



Building Code Clause(s) B1 & B2

PRODUCER STATEMENT – PS2 – DESIGN REVIEW

(Guidance on use of Producer Statements (formerly page 2) is available at www.ipenz.nz)

ISSUED BY: AECOM New Zealand Ltd. (Design Review Firm)

TO: Northern Express Group (Owner/Developer)

TO BE SUPPLIED TO: Auckland Council (Building Consent Authority)

IN RESPECT OF: Okahu Viaduct (Description of Building Work)

AT: Puhoi (Address)

Town/City: Puhoi (Address) LOT DP SO

We AECOM New Zealand Ltd. (Design Review Firm) have been engaged by Fletcher Acciona Joint Venture.

to review the design documents for this project in respect of the requirements of Clause(s) B1 & B2 of the Building Code.

The Review is for All or Part only of the design work prepared by Puhoi to Warkworth Motorway PPP - Design Joint Venture (DJV) (Design Firm)

as described in drawings titled Refer to Schedule 2 (Attached)

and numbered Refer to Schedule 2 (Attached) together with the specification, and other documents set out in the schedule attached to this statement according to which the building is proposed to be constructed.

The Review is in respect of The completed structure only (aspects of design) or per attached schedule.

The Review confirms that these aspects of the design are in accordance with:

Compliance Documents issued by the Ministry of Business, Innovation & Employment (verification method/acceptable solution) or

Alternative solution as per the attached schedule Schedule 1

On behalf of the firm undertaking this review, on the basis of the review undertaken, and subject to:

- (i) Site verification of the following design assumptions as referred to on Schedule 3 (Attached)
- (ii) All proprietary products meeting their performance specification requirements;

I believe on reasonable grounds that a) the building, if constructed in accordance with the drawings, specifications, and other documents provided or listed in the attached schedule, will comply with the relevant provisions of the Building Code and that b), the persons who have undertaken the review have the necessary competency to do so.

I, [Redacted] s 9(2)(a) am: CEng(UK) 45872755 # Reg Arch #

(Name of Design Review Professional)

I am a Member of: IPENZ NZIA and hold the following qualifications: BSc (Eng), PhD, MICE, CMEngNZ

The Design Review Firm issuing this statement holds a current policy of Professional Indemnity Insurance no less than \$200,000*.

The Design Review Firm is a member of ACENZ: s 9(2)(a)

SIGNED BY: [Redacted] (Signature)

ON BEHALF OF AECOM New Zealand Ltd. (Design Review Firm) Date: 30/5/18

Note: This statement shall only be relied upon by the Building Consent Authority named above. Liability under this statement accrues to the Design Review Firm only. The total maximum amount of damages payable arising from this statement and all other statements provided to the Building Consent Authority in relation to this building work, whether in contract, tort or otherwise (including negligence), is limited to the sum of \$200,000*.

This form is to accompany Form 2 of the Building (Forms) Regulations 2004 for the application of a Building Consent. THIS FORM AND ITS CONDITIONS ARE COPYRIGHT TO ACENZ, IPENZ AND NZIA

Schedules to Producer Statement – PS2

▶ Element of Building Work:

This Producer Statement covers the design package of Okahu Viaduct of the Pūhoi to Warkworth Motorway project. This package includes the Drawings and Technical Specifications associated with the structural and geotechnical design of the bridge structure.

▶ Schedule 1 – Alternative Solutions

The compliance documents issued by the Department of Building and Housing for Building Code Clauses B1 and B2 do not adequately cover the design of the element which is the subject of this producer statement.

The design has been prepared in accordance with NZTA Bridge Manual 3rd Edition, Amendment 1, with project specific modifications.

▶ Schedule 2 – Drawings and Specifications

DRAWING LIST

| Drawings Number | Drawing Title | Revision |
|---------------------|--|----------|
| P2Wk-DRG-SE-00-0010 | REINFORCED CONCRETE - GENERAL NOTES SHEET 1 | D |
| P2Wk-DRG-SE-00-0011 | REINFORCED CONCRETE - GENERAL NOTES SHEET 2 | C |
| P2Wk-DRG-SE-00-0012 | STRUCTURAL STEEL - GENERAL NOTES | C |
| P2Wk-DRG-SE-00-0030 | BARRIERS GENERAL ARRANGEMENT - PRECAST BARRIER PANEL | D |
| P2Wk-DRG-SE-00-0032 | BARRIERS STEEL BRIDGES - TYPICAL SECTIONS | D |
| P2Wk-DRG-SE-00-0033 | BARRIER RAIL STEELWORK DETAILS - SHEET 1 | C |
| P2Wk-DRG-SE-00-0034 | BARRIER RAIL STEELWORK DETAILS - SHEET 2 | B |
| P2Wk-DRG-SE-00-0035 | BARRIERS WIRE ROPE BARRIER DETAILS | B |
| P2Wk-DRG-SE-00-0036 | BARRIERS COVER PLATE DETAILS | A |
| P2Wk-DRG-SE-00-0037 | BARRIERS TRANSITION BARRIER - SHEET 1 | D |
| P2Wk-DRG-SE-00-0038 | BARRIERS TRANSITION BARRIER - SHEET 2 | C |
| P2Wk-DRG-SE-00-0050 | EXPANSION JOINTS DETAILS | D |
| P2Wk-DRG-SE-00-0055 | UNDER BRIDGE TREATMENT & SCOUR PROTECTION | B |
| P2Wk-DRG-SE-00-0070 | ACCESS/SECURITY FENCES | B |
| | | |
| P2Wk-DRG-SE-19-0001 | COVER SHEET LOCATION PLAN AND DRAWING LIST | C |
| P2Wk-DRG-SE-19-0002 | GENERAL NOTES | D |
| P2Wk-DRG-SE-19-0005 | PLAN AND LONGITUDINAL SECTION | F |
| P2Wk-DRG-SE-19-0006 | TYPICAL CROSS SECTIONS | D |
| P2Wk-DRG-SE-19-0010 | GROUND WORKS AND FILLING DETAILS SHEET 1 | B |
| P2Wk-DRG-SE-19-0011 | GROUND WORKS AND FILLING DETAILS SHEET 2 | B |

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| P2Wk-DRG-SE-19-0015 | GEOTECHNICAL INSTRUMENTATION AND MONITORING DETAILS - SHEET 1 | B |
| P2Wk-DRG-SE-19-0016 | GEOTECHNICAL INSTRUMENTATION AND MONITORING DETAILS - SHEET 2 | B |
| P2Wk-DRG-SE-19-0020 | PILE SETOUT PLAN | D |
| P2Wk-DRG-SE-19-0021 | ABUTMENT PILES GENERAL ARRANGEMENT | D |
| P2Wk-DRG-SE-19-0022 | PIER AND RETAINING WALL PILES GENERAL ARRANGEMENT | C |
| P2Wk-DRG-SE-19-0025 | ABUTMENT PILES REINFORCEMENT DETAILS | B |
| P2Wk-DRG-SE-19-0026 | PIER AND RETAINING WALL PILES REINFORCEMENT DETAILS | B |
| P2Wk-DRG-SE-19-0030 | NORTH ABUTMENT GENERAL ARRANGEMENT - SHEET 1 | C |
| P2Wk-DRG-SE-19-0031 | NORTH ABUTMENT GENERAL ARRANGEMENT - SHEET 2 | C |
| P2Wk-DRG-SE-19-0032 | NORTH ABUTMENT GENERAL ARRANGEMENT - SHEET 3 | C |
| P2Wk-DRG-SE-19-0036 | SOUTH ABUTMENT GENERAL ARRANGEMENT - SHEET 1 | C |
| P2Wk-DRG-SE-19-0037 | SOUTH ABUTMENT GENERAL ARRANGEMENT - SHEET 2 | C |
| P2Wk-DRG-SE-19-0038 | SOUTH ABUTMENT GENERAL ARRANGEMENT - SHEET 3 | B |
| P2Wk-DRG-SE-19-0040 | SOUTH ABUTMENT ANCHOR DETAILS | B |
| P2Wk-DRG-SE-19-0045 | NORTH ABUTMENT REINFORCEMENT SHEET 1 OF 3 | B |
| P2Wk-DRG-SE-19-0046 | NORTH ABUTMENT REINFORCEMENT SHEET 2 OF 3 | B |
| P2Wk-DRG-SE-19-0047 | NORTH ABUTMENT REINFORCEMENT SHEET 3 OF 3 | B |
| P2Wk-DRG-SE-19-0048 | SOUTH ABUTMENT REINFORCEMENT SHEET 1 OF 3 | B |
| P2Wk-DRG-SE-19-0049 | SOUTH ABUTMENT REINFORCEMENT SHEET 2 OF 3 | B |
| P2Wk-DRG-SE-19-0055 | PIER PILECAP GENERAL ARRANGEMENT | D |
| P2Wk-DRG-SE-19-0056 | PIER PILECAP REINFORCEMENT - SHEET 1 | B |
| P2Wk-DRG-SE-19-0057 | PIER PILECAP REINFORCEMENT - SHEET 2 | B |
| P2Wk-DRG-SE-19-0060 | PIERS ELEVATIONS | D |
| P2Wk-DRG-SE-19-0061 | PIERS REINFORCEMENT | C |
| P2Wk-DRG-SE-19-0065 | PIER CROSSHEAD GENERAL ARRANGEMENT | C |
| P2Wk-DRG-SE-19-0066 | PIER CROSSHEAD REINFORCEMENT - SHEET 1 | C |
| P2Wk-DRG-SE-19-0067 | PIER CROSSHEAD REINFORCEMENT - SHEET 2 | C |
| P2Wk-DRG-SE-19-0070 | BEARING LAYOUT PLAN | C |
| P2Wk-DRG-SE-19-0071 | STEELWORK BEARING DETAILS | B |
| P2Wk-DRG-SE-19-0075 | STEELWORK GENERAL ARRANGEMENT - SHEET 1 | D |
| P2Wk-DRG-SE-19-0076 | STEELWORK GENERAL ARRANGEMENT - SHEET 2 | C |
| P2Wk-DRG-SE-19-0078 | STEELWORK TYPICAL GIRDER ELEVATION - SHEET 1 | B |
| P2Wk-DRG-SE-19-0079 | STEELWORK TYPICAL GIRDER ELEVATION - SHEET 2 | B |
| P2Wk-DRG-SE-19-0080 | STEELWORK DETAILS - SHEET 1 | B |
| P2Wk-DRG-SE-19-0081 | STEELWORK DETAILS - SHEET 2 | B |

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| P2Wk-DRG-SE-19-0082 | STEELWORK DETAILS - SHEET 3 | B |
| P2Wk-DRG-SE-19-0083 | STEELWORK DETAILS - SHEET 4 | B |
| P2Wk-DRG-SE-19-0084 | STEELWORK DETAILS - SHEET 5 | B |
| P2Wk-DRG-SE-19-0085 | STEELWORK DETAILS - SHEET 6 | B |
| P2Wk-DRG-SE-19-0086 | STEELWORK DETAILS - SHEET 7 | B |
| P2Wk-DRG-SE-19-0087 | STEELWORK DETAILS - SHEET 8 | B |
| P2Wk-DRG-SE-19-0088 | STEELWORK DETAILS - SHEET 9 | C |
| P2Wk-DRG-SE-19-0089 | STEELWORK DETAILS - SHEET 10 | B |
| P2Wk-DRG-SE-19-0090 | STEELWORK GIRDERS PRECAMBER DETAILS – SHEET 1 | A |
| P2Wk-DRG-SE-19-0091 | STEELWORK GIRDERS PRECAMBER DETAILS – SHEET 2 | A |
| P2Wk-DRG-SE-19-0095 | MAINTENANCE WALKWAY GENERAL ARRANGEMENT | B |
| P2Wk-DRG-SE-19-0096 | MAINTENANCE WALKWAY DETAILS –SHEET 1 | B |
| P2Wk-DRG-SE-19-0100 | PRECAST DECK PLANKS LAYOUT - SHEET 1 | C |
| P2Wk-DRG-SE-19-0101 | PRECAST DECK PLANKS LAYOUT - SHEET 2 | C |
| P2Wk-DRG-SE-19-0102 | PRECAST DECK PLANKS LAYOUT - SHEET 3 | C |
| P2Wk-DRG-SE-19-0105 | PRECAST DECK PLANKS REINFORCEMENT DETAILS - SHEET 1 | C |
| P2Wk-DRG-SE-19-0106 | PRECAST DECK PLANKS REINFORCEMENT DETAILS - SHEET 2 | C |
| P2Wk-DRG-SE-19-0107 | PRECAST DECK PLANKS REINFORCEMENT DETAILS - SHEET 3 | C |
| P2Wk-DRG-SE-19-0108 | PRECAST DECK PLANKS REINFORCEMENT DETAILS - SHEET 4 | C |
| P2Wk-DRG-SE-19-0110 | CAST INSITU DECK REINFORCEMENT DETAILS - SHEET 1 | B |
| P2Wk-DRG-SE-19-0111 | CAST INSITU DECK REINFORCEMENT DETAILS - SHEET 2 | C |
| P2Wk-DRG-SE-19-0120 | LIGHTING SUPPORT BRACKET | B |
| P2Wk-DRG-SE-19-0125 | BARRIER LAYOUT PLAN | B |
| P2Wk-DRG-SE-19-0130 | DECK DRAINAGE DETAILS - SHEET 1 | C |
| P2Wk-DRG-SE-19-0135 | SERVICES SUPPORT DETAILS | C |
| P2Wk-DRG-SE-19-0140 | JACKING LOCATIONS AND DETAILS | C |
| P2Wk-DRG-SE-19-0150 | SOUTHERN APPROACH -SHEET 1 | B |
| P2Wk-DRG-SE-19-0151 | SOUTHERN APPROACH -SHEET 2 | B |
| P2Wk-DRG-SE-19-0152 | SOUTHERN APPROACH -SHEET 3 | C |
| P2Wk-DRG-SE-19-0153 | SOUTHERN APPROACH -SHEET 4 | B |
| P2Wk-DRG-SE-19-0154 | SOUTHERN APPROACH -SHEET 5 | B |
| P2Wk-DRG-SE-19-0155 | SOUTHERN APPROACH -SHEET 6 | B |
| P2Wk-DRG-SE-19-0156 | SOUTHERN APPROACH -SHEET 7 | C |
| P2Wk-DRG-SE-19-0157 | SOUTHERN APPROACH -SHEET 8 | C |
| P2Wk-DRG-SE-19-0160 | SOUTH ABUTMENT MSE WALL SETOUT AND DETAILS - SHEET 1 | B |
| P2Wk-DRG-SE-19-0161 | SOUTH ABUTMENT MSE WALL SETOUT AND DETAILS - SHEET 2 | B |

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| P2Wk-DRG-SE-19-0165 | SOUTH ABUTMENT PA ENCROACHMENT - SHEET 1 | C |
| P2Wk-DRG-SE-19-0166 | SOUTH ABUTMENT PA ENCROACHMENT - SHEET 2 | B |
| P2Wk-DRG-SE-19-0200 | BASIS OF DESIGN CONSTRUCTION SEQUENCE SHEET 1 | D |
| P2Wk-DRG-SE-19-0201 | BASIS OF DESIGN CONSTRUCTION SEQUENCE SHEET 2 | D |
| P2Wk-DRG-SE-19-0202 | BASIS OF DESIGN CONSTRUCTION SEQUENCE SHEET 3 | D |

| Specification Number | Title | Revision |
|----------------------|---------------------------------|----------|
| 650-SPEC-001-NX2 | SUBSOIL DRAINAGE FOR EARTHWORKS | 2A |
| 650-SPEC-002-NX2 | EARTHWORKS | 4 |
| 650-SPEC-003-NX2 | GEOTECHNICAL INSTRUMENTATION | 2A |
| 650-SPEC-006-NX2 | MECHANICAL STABILISED EARTH | C |
| 650-SPEC-007-NX2 | GROUND ANCHORS | C |
| 650-SPEC-008-NX2 | BORED PILES | A |
| 680-SPEC-001-NX2 | REINFORCED CONCRETE SUPPLY | 1A |
| 680-SPEC-002-NX2 | CONCRETE CONSTRUCTION | 1A |
| 680-SPEC-004-NX2 | CONCRETE REPAIR | B |
| 680-SPEC-005-NX2 | STRUCTURAL STEELWORK | B |
| 680-SPEC-006-NX2 | PROTECTIVE COATINGS | B |
| 680-SPEC-007-NX2 | BEARING AND DECK JOINTS | B |

SPECIFICATION LIST

Schedule 3 – Site Verification of Design Assumptions

Certain elements of the design for the Okahu Viaduct will be subject to site verification. More specifically founding levels, subgrade conditions shall be confirmed on site depending on actual ground conditions. Set out of elements shall be confirmed on site depending on as-built values and geometry. Any subsequent modifications will be based on the actual conditions encountered, and represent accepted practice for engineering.

Signed:



s 9(2)(a)

Date: 30/5/18

On behalf of AECOM New Zealand Ltd.