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Assessment of Effects

In relation to a

Private Plan Change Request

For: Rezoning of land currently zoned as Single House and Mixed Housing Suburban as Healthcare Facilities and Hospital Zone

At: 3 Brightside Road, 149, 151 & 153 Gillies Avenue, Epsom

Date: January 2019
Executive Summary
This report has been prepared in support of a Private Plan Change on behalf of Southern Cross Hospitals Limited to:

1. Amend the zone of the site at 3 Brightside Road from Mixed Housing Suburban to Special Purpose – Healthcare Facility and Hospital Zone;
2. Amend the zone of the three sites at 149, 151 and 153 Gillies Avenue from Residential – Single House Zone to Special Purpose – Healthcare facility and Hospital Zone;
3. Remove the Special Character Area Overlay from the three sites at 149, 151 and 153 Gillies Avenue; and
4. The inclusion of a parking variation control applicable for this hospital requiring a minimum parking requirement of 1 space per 64m² gfa.

As a result of Auckland’s growing and ageing population, SCHL need to expand their hospital operation at this location to deal with increased demand on the surgical services they provide to the community. The current zoning applied to the existing hospital and the adjoining properties which SCHL owns, does not provide for this expansion. The proposed rezoning will provide for the expansion to the existing hospital and enable the efficient use and development of the existing and proposed hospital for community health and wellbeing.

The existing Healthcare Facility and Hospital Zone recognises that there are a limited number of sites dedicated to Hospital Facilities. The nature of the zoning is usually a “spot zone” located among residential areas and these may be sensitive to the scale of buildings, intensity of use, and noise and lighting effects associated with such activities. Its application is usually used where the existing facilities are not appropriately enabled through their underlying zoning, which is the case here. The zone provides for the operation and development of Hospitals, while at the same time manages the bulk and location of development to control and minimise effects on the amenity of the surrounding environment.

Hospitals make a significant contribution to local, district and regional communities enabling them to provide for their social, economic wellbeing and their health. As a result of the growing and ageing population, their ability to operate efficiently and effectively is important as is their ability to expand to meet the increasing demands on the services they provide.

The rezoning will achieve the higher order Regional Policy Statement Objectives and Policies regarding social facilities, urban growth and form, quality-built environment, and transport among others. A wide range of specialist reports have been prepared in support of the rezoning and confirm that the rezoning will not result in significant environmental effects.

A Section 32 Report has been prepared and concludes that the proposed rezoning will more effectively and efficiently achieve the objectives of the Auckland Unitary Plan and the purpose of the Resource Management Act 1991, compared to the existing operative zonings.
## Attachment A

### Item 12

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**SFH Consultants**

**AEE - Brightside & Gilles**

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1.0 Site and Applicant Details

1.1 Site

Site Address: 3 Brightside Road and 149, 151 and 153 Gillies Avenue, Epsom, Auckland 1023

Legal Description: Lot 1 DP 188920, Pt Lot 16 DP 3541, Pt Lot 15 DP 3541, Lot 1 DP 44293, and Lot 2 DP 44293

Site Area: 9273m²

AUP (OP) Zoning: Residential - Mixed Housing Suburban Zone,
Residential – Single House Zone,

AUP (OP) Precinct: N/A

AUP (OP) Overlays:
- Natural Resources: Quality-Sensitive Aquifer Management Areas Overlay [rp] - Auckland Isthmus Volcanic,
- Natural Heritage: Notable Trees Overlay - 213, Pohutukawa, Australin Puaigponi,
- Natural Heritage: Regionally Significant Volcanic Viewshafts And Height Sensitive Areas Overlay [rcp/dp] - E14, Mount Eden, Viewshafts,
- Natural Heritage: Regionally Significant Volcanic Viewshafts And Height Sensitive Areas Overlay [rcp/dp] - W26, Mount Wellington, Viewshafts,
- Built Heritage and Character: Special Character Areas Overlay Residential and Business - Residential Isthmus B,

AUP (OP) Controls: Macroinvertebrate Community Index – Urban,

AUP (OP) Designations:
- Notice of Requirements, NoR 7: Proposed Northern Runway, Airspace Restriction Designations, Notified, 15/02/2018

Other:
An overland flow path traverses the site from the west and exits onto Gillies Ave to the east through 149 Gillies Ave.
Gillies Avenue is an Arterial Road.
1.2 Applicant

Southern Cross Hospitals Limited
c/- Courtney Bennett
Level 10, AMP Centre
29 Customs Street West,
Auckland
Phone: 021 222 4189
Email: courtney.bennett@schl.co.nz

2.0 Introduction

This report has been prepared in support of a Private Plan Change on behalf of Southern Cross Hospitals Limited to:

1. Amend the zone of the site at 3 Brightside Road from Mixed Housing Suburban to Special Purpose – Healthcare facility and Hospital Zone;

2. Amend the zone of the three sites at 149, 151 and 153 Gillies Avenue from Residential – Single House Zone to Special Purpose – Healthcare facility and Hospital Zone;

3. Remove the Special Character Area Overlay from the three sites at 149, 151 and 153 Gillies Avenue;

4. The inclusion of a parking variation control applicable for this hospital of 1 space per 64m² gfa.

This Plan Change has been prepared in accordance with Schedule 1 of the Resource Management Act 1991 (“RMA”).

2.1 Background Information

*Southern Cross Health Society*

Southern Cross Health Society is New Zealand’s largest health insurance business, with more than 850,000 members. It currently holds 62% of the health insurance market and paid more than $830m in claims in 2016/17. Claims included more than 240,000 surgical procedures, 420,000 specialist consultations, 750,000 GP visits, and 650,000 prescriptions. Approximately half of the Society’s members are individual customers, with the other half being either...
employees (with employers paying on their behalf) or individuals who are members of group schemes.

**Southern Cross Hospitals**
Southern Cross Hospitals has the largest network of private surgical hospitals and procedure centres in the country, with 18 wholly owned or joint venture medical facilities, and 20 rehabilitation clinics through TBI Health. In 2017, 78,000 New Zealanders were treated in a Southern Cross Hospitals facility (compared with 1.1m in a public hospital). Nearly 1,000 surgeons and anaesthetists are credentialed with Hospitals. Approximately 40% of the Hospitals’ revenue is from the Society, 25% from ACC, 10% from the public sector, 5% from self-payers, and the remainder from other health insurers.

**Southern Cross Trust**
Southern Cross Trust is the parent entity of Southern Cross Hospitals and Southern Cross Benefits. It allows the Hospitals to have a tax-friendly status, which lowers the costs of providing health care. Surpluses made from commercial activities are reinvested for the benefit of New Zealanders – primarily through increasing availability of higher quality, lower cost private hospital capacity.

**The New Zealand health system**
Living in New Zealand has its health benefits – ACC and the public health system provide a good level of healthcare support for accidents and acute care. For any urgent or emergency treatment you will be looked after in the public health system. However, public hospitals cannot provide everything for everyone. Southern Cross health insurance policies are designed to complement these public services.

**Non-urgent care in the health system**
If a condition is a non-emergency condition, in the public system you will usually need to go through an assessment process and qualify for ‘elective’ treatment. Common elective treatments include: hip or knee replacement, heart surgery, hysterectomy, cataract removal, cancerous tumour removal, and diagnostic services such as endoscopy, laparoscopy, MRI scans, tonsillectomy, and grommets.

The name “elective” might imply that this type of surgery is optional, but that’s not always the case. An
elective procedure is simply one that is planned in advance, rather than one that's done in an emergency situation. Given the limited funding and capacity (among other factors) within the public system, public facilities generally prioritise emergency procedures over elective procedures.

Private health insurance helps with the cost of many non-urgent procedures and provides faster access to private hospitals for the treatment. Not having to wait for treatment within the New Zealand health system means getting back to work faster and enjoying a better quality of life.

Accident Compensation Corporation (ACC)
In contrast to non-urgent procedures, anyone in New Zealand, including visitors, who has an accident or injury is usually covered by the government’s personal injury scheme, ACC. ACC helps pay for medical and treatment fees and rehabilitation costs or residential care incurred by any accident or injury.

Proposed Auckland Unitary Plan Process and Submissions
SCIL did not raise the issues around the zoning of the subject sites during the Proposed Auckland Unitary Plan (“PAUP”) process, which started in September 2013, for several reasons.

SCIL did not own the additional sites at 149-153 Gillies Avenue, therefore even if there was a rezoning of 3 Brightside Road under the PAUP process, SCIL would still be required to complete this private plan change to address the zoning of 149-153 Gillies Avenue.

There was no process of identification from Auckland Council to make companies such as SCIL aware of the potential for rezoning to a specific hospital zone to occur or to proactively rezone existing hospitals to HHH zone.

To date, the site at 3 Brightside Road operated and developed under a residential zoning, and there was no real opinion that this would be unable to continue because of this historic use. With the properties at 149-153 Gillies Avenue, not being on SCIL’s radar in terms of potential expansion sites, they were unable to foresee the issue. Moreover, with the sites being...
owned by others, even if they could foresee an issue, SCHL could not request a rezoning to HHFZ without the agreement of the owners at the time.

Additionally, SCHL has a small head office property team, who were focused on other projects around the New Zealand and Auckland including the development of Ornston Hospital and North Harbour Hospital.

While acknowledging the above, SCHL is now proceeding with the required expansion, has the ownership of the subject properties and has a specific hospital extension designed. They are now in a position to proceed with the Private Plan Change in parallel with a resource consent application.

*Strategic location of SCHL facilities (North Harbour, Ornston and Central)*

Southern Cross have distributed their hospitals strategically throughout Auckland to service distinct catchments. These have been designed to provide the community with SCHL services in the upper, lower and central area of Auckland. Section 4 and 6 of the Ernst and Young Report (*Attachment B*), provides an explanation of the rationale for the distribution of SCHL’s three major Auckland hospitals. This includes patient catchments, proximity to other facilities and proximity to specialists’ place of residence and their consulting rooms among other factors.
3.0 Site and Context Description

3.1 Site Description

The sites comprising this private plan change are made up of four properties as illustrated in the figure above: all owned by SCHI. These include 3 Brightside Road (the existing hospital site), 149 Gillies Avenue (boarding house), 151 Gillies Avenue (residential dwelling), and 153 (residential dwelling), Gillies Avenue, Epsom Auckland 1023. Which consists of Lot 1 DP 188920, Pt Lot 16 DP 3541, Pt Lot 15 DP 3541, Lot 1 DP 44293 and Lot 2 DP 44293, being a total area of 9273m². A copy of the Certificate of titles are enclosed within Attachment A.

The zones, controls, and overlays applicable are outlined in section 1.0 of this AEE. The sites are illustrated in various plans and aerial photographs and specialist reports, including the site context photos within the Design Statement appended to this application. Individually, the properties are described as follows:

3 Brightside Road
The site is irregular in shape, gently sloping and is some 5245m² in area. The current Brightside hospital has occupied the site since the late 1990’s, and the site has accommodated a hospital use since the early 1900s. The building is large, three-storey and functional in appearance and nature. The two vehicle
crossings are on the southern boundary with parking
generally located to the east and north on the site as
well as internally within the building. The western
crossing is entry only, with a covered drop off area in
front of the reception area. The eastern crossing is
both access and egress. The site is generously
vegetated around the boundaries, and includes two
protected trees. This site was purchased by SCHL in
the late 1980s.

149 Gillies Avenue
The site is square in shape with an unusually large lot
size of 2208m², this appears to be the result of an
amalgamation in the past. Housing additions and
alterations have been completed over time to create
the generous building footprint, and a two-storey
building. The existing building has a complicated
layout and roof form. The original building and the
northern wing is connected through a corridor for the
hostel/boarding house operational requirements. The
Special Character Assessment Report indicates that
the early dwelling’s pre-1940s character is evident at
the rear of the site, but this is no longer the
predominant architectural expression to the street, as
it is screened by the extent of the 1979 modifications
to this site’s original house.

A generous front yard setback is present. The front
yard area is vehicle dominated, being cobbled and
predominantly utilised for parking and manoeuvring.
A sky-line type garage and caravan as well as several
mature trees which screen the relatively large building
from being fully viewed from the public street.

Low stone walls and planted hedge are used as front
fencing, with a double vehicle crossing located near
the northern boundary. The northern boundary has
been planted to create a good visual privacy screen in
relation to the northern properties. The rear boundary
has a substantial concrete boundary wall at the
interface with 32A Owens Road (Design Statement;
view 8, section 2.6, pg 15). The site was purchased in
2017 by Southern Cross Hospitals Limited with the
intention to carry out an extension plan.

151 Gillies Avenue
This site has a rectangular shape, with a total site area
of 971m². The site is currently occupied by a two-
storey house located towards the rear. The house was
built in the early 1920s. The dwelling was altered in 1958 and 1976, associated with this, the rear area has been fully paved.

The generous building setback and the established front garden generally screen the dwelling from being directly viewed from Gillies Avenue. The vehicle crossing is located near the southern boundary on the eastern side of the site. The mature trees and stone walls along the front boundary also contribute to the streetscape amenity of the wider environment. This site was purchased by SCHL in 2016.

153 Gillies Avenue
The corner site has a similar lot shape to 151 Gillies Avenue, but with a slightly smaller lot size of 840m². The building is located away from Gillies Avenue, with the access established from Brightside Road. The vehicle crossing is located in the west of the southern boundary of the site.

The eastern part of the site has been densely covered by large mature trees. Stone walls were established at both street boundaries; a tall hedge is located behind the stone wall which effectively screens the house from being viewed from either Brightside Road or Gillies Avenue. This site was purchased by SCHL in 2015.
3.2 Site Context:

The above figure from Mott Design’s Urban Design Report highlight the site’s context. It is noted that the surrounding area is an established residential neighbourhood being in close proximity to the city, Newmarket and Mount Eden.

The subject sites immediately adjoin Gillies Avenue which is a busy arterial road, stretching north-south from Newmarket to Epsom. Gillies Avenue carries some 15,120 vehicles per day, with 980 vehicles in the am peak hour, 1,150 vehicles in the pm peak hour. Even though that portion of Gillies Avenue south of the Motorway is historically residential in character, many dwellings have been converted over time to a range of commercial uses. An example of this is 149 Gillies Avenue, which is a boardroom house. Gillies Avenue has a mix of large street trees, and large mature trees in the front yards of properties. There are wide spread, tall stone walls, which contribute to the character of the area and also affords a level of noise attenuation for properties. Overhead power lines are present. Large trees in the front of the two corner properties at Kipling and Gillies and the property on the adjacent corner of Brightside and Gillies have been removed in the last few years.

SFH Consultants  AEE – Brightside & Gillies  Jan 2019  13
Owens Road is also an arterial road, which provides through connection between Mount Eden Road in the West with Gillies Avenue and Manukau Road in the East. Owens Road carries some 7,600 vehicles per day, 730 vehicles in the am peak hour, and 780 vehicles in the pm peak hour. The street has a number of various and large street trees, a combination of vegetated and fenced/walled front boundaries, overhead power lines, un-restricted on street parking and areas of parking restrictions (broken yellow lines).

Brightside Road is a local road and connects Gillies Avenue with Owens Road. Brightside Road carries 2,500 vehicles per day, 270 vehicles in the am peak hour and 230 vehicles in the pm peak hour. The street has various street trees, diverse boundary treatments, and areas of on-street parking, bus stop and broken yellow lines restricting parking.

Shepherd’s Avenue is a local road, being a no exit, cul-de-sac and only accessed via Brightside Road. The street is characterised by large mature trees, overhead powerlines, diverse front yard landscaping and boundary treatments and parked cars on both sides of the street.

As noted on the attached context plan, the surrounding built form is predominately 1-2 shared buildings, and consists of dwelling styles, including character dwellings, more recent detached houses and a number of flats and boarding houses. Even within the single house zone, a number of the sites accommodate multi-unit flats.

The institutional built form of Epsom Girls Grammar School is evident (particularly the Ray Freedman Arts Centre) which is located approximately 200m to the north of the site.

This mixed context is indicative of the variable character along Gillies Avenue and reflects the influence of Gillies Avenue as a major arterial route on the built form and land use activities.
3.3 Surrounding Environment

With reference to the contextual photographs within the design statement, we note the following:

Owen/Brightside/Gillies Block:
The street block consists of 14 lots, and with 10 lots zoned mixed housing suburban under the AUP(OP). The proposed rezoning will take place on the existing hospital site and the three single house zoned properties. Only 5 out of the 11 residential sites are occupied by single detached houses; while, the other sites are occupied by flats (of up to 5 or 8 units). The potential special character and value for the street block overall is relatively low. The Single House zoned properties (subject to this proposed plan change) are marooned from the surrounding single house zone environment and other special character properties.

Streetscape:
The streetscape within the wider environment is predominantly one to two storey buildings with generous building setback distance from the front boundary. The urban design report identifies as a key feature of many of the surrounding sites the volcanic stone walls of varying heights. Tall and large trees line...
the street and front yard areas of properties, and this acts to screen and buffer the built environment, while also establishing a high level of shading in the area. The evolution of the area is apparent when looking through a number of photographs of the surrounding streetscape. These show that there have been several large mature trees in the surrounding area removed, new stone walls installed and surrounding sites developed.

Land use Activities
The surrounding sites are predominantly zoned for residential purposes, including single house zone, mixed housing suburban zone and mixed housing urban zone. Apart from residential activities, a number of non-residential activities are located along Gillies Avenue, including, schools, hospital, medical, healthcare, office, childcare, accommodation, and so on. This includes for example those properties at:

- 148 Gillies Avenue,
- 160 Gillies Avenue,
- 161 Gillies Avenue,
- 177 Gillies Avenue,
- 181 Gillies Avenue,
- 187 Gillies Avenue.

Moreover, the subject is located close to Manukau Road and Great South Road where business clusters are found.
The influence on the future planned character that Māmaku Road and Gillies Avenue as Arterial Roads is great. One of the key principles of the AUP(CP) is the intensification along transport corridors. The Mixed-Use zoned properties that line either side of Māmaku Road will create substantial change in the built character of that area.

Further to this, the large area of Mixed Housing Urban zone will also create substantial change to the environment, with the 11-12m, or predominantly three-storey, built form including apartments and terraced housing will also bring about a change in the intensity of built form.

The Mixed Housing Suburban zone will carry on this change in planned future intensity given the changes in planning controls for scale and intensity of residential development compared to the legacy district plan. It is not an insignificant point that the Mixed Housing Suburban zone encompasses the subject site, sites to the north and connects the band of land identified for intensification from the Māmaku Road, Gillies Avenue block through to the Pines Apartments in the west. This is reflective of the scale of roads in this area and residential intensity/density.
The three sites at 149-153 Gillies Avenue are the only marooned single house zoned, special character properties in the Brightside, Owens and Gillies Avenue block of properties. This factor combined with the block of flats at 135 and 147 Gillies Avenue which “book-end” these three sites, limit their connection to other special character areas in the wider area. This ensures that their re-purposing as healthcare and hospital zoning will significantly limit the potential adverse effect on the Special Character Area – Residential Isthmus B overall. There is a clear and defensible boundary, being Brightside Road and Gillies Avenue and the residential properties within the same block to the north being the Mixed Housing Suburban zone.

We consider these factors coupled with the existing hospital and its historic use, sets the subject site apart from a purely single house zoned environment such as the end of Shepherds Avenue, Marama Avenue, or other Special Character Residential Areas in the Isthmus. Those areas do not have the same density or intensity of development nor the proximity to arterial roads, mix of activities and are predominately single level, detached dwellings.

**Transportation**

There are several bus stops along Mountain Road, Gillies Avenue and Manukau Road where the rapid and frequent bus service operates. The subject site is also located approximately 1km from the Remuera Train Station and with easy access to the motorway network via Gillies Avenue. Walking and cycling are also easily available within the area.

**Services**

The subject site is located within a well-established urban environment, detailed capacity studies confirm there is ample capacity within the range of services infrastructure.

**Natural Hazards**

According to GIS viewer, the subject site is subject to flooding and an overland flow path. The overland flow path traverses the subject site west-easly. A potential flood prone area has been identified within the car parking area of the existing hospital site.
3.4 Existing Zoning

As noted above, the existing zoning that applies to the subject sites include the single house zone with a special character overlay area, and the mixed housing suburban zone.

The single house zone provides for low density residential development, which positively responds to
special character of the area. While the zone does enable non-residential activities, these are required to be of a scale and intensity that is in keeping with that anticipated by the zone. This would include 1-2 storeys in height, low coverage and impervious area, and includes healthcare facilities up to 200m². Hospitals are not listed within the activity table which result in a non-complying activity status. New buildings carry the same activity status as the land-use activities they accommodate and so are also non-complying when associated with Hospitals.

Within the mixed housing suburban zone, more residential intensification is anticipated compared to the single house zone, and non-residential activities are enabled where they are compatible with the anticipated scale and intensity of development. This includes predominantly 1-2 storey buildings, with limited coverage and impervious area. While healthcare facilities are enabled as restricted discretionary activities up to 200m², Hospitals remain unlisted in this zone, which results in a non-complying activity status. New buildings carry the same activity status as the land-use activities they accommodate and so are also non-complying when associated with Hospitals.

As explained within Clause A1.7.5 of the AUP(OF), “Activities are classed as non-complying where greater scrutiny is required for some reason. This may include:

- where they are not anticipated to occur; or
- where they are likely to have significant adverse effects on the existing environment; or
- where the existing environment is regarded as delicate or vulnerable; or
- otherwise where they are considered less likely to be appropriate.”

This results in a significant issue for SCHL as their current hospital is operating at capacity, there is a need to expand and respond to the growing and ageing population and the current zoning does not provide certainty for the proposed expansions or appropriately recognise and provide for the existing hospital.
4.0 The Proposal

4.1 Overview

Southern Cross Hospitals Limited (“SCHL”) have instructed SFH Consultants Limited to prepare and lodge, on its behalf to Auckland Council, the appropriate documentation for a Private Plan Change. The Private Plan Change relates to the rezoning of the following sites as scheduled in Table 1:

Table 1: Properties to be Rezoned:

<table>
<thead>
<tr>
<th>Number</th>
<th>Address</th>
<th>Legal Title</th>
<th>Existing Zone</th>
<th>Area m²</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Brightside Road</td>
<td>Lot 1 DP188920</td>
<td>MIT Suburban</td>
<td>5245</td>
</tr>
<tr>
<td>149</td>
<td>Gillies Avenue</td>
<td>Lot 2 DP44293</td>
<td>Single House</td>
<td>2205</td>
</tr>
<tr>
<td>151</td>
<td>Gillies Avenue</td>
<td>Lot 1 DP44293</td>
<td>Single House</td>
<td>971</td>
</tr>
<tr>
<td>153</td>
<td>Gillies Avenue</td>
<td>Pt Lot 15 DP5541</td>
<td>Single House</td>
<td>1226</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>Total</strong> 9273 m²</td>
</tr>
</tbody>
</table>

4.2 The Request

SCHL is seeking the rezoning of the above properties as Special Purpose – Healthcare Facility and Hospital as referenced in Chapter H25 of the Auckland Unitary Plan (AUP).

The proposed amendments to the Plan are also changes to the Auckland Council GIS Viewer (the planning maps):

1. Amend the zone of the site at 3 Brightside Road from Mixed Housing Suburban to Special Purpose – Healthcare facility and Hospital Zone;

2. Amend the zone of the three sites at 149, 151 and 153 Gillies Avenue from Residential – Single House Zone to Special Purpose – Healthcare facility and Hospital Zone;

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3. Remove the Special Character Area Overlay from the three sites at 149, 151 and 153 Gillies Avenue; and

4. The inclusion of a parking variation control applicable for this hospital of 1 space per 64m² gfa.

This documentation has been prepared in order to support this application and is in accordance with Schedule 1 of the Resource Management Act 1991 ("RMA")

5.0 Statutory Considerations

5.1 Overview

Schedule 1 of the Resource Management Act 1991 ("RMA") provides the process for changes to Plans. Clause 21 of Schedule 1 confirms that any person may request a change to a district plan.

Clause 22 of Schedule 1 provides that a request under clause 21 shall be made to the relevant local authority in writing, shall explain the purpose of, and reasons for, the proposed plan change and contain a Section 32 evaluation report.

Furthermore, where environmental effects are anticipated as a result of the plan change, the request shall describe those effects in such detail as corresponds to with the scale and significance of the actual and potential environmental effects.

5.2 Purpose and Reasons

The purpose of and reasons for the plan change are described within the following sections of this proposal. These are further supported by the accompanying Assessment of Effects, supporting expert assessment reports, and in the Section 32 Evaluation Report.

5.2.1 The Purpose of the Plan Change

The purpose of the plan change is to enable the efficient operation and expansion of the existing hospital, while managing the effects on the adjacent residential amenity.

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5.2.2 The Reasons for the Plan Change

The site has accommodated a hospital activity since the early 1900’s. The Brightside hospital was established on its site in Epsom during the 1940’s and was completely rebuilt and reopened in 2000. As a surgical hospital Brightside offers a wide range of surgical services and post-operative care for approximately 6,500 patient visits each year. This four-theatre hospital provides 43 inpatient beds with a staff of nearly 130.

Brightside is currently operating at full capacity with demand exceeding available theatre capacity time with more surgeons seeking theatre list time than available. This proposed Plan Change is to facilitate an extension in response to this increasing demand and to provide an appropriate zone for the site.

SCHL provides essential social infrastructure and has an important role in the New Zealand health sector. In 2017, 78,000 New Zealanders were treated in a SCHL facility. SCHL hospitals are equipped with a range of advanced clinical technologies and many offer options such as higher dependency nursing, specialist consulting suites and on-site imaging and diagnostic technologies. These facilities help to support a wide range of specialist services.

As discussed in detail within the EY Report (Attachment B) New Zealand has significant projected population growth and an ageing population, which will require expansion in both the public and private healthcare services to keep up with the demand. Specifically, Auckland and the wider Northern region is expected to experience 58% of New Zealand’s population growth. If current models continue, the northern region will require an additional 2,055 beds, 41 surgical theatres, 1.1 million outpatient contracts and 2.2 million GP consultations.

This rapid growth and ageing population is placing increased pressure on the New Zealand public health sector. It is projected that acute surgery procedures will increase by 30,000, or 31%, by 2027, and elective surgery procedures will increase by 77,000, or 43%, by 2027. Over the last 3 years, District Health Boards (DHBs) in the Northern region have been struggling to provide publicly-funded surgery services for elective patients as they need to prioritise acute
surgeries. This raises doubts about the capacity of DHBs to meet the projected volumes of elective surgery.

SCHL assists by taking some of the elective surgery load that would otherwise have looked to the public system. In addition to this, 25% of SCHL surgeries in Auckland over the past five years have been directly publicly-funded by ACC and by DHBs with the public sector hiring SCHL’s facilities to meet public healthcare targets. It is important that SCHL and the private health sector can continue to deliver the same proportion of surgeries going forward, to avoid increasing the pressure on the public health sector, and any increase to the waiting list. It is therefore a collective effort of both the public and private health sector to increase the operating resources, surgical beds and theatres to maintain an acceptable level of patient surgery thresholds and waiting lists.

Further to general growth in surgery numbers, the medical environment is rapidly changing. As medical technology continues to advance and become better equipped to extend and improve life, specialists are increasingly integrating their services. Hospitals are beginning to expand their facilities to provide a range of healthcare facilities and focus on the wider goal of improving recovery from health issues and overall wellbeing.

To meet this additional demand and changing medical environment, it is critical that SCHL can expand its existing hospital facility at this site.

The reason for the requested plan change is that there is a growing and ageing population within Auckland, which is placing increased demand on hospital services including the services that SCHL provide. There is a need to expand the capacity within the current facility and the current residential zoning provides no certainty for this expansion nor the efficient operation of the hospital.
5.3 Section 32 Evaluation Report

Section 32 RMA provides the details of the content of the required evaluation report. The report is required to:

(a) examine the extent to which the objectives of the proposal being evaluated are the most appropriate way to achieve the purpose of this Act; and
(b) examine whether the provisions in the proposal are the most appropriate way to achieve the objectives by—
(i) identifying other reasonably practicable options for achieving the objectives; and
(ii) assessing the efficiency and effectiveness of the provisions in achieving the objectives; and
(iii) summarising the reasons for deciding on the provisions; and
(c) contain a level of detail that corresponds to the scale and significance of the environmental, economic, social, and cultural effects that are anticipated from the implementation of the proposal.

In assessing the efficiency and effectiveness of the provisions in achieving the objectives the report must:
(a) identify and assess the benefits and costs of the environmental, economic, social, and cultural effects that are anticipated from the implementation of the provisions, including the opportunities for—
(i) economic growth that are anticipated to be provided or reduced; and
(ii) employment that are anticipated to be provided or reduced; and
(b) if practicable, quantify the benefits and costs referred to in paragraph (a); and
(c) assess the risk of acting or not acting if there is uncertain or insufficient information about the subject matter of the provisions.

For the purposes of S32, the following is noted:

objectives means, —
(a) for a proposal that contains or states objectives, those objectives:

proposal means a proposed standard, statement, national planning standard, regulation, plan, or change for which an evaluation report must be prepared under this Act.
provisions means,—
(a) for a proposed plan or change, the policies, rules, or other methods that implement, or give effect to, the objectives of the proposed plan or change:
(b) for all other proposals, the policies or provisions of the proposal that implement, or give effect to, the objectives of the proposal.

The following sections provide this assessment:

5.3.1 Appropriateness of the Proposal to Achieve the Purpose of the Act

Section 32(1)(a) of the RMA requires an evaluation of the extent to which the objectives of the proposal being evaluated are the most appropriate way to achieve the purpose of this Act.

The objectives of the plan change are to enable the efficient operation and expansion of the existing hospital, while managing the effects on the adjacent residential amenity.

Part 2 of the RMA sets out the Purpose and Principles of the Act.

Section 5 of the Act identifies the purpose of the RMA as being the sustainable management of natural and physical resources. This means managing the use, development and protection of natural and physical resources in a way that enables people and communities to provide for their social, cultural and economic well-being and health and safety while sustaining those resources for future generations, protecting the life supporting capacity of ecosystems, and avoiding, remediating or mitigating adverse effects on the environment.

The purpose of the plan change is considered to achieve the purpose of the Act through the provision of increased hospital capacity associated with an existing facility which enables people and the community to provide for their health and wellbeing. At the same time the increased employment generated by the increased capacity enables those additional employees to provide for their social and economic wellbeing. This is all achieved while managing the adverse effects of the increased scale and intensity through the high-quality design, appropriate provision of services infrastructure, parking, loading and access.
as well as appropriate bulk and location in relation to
the public realm and the adjacent residential
environment.

Section 6 of the Act identifies the matters of national
importance which need to be recognised and provided
for in achieving the purpose of the RMA. This
includes the preservation of the natural character of
the coastal environment (including the coastal marine
area), wetlands, and lakes and rivers and their
margins; protection of outstanding natural features
and landscapes, the protection of areas of significance
indigenous vegetation and significant habitats of
indigenous fauna; maintenance and enhancement of
public access to and along the coastal marine area,
lakes, and rivers; the relationship of Maori and their
culture and traditions with their ancestral lands,
water, sites, waahi tapu, and other taonga; the
protection of historic heritage; the protection of
protected customary rights and the management of
significant risks from natural hazards.

The proposed plan change will not compromise any
of the above matters of national importance. Hospital
development enabled by this plan change will protect
significant indigenous vegetation and historic heritage
in that the protection of the scheduled trees are
protected through the design and layout of the
proposed development and the construction
methodologies, with the proposed height being under
that of the volcanic view shaft overlay for both Mt
Wellington and Mt Eden. The existing controls on
these items will continue to apply with any
infringement requiring robust assessment against the
relevant criteria.

Section 7 of the Act identifies a range of “other
matters” to be given particular regard by Council.
Specific matters from section 7 that are relevant to the
plan change include:

b) The efficient use and development of natural and
physical resources – The plan change will enable and
encourage the redevelopment of the site to provide for
the community’s social and economic wellbeing
through additional employment and economic growth
and provide for the community’s health and wellbeing
through increased hospital capacity in light of an
ageing and growing population. This is also an
efficient use of a site which fronts a major transport corridor.

c) The maintenance and enhancement of amenity values and
   i) Maintenance and enhancement of the
   quality of the environment – The proposed zone
   recognises that healthcare facilities and hospitals are
   typically surrounded by residential areas which may
   be sensitive to the scale of buildings, intensity of use,
   noise and lighting effects and the development
   controls including the design quality controls along
   with other overlay and Auckland-wide controls ensure
   the effects on adjacent sites and the wider
   environment are managed appropriately. Through the
   PAUP hearing process and decision making, it was
   determined that the existing Healthcare Facility and
   Hospital Zone achieves this and has been applied to
   sites of a reasonably similar context.

   Section 8 requires Council to take into account the
   principles of the Treaty of Waitangi. It is considered
   that this proposal will not bring into question the
   principles of the Treaty of Waitangi. This conclusion
   is supported by the fact that the relevant Mana
   Whenua groups as identified by Auckland Council
   have been consulted, with no issues raised to date.

   The proposed zone change is a more appropriate way
   of achieving the sustainable management purpose of
   the Act than the current zone which does not reflect
   the existing hospital use of the site, nor does it enable
   SCIL to provide for the increasing health and
   wellbeing needs of the community. It is considered
   that the purpose of the plan change is the most
   appropriate way to achieve the purpose of the Act.

5.3.2 Appropriateness of the Provisions to Achieve the Plan Change
Objectives

Section 32(1)(b) of the RMA requires an evaluation
of whether the provisions are the most appropriate
way to achieve the objectives. In doing so, there is a
requirement to;
   (i) identifying other reasonably practicable options for
       achieving the objectives; and
   (ii) assessing the efficiency and effectiveness of the
       provisions in achieving the objectives; and
   (iii) summarising the reasons for deciding on the
       provisions.
5.3.2.1 Other Reasonably Practicable Options

There are a wide range of other options available, and while numerous options were considered, there are three key alternatives that were considered relevant and are worth considering in some detail. These include:

- **Option 1:** Status Quo or do nothing;
- **Option 2:** Relocate the hospital elsewhere;
- **Option 3:** Retain and expand the existing hospital.

These options are described below:

**Option 1: Status Quo or Do Nothing:**

Under this option, SCHL would rely on the existing residential zoning, and would need to apply for a non-complying activity resource consent to provide for their hospital expansion.

Alternatively, the option would be to do nothing, not expand the Hospital and continue the operation of Brightside in its current form.

The AUP(OP) zoning, does not anticipate Hospitals at this location because they are not provided for within either the Mixed Housing Suburban or Single House zones. Hospitals are non-complying activities. This will require close scrutiny of the proposal against the relevant objectives and policies.

The objectives and policies of the zoning and the special character area overlay provide uncertainty in achieving a positive outcome for the hospital expansion, (which is a reasonable use for these sites considering the existing hospital, the increasing demand from the growing and ageing population, and the SCHL ownership). The existing objectives and policies applicable to the sites focus on providing for non-residential development only of a scale and intensity anticipated by the zoning. This is much less than that required by SCHL.

It is considered that the status quo option of either relying upon the existing residential zoning or the option of not expanding the hospital is not a suitable means of either addressing the identified issue or enabling the efficient use and development of the land resource.
As noted, the demand for surgical services is continuing to grow and as such, SCHL is expected to share in addressing this demand. It is not an option for SCHL to do nothing either as an insurance or health care provider.

**Option 2: Relocate the hospital elsewhere**

It is a reasonably practical option that the hospital relocates (either wholly or in part) to another location. However, this option is not without issues.

Firstly, it would be difficult and possibly cost prohibitive to find an alternative site of this scale within this central location. Another issue is that any new location is more likely than not going to be opposed by existing residents of the new location who would likely bring forward similar arguments as the residents in this current location.

While the neighbourhood may not support the change associated with the development of adjacent sites. It must be recognised that the population of Auckland is growing and ageing, and the provision of additional hospital capacity to provide for the health needs of the growing and ageing population is essential for our communities.

As described within the Ernst Young Report (*Attachment B*), in order to achieve this option Southern Cross would need to consider and address:

a. How the existing Brightside Hospital would continue its function and react to a new hospital that will most likely duplicate the activity, management and associated infrastructure, and overlap with the existing catchment.

b. The inability to capitalise on and extend an existing hospital with the associated additional capital cost.

c. The assessment of various other sites to ensure that they will not potentially face similar resource management issues and other constraints as the existing Brightside site. A large consideration is that the Unitary Plan has essentially limited the healthcare facility and hospital zone to the major public hospital and existing healthcare facilities. An industrial location for a new site would not be suitable with potential noise, fumes and truck...
movements incongruous with hospital activities. Reverse sensitivity is also likely, with neighbouring site owners likely to object to a new hospital resource consent application (whether the new location is in an industrial or residential zone).

d. Given the identified catchment with reference to Section 4.1 (of the Ernst Young Report), a location within the Epsom area would be most appropriate because it is a site that is highly accessible for surgeons and other staff, proximity to supporting services, ease of access near the motorway for patients, and proximity to Auckland and Greenlane Hospitals. Identifying and securing a location that has the similar advantages of Brightside will be very difficult, with none being identified to date.

If relocating the hospital included closing the existing hospital, an additional consideration is what would the vacant site at 3 Brightside Road be developed for? As the zoning enables increased residential intensity, and the site is large, located near transport corridors, social facilities, public transport and centres, there would be an option for a number of attached and/or detached houses.

This site would be appealing to Housing New Zealand Corporation or other private housing developers who are actively looking for development sites to establish dwellings for either a Kiwi Build scheme or a private development. Associated with this would be increased residents, increased traffic generation and parking demand (at peak times) among other effects.

**Option 3: Retain the existing hospital:**

Under this option, the existing hospital would remain and the adjacent sites under SCIL ownership would be rezoned to accommodate the required expansion.

This is a key option, and in considering this option, there are a range of minor alternatives as to how this would be achieved. Including:

- The implementation of alternative provisions;
- Applying the Special Purpose – Healthcare Facilities and Hospital Zone without any modifications;

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• Applying the Special Purpose - Healthcare Facilities Zone with modifications.

Alternative Provisions
In considering other alternative provisions to apply, two factors were considered. Is it worth conceptualising and applying a new zoning or precinct to the site or are there existing zones or precincts that could be applied.

We specifically considered the combination of the Healthcare Facility and Hospital Zone and developing a specific Brightside Road Precinct. This would identify the site for hospital use, but with modified controls to respond to the specific context of the site (e.g. to manage potential amenity effects).

The AUP(OP) outlines that precincts enable local differences to be recognised by providing detailed place-based provisions which can vary the outcomes sought by the zone or Auckland-wide provisions and can be more restrictive or more enabling.

This was discussed in detail with Auckland Council Officers and it was agreed that this approach is unlikely to be acceptable, because it may set a precedent for a proliferation of precincts within the AUP(OP). It would also result in an inconsistent approach to the management of similar activities within the AUP(OP), in turn, this would increase complexity and confusion for plan users. We also consider there are more effective and efficient ways to achieve this.

A whole new zone is another potential option for alternative provisions, however, this is considered unnecessary because the AUP(OP) already includes a zone that specifically provides for hospitals.

Applying the HFH Zone without modifications
A reasonable option is to apply the Healthcare Facility and Hospital Zone as it currently exists within the AUP(OP) with no other amendments or controls. This zoning has been applied to public and private hospitals and healthcare facilities throughout Auckland in a range of locational contexts. A list of HFH zoned sites is contained within Attachment J.
According to the PAUP evidence (Council and Submitters) which documents the evolution of the zone and the justification for the current HFH zoning and provisions:

- The zone provides for the operation and development of healthcare facilities that range from regionally significant hospitals to smaller clinical centres that serve a local catchment.
- The zone seeks to enable the ongoing operation and expansion of healthcare facilities, recognising there are a limited number of sites dedicated to major healthcare facilities.
- The zone recognises that healthcare facilities are typically surrounded by residential areas, often used as a “spot zone”, which may be sensitive to the scale of buildings, intensity of use and noise and lighting effects and the provisions seeks to manage the extent of these effects on adjacent sites and the wider area.
- The zone contains bulk and location controls to manage the effects on the amenity of the healthcare facility’s surrounds.
- The provisions give effect to the higher-level policy framework of the Auckland Plan and the Regional Policy Statement by requiring a high quality of design for most new buildings and significant additions and alterations.

This option (HFH Zone without modification) would be the simplest and would enable the efficient use and development of the sites for SCIL’s hospital activities, while managing amenity effects. However, it would enable a great deal of additional development potential and range of activities, exceeding those identified as being required by SCIL. For example, emergency facilities, helicopter facilities, psychiatric care, among other activities that are outside the scope of SCIL’s offerings.

For the reasons above, we consider the application of the HFH zone to be a reasonable option to achieve the purpose of the plan change.

**Applying the HFH Zone with modifications**

The unaltered HFH zone provides for greater bulk and volume of development potential than identified as being required by SCIL and a wider range of activities than SCIL is involved with.
Because of this, there is an option to reduce the permitted bulk at the site to respond to the local context, concerns of the neighbours, and specific development capacity identified through SCHL’s research.

Development Outline Plan
In considering how this would be achieved, we have looked at a range of precincts and also the Auckland Hospital diagram within the HFH zone. This generated an idea for a development outline plan that would identify the building outline, and those non-protected trees and stone walls (that contribute to the character and amenity of this location including special character) for retention.

This would provide certainty for neighbours of the location of the building, provide increased building setbacks, protection of vegetation and significant non-scheduled trees and stone walls. This would better manage amenity effects of hospital development on adjacent properties compared to the standard HFH zone. However, this would add additional complexity to the AUP(OP) and again would apply different place-based controls to a specific activity, setting precedent effects much like the alternative provisions. The development outline plan was as follows:
Parking Variation Control
The general parking requirement for healthcare facilities and hospitals requires a greater number of onsite parking spaces than this facility actually demands. As there are a range of hospitals that are subject to the parking variation control, we consider this is an appropriate and reasonably practical option. Having regard to this, there is an option to amend the parking requirement of this hospital to reflect actual parking demand.

The parking requirement would be based on the surveyed demand generated by Flow Transportation consultants which was identified conservatively as being 1 space per 64m² Gross Floor Area. This would be a reduction from 1 space per 50m² Gross Floor Area.
The proposal is to update Table E27.6.2.4 Parking Rates – area 2:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Applies to zones and locations specified in Standard E27.6.2(5)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Minimum rate</td>
</tr>
<tr>
<td>T67 Medical facilities</td>
<td>Hospitals not shown on the Parking Variation Control planning maps</td>
</tr>
<tr>
<td>T68</td>
<td>Grafton Hospital 2 Park Road, Grafton</td>
</tr>
<tr>
<td>T69</td>
<td>Greenside Hospital 210 Green Lane West, Epsom</td>
</tr>
<tr>
<td>T70</td>
<td>Mt Albert 50 Carrington Road, Mt Albert</td>
</tr>
<tr>
<td>T71</td>
<td>Mercy Hospital 95 Mountain Road, Epsom</td>
</tr>
<tr>
<td>T72</td>
<td>Brightside Hospital</td>
</tr>
<tr>
<td>T73</td>
<td>Healthcare facilities</td>
</tr>
<tr>
<td>T74</td>
<td>Veterinary clinics</td>
</tr>
</tbody>
</table>

This is considered an appropriate amendment because the general parking standard for hospitals was generated to apply to both large and small hospitals but is a crude and unspecific rate. These other hospitals include emergency care and other activities that SCHL does not provide and which may increase trip generation and parking demand. Moreover, SCHL does not charge its staff or customers to use the onsite parking facilities.

Ride sharing services such as conventional taxi’s or Uber and Lyft etc… are diminishing private vehicle use and also reducing parking demand as staff,
patients and visitors can utilise these services when visiting this facility.

As discussed within the Traffic Report (Attachment D) the proposed rate of 1 space per 64m² was generated conservatively by the Transportation consultants after a parking demand survey of the existing hospital. The results show the difference in peak parking demands of this particular facility versus those associated with larger public hospitals.

This parking variation control would enable the parking requirements to better respond to actual parking demand of this facility and would reduce the burden of requiring an over-supply of onsite vehicle parking.

Retaining the Special Character Area – Residential Isthmus B Overlay:
In considering retaining the existing hospital, we specifically considered whether there was an option where the sites would be rezoned as HPH zone, but the Special Character Area – Residential Overlay would continue to be applicable.

This option would require consideration of the special character area – Residential Isthmus B values identified within the special character statement and the applicable development controls.

We consider that this option is worth noting because it is similar to the zoning and overlay context at Mercy Hospital at 98 Mountain Road, Epsom.

In considering this option, there are a few points to consider:

a. How would the proposed hospital development reconcile the scale of infringements to the SCAR development controls such as height (6m), maximum building coverage (25%), minimum landscape requirement (50%), maximum paved impervious area (25%) among others.

b. Which development controls would take precedence? And would this create confusion around the interplay between zone and SCAR overlay provisions.
c. Can the maintenance and enhancement of SCAR values be significantly achieved through the proposed hospital development.

d. Can the buildings be incorporated into the hospital design and development without compromising the functional and operational requirements of a modern hospital.

e. Are the HFH zone and SCAR overlay compatible or are they fundamentally opposed to each other. Noting the overlay is a residential special character control and the end use of these sites would be for non-residential hospital activities.

While we did consider this option, we note it is only practicable if the existing dwellings could be incorporated into the hospital development and development controls generally complied with (as per the Mercy hospital at Mountian Road). As this is not feasible at this site, we don’t consider the retention of the SCAR Overlay further.

With respect to the commentary above in regards to retaining the existing hospital, this option would include applying the HFH2 without modification, deleting the SCAR Overlay, and including a parking variation control.

5.3.2.2 Efficiency and Effectiveness of Provisions

Having regard to the descriptions and discussion above, we assess the efficiency and effectiveness of the provisions achieving the objectives of the plan change.

Effectiveness measures how well the provisions are in producing a desired outcome, while efficiency measures whether they would achieve the outcome with the least waste of time, energy and materials (lowest total cost to all members of society). While they are both aimed at assessing which is the most appropriate provisions, they place a different but overlapping lens on the assessment.

**Option 1: Status Quo or Do Nothing:** The status quo will not efficiently or effectively achieve the purpose of the proposal. This is a result of the uncertainty associated with the hospital development when assessed against the current objectives and policies of the current Residential Zoning and SCAR Overlay.
While the current provisions will enable the maintenance of residential character and amenity, it will not efficiently or effectively enable the expansion of the hospital. Moreover, the residential zoning applied to the existing hospital does not enable that facility to function efficiently or effectively because there is an assumption that the hospital is out of place (even considering its long-established use).

**Option 2: Relocate the hospital elsewhere:** The efficiency and effectiveness of this option in achieving the purpose of the plan change is highly dependent upon the new location, and whether the entire hospital relocates or just the new hospital area.

A new location for the hospital might include sites zoned as metropolitan centre, mixed use or general business, industry, open space, or residential;

- Centre, mixed use or general business zoned properties of a sufficient size and appropriate location are hard to come by in this particular area. They are expensive, and Hospitals remain discretionary activities. SCHL has not been able to identify an appropriately located site in one of these zones for their operations to relocate.
- Industrially zoned sites are generally located to the south and while the price of land is more appealing compared to centre zoned land, hospital development would give rise to reverse sensitivity concerns for existing industrial activities. The objectives and policies of industrial zones offer their own range of issues.
- Open space zoned sites are reducing in area all around the City and in the context of a growing population are important for community health and wellbeing. Their use for hospital development is a non-complying activity and will create another range of concerns.
- This leaves other residential areas for a new location and given the identified volume of additional hospital space that SCHL requires, this creates difficulty in acquiring and amalgamating sites and the neighbours of any new location in a residential context will raise the same concerns as the neighbours of the current hospital.
- The option of expansion of the Auckland Surgical Centre (9 St Marks Road) is not feasible because SCHL lease that land and are not in a position to expand the area of land leased. Moreover, the
option of relocating the additional hospital area to their site at 160 Gillies Avenue would raise similar concerns, with SCHL being required to purchase adjoining properties, whose current owners may not be amenable.

In considering a partial relocation, there will be financial, operational and workforce inefficiencies in the duplication of costs, utilities, staff and administration.

For the above reasons, we consider relocating the hospital either in part or in full would not efficiently or effectively achieve the purpose of the plan change.

**Option 3: Apply the Healthcare Facility and Hospital Zone with a parking variation control;**

We consider that the provisions of the plan change are an efficient and effective means of providing for the future hospital development of these strategically located sites, while also managing amenity effects. In particular:

Applying the same suite of provisions that apply to other healthcare facilities and hospitals will ensure a consistent approach within the AUP(OP) to enabling and managing other hospital facilities, albeit this plan change also benefits from a specific Resources Consent proposal being sought in parallel (providing certainty as to what the re-zoning will provide for).

The proposed zone provides for the efficient use and development of the existing hospital, which is currently operating at capacity, whereas the current zones are unlikely to provide for this.

The existing HFH zone, objectives, and provisions have already been tested through the PAUP process and subject to rigorous 532 analysis confirming that they are appropriate in managing effects of hospitals being located within residential and other areas, while enabling them to operate efficiently and effectively.

The request is consistent with those matters identified throughout the PAUP process which were considered to recognise the limited sites available for existing healthcare facilities and hospitals, recognising their significant contribution to community health and wellbeing, enabling their efficient use and expansion.
while also ensuring the development controls are sufficiently robust to control height, scale, the interface with adjacent zones and the public realm (acknowledging the zone is often a “spot zoning”).

The proposed parking variation control will enable the hospital to directly provide for the actual parking demands of the hospital rather than requiring an oversupply of parking as a result of an unspecific general parking rate. This is an efficient method of providing for the parking demands of this specific activity, while avoiding inefficiencies of providing an oversupply of onsite parking spaces.

The proposed rezoning will directly implement the higher order Regional Policy Statement Objectives and Policies, in particular those applicable to social facilities B2.3.

- As identified within the Ernst Young Report, the rezoning will enable SCCH to provide for increased hospital capacity to meet the health and wellbeing needs of people and the community.
- As identified within the Traffic Report, the subject sites are located on an arterial road and is accessible by a wide range of transport modes. Moreover, the site is able to accommodate additional hospital development without significant effects on the transport network.
- The rezoning will enable the expansion of an existing hospital on a site that has accommodated hospital and healthcare facilities since the early 1900s.
- While the proposed zoning will not implement the Special Character Provisions of the RPS (B5.3) at this site, the intent of provisions will continue to be achieved at other sites in the Auckland region.

Applying the FFH zone at this site will successfully enable the development of an expansion to the existing hospital facility at this location, while the development controls and assessment criteria will successfully manage amenity effects on the streetscape and adjacent residential properties.

For these reasons, we consider the proposed rezoning and including a parking variation control to be the
most efficient and effective option to achieve the objectives of the plan change.

### 5.3.2.3 Costs and Benefits

The following section assesses the costs and benefits of the reasonably practicable options to achieve the purpose of the plan change.

<table>
<thead>
<tr>
<th><strong>Option 1: Status Quo or Do Nothing:</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Benefits</strong></td>
<td><strong>Costs</strong></td>
</tr>
<tr>
<td>The adjacent neighbours would unlikely be affected by any hospital development because the development would not proceed.</td>
<td>The resource consent process for SCHL would be uncertain and require significant cost due to the applicable zone and the effects hurdles of the existing zoning.</td>
</tr>
<tr>
<td>There would be no loss in single house zone land.</td>
<td>The hospital may not be able to expand. This would result in the SCHL not being able to keep up with demand, which will affect the health and wellbeing of people and the community.</td>
</tr>
<tr>
<td>There would be no loss of special character at 149-153 Gillies Avenue.</td>
<td>Should SCHL not be able to expand, the Public healthcare system would need to provide for increased capacity for elective surgeries. This will require additional expenditure from DHB’s and in the context of an already economically stretched public system and would have significant impacts on the health and wellbeing of people and communities.</td>
</tr>
</tbody>
</table>

SCHL and neighbours would not be subject to costs for preparation of private plan change, submissions and hearings as this would not proceed. Without growing SCHL surgical capacity at this central location, overflow patients would need to seek service elsewhere. If SCHL does not meet the needs of its members than the load will fall on for-profit providers, who would be required to do their own expansion, or on the public system.

Patient waiting lists would continue to increase, placing greater pressure on the public system. The limited operating space would drive up insurance costs as procedure slots would come at a higher premium, impacting health insurance premiums.

<table>
<thead>
<tr>
<th><strong>Option 2: Relocate the Hospital elsewhere:</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Benefits</strong></td>
<td><strong>Costs</strong></td>
</tr>
<tr>
<td>The adjacent neighbours would unlikely be affected by any hospital development</td>
<td>SCHL would need to find another location within the area (which is extremely difficult to find and is likely to be more expensive to</td>
</tr>
</tbody>
</table>
because the development would not proceed at this location.

<table>
<thead>
<tr>
<th>There would be no loss of single house zoned land for hospital purposes.</th>
<th>There would be no loss of special character at 140-153 Gillies Avenue for hospital purposes.</th>
</tr>
</thead>
<tbody>
<tr>
<td>There would be no loss of single house zoned land for hospital purposes.</td>
<td>Southern Cross would have no use for the residential properties at 140-153 Gillies Avenue as they are not a residential entity.</td>
</tr>
<tr>
<td>In relocating and vacating the property at 3 Brightside Road, a replacement development such as residential apartments or terrace houses would likely be sought (by some other applicant), this will have a range of benefits including increased housing capacity for new residents to the area.</td>
<td>A new location would likely require a private plan change to apply the Healthcare Facilities and Hospital Zoning in the new location.</td>
</tr>
<tr>
<td>This option would result in the provision of additional hospital volume to meet identified demand however, the actual details would be dependent on the new location.</td>
<td>Centre zoned sites of a sufficient size and appropriate location are hard to come by, expensive, and Hospitals remain discretionary activities.</td>
</tr>
<tr>
<td>Industrial zoned sites are generally located in the south and Hospital development will give rise to reverse sensitivity concerns for existing businesses.</td>
<td>Open Space zoned sites are reducing in area all around the City and in the context of a growing population are important for community health and wellbeing. Their use for hospital development is a non-complying activity and will create another range of other concerns.</td>
</tr>
<tr>
<td>This leaves other residential areas for a new location and given the identified volume of additional hospital space that SCHL requires. It will be difficult to acquire and amalgamate sufficient land, and the neighbours of any new location in a residential context will raise the same concerns as the neighbours of the current hospital.</td>
<td>In relocating and vacating the property at 3 Brightside Road, a replacement development such as residential apartments or terrace houses would likely be sought, this will have a range of traffic, noise and amenity impacts for existing residents.</td>
</tr>
<tr>
<td>This option would likely result in a disruption to the locational distribution of the SCHL facilities, potentially forgoing the locational benefits for the patient catchment, specialists’ places of residence and their consulting rooms. There is no alternative location in this Golden Triangle (as noted within the EY Report).</td>
<td></td>
</tr>
</tbody>
</table>

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The financial costs of relocating the hospital and building a new facility would have more significant costs associated compared to retaining the current location. These increased costs would inevitably drive up the cost of private healthcare.

<table>
<thead>
<tr>
<th>Option 3: Apply the Healthcare Facility and Hospital Zone and including a parking variation control</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Benefits</strong></td>
</tr>
<tr>
<td>The proposed provisions reflect the preferred use and are a reasonable future use of the sites having regard to the historic use and the SCHL ownership and the required expansion.</td>
</tr>
<tr>
<td>The proposed zone is consistent with Auckland Council's AUP(OP) Regional Policy Statement for Social Facilities B2.8, as well as Urban Growth and Form B2.2 and Transport B3.3.</td>
</tr>
<tr>
<td>The proposed provisions will enable SCHL to meet identified demand. This will better provide for community health and wellbeing.</td>
</tr>
<tr>
<td>The proposed plan change will provide for increased economic growth through the significant investment in the hospital expansion.</td>
</tr>
<tr>
<td>The proposed plan change will provide for an increase in a range of employment opportunities.</td>
</tr>
<tr>
<td>The proposed provisions will enable development that is required to enable the hospital to operate efficiently.</td>
</tr>
<tr>
<td>The proposed provisions will appropriately manage the interface with residential properties to manage amenity effects.</td>
</tr>
<tr>
<td>The proposed provisions provide for a hospital that is considered to be accessible by a range of transport modes including public transport, walking, cycling and private vehicle.</td>
</tr>
<tr>
<td>The proposal makes efficient use of land adjacent to arterial roads which are transport corridors.</td>
</tr>
<tr>
<td><strong>Costs</strong></td>
</tr>
<tr>
<td>Proceeding with a Private Plan Change incurs significant financial cost to the applicant.</td>
</tr>
<tr>
<td>A loss of residential dwellings and a boarding house in a residential zone.</td>
</tr>
<tr>
<td>There will be a loss of single house zoned land and special character values as a result of the hospital development.</td>
</tr>
<tr>
<td>There will be effects on residential character and amenity in the surrounding area including from the increased scale of the hospital, noise and lighting effects as well as increased trip generation.</td>
</tr>
<tr>
<td>There would be less potential for public participation in consenting matters related to Hospital use and development.</td>
</tr>
<tr>
<td>There would be less ability for design assessment of proposed hospital use and development compared to the current situation, albeit, the proposed hospital development has already undergone substantial design review including by the Urban Design Panel.</td>
</tr>
</tbody>
</table>
The parking variation will enable the hospital to provide for the actual parking demand of the facility rather than responding to a general parking rate that is unspecific. This will result in a more efficient supply of onsite parking and the avoidance of an oversupply of parking.

The proposal will serve the hospital catchment of patients, including central east and western areas. The hospital also lies in the ‘Golden triangle’ between Auckland and Greenlane Hospital sites, in close proximity to a range of health facilities, and close to surgeon’s personal address allowing easy call-back after hours if necessary.

Benefits of connecting into the existing hospital without the need for duplication of services, mechanical plant and utilities. This enables the benefits of volume efficiencies, workforce management, food and laundry, medical supplies inventory, hospital infrastructure and site management and means the larger hospital will be able to run at a cheaper cost compared to the equivalent functions spread over 2 smaller sites. This will avoid increased premium increases for this non-profit provider.

Benefits of connecting into the existing hospital without the need for duplication of staffing or management. This enables the maximisation of existing workforce and scarce skill sets with more effective rostering and job sizing.
5.3.2.4 Risk of Acting or Not Acting

There is enough information contained within this proposal (including the appended specialist reports) to be certain about the need for the plan change request and the need for increased hospital capacity in this location.

The risk of not acting is that the surgical demand that this hospital provides for will significantly outpace the capacity. This will increase patient lists and wait times for surgeries that are critical to enabling the health and wellbeing of Auckland's residents.

The risk of acting on this information is less than not acting. This evaluation will continue to be refined in relation to any new information that may arise following notification, including during hearings on the Private Plan Change.

5.3.2.5 Iwi Authorities

As noted within the consultation section of this request, the Mana Whenua groups relevant to this area, as identified by Auckland Council, were consulted and provided with the opportunity to provide input or comment. It should be noted that not all groups that were contacted provided a response.

To date, the responses received concluded that either there were no issues, or they deferred their interest to a more relevant group.

As such, there is no specific responses or provisions that are required to give effect to the advice from Mana Whenua.

5.3.3 S32 Evaluation Conclusion

The evaluation contained within this report has been prepared in accordance with S32 RMA and contains a level of detail that corresponds to the scale and significance of effects.

The evaluation concludes that the proposed application of the Healthcare Facility and Hospital zoning and the parking variation control is the most appropriate way to achieve the purpose of the Act, and the provisions are the most efficient and effective way to achieve the efficient operation and expansion of the

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existing hospital, while managing the effects on the adjacent residential and streetscape amenity.

5.4 Assessment of Environmental Effects

Clause 22(2) of Schedule 1 RMA requires that where environmental effects are anticipated, the request shall describe those effects, taking into account classes 6 and 7 of Schedule 4, in such detail as corresponds with the scale and significance of the actual or potential environmental effects anticipated from the implementation of the change, policy statement, or plan.

The relevant effects that require consideration as a result of this plan change request are as follows:

- Character and Amenity;
- Loss of Residential Capacity;
- Transportation Effects;
- Infrastructure;
- Natural Hazards;
- Cultural;
- Natural Heritage;

The following sections provide this assessment:

5.4.1 Character and Amenity

It is anticipated that there will be a change in the character and amenity of the area as a result of the increased scale and intensity of hospital development enabled.

We rely upon the advice within these reports to assist with understanding the extent of character and amenity effects of the plan change, the following reports were commissioned:

- Urban Design Assessment,
- Visual Effects Assessment,
- Special Character Assessment.

Comparison of Bulk and Location

The change in bulk and location controls will have character and amenity effects. The change in controls are as follows;
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<table>
<thead>
<tr>
<th>MIIS zone</th>
<th>SH zone with SCAR Overlay</th>
<th>HFH zone</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Height</strong></td>
<td><strong>8m (+1m)</strong>*</td>
<td><strong>8m (+1m)</strong>*</td>
</tr>
<tr>
<td><strong>Height in Relation to Boundary (&quot;HIRE&quot;)</strong></td>
<td>2.5m + 45° to side/rear boundaries only</td>
<td>2.5m + 45° to side/rear boundaries only</td>
</tr>
<tr>
<td><strong>Yards</strong></td>
<td>3m front</td>
<td>3m front</td>
</tr>
<tr>
<td></td>
<td>1m side/rear</td>
<td>1m side/rear</td>
</tr>
<tr>
<td><strong>Maximum Impervious Area</strong></td>
<td>60% gross</td>
<td>60% gross</td>
</tr>
<tr>
<td><strong>Building Coverage</strong></td>
<td>40% net</td>
<td>35% net (25% net (SCAR))</td>
</tr>
<tr>
<td><strong>Landscaped Area</strong></td>
<td>40% net (plus 50% of front yard)</td>
<td>40% net (plus 50% of front yard)</td>
</tr>
<tr>
<td><strong>Fences and Walls</strong></td>
<td>1.4m front</td>
<td>1.4m front</td>
</tr>
<tr>
<td></td>
<td>2m side/rear</td>
<td>2m side/rear</td>
</tr>
</tbody>
</table>

* All of the subject sites are affected by volcanic viewshaft overlays, which alter the maximum height. In the western area of 3 Brightside Road, this is as low as 11.5m-16m.

Infringements to the above standards require restricted discretionary resource consent and are required to be assessed against the criteria noted within C1.9, being:

- (a) any objective or policy which is relevant to the standard;
- (b) the purpose (if stated) of the standard and whether that purpose will still be achieved if consent is granted;
- (c) any specific matter identified in the relevant rule or any relevant matter of discretion or assessment criterion associated with that rule;
- (d) any special or unusual characteristic of the site which is relevant to the standard;
- (e) the effects of the infringement of the standard; and
- (f) where more than one standard will be infringed, the effects of all infringements considered together.

According to Clause C1.8(1) Council will consider any relevant objectives and policies for restricted discretionary, discretionary and/or non-complying activities.

### Height

The change in the height enabled by the plan change is noticeable. This has the potential to generate
increased shading, dominance and visual privacy effects compared to development anticipated within the SH or MHS zones. However, this transition in heights between 8 and 16m is fairly common throughout Auckland. This includes where zones such as Mixed-Use zone, Local Centre zone, Terrace housing and Apartment Buildings zone or the light or heavy industrial zones adjoin the Mixed Housing Suburban zone. In this regard, the height change is not exceptional or unusual.

SCHL have been cognisant of the resultant potential effects on residential character and amenity, and these reasons underpin their decisions to purchase the Gillies Avenue properties, firstly 151 and 153, and then subsequently 149 as well. The location of the subject sites relative to adjoining residential properties and the transport network limit the potential for effects, because the adjoining properties are to the north, and the public roads and SCHL properties are to the east, south and west. The increased height is significantly screened from the wider surrounding area by the large mature vegetation onsite and in the surrounding properties and streets.

Height in Relation to Boundary (“HIRB”)
There are no changes to the HIRB controls applicable to development at this site, because the HFHZ requires any future development to use the HIRB control of the adjacent zone. The Urban Design and Visual Effects Reports agree that the HIRB controls will manage the scale of built form in relation to external boundaries ensuring taller areas of built form are located further away from boundaries and retain a reasonable level of sunlight and daylight access to adjacent sites. This control is a consistent approach to HIRB at the interface between MHS zoned properties and zones enabling greater height. Including for example, at the interface with the Local Centre Zone, THAB Zone, and MHU zone for example, while the interface with Light Industry Zoned properties have a more relaxed HIRB control (being 6m + 35°).

In this regard, the HIRB control between the HFH zone and MHS zone sufficiently control bulk and dominance effects and is consistent with other zone interface HIRB controls elsewhere.

Yours
The resultant change in the required yards, will increase the setback from boundaries compared to the underlying zones. This will increase the minimum physical separation between buildings and property boundaries. This control combines with the HIRB control to manage the relationship between building bulk and adjacent properties.

**Fencing**

The changes in fencing heights are unlikely to have any significant effects because the boundary walls are to be retained to manage streetscape effects, and side and rear fencing up to 2m in height can be reasonably anticipated in each of the zones. This height of side and rear fencing will also assist with noise mitigation as noted within the acoustic report.

**Coverage**

The increase in the impervious area, while enabling greater coverage, is primarily designed to manage stormwater flows from the site. Increased stormwater runoff effects are discussed within a separate section of this AEE, but we note here that ground soakage testing has been carried out and there is no capacity constraint in accommodating flows generated from the increased impervious area enabled.

**Shading**

The bulk and scale of a hospital building enabled at this location will have shading effects for the public realm and adjacent properties. The shading effects of the development are illustrated within the shading diagrams contained within the Architectural Design Statement (Section 4.3). These demonstrate most of the shading of adjacent residential properties is limited in duration, and given the large setbacks, is generally limited to the site itself and the public realm.

The adjacent sites to the north are not shaded to an unreasonable extent, having regard to the path of the sun. While those to the west, east and south are shaded to a small extent at limited times of the day and year. In general, the surrounding residential properties maintain a significant amount of sunlight and daylight during the day. The vegetated environment of this particular area, with the large mature trees, will also provide an element of masking of the additional shading effects of a proposed hospital building.
The accepted level of shading is demonstrated within H4.8.2 assessment criteria related to the use of the alternative setback in relation to boundary controls in the mixed housing suburban zone. Here, it is noted that four hours of sunlight between 9am – 4pm during the equinox is the standard. The building bulk enabled by the zone change does not introduce shading effects on adjacent properties to an extent that reduces sunlight access to less than this.

We consider that the access to sunlight and daylight for adjacent properties is maintained to a reasonable extent and the shading of the street is generally masked by vegetation and trees. The Urban Design and Visual Effects Assessment Reports agree. We therefore consider the potential shading effects will be minor.

**Visual Privacy**
The visual privacy effects from development enabled by the zone change will be from windows at upper levels of a building that is taller than that permitted within the current zone. The potential effects of visual privacy are mitigated by the location and design of windows, the retention of tall trees which provide visual screening and obscuring of direct views, and the increased yard setback from boundaries. Moreover, the users of the hospital are unlikely to use windows or balconies in the similar way that residents or hotel users would. Additionally, the internal arrangement of the hospital can be such that the upper level is a surgical level, where occupants (staff and patients) are not capable of looking down onto adjacent properties in a way or to an extent that would compromise visual privacy. The visual privacy effects are unlikely to be as great as that associated with a two-storey building or the boarding houses. We are therefore of the opinion that the potential effects of visual privacy will be minor.

**Dominance**
The visual dominance effects are larger than what would occur generally within the single house or mixed housing suburban zone. This is a result of the larger bulkier buildings enabled by the HBFH zone. However, we consider the dominance effects are mitigated by the increased setbacks from the boundaries, compliance with HIRB controls to residential boundaries, the separation provided by

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both Gillies Avenue and Brightside Roads, and the articulation, modulation, materials and high-quality design of the hospital building itself. These factors would act to break up the building bulk, reduce its blankness, we consider this would mitigate the potential visual dominance effects to an extent that is minor.

The HIRB and Yard provisions enable a similar level of bulk and location of buildings on sites zoned Mixed-Use, Light Industry, Local Centre, Terraced House and Apartment Building zone for example, that interface with MHS zoned properties.

**Design Assessment**

In addition to the comments above, we note that the increased bulk enabled as a permitted activity includes, buildings, alterations, additions and demolition unless otherwise specified. Being those that do not increase the building footprint by more than 20%, not within 10m of a road or an open space zone and/or not a parking building visible from and located within 10m from a public road, residential zone or open space zone.

Other new buildings or additions located within 10m of a public road or open space zone that increase the building footprint by more than 20% are a restricted discretionary activity. In addition, new parking buildings, that are visible from and located within 10m of a residential zone, public road or open space zone are also a restricted discretionary activity. These buildings will be subject to design assessment criteria as identified within the HFH zone.

The matters of discretion are found within H25.8.1(2) and (3). These enable the effects of the building design and external appearance on the streetscape and open space zoned land to be assessed, and in relation to parking buildings, an additional assessment on the effects on amenity values of adjoining residential zoned land to be undertaken.

The assessment criteria are found at H25.8.2, in relation to new buildings, the following are listed:

(2) New buildings or additions to buildings that increase the building footprint by more than 20 per cent, that are visible from and located within 10m of a public road or an open space zone.
(a) the extent to which design features can be used to break up the bulk of the building by, for example varying building elevations, setting parts of the building back, and the use of architectural features without compromising the functional requirements of the use of the building;
(b) the extent to which the visual effects of the building can be softened by landscaping; and
(c) the extent to which any service elements (roof plant, exhaust and intake units and roof equipment) that could be viewed from the road or public open space zone can be integrated as part of the façade or roof of the building.

And additionally, in relation to parking buildings, the following matters of discretion are noted:

(3) New parking buildings visible from and located within 10m of a public road or a residential zone or open space zone:
(a) the extent to which design features can be used to break up the bulk of the building by, for example varying building elevations, setting parts of the building back, and the use of architectural features without compromising the functional requirements of the use of the building;
(b) the extent to which the visual effects of the building can be softened by landscaping; and
(c) the extent to which any service elements (roof plant, exhaust and intake units and roof equipment) that could be viewed from the road or public open space zone can be integrated as part of the façade or roof of the building.

The above criteria enable Auckland Council sufficient control over the design of any new hospital building (triggering RD consent) to avoid large blank facades, the minimisation of visual dominance effects to the adjoining streetscape and properties, and to ensure the hospital development responds to the particular context of the locality. An example of this would be to include conditions of consent to retain stone walls and frontage vegetation to manage streetscape effects. The HFH zone has been applied to sites in a wide range of contexts and balances the significant need for hospitals and healthcare facilities against character and amenity values of their particular location. The Visual Effects Assessment notes, that these other sites are zoned HFH demonstrate good examples where hospitals co-exist comfortably within a surrounding residential context.

Any infringements to development control standards are to be assessed against the matters within C19 AUP(OP), which also provide Council with additional discretion to undertake a robust assessment prior to any decision. These matters are noted earlier within this section of the report.
The AUP(OP), when considering hospitals and healthcare facilities, has already made the value judgement that their significant contribution to community health and wellbeing as well as their functional requirements are sufficiently important to warrant development controls that enable the intensive use and development of hospital sites, including no design assessment criteria (subject to compliance with development controls). This is in recognition of the significant and essential contribution and importance of the services they provide to community health and wellbeing.

Non-residential Use
The proposed non-residential use of the Gillies Avenue sites will alter the character and amenity of the area. It is noted that the site at 149 Gillies Avenue has been used for commercial activities (albeit boarding house activities) for many years (since the 1940’s), and that there are several examples of commercial and community activities within the surrounding residential area including the SCHL facility at 3 Brightside Road, 160 Gillies Avenue, and other medical facilities.

Gillies Avenue is a large Arterial Road, which carries significant daily traffic flows. One of the key aspects of the AUP(OP) is the centres and corridors philosophy which enables commercial growth on transport corridors. The non-residential use also provides directly for community social and economic wellbeing and for their health and safety.

For these reasons, we consider that the change in use to a non-residential activity will have adverse effects that are no more than minor having regard to the historic use of 3 Brightside Road and that of 149 Gillies Avenue as well as the ability for the operational characteristics and proposed management practices to comply with Auckland-wide noise and lighting provisions.

Noise and Lighting
The rezoning will result in amenity changes related to noise and lighting emitted from the Gillies Avenue sites. The Auckland-wide controls that manage noise and lighting will continue to apply to this site. Hospitals are provided with increased permitted noise
levels however, this is no greater than childcare centres which are commonly found within residential areas. The SCHL facility will not accommodate emergency services or ambulances, and there is no desire for a helipad or services.

Moreover, because the site will be adjacent to residential zones, the residential noise limits will continue to apply as outlined within E.25.6.22. Any future hospital development will be assessed for compliance against these provisions and this will enable those effects to be managed to an acceptable extent at the resource consent stage. Initial reporting from the lighting and acoustic consultants confirms that a reasonably anticipated development at this site is capable of complying with the noise and lighting controls. The noise report (Attachment I) confirms, “The traffic and mechanical plant noise of the proposal are predicted to be able to comply with the Auckland Unitary Plan requirements taking into account the cumulative noise levels associated with hospital activities. Where necessary mitigation and management may be implemented to meet the applicable noise limits."

The proposed plan changes will not change the noise limit requirements at the neighbouring residential receivers” (Earcen 2019, pg 13).

We therefore consider that noise and lighting effects are appropriately managed through the controls within the AUP(OP) and any adverse effects of the change in zoning will be minor.

Alternative Building Designs
While SCHL have no desire to apply for resource consent for a different scheme (compared to that already designed) it is conceivable that an alternative building and hospital scheme could be designed, and resource consent applied for under the HPF zone provisions. Unlike apartment developers or similar commercial applicants, SCHL has no desire to rezone then abandon the site. There is also no real risk of SCHL failing as a hospital provider and leaving the healthcare market. These factors should provide a good level of comfort to Auckland Council and adjacent land owners that SCHL will develop the site as indicated.
Visual Landscape Effects

Enclosed within Attachment F to this Assessment is a Visual Effects Assessment Report which investigates the existing character of the site and locality, identifies the key landscape features of the area, describes those elements of development that are enabled as a permitted activity under the H2HZ zone that will be visible from outside the site and assess their visual effects on the locality. This was completed by a suitably qualified and experienced Landscape Architect. This assessment confirms:

“Development permitted under the H25 provisions would result in a noticeable visual change from the current residential characteristics of the land, to one with more intensive built characteristics. The site is part of an established and varied predominantly residential environment surrounding the existing hospital facility. The site and surrounding landscape has the capacity to visually absorb the landscape and visual effects of increased development through the physical characteristics and prevailing attributes and urban fabric within the area.

The surrounding area has a high level of activity through the range of healthcare, transport and residential uses prevailing. Development permitted under the H25 provisions would be visible from various locations in the surrounding urban environment due to the height, form and scale greater than currently existing within the site. Development within the site would however have minimal adverse landscape and visual effects and could be readily accommodated in this location.

In my opinion the standards, provisions and assessment criteria within the H25 SPHZ will protect the surrounding residential area and minimise potential adverse effects of overshadowing, visual dominance and loss of visual privacy on adjacent properties while maintaining a high standard of amenity.

Having undertaken a comprehensive visual effects assessment of the implications of development permitted under the H25 provisions, I conclude that the visual effects will be minor in the context of the existing landscape and visual environment for the reasons identified. The visual amenity and quality of the environment surrounding the site will not be
adversely affected by development permitted by the H25 provisions”
(LA4 2019, pg 20-21).

We rely on the advice contained within this assessment and concur with its conclusion that the adverse visual effects will be minor.

Urban Design
Enclosed within Attachment C to this Assessment is an Urban Design Report which addresses urban design aspects of the Plan Change. This was completed by a suitably qualified and experienced Urban Designer. This report concludes;

- “From an urban design perspective, the consolidation of healthcare and hospital services around the existing hospital, on a regional arterial, easily accessed from the centre of Auckland by various modes of transport, and in an area that already includes a diverse mix of activities and buildings, has substantial merit. It is also in line with the objectives and policies of the RPS for urban growth and social facilities.

- The provisions of the HFH Zone are also sufficient to manage potential amenity effects on the streetscape, the public realm, and residential neighbours, due to the permitted activity standards and RD consent requirement and associated assessment criteria for building within 10m of a street frontage. Where buildings are located more than 10m back from the boundary, sufficient space is provided for mature tree retention and additional landscaping to visually screen the building bulk possible as a permitted activity.

- Within the provisions of the HFH zone, the HHHB, Height and yard controls will ensure residential amenity is maintained on adjoining sites consistent with other HFH zoned sites across the city that have residential adjoining them. With a maximum height of 16m, and the application of the MHS zone’s HHHB controls, the visual dominance effects of future development on the HFH zone will also be similar to that created across the city by THAB and Mixed Use zones with respect to visual dominance and shading.
effects, and thus can be considered reasonable in the context of the wider planning framework. The wider side yard requirement of 5m will also provide the ability to retain existing and/or provide additional planting along boundaries.

- However, of concern is that clear direction is not provided within the provisions of the HFH zone for the protection of some of the unique character features, that help to ensure a context sensitive design that would achieve a high standard of residential amenity on the neighbouring properties. The dry-stone walls that are a character feature of the streetscape are currently protected by the character overlay in the AUP, but would not be protected under the HFH zone.

- However, it is also noted that as an alternative to the existing mature trees and dry-stone walls a well-Brightside Hospital, Southern Cross Hospital Ltd 46 designed building with glazing, variation in detailing, planting and new (smaller) trees can provide an attractive presentation to the street as per the provisions of the HFH zone.

- These outcomes (retention of mature trees and drystone walls, sensitive building design and additional planting) can be achieved via the provisions of the HFH zone that will trigger a Restricted Discretionary consent for building located within 10m of a street frontage, with the associated assessment criteria able to manage amenity effects on the public realm, including the interface of the site with the neighbourhood. In addition, if the development controls are infringed, such as the maximum height, height in relation to boundary and yard controls, effects on residential amenity will be assessed. If development is internal to the site (and is not a boarding house or carparking building) to be permitted the development must comply with the development standards which ensure a reasonable level of residential amenity is maintained. In addition, the additional controls from the protected trees and volcanic viewsheds, as well as the site shape, orientation and character of the site enables development to occur in a manner and form.

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that will integrate into the residential environment.

- A good urban design outcome is one that balances the need to provide for the regional well-being of the community in an efficient manner, with the protection of localised special character and residential amenity, as acknowledged in the Regional Policy Statement’s objectives and policies of the LUP. This can be achieved under the provisions of the HFH zone. However, a site specific development plan control could be included in the HFH zone to provide mitigation for the removal of the special character overlay from 149, 151 and 153 Gillies Ave. This plan could provide for existing key character features to be maintained including open space, mature trees and dry-stone walls. Although these features can be maintained under the HFH zone provisions, the development plan approach has urban design merit as it provides more certainty of these outcomes” (Motta Design 2010, Pg 45-46).

We rely on the advice contained within this assessment and concur with its conclusion that while a site-specific development outline plan would enable a better urban design outcome to be achieved, that the standard HFH zone provisions (and other applicable provisions) will enable a good urban design outcome at this site.

Special Character
Enclosed within Attachment II to this Assessment is a Special Character and Heritage Report which looks at the historical overview, physical analysis, and special character aspects of the Plan Change. This was completed by a suitably qualified and experienced Heritage Architect. This report confirms:

- The properties have been analysed in significant detail with respect to heritage and special character.
- The properties at 151 – 153 Gillies Ave and to a lesser extent 149 Gillies Ave have historical and physical/visual values consistent with the SCA. The period houses, historical stone walls, large setbacks, abundant trees and vegetation are all characteristics that are specifically
highlighted in the SCA’s statement of significance.

- The houses at 151 and 153 Gillies Ave clearly have architectural merit that illustrates the identified character values of the SCA, but their contribution to the SCA is restrained both by their visual enclosure and by limited recognisability of a historical or contemporary group in the vicinity.
- The properties as a whole do, however, make a positive contribution to the collective character values of the SCA through their landscape features including large trees, hedges, gardens and basalt stone walls. It is considered that their substantial loss would adversely affect the identified character and amenity values of the area.
- The challenge of maintaining and enhancing identified special character values with the proposed removal of the SCA from the subject sites may be managed in various ways.
  - The concurrent lodgement of a resource consent application indicates that SCHL’s objective is to retain these landscape features as a key component of its development proposal. It is considered reasonable to assume that this well-progressed scheme would continue to be pursued should the proposed zone change occur.
  - While significant development is enabled as a Permitted activity under the HFH zone, a resource consent for a Restricted Discretionary activity would be required for any development within 10m of a public road (AUP Table H25.4.1 (A20)). There is scope to retain existing landscape features as a condition of consent as part of an assessment of effects on the adjoining streetscape under Parts H25.8.1. and 2.
  - Other approaches that Council may consider are also explored in this report, including changing the underlying zoning but keeping the SCA, and inserting a site-specific development plan in the HFH zone.
- While having some differences, Mercy Hospital on Mountain Road is found to demonstrate useful precedence in terms of how special character can be maintained and enhanced on hospital-zoned land.

Overall, we rely upon the advice from the heritage architect in concluding that the proposal responds sensitively to its context in terms of scale, materiality...
and detailing, with a focus on protecting the landscape features (trees, landscaping and stone basalt walls) that provide considerable contribution to streetscape character and based on this we consider that while the special character values of the subject sites will be affected to a more than minor extent, the potential adverse effects on the Isthmus Residential B Special Character Area overall, will be no more than minor and are acceptable because the sites will be repurposed for a hospital development that provides significant community benefit.

Conclusion
Overall, it is our opinion that the proposed zone change will result in an increase in the scale and intensity of development enabled at the subject site and this will generate increased adverse character and amenity related effects for the public realm and adjacent properties. However, these effects have been demonstrated within the range of expert reports to be of a minor extent and appropriate having regard to the particular locational context.

5.4.2 Loss of Residential Capacity

In addition to the comments made in section 5.4.1 above on non-residential use, the proposed plan change will result in the loss of residential capacity within the residential zone. In a city such as Auckland where there is a high level of pressure on the supply of housing, this can have adverse effects such as reducing the capacity of residential zones to provide for much needed residential housing. As noted within section 3.3 above, there are a range of non-residential activities in the surrounding residential areas and this demonstrates that it is not uncommon for residential areas to provide for non-residential activities.

We consider there is an adverse effect here, however, the extent of this effect is limited by the fact that the zoning provides for three single dwellings, which is not a significant contribution to housing supply and the existing hospital site is already non-residential. We consider the scale and significance of this effect to be less than minor.

5.4.3 Transportation Effects

The plan change request will result in a different pattern of transportation effects associated with hospital development enabled. This would be greater
than that provided for within the current residential zoning.

In terms of trip generation, a larger number of vehicles will be attracted to the hospital, which has the potential to increase traffic congestion, parking demand and decrease safety. While these matters will be the subject of assessment against the Auckland-wide transport controls at the time any resource consent is submitted to Auckland Council, it is important to confirm the findings of the traffic report at this stage.

The project traffic engineers have assessed the potential transportation effects that are reasonably anticipated by hospital development at this location. Their reporting confirms:

- The location of the subject site provides good accessibility to various transport modes including walking, cycling, bus and private vehicles;
- The effects of the increase in vehicle trips resulting from a permitted development that can be enabled under the zone change are expected to be acceptable with the existing roads and intersections being capable of accommodating the additional traffic without resulting in adverse traffic effects;
- A minimum car parking provision standard of 1 parking space per 64 m² GFA for any additional medical facility development permitted under the Proposed Plan Change is recommended to be established as part of the Proposed Plan Change;
- The controls given in Chapter E27 of the AUP-OIP relating to the provision of appropriate loading facilities, bicycle parking and accessible parking spaces, as well as the design of these transport elements, are adequate to ensure that these matters can be appropriately addressed at the time when consent will be sought to implement a new building under the Proposed Plan Change;
- The Proposed Plan Change is consistent with and encourages key regional and local transport policies and plans.

The traffic report concludes;
It is anticipated that potential traffic effects of any future development under the Special Purpose –
Healthcare Facilities and Hospitals Zone, can be managed appropriately with the identified planning controls in the AUP-OIP and mitigation measures. In summary, these measures could include a Staff Travel Plan to encourage hospital staff to travel by more sustainable transport modes and/or changes to existing available sight distance from intersections and any potential vehicle access provisions by removing on-street.

In conclusion, the traffic effects of the development of hospital activities that could be achieved under the Special Purpose – Healthcare Facilities and Hospitals Zone, with the implementation of the abovementioned planning instruments and possible mitigation measures, are no more than minor and considered acceptable. Therefore, from a transport planning and traffic engineering perspective, there is no reason to preclude approval of the Proposed Plan Change.

Overall, based on the comprehensive assessment completed by Flow Transportation Consultants, we consider the transportation effects of permitted development enabled by the proposed plan change can be suitably managed to an extent that is no more than minor.

5.4.4 Infrastructure

The proposed plan change is accompanied by an infrastructure assessment which assesses the ability of the public infrastructure to accommodate a proposed hospital development at this location. This report confirms:

There is sufficient supply of water for both firefighting and potable supply to provide for the needs of hospital development enabled.

There is sufficient capacity within the wastewater network to provide for the wastewater needs of hospital development enabled.

There is no public stormwater system in the vicinity which can take the stormwater flows from the site. Ground seepage testing has been undertaken and the results confirm the subsurface conditions can accommodate the reasonably anticipated flows from the impervious area associated with a hospital development at this site.

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There is public power, telecommunications, gas and other infrastructure available within the road frontage to provide for the needs of the hospital development.

These are all confirmed to be suitable to provide for a Hospital development with specific connections to be assessed at the resource consent stage, and development contributions payable to offset any increased demands on the public services.

5.4.5 Natural Hazards

The site is subject to flooding and overland flows. The plan change will increase the development footprint and the impervious area onsite. This will increase the flow of surface water which may exacerbate flooding on-street and down-stream, moreover the diversion of overland flows may occur.

It is envisaged that the Auckland-wide controls will enable adequate assessment of a hospital development at the resource consent stage, it is important to note that there are options available to manage these effects.

The civil engineers confirm that increased flows from the development if left un-mitigated have the potential to increase flooding by around 5mm down-stream. To mitigate this effect, the overland flow and onsite is able to be directed to the ground soakage device. The flow testing has confirmed there is sufficient capacity to accommodate this additional flow and adequately manage the effects of this natural hazard avoiding any additional effects off-site.

5.4.6 Cultural

The proposal has the potential to adversely affect cultural values. In understanding the extent of cultural values that might be affected, the mana whenua groups identified by Auckland Council as having an interest in this area were contacted for comment.

As indicated in other sections of this report, the groups who provided a response did not identify any adverse effects or matters of concern.

We note, that mana whenua groups can participate in the process following lodgement of this plan change.
request, and that they will also have an opportunity to participate and raise any issues at a later date.

For the time being, we consider that any cultural adverse effects as a result of this plan change request are of a less than minor extent.

### 5.4.7 Natural Heritage

The proposed plan change request has the potential to adversely affect natural heritage. The sites are subject to protected trees and two volcanic viewshafts.

While the existing overlay controls related to notable trees and volcanic viewshafts will continue to apply, any reasonably anticipated hospital development, such as the one put forward by SCIL, will protect these heritage features and any development with infringements to rules protecting these scheduled features will need to be assessed against the relevant assessment criteria.

For these reasons, we consider the plan change request will have less than minor effects on natural heritage.

### 5.4.8 Effects Summary

As a result of the assessment provided above, which is based on the opinion of a range of consultants, it is our opinion that the built form and land use activities that are enabled by the plan change is appropriate in this particular context, and the adverse effects can be managed to an acceptable extent.

### 5.5 Acceptance

As outlined within Clause 25 of schedule 1, following receipt of the Request, Auckland Council may take one of several options.

We consider Auckland Council should not reject the request because none of the criteria under clause 25(4)(a)-(e) apply:
- The request to enable the efficient expansion and operation of a Hospital within the context of a growing and ageing population is not a frivolous or vexatious request.
- The request has not been considered by Auckland Council or the Environment Court within the last 2 years (or at all).
• The request accords with sound resource management practice.
• The request does not create any inconsistency between the plan and part 5.
• At the date of the lodgement of this request, the plan has been operative in part for more than 2 years.

We consider that the proposal is not a matter that can effectively be dealt with as a resource consent application, as retaining the existing zones would fail to recognise the efficient and effective hospital activities that are existing and proposed.

Having regard to the evaluation and assessment contained within this request, which is informed by a wide range of specialist reports which accompany this proposal, we consider that Auckland Council should accept the request and proceed to notify the request as per clause 26 of Schedule 1.

6.0 Consultation

SCHL have engaged in consultation with a range of parties including, Auckland Council, Urban Design Panel, Neighbours, Mana Whenua among others.

The following sections provide information with respect to who was consulted, when and their feedback.

6.1 Auckland Council – Resource Consent

SCHL are also seeking resource consent for an expansion of the hospital. This has been the subject of several pre-application meetings in the three years leading up to the lodgement of this application. The earlier meetings related to a previous scheme which didn’t include 149 Gillies Avenue, with the latter two including all four sites.

- 12 December 2016,
- 29 March 2017,
- 26 April 2017,
- 4 December 2017
- 13 February 2018

Various Council Officers and specialists were in attendance and offered valuable advice and commentary which assisted in the design and preparation of the application. The latest meeting, Council officers raised the uncertainty of the non-complying hospital development to pass the S104D
test. They suggested the plan change was the appropriate approach.

6.2 Auckland Council – Plan Change

SCHL have consulted with Auckland Council in progressing the plan change request. This has been the subject of several meetings;
- 3rd July 2018,
- 25th September 2018,
- 24th October 2018,
- 5th November 2018,
- 10th December 2018.

The content of the meetings originated with what SCHL was trying to achieve and the need for the proposed Private Plan Change and whether Council was open to a private plan change to address these matters. Following that, the meetings focused on the actual content, justification, and the best way in which to incorporate SCHL’s request into the AUP(OP).

In addition, process matters were discussed in relation to the costs and benefits of a combined Plan Change and Land Use application, an end on end approach or a staggered approach.

6.3 Auckland Council – Auckland Urban Design Panel

While a plan change is not generally specific to any one design, the benefit of this application is that it is to provide for a specific hospital development already conceived.

The hospital development proposal was presented to the Auckland Urban Design Panel (“AUDP”) on the 14th of June 2018. The AUDP noted support for the building design with some suggested changes.

6.4 Auckland Council – Local Board

A meeting with the Local Board was requested and this was arranged for the 24th of October 2018. The Local Board had several comments, including, but not limited to:

1. Why build it here and not elsewhere?
2. The AUP(OP) has only just been implemented, why wasn’t this considered as part of that process?
3. How many people are anticipated onsite, exact number of employees, a breakdown of the employee types?
4. Specific traffic considerations such as trip generation, loading, parking, deliveries, mitigation;
5. Does it comply with noise;
6. Will the development go higher than 16m;
7. Explain the process of a plan change vs resource consent;
8. How will it respond to special character;
9. Construction effects:

The content within this request provides a response to these questions, however, many of the comments relate to a specific hospital development proposal, which are better addressed at the resource consent stage.

The consultation with the Local Board members is ongoing, and we will continue to update Auckland Council.

6.5 Auckland Council – Other

In addition to the above, the applicants have liaised with the following branches of Auckland Council:

1. Healthy Waters Team. This team was consulted in terms of preparing the stormwater mitigation and flooding and overland flow path analysis, as well as confirming the opinion on high contaminant generating car parking. This consultation was undertaken by the civil engineering consultants while they prepared their detailed report and plans.

2. Contamination Team. The contamination report included consultation with the contamination team at Auckland Council to determine any contamination records and any other concerns. This was undertaken by the contamination consultants while they prepared their detailed contamination report.

3. Watercare Services Limited. The Civil Engineers are speaking with Watercare Services Limited.

4. Auckland Transport. The Traffic Engineers have distributed their reporting to Auckland Transport for review and feedback.
6.6 Neighbours

SCHL has liaised with adjacent neighbours on several occasions since June 2017 to convey the objectives of their intentions, gather any positive or negative feedback in order to understand the position of the neighbours and ensure their concerns have been addressed as far as practical.

Meetings have been held at the Brightside Hospital, with the neighbours on various dates while the development was being conceptualised and progressed into a comprehensive resource consent application.

The neighbours raised concerns at the meetings and by way of a follow up letter. While unlikely to be all encompassing, the concerns raised included:

- Zoning and overlay concerns,
- Protected Trees,
- Operational matters,
- Lighting Spill,
- Traffic, including Brightside Road being used as a short cut, on-street parking, traffic calming measures,
- Construction, including rock blasting/breaking and resultant effects on adjacent properties, noise, safety,
- Process: resource consent vs plan change.

This application and the accompanying specialist reports have sought to address the concerns of the neighbours as much as practical, noting that it has been expressed that they, “doubt there is any development scenario that can successfully address the concern short of simply retaining the status quo ...” (Feedback Letter dated 10 Sept 2017). For the reasons outlined in this report and the specialist reports, maintaining the status quo is unable to be achieved given the growing and ageing population in Auckland.

Following a meeting at the hospital held on the 19th of September 2018, SCHL were provided with a list of questions that the neighbours requested answers to.
In response a comprehensive package of information was provided to the neighbour’s group which included:
1. Development plans,
2. Traffic assessment,
3. A schedule of infringements to current zoning controls and other reasons for resource consent,
4. Answers to specific questions.

Consultation with the neighbour’s group will continue as the Private Plan Change progresses.

6.7 Mana Whenua

Auckland Council have provided the Mana Whenua contact details for the relevant Mana Whenua Groups within the local area – Albert-Eden.

The relevant Mana Whenua groups were consulted on initially via email dated 17th September 2018 prior to lodgement of this plan change request. This contained information about the proposal including plans and an offer to meet onsite or other location if desirable.

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Further to this, we understand that Mana Whenua receive a weekly list of all applications lodged and are able to provide comment and feedback for inclusion into the consenting process.

We also note that they can participate through the formal submissions process and we would welcome any additional feedback from interested Mana Whenua groups should they wish to comment any further.

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7.0 Conclusion

This report has been prepared in support of a Private Plan Change on behalf of Southern Cross Hospitals Limited to:

- Rezone 5245m² of land within the Southern Cross Hospitals Brightside Road Campus from Mixed Housing Suburban Zone to Healthcare Facility and Hospital Zone;
- Rezone 4628m² of land under the ownership of Southern Cross Hospitals Limited from Single House zone and Special Character Area – Residential Isthmus B to Healthcare Facility and Hospital Zone;
- The inclusion of a parking variation control requiring a minimum parking rate of 1 space per 64m² gfa.

Auckland’s population is growing and ageing. As a result, SCHL need to expand their hospital operation at this location to deal with the increased demand on the surgical services they provide to the community. The current zoning applied to the existing hospital and the adjoining properties which SCHL owns, does not provide for this expansion. The proposed rezoning will provide for the expansion to the existing hospital and enable the efficient use and development of the hospital site for community health and wellbeing.

The existing Healthcare Facility and Hospital Zone recognises that there are a limited number of sites dedicated to Hospital Facilities. The nature of the zoning is usually a “spot zone” located among residential areas and these may be sensitive to the scale of buildings, intensity of use, and noise and lighting effects associated with such activities. Its application is used where the existing facilities are not appropriately enabled through their underlying zoning, which is the case here. The zone provides for the operation and development of Hospitals, while at the same time manages the bulk and location of development to control and minimise effects on the amenity of the surrounding environment.

Hospitals make a significant contribution to local, district and regional communities enabling them to provide for their social, economic wellbeing and their health. As a result of the growing and ageing population, their ability to operate efficiently and effectively is important as is their ability to expand to meet the increasing demands on the services they provide.

The rezoning will achieve the higher order Regional Policy Statement objectives and policies regarding social facilities (B2.8), urban growth and form (B2.2), quality-built...
environment (B2.3), and transport (B3.3) among others. A wide range of specialist reports have been prepared in support of the rezoning and confirm that the rezoning will not result in significant environmental effects.

A Section 32 Report has been prepared and concludes that the proposed rezoning will more effectively and efficiently achieve the objectives of the Auckland Unitary Plan and the purpose of the Resource Management Act 1991, compared to the existing operative zonings.
Attachment A – *Certificate of Titles*

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Jan 2019  
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## COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

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### Prior References
- NA147/202
- NA362/163
- NA375/197

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### Proprietors
- Southern Cross Hospitals Limited

### Interests
- Fencing Agreement in Transfer 4033 (affects part)
- Subject to an electricity right (in gross) over parts marked A & B on DP 204575 in favour of Vector Limited created by Transfer D593187.2 - 4.4.2001 at 3.11 pm

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**Transaction Id** 55147678  
**Client Reference** acutest001  
**Search Copy Dated 16/09/18 11:46 am, Page 1 of 1**  
**Register Only**
Planning Committee
05 March 2019

Attachments

Attachment A

Item 12
COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

Search Copy

Identifier    NA132/7
Land Registration District  North Auckland
Date Issued  12 January 1906

Prior References
NA130'160

Estate  Fee Simple
Area  2208 square metres more or less
Legal Description  Part Lot 15-16 Deposited Plan 3541

Proprietors
Southern Cross Hospitals Limited

Interest
Fencing Provision in Transfer 37896 - 12.1.1906
COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

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Identifier
NA1347/91

Land Registration District
North Auckland

Date Issued
27 November 1956

Prior References
NA319/344 NA320/323

Estate
Fee Simple

Area
971 square metres more or less

Legal Description
Lot 1 Deposited Plan 44291

Proprietors
Southern Cross Hospitals Limited

Interest
Fencing Agreement in Transfer 37809

Transaction Id 55147678
Client Reference acrobatex001

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Registrar Only

Attachments
COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

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Date Issued: 37 November 1956

Prior References: NA319/344

Estate: Fee Simple
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Proprietors: Southern Cross Hospitals Limited

Interest: Fencing Agreement in Transfer 37809

Transaction Id: 55147678
Client Reference: acc00100001

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Item 12

Attachment A

Attachment B – Ernst Young Report

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Attachment C – Design Statement and Permitted Development Plans

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Attachment D – Traffic Assessment

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Attachment E – Civil Engineering Assessment

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AEE – Brighside & Gifford
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Attachment A

Attachment F – Visual Effects Assessment

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Attachment A

Attachment II – Special Character Assessment

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Attachment A

Attachment 1 – Acoustic Assessment

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Attachment A

Attachment J – Other Healthcare Facility and Hospital Zoned Sites

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Jan 2019
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<tr>
<td>Ryman</td>
<td>184-188 St Heliers Bay Road St Heliers Auckland 1071</td>
</tr>
<tr>
<td>Auckland Spinal Rehabilitation Unit</td>
<td>40 Bairds Road Otara Auckland 2025</td>
</tr>
<tr>
<td>Waitakere Hospital</td>
<td>55-75 Lincoln Road Henderson</td>
</tr>
<tr>
<td>Warkworth Birth Centre</td>
<td>56 View Road Warkworth 0910</td>
</tr>
<tr>
<td>Wilson Centre</td>
<td>212 Lake Road Hauraki 0622</td>
</tr>
</tbody>
</table>

**Added through rezoning submissions**

| Healthcare / mixed use facility        | 119 Apollo Drive Rosedale 0632                                         |
| Access to Waitakere Hospital           | 7a Woodford Avenue Henderson                                           |
Attachment A

*Attachment K – Healthcare Facility and Hospital Zone Provisions*

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Jan 2019  
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H25. Special Purpose – Healthcare Facility and Hospital Zone

H25.1. Zone description

The Special Purpose – Healthcare Facility and Hospital Zone applies to several of Auckland’s hospitals and healthcare facilities. These are generally large, land-extensive facilities with a range of activities related to their primary function. The sites generally consist of extensive and highly visible buildings and substantial parking areas.

The zone enables a range of healthcare related and supporting activities to cater for the diverse requirements of the users, employees and visitors to the hospitals and healthcare facilities.

H25.2. Objectives

1. The efficient operation and development of hospitals and healthcare facilities to support the community’s healthcare needs is enabled.

2. A comprehensive range of hospital and healthcare activities, buildings and infrastructure, and accessory buildings and activities are provided for.

3. The adverse effects of hospital and healthcare activities, buildings and infrastructure, and accessory buildings and activities on adjacent areas are avoided, remedied or mitigated.

H25.3. Policies

1. Enable a range of hospital and healthcare facilities to meet the health and well-being needs of the community.

2. Enable for a range of non-healthcare activities provided they:
   
   (a) do not compromise the efficient use of the zone for hospital and healthcare activities; and

   (b) avoid, remedy or mitigate significant adverse effects, including traffic effects.

3. Minimise the effects of supporting activities and services on the amenity values of the adjacent land.

4. Minimise significant adverse effects of overshadowing, visual dominance and loss of visual privacy on adjacent properties by use of graduated building heights and by locating higher buildings away from the zone boundary.

5. Provide for additional building height in identified locations, where it:
   
   (a) enables the efficient operation of the hospital or healthcare facility; and

   (b) can be accommodated without significant adverse effects on adjacent properties.
(6) Require new buildings and significant additions to buildings that adjoin streets and
public open spaces to be designed to contribute to the maintenance and
ehancement of amenity values while enabling the efficient use of the site.

(7) Encourage new buildings to be designed to provide a high standard of amenity
and safety.

H25.4. Activity table

Table H25.4.1 specifies the activity status of land use and development activities in the
Special Purpose - Healthcare Facility and Hospital Zone pursuant to section 9(3) of the

Table H25.4.1 Activity Table

<table>
<thead>
<tr>
<th>Use</th>
<th>Activity status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accommodation</td>
<td></td>
</tr>
<tr>
<td>(A1) Boarding houses</td>
<td>RD</td>
</tr>
<tr>
<td>(A2) Visitor accommodation</td>
<td>RD</td>
</tr>
<tr>
<td>(A3) Dwellings accessory to healthcare facilities</td>
<td>P</td>
</tr>
<tr>
<td>(A4) Supported residential care</td>
<td>P</td>
</tr>
<tr>
<td>(A5) Dwellings not specified above</td>
<td>D</td>
</tr>
<tr>
<td>(A6) Retirement villages</td>
<td>D</td>
</tr>
<tr>
<td>Community</td>
<td></td>
</tr>
<tr>
<td>(A7) Care centres</td>
<td>P</td>
</tr>
<tr>
<td>(A8) Community facilities</td>
<td>P</td>
</tr>
<tr>
<td>(A9) Education facilities</td>
<td>P</td>
</tr>
<tr>
<td>(A10) Healthcare facilities</td>
<td>P</td>
</tr>
<tr>
<td>(A11) Hospitals</td>
<td>P</td>
</tr>
<tr>
<td>(A12) Informal recreation and leisure</td>
<td>P</td>
</tr>
<tr>
<td>(A13) Organised sport and recreation</td>
<td>P</td>
</tr>
<tr>
<td>(A14) Information facilities</td>
<td>P</td>
</tr>
<tr>
<td>(A15) Public amenities</td>
<td>P</td>
</tr>
<tr>
<td>(A16) Artworks</td>
<td>P</td>
</tr>
<tr>
<td>(A17) Tertiary education facilities accessory to healthcare</td>
<td>P</td>
</tr>
<tr>
<td>Development</td>
<td></td>
</tr>
<tr>
<td>(A18) Buildings, alterations, additions and demolition unless otherwise specified below</td>
<td>P</td>
</tr>
<tr>
<td>(A19) Conversion of buildings or part of buildings to dwellings</td>
<td>D</td>
</tr>
<tr>
<td>(A20) New buildings or additions to existing buildings that increase the building footprint by more than 20 per cent. that are visible from and located within 10m of a public road or an open space zone</td>
<td>RD</td>
</tr>
</tbody>
</table>
H25 Special Purpose – Healthcare Facility and Hospital Zone

| (A21) | New parking buildings visible from and located within 10m of a public road or a residential zone or open space zone | RD |

H25.5. Notification

(1) Any application for resource consent for any of the following activities will be considered without public or limited notification or the need to obtain the written approval from affected parties unless the Council decides that special circumstances exist under section 95A(4) of the Resource Management Act 1991:

(a) new buildings or additions to existing buildings that increase the building footprint by more than 20 per cent that are visible from and located within 10m of a public road or open space zone; and

(b) new parking buildings visible from and located within 10m of a public road or a residential zone or open space zone.

(2) Any application for resource consent for an activity listed in Table H25.4.1 Activity table and which is not listed in H25.5(1) above will be subject to the normal tests for notification under the relevant sections of the Resource Management Act 1991.

(3) When deciding who is an affected person in relation to any activity for the purposes of section 95E of the Resource Management Act 1991 the Council will give specific consideration to those persons listed in Rule C1.13(4).

H25.6. Standards

All activities listed as a permitted or restricted discretionary activity in Table H25.4.1 Activity table must comply with the following standards.

Where a healthcare facility comprises multiple adjoining sites zoned Special Purpose – Healthcare Facility and Hospital Zone, the sites will be treated as a single site for the purposes of applying the following standards.

H25.6.1. Building height

(1) Buildings heights are specified in Table H25.6.1.1 Building heights and Figure H25.6.1.1 Auckland Hospital permitted building heights.

<table>
<thead>
<tr>
<th>Site area</th>
<th>Permitted activity standard</th>
<th>Restricted discretionary activity standard</th>
<th>Discretionary activity standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sites with a total site area up to 4ha</td>
<td>Up to 16m</td>
<td>Between 16m and up to 25m</td>
<td>Greater than 25m</td>
</tr>
<tr>
<td>Sites with a total site area greater than 4ha</td>
<td>Up to 26m</td>
<td>Between 26m and up to 35m</td>
<td>Greater than 35m</td>
</tr>
<tr>
<td>Sites subject to the</td>
<td>Up to the</td>
<td>Infringements</td>
<td>Infringements to</td>
</tr>
</tbody>
</table>

Auckland Unitary Plan Operative in part
H25 Special Purpose – Healthcare Facility and Hospital Zone

<table>
<thead>
<tr>
<th>Height Variation Control</th>
<th>height specified on the Height Variation Control</th>
<th>to the Height Variation Control and up to 35m</th>
<th>the Height Variation Control and greater than 35m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auckland Hospital buildings</td>
<td>Up to the height specified in Figure H25.6.1.1</td>
<td>Buildings infringing the height specified in Figure H1.6.2.1 and up to 35m</td>
<td>Buildings infringing the height specified in Figure H25.6.1.1 and greater than 35m</td>
</tr>
</tbody>
</table>

Figure H25.6.1.1 Auckland Hospital permitted building heights

(2) The building heights in Figure H25.6.1.1 Auckland Hospital permitted building heights for Areas 1 to 4 are measured using Reduced Levels (RL). Areas 5 and 6 are measured as per the Plan definition of height.

Auckland Unitary Plan Operative in part
H25.6.2. Height in relation to boundary

(1) Where a site in the Special Purpose – Healthcare Facility and Hospital Zone directly adjoins a site in another zone, the height in relation to boundary standard that applies in the adjoining zone applies to the adjoining Special Purpose - Healthcare Facility and Hospital Zone boundary.

(2) Where a site in the Special Purpose – Healthcare Facility and Hospital Zone directly adjoins a site in another zone that does not specify a height in relation to boundary standard, the yard and/or setback standard in the adjoining zone applies to the adjoining the Special Purpose – Healthcare Facility and Hospital Zone boundary.

(3) Where a site in the Special Purpose – Healthcare Facility and Hospital Zone adjoins a site in an open space zone, buildings must not project beyond a 45 degree recession plane measured from a point 8.5m vertically above ground level along the open space zone boundary.

H25.6.3. Yards

(1) The yards in Table H25.6.3.1 must be provided.

Table H25.6.3.1 Yards

<table>
<thead>
<tr>
<th>Yard</th>
<th>Dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front yard, except where the properties adjoining the zone on that road frontage are in the Business – Mixed Use Zone or one of the business centre zones</td>
<td>3m</td>
</tr>
<tr>
<td>Side and rear yards - where the site adjoins a site in a residential zone, open space zone or the Future Urban Zone</td>
<td>3m</td>
</tr>
<tr>
<td>Riparian yard</td>
<td>5m from the edge of permanent and intermittent streams</td>
</tr>
<tr>
<td>Lake side yard</td>
<td>20m</td>
</tr>
<tr>
<td>Coastal protection yard</td>
<td>25m, or as otherwise specified in Appendix 6</td>
</tr>
</tbody>
</table>

H25.6.4. Maximum impervious area

(1) The maximum impervious area must not be greater than 80 per cent.

H25.6.5. Screening

(1) Any outdoor storage or rubbish collection areas that directly face and are visible from a residential zone or public open space adjoining a boundary with, or on the opposite side of the road from, a Special Purpose – Hospital and Healthcare Facility Zone, must be screened from those areas by a solid wall or fence at least 1.8m high.

H25.6.6. Dwellings accessory to a healthcare activity

(1) Detached dwellings accessory to a healthcare facility must comply with the following Residential – Mixed Housing Suburban Zone standards:
H25 Special Purpose – Healthcare Facility and Hospital Zone

(a) H4 Residential – Mixed Housing Suburban Zone – Standard H4.6.11;
(b) H4 Residential – Mixed Housing Suburban Zone – Standard H4.6.12; and
(c) H4 Residential – Mixed Housing Suburban Zone – Standard H4.6.13.

(2) Attached dwellings accessory to a healthcare facility must comply with the following Residential – Terrace Housing and Apartment Buildings Zone standards:
(a) H6 Residential – Terrace Housing and Apartment Buildings Zone – Standard H6.6.13;
(b) H6 Residential – Terrace Housing and Apartment Buildings Zone – Standard H6.6.14; and
(c) H6 Residential – Terrace Housing and Apartment Buildings Zone – Standard H6.6.15.

H25.7. Assessment – controlled activities
There are no controlled activities in this section.

H25.8. Assessment – restricted discretionary activities

H25.8.1. Matters of discretion
The Council will restrict its discretion to the following matters when assessing a restricted discretionary resource consent application.

(1) Visitor accommodation and boarding houses:
   (a) effects on adjoining properties, especially residential properties including effects of overshadowing and loss of privacy, and
   (b) on-site amenity.

(2) New buildings or additions to buildings that increase the building footprint by more than 20 per cent, that are visible from and located within 10m of a public road or an open space zone:
   (a) the effects of the building design and external appearance on the adjoining streetscape and adjoining land zoned open space.

(3) New parking buildings visible from and located within 10m of a public road or a residential zone or open space zone:
   (a) the effects of the building design and external appearance on the adjoining streetscape and adjoining land zoned open space; and
   (b) the adverse effects on amenity values of adjoining land zoned residential.
H25 Special Purpose – Healthcare Facility and Hospital Zone

H25.8.2. Assessment criteria

The Council will consider the relevant assessment criteria below for restricted discretionary activities:

1) Visitor accommodation and boarding houses:
   (a) whether the development complies with H6 Residential - Terrace Housing and Apartment Buildings Zone – Rule H6.6.13 or meets the purpose of the standard.

2) New buildings or additions to buildings that increase the building footprint by more than 20 per cent, that are visible from and located within 10m of a public road or an open space zone:
   (a) the extent to which design features can be used to break up the bulk of the building by, for example varying building elevations, setting parts of the building back, and the use of architectural features without compromising the functional requirements of the use of the building;
   (b) the extent to which the visual effects of the building can be softened by landscaping; and
   (c) the extent to which any service elements (roof plant, exhaust and intake units and roof equipment) that could be viewed from the road or public open space zone can be integrated as part of the façade or roof of the building.

3) New parking buildings visible from and located within 10m of a public road or a residential zone or open space zone:
   (a) the extent to which design features can be used to break up the bulk of the building by, for example varying building elevations, setting parts of the building back, and the use of architectural features without compromising the functional requirements of the use of the building;
   (b) the extent to which the visual effects of the building can be softened by landscaping; and
   (c) the extent to which any service elements (roof plant, exhaust and intake units and roof equipment) that could be viewed from the road or public open space zone can be integrated as part of the façade or roof of the building.

H25.9. Special information requirements

There are no special information requirements in this section.
Attachment L – Relevant Definitions

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Jan 2019

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Hospital

Facility that provide for the medical, or surgical or psychiatric care and treatment of persons.

Includes: • accessory offices; • accessory retail including pharmacies, food and beverage, and florists; • accessory commercial services including banks and dry cleaners; • ambulance facilities and first aid training facilities; • conference facilities; • helicopter facilities; • hospices; • hospital maintenance and service facilities, including kitchens and laundries; • medical research and testing; • mortuaries; • rehabilitation facilities; • supported residential care; and • training.

This definition is nested within the Community nesting table.

Healthcare facility

Facilities used for providing physical or mental health or welfare services.

Includes: • medical practitioners; • dentists, and dental technicians; • opticians; • physiotherapists; • medical social workers and counsellors; • midwives; • paramedical practitioners; • alternative therapists; • providers of health and well-being services; • diagnostic laboratories; and • accessory offices.

This definition is nested within the Community nesting table.
Auckland Unitary Plan Operative in Part
APPLICATION FOR PRIVATE PLAN CHANGE

Smales Farm

Explanation, Assessment of Environmental Effects and Section 32 Analysis

Prepared for Northcote RD 1 Holdings Limited by:
Vaughan Smith Planning Limited

July 2018
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1. **INTRODUCTION**

1.1. This application seeks changes to provisions in the Auckland Unitary Plan – Operative in part (the “Unitary Plan”) affecting the Smales Farm Business Park (“Smales Farm” or “the Site”).

1.2. The Site is a strategic one on the North Shore of Auckland City, located adjacent to the Northcote interchange of the Northern Motorway, and adjoining the Northern Busway and Smales Farm Station.

1.3. Under the Unitary Plan, Smales Farm is zoned Business Park and the Smales 1 Precinct applies to activities and development on the Site. In keeping with the expectations for a business park, offices are permitted in the zone, up to a gross floor area (“GFA”) limit specified in the precinct provisions. However, Residential activity (except visitor accommodation) is a non-complying activity in the Business Park Zone. The Smales 1 Precinct imposes a maximum height on buildings at Smales Farm of RL48.5 (approximately 25m above the average ground level at the Taharoto Road frontage). This allows for the development of 5 – 6 storey buildings on the Site.

1.4. The purpose of the plan change application is to facilitate the development of a Transit Oriented Development (“TOD”) on the Site to take advantage of the exceptional transportation links available and the relative lack of sensitive neighbouring activities around the boundaries of the Site. To enable this form of development it is proposed to maintain the amount of office activity currently anticipated, while providing for dwellings (most likely apartments) to be established at Smales Farm as a permitted activity. To make the most efficient use of the land, it is also proposed to significantly increase the height limit over much of the Site.

2. **THE SITE AND SURROUNDING AREA**

2.1. Smales Farm is identified in Figure 1. The Site is located at 68 – 94 Taharoto Road, comprises two certificates of title under single ownership and has a total area of about 10.3 hectares.

2.2. The Site is bordered by major roading infrastructure on all four boundaries. Taharoto Road and Northcote Road form, respectively, the northern and eastern boundaries of the Site, while the Northern Busway and the Northcote Road Off-ramp of the Northern Motorway are located adjacent to the southern boundary. Shakespeare Road provides access along the western boundary of the Site to the Smales Farm bus station.

2.3. The high point of the Site is adjacent to the intersection of Taharoto Road and Northcote Road, and from there the land slopes down along Taharoto Road and Northcote Road. The fall across the Site ranges from 2m along the north-western (Shakespeare Road) boundary to 6m along the south-eastern (Northcote Road) boundary. The average ground level along the Taharoto Road boundary (the historic basis for the height limit on the Site) is RL23.4m.

2.4. There are two internal private roads within the Site. The Avenue forms the east-west spine of Smales Farm, linking Northcote Road with Shakespeare Road, while The Boulevard links Taharoto Road to The Avenue. The layout formed by this internal road system was established with the approval of the initial development of the Site.
2.5. Development to date has been characterised by a small number of standalone buildings, set within the landscaped Site and accompanied by large areas of on-grade parking. Over time the Site will be progressively developed with surface carparks being replaced by new buildings incorporating basement or above-ground parking.

2.6. Access to the Site is available via signalised intersections on Northcote Road (adjacent to Takapuna Normal Intermediate School) and Taharoto Road. On Shakespeare Road, there is access at two locations via unsignalised intersections: adjacent to the bus station; and adjacent to the Taharoto Road intersection. All signalised intersections include phases for pedestrians to cross the road.

Figure 1. The Site and Surrounding Area

2.7. Smales Farm Station on the Northern Busway adjoins the north-western corner of the Site and Westlake Girls High School is located to the north, separated from the Site by Shakespeare Road. To the east of the Site, on the opposite side of Taharoto Road, are North Shore Hospital (operated by Waitemata District Health Board) and The Poynton retirement village. Across Northcote Road to the south is Takapuna Normal Intermediate School which is located within a low density residential area, although many properties fronting roads are occupied by businesses.

2.8. The zoning of the area surrounding the Site is shown on Figure 2 and described in the following paragraph.
2.9. Both Westlake Girls High School and Takapuna Normal Intermediate School are zoned Mixed Housing Urban and are designated for educational purposes. The Special Purpose - Healthcare Facility and Hospital Zone applies to North Shore Hospital while the site occupied by the Poynton retirement village is zoned Mixed Use. The Mixed Use Zone also applies to other properties fronting Taharoto Road in the vicinity of the site, and on the eastern side of Northcote Road adjacent to the intersection with Taharoto Road. The balance on the properties along the eastern side of Northcote Road are zoned Mixed Housing Urban. Beyond the immediate vicinity of the site are A.F. Thomas Park (Takapuna Golf Course) opposite the Site on the western side of the Northern Motorway and Onewa Domain further south. The Wairau Valley industrial area lies to the north, and large areas to the east, north and south of the Site are zoned residential.

2.10. Geotechnical investigations have been carried out by Tonkin & Taylor Limited and an overview of the geological conditions on the Site and concept level foundation advice is provided in the report in Annexure 2 to the plan change application. In essence, the ground conditions are suitable for the form of development enabled by the Proposed Plan Change with foundation options including shallow pads or piles for medium-rise buildings, and piles for multi-storey buildings exceeding 6-8 storeys.

2.11. The existing utilities infrastructure serving the Site is described in the Civil Engineering Assessment (Annexure 3). Stormwater management for the Site is currently provided by directing runoff to three ponds located along the western boundary of the Site. These ponds are used to manage both stormwater flows and water quality, and discharge into public stormwater reticulation flowing to Wairau Creek. The discharge is authorised by a stormwater network discharge
permit. The topography of the Site is such that there are no areas prone to flooding. According to the Auckland Council GIS, overland flowpaths generally follow the internal road network although one flows from east to west across the southern corner of the Site. Wastewater flows from individual buildings are directed by a private drainage network within the Site to a public trunk main at Shakespeare Road. The Site is well served by a public water supply network with the internal site reticulation connecting to it at several locations.

2.12. The existing transport environment is described in the Integrated Transportation Assessment prepared by Stantec (formerly Traffic Design Group). This report is provided in Annexure 4 to the plan change application.

2.13. The Smales Farm station on the Northern Busway is identified as a public transport "interchange" on the new public transport network which is scheduled by Auckland Transport to operate from mid-2018. The interchange will act as a key hub for the North Shore public transport network where local and connector services link with higher frequency routes. Eleven separate bus routes will be served, including high frequency routes along the busway between Albany and Britomart, the universities in the City Centre, and Newmarket. Smales Farm is directly connected to the station by footpath. The Site therefore enjoys excellent connectivity to a public transport network with flexibility to reach a wide range of destinations at high frequencies, seven days a week.

2.14. The Site contains a well-developed network of walking and cycling routes and is well connected to existing footpath and cycling networks within the local area. Smales Farm is on the Northcote cycleway which will soon include a shared path along the Northcote Road frontage of the Site and, in the medium-term, link with the ShorePath and SkyPath sections of the cycling network linking the North Shore with the Auckland isthmus.

2.15. Taharoto Road and Northcote Road are identified as arterial roads in the Unitary Plan while the western section of Shakespeare Road (adjacent to the Site) is a non-arterial road but provides access to the Smales Farm Bus Station. The Northern Motorway is a strategic road with access available via the interchange on Northcote Road adjacent to the southern corner of the Site.

2.16. Surveys of traffic volumes on the roads providing access to Smales Farm were carried out in November 2017. All of the roads surveyed carry high volumes of traffic over a full day and during peak hours. The highest volumes were measured on Northcote Road with 29,500 vehicles per day (weekday) and 2,300 vehicles per hour during the weekday pm peak. The peak hour for the roads surveyed is about 8am for the morning period and 4.30pm for the peak period. Count data from the NZTA database demonstrates that the northern motorway also carries very high traffic volumes over the full day and during the peak hours, with the highest being about 60,000 vehicles per weekday northbound and 5,000 vehicles per hour northbound during the pm peak. During the peak hours the motorway is heavily congested, limiting vehicle flows.

2.17. NZTA's Crash Analysis System was examined to determine whether there are any particular road safety issues affecting the road network surrounding the Site. A mixture of crash types has occurred, including six crashes over five years at the intersection of The Avenue with Taharoto Road. That particular issue appears to have been addressed with the recent installation of additional road markings. Overall, given the high traffic volumes on these roads, it is not considered that the number and types of crashes indicate any significant road safety issues.
2.18. A survey of employees at Smales Farm carried out in 2016 showed that, although private vehicle is the preferred mode of travel, buses are used by a significant number of people (18%). This is similar to the mode share for buses in the Auckland CBD.

3. Smales Farm Business Park

3.1. The original Smales Farm was purchased in 1938 by predecessors of the current owners. It was originally much larger than the present area but over time the size has been reduced by a series of acquisitions by both the Crown and Auckland Council (and its antecedents). These acquisitions include land for:

- the Northern Motorway;
- A.F. Thomas Park (Takapuna Golf Course);
- Westlake Girls High School;
- the widening of Northcote Road;
- the widening of Taharoto Road;
- Shakespeare Road Extension;
- the Northern Busway; and
- Smales Farm Station.

3.2. In 1991 the Environment Court confirmed the business park zoning then proposed for Smales Farm by the North Shore City Council (Business Park 7A in the North Shore District Plan) and indicated that it envisaged the land becoming “... the major office centre of the North Shore, featuring the headquarters of various major companies, and accommodating other business, administrative and professional firms, and organisations”. The Court also stated that it considered “... development of Smales Farm would be a comparatively slow process ...”.

3.3. Following confirmation of the zoning, the owners of Smales Farm prepared a master development plan for the Site which envisaged an initial development with a gross floor area totaling 105,000m². The maximum development potential under the provisions of the North Shore District Plan was 162,000m², and that potential is reflected with provisions now applying under the Unitary Plan.

3.4. The Environment Court’s prediction (made more than 25 years ago) of development of the Smales Farm Business Park being a “comparatively slow process” has subsequently proved to be correct with the 10.8he site having only reached 38% of its maximum development potential, and only 55% of the size envisaged with the initial master development plan, at the beginning of 2018. Although the headquarters of Sovereign Insurance and Vodafone have been established at Smales Farm, the location is now also proving more attractive for small-to-medium sized businesses with the latest building, the B:HIVE, having been designed specifically with that market as the target.

3.5. To date, the internal road framework has been substantially established and five significant buildings have been completed: the Vodafone, Air New Zealand, Sovereign, Q4 and B:HIVE buildings. The Q4 building, completed in 2008 contains offices and a mixture of ancillary uses (such as retail, banking, cafes and

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1 Environment Court Decision No. A93/91
tavern) which have been selected primarily to serve the office employees based on the Site. There are further food and beverage tenancies currently under construction adjacent to the B:HiVE building. Other facilities on the Site include a fitness centre, a medical centre and an early childhood education centre, all of which occupy ground-floor premises in the Sovereign Building. The developed area currently totals approximately 56,000m² gross floor area, with the area occupied by commercial services, food and beverage, other retail and care centres totalling 3,142m². When the B:HiVE building is fully occupied, more than 4,000 employees will be accommodated on the Site.

3.6. With the completion of a new on-grade parking area currently under construction, a total of 2,044 parking spaces will be provided at Smales Farm. This is well within the maximum number permitted of 2,373 spaces under the Unitary Plan provisions for the current level of development.

3.7. The layout of the Site enables full integration with Smales Farm Station, on the Northern Busway, which was opened in February 2008. Convenient vehicle and pedestrian connections are provided and walking routes are provided through Smales Farm for pedestrians accessing various activities in the area from the bus station.

4. THE UNITARY PLAN

4.1. As set out in the introductory section of this report, under the Unitary Plan the Business Park Zone and the Smales 1 Precinct apply to Smales Farm.

Business Park Zone

4.2. The Business Park Zone recognises existing business parks but it is stated in the Zone Description that the zone has a “limited future” as commercial activities are expected to primarily locate with the city centre, and in metropolitan and town centres in order to reinforce the role of those locations. To this end, limits are placed on the amount of office activity that can establish in each Business Park Zone. In the case of Smales Farm, a gross floor area limit is identified in the Smales 1 Precinct provisions.

4.3. With any amendments to the provisions applying to existing business parks, the policies applying to the zone require the office space limit to be set, as well as a means of limiting retail activities to those that meet the day-to-day needs of workers and visitors to the zone. Apart from visitor accommodation, residential activity is also to be limited. Other matters covered by policies relating to plan changes include requirements for a high standard of visual and pedestrian amenity, connections for pedestrian and cyclists through the Site, and minimising adverse effects on neighbouring zones. The potential for adverse effects on the safe and efficient operation of the transport network are also to be assessed.

4.4. Offices (up to the specified GFA limit) is a permitted activity, as are commercial services and food and beverage outlets. Most retail is a discretionary activity and dwellings are non-complying. New buildings are restricted discretionary activities.

4.5. The standard building height for the zone is 20.5m above ground level and development standards also address height in relation to boundary (“HRB”), yards, the extent of landscaping, wind effects and outlook space. At least 20% of a site must be landscaped and the maximum impervious area in the zone is 80%. Because of the relatively low maximum height and the roads surrounding the Site, the HRB and yard standards have no practical effect on the development of the Smales Farm.
Smales 1 Precinct

4.6. While the provisions of the Business Park Zone do not encourage the development of new business parks, ongoing development at Smales Farm for business activity up to 162,000m² GFA is specifically enabled by the Smales 1 Precinct. Development in excess of this is a discretionary activity with potential effects on the function and amenity of Metropolitan and Town Centres being the primary matter to be addressed. In addition, for business development over 105,000m², significant traffic effects on the safe and efficient operation of the road network are to be avoided or mitigated. A policy also requires that accessory activities be limited to those which meet the immediate needs of those who work at or visit Smales Farm.

4.7. In summary, the provisions of the Smales 1 Precinct:
   - Limit accessory activities (including commercial services, food and beverage, retail, care centres, and community activities) by a formula that relates the maximum GFA of those activities to the amount of development on the Site;
   - Limit the maximum number of parking spaces on the Site, also by a formula relating the limit to the amount of development on the Site;
   - Provide that an assessment of traffic effects on the safe and efficient operation of the road network is not required until development on the Site exceeds 105,000m²; and
   - Increase the maximum building height to RL48.5m (which is approximately 25m above the average ground level along the Taharco Road frontage).

5. REVISED VISION FOR SMALES FARM

5.1. Smales Farm forms part of a node that includes the North Shore Hospital, other medical facilities, and a mixture of commercial activities occupying small premises. The Site has a major public transport interchange on its doorstep and major arterial roads on two boundaries, and is immediately adjacent to the Northcote interchange of the Northern Motorway. In addition, the Site is adjacent to Westlake Girls High School and Takapuna Normal Intermediate School, and there are several other schools in the vicinity. Several cultural, and sports and recreational facilities are also readily accessible from the Site.

5.2. During a review of opportunities for future development of the Site it was recognised that the current use of Smales Farm as an office park did not make the most of the attributes of the Site, including its size and location, its proximity to transport infrastructure, and the ease of access to a wide range and number of other activities and facilities.

5.3. With clear demand for new housing in Auckland, and an on-going need to increase employment opportunities, the owners of Smales Farm have revised their vision for the Site to take full advantage of those attributes. It has been decided, therefore, that the Site would be best developed as a mixed-use Transit Oriented

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2 Other schools in the vicinity of the site include Carmel College, Milford School, Westlake Boys High School and Rosmini College.

1 Cultural and sports and recreational facilities readily accessible from the site include the Lake House Arts Centre, North Shore Events Centre, Takapuna Golf Course, North Shore Rowing Club and facilities for other water related activities, Takapuna Football Club, and facilities for squash, netball, cricket and rugby.
Development ("TOD"), comprising business and residential components, rather than an office park.

5.4. The principles of Transit Oriented Development, and its benefits, are addressed in the Urban Design report (Annexure 3 to the plan change application) and the Integrated Transport Assessment. In addition, the economic benefits of this form of development are set out in the Economics Assessment (Annexure 8).

5.5. In essence, a TCD is a high-density, mixed-use development in close proximity to a major public transport station or interchange. The aim is to maximise the amount of urban development that falls within the primary walking catchment of frequent and rapid public transport services. They typically incorporate a mix of land uses, such as residential, employment, leisure and service activities. The integration of public transport services and the physical development has a synergistic effect producing benefits including:

- Greater efficiency in the use of land;
- An increased intensity of residential development;
- Support for public transport services;
- A reduction in the use of private vehicles;
- Increased opportunities for walking and cycling;
- Increased support for local businesses;
- More cost effective provision of services; and
- The opportunity to create a high-quality urban environment with activity occurring over an extended period, seven days a week.

5.6. The nature of the surrounding uses and the existence of roads on all boundaries, combined with the orientation of the Site, enable a significant scale of development to take place with minimal adverse effects on the owners and occupiers of neighbouring properties. The revised vision for Smales Farm (the "Concept Masterplan") is depicted graphically in Figure 3 and comprises a number of buildings of varying scales, with the residential development generally constructed above the office component. In order to make the most efficient use of the land, and retain the proportion of landscaped spaces required under the existing zone provisions, it is proposed to substantially increase the height limit applying to development within the Site.

5.7. The Concept Masterplan is indicative of the type of development that is likely to be undertaken and provides an opportunity to consider the issues that might arise from such development. It does not represent a fixed vision for the Site that will necessarily be implemented. Accordingly, the plan change proposes provisions that would address effects that are likely to be generated by development but does not seek to constrain development to ensure implementation of or compliance with the Concept Masterplan.
5.8. Intensifying the scale and form of development will enable a more concentrated mix and range of activities to coexist on the Site, leading to increased levels of pedestrian activity and vitality over an extended period of time. Increasing the diversity of activities will benefit those working and living at Smales Farm, as well as visitors.

5.9. A Transit Oriented Development at Smales Farm will have a different function to the Metropolitan Centres and Town Centres identified in the Unitary Plan because the amount of retail activity is proposed to be limited, as is the case generally in the Business Park zone and reflected in the current Smales 1 Precinct provisions. In contrast, retail activity is considered to be a major component of both of those Centre zones. Smales Farm has long been recognised as a suitable location for a significant amount of office activity and the proposed enabling of residential activity takes advantage of the proximity of the adjacent public transport interchange (and provides support for the services available there) and enables the more efficient utilisation of the large site.

5.10. The revised vision for Smales Farm is a long-term one, with development taking place over a period of 20 to 30 years. It is considered that the current GFA allowance for business development on the Site is appropriate over that period of time, and it is anticipated that a similar amount of residential development would be feasible over the same time period.

5.11. The assessment of the plan change application, therefore assumes full development of some 300,000m² GFA, with 162,000m² of that being business activities and the balance residential activities. No GFA limit is proposed in the proposed plan change provisions for residential activities, however, because this
activity will generate minimal adverse effects on the environment and will support the use of public transport services at the Smales Farm station.

5.12. To enable the revised vision to be implemented, while ensuring that potential adverse effects are managed, a number of amendments will be required to the provisions currently applying to Smales Farm under the Unitary Plan. The key changes required are:

- Amend existing, and add new, objectives and policies to support the proposed Transit Oriented Development;
- Enable residential activity as a permitted activity;
- Ensure sufficient retail and commercial services activities can be provided to meet demand from workers, residents and visitors to the site;
- RationaLise the activity table to provide for other activities that can contribute to the success of a Transit Oriented Development;
- Increase the height limit so that the Site can be efficiently developed, while maintaining a high percentage of landscaping; and
- Add further standards, matters for discretion and assessment criteria to address potential effects related to residential activities and taller buildings.

6. THE PROPOSED PLAN CHANGE

6.1. The purpose of the Proposed Plan Change is to enable the revised vision for Smales Farm to be realised. This will entail retaining GFA limits on non-residential activities as is the case at present, but enabling residential activity as a permitted activity and substantially increasing the height limit applying to the Site. As identified in the s32 evaluation (Section 11), none of the existing Unitary Plan zones provides for the combination of activities required to implement the revised vision, while retaining GFA limits on non-residential activities.

Underlying Zoning

6.2. Alternatives to the current Business Park zoning for the Site have been considered in the s32 evaluation. The Mixed Use Zone doesn't anticipate a major office component (which will remain the primary focus of Smales Farm) and retail activity (which is to be limited at Smales Farm) is anticipated to be a strong focus of both the Metropolitan Centre Zone and Town Centre Zone. Although modifications to two Business Park Zone policies are required to support the incorporation of residential activity on the Site, it is considered that this is the most appropriate zone to underly the provisions of the Smales 1 Precinct. The proposed amendments to the Business Park Zone policies are set out in Appendix A.

6.3. As noted above, residential activity (except visitor accommodation) is discouraged in the Business Park zone by its activity status (non-complying), and by the policy requiring this activity to be "limited". In order to enable residential development on the Site, the activity status can be adjusted in the provisions applying to the Smales 1 Precinct but it is considered that Business Park Zone Policy H15.3(18)(c) should be amended to identify Smales Farm as an exception to the requirement to limit residential development in the zone.

6.4. The provisions applying to the Smales 1 Precinct have been substantially amended to provide for residential activities on the Site and two precinct plans have been added. The amendments, and the reasons for them, are described in summary form in this section of the report. A track change version of the Smales
1 Precinct provisions, identifying the proposed amendments is in Appendix B to the plan change application and a “clean” version is in Appendix C.

**Business Park Zone Description**

6.5. No amendments are proposed to the Business Park Zone description. It is a generalised description and, although it doesn’t reference residential activity, this is not considered necessary because the underlying zone provisions are not being challenged by the Proposed Plan Change. Instead, the plan change is seeking to augment the range of activities that may be undertaken on the Site.

**Business Park Zone Objectives**

6.6. Similarly, no amendments are considered necessary to the Business Park Zone objectives.

**Business Park Zone Policies**

6.7. It is considered necessary to modify two policies which do not acknowledge the possibility of residential development in the zone or support its enablement. It is proposed, therefore, to amend policy H15.3(18)(b) so that services such as food and beverage and convenience goods are limited to meet not only the needs of workers and visitors, but also residents on the Site. Policy H15.3(18)(c) currently “limits” residential activity in the zone except for visitor accommodation, and it is proposed to identify the Smales 1 Precinct as an exception to that policy.

**Smales 1 Precinct Description**

6.8. It is proposed to make minor amendments to the precinct description to include reference to residential activities being permitted by the Precinct provisions.

**Smales 1 Precinct Objectives**

6.9. It is proposed to amend the one objective currently applying to the Smales 1 Precinct and to include three additional objectives. The proposed modification to the existing objective is to remove reference to adverse effects on the transport network because the network has been modelled, and effects assessed, with this plan change application.

6.10. The additional objectives all relate to the proposed enablement of residential activity on the Site, and the change of Smales Farm from an office park to a mixed-use Transit Oriented Development.

**Smales 1 Precinct Policies**

6.11. Currently, three policies apply to the Smales 1 Precinct. It is proposed to retain the policy that places a floor area limit on business activities but to modify the other two. The proposed modification to the policy addressing accessory activities changes the emphasis so that those activities are provided for (rather than being “limited”), but that a limit applies in order to manage potential adverse effects of those activities on the function and amenity of higher order centres. It is proposed to amend the policy addressing effects on the transport network so that it only applies with development over the 162,000m² of business development which the Precinct enables as a permitted activity.

6.12. Additional policies are proposed to refer to the inclusion of intensive residential development on the Site, and to address the amenity for residents, workers and visitors to the Smales 1 Precinct. A further policy requires the limitation of the parking supply for non-residential activities, consistent with the existing standard addressing this matter.
Activity Table

6.13. The amendments proposed to the precinct table for the Smales 1 Precinct are described below.

6.14. The status of accommodation activities follows that applying in the Metropolitan Centre, Town Centre and Mixed Use zone, recognising that no restrictions are proposed on residential uses in the Smales 1 Precinct.

6.15. Under the Commerce heading however, the activity status is more tailored to the circumstances applying to the Smales 1 Precinct, in particular the limit placed on retail and commercial services activities, and the proposal that Smales Farm be a Transit Oriented Development. Accordingly:

- Retail is a generally a permitted activity (but subject to the proposed cap).
- Larger supermarkets, however, are discretionary activities because it is intended that retail activities are to be focused on serving the employees and residents of the Site. The 2,000m² limit for a supermarket as a permitted activity is consistent with that applying in the Local Centre zone, which is also intended to provide for local convenience needs.
- Conference facilities is identified as a permitted activity because it is allied to the office use and also benefits from the excellent transport links enjoyed by the Site.
- A more enabling activity status than applies under the underlying zone is applied to Drive-through restaurants and Entertainment facilities because those activities can be established to serve the resident population.
- Service stations, however, are identified as a non-complying activity because they not anticipated on the Site. Service stations primarily serve passing traffic and have implications in terms of traffic effects. In addition, they do not represent an efficient use of the land resource.

6.16. Allied with the enablement of residential activities, it is considered that Community facilities should be a permitted activity in order to enable a level of community infrastructure to be established on the Site. Education facilities and Tertiary education facilities have been identified as permitted activities because they can be appropriate occupiers of multi-storey buildings (evidenced by the use of many buildings in the City Centre) and because they are very well suited to sites with excellent public transport services.

6.17. Temporary structures and activities have been identified as permitted activities (up to a specified duration), reflecting the historic and ongoing programme of community-focused events at Smales Farm. The large size of the Site, and the lack of sensitive uses in the immediate vicinity, will ensure that adverse effects of such activities are unlikely to be of a magnitude to cause concern.

6.18. Comprehensive development signage more than 50m from the Site’s road frontages are identified as permitted activities because, at that distance, they are unlikely to have an effect on visual amenity or traffic safety, which are the primary matters of concern under the standard provisions relating to signs in the Unitary plan.
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Standards

6.19. Explanations for the standards proposed to apply under the precinct provisions are given below.

Gross floor area

6.20. The GFA limit for offices on the Site is currently 162,000m². Within the GFA limit, a further limit applies to the cumulative GFA of seven categories of activities including commercial services, food and beverage and retail activities. This limit is expressed as a formula, with the limit linked to the development of office activities.

6.21. With the Proposed Plan Change it is proposed to maintain the overall limit on non-residential activities at 162,000m² but, consistent with the other zones that enable residential development, have no limit on residential activity.

6.22. The limit on commercial activities other than offices was originally intended to limit activities that might adversely affect the function and amenity of centres. This provision has been fine-tuned in the Proposed Plan Change so that it focuses only on those non-office activities that are most likely to impact centres in that way, i.e., retail and commercial services activities. The formula has not been amended but applies to all development on the Site (including residential) to ensure that the provision of activities required to service the convenience needs of both workers and residents on the Site can meet demand. An alternative mechanism for limiting retail activities has been considered as part of the s32 evaluation of the Proposed Plan Change but it was concluded that the existing formula is the most appropriate method.

Parking

6.23. It is not proposed to amend the formula for Smale's 1 Precinct provisions which is used to calculate the maximum number of parking spaces on the Site for business activities. However, consistent with the parking rules applying to the Metropolitan Centre, Town Centre and Mixed Use zones, no maximum or minimum parking rate is proposed for residential activities.

Trip generation

6.24. Standard IS38.8.3 of the Smale’s 1 Precinct exempts development up 105,000m² from the requirement in E27.3(2) for an Integrated Transport Assessment to be provided with all resource consent applications where specific trip generation thresholds are exceeded.

6.25. An ITA has been prepared for this plan change application and it is considered that an ITA should not be required when resource consent applications are made for future development. This is consistent with the situation applying under Unitary Plan Standard E27.6.1 to the Metropolitan Centre, Town Centre and THAB zones, and also when ‘development is being undertaken in accordance with ... provisions approved on the basis of an Integrated Transport Assessment where the land use and the associated trip generation and transport effects are the same or similar in character, intensity and scale to those identified in the previous assessment’.

Building height

6.26. Under the legacy plan, the maximum height of buildings on the Site was measured from the average ground level along the Taharoto Road frontage. This was carried through to the Unitary Plan, although expressed as a Reduced Level (‘RL’). The current height limit for buildings under the Smale’s 1 Precinct is...
6.27. It is proposed that increased height limits apply to the Smales 1 Precinct in order to enable the efficient development of the Site. The Site is large and deep, with a maximum fall of 6m from Taharoto Road to the rear boundary of the Site.Expressing the height limit as an RL is considered appropriate because the rolling height method would result in smaller buildings at the rear of the Site when, relative to potential effects, taller buildings are more appropriate there.

6.28. For a depth of 50m from the road frontages, the maximum building height is proposed to be RL50.4 which is equivalent to 27m above the average ground level of the Taharoto Road frontage. This is consistent with the maximum height in the Unitary Plan applying to many areas zoned Town Centre.

6.29. Over the balance of the Site the maximum building height is proposed to be RL123.4 (100m above the average ground level along the Taharoto Road frontage) but buildings extending above RL98.4 are restricted to an area of 3,000m² (cumulative building footprints above RL98.4). Effectively, therefore, the maximum height in buildings over much of the Site is 75m above the average ground level along the Taharoto Road frontage. A height of 75m is consistent with the maximum building height on the North Shore Hospital site, and 100m is equivalent to the height of the Sentinel residential building in Takapuna. It should be noted that the height of buildings in part of the Takapuna Metropolitan Centre is unlimited under the Unitary Plan, although height is governed in that case by FAR and HIRB standards.

6.30. Alternatives to the proposed maximum height have been considered in the s32 evaluation.

Maximum tower dimension and tower separation

6.31. The Business Park zone doesn’t include standards to control building mass because tower development is not provided for. With the proposal to provide for higher buildings on the Site it is considered that such standards would be appropriate. A Floor Area Ratio control has historically been used to encourage slender floorplates with tall buildings. However, as Smales Farm comprises two large sites, it is not practicable to control building mass by this method. In any case, this standard has limited application in the Unitary Plan. In order to address this aspect of building design, therefore, a combination of standards is proposed - maximum tower dimension and building separation.

6.32. The basis for the maximum tower dimension standard is that applying in the Metropolitan Centre Zone, i.e. for that part of a building above 32.5m in height the maximum plan dimension must not exceed 55m. However, the maximum height in the Metropolitan Centre Zone is generally 72.5m and buildings above that height are not addressed in the standards. For the Smales 1 Precinct, it is proposed that above 75m, the maximum plan dimension should be 35m, which approximates to the plan dimension of the Sentinel tower at Takapuna. The Sentinel is a residential building and the upper levels of the higher buildings at Smales Farm are expected to be occupied by residential activity (apartments).

6.33. The only standard applying to building separation in the Metropolitan Centre zone is one requiring the upper levels of buildings to be at least 6m from a side boundary. Metropolitan Centres generally comprise multiple titles and sites separated by roads, and this layout naturally provides a degree of building separation. The Sylvia Park Metropolitan Centre is an exception as it consists of...
just one title, and in that precinct parts of buildings between 27m and 50m in height must be separated from each other by a minimum horizontal distance of 20m. This standard has been adopted for the Smales 1 Precinct.

Outlook space

6.34. In the Business Park zone, the outlook space standard (H15.5.7) applies only to visitor accommodation and boarding houses, both restricted discretionary activities. The standard doesn’t apply to other forms of residential activity which are non-complying activities. With the increased height limit and the proposal for dwellings to be a permitted activity, it is considered that the outlook space standard applying to the Metropolitan Centre Zone is a more appropriate basis for a standard to apply to the Smales 1 Precinct. Accordingly, the standard from the Metropolitan Centre zone has been adopted in a modified form. The modification is the deletion of references to outlook over roads or “sites” because those features do not apply to the Smales 1 Precinct.

Minimum dwelling size

6.35. Another standard required with the change in status for dwellings is that specifying a minimum dwelling size. Again, the standard applying in the Metropolitan Centre zone has been adopted.

Pedestrian piazza

6.36. As a consequence of the area of impervious surfaces being limited to 80% of the area of a site in the Business Park Zone, there will be a significant amount of open space within the Smales 1 Precinct – more than 2ha of the 10.8ha Site. It is considered, however, that it is appropriate for the proposed mixed use development to have a central public area specifically designed to be an attractive place for people to gather. A rule has therefore been proposed that will require such an area to be provided not later than the completion of 125,000m² of development within the Precinct. The GFA trigger has been determined from the indicative development schedule in Section 9 of this report and represents the cumulative gross floor area that is likely to be in place at the time the central part of the Site is under development. A number of amenity related requirements are specified in the standard, including a minimum area of 400m² (which is consistent with a similar requirement for the Sylvia Park Precinct).

Restricted discretionary activities - Matters of discretion and Assessment criteria

6.37. Only three additional restricted discretionary activities are proposed for the Smales 1 Precinct. These relate to activities exceeding the proposed height limits, the conversion of a building or part of a building for residential purposes and drive-through restaurants (both of which are currently non-complying activities in the Business Park zone). Matters of discretion and assessment criteria have been included in the precinct provisions to address those activities, as well as the existing matters and criteria applying to an infringement of the parking standard.

6.38. Additionally, in acknowledgement of the greater intensity of development and taller buildings enabled with the Proposed Plan Change, as well as the inclusion of residential activities in the mix provided for, matters of discretion and assessment criteria are proposed which will supplement the criteria applying to new buildings (and additions and alterations) under Business Park Zone provisions.
6.39. It is proposed that the Smales 1 Precinct provisions include two precinct plans: one to identify the areas over which the two height limits apply; and the other to identify structuring elements to be provided as the Precinct is developed over time. These structuring elements include the location of vehicle access points, indicative routes of pedestrian links, and an indicative location for the required pedestrian plaza.

7. STATUTORY CONTEXT – RESOURCE MANAGEMENT ACT


7.1.1. Clause 21(1) of the First Schedule to RMA provides that any person may request a change to a Unitary Plan or a regional plan. Clause 22 of the Schedule 1 requires that the request explain the purpose of and reasons for the Proposed Plan Change, and include an evaluation report prepared in accordance with section 32 of the Act. Where environmental effects are anticipated the request is to describe those effects, taking account of clauses 8 and 7 of Schedule 4, in such detail as corresponds with their scale and significance.

7.1.2. As set out in Section 11 of this report, an evaluation report under section 32 of RMA requires consideration of the objectives of the proposal in terms of the purpose of the Act; the policies and rules proposed in the proposal in terms of the relevant objectives; and benefits and costs.

7.1.3. This report summarises the circumstances which have led to the plan change application, assesses the environmental impacts which may arise from acceptance of the provisions of the Proposed Plan Change, considers the application in relation to the Auckland Regional Policy Statement, the Unitary Plan and other planning documents, and assesses the proposed provisions against in accordance with section 32.

8. STRATEGIC FRAMEWORK

8.1. Introduction

8.1.1. The strategic framework for the assessment of the Proposed Plan Change comprises both RMA and non-RMA documents. While the primary document to be considered is the Unitary Plan, The Auckland Plan (given effect to by the Unitary Plan) and the National Policy Statement on Urban Development Capacity (which is also to be given effect to by the Unitary Plan) are also relevant documents.

8.2. The Auckland Plan

8.2.1. The Auckland Plan is a 30-year plan that sets a strategic direction for Auckland and its communities, integrating social, economic, environmental and cultural objectives. It identifies policies, priorities, programmes and investments to implement the strategic direction.

8.2.2. A major focus of the first Auckland Plan (produced in 2012) was a development strategy to accommodate growth in a compact urban form.

8.2.3. The Auckland Plan 2050 is a revised plan based on up-to-date information and reconsidered issues, outcomes, directions and areas of focus. This plan was adopted on 5 June 2018 but is only able to be accessed at present as a Planning Committee agenda item.
8.2.4. The Auckland Plan 2050 retains the quality compact development approach to accommodating growth of the first Auckland Plan, with development to be focused mainly within the urban footprint, in areas that are easily accessible and in a form that maximises efficient use of land.

8.2.5. The benefits of a quality compact form of development listed in the Plan include:
- Increased economic productivity as a result of businesses, workers and consumers being more closely located;
- Better use of existing infrastructure;
- A more efficient transport network; and
- Greater social and cultural vitality from the concentration of activity into urban centres and neighbourhoods.

8.2.6. Better integration of land use and transport decisions is sought with housing and employment growth encouraged to occur in areas with better travel options so that the pressure on the transport system is reduced.

8.2.7. Unsurprisingly given the current shortfall in the supply of houses, the Plan has a strong focus on housing.

8.2.8. The Northern Busway is recognised as a core component of Auckland’s strategic public transport network, forming the backbone for public transport services on the North Shore. It not only provides an opportunity to avoid congestion on the motorway but also significantly increases the capacity of the motorway corridor. Planning for improvements is underway, including ways to increase the capacity of the Busway services.

8.2.9. The existing urban areas which are likely to undergo significant housing and business growth over the next 30 years (either by the private sector or through public sector intervention) are identified as either “nodes” or “development areas.” The nodes are the City Centre, Albany, Westgate and Manukau. The Plan sets out a number of characteristics of development areas, including:
- Substantial capacity for housing and business development.
- Access to a large number of jobs within a reasonable commuting time.
- Access to centres and the strategic public transport network within easy walking distance.
- Current or planned infrastructure capacity that is likely to enable significant additional growth.
- Market feasibility.

8.2.10. Smales Farm is within the Takapuna Development Area.

Comments

8.2.11. The Proposed Plan Change is consistent with the Auckland Plan 2050 because it enables development within the Takapuna Development Area on a Site with substantial capacity for both residential and business development, and with the backbone of the North Shore strategic public transport network on its doorstep. Furthermore, it provides for both employment opportunities and housing on the one site, the Site is served by sufficient existing or planned infrastructure to meet demand, and Smales Farm has an established track record of feasible development.
8.3. National Policy Statement: Urban Development Capacity

8.3.1. The National Policy Statement: Urban Development Capacity provides direction to local authority decision-makers under the RMA on planning for urban environments. It covers development capacity for both housing and business, and recognises the national significance of urban environments and the need to enable such environments to develop and change. Sufficient development capacity should be provided by local authorities to meet the needs of a growing population, both by intensifying existing urban areas ("going up") and by releasing land in greenfield areas ("going out"). Development capacity must be supported by infrastructure and the NPS encourages the integration and coordination of land use and infrastructure planning. Increasing feasible development opportunities will increase the competitiveness of the property market and, in relation to housing, will "provide communities with more choice, at lower prices".

8.3.2. The NPS aims to ensure that planning decisions enable the supply of housing needed to meet demand with local authorities required to prepare a "housing and business development capacity assessment". The assessment is to be regularly monitored and planning decisions made to ensure that plentiful development opportunities are made available, recognising that not all feasible development opportunities will be taken up. Auckland is identified as a "high-growth urban area" and the all of the objectives and policies of the NPS apply to the Auckland Council.

8.3.3. Auckland Council released its first "Housing and business capacity assessment for Auckland" in December 2017. For housing capacity under the Auckland Unitary Plan, it is concluded in the report that feasible supply is expected to meet forecast demand for the short and medium terms but, in the long-term (between 10 and 30 years), the current feasible supply is less than demand. Although there is no shortfall in business land in the short or medium term, there is a shortfall in some locations in the long term.

Comment

8.3.4. The Proposed Plan Change will enable the development of a significant number of dwellings (apartments) at Smale’s Farm and in that way contribute to the supply of housing to meet the demand from a growing population in the medium to longer term. The ongoing role of Smale’s Farm as a focus for employment opportunities will be unaffected by the proposed amendments to the provisions of the Smale’s 1 Precinct.

8.4. Auckland Unitary Plan

Regional Policy Statement

8.4.1. Two issues identified in section B1 of the Auckland Unitary Plan (Issues of regional significance) are relevant to the Proposed Plan Change. These are:

- Urban growth and form (addressed in section B2); and
- Infrastructure, transport and energy (B3)

8.4.2. Of the issues identified in section B2, four specifically relate to the matters addressed by the Proposed Plan Change, namely:

"Growth needs to be provided for in a way that ...

1. (2) supports integrated planning of land use, infrastructure and development;
2. (3) optimises the efficient use of the existing urban area;"
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(5) enables provision and use of infrastructure in a way that is efficient, effective and timely; and

(6) maintains and enhances the quality of the environment, both natural and built.

8.4.3. Two of the issues in section B3, which lists matters to be addressed to realise Auckland’s full economic potential, are also pertinent:

(1) integrating the provision of infrastructure with urban growth; and

(4) traffic management;

8.4.4. These issues are addressed by a number of objectives and policies.

8.4.5. From the consideration of these issues, and objectives and policies, a number of themes of the Regional Policy Statement, relevant to the Proposed Plan Change, can be identified:

(a) Urban growth should be primarily accommodated within the RUB;

(b) Growth should be accommodated in a compact urban form;

(c) Development should respond to the qualities and characteristics of a site;

(d) Infrastructure should be used efficiently and its planning and provision should ensure that it is integrated with land use;

(e) Sufficient development capacity should be provided to accommodate residential and commercial growth;

(f) Intensification should be enabled with the highest residential intensity in and around centres, along corridors and close to public transport network, social facilities and employment opportunities;

(g) The rate of growth of private vehicle usage should be reduced by encouraging the use of public transport and active transport nodes; and

(h) Maintaining the quality of the environment.

Comments

8.4.6. The Proposed Plan Change directly and positively addresses these themes because:

(i) It enables the integration of land use and public transport infrastructure to form a Transit Oriented Development;

(ii) The increased height of buildings enabled is consistent with a compact urban form and provides for a significantly increased efficiency in the utilisation of the land resource;

(iii) The co-location of commercial and residential uses at a high intensity makes efficient use of existing and planned infrastructure, particularly transport infrastructure;

(iv) Intensive development is enabled at a location within a major transport corridor and immediately adjacent to a public transport interchange;

(v) The characteristics of the Site (location, size and orientation, and the nature of the adjacent uses) enable intensification without generating significant adverse environmental effects;
(vi) The increased population occupying a site adjacent to a major public transport node will make more efficient use of the existing and proposed public transport services;

(vii) The adjacency of the public transport node, combined with an existing congested road network (which can only get worse over time), will promote the use of public transport and a corresponding decrease in private motor vehicle usage;

(viii) It makes more efficient use of the existing and proposed public transport services that are readily accessed from the Site; and

(ix) It assists with addressing the current shortfall in the supply of housing in Auckland, while maintaining the employment potential of the Site.

Business Park Zone

8.4.7. The Business Park Zone anticipates moderate to intensive office activity occupying buildings grouped on a site in a campus-like development. Ancillary activities including food and beverage, commercial services, childcare and fitness centres are also provided for. The zone is applied to a limited extent in the Unitary Plan, and limits on the amount of office space are usually specified. These areas are generally located adjacent to the rapid and frequent service public transport network.

8.4.8. General objectives and policies (common to the centres, Mixed Use, General Business and Business Park zones) are set out in the zone provisions, as well as objectives and policies applying specifically to the Business Park Zone. The following is a summary of the matters addressed by the objectives and policies of most relevance to the Proposed Plan Change.

General objectives and policies

8.4.9. The general objectives and policies for the centres, Mixed Use, General Business and Business Park Zones emphasise a strong network of centres with those centres being focal points for the community. Business activity is to be distributed in locations, and of a scale and form, that provides for the community’s social and economic needs, improves access to goods and services and social and community facilities, and manages adverse effects on the environment.

8.4.10. The city centre, metropolitan centres and town centres are identified as the primary location for commercial activity, while increased density, diversity and quality of housing is to be enabled in the centre zones and the Mixed Use zone.

8.4.11. Most of the policies relate to the design quality of development, and potential adverse effects. In that regard, the following policies are relevant to consideration of the private plan change:

Policy H15.3(3)

Require development to be of a quality and design that positively contributes to:

(a) planning and design outcomes identified in this Plan for the relevant zone;

(b) the visual quality and interest of streets and other public open spaces; and

(c) pedestrian amenity, movement, safety and convenience for people of all ages and abilities.
Policy H15.3(5)
Require large-scale development to be of a design quality that is commensurate with the prominence and visual effects of the development.

Policy H15.3(7)
Require at grade parking to be located and designed in such a manner as to avoid or mitigate adverse effects on pedestrian amenity and the streetscape.

Policy H15.3(8)
Require development adjacent to residential zones and the Special Purpose — School Zone and Special Purpose — Maori Purpose Zone to maintain the amenity values of those areas, having specific regard to dominance, overlooking and shadowing.

Policy H15.3(11)
Require development to avoid, remedy or mitigate adverse wind and glare effects on public open spaces, including streets, and shading effects on open space zoned land.

8.4.12. The potential for an increase in the maximum building height at identified locations is specifically recognised in the general policies:

Policy H15.3(13)
In identified locations within the centres zones, Business — Mixed Use Zone, Business — General Business Zone and Business — Business Park Zone enable greater building height than the standard zone height, having regard to whether the greater height:

(a) is an efficient use of land;
(b) supports public transport, community infrastructure and contributes to centre vitality and vibrancy;
(c) considering the size and depth of the area, can be accommodated without significant adverse effects on adjacent residential zones; and
(d) is supported by the status of the centre in the centres hierarchy, or is adjacent to such a centre.

Comments on the General objectives and policies

8.4.13. The emphasis of the existing and enabled development at Smales Farm on commercial activities is complementary to the enablement of that activity in the centre zones and, with the Proposed Plan Change, it is not proposed to increase the potential for commercial development in the Smales 1 Precinct.

8.4.14. The policies regarding design quality and potential adverse effects are addressed with the standards and assessment criteria applying to development in the Business Park Zone, and with the proposed additions to the provisions relating to the Smales 1 Precinct.

8.4.15. In relation to the additional height proposed for the Smales 1 Precinct, it is considered that:

(i) it significantly increases the efficiency of the use of the land;
(ii) The increased development enabled will provide significant support for public transport, and the proposed residential component will increase the
vitality and vibrancy of Smales Farm with 24 hour occupancy of the Site by a significant number of people;

(ii) High buildings can be accommodated without causing significant adverse effects on the amenity of surrounding properties, including residential zones; and

(iv) The proposed Transit Oriented Development is a specialised form of development and does not challenge the centres hierarchy.

Business Park Zone objectives and policies

8.4.16. The Business Park Zone objectives provide for existing business parks to be efficiently and effectively developed, and for retail activities that support intensive employment activities to be enabled.

8.4.17. The policies seek to implement those objectives and Policy H15.3(18) specifically addresses requirements for a plan change to amend the provisions of existing business parks as follows:

Require a plan change for new business parks and any amendment to the provisions of existing business parks, to:

(a) limit the permitted amount of office space so as not to adversely affect the function, role and amenity of the Business – City Centre Zone, Business – Metropolitan Centre Zone and Business – Town Centre Zone;

(b) limit retail to those services such as food and beverage and convenience goods which meet the day to day needs of workers and visitors to the zone;

(c) limit residential activity except for visitor accommodation;

(d) demonstrate that the business park will not adversely affect the safe and efficient operation of the transport network;

(e) demonstrate that a comprehensively planned development and a high standard of visual, landscaped and pedestrian amenity will be achieved;

(f) control the scale of built development so that it remains compatible with a landscaped high quality business space;

(g) limit development where environmental or servicing constraints exist, unless these can be adequately mitigated; and

(h) maximise the number and quality of connections through the site where these provide logical links to the local street network, with a priority on pedestrian and cycle routes and avoiding fenced and gated environments.

8.4.18. When development is staged, management of the stages should ensure amenity values and the environment are enhanced, and impacts on the transport network are reduced or maintained (Policy H15.3(19)), and effects are to be managed such that the amenity of neighbouring zones is not degraded (Policy H15.3(20)).

Comments on the Business Park Zone objectives and policies

8.4.19. The Proposed Plan Change is consistent with those parts of Policy H15.3(18) that require the amount office space and retail activity to be limited. No substantive amendments are proposed to the Smales 1 Precinct provisions that currently address those matters but it is proposed that the limit on retail activities should be aligned to the total development on the Site (including residential), and not just business activities. For this reason, it is proposed to amend Policy H15.3(18(b)) so that it refers to residents, as well as workers and visitors to the zone.
8.4.20. The Proposed Plan Change is not consistent with the policy that requires residential activity (except visitor accommodation) to be “limited” and an exemption to this policy is proposed for the Smales 1 Precinct so that residential activity on the Site will not be inconsistent with that policy.

8.4.21. Assessments of the effects of the development enabled with the Proposed Plan Change have determined that any effects on the safe and efficient operation of the transport network, and effects on visual, landscape and pedestrian amenity, will be minor. No change is proposed to the current standard that requires landscaped areas in the Business Park Zone to comprise at least 20% of the Site area. In the case of Smales Farm, that standard requires more than 2 hectares to be landscaped which is considered to be consistent with “a landscaped high quality” space.

8.4.22. The additional standards and assessment criteria will ensure that the current permeability of the Site, with links through the Site and to the surrounding street network will be maintained.

8.4.23. The existing and planned capacity of services infrastructure to the Site is sufficient for the extent and type of development envisaged with the Proposed Plan Change.

8.4.24. Overall, with the minor amendments proposed to provide for residential activity at Smales Farm, it is considered that the Proposed Plan Change is consistent with the objectives and policies applying to the Business Park Zone.

Transport

8.4.25. E27 is largely a technical section of the Unitary Plan, which deals with the effects of activities on the transport system, parking access and loading. Much of the content is not specifically relevant to the Proposed Plan Change but Objective E27.2(1) addresses the integration of land use with the transport network as follows:

Land use and all modes of transport are integrated in a manner that enables:

(a) the benefits of an integrated transport network to be realised, and

(b) the adverse effects of traffic generation on the transport network to be managed.

Comments

8.4.26. The Proposed Plan Change enables a Transit Oriented Development to be established at Smales Farm, integrating the land use activities with the adjacent transport network comprising all modes of transport. The intensive form of development enabled by the Proposed Plan Change, comprising a mix of activities, will support the increased use of public transport to and from the Site. This, together with greater opportunities for walking and cycling, will contribute to the management of adverse effects that would otherwise be generated by increased use of private motor vehicles. It is considered therefore, that the Proposed Plan Change is consistent with the relevant objectives and policies of the transport section of the Unitary Plan.

Conclusions regarding the Statutory Framework

8.4.27. The Proposed Plan Change is consistent with the Auckland Plan 2050 which puts a strong emphasis on housing and the integration of land use and transport infrastructure. The enablement of residential activity in the Smales 1 Precinct is consistent with the National Policy Statement on Urban Development Capacity
because it will contribute, over the medium to longer term) to the supply of housing required to meet demand from a growing population.

8.4.28. Regarding the Unitary Plan, the Proposed Plan Change directly and positively addresses major themes of the Regional Policy Statement, particularly in relation to the integration of land use and transport infrastructure, and the support increased development at Smales Farm will provide to public transport services.

8.4.29. The Proposed Plan Change is consistent with the general objectives and policies applying to the centres, Mixed Use and Business Park zones and, in relation to the proposed increased height limit, readily meets the criteria in Policy H15.3(13).

8.4.30. The policies applying to the Business Park Zone do not anticipate residential activity (except visitor accommodation) but, in all other respects, the Proposed Plan Change is consistent with the objectives and policies of the zone. In particular, the strong focus on providing employment opportunities is unaffected by the Proposed Plan Change.

8.4.31. The Proposed Plan Change is also consistent with the relevant objectives and policies of the Transport section of the Unitary Plan.

8.5. Other Relevant Planning Documents

8.5.1. The Devonport-Takapuna Local Board Plan 2017 and Auckland Council’s Long-term Plan (2015-25 and draft 2018-28) have been reviewed. Although transport is identified in these documents as a key issue, there is no specific guidance relevant to the assessment of the Proposed Plan Change.

8.5.2. Transport-related policy of relevance to the Proposed Plan Change is addressed in Part 9 of the Integrated Transport Assessment. The documents reviewed by Stantec include:

- Government Policy Statement on Land Transport;
- Auckland Transport Alignment Project;
- Regional Land Transport Plan;
- Regional Public Transport Plan; and
- Integrated Transport Programme.

8.5.3. Stantec concludes that the Transit Oriented Development enabled by the Proposed Plan Change will align very well with these transport-related policy documents.

9. ASSESSMENT OF EFFECTS ON THE ENVIRONMENT

9.1. Introduction

9.1.1. Having regard to clauses 6 and 7 of Schedule 4 of the RMA, it is considered that the following matters should be addressed by this assessment of environmental effects:

- The capacity of services infrastructure;
- Urban design;
- Landscape and visual effects;
9.1.2. The proposed Transit Oriented Development will be implemented over a relatively long period of time – up to 30 years. In order to make a realistic assessment of effects on the environment of development enabled by the Proposed Plan Change, a possible sequence for the development of the buildings illustrated on the Concept Masterplan has been developed. The results of that exercise are set out in Table 1.

<table>
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<tr>
<th>Year</th>
<th>Commercial (m² GFA)</th>
<th>Residential (m² GFA)</th>
<th>Apartments (number*)</th>
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<td>2021</td>
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<td></td>
<td></td>
</tr>
<tr>
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<td>2031</td>
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<td>138,000</td>
<td>1,380</td>
</tr>
</tbody>
</table>

Table 1. Indicative staging of development.

This staging sequence is assumed for the assessment of potential effects of development in accordance with the Proposed Plan Change.

9.2. Services Infrastructure

9.2.1. The potential effects of development enabled by the Proposed Plan Change on services infrastructure have been considered in the Civil Engineering Assessment (Annexure 3).

9.2.2. The existing stormwater ponds on the Site have been designed to manage runoff from an impervious catchment of 6.75ha. However, the maximum impervious area for the Site under the Business Park Zone provisions is 80% of the site area, which equates to about 8.04ha. As the Site is progressively developed, the ponds will need to be enlarged to address the additional impervious area created. The Proposed Plan Change does not seek to amend the impervious area standard and the same requirement applies currently to development enabled by the Unitary Plan provisions applying to Smales Farm. One beneficial effect of future development is that buildings will, over time, replace the existing on-grade parking.

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4 Assuming an average size of 100m² per apartment.
areas, resulting in an increase in the quality of stormwater discharged to the ponds.

9.2.3. The Site is currently well served with wastewater and water supply infrastructure with large mains nearby. There is no reason to expect that sufficient additional capacity cannot be provided to serve future development over the anticipated 30-year time period for development enabled by the Proposed Plan Change.

9.3. Urban Design Assessment

9.3.1. A comprehensive urban design assessment has been conducted by Boffa Miskell. This is attached as Annexure 5 to the plan change application. Annexure 6 includes a drawing package for both the urban design and visual landscape assessments. The urban design assessment provides a detailed evaluation of the provisions of the Proposed Plan Change, and the likely urban design outcomes for development carried out under those provisions.

9.3.2. Boffa Miskell has noted that the combination of development standards and the assessment of proposed development against the suitable criteria proposed with the plan change is consistent with the methodology used to manage the amenity effects of development in the other zones under the Unitary Plan that provide for a comparable scale and intensity of development.

9.3.3. In relation to the key urban design matters addressed in the Urban Design Assessment, the appropriateness of the provisions proposed to apply to development within the Smales 1 Precinct can be summarised as follows.

(a) The Site is well suited to the greater intensity and mix of activities proposed with the plan change because of:

- The highly accessible location in relation to all modes of transport.
- The large separation distance to surrounding small-scale residential uses.
- The size of the Site and its capacity for a considerable amount of additional development.
- The adaptability of the existing development, including existing facilities and amenity (including landscape amenity), to serve an increased population of workers, residents and visitors on the Site.
- The opportunity for expansive coastal and city views from taller buildings.

(b) Smales Farm is considered to be an ideal location to provide for tall buildings because of the site attributes listed above and the proposed development standards appropriately address the potential for adverse environmental effects from such development including visual amenity, dominance, privacy, wind and shading effects.

(c) The Proposed Plan Change recognises the need to ensure that the high standard of design of buildings at Smales Farm is maintained. This is achieved by applying restricted discretionary activity status to new buildings and including assessment criteria that enable a wide range of design quality issues to be assessed, as well as the integration of each stage of new development with existing development on the Site.
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(d) The importance of high quality public spaces and priority for pedestrian access, safety and amenity is recognised by the inclusion of specific standards and assessment criteria to be applied with each stage of future development.

(e) Similarly, standards and assessment criteria recognise and provide for an appropriate level of residential amenity with each stage of development, and the maintenance of that amenity with each subsequent stage.

(f) In setting the height limits for development at Smales Farm, a clear distinction is made between the height opportunity afforded by the Site’s adjacency to the motorway corridor and the desired outcome of smaller scale buildings along the frontages with the surrounding streets.

(g) At each stage of development, the potential for adverse effects on neighbouring areas and activities will be assessed.

(h) The provisions appropriately enable the establishment of a distinct node of high buildings, providing legibility to the Transit Oriented Development adjacent to the Smales Farm public transport interchange.

9.3.4. The conclusion of the Urban Design Assessment is that:

   Overall, it is considered that the proposed plan change has appropriately enabled the desired development outcome – the ability to transition towards a denser, more diverse and vibrant transit-oriented development node over time – while providing development standards and assessment criteria that address key urban design matters.

9.3.5. It is considered, therefore, that any adverse amenity effects associated with the design of buildings at Smales Farm, their configuration on the Site, and the spaces between the buildings, will be appropriately mitigated by the application of the standards and assessment criteria proposed for the Smales 1 Precinct.

9.4. Landscape and Visual Effects

9.4.1. Boffa Miskell has carried out a landscape and visual effects assessment of development in accordance with the provisions of the Proposed Plan Change – Annexure 7 to the plan change application.

9.4.2. A landscape assessment determines the effects of a proposal on an environmental resource while an assessment of visual effects considers how a proposal may affect the viewing audience and visual amenity. Boffa Miskell’s assessment focuses mainly on visual effects.

9.4.3. A number of potential viewpoints were identified, reflecting both the immediate and wider context of the Site. These were reviewed and thirteen representative viewpoints were selected for the assessment. For each location, a photograph formed the basis of a visual simulation of the Concept Masterplan which was then analysed.

9.4.4. Boffa Miskell concludes that, given the urban context of the Site, the scale of the surrounding land uses, the additional height and density of built form currently provided for in the Unitary Plan, and the “relative distance and existing visual context of the viewing audience”, the visual effects of development provided for with the Proposed Plan Change “will generally be neutral”.

9.4.5. From some nearby locations and a limited number of residential properties there could be low to moderate visual effects and, from many locations, the higher
buildings enabled by the Proposed Plan Change are likely to result in positive visual effects due to well-designed taller buildings adding to the urban character and sense of place of the Smales Farm transport node.

9.4.6. Boffa Miskell has also assessed potential landscape effects associated with the Lake Pupuke Outstanding Natural Feature. In this regard, it is concluded that any such effects would be minor.

9.4.7. Overall it is considered that any adverse landscape and visual effects of development enabled by the Proposed Plan Change will be minor, and that there will also be positive visual effects.

9.5. Economic Effects

9.5.1. Insight Economics has prepared an assessment of the likely economic effects of development enabled by the Proposed Plan Change - Annexure 8 to the plan change application.

9.5.2. One of the most significant economic benefits identified is the contribution of development enabled by the Proposed Plan Change to the local and regional dwelling supply. The potential addition to the dwelling supply over the 30-year estimated timeframe for development is significant but, in addition, residential development on the Site is particularly beneficial because:

- Apartment development is anticipated and apartments are generally more affordable than other dwelling types.
- Apartments offer many benefits to residents, including greater security and less maintenance than other forms of residential development, and more opportunities to socialise.
- A mix of employment opportunities and dwellings on the one site will enable people to live and work in the same location, eliminating the need for commuting to work.

9.5.3. The economic benefits of Transit Oriented Development are summarised in the report, all of which will apply to the development at Smales Farm enabled by the Proposed Plan Change. The most significant factor in this regard is the location of the Smales Farm bus interchange which adjoins the Site.

9.5.4. The synergies of the proposed mixture of activities on the Site have been identified, including the availability of jobs for residents and housing for workers, and increased support for retail, services and entertainment activities beyond the typical hours of work each day and over the whole week.

9.5.5. The Proposed Plan Change enables an incremental increase in floor area of retail and commercial services activities on the Site, in step with the staged residential and non-residential development. The potential for this aspect of the development on the Site to adversely affect the role, function and amenity of centres such as Millford and Takapuna has been assessed, despite the fact that those centres are well-established and successful, and are likely to be resilient to trading challenges generated by out-of-centre retail development. The analysis carried out for the assessment of economics effects shows that the future demand generated by development on the Site, and the pro-rata development of retail and commercial services enabled by the provisions of the Proposed Plan Change, are well-balanced. It is considered therefore that any adverse effects on centres will be unlikely and minor.
9.5.6. One of the key economic benefits of the Proposed Plan Change is in terms of efficiency—both in terms of land use and infrastructure. The Proposed Plan Change will enable high-density, mixed-use development to occur on scarce, under-developed urban land. This will enable the land to be put to its “highest and best use”, maximising the economic efficiency of land use. In addition, the Proposed Plan Change will maximise infrastructure efficiency because the Site is already connected to key networks, in contrast to development on the periphery of the city.

9.6. Transportation Effects

9.6.1. An Integrated Transportation Assessment (“ITA”) for the Proposed Plan Change has been prepared by Stantec. This report is attached as Annexure 4 to the plan change application. The report describes the existing transport environment, including accessibility of the Site to the different transport modes, and identifies ongoing and future transport initiatives. The transport benefits of Transit Oriented Development, as enabled by the Proposed Plan Change, are identified. The methodology and results of transport modelling are described and, finally, the proposal is assessed against the relevant transport-related policy and plans.

9.6.2. In relation to the proposed transport oriented development, the most attractive features of the Site are its proximity to supporting land uses and its extremely good connectivity to the full range of transport modes. This form of development capitalises on the availability of readily accessible and frequent public transport services, and reduces reliance on private motor vehicles. The Site is also well connected in relation to active modes of transport, increasing the choices for residents, workers and visitors to the Site. Future transport initiatives will further enhance the Site’s connectivity.

9.6.3. The addition of residential activity to the permitted activities in the Smales 1 Precinct causes the Site to be an origin, as well as a destination, for travel. For some residents, there will be an opportunity to work and live in the one location. As a major origin, the residential component will provide increased support for the bus services serving the Site, in particular the Northern Express route which provides high-frequency services throughout the day in both the northern and southern direction. A mode shift from private vehicles to public transport will be a very attractive option for residents.

9.6.4. Traffic modelling has been carried out to determine the ability of the road network surrounding Smales Farm to accommodate the levels of traffic expected to be generated by development on the Site. It was decided to carry out this collaboratively with the Waitemata District Health Board (“WDHB”) because a masterplan for the extensive development of the North Shore Hospital site is expected to be implemented during the same timeframe as development at Smales Farm. The modelling therefore takes account of traffic anticipated to be generated from the combined development and the results will be utilised with future resource consent applications for development on the hospital site, as well as for the proposed plan change for Smales Farm.

9.6.5. Inputs to the modelling were provided by the Auckland Forecasting Centre, and this group, Auckland Transport and NZTA were consulted regarding modelling assumptions. Traffic surveys to gather data for the existing situation were undertaken under Stantec’s supervision.

9.6.6. Flow Transportation Consultants was engaged by WDHB to undertake the modelling exercise (for both parties) with Stantec carrying out a peer review (also
for both parties). Subsequently, Stantec developed the model further to explore additional future scenarios and to carry out analysis particular to the Smales Farm proposal.

9.6.7. The road network was modelled for the years 2026 and 2036 with the amount of development anticipated at Smales Farm being in accordance with the indicative staging set out in Table 1 (above). Conservatively, for the hospital site it was assumed that the whole of the masterplan would be implemented by 2026.

9.6.8. The area surrounding Smales Farm is well developed and the road network is already heavily congested during peak periods. There is very little ability to create new roads or add additional lanes to accommodate future traffic demands. Accordingly, the traffic modelling has considered how many trips would have to be removed from the network in order for the network performance to be comparable to the performance in the same year, assuming no additional development.

9.6.9. The modelling for the 2026 and 2036 years has demonstrated that a reduction of 250 vehicles per hour turning from Taharoto Road into Northcote Road will appropriately mitigate the effects of traffic generated by development on both the hospital and Smales Farm sites. This equates to 7-9% of the total peak hour traffic volume on Taharoto Road. The residential component of the anticipated development makes a negligible contribution to this requirement.

9.6.10. The largest contribution to this relatively modest reduction in traffic movements is expected to be by a mode shift away from private vehicles to public transport. In addition, people may choose a route that avoids the Northcote area, change their time of travel or work from an alternative location (such as from home). Mode share trends applying to the City Centre show that the reduction is achievable when the road network is congested, and when public transport is a viable alternative. The availability of frequent and rapid bus services at the Smales Farm station ensures that the use of public transport is a viable alternative for those working, living or visiting Smales Farm.

9.6.11. Stantec considers that the intensity of development enabled by the Proposed Plan Change is much more efficiently located at Smales Farm than in other areas that don’t have the level of supporting infrastructure and facilities available adjacent to, or readily accessible from, the Site.

9.6.12. Stantec’s review of transport related plans and policies has confirmed that transport oriented development at Smales Farm, as enabled by the Proposed Plan Change, aligns very well with those planning documents that promote the integration of land use and transport planning, and increased use of public transport and active transport modes.

9.6.13. It is concluded in the ITA that Smales Farm is an excellent location for a Transit Oriented Development with the levels of activities enabled by the Proposed Plan Change, primarily because of its proximity and connectivity to a wide range of transport modes, particularly public transport. Stantec considers that such a development “can be efficiently integrated into the surrounding transport network in a complementary and sustainable manner.”
9.7. **Other Effects**

*Social effects*

9.7.1. Well designed intensive urban development can generate a range of social benefits particularly if, as is the case at Smale Farm, ready access to rapid and frequent public transport services is available.

9.7.2. The compact nature of such development encourages walking which is beneficial in terms of fitness and health. There are also more opportunities for interaction with neighbours and other residents of the area than is the case in low-density suburban situations. In addition, the increased diversity and density of activities increases the vitality of the development and incorporating residential activity, in particular, increases the hours of activity on a site.

9.7.3. Ready access to safe and convenient public transport services, and to walking and cycling networks, enables residents, workers and visitors to be less car-dependent. The active modes have beneficial effects on health, and there is often more social interaction with walking and public transport. Proximity to well-supported public transport services also provides improved mobility options for disabled persons and other non-drivers.

9.7.4. Overall, it is considered that the Transit Oriented Development enabled by the Proposed Plan Change will be beneficial in terms of social effects.

*Other environmental effects*

9.7.5. Other environmental effects to be considered include the effects of earthworks and travel efficiencies associated with decreased reliance on the private motor vehicle.

9.7.6. Earthworks are required with almost all development projects and the potential for the discharge of sediment-laden stormwater from a site is managed by the implementation of an erosion and sediment control plan. The City-wide provisions of the Unitary Plan will apply to construction works at Smale Farm.

9.7.7. One of the acknowledged benefits of Transit Oriented Development is reduced reliance on travel by private motor vehicle. This will have a consequential positive effect on air quality.

9.8. **Conclusions regarding Effects**

9.8.1. Overall, it is considered that any adverse effects generated by development enabled by the Proposed Plan Change will be minor and satisfactorily mitigated, and that there will be significant positive effects from the form of development enabled.

10. **ASSESSMENT AGAINST PART 2 OF THE RMA**

10.1. The Purpose of the Resource Management Act 1991 is set out in section 5 as follows:

(1) The purpose of this Act is to promote the sustainable management of natural and physical resources.

(2) In this Act, sustainable management means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural wellbeing and for their health and safety while—

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(a) Sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and
(b) Safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and
(c) Avoiding, remediating, or mitigating any adverse effects of activities on the environment.

10.2. It is considered that the Proposed Plan Change promotes sustainable management as it encourages the integration of land use and transport infrastructure, supports public transport services, enables residential activity to contribute to the supply of housing needed to meet demand from Auckland’s growing population, enables the ongoing provision of employment opportunities, and avoids or mitigates adverse effects on the environment.

10.3. Section 6 lists a number of “Matters of National Importance”. None of these matters has particular relevance to the Proposed Plan Change.

10.4. Of the “Other Matters” listed in section 7, it is considered that Items (b), (ba), (c) and (f) are relevant to this proposal. The Proposed Plan Change enables the more intensive use of the Site, substantially increasing the potential for the land resource to be efficiently used for development. The Transit Oriented Development anticipated by the proposed modifications to the Unitary Plan provisions applying to the Smales 1 Precinct will promote travel efficiency, will encourage the use of public transport, and will provide support for the services available at the bus station adjacent to the Site. This will have benefits in relation to the efficient use of energy and the maintenance and enhancement of the quality of the environment. The new and modified provisions introduced with the Proposed Plan Change, combined with the characteristics of the Site, will ensure that amenity values of the Site and the surrounding area will be maintained.

10.5. In relation to section 8, there are no known Treaty issues associated with the Site.

10.6. In summary, the application will assist in achieving the Purpose of the RMA, there are no matters of national importance relevant to the proposal, it is consistent with the relevant matters listed in section 7, and there are no known Treaty issues associated with the Site in terms of section 8 of the RMA.

10.7. It is considered that the Proposed Plan Change will promote sustainable development, will positively impact on the social and economic wellbeing of the people and communities of Auckland and will have an acceptable effect on the environment. Accordingly, the Proposed Plan Change as a whole will achieve the purpose of the RMA.

11. SECTION 32 EVALUATION

11.1.1. The requirements for preparing an evaluation of a proposed plan change are set out in Section 32 of the RMA, the key parts of which for this assessment are as follows:

(1) An evaluation report required under this Act must -

(a) examine the extent to which the objectives of the proposal being evaluated are the most appropriate way to achieve the purpose of this Act; and

(b) examine whether the provisions in the proposal are the most appropriate way to achieve the objectives by -

Page 32 of 40
11.1.2. The required evaluation is a two-part analysis, firstly of proposed objectives and, secondly, of policies, rules and any other methods proposed. It is implicit in s32 that an evaluation will involve the consideration of alternatives in order to determine whether proposed objectives, policies and rules are the “most appropriate”.

11.1.3. The fundamental decision to be made with the Proposed Plan Change is whether the Unitary Plan should be amended to enable the implementation of a Transit Oriented Development (incorporating residential activities) at Smale's Farm. As concluded above, it is considered that the Proposed Plan Change will promote sustainable development, will positively impact on the social and economic wellbeing of the people and communities of Auckland and will have an acceptable effect on the environment. Accordingly, it is considered that the Proposed Plan Change as a whole will achieve the purpose of the RMA.

11.1.4. In Appendix D, Table D1, an evaluation is made under the s32 framework as to whether it is more appropriate for the status quo to remain, with the Site continuing to be developed as an office park, or for objectives to be added or amended to
enable a mixed-use Transit Oriented Development (incorporating residential activity). The conclusion is that the latter is more appropriate.

11.1.5 In order to apply a zone to the Site (without a precinct) that would facilitate the incorporation of residential activity as a component of a Transit Oriented Development, the provisions of that zoned would:

- Enable office development but with a cap;
- Enable unlimited residential development;
- Enable a limited amount of retail and commercial services activities to serve workers and residents occupying the Site.

11.1.6 None of the existing Unitary Plan zones provides for that combination of activities with the restrictions identified, and it is not considered appropriate to create a new zone for one 10ha site. In order to enable the development concept to be implemented, therefore, a precinct is necessary to modify the provisions of an underlying zone.

11.1.7 Since its inception as a location for office development, Smalles Farm has been zoned as a business park. Under the Unitary Plan, the Site is zoned Business Park with the Smalles 1 Precinct modifying the underlying zone provisions. Other zones could potentially apply to the Site, again modified by precinct provisions, and in Appendix D, Table D2 four alternative zones have been considered: Business Park Zone, Mixed Use Zone, Metropolitan Centre Zone and Town Centre Zone. Although, the provisions of any of these zones could be modified by precinct provisions in order to enable the proposed Transit Oriented Development to be developed, it is considered that the analysis in Table D2 of Appendix D demonstrates that the Business Park Zone is the most appropriate zone for Smalles Farm.

The extent to which each objective is the most appropriate way to achieve the purpose of the Act

11.1.8 Having established that the most appropriate way of achieving the purpose of the Act is to enable to development of Smalles Farm as a Transit Oriented Development and that the Business Park Zone is the most appropriate zone to apply to the Site, it is necessary to determine whether the proposed new and modified objectives appropriately support that form of development.

Business Park Zone Objectives

11.1.9 One of the existing Business Park Zone objectives applies only to new business parks while the other two require existing business parks to be efficiently and effectively developed, and for retail activities that support intensive employment activities to be enabled. It is considered that no new objectives or modifications to the existing objectives are required to enable a Transit Oriented Development to be established at Smalles Farm because it is not precluded by the existing zone objectives. Residential development on the Site can, therefore, be enabled without offending the objectives applying to the zone. The precinct mechanism can appropriately address the proposed residential development which will be particular to Smalles Farm.

Smalles 1 Precinct Objectives

11.1.10 It is considered that the existing objective applying to the Smalles 1 Precinct does not give any indication that residential development is anticipated on the Site,
and that new objectives should apply to the precinct to guide the policies and rules to enable that activity to be established there.

11.1.11. Three new objectives are proposed, therefore, that refocus the outcome anticipated for the Site to a mixed use Transit Oriented Development, incorporating residential development which will enable the more efficient use of the land, contribute to Auckland’s housing supply, and take greater advantage of the proximity of the Smales Farm bus station. With the proposed addition of a residential population it is also considered appropriate for there to be a greater emphasis on the amenity values of the Site and an additional objective is proposed to address that matter.

11.1.12. It is proposed to modify the existing Smales 1 Precinct objective by removing the reference to managing significant effects on the operation of the transport network because traffic modelling has shown that the surrounding road network will continue to operate satisfactorily with a relatively modest reduction in the number of vehicles on the roads, achieved by greater use of public transport, walking and cycling, and other realistic changes to travel patterns.

11.1.13. Taken as a whole, it is considered that the proposed new and modified precinct objectives will appropriately enable an intensive mixed-use Transit Oriented Development to be established on the Site which, in turn, will better achieve the Purpose of the Act than would the status quo.

11.1.14. Accordingly, it is considered that adding the proposed new objectives, and modifying the existing objective applying to the Smales 1 Precinct, as proposed, is the most appropriate way to achieve the purpose of the Act.

Whether, having regard to efficiency and effectiveness, the policies, rules, or other methods are the most appropriate for achieving the objectives

Proposed Policies

11.1.15. It is proposed to modify two Business Park Zone policies which do not acknowledge the possibility of residential development in the zone and support a Transit Oriented Development at Smales Farm.

11.1.16. The existing policies applying to the Smales 1 Precinct, address effects on centres of office activity over a limit of 162,000m² GFA and effects on the transport network of development over 105,000m² GFA, and limit accessory activities to those which meet the immediate needs of workers and visitors associated with the office activity. These policies will not fully give effect to the new and modified existing objectives proposed to apply to the precinct.

11.1.17. It is proposed, therefore, to modify two of the existing policies to enable accessory activities to address the needs of residents as well as workers and to require an assessment of effects on the transport network for office development above the limit applying to that activity on the Site (162,000m²) rather than 105,000m² as at present.

11.1.18. New policies are proposed to enable the full range of residential activities on the Site, and to ensure that an appropriate level of amenity is provided for residents, as well as workers and visitors. To rectify an omission from the existing policy framework for the precinct, a new policy is also proposed to address the parking standard currently applying to the Site.

11.1.19. The existing policies will not give effect to the objectives proposed to apply to the precinct and, having regard to efficiency and effectiveness, it is considered that
the proposed policy framework for the precinct proposed with this plan change application are necessary and appropriate to give effect to the proposed objectives.

Methods

11.1.20. With the changed outcome sought for development at Smales Farm, modifications to the activity table, and new and modified standards and assessment criteria applying to the Smales 1 Precinct, are required to implement the policies and thereby give effect to the proposed objectives. These are assessed below.

Activity Table

11.1.21. It is proposed to amend the activity status of several activities from that applying under the Business Park Zone. Some of these amendments are required to provide for residential activities, while others are proposed to enable activities to establish on the Site that will support the proposed Transit Oriented Development. The latter include temporary activities, the status of which is proposed to be amended so that events can be held without onerous and unnecessary consenting processes being required.

11.1.22. It is considered that the proposed changes to the activity status applying under the Business Park zone are appropriate to efficiently and effectively achieve the Smales 1 Precinct objectives.

Standards

Exceptions

11.1.23. The proposed exceptions to the application of the standards applying under the underlying zone and the Transport section of the Unitary Plan are necessary to confirm the relevant standards set out below.

Gross Floor Area

11.1.24. No GFA limit is proposed on residential activity within the precinct, consistent with the centre zones and the Mixed Use Zone in order to enable the efficient and effective development of a mixed-use, Transit Oriented Development.

11.1.25. The proposed limit on retail and commercial activities is a simplified version of the standard currently applying to the zone, with the list of activities to which the limit applies reduced to those that could, potentially lead to the establishment of a de facto centre at Smales Farm. The formula provides for retail and commercial services activities to be provided incrementally on the Site, in step with other development (including residential activities). Apart from the fine-tuning of the activities to which the formula applies, and the proposed permitted status of residential activities, the formula is unchanged from that currently applying to the Smales 1 Precinct.

11.1.26. An alternative way of limiting retail activities would be to have permitted activity status apply only to tenancies 200m² GFA or less, as is the case in the Mixed Use Zone. The alternatives are evaluated in Appendix D, Table D3, where it is concluded that the proposed formula is the most appropriate way of achieving the objectives of the Smales 1 Precinct.
Parking

11.1.27. It is not proposed to amend the parking provisions that currently apply to development in the Smale 1 Precinct for business activities. No minimum or maximum limit is proposed for parking associated with residential activity. That is the case with the Metropolitan Centre, Town Centre, Local Centre, Mixed Use and THAB zones and it will be consistent for residential activity in the Business Park Zone to be treated in the same way. It is considered that the lack of a maximum or minimum parking requirement will facilitate residential development on the Site and is, therefore, appropriate for the achieving the objectives of the precinct.

Trip generation

11.1.28. The exemptions provided for with this standard will enable development on the Site without an assessment of the surrounding road network for every new development proposal. This will contribute to the efficient and effective achievement of the precinct objectives.

Building height

11.1.29. Three alternatives have been considered for the height limit to apply to the Smale 1 Precinct:

- The status quo – RL48.5 (approximately 25m above the average ground level along the Tuaranga Road frontage);
- The height limit generally applying in the Metropolitan Centre Zone – 72.5m measured by the rolling height method; and
- RL123.4 (approximately 100m but with the floor plate area above RL98.4 limited to 3,000m²).

11.1.30. These options have been evaluated in Appendix D, Table D4 where it is concluded that the proposed height limit (RL123.4/98.4) is the most appropriate way of achieving the objectives of the Smale 1 Precinct.

Maximum tower dimension and tower separation

11.1.31. Standards have been proposed to limit the dimensions of towers and to specify a minimum separation distance between taller buildings. It is considered that these standards are necessary to ensure an appropriate level of visual amenity with the development of tall buildings.

Residential amenity

11.1.32. Similarly, it is considered that the proposed standards that address residential amenity (1538.6.6 and 6.7) are necessary to ensure that Smale Farm is an attractive place to live.

Pedestrian plaza

11.1.33. A standard is proposed that requires a pedestrian plaza to be established, approximately in the middle of the Site, designed to meet specified parameters, no later than the completion of 125,000m² of development within the precinct. The proposed standard will contribute to the achievement of the objectives requiring the Smale 1 Precinct to be a vibrant and attractive place for residents, workers and visitors.
Matters of discretion and Assessment Criteria

11.1.34. Matters of discretion and criteria are necessary for the assessment of restricted discretionary activities and it is considered that those proposed for the Smales 1 precinct will contribute to the efficient and effective achievement of the precinct objectives.

S32 Conclusions

11.1.35. The potential effects associated with the provisions proposed to be introduced to the Unitary Plan through the plan change application for Smales Farm have been assessed throughout this document and in the supporting technical reports. In this section of the planning report, an evaluation of the proposed objectives, policies, activity table, standards and assessment criteria has been undertaken. Having regard to that analysis, and the conclusions of assessment in other sections of this report, it is considered that:

(a) Enabling a mixed-use Transit Oriented Development, including residential activity, at Smales Farm is more appropriate than limiting development on the Site to office activity.

(b) The Business Park Zone is the most appropriate underlying zone for the Site.

(c) The proposed new and modified objectives of the Smales 1 Precinct are the most appropriate way to achieve the purpose of the Act and to contribute to the achievement of the objectives in the RFS section of the Unitary Plan;

(d) The proposed new and modified policies applying to the Business Park Zone and the Smales 1 Precinct will efficiently and effectively achieve the objectives of the zone and the precinct.

(e) The proposed modifications and additions to the activity table, standards and assessment criteria applying to the the Smales 1 Precinct will efficiently and effectively address the zone and precinct policies.

11.1.36. Overall, it is considered that the Proposed Plan Change is the most appropriate way of achieving the purpose of the Act.

12. CONSULTATION

12.1.1. For the past two years Smales Farm management has consulted extensively with Auckland Council over the Proposed Plan Change, particularly in relation to providing for residential development on the Site within taller buildings than can currently be developed as a permitted activity. Those consulted include the Councillors representing the area within which Smales Farm is located, the Chief Executive Officer, and senior planning officers. The feedback on the principle of providing for intensive development, including residential activity has been positive with no adverse comments received.

12.1.2. In addition, consultation has taken place with council planners and external specialist consultants, particularly in relation to the proposed amendments to the provisions applying to the Smales 1 precinct. With this consultation the Council has been provided with drafts of the proposed provisions and feedback has been received. That feedback has been taken into account when developing the set of provisions lodged with the application for the Proposed Plan Change. The draft urban design and landscape/visual assessment reports, and the accompanying
12.1.3. Consultation has also been carried out with the management of Auckland Transport and the New Zealand Transport Agency on the principle of a Transit Oriented Development, incorporating a mix of residential and commercial activities on the Site. Again, the proposal has been positively received. Consultation has also taken place with officers of those organisations to ensure that the transport modelling and effects assessment carried out for the plan change application were appropriate. These organisations (through the Auckland Forecasting Centre) also provided input to the models used for the assessment.

12.1.4. Consultation was also undertaken at a senior level with Watercare in relation to the ability of the development enabled by the Proposed Plan Change to be supplied with the services required.

12.1.5. A key party consulted on the Proposed Plan Change is the Waiomata District Health Board. The Board has prepared a masterplan for the long-term development of the North Shore Hospital site, and the traffic modelling to assess the transport effects of contemporaneous development on the hospital site and Smales Farm was carried out jointly by the transportation consultants employed by each party.

12.1.6. Wider consultation is proposed following the lodgement of the plan change application and prior to notification.

13. CONCLUSIONS

13.1. Because of the location, size and orientation of the Site, the proximity of a major public transport interchange, and the relative insensitivity of the surrounding uses to effects of tall buildings and intensive development on the Site, Smales Farm is very suitable for development as a Transit Oriented Development.

13.2. The integration of land use and transport infrastructure facilitated with the enablement of residential activity on the Site, and the co-location of commercial and residential uses at a high intensity, makes efficient use of the physical land resource and existing infrastructure, particularly transport infrastructure.

13.3. The Site is extremely well located in relation to the transport network with the Smales Farm station on the Northern Busway, and an interchange with the Northern Motorway, which together make up the backbone of the transport system on Auckland’s North Shore, immediately adjacent.

13.4. The Proposed Plan Change will support and encourage the use of readily accessible public transport services available at the bus station. Although additional travel demand will be generated by the anticipated development on the Site, increased public transport usage and other trends that have the potential to reduce work related travel at peak times, will enable the intensive development of the Site to take place without having significant adverse effects on the operation of the surrounding road network.

13.5. The Site is surrounded by uses that are relatively insensitive to the effects on intensification, both because of the nature of the activities on adjacent sites, and due to the separation distance provided by the roads forming the boundaries of the Site. Intensification can therefore occur without generating significant adverse effects on the owners and occupiers of the surrounding properties.
13.6. Smales Farm is a large site within which development is unconstrained by a public
street network. This enables a high amenity development to be provided within
the Site to accompany staged development.

13.6.1. A comprehensive assessment of environmental effects potentially generated by
development enabled by the Proposed Plan Change has been carried out. It is
considered that any adverse effects generated by the proposed development will
be minor and satisfactorily mitigated, and that there will be significant positive
effects from the form of development enabled.

13.7. An evaluation of the Proposed Plan Change has been undertaken in accordance
with the requirement of s32 of the Act. Through that evaluation it has been
determined that enabling a mixed-use Transit Oriented Development, including
residential activity, at Smales Farm is more appropriate than the status quo but
that the Business Park Zone remains the most appropriate underlying zone for
the Site.

13.8. It has also been determined that the proposed new and modified objectives of the
Smales 1 Precinct are the most appropriate way to achieve the purpose of the Act
and to contribute to the achievement of the objectives in the RPS section of the
Unitary Plan, and that the proposed new and modified policies and rules of the
Smales 1 Precinct will efficiently and effectively achieve the objectives of the zone
and the precinct.

13.9. Overall, it is considered that the Proposed Plan Change is the most appropriate
way of achieving the purpose of the RMA and it is therefore recommended for
favourable consideration pursuant to the procedures set out in the Act.

Vaughan Smith
Vaughan Smith Planning Limited
July 2019
APPENDIX A

H15 Business – Business Park Zone
Proposed Amendments to Policies
APPENDIX A

Proposed Plan Change – Smales Farm

Proposed Amendments to H15 Business – Business Park Zone

Policy H15.3(18)

Amend as follows:

(18) Require a plan change for new business parks and any amendment to the provisions of existing business parks, to:

...  
(b) limit retail to those services such as food and beverage and convenience goods which meet the day to day needs of workers, residents and visitors to the zone;

(c) except within the Smales 1 Precinct, limit residential activity (except for apart from visitor accommodation);

...
APPENDIX B

1538 Smales 1 Precinct
Proposed New and Amended Provisions (Track Change)
I538. Smales 1 Precinct

I538.1. Precinct description

The zoning of land within the precinct Smales 1 Precinct is the Business - Business Park Zone.

The Smales 1 Precinct (Smales Farm) is located on the corner of Taharato Taharoto and Northcote roads, and is adjacent to State Highway 1 and the Northern Busway. The precinct permits non-residential activities (subject to a maximum gross floor area for) residential activities, a maximum number of car parking spaces, and provides for some accessory activities to address demand from those employed on the site, residents, and visitors to the precinct.

I538.2. Objectives

1. The intensive development of the Smales 1 Precinct as a vibrant mixed-use Transit Oriented Development is enabled.

2. Ongoing development of the Smales Farm Technology Office Park 1 Precinct as an employment node is enabled while managing significant adverse effects on the safe and efficient operation of the transport network, on the amenity of neighbouring zones, and on the function and amenity of the Business – Metropolitan Centre Zone and Business – Town Centre Zone.

3. Residential development is enabled to use the land more efficiently, increase housing capacity and choice, particularly for employees of businesses at the Smales 1 Precinct and other nearby business areas, and to take advantage of the proximity of the Smales Farm station on the Northern Busway.

4. The Smales 1 Precinct is an attractive place to live, work and visit.

The overlay, Auckland-wide and zone objectives apply in this precinct in addition to those specified above.

I538.3. Policies

The Auckland-wide and underlying zone policies apply in this precinct in addition to those specified below.

1. Require office activity development over 102,000m² gross floor area of business activity in the Smales 1 Precinct to demonstrate that significant adverse effects on the amenity of neighbouring zones will be managed and that the function and amenity of the Business – Metropolitan Centre Zone and Business – Town Centre Zone will not be significantly adversely affected.

2. Enable the development of intensive residential activities at the Smales 1 Precinct and require it to be designed to provide privacy and outlook, and have access to daylight and sunlight.

3. Require landscaped open space and pedestrian connections to be provided or maintained with each stage of development to ensure an appropriate level of amenity for residents, workers and visitors to the Smales 1 Precinct.
I538 Smales 1 Precinct

(2)(4) Limit provide for accessory activities to those which meet the immediate needs of office workers and visitors to Smales Farm, residents and visitors to the Smales 1 Precinct while limiting the extent of those activities to manage potential adverse effects on the function and amenity of the Business – Metropolitan Centre Zone and Business – Town Centre Zone.

(3)(5) Require business development over 405,162.000m² gross floor area of business activity in the Smales 1 Precinct to demonstrate that they will not significantly adversely affect the safe and efficient operation of the transport network, or that such effects will be mitigated.

(6) Limit the supply of on-site parking over time to recognise the accessibility of the Smales 1 Precinct to public transport services, while supporting the planned growth of non-residential activities and acknowledging the need for an appropriate supply of parking on the site in the short term to encourage that growth.

The overlay, Auckland-wide and zone policies apply in this precinct in addition to those specified above.

I538.4. Activity table

The provisions in any relevant overlays, zone and the Auckland-wide apply in this precinct unless otherwise specified below.

Table I538.4.1 specifies the activity status of land use activities in the Smales 1 Precinct pursuant to section 9(3) of the Resource Management Act 1991.

Table I538.4.1 Activity table Smales 1 Precinct

<table>
<thead>
<tr>
<th>Activity</th>
<th>Activity status</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General</strong></td>
<td></td>
</tr>
<tr>
<td>(A1) Activities exceeding the 452,000m² gross floor area maximum in Standard I538.6.1.</td>
<td>D</td>
</tr>
<tr>
<td>(A2) Activities exceeding the gross floor area limit in Table I538.6.1</td>
<td>D</td>
</tr>
<tr>
<td>(A3) Activities exceeding the limits in Standard I538.6.2</td>
<td>RD</td>
</tr>
<tr>
<td>(A4) Activities exceeding the limits in Standard I538.6.4</td>
<td>RD</td>
</tr>
<tr>
<td><strong>Use</strong></td>
<td></td>
</tr>
<tr>
<td>(A5) Dwellings</td>
<td>P</td>
</tr>
<tr>
<td>(A6) Conversion of a building or part of a building to dwellings, integrated residential development, visitor accommodation or boarding</td>
<td>RD</td>
</tr>
<tr>
<td>(A7) Integrated residential development</td>
<td>P</td>
</tr>
<tr>
<td>(A8) Supported residential care</td>
<td>P</td>
</tr>
</tbody>
</table>
## 1538 Smale’s 1 Precinct

<table>
<thead>
<tr>
<th>(A9)</th>
<th>Visitor accommodation and boarding houses</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Commerce</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(A10)</td>
<td>Conference facilities</td>
<td>P</td>
</tr>
<tr>
<td>(A11)</td>
<td>Entertainment facilities</td>
<td>D</td>
</tr>
<tr>
<td>(A12)</td>
<td>Retail</td>
<td>P</td>
</tr>
<tr>
<td>(A13)</td>
<td>Service stations</td>
<td>NC</td>
</tr>
<tr>
<td>(A14)</td>
<td>Supermarkets up to 2,000m² gross floor area per tenancy</td>
<td>P</td>
</tr>
<tr>
<td>(A15)</td>
<td>Supermarkets greater than 2,000m² gross floor area per tenancy</td>
<td>D</td>
</tr>
<tr>
<td>(A16)</td>
<td>Drive-through restaurants</td>
<td>RD</td>
</tr>
<tr>
<td><strong>Community</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(A17)</td>
<td>Community facilities</td>
<td>P</td>
</tr>
<tr>
<td>(A18)</td>
<td>Education facilities</td>
<td>P</td>
</tr>
<tr>
<td>(A19)</td>
<td>Tertiary education facilities</td>
<td>P</td>
</tr>
<tr>
<td><strong>Development</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(A23)</td>
<td>Temporary structures that are established for less than 21 days.</td>
<td>P</td>
</tr>
<tr>
<td><strong>Signs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Comprehensive development signage</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(A25)</td>
<td>Comprehensive development signage that is further than 30m from the Shakespeare Road, Taharoto Road and Northcote Road frontages.</td>
<td>P</td>
</tr>
<tr>
<td><strong>Temporary activities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Temporary Activities – General</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(A26)</td>
<td>Temporary activities for up to 21 consecutive days.</td>
<td>P</td>
</tr>
<tr>
<td><strong>Specific Temporary Activities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(A27)</td>
<td>Noise events</td>
<td>P</td>
</tr>
</tbody>
</table>

### 1538.5. Notification

1. Any application for resource consent for any restricted discretionary, discretionary or non-complying activity listed in Table 1538.4.1 Activity table above will be subject to the normal tests for notification under the relevant sections of the Resource Management Act 1991.

2. When deciding who is an affected person in relation to any activity for the purposes of section 95E of the Resource Management Act 1991 the Council will give specific consideration to those persons listed in Rule C1.13(4).

### 1538.6. Standards

The standards applicable to the underlying zone and Auckland-wide apply in this precinct, except the following:
I538 Smales 1 Precinct

- PolicyStandard E27.3(2) Integrated transport assessment (ITA) Trip generation for non-residential development up to 105,000m² gross floor area (see Standard I538.6.3);
- Standard E27.6.1 Trip generation for residential development up to 105,000m² gross floor area (see Standard I538.6.3); and
- Standard E27.6.2(5);
- Standard H16.1.6.1 Building height;
- Standard H15.6.3 Yards; and
- Standard H15.6.7 Outlook space.

All activities in the Smales 1 Precinct must comply with the following standards.

I538.6.1. Gross floor area (GFA)

(1) The maximum gross floor area in the precinct for non-residential activities is 162,000m² subject to the following in Table I538.6.1.1(2) below:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Gross floor area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial services</td>
<td>Must not exceed 3,800m² plus a cumulative gross floor area of 500m² for every 10,000m² of gross floor area of offices over 41,120m² including development already established in the Smales 1 Precinct</td>
</tr>
<tr>
<td>Food and beverage</td>
<td></td>
</tr>
<tr>
<td>Retail</td>
<td></td>
</tr>
<tr>
<td>Service-stations</td>
<td></td>
</tr>
<tr>
<td>Care-centres</td>
<td></td>
</tr>
<tr>
<td>Community facilities</td>
<td></td>
</tr>
<tr>
<td>Repair and maintenance services</td>
<td></td>
</tr>
</tbody>
</table>

(2) The Gross Floor Area occupied by retail and commercial services activities must not exceed 3,800m² plus a cumulative gross floor area of 500m² for every 10,000m² of gross floor area of development over 41,120m² including development already established in the Smales 1 Precinct.

I538.6.2. Parking

(1) The number of parking spaces accessory to non-residential activities must not exceed:

(a) 1936 car parking spaces for the first 44,770m² gross floor area;

(b) an additional one car parking space per 31.6m² gross floor area for development between 44,770m² and 105,000m² gross floor area; and

(c) an additional one car parking space per 45.1m² gross floor area for development in excess of 105,000m² gross floor area to a maximum of 5094 spaces.

(2) No minimum or maximum parking requirements apply to residential activity.
I538.6.3. Trip generation

(1) DevelopmentNon-residential development up to 10,612,000m² gross floor area and residential development, will not be subject to the following:

(1) Policy E27.3(2) integrated transport assessment; and

(2) Standard E27.6.1 Trip generation.

I538.6.4. Building height

(1) Buildings must not exceed RL48.5m in height the heights in the following table (expressed as an RL - Reduced Level above Mean Sea Level):

<table>
<thead>
<tr>
<th>Height Area as identified on Precinct Plan 1</th>
<th>RL</th>
<th>Height above average GL at Taharoto Road frontage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>50.4</td>
<td>27m</td>
</tr>
<tr>
<td>2</td>
<td>123.4</td>
<td>100m</td>
</tr>
</tbody>
</table>

(2) Notwithstanding I538.6.4(1) the cumulative area of the largest floor plate in each building in Height Area 2 above a height of RL98.4 (75m above average GL at the Taharoto Road frontage) must not exceed 3,000m². For clarity, this standard does not constrain the total gross floor area of buildings above RL98.4.

I538.6.5. Maximum tower dimension and tower separation

(1) The maximum plan dimension of that part of a building above 27m must not exceed 55m.

(2) The maximum plan dimension of that part of a building above 75m must not exceed 35m.

(3) The maximum plan dimension is the horizontal dimension between the exterior faces of the two most separate points of the building.

(2) Above a height of 27m, a minimum distance of 20m must be provided between buildings.

**Figure I538.6.5.1 Maximum tower dimension plan view**
**I538.6.6. Outlook space**

(1) Refer to H9 Business – Metropolitan Centre Zone, Standard H9.6.10.

**I538.6.7. Minimum dwelling size**

(1) Refer to H9 Business – Metropolitan Centre Zone, Standard H9.6.11.

**I538.6.8. Noise events**

(1) Refer to E40 Temporary activities, Standards E40.6.1 and E40.6.4.

**I538.6.9. Pedestrian Plaza**

(1) No later than the completion of 125,000m² GFA of development in the Smales 1 Precinct, a pedestrian plaza shall be provided approximately in the location shown on Precinct Plan 2. The pedestrian plaza shall:
   (a) have a minimum area of 400m².
   (b) receive adequate winter sun between the hours of 11am and 2pm.
   (c) be appropriately sheltered from the south-westerly wind.
   (d) be designed having regard to CPTED principles.
   (e) incorporate hard and soft landscaping.

**I538.7. Assessment – controlled activities**

There are no controlled activities in this precinct the Smales 1 Precinct.

**I538.8. Assessment – restricted discretionary activities**

**I538.8.1. Matters of discretion**

The for activities and development that are restricted discretionary activities in the Smales 1 Precinct, the Council will restrict its discretion to all of the following matters
when assessing a restricted discretionary activity resource consent application, in addition to the matters specified for the relevant restricted discretionary activities in the overlay_Business – Business Park zone and the Auckland-wide or zone provisions:

(1) Activities exceeding the limits in Standard 538.6.2
   (a) Refer to E27 Transport and H16 Business – Business Park Zone, Rule E27.8.1(5) for the matters for activities that do not comply with the above standards.

(2) Activities exceeding the limits in Standard 538.6.4
   (a) The effects of the infringement on the amenity of neighbouring sites.
   (b) The effects of the infringement on on-site amenity.
   (c) The location of the site in relation to its suitability for high buildings.
   (d) The contextual relationship of the building with adjacent buildings and the wider landscape.

(3) Conversion of a building or part of a building to dwellings, integrated residential development, visitor accommodation or boarding houses
   (a) Refer to H9 Business – Metropolitan Centre zone, Rule H9.8.1(5).

(4) Drive-through restaurants
   (a) Refer to H9 Business – Metropolitan Centre zone, Rule H9.8.1(1).

(4)(5) New buildings, and additions and alterations not comply with the above standards otherwise provided for
   (a) Consistency with Precinct Plan 2.
   (b) Building design.
   (c) The design of ground floor residential activity.
   (d) The provision and design of landscaped open space.
   (e) Pedestrian amenity, safety and access.
   (f) The design of tall buildings.

538.8.2. Assessment criteria

The For activities and development that are restricted discretionary activities in the Smales 1 Precinct, the Council will consider the relevant assessment criteria below for restricted discretionary activities, in addition to the assessment criteria specified for the relevant restricted discretionary activities in the overlay, Auckland-wide or zone provisions:

(1) Activities exceeding the limits in Standard 538.6.2
   (a) Refer to E27 Transport, Rule E27.8.2(4) to (h).

(2) Activities exceeding the limits in Standard 538.6.4
I538 Smales 1 Precinct

(a) The extent to which the amenity of neighbouring sites is adversely affected.

(b) The extent to which the Smales 1 Precinct can accommodate higher buildings without generating significant adverse effects on the wider environment.

(c) The extent to which the height of a new building is appropriate in the context of the height of buildings on adjacent land and within the wider landscape.

(3) Conversion of a building or part of a building to dwellings, integrated residential development, visitor accommodation or boarding houses

(a) Refer to H9 Business – Metropolitan Centre zone, Rule H9.8.2(5).

(4) Drive-through restaurants

(a) Refer to H9 Business – Metropolitan Centre zone, Rule H9.8.2(1).

(5) New buildings, and additions and alterations not otherwise provided for

(a) Consistency with Precinct Plan 2

The extent to which development is generally consistent with the structuring elements identified on Precinct Plan 2. Note: Key Pedestrian Linkages need not be linear.

(b) Building design

The extent to which:

- Building design is of high quality,
- Features such as façade modulation and articulation, and/or the use of materials and finishes, are used to manage visual amenity effects of building bulk and scale, and to create visual interest,
- The roof profile is part of the overall building form and rooftop plant and equipment is integrated into the building design.

(c) Ground floor residential activity

Where ground floor residential activity adjoins a publicly accessible area of public access, the extent to which the design of the public/private interface:

- Addresses the privacy of occupants of dwellings,
- Provides appropriate levels of passive surveillance of the adjoining area of public access,
- Maintains the visual and pedestrian amenity of the adjoining area of public access.

(d) Landscaped open space

The extent to which:

- Landscaped open space is provided or maintained with each stage of development.
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- the design of hard and soft landscaping integrates with and appropriately enhances the design and configuration of buildings and the amenity of public places within the site for the various users of the Smales 1 Precinct.

(e) Pedestrian amenity, safety and access.

The extent to which:

- Legible pedestrian routes are provided within and through the site linking each of the main entrances from the surrounding street network and the bus station to the location of the future pedestrian plaza.
- The design of a building contributes to pedestrian vitality and interest where it fronts an area of significant pedestrian activity.
- Building entrances are easily identifiable and accessible, and provide pedestrian shelter.
- Separate pedestrian entrances are provided for residential activity that are clearly located and legible for public access and provide a sense of address for residents and visitors.
- The design of development has regard to pedestrian and personal safety.
- Parking, loading and service areas are located and screened (as necessary) to maintain pedestrian amenity.

(f) Buildings extending above RL50.4m

The extent to which:

- the building maintains the visual amenity of the overall development on the site as viewed from residential zones and public places outside the Smales 1 precinct.
- the building makes a positive contribution to the collective skyline of the Smales 1 Precinct, including architectural expression to the rooftops and upper levels of tall towers.
- the building responds and relates appropriately to the scale and form of neighbouring buildings within the Smales 1 Precinct.
- adverse off-site effects of tall buildings, in particular wind, shadowing, dominance and privacy effects, are mitigated.

1538.9. Special information requirements

There are no special information requirements in this precinct.

1538.10. Precinct plans

1538.10.1 Smales 1 Precinct: Precinct Plan 1 – Maximum Height

1538.10.2 Smales 1 Precinct: Precinct Plan 2 – Structuring Elements
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APPENDIX C

I538 Smales 1 Precinct
Proposed New and Amended Provisions ("Clean")
I538. Smales 1 Precinct

I538.1. Precinct description

The zoning of land within the Smales 1 Precinct is the Business - Business Park Zone. The Smales 1 Precinct (Smales Farm) is located on the corner of Taharoto and Northcote roads, and is adjacent to State Highway 1 and the Northern Busway. The precinct permits non-residential activities (subject to a maximum gross floor area), residential activities, a maximum number of car parking spaces, and provides for some accessory activities to address demand from those employed on the site, residents, and visitors to the precinct.

I538.2. Objectives

(1) The intensive development of the Smales 1 Precinct as a vibrant mixed-use Transit Oriented Development is enabled.

(2) Ongoing development of the Smales 1 Precinct as an employment node is enabled while managing significant adverse effects on the amenity of neighbouring zones, and on the function and amenity of the Business – Metropolitan Centre Zone and Business – Town Centre Zone.

(3) Residential development is enabled to use the land more efficiently, increase housing capacity and choice, particularly for employees of businesses at the Smales 1 Precinct and other nearby business areas, and to take advantage of the proximity of the Smales Farm station on the Northern Busway.

(4) The Smales 1 Precinct is an attractive place to live, work and visit.

The overlay, Auckland-wide and zone objectives apply in this precinct in addition to those specified above.

I538.3. Policies

The Auckland-wide and underlying zone policies apply in this precinct in addition to those specified below.

(1) Require development over 162,000m² gross floor area of business activity in the Smales 1 Precinct to demonstrate that significant adverse effects on the amenity of neighbouring zones will be managed and that the function and amenity of the Business – Metropolitan Centre Zone and Business – Town Centre Zone will not be significantly adversely affected.

(2) Enable the development of intensive residential activities at the Smales 1 Precinct and require it to be designed to provide privacy and outlook; and have access to daylight and sunlight.

(3) Require landscaped open space and pedestrian connections to be provided or maintained with each stage of development to ensure an appropriate level of amenity for residents, workers and visitors to the Smales 1 Precinct.

(4) Provide for accessory activities to meet the immediate needs of office workers, residents and visitors to the Smales 1 Precinct while limiting the
I538 Smales 1 Precinct

extent of those activities to manage potential adverse effects on the function and amenity of the Business – Metropolitan Centre Zone and Business – Town Centre Zone.

(5) Require development over 162,000m² gross floor area of business activity in the Smales 1 Precinct to demonstrate that the activity will not significantly adversely affect the safe and efficient operation of the transport network, or that such effects will be mitigated.

(6) Limit the supply of on-site parking over time to recognise the accessibility of the Smales 1 Precinct to public transport services, while supporting the planned growth of non-residential activities and acknowledging the need for an appropriate supply of parking on the site in the short term to encourage that growth.

The overlay, Auckland-wide and zone policies apply in this precinct in addition to those specified above.

I538.4. Activity table

The provisions in any relevant overlays, zone and the Auckland-wide apply in this precinct unless otherwise specified below.

Table I538.4.1 specifies the activity status of land use activities in the Smales 1 Precinct pursuant to section 9(3) of the Resource Management Act 1991.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Activity status</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General</strong></td>
<td></td>
</tr>
<tr>
<td>(A1) Non-residential activities exceeding the gross floor area maximums in Standard I538.6.1.</td>
<td>D</td>
</tr>
<tr>
<td>(A3) Activities exceeding the limits in Standard I538.6.2</td>
<td>RD</td>
</tr>
<tr>
<td>(A4) Activities exceeding the limits in Standard I538.6.4</td>
<td>RD</td>
</tr>
<tr>
<td><strong>Use</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Accommodation</strong></td>
<td></td>
</tr>
<tr>
<td>(A5) Dwellings</td>
<td>P</td>
</tr>
<tr>
<td>(A6) Conversion of a building or part of a building to dwellings, integrated residential development, visitor accommodation or boarding</td>
<td>RD</td>
</tr>
<tr>
<td>(A7) Integrated residential development</td>
<td>P</td>
</tr>
<tr>
<td>(A8) Supported residential care</td>
<td>P</td>
</tr>
<tr>
<td>(A9) Visitor accommodation and boarding houses</td>
<td>P</td>
</tr>
<tr>
<td><strong>Commerce</strong></td>
<td></td>
</tr>
<tr>
<td>(A10) Conference facilities</td>
<td>P</td>
</tr>
</tbody>
</table>
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**Attachments**

#### I538 Smalas 1 Precinct

<table>
<thead>
<tr>
<th>(A11)</th>
<th>Entertainment facilities</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A12)</td>
<td>Retail</td>
<td>P</td>
</tr>
<tr>
<td>(A13)</td>
<td>Service stations</td>
<td>NC</td>
</tr>
<tr>
<td>(A14)</td>
<td>Supermarkets up to 2,000m² gross floor area per tenancy</td>
<td>P</td>
</tr>
<tr>
<td>(A15)</td>
<td>Supermarkets greater than 2,000m² gross floor area per tenancy</td>
<td>D</td>
</tr>
<tr>
<td>(A16)</td>
<td>Drive-through restaurants</td>
<td>RD</td>
</tr>
</tbody>
</table>

**Community**

| (A17)  | Community facilities | P |
| (A18)  | Education facilities | P |
| (A19)  | Tertiary education facilities | P |

**Development**

| (A23)  | Temporary structures that are established for less than 21 days | P |

**Signs**

**Comprehensive development signage**

| (A25)  | Comprehensive development signage that is further than 30m from the Shakespeare Road, Taharoto Road and Northcote Road frontages | P |

**Temporary activities**

**Temporary Activities – General**

| (A26)  | Temporary activities for up to 21 consecutive days | P |

**Specific Temporary Activities**

| (A27)  | Noise events | P |

### I538.5. Notification

1. Any application for resource consent for a restricted discretionary, discretionary or non-complying activity listed in Table I538.4.1 Activity table above will be subject to the normal tests for notification under the relevant sections of the Resource Management Act 1991.

2. When deciding who is an affected person in relation to any activity for the purposes of section 95E of the Resource Management Act 1991 the Council will give specific consideration to those persons listed in Rule C1.13(4).

### I538.6. Standards

The standards applicable to the underlying zone and Auckland-wide apply in this precinct, except the following:

- Standard E27.6.1 Trip generation for non-residential development up to 162,000m² gross floor area or for residential development (see Standard I538.6.3);
- Standard E27.6.2(5);
I538 Smales 1 Precinct

- Standard H15.6.1 Building height;
- Standard H15.6.3 Yards; and
- Standard H15.6.7 Outlook space.

All activities in the Smales 1 Precinct must comply with the following standards.

I538.6.1. Gross floor area (GFA)

(1) The maximum gross floor area in the precinct for non-residential activities is 162,000m² subject to (2) below:

(2) The Gross Floor Area occupied by retail and commercial services activities must not exceed 3,800m² plus a cumulative gross floor area of 500m² for every 10,000m² of gross floor area of development over 41,120m² including development already established in the Smales 1 Precinct.

I538.6.2. Parking

(1) The number of parking spaces accessory to non-residential activities must not exceed:

   (a) 1936 car parking spaces for the first 44,770m² gross floor area;

   (b) an additional one car parking space per 31.8m² gross floor area for development between 44,770m² and 105,000m² gross floor area; and

   (c) an additional one car parking space per 45.1m² gross floor area for development in excess of 105,000m² gross floor area to a maximum of 5094 spaces.

(2) No minimum or maximum parking requirements apply to residential activity.

I538.6.3. Trip generation

(1) Non-residential development up to 162,000m² gross floor area, and residential development, will not be subject to the following:

   (1) Policy E27.3(2) Integrated transport assessment; and

   (2) Standard E27.8.1 Trip generation.

I538.6.4. Building height

(1) Buildings must not exceed the heights in the following table (expressed as an RL - Reduced Level above Mean Sea Level):
Table I538.6.4.1 Building height

<table>
<thead>
<tr>
<th>Height Area as identified on Precinct Plan 1</th>
<th>RL</th>
<th>Height above average GL at Taharoto Road frontage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>50.4</td>
<td>27m</td>
</tr>
<tr>
<td>2</td>
<td>123.4</td>
<td>100m</td>
</tr>
</tbody>
</table>

(2) Notwithstanding I538.6.4(1) the cumulative area of the largest floor plate in each building in Height Area 2 above a height of RL98.4 (75m above average GL at the Taharoto Road frontage) must not exceed 3,000m². For clarity, this standard does not constrain the total gross floor area of buildings above RL98.4.

I538.6.5. Maximum tower dimension and tower separation

(1) The maximum plan dimension of that part of a building above 27m must not exceed 55m.
(2) The maximum plan dimension of that part of a building above 75m must not exceed 35m.
(3) The maximum plan dimension is the horizontal dimension between the exterior faces of the two most separate points of the building.
(3) Above a height of 27m, a minimum distance of 20m must be provided between buildings.

Figure I538.6.5.1 Maximum tower dimension plan view

I538.6.6. Outlook space

(1) Refer to H9 Business – Metropolitan Centre Zone, Standard H9.6.10.
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I538.6.7. Minimum dwelling size

(1) Refer to H9 Business – Metropolitan Centre Zone, Standard H9.6.11.

I538.6.8. Noise events

(1) Refer to E40 Temporary activities, Standards E40.6.1 and E40.6.4.

I538.6.9. Pedestrian Plaza

(1) No later than the completion of 125,000m² GFA of development in the Smale 1 Precinct, a
pedestrian plaza shall be provided approximately in the location shown on Precinct Plan 2.
The pedestrian plaza shall:
   (a) have a minimum area of 400m².
   (b) receive adequate winter sun between the hours of 11am and 2pm.
   (c) be appropriately sheltered from the south-westerly wind.
   (d) be designed having regard to CPTED principles.
   (e) incorporate hard and soft landscaping.

I538.7. Assessment – controlled activities

There are no controlled activities in the Smale 1 Precinct.

I538.8. Assessment – restricted discretionary activities

I538.8.1. Matters of discretion

For activities and development that are restricted discretionary activities in the
Smale 1 Precinct, the Council will restrict its discretion to the following matters in
addition to the matters specified for the relevant restricted discretionary activities in
the Business – Business Park zone and the Auckland-wide provisions:

(1) Activities exceeding the limits in Standard I538.8.2
   (a) Refer to E27 Transport, Rule E27.8.1(5).

(2) Activities exceeding the limits in Standard I538.8.4
   (a) The effects of the infringement on the amenity of neighbouring sites.
   (b) The effects of the infringement on on-site amenity.
   (c) The location of the site in relation to its suitability for high buildings.
   (d) The contextual relationship of the building with adjacent buildings and
the wider landscape.

(3) Conversion of a building or part of a building to dwellings, integrated
residential development, visitor accommodation or boarding houses
   (a) Refer to H9 Business – Metropolitan Centre zone, Rule H9.8.1(5).

(4) Drive-through restaurants
   (a) Refer to H9 Business – Metropolitan Centre zone, Rule H9.8.1(1).

(5) New buildings, and additions and alterations not otherwise provided for
   (a) Consistency with Precinct Plan 2.
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(b) Building design.
(c) The design of ground floor residential activity.
(d) The provision and design of landscaped open space.
(e) Pedestrian amenity, safety and access.
(f) The design of tall buildings.

I538.8.2. Assessment criteria

For activities and development that are restricted discretionary activities in the Smales 1 Precinct, the Council will consider the relevant assessment criteria below in addition to the criteria specified for the relevant restricted discretionary activities in the Business – Business Park zone and the Auckland-wide rules:

1. Activities exceeding the limits in Standard I538.6.2.
   (a) Refer to E2 Transport, Rule E27.8.2(4)(b) to (h).

2. Activities exceeding the limits in Standard I538.6.4
   (a) The extent to which the amenity of neighbouring sites is adversely affected.
   (b) The extent to which the Smales 1 Precinct can accommodate higher buildings without generating significant adverse effects on the wider environment.
   (c) The extent to which the height of a new building is appropriate in the context of the height of buildings on adjacent land and within the wider landscape.

3. Conversion of a building or part of a building to dwellings, integrated residential development, visitor accommodation or boarding houses
   (a) Refer to H9 Business – Metropolitan Centre zone, Rule H9.8.2(5).

4. Drive-through restaurants
   (a) Refer to H9 Business – Metropolitan Centre zone, Rule H9.8.2(1).

5. New buildings, and additions and alterations not otherwise provided for
   (a) Consistency with Precinct Plan 2
      The extent to which development is generally consistent with the structuring elements identified on Precinct Plan 2. Note: Key Pedestrian Linkages need not be linear.
   (b) Building design
      The extent to which:
      - Building design is of high quality.
      - Features such as façade modulation and articulation, and/or the use of materials and finishes, are used to manage visual amenity effects of building bulk and scale, and to create visual interest.
      - The roof profile is part of the overall building form and rooftop
I.538 Smales 1 Precinct

plant and equipment is integrated into the building design.

(c) Ground floor residential activity

Where ground floor residential activity adjoins a publicly accessible area of public access, the extent to which the design of the public/private interface:

- Addresses the privacy of occupiers of dwellings.
- Provides appropriate levels of passive surveillance of the adjoining area of public access.
- Maintains the visual and pedestrian amenity of the adjoining area of public access.

(d) Landscaped open space

The extent to which:

- Landscaped open space is provided or maintained with each stage of development.
- the design of hard and soft landscaping integrates with and appropriately enhances the design and configuration of buildings and the amenity of public places within the site for the various users of the Smales 1 Precinct.

(e) Pedestrian amenity, safety and access.

The extent to which:

- Legible pedestrian routes are provided within and through the site linking each of the main entrances from the surrounding street network and the bus station to the location of the future pedestrian plaza.
- The design of a building contributes to pedestrian vitality and interest where it fronts an area of significant pedestrian activity.
- Building entrances are easily identifiable and accessible, and provide pedestrian shelter.
- Separate pedestrian entrances are provided for residential activity that are clearly located and legible for public access and provide a sense of address for residents and visitors.
- The design of development has regard to pedestrian and personal safety.
- Parking, loading and service areas are located and screened (as necessary) to maintain pedestrian amenity.

(f) Buildings extending above RL50.4m

The extent to which:

- the building maintains the visual amenity of the overall development on the site as viewed from residential zones and
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public places outside the Smales 1 precinct.

- the building makes a positive contribution to the collective skyline of the Smales 1 Precinct, including architectural expression to the rooftops and upper levels of tall towers.
- the building responds and relates appropriately to the scale and form of neighbouring buildings within the Smales 1 Precinct.
- adverse off-site effects of tall buildings, in particular wind, shadowing, dominance and privacy effects, are mitigated.

I538.9. Special information requirements

There are no special information requirements in this precinct.

I538.10. Precinct plans

I538.10.1 Smales 1 Precinct: Precinct Plan 1 – Maximum Height
I538.10.2 Smales 1 Precinct: Precinct Plan 2 – Structuring Elements
APPENDIX D

Section 32 Evaluation Tables
## Proposed Private Plan Change – Smales Farm

**Table D1 Future Development Options: Status Quo (office park) or Enable Residential Development at Smales Farm**

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
<th>Efficiency/Effectiveness</th>
<th>Benefits/Costs</th>
<th>Comments</th>
</tr>
</thead>
</table>
| (i)    | Status quo Smales Farm remains an office park with some limited accessory activities. | This option does not enable the efficient use of the site, does not take full advantage of the proximity of the bus station to integrate land use and transport infrastructure and does not enable residential development to contribute to the housing supply. | **Benefits:**
- Does not challenge the perception of an office park being an employment centre, without residential activity.
- Retains and perpetuates the relatively low density and very well landscaped form of development envisaged under the current provisions.
- Limits or mitigates the generation of adverse effects that might arise from intensification of the site (e.g. visual or traffic effects).

**Costs:**
- Is an inefficient use of land as it does not maximise the potential for greater height on the site or for increased density of development.
- Does not take full advantage of the potential for integrating land use with the existing high quality transport infrastructure (including most notably the bus station).
- Does not provide for a mixed range of activities and the efficiencies and social benefits that can produce. | The existing office park development does not achieve the purpose of the RMA and the higher level objectives of the Unitary Plan to the extent that a Transit Oriented Development would. It reflects planning priorities and norms that applied two decades ago but which are outdated in the context of the Unitary Plan; the enhanced public transport infrastructure that has been developed adjacent to Smales Farm since then (i.e. the bus station and busway), and the intensification strategy adopted by the city to accommodate future growth. |
| (ii) | Intensify at Smales Farm to create a Transit Oriented Development, incorporating residential activity. | This option makes more efficient use of the site, takes advantage of its location relative to the transport network, supports public transport services and enables a substantial contribution of dwellings to the housing supply. | **Benefits:**  
- Enables dwellings to be developed to contribute to the housing supply.  
- Ensures that those dwellings are in a location that is towards the centre of the urban area, a short distance from the Takapuna Metropolitan Centre and easily accessed from the CBD and Albany Metropolitan Centre.  
- Increases activity on the Smales Farm site over a longer period of time and supports ancillary services  
- Supports public transport services and reduces commuting by car.  
- The cost of building and/or the development is low. | Intensifying to create a Transit Oriented Development will efficiently and effectively achieve the purpose of the RMA and the higher level objectives of the Unitary Plan. Whereas the previous district plan regime sought to separate activities geographically, other than in commercial centres such as Takapuna, the Unitary Plan anticipates the co-location of complementary activities to a greater degree and the intensification of residential activities (through enabling such activities in centres and through enabling greater height and residential density). A Transit Oriented Development at Smales Farm is therefore consistent with the planning philosophy adopted elsewhere in the Unitary Plan. This is considered the more appropriate option in terms of section 32. |
### Proposed Private Plan Change – Smales Farm

#### Table D2 Zoning/Precinct Options

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
<th>Efficiency/Effectiveness</th>
<th>Benefits/Costs</th>
<th>Comments</th>
</tr>
</thead>
</table>
| (i)    | Retain Business Park Zone with amended Smales 1 Precinct | No amendments to the objectives are necessary and amendments to the zone policies can address the inclusion of residential activities. The zone already anticipates the substantial existing and expected future office component of development on the site. | **Benefits:**  
- Retains the focus on Smales Farm being an office park providing employment opportunities.  
- The zone provisions anticipate its application to larger sites.  
- The precinct provisions already address office development and supporting commercial activities, so any provision for residential activity needs to be added.  
- The zone provisions were developed with the intent that a site-specific solution would be introduced for each subject site. Given the characteristics of Smales Farm, it is appropriate for a precinct to continue to apply to the site. That can be accomplished relatively easily using the existing zoning.  
**Costs:**  
- Because only limited residential activities are anticipated in the zone, the precinct provisions have to be modified to address residential amenity.  
- Tall buildings are not anticipated so the plan change provisions will need to | The Business Park zone, with modifications to enable residential activities will efficiently and effectively achieve the purpose of the RMA and the higher level objectives of the Unitary Plan.  
The zone has an existing focus on the provision of employment opportunities which is anticipated to be the major component of development on the site in the medium term.  
An advantage of the Business Park zone is that it was designed to facilitate site-specific solutions, through use of the precinct mechanism. Accordingly, the zone provides a great deal of flexibility and it is a relatively simple exercise to amend the Smales 1 Precinct provisions to enable the development of residential activities in addition to the commercial activities currently provided for.  
This is considered the most appropriate option in terms of section 32. |
### Proposed Private Plan Change – Smales Farm

<table>
<thead>
<tr>
<th>Item 14</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(ii)</strong> Rezone to Mixed Use with replacement Smales 1 Precinct</td>
</tr>
</tbody>
</table>

No amendments to the zone objectives are necessary and amendments to the zone policies can address the enablement of a substantial amount of intensive office development.

This zone has a strong focus on enabling intensive residential activities, but anticipates just a moderate amount of commercial activities that will not compromise the function and role of centre zones.

**Benefits:**
- The zone is principally a residential zone and the provisions already address residential amenity.
- Retail activity is limited by activity status.

**Costs:**
- While some Mixed Use owned sites have been made the subject of precinct provisions, the zone itself has been developed as a comprehensive set of provisions (in contrast to the Business Park provisions which are then typically refined through the precinct mechanism).
- The zone does not anticipate large-scale office development.
- Tall buildings are not anticipated so any plan change involving this zone will still need to address height.
- The standards addressing residential activity will have to be modified by precinct provisions to address the nature of the site: large site in single ownership rather than

The Mixed Use zone, with modifications to enable a much greater focus on office activity, could efficiently and effectively achieve the purpose of the RMA and the higher level objectives of the Unitary Plan.

However, the zone has an existing strong focus on residential development whereas offices are anticipated to be the major component of development on the site in the medium term. In addition, the Mixed Use zone is intended to apply directly to most land subject to that zoning. In contrast, the Council has applied the Business Park zone to a limited number of sites, typically in the context of site-specific precincts.

Although this zone would be appropriate for the site, it is considered that the Business Park zone is more appropriate and is a more natural fit given its emphasis on the primary activity anticipated on the site (offices), and the precinct mechanism typically used to refine the Business Park zone provisions.
<table>
<thead>
<tr>
<th>Proposed Private Plan Change – Smale’s Farm</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Individual sites with street frontage:</strong></td>
</tr>
<tr>
<td><strong>Benefits:</strong></td>
</tr>
<tr>
<td>1. The Metropolitan Centre zone, with its large modifications that will limit retail and office activity, could efficiently and effectively achieve the purpose of the RMA and the desired future city form.</td>
</tr>
<tr>
<td>2. The zone already anticipates high buildings.</td>
</tr>
<tr>
<td><strong>Costs:</strong></td>
</tr>
<tr>
<td>1. Tall buildings are anticipated in the zone.</td>
</tr>
<tr>
<td>2. The Metropolitan Centre zone may be considered a major component of a Metropolitan Centre Zone and development typically takes place on individual sites within a public street setting, with no specific focus on commercial activity.</td>
</tr>
<tr>
<td><strong>Proposed Strategy:</strong></td>
</tr>
<tr>
<td>1. The Metropolis Centre zones with similar height and bulk to those anticipated for Smale’s Farm are quite different from and are not anticipated for those that are anticipated for Parnell.</td>
</tr>
<tr>
<td>2. The Metropolitan Centre zone has been identified in the Unitary Plan as an area that would be consistent with the RMA and the One Plan.</td>
</tr>
<tr>
<td><strong>Conclusion:</strong></td>
</tr>
<tr>
<td>1. The proposed strategy would need to impose significant constraints on the range and extent of activities that may be undertaken on the land and buildings.</td>
</tr>
<tr>
<td>2. The outcome would be quite different from that applying in the Metropolitan Centre zones.</td>
</tr>
</tbody>
</table>

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**Attachment F**

**Item 14**

<table>
<thead>
<tr>
<th>Rezone to Metropolitan Centre</th>
<th>Smale’s Farm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposed Strategy</td>
<td></td>
</tr>
<tr>
<td>1. The Metropolitan Centre zones with similar height and bulk to those anticipated for Smale’s Farm are quite different from and are not anticipated for those that are anticipated for Parnell.</td>
<td></td>
</tr>
<tr>
<td>2. The Metropolitan Centre zone has been identified in the Unitary Plan as an area that would be consistent with the RMA and the One Plan.</td>
<td></td>
</tr>
<tr>
<td><strong>Conclusion:</strong></td>
<td></td>
</tr>
<tr>
<td>1. The proposed strategy would need to impose significant constraints on the range and extent of activities that may be undertaken on the land and buildings.</td>
<td></td>
</tr>
<tr>
<td>2. The outcome would be quite different from that applying in the Metropolitan Centre zones.</td>
<td></td>
</tr>
<tr>
<td>Item</td>
<td>Description</td>
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<td>------</td>
<td>-------------</td>
</tr>
<tr>
<td>(iv)</td>
<td>Rezone to Town Centre with amended Smales 1 Precinct</td>
</tr>
</tbody>
</table>

The Town Centre zone enables structures of much lesser height and bulk to those anticipated for Smales Farm. In addition, other provisions also differ from those anticipated for the expanded Smales Farm Precinct. In particular, the Town Centre zone provides for retail to a far greater extent.

**Benefits:**
- Encourages both office and residential development.
- Tall buildings are not generally anticipated in the Town Centre zone. Accordingly, the Precinct provisions will need to provide a very different building envelope from that currently provided.

There are significantly more Town Centre zones than Metropolitan Centre zones in the city. The zones still fall within a broader hierarchy, however, and the Smales Farm site would not fit comfortably within that hierarchy, given that it will have a focus on office and residential development, instead of commercial activity serving the immediate vicinity, along with bulk and location controls that are far more extensive than those in the Town Centre zone.
#### Proposed Private Plan Change – Smales Farm

|   | degree than will the revised Smales 1 Precinct.  
|---|---|
| No amendments to the objectives are necessary although the focus of the zone is on activities to serve the surrounding area whereas the Precinct will have a much broader employment focus and will limit retail and commercial services to an extent sufficient to serve the residents of the site.  
| Applying this zoning to the Smales Farm land would create an anomaly, with the Precinct provisions promoting a larger building envelope and very different activity mix from that anticipated for the Town Centre zones.  
| applied to the Town Centre zone.  
| The Precinct provisions will need to enable a very different activity mix from that anticipated in the Town Centre zone.  
| The planning outcome would therefore be quite different from that applying in the Town Centres generally.  
| The Precinct would not represent an outcome that is consistent with the policies of the Town Centre zone and the zoning would be anomalous.  
| The Town Centre zone, with modifications to limit retail activity, could achieve the purpose of the RNA and the higher level objectives of the Unitary Plan, but not as efficiently or effectively as the other zones considered.  
| As with the Metropolitan Centre Zone, retail activity is anticipated to be a major component of town centres and development typically takes place on individual sites within a public street network. Tall buildings are not anticipated and the focus of the zone is on activities to serve the surrounding area, not a wide catchment.  
| It is considered, therefore, that the Town Centre Zone is the least appropriate of the zones considered.  

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**Item 14**
## Proposed Private Plan Change – Smales Farm

### Table D3 Standard – Gross Floor Area Limitation (Retail and Commercial Services)

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
<th>Efficiency/effectiveness</th>
<th>Benefits/Costs</th>
<th>Comments</th>
</tr>
</thead>
</table>
| (i)    | Formula providing for incremental increase in retail and commercial services GFA as business and residential development occurs on the Site | Limits the GFA of activities on the Site that could potentially impact the function and (consequently) amenity of the Metropolitan or Town Centre zones. The permitted supply increases incrementally in step with increased demand accompanying additional development. That is a relatively simple rule to interpret and apply. | Benefits:  
- Demand is likely to be met by the supply of retail and commercial services on the Site.  
- Is unlikely to lead to the establishment of large shops with a broader catchment because development will tend to be incremental and to proceed in tandem with residential and office development. By virtue of the formula proposed, each increment is likely to be relatively small and to add additional small-scale services that provide a more comprehensive choice of activities for residents and office workers.  
Costs:  
- If the demand outstrips the supply enabled by the formula, a shortfall would result in increased travel to centres.  
- Large stores could establish on the Site because there is no limit on tenancy size. | This option is efficient and effective in limiting the activities on the Site that could potentially impact the function of the Metropolitan or Town Centre zones. Although larger stores could be established, this is unlikely because that would take up a large proportion of the allowance. In order for larger stores to threaten the function of centres, a critical mass would be required and this is unlikely to occur because of the incremental nature of increases to the limit. In any event, the provision has been designed to ensure that the quantum of retail space that will be onabied reflects the demand for convenience goods and services that will be generated by activities on the Smales Farm site. This is considered the most appropriate option in terms of section 32. |
| (ii)   | Retail up to 200m²; Permitted activity, larger shops Discretionary activity | Limits the size of retail shops (but not commercial services) but does not limit | Benefits:  
- The demand for retail tenancies and commercial services can be met all times. | Although the option would limit the size of tenancies, it would allow a virtually unlimited number, and hence extent, of retail (and commercial services) tenancies. |

---

**Attachment F**

**Item 14**
| (as with the Mixed Use Zone). | the overall GFA of retail activities. | Larger stores (which typically anchor centres and can pose a risk to other centres) would be discouraged by the requirement for a DA resource consent. 
**Doas:**
- A virtually unlimited amount of retail floorspace could be established on the Site at any time, irrespective of the demand from workers, residents or visitors to the Site.
- This rule may be susceptible to misuse. It is possible, for example, that, having obtained a certificate of compliance in respect of a large quantum of retail contained in small premises, a developer might then seek to convert that retail space into large format shops on the basis that there will be no additional retail capacity and hence no greater risk overall to other centres. |
| | | Such an agglomeration of smaller tenancies is more likely to act as a competing centre attracting customers from a wider catchment, than would retail and commercial services tenancies being established over time. |
## Proposed Private Plan Change – Smales Farm

Table D4 Standard – Maximum Height

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
<th>Efficiency/effectiveness</th>
<th>Benefits/Costs</th>
<th>Comments</th>
</tr>
</thead>
</table>
| (i)    | Status quo (RL48.5) | An inefficient option as it does not promote the most efficient use of the Site, or enable the development of apartments above offices. | Benefits:  
- Relates a low scale of development which may be more acceptable for some.  
Costs:  
- Does not enable the development potential of the Site to be realised, or contribute to the housing supply. | This option does not contribute to the achievement of the new and modified objectives of the Smales 1 Precinct and is likely to severely compromise the ability to accommodate residential development at Smales Farm and hence to develop a Transit Oriented Development. |
| (ii)   | Standard Metropolitan Centre Zone height limit (72.5m) | Provides for more efficient use of the Site and enables the development of apartments above offices. | Benefits:  
- Enables substantially more development potential to be realised than Option (i) and utilises one of the standard height limits in the Unitary Plan.  
- Will enable the construction of a landmark development adjacent to the bus station.  
- The increased development will support public transport services.  
Costs:  
- Leaves development potential “on the table” and enables fewer dwellings to be developed than Option (ii)  
- Does not recognise the unusual circumstances relating to the site whereby it is surrounded by major arterial roads on all four sides and has a number of adjacent activities | This option contributes to the achievement of the new and revised objectives of the Smales 1 Precinct. It involves the application of a standard Unitary Plan rule and, accordingly, does not have regard to the particular characteristics of the site that may enable additional height. |
**Attachment F**

<table>
<thead>
<tr>
<th>Item 14</th>
<th>Proposed Private Plan Change – Smales Farm</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Application of site-specific rules to the Smales Farm site</strong> in the context of the Site and Heritage Issues section of the Notice of Public Hearing, being a maximum height of 40m over the existing R4.5 zones and a maximum of 35m over the existing R3.5 zones. The proposed development site is not visible from the highway in the Smales Farm Precinct. The proposed development would be located on the eastern side of the site, directly behind existing development at the eastern end of the site. The proposed development would consist of a single five-storey building with a total floor area of approximately 3,000m². The proposed development would support public transport services and the increased development would enable the construction of new public transport facilities. The proposed development would be more visible than with Option (ii), with greater potential for adverse effects to be generated.</td>
<td></td>
</tr>
<tr>
<td><strong>Benefits</strong></td>
<td></td>
</tr>
<tr>
<td>Enables buildings to different heights across different parts of the zone, which have been done in the past, while taking into account the characteristics of the site and the adjoining activities. This option contributes to the achievement of the new and revised objectives of the Smales Farm Precinct to the greatest extent.</td>
<td></td>
</tr>
<tr>
<td><strong>Costs</strong></td>
<td></td>
</tr>
<tr>
<td>The highest buildings will be more visible than with Option (ii), with greater potential for adverse effects to be generated.</td>
<td></td>
</tr>
</tbody>
</table>

| **Features** | |
| Enables the greatest potential for development in the proposed development site. |
| Enables the development of the proposed development site. |
| Will enable the construction of new public transport facilities. |

**Note:** The proposed development site is not visible from the highway in the Smales Farm Precinct. The proposed development would consist of a single five-storey building with a total floor area of approximately 3,000m². The proposed development would support public transport services and the increased development would enable the construction of new public transport facilities. The proposed development would be more visible than with Option (ii), with greater potential for adverse effects to be generated.
### Document Control

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<th>Reviewed by</th>
<th>Authorised by</th>
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<td>Peter Millar</td>
<td></td>
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<td>09/05/2018</td>
<td>V1</td>
<td>Final</td>
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### Distribution:

- Northcote RD1 Holdings Limited: copies
- Tonkin & Taylor Ltd (FILE): 1 copy
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  3.4 Foundation options 4
4 Conclusions 5
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Appendix A: Existing Buildings
Appendix B: Sample Borehole Logs
1 Introduction

Torkin & Taylor Limited (T&T) have been engaged by Smales Farm Ltd to provide a desktop assessment of the geotechnical conditions for the future development of Smales Farm. We understand this report is to support a proposed plan change for increased development including mixed use with multi-storey buildings.

The objective of the report is to provide an overview of geological conditions on the site based on the considerable geotechnical investigations that have been undertaken for the existing developments and to provide concept level foundation advice for any proposed new multi-storey structures.

2 Background

The site dips gently to the southwest of a grade of about 1 in 20, see Figure 1. A series of buildings have been constructed on the site since 1997. Prior to this it was continuously used for stock and dairy farming for over 100 years. The commercial development of the property commenced in the mid 1990’s with construction of the Telstra Clear Communication Building (now Vodafone) on the corner of Taharoto Rd and Northcote Rd, closely followed by the Tranzrail (now Air New Zealand), Sovereign and Facilities (C34) Buildings, B-Hive (nearing construction). The current buildings are identified in the figure included in Appendix A. Detailed investigations and testing were carried out for each of these buildings and are listed below:


The locations of these buildings are shown on Figure 1. Detailed investigations of each of these sites included series of machine boreholes, percussion holes (proof drilling of rock) and test pits.

Developments of SH1N has also involved detailed investigations along the south eastern boundary of the site. The locations of the boreholes, CPTs and test pile is also shown on Figure 1.

A sample of the typical boreholes that have been drilled on the site are included in Appendix B.
3 Geotechnical conditions

3.1 Geology

The published geology for the area, Geology of Auckland Urban Area (Scale 1:50,000) indicates the site is largely underlain by a layer of basaltic ash and lapilli. A lava flow of basalt rock is expected beneath much of the site derived from the Lake Pupuke volcanic eruptions. This partially infilled the ancient Waiarau Valley that flowed to the coast at Milford Beach, forming a dam that blocked the stream guily and resulted in swamp deposits upstream. The inland edge of the basalt is close to the southwest boundary of the site where the basalt lava is expected to feather out against the shoulder of the buried valley.

3.2 Geotechnical model

The site has been intensively drilled at the locations of buildings that have been constructed on the site. This includes investigations boreholes and proof drilling of pile or shallow pad foundation positions to ensure the basalt rock was of adequate thickness and quality to support the building loadings, see references in Section 2 above.

In addition drilling and test pile for SH1N motorway widening and busway has included a series of machine boreholes, Cone Penetrometer Tests (CPT’S) and test pits along the southwestern boundary of the site.

This information has been collected to develop geological sections and the following preliminary site model for the assessment of foundation conditions.

A layer of about 2.4 m of volcanic ash covers the site. This comprises stiff silts with some clay that are generally slightly to moderately plastic and very stiff. On the north eastern half of the site this ash is underlain by about 2.2 m of tuff which include welded ash with zones of loose sphericaceous gravels. Underlying these materials at a depth of 2 – 7 m (increasing to the southwest) basalt lava from the Lake Pupuke lava flows is present.

The surface of the lava is variable as is the quality of the upper flow comprising moderately weathered, highly fractured rock with zones of silts and volcanic debris. The basalt is likely to have been formed by at least 2 lava flows and the quality of the rock improves with depth. The deeper flows comprise fresh strong fine dark grey grained rock with some vesicular zones. The competent rock has generally been proven to over 3 m thickness and is typically at least 5 m thick under the existing buildings on the site. However, at the southwestern boundary it is likely to thin and may not be continuous or sufficiently thick to provide a suitable founding layer for multi-storey structures (see comments below).

Beneath the basalt is Tauranga Group Alluvium (Pleistocene Age sediments). This comprises dayey and sandy silts which are generally slightly plastic and stiff to very stiff. The boreholes along the busway record some zones of peat and organises within the upper Tauranga Group materials. Below about 10 m – 12 m the Northern Busway logs show a sand layer within the Tauranga Group. These sands are slightly cemented and dense. The extent that these sands are present over the remainder of the site is unknown.

East Coast Bay Formation is the basement rock in the Auckland region. It comprises interbedded siltstones and sandstones and is a very weak rock. It is recorded in deep boreholes at about 20 – 25 m on the southwest boundary. It is unproven by the boreholes over the remainder of the site but is expected to be deeper to the north and northeast (as the ground surface rises to the northeast). The depth to rock is estimated to be 30 – 35 m below the Taharoto Road Boundary.
Recent sedimentary deposits are present on sites to the south of the site. These soils are variable but typically comprise soft to firm, highly to moderately compressible clayey silts with some high organic and peat zones. These were deposited post the Pupuke activity but do not extend onto the Smale Farm site.

The groundwater is generally encountered at about 4-5 m depth on the north eastern side of the site i.e. within the tuff and above the basalt rock, and is within the ash at about 2 m depth on the south eastern boundary.

3.3 Seismic Design and Site Subsoil Classification

The New Zealand Standard for Structural Design Actions NZS 1170.5:2004 provides guidance on the levels of ground shaking that should be considered for design at the site. On the basis of our knowledge of the site and experience in similar ground condition, we classify the site as Class C (shallow soil).

Based on the return periods in NZS1170.5, and an importance level 2 structure with a 50 year design life, the following peak ground accelerations (PGA) are calculated:

i. Serviceability Limit State (SLS) = 0.04 g

ii. Ultimate Limit State (ULS) = 0.17 g

These PGA values are for geotechnical analysis only. The client and structural engineer should confirm the above importance level is applicable for the proposed structure.

We do not expect the foundation soils will be subject to liquefaction or lateral spread under a design earthquake seismic event. The ash and Tauranga Group soils are generally not susceptible to liquefaction. The medium dense to dense sands which are present at about 10m depth on the southwest boundary are described in logs as being lightly cemented and hence are unlikely to be liquefiable but may undergo some pore pressure response under an ULS seismic event. Further assessment of this layer should be undertaken to confirm this conclusion.

3.4 Foundation options

The buildings on the site are generally up to 6 levels with up to 1 level of basement and most have generally been founded on driven steel piles embedded in the basalt rock. The rock in the building footprints has been confirmed by proof drilling and piles have been tested using pile dynamic analysis testing (PDA). The most recent building (B Hive) is a 5 level structure with a single level compensating basement that has been founded on shallow pads in the ash/ tuff soils.

These methods of founding are expected to be suitable and economic for future medium rise buildings on other parts of the site. However, this needs to be confirmed for structures close to the southwestern boundary. Driven steel piles may be used subject to proof drilling and confirming the competency and thickness of the basalt rock. Provided the thickness of the basalt rock is greater than 3 m, the following design capacities may be assumed for preliminary design.

<table>
<thead>
<tr>
<th>Pile Size</th>
<th>Basalt Rock</th>
<th>ULS Capacity</th>
<th>Geotechnical Ultimate Capacity</th>
<th>ULS Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>150UC30</td>
<td>540</td>
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<td>1620</td>
<td>1125</td>
<td>2160</td>
<td>1500</td>
</tr>
</tbody>
</table>

Table 3.1: Driven Steel Pile Capacities
| 310UC97 | 1750 | 1200 | 2330 | 1600 |
| 31UC137 | 2470 | 1725 | 3290 | 2300 |

Note: 1. The ULS capacities are based on PDA testing of 10% of piles. The capacities of piles on Basalt are affected by high stresses resulting from reflection at toe.

2. Larger steel sections may be used but are not available ex stock in N.Z. Equipment is presently available to drive sections up to a maximum of 202 kg/m.

For structures exceeding about 6 levels and founded on driven piles we expect pile groups will to be required to provide capacity and the thickness of competent basalt would need to be proven to be at least 5m thick.

For sites near the southwestern boundary, or where the competent basalt rock is expected to be less than 3m in thickness, we expect multistorey buildings will require founding on piles embedded in the unweathered ECBF rock. This will range in depth from at about 20 - 25 m depth below ground level in the southwest half of the site and increase up to about 35m in the northeast. Bored piles should be embedded at least 3 diameters into the rock and may require slewing where the piles extend through the basalt. The following ultimate limit states capacities may be assumed for the bored piles.

| End Bearing in ECBF (ULS) | 3 MPa |
| Side Friction (ULS) |
| - Tauranga Group > -10m | 40 kPa |
| - ECBF | 100 kPa |

Side Friction in the upper Tauranga Group, basalt and ash above 10 m should be ignored.

Alternatively driven steel piles may be considered. Preliminary bearing capacities for driven steel piles in the ECBF are given in Table 3.1 above.

A layer of dense lightly cemented sand was identified within the Tauranga group sediments in some boreholes on the southwest boundary. If this is proven to be continuous over the site there is potential for medium to high rise buildings to be founded on driven piles embedded into the dense sand layer below about 10 - 12 m depth. The capacity of driven steel piles would need to be confirmed by test but for preliminary design we expect an ULS friction of 80kPa may be assumed.

For lateral capacity of piles we expect a horizontal subgrade reaction of 40-50kPa/m may be assumed in the ash soils while effective fixity may be expected for piles sections bored through basalt rock where it exceeds 3m thickness.

For structures with single level basements we expect these will be constructed within the stiff ash soils. We generally expect drained basements (with an underdrainage collector system) should be feasible but depth to groundwater will need to be confirmed to assess whether a resource consent is required under the Auckland Unitary Plan (OIP) Rules C7.6.1.10. The following parameters may be assumed for preliminary design of retention for single level basement structures:

K<sub>a</sub> = 0.3
K<sub>o</sub> = 0.5
K<sub>p</sub> = 4.5
γ = 18 kN/m<sup>3</sup>

For deeper basements, the potential presence of fill and basalt rock will need to be determined.
4 Conclusions

The site conditions at Smale’s Farm generally comprise a layer of stiff volcanic ash and fill of 3 – 7 m depth (increasing to the north-east) overlying basalt. The basalt is derived from basalt lava flows derived from the Lake Pupuke eruption and has been proved to be over 3 m thick over much of the site. It thins towards the southwest boundary. The basalt is underlain by Tauranga Group sediments. These are clayey silts with some organics which become increasingly sandy with depth and become dense lightly cemented sands below about 10 m. The basement ECBF is expected at 10 – 35 m depth, increasing to the northeast.

Foundation options for medium rise structures (up to 6-8 stories) include floating on piles embedded in the basalt rock where this is proven to be continuous and of adequate thickness. For multi-storey buildings exceeding 5-8 levels options for founding include driven grouped piles founded in competent basalt confirmed to exceed 5m thickness (as expected in the northern half of the site) or bored or driven piles extending into the ECBF rock.

Where buildings include basements, the potential effects on groundwater will need to be assessed. For single level basements these will generally be constructed above the groundwater level and may be permanently drained but deeper basements will require a resource consent for groundwater take and divert.

5 Applicability

This report has been prepared for the exclusive use of our client Northcote RD1 Holdings Limited, 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

Report prepared by:

[Signature]

Peter Millar
Project Director

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Tonkin & Taylor Ltd

Smale’s Farm - Geotechnical Assessment for Proposed Plan Change
Northcote RD1 Holdings Limited

May 2018

Job No: 3095025 v1
Appendix A: Existing Buildings
Appendix B: Sample Borehole Logs

- Building 5a – Borehole BH4P
- Borehole 69172 – Busway. Northcote Intersection (Opus)
- Borehole 69431 – Busway. Bus station (Connell Wagner)
## TONKIN & TAYLOR LTD
### BOREHOLE LOG

**PROJECT:** Smales Farm B3-B6
**LOCATION:** Smales Farm, Takapuna, Auckland
**JOB No:** 31007

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</tr>
<tr>
<td>DATUM:</td>
<td>DRILL FLUID:</td>
<td>DRILLED BY:</td>
<td>NAME:</td>
<td>Nodular Drilling</td>
</tr>
</tbody>
</table>

**GEOLOGICAL**

<table>
<thead>
<tr>
<th>GEOLOGICAL UNIT</th>
<th>SOIL DESCRIPTION</th>
<th>TESTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL. SAMPLE</td>
<td>SCHISTE, water-saturated</td>
<td>CORE</td>
</tr>
</tbody>
</table>

**ENGINEERING DESCRIPTION**

<table>
<thead>
<tr>
<th>ROCK DESCRIPTION</th>
<th>ROCK CLASSIFICATION</th>
<th>ROCK STATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>BASALT ROCK</td>
<td>competent</td>
<td></td>
</tr>
<tr>
<td>Framed indurated scoria</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solid</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Planning Committee**
05 March 2019
# Attachment G

## BOREHOLE LOG

**PROJECT:** Smales Farm/BS-B6  
**LOCATION:** Smales Farm, Takapuna, Auckland  
**JCB No:** 31007

**CO-ORDINATES:**  
**DRILL TYPE:**  
**HOLE STARTED:** 15/7/15

**R.L.:** 23.50 m  
**DRILL METHOD:** PERCUSSION  
**HOLE FINISHED:** 15/7/15

**DATE:**  
**DRILL FLUID:**  
**LOGGED BY:** CEM

<table>
<thead>
<tr>
<th>GEOLOGICAL</th>
<th>ENGINEERING DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SEISMIC UNIT:</strong></td>
<td><strong>SOIL DESCRIPTION:</strong></td>
</tr>
<tr>
<td><strong>QUDRIFORM:</strong></td>
<td>Soil type, minor components, plasticy or cohesive, colour, texture, oriented.</td>
</tr>
<tr>
<td><strong>MINERAL COMPOSITION:</strong></td>
<td></td>
</tr>
</tbody>
</table>

### BASALT

- **SOIL DESCRIPTION:** Basalt, solid.
- **Fractured core walls, veins**
- **Solid**

### ALLUVIUM

- **SOIL DESCRIPTION:** Silty, stuff.

**END OF BOREHOLE AT 20m.**  
Description of soil/rock based on observations of cuttings.

---

**Log Scale:** 1:50

**BOREHOLE No:** BH4P  
**Hole Location:** Refer site plan.
**Planning Committee**  
**05 March 2019**

**Attachment G**

**Item 14**

**SOUCE: NZGD**

<table>
<thead>
<tr>
<th>Borehole No: BH12110R15</th>
<th>Project No: A083.50.CC</th>
<th>Sheet: 2 of 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project: North Shore Busway Project - Northern Sector</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Location: Westlake Girls High School</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Client: Transit New Zealand</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Driller: Drillwell Exploration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shear Vane No: DR640</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drill Type: Top Head Drive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vane Factor: 1.392</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commeneced: 7th May 2003</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Completed: 7th May 2003</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grid Datum: Mt Eden Circuit 1949</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level Datum: MSL Auckland 1944</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Easting: 298782.12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northing: 716416.51</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elevation: 17.27</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bearing: -</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Drilling Information

<table>
<thead>
<tr>
<th>Depth (m)</th>
<th>Soil Type</th>
<th>Sample Type</th>
<th>Consistency (%)</th>
<th>SPT</th>
<th>Vane Shear Strength</th>
<th>Soil Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0</td>
<td>000</td>
<td>100</td>
<td>000</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.0</td>
<td>000</td>
<td>100</td>
<td>000</td>
<td>100</td>
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<tr>
<td>10.0</td>
<td>000</td>
<td>100</td>
<td>000</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.0</td>
<td>000</td>
<td>100</td>
<td>000</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20.0</td>
<td>000</td>
<td>100</td>
<td>000</td>
<td>100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Remarks**

- Material: Colour, Plasticity & Particle Characteristics: Minor Silt/Clay
- Other Test Results, Borehole, etc.
- End of Borehole

---

*Vane readings taken in end of drill core while still inside the core barrel or sample end within a thin wall sampling tube.*

**Consistency**

- VS: Very Soft
- S: Soft
- F: Firm
- Stf: Stiff
- VSt: Very Stiff
- H: Hard
- Fb: Friable

**Moisture**

- D: Dry
- M: Moist
- W: Wet

**Relative Density**

- VL: Very Loose
- L: Loose
- MD: Medium Dense
- D: Dense

**USCS**

Unified Soil Classification System

Logged By: KRJ

Verified: MUL

Approved: GCA
**Geological Unit**

<table>
<thead>
<tr>
<th>Soil / Rock Description</th>
<th>Depth (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fill</strong></td>
<td></td>
</tr>
<tr>
<td>Silty CLAY</td>
<td>-1.00</td>
</tr>
<tr>
<td>Gravely SILT with trace clay</td>
<td>-1.00</td>
</tr>
<tr>
<td>Firm, moist, non-plastic, dark grey gravely SILT with trace clay. Gravels up to 3.5cm diameter. Rootlets, organics.</td>
<td></td>
</tr>
<tr>
<td>Clayey SILT</td>
<td>-5.00</td>
</tr>
<tr>
<td>Firm, moist, moderately-highly-plastic, greyish brown clayey SILT.</td>
<td></td>
</tr>
<tr>
<td>Silty CLAY</td>
<td>-5.00</td>
</tr>
<tr>
<td>Firm, moist, high plastic, orange brown silty CLAY. Dark brown / grey mottles from 5m.</td>
<td></td>
</tr>
<tr>
<td>Slightly gravely silty SAND</td>
<td>-8.00</td>
</tr>
<tr>
<td>Weakly cemented, dark grey slightly gravelly silty SAND. Gravels up to 0.5cm diameter.</td>
<td></td>
</tr>
<tr>
<td>Gravelly TUFF</td>
<td>-9.00</td>
</tr>
<tr>
<td>Weak, moderately cemented/twinned, dark brown gravelly TUFF. Almost black at 1.7m, with some greenish grains. Cream silty CLAY infill between grains from 30.5-12.2m.</td>
<td></td>
</tr>
</tbody>
</table>

Note: The information shown in this log is accurate at the time position only, variations in soil type may exist across the site.

Note: SPT blow counts with * symbol indicates that the stated T120(s) are included in the value given.
### Attachment G

**Item 14**

<table>
<thead>
<tr>
<th>Geological Unit</th>
<th>SOIL / ROCK DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rhaetocene Alluvium</td>
<td>Silty CLAY+clayey SILT</td>
</tr>
<tr>
<td></td>
<td>Firm-stiff, moist, moderately plastic, greyish brown silty CLAY+clayey SILT. Dark brown at 12.6m organic rich, firm. Gradually becoming lighter with depth, light brown at 13.5m. Rare organic material throughout. Clamshells and yellow crystalline material (calcite?) at 13m. 3cm max diameter.</td>
</tr>
<tr>
<td></td>
<td>SILT with some clay</td>
</tr>
<tr>
<td></td>
<td>Firm-stiff, moist, moderately plastic, light brown SILT with some clay. Rare organic material. Very sandy at 14.1-14.2m.</td>
</tr>
<tr>
<td></td>
<td>CLAY with trace silt</td>
</tr>
<tr>
<td></td>
<td>Firm, moist, highly plastic, brown CLAY with trace silt. Light brown from 14.5-14.9m. Very dark brown at 14.9m (organic rich). Some organic material throughout. Silt at 15.3m.</td>
</tr>
<tr>
<td></td>
<td>Silt</td>
</tr>
<tr>
<td></td>
<td>Firm, moist, non-plastic, light brownish grey Silt. Some black/brown organics.</td>
</tr>
<tr>
<td></td>
<td>Clayey Silt/Tertiary CLAY</td>
</tr>
<tr>
<td></td>
<td>Firm-stiff, moist, moderately highly plastic, light brownish grey clayey Silt. Rare organic material.</td>
</tr>
<tr>
<td></td>
<td>SAND with trace clay</td>
</tr>
<tr>
<td></td>
<td>Moderately dense (very weakly cemented), moist, non-plastic, brownish grey. SAND with trace clay (≤1%).</td>
</tr>
<tr>
<td></td>
<td>CLAY with trace silt</td>
</tr>
<tr>
<td></td>
<td>Silt, moist, highly plastic, brownish grey CLAY with trace silt. Slightly sandy and very dark brown at 15m.</td>
</tr>
<tr>
<td></td>
<td>SAND with trace clay</td>
</tr>
<tr>
<td></td>
<td>As per 17.5-17.7m.</td>
</tr>
</tbody>
</table>

*Note:* The information shown in this log is accurate at the test point only; variations in soil type may exist across the site.

*Note:* SPT blow counts with * symbol indicates that the seating device(s) are included in the value given.
### Attachment G

**Item 14**

<table>
<thead>
<tr>
<th>Geological Unit</th>
<th>SOIL / ROCK DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Bernoulli CLAY</strong></td>
</tr>
<tr>
<td></td>
<td>Stiff, moist, highly plastic, very dark brown sandy CLAY. Trace organic brown flakes throughout. Becomes very sandy (sandy CLAY) at 19.8m. Becomes lighter brown with depth.</td>
</tr>
<tr>
<td></td>
<td><strong>CLAY with trace sand</strong></td>
</tr>
<tr>
<td></td>
<td>Firm, moist, highly plastic, light brownish grey CLAY with trace sand and silt.</td>
</tr>
<tr>
<td></td>
<td><strong>Sandy CLAY</strong></td>
</tr>
<tr>
<td></td>
<td>Stiff, moist, moderately plastic, light brownish grey sandy CLAY.</td>
</tr>
<tr>
<td></td>
<td><strong>CLAYy SAND with trace silt</strong></td>
</tr>
<tr>
<td></td>
<td>Moderately dense, moist, slightly moderately plastic clayey SAND with trace silt. Black organic at 21.6m. From 21.6m - Alternating medium-coarse clayey SAND (50%) and slightly clayey fine SAND (20%). Moderately dense (moderately cemented), moist, slightly plastic. Some black/brown organic.</td>
</tr>
<tr>
<td></td>
<td><strong>CLAY with trace sand/CLAYy sandy CLAY</strong></td>
</tr>
<tr>
<td></td>
<td>Alternating grey sandy CLAY/CLAYy CLAY with trace sand (fine-coarse). GMT. moist, slightly-highly plastic. Black/brown organic at 22.5m. Dark brown from 22.95m (organic rich), some partially decayed black/brown organic throughout up to 30%.</td>
</tr>
<tr>
<td></td>
<td><strong>CLAYy SAND/sandy CLAY</strong></td>
</tr>
<tr>
<td></td>
<td>Moderately dense (moderately cemented), very stiff, moist, slightly moderately plastic, grey clayey SAND, with slightly clayey SAND layers (20%). Trace organic.</td>
</tr>
<tr>
<td></td>
<td><strong>SAND with trace clay</strong></td>
</tr>
<tr>
<td></td>
<td>Loose (very weakly cemented), grey SAND (medium-coarse) w/ trace clay. Slightly CLAYy. Rare organic. Moderately dense (well cemented) from 27.6m. Gravels up to 1cm diameter, includes SILTSTONE, jasper (&lt;1%), organic.</td>
</tr>
<tr>
<td></td>
<td><strong>Sandy/silty CLAYy CLAY</strong></td>
</tr>
<tr>
<td></td>
<td>Stiff, moister, slightly-highly plastic, grey sandy CLAYy CLAY with trace sand (fine). 1cm thick black organic layer at 22m. Hard at 29.05m, very hard-extremely weak at 29.1m. Occasional very stiff soil and very weak 'rock' beds &lt;0.5cm thick. ROQ = 0 (soil).</td>
</tr>
</tbody>
</table>

Note: The information shown in this log is accurate at the test position only; variations in soil type may exist across the site.

Note: SPT blow count with * symbol indicates that the pacing drivers are included in the value given.

---

Opus International Consultants Ltd
PO Box 59418
Auckland, New Zealand
### Attachment G

#### Item 14

**Opus International Consultants - DRILLHOU**

<table>
<thead>
<tr>
<th>Geological Unit</th>
<th>Soil/rock Description</th>
<th>Depth/Elevation</th>
<th>FWRC Tests</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Washamata Group</td>
<td>Sandy/silty CLA/very clayey SAND</td>
<td>-31.50</td>
<td>90</td>
<td>SPT</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-32.00</td>
<td>HQ</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-33.00</td>
<td>SPT</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-33.50</td>
<td>HQ</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-34.00</td>
<td>SPT</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-35.00</td>
<td>HQ</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-36.00</td>
<td>SPT</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>-37.00</td>
<td>HQ</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** The information shown in this log is accurate at the time point only; variations in soil type may exist across the site.

**Note:** SPT blow count with ** symbol indicates that the testing drive(s) are included in the value given.
CIVIL ENGINEERING ASSESSMENT
68-94 TAHAROTO ROAD, TAKAPUNA

Report prepared for: Northcote RD 1 Holdings Limited

Report prepared by: Adair Brimelow, Senior Civil Engineer, CPEnG

Report reviewed and approved for issue by: Arthur Amputch, Technical Director, CPEnG

Report Reference: 180047-A
Date: 12 July 2018

Copies to: Vaughan Smith Planning Limited 1 electronic copy
Riley Consultants Ltd 1 copy

Revision | Details | Date:
--- | --- | ---
1.0 | Civil Engineering Assessment | 12 July 2018
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Appendices

Appendix A: Smale’s Farm Pond Locations
Appendix B: Stormwater Infrastructure and Overland Flowpaths (extracts from G/S)
Appendix C: Water and Wastewater Infrastructure (extracts from G/S)
CIVIL ENGINEERING ASSESSMENT
68-94 TAHAROTO ROAD, TAKAPUNA

1.0 Introduction

The following report has been prepared by Riley Consultants Ltd (RILEY) at the request of the Northcote RD 1 Holdings Limited. It presents the results of a civil engineering assessment to support a private plan change application. This will seek to amend the provisions of the Smales 1 Precinct in the Auckland Unitary Plan-Operative in part (AUP-Op.), to enable more intensive development at Smales Farm, including residential development.

The civil engineering assessment specifically addresses earthwork aspects and the provision of stormwater, wastewater, and water supply services with capacity to enable development of a more intensive scale on the site.

2.0 Site Description and Proposed Development

The location of the site is shown on Figure 1.

Figure 1: Site Location
The site consists of two lots with a total site area of 10.8314ha, hereafter referred to as the site.

- 68-76 Taharoto Road, Takapuna, Pt Lot 1 DP 204794 – 53,444m²
- 78-94 Taharoto Road, Takapuna, Pt Lot 2 DP 204794 – 54,870m²

The existing site is under-developed and consists of multi-storey commercial and retail buildings and car parking. The site is surrounded by the following:

- North – Shakespeare Road and further north is Westlake Girls High School.
- West – Taharoto Road and further west is commercial development and the North Shore Hospital.
- South – Northcote Road and further south is a mixture of residential and commercial development, and Takapuna Normal Intermediate.
- East – Smales Farm Bus Station and further east is the Northern Motorway.

The AUP-Op currently enables development of the following approximate areas:

<table>
<thead>
<tr>
<th></th>
<th>m²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offices</td>
<td>- 150,000</td>
</tr>
<tr>
<td>Other Commercial</td>
<td>- 12,000</td>
</tr>
<tr>
<td>Total</td>
<td>- 162,000</td>
</tr>
</tbody>
</table>

It is proposed to amend the precinct provisions applying to the site to enable high-density residential development. It is our understanding that Northcote RD 1 Holdings Limited is not seeking to change the 162,000m² limit for non-residential activities, but to enable residential development on the site, most likely above offices within multi-storey buildings.

For assessing the effects of the changes sought with the private plan change, the following areas of development have been assumed. It is important to note that the proposed development changes are to be staged over the next 30-years.

<table>
<thead>
<tr>
<th></th>
<th>m²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offices</td>
<td>- 145,500</td>
</tr>
<tr>
<td>Other Commercial</td>
<td>- 16,500</td>
</tr>
<tr>
<td>Residential</td>
<td>- 138,000</td>
</tr>
<tr>
<td>Total</td>
<td>- 300,000</td>
</tr>
</tbody>
</table>

Under the provisions applying to the Business Park Zone, the maximum impervious area is set at 80%, and the plan change application does not seek to increase this intensity. Therefore, in order to not exceed the impervious limit, and achieve the intensity of development enabled by the precinct rules, future development will include a number of multi-storey buildings.
3.0 Proposed Engineering Works

The following sections outline the engineering issues, which will need to be addressed to enable development of the site and includes a consideration of the following:

- Earthworks
- Roading
  - Water management
    - Stormwater
    - Wastewater
    - Water supply

3.1 Earthwork Activities

Earthworks will be required across the site to achieve the design levels to suit the layout requirements for development (i.e. access roading, building platform levels, etc). Permanent earthworks will be carried out to an engineered standard in accordance with NZS: 4404 and related documents, and with Auckland Council (Council) Standards of Engineering Design and Construction.

The site is generally covered with a stiff volcanic ash and fill of up to 7m thick overlying basalt and Tauranga Group sediments. Foundations for multi-storey high-rise buildings are expected to be founded on piles. A geotechnical report has been produced to support the plan change, Smales Farm Geotechnical Assessment for Proposed Plan Change, Tonkin + Taylor Ltd, March 2018.

Due to the area and volume of earthworks, a resource consent application will be required for the land disturbing activities for each consent application. A detailed earthworks report will be undertaken to provide a comprehensive analysis of the effects of any proposed earthworks and the measures to be implemented in order to reduce the impact on the receiving environment.

The earthworks required to form the site gradients are not uncommon for a development of this size and are certainly achievable. Geotechnical and environmental aspects (i.e. overland flow, flood levels, etc.) will need to be considered during the earthwork assessments.

Sediment and erosion controls implemented to a high standard, in accordance with Council engineering standards and Council Erosion and Sediment Control Guidelines for land disturbing activities in the Auckland region (GD05), will ensure the impact on the environment is appropriately mitigated.

3.2 Stormwater Assessment and Management

3.2.1 Background

The current site development is serviced via three stormwater management ponds and a direct connection to the public stormwater reticulation. The existing stormwater ponds are located along the western boundary near to the motorway. Refer to appended Smales Farm Pond Locations plan (Appendix A). All three ponds discharge into the stormwater reticulation at the south-west boundary of the site, which then conveys the runoff downstream into Wairau Creek. The site has been developed through a series of staged developments over the last 20 years.

12 July 2018
Riley Consultants Ltd
In circa 1999, plans were developed for the construction of the crescent shaped building and associated car parking on the corner of Northcote and Taharoto Roads, currently tenanted by Vodafone. An internal access road linking Northcote and Taharoto Roads via the central roundabout was also constructed at this time. Stormwater drainage from the building and car park is collected via a private drainage network, falling towards Northcote Road, then west and discharges to an open drain along the eastern side of the motorway. This ultimately flows north into the Waiarau Creek. At this time, the site was approximately one quarter impervious. The section of stormwater pipe along Northcote Road is currently shown on the Council GIS as public infrastructure (Council), refer to Appendix B. Wastewater from the Vodafone buildings drains to a public manhole near the future Smales Farm bus station. The majority of this alignment is currently shown as public infrastructure (Watercare Services Limited (WSL)).

In circa 2002, a 9,000m² temporary car park located adjacent to Northcote Road (west of the Vodafone building) was consented. This consisted of a fully private reticulation network discharging to a stormwater treatment pond, sized to accommodate the 5% Annual Exceedance Probability (AEP) storm event, and ultimately overflowing to the motorway drain. The 5% AEP storm was the North Shore City Council specification for urban development. The pond design was undertaken in accordance with Auckland Regional Council Technical Publication 10 – Stormwater management devices: Design guidelines manual (TP10) and providing 75% total suspended solids (TSS) removal. This pond was consented under a Council Permit 27653, dated March 2003. The pond is located north-west of the car park and is hereafter referred to as Pond 2.

In 2005, a new car park, soft landscaping, and two large buildings were consented (LN 2121776) in the north-east corner of the site. Stormwater runoff from the car park is treated via swales and flows via private stormwater reticulation to a stormwater pond located at the north-west corner of the site, near the bus station. The pond is consented under Permit 31284, October 2005, hereafter referred to as Pond 3. The stormwater pond/wetland has a catchment area of 2.15ha, designed to achieve 75% TSS removal and outfalls within the motorway corridor. Rainwater harvesting for re-use was accommodated with a volume of 180m³ (non-potable fixtures). Council did not require any detention of the storm event up to the 1%, as the site is in the lower Waiarau Valley catchment and the (Council) catchment model assumes up to 85% impervious area within the Smales site. Additionally, the wetland was designed to accommodate a future building next to the Shakespeare Road extension. Overland flows are onto Shakespeare Road, to the bus station, and then an engineered channel to the Waiarau Creek. The future building is currently under construction as a car park.

In circa 2007, a temporary car park was consented within the central western area of the site. This involved the enlarging of Pond 3 and construction of a new pond (Pond 1). Both of these ponds were designed to provide 75% TSS removal from the stormwater runoff, and attenuation of the 2 and 10-year peak flows to pre-development peak flow rates. The stormwater works were consented under Permit 34134, July 2007.

In circa 2015, plans were developed for a new building (Building B5, known as the B: Hive) to be constructed over an existing car park at Taharoto Road, adjacent to the north of the Vodafone building. This building incorporates a re-use volume of 25m³; however, there is no treatment or specific design for detention of stormwater runoff as the increase in peak runoff was 1% for the 10% AEP. Stormwater runoff flows into the existing public reticulation at Northcote Road and ultimately to the motorway drain to the west. Construction has recently been completed.

12 July 2018
Riley Consultants Ltd.
In circa 2016, a new car park adjacent to Shakespeare Road at the north of the site was consented. Previous plans developed in 2005 showed a building at this location and a stormwater connection to Pond 3. The development of a car park does not increase runoff from the catchment area to the pond, however, swales were included to treat the stormwater runoff from the car park prior to discharging to the pond. The treatment swales are required to be constructed in accordance with the approved Permits 31819/33076, July 2012. This car park is currently under construction.

The stormwater ponds have been designed for an impervious catchment area of 6.75ha. All three ponds are treatment ponds with 75% efficiency and designed to accommodate a small detention volume to minimise potentially adverse flooding downstream. A future total site development area of 80% equates to an impervious catchment area of approximately 8.6ha. Therefore, as the site is progressively developed, the ponds will need to be enlarged to accommodate this. This approach has been successfully adopted in the past. Based on the existing detention criteria, we estimate the ponds will increase in size by approximately 25% and this will need to be accommodated within the site masterplan.

3.2.2 Stream Erosion

The discharge location for the site is from the stormwater ponds directly into a pipe network. Site observations confirmed that the existing stormwater pipe outlets to the motorway drain. Additional erosion protection from the ponds and pipe network is, therefore, not required.

3.2.3 Water Quality

The existing site is well serviced through the stormwater treatment ponds. The development of new buildings will replace existing on-grade car park areas, therefore, has a positive effect of water quality within the ponds and within the Wairau Creek.

Development at the site will still need to consider stormwater quality treatment measures to protect the receiving environment from effects of contaminants generated from any new roads and paved surfaces. All roof materials will need to use inert materials and be low contaminant yielding.

The development could utilise a range of measures and a treatment train philosophy, whereby a succession of stormwater treatment devices are utilised to ensure the development does not impact negatively on the operation of the existing ponds and downstream environment. The stormwater quality measures will need to be designed and constructed in accordance with the latest Council guideline documents such as, GD01 Design of Stormwater management devices (an update of TP10), and GD04 Water Sensitive Design (an update of Auckland Regional Council Technical Publication 124 Low Impact Design Manual for the Auckland region, April 2000). Treatment devices may incorporate vegetated drains/swales, rain gardens, ponds, wetlands, and proprietary filtration devices.

Depending on the area of roading and car parks, and development controls at the time of resource consent, the existing stormwater ponds may simply be enlarged to accommodate any additional contaminant loading from the development.

3.2.4 Auckland Unitary Plan— Operative in part

The AUP-Op shows the site does not have any overlays associated with stormwater management, natural hazards, or significant ecological areas.
3.2.5 Overland Flow

Potential flooding is indicated to occur along the western boundary near to the stormwater ponds as the site generally falls from east to west. Refer to the appended Stormwater Overland Flowpath plan.

The GIS indicates the site does have overland flowpaths (OLFPs) passing through it. A significant OLP enters the site south from Northcote Road, and exits the site along the western boundary. This OLP will need to be considered in any detailed masterplan for the site and be aligned with the internal road network.

The remaining minor OLFPs, shown to originate from within the site, can easily be managed as the site is developed to ensure secondary overland flow is directed away from buildings and to the western boundary.

A detailed flood assessment will need to be carried out at resource consent stage for a future development, which will determine flood extent and levels. This assessment will ensure the development can be achieved without further affecting adjacent property or downstream infrastructure.

3.2.6 Summary of Stormwater Management for the Site

- Primary stormwater runoff is via a piped reticulation network to the stormwater management ponds along the western boundary of the site. Secondary OLFPs will need to be provided to ensure minimum freeboard requirements are achieved within the future development areas and ensure flood levels on neighbouring sites are not affected.
- Stormwater management devices should be incorporated in the site development to address issues of water quality, the details of which should be in accordance with Council Guideline Documents GD01 and GD04. These include stormwater ponds.
- Any development of the site will need to comply with the provisions of the AUP-Op.

3.3 Wastewater

The site has a connection to the public wastewater reticulation. Currently, all wastewater from individual buildings is collected and directed by private drainage to a 300mm diameter public network, which exits within the site at the north-east corner, adjacent to the bus station, connecting to a 636mm-diameter public trunk main. It is proposed to re-use this existing connection for the future development of the site, enabled by the revised precinct provisions. Refer to Appendix C.

The trunk main flows east to west along Shakespeare Road adjacent to the north of the site. At this location, the trunk sewer changes from 480mm-diameter to 635mm-diameter, before passing under the Northern Motorway. Review of the Council GIS shows there is no as-built level information on this public infrastructure, however, if we were to assume a pipe gradient of 0.5%, the potential conveyance through the 635mm pipe is approximately 560L/sec.
We have undertaken a site wastewater/water assessment based on gross development areas. Using the WSL Code of Practice (CoP), based on the AUP-Op provisions currently applying to the site, we have estimated a peak dry weather flow of 24L/sec. Based on the WSL CoP and the extent of the development enabled by the proposed plan change, we have estimated a peak dry weather flow of 83L/sec. This corresponds to an increase of 39L/sec. The residential flows, which have the greatest influence on the peak flow rates, are based on one person per 15m². This allows for two people in a one-bedroom 50m² apartment, or four people in a two-bedroom 100m² apartment. An average sized apartment of 100m² has been assumed in the economic report¹, prepared for the plan change application.

In order to understand the validity of high-rise development and peak flow estimations in New Zealand, RILEY has researched similar developments overseas. In particular, Sydney Water: Average Daily Water Use Flow Study Report, March 2013. This presents results from a water usage study for various uses. Based on the Sydney Water report and the increased level of development proposed for the site, we have estimated a peak dry weather flow of 28L/sec. This corresponds to an increase of 5L/sec. However, we expect the actual increase in wastewater discharge from the site to be somewhere between the two estimated peak flows presented above.

It is likely that some of the existing private and public wastewater drainage network on-site will be abandoned, with new drainage constructed under building consent and engineering plan approval applications.

Initial discussions have been undertaken between Smales Farm and WSL in October 2017, and again in May 2018, in respect to servicing the site for water and wastewater. Initial discussions with WSL were positive and they are currently working with Smales Farm to review the existing infrastructure, and identify any upgrade works that may be required to support the staged development over the next 30 years. Based on the size of the development and existing and planned public water and wastewater infrastructure surrounding the site, this detailed modelling would need to be undertaken internally by WSL.

### 3.4 Water Supply

The site has numerous connections to the public water supply network. Reticulation within the site is distributed via public 150mm-diameter lines.

The site is well serviced externally by public infrastructure:

- 200mm, 300mm, and 700mm-diameter within Taharco Road to the east of the site.
- 150mm, 310mm, 560mm, and 630mm-diameter within Northcote Road to the south of the site.

Detailed assessment of the capacity of the public infrastructure would be undertaken by WSL due to the scale of the development. Again, it is likely that some of the existing private and public water supply network will be abandoned, with new drainage constructed under building consent and engineering plan approval applications.

### 3.5 Utilities Services

The site is well serviced by various utilities consisting of; gas, power, and telecommunications. Due to the document size associated with these service maps, they have not been appended to this report.

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¹ Likely Economic Effects of a Proposed Private Plan Change for Smales Farm, Insight Economics, May 2018.
4.0 Summary

- The report provides a civil engineering assessment to support a private plan change application. The proposal is to incorporate a staged development approach over the next 30-years.

- Earthworks will be required to form the new site gradients, incorporating building platforms, access roads, and stormwater management measures. Earthworks consents for earthwork activities and strict compliance of erosion and sediment control measures, designed in accordance with Council GD01 guidelines, will be required. The staging and sequencing of earthworks activities, with the inclusion of specifically designed erosion and sediment control devices, will need to be assessed in order to reduce the volume of sediment leaving the site, thus, protecting downstream environments from excessive sedimentation and water quality degradation. Environmental, geotechnical, and stormwater management measures will need to be considered during detailed earthworks assessment.

- The site can be managed from a stormwater quality and quantity perspective to ensure the effect on the environment is less than minor. It may be necessary to increase the capacity of the existing stormwater pond(s) and stormwater quality treatment devices. The quality of the stormwater runoff discharged from the site will improve over time as the existing on-grade parking areas are replaced with buildings. The development will need to ensure that there is no effect on the 1 in 100-year flood level along the western boundary.

- Based on the size of the development, and existing and planned public water and wastewater infrastructure surrounding the site, detailed capacity and flow modelling is being undertaken by WSL.

- Notwithstanding this, based on the level of development currently provided for at Smailes Farm in the AUP-Op, the apparent capacity of the existing water supply and wastewater systems, and the expected staging of new development at Smailes Farm over the next 30-years, we do not expect there to be any major capacity issues for wastewater and water supply for the future development, enabled by the proposed plan change.

5.0 Limitation

This report has been prepared solely for the benefit of the Northcote RD 1 Holdings Limited as our client with respect to the brief and Auckland Council in processing the private plan change application. The reliance by other parties on the information or opinions contained in the report shall, without our prior review and agreement in writing, be at such parties’ sole risk.

Opinions and judgements expressed herein are based on our understanding and interpretation of current regulatory standards and should not be construed as legal or planning opinions. Where opinions or judgements are to be relied on they should be independently verified with appropriate advice.
APPENDIX A

Smales Farm Pond Locations
APPENDIX B

Stormwater Infrastructure and Overland Flowpaths (extracts from GIS)
Attachment H

Item 14
APPENDIX C

Water and Wastewater Infrastructure
(extracts from GIS)
Smales Farm TOD
Private Plan Change

Integrated Transportation Assessment

July 2018
Smales Farm TOD
Private Plan Change

Integrated Transportation Assessment
Quality Assurance Statement

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Executive Summary

This Integrated Transportation Assessment has been prepared by TDG, now Stantec, (Stantec) on behalf of Northcote RE1 Holdings Limited in support of a Private Plan Change application for the Smales Farm site in Takapuna.

The site’s Unitary Plan zoning has allowed Smales Farm to develop office activities, which are supported by smaller ancillary activities such as retail and cafes. The current rules allow the development of further office and supporting activities, and visitor accommodation and boarding houses.

The proposed Plan Change will enable the development of high-density residential activities within the site over the next 30 years, in addition to existing and planned office activities. This will allow the site to become both a trip generation origin and a destination, and will desirably provide for people to live, work and play at Smales Farm.

Smales Farm is ideally located with high levels of connectivity to a range of travel modes. The Smales Farm Bus Station, located immediately adjacent to the site, provides direct access to a range of rapid and high frequency bus routes, including the Northern Express. Future infrastructure schemes include further enhancements to bus services, the Northcote Safe Cycleway, the Skypath and Seapath projects; and the potential provision of a North Shore light rail service. This proximity to a range of transport modes, and rapid transit in particular, provides an ideal opportunity for Smales Farm to be uniquely developed as a Transit Oriented Development, a form of high-density development which capitalises on public transport availability and achieves the highest levels of land use-transportation integration.

Highly conservative traffic modelling has been undertaken for the future 2026 and 2036 scenarios, which have focused on determining how the travel demands of both the Smales Farm and North Shore Hospital sites can be accommodated in the future. Due to physical constraints of existing land uses, it is not feasible to continuously widen roads to provide additional capacity. This has therefore required considerations of how travel demand measures and sustainable travel modes associated with the Transit Oriented Development can work together to achieve a supportable and acceptable transport solution for the surrounding road network.

The proposed Plan Change at Smales Farm is highly supportive of mode shifts, primarily through its proximity to highly frequent public transport routes. The Auckland city centre has experienced similar mode shifts since 2001 due to limited available road capacity. The availability of public transport has resulted in significant increases in patronage for trips into the city centre, which could also occur at Smales Farm.

This Integrated Transport Assessment report concludes that the proposed Plan Change will enable a development form and scale for Smales Farm that appropriately responds to its location at the focal point of significant public transport and active transport connections. It will ultimately provide an exemplar for how Transit Oriented Developments can be successfully established to support growth in Auckland, in a manner that positively contributes to mutually supportive land use and transport infrastructure relationships.
1. **Introduction**

TDG, now Stantec, has been commissioned by Northcote Rd1 Holdings Limited to undertake an Integrated Transportation Assessment for a proposed Private Plan Change application (Plan Change) relating to the Smales Farm Business Park site (Smales Farm). The site comprises the properties 58 – 76 Taharoto Road and 78 – 94 Taharoto Road in Takapuna, (Site), and has a total area of 10.8 hectares.

The site currently contains office activities, which are supported by a mix of smaller activities including retail, banking, cafes and tavern.

The Business Park zoning of the site and its location within the Smales 1 Precinct under the Auckland Unitary Plan – Operative in Part (AUP-OIP) currently enables the development of further office and supporting activities, but only enables one form of residential activity being visitor accommodation and boarding houses. It is intended that the Plan Change will enable provisions to develop high-density residential activity within the site. A staging schedule as part of the Plan Change has been created to indicate the possible timing of development on the site over the next 30 years.

The connectivity of the site to the external transport network through its proximity to State Highway 1 (SH1) and the Smales Farm Bus Station, together facilitate the development of a Transit Oriented Development (TOD). This form of development promotes mode shifts away from single occupancy private vehicles through the accessibility of various transport modes and provides safety and congestion benefits.

The transportation issues that are central to this Plan Change proposal include:

- The existing accessibility of the site to the various modes of transport;
- The ability of the surrounding road network, including the future environment, to safely and efficiently support the development potential of the site that will be enabled by the Plan Change; and
- The ability of the proposal to meet key national, regional and local policies relating to the site accessibility and sustainability.

This report also addresses the effects of the proposed development in the future 2026 and 2036 scenarios. These scenarios also include development within the adjacent North Shore Hospital, as well as other expected developments in the area.

All of the above matters will be addressed in detail in this report. By way of a summary however, it is found that this proposed Plan Change provides a unique opportunity to achieve a form of development that is able to maximise the benefits associated with the high accessibility of the site to multiple transport modes, all in a manner that achieves a level of land use – transportation integration that is currently unprecedented in Auckland.
2. Existing Environment

2.1 Site Location

The subject site comprises the properties 78 – 94 and 68 – 76 Taharoto Road, Takapuna. Located in the northwest of the Takapuna area, the site is adjacent to the Northern Motorway section of State Highway 1 (SH1). The site currently has access to the external road network via Taharoto Road, Shakespeare Road and Northcote Road. The Avenue and The Boulevard are private roads which provide internal connectivity within the existing Smales Farm site.

Figure 1 shows an aerial of the Smales Farm site, while Figure 2 shows the site within the context of the wider road network.

Figure 1: Aerial Photograph of Site
A diverse range of activities are located within the vicinity of Smales Farm. The North Shore Hospital is located to the northeast of the site on the opposite side of Taharoto Road. Multiple schools are located within a 1km radius of the site, including Westlake Girls High School, Westlake Boys High School, Takapuna Normal Intermediate and Carmel College. Notably, Westlake Girls High School is located immediately northwest of the site and shares access from the southwest section of Shakespeare Road with the site and the Smales Farm Bus Station. Light industrial activity is located northwest of the site in Wairau Valley, while a host of retail activity can be accessed east of the site at the Shore City mall, Milford and Takapuna town centre. The A F Thomas Park is located on the opposite (western) side of SH1, which includes the Takapuna Golf Course. Residential activity is also located within the surrounding area. Accordingly, it is demonstrated that the site is well located to have convenient access to a wide mixture of activities.

2.2 Planning Context

The site is currently zoned as Business – Business Park Zone in the AUP-OIP. These zones are described as:

‘A location where office-type business activities can group together in a park or campus like environment. The zone enables moderate to intensive office activity and some ancillary services such as gymnasia, child care and food and beverage outlets.’
Smales Farm currently contains multiple office complexes which support a range of office and small retail activities, which meet the zoning description as outlined in the AUP-OIP.

The site is also located within the Smales 1 Precinct under the AUP-OIP. The objective of this precinct, as outlined by the AUP-OIP, is to provide:

“Ongoing development of the Smales Farm Technology Office Park as an employment node is enabled while managing significant adverse effects on the safe and efficient operation of the transport network, on the amenity of neighbouring zones, and on the function and amenity of the Business – Metropolitan Centre Zone and Business – Town Centre Zone.”

The AUP-OIP describes the Smales 1 Precinct as:

“The precinct permits a maximum gross floor area for activities, a maximum number of car parking spaces, and provides for some accessory activities to address demand from those employed on the site and visitors to the precinct.”

The rules of the precinct allow for development of office activities up to 162,000 sqm before becoming a discretionary activity.

Business development over 105,000 sqm requires significant effects on the safe and efficient operation of the transport to be mitigated. Accessory activities such as commercial services, food and beverage retail, and care centres are limited to those which meet the needs of Smales Farm employees and are based on the gross floor area of office activity.

2.3 Road Network

As previously noted, the site has three primary road frontages: Taharoto Road, Shakespeare Road and Northcote Road. The Smales Farm site has frontage lengths of approximately 380m, 195m, and 325m to these roads respectively.

The key transport links of the Smales Farm site with the external road network are outlined below.

2.3.1 Taharoto Road

Taharoto Road is classified as an arterial road under the AUP-OIP. Located from Shakespeare Road to Fred Thomas Drive, Taharoto Road provides Takapuna with links to Waiuku Valley and Forrest Hill in the north, and Devonport to the south. Access to SH1 from Taharoto Road is achieved via Northcote Road.

The Smales Farm site has direct access onto Taharoto Road through the signalised intersection with The Boulevard.
Along the Smales Farm site frontage, Taharoto Road accommodates a minimum of two northbound lanes and a minimum of three southbound lanes. The number of lanes increases up to five lanes on the approaches to its signalised intersections with Shakespeare Road, The Boulevard and Northcote Road, in both directions. The section of Taharoto Road from The Boulevard to Northcote Road is separated with a raised median. No stopping lines are painted across the full length of Taharoto Road to prevent on-street parking.

The posted speed limit of Taharoto Road is 50km/h.

Cycle lanes with a typical width of 1.7m are provided within the carriageway for the northbound and southbound directions. Cycle boxes are also located on the approaches to all signalised intersections along Taharoto Road, which enables cyclists to stop in front of vehicles at the intersections during red signal phases.

Taharoto Road provides footpaths on both sides. Pedestrians are able to safely cross the road at the signalised intersections during pedestrian phases.

Bus stops are located on both sides of Taharoto Road outside the Smales Farm site frontage and the North Shore Hospital, which are connected to the footpath network, which enable pedestrians to connect to bus services travelling on this road.

### 2.3.2 Shakespeare Road

Shakespeare Road can be split into two distinct sections—west of Taharoto Road and east of Taharoto Road. The western section is classified as a non-arterial road under the AUP-OIP, while the eastern section is classified as an arterial road under the AUP-OIP.

The western section of Shakespeare Road provides access to Smales Farm, the Smales Farm Bus Station, and Westlake Girls High School. Shakespeare Road terminates at the southwest end of this section with a ‘teardrop’ shaped raised island, which provides access to the aforementioned sites, and permits U-turns back onto Taharoto Road. This section of Shakespeare Road has one to two lanes in each direction.

Smales Farm connects to the western section of Shakespeare Road through The Avenue, and a single entry-only lane 35m southwest of the Shakespeare Road / Taharoto Road intersection.

The eastern section of Shakespeare Road connects Taharoto Road to Kitchener Road to the north, and provides access for the North Shore Hospital, Carmel College and residential activities. The southbound lane of this section includes a bus only / T2 transit lane to provide priority to buses servicing this road.

Shakespeare Road has a posted speed limit of 50km/h.

Cycle lanes are located within the carriageway of the eastern section of Shakespeare Road from Taharoto Road to the North Shore Hospital access road.
2.3.3 State Highway 1

SH1 provides the central arterial roading spine for Auckland by way of the Southern and Northern Motorways which together extend from Bombay Hills in the south to Puhoi in the north.

Within the vicinity of the site, SH1 (Northern Motorway) typically provides three lanes in each direction, which increases by the presence of on-ramps and off-ramps. The two directions of SH1 are separated by median barriers.

Smales Farm connects to SH1 via Northcote Road, and the Northcote Road Interchange which is located at the site's south-eastern boundary. The Northcote Road interchange is a standard full diamond interchange with signalised ramp intersections on either side of the interchange.

As with all other interchanges in Auckland, ramp signals operate on the on-ramps during periods of high mainline flows in order to control the rate of entries into the mainline. In the weekday morning peaks in particular, the ramp signals generate queues that extend back along Northcote Road, including across the subject site frontage.

SH1 has a posted speed limit of 100km/h for both directions.

2.3.4 Northcote Road

Northcote Road (west of Taharoto Road) is classified by the AUP-OIP as an arterial road

Northcote Road accommodates at least two traffic lanes in each direction. Across its full length, it has each direction separated with either a raised or flush median. On-street parking is prohibited with the presence of no-stopping lines.

As outlined previously, Northcote Road has on-ramps and off-ramps onto SH1, which are controlled with ramp metering. In order to ensure that traffic entering the Northern Motorway from the on ramp can be best accommodated without creating bottleneck congestion, the ramp signals manage the rate of flow onto the on-ramp. During morning peak times in particular, this typically results in queueing extending back from the SH1 on-ramps onto the adjoining road network.

Smales Farm connects to Northcote Road on its southwestern frontage via a signalised intersection with The Avenue. Right turn entry movements into The Avenue are not permitted, which means that vehicles can only enter The Avenue via the left-in slip lane. Vehicles are able to exit in both directions. However, right turns out from Smales Farm onto Northcote Road can be difficult during peak periods due to the queueing extending back from the SH1 on-ramp. The presence of a clear zone at this intersection restricts the queueing capacity, and therefore the ability of right turning exiting vehicles to join the queue. As a consequence of this constraint, right turns from The Avenue are not permitted during weekday morning peak periods between 06:00 and 09:00.

The posted speed limit of Northcote Road is 50km/h.
A cycle lane is located within the carriageway for the eastbound direction from The Avenue to Tāharato Road. This connects to the other cycle lanes on Tāharato Road. Footpaths are located on both sides of Northcote Road, and pedestrians are provided crossing opportunities at the signalised intersections with The Avenue and Tāharato Road.

2.3.5 The Avenue and The Boulevard

The Avenue and The Boulevard both provide internal connectivity for the site and are privately operated by Smales Farm. These internal local roads currently provide direct access to the parking spaces and business complexes within the site.

The Avenue runs from Shakespeare Road at its northern end to Northcote Road at its southern end. The Boulevard connects Tāharato Road to The Avenue. The two roads intersect at a roundabout controlled intersection.

The Avenue and The Boulevard typically provide one lane in each direction. The carriageway of The Avenue is divided with a raised median across the majority of its length. Angled on-street parking is provided along sections of both roads.

The speed limits of these internal roads are 30km/h.

Pedestrians are provided regular and safe opportunities to cross The Avenue and The Boulevard with dedicated pedestrian crossings frequently provided.

2.4 Traffic Volumes

Tube count surveys of the five arterial roads providing access to the Smales Farm site were commissioned by TDG for the full week 22 – 28 November 2017. The locations of the five tube counters are shown in Figure 3.

The results of the tube count surveys are summarised in Table 1. The average daily traffic for both directions at each site is presented in vehicles per day (vpd) for the average weekday and over the average of a full week. The table also summarises the weekday peak hour volumes for each road in vehicles per hour (vph), and the time (being the beginning of the peak hour) in which they occurred.
Figure 9: Tube Count Survey Locations, 22 – 28 November 2017
## Table 1: Traffic Volume, 22 – 28 November 2017

The traffic data shows that Northcote Road, Tataroto Road and Waiau Road all carry high volumes of traffic over a full day and during the peak hours, which is enabled with the provision of at least two lanes in each direction for these three roads. While Waiau Road and Shakespeare Road carry lower volumes than the other roads, they still have relatively high traffic volumes for a road configuration of one lane in each direction at the tube count location.
The peak hour for these roads most commonly occurs in the hours beginning at approximately 8:00am for the morning period and 4:30pm for the afternoon period, which predominantly aligns with daily commuting patterns.

The proximity of schools within the local area such as Westlake Girls High School, Westlake Boys High School and Carmel College influences the timing of the peak hours due to pick-up and drop-off trips for students. This is demonstrated by the offset peak times on Shakespeare Road in the afternoon.

Count data from the NZTA database was obtained for the section of SH1 within the Northcote interchange and for the south-facing ramps between 22 and 28 November 2017. This time period was selected to match the times when tube data was collected for the surrounding roads. Direct count data was not available for the north-facing ramps. Table 2 summarises the daily and peak hour traffic volumes for the motorway and the associated ramps.

<table>
<thead>
<tr>
<th>Road</th>
<th>Direction</th>
<th>Average Daily Traffic (vpd)</th>
<th>Weekday Peak Hour Traffic (vph)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Weekday</td>
<td>Full Week</td>
</tr>
<tr>
<td>SH1 Mainline</td>
<td>Northbound</td>
<td>69,956</td>
<td>58,547</td>
</tr>
<tr>
<td></td>
<td>Southbound</td>
<td>51,143</td>
<td>52,872</td>
</tr>
<tr>
<td>South Facing</td>
<td>On-Ramp</td>
<td>11,040</td>
<td>10,434</td>
</tr>
<tr>
<td>Ramps</td>
<td>Southbound</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Off-Ramp</td>
<td>8,748</td>
<td>8,173</td>
</tr>
<tr>
<td></td>
<td>Northbound</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2: Tube Count Traffic Volumes, 22 – 28 November 2017

The data demonstrates that the Northern Motorway carries very high traffic volumes over the full day and during the peak hours. Three traffic lanes are provided in both directions with the off-ramp being an exit only lane where the northbound mainline reduces from three down to three lanes. During the peak hours, the motorway becomes heavily congested which limits throughput. Therefore, the highest observed volumes occur on the shoulders of the peak when congestion is not as severe. The ramp metering also restricts throughput more during the peakiest times. It is also noted that in the evening peak, the Harbour Bridge has only three southbound lanes, which creates congestion that extends back to the Northcote Interchange and affects the traffic throughput volumes.

2.5 Road Safety

A search of NZTA's Crash Analysis System was undertaken for the five year period from 2013 to 2017, as well as all available crash records as at May 2018. The study area was divided into multiple zones to review all major intersections where the Smales Farm site connects to the surrounding road network.
The zones are outlined below and include the following road segments and their connecting intersections:

- Zone 1: 50m radius of The Avenue / Northcote Road intersection;
- Zone 2: 50m radius of Taharoto Road / The Boulevard intersection;
- Zone 3: 50m radius of Shakespeare Road / Taharoto Road intersection;
- Zone 4: 50m radius of Shakespeare Road / The Avenue intersection;
- Zone 5: Shakespeare Road between Taharoto Road and The Avenue (exclusive of Zone 4); and
- Zone 6: All crashes on the internal roads within Smales Farm including The Avenue and The Boulevard (exclusive of Zones 1 – 5).

A total of 94 crashes were recorded for this period with 14% (13 crashes) resulting in injury.

The crashes which resulted in an injury are summarised in Table 3 below.

<table>
<thead>
<tr>
<th>Search Zone</th>
<th>Number of Crashes by Injury Severity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fatal</td>
</tr>
<tr>
<td>1: The Avenue / Northcote Road Intersection</td>
<td>0</td>
</tr>
<tr>
<td>2: Taharoto Road / The Boulevard Intersection</td>
<td>0</td>
</tr>
<tr>
<td>3: Shakespeare Road / Taharoto Road Intersection</td>
<td>0</td>
</tr>
<tr>
<td>4: Shakespeare Road / The Avenue Intersection</td>
<td>0</td>
</tr>
<tr>
<td>5: Shakespeare Road / Taharoto Road Intersection</td>
<td>0</td>
</tr>
<tr>
<td>6: Smales Farm internal Roads</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 3: Crash History by Local Search Zone, 2013 – 2018

More detailed descriptions of the crashes within each zone are outlined below.

2.5.1 Intersection between The Avenue and Northcote Road

Six injury crashes occurred within the search area, all of which were minor injury crashes. All six crashes involved an eastbound vehicle failing to stop at a red traffic light signal at the intersection between The Avenue and Northcote Road, causing a collision with a vehicle turning right out from The Avenue into Northcote Road. All of these crashes occurred before July 2017.
Between June and November 2017, painted yellow hatched road markings were placed at the intersection by Auckland Transport to improve the safety record at this intersection. As well as trying to prevent blocking of the intersection, these markings aim to prevent the number of drivers travelling through red lights by making them more aware of the presence of the intersection.

As it is likely that these markings were installed after the most recently reported crash, further monitoring by Auckland Transport should be required before determining whether the markings have been effective in preventing these types of crashes.

2.5.2 Taharoa Road / The Boulevard Intersection

Three injury crashes occurred at this intersection, all of which are minor injury crashes. Summaries of these crashes are as follows:

- Vehicle 1 travelling on Taharoa Road hit the rear of vehicle 2 due to the vehicle 1 driver mistaking the accelerator for the brake.
- Driver of vehicle 1 lost control while turning from The Boulevard into Taharoa Road, causing a swerve into the adjacent lane and a subsequent collision with another vehicle.
- A driver unfamiliar with the vehicle being driven accelerated into a parked vehicle.

There does not appear to be any obvious or recurring crash patterns or inherent road safety defects at this intersection.

2.5.3 Shakespeare Road / Taharoa Road Intersection

Three injury crashes occurred at this intersection, two of which were serious crashes, and the remaining one being a minor injury crash. These crashes are summarised as follows:

- Driver of vehicle was evading enforcement and was chased by police at the time of collision. Driver drove onto incorrect side of Shakespeare Road and lost control, resulting in collision with traffic light pole.
- Driver of vehicle 1 failed to stop at a red traffic light signal, causing collision with vehicle 2.
- Driver of vehicle 1 failed to stop at a red traffic light signal, causing collision with vehicle 2. Alcohol test was either refused by the driver, or he/she tested above limit.

There does not appear to be any obvious or recurring crash patterns for this intersection.

2.5.4 Shakespeare Road / The Avenue Intersection

No injury crashes were recorded within the area for the selected five-year period.
2.5.5 **Shakespeare Road**

No crashes were recorded within the area for the selected five-year period.

2.5.6 **Internal Roads in Smales Farm**

One minor injury crash occurred at this intersection. The crash was caused by a vehicle exiting the roundabout between The Avenue and The Boulevard and then colliding with a cyclist crossing the pedestrian crossing.

2.5.7 **Road Safety Summary**

Overall a mixture of crash types has occurred which are considered typical of the site's road environment. One safety issue was identified where eastbound vehicles on Northcote Road were travelling through red lights at the intersection with The Avenue and colliding with right turning vehicles from The Avenue, which resulted in six minor injury crashes over the past five years. However, this issue appears to have been addressed by Auckland Transport with the installation of yellow hatched markings at the intersection. It is recommended that the crash history is monitored by Auckland Transport in the future to determine the effectiveness of the markings.

Otherwise, there do not appear to be any significant safety issues for the search area. The overall number of crashes is not considered an issue as the total traffic volumes are relatively high and the extents of the road safety assessment area relatively substantial. There is certainly no inherent road safety defect with the operation of the surrounding road network that would likely be influenced by, or have an influence on, the development potential that will be provided for by the Plan Change.
3. Existing Accessibility

3.1 Public Transport

3.1.1 Buses

Auckland Transport is scheduled to introduce a new public transport network for the North Shore in September 2018, which will result in substantial changes to existing bus routes within the North Shore area. The key principle behind implementing the new network was to increase its connectivity through the provision of higher frequency services to key connection points, which will enable fewer but more direct routes. As the new network will be introduced in the imminent future, the focus of this assessment is on the new network rather than the existing network.

Auckland Transport considers that there will be three key benefits of this new network:

- Simplicity: A simpler network will increase the attractiveness of public transport and make it an easier option to reach destinations.
- All day frequency: Providing higher frequencies that run over a full day will enable public transport users with greater choice when selecting to travel as they are not dependent on an infrequent and rigid timetable.
- Connectivity: A well connected network will provide greater choice and flexibility for patrons to access more destinations within the Auckland area than the previous network.

In the new network, Smales Farm is designated as an ‘Interchange’. With its role as an Interchange, Smales Farm will act as a key hub for the North Shore network where local and connector services can access higher frequency routes (frequent and busway services) to travel to a range of destinations within Auckland.

Table 4 below outlines all of the routes which alight at the Smales Farm Interchange within the new network and provides the frequencies of each route throughout weekday and weekend periods. A map of the new network at the Smales Farm Interchange is shown in Figure 4.
### Table 4: Smale Farm Interchange Bus Route Summary, New Network for North Shore, Auckland

<table>
<thead>
<tr>
<th>Route</th>
<th>Description</th>
<th>Service Type</th>
<th>Operational Periods</th>
<th>Weekday Frequency (minutes)</th>
<th>Weekend Frequency (minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Weekday</td>
<td>Weekend</td>
<td>All Day (7am to 7pm)</td>
</tr>
<tr>
<td>NX1</td>
<td>Albany to Britsmart</td>
<td>Busway</td>
<td>0530 – 2400</td>
<td>0530 – 2300</td>
<td>10</td>
</tr>
<tr>
<td>NX2</td>
<td>Albany to City Universities</td>
<td>Busway</td>
<td>0530 – 2300</td>
<td>0530 – 2200</td>
<td>10</td>
</tr>
<tr>
<td>NX3</td>
<td>Albany to Newmarket</td>
<td>Busway</td>
<td>0600 – 2100</td>
<td>n/a</td>
<td>30</td>
</tr>
<tr>
<td>N6</td>
<td>Massey University to Takapuna via Albany Stn and Browns Bay</td>
<td>Frequent</td>
<td>0530 – 2400</td>
<td>0530 – 2200</td>
<td>15</td>
</tr>
<tr>
<td>N21</td>
<td>Northcote Point to Smale Farm Stn via North Shore Hospital</td>
<td>Local</td>
<td>0630 – 1300</td>
<td>0630 – 1900</td>
<td>60</td>
</tr>
<tr>
<td>N25</td>
<td>Beach Haven to Takapuna, via Glenfield and Smale Farm Stn or Highbury and Northcote Shops</td>
<td>Connector</td>
<td>0630 – 2200</td>
<td>0630 – 2200</td>
<td>30</td>
</tr>
<tr>
<td>N32</td>
<td>Milford to Takapuna via North Shore Hospital</td>
<td>Local</td>
<td>0600 – 1300</td>
<td>0900 – 1700</td>
<td>60</td>
</tr>
<tr>
<td>N41</td>
<td>Albany Station to Takapuna via Beach Rd and North Shore Hospital</td>
<td>Connector</td>
<td>0600 – 2300</td>
<td>0630 – 1200</td>
<td>30</td>
</tr>
<tr>
<td>N43</td>
<td>Crows Hill to Smale Farm Stn to Takapuna via Forrest Hill Rd</td>
<td>Peak period</td>
<td>0600 – 1300</td>
<td>n/a</td>
<td>-</td>
</tr>
<tr>
<td>N42</td>
<td>Constellation Stn to Takapuna via Forrest Hill Rd</td>
<td>Connector</td>
<td>0600 – 2300</td>
<td>0630 – 1300</td>
<td>30</td>
</tr>
<tr>
<td>N49</td>
<td>Smale Farm Stn to Constellation Stn via Windy Ridge</td>
<td>Local</td>
<td>0630 – 2100</td>
<td>0630 – 1900</td>
<td>30</td>
</tr>
</tbody>
</table>
Figure 4: Smales Farm Interchange Network Map, New Network for North Shore, Auckland Transport

The Smales Farm Interchange has a high level of connectivity to the new public transport network for the North Shore, which is demonstrated by the 11 distinct bus routes it serves. Table 4 above shows that these routes provide patrons of Smales Farm with a wide variety of destinations within the North Shore and Central Auckland.

The Northern Express routes (NX 1 – 3) allow patrons to travel directly to Britomart, the central universities, and Newmarket, at high frequencies throughout the full week. Notably, the Northern Express service has a distinct advantage over private vehicles utilising SH1 as buses on this route exclusively utilise the northern busway, which enables congestion on SH1 to be bypassed. The Smales Farm Interchange also services frequent and peak period services, which operate at high frequencies. While commuters during peak periods are provided with a selection of high frequency routes, the frequency of the services outside weekday peak hours and during weekends remains high. This provides patrons with a high level of flexibility when travelling by bus.

The Smales Farm site is located immediately east of the Smales Farm interchange. Several footpaths connect the subject site and the interchange to enable pedestrians to readily walk between the two. Approximately 400m separates the interchange from the farthest point within the site from the interchange. This means that a pedestrian from any point within the site can walk to the interchange in a relatively short time of less than 5 – 6 minutes.

In summary, the Smales Farm site enjoys excellent connectivity to the new public transport network for the North Shore, which is scheduled to become operational in mid-2018. The short walking distance from the Smales Farm site to the Smales Farm interchange provides bus patrons with flexibility to reach a diverse selection of destinations within Auckland at high frequencies throughout a full seven-day week.
This incredibly close relationship of the Smales Farm site to the new high frequency bus hub with its wide-reaching network, in itself highlights the strategic value of providing the sort of intense mixed-use activities that are anticipated by the Plan Change. Not only does it enable growth to occur where the transport infrastructure can sustainably accommodate that growth, it also helps to ensure the viability and success of the considerable investments that have been, and are continuing to be made, on the bus network and its supporting infrastructure that will serve the wider region.

3.1.2 Rail

There are currently no trains in operation within the vicinity of the Smales Farm site, or in the wider North Shore area.

However, future light rail initiatives for the North Shore are being considered. These are discussed later in Section 4. It is noted in this regard that developments of the nature and scale as anticipated by the Plan Change will no doubt assist to ensure the viability of any such future scheme, and in this regard may assist in bringing a focus onto that travel mode.

3.2 Private Vehicles

The site has excellent access to the external road network via its proximity to SH1 and several arterial roads within the local area, as detailed in Section 2.3.

Private vehicles are can access the site from the network through several locations, as listed below:

- Taharoto Road / The Boulevard signalised intersection;
- Northcote Road / The Avenue signalised intersection, right-in turning movements restricted;
- Shakespeare Road / The Avenue intersection; and
- Shakespeare Road (35m southwest of Taharoto Road), entrance only

Once in the site, private vehicles are able to park within several different parking areas, (both existing and proposed).

Accordingly, private vehicles are provided with several options to reach a variety of destinations within the site and the local and wider road network.

3.3 Walking and Cycling

As described in Section 2.3, the local road network accommodates various cycle lanes. Auckland Transport has released cycling and walking maps of the North Shore area, which identifies existing cycle infrastructure and outlines the suitability of roads to accommodate cyclists. A map of the cycling infrastructure for the North Shore area is shown in Figure 5 with the site location indicated by the purple star.
Figure 5: North Shore Cycling Infrastructure

Route in blue are routes with existing cycling infrastructure. The route in green identifies the cycling route under construction along Northcote Road and Lake Road. The red route highlights the proposed route for the SkyPath and SeaPath path projects.

Table 5 below summarises the cycle infrastructure within the vicinity of Smales Farm.
## Table 5: Existing Cycle Infrastructure within Vicinity of Site

As can be seen from the table above, cyclists have a number of route options they can utilise when cycling in the local area. The shared paths / pedestrian links allow cyclists to travel along a route without sharing the road carriageway with vehicles, although some interaction with vehicles will occur where the paths discontinue at intersections.

It should be noted that there are currently no fully off-road cycle paths within the vicinity of the site or the wider North Shore area. This will be addressed in the short and medium-term future through committed cycle route projects, which are discussed in further detail in Section 4.2.

Pedestrian footpaths are provided on all major roads within the vicinity of the site. Regular crossing opportunities are provided for pedestrians along the nearby arterial roads at the various signalised intersections. This allows pedestrians from the Smoals Farm site to access a wide variety of activities within the local area, as outlined in Section 2.1. The North Shore Hospital is immediately opposite Smoals Farm; and the Shore City mall and the Takapuna town centre are approximately 1.6km walking distance from the site. The pedestrian facilities within the Smoals Farm site are also used as a through route for pedestrian to access the nearby Westlake Girls High School and Takapuna Normal Intermediate in both directions.
In summary, the site is currently well connected to the existing footpath and cycling networks within the local area, which enables people to visit the site through active travel modes.

3.4 Mode Share

3.4.1 Existing Smales Farm Mode Share

A community survey of employees working within Smales Farm was undertaken in 2016. The purpose of this survey was to determine travel patterns to Smales Farm, and how the employees generally perceive the area.

One question within the survey asked how the employee usually travels to Smales Farm. The results of this question are summarised below:

<table>
<thead>
<tr>
<th>Travel Mode</th>
<th>Number of Employee Responses</th>
<th>Percentage of Total Employee Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Car (Private)</td>
<td>411</td>
<td>63%</td>
</tr>
<tr>
<td>Bus</td>
<td>135</td>
<td>19%</td>
</tr>
<tr>
<td>Walk</td>
<td>54</td>
<td>8%</td>
</tr>
<tr>
<td>Car (Carpool)</td>
<td>31</td>
<td>4%</td>
</tr>
<tr>
<td>Motorcycle</td>
<td>15</td>
<td>2%</td>
</tr>
<tr>
<td>Other</td>
<td>2%</td>
<td>4%</td>
</tr>
<tr>
<td>Total</td>
<td>701</td>
<td>100%</td>
</tr>
</tbody>
</table>

*Table 6: Preferred Transport Mode of Smales Farm Employees (Community Survey 2016)*

The results of the survey show that almost two-thirds of employees currently use their own vehicle for travel. However, the number of employees arriving by bus is currently significant at 19%. A further 8% also arrive by walking. It is noted that there were 701 responses from the total of 593 employees who answered this question, which means that some employees listed more than one mode as their preferred mode of travel, i.e. that some employees make multi-modal trips, which could include driving to a park-and-ride facility via a private car, and then travelling to Smales Farm on a bus. Alternatively, some Smales Farm employees may switch between modes of transports for different days of the week.

The community survey also asked the employee which alternative transport option they would use other than their own private car. The responses to this question are outlined below:
<table>
<thead>
<tr>
<th>Travel Mode</th>
<th>Number of Employee Responses</th>
<th>Percentage of Total Employee Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bus</td>
<td>277</td>
<td>49%</td>
</tr>
<tr>
<td>Car (Carpool)</td>
<td>72</td>
<td>13%</td>
</tr>
<tr>
<td>Train</td>
<td>62</td>
<td>11%</td>
</tr>
<tr>
<td>Walk</td>
<td>46</td>
<td>8%</td>
</tr>
<tr>
<td>Cycle</td>
<td>42</td>
<td>7%</td>
</tr>
<tr>
<td>Other</td>
<td>64</td>
<td>11%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>563</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

**Table 7: Preferred Non-Private Car Transport Mode Alternative of Smales Farm Employees (Community Survey 2016)**

Transportation to Smales Farm by bus was clearly preferred by employees as the first alternative mode to private cars. The proximity of the Smales Farm Bus Station and the range of routes it services means that employees view this as a strong and viable alternative to private cars. The preference for other travel modes was evenly distributed, with carpooling viewed as the second-best alternative, followed by train. Although transportation to Smales Farm via train is not currently available, the proportion of employees listing this as their preferred travel mode to private cars shows that this would be a well utilised mode if available. Like the preferred mode of transport question, Smales Farm employees were given the opportunity to list multiple alternative transport modes for this question. As 435 employees answered this question, up to 128 employees have more than one preferred alternative travel mode to private cars.

### 3.4.2 Mode Share in Wider Auckland Context

In order to provide context to the existing mode share for employees travelling to Smales Farm, data was obtained from the 2013 Census. Richard Paling Consulting issued a report titled ‘Journey to Work Patterns in the Auckland Region’¹ (Paling Report) which provides an analysis of the Census data from 2001 – 2013. The report divided Auckland into five primary zones based on the extent of urban activity. A map of these zones is shown in **Figure 6**. According to these zones, Smales Farm is in an Inner Urban area.

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Figure 6: Auckland Sector Types, ‘Journey to Work Patterns in the Auckland Region,’ Richard Paling Consulting

The Paling Report provides mode share data of trips made to workplaces within the zones defined above in 2013. This allows a direct comparison with the Smales Farm employee mode share survey results. The mode share proportions of Smales Farm and the other Auckland sector types are shown in Figure 7 below. In order to align with the travel mode categories outlined in the Paling Report, travel to Smales Farm by motorcycle was classified as a private vehicle trip. Carpooling was grouped in the ‘other’ category as these employees would not be using their own vehicle. While the proportion of cyclists for Smales Farm is listed as 0%, there would have likely been some cyclists included in the ‘other’ category in Table 6. No Smales Farm employees would be working at home as the site has no existing residential components.
The mode share results above show that Smalea Farm has a noticeably lower proportion of private vehicle trips than Inner Urban Auckland areas, of which Smalea Farm is a part of. Smalea Farm also has a lower private vehicle trip proportion than workplaces within Other Central areas, which are located closer to the CBD. The proximity of the site to the Smalea Farm Bus Station means the mode share of bus is comparable to the CBD area, which has a high level of public transport accessibility. The proportion of travel to the site through walking or jogging is also similar to the CBD and Other Central areas. Overall, these results show that Smalea Farm compares very well with high density Auckland areas in terms of employees utilising non-private vehicle transport modes to their workplaces.

3.4.3 Auckland City Centre Mode Share Trends

The number of private vehicle trips into the Auckland city centre during the morning peak hour has remained relatively static over the period 2001 – 2016, as shown in Figure 8 below. However, the proportion of private vehicle trips has decreased as more people modify their travel behaviours, and in particular travel into the city centre via public transport. This is largely driven by the limited capacity of the road network to accommodate these trips during peak hours, and the inability to further increase roadway capacity.
The City Centre Masterplan 2012 confirms that by 2041, the mode share proportion of trips into Auckland’s city centre will be quite different from that now experienced. It is forecast that all new trips into Auckland’s city centre will be made via public transport, or active modes such as walking and cycling. Planned improvements to public transport and active mode infrastructure will help enable this future mode shift.

Figure 8: Mode Share of Morning Peak Hour Trips into Auckland City Centre, 2001-2041

These mode share trends being experienced by Auckland’s city centre are pertinent to Smale’s Farm and the proposed Plan Change, in that a similar response to accommodating future travel demands can be achieved.

Like Auckland’s city centre, the road network within the vicinity of Smale’s Farm currently operates with limited capacity, particularly during peak periods, and there is very limited scope for accommodating future travel demands simply by adding to existing road network capacity. As will be further discussed in Section 7.1, in terms of the assessment of development-enabling Plan Changes such as the one proposed at Smale’s Farm, this requires something of a paradigm shift away from “predict and provide”, to something that is in fact far more aligned with essentially all of Auckland’s transport policy and strategy documents, (each of which are addressed in detail in Chapter 9 of this report).

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This means that in the same way that Auckland’s city centre attempts to accommodate its travel demand growth by way of a combination of internalisation of travel through inclusion of intense residential development, coupled with the promotion of sustainable travel modes in favour of private vehicle travel, the successful development of this TOD at Smales Farm will rely upon the same principles. This is discussed further in Chapter 8 of this report which addresses the traffic modelling associated with the proposed Plan Change.

3.5 Summary

The Smales Farm site currently has excellent accessibility to a range of transportation modes. The proximity of SH1 and several arterial roads within the North Shore area mean that private vehicles are currently the preferred mode of transportation, as shown by the results in the 2016 community survey. While public transport is currently well used by Smales Farm employees, there is clearly potential for it to be utilised at a much higher level. The community survey confirmed that current users of private vehicles would strongly consider using bus services to travel to Smales Farm. The increased accessibility and the number of routes available from the Smales Farm Bus Station would clearly assist in this regard, as would the other sustainable transport measures that are anticipated.

Travel by active modes such as walking and cycling are also enabled within the local area surrounding the site. Results from the 2013 Census also show that Smales Farm has mode share proportions comparable to the Auckland city centre and other central high-density areas.
4. Future Transport Network

4.1 Rapid Transit

The latest version of the Auckland Transport Alignment Project (ATAP) released in April 2018 has identified rapid transit as a means of providing opportunities to provide higher levels of density for housing and urban developments. ATAPs package for rapid transit includes currently committed projects, new projects for the 10-year period 2018-2028, and future priorities beyond 2028.

The Northern Busway extension from Constellation Station to Albany is a committed project which will allow buses on the Northern Express routes between these two points to travel on a dedicated bus lane instead of on SH1, which experiences congestion during peak periods. This will reduce travel times and improve reliability for buses travelling along this route. This will benefit public transport users of Smales Farm who are travelling to/from Albany or other northern areas within the North Shore. The NZTA anticipates completion of this project by 2021/2022.

ATAP identifies the North Shore as a future priority to upgrade Auckland’s rapid transit network beyond 2028. While the Northern Busway will be upgraded with the Constellation Station to Albany extension, Auckland Transport has projected that future demands may warrant a higher capacity mode such as light rail.

The Waitemata Harbour Crossing project by the NZTA aims to provide an alternative means of travelling between the North Shore and the CBD to the current Auckland Harbour Bridge. The current concept provided by the NZTA is in the form of a tunnel, which could include the provision of rapid transit. ATAP identifies that any rapid transit system through the Waitemata Harbour would need to be integrated with the City to Airport light rail corridor, which is a new ATAP project for the 2018-2028 period.

As ATAP has identified that enhanced rapid transit in the form of light rail would likely replace the Northern Busway, Smales Farm residents and employees would have access to a higher capacity and potentially more frequent and reliable rapid transit service. ATAP also outlines rail from Akoranga to Takapuna as a future priority, which would further increase the site’s public transport connectivity.

4.2 Walking and Cycling

The Northcote Safe Cycle Route is currently under construction and is expected to be completed by mid to late 2018. The cycle route will provide a 5.2km connection from the Smales Farm site at Northcote Road to Northcote Point Ferry Terminal. For cyclists, the route is primarily undertaken on the form of a shared path, which reduces the number of interactions with private vehicles. While there are some on-road components for this route, it will improve the existing situation for cyclists as there is limited off-road cycle facilities in this area. Significantly for Smales Farm, the Northcote Road component of this route has off-road shared paths on both sides of the road.
Increased funding for walking and cycling has been provided in the latest ATAP which will enable further active mode infrastructure to be constructed in the 2018-2028 period.

The Skypath and Seapath projects have received funding in the latest ATAP package. The Skypath project provides a pedestrian and cycle connection from Northcote to the Westhaven in the CBD through an attachment to the Auckland Harbour Bridge. The Seapath project supplements this by providing a 3km walking and cycle path from the Northcote end of Skypath to Esmorde Road / Akoranga Drive. These projects will allow cyclists and pedestrians from the North Shore to travel to the city centre in a continuous off-road trip. This is not currently enabled with the current network as cyclists from the North Shore are required to take public transport through bus or ferry when travelling to the City Centre. The Northcote Safe Cycle Route will connect to both Skypath and Seapath at Northcote.

These projects will benefit future residents and employees of Smales Farm as the cycling connectivity to the wider network will greatly increase when completed.

### 4.3 Private Vehicles

The Northern Corridor improvement project by the NZTA will improve connectivity for private vehicles within the upper North Shore area. Part of the road improvements for this project is providing a new SH1 / SH18 interchange, which will allow motorists on SH1 to more readily access the Western Ring Route, which provides better access to West Auckland and an alternative route to the Airport via the Waterview Tunnel on SH16. This will provide users of private vehicles from Smales Farm with more route choices. The design of the interchange will also separate motorway traffic from local traffic, which aims to reduce congestion in the local area. Previous stages of this project have been completed, and it is expected that construction will have finished by mid-2021.

The previously mentioned Waitemata Harbour Crossing will provide private vehicles with an alternative link to the Auckland Harbour Bridge as a means to access Central Auckland from the North Shore. The current concept provided by the NZTA includes three lanes per tunnel direction, which includes potential provision for rapid transit on a different level. ATAP identifies the Waitemata Harbour Crossing as a future priority beyond 2028. ATAP also indicates that flexibility with its construction should be allowed to potentially deliver rapid transit and the roading tunnels at separate times. The Waitemata Harbour Crossing aims to improve the resilience of the roading network, which would increase route choices for private vehicles accessing Smales Farm from the State Highway network.
5. The Proposed Plan Change

5.1 The Development Concept

As previously noted, the proposed Plan Change will enable Smales Farm to transition from a business park to a TOD that includes business and residential components. The vision is to fully develop the site over a period of 20 to 30 years.

The proposed development staging of Smales Farm, as allowed for by the Plan Change, is summarised below in Table 3. It is proposed to develop the commercial activity up to the limit of 162,000sqm, as allowed for under the Smales 1 Precinct of the AUP-OIP. A similar level of development for residential activity is proposed, which gives an assumed total development yield of 500,000sqm by 2051.

<table>
<thead>
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<th>Year</th>
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<th>Residential GFA (sqm)</th>
<th>Residential (apartments, estimated)</th>
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<td>Cumulative Total</td>
<td>Per Five-Year Period</td>
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<td>-</td>
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</tbody>
</table>

Table 3: Proposed Smales Farm Plan Change Development Staging

It is estimated that the residential activity will consist of apartments with an average size of 100sqm per unit. Table 3 above outlines the potential number of apartments which could be constructed as part of this plan change. By 2051, it is estimated that 1,380 apartment units could be developed.

The Plan Change will enable this level of development, and mix of activities, principally by amending the provisions of the Smales 1 Precinct.

The proposed Smales 1 Precinct provisions include precinct plans, one of which is shown below in Figure 9. The Precinct Plan maintains the same vehicle access points as the existing site layout but places a greater emphasis on providing pedestrian linkages within the site. One of the key linkages is to the Smales Farm Bus Station, which will allow the high frequency public transport routes to be readily accessed. Central to these linkages is a pedestrian plaza in the centre of the site, which will prioritise pedestrian mobility. Vehicles may be directed around the perimeter of the site towards underground or above-ground parking, which would provide more space for active travel modes such as cycling and walking. This will also enable more space to be dedicated towards the proposed commercial and residential activities.
5.2 Transit Oriented Development

5.2.1 The TOD Concept

As noted, the Smales Farm proposed Plan Change has been based upon the principles of a TOD. A TOD is a type of community development which focuses on planning mixed-use and high-density development in close proximity to a major public transport station or corridor. In so doing, a TOD ultimately aims to create places where people can live, work and play, all within a walkable neighbourhood; where non-car transportation modes to, within and from the site are easily accessible and positively encouraged; and where public transport infrastructural investments can be supported by a large localised ridership base. This helps in reducing the overall dependency and reliance on private vehicles while also providing wider transportation benefits and enabling urban growth.

5.2.2 TOD Design Principles

From a transportation perspective, a well-designed TOD will consider the following principles:

5.2.2.1 Pedestrian Connectivity

Connectivity helps build more direct connections and shortens travel time, which effectively brings people closer to their destinations. Pedestrian-friendly design emphasises the importance in considering the user experience of pedestrians through the urban design process. This helps to encourage walking and cycling to local destinations and activities where possible. An effective TOD will include creating a safe, inviting and pleasant environment for pedestrians within the TOD street network. The Smales Farm Precinct Plan includes a central pedestrian plaza and several key pedestrian linkages which ensure that a high level of pedestrian connectivity within the site and to the external network is enabled.
5.2.2.2 Reliable and Frequent Public Transport

On longer journeys where walking and cycling is not possible, it is important that residents within TODs have reliable, high quality and frequent public transport options which allow them to travel to key destinations within the wider region. This helps reduce their reliance on private vehicles and allows for reduced parking needs within a development. It is also important that high frequency public transport services are provided outside the typical morning and evening peak periods as residents will require regular access to other activities throughout the day beyond commuting trips. The location of the Smales Farm development places it immediately adjacent to the Smales Farm Bus Station. The rapid, reliable and frequent bus routes & services, including the Northern Express, allow people within the site to be readily connected to a variety of destinations including the city centre.

5.2.2.3 Private Vehicles

The number of private vehicles serving a TOD will be comparatively lower than what would be typically expected from a similarly sized non-TOD. While TODs put a higher emphasis on public transport and active travel modes, private vehicles still form an important mode of transportation, especially in Auckland.

As per the process for a regular development, the design process must consider key vehicle user groups and their needs as part of the design process. This includes:

- drop-off and pick-up facilities near transit nodes;
- loading facilities to service shops, restaurants and ground floor activities; and
- provision of parking where necessary, especially for accessibility needs of disabled patrons.

The existing vehicle connections to the surrounding road network will be maintained as part of the Plan Change to ensure that the needs of private vehicles are still maintained.

5.2.2.4 Mixed-Use Activities

Mixed-use activities located within close proximity to each other ensure that TODs are liveable spaces where people are encouraged to walk to local activities within the development. A mix of residential and commercial also enables all day activity within a TOD which helps to increase public transport patronage outside of typical morning and evening peak periods. The proposed residential, retail and office activities proposed as part of the plan change will enable these mixed-use principles.

5.2.3 TOD Benefits

A wide range of benefits are provided for residents and other users of a TOD. Beyond economic, land use and environmental rewards, some of the main benefits from a transportation context include:
5.2.3.1 Reduced Congestion

As a result of reduced private car usage, roads within a TOD and within its near vicinity see major improvements in flow due to reduced congestion. People are more likely to travel by public transport or by active modes to their destinations. The proposed plan change will help to alleviate congestion within the local area as the development will encourage public transport use and active modes of travel locally.

5.2.3.2 Transportation Options

Improved housing density, proximity to activities and transport means that TODs present more affordable and attractive living options. This creates opportunities for a diverse range of transportation trips located within walking distance, a public transport journey, or a bicycle ride to a number of accessible destinations.

5.2.3.3 Safety Benefits

A reduced dependency on personal vehicles leads to reduced emissions and improved air quality in the environment. Additionally, TOD streets are typically much safer for pedestrians and results in a reduction in road casualties due to the high level of pedestrian connectivity required.
6. Future Accessibility

6.1 Public Transport Access

As demonstrated in Section 3.1, the site will have excellent connectivity to the bus network when the new network for the North Shore area becomes operational later in 2018. The Smales Farm Bus Station will become a key interchange in this new network, which will service 11 distinct routes to a variety of destinations within Auckland. The immediate proximity of the site to this interchange will enable regular public transport trips to be made.

The Northern Busway improvements will further improve the connectivity of the rapid transit Northern Express route to Albany in the short term. Beyond 2028, ATAP has identified that a rapid transit line from the city centre to Orewa is a priority. This would likely be achieved by upgrading the existing Northern Busway into the form of light rail and would be connected to the CBD through a crossing over the Waitemata Harbour. While the site will have very good public transport connectivity, light rail to the city centre would increase the capacity of the public transport network and further improve journey times and reliability.

The improved public transport network in the future will strongly promote mode shifts away from private vehicles towards public transport. This is a key component of the vision of the Smales Farm Plan Change in becoming a TOD.

6.2 Walking Access

The Smales Farm Precinct Plan as part of the Plan Change places a priority on pedestrian accessibility. A pedestrian plaza will be located in the centre of the site and will promote pedestrian mobility within the site.

The Precinct Plan also identifies several key pedestrian linkages to the external footpath network, which allow pedestrians to efficiently and safely access a variety of destinations. One of these pedestrian linkages is to the Smales Farm Bus Station, which will allow the public transport network to be readily accessed.

Finally, the Precinct Plan outlines the locations of pedestrian amenity frontages, which will aim to make walking at these locations pleasant, safe and convenient. Accordingly, pedestrians will be well connected with the Plan Change.

6.3 Private Vehicle Access and Parking

The Smales Farm Precinct Plan proposes that the same vehicle access points will be maintained for private and service vehicles. This includes the three existing major connections to each of Shakespeare Road, Taharoto Road and Northcote Road. The minor entry-only access on Shakespeare Road will also be maintained.
Much of the on-grade parking on the site is in the location of future building platforms. Overtime these areas will be developed, and the parking spaces lost will be replaced with underground basement or above-ground parking.

While private vehicles currently enjoy a high level of accessibility to the external road network through the site’s proximity to SH1, this will be further enhanced in the future with the ATAP package. Section 4.3 of this report outlines the proposed upgrades in ATAP, which includes the upgrade of the SH1 / SH18 interchange. This will provide more convenient access to the West Auckland area. The Waitemata Harbour Crossing project is also identified as a future priority in ATAP, which could provide private vehicles with an alternative route to access the Auckland CBD instead of the Auckland Harbour Bridge.

It should be noted that there is the potential for additional North Shore Hospital access points along Taharoto Road and/or its other frontages. This ITA does not provide details of these possible access arrangements as they are unconfirmed at this time. However, it is known that there are two most likely options, with one possibly involving a new connection to Taharoto Road at the existing signalised intersection with The Boulevard; while the other anticipates enhanced use of Shea Terrace using a one-way loop arrangement that incorporates Mary Poynton Crescent.

As far as this Proposed Plan Change is concerned, however, it will enable the existing high level of connection between Smale's Farm and its adjacent road frontages to be maintained into the future.

6.4 Cycling Access

Cycling infrastructure is currently available along several roads near Smale's Farm, which enable cycling trips within the local area to be made. However, there are currently no completely off-road cycle routes in the nearby area, nor any routes into central Auckland. This will be addressed with the Northcote Safe Cycle Route project, which is scheduled to be completed within the next couple of months. This will provide cyclists with a partially off-road cycle route to Northcote Point Ferry Terminal.

Furthermore, the Skypath and Seapath projects are scheduled to be completed within the next decade. These projects will provide a dedicated cycle and pedestrian path from Akoranga Drive / Esmende Road in Takapuna to Westhaven in central Auckland. Once in the city centre, cyclists have access to several dedicated cycle paths such as the Light Path, Grafton Gully Cycleway and the Northwestern Cycleway.

The site currently has cycling connections available to Akoranga Road / Esmende Road, which will ensure that cyclists travelling to or from Smale's Farm will have excellent connectivity to the wider cycling network. This will allow regular and safe trips to be made outside the local Takapuna area, and subsequently increase the cycling mode share.
6.5 Smart Transport

Recent developments within Smales Farm have increased the total number of employees to over 4,000, which has generated additional demand for parking spaces. In order to optimise the utilisation of the existing transportation infrastructure within the site and to encourage mode shifts to non-private vehicles, Smales Farm is in the process of developing a programme called ‘Smart Transport by Smales Farm.’

The programme will include a suite of initiatives aimed at modifying travel behaviours, reducing the number of single occupancy vehicles commuting to Smales Farm, and optimising parking utilisation. The proposed initiatives will ultimately include:

- **Active modes:** Users will be able to track their walking, jogging or cycle journeys. End of trip facilities will also be provided to encourage these trips.
- **Public transport:** Using data from Auckland Transport, public transport journeys can be tracked with Smales Farm employees with Hop Cards, and subsequently incentivised.
- **Motorcycles:** Smales Farm currently provides free motorcycle parking, which requires less space than parking for cars. The intention would be to capitalise on these benefits to make travel via motorcycle more attractive and incentivised.
- **Carpooling:** As Smales Farm employees are travelling to the same destination each morning, organised carpooling becomes a viable option.
- **Shared Vehicles:** It is understood that Smales Farm intends to provide a pool of vehicles for the use of employees while at work, thereby reducing reliance on private vehicles for travel to/from work.
- **Parking:** In order to optimise parking utilisation, shared parking arrangements will be encouraged.

Ultimately, this programme will assist Smales Farm to become a highly successful TOD, especially by encouraging sustainable travel behaviours.

6.6 Summary

The Smales Farm Precinct Plan and Plan Change include provisions for all modes of transport to ensure that it will become a successful and vibrant TOD. Of note is the site’s existing proximity to the Smales Farm Bus Station, which provides access to the frequent Northern Express routes and a variety of other routes. Access to rapid transit will be further enhanced in the future with light rail designated as a future priority under ATAP.

Active travel modes will be well served in the future due to scheduled projects such as the Northcote Safe Cycle Route, Skypath and Seapath. This will allow connections to areas beyond the North Shore, specifically the Auckland CBD. The Precinct Plan accommodates these active modes by prioritising connectivity within the site by providing key linkages and a central pedestrian plaza.
Private vehicles will continue to have a good level of accessibility with the site’s proximity to SH1 and major arterial roads in the North Shore area. The site will continue to provide the same access points as existing for private vehicles.

The programme of travel planning initiatives that are being developed by Smales Farm will further assist to realise their vision of becoming an exemplar Auckland TOD which is able to match its growth aspirations with sustainable travel practices, and to achieve a place where people desire to live, work and play.
7. Traffic Modelling Background

7.1 Overview

Smales Farm and Waitemata District Health Board (WDHB), as neighbours preparing to develop their respective sites, agreed to collaborate on traffic modelling in the vicinity of their sites. The traffic modelling methodology was developed between Flow (representing WDHB) and TDG (representing Smales Farm) and was presented to authorities prior to commencing.

Early discussions were initially undertaken at executive level, followed by discussions with technical specialists. The specialist discussions were carried out as follows:

- 26 October 2017 with Sarah Ho and Graham O’Connell of the New Zealand Transport Agency (NZTA); and
- 5 October 2017 with Theunis Van Shalkwyk, John Davies, Chris Morgan, Jilin Hong of Auckland Transport / Auckland Forecasting Centre (AFC).

It was decided that Flow would undertake the modelling exercise for both parties accounting for development proposed by both Smales Farm and North Shore Hospital, with TDG undertaking the peer review for both parties. AT, AFC and NZTA agreed that an independent peer review would not be necessary, and that the modelling methodology developed was appropriate. The AIMSUN microsimulation software package was used to assess the traffic effects of the proposed developments. The network layout was extracted from the Auckland Dynamic Traffic Assignment (ADTA) model which was built using the AIMSUN mesoscopic software package. Existing traffic demands on the network were obtained using traversals from the Macro Strategic Model (MSM) model which is a regional macroscopic model built using the EMME software package. These volumes were compared against surveyed volumes to ensure their suitability in reflecting the existing conditions.

As previously described in Section 3, the environment surrounding Smales Farm and North Shore Hospital is well developed, and the road network already operates with limited available capacity, especially during peak periods. There is also very limited opportunity to create new road capacity to accommodate future growth in traffic demands.

This therefore requires something of a paradigm shift away from more traditional methods of assessing future development potential, which typically involve “predict and provide” assessments, to something that is in fact far more aligned with Auckland’s transport policies which focuses on accommodating future growth demands in the most sustainable manner possible. This philosophy recognises that there may necessarily be a trade-off between the long-term development of a sustainable land use transportation relationship, against the shorter-term implications to private vehicle travel conditions.
In this regard it is noted that with or without any further development on Smales Farm beyond that already provided for by the Smales 1 Precinct, there will continue to be high, and growing demands for travel on the adjacent road network as the new residential growth areas that are occurring throughout the City, especially to the north, put more pressure on the Northern Motorway and its supporting arterial network, (particularly as residents travel to and from Auckland’s central employment areas).

This means that as Smales Farm is developed over the next 30 years to the extent provided for by the proposed Plan Change, it will be virtually impossible for it to mitigate against its own travel demands plus the future base travel demands that will have already saturated the road network.

Rather, the transportation assessments of this TOD need to consider the following broad concepts:

(i) The extent that travel behaviours become modified by the increasing difficulties associated with car travel, regardless of what happens on Smales Farm;

(ii) The extent that the nature of development on Smales Farm, and its support of the viability and success of public transport infrastructure, assists to enable and incentivise a broader travel mode shift by the wider community;

(iii) The extent that the mix of office, retail and supporting leisure activities on the site can either “internalise” trips, (e.g. people who do not need to travel off-site to get from, say, home to work, or work to gym); or integrate with neighbouring activities to “localise” non-car trips, (e.g. hospital to café, or home to school);

(iv) The extent that any external travel demands that are generated by activities on the site can be met by the immediately adjacent public transport hub, and/or other more sustainable travel modes; and

(v) The extent that intensive residential development proposed for this site might delay the need for residential development beyond the extent of existing urban areas, thereby delaying the introduction of the much less efficient travel implications associated with that more remote development.

These considerations then lead to an assessment of the extent that it would be possible to assume that travel behaviours on the surrounding road network have been, or could reasonably be, modified in the future to ensure sufficient road network capacity to accommodate both background traffic demands plus any external traffic demands due to Smales Farm. The modelling was undertaken on this basis.

Put simply, the modelling of this proposal utilised MSM demand models for 2026 and 2036, overlaid with the anticipated additional demands due both to Smales Farm and North Shore Hospital at those design years, then determined the extent of subsequent travel behaviour change that would be required to ensure that the performance of the road network remained no worse than would occur without the additional Smales Farm traffic at those design years.

For this final step, the criterion that was examined was the extent that through traffic would have to be “removed” from Taharoto Road and Northcote Road to enable Smales Farm traffic to be accommodated with no net change in network performance.
This removal of through trips assumes that either those trips have been diverted onto other routes (the motorway for example), or that the trips have been made at another time, or that the trips have been made by another mode. On a saturated network, motorists do not take long to adopt one or more of these measures, as evidenced by what is currently being experienced in central Auckland. The key however, is to determine if the number of trips that is assumed to be reduced (as determined from the models) is assessed to be reasonably practical. The modelling that has been undertaken seeks to answer this question.

7.2 Land Use

The MSM model is regional model of the entire Auckland area. It takes land use as an input to calculate the existing traffic volumes on the road network, as well as the estimated traffic demands in 2026 and 2036.

The zones in the MSM model are reasonably large and do not include individual sites. It is therefore not always possible to exactly determine the land use for individual sites.

Two MSM zones are considered to be directly related to the subject developments, one for Smales Farm (zone 122) and one for North Shore Hospital (zone 121). The zone for Smales Farm includes the full extent of the Smales Farm site and Westlake Girls High School. The zone for North Shore Hospital includes the full extent of the hospital, Carmel College, a retirement village, approximately 400 dwellings and some small scale medical offices and dairies.

The land use inputs are broken down into three categories: persons; households; and employment. Each of these categories is comprised of multiple classes to define the type of people living in the zone, the type of households in the zone, and the employment type. Education activities are included within the employment category.

It should be noted that the MSM land uses do not account for every proposed development and are an estimation of what may be developed in a zone. It is therefore not possible to exactly determine what land uses are assumed for the Smales Farm and Hospital precincts in the future modelled years.

Figure 10 below summarises the assumed land uses for the zone that includes the Smales Farm business park for 2016 (existing scenario), 2026 and 2036.
The Smales Farm zone has a high amount of employment driven primarily by the Smales Farm business park and the secondary school. A small amount of housing and population has been forecast for the 2026 and 2036 scenarios but not to the same extent as what is being proposed by this Plan Change.

On average, approximately eight office workers occupy 100sqm of office floor space (including area for hallways, meeting rooms, break rooms etc). Person density is typically higher in schools with approximately 30 people per 100sqm. However, schools utilise outdoor areas where students are able to learn and play outside the classroom. The increase to the employment shown in Figure 10 above is predominantly for office-based workers with a relatively minor increase (less than 100 persons) to the number of people in the education sector between 2016 and 2036.

The number of people employed in the Smales Farm zone has been forecast to increase by 2,607 between 2016 and 2036. This equates to an increase in office floor area of approximately 31,000 to 32,000sqm. This value is notably less than the amount of floor area proposed to be developed as part of the subject development.

Figure 11 below summarises the assumed land use inputs for the zone that includes the North Shore Hospital for 2016 (existing scenario), 2026 and 2036.
The North Shore Hospital zone also features a high amount of employment, again driven by the adjacent school and the high number of employees within the hospital. The total amount of employment within the zone has not been expected to increase significantly. The floor area of the hospital is proposed to double between 2016 and 2026. It is therefore likely that the number of employees will also approximately double.

This zone also features approximately 500 households which is not expected to increase noticeably over the next 20 years.

For both zones, the MSM model has assumed that there will be some level of additional development. Future do-minimum scenarios were included to provide a baseline to investigate what effects the proposed developments would have on the surrounding road network. The do-minimum scenarios did not increase the amount of traffic generated by the subject sites. Therefore, the comparison between these and the ‘with development’ scenarios will overestimate the effects of the proposed developments. The subsequent assessment is therefore considered to be conservative.

Overall, the MSM model understates the extent of development proposed at Smales Farm and the Hospital. The Smales Farm zone will experience an increase beyond what the MSM model has anticipated in both employment and household activity. The Hospital employment assumption is expected to increase more rapidly than currently assumed.
7.3 Traffic Surveys

TDG organised for traffic surveys to be undertaken throughout the Northcote area in November 2017. The data collected included the following:

- Intersection turning counts at:
  - Forrest Hill Road/Nile Road
  - Forrest Hill Road/Wairau Road
  - Shakespeare Road/Waterloo Road
  - Shakespeare Road/North Shore Hospital Access
  - Shakespeare Road/Taharoto Road/Wairau Road
  - Wairau Road/Westlake Girls High School
  - Taharoto Road/The Boulevard
  - Taharoto Road/Shea Avenue
  - Taharoto Road/Northcote
  - Northcote/The Avenue
  - SH1 Northbound Ramps/Northcote Road
  - SH1 Southbound Ramps/Northcote Road

- Week-long tube counts outlined in Section 2.4.

- SCATS loop volume counts to supplement the intersection turning counts at the above locations in addition to the following locations:
  - Wairau Road/Parana Road
  - Sunnybrae Road/Northcote Road/Akoranga Drive

- Automatic Number Plate Recognition (ANPR) cameras were used at the following locations to establish the origin-destination matrices for the model:
  - Forrest Hill Road north of Nile Road
  - Wairau Road west of Forrest Hill Road
  - Northcote Road north of Takapuna Cricket Club access
  - Northcote Road between SH1 Interchange and The Avenue
  - Taharoto Road south of Karaka Street
  - Mary Poynton Crescent between Shea Terrace and Northcote Road
  - Shea Terrace east of Taharoto Road
  - Northshore Hospital access east of Shakespeare Road
  - Shakespeare Road south of Alma Road
  - Westlake Girls High School access west of Wairau Road
  - Westlake Girls High School access west of Shakespeare Road
  - The Boulevard west of Taharoto Road

25 July 2018
The Avenue north of Northcote Road

Travel time surveys along the key routes identified below were extracted from the ANPR data:

- **Route 1** – Shakespeare Road south of Alma Road to Wairau Road west of Forrest Hill Road.
- **Route 2** – Taharoto Road south of Karaka Street to Northcote Road adjacent to Takapuna Cricket Club access.
- **Route 3** – Taharoto Road south of Karaka Street to Wairau Road west of Forrest Hill Road.
- **Route 4** – Shakespeare Road south of Alma Road to Taharoto Road south of Karaka Street.
- **Route 5** – Shakespeare Road south of Alma Road to Northcote Road west of The Avenue.

Traffic signal timings were extracted from the SCATS system.

Queue observations were reported at key intersections and along the Taharoto corridor.

The intersection survey locations and journey time routes are illustrated in Figure 12 below.
Attachment I

Figure 12: Survey Locations and Travel Time Routes
7.4 Trip Generation

Trip generation rates for the Smales Farm development were determined by TDG while trip generation rates for the North Shore Hospital were determined by Flow. While the calculation methodologies are slightly different for the two sites given the different on-site activities, both are considered to be suitable and appropriate methodologies for the activities that they address. The trip generation calculations for both sites are discussed below.

7.4.1 Smales Farm

Smales Farm currently comprises 58,000sqm of commercial area. For the purposes of the traffic modelling, it is proposed to expand this to 92,000sqm by 2026 and 125,000sqm by 2036. No residential units are currently provided within the Smales Farm precinct. Initially, it was assumed that 285 apartments could be developed within Smales Farm by 2026 and a total of 855 could be completed by 2036. This level of residential development was adopted for modelling the effects of the Smales Farm development on the wider road network.

The adopted apartment numbers for determining the number of trips generated by the site are higher than those outlined in Section 5. The values in Section 5 have been further refined based on additional information received by the applicant that considers other aspects of the development. The modelling process was well underway when the revised numbers were received and given that the level of development had decreased, it was decided to continue using the adopted trip generation rates. The traffic demands for the Smales site are therefore considered to be an over-estimate and the modelling is therefore conservative.

Trip rates for the existing office and commercial activity within the Smales Farm were determined using the November 2017 traffic counts. The Smales Farm Precinct includes an access off the Wairau Road/Shakespeare road intersection that is shared with Westlake Girls High School and the Smales Farm Bus Station. The surveys undertaken are not able to differentiate exactly between which trips were associated with Smales Farm or the school.

In the morning peak hour there are 446 trips inbound and 250 outbound using the Shakespeare access to Smales Farm, Westlake Girls High School and the bus station. It was assumed that the 260 outbound trips were drop-off’s related to the school or the bus station, given that most of the Smales related traffic is inbound at that time, leaving 186 inbound trips. Of these 186 trips, 50 were assumed to be related to the school (car park size of 100 spaces) and the remaining 136 were assigned to Smales Farm.

A similar method was used in the evening peak. A total of 133 inbound and 237 trips outbound were observed in the evening peak hour. The 133 inbound were considered to be pick-up’s related to the school and bus station. The evening peak hour occurs after school has formally finished (some staff and students may still be in attendance for extra-curricular activities such as sport) leaving 154 outbound trips. It was assumed that of these trips, 30 would be related to people leaving the school and the remaining 124 trips were allocated to the Smales Farm business park.
in the morning peak hour for the site, a total of 908 trips (inbound and outbound) were generated by the site and 715 in the evening peak hour. This equates to a generation rate of 1.57 trips per 100sqm in the morning peak hour and 1.24 trips per 100sqm in the evening peak hour. These rates were maintained for the future scenarios, which is a conservative assumption given that it is expected that reliance on private cars is expected to continually decrease.

Trip rates for the proposed residential units were derived from the New South Wales Road and Maritime Services’ Guide to Traffic Generation Developments (RMS Guide). The proposed residential activity is of a high density and located in an area that currently experiences high levels of traffic congestion, has excellent public transport connections and has nearby complementary activities in terms of employment zones and schools for future residents. Such conditions are similar to those in a city centre. It is therefore considered that the “High Density Residential Flat Building” located in a metropolitan regional centre is the activity that best represents the residential development in this location. The corresponding peak hour trip rate for this activity is 0.24 trips per unit. Again, this is potentially conservative given the location.

Table 9 below summarises the total number of trips expected to be generated by the Smalles Farm development:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Trip Rate</th>
<th>Existing</th>
<th>2026</th>
<th>2036</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AM Peak</td>
<td>PM Peak</td>
<td>AM Peak</td>
<td>PM Peak</td>
</tr>
<tr>
<td>Commercial</td>
<td>1.57 per 100sqm</td>
<td>1.24 per 100sqm</td>
<td>908</td>
<td>719</td>
</tr>
<tr>
<td>Residential</td>
<td>0.24 per unit</td>
<td>0.24 per unit</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>908</td>
<td>719</td>
</tr>
</tbody>
</table>

Table 9: Smalles Farm Trip Generation

The proposed residential activity is complementary to the commercial development in that people may both live and work within the Smalles precinct. The trips rates are considered to have accounted for the proximity of complementary land uses and no further reductions to trips rates have been applied. All trips generated will be external to the Smalles Farm precinct.

7.4.2 North Shore Hospital

The hospital currently comprises a total of 80,540sqm of floor area. It is proposed to expand this to 163,520sqm by 2026. No further expansion of the hospital is proposed between 2026 and 2036. It is understood that an increase in floor area of over 80,000sqm is ambitious and unlikely to be completed by 2025. This assumption is therefore considered very conservative when forecasting future development traffic and effects.
Total trip rates for the hospital were calculated from the survey data. This was to be 768 trips in the morning peak hour and 822 in the evening peak hour, rates of 0.95 per 100sqm and 1.02 for the respective peak hours. These rates were maintained for the future trip generation scenarios.

The North Shore Hospital 2016 Masterplan Preliminary Transport Assessment (June 2016) and available on request) prepared by Flow (Flow report) determined that 78% of the total trips generated in the peak hour by the hospital were associated with staff, while the remaining 22% were associated with visitors and other purposes. The Flow report also considered that 20% of trips could change travel mode from a single occupant vehicle to public or active transport modes. This reduction would be a result of constrained parking conditions and a congested network.

Table 10 below summarises the total number of trips expected to be generated by the hospital development by staff and visitors with the corresponding trip rate included in brackets.

<table>
<thead>
<tr>
<th>Trip Purpose</th>
<th>Existing Trips</th>
<th>Future Trips</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AM Peak</td>
<td>PM Peak</td>
</tr>
<tr>
<td>Staff</td>
<td>599</td>
<td>641</td>
</tr>
<tr>
<td>Visitor/Other</td>
<td>169</td>
<td>181</td>
</tr>
<tr>
<td>Total</td>
<td>768</td>
<td>822</td>
</tr>
</tbody>
</table>

Table 10: North Shore Hospital Trip Generation

As previously noted, it is considered that the proposed development schemes are ambitious and unlikely to achieve the levels of development within the timeframes specified. The number of trips actually generated in the 2026 and 2036 scenarios are therefore, likely to be significantly lower than those calculated above. The assessment of effects on the surrounding road network is therefore considered to be very conservative.

7.5 Trip Distribution

7.5.1 Smales Farm

The inbound/outbound distribution of trips for the commercial activities was based on observed movements. In the morning peak hour, 56% of trips were inbound and 34% outbound while 30% of trips were inbound in the evening peak and 70% outbound.

Distribution for the residential trips was based on the Institute of Transportation Engineers Trip Generation Manual which is an industry accepted document for determining the inbound/outbound distribution of future trips.
The activity which is considered to best represent the residential component of the development is the High Rise Apartment (L and Use 222). For the morning peak, 25% of trips are inbound and 75% outbound while 61% of trips are inbound in the evening peak and 39% are outbound.

7.5.2 North Shore Hospital

The inbound/outbound split for the hospital was also based on observed traffic movements. The split was assumed to be the same between staff and visitor movements. In the morning peak hour, 79% of trips were inbound and 21% outbound while 30% of trips were inbound in the evening peak and 70% outbound.

7.5.3 Total Trip Generations and Distributions

Table 11 below summarises the peak hour trip generation and distribution for the Smales Farm and North Shore Hospital developments.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Existing AM Peak</th>
<th>Existing PM Peak</th>
<th>2026 AM Peak</th>
<th>2026 PM Peak</th>
<th>2036 AM Peak</th>
<th>2036 PM Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>In</td>
<td>Out</td>
<td>In</td>
<td>Out</td>
<td>In</td>
<td>Out</td>
</tr>
<tr>
<td>Smales Commercial</td>
<td>503</td>
<td>305</td>
<td>215</td>
<td>564</td>
<td>957</td>
<td>483</td>
</tr>
<tr>
<td>Smales Residential</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>17</td>
<td>51</td>
</tr>
<tr>
<td>Hospital Staff</td>
<td>471</td>
<td>128</td>
<td>191</td>
<td>450</td>
<td>824</td>
<td>233</td>
</tr>
<tr>
<td>Hospital Visitors</td>
<td>133</td>
<td>36</td>
<td>54</td>
<td>127</td>
<td>232</td>
<td>63</td>
</tr>
<tr>
<td>Total</td>
<td>1,207</td>
<td>469</td>
<td>460</td>
<td>1,081</td>
<td>2,030</td>
<td>830</td>
</tr>
</tbody>
</table>

Table 11: Total Trip Generation and Distribution

The distribution of generated trips to the wider road network was based on the surveyed traffic volumes. In general, traffic could head north on Waitak Road, east on Shakespeare Road, south on Tarihoro Road, towards the motorway or west on Northcote Road. There is a small number of trips predicted to travel within the Smales Farm and Hospital precincts. These trips have been classified as internal trips.

Table 12 and Table 13 below summarise the directionality of trips leaving from and arriving to Smales Farm and the Hospital for the morning and evening peak respectively.
### Table 12: Distribution of Development Trips to Network — AM Peak

<table>
<thead>
<tr>
<th>Direction</th>
<th>From Smales</th>
<th>To Smales</th>
<th>From Hospital</th>
<th>To Hospital</th>
</tr>
</thead>
<tbody>
<tr>
<td>North</td>
<td>30%</td>
<td>28%</td>
<td>17%</td>
<td>39%</td>
</tr>
<tr>
<td>South</td>
<td>20%</td>
<td>6%</td>
<td>9%</td>
<td>13%</td>
</tr>
<tr>
<td>East</td>
<td>15%</td>
<td>18%</td>
<td>5%</td>
<td>19%</td>
</tr>
<tr>
<td>West</td>
<td>3%</td>
<td>9%</td>
<td>4%</td>
<td>11%</td>
</tr>
<tr>
<td>Motorway North</td>
<td>7%</td>
<td>9%</td>
<td>28%</td>
<td>2%</td>
</tr>
<tr>
<td>Motorway South</td>
<td>21%</td>
<td>30%</td>
<td>36%</td>
<td>14%</td>
</tr>
<tr>
<td>Internal</td>
<td>5%</td>
<td>0%</td>
<td>1%</td>
<td>2%</td>
</tr>
</tbody>
</table>

### Table 13: Distribution of Development Trips to Network — PM Peak

<table>
<thead>
<tr>
<th>Direction</th>
<th>From Smales</th>
<th>To Smales</th>
<th>From Hospital</th>
<th>To Hospital</th>
</tr>
</thead>
<tbody>
<tr>
<td>North</td>
<td>28%</td>
<td>35%</td>
<td>29%</td>
<td>44%</td>
</tr>
<tr>
<td>South</td>
<td>8%</td>
<td>13%</td>
<td>15%</td>
<td>20%</td>
</tr>
<tr>
<td>East</td>
<td>19%</td>
<td>11%</td>
<td>12%</td>
<td>8%</td>
</tr>
<tr>
<td>West</td>
<td>11%</td>
<td>26%</td>
<td>16%</td>
<td>5%</td>
</tr>
<tr>
<td>Motorway North</td>
<td>16%</td>
<td>8%</td>
<td>15%</td>
<td>0%</td>
</tr>
<tr>
<td>Motorway South</td>
<td>17%</td>
<td>5%</td>
<td>12%</td>
<td>21%</td>
</tr>
<tr>
<td>Internal</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>2%</td>
</tr>
</tbody>
</table>
8. Modelling

8.1 Modelling Methodology

As described above, Flow prepared a microsimulation model of the Northcote area to investigate the effects of the Smales Farm and North Shore Hospital expansions on the surrounding road network. TDG peer reviewed the models and undertook additional modelling work to assess the effects of the additional traffic demands.

The full modelling results are provided in Appendix A with a summary of results provided in section 8.7.

8.1.1 Model Extent

The network layout was taken as an excerpt from the ADTA model. Any inconsistencies in the layout were corrected. The area covered by the model is highlighted in blue in figure 13 below.
While the motorway mainline was included in the model with through traffic applied in both directions, it was not calibrated to include congestion and queuing as a result of other factors outside the model area. The motorway mainline has therefore been ignored in analysis. Motorway on-ramps are governed by ramp signals and therefore the mainline has no impact on the remainder of the model. The queuing on the on-ramp as result of congestion on the mainline has been taken into account through the adjustment of the signal timings. Modelled Time Periods.
The model includes four-hour peak periods that encompass the morning and evening peak hour as well as the peak periods for the subject sites and nearby schools. The time periods modelled are as follows:

- Morning peak from 6:00am to 10:00am with the background peak hour between 8:00am and 9:00am
- Evening peak from 2:00pm to 6:00pm with the background peak hour between 4:30pm and 5:30pm.

The modelled time periods were confirmed with both Auckland Transport and NZTA at the outset of the model development. The peak hours were derived from the traffic surveys throughout the area.

### 8.1.2 Model Demands

The base traffic volumes for the future 2026 and 2036 scenarios were derived from MSM model which includes scenarios in 10-year intervals from 2016. The future years 2026 and 2036 were selected to use in the AIMSUN modelling to provide some level of consistency between the observed traffic patterns and the future traffic patterns. It is noted that transport environment is always changing and that longer-term forecasts are less reliable than shorter terms forecasts.

The MSM model covers a two-hour period for both the morning and evening peak. To ensure consistency between the MSM model and four-hour AIMSUN model, the MSM volumes were scaled up using factors derived from the surveyed data. The differences between the years was then added to the existing volumes to create the base future traffic volumes.

Using an additive method for forecasting traffic volumes has resulted in some links experiencing significantly greater volumes when compared to the 2017 counts while some links experience a reduction or negligible increase. The MSM model does not have the same level of definition as the AIMSUN model and therefore may exaggerate demand increases on some routes that in reality would be shared between local streets. However, the key arterial routes are included in the MSM model and should provide a good measure for calculating the expected traffic demands on the key routes of Shakespeare Road, Wairau Road, Northcote Road and Taharoto Road.

The flow report provides the predicted traffic demand differences between each origin-destination pair through the centre of the modelled area. Table 34 below summarises the total background network demand (in vehicles) for the model across the four-hour period for the existing, 2026 and 2036 scenarios along with a % increase when compared to the base volumes. The additional demands relating to the developments at Smalles Farm and the hospital are not included in these values.
Table 14: Total Background Network Demand (veh)

Overall, the increase in background traffic volumes is very small. This could be attributed to the fact that the area is already congested with little capacity remaining to accommodate additional volumes.

The MSM model also includes anticipated infrastructure upgrades, including upgrades to public transport infrastructure, that would be operational by 2025 and 2035. These upgrades could attribute to the slight reduction in total trips through the Northcote area between 2025 and 2035 in the morning peak.

8.1.3 Demand Profiles

The traffic demands were divided into 30-minute periods and profiled across the four-hour periods based on the surveyed volumes. Profiles were kept consistent between the existing and future scenarios.

Profiles for the morning and evening peak hours are shown in Figure 14 and Figure 15 below.
Figure 15: Evening Peak Demand Profile

In the morning peak, the demand clearly rises and falls. The evening peak is much flatter and therefore vehicles within the model build quickly and do not flush out as quickly as in the evening peak.

8.1.4 Signal Timings

Signalised intersections within the network were modelled as fixed time intersections. Signal timings were based on the actual signal timings as recorded by SCATS. Control plans were developed for each 30 minute period. While this is an acceptable approach for the base period, intersections are able to change phasing in reality based on the demands. If demands change, then the phasing is able to adapt to accommodate the change in travel patterns. Fixed time intersections also do not include the ability to allow for diamond lead interchanges where variable phasing may be appropriate if one right turn volume is higher than the opposing right turn movement.

TDG updated signal timings for the future scenarios in order to cater for the change in traffic patterns and demands. This includes updates to the do-minimum scenarios where increases to some approaches are notable and other volumes have experienced a reduction.

The ramp signal timings were adjusted by Flow to match the observed throughput. This includes reducing the frequency of green signals if the queue from the motorway mainline extends back up the on-ramp. The ramp timings have not been changed for the future scenarios as in reality these are more dependent on the mainline conditions rather than the on-ramp demands.
8.1.5 Vehicle Types

Four vehicle classes are present in the model. One of these is a bus which is used for prescribed public transport routes only. The bus network is the same as that which was extracted from the ADTA model. No changes are understood to have been made to the public transport lines including the dwell time at bus stops.

The new North Shore bus network has not been included within the model for the future scenarios as it is possible that the bus network may change further in the years following its release. The change to the number buses and their route through the model area are not expected to have discernible difference on the modelling results. Public transport routes make no difference to traffic demands in this model.

The other three vehicle classes are normal cars, T2 cars and trucks. The number of cars and trucks was based on the surveyed traffic volumes and those extracted from the MSM model. The split between normal cars (one occupant) and T2 cars (two or more occupants) was based on the split of vehicles using the T2 lane on Shakespeare Road. This is considered to be appropriate as this is the only T2 lane in the model network and the only road that would be affected by T2 vehicles.

8.1.6 Warm-Up

The model does not include a warm-up period. Given that the model commences at least one hour before the peak hour, it is considered that adding a warm-up would have no discernible difference to the model outcomes.

8.2 Model Calibration

How calibrated the existing model based on the observed traffic volumes, travel times and queuing. In general, the parameters from the ADTA model were maintained through to the subject model. Through the calibration process, specific parameter changes were made to reflect localised behaviour. The changes made to the model are described below:

- Road type adjustments to reduce the ‘rat running’ effect (lower level in the hierarchy represents more attractive routes). The following sections were adjusted:
  - 5-Urban – Flush Median
  - Taharoto Road south to Northcote Road
  - Northcote Road between The Avenue and Taharoto Road
  - Wairau Road north to Westlake Girls High School
  - 6-Urban – Centre Line w Marked Shoulder, for locations of
    - Shakespeare Road north to Taharoto Road
    - Taharoto Road between Shakespeare Road and The Boulevard
    - Wairau Road between Shakespeare Road and Westlake Girls High School
  - Forest Hill Road

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Attachment I
- 8-Urban – No Median/Centre Line
- Nile Road
- Waterloo Road
- Quebec Road
- Corunna Road
- 9-Urban – Narrow Carriageway
- Belmont Terrace

- Gap acceptance parameters for the left turn movement from The Avenue onto Northcote Road.

- Acceleration factors and reaction times at traffic signals/stop lines. These parameters were adjusted to refine the queue discharge behaviour to better match observed behaviour.
  - Acceleration Factors:
    - Taharoto Road southbound north to Northcote Road
    - Taharoto Road northbound between the left slip lane entry and Northcote Road
    - Wairau Road southbound between the left slip lane entry and Shakespeare Road
    - Shakespeare Road southbound left slip lane
    - Northcote Road southbound between Taharoto Road and the southbound motorway on-ramp

- Reaction Times:
  - Northbound motorway on-ramp
  - Southbound motorway on-ramp
  - Taharoto Road southbound north to Northcote Road
  - Taharoto Road southbound left slip lane
  - Shakespeare Road southbound left slip lane
  - Northcote Road southbound between Taharoto Road and the southbound motorway on-ramp
  - The Boulevard northbound between the left slip entry and Taharoto Road

- Zone 1 and Zone 2 distances control when vehicles will change lanes in anticipation of an upcoming turn. These distances have been modified for the following turns:
  - Left turn from Northcote Road southbound to the southbound motorway on-ramp
  - Right turn from Taharoto Road southbound to Northcote Road southbound
  - Through southbound movement at the intersection of Taharoto Road and Northcote Road

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The full details of the calibration process are provided in the Flow report. A summary is provided in Table 15 below.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Sub-Criteria</th>
<th>Description</th>
<th>Criteria Satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>GEH Statistic</td>
<td>85% GEH less than 5</td>
<td>AM Peak: ✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td>90% GEH less than 7.5</td>
<td>PM Peak: ✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td>95% GEH less than 10</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Coefficient of</td>
<td>A minimum of 95%</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Determination (R²)</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Line of Best Fit</td>
<td>Y = 0.95x to 1.05x</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Percentage-Root-</td>
<td>Acceptable: &lt;35%</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Mean-Square Error (RMSE)</td>
<td>Requires clarification: 15-25%</td>
<td>✓</td>
</tr>
<tr>
<td>Turn flows</td>
<td>GEH Statistic</td>
<td>85% GEH less than 5</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td>90% GEH less than 7.5</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td>95% GEH less than 10</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Coefficient of</td>
<td>A minimum of 95%</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Determination (R²)</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Line of Best Fit</td>
<td>Y = 0.95x to 1.05x</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Percentage-Root-</td>
<td>Acceptable: &lt;35%</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Mean-Square Error (RMSE)</td>
<td>Requires clarification: 15-25%</td>
<td>✓</td>
</tr>
<tr>
<td>Journey times</td>
<td>Difference Comparison</td>
<td>90% or more of the modelled travel</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td>times should fall within 1.5% for</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 minute if 1 minute is greater than</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>15% of the travel time)</td>
<td>✓</td>
</tr>
</tbody>
</table>

Table 15: Modelling Criteria Summary

8.3 Future Road Network

8.3.1 Northcote Interchange

Flow identified through the 2026 modelling that the existing layout at the Northcote motorway interchange would struggle to cater for the increased traffic demands, in particular for the right turn to head north on SH1 during the evening peak period. Currently there are three lanes westbound on Northcote Road over the motorway with two lanes continuing to the western side of SH1 and one lane catering for right turning traffic heading north on SH1.
To mitigate the effects of increased traffic demands, not only from the proposed developments but also from the general increase to background traffic, the centre westbound lane on Northcote Road was altered into a shared through and right turn lane. This change increases the capacity and queuing storage area for the right turn movement at this location. Flow updated the signal timings on Taharoto Road, Wairau Road and Shakespeare Road to account for the change in road layout.

TDG observed that the road layout change affects the southbound motorway off-ramp where right turning traffic is held up by the queuing for the northbound on-ramp. This creates a stationary queue on the motorway mainline. TDG would therefore not recommend implementing this change in lane allocation and it is likely that NZTA would not support a change to the road layout that would result in queuing on the motorway mainline.

The proposed change results in an additional queue storage area of approximately 210m within the central westbound lane on Northcote Road. This is the equivalent of approximately 30 vehicles. TDG has noticed that the queue for the right turn extends beyond The Avenue only during the busier period (after 4pm) of the evening peak. This would be the only time of day that may benefit from the increased queuing storage. During this period the extent of queuing would increase by approximately 30 vehicles, which is not considered to be significant given that the queue at present already extends onto Taharoto Road.

Outside the busy evening peak times, the double right turn onto SH1 north would have no discernible effect on traffic operations. Notwithstanding this minor issue for the purposes of this assessment and ensuring consistency between the models prepared by Flow and the modifications applied by TDG, the layout change has been maintained.

### 8.3.2 Roundabouts

Two roundabouts are present within the model, one within the hospital grounds near the eastern access and one at the intersection between Killarney Street and Lake Pupuke Drive. TDG noticed that for some replications, the model would self-congest where vehicles would get stuck within the roundabout despite there being no downstream queue restricting vehicles exiting (although self-congestion would usually occur during congested times and fail to clear). To reduce this effect the circulating section of the roundabout within hospital grounds was expanded to allow vehicles more space to manoeuvre. The roundabout at the Killarney Street/Lake Pupuke Drive was widened to allow for two circulating lanes, one lane catering for circulating movements the other for exiting traffic. The roundabout was also expanded to increase circulating section lengths.

These changes are considered to be a work-around to software limitation rather than increasing the capacity of the intersection. For consistency, the changes were applied to all model scenarios.

The updated layout to the Killarney Street is included in Figure 16 below.
8.3.3 Hospital Access

Various access arrangements for the hospital site were explored to minimise the effect on the surrounding road network. These included either a new link to Taharoto Road at the existing signalised intersection with The Boulevard, or a one-way loop arrangement that utilises an enhance Shea Terrace access. Preliminary modelling established that the Shea Terrace option works better in terms of effects on the overall network and also from a pedestrian accessibility perspective. However, the hospital access is not the subject of this Plan Change and to date has yet to be discussed with the hospital in detail.

Accordingly, this report incorporates the ‘one-way loop’ Shea Terrace option which does not create any additional access points to the Hospital site on the Taharoto Road frontage. Rather, Mary Poynton Crescent is converted into a one-way, one-lane northbound route from Taharoto Road and converts Shea Terrace into a one-way, two-lane route between Mary Poynton Crescent and Taharoto Road, effectively creating a one-way anti-clockwise loop. The intersection between Shea Terrace and Taharoto Road would be upgraded into a signalised intersection with timings directly linked to the Taharoto Road/Northcote Road intersection. The intersection would allow right turn movements out of Shea Terrace but would not cater for any inbound movements given its one-way layout.

Figure 17 illustrates the one-way loop access arrangements for the hospital.
**8.4 Initial Model Observations**

The key model results are the travel times and virtual queues. Travel times have been measured along key routes through the model where the key routes match those surveyed. Virtual queues are created when vehicles are queuing outside the model and waiting to enter. Large virtual queues represent significant levels of congestion within the model network. The time vehicles spend waiting to enter the model is not counted as part of the travel time routes.

In general, it has been observed that virtual queues are apparent in every scenario modelled including the do-minimum models. Virtual queues in the evening peak particularly, increase significantly to over 1,000 vehicles by the end of the modelled period for the do-minimum scenarios with increases observed when additional development traffic is added. While this is considered to be excessive, it is consistent across the model scenarios and therefore a comparison in network layout can still be provided between different network layouts.
TDG modified the signal timings in order to reduce the virtual queuing observed in all scenarios. However, the network is still heavily congested, with the SH1 ramp meters in particular limiting the extent of throughput that is possible. It is therefore considered likely that the amount of through traffic passing through the Northcote area is likely to reduce as a result of the high congestion levels. People will either choose a route that avoids the Northcote area, change their time of travel, work from an alternative location (e.g. home), or change transport mode. Changing transport mode is considered to be a viable and attractive option given the new public transport network, the proximity of rapid transit, and the Skypath, Seapath and Northcote Safe Cycle Route walking and cycling paths to provide a connection for the active modes between the North Shore and the city.

8.5 Background Traffic Reductions

The Northcote and surrounding areas are currently heavily congested particularly in the peak periods. Given the nature of the surrounding urban environment, and with most intersections already being signalised, there is little opportunity to mitigate the traffic effects of the additional development-related traffic except through people either changing modes in their travel, using alternative routes, or travelling outside the peak times.

One consequence of congestion is to encourage commuters to use public transport. The ongoing improvements to the speed, efficiency, convenience and frequency of public transport services are demonstrating that increases in the uptake of public transport is occurring.

As previously noted in Section 7.1 above, modelling tests were undertaken to investigate how much change in base travel patterns would have to occur in response to the introduction of additional Smales Farm and North Shore Hospital development traffic. Comparisons were made between the 2026 and 2036 ‘do minimum’ scenarios (i.e. no additional development at either Smales Farm or North Shore Hospital), and the scenario with reduced through traffic volumes where the amount of traffic reduced was adjusted so that the amount of virtual queuing between the scenarios of the same year was similar.

It is emphasised that the do minimum scenarios do not include any additional development beyond what is on the site currently. The amount of traffic generated by North Shore Hospital and SmalesFarm sites in the future years is the equivalent to what was surveyed in 2017. These volumes are therefore less than what the MSM would have forecasted for the sites and is less than what is currently permitted at Smales Farm.

The criterion for scenario comparison adopted by Flow was that travel times on the key routes do not increase by more than five minutes. Given the amount of virtual queuing and already congested conditions, this criterion was considered insufficient. If a route is congested, the travel time will not increase any more than existing, but instead the extent of virtual queuing will continue to grow. Therefore, and for the purposes of the Smales Farm assessments, the extent of virtual queuing at the end of the model period was considered more appropriate to use as a measure for this model to ensure that the traffic throughput is consistent when reducing background traffic demands.
For the future scenario, not all background traffic was reduced. It was identified that the motorway ramp meters are the critical locations that limit the amount of through traffic that can be served by the network. Therefore, the number of non-development related trips turning left or right from Taharoto Road into Northcote Road have been reduced to reflect the change in travel behaviour. This predominantly comprises vehicles heading to the motorway but also includes those heading west along the full length of Northcote Road as these people are also directly affected by congestion around the motorway interchange.

A reduction of 25% for the turning traffic from Taharoto Road into Northcote Road was used for the future scenarios. For context, the 25% reduction on these turns represents approximately 7% - 9% of all traffic on Taharoto Road. For the 2036 AM scenarios, only the evening peak had background traffic volumes reduced. The calculations to background traffic volumes were made by Flow and adopted by TDG.

Table 16 below defines the number of trips that have been reduced in absolute terms. The values reported are number of vehicles reduced over the full 4-hour modelled period. The reduction of trips is profiled in the same manner as the overall demand profile for the respective modelled scenario.

<table>
<thead>
<tr>
<th>Percentage Reduction</th>
<th>AM Four Hour Period</th>
<th>PM Four Hour Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>25%</td>
<td>588</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>974</td>
<td>1,259</td>
</tr>
</tbody>
</table>

Table 16: Reduction to Background Traffic Demands (Vehicles Per Four Hour Period)

In the 2026 morning peak scenarios, the 25% reduction equates to only 588 vehicles over the four-hour period, an average of 147 vehicles per hour. In the 2026 evening peak scenarios, the 25% reduction equates to 974 vehicles over the four-hour period, an average of 244 vehicles per hour. Again, for context this equates to approximately 7% of all traffic using Taharoto Road. This quantum of trips that would need to be redistributed away from the network to enable a consistent network performance is considered realistic and achievable in the context of the total number of vehicles traveling in and around the area.

As noted previously, no reductions to background traffic volumes were made to the morning peak in the 2036 scenarios.

A reduction of 1,259 trips in the 2036 evening (four hour) peak period equates to an average reduction of 315 vehicles per hour. This volume of trips required to change travel behaviour is also considered to be achievable, given the expected improvements to alternative transport modes over the next 20 years, and represents approximately 9% of all traffic using Taharoto Road.

8.6 Modelled Scenarios

The list of scenarios tested, and the land use and background traffic for each scenario, is summarised in Table 17 as follows:
The do-minimum scenarios do not increase the amount of traffic using the Smales or Hospital precincts from the 2017 base scenario. The do-minimum scenarios therefore include less development than has been previously anticipated for these zones and is indeed less than what is permitted. The subsequent comparisons in Appendix A and Section 8.7 between the development scenarios and the do-minimum scenarios overestimate the reduction in through traffic required to be diverted in order to maintain a comparable network performance.

TDG has modified the signal timings of intersections within the network in order to improve network performance. This was undertaken for all scenarios to ensure that a fair comparison was being made between the scenarios. In the future, it is likely that the signal timings will adjust to different traffic patterns and demands and therefore it is considered that changing signal timings for the future case does not affect any of the other parameters.

When considering the results, the future models were compared to the do-minimum scenario for the respective year. No references are made between different years.

Each model scenario comprises ten replications, five for each time period. The results have been averaged and are reported in Appendix A and in Section 8.7 as follows.
8.7 Model Results

The key results extracted from the model were the travel times along key routes and the virtual queuing present at the end of the model. The journey times across the routes were averaged to provide an overall journey time through the model. The average was weighted based on the demand for each route. A direct comparison is made between the with-development scenarios and the do-minimum scenario for that particular year, with numbers in red representing an increase in travel times or queuing and green numbers representing a decrease.

Figure 18 identifies the key routes that were analysed. These routes match the surveyed routes identified in Figure 12.

![Figure 18: Modelled Routes Through Network](image-url)
The full modelling results for each scenario are provided in Appendix A. A summary of the travel time and virtual queue results are provided in Table 18 and Table 19 for the 2026 and 2036 scenarios respectively.

<table>
<thead>
<tr>
<th>Route</th>
<th>2026 Model Results</th>
<th>2036 Model Results</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AM Peak</td>
<td>PM Peak</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shakespeare to Waiwhetu</td>
<td>256</td>
<td>259</td>
</tr>
<tr>
<td>Waiwhetu to Shakespeare</td>
<td>183</td>
<td>208</td>
</tr>
<tr>
<td>Takanini to Northcote</td>
<td>261</td>
<td>317</td>
</tr>
<tr>
<td>Northcote to Taharoto</td>
<td>364</td>
<td>310</td>
</tr>
<tr>
<td>Taharoto to Waiwhetu</td>
<td>207</td>
<td>377</td>
</tr>
<tr>
<td>Waiwhetu to Taharoto</td>
<td>258</td>
<td>270</td>
</tr>
<tr>
<td>Shakespeare to Taharoto</td>
<td>237</td>
<td>285</td>
</tr>
<tr>
<td>Taharoto to Shakespeare</td>
<td>260</td>
<td>413</td>
</tr>
<tr>
<td>Shakespeare to Northcote</td>
<td>475</td>
<td>550</td>
</tr>
<tr>
<td>Northcote to Shakespeare</td>
<td>244</td>
<td>322</td>
</tr>
<tr>
<td>Average Journey Time</td>
<td>287</td>
<td>351</td>
</tr>
<tr>
<td>Virtual Queue (Vehicles)</td>
<td>9</td>
<td>1,223</td>
</tr>
</tbody>
</table>

Table 18: 2026 Model Results
<table>
<thead>
<tr>
<th>Route</th>
<th>AM Peak</th>
<th>PM Peak</th>
<th>AM Peak</th>
<th>PM Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shakespeare to Wairau</td>
<td>257</td>
<td>314</td>
<td>418</td>
<td>401</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>226</td>
<td>87</td>
</tr>
<tr>
<td>Wairau to Shakespeare</td>
<td>172</td>
<td>199</td>
<td>362</td>
<td>232</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>180</td>
<td>32</td>
</tr>
<tr>
<td>Tahreroto to Northcote</td>
<td>245</td>
<td>330</td>
<td>259</td>
<td>283</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>14</td>
<td>-348</td>
</tr>
<tr>
<td>Northcote to Tahreroto</td>
<td>289</td>
<td>361</td>
<td>150</td>
<td>258</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>-136</td>
<td>-193</td>
</tr>
<tr>
<td>Tahreroto to Wairau</td>
<td>273</td>
<td>402</td>
<td>442</td>
<td>438</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>169</td>
<td>36</td>
</tr>
<tr>
<td>Wairau to Tahreroto</td>
<td>242</td>
<td>259</td>
<td>409</td>
<td>239</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>257</td>
<td>-20</td>
</tr>
<tr>
<td>Shakespeare to Tahreroto</td>
<td>216</td>
<td>194</td>
<td>542</td>
<td>212</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>325</td>
<td>18</td>
</tr>
<tr>
<td>Tahreroto to Shakespeare</td>
<td>272</td>
<td>411</td>
<td>509</td>
<td>481</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>236</td>
<td>70</td>
</tr>
<tr>
<td>Shakespeare to Northcote</td>
<td>377</td>
<td>356</td>
<td>838</td>
<td>387</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>460</td>
<td>31</td>
</tr>
<tr>
<td>Northcote to Shakespeare</td>
<td>229</td>
<td>370</td>
<td>278</td>
<td>290</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>49</td>
<td>29</td>
</tr>
<tr>
<td>Average Journey Time</td>
<td>261</td>
<td>333</td>
<td>406</td>
<td>314</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>145</td>
<td>4</td>
</tr>
<tr>
<td>Virtual Queue (vehicles)</td>
<td>3</td>
<td>2.626</td>
<td>160</td>
<td>1872</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>157</td>
<td>-754</td>
</tr>
</tbody>
</table>

**Table 19: 2036 Model Results**

In general, it is considered that a 25% reduction to traffic demands from Tahreroto Road into Northcote Road is an appropriate approximation of trip reductions that would be necessary to mitigate the effects of the proposed developments for both the 2026 and 2036 scenarios.

It is emphasised that the do-minimum scenarios only include the 2017 levels of development within the Smalles Farm and North Shore Hospital sites. The change in base traffic patterns is therefore considered to be conservative.
8.8 **Effect Contributors**

The proposed Plan Change has been modelled alongside a proposed development of North Shore Hospital. The proposed hospital expansion doubles the current size of the facility by 2026 which is considered to be a very ambitious goal (that is unlikely to be realised) given the already large size of the hospital.

The modelling has analysed the combined effects of all of the proposed development within the Smales Farm and North Shore Hospital sites. No analysis has been undertaken of the individual components of each aspect of the development. This section breakdown the individual components of the development and highlights the likely relative impact of each land use.

The proposed developments can be categorised into three groups:

(i) Commercial development within Smales Farm.

(ii) Residential development within Smales Farm.

(iii) North Shore Hospital expansion.

At present, hospital activities within the North Shore Hospital site and commercial activities within Smales Farm are anticipated activities. Residential activities however are not currently permitted within either site, but will be enabled at Smales Farm by this Plan Change.

**Table 20** below summarises the proposed amount and proportion of traffic generated by each of the three activities in the peak hour (veh/h).

<table>
<thead>
<tr>
<th>Activity</th>
<th>2026 AM</th>
<th>2026 PM</th>
<th>2036 AM</th>
<th>2036 PM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smales Commercial</td>
<td>1,440 (50%)</td>
<td>1,140 (44%)</td>
<td>1,957 (36%)</td>
<td>1,550 (50%)</td>
</tr>
<tr>
<td>Smales Residential</td>
<td>68 (2%)</td>
<td>68 (3%)</td>
<td>205 (6%)</td>
<td>205 (7%)</td>
</tr>
<tr>
<td>Hospital</td>
<td>1,352 (47%)</td>
<td>1,376 (53%)</td>
<td>1,352 (38%)</td>
<td>1,376 (44%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2,860</td>
<td>2,584</td>
<td>3,514</td>
<td>3,131</td>
</tr>
</tbody>
</table>

**Table 20: Proportion of Trips Generated by Activity Type in the Peak Hour (veh/h)**

The table above clearly demonstrates that the residential activity has the smallest relative impact on the surrounding road network. This analysis in itself is conservative in that residential traffic in this area will be outbound in the morning and inbound in the evening, which is generally opposite to the predominant movements for the commercial and hospital activities, thereby further reducing the residential impact on the surrounding road network.
Smales Farm TOD, Private Plan Change
Integrated Transportation Assessment

The indiscernible effects from the residential activities are an important point when considered in a strategic sense. If the same number of household equivalents as anticipated in the Plan Change were to be developed in the current growth areas to the north of the city, then their cumulative impacts to this part of the road network would be considerably greater. This is especially the case given the comparative availabilities of alternative travel modes which are already at a high level at Smales Farm, but will be years from implementation at other future growth areas.

In summary, the core element of the proposed Plan Change is to enable the development of residential activity within the Smales Farm site. The proposed commercial activities are already enabled on the site up to a total of 105,000sqm before resource consent and associated additional traffic assessments are required, currently up to a maximum of 152,000sqm. As is demonstrated above, the residential component of the proposed development will have a minimal impact on the surrounding road network and it is considered that the effects of the commercial development can be sufficiently mitigated.
9. Integration with Transport Policy

The following section provides a review of established policy and plans in relation to the development enabled by the proposed plan change. The documents reviewed comprise:

(i) Government Policy Statement;
(ii) Auckland Plan;
(iii) Auckland Unitary Plan;
(iv) Integrated Transport Programme;
(v) Regional Land Transport Plan;
(vi) Regional Public Transport Plan; and
(vii) Auckland Transport Alignment Project

9.1 Government Policy Statement on Land Transport (GPS)

The Government Policy Statement on Land Transport sets out the Government’s desired outcomes and priorities for the land transport sector. It describes what the Government expects to achieve through the National Land Transport Fund and the manner in which funding is allocating to upgrade and maintain the land transport network.

A draft GPS was released by the Minister of Transport for public engagement on 14 March 2018. While the current draft GPS is not yet official Government policy, it is anticipated that the majority of the priorities and objectives outlined the draft will be adopted by the Government in the final GPS by 30 June 2018. The final GPS will provide strategic direction for a 10-year period until 2027/2028 to improve the performance of the land transport system.

The four strategic priorities of the draft GPS are safety, access, environment and value for money. The GPS summarises the objectives of these priorities as follows:

(i) Safety – is a safe system free of death and serious injury;
(ii) Access – provides increased access to economic and social opportunities, enables transport choice and is resilient;
(iii) Environment – reduces the adverse effects on the climate, local environment and public health; and
(iv) Value for money – delivers the right infrastructure and services to the right level at the best cost.
The draft GPS outlines three themes to assist with effectively delivering upon the strategic priorities. These themes for the draft GPS are described below:

(i) A mode neutral approach to transport planning and investment decisions;

(ii) Incorporating technology and innovation into the design and delivery of land transport investment; and

(iii) Integrating land use and transport planning and delivery.

The Proposed Plan Change will fully enable the site to become a TOD, which is highly compatible with the strategic priorities of the draft GPS. Providing higher density housing and employment within Smales Farm which is immediately adjacent to a rapid transit hub, will enable more people to have a greater level of access. This provides increased access to social economic opportunities, as outlined in the draft GPS. The ability of the proposed TOD development to capitalise on existing infrastructure such as the Northern Busway and the future infrastructure plans outlined in ATAP means that the Plan Change provides value for money, as minimal expenditure on further infrastructure upgrades is required. Other transportation modes such as walking, and cycling are also available, which provides people at Smales Farm with a variety of choices and subsequently increases resilience. These active modes increase safety by encouraging less travel through private vehicles. Health benefits are provided by travelling through these modes, which also reduces adverse effects on the local environment such as fuel emissions.

The Smales Farm Plan Change considers the requirements for all transportation modes, which aligns with the draft GPS theme of undertaking a mode-neutral approach to transport planning.

The synergy of the residential, retail and office activities enabled by the Plan Change also allows integrated land use both within the development and within the context of supplementary activities in the local North Shore area.

It is therefore demonstrated that the proposed Plan Change at Smales Farm integrates very well with the strategic priorities and the themes outlined in the draft GPS.

9.2 Auckland Plan

The Auckland Plan is Auckland Council’s 30-year strategy to create the world’s most liveable city. Initially produced in 2012, a new draft plan was released in February 2018. Since the original Plan was released, the Auckland Unitary Plan has been introduced and several significant infrastructure developments have been completed, including the completion of the Waterview Tunnel. The new draft Auckland Plan shows how Auckland will prepare for an expected population increase of 39% or up to 2.4 million people by 2043, and the key challenges Auckland faces in dealing with this population growth. Other key challenges identified are sharing prosperity with all Aucklanders and reducing environmental degradation.

25 July 2018
14381-7 ITA 180725 Final.docx
The draft Auckland Plan is comprised of six outcomes where significant progress is targeted, one of which addresses transport and access. The Auckland Plan summarises this outcome as “Aucklanders will be more easily able to get to where they want to go, and will have choices how they get around.”

The transport and access outcome outlines three directions:

(i) Create an integrated transport system connecting people, places, goods and services;

(ii) Increase genuine travel choices for a healthy, vibrant and equitable Auckland; and

(iii) Maximise safety and environmental protection.

The draft Plan also includes seven focus areas for the transport and access outcome:

(i) Make better use of existing transport networks, including a greater focus on influencing travel demand;

(ii) Target new transport investment to the most significant challenges;

(iii) Maximise the benefits from transport technology;

(iv) Make walking, cycling and public transport preferred choices for many more Aucklanders;

(v) Better integrate land use and transport decisions;

(vi) Move to a safe transport network, free from death and serious injury; and

(vii) Develop a sustainable and resilient transport system

Providing a high quality, residential, retail and employment space within the Smales Farm site within the proximity of rapid transit and complementary land activities allows an integrated transport system to be created, which allows people to be connected with places, goods and services. Employees and residents within Smales Farm will also have a wealth of travel choices available beyond private vehicles such as walking, cycling and public transport due to the connectivity of the site to the external network. This demonstrates that the Proposed Plan Change integrates well with the transport and access outcomes of the draft Auckland Plan.

### 9.3 Auckland Unitary Plan (AUP-OIP)

The Auckland Unitary Plan, which has been operative in part since November 2016, has the following objectives with regard to the regions transport infrastructure:

(i) Land use and all modes of transport are integrated in a manner that enables

   a. The benefits of an integrated transport network to be realised; and
   
   b. The adverse effects of traffic generation on the transport network to be managed;
(ii) An integrated public transport, walking and cycling network is provided for;

(iii) parking and loading is supported urban growth and the quality compact urban form;

(iv) The provision of safe and efficient parking, loading and access is commensurate with the character, scale and intensity of the zone;

(v) Pedestrian safety and amenity along public footpaths is priorities; and

(vi) Road / rail crossings operate safely with neighbouring land use and development.

Smales Farm is well located with respect to rapid transit via its close proximity to the Smales Farm Bus Station, and the external walking and cycling networks. This means that the site is already well integrated with these transportation modes. It is anticipated that future projects planned will further enhance the site’s integration with these various modes. This will ultimately provide the benefits of an integrated network by providing residents and employees with transportation choices, thereby reducing the effects of generated traffic by reducing the demand for private vehicle travel.

Parking will be provided at a rate appropriate to support the future activities within Smales Farm, while remaining sufficiently constrained to not undermine the benefits associated with having high levels of accessibility to non-car travel modes.

Pedestrian safety and amenity is well considered by providing dedicated pedestrian areas such as the central plaza, and by ensuring that several key linkages to the public footpath network and the Smales Farm Bus Station are provided.

In summary, the Smales Farm site is well located to a variety of transportation modes which means that the proposed Plan Change integrates well with both the objectives of the Unitary Plan and the existing and future transportation network.

### 9.4 Auckland Transport Alignment Project (ATAP)

Given the growth challenges that Auckland is facing, and the need for some big transport decisions to deal with this, the Government and Auckland Council have agreed on the need for a collaborative approach to improving alignment on a long-term strategic approach to transport in Auckland. Originally finalised in September 2016, a new edition of the Auckland Transport Alignment Project was released in April 2018 to provide a package to develop Auckland’s transport system over the next 30 years.

The direction of ATAP is based upon the latest draft GPS and the draft Auckland Plan. Compared to the previous edition of ATAP, a greater emphasis has been placed on public transport (including rapid transit), walking, cycling and safety. Ultimately, ATAP aims to provide Auckland with a transport system that provides safe, reliable and sustainable access.

It contains investment to be made in projects to assist growth over the next decade (2018 – 2028), while identifying future priorities beyond 2028. The projects identified in ATAP which affect the Plan Change include the following:
Rapid transit:
- Northern Busway Extension (Constellation Station to Albany) – 2018-2028; and
- North Shore (Orewa to City, including Takapuna connection, upgrade of the Northern Busway and new harbour crossing) – 2028 beyond.

Strategic and local road network:
- Northern Corridor Improvements – 2018-2028; and
- Additional Waitemata Harbour Crossing – 2028 beyond.

Walking, cycling and Local Board priorities:
- Skypath and Seapath – 2018-2028.

Further detail of these projects has been provided in Section 4 of this report.

The projects outlined in ATAP will greatly enhance the accessibility of Smales Farm to all modes. While private vehicles currently have a high level of access due to the proximity of SH1, the emphasis of rapid transit in ATAP will enable increased utilisation of public transport. In the short term, the Northern Busway will be extended from Constellation Station to Albany, increasing accessibility in the North Shore. This will improve further if the Northern Busway is upgraded to light rail, which could connect to the city centre through a new harbour crossing.

Accessibility for active modes will also be improved with the Skypath and Seapath projects over the next decade by providing Smales Farm with off road routes for cyclists and pedestrians to Auckland’s city centre.

The projects included within the ATAP package will further enhance Smales Farm’s ability to become a strong TOD, and will encourage mode shifts away from single occupancy private vehicles.

9.5 Regional Land Transport Plan (RLTP)

The Regional Land Transport Plan prepared by Auckland Transport with NZTA and Kiwirail, identifies the priority of a number of region wide transport projects over a 10-year period. The current RLTP was adopted in 2015 and covers the period 2015-2025. The RLTP is reviewed every three years, which means that it will be updated in 2018. The ATAP package released in April 2018 will provide direction for the new RLTP. Projects outlined in the existing RLTP are outlined in ATAP, as detailed in Section 9.4.

The 2015 edition of the RLTP outlines five strategic themes to deliver the transportation components, which include:

(i) Prioritise rapid, high frequency public transport;
(ii) Transform and elevate customer focus and experience;
(iii) Build network optimisation and resilience;
(iv) Ensure a sustainable funding model; and
(v) Develop creative, adaptive and innovative implementation.

The Plan Change integrates well with the RLTP by aligning with these strategic themes. The proximity of the site to high frequency public transport via the Northern Busway allows rapid transit to be prioritised as a transport mode.

Furthermore, the variety of feasible modes people can utilise to travel to Smales Farm allows network optimisation by providing a variety of alternative routes, which also enhances resilience and manages congestion.

9.6 Regional Public Transport Plan (RPTP)

The Auckland Regional Public Transport Plan seeks to deliver an improved public transport network in Auckland by increasing public transport frequency along key transport corridors and simplifying ticketing to improve user experience.

The vision of the RPTP is to deliver “An integrated, efficient and effective public transport network that offers a wider range of trips and valued by Aucklanders.”. To achieve this vision, Auckland’s public transport system needs to deliver:

(i) Services that align with future land use patterns;

(ii) Services that meet customer needs;

(iii) Increased passenger numbers;

(iv) Increased public transport mode share; and

(v) Improved value for money.

The Plan Change complements the vision of the RPTP. As the site is located next to the Smales Farm Bus Station, a range of bus services including the frequent Northern Express route can be readily accessed. The new public transport for the North Shore area will be implemented in mid-2018 which will further enhance the site’s public transport accessibility.

The frequent services that can be accessed by residents and employees align with the level of density that is proposed in the Plan Change, which allows the site to become a TOD. Convenient access will enable components of the RPTP’s vision to be achieved such as increasing public transport passenger numbers and mode share. Further additions to the public transport network, as outlined in ATAP, will allow public transport to become an even more attractive mode in the short, medium and long-term future.
9.7 Integrated Transport Programme (ITP)

Auckland’s 2012-2041 Integrated Transport Plan sets out the 30-year investment programme to meet the transport priorities outlined in the Auckland Plan across travel modes covering the responsibilities of all transport agencies. The ITP provides a consolidated transport investment programme across the transport system over the next 30 years. The programme covers footpaths, cycle facilities, public transport, state highways and local roads, intermodal transport facilities and supporting facilities such as parking and park-and-ride sites. In particular the ITP:

(i) Guides transport agencies in their detailed planning activities for maintaining, operating, renewing and developing their transport networks;

(ii) Directs transport asset management, corridor and network development, transport service levels and the transport capital portfolio for each of the 10-year periods to 2041, and

(iii) Informs the detailed programming of activities in the Regional Land Transport Plan (RLTP) which is a 10-year plan prioritising region wide transport projects currently for 2015-2025.

Projects identified in the ITP are largely addressed by ATAP, the RLTP and the RFTP, which are all detailed previously in this report. As it has been demonstrated that the Plan Change integrates well with these policies, it is considered that it also links well with the ITP.

9.8 Summary

It has been demonstrated that the future on-site activity that would be enabled by the Plan Change has excellent alignment with the various transport-related policy documents relevant to this proposal. As a TOD, Smales Farm is precisely the sort of development which the Auckland Plan, the GEP and the AUP-OIP all envisage with a high-density development maximising the use of rapid transit and active transportation modes. The proximity of the Smales Farm Bus Station ensures future residents and employees at the site would be well integrated with the high frequency public transport system.

Further, the nature, scale and location of the development potential that is anticipated by the Plan Change will positively influence the viability of and confidence in the public- and active-transport infrastructure investments that have already occurred and are planned in the area.

Other policy documents such as ATAP also outline funded and future priority projects which will further enhance the sites high level of accessibility to multiple transportation modes.
10. Discussion of Proposed Plan Change

The proposed Plan Change will specifically enable residential activity to be developed at the site, which is currently restricted with the current Business Park zoning and Smales 1 Precinct rules under the AUP-OIP. The addition of residential apartments, (potentially 1,380 units by 2051), and the proximity to rapid transit will together greatly support this unique opportunity of developing Smales Farm as Auckland’s first true TOD. This development as a TOD aligns perfectly with the type of land use and transportation integration that the various policy documents see as being essential to successfully realise Auckland’s growth intentions.

The site currently has excellent connectivity to a range of transport modes, particularly public transport through the Smales Farm Bus Station, and private vehicles through the proximity to SH1. A wide range of bus routes will continue to be available when the new public transport network for the North Shore is introduced in mid-2018. A key route is the Northern Express, which allows passengers from Smales Farm to rapidly access the city centre and Albany via the separated Northern Busway. The site’s connectivity to all modes will increase in the next ten years, with committed schemes such as upgrades to SH1 and the Northern Busway, and the Northcote Safe Cycleway, SkyPath and Seapath for cyclists. Beyond ten years, enhancements to the rapid transit system are likely through a potential upgrade of the Northern Express bus route to light rail. Collectively, these schemes will further reinforce Smales Farm’s ability to act as a multi-modal destination and origin. Conversely, the demands for travel that Smales Farm will generate, that are ideally focussed at a key confluence of travel modes, will provide significant support for these future investments.

While the road network within the vicinity of the site currently experiences high levels of congestion, which is expected to continue in the future 2026 and 2036 scenarios, a mode shift away from private vehicles is both necessary and feasible to enable the proposed level of development. Given the current levels of development in the local area, it is not practical to continuously widen the roads and intersections to provide additional capacity for private vehicles. As outlined in Section 3.4.3, the limited and reducing capacity of the road network has led to Aucklanders increasingly arriving to Auckland’s city centre via public transport since 2001. Improvements to the public transport infrastructure and services over this period have enabled and encouraged this growth in public transport patronage. By 2041, it is projected that the total number of private vehicle trips into the city centre will remain relatively constant, but the overall mode share of public transport and active modes will significantly increase. It is considered that Smales Farm is able to perform a similar mode shift due to the available accessibility of a range of transport modes, particularly the rapid Northern Express route.

The addition of residential activity will significantly change the nature of Smales Farm by allowing it to become a trip origin, as well as a destination. The proposed residential activity will complement the existing office activity as future residents would be able to live directly by their workplace. Becoming a major origin also allows Smales Farm to capitalise on the Northern Express route, which is primarily utilised in one direction during peak periods. Adding residential activity would allow the trips to be made in the non-peak direction, (for example from Smales Farm to Albany during the morning peak).
The proposed Smales Farm TOD provides the best opportunity to maximise density within the vicinity of the Smales Farm Bus Station. A walkable catchment of a 400m radius allows an average person to walk to a destination within five minutes before considering alternative transport modes. Smales Farm is almost fully within this 400m walkable catchment of the Smales Farm Bus Station, which allows employees and future residents to easily walk to access public transport. However, the majority of the 400m radius area of the Smales Bus Station is unable to be utilised due to the presence of SH1 and the AF Thomas Park Golf Course. This limits the potential number of walkable trips that can be made. Providing high density development within the 400m walkable catchment of the Smales Farm Bus Station therefore allows the potential number of walkable trips to be maximised. Ultimately, higher levels of density within a 400m walking catchment of the Smales Farm Bus Station will allow more trips to be made through public transport.

The location of Smales Farm allows the level of development enabled by the proposed Plan Change to efficiently integrate with the surrounding network far more effectively than if it was located in a different location, such as a greenfield site in one of the growth areas to the north of the City. Smales Farm’s location in Takapuna allows current employees and potential future residents to readily and conveniently access a wide range of supporting activities without having to make long trips in private vehicles. The close proximity to activities such as schools, retail and the North Shore Hospital means that people are able to easily walk or cycle to reach destinations within the local area. This level of convenience would not be possible if this level of development was provided at a greenfield site, where new supporting infrastructure and activities would likely need to be constructed. A greenfield location would most likely not have immediate access to rapid transit, which would increase the reliance on private vehicles. To access central urban locations, vehicles would effectively join the back of any queues, creating further congestion. Smales Farm’s unique location in a developed area and directly adjacent to rapid transit prevents these issues, as supporting land uses and public transit is readily accessible.

The modeling undertaken demonstrates that a reduction of 25% of trips turning from Taharoto Road into Northcote Road would be necessary to mitigate the effect of the expected development from the North Shore Hospital and the Smales Farm development enabled by this plan change. This represents an average of less than 250 vehicles per hour, which is considered easily achievable given the factors discussed in this section. The residential activities only contribute a very small amount of trips when compared to the commercial and hospital expansions and results in the reduction of less than 20 vehicles per hour. This is an important point when considered in a strategic sense as if the same number of dwellings were established on the fringe of the urban area, then their cumulative impacts would be considerably greater. This is especially the case given the comparative availabilities of alternative travel modes which are already at a high level at Smales Farm, but will be years from implementation at other future growth areas.

In summary, a mode shift away from private vehicles is required to accommodate the level of activity proposed in the Plan Change. Mode share trends in the Auckland city centre and the proximity of rapid transit through the Smales Farm Bus Station show that

Attachment I

Item 14

Smales Farm TOD, Private Plan Change
Integrated Transportation Assessment

This mode shift is achievable. The location of the site means that Smales Farm will provide a strong TOD. The walking catchment of the Smales Farm Bus station can also be developed to its full potential through this Plan Change, including enhancing walking routes to/from the North Shore Hospital, with its high employment.
11. Conclusion

This Integrated Transportation Assessment report has detailed the transportation implications of the proposed Plan Change for Smales.

The proposed Plan Change will enable the existing Smales Farm business park site to expand upon its existing office activities to include high density residential activities over the next 20 – 30 years. By capitalising on the site’s proximity to the Smales Farm Bus Station, the long-term vision of the site is to become a Transit Oriented Development which is able to take full advantage of the significant transportation hub that it abuts, in favour of reliance on single-occupancy private vehicle trips to travel to or from the site. Community surveys of Smales Farm employees show that the mode share of non-private vehicles is high compared to other workplaces in Auckland, and that employees are willing to further utilise public transport in the future.

It has been demonstrated in this report that the site currently has excellent connectivity to a wide range of transport modes. The short walking distance to the Smales Farm Bus Station enables immediate access to the rapid transit network through the Northern Express bus routes. A variety of other bus routes at this key transportation hub mean that many locations within the North Shore and Auckland can be accessed from the site through public transport.

Private vehicles also have a high level of access to the external road network with SH1 and various major arterial roads located closely to Smales Farm.

Good walking and cycling infrastructure also exists within the surrounding areas.

Future transportation projects as outlined in ATAP will further enhance Smales Farm’s excellent connectivity. Projects with committed funding such as Skypath and Seapath will enable cyclists from Smales Farm to access the Auckland CBD in a primarily off-road route. The Northern Busway will be upgraded in the future, enabling easier access to Albany. Future priorities have been identified in ATAP which could result in a second harbour crossing for private vehicles and rapid transit, and light rail in the North Shore.

A detailed analysis of current transport policy and strategy documents show that the proposed Plan Change anticipates a form of development for Smales Farm that aligns particularly well with the stated intentions for Auckland’s transportation future, particularly in terms of how land-use and transportation are to be integrated to best accommodate future growth demands.

Traffic modelling has been undertaken for the future 2026 and 2036 scenarios. The assumptions that have gone into the modelling methodology have been conservative, and if anything will overestimate the traffic effects of the proposed developments. In particular, the completion of the hospital, which is proposed to double in size, is unlikely to be completed by 2026.
The modelling demonstrates that in order to achieve traffic performances on the surrounding road network in 2026 and 2036 that are comparable to no development at all occurring on the Smales Farm or North Shore Hospital sites, there will need to be a reduction of less than 250 vehicles per hour turning from Tuharoa Road into Northcote Road. For context, this equates to 7-9% of total traffic volumes on Tuharoa Road. Of this, only a very small proportion of this is attributable to the proposed residential.

Trends in the Auckland city centre show that such reductions are achievable when the road network is congested, and when viable and frequent public transport is provided. This is also applicable to the commercial activities within Smales Farm.

Accordingly, it is considered that the Smales Farm site is an excellent candidate to support the future levels of activity enabled by the Plan Change proposal, and that the development can be efficiently integrated into the surrounding transportation network in a complementary and sustainable manner.
Smales Farm TOD, Private Plan Change
Integrated Transportation Assessment

Appendix A

Modelling Results

25 July 2018 14382-7 TTA 180725 Final.docx
1. **2026 Do-Minimum**

The 2026 scenario increases background traffic demands but no additional traffic is added to or from the Smales Farm or hospital centroids when compared to the 2017 surveyed demands. TDG has modified the signal timings to reduce the extent of virtual queues, and the results are provided in **Table 21**.

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<thead>
<tr>
<th>Route</th>
<th>AM Peak</th>
<th>PM Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shakespeare Rd to Wairau Rd</td>
<td>250</td>
<td>239</td>
</tr>
<tr>
<td>Wairau Rd to Shakespeare Rd</td>
<td>183</td>
<td>208</td>
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<tr>
<td>Takanore Rd to Northcote Rd</td>
<td>261</td>
<td>177</td>
</tr>
<tr>
<td>Northcote Rd to Takanore Rd</td>
<td>364</td>
<td>330</td>
</tr>
<tr>
<td>Takanore Rd to Wairau Rd</td>
<td>267</td>
<td>377</td>
</tr>
<tr>
<td>Wairau Rd to Takanore Rd</td>
<td>258</td>
<td>270</td>
</tr>
<tr>
<td>Shakespeare Rd to Takanore Rd</td>
<td>237</td>
<td>205</td>
</tr>
<tr>
<td>Takanore Rd to Shakespeare Rd</td>
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<tr>
<td>Shakespeare Rd to Northcote Rd</td>
<td>475</td>
<td>550</td>
</tr>
<tr>
<td>Northcote Rd to Shakespeare Rd</td>
<td>244</td>
<td>232</td>
</tr>
</tbody>
</table>

**Average Journey Time**

| Virtual Queue (vehicles) | 9        | 1,223   |

**Table 21: 2026 Do-Minimum Scenaria Model Results**

The 2026 do-minimum scenario has negligible queuing at the end of the morning period. There is still a significant queue of over 1,000 vehicles at the end of the evening peak period.
12. 2026 with Development

The with development scenario includes the trips generated by the expected completed development by 2026 as outlined in section 7. Details of the ‘one-way loop’ layout are detailed in section 8.3.3 and the modelling results are presented in Table 22 below.

<table>
<thead>
<tr>
<th>Route</th>
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</thead>
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<tr>
<td>Shakespeare Rd to Wairau Rd</td>
<td>828</td>
<td>317</td>
</tr>
<tr>
<td>Wairau Rd to Shakespeare Rd</td>
<td>513</td>
<td>328</td>
</tr>
<tr>
<td>Taharoto Rd to Northcote Rd</td>
<td>329</td>
<td>120</td>
</tr>
<tr>
<td>Northcote Rd to Taharoto Rd</td>
<td>360</td>
<td>146</td>
</tr>
<tr>
<td>Taharoto Rd to Wairau Rd</td>
<td>109</td>
<td>69</td>
</tr>
<tr>
<td>Wairau Rd to Taharoto Rd</td>
<td>167</td>
<td>341</td>
</tr>
<tr>
<td>Shakespeare Rd to Taharoto Rd</td>
<td>197</td>
<td>11</td>
</tr>
<tr>
<td>Taharoto Rd to Shakespeare Rd</td>
<td>444</td>
<td>581</td>
</tr>
<tr>
<td>Shakespeare Rd to Northcote Rd</td>
<td>477</td>
<td>204</td>
</tr>
<tr>
<td>Northcote Rd to Shakespeare Rd</td>
<td>579</td>
<td>354</td>
</tr>
<tr>
<td>Average Journey Time</td>
<td>948</td>
<td>265</td>
</tr>
<tr>
<td>Virtual Queue (vehicles)</td>
<td>711</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>501</td>
<td>359</td>
</tr>
<tr>
<td></td>
<td>241</td>
<td>127</td>
</tr>
<tr>
<td></td>
<td>451</td>
<td>113</td>
</tr>
<tr>
<td></td>
<td>240</td>
<td>127</td>
</tr>
<tr>
<td></td>
<td>209</td>
<td>115</td>
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<td></td>
<td>1775</td>
<td>4418</td>
</tr>
<tr>
<td></td>
<td>1766</td>
<td>3275</td>
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*Table 22: 2026 One-Way Loop Scenario Model Results*

Similar to adding the additional hospital access opposite The Boulevard, travel times and virtual queues notably increase. However, confirming that this is a viable access solution, overall increases are not as significant as providing an additional hospital access.
### 13. 2026 Development with a 25% Reduction

The 25% reduction to the movements from Taharoto Road into Northcote Road was applied to the one-way loop network layout. The demands are the same as those used in the scenario testing a 25% reduction to the network adding a fourth access to the hospital.

<table>
<thead>
<tr>
<th>Route</th>
<th>AM Peak</th>
<th>PM Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shakespeare Rd to Wairau Rd</td>
<td>484</td>
<td>323</td>
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<tr>
<td></td>
<td>228</td>
<td>64</td>
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<tr>
<td>Wairau Rd to Shakespeare Rd</td>
<td>350</td>
<td>121</td>
</tr>
<tr>
<td></td>
<td>197</td>
<td>13</td>
</tr>
<tr>
<td>Taharoto Rd to Northcote Rd</td>
<td>216</td>
<td>142</td>
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<tr>
<td></td>
<td>-45</td>
<td>-34</td>
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<tr>
<td>Northcote Rd to Taharoto Rd</td>
<td>144</td>
<td>383</td>
</tr>
<tr>
<td></td>
<td>-220</td>
<td>54</td>
</tr>
<tr>
<td>Taharoto Rd to Wairau Rd</td>
<td>338</td>
<td>351</td>
</tr>
<tr>
<td></td>
<td>71</td>
<td>-27</td>
</tr>
<tr>
<td>Wairau Rd to Taharoto Rd</td>
<td>462</td>
<td>137</td>
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<tr>
<td></td>
<td>204</td>
<td>-33</td>
</tr>
<tr>
<td>Shakespeare Rd to Taharoto Rd</td>
<td>590</td>
<td>190</td>
</tr>
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<td></td>
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<td></td>
<td>341</td>
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<td>275</td>
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<tr>
<td></td>
<td>23</td>
<td>43</td>
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<tr>
<td><strong>Average Journey Time</strong></td>
<td>369</td>
<td>314</td>
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<tr>
<td></td>
<td>82</td>
<td>-16</td>
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<tr>
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<td>1017</td>
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<td></td>
<td>31</td>
<td>-306</td>
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*Table 13: 2026 One-Way Loop with 25% Reduction Model Results*

The results for this scenario are overall very similar to the do-minimum scenario. The evening peak experiences travel time improvements for more routes and has a notable reduction to the extent of virtual queues at the end of the modelled period. This demonstrates that a 25% reduction to the Taharoto Road movements into Northcote Road is likely to be more than is necessary to offset the effects of the development with this hospital access configuration.
14. 2036 Do-Minimum

The 2036 scenario increases background traffic demands but no additional traffic is added to or from the Smale's Farm or hospital centroids. The results for the 2036 do-minimum scenario are presented in Table 24 below.

<table>
<thead>
<tr>
<th>Route</th>
<th>Travel Time (s)</th>
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<tbody>
<tr>
<td></td>
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<td>377</td>
</tr>
<tr>
<td>Northcote Rd to Shakespeare Rd</td>
<td>229</td>
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</table>

**Average Journey Time**

|                   | 261 | 338 |

**Table 24: 2036 Do-Minimum Scenario Model Results**

Similar to the 2026 scenario, there is negligible virtual queuing present at the end of the morning peak period. The evening peak has a large amount of virtual queuing with over 2,500 vehicles.
### 15. 2036 Development with a 25% Reduction

The 25% reduction to the movements from Taharoto Road into Northcote Road was applied to the one-way loop network layout. The demands are the same as those used in the scenario testing a 25% reduction to the network adding a new access to the hospital site.

<table>
<thead>
<tr>
<th>Route</th>
<th>AM Peak</th>
<th>PM Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shakespeare Rd to Wairau Rd</td>
<td>483</td>
<td>401</td>
</tr>
<tr>
<td></td>
<td>226</td>
<td>87</td>
</tr>
<tr>
<td>Wairau Rd to Shakespeare Rd</td>
<td>362</td>
<td>232</td>
</tr>
<tr>
<td></td>
<td>190</td>
<td>82</td>
</tr>
<tr>
<td>Taharoto Rd to Northcote Rd</td>
<td>259</td>
<td>283</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td>448</td>
</tr>
<tr>
<td>Northcote Rd to Taharoto Rd</td>
<td>150</td>
<td>258</td>
</tr>
<tr>
<td></td>
<td>-136</td>
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<td>442</td>
<td>438</td>
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<td></td>
<td>159</td>
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<td></td>
<td>49</td>
<td>29</td>
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<td><strong>Average Journey Time</strong></td>
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<tr>
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</tr>
<tr>
<td><strong>Virtual Queue (vehicles)</strong></td>
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<td>1872</td>
</tr>
<tr>
<td></td>
<td>157</td>
<td>754</td>
</tr>
</tbody>
</table>

*Table 25: 2036 One-Way Loop with 25% Reduction Model Results*

The modelling results for this scenario are reasonably consistent with the do-minimum scenario.
Smales Farm Proposed Plan Change
Urban Design Assessment of Proposed Plan Change Provisions
Prepared for Smales Farm
10 July 2018

Boffa Miskell
## Document Quality Assurance

**Bibliographic reference for citation:**

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<th>Stuart Houghton</th>
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<tr>
<td></td>
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<th>John Goodwin</th>
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8.0 Current Planned Future Form and Character of the Area  

9.0 Strategic Context for Change  
   - The Auckland Plan 2050  
   - Devonport-Takapuna Area Plan 2014  
   - Updated Government Policy Statement on Transport  
   - Auckland Transport Alignment Project (ATAP)  

10.0 Principles for Transit-Oriented Development  
   - The 6 ‘Ds’ of Transit Oriented Development  

11.0 Urban Design Considerations for Tall Buildings  

12.0 Desired Urban Design Outcomes  

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1.0 Executive Summary

1.1 This report provides a comprehensive urban design assessment of the proposed plan change to the Smales 1 precinct of the Auckland Unitary Plan. The purpose of the plan change is to enable a greater density and diversity of development activity at Smales Farm including residential apartment living. This will allow the existing business park to transition to a vibrant mixed use development node that supports the existing investment made in mass rapid transit at the adjoining Northern Busway station. Such an outcome will help realise the new vision for the future of Smales Farm approved by the Smales Farm board in 2016, which seeks to become "a vibrant people-focused place, to evolve beyond a single focus on being a great place to work to an all-encompassing mixed use community where people work, live and play".

1.2 Such a step change in the development of Smales Farm is consistent with the quality compact urban form approach to managing urban growth set out in the Regional Policy Statement. Smales Farm is part of the identified growth areas suitable for more intensive development under the Devonport-Takapuna local board area plan from 2014 and recently refreshed Auckland Plan 2050. In relation to the Auckland Plan, Smales Farm is strategically located on the busway between the City Centre and Albany development node with strong links to the identified development areas of Takapuna and Northcote to the east and west. Smales Farm exhibits many of the characteristics the Auckland Plan sets out for identified development areas, including being well suited for significant development with access to employment and centres, being within walking distance of the strategic public transport network, having existing infrastructure capacity and market feasibility.

1.3 While a definite change in scale and intensity from the existing environment and current planned future form and character of the area, the Smales Farm site and context has many characteristics that from an urban design perspective make it highly suited to becoming a dense, vertically oriented and mixed use development node within the immediate walking catchment of the busway station.

1.4 This urban design assessment has undertaken a detailed evaluation of the proposed plan change provisions and likely urban design and development outcomes that would result from them, as they ascertain to identified urban design issues and opportunities associated with a dense mixed use concentration of tall buildings. These matters canvas the range of urban design issues presented by the planned change in scale and activity mix sought by the plan change, that seeks to provide for tall buildings up to 75-100m height while ensuring a walkable urban environment of high design quality and amenity results both for people within the precinct and in relation to surrounding streets, neighbouring areas and wider urban context.

1.5 A summary of conclusions reached in relation to each of the key urban design matters assessed in this report are set out below. Overall, it is considered that the proposed plan change provisions are appropriate from an urban design perspective in enabling a dense, vibrant mixed use development node to emerge at Smales Farm in time while providing for a high degree of amenity and managing the potential for adverse effects both within the precinct and in relation to surrounding streets, public realm and neighbouring zones as well as the contribution future high rise development will make to the wider city skyline and built character.
Mix and Intensity of Uses

1.6 The site is well suited to rezoning that supports a greater intensity and mix of uses than that currently provided for under the Business Park Zone.

1.7 Key site and context attributes that support more intensive use including residential development include: the precincts’ accessibility as a highly connected multi-modal transport node, its location along a mixed use corridor of Taharoto Road, the high degree of separation from surrounding smaller scale residential areas, the size of the site, its remaining development capacity and adaptability of existing site development, the existing retail, service businesses and amenities including landscape amenity that can cater to needs of future residents as well as workers and visitors to the site, and the high levels of visual amenity including the opportunity for expansive coastal and city views from taller multi-storey apartment buildings.

1.8 The proposed plan change provides for a genuine mix of activities with a good balance between commercial activity – capped at the existing GFA limit of 162,000m² – and residential activity. By continuing the proportionate allocation of floor space for supporting retail and commercial services activities as new office and apartment buildings are developed, the plan change appropriately allows for the ongoing growth and diversification of these supporting activities that meet the growing needs of residents, workers and visitors to the precinct and play an important role in achieving the desired vitality and pedestrian-oriented development patterns at ground level.

Providing for Tall Buildings

1.0 Smales Farm is considered an ideal location to provide for tall buildings from an urban design perspective for the same site and contextual factors that mean it can readily support a greater intensity and mix of activities than currently provided for.

1.10 A height strategy has been adopted that appropriately concentrates the taller building heights of 75–100m in the central and western parts of the site beside the motorway corridor, and transitioning down in height to the established scale of approximately 27m around the site perimeter with Northcote, Taharoto and Shakespeare Roads where the precinct adjoins lower height mixed use and residential areas.

1.11 The range of building development standards and assessment criteria proposed suitably address matters of on-site and off-site amenity and potential for adverse environmental effects including visual amenity, dominance, privacy, wind, and shading effects.

1.12 Such an approach is consistent with that adopted by the Unitary Plan in other zones such as the Metropolitan Centre that enable and guide development of a comparable height and scale to that sought for the Smales Farm precinct.

Ensuring Built Form Quality

1.13 The plan change has recognised the need to ensure the design quality of buildings is maintained as the height and intensity of development at Smales Farm is increased. The proposed plan change maintains the approach taken by the Unitary Plan in comparable business and centre zones through identifying the design of all new buildings and external additions and alterations as restricted discretionary activities (other than small changes to existing buildings provided for as permitted activities).
1.14 The assessment criteria proposed provide an appropriately broad scope to consider a wide range of design quality issues for mixed use developments relating not just to building design, but the integration of each stage of development with the balance of the precinct in terms of provision of and integration with surrounding open spaces and considering matters of pedestrian access, safety and amenity.

Walkable Urban Form and Pedestrian Public Spaces

1.15 The future vision and planning for Smales Farm has recognised that improving the walkability and pedestrian-priority of the publicly accessible streets and spaces within the precinct is a critical foundation to achieving the desired development outcome of a vibrant mixed use and transit-oriented development node.

1.16 The proposed precinct provisions include the requirement for a new pedestrian plaza to be developed at the heart of the precinct as development occurs in future, as well as ongoing recognition and regard to key pedestrian linkages integrating the precinct with the established public streets entrances on surrounding streets and the busway station. Specific assessment criteria have been developed to address matters of pedestrian access, safety and amenity in each stage of future development.

1.17 Collectively, these development standards and assessment criteria provide multiple opportunities to address issues of pedestrian access, safety and amenity and ensure each successive stage of future development at Smales Farm is working towards a highly walkable urban environment.

Providing for Residential Amenity

1.18 For future residents living within apartment buildings at Smales Farm, the development standards proposed, including the residential outlook control, maximum tower dimension and building separation standards, 20% minimum landscaped area requirement, specific assessment criteria relating to managing ground floor residential activity, and other criteria relating to landscaped open space, pedestrian access and amenity enable consideration of a wide range of matters relating to providing for and maintaining residential amenity within the precinct as each stage of development occurs.

Public Realm Interface with Surrounding Streets

1.19 The proposed plan change has recognised that the Smales Farm precinct is a prominently located standalone piece of land surrounding by public streets to the north, south and east and the major combined movement corridor of the Northern Busway and Northern Motorway to the west that is the central spine of the North Shore transport network.

1.20 The building height and massing analysis that has informed the proposed plan change has considered the relative sensitivity of these contexts and made a clear distinction between the height opportunity afforded by the broad state highway corridor and the desired outcome of more pedestrian-oriented, mixed use buildings of a human scale interfacing with surrounding streets on Taheroto, Northcote and Shakespeare Roads.

1.21 The plan change will enable medium rise buildings to define and activate the street edge on Shakespeare, Taheroto and Northcote Road in future, a beneficial outcome in urban design terms in this intensifying mixed use environment where the suburban
business park controls have previously resulted in a lack of integration and engagement between development within Smales Farm and surrounding streets.

1.22 The proximity and visibility of the taller building development to the busway and motorway corridor is considered a desirable scale and form of development for this context that will in time signal the precinct as a significant node of mixed use activity, within the overall North Shore context.

Relationship to Neighbouring Zones

1.23 The combination of stepped heights transitioning down to neighbouring zones, building in relation to boundary standards that will continue to apply, development standards that manage building location, spacing and bulk, and assessment criteria relating to design and off-site effects, provide an appropriate planning framework that establishes an appropriate scale relationship to neighbouring zones and a restricted discretionary design regime that will require each stage of building development to address the potential for adverse effects on these neighbouring areas.

Legibility of Built Form Node

1.24 A legible transit-oriented development node that is visible within the wider city as an identifiable cluster to tall buildings is considered a desired urban design outcome. Such an outcome at Smales Farm would serve to visually reinforce the importance that has been placed on this location as a highly accessible place offering a dense and diverse concentration of mixed use activity immediately adjoining the busway station. This will elevate its place in the future built character and identity of Auckland, commensurate with its increased role as a destination for people from across the North Shore and wider city and future home to a significant dense new urban residential neighbourhood.

1.25 In enabling such an outcome, the proposed plan provisions include assessment criteria to help ensure this positive outcome is achieved over time through an attractive cluster of residential towers. These measures include promoting height variation amongst the tall buildings through the provision of limited floor space between 75-100m, progressively reducing the maximum building floorplate dimension with building height to require buildings to be slimmer and less bulky at upper levels, the residential outlook control, and assessment criteria that require consideration of the physical and visual impact of towers on the wider cityscape.

1.26 These measures will appropriately provide for the desired outcome of a legible and distinctive node of high rise buildings that will have a positive presence on the North Shore skyline as it develops over time.
2.0 Introduction

2.1 This report provides an urban design assessment of the Smale's Farm Proposed Plan Change ("plan change") to the Auckland Unitary Plan Operative in Part ("AUP"). It should be read in conjunction with the standalone landscape and visual assessment, a companion report prepared by Boffa Miskell that assesses the appropriateness of the proposed plan change provisions in relation to the potential visual effects that may result from the scale and form of built development that could be developed as a result of the plan change including the potential for effects on the landscape values of the nearby Lake Pupuke Outstanding Natural Feature.

2.2 This urban design assessment sets out a detailed evaluation of the proposed plan change provisions as they pertain to identified urban design issues and opportunities—in particular relating to the desire to provide for a greater mix of uses and development intensity at Smale's Farm including tall buildings up to 75-100m high, while ensuring a walkable urban form of high design quality results that provides for appropriate levels of amenity both within the precinct and in relation to surrounding streets and neighbouring areas.

2.3 In recent years the Smale's Farm board has undertaken a strategic review of the current development plan, including re-visiting the established development model, scale and form of development and mix of activities envisaged for the site. This has resulted in the creation of a new vision for the future of Smale's Farm adopted by the board, together with a revised spatial masterplan developed by BVN Architects Australia that will guide the future transformation of the site from traditional office park to a more diverse urban community.

2.4 Boffa Miskell Limited was engaged by Smale's Farm in late 2015 to advise on the potential urban design and landscape amenity issues and opportunities associated with the redefined future vision for the ongoing development of the property to enable a more vertical mixed use form of transit-oriented development.

2.5 This involvement has been extensive since this time, working closely with Smale's Farm, BVN architects as lead masterplanners and the wider plan change team including planning consultant Vaughan Smith and Stantec TDC on transportation planning and engineering. Our involvement has included:

- international benchmarking of transit-oriented development opportunities and urban design and development outcomes against international best practice, particularly Australian cities and Vancouver, Canada with respect to vertical mixed use development and transit-oriented development principles;

- a contextual urban design analysis of the site’s locational attributes that inform suitability for transit-oriented development;

- testing of the concept masterplan prepared by BVN architects against an initial draft set of building envelope and other key development controls;

- 3d modelling to test and analyse a range of potential building height, bulk and massing scenarios in terms of overall building envelopes on the Smale's Farm site. These have been visualised contextually in relation to the existing environment and planned future built character in terms of development potential under the Auckland Unitary Plan;
— review and input into development of draft plan change provisions including precinct plans, objectives, policies, controls and assessment criteria;

— engagement with North Shore Hospital with respect their future development plans and integration of these with the future vision for Smale’s Farm, particularly with respect to improving key pedestrian linkages between the Busway Station, Smale’s Farm and the Hospital across Taharoto Road.

2.6 This has involved regular meetings with the Smale’s Farm plan change team as well as with planning officers of the Auckland Council and Ms Rebecca Skidmore, urban design and landscape consultant to Council with respect to the plan change request as the proposed development has taken shape during 2016 to 2018.

2.7 Boffa Miskell has a long association with the development of Smale’s Farm, having been involved in the development of the original masterplan and associated landscape design for the overall site, as well as in the design and consenting of the staged development of the site that has occurred to date since that time.

Scope and Purpose of this Report:

2.8 The purpose of this report is to provide a comprehensive urban design assessment of the proposed plan change provisions. It should be read in conjunction with the urban design and landscape assessment drawing package that provides a comprehensive graphic summary of the context analysis, concept masterplan, proposed precinct plans, and 3d zoning views and visual simulations and associated visibility and viewpoint analysis.

2.9 Sections 3-9 of the report sets out the existing context and some of the bigger picture rationale and strategic context for change from an urban design perspective including details of the vision for the future of Smale’s Farm, the purpose of the proposed plan change in enabling the realisation of that vision, and the relevant statutory planning context. This part also takes account of the existing and future built context and character of Smale’s Farm and the strategic context and case for change from an urban design perspective.

2.10 Sections 10-13 provide the urban design assessment of the proposed plan change provisions. It first reviews international best practice principles for transit-oriented development and providing for tall buildings following an international benchmarking exercise and case study research. It then sets out a set of desired urban design outcomes developed by Boffa Miskell to inform development of the plan change and the assessment of the proposed provisions from an urban design, landscape and visual amenity perspective that follows. These desired urban design outcomes relate to key issues identified during the development of the plan change. These relate to managing potential effects of the future built form and activity mix on the amenity values for future residents, workers and visitors within the Smale’s Farm precinct, and in relation to the immediate urban context and character of the mixed use environs of the Taharoto Road corridor, as well as ensuring the plan change is providing for the desired urban form, activity mix and amenity values within the precinct.

Site Location and Extent of Plan Change Area

2.11 The plan change relates exclusively to the extent of Smale’s Farm landholdings that occupy an entire city block bounded by Northcote Road to the south, Taharoto Road to
the east, Shakespeare Road Extension to the north and the State Highway 1 transport corridor of the Northern Motorway and Northern Busway to the west. The Smales Farm Busway Station is sited to the northwest with a small section adjoining Smales Farm, with access off the cul de sac Shakespeare Road Extension that has formed a public road reserve formalising access to the busway station on land that was once owned by Smales Farm.

2.12 The extent of the Smales Farm precinct and existing site development and features is clearly depicted in Figure 2, Part 1 of the drawing package. The precinct has a site area of approximately 10.8 hectares and has street frontages of 300m to Northcote Road, 375m to Tahunaro Road and 200m to Shakespeare Road extension.

2.13 Smales Farm sits within a broader swathe of commercial and community uses along the Tahunaro and Shakespeare Road corridors around the western side of Lake Pupuke between the Anzac Street/Killarney corner and the North Shore Hospital. Tahunaro Road is a key commercial corridor between the Takapuna Metropolitan Centre to the south of the lake and the Milford Town Centre in the north as well as the Forrest Hill and Waitakere Valley areas to the north and northwest and Northcote and Birkenhead areas to the west and southwest accessed via Northcote Road that forms the southern boundary of Smales Farm. The immediate context includes the North Shore Hospital directly opposite Smales Farm across Tahunaro Road. The Poynton MetLifecare retirement village, a number of schools including Northcote Intermediate School, and Westlake Girls High School, as well as the Smales Farm Bus Station on the Northern Busway and a range of other properties zoned Mixed Use and Mixed Housing Urban. These properties are currently occupied by a mix of residential and commercial activities but tending to transition towards commercial or mixed use development over time.

3.0 The Evolution of Smales Farm

3.1 The original vision and masterplan for the staged redevelopment of the Smales Farm property – conceived as the Smales Farm Technology Office Park – was created in the late 1990s. This vision was about becoming a premier location on Auckland’s North Shore for corporate offices, with an aspiration to become “New Zealand’s best place to work and do business”.

3.2 The masterplan that was developed at that time was based upon developing a spacious campus-style development of medium rise commercial office buildings set within an open spacious landscape setting, a development typology typical of the suburban business or office park model first developed for the likes of IBM in the 1960’s North America.

3.3 Key aspects of the original Smales Farm masterplan, characteristic of the model generally, included:

- a campus style layout of a series of commercial office buildings, developed as standalone buildings with a high degree of physical separation from each other;

- an expansive and visually open landscape setting, including buildings surrounded by extensive surface car parking as well as treed grassed areas and other landscaped...
areas providing seating, strolling and "lunchtime amenity" for the office worker population;

- conceived with little need for interaction or exchange between occupants and users of the different buildings, contributing to the high degree of separation between buildings and sometimes leading to a lack of direct and convenient walking desire lines between buildings or other destinations from one quadrant to another, reflecting an understanding that all users will arrive at each individual building or precinct by car and with no need to walk to other parts of the site;

- an absence of non-commercial activity, such as housing; and

- a corresponding lack of activity and vibrancy at nights and weekends when the majority of businesses are closed and few people visit the site.

3.4 The development platforms were arranged in quadrants arranged around the axial structure of internal streets, The Avenue and The Boulevard, that provide for direct access through and around the site from each of the site’s three public street frontages. A large roundabout with water fountain feature marks the centre of the site where these three internal roads meet.

3.5 The masterplan has been steadily realised through staged development of the site, beginning with the distinctive curved form of the (now) Vodafone Building on the corner of Northcote and Taharoto Roads, first developed as the headquarters for Clear Communications. Due to its prominence and defining presence on this major intersection coming on and off the Northern Motorway at Northcote Road, the early development of this building quickly came to define Smale’s Farm as a major new location for commercial office activity on the North Shore with buildings of a scale and architectural quality and character markedly different from the scale and character of development in the surrounding area and a marked change from the site’s previously undeveloped farm-like state as a remnant of a once rural part of the North Shore.

3.6 Further stages of development have now established four additional major commercial office buildings; in order of development these are Air New Zealand building, Q4 building; Sovereign building and most recently, the E-HIVE building that opened for business in late 2017. These five buildings comprise approximately 56,000m² of commercial floor space (GFA).

3.7 The balance of future development areas identified by the original masterplan across the site are currently developed for use either as surface carparking or open and treed grassed areas, that provide on-site landscape amenity for workers and visitors to the Farm and provide flexible spaces for a range of events and activities that occur. Additionally, a stormwater management area incorporating detention ponds and associated wetland planting areas has been established along the western boundary with the Northern Busway and busway station. The original masterplan envisaged the staged redevelopment of these areas over time for additional commercial office buildings incorporating basement carparking, to be rolled out as development demand enabled.

3.8 Ultimately, the masterplan, envisaged up to 17 standalone commercial office buildings of 105,000m² in Gross Floor Area (GFA). Buildings would vary in footprint, form and scale but typically be 4-6 storeys in height. Each building would be located in a standalone manner with a considerable degree of separation from other buildings, thereby continuing to be set within an open spacious and treed landscape setting consistent with the desired campus style development pattern of office business parks.
These qualities were envisaged to be maintained even once full build-out was achieved as depicted in the illustrative birds eye view (Part 1, Figure 1).

3.9 The development model has always had a strong custodial aspect and long-term view given the decision by the Smales family to retain ownership of both the land and all buildings and oversee all associated property development and management functions. This is reflected in the consistently high quality of architectural and landscape design achieved in each stage of development and the ongoing upkeep of the property that has maintained its identity and image as a high quality business park in an attractive setting and highly accessible location – qualities that have served the development well as Auckland and the North Shore have continued to grow and diversify rapidly in the 20 or so years since its inception.

3.10 As of 2018 and the completion of the B: HIVE building, Smales Farm has completed approximately 55% of the total development envisaged by the first masterplan or 30% of the total theoretical 182,000 GFA cap on commercial floor space under the Smales Farm precinct planning provisions that had been incorporated within the former North Shore District Plan, and largely rolled over into the Auckland Unitary Plan.

3.11 In later years, approaching the tipping point of the half way mark in the development of the business park after some 20 years, Smales Farm has been conscious that a choice was approaching to either continue on with the staged development in accordance with the original masterplan or to take stock and consider a change in direction for the future development of the site in recognition of the changing conditions both in the commercial office sector and the wider urban growth and diversification of Auckland. The change in direction is consistent with trends internationally where office parks are becoming less popular and many are being converted to residential.

4.0 Vision for the Future of Smales Farm

4.1 In 2016 the Smales Farm board approved a new strategic guiding document and masterplan that established a new vision for the future of Smales Farm.

4.2 The vision is clear, to step away from the traditional office park model and transform into a more diverse urban community. The Smales Farm vision for the future is “a vibrant people-focused place - to evolve beyond a single focus on being a great place to work to an all-encompassing mixed use community where people work, live and play”.

4.3 A number of guiding principles were developed by Smales Farm that help to underpin and articulate this new vision for the future. These principles were informed by global influencing trends that reflect a shift towards more vibrant people-focused urban places internationally and in the local Auckland context as witnessed by the success of emerging precincts such as Britomart, Wynyard Quarter and City Works Depot. The principles include:

- Diversity of Use - the vibrancy that occurs when commercial, hospitality, retail and living converge and the new opportunities and synergies that come from allowing multiple audiences to use the site at different times of the day and week,
Walkability – creating an environment where people come first, which means switching from a focus on driving and car parking to promoting walking as the most important transport mode, recognised as the key to success in all people-focused places and TOD developments internationally.

Smart Transport – recognising that Smales Farm has the location, scale and resources to trial and lead innovations in movement and travel that reduce auto-dependency and single occupancy car travel, including integrating with and leveraging off the multi-modal transport access including the busway station and emergence of new cycleway infrastructure.

Sustainability and Wellness – valuing environmental sustainability and strengthening links between good design, sustainability and green spaces and practices to increase health, wellbeing and productivity for all users of Smales Farm and the wider community.

Environment and Landscaping – recognising that the design of outdoor landscape and public spaces has a major influence on the vibrancy of the site and ensuring spaces are designed with community activation, use, workability and liveability in mind.

Hospitality – developing new vibrant and intimate, people-focused offerings that complement existing services, and diversify and extend the offering to workers, visitors and future residents through the day and into the night.

Placemaking – designing spaces and facilitating events and activities that enhance the feeling of vibrancy and grow community through greater interaction and exchange.

Community – actively grow and facilitate the community networks and identity of Smales Farm and strengthen the degree of shared exchange, experiences and sense of belonging, recognising that a place is more than just bricks and mortar.

Flexibility – ensuring Smales Farm is well placed to continually adapt to a fast-changing future including adaptability of buildings to changing needs and technologies.

Partnership Approach – the long-term custodianship approach that Smales Farm takes to intensively managing and servicing the buildings, spaces and activities on Smales Farm and the way this approach affords opportunities to do things differently to the success of the Precinct.

Quality – maintaining the high standard of quality in buildings, landscape spaces and management of activities and users within Smales Farm as the precinct diversifies and grows.

4.4 Central to this vision is to become a truly mixed use development – introducing residential development currently not envisaged or provided for – and intensifying the scale and form of development to create a more concentrated mix and diversity of activities that co-exist on the site. This will lead to greater vibrancy and pedestrian-oriented activity of benefit to a greater diversity of users – residents, visitors and the general public as well as office workers.

Concept Masterplan

4.5 The new vision for the future of Smales Farm was developed in tandem with a new concept masterplan prepared by BVN Architects in Sydney. BVN architects have an established connection to the development of Smales Farm, having co-designed the B-Hive building recently completed and earlier Sovereign Building, as well as
involvement in a number of innovative commercial workplace, residential and mixed use developments in Australia and internationally.

4.6 This concept masterplan, which was originally prepared for the strategic business planning purposes of Smales Farm Management, has as part of the development of this plan change request been tested and updated to inform and reflect the development of the proposed plan change provisions. In particular the concept masterplan has been used to test proposed development standards influencing building height and dimensions, setbacks and separation distance. A 3D modelling and GFA update of the concept masterplan built form has subsequently been undertaken to be consistent with the height, massing and built form of development under the proposed plan change provisions.

4.7 This updated model has been utilised as the basis for all the concept masterplan drawings. 3D modelling and visual simulations depicted in the urban design and landscape assessment drawing package. The 166,000m² commercial floor space of the concept masterplan is in the order of the 162,000m² maximum cap under both the existing Unitary Plan and carried over to the plan change. The approximate 140,000m² of residential floor space modelled is consistent with the 138,000m² figure used in the development staging and economic assessment that identifies this amount as providing a significant contribution to apartment dwelling supply on the North Shore over the long term. Given this amount of residential GFA provides for a long-term pipeline of residential supply over 30 years it is considered a reasonable basis for understanding the likely scale and form of development that might result from the plan change provisions over the medium to long term someway beyond the life of the current Unitary Plan.

5.0 Purpose of Proposed Plan Change

5.1 The purpose of the Proposed Plan Change ("PPC") is to enable a greater density and diversity of development at Smales Farm in terms of the scale and form of built development and the mix of activities provided for. Planning provisions to provide for these outcomes are required to support the vision to transition Smales Farm from its current relatively low intensity and single use focus as a suburban business park to a vibrant, mixed use transit-oriented development.

5.2 In essence the Plan Change seeks to intensify the Precinct by introducing provision for residential activity within the Precinct and taller more vertical forms of development; while maintaining the quantum of commercial office space already provided for and continuing the provision for supporting appropriate retail and commercial services in proportion to the total quantum of development across the site.
6.0 Relevant Planning Context

6.1 The planning assessment prepared by Vaughan Smith Planning sets out a comprehensive account of the planning context for the plan change. This section sets out a summary of key provisions relating to urban design considerations relevant to this assessment.

Resource Management Act

6.2 Part 2 of the Resource Management Act 1991 ("RMA") sets out the purpose and principles of the Act. Section 5 states that the purpose of the RMA is to promote the sustainable management of natural and physical resources. Key considerations under the Resource Management Act of direct relevance to this urban design, landscape and visual assessment relate to a number of sections 6 and 7 matters under the Act.

6.3 Section 6 sets out the matters of importance that must be recognised and provided for in achieving the purpose of the RMA.

6.4 The protection of outstanding natural features and outstanding natural landscapes from inappropriate subdivision, use and development is identified as a matter of national importance in section 6(b). The precinct is in proximity to and forms part of the visual catchment and western built backdrop to Lake Pupuke that is an identified outstanding natural feature (ONF) in the Auckland Unitary Plan as an important volcanic feature.

6.5 Section 7 identifies a range of matters that shall be given particular regard to in achieving the purpose of the RMA. Of relevance to this proposal is section 7(b) the efficient use and development of natural and physical resources, 7(c) the maintenance and enhancement of amenity values and 7(f) maintenance and enhancement of the quality of the environment.

6.6 In the context of the urban design matters considered by this assessment, potential effects on amenity values primarily relate the scale and form of development enabled by the plan change and how this may affect those qualities that contribute to people's use and enjoyment of the Smale's Farm Precinct and adjoining areas. This includes consideration of the legibility and character of future built form and its relationship to adjacent development and public realm.

6.7 Potential effects relevant to this assessment primarily relate to the potential effects of building scale including building dominance, shading, privacy and overlooking. Visual amenity effects including changes in specific views, and to the built landscape character of the wider context more generally, are addressed by the landscape and visual assessment.

6.8 Additionally, there are other important amenity considerations in relation to public access and use of adjoining streets and public places and the publicly accessible streets and open spaces within the Precinct, particularly in terms of pedestrians accessing the area by foot. Consideration is also given to the potential amenity effects of providing for a greater diversity and density of activities within the Precinct.
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Regional Policy Statement

6.9 The Regional Policy Statement contains a number of objectives and policies of relevance to urban design considerations in assessing the suitability of Smales Farm to provide for a greater scale and intensity of development and diversity of uses.

6.10 An overarching intention of the Regional Policy Statement is to provide for the anticipated growth and intensification of Auckland. Chapter E2 on Urban Growth and Form seeks to enable and provide for urban growth and form in an integrated and compact manner, while maintaining quality design, and providing for open space and social facilities.

6.11 In particular, a number of the urban growth and form objectives and policies in relation to achieving a quality compact urban form, quality built environment and providing for residential growth are of particular relevance to this urban design assessment. Key objectives and policies at B2.2 are referenced below.

8.2.2 A Quality Compact Urban Form

Objective (1) A quality compact urban form that enables all of the following:

(a) a higher quality urban environment;
(b) greater productivity and economic growth;
(c) better use of existing infrastructure and efficient provision of new infrastructure;
(d) improved and more effective public transport;
(e) greater social and cultural vitality;
(f) better maintenance of rural character and rural productivity; and
(g) reduced adverse environmental effects.

6.12 In particular the following policies that relate to quality compact urban form:

(5) Enable higher residential intensification:

(a) in and around centres;
(b) along identified corridors; and
(c) close to public transport, social facilities (including open space) and employment opportunities.

(6) Identify a hierarchy of centres that supports a quality compact urban form:

(a) at a regional level through the city centre, metropolitan centres and town centres which function as commercial, cultural and social focal points for the region or sub-regions; and

(b) at a local level through local and neighbourhood centres that provide for a range of activities to support and serve as focal points for their local communities.
82.3 A Quality Built Environment

Objective. (1) A quality built environment where subdivision, use and development do all of the following:

(a) respond to the intrinsic qualities and physical characteristics of the site and area, including its setting;
(b) reinforce the hierarchy of centres and corridors;
(c) contribute to a diverse mix of choice and opportunity for people and communities;
(d) maximise resource and infrastructure efficiency;
(e) are capable of adapting to changing needs; and
(f) respond and adapt to the effects of climate change.

6.13 In particular Policy 3 under 2.3.2:

(3) Enable a range of built forms to support choice and meet the needs of Auckland’s diverse population.

82.4 Residential Growth

6.14 The following objectives under EQ 4.1:

(1) Residential intensification supports a quality compact urban form.
(2) Residential areas are attractive, healthy and safe with quality development that is in keeping with the planned built character of the area.
(3) Land within and adjacent to centres and corridors or in close proximity to public transport and social facilities (including open space) or employment opportunities is the primary focus for residential intensification.
(4) An increase in housing capacity and the range of housing choice which meets the varied needs and lifestyles of Auckland’s diverse and growing population.
(5) Non-residential activities are provided in residential areas to support the needs of people and communities.

6.15 Under this objective, policy 2.3.2 (2) that says:

(2) Enable higher residential intensities in areas closest to centres, the public transport network, large social facilities, education facilities, tertiary education facilities, healthcare facilities and existing or proposed open space.

Business Park Zone and Smale’s Farm Precinct Provisions

6.16 Key provisions of the Business Park Zone and Smale’s Farm Precinct (Smale’s 1 Precinct) that inform the current scale and form of development that can occur on Smale’s Farm, of direct relevance to this urban design and landscape assessment include:

- Enables commercial office development of up to 102,000m² GFA
- Provides for accessory activities (including retail, food and beverage, commercial services) up to a maximum of approximately 9800m², to be developed pro-rata with the build out of commercial office activities. Taking into account existing development within the precinct, additional accessory activities can be developed at a rate of 5600m²/10,000m² of commercial OFA, so that these activities remain accessory to the commercial office activity in proportion to the overall quantum of commercial development so as to meet demand for food and beverage and convenience goods which meet the day to day needs of workers and visitors to the precinct;

- A maximum height plane set at RL48.5m which is based upon 23.4m above the mean street level taken from a midpoint along the Taharoto Road frontage. A version of this height plane control has been in effect since the establishment of Smale's Farm under the former North Shore District Plan. In effect, it enables building heights of approximately 25m across most of the site with the fall in the western part of the site adjoining the motorway corridor enabling 1-2 storeys of additional height at the western edge.

- Height in relation to boundary controls (HRB) in relation to adjoining residential zones, these HRB controls include:
  - 3m + 45 degrees in relation to the Mixed Housing Urban ("MHU") underlying residential zone of West Lake Girls High School ("WLGS") to the north of the site across Shakespeare Road, taken from the school / MHU boundary;
  - 3m + 45 degrees in relation to the MHU zoned properties to the south of the site across Northcote Road, taken from the MHU boundary on the south side of the road reserve;
  - 4.5m + 45 degrees in relation to the Open Space – Sport and Active Recreation Zone of AF Thomas Park to the west.
  - No such controls apply relative to the Mixed Use zoned properties to the east across Taharoto Road.

- A 2m landscape buffer zone of 2m in depth must be provided along the street frontage between the street and carparking, loading or service areas which are visible from the street frontage.

- Maximum impervious site area of 80%.

- Minimum landscaped area of 20%.

- Wind environment control for all buildings above 25m in height, consistent with all centre zones and other non-industrial business zones.

9.17 New buildings in the Business Park Zone are a restricted discretionary activity. Key matters for discretion relevant to this assessment include the following under (115.8.1(3)) that apply to all new buildings and alterations and additions not otherwise provided for:

(i) the design and appearance of buildings in so far as it affects the existing and future amenity values of public streets and spaces used by significant numbers of people. This includes:

(ii) the contribution that such buildings make to the attractiveness, pleasantness and enclosure of the public space;

(iii) the maintenance or enhancement of amenity for pedestrians using the public space or street;
(ii) the provision of convenient and direct access between the street and building for people of all ages and abilities;

(iv) measures adopted for limiting the adverse visual effects of any blank walls along the frontage of the public space; and

(v) the effectiveness of screening of car parking and service areas from the view of people using the public space.

(b) the provision of floor to floor heights that will provide the flexibility of the space to be adaptable to a wide variety of use over time;

(c) the extent of glazing provided on walls fronting public streets and public spaces and the benefits it provides in terms of:

(i) the attractiveness and pleasantness of the public space and the amenity for people using or passing through that space;

(ii) the degree of visibility that it provides between the public space and the building interior; and

(iii) the opportunities for passive surveillance of the street from the ground floor of buildings;

(d) the provision of verandahs to provide weather protection in areas used, or likely to be used, by significant numbers of pedestrians;

(e) the application of Crime Prevention through Environmental Design principles to the design and layout of buildings adjoining public spaces; and

(f) the effects of creation of new roads and/or service lanes on the matters listed above.

6.18 All new buildings and alterations and additions to buildings not otherwise provided for require assessment against the policies that apply to all centres and other non-industrial business zones. Key policies relevant to this assessment include the following at H15.3.

(3) Require development to be of a quality and design that positively contributes to:

(a) planning and design outcomes identified in this Plan for the relevant zone;

(b) the visual quality and interest of streets and other public open spaces; and

(c) pedestrian amenity, movement, safety and convenience for people of all ages and abilities.

(6) Encourage buildings at the ground floor to be adaptable to a range of uses to allow activities to change over time.
7.0 Existing Urban Context and Character

Immediate Site Context and Character

7.1 Smales Farm is a large 10.8 ha standalone site bound by public road corridors on all four sides – Tahraroto Road to the east, Northcote Road to the south, Shakespeare Road extension to the north and the Northern Motorway/Busway corridor to the east (refer Figures 2-4 in Part 1 of the drawing package). The Smales Farm Busway Station, accessed from the end of Shakespeare Road extension and the bus station parcel of land has an adjoining property boundary with the north-western corner of the Smalles Farm precinct. Aside from the bus station, all other surrounding land uses are separated from the Precinct by public road reserve or designated transport corridor.

7.2 Tahraroto Road is typical of a major arterial route, comprising a broad 30.0 metre wide road reserve with between 6 and 7 traffic lanes in the stretch between Smalles Farm and the North Shore Hospital providing high vehicular throughput capacity as a key arterial connection between Milford and Takapuna and on and off the Northern Motorway at the Northcote Road interchange immediately to the south of Smalles Farm.

7.3 While once a much quieter, largely residential street corridor, Tahraroto Road has gradually evolved to become a more mixed use commercial corridor, with former residential dwellings being adapted to house a range of commercial business premises as well as new purpose built buildings for commercial offices, healthcare and other service businesses close to the high profile and proximity to the North Shore Hospital and Smalles Farm as a more concentrated node of large scale commercial and institutional / healthcare activity partway around the western side of Lake Pupuke between Takapuna and Milford centres (Mixed Use Context, Part 1, Figure 12).

7.4 To the immediate east across Tahraroto Road from Smalles Farm lies the North Shore Hospital, which occupies a large site through to Lake Pupuke with a long frontage to and principal points of entry from Shakespeare Road, as well secondary access from Shea Terrace, a side street to Tahraroto Road with left in / left out access between the signalised intersections at Northcote Road and The Boulevard entrance into Smalles Farm. The hospital campus has developed in a somewhat haphazard way incrementally over time typical of such large and long-established facilities, and suffers somewhat from a lack of legibility in terms of the layout of buildings or key circulation routes through the site. Contextually, the complex of buildings is marked out by the height and bulk of the main hospital block that is approximately 60m in building height forming a large building block of around 15 storeys plus extensive rooftop plant above a three-four story podium.

7.5 Adjoining the Hospital on the corner of Tahraroto and Shakespeare Roads is The Poynton Metllcare Retirement Village and Aged Care Facility. This has been developed in stages to form a perimeter block development of buildings 5 storeys in height strongly defining this corner of the broad expanse of intersection.

7.6 The main hospital block and the recently constructed standalone parking building near the Shea Terrace hospital entrance, are, together with The Poynton and the five main office building blocks constructed on Smalles Farm, readily visible on the skyline seen from a number of locations across the wider area around Lake Pupuke. This helps to
mark out the area as a recognisable node of activity and development concentrated around the intersection of Shakespeare and Tataroto Roads.

7.7 A mixed use environment predominates for a stretch further to the northwest along Shakespeare Road opposite the hospital and Carmel College before giving way to a more suburban residential pattern and scale of development to either side of this main corridor that connects the Smales Farm / Hospital node with the Milford Town Centre along the northern side of Lake Pupuke.

7.8 To the immediate north lies the campus of Westlake Girls’ High School ("WL.GHS or Westlake Girls") across Shakespeare Road extension – a large single sex girls high school catering to over 2,000 students. Westlake Girls’ has a large long site similar in orientation to Smales Farm although somewhat narrower being sandwiched between the Northern Motorway / Busway corridor and Waiau Road that continues on alignment as an extension of Tataroto before turning to pass under the motorway beside the Waiau Stream. The main buildings of the Girls’ School campus – that includes a number of larger floorplate multi-storey buildings - are concentrated on the southern half of the site near Smales Farm and the Bus Station, with access off both Waiau and Shakespeare Roads. A new school hall building is in the planning stages, to occupy the key south-eastern corner of the school campus fronting Waiau and Shakespeare Roads, which is currently occupied by surface carparking and a large row of trees along the Waiau Road frontage that somewhat obscure the presence of the school from this key corner view beside Smales Farm.

7.9 Beyond Westlake Girls’ to the north, the land starts to rise in elevation up Forrest Hill Road towards the sister school of Westlake Boys’ High School and the undulating hill slopes of the Forrest Hill residential hill suburb. Aside from the Boys’ High School, this is a largely residential area with properties along and in proximity to Forrest Hill Road zoned Mixed Housing Urban and the balance of the area Mixed Housing Suburban.
Properties on the south-facing slopes afford views across the foreground of the Shakespeare and Tataroto Road areas including Smales Farm and the Hospital towards Lake Pupuke and Rangitoto Island as well as the high rises at Takapuna and more distant City Centre skyline to the south.

7.10 The Northern Busway officially opened in February 2008, providing a dedicated busway corridor alongside the motorway for express bus services running between the North Shore and the City Centre. The busway is served by a number of purpose built bus stations providing interchange functions with local North Shore buses as well as bicycle storage, pick up and drop off facilities and in some cases, limited park and ride provision. As at the end of 2017 busway patronage was 5 million passengers / year, with Smales Farm station having patronage of 445,000 trips in the 2015-2016 year according to analysis on Greater Auckland, making it one of the top ten busiest rapid transit patronage stations (busway and rail stations combined).

7.11 The Smales Farm Bus Station (and Shakespeare Road extension) was formed as part of the Busway development on land purchased from Smales Farm for the purpose of establishing a station at this key destination serving not only the commercial office workers of the business park precinct but the North Shore Hospital and concentration of schools and other commercial and community uses concentrated in the area, as well as an interchange with local buses to and from Takapuna and Milford either side of Lake Pupuke.

7.12 The Smales Farm Bus Station is accessed from a roundabout at the end of the Shakespeare Road cul de sac and has a small offline 'pick and drop' carpark adorning Smales Farm. A generously scaled footpath provides a direct pedestrian connection.
across the forecourt into the busway station and platforms at this boundary interface between the carpark and Smales Farm.

7.13 The Northern Motorway, together with the Northern Busway alongside, form a very wide transport corridor separating Smales Farm from areas further west. The combined State Highway 1 motorway and busway corridor varies between approximately 80 and 160m in width beside Smales Farm along the stretch between the Northcote Road interchange and Wairau Road underpass. The Northcote Road interchange provides a full motorway interchange with the local road network, with on and off ramps providing for all movements between the motorway and Northcote Road to either side of the motorway, servicing Takapuna and Milford in the east and Hillcrest, Wairau Valley, and Northcote areas to the west.

7.14 The A F Thomas Park, an Auckland Council owned public reserve, borders the motorway corridor opposite Smales Farm and Westlake Orts. The park is a designated reserve under the Reserves Act and zoned Open Space – Sport and Active Recreation and comprises the 18 hole Takapuna Golf Course accessed from Northcote Road as well as the North Shore Events Centre and associated conferencing and carparking facilities at the northern end.

7.15 Takapuna Normal Intermediate School is situated to the immediate south of Smales Farm across Northcote Road, with a mix of residential properties to either side of its Northcote Road entrance and a commercially developed property currently occupied by a psychology practice, on the corner site at the eastern end of the block. This corner site forms part of the Takarolo Road commercial corridor zoned Mixed Use under the Unitary Plan.

7.16 This corner of Northcote and Takarolo Roads is defined by the landmark curved corner building on Smales Farm that is now the New Zealand headquarters for Vodafone. This building, at six storeys in height, has an impressive presence at this major intersection that feels in scale with the surrounding street environment, in contrast to the smaller scale, suburban form and built character of development that still characterises much of the rest of the sites along these main roads in this vicinity.

7.17 Given the mixed use nature of the area, the high number of destinations and the accessibility afforded by the Northern Express bus services at the Busway Station and other frequent services along Takarolo and Shakespeare Roads via the Hospital, there are multiple destinations and desire lines for people walking and cycling through the area in and around Smales Farm (refer Strategic Transport Connections, Figure 8 in Part 1 of the drawing package).

7.18 In spite of this, existing provisions for walking and cycling on the streets surrounding the precinct and wider area are generally poor, with the area dominated by a network of wide, multi-lane and heavily trafficked major roads including Northcote Road, Takarolo Road, Shakespeare Road and Wairau Road. These arterial routes have not been designed with pedestrians or cyclists in mind, having been engineered to promote traffic flow and minimise traffic congestion for vehicular traffic travelling along these corridors between Takapuna, Milford and Wairau Valley as well as traffic coming on and off the motorway at the adjacent Northcote Road interchange or connecting through to Hillcrest and Northcote areas and other suburbs to the west of the motorway.

7.19 While footpaths are generally of adequate width and fair condition along these main streets, crossing opportunities are limited to a few large signalised intersections, many featuring wide and sweeping slip lanes providing vehicular traffic with the opportunity to turn left before the lights at speed and putting pedestrians crossing the road in the path of danger having to cross free flowing traffic manoeuvring the corner at speed. The
main vehicular entrances in and out of Smales Farm on Northcote and Taharoto Roads also feature wide sweeping slip lane and median splitter island arrangements at present that disrupt the continuity of the footpath for pedestrian through traffic along these routes. A signalised midblock crossing has been provided across Taharoto Road on the northern arm of the intersection with The Boulevard entrance to Smales Farm. This provides a safe way to cross this major road between Smales Farm and North Shore Hospital.

7.20 Provision of dedicated infrastructure for cycling is patchy with some discontinuous stretches of painted (non-separated) cycle lanes currently marked on Northcote and Taharoto Roads as well as the Northcote and Taharoto footpaths being designated shared paths providing for safer cycling for the many school children that choose to cycle in spite of the lack of on-street provision for cycling on these main roads. Some imminent improvements are planned to widen the shared path beside Smales Farm on Northcote Road. These improvements will link Smales Farm via Northcote Road into the growing network of planned cycleways through the Northcote Safer Routes and Seapath and Skypath providing linkages to areas to southwest of the motorway as well as around the coastal edge of Shool Bay and across the Harbour Bridge.

7.21 Taharoto Road is served by a number of frequent and local bus routes between Milford and Takapuna via the Hospital, with some services interchanging with the Northern Express at the Busway Station (Part 1, Figure 6, Strategic Transport Context).

7.22 Smales Farm itself, while privately owned, has free and unencumbered public access and is at the heart of a number of key walking routes in the area between the bus station, and Smales Farm, the Hospital and Schools. The axial structure of the main streets through Smales Farm - The Avenue and The Boulevard – provide reasonably direct walking routes for people accessing Smales Farm from the surrounding street network either accessing the office buildings and range of existing shops, services and facilities on offer at Smales Farm, or short-cutting through to the Bus Station, Hospital or two schools to the north or south of the Farm. A continuous pathway has been constructed by Smales Farm along its western boundary providing formed access for pedestrians and cyclists between Northcote Road overbridge and the Bus Station and Westlake Girls’ on Shakespeare Road.

8.0 Current Planned Future Form and Character of the Area

8.1 The Auckland Unitary Plan sets a clear directive that when assessing development proposals, the relevant contextual consideration is to give regard to the planned future form and character of the area, rather than the scale and form of development or existing built character that may exist today.

8.2 The immediate site context for Smales Farm, that can be characterised as a broad swathe of mixed use land around the western side of Lake Pupuke between Takapuna and Milford, is the subject of incremental redevelopment and change both at present and ongoing.
8.3 Significant future development potential is provided for under the Auckland Unitary Plan zoning as depicted in the series of existing Unitary Plan 3D zoning views for the City Engine GIS model included in Part 04 of the drawing package. Analysis of these views indicates that much of the area has opportunity to develop buildings of greater building height, bulk and intensity than that which currently characterises the area.

9.0 Strategic Context for Change

The Auckland Plan 2050

9.1 The Auckland Plan 2050 is the new long term spatial and strategic plan for Auckland and its communities, replacing the first Auckland Plan 2012 and adopted by Auckland Council in May 2018.

9.2 The plan sets the strategic direction for managing growth and change in Auckland over the next 30 years, and is focused on six outcomes: Belonging and Participation, Maori Identity and Wellbeing, Homes and Places, Transport and Access, Environment and Cultural Heritage, Opportunity and Prosperity.

9.3 The directions set under the Homes and Places and Transport and Access outcomes are of particular relevance to this Plan Change. Key directions to note in relation to Smale's Farm and the urban design considerations of the proposed plan change are set out below.

Homes and Places Outcome

- Direction 1: Develop a quality compact urban form to accommodate Auckland’s growth
- Direction 2: Accelerate the construction of homes that meet Aucklanders’ changing needs and preferences
- Direction 3: Shift to a housing system that enables secure and affordable homes for all
- Direction 4: Provides sufficient public places and spaces that are inclusive, accessible and contribute to urban living

Transport and Access Outcome

9.4 The following directions and areas where efforts need to be focused particularly support the plan change to enable transit-oriented development at Smale’s Farm:

- Direction 1: Create an integrated transport system connecting people, places, goods and services
- Direction 2: Increase genuine travel choices for a healthy, vibrant and equitable Auckland
- Focus Area 1: Make better use of existing transport networks, including a greater focus on influencing travel demand
Focus Area 4: Make walking, cycling and public transport preferred choices for many more Aucklanders

Focus Area 5: Better integrate land use and transport decisions.

9.5 Focus Area 5 is particularly relevant to this Plan Change. The Auckland Plan 2050 states that stronger integration between transport and land use decisions is required so that housing, business and employment growth occurs in areas with better travel options. The Plan recognises that encouraging housing and employment growth in these locations enables shorter commutes and reduces pressure on the transport system. This is the foundation of the proposed plan change for Smale’s Farm – recognising that its location next to the Smale’s Farm Busway Station means the precinct enjoys ready walk-up access to fast, frequent services to the City Centre and Albany metropolitan centres as well as frequent bus routes connecting it with Takapuna and other centres and suburbs across the North Shore. Additionally, the precinct is well placed to serve significant growth in active mode trips to the planned development at, being set to benefit from the growing network of cycleways in this part of the North Shore and being in close proximity to other major activity generators including the hospital, schools and Takapuna, Milford and Northcote centres.

Development Strategy - How Auckland will Grow and Change

9.6 The Development Strategy sets out how Auckland will grow and change over the next 30 years to become a place that Aucklanders love and are proud of, a place they want to stay in or return to, and a place that others want to visit, move to or invest in.

9.7 The Development Strategy is an update to the 2012 Auckland Plan, that set the direction for a quality compact approach to growth and informed the development and eventual adoption of the Auckland Unitary Plan (Operative in Part) in 2017.

9.8 Over the next 30 years, Auckland is expected to grow by another 740,000 people to reach a population of 2.4 million, requiring possibly another 320,000 dwellings as well as 270,000 new jobs.

9.9 The opportunity to add up to 1,380 additional apartment homes at Smale’s Farm over this 30 year timeframe represents a not insignificant contribution to this regional growth challenge, at 0.43% of the 320,000 home total over the long term.

9.10 The development strategy is intended to provide a clear understanding of where and when investment in planning and infrastructure will be made to support this growth.

9.11 The Auckland Plan takes a multi-nodal model to intensifying growth within Auckland’s urban footprint. The Plan anticipates that most future growth will focus in and around the major centres (the City Centre, Albany, Westgate and Manukau) as well as other identified development areas within the existing urban footprint.

9.12 As highlighted in the figure below, Smale’s Farm is strategically located in relation to the major centres, with direct connections to the northern busway and motorway interchange providing fast, efficient connections to the City Centre and Albany. The City Centre will continue to be the biggest and most important centre of employment for Auckland and Albany is set to become a more important node for the North Shore over the next 30 years, providing a larger and more diverse range of employment, housing, educational, community and civic facilities. A node of transport, community and civic facilities. A node of transport, community and civic facilities.
9.13 Smales Farm is also part of an identified development area that extends around the western and southern sides of Lake Pupuke joining the precinct and North Shore Hospital with Takapuna metropolitan centre. To the southwest, Northcote Central, closely connected to Smales Farm via Northcote Road that crosses the motorway at the southern edge of Smales Farm, is also an identified development area, experiencing major intensification and regeneration led by HLC and Panuku. These qualities make intensifying development at Smales Farm, including residential, aligned with the development strategy set by the Auckland Plan.
Figure 2: Auckland Plan 2050: Smales Farm forms part of an identified development area that forms a broad swathe of redevelopment and change around the southern and western sides of Lake Pupuke between Takapuna metropolitan centre and Smales Farm and North Shore Hospital (Source: https://www.aucklandcouncil.govt.nz/asset-project/policies-reports-bylaw/current-plans-strategies/auckland-plan/pages/default.aspx)

9.14 The Auckland Plan recognises that development areas have a combination of the following characteristics that make them well-suited for significant development:
- substantial capacity provided in the Auckland Unitary Plan for housing and business development;
- access to a large number of jobs within a reasonable commuting time;
- access to centres and the strategic public transport network within easy walking distance;
- major public landholdings with intended or potential redevelopment;
- current or planned infrastructure capacity that is likely to enable significant additional growth – for example, the expansion of the strategic transport network that improves connectivity; and
- market feasibility.

9.15 The proposal to transition Smales Farm to a transit-oriented development node along the Northern Busway reflects that the qualities of the site and its wider context rates highly against most of these characteristics.

Devonport-Takapuna Area Plan 2014

9.16 The Devonport-Takapuna Area Plan was prepared by the Local Board in 2014 and has the purpose of outlining how the Devonport Takapuna area is envisaged to change over the next 30 years, taking into account the vision for Auckland set out in the Auckland
Plan (and enabled by the Unitary Plan) and secondly in relation to the vision and priorities of the local board as set out in the local board plan.

9.17 The Plan sets out six ‘key moves’ that respond to the challenges and opportunities facing the area. The key moves will help transform Devonport-Takapuna, into an area where people will continue to want to live, work and play as well as attract visitors.

9.18 The first key move is ‘Support the development of a greater Takapuna’. The ‘greater Takapuna’ area includes the established Takapuna metropolitan centre and the adjoining business and mixed-use areas to the west and north up to Smales Farm and North Shore Hospital (refer summary map included at Part 1, Figure 10 of drawing package). This is a regionally-significant employment and business area and will continue to grow, with more intensive business and residential development, along with further recreation, civic and cultural activities. The plan states that “future high quality development across the area should connect well and complement the centre of Takapuna”. The Plan is clear in setting this key move that Greater Takapuna will continue to strengthen as the primary hub and development focus for the Devonport-Takapuna local board area.

Updated Government Policy Statement on Transport

9.19 The New Zealand Government has recently updated the Government Policy Statement on Land Transport ("GPS").

9.20 The purpose of the GPS is to help guide investment in transport by providing a longer term strategic view of how the transport network is prioritised and why. This includes an overall focus of improving our land transport network by prioritising safety, access, environment and value for money.

9.21 The strategic direction has a new focus that prioritises improving New Zealanders' access to opportunities and markets. The increased focus on urban centres is to ensure that transport and land use planning reduces the need to travel by private motor vehicle by:

- transport and land use planning that improves access by reducing the need to travel long distances to access opportunities like employment, education and recreation, and
- supporting a mode shift for trips in urban centres from single occupant private vehicles to more efficient, low cost modes like walking, cycling and public transport.

9.22 This strategic direction on access, and a key theme for the GPS of integrating land use and transport planning and delivery are of relevance to this Plan Change. Transport investment in these outcomes directly supports the land use change being sought for Smales Farm. Facilitating the greater intensity and diversity of land use development outcomes being sought for Smales Farm will concentrate growth in a highly accessible location that will provide people with greater transport choice and shorter commute times. This will help achieve the desired mode shift in urban transport away from auto-dependency. In this way the plan change is well aligned with the strategic direction for transport set by the GPS.

9.23 The update to the GPS signals a significant shift in direction in future investment in transport, with a greater emphasis on mass rapid transit and active modes (walking and cycling) and considerations of the impact of transport investment on public health and quality of place as well as road safety.

Auckland Transport Alignment Project (ATAP)

9.24 ATAP is a joint transport investment programme developed by the New Zealand Government and Auckland Council and Auckland Transport, that sets out an aligned forward investment programme of funded transport priorities proposed to be delivered by central and local government transport authorities in Auckland over the next 10 years.

9.25 The most recent version of ATAP was released in April 2018, and contains a number of projects that inform the strategic context for change from the perspective of achieving greater integration of land use and intensification with planned investment in transport infrastructure. These planned transport investments also highlight the suitability and support the case for transitioning Smales Farm to a denser transit oriented development node with a greater mix of uses including residential.

9.26 Key aspects of ATAP of particular relevance to the Transit-Oriented Development outcomes being sought by the Plan Change include:

- Northern corridor improvements and busway extension to Albany improving access, travel times and reliability between Smales Farm and Albany;
- SkyPath and Seapath opening up new cycling and walking connections between Smales Farm and areas to the south including the City Centre and Auckland Isthmus across the harbour; and
- Greater investment in enhanced walking, cycling, and bus priority programmes likely to strengthen the connected networks and mode choice for people coming and going between Smales Farm and other parts of the North Shore.

9.27 Additionally, as a future priority, ATAP provides for future planning for Harbour Crossing for rapid transit corridor, to eventually replace the Northern Busway with an additional spur providing direct dedicated connection between Takapuna Metropolitan Centre and the City Centre. ATAP signals that this will likely happen by the early 2030s. Projected future demand on this corridor is high and detailed investigation by Auckland Transport suggests upgrading the Northern Busway to a higher capacity mode (likely to be light rail) may be required by the mid-2030s, earlier than previously anticipated. This would require a new rapid transit crossing of the Waitatere Harbour on an alignment that connects with the City-Airport light rail corridor at Wynyard Quarter. Intensifying development at Smales Farm will increase demand and use of the Northern Busway with full build out of the planned masterplan set to take 30 years, meaning at full build out it would benefit from the greater capacity of a future rapid transit service.
10.0 Principles for Transit-Oriented Development

10.1 Transit-Oriented Development is a common form of development used internationally to integrate land use intensification with investment in high frequency, mass rapid transit corridors for public transport.

10.2 In Auckland, the principles and outcomes of Transit-Oriented Development are less established and still in a nascent phase. Many of the attributes of successful TOD nodes are found in our established urban centres with access to high frequency high capacity public transport such as Newmarket. TOD principles have also informed the planned redevelopment and regeneration of some smaller suburban centres such as New Lynn on the Western Line.

10.3 These emerging transit-oriented outcomes notwithstanding, the principles of Transit-Oriented Development, that require greater synergies between our transport and land use planning, are as yet, while commonly expressed in strategic planning documents such as the Auckland Plan, GPS and ATAP, not had a strong influence on the key tools of land use planning such as the Unitary Plan in terms of strategically zoning large landholdings and other areas within the walk up catchment of rapid transit stations.

The 6 ‘Ds’ of Transit Oriented Development

10.4 Vancouver, Canada is a widely recognised global leader in the planning, design and development of Transit Oriented Developments at key station nodes in association with the development of Skytrain and Metro rail lines. A range of TOD nodes have been developed, and continue to be developed, across metropolitan Vancouver, delivered by both the public and private sector.

10.5 Translink, the British Columbia transit authority responsible for public transport in Vancouver, has prepared a set of design guidelines to inform their development, which identifies what they term the 6 ‘Ds’ of Transit-Oriented Communities and Development (Source: Translink website, available for download here - https://www.translink.ca/home/documents/boards_and_committees/transit_oriented_communities/transit_oriented_communities_design_guidelines.pdf).

10.6 The 6 D’s distil down some key success factors – some as pre-requisites to be suitable for consideration as a TOD development node, and others as desired urban design and development outcomes, that must be present to have a successful transit-oriented node that has high demand for transit services and supports well patronised, productive transit service. The 6 D’s for Transit Oriented Development are:

1. Destinations – land and location
2. Distance – urban structure and street network
3. Design – pedestrian friendly public realm
4. Density – building form and massing
5. Diversity – mix of uses and activity
6. Demand Management – discourage unnecessary driving
Further paraphrased explanations of each of these 6 D factors from the Translink Guidelines are set out below:

1. Destinations – Be On The Way (land and location)
   First get the location right – focus on high demand destinations located along frequent transit corridors and with land available for development. If a site is not on the way, it is not suitable for a TOD.

2. Distance – Connect the Block (urban structure and street network)
   Create a supportive urban structure by introducing a fine-grained network of pedestrian and bicycle-friendly streets. If block sizes are too big and streets are too discontinuous, distances will be too far to walk.

3. Design – Make it Pedestrian Friendly
   Design a public realm that is pedestrian and bicycle-friendly. Bring buildings up to the footpath, animate them with active frontages, provide amenities and weather protection, and tuck car parking behind or underground.

4. Density – Fill It In (building form and massing)
   Place the highest residential and employment density near to frequent transit stops, stations and exchanges and step these densities down to transition to surrounding neighbourhoods.

5. Diversity – Mix It Up (mix of uses and activity)
   Ensure a good diversity of uses, especially those which animate the streetscape: provide a mix of housing types, tenures and price points, and a good jobs-housing balance so that people are never too far from work, shopping and other destinations.

6. Demand Management – Discourage Unnecessary Driving (incentives and disincentives)
   Introduce demand management measures like parking pricing to discourage and dis-incentivise unnecessary trips by private vehicle.

Figure 3. The 6 D’s of Transit Oriented Development, from Translink British Columbia Design Guidelines for Transit Oriented Communities
10.7 In the most successful transit-oriented developments and communities all of the '6 D's' are implemented in concert. No one measure works in isolation, but rather they work synergistically to support the desired higher levels of walking, cycling, and transit ridership and reduced levels of driving.

10.8 Providing for more intensive forms of land use development at key station access nodes to quality mass rapid transit is the key principle of transit-oriented development. Creating a ‘positive feedback loop’ between better public transport and more multi-modal transport choice with denser and more diverse mixed use communities are the key to creating more liveable, resilient and sustainable cities.

10.9 The Smales Farm plan change has been developed with the 6 D’s in mind. Fundamentally, the Smales Farm precinct exhibits the fundamental element of Destination – the Smales Farm land and location in immediate proximity to the high frequency, high volume, mass rapid transit corridor of the Northern Busway station and already being an important employment area in its own right. This is the key attribute that justifies the transformation of the area in to a dense development node of notably greater intensity of activity and scale of built form than the surrounding suburban areas away from the accessibility of the bus station.

10.10 The TOD principles around density distribution and transitioning from auto-dependent to pedestrian friendly public realm design are of direct relevance to the Smales Farm Plan Change and have informed the planning and concept masterplan work undertaken. These principles are clearly conveyed in the Vancouver 6 D’s explanatory graphics included below (Source: https://www.translink.ca/-/media/documents/plans_and_projects/transit_oriented_communities/transit_oriented_communities_primer rửa).

Figure 4: Distribution of density, from Translink: Transit Oriented Communities A Primer on Key Concepts. (Source: https://www.translink.ca/-/media/documents/plans_and_projects/transit_oriented_communities/transit_oriented_communities_primer rửa).
11.0 Urban Design Considerations for Tall Buildings

11.1 Enabling tall buildings – up to 75-130m in height – is a key desired outcome of the proposed plan change to support transitioning Smales Farm to a denser more vertically-oriented built form node adjoining the busway station. Such an urban form typology is consistent with the Transit Oriented Development model prevalent internationally at key stations and interchanges along mass rapid transit lines such as the Northern Busway.

11.2 Providing for taller buildings within the precinct is a built form outcome that helps enable the bigger picture vision of transforming Smales Farm into a denser and more diverse place with a greater mix of activities including residential apartment living, while still providing space at ground level for people-focused public spaces and other activities such as the active uses of retail, hospitality and commercial services, all of which contribute to a walkable urban environment and high level of on-site amenity for the residents, workers and visitors to the precinct.
11.3 In the right place, tall buildings can make positive contributions to the life and identity of the city. In providing for tall buildings at Smale’s Farm, the proposed plan change seeks to enable a concentration of vertical buildings in the form of a cluster of towers of variable height, form and architectural character. Viewed from outside the precinct such a built form outcome will help identify the precinct from the surrounding streets and after as a legible development node at the busway station and making a positive presence on the wider skyline. Within the precinct, flexibility is sought to enable the optimal location and sting of tall building footprints and form on a staged basis relative to existing development and public realm on the precinct, taking into account a range of factors including solar access, shading, views and outlook and wind, as well as the urban design considerations of achieving a pleasing composition of building forms sympathetic to the established built scale and character on the site.

11.4 While tall buildings can have a number of positive effects on the immediate precinct and surrounds and wider urban context, they raise the potential for a range of adverse effects on the environment due to their scale and prominence within the urban fabric. Potential adverse off-site effects of tall buildings at Smale’s Farm include microclimate effects such as adverse shading and wind, and visual amenity effects such as building dominance, privacy / overlooking, and view blockage, and the broader contextual impacts of detracting from the built and landscape character of the broader city where poor quality or unsympathetic design outcomes has resulted.

11.5 The design of tall buildings can also present urban design issues that need to be managed to ensure an appropriate level of on-site amenity is maintained within the precinct, recognising the plan change is providing for significant change in planned future built character from the existing business park environment to transition to a denser, vertical mixed use node over time. A key component of such a built form is a concentration of tall buildings that results in a set of expectations and requirements to support amenity.

11.6 When planning for tall buildings, it is important that provisions are put in place that provide for a high degree of discretion over design matters and include specific development standards and controls that seek to manage the potential for adverse effects that arise from tall building development.

11.7 The Auckland Design Manual does not provide specific design guidance with respect to tall buildings. A useful and well-recognised document internationally is the CABE publication ‘Guidance on Tall Buildings July 2007’ publication from the former United Kingdom Commission for Architecture and the Built Environment (‘CABE’) (Source: https://www.designcouncil.org.uk/sites/default/files/asset/document/guidance-on-tall-buildings_0.pdf). The CABE document sets out guidance to local planning authorities with respect to providing planning provisions that enable tall buildings in appropriate areas, as well as a comprehensive set of design criteria for evaluating tall building proposals. Much of this guidance is relevant and transferable to the Auckland context. Of particular relevance to this Smale’s Farm plan change, criteria include:

- **Relationship to context** including natural topography, scale, height, urban grain, streetscape and built form, open spaces, rivers and waterways, important views, and effect on the skyline. Tall buildings should have a positive relationship with relevant topographical features and other tall buildings; the virtue of clusters when perceived from all directions should be considered in this light.

- **Effect on the historic context** including the need to ensure that the proposal will preserve and/or enhance historic buildings, sites, landscapes and skylines.
Relationship to transport infrastructure – capacity of public transport, the quality of links between transport and the site. Transport is important in relation to tall buildings because of the intensity of use, as well as density, that they represent.

Architectural quality of the building including its scale, form, massing, proportion and silhouette, cladding materials, and relationship to other structures.

Contribution to public space and facilities, both internal and external, that the development will make in the area, including the provision of a mix of uses, especially on the ground floor of towers, and the inclusion of these areas as part of the public realm. The development should interact with and contribute positively to its surroundings at street level, it should contribute to safety, diversity, vitality, social engagement and sense of place.

Effect on the local environment, including microclimate, overshadowing, night-time appearance, vehicle movements and the environment and amenity of those in the vicinity of the building.

Contribution made to the permeability of a site and the wider area; opportunities to offer improved accessibility, and, where appropriate, the opening up, or effective closure, of views to improve the legibility of the city and the wider townscape.

Provision of a well-designed environment, both internal and external, that contributes to the quality of life of those who use the buildings, including function, fitness for purpose and amenity.

These criteria are referenced in assessing the provisions for tall buildings in the assessment section later in this report.

12.0 Desired Urban Design Outcomes

12.1 In essence the Smales Farm Plan Change seeks to provide for a greater scale, intensity and diversity of activity, including residential development, as part of a more vibrant, mixed use transit-oriented development node located within the immediate walk up catchment of the Northern Busway station. Such an outcome is presented by the rare opportunity of a large site in single ownership in proximity to a Northern Busway mass rapid transit station and with significant development opportunity remaining.

12.2 The plan change seeks to provide for this overall shape, form and mix of development through providing for residential activity, and in doing so, to enable taller buildings up to 75-100m in height, so as to provide the additional developable area required while not taking away from the development opportunity for commercial office activity and to support a more active, vibrant public realm at street level.

12.3 Planning and designing such dense, mixed use urban areas is a complex exercise requiring a balanced consideration of multiple interrelated factors that are closely intertwined given the concentration of both built form and people into small areas of space across short distances.

12.4 Building on the vision for the future of Smales Farm, and an understanding of urban design best practice in terms of the planning and design of both transit-oriented
development nodes and mixed-use development, a number of urban design outcomes have been identified as matters that the plan change should be seeking to enable and/or manage in providing for development of greater scale and diversity at Smale’s Farm.

12.5 Key urban design issues in seeking to create a vertical, mixed use node of transit oriented development at Smale’s Farm have been identified as falling under the following broad themes that encompass both issues and opportunities to be considered in developing the plan change.

- Mix of Uses and Development Intensity
- Tall Buildings
- Quality Built Form
- Walkability and Public Spaces
- Residential Amenity within the Precinct
- Public Realm Interface with surrounding streets
- Relationship to neighbouring zones
- Multi-Modal Movement Integration and Transport Choice
- Legibility of Built Form Node

12.6 For the purposes of assessing the proposed plan change in urban design terms, desired urban design outcomes have been developed for each of the above broad themes that encompass both issues and opportunities to be considered in formulating a set of precinct planning provisions that will enable a vertical, mixed use node of development at Smale’s Farm while identifying and managing urban design issues to be managed through the resource consent process as each stage of development is proposed. These desired urban design outcomes provide the assessment framework to consider the appropriateness of the proposed plan change provisions from an urban design perspective, as set out in the following section.

A Greater Mix of Uses and Development Intensity

- Providing for a mix of activities including residential, retail and service businesses, food and beverage as well as commercial office activity;
- Provide for vertical residential apartments living as part of a dense mixed use environment.

Providing for Tall Buildings:

- Providing for taller buildings up to 75-100m in height that enable vertical built form and concentrated mix of uses to create the desired qualities of a more dense, diverse and walkable node of transit oriented development.
- Provide for multiple tall towers that will create a cluster of building height acting as an identifiable node of development viewed from outside the precinct.
- Provide for variation in the height, form and architectural expression and character of tall buildings to create a visually distinctive and identifiable node of vertical development.
over time that contributes a positive presence on the skyline and identity within the broader urban fabric and character of the wider city landscape.

- Manage the location and distribution of tall building footprints, bulk and massing to create a quality environment for people within the precinct and surrounding streets and adjoining zones.
- Manage the potential environmental effects of tall buildings including building dominance, visual effects, privacy, and microclimate including shading and wind.

**Quality Built Form**

- Ensuring design quality and high levels of urban amenity for all buildings and stages of development within the precinct irrespective of building height, and including the integration of access arrangements and publicly accessible internal streets and spaces within the Precinct.

**Walkability and Pedestrian Public Spaces**

- Create a highly walkable and pedestrian-oriented scale and form of development as the foundation of a transit oriented development node.
- Maintain and strengthen a connected and legible network of key pedestrian routes through the precinct that are safe and enjoyable to use linking each of the main entrances with the surrounding street network with the central heart of the precinct and providing in time a new more direct route on the key desirability between the bus station, centre of the precinct, Takapuna Road entrance and North Shore Hospital precinct beyond.
- Ensure these key walking routes are direct, safe, and enjoyable to use with a high level of pedestrian amenity afforded by streetscape and public space design and the quality of adjoining building edges and interface with adjoining development areas.
- Provide for a primary pedestrian plaza public space at the heart of the precinct.
- Recognise the need to manage internal vehicular access, circulation and carparking and required service areas to prioritise pedestrians along the key walking routes and high level of pedestrian amenity desired across the precinct.

**Providing for Residential Amenity**

- Providing for appropriate levels of residential amenity for apartment buildings within the precinct including daylight, sunlight, outlook and privacy.
- Recognise the role of the public realm within the precinct in providing access, use and enjoyment to open space amenity for future apartment residents living within the precinct.
- Provide a more people-focused public realm of smaller scale public spaces fit to support the denser, more intensive and diverse use and range of activities and demands on public space expected of a dense mixed use development node, including a variety of spaces fit for purpose in meeting user demand from a greater intensity and diversity of use, that are multi-functional and flexible to support a wide range of everyday activities and events.
Item 14

Attachment J

- Managing interface / potential effects between activities

Managing the Public Realm Interface with surrounding streets and movement corridors

- Establish appropriate scale interface with adjoining public streets through transitioning down in scale from tall building in the central and western parts of the precinct to a more medium rise built form fronting Taharoto, Shakespeare and Northcote Roads that provides a more comfortable scale relationship with surrounding streets and adjoining zones
- Provide for a greater height and scale of development at the western boundary interface in recognition of the lack of sensitivity of surrounding uses to tall buildings; while
- Recognise the visibility and prominence of the western edge of the precinct to the busway / motorway corridor of SH1 that is the major movement corridor for the North Shore

Managing the Relationship to Neighbouring Zones

- Establish appropriate scale interface with adjoining residential zones to the immediate north and south of the precinct
- Establish an appropriate scale relationship and desirable built form definition to the Taharoto Road mixed use corridor and healthcare and retirement living areas to the east
- Manage the potential for adverse environmental effects in relation to adjoining zones including building dominance, visual effects, privacy, and microclimate including shading and wind.

An Urban Form that provides Multi Modal Movement Integration and Transport Choice

- An urban form that prioritises walking and ease of access to mass rapid transit as the primary forms of transport to and within the precinct as required for a successful transit-oriented development node.

An urban form that integrates closely with the movement networks within the surrounding streets and open spaces for walking and cycling and local North Shore buses to realise the benefits of greater transport choice, shorter commute times and reduced auto-dependency for local trips.

A Legible and Distinctive Built Form Node

- Create a new identifiable and distinctive vertical built form profile and character that is recognisable as a legible node of transit oriented development in the wider urban fabric
- Ensure the future skyline profile of the vertical built form node has a positive presence when seen on the skyline in terms of its contribution to the urban built landscape character of the immediate surrounds and wider city
- Manage the potential for adverse visual effects on specific views and viewing audiences and the general built character of wider city
13.0 Urban Design Assessment of Plan Change Provisions

Mix of Uses and Development Intensity

13.1 The proposed plan change provides for a genuine mixed use development node consistent with the vision for Smale's Farm and the masterplan underpinning it prepared by BVN architects.

13.2 The masterplan anticipates up to 300,000m² of development for a mix of commercial office and residential uses, with both ‘primary uses’ supported by a range of retail and food and beverage uses. The split between the primary commercial office and residential uses is roughly 50/50, with the retail activity including food and beverage, hospitality and service business uses being treated as secondary, supporting activities, provided for in proportion to the overall quantum of commercial and residential activity, on a staged pro rate basis as the precinct continues to develop and redevelop over time. This provides for a 30 year development horizon and pipeline of supply to be developed incrementally over the short, medium and long term as outlined in the economic assessment.

13.3 In summary, the quantum of development anticipated by the masterplan, as summarised in the economic assessment prepared by Insight Economics, includes:
   - 162,000m² commercial office including 16,500m² of retail,
   - 130,000m² residential,
   - This equates to a total of 300,000m² total GFA at full build out (30 years); and
   - Currently approximately 58,000m² of commercial office space including ancillary retail has been across 5 buildings accounting for the B Hive building nearing completion in mid-2018.

13.4 The proposed retention of the existing cap on commercial development at 162,000 will encourage the additional development opportunity provided for residential development, helping to achieve a more balanced mix of uses over time. Importantly, the supporting retail and services will also be enabled to grow in proportion to the rate of development of both primary uses. These mixed use outcomes are consistent with international best practice for TOD developments that in order to optimise their potential for walkable, vibrant communities seek to achieve a true mix of uses and compact forms of development that support a highly walkable public realm between buildings and the transit station.

Providing for Residential Development

13.5 The proposed plan change does not place a GFA cap on residential development but seeks to introduce residential activity by providing for a vertical mixed use development typology that establishes new building heights and associated provisions that enable the development of a cluster of tall apartment towers on the site. While not restricted by the plan change provisions, the approximate 138,000-140,000m² of residential GFA anticipated by the development planning for a is considered a realistic quantum of
residential development that might be anticipated to occur under these enabling provisions, providing for a pipeline of new apartment dwellings in this growth area of the North Shore over the short, medium and long term; ultimately up to 1,380-1,400 new dwellings at full build out over 30 years (as outlined in the economics assessment).

13.6 The following factors contribute to Smalens Farm being highly suitable site for residential development and intensification:

- Accessibility as a highly connected multi-modal transport node;
- Located within an existing mixed-use corridor along Taharoto Road that is a main route between Takapuna and Milford centres;
- High degree of separation from surrounding smaller scale suburban residential areas, being surrounded by public road corridors on all four sides and with neighbouring properties mostly comprising a number of other large, mixed use campus style destinations and activities including the North Shore Hospital, The Poynton retirement village, Westlake Girls High School, and Takapuna Intermediate School;
- Flexibility to adapt existing masterplan and remaining under-developed land on the property such as the extensive areas of surface carparking to provide for more vertical mixed use forms of development and a more walkable urban form of built edges and public realm;
- Space and flexibility to develop a layout and orientation of residential building development that provides for quality built form and on-site residential amenity considering factors such as solar orientation, privacy and outlook, views, building separation distance, shading and wind;
- A range of existing retail and services that offer convenience and amenity for residents, including cafes and food and beverage outlets, a medical practice, dentists, gym, childcare centre;
- High quality existing on-site landscape and public space amenity including open grassed areas, outdoor seating areas, formed recreational paths along the western perimeter of the site; and
- Opportunity for attractive sea and city views from upper levels of buildings including out to the coast and Rangitoto Island to the east and distant Waitemata Harbour and City Centre skyline to the south.

13.7 Residential activity brings a number of benefits to the depth and diversity of activities on offer at Smalens Farm. It is a complementary activity to the established commercial office offering at Smalens Farm. It provides a night time resident population to support retail, hospitality and food and beverage extending the range and viable operating hours for those supporting uses, which adds to the vibrancy of the precinct at nights and weekends. Providing for residential within the precinct provides housing choice in a way that offers people a ‘zero commute’ who may choose to live and work on site, a short walk to destinations such as the North Shore Hospital, the nearby schools and other businesses within the mixed use areas within easy walking distance along Taharoto and Shakespeare roads, as well as transport choice in terms of short, frequent public transport on the Northern Busway into the City Centre and Newmarket to the South and Albany to the north, as well as to Takapuna Metropolitan Centre via frequent bus connections or a short bike ride.
Retail and Other Supporting Uses

13.8 Retail and commercial services, including food and beverage / hospitality, small supermarkets and other food and lifestyle retail goods and service offerings are an important part of the activity mix to support a dense mixed use development node as envisaged for the future of Smales Farm. Similarly, other supporting uses such as recreational facilities such as gyms (one of which is already established on the site) and healthcare facilities (such as the urgent care clinic and dental practice already established on site) provide recreational, health and wellbeing services that can cater to both future residents as well as workers within the Precinct. These retail and service activities are an important part of the mix of uses, playing an essential part in the success of mixed use developments by contributing to the vibrancy and life of the precinct, particularly the publicly accessible streets and spaces where these activities promote multiple reasons to walk within the precinct from places of employment or residence and also contributing to the convenience and amenity for residents and workers.

13.9 The proposed plan change provisions carry over the existing pro rata provisions for retail and commercial services activity, enabling GFA for these activities as a proportion of each commercial office or residential apartment building. While ultimately providing for up to 46,500m² of retail and commercial services at full build out over 30 years, this has the effect of providing for incremental, staged growth in the size of the retail offering on the site, to grow in proportion to the overall intensification of the precinct for office and residential uses.

13.10 Linking the provision of these ancillary uses to the staged development of the precinct is an appropriate way to provide for the desirable growth in the quantum and depth and diversity of retail offering as Smales Farm intensifies, ensuring sufficient space is provided for these activities to contribute to the vibrancy and on-site amenities required to support a dense mixed use development node while also ensuring that these activities do not predominate or detract from the nearby town and metropolitan centres of Milford and Takapuna.

Conclusion with Respect to Mix and Intensity of Uses

13.11 The site is well suited to rezoning to support a greater mix of uses and intensity of development than that currently provided for under the Business Park Zone. Key site attributes that lend themselves to a more intensive mix of uses including residential development include:

- Accessibility as a highly connected multi-modal transport node;
- Flexibility of existing site layout and development to adapt from established suburban business park typology to a new scale and form of vertical mixed use development;
- High degree of separation from surrounding smaller scale suburban residential areas;
- Located along an existing mixed use corridor between Takapuna and Milford Centres;
- A range of existing retail, hospitality and service businesses that offer a range of goods and services and lifestyle amenities suitable to cater to the needs of future residents as well as the existing workers and visitors to Smales Farm;
- A high quality of existing landscape amenity on site; and
- Opportunity to gain expansive panoramic coastal and city views from taller multi-storey buildings providing highly desirable residential amenity for high rise apartment development typologies.

13.12 The proposed plan change seeks to provide for a more vertical mixed use form of development that provides the opportunity to achieve a genuine mix of activities through enabling residential development.

13.13 The proposed plan change provides for a genuine mix of activities. The plan change maintains the existing cap on the quantum of commercial office development (162,000m²) while significantly increasing the building height opportunity to encourage more vertical forms of development, in particular apartment living. By not allowing further commercial office development than already provided for under the Business Park Zone, the plan change readily incentives the uptake of the significant development opportunity that remains for vertical residential apartment development, helping to ensure a balance between commercial and residential uses while also introducing a significant new supply of more compact living options providing housing choice into a highly accessible and desirable part of the North Shore.

13.14 By continuing the approach of proportionate allocation of floor space for supporting retail and commercial services activity to the uptake of allowable commercial office space, but also extending this to apply to a proportion of residential building GFA as apartment buildings are developed, the plan change appropriately allows for the ongoing growth and diversification of these supporting services and amenities on an incremental staged basis. This is appropriate, ensuring they can grow as the precinct as a whole grows in its density and diversity of offering.

13.15 This results in an approach that provides an appropriately balanced mix of uses with the cap on commercial office encouraging residential development in the significant development potential that would remain within the revised building heights up to 75-100m in height and associated building controls.

Providing for Tall Buildings

13.16 Of the 8 selected CABE criteria for considering planning for tall buildings identified in section 11, the first three of these factors – relationship to context (including heritage context) and relationship to transport infrastructure – are important factors in determining whether an area is appropriate for tall buildings, a fundamental consideration in considering the merits of the proposed plan change with respect to Smale’s Farm.

13.17 The five other relevant CABE criteria – architectural quality, contribution to public space and facilities, effects on the local environment, contribution to site permeability and ensuring a well-designed environment – address issues that have been identified and addressed through the development of proposed development standards and assessment criteria for tall buildings and the revised planning approach to Smale’s Farm generally.

Site Suitability and Relationship to Context

13.18 Extensive modelling and visualisation has been undertaken to analyse and assess the contextual fit between the prospective built form that can be anticipated under the proposed precinct provisions as set out in the Parts 2, 4 and 5 of the urban design and landscape assessment drawing package. This has included 3D modelling of the built
form envelope proposed under the plan change as well as comparisons with the existing environment and current planned future built form for Smales Farm and the surrounding urban context centred around Lake Pupuke between Takapuna and Milford. These larger scale 3D zoning views aid an understanding of how greater building height on Smales Farm would sit in a broad sense into the wider distribution of zoning and the scale and pattern of built form that can be expected to evolve over time as incremental uptake occurs of the development opportunities enabled by the Unitary Plan.

13.19 In this wider context, enabling taller buildings of up to 75-100m in height will differentiate Smales Farm as a distinct and identifiable vertical node of built form amongst the broader swathe of medium-rise mixed use and special purpose zoning within which the precinct is located. The aerial oblique views from a range of perspectives demonstrate how this will support Smales Farm, in combination with the North Shore Hospital, appearing as a clearly identifiable node of development and concentration of activity to the west of Lake Pupuke.

13.20 The proposed vertical development node appears both distinct from and complementary to the established centres of the large and long established metropolitan centre of Takapuna (with stepped building heights back from the coast of between 12.5 and 36.5m as well as a core area of unlimited height (subject to FAR and building in relation to boundary controls) to the southeast, as well as to the smaller, lower rise and more local catchment focused Milford town centre to the northeast (where building heights of 16m and 32.5m apply). Tall buildings at Smales Farm will also need in association with those existing and enabled at the nearby North Shore Hospital precinct to the east across Taharoto Road that includes an area with heights up to 75m in height comparable to that being sought at Smales Farm. The height and scale relationship between a future cluster of tall buildings at Smales Farm and these nearby centres and precincts can be seen the range of 3D City Engine modelled views (see in particular Figures 11, 15, 19 in Part 4 of the drawing package) as well as a number of the visual simulations in Part 5 including Figures 32 and 36.

13.21 Viewed from a distance, a concentration of towers of up to 75-100m in height, as depicted in the visualisations based on the concept masterplan, will achieve the desired outcome of marking Smales Farm out as an identifiable node of transit-oriented development with a concentration of tall buildings on that part of Smales Farm close to the busway/motorway corridor and in direct proximity to the busway station. The provision for limited building footprints to go above the general 75m maximum height up to 100m (which would reasonably enable 10 tower buildings with a cumulative floorplate footprint of 3000m² and maximum lower dimension of 35m above 75m in height) provides for desirable height variation amongst the tall buildings providing for visual interest amongst the future cluster of towers.

13.22 Closer in aerial oblique views and street level views have also been prepared utilising the concept masterplan model to aid an understanding of prospective built form scale and massing that can be anticipated under the proposed precinct provisions.

13.23 This built form contextual analysis demonstrates that there is no inherent sensitivity to enabling tall buildings at Smales Farm. Fundamentally the site is well suited to supporting tall buildings due to some key site and context attributes – these include the large 10 hectare site area, its location bounded by public road reserves on all four sides, and being located within an area of existing mixed use already providing for multi-storey buildings of a variety of building heights between 16m for Mixed Use Zone and 75 metres in the case of the North Shore Hospital precinct. The height and massing of this current zoning pattern, as well as the change to this context with the proposed
plan change, can be seen in the range of 3D modelled City Engine views included within the figures package. The wide separation distance of these road corridors from neighbouring street blocks and the established mixed use development and zoning along and around Tahanaro Road help to ensure Smale’s Farm is generally well separated from lesser intensity residential zones seeking to maintain a consistent smaller scale of built form of a suburban residential character of 2-3 storeys.

13.24 The existing Smale’s Farm business park provisions already provide for buildings of up to 25m in height (RL 46.5m) across the site. When buildings of this scale were first constructed at Smale’s Farm, starting with the landmark curved crescent of the row-named Vodafone Building on the corner of Northcote and Tahanaro Roads, they represented a marked and noticeable change in scale from the typically 1-2 storey scale of the suburban surrounds.

Figure 6: The scale of buildings along Tahanaro Road has been gradually evolving over time from suburban residential to a more urban street corridor defined by medium rise buildings up to six storeys in height (Source: Google Street view).

13.25 Over time incremental development of Smale’s Farm and the wider area has gradually evolved the scale and character of built form in the area that marks it out as a part of Auckland gradually transitioning to a more urban scale, mixed use street corridor. Most recently, the six storey B.HIVE building which in combination with the Yodatone Building is starting to create a consistent cohesive row of six storey high buildings lining Tahanaro Road between the Northcote Road corner and The Boulevard midblock entrance into Smale’s Farm. Further north, this evolving street enclosure from multi-storey buildings is reinforced by the three storey Q4 building and the five storey height of the perimeter block The Poynron retirement village complex on the opposite corner of Tahanaro and Shakespeare Roads, as well as the main building of Westlake Girls’ High School built hard to the street on Wairau Road. WGHs is currently planning a new assembly hall and convention centre on the corner of Shakespeare and Tahanaro which will further add to this scale of large floor plate, medium rise buildings along the corridor.

13.26 The North Shore Hospital to the east of Smale Farm already includes existing buildings of noticeably greater height and scale than the surrounding environment and also has significant further development opportunity under the Unitary Plan to develop with
building heights up to 75m in height (refer 3d Context views in particular Figure 15 in Part 4 for the extent of taller building height at the hospital in relation to the proposed Smales Farm height zones and more distant Takapuna metropolitan centre zoning).

13.27 This evolving urbanising scale of height along Taharoto Road has been recognised through the rezoning under the Unitary Plan that has provided for significant up-zoning of areas around Smales Farm including a predominance of mixed use along Taharoto Road near the site, allowing building heights of around 4-5 storeys or up to 16m (+2m roof allowance).

13.28 Modelling of the current Smales Farm built form and planning envelopes in the context of the Unitary Plan zoning for neighbouring areas demonstrates that there is a comfortable scale relationship between the existing Smales Farm building height of around 25m and the 16m (+2m) of the mixed use zone.

13.29 In providing for tall buildings at Smales Farm, the proposed plan change has sought to retain this established scale of buildings around the street-facing perimeter of the precinct as an appropriate transition down in height to the adjoining zones and precincts in the immediate area. This is reflected in the proposed maximum height of 27m (RL:50.4) to apply to a 50m deep street frontage height zone wrapping around Taharoto Road between the existing Smales Farm accessways on Northcote Road and Shakespeare Road extension. The 50m depth of this height area roughly corresponds to the depth of existing and proposed buildings aligned lengthways to the street such as Vodafone, and proposed masterplan buildings B14 and B15. Beyond this, within Height Area 2 as depicted on the proposed precinct plan, a new higher maximum building height zone is proposed enabling taller buildings up to 75m (RL:98.4) with provision for limited building footprints to go taller up to 100m (RL:123.4).

13.30 This building height strategy retains a lower building height zone of 27m around much of the public street perimeter of Smales Farm around Northcote, Taharoto Roads and Shakespeare Road extension while enabling tall buildings back from this street edge within the centre of the site and to the west where the precinct adjoins the Northern Busway / Northern Motorway corridor. This western interface lacks an established built form scale or character given the presence of the wide State Highway corridor and that the land to the west of here is the open space of the Fred Thomas Park golf course. This vast open space separation to the west marks out the central and western parts of the site as being most suitable for tall buildings.

Development Standards and Assessment Criteria relating to Tall Buildings

13.31 In providing for tall buildings at Smales Farm the proposed plan change has sought to adopt an approach consistent with that in other zones that already provide for buildings of comparable height and scale, in particular the Metropolitan Centre zone as applied at Takapuna, Albany and elsewhere. As with the Metropolitan Centre, the proposed plan change takes the approach of managing the effects of tall buildings through a combination of a restricted discretionary assessment regime with specific design criteria applicable to all new buildings as well as requiring key development standards to manage the environmental effects of tall buildings including building in relation to boundary controls, building bulk and setbacks at upper levels, building separation distance, and outlook depth for residential amenity.

13.32 Key development standards in the proposed plan change that address urban design, landscape and visual matters in relation to tall buildings include:

- A maximum plan dimension of 55m for that part of a building between 32.5m and 75m;
- An additional, lesser maximum plan dimension of 35m, to apply to that part of a building above 75m, setting an expectation that very tall buildings over 75m further reduce their footprint and bulk at upper levels;
- A minimum lower separation distance requirement of 20m for that part of buildings above 32.5m, to apply to commercial and all non-residential buildings so as to rely on residential outlook control as the sole requirement of building separation distance for tall buildings; and
- Outlook space requirement of 20m secured for all residential buildings above 27m in height, to maximise light and outlook around buildings.

13.33 In addition to the above, all new buildings or external alterations and additions (irrespective of height) are a Restricted Discretionary Activity with specific matters and assessment criteria relating to design identified. 1538.8.2 (5) includes a specific matter (f) on effects of tall buildings to be considered by Council for all new buildings, and additions and alterations not otherwise provided for. This is in addition to the other four matters that apply to all buildings but provide opportunity to assess the particular impacts of tall building proposals, in relation to consistency with Precinct Plan 2, building design generally, landscaped open space and pedestrian amenity, safety and access – all relevant matters to consideration of the potential effects of a tall building proposal.

13.34 These criteria, along with the criteria of the underlying Business Park Zone, provide Council with the opportunity to require appropriately comprehensive urban design studies and visual assessment. Assessment studies will ensure changes to built character and effects on specific views and viewing audiences including privacy / overlooking are considered, as well as effects from wind, shading as part of assessing the environmental effects of a resource consent application for a new tall building. Accurate and realistic representations of the architectural appearance of the building, including visual simulations will be important to assist with assessing the impact of the tall building on near, middle and distance views, including on the immediate context of public realm and adjoining development around the base of the building. Such studies are considered necessary and appropriate to fully understand and assess the potential effects of tall buildings on their immediate surrounds and wider urban and landscape contexts.

13.35 Assessment criteria for tall buildings (all buildings above 27m or RL 50.4M), are set out at 1538.8.2 (5)(f) and include the extent to which:
- The building maintains the visual amenity of the overall development on the site as viewed from residential zones and public places outside the Smales 1 precinct;
- The building makes a positive contribution to the collective skyline of the Smales 1 precinct;
- The building responds and relates appropriately to the scale and form of neighbouring buildings within the Smales 1 precinct; and
- Adverse off-site effects of tall buildings, in particular wind, shadowing, dominance and privacy effects, are avoided or mitigated.

13.36 As additional assessment criteria specific to the assessment of tall buildings, these criteria provide an assessment framework appropriate to managing both on-site and off-site effects of tall buildings at Smales Farm.
13.37 These assessment criteria provide the opportunity for each successive tall building proposal to be assessed in the context of the existing environment including any other tall buildings already constructed or consented. The potential impacts of a specific tall building proposal can be modelled and assessed to consider the effect on context including an internal amenity within the Smale's Precinct and off-site effects on the immediate surrounding area and wider city skyline. This includes the ability to consider the cumulative effect in association with other tall buildings already constructed and consented within the Smale's Precinct.

13.38 As with all buildings, tall buildings will also be subject to the building design assessment criteria at 1538.82 (S) (b) which requires consideration of the extent to which:

- Building design is of high quality;
- Features such as facade modulation and articulation, and the use of materials and finishes, are used to manage visual amenity effects of building bulk and scale, and to create visual interest; and
- The roof profile is part of the overall building form and rooftop plant and equipment is integrated into the building design.

13.39 This latter criterion relating to design of rooftops is particularly important for tall buildings, given that the skyline profile of rooftops and upper levels at heights up to 75-100m in height will be highly visible within the surrounding urban context and make a major contribution to the overall built character of the wider North Shore environs viewed contextually. Such provisions have long existed in Auckland’s City Centre where they have contributed to a diverse and distinctive collection of high rise buildings that have avoided the potential monetary or lack of distinctive character of flat top roof profiles. The Sentinel Building in Takapuna is a further local example of the contribution a distinctive roof profile makes to the wider built form and urban landscape character of the city. Such positive outcomes are sought through the inclusion of the assessment criteria under (7) that encourage building makes a positive contribution to the collective skyline of the Smale’s Precinct.
Wind assessment requirement for all buildings over 25m, that will continue to apply as a requirement of the underlying Business Park Zone and is the same requirement used to manage potential wind effects of buildings in zones that enable tall buildings such as the Metropolitan and City Centre zones. In relation to the planned pedestrian plaza to be built at the centre of the precinct, an additional requirement is that this space be appropriately sheltered from the prevailing south-westerly wind.

Additionally, 1538.8.1 (2) sets out matters of discretion for proposed buildings that exceed the height limits of the Smales 1 Precinct, including:

a) The effects of the infringement on the amenity of neighbouring sites.
b) The location of the site in relation to its suitability for high buildings.
c) The contextual relationship of the building with adjacent buildings and the wider landscape.

Assessment criteria for height infringements are set out at 1538.8.2 (2) and include:

a) The extent to which the amenity of neighbouring sites is adversely affected.
b) The extent to which the Smales 1 Precinct can accommodate higher buildings without generating significant adverse effects on the wider environment.
c) The extent to which the height of a new building is appropriate in the context of the height of buildings on adjacent land and within the wider landscape.
Conclusion with Respect to Provisions for Tall Buildings

13.43 Smales Farm is considered to be an ideal location to provide for tall buildings as part of planning provisions to enable a denser and more diverse concentration of activity adjacent to the Smales Farm busway station. Site suitability for tall buildings is supported by multiple factors including:

- the accessibility to mass rapid transit being located immediately adjoining the Smales Farm busway station;
- the large 10.8 hectare size of the site in single ownership;
- the high degree of separation from smaller scale suburban residential zones due to the wide road reserves that surround the precinct and the broader swathes of mixed use and special purpose (healthcare and education) uses that surround much of Smales Farm;
- the suitability of the existing infrastructure and amenities on the site to support more intensive development, including the presence of an established and growing social infrastructure of retail, hospitality and service businesses and high quality landscape areas and pedestrian-focused public spaces; and
- the flexibility of the existing business park masterplan and extent of build out (extensive areas of surface carparking remain) to adapt to accommodate a more dense, finely-grained and compact built form needed to create a highly walkable public realm needed to successful integrate tall buildings with the busway station and wider urban context.

13.44 The proposed plan change has considered an optimal built form profile for the precinct in terms of building height and scale that retains the established scale of development along Tuharoro Road with a 27 metre height applying for a 50 metre deep street frontage zone that also wraps around Shakespeare and Northcote Road frontages. Beyond this, taller development up to 75-100m is enabled subject to a range of development standards and assessment criteria.

13.45 This height strategy concentrates the tall building opportunity within the central and western parts of the Smales Farm precinct adjoining the broad busway/motorway corridor and golf course beyond, transitioning down to areas of established built scale across Northcote, Tuharoro and Shakespeare Roads.

13.46 Collectively, the tall building development standards and assessment criteria proposed are considered to appropriately provide for tall buildings with a restricted discretionary approach to help ensure design quality and flexibility while manage potential effects of tall buildings. Such an approach is consistent with the approach taken elsewhere in the Unitary Plan in the Metropolitan Centre and City Centre Zones that provide for buildings of comparable height, scale and form.

13.47 While the plan change is seeking to advance a new form of integrated land use and transport development for Auckland through providing for tall buildings at Smales Farm, planning for tall buildings itself is not new. Tall buildings have been a defining feature of Auckland's city centre for many decades and are increasingly appearing in other centres such as Takapuna where a number of towers of more than 20 storeys are clustered.

13.48 Other zones in the Unitary Plan, most comparably the Metropolitan Centre zone, provide for buildings of a comparable height, scale and form to that being sought for the Smales Farm precinct. The proposed plan change has sought to borrow from the approach taken in the Metropolitan Centre zone in terms of development standards and
assessment criteria for tall buildings to ensure design quality and manage potential adverse effects.

13.49 There are many site and context factors that support Smales Farm having a high suitability to support tall buildings whilst avoiding or managing the potential for adverse effects. The approach taken in the proposed plan change that includes a set of development standards and assessment criteria takes a similar approach to managing tall buildings on the Metropolitan Centre that already provides for buildings of a comparable scale and form of development. Given the contextual suitability and discretionary planning regime with a focus on design quality and managing effects of buildings on internal and off-site amenity, overall it is considered that the development of the plan change has given due consideration to managing the range of urban design issues presented by tall buildings within the precinct and on the wider urban environment.

Ensuring Built Form Quality:

13.50 In addition to managing the location, design and potential effects of tall buildings, the proposed plan change seeks to ensure quality built form is achieved across the whole precinct irrespective of building height. This includes the built form, massing, design and appearance of individual buildings and how they relate to other buildings and the public realm external to the precinct and the publicly accessible streets and spaces within Smales Farm, as well as any external off-site effects in relation to neighbouring properties.

13.51 Buildings within the 27m (RL50.4) height zone 1 will have an external public realm interface with the street network surrounding Smales Farm and play an important role as the ‘front face’ of the precinct in terms of its relationship with the immediate mixed use neighbourhood along and around Taharoto, Northcote and Shakespeare Roads – major movement corridors that are used and experienced by tens of thousands of people every day.

13.52 This street frontage zone is the most established part of the Smales Farm precinct, with three completed office buildings – Vodafone, Q4 and now B:HIVE – lining Taharoto Road and representing roughly 50% of the Taharoto Road frontage between Northcote and Shakespeare Roads.

13.53 The plan change, consistent with the concept masterplan, seeks to maintain the scale and form of medium rise, six storey development to this street frontage as established by these completed buildings that can be expected to remain for the long term.

13.54 Development standards that apply across the precinct will have an influence on further development within the lower height zone, including the outlook space requirement for any future residential buildings that fall within or interface with this area.

13.55 The treed landscape yard setback, that has been a distinctive element of the original Smales Farm masterplan and requirement of the business park provisions under the former North Shore District Plan, was not continued forward into the Unitary Plan and would not be consistent with the desired change to transition to a more urban built form with building edges more strongly defining streets and squares and providing activity to the street.

13.56 Under the proposed plan change, it can be expected that future buildings within this street frontage zone, in particular the future masterplan B14 and B15 sites in the northeastern corner of Taharoto and Shakespeare Roads, will build closer to the street.
edge than earlier buildings such as Vodafone, and provide active ground floor uses that bring activity and vitality to the street corner. Such an outcome would be beneficial to the experience of walking along Taharoto Road and would help with a more outward integration of Smales Farm with the wider mixed use neighbourhood within which it sits.

13.57 All buildings at Smales Farm, including external additions and alterations, will be restricted discretionary activities subject to specific assessment criteria. All buildings will be subject to the building design assessment criteria of 1338.0.2 (5) that seek to ensure a quality built form will result including architectural quality/building design and appearance including the provision and integration of landscaped open spaces. This provision also requires applications to be assessed for consistency with the Precinct Plan 2 in terms of supporting the key pedestrian linkages between the street entrances and centre of the precinct, and provision for a future pedestrian plaza in this central location.

13.58 Additionally, all buildings will be subject to assessment criteria that apply under the Business Park provisions that relate back to the policies that apply to other business and centre zones. In particular, the policies of 115.8.1(3) reinforce the need for all new and altered buildings to achieve high quality integrated design outcomes in relation to internal and off-site amenity considerations.

Conclusion with Respect to Achieving Quality Built Form

13.59 The plan change seeks to maintain a medium rise six storey scale of buildings around the Taharoto Road street frontage generally consistent with the established scale of existing commercial office buildings and the existing height controls in place under the Smales Farm precinct of the Business Park Zone.

13.60 All new buildings (and alterations/additions) within this zone, and all buildings lower than 27m within the Height Area 2 anticipated to provide taller buildings back from the public street environment, will be restricted discretionary activities subject to development standards and assessment criteria that are focused on achieving quality built form that relates well to existing development within the precinct and the external interface with adjoining streets and wider neighbourhood.

13.61 These provisions are considered to provide an appropriate restricted discretionary assessment regime to manage design quality consistent with the approach taken across comparable business and centre zones within the Unitary Plan, providing the right balance of both flexibility of design response and discretion by Council with respect to building massing, architectural appearance, landscape integration and pedestrian amenity interface.

Walkable Urban Farm and Pedestrian Public Spaces

13.62 As highlighted in the ‘6 D’s’ of Transit Oriented Development from the Vancouver transit authority design guidelines, achieving the qualities of a highly walkable urban form is key to the success of transit-oriented development. This has been recognised by Smales Farm in preparing their new vision for the future of the precinct, with walkability and creating an environment where people come first identified as a key guiding principle to realising the long term vision of becoming a vibrant mixed use community. It is recognised that for some parts of Smales Farm this will mean future stages of development will need to reduce the extent of the site characterised by vehicle-dominated car parking areas and vehicular access arrangements that sometimes...
Attachment J

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13.63 In preparing the plan change consideration has been given to how some certainty of outcomes with respect to achieving walkable urban form, including pedestrian-focused public spaces, can best be provided for at Smales Farm. In doing so it has been recognised that there is a need to ensure flexibility for future masterplanning of staged development in what is a large under-developed site in single ownership. These qualities make Smales Farm quite different to the normal fine grain pattern of public streets and blocks that characterise other dense mixed use areas such as Takapuna or the City Centre that are more constraining for masterplanned development and provide more certainty of outcome in relation to controls and criteria that relate to the amenity of surrounding public streets and spaces.

13.64 Smales Farm Precinct Plan 2 identifies key pedestrian linkages from each of the three established street entrances into the heart of the precinct. The intention of identifying these connections – which already exist in the form of the axial The Avenue and The Boulevard internal road layout – is to ensure that they are retained as key walking routes through the site and integrating with the external public realm, in any future changes to the internal layout of circulation and development blocks. This is reinforced through the assessment criteria relating to pedestrian amenity, that requires consideration of the extent to which each stage of development achieves legible pedestrian routes within and through the site linking each of the main entrances from the surrounding street network to the future pedestrian plaza to be developed as a new central heart to the precinct.

13.65 Both the precinct plan and the criteria make reference to an identified new more direct route from the bus station through the centre of the precinct to the Taharoto Road entrance. This route will pick up on a missing desire line between the bus station and the centre of the Smales Farm precinct, and beyond to the Hospital precinct across Taharoto Road. It is anticipated that such a route could become the main pedestrian connection between the hospital and the bus station in the future.

13.66 The precinct plan also identifies the requirement for a pedestrian plaza to be constructed at the centre of the precinct. The pedestrian plaza is provided for through a dedicated development standard at 1530.6.9 that requires a pedestrian plaza to be built no later than the completion of 125,000m² GFA of development in the Smales 1 precinct. The standard requires the following minimum requirements for the design of the pedestrian plaza:

- Have a minimum area of 400m²;
- Receive adequate levels of direct sunlight during the middle of the day throughout the year;
- Be appropriately sheltered from the south-westerly wind;
- Be designed for personal safety, and
- Incorporate hard and soft landscaping.

13.67 Supporting these requirements to maintain and provide for these key pedestrian linkages and pedestrian plaza, all stages of development requiring resource consent will be subject to the building design assessment criteria at 1530.6.2 (5) (e) that seek to ensure each stage of development will result in a highly walkable urban form with high...
levels of pedestrian amenity, safety and access. In particular, the criteria at (e) require
development to consider the extent to which:

- Legible pedestrian routes are provided within and through the site linking each of the
  main entrances from the surrounding street network and the bus station to the location
  of the future pedestrian plaza;
- The design of a building contributes to pedestrian vitality and interest where it fronts an
  area of significant pedestrian activity;
- Building entrances are easily identifiable and accessible, and provide pedestrian shelter;
- Separate pedestrian entrances are provided for residential activity;
- The design of development contributes to personal safety, and
- Parking, loading and service areas are located and screened (as necessary) to maintain
  pedestrian amenity.

13.68 Consideration of the ways in which car parking affects pedestrian amenity are
specifically addressed by the last criterion cross-referenced above. This issue is also
addressed directly in the provisions of the underlying Business Park zone that will
continue to apply. In particular Standard H15.6.4(2) of the Business Park zone requires
a landscape buffer of 2m in depth along the street frontage between the street and any
car parking, loading or service areas visible from the street frontage. Additionally, within
the Business Park zone this issue is addressed through the matters of discretion and
associated assessment criteria, for example H15.6.1 (c) and (3) (n)(v).

13.69 Consideration has been given to the possibility of residential uses at ground floor.
Unlike Centre zones, where the Unitary Plan discourages residential units at ground
floor, it is considered that opportunity exists for appropriately designed ground floor
residential within some parts of the Smale’s Farm precinct, particularly away from the
key pedestrian routes. While there is no restriction proposed on ground floor
residential, it is recognised that this needs careful design to ensure high quality
pedestrian amenity from publicly accessible walking routes and open spaces within the
precinct, as well as managing the privacy and residential amenity of residents.

13.70 This is recognised and addressed through the inclusion of assessment criteria at
1538.8.2 (5) (c) that states that:

Where ground floor residential activity adjoins a publicly accessible area of
public access, the extent to which the design of the public/private interface:
  - Addresses the privacy of occupants of dwellings;
  - Provides appropriate levels of passive surveillance of the adjoining area of public
    access; and
  - Maintains the visual and pedestrian amenity of the adjoining area of public access.

13.71 Such a provision helps to manage the public/private interface where ground floor
residential adjoins areas of public access within the precinct to manage privacy while
affording desirable levels of passive surveillance of, and visual interaction and interest to,
the adjoining public areas. In doing so this helps ensure the base of residential
buildings helps promote a safe and engaging, walkable urban form irrespective of
whether active ground floor uses are provided.
Conclusion with Respect to Walkability and Quality Public Spaces

13.72 Collectively, these development standards and assessment criteria provide multiple opportunities to address issues of pedestrian safety and amenity and ensure each successive stage of development at Smales Farm is working towards a highly walkable urban environment and publicly accessible streets and spaces within the Precinct.

13.73 Importantly, the precinct plan and assessment criteria on pedestrian amenity, safety and access recognise the on-going need to preserve and enhance key walking routes through the precinct connecting the three established public street entrances with the centre of the precinct, as well as providing for a new direct walking route between the bus station and the central heart. Additionally, the development standard for a pedestrian plaza establishes some minimum requirements for the desired future public space at the heart of the precinct, including a requirement for its staged delivery before or at the trigger of 125,000m² GFA of commercial floor space.

13.74 These proposed precinct provisions are consistent with the existing policy directive within the Unitary Plan for the Business Park Zone, that includes policy 18 h) that states that any plan change to a business park zone must maximise the number and quality of connections through the site where these provide logical links to the local street network, with a priority on pedestrian and cycle routes and avoiding fenced and gated environments.

Providing for Residential Amenity

13.75 Providing for residential development and activity at Smales Farm is a key objective of the plan change. Smales Farm has many existing site and contextual attributes that make it highly suited for residential development. The precinct also provides an existing high level of on-site amenity – particularly in terms of landscape and open spaces but also the provision of a growing range of retail and commercial services that create the foundations of a social infrastructure at the same time as providing for the needs of the workers and visitors who currently use the precinct.

13.76 It is recognised that the nature of some of the landscape provision on-site may change over time as the precinct transitions into a more densely developed transit-oriented development node. Inevitably, the current landscaped areas of the site, which includes large areas of open grass and specimen trees (and large expanses of open areas dedicated to surface car parking and vehicular circulation such as the roundabout at the centre of the site) will reduce to accommodate greater development and intensity of use on the site.

13.77 In a dense mixed-use development node, the public realm of the precinct must provide for a more urban set of characteristics of public space amenity including a greater intensity and diversity of use and spatially, a more closely connected network of fine grain, more human scaled streets, pedestrian pathways and public places that are more closely defined and supported by the adjoining building edges. Achieving this form of public space and pedestrian amenity at Smales Farm means more pedestrian-priority streets and public spaces within the precinct such as shared spaces and laneways and pedestrianised small squares, plazas and pocket parks; spaces that are largely hard surfaced to support more intensive use by people for a wide variety of activities. This will require the redesign of existing internal streets and circulation spaces over time, and in some areas of the precinct will result in some reduction in green space.
13.78 While achieving such a compact and dense form of development, supporting taller buildings above the human scale of the street, is a key desired outcome for Smale's Farm, it is not intended that this be uniformly applied across the entire site in such a way that there is no room for areas of green space. One of the benefits of providing for a more vertical form of development, is that it can simultaneously add greater density of activity while reducing the horizontal footprint of development, which helps to continue to provide space for landscaped open spaces at ground level. As depicted in the concept masterplan, the quantum and scale of development provided for continues to allow landscape areas with more open and expansive spatial qualities, offering contrasting experiences to those within the core of the precinct including a sense of relief and solitude, as well as informal active and passive recreation activity such as the ability to kick a ball, stroll, meander, jog or run around spaces more peripheral to the precinct.

13.79 The large 10.8 hectare size of the precinct allows for such a juxtaposition and integration of a dense built form at a vertical mixed use development node with areas of open space. The plan change does not anticipate moving to a near 100% building coverage model found in traditionally dense older urban parts of the city such as Takapuna or the City Centre, but maintains a 20% minimum landscaped area requirement for the Smale's Farm precinct as a whole. This development standard already applies under the existing business park zone provisions.

13.80 In terms of residential amenity for future residents living within the precinct, under the plan change, future stages of development will result in a taller and more closely spaced pattern of buildings than the widely spaced low to medium rise pattern of existing commercial office buildings. This has implications for expectations of residential amenity and how an appropriate living environment is established and maintained for future apartment residents within buildings. Outside buildings it also places a more intensive and diverse set of demands on the public Realm of the landscaped open spaces within the precinct. In providing for residential activity within the Precinct therefore it is important to consider this in the context of this future planned environment which has a different built form and public realm character, development intensity and activity mix than is planned and provided for.

13.81 The nature of on-site amenity required to support residential living within a dense mixed use development node as envisaged for the future of Smale’s Farm is quite different to that of the lower density, low rise suburban scale and selling of a suburban business park. It is not however a consideration unique to Smale’s Farm. Rather, it is akin to that already provided for in other parts of the city, zoned for both greater scale of building height, density and a mix of uses, such as the Metropolitan Centre zone.

13.82 As is the case in planning for residential amenity in dense urban centres, the scale and distribution of built form must be managed to ensure that daylight and sunlight is gained to residential buildings and to key public places at street level that will provide an extension of the living areas to compact apartment living. The layout and design of each stage of building development must seek to manage privacy, outlook and microclimate for residential buildings within the precinct and create the desired highly walkable public realm at ground level.

13.83 The need to provide for such residential amenity, including landscaped open space amenity, as part of the ongoing intensive development of Smale’s Farm into a vibrant mixed use transit-oriented development is recognised in the proposed policies under 1538.3 that include:
(2) Enable the development of intensive residential activities at the Smales 1 Precinct and require it to be designed to provide privacy and outlook; and have access to daylight and sunlight.

(3) Require landscaped open space and pedestrian connections to be provided or maintained with each stage of development to ensure an appropriate level of amenity for residents, worker and visitors to the Smales 1 Precinct.

Development Standards and Assessment Criteria relating to Residential Amenity

13.84 The following provisions of the plan change help to provide for an appropriate level of residential amenity and open space amenity as Smales Farm introduces residential activity and transitions to a denser, more compact, walkable and intensively used mixed use precinct over time:

- Applying development standards on minimum dwelling size and associated balconies and outdoor terraces;
- Applying the development standard on residential outlook control used in other locations of comparable development intensity and scale such as the Metropolitan Centre Zone, to provide for an appropriate level of outlook and daylight for future residents of apartment buildings;
- Applying development standards such as the maximum tower dimension that manage building bulk and size at upper levels for tall buildings, helping to provide more light to the lower levels of buildings and public spaces and landscape areas at ground and podium level;
- Maintaining the 20% minimum landscaped area requirement for the Smales Farm precinct as a whole, from the current business park zone provisions that set a baseline expectation in terms of the area of the site to remain as landscaped open space as the precinct intensifies and develops over time;
- Provision for the central pedestrian plaza, to be established by the time of approximately 30% buildout (125,000m² GFA) – which will offer useable amenity to residents as well as workers and visitors to the precinct. This publicly accessible space is required to be a comfortable space with a minimum area of 400m², located at the heart of the precinct and designed in an integrated way with surrounding buildings to provide a comfortable microclimate including shelter from the prevailing wind, and to receive adequate levels of direct sunlight during the middle of the day throughout the year, and
- Managing ground floor residential activity as addressed through the assessment criteria at 1538.8.2 (5c) that requires consideration of the privacy of occupiers of dwellings where ground floor residential units adjoin publicly accessible areas of the Precinct.

13.85 Additionally, assessment criteria proposed for the Smales precinct include a number of criteria that require consideration of matters relating to on-site amenity for future residents and all users of the Precinct, including:

- Requirements for providing and maintaining the key pedestrian linkages through the precinct as identified in Precinct Plan 2;
- Consideration of landscape open space provision with each stage of development, under 1538.8.2 (5d) that consider the extent to which:
  - Landscape open space is provided or maintained with each stage of development.
The design of hard and soft landscaping integrates with and appropriately enhances the design and configuration of buildings and the amenity of public places within the site for the various users of the Smales 1 Precinct:

- Considerations of pedestrian amenity, safety and access recognising that walkability is a key attribute of on-site amenity for anyone living within the Smales Farm precinct, and including the extent to which separate pedestrian entrances are provided for residential activity providing a sense of address for residents and visitors;
- For tall buildings, the extent to which the building responds and relates appropriately to the scale and form of neighbouring buildings within the Smales 1 precinct, helping to manage potential effects on residential amenity internal to the precinct with subsequent stages of development once the first residential building is established.

Conclusion with Respect to Residential Amenity

13.86 Smales Farm has many site and locational attributes that are ideal to support high quality, high density residential development in future.

13.87 The desired built form and activity mix for the future of Smales Farm as a vibrant mixed use transit-oriented development node will alter the way in which open space amenity is provided within the precinct and the way in which common, publicly accessible areas are laid out to cater to the demands of more users and greater range of activities.

13.88 The maintenance of the 20% minimum landscaped area requirement, requirement for a central pedestrian plaza, and assessment criteria relating to landscaped open space provision and pedestrian amenity help to ensure considerations of how landscape design and open space / public space provision as they contribute to residential amenity can be fully considered and addressed with each stage of development.

13.89 For future residents living within apartment buildings at Smales Farm, the development standards proposed provide for an appropriate level of residential amenity comparable to that provided for in other dense, mixed use environments such as the Metropolitan Centre zone.

13.90 The restricted discretionary nature of all building development enables consideration of a range of issues relating to residential amenity by Council in considering approval of each stage of new development, with assessment criteria that enable consideration of a wide range of matters relating to providing and maintaining residential amenity as each stage of development occurs.

Public Realm Interface with Surrounding Streets

13.91 Consideration has been given to the desired future public realm interface with surrounding streets including the SH1 Northern Busway and Motorway corridor that forms the long western boundary to the precinct.

13.92 In general, it is considered desirable in future that as part of the transition from a suburban business park typology to the more urban transit-oriented development node, that future buildings at Smales Farm with an immediate public realm interface to surrounding streets of Northcote, Taharoto and Shakespeare Roads have a closer relationship to the public realm of the streets that surround the precinct.

13.93 Future buildings should contribute a strongly defined built edge to those streets and where possible, providing ground floor activity that enriches the street and contributes to
pedestrian amenity and safety in terms of bringing life and activity to the street edge. Such outcomes are promoted through the zero setback requirement to all three road frontages, as well as the provision that enables floor space for retail activities as a proportion of a commercial or residential building.

13.94 The lower 27m building height maintained along the length of Taharoto Road frontage and wrapping around the key corner sites with Northcote and Shakespeare Road, will ensure a medium-rise, human scaled street wall of up to six storeys will continue to evolve along these street edges as future buildings fill in gaps and extend the scale of built form already established by the Vodafone and b. HIVE buildings. Taller buildings will be required to be set back from this lower height zone that represents the main public realm interface where the majority of pedestrian movement and activity can be expected to occur in terms of people moving along and across Taharoto Road between the busway station, Smale’s Farm, the hospital and other mixed use destinations along and nearby this busy street corridor. Development standard H15.6.4(2) of the Business Park Zone will continue to apply to all street frontages requiring any visitor car parking, loading or service areas to be set back at least 2 m behind a landscape buffer zone helping to manage the visual and pedestrian amenity considerations of dealing with vehicular access and carparking in relation to the public streets that surround the Precinct.

13.95 Upper levels of street-facing buildings should be designed to provide positive passive surveillance and visual interaction with the street environment, particularly future residential buildings that through the provision of balconies and outdoor terraces will result in a much more interactive relationship with the street than that typical of the commercial office buildings that have been developed at Smale’s Farm to date.

13.96 These desired outcomes with respect to pedestrian amenity on surrounding streets are supported by the assessment criteria at 1538.8.2 (5)(a) that require consideration of the extent to which the design of a building contributes to pedestrian vitality and interest where it fronts an area of significant pedestrian activity.

13.97 The long, uninterrupted western boundary of the precinct to the Northern Busway and Motorway corridor is also a public realm interface, although with quite different qualities and sensitivities than the public streets that bound the balance of the Precinct.

13.98 This western precinct interface does not have the human-scaled sensitivity that comes with a pedestrian pavement street edge condition. Rather, it is a highly visible edge experienced by many people at speed as they move along this major movement corridor for the North Shore. Visual amenity is a key consideration for this edge, but there is little sensitivity to the scale of built form or activity interface between Smale’s Farm and this corridor.

13.99 Consequently, the plan change has considered this western part of the precinct suitable to support tall buildings with lower sensitivity to the potential effects of building scale while a concentration of building height and density on this part of the Precinct will result in a desirable built form profile reinforcing the legibility and recognition of Smale’s Farm as a significant node of mixed use development at this key gateway point into Takapuna and Milford from the motorway and accessed directly from the high volume, fast and frequent Northern Busway mass rapid transit line. The development of a cluster of residential towers, supported by more medium rise mixed use buildings in this location, represents a highly desirable expression of a high density, high rise built form node signalling the presence of this transit-oriented development node from the major movement corridor for the whole of the North Shore.
13.100 While such a high rise built form outcome will result in beneficial outcomes for the precinct and wider North Shore context from an urban design perspective, the proposed plan change has recognised the need to manage the potential scale of buildings at this height to ensure the potential for adverse effects from building bulk are managed to an acceptable level. The development standards that apply provide assurance that a continuous high rise wall of building towers 75-100m in height will be avoided along this edge and, in combination with the assessment criteria that apply to all buildings and tall buildings in particular, provide an appropriate assessment framework to manage potential effects of building height and scale in relation to this highly visible and prominent interface with State Highway 1.

Conclusion with Respect to Public Realm Interface

13.101 The plan change has recognised that the Smales Farm precinct is defined by public streets and movement corridors – including the Northern Motorway and Northern Busway – on all four sides, giving it an extensive public realm interface and corresponding prominence within the wider area between Takapuna and Milford and as experienced from State Highway 1.

13.102 The building height and massing strategy adopted by the proposed plan change has considered the relative sensitivity of these contexts and makes a clear distinction between the desired outcome of more pedestrian oriented, mixed use buildings interfacing with surrounding streets on Takarote, Northcoole and Shakespeare Roads and the western interface with the busway/motorway, which can support buildings of greater height and scale without the need to step down in height as provided for around the other precinct boundaries where the public realm interface is defined by an immediate interface with the footpaths of public road reserves serving a busy mixed use neighbourhood.

13.103 The plan change appropriately manages the built form interface with the road reserve with surrounding streets, providing for buildings that will provide greater spatial definition and activation of surrounding streets than have historically been developed at Smales Farm under the suburban business park model that has influenced and controlled development outcomes to date.

13.104 Along the western boundary with SH1, the plan change enables significantly greater building height and scale than currently provided for, which will in time result in a significant new node of high rise, mixed use development appearing along this highly visible public interface with the busway and motorway corridor that is the major movement corridor for the North Shore. In urban design terms, this is considered a desirable scale and form of development, signalling that the precinct is a significant node of mixed use activity within the overall North Shore context and representing an appropriately optimised greater density and scale of built form at this interface that does not have the same contextual sensitivity as the street network surrounding the balance of the precinct.

Relationship to Neighbouring Zones

13.105 In enabling tall buildings within Smales Farm consideration has been given to maintaining an appropriately scaled interface with adjoining zones that surround the precinct. This includes a mix of school and residential properties zoned Mixed Housing Urban to the north and south of the precinct as well as the North Shore Hospital and mixed use zoned The Poynton retirement village to the east (refer the range of
contextual massing views and concept masterplan cross-sections - Figure 3 and 4, Part 2 - of the drawing package).

13.106 Building in relation to boundary controls are maintained to adjoining zones of Mixed Housing Urban across Northcote Road to the south, and to the Whakatane Girls’ High School to the north. This control also applies to the golf course land to the west across the motorway, although at such a distance that it makes little impact on the ability to locate buildings up to 100 metres in height within the western part of the precinct.

13.107 The land use interface between Smalies Farm and properties to the south across Northcote Road is quite distant with little relationship from one side of the street to the other, due to the predominant motorway interchange function of this short stretch of Northcote Road between Tahunara and the motorway creating major separation and separation between the existing business park and properties to the south. The Smalies Farm frontage is split between the existing Vodafone Building to the east of The Avenue, with a large surface carpark to the west between the Northcote Road entrance and the Northern Busway.

13.108 The majority of the residential properties are concentrated at the eastern end where the immediate interface is with the existing Vodafone Building and the Smalies Farm entrance, both of which can be expected to remain for the long term. The 27m street frontage height area covers the existing Vodafone corner site through to the The Avenue entrance. The 75m height area is set back 50m back from the street edge and any tall buildings to be developed in this part of the site will be subject to the 3m + 45 degree building in relation to boundary recession plan that applies from the southern side of Northcote Road and would have the effect of steeping in buildings 75m in height at least 51m back to achieve 75m in height or 68m to achieve 100m.

13.109 To the west of The Boulevard entrance and signalised intersection on Northcote Road, the balance of the properties to the south are occupied by the Northcote Intermediate School which has its main entrance on Northcote Road with buildings set back behind an entrance carpark. School playing fields extend to the west as far as the motorway, with a slip lane access off Northcote Road providing access to the playing fields and several residential properties that remain backing onto the school grounds.

13.110 The slip lane, in combination with the road widening that has occurred to accommodate the motorway on and off ramps at the abutment to the motorway overbridge creates an extra wide buffer (between approximately 30–60m) between this southwestern corner of the Smalies Farm precinct and the school grounds and handful of residential properties to the south.

13.111 Given this extra wide separation distance, the generally broad open space and treed character of much of the land opposite, it is considered that the building in relation to boundary control that applies is sufficient to manage building height at this interface. The plan change does not propose the continuation of the lower height 27m zone along this stretch of the Smalies precinct. The building in relation to boundary control will require tall buildings to be set back from Northcote Road, with a building of 75m in height being set back 51m from the boundary and a 100m building being set back 68m. The maximum tower dimensions that apply, as well as the minimum building separation and outlook controls, limit the potential for a ‘wall of tall buildings’ along this 200m length of frontage of Northcote Road.

13.112 Such a built form interface, managed by these development standards, is considered an appropriate scale relationship for this section of Northcote Road and will enable a desirable presence of tall buildings defining the southwestern corner of Smalies Farm marking the key gateway on and off the motorway at Northcote Road. Potential effects
that may arise from the design of a specific building proposal, including the potential for building dominance, privacy, visual amenity, shading, or wind effects, can be readily considered and addressed through the assessment criteria proposed with discretion remaining with Council.

13.113 Similarly, a building in relation to boundary control applies relative to the Girls’ High School to the north across Shakespeare Road, as a key control that will require the setback of tall buildings back into the site to the south of the precinct boundary. Shakespeare Road between Taharoto Road and the Smales Farm entrance has a width of at least 24m. West of here, the road reserve widens to accommodate the access arrangements and small park and ride carpark of the busway station. This expanded vehicle circulation and carpark area results in a wider separation distance of at least 50m between the Smales Farm and the School at this western end near the busway station entrance.

13.114 The height planes for Smales Farm respond to these characteristics, with the 27m height zone wrapping around the corner from Taharoto Road for approximately the first third of the boundary. While the 75m height area extends to the boundary either side of The Avenue access from Shakespeare Road, the building in relation to boundary control will limit buildings to approximately 31m at the street edge east of The Avenue and around 40m on the bus station side of the entrance where the separation distance from the school boundary is wider. Tall buildings seeking to reach heights of 75-100m will be required to be set well back from the street edge, between 60-60m south from the street.

13.115 As with the Northcote Road interface, this built form interface, subject to the development standards and restricted discretionary assessment criteria proposed, is considered an appropriately scaled built form interface in urban design terms between the Smales Farm precinct and the school to the north of the precinct, which transitions down in height from the tall buildings in the centre of the site down to between 27 and 40m at the boundary with Shakespeare Road.

13.116 The bus station site, which legally forms part of the Northern Busway land, has an adjoining dogleg-shaped boundary with Smales Farm in the far northwestern corner of the precinct. Given the transport status and function of this land parcel, the lack of sensitivity of this activity to building proximity and the desirability in transit-oriented development terms to maximise building density in proximity to transit access, the plan change provides for tall buildings with no set back in relation to the common boundary with the bus station. While not currently envisaged by the concept masterplan, which shows this area remaining as part an open landscaped zone along the western boundary, such a built form outcome as enabled by the plan change would be considered highly desirable from an urban design perspective.

13.117 No building in relation to boundary or yard setback control is currently provided for or required along Taharoto Road in relation to the mixed use and special purpose zoning of the North Shore Hospital and The Poynton sites to the east. At this eastern interface, the 27m height, relative to the typical 30m width of the road reserve, maintains the comfortable height to width ratio already established for Smales Farm that has a comfortable relative height and scale relative to the Hospital and mixed use zone sites and will at full build out on the Smales Farm precinct result in a strongly defined building edge of up to six storeys reinforcing the desired mixed use urban street corridor planned for Taharoto Road under the Unitary Plan.
Conclusion with Respect to Neighbouring Zones and Precincts

13.118 The proposed plan change has given consideration to maintaining an appropriate scale of built form at the street edge interface with neighbouring zones by managing a transition down in height from the provision for tall buildings within the central and western motorway boundary of the precinct where no such sensitivity exists.

13.119 This is achieved through the retention of a lower height 27m height area wrapping around Northcote and Shakespeare Roads, as well as relying on the building in relation to boundary controls that will require tall buildings of up to 75-100m in height to be set well back within the Precinct from the public street edges proximate to the neighbouring schools and residential properties to the north and south of the precinct.

13.120 A number of development standards will apply including maximum tower dimensions, building separation distance and residential outlook controls that will manage bulk and massing of future buildings. A range of assessment criteria will also require consideration of potential effects in relation to neighbouring residential zones (including the schools) and other neighbouring areas. In particular, assessment criteria 1538.8.2 (e) requires all buildings above 27m (RL50.4) to maintain visual amenity and mitigate adverse off-site effects of tall buildings, including the potential for wind, shadowing, dominance and privacy effects.

13.121 This combination of the height zones, development standards and assessment criteria is considered to result in a planning framework from an urban design perspective that results in an appropriately scaled built form interface with neighbouring properties to the north, south and east of Smales Farm with a restricted discretionary design regime to require each stage of building development to manage and mitigate the potential for adverse effects in relation to these neighbouring areas, particularly residential zones.

Legibility of Built Form Node

13.122 A legible transit-oriented development node that is visible within the wider urban form of the city in the form of an identifiable cluster of tall buildings has been identified as a desired urban design outcome.

13.123 Such an outcome would serve to visually reinforce the importance that has been placed on this location as a highly accessible place offering a dense and diverse concentration of mixed use activity immediately adorning the busway station which will increase its importance as a destination for people from across the North Shore and the wider city.

13.124 These positive effects on the wider urban form of the city from enabling a recognisable cluster of tall buildings at Smales Farm can be seen in a number of the visual simulations prepared from representative viewing locations on the North Shore and from across the harbour on the central city waterfront.

13.125 In particular, this can be seen in the range of middle distance views from North Shore locations such as the Onewa Domain (VP14), Ocean View Road in Northcote (VP15), Gienfield Shopping Centre (VP16), Greville Reserve in Forrest Hill to the north (VP19), and from around Lake Pupuke such as Sylvan Park (VP21) where the new taller built form at Smales Farm will read strongly in association with the existing tall buildings at North Shore Hospital, reinforcing the identity and landmark qualities of the wider mixed use neighbourhood.

13.126 More distantly, from the city centre waterfront and the harbour as represented by the Wynyard Point viewpoint (VP4) the prominence of the built form node will be less given
the much greater viewing distance, but will still be visible on the skyline and will read as a discrete node comparable in height and built character to that which already exists in Takapuna. In relation to Takapuna, from these city centre views the tall buildings at Smale’s Farm will read well separated and readily distinguishable from the tall buildings of Takapuna and this will reinforce the sense of both places as discrete concentrations of tall apartment towers offering more compact and diverse forms of urban residential living on this lower part of the North Shore.

13.127 Up close, approaching from the motorway and busway from the north (VP28) and south (VP29), or heading south on Forrest Hill Road past Westlake Boys’ High School (VP9), the tall buildings will read in association with the lower buildings on the precinct to form a sizeable concentration of mixed use development with the greatest density and scale on the western part of the precinct overshadowing the bus station and State Highway corridor. This will be highly visible to the many tens of thousands of people that pass through this transport corridor every day, making for a memorable moment moving along this corridor reinforcing the importance of Smale’s Farm as a significant node of development and by extension, its accessibility by the adjoining busway station.

13.128 Smale’s Farm will become, in time, as this new, taller skyline develops incrementally over the medium to long term, a new landmark node of tall buildings within the urban form that will be highly memorable moving along this corridor and serve to strengthen a clear built character and identity within the wider city.

13.129 It is important that the future skyline profile of the tall buildings and precinct as a whole has a positive presence visually in terms of a massed composition of building forms. This has been addressed by the inclusion of specific assessment criteria to consider the contribution all tall buildings make to the skyline and encouraging the use of rooftops and upper levels to create distinctive profiles that also reduce building bulk at upper levels. This is also supported by the reduced maximum tower dimension of 35m for that part of any building above 75m.

Conclusion with Respect to Legibility of Built Form Node

13.130 Tall buildings of up to 75-100m in height will be readily visible on the North Shore skyline from many locations within the surrounding city form from up close to very far viewing distances, as seen in the visual simulations of the concept masterplan from a wide range of representative viewing audiences.

13.131 The plan change provisions include a number of provisions that help to ensure an attractive cluster of residential towers is likely to develop over time, including restricting the number of towers that could build above 75m in height to achieve variation in height amongst tall buildings, progressively reducing the maximum building floorplate dimension with building height to require buildings to be slimmer and less bulky at upper levels, and the application of the residential outlook control which would require minimum separation distances of 20m for buildings above 27m. These controls, together with the assessment criteria relating to design of new buildings over 27m in height and consideration of their physical and visual impact on the wider cityscape, appropriately provide for the desired outcome of a legible and distinct built form node that will have a positive presence on the skyline of the city.
14.0 Conclusion

14.1 Overall, it is considered that the proposed plan change has appropriately enabled the desired development outcome – the ability to transition towards a denser, more diverse and vibrant transit-oriented development node over time – while providing development standards and assessment criteria that address key urban design matters.

14.2 This combination of development standards that manage building location, height, bulk and massing and outlook for residential units, while making design of all new buildings and external alterations and additions (not already provided for) matters for discretion, is consistent with that used to manage development of comparable scale and intensity in other zones such as the Metropolitan Centre and City Centre Zones. Such an approach will address key urban design issues relating to tall buildings and ensure appropriately high levels of residential and pedestrian amenity are maintained within such a dense, mixed use environment.

14.3 In terms of the relationship with surrounding streets, neighbouring properties and the wider urban context, the precinct height zones and building in relation to boundary controls will ensure buildings will transition down in height fronting Shakespeare, Northcote and Taharoa Roads reflecting the existing established scale of the approximate 27m building height currently provided for on Smailes Farm that has a comfortable scale relationship with building height and scale on neighbouring zones under the Unitary Plan.

14.4 Assessment criteria will enable Council the ability to assess the quality of all building design, ensure building massing and design managed the effects of building bulk and scale and address matters of on-site residential and pedestrian amenity and off-site amenity, including consideration of the extent to which adverse off-site effects of tall buildings, in particular wind, shadowing, dominance and privacy effects are avoided or mitigated.
Smales Farm Proposed Plan Change
Landscape and Visual Assessment of Proposed Plan Change Provisions
Prepared for Smales Farm
10 July 2018

Attachment K
Item 14
## Document Quality Assurance

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1.0 Introduction

This Landscape and Visual Assessment (LVA) report has been prepared to accompany a Plan Change application to the Auckland Unitary Plan Operative in Part ("AUP") to redefine the long term use of Smales Farm to accommodate an increased scale of development and greater diversity of activities on the site. This report should be read in conjunction with the Urban Design Assessment report also prepared by Boffa Miskell as the two assessments provide a complementary analysis of the proposed changes to the use, scale and character of the proposed development that would be provided for through the Plan Change and amended provisions.

Boffa Miskell has a long association with the development of Smales Farm, having been involved in the development of the original masterplan and associated landscape design for the overall site, as well as in the design and consenting of the staged development of the site.

In recent years Smales Farm has undertaken a strategic review of the current development plan for the site, including revisiting the established development model, scale and form of development, and mix of activities. This has resulted in a new vision for the future of Smales Farm, together with a revised spatial concept masterplan, developed by BNV Architects Australia, that will guide the long term transformation of the site from a business park to a more diverse urban community, and enable a more vertical mixed use form of transit-oriented development. In late 2015 Boffa Miskell were engaged by Smales Farm to advise on the potential urban design, landscape and visual amenity issues and opportunities associated with the new future vision for the ongoing development of the property.

Boffa Miskell’s involvement has been:

- international benchmarking of transit-oriented development opportunities and urban design and development outcomes against international best practice, particularly in Australian cities and Vancouver, Canada with respect to vertical mixed use development and transit-oriented development principles;
- a contextual urban design analysis of the site’s locational attributes that inform suitability for transit-oriented development;
- testing of the concept masterplan prepared by BNV architects against an initial draft set of building envelope and other key development controls;
- 3-D modelling to test and analyse a range of potential building height, bulk and massing scenarios in terms of overall building envelopes on the Smales Farm site. These have been visualised contextually in relation to the existing environment and planned future built character in terms of development potential under the Auckland Unitary Plan;
- review and input into development of draft plan change provisions including precinct plans, objectives, policies, controls and assessment criteria;
- engagement with North Shore Hospital with respect to their future development plans and integration of these with the future vision for Smales Farm, particularly with respect to improving key pedestrian linkages between the Busway Station, Smales Farm and the Hospital across Taiaroa Road;
- regular meetings with the Smales Farm plan change team as well as with planning officers of the Auckland Council and Ms Rebecca Skidmore, urban design and landscape consultant to Council with respect to the plan change request as the proposal has developed from 2016 to 2018.
2.0 Overview of Smales Farm

The original vision and masterplan for the Smales Farm Technology Office Park was created in the late 1990s. This vision was focussed on the site becoming a premier location on Auckland’s North Shore for corporate offices, with an aspiration to become ‘New Zealand’s best place to work and do business’. The masterplan that was developed at that time was based upon developing a campus-style development of medium size commercial office buildings set within an open spacious landscape setting.

The development areas within the site were arranged in four quadrants separated by the axial structure of internal streets - The Avenue and The Boulevard – to provide for direct access through and into the site from each of the site’s three public street frontages.

The masterplan has been progressively developed in stages, beginning with the distinctive curved form of the (now) Vodafone Building on the corner of Northcote and Takapuna Roads, first developed as the headquarters for Clear Communications. Due to its prominence and defining presence on this major intersection coming on and off the Northern Motorway at Northcote Road, the early development of this building quickly came to define Smales Farm as a major new location for commercial office activity on the North Shore with buildings of a scale and architectural quality with a landscape character markedly different from the scale and character of development in the surrounding area. This also marked the change from the site’s previously undeveloped farm-like state as a remnant of a once rural part of the North Shore.

Further stages of development have now established four additional major commercial office buildings - the Air New Zealand building, Q4 building, Sovereign building and most recently, the B HIVE building that opened for business in late 2017. These five buildings comprise approximately 58,000m² of commercial floor space (GFA) of between 4 and 6 levels up to RLS1.0 or a height of 27.6m above ground level (a.g.l.).

The balance of future development areas across the site are currently utilised for either surface carparking, or open lawn and planting that provides on-site amenity for workers and visitors to Smales Farm. The original masterplan envisaged the staged re-development of these areas over time for additional commercial office buildings incorporating basement carparking, as demand enabled.

Ultimately, the masterplan, envisaged up to 17 standalone commercial office buildings of 105,000m² in Gross Floor Area (GFA) as depicted in Figure 6 Part 01 of the Urban Design and Landscape Assessment Drawing Package (“drawing package”). Buildings would vary in footprint, form and scale but typically be 4.6 storeys and up to approximately 27m in height. Each building would be located in a standalone manner with a degree of separation from others, thereby continuing to be set within an open landscape setting consistent with the desired campus style development pattern of office business parks, as depicted in the illustrative birds-eye view.

As of 2018 and the completion of the B HIVE building, Smales Farm has completed approximately 55% of the total development envisaged by the first masterplan (as depicted in Figure 7 in part 01 of the drawing package). This equates to 36% of the total theoretical 162,000 GFA cap on commercial floor space under the Smales Farm precinct planning provisions that had been incorporated within the former North Shore District Plan, and largely rolled over into the Auckland Unitary Plan.

Continued ownership of the land and buildings by the Smales family has enabled a comprehensive approach to the development on site and this is reflected in the consistently high quality of architectural and landscape design achieved in each stage of development, and the consistent ongoing upkeep of the property. This has maintained a strong identity for Smales Farm and its image as a high quality business park in an attractive setting that is highly
accessible are qualities that have served the development well as Auckland and the North Shore have continued to grow and diversity rapidly over the last three decades.

3.0 Site and Landscape Context

Smales Farm is a large 10.6 ha standalone site bound by public road corridors on all four sides – Taharoto Road and Northcote Road both primary arterial routes to the east and south respectively, Shakespeare Road extension (a link road to the Smales Farm Bus Station) to the north and the Northern Motorway/Busway corridor to the west. The site is largely flat but has maximum fall from Taharoto Road to the boundary with the Northern Motorway land of some 6 metres.

With reference to Figure 1: Site Context (in Part 05 of the drawing package) it can be seen that most landholdings immediately surrounding the site are of a relatively large size and contain a mix of typically large-scale office, educational, health care and recreational uses. These include Westlake Girls High School to the northwest, The Pymore Meteorecare Retirement Village and North Shore Hospital to the north-east, Takapuna Normal Intermediate School to the south and the Northern Motorway, Onewa Domain / Smiths Bush and AF Thomas Park to the west / south west.

Around these largescale landholdings are a range of smaller scale commercial and mixed use residential sites, many of which have a change in zoning in the AUP to enable higher building densities and heights as depicted in Figures 11 and 12 in Part 02 of the drawing package. To the south-east the residential catchment is on land at a similar elevation to the site whereas to the north beyond Westlake Girls High School the land rises up to include Westlake Boys High School and residential use areas beyond.

While the Northern Motorway corridor and associated busway are solely used for vehicular transport, the other significant major road corridor including Smales Farm, which includes Northcote Road, Taharoto Road and Shakespeare Road all provide for vehicular traffic (bus and cars), cyclists and pedestrians within their 20-30m road corridors. The Smales Farm Busway Station, accessed from the south of Shakespeare Road extension generates large amounts of traffic with the bus station parcel of land having an adjoining property boundary with the northwestern corner of the Smales Farm precinct. Aside from the bus station, all other neighbouring land uses are separated from the Precinct by public road reserve or designated transport corridor.

Given the large volumes of land uses in the area surrounding the Smales Farm site these road corridors service large volumes of all modes of transport related to commuter peak, school hour and hospital visiting times. One of the keys to understanding the landscape and visual context of Smales Farm is the extent to which these road corridors clearly define and separate the site from the land uses beyond.

Taharoto Road has gradually evolved to become a more mixed use commercial corridor with former residential dwellings being adapted to house a range of commercial business premises as well as new purpose built buildings for commercial office, healthcare and other service businesses uses making the most of the profile and proximity to the North Shore Hospital and Smales Farm as a more concentrated node of large scale commercial and institutional / healthcare activity on the western side of Lake Pupuke between Takapuna and Milford centres.

To the immediate east across Taharoto Road from Smales Farm lies the North Shore Hospital, which occupies a large site which extends to Lake Pupuke with a long frontage to and principal points of entry from Shakespeare Road, and Shea Terrace. The hospital campus has developed incrementally over time, typical of such large and long-established facilities, and is identified contextually by the height and bulk of the main hospital block that is approximately
90m high (around 10 storeys) with rooftop plant above a three-four storey podium. The Hospital Precinct has considerable capacity to further develop under the Unitary Plan with height limits of 15m, 25m and a greater height area of 75m concentrated around the central core of the existing 60m hospital block.

Adjoining the Hospital on the corner of Takanini and Shakespeare Roads is The Poynton Mettlecare Retirement Village and Aged Care Facility. This has been developed in stages to form a perimeter block development of 5 storey buildings which define this major intersection.

The main hospital block and the recently constructed standalone parking building near the Shea Terrace hospital entrance, are, together with The Poynton and the five main office building blocks constructed on Smale’s Farm, readily visible on the skyline from low level locations and also seen from a number of other more elevated locations within the wider area surrounding this node of commercial health care living activities.

To the immediate north lies the campus of Westlake Girls’ High School across Shakespeare Road extension on a large site with over 2,000 students. Westlake Girls’ has a large long site similar in orientation to Smale’s Farm although somewhat narrower to the north being sandwiched between the Northern Motorway / Busway corridor and Wairau Road that continues on as an extension of Takanini Road before turning to pass under the motorway beside the Wairau Stream. Westlake Girls’ has a zoning of Mixed Housing Urban with a building height of 11m + 1m roof allowance.

Beyond Westlake Girls’ to the north, the land starts to rise in elevation up Forrest Hill Road towards Westlake Boys’ High School and the undulating hill slopes of the Forrest Hill residential suburb. Aside from the Boys’ High School, this is a largely residential area with properties along and in proximity to Forrest Hill Road zoned Mixed Housing Urban and the balance of the area Mixed Housing Suburban. Properties on the south-facing slopes afford views across the foreground of the Shakespeare and Takanini Road areas including Smale’s Farm and the Hospital towards Lake Pupuke and Rangitoto Island as well as the high rises at Takapuna and the more distant City Centre skyline to the south.

The Northern Motorway, together with the Northern Busway and Northcote Road interchange form a very wide transport corridor (between 80 and 130m wide) separating Smale’s Farm from areas further west and south-west. A F Thomas Park, an Auckland Council owned public reserve, borders the motorway corridor opposite Smale’s Farm and Westlake Girls’. The park is a designated reserve under the Reserves Act and zoned Open Space – Sport and Active Recreation and comprises the public 18 hole Takapuna Golf Course accessed from Northcote Road as well as the North Shore Events Centre and associated conferencing and carparking facilities at the northern end.

Takapuna Normal Intermediate School is situated to the immediate south of Smale’s Farm across Northcote Road, with a mix of residential properties to either side of its Northcote Road entrance and a commercially developed property on the corner site at the eastern end of the block. This corner site forms part of the Takanini Road commercial corridor zoned Business Mixed Use under the Unitary Plan. The school and other MHU zoned properties along Northcote Road can build up to 11m + 1m roof allowance stepping up to 16m + 2m roof allowance for the mixed use on the Takanini Road corner.

This corner of Northcote and Takanini Roads is defined by the landmark curved corner building on Smale’s Farm that is now the New Zealand headquarters for Vodafone. The building, at six storeys in height, has become a major feature of this large six lane intersection that provides an immediate built scale element to the surrounding street environment. This is in contrast to the smaller scale, suburban form and built character of development that still characterises much of the rest of the sites to the south along Takanini Road.

Beyond these more immediate land uses are a mix of commercial, residential, recreation and education activities typical of the wider Takapuna and North Shore area as depicted in Figure 2: Landscape Context (in Part 05 the Drawing package). To the west these are located on rising land which include the large residential areas of Northcote, Hillcrest and Glenfield which extend...
up to the catchment boundary along the north-south oriented Glenfield Road ridge. To the north-west lies Waiuku Valley a large commercial/industrial area on flat land which separates the more distant residential area of Unsworth Heights from the Smales Farm area. To the north-north-east on rising land are the residential areas of Forrest Hill and Sunnynook while to the east on flat land which extends beyond Lake Pupuke to the east coast is the town centre of Milford. Milford has Town Centre zoning with height allowances of 18m and 32.5m.

To the south-east is Takapuna, located at a similar elevation to Milford and the Smales Farm site area and allowing for high rise development in the area of the Metropolitan Centre zoned for unlimited height (but subject to FAR and building in relation boundary standards). There is an existing cluster of three high rise towers, including the Sentinel at approximately 118m high, that mark out Takapuna within the wider North Shore context including from Smales Farm.

Further to the south is the Devonport Peninsula located on undulating landform across a series of ridges and coastal edges. Further to the south across the Waitemata Harbour is Auckland City and while this area and much of the other areas outlined above do not currently have a landscape or visual relationship with the site at present, the proposed changes to the height limits on Smales Farm will afford views from parts of these areas.

4.0 Proposed Plan Change

The purpose of the Proposed Plan Change (PPC) is to enable a greater density and diversity of development at Smales Farm in terms of the scale and form of built development and the mix of activities provided for. Planning provisions to provide for those outcomes are required to support the transition from its current relatively low intensity and single use focus as a suburban business park to a vibrant, mixed use transit-oriented development.

In essence the Plan Change seeks to intensify the Precinct by providing for residential activity, while maintaining the amount of commercial office space already provided for, and continuing appropriate small scale retail and commercial services in proportion to the total quantum of development across the site. This will be achieved by providing for taller more vertical forms of development within a greater maximum height limit on the site.

This new vision for the future of Smales Farm has been developed in collaboration with BVN Architects who have prepared a new concept masterplan for the site (refer to Figures 1 and 2: Proposed Concept Masterplan in Part 02 of the drawing package). BVN architects have an established connection to the development of Smales Farm, having co-designed the B.HIVE and earlier Sovereign Building, maintaining the high quality design consistent with the overall character of the development.

This concept masterplan, which was originally prepared for the strategic business planning purposes of Smales Farm Management, has as part of the preparation of this plan change request, been tested and updated to inform and reflect the proposed plan change provisions, particularly those that influence the overall scale and form of development in terms of building separation, building height and massing.

There are a number of new provisions in the PPC that are important in considering the potential landscape and visual effects and require review as part of this LVA. These are as follows:

i. A new objective encouraging intensive development within a mixed use transit oriented development (Objective 1538.21.

ii. A requirement for landscaped open space and pedestrian connections to be provided throughout the development to ensure an appropriate level of amenity for residents as well as workers and visitors (Policy 1538.3(3)).
iii. Delineation of the site into 2 maximum height areas (above an average ground level (a.g.l.) at the Taharoa Road frontage) refer to Figure 1: Maximum Height (in Part 03 of the Drawing package) which depicts Height Area 1 RL 50.4 or 27m above a.g.l. – a 50m wide area along the full Taharoa frontage, and along Northcote Road and Shakespeare Road Extension frontages between Taharoa Road and The Avenue; and Area 2 – RL 58.4/123.4 or 75/100m above a.g.l. (Standard 1538.8.4(1)).

iv. Enabling limited taller development up to 100m above a.g.l. not to exceed 3,000m² in cumulative combined floorplate (Standard 1538.6.4(2)). This could reasonably correspond to up to 3 high rise towers above the RL58.4 (75m) height.

v. Maximum tower dimensions (in plan) of 55m for buildings above 27m; and 35m for buildings above 75m (Standard 1538.6.5(1) and (2)).

vi. A minimum separation distance of 20m between all buildings above a height of 27m (Standard 1538.6.5(3)).

In addition, the existing Height in Relation to Boundary Controls ("HRB") for the zone apply which will continue to manage the interface with adjoining residential and open spaces zones (which include the schools and AF Thomas Park) as depicted in the Cross Sections Figures 3 and 4 in Part 02 of the drawing package.

The above objectives, policies and standards have been prepared to encourage residential living in a well-designed, mixed use environment with a good level of amenity. The above standards are proposed to provide a transition between the taller buildings located within the middle and southern part of the site and the other road frontages, to ensure a good level of amenity even public street frontages and neighbouring properties. The building footprint and lower dimension and separation standards are proposed to limit the number of tall buildings (particularly above 75m) and require these to be sufficiently slender and separated so they are generally seen as individual structures with their own identity rather than a mass of flat built form that merges together when seen from off-site locations. This is particularly relevant for closer proximity locations as it is acknowledged that from more distant locations the buildings will often merge together in views. It is also relevant to note that a height of 75m is consistent with the maximum permitted on the North Shore Hospital site and that 100m (the maximum permitted) is equivalent to the height of the Sentinel residential building in Takapuna, which also has an approximate 35m plan dimension consistent with that proposed for this precinct.

In addition to the above standards, for new buildings (including alterations and additions to existing) the assessment criteria are proposed to ensure their design is of a high quality with appropriate materials that are well modulated and articulated, and that the roof profile, plant and equipment is integrated into the building design.

Furthermore, any taller buildings over RL50.4m or 27m above a.g.l. will be assessed against criteria which requires buildings to:

- maintain the visual amenity of the overall site development as viewed from residential zones and public places beyond Smale Farm;
- make a positive contribution to the collective skyline of Smale Farm;
- respond and relate appropriately to the scale and form of adjacent buildings on the site; and
- be designed to mitigate off-site adverse shadowing, dominance and privacy effects.
5.0 Landscape and Visual Assessment Methodology

5.1 Methodology - Guidance

This assessment has been undertaken with reference to the Quality Planning Landscape Guidance Note\(^1\) and its suffixes to examples of best practice, which include:

- *Best Practice Note 10.1, Landscape Assessment and Sustainable Management*, New Zealand Institute of Landscape Architects (2010)
- *Auckland Council Information Requirements for the assessment of Landscape and Visual Effects* (September 2017)

5.2 Methodology – Effects Ratings

This assessment provides ratings, based upon the professional judgement of the author(s), in relation to the level of landscape and visual effects that would result from a maximum development on the Smailes Farm site in accordance with the proposed plan change provisions.

These ratings are defined in *Table 1* below:

<table>
<thead>
<tr>
<th>Effect Rating</th>
<th>Use and Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very High:</td>
<td>Total loss to the characteristics or key attributes of the receiving environment and/or visual context amounting to a complete change of landscape character.</td>
</tr>
<tr>
<td>High:</td>
<td>Major change to the characteristics or key attributes of the receiving environment and/or visual context within which it is seen; and/or a major effect on the perceived amenity derived from it.</td>
</tr>
</tbody>
</table>
| Moderate-
  High:       | A moderate - high level of effect on the character or key attributes of the receiving environment and/or visual context within which it is seen; and/or have a moderate - high level of effect on the perceived amenity derived from it. |
| Moderate:     | A moderate level of effect on the character or key attributes of the receiving environment and/or visual context within which it is seen; and/or have a moderate level of effect on the perceived amenity derived from it. |
| Moderate - Low: | A moderate – low level of effect on the character or key attributes of the receiving environment and/or visual context within which it is seen; and/or have moderate – low level of effect on the perceived amenity derived from it. |
| Low:          | A low level of effect on the character or key attributes of the receiving environment and/or visual context within which it is seen; and/or have a low effect on the perceived amenity derived from it. |
| Very Low:     | Very low or no modification to key elements/features/characteristics of the baseline or available views, i.e. approximating a ‘no change’ situation. |

In combination with assessing the significance of effects, the landscape and visual effects assessment also considers the nature of effects in terms of whether this will be positive (beneficial) or negative (adverse) in the context within which it occurs. Neutral effects can also occur where the visual change is considered to be benign in the context of the environment where it occurs. The nature of these are defined in *Table 2* below:

| Table 2: Determining the Nature of Effects |

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<table>
<thead>
<tr>
<th>Nature of Effect</th>
<th>Use and Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adverse (negative):</td>
<td>The proposed development would result in a reduction in landscape and/or visual amenity values due to being out of scale, or at odds with the local character, pattern and quality of the environment.</td>
</tr>
<tr>
<td>Neutral (benign):</td>
<td>The proposed development would complement (or blend in with) the scale, character, pattern and quality of the environment, maintaining landscape and/or visual amenity values.</td>
</tr>
<tr>
<td>Beneficial (positive):</td>
<td>The proposed development would enhance the landscape and/or visual amenity through restoration or enhancement of degraded environments and/or addition of elements that result in improvement to the character, pattern or quality of the environment.</td>
</tr>
</tbody>
</table>

In relation to the determination of minor (where this is relevant in relation to notification considerations or non-complying activities under the Resource Management Act) it is considered that adverse effects that are Moderate-Low would be Minor in nature. It is also the case that an adverse effect above Moderate-Low can still result in an overall Minor effect. This depends on the sensitivity of the landscape and viewing audience, and the scale and character of the proposal and its landscape context. While the determination of minor is not directly relevant to a plan change request the relationship between the landscape and visual effects rating used (i.e. very high to very low) and minor has been included to indicate the relationship of both scales.

A landscape assessment is carried out to determine effects on an environmental resource (i.e. landscape elements, patterns and character); whereas an assessment of visual effects considers how changes to the physical elements, features and character may affect the viewing audience and visual amenity.

Whereas it is usual to assess effects on both the landscape as a resource and visual effects on amenity and peoples’ appreciation of the landscape, in this assessment for the PPC at Smalles Farm, the focus is largely on the visual effects as the site is zoned for business activity and currently largely developed with virtually no natural elements, patterns or processes that could be affected by the proposed change to the use. With the exception of the Lake Pupuke Outstanding Natural Feature (ONF) this LVA concentrates on visual effects due to the nature of the site and surrounding environment. Changes to the urban landscape character are largely addressed in the Urban Design Assessment.

### 5.3 Methodology – Approach

Following a description and analysis of the wider landscape context and viewing audience within which the Smalles Farm site is located, the assessment addresses the extent of visibility and depicts a range of views, discusses the change to the view from a selected number of representative viewpoints and evaluates the effects on visual amenity.

The assessment methodology has involved a ZTV Analysis\(^2\) of the BVN 3-dimension model as a long term maximum development provided for in the PPC. The technical visibility analysis has been augmented through numerous site visits, a survey of publicly accessible surrounding viewing locations, photographic recording, and the use of visual simulations.

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\(^2\) A ZTV analysis, is a GIS tool which enables the extent of visibility of an object or location to be determined based on surface and above ground contour data.
5.4 Visual Amenity Effects

Visual effects result from changes to specific views and the visual amenity experienced by people. The level of change should be considered in relation to the sensitivity of the viewing audience, when evaluating the significance of an effect. In this context the sensitivity is also considered in relation to the future and progressive future scale and character of built form as enabled by the AUP as outlined above.

The change in relation to this proposal would derive from the introduction of new provisions within the AUP enabling additional height to built elements on the site which may potentially detract from (or positively add to) the existing features and character of the site and surrounding urban context, and may limit the range of visibility to more distant features.

In relation to the proposed plan change the degree to which visual effects are generated by the enabled development also depends on:

- The degree to which the proposal contrasts, or is consistent, with the qualities of the surrounding urban landscape.
- The predictable and likely known future character of the locality including the ongoing and progressive changes over the life of the AUP.
- The quality of the resultant development, its aesthetic values and contribution to the wider landscape character of the area.
- The proportion of the proposal that is visible, determined by the observer’s position relative to the objects viewed.
- The foreground and background context within which the proposal is viewed.
- The wider area or extent of visual catchment from which the proposal is visible.
- The number of viewers, their location and situation (static or moving) in relation to the view.
- The reason for a viewing audience being at the viewpoint or looking at the view.

Change in a landscape does not, of itself, necessarily constitute an adverse landscape or visual effect. Landscape is dynamic and is constantly changing over time in both subtle and more dramatic transformational ways, these changes are both natural and human induced. In urban environments change is an everyday part of a city’s development, and in Auckland’s case where population growth has to be accommodated development of a greater scale is inevitable. What is important in managing landscape change in urban environments such as Smale’s Farm, where further development is anticipated both within the site and surrounding area, is that potential significant adverse effects are avoided or sufficiently mitigated through the plan change provisions to ameliorate the adverse effects of the change in land use. The aim is to enable a high amenity environment through appropriate design outcomes that can provide an adequate substitution for the currently experienced amenity.

An important factor in determining the level of effects in relation to the PPC, and the development it enables, is the timeframe that the change will occur over. Over the past 20 years approximately 30% of the maximum commercial GFA has been developed on the site. While there is no GFA cap on residential development the BVN model is based on 138,000m² which it is estimated would take 30 years to fully develop. As such the visible change on the site will gradually over time and this needs to be taken into account when reviewing the visual simulations (in Part 05 of the drawing package) and the predicted level of effects.

In this respect, in addition to the change in the scale and landscape character resulting from medium rise to high rise buildings, it is important how well the proposed development responds to and delivers on the expectations for that development over time, as set out in the PPC and the AUP.
6.0 Visual Catchment, Viewing Audiences and Visual Effects

6.1 Visibility Analysis – Immediate Context

With reference to Figure 1: Site Context (in Part 05 of the Drawing package) it can be seen that most landholdings immediately surrounding the site are of a relatively large size and contain a mix of typically largescale office, educational, health care and recreational uses. These include Westlake Girls High School to the northwest, The Poynten Metlifecare Retirement Village and North Shore Hospital to the north-east, Takapuna Normal Intermediate School to the south and the northern Motorway and AF Thomas Park Onewa Domain to the west.

Around these largescale landholdings are a range of smaller scale commercial and mixed use residential sites, many of which have a change in zoning in the AUP to enable higher building densities and heights. In particular, as depicted in the figures - 3D Zoning Views in Part 04 of the drawing package, greater height and scale of development is enabled and anticipated over time within the immediate area surrounding the Smales Farm site, including along Taharoto Road, parts of Northcote Road, Shakespeare Road and within the Hospital site.

In addition to the Northern Motorway corridor and associated busway, the site is bounded on all other sides by significant road infrastructure, which includes Northcote Road - a primary arterial route to the south, Taharoto Road - a primary arterial route to the east and Shakespeare Road Extension (a link road to the Smales Farm Bus Station) to the north. These road corridors and the large volumes of vehicle traffic define and separate the site from the land-uses beyond.

6.2 Visibility Analysis – Wider Context

In relation to the wider landscape context, Smales Farm (along with the North Shore Hospital) is located approximately equidistant from the Takapuna Metropolitan Centre and Milford Town Centre. These more intensive commercial land uses create a triangle of major land development surrounding Lake Pupuke and its tuff crater, which all provide for additional scale and height above that of the surrounding area (refer to Figure 2: Landscape Context in Part 05 of the Drawing package).

Beyond the more immediate surrounding land uses and the above development centres, Smales Farm is located in a wider landscape context which allows for a range of viewing audiences. Some of these currently have views of existing buildings within Smales Farm and will have views of buildings associated with the future development as proposed for in the Proposed Plan Change. The following are the current key viewing audiences:

- To the west beyond AF Thomas Park and Onewa Domain the land begins to rise up to the north south ridge that generally follows Glenfield Road. The eastern slopes of this area which encompass parts of the Northcote, Hillcrest and Glentilly residential areas enable views out to east and across the Smales Farm site (along with Milford and Takapuna) and from some locations towards the Hauraki Gulf and Rangitoto. (Refer to Viewpoint Photos 15 to 17 in Part 05 of the drawing package).

- To the north and north-west the land also rises up towards Westlake Boys High School and beyond this to a high point at the intersection of Forrest Hill Road and East Coast Road where there is an underground water tank / skate park and seating area all set within Greville Reserve. To the northwest views from parts of Sunset Road and Rosedale look across to the city. These viewpoints offer views of the site’s existing buildings, albeit at a much greater distance from Greville Reserve and Sunset Road. (Refer to Viewpoint Photos 18-20 in Part 05 of the drawing package).
• To the east beyond the North Shore Hospital is Lake Pupuke set within lower lying land that extends out towards Milford Beach and Takapuna Beach. On the eastern shores of Lake Pupuke is Sylvan Park and Dickinson Park which have unrestricted views to the south and west towards the hospital and Smales Farm beyond. (Refer to Viewpoint Photos 21 and 22 in Part 05 of the drawing package).

• To the south east around Killarney Park there are also views across Lake Pupuke to the hospital (refer to Viewpoint Photos 23 to 25 in Part 05 of the drawing package). Beyond this area the land is also low lying and apart from high rise buildings within Takapuna CBD, and near views from Takapuna Road, existing development screens views of the site and its existing buildings (refer to Viewpoint Photos 9 and 10 in Part 05 of the drawing package).

• In addition to the above, the Smales Farm site is viewed by thousands of commuters and visitors who travel on the northern Motorway each day. When travelling south towards the city, as one approaches the Wairau Road overbridge, both Westlake Girls High School and Smales Farm site come into view and Smales Farm can be seen at an oblique angle for approximately 800m. (Refer to Viewpoint Photo 27 and 28 in Part 05 of the drawing package).

• When travelling north, Smales Farm comes into view beyond Smiths Bush for a short duration over a distance of approximately 200m. (Refer to Viewpoint Photo 29 and 30 in Part 05 of the drawing package).

From this range of locations, the viewing audience consists of a mix of residents, office and other workers, commuters (by all transport modes on the motorway, busway and surrounding street network), travelling visitors, tourists and people recreating in the nearby and surrounding parks and reserves.

6.3 Visibility Analysis – Proposed Plan Change

The potential viewing locations of the proposal have been identified by a computer generated analysis (using ArcGIS 10.3.1) known as a zone of theoretical visibility (“ZTV”), and represented on the plans titled Visibility Analysis: ZTV – Site Context and Visibility Analysis: ZTV – Landscape Context (refer to Figures 3 and 4 in Part 05 of the drawing package).

This analysis utilises LiDAR3 data to determine the areas within which three of the tallest buildings (up to 100m high) depicted on the Concept Masterplan would theoretically be visible (taking into account existing vegetation and structures that may obscure the views), and therefore may have an effect upon the visual amenity experienced by people and the sensory qualities of the urban landscape. Importantly, theoretical visibility does not equate to visual effect, and to this extent the ZTV analysis is used as a guide only to aid identification of the potential maximum visual catchment and viewing audiences and assist with identifying photographic viewpoints.

Based on the ZTV analysis a number of potential viewpoints were identified, and reviewed by Auckland Council’s urban design, landscape and visual effects reviewer, from which an agreed set of viewpoints were then visited to verify the visibility of the proposed facilities and to take photos to assist with this assessment. These viewpoints are depicted on Figures 5 and 6 – (Viewpoint Locations – Site Context and Viewpoint Locations - Landscape Context), and photographs from these locations are attached in Part 05 of the drawing package. Of these 20 viewpoints, 13 have been selected to prepare a visual simulation of the BVN concept masterplan 3-D model. The locations of these 13 simulations are highlighted in green on Figures 5 and 6 and the photographic representation of the concept master plan concept follow each photograph. While there are a range of built scenarios that could be achieved through the

* LiDAR is a Light Detection and Ranging survey method that measures the distance to a target by illuminating the target with a pulsed laser light.
PFC (differing from that depicted in the simulations) those shown are assessed are a realistic maximum development that could be achieved on the site over an estimated 30-50 year period.

6.4 Potential Visual Effects Resulting from Proposed Plan Change

The above viewpoints have been grouped into 4 geographic areas based on their distance and orientation in relation to the Smale’s Farm site for analysis and discussion of the potential effects on the visual amenity values of the public and private viewing audiences. These are:

i. Foreground Views (within 1-1.5km of site)
ii. Middle Ground Views (1.5 to 3km of site)
iii. Distant Views (beyond 3km)

i. Foreground Views

- Adjacent to Smale’s Farm – Views from this area include those immediately adjoining the site (Taharoto Road, Northcote Road, Shakespeare Road Extension and the Northern Motorway), as well as those from nearby surrounding areas which include A’ Thomas Park to the west, Takapuna Normal Intermediate and adjacent Mixed Housing Urban, Mixed Use Business land to the south-east, those across Taharoto Road, which includes North Shore Hospital, and the Metlifecare retirement village, and Westlake Girls High School to the north.

The change to the view within this context is represented in Part 04 of the drawing package. Development up to the additional height proposed in the plan change is set back within the site separated from the boundary by the 50 metre set back and/or the height in relation to boundary provisions. This will result in much of the higher level development within the site being obscured from nearby viewing locations (such as the surrounding street network) as can be seen in the cross-sections in Part 02 of the drawing package. However, from many of the locations just beyond the immediate street network the development will appear at a greater height than is currently permitted and buildings will be of a height and scale where they will be more prominent. They would however not appear incongruous or out of scale with the currently permitted development as depicted in Figure 5 – Street Level View 1 (from the corner of Taharoto road and Northcote Road), Figure 6 – Street Level View 2 (from the corner of Shakespeare Road and Waiwai Road) and Figure 7 – Street Level View 3 (adjacent to the Busway Station) in Part 02 of the drawing package. While the buildings appear tall they would be seen within the existing development on the site and adjacent properties. From these locations given the scale and nature of the existing urban context, along with the plan change provisions which require a high standard of development it is considered that the visual amenity effects would largely be neutral. However, it is recognised that some adverse visual effects could occur for some nearby residents who may have a clear view of the higher buildings which would extend further into the sky and being a more prominent element in their view. These effects could be up to a moderate adverse level. From the Northern Motorway/Northcote Road interchange (as depicted in Figure 8 – Street Level View 4 the taller buildings would appear more prominent as they are seen close to the boundary without the transition of lower 27m buildings on the other boundaries of the site. Given the heavily trafficked nature of this area and the potential for a landmark character tall corner building as depicted in the Concept Masterplan, the visual amenity effects are considered to be Neutral to Beneficial from this location.

- Takapuna – Northcote – from other nearby locations within Takapuna and Northcote (but beyond the immediate site surrounds) there will be locations from where the upper parts of tall buildings on the Smale’s Farm site (beyond those already constructed or permitted up to
27m) would be visible. Viewpoints 10-14 are representative of some of these low level locations around Fied Thomas Drive and Akoranga Drive and Northcote Road. These locations would include the Lakehouse Arts Centre and Café, Rosmini College playing fields, AUT North Campus and Onewa Domain. Two viewpoint locations (10 and 14) have been chosen to represent the building mass of the masterplan. From these nearby locations (within approximately 1km and 500m respectively) the buildings would be prominent in the view resulting in a new elevated skyline element. From Viewpoint 10 and other similar locations, it is anticipated that the additional building height provided through the Plan Change would result in largely Neutral effects, however from Viewpoint 14 at Onewa Domain which is currently characterised by open parkland framed by vegetation there could be up to Moderate Adverse visual effects for some users who value the existing encosed vegetated context of the view.

ii. Middle Ground Views

- **Devonport Peninsula** - from some locations between Esmorde Road in the north and Devonport township in the south views of the proposed buildings would be visible from elevated locations such as the Bayswater Peninsular, Takapuna Grammar, Takapuna (Mt Victoria) and Maungakaua (North Head Historic Reserve), and coastal locations around Shoal Bay and Bayswater Marina. These locations are represented by photos from Viewpoints 6-9 in Part 05 of the drawing package. From Viewpoint 8 a simulation has been prepared of the building massing based on the BNW model. This represents a group of buildings set above the middle ground and within the context of the commercial buildings in Akoranga Drive and Bannys Point Road as well as the hospital and the taller buildings in Takapuna. It is considered that buildings in accord with the additional height provided through the Plan Change will generate Neutral visual effects from these locations due primarily to the distances involved and the foreground configuration of the urban views.

- **Glenfield and Hillcrest** - from the elevated slopes to the west and north west of the site there is a large residential area with views out to the east over Takapuna, Milford and out to the Hauraki Gulf. From many of these locations the additional building height provided for in the Plan Change will be visible and from the more elevated locations the upper parts may be seen silhouetted against the sky and gulf islands. Viewpoints 11 and 15-17 represent the views from these locations. Simulations of the 3-D model from viewpoints 15 (from Ocean View Road) and 16 (from the upper car park level of the Glenfield Shopping Centre) have been prepared. From these and similar locations, the more elevated buildings will be more prominent and will result in additional high rise buildings in the wider view across the Takapuna shopping area and North Shore Hospital / Milford area. Despite the potential for some obscuring of distant sea views, given the expansive nature of the views form these sorts of locations it is considered that the adverse visual effects of the additional height provided by the Plan Change are likely to be low on the Glenfield / Hillcrest viewing audience. From a very narrow band of residential housing where the tall buildings could be seen in front of Rangitoto (and more particularly the summit) it is considered that there could be up to Moderate Adverse visual effects due to buildings potentially obscuring this Outstanding Landscape Feature (OLF). It should be noted that other buildings within the hospital site and Takapuna Metropolitan Centre could also have new buildings that obscure these views from similar locations.

- **Forrest Hill and Rosedale** - from some elevated areas within Forrest Hill and the more distant Rosedale area there are views to the south over the Smales Farm site with the tall buildings in Takapuna and the North Shore Hospital also part of the view, and with the Auckland CBD (including Sky Tower), volcanic landforms and wider city scene in the background. Viewpoints 18 to 20 are representative of views from these locations. A simulated view of the 3-D masterplan from Greville Reserve (Viewpoint 19) and Westlake Boys High (Viewpoint 19) have been prepared and included in Part 05 of the drawing package. From this and other similar locations the higher buildings on the site and within the
hospital will result in another area of more intensive built form similar to Takapuna. Within the context of the existing view it is considered that the additional building height provided for in the Plan Change would generate neutral visual effects from these locations due to the other large scale built form and range of distances that the Smales Farm development is potentially seen from.

- **Lake Pupuke** – from the northern, eastern and southern shores of Lake Pupuke clear views across the water are afforded towards the North Shore Hospital, Smales Farm and other urban/residential development around the lake edge. Viewpoints 21 to 26 represent views from around Lake Pupuke with the Viewpoints 21 and 23 photos containing the simulated 3-D masterplan buildings, including up to 75m and 100m as provided for in the PPC. On the eastern shore of Lake Pupuke is Sylvan Park and on the southern shores is Killarney Park which rises up to Killarney Street. Near the water’s edge of Killarney Park is the Pumphouse Theatre and a small café as well as parking and seating areas. From these locations, the taller buildings would be more prominent in the view as they extend above the existing Vodafone and hospital buildings. Further development of a similar nature is provided for and anticipated on the hospital grounds and this would be closer to the viewpoints and/or nearer to the lake. Based on the context of these views and the relative distance to the Smales Farm site, the currently expensive nature of the views and the North Shore Hospital development, it is considered that the additional building height provided for in the Plan Change would generate no more than Very Low Adverse visual effects.

- **Northern Motorway** – When travelling on the Northern motorway and busway (in either a northerly or southerly direction) motorists and commuters pass close by the southern boundary of the Smales Farm site. Photos from viewpoints 27 to 30 represent these views and viewpoints 26 (travelling south) and 28 (travelling north) have the 3-D buildings simulated on to the photo. From these locations, and others along this busy route, users are travelling at speed and sampling a wide range of built, open space and vegetative elements and are therefore a less sensitive viewing audience. Based on this and the landmark function and potential quality of the development it is anticipated that the additional building height provided for in the Plan Change would generate Neutral-Beneficial effects on this viewing audience.

ii. **Distant Views**

- **Auckland City Waterfront** – currently there are no views of the Smales Farm development from the northern shores of the Auckland CBD and adjacent suburbs. With buildings up to 100m on the site, as provided for in the Plan Change, the upper part of any buildings would be visible from a number of locations represented by Photos in Viewpoints 1-5. The visual simulation from Viewpoint 4 indicates how the bulk and massing of buildings would appear on the North Shore skyline. Buildings in this location would appear as a cluster of taller buildings similar to those within Takapuna, also visible from this location. Buildings up to 75m provided for on the adjacent North Shore Hospital site would also appear above the middle ground landform and buildings and would reinforce this area as a node of taller built development. It is considered that the additional height provided through the Plan Change will result in neutral visual effects from these locations, largely due to the complex urban landscape in the view and the distance from the site.

6.5 **Summary of Visual Effects**

In considering the level of visual effects that the PPC allowance for taller buildings on the Smales Farm site could generate, the following considerations have been key:

- The proposed controls on the maximum tower dimension (width) of 55m above 27m high and 35m above 75m high which will reduce the building bulk and apparent scale of these tall structures;

19 July 2018
• the minimum distance of 20m between buildings above 27m which will ensure there is adequate separation of the taller structures on site;

• the lower height of 27m around the perimeter of the site coupled with the height in relation to boundary controls;

• the assessment criteria that requires high quality building design, including attention to the profile of the roof (including plant and equipment) as part of the overall building form which will assist in ensuring that where buildings are a new prominent element in nearby views they will be well integrated in to the local urban landscape and contribute positively to the skyline character; and

• the gradual change to the view as development within the Smales Farm site and surrounding area occurs over a 16 year plus timeframe.

Taking this into account given the urban context of the Smales Farm site, the scale of the surrounding land uses (motorway, schools, hospital and parks), the additional height and density of built form currently provided for in the AUP for the site and surrounding area, and in particular the North Shore Hospital site, and the relative distance and existing visual context of the viewing audience, it is considered that adverse visual effects resulting from the additional building height provided for in the Plan Change will generally be Neutral. From some nearby locations, such as parts of Onewa Domain where the existing view is of parkland enclosed by vegetation, and nearby residential locations where taller buildings will be more prominent above the existing and permitted building scale, there could be up to Moderate Adverse visual effects. Also from a limited number of residential properties where, through the adoption of the PPC, tall buildings could be seen directly in front of Rangitoto there could also be up to Moderate Adverse visual effects.

From many locations, including the above and some nearby areas the higher buildings provided by the Plan Change are likely to result in Beneficial visual effects, as well designed buildings reinforcing this node in the Takapuna area is expected to add positively to the urban character and sense of place.

Overall it is considered that the PPC provisions that will manage the form and scale of buildings above the current permitted 27m will provide an appropriate mechanism to avoid significant adverse visual effects from the area surrounding the Smales Farm site.

7.0 Lake Pupuke ONF

Natural heritage is identified within the RPS as a significant resource management issue for the region (B.1.4 Issues of Regional Significance).

7.1 Natural Heritage (B4)

The relevant landscape objective under B4.2 Outstanding Natural Features and Landscapes states "(1) Outstanding natural features and landscapes are identified and protected from inappropriate subdivision, use and development." Policies B4.2.2(3) and (8) reinforce this objective.

Objective B4.2.1 also states "(3) The visual and physical integrity and the historic, archaeological and cultural value of Auckland's volcanic features that are of local, regional and / or international significance as protected and, where practicable, enhanced." Policy B4.2.2 (6) and (8) reinforce this objective.
7.2 Overlays (Chapter D)

As the site is located approximately 500m from the south-western edge of the Lake Pupuke Volcano there are a number of objectives and policies within Chapter D10 Outstanding Natural Features Overlay and Outstanding Natural Landscapes Overlay that may be relevant and should be considered.

Objective D10.2.1 states “Auckland’s outstanding natural features and outstanding natural landscapes are protected from inappropriate subdivision, use, and development”. In relation to ONF’s policies focus on protecting the visual integrity of the feature while taking into account the value of the ONF in its wider historic heritage, cultural, landscape, natural character and amenity context; the visual and experiential values that contribute significantly to the ONF’s values, and the location, scale and design of any proposed development.

The Lake Pupuke Volcanic feature is surrounded by urban development, including parks and reserves around the lake margins, residential development of various scales immediately beyond these areas of open space, and larger commercial and hospital land uses in Takapuna, and around Northcote Road. This includes the existing Smales Farm buildings which can be seen in the context of the lake from its eastern shores, including Sylvan Park. The key values of the Lake Pupuke ONF are the circular shape of the 10ha water filled crater, and associated tuff ring. While the taller buildings provided for by the Plan Change will be more obvious from many lakeside locations they are well set back from the lake to the west across Taharoto Road, separated from the more immediate lakeside environment and will relate to the existing and proposed development within the hospital grounds which are more proximate to the lake. As such the FPC and the additional height and scale of development it will enable is not considered to compromise to any more than a very limited extent the visual integrity or the experiential values that contribute to the feature and values of this ONF.
## Appendix 1: Schedule of Outstanding Natural Features Overlay

<table>
<thead>
<tr>
<th>#</th>
<th>Feature Name</th>
<th>Description</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>74</td>
<td>Lake Pupuke Volcano</td>
<td>Pupuke volcano is large compound explosion crater (about 1500m diameter) partly filled with a fresh water lake covering 104 ha and 55m deep. Lava is mostly mantled with tuff but has been quarried inside the crater. A lapilli knoll to the southwest forms the highest point. Lava chemistry supports two eruptions from this volcano.</td>
<td>a, b, c, d, e, f, g, h</td>
</tr>
</tbody>
</table>

### Introduction

The following criteria are used to determine the contents of this schedule, and will be used to consider any proposed additions to it:

- a) the extent to which the landform feature or geological site contributes to the understanding of the geology or evolution of the biota in the region, New Zealand or the earth (includes type localities of rock formations, minerals and fossils);
- b) the rarity or unusual nature of the site or feature;
- c) the extent to which the feature or site is an outstanding representative example of the diversity of natural landforms and geological features in Auckland;
- d) the extent to which the landform or geological feature or site is a component of a recognisable group of geologically associated features;
- e) the extent to which the landform or geological feature or site contributes to the aesthetic value or visual legibility of the wider natural landscape;
- f) the community association with, or public appreciation of the values of the feature or site;
- g) the potential value of the feature or site for public education;
- h) the potential value of the feature or site to provide additional understanding of the geological or biotic history of the region;
- i) the state of preservation of the feature or site;
- j) the extent to which a feature or site is associated with an historically important natural event, geologically related industry, or individual involved in earth science research;
- k) the importance of the feature or site to Mana whenua;
- l) the contribution of the feature to the more publicly valued groups of landforms and geological sites associated with the region’s volcanoes, coastlines, the Hauraki Gulf Islands, and the Waitakere Ranges.
Likely Economic Effects of a Proposed Private Plan Change for Smales Farm

PREPARED FOR
Smales Farm

INSIGHT ECONOMICS CLEAR, CONCISE AND COMPELLING ECONOMIC RESEARCH AND ANALYSIS
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Likely Economic Effects of a Proposed Private Plan Change for Smoals Farm
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1 Executive Summary

Context and Purpose of this Report
Smale’s Farm (SF) is a 10.8-hectare commercial development located in Takapuna, on Auckland’s North Shore. It commissioned Insight Economics to analyse the likely economic effects of a proposed plan change that would enable SF to evolve over time into a high-density, mixed-use development. This report summarises our key findings.

Current Uses & Masterplan
SF currently comprises around 58,000m² of commercial floorspace across five buildings. It is home to 90 organisations with over 4,000 employees, and also attracts thousands of people each year to visit local businesses, to access onsite personal and commercial services, and to attend a growing calendar of community events run by SF.

The proposed masterplan seeks to transform SF into a high-quality, high-density, mixed-use area of up to 300,000m² of total GFA at full build-out. This will occur gradually over a 30-year period, and hence provide a valuable pool of residential and non-residential land over the short, medium, and longer term.

Contribution to Dwelling Supply
Having set the scene, the report then describes one of the proposal’s most significant economic benefits – its contribution to local and regional dwelling supply. We present statistics about the dire state of Auckland’s housing market, where there is a current shortfall of roughly 40,000 dwellings, and where prices are out of reach for many families. Then, we explain that chronic land shortages are a major cause, and that future dwelling demand is also likely to far outstrip future supply despite significant up-zoning via Auckland’s new Unitary Plan. Accordingly, a more liberal and innovative approach to land and dwelling supply is required.

To estimate SF’s potential contribution to dwelling supply, we translate the masterplan’s estimate of about 138,000m² of residential floorspace into 1,380 new apartment dwellings (based on last year’s regional average size of roughly 100m²).

While this figure is significant in its own right, the provision of apartments at SF will be particularly beneficial for several reasons. First, apartments are generally more affordable than other dwelling types, with a recent Colliers report showing that the median price for an Auckland apartment was less than the median price for a vacant section. Second, apartments offer many benefits to residents, including greater security, less maintenance, and more opportunities to socialise. Third, they would enable people to live and work in the same place, thus eliminating the need for work commuting altogether.

Further, SF’s central location allows future residents to reach many parts of the urban area for work and recreation with relative ease. Plus, unlike most other sources of potential supply in the existing urban area, SF is a master-planned development by a single owner with a good track-record, who is committed to a quality outcome. Accordingly, the proposal represents a much-needed boost to dwelling supply.
Benefits of Transit-Oriented Developments (TODs)

Next, we show that the proposal enables SF to become a special type of mixed-use development called a transit-oriented development (TOD). These are high-density developments adjacent to public transport interchanges, which are increasingly recognised as an efficient way to achieve sustainable and compact urban forms.

We list the various economic benefits of a TOD, all of which apply to SF. They include:

- Reduced expenditure on private vehicles and reduced car ownership, which frees up money for other uses, including local spending.
- Increased patronage on public transport (PT) services, which supports service reach and frequency.
- Lower travel times due to higher rates of living and working locally, and via the use of fast and efficient rapid transit services in lieu of private vehicles.
- Reduced traffic congestion, which facilitates freight and passenger movements.
- Reduced car parking requirements, which frees land up for other uses.
- Increased support for local businesses via concentrated pools of local demand.
- Creation of day-time and night-time economies that support another one.
- Employee attraction/retention via the creation of an attractive public realm.
- More cost-effective provision of community and health services.
- Increased property and rental values.
- More efficient use of scarce urban land.

Then, we reconcile the proposal with critical success factors for TODs identified in the literature. The analysis shows that SF meets all such requirements, not least because the entire site is within the primary walking catchment of the adjacent bus interchange. Further, we show that the local bus service is about to be completely overhauled, with a simpler and more-integrated fare system about to be introduced. Collectively, these changes will make bus travel more even attractive, and provide a valuable transport option for SF workers, residents, and visitors.

Finally, we show that not only does the proposal meet TOD criteria – enabling it to harness all its attendant benefits – but that the Government is also actively encouraging this type of development in Auckland.

Synergies of Mixed Use Development

The analysis then describes how the various uses enabled by the proposal will support and reinforce one another. For example, residents will provide a pool of labour to help fill local jobs, while workers create demand for housing. Similarly, workers and residents create ongoing demand for nearby retail, services, and entertainment. And, those retailers and other services make the area a more attractive place to live and work, which strengthens demand for residences and work spaces. Accordingly, the various elements of a mixed-use development support and reinforce one another.

Important, the proposed new precinct provisions also enable the staged and orderly development of approximately 16,500m² of retail and commercial services at full build-out. But, at the same time, the precinct’s objective requires that it avoid adverse effects on town and metropolitan centres, such as Milford and Takapuna.

Likely Economic Effects of a Proposed Private Plan Change for Smale’s Farm
To verify that the proposal will not adversely affect nearby centres, we reconciled likely future demand from future workers, residents, and visitors with the amount of supply enabled. Our analysis shows that future demand and enabled supply are well-balanced. Moreover, the precinct provisions only allow retail and commercial services to grow pro-rata with the rest of the development and hence demand. This ensures that a supply/demand balance is always maintained, and avoids adverse effects on other centres.

**Land and Infrastructure Efficiency**

One of the key benefits of the proposal is that it will maximise land use efficiency by enabling very high-density, mixed-use development to occur on scarce urban land. This, in turn, allows the land to be put to its highest and best use, which is a necessary condition for economic efficiency to hold in the land market.

In addition, the proposal maximises infrastructure efficiency because the site is already connected to key networks, unlike the various future urban zones on the region’s periphery, which require the expensive extension of various networks to service them.

Location aside, high-density developments like the proposal are also more efficient to service with infrastructure, and this is recognised in the Council’s development contributions policy (which is a funding tool used for growth-related infrastructure). Consequently, the proposal maximises both land and infrastructure efficiency.

**Summary and Conclusion**

This report has considered the likely economic effects of the proposal to enable high-quality, mixed-use development at Smale’s Farm. It has shown that the proposal will make a significant and sustained contribution to regional dwelling supply, while also harnessing the many benefits of a transit-oriented development. Further, the various elements of the proposal will support and reinforce one another, so that there is no risk of adverse effects on other centres. Finally, the proposal will maximise land and infrastructure efficiency. Accordingly, we support the proposal on economic grounds.
2 Introduction

2.1 Context and Purpose of this Report
Smale’s Farm (SF) is a 10.8 hectare commercial development located in Takapuna, on Auckland’s North Shore. It commissioned Insight Economics to analyse the likely economic effects of a proposed plan change that would enable SF to evolve over time into a high-density, mixed-use development. This report summarises our key findings.

2.2 Current Zoning and Provisions
Under the Auckland Unitary Plan (AUPOR), the site is zoned as a business park and is also subject to its own precinct provisions. These precinct provisions:

- Set a maximum amount of gross floor area (GFA) for permitted activities,
- Limit the number of car parking spaces, and
- Enable some accessory activities to meet demand from workers and visitors.

Specifically, Policy 1538.3(3) states that business development over 105,000m² GFA must demonstrate that it will not significantly adversely affect the safe and efficient operation of the transport network, or that such effects will be mitigated. Further, Policy 1538.3(1) requires office activity over 162,000m² GFA to demonstrate that significant adverse effects on the amenity of neighbouring zones will be managed and that the function and amenity of the Business – Metropolitan Centre Zone and Business – Town Centre Zone will not be significantly adversely affected. Finally, standard 1538.6.1 sets a cap on the GFA of ancillary activities, such as retail and commercial services, so that they remain only a small proportion of total GFA.

2.3 About the Proposed Plan Change
The proposed plan change alters several of the provisions described above. Specifically, it increases the overall floor area caps, and alters the RMA activity status of several activities. These include reclassifying the following as permitted activities:

- Dwellings
- Retirement homes
- Visitor accommodation
- Community facilities
- Education facilities
- Tertiary education facilities
- Retail and commercial services (still subject to caps)

2.4 Report Structure
The remainder of this report analyses the likely economic effects of the proposed plan change. Each is considered in a separate section, as listed below.
- **Section 3** sets the scene by describing the location and current state of SF.
- **Section 4** describes how the proposal will help meet the region’s growing housing shortage.
- **Section 5** shows how the proposal will leverage the site’s unique location to achieve a transit-oriented development that fosters live/work/play.
- **Section 6** explains how the various elements of the proposed development will support and reinforce each other.
- **Section 7** evaluates the proposal’s land-use and infrastructure efficiencies, and
- **Section 8** provides a short summary and conclusion.
3 About Smales Farm

3.1 Location
Smales Farm (SF) is a 10.8 hectare development located in Takapuna, on Auckland’s North Shore. It is bound by the northern busway to the west, Shakespeare Road to the north, Taharoto Road to the east, and Northcote Road to the south. Figure 1 provides more details.

Figure 1: Location of Smales Farm in Takapuna, Auckland

3.2 Current Uses
SF currently comprises around 58,000m² of commercial floor space across five buildings. It is home to 90 organisations with over 4,000 employees, and also attracts thousands of people each year to visit local businesses, to access onsite personal and commercial services, and to attend a growing calendar of community events run by SF.
3.3 About the Proposed Masterplan

The proposed masterplan seeks to transform SF from a traditional business park to a high-quality, high-density, mixed-use area that can house a wide range of land uses. These include:

- Offices
- Dwellings
- Retirement homes
- Visitor accommodation
- Community facilities
- Education facilities
- Restaurants, cafes, and bars, and
- Retail and commercial services (except supermarkets > 2,000m² GFA)

The vision is to accommodate up to 300,000m² of total GFA at full build-out. This will be roughly split as follows:

- 142,000m² office GFA;
- 138,000m² residential GFA;
- 16,500m² retail and commercial services GFA; and
- 3,500m² of healthcare and other services.

The development will grow organically over a period of about 30 years, and hence provide a valuable pool of residential and non-residential land over the short, medium, and longer term. Further information about the proposal is contained in planning reports.
4 Contribution to Dwelling Supply

4.1 Overview
This section describes the proposal's contribution to local and regional dwelling supply. First, however, it describes the current state of the regional housing market, and briefly summarises the future supply/demand outlook.

4.2 Current State of the Housing Market
Like many cities in the developed world, Auckland’s housing market is in a state of crisis. Between 1993 and 2017, the median dwelling price increased from $137,000 to $855,000 – an annual growth rate of 8%.\(^1\) Over the same period, incomes grew roughly three times slower. Consequently, an average household now must save for 16 years just to pay the 20% deposit on a lower quartile dwelling (which only 25% of Auckland homes are cheaper than).\(^2\) Further, one-in-ten Aucklanders now live in an overcrowded home, which is double the national average.\(^3\)

Figure 2: Auckland Median Dwelling Sales Price (from NPSUDC dashboards)

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\(^3\) This was noted in a 2017 report by the Auckland Mayoral Taskforce on Housing. The report can be retrieved here: [https://www.aucklandcouncil.govt.nz/mayor-of-auckland/mayor-priorities/Documents/housing-taskforce-report.pdf](https://www.aucklandcouncil.govt.nz/mayor-of-auckland/mayor-priorities/Documents/housing-taskforce-report.pdf)

Likely Economic Effects of a Proposed Private Plan Change for Smale's Farm
Not only does the housing crisis have various social impacts, but it also has adverse economic effects too. Specifically, high living costs erode disposable incomes, which leaves less to spend on other goods and services. The impacts ripple throughout the national and regional economies, reducing GDP, incomes, and employment.

Moreover, high living costs can deter entrepreneurs, firms, and skilled workers from coming to NZ, which reduces future economic potential. This was noted in a recent report by Auckland Council’s Mayoral Housing Task Force, which stated that:

“Addressing Auckland’s shortfall of housing will benefit the country as a whole. New Zealand needs an international city that can attract talent and enterprise and compete successfully with other cities... More abundant and more affordable housing will make Auckland more attractive to firms, skilled workers, and young New Zealanders who may otherwise choose to live in Melbourne or London. A vibrant Auckland will in turn complement our other towns & cities.”

4.3 Role of Land Shortages

While the recent rampant growth in Auckland’s house prices reflects many factors, including strong population growth, chronic land shortages are a leading cause. This is captured in an indicator called the price-cost ratio, which is published regularly by MBIE. It measures the ratio of dwelling prices to construction costs (excluding land).

In general, values less than 1.5 signal that the land market is operating well, with house price inflation driven mainly by higher construction costs. Conversely, values greater than 1.5 indicate a lack of available land supply relative to demand, with house price inflation driven mostly by land prices.

Figure 3 compares Auckland’s average price-cost ratio over the last 5 years to other major urban areas in New Zealand to demonstrate the extent of the problem. Clearly, Auckland’s land market is under immense pressure, with a lot more supply required.

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4 For example, the 2016 NZ Household Economic Survey showed that housing costs – which include rent and mortgage repayments, rates, and insurance – increased by 10.7% over the previous 12-months.

5 Op cit – Mayoral Taskforce on Housing Report
4.4 Future Dwelling Supply/Demand Outlook

The latest estimates of future dwelling supply and demand are contained in detailed reports published by Auckland Council for the National Policy Statement on Urban Development Capacity (NPSUDC). These estimate demand for an extra 354,000 dwellings by 2046 under the medium scenario, including fixing the current shortfall. ⁶

At the same time, the analysis identifies commercially-feasible, plan-enabled capacity for about 326,000 dwellings. While that might seem close to the demand target, it is crucial to note that feasible capacity does not measure likely future supply. Rather, it represents the maximum supply if every parcel with commercially-feasible capacity was developed over the next 30 years. To understand why only a fraction of this will ever become future supply, Table I first disaggregates feasible capacity into its different types.

<table>
<thead>
<tr>
<th>Capacity Type</th>
<th>Description</th>
<th>Feasible Capacity</th>
<th>Shares of Capacity</th>
<th>Average Sales Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vacant plus infill &amp; Redevelopment</td>
<td>Extra dwellings in existing urban areas, created mainly via the demolition and redevelopment of existing properties.</td>
<td>140,000</td>
<td>45%</td>
<td>$1.2m</td>
</tr>
<tr>
<td>Future Urban Zone (FIND)</td>
<td>Greenfield/rural areas that will eventually be urbanised, but which still require zoning and servicing.</td>
<td>140,000</td>
<td>45%</td>
<td>$1.3m</td>
</tr>
<tr>
<td>Housing New Zealand</td>
<td>Sites owned by Housing New Zealand, which will be developed over time for social and affordable housing.</td>
<td>25,000</td>
<td>8%</td>
<td>n/a</td>
</tr>
<tr>
<td>Rural</td>
<td>Rural areas with capacity for rural/lifestyle dwellings.</td>
<td>15,000</td>
<td>5%</td>
<td>n/a</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>325,000</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

⁶ Op Cit: Auckland Council Assessment of Housing and Business Land Demand and Capacity
⁷ ibid

Likely Economic Effects of a Proposed Private Plan Change for Smale's Farm
Table 1 shows that 43% of feasible capacity relates to infill or redevelopment, which mostly requires the demolition and redevelopment of existing dwellings. However, since these properties are already developed and occupied, with most owners not intending to sell or redevelop in near future, very little is available for supply. This was illustrated in recent research by Auckland Council, which revealed that only 8% of sites identified with this type of capacity in 2006 were (re)developed over the following 11 years. Consequently, little weight can be placed on this source of capacity, especially over the short to medium term when it is needed most.

The future urban zones, which comprise the other major chunk of capacity, face a different set of problems. Specifically, while most eventually will be available for future development, none of it is right now because it still all requires zoning and servicing. Further, the estimates of feasible capacity in the FUZ are highly-inflated because the feasibility modelling ignored pending massive spikes in infrastructure servicing costs8, which will significantly reduce development viability9 and hence future supply. Regardless, little – if any – of this capacity is available for immediate supply.

Another critical issue with the feasible capacity estimates shown in Table 1 above is that they relate to the development of expensive dwellings that many households cannot afford. Specifically, theoretical new dwellings identified with feasible capacity in the existing urban area had an average sales price of $1.2 million, while those in the future urban area averaged $1.5 million. Both are significantly higher than the current median sales price, which itself is far out of reach for many families.10

In summary: Not only is there a pressing and immediate need for 40,000 dwellings today to rectify the current shortfall, but future demand will likely far outstrip future supply. Accordingly, house price inflation will likely continue apace absent a far more liberal and innovative approach to dwelling supply.

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8 ibid
9 The 2017 Mayorail Taskforce Report noted that the 128,000 or so dwellings in the FUZ areas would require around $19 billion of additional infrastructure, which equates to about $138,000 each excluding financing costs. Once financing costs are included, the cost to service each section will easily exceed $150,000 each, compared to an average today of around (say) $40,000.
10 This sensitivity is clearly demonstrated by a development feasibility tool published by MBIE for the NPS/UDC. It shows how the returns to both land development and building development are affected by infrastructure servicing costs, with returns to the former being highly-sensitive to changes in infrastructure servicing costs. The tool can be accessed here: http://www.mbie.govt.nz/info-services/housing-property/pot-document-library/39P-UDC%20Development%20Feasibility%20Tool.xlsx
11 These high (simulated) dwelling prices are a natural consequence of high land prices. Put simply, to maximise the return from developing high value land, high-value dwellings must be built. As a result, the analyses of feasible capacity typically identify expensive land and dwelling packages as the form of development that provides the greatest return to the developer, and hence which are most likely to be delivered by the market.

Likely Economic Effects of a Proposed Private Plan Change for Smallest Farm
4.5 Proposal’s Likely Dwelling Yield

As noted earlier, the proposal aims to accommodate up to 300,000m² of total floorspace at full-build out. Of this, about 138,000m² is likely to be developed as new high-rise apartments, about 120,000m² as offices, and the rest as retail, services, and other uses.

While apartment sizes vary greatly, particularly depending on the number of bedrooms, building consent data shows that the regional average in 2017 was 85m² in the CBD, and 102m² elsewhere. Given the development’s suburban location and based on our understanding of the local market, we expect new apartments at Smales Farm to also average about 100m². Adopting this figure, we estimate that the proposal could accommodate around 1,380 new dwellings at completion.

4.6 Overall Contribution to Dwelling Supply

The provision of 1,380 new apartments at Smales Farm, while not a panacea for the region’s housing woes, represents a significant boost in supply, particularly over the medium to longer term, and especially at the local and sub-regional levels. Indeed, with feasible capacity for new dwellings in the existing urban area mostly precluded by existing uses, and with feasible capacity in future areas still many years away, Smales Farm has the potential to make a significant contribution to dwelling supply.

This is particularly true given ongoing shifts in housing preferences, with many prospective buyers now appearing to opt for smaller units in higher-density developments. For example, apartments and terrace houses accounted for nearly 47% of new dwellings consented in Auckland last year, compared to only 10% in 2010.

Affordability is one of the obvious underlying drivers behind these shifts, with a recent Colliers report showing that the median sales price of apartments in Auckland last year was less than the median sales price of vacant sections. Further, since new apartments do not face LVR restrictions, they are attractive to first-home buyers.

Not only are apartments generally more affordable, but they also offer range of other benefits. These include greater security, lower maintenance, and more opportunities to socialise. In addition, apartments are often situated close to transport networks, and are usually served by a range of convenience retail and commercial services, which enable and enhance apartment living.

The proposed future development of SF will tick all these boxes, with its central location also allowing future residents to reach many key work and recreation destinations with relative ease. This is demonstrated in the map below, which shows the road distance (via car or bus) from Smales Farm to different locations across the region.

12 Retrieved from:

Likely Economic Effects of a Proposed Private Plan Change for Smales Farm
The map above shows that Smales Farm is within a 20-kilometre journey of large parts of the urban area. These include all the North Shore, Greenhithe, Albany, Silverdale, Whenuapai, Hobsonville, Westgate, West Harbour, Massey, and a significant chunk of the isthmus. This is a much higher level of accessibility than will be afforded by most (if not all) the future urban areas dotted around the edges of the region.

Finally, we note that Smales Farm will be an invaluable addition to dwelling supply because it is a large and master-planned development by a single land owner with a good track-record, who is committed to a quality outcome. This is in stark contrast to other feasible capacity identified in the existing urban area, which is highly-fragmented and will be developed in an ad-hoc manner, if at all.
5 Benefits of Transit-Oriented Developments

5.1 Overview
The proposed plan change will enable SF to become a special type of mixed-use development known as transit-oriented development (TOD). This section briefly explains what a TOD is, lists the economic benefits that they can provide, and then reconciles SF with critical success factors identified for TODs in the literature.

5.2 About Transit-Oriented Developments (TODs)
Transit-oriented developments (TODs) have become the subject of significant academic interest over the last two decades, and are increasingly recognised by town planners as an efficient way to achieve sustainable and compact urban forms.

While definitions vary, TODs are generally accepted to mean high-density, mixed-use developments that support public transport (PT) services, while also enabling a mix of self-supporting land uses that reduce private transport use and increase community participation. They seek to maximise the amount of urban development that falls within the primary walking catchment of a PT station or interchange. Hence, they are not just PT hubs, but also places for people to live, work, shop, socialise, and play.\(^3\)

5.3 Key Economic Benefits of TODs
TODs typically generate a wide range of economic, social, and environmental benefits. The most commonly cited economic benefits are summarised below.

- Reduced expenditure on private vehicles and reduced car ownership, which frees-up money for other uses, including local spending.
- Increased patronage on PT services, which supports service reach/frequency.
- Lower travel times due to higher rates of living and working locally, and via the use of fast and efficient rapid transit services in lieu of private vehicles.
- Reduced traffic congestion, which facilitates freight and passenger movements.
- Reduced car parking requirements, which frees land up for other uses.
- Increased support for local businesses via concentrated pools of local demand.
- Creation of day-time and night-time economies that support one another.
- Employee attraction/retention via the creation of an attractive public realm.
- More cost-effective provision of community and health services.
- Increased property and rental values.
- More efficient use of scarce urban land.

5.4 Critical Success Factors and Application to SF
While the benefits of TODs are diffuse and enduring, relatively few areas can support them, with successful implementation requiring several critical success factors to align.

\(^3\) Reference to Brisbane report

Likely Economic Effects of a Proposed Private Plan Change for Smale’s Farm
For example, detailed research by the Urban Land Institute – the world’s largest network of real estate and land use experts – noted that TODs work best where:14

- The TOD forms part of a “walkable” district.
- Transit is extensive, affordable, convenient, and attractive.
- Housing prices are rising.
- Congestion is problematic and likely to get worse, and
- Driving costs are high.

SF fits these criteria well. For example, the following map shows that SF falls almost entirely within the primary (400 metre) walking catchment of the Smales Farm bus station, except the south-eastern tip (which will not be developed further anyway). Hence, SF meets the first criterion for a TOD.

Figure 5: Location of SF relative to primary and secondary walking catchments

Not only is SF immediately adjacent to the PT station, but the North Shore bus service will be upgraded significantly in mid-2018. This includes moving away from a traditional low-frequency, point-to-point service to a high-frequency, hub-and-spoke model. The latter provides fewer direct connections between destinations, and instead provides high frequency services between central hubs (or interchanges), where

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 Likely Economic Effects of a Proposed Private Plan Change for Smales Farm
passengers can alight one service and board another, if required, to reach their
destination.

Under the changes, SF’s role in the network will be elevated as it becomes one of a
handful of key interchanges. Accordingly, it will be connected to a wide range of feeder
routes that service various destinations. This is illustrated in the stylised “new service”
map below, which shows multiple services feeding into the SF interchange.

Figure 6: Role of SF Bus Station as an Interchange in the New Bus Network

In addition to new routes, the new network will also use a simpler and more-integrated
fare system, which will improve convenience and encourage patronage. Accordingly, SF
meets the second key criteria for a TOD – that the transit service is extensive, affordable,
convenient, and attractive.

The remaining TOD criteria relate to increasing house prices, which we have already
discussed, and traffic issues. On the latter, most readers will likely appreciate that the
region’s traffic congestion has increased significantly in recent years. Consequently, a
recent report by NZIER estimated that traffic congestion is costing Auckland up to $2
billion per annum in lost productivity.15 Driving costs are also high, not least because of
the impacts of congestion on travel times and costs. Accordingly, SF meets the final
traffic-related criteria for a TOD.

15 Retrieved from http://www.scoop.co.nz/stories/PA1708/S00047/auckland-congestion-up-there-with-
the-world-s-worst.htm
5.5 Summary and Conclusion

This section has described the key features and benefits of a TOD, and reconciled SF with the critical success factors for their implementation. It has shown that SF meets all the requirements for a TOD and is thus well-positioned to realise the numerous benefits that they can provide. In addition, we note that the proposal will also support the Government’s push for more sustainable urban development. This was described in a recent article with the honourable Phil Twyford, who is the Minister for Housing and Urban Development and Transport. Discussing the region’s housing troubles, he noted:

"It’s a splendid idea to build housing around transport hubs. And our new urban design authority will cut through the red tape to make development happen."

"We really need to intensify. On the fringes, it’s expensive to build the infrastructure — and people want to be close to the jobs. Given the housing choices and the lifestyle choices, a young family wants an affordable place that’s not three-quarters of an hour drive on the motorway. They don’t want to spend the weekends on mowing and gardening."

We agree, and consider that SF could even become become an exemplar for future TODs in Auckland.

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Likely Economic Effects of a Proposed Private Plan Change for Smoole's Farm

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6 Synergies of Mixed-Use Development

6.1 Overview
Earlier sections of this report characterised the proposal as a high-density, mixed-use precinct which, given its proximity to the bus station, makes it a TOD. This section explains how the various elements of the development will support one another, particularly with respect to future retail and commercial services provision.

6.2 Relationships Between the Elements
While each mixed-use development is unique, they often include offices, residences, retail, commercial services, visitor accommodation, and various forms of entertainment. These can either be arranged vertically – where each building has several uses – or horizontally, where each building has one main use. Figure 7 depicts a typical vertical mixed-use building, with retail at street level, residents above, and offices in between.27

Figure 7: Example of a Common Layout for Vertical Mixed-use Buildings

![Diagram of mixed-use building layout]

Although each element of a mixed-use development is often commercially-viable in its own right, this is invariably enhanced by co-location with other uses. For example, local residents provide a pool of labour to help fill local jobs, while local workers create demand for local housing. Similarly, local workers and residents create ongoing demand for nearby retail, commercial services, and entertainment. Finally, those retailers and other services make the area a more attractive place to live and work.


Likely Economic Effects of a Proposed Private Plan Change for Smale's Farm 21
which strengthens demand for residences and work spaces. Accordingly, the various elements of a mixed-use development support and reinforce one another.

These synergies are one of the key economic drivers of mixed-use developments and are widely-recognised in the literature. For example, the Urban Land Institute has developed a framework for estimating the degree of onsite synergy between the various elements of a mixed-use development. It shows that offices and residences create significant synergies, not just between themselves, but also with the other common elements of mixed-use developments, as identified above. The proposal for SF recognises and responds to this opportunity.

6.3 Demand for Retail and Commercial Services at SF

While the interrelationships described above are all important for SF, one of the most important to consider here is the demand that will be created by residents and workers for retail and commercial services. This is because the proposed new precinct provisions enable the staged and orderly development of approximately 16,500m² of retail and commercial services at full build-out. However, equally, the precinct’s objective requires that it avoid adverse effects on town and metropolitan centres, such as Milford and Takapuna.

To verify that the proposal will not adversely affect nearby centres, we reconciled the demand that will be generated by future workers, residents, and visitors with the amount of supply enabled. If local demand roughly matches the level of local supply enabled, effects on other centres are unlikely. However, if local demand falls well short, then the risk of adverse effects increases accordingly. To advance the analysis, we estimate likely demand from future workers, residents, and visitors separately, then combine them to reconcile with supply. We start with worker demand.

6.3.1 Worker Demand for Retail and Commercial Services

We performed extensive reviews of the local literature for information about office worker spending patterns in New Zealand. Unfortunately, however, we did not find any. As a workaround, we adopt the findings of a detailed national survey from the USA in 2012.10

The survey—which was conducted by the International Council of Shopping Centers—sought to understand the spending habits of office workers in the digital age. It captured the retail spending of 4,000 office workers across the USA, and focussed on purchases before, during, and after work in the area immediately around their office building. Accordingly, it provides a useful proxy for future spending at SF, where a range of convenience retail and services will be provided onsite.

The survey disaggregated its results across several dimensions, including the respondents’ broad locations and the extent of retail provision around their workplaces. Specifically, the results showed how spending patterns differed between respondents that had access to ample levels of nearby retail provision, and those with only limited


Likely Economic Effects of a Proposed Private Plan Change for Smallest Farm
access. While New Zealand spending habits may differ, this data is the most comprehensive and robust available.\textsuperscript{13} Accordingly, we adopt it here. However, to avoid the risk of systematically overstating demand, we apply conservative assumptions throughout the analysis.

Table 2 shows how we transformed these data into estimates of future retail demand by SF employees. To summarise: we start with average spend per worker per week, which is disaggregated by store type and expressed in New Zealand dollars. Then, we convert these to estimates of annual spend by local office workers based on the estimated size of the workforce at full build-out. Next, we overlay our estimated ‘capture rates’ for SF retailers based on other recent retail work to derive the corresponding sales to local retailers. Finally, these local sales figures are converted to estimates of supportable floorspace based on industry-standard estimates of sales per square metre.

These estimates reflect the following underlying assumptions:

- Total office space will be 142,000m\(^2\) at full build-out (with a further 20,000m\(^2\) of retail, services, and other uses).
- Employee density will average 11 to 12m\(^2\) per worker.\textsuperscript{30}
- Workers are onsite for 45 weeks per year, and
- The exchange rate is NZD\(1 = \$0.70.\)

<table>
<thead>
<tr>
<th>Store/Service Type</th>
<th>Weekly spend per worker</th>
<th>Annual Demand $m</th>
<th>Local Capture Rate</th>
<th>Annual local Sales $m</th>
<th>Sales per square metre</th>
<th>Supported Floorspace m(^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clothing Stores</td>
<td>$5.42</td>
<td>$31.1</td>
<td>0%</td>
<td>$0.0</td>
<td>$5,000</td>
<td>0</td>
</tr>
<tr>
<td>Department Stores</td>
<td>$6.88</td>
<td>$41.3</td>
<td>0%</td>
<td>$0.0</td>
<td>$5,000</td>
<td>0</td>
</tr>
<tr>
<td>Discount Stores</td>
<td>$13.20</td>
<td>$85.2</td>
<td>0%</td>
<td>$0.0</td>
<td>$3,000</td>
<td>0</td>
</tr>
<tr>
<td>Drug Stores</td>
<td>$9.88</td>
<td>$61.8</td>
<td>0%</td>
<td>$0.0</td>
<td>$5,000</td>
<td>0</td>
</tr>
<tr>
<td>Electronics/Phone/Computers</td>
<td>$9.88</td>
<td>$61.8</td>
<td>0%</td>
<td>$0.0</td>
<td>$5,000</td>
<td>0</td>
</tr>
<tr>
<td>Entertainment</td>
<td>$4.26</td>
<td>$25.6</td>
<td>0%</td>
<td>$0.0</td>
<td>$3,000</td>
<td>290</td>
</tr>
<tr>
<td>Fast Food/Deli/Lunch Eaters</td>
<td>$13.00</td>
<td>$82.0</td>
<td>0%</td>
<td>$0.0</td>
<td>$5,000</td>
<td>1,210</td>
</tr>
<tr>
<td>Full Service Restaurants</td>
<td>$18.50</td>
<td>$117.0</td>
<td>0%</td>
<td>$0.0</td>
<td>$5,000</td>
<td>1,670</td>
</tr>
<tr>
<td>Grocery Stores</td>
<td>$28.30</td>
<td>$175.8</td>
<td>0%</td>
<td>$0.0</td>
<td>$10,000</td>
<td>1,270</td>
</tr>
<tr>
<td>Jewellery Stores</td>
<td>$4.88</td>
<td>$31.3</td>
<td>0%</td>
<td>$0.0</td>
<td>$8,000</td>
<td>0</td>
</tr>
<tr>
<td>Office Supplies/Stationery/Gifts</td>
<td>$9.96</td>
<td>$63.7</td>
<td>0%</td>
<td>$0.0</td>
<td>$4,000</td>
<td>910</td>
</tr>
<tr>
<td>Other Goods (Petrol etc)</td>
<td>$5.20</td>
<td>$31.3</td>
<td>0%</td>
<td>$0.0</td>
<td>$4,000</td>
<td>400</td>
</tr>
<tr>
<td>Other Services</td>
<td>$5.00</td>
<td>$30.0</td>
<td>0%</td>
<td>$0.0</td>
<td>$5,000</td>
<td>310</td>
</tr>
<tr>
<td>Personal Care</td>
<td>$8.60</td>
<td>$52.2</td>
<td>0%</td>
<td>$0.0</td>
<td>$5,000</td>
<td>480</td>
</tr>
<tr>
<td>Personal Services</td>
<td>$13.60</td>
<td>$82.0</td>
<td>0%</td>
<td>$0.0</td>
<td>$5,000</td>
<td>760</td>
</tr>
<tr>
<td>Shoe Stores</td>
<td>$4.00</td>
<td>$25.6</td>
<td>0%</td>
<td>$0.0</td>
<td>$5,000</td>
<td>0</td>
</tr>
<tr>
<td>Sporting Goods</td>
<td>$1.90</td>
<td>$11.9</td>
<td>0%</td>
<td>$0.0</td>
<td>$4,000</td>
<td>0</td>
</tr>
<tr>
<td>Warehouse Clubs</td>
<td>$11.90</td>
<td>$77.4</td>
<td>0%</td>
<td>$0.0</td>
<td>$3,000</td>
<td>0</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>$179.60</td>
<td>$1,060</td>
<td>0%</td>
<td>$93.1</td>
<td>$5,000</td>
<td>9,620</td>
</tr>
</tbody>
</table>

\textsuperscript{19} We also discovered a recent similar survey from Sydney, but it had a very small sample size and produced implausibly-high estimates of worker spending. Accordingly, we rely on the USA data only.

\textsuperscript{30} This is likely to be conservatively-large, with actual values trending toward 10m\(^2\) per worker.

Likely Economic Effects of a Proposed Private Plan Change for Smoaks Farm
Table 2 shows that local office workers will likely support more than 9,600m² of retail and commercial services at full build-out even under our conservative assumptions. For example, we assume that all spending at clothing stores and sporting goods stores leaks out, and that only half of spending on phones and other electronics occurs locally. Higher capture rates are possible, if not probable, for several store types.

### 6.3.2 Household Demand for Retail and Commercial Services

Next, we used Auckland-specific data from the 2016 Household Economic Survey to estimate likely household demand. This triennial survey by Statistics New Zealand captures the regional spending habits of New Zealand households, and provides the most detailed and up-to-date information about likely future spending habits by SF households. It was used to estimate future demand for local floorspace using a similar process to worker demand in the previous section. The underlying assumptions are that:

- There will be 1,380 households at full build-out.
- Average household spending will match the regional average.
- Households are onsite for 50 weeks per year, and away for 2 weeks.
- No allowance is made for ongoing growth in spending over time.

Table 3 presents our resulting estimates of supportable floorspace by future residents, which total nearly 3,000m² at full build-out.

<table>
<thead>
<tr>
<th>Expenditure Items</th>
<th>Weekly spend per Household</th>
<th>Annual Demand $500s</th>
<th>Local Capture Rate</th>
<th>Local Sales $000s</th>
<th>Sales per square metre</th>
<th>Supported Floorspace m²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol beverages</td>
<td>$21.80</td>
<td>$1,420</td>
<td>67%</td>
<td>$950</td>
<td>$8,000</td>
<td>120</td>
</tr>
<tr>
<td>Audio-visual and computing equipment</td>
<td>$9.20</td>
<td>$600</td>
<td>0%</td>
<td>$50</td>
<td>$6,000</td>
<td>0</td>
</tr>
<tr>
<td>Clothing</td>
<td>$38.30</td>
<td>$2,490</td>
<td>0%</td>
<td>$0</td>
<td>$5,000</td>
<td>0</td>
</tr>
<tr>
<td>Footwear</td>
<td>$10.10</td>
<td>$666</td>
<td>0%</td>
<td>$0</td>
<td>$5,000</td>
<td>0</td>
</tr>
<tr>
<td>Fruit and vegetables</td>
<td>$38.80</td>
<td>$2,300</td>
<td>80%</td>
<td>$1,600</td>
<td>$6,000</td>
<td>270</td>
</tr>
<tr>
<td>Furniture, furnishings &amp; floor coverings</td>
<td>$14.80</td>
<td>$960</td>
<td>0%</td>
<td>$0</td>
<td>$4,000</td>
<td>0</td>
</tr>
<tr>
<td>Groceries</td>
<td>$101.80</td>
<td>$6,520</td>
<td>50%</td>
<td>$3,310</td>
<td>$10,000</td>
<td>330</td>
</tr>
<tr>
<td>Household appliances</td>
<td>$6.80</td>
<td>$470</td>
<td>0%</td>
<td>$0</td>
<td>$6,000</td>
<td>0</td>
</tr>
<tr>
<td>Household textiles</td>
<td>$3.70</td>
<td>$240</td>
<td>0%</td>
<td>$0</td>
<td>$5,000</td>
<td>0</td>
</tr>
<tr>
<td>Major recreational &amp; cultural equipment</td>
<td>$4.00</td>
<td>$266</td>
<td>0%</td>
<td>$0</td>
<td>$5,000</td>
<td>0</td>
</tr>
<tr>
<td>Meat, poultry and fish</td>
<td>$35.40</td>
<td>$2,300</td>
<td>80%</td>
<td>$1,840</td>
<td>$8,000</td>
<td>230</td>
</tr>
<tr>
<td>Medical products, appliances etc</td>
<td>$14.20</td>
<td>$920</td>
<td>80%</td>
<td>$740</td>
<td>$5,000</td>
<td>150</td>
</tr>
<tr>
<td>Newspapers, books and stationery</td>
<td>$8.40</td>
<td>$550</td>
<td>80%</td>
<td>$440</td>
<td>$4,000</td>
<td>110</td>
</tr>
<tr>
<td>Non-alcoholic beverages</td>
<td>$12.30</td>
<td>$800</td>
<td>80%</td>
<td>$640</td>
<td>$5,000</td>
<td>130</td>
</tr>
<tr>
<td>Other household supplies and services</td>
<td>$13.30</td>
<td>$860</td>
<td>50%</td>
<td>$430</td>
<td>$5,000</td>
<td>90</td>
</tr>
<tr>
<td>Other recreational equipment &amp; supplies</td>
<td>$27.80</td>
<td>$1,810</td>
<td>0%</td>
<td>$0</td>
<td>$5,000</td>
<td>0</td>
</tr>
<tr>
<td>Out-patient services</td>
<td>$26.10</td>
<td>$1,310</td>
<td>80%</td>
<td>$1,050</td>
<td>$5,000</td>
<td>210</td>
</tr>
<tr>
<td>Personal care</td>
<td>$32.10</td>
<td>$2,090</td>
<td>0%</td>
<td>$1,400</td>
<td>$5,000</td>
<td>250</td>
</tr>
<tr>
<td>Personal effects rec</td>
<td>$13.40</td>
<td>$870</td>
<td>67%</td>
<td>$580</td>
<td>$4,000</td>
<td>150</td>
</tr>
<tr>
<td>Restaurant meals and ready-to-eat food</td>
<td>$81.90</td>
<td>$5,320</td>
<td>67%</td>
<td>$3,560</td>
<td>$4,000</td>
<td>890</td>
</tr>
<tr>
<td>Telecommunication equipment</td>
<td>$6.10</td>
<td>$370</td>
<td>50%</td>
<td>$110</td>
<td>$5,000</td>
<td>10</td>
</tr>
<tr>
<td>Tools for house and garden</td>
<td>$6.50</td>
<td>$420</td>
<td>0%</td>
<td>$0</td>
<td>$4,000</td>
<td>0</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>$112.80</strong></td>
<td><strong>$7,340</strong></td>
<td><strong>$10,080</strong></td>
<td><strong>2,990</strong></td>
<td><strong>2,990</strong></td>
<td><strong>2,990</strong></td>
</tr>
</tbody>
</table>

Likely Economic Effects of a Proposed Private Plan Change for Smallest Farm
6.3.3 Visitor Demand

As noted earlier, thousands of people frequent SF each year to visit local businesses, to access various services, and to attend community events. As the number of businesses and services provided at SF grows, so too will the number of visitors. Similarly, as SF transforms into a mixed-use area and starts to accommodate residential uses, the number of visitors will increase significantly. Further, a significant number of hospital staff and visitors will continue to pass through SF to and from the bus interchange, which creates yet another sustained source of passing trade.

Unfortunately, however, it is difficult to predict future spending by these visitors at SF retailers and commercial service providers. However, based on retail work that we have completed for dozens of centres across New Zealand, we expect spending by visitors to comprise at least a quarter of the total, with local workers and residents accounting for the rest. On that basis, we estimate visitor retail demand for about 4,200m² of retail and commercial services GFA.21

6.3.4 Reconciliation with Enabled Supply and Conclusions

The analyses above estimated that local workers, residents, and visitors will support about 9,660m², 3,000m², and 4,200m² of local floorspace, respectively. This gives total onsite demand of just over 16,800m². As noted above, the proposed new precinct provisions would enable about 16,500m² of retail and commercial services floorspace at full build-out. Thus, our estimate of likely future demand is just above the level of enabled future supply. Accordingly, we do not expect the proposal to present any tangible risk to the health and vitality of nearby centres.

Perhaps even more importantly, the precinct provisions have been designed so that retail and commercial services increase only gradually along with the rest of the development. Specifically, the rules allow only an extra 500m² of retail and commercial services floorspace per every additional 10,000m² of total GFA over and above a certain threshold. This precludes the possibility of a significant retail precinct occurring ahead of local demand, and instead ensures that supply and demand increase in tandem. In addition, the rules preclude the development of large retail stores. For example, a 2,000m² store could only be built if it formed part of a much larger (40,000m²) building.

Finally, we note that a significant share of the local retail demand that we modelled as leaking out from SF will invariably gravitate to the nearest centres, such as Milford and Takapuna. Hence, if anything the proposal will support—not challenge—the health and vitality of nearby centres. Accordingly, we consider it unlikely that the proposal will undermine the precinct’s objective, which includes avoiding adverse effects on town and metropolitan centres.

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21 Worker and resident demand equals 9,660 + 2,990 = 12,650m². If this equals three-quarters of total demand, then the other quarter will be three times smaller, which gives a visitor demand estimate of about 4,200m².

Likely Economic Effects of a Proposed Private Plan Change for Smale’s Farm
7 Infrastructure and Land-Use Efficiency

7.1 Land Use Efficiency
One of the key benefits of the proposal is that it will maximise land use efficiency by enabling very high-density, mixed-use development to occur. The logic is simple. Because urban land is so scarce, its price is high. Thus, to make the greatest use of it, high-density developments maximise the floor space delivered per unit of land area. This, in turn, allows the land to be put to its highest and best use, which is a necessary condition for economic efficiency to hold in the land market.

The easiest way to demonstrate the proposal’s land use efficiency is to estimate its impact on the development’s floor area ratio (FAR). This equals its total gross floor area (GFA) divided by its land area. All other things being equal, the higher the FAR, the more efficient the use of the land.

Since the proposal roughly doubles the development’s future GFA without altering its land area, its FAR also doubles. As a result, the proposal represents a higher and better use of the land, and thus promotes economic efficiency in the underlying land market.

7.2 Infrastructure Efficiency
Another important facet of economic efficiency for land development is infrastructure efficiency. This relates to the resource cost of servicing developments with the necessary infrastructure, such as water, wastewater, stormwater, and transport.

Like land use efficiency, the proposal performs well on this too. First, it is already connected to the water, wastewater and stormwater networks, with upgrades readily available on an as-needed basis. Second, the site is already connected to transport networks, including the adjacent Smalles Farm bus interchange. This provides convenient and accessible public transport for future employees, residents, and visitors.

By contrast, the various future urban zones on the region’s periphery are not yet connected to any infrastructure, and instead require the expensive extension of reticulation networks to service them. That alone underscores the infrastructure efficiency of SF.

However, SF’s overall infrastructure efficiency will be even greater again because of its high density. All other things being equal, the higher the density of a development, the cheaper it is to service on a per-unit basis. For example, the stormwater run-off from (say) a 20-storey apartment building with a 200m² footprint will be the same as a one-storey house with the same footprint. However, the 20-storey building will obviously contain more dwellings.

Further, residents in high-rise buildings tend to have lower rates of car ownership, and are less reliant on private transport, which reduces pressure on the road network.

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22 For example, Watercare charges significantly more to service remote, peripheral locations.
Also, residents in higher density developments tend to use less water because they do not need it for outdoor purposes. This is critical, because peak water demand occurs in summer due to irrigation and other outdoor uses, so the absence of such demand at peak times creates significant savings. Accordingly, high density developments like the proposal are efficient from an infrastructure perspective.

These infrastructure efficiencies are widely-recognised, and are even enshrined in Auckland Council’s development contributions (DC) policy. These are a funding tool used by Councils to help pay for growth-related infrastructure, such as water and roads. As shown in the table below, new Auckland dwellings in medium- to high-rise buildings receive a 25% discount relative to detached dwellings. Accordingly, we consider the proposal to have high levels of infrastructure efficiency.

<table>
<thead>
<tr>
<th>Dwelling Size</th>
<th>Detached/Duplex</th>
<th>Low-Rise</th>
<th>Med-High Rise</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-59m²</td>
<td>0.80</td>
<td>0.70</td>
<td>0.60</td>
</tr>
<tr>
<td>100-249m²</td>
<td>1.00</td>
<td>0.90</td>
<td>0.75</td>
</tr>
<tr>
<td>250m²+</td>
<td>1.20</td>
<td>1.10</td>
<td>0.90</td>
</tr>
</tbody>
</table>

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23 We acknowledge that the site will contain a certain level of landscaping, which itself will require irrigation. However, the proposal does not alter this landscaping provision, so the addition of residential uses does not create any additional demand for water during peak summer months.

8 Summary and Conclusion

This report has considered the likely economic effects of the proposal to enable high-quality, mixed-use development at Smales Farm. It has shown that the proposal will make a significant and sustained contribution to regional dwelling supply, while also harnessing the many benefits of a transit-oriented development. Further, the various elements of the proposal will support and reinforce one another, so that there is no risk of adverse effects on other centres. Finally, the proposal will maximise land and infrastructure efficiency. Accordingly, we support the proposal on economic grounds.