APPENDIX 11

Transportation Assessment

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Proposed Residential Development, Flat Point, Wairarapa
Transportation Assessment

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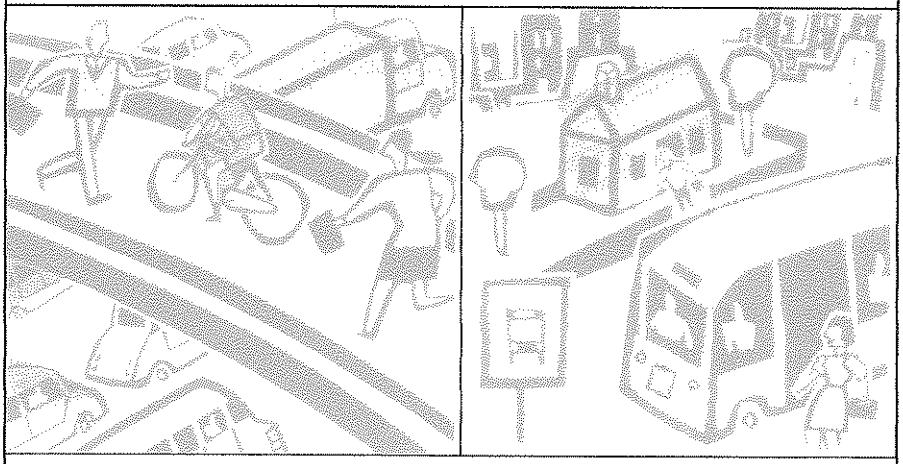
for: **Guinea Trust**



May 2008

Reference: flat point traffic assessment may08 final.docx

Contents

1 Background & Scope

1.1 Background

The Guinea Trust owns land at Flat Point, on the Wairarapa coast. In recent years, the first stage of a residential subdivision has been completed, comprising 39 dwellings. It now seeks consent for subdivision to enable a second stage, to eventually comprise a further 42 dwellings.

1.2 Scope

Residential development will give rise to some increase in levels of vehicular and pedestrian activity. This assessment identifies whether these increases are likely to give rise to any adverse effects in terms of the safety and efficiency of the road network, both within the immediate site and further afield.

Section 2 describes the existing situation with regard to transportation in this area, including traffic volumes and crash history. **Section 3** describes the development proposal. The associated assessment of impacts is described in **Section 4**, and statutory compliance issues are addressed in **Section 5**. Finally, **Section 6** presents the conclusions and recommendations of this assessment.

2 Existing Situation

2.1 Location

The location of the application site is shown by **Figure 2.1.**

Flat Point is located on the Wairarapa coast, approximately 60 kms from Carterton. The application site adjoins the southern side of Flat Point Road close to its eastern terminus at Flat Point Station.

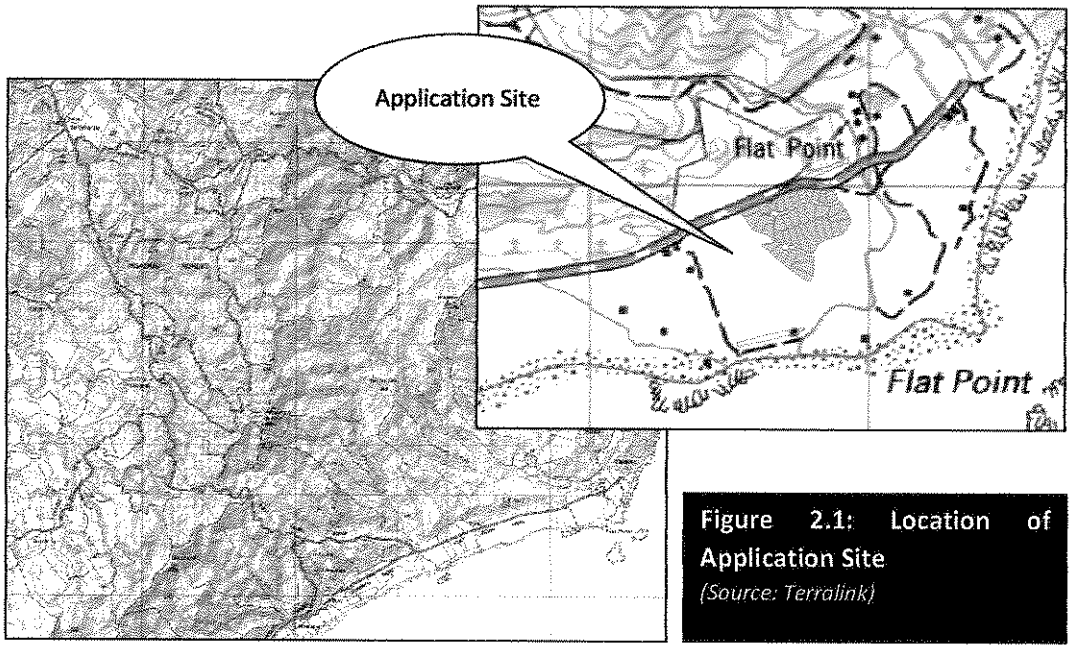


Figure 2.1: Location of Application Site
(Source: Terralink)

2.2 Description of Existing Roading Environment

Flat Point Road

Flat Point Road runs for a distance of 4.3 kms between an intersection with Cameron Road and its eastern terminus at Flat Point station.

For most of this length, the road is 4.5m wide and unsealed. Adjacent to the application site, the road widens to 5.5m with grassed verges and is sealed. There are no footpaths adjacent to the road or street lighting.

Whilst the default national speed limit of 100 km/hr applies, the achievable speed is much lower.

Route to Carterton / Masterton

Beyond the Cameron Road intersection, Flat Point Road becomes East Coast Road, and climbs as it turns inland. The unsealed section continues for a further 14 kms to a point just south of the Kaiwhata Road intersection at Te Wharau. Whilst much of this section has frequent bends and gradients, light vehicles are able to pass without difficulty.

Beyond Te Wharau, the road is sealed and of a reasonable standard.

Internal Access Roads

Beach Road provides vehicular access into the existing subdivision from Flat Point Road. This has a legal width of 15m and a sealed carriageway width of 5.5m, with grassed verges. The rural 'feel' of the subdivision is maintained without footpaths or street lighting.

Nunu Drive and Puk Lane are two cul-de-sacs of approximately 250m and 100m in length respectively. Both provide a 5.0m seal width, with grassed verges.

The intersection of Beach Road with Flat Point Road is uncontrolled, with a reasonable standard of visibility in both directions along Flat Point Road. Speeds to and from Beach Road are to some extent controlled by a cattle crossing. Walling and fencing emphasises the entrance to a residential area.

All existing roads within the subdivision (Beach Road, Nunu Drive and Puk Lane) are publicly operated and maintained.

Beach Road terminates at a turning area, from where public access is available to the beach.

2.3 Description of Existing Activity

There are currently 39 sections, formed as part of the Stage 1 development in 2000. The existing development includes the provision of a 9-hole golf course and a 500m airstrip.

At the present time (February 2008), there are 19 dwellings, of which 2 are permanently occupied and the remaining 17 are used as holiday / second homes (of which 2 are occasionally let on a commercial basis).

The characteristics of the property owners / residents vary widely, from young families to retirees. Similarly, the patterns of visitation and associated travel also vary, though weekend and holiday periods generally see the greatest levels of residence and hence activity in the area.

The remote nature of Flat Point and the considerable distance to any shops means that family groups generally bring all of the supplies needed for the duration of their stay. As such, the need for vehicle travel during their stay is minimal, and often limited to moving boats to or from the water.

Beach Road provides uncontrolled public access to the beach area, and this attracts a number of visitors who are not staying overnight in the immediate Flat Point area, though numbers are generally low.

2.4 Traffic Conditions

Existing Traffic Information

Carterton District Council undertakes periodic counts on the rural road network. A count from December 2004 indicated a daily volume of 80 vehicles/day at the end of the seal at Te Wharau, and 30 vehicles/day at Flat Point. However, traffic volumes can be highly variable by day, month and season, with a significant recreational component.

At the time of this count, 10 of the dwellings in the Stage 1 development were occupied.

Crash History

The crash database maintained by Land Transport New Zealand does not indicate any recorded crashes in the vicinity of the application site for the period since the beginning of 2000, and none along Flat Point Road.

Only one crash has been recorded on the section of road to the south of Te Wharau. This occurred in December 2006 at a point 2 kms south of Te Wharau, and involved a truck which rolled off the road after attempting to avoid a collision with another vehicle. No injuries were involved.

By law, only those crashes involving personal injuries are required to be reported. Accordingly, it is possible that a number of non-injury crashes may have occurred which have not been included in these records.

Whilst the absence of recorded crashes on such a road with low traffic volumes does not necessarily indicate that the roading environment is 'safe', it is not considered that there are any specific factors which would suggest any significant safety problems with the roads in this area.

2.5 Other Modes of Transport

Public Transport

There is no public transport in this area.

Walking & Cycling

Whilst roads in this area do not have adjacent footpaths, there are a number of pedestrian connections for recreational use. The low traffic volumes mean that any pedestrians walking alongside the roads are not generally at any risk.

There are no specific cycle facilities in this area.

3 Development Proposal

3.1 Background

The proposal is for the development of a further 42 sections for residential use and associated roading.

It is important to note that the consent sought would simply enable subdivision of the land to take place. Based upon the rate of uptake of the Stage 1 development (19 of the 39 sections created in 2000 now have dwellings completed), it is expected to be at least 2025 before dwellings are constructed on all 42 sections in the Stage 2 development.

3.2 Bulk & Location

The proposal is shown in outline form by **Figure 3.1.**

The development is expected to comprise:

- 42 residential sections (ranging in size between 1,238m^2 – 14,658m^2, with an average size of 2,110m^2), each with a single dwelling;
- designated areas of pine trees, dune land planting and shrubs;
- a 'spine' road extending from the existing Beach Road cul-de-sac as the primary vehicular access (to be constructed as a private road, with signage to this effect);
- two short cul-de-sacs and a vehicular accessway linking to the spine road; and
- a pedestrian accessway between the spine road turning head and Flat Point Road.

3.3 Vehicular Access & Parking

External Access

External access will be provided by means of the existing Beach Road and its intersection with Flat Point Road. No changes are proposed to Beach Road or the intersection.

Internal Access

The spine road will continue from the current terminus of Beach Road, though extraneous traffic will be discouraged by signage indicating that the area is private and no through route exists to Flat Point Road. The spine road will be constructed with a 5.5m wide sealed carriageway within a legal cross-section of 10m. A turning head will be provided at the end of the spine road to permit the turning of light vehicles. The horizontal alignment will emphasise the slow-speed environment.

Access to those properties not directly accessed from the spine road will be provided by means of cul-de-sacs and/or accessways. Specifically, two cul-de-sacs are proposed, which will be constructed with a 5.0m wide sealed carriageway within a legal cross-section of 10m. Both will be provided with turning heads allowing light vehicles to turn.

Accessways will be generally constructed to a lower standard, with a 4.0m carriageway within a 6m legal cross-section. The low number of properties served by each means that no specific provision will be necessary for vehicle turning.

The spine road, cul-de-sacs and accessways will be privately constructed and maintained. A continuity of roading standard with the Stage 1 development will be retained.

Parking

All sections will provide adequate off-road space for to meet their parking requirements.

3.4 Pedestrian and Cycle Movement

The proposed roads will also provide for internal pedestrian connectivity within the development area. A specific accessway will be provided to connect the spine road turning head with Flat Point Road.

Whilst no specific facilities are proposed for cyclists, the internal roading network will provide a safe cycling environment.

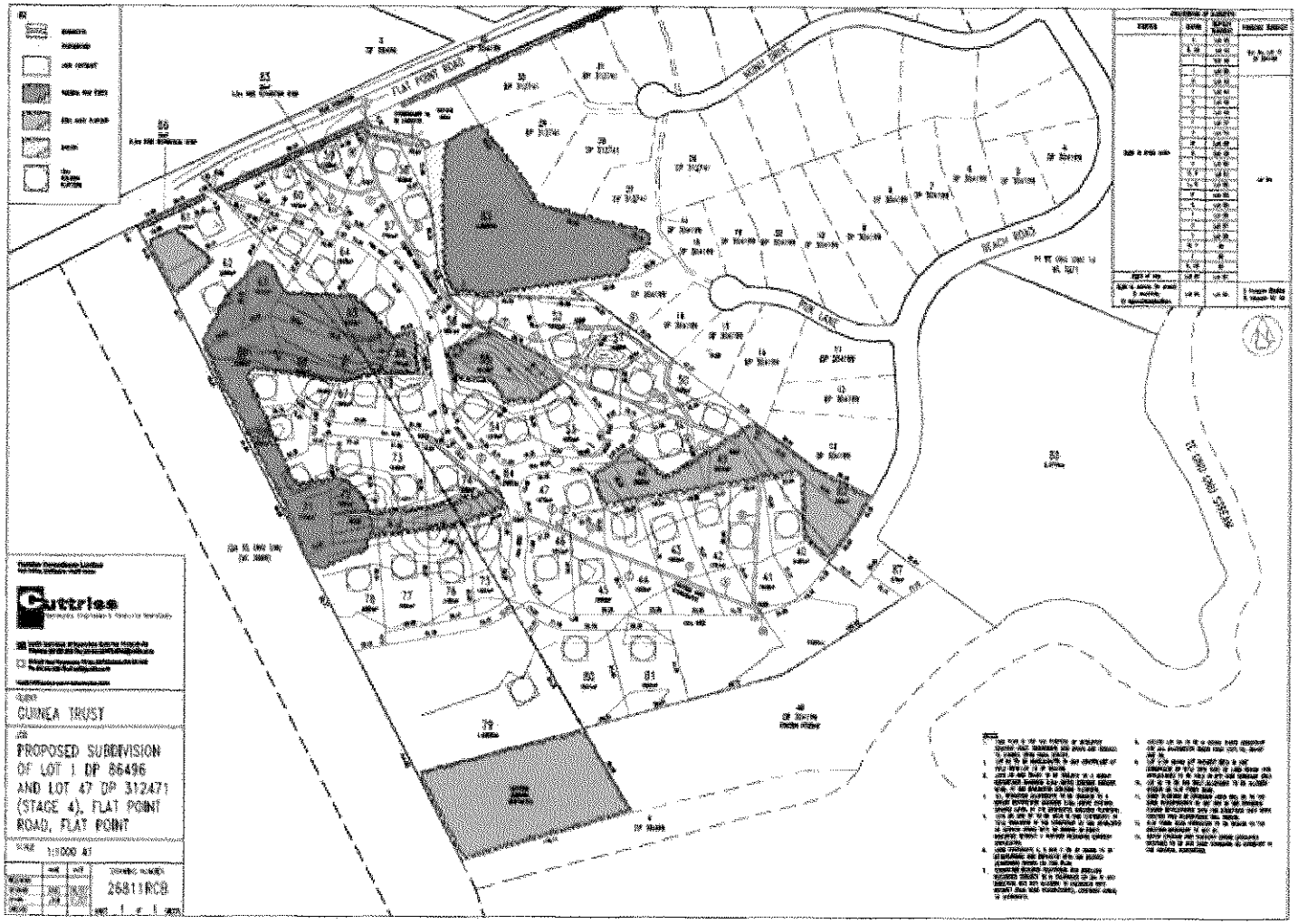


Figure 3.1
Indicative Site Layout

4 Impact Assessment

4.1 Approach

Residential development will give rise to some increase in levels of vehicular and pedestrian activity. This assessment identifies whether these increases are likely to give rise to any adverse effects in terms of the safety and efficiency of the road network, both within the immediate site and further afield.

This assessment uses a baseline representing the existing situation (including the partially completed Stage 1 development).

4.2 'Worst-Case' Assessment

As indicated in **Section 3**, it is expected to be a considerable period of time before dwellings are constructed on all of the sections proposed. As a result, the associated growth in vehicular and pedestrian activity will take place gradually over many years.

The assessment which follows has effectively assumed that full development would occur immediately, and in this respect can be regarded as a 'worst-case'.

4.3 Efficiency

Traffic Generation

A large volume of empirical information is available with respect to levels of traffic generation associated with residential developments. However, both the existing and proposed developments at Flat Point are unique in terms of their remote location, the type of purchaser who owns property here and their travel characteristics. As such, results from the empirical studies cannot be reliably applied to this development.

Instead, the levels of traffic activity associated with the existing development provide the most reliable indication of that which is likely to be associated with the second stage.

A count of traffic movements at the Beach Road intersection was undertaken on Saturday 23rd February 2008, between 9am and 4.30pm. As a significant volume of trips associated with the development are of a recreational nature, the survey was undertaken on a weekend when travel demands can be expected to be high.

The survey identified a total of only 23 vehicle movements at this intersection, of which 9 were known to be associated with Flat Point station. The number of vehicle movements associated with the existing development was at most 12, and some of these were of a local nature, with an origin or destination within Flat Point. Hence, the number of vehicle movements to or from the Flat Point area as a result of the development was a maximum of 6.

For the 19 dwellings currently in use, this represents a trip rate of only 0.3/dwelling/day. This level of vehicular activity is very low, but unsurprising when considered in the context of the facilities available within Flat Point. Because there is no dairy, school, shops or pub, people staying in dwellings here tend to bring all they need with them to avoid a need to

travel some distance to do shopping. Once in Flat Point, most of their travel needs can be met by walking or cycling, or towing a boat to or from the waterfront.

If, as a 'worst-case', a trip rate of 0.5 vehicle trips/dwelling/day was adopted, then the additional 42 dwellings associated with the Stage 2 development would only give rise to 21 vehicle trips per day on the external road network.

Even allowing for some occasional seasonal peaks in such activity, this is a very low volume of traffic movement.

Impacts Upon Road Network – Immediate Area

The combined development (of 81 dwellings) could generate around 40 vehicle movements/day.

This is well within the capacity of both the existing and proposed internal roading network, and the intersection of Beach Road with Flat Point Road.

Impacts Upon Road Network – Further Afield

As indicated above, all of the external traffic movements associated with the development would use the East Coast Road between Flat Point and Te Wharau, and Flat Point Road itself.

The expected total volume of vehicle movements using this road is likely to be greatest at the weekend, with 60 - 110 vehicles/day on a Saturday or Sunday. If these movements were to be evenly spread over a 12 hour period (for example, 7am – 7pm), this would equate to only 5 - 10 vehicles/hour. Even allowing from some grouping of vehicle movements, the frequency of vehicle movements would remain very low.

Whilst the increases in vehicular activity would increase the frequency of vehicles needing to pass (both opposing and in the same direction) on the unsealed section of road south of Te Wharau, it is not considered that any upgrading of the route is justified.

To the north/west of Te Wharau, roads are sealed and cross-sections provide for two full traffic lanes. This, together with the dispersal of additional vehicle movements between a number of routes means that there would be a minimal impact upon the operating efficiency of these roads.

4.4 Safety

Internal Roading

Whilst the proposed roading will be privately constructed and maintained, a typical driver travelling from Beach Road into the Stage 2 development cannot be expected to appreciate the public/private road distinction. For this reason, a continuity of road standard is important. In this respect, the proposed spine road and cul-de-sacs within the Stage 2 development will provide the same sealed carriageway width as those which already exist.

The alignment of the spine road will provide for good visibility whilst constraining vehicle speeds. The 5.5m sealed carriageway width (constructed within a legal width of 10m) will be sufficient to comfortably accommodate two-way vehicle movement.

All cul-de-sacs will provide appropriate turning heads to allow light vehicles to turn without a requirement to reverse, and intersections with the spine road, whilst uncontrolled, will provide for a good standard of visibility of other vehicle movements, pedestrians and cyclists.

The increased use of Beach Road by vehicle movements associated with the Stage 2 development has been anticipated in its design, which provides for a good standard of visibility consistent with the speed environment.

External Roading

The only area of potential concern relates to the increased frequency of vehicle movement on the unsealed section of road east of Te Wharau.

As demonstrated above the frequency of vehicle movements will remain low, even at 'peak' periods and with the full Stage 2 development in place. Drivers using this section of road generally adjust their speed for the road alignment and surface, and potential purchasers of the new sections / properties will be well aware of the nature of the road at the time of the purchase. As such, the likelihood of an incident on this section is expected to remain very low.

There will be some increased potential for conflicts between the use of this road by recreational users and logging trucks. In general, it is noted that the 'peaks' in these two types of vehicle movements will not coincide, with the recreational movements concentrated at the weekend and the logging trucks during the week. Nonetheless, there will be some increased shared use of the road and during peak logging periods some additional warning signage may be unnecessary to forewarn other road users.

Pedestrians, Cyclists

An increase in the both the permanent or holiday-period population of Flat Point will lead to some increase in pedestrian and cycle activity in the area. Whilst this is expected to be focussed upon the waterfront, some increased use of external roads may also occur. In this regard, the frequency of vehicle movements is low and conflicts are not expected to arise.

The open nature of the subdivision itself encourages walking and cycling, and both can be undertaken safely within a low vehicle speed environment.

Construction Activity

The construction phase of the project will result in a requirement for some additional heavy vehicle movements to and from Te Wharau and beyond. It is understood that much of the heavy plant required for earthmoving is already located in Flat Point and hence the number of additional movements will be limited to the delivery of building materials.

As indicated above, the construction of dwellings will take place gradually over an extended period of time. As such, the frequency of additional vehicle movements associated with construction will be low, and these are unlikely to give rise to any specific safety concerns on the roading network.

5 Statutory Compliance

5.1 District Plan Status

The relevant plan is the Carterton District Plan (CDP), which became operative in March 2000.

The three Councils in the Wairarapa (Masterton, Carterton and South Wairarapa) have also prepared a Proposed Wairarapa Combined District Plan (PWCDP). This was notified in August 2006, submissions closed in February 2007 and hearings were held in July / August 2007. It is not expected that this will become operative until late 2008, at which time the provisions of the CDP will be superseded.

Whilst the currently operative CDP is to be given more weight in the consideration of consent applications, there is strong alignment between the current and proposed plans with regard to the objectives, policies and rules for transportation matters.

5.2 Carterton District Plan (CDP)

Flat Point lies within the 'Rural Environment' zone. Flat Point Road is classified as a 'local road' in the roading hierarchy defined by the CDP.

Objectives, policies and rules of relevance to this application are contained within the following sections of the CDP:

- Section 2: Rural Environment;
- Section 9: Subdivision and Development; and
- Section 15: Transport.

Rural Environment (CDP, Section 2)

Objective / Policy / Rule	*Compliance*	*Response*
Objective 2.3.1: Maintain and enhance the character and amenity of the rural area. **Policy 2.4.2:** Manage the adverse effects of activities to limit their impact on the quality of the rural environment. *(including traffic)*	✔	*Increased levels of traffic activity and the construction of subdivisional roading will not result in any material degradation of the character and amenity of the Flat Point area, or areas served by the connecting roads.*
Rule 2.7.2.13 Vehicle Access **Rule 2.7.2.14 Parking, Manoeuvring and Loading** (reference is made to need to compliance with Transportation rules in Section 15)	✔	*Proposal is compliant with Section 15 rules (refer below).*

Subdivision and Development (CDP, Section 9)

Objective / Policy / Rule	*Compliance*	*Response*
Objective 9.2.1: Ensure the act of subdivision and any development meet minimum environmental standards. **Policy 9.3.2:** Ensure servicing is provided as appropriate in rural situations at the time of subdivision and development which avoids, remedies or mitigates adverse environmental effects and protects public health. **Policy 9.3.5:** Ensure any subdivision and development does not adversely impact upon the safety and efficiency of existing infrastructure.	✓	*As demonstrated in the impact assessment, the proposal will not adversely impact upon the safety and/or efficiency of the existing infrastructure.*
Rule 9.6.1.10 Connection to Existing Streets and Services At the intersection of a new road with an existing road, the formation, metalling, kerb and channelling, footpaths etc. shall be extended beyond the site to connect the new road with the existing road.	✓	*The proposed design for the Stage 2 spine road anticipates a continuity of standard with the existing Beach Road.*
Rule 9.6.1.18 Provision for Pedestrians and Non-Motorised Users Provision for pedestrian access routes shall be made to connect residential areas to facilities. Bicycle traffic should be provided for within road carriageways. Road design required to ensure adequate and safe lane width and riding surfaces for both bicycles and vehicles.	✓	*Pedestrian connectivity will be an integral part of the development.* *All roads will facilitate cycle use in a safe, low volume and low speed environment.*
Rule 9.6.4.6 Other (d) whether there may be cumulative effects on the roading network	✓	*As demonstrated in the impact assessment, whilst the proposal will increase traffic volumes on roads within and connecting to Flat Point, the scale of increase will be low and will not lead to any material adverse effects in terms of safety and/or efficiency of these roads.*

Transport (CDP, Section 15)

Objective / Policy / Rule	*Compliance*	*Response*
Objective 15.3.1: A safe, efficient and effective land transport system which has minimal adverse effect on the environment. **Policy 15.4.2:** Manage activities to avoid, remedy or mitigate their potential adverse effects on the safety and efficiency of the transport network.	✓	*As demonstrated in the impact assessment, the proposal will not adversely impact upon the safety and/or efficiency of the existing infrastructure.*
Vehicle Access Rules • all sites and allotments to have vehicular access from a public road • no vehicle access > 1:8 gradient • access ways to be formed as prescribed with provision for collection and disposal of surface water-run-off • vehicle access connections with roads to be designed and constructed to be compatible with the formation and speed environment of the road and to ensure safe visibility to and from the vehicle access point along the road in both directions • private roads to meet dimensions specified	✓	*All sites will be accessible from the public road network (Flat Point Road) by means of the existing Beach Road.* *No gradients in excess of 1:8 will be involved.* *The spine road extending from Beach Road will be formed with a 5.5m seal width (10m legal width), adjoining cul-de-sacs will be formed with a 5.0m seal width (8m legal width). All will exceed the minimum Rural Environment requirement of 2.2m formed / 5m legal width in Table 15.1.* *This will be a low speed environment. Together with the open prospect, visibility standards will ensure safety.* *A combination of installed stormwater drainage and swales will adequately handle surface water run-off.*
New Road Rules • all proposed new roads to connect with and be compatible with the Council's roading hierarchy • all public road carriageways to provide for two lanes of moving traffic except for short roads where traffic volume is insufficient to warrant two lanes • all public road reserves to be of sufficient width to provide for vehicle carriageway, footpath / cycleway (as required), utilities, reticulated services, drainage, parking • vertical alignment of roads to ensure that inclines can be	✓	*New roads will be consistent with the standard of the existing roads within the Stage 1 development, and with that of the adjacent public road (Flat Point Road).* *All proposed roads will accommodate two lanes of traffic, even though volumes are expected to be very low.* *Footpaths/cycleways are not required, provision will be made for reticulated services and drainage.* *The proposed roads will not involve steep rise/falls, hence forward visibility will not be constrained.* *All cul-de-sacs will be provided with turning areas.* *New roads will connect to the public*

Objective / Policy / Rule	*Compliance*	*Response*
negotiated during all weather conditions and sight distances are adequate for road safety • all cul-de-sacs to be provided with an area where light vehicles may turn without reversing manoeuvres, and to enable larger vehicles to reverse without compromising traffic safety • application to clearly show proposed vehicle access connecting all allotments with public road(s) • subdivider to form and construct all roads • all rural roads to be formed, metalled and sealed to an all weather hard surface, with provision for surface water drainage • all roads serving 3 or more residential allotments to be provided with night lighting		*road by means of the existing section of Beach Road.* *All new roads will be privately constructed and maintained.* *All roads will be formed and sealed, with provision for surface water drainage.* *Street lighting is not required or appropriate in this rural environment.*
Vehicle Parking Rules • every residential dwelling to provide 1 off-street parking space	✓	*All dwellings will have plenty of space to accommodate a number of vehicles off the adjacent road*

In summary, the proposal is compliant with all of the relevant rules of the CDP.

Response: in terms the transportation matters, the proposed activity will not give rise to any adverse effects which are more than minor.

5.3 Proposed Wairarapa Combined District Plan (PWCDP)

Flat Point lies within the 'Rural Primary Production' zone, and within this, the 'Coastal Environment Management Area'. Flat Point Road is classified as a 'local road' in the roading hierarchy defined by the PWCDP.

Objectives, policies and rules of relevance to this application are contained within the following sections of the PWCDP:

- Section 4: Rural Zone;
- Section 10: Traffic and Transport;
- Section 14: Subdivision and Land Development; and
- Appendix 5: Requirements for Roads, Access, Parking and Loading.

Rural Environment (PWCDP, Section 4)

Objective / Policy / Rule	*Compliance*	*Response*
Objective 1: Maintain and enhance the character and amenity of the Rural Zone, as appropriate to the predominant land use and consequential environmental quality. **Policy 4.3.1:** Maintain and enhance the amenity and character of the Rural Zone, while allowing primary production activities to operate and develop effectively. **Objective 2:** Enable primary production to function efficiently and effectively in the Rural Zone, while its potential adverse effects are avoided, remedied or mitigated. **Policy 4.4.1(c):** Ensure activities that have potential for reverse sensitivity to rural activities are sited to avoid the adverse effects of rural activities, or sited where those effects will be mitigated.	✓	*Further development at Flat Point will increase vehicular activity on connecting roads which also service forestry activity. However, increases will not be to a level which would either impair existing use of these routes by forestry or vehicles, or preclude any expansion of forestry (or other primary production activities) in the future.* *Prospective purchasers of properties at Flat Point will be aware of the use of access roads by forestry vehicles and hence the likelihood of any reverse sensitivity issue arising in this respect is very low.*
Rule 4.7.2.6 Roads, Access, Parking and Loading Areas • compliance with standards in Appendix 5 (refer below) • one vehicle access point per 30m of frontage • no more than 5 parking spaces.	✓	*Compliant with Appendix 5 standards (below). Access point requirement intended to ensure safety on rural highways. In this case, all property accesses will be to the internal road network, which has a single access to Flat Point Road. Whilst some properties may have space available for more than 5 parked vehicles, it is unlikely this number would be parked at a property.*

Traffic and Transport (PWCDP, Section 10)

Objective / Policy / Rule	*Compliance*	*Response*
Objective 1: To ensure the Wairarapa's transport network is safe and efficient for the movement of people and goods. **Policy 10.3.1:** • ensure adverse effects of activities on the function and operation of the transport network are avoided, remedied or mitigated • ensure safe and efficient road	✓	*New roading associated with the development will be constructed to a high standard, ensuring safety and efficiency of use.* *The adverse effects of additional vehicles on the rural road network will be minor.* *Pedestrian linkages will encourage walking, whilst the new roading will*

Objective / Policy / Rule	*Compliance*	*Response*
entrances, loading, parking and manoeuvring space is provided for all activities • support and encourage the use of alternative transport, including cycling and walking.		*provide a convenient and safe cycling facility.*

Subdivision and Land Development (PWCDP, Section 14)

Objective / Policy / Rule	*Compliance*	*Response*
Objective 3: To maintain sustainable and efficient public infrastructure that meets the additional demand generated by the development and subdivision, while avoiding, remedying or mitigating adverse effects on the environment. **Policy 14.5.1:** • require a contribution where an activity necessitates road upgrading to avoid, remedy or mitigate adverse effects on the road or the wider environment.	✓	*Impact assessment indicates that the additional level of vehicular activity likely to be associated with the development would not trigger a requirement to upgrade any part of the public road network.* *Property purchasers are well aware of the unsealed nature of the approach route and many would prefer that this is retained – hence there is no expectation or requirement to seal the road to/from Flat Point.*

Appendix 5 – Requirements for Roads, Access, Parking and Loading (PWCDP, Section 14)

Objective / Policy / Rule	*Compliance*	*Response*
29.1.1: New Roads – Design Dimensions • all proposed new roads to be designed and constructed in accordance with NZS4404, shall connect with and be compatible with the roading hierarchy • all public road reserves to accommodate two lanes of moving traffic, footpaths (as required), cycleway (as required), public utilities, street lighting, reticulated services, drainage, landscaping (as required), parking (as required) • vertical alignment of all roads to be such that inclines can be negotiated during all weather conditions and sight distances are satisfactory for road safety • all cul-de-sacs to be provided with an	✓	*New roads will be consistent with the standard of the existing (public) roads in this development, and with that of the adjacent public road (Flat Point Road). All roads will exceed the requirements of NZS4404 for rural roads.* *All proposed roads will accommodate two lanes of traffic, even though volumes are expected to be very low.* *Footpaths/cycleways are not required, provision will be made for reticulated services and drainage.* *The proposed roads will not involve steep rise/falls, hence forward visibility will not be constrained.* *All cul-de-sacs will be provided with turning areas.* *All roads will be formed and sealed, with provision for surface water*

Objective / Policy / Rule	*Compliance*	*Response*
area where light vehicles may turn without reversing		*drainage. Street lighting is not required or appropriate in this rural environment.*
29.1.5: New Roads to be shown in Proposed Subdivision • applicant to clearly show the proposed vehicle access connecting allotments with the public road	✔	*The proposed spine road will connect directly to the existing terminus of Beach Road.*
29.1.6: New Roads - Construction • subdivider to form and construct all roads	✔	*All roads will be privately constructed and maintained.*
29.1.7: Roads and Vehicle Access Way Lighting • all public roads serving 3 or more residential allotments shall be provided with night lighting.	✔	*All roads will be privately constructed and maintained – hence lighting not required.*
29.2.1: Vehicle Access to Individual Sites • all allotments to have legal practicable vehicle access from a public road • all access ways to be formed as prescribed by NZS4404, provision to be made for collection and disposal of surface water run-off • all vehicle access connections with roads to be designed to be compatible with the formation and speed environment of the road and to ensure safe visibility to and from the vehicle access point in both directions along the road	✔	*The proposed spine road will connect directly to the existing terminus of Beach Road.* *All accesses will meet or exceed NZS4404 requirements, provision made for surface water run-off.* *The subdivision and internal roading will promote a slow speed environment. All accesses and connections will provide a good standard of visibility which meet or exceed that required for a slow speed environment.*
29.2.2: Minimum distance between vehicle access points and intersections • vehicle access to be no less than 30m from an intersection • must demonstrate that proposed vehicle access points provide suitable and safe access	✔	*Access rules not relevant for lightly trafficked rural residential roads. Regardless, no vehicle accesses will be located within 30m of an intersection. Impact assessment has demonstrated that vehicle access points will provide suitable and safe access.*
29.3.1: Vehicle Parking • every activity to provide off-street parking for vehicles associated with the activity (Table 28.4 indicates 1/dwelling less than 80m^2 GFA, 2/dwelling more than 80m^2 GFA).	✔	*All dwellings will have plenty of space to accommodate a number of vehicles off the adjacent road*

5.4 Compliance – Conclusions

The proposal is fully compliant with the rules and standards of both the CDC and PWCDP, and is strongly aligned with the objectives and policies of these document. In this regard, the weight given to the relative status and relevance of these documents is immaterial.

6 Conclusions & Recommendations

6.1 Conclusions

The Guinea Trust owns land at Flat Point, on the Wairarapa coast. In recent years, the first stage of a residential subdivision has been completed, comprising 39 dwellings. It now seeks consent for subdivision to enable a second stage, to eventually comprise a further 42 dwellings.

Residential development will give rise to some increase in levels of vehicular and pedestrian activity. This assessment identifies whether these increases are likely to give rise to any adverse effects in terms of the safety and efficiency of the road network, both within the immediate site and further afield.

The principle conclusions of this assessment are that:

- roading internal to the site will operate both safely and efficiently, encouraging a rural 'feel' with a low speed environment which will also permit pedestrian and cycle movements;
- whilst the development will generate additional vehicle movements on the external road network, the frequency of use will remain low and no specific upgrades are justified or sought;
- the safety and efficiency of the external road network will not be impaired by the proposal;
- the proposal is fully compliant with the objectives, policies and rules of the current Carterton District Plan relating to transportation matters; and
- the proposal is fully compliant with the objectives, policies and rules of the Proposed Wairarapa Combined District Plan relating to transportation matters.

6.2 Recommendations

On the basis of the transportation issues addressed by this assessment, it is recommended that consent be granted for the proposal.