

12 June 2023

s9(2)(a)

Tēnā koutou

Thank you for your request of 15 April 2023, to Kāinga Ora - Homes and Communities, requesting further information under the Official Information Act 1982 (the Act), and detailed as follows:

*"1) We have requested that the pre purchase valuation be provided. Instead of a valuation we were sent the Market Consultancy Report provided by Extensor and dated 12 March 2020. This is not a valuation.*

*However, on page 4 of the internal document provided **requesting signoff for the purchase** (signed May 2020 by your Market Delivery Director and Market Delivery Acquisition Manager) it states a **valuation** of \$5,520,000. This valuation report has not been released by Kainga Ora yet.*

*Under OIA, please provide:*

- a) the **pre purchase valuation** requested by us previously, or confirmation that no valuation was supplied to you.*
- b) the instructions to Extensor when commissioning the Market Consultancy Report dated 12th March 2020.*

*2) In the email below we asked if any earlier offers were made on this property by Kāinga Ora, HNZ or any other NZ Government entities, if any, and detail the date(s) and amount(s) offered.*

*The response from Kāinga Ora was:*

*Kāinga Ora did not make any prior offers on this property.*

*However, on page 3 of the internal document provided requesting signoff for the purchase (signed May 2020 by your Market Delivery Director and Market Delivery Acquisition Manager) it states:*

***In May 2019 Kainga Ora and Broadway Developments Ltd ("Vendor") started negotiations to purchase the property as a New-Build project, however we could not agree on price. The Vendor expressed there was insufficient profit at the assessed current market value.***

***In February 2020 the Vendor decided to sell the Property and engaged Colliers as marketing agent.***

*Under OIA, please release the email correspondence, documents, offers and agreements in relation to the first negotiation and also the second negotiation which resulted in the purchase of the land on Bonair Crescent.*

*3) We refer to the document below:*

**Reference:**

**Project Brief dated 20/08/20.**

Signed by:

Regional Portfolio Manager 03.09.2020

Development Strategist Manager 03.09.2020

Programme Director 15.11.2021

Page 17: Current **MSD** demand data shows 104 applicants on the waitlist for 2-bedroom homes in this postcode.

We note this is not consistent with the figures provided by the Ministry for Social Development. Under OIA, please clarify how your data has been compiled and how this is different to MSD's process.

We refer to the comments below in page 20 and page 21. Please supply all drafts and correspondence relating to the drafting and clearance of these paragraphs.

Page 20: Any new resource consent Kainga Ora was to apply for on this site is **likely to be risky** as Kainga Ora has no presence currently in this location. **Local community opposition is likely to be significant.** Therefore, **it is advised that Kainga Ora develop the site under the current resource consent.** Any variations to the current consent, such as for the parking area, would be low risk and processed by staff. It is likely that a S.127 Resource Variation application can be lodged to address minor changes to the current resource consent such as parking and access, general building location, site landscaping.

Page 21: Appropriate - supported by People and Homes but we are **currently oversubscribing to two-bedroom homes.**

Under OIA, please provide an explanation and supporting documentation as to why there was a planned delay between land purchase and building on the land, and was the land sale to Kāinga Ora contingent on waiting for Millwater Developers to finish selling the rest, or most of, their land in Millwater. We note the Market Consultancy Report provided by Extensor stating how many homes still to be completed and sold ( 500 ) and the estimated date of completion for Millwater ( end of 2022 ) , which lined up with Kainga Ora's original planned start date ( October 2022 ) .

We note that **one** pre-offer document has been released, being the Market Consultancy Report provided by Extensor and **one** pre- settlement internal document has been released, signed May 2020. If there is any further record of due diligence being undertaken, please provide this under OIA."

I am responding to your questions in order (highlighted), with responses following:

1) We have requested that the pre purchase valuation be provided. Instead of a valuation we were sent the Market Consultancy Report provided by Extensor and dated 12 March 2020. This is not a valuation.

However, on page 4 of the internal document provided **requesting signoff for the purchase** (signed May 2020 by your Market Delivery Director and Market Delivery Acquisition Manager) it states a **valuation** of \$5,520,000. This valuation report has not been released by Kāinga Ora yet.

Under OIA, please provide:

- a) the **pre purchase valuation** requested by us previously, or confirmation that no valuation was supplied to you.
- b) the instructions to Extensor when commissioning the Market Consultancy Report dated 12th March 2020.

The Market Consultancy Report document, previously provided to Bonair Action Group, contains Extensor's **assessment of market value** on page seven. This was the valuation relied upon when purchasing the property.

I am providing the attached email, dated 6 March 2020, which requests a quote for the cost of providing valuation advice. Extensor was subsequently engaged verbally to provide the advice referred to above. Some information is withheld under section 9(2)(a) of the Act to protect the privacy of natural persons.

2) In the email below we asked if any earlier offers were made on this property by Kāinga Ora, HNZ or any other NZ Government entities, if any, and detail the date(s) and amount(s) offered.

The response from Kāinga Ora was:

*Kāinga Ora did not make any prior offers on this property.*

However, on page 3 of the internal document provided requesting signoff for the purchase (signed May 2020 by your Market Delivery Director and Market Delivery Acquisition Manager) it states:

***In May 2019 Kainga Ora and Broadway Developments Ltd ("Vendor") started negotiations to purchase the property as a New-Build project, however we could not agree on price. The Vendor expressed there was insufficient profit at the assessed current market value.***

***In February 2020 the Vendor decided to sell the Property and engaged Colliers as marketing agent.***

Under OIA, please release the email correspondence, documents, offers and agreements in relation to the first negotiation and also the second negotiation which resulted in the purchase of the land on Bonair Crescent.

This information has already been provided to you in our response dated 7 March 2023. This response is attached.

3) We refer to the document below:

**Reference:**

**Project Brief dated 20/08/20.**

Signed by:

Regional Portfolio Manager 03.09.2020

Development Strategist Manager 03.09.2020

Programme Director **15.11.2021**

*Page 17: Current **MSD** demand data shows 104 applicants on the waitlist for 2-bedroom homes in this postcode.*

We note this is not consistent with the figures provided by the Ministry for Social Development. Under OIA, please clarify how your data has been compiled and how this is different to MSD's process.

This information was addressed in my response dated 17 March 2023. We acknowledge the difference in the figures contained in the Project Brief of 2020, and the numbers on record by the Ministry of Social Development for that period for two-bedroom homes. The figure we included in the Project Brief was in fact the number of people waiting for homes in the area overall, rather than specifically for two bedrooms. That said, housing need is constantly changing and dynamic, as evidenced by the current number of 138 households on the MSD Hibiscus and Bays Local Board waitlist (as at March 2023). Kāinga Ora take into account a number of factors to form a comprehensive view of public housing demand, at any given point in time. These factors, including MSD waitlist, MSD transfer requests, and our internal Business Initiated Transfer requests, would be analysed with other external drivers to ensure our investment decisions are consistent with the Government's strategic directions and priorities for housing and urban development.

We refer to the comments below in page 20 and page 21. Please supply all drafts and correspondence relating to the drafting and clearance of these paragraphs.

*Page 20: Any new resource consent Kainga Ora was to apply for on this site is likely to be risky as Kainga Ora has no presence currently in this location. Local community opposition is likely to be significant. Therefore, it is advised that Kainga Ora develop the site under the current resource consent. Any variations to the current consent, such as for the parking area, would be low risk and processed by staff. It is likely that a S.127 Resource Variation application can be lodged to address minor changes to the current resource consent such as parking and access, general building location, site landscaping.*

*Page 21: Appropriate - supported by People and Homes but we are currently oversubscribing to two-bedroom homes.*

This part of your request is refused under section 18(e) of the Act, as the information requested does not exist or cannot be found.

Under OIA, please provide an explanation and supporting documentation as to why there was a planned delay between land purchase and building on the land, and was the land sale to Kainga Ora contingent on waiting for Millwater Developers to finish selling the rest, or most of, their land in Millwater. We note the Market Consultancy Report provided by Extensor stating how many homes still to be completed and sold ( 500 ) and the estimated date of completion for Millwater ( end of 2022 ) , which lined up with Kainga Ora's original planned start date ( October 2022 ) .

The land sale to Kāinga Ora was not contingent on Millwater Developers finishing selling the rest, or most of, their land in Millwater. There is always a period of time required between a land purchase and building work commencing. In this case, the original intention was that Kāinga Ora would build the already-consented development planned by the vendors, with some minor alterations, before that was revisited. This contributed to the delay.

We note that **one** pre-offer document has been released, being the Market Consultancy Report provided by Extensor and **one** pre- settlement internal document has been released, signed May 2020. If there is any further record of due diligence being undertaken, please provide this under OIA.

Please find attached 'Planning, Geotechnical, Stormwater, Wastewater, Water supply and Traffic Desktop Study' dated 24 April 2020 provided by Tonkin & Taylor.

You have the right to seek an investigation and review by the Ombudsman of this decision. Information about how to make a complaint is available at [www.ombudsman.parliament.nz](http://www.ombudsman.parliament.nz) or freephone 0800 802 602.

Please note that Kāinga Ora proactively releases our responses to official information requests where possible. Our response to your request may be published at <https://kaingaora.govt.nz/publications/official-information-requests> with your personal information removed.

Nāku noa, nā

*Caroline Butterworth*

Caroline Butterworth  
DCE Tāmaki Tai Tokerau Auckland Northland

Kainga Ora  
PO Box 74598  
Greenlane  
Auckland, 1546

Attention: Anthony Law

Dear Anthony,

## 153 Bonair Crescent, Millwater: Pre-purchase Assessment

Planning, Geotechnical, Stormwater, Wastewater, Water supply and Traffic Desktop Study

### 1 Introduction

#### 1.1 Background

Kāinga Ora has engaged Tonkin & Taylor Limited (T+T) to carry out a desk study assessment of the consented information and high-level constructability review for the proposed development at 153 Bonair Crescent, Millwater in Auckland. The assessments have been done for planning, geotechnical, stormwater, wastewater, water supply and traffic. Our assessments are intended to assist Kāinga Ora's pre-purchase assessment for the site.

The property at 153 Bonair Crescent (the Site) comprises 4,787 m<sup>2</sup> and is part of the Millwater Precinct 2, Stage 4A subdivision. The proposed development comprises three two-storey apartment buildings. The development has been granted a single Resource Consent and three building consents (one for each proposed building). As advised, we understand that Kāinga Ora proposes to develop the site according to the consented layout.

This letter report presents our findings based on a review of the consent documentation for the proposed 153 Bonair Crescent development.

#### 1.2 Objective and Scope

T+T has completed the following scope of works, to support the pre-purchase assessment:

Review of provided information, listed in Section 1.3, and assessment of possible opportunities and constraints; and

Carry out a high-level constructability review, based on review of Building Consent drawings and assessments of possible opportunities and constraints.

Table 1.1 below provides a breakdown of the disciplines and review tasks.

Table 1.1. Breakdown of disciplines and review tasks

Discipline	Review of provided information	High-level review of constructability
Geotechnical	√	√
Civil (SW, WW, PW and flooding)	√	√
Planning	√	
Traffic	√	
Note: Review is based on the documents listed in Section 1.3		

### 1.3 Source Material

Our assessment is based on a review of the following documents provided by Kāinga Ora, Colliers and Broadway Developments in relation to the issued resource and building consents:

- 1 "Resource Consent for earthworks and subdivision- discretionary activity", issued by Auckland Council, reference number BUN60322577, LUC60322632 & SUB60322630, dated 9 August 2018.
- 2 "Building consent for Building A", issued by Auckland Council, reference number BCO10276359, dated 27 June 2019.
- 3 "Building consent for Building B", issued by Auckland Council, reference number BCO10280535, dated 27 June 2019.
- 4 "Building consent for Building B", issued by Auckland Council, reference number BCO10281548, dated 27 June 2019.
- 5 "Resource Consent Application and Assessment of Environmental Effects – Integrated Land Use & Subdivision – Lot 1011 – 1013 Bonair Crescent, Millwater", prepared by Woods and Partners Ltd, Ref No. P17-290, V 1.2, 28/6/2018
- 6 "Geotechnical Investigation Report – proposed residential development Lots 1011, 1012 & 101 Bonair Crescent, Millwater", prepared by KGA Geotechnical, Ref No. K180327-1a, 7 May 2018
- 7 "Geotechnical Completion Report – Millwater – Precinct 2, Stage 4A, prepared by Tonkin & Taylor Ltd, Ref No. 21854.001/S4A.v1, May 2017
- 8 "Engineering Approval for 153 Bonair Crescent Silverdale, Auckland 0992, Description of works: Proposed stormwater, wastewater and watermain network extension including connection and Roding", issued by Watercare, reference number ENG60327671, dated 12 January 2019
- 9 "Stormwater Assessment – Bonair Crescent", prepared by Woods and Partners Ltd, Ref No. P17-290, 19/4/2018
- 10 Traffic Assessment Report – Lot 1011 – 1013 Bonair Crescent, Silverdale.

## 2 Proposed development

The site comprises 4,787 m<sup>2</sup> and consists of three superlots and an existing Jointly Owned Access Lot (Chemin Way), as shown on Figure 2.1 below. The site is bound by an approximately 3 m high timber pole wall / residential properties to the north, Percival Lane to the west, Bonair Crescent / Croix Reserve to the south and Fleur Lane to the east.

The site grades from about RL 35 m at the north west to RL 25 m in the south eastern part of the site. The fall is relatively modest at approximately 5%. Existing public stormwater, wastewater and water connections are provided in the road berm of Bonair Crescent and Fleur Lane. Stormwater will be directed into existing stormwater ponds within Croix Reserve.

A review of the proposed development documentation is summarised below:

- 1 The proposed development comprises construction of 38 walk-up residential apartments, spread over three two storey buildings;
- 2 Cladding will consist a mixture of brick and rendered blockwork, vertical metal cladding, plywood timber sheets and metal roofing
- 3 The existing jointly owned access lot at the rear of the site (currently known as Chemin Way) will be replaced with two external vehicle access points provided via Bonair Crescent and an additional pedestrian lane.
- 4 Approximately 4,786 m<sup>2</sup> (plan area) and 1,500 m<sup>3</sup> (volume) of earthworks is proposed as part of the development to create level building platforms.
- 5 Apart from the existing 3 m high retaining wall at the rear of the site, there are only minor retaining walls (less than 1 m high) proposed as part of the development.
- 6 Proposed private stormwater, sewer and water supply pipes will be directed into the public network.

Figure 2.1. Proposed development (image extracted from Architectural drawings)



### 3 Consent Condition Review

#### 3.1 Resource Consents

##### 3.1.1 Details of awarded resource consents

This planning assessment solely reviews the land use consent (LUC60322632) and subdivision consent (SUB60322630). The details of these resource consents are outlined within Table 3.1 below.

Table 3.1: Resource consents for 153 Bonair Crescent, Millwater

Resource consent	Date granted	Date of expiry	Purpose of consent
LUC60322632	09/08/2018	09/08/2023	<p>This resource consent authorises the construction and associated density of 38 residential dwellings within three two-storey buildings as shown on the approved plans. The authorised development also includes creation of off-street parking spaces, bin storage and landscaping along the jointly owned legal access way.</p> <p>The land use consent also authorises the earthworks required to construct the approved development and the creation of 3956 m<sup>2</sup> of impervious area within a Stormwater Management Area.</p>
SUB60322630	09/08/2018	09/08/2023	<p>This resource consent authorises a unit title subdivision around the authorised land use development LUC60322632.</p> <p>The subdivision consent provides for the following:</p> <p><u>Principal Units:</u> The creation of 38 principal units for the residential units.</p> <p><u>Accessory Units:</u> The creation of accessory units over all outdoor living areas and car parking spaces, inclusive of the area containing a storage unit.</p> <p><u>Common Property:</u> The creation of common property over all property not identified as a Principal Unit or Accessory Unit.</p>

## 3.1.2 Land Use Resource Consent (LUC60322632)

Table 3.2 below contains a planning assessment of the land use resource consent conditions considered of note. Table 3.3 outlines possible consideration for the proposed development

Table 3.2: Planning Assessment of LUC60322632

Item	Condition	Assessment	Timing considerations	Cost considerations
1	3 – Monitoring Charge	Consent holder is required to pay an initial \$900 monitoring fee to Auckland Council.	This fee may be required to be paid prior to providing the additional documentation required by the consent as written certification is required from the Compliance Monitoring Team.	The monitoring fee of \$900 is an initial charge and as such additional fees can be expected to be incurred.
2	4 – Detailed Design	Condition 4 requires a final full set of architectural drawings which must include specific details of materials, sample palettes of materials, surface finishes and colour schemes etc. to be provided to Council for written certification.	The awarded Building Consents support this condition is satisfied.  Compliance with this condition is required <u>prior to any construction.</u>	Cost associated with consultancy services and costs to construct development shown on approved drawings  The proposed materials are contained on approved plan number RC-18.
3	5 – Landscape and pavement plans	Condition 5 requires a final set of landscape and pavement plans. The plan requires a plant schedule, specifications and details regarding the pavement throughout the development to be provided to Council for written certification.	The awarded Building Consents support this condition is satisfied.  Compliance with this condition is required <u>prior to any construction.</u>	Cost associated with consultancy services and costs to construct development shown on approved drawings  The proposed landscape detail are contained on approved plan number 002 ,003 and 004.
4	7 – Waste Management Plan	A Waste Management Plan must be provided to Council for written certification.	Compliance with this condition is required <u>prior to the residential development being first occupied.</u>	Cost associated with consultancy services and costs to construct development shown on approved drawings

### 3.1.3 Subdivision Resource Consent (SUB60322630)

Table 3.3 below contains a planning assessment of the subdivision resource consent conditions considered of note. Table xx outlines possible consideration for the proposed development.

It is noted that the subdivision consent allows for staging in condition 3. The subdivision can be completed in stages in any order or in its entirety without stages. The stages are specified by the consent as:

- Stage 1 – Block A (including parking and storage units associated with Block A and two-way vehicle access to Bonair Crescent);
- Stage 2 – Block B (including parking and storage units associated with Block B);
- Stage 3 – Block C (including parking and storage units associated with Block C).

The subdivision consent conditions are generally duplicated under each stage and therefore the commentary of these conditions have been bundled within Table 3.3 below. Where this is not the case it is contained as a separate item within Table 3.3.

Table 3.3: Planning Assessment of SUB60322630

Item	Condition	Assessment	Timing considerations	Cost considerations
1	4- s223 and s224(c) compliance condition (Stage 1)	<p>Condition 4 appears to contain the requirement for section 223 (survey plan approval) and one s224(c) condition title "Existing Consent". It is unclear if this is a numbering error from Auckland Council or has been purposefully conditioned this way. We recommend that Auckland Council is contacted for clarification.</p> <p>The condition under the title "Existing Consent" requires written confirmation that all applicable conditions from the land use consent LUC60322632 have been complied with.</p> <p>Section 223 (survey plan approval) is reliant on the units being constructed to at least the framing stage.</p>	<p>Prior to s224(c) being issued all conditions of the land use consent LUC60322632 and the subdivision consent must be complied with to the satisfaction of Council.</p> <p>Written documentation will need to be provided where required to demonstrate compliance.</p> <p>The timeframes required to obtain compliance with all conditions would need to be considered in order to estimate when an application for s224c approval could be lodged with Auckland Council.</p>	<p>Cost associated with obtaining services of a suitably qualified and experienced surveyor.</p> <p>Cost associated with complying with all land use and subdivision consent conditions before Council considers issuing s224c Including Council fees for these applications.</p>

2	s223 compliance condition  Condition 18- Stage 2  Condition 32 – Stage 3	This condition requires confirmation that block B (for stage 2) or block C (for stage 3) residential units have been constructed to at least framing stage prior to Council considering approval of a survey plan.	Construction to framing stage must be completed before Council will consider an application for s223.	Cost associated with obtaining services of a suitably qualified and experienced surveyor.
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### 3.2 Building consents (BCO10276359, BCO10280535, BCO10281548)

We understand that the following building consents have been issued by Auckland Council.

- 11 "Building consent for Building A", issued by Auckland Council, reference number BCO10276359, dated 27 June 2019.
- 12 "Building consent for Building B", issued by Auckland Council, reference number BCO10280535, dated 27 June 2019.
- 13 "Building consent for Building C", issued by Auckland Council, reference number BCO10281548, dated 27 June 2019.

The documentation provided with the building consent applications such as the plans and engineering plans could be used by the consent holder to demonstrate compliance with relevant land use and subdivision consent conditions. It appears that the building consent plans are consistent with the approved resource consent plans in terms of bulk, location and appearance requirements in condition 4 of LUC 60322632. However, documentation must still be provided to Council as required by the approved resource consents and written certification (granted by Resource Consents Monitoring) to satisfy compliance with these conditions.

Construction has to start within 12 months of the award of a Building Consent. However, it is possible to apply for an extension of time for a fee before the specified time frame is reached<sup>1</sup>. The Building Consents for Block A to C were awarded on 27 June 2019, which means that construction will need to start by 27 June 2020 unless an extension is applied for.

<sup>1</sup> <https://www.aucklandcouncil.govt.nz/building-and-consents/understanding-building-consents-process/complete-project/Pages/extension-time-commence-complete-building-work.aspx>

## 4 Geotechnical Desktop Assessment

### 4.1 Review of provided documents

Table 4.1 below contains a high-level geotechnical assessment of the provided documents (listed in Section 2 of this letter). The table also outlines opportunities and constraints for each consideration.

Table 4.1. Summary of high-level geotechnical assessment of the provided documents

Item	Considerations	Assessment	Opportunity	Constraint
1 a	Compliance SUB60322630 (conditions 8, 22& 36)	This condition requires that any buildings on the specified block being Block A, Block B or Block C must comply with the approved Geotechnical Completion Reports.	This is a standard statement for large subdivisions. Review of geotechnical reports by T+T and KGA as well as Building Consent drawings indicates appropriate agreement	
1 b	Compliance SUB60322630 (conditions 9, 23& 37)	A Chartered Professional Engineer experienced in geotechnical engineering to supervise and provide certification of geotechnical works on site.	This is standard for all construction projects in New Zealand. The chartered engineer verifies design parameters with actual parameters obtained during construction.	Extra cost but also security
2	Land stability SUB60322630 (conditions 10, 24& 38)	Areas underlain by the geological unit Northland Allochthon (the site) are generally susceptible to land instability.	Extensive construction has already been completed to stabilise the overall subdivision (Millwater Precinct 2, Stage 4A). The stabilisation works included construction of a shear key upslope from the site, mucking out of two gullies and replacement with underfill drainage and engineered fill to the south of the site.	The area is known for instability, but, based on engineering reports, the earthworks for the overall subdivision (Millwater Precinct 2, Stage 4A) appear to have improved the stability to acceptable levels .
3a	Retention SUB60322630 (conditions 10, 24& 38)	An existing 3 m high retaining wall runs along the northern site boundary. The retaining wall supports a stormwater pipe servicing the properties upslope of the wall.	The retaining wall is robust and comprises 9 m long 375mm dia timber poles, at 1.2 m centres. In addition, the driveway will provide some buttressing.	No documentations or calculations have been sighted to verify effects of the existing wall from the proposed cut. We recommend a check is carried out.

Item	Considerations	Assessment	Opportunity	Constraint
		The cut fill plan (C210 Rev 3) shows 0 to 0.5 m of cut along the entire 3 m high timber pole wall and between 0.5 and 1 m behind Blocks A and C.		
3b	Retention SUB60322630 (conditions 10, 24& 38)	Minor retaining walls (<1 m high) are required to form suitable level ground.	Typical engineering tasks.	
4	Foundations	The design of all foundation slabs may assume a geotechnical ultimate, bearing capacity of 300kPa (150 kPa ULS).	Typical engineering tasks.	
5	Expansive soils	Foundation soils are designated as moderately reactive (Class M) in accordance with AS2870:2011.		Required embedment is at least 0.6 m below existing ground. However, this is standard in Auckland.
6	Seismic sub-soil class	Seismic sub-soil is designated as class C (NZS1170:5) is appropriate.	Sub-soil class C is favourable for structural design.	
7	Liquefaction potential	Soils derived from weathering of Northland Allochthon soils are generally moderately plastic.	Liquefaction is considered unlikely to occur.	

#### 4.2 High-level review: Constructability

Table 4.2 below contains a high-level geotechnical assessment of possible constructability considerations, which may affect the development. The table also outlines opportunity and constraints for each consideration.

Table 4.2. Summary of high-level geotechnical assessment of constructability considerations

Item	Considerations	Assessment	Opportunity	Constraint
1	Earthworks volume	Drawings C210 by Crang Civil shows that the cut volume is 1,100 m <sup>3</sup> and the fill volume is 400 m <sup>3</sup> . About 700 m <sup>3</sup> to be removed off site.	Cut volume comprises cohesive engineered fill and can likely be re-used at another site nearby if there is demand.	Cut volume will need to be removed off site.
2	Cut & Fill heights	Up to 1 m of cut at the rear of Block A and C (northern part).		Earthworks testing is required per 0.5 m lift of engineered fill, (further discussed under item 4).

Item	Considerations	Assessment	Opportunity	Constraint
		Locally up to 1 m of fill in south eastern corner of Block A and C and locally up to 1.5 m of fill at south eastern corner of Block B.		
3	Re-usability of site-won soils.	The upper 2 to 3 m of soil comprises engineered fill derived from Northland Allochthon soils.	The soils have already been successfully placed as engineered fill and a suitably experienced contractor can repeat this again.	
4	Earthworks testing of Engineered Fill.	Specifications and drawings refer to xxXXX And 95% of MDD	This is a standard condition and provides a third party review of the works.	Earthworks testing comprising nuclear densometer and shear vane testing is required for each 0.5 m thick layer of engineered fill.
5	Retention (excavation in front of existing retaining wall).	Between 0 and 1 m of excavation is proposed along the existing retaining wall along the northern boundary.	The existing retaining wall is robust and buttressed by the driveway and should be checked to see if modification is required.	A geotechnical engineer should review the design of the existing retaining wall to assess effects from the excavation (refer to Table 4.1, item 3a).
6	Retention (proposed low height walls, <1m high)	There are up to three staggered low height retaining walls (<1 m high) leading towards Bonair Crescent.		Consideration is required regarding construction staging.
7	Foundation embedment	Shallow footings. Two 600 mm diameter concrete piles, between 2 and 3 m deep at Block C.	Shallow footings are generally easy to construct.	
8	Foundation complexity	There are several mass concrete trenches and piles proposed below the 0.6 m deep footings. The mass concrete structures appear to be concentrated below shear walls, at base of stairs and adjacent services.	The engineered fill is competent and the hand auger boreholes did not encounter groundwater. The trenches are likely to remain stable with vertical sides provided mass concrete is placed within 24 hours.	The structural drawings are complex and care will need to be taken during construction. Mass concrete structures are generally between 1.2 and 1.5 m, but locally up to 1.7 m deep.
9	Health and safety around open trenches	As above		Procedures will need to be in place to mitigate health and safety hazards imposed by the open trenches.

Item	Considerations	Assessment	Opportunity	Constraint
10	Underground services.	The proposed mass concrete trenches and piles extend below the invert level of the private services. All public services are outside the property boundary.	The design considers the underground services and appears to avoid surcharging them.	

## 5 Civil Engineering Desktop Assessment

### 5.1 Review of provided documents

Table 5.1 below contains a high-level Civil Engineering assessment of the provided documents (listed in Section 2 of this letter). The table also outlines opportunity and constraints for each consideration.

Table 5.1. Summary of high-level civil engineering assessment of the provided documents

Item	Discipline	Consideration	Opportunity	Constraint
1a	Compliance (ENG60327671 Condition 2)	This approval is valid for a period of 12 months and should have already lapsed on 11-01-2020 unless a pre-construction meeting has been held and deferred construction approved.		EPA has expired. <u>Client will need to request and extension.</u> There is a risk that a new submission may be required.
1b	Compliance (ENG60327671 Advice note d)	All works in close proximity to existing wastewater pipes and watermains will require a "works over" approval from Watercare. Will require "works over" approval for new stormwater connection that crosses public wastewater and watermains. Dwg reference C403: new stormwater pipe connecting to Existing manhole SWMH 03.		<u>A works over application will be needed</u> for the new stormwater pipe connecting to Existing manhole SWMH 03.
2a	Stormwater (LUC60322632, condition 1e)	Underlying subdivision caters for super lots with a maximum impervious area of 95%. Design proposes maximum impervious area of 83% so residual capacity possibly available.	To increase impervious area.	

2b	Stormwater (LUC60322632, condition 2)	E10. SMAF retention requirements are not met due to underlying soil type.		This is not acknowledged in the RC however this is considered to be low risk. We note the Millwater Precinct 2 – Preliminary Stormwater Management Framework, which has been approved by Auckland Council Stormwater Specialist, confirms the retention is not feasible. Specialist review is required.
3	Wastewater (ENG60327671 Advice note g)	1.2m minimum distance between public wastewater drain and lowest floor level. Lowest finished floor level in design is 26.88m RL in Block C. IL of pump chamber 23.71.		This requirement is typically associated with gravity systems (to ensure overflow is within the public network not private). The private pump chamber is approx. 3m below FFL. Therefore backup into building unlikely. It is likely this is a standard advice note that has been left in not a requirement for an LPS network.
4	Watermain (ENG60327671 Advice notes l & m)	Firefighting requirements. FW2 firefighting requirements satisfied with 3 hydrants within close proximity of property.		The advice note includes a comment “Water pressure may change and FW2 classification may require sprinkler or booster pump”. Infrastructure reports indicate adequate pressure can be provided. Client may choose to complete pressure testing to provide for certainty.
5	Provide for electric power (SUB 60322630 Conditions 16, 30, 44)	Written confirmation from the electricity network supplier, that electric supply has been made available and that all the		Documentation not provided. <u>Recommendation:</u> Request written confirmation that

		network supplier's requirements for making such means of supply available have been met or satisfactory arrangements have been concluded with the Consent Holder to complete the provision of the supply.		supply is available for the development at the lot boundary.
6	Provide for telecommunication (SUB 60322630 Conditions 17, 31, 45)	Written confirmation from the telecommunications network supplier, that telephone services has been made available and that all the network supplier's requirements for making such services available have been met or satisfactory arrangements have been concluded with the Consent Holder to complete the provision of the service.		Documentation not provided. <u>Recommendation:</u> Request written confirmation that supply is available for the development at the lot boundary.

## 5.2 High-level review: Constructability

Table 5.2 below contains a high-level civil engineering assessment of possible constructability considerations, which may affect the development. The table also outlines opportunity and constraints for each consideration.

Table 5.2. Summary of high-level civil engineering assessment of constructability considerations

Item	Considerations	Opportunity	Constraint
1	Wastewater 90 degree bends. Low radius bends preferred by building code. 2 x 45 degree bends preferable to 90 degree bends in wastewater lines.		Potential space constraint for installing 45 degree bends.
2	Pressurized wastewater connection. With pumps in series discharging to a common main some pumps can be hydraulically disadvantaged, which translates to greater maintenance needs. We note the Millwater Precinct 2 Infrastructure report shows the site is not identified as a risk. Precinct report required 600l capacity chamber with pump and grinder per lot. Precinct report has assumed site has 19 lots/pumps. The proposed development shows 38 units. It is not clear from the documentation if this has been considered.		<u>Recommendation:</u> Specific calculations are undertaken to determine discharge from each apartment block to assess whether adequate storage is provided within each chamber. A specific pump should be specified to accommodate design flows.
3	Stormwater pipe collecting Unit A downpipes shown to be over capacity in calculations provided.		Pipe collecting roof runoff from Block A under capacity. Recommend upsizing this pipe from a

Item	Considerations	Opportunity	Constraint
	T+T have performed a check calculation of pipe capacity using Colebrook-White showing that the pipe does not have sufficient capacity to convey the flow.		100mm to a 150mm diameter.
4	Stormwater Drawing ref C401 Amendment to public SW. There is a risk that during construction Council will likely want the manhole "relocated" or new manhole installed.		Additional cost to install new manhole. There is a space constraint for installing new manhole within the property boundary and further design will be needed to determine an appropriate location.
5	Stormwater pipe loading Stormwater pipes are shown as RCRRJ is Class 2.	Upgrade pipe to Class 4 under traffic areas to provide better long term resilience to loading.	
6	Wastewater pipe from Block B to pump tank approx. 100mm from concrete trench.		Potential space constraint. Construction methodology may require shuttering of mass concrete fill to enable pipe installation.
7	Documentation Details of the pumps and chambers have not been provided. These details typically require Building consent.		Additional building consents are needed for wastewater pump tanks. Also refer to recommendation for item 2.

## 6 Traffic Desktop Assessment

### 6.1 Review of provided documents

Table 6.1 below contains a high-level Integrated Transport Assessment (ITA) referenced in Section 1.3. The ITA was prepared in 2018 and the assessment below includes a review of changes to regulations since the ITA was prepared. Any opportunities or constraints from these changes are highlighted in the table below. For completeness those items that have not changed are also included.

Table 6.1. Summary of high-level civil engineering assessment of the provided documents

Item	Considerations	Assessment	Opportunity	Constraint
1	Safety – crash history  (LUC60322632, conditions 9 & 10)	<p><u>Original:</u> CAS incomplete due to new road, however no crashes and therefore no foreseen safety issues</p> <p><u>New:</u> 2 crashes have been recorded on CAS in the intervening 2 years.</p> <p>One root cause is not inherently due to the safety of the road (intoxication).</p> <p>It could however be argued the second incident (child on a bike riding out) was due to the steep nature of the driveways generally, dropping down to a key connection road for the wider development (so likely will get busier).</p>	Child bicycle issue could be mitigated by removing both driveways from Bonair (not just one) and having a straight-through vehicle access arrangement between the two side roads.	Will require building a vehicle crossing, which will need AT approval, and abandoning an both already established (instead of just one), with associated costs.
2	Safety – General  (LUC60322632, conditions 9 & 10)	<p>No change from 2018 ITA document</p> <p>Note: No mention of other safety concerns, given Bonair Crescent is the main connecting road for the development and on challenging topography</p>	Although no changes have occurred, an opportunity does present in moving the access off Bonair in order to keep number of vehicle egress points along Bonair to a minimum.	As above.

Item	Considerations	Assessment	Opportunity	Constraint
3	Trip Generation (LUC60322632, conditions 9 & 10)	No change from 2018 ITA document if using same data, however more usual and relevant to use NZTA report 453, which would almost double traffic generation.  However, the tripe generation assessed using the NZTA report complies with the Unitary Plan as the trip generation is still below Restricted Discretionary limits	As the alteration in source material does not materially affect the outcome, none recommended.	
4	Access	No change from 2018 ITA document		
5	Pedestrians	No change from 2018 ITA document		
6	Parking – light vehicles	No longer a requirement to have a minimum number of carparks in the Unitary Plan	Reduce carpark numbers if desired.	Expectation of residents to have access to at least one carpark per dwelling.
7	Parking – Bicycles	There is now a requirement to have a minimum number of bicycle parking spaces if the dwellings do not have garages (1 for each dwelling, plus one 'visitor' for every 20 – total of 40 if no garages are present).	Provide bicycle racks in some of the additional carparking spaces, or provide other means of storage for the dwellings (eg: shed).  Help promote the development as forward-thinking.	Carpark expectations above.  Space for sheds given housing density.
8	Servicing and Loading	No change from 2018 ITA document		
9	Lighting	This was not mentioned in the original report, but is a requirement if there are more than 20 carparks and a likelihood of night use.  This requirement is also stated in the Resource Consent for the sub-division.	Provide lighting for carpark area (if not already doing so).  Perception of safety for residents increase property desirability.	Effects on houses backing onto carpark area could be detrimental if not shaded or otherwise carefully chosen.

## 7 Summary and Conclusions

The property at 153 Bonair Crescent (the Site) comprises 4,787 m<sup>2</sup> and is part of the Millwater Precinct 2, Stage 4A subdivision. The proposed development comprises three two-storey apartment buildings. The development has been granted a single Resource Consent and three building consents (one for each proposed building). We understand that Kāinga Ora proposes to develop the site according to the consented layout.

The findings from our review of the documents listed in Section 1.3 of this letter generally support the development approved for Resource Consent and Building Consent. The main constraints are presented in bold below – for full details of the assessments please refer to the assessment tables in the main body of text.

### Planning

Main planning considerations include:

1. Construction must start within 12 months of the award of a Building Consent unless an extension is acquired. The Building Consents for Block A to C were awarded on 27 June 2019, which means that construction must start by 27 June 2020 unless an extension is obtained.
2. We recommend the following clarification is sought from Auckland Council:
  - a. Condition 4 (SUB60322630) appears to contain the requirement for section 223 (survey plan approval) and one s224(c) condition title “Existing Consent”. It is unclear if this is a numbering error from Auckland Council or has been purposefully conditioned this way.
  - b. The condition under the title “Existing Consent” (SUB60322630) requires written confirmation that all applicable conditions from the land use consent LUC60322632 have been complied with. We have not sighted the written confirmation.

### Geotechnical

The Millwater area is underlain by the geological unit Northland Allochthon, which is generally susceptible to land instability. The overall subdivision (Millwater Precinct 2, Stage 4A) has undergone extensive construction to stabilise the area. These works included construction of a shear key upslope from 153 Bonair Crescent and mucking out of two gullies downslope of the site. Underfill drainage and engineered fill was placed in the gullies to reach design level of the site and Croix Reserve. Hand auger boreholes by T+T and KGA Geotechnical indicate the site is underlain by more than 2 m of engineered fill.

Main geotechnical considerations include:

1. Excavation by between 0 and 1 m on the downslope side of the existing timber pole retaining wall (i.e. increasing the retained height). The wall retains about 3 m and support a stormwater pipe and residential properties. The retaining wall design appears to be relatively conservative, but we recommend the capacity of the retaining wall is assessed to verify capacity for the proposed increased retained height.
2. The foundation design is relatively complex as the shallow foundations are underlain by mass concrete trenches and piles. These are generally between 1.2 and 1.5 m deep, but locally up to 1.7 m. The mass concrete trenches and piles will require detailed planning by the Contractor in term of methodology and health and safety implication.

### Civil Engineering

There are no public services intersecting the property and stormwater considerations are generally accommodated by the overall subdivision works.

The main civil engineering considerations include:

1. The Engineering Plan Approval (EPA) has expired. Kainga Ora will need to request an extension prior to starting works. There is a risk that a new submission may be required.
2. Confirmation regarding the capacity of the pressurised wastewater system. The overall subdivision report specifies 600l capacity chamber with pump and grinder per lot. The subdivision report has

assumed 19 lots/pumps for this site, but the proposed development shows 38 units. It is not clear from the documentation if this has been considered. We recommend that specific calculations are undertaken to determine sewer discharge from each apartment block to assess whether adequate storage is provided within each chamber. A specific pump should be specified to accommodate design flows. Additional building consent may be required for the wastewater tanks and pumps.

3. Amendment of public stormwater network, as per Drawing ref C401. There is a risk that Council require relocation of the manhole or installation of a new manhole. There are space constraints within the site and it may be problematic to find a new location for the manhole within the site.
4. A works over application will be needed for the new stormwater pipe connecting to public existing manhole SWMH 03.
5. Some uncertainty of water pressure for firefighting requirements. FW2 firefighting requirements are satisfied with 3 hydrants within close proximity of property, but advice note includes a comment that water pressure may change and FW2 classification may require sprinkler or booster pump. The infrastructure reports indicate adequate pressure can be provided, but Kainga Ora may choose to complete pressure testing for certainty.
6. The Stormwater Management Framework (SMAF) retention requirements are not met due to underlying soil type. We note the Millwater Precinct 2 – Preliminary Stormwater Management Framework has been approved by Auckland Council who confirms stormwater retention is not feasible. Specialist input may be required.
7. Written confirmation that electrical supply is available for the development at the lot boundary.
8. Written confirmation that telecom supply is available for the development at the lot boundary.
9. Replacement of 90 degree wastewater bends by 2 x 45 degree bends which will take more space.
10. Upsize pipe collecting roof runoff from Block A to a 150 mm as the current 100 mm pipe does not have enough capacity.

#### Traffic

The Integrated Transport Assessment (ITA) prepared for the development is considered applicable for the proposed development. There are no significant considerations to report.

## 8 Applicability

This report has been prepared for the exclusive use of our client Kainga Ora, with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose, or by any person other than our client, without our prior written agreement.

Tonkin & Taylor Ltd

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