Existing Buildings" Technical Guidelines	as been carried out solely as an initial seis for Engineering Assessments, July 2017. ny party for any other purpose. Detailed	mic assessment of the building following This spreadsheet must be read in conjur	g the procedure set out in the procedure set out in the limitations set	et out in the accompanying
Street Number & Name:	5A Timaru Grove		Job No.:	5-C3957.00
AKA:			By:	GSF
lame of building: City:	Kelson Community Hous Kelson, Hutt City	ie	Date: Revision No.:	22/08/2019 0
Fable IEP-1         Initial Ev           Step 1 - General Information	aluation Procedure Step	1		
.1 Photos (attach sufficient t	o describe building)			
.2 Sketches (plans etc, show		RE PHOTOS ON PAGE 1a ATTAC	CHED	
tructure: Timber framed walls with oundations: Concrete slab on grad oof: Timber framed with lightweig	e and reinforced foundation walls a	nd tie beams	quired use Page 1a)	
.4 Note information sources	Tick as appropriate			
Visual Inspection of Exterior Visual Inspection of Interior Drawings (note type)		Specifications Geotechnical Reports		-

reet Number &	& Name:	5A Timaru	Grove		Joł	o No.:	5-C3957.00	
<b>{A:</b>		Kalaan Ca			By:		GSF	
ame of buildin ity:	g:	Kelson, Hu	nmunity House		Dat	e: vision No.:	22/08/2019 0	
	Initial Ex	· · ·	-		110		<u> </u>	
able IEP-2			cedure Step 2					
t <b>ep 2 - Detern</b> aseline (%NBS)	•	% <b>NBS)</b> b ilding - refer Sectio	n B5 )					
		S) = (%NBS) <sub>nom</sub>	120)		Longitudinal		Transverse	
a) Building Str	ongthoning Dot							
			ened in this direction					
	-	-	building has been strengthened	l to	N/A		N/A	
0	· •	U U	0 0		1977		107	
b) Year of Desig	gn/Strengthenii	ng, Building Type	and Seismic Zone					
					Pre 1935		Pre 1935	0
					1935-1965 O		1935-1965 1965-1976	00
				1	1976-1984 🔵		1976-1984	0
					1984-1992		1984-1992	Ő
					1992-2004 O 2004-2011 O		1992-2004 2004-2011	00
					Aug 2011		Post Aug 2011	
			Building Type:	Others	•		Others	•
			Seismic Zone:	Zone A	•		Zone A	-
c) Soil Type F	rom NZS1170.	5:2004, CI 3.1.3 :		C Shallow	Soil 🔻		C Shallow Soil	
		1992, CI 4.6.2.2 :		C Shallow	3011			
		4 and only if know	/n)		Not applicable		Not applicab	le
d) Estimate Pe Comment:	riod, T			h <sub>n</sub> =	6		6 r	n
				$A_c =$	1.00		1.00 r	m²
	sisting Concrete		$T = \max\{0.09h_n^{0.75}, 0.4\}$		0		0	
	sisting Steel Fran		$T = \max\{0.14h_n^{0.75}, 0.4\}$ $T = \max\{0.08h_n^{0.75}, 0.4\}$		0 0 •		000000	
	me Structures:	ramos.	$T = \max\{0.06h_n^{0.75}, 0.4\}$		ĕ		Ĩ	
Concrete Sh			$T = \max\{0.09h_n^{0.75}/A_c^{0.5}, 0.4\}$ T < 0.4sec	}	0			
Masonry She User Defined	d (input Period):		7 <u>&lt;</u> 0.4sec		00		00	
	Where h <sub>n</sub>		the base of the structure to the					
	uppermost	seismic weight or mas	5.		T: 0.40		0.40	
e) Factor A:	Strengthening facto if not strengthened)		ult from (a) above (set to 1.0	Factor /	<b>A:</b> 1.00		1.00	
f) Factor B:	Determined from NZ results (a) to (e) abo	ZSEE Guidelines Figure	3A.1 using	Factor I	<b>3:</b> 0.25		0.25	
	For reinforced conc C = 1.2, otherwise $f$		between 1976-84 Factor	Factor (	1.00		1.00	
h) Factor D:	For buildings design and Napier (1931-1 take as 1.0.	ned prior to 1935 Facto 935) where Factor D m	r D = 0.8 except for Wellington ay be taken as 1.0, otherwise	Factor I	D: 1.00		1.00	
(%NBS) <sub>nom</sub> =	AxBxCxD			(%NBS) <sub>nc</sub>	m 25%		25%	

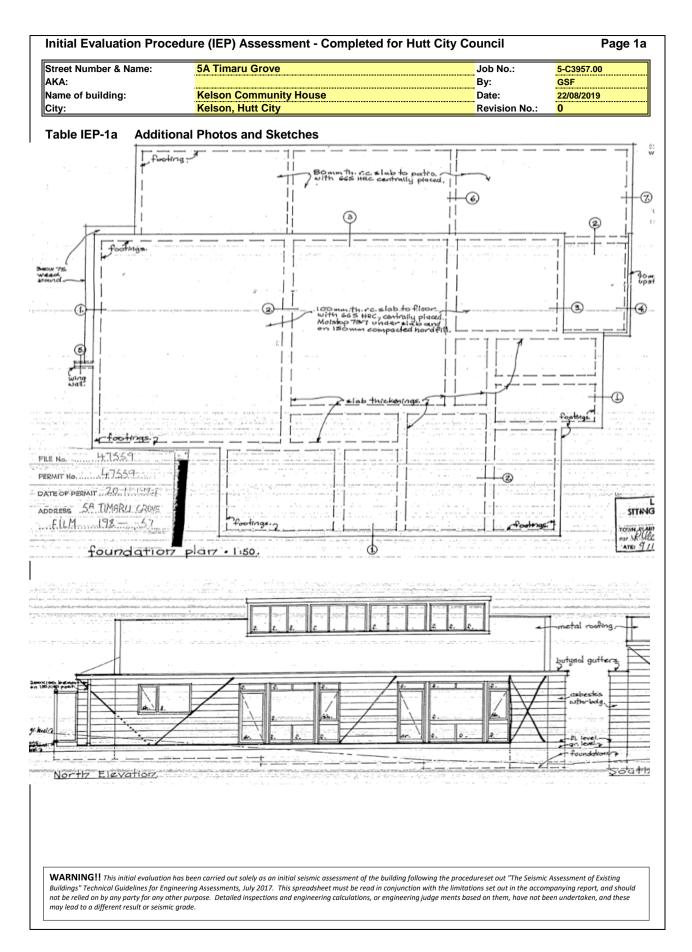
Street Number & Name:	5A Timaru Grov	e		Job No.:	5-C3957.00
AKA: Name of building:	Kelson Commu	nity House		By: Date:	GSF 22/08/2019
City:	Kelson, Hutt Cit			Revision No.	······
Table IEP-2 Initial Eva	aluation Proced	ure Step 2 c	ontinued		
2.2 Near Fault Scaling Factor,		•			
If <i>T</i> < 1.5sec, Factor E = 1			Longitudi	nal	<u>Transverse</u>
a) Near Fault Factor, N(T,D)			N(T,D): 1		1
(from NZS1170.5:2004, Cl 3.1.6) b) Factor E		= 1/N(T,D)	Factor E: 1.00		1.00
2.3 Hazard Scaling Factor, Fac	tor F				
a) Hazard Factor, Z, for site Locatior			Refer right for user-defined lo	cations	
			-	cations	
Z Z <sub>1992</sub>	C = 0.4	(from NZS1170.5:20 (NZS4203:1992 Zor	D04, Table 3.3) ne Factor from accompanying Figure 3.	5(b))	
Z <sub>2004</sub>		(from NZS1170.5:20	004, Table 3.3)		
b) Factor F For pre 1992	=	1/ <i>Z</i>			
For 1992-2011	=	$Z_{1992}/Z$			
For post 2011	=	Z <sub>2004</sub> /Z	Factor F: 2.50		2.50
2.4 Return Period Scaling Fact a) Design Importance Level, I (Set to 1 if not known. For building de public building set to 1.25. For building public building set to 1.33 for Zone A	signed prior to 1965 and know s designed 1965-1976 and kn	nown to be designed a		•	▼
b) Design Risk Factor, R <sub>o</sub> (set to 1.0 if other than 1976-2004, or	r not known)		$R_o = 1$		▼
c) Return Period Factor, R (from NZS1170.0:2004 Building Impo	ortance Level)	Choose Importa	<u>ance Level</u> _1	3 04 0	D1
d) Factor G	=	IR₀/R		_	
2.5 Ductility Scaling Factor, Fa a) Available Displacement Duct		ructure	Factor G: 1.00		1.00
Comment:		luoturo	$\mu = \frac{2.00}{2}$	<u></u>	2.00
Lightweight timber framing - n	nixture of linings				
b) Factor H	E (070 ( )		κ <sub>μ</sub>		$k_{\mu}$
	For pre 1976 (maxin For 1976 onwards	num of 2)	= 1.57 = 1 Factor H: 1.00	_	1.57 1 1.00
(where $k\mu$ is NZS1170.5:2004 Inelast	ic Spectrum Scaling Factor, f	rom accompanying Ta			1.00
2.6 Structural Performance Sca a) Structural Performance Factor	-	I			
(from accompanying Figure 3.4) Tick if light timber-framed cons	truction in this direction		S <sub>p</sub> = 0.50		<ul><li>✓</li><li>0.50</li></ul>
b) Structural Performance Scalin Note Factor B values for 1992 to 200	•	= $1/S_p$ 67 to account for Sp ir	Factor I: 2.00		2.00
2.7 Baseline %NBS for Buildin (equals (%NBS) <sub>nom</sub> x E x F x			127%	5	127%
WARNING!! This initial evaluation has Buildings" Technical Guidelines for Enginee					

reet Number & Name:	5A Timaru Grove		Jo	b No.:	5-C3957.00
A:			Bj	•	GSF
me of building: y:	Kelson Community House Kelson, Hutt City			ate: evision No.:	22/08/2019 0
ble IEP-3 Initial E	valuation Procedure Step 3				
fer Appendix B - Section B3.2)	rformance Achievement Ratio (PA	र)			
Longitudinal Direction					
potential CSWs		ructural Performa ue - Do not interpo			Fact
Plan Irregularity Effect on Structural Performa		○ Significant		Insignificant	Factor A 1.0
	rmance, timber frame with bracing walls	Signinicant			
Vertical Irregularity					
Effect on Structural Performa Comment: NĂ	ance 🔿 Severe	⊖ Significant		Insignificant	Factor B 1.0
Short Columns					<mark></mark>
Effect on Structural Performa	ance 🔿 Severe	⊖ Significant		Insignificant	Factor C 1.0
	e building has a frame structure. For stiff g the coefficient to the right of the value			ect of pounding	
may be reduced by takin	g the coefficient to the right of the value	applicable to frame	e buildings. ngitudinal Dire	ection: 1.0	]
	g the coefficient to the right of the value	applicable to frame Factor D1 For Lor Severe	e buildings. ngitudinal Dire Significant		]
may be reduced by takin	ng the coefficient to the right of the value	applicable to frame Factor D1 For Lor Severe tion 0 <sep<.005h< td=""><td>e buildings. ngitudinal Dire Significant</td><td>ection: 1.0</td><td></td></sep<.005h<>	e buildings. ngitudinal Dire Significant	ection: 1.0	
Table for Selectio	ng the coefficient to the right of the value n of Factor D1 Separa	Factor D1 For Lor Severe tion 0 <sep<.005h ight 01</sep<.005h 	e buildings. ngitudinal Dire Significant .005 <sep<.01h< th=""><th>ection: 1.0 Insignificant Sep&gt;.01H</th><th></th></sep<.01h<>	ection: 1.0 Insignificant Sep>.01H	
may be reduced by takin	ng the coefficient to the right of the value n of Factor D1 Separa Alignment of Floors within 20% of Storey He nment of Floors not within 20% of Storey He	Factor D1 For Lor Severe tion 0 <sep<.005h ight 01</sep<.005h 	ngitudings. ngitudinal Dire Significant .005 <sep<.01h Q1</sep<.01h 	ection: 1.0 Insignificant Sep>.01H ©1	
Table for Selectio Alig NĀ b) Factor D2: - Heigh	ng the coefficient to the right of the value n of Factor D1 Alignment of Floors within 20% of Storey He nment of Floors not within 20% of Storey He	applicable to frame         Factor D1 For Lor         Severe         tion       0 <sep<.005h< td="">         ight       01         ight       00.4</sep<.005h<>	ngitudings. ngitudinal Dire Significant .005 <sep<.01h ①1 ①0.7 ngitudinal Dire</sep<.01h 	ection: 1.0 Insignificant Sep>.01H ©1 O.8 Co.8	
Table for Selectio	ng the coefficient to the right of the value n of Factor D1 Alignment of Floors within 20% of Storey He nment of Floors not within 20% of Storey He	applicable to frame         Factor D1 For Lor         Severe         tion         0 <sep<.005h< td="">         ight         01</sep<.005h<>	ngitudings. ngitudinal Dire Significant .005 <sep<.01h ①1 ①0.7 ngitudinal Dire</sep<.01h 	ection: 1.0 Insignificant Sep>.01H ©1 O.8	
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Table for Selectio Alig NÅ b) Factor D2: - Heigh	ng the coefficient to the right of the value n of Factor D1 Separa Alignment of Floors within 20% of Storey He nment of Floors not within 20% of Storey He nt Difference Effect n of Factor D2	applicable to frame         Factor D1 For Lor         Severe         tion       0 <sep<.005h< td="">         ight       O1         ight       O0.4         Factor D2 For Lor       Severe         0<sep<.005h< td="">       0.4         eys       O0.4</sep<.005h<></sep<.005h<>	ngitudings. ngitudinal Dire Significant .005 <sep<.01h O1 O0.7 ngitudinal Dire Significant .005<sep<.01h< td=""><td>ection: 1.0 Insignificant Sep&gt;.01H ①1.0 ①0.8 Pection: 1.0 Insignificant Sep&gt;.01H</td><td></td></sep<.01h<></sep<.01h 	ection: 1.0 Insignificant Sep>.01H ①1.0 ①0.8 Pection: 1.0 Insignificant Sep>.01H	
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may be reduced by takin         Table for Selection         Alig         NÅ         b) Factor D2: - Heigh         Table for Selection         NÅ         NÅ         NÅ         NÅ         NÅ         NÅ         NÅ         NÅ         D) Factor D2: - Height         Table for Selection         NÅ	In of Factor D1 Separa Alignment of Floors within 20% of Storey He nment of Floors not within 20% of Storey He the Difference Effect In of Factor D2 Height Difference > 4 Stor Height Difference 2 to 4 Stor	applicable to frame         Factor D1 For Lor         Severe         tion       0 <sep<.005h< td="">         ight       O1         ight       O0.4         Factor D2 For Lor         Severe       0<sep<.005h< td="">         0<sep<.005h< td="">         eys       O0.4         eys       O0.7         eys       O1</sep<.005h<></sep<.005h<></sep<.005h<>	ngitudings. ngitudinal Dire Significant .005 <sep<.01h O1 O0.7 005-Sep&lt;.01H O2.7 O3-Sep&lt;.01H O2.7 O3-Sep&lt;.01H O3-Sep O1</sep<.01h 	ection: 1.0 Insignificant Sep>.01H O.8 ection: 1.0 Insignificant Sep>.01H On On On On	Factor D 1.0
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may be reduced by takin         Table for Selection         Alig         NÅ         b) Factor D2: - Height         Table for Selection         NÅ         Site Characteristics - State         Effect on Structural Perform         Comment - Potential for slop         Other Factors - for allowar         Record rationale for ch	In of Factor D1 Separa Alignment of Floors within 20% of Storey He nment of Floors not within 20% of Storey He nment of Floors not within 20% of Storey He nt Difference Effect Height Difference > 4 Stor Height Difference > 4 Stor Height Difference < 2 Stor Height Difference < 3 Stor Height Difference < 4 Stor Height Difference < 3 Stor Height Difference < 3 Stor Height Difference < 3 Stor Height Difference < 4 Stor Height Difference < 3 Stor Height Difference < 4 Stor Height Difference < 5 Stor Height Difference < 4 Stor Height Difference < 5 Stor Height < 5 Stor Height Difference < 5 Stor Height Difference < 5 Stor Height < 5 Stor He	applicable to frame         Factor D1 For Lor         Severe         tion       0 <sep<.005h< td="">         ight       O1         ight       O0.4         Factor D2 For Lor         Severe         0<sep<.005h< td="">         ght       O0.4         Factor D2 For Lor         Severe         0<sep<.005h< td="">         eys       O0.4         eys       O0.7         eys       O1         ffects the structural p         Iffects the structural p         Iffight ground accelera         building       For</sep<.005h<></sep<.005h<></sep<.005h<>	a buildings.	ection: 1.0 Insignificant Sep>.01H ©1 O.8 ection: 1.0 Insignificant Sep>.01H ©1 O1 O1 O1 O1 O1 O1 O1 O1 O1 O	Factor D 1.0 pective Factor E 0.7
may be reduced by takin         Table for Selection         Alig         NÅ         b) Factor D2: - Height         Table for Selection         NÅ         Site Characteristics - State         Effect on Structural Perform         Comment - Potential for slop         Other Factors - for allowar         Record rationale for ch	In of Factor D1 Separa Alignment of Floors within 20% of Storey He nment of Floors not within 20% of Storey He nment of Floors not within 20% of Storey He nt Difference Effect Height Difference > 4 Stor Height Difference > 4 Stor Height Difference < 2 Stor Height Difference < 2 Stor Storey He not Factor D2 Severe per movement to the south of building under the occ of all other relevant characterstics of the oice of Factor F:	applicable to frame         Factor D1 For Lor         Severe         tion       0 <sep<.005h< td="">         ight       O1         ight       O0.4         Factor D2 For Lor         Severe         0<sep<.005h< td="">         eys       O0.4         eys       O0.7         eys       O1         ffects the structural p         Iffects the structural p</sep<.005h<></sep<.005h<>	a buildings.	ection: 1.0 Insignificant Sep>.01H ©1 O.8 ection: 1.0 Insignificant Sep>.01H ©1 O1 O1 O1 O1 O1 O1 O1 O1 O1 O	Factor D 1.0 spective Factor E 0.7 Factor F 1.0
may be reduced by takin         Table for Selection         Alig         NÅ         b) Factor D2: - Height         Table for Selection         NÅ         Site Characteristics - State         Effect on Structural Perform         Comment - Potential for slo         Other Factors - for allowar         Record rationale for ch	In of Factor D1 Separa Alignment of Floors within 20% of Storey He nment of Floors not within 20% of Storey He nment of Floors not within 20% of Storey He int Difference Effect Height Difference > 4 Stor Height Difference > 4 Stor Height Difference < 2 Stor Height Difference < 2 Stor Height Difference < 2 Stor Height Difference < 2 Stor Height Difference < 3 Stor Height Difference < 4 Stor Height Difference < 3 Stor Height Difference < 3 Stor Height Difference < 3 Stor Height Difference < 3 Stor Height Difference < 4 Stor Height Difference < 4 Stor Height Difference < 4 Stor Height Difference < 5 Store Height Differe	applicable to frame         Factor D1 For Lor         Severe         tion       0 <sep<.005h< td="">         ight       O1         ight       O0.4         Factor D2 For Lor         Severe         0<sep<.005h< td="">         eys       O0.4         eys       O0.7         eys       O1         ffects the structural p         Iffects the structural p</sep<.005h<></sep<.005h<>	a buildings.	ection: 1.0 Insignificant Sep>.01H ©1 O0.8 ection: 1.0 Insignificant Sep>.01H ©1 O1 O1 O1 O1 O1 O1 O1 O1 O1 O	Factor D 1.0 pective Factor E 0.7

eet Number & Name:	5A Timaru Grove		Jol	b No.:	5-C3957.00
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me of building: y:	Kelson Community House Kelson, Hutt City		Dat	te: vision No.:	22/08/2019 0
•	<b>_</b>				-
ble IEP-3 Initial I	Evaluation Procedure Step 3				
ep 3 - Assessment of P fer Appendix B - Section B3.	erformance Achievement Ratio (PAR)				
Transverse Direction					
potential CSWs		uctural Perform le - Do not interpo			Fact
Plan Irregularity					
Effect on Structural Perfor	rmance O Severe O formance, timber frame with bracing walls	Significant		Insignificant	Factor A 1.0
insignificant impact on per					
Vertical Irregularity					
Effect on Structural Perfor Comment: NĀ	rmance 🔿 Severe 🔿	Significant		Insignificant	Factor B 1.0
Short Columns					
Effect on Structural Perfor	rmance O Severe O	Significant		Insignificant	Factor C 1.0
Comment: Nil					
		licable to frame b	ouildings.	t of pounding	
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New of New York of Al			ment - Completed					Page
Street Number & Na	ame:	5A Timaru Grove			Job Ne By:	D.:	5-C3957.00 GSF	
Name of building:		Kelson Commun			Date:		22/08/2019	
City:		Kelson, Hutt City	1		Revisi	on No.:	0	
able IEP-4	Initial Evalua	ation Procedu	re Steps 4, 5, 6 an	nd 7				
Step 4 - Percentag	ge of New Bui	Iding Standard (	%NBS)					
				Lon	gitudinal		Transverse	
	seline %NBS (%	%NBS) <sub>b</sub>			127%		127%	
(from Table I	EP - 1)							
4.2 Performance (from Table I	Achievement R EP - 2)	atio (PAR)			0.70		0.70	
				_	00%		0.0%/	
4.3 PAR x Baselir	ne ( <i>‰</i> NDS) <sub>b</sub>				90%		90%	
	ew Building States from	andard (%NBS) - 3 Step 4.3)	Seismic Rating				90%	
Step 5 - Is <i>%NBS</i>	< 34?						NO	
Step 6 - Potentiall	ly Earthquake	Risk (is <i>%NB</i> S <	< 67)?				NO	
Step 7 - Provision	al Grading for	r Seismic Risk ba	ased on IEP		Saismi	c Grade	Α	
					Ocialiti	Grade	~	
	ments (items of	note affecting IEP b	asad saismic rating)					
Comment: Nil	nments (items of	note affecting IEP b	ased seismic rating)					
	nments (items of	note affecting IEP b	ased seismic rating)					
	nments (items of	note affecting IEP b	ased seismic rating)					
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	nments (items of	note affecting IEP b	ased seismic rating)					
	nments (items of	note affecting IEP b	ased seismic rating)					
Comment: Nil								
Comment: Nil	ip between	Grade and %Λ	IBS:					
Comment: Nil	ip between Grade:	Grade and %A	IBS:	C C	D	E	1	
Comment: Nil	ip between	Grade and %A	IBS:			<u>Е</u> < 20		
Comment: Nil	ip between Grade:	Grade and %A	IBS:				]	
Comment: Nil	ip between Grade:	Grade and %A	IBS:				]	
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Comment: Nil	ip between Grade:	Grade and %A	IBS:				]	
Comment: Nil	ip between Grade:	Grade and %A	IBS:					
Comment: Nil	ip between Grade:	Grade and %A	IBS:				]	
Comment: Nil	ip between Grade:	Grade and %A	IBS:				]	
Comment: Nil	ip between Grade:	Grade and %A	IBS:					
Comment: Nil	ip between Grade:	Grade and %A	IBS:				]	
Comment: Nil	ip between Grade:	Grade and %A	IBS:				]	
Comment: Nil	ip between Grade:	Grade and %A	IBS:				]	
Comment: Nil	ip between Grade:	Grade and %A	IBS:					
Comment: Nil	ip between Grade:	Grade and %A	IBS:				]	

nit	ial Evaluation Proced	lure (IEP) Assessment - Completed for	r Hutt City Council	Page
KA	et Number & Name: :: ne of building:	5A Timaru Grove Kelson Community House	Job No.: By: Date:	5-C3957.00 GSF 22/08/2019
City:		Kelson, Hutt City	Revision No.:	0
	o 8 - Identification of pot	luation Procedure Step 8 ential Severe Structural Weaknesses (SSWs) significant number of occupants	) that could result in	
.1	Number of storeys above	ground level		1
.2	Presence of heavy concr	ete floors and/or concrete roof? (Y/N)		N
	Potential Severe	Structural Weaknesses (SSWs):		
	Note: Options that are greyed	out are not applicable and need not be considered.		
	Occupancy not conside	ered to be significant - no further considerat	ion required	
	Risk not considered to	be significant - no further consideration req	uired	
		Severe Structural Weaknesses (SSWs) have Id result in significant risk to a significant n		
	1. None identified			
	2. Weak or soft storey (	except top storey)		
		or beam-column joints the deformations of v ther structural elements	vhich are	
	4. Flat slab buildings w connections	ith lateral capacity reliant on low ductility sla	ab-to-column	
	5. No identifiable conne	ection between primary structure and diaphr	ragms	
	6. Ledge and gap stairs	5		
	IEP Assessme	nt Confirmed by		
WA	RNING!! This initial evaluation has	been carried out solely as an initial seismic assessment of the buildin	ng following the procedureset out in "The Sei	mic Assessment of Existing
Build not t	lings" Technical Guidelines for Engine	rring Assessments, July 2017. This spreadsheet must be read in conju purpose. Detailed inspections and engineering calculations, or engine	nction with the limitations set out in the acco	ompanying report, and should



F	inal	

1. Building Information	n
Building Name/ Description	Kelson Community House
Street Address	5A Timaru Grove, Kelson
Territorial Authority	Hutt City Council
No. of Storeys	1
Area of Typical Floor (approx.)	140 sqm
Year of Design (approx.)	1984
NZ Standards designed to	ΝΑ
Structural System including Foundations	Lined timber framed walls lightweight timber framed roof, concrete slab on grade and reinforced foundation walls and tie beams.
Does the building comprise a shared structural form or shares structural elements with any other adjacent titles?	Νο
Key features of ground profile and identified geohazards	Moderately sloped Hills, generally flat under the building sloping away to the south west of the building
Previous strengthening and/ or significant alteration	None
Heritage Issues/ Status	Nil
Other Relevant Information	None

2. Assessment Informa	ition
Consulting Practice	
<ul> <li>CPEng Responsible, including:</li> <li>Name</li> <li>CPEng number</li> <li>A statement of suitable skills and experience in the seismic assessment of existing buildings<sup>1</sup></li> </ul>	
<ul> <li>Documentation reviewed, including:</li> <li>date/version of drawings/ calculations<sup>2</sup></li> <li>previous seismic assessments</li> </ul>	1984 design drawings – sheets 1 to 4 of 4 Penetrometer testing
Geotechnical Report(s)	NA – assumed based on local knowledge refer to section 3
Date(s) Building Inspected and extent of inspection	22 August 2019
Description of any structural testing undertaken and results summary	None
Previous Assessment Reports	ΝΑ
Other Relevant Information	Nil

<sup>&</sup>lt;sup>1</sup> This should include reference to the engineer's Practice Field being in Structural Engineering, and commentary on experience in seismic assessment and recent relevant training

<sup>&</sup>lt;sup>2</sup> Or justification of assumptions if no drawings were able to be obtained

F	inal	

3. Summary of Enginee	ering Assessment Methodology and Key Parameters Used
Occupancy Type(s) and Importance Level	Importance Level 2
Site Subsoil Class	C assumed based on local knowledge and <b>NZS1170.5:2004 Site Subsoil</b> Classification of Lower Hutt http://nzsee.org.nz/db/2011/013.pdf
For an ISA:	
<ul> <li>Summary of how Part B was applied, including:</li> <li>Key parameters such as μ, S<sub>p</sub> and F factors</li> <li>Any supplementary specific calculations</li> </ul>	Ductility – 2.0 lined and braced timber framed walls Sp Factor – 0.5 for lightweight timber structure F Factor – 1.0 both directions based on the arrangement and length of the bracing walls with lightweight cladding. 0.7 – Site Characteristic factor applied
For a DSA:	
Summary of how Part C was applied, including: • the analysis methodology(s) used from C2 • other sections of Part C applied	NA
Other Relevant Information	NA

4. Assessment Outcomes		
Assessment Status (Draft or Final)	Final	
Assessed %NBS Rating	90%NBS IL2	
Seismic Grade and Relative Risk (from Table A3.1)	A Grade 1-2 times risk comparable to new building	
For an ISA:		
Describe the Potential Critical Structural Weaknesses	None identified	
Does the result reflect the building's expected behaviour, or is more information/ analysis required?	Yes – the ISA is sufficient	
If the results of this ISA are being used for earthquake prone decision purposes, <u>and</u> elements rating <34%NBS have been identified:	Engineering Statement of Structural Weaknesses and Location NA	<i>Mode of Failure and Physical</i> <i>Consequence</i> Statement(s) NA
For a DSA:		I
Comment on the nature of Secondary Structural and Non-structural elements/ parts identified and assessed		
Describe the Governing Critical Structural Weakness		
If the results of this DSA are being used for earthquake prone decision purposes, <u>and</u> elements rating <34%NBS have been identified (including Parts) <sup>3</sup> :	Engineering Statement of Structural Weaknesses and Location	Mode of Failure and Physical Consequence Statement(s)
Recommendations (optional for EPB purposes)		

<sup>&</sup>lt;sup>3</sup> If a building comprises a shared structural form or shares structural elements with other adjacent titles, information about the extent to which the low scoring elements affect, or do not affect the structure.