

## Technical Memorandums

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Memorandum

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Economic Impact Assessment

# PROPERTY ECONOMICS



**DRURY CENTRE PRECINCT**

**FAST-TRACK APPLICATION**

**ECONOMIC IMPACT MEMORANDUM**

**Client:** Kiwi Property Holdings No.2 Limited

**Project No:** 52408

**Date:** May 2024

3 May 2024

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## ECONOMIC MEMORANDUM

To: Kiwi Property Holdings No. 2 Limited

c/- David Schwartzfeger

Project Director - Drury

Email: s 9(2)(a)

RE: FAST-TRACK ECONOMIC IMPACT OVERVIEW OF DRURY CENTRE PRECINCT DEVELOPMENT

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### INTRODUCTION

Property Economics has been commissioned to provide a high-level overview of the potential economic impacts resulting from the Drury Centre Precinct Stage 1 & 2 development by Kiwi Property Holdings No. 2 Limited (**"the Applicant"**) in Drury, Auckland.

This economic impact memorandum relates to an application for listing in Schedule 2A of the Fast-track Approvals Bill (**"the FTA Bill"**).

Specifically, this economic overview assesses the market growth projections to determine if the Applicant's development will deliver significant economic benefits and contribute positively to the regional economy and satisfy some of the economic criteria as set out in Section 17 - *Eligibility Criteria for Projects that May Be Referred to Panel* of The FTA Bill. A high-level forecast is also undertaken to quantify the economic injection and employment generation, assisting in understanding the subject development's contribution to the regional economy.

In addition, this economic overview identifies the potential for any additional efficiencies to better meet community demands and future needs, and the economic benefits resulting from the efficiencies of utilising the FTA Bill process over standard resource consenting timeframe.

**In summary, the project will generate economic activity, in the region, amounting to an NPV of approximately \$1.23 billion and would contribute around 2,400 FTE jobs during the peak construction year within Auckland, with a total number of FTE years at around 7,710 over the period.**

### OVERVIEW OF THE DRURY CENTRE PRECINCT DEVELOPMENT

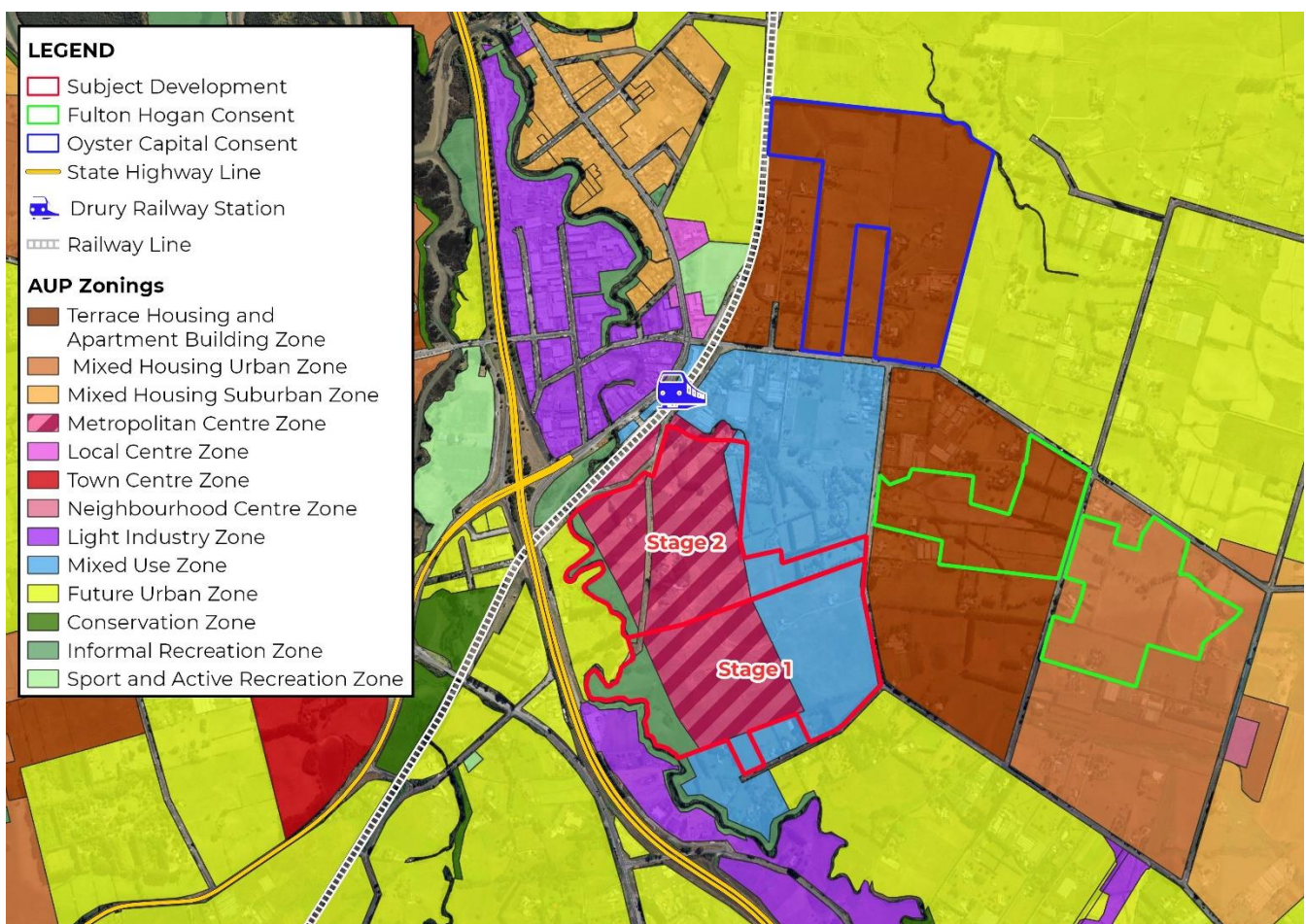
As a result of Plan Change 48 – Drury Centre Precinct (**PC48**), approximately 95ha of land bounded by Great South Road, Waihoehoe Road, Fitzgerald Road, and Hingaia Stream was rezoned to a mix of Metropolitan Centre Zone, Mixed Use Zone, and Informal Recreation Zone.

The consented Stage 1 development of the Drury Centre Precinct is situated on the northern side of Brookfield Road, covering around 40.5ha of land. The existing consents allow for the construction of new buildings primarily for retail purposes (mainly Large Format Retail (**LFR**)), with a total GFA of up to 32,000sqm, along with 13 super lots designated for future residential development within this Stage 1 development area.

This Application seeks a variation to the Stage 1 consent by incorporating additional LFR space within the Stage 1 development and reallocating some of the building platforms. Additionally, the Application seeks to enable the proposed Stage 2 development immediately to the north of the Stage 1 development. In total, the Application will enable total of 56,000sqm of retail GFA within the Drury Centre Precinct. The focus of this memorandum is on the economic impacts of the retail GFA, however it is noted that additional commercial, community and superlots for future residential development are also proposed, and this mix of activities is anticipated by the underlying zoning and precinct plans.

Figure 1 below illustrates the extent and surrounding zoning contexts of both Stage 1 and Stage 2 developments under the Auckland Unitary Plan Operative in Part (AUP).

**FIGURE 1: SUBJECT SITE IN THE CONTEXT OF THE AUP ZONING ENVIRONMENT**



Source: Auckland Council, LINZ, Google Maps

The development site primarily falls under a mix of Metropolitan Centre Zone and Mixed Use Zone. As per the AUP H9.1, metropolitan centres are identified to accommodate a diverse array of activities, encompassing commercial, recreational, high-density residential, tourism, cultural, community, and civic services. Therefore, greater concentration and density of retail and commercial use are envisaged outcomes for the Drury Centre Precinct. Once fully realised, the Drury Centre is positioned

to become a regionally significant shopping destination servicing a broad economic catchment of the region.

Moreover, the site is efficiently location sitting adjacent to the city's public transport railway line and State Highways (SH1 and SH22). Positioned strategically within this rapid transit corridor, the development site holds significant potential for various activities and is master planned to optimise land utilisation efficiency.

Building on the existing Stage 1 consent, this Application aims to introduce additional compatible retail and commercial spaces to the area several years earlier, thereby unlocking and catalysing the development of the Drury Centre and its surrounding residential environs. Given the site's location, this Application would improve the efficiency and contribute positively to the functioning of the region's urban environment.

### CONSENTED SURROUNDING ENVIRONMENTS

As depicted in Figure 1, there are two consented residential projects in close proximity to the Drury Centre Precinct: the Fulton Hogan project (outlined in **Green**) and the Oyster Capital project (outlined in **Navy**). These developments have received consent through the Fast-Track process for the construction of a combined total of 605 dwellings, 37 residential super lots, and necessary infrastructure and associated works. The Stage 1 consent included 13 superlots for future residential development, and this is not proposed to be varied as part of this consent. Introducing additional retail and commercial spaces adjacent to these residential developments both accelerates growth and enhances the liveability and vibrancy of the area, contributing positively to the social and economic wellbeing of local communities.

Furthermore, planning approvals have been granted for the Drury Central and Paerātā railway stations in early 2022, and the Ngākōroa (Drury West) railway station has recently been approved. The Drury Central Railway Station is situated immediately north of the subject development (as indicated in Figure 1). Anticipated for completion from 2025, these three stations will serve residents across a broad area and provide regional access via public rail options, including North Waikato, as well as the regional rural areas to the west and east. Proximity to the Drury Central Railway Station would significantly enhance the performance (\$ per sqm) and accessibility of future activities within the Drury Centre.

Considering the consented residential and significant infrastructure investments in its immediate vicinity, the subject development is strategically positioned to become a regional retail and employment hub. The proposed activities are compatible and will provide the essentially required amenities and services to establish a well-functioning metropolitan centre.

### AUCKLAND SOUTH POPULATION AND RETAIL SPEND GROWTH

Table 1 below presents the population growth and generated retail spend projections within the wider Auckland South catchment<sup>1</sup> over the next decade to illustrate the requirement for proposed

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<sup>1</sup> Refer to Appendix 1 for the geospatial extent of the Auckland South catchment.

development in the market. These projections are derived from Stats NZ population growth projections for both the High and Medium growth series.

The Auckland South catchment covers approximately a third of the wider Auckland Region's population with an estimated population base of just over 615,500 as at June 2023. This highlights the significant size of the Drury Centre's existing core catchment.

This existing population base generates a total 'pool' of around \$5.55b per annum of retail expenditure from which the proposed development can draw sales. This retail market is projected to increase to over \$7.2b annually by 2033, corresponding to a population growth of around +125,300 people under the High growth scenario. This represents a significant growth to approximately \$1.7b annually by 2033 above the 2023 base year.

The Medium growth projection adopts a more conservative stance, predicting a future population base of around 683,800 people by 2033, reflecting a +11% growth. This projection corresponds to a net increase in annual retail expenditure of around \$1.3b by 2033.

The latest net migration data from Stats NZ indicates net migration into NZ is at record levels reflecting a strong post-Covid rebound with NZ still being viewed as an attractive country for people to permanently migrate. High net migration accelerates population growth in Auckland supporting the High scenario as the more likely growth trajectory for the identified market.

**TABLE 1: AUCKLAND SOUTH POPULATION AND GENERATED RETAIL SPEND PROJECTIONS**

High Growth Scenario	2023	2028	2033
Population	615,540	686,380	740,820
Total Retail Spend Generated (\$M)	\$5,550	\$6,440	\$7,220
Retail Spend Growth (\$M)		<b>\$890</b>	<b>\$1,670</b>

Medium Growth Scenario	2023	2028	2033
Population	615,540	649,570	683,820
Total Retail Spend Generated (\$M)	\$5,550	\$6,210	\$6,860
Retail Spend Growth (\$M)		<b>\$660</b>	<b>\$1,310</b>

Source: Stats NZ, Property Economics

## ECONOMIC INJECTION AND EMPLOYMENT GENERATION

Table 2 following considers the impacts of the project on two aspects of the Auckland economy.

The first aspect is "economic activity". This takes account of: direct land development and construction costs; the proportion of that expenditure that will stay in the Auckland Region; the multiplier effect (i.e.: economic activity generated by expenditure in the Region); and an NPV calculation (i.e.: the net present value in 2024 of economic activity that occurs in the future). In summary, the project will generate economic activity in the region amounting to an NPV of approximately \$1.23 billion.

The second aspect is the generation of employment. This takes account of the number of "Full Time Equivalent" employment years generated in the Auckland Region over the 5-year period. In terms of employment multipliers the project would contribute around 2,400<sup>2</sup> FTE jobs during the peak construction year within Auckland, with a total number of FTE years at around 7,710 over the period.

### Total Economic Activity

This includes construction costs, which have been valued for the overall development.

The impact of this injection on the initial business cycle has been calculated. This 'construction multiplier' was based on the national input-output tables produced by Stats NZ (based on 106 sectors), which were then assessed at a district level based on Auckland economic activity, composition and productivities.

This estimates the 'leakage' from the regional economy (within specified sectors), and therefore the overall regional production (within a given business cycle) for each \$1 injected.

This was performed for the general residential / commercial construction sectors. These multipliers are based on 'net' flows by broad sector type and are therefore approximations.

Total output impacts to the Auckland catchment for the proposed developments include:

- Direct Construction Cost x 'Construction Multiplier' +
- Direct Development Cost x 'Development Multiplier' +
- Direct Increased Commercial Spending x 'Commercial Multiplier' +
- Indirect Business Spend x 'Commercial Multiplier' +
- Induced Retail Spending x 'Retail Multiplier'

Each identified multiplier relates simply to the economic sector from which the activity is generated.

### Assumptions

The following assumptions have been applied in this impact analysis in order to assess the level of economic injection into the overall economy at this time. This has some (limited) impact on the distributional effects of the costs and benefits but can be quickly adjusted to accommodate more specific construction and on-going costs and injections.

1. For the purposes of this Economic Impact Assessment it has been assumed that the construction costs will fall within the definition of the following categories (based on a standard 'special' commercial ratio): 'non-residential construction', 'non-building construction', 'other construction services'.

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<sup>2</sup> NB These are all jobs created through the direct construction phase including indirect and induced employment through all business sectors (not solely construction jobs).

2. Associated (and estimated) land costs have been included in the financial repayment assessment for the project.
3. Financial or loan costs on capital primarily fall outside of the local catchment and impact the national economy.
4. The origin of labour has been assessed based on regional labour movements furnished by Statistics NZ based on 2018 data. However, employment data has been updated as per the Statistics NZ Business Frame data<sup>3</sup> to March 2023.
5. This report deals with the economic impact of proposed development on Auckland. These are specifically the direct impacts related to the operation and construction of the proposed development.
6. The economic activity generated is based on the development's gross activity and does not consider this redirecting growth opportunities from elsewhere in the catchments. As stated, this assessment is not site specific.
7. For the purposes of this report a 6% discount rate has been applied.
8. Labour movements are based on average retention rates rather than specific company locations.
9. The proportion of materials and labour internalised in direct benefits to Auckland are based on standardised labour movements as well as employment and production composition within the Region. The amount of each 'flow-on' dollar retained in Auckland are based on the movement of resources (including labour) between other districts and regions.

Table 2 following outlines the resulting impacts on the Auckland economy as a result of the development.

### Total Auckland Economic Activity

The following table illustrates that the total impact on business activity within the Auckland region as a result of the subject development over a 5-year period is estimated to be in the order of \$1.23 billion.

In terms of employment multipliers the project would contribute around 2,400 FTE jobs during the peak construction year within Auckland, with a total number of FTE years at around 7,710 over the period.

The efficiency of the FTA Bill process means these economic benefits would be generated in the market an estimated 2 years earlier than the subject development going through the standard resource consenting pathways.

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<sup>3</sup> Business Frame Data – provides Statistics NZ measure of employment in an area by ANZSIC sector.

TABLE 2: TOTAL GROSS AUCKLAND ECONOMIC INJECTION (FASTTRACK)

	2025	2026	2027	2028	2029	Total
<b>Direct Expenditure (\$m)</b>						
Total Development Costs (excl. land)	\$104.0	\$48.0	\$8.0			\$160.0
Construction		\$180.9	\$201.0	\$469.0	\$489.1	\$1,340.0
<b>Total Direct Expenditure (excl. land)</b>	<b>\$104.0</b>	<b>\$228.9</b>	<b>\$209.0</b>	<b>\$469.0</b>	<b>\$489.1</b>	<b>\$1,500.0</b>
<b>Total Auckland Output NPV (48 sector multipliers)**</b>	<b>\$97.0</b>	<b>\$203.5</b>	<b>\$178.9</b>	<b>\$377.3</b>	<b>\$369.8</b>	<b>\$1,226.5</b>
<b>Employment (FTE Years)</b>						
Development Employment	495	224	37			756
Construction Employment		876	954	2,114	2,094	6,037
Other Employment	112	180	125	285	215	917
<b>Total Employment (FTE years)</b>	<b>607</b>	<b>1,280</b>	<b>1,115</b>	<b>2,399</b>	<b>2,309</b>	<b>7,710</b>

Source: Property Economics

Notes: \* Increased Local Spend by residents, employees, construction workers and additional local business spend through the different stages of development.

\*\* The impacts on Auckland as a result of direct, indirect and induced activities.

This scale of economic injection and employment generated as a result of the project is considered of regional significance relative to the scale of development across Auckland, and therefore would provide significant regional economic benefits for Auckland.

## ECONOMIC BENEFITS SYNOPSIS

There are a range of potential economic benefits that are likely to be achieved within the market beyond the direct economic activity (such as employment and economic output) generated. These are outlined in more detail below.

- Increased internalisation of retail and Drury Centre spend:** The Application will encourage increased foot traffic to the area through employment, residents, and visitors (e.g. North Waikato residents) attracted by the amenity and improved access to a major retail destination. This will bring an increase in revenue and economic activity to the Auckland economy.
- Increased employment opportunities and economic activities:** The Application would directly promote Drury and the wider Auckland South's economy by providing more employment opportunities. These opportunities span across both temporary roles, such as those in construction, as well as ongoing permanent positions once the development is completed. This application would not only bring an influx of employment sooner by also inject vitality into the local economy and ensure sustained economic growth for the community.
- Improved land use efficiency:** With the Stage 1 development of the Drury Centre Precinct already approved, the remaining portion of the Drury Metropolitan Centre Zone presents a natural opportunity for the early expansion of retail and commercial developments in the

area. This extent of this application stands to benefit from economies of scale and increased productivity (\$ per sqm), thus catalysing the area's growth trajectory. Additionally, its proximity to the Drury Railway Station shows the location suitable for accommodating higher densities of activities sooner, aligning with the directives outlined in the National Policy Statement on Urban Development (NPS-UD) and the Medium Density Residential Standards (MDRS), particularly in directing developments towards existing and planned rapid transit stops (e.g., NPS-UD Policy 3).

- **More efficient infrastructure use:** The existing and future infrastructure that is put in place to service residents in and around the Drury Centre is used by a larger number of people sooner. This includes road / rail network, community facilities – libraries, halls, parks – power and telecommunications, three waters. The larger number of people in the form of both increased employees using these infrastructure assets and increased residents living in the area lowers the marginal cost of the infrastructure.
- **Enhanced liveability for the surrounding residential areas:** The subject development is situated within walking distance of the Oyster Capital and Fulton Hogan residential projects. With the Drury Centre poised to offer residents convenient access to a diverse array of amenities and services - including grocery stores, dining establishments, cafes, entertainment venues, healthcare facilities, and recreational areas - residents will enjoy enhanced liveability through access to essential goods and services in close proximity sooner.
- **Higher level of specialisation and productivity:** As levels of economic activity increase in the local area, so does the ability of businesses to specialise and increase efficiency, due to increased competition. The site benefits from an underlying metropolitan centre zoning and adjoins approved residential developments that, upon full realisation, will substantially expand the existing Drury community and generate considerable additional demand for retail and commercial services. Consequently, the development of retail and commercial activities within the site sooner stands to accelerate growth of Drury as a whole.
- **Catalyses additional development(s):** Large anchor tenants in the commercial centre, such as LFR outlets, department stores, grocery chains, or entertainment activities, often attract smaller retailers and businesses seeking to capitalise on the anchor tenant's larger customer base and draw. The presence of these anchor tenants can create a 'retail ecosystem' that fosters additional development and investment in the surrounding area. The listing of the development on the 2A Schedule would enable these benefits to be realised sooner.

## CONCLUSION

Based on the high-level economic overview presented in this memo, Property Economics considers that allowing the application to be applied for under the FTA Bill, via the Schedule 2A pathway, this application will generate net positive contribution to the future economic and social wellbeing of the local communities, and through flow-on effects to other areas of the regional economy.



With a continuous development and intensification of the Drury community, it can be expected that once fully developed, there will be an added benefit of the application bringing additional retail / commercial supply on early and increasing capacity. This potential outcome is important for fostering a vibrant and thriving regional economy and particularly fulfil the FTA Bill Section 17(3)(d) by enabling a project that would deliver significant regional economic benefits. This project also fulfils the FTA Bill Section 17(3)(j) as it is consistent with local and regional planning documents, spatial strategies and will improve urban efficiency.

This development is a central key to unlocking and accelerating growth of this regional significant growth node. With a total direct capital injection of around \$1.5b into the regional economy, the project is considered to generate significant economic benefits for the region.

As such, enabling the subject development to be applied for under the FTA Bill would ensure the identified flow of economic benefits to the community and the regional economy can be brought forward in a timely manner.

If you have any queries, please give me a call.

Kind Regards

Tim Heath



Tim Heath

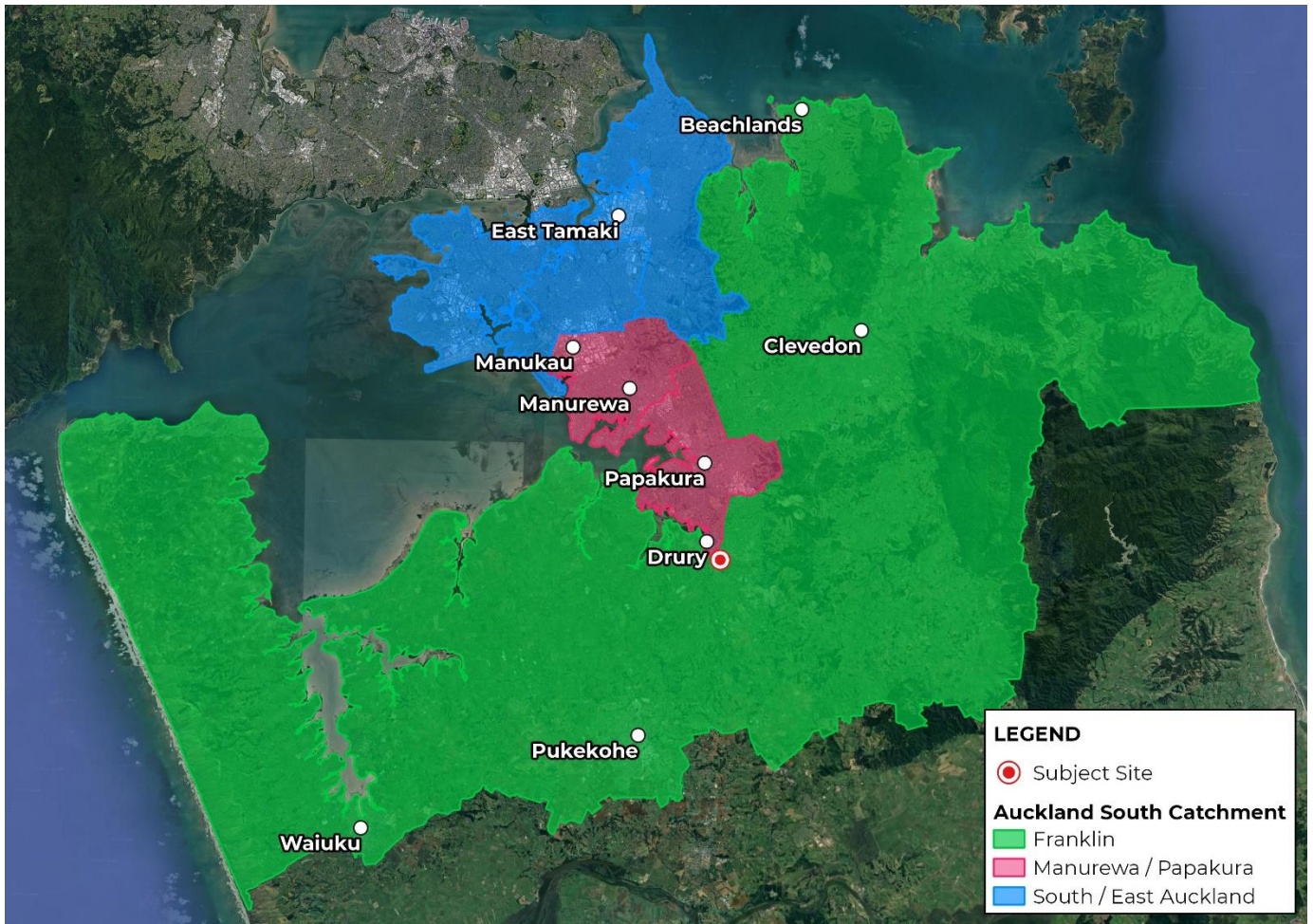
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[www.propertyeconomics.co.nz](http://www.propertyeconomics.co.nz)

## APPENDIX 1. AUCKLAND SOUTH CATCHMENT



Source: Google Maps, Stats NZ, LINZ

Memorandum

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Transport

**David Schwartfeger**  
**Kiwi Property Holdings No2 Limited**

Ref: A23106  
3 May 2024

**Subject: Drury Centre Stage 2 Fast Track Consent – Traffic Memo**  
**Issued via: s 9(2)(a)**

Dear David

Kiwi Property Holdings No.2 Limited (“Kiwi Property”) proposes to lodge an application for a listed project under Schedule 2A of the Fast-track Approvals Bill (“bill”). This application will incorporate Stage 2 of the Drury Centre Precinct and amendments to Stage 1. Stage 1 consisted of a previously granted Fast-track Consent submitted under the Covid-19 Recovery Act 2020 for 24,000sqm gross floor area (“GFA”) of large format retail alongside 13 residential superlots, and a subsequent resource consent for an additional 8,000sqm of large format retail GFA to take the total large format retail GFA up to 32,000sqm.

This fast track application will consolidate a revised version of Stage 1 and the new Stage 2. It will seek consent for the development of retail activities, commercial activities, community activities and residential superlots in the Drury Centre Precinct. Overall, the project (i.e.: Stage 1 plus Stage 2) will incorporate up to 56,000m<sup>2</sup> retail activity, 10,000m<sup>2</sup> commercial activity, and 2,000m<sup>2</sup> community activities; and superlots for future development.

This site has been subject to a private plan change process (Plan Change 48 (“PC48”)) to rezone the site from Future Urban Zone (FUZ) to a combination of Business: Metropolitan Centre Zone, Business-Mixed Use, and Open Space – Informal Recreation under the Auckland Unitary Plan (“AUP”). Neighbouring Drury East Private Plan Changes 49 (“PC49”) and 50 (“PC50”) have also been approved alongside PC48 to rezone the neighbouring land from Future Urban to predominantly residential use, and Fast Track consents for both sites were also recently granted.

A full Integrated Transportation Assessment (“ITA”) was included with the PC48 submission, including modelling of public transport and road traffic performance for all three plan changes combined. The ITA provided a Thresholds for Subdivision and Development Table that set out the infrastructure upgrades required to support the land development proposed by all three plan changes. That table formed part of the comprehensive Precinct Provisions that now are now operative and represent the key requirements for the three Drury East Precincts. The table is provided as Attachment 1.

This proposed development will align with previously envisaged development within PC48 and therefore aligns well with national and local transport priorities as it will lead to a well-functioning urban environment with a strong reliance on active modes, public transport and transport self-sufficiency.

Figure 1 below shows in green border the Stage 1 area of the site for which consents have already been granted; and in blue border the new Stage 2 of the Drury Centre development.

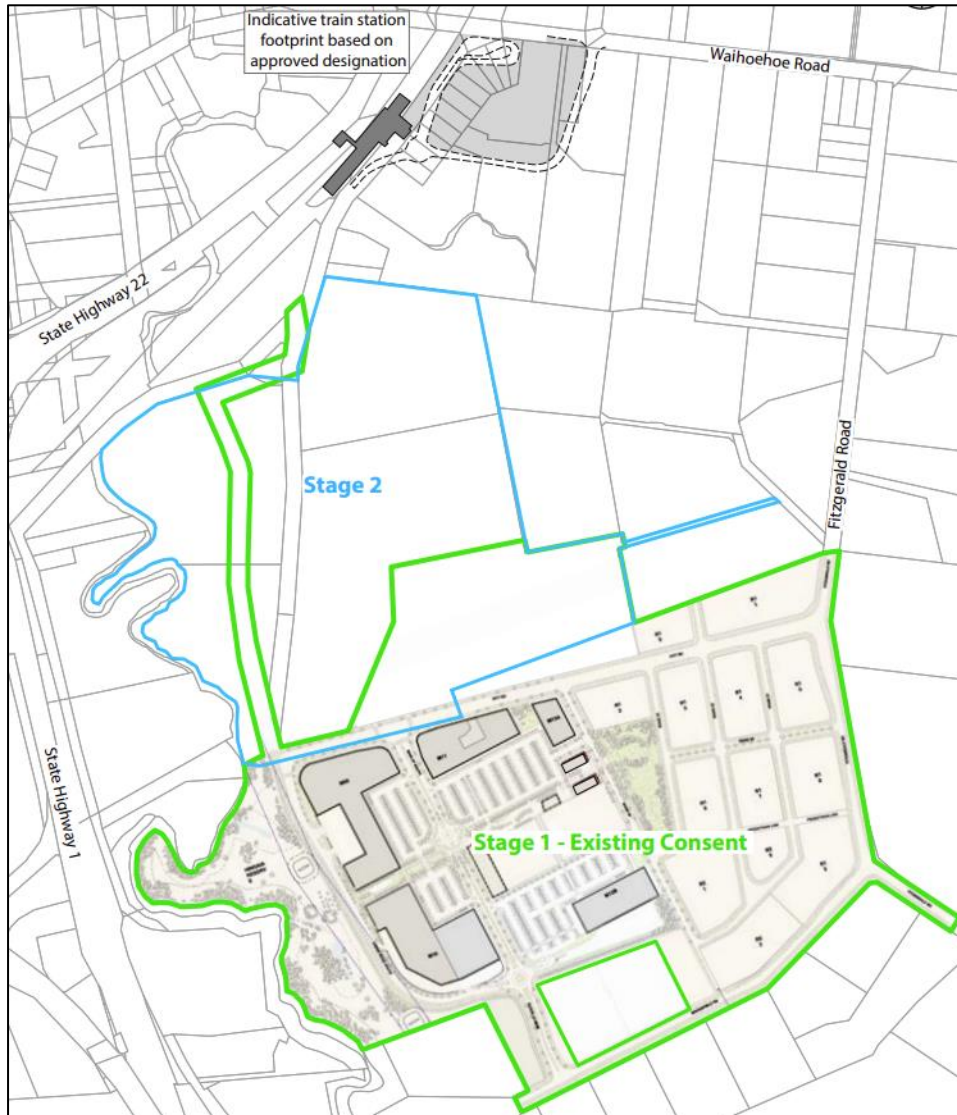


Figure 1: PC48 site

The development will include establishment of new collector and local roads and upgrades of existing road corridors and intersection within and surrounding the site to provide multi-modal access both within and into/out of the subject site. The internal road network will also include provisions for public transport routes, and active transportation facilities such as cycling and walking amenities.

In addition to the development of the road network and bus facilities, construction is currently underway for the Drury Centre Rail Station, expected to be operational from 2025 and will provide improved public transport facilities to the wider Auckland and Waikato region.

A summary of the work completed on the proposed development to date is outlined below:

- An initial Structure Plan ITA was prepared and submitted in April 2018 on behalf of Kiwi Property and other major landowners in the Drury East, West and South regions informing the Council about their preferred vision for the Structure Plan.
- Individual ITAs were prepared for each of the Plan Changes (PC 48, 49 and 50) in December 2019 which included extensive traffic modelling. This modelling was used to determine a set of transport triggers thresholds (discussed in further detail below).
- Council RFIs were received, and extensive consultation was undertaken with several authorities including Auckland Council, New Zealand Transport Agency (“NZTA”), Auckland Transport (“AT”) and Supporting Growth Alliance (“SGA”). Based on these discussions, several changes were made to the Plan Change traffic modelling. Subsequently the ITAs and transport triggers were updated.
- The transportation hearing evidence was prepared and submitted by Daryl Hughes and Don McKenzie on behalf of the Applicants in September 2021 to support PC48, PC49 and PC50.
- PC48, PC49 and PC50 were notified as approved in May 2022, with the PC becoming fully operative in December 2022 following an Environment Court Appeal and conferencing.
- The Kiwi Property Drury Centre Precinct Fast-Track ITA was prepared by Stantec in November 2022 for Stage 1 of the PC48 Drury Centre Precinct, and that application was subsequently granted.
- A subsequent resource consent for additional Large Format Retail area was submitted in May 2023, and that application was also subsequently granted.

Extensive traffic modelling was undertaken through the plan change process that comprehensively and conservatively assessed the transportation impact of the proposed development within the PC48 site and the wider Drury area. The traffic model focused on how the proposed developments enabled by all three Drury East Plan Changes can be accommodated within the transport network up to the 2048 future year, and outlined the necessary upgrades required at different stages of the developments.

The completed traffic modelling was also used to determine the land use and trip generation thresholds included in the ITA and *Table IX.6.2.1 Threshold for Development as shown on Ix.10.3 Drury Centre: Precinct Plan 3* in the PC48 decision document and also as Attachment 1. This table outlines the additional infrastructure upgrades that are required to support the different stages of the proposed development within the three plan changes. In addition to these proposed upgrades, a suite of additional measures to improve pedestrian and cycling amenities, and public transport facilities will also be provided.

As described earlier, the Drury Centre Stage 1 Fast Track consent allowed development of up to 24,000sqm GFA and 13 residential superlots. The subsequent resource consent application takes the Stage 1 retail allowance up to 32,000sqm GFA.

**Kiwi Property intends to ensure that the fast-track proposal complies with the thresholds in Attachment 1. The quantum of development for which consent will be sought will require the upgrades in rows (a), (b), (c) and (d) to be completed (see Table at Attachment 1). Commencement of the activities (as opposed to commencement of their construction) will be tied**

to completion of the transport upgrades. As per the requirements of the underlying precinct provisions, in the event that any of the required upgrades are not constructed, a separate assessment will be required to determine if the total development yield sought in this proposal can be supported by the remaining infrastructure upgrades, or if a slightly lower yield would be necessary.

The traffic implications of the fast-track proposal have already been assessed through the PC 48 process and will not require a further ITA analysis provided the appropriate upgrades are constructed. The detailed design of roads, accessways and car parking will still need to be approved but I do not anticipate any significant issues arising in that regard.

A handwritten signature in black ink, appearing to read 'Paarth Rajpal'.

Paarth Rajpal  
Transportation Engineer

s 9(2)(a)

A handwritten signature in black ink, appearing to read 'Daryl Hughes'.

Daryl Hughes  
Associate

s 9(2)(a)

CKL

### Attachment 1: Threshold for subdivision and development as shown on PC48 Decision Document Table IX.6.2.1

Column 1 Activities, or subdivision, enabled by Transport Infrastructure in column 2		Column 2 Transport infrastructure required to enable activities or subdivision in column 1
(a)	Up to a maximum of 710 dwellings	Interim upgrade to Great South Road/Waihoehoe Road roundabout to signals in accordance with Appendix 1a (PC48 decision document).  Interim upgrade of Waihoehoe Road in accordance with Appendix 1a (PC48 decision document).
(b)	Up to a maximum of: <ul style="list-style-type: none"> <li>i. 1,300 dwellings; and/or</li> <li>ii. 24,000m<sup>2</sup> retail GFA; and/or</li> <li>iii. 6,000m<sup>2</sup> other commercial GFA; and/or</li> <li>iv. 800m<sup>2</sup> community GFA</li> </ul>	Upgrades in (a) above and State Highway 1 widening – Stage 1, being six lanes between the Papakura interchange and Drury interchange.
(c)	Up to a maximum of: <ul style="list-style-type: none"> <li>i. 1,800 dwellings; and/or</li> <li>ii. 32,000m<sup>2</sup> retail GFA; and/or</li> <li>iii. 8,700m<sup>2</sup> other commercial GFA; and/or</li> <li>iv. 1,000m<sup>2</sup> community GFA;</li> </ul>	Upgrades in (a) and (b) above and:  Drury Central train station  Direct connection from State Highway 1 to the Drury Centre via a single lane slip lane from SH1 interchange to Creek Road. Creek Road is within the Drury Centre Precinct and is shown on Precinct Plan 2
(d)	Up to a maximum of: <ul style="list-style-type: none"> <li>i. 3,300 dwellings; and/or</li> <li>ii. 56,000m<sup>2</sup> retail GFA; and/or</li> <li>iii. 17,900m<sup>2</sup> other commercial GFA; and/or</li> <li>iv. 2,000m<sup>2</sup> community GFA;</li> </ul>	Upgrades in (a) – (c) above and:  Waihoehoe Road upgrade between Fitzgerald Road and Great South Road, including: <ul style="list-style-type: none"> <li>i. Two general traffic lanes and two bus lanes, footpaths and cycleways on both sides, and a new six-lane bridge over the railway corridor;</li> <li>ii. Signalisation and increased capacity at the Great South Road/Waihoehoe Road intersection, including fully separated active mode facilities and 3-4 approach lanes in each direction.</li> </ul>
(e)	Up to a maximum of: <ul style="list-style-type: none"> <li>i. 3,800 dwellings; and/or</li> <li>ii. 65,000m<sup>2</sup> retail GFA; and/or</li> <li>iii. 21,000m<sup>2</sup> other commercial GFA; and/or</li> <li>iv. 2,400m<sup>2</sup> community GFA;</li> </ul>	Upgrades in (a) – (d) above; and  Mill Road southern connection between Fitzgerald Road and State Highway 1, providing four traffic lanes and separated active mode facilities, including a new SH1 Interchange at Drury South - the “Drury South interchange”
(f)	Up to a maximum of: <ul style="list-style-type: none"> <li>i. 5,800 dwellings; and/or</li> <li>ii. 97,000m<sup>2</sup> retail GFA; and/or</li> <li>iii. 47,000m<sup>2</sup> other commercial GFA; and/or</li> <li>iv. 10,000m<sup>2</sup> community GFA;</li> </ul>	Upgrades in (a)-(e) above and:  Mill Road northern connection between Fitzgerald Road and Papakura, providing four traffic lanes and separated active modes  Opaheke Northern connection providing four lanes including bus lanes and active mode facilities between Waihoehoe Road and Opaheke Road in Papakura

Memorandum

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Natural Hazards

**To**

David Schwartzfeger  
Kiwi Property Holdings No.2 Ltd

Nick Roberts  
Barkers & Associates

**From**

Woods  
Pranil Wadan – Principal Engineer

W-REF: P23-315  
1 May 2024

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## NATURAL HAZARDS & RESILIENCE MEMORANDUM

### 1. Introduction

This stormwater memorandum has been prepared to support the Drury Metropolitan Centre – Consolidated Stage 1 and 2 project through the fast-track consenting process. This document identifies anticipated and known adverse stormwater and flooding effects, and addresses Subpart 2 of the Fast Track Approvals Bill, section 14 - Referral application, (3) - (v), as stated below:

*A description of whether and how the project would be affected by climate change and natural hazards*

This memorandum confirms:

- That the proposed development is not at risk of flooding caused by the effects of climate change or natural hazards, and,
- That the performance and resiliency of the stormwater infrastructure addresses the effects of climate change.
- That there are no stormwater or flooding constraints to development that cannot be avoided, remedied, or mitigated.

### 2. Background - Existing work done to date

The Drury Centre Precinct was successfully live zoned through Plan Change 48. The “Drury East Stormwater Management Plan” (**Drury East SMP**) was prepared by Woods and Tonkin + Taylor to support the Drury Centre and Drury East plan change areas (PC48&PC49). The Drury East SMP is the primary instrument for implementation of stormwater management in the PC48 and PC49 areas.

The work undertaken as part of the Drury East SMP at the plan change stage considered climate change based on 2.1°C increase in temperature by 2090. This was based on the Ministry for Environment and Auckland Council guidelines at the time.

Post plan change a Fast track application was successfully submitted for Stage 1 of the Drury Centre Precinct (Stage 1 of the development is now at detailed design stage with EPAs being lodged). Through the fast track process an assessment to demonstrate climate change resilience was requested by the commissioners. This included updating the flood models and simulating both the 10yr and 100yr storm events for full maximum probable development using a 3.8°C future climate change allowance by 2110. The Drury East SMP is now being updated to reflect this (i.e.: so that it considers both 2.1°C by 2090 and 3.8°C by 2110 climate change scenarios), and this modelling will inform all subsequent development within the PC48 area (i.e.: including the Stage 2 development).

In addition to this, there is currently work being undertaken to update the Drury East SMP to incorporate the learnings from the fast track application e.g. change in the way water quality is proposed to be managed. This work is currently being consulted on with Healthy Waters. It is noted that the updated SMP considers both 2.1°C by 2090 and 3.8°C by 2110 climate change scenarios.

The work undertaken to date identifies that there would be no effects as a result of the Drury Centre development for areas discharging to the Hingaia Stream, for areas discharging towards the Fitzgerald

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Stream there is a high-level dependency on infrastructure to increase conveyance under the existing Great South Road & Railway Culverts, preliminary design of an additional pipeline along with inclusion within the flood model has been undertaken.

### 3. Model Information

#### 3.1. Key assumptions

The flood modelling undertaken is based on the parameters and assumptions undertaken as part of the Drury East SMP, Fast Track Stage 1 and future Stage 2 application. Key assumptions are summarised as follows:

- Pass flows forward strategy has been adopted for all future stages. This is noted to be in line with discussions undertaken as part of the Plan Change hearing and as per the recommendation provided in the Drury East SMP.
- The model scenario incorporates design landform and proposed stormwater infrastructure information to date.
- In addition to the above, the Maximum Probable Development (MPD) Scenarios have been simulated incorporating the following:
  - Design of the proposed additional Great South Road Culvert.
  - Incorporation of the terrain changes proposed by the Drury train station as received from the KiwiRail Alliance (10<sup>th</sup> May 2023).
  - Incorporation of the Fulton Hogan Drury East Stage 1 Design surfaces and design infrastructure.
  - Inclusion of future earthwork surfaces have been included in the models based on preliminary design which lifts the development outside of the 100yr 3.8°C floodplain.
- All flood modelling work being undertaken has and will continue to assess future climate change using both 2.1°C by 2090 and 3.8°C by 2110.
- The TP108 rainfall profile and corresponding rainfall depths applied in the flood model for the 3.8°C climate change scenario can be found in Appendix A.

Figure 1 shows the peak water depth for the simulated Post Development flood model during a 100-year ARI storm event with allowance for 3.8°C future climate change.



Figure 1: Peak flood depth - Post Development Model (100-year 3.8 ARI storm event)

A summary of the findings from model results are as follows:

- The model confirms that the flooding can be contained within the stream network, with no flooding observed within proposed development areas.
- Given the elevation of the Drury Centre Precinct in relation to the Hingaia Stream flood levels and existing structure and design of secondary network there is no risk to development as a result of blockage, this will be further assessed in detail as part of the detail design stages.
- Adoption of pass flows strategy for the future Drury Centre Development does not impact any areas upstream/downstream of the site.

#### 4. Conclusion

Woods have undertaken a stormwater assessment to support the Fast Track referral application for stage 2 of the Drury Centre Precinct. This document addresses Subpart 2 of the Fast Track Approvals Bill, section 14 - Referral application, (3) - (v), as stated below:

*A description of whether and how the project would be affected by climate change and natural hazards*

The assessment concludes the following:

- The work undertaken to date confirms that the development is resilient to future climate change including uplift to 3.8°C by 2110 and is not identified to be at risk of being impacted by the effects of climate change or natural hazards.

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- The infrastructure developed and proposed is to be resilient and cater for the uplifted future climate change scenarios.