| 1. Building Information | |
|---|---|
| Building Name/ Description | Animal Services |
| Street Address | 19A Meachen Street, Seaview |
| Territorial Authority | Hutt City Council |
| No. of Storeys | 2 |
| Area of Typical Floor (approx.) | 180 sqm per floor, 360 sqm overall |
| Year of Design (approx.) | 1986 |
| NZ Standards designed to | NZS 3604:1984<br>NZS 4203:1984 |
| Structural System including Foundations | **Structure:** Reinforced concrete masonry walls and reinforced concrete columns. Slender reinforced columns attached at the first level with steel plates attached to timber joists, 20mm particle board.<br><br>**Foundations:** Mesh reinforced concrete slab on grade with reinforced concrete pads under the columns and footings under the masonry walls<br><br>**Roof:** Steel UB Beams connected with timber purlins, gib ceiling diaphragm. Butanol over timber cladding |
| Does the building comprise a shared structural form or shares structural elements with any other adjacent titles? | No |
| Key features of ground profile and identified geohazards | Flat even ground profile, subsoil E, land reclaimed during the 1950s, potential for liquefaction. 280m from shore, limited potential for lateral spreading. |
| Previous strengthening and/ or significant alteration | None |
| Heritage Issues/ Status | Nil |
| Other Relevant Information | Constructed on land reclaimed in the 1950s |

| **2. Assessment Information** | |
|---|---|
| Consulting Practice | WSP New Zealand Ltd |
| CPEng Responsible, including:<br>• Name<br>• CPEng number<br>• A statement of suitable skills and experience in the seismic assessment of existing buildings[1] | [redacted] |
| Documentation reviewed, including:<br>• date/ version of drawings/ calculations[2]<br>• previous seismic assessments | Architectural drawings by Craig, Craig and Moller dated April 1986, job number 1391, sheets 1, 2a, 3a, 4a, 5, 6, 7a, 8 and 9<br>Structural drawings by Holmes, Wood, Poole and Johnstone Ltd dated April 1986, job number 1160, sheets S1 to S4<br>Structural calculations dated March 1986 |
| Geotechnical Report(s) | NA – assumed based on local knowledge refer to section 3 |
| Date(s) Building Inspected and extent of inspection | 20 May 2020 – exterior only |
| Description of any structural testing undertaken and results summary | None |
| Previous Assessment Reports | NA |
| Other Relevant Information | Nil |

[1] 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
[2] Or justification of assumptions if no drawings were able to be obtained

| 3. Summary of Engineering Assessment Methodology and Key Parameters Used | |
|---|---|
| Occupancy Type(s) and Importance Level | Importance Level 2 |
| Site Subsoil Class | E assumed based on local knowledge and ***NZS1170.5:2004 Site Subsoil Classification of Lower Hutt*** http://nzsee.org.nz/db/2011/013.pdf Reclaimed land 1950s |
| **For an ISA:** | |
| Summary of how Part B was applied, including:<br>• Key parameters such as $\mu$, $S_p$ and F factors<br>• Any supplementary specific calculations | **Ductility –** 1.25 limited by the ductility of the reinforced masonry walls<br>**Sp Factor –** 0.85<br>**F Factor –**<br>**Longitudinal:** Long reinforced concrete masonry wall in plane and concrete columns. Lightweight roof and first floor have effective diaphragms. F Factor 1.0, 0.7 factor applied for torsional effects.<br>**Transverse:** Short reinforced concrete masonry walls in plane and concrete columns with lightweight roof and first floor, F factor 1.0 |
| **For a DSA:** | |
| Summary of how Part C was applied, including:<br>• the analysis methodology(s) used from C2<br>• other sections of Part C applied | NA |
| Other Relevant Information | NA |

| **4. Assessment Outcomes** | | |
|---|---|---|
| Assessment Status (Draft or Final) | Final | |
| Assessed *%NBS* Rating | 40%NBS IL2 | |
| Seismic Grade and Relative Risk (from Table A3.1) | C - 5 – 10 times greater | |
| **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, and elements rating <34*%NBS* have been identified: | **Engineering Statement of Structural Weaknesses and Location**<br><br>NA | ***Mode of Failure and Physical Consequence* Statement(s)**<br><br>NA |
| **For a DSA:** | | |
| 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, and elements rating <34*%NBS* have been identified (including Parts)[3]: | **Engineering Statement of Structural Weaknesses and Location** | ***Mode of Failure and Physical Consequence* Statement(s)** |
| Recommendations (*optional for EPB purposes*) | | |

[3] 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.

# Initial Evaluation Procedure (IEP) Assessment - Completed for Hutt City Council 

**WARNING!!** *This initial evaluation has been carried out solely as an initial seismic assessment of the building following the procedure set out in the "The Seismic Assessment of Existing Buildings" Technical Guidelines for Engineering Assessments, July 2017. This spreadsheet must be read in conjunction with the limitations set out in the accompanying report, and should not be relied on by any party for any other purpose. Detailed inspections and engineering calculations, or engineering judgements based on them, have not been undertaken, and these may lead to a different result or seismic grade.*

| | | | |
|---|---|---|---|
| **Street Number & Name:** | **19A Meachen Street** | **Job No.:** | **5-C3957.00** |
| **AKA:** | | **By:** | [redacted] |
| **Name of building:** | | **Date:** | **29/05/2020** |
| **City:** | **Seaview, Hutt City** | **Revision No.:** | **0** |

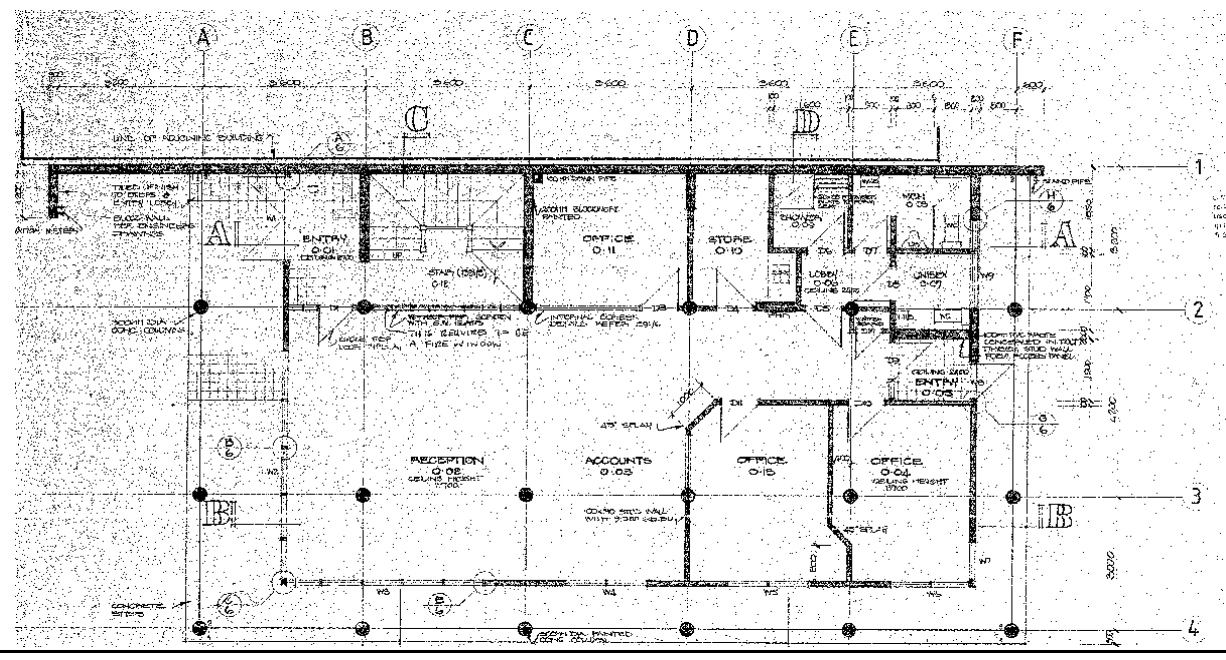
## Table IEP-1 Initial Evaluation Procedure Step 1

### Step 1 - General Information

**1.1 Photos (attach sufficient to describe building)**


NOTE: THERE ARE MORE PHOTOS ON PAGE 1a ATTACHED

**1.2 Sketches (plans etc, show items of interest)**




**1.3 List relevant features (Note: only 10 lines of text will print in this box. If further text required use Page 1a)**

Structure: 2 level structure, Reinforced concrete masonry walls and slender reinforced concrete columns. Columns attached at the first level by steel connections to timber joists, 20mm particle board.
Foundations: Mesh reinforced concrete slab on grade with reinforced concrete pads under the columns and footings under the masonry walls
Roof: Steel UB Beams connected with timber purlins, gib ceiling diaphragm. Butanol over timber cladding
Stair: Lightweight timber framed stair

Subsoil: E soft or deep soils - NZS1170.5:2004 Site Subsoil Classification of Lower Hutt
Construction Date: 1986

**1.4 Note information sources** Tick as appropriate

| | | | |
|---|---|---|---|
| **Visual Inspection of Exterior** | ☑ | **Specifications** | ☐ |
| **Visual Inspection of Interior** | ☑ | **Geotechnical Reports** | ☐ |
| **Drawings (note type)** | ☑ | **Other (list)** | ☐ |

Information Reviewed: Design Drawings 1986

# Initial Evaluation Procedure (IEP) Assessment - Completed for Hutt City Council



| | | | |
|---|---|---|---|
| **Street Number & Name:** | **19A Meachen Street** | **Job No.:** | **5-C3957.00** |
| **AKA:** | | **By:** | [redacted] |
| **Name of building:** | | **Date:** | **29/05/2020** |
| **City:** | **Seaview, Hutt City** | **Revision No.:** | **0** |

## Table IEP-2 Initial Evaluation Procedure Step 2

### Step 2 - Determination of *(%NBS)* $_b$

(Baseline *(%NBS)* for particular building - refer Section B5 )

**2.1 Determine nominal *(%NBS)* = *(%NBS)* $_{nom}$**

| | Longitudinal | Transverse |
|---|---|---|
| **a) Building Strengthening Data** | | |
| Tick if building is known to have been strengthened in this direction | ☐ | ☐ |
| If strengthened, enter percentage of code the building has been strengthened to | N/A | N/A |
| **b) Year of Design/Strengthening, Building Type and Seismic Zone** | | |
| Pre 1935 | ○ | ○ |
| 1935-1965 | ○ | ○ |
| 1965-1976 | ○ | ○ |
| 1976-1984 | ○ | ○ |
| 1984-1992 | ◉ | ◉ |
| 1992-2004 | ○ | ○ |
| 2004-2011 | ○ | ○ |
| Post Aug 2011 | ○ | ○ |
| **Building Type:** | **Not applicable** | **Not applicable** |
| **Seismic Zone:** | Zone A | Zone A |
| **c) Soil Type** | | |
| **From NZS1170.5:2004, Cl 3.1.3 :** | E Very Soft Soil | E Very Soft Soil |
| **From NZS4203:1992, Cl 4.6.2.2 : (for 1992 to 2004 and only if known)** | **Not applicable** | **Not applicable** |
| **d) Estimate Period, *T*** | | |
| *Comment:* | | |
| $h_n$ = | 7 | 7 m |
| $A_c$ = | 1.00 | 1.00 $m^2$ |
| Moment Resisting Concrete Frames: $T = \max\{0.09h_n^{0.75}, 0.4\}$ | ○ | ○ |
| Moment Resisting Steel Frames: $T = \max\{0.14h_n^{0.75}, 0.4\}$ | ○ | ○ |
| Eccentrically Braced Steel Frames: $T = \max\{0.08h_n^{0.75}, 0.4\}$ | ○ | ○ |
| All Other Frame Structures: $T = \max\{0.06h_n^{0.75}, 0.4\}$ | ◉ | ◉ |
| Concrete Shear Walls $T = \max\{0.09h_n^{0.75}/A_c^{0.5}, 0.4\}$ | ○ | ○ |
| Masonry Shear Walls: $T \leq 0.4$sec | ○ | ○ |
| User Defined (input Period): | ○ | ○ |
| *Where $h_n$ = height in metres from the base of the structure to the uppermost seismic weight or mass.* | **T:** 0.40 | 0.40 |
| **e) Factor A:** Strengthening factor determined using result from (a) above (set to 1.0 if not strengthened) | **Factor A:** 1.00 | 1.00 |
| **f) Factor B:** Determined from NZSEE Guidelines Figure 3A.1 using results (a) to (e) above | **Factor B:** 0.20 | 0.20 |
| **g) Factor C:** For reinforced concrete buildings designed between 1976-84 Factor C = 1.2, otherwise take as 1.0. | **Factor C:** 1.00 | 1.00 |
| **h) Factor D:** For buildings designed prior to 1935 Factor D = 0.8 except for Wellington and Napier (1931-1935) where Factor D may be taken as 1.0, otherwise take as 1.0. | **Factor D:** 1.00 | 1.00 |
| ***(%NBS)* $_{nom}$ = AxBxCxD** | ***(%NBS)* $_{nom}$** 20% | 20% |

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# Initial Evaluation Procedure (IEP) Assessment - Completed for Hutt City Council



| | | | |
|---|---|---|---|
| **Street Number & Name:** | **19A Meachen Street** | **Job No.:** | **5-C3957.00** |
| **AKA:** | | **By:** | [redacted] |
| **Name of building:** | | **Date:** | **29/05/2020** |
| **City:** | **Seaview, Hutt City** | **Revision No.:** | **0** |

## Table IEP-2 Initial Evaluation Procedure Step 2 continued

### 2.2 Near Fault Scaling Factor, Factor E

**If $T \leq 1.5$sec, Factor E = 1**

| | | Longitudinal | Transverse |
|---|---|---|---|
| **a) Near Fault Factor, *N(T,D)*** (from NZS1170.5:2004, Cl 3.1.6) | **N(T,D):** | 1 | 1 |
| **b) Factor E** | = 1/N(T,D) **Factor E:** | 1.00 | 1.00 |

### 2.3 Hazard Scaling Factor, Factor F

**a) Hazard Factor, *Z*, for site**

**Location:** Hutt Valley-south of Taita Gorge **Refer right for user-defined locations**

| | | |
|---|---|---|
| $Z$ = | 0.4 | (from NZS1170.5:2004, Table 3.3) |
| $Z_{1992}$ = | 1.2 | (NZS4203:1992 Zone Factor from accompanying Figure 3.5(b)) |
| $Z_{2004}$ = | 0.4 | (from NZS1170.5:2004, Table 3.3) |

**b) Factor F**

| | | |
|---|---|---|
| For pre 1992 | = | $1/Z$ |
| For 1992-2011 | = | $Z_{1992}/Z$ |
| For post 2011 | = | $Z_{2004}/Z$ |

| | Longitudinal | Transverse |
|---|---|---|
| **Factor F:** | 2.50 | 2.50 |

### 2.4 Return Period Scaling Factor, Factor G

**a) Design Importance Level, I**

(Set to 1 if not known. For buildings designed prior to 1965 and known to be designed as a public building set to 1.25. For buildings designed 1965-1976 and known to be designed as a public building set to 1.33 for Zone A or 1.2 for Zone B. For 1976-1984 set I value.)

| | Longitudinal | Transverse |
|---|---|---|
| I = | 1 | 1 |

**b) Design Risk Factor, $R_o$**

(set to 1.0 if other than 1976-2004, or not known)

| | Longitudinal | Transverse |
|---|---|---|
| $R_o$ = | 1 | 1 |

**c) Return Period Factor, R**

(from NZS1170.0:2004 Building Importance Level)

*Choose Importance Level*

| | Longitudinal | Transverse |
|---|---|---|
| | ○ 1 ◉ 2 ○ 3 ○ 4 | ○ 1 ◉ 2 ○ 3 ○ 4 |
| R = | 1.0 | 1.0 |

**d) Factor G** = $IR_0/R$

| | Longitudinal | Transverse |
|---|---|---|
| **Factor G:** | 1.00 | 1.00 |

### 2.5 Ductility Scaling Factor, Factor H

**a) Available Displacement Ductility Within Existing Structure**

*Comment:*

Ductility limited by RC masonry walls

| | | Longitudinal | Transverse |
|---|---|---|---|
| $\mu$ = | | 1.25 | 1.25 |

**b) Factor H**

| | | $k_\mu$ Longitudinal | $k_\mu$ Transverse |
|---|---|---|---|
| For pre 1976 (maximum of 2) | = | 1.25 | 1.25 |
| For 1976 onwards | = | 1 | 1 |
| **Factor H:** | | 1.00 | 1.00 |

(where kμ is NZS1170.5:2004 Inelastic Spectrum Scaling Factor, from accompanying Table 3.3)

### 2.6 Structural Performance Scaling Factor, Factor I

**a) Structural Performance Factor, $S_p$**

(from accompanying Figure 3.4)

Tick if light timber-framed construction in this direction

| | Longitudinal | Transverse |
|---|---|---|
| | ☐ | ☐ |
| $S_p$ = | 0.93 | 0.93 |

**b) Structural Performance Scaling Factor** = $1/S_p$

| | Longitudinal | Transverse |
|---|---|---|
| **Factor I:** | 1.08 | 1.08 |

Note Factor B values for 1992 to 2004 have been multiplied by 0.67 to account for Sp in this period

### 2.7 Baseline *%NBS* for Building, *(%NBS)*$_b$

(equals ***(%NBS)*$_{nom}$ x E x F x G x H x I** )

| Longitudinal | Transverse |
|---|---|
| **54%** | **54%** |

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# Initial Evaluation Procedure (IEP) Assessment - Completed for Hutt City Council



| | | | |
|---|---|---|---|
| **Street Number & Name:** | **19A Meachen Street** | **Job No.:** | **5-C3957.00** |
| **AKA:** | | **By:** | [redacted] |
| **Name of building:** | | **Date:** | **29/05/2020** |
| **City:** | **Seaview, Hutt City** | **Revision No.:** | **0** |

## Table IEP-3 Initial Evaluation Procedure Step 3

### Step 3 - Assessment of Performance Achievement Ratio (PAR)

*(Refer Appendix B - Section B3.2)*

### a) Longitudinal Direction

**potential CSWs** — **Effect on Structural Performance (Choose a value - Do not interpolate)** — **Factors**

**3.1 Plan Irregularity**

*Effect on Structural Performance* ○ *Severe* ◉ *Significant* ○ *Insignificant* — **Factor A** 0.7

Comment: Torsional design

**3.2 Vertical Irregularity**

*Effect on Structural Performance* ○ *Severe* ○ *Significant* ◉ *Insignificant* — **Factor B** 1.0

Comment: Nil

**3.3 Short Columns**

*Effect on Structural Performance* ○ *Severe* ○ *Significant* ◉ *Insignificant* — **Factor C** 1.0

Comment: Nil

**3.4 Pounding Potential**

***(Estimate D1 and D2 and set D = the lower of the two, or 1.0 if no potential for pounding, or consequences are considered to be minimal)***

**a) Factor D1: - Pounding Effect**

***Note:***
***Values given assume the building has a frame structure. For stiff buildings (eg shear walls), the effect of pounding may be reduced by taking the coefficient to the right of the value applicable to frame buildings.***

**Factor D1 For Longitudinal Direction:** 1.0

| ***Table for Selection of Factor D1*** | Severe | Significant | Insignificant |
|---|---|---|---|
| *Separation* | 0<Sep<.005H | .005<Sep<.01H | Sep>.01H |
| *Alignment of Floors within 20% of Storey Height* | ○ 1 | ○ 1 | ◉ 1 |
| *Alignment of Floors not within 20% of Storey Height* | ○ 0.4 | ○ 0.7 | ○ 0.8 |

Comment: Nil

**b) Factor D2: - Height Difference Effect**

**Factor D2 For Longitudinal Direction:** 1.0

| ***Table for Selection of Factor D2*** | Severe | Significant | Insignificant |
|---|---|---|---|
| | 0<Sep<.005H | .005<Sep<.01H | Sep>.01H |
| *Height Difference > 4 Storeys* | ○ 0.4 | ○ 0.7 | ◉ 1 |
| *Height Difference 2 to 4 Storeys* | ○ 0.7 | ○ 0.9 | ○ 1 |
| *Height Difference < 2 Storeys* | ○ 1 | ○ 1 | ○ 1 |

Comment: Nil

**Factor D** 1.0

**3.5 Site Characteristics -** *Stability, landslide threat, liquefaction etc as it affects the structural performance from a life-safety perspective*

*Effect on Structural Performance* ○ *Severe* ○ *Significant* ◉ *Insignificant* — **Factor E** 1.0

Comment: Potential for liquifaction, reclaimed land. Insignificant on performance. Distance to harbour 250m, lateral spreading insignificant

**3.6 Other Factors -** *for allowance of all other relevant characterstics of the building* — **Factor F** 1.0

**For ≤ 3 storeys - Maximum value 2.5**
**otherwise - Maximum value 1.5.**
**No minimum.**

**Record rationale for choice of Factor F:**

Comment: Long reinforced concrete masonry wall in plane and slender concrete columns and shallow foundations. Lightweight roof and first floor. F Factor 1.0

**3.7 Performance Achievement Ratio (PAR)**
(equals **A x B x C x D x E x F** )

**PAR**

**Longitudinal** **0.70**

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## Initial Evaluation Procedure (IEP) Assessment - Completed for Hutt City Council 

| | | | |
|---|---|---|---|
| **Street Number & Name:** | **19A Meachen Street** | **Job No.:** | **5-C3957.00** |
| **AKA:** | | **By:** | [redacted] |
| **Name of building:** | | **Date:** | **29/05/2020** |
| **City:** | **Seaview, Hutt City** | **Revision No.:** | **0** |

## Table IEP-3 Initial Evaluation Procedure Step 3

### Step 3 - Assessment of Performance Achievement Ratio (PAR)

*(Refer Appendix B - Section B3.2)*

### b) Transverse Direction

**Factors**

**potential CSWs** — **Effect on Structural Performance (Choose a value - Do not interpolate)**

**3.1 Plan Irregularity**

*Effect on Structural Performance* ○ *Severe* ○ *Significant* ◉ *Insignificant* — **Factor A** 1.0

Comment: Nil

**3.2 Vertical Irregularity**

*Effect on Structural Performance* ○ *Severe* ○ *Significant* ◉ *Insignificant* — **Factor B** 1.0

Comment: Nil

**3.3 Short Columns**

*Effect on Structural Performance* ○ *Severe* ○ *Significant* ◉ *Insignificant* — **Factor C** 1.0

Comment: Nil

**3.4 Pounding Potential**

***(Estimate D1 and D2 and set D = the lower of the two, or 1.0 if no potential for pounding, or consequences are considered to be minimal)***

**a) Factor D1: - Pounding Effect**

***Note:***
***Values given assume the building has a frame structure. For stiff buildings (eg shear walls), the effect of pounding may be reduced by taking the coefficient to the right of the value applicable to frame buildings.***

**Factor D1 For Transverse Direction:** 1.0

| ***Table for Selection of Factor D1*** | Severe | Significant | Insignificant |
|---|---|---|---|
| *Separation* | 0<Sep<.005H | .005<Sep<.01H | Sep>.01H |
| *Alignment of Floors within 20% of Storey Height* | ○ 1 | ○ 1 | ◉ 1 |
| *Alignment of Floors not within 20% of Storey Height* | ○ 0.4 | ○ 0.7 | ○ 0.8 |

Comment: Nil

**b) Factor D2: - Height Difference Effect**

**Factor D2 For Transverse Direction:** 1.0

| ***Table for Selection of Factor D2*** | Severe | Significant | Insignificant |
|---|---|---|---|
| | 0<Sep<.005H | .005<Sep<.01H | Sep>.01H |
| *Height Difference > 4 Storeys* | ○ 0.4 | ○ 0.7 | ◉ 1 |
| *Height Difference 2 to 4 Storeys* | ○ 0.7 | ○ 0.9 | ○ 1 |
| *Height Difference < 2 Storeys* | ○ 1 | ○ 1 | ○ 1 |

Comment: Nil

**Factor D** 1.0

**3.5 Site Characteristics -** *Stability, landslide threat, liquefaction etc as it affects the structural performance from a life-safety perspective*

*Effect on Structural Performance* ○ *Severe* ○ *Significant* ◉ *Insignificant* — **Factor E** 1.0

Comment: Potential for liquifaction, reclaimed land. Insignificant on performance. Distance to harbour 250m, lateral spreading insignificant

**3.6 Other Factors -** *for allowance of all other relevant characterstics of the building* — **Factor F** 1.00

**For ≤ 3 storeys - Maximum value 2.5**
**otherwise - Maximum value 1.5.**
**No minimum.**

**Record rationale for choice of Factor F:**

Comment: Short reinforced concrete masonry walls in plane and concrete columns with lightweight roof and first floor, shallow foundations. F factor 1.0

**PAR**

**3.7 Performance Achievement Ratio (PAR)** (equals **A x B x C x D x E x F** ) — **Transverse** **1.00**

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## Initial Evaluation Procedure (IEP) Assessment - Completed for Hutt City Council 

| | | | |
|---|---|---|---|
| **Street Number & Name:** | **19A Meachen Street** | **Job No.:** | **5-C3957.00** |
| **AKA:** | | **By:** | [redacted] |
| **Name of building:** | | **Date:** | **29/05/2020** |
| **City:** | **Seaview, Hutt City** | **Revision No.:** | **0** |

## Table IEP-4 Initial Evaluation Procedure Steps 4, 5, 6 and 7

### Step 4 - Percentage of New Building Standard *(%NBS)*

| | | Longitudinal | Transverse |
|---|---|---|---|
| 4.1 | **Assessed Baseline *%NBS* *(%NBS)*$_b$** (from Table IEP - 1) | **54%** | **54%** |
| 4.2 | **Performance Achievement Ratio (PAR)** (from Table IEP - 2) | **0.70** | **1.00** |
| 4.3 | **PAR x Baseline *(%NBS)*$_b$** | **40%** | **55%** |
| 4.4 | **Percentage New Building Standard *(%NBS)* - Seismic Rating** ( Use lower of two values from Step 4.3) | | **40%** |

**Step 5 - Is *%NBS* < 34?** **NO**

**Step 6 - Potentially Earthquake Risk (is *%NBS* < 67)?** **YES**

**Step 7 - Provisional Grading for Seismic Risk based on IEP**

**Seismic Grade** **C**

**Additional Comments (items of note affecting IEP based seismic rating)**

Comment: None

### Relationship between Grade and *%NBS*:

| Grade: | A+ | A | B | C | D | E |
|---|---|---|---|---|---|---|
| *%NBS*: | > 100 | 100 to 80 | 79 to 67 | 66 to 34 | < 34 to 20 | < 20 |

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## Initial Evaluation Procedure (IEP) Assessment - Completed for Hutt City Council 

| | | | |
|---|---|---|---|
| **Street Number & Name:** | **19A Meachen Street** | **Job No.:** | **5-C3957.00** |
| **AKA:** | | **By:** | [redacted] |
| **Name of building:** | | **Date:** | **29/05/2020** |
| **City:** | **Seaview, Hutt City** | **Revision No.:** | **0** |

## Table IEP-5 Initial Evaluation Procedure Step 8

**Step 8 - Identification of potential Severe Structural Weaknesses (SSWs) that could result in significant risk to a significant number of occupants**

| | | |
|---|---|---|
| **8.1** | **Number of storeys above ground level** | 2 |
| **8.2** | **Presence of heavy concrete 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 considered to be significant - no further consideration required**

**Risk not considered to be significant - no further consideration required**

**The following potential Severe Structural Weaknesses (SSWs) have been identified in the building that could result in significant risk to a significant number of occupants:**

1. None identified
2. Weak or soft storey (except top storey)
3. Brittle columns and/or beam-column joints the deformations of which are not constrained by other structural elements
4. Flat slab buildings with lateral capacity reliant on low ductility slab-to-column connections
5. No identifiable connection between primary structure and diaphragms
6. Ledge and gap stairs

**IEP Assessment Confirmed by** [redacted] **Signature**

[redacted] **Name**

[redacted] **CPEng. No**

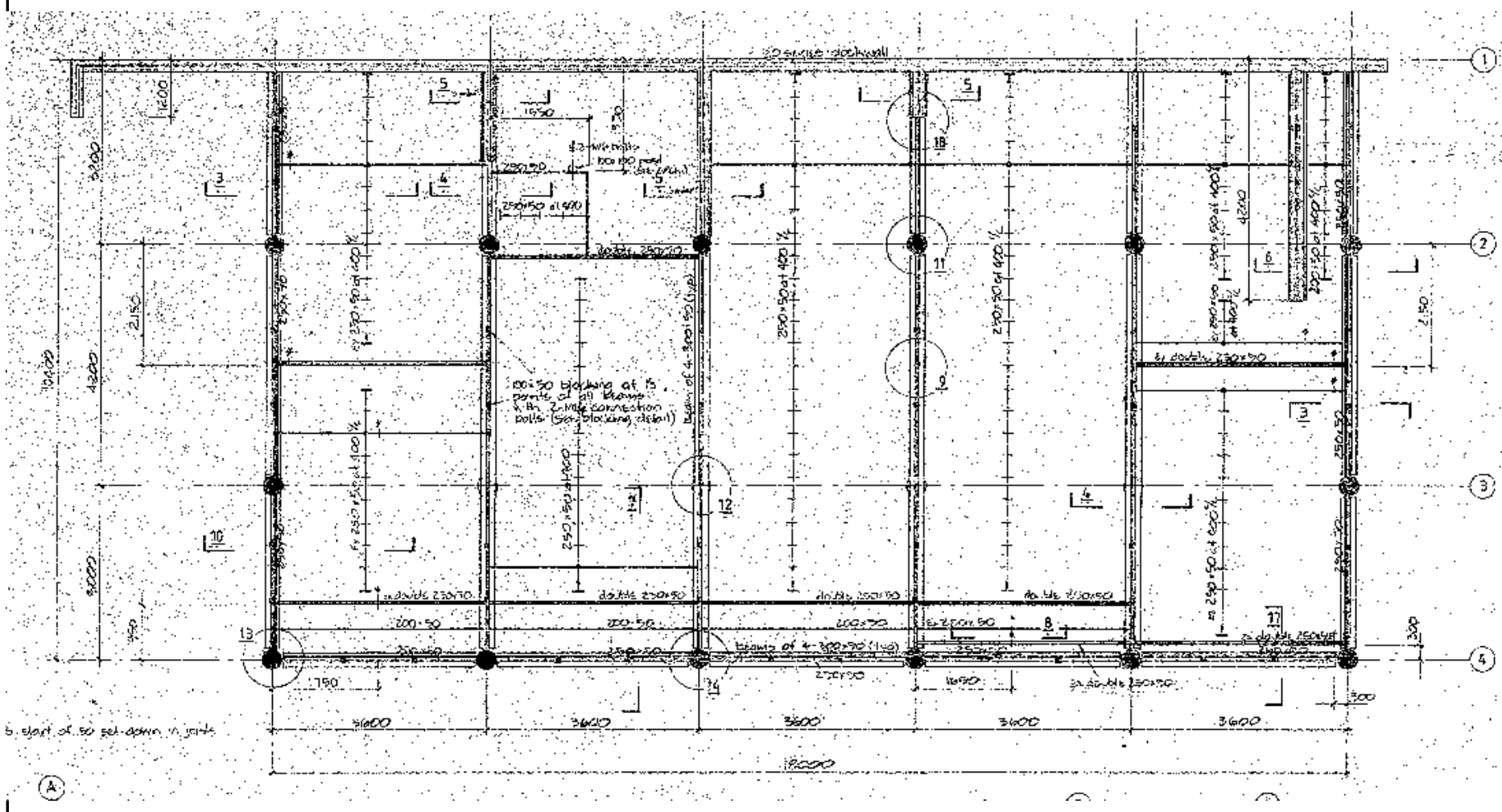
**WARNING!!** *This initial evaluation has been carried out solely as an initial seismic assessment of the building following the procedure set out in "The Seismic Assessment of Existing Buildings" Technical Guidelines for Engineering Assessments, July 2017. This spreadsheet must be read in conjunction with the limitations set out in the accompanying report, and should not be relied on by any party for any other purpose. Detailed inspections and engineering calculations, or engineering judgements based on them, have not been undertaken, and these may lead to a different result or seismic grade.*

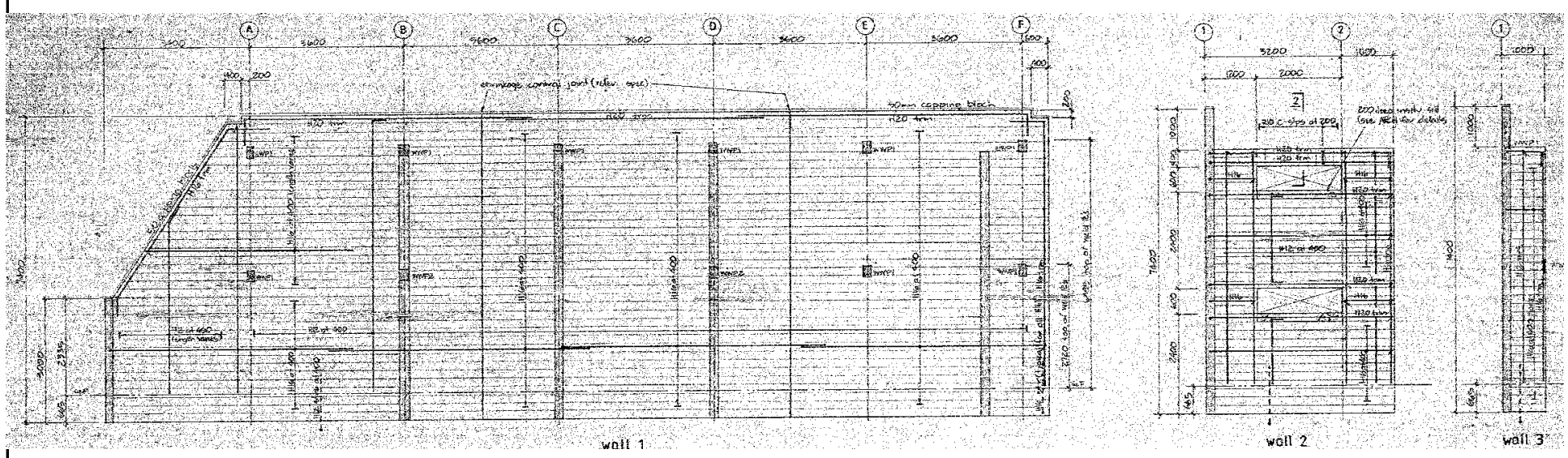
## Initial Evaluation Procedure (IEP) Assessment - Completed for Hutt City Council

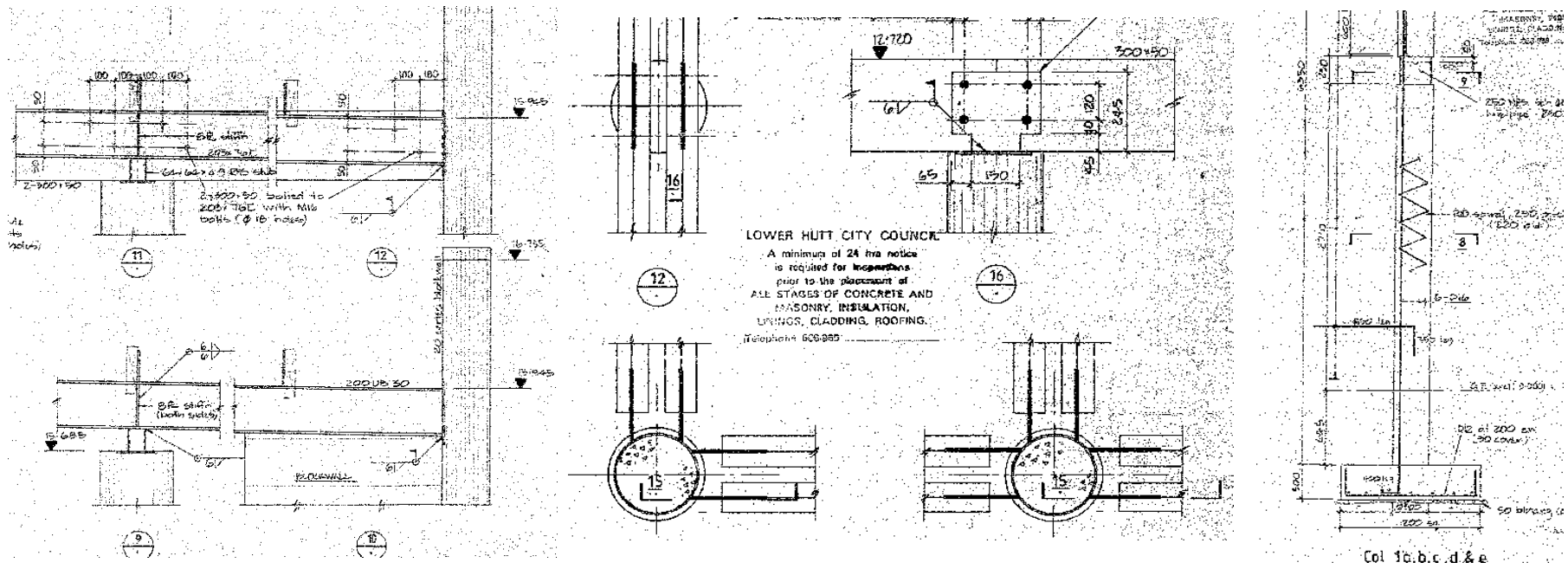


| | | | |
|---|---|---|---|
| **Street Number & Name:** | **19A Meachen Street** | **Job No.:** | **5-C3957.00** |
| **AKA:** | | **By:** | [redacted] |
| **Name of building:** | | **Date:** | **29/05/2020** |
| **City:** | **Seaview, Hutt City** | **Revision No.:** | **0** |

### Table IEP-1a Additional Photos and Sketches



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