

23 August 2019

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For the attention of: **Thomas Wutzler**



Thomas

PROPOSED SHELLY BAY DEVELOPMENT – TRANSPORTATION MATTERS

Summary

Proposals for the Shelly Bay development recently resubmitted to Wellington City Council (**Council**) remain essentially unchanged.

The updated Transportation Assessment Report (**2019 TAR**) in support of the proposal has addressed some of the identified deficiencies in the earlier documentation, for example now acknowledging the higher levels of background traffic activity on Shelly Bay Road during the summer months.

But fundamental concerns with the potential for adverse effects upon the immediate and wider transportation network remain. The principal concerns are:

Shelly Bay Road pedestrian/cycle path – the provision of a shared facility only 1.0-1.5m in width will be well below the 3.0 – 3.5m standard recommended for such facilities. The likely consequence will be that cyclists will either use the Shelly Bay Road carriageway, creating a potential conflict with the increased traffic volumes using the road, or not cycle at all.

Shelly Bay Road / Miramar Avenue intersection – the assessments undertaken are likely to significantly understate delays. The additional traffic demands at this location and the potential for crashes to be associated with the high number of right turn manoeuvres could necessitate a change in the form of control of this intersection (signals or roundabout). Either would have consequent impacts upon the continuity of traffic movement on Miramar Avenue and Calabar Road.

Wider Adverse Effects – the road network between Miramar and the CBD currently operates close to capacity levels at peak periods and increasingly at other times. This means that even small additional traffic demands will have a disproportionate adverse effect upon conditions. Despite this, no assessments have been made of any potential effects beyond Shelly Bay Road and the Miramar Avenue intersection.

Construction Traffic Activity - no assessment has been made of the use of the Shelly Bay Road by the significant number of larger construction vehicles which would be associated with the project over a period of several years.

This site offers the potential for excellent cycle connectivity to the established networks at Cobham Drive and beyond to the CBD, with an associated reduction in car-dependency. In its current form, there is a high risk of this becoming an unattractive and dangerous corridor for cycle movements with the actual and perceived conditions being likely to discourage not only potential new users but also the existing recreational users in this area.

A project of this scale demands a thorough and careful assessment of the potential effects upon the transportation network, irrespective of the legal and planning processes under which it is considered. Key decisions regarding the project should not be undertaken without this information.

Background

The Wellington Company Ltd (**TWCL**) is proposing a development involving multi-unit residential, mixed-use and non-residential buildings at Shelly Bay.

An application for the necessary consents was made under the Housing Accords and Special Housing Areas Act 2013 (**HASHAA**) in September 2016. The application was supported by a Transportation Assessment Report (**2016 TAR**) prepared by consultant Traffic Design Group (**TDG**).

In April 2017, Council granted resource consent for the proposed development on a non-notified basis. In mid-2017, Council consulted on whether to support the proposal in its capacity as a landowner, funder and a provider of supporting infrastructure.

A desktop review¹ of the proposal at this time was undertaken by Tim Kelly Transportation Planning Ltd (**TKTPL**). This concluded that the TAR was superficial for such a significant development proposal. This review was available to Council as part of its decision-making process. Council also received submissions from cycling groups, recreational groups and individuals which expressed concerns regarding the traffic and transportation aspects of the proposals.

As part of the decision of Council to support the proposal, Council passed a resolution to require investigations into the upgrade of Shelly Bay Road in order to deliver a safer and more inviting environment for walkers, cyclists and other users.

In 2018, TKTPL undertook a comprehensive review of the consent decision and the information provided to the decision-making officers by the Applicant and Council officers in relation to transportation and roading issues for the judicial review proceedings. This concluded that the decision-making officers did not have adequate and reliable information before them in order to be able to reach any conclusions regarding the likely effects of the proposal upon the safety and efficiency of the transportation network.

The Court of Appeal quashed the resource consents granted for the project. Council has now received updated documentation to enable it to reconsider the resource consent application. The new application is also made under HASHAA and it is understood that the application is being considered by Independent Commissioners.

Council has not yet completed its investigations into Shelly Bay Road to enable decisions to be made regarding the standard of the road or the intersection with Miramar Avenue. It is

¹ *Shelly Bay Development Proposal, Review of Transportation Assessments (Filenote). Tim Kelly Transportation Planning Ltd, September 2017.*

noted that, in his assessment of the 2019 TAR, Mr Spence has made the Commissioners aware that the Council position on the road has yet to be agreed.

The purpose of this assessment is two-fold:

- a) to review the updated application material and to consider to what extent this addresses the deficiencies identified with the original application with regard to assessed effects upon the operation of the transportation network in this area; and
- b) to make Council aware of the transportation issues that should be addressed as part of its investigations.

Information Available

The following information has been reviewed as part of this assessment:

- Transportation Assessment Report (**2019 TAR**) (April 2019);
- Continuation of Qualifying Development Application (May 2019);
- Council Officers Report (June 2019);
- Envelope Engineering Memo (Response on Engineering Matters) (July 2019); and
- submissions on the Shelly Bay proposal from the 2017 Council consultation.

Transportation Assessment

Assessment of Existing Situation

The 2016 TAR only considered traffic volumes for a winter month (July 2016), despite the known recreational use of Shelly Bay Road with higher usage and volumes during the summer months.

This has now been addressed with the reporting of traffic volumes for February 2019. As expected, these volumes are significantly higher (2,520 vs. 1,200 vehicles/day) reflecting the extent of recreational use in the summer months. Figure 2.2 of the TAR also demonstrates that this recreational use results in higher peak volumes at weekends.

The 2016 TAR did not report any traffic volumes for Miramar Avenue. This has now been addressed in the 2019 TAR with the reporting of volumes from a count undertaken in October 2018.

The 2016 TAR did not provide any survey information regarding pedestrian and cycle activity on Shelly Bay Road. A letter from TDG in October 2016 summarised pedestrian and cycle numbers from a Council count in May 2016 but as this was in late-Autumn it was not considered that the figures would be representative of activity levels in the summer months.

The 2019 TAR now includes pedestrian and cycle counts which it is assumed relate to the October 2018 date of the traffic surveys on Miramar Avenue. These show 4, 28 and 1 cycle movements during the surveyed weekday AM, PM and Saturday mid-day peak hours respectively. While this is an improvement, it still does not provide any reliable indication of summer-time activity levels. The timing of the surveys was governed by the need to capture the peaks in traffic demand – but since recreational activity cycle movements largely occur outside of these periods, these have not been fully captured. For an assessment of this type, where a key issue is the potential usage of Shelly Bay road by cyclists, the collection of more comprehensive information is considered to be essential.

The 2016 TAR only reported the crash history in the immediate vicinity of the Shelly Bay

Road / Miramar Avenue intersection, despite there being traffic increases over a much wider area. The 2019 TAR has partially addressed this by now reporting the crash history for the length of Shelly Bay Road between the intersection and the proposed development. But there is still no reporting of incidents for those parts of the road network which can be expected to experience significant traffic volume increases as a result of the development, such as Cobham Drive and Miramar Avenue. As some increases can also be expected to affect the section of Shelly Bay Road / Massey Road to the north of the development, conditions in this area are also relevant.

In this regard, it is noted that an incident occurred in April 2018 in which a vehicle took a corner wide and collided head-on with a cyclist, resulting in a serious injury. While this occurred on Massey Road beyond the development, it nonetheless emphasises the need for cyclists and vehicles to be physically segregated where the geometry of the road is of a low standard.

Only crashes involving an injury are required (by law) to be reported and are then included in the crash history. This means that damage-only incidents are under-reported and there is no formalised recording of near-miss incidents.

Development Proposal

It is understood that the detail of the proposed development has not materially changed from that proposed in the 2016 application.

Overall forecasts of traffic generation associated with the development are also unchanged (although with the background traffic volumes now acknowledged to be higher in the summer months, the total traffic volumes using Shelly Bay Road are assessed as being around 6,000 vehicles/day).

The 2019 TAR suggests that the estimated traffic activity is a worst-case, stating that a ferry service to the CBD will operate. While any such ferry service would be beneficial, there is no certainty around such a service, particularly as this would need to be financially viable.

The application seeks some flexibility in the split between residential development and aged care provision. Both the 2016 and 2019 TAR assume the split will be 273 private dwellings plus 120 aged care units. If the aged care units were not to eventuate, the total traffic generation would be 8 – 9% higher than the figures which have formed the basis of the assessments. The potential effects associated with this higher level of traffic activity have not been assessed.

Shelly Bay Road (within the development area)

Section 3.3 of the 2019 TAR describes how the cross-section of Shelly Bay Road within the application site area will provide for a 6m trafficable width plus a 2m footpath and a minimum 3.5m shared pedestrian / cycle lane. This indicates that *'with a dedicated off-street cycle path to be provided on the seaward side of the development, the traffic lanes within the main carriageway will not need to accommodate cyclists alongside vehicles'*.

Shelly Bay Road (south of the development area)

The principles applied above are not extended beyond the development, where the applicant's proposal remains to provide a 6m trafficable width, but with only a *'1.0 – 1.5m pedestrian and cycle path'*.

The 2019 TAR recognises that the proposed standard of Shelly Bay Road will fall well below

that required by the Council Code of Practice for Land Development² (the Code) and Standard NZS4404:2010³. If the requirements of the Code were applied to Shelly Bay Road, a carriageway width of 14m would be required (7m trafficable width plus cycle lanes and kerbside parking), in addition to provision for footpaths and berms.

The 2019 TAR simply states it is not possible to physically achieve the required widths '*given the constraints of the cliff face on the one side and sea wall on the other.*' Usually, a TAR would then assess the effects likely to be associated with the non-compliance, but no such assessment appears to have been undertaken.

Both NZTA and Austroads guidance for recreational shared paths recommend a minimum width of 3m (with 3.5m being desirable).⁴ A relaxation of the shared path requirement from 3m to (at most) 1.5m is significant, because this will not function as a shared path. Instead, faced with competing for the limited space with pedestrians, cyclists will be likely to use the carriageway instead. The tight geometry of the road, restricted forward sightlines and significant increases in traffic activity will combine to create a poor safety environment. Drivers will become frustrated by an inability to pass cyclists and increased incidences of passing too close or passing on corners are likely to occur.

Concerns with potential safety are also likely to be a deterrent to the uptake of cycling as a mode of transport to/from the development, contrary to Council policy and a range of initiatives elsewhere in the city. This is then likely to affect the mode share of trips which are made by private vehicle.

Treatment of Miramar Avenue / Shelly Bay Road Intersection

The 2016 TAR only assessed weekday AM & PM peak periods, and not weekends when traffic activity to/from Shelly Bay Road could be expected to be higher. The 2019 TAR now includes an assessment of a Saturday peak hour, though as noted above, the assessment of a mid-day period in October will not fully reflect the periods of highest traffic demand.

There are a number of reasons to believe that the modelling undertaken of the intersection will understate the actual delays experienced at this location, possibly to a significant degree:

- it has been assumed that an improvement to the median bay at the intersection will mean that all drivers turning right from Shelly Bay Road will make the manoeuvre in two stages. This greatly reduces the modelled delays because drivers are only assumed to require a gap in the eastbound traffic stream and not synchronous gaps in both directions. In reality, not all drivers will wish to make the manoeuvre in two stages. This also assumes that the median bay is able to accept a driver wishing to turn right (i.e. the previous turning vehicle has been able to vacate the median bay). No assessment has been made of the merge delays experienced on the second stage of the turn;
- traffic volumes associated with the development have been assumed to split 40%/60% between Miramar Avenue (east) and Cobham Drive (south). Despite forecast delays being likely to be sensitive to this split, this is a 'guess-estimate' with no supporting

² Code of Practice for Land Development. Wellington City Council, December 2012, Table 1.

³ Land Development and Subdivision Infrastructure. New Zealand Standard NZS4404:2010. Standards New Zealand, 2010.

⁴ Both the NZTA and Austroads requirements are summarised in Table 5.17 of the National Cycle Network Design Guidance. Stage 1 Report – Best Practice Review. ViaStrada and Abley Transportation Consultants, for NZTA. July 2015.

analysis. In such a situation, such an important variable should at least be subject to sensitivity testing – especially as it is likely that the proportion of vehicles turning to/from the south will be higher;

- the analysis appears to be based upon present-day (surveyed) background traffic volumes. With the Shelly Bay development expected to occur over a period of several years, it would be appropriate to model conditions for a future year with an allowance for growth in background traffic volumes. With higher levels of background activity, delays will be greater than those modelled; and
- no account has been taken of Council proposals for a cycleway across the head of Shelly Bay Road at the intersection (at which priority will be given to cyclists), which has the potential to significantly reduce the capacity of the Shelly Bay Road approach. This is discussed further below in relation to the statement by Mr Spence.

Like the 2016 TAR, the 2019 TAR does not report either the turning volumes which have been used in the analysis or the forecast queue lengths. This is particularly relevant with a short right turn bay from Miramar Avenue and a short length of two-lane approach from Shelly Bay Road.

The higher delays which are likely to be experienced at this location and the potential for crashes associated with the high number of right turn manoeuvres may lead to demands for an alternative form of control, in the form of either traffic signals or a roundabout. Both intersection types would have impacts upon the continuity of traffic movement along Miramar Avenue / Cobham Drive.

Wider Road Network Effects

The 2016 TAR did not consider potential effects beyond the confines of Shelly Bay Road and its intersection with Miramar Avenue. The road network between Miramar and the CBD currently operates close to its capacity limit at peak periods and these conditions are increasingly extending into adjacent time periods. Under such conditions, even small increases in traffic demand will have a disproportionate adverse effect upon intersection delays and travel times.

Of particular concern are the intersections at Cobham Drive / Calabar Road, Cobham Drive / Troy Street, Cobham Drive / Evans Bay Parade, Wellington Road / Kilbirnie Crescent and the Mount Victoria tunnel.

The 2019 TAR has not sought to assess effects at any of these locations.

Construction Traffic

Development on this scale will require a significant number of contractors' vehicle movements, many of which will be larger vehicles delivering supplies and all of which can be expected to use Shelly Bay Road to the south of the development.

Despite this, the 2016 TAR provided no information regarding possible levels of construction traffic activity, timing and impacts upon other users of the Shelly Bay Road.

Instead, a heavy reliance was placed upon Condition 13, which required that a Construction Management Plan (**CMP**) be submitted and approved, which was to address construction traffic management. The consent decision concluded (Section 10.2.11 at page 43) that the requirement for such a plan means that 'adverse effects associated with construction on the transport network will be no more than minor'.

This is unchanged with the 2019 TMP.

The requirement for a CMP only means that measures may be implemented to control effects. No information was provided in the application material which demonstrated that the effects of construction traffic are able to be managed. In particular, there is no requirement for any improvements to Shelly Bay Road to precede the commencement of its use by construction traffic.

For a development of this scale, more information should be available, at least in the form of a draft construction traffic management plan which includes some detail of the proposed management techniques and the objectives and standards to be achieved. In the absence of such information, little or no confidence is provided that construction effects can be managed without potentially significant adverse effects upon other road users.

Council Officer Report and Council's Transportation Assessment

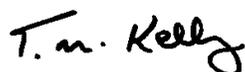
The Council Officer report concludes that adverse effects in terms of transportation will be no more than minor. This is based on the content of the Council's Transportation Assessment (CTA) (prepared by Mr Spence), which in turn gives its primary reference as the 2019 TAR.

At Section 10.7 of the CTA, Mr Spence reiterates his previous position that he regards the proposals for the Shelly Bay Road corridor to be *'substantially below the relevant standards'* but nonetheless acceptable on the basis of physical practicality. He suggests *'the Council carefully monitor the performance of this length of road in regard to traffic safety, traffic operations and public amenity so as to determine whether it should proceed to develop plans for further road widening to bring the standards closer to those recommended in the COPLD and NZ4404.'* As before this acknowledges that the proposals may be deficient and that, given the physical and consenting difficulties of any further widening work, there will be no ability for this to be addressed.

Section 10.14 of the CTA notes that Council now has proposals for a two-way cycle facility between Miramar and the State Highway 1 corridor which will cross the head of Shelly Bay Road, with priority allocated to cyclists. The CTA suggests that the applicant *'should reassess the future design of the intersection, taking account of the new cycle facility'*. Given the concerns expressed above regarding the assessment of this intersection, this would further reduce the capacity of this intersection.

Mr Spence has not sought to address issues of cycle safety or compliance with Council's own objectives for cycling and amenity. With the purpose of the Council investigations being understood to be to deliver a safer and more inviting environment for walkers, cyclists and other recreational users, it is essential that such issues are comprehensively addressed.

Yours sincerely,



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