

CONSENT NOTICE PURSUANT TO SECTION 221 RESOURCE MANAGEMENT ACT 1991



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The Registrar General of Land
South Auckland Land Registry

IN THE MATTER

of a Consent Notice pursuant to Section 221 of the
Resource Management Act 1991 ("the Act")

and

IN THE MATTER

of a subdivision Consent pursuant to Sections 104, 108,
220, and 221 of the Act

I, TONY GRANT WHITTAKER Chief Operating Officer of the WAIKATO DISTRICT COUNCIL, hereby certify that the Waikato District Council has granted its consent to the subdivision shown on Deposited Plan 537748, (and being the land described in the First Schedule), subject to certain conditions, including the requirement that the Owner (as defined in the Act) comply on a continuing basis with the conditions set out in the Second Schedule and that this Notice be registered against the Records of Title for Lots 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51 and 52 on Deposited Plan 537748.

First Schedule

An estate in fee simple in all that parcel of land containing 4.2621 hectares more or less being Lot 500 on Deposited Plan 516219 comprised in Record of Title 804279

Second Schedule

1. The Owners of Lots 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51 and 52 shall, at the time of application for building consent, ensure to the satisfaction of the Council that the restrictions and recommendations identified in the Geotechnical (Post Earthworks) Report prepared by BTW Company Limited dated 17 September 2019, reference number 17840, revision B ("the Geotechnical (Post Earthworks) Report") for foundation design and stormwater management are complied with, unless an alternative report, undertaken by a suitably qualified and experienced Engineer (Geo Professional), is approved in writing by the Council. A copy of the Geotechnical (Post Earthworks) Report can be obtained from the Waikato District Council.
2. The Owners shall pay the Council's costs and disbursements in respect of the preparation, execution, registration and enforcement of this Notice and the Council's conditions set out in this Notice and any variation or cancellation of them.

DATED at Ngaruawahia this

23rd

day of

September

2019

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Tony Grant Whittaker
Chief Operating Officer
SUB0178/16 – Stage 1A

Decision on Application to Change or Cancel Resource Consent Conditions

(Section 127, Resource Management Act 1991)



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Pursuant to Sections 34(A)(1) and 127 of the Resource Management Act 1991, the Waikato District Council, under delegated authority, gives approval for changes to conditions of an approved resource consent as follows:

Application Number: SUB0178/16.06

Resource Consent Number: SUB0178/16

Applicant: Ultimate Holdings Limited

Subject: To change the conditions of consent allowing for Stage 1 to become Stages 1a and 1b; to include a stormwater easement in gross for area "Q"; turn Lots 301, 302, 303 and 304 into shared access lots and provide for additional right of way easements over these shared access lots; amend the provisions under Stage 5 regarding the vesting of land; and relocate easement in gross conditions for wastewater and stormwater into each separate stage.

Location Address: 75 River Road NGARUAWAHIA

Legal Description: Lot 500 DP 516219 comprised in Record of Title 804279 (4.2621ha)
Lot 502 DP 516219 comprised in Record of Title 804281 (0.6770ha)
Lot 503 DP 532145 comprised in Record of Title 870317 (2.1533ha)
Lot 504 DP 532145 comprised in Record of Title 870318 (1.7106ha)
Lot 505 DP 532145 comprised in Record of Title 870319 (2.6388ha)
Lot 11 DP 320567 comprised in Record of Title 81523 (2.1362ha)

The resource consent is now subject to the Amended Conditions detailed in the attached Schedule 1.

The Reasons for this decision are detailed in the attached Schedule 2.

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CONSENTS TEAM LEADER

Dated: 8/08/2019.



Schedule 1

Conditions of Consent

Resource Consent No: **SUB0178/16.06**

Changes shown in *italics* and/or underlined. Deletions shown as “*deleted*”.

Super Stages 1-3

General Conditions relating to super stages 1, 2 and 3

- SS1 Pursuant to Section 36 of the Resource Management Act 1991 the consent holder shall pay the actual and reasonable costs incurred by the Waikato District Council when monitoring the conditions of this consent.
- SS2 Council’s processing fees are to be paid in accordance with the Council’s schedule of fees and charges prior to the signing of the s224 certificate.
- SS3 Prior to s223 and s224 approval all buildings shall comply with the permitted activity rules relating to building coverage, setbacks, and daylight angles relative to the new boundaries.

Super Stage 1

Conditions below apply to Super Stage 1 - Lots 500 (Future Stage 1), Lot 502 (Future Stage 5) and Lot 501 (Future Super Stage 2)

General Conditions

- SS4 The Land Transfer Plan to give effect to this resource consent shall be generally consistent with the approved plan prepared by BTW Company received on 22 January 2019 titled “Super Stage 1 Plan Lots 500 - 502 being a Proposed Subdivision of Section 203 Ngaruawahia North Suburbs and Lots 6 & 7 DP 422736” dated January 2019 Drawing Number 17004.02-01, Rev. 5, except as amended by the general conditions. A copy of the approved plan is attached.

Prior to the application for s224 approval the Consent Holder shall comply with the following Conditions:

In accordance with section 221 of the Resource Management Act 1991 the following condition shall apply on an ongoing basis by the subdividing owner and subsequent owners and shall be registered against the relevant certificates of title.

- SS5 The current and future owners of Lot 501 shall be advised that no development, including any building works requiring building consent in accordance with the Building Act 2004, occurs on the land until such time as the following work is completed:
- Water connection is provided to the satisfaction of Council;
 - Physical road access is provided to the satisfaction of Council.

Super Stage 2

Conditions below apply to Super Stage 2 - Lots 503 (Future Stage 2a), Lot 504 (Future Stage 2b) and Lot 505 (future super Stage 3).

General Conditions

SS6 The Land Transfer Plan to give effect to this resource consent shall be generally consistent with the approved plans prepared by BTW Company received on 22 *January 2019* titled "Super Stage 2 Plan Lots 503 - 505 being a Proposed Subdivision of Lot 501 (Super Stage 1), Lot 5 DP 422736 and Lot 2 DP 503364", dated *January 2019*, drawing Number 17004.02-01, Rev. 5, except as amended by the general conditions. A copy of the approved plan is attached.

Prior to the application for s224 approval the Consent Holder shall comply with the following Conditions:

SS7 Deleted

SS8 Deleted

SS8A Deleted

In accordance with section 221 of the Resource Management Act 1991 the following condition shall apply on an ongoing basis by the subdividing owner and subsequent owners and shall be registered against the relevant certificates of title.

SS8B The current and future owners of Lot 504 shall be advised that no development, including any building works requiring building consent in accordance with the Building Act 2004, occurs on the land until such time as the following work is completed:

- (a) Water connection is provided to the satisfaction of Council;
- (b) Physical road access is provided to the satisfaction of Council.

Super Stage 3

Conditions below apply to Super Stage 3 - Lots 506 (Future Stage 3), Lot 507 (Future Stage 4).

General Conditions

SS9 The Land Transfer Plan to give effect to this resource consent shall be generally consistent with the approved plans prepared by BTW Company received on 22 January 2019 titled "Super Stage 3 Plan Lots 506 - 507 being a Proposed Subdivision of Lot 505 and Lot 11 DP 320567 (Super Stage 2)", dated January 2019, drawing Number 17004.02-01 Rev. 5, except as amended by the general conditions. A copy of the approved plan is attached.

Prior to application for approval of the survey plan (s223), the Consent Holder shall comply with the following conditions:

SS9A Easement for Right of Way to Lot 507, shall be shown on the Land Transfer Plan and included in a memorandum of easements.

Prior to the application for s224 approval the Consent Holder shall comply with the following Conditions:

SS10 Deleted

Stages 1 to 5

Conditions below apply to stages 1-5, unless a specific condition is included in the stage in which case, that is the applicable condition:

General Conditions

- 1 Pursuant to Section 36 of the Resource Management Act 1991 the consent holder shall pay the actual and reasonable costs incurred by the Waikato District Council when monitoring the conditions of this consent.
- 2 Council's processing fees are to be paid in accordance with the Council's schedule of fees and charges prior to the signing of the s224 certificate.
- 3 Prior to s223 and s224 approval all buildings shall comply with the permitted activity rules relating to building coverage, setbacks, and daylight angles relative to the new boundaries.
- 4 Prior to commencement of engineering designs or construction works the Consent Holder shall appoint a Developer's Representative in accordance with the Hamilton City Council Infrastructure Technical Specification, in order to supervise and provide certification of the consented engineering works.
- 5 The Consent Holder shall notify Waikato District Council, in writing, of their intention to begin works, a minimum of fourteen (14) days prior to commencing works. Such notification shall include the following details:
 - (a) Name and telephone number(s) of the Developer's Representative.
 - (b) Site address to which the consent relates.
 - (c) Activities to which the consent relates.
 - (d) Expected duration of works.
 - (e) Developers Representative

Prior to application for approval of the survey plan (s223), the Consent Holder shall comply with the following conditions:

Designs for all Stages:

- 6 All engineering design shall be undertaken in general accordance with the following, (or as approved in writing by Waikato District Council):
 - (a) The Waikato District Plan 2013; and
 - (b) The Hamilton Infrastructure Technical Specifications: 2014 and the Waikato District Council Supplement: 2014.
 - (c) Designs for all stages shall take into account servicing requirements for all subsequent stages.

Earthworks

- 7 The Consent Holder shall provide a detailed Earthworks Management Plan (EMP) by a suitably qualified professional for the proposed earthworks within the subject site and shall obtain approval from Waikato District Council prior to undertaking any earthworks on site. This EMP shall be in general accordance with the requirements and recommendations of the Geotechnical Investigation Report by Phoenix / Kirk Roberts Consulting Engineers; Ref 160004 – Soils and Site Assessment and Preliminary Site Investigation Report and shall include but not be limited to the following;
- (a) Proposed depth of cut/fill, volumes and cross sections, original and final contours;
 - (b) Vegetation clearance and disposal;
 - (c) Dust and Noise control;
 - (d) Erosion and Sediment Control in accordance with Waikato Regional Council guidelines;
 - (e) Detail the material (any imported material shall be clean fill only), volume, source, use, disposal and treatment;
 - (f) Staging of works;
 - (g) Detail of finished overland flowpaths, including contours at adjacent property boundaries
- 8 Finished earthworks levels shall provide suitable building platform levels in accordance with the requirements, recommendations and conclusions identified in the Stormwater Management - Plan from Wainui Environmental.

Water

- 9 That engineering design plan(s) shall be submitted to the Waikato District Council for approval prior to commencing the construction works. The engineering design plans shall be designed by a suitably qualified and experienced person. The reticulation shall connect to the existing public network system. The design is to include, but not be limited to, the following;
- (a) The public water main/extension shall be constructed in general accordance with the plans submitted in support of the application, the Hamilton ITS or as otherwise approved in writing to the satisfaction of the Waikato District Council. The water reticulation shall extend and connect to the reticulation on Starr Road and have sufficient capacity to accommodate development of adjacent properties.
 - (b) An urban water connection shall be constructed for Lots 1 to 158 in accordance with the Hamilton ITS, or as otherwise approved in writing to the satisfaction of the Waikato District Council;
 - (c) Provide a cross-road connection to provide circulation, at development boundaries as they are encountered. An air valve shall be installed where the water main gradient is uphill at the boundary;
 - (d) Installation of water meters outside each property boundary;
 - (e) Installation of marker posts for valves as required.

Wastewater

- 10 That engineering design plans shall be submitted to the Waikato District Council for approval prior to commencing the construction works. The engineering design plans shall be designed by suitably qualified and experienced person.
- (a) The public wastewater pump station and rising main shall be designed in general accordance with the plans submitted in support of the application, the Hamilton ITS Sections and the conclusions and recommendations of the Mott MacDonald, Central Districts Wastewater Network Modelling Report, River Road North Development dated 19 January 2017, to the satisfaction of the Waikato District Council;
 - (b) Gravity wastewater reticulation and connections shall be designed for Lots 1 to 158 in accordance with the Hamilton ITS or as otherwise approved in writing to the satisfaction of the Waikato District Council. The gravity reticulation shall have sufficient capacity to accommodate development of adjacent properties;
 - (c) Wherever possible, unless the contour of the land dictates otherwise, proposed wastewater lines and manholes shall be located outside of private property; the layout shall be in general compliance with the preliminary design submitted by RAD surveying Ref15060 "Indicative Engineering Design, Wastewater Reticulation". Where it is proposed to place these lines within a private property the designer shall demonstrate that it is not practically possible to locate these lines within the Road reserve or right-of ways;
 - (d) The sizing of the pump station and associated wastewater reticulation shall accommodate all proposed stages of the development and make provision for connection from adjacent properties.
 - (e) Gravity reticulation shall extend sufficiently into subsequent stages to allow for extension while not disturbing finished surfaces within completed stages.

Stormwater

- 11 The Consent Holder shall provide a detailed Stormwater Management System, designed by suitably qualified and experienced person in general accordance with the requirements, recommendations and conclusions identified in the BTW Company Limited Stormwater Management Plan "Stormwater Management Plan for Ultimate Holdings Ltd". Rev 1, 30/08/2018

- 12 That engineering design plan(s) shall be submitted to the Waikato District Council for approval prior to commencing the construction works. The design shall include:
- (a) The primary system shall be designed to cater for all runoff from each proposed lot, for a 10 year storm event (with a 16.8% allowance for climate change). The total impermeable area from each lot shall comply with the rules of the Waikato District Plan. The primary system design shall demonstrate that the receiving reticulated network can accept the discharge without surcharge;
 - (b) All flows in excess of the 10 year storm event and up to and including the 100 year storm event (with a 16.8% allowance for climate change) are to be contained within defined overland flow paths and comply with Appendix B of the Waikato District Plan and the Hamilton City Council Infrastructure Technical Specification
 - (c) An onsite soakage system shall be constructed for all ROW's and roads where testing proves soakage is viable.
 - (d) Construction of the piped system to the Waikato River along the paper road shall not hinder access to adjoining properties for future development.
 - (e) A Landscape Plan for the stormwater pond shall be prepared by a suitably qualified person that requires as less intensive maintenance requirements as possible and practical. This requirement for minimal future maintenance will not lessen the expected quality of the planting species. Any Landscape plan must include a maintenance schedule stating the type and frequency of mowing, weeding fertiliser application etc.
 - (f) The sizing of system shall accommodate all proposed stages of the development and all existing flows from adjacent properties.
 - (g) Stormwater reticulation shall extend sufficiently into subsequent stages to allow for extension while not disturbing finished surfaces within completed stages.
 - (h) Review of the existing detention pond on Lot 39 DP388643 off Herangi Crescent and design of new overflow weir and flow path to align with future Local Purpose Reserve (Drainage) Lots 201 and 210.
 - (i) A fencing plan or plan showing alternative agreed mitigation such as thick planting and safety batters shall be provided to ensure the safety of the community by limiting access. Any such fencing plan shall be designed in a manner that allows vehicle access for maintenance purposes.
 - (j) A fencing plan for the fencing of Lot 201 and 210 LP reserve shall be provided, the fences proposed shall be of a permeable nature and no higher than 1.5m.

Advice Note:

Refer typical road cross section showing service lines for Te Kauwhata Structure Plan Area are shown in the Appendix – A of the Waikato District Plan.

Roading

- 13 That engineering design plan(s) shall be submitted to the Waikato District Council for approval prior to commencing the construction works, as depicted on the approved subdivision scheme plans, and shall be designed by suitably qualified and experienced person, in general accordance with the Hamilton City Infrastructure Technical Specification and the Waikato District Plan to the satisfaction of Waikato District Council. The design shall include but not be limited to:
- (a) The requirements and recommendations of the Transport Assessment Report by Craig Richards of BECA and dated 24th February 2016
 - (b) The Stormwater Management.
 - (c) All new roads shall be constructed in general accordance with the engineering approval, the Hamilton ITS or as otherwise approved in writing to the satisfaction of the Waikato District Council;
 - (d) A new right turn bay shall be required along River Road as part of Stage 3 and shall be constructed in general accordance with the Hamilton ITS or as otherwise approved in writing to the satisfaction of the Waikato District
 - (e) Designs plans shall include all ROW's and all vehicle entrances in general accordance with the Waikato District Plan Appendix A Table 4, and the Hamilton ITS Section 1.5, or as otherwise approved in writing to the satisfaction of the Waikato District Council.
 - (f) Subdivision Footpath and Kerb & Channel on River Road shall extent to the existing Footpath and Kerb & Channel.
 - (g) Consent Holder shall appoint a qualified and experienced Traffic Engineer who shall undertake design safety audits of all intersections. For *Stage 3* the safety audit shall include the section of Starr Road up to Duke Street and the Starr Road/Duke St intersection. All findings from the safety audit shall be addressed by the Consent Holder at the consent holder's expense.
 - (h) Temporary turning heads shall be provided at the end of roads that are to continue into subsequent stages, unless otherwise agreed.
 - (i) Turning heads shall be provided at the paper road end of the *Lot 200 (Road 3)*.
 - (j) Landscaping and planting plan for road reserves.
 - (k) Street lighting in accordance with the Hamilton City Infrastructure Technical Specifications. The Street Lighting design shall take into account landscaping and be accompanied by a design certificate stating that the design complies with the requirements of the Hamilton City Infrastructure Technical Specification.
 - (l) Extension of the internal subdivision footpath along Starr Road and 10m into Duke Street.
 - (m) Traffic calming measures to reduce the through traffic appeal of the new link road (Road 1) between River Road and Starr Road shall be provided. These could include:
 - raised intersections;
 - channelised sections of reduced width road;
 - pedestrian refuges;
 - speed humps.
 - (n) Evidence consultation has been undertaken with the owners and occupiers of 134 Starr Road, prior to submitting the design plans to Council for approval, of the road and roading infrastructure, adjacent to that property.

Easements

14 Deleted

15 Deleted

16 Easements for rights of way and services within the rights of way shall be shown on the survey plan and included in the memorandum of easements.

Regional Council Consents

17 The Consent Holder shall provide copies of Resource Consents from Waikato Regional Council or written confirmation from Waikato Regional Council that Resource Consents are not required for the following:

- (a) Earthworks, including soil erosion and sediment control;
- (b) Stormwater discharge to the existing watercourses;
- (c) Stormwater discharge consent for outfall into Waikato River.

Prior to Construction For All Stages

18 A Construction Management Plan (CMP) shall be prepared by a suitably qualified and experienced person and shall be submitted to Waikato District Council for approval, no less than 20 working days prior to the construction. The CMP shall include/require the following;

- (a) A pre-construction meeting to be held;
- (b) A list of subcontractors and their role;
- (c) Quality System Checklists;
- (d) A project organisation chart or gant chart showing the order of construction and the probable timetable for "Waikato District Council Hold Points" as agreed with Waikato District Council;
- (e) The hours of construction activity, programming and timing of key construction phases;
- (f) Procedures for dealing with complaints;
- (g) The measures that will be used to ensure that vehicles leaving the site do not deposit soil or other debris off-site, and if they do the remedial measures that are to be taken.

19 That erosion, sediment control, shall be in place in accordance with the requirements of the approved Earthworks Management Plan to the satisfaction of Waikato District Council.

20 The Consent Holder is to install and maintain erosion sediment control measures in accordance with the requirements of the Waikato District Plan and the Waikato Regional Council's Erosion and Sediment Control Guidelines for Soil Disturbing Activities: January 2009, prior to undertaking any soil disturbing activity

Prior to the application for s224 approval the Consent Holder shall comply with the following Conditions:

Power and Telecommunication

- 21 Written Confirmation shall be provided from network utility operators for telecommunications and energy supply confirming that the connections and reticulations have been placed to the boundaries of all residential lots.

Water

- 22 Water reticulation and connections shall be constructed to all lots in accordance with the approved engineering plans to the satisfaction of the Waikato District Council.

Wastewater

- 23 Wastewater gravity reticulation and connections shall be constructed to all lots in accordance with the approved engineering plans to the satisfaction of the Waikato District Council.

Stormwater

- 24 Stormwater reticulation and connections shall be constructed to all lots in accordance with the approved engineering plans to the satisfaction of the Waikato District Council.

- 24A Following the approval by Waikato District Council of the Landscape and Plans as required by the condition above, the following works shall be undertaken and completed:

- All planting on the approved Landscape Plans shall be planted within the appropriate planting season (May to September) by the consent holder at the consent holder's cost.

A Maintenance period of 24 months from the issue of the certificate of practical completion or until the planting is established to the satisfaction of Waikato District Council shall apply to all landscaping required by the Council approved Landscape Plans.

All of these works shall be completed to the approval of Waikato District Council.

A bond agreement between Waikato District Council and the consent holder shall be required in relation to all landscaping required by conditions of this consent.

Roading

- 25 All roads, footpaths, ROW's and vehicle entrances shall constructed in accordance with the approved engineering plans to the satisfaction of the Waikato District Council.

Safety Audit

- 26 The Consent Holder shall appoint a qualified and experienced Traffic Engineer to undertake a post construction safety audit of the roads to vest. All findings from the safety audit shall be addressed by the Consent Holder at the consent holder's expense.

Post Construction Certification

- 27 A "Producer Statement – Construction" shall be provided for each separate works undertaken as part of the consented subdivision to the satisfaction of Waikato District Council.

Advice Note:

An acceptable format for certification upon completion of works can be found in the Hamilton City Development Manual, Volume 4: Part 9 Appendix 4(ii).

- 28 A “Certificate of Completion of Development Works” prepared and signed by the Developers Representative, shall be provided to confirm that all consented works have been carried out in accordance with the approved plans, these consent conditions, appropriate standards and all relevant reports to the satisfaction of Waikato District Council

Advice Note:

An acceptable format for a “Certificate of Completion of Development Works” can be found from the Hamilton City Development Manual, Volume 4: Part 9 Appendix 4(i).

Land to vest

- 29 All landscaped areas shall be maintained for a period of two years from the issue of the certificate of practical completion. In order to satisfy this condition, a bond agreement between the Waikato District Council and the Consent Holder will be required.

Easements in Gross

- 29A Easements in gross shall be prepared by the Consent Holder’s Solicitor and shall include Council’s standard conditions for easements in gross for the right to drain public water, wastewater and stormwater.

Defects Liability

- 30 A defects liability period of 12 months shall apply for each asset to vest in accordance with Section 9.2 of the Waikato Addendum to the Hamilton ITS.

The defects liability period shall commence from the date of issue of the section 224(c) Certificate. An agreement, signed by the Developer and the Council accepting the Defects Liability period of 12 months will satisfy this condition.

If during the Defects Liability Period Council considers that any remedial works need to be carried out in respect of the subdivision works, the consent holder shall undertake at its own cost such remedial works to the satisfaction of Council. Engineering plans for remedial works shall be submitted to and accepted by Council prior to construction.

Post Earthworks

- 31 After completion of the earthworks within the subject site approved in the Earthworks Management Plan, the consent holder shall provide a Geotechnical Completion Report from a suitably qualified geotechnical engineer to the satisfaction of Waikato District Council, in accordance with the Hamilton City Council Infrastructure Technical.

The Geotechnical Completion Report shall include any specific designs/requirements necessary for the construction of:

- (a) Residential building on each Lot.
- (b) Stormwater management on each Lot.

Advisory Notes for All Stages

1 Lapse Date

This Resource Consent for subdivision lapses five years after the commencement of the consent, unless:

- (a) the Consent is given effect to prior to that date.
- (b) an application is made to the consent authority to extend the period after which the consent lapses, and the consent authority decides to grant an extension after taking into account

- 2 The Consent Holder is to be advised that any debris tracking/spillage onto any public roads as a result of the exercise of this consent to be removed as soon as practical, and within a maximum of 24 hours after the occurrence, or as otherwise directed by the Waikato District Council, to the satisfaction of the Waikato District Council.

The Consent Holder, upon becoming aware of the need to clean up the roadway, is to advise Waikato District Council of the need for the road to be cleaned up, and what actions are being taken to do so.

The cost of the cleanup of the roadway and associated drainage facilities, together with all temporary traffic control, shall be the responsibility of the Consent Holder.

- 3 The Consent Holder is to be advised that any works within the road reserve requires an approved Corridor Access Request (CAR). Apply to Waikato District Council's Roding Compliance Officer for a CAR application including appropriate Traffic Management Plan.

- 4 The Consent Holder is advised to make application to Council for the name of the proposed roads to vest, in accordance with the Road Naming Policy WDC1305/06/6.

STAGE I

Includes Sub-Stages IA and IB

Stage IA must be completed first

Conditions below apply to Sub-stages IA (Lots 53 - 78 inclusive, Lots 202 and 203) and IB (Lots 79-106 (inclusive) & 212):

General Conditions

32 The Land Transfer Plan to give effect to this resource consent shall be generally consistent with the approved plans prepared by BTW Company received on 28th June 2019 as follows:

- (a) Staging Plan Lots 1-158 and 200-211 being a proposed subdivision of Section 203 Ngaruawahia North Suburbs, Lots 5, 6 & 7 DP 422736, Lot 2 DP 503364 and Lot 11 DP 320567" Dated June 2019, Drawing Number 17004.02-01 Rev. 5 and 7
- (b) Stage I Lots 1-52 and 200, 201, 208, 212 & 301-304, being a proposed subdivision of Lot 500 (Super Stage I) & Easements over Lot 502 Dated June 2019, Drawing Number 17004.02-01 Rev. 7

Except as amended by the conditions below. Copies of the approved plans are attached.

32A Stage I shall not be given effect to until Super Stage I has s224(c)

Prior to application for approval of the survey plan (s223), the Consent Holder shall comply with the following conditions:

32B Easement in gross for stormwater and wastewater shown as "P" and for stormwater shown as "Q" shall be shown on the survey plan and included in the memorandum of easements.

32C That Lot 301 hereon (legal access) be held as two undivided one-half shares by the owners of Lots 9 and 11 hereon as tenants in common in the said shares and that individual computer freehold registers be issued in accordance therewith. See LINZ Request 1602379

32D That Lot 302 hereon (legal access) be held as three undivided one-third shares by the owners of Lots 13, 14 and 15 hereon as tenants in common in the said shares and that individual computer freehold registers be issued in accordance therewith. See LINZ Request 1602379

32E That Lot 303 hereon (legal access) be held as three undivided one-third shares by the owners of Lots 18, 19 and 20 hereon as tenants in common in the said shares and that individual computer freehold registers be issued in accordance therewith. See LINZ Request 1602379

32F That Lot 304 hereon (legal access) be held as two undivided one-half shares by the owners of Lots 24 and 25 hereon as tenants in common in the said shares and that individual computer freehold registers be issued in accordance therewith. See LINZ Request 1602379

Easements

32G Easements in gross for the right to drain stormwater in favour of the Waikato District Council over stormwater reticulation located in private property, and all identified overland flow paths located in private properties, as approved by the Waikato District Council, shall be granted and reserved. The easement in gross shall be shown on the survey plan and included in the memorandum of easements.

- 32H Easements in gross for all proposed wastewater reticulations including rising mains which are located in private properties, including balance lots, shall be granted and reserved in favour of Waikato District Council. The easements in gross shall be shown on the survey plan and included in the memorandum of easements. The width of the easement over the pipe line shall be in accordance with the Waikato District Council 'Easement Policy'.

Prior to the application for s224 approval the Consent Holder shall comply with the following Conditions:

Wastewater

- 33 Wastewater pump station, rising main, gravity reticulation and connections shall be constructed to all lots in accordance with the approved engineering plans to the satisfaction of the Waikato District Council.

Stormwater

- 33A An overland flow swale drain along Lots 201, and Easement P of Lot 502 shall be constructed to all lots in accordance with the approved engineering plans to the satisfaction of the Waikato District Council.
- 33B Undertake such works to modify the overflow from the existing detention pond on Lot 39 DP388643 off Herangi Crescent in the approved engineering plans to the satisfaction of the Waikato District Council.

Safety Audit

- 34 The Consent Holder shall appoint a qualified and experienced Traffic Engineer to undertake a post construction safety audit of the Stage I roading and the River Road Intersection. All findings from the safety audit shall be addressed by the Consent Holder at the consent holder's expense.

Reticulation Testing & Asbuilts

- 35 Prior to wastewater and stormwater reticulations being accepted as public assets by the Waikato District Council, the Consent Holder shall undertake a CCTV inspection, with accompanying log sheets, of all new sewer and stormwater pipes including all connections greater than 100mm diameter in accordance with the Hamilton City Council Infrastructure Technical Specification and latest version NZ Pipe Inspection Manual. The CCTV inspection and log sheets, shall be forwarded to the Waikato District Council or delegated officer for appraisal prior to requesting a final inspection.
- 36 Wastewater pump station commissioning shall be undertaken in accordance with the Hamilton City Council Infrastructure Technical Specification, to the satisfaction of Council, prior to vesting.

- 37 The following as-built information, in accordance with the requirements of the Hamilton City Council Infrastructure Technical Specification, shall be provided to the satisfaction of the Waikato District Council:
- (a) For water supply.
 - (b) For wastewater including wastewater pump station details and rising main,
 - (c) For stormwater including stormwater swale details.
 - (d) Roads, footpaths, street lighting and traffic services.
 - (e) RAMM information for roads to vest and River Road intersection, in the correct format for data input. RAMM data is to be submitted by a suitably qualified RAMM Technician.

Land to vest

- 38 That Lot 200 shall vest in Waikato District Council as Road.
- 38A That Lot 201 shall vest in Waikato District Council as Local Purpose Reserve (Drainage)
- 38B The Lot 208 shall vest in Waikato District Council as Local Purpose Reserve (Stormwater)

Consent Notices

- 38C The Consent notice 8316738.1 registered against Lot 500 shall be cancelled.

Contaminated Land Remediation

- 39 Submit a Remediation Action Plan (RAP) undertaken and reported by a suitably qualified and experienced practitioner in accordance with the current edition of the Ministry for Environment Contaminated Land Management Guidelines No.1 – 'Reporting on Contaminated Sites in New Zealand' to the satisfaction of Waikato District Council's Contaminated Land Specialist. The RAP must take into account the findings of the Detailed Site Investigation (DSI) prepared by Environmental Management Solutions, dated 28 November 2016. The site shall be remediated in accordance with the approved RAP.
- 40 Following the remediation of the areas of contamination identified in the required RAP, the consent holder shall submit a Site Validation Report (SVR) undertaken and reported by a suitably qualified and experienced practitioner in accordance with the current edition of the Ministry for Environment Contaminated Land Management Guidelines No.1 – 'Reporting on Contaminated Sites in New Zealand' to the satisfaction of Waikato District Council's Contaminated Land Specialist.
- 41 All material removed from the site in the course of the remedial works shall be disposed of at a site suitable for receipt of the material. Receipts for disposal shall be included in the SVR.
- 42 No soil disturbance shall be undertaken in the areas of contamination identified within the DSI prepared by Environmental Management Solutions, dated 28 November 2016 prior to Council's approval of the submitted RAP.

- 42A Fencing covenants shall be registered on the titles of Lot/s 49 and 50 indemnifying the Waikato District Council against all costs of erection and maintenance of fences on the common boundary. The fencing covenants shall be prepared by Waikato District Council's Solicitor at the Consent Holder's expense. The Consent Holder shall ensure its Solicitor provides an undertaking that all covenants will be registered against the Computer Free Hold Register for Lot 49 and 50 at the deposit of the survey plan.

In accordance with section 221 of the Resource Management Act 1991 the following condition shall apply on an ongoing basis by the subdividing owner and subsequent owners and shall be registered against the relevant certificates of title.

- 43 At the time of building consent application, the current and future owner(s) of Lots 1-52 (inclusive) shall ensure, to the satisfaction of the Waikato District Council, that the restrictions and recommendations identified in the Geotechnical Completion Report for foundation design and stormwater management are adhered to.

Unless an alternative report, undertaken by a suitably qualified and experienced Engineer (Geo Professional), is approved in writing by Waikato District Council.

Consent notices shall be prepared by Waikato District Council's Solicitor. Please request your consent notice be prepared prior to requesting 224 approval.

STAGE 2

Includes Sub-stages 2a and 2b

There is no restriction on which sub-stage must be completed first, however Stage 1 B must be completed before Stage 2B

Conditions below apply to Sub-stages 2a (Lots 53 – 78 inclusive, Lots 202 and 203) and 2b (Lots 79-106 (inclusive) & 204):

General Conditions

44 The Land Transfer Plan to give effect to this resource consent shall be generally consistent with the approved plans prepared by BTW Company and received on the 26 September 2018 as follows:

- (a) Staging Plan Lots 1-158 and 200-211 being a proposed subdivision of Section 203 Ngaruawahia North Suburbs, Lots 5, 6 & 7 DP 422736, Lot 2 DP 503364 and Lot 11 DP 320567” Dated *January 2019* Drawing Number 17004.02-01 Rev. 5
- (b) Stage 2 Lots 53-106 and 202-204 being a proposed subdivision of Lot 503 & 504 (Super Stage 2) Dated *January 2019* Drawing Number 17004.02-01 Rev. 5

Except as amended by the conditions below. Copies of the approved plans are attached.

44A Stage 2 (Sub-stages 2a and 2b) shall not be given effect to until Super Stage 2 has s224(c)

Prior to application for approval of the survey plan (s223), the Consent Holder shall comply with the following conditions:

Easements

44B Easements in gross for the right to drain stormwater in favour of the Waikato District Council over stormwater reticulation located in private property, and all identified overland flow paths located in private properties, as approved by the Waikato District Council, shall be granted and reserved. The easement in gross shall be shown on the survey plan and included in the memorandum of easements.

44C Easements in gross for all proposed wastewater reticulations including rising mains which are located in private properties, including balance lots, shall be granted and reserved in favour of Waikato District Council. The easements in gross shall be shown on the survey plan and included in the memorandum of easements. The width of the easement over the pipe line shall be in accordance with the Waikato District Council ‘Easement Policy’.

Prior to the application for s224 approval the Consent Holder shall comply with the following Conditions:

Land to vest

45 That Lot 202 shall vest in Waikato District Council as Road. (Stage 2a)

45A That Lot 204 shall vest in Waikato District Council as Road. (Stage 2b)

46 That Lot 203 shall vest in Waikato District Council as Local Purpose Reserve (Wastewater Pump Station). (Stage 2a)

Consent Notices

- 46A The Consent Notice 8316738.1 registered against Lot 501 shall be cancelled.
- 46B The Consent Notice registered on Lot 501 of Super Stage 1 (under condition SS5) shall be cancelled.
- 46C The consent Notice registered on Lot 504 of Super Stage 2 (under condition SS7) shall be cancelled.

Contaminated Land Remediation

- 47 Submit a Remediation Action Plan (RAP) undertaken and reported by a suitably qualified and experienced practitioner in accordance with the current edition of the Ministry for Environment Contaminated Land Management Guidelines No.1 – 'Reporting on Contaminated Sites in New Zealand' to the satisfaction of Waikato District Council's Contaminated Land Specialist. The RAP must take into account the findings of the Detailed Site Investigation (DSI) prepared by Environmental Management Solutions, dated 28 November 2016. The site shall be remediated in accordance with the approved RAP.
- 48 Following the remediation of the areas of contamination identified in the RAP, the consent holder shall submit a Site Validation Report (SVR) undertaken and reported by a suitably qualified and experienced practitioner in accordance with the current edition of the Ministry for Environment Contaminated Land Management Guidelines No.1 – 'Reporting on Contaminated Sites in New Zealand' to the satisfaction of Waikato District Council's Contaminated Land Specialist.
- 49 All material removed from the site in the course of the remedial works shall be disposed of at a site suitable for receipt of the material. Receipts for disposal shall be included in the SVR.
- 50 No soil disturbance shall be undertaken in the areas of contamination identified within the DSI prepared by Environmental Management Solutions, dated 28 November 2016 prior to Council's approval of the submitted RAP.

In accordance with section 221 of the Resource Management Act 1991 the following condition shall apply on an ongoing basis by the subdividing owner and subsequent owners and shall be registered against the relevant certificates of title.

- 51 At the time of building consent application, the current and future owner(s) of Lots 53 - 106 (inclusive) shall ensure, to the satisfaction of the Waikato District Council, that the restrictions and recommendations identified in the Geotechnical Completion Report for foundation design and stormwater management are adhered to.

Unless an alternative report, undertaken by a suitably qualified and experienced Engineer (Geo Professional), is approved in writing by Waikato District Council.

Consent notices shall be prepared by Waikato District Council's Solicitor. Please request your consent notice be prepared prior to requesting 224 approval.

STAGE 3

Includes Sub-stages 3a and 3b

There is no restriction on which sub-stage must be completed first

Conditions below apply to Sub-stages 3a (Lots 107-120 and 206) and 3b (Lots 121-131 and 205) only:

General Conditions

52 The Land Transfer Plan to give effect to this resource consent shall be generally consistent with the approved plans prepared by BTW Company received on the 23 February 2018 as follows:

- (a) Staging Plan Lots 1-158 and 200-211 being a proposed subdivision of Section 203 Ngaruawahia North Suburbs, Lots 5, 6 & 7 DP 422736, Lot 2 DP 503364 and Lot 11 DP 320567" Dated *January 2019* Drawing Number 17004.02-01 Rev. 5
- (b) Stage 3 Lots 101-131, 205 and 206 being a proposed subdivision of Lot 506 (Super Stage 3) Dated *January 2019* Drawing Number 17004.02-01 Rev. 5

Except as amended by the conditions below. Copies of the approved plans are attached.

52A Stage 3 (Sub-stages 3a and 3b) shall not be given effect to until Super Stage 3 has s224(c)

Prior to application for approval of the survey plan (s223), the Consent Holder shall comply with the following conditions:

Easements

52B Easements in gross for the right to drain stormwater in favour of the Waikato District Council over stormwater reticulation located in private property, and all identified overland flow paths located in private properties, as approved by the Waikato District Council, shall be granted and reserved. The easement in gross shall be shown on the survey plan and included in the memorandum of easements.

52C Easements in gross for all proposed wastewater reticulations including rising mains which are located in private properties, including balance lots, shall be granted and reserved in favour of Waikato District Council. The easements in gross shall be shown on the survey plan and included in the memorandum of easements. The width of the easement over the pipe line shall be in accordance with the Waikato District Council 'Easement Policy'.

Prior to the application for s224 approval the Consent Holder shall comply with the following Conditions:

Land to vest

53 That Road 205 shall vest in Waikato District Council as Road. (Stage 3b)

53A That Road 204 created within Stage 2 and Road 206 shall vest in Waikato District Council as Road. (Stage 3a)

Safety Audit

53B The Consent Holder shall appoint a qualified and experienced Traffic Engineer to undertake a post construction safety audit of roads to vest, the Starr Road up to Duke Street and the Starr Road/Duke St intersection, inclusive of the Starr Road to Duke Street footpath. All findings from the safety audit shall be addressed by the Consent Holder at the consent holder's expense.

- 54 Deleted
- 55 Deleted
- 56 Deleted
- 57 Deleted

In accordance with section 221 of the Resource Management Act 1991 the following condition shall apply on an ongoing basis by the subdividing owner and subsequent owners and shall be registered against the relevant certificates of title.

- 58 At the time of building consent application, the current and future owner(s) of Lots 107 - 131 (inclusive) shall ensure, to the satisfaction of the Waikato District Council, that the restrictions and recommendations identified in the Geotechnical Completion Report for foundation design and stormwater management are adhered to. Unless an alternative report, undertaken by a suitably qualified and experienced Engineer (Geo Professional), is approved in writing by Waikato District Council.

Consent notices shall be prepared by Waikato District Council's Solicitor. Please request your consent notice be prepared prior to requesting 224 approval.

STAGE 4

Incudes Sub-stages 4a and 4b

There is no restriction on which sub-stage must be completed first

Conditions below apply to Sub-stages 4a (Lots 132-141 inclusive and Lot 211) and 4b (Lots 142-150 inclusive and Lot 207) only:

General Conditions

59 The Land Transfer Plan to give effect to this resource consent shall be generally consistent with the approved plans prepared by BTW Company received on the 26 September 2018 as follows:

- (a) Staging Plan Lots 1-158 and 200-211 being a proposed subdivision of Section 203 Ngaruawahia North Suburbs, Lots 5, 6 & 7 DP 422736, Lot 2 DP 503364 and Lot 11 DP 320567" Dated *January 2019* Drawing Number 17004.02-01 Rev. 5
- (b) Stage 4 Lots 132-150, 207 & 211 being a proposed subdivision of Lot 507 (Super Stage 3) Dated *January 2019* Drawing Number 17004.02-01 Rev. 5

Except as amended by the conditions below. Copies of the approved plans are attached.

59A Stage 4 (Sub-stages 4a and 4b) shall not be given effect to until Super Stage 3 has s224(c)

Prior to application for approval of the survey plan (s223), the Consent Holder shall comply with the following conditions:

Easements

59B Easements in gross for the right to drain stormwater in favour of the Waikato District Council over stormwater reticulation located in private property, and all identified overland flow paths located in private properties, as approved by the Waikato District Council, shall be granted and reserved. The easement in gross shall be shown on the survey plan and included in the memorandum of easements.

59C Easements in gross for all proposed wastewater reticulations including rising mains which are located in private properties, including balance lots, shall be granted and reserved in favour of Waikato District Council. The easements in gross shall be shown on the survey plan and included in the memorandum of easements. The width of the easement over the pipe line shall be in accordance with the Waikato District Council 'Easement Policy'.

Prior to the application for s224 approval the Consent Holder shall comply with the following Conditions:

Land to vest

60 That Lot 207 shall vest in Waikato District Council as Road. (Stage 4b)

60A That Lot 205 (road to vest) created under Stage 3 (sub-stage 3a) or Lot 202 (road to vest (stage 2a) shall be constructed to standard and shall vest in Waikato District Council as Road. (Stage 4a and 4b)

60B That Lot 211 shall vest in Waikato District Council as Road (Stage 4a)

In accordance with section 221 of the Resource Management Act 1991 the following condition shall apply on an ongoing basis by the subdividing owner and subsequent owners and shall be registered against the relevant certificates of title.

- 61 At the time of building consent application, the current and future owner(s) of Lots 132-150 (inclusive) shall ensure, to the satisfaction of the Waikato District Council, that the restrictions and recommendations identified in the Geotechnical Completion Report for foundation design and stormwater management are adhered to.

Unless an alternative report, undertaken by a suitably qualified and experienced Engineer (Geo Professional), is approved in writing by Waikato District Council.

Consent notices shall be prepared by Waikato District Council's Solicitor. Please request your consent notice be prepared prior to requesting 224 approval.

STAGE 5

Conditions below apply to Stage 5 (Lots 151-158 inclusive and Lots 209-210) only:

General Conditions

62 The Land Transfer Plan to give effect to this resource consent shall be generally consistent with the approved plans prepared by BTW Company received on the 26 September 2018 as follows:

- (a) Staging Plan Lots 1-158 and 200-211 being a proposed subdivision of Section 203 Ngaruawahia North Suburbs, Lots 5, 6 & 7 DP 422736, Lot 2 DP 503364 and Lot 11 DP 320567" Dated *January 2019* Drawing Number 17004.02-01 Rev. 5
- (b) Stage 5 Lots 151-158, 209-210 being a proposed subdivision of Lot 502 (Super Stage 1) Dated *January 2019* Drawing Number 17004.02-01 Rev. 5

Except as amended by the conditions below. Copies of the approved plans are attached.

62A Stage 5 shall not be given effect to until Super Stage 1 has s224(c)

Prior to application for approval of the survey plan (s223), the Consent Holder shall comply with the following conditions:

Easements

62B Easements in gross for the right to drain stormwater in favour of the Waikato District Council over stormwater reticulation located in private property, and all identified overland flow paths located in private properties, as approved by the Waikato District Council, shall be granted and reserved. The easement in gross shall be shown on the survey plan and included in the memorandum of easements.

62C Easements in gross for all proposed wastewater reticulations including rising mains which are located in private properties, including balance lots, shall be granted and reserved in favour of Waikato District Council. The easements in gross shall be shown on the survey plan and included in the memorandum of easements. The width of the easement over the pipe line shall be in accordance with the Waikato District Council 'Easement Policy'.

Prior to the application for s224 approval the Consent Holder shall comply with the following Conditions:

63 That Lot 209 shall vest in Waikato District Council as Local Purpose Reserve (stormwater) (stage 5a)

63A That Lot 210 shall vest in Waikato District Council as Local Purpose Reserve (drainage) (Stage 5b).

Advice Note:

Section 239 RMA provides that on the vesting of the land and any assets in Council, all registered interests fall away without the need for any instrument, release or discharge. Every owner, mortgagee and any encumbrancee will need to complete a consent form before the deposit of a plan which requires the vesting of land in the Council.

63B Deleted

Consent Notices

63C The Consent notice 8316738.1 registered against Lot 502 shall be cancelled.

- 63D Fencing covenants shall be registered on the titles of Lot/s 152 and 153 indemnifying the Waikato District Council against all costs of erection and maintenance of fences on the common boundary. The fencing covenants shall be prepared by Waikato District Council's Solicitor at the Consent Holder's expense. The Consent Holder shall ensure its Solicitor provides an undertaking that all covenants will be registered against the Computer Free Hold Register for Lot 152 and 153 at the deposit of the survey plan.

In accordance with section 221 of the Resource Management Act 1991 the following condition shall apply on an ongoing basis by the subdividing owner and subsequent owners and shall be registered against the relevant certificates of title.

- 64 At the time of building consent application, the current and future owner(s) of Lots 151-158 (inclusive) shall ensure, to the satisfaction of the Waikato District Council, that the restrictions and recommendations identified in the Geotechnical Completion Report for foundation design and stormwater management are adhered to.

Unless an alternative report, undertaken by a suitably qualified and experienced Engineer (Geo Professional), is approved in writing by Waikato District Council.

Consent notices shall be prepared by Waikato District Council's Solicitor. Please request your consent notice be prepared prior to requesting 224 approval.

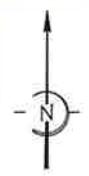


Schedule 2

Reasons for Decision

Resource Consent No: SUB0178/16.06

- I. Council is satisfied that removal of conditions 14, 15 and 63B; changes to conditions 32 and 32B; the addition of conditions 32C – 32H, 44B – 44C, 52B – 52C, 59B – 59C and 62B – 62C; and the addition of an advice note to condition 63 & 63A can be granted pursuant to section 127 of the Resource Management Act, on a non-notified basis, for the following reasons:
 - (a) That the changes are such that potential adverse effects on the environment will be acceptable and the scale of effects are not considered to be more than that which was originally consented to; and
 - (b) That the changes will be consistent with the relevant objectives and policies of the Operative Waikato District Plan; and
 - (c) That the changes meet the purpose and principles of the Resource Management Act 1991.



Disclaimer: This plan is produced for the sole purpose of obtaining a subdivision consent under the Resource Management Act 1991. Dimensions and areas are approximate and are subject to final survey. The use of this drawing for any other purpose is at the owners risk.

1) UNDERLYING LEGAL DESCRIPTIONS:

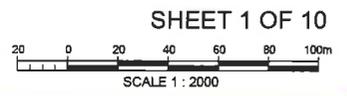
Section 203 Ngaruawahia	AREA: 2 0234 Ha
North Suburbs	AREA: 1.2733 Ha
LOT 6 DP 422736	AREA: 3 5468 Ha
LOT 7 DP 422736	AREA: 0.2500 Ha
LOT 2 DP 503364	AREA: 4.3494 Ha
LOT 11 DP 320567	AREA: 2.1362 Ha

2) TOTAL AREA: 13 5791 Ha

3) DISTRICT PLAN ZONE: NEW RESIDENTIAL



RESOURCE CONSENT
 No: SUB0178/16.06
 Approved by: D Scott
 Date: 8/08/2019
NOT FOR CONSTRUCTION



File Name: J:\17840\Drawings\17804_02-01 Rev 6 Scheme Plan Set.dwg Pld Date: 26/09/2019 Pld Time: 07:27

LOCAL BODY: Waikato District Council
 APPLICANT: Ultimate Holdings Ltd
 COMPRISED IN: SA450/25, 488821, 488822, 488823, 755736
 SCALE: 1:2000

OVERALL CONCEPT PLAN
 Lots 1-158, 200-211 & 301-304 being a Proposed Subdivision of Section 203 Ngaruawahia North Suburbs, Lots 5, 6 & 7 DP 422736, Lot 2 DP 503364 and Lot 11 DP 320567

Prepared by: T. MARTIN
 Checked by: TM
 Licensed Cadastral Surveyor
 Date: June 2019 Job No. 17840 Drawing No. 17004.02-01 Rev 6

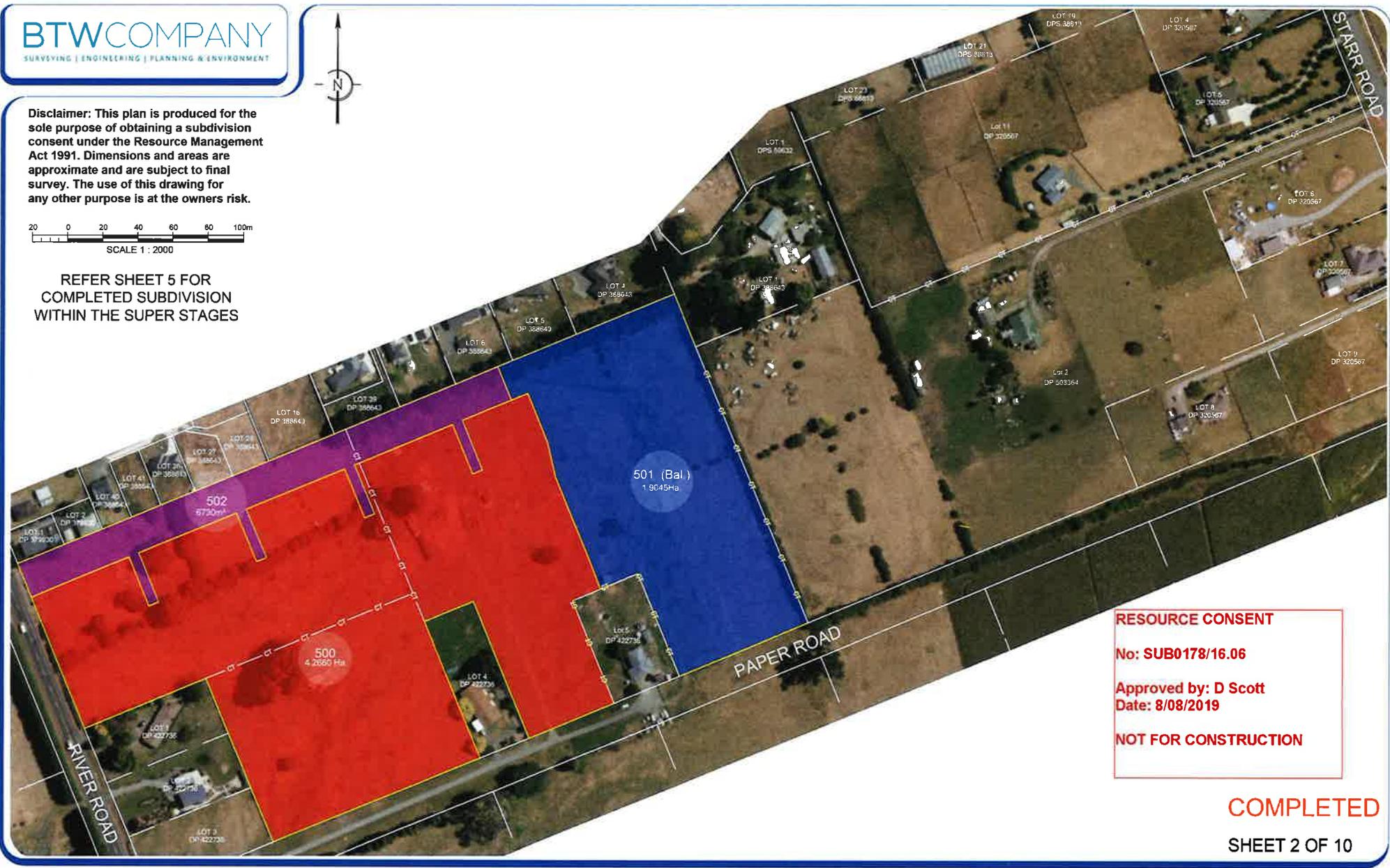
Document Set ID: 2322809
 Version: 4, Version Date: 25/09/2020



Disclaimer: This plan is produced for the sole purpose of obtaining a subdivision consent under the Resource Management Act 1991. Dimensions and areas are approximate and are subject to final survey. The use of this drawing for any other purpose is at the owners risk.



REFER SHEET 5 FOR COMPLETED SUBDIVISION WITHIN THE SUPER STAGES



RESOURCE CONSENT
No: **SUB0178/16.06**
Approved by: **D Scott**
Date: **8/08/2019**
NOT FOR CONSTRUCTION

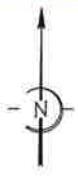
COMPLETED
SHEET 2 OF 10

File Name: J:\17640\02-01 Rev 6 Scheme Plan Set.dwg Plot Date: 28/09/2019 Plot Time: 07:27

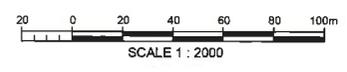
LOCAL BODY: Waikato District Council
APPLICANT: Ultimate Holdings Ltd
COMPRISED IN: SA450/25, 488821, 488822, 488823, 755736
SCALE: 1:2000 81523

SUPER STAGE 1 PLAN
Lots 500 - 502 being a Proposed Subdivision of Section 203 Ngaruawahia North Suburbs, Lots 6 & 7 DP 422736

Prepared by: T. MARTIN
Checked by: TM
Date: June 2019
Job No. 17840
Drawing No. 17004.02-01 Rev 6



Disclaimer: This plan is produced for the sole purpose of obtaining a subdivision consent under the Resource Management Act 1991. Dimensions and areas are approximate and are subject to final survey. The use of this drawing for any other purpose is at the owners risk.



REFER SHEET 5 FOR COMPLETED SUBDIVISION WITHIN THE SUPER STAGES



RESOURCE CONSENT
No: SUB0178/16.06
Approved by: D Scott
Date: 8/08/2019
NOT FOR CONSTRUCTION

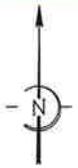
SHEET 3 OF 10

File Name: J:\17640\09\17004_02-01_Rev 6 Scheme Plan Set (dwg) Plot Date: 28/06/2019 Plot Time: 07:27

LOCAL BODY: Waikato District Council
APPLICANT: Ultimate Holdings Ltd
COMPRISED IN: SA450/25, 488821, 488822, 488823, 755736
SCALE: 1:2000 81523

SUPER STAGE 2 PLAN
Lots 503 - 505 being a Proposed Subdivision of Lot 501 (Super Stage 1), Lot 5 DP 422736 and Lot 2 DP 503364

Prepared by: T. MARTIN
Checked by: TM
Licensed Cadastral Surveyor
Date: June 2019 Job No. 17840 Drawing No. 17004.02-01 Rev 6
Drawn by: TM Date: 19/06/19
Date: 24/06/19



PROPOSED EASEMENTS			
Purpose	Shown	Serv. Ten	Dom. Ten
R.O.W. Electricity, Water, Gas, Telecom Sewer, Stormwater	ⓐ	Lot 506	Lot 507

Disclaimer: This plan is produced for the sole purpose of obtaining a subdivision consent under the Resource Management Act 1991. Dimensions and areas are approximate and are subject to final survey. The use of this drawing for any other purpose is at the owners risk.



REFER SHEET 5 FOR COMPLETED SUBDIVISION WITHIN THE SUPER STAGES



RESOURCE CONSENT
 No: SUB0178/16.06
 Approved by: D Scott
 Date: 8/08/2019
NOT FOR CONSTRUCTION

SHEET 4 OF 10

File Name: J:\17840\p17004_02-01_Rev 6 Scheme Plan Set (dwg) Plot Date: 28/06/2019 Plot Time: 07:27

LOCAL BODY: Waikato District Council
 APPLICANT: Ultimate Holdings Ltd
 COMPRISED IN: SA450/25, 488821, 488822, 488823, 755736
 SCALE: 1:2000 81523

SUPER STAGE 3 PLAN
 Lots 506-507 being a Proposed Subdivision of Lots 505 and Lot 11 DP 320567 (Super Stage 2)

Prepared by: T. MARTIN
 Drawn by: TM
 Checked by: TM
 Licensed Cadastral Surveyor
 Date: June 2019 Job No. 17840 Drawing No. 17004.02-01 Rev 6
 Date: 19/06/19
 Date: 24/06/19



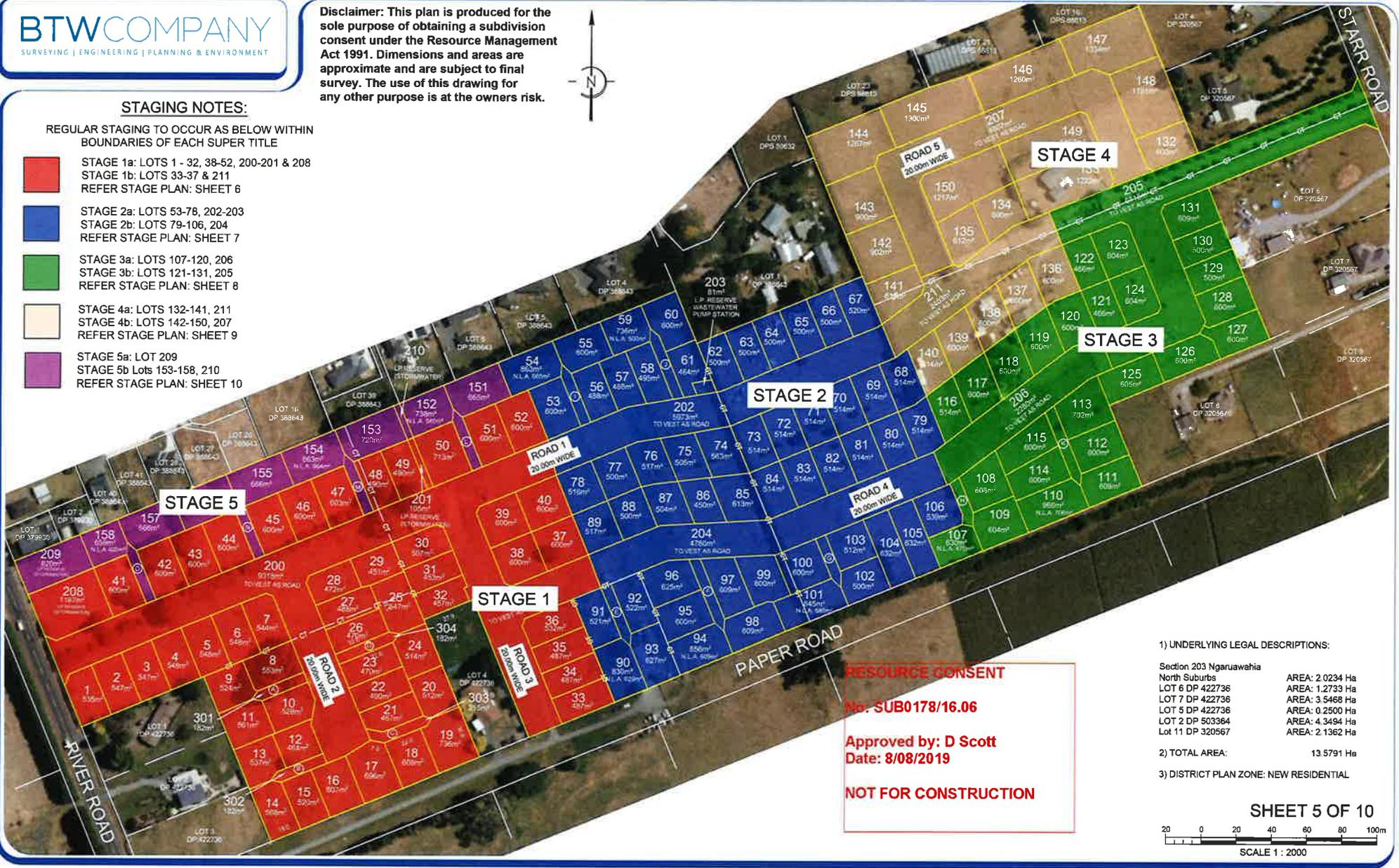
Disclaimer: This plan is produced for the sole purpose of obtaining a subdivision consent under the Resource Management Act 1991. Dimensions and areas are approximate and are subject to final survey. The use of this drawing for any other purpose is at the owners risk.



STAGING NOTES:

REGULAR STAGING TO OCCUR AS BELOW WITHIN BOUNDARIES OF EACH SUPER TITLE

- STAGE 1a: LOTS 1 - 32, 38-52, 200-201 & 208
STAGE 1b: LOTS 33-37 & 211
REFER STAGE PLAN: SHEET 6
- STAGE 2a: LOTS 53-78, 202-203
STAGE 2b: LOTS 79-106, 204
REFER STAGE PLAN: SHEET 7
- STAGE 3a: LOTS 107-120, 206
STAGE 3b: LOTS 121-131, 205
REFER STAGE PLAN: SHEET 8
- STAGE 4a: LOTS 132-141, 211
STAGE 4b: LOTS 142-150, 207
REFER STAGE PLAN: SHEET 9
- STAGE 5a: LOT 209
STAGE 5b: LOTS 153-158, 210
REFER STAGE PLAN: SHEET 10

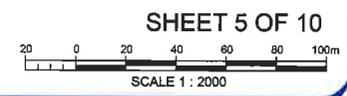


RESOURCE CONSENT
No: SUB0178/16.06
Approved by: D Scott
Date: 8/08/2019
NOT FOR CONSTRUCTION

- 1) UNDERLYING LEGAL DESCRIPTIONS:
- | | |
|---------------------------------------|-----------------|
| Section 203 Ngaruawahia North Suburbs | AREA: 2 0234 Ha |
| LOT 6 DP 422736 | AREA: 1.2733 Ha |
| LOT 7 DP 422736 | AREA: 3.5468 Ha |
| LOT 5 DP 422736 | AREA: 0.2500 Ha |
| LOT 2 DP 503364 | AREA: 4.3494 Ha |
| LOT 11 DP 320567 | AREA: 2.1362 Ha |

2) TOTAL AREA: 13 5791 Ha

3) DISTRICT PLAN ZONE: NEW RESIDENTIAL



LOCAL BODY: Waikato District Council
 APPLICANT: Ultimate Holdings Limited
 COMPRISED IN: SA450/25, 488821, 488822, 488823, 755736
 81523
 SCALE: 1:2000

STAGING PLAN
 Lots 1-158 & 200-211 being a Proposed Subdivision of Section 203 Ngaruawahia North Suburbs, Lots 5, 6 & 7 DP 422736, Lot 2 DP 503364 and Lot 11 DP 320567

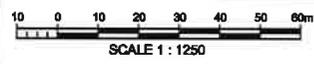
Prepared by: T. MARTIN
 Drawn by: TM
 Date: 19/06/19
 Checked by: TM
 Date: 24/06/19
 Licensed Cadastral Surveyor
 Date: June 2019 Job No. 17840 Drawing No. 17004.02-01 Rev 6

File Name: J:\17840\DWG\17004.02-01 Rev 6 Scheme Plan Set.dwg Plot Date: 28/06/2019 Plot Time: 07:27



PROPOSED EASEMENTS			
Purpose	Shown	Serv. Ten	Dom. Ten
R.O.W Electricity Water Gas Telecom Sewer Stormwater	(A)	Lot 301	Lots 8 - 11
	(B)	Lot 302	Lots 12 - 15
	(C)	Lot 303	Lots 18 - 21
	(D)	Lot 304	Lots 23 - 26

PROPOSED EASEMENTS (IN GROSS)			
Purpose	Shown	Serv. Ten	Dom. Ten
WASTEWATER	(P)	LOT 502	WAIKATO DC
STORMWATER	(P) (Q)		



AMALGAMATION CONDITIONS

That Lot 301 hereon (access lot) be held as two undivided 1/2 shares by the owners of Lots 9 and 11 hereon.

That Lot 302 hereon (access lot) be held as three undivided 1/3 shares by the owners of Lots 13, 14 and 15 hereon.

That Lot 303 hereon (access lot) be held as three undivided 1/3 shares by the owners of Lots 18, 19 and 20 hereon.

That Lot 304 hereon (access lot) be held as two undivided 1/2 shares by the owners of Lots 24 and 25 hereon.

STAGE NOTES

STAGE 1a: LOTS 1 - 32, 38-52, 200-201 & 208, 301-304

STAGE 1b: LOTS 33 - 37 & 212

LOT 200 TO BE VESTED AS ROAD

LOT 212 TO BE VESTED AS ROAD

LOT 201 TO BE VESTED AS LP RESERVE (STORMWATER)

LOT 208 TO BE VESTED AS LP RESERVE (STORMWATER)

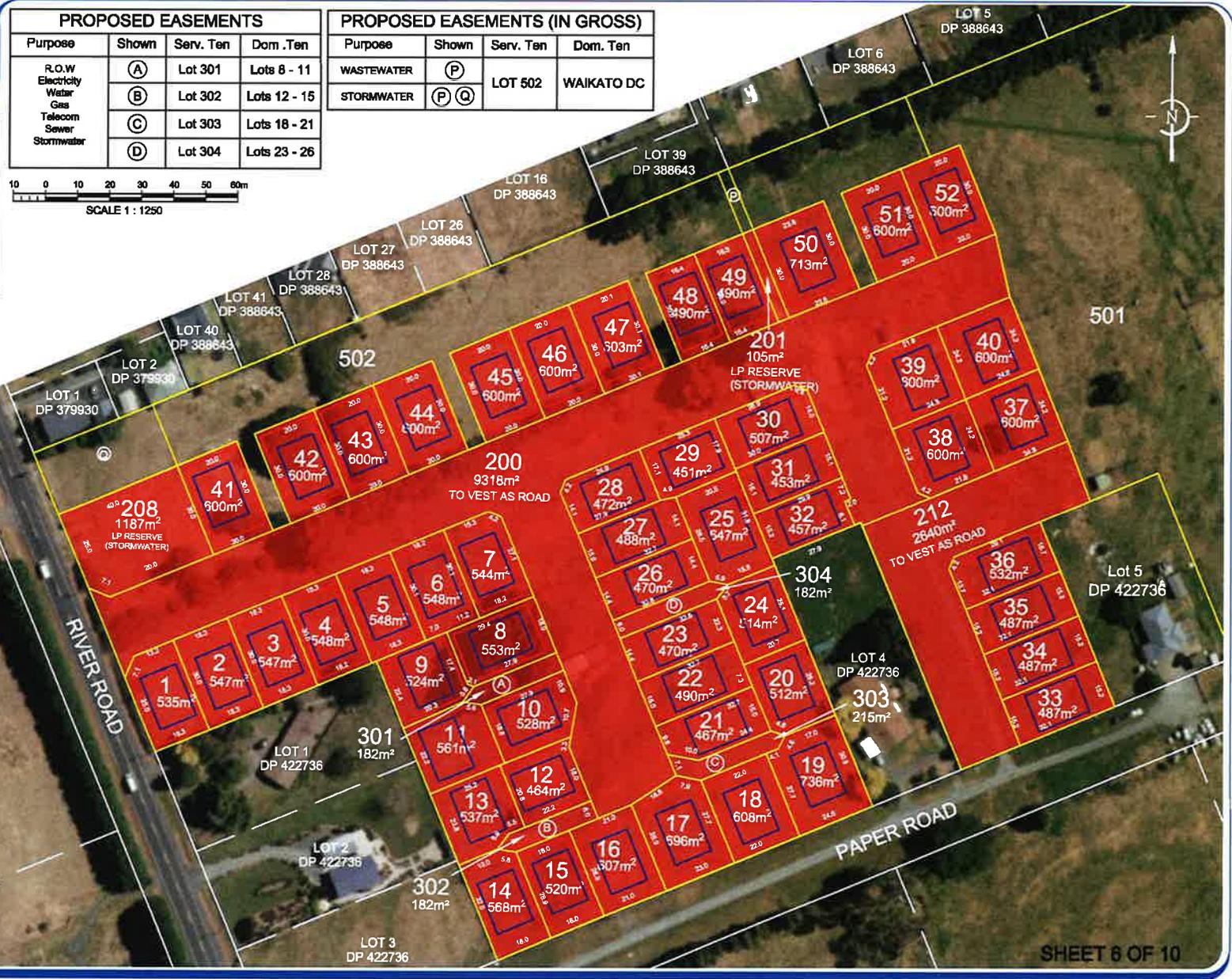
RESOURCE CONSENT

No: SUB0178-16.06

Approved by: D Scott
Date: 9/08/2019

NOT FOR CONSTRUCTION

Disclaimer: This plan is produced for the sole purpose of obtaining a subdivision consent under the Resource Management Act 1991. Dimensions and areas are approximate and are subject to final survey. The use of this drawing for any other purpose is at the owners risk.



SHEET 6 OF 10

LOCAL BODY: Waikato District Council
 APPLICANT: Ultimate Holdings Limited
 COMPRISED IN: SA450/25, 488821, 488822, 488823, 755736 81523
 SCALE: 1:1250

STAGE 1
 Lots 1-52, 200, 201, 208, 212 & 301-304 being a Proposed Subdivision of Lot 500 (Super Stage 1) & Easements over Lot 502

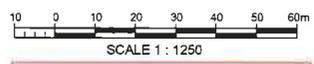
Prepared by: T. MARTIN
 Drawn by: TM
 Checked by: TM
 Date: 24/07/2019
 Date: 24/07/2019
 Licensee Cadastral Surveyor
 Date: June 2019 Job No.17840 Drawing No. 17004.02-01 Rev 7



STAGE NOTES
 STAGE 2a: LOTS 53-78, 202-203
 STAGE 2b: LOTS 79-106, 204
 LOTS 202 & 204 TO BE VESTED AS ROAD
 LOT 203 TO BE VESTED AS L.P RESERVE

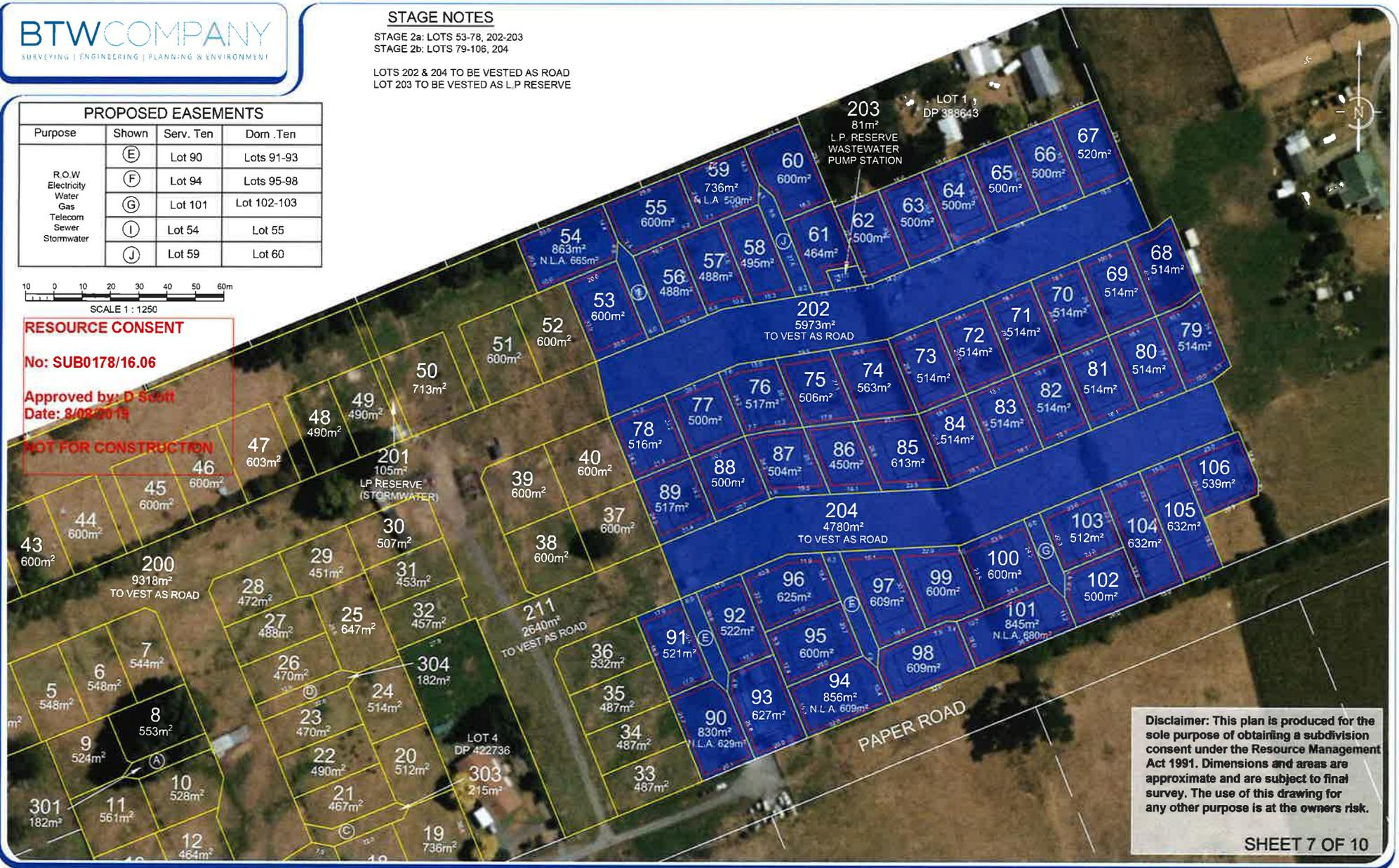
PROPOSED EASEMENTS

Purpose	Shown	Serv. Ten	Dom. Ten
R.O.W Electricity Water Gas Telecom Sewer Stormwater	(E)	Lot 90	Lots 91-93
	(F)	Lot 94	Lots 95-98
	(G)	Lot 101	Lot 102-103
	(I)	Lot 54	Lot 55
	(J)	Lot 59	Lot 60



RESOURCE CONSENT
 No: SUB0178/16.06
 Approved by: D Scott
 Date: 8/08/2019

NOT FOR CONSTRUCTION



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SHEET 7 OF 10

File Name: J:\1704\02\1704.02-01 Rev 6 Scheme Plan Set.dwg Plot Date: 28/06/2019 Plot Time: 01:27

LOCAL BODY: Waikato District Council
 APPLICANT: Ultimate Holdings Limited
 COMPRISED IN: SA450/25, 488821, 488822, 488823, 755736
 81523
 SCALE: 1:1250

STAGE 2
 Lots 53-106, 202-204 being a Proposed Subdivision
 of Lots 503 & 504 (Super Stage 2)

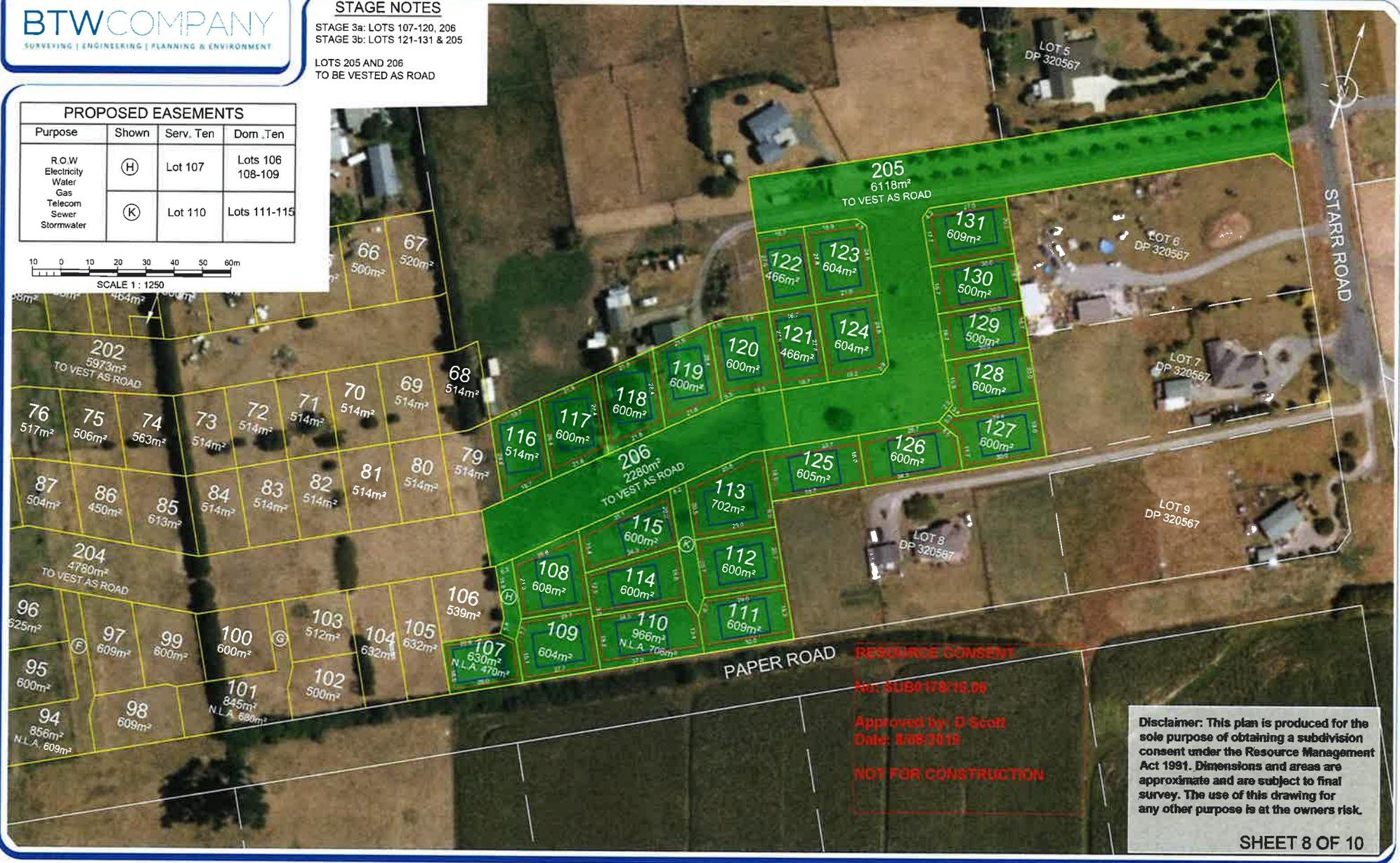
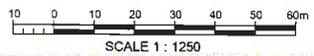
Prepared by: T. MARTIN
 Drawn by: TM
 Date: 19/06/19
 Checked by: TM
 Date: 24/06/19
 Licensed Cadastral Surveyor
 Date: June 2019 Job No. 17840 Drawing No. 17004.02-01 Rev 6



STAGE NOTES
 STAGE 3a: LOTS 107-120, 206
 STAGE 3b: LOTS 121-131 & 205
 LOTS 205 AND 206
 TO BE VESTED AS ROAD

PROPOSED EASEMENTS

Purpose	Shown	Serv. Ten	Dom. Ten
R.O.W Electricity Water Gas Telecom Sewer Stormwater	(H)	Lot 107	Lots 106 108-109
	(K)	Lot 110	Lots 111-115



RESOURCE CONSENT
 No: SUB0178/16.06
 Approved by: D Scott
 Date: 8/08/2019
NOT FOR CONSTRUCTION

Disclaimer: This plan is produced for the sole purpose of obtaining a subdivision consent under the Resource Management Act 1991. Dimensions and areas are approximate and are subject to final survey. The use of this drawing for any other purpose is at the owners risk.

SHEET 8 OF 10

File Name: J:\1704\02-01 Rev 6 Scheme Plan Set.dwg Plot Date: 28/06/2019 Plot Time: 07:27

LOCAL BODY: Waikato District Council
 APPLICANT: Ultimate Holdings Limited
 COMPRISED IN: SA450/25, 488821, 488822, 488823, 755736
 SCALE: 1:1250

STAGE 3
 Lots 101-131, 205-206 being a Proposed Subdivision of
 Lot 506 (Super Stage 3)

Prepared by: T. MARTIN
 Checked by: TM
 Licensed Cadastral Surveyor
 Date: June 2019 Job No. 17840 Drawing No. 17004.02-01 Rev 6



STAGE NOTES

STAGE 4a: LOTS 132-141 & 211
 STAGE 4b: LOTS 142-150 & 207
 LOTS 207 & 211 TO BE VESTED AS ROAD

Disclaimer: This plan is produced for the sole purpose of obtaining a subdivision consent under the Resource Management Act 1991. Dimensions and areas are approximate and are subject to final survey. The use of this drawing for any other purpose is at the owners risk.



RESOURCE CONSENT

No: SUB0178/16.06
Approved by: D Scott
Date: 8/08/2019

NOT FOR CONSTRUCTION



File Name: J:\171540\Drawings\17004.02-01_Rev 6 Scheme Plan Set.dwg Plot Date: 28/06/2019 Plot Time: 07:27

LOCAL BODY: Waikato District Council
 APPLICANT: Ultimate Holdings Limited
 COMPRISED IN: SA450/25, 488821, 488822, 488823, 755736 81523
 SCALE: 1:1250

STAGE 4
 Lots 132 - 150, 207 & 211 being a Proposed Subdivision of
 Lot 507 (Super Stage 3)

Prepared by: T. MARTIN
 Licensed Cadastral Surveyor
 Date: June 2019 Job No.17840 Drawing No.17004.02-01 Rev 6
 Drawn by: TM Date: 19/06/19
 Checked by: TM Date: 24/06/19

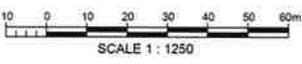
SHEET 9 OF 10



PROPOSED EASEMENTS			
Purpose	Shown	Serv. Ten	Dom. Ten
R.O.W. Electricity, Water, Gas, Telecom Sewer, Stormwater	(L)	Lot 152	Lot 151
	(M)	Lot 154	Lot 153
	(N)	Lot 156	Lot 155
	(O)	Lot 158	Lot 157



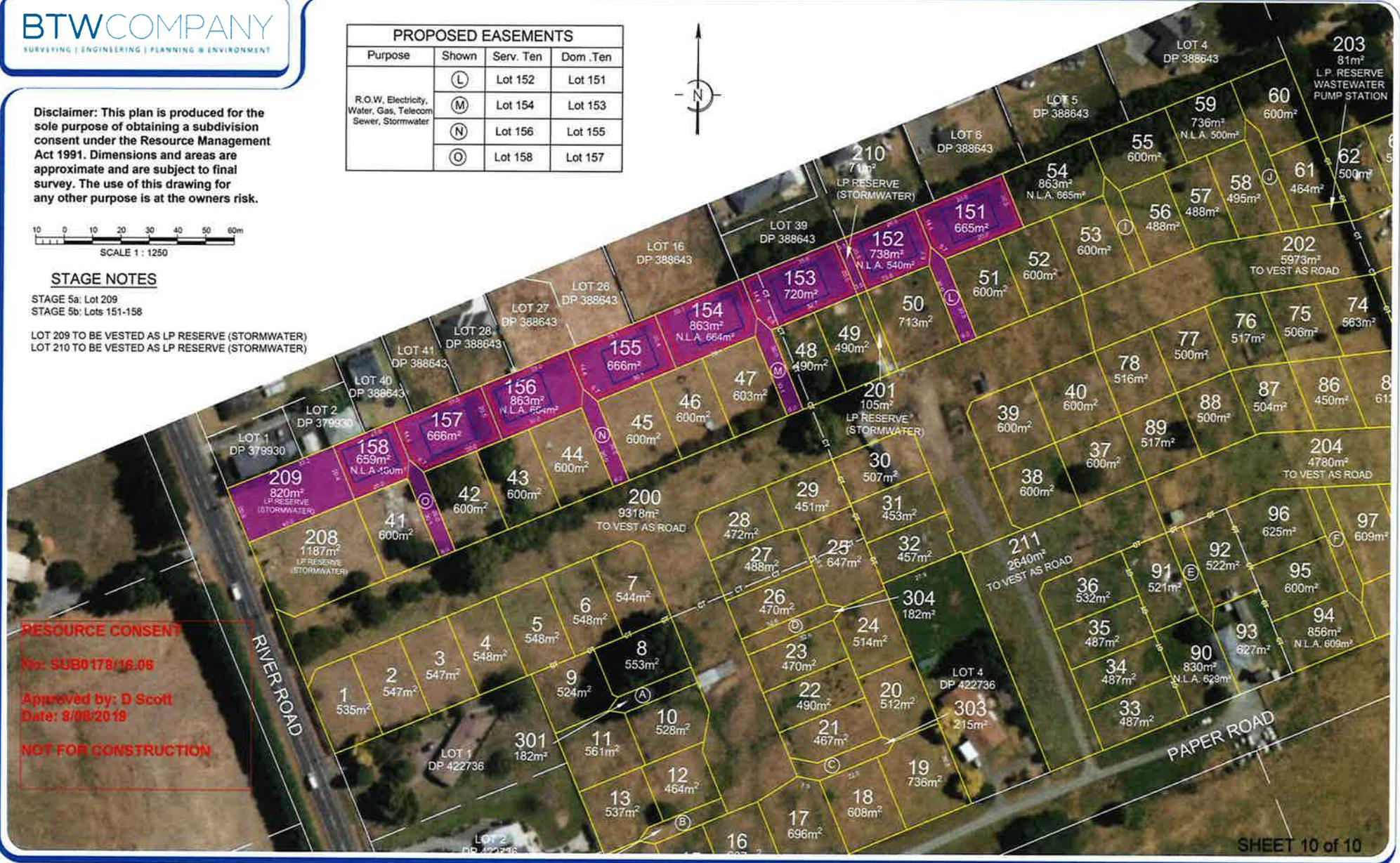
Disclaimer: This plan is produced for the sole purpose of obtaining a subdivision consent under the Resource Management Act 1991. Dimensions and areas are approximate and are subject to final survey. The use of this drawing for any other purpose is at the owners risk.



STAGE NOTES

STAGE 5a: Lot 209
 STAGE 5b: Lots 151-158
 LOT 209 TO BE VESTED AS LP RESERVE (STORMWATER)
 LOT 210 TO BE VESTED AS LP RESERVE (STORMWATER)

RESOURCE CONSENT
 No: SUB0178/16.06
 Approved by: D Scott
 Date: 8/08/2018
NOT FOR CONSTRUCTION



SHEET 10 of 10

LOCAL BODY: Waikato District Council
 APPLICANT: Ultimate Holdings Limited
 COMPRISED IN: SA450/25, 488821, 488822, 488823, 755736
 SCALE: 1:1250

STAGE 5
 Lots 151 -158, 209-210 being a Proposed
 Subdivision of Lot 502 (Super Stage 1)

Prepared by: T. MARTIN
 Drawn by: TM
 Date: 19/06/19
 Checked by: TM
 Date: 24/06/19
 Licensed Cadastral Surveyor
 Date: June 2019 Job No.17840 Drawing No. 17004.02-01 Rev 6

Resource Consent

(Resource Management Act 1991)



www.waikatodistrict.govt.nz

DECISION ON APPLICATION:

Pursuant to Sections 34A(1), Section 104, 104B, and 108 of the Resource Management Act 1991, the Waikato District Council, under delegated authority, grants land use consent for a Discretionary Activity under the Operative District Plan:

Activity: To construct multiple dwellings prior to the issue of individual records of title; and to establish three show homes and multiple associated signs on the site, in the New Residential Zone.

Applicant: River Road North (1) Limited

Location Address: 75 River Road NGARUAWAHIA

Legal Description: Lot 500 DP 516219 comprised in Record of Title 804279

This consent is subject to the conditions detailed in the attached Schedule 1.

The reasons for this decision are detailed in the attached Schedule 2.

A handwritten signature in black ink, appearing to read "M. Kelly", is written over a horizontal line.

CONSENTS TEAM LEADER

Dated: 19/06/2019.



Schedule I

Conditions of Consent

Resource Consent No: LUC0429/19

General Conditions

- 1 The development shall be undertaken in general accordance with the information and plans submitted by the Consent Holder in support of application number LUC0429/19 and officially received by Council on 20th May 2019 except as amended by the conditions below. Copies of the approved plans are attached. In the case of inconsistency between the application and the conditions of this consent, the conditions of consent shall prevail.
- 2 Pursuant to Section 36 of the Resource Management Act 1991 the Consent Holder shall pay the actual and reasonable costs incurred by the Waikato District Council when monitoring the conditions of this consent.
- 3 The Consent Holder shall notify the Waikato District Council Monitoring Department at least 2 working days prior to the commencement of activities associated with this consent.

Advice note

To notify Waikato District Council Monitoring Department, email monitoring@waidc.govt.nz with the consent number, address of property and date for when the works will commence.

- 4 Prior to the occupation of any dwelling, the consent holder shall provide evidence that provisions for reticulated wastewater, water supply and stormwater are available and operational, to the satisfaction of Waikato District Council's Team Leader Monitoring (or delegated authority).

Show Homes

- 5 The Show Homes shall be located on Lots 16, 18 and 28.
- 6 There shall only be one sign for each of the Show Homes, which may be erected prior to the Show Homes commencing construction. Each sign shall have a maximum dimension of 1 m x 2m, shall be no higher than 2 metres above ground level and shall be located near the entrance of each site.
- 7 All lettering contained within each sign shall be at least 124mm in height, and each sign's content shall only refer to the following:
 - a. Show Home
 - b. Company name
 - c. Contact details (i.e. phone number, address, email etc.)
 - d. Slogan and logo

- 8 The hours of operation shall be Monday to Sunday, between 9am and 5pm.
- Advice Note:
For the purposes of clarity, excluded from the hours of operation are office work and property maintenance.
- 9 The Show Homes shall be used as such for a period not exceeding four years commencing from the date of this resource consent.
- 10 All signage associated with the Show Homes shall be removed at the end of the four year period.

Prior to Construction

- Design Plans
- 11 At the time of application for building consent the consent holder shall provide floor plans, elevations and site plans demonstrating compliance with the provisions of the District Plan for each lot to be developed, aside from the setback of the building on Lot 33 from the paper road which shall be 1.5m.
- Advice Note:
For the avoidance of doubt, this provision shall also apply to show homes.
- Geotechnical Report
- 12 At the time of application for building consent, a site specific geotechnical report shall be provided for the individual allotment(s) that the dwellings are to be constructed on. The report provided may address more than one individual lot.
- Surveyors Certificate
- 13 If the subdivision (SUB0178/16.05) has not received a s224 certificate under the Resource Management Act 1991, the following will be required to be provided to the Team leader Monitoring and Building Team Leader prior to the first building inspection:
- A registered surveyor or licensed cadastral surveyor, engaged by the Consent Holder, shall provide written certification (by way of a Surveyors Certificate) that the set out foundation of each proposed building complies with the permitted activity rules relating to building coverage, setbacks and daylight angles relative to the consent boundaries (or surveyed s223 boundary lines if known) of SUB0178/16.05 aside from the setback of the building on Lot 33 from the paper road which shall be certified as being a minimum of 1.5m. All boundaries shall be clearly identified on site at the time of building consent.
- Engineering Design Plans
- 14 All work authorised by this consent shall align and be consistent with the engineering design plans approved for the subdivision.

Advisory Notes

Lapse Date

- 1 This Resource Consent for land use lapses five years after the commencement of the consent, unless:
 - (a) the Consent is given effect to prior to that date.
or
 - (b) an application is made to the consent authority to extend the period after which the consent lapses, and the consent authority decides to grant an extension after taking into account
 - (i) whether substantial progress or effort has been, and continues to be, made towards giving effect to the consent; and
 - (ii) whether the applicant has obtained approval from persons who may be adversely affected by the granting of an extension; and
 - (iii) the effect of the extension on the policies and objectives of any plan or proposed plan.

Other consents/permits may be required

- 2 To avoid doubt; except as otherwise allowed by this resource consent, all land uses must comply all remaining standards and terms of the relevant Waikato District Plan. The proposal must also comply with the Building Act 2004, Hamilton City Council Infrastructure Technical Specifications and Waikato Regional Plans. All necessary consents and permits shall be obtained prior to development.

Enforcement Action

- 3 Failure to comply with the conditions of consent may result in Council taking legal action under the provisions of Part 12 of the Resource Management Act (1991).



Schedule 2

Reasons for Decision

Resource Consent No: LUC0429/19

- I The actual and potential effects created by the proposal are acceptable for the following reasons;
 - a. The construction of any additional dwellings will occur within the consented lot boundaries as approved by SUB0178/16.05.
 - b. Any potential effects associated with the construction of residential dwellings in this area have been previously considered under the approved subdivision consent (SUB0178/16) and therefore the construction of multiple dwellings is considered to be the next step in the development of this land and consistent with the character and amenity of a residential area.
 - c. The proposed construction of the Show Homes and multiple dwellings prior to the issuance of individual titles will be consistent with the density of development anticipated in the New Residential Zone and in accordance with the density of lots approved as part of the subdivision consent (SUB0178/19).
 - d. The hours of operation for the Show Homes will be restricted to daytime hours of 9am to 5pm over 4 year duration.
 - e. The three proposed show homes are considered to be commercial activities under the Operative District Plan (Waikato Section) and whilst not permitted in the Living (New Residential) Zone the only aspect of the show homes that will distinguish these dwellings as being used for non-residential activities will be presence of signage.
 - f. The potential noise and visual movement of vehicles arriving at the lots containing Show Homes and people moving around the property and into the Show Home buildings are considered to be relatively small scale and not considered to be significantly dissimilar from typical residential use of a dwelling.
 - g. Each dwelling will be able to be connected to infrastructure for water, wastewater, stormwater, telecommunications and power prior to them being occupied.
 - h. No parties were considered to be adversely affected by the proposal and any potential effects are considered to be adequately managed and/or mitigated by the conditions of consent and are therefore deemed to be acceptable.
- 2 The proposal is consistent with the objectives and policies of both the operative and proposed District Planning documents of the Operative District Plan and Proposed District Plan.
- 3 The proposal is consistent with the operative Waikato Regional Policy Statement and all other relevant matters.
- 4 Overall the proposal meets the purpose (section 5) and principles (sections 6-8) of the Resource Management Act 1991.



Form 5
BUILDING CONSENT NO: BLD2315/21
Section 51, Building Act 2004
ISSUED BY: WAIKATO DISTRICT COUNCIL

The Building

Street address of building: 5 Turutu Place NGARUAWAHIA
Legal description of land where building is located: LOT 26 DP 537748
Valuation Number: 04411/217.30 Property Number: 2021057
Building name: n/a
Location of building within site/block number: n/a
Level/unit number: n/a

The Owner

Name of owner: P G Davey, M R A Davey
Mailing Address: 13 Taplin Road, RD 3, Hamilton 3283

Street address/registered office: 13 Taplin Road, Tamahere

Phone numbers:

Landline: n/a Mobile: 027-5513999
Daytime: n/a After hours: n/a
Facsimile number: n/a Email address: n/a
Website: n/a

First point of contact for communications with the Building Consent Authority

Full Name of Person: G J Gardner Homes Limited - Hamilton
Mailing Address: PO Box 20492, Te Rapa, Hamilton

Phone numbers:

Landline: 07-8509950 Mobile: n/a
Daytime: 07-8509950 Fax number: n/a
Email address: design.hamilton@gjgardner.co.nz

Building Work

The following building work is authorised by this building consent:

Dwelling with attached garage

Project type: Dwelling \$354,096

Total Value of work: \$354,096

This building consent is issued under Section 51 of the Building Act 2004. This building consent does not relieve the owner of the building (or proposed building) of any duty or responsibility under any other Act relating to or affecting the building (or proposed building).

This building consent also does not permit the construction, alteration, demolition, or removal of the building (or proposed building) if that construction, alteration, demolition, or removal would be in breach of any other Act.

Waikato District Council
Building Consent No: BLD2315/21

This Building Consent is subject to the following conditions:

Section 90 - Inspections:

When booking your inspections please phone (07) 824 8633 or (0800) 492 452 and quote your building consent number. Whilst we will endeavour to provide inspections in a timely manner, please provide **at least 48 hours notice** prior to any of the following mandatory inspections. (Click [here](#) for more information on Inspections & Certification)

- Siting (prior to pouring concrete) - *Owner/builder to locate boundary pegs prior to council carrying out a foundation/siting inspection.*

- Pre-floor Plumbing & Drainage (prior to backfilling)

- Pre-wrap / Structural Framing (pre-wrap)

- Exterior Cladding

- Pre-line

- Post-line

- Drainage

- Final Building (Code Compliance Certificate) to be called for - *Some final inspections require Council to have access into the building. If no-one is onsite to allow access to the interior of the building it is likely the inspection will fail.*

The following documents from third parties need to be provided to the BCA to certify that the building work complies with the plans and specifications and in order for Council to issue a CCC: (Click [here](#) for more information on Producer Statements & Memoranda)

Producer Statements:

- Sand pad / Sub grade (PS 4)
- Engineering - Pre pour reinforcing (PS 4)
- Pile driving (PS 4)

Certificates / Memorandums / Statements / Letters:

- Code Compliance Certificate application
- Record of Works
 - Foundation Specialist
 - Carpenter
 - Brick / Blocklayer
 - Roofer
- Waterproofing systems (internal)
- Electrical Compliance Certificate (if applicable)
- Plumbing pressure test
- Gas Certificate
- As laid drainage plan

Compliance Schedule:

- A compliance schedule is not required for the building.

Attachments:

Copies of the following documents are attached to this building consent:

- ✓ Project Advisory Notes

Attachments

Project Advisory Notes:

Please read the following:

- At least 48 hours' notice shall be required for plumbing and drainage inspections.
- Plumbing preline inspection shall be required.
- Plumbing inspection shall be required before pouring floor slab.
- A backflow preventor is to be installed to comply with G12 ASI Table 2.
- An as built drainage plan and an electrical certificate of compliance is required on completion.
- Stormwater shall be disposed of in an approved manner.
- Domestic smoke alarms must be installed before a final inspection is requested. The number of alarms required and their location in the dwelling is to be in accordance with the New Zealand Building Code.

Lapsing of a building consent:

A building consent lapses and is of no effect if the building work to which it relates does not commence within:

- a) 12 months after the date of issue of the building consent or
- b) Any further period that the building consent authority may allow.

The granting of this building consent, with or without a certificate under section 37 of the Building Act 2004, does not remove the need to obtain a resource consent if one is required under the Waikato District Plan.

Code Compliance Certificate will be issued after your final inspection has been carried out and passed and all documentation has been received and approved. ([Click here](#) for your CCC application form).

Restricted Building Work:

- This Building Consent involves Restricted Building Work that must be undertaken or supervised by a Licensed Building Practitioner that holds the appropriate license class.
- If you have not already done so, you are required to notify Council in writing, the name of every Licensed Building Practitioner who is going to be engaged to carry out the Restricted Building Work prior to work commencing. *LBP notification forms can be found on www.buildwaikato.co.nz – Application Forms & Checklists.*
- You will not be able to book inspections for Restricted Building Work until written notification regarding the Licensed Building Practitioners has been received and approved by Council.
- You are required to obtain a Record of Building Work Memorandum from all the Licensed Building Practitioners involved, detailing the Restricted Building Work they have completed. The Record of Building Work Memorandum is to be attached to the application for the Code Compliance Certificate.

Signature:



Name: Kylie Escott
Position: Building Administrator
On Behalf of: Waikato District Council
Date: 19 July 2021

JOB INFORMATION

Reference / Job#: 5 turutu place 10/3/2022
Installation address: 5 Turutu Place, Ngaruawahia, 3791

CUSTOMER INFORMATION

Name: G.J Gardner Homes Limited **Email:** hamilton@gjgardner.co.nz **Phone:** 07 850 9950
Postal address: 163 Maui St, Pukete, Hamilton, 3200 **Mobile:**

ELECTRICAL WORKER INFORMATION

Name: Michael Albrechtsen **Registration:** E266695
Company Name: John Lovett Electrical Ltd **Phone:** 0272847884
Email: mike_a3428@hotmail.com

WORK DETAILS

Date Started: 25/11/2021 **Date Completed:** 10/03/2022 **Work Risk:** High Risk
Type of System: 230/400v MEN **Type of Work:** New Work
Work has been done in accordance with: Part 2 of AS/NZS 3000

DESCRIPTION OF WORK DONE

New house containing 36 lights (34 downlights, 2 wall lights), 29 power points (2 usb, 1 15A outside), 2 inline fans, 2 heated towel rails, sensor head, wall oven, hob, hot water cylinder, aircon unit and 2 2ways. Switchboard contains 1x2pole 63A main switch, 1x25Acb(hob), 1x20Acb(oven), 2x16Acb(hwc, aircon), 1x63A RCD protecting 1x20Acb, 1x16Acb and 1x6Acb, 2x40A RCDs protecting 3x16Acbs, 1x6Acb. Supervised person Mark Owens e-tlc140218

CERTIFICATION OF WORK

I certify that the completed prescribed electrical work to which this Certificate of Compliance applies, has been done lawfully and safely and the information in the certificate is correct in that the installation, or part of the installation:

Has been installed in accordance with a certified design *	
Has an earthing system that is correctly rated	✓
Contains fittings which are safe to connect to a power supply	✓
Relies on supplier's Declaration of Conformity *	
Relies on manufacturer's instructions *	
Has been satisfactorily tested in accordance with Electrical (Safety) Regulations 2010	✓
All parts of the installation are safe to connect to a power supply list, if NOT, please detail what parts ARE safe to connect	✓

* References, where applicable, can be found on the additional information sheet.

**Certified Worker's
Signature**



Date: 10/03/2022



This is an important document and should be retained for a minimum of seven years.

Version 3.01

Producer Statement Construction (PS3) / Memorandum of Completion and Compliance

Issued by: (Construction Reviewer)

Pienaar Pizo

Building Consent number:

BLD2315/21

Company Name:

Vision Complete Earthworks

To:

Hamilton City Council

Hauraki District Council

Matamata-Piako District Council

Otorohanga District Council

Thames-Coromandel District Council

Waikato District Council

Waipa District Council

Waitomo District Council

Waikato Building Consent Group Reg. No.:

Expiry Date:

Other No. (specify):

Owner:

Phillip & Merri Davey

Project Address:

5 Turutu Pl, River Road Estate, Ngaruawahia

Lot:

26

DP:

DP 537748

Description of Building Work:

New House

Scope of work covered by statement:

Excavation and backfill of house foundations as per council approved plans

System / Product used (if applicable):

I (Construction Reviewer's name):

Pienaar Pizo

have been engaged by (owner/developer/contractor):

GJ Gardner Homes

In respect of (tick applicable):

The requirements of the Building Regulations

1992, Clause(s): (Please be specific e.g. E2.3.5)

B1/AS1

Alternative Solution(s):

for the building work described by the drawings and specifications prepared by the design firm titled:

GJ Gardner Homes

numbered:

Copies attached

authorised amendments(s):

Copies attached

(if applicable)

I have sighted the Building Consent and read the Advisory Notes. I can confirm that the building works have been carried out in accordance with the requirements of the New Zealand Building Code, the Building Consent, the design drawings and specifications, and in accordance with the listed amendments (if any).

I confirm that all work I have undertaken has been within the scope of my skills, knowledge, and experience. I have remained within the scope of works set for me by the *Waikato Building Consent Group Producer Statement Author register (if applicable).

I understand that this Statement, if accepted, may be relied upon for the purpose of establishing compliance with the Building Code and the Building Consent.

I am satisfied the building work complies with the requirements of the Building Consent and the New Zealand Building Code.

Signed by

(Construction Reviewer):



Name of Constructor

(Print Clearly):

Pienaar Pizo

Date: 25-Jan-22

Address: Po Box 20330, Te Rapa, Hamilton

Ph: 07 849 4239

Mb:

Fx:

Email:

admin@visioncomplete.co.nz

Qualifications /

Producer Statement Construction (PS3) / Memorandum of Completion and Compliance



Issued by: **Brad Albiston** Building Consent number: **BLD2315/21**
(Construction Reviewer)

Company Name: **Waikato Post Ramming Ltd**

To: Hamilton City Council Hauraki District Council Matamata-Piako District Council Otorohanga District Council
 Thames-Coromandel District Council Waikato District Council Waipa District Council Waitomo District Council

Waikato Building Consent Group Reg. No.: Expiry Date: Other No. (specify):

Owner: **Phillip & Merri Davey**

Project Address: **5 Turutu Place, River Road Estate, Ngaruawahia**

Lot: **26** DP: **537748**

Description of Building Work: **Foundations**

Scope of work covered by statement: **Driven Piles**

System / Product used (if applicable): **Tanalised poles H5**

I (Construction Reviewer's name): **Brad Albiston**

have been engaged by (owner/developer/contractor): **G J Gardner**

In respect of (tick applicable):
 The requirements of the Building Regulations 1992, Clause(s): *(Please be specific e.g. E2.3.5)* **B1, B2**

Alternative Solution(s):

for the building work described by the drawings and specifications prepared by the design firm titled:
ProBase Engineering

numbered: **S1** Copies attached

authorised amendments(s): Copies attached
(if applicable)

- I have sighted the Building Consent and read the Advisory Notes. I can confirm that the building works have been carried out in accordance with the requirements of the New Zealand Building Code, the Building Consent, the design drawings and specifications, and in accordance with the listed amendments (if any).
- I confirm that all work I have undertaken has been within the scope of my skills, knowledge, and experience. I have remained within the scope of works set for me by the *Waikato Building Consent Group Producer Statement Author register (if applicable).
- I understand that this Statement, if accepted, may be relied upon for the purpose of establishing compliance with the Building Code and the Building Consent.
- I am satisfied the building work complies with the requirements of the Building Consent and the New Zealand Building Code.

Signed by Name of Constructor **Brad Albiston**
(Construction Reviewer) *(Print clearly)*

Date: **22.09.2021** Address: **7 Durham Street, Ngaruawahia**

Ph: Mb: **027 632 0853** Email: **brad@waikatopostramming.co.nz**

Qualifications / Experience: **NZ Certificate in Infrastructure Piling Level 4; 15 years in industry**

Producer Statement Construction (PS3) / Memorandum of Completion and Compliance

Issued by: (Construction Reviewer)

Grant Nepe

Building Consent number:

BLD2315/21

Company Name:

Dreams Built

To:

Hamilton City Council
 Hauraki District Council
 Matamata-Piako District Council
 Otorohanga District Council
 Thames-Coromandel District Council
 Waikato District Council
 Waipa District Council
 Waitomo District Council

Waikato Building Consent Group Reg. No.:

[Redacted]

Expiry Date:

[Redacted]

Other No. (specify):

[Redacted]

Owner:

Phillip & Merri Davey

Project Address:

5 Turutu Pl, River Road Estate, Ngaruawahia

Lot:

26

DP:

DP 537748

Description of Building Work:

New House

Scope of work covered by statement:

Raft Type Foundation as per Engineers Design

System / Product used (if applicable):

[Redacted]

I (Construction Reviewer's name):

Grant Nepe

have been engaged by (owner/developer/contractor):

GJ Gardner Homes

In respect of (tick applicable):

- The requirements of the Building Regulations 1992, Clause(s): (Please be specific e.g. E2.3.5)

B1/VM1, B1/VM4

Alternative Solution(s):

[Redacted]

for the building work described by the drawings and specifications prepared by the design firm titled:

EDA Consulting Engineers

numbered:

[Redacted]

Copies attached

authorised amendments(s):

[Redacted]

Copies attached

(if applicable)

- I have sighted the Building Consent and read the Advisory Notes. I can confirm that the building works have been carried out in accordance with the requirements of the New Zealand Building Code, the Building Consent, the design drawings and specifications, and in accordance with the listed amendments (if any).
- I confirm that all work I have undertaken has been within the scope of my skills, knowledge, and experience. I have remained within the scope of works set for me by the *Waikato Building Consent Group Producer Statement Author register (if applicable).
- I understand that this Statement, if accepted, may be relied upon for the purpose of establishing compliance with the Building Code and the Building Consent.
- I am satisfied the building work complies with the requirements of the Building Consent and the New Zealand Building Code.

Signed by

(Construction Reviewer):

Name of Constructor

(Print Clearly):

Grant Nepe

Date:

25-Jan-22

Address:

C/- PO Box 20492, Te Rapa, Hamilton

Ph:

[Redacted]

Mb:

021 412 384

Fx:

[Redacted]

Email:

grant@dreamsbuilt.co.nz

Qualifications /

[Redacted]

Producer Statement Construction Review (PS4) / Statement of Completion and Compliance

Issued by: Building Consent number:
(Construction Reviewer)

Company Name:

To: Hamilton City Council Hauraki District Council Matamata-Piako District Council Otorohanga District Council
 Thames-Coromandel District Council Waikato District Council Waipa District Council Waitomo District Council

Waikato Building Consent Group Reg. No.: Expiry Date: Other No. (specify):

Owner:

Project Address:

Lot: DP:

Description of Building Work:

Scope of work covered by statement:

System / Product used (if applicable):

I (Construction Reviewer's name):

have been engaged by (owner/developer/contractor):

To provide construction review services in respect of (tick applicable):
 The requirements of the Building Regulations 1992, Clause(s): (Please be specific e.g. E2.3.5)

Alternative Solution(s):

for the building work described by the drawings and specifications prepared by the design firm titled:

numbered: Copies attached

authorised amendment(s): Copies attached
(if applicable)

- I have sighted the Building Consent and read the Advisory Notes. I can confirm that the building works have been carried out in accordance with the requirements of the New Zealand Building Code, the Building Consent, the design drawings and specifications, and in accordance with the listed amendments (if any).
- I confirm that all work I have undertaken has been within the scope of my skills, knowledge, and experience.
- I have remained within the scope of works set for me by the *Waikato Building Consent Group Producer Statement Author register (if applicable).
- I understand that this Statement, if accepted, may be relied upon for the purpose of establishing compliance with the Building Code and the Building Consent.
- I am satisfied the building work complies with the requirements of the Building Consent and the New Zealand Building Code.

Signed by: Name of Construction Reviewer:
(Construction Reviewer) *(Print clearly)*

Date: Address:

Ph: Mb: Fx: Email:

Qualifications / Experience:

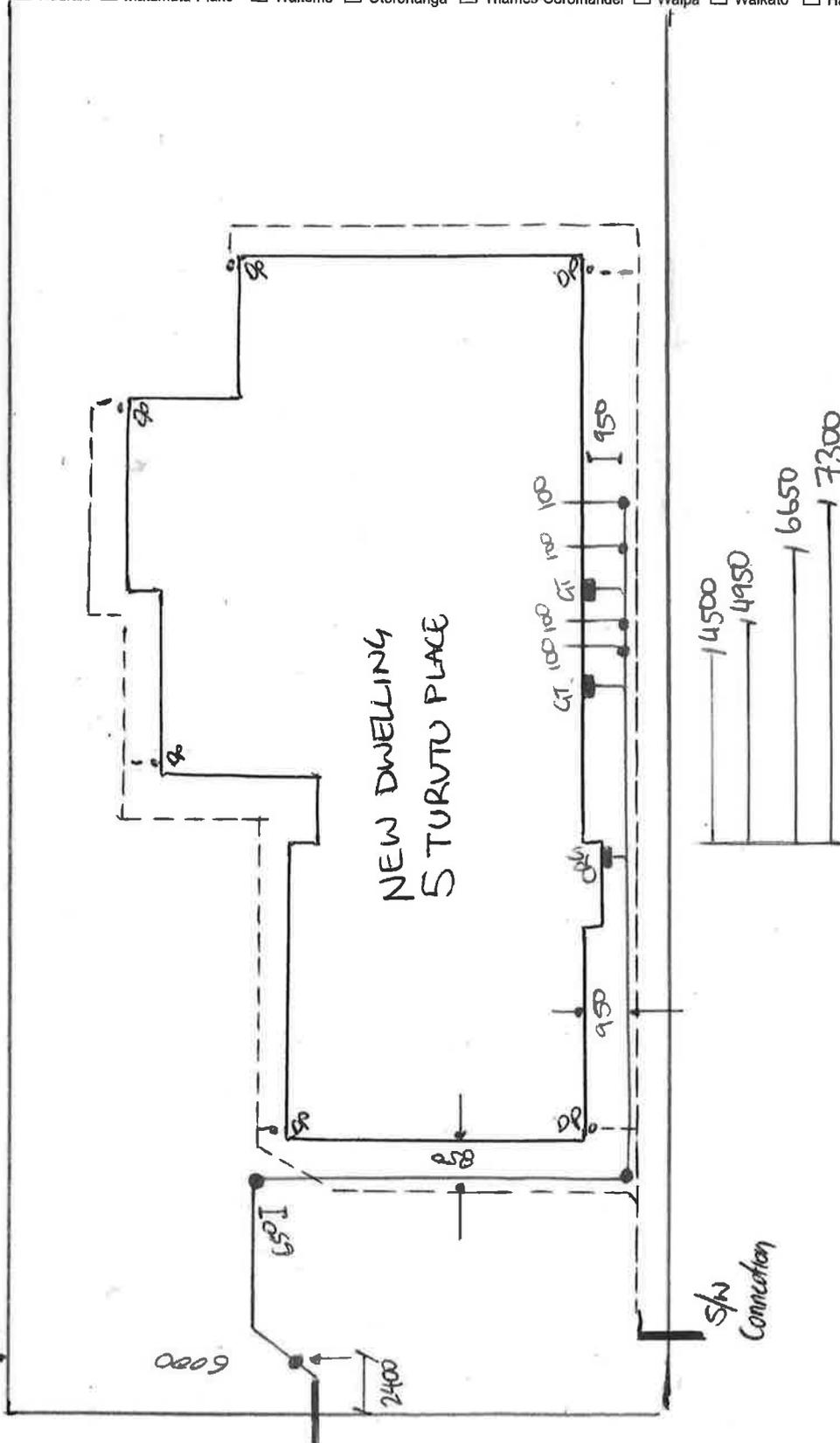


As Laid Drainage

Working Together

Building Consent Number: 2315/21 Date: 29, 9, 21 No. of pages: ①
 Builder: GJ GARDNER HOMES LTD
 Owner: P & M DAVEY
 Address: LOT 26, 5 TURUTU PLACE, RIVER ROAD ESTATE, NCARAWAIAH
 Drain Layer Name: HAMISH MCKENZIE [Please print clearly] Signature: [Signature]
 Registration Number: 21413 Business Name: DRAINAGE SYSTEMS

To Council: [Tick] Hauraki Matamata-Piako Waitomo Otorohanga Thames-Coromandel Waipa Waikato Hamilton



Plumbing Pressure Test Memorandum

Issued by: (Plumber) Registration Number:

Company Name:

Company Address:

Company Contact Details: Ph: Mb: Fx:

To: Hamilton City Council Hauraki District Council Matamata-Piako District Council Otorohanga District Council
 Thames-Coromandel District Council Waikato District Council Waipa District Council Waitomo District Council

Building Consent Number:

Building Owner:

Project Address:

Description of Building Work:

Scope of work covered by statement:

I understand that this Statement, if accepted, may be relied upon for the purpose of establishing compliance with the Building Code and Building Consent.

Signed by: (Plumber) Date:

The Waikato Building Consent Group Producer Statement Author register is held by the Waikato Building Consent Group, Email: info@buildwaikato.co.nz For information on the Waikato Building Consent Group visit the [Build Waikato](#) website.

Producer Statement Construction (PS3) / Memorandum of Completion and Compliance

Issued by: Building Consent number:
(Construction Reviewer)

Company Name:

To: Hamilton City Council Hauraki District Council Matamata-Piako District Council Otorohanga District Council
 Thames-Coromandel District Council Waikato District Council Waipa District Council Waitomo District Council

Waikato Building Consent Group Reg. No.: Expiry Date: Other No. (specify):

Owner:

Project Address:

Lot: DP:

Description of Building Work:

Scope of work covered by statement:

System / Product used (if applicable):

I (Construction Reviewer's name):

have been engaged by (owner/developer/contractor):

In respect of (tick applicable):
 The requirements of the Building Regulations 1992, Clause(s): (Please be specific e.g. E2.3.5)

Alternative Solution(s):

for the building work described by the drawings and specifications prepared by the design firm titled:

numbered: Copies attached

authorised amendments(s): Copies attached
(if applicable)

- I have sighted the Building Consent and read the Advisory Notes. I can confirm that the building works have been carried out in accordance with the requirements of the New Zealand Building Code, the Building Consent, the design drawings and specifications, and in accordance with the listed amendments (if any).
- I confirm that all work I have undertaken has been within the scope of my skills, knowledge, and experience. I have remained within the scope of works set for me by the *Waikato Building Consent Group Producer Statement Author register (if applicable).
- I understand that this Statement, if accepted, may be relied upon for the purpose of establishing compliance with the Building Code and the Building Consent.
- I am satisfied the building work complies with the requirements of the Building Consent and the New Zealand Building Code.

Signed by: Name of Constructor:
(Construction Reviewer) (Print clearly)

Date: Address:

Ph: Mb: Fx: Email:

Qualifications / Experience:

*The Waikato Building Consent Group Producer Statement Author register is held by the Waikato Building Consent Group, Email: info@buildwaikato.co.nz For information on the Waikato Building Consent Group visit the [Build Waikato](#) website.

SOIL INVESTIGATION REPORT

Lot 26, River Road Estate
Ngaruawahia
P20082



Client: G. J. Gardner Homes

By: AM

Date: 11/02/2020

Email: James@probase.co.nz

REPORT SUMMARY

Probase Engineering has been engaged by G.J. Gardner Homes to provide a soil investigation report for a proposed development at Lot 26, River Road Estate, Ngaruawahia. This report presents the tests carried out on site, results and development recommendations. This report is intended to support the application for building consent.

SUMMARY OF FINDINGS

With reference to 'Geotechnical (Post Earthworks) Report. River Road Stage One Completion Report' authored by BTW Company and dated 15th May 2019, Probase Engineering recommends:

- **Specific Engineered Design (SED) Piles.** This is due to discontinuous varied strength (some soft), and saturated soils mixed with roots and organic silt material:
 - Pile length to be determined through test piling.
 - Shallow refusal (<1800mm) should be treated with caution due the possibility of the pile being founded upon the wood material found throughout the subdivision at this depth and beyond.

DISTRIBUTION

Company	Number of Copies
G.J. Gardner Homes	1 copy
Probase Engineering Ltd (file)	1 copy

1 INTRODUCTION

1.1. Engagement and Scope

On the 4th February 2020, Probase Engineering was engaged by G.J. Gardner Homes to conduct a soils investigation at Lot 26, River Road Estate, Ngaruawahia. It is proposed to construct a single-storey, timber-framed dwelling at the above address. The scope is as follows:

- Soils investigation in accordance with NZS 3604:2011.
- Foundation recommendations.

1.2. Existing Information

The following geotechnical report was available to Probase Engineering at the time of this report:

- *'Geotechnical (Post Earthworks) Report. River Road Stage One Completion Report'* authored by BTW Company and dated 15th May 2019.

The above referenced report is to be read in conjunction with this report with regards to:

- Subdivision earthworks.
- Preliminary foundation recommendations.
- Subdivision layout.

2 SOIL INVESTIGATION

2.1. Field Testing

In accordance with NZS 3604:2011, a soils investigation was conducted on the 11th February 2020. Testing was carried out at four test positions across the site and comprised:

- 4 Machine Augers.
- 4 Scala Penetrometer tests.
- A visual inspection and walk over of the site

Field data from testing is outlined in the attached 'Soil Logs'. Test position locations and general arrangement of the site is outlined in the attached sketch 'Test Location Plan'.

2.2. Test Results

Test results indicate near surface soils have varied bearing capacities with some less than 100 kPa (300 kPa ultimate bearing capacity), and contain organic material including roots, organic silt and saturated soils. Therefore, soils do not meet the definition of 'Good Ground' in accordance with NZS 3604:2011 the non-specific design standard for Timber Framed Buildings.

2.3. Ground Conditions

Parameter	Finding
Geological Unit:	Hinuera formation.
Site Condition:	Vacant grassed section.
Ground Contours:	Generally flat, gently slopes to the road and R.O.W.
Soil Composition:	Silty SAND, silty CLAY, with some organic silt and roots.
Water Table Depth:	Approx. 1500mm.
Fill:	Not encountered.
Organic Soils:	<ul style="list-style-type: none"> • approx. 300mm topsoil. • 100mm organic silt at 900mm (TP2 only). • Organic silts at <1800mm. • Roots at 1800mm and 2400mm.
Expansive Soils:	Not encountered.

3 FOUNDATIONS

3.1. Foundation Details

- **Specific Engineered Design (SED) Piles.** This is due to discontinuous varied strength soils mixed with wood and organic material:
 - Pile length to be determined through test piling.
 - Shallow refusal (<1800mm) should be treated with caution due the possibility of the pile being founded upon wood material found throughout the development.

4 INSPECTIONS

Test piling – a suitably qualified engineer is to observe test piling to determine pile length.

5 LIMITATIONS

Recommendations given in this report are based on site data retrieved from the bore holes from discreet locations, soil exposures, Scala Penetrometer results and other test results. Inferences about subsurface soils away from the test locations at the site can be made but cannot be guaranteed. Variations in ground conditions from those described in this report could exist across the site and that ground conditions can vary with seasonal changes. Allowances for construction should be made for these conditions.

This report has been prepared specifically for our client based on their particular project brief and no responsibility is accepted for the use of any part of this report by others or for any other purpose. It contains my professional opinion regarding foundation stability based on the data retrieved from the specific tests and boreholes completed and is not to be construed as a guarantee that the whole site is suitable for the foundations originally proposed.

Contamination risks are not covered and outside the scope of this report.

Waikato District Council
Building Consent Number
BLD2315/21

APPROVED

Quality Assurance Statement		
Task	Responsibility	Signature
Testing and report prepared by:	Aaron Moller BSc (Geol), MEngNZ	
Reviewed and approved for issue by:	James Harper CMEngNZ. No. 1021970	

James Harper is a Chartered Member of Engineering New Zealand and a Registered Producer Statement Author for the Waikato Building Consent Group: Registration #535.

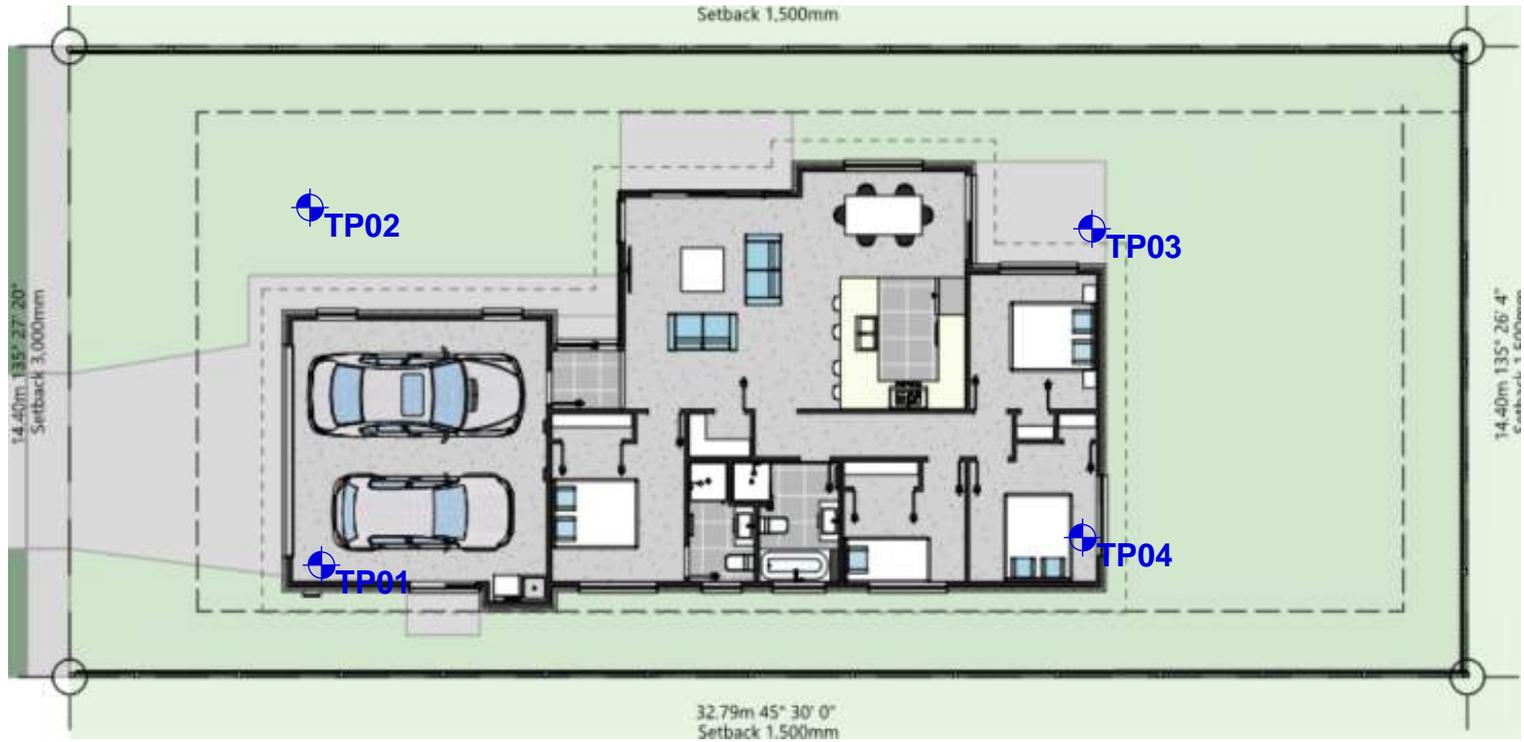
Appendices

Test Location Plan

Soil Test Results

Producer Statement Author Certificate

Waikato District Council
 Building Consent Number
 BLD2315/21
 APPROVED



LEGEND

TP Test Position

	Project Title: Lot 26 River Rd Estate		
	Figure Title: Site Testing Plan		
	Author: CB	Date: 24.11.2020	Job No: P20082
		Figure: SK01	



CLIENT: G.J.G
Job Name: Soils test
Address: Lot 26 River Rd Est

Job No: P20082
Date: 2020-2-11
Tested By: AM

Note

Test Location 1

Depth (m)	No of Blows	Scale Penetrometer (Blows / 100mm)	Soil Description	Depth (m)	Undrained Shear (kPa)
0.10	2	2	Topsoil	0.10	
0.20	6	6		0.20	
0.30	5	5	silty SAND - light greyish brown; fine grained, medium dense, dry to moist	0.30	
0.40	6	6		0.40	
0.50	7	7		0.50	
0.60	6	6		0.60	
0.70	6	6		0.70	
0.80	7	7		0.80	
0.90	6	6		0.90	
1.00	5	5		1.00	
1.10	6	6		1.10	
1.20	5	5		1.20	
1.30	4	4		1.30	
1.40	4	4		1.40	
1.50	6	6		1.50	
1.60	6	6	@1500mm - wet, mostly grey	1.60	
1.70	6	6	@1700mm - trace clay	1.70	
1.80	8	8		1.80	
1.90	8	8	silty CLAY, trace sand - grey; soft to stiff, moist to wet (too wet for pp) moderate plasticity	1.90	
2.00	-	-		2.00	
2.10	-	-		2.10	
2.20	-	-		2.20	
2.30	-	-		2.30	
2.40	-	-	@2400mm - rootlets	2.40	
2.50	-	-		2.50	
2.60	-	-		2.60	
2.70	-	-		2.70	
2.80	-	-		2.80	
2.90	-	-	EOB 2.8m	2.90	



CLIENT: G.J.G
Job Name: Soils test
Address: Lot 26 River Rd Est

Job No: P20082
Date: 2020-2-11
Tested By: AM

Note

Test Location 2

Depth (m)	No of Blows	Scale Penetrometer (Blows / 100mm)	Soil Description	Depth (m)	Undrained Shear (kPa)
0.10	6	6	Topsoil	0.10	
0.20	7	7		0.20	
0.30	8	8		0.30	
0.40	8	8	silty SAND - light brownish grey; fine grained, medium dense, dry	0.40	
0.50	7	7		0.50	
0.60	6	6		0.60	
0.70	7	7		0.70	
0.80	8	8		0.80	
0.90	9	9		0.90	
1.00	8	8	@900mm - organic rich silt (100mm)	1.00	
1.10	7	7		1.10	
1.20	6	6		1.20	
1.30	5	5	@1300mm - mottled orange	1.30	
1.40	5	5		1.40	
1.50	5	5	@1500mm - mostly light brownish grey	1.50	
1.60	4	4		1.60	
1.70	3	3	silty CLAY, trace sand - greyish brown; soft to firm, wet (too wet for pp)	1.70	
1.80	3	3		1.80	
1.90	3	3		1.90	
2.00	-	-		2.00	
2.10	-	-	EOB 2.0m	2.10	
2.20	-	-		2.20	



CLIENT: G.J.G
Job Name: Soils test
Address: Lot 26 River Rd Est

Job No: P20082
Date: 2020-2-11
Tested By: AM

Note

Test Location 3

Depth (m)	No of Blows	Scale Penetrometer (Blows / 100mm)	Soil Description	Depth (m)	Undrained Shear (kPa)
0.10	5	5	Topsoil	0.10	
0.20	6	6		0.20	
0.30	6	6	silty SAND - light brownish grey; fine grained, medium dense, dry to moist	0.30	
0.40	6	6		0.40	
0.50	8	8		0.50	
0.60	10	10		0.60	
0.70	10	10		0.70	
0.80	-	-		0.80	
0.90	-	-		0.90	
1.00	-	-		1.00	
1.10	-	-		1.10	
1.20	-	-	@1200mm - moist to wet	1.20	
1.30	-	-		1.30	
1.40	-	-		1.40	
1.50	-	-	@1500mm - mostly grey, siltier & saturated	1.50	
1.60	-	-		1.60	
1.70	-	-		1.70	
1.80	-	-	@1800mm - large roots & organic silt	1.80	
1.90	-	-		1.90	
2.00	-	-	silty CLAY - soft (too wet for pp), saturated, moderate plasticity. Rootlets	2.00	
2.10	-	-		2.10	
2.20	-	-		2.20	
2.30	-	-		2.30	
2.40	-	-		2.40	
2.50	-	-		2.50	
2.60	-	-	@2600mm - becomes firm & greenish grey	2.60	
2.70	-	-		2.70	
2.80	-	-		2.80	
2.90	-	-	EOB 2.8m	2.90	



CLIENT: G.J.G
Job Name: Soils test
Address: Lot 26 River Rd Est

Job No: P20082
Date: 2020-2-11
Tested By: AM

Note

Test Location 4

Depth (m)	No of Blows	Scale Penetrometer (Blows / 100mm)											Soil Description	Depth (m)	Undrained Shear (kPa)	
		0	2	4	6	8	10	12	14	16						
0.10	4	0		4										Topsoil	0.10	
0.20	5	1		5											0.20	
0.30	6	2		6										silty SAND - light brownish grey; fine grained, medium dense, dry	0.30	
0.40	6	3		6											0.40	
0.50	7	4		7											0.50	
0.60	8	5		8										SILT, some clay, trace sand - light greenish grey; very stiff, moist, low plasticity	0.60	
0.70	8	6		8											0.70	
0.80	9	7		9											0.80	
0.90	9	8		9										silty SAND - light greyish brown; fine grained, medium dense, moist to wet	0.90	
1.00	10	9		10											1.00	
1.10	11	10		11											1.10	
1.20	11	11		11											1.20	
1.30	-	12													1.30	
1.40	-	13													1.40	
1.50	-	14													1.50	
1.60	-	15												@1500mm - saturated	1.60	
1.70	-	16													1.70	
1.80	-	17												@1800mm - organic rich silt & roots	1.80	
1.90	-	18													1.90	
2.00	-	19													2.00	
2.10	-	20												EOB 2.0m	2.10	
2.20	-	21													2.20	

Waikato Building Consent Group

Working together



Private Bag 3010
Hamilton 3240
New Zealand

TEL 07 838 6699
FAX 07 838 6599
EMAIL info@hcc.govt.nz
hamilton.govt.nz

Waikato District Council
Building Consent Number
BLD2315/21

APPROVED

Producer Statement Author

Registration # 535

This is to recognise that **James Harper** is approved by The Waikato Building Consent Group as a producer statement author for the following scope of works:

Wastewater Systems Stormwater Systems Geotechnical Engineering

This approval is limited to items:

- PS1 – Design**
- PS4 – Construction Review**

Insurance Expiry Date: 14/02/2020

- Limited in validity to a period of one year to the 01/07/2020 unless cancelled in writing sooner.
- This author can be removed from the register at anytime for any reason if the review panel find this person unfit to provide producer statements.



Received as Further Information on: 16/07/2021

New Home For

Phillip & Merri DAVEY

At

5 Turutu Place

River Road Estate ,Ngaruawahia

Index

Layout ID	Layout Name
1	TITLE
2	SITE
3	SITE SETOUT
4	DRAINAGE
5	FLOOR
6	FOUNDATION
7	FOUNDATION - ENG
8	FOUNDATION - Details
9	ELEVATIONS
10	BRACING PLAN
11	ROOF PLAN/DETAILS
12	SECTIONS
13	DETAILS - Bracing
14	DETAILS - Foundation
15	DETAILS - Cladding
16	DETAILS - Joinery
17	DETAILS - Roof
18	DETAILS - Wet Area
19	DETAILS - HWC
20	DETAILS - Lintel Fixing
21	ELECTRICAL



Waikato District Council
 Building Consent Number
 BLD2315/21
 APPROVED

REVISION HISTORY

RevID	Change Name	Date
RFI01	Amend driveway to come off ROW, move house on site	16.07.21

G.J. Gardner. HOMES.

COPYRIGHT: This drawing remains the property of G.J. Gardner Homes and is provided for the use as described and may not be used or reproduced in whole or in part without written permission. All construction is to comply with Local Authority requirements, NZ Building Code/ Approved Documents and Means of Compliance, Inc. NZS 3604:2011

Purchaser Signature:

Date:

Legal Description

Lot Number	DPS Number
26	537748

Site Information

Site Area	Territorial Authority
472m ²	Waikato
Planing Zone	Wind Zone
New Residential	High

Building Coverage

Impermeable Surface:	m²
Covered Areas	0.87
Over Foundation Area	152.24
	153.11 m²
	32.44% (max 40%)

Permeable Calculations

Total Impermeable Areas:	m²
Over Roof Area	182.18
Paved Areas	78.12
	260.30 m²
Total Site Permeability =	211.70m²
	44.85% (min perm 30%)

Site General Information

Areas:	m²	Fill
Living Area	79.96	
Service Area	15.00	

Total Paved Areas

Paved Area:	m²
Covered Areas	0.87
Paved Areas	78.12
	78.99 m²

Floor Areas m²

Over Foundation Area	152.24
Over Frame Area	145.93
Over Roof Area	182.18

Covered Areas m²

Porch 1 Area	0.87
	0.87 m²

New Home For
Phillip & Merri DAVEY

Site Address:
**5 Turutu Place
River Road Estate
Ngaruawahia**

Job Number: 302200

Version: -

Publish Date: Friday, 16 July 2021

Drawn By: Simone

External Job Number: -

SITE

Scale: 1:100, 1:500

Layout: 2

This information is provided by the Waikato District Council

Earthworks/sediment control notes:

- Earthworks and sediment control to be in accordance with the district plan and the Waikato Regional Plan
- Approximately 86.9m³ of topsoil to be stripped from building platform
- Approximately 2.8m³ of topsoil to be stripped from driveway and patio
- Approximately 98.2m³ of solid measure sand to be brought on to site
- Total volume of earth to be moved = 89.7m³
- Total area of earth to be moved = 245.5m²
- Earthworks shall be constructed to remain safe and stable for the duration of the intended land use
- Earthworks shall be constructed to be geotechnically sound
- Earthworks shall be constructed to withstand and remain stable under loads
- All appropriate sediment and erosion control measures will be adopted to minimise any sediment leaving the site and entering any waterway
- All appropriate measures will be undertaken that no earthworks shall obstruct any stormwater overland flow path
- All appropriate measures will be undertaken to keep roads clean and free from silt and sediment tracked from site
- All appropriate measures will be undertaken so as not to create a dust nuisance
- All construction noise shall comply with the provisions of nzs 6803:1999
- The owner shall re-vegetate or re-grass all areas of bare earth as soon as practical

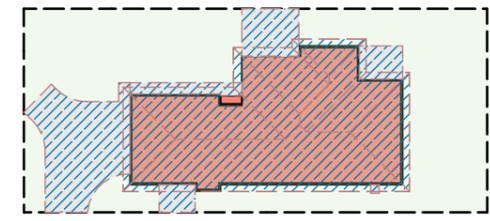
Received as Further Information on: 16/07/2021

NOTE:

- All ground and floor levels to be checked on site before excavation commences
- Supply and install a stable, site fence solution to secure building site to achieve safe working environments and a high level of protection of public safety. Provide a system that is robust restricting access of children/iff specific hazard arises, installed with bracing and opening gates.

Waikato District Council
Building Consent Number
BLD2315/21

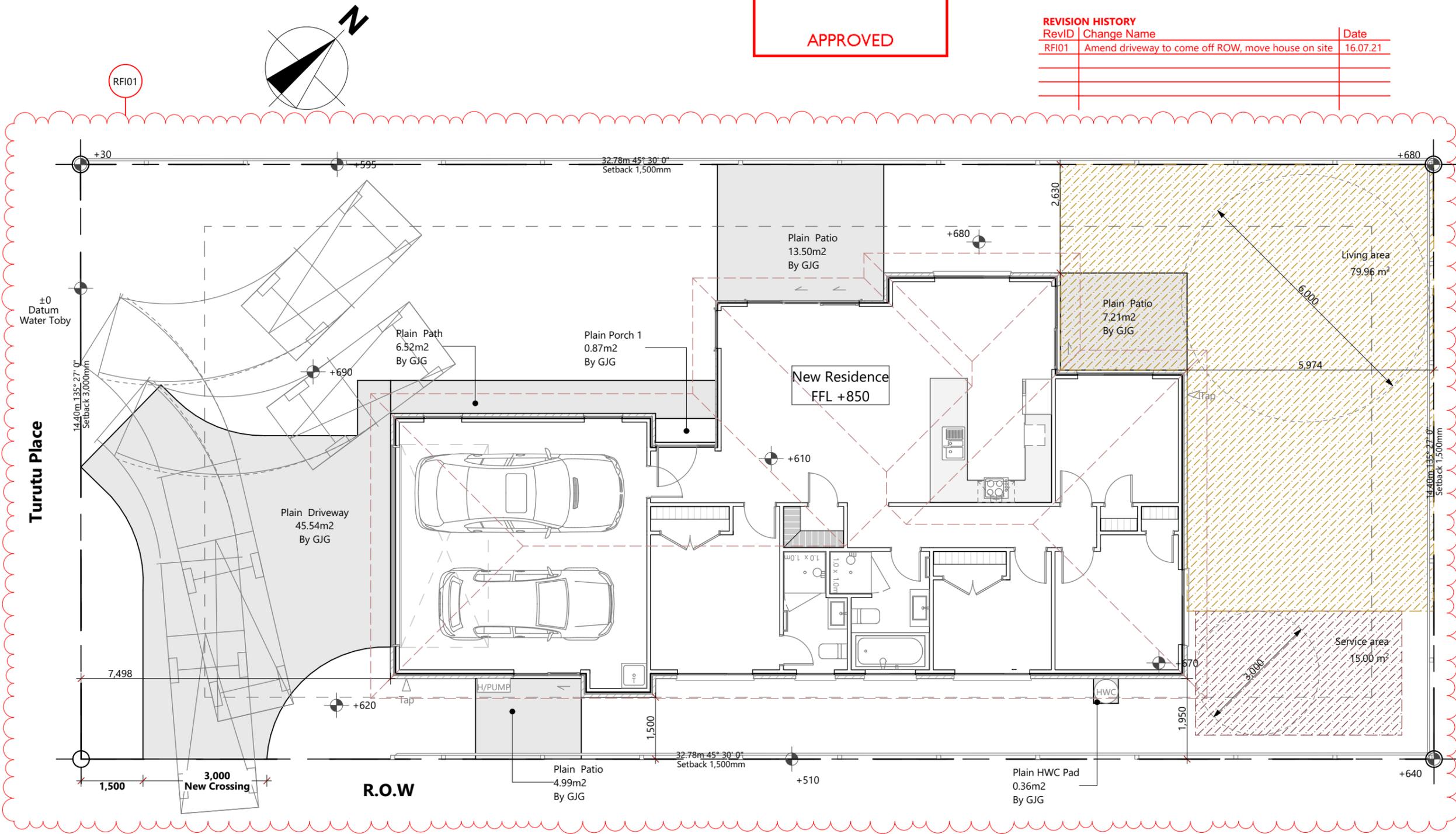
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Site Location

REVISION HISTORY

RevID	Change Name	Date
RFI01	Amend driveway to come off ROW, move house on site	16.07.21



Waikato District Council
 Building Consent Number
 BLD2315/21
 APPROVED

Received as Further Information on: 16/07/2021

REVISION HISTORY

RevID	Change Name	Date
RFI01	Amend driveway to come off ROW, move house on site	16.07.21

G.J. Gardner.
HOMES

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Purchaser Signature:

Date:

Legal Description

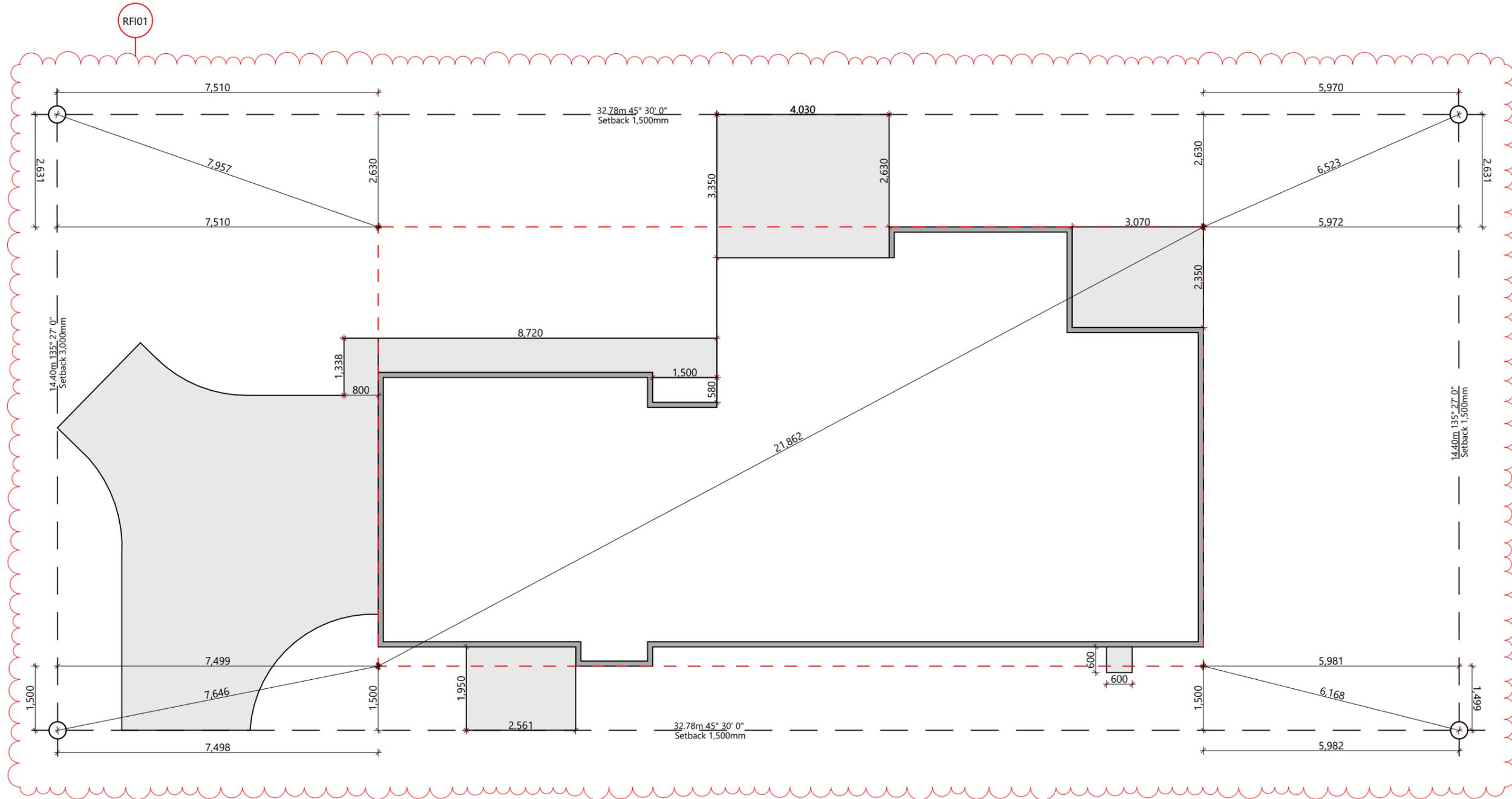
Lot Number: 26
 DPS Number: 537748

Site Information

Site Area: 472m²
 Territorial Authority: Waikato
 Planning Zone: New Residential
 Wind Zone: High

NOTE:

- All dimensions for setout are to Foundation



Floor Areas m²

Over Foundation Area: 152.24
 Over Frame Area: 145.93
 Over Roof Area: 182.18

Covered Areas m²

Porch 1 Area: 0.87
0.87 m²

New Home For: Phillip & Merri DAVEY
 Site Address: 5 Turutu Place, River Road Estate, Ngaruawahia

Job Number: 302200
 Version: -

302200

Publish Date: Friday, 16 July 2021

Drawn By: Simone
 External Job Number: -

SITE SETOUT

Scale: 1:100
 Layout: 3

3

Received as Further Information on: 16/07/2021

Waikato District Council
 Building Consent Number
 BLD2315/21
 APPROVED

REVISION HISTORY		
RevID	Change Name	Date
RFI01	Amend driveway to come off ROW, move house on site	16.07.21

G.J. Gardner.
HOMES

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Purchaser Signature:

Date:

Legal Description

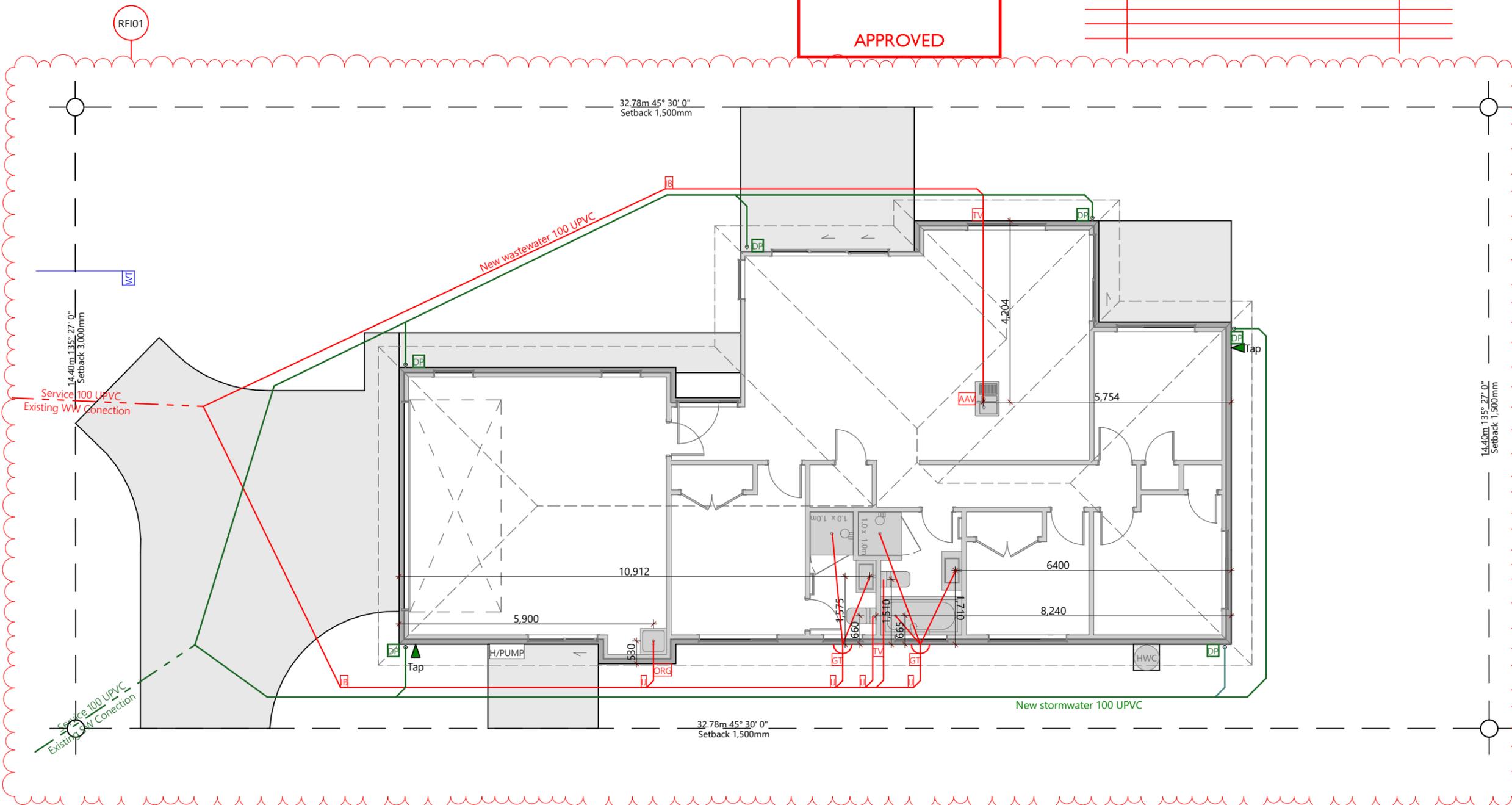
Lot Number 26
 DPS Number 537748

Site Information

Site Area 472m²
 Planning Zone New Residential
 Territorial Authority Waikato
 Wind Zone High

NOTES:

- All drainage is diagrammatic only. all drainage is to comply with nzs/as 3500 2.2 requirements
- All toilets, showers and tap to be "low flow fixtures" ie. at least a 3 star rating in accordance with the new zealand water efficiency labelling scheme
- All downpipes are to be 150mm from ext cnr of brick unless otherwise stated
- All drains from wastes to gully traps to be 40mm dia with min 1:40 fall
- Wastes discharging direct to drains to be 65mm dia with min 1:40 fall
- All wc drains to be 100mm with 1:60 fall
- All vents to be 50mm
- All lengths over 10m will have an additional 50mm vent
- All water supplies & foul water as per g12 and g13
- For masonry veneer finished garden and lawn level to be maintained at 150mm below finished floor level
- For masonry veneer finished paving level to be 100mm below finished floor level
- Driveway areas over 100m² to have a catchpit



PLUMBING & DRAINAGE
 Fixtures: Unit Rating

Kitchen	trap & waste
Sink with dishwasher	1 = DN50 trap / DN65 waste
Bath & ENS	
Shower	2 = DN40 trap / DN65 waste
Vanity	3 = DN40 trap / DN65 waste
WC	2 = DN80 trap / DN100 waste
Laundry	
Tub/W/M	1 = DN50 trap / DN65 waste

Minimum Drain Size & Gradient related to Sanitary Plumbing and Drainage

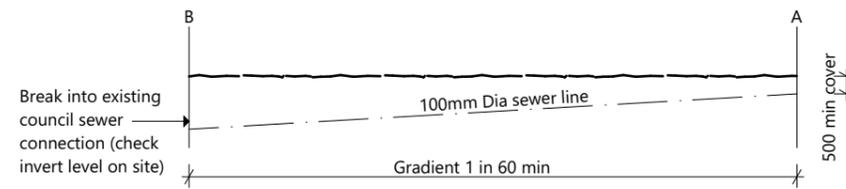
Nominal Size DN	Max Grade %	Ratio (Gradient)
65mm min	2.50	1 in 40
80mm min	1.65	1 in 60
100mm min	1.65	1 in 60
125mm min	1.25	1 in 80
150mm min	1.00	1 in 100
225mm min	0.65	1 in 150

Minimum Gradients for Surface Water Drains

Table 2: Minimum Gradients
 Paragraph 3.4.1

Drain internal diameter	Minimum gradient
85 mm	1 in 90
100 mm	1 in 120
150 mm	1 in 200
225 mm	1 in 350

Amend 1 Sep 1993



Floor Areas m²

Over Foundation Area	152.24
Over Frame Area	145.93
Over Roof Area	182.18

Covered Areas m²

Porch 1 Area	0.87
0.87 m²	

New Home For Site Address:
 Phillip & 5 Turutu Place
 Merri DAVEY River Road Estate
 Ngaruawahia

Job Number: 302200
 Version: -
 Publish Date: Friday, 16 July 2021
 Drawn By: Simone
 External Job Number: -

DRAINAGE
 Scale: 1:100
 Layout: 4

Waikato District Council
 Building Consent Number
 BLD2315/21
 APPROVED

Waikato District Council
 Full Application Received
 16/06/2021

G.J. Gardner.
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Purchaser Signature:

Date:

Legal Description

Lot Number	DPS Number
26	537748

Site Information

Site Area	Territorial Authority
472m ²	Waikato
Planing Zone	Wind Zone
New Residential	High

- NOTES:**
- Foundation Plan to be read in Conjunction with Engineer's Soil Investigation Report
 - Refer to Pre-Cut Design for location of Slab Thickening
 - Wall Cladding is 70mm Brick Veneer
 - Remove Top Soil and replace it with Compact Backfill to create a level compacted surface. Ribraft Slab to sit on top of compacted surface.
 - FGL is finished ground level after the removal of any existing Topsoil.
 - Internal Slab Thickening as per Approved Truss Manufacturer's Design
 - All Levels to be checked on Site prior to commencing construction

Engineered Piled Foundation
 (Refer To Design by Probase Engineers For Further Information)

Floor Perimeters LM

Over Foundation Area	60.5
Over Frame Area	59.6

Floor Areas m²

Over Foundation Area	152.24
Over Frame Area	145.93
Over Roof Area	182.18

Covered Areas m²

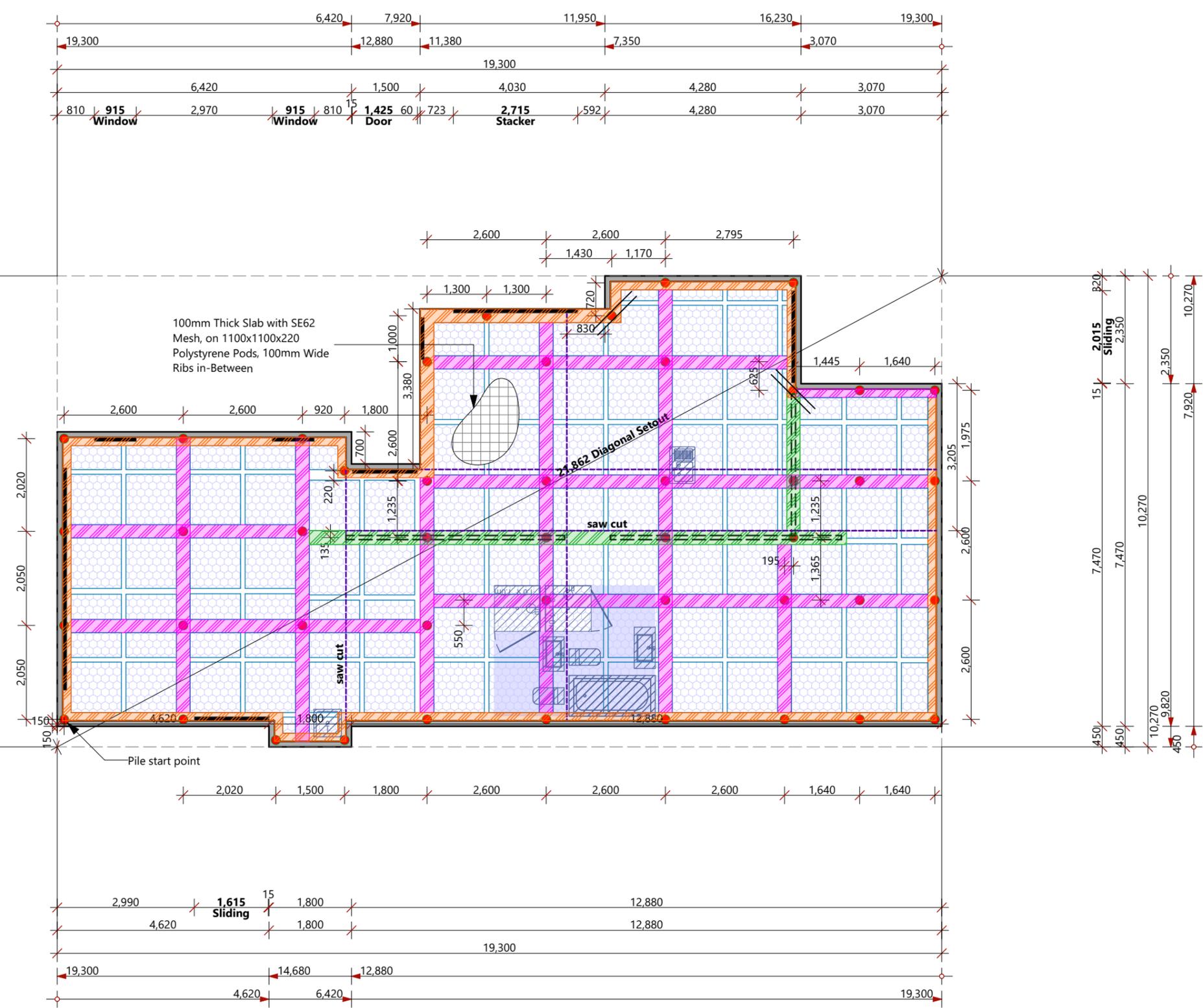
Porch 1 Area	0.87
0.87 m²	

New Home For Site Address:
 Phillip & Merri DAVEY 5 Turutu Place
 River Road Estate
 Ngaruawahia

Job Number: 302200 Version: -
 Publish Date: Wednesday, 2 June 2021
 Drawn By: Simone External Job Number: -

FOUNDATION

Scale: 1:100 Layout: 6



- KEY**
- External Edge Beam Perimeter
 - Internal Beam
 - 300mm Load bearing Beam
 - Tiled Area
 - Level Entry Shower
 - 2-HD12, 1200mm Long Top Bars (at 200mm c/c apart) at Re-entrant corners.
 - Saw cuts: 20mm deep, 3 to 5 mm wide at 6m centres maximum

Waikato District Council
Building Consent Number
BLD2315/21

APPROVED

GENERAL NOTES:

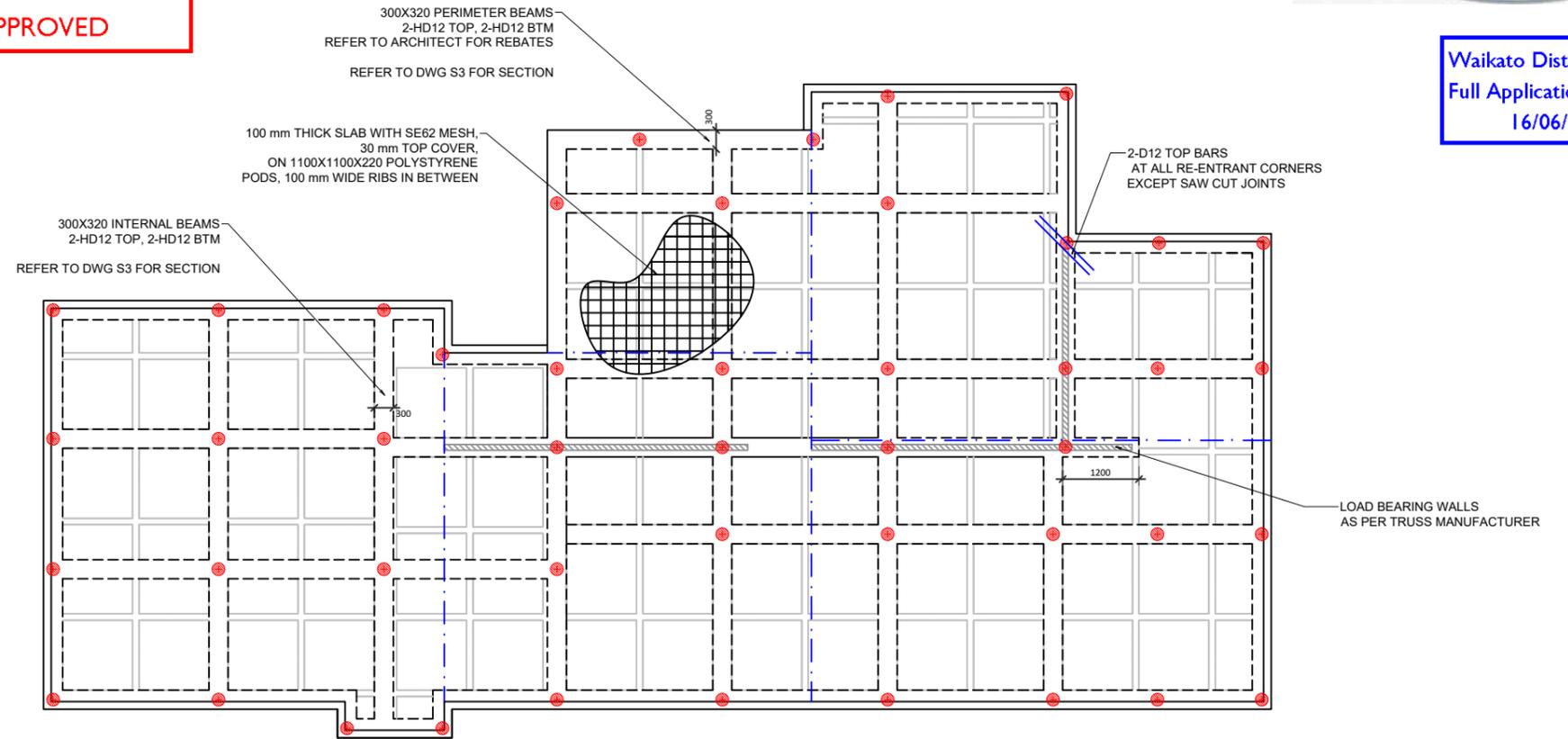
1. FOLLOW ARCHITECTURAL DRAWINGS FOR LEVELS AND DIMENSIONS. PROVIDED DIMENSIONS OF THE HOUSE ARE INDICATIVE ONLY.
2. CONFIRM ALL DIMENSIONS ON SITE PRIOR TO CONSTRUCTION.
3. ALL DISCREPANCIES SHALL BE REFERRED TO THE ENGINEER BEFORE PROCEEDING WITH WORK.
4. ALL PROPRIETARY PRODUCTS TO BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATION.
5. ALL MATERIALS AND WORKMANSHIP MUST COMPLY WITH THE NEW ZEALAND BUILDING CODE.
6. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN, INSTALLATION AND MAINTENANCE OF ALL NECESSARY TEMPORARY PROPPING TO ENSURE THE STRENGTH AND STABILITY OF THE STRUCTURE.
7. PROBASE ACCEPT NO LIABILITY FOR UNAUTHORIZED CHANGES FROM THE DETAILS AND INFORMATION CONTAINED IN THESE DRAWINGS.
8. REFER TO THE SOIL INVESTIGATION REPORT P20082 PREPARED BY PROBASE ENGINEERING DATED 11/02/2020 FOR FOUNDATION RECOMMENDATIONS AND REQUIRED SITE PREPARATION.
9. INTERNAL BEAM LOCATIONS ARE INDICATIVE ONLY. CONTRACTOR TO ALIGN THEM CENTRALLY BELOW THE LOAD BEARING WALLS
10. A LAYER OF SAND TO BE PLACED, SCREEDED AND COMPACTED OVER THE BUILDING PLATFORM UPTO A MAXIMUM THICKNESS OF 50mm.
11. REBATE FOR SHOWER TO BE MAX 50 mm, IF REQUIRED. PROVIDE HD12 TRIMMER BARS EACH SIDE.

CONCRETE :

1. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH NZS3109, NZS3101 AND NZS4210 SUBJECT TO RELEVANT SECTIONS OF THE STANDARDS.
2. REINFORCING COVER SHALL BE AS FOLLOWS:
 - CONCRETE CAST AGAINST NATURAL GROUND - 75mm
 - CONCRETE CAST AGAINST BOX IN GROUND - 50mm
 - INTERNAL COVER FOR BARS & MESH - 30mm
3. MINIMUM CONCRETE STRENGTH SPECIFIED AS 28 DAY COMPRESSIVE STRENGTH SHALL BE 25MPa.
4. ALL CONCRETE SUPPLY AND PRODUCTION SHALL BE IN ACCORDANCE WITH NZS3104.

REINFORCING BARS:

1. ALL REINFORCING BARS SHALL COMPLY WITH AS/NZS4671.
2. REINFORCING AND MESH SHALL BE SUPPORTED ON PLASTIC CHAIRS OR SPACERS TO MAINTAIN SPECIFIED COVER.
3. REINFORCEMENT SPLICING SHALL BE AS FOLLOWS:
 - MINIMUM BAR SPLICE FOR HD12 BAR : 600mm
 - MINIMUM MESH SPLICE FOR SE62 MESH : 250mm
4. DO NOT BEND STEEL ON SITE, UNLESS ABSOLUTELY NECESSARY, AND THEN ONLY WITH EQUIPMENT FIT FOR THE PURPOSE.
5. WELDING OF STEEL IS NOT PERMITTED.



FOUNDATION PLAN

SCALE 1:100 @ A3

KEY

- 200/225 DIA TIMBER PILE UNDER SLAB REFR DWG S2 FOR SET-OUT
- POLYSTYRENE POD FULL POD DIMENSIONS:1100 x 1100 x 220
- SAW CUTS: 20 mm DEEP, 3 to 5 mm WIDE AT 6 m CENTRES MAXIMUM ADJUST TO SUIT ARCHITECT
- 1200 LONG, 2-D12 TOP DIAGONAL BARS TO CONTROL CRACKING AT RE-ENTRANT CORNERS. NOT REQUIRED ACROSS SAWCUTS

SLAB: 100 mm THICK WITH SE62 MESH 30 mm MINIMUM TOP COVER.
 BEAMS: 300 X320 2-HD12 TOP & 2-HD12 BTM
 REFER TO ARCHITECT FOR REBATE DETAIL AND LOCATION
 RIBS:100X320, 1-HD12 TOP & BOTTOM.
 PILES 200/225 DIA TIMBER DRIVEN PILES, DEPTH AND DETAILS AS PER GEOTECHNICAL ENGINEER
 ULS BEARING CAPACITY OF PILE : 90 kN
 REFER TO DWG S2 FOR PILE SET OUT
 PROVIDE 20 mm SAW CUTS TO COINCIDE WITH MAJOR CHANGES IN FLOOR PLAN,
 MAXIMUM BAY SIZE : 6 m X 6 m. IT IS ACCEPTABLE TO ALTER THE SAW CUT LOCATIONS AS PER ARCHITECT
 25 MPa CONCRETE

Legal Description

Lot Number 26
 DPS Number 537748

Site Information

Site Area 472m²
 Planning Zone New Residential
 Territorial Authority Waikato
 Wind Zone High

New Home For Phillip & Merri
 DAVFY
 Drawn By Simone

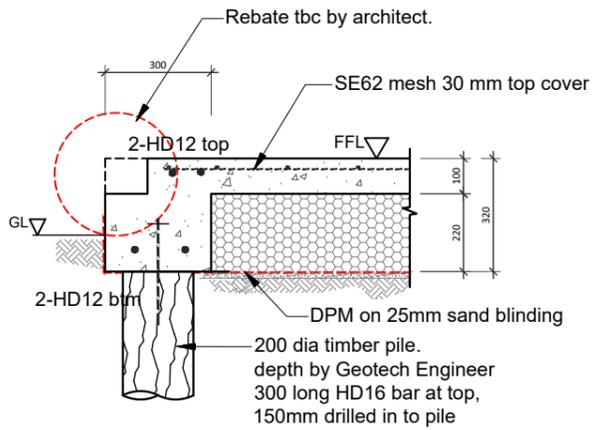
Site Address: 5 Turutu Place
 River Road Estate
 Ngaruawahia

Job Number: 302200
 Version:
 Publish Date: Wednesday, 2 June 2021

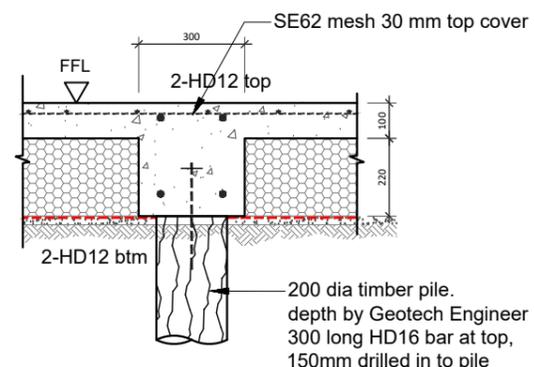
FOUNDATION - ENG

Scale: 1:1
 Layout: 7

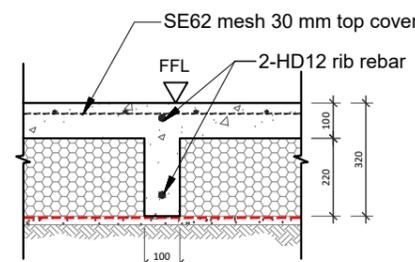
Waikato District Council
Full Application Received
16/06/2021



PERIMETER BEAM SECTION
SCALE 1:20 @ A3



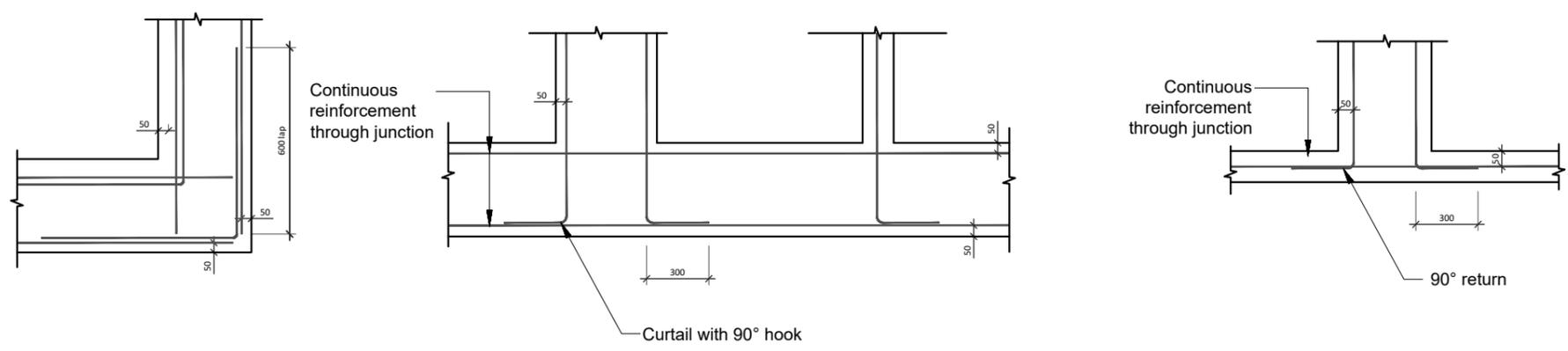
INTERNAL BEAM SECTION
SCALE 1:20 @ A3



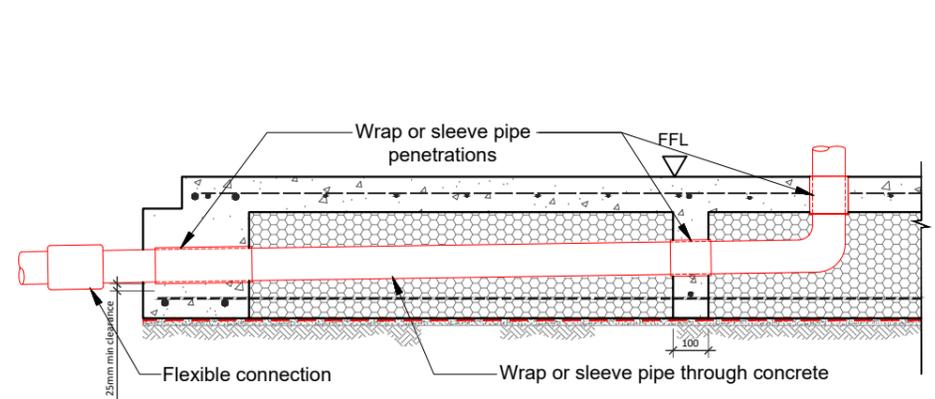
RIB SECTION
SCALE 1:20 @ A3

Waikato District Council
Building Consent Number
BLD2315/21

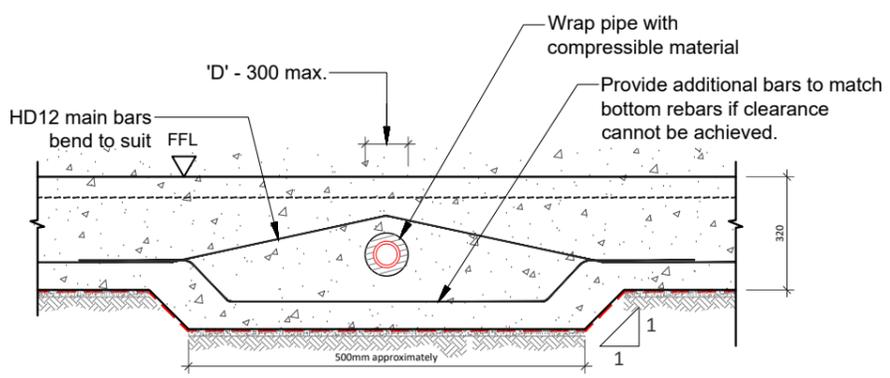
APPROVED



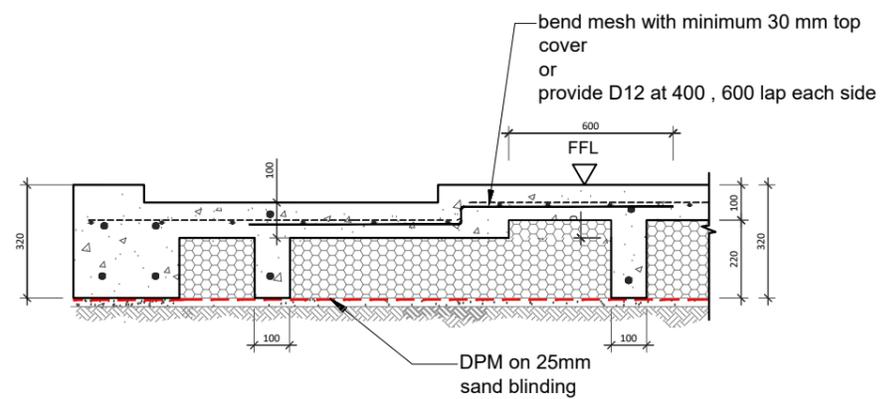
BEAM CORNER AND JUNCTION DETAIL
NTS



TYPICAL SLAB PENETRATION, 100mm DIA MAX
NTS



REINFORCEMENT DETAIL @ BEAM PENETRATION
NTS



TYPICAL REBATE DETAIL
SCALE 1:20 @ A3

(Optional: refer to architectural plan if it is required)

Received as Further Information on: 16/07/2021

G.J. Gardner. HOMES

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Purchaser Signature:

Date:

Legal Description

Lot Number	DPS Number
26	537748

Site Information

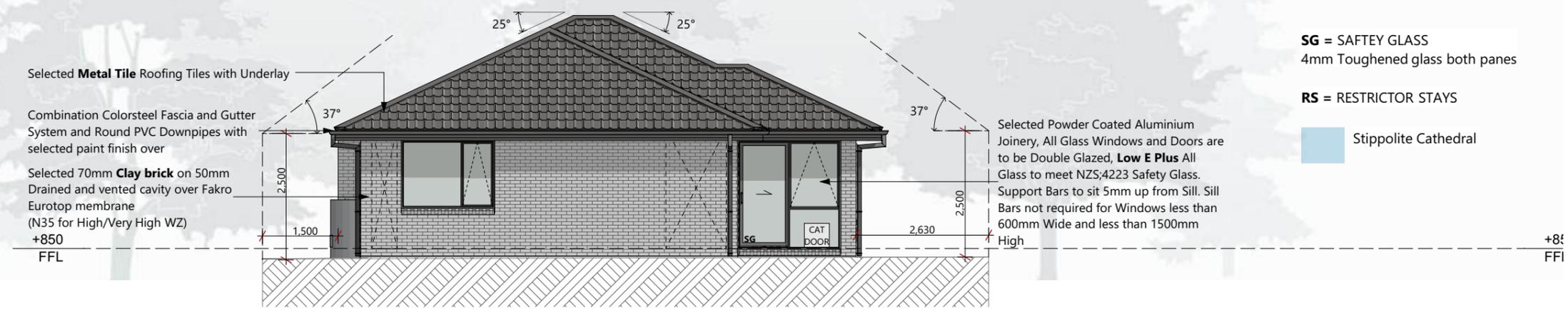
Site Area	Territorial Authority
472m ²	Waikato
Planing Zone	Wind Zone
New Residential	High

BRICK TIES/WEEP HOLES:

- Brick Ties to be positioned 600mm Horizontally/400mm Vertically
- Within 200mm around opening
- Within and top 2 Mortar Courses
- Within the bottom 400mm of Veneer
- Ties for 60mm Cavity and 70mm bricks to be 105/115mm
- Every third perpend to be left open on the second course for drainage/ventilation
- Leave 5mm Gap to soffit or leave every third perpend open of top course
- Venting is required under openings wider than 2.4m



Elevation 1



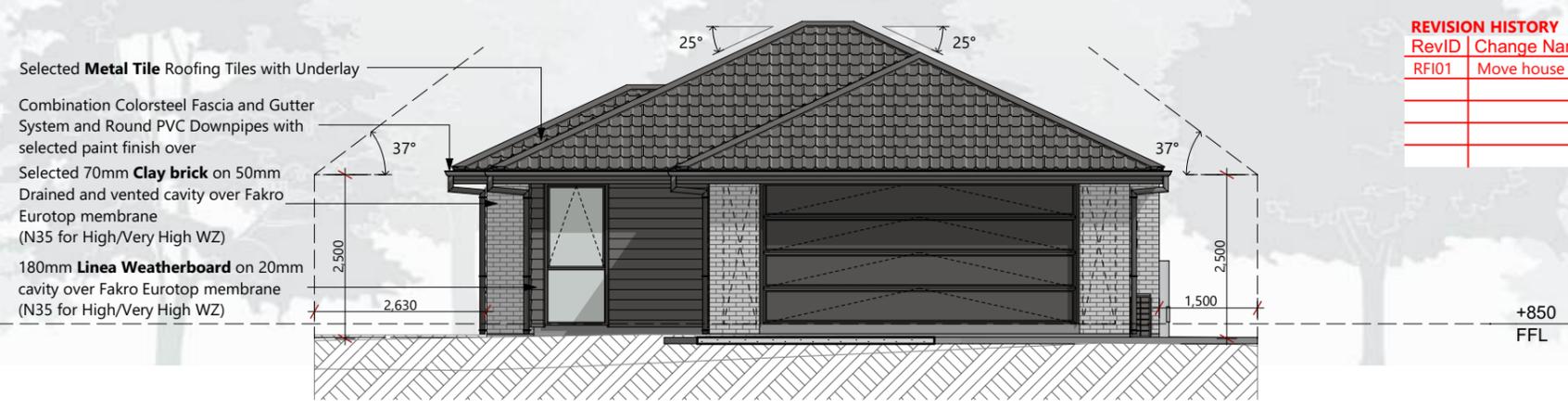
Elevation 2



Elevation 3

BUILDING ENVELOPE RISK MATRIX		
Worst Case Scenario		
Risk Factor	Risk Severity	Risk Score
Wind zone (per NZS 3604)	High risk	1
Number of storeys	Low risk	0
Roof/wall intersection design	Low	0
Eaves width	High risk	2
Envelope complexity	Medium risk	1
Deck design	Low risk	0
Total Risk Score:		4

Floor Areas m ²	
Over Foundation Area	152.24
Over Frame Area	145.93
Over Roof Area	182.18
Covered Areas m ²	
Porch 1 Area	0.87
	0.87 m²



Elevation 4

REVISION HISTORY		
RevID	Change Name	Date
RFI01	Move house on site	16.07.21

Waikato District Council
Building Consent Number
BLD2315/21

APPROVED

New Home For Site Address:
Phillip & Merri DAVEY 5 Turutu Place
 River Road Estate
 Ngaruawahia

Job Number: **302200** Version: -
 Publish Date: **Friday, 16 July 2021**
 Drawn By: **Simone** External Job Number: -

ELEVATIONS

Scale: **1:100** Layout: **9**

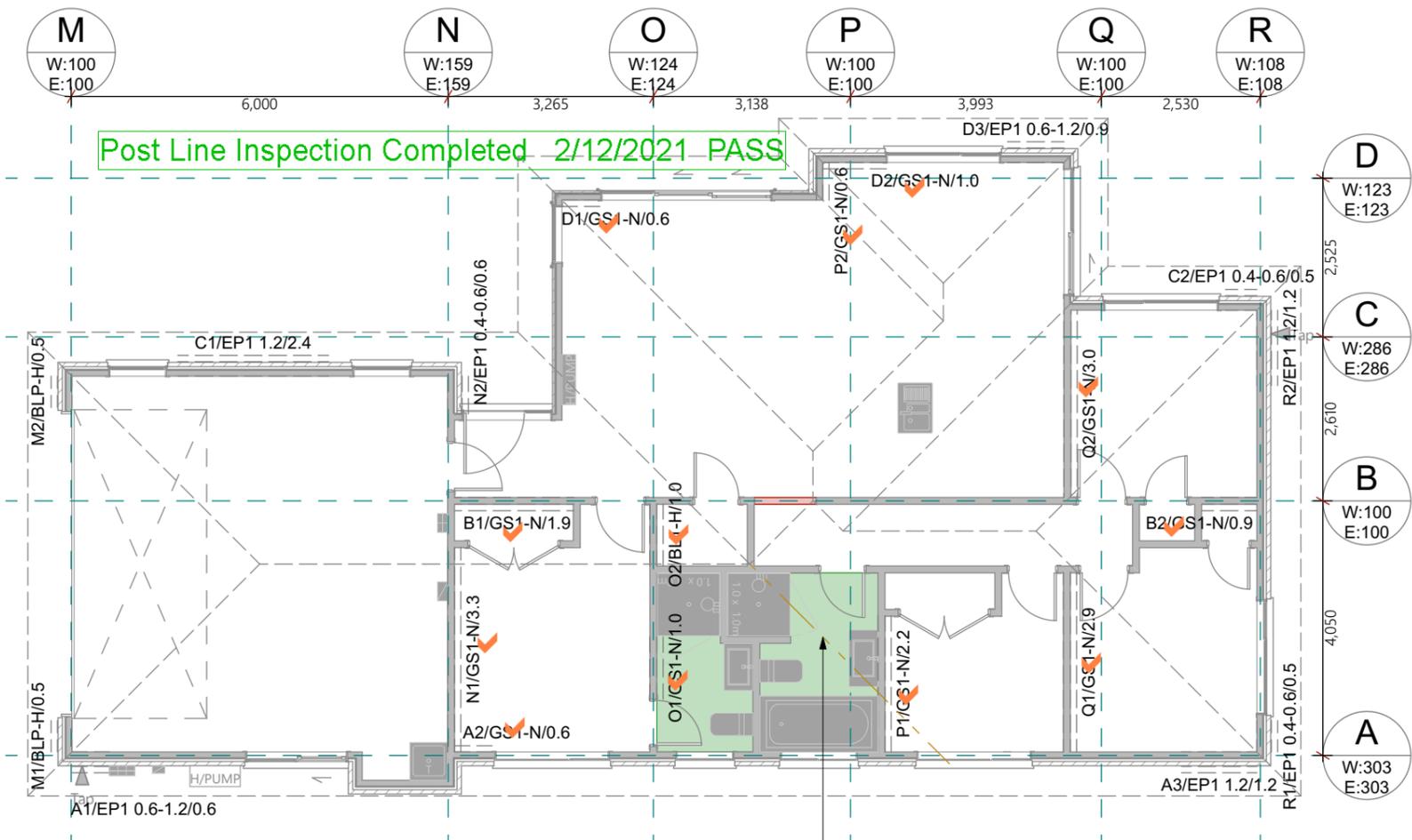
Waikato District Council
Building Consent Number
BLD2315/21
APPROVED

Waikato District Council
Full Application Received
16/06/2021

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Purchaser Signature: _____
 Date: _____
Legal Description
 Lot Number 26 DPS Number 537748
Site Information
 Site Area 472m² Territorial Authority Waikato
 Planing Zone Wind Zone
 New Residential High



BRACING CALCULATIONS **TABLE: Default**

Location of Storey	Single	Wind Zone	High
Room in Roof Space	No	Earthquake Zone	1
Building Width (BW)	10.0m	Soil Class	E - Very Soft
Building Length (BL)	19.1m		
Gross Floor Area (GFA)	152.0m ²	W along	55BU/m
Floor Height to Apex	5m	W along x BW	552BU
Roof Height Above Eaves	3m	W across	60BU/m
Roof Pitch	0 - 25°	W across x BL	1144BU
Roof Style	Gable		
Double Top Plate	Yes	EQ	5BU/m ²
Floor Load	2kPa	EQ x GFA	684BU

Cladding Weights:
 - Subfloor Concrete Floor
 - Wall Heavy
 - Roof Light

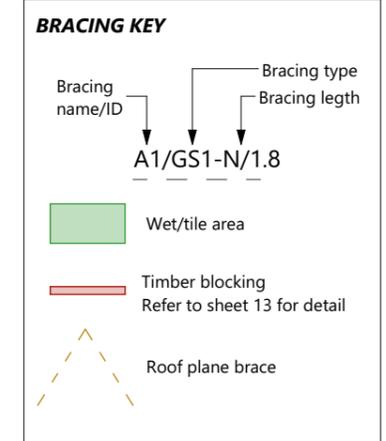
Calculations based on NZS3604:2011

BRACING ALONG

Line	Required		Provided						Achieved		
	W BU	EQ BU	Brace Type	W BU/m	EQ BU/m	Length m	Height m	Angle	W BU	EQ BU	
A	303	303	A-1	EP1 1.2	120	135	1.2	2.4	-	144	162
			A-2	GS1-N	50	55	0.6	2.4	-	30	33
			A-3	EP1 1.2	120	135	1.2	2.4	-	144	162
									318	357	
B	100	100	B-1	GS1-N	70	60	1.9	2.4	-	133	114
			B-2	GS1-N	50	55	0.9	2.4	-	44	48
									177	162	
C	286	286	C-1	EP1 1.2	120	135	2.4	2.4	-	288	324
			C-2	EP1 0.4-0.6	80	95	0.5	2.4	-	40	48
									328	372	
D	123	123	D-1	GS1-N	50	55	0.6	2.4	-	30	33
			D-2	GS1-N	50	55	1.0	2.4	-	51	56
			D-3	EP1 0.6-1.2	95	105	0.9	2.4	-	86	95
									166	183	
Total									Achieved Required	989 1074	552 684

BRACING ACROSS

Line	Required		Provided						Achieved		
	W BU	EQ BU	Brace Type	W BU/m	EQ BU/m	Length m	Height m	Angle	W BU	EQ BU	
M	100	100	M-1	BLP-H	135	135	0.5	2.4	-	68	68
			M-2	BLP-H	135	135	0.5	2.4	-	68	68
									135	135	
N	159	159	N-1	GS1-N	70	60	3.3	2.4	-	228	196
			N-2	EP1 0.4-0.6	80	95	0.6	2.4	-	48	57
									276	253	
O	124	124	O-1	GS1-N	50	55	1.0	2.4	-	50	54
			O-2	BL1-H	90	100	1.0	2.4	-	89	99
									139	153	
P	100	100	P-1	GS1-N	70	60	2.2	2.4	-	152	130
			P-2	GS1-N	50	55	0.6	2.4	-	30	33
									182	163	
Q	100	100	Q-1	GS1-N	70	60	2.9	2.4	-	200	172
			Q-2	GS1-N	70	60	3.0	2.4	-	209	179
									409	350	
R	108	108	R-1	EP1 0.4-0.6	80	95	0.5	2.4	-	40	48
			R-2	EP1 1.2	120	135	1.2	2.4	-	144	162
									184	210	
Total									Achieved Required	1324 1264	1144 684



Floor Areas m²

Over Foundation Area	152.24
Over Frame Area	145.93
Over Roof Area	182.18
Covered Areas m²	
Porch 1 Area	0.87
	0.87 m²

New Home For Site Address:
Phillip & Merri DAVEY 5 Turutu Place
 River Road Estate
 Ngaruawahia

Job Number: **302200** Version: -
 Publish Date: **Wednesday, 2 June 2021**
 Drawn By: **Simone** External Job Number: -

BRACING PLAN

Scale: 1:100 Layout: 10

Waikato District Council
Building Consent Number
BLD2315/21

APPROVED

Waikato District Council
Full Application Received
16/06/2021

G.J. Gardner.
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Purchaser Signature:

Date:

Legal Description

Lot Number 26
 DPS Number 537748

Site Information

Site Area 472m²
 Territorial Authority Waikato
 Planning Zone Wind Zone
 New Residential High

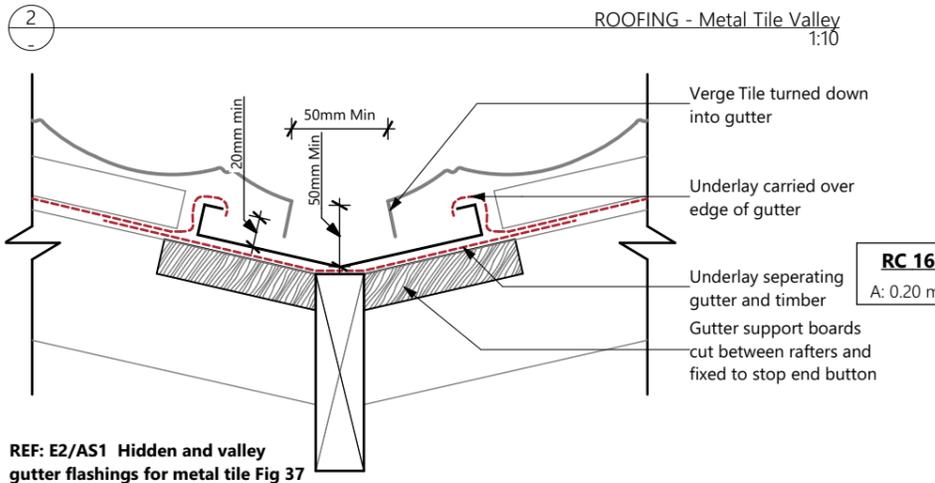
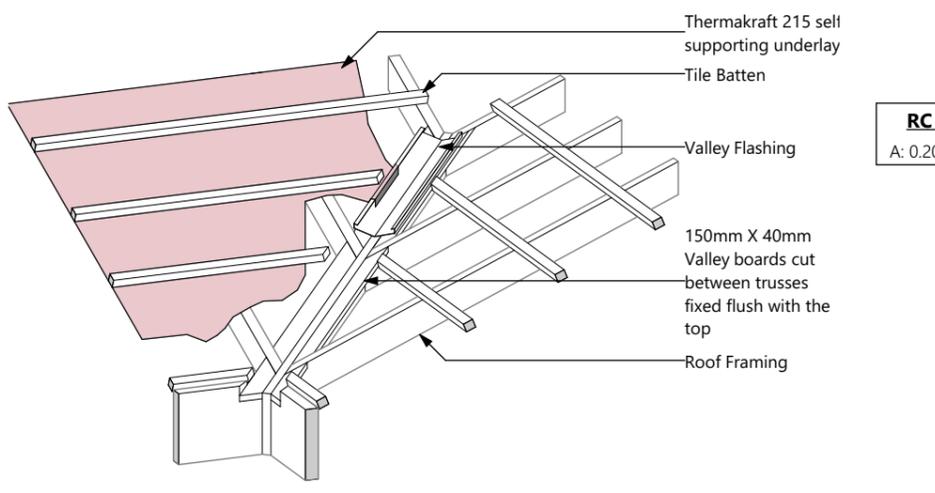
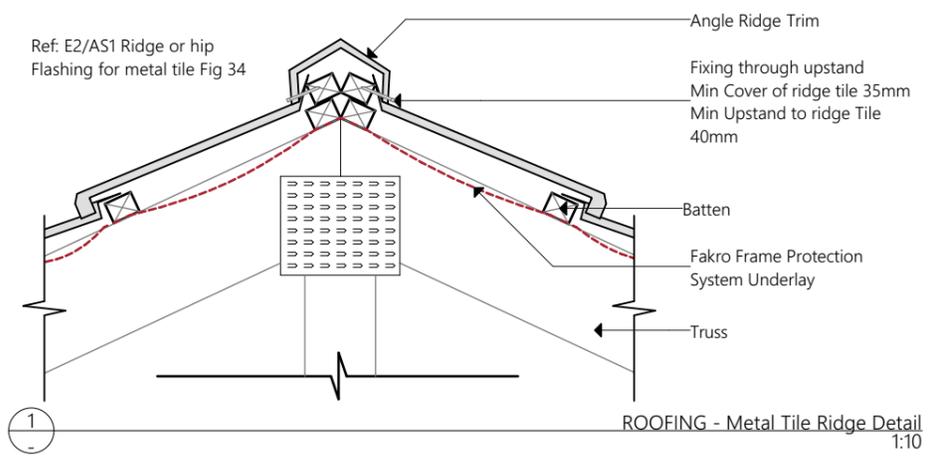
REF: E2/AS1 Table 8

Table 8: Maximum catchment areas for valley gutters		
Gutter Width	Maximum Catchment Area	Minimum Roof Pitch
250mm	25 m ²	8°
160mm to 249mm	16 m ²	12.5°

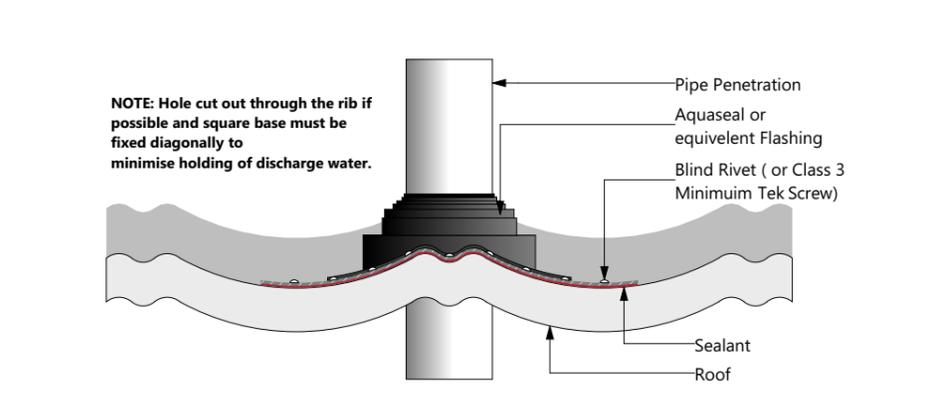
NOTE: Catchment areas are limited to:
 (1) Gutters in accordance with Paragraph 8.1.6.2 E2/AS1
 (2) Rainfall intensity with average recurrence interval (ARI) no greater than 200mm per hour.

NOTE:
 - 12m Max Gutter length per fall

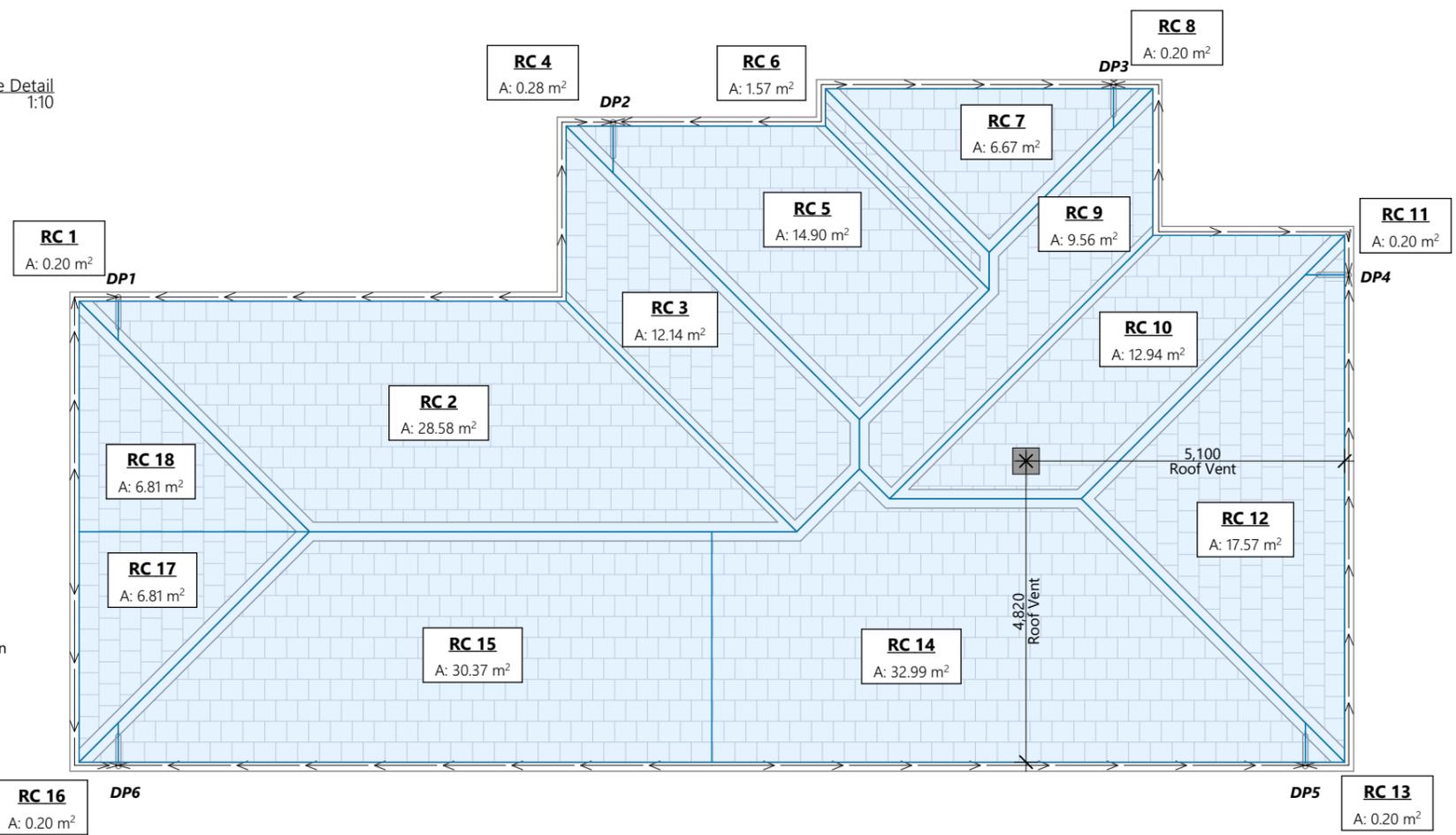
- 55m² Max combined area per 100mm DP of a 0-25° roof pitch



REF: E2/AS1 Hidden and valley gutter flashings for metal tile Fig 37



ROOFING - Metal Tile Pipe Penetration 1:10



Catchment Areas		
Gutter ID	Catchment ID	Areas m ²
DP 1		
Gutter 1	RC 1	0.20
Gutter 2	RC 2	28.58
Gutter 18	RC 18	6.81
		35.59 m ²
DP 2		
Gutter 3	RC 3	12.14
Gutter 4	RC 4	0.28
Gutter 5	RC 5	14.90
		27.32 m ²
DP 3		
Gutter 6	RC 6	1.57
Gutter 7	RC 7	6.67
Gutter 8	RC 8	0.20
Gutter 9	RC 9	9.56
		18.00 m ²
DP 4		
Gutter 10	RC 10	12.94
Gutter 11	RC 11	0.20
Gutter 12	RC 12	17.57
		30.71 m ²
DP 5		
Gutter 13	RC 13	0.20
Gutter 14	RC 14	32.99
		33.19 m ²
DP 6		
Gutter 15	RC 15	30.37
Gutter 16	RC 16	0.20
Gutter 17	RC 17	6.81
		37.38 m ²
		182.19 m ²

Floor Areas m ²	
Over Foundation Area	152.24
Over Frame Area	145.93
Over Roof Area	182.18

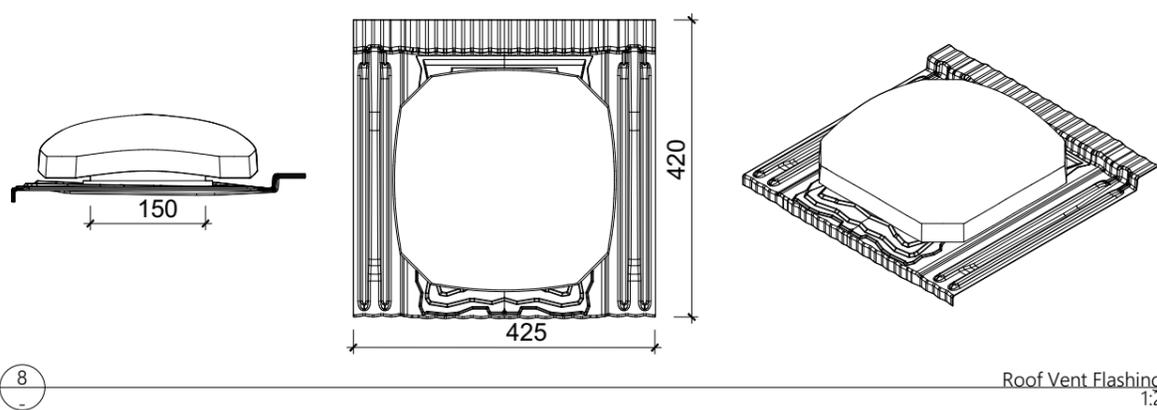
Covered Areas m ²	
Porch 1 Area	0.87
	0.87 m²

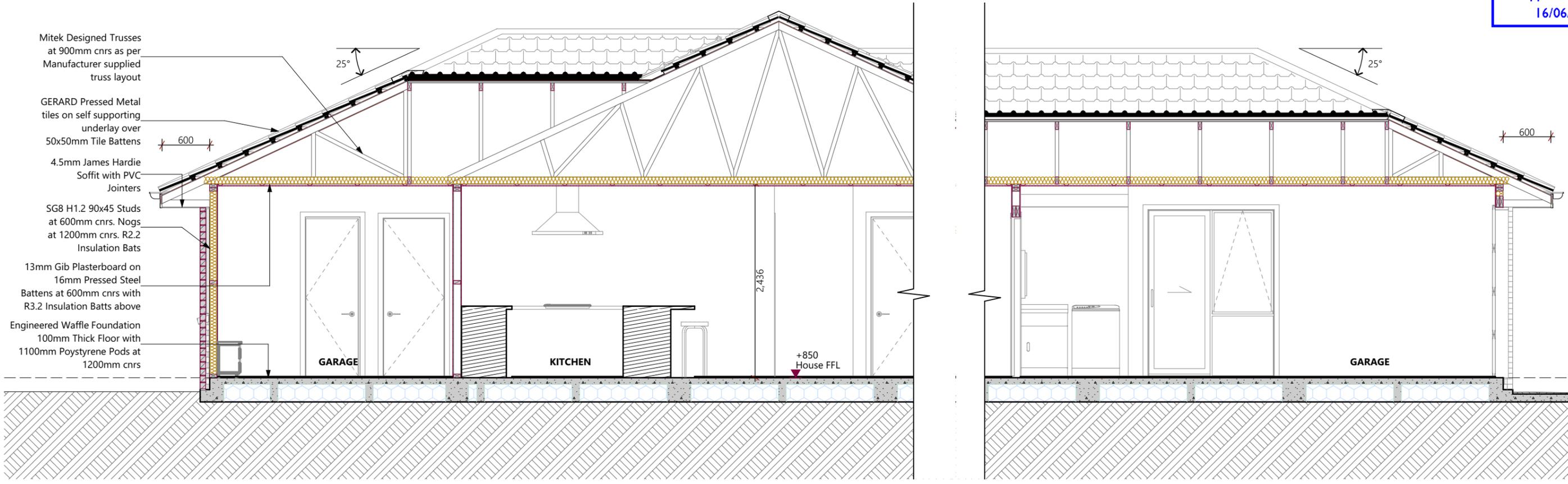
New Home For Site Address:
Phillip & Merri DAVEY 5 Turutu Place
 River Road Estate
 Ngaruawahia

Job Number: 302200
 Version: -
 Publish Date: Wednesday, 2 June 2021
 Drawn By: Simone External Job Number: -

ROOF PLAN/DETAILS

1:10, 1:5, 1:100, 1:2
 Layout:
11

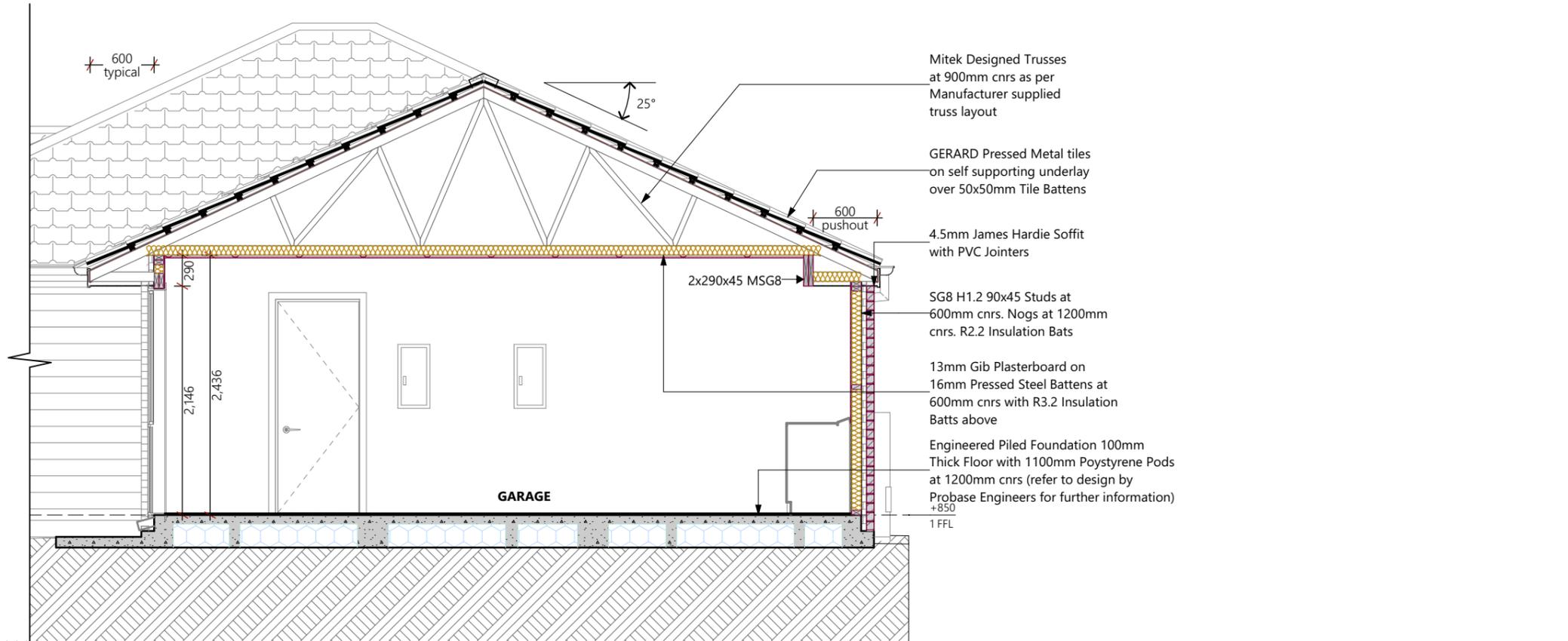




SECTION AA

Waikato District Council
Building Consent Number
BLD2315/21

APPROVED



Section BB

Waikato District Council
Building Consent Number
BLD2315/21

APPROVED

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Purchaser Signature: _____

Date: _____

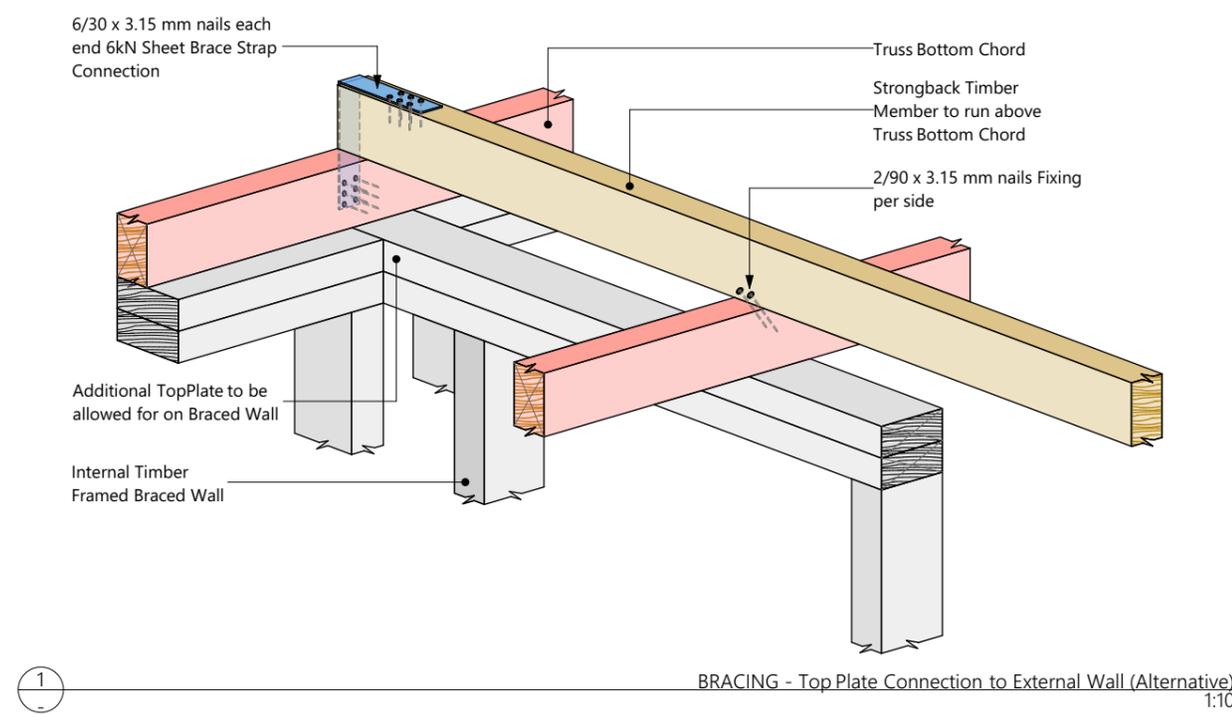
Legal Description

Lot Number	DPS Number
26	537748

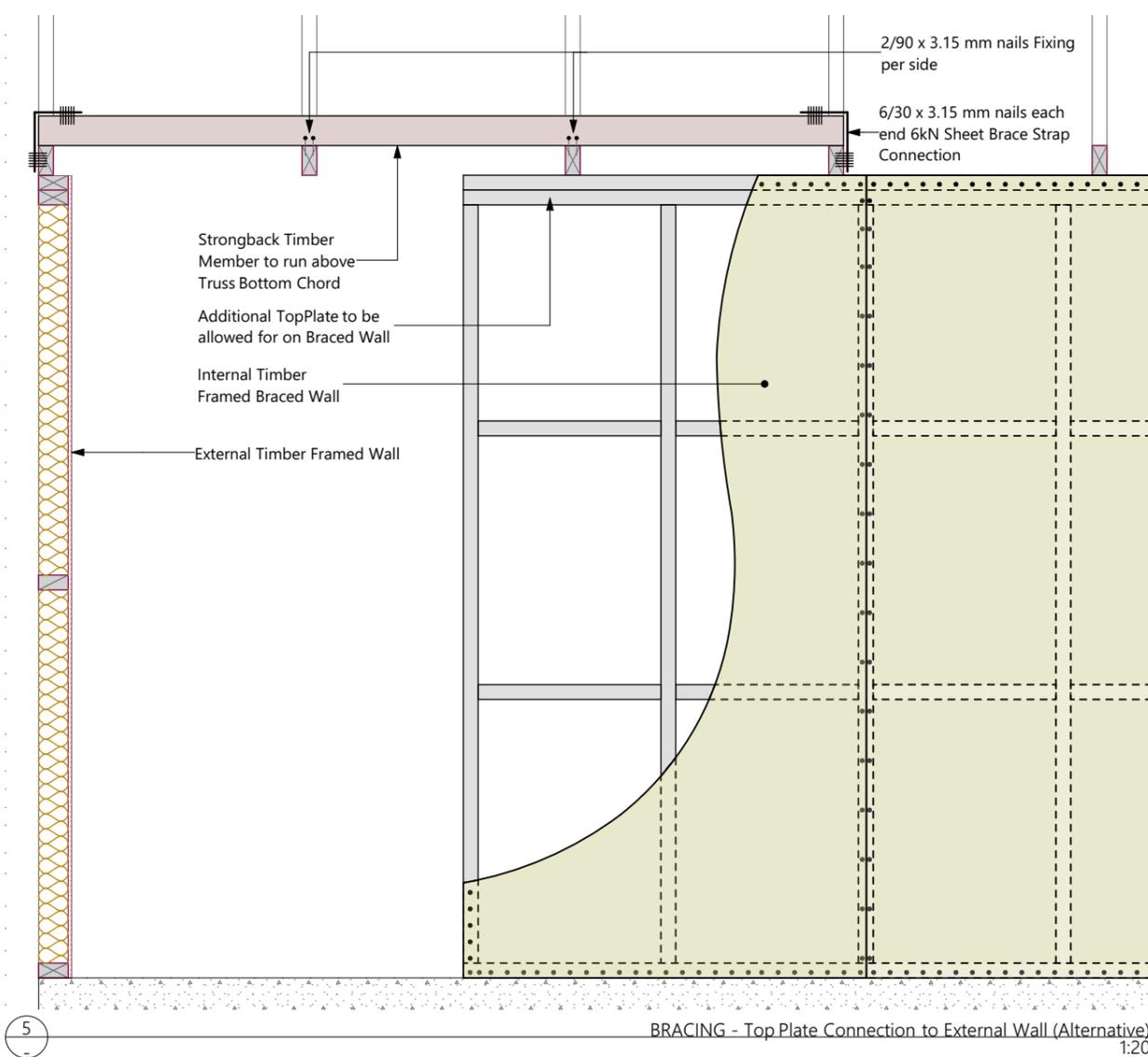
Site Information

Site Area	Territorial Authority
472m ²	Waikato
Planing Zone	Wind Zone
New Residential	High

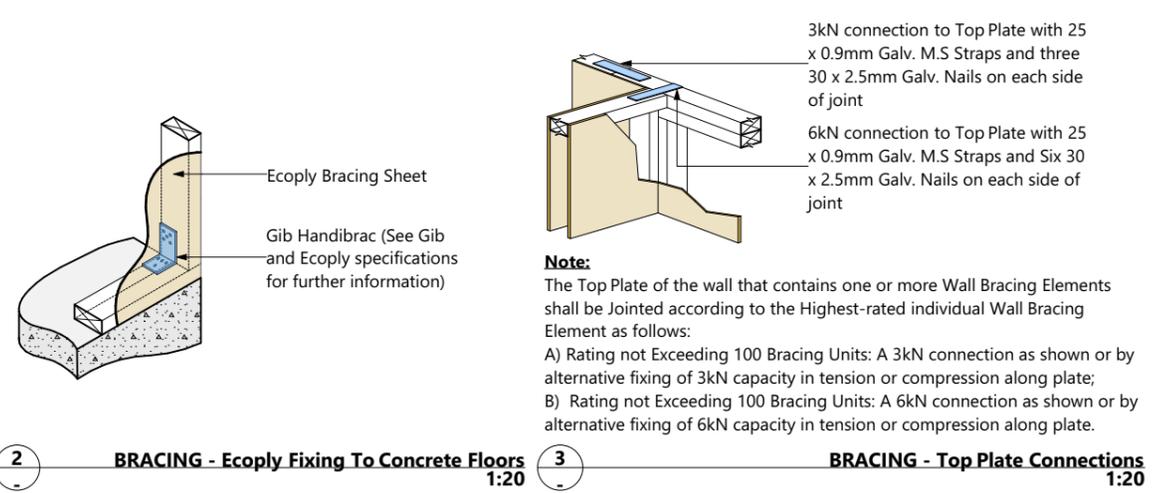
Waikato District Council
 Full Application Received
 16/06/2021



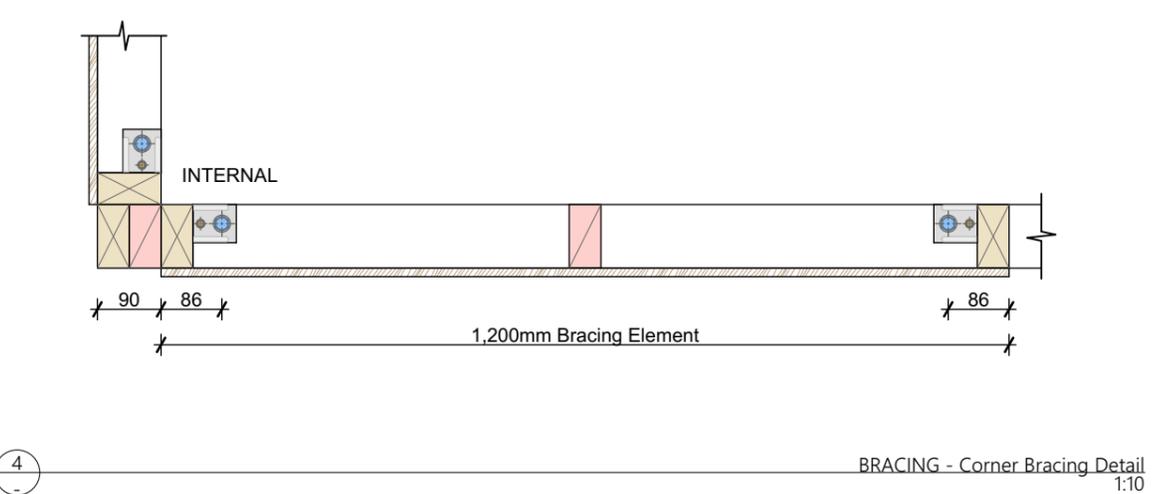
1
 BRACING - Top Plate Connection to External Wall (Alternative) 1:10



5
 BRACING - Top Plate Connection to External Wall (Alternative) 1:20



2
 BRACING - Ecoply Fixing To Concrete Floors 1:20 3
 BRACING - Top Plate Connections 1:20



4
 BRACING - Corner Bracing Detail 1:10

Floor Areas m²	
Over Foundation Area	152.24
Over Frame Area	145.93
Over Roof Area	182.18
Covered Areas m²	
Porch 1 Area	0.87
	0.87 m²

New Home For Site Address:
Phillip & Merri DAVEY 5 Turutu Place
 River Road Estate
 Ngaruawahia

Job Number: **302200** Version: -
 Publish Date: **Wednesday, 2 June 2021**
 Drawn By: **Simone** External Job Number: -

DETAILS - Bracing

Scale: 1:10, 1:20 Layout: _____

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Purchaser Signature: _____

Date: _____

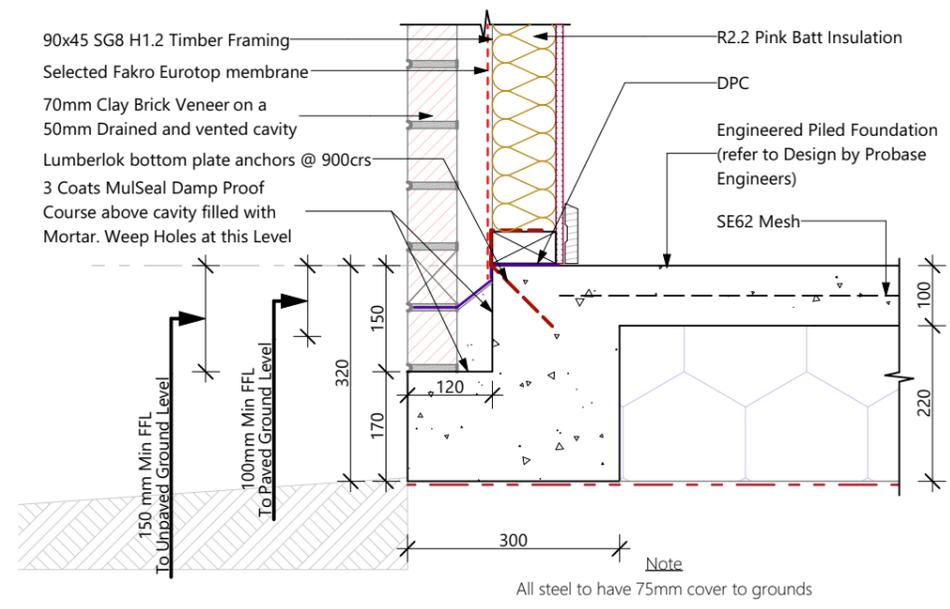
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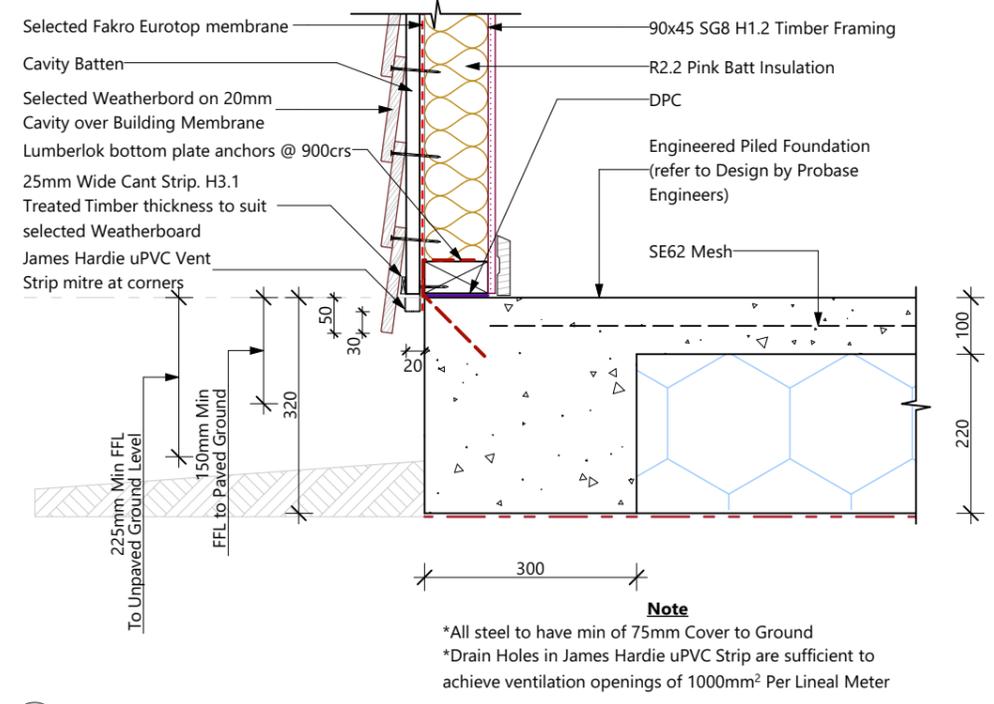
Site Information

Site Area	Territorial Authority
472m ²	Waikato
Planing Zone	Wind Zone
New Residential	High

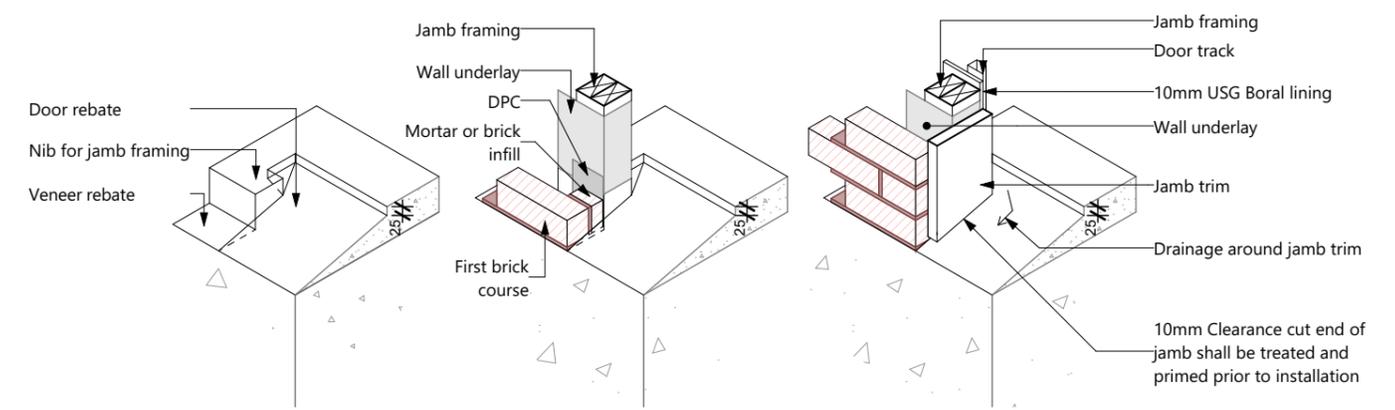
Waikato District Council
Full Application Received
16/06/2021



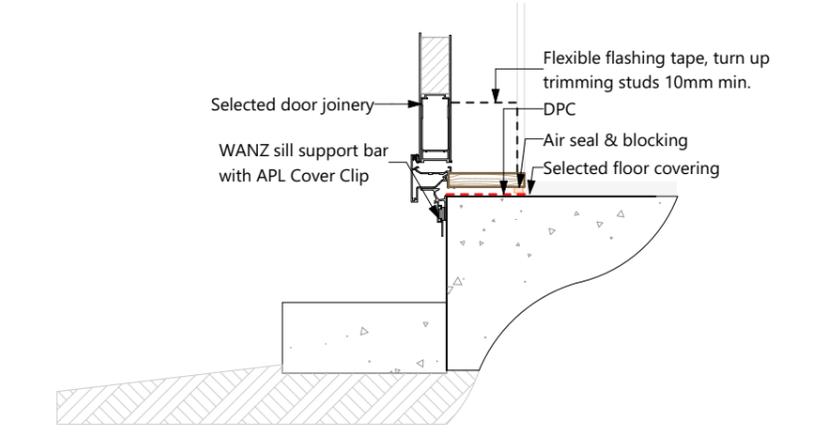
1 CLADDING - Brick To Foundation 1:10



2 CLADDING - Weatherboard To Foundation 1:10



3 FOUNDATION - Garage Door Jamb Detail 1:5



4 WINDOW JOINERY - Door Entrance 1:10

Waikato District Council
Building Consent Number
BLD2315/21

APPROVED

Floor Areas m²	
Over Foundation Area	152.24
Over Frame Area	145.93
Over Roof Area	182.18
Covered Areas m²	
Porch 1 Area	0.87
	0.87 m²

New Home For Site Address:
Phillip & 5 Turutu Place
Merri DAVEY River Road Estate
Ngaruawahia

Job Number: 302200 Version: -
Publish Date: Wednesday, 2 June 2021
Drawn By: Simone External Job Number: -

DETAILS - Foundation

Scale: 1:10, 1:5 Layout: 14

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Purchaser Signature:

Date:

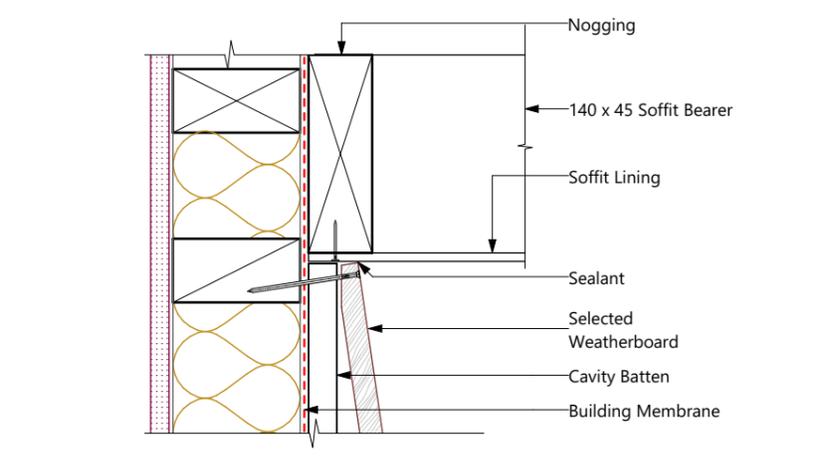
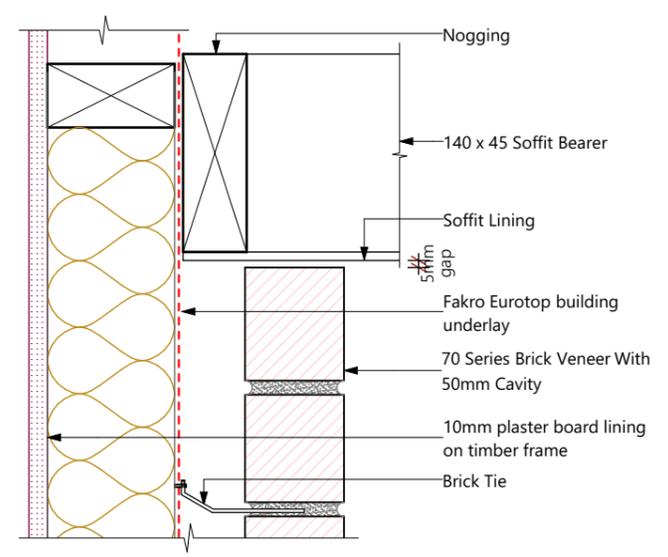
Legal Description

Lot Number	DPS Number
26	537748

Site Information

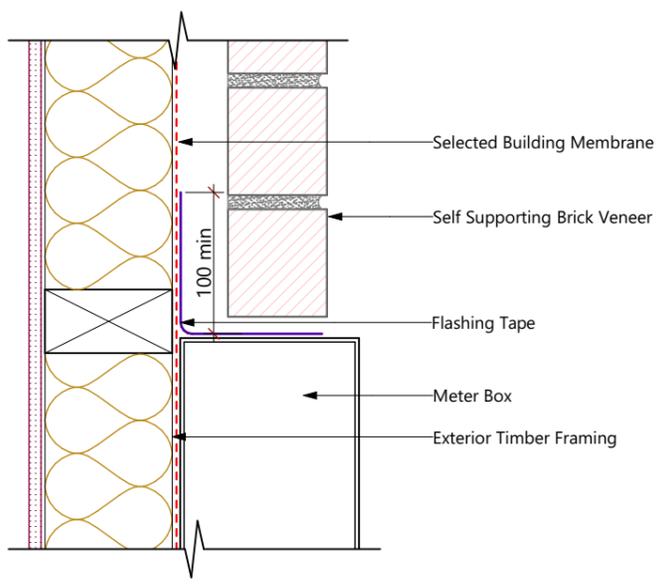
Site Area	Territorial Authority
472m ²	Waikato
Planing Zone	Wind Zone
New Residential	High

Waikato District Council
Building Consent Number
BLD2315/21
APPROVED

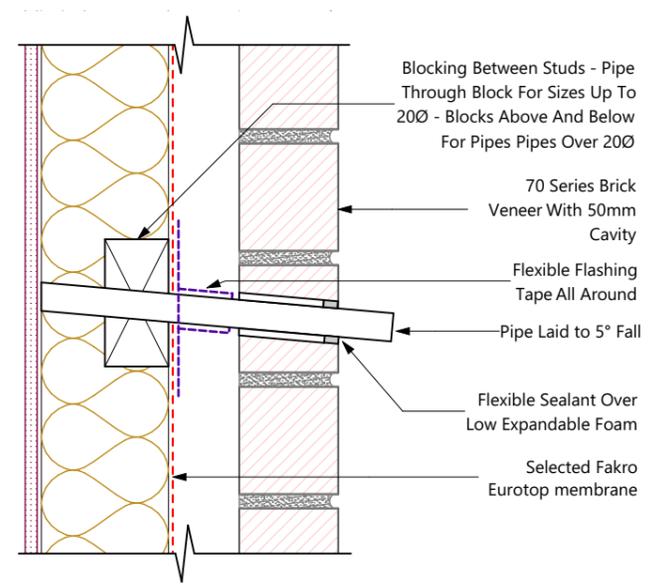


2 CLADDING - Weatherboard Soffit Detail 1:5

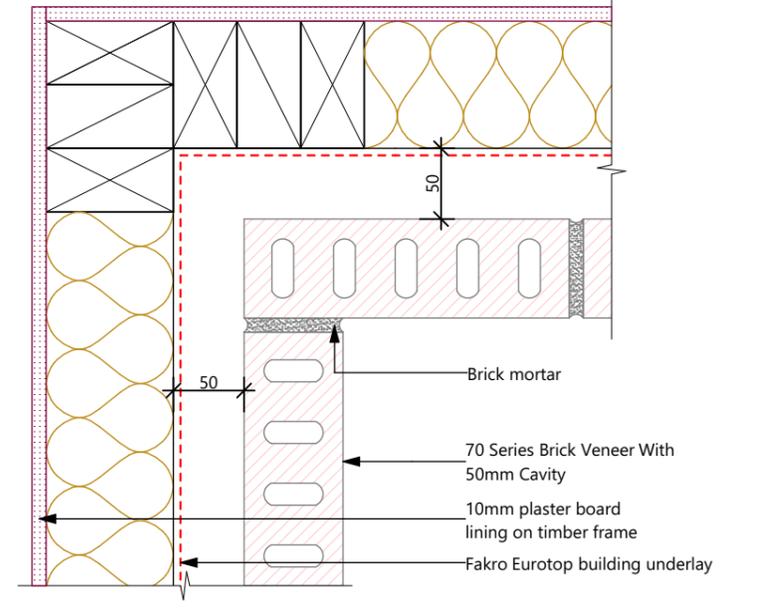
1 CLADDING - Brick Soffit Detail 1:5



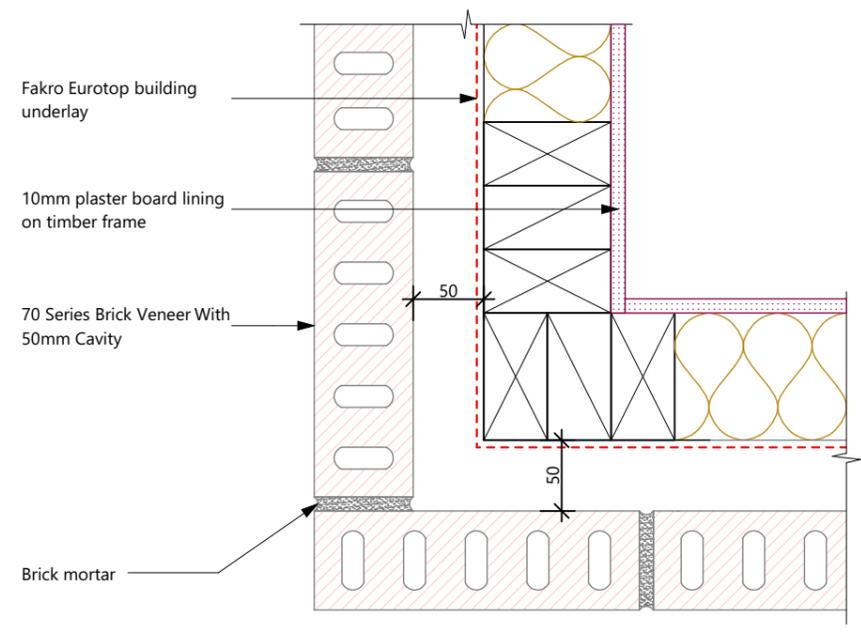
4 CLADDING - Brick Meter Box Head Detail 1:5



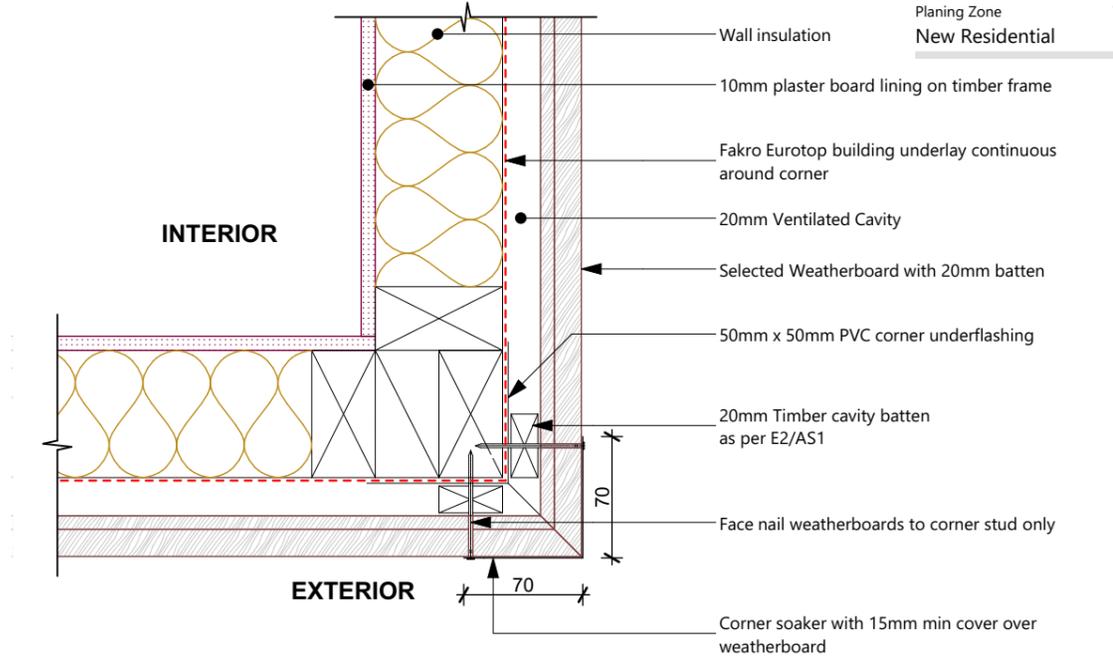
6 CLADDING - Brick Pipe Penetration Detail 1:5



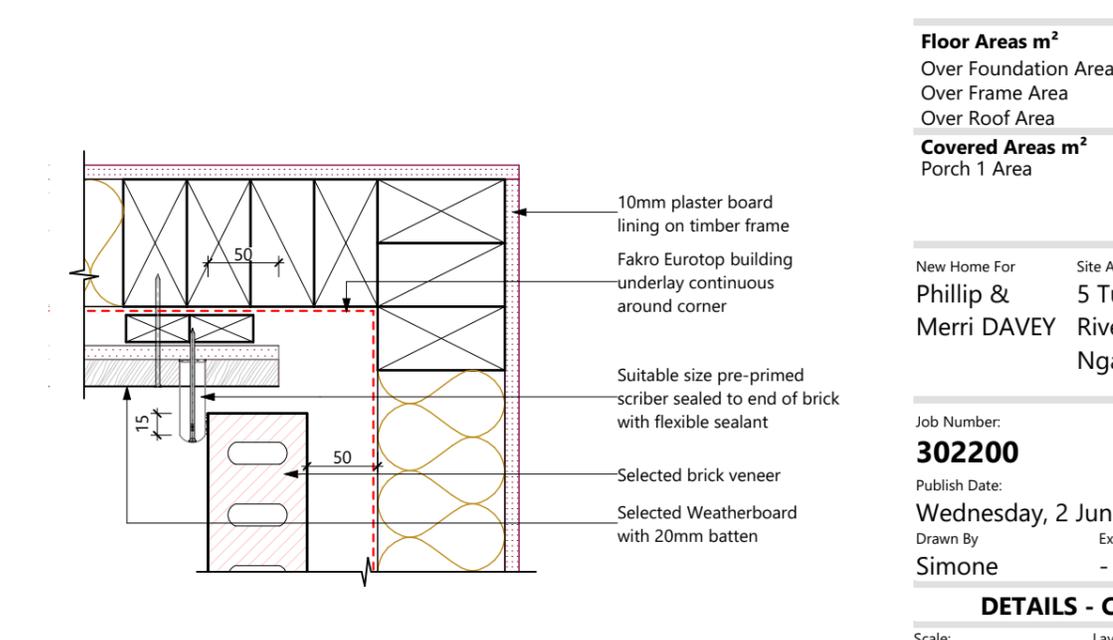
8 CLADDING - Brick Internal Corner 1:5



3 CLADDING - Brick External Corner 1:5



12 CLADDING - Weatherboard External Detail 1:5



7 CLADDING - Brick to Weatherboard Internal Corner 1:5

Floor Areas m²

Over Foundation Area	152.24
Over Frame Area	145.93
Over Roof Area	182.18

Covered Areas m²

Porch 1 Area	0.87
0.87 m²	

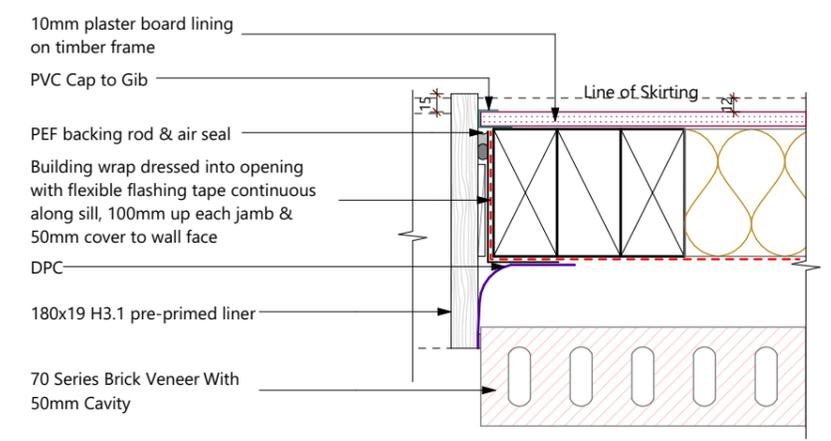
New Home For Site Address:
Phillip & Merri DAVEY 5 Turutu Place
River Road Estate
Ngaruawahia

Job Number: 302200 Version: -
Publish Date: Wednesday, 2 June 2021
Drawn By: Simone External Job Number: -

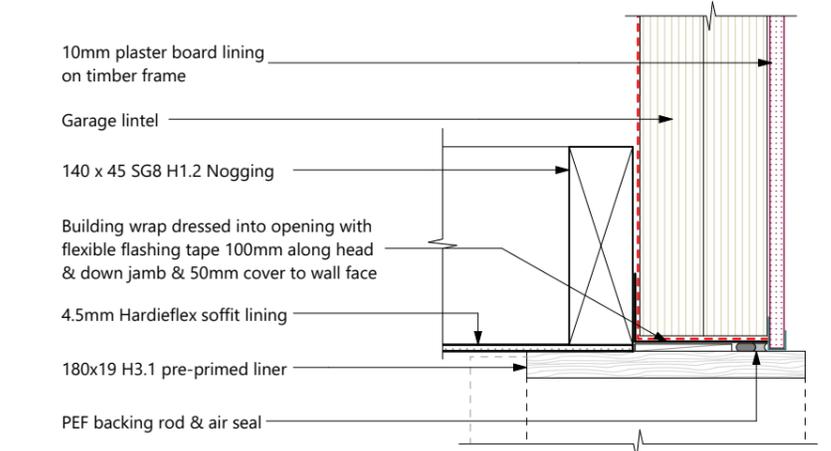
DETAILS - Cladding

Scale: 1:5, 1:10 Layout: 15

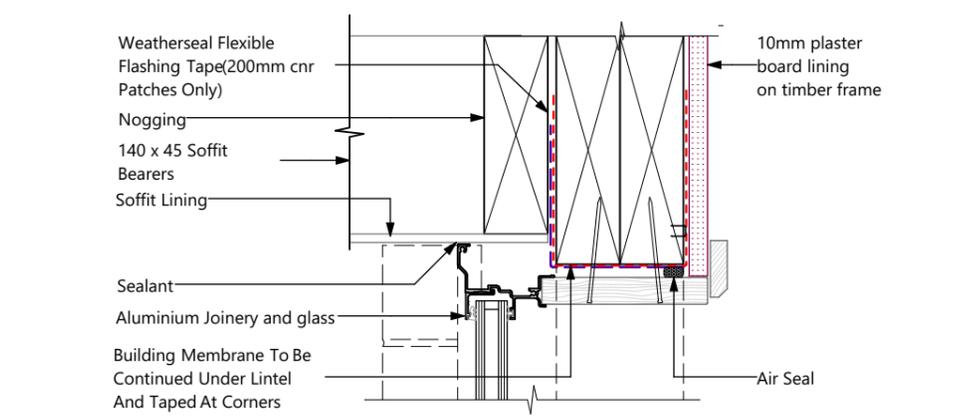
Waikato District Council
Building Consent Number
BLD2315/21
APPROVED



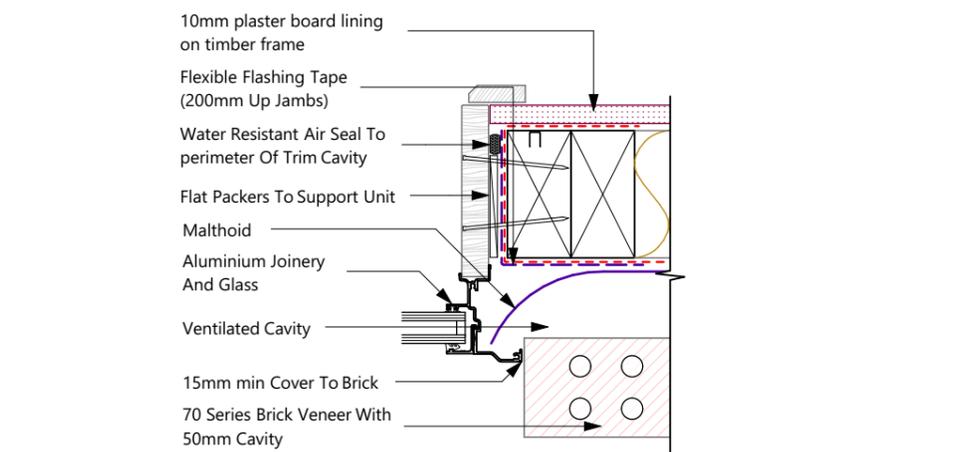
3 CLADDING - Brick Garage Door Jamb Detail 1:5



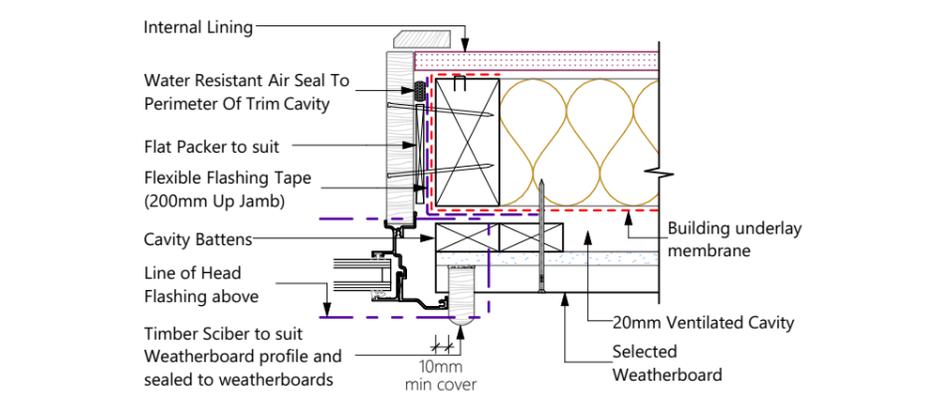
6 CLADDING - Brick Garage Head to Soffit 1:5



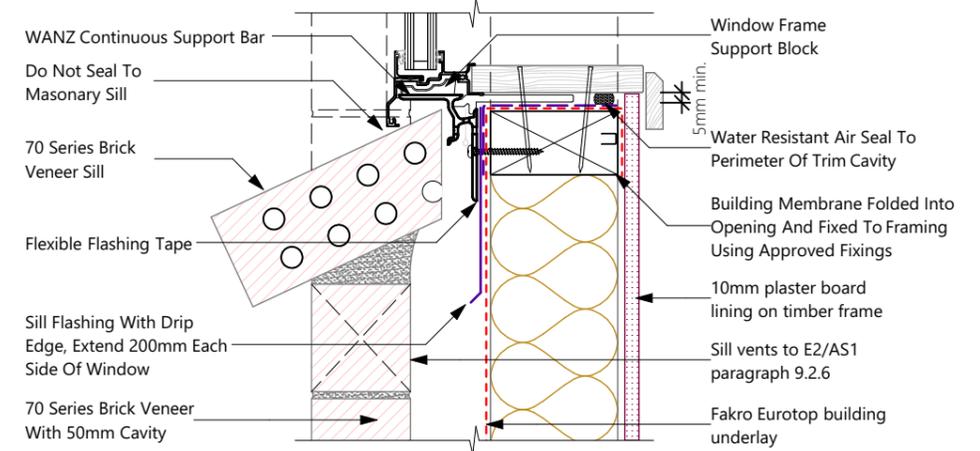
1 WINDOW JOINERY - Brick Head Soffit Detail 1:5



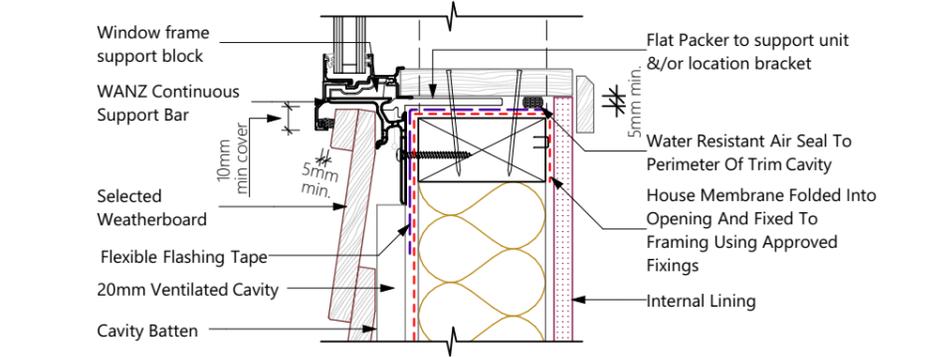
4 WINDOW JOINERY - Brick Jamb Detail 1:5



5 WINDOW JOINERY - Weatherboard Jamb Detail 1:5



7 WINDOW JOINERY - Brick Sill Detail 1:5



8 WINDOW JOINERY - Weatherboard Sill Detail 1:5

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Purchaser Signature: _____

Date: _____

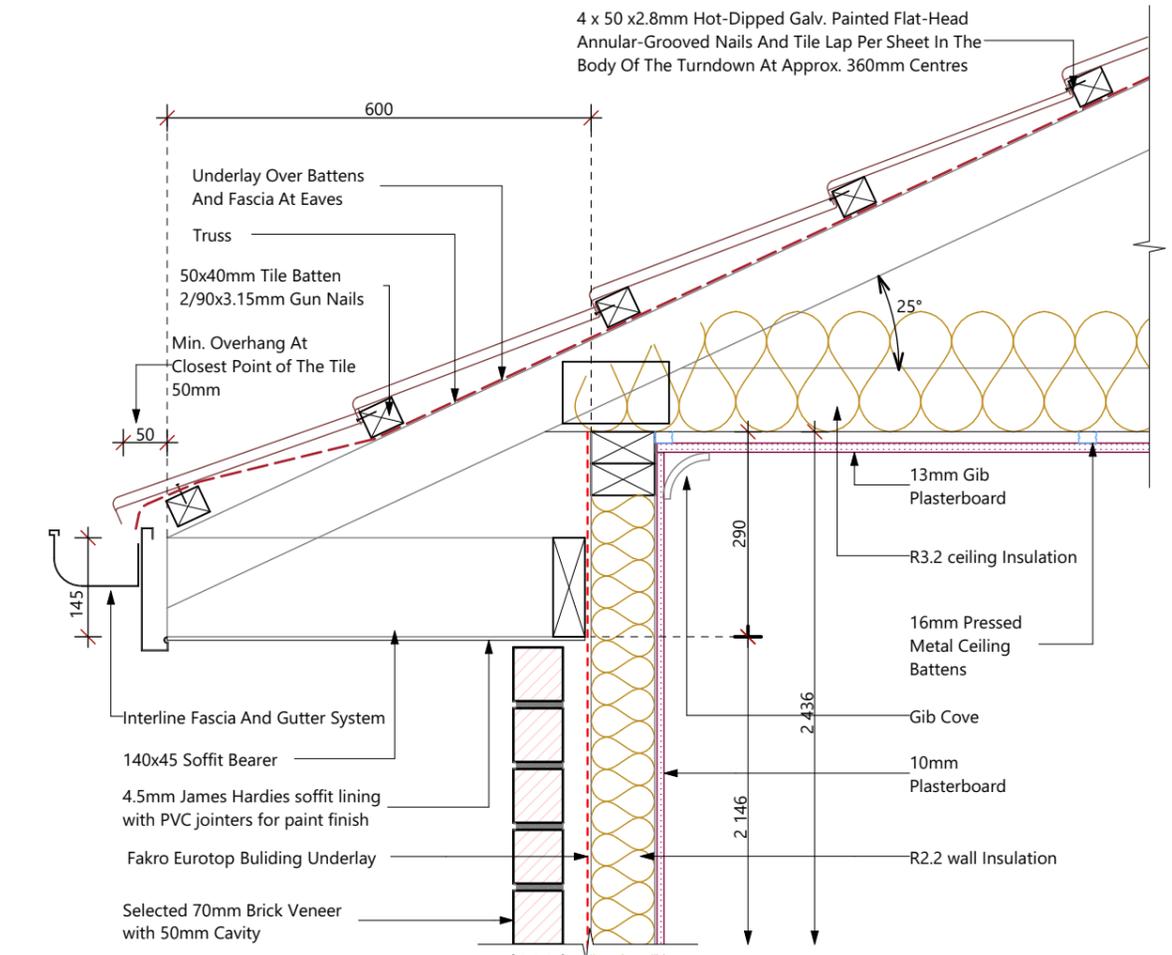
Legal Description

Lot Number 26
DPS Number 537748

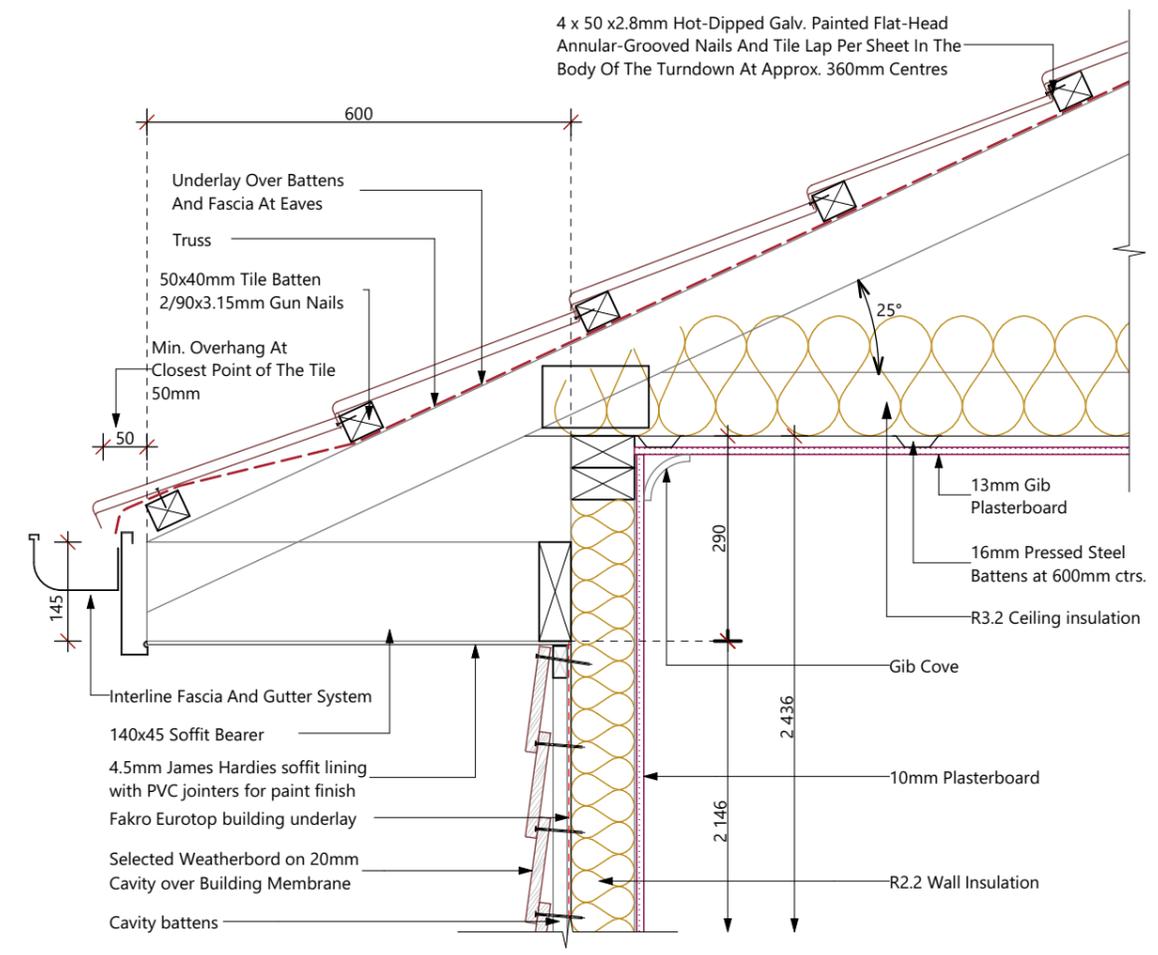
Site Information

Site Area 472m²
Territorial Authority Waikato
Planing Zone New Residential
Wind Zone High

Waikato District Council
Full Application Received
16/06/2021



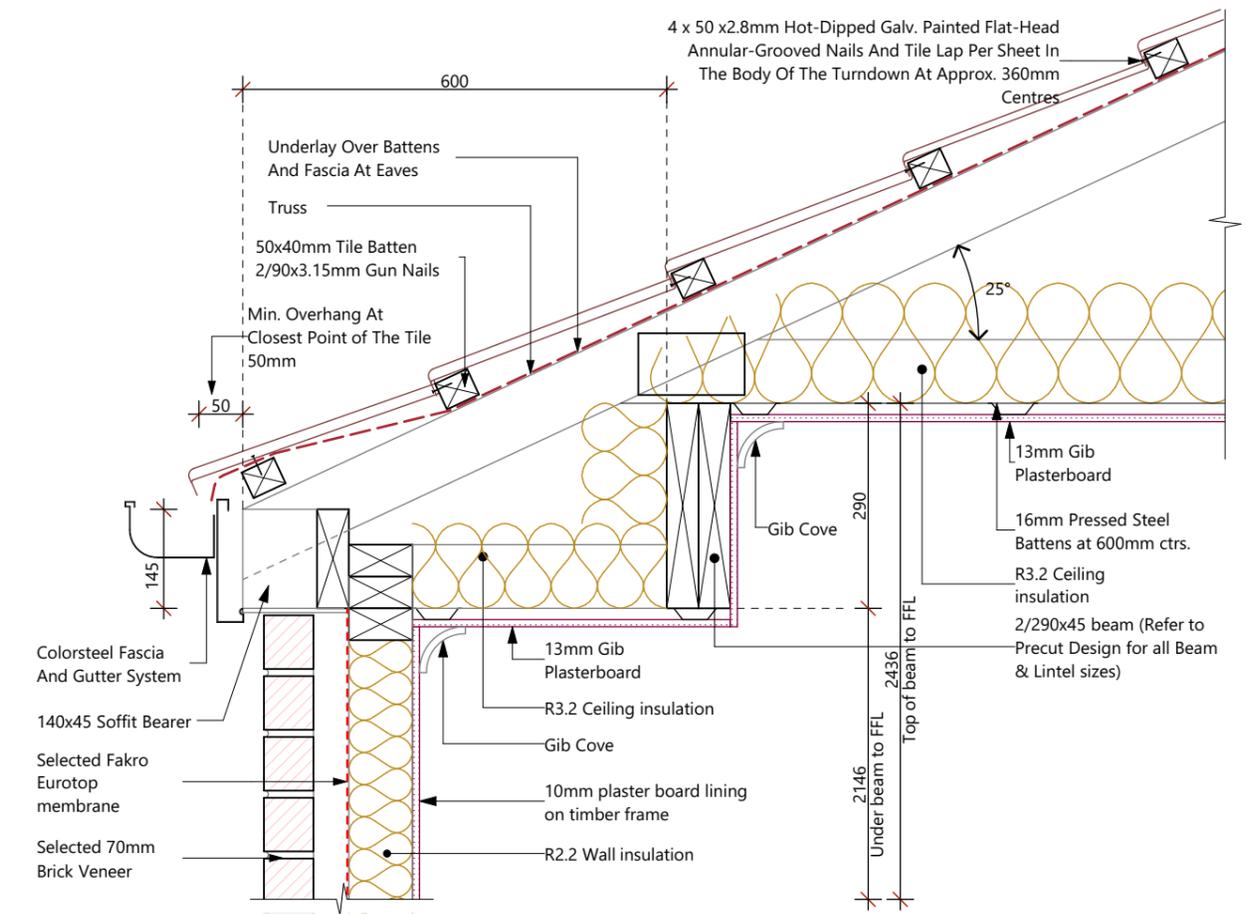
ROOFING - Metal Tile 25° Eave Detail (Brick) 1:10



ROOFING - Metal Tile 25° Eave Detail (Weatherboard) 1:10

Waikato District Council
Building Consent Number
BLD2315/21

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ROOFING - Pushout Ceiling Brick 1:10

Floor Areas m ²	
Over Foundation Area	152.24
Over Frame Area	145.93
Over Roof Area	182.18
Covered Areas m ²	
Porch 1 Area	0.87
	0.87 m²

New Home For Site Address:
Phillip & Merri DAVEY 5 Turutu Place
River Road Estate
Ngaruawahia

Job Number: 302200
Version: -
Publish Date: Wednesday, 2 June 2021
Drawn By: Simone
External Job Number: -

DETAILS - Roof

Scale: 1:10
Layout: 17

Waikato District Council
Building Consent Number
BLD2315/21

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Waikato District Council
Full Application Received
16/06/2021

G.J. Gardner.

HOMES

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Purchaser Signature: _____

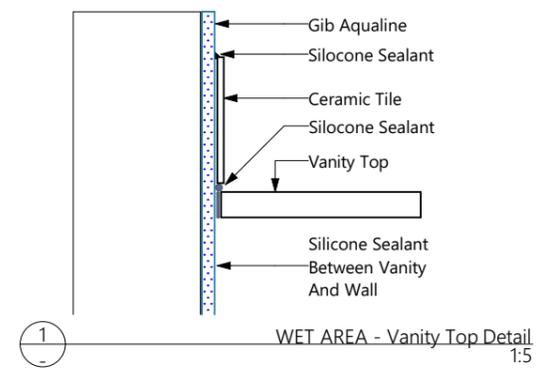
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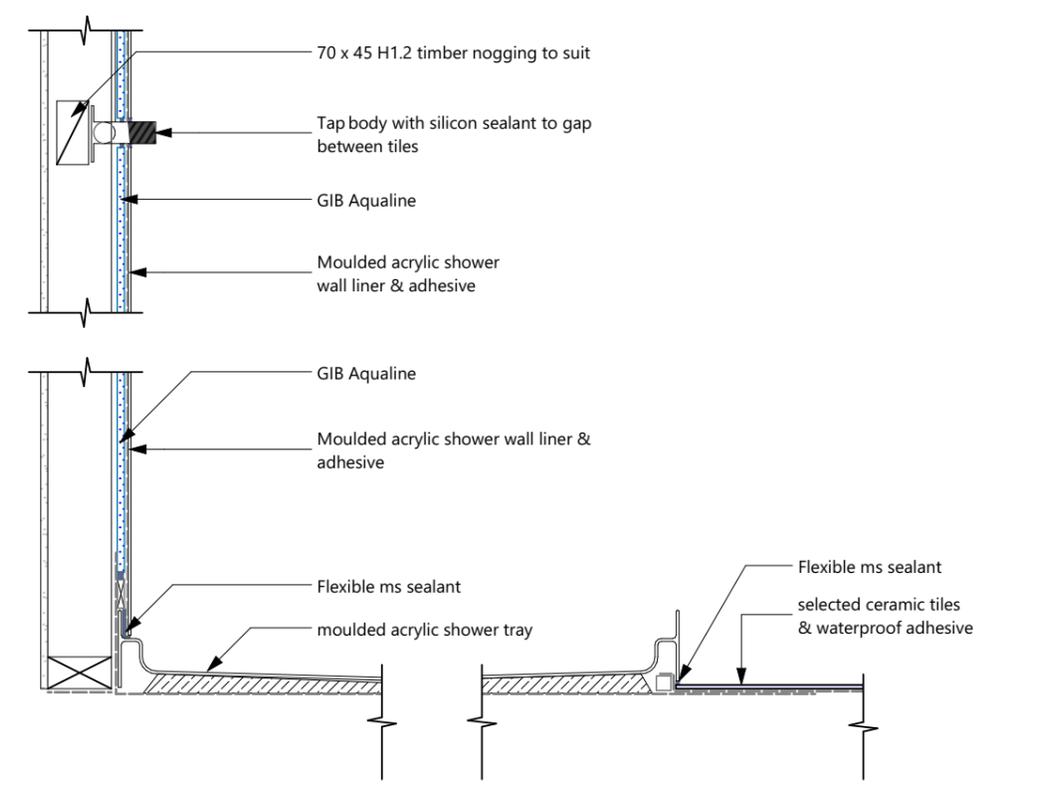
Lot Number	DPS Number
26	537748

Site Information

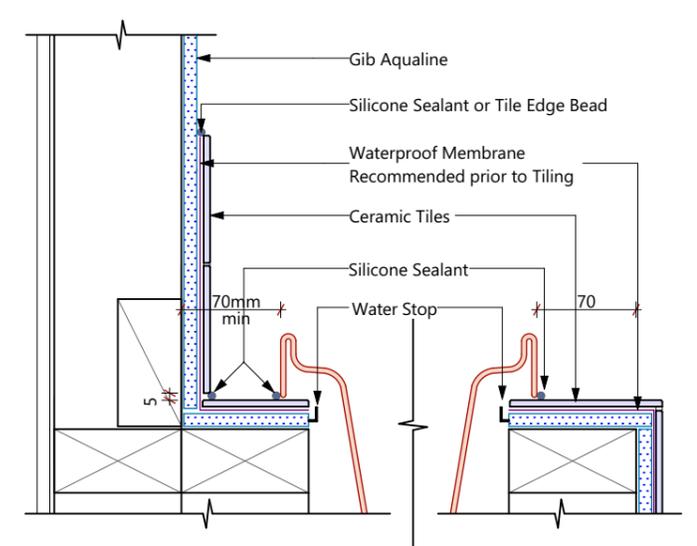
Site Area	Territorial Authority
472m ²	Waikato
Planing Zone	Wind Zone
New Residential	High



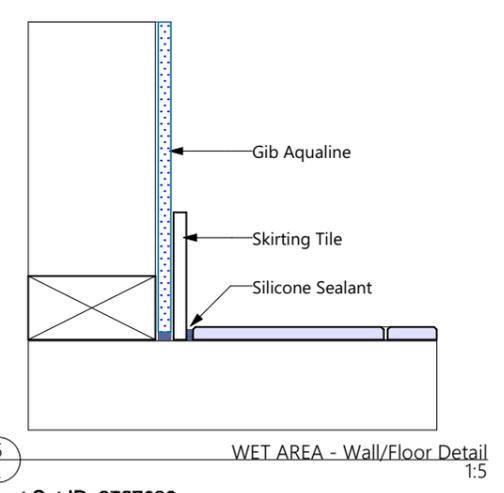
WET AREA - Vanity Top Detail
1:5



WET AREA - Acylic Shower
1:10



WET AREA - Bath In Cradle Detail
1:5



WET AREA - Wall/Floor Detail
1:5

Floor Areas m²	
Over Foundation Area	152.24
Over Frame Area	145.93
Over Roof Area	182.18
Covered Areas m²	
Porch 1 Area	0.87
	0.87 m²

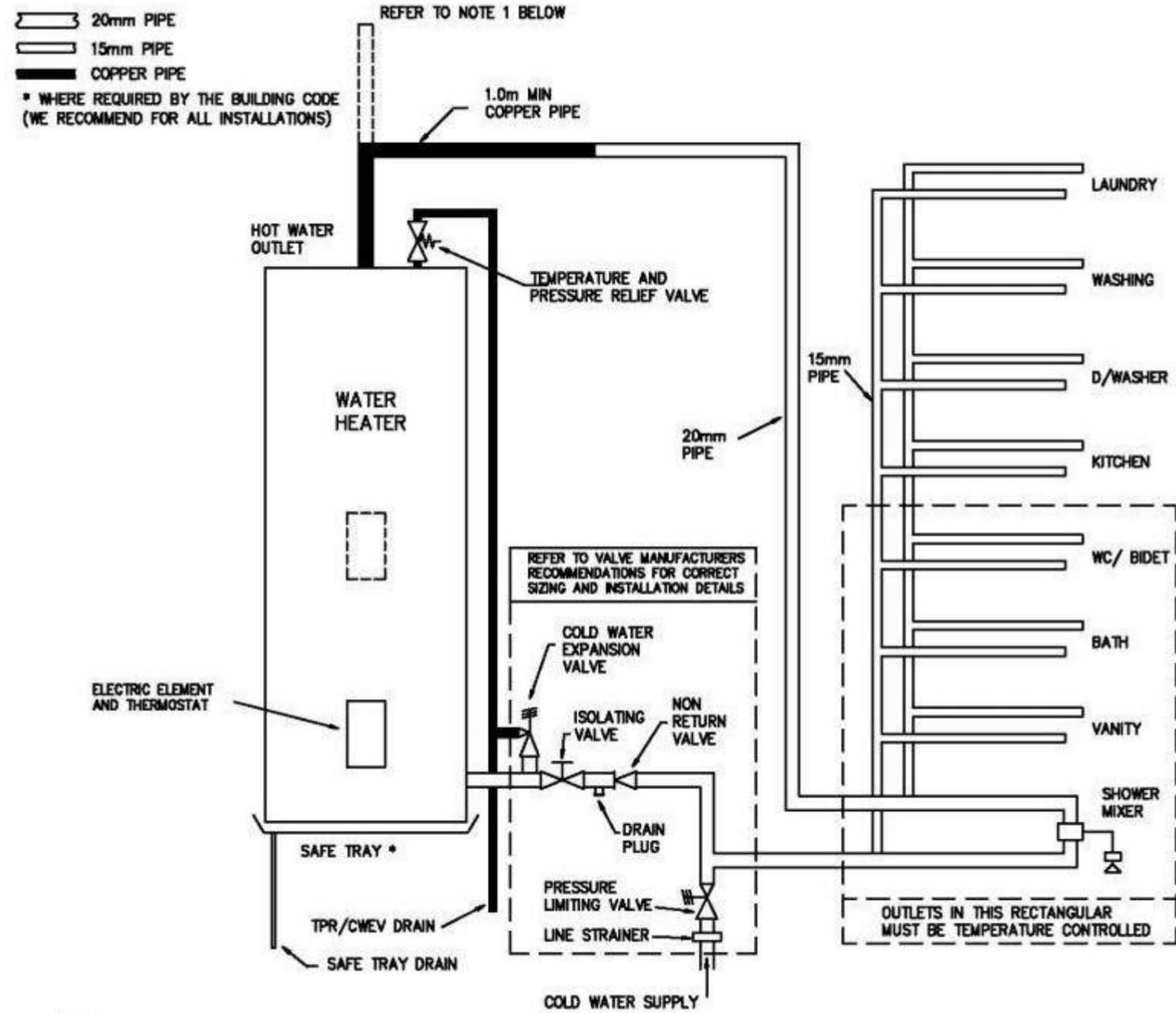
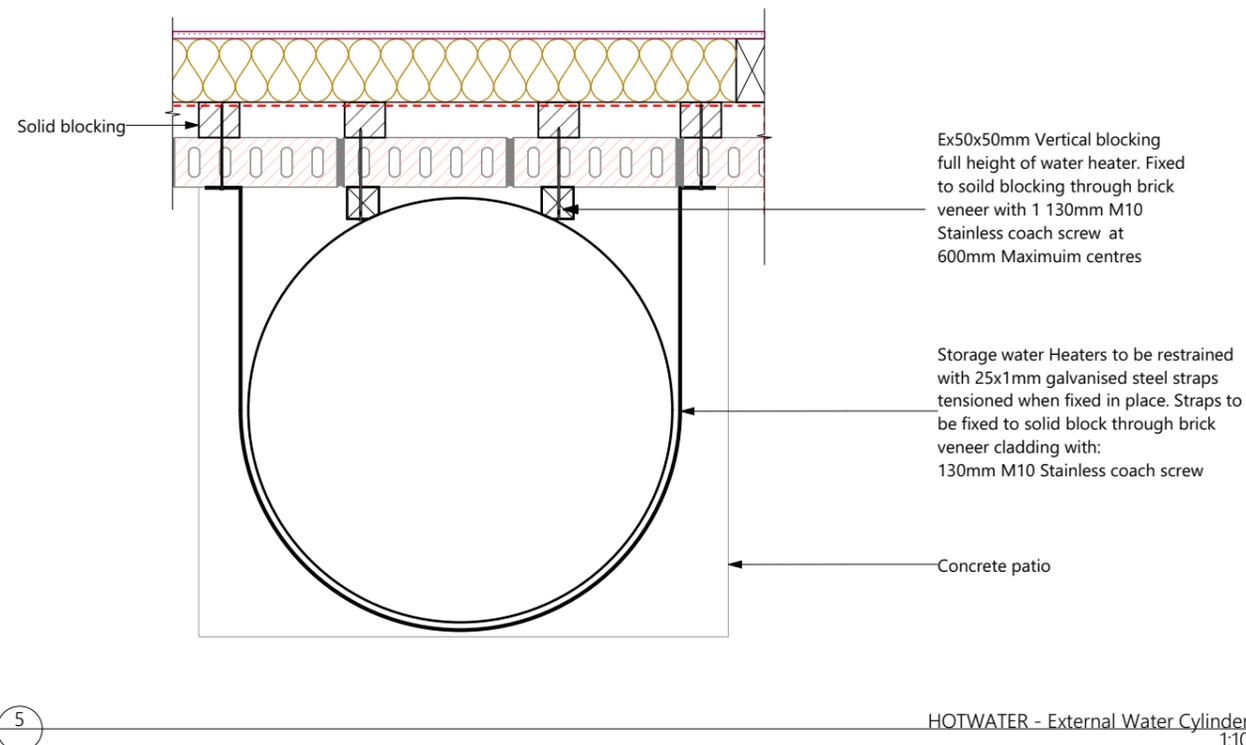
New Home For Site Address:
Phillip & 5 Turutu Place
Merri DAVEY River Road Estate
Ngaruawahia

Job Number: **302200** Version: -
 Publish Date: **Wednesday, 2 June 2021**
 Drawn By: **Simone** External Job Number: -

DETAILS - Wet Area

1:5, 1:25, 1:20, 1:10, Layout: 18

TYPICAL ELECTRICAL MAINS PRESSURE INSTALLATION



- NOTE:
1. A MAINS PRESSURE WATER HEATER CAN ALSO BE INSTALLED AS AN OPEN VENT OR VALVE VENTED LOW PRESSURE SYSTEM. FOR A VALVE VENTED SYSTEM AN APPROPRIATE TEMPERATURE AND PRESSURE RELIEF VALVE MUST BE INSTALLED.
 2. COMBINATION VALVES (e.g. UNITS INCORPORATING ISOLATING VALVE, STRAINER AND PRESSURE LIMITING VALVE) CAN BE USED TO REDUCE THE NUMBER OF VALVES AND SIMPLIFY THE INSTALLATION.

Hot Water Schematic 1:10



01/2017

LINTEL FIXING OPTIONS

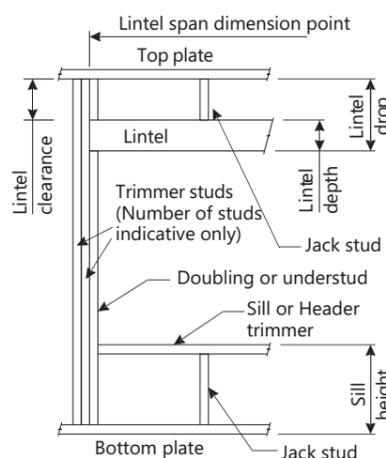


LINTEL FIXING SCHEDULE
ALTERNATIVE TO TABLE 8.14 & FIGURE 8.12
NZS 3604:2011

NOTE:

- ★ All fixings are designed for vertical loads only. Dead loads include the roof weight and standard ceiling weight of 0.20kPa.
- ★ Refer to Table 8.19 NZS 3604:2011 for nailing schedule to resist horizontal loads.
- ★ These fixings assume the correct choice of rafter/truss to top plate connections have been made.
- ★ All fixings assume bottom plate thickness of 45mm maximum. Note: TYLOK options on timber species.
- ★ Wall framing arrangements under girder trusses are not covered in this schedule.
- ★ All timber selections are as per NZS 3604:2011.

DEFINITIONS



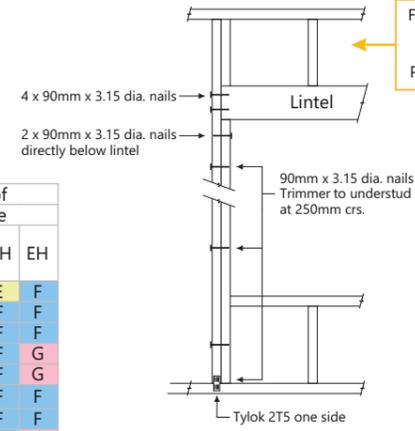
Roof Tributary Area	Lintel Supporting Girder Trusses					
	Light Roof Wind Zone			Heavy Roof Wind Zone		
	L, M, H	VH	EH	L, M, H	VH	EH
8.6m ²	G	G	H	G	G	H
11.6m ²	G	H	H	G	G	H
12.1m ²	G	H	H	G	H	H
15.3m ²	H	H	-	G	H	H
19.1m ²	H	-	-	G	H	-
20.9m ²	H	-	-	H	H	-
21.8m ²	H	-	-	H	-	-
34.3m ²	-	-	-	H	-	-

- NOTES:
1. Roof Tributary Area = approx. 1/2 x (Total roof area on girder and rafter trusses supported by lintel)
 2. Assumed girder truss is at mid-span or middle third span of lintel
 3. Use similar fixings for both ends of lintel
 4. All other cases require specific engineering design

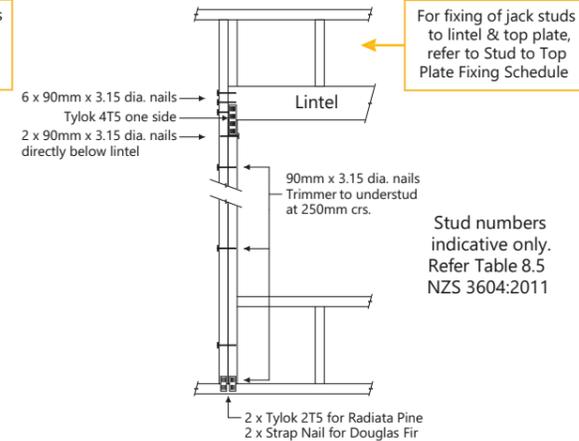


Lintel Span (m)	Loaded Dimension (m) (See Fig. 1.3 NZS 3604:2011)	Light Roof Wind Zone					Heavy Roof Wind Zone				
		L	M	H	VH	EH	L	M	H	VH	EH
1.0	2.0	E	E	E	F	F	E	E	E	E	F
	3.0	E	E	F	F	F	E	E	E	F	F
	4.0	E	F	F	F	G	E	E	F	F	F
	5.0	E	F	F	G	G	E	E	F	F	G
	6.0	E	F	F	G	G	E	E	F	F	G
1.2	2.0	E	E	F	F	F	E	E	E	F	F
	3.0	E	E	F	F	F	E	E	F	F	F
	4.0	E	F	F	G	G	E	E	F	F	G
	5.0	E	F	F	G	G	E	E	F	F	G
	6.0	F	F	G	G	H	E	E	F	G	G
1.5	2.0	E	E	F	F	F	E	E	E	F	F
	3.0	E	F	F	F	G	E	E	F	F	F
	4.0	E	F	F	G	G	E	E	F	F	G
	5.0	F	F	G	G	H	E	E	F	G	G
	6.0	F	F	G	H	H	E	E	F	G	H
2.0	2.0	E	F	F	F	G	E	E	F	F	F
	3.0	F	F	G	G	H	E	E	F	G	G
	4.0	F	F	G	H	H	E	E	F	G	H
	5.0	F	F	G	H	H	E	E	F	G	H
	6.0	F	G	G	H	H	E	E	F	G	H
2.4	2.0	E	F	F	G	G	E	E	F	F	G
	3.0	F	F	G	H	H	E	E	F	G	G
	4.0	F	G	H	H	H	E	E	F	G	H
	5.0	F	G	H	H	H	E	E	F	G	H
	6.0	F	G	H	H	H	E	E	F	G	H
3.0	2.0	E	F	F	G	G	E	E	F	F	G
	3.0	F	F	G	H	H	E	E	F	G	H
	4.0	F	G	H	H	H	E	E	F	G	H
	5.0	F	G	H	H	H	E	E	F	G	H
	6.0	F	G	H	H	H	E	E	F	G	H
3.6	2.0	F	F	G	H	H	E	E	F	G	G
	3.0	F	F	G	H	H	E	E	F	G	H
	4.0	F	G	H	H	H	E	E	F	G	H
	5.0	F	G	H	H	H	E	E	F	G	H
	6.0	G	H	H	H	H	E	E	F	H	H
4.2	2.0	F	F	G	H	H	E	E	F	G	G
	3.0	F	G	H	H	H	E	E	F	G	H
	4.0	F	G	H	H	H	E	E	F	G	H
	5.0	G	H	H	H	H	E	E	F	H	H
	6.0	G	H	H	H	H	E	E	F	H	H
4.5	2.0	F	F	G	H	H	E	E	F	G	H
	3.0	F	G	H	H	H	E	E	F	G	H
	3.4	F	G	H	H	H	E	E	F	G	H
	4.0	F	G	H	H	H	E	E	F	G	H
	5.0	G	H	H	H	H	E	E	F	H	H
4.8	2.0	F	F	G	H	H	E	E	F	G	H
	3.0	F	G	H	H	H	E	E	F	G	H
	3.2	F	G	H	H	H	E	E	F	G	H
	4.0	F	G	H	H	H	E	E	F	H	H
	5.0	G	H	H	H	H	E	E	F	H	H
5.1	2.0	F	F	G	H	H	E	E	F	G	H
	3.0	F	G	H	H	H	E	E	F	G	H
	3.5	F	G	H	H	H	E	E	F	G	H
	4.0	G	G	H	H	H	E	E	F	H	H
	5.0	G	H	H	H	H	E	E	F	H	H
5.4	2.0	F	F	G	H	H	E	E	F	G	H
	2.8	F	G	H	H	H	E	E	F	G	H
	3.0	F	G	H	H	H	E	E	F	G	H
	4.0	G	H	H	H	H	E	E	F	H	H
	5.0	G	H	H	H	H	E	E	F	H	H
6.0	G	H	H	H	H	E	E	F	H	H	

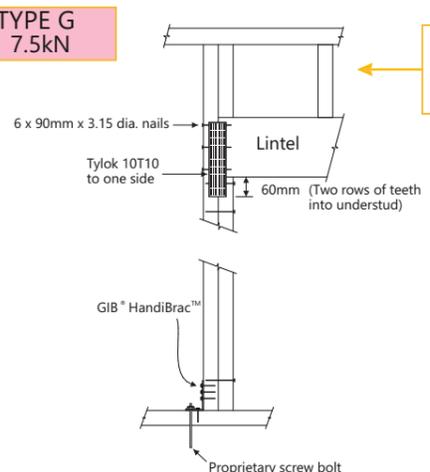
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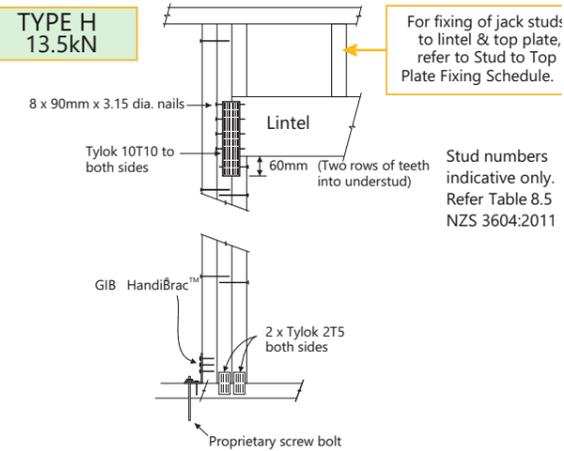
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TYPE G
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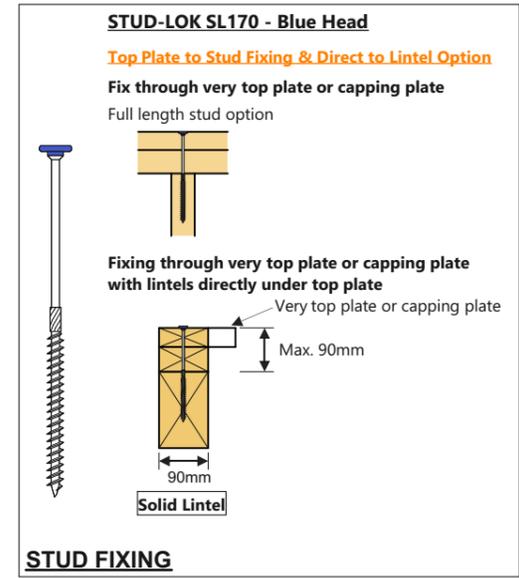
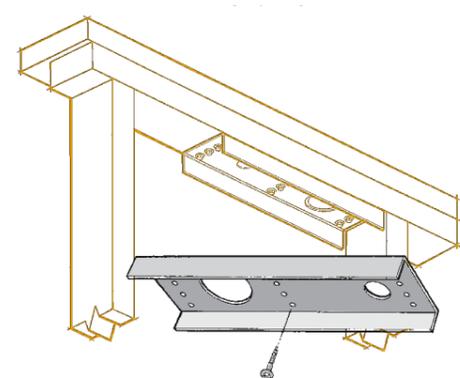


TYPE H
13.5kN



Waikato District Council
Building Consent Number
BLD2315/21

APPROVED



*TOP PLATE STIFFENER
1.55mm G300 Z275 Galvanised Steel

Tested to re-strengthen timber top plates where holes have been drilled for the installation of internal vacuum system ducting. This is an alternative solution to NZS 3604:2011 and includes holes up to 60mm diameter. Fixed through the top plate and into the timber packer with 3 rows of 4 x Type 17-14g x 75mm Hex Head Screws (supplied).

G.J. Gardner.
HOMES

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Purchaser Signature: _____

Date: _____

Legal Description

Lot Number	DPS Number
26	537748

Site Information

Site Area	Territorial Authority
472m ²	Waikato
Planing Zone	Wind Zone
New Residential	High

Waikato District Council
Full Application Received
16/06/2021

Floor Areas m²

Over Foundation Area	152.24
Over Frame Area	145.93
Over Roof Area	182.18

Covered Areas m²

Porch 1 Area	0.87
0.87 m²	

New Home For: Phillip & Merri DAVEY
Site Address: 5 Turutu Place, River Road Estate, Ngaruawahia

Job Number: 302200
Version: -
Publish Date: Wednesday, 2 June 2021
Drawn By: Simone
External Job Number: -

DETAILS - Lintel Fixing

Layout: 1:105.2632, 1:10

20

Waikato District Council
 Building Consent Number
 BLD2315/21

 APPROVED

Waikato District Council
 Full Application Received
 16/06/2021

G.J. Gardner.

HOMES

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Purchaser Signature:

Date:

Legal Description

Lot Number	DPS Number
26	537748

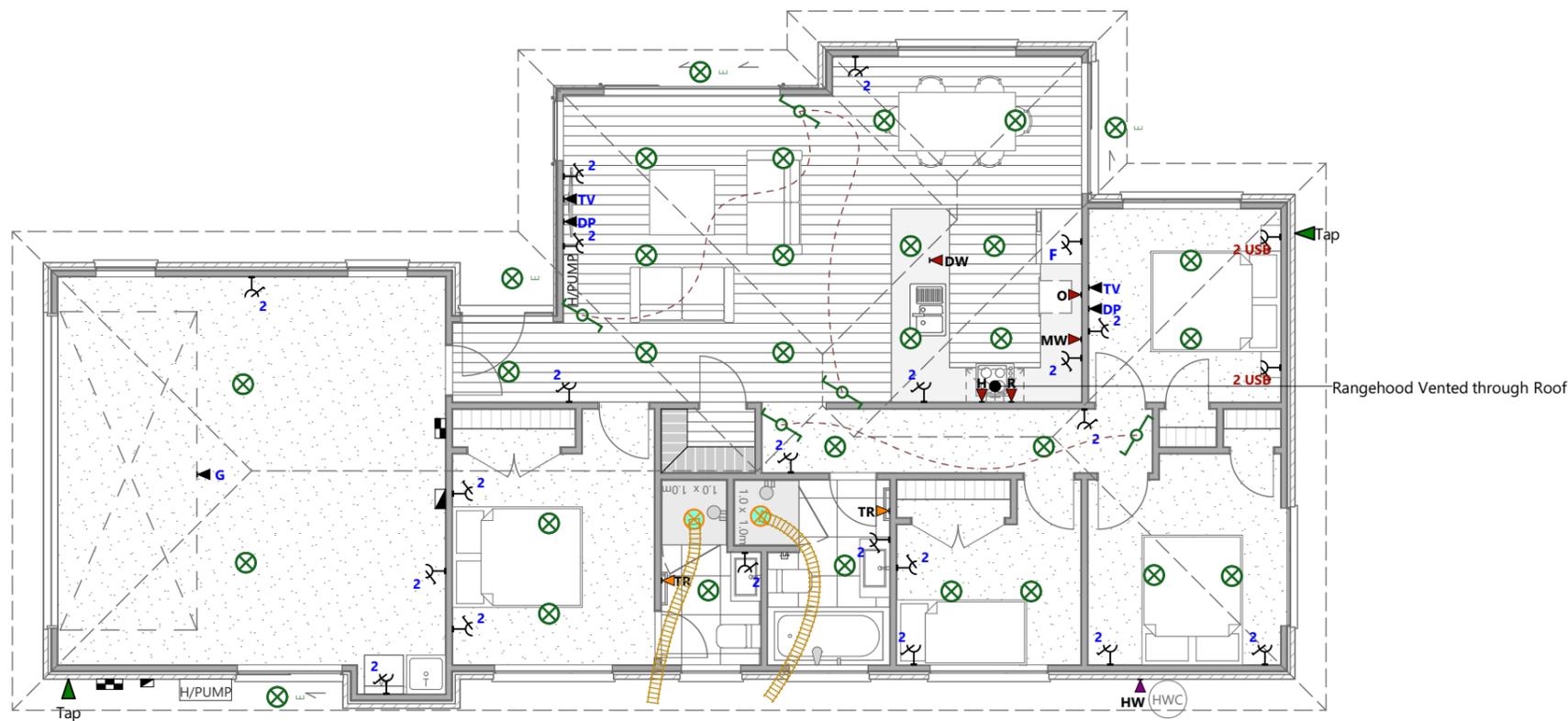
Site Information

Site Area	Territorial Authority
472m ²	Waikato
Planing Zone	Wind Zone
New Residential	High

NOTES:

- Exact positions of all lights to be discussed on site between client and electrician
- Exact positions of all points and plugs to be discussed on site between client and electrician
- All switch locations to be discussed on site between client and electrician
- Extraction fans to comply with G4/AS1, Clause 1.2.5 (25 L/s for showers and baths and 50L/s for cooktops).

ELECTRICAL SCHEDULE	Quantity
Symbol Description	
Electrical	
Distribution Board	1
Fibre Optic Hub	1
Heat Pump - Exact location to be confirmed on site	1
Meter Board	1
UFF - External Termination Point	1
Lighting	
Extractor Fan	2
Light - Recessed Ambius 12W LED	27
Light - Recessed Ambius 12W LED (External)	4
Three Way Switch	1
Two Way Switch	1
Power Connections	
Point - Data	2
Point - Garage	1
Point - Heated Towel Rail	2
Point - TV	2
Power Connections - Kitchen & Heating	
Power Point - DishWasher	1
Power Point - Fridge	1
Power Point - Hob Power	1
Power Point - Microwave	1
Power Point - Oven	1
Power Point - Range Hood	1
Power Point - Water Heating	1
Power Distribution	
Power Point - Double	20
Power Point - Double with USB	2



Floor Areas m²	
Over Foundation Area	152.24
Over Frame Area	145.93
Over Roof Area	182.18
Covered Areas m²	
Porch 1 Area	0.87
	0.87 m²

New Home For Site Address:
 Phillip & 5 Turutu Place
 Merri DAVEY River Road Estate
 Ngaruawahia

Job Number: 302200 Version: -
 Publish Date: Wednesday, 2 June 2021
 Drawn By: Simone External Job Number: -

ELECTRICAL

Scale: 1:100 Layout: 21

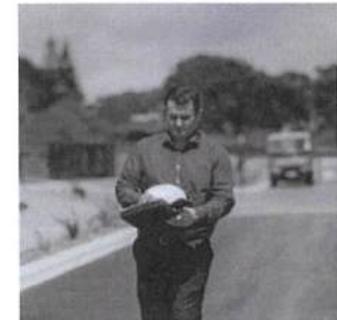
GEOTECHNICAL (POST EARTHWORKS) REPORT

River Road Stage One Completion
Report (Lots 1 to 52)

for River Road 1 North Ltd

Rev B - 17/09/2019

BTWCOMPANY
SURVEYING | ENGINEERING | PLANNING & ENVIRONMENT

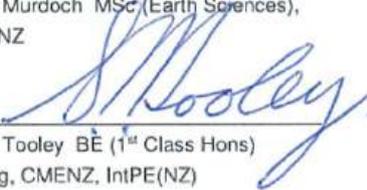


River Road Stage One Completion Report (Lots 1 to 52)

for River Road 1 North Ltd

Revision	Date	Description of revision
B	15/05/2019	As Issued
B	17/09/2019	Revisions as per WDC email

Reviewed

Report Author	 _____ Bruce Murdoch MSc (Earth Sciences), MEngNZ	<u>17/09/2019</u> Date
Reviewed by	 _____ Steve Tooley BÉ (1 st Class Hons) CPEng, CMENZ, IntPE(NZ)	<u>17/09/2019</u> Date

17840
Rev B - 17/09/2019

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1 INTRODUCTION

River Road North 1 Ltd Stage One (Lots 1 to 52) is part of a 159 lot five stage urban residential subdivision at 78 River Road, Ngaruawahia. The stage is near level gently undulating which has been cut and filled to reduce the amplitude of the original site geomorphology.

This document reports only on Lots 1 to 52 (Stage One) to facilitate the commencement of building construction. Reports for subsequent Stages (two to five) are to be produced as the stages are completed.

The main earthworks for all 52 Lots in Stage One have been completed with cut and fill works completed across the larger site.

Most cut and fill depths are 1 metre or less, with 200 to 500 mm as typical. There are some areas within the greater site of fill and cut approximately 1.8 to 2.0 metre depths respectively.

1.1 Waikato District Council requirements

On 16 November 2018, Waikato District Council issued a Subdivision Resource Consent (SUB0178/16.04) which included a condition requiring all works be completed in accordance with the:

- (a) The Waikato District Plan 2013; and
- (b) The Hamilton Infrastructure Technical Specifications: 2014 and the Waikato District Council Supplement: 2014;
- (c) Designs for all stages shall take into account servicing requirements for all subsequent stages.

The HCC Infrastructure Technical Specification, *Section 2 Earthworks and Geotechnical Requirements*, requires a Geotechnical Completion Report which, in turn, references the requirements of NZS4404:2010 Section 2.6 and also requires a statement of professional opinion – which is included with this report.

In addition to the above the Subdivision Consent (SUB0178/16.04) issued to the development requires that:

Post Earthworks

- 31 After completion of the earthworks within the subject site approved in the Earthworks Management Plan, the consent holder shall provide a Geotechnical Completion Report from a suitability qualified geotechnical engineer to the satisfaction of Waikato District Council, in accordance with the Hamilton City Council infrastructure Technical.

The Geotechnical Completion Report shall include any specific designs/recommendations necessary of the construction of:

- (a) Residential building on each lot.
- (b) Stormwater management on each lot.

1.2 Previous reporting

Previous reporting was undertaken in a BTW Company Ltd (BTW) report titled 'Geotechnical Report, Geotechnical and Stormwater Site Assessment for Proposed Residential Subdivision', dated 22 November 2017, Revision A. The report undertook preliminary geotechnical investigations for the foundations, pavement design and stormwater testing for each of the five stages which comprise the subdivision. Within Stage One, the ground testing comprised of the following tests as summarised in Table 1.1.

Table 1.1: Ground testing within Stage One

Area	No. of Tests
Lots (foundations)	9
Pavement Undercuts	7
Stormwater Testing	-
Hand Auger and Scala Penetrometer Testing	
Hand Auger	Depth (m)
Minimum	1.5
Maximum	2.6
Scala Penetrometer	Depth (m)
Minimum	0.4
Maximum	4.4

The preliminary soil testing was completed by BTW in 2017. The BTW (2017) report for Stage One foundation recommendations concluded that:

On account of the observed high groundwater and the depth of low strength soils (allowable bearing capacity of less than 100 kPa) up to 3.9 metres below existing ground level (typically 2.5 to 3.0 metres) an excavated sand pad with concrete floor slab (NZS 3604 type foundation) will not be appropriate for these stages.

For the majority of lots within these stages, (where ground water is within 0.5 metres of the surface) the most practical method for foundation will be to drive timber piles to a typical depth of 3 to 4 metres. In places the piles may be up to 4 to 5 metres long. We also recommend lowering the ground water table.

Where groundwater occurs below 0.5 metres from the surface a light weight flooring system such as a proprietary Ribraft or waffle slab system may be able to be used provided the soils which underlie the proposed dwelling can be compacted to achieve an allowable bearing capacity of at least 50 kPa.

Further testing has now enabled these preliminary conclusions to be refined, as reported here.

1.3 Work undertaken and reported in this document

- Initial pre-earthworks
 - onsite soil tests (Scala penetrometer tests and hand augers)
- Construction observations
- Final soil testing
- Recommendations for building construction

1.4 Contaminated soil

The identification and redamation of contaminated soil within Stage One of this subdivision falls outside the scope of this document. However, a BTW Company report (undertaken by the Environmental division) which address these areas and has been lodged with Waikato District Council.

2 SUBSOIL CONDITIONS

2.1 Overall site

At the conclusion of the bulk earthworks stage BTW Company undertook testing within approximate centre of each lot within Stage One. The following generalised soil sequence was identified and is presented in Table 2.1.

Table 2.1: Generalised soil stratigraphy in Stage One.

Soil Unit	Depositional Environment	Typical Unit Depth or Range (metres)	Comment
Uncontrolled Filling	Constructed soil	0.2 to 0.7	Paced in 2017/2018 construction season
SILT	Hinuera Formation – deposited in a braided river system	0.2 to 0.4	These two layers: may be reversed in order, locally absent or have been removed by earth works
SAND		0.2 to 0.4	
SAND / SILT (pumiceous)	Back water levy (flood) deposit	sequence up to 1.5	Contains dilatant layers (variable in spatial and temporal distribution)
organic SILT / PEAT	Formed in shallow lacustrine settings	0.1 to 0.3 (0.85 and 0.7 m deep within lots 19 and 26)	Can be locally absent or present as a soft organic clayey SILT
SILT	Lake sediment	minimum 0.2 to 0.5	Deposited in redoximorphic conditions can be greenish grey, blueish grey or greyish white in colour

Note: That groundwater table during the autumn testing was variable being observed any where from 0.5 to 2.0 metres below existing ground level (BEGL). Some of the results may be a perched water table. Of particular note is that prior to the earthworks being undertaken the water table was as high as 0.5 metres BEGL. With the subsoil drains now installed under the road pavement, it is assessed the winter groundwater tables are likely to be about 1.0 metre BEGL.

Stage One is assessed as having been built on a series of Kahikatea forests that have been progressively buried as the Waikato River has meandered across the flood plan. Remnants of the Kahikatea forests were identified at a depth of 1.3 to 1.5 metres below finished ground level (BFGL) in Lots 22 and 52 and in deep excavations within the stormwater pond (Lot 208) at an approximate Reduce Level (RL) of 16.4 metres (approximately 4.7 metres BFGL).

It is likely that within Stage One lots that other isolated pockets of Kahikatea forest remnants will be identified. In cases where timber piles are the adopted foundation solution, the piles should be driven with care and early refusal on isolated piles should be treated with caution. This situation suggests avoiding piles if other foundation options are available.

2.1.1 Soil testing limitations

The soils testing for this Lot has been undertaken in accordance with the standard NZS3604:2011 which relates to the construction of light structures that are to have a floor area of up to 200 m². The scientific understanding gained from this testing of the foundation soils for this site is imperfect, hence some uncertainty remains as to the confidence in the level of risk at each building platform location (refer to MBIE 2017, Table 3.1).

Due to the limited testing in order to satisfy Section 224c and comply with NZS 3604:2011 only static bearing capacity has been tested and reported on, and hence no assessment has been undertaken of any response in seismic situations. Due to the highly variable nature of the soil conditions and the presence of buried timber (likely to be Kaihikatea), then raft type foundations

are recommended for all lots, which in turn provided moderate resistance to possible liquefaction and or differential settlement.

2.2 Existing ground conditions

Based on the soils investigation boreholes undertaken in each lot between March and April 2019, the soils conditions are variable, what is the upper metres or so of the soil profile generally comply with the definition of 'Good Ground'; as set out in NZS 3604:2011 and NZS4404:2010. The lower portion of most boreholes (approximately the last 1 to 2 metres below existing ground, generally does not.

Piling depth is generally obtained from a depth of 3.0 metres BFGL however in places it occurs from a depth of 4.0 metres BFGL. This report however, recommends not using piles, but instead a geogrid reinforced gravel raft.

Post-construction testing was also completed, with information provided in Section 4.

3 SCOPE OF EARTHWORKS

3.1 Extent of earthworks

The bulk earthworks design was developed by BTW Company Ltd and provided for onsite cut and fill earthworks. The final hypsometric cut/full plan (17840-05 Revision 7, dated February 2018) is shown below in Figure 3.1 and reproduced in full in Appendix A.2.

All earthworks have been completed by Schick Construction and Cartage Ltd (Schick), utilising earthmoving equipment fitted with GPS machine control.

Schick have completed the following:

- The removal of the original buildings
- Topsoil stripping removed offsite
- Cut to fill over the site, including compaction to create fill areas



Figure 3.1: Extent of cut (brown) and fill (green) within Stage One.

4 POST-CONSTRUCTION TESTING FOR STAGE ONE AND FOUNDATION CONDITIONS

4.1 Site inspections

Site inspections were undertaken prior to bulk earthworks and during the earthworks construction. Site inspections were undertaken as shown in Table 4.1.

Table 4.1: Site inspection schedule

Year	Date (approximate)	Inspection type	Purpose / Notes
2017	9 November	Geotechnical Testing.	Site in undisturbed condition
2018	15 February	Construction Inspection	Site vegetation cleared, structures and fences removed
	27 February		Bund around perimeter of stage constructed.
	6 March		Shaping and filling of Lots 42 to 52 approx.
	27 March		Shaping and filling of Lots 1 to 30 approx.
	17 April		Topsoiling of Lots 1 to 30 approx.
	19 April		Topsoiling of Lots 41 to 49
	24 March		Removal of stumps along northern boundary of Lots 41 to 52
	26 March		Topsoil of balance of Lots 41 to 52
2019	22 February	Geotechnical Testing	Completion Testing Lots 18 and 21
	11 March		Completion Testing Lots 42 to 52
	18 March		Completion Testing Lots 1 to 3 to 7, 9 to 11 to 13
	9 April		Completion Testing Lots 14 to 17, 19 to 20, 22 to 24, 26 to 28
	12 April		Completion Testing Lots 17, 25 and 29
	16 April		Completion Testing Lots 30 to 40
	10 May		Completion Testing Lots 8 and 9
	6 September		Completion Testing Lot 41

4.2 Placed fill

Onsite soils have been placed and compacted without engineer supervision, and therefore must be treated as uncontrolled filling. Much of the site has fill depths of less than 1.0 metre, with 0.2 to 0.5 metres being typical. However, within Lot 48 locally deep filling of up to 1.0 metres deep has been previously placed (refer to Figure 3.1 or Appendix A.2).

4.3 Recommendations for Building Construction

4.3.1 Building sites and foundation design (SED)

In general, the site comprises of dense crust over low strength organic soils and soft to loose pumiceous fine sandy Silt or silty fine Sand with some clay present. Within the pumiceous Silt and Sand layer are dilatant soils that are variable in spatial and temporal distribution across Stage One, with no discernible pattern being obvious. Underlying the low strength soils is dense (assumed sand) of the Hinuera Formation which is expected to occur for tens of metres below the section.

The two main foundation options for the lots contained within Stage One are as follows:

- Option 1. A geogrid reinforced gravel raft with a rib raft floor.
- Option 2. Piles driven into the denser soils as observed lower down in the soil profile.

The option of a geogrid reinforced gravel raft is the recommended solution due to a combination of the highly variable nature of the soils (a mix of silty sand, organic silts and fine pumiceous silt and sand derived soils), the high groundwater table and the expectation of relatively good performance in moderate seismic conditions where some liquefaction may occur (including the ability to relevel platforms that tilt due to total and /or differential settlement occurring).

The designer of a reinforced gravel raft (with rib raft concrete floor) can expect to use the following bearing pressures at the interface with the subgrade and raft: (unless additional site testing per lot shows otherwise)

- Ultimate Bearing Pressure: 200 kPa

The soil results show that for much of the Stage One development a dense near surface soil crust of approximately 1.0 metre depth occurs with a typical soil strength of 300 kPa. However, the depth and strength of this crust cannot be relied on to prevent differential settlement in an earthquake or to continually have an ultimate bearing capacity of 300 kPa stated above.

The highly variable groundwater levels measured within Stage One will increase pore water pressures and thus lower measurable soil strengths in the crust. The combined risk of a liquefaction event occurring when pore pressures are very high means that a conservative bearing pressure (200 kPa) at the base of the raft has been assumed.

Note that no specific testing has been undertaken in relation to liquefaction risks. However, due to the variable nature of the soils tested along with the high groundwater table, concrete rib raft floors constructed on a reinforced gravel raft are recommended throughout Stage One.

This solution will in turn provide a measure of protection if there were to be moderate liquefaction following earthquake activity. Liquefaction is only likely in the thin pumice derived silty-sand layers located below the relatively high groundwater table. Given the observations made the liquefaction risk is considered 'low to moderate', the recommended foundations will assist in the highly variable soil conditions (organic silts/peats; silts, sands mix). So, given this is a desirable foundation for these conditions and the reinforced gravel raft is also suited to resist moderate liquefaction, the conclusion is that no further testing was required in relation to liquefaction.

4.3.2 Gravel Raft Design

Generic details for the gravel raft are shown in Appendix E however, the following points need to be noted:

- The finished floor level is to be a minimum of 250 mm and an average of 300 mm above adjacent ground;
- The foundations to support an NZS 3604:2011 superstructure with light-weight roof claddings and limited to light or medium weight wall claddings;

- The gravel raft will have a minimum thickness of 800 mm and there is the requirement for the raft to have a minimum thickness of 600 mm below the underside of the footing or below any footing excavated into the raft.
 - Note: Where uncontrolled filling occurs below the base of the raft this soil will need to be removed until natural ground is encountered. In this instance the overall thickness of the raft may be thicker than the values given above.
- The hard fill in the raft will need to be compacted to the values in Table 4.2 below:

Table 4.2: Compaction requirements for gravel raft

Clegg Hammer Impact Value (CIV)	Comment
35	Average compaction results required
25	Minimum compaction results required

4.4 Stormwater disposal

Each Lot is provided with a stormwater connection as shown in BTW Company drawing, Earthworks Plans, as shown in Appendix A.3.

4.5 Opinion

A statement of professional opinion is included in accordance with the Hamilton ITS. A copy is attached as Appendix B.

A summary of geotechnical data for each Lot is enclosed in Appendix C. This lists the soil characteristics and recommendations for each Lot.

5 APPLICABILITY

Recommendations contained in this report are based on data from boreholes, observation of exposed soil and test results. Inferences about the nature and continuity of subsoils away from these locations are made but cannot be guaranteed.

In all circumstances, if variations in subsoil conditions occur which differ from those described or are assumed to exist, or if unforeseen ground conditions are found from past farming activities, the site should be inspected by a suitably qualified Engineer. The Engineer will make an informed judgement and provide advice on appropriate improvement measures if necessary.

This report excludes any inspections, testing or assessments for any potentially contaminated land issues.

This report has been prepared specifically for Ltd, Stage One Lots listed Appendix D only. No responsibility is accepted by BTW Company Ltd for use of any part of this report for other development sites in or around the specific Lots tested, or in any other contexts without BTW's written approval.

APPENDIX A REFERENCE DRAWINGS

A.1 17004.02-01, Rev 5, Stage One Site Plan – Overall scheme plan

PROPOSED EASEMENTS			
Purpose	Shown	Serv. Ten	Dom. Ten
R.O.W	(A)	Lot 9	Lot 11
Electricity	(B)	Lot 13	Lots 14 & 15
Water	(C)	Lot 19	Lot 18 & 20
Gas	(D)	Lot 25	Lot 24
Telecom			
Sewer			
Stormwater			

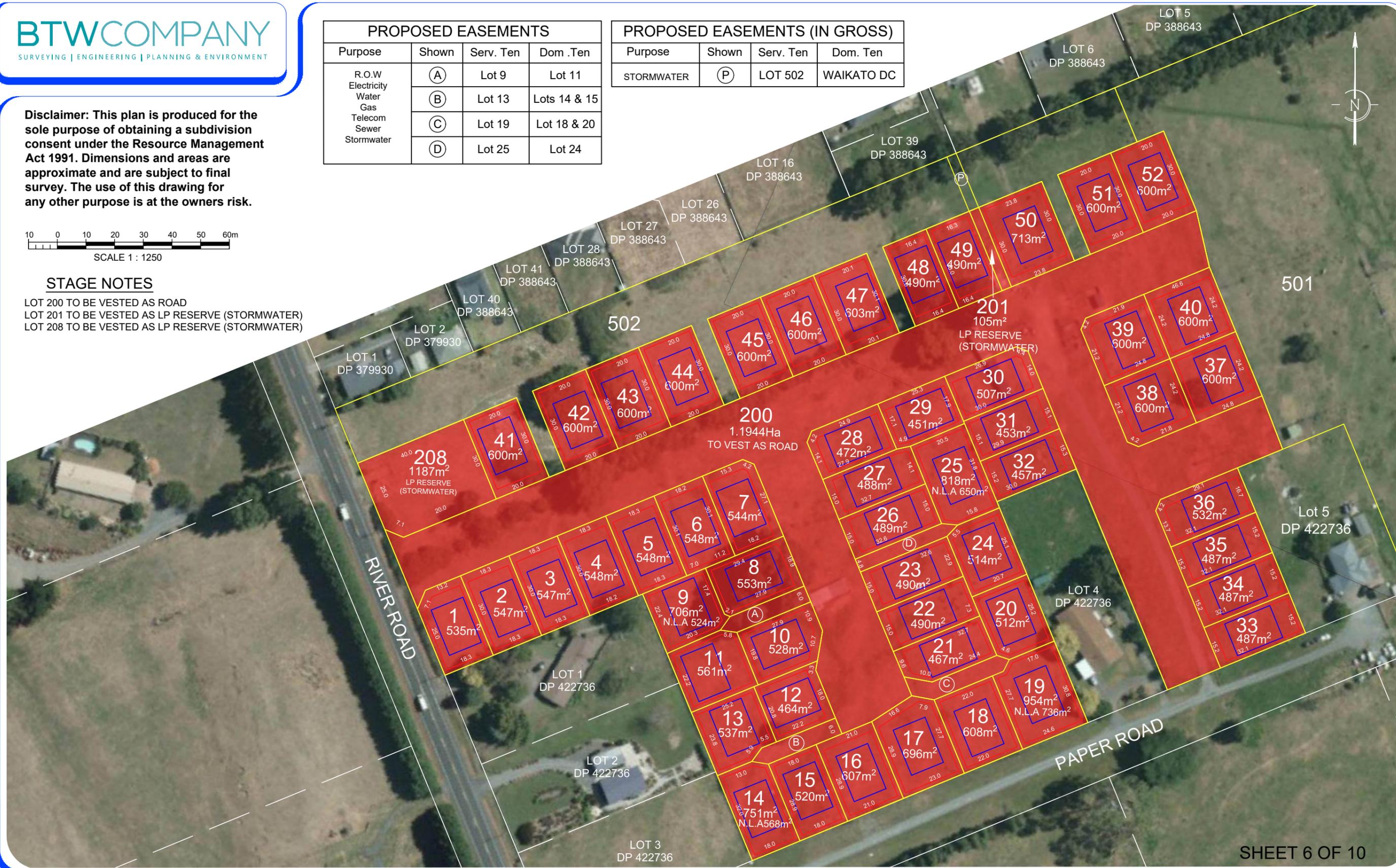
PROPOSED EASEMENTS (IN GROSS)			
Purpose	Shown	Serv. Ten	Dom. Ten
STORMWATER	(P)	LOT 502	WAIKATO DC

Disclaimer: This plan is produced for the sole purpose of obtaining a subdivision consent under the Resource Management Act 1991. Dimensions and areas are approximate and are subject to final survey. The use of this drawing for any other purpose is at the owners risk.



STAGE NOTES

LOT 200 TO BE VESTED AS ROAD
LOT 201 TO BE VESTED AS LP RESERVE (STORMWATER)
LOT 208 TO BE VESTED AS LP RESERVE (STORMWATER)



SHEET 6 OF 10

File Name: J:\17840\Drawings\17004.02-01 Rev 5 Scheme Plan Set.dwg Plot Date: 22/01/2019 Plot Time: 10:52

LOCAL BODY: Waikato District Council
 APPLICANT: Ultimate Holdings Limited
 COMPRISED IN: SA450/25, 488821, 488822, 488823, 755736
 SCALE: 1:1250

STAGE 1
 Lots 1-52, 200, 201 & 208 being a Proposed Subdivision of
 Lot 500 (Super Stage 1) & Easements over Lot 502

Prepared by: T. MARTIN
 Checked by: KP
 Licensed Cadastral Surveyor
 Date: Jan 2019 Job No.17840 Drawing No. 17004.02-01 Rev 5

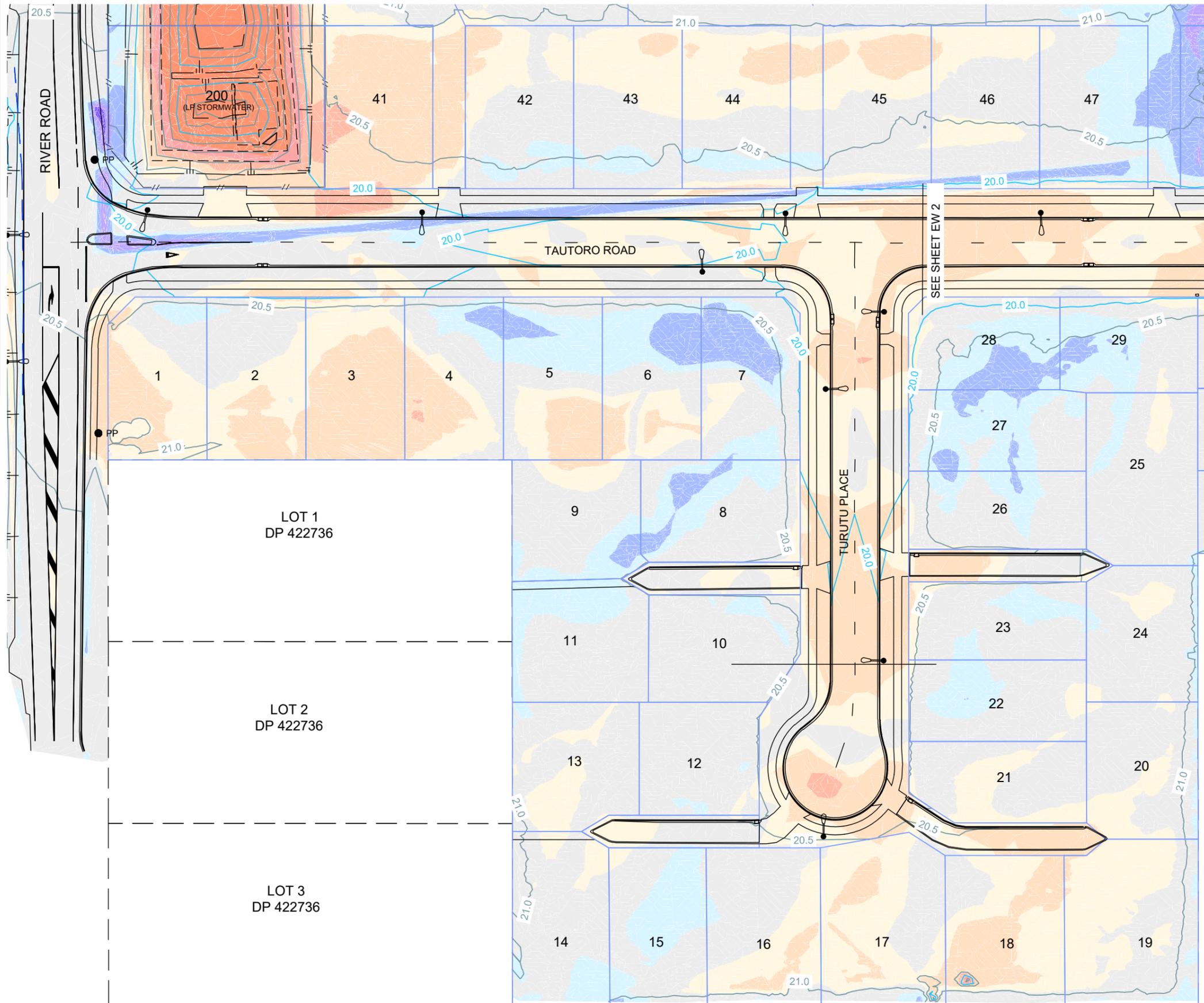
A.2 17840-05, Rev 7, Sheet 37, Earthworks Plan – Earthworks Cut/fill

FINAL ASBUILT CUT/FILL AREAS

Number	Color	Minimum Elevation (m)	Maximum Elevation (m)
1	Red	-4.788	-3.000
2	Orange	-3.000	-2.500
3	Light Orange	-2.500	-2.000
4	Yellow	-2.000	-1.500
5	Light Yellow	-1.500	-1.000
6	Light Green	-1.000	-0.500
7	Light Blue	-0.500	-0.250
8	Light Cyan	-0.250	0.000
9	Light Blue	0.000	0.250
10	Light Blue	0.250	0.500
11	Blue	0.500	1.000
12	Dark Blue	1.000	1.500
13	Very Dark Blue	1.500	1.900

NOTES

DISPLAYED CONTOURS ARE FINISHED LEVELS
SEE TABLE ABOVE FOR AREAS OF CUT AND FILL



AS BUILT

Disclaimer:
Areas and dimensions may be subject to scale error.
Scaling from this drawing is at the users risk.



COORDINATE AND LEVEL DATUM
COORDINATES: New Zealand Transverse Mercator Projection
REDUCED LEVELS: Mean Sea Level (Moturiki Datum 1953)
ORIGIN OF COORDINATES AND LEVELS:
IT II DPS 13606: 712757.621mN, 434669.131mE, RL 20.636m

File Name: J:\17840\Drawings\17840-20 STG 1 ASBUILT.dwg - EW 1 Plot Date: 06/09/2019 Plot Time: 08:05



NO	DATE	BY	CHKD	APPR	OPER	REVISIONS	DESCRIPTION	NUMBER	TITLE

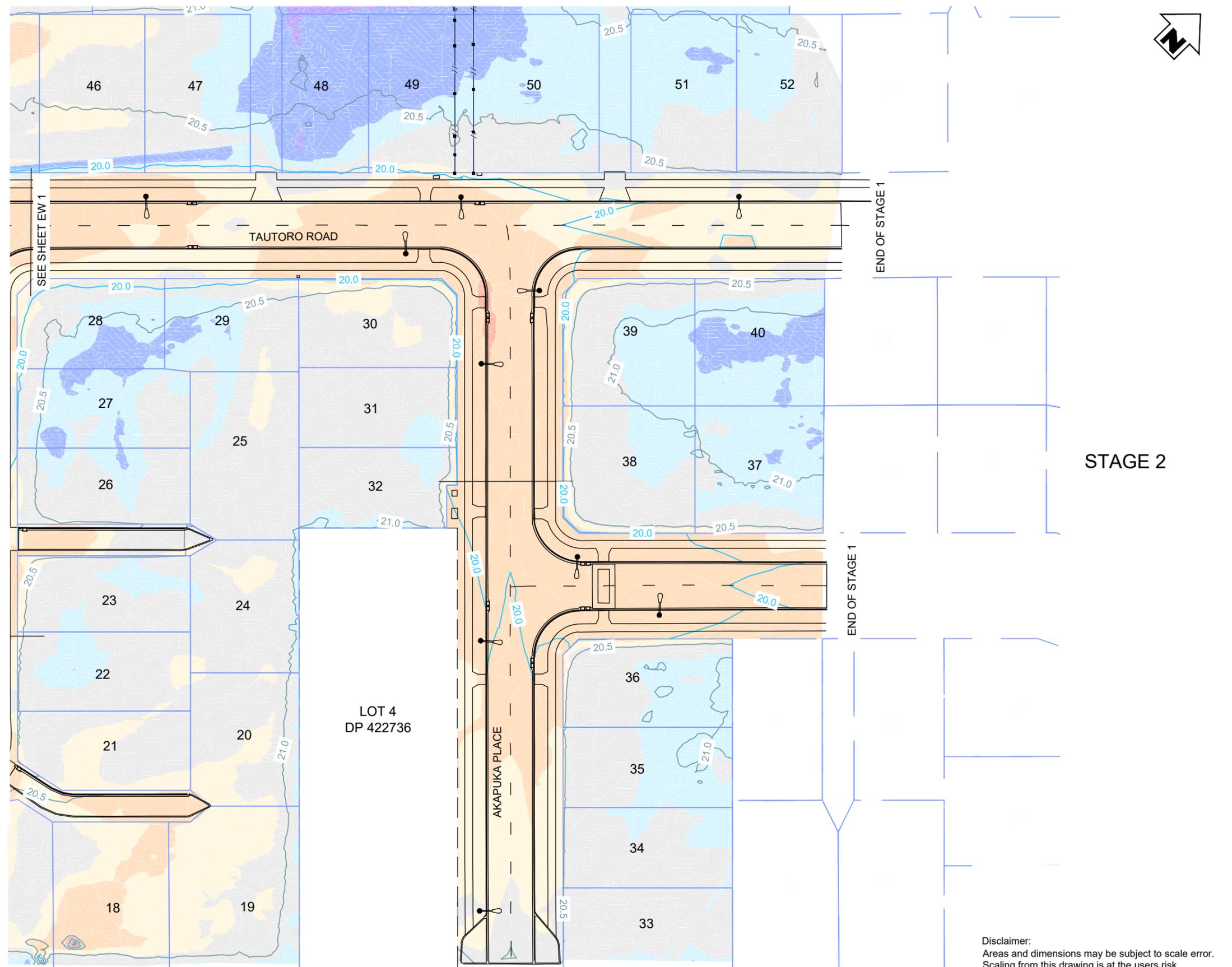
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1. Coordinates in terms of : New Zealand Transverse Mercator Projection
2. Elevations in terms of : Mean Sea Level (Moturiki Datum 1953)
3. Contour interval is : 0.5m

LOCATION		NGARUAWAHIA	
PROJECT No.		17840	
A3 SCALE	AS SHOWN		
SURVEYED	NRC	JULY 19	
DRAWN	TM	AUGUST 19	
CHECKED	TM	SEPT 19	

TITLE		ULTIMATE HOLDINGS LIMITED	
75 RIVER ROAD SUBDIVISION		STAGE 1 ASBUILT - EARTHWORKS	
ORIGINAL SIZE	A3	DRAWING No.	17840-20
SHEET	EW 1	REVISION	0

FINAL ASBUILT CUT/FILL AREAS			
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2	Red	-3.000	-2.500
3	Red	-2.500	-2.000
4	Red	-2.000	-1.500
5	Red	-1.500	-1.000
6	Orange	-1.000	-0.500
7	Yellow	-0.500	-0.250
8	Light Grey	-0.250	0.000
9	Light Grey	0.000	0.250
10	Light Blue	0.250	0.500
11	Blue	0.500	1.000
12	Dark Blue	1.000	1.500
13	Dark Blue	1.500	1.900

NOTES
 DISPLAYED CONTOURS ARE FINISHED LEVELS
 SEE TABLE ABOVE FOR AREAS OF CUT AND FILL



AS BUILT

Disclaimer:
 Areas and dimensions may be subject to scale error.
 Scaling from this drawing is at the users risk.



COORDINATE AND LEVEL DATUM
 COORDINATES: New Zealand Transverse Mercator Projection
 REDUCED LEVELS: Mean Sea Level (Moturiki Datum 1953)
 ORIGIN OF COORDINATES AND LEVELS:
 IT II DPS 13606: 712757.621mN, 434669.131mE, RL 20.636m

Disclaimer:
 Areas and dimensions may be subject to scale error.
 Scaling from this drawing is at the users risk.

NO	DATE	BY	CHKD	APPR	OPER	DESCRIPTION	NUMBER	TITLE
REVISIONS								
REFERENCE DRAWINGS								

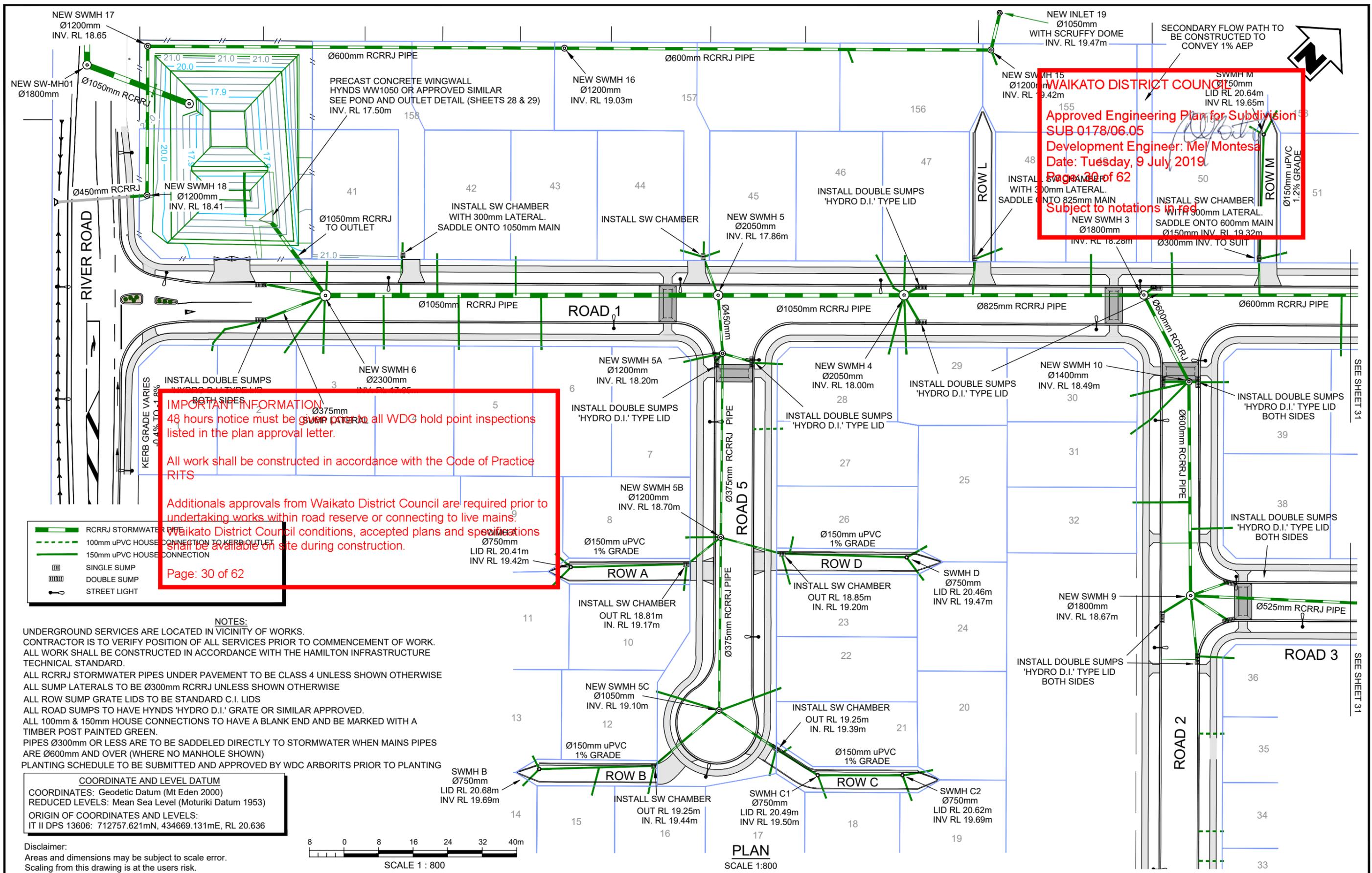
GENERAL NOTES
 1. Coordinates in terms of : New Zealand Transverse Mercator Projection
 2. Elevations in terms of : Mean Sea Level (Moturiki Datum 1953)
 3. Contour interval is : 0.5m

LOCATION		NGARUAWAHIA	
PROJECT No.		17840	
A3 SCALE	AS SHOWN		
SURVEYED	NRC	JULY 19	
DRAWN	TM	AUGUST 19	
CHECKED	TM	SEPT 19	

TITLE		ULTIMATE HOLDINGS LIMITED	
		75 RIVER ROAD SUBDIVISION	
		STAGE 1 ASBUILT - EARTHWORKS	
ORIGINAL SIZE	DRAWING No.	SHEET	REVISION
A3	17840-20	EW 2	0

File Name: J:\17840\Drawings\17840-20 STG 1 ASBUILT.dwg - EW 2 Plot Date: 06/09/2019 Plot Time: 08:05

A.3 17840-05, Rev 7, Sheet 30, Stormwater Layout –Stormwater Connections



WAIKATO DISTRICT COUNCIL
 Approved Engineering Plan for Subdivision
 SUB 0178/06.05
 Development Engineer: Mel Montesa
 Date: Tuesday, 9 July 2019
 Page 30 of 62
 Subject to notations in red

IMPORTANT INFORMATION:
 48 hours notice must be given prior to all WDC hold point inspections listed in the plan approval letter.
 All work shall be constructed in accordance with the Code of Practice RITS
 Additional approvals from Waikato District Council are required prior to undertaking works within road reserve or connecting to live mains.
 Waikato District Council conditions, accepted plans and specifications shall be available on site during construction.
 Page: 30 of 62

- RCRRJ STORMWATER PIPE
- 100mm uPVC HOUSE CONNECTION TO KERB OUTLET
- 150mm uPVC HOUSE CONNECTION
- SINGLE SUMP
- DOUBLE SUMP
- STREET LIGHT

NOTES:
 UNDERGROUND SERVICES ARE LOCATED IN VICINITY OF WORKS. CONTRACTOR IS TO VERIFY POSITION OF ALL SERVICES PRIOR TO COMMENCEMENT OF WORK. ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE HAMILTON INFRASTRUCTURE TECHNICAL STANDARD.
 ALL RCRRJ STORMWATER PIPES UNDER PAVEMENT TO BE CLASS 4 UNLESS SHOWN OTHERWISE
 ALL SUMP LATERALS TO BE Ø300mm RCRRJ UNLESS SHOWN OTHERWISE
 ALL ROW SUMP GRATE LIDS TO BE STANDARD C.I. LIDS
 ALL ROAD SUMPS TO HAVE HYNDS 'HYDRO D.I.' GRATE OR SIMILAR APPROVED.
 ALL 100mm & 150mm HOUSE CONNECTIONS TO HAVE A BLANK END AND BE MARKED WITH A TIMBER POST PAINTED GREEN.
 PIPES Ø300mm OR LESS ARE TO BE SADDLED DIRECTLY TO STORMWATER WHEN MAINS PIPES ARE Ø600mm AND OVER (WHERE NO MANHOLE SHOWN)
 PLANTING SCHEDULE TO BE SUBMITTED AND APPROVED BY WDC ARBORITS PRIOR TO PLANTING

COORDINATE AND LEVEL DATUM
 COORDINATES: Geodetic Datum (Mt Eden 2000)
 REDUCED LEVELS: Mean Sea Level (Moturiki Datum 1953)
 ORIGIN OF COORDINATES AND LEVELS:
 IT II DPS 13606: 712757.621mN, 434669.131mE, RL 20.636

Disclaimer:
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 Scaling from this drawing is at the users risk.



PLAN
 SCALE 1:800

GENERAL NOTES
 1. Coordinates in terms of : Geodetic Datum (Mt Eden 2000)
 2. Elevations in terms of : Mean Sea Level (Moturiki Datum 1953)
 3. Contour interval is : -

LOCATION		NGARUAWAHIA
PROJECT No.		17840
A3 SCALE	1:800	
SURVEYED	CS	Nov 17
DRAWN	TM / RG	Feb 18
CHECKED	GJ	Mar 18

TITLE		ULTIMATE HOLDINGS LIMITED	
		75 RIVER ROAD SUBDIVISION	
		STORMWATER LAYOUT 1	
ORIGINAL SIZE	DRAWING No.	SHEET	REVISION
A3	17840-05	30 of 62	7

NO	DATE	BY	CHKD	APPR	OPER	DESCRIPTION	NUMBER	TITLE
7	02/19	RG	TM			ISSUE FOR CONSTRUCTION		
6	11/12	RG	TM					
1	5/18	RG	KP			FOREBAY BASE AND BUND CREST LEVEL, POND LEVEL RLs & 2:1 BATTER		
0	4/18	RG	GJ	IS		ISSUE FOR WDC APPROVAL		
A	3/18	RG	GJ	IS		ISSUED FOR REVIEW		

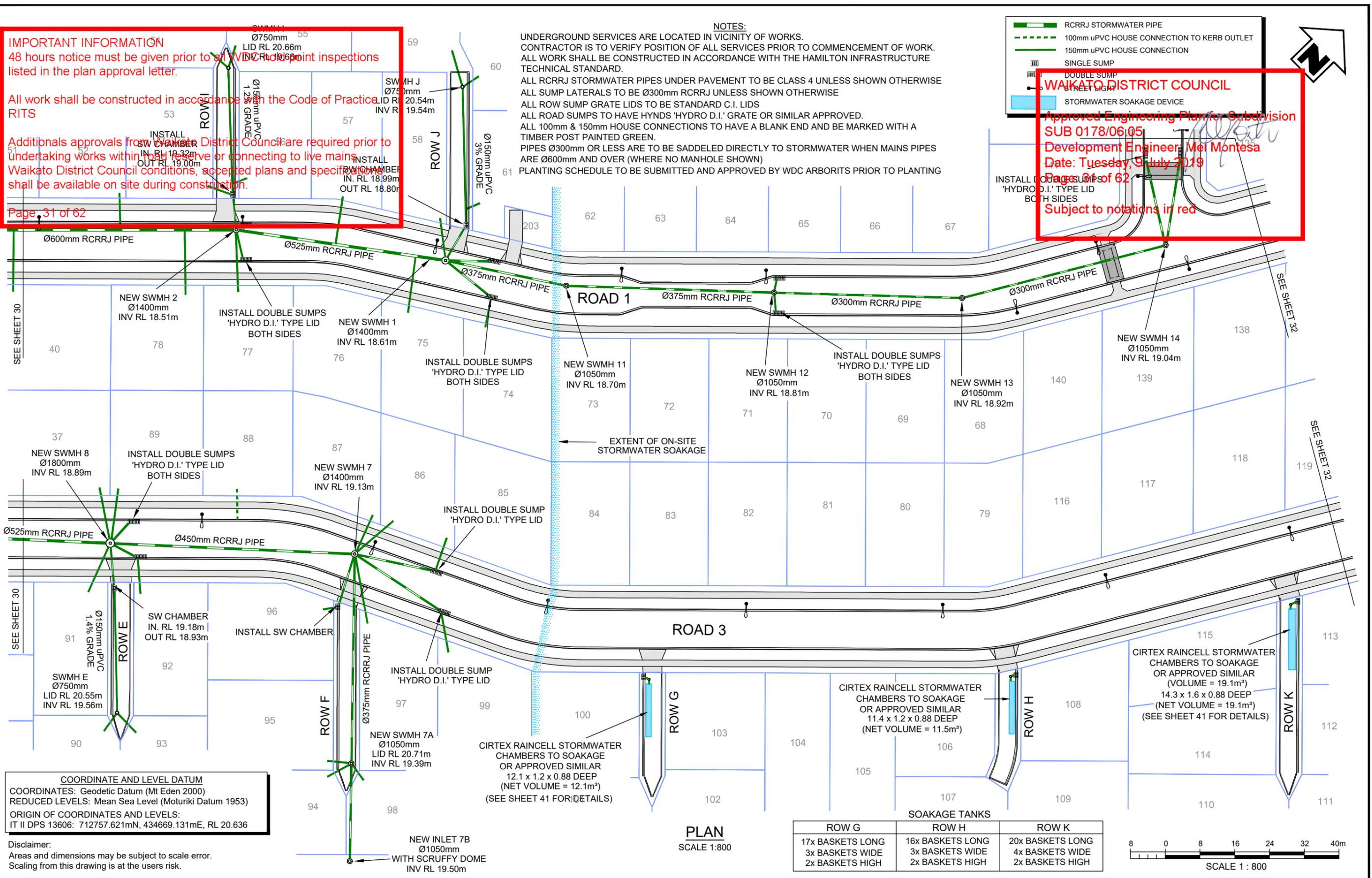


IMPORTANT INFORMATION
 48 hours notice must be given prior to all WDC site inspections listed in the plan approval letter.
 All work shall be constructed in accordance with the Code of Practice RITS
 Additional approvals from Waikato District Council are required prior to undertaking works within a public reserve or connecting to live mains. Waikato District Council conditions, accepted plans and specifications shall be available on site during construction.

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NOTES:
 UNDERGROUND SERVICES ARE LOCATED IN VICINITY OF WORKS. CONTRACTOR IS TO VERIFY POSITION OF ALL SERVICES PRIOR TO COMMENCEMENT OF WORK. ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE HAMILTON INFRASTRUCTURE TECHNICAL STANDARD.
 ALL RCRRJ STORMWATER PIPES UNDER PAVEMENT TO BE CLASS 4 UNLESS SHOWN OTHERWISE
 ALL SUMP LATERALS TO BE Ø300mm RCRRJ UNLESS SHOWN OTHERWISE
 ALL ROW SUMP GRATE LIDS TO BE STANDARD C.I. LIDS
 ALL ROAD SUMPS TO HAVE HYNDS 'HYDRO D.I.' GRATE OR SIMILAR APPROVED.
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 PIPES Ø300mm OR LESS ARE TO BE SADDLED DIRECTLY TO STORMWATER WHEN MAINS PIPES ARE Ø600mm AND OVER (WHERE NO MANHOLE SHOWN)
 PLANTING SCHEDULE TO BE SUBMITTED AND APPROVED BY WDC ARBORITS PRIOR TO PLANTING

WAIKATO DISTRICT COUNCIL
 Approved Engineering Plan for Subdivision SUB 0178/06/05
 Development Engineer, Mel Montesa
 Date: Tuesday, 9 July 2019
 Page 31 of 62
 Subject to notations in red



COORDINATE AND LEVEL DATUM
 COORDINATES: Geodetic Datum (Mt Eden 2000)
 REDUCED LEVELS: Mean Sea Level (Moturiki Datum 1953)
 ORIGIN OF COORDINATES AND LEVELS:
 IT II DPS 13606: 712757.621mN, 434669.131mE, RL 20.636

Disclaimer:
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 Scaling from this drawing is at the users risk.

SOAKAGE TANKS		
ROW G	ROW H	ROW K
17x BASKETS LONG	16x BASKETS LONG	20x BASKETS LONG
3x BASKETS WIDE	3x BASKETS WIDE	4x BASKETS WIDE
2x BASKETS HIGH	2x BASKETS HIGH	2x BASKETS HIGH

NO	DATE	BY	CHKD	APPR	OPER	DESCRIPTION
7	02/19	RG	TM			ISSUE FOR CONSTRUCTION
6	11/12	RG	TM			
1	9/18	RG	TM			FOREBAY BASE AND BUND CREST LEVEL, POND LEVEL RLs & 2:1 BATTER
0	4/18	RG	GJ	IS		ISSUE FOR WDC APPROVAL
A	3/18	RG	GJ	IS		ISSUED FOR REVIEW

GENERAL NOTES
 1. Coordinates in terms of : Geodetic Datum (Mt Eden 2000)
 2. Elevations in terms of : Mean Sea Level (Moturiki Datum 1953)
 3. Contour interval is : -

LOCATION		NGARUAWAHIA
PROJECT No.		17840
A3 SCALE	1:800	
SURVEYED	CS	Nov 17
DRAWN	TM / RG	Feb 18
CHECKED	GJ	Mar 18

TITLE		ULTIMATE HOLDINGS LIMITED	
		75 RIVER ROAD SUBDIVISION	
		STORMWATER LAYOUT 2	
ORIGINAL SIZE	DRAWING No.	SHEET	REVISION
A3	17840-05	31 of 62	7

File Name: J:\17840\Drawings\17840-05 REV 7 Engineering plans.dwg - SHT 31 SW 4- SW LAYOUT 2 Plot Date: 07/03/2019 Plot Time: 16:31

IMPORTANT INFORMATION
 48 hours notice must be given prior to all WDC hold point inspections listed in the plan approval letter.
 All work shall be constructed in accordance with the Code of Practice RITS
 Additional approvals from Waikato District Council are required prior to undertaking works within road reserve or connecting to live mains.
 Waikato District Council conditions, accepted plans and specifications shall be available on site during construction.
 Page: 28 of 62

WAIKATO DISTRICT COUNCIL
 Approved Engineering Plan for Subdivision
 SUB 0178/06.05
 Development Engineer: Mer Montesa
 Date: Tuesday, 9 July 2019
 Page: 28 of 62

TYPICAL PROFILE
 Subject to notations in red
 RETAINING WALL & FENCE VIEWED FROM POND
 (SEE DETAILS SHEET 57)
 SCALE 1:75

TYPICAL SECTION
 RETAINING WALL & FENCE
 (SEE DETAILS SHEET 57)
 SCALE 1:75

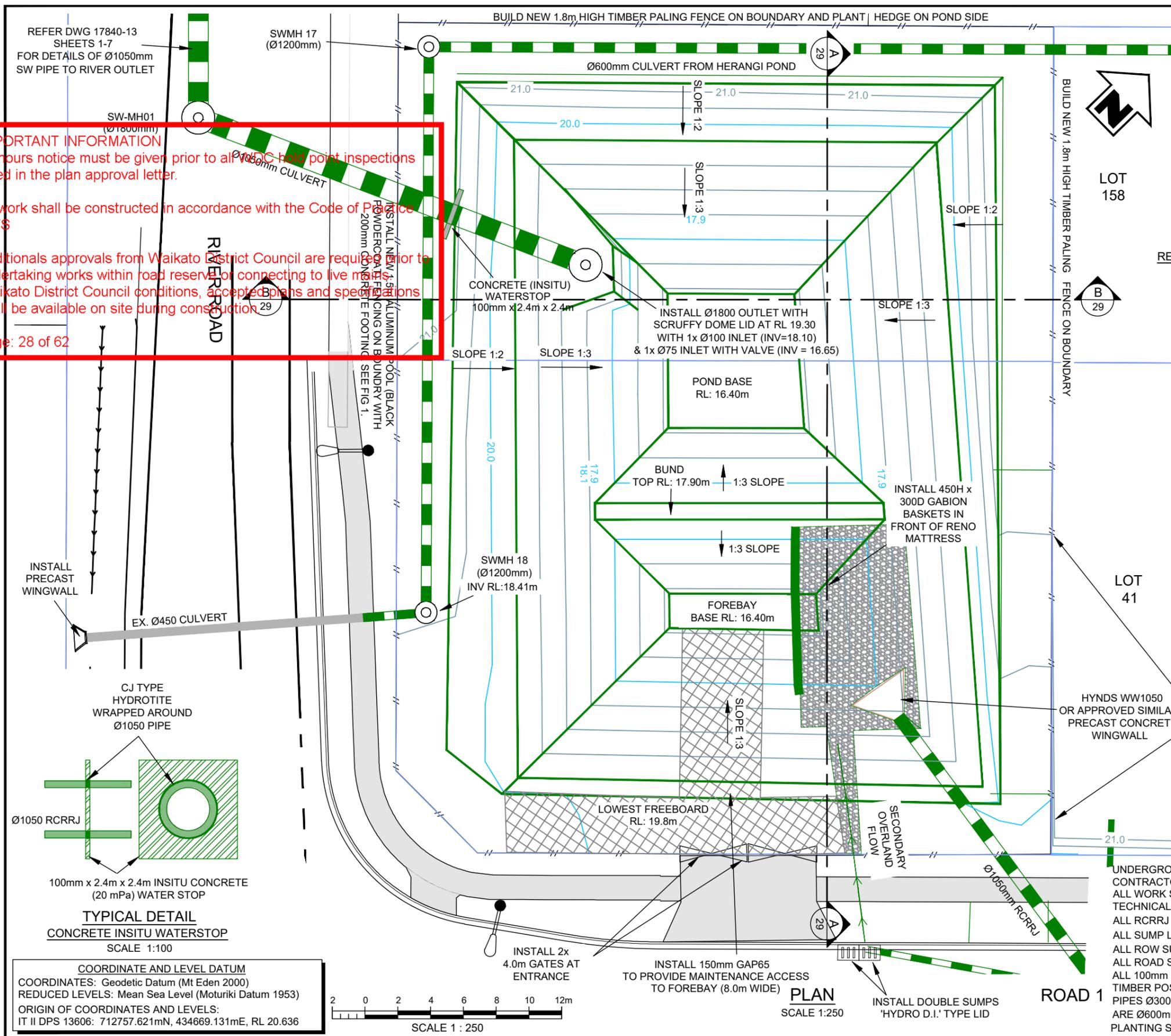


FIGURE 1

CONSTRUCT 20m LONG TAPERED RETAINING WALL INSIDE LOT 41 HEIGHT AT ROAD 1 IS 1.2m FENCE TO FOLLOW TOP OF RETAINING WALL (SEE DETAILS SHEET 57)

- RCRRJ STORMWATER PIPE
- HOUSE CONNECTION TO KERB OUTLET
- SECONDARY OVERLAND FLOW
- SINGLE SUMP
- DOUBLE SUMP
- STREET LIGHT

NOTES:
 UNDERGROUND SERVICES ARE LOCATED IN VICINITY OF WORKS. CONTRACTOR IS TO VERIFY POSITION OF ALL SERVICES PRIOR TO COMMENCEMENT OF WORK. ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE HAMILTON INFRASTRUCTURE TECHNICAL STANDARD.
 ALL RCRRJ STORMWATER PIPES UNDER PAVEMENT TO BE CLASS 4 UNLESS SHOWN OTHERWISE
 ALL SUMP LATERALS TO BE Ø300mm RCRRJ UNLESS SHOWN OTHERWISE
 ALL ROW SUMP GRATE LIDS TO BE STANDARD C.I. LIDS
 ALL ROAD SUMPS TO HAVE HYNDS 'HYDRO D.I.' GRATE OR SIMILAR APPROVED.
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 PLANTING SCHEDULE TO BE SUBMITTED AND APPROVED BY WDC ARBORITS PRIOR TO PLANTING



File Name: J:\17840\Drawings\17840-05 REV 7 Engineering plans.dwg - SHT 28 SW1 - STORMWATER POND Plot Date: 07/03/2019 Plot Time: 16:30

COORDINATE AND LEVEL DATUM
 COORDINATES: Geodetic Datum (Mt Eden 2000)
 REDUCED LEVELS: Mean Sea Level (Moturiki Datum 1953)
 ORIGIN OF COORDINATES AND LEVELS:
 IT II DPS 13606: 712757.621mN, 434669.131mE, RL 20.636



BTWCOMPANY
 SURVEYING | ENGINEERING | PLANNING & ENVIRONMENT

NO	DATE	BY	CHKD	APPR	OPER	DESCRIPTION	NUMBER	TITLE
7	02/19	RG	TM			ISSUE FOR CONSTRUCTION		
6	11/12	RG	TM					
1	5/18	RG				FOREBAY BASE AND BUND CREST LEVEL, POND LEVEL RLs & 2:1 BATTER		
0	4/18	RG	GJ	IS		ISSUE FOR WDC APPROVAL		
A	3/18	RG	GJ	IS		ISSUED FOR REVIEW		

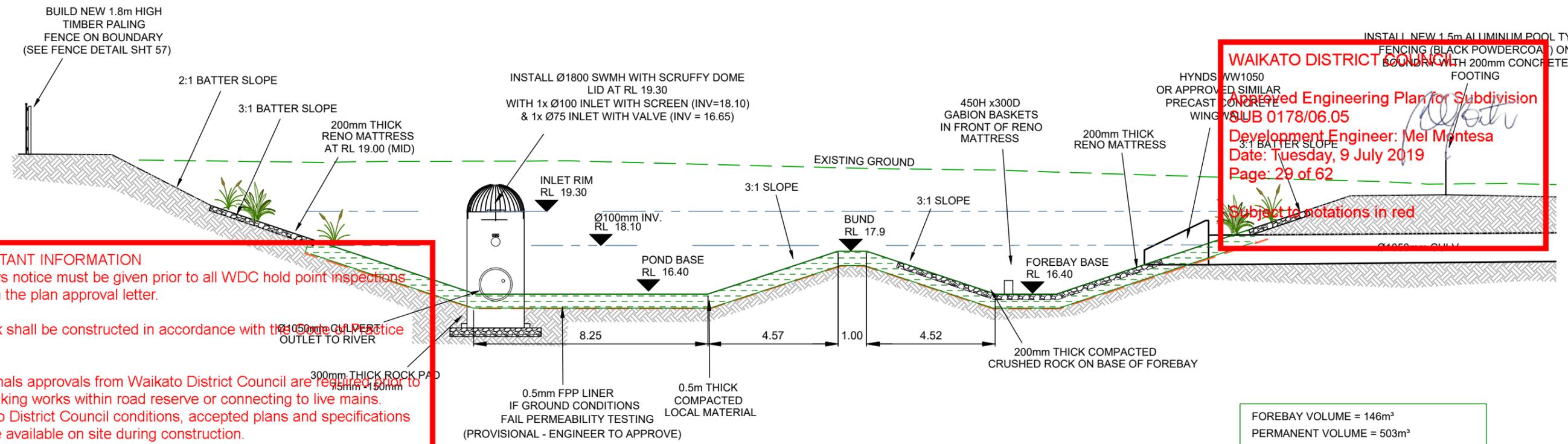
GENERAL NOTES
 1. Coordinates in terms of: Geodetic Datum (Mt Eden 2000)
 2. Elevations in terms of: Mean Sea Level (Moturiki Datum 1953)
 3. Contour interval is: 0.2m

LOCATION	NGARUAWAHIA
PROJECT No.	17840
A3 SCALE	1:800
SURVEYED	CS Nov 17
DRAWN	TM / RG Feb 18
CHECKED	GJ Mar 18

TITLE		ULTIMATE HOLDINGS LIMITED	
		75 RIVER ROAD SUBDIVISION	
		STORMWATER LAYOUT - POND	
ORIGINAL SIZE	DRAWING No.	SHEET	REVISION
A3	17840-05	28 of 62	7

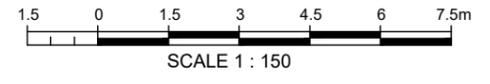
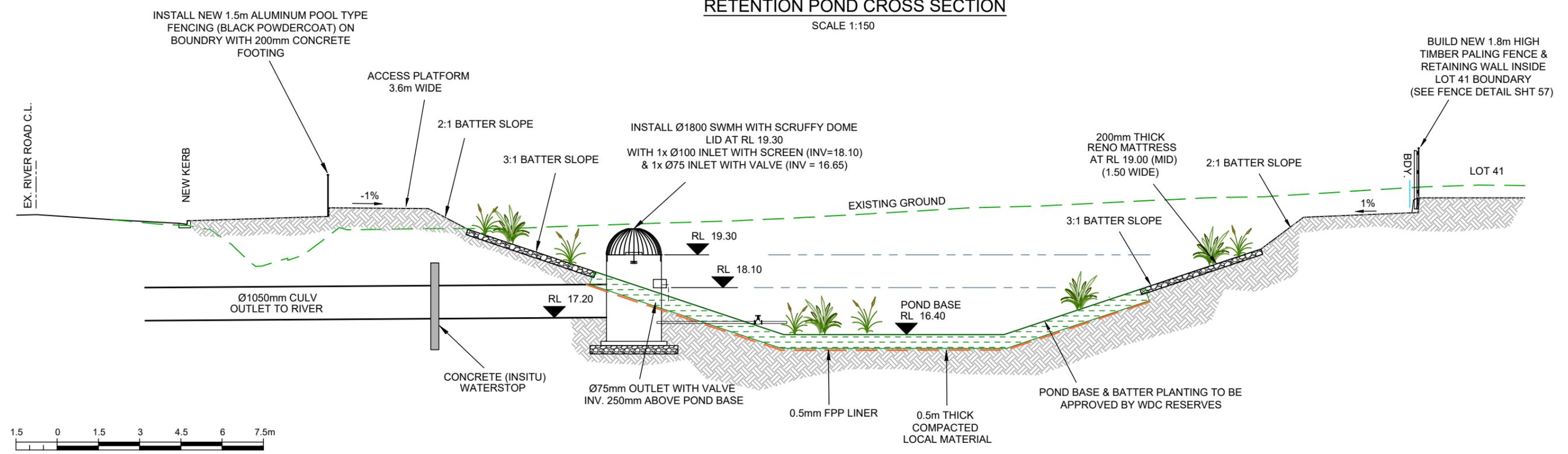
WAIKATO DISTRICT COUNCIL
 Approved Engineering Plan for Subdivision
 SUB 0178/06.05
 Development Engineer: Mel Montesa
 Date: Tuesday, 9 July 2019
 Page: 29 of 62
 Subject to notations in red

IMPORTANT INFORMATION
 48 hours notice must be given prior to all WDC hold point inspections listed in the plan approval letter.
 All work shall be constructed in accordance with the 50m Culvert Practice RITS
 Additional approvals from Waikato District Council are required prior to undertaking works within road reserve or connecting to live mains.
 Waikato District Council conditions, accepted plans and specifications shall be available on site during construction.
 Page: 29 of 62



FOREBAY VOLUME = 146m³
 PERMANENT VOLUME = 503m³
 LIVE (EDV) VOLUME (TO RL 19.30m) = 1422m³

SECTION A-A
RETENTION POND CROSS SECTION
 SCALE 1:150



SECTION B-B
RETENTION POND CROSS SECTION
 SCALE 1:150

Disclaimer:
 Areas and dimensions may be subject to scale error.
 Scaling from this drawing is at the users risk.

File Name: J:\17840\Drawings\17840-05 REV 7 Engineering plans.dwg - SHT 29 SW 2 - SW POND XSEC Plot Date: 07/09/2019 Plot Time: 16:31



NO	DATE	BY	CHKD	APPR	OPER	DESCRIPTION	NUMBER	TITLE
7	02/19	RG	TM			ISSUE FOR CONSTRUCTION		
6	11/12	RG	TM					
5	11/18	RG	TM	IS		FOREBAY BASE AND BUND CREST LEVEL, POND LEVEL RLs & 2:1 BATTER		
0	4/18	RG	GJ	IS		ISSUE FOR WDC APPROVAL		
A	3/18	RG	GJ	IS		ISSUED FOR REVIEW		

GENERAL NOTES
 1. Coordinates in terms of: Geodetic Datum (Mt Eden 2000)
 2. Elevations in terms of: Mean Sea Level (Moturiki Datum 1953)
 3. Contour interval is: 0.2m

LOCATION		NGARUAWAHIA
PROJECT No.		17840
A3 SCALE	1:800	
SURVEYED	CS	Nov 17
DRAWN	TM / RG	Feb 18
CHECKED	GJ	

TITLE		ULTIMATE HOLDINGS LIMITED	
		75 RIVER ROAD SUBDIVISION	
		STORMWATER POND CROSS SECTIONS	
ORIGINAL SIZE	DRAWING No.	SHEET	REVISION
A3	17840-05	29 of 62	7

APPENDIX B RITS APPENDIX 2A

APPENDIX 2A: SCHEDULE 2A (NZS 4404:2010) STATEMENT OF PROFESSIONAL OPINION ON SUITABILITY OF LAND FOR BUILDING CONSENT

Development: River Road Stage One

Developer: River Road North 1 Ltd

Location: 75 River Road, Ngarauawahia

I, Steve Tooley

(Full name)

of BTW Company Ltd

517 Anglesea Street, Hamilton

(Name and address of firm)

Hereby confirm that:

1. I am a geo-professional as defined in **Clause 1.3.3 of Section 1 (General Information) of the Regional Infrastructure Technical Specification (RITS)** and was retained by the developer as the geo-professional on the above development.
2. The extent of my preliminary investigations are described in my Report(s):
Geotechnical Report, Geotechnical and Stormwater Site Assessment for Proposed Residential Subdivision', job number: 17840, dated: 22 November 2017

and the conclusions and recommendations of that/those document(s) have been re-evaluated in the preparation of this report.
3. The extent of my inspections during construction, and the results of all tests and/or re-evaluations carried out are as described in my geotechnical completion report:
Geotechnical (Post Earthworks) Report, River Road, Stage 1 Completion Report', job number: 17840, dated: 17 September 2019, Revision B
4. In my professional opinion, not to be construed as a guarantee, I consider that (delete as appropriate):
 - (a) ~~The earth fills shown on the attached Plan No _____ have been placed in compliance with the requirements of the _____ Council and my specification.~~
 - (b) The completed works take into account land slope and foundation stability considerations, subject to the appended foundation recommendations and earthworks restrictions (which should be read in conjunction with the appended

final site contour plan).

~~(c) Subject to 3(a) and 3(b) of this Schedule, the filled ground is suitable for the erection of buildings designed according to NZS 3604 provided that:~~

- ~~i. _____~~
- ~~ii. _____~~

~~(d) Subject to 3(a) and 3(b) of this Schedule, the filled ground is suitable for the erection of buildings designed according to NZS 3604 provided that:~~

- ~~i. _____~~
- ~~ii. _____~~

~~(e) The original ground not affected by filling and the filled ground are not subject to erosion, subsidence, or slippage in accordance with the provisions of section 106 of the Resource Management Act 1991 provided that:~~

- ~~i. _____~~
- ~~ii. _____~~

NOTE – These subclauses may be deleted or added to as appropriate, to include such considerations as expansive soils where excluded by NZS 3604, and site seismic characteristics as covered in clause 3.1.3 of NZS 1170.5.

(f) This professional opinion is furnished to the TA and the developer for their purposes alone on the express condition that it will not be relied upon by any other person and does not remove the necessity for the normal inspection of foundation conditions at the time of erection of any building.

(g) This certificate shall be read in conjunction with my geotechnical report referred to in clause 2 above and shall not be copied or reproduced except in conjunction with the full geotechnical completion report.

Signed:


Steve Tooley

Date:

18/09/2019

Full name:

Title:

Principal Civil Engineer

Professional qualification:

BE (1st Class Hons) CPEng, CMENZ, IntPE(NZ)

Copyright waived¹

¹ Note : The above schedule is a copy of that included in NZS 4404:2010. The form is identical to Schedule 2A except in Clause 1 where the definition of a 'geo-professional' is referred to the definitions included in Section 1 of this RITS instead of the definitions included in NZS4404:2010.

APPENDIX C SUMMARY OF GEOTECHNICAL DATA AND RECOMMENDATIONS

Lot #	Approx. Area (m ²)	Subsurface data				Natural topography earthworked in cut		Foundations		Building line restriction? (BLR) These can be removed with suitable specific design	Recommendations / restrictions
		Subdivision filling (Ex BTW Earthworks Plan 17840-20, EW 1; Rev 0)		Natural topography unworked	Natural topography earthworked in cut	Conventional shallow foundations to NZS3604:2011	Specific design				
		Y/N	Depth (m)					Y/N	Depth (m)		
1	535	Y	0 to 0.25	N	Y	0.25 to 1.0	N	Y	N/A	Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E); Majority of lot is in cut;	
2	547	Y	0 to 0.25-	N	Y	0.25 to 1.0	N	Y	N/A	Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E); Majority of lot is in cut	
3	547	N	-	N	Y	0.25 to 1.0	N	Y	N/A	Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E); Majority of lot is in fill	
4	548	Y	0.25 to 1.5	N	Y	0.25 to 1.0	N	Y	N/A	Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E); Majority of lot is in cut	
5	548	Y	0.25 to 1.0	N	Y	0.25 to 1.0	N	Y	N/A	Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E); Balanced cut and fill	
6	548	Y	0.25 to 1.0	N	Y	0.25 to 1.0	N	Y	N/A	Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E); Balanced cut and fill	
7	544	Y	0.25 to 1.0	N	Y	0.25 to 0.5	N	Y	N/A	Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E); Majority of lot is in fill	
8	553	Y	0.25 to 1.0	N	N	-	N	Y	N/A	Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E)	

River Road Stage One Completion Report (Lots 1 to 52)

9	706	Y	0.25 to 0.5	N	Y	0.25 to 0.5	N	0.25 to 0.5	N	Y	0.25 to 0.5	N	Y	Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E); Majority of lot is in fill
10	528	Y	0.25 to 0.5	N	N	-	N	-	N	Y	N/A	N/A	Y	Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E); Balanced cut and fill
11	561	Y	0.25 to 0.5	N	N	-	N	-	N	Y	N/A	N/A	Y	Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E); Majority of lot is in fill
12	464	Y	0.25 to 0.5	N	N	-	N	-	N	Y	N/A	N/A	Y	Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E); Majority of lot is in fill
13	537	Y	0.25 to 0.5	N	Y	0.25 to 0.5	N	0.25 to 0.5	N	Y	N/A	N/A	Y	Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E); Majority of lot is in fill
14	751	Y	0 to 0.25	N	Y	0 to 0.25	N	0 to 0.25	N	Y	N/A	N/A	Y	Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E); Balanced cut and fill
15	520	Y	0.25 to 0.5	N	N	-	N	-	N	Y				Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E); Majority of lot is in fill
16	607	Y	0 to 0.25	N	Y	0 to 0.25	N	0.25 to 0.5	N	Y				Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E); Majority of lot is in fill
17	696	Y	0 to 0.25	N	Y	0 to 0.25	N	0.25 to 0.5	N	Y				Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E); Majority of lot is in cut
18	608	Y	0 to 0.25	N	Y	0 to 0.25	N	0.25 to 1.0	N	Y				Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E); Majority of lot is in cut
19	954	Y	0.25 to 0.5	Y	Y	0 to 0.25	Y	0 to 0.25	Y	Y				Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E); Majority of lot is in cut
20	512	N	-	Y	Y	-	Y	0 to 0.25	Y	Y				Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E); Majority of lot is in cut
21	467	N	-	N	Y	-	N	0 to 0.25	N	Y				Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E); Majority of lot is in cut
22	490	Y	0.25 to 0.5	N	Y	0.25 to 0.5	N	0.25 to 0.5	N	Y				Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E); Majority of lot is in cut

23	490	Y	0.25 to 0.5	N	Y	0.2 to 0.5				Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E); Majority of lot is in fill
24	514	Y	0.25 to 0.5	N	Y	0.2 to 0.5				Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E); Majority of lot is in cut
25	818	Y	0.25 to 0.5	N	Y	0.2 to 0.5				Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E); Balanced cut and fill
26	489	Y	0.25 to 1.0	N	N	-				Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E); Majority of lot is in fill
27	488	Y	0.25 to 1.0	N	N	-				Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E); Majority of lot is in fill
28	472	Y	0.25 to 1.0	N	Y	0 to 0.25				Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E); Majority of lot is in fill
29	451	N	0.25 to 1.0	N	Y	0 to 0.25				Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E); Majority of lot is in fill
30	507	N	-	N	Y	0.25 to 0.5				Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E);
31	453	Y	0.25 to 0.5	N	Y	0 to 0.25				Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E); Majority of lot is in fill
32	457	Y	0.25 to 0.5	N	-	-				Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E);
33	487	Y	0 to 0.25	N	N	-				Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E);
34	487	Y	0.25 to 0.5	N	N	-				Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E);
35	487	Y	0.25 to 0.5	N	N	-				Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E);
36	532	Y	0.2 to 0.5	N	N	-				Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E);

37	600	Y	0.25 to 0.5	N	N	-	Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E); Majority of the fill is 0.2 to 0.5 metres deep
38	600	Y	0.25 to 1.0	N	N	-	Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E);
39	600	Y	0 to 0.5	N	N	-	Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E);
40	600	Y	0.25 to 1.0	N	N	-	Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E);
41	600	N	-	N	Y	0.25 to 1.0	Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E);
42	600	Y	0.25 to 0.5	N	Y	0.25 to 1.0	Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E); Fill is at the front and middle of the section
43	600	Y	0.25 to 0.5	N	Y	0.25 to 0.5	Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E); Fill is at the rear of the front of the section
44	600	Y	0.2 to 0.5	N	Y	0.25 to 0.5	Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E); Fill is at the rear of the front of the section
45	6000	Y	0.25 to 0.5	N	Y	0.25 to 0.5	Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E); Fill is at the rear of the front of the section
46	600	Y	0.25 to 0.5	N	Y	0.25 to 0.5	Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E);
47	603	Y	0.25 to 0.5	N	Y	0.25 to 0.5	Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E); Majority of the is 0.25 to 0.5 metres deep

48	490	Y	0.25 to 1.0	N	N	-				Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E); Majority of the section is in fill
49	490	Y	0.25 to 1.0	N	N	-				Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E); Deep fill located at rear of the section
50	713	Y	0.25 to 1.0	N	N	-				Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E);
51	600	Y	0.25 to 1.0	N	N	-				Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E);
52	600	Y	0.25 to 1.0	N	N	-				Reinforced gravel raft with rib raft concrete floor (refer to indicative design in Appendix E);

APPENDIX D POST CONSTRUCTION TEST RESULTS

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

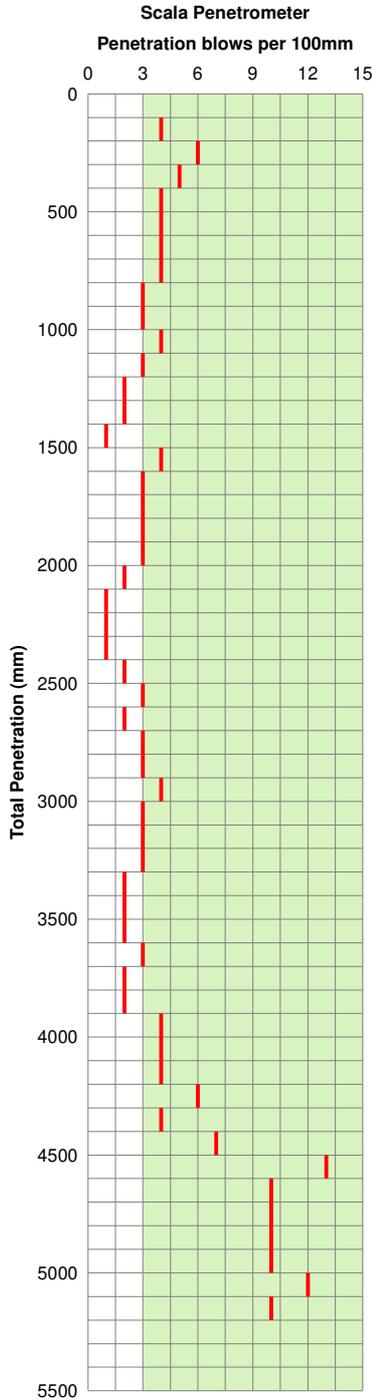
Test Location: TL-A

Test Location: TL-A

Scala: S1

Auger: A1

Desc: Stage One - Lot 1



Depth (mm)	Description	Log
0	Dry brown SILT, with some fine sand (UNCONTROLLED FILLING).	[Cross-hatch pattern]
200	Dry light yellowish brown fine silty SAND (HINUERA FORMATION).	
400	Dry light grey fine silty SAND (pumiceous).	[Dotted pattern]
800	Dry light grey fine sandy SILT (pumiceous).	
2000	Moist dark grey clayey SILT.	[Cross-hatch pattern]
2200	End of auger	

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

Test Location: TL-B

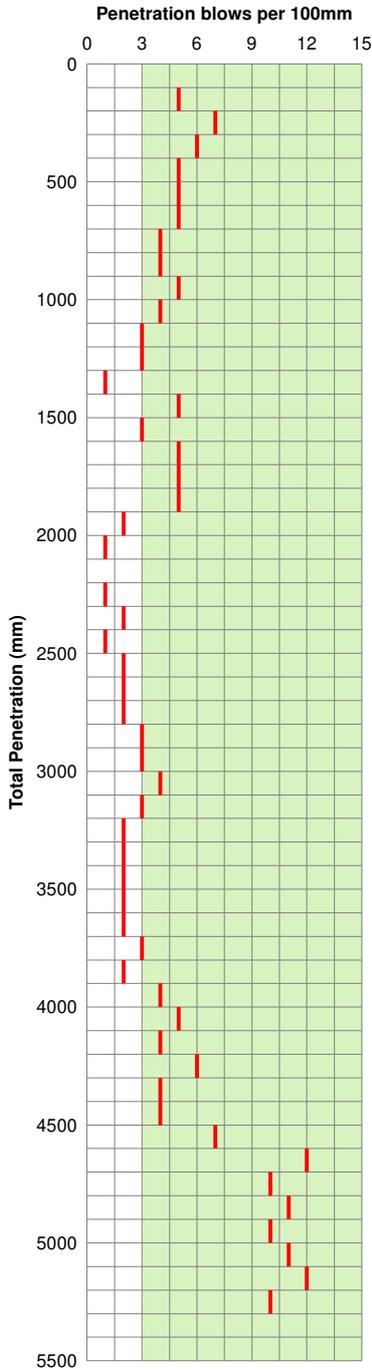
Test Location: TL-B

Scala: S2

Auger: A2

Desc: Stage One - Lot 2

Scala Penetrometer



Depth (mm)	Description	Log
0	Dry brown SILT, with some sand (UNCONTROLLED FILLING).	[X pattern]
200	Dry light greyish brown fine silty SAND (HINUERA FORMATION).	
400	Dry light grey fine sandy SILT (pumiceous).	[X pattern]
700	Dry light greyish fine sandy SILT (pumiceous).	
1400	Becoming dilatent	[X pattern]
1900	Moist dark grey clayey SILT.	
2200	End of auger	[X pattern]

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

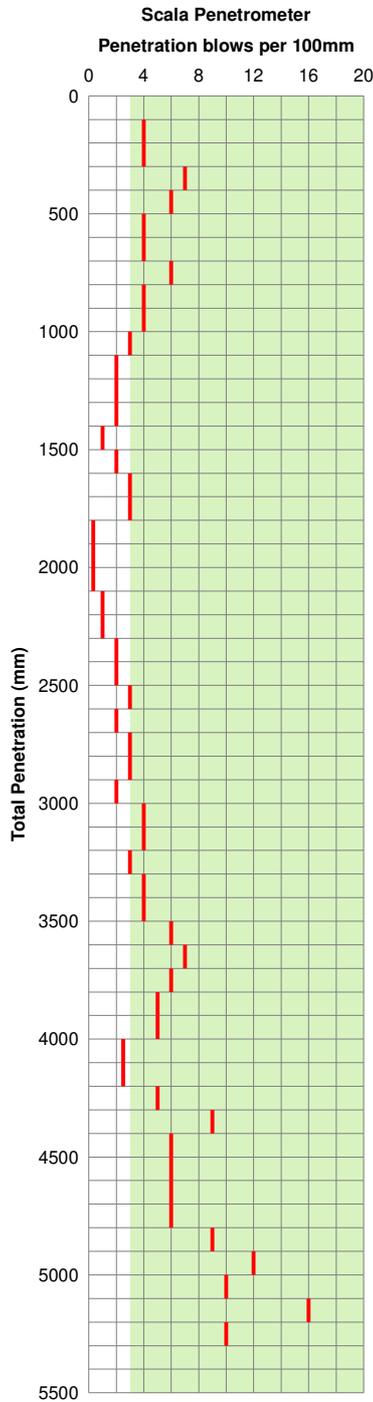
Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

Test Location: TL-C
Scala: S3
Desc: Stage One - Lot 3

Test Location: TL-C
Auger: A3



Depth (mm)	Description	Log
0	Dry brown SILT, with some fine sand (UNCONTROLLED FILLING).	[X pattern]
300	Dry grey fine silty SAND (pumiceous).	
500	Dry light grey fine sandy SILT (pumiceous).	[X pattern]
1700	Becoming dilatent	
1800	Wet dark grey clayey SILT.	
2200	End of auger	[X pattern]

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

Test Location: TL-D

Test Location: TL-D

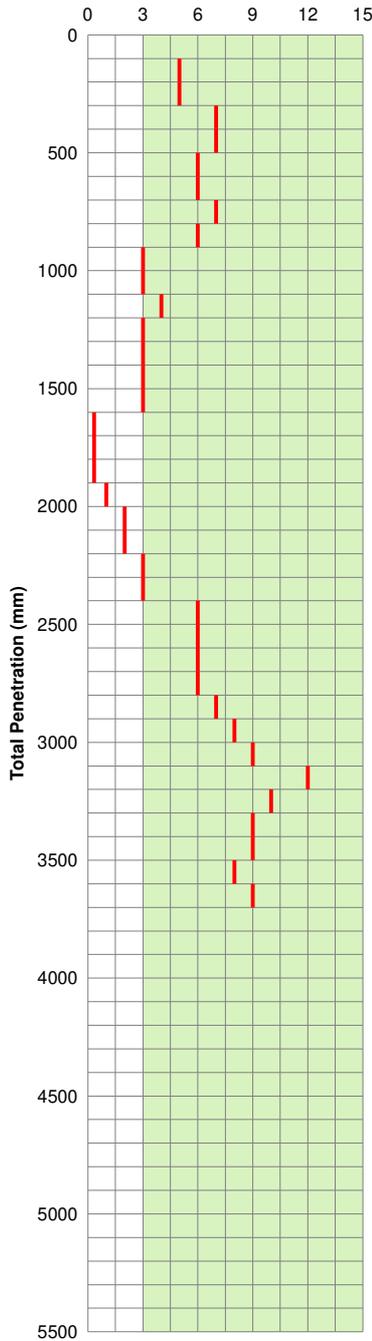
Scala: S4

Auger: A4

Desc: Stage One - Lot 4

Scala Penetrometer

Penetration blows per 100mm



Depth (mm)	Description	Log
0	Dry brown SILT, with some clay, with some fine sand (UNCONTROLLED FILLING).	[Cross-hatch pattern]
300	Dry light yellowish brown fine silty SAND (HINUERA FORMATION).	
500	Dry light grey fine silty SAND (pumiceous).	[Dotted pattern]
700	Moist light grey sandy SILT (pumiceous), abundant manganese nodules.	
900	Moist light grey fine silty SAND.	[Dotted pattern]
1600	Moist light grey clayey SILT.	
2000	End of auger	[Cross-hatch pattern]

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

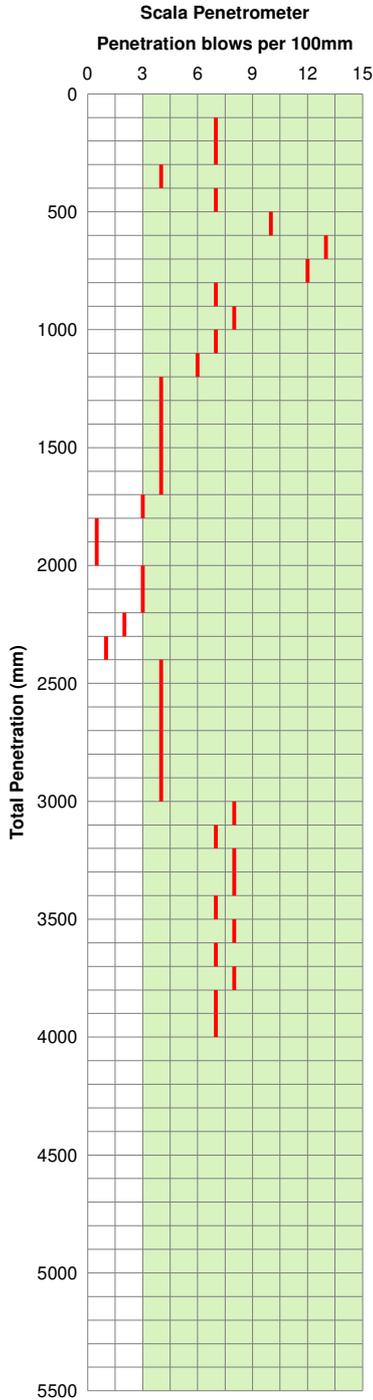
Test Location: TL-E

Test Location: TL-E

Scala: S5

Auger: A5

Desc: Stage One - Lot 5



Depth (mm)	Description	Log
0	Dry brown SILT, with some sand (UNCONTROLLED FILLING).	X X X X X X X X X X
300	Dry light brown clayey SILT , moderately iron stained (HINUERA FORMATION).	
500	Dry brown SILT (pumiceous) many manganese nodules, with some fine sand.	
800	Moist grey SILT, with some moist grey fine sand (pumiceous) moderately iron stained and manganese nodules.	
1200	Becoming dilatent (200 mm layer)	
1500	Becoming dilatent to base of unit	
1800	Wet greyish brown organic SILT (pumiceous).	
2000	Wet greenish grey clayey SILT.	
2200	End of auger	

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

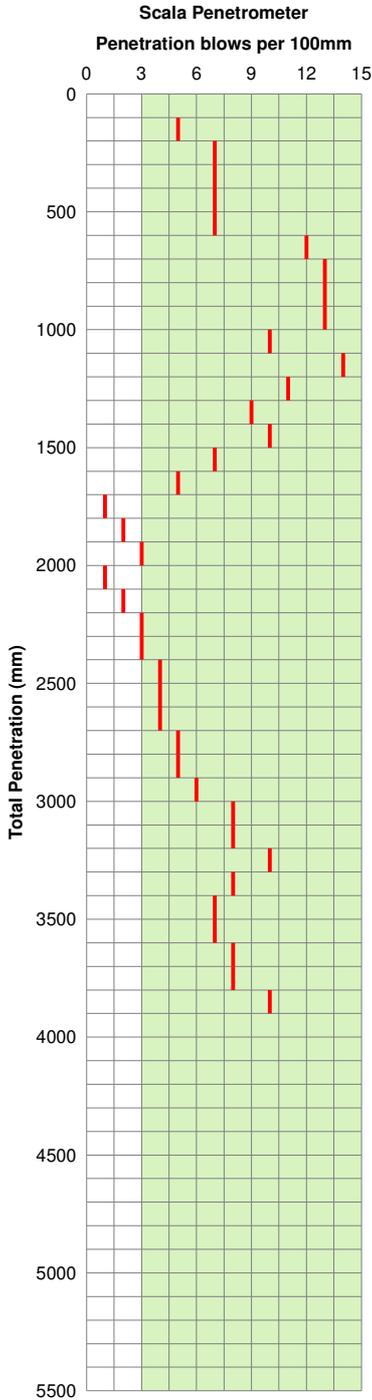
Test Location: TL-F

Test Location: TL-F

Scala: S6

Auger: A6

Desc: Stage One - Lot 6



Depth (mm)	Description	Log
0	Dry brown SILT, with some fine sand, with topsoil (UNCONTROLLED FILLING).	[Cross-hatch pattern]
200	Dry light brown clayey SILT moderately iron stained and manganese nodules (HINUERA FORMATION).	
600	Dry light yellowish brown fine silty SAND (pumiceous) many manganese nodules.	[Dotted pattern]
800	Dry light grey fine silty SAND (pumiceous) many manganese nodules.	
1000	Wet brownish orange fine sandy SILT (pumiceous), moderately iron stained and manganese nodules.	[Cross-hatch pattern]
1300	Becoming grey	
1400	Becoming dilatent	
1500	Becoming dark greyish brown, dilatent amd slightly iron stained	[Cross-hatch pattern]
1800	Wet dark greyish brown clayey SILT.	
2000	Wet light grey clayey SILT , Iron staining.	[Cross-hatch pattern]
2200	End of auger	

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

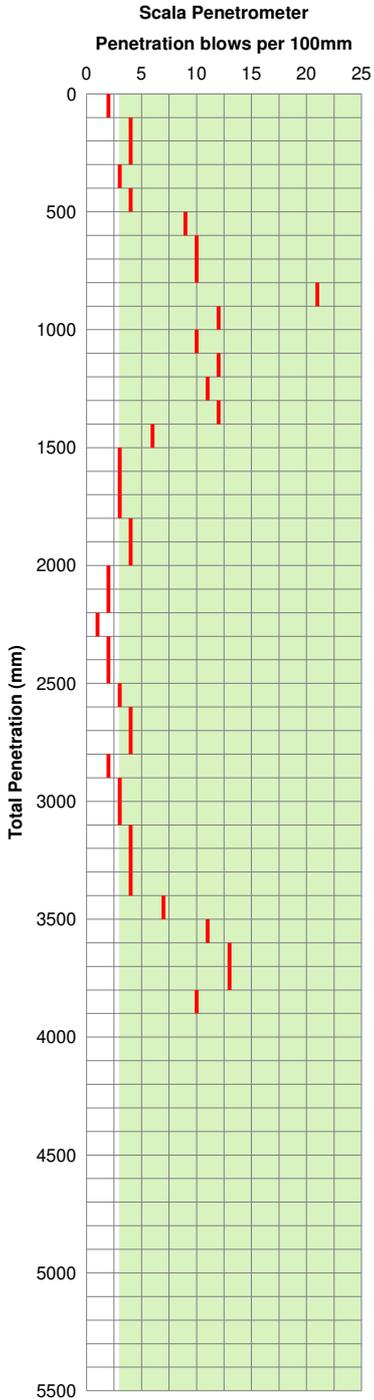
Test Location: TL-G

Scala: S7

Desc: Stage One - Lot 7

Test Location: TL-G

Auger: A7



Depth (mm)	Description	Log
0	Dry brown SILT, with some fine sand (UNCONTROLLED FILLING).	[Cross-hatched pattern]
300	Dry light grey clayey SILT with minor manganese nodules (HINUERA FORMATION).	
500	Moist brown SILT, with some fine sand (pumiceous).	
900	Moist light grey SILT, with some fine sand (pumiceous), minor manganese nodules.	
1300	Becoming dilatent	
2000	Wet bluish grey clayey SILT.	
2200	End of auger	

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

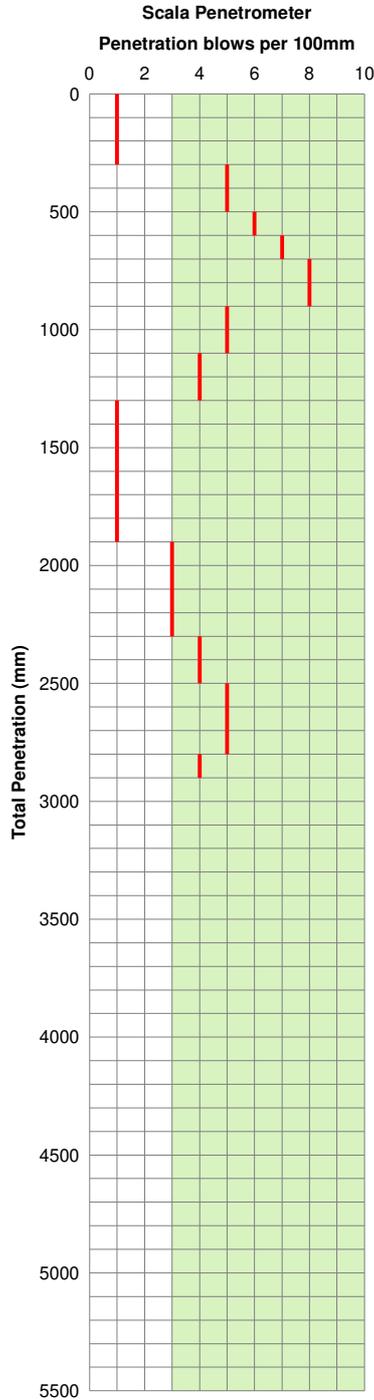
Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

Test Location: TL-H
Scala: S8
Desc: Stage One - Lot 8

Test Location: TL-H
Auger: A8



Depth (mm)	Description	Log
0	Moist light brown fine silty SILT, with some topsoil (UNCONTROLLED FILLING).	x x x x x
300	Wet light brown clayey SILT (HINUERA FORMATION).	x x x x x
700	Wet yellowish brown fine sandy SILT.	x x x x x
1100	Wet light grey fine sandy SILT (pumiceous).	x x x x x
1300	Water Table Unable to recover sample	x x x x x

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

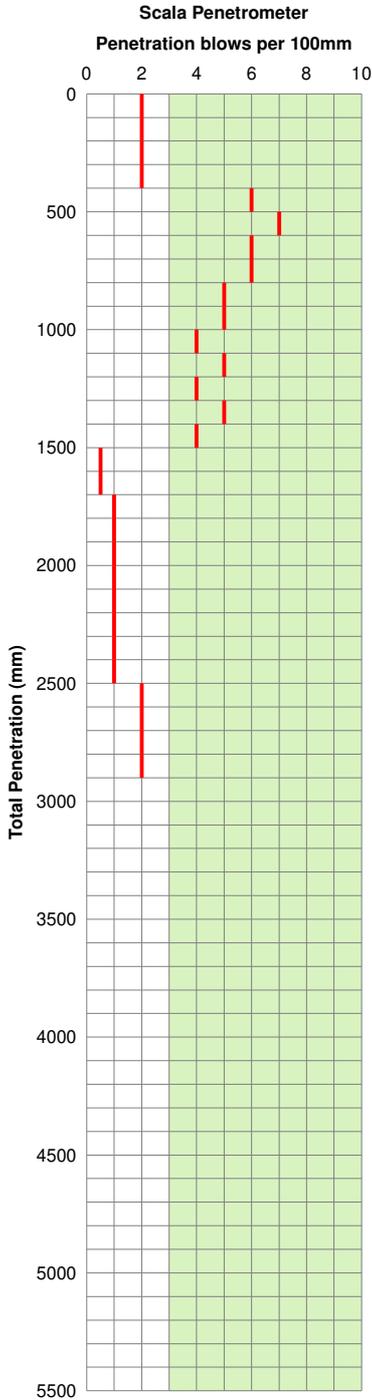
Test Location: TL-1

Test Location: TL-1

Scala: S9

Auger: A9

Desc: Stage One - Lot 9



Depth (mm)	Description	Log
0	Moist light brown fine silty SAND, with some topsoil (UNCONTROLLED FILLING).	[Cross-hatch pattern]
200		
300	Moist dark grey clayey SILT.	[Cross-hatch pattern]
500	Moist yellowish brown fine silty SAND. Becoming dilatent and wet	
700		[Cross-hatch pattern]
900	Wet light grey fine sandy SILT (pumiceous).	
1200	Water Table	[Cross-hatch pattern]
	Hole collapse	

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

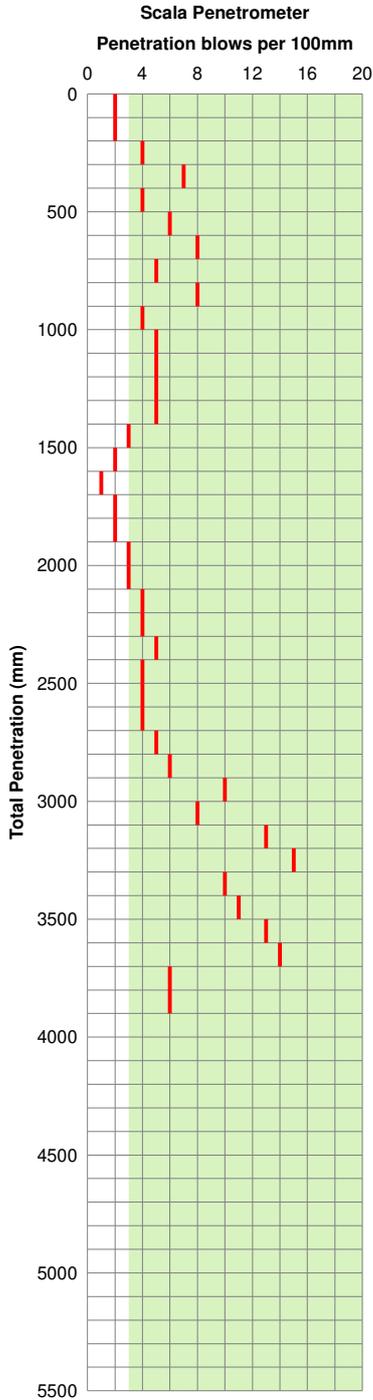
Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

Test Location: TL-J
Scala: S10
Desc: Stage One - Lot 10

Test Location: TL-J
Auger: A10



Depth (mm)	Description	Log
0	Dry brown SILT, with some fine sand (UNCONTROLLED FILLING).	XXXXXX
300	Dry light yellowish brown fine silty SAND, with minor topsoil (UNCONTROLLED FILLING).	XXXXXX
700	Dry yellowish brown fine silty SAND moderately iron stained (HINUERA FORMATION).	XXXXXX
1000	Moist light grey fine silty SAND moderately iron stained.	XXXXXX
1300	Becoming dilatent	XXXXXX
1400	Wet bluish grey clayey SILT.	XXXXXX
1700	Wet greyish green clayey SILT.	XXXXXX
2200	End of auger	XXXXXX

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

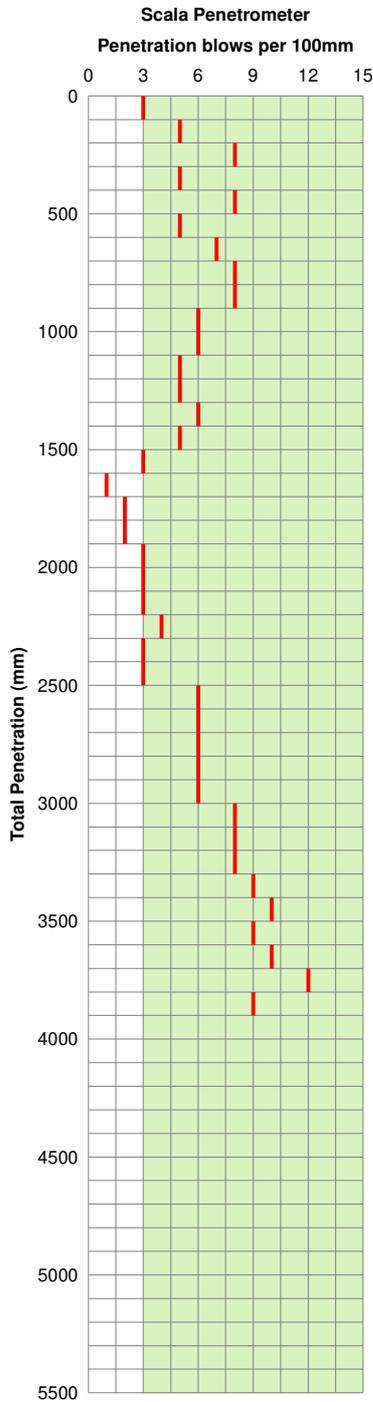
Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

Test Location: TL-K
Scala: S11
Desc: Stage One - Lot 11

Test Location: TL-K
Auger: A11



Depth (mm)	Description	Log
0	Dry brown SILT, with some fine sand, with topsoil (UNCONTROLLED FILLING).	[Cross-hatch pattern]
300	Dry light grey clayey SILT moderately iron stained and manganese nodules (HINUERA FORMATION).	
600	Dry light yellowish brown fine silty SAND (pumiceous).	[Dotted pattern]
900	Dry light grey fine sandy SILT many manganese modules.	[Cross-hatch pattern]
1600	Moist organic SILT.	
1750	Moist greenish grey clayey SILT.	
2200	End of auger	

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

Test Location: TL-L

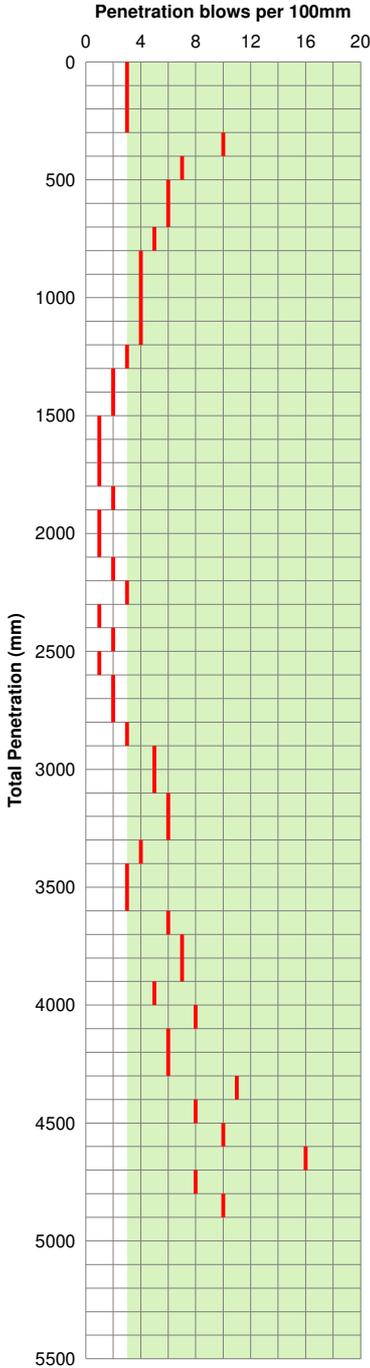
Test Location: TL-L

Scala: S12

Auger: A12

Desc: Stage One - Lot 12

Scala Penetrometer



Depth (mm)	Description	Log
0	Dry brown SILT, with some fine sand (UNCONTROLLED FILLING).	[Cross-hatch pattern]
300	Dry light yellowish brown fine silty SAND (HINUERA FORMATION).	
450	Dry light grey clayey SILT moderately iron stained, minor manganese nodules.	[Dotted pattern]
600	Dry light yellowish brown fine silty SAND (pumiceous).	
800	Dry light grey fine silty SAND (pumiceous) minor manganese nodules.	[Cross-hatch pattern]
1500	Wet brownish grey organic SILT.	
1750	Wet brownish grey clayey SILT.	
1900	Wet bluish grey clayey SILT.	[Cross-hatch pattern]
2200	End of auger	

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

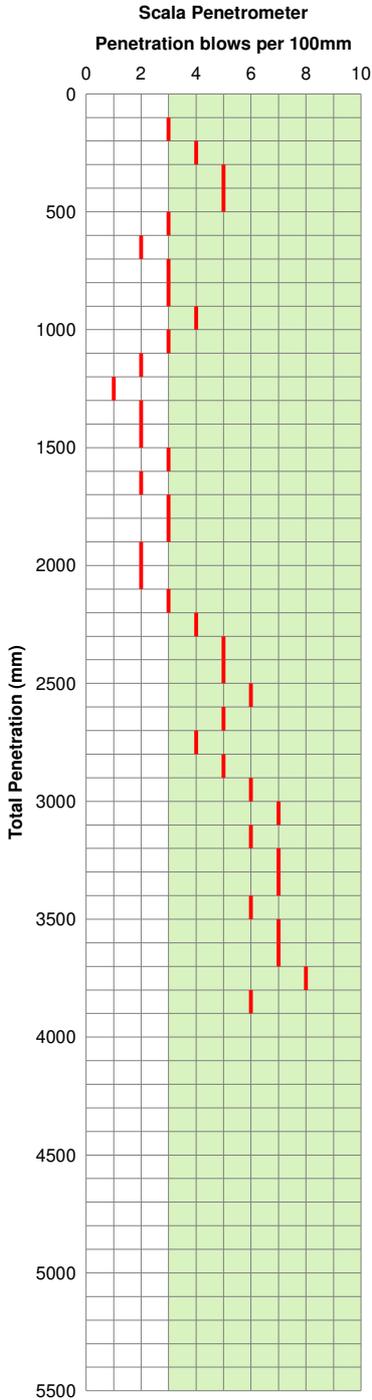
Test Location: TL-M

Test Location: TL-M

Scala: S13

Auger: A13

Desc: Stage One - Lot 13



Depth (mm)	Description	Log
0	Dry dark brown fine sandy SILT (UNCONTROLLED FILLING).	[Cross-hatch pattern]
300	Dry yellowish brown fine sandy SILT (HINUERA FORMATION).	
500	Dry brownish orange fine silty SAND many manganese nodules.	[Dotted pattern]
900	Moist grey fine silty SAND (pumiceous) dilatent.	
1700	Moist dark grey clayey SILT.	[Cross-hatch pattern]
1900	Wet greenish grey clayey SILT.	
2200	End of auger	[Cross-hatch pattern]

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

Test Location: TL-N

Test Location: TL-N

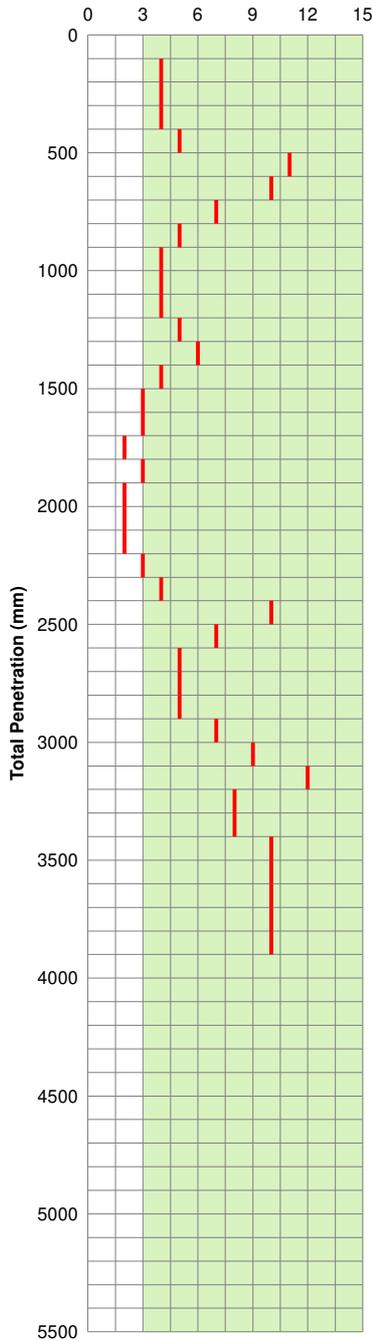
Scala: S14

Auger: A14

Desc: Stage One - Lot 14

Scala Penetrometer

Penetration blows per 100mm



Depth (mm)	Description	Log
0	Dry dark brown fine sandy SILT (UNCONTROLLED FILLING).	[Cross-hatch pattern]
400	Dry light yellowish brown fine sandy SILT (HINUERA FORMATION).	[Cross-hatch pattern]
600	Dry brownish orange fine silty SAND many manganese nodules.	[Dotted pattern]
900	Moist grey fine silty SAND (pumiceous), dilatent.	[Dotted pattern]
1400	Moist dark grey clayey SILT.	[Cross-hatch pattern]
1700	Moist dark green clayey SILT.	[Cross-hatch pattern]
2000	End of auger	[Cross-hatch pattern]

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

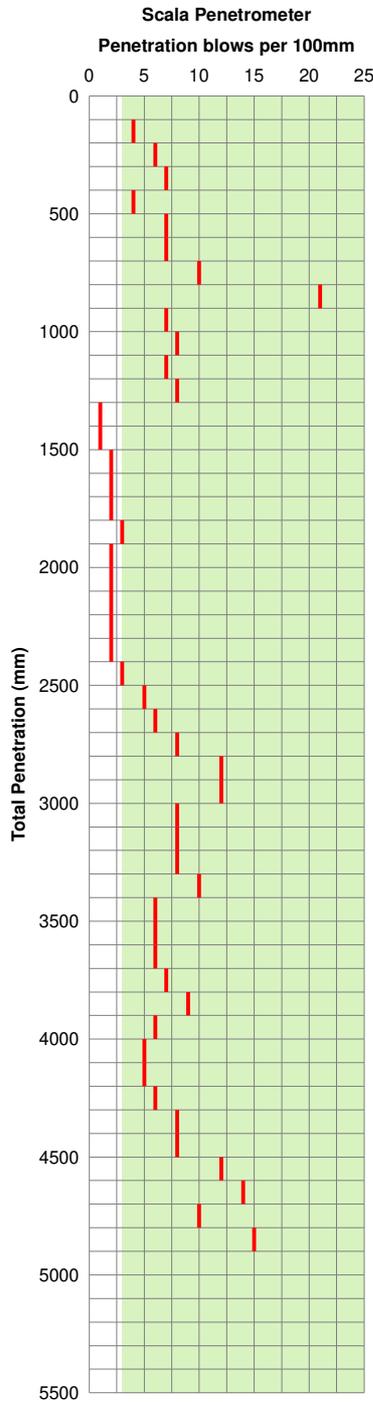
Test Location: TL-O

Test Location: TL-O

Scale: S15

Auger: A15

Desc: Stage One - Lot 15



Depth (mm)	Description	Log
0	Dry yellowish brown fine silty SAND (UNCONTROLLED FILLING).	[Pattern: Small dots]
500	Moist light yellowish brown fine silty SAND moderately iron stained (HINUERA FORMATION).	
800	Moist light greyish brown fine silty SAND.	[Pattern: Small dots]
1300	Moist light grey fine sandy SILT moderately iron stained.	
1500	Moist brownish orange clayey SILT.	[Pattern: X marks]
1800	Moist light grey fine silty SAND (pumiceous).	[Pattern: Small dots]
2000	End of auger	

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

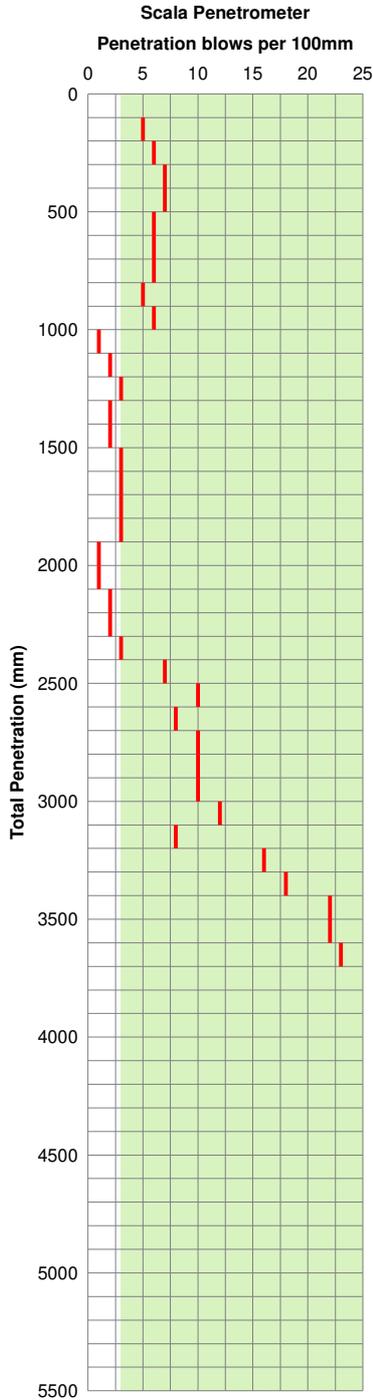
Test Location: TL-P

Test Location: TL-P

Scala: S16

Auger: A16

Desc: Stage One - Lot 16



Depth (mm)	Description	Log
0	Dry yellowish brown fine sandy SILT (UNCONTROLLED FILLING).	XXXXXX
200	Dry yellowish brown fine silty SAND (HINUERA FORMATION).	XXXXXX
500	Slightly iron stained	XXXXXX
600	Moist light greyish brown fine silty SAND (pumiceous) minor manganese nodules.	XXXXXX
1000	Moist light grey clayey SILT (pumiceous).	XXXXXX
1800	Moist greenish grey fine clayey SAND.	XXXXXX
2000	End of auger	XXXXXX

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

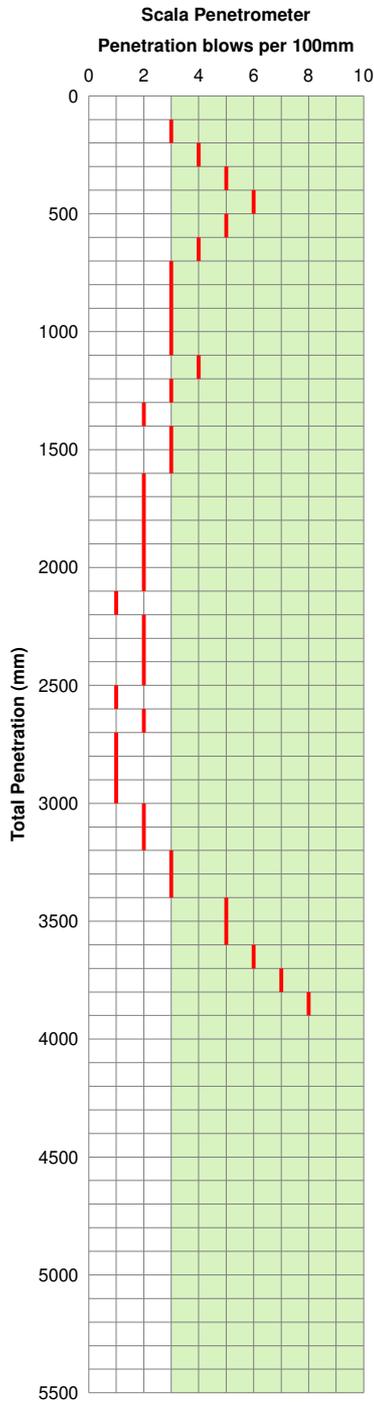
Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

Test Location: TL-Q
Scala: S17
Desc: Stage One - Lot 17

Test Location: TL-Q
Auger: A17



Depth (mm)	Description	Log
0	Dry dark brown fine sandy SILT (UNCONTROLLED FILLING).	[Cross-hatch pattern]
400	Dry light yellowish brown fine sandy SILT (HINUERA FORMATION).	[Cross-hatch pattern]
700	Dry brownish orange fine silty SAND many manganese nodules.	[Dotted pattern]
1100	Moist grey fine silty SAND (pumiceous) dilatent.	[Dotted pattern]
1600	Moist dark grey organic SILT.	[Cross-hatch pattern]
1800	Moist dark green clayey SILT.	[Cross-hatch pattern]
2000	End of auger	[Cross-hatch pattern]

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

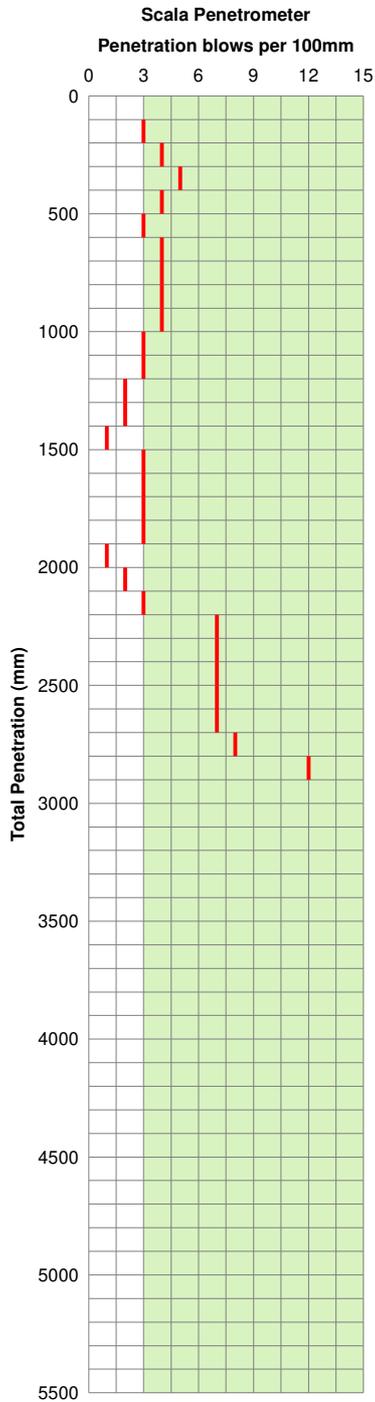
Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

Test Location: TL-R
Scale: S18
Desc: Stage One - Lot 18

Test Location: TL-R
Auger: A18



Depth (mm)	Description	Log
0	Moist dark brown clayey SILT, with topsoil (UNCONTROLLED FILLING).	[Cross-hatch pattern]
300	Dry light yellowish brown fine sandy SILT (HINUERA FORMATION).	[Cross-hatch pattern]
600	Moist light grey fine silty SAND (pumiceous).	[Dotted pattern]
1000	Wet light brownish grey organic SILT.	[Cross-hatch pattern]
1500	Moist light greenish grey clayey SILT.	[Cross-hatch pattern]
2000	End of auger	[Cross-hatch pattern]

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

Test Location: TL-S

Test Location: TL-S

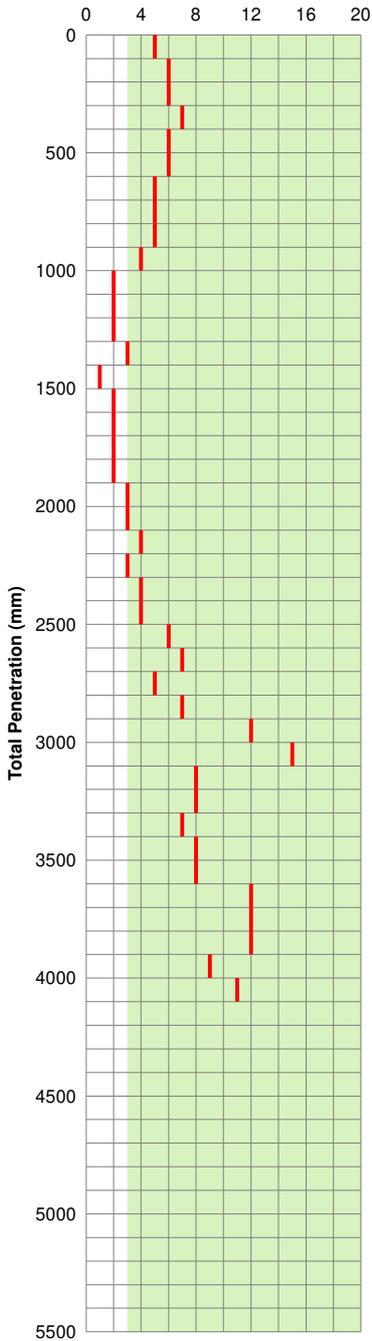
Scala: S19

Auger: A19

Desc: Stage One - Lot 19

Scala Penetrometer

Penetration blows per 100mm



Depth (mm)	Description	Log
0	Dry dark brown fine sandy SILT (UNCONTROLLED FILLING).	XXXXXX
200	Dry yellowish brown fine silty SAND (HINUERA FORMATION).	XXXXXX
400	Dry light yellowish brown fine silty SAND (pumiceous). Becoming moist and dilatent	XXXXXX
600		XXXXXX
900		XXXXXX
1050	Dry light greyish brown clayey SILT. Moist reddish brown PEAT (amorphous).	XXXXXX
1900		XXXXXX
2100	Wet light grey fine silty SAND dilatent.	XXXXXX

End of auger

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

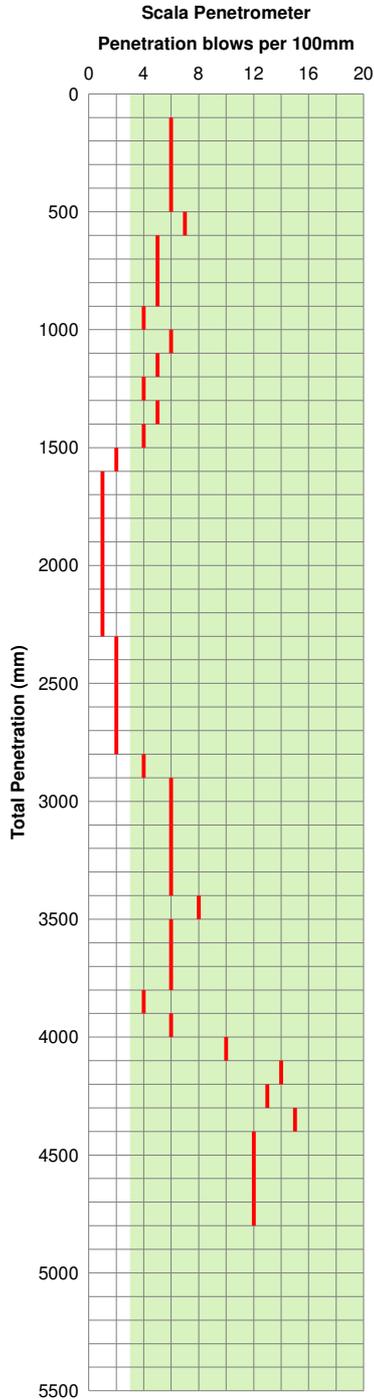
Test Location: TL-T

Test Location: TL-T

Scala: S20

Auger: A20

Desc: Stage One - Lot 20



Depth (mm)	Description	Log
0	Dry dark brown fine sandy SILT, with minor topsoil (UNCONTROLLED FILLING).	XXXXXX
200	Dry light yellowish brown fine silty SAND (HINUERA FORMATION).	XXXXXX
600	Moist light grey fine silty SAND (pumiceous).	XXXXXX
900	Becoming dilatent	XXXXXX
1600	Moist dark brownish grey fine silty SAND.	XXXXXX
1800	Contains organics	XXXXXX
2000	End of auger	XXXXXX

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

Test Location: TL-V

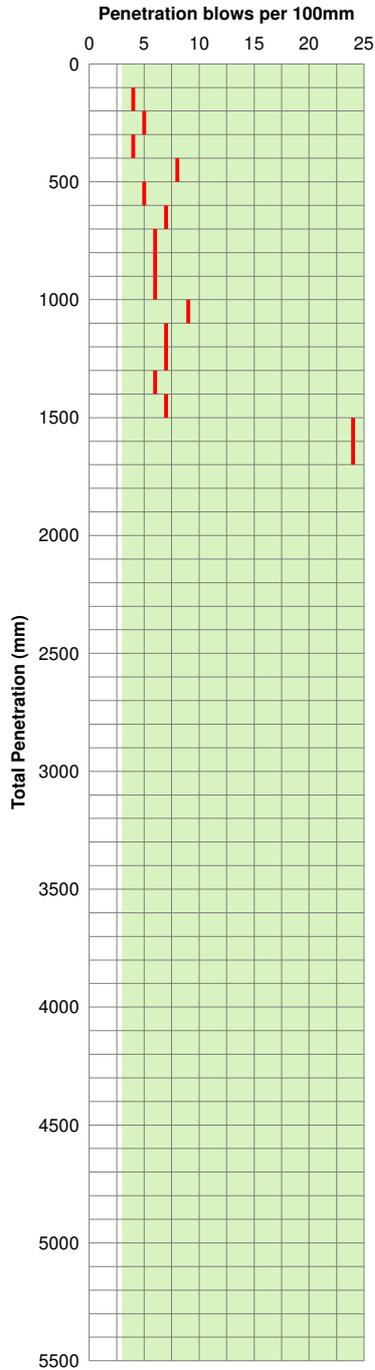
Test Location: TL-V

Scala: S22

Auger: A22

Desc: Stage One - Lot 22

Scala Penetrometer



Depth (mm)	Description	Log
0	Dry brown fine sandy SILT (UNCONTROLLED FILLING).	[Cross-hatch pattern]
200	Dry light yellowish brown fine sandy SILT (HINUERA FORMATION).	
500	Contains minor minor manganese nodules	[Cross-hatch pattern]
600	Dry light grey fine sandy SILT (pumiceous).	
800	Contains moderate manganese nodules	[Cross-hatch pattern]
1500	Moist light grey fine sandy SILT.	
1700	Scala refused on buried tree	[Cross-hatch pattern]
2000	End of auger	

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

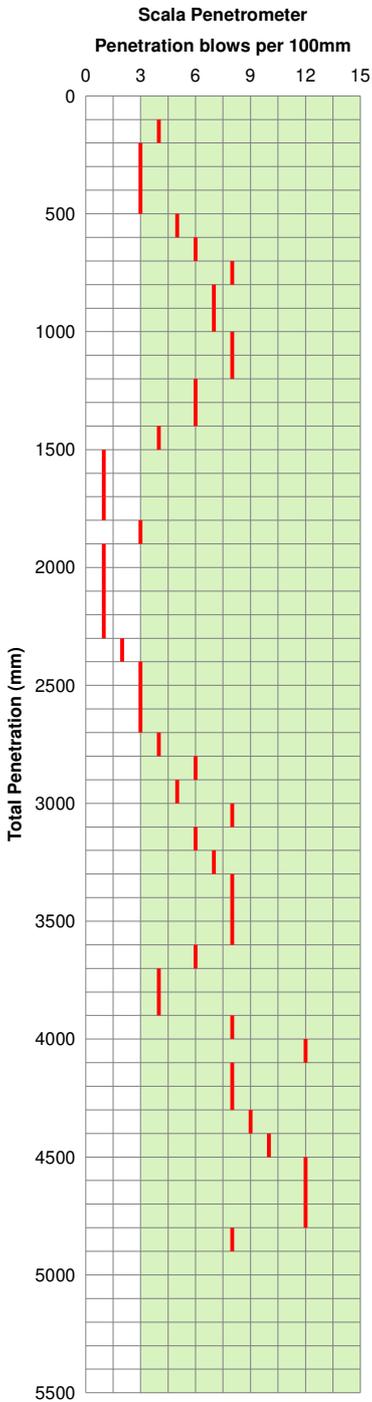
Test Location: TL-W

Test Location: TL-W

Scala: S23

Auger: A23

Desc: Stage One - Lot 23



Depth (mm)	Description	Log
0	Dry light brown fine silty SAND, with minor topsoil (UNCONTROLLED FILLING).	[Pattern: Dotted]
200	Dry light brown fine silty SAND (HINUERA FORMATION).	
500	Dry light greyish brown clayey SILT (pumiceous). Contains fine gravel	[Pattern: X's]
700		
800	Dry light grey fine silty SAND (pumiceous).	[Pattern: Dotted]
1100	Becoming moderately iron staining	
1500	Moist greyish brown fine silty SAND.	
1900	Wet light grey clayey SILT.	[Pattern: X's]
2100	End of auger	

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

Test Location: TL-X

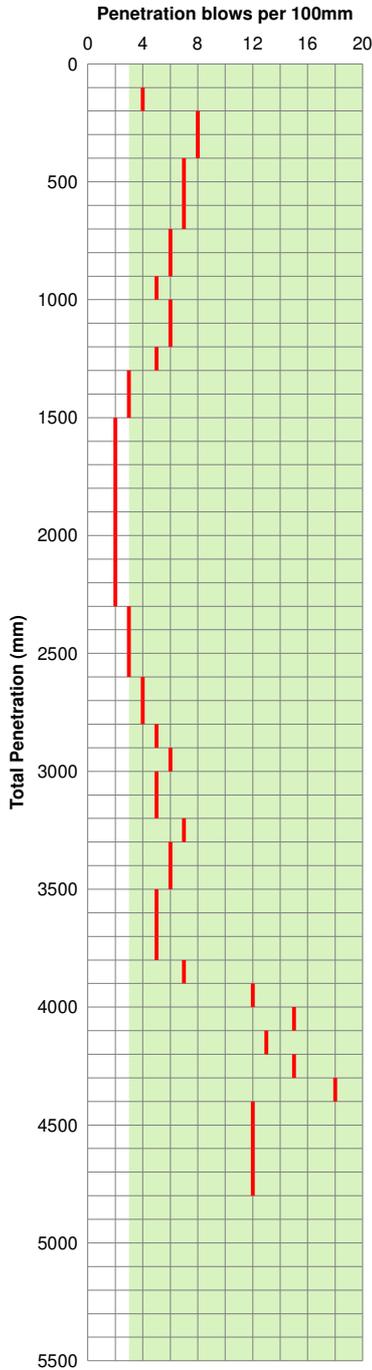
Test Location: TL-X

Scala: S24

Auger: A24

Desc: Stage One - Lot 24

Scala Penetrometer



Depth (mm)	Description	Log
0	Dry yellowish brown medium silty SAND (UNCONTROLLED FILLING).	[Pattern: Dotted]
200	Dry dark brown clayey SILT, with some organic (UNCONTROLLED FILLING).	
400	Dry yellowish brown fine silty SAND (HINUERA FORMATION).	[Pattern: Dotted]
1000	Becoming wet and dilatent	
1200	Moist brown silty SAND, with some organic.	
1500	Wet dark brown clayey SILT, organic.	[Pattern: Cross-hatched]
2000	End of auger	

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

Test Location: TL-Y

Test Location: TL-Y

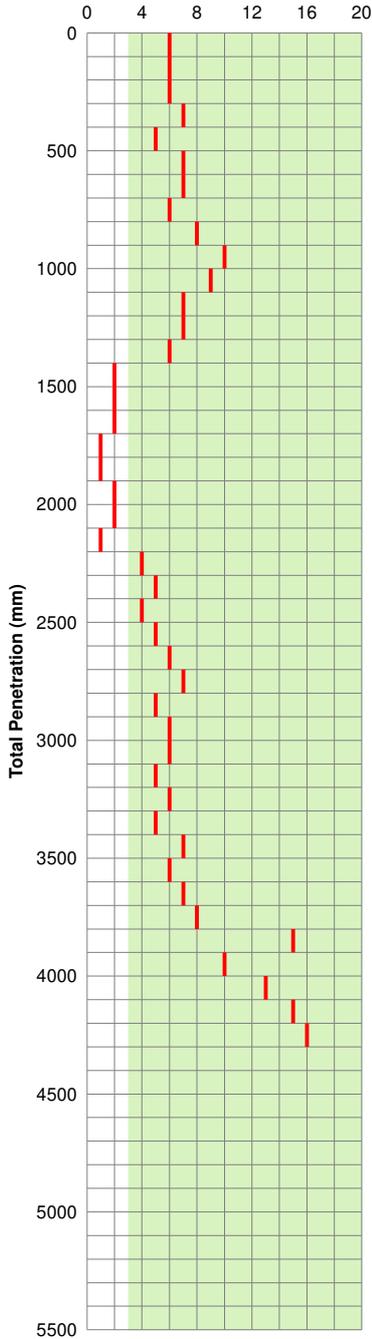
Scala: S25

Auger: A25

Desc: Stage One - Lot 25

Scala Penetrometer

Penetration blows per 100mm



Depth (mm)	Description	Log
0	Dry brown SILT, with some fine sand (UNCONTROLLED FILLING).	[Cross-hatch pattern]
300	Dry light yellowish orange fine silty SAND (HINUERA FORMATION).	[Small dots pattern]
500	Dry light yellow fine silty SAND.	[Small dots pattern]
800	Dry light grey fine silty SAND (pumiceous).	[Small dots pattern]
1100	Becoming most and dilatent	[Small dots pattern]
1200	Wet dark grey fine silty SAND.	[Small dots pattern]
1400	Wet light grey clayey SILT.	[Cross-hatch pattern]
2000	End of auger	[Cross-hatch pattern]

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

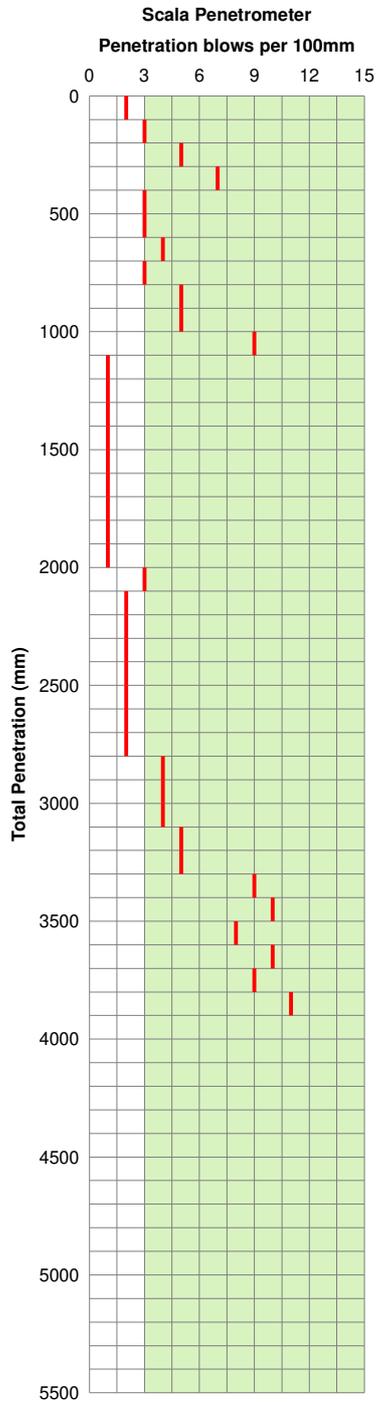
Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

Test Location: TL-Z
Scala: S26
Desc: Stage One - Lot 26

Test Location: TL-Z
Auger: A26



Depth (mm)	Description	Log
0	Dry light yellowish brown fine sandy SILT, with some topsoil (UNCONTROLLED FILLING).	XXXXXX
300	Moist light grey fine sandy SILT (pumiceous) (HINUERA FORMATION).	XXXXXX
600	Contains moderate manganese nodules	XXXXXX
700	Moist brownish orange fine silty SAND.	XXXXXX
1300	PEAT (amorphous).	XXXXXX
2000	End of auger	XXXXXX

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

Test Location: TL-AA

Auger: A27

Depth (mm)	Description	Log
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Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

Test Location: TL-AB

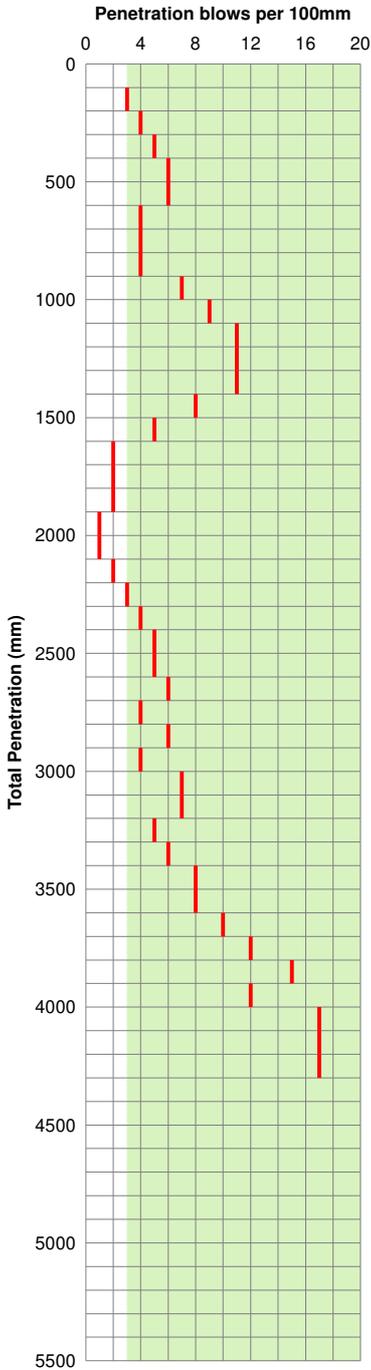
Test Location: TL-AB

Scala: S28

Auger: A28

Desc: Stage One - Lot 27

Scala Penetrometer



Depth (mm)	Description	Log
0	Dry dark brown fine sandy SILT, with some topsoil (UNCONTROLLED FILLING).	[Cross-hatch pattern]
200	Dry light yellowish brown SILT, with some fine sand (HINUERA FORMATION).	
600	Dry light greyish brown clayey SILT.	[Cross-hatch pattern]
900	Dry light grey fine silty SAND minor manganese nodules.	
1500	Moist brownish grey fine sandy SILT.	[Cross-hatch pattern]
2000	End of auger	

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

Test Location: TL-AC
Auger: A29

Test Location: TL-AD
Auger: A30

Depth (mm)	Description	Log
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Depth (mm)	Description	Log
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Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

Test Location: TL-AE

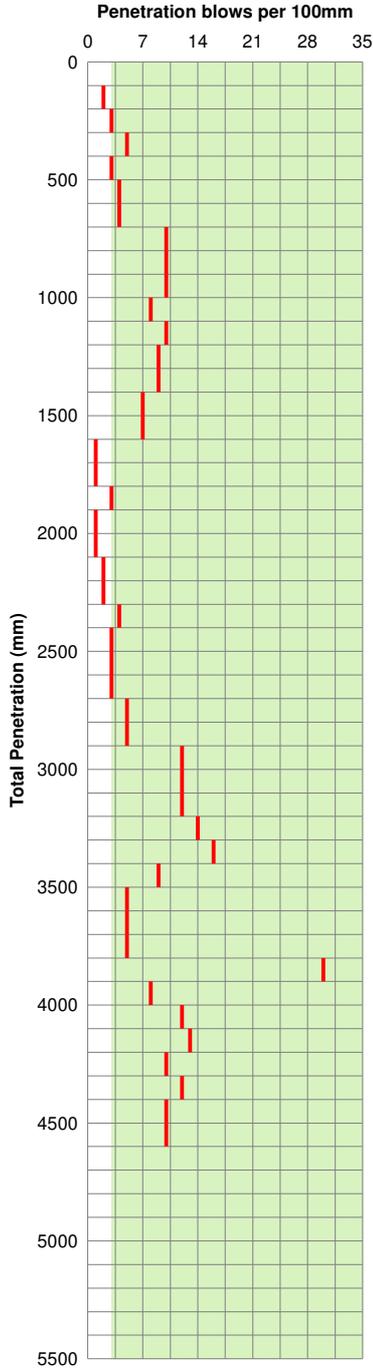
Test Location: TL-AE

Scala: S31

Auger: A31

Desc: Stage One - Lot 28

Scala Penetrometer



Depth (mm)	Description	Log
0	Dry dark brown fine silty SAND (UNCONTROLLED FILLING).	[Pattern: Small dots]
300	Dry light brown medium silty SAND (HINUERA FORMATION).	
700	Dry light grey fine silty SAND. Becoming heavily iron stained and abundant manganese nodules	[Pattern: Small dots]
900		
1600	Moist brownish grey clayey SILT, with some fine sand moderately iron stained.	[Pattern: X marks]
2000		
End of auger		

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

Test Location: TL-AF

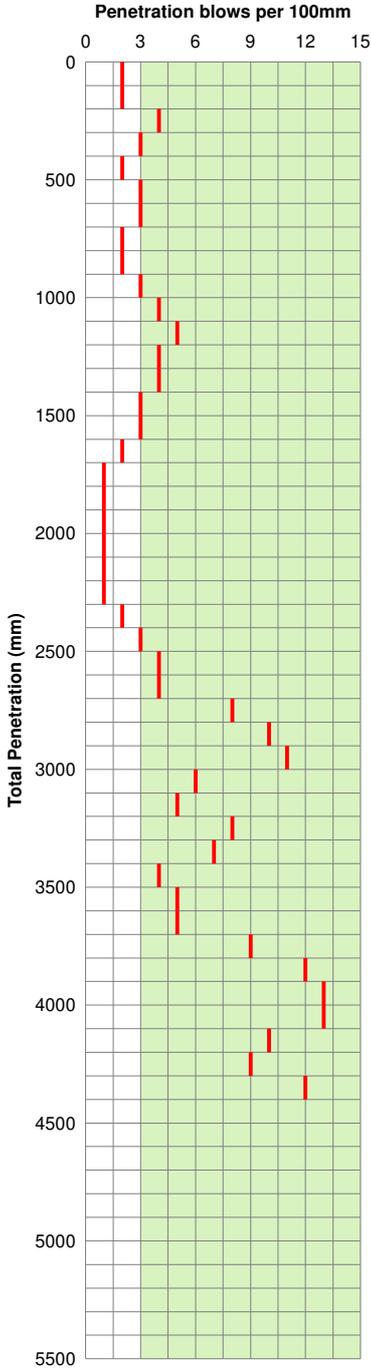
Test Location: TL-AF

Scale: S32

Auger: A32

Desc: Stage One - Lot 29

Scale Penetrometer



Depth (mm)	Description	Log
0	Dry dark brown fine silty SAND, with some topsoil (UNCONTROLLED FILLING).	
200	Dry yellowish orange fine silty SAND (HINUERA FORMATION).	
1000	Moist grey fine silty SAND dilatent.	
1700	Wet dark brown clayey SILT, organic.	
1900	Wet grey clayey SILT, with some fine sand.	
2100	End of auger	

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

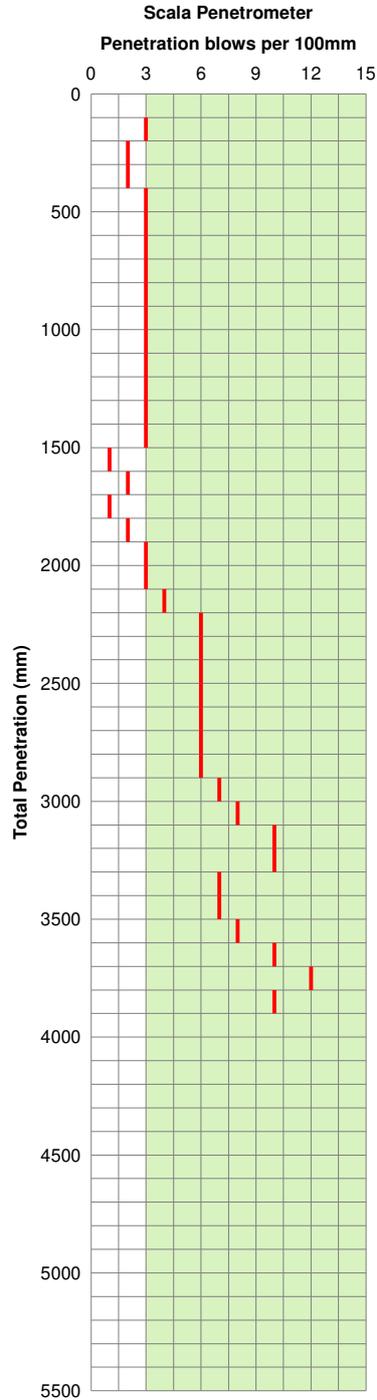
Test Location: TL-AG

Test Location: TL-AG

Scala: S33

Auger: A33

Desc: Stage One - Lot 30



Depth (mm)	Description	Log
0	Dry dark brown fine silty SAND (UNCONTROLLED FILLING).	[Dotted pattern]
200	Dry yellowish brown fine silty SAND (HINUERA FORMATION).	
800	Contains moderate iron staining and manganese nodules	[Dotted pattern]
1000	Dry light grey fine silty SAND (pumiceous).	
1500	Wet brownish grey clayey SILT, with some organic.	[Cross-hatched pattern]
1900	Wet bluish grey clayey SILT.	
2200	End of auger	

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

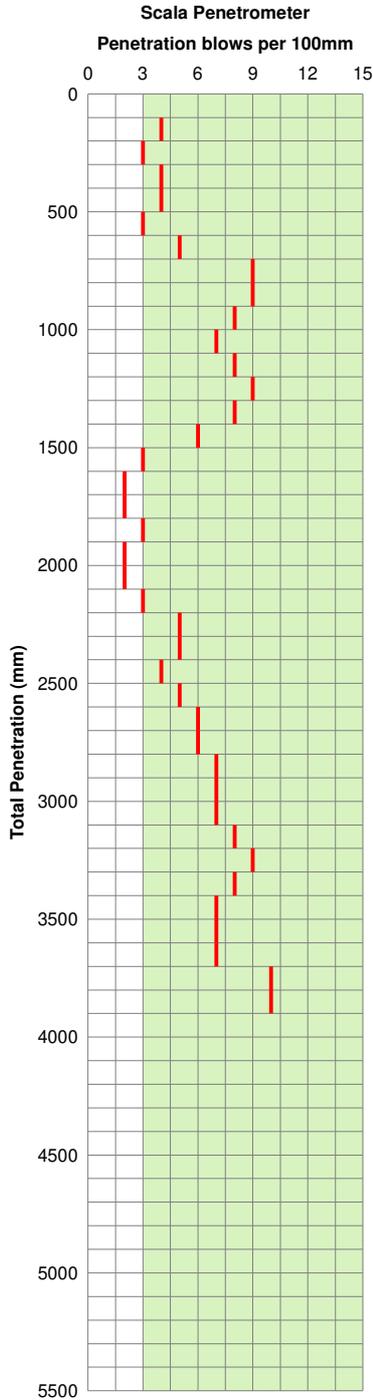
Test Location: TL-AH

Test Location: TL-AH

Scala: S34

Auger: A34

Desc: Stage One - Lot 31



Depth (mm)	Description	Log
0	Dry dark green fine silty SAND (UNCONTROLLED FILLING).	[Pattern: Small dots]
600	Dry light yellowish brown fine silty SAND (HINUERA FORMATION).	
800	Dry light grey fine silty SAND (pumiceous). Becoming moist and moderately iron stained	
1600	Moist brownish grey clayey SILT.	[Pattern: X marks]
1800	Wet grey fine sandy SILT.	
2000	End of auger	

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

Test Location: TL-AI

Test Location: TL-AI

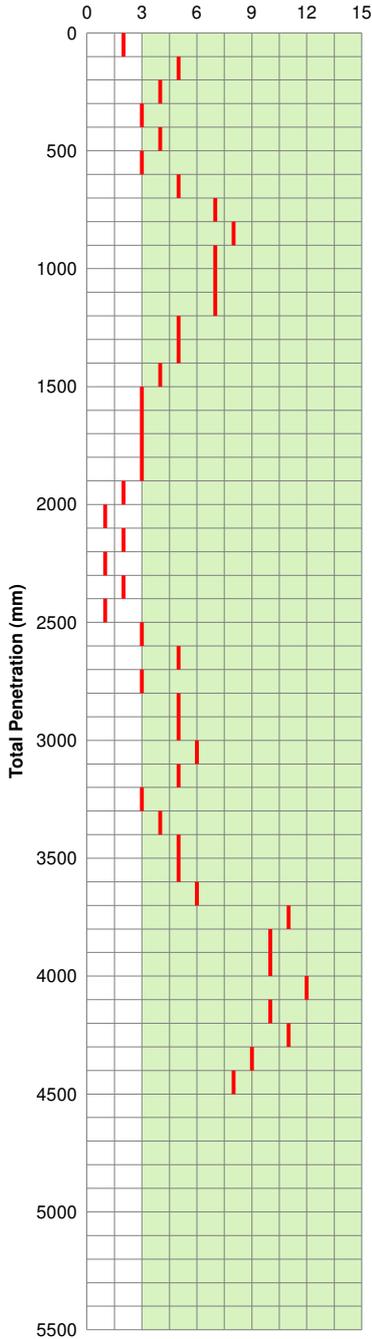
Scala: S35

Auger: A35

Desc: Stage One - Lot 32

Scala Penetrometer

Penetration blows per 100mm



Depth (mm)	Description	Log
0	Dry brown fine silty SAND (UNCONTROLLED FILLING).	[Cross-hatch pattern]
150	Wet light yellowish brown fine sandy SILT (HINUERA FORMATION).	
300	Dry dark brown fine sandy SILT.	[Cross-hatch pattern]
600	Dry light grey fine silty SAND (pumiceous).	
1300	Becoming dark grey and moist	[Cross-hatch pattern]
1500	Wet dark grey fine silty SAND dilatent.	
1900	Wet grey clayey SILT.	[Cross-hatch pattern]
2050	End of auger	

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

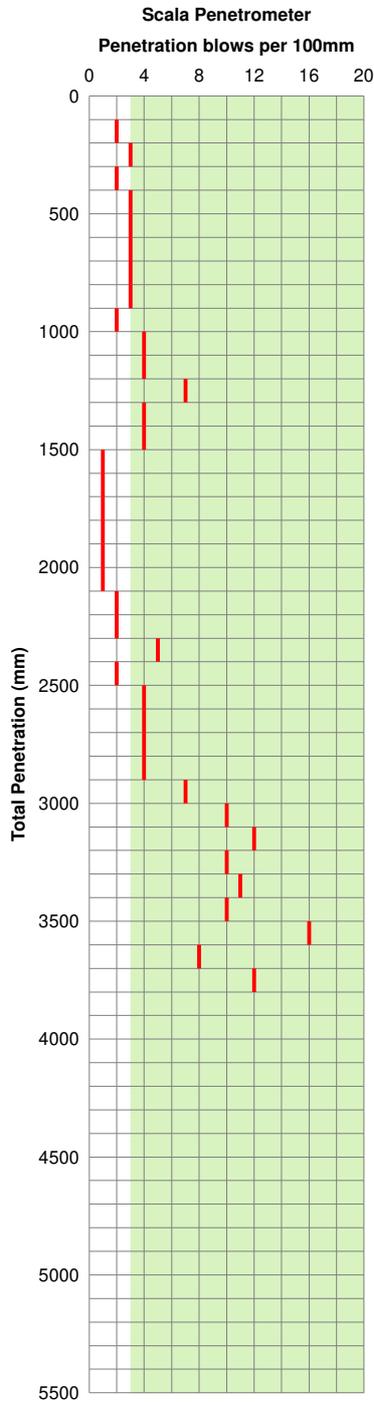
Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

Test Location: TL-AJ
Scala: S36
Desc: Stage One - Lot 33

Test Location: TL-AJ
Auger: A36



Depth (mm)	Description	Log
0	Dry dark brown fine silty SAND (UNCONTROLLED FILLING).	[Dotted pattern]
200	Dry light yellow fine silty SAND (HINUERA FORMATION).	
400	Dry light grey fine silty SAND (pumiceous).	
1200	Wet grey clayey SILT (pumiceous) dilatent.	[Cross-hatch pattern]
2000	End of auger	

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

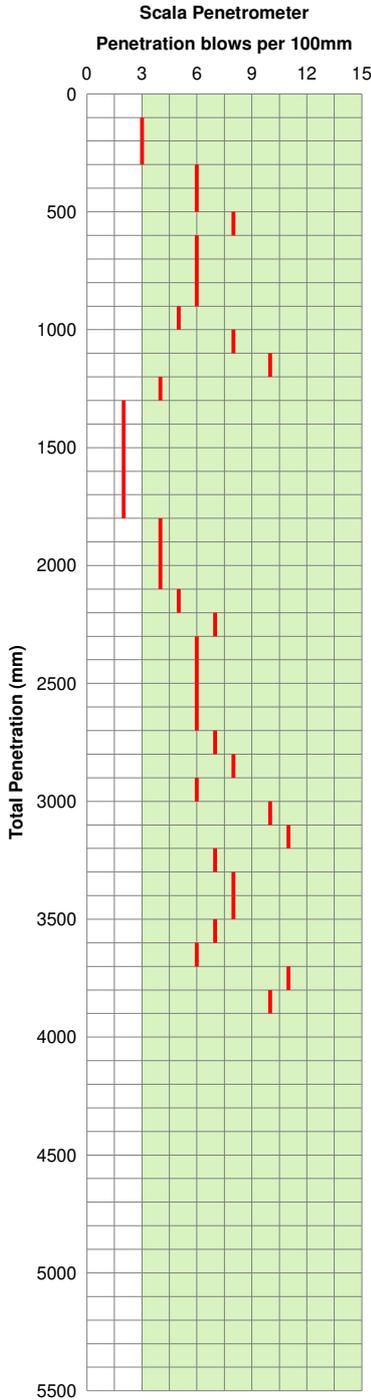
Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

Test Location: TL-AL
Scala: S38
Desc: Stage One - Lot 35

Test Location: TL-AL
Auger: A38



Depth (mm)	Description	Log
0	Dry dark brown fine silty SAND (UNCONTROLLED FILLING).	[Pattern]
400	Dry light yellowish brown fine silty SAND (HINUERA FORMATION).	[Pattern]
900	Moist light grey fine silty SAND (pumiceous).	[Pattern]
1600	PEAT (amorphous).	[Pattern]
1800	End of auger	[Pattern]

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

Test Location: TL-AM

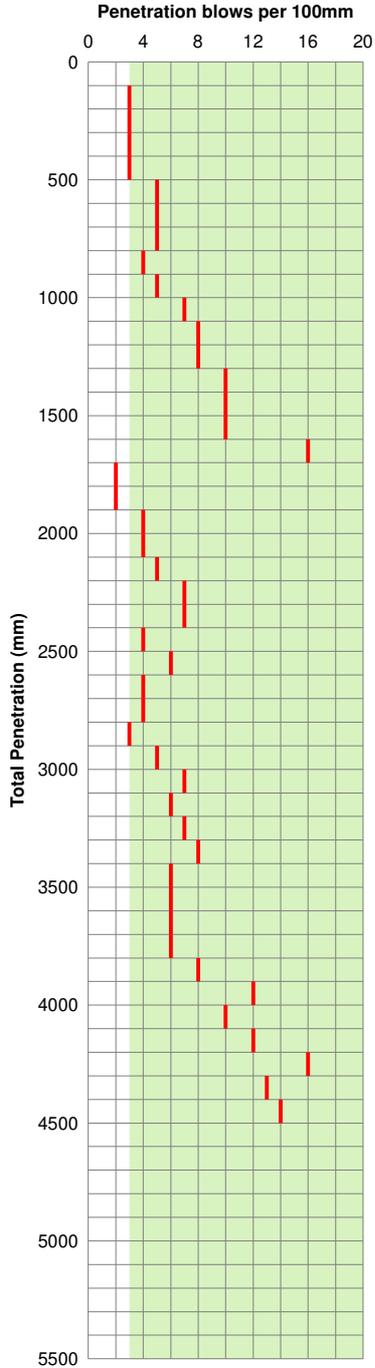
Test Location: TL-AM

Scala: S39

Auger: A39

Desc: Stage One - Lot 36

Scala Penetrometer



Depth (mm)	Description	Log
0	Dry dark brown fine silty SAND (UNCONTROLLED FILLING).	[Dotted pattern]
500	Dry light yellowish brown fine silty SAND (HINUERA FORMATION).	
800	Dry light grey fine silty SAND (pumiceous).	
1700	Moist light greyish brown fine silty SAND, with minor organic.	
1900	Wet dark grey clayey SILT, with some fine gravel.	
2100	End of auger	[Cross-hatched pattern]

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

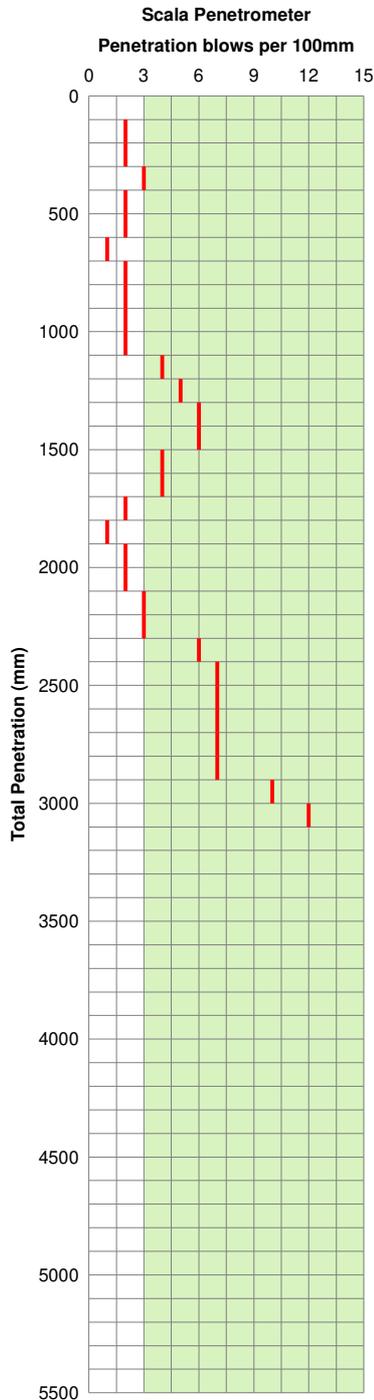
Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

Test Location: TL-AN
Scala: S40
Desc: Stage One - Lot 37

Test Location: TL-AN
Auger: A40



Depth (mm)	Description	Log
0	Dry dark brown fine silty SAND (UNCONTROLLED FILLING).	
600	Dry yellowish brown fine silty SAND (HINUERA FORMATION).	
1100	Dry light grey fine silty SAND (pumiceous).	
1700	Wet dark greyish brown clayey SILT, with some organic dilatent.	
2000	End of auger	

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

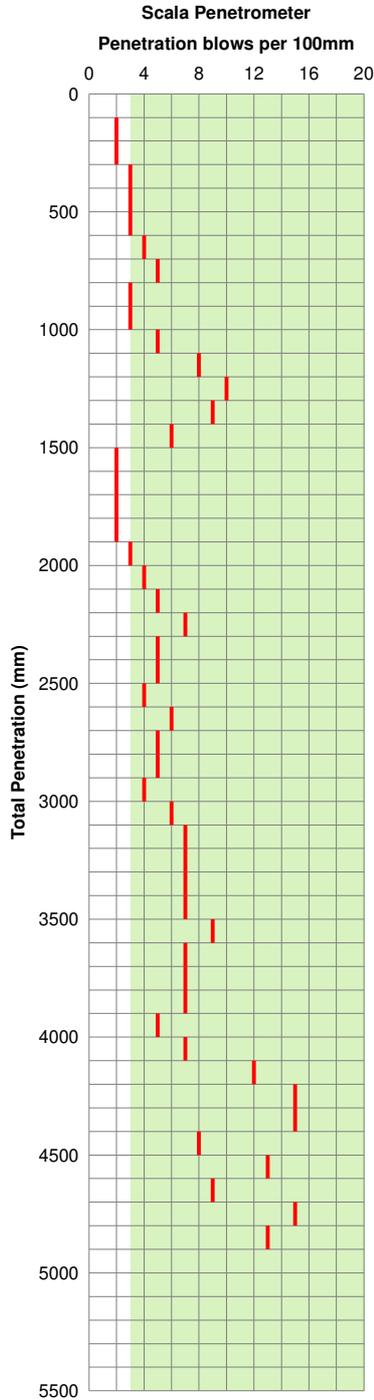
Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

Test Location: TL-AO
Scala: S41
Desc: Stage One - Lot 38

Test Location: TL-AO
Auger: A41



Depth (mm)	Description	Log
0	Dry dark brown fine silty SAND (UNCONTROLLED FILLING).	[Pattern]
400	Dry light yellowish brown fine silty SAND (HINUERA FORMATION).	[Pattern]
1000	Dry light brown fine silty SAND (pumiceous).	[Pattern]
1400	Refusal	

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

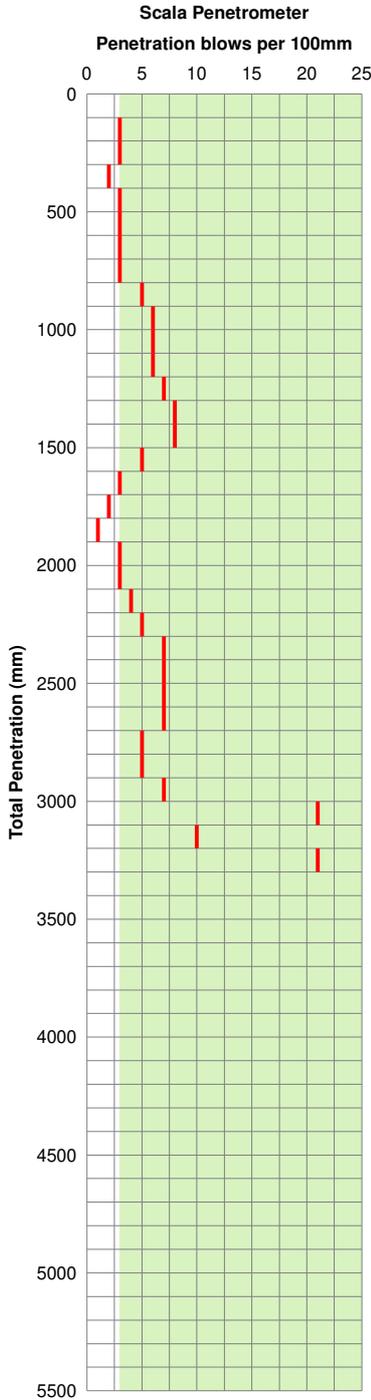
Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

Test Location: TL-AP
Scala: S42
Desc: Stage One - Lot 39

Test Location: TL-AP
Auger: A42



Depth (mm)	Description	Log
0	Dry dark brown fine silty SAND (UNCONTROLLED FILLING).	[Dotted pattern]
400	Dry light yellowish brown fine silty SAND moderately iron stained (HINUERA FORMATION).	[Dotted pattern]
1200	Dry light grey fine silty SAND (pumiceous).	[Dotted pattern]
1500	Wet brownish grey clayey SILT, with some organic.	[Cross-hatched pattern]
2000	End of auger	[Cross-hatched pattern]

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

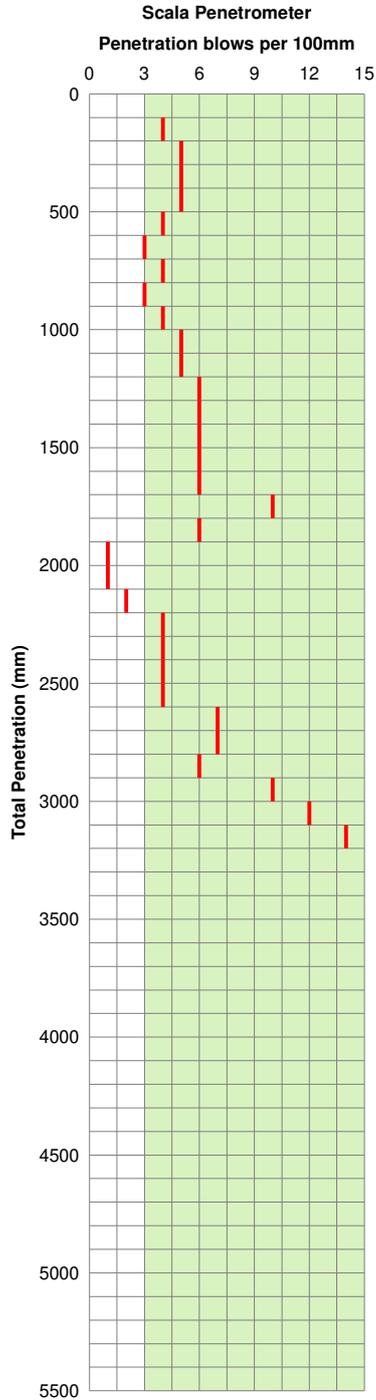
Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

Test Location: TL-AQ
Scala: S43
Desc: Stage One - Lot 40

Test Location: TL-AQ
Auger: A43



Depth (mm)	Description	Log
0	Dry dark brown fine silty SAND (UNCONTROLLED FILLING).	[Dotted pattern]
300	Dry yellowish brown medium silty SAND (HINUERA FORMATION).	
1100	Dry light grey fine silty SAND (pumiceous).	
1600	Becoming dark grey	
1900	Wet brownish grey clayey SILT, with some organic.	[Cross-hatched pattern]
2100	End of auger	

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

Test Date: 15/04/2019

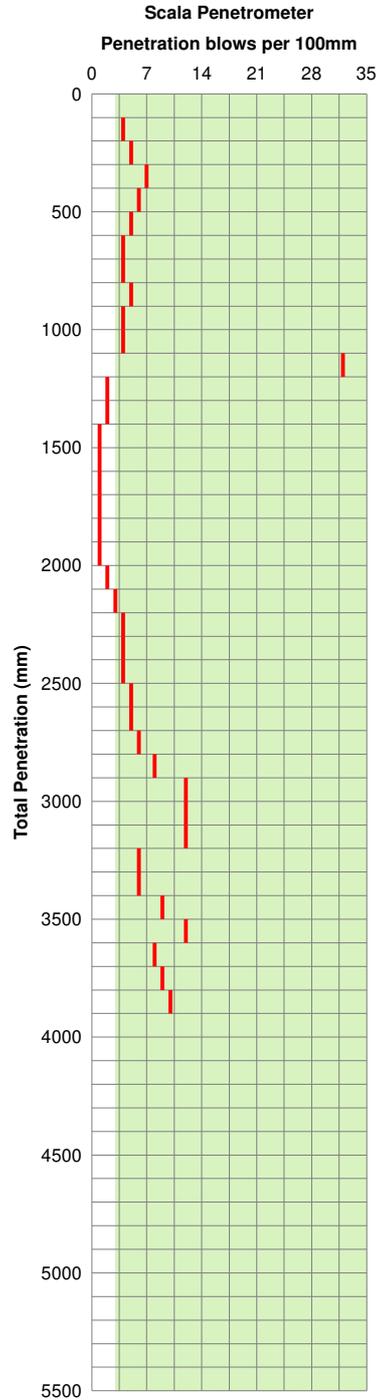
Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

Test Location: TL-AR
Auger: A44

Test Location: TL-AS
Scala: S45
Desc: Stage One - Lot 42

Depth (mm)	Description	Log



Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

Test Location: TL-AS

Auger: A45

Depth (mm)	Description	Log
0	Dry light brown clayey SILT. with some topsoil (UNCONTROLLED FILLING).	x x x x x x x x x x x x x x x
300	Dry light yellowish brown fine silty SAND (HINUERA FORMATION).
700	Moist light grey fine SAND slightly iron stained.
950	Contains few manganese nodules
1500	Becoming wet and dilatent
1900	Becomes light brownish grey (si organic)
2100	End of auger

End of auger

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

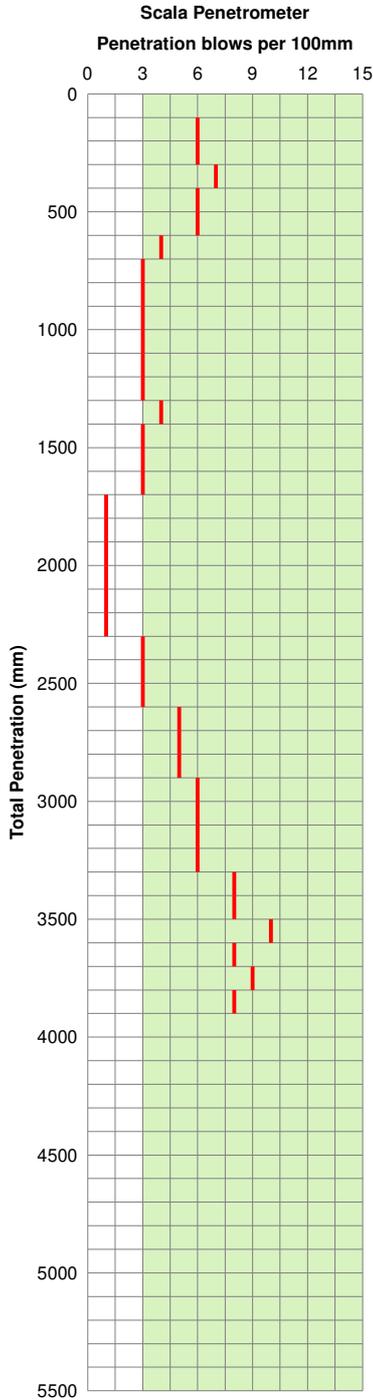
Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

Test Location: TL-AT
Scala: S46
Desc: Stage One - Lot 43

Test Location: TL-AT
Auger: A46



Depth (mm)	Description	Log
0	TOPSOIL.	
150	Dry dark brown SILT, with some fine sand (UNCONTROLLED FILLING).	
400	Dry yellowish brown fine silty SAND.	
600	Dry light yellowish grey fine silty SAND slightly iron stained and minor manganese nodules.	
1100	Moist light grey fine silty SAND (pumiceous).	
1700	Becomes wet and dilatent	
2200	End of auger	

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

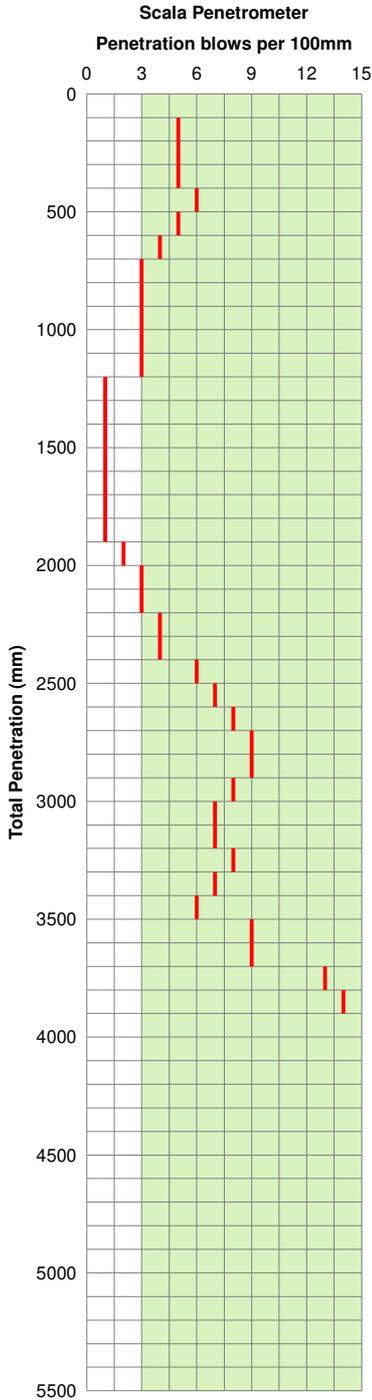
Test Location: TL-AU

Test Location: TL-AU

Scala: S47

Auger: A47

Desc: Stage One - Lot 44



Depth (mm)	Description	Log
0	TOPSOIL.	☙ ☙
150	Dry brown fine sandy SILT, with some topsoil (UNCONTROLLED FILLING).	☙ ☙
300	Dry light brown fine silty SAND (HINUERA FORMATION).	☙ ☙
700	Dry light grey fine silty SAND (pumiceous) moderately iron stained.	☙ ☙
1200	Wet greyish brown clayey SILT.	☙ ☙
1900	Moist bluish grey clayey SILT.	☙ ☙
2200	End of auger	☙ ☙

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

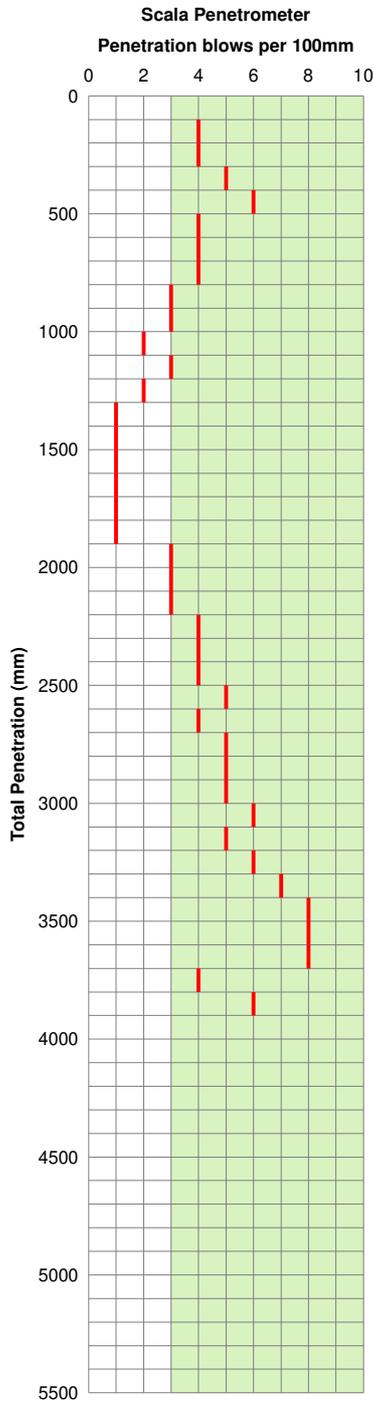
Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

Test Location: TL-AV
Scala: S48
Desc: Stage One - Lot 45

Test Location: TL-AV
Auger: A48



Depth (mm)	Description	Log
0	TOPSOIL.	☙ ☙
150	Dry dark brown fine sandy SILT, with some topsoil (UNCONTROLLED FILLING).	☙ ☙
400	Dry light grey fine silty SAND (pumiceous) (UNCLER FORMATION). Becoming moist	☙ ☙
600		☙ ☙
1400	Wet dark grey clayey SILT.	☙ ☙
1600	Moist bluish grey clayey SILT.	☙ ☙
2200	End of auger	☙ ☙

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

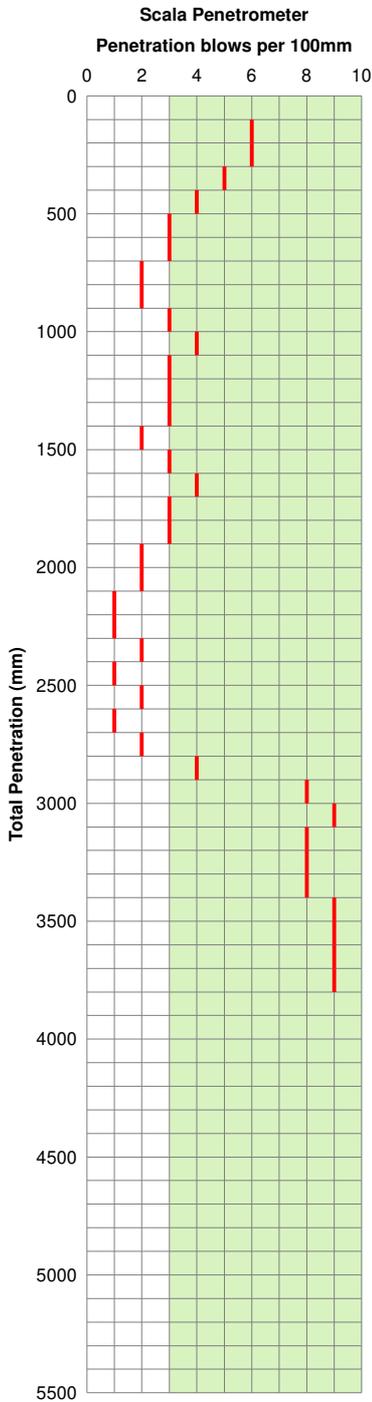
Test Location: TL-AW

Test Location: TL-AW

Scala: S49

Auger: A49

Desc: Stage One - Lot 46



Depth (mm)	Description	Log
0	TOPSOIL.	
150	Dry brown fine sandy SILT, with some topsoil (UNCONTROLLED FILLING).	
300	Dry light yellowish grey fine silty SAND (HINUERA FORMATION). Becomes moderately iron stained and manganese nodules	
450	Dry light grey fine silty SAND (pumiceous).	
500		
1500	Becomes wet and dilatent	
1900	Wet greenish grey clayey SILT.	
2200	End of auger	

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

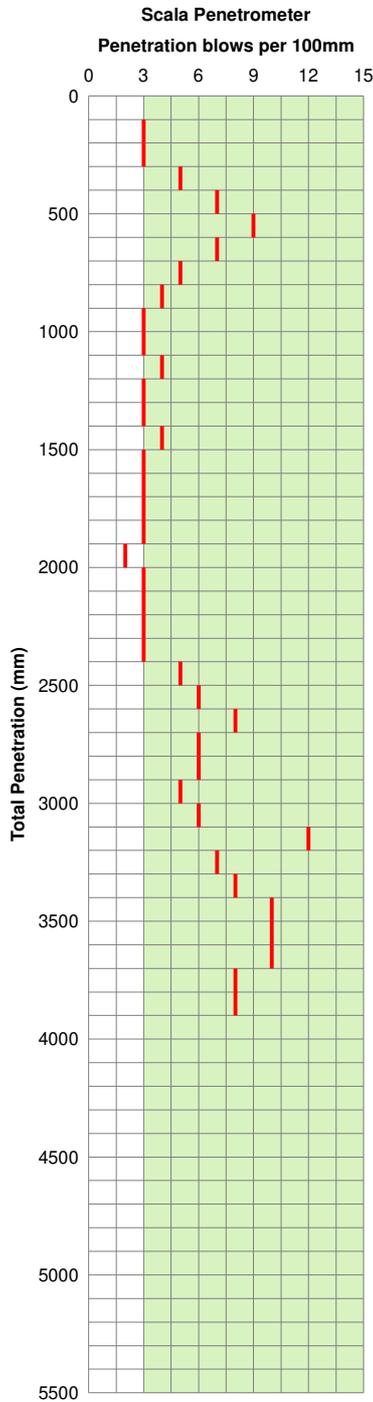
Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

Test Location: TL-AX
Scale: S50
Desc: Stage One - Lot 47

Test Location: TL-AX
Auger: A50



Depth (mm)	Description	Log
0	Dry brown SILT, with some fine sand (UNCONTROLLED FILLING).	[Cross-hatch pattern]
300	Dry brownish orange SILT, with some fine sand (HINUERA FORMATION).	
600	Moist light grey SILT, with some fine sand moderately iron stained.	[Cross-hatch pattern]
1000	Becoming heavily iron stained	
1200	Moist light grey fine silty SAND (pumiceous).	[Dotted pattern]
1500	Becoming wet and dilatent	
1900	Wet bluish grey clayey SILT.	[Cross-hatch pattern]
2100	End of auger	

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

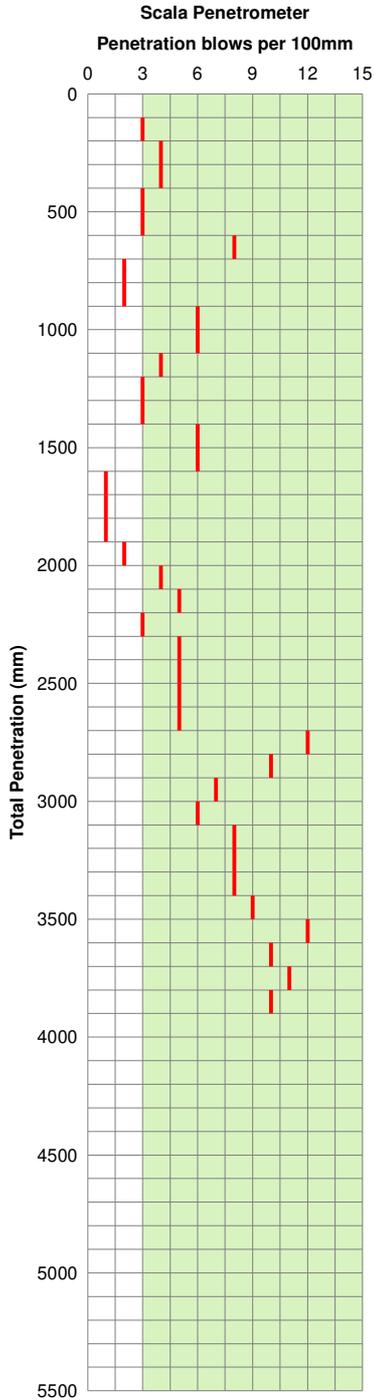
Test Location: TL-AY

Test Location: TL-AY

Scala: S51

Auger: A51

Desc: Stage One - Lot 48



Depth (mm)	Description	Log
0	Dry brown SILT, with some fine sand (UNCONTROLLED FILLING).	XXXXXX
200	Dry light grey SILT, with some fine sand (pumiceous) (HINUERA FORMATION).	
400	Moist greyish brown clayey SILT, with minor fine sand (pumiceous), organic.	XXXXXX
900	Moist light brownish grey SILT, with some fine sand (pumiceous).	
1600	Wet bluish grey clayey SILT.	XXXXXX
2000	End of auger	

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

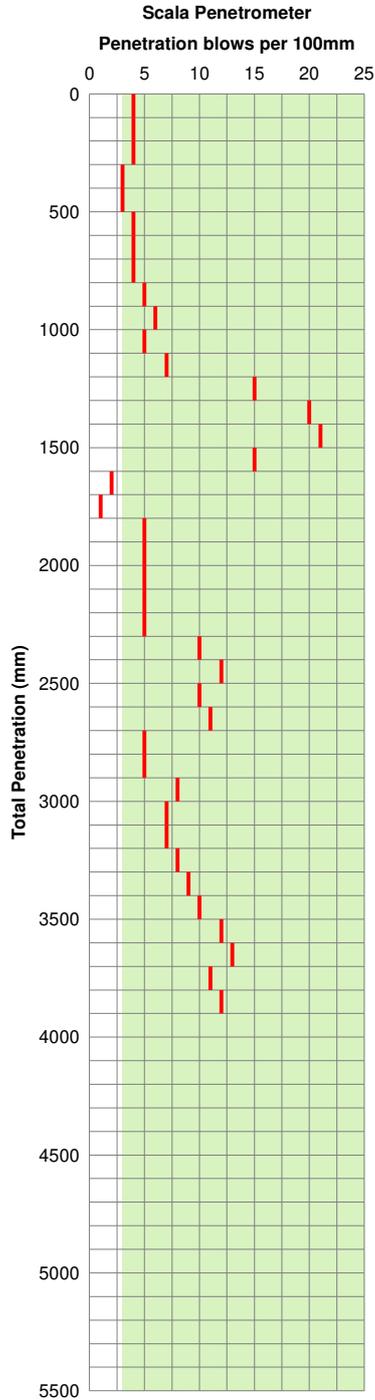
Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

Test Location: TL-AZ
Scala: S52
Desc: Stage One - Lot 49

Test Location: TL-AZ
Auger: A52



Depth (mm)	Description	Log
0	Dry brown clayey SILT, with minor fine sand, topsoil (UNCONTROLLED FILLING).	[Cross-hatched pattern]
400	Dry light grey clayey SILT, with some fine sand (pumiceous) (HINUERA FORMATION).	
700	Dry light brownish grey SILT, with some fine sand (pumiceous).	
1600	Contains organic lenses	
1800	Moist greyish brown clayey SILT.	
2000	Moist bluish grey clayey SILT.	
2200	End of auger	

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

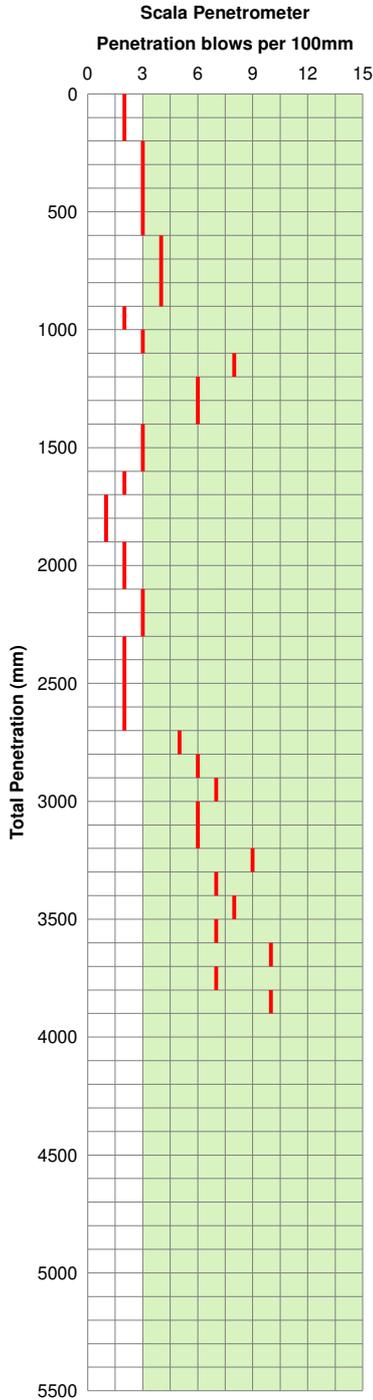
Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

Test Location: TL-BA
Scala: S53
Desc: Stage One - Lot 50

Test Location: TL-BA
Auger: A53



Depth (mm)	Description	Log
0	Dry dark brown SILT, with some sand, with topsoil (UNCONTROLLED FILLING).	[Cross-hatch pattern]
700	TOPSOIL.	
850	Dry brown SILT, with some fine sand (pumiceous) (HINUERA FORMATION). Becoming light grey	[Cross-hatch pattern]
1200		
1800	Moist greyish brown fine sandy SILT.	
2000	Moist brownish grey clayey SILT.	[Cross-hatch pattern]
2200	End of auger	

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

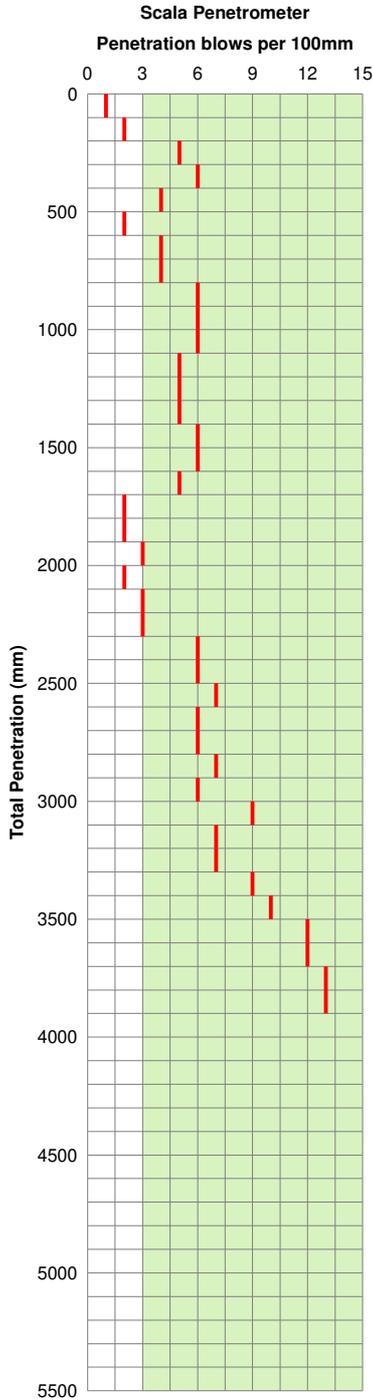
Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

Test Location: TL-BB
Scala: S54
Desc: Stage One - Lot 51

Test Location: TL-BB
Auger: A99



Depth (mm)	Description	Log
0	Dry dark brown SILT, with some fine sand, with topsoil (UNCONTROLLED FILLING).	[Cross-hatch pattern]
800	Dry greyish brown SILT, with some fine sand (HINUERA FORMATION).	
1100	Dry light brownish grey fine silty SAND (pumiceous).	[Dotted pattern]
1400	Moist light grey fine sandy SILT dilatent.	
1700	Moist brown clayey SILT.	[Cross-hatch pattern]
1900	Wet bluish grey clayey SILT.	
2100	End of auger	

Soil Report

Client: River Road North 1 Ltd

BTW Job No: 17840

Location: 75 River Road, Ngaruawahia

BTW Project Manager: Taryn Martin

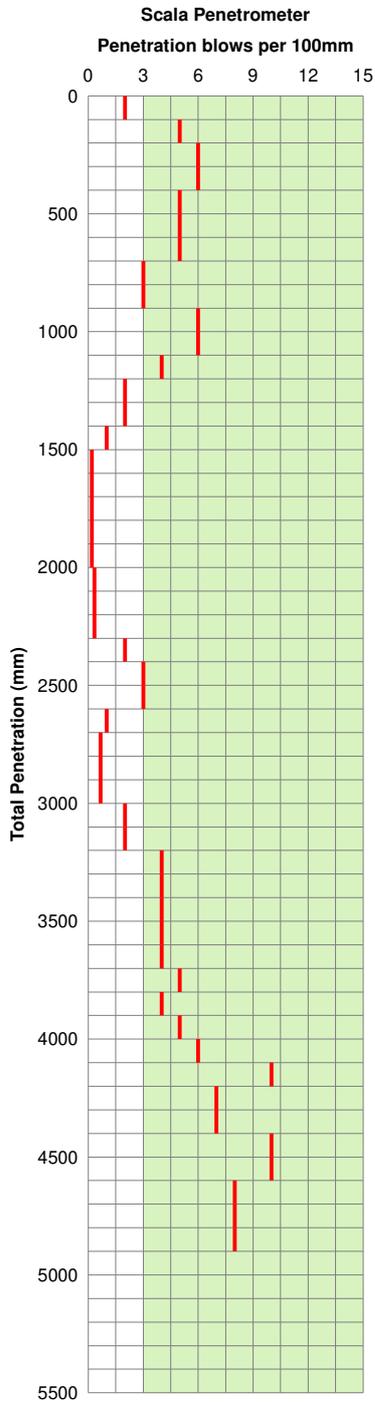
Test Date: 15/04/2019

Tested By: BGM, CSL, CDBG

Description: Stage One, Geotechnical Completion Testing

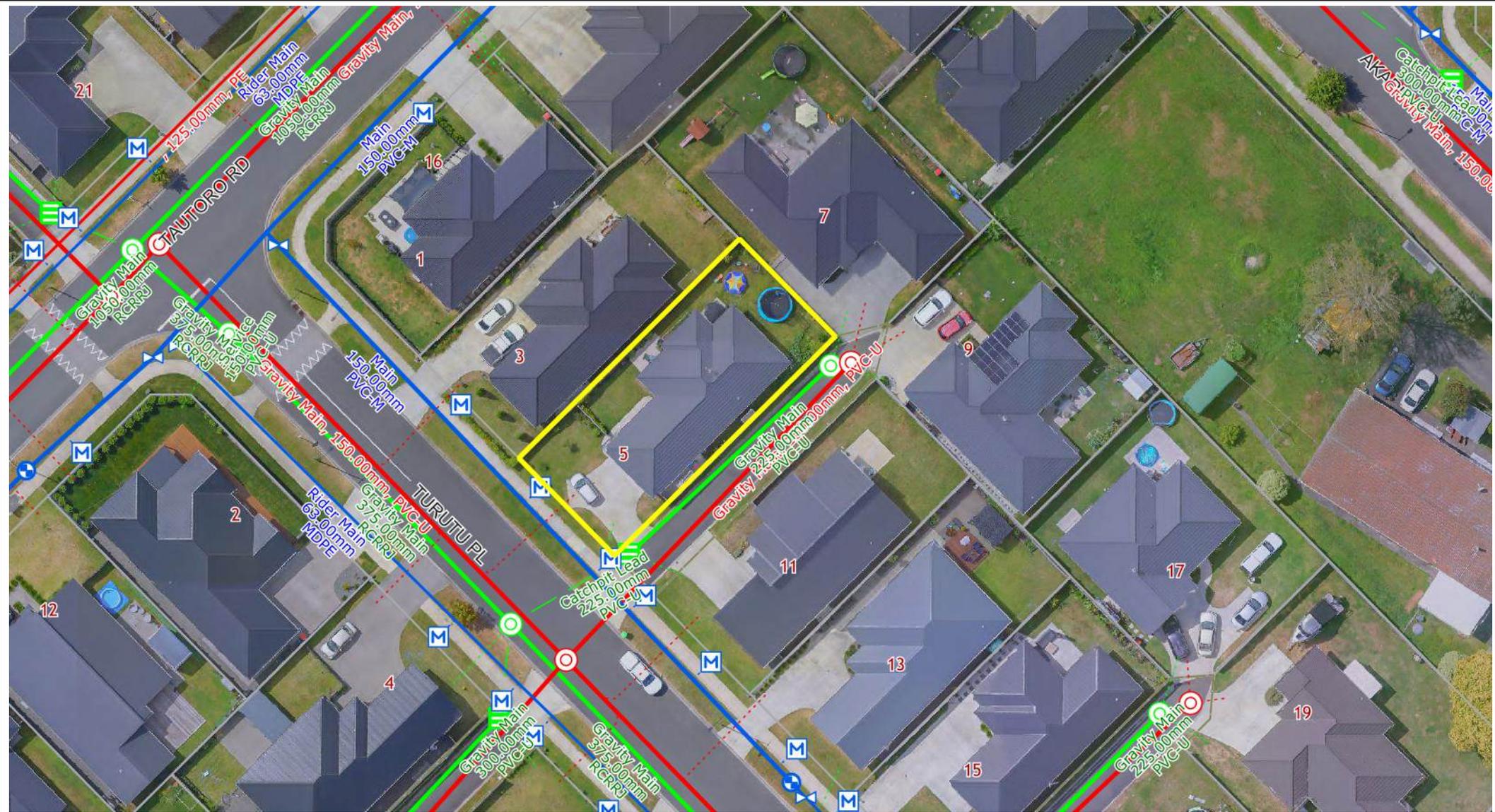
Test Location: TL-BD
Scala: S56
Desc: Stage 1 - Lot 41

Test Location: TL-BD
Auger: A56



Depth (mm)	Description	Log
0	Moist brown clayey SILT (UNCONTROLLED FILLING).	XXXXXX
200	Moist yellowish brown fine silty SAND (HINUERA FORMATION).	XXXXXX
700	Moist light grey fine silty SAND.	XXXXXX
1000	Slightly dilatant	XXXXXX
1100	Moist dark grey fine sandy SILT, with some fine sand (pumiceous).	XXXXXX
1500	Water Table	XXXXXX
1500	Moist light grey clayey SILT (pumiceous).	XXXXXX
2000	End of auger	XXXXXX

APPENDIX E REINFORCED GRAVEL RAFT INDICATIVE DRAWING



A4 Service Plan

5 Turutu Place NGARUAWAHIA - LOT 26 DP 537748 INT IN ESMT

Scale: 1:564
 Print Date: 09/03/2026
 Projection: NZ Transverse Mercator
 Datum: NZ Geodetic Datum 2000

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Storm Water Point		Waste Water Point		Water Supply Point	
Fitting	Other	Fitting	Other	Backflow	Other
Manhole	Sump	Manhole	Valve	Fitting/Node	Valve
Pipe	Drain	Gravity Main	Rising Main	Hydrant	Main
Misc	Misc	Other	Other	Raw Water Main	Rising Main
Service	Service	Service	Service	Service	Service