

4.0 ASSESSMENT AND MANAGEMENT OF CONSTRUCTION ACTIVITIES

4.1 Proposed Stage 1 Construction Activities

The Proposal seeks concurrent Stage 1 approval for site clearance and preparatory works. Stage 1 (early works) DA, includes preparatory work within the cadastral boundaries of Lot 26 DP 751376 and Lot 1 DP 1190399. This would involve:

- Vegetation clearance and biodiversity management activities.
- Construction of access roads including fire access roads to the extent required to conduct Stage 1 works.
- Construction of auxiliary facilities such as construction compound, construction staff parking facilities and stockpiles sites.
- Temporary provision of water, power and communication services within the site to the extent required to conduct Stage 1 works.
- Demolition of the existing house and sheds.
- Bulk excavation and site stabilisation works.
- Landscaping.

A permanent 1.5 metre perimeter fence would be erected and secured around the Project Site. This may require some tree removal works. A single site entrance point would be established approximately half-way along Avenue Road, ideally at a high point in the topography to allow for maximum visibility of vehicle movements.

The main construction zone would be screened and secured, covering an area of approximately 45 hectares. The access point would be set back with a security checkpoint for all vehicles upon arrival/exit. A large site support compound would be located within the site construction zone, servicing Stage 1 construction activities. This would be accessed off the main access point and behind the security checkpoint. Landscape works including earthworks would take place across the Project Site, particularly around the perimeter.

4.2 Assessment of Environmental Impact

Earthworks and construction would produce significant amounts of loose material, airborne soil and dust. Tree removal would impact soil quality and reduce landscape shade coverage across the Project Site. Trees which are to be retained may be effected by construction activities through dust and earthworks. Increased stormwater runoff would be created by hardstand surfaces and removal of topsoil. This work will be visible from neighbouring dwellings and Avenue Road, affecting visual amenity and temporarily reducing vegetation and general outlook of the Project Site.

The existing surrounds are currently very sparsely populated. Construction works will generate light and noise impacts during construction hours. Lighting structures, perimeter fences and site compounds would be visible from Avenue Road and surrounding properties.

Vehicles including earthmoving machines and cranes will be required on site, delivered by truck and moved around the site during construction. Cranes will be visible for a distance. Development of the Project Site may coincide or overlap with the construction of the Pacific Highway, Avenue Road overpass and changes to Old Six Mile Lane and Wants Lane.

4.3 Proposed Mitigation Measures

The mitigation of impacts of construction activities to visual amenity would include the following measures:

- Ensuring all construction vehicles enter and leave the Project Site from a single entrance, ensuring minimal disturbance to Avenue Road.

- Locating the support compound as far west as practicable from Avenue Road, allowing the natural topography to screen the compound from passing vehicles.
- Limiting all temporary site sheds to single storey buildings.
- Ensuring dust control and security fences surrounding the support compound are screened using with obscuring mesh, of a colour which will blend into the natural vegetation of the area.
- Planting of trees between the area of the works and Avenue Road, prior to the commencement of the works, to allow for the early establishment of landscape buffers.
- Ensuring all plant, machinery and equipment is stored within the screened support compound or removed from the Project Site when not in use.

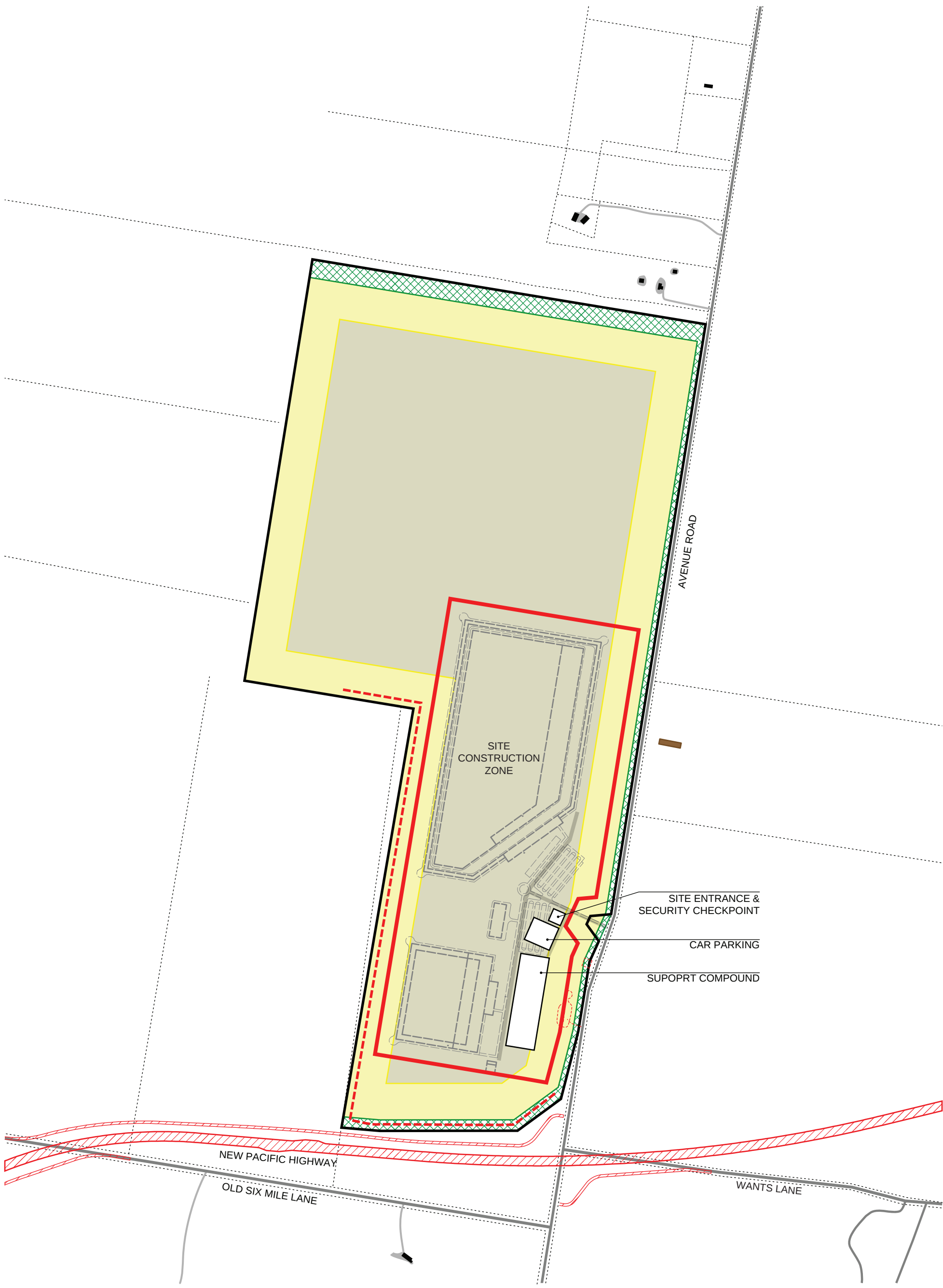
Dust control fences should be erected around the entire construction zone and support compound. Soil and sediment control should incorporate spraying and covering of earthworks and stockpiles. The external perimeter fence would provide security to the landscaped zones outside of the main construction zone.

Trees and landscape to be retained would need to be fenced off and trunks and foliage protected from construction activities.

In the event that the Project is located towards the southern siting, consideration is to be given to mitigation of the view impacts of the Project from dwelling R1. In addition to the mitigation measures described above, further mitigation may be in the form of landscape screening (approximately 30 metres) between the APZ and the site boundary as indicated in Figure 9.

Should the Project be sited towards the northern boundary, in addition to those measures above, consideration should equally be given to mitigation of view impacts, particularly to dwelling R3, but also to dwelling R2 which is located closer to the northern site boundary and Avenue Road. This can be achieved by:

- Ensuring a maximum possible distance between the Project and the northern boundary, allowing the existing ridge line within the Project Site to partially screen the development.
- Providing landscape screening to the north of the APZ for 50 metres as shown in Figure 10.



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|---------------------------------|-------------|--------------------|-----------------------|----------------------|
| Site Boundary / Perimeter Fence | Public Road | Dust Control Fence | Landscape Buffer | Proposed Highway |
| Dwelling | Driveway | Tree Protection | Asset Protection Zone | Proposed Public Road |
| Agricultural Structure | Fence | | Development Zone | Proposed NGCC |

Drawing Title
CONSTRUCTION MITIGATION PLAN
SOUTHERN SITING

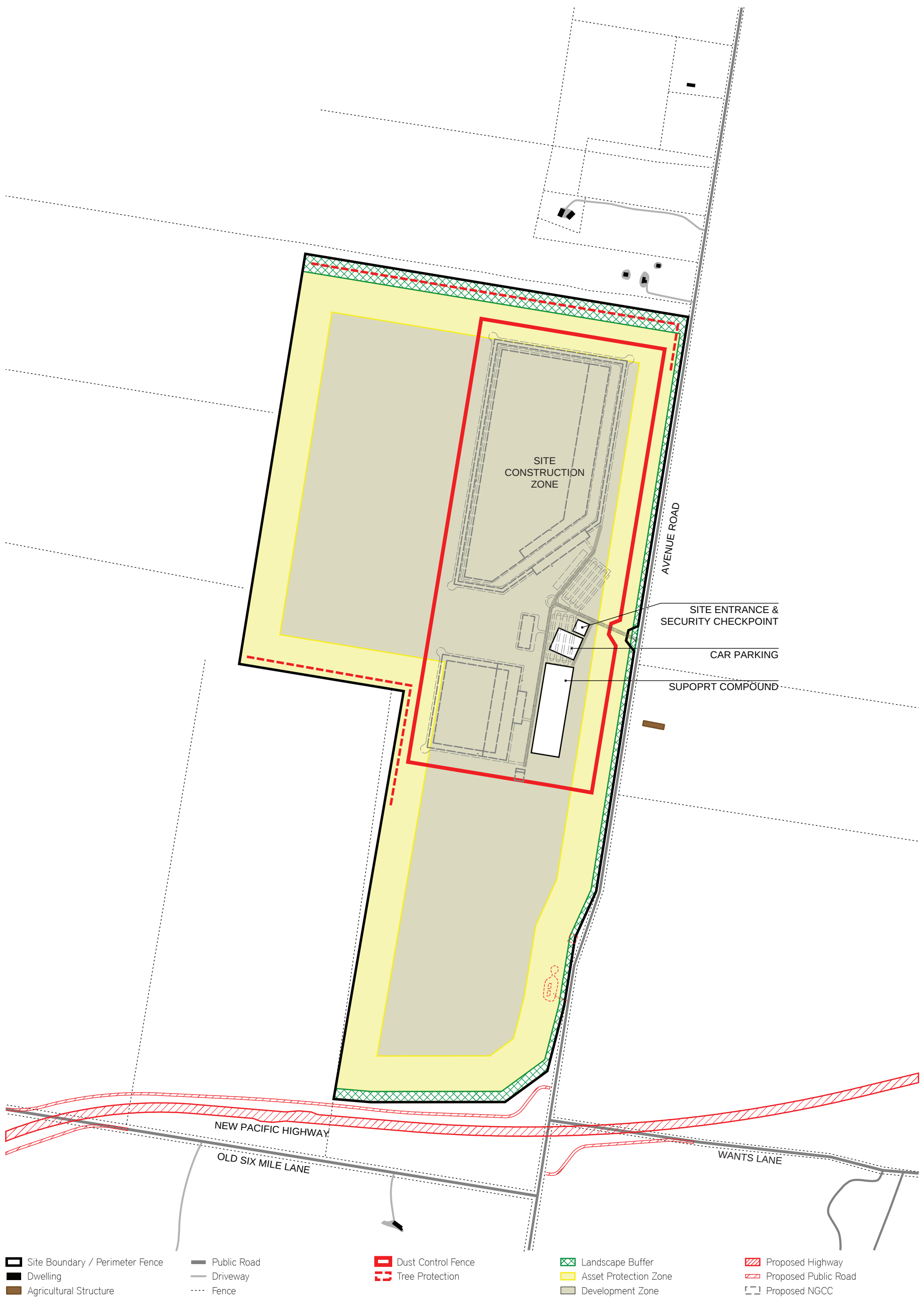
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CAD File 15547-SK-SITE REVIEW

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0 50 100 200 300m

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Figure 9 - Southern Siting, Construction Works



- Site Boundary / Perimeter Fence
- Dwelling
- Agricultural Structure

- Public Road
- Driveway
- Fence

- Dust Control Fence
- Tree Protection

- Landscape Buffer
- Asset Protection Zone
- Development Zone

- Proposed Highway
- Proposed Public Road
- Proposed NGCC

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Drawing Title
CONSTRUCTION MITIGATION PLAN
NORTHERN SITING

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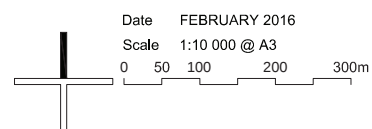


Figure 10 - Northern Siting, Construction Works

5.0 ASSESSMENT AND MANAGEMENT OF OPERATIONAL IMPACTS

5.1 Proposed Built Form and Landscape

The Proposal as described in Section 1.2 of this document has been developed by **NBRS**ARCHITECTURE based on assumptions and preliminary schedules for a 1,300 bed maximum security correctional centre and a 400 bed minimum security correctional centre on the Project Site. The final details of this development would be subject to further stages of planning and design.

The Project Site would be bound by a fence of 1.5 metres in height. The two centres proposed would include approx. 70,000 square metres of enclosed building space within the perimeter walls or fences. The centres would each be bound by a 6-metre-high wall or fence and have a 6-metre-high gatehouse at the entrance facing Avenue Road. This building would be integrated with the perimeter walls or fences.

Outside of the perimeter walls or fences, there would be a number of buildings including a central store, a central energy plant, black-water treatment facilities, and a drug dog detection unit and yard. These ancillary buildings would be visible upon approach along Avenue Road, except for the black-water treatment plant which is anticipated to be located in a discreet area of the site. On approach from Avenue Road, on-grade car parking would be provided for staff and visitors.

A number of single and double storey support and residential buildings would be located within the external perimeter walls or fences with a set-back of between 20-30 metres inside the secure perimeter. These buildings would range in height up to a maximum of approximately 12 metres. The indicative concept Proposal is shown in Figure 11, with a layout of zones of development typical to facility of this nature.

Outside the secure perimeters, light and CCTV camera poles of approximately 10 metres in height would be located at regular spacing adjacent to a sealed roadway which would surround each facility, providing CCTV surveillance of the area.

The Project would require an area cleared of vegetation to provide minimum lines of sight of 100 metres from the perimeter walls or fences in line with best practice for correctional centres. Stormwater run-off would be retained in an onsite detention basin located close to Avenue Road in an area of lower elevation.

It is assumed that the Project would be accessed via a single entrance point at Avenue Road approximately half-way between the two centres. Impacts to this road are outlined in the Traffic and Access Working Paper. This would provide access to the proposed centres as well as any other buildings and compounds on the site, including construction compounds and stores.

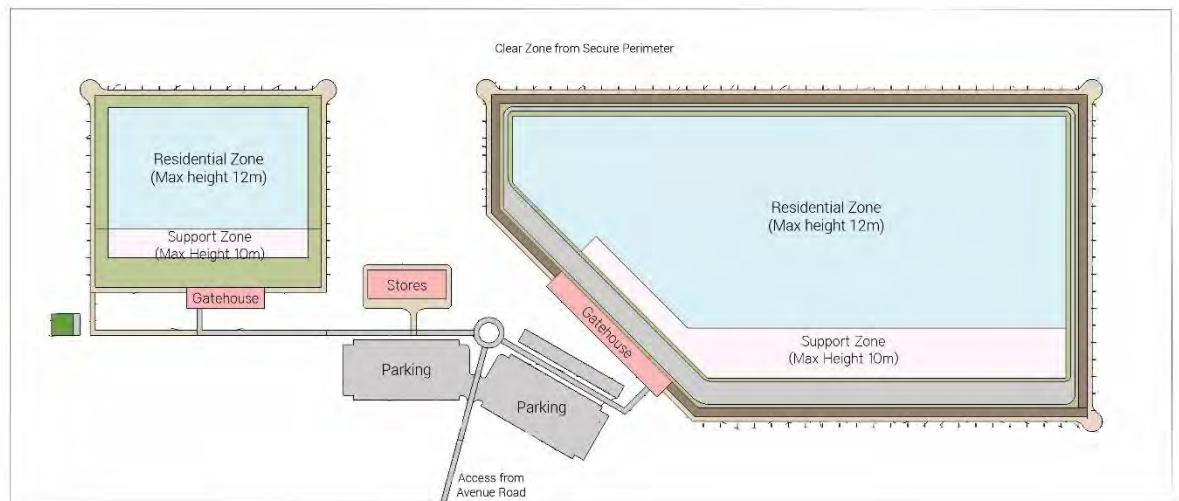
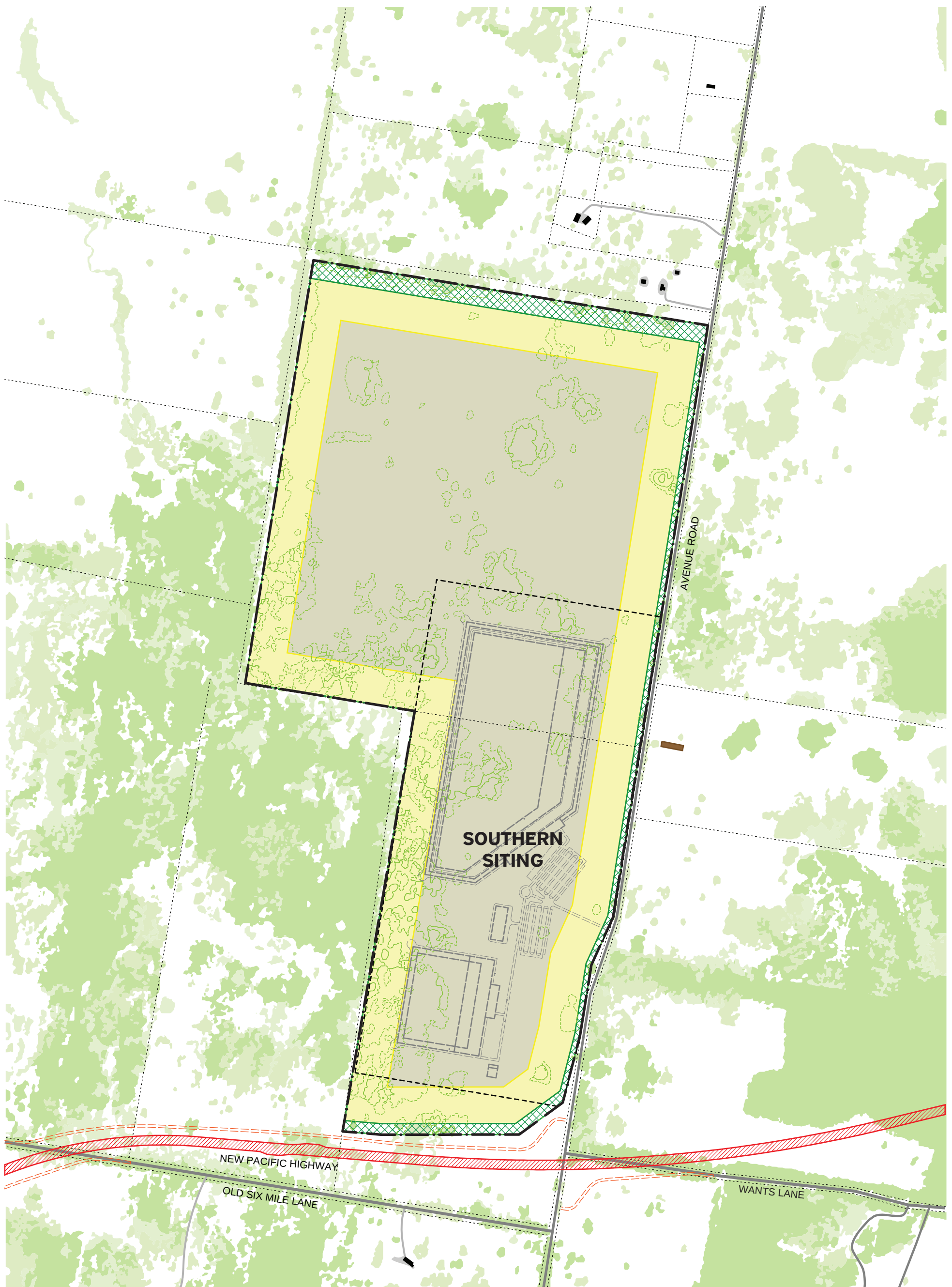


Figure 11 – Indicative Concept Proposal

5.2 Proposed Siting

For the purposes of this assessment, due to the conceptual nature of the built form, two potential study locations for the Project have been considered, each with different levels of amenity. The locations are shown in Figure 12 and Figure 13 as Southern Siting and Northern Siting. Specifically, the following key differences in the two siting locations are:

- Southern Siting
 - The natural fall of the land would allow for the correctional centres to be located at a lower elevation as compared to the northern site.
 - This portion of the Project Site is of a more consistent level, which would potentially result in lesser cut and fill than the northern site
 - The Project would be in closer proximity to the existing dwelling to the south of the site, and to the proposed Pacific Highway, and further from the two dwellings to the north of the site.
- Northern Siting
 - The Project would either be placed at higher elevation due to the natural topography of the land, or would require increased cut and fill activity to reduce the overall level.
 - The Project would be in closer proximity to the two dwellings to the north of the site.
 - Due to the east-west width of the Project Site at the northern end, there is the opportunity for the Project to be positioned further from Avenue Road.

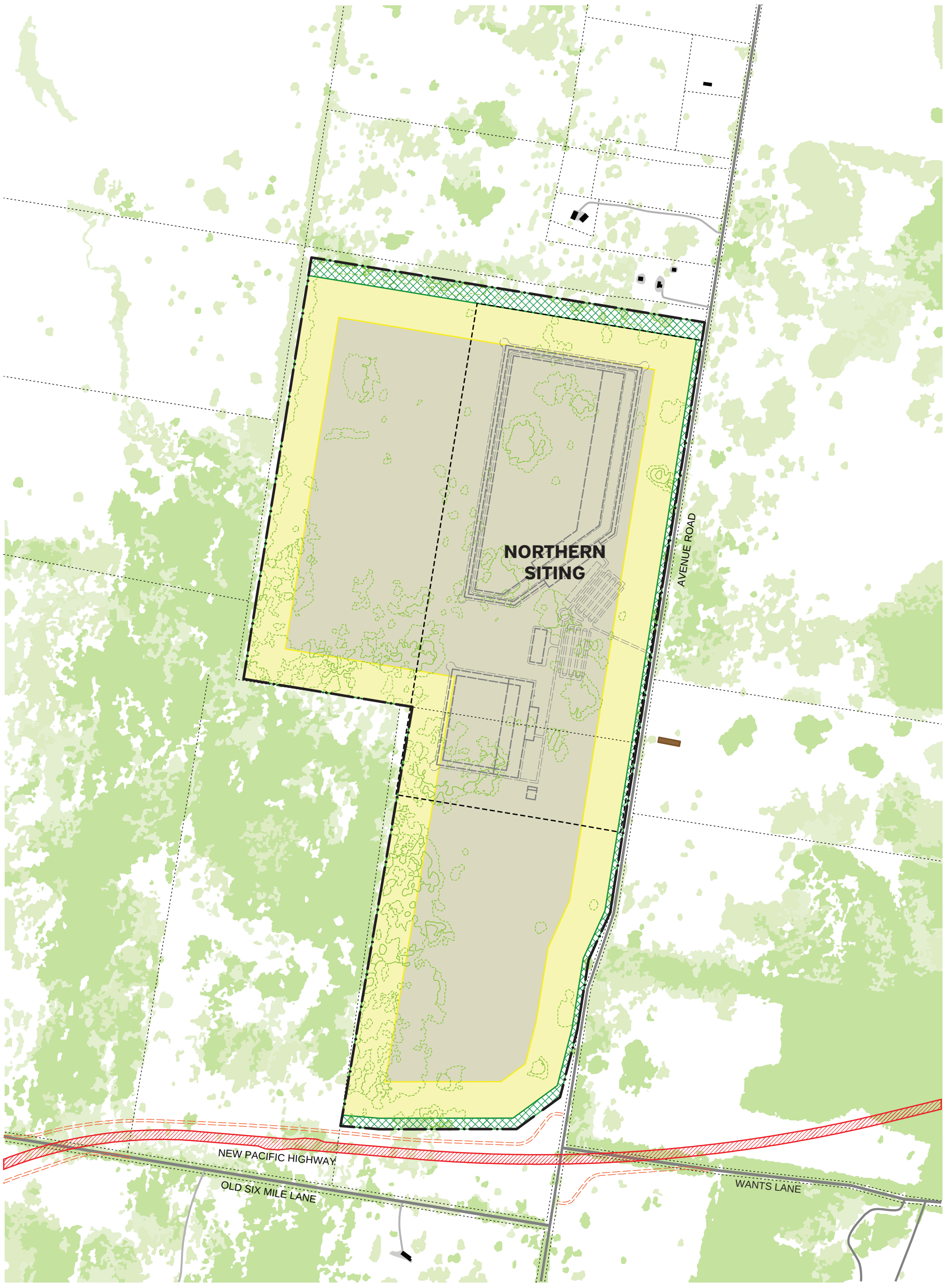


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|---|--|--|---|---|
| <ul style="list-style-type: none"> Site Boundary Dwelling Agricultural Structure | <ul style="list-style-type: none"> Public Road Driveway Fence | <ul style="list-style-type: none"> Site Tree Cleared Tree on Neighbouring Site | <ul style="list-style-type: none"> Landscape Buffer Asset Protection Zone Development Zone | <ul style="list-style-type: none"> Proposed Highway Proposed Public Road Proposed NGCC |
|---|--|--|---|---|

Drawing Title LANDSCAPE PLAN SOUTHERN SITING	Project & Client NEW GRAFTON CORRECTIONAL CENTRE at GRAFTON for INFRASTRUCTURE NSW	Architect NBRS+PARTNERS Level 3, 4 Glen Street, Milsons Point, NSW 2061 Australia T: 61 2 9922 2344 F: 61 2 9922 1308 E: architects@nbsap.com.au W: www.nbsap.com.au CAD File 15547-SK-SITE REVIEW	Date FEBRUARY 2016 Scale 1:10 000 @ A3 0 50 100 200 300m
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Figure 12 - Potential Southern Siting



-  Site Boundary
-  Dwelling
-  Agricultural Structure

-  Public Road
-  Driveway
-  Fence

-  Site Tree Cleared
-  Tree on Neighbouring Site

-  Landscape Buffer
-  Asset Protection Zone
-  Development Zone

-  Proposed Highway
-  Proposed Public Road
-  Proposed NGCC

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Drawing Title
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 NORTHERN SITING

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Figure 13 - Potential Northern Siting