Date: 16/02/2024

Memorandum

To: Nick Turley

From: Greg Akehurst

Kieran McLean

Re: Employment Estimate of Proposed Development

KEY POINTS

- We have prepared an initial assessment of the construction of a proposed development in employment terms using an economic impact model (IO).
- Based on this initial analysis, the development is projected to sustain employment equivalent to 2,948 FTE's. This employment is split over the 5 years of development inline with construction spend.
- Current plans indicate that the development will provide circa 18,000m2 of floor area, which has the potential to accommodate between 277 and 421 FTE's, an increase of between 119 and 170 FTE's over todays total. This employment is ongoing offering permanent employment options for local residents and support for local retail and hospitality businesses

Peninsula Capital are in the process of undertaking a significant revitalisation and refurbishment project in Devonport, Auckland. Market Economics have been commissioned to provide an initial assessment of the economic effects of the project, to quantify the effect the development will have.

The analysis considers the impacts of the development in terms of:

- Employment sustained by construction activity, and
- Employment which the floor area of the development can support post construction.

To assess the potential effects an economic impact model (IO) has been developed in order to estimate the potential employment impact.

The figures in this initial assessment are a first cut at estimating the effects. They are useful to help gauge the size and reach of the project but are subject to change as the project development plans coalesce.

Approach

This analysis relies on the estimated cashflow data provided, in respect to the forecasted level of spending and the timing of that spending. That is, the development has a projected spend of $300 million and is expected to be built between 2025 and 2029. This spending is assumed to be entirely directed to businesses within the Auckland region. From here, the spending amounts has been allocated to different construction activities (informed by QV's CostBuilder), primarily residential building construction, non-residential building construction and construction services. M.E. have matched this planned spending to 109 economic sectors and three regions in an input-output (IO) model which has been customised for the Auckland economy (using

a 2020 base year). The IO model provides projections of the value added and employment generated and sustained in the economy as a result of this additional activity. Value added arises through the spending, directly and indirectly, as the new activity flows on to other sectors of the economy and businesses pay wages and make profits. The links between the study area and the surrounding regions are also captured, showing the extent of the spread of the additional economic activity. This is important as it captures the purchase of raw materials from surrounding regions to support additional construction activity.

The IO model contains data on gross output for each sector and employment in Auckland. We are then able to then generate an annual average ratio of gross output per person employed in each sector in order to translate additional economic activity into additional employment – by sector. As the cashflow analysis provides spending detail based on a mix of costs per year of the development. By applying these ratios to the annual revenue each sector is forecast to receive from construction spending, M.E have estimated the level of employment sustained each year as a result of the proposed development.

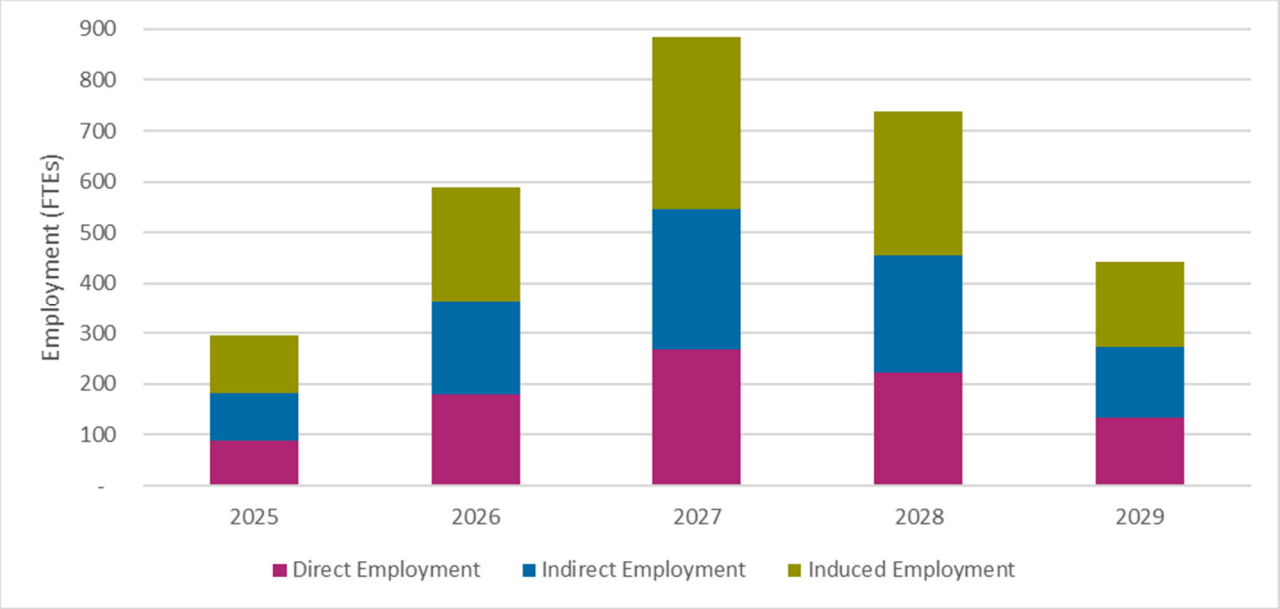
M.E have been able to estimate the additional count of jobs (by sector and approximate location) sustained in each year as a result of the proposed development. The employment projections from the IO model uses Modified Employee Counts (MECs) to measure the level of employment . This measure is based on Statistics New Zealand's Employment Count (EC) statistic but also includes an estimate of the number of working proprietors. This measure is used because the construction industry is known to employ large numbers of self-employed people and sole operator businesses. The resulting employment impacts of the proposed development from the modelling are presented in Full Time Equivalents (FTEs). The approximation of FTEs per MEC which has been used is 0.79 FTEs per MEC.

The analysis estimates the employment which is sustained by the projected spending. As the IO model uses 2020 as a base year, the projected spending inputs to the model are deflated to 2020 terms. As such, the IO model employment outputs reflect the 2020 proportions of gross output per employee without reinflation.

Employment Impacts

Under the development programme, sustained employment begins in 2025 and is completed by 2029. Based on the IO modelling, the total direct employment impact of the project is projected to sustain the equivalent of 891 Full Time Equivalent (FTE) workers working for one year. In 2025, the development will directly sustain approximately 89 FTEs (for a year). By 2027, this is projected to peak at 267 as the level of activity is at its highest. The yearly employment impact increases over time as construction activity gradually increases, contributing the most between 2027 and 2028. Across the development timeline 178 FTEs are sustained per year, on average.

Figure 1: Annual Employment Impacts



While all the direct impacts are assumed to occur in the Auckland region, the wider impacts of the proposed development will have effects reaching the rest of the North Island and the rest of New Zealand. This is because suppliers to the construction sector (manufacturing businesses, raw material suppliers and other service providers) are located across the region and the country. When these indirect and induced[1] impacts of the development are included the total employment impact rises to 2,948 FTEs across the duration of construction. That is, the development will, in total, sustain the equivalent of 2,948 people working full time for a year across the economy.

Table 1: Summary of Employment Impacts by Type and Region (FTEs)

	Auckland Region	Rest of North Island	Rest of South Island	Total
Direct Employment	891.2	-	-	**891**
Indirect Employment	860.9	37.7	27.5	**926**
Induced Employment	1,034.4	45.0	50.8	**1,130**
Total Employment	**2,787**	**83**	**78**	**2,948**

As shown in Table 2, it is assumed that the spending will directly sustain employment in construction industries. However, the flow-on impacts are projected to have a wider spread across the economy, with additional employment sustained in industries such as construction, manufacturing, transport, and professional services.

[1] Induced effects arise as workers in the construction sector or its supplier sectors, spend the money they earn from this project and it flows through the economy.

Table 2: Employment Impacts by Sector

Economic Sector	2025	2026	2027	2028	2029	Total FTEs
Direct Employment (FTEs)						
Construction	89.1	178.2	267.4	222.8	133.7	**891**
Total Direct (FTEs)	**89**	**178**	**267**	**223**	**134**	**891**
Direct, Indirect and Induced (FTEs)						
Primary Sector	1.5	3.0	4.4	3.7	2.2	**15**
Mining and Quarry	0.3	0.7	1.0	0.8	0.5	**3**
Manufacturing	17.0	34.1	51.1	42.6	25.6	**170**
Utilities	1.8	3.6	5.4	4.5	2.7	**18**
Construction	133.3	266.5	399.8	333.1	199.9	**1,333**
Wholesale trade	9.1	18.3	27.4	22.8	13.7	**91**
Retail Trade	5.8	11.6	17.4	14.5	8.7	**58**
Accommodation and food services	2.8	5.5	8.3	6.9	4.1	**28**
Road transport	10.7	21.4	32.1	26.8	16.1	**107**
Information media and teleco	4.5	8.9	13.4	11.2	6.7	**45**
Finance, insurance and funds	6.0	12.0	17.9	15.0	9.0	**60**
Rental, hiring and real estate services	4.3	8.6	12.9	10.8	6.5	**43**
Professional Services	68.9	137.8	206.7	172.3	103.4	**689**
Government Admin (local and central)	3.8	7.7	11.5	9.6	5.8	**38**
Education and training	8.4	16.9	25.3	21.1	12.7	**84**
Health care and social assistance	1.4	2.7	4.1	3.4	2.0	**14**
Arts, Rec., Personal & Other services	15.1	30.3	45.4	37.9	22.7	**151**
Total Direct, Indirect and Induced (FTEs)	**295**	**590**	**884**	**737**	**442**	**2,948**

Employment Supported by Floor Area

Once completed, the development will provide additional floor area across potential retail, commercial, and residential uses. Table 3 shows the current floor area and the proposed floor area of the development.

Table 3: Estimated Floor Area of the Development

Area Use	Current Area (m2)	Proposed Area (m2)	Variance (m2)
Retail	3,520	3,658	138
Commercial	1,370	2,781	1,411
Residential	1,120	11,561	10,441
Total	**6,010**	**18,000**	**11,990**

The building will be able to accommodate employment within the proposed 7,834 m2 of retail and commercial floor space. This employment has been estimated in Table 4 using approximations of floor space per employee. Depending on the activity using the floor space, i.e., whether used for offices or shops, the potential floor space once completed could accommodate between 277 and 421 FTEs. This means that the development may be able to accommodate an extra 119 to 170 FTEs once completed.

Table 4: Projected Employment of Floor Space

Area Use	Floor Space per FTE (m2)	Current Area (FTEs)	Proposed Area (FTEs)	Variance (FTEs)
Offices				
Retail	21	164	208	43
Commercial	16	86	213	127
Residential	-	-	-	-
Total	**-**	**250**	**421**	**170**
Shops				
Retail	37	94	119	25
Commercial	21	64	158	94
Residential	-	-	-	-
Total		**158**	**277**	**119**

In addition, households provided for in the development will spend time and money in the new and established retail businesses in Devonport. This is an additional real economic effect that has not been able to be quantified in the time available.

Concluding Remarks

The proposed development is expected to positively contribute to the future economic wellbeing of the Auckland region, and through flow on effects, other areas of New Zealand. As discussed, the proposed development project will result in economic benefits for an economy in terms of sustaining directly sustaining employment in the construction sector with the indirect and induced impacts sustaining flow-on activity in a wide range of industries. In numerical terms, the construction is projected to directly sustain around 891 FTEs. Once the indirect and induced impacts are included, this rises to 2,948 FTEs sustained across the economy. Furthermore, once built, the proposed floor area of the development could sustain between 277 and 421 FTE's depending on the activity, an increase of between 119 and 170 FTEs.

Yours sincerely,

Greg Akehurst Kieran McLean