strengthening target level of 67% of a new building for buildings that are Earthquake Prone;
- A timeframe of 15-30 years for Earthquake Prone Buildings to be strengthened; and,
- Repair works for buildings damaged by earthquakes will be required to comply with the above.

The council has stated their willingness to consider retrofit proposals on a case by case basis, considering the economic impact of such a retrofit.

We anticipate that any building with a capacity of less than 33%NBS (including consideration of critical structural weaknesses) will need to be strengthened to a target of 67%NBS of new building standard as recommended by the Policy.

If strengthening works are undertaken, a building consent will be required. A requirement of the consent will require upgrade of the building to comply 'as near as is reasonably practicable' with:

- The accessibility requirements of the Building Code.
- The fire requirements of the Building Code. This is likely to require a fire report to be submitted with the building consent application.

Building Code

The building code outlines performance standards for buildings and the Building Act requires that all new buildings comply with this code. Compliance Documents published by The Department of Building and Housing can be used to demonstrate compliance with the Building Code.

After the February Earthquake, on 19 May 2011, Compliance Document B1: Structure was amended to include increased seismic design requirements for Canterbury as follows:

- Hazard Factor increased from 0.22 to 0.3 (36% increase in the basic seismic design load)
- Serviceability Return Period Factor increased from 0.25 to 0.33 (80% increase in the serviceability design loads when combined with the Hazard Factor increase)

The increase in the above factors has resulted in a reduction in the level of compliance of an existing building relative to a new building despite the capacity of the existing building not changing.

Appendix E

Standard Reporting Spread Sheet

Dubling Uses before (COC) Uses on 120 The Dubling Uses before (COC)	Process Proc	Part
The process of the pr	Company Comp	Topic Control Section
Description	Building Usepa Servitor (COS) 10 VEC COT 10 VEC 10 10 VEC	March 1996
State of the property of the control	Basing Large March (2000) State Action State Action State Action State Action State Action From State	But Description Descript
The Class to M2517575 (2) C	Sign stops: The Class to 1923 1925 For the State Class to 1923 1925 For the State Class to 1923 1925 For the State	Property Company Com
Size of the control o	See Charte to See The Charter of American (See The Charter See Cha	The Content of Part Conten
Site store Edition State	See Charte to See The Charter of American (See The Charter See Cha	The Content of Part Conten
Set Class place (1975) 100 1 1 1 1 1 1 1 1 1	The Clase (In No. 17 Clase) Proverty in cell treat (In C. 10 Clase) No. of strong store ground Convention year. No. of strong store ground Convention year. Recommend to the Clase (In C. 10 Clase) Province year above ground Convention year. Province year above ground Convention year. Province year above ground An experiment years. Province year above ground An experiment years. Province year above ground Less ground there year. Less ground then year. Convention year. Conventi	Part Code Part
Promote to office in a 4 - 100s Approvable devictor in the control of a story above grown of the control of t	Processing to call the call of 1000s	Paper Control Contro
No. of energy store ground Blooky bearing ground Blooky bearing ground Blooky bearing ground Blooky bearing ground Floor foreign family ground Blooky bearing ground Blooky bearing ground Floor foreign family ground Blooky bearing ground Blook	No. of Strong Above grows Scromp before grows Body by by the first and	The Control of Control
Singular processor ground by the control of the con	Bitterns blook grands Bittern blook grand blook place in the place in	Application
Control floor opinit for personal property of the feet of the personal property of the feet of the personal power of the feet of the feet of the personal power of the feet	Bittomy, blook grands Bittomy, blook grands Floor forgins are larged. Bittomy, blook grands Flore forgins are larged. Bittomy, blook grands Floor forgins are larged. Bittomy, blook grands	Body
Servicine source calculation of the control of the	Building begin from Control (1997) And of Building (1997) And of Building (1997) And of Building (1997) Buildi	The Control of Section 1 (1997) and section 1 (1997
Place for design in the present of the place of design in the place of	Peor toporal real segment (process) Surregioning present? (pc. Use toporal real process (pc.) Use toporal real process (pc.	Foot Section
Bitrarghoring present Do	Boundhaving present? Co	Table Tabl
Use (ground force) Use (ground f	Use in location from the control in policy of the policy of the control in policy of the policy of the control in policy of the	Comment Comm
Lateral policy in process Lateral policy Lateral po	Table 4-20 Table	The state for the state of the
Importance low (in NAZE) 170.5 L. 2 British Control of Carlot System Control Search	Importance love (in IC-SE 1971.55). Le2 Grandy System. Boom. Claims (internal love of the control of the contr	## Comment Com
Gravity System Brown Charles Charles	Converted to the control of the cont	Contry System File Code Fi
Rocal Infrastructures (introduction of the control in the anticle displayed in the control in th	Roof Selected Famous Indicated Selected Famous Indicated Selected	The Control of Control
Boars Charles Charles	Beams Inches Inches	The control of the co
Wells: Characteristic structure Lateral system across Description across Descripti	Well: Control tenergy Contro	Welfe Control control Welfe Control control Description and State Control Descr
Lateral system along by throught trained rounds Dutchtly assurants, in Dutchtly assurants, in Dutchtly assurants, in Dutchtly assurants, in Carl and reflection (U.S) (mm) Lateral system access in detailed report Dutchtly assurants, in Dutchtly assur	Lateral gystem along: Seminor Se	Later system and garbesty for the rand safe 1, 300 and
Ductify assumed, is	During secured, in Part of Secure Control (U.S.) (mm) Local Percent Secure Control (U.S.) (mm) Percent Across Secure Control (U.S.) (mm) Total defection (U.S.) (mm) Percent Across Secure Control (U.S.) (mm) Total defection (U.S.) (mm) Local Percent Secure Control (U.S.) (mm) Local	Double present 1
maximum intentiony deflection (ULS) (mm)	Commentation Comm	Base Learner (personal (List) Proportion Learner (personal personal p
Ductify assumed; i. 3.000 Televida arciss (1.000) Televida arciss (1.	Describe described and a constraint or colculation described and a const	Descript searched, in Control of State (1997) and the control of t
Ductility assumed, iii	Describe described and a constraint or colculation described and a const	Descript searched, in Control of State (1997) and the control of t
maximum interstorey defection (U.S.) (mm): maximum interstorey defection (U.S.) (mm): east (mm): ea	Total odirections (U.S.) (mm) acant (mm) such	Table described of CASE (min) CASEGOR. CASEG
nest (mm) south (mm) s	north (mm): scal (mm):	Section Sect
east (mm)	seat (mm):	Selection (1972) Alternative (1972) Acceptance (1
State Stat	west (mm): Valid elements Valid cladding: Selective frames Collings: Element frames Collings: Collin	wat (pm) Classing transport and product of the p
Stairs Wal clading bester system Roof Cladings these wises Glasting these frames Glasting these Glasting these frames Glasting these	Saint Editor (Saint)	Service Colors Refer of California Glassing Green Colors Green Color
Wall cladding Baster system Baster syste	Wall clading: planter system Roof Clading: tember frames Callings: timbur plaster froed Services(tat): Architectural rone Structural rone Str	With discloring from particular years. Celegoed Processing Management of the particular of the partic
Clairing: throughster frames Collings: throughster froed Services (tst): Valiable documentation Architectural rone Structural rone Structural rone Electrical rone Geoteth report rone Structural rone Electrical rone Describe damage: None Electrical rone Better DEE Table 4-2) Sattement: rone observed rone Differential settlement rone apparent rotes (if applicable): rotes (if applicable	Glating: struck plaster, fixed Georgians designer namedate original design	Glazer Control Formace Con
Services(ist): Architectural France	Archiectural Cone	Service (1875) Architectural proc. Service (1875)
Architectural none Structural none Mechanical none Mechanical none Electrical none Gootech report Good Stellement Differential settlement Liquefaction One Differential settlement Coround apparent Differential settlement Coround apparent Differential settlement Coround apparent Differential settlement Differential	Architectural cone original designer namediate original de	Architectural (rose Structural (rose Control
Structural none Mechanical none Electrical none Geotoch report Site performance Social Differential settlement Inone observed notes (if applicable): Inone observed notes (if applicable): notes (if applicable)	Structural none Mechanical none Electrical none Geotech report none Step performance: Good Differential settlement: none observed notes (if applicable): none apparent notes (if applicable): none apparent no	Structural from Mechanical Some original designer removables original desi
Electrical none original designer name/date original packet original packet original packet original packet origin	Electrical none original designer name/date original designer original original designer original original designer name/date original designer name/date original designer name/date original designer original original designer original original designer original orig	Selection (propt (2009) corporal designer manufable original designer manufable origin
te: Index DEE Table 4-2) Settlement: Differential settlement: Differential settlement: Liquidaction: Liqu	Site performance: Good Describe damage: None Settlement: none observed notes (if applicable): Luperfaction: none apparent notes (if applicable): Luperfaction: none apparent notes (if applicable): Luteral States: none apparent notes (if applicable): Differential sterial spread notes (if applicabl	The ET Table 4-2) Site performance Coord
Set temer. Set temer. Differential settlement. Liquefaction: Carrent Piacard Status: Differential settlement. Different	Settlement: none observed notes (if applicable): notes (if applicabl	Sie performance (Scot) Differential settlement. In the settlement. In
Settlement: none observed notes (if applicable): notes (if applicabl	Settlement: none observed notes (if applicable): Differential settlement: none observed notes (if applicable): Liquefaction: none apparent notes (if applicable): Lateral Spread: none apparent notes (if applicable): Differential sterial spread: none apparent notes (if applicable): Damage ratio: Damage ratio: Describe (summary): Describe (sum	Selections (a paginization processes of the paginization processes
Differential settlement: Describe Descri	Differential settlement. Liquefaction on observed (applicable): Lateral Spread. Income apparent (anotes): Differential lateral spread. Income (anotes): Differential lateral	Differential settlements. Lispediation on agreered motes (if applicable) motes (if appl
Lateral Spread: none apparent notes (if applicable): notes (if appli	Lateral Spread: Differential lateral spread: One apparent One One apparent One One apparent One One apparent One	Describe to design of position of positi
Ground cracks: none apparent notes (if applicable): notes (if app	Ground cracks:	Ground cracks: Description to water (trone appared)
Current Placard Status: Describe (summary): Descr	Current Placard Status: Describe (summary): Describe:	Describe (summary): Describe
Current Placard Status: Damage ratio:	Damage ratio: Describe (summary): Damage ratio Describe (summary): Describe:	Current Placard Status Describe Describe (summary)
Describe (summary):	Describe (summary)	Describe (summary): Net: Demage? (no
Damage ratio Damage ratio Damage ratio Damage ratio Damage ratio Damage ratio State St	Damage ratio: 0% Describe (summary): 0% Damage_Ratio = (% NBS (before) - % NBS (after))	Damage ratio Describe (purmays)
Describe (summary):	Describe (summary): Demage?: no Demage?: no Describe: Damage?: no Describe: Damage?: no Describe: Demage?: no Describe: Describe: Describe: Describe: Describe: Describe: Describe:	Describe (unmary): Phringms Damage? ro Describe:
SWs: Damage?: no Describe: ounding: Damage?: no Describe: on-structural: Damage?: no Describe:	Damage?	Me: Damage?: Inc Damage.: Inc D
ounding: Damage?: no Describe: One-structural: Damage?: no Describe: One-structural: Damage?: no Describe: One-structural: Describe: One-structural: Describe: One-structural: Describe: One-structural: Describe: One-structural: One-structu	Damage?	Describe Des
on-structural: Damage?: no Describer	tural: Damage?: no Describe: andations Level of repair/strengthening required: none Describe:	Describe: Level of repair/strengthening required: Building Connect required: Income Building Connect Income Building Connect required: Income Building Connect Repair/strengthening required: Income Building Building Repair/strengthening required: Income Building Building Repair/strengthening required: Income Building Building Repair/strengthening Repair/strengthening Repair Rep
ecommendations	andations Level of repair/strengthening required: none Describe:	Level of repair/strengthening required: none Building Consent required: none Interim occupancy recommendations: 1.1000 Interim occupancy recommendations: 1.
	Level of repair/strengthening required: none Describe:	Level of repair/strengthening required: Building Consent required: Interim occupancy recommendations: Interim occupancy Interior occupancy Interim occupancy Interior occupancy Int
		Building Consent required: Interfire occupancy recommendations: Interfired occupancy recommendations: Interfired occupancy recommendations: Interfired occupanc
Building Consent required: no Describe:		Assessed %NBS before: 100% ##### %NBS from IEP below If IEP not used, please detail assessment methodology: Assessed %NBS before: 100% ##### %NBS from IEP below Assessed %NBS before: 100% ##### %NBS from IEP below Assessed %NBS after: 100% ##### %NBS from IEP below Assessed %NBS after: 100% ##### %NBS from IEP below Duse of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Not required for this age of building across 10.4 Note:1 for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone A = 1.3; 1965-1976, Zone B = 1.2; all else 1.0 Note:1 for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone A = 1.3; 1965-1976, Zone B = 1.2; all else 1.0 Note:1 for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone A = 1.3; 1965-1976, Zone B = 1.2; all else 1.0 Note:1 for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone A = 1.3; 1965-1976, Zone B = 1.2; all else 1.0 Note:1 for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone A = 1.3; 1965-1976, Zone B = 1.2; all else 1.0 Note:1 for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone A = 1.3; 1965-1976, Zone B = 1.2; all else 1.0 Note:1 for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone A = 1.3; 1965-1976, Zone B = 1.2; all else 1.0 Note:1 for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone B = 1.2; all else 1.0 Note:1 for specificall
		Assessed %NBS after: 100% #### %NBS from IEP below Assessed %NBS after: 100% #### %NBS from IEP below Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Seismic Zone, if designed between 1965 and 1992: not required for this age of building not req
		Assessed %NBS after: 10076 Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965
	Assessed %NBS after: 100% methodology:	Period of design of building (from above): 1935-1965 Seismic Zone, if designed between 1965 and 1992: not required for this age of building across (%MSE)non from Fig 3.3: Note:1 for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone A = 1.33; 1965-1976, Zone B = 1.2; all else 1.0 Note 2: for RC buildings designed between 1976-1984, use 1.2. 1.0 Note 3: for bu
	Assessed %NBS after: 100% methodology: Assessed %NBS before: 100% ##### %NBS from IEP below	Period of design of building (from above): 1935-1965 Seismic Zone, if designed between 1965 and 1992: not required for this age of building across (%MSE)non from Fig 3.3: Note:1 for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone A = 1.33; 1965-1976, Zone B = 1.2; all else 1.0 Note 2: for RC buildings designed between 1976-1984, use 1.2. 1.0 Note 3: for bu
	Assessed %NBS after: 100% ##### %NBS from IEP below Assessed %NBS after: 100% ##### %NBS from IEP below	Note:1 for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone A = 1.33; 1965-1976, Zone B = 1.2; all else 1.0
	Assessed %NBS after: 100% methodology: Assessed %NBS before: 100% methodology: met	not required for this age of building Period (from above):
	Assessed %NBS after: 100% methodology: Assessed %NBS before: 100% #### %NBS from IEP below Assessed %NBS after: 100% #### %NBS from IEP below Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 hs from above: m	Period (from above): 0.4 0.4
Period (from above): 0.4 0.4	Assessed %NBS after: 100% Assessed %NBS before: 100% #### %NBS from IEP below Assessed %NBS after: 100% #### %NBS from IEP below Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Seismic Zone, if designed between 1965 and 1992: not required for this age of building	(%NBS)nom from Fig 3.3: Note:1 for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone A = 1.33; 1965-1976, Zone B = 1.2; all else 1.0 1.00 Note 2: for RC buildings designed between 1976-1984, use 1.2 1.0 Note 3: for buildings designed between 1976-1984, use 1.2 1.0 1.0 Note 3: for buildings designed between 1976-1984, use 1.2 1.0 1.0 Note 3: for buildings designed between 1976-1984, use 1.2 1.0 1.0 Note 3: for buildings designed between 1976-1984, use 1.2 1.0 1.0 Note 3: for Side 1975 0% O% 0.0 Near Fault scaling factor, from NZS1170.5, cl 3.1.6: 1.00 2.2 Near Fault Scaling Factor 1.00 Near Fault scaling factor (1/N(T,D), Factor A: 1 1 2.3 Hazard Scaling Factor
(%NBS)nom from Fig 3.3:	Assessed %MBS after: 100% Assessed %MBS hefore: 100% #### %NBS from IEP below Assessed %MBS after: 100% #### %NBS from IEP below Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Seismic Zone, if designed between 1965 and 1992: 100 not required for this age of building not required fo	Note 3: for buildings designed between 1976-1984, use 1.2 1.0
Note:1 for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone A = 1.33; 1965-1976, Zone B = 1.2; all else 1.0 1.00 Note: 2 for R6 building designed between 1976-1984 use 1.2 1.0	Assessed %NBS after: 100% Assessed %NBS before: 100% #### %NBS from IEP below Assessed %NBS after: 100% #### %NBS from IEP below Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Seismic Zone, if designed between 1965 and 1992: not required for this age of building not required for this age of building not required for this age of building Period (from above): 100.4 Period (from above): 100.4 (%NBS)nom from Fig 3.3: 0.4 O.4	Along across Final (%NBS) 9% 9% 9% 9% 9% 9% 9%
	Assessed %NBS before: 100% #### %NBS from IEP below Assessed %NBS before: 100% #### %NBS from IEP below Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Seismic Zone, if designed between 1965 and 1992: not required for this age of building not re	Final (%NBS)
Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0	Assessed %NBS lefter: 100% #### %NBS from IEP below Assessed %NBS before: 100% #### %NBS from IEP below #### #### #### #### #### #### ####	Along Across
Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0)	Assessed %NBS after: 100% #### %NBS from IEP below Assessed %NBS after: 100% #### %NBS from IEP below Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. h from above: m Period of design of building (from above): 1935-1965 not required for this age of building not	Along Across
Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0 along across Final (%NBS)** 0% 0%	Assessed %NBS lefter: 100% ##### %NBS from IEP below Assessed %NBS before: 100% ##### %NBS from IEP below Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Not required for this age of building across Period (from above): 0.4 Note:1 for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone A = 1.33; 1965-1976, Zone B = 1.2; all else 1.0 Note 2: for RC buildings designed between 1976-1994, use 1.2 Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.00 Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.00 1.	2.3 Hazard Scaling Factor Hazard factor Z for site from AS1170.5, Table 3.3: Zivez, from NZS4203:1992
Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0 along across Final (%NBS)nenc 0% 0% 2.2 Near Fault Scaling Factor Near Fault scaling factor, from NZS1170.5, cl 3.1.6: 1.00 along across	Assessed %NBS lefter: 100% ##### %NBS from IEP below Assessed %NBS before: 100% ##### %NBS from IEP below Assessed %NBS after: 100% ##### %NBS from IEP below Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Not required for this age of building along across Period (from above): 0.4 0.4 Note:1 for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone a 1.33; 1965-1976, Zone B = 1.2; all else 1.0 Note 2: for RC buildings designed between 1976-1984, use 1.2 Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.00 Note 3: Note 7: Final (%NBS)nonc: 0% 0% O% 0%	Z1992, from NZS4203:1992
Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0	Assessed %NBS letter: 100% #### %NBS from IEP below Assessed %NBS heter: 100% #### %NBS from IEP below Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Seismic Zone, if designed between 1965 and 1992: not required for this age of building across Period (from above): 0.4 0.4 Note:1 for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone A = 1.33; 1965-1976, Zone B = 1.2; all else 1.0 Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.00 Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.00 Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 2.2 Near Fault Scaling Factor Near Fault scaling factor, from NZS1170.5, cl 3.1.6: 1.00 along across Near Fault scaling factor (1/N(T,D), Factor A: 1 1	Tracery evening (duty, Fativi D. #DIVIO!
Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0	Assessed %NBS later: 100% #### %NBS from IEP below #### ### %NBS from IEP below #### ### #### #### #### #### #### #	
Note 3: for buildings designed prior to 1935 use 0.8; except in Wellington (1.0) 1.0	Assessed %NBS after: 100% #### %NBS from IEP below #### %NBS from IEP below #### ### ### ### ### ### ### ### ###	
Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0	Assessed %NBS after: 100% Assessed %NBS before: 100% Assessed %NBS form: 100% Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Seismic Zone, if designed between 1965 and 1992: 100 not required for this age of building not required for this age of	
Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0	Assessed %NBS after: 100% Assessed %NBS before: 100% Assessed %NBS after: 100% Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Note: 1 designed between 1965 and 1982: 100 not required for this age of building not	Return Period Scaling factor from Table 3.1, Factor C: along across
Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0	Assessed %NBS after: 100% Assessed %NBS before: 100% Assessed %NBS after: 100% Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Note: I designed between 1965 and 1992 Period (from above): 0.4 Note: I for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone B = 1.2; all else 1.0 Note: I for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone B = 1.2; all else 1.0 Note: I for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone B = 1.2; all else 1.0 Note: I for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone B = 1.2; all else 1.0 Note: I for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone B = 1.2; all else 1.0 Note: I for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone B = 1.2; all else 1.0 Note: I for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone B = 1.2; all else 1.0 Note: I for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone B = 1.2; all else 1.0 Note: I for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone B = 1.2; all else 1.0 Note: I for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone B = 1.2; all else 1.0 Note: I for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone B = 1.2; all else 1.0 Note: I for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone B = 1.2; all else 1.0 Note: I for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone B = 1.2; all else 1	Return Period Scaling factor from Table 3.1, Factor C: Scaling Factor
Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0	Assessed %NBS after: 100% Assessed %NBS after: 100% Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Note: 1 designed between 1965 and 1992: 1935-1965 Note: 1 for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, zone B = 1.2; at else 1.0 Note: 1 for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, zone B = 1.2; at else 1.0 Note: 3: for buildings designed between 1975-1984, use 12 Note: 3: for buildings designed between 1975-1984, use 12 Note: 3: for buildings designed between 1975-1984, use 12 1.0 Note: 3: for buildings designed between 1975-1984, use 12 1.0 Note: 3: for buildings designed between 1975-1984, use 12 1.0 Note: 3: for buildings designed between 1975-1984, use 12 1.0 Note: 3: for buildings designed between 1975-1984, use 12 1.0 Note: 3: for buildings designed between 1975-1984, use 12 1.0 Note: 3: for buildings designed between 1975-1984, use 12 1.0 Note: 3: for buildings designed between 1975-1984, use 12 1.0 Note: 3: for buildings designed between 1975-1984, use 12 1.0 2.3 Hazard Scaling Factor Near Fault Scaling Factor from NZS1170.5, cl.3.1.6: 1.00 Assessed duclility (less than max in Table 3.2) 2.4 Return Period Scaling Factor Assessed duclility (less than max in Table 3.2) 1.00 Duclility scaling factor: =1 from 1976 onwards; or =ku, if pre-1976, fromTable 3.3: 1.00 1.00	Return Period Scaling factor from Table 3.1, Factor C: Assessed ductility (less than max in Table 3.2) 1.00 1.00
Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0	Assessed %NBS after: 100% ##### %NBS from IEP below Assessed %NBS before: 100% ##### %NBS from IEP below Assessed %NBS after: 100% ##### %NBS from IEP below Assessed %NBS after: 100% ##### %NBS from IEP below	Return Period Scaling factor from Table 3.1, Factor C: Solong
Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0	Assessed YMBS after: Assessed YMBS after: 1005: ##### %NBS from IEP below Assessed YMBS after: 1005: ##### %NBS from IEP below Assessed YMBS after: Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Seismic Zone, if designed between 1965 and 1992:	Return Period Scaling factor from Table 3.1, Factor C: Solong
Note 3: for buildings designed prior to 1935 use 0.8; except in Wellington (1.0) Along across Along across	Assessed NNBS after: 100% ##### NNBS from IEP below Assessed NNBS after: 100% ##### NNBS from IEP below Assessed NNBS after: 100% ##### NNBS from IEP below Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Seismic Zone, if designed between 1965 and 1992 Period (from above): not required for this age of building not required for this age of building on across 30ng acr	Return Period Scaling factor from Table 3.1, Factor C: along across
Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) Along across	Assessed %NBS after: 100% ##### %NBS from IEP below Assessed %NBS after: 100% ##### %NBS from IEP below Assessed %NBS after: 100% Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1985 Selsmic Zone, if designed between 1965 and 1992:	Return Period Scaling factor from Table 3.1, Factor C: along across
Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) Along across Final (%NBS)nom: GW GW GW	Assessed %NBS after: 100% ##### %NBS from IEP below Assessed %NBS after: 100% ##### %NBS from IEP below Assessed %NBS after: 100% ##### %NBS from IEP below Assessed %NBS after: 100% ##### %NBS from IEP below Assessed %NBS after: 100% ##### %NBS from IEP below Assessed %NBS after: 100% ##### %NBS from IEP below Assessed %NBS after: 100% ##### %NBS from IEP below Assessed %NBS after: 100% ##### %NBS from IEP below Assessed %NBS after: 100% ##### #### #### #### #### #### ###	Return Period Scaling factor from Table 3.1, Factor C: along across
Note 3: for buildings designed prior to 1935 use 0.8; except in Wellington (1.0) Along across	Assessed %NBS after: 100% ##### \$\text{Assessed 5\text{NBS before:}} \ 100% ###### \$\text{Assessed 5\text{NBS before:}} \ 100% ###### \$\text{Assessed 5\text{NBS before:}} \ 100% ###### \$\text{Assessed 5\text{NBS before:}} \ 100% ##################################	Return Period Scaling factor from Table 3.1, Factor C: along across
Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0	Assessed %NBS after: 100% Assessed %NBS from: 100% Assessed %NBS from: 100% Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields If not using IEP. In from above: 1935-1965 Period of design of building (from above): 1935-1965 Note: 1 for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1955-1976; Zone & 1.33; 1965-1976; Zone & 1.23; 1965-19	Return Period Scaling factor from Table 3.1, Factor C:
Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0	Assessed 5/MBS after: 100% Assessed 5/MBS fater: 100% Assessed 5/MBS fater: 100% Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1035-1965 Seismic Zone, if designed between 1965 and 1992: 1035-1965 Note: 1 for specifically design public buildings, to the code of the day: pre-1965 = 1.25, 1985-1976, Zone A = 1.33, 1985-1976, Zone B = 1.2: all sides 1.0 1.00 Note: 3 for buildings designed between 1967-1964, use 1.2 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	Return Period Scaling factor from Table 3.1, Factor C: along across
Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0	Assessed %NBS after: 1007a	Return Period Scaling factor from Table 3.1, Factor C: along across
Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0 1.0 1.0 1.0 1.0 1.0 1.0	Assessed NASS after: 1007. Assessed NASS ster: 1007. Assessed NASS ster: 1007. Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. In from above: not required to mis aged building Revised from above: not required the mis aged building Revised from above: not required the mis aged building Revised from above: 0.4 Note: 1 for specifically design public buildings, to the code of the day: pre-1905 = 1.2; 1906-1978, Zone A = 1.3; 1906-1978, Zone B = 1.2; all else to 10 Note: 1 for specifically design public buildings, to the code of the day: pre-1905 = 1.2; 1906-1978, Zone A = 1.3; 1906-1978, Zone B = 1.2; all else to 10 Note: 1 for specifically design public buildings, to the code of the day: pre-1905 = 1.2; 1906-1978, Zone B = 1.2; all else to 10 Note: 1 for specifically design public buildings, to the code of the day: pre-1905 = 1.2; 1906-1978, Zone B = 1.2; all else to 10 Note: 1 for specifically design public buildings, to the code of the day: pre-1905 = 1.2; 1906-1978, Zone B = 1.2; all else to 10 Note: 1 for specifically design public buildings, to the code of the day: pre-1905 = 1.2; 1906-1978, Zone B = 1.2; all else to 10 Note: 1 for specifically design public buildings, to the code of the day: pre-1905 = 1.2; 1906-1978, Zone B = 1.2; all else to 10 Note: 1 for specifically design public buildings, to the code of the day: pre-1905 = 1.2; 1906-1978, Zone B = 1.2; all else to 10 Note: 1 for specifically design public buildings, to the code of the day: pre-1905 = 1.2; 1906-1978, Zone B = 1.2; all else to 10 Note: 1 for specifically design public buildings, to the code of the day: pre-1905 = 1.0; 100 Note: 1 for specifically design public buildings, to the code of the day: pre-1905 = 1.0; 100 Note: 1 for specifically design public buildings, to the code of the day: pre-1905 = 1.0; 100 Note: 1 for specifically design public buildings, to the code of the day: pre-1905 = 1.0; 100 Note: 1	Return Period Scaling factor from Table 3.1, Factor C: along across
Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0	Assessed NARS after: 1000 peases NARS from EP below Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building from above): 1935-1985 Notes 1 designed between 1985 and 1992 Period from above): 1935-1985 Notes 1 for specifically design public buildings, to the code of the day: pre-1985 = 1.25, 1985-1985, 20re A - 1.32, 1985-1987, 20re B - 1.2, at elect 1.0 Notes 3 for buildings designed prior to 1935 use 0.8, except in Wellergen (1.0) Notes 3 for buildings designed prior to 1935 use 0.8, except in Wellergen (1.0) 1.0 Notes 3 for buildings designed prior to 1935 use 0.8, except in Wellergen (1.0) 1.0 Notes 3 for buildings designed prior to 1935 use 0.8, except in Wellergen (1.0) 1.0 1.0 1.0 1.0 1.0 1.0 1.0	Return Period Scaling factor from Table 3.1, Factor C: along across
Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1,0) 1.0	Assessed NARS after: 1.000. Assessed NARS after: 1.000. Use of this method is not manufactory - more detailed analysis may give a different answer, which would take precedence. Do not fill infects if not using IEP. In from above: m Setumic Zone, if designed between 1965 and 1992. Note: 1 for specifically design public buildings, to the code of the day. pre-1965 in 123, 1965-1973, Zone A in 133, 1965-1973, Zone B in 123, all destination of required for this age of building. Period of design of building from above: m Note: 1 for specifically design public buildings, to the code of the day. pre-1965 in 123, 1965-1973, Zone A in 133, 1965-1973, Zone B in 123, all destination of required for this age of building. Period (from above: m Note: 1 for specifically design public buildings, to the code of the day. pre-1965 in 123, 1965-1973, Zone A in 133, 1965-1973, Zone B in 123, all destination of required for this age of building. Note: 1 for specifically design public buildings, to the code of the day. pre-1965 in 123, 1965-1973, Zone A in 133, 1965-1973, Zone B in 123, all destination of required for this age of building. Note: 1 for specifically design public buildings, to the code of the day. pre-1965 in 123, 1965-1973, Zone A in 133, 1965-1973, Zone B in 123, all destination of the day. Pre-1974 (NARS)-inverted for this age of building. Period (from above: m Note: 1 for specifically design public buildings, to the code of the day. pre-1968 in 123, 1965-1973, Zone B in 123, all design public buildings. Period (from above: m Note: 1 for specifically design public buildings, to the code of the day. pre-1968, for the National State of t	Assessed ductility (less than max in Table 3.1, Factor C: along across
Note 3: for buildings designed prior to 1935 use 0.8, except in Welington (1.0) 1.0	Assessed VARSS after: 1003. Assessed VARSS after: 1003. Assessed VARSS after: 1003. Use of this method is not mandatory - more detailed analysis may give a different answer, which would take procedence. Do not fill it fields if not using IEP. In find allow method is not mandatory - more detailed analysis may give a different answer, which would take procedence. Do not fill it fields if not using IEP. In find allow method is not mandatory - more detailed analysis may give a different answer, which would take procedence. Do not fill it fields if not using IEP. In find allow method is not using IEP	Assessed ductility (less than max in Table 3.1, Factor C: along across along alo
Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0	Assessed VARSS after: 1002. Assessed VARSS from EP below	2.5 Ductility Scaling Factor Assessed ductility (less than max in Table 3.2) Ductility Scaling Factor: =1 from 1976 onwards; or =ky, # pre-1976, fromTable 3.3: Ductility Scaling Factor, Factor D: Ductility Scaling Factor: =1 from 1976 onwards; or =ky, # pre-1976, fromTable 3.3: Ductility Scaling Factor, Factor D: Ductility Scaling Factor, Factor D: Structural Performance Scaling Factor: =1 1.000 0.00 2.6 Structural Performance Scaling Factor: =1 1 1 2.7 Baseline %NBS, (NBS%)» = (%NBS)» x A x B x C x D x E
Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0	Assessed VARSS after: 1002. Assessed VARSS from EP below	2.5 Ductility Scaling Factor Assessed ductility (less than max in Table 3.2) Ductility Scaling Factor: =1 from 1976 onwards; or =ky, # pre-1976, fromTable 3.3: Ductility Scaling Factor, Factor D: Ductility Scaling Factor: =1 from 1976 onwards; or =ky, # pre-1976, fromTable 3.3: Ductility Scaling Factor, Factor D: Ductility Scaling Factor, Factor D: Structural Performance Scaling Factor: =1 1.000 0.00 2.6 Structural Performance Scaling Factor: =1 1 1 2.7 Baseline %NBS, (NBS%)» = (%NBS)» x A x B x C x D x E
Note 3: for buildings designed prior to 1935 ties 0.8, except it Wellington (1.0) 1.0	Assessed 5MS after: 1007.] Assessed 5MS after: 1007.] Assessed 5MS after: 1007.] Assessed 5MS after: 1007.] We of this method is not mandatory - more detailed analysis may give a different assewr, which would take precidence. Do not fill in fields if not using IEP. Period of design of building from above; 1103-1905 In a regarded for this age of building on temperated for this age of building on the precidence. The second of the day, pre-1864 - 122, 1867, 2004, 1-33, 1865-1978, 2004 - 1-33, 1865-1978, 2004 - 1-33, 1865-1978, 2004 - 1-33, 1865-1978, 2004 - 1-33, 1865-1978, 2004 - 1-33, 1865-1978, 2004 - 1-33, 1865-1978, 2004 - 1-33, 1865-1978, 2004 - 1-34, 1865-1978,	Assessed ductility (less than max in Table 3.2) Ductility Scaling Factor Assessed ductility (less than max in Table 3.2) Ductility Scaling Factor: = 1 from 1976 onwards; or «ky, if pre-1976, from Table 3.3: Ductility Scaling Factor D: 0.00 0.00 2.6 Structural Performance Scaling Factor: Spr. 1.000 1.000 Structural Performance Scaling Factor Factor D: 1.000 1.000 Structural Performance Scaling Factor Factor E: 1 1 1 1 2.7 Baseline %NBS, (NBS%)» = (%NBS)» x X x B x C x D x E Short Columns, NBS, (NBS%)» = (%NBS)» x X x B x C x D x E Short Columns, Factor B: 1 3.2. Vertical Irregularity, factor A: 1 3.2. Vertical Irregularity, Factor B: 1 3.3. Short columns, Factor C: Separation Power Significant Insignificant/none O-sepe-c005H 0.005-sepe-c01H Sep-01H Alignment of floors within 20% of H 0.7 0.8 1 Alignment of floors within 20% of H 0.7 0.8 Therefore, Factor D: 1 Table for Selection of D2 Severe Significant Insignificant/none NBS Separation O-sepe-c005H 0.005-sep-c01H Sep-01H Height difference ≥ 4 storeys 0.7 0.9 1 Height difference ≥ 2 storeys 1 1 1 1 1 3.5. Site Characteristics 1 Detail Critical Structural Weaknesses: (refer to DEE Procedure section 6)
Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) Private Pr	Assessed 5NRS after: 1007a marane 9ABB from IEP below Assessed 5NRS after: 1007a marane 9ABB from IEP below Assessed 5NRS after: 1007a marane 9ABB from IEP below Decided of design of building (from above): 1925-1925 Bearine Zone, if designed between 1956 and 1962 Bearine Zone, if designed between 1956 and 1962 Bearine Zone, if designed between 1956 and 1962 Return Period Standard Society of building (from above): 1925-1925 Note: 1 for specifically design public building, to the code of the day, pre-1965 - 122, 1967-1976, Zone 4 in 3, 1965-1976, Zone 6 in 3, 2006-1976,	Assessed ductility (less than max in Table 3.2) Ductility scaling Factor Assessed ductility (less than max in Table 3.2) Ductility scaling factor: =1 from 1976 onwards; or =ky, if pre-1976, from Table 3.3: Ductility Scaling Factor. Factor D: No.000
Note 3 for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0	Assessed 5NRS after: 1007a marane 9ABB from IEP below Assessed 5NRS after: 1007a marane 9ABB from IEP below Assessed 5NRS after: 1007a marane 9ABB from IEP below Decided of design of building (from above): 1925-1925 Bearine Zone, if designed between 1956 and 1962 Bearine Zone, if designed between 1956 and 1962 Bearine Zone, if designed between 1956 and 1962 Return Period Standard Society of building (from above): 1925-1925 Note: 1 for specifically design public building, to the code of the day, pre-1965 - 122, 1967-1976, Zone 4 in 3, 1965-1976, Zone 6 in 3, 2006-1976,	Assessed ductility (less than max in Table 3.2) Ductility scaling Factor Assessed ductility (less than max in Table 3.2) Ductility scaling factor: =1 from 1976 onwards; or =ky, if pre-1976, from Table 3.3: Ductility Scaling Factor. Factor D: No.000
Note 3: for buildings designed prior to 1935 Lise 0.8, except in Wellington (1.0)	Assessed NASS lafer: Dead of Lagranger of building from above): 1057-3] season NASS lafer: Period of design of building from above): 1051-1056 Selection Zore, if designed between 1965 and 1982: Period (from above): 1058-1056 and 1982: Period (from above): Period (from above): 1058-1056 and 1982: Period (from above): Period (from above): 1058-1056 and 1982: Period (from above): 1058-1056 and 1982: Period	2.5 Ductility Scaling Factor Assessed ductility (less than max in Table 3.2) Ductility scaling Factor = 1 from 1976 onwards; or =k u, if pre=1976, from Table 3.2) Ductility Scaling Factor = 1 from 1976 onwards; or =k u, if pre=1976, from Table 3.2) Ductility Scaling Factor Factor Ductility Scaling Factor = 1 from 1976 onwards; or =k u, if pre=1976, from Table 3.2) Ductility Scaling Factor Factor Ductility Scaling Factor = 1 from 1976 onwards; or =k u, if pre=1976, from Table 3.2) Ductility Scaling Factor Factor Ductility Scaling Factor Factor E
Building Consent required: no Describe:		Assessed %NBS before: 100% ##### %NBS from IEP below If IEP not used, please detail assessment methodology: Assessed %NBS before: 100% ##### %NBS from IEP below Assessed %NBS before: 100% ##### %NBS from IEP below Assessed %NBS after: 100% ##### %NBS from IEP below Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Not required for this age of building not
Building Consent required: no Describe:		Assessed %NBS before: 100% ##### %NBS from IEP below If IEP not used, please detail assessment methodology: Assessed %NBS before: 100% ##### %NBS from IEP below Assessed %NBS before: 100% ##### %NBS from IEP below Assessed %NBS after: 100% ##### %NBS from IEP below Assessed %NBS after: 100% ##### %NBS from IEP below Duse of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Not required for this age of building across 10.4 Note:1 for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone A = 1.3; 1965-1976, Zone B = 1.2; all else 1.0 Note:1 for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone A = 1.3; 1965-1976, Zone B = 1.2; all else 1.0 Note:1 for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone A = 1.3; 1965-1976, Zone B = 1.2; all else 1.0 Note:1 for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone A = 1.3; 1965-1976, Zone B = 1.2; all else 1.0 Note:1 for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone A = 1.3; 1965-1976, Zone B = 1.2; all else 1.0 Note:1 for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone A = 1.3; 1965-1976, Zone B = 1.2; all else 1.0 Note:1 for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone A = 1.3; 1965-1976, Zone B = 1.2; all else 1.0 Note:1 for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone B = 1.2; all else 1.0 Note:1 for specificall
		Assessed %NBS after: 100% Assessed %NBS before: 100% Assessed %NBS after: 100% Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Not required for this age of building not
		Assessed %NBS after: 100% Assessed %NBS before: 100% Assessed %NBS after: 100% Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Not required for this age of building not
		Assessed %NBS after: 100% Assessed %NBS before: 100% Assessed %NBS after: 100% Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Not required for this age of building not
		Assessed %NBS after: 100% Assessed %NBS before: 100% Assessed %NBS after: 100% Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Not required for this age of building not
		Assessed %NBS after: 100% Assessed %NBS before: 100% Assessed %NBS after: 100% Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Not required for this age of building not
		Assessed %NBS after: 100% Assessed %NBS before: 100% Assessed %NBS after: 100% Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Not required for this age of building not
		Assessed %NBS after: 100% Assessed %NBS before: 100% Assessed %NBS after: 100% Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Not required for this age of building not
		Assessed %NBS after: 100% #### %NBS from IEP below Assessed %NBS after: 100% #### %NBS from IEP below Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Seismic Zone, if designed between 1965 and 1992: not required for this age of building not req
		Assessed %NBS before: Assessed %NBS after: 100%
		Assessed %NBS before: Assessed %NBS after: 100%
		Assessed %NBS after: 10076 Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965
	Accorded 9/NIPC before:	Assessed %NBS after: 10076 Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965
	Aggregated 9/ NDC hadares	Assessed %NBS before: Assessed %NBS after: 100%
	Assessed %NBS before: 100% I ##### %NBS from IFP below If IFP not used please detail assessment	Assessed %NBS after: 10076 Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965
Assessed %NBS after: 100% methodology:		Assessed %NBS after: 10076 Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965
		Assessed %NBS after: 100%
		Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Not required for this age of building across 10.4 Note:1 for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone A = 1.33; 1965-1976, Zone B = 1.2; all else 1.0 Note 2: for RC buildings designed between 1976-1984, use 1.2 1.0 Note 3: for buildings designed between 1976-1984, use 1.2 1.0 Note:1 for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone B = 1.2; all else 1.0 Note 2: for RC buildings designed between 1976-1984, use 1.2 1.0 Note:3: for buildings designed between 1976-1984, use 1.2 1.0 Note:4: for Specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone B = 1.2; all else 1.0 Note:5: for buildings designed between 1976-1984, use 1.2 1.0 Note:6: for Specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone B = 1.2; all else 1.0 Note:7: for RC buildings designed between 1976-1984, use 1.2 1.0 Note:7: for Specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone B = 1.2; all else 1.0 Note:7: for RDS designed between 1976-1984, use 1.2 1.0 Note:7: for Specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone B = 1.2; all else 1.0 Note:7: for RDS designed between 1976-1984, use 1.2 1.0 Note:7: for Specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone B = 1.2; all else 1.0 Note:7: for Specifically design public buildings, to the code of the day
	Assessed %NBS after: 100% methodology:	Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Not required for this age of building not requ
Assessed %NBS after: 100%	Assessed %NBS after: 100% methodology: Assessed %NBS before: 100% ##### %NBS from IEP below	Period of design of building (from above): 1935-1965 Seismic Zone, if designed between 1965 and 1992: not required for this age of building design gradients age of building and previous along across (%MBS)nom from Fig 3.3: Note:1 for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone A = 1.33; 1965-1976, Zone B = 1.2; all else 1.0 Note 2: for RC buildings designed between 1976-1984, use 1.2 1.0 Note 3: for buildings designed between 1976-198
	Assessed %NBS after: 100% methodology: Assessed %NBS before: 100% ##### %NBS from IEP below	Period of design of building (from above): 1935-1965 Seismic Zone, if designed between 1965 and 1992: not required for this age of building design gradients age of building and previous along across (%MBS)nom from Fig 3.3: Note:1 for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone A = 1.33; 1965-1976, Zone B = 1.2; all else 1.0 Note 2: for RC buildings designed between 1976-1984, use 1.2 1.0 Note 3: for buildings designed between 1976-198
Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP.	Assessed %NBS after: 100% methodology: Assessed %NBS before: 100% ##### %NBS from IEP below	Period of design of building (from above): 1935-1965 Seismic Zone, if designed between 1965 and 1992: not required for this age of building across (%MBS)nom from Fig 3.3: Note:1 for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone A =1.33; 1965-1976, Zone B = 1.2; all else 1.0 Note 2: for Ro buildings designed between 1976-1984, use 1.2. 1.0 Note 3: for buildings designed between 1976-1984, use 1.2. 1.0 Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0 2.2 Near Fault Scaling Factor Near Fault scaling factor, from NZS1170.5, cl 3.1.6: 1.00 along across Near Fault scaling factor (1/N(T,D), Factor A: 1 1 2.3 Hazard Scaling Factor Hazard Scaling Factor Hazard Scaling Factor Near Fault scaling factor Z for site from AS1170.5, Table 3.3: Zeroe, from NZS4203:1992
	Assessed %NBS after: 100% methodology: Assessed %NBS before: 100% ##### %NBS from IEP below Assessed %NBS after: 100%	Note:1 for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone A = 1.3; 1965-1976, Zone B = 1.2; all else 1.0
	Assessed %NBS after: 100% methodology: Assessed %NBS before: 100% ##### %NBS from IEP below Assessed %NBS after: 100% Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP.	not required for this age of building along across 0.4 0
	Assessed %NBS after: 100% methodology: Assessed %NBS before: 100% ##### %NBS from IEP below Assessed %NBS after: 100% Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP.	Period (from above): along across 0.4
	Assessed %NBS after: 100% Assessed %NBS before: 100% #### %NBS from IEP below Assessed %NBS after: 100% Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Seismic Zone, if designed between 1965 and 1992:	Period (from above): 0.4
	Assessed %NBS after: 100% Assessed %NBS before: 100% #### %NBS from IEP below Assessed %NBS after: 100% Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Seismic Zone, if designed between 1965 and 1992:	(%MBS)nom from Fig. 3.3: Note:1 for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone A = 1.33; 1965-1976, Zone B = 1.2; all else 1.0 Note 2: for RC buildings designed between 1976-1984, use 1.2 1.0 Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0 Along
Period (from above): 0.4 0.4	Assessed %NBS after: 100% Assessed %NBS before: 100% Assessed %NBS after: 100% Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Seismic Zone, if designed between 1965 and 1992: 1935-1965 Seismic Zone, if designed between 1965 and 1992: 1935-1965	Note:1 for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone A = 1.33; 1965-1976, Zone B = 1.2; all else 1.0 Note 2: for RC buildings designed between 1976-1984, use 1.2 1.0 Note 3: for buildings designed between 1976-1984, use 1.2 1.0 Note 3: for buildings designed between 1976-1984, use 1.2 along across Final (%NBS)none: 0% 0% 2.2 Near Fault Scaling Factor Near Fault scaling factor, from NZS1170.5, cl 3.1.6: 1.00 along across Near Fault scaling factor, from NZS1170.5, cl 3.1.6: 1.00 along across 1.00
(%NBS)nom from Fig 3.3:	Assessed %NBS later: 100% #### %NBS from IEP below Assessed %NBS later: 100% #### %NBS from IEP below Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Seismic Zone, if designed between 1965 and 1992:	Note 2: for RC buildings designed between 1976-1984, use 1.2 1.0
Note:1 for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone A = 1.33; 1965-1976, Zone B = 1.2; all else 1.0	Assessed %NBS later: 100% #### %NBS from IEP below Assessed %NBS later: 100% #### %NBS from IEP below Assessed %NBS after: 100% #### %NBS from IEP below Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Seismic Zone, if designed between 1965 and 1992: 1935-1965 Seismic Zone, if designed between 1965 and 1992: 1935-1965 Period (from above): 1935-1965 Period (from above): 0.4 0.4	Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0
	Assessed %NBS later: 100% Assessed %NBS from: 100% ##### %NBS from IEP below Assessed %NBS after: 100% Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Seismic Zone, if designed between 1965 and 1992: Output	Final (%NBS)hom: 0% 0%
	Assessed %NBS before: 100% ##### %NBS from IEP below Assessed %NBS after: 100% ##### %NBS from IEP below Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Seismic Zone, if designed between 1965 and 1992: not required for this age of building not required for this age of building not required for this age of building across 0.4	Final (%NBS)hom: 0% 0%
	Assessed %NBS before: 100% ##### %NBS from IEP below Assessed %NBS hefore: 100% ##### %NBS from IEP below Assessed %NBS after: 100% ##### %NBS from IEP below Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Seismic Zone, if designed between 1965 and 1992: not required for this age of building not required for this age of building not required for this age of building across period (from above): 0.4 0.4 Note:1 for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone A = 1.33; 1965-1976, Zone B = 1.2; all else 1.0 1.00 Note:1 for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone A = 1.33; 1965-1976, Zone B = 1.2; all else 1.0 1.00 Note:1 for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone A = 1.33; 1965-1976, Zone B = 1.2; all else 1.0 1.00 Note:1 for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone A = 1.33; 1965-1976, Zone B = 1.2; all else 1.0 1.00	2.2 Near Fault Scaling Factor Near Fault scaling factor, from NZS1170.5, cl 3.1.6: 1.00 Near Fault scaling factor (1/N(T,D), Factor A: 1 1 2.3 Hazard Scaling Factor Hazard factor Z for site from AS1170.5, Table 3.3: Z1992, from NZS4203.1992
Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0	Assessed %NBS lefter: 100% ##### %NBS from IEP below Assessed %NBS before: 100% ##### %NBS from IEP below Assessed %NBS after: 100% ##### %NBS from IEP below Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Seismic Zone, if designed between 1965 and 1982: not required for this age of building not required for this age of building not required for this age of building across 1 along 1 alo	Along Across
Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0	Assessed %NBS lefter: 100% ##### %NBS from IEP below Assessed %NBS before: 100% ##### %NBS from IEP below Assessed %NBS after: 100% ##### %NBS from IEP below Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Seismic Zone, if designed between 1965 and 1982: not required for this age of building not required for this age of building not required for this age of building across 1 along 1 alo	Along Across
Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0 along across	Assessed %NBS lefer: 100% ##### %NBS from IEP below Assessed %NBS ferre: 100% ##### %NBS from IEP below Assessed %NBS after: 100% Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Seismic Zone, if designed between 1965 and 1992: 100 not required for this age of building along not required for this age of building not requ	Along Across
Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0 along across	Assessed %NBS lefer: 100% ##### %NBS from IEP below Assessed %NBS ferre: 100% ##### %NBS from IEP below Assessed %NBS after: 100% Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Seismic Zone, if designed between 1965 and 1992: 100 not required for this age of building along not required for this age of building not requ	Along Across
Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0 along across	Assessed %NBS lefer: 100% ##### %NBS from IEP below Assessed %NBS ferre: 100% ##### %NBS from IEP below Assessed %NBS after: 100% Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Seismic Zone, if designed between 1965 and 1992: 100 not required for this age of building along not required for this age of building not requ	Along Across
Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0 along across	Assessed %NBS lefer: 100% Assessed %NBS from: 100% Assessed %NBS from: 100% Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Seismic Zone, if designed between 1965 and 1992: One of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 One of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building of this age of building not required for this age of building not required for this age of building along across Period (from above): 0.4 One of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building of this age of building not required for this age of building across Period (from above): 0.4 One of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period (from above): 0.4 One of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. One of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. One of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. One of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. One of this method is not man	Near Fault scaling factor (1/N(T,D), Factor A: 1 1 2.3 Hazard Scaling Factor Hazard factor Z for site from AS1170.5, Table 3.3: Zivez, from NZS4203:1992
Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0 along across Final (%NBS) _{nom} : 0% 0%	Assessed %NBS leftre: 100% ##### %NBS from IEP below Assessed %NBS leftre: 100% ##### %NBS from IEP below Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Seismic Zone, if designed between 1965 and 1982: not required for this age of building not	Near Fault scaling factor (1/N(T,D), Factor A: 1 1 2.3 Hazard Scaling Factor Hazard factor Z for site from AS1170.5, Table 3.3: Zivez, from NZS4203:1992
Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0	Assessed %NBS lefter: 100% Assessed %NBS from: 100% Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Seismic Zone, if designed between 1965 and 1992: not required for this age of building along not required for this age of building along not required for this age of building not required for this age of building along not required for this age of building not required for this age of building along not require	2.3 Hazard Scaling Factor Hazard factor Z for site from AS1170.5, Table 3.3: Z treez, from NZS4203:1992
Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) along across Final (%NBS) O% O% 2.2 Near Fault Scaling Factor Near Fault scaling factor, from NZS1170.5, cl 3.1.6: 1.00 across	Assessed %NBS letter: 100% #### %NBS from IEP below Assessed %NBS after: 100% #### %NBS from IEP below Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Seismic Zone, if designed between 1965 and 1992: not required for this age of building not required for this age of building not required for this age of building along across along across (%NBS)nom from Fig. 3.: Note:1 for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone A = 1.33; 1965-1976, Zone B = 1.2; all else 1.0 Note 2: for RC Duildings designed between 1976-1984, use 1.2 Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0 Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0 Note 3: for Buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0 Note 3: for Buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0 Note 3: for Buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0 Note 3: for Buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0 Note 3: for Buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0 Note 3: for Buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0 Note 3: for Buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0 Note 3: for Buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0 Note 3: for Buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0 Note 3: for Buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0 Note 3: for Buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0 Note 3: for Buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0 Note 3: for Buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0 Note 3: for Buildings de	Z1992, from NZS4203:1992
Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) along across Final (%NBS) O% O% 2.2 Near Fault Scaling Factor Near Fault scaling factor, from NZS1170.5, cl 3.1.6: 1.00 across	Assessed %NBS lefter: 100% ##### %NBS from IEP below Assessed %NBS lefter: 100% ##### %NBS from IEP below Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Seismic Zone, if designed between 1965 and 1992: not required for this age of building across 10.4 Note:1 for specifically design public buildings, to the code of the day: pre-1965 = 1.25; 1965-1976, Zone A = 1.33; 1965-1976, Zone B = 1.2; all else 1.0 Note:2 for RC Duildings designed between 1976-1984, use 1.2 Note:3 for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0 Note:3 for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0 Note:3 for Buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0 Note:3 for Buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0 Note:3 for Buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0 Note:3 for Buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0 Note:3 for Buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0 Note:3 for Buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0 Note:3 for Buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0 Note:3 for Buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0 Note:3 for Buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 2.2 Near Fault Scaling Factor	Z1992, from NZS4203:1992
Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0	Assessed %NBS letter: 100% Assessed %NBS from IEP below Assessed %NBS from IEP below Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Seismic Zone, if designed between 1965 and 1992: not required for this age of building not required for this age	
Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0	Assessed %NBS leters: 100% ##### %NBS from IEP below Assessed %NBS after: 100% ##### %NBS from IEP below Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 he from above: m Seismic Zone, if designed between 1965 and 1992: not required for this age of building slong across 10,4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.	
Note 3: for buildings designed prior to 1935 use 0.8, except in Wellington (1.0) 1.0	Assessed %NBS leter: 100% Assessed %NBS from IEP below Use of this method is not mandatory - more detailed analysis may give a different answer, which would take precedence. Do not fill in fields if not using IEP. Period of design of building (from above): 1935-1965 Seismic Zone, if designed between 1965 and 1992: not required for this age of building not required for	

ing Ev



Aurecon New Zealand Limited Level 2, 518 Colombo street Christchurch Central 8011

PO Box 1061 Christchurch 8140 New Zealand

T +64 3 375 0761
F +64 3 379 6955
E christchurch@aurecongroup.com
W aurecongroup.com

Aurecon offices are located in:
Angola, Australia, Botswana, China,
Ethiopia, Hong Kong, Indonesia,
Lesotho, Libya, Malawi, Mozambique,
Namibia, New Zealand, Nigeria,
Philippines, Singapore, South Africa,
Swaziland, Tanzania, Thailand, Uganda,
United Arab Emirates, Vietnam.