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23 October 2017

Department of Planning & Environment
GPO Box 39
Sydney NSW 2001
Attention: James Sellwood

Dear Mr Sellwood

**PARRAMATTA LIGHT RAIL (STAGE 1)
ENVIRONMENTAL IMPACT STATEMENT - SSI 17_8285
SUBMISSION**

This submission has been prepared by *KEYLAN Consulting Pty Ltd* on behalf of The Billbergia Group in response to the Transport for NSW's (TfNSW) *Parramatta Light Rail (Stage 1) Environmental Impact Statement* (EIS) which is currently on public exhibition until 23 October 2017.

We have undertaken a detailed review of the EIS and generally support the project objectives and key features. We acknowledge and support the vision for the whole Parramatta Light Rail which is to deliver integrated light rail services that support the NSW Government's vision for the *Greater Parramatta to Olympic Peninsula* (GPOP) priority growth area.

GPOP is central to *A Plan for Growing Sydney* and the Greater Sydney Commission's (GSC) three CBDs strategy of East Sydney, Central Sydney and Western Sydney. An optimal urban renewal strategy for Camellia is critical to unlocking the potential of GPOP and delivering on the targets for housing and employment for Western Sydney.

In this context, Billbergia is currently working with the City of Parramatta Council (Council), Department of Planning and Environment (DP&E), Parramatta Light Rail (PLR) on the delivery of a major 10.3 ha urban renewal precinct at Camellia to deliver substantial housing and employment opportunities with associated infrastructure and community uses. This scheme is currently subject to a planning proposal for the Town Centre within land owned and controlled by the Billbergia Group (Figure 1).

The development of Billbergia land at Camellia Town Centre East currently includes over 4,100 new residential dwellings which will significantly address supply of residential dwellings to meet demand.

This submission undertakes a high-level review of the EIS in the context of the Government's commitment to the urban renewal of Camellia.



Figure 1: Camellia Town Centre East Master Plan (Source: AJ+C)

Options for corridor alignment through Camellia

We note that in relation to Camellia, the EIS considers 2 options for an east-west connection between the T6 Carlingford Line and the proposed location of the stabling and maintenance facility (see figure 2). These options are:

- Option 1 – travelling along Grand Avenue.
- Option 2 – use of an existing freight line (the Sandown Line).

While the EIS recommends that Option 2 be implemented, this submission argues that Option 1 is the superior route for the following key reasons as outlined in this submission.



Figure 2: Alignment options through Camellia (Source: Parramatta Light Rail EIS)

Land Use and Infrastructure Strategy for Camellia

We support the NSW Government's proposal to service Camellia with light rail, replacing the existing heavy rail services along the existing T6 Carlingford Line. We recognise there is a need for additional transport services in an area identified as a priority location within the GPOP.

The DP&E in collaboration with Council and PLR is currently progressing the planning for the Camellia Precinct following the release of the *Land Use and Infrastructure Strategy for Camellia* in 2015 (the Strategy). It is paramount that planning for the Camellia Precinct is integrated with transport to deliver the best outcomes for all stakeholders.

In this context, the preferred light rail route in the EIS, that is, along the existing Sandown Easement, is inconsistent with the *Strategy* for the Camellia Precinct.

The *Land Use and Infrastructure Strategy for Camellia* highlights the importance of Grand Avenue, as follows:

*A revitalised **Grand Avenue** will act as a catalyst for a new business activity corridor capitalising on improved public transport and the amenity associated with the new town centre and connectivity to the waterfront. These businesses, which will provide a buffer between residential and industrial uses could act as a hub for research, innovation and emerging technologies to support other industries in the precinct.*

The *Land Use and Infrastructure Strategy for Camellia* also clearly states the importance of Grand Avenue for the overall transport strategy stating the following:

While improved access to Camellia is critical in facilitating the renewal of the precinct, redevelopment also provides a rare opportunity to undertake key transport initiatives to improve access, address existing congestion problems and accommodate future growth including:

- the role of **Grand Avenue** in linking Parramatta CBD to Sydney Olympic Park;
- new public transport corridors linking Parramatta CBD to Carlingford/Macquarie Park and Sydney Olympic Park through an interchange at Camellia;

The Strategy states that Grand Avenue will be revitalised to function as the main transit boulevard, connecting employment and industrial sub-precincts to the new town centre and the waterfront. The Transport Map on page 5 of the Strategy (Figure 2) clearly shows the public transport corridor extending along Grand Avenue.

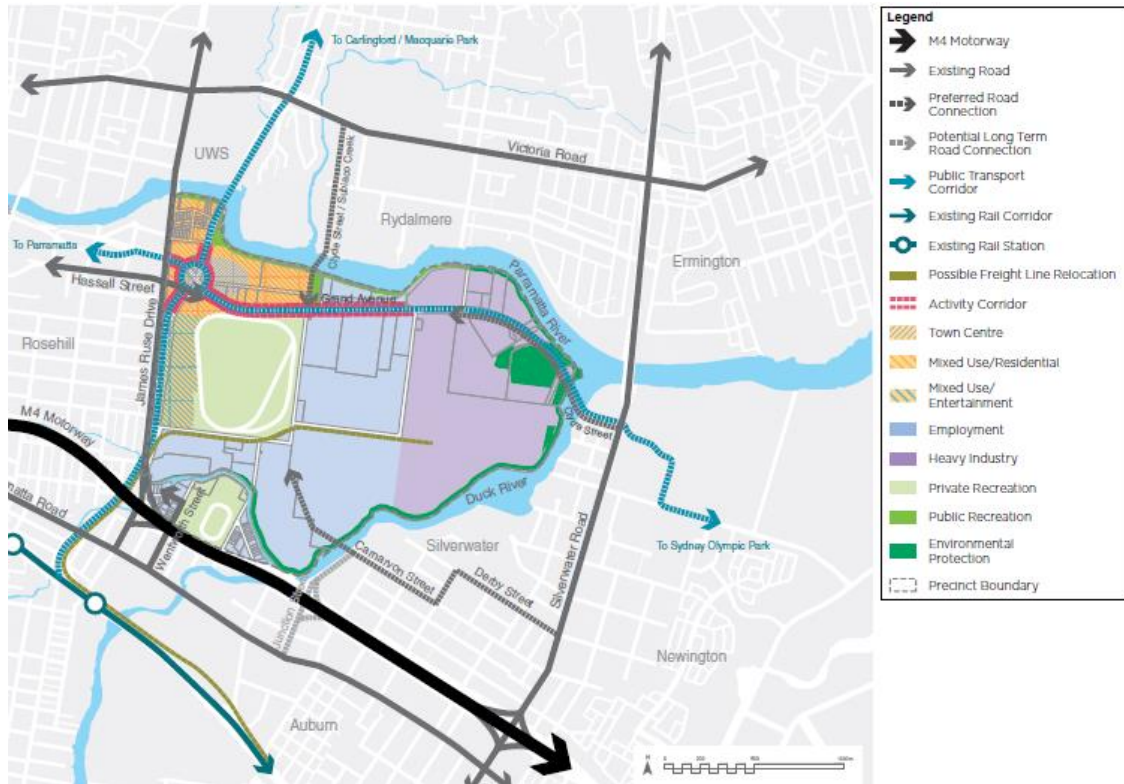










Figure 3: Transport map extract from the Land Use and Infrastructure Strategy for Camellia (Source: DP&E)

In order to align with the DP&E's strategic direction for the urban renewal of the Precinct, we conclude that the PLR route be amended to align with Grand Avenue rather than the existing Sandown rail corridor.

The options for corridor alignment through Camellia identified in the EIS

As state above, the EIS shortlists 2 options (Grand Avenue or the Sandown Freight Line) for the east-west connection between the T6 Carlingford Line and the proposed location of the stabling and maintenance facility along the Camellia section of the corridor alignment.

Section 3.4.2.3 of the EIS contains an assessment of both options against seven criteria. The assessment table is reproduced below in Figure 4.

	Option 1 Grand Avenue	Option 2 Sandown Freight Line
Alignment with Government priorities		
City building outcomes		
Transport outcomes		
Deliverability and risk		
Affordability		
Stakeholder support		
Economic feasibility		


 Route option performs better than other route options
  Route option performs around the same as other route options
  Route option performs worse than other route options

Figure 4: Assessment of Camellia alignment options (Source: Parramatta Light Rail EIS)

Given the significance of the alignment of the PLR for the urban renewal of the Precinct, in particular the Town Centre, we believe that the above analysis does not make a strong case for the preferred route.

Both options are noted as performing '*better than other route options*' against the following criteria:

- *alignment with government priorities; and*
- *city building outcomes.*

We question this result, that is, how can both options be performing better than the other option regarding these two criteria.

Both options are noted as performing '*around the same*' with regards to the following criteria;

- *Transport outcomes*
- *Economic feasibility*

Option 2 is claimed to perform better against the criteria of; *Deliverability and risk and Affordability*. We note that Option 1 performs better in terms of *Stakeholder support*.

A high level analysis of the response provided in support of Option 2 is detailed below:

EIS key reasons provided to support Sandown Line alignment	KEYLAN Comment
<i>Offer greater future place making opportunities associated with the future Camellia Town Centre (currently being investigated).</i>	Disagree. This statement is contrary to <i>Land Use and Infrastructure Strategy for Camellia</i> which identifies Grand Avenue (Option 1) as an Activity Corridor. The provision of pedestrian friendly light rail along Grand avenue would be consistent with this objective.
<i>Align with the current design for the Camellia Masterplan, allowing for</i>	The Camellia Masterplan can be adapted to realign the Light Rail to Grand Avenue.

EIS key reasons provided to support Sandown Line alignment	KEYLAN Comment
<i>integration with a future transit-oriented town centre.</i>	
<i>Reduce conflict/risks associated with an existing hazardous goods and heavy vehicle route (Grand Avenue), and significant utilities (water and fuel pipelines).</i>	Disagree. Early analysis undertaken by the Billbergia Group concludes that Grand Avenue is wide enough to accommodate these uses.
<i>Have lower constructability and delivery risks, as it would follow a disused rail corridor, would avoid costly utility works (including gas, fuel pipelines and electricity mains), minimise property acquisition requirements and would minimise interactions between heavy vehicles and light rail vehicles (LRVs) along Grand Avenue.</i>	Disagree. The disused rail corridor land could be sold to the adjoining land owners and this would compensate for any higher costs associated with the Option 1 alignment. The existing railway levels are below the Flood Planning levels for the proposed development. Significant works to both PLR vertical alignment and the proposed Masterplan will be required for this Option.
<i>Would not preclude further extensions to the network beyond Camellia.</i>	Agree, however Option 1 would also not preclude any further extension to the light rail network beyond Camellia and in fact is consistent with the planning for Stage 2. The Grand Avenue alignment represents a more direct route without the dog-leg bend that would be required should the Option 1 alignment be extended east. The proposed dog-leg section needs to be checked for compliance to the Light Rail design standards

Figure 5: Assessment of the Camellia alignment options

We note that while the EIS relates to Stage 1 only, as planning is continuing for Stage 2 it is imperative that the optimal alignment of the line to Camellia stabling and maintenance facility is established now as it will likely dictate the future Stage 2 alignment.

The benefits of the Grand Avenue alignment (Option 1)

Superior urban design solution

The Grand Avenue option is a superior, more efficient and rational urban design solution as it:

- results in a more efficient and resolved integration between transport infrastructure and future public domain
- avoids the need to deal with varying topographical levels of the new urban design
- does not require new and complex access points into future building podiums
- does not result in new streets and footpaths which need to cross light rail

- enables a suitable buffer of the rail line to the proposed Depot to future residential uses to ensure appropriate access, improved accessibility and for new residents
- offers optimum corridor width for future improvements / upgrades as well as increasing the number of network lines for future
- is less constrained by the proposed development, as option 2 would need to be built with a masterplan for Town Centre in place.

The Grand Avenue alignment is considered a superior option to the proposed use of the Sandown Freight Line which will have significant impact in dividing two of the major urban renewal sites whilst leaving the third major landowner (ATC) poorly serviced.

More cost effective

Based on a preliminary review of key factors, re-aligning the light rail route along Grand Avenue is highly likely to be a more cost-effective option for Government.

The cost of relocating any existing services in Grand Avenue will be more than offset by the sale of the land in the Sandown Easement to adjoining landowners.

The additional funding can be used to contribute to the delivery of the light rail and to the remediation of the Sandown easement which can be undertaken at more cost-effective rate if undertaken concurrently and in conjunction with the adjoining land.

Existing Road Reserve Width on Grand Avenue

Grand Avenue has a 40-42m road reserve which provides sufficient width to accommodate all vehicular traffic, the light rail, relocated services, cycleways, as well as pedestrian footpaths and landscaping treatments.

There is also a significant opportunity for an additional light rail station providing a direct entrance into Rosehill Gardens Racecourse. This will fully integrate new infrastructure with traffic generating uses, resulting in increased patronage of public transport and decreased dependency on cars.

The use of Grand Avenue for light rail represents a superior opportunity to develop transit-oriented development because it better services all 3 major landowners, one of which (ATC) is likely to proceed with its State Significant development potentially significant to the State in terms of being a major event, entertainment and tourist destination and mixed-use development forming part of the Town Centre.

Consistent with future alignments to Sydney Olympic Park

Continuation of the light rail along Grand Avenue is consistent with a concept of a grand and historically significant corridor from Parramatta Park to Sydney Olympic Park, with many opportunities for interpreting the history associated with the route and enhancing the user experience.

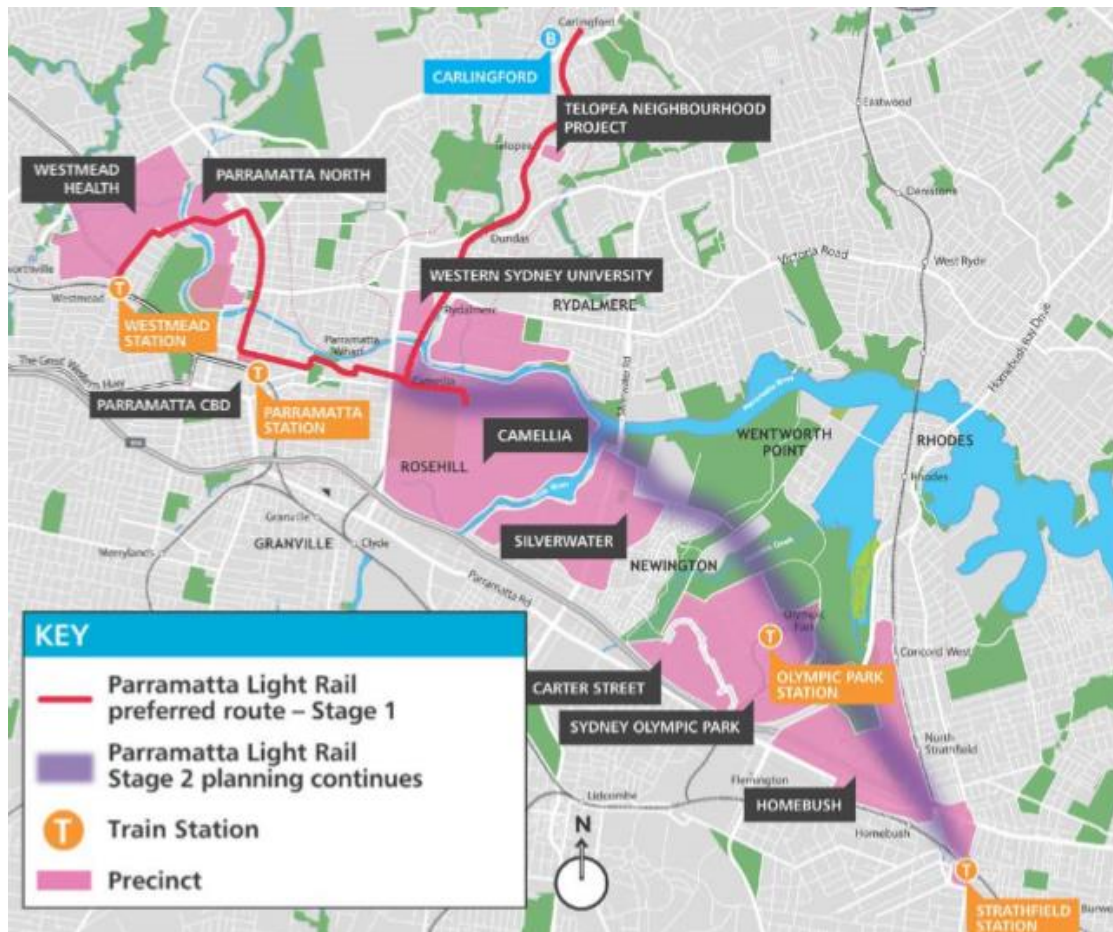


Figure 6: Preferred Parramatta Light Rail Network with Stage 2 Investigation Corridor (Source: Parramatta Light Rail EIS)

The Option 1 – Grand Avenue alignment is also more consistent with the investigation corridor for Stage 2 (shown in Figure 6 above) which is the extension of the light rail through Camellia to Silverwater.

Parramatta Light Rail (Stage 2)

We note that the Government recently announced the preferred route for Parramatta Light Rail Stage 2. This will connect to Stage 1 and run north of the Parramatta River through the rapidly developing suburbs of Ermington, Melrose Park and Wentworth Point to Sydney Olympic Park.

We understand that Stage 2 will be further developed by consultation with the community and stakeholders with a Final Business Case expected to be completed in 2018, with an investment decision and details on the timing of construction to follow.

Billbergia support an alternative PLR Stage 2 route through Camellia - from Camellia Town Centre at raised podium level, through Camellia and to head north over the Parramatta River at Park and South Streets rather than the Rydalmere route.

The key advantages of this alternate route include:

- it allows for an integrated urban design solution
- it activates what would otherwise be a dead or largely inactive spur line from Camellia Town Centre to the stabling yard
- it activates a sterile Camellia industrial and employment precinct

Should the Government decide **not** to proceed with this alternate route then Billbergia recommend that the spur line be left at RL 6.0 (current ground level) and enveloped by the new raised ground plane of the precinct. This will reduce the impact of a dead or infrequently used maintenance spur line on residential amenity and mitigate traffic confluence.

The proposed new road and light rail, both on the Sandown alignment will be graded at 1:20 to achieve RL 11.296 (above the PMF) and graded down to the GPT site if necessary. The proposed dead running line to the stabling yards only (PLR preferred route) may be left at RL 6.0 and capped by the raised ground plane to protect residential amenity.

Billbergia is agreeable to deliver the north-south bridge over Parramatta River, as well as the raised podium to accommodate the PLR should the alternate route be pursued through a Voluntary Planning Agreement associated with its current Planning Proposal.

Opportunity for Affordable Housing

The use of Grand Avenue for light rail provides the ability to access both sides of Grand Avenue near the future town centre providing future employment and access to community facilities.

The opportunity for affordable housing may be reduced if the light rail is taken through the Sandown Easement, as the viability of future developments adjoining the Sandown Easement may be reduced as well as the viability of the overall development by reduced amenity, pedestrian accessibility, and streetscape, as well as constraints associated with remediation and OH&S matters.

Flood mitigation

The integration of the Sandown Easement into the adjoining sites allows for a coordinated approach to finished ground levels and general landform to address flooding issues, including the 1 in 100 year and PMF events and better inform appropriate evacuation strategies.

This is being further addressed by the appropriate consultants as part of the planning for the Camellia Precinct and Planning Proposal by The Billbergia Group for the Town Centre East.

Alternative Light Rail Station in Camellia

If the realignment of the corridor to Grand Avenue is not implemented, we recommend the provision of an alternative light rail station on the Sandown line between the proposed Tramway Avenue station and the Camellia stabling and maintenance facility.

The provision of a station within the Camellia Town Centre East site will better service the future population of the proposed mixed-use developments, including the Billbergia, site.

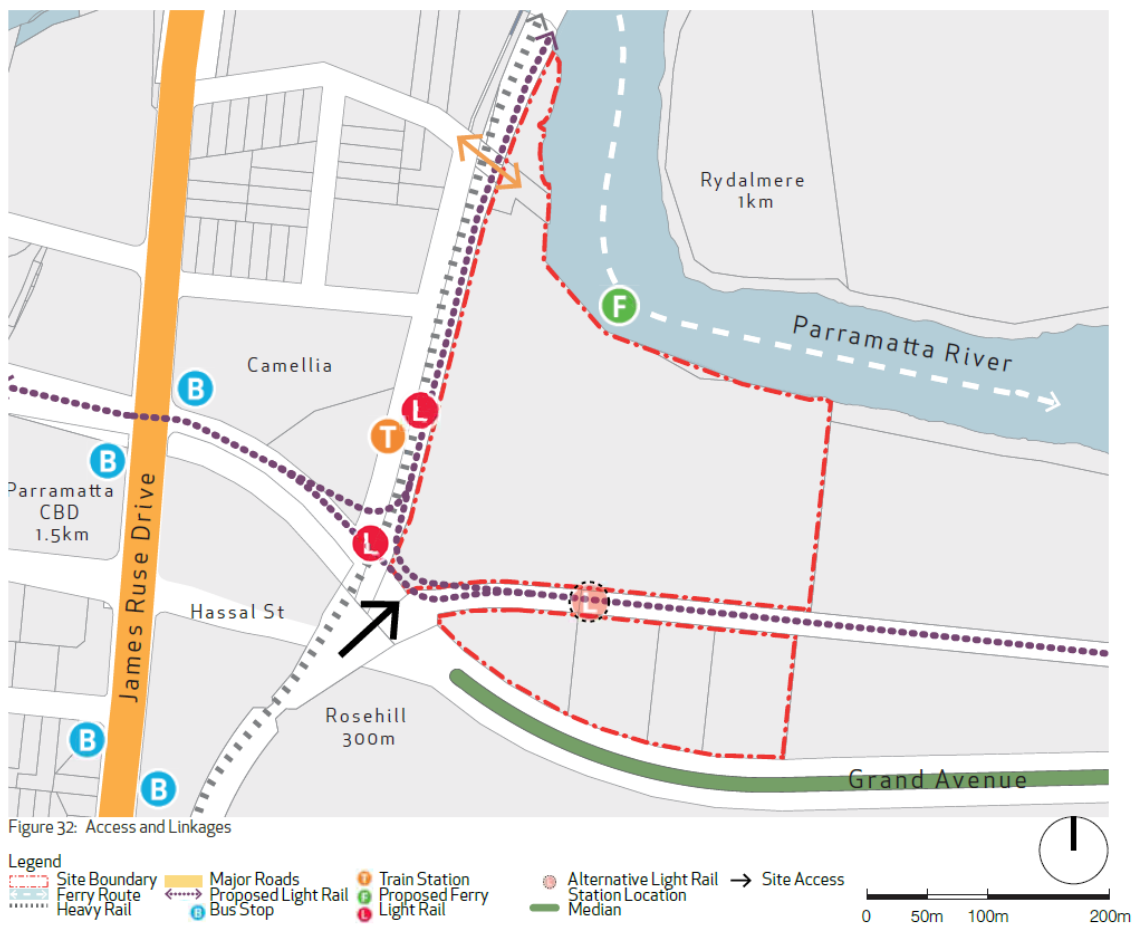


Figure 7: Site (outlined in red) serviced by proposed light rail station on Sandown Line (Source: AJ+C)

The provision of the additional station retains and meaningfully interprets the alignment of the easement and history of the site. The Camellia Town Centre East and surrounding mixed use developments would utilise this station, preventing it from becoming an inaccessible rail corridor running through the site.

The additional Camellia station will be designed to ensure a safe, equitable and legible pedestrian environment, with access across the light rail corridor.

The recommended Camellia Town Centre East station would be the next logical station location along the Stage 2 corridor and should be considered during Stage 1 to ensure the station is planned appropriately

Key reasons why Option 2 Sandown freight line is an unacceptable solution

Cost to Government

The location of the existing Sandown Easement between the Billbergia and Grand Avenue provides a unique opportunity to consolidate land targeted for urban renewal while utilising an existing road corridor for the future light rail route.

The Billbergia Group are willing to enter negotiations with Government to purchase the Sandown Easement and remediate the site. This will allow for a better urban outcome, while allowing for Grand Avenue to be utilised for the current Route and future expansion to Sydney Olympic Park.

The costs of remediation of the land occupied by the Sandown Easement are likely to be high (remediation of Billbergia's land is estimated to be in the order of \$100 million). Therefore, there are likely to be considerable cost savings to the Government if the Sandown Easement land was sold to Billbergia and remediated as part of the remediation of the adjoining land.

Grand Avenue is already a public road with adequate capacity for new services to support the light rail, therefore the Government would not need to purchase replacement land for the rail alignment in that location.

Urban Design Rationale

The use of the Sandown Easement as the future light rail alignment will lead to inferior urban design outcomes for the following key reasons:

- it dissects the landholdings of two major landowners involved in the delivery of the Camellia Town Centre
- it removes the opportunity for the redevelopment of the Rosehill Gardens Racecourse to be closely integrated into the light rail line and have a light rail stop at its entrance
- several north-south connections will be required to cross the easement to ensure adequate access to the Town Centre. These crossings are unlikely to be at grade, resulting in a significant barrier between adjoining development - detracting from the formation of a cohesive, permeable and well-integrated mixed-use community
- it will impact on the amenity for future residents and visitors to Camellia – critical to support the proposed Town Centre
- the relatively narrow 19.5 - 20 metre wide corridor bisects proposed residential and mixed use buildings, leading to impacts on pedestrian amenity and accessibility
- it will impact on future landscaping and streetscape outcomes
- it will require greater setbacks to new buildings which will lead in inefficient built form outcomes
- it will significantly impact the viability of the overall proposed developments
- large numbers of light rail carriages to the Depot in the evening and leaving in the morning will lead to significant acoustic amenity impacts on residences proposed on either side of the easement

In contrast, Grand Avenue is approximately 40-42 metres wide, which is sufficient for the location of the light rail and lends itself to interesting architectural expression in future development facing Grand Avenue.

Reinstating a main pedestrian entrance to Rosehill Gardens Racecourse from a new light rail stop closer to the Racecourse is logical and consistent with the historical use of the land. It will encourage and facilitate people using the public transport when coming to the Racecourse, instead of travelling by car.

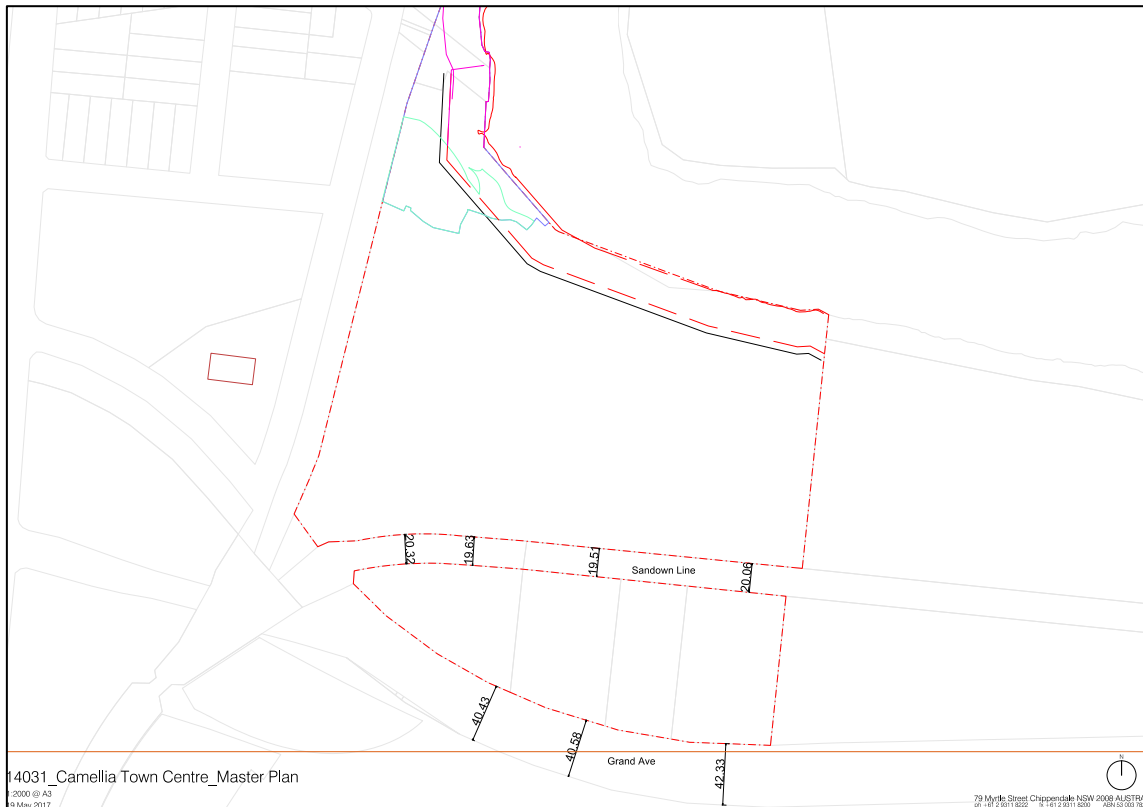


Figure 8 Location of Sandown Easement and Grand Avenue (AJC)

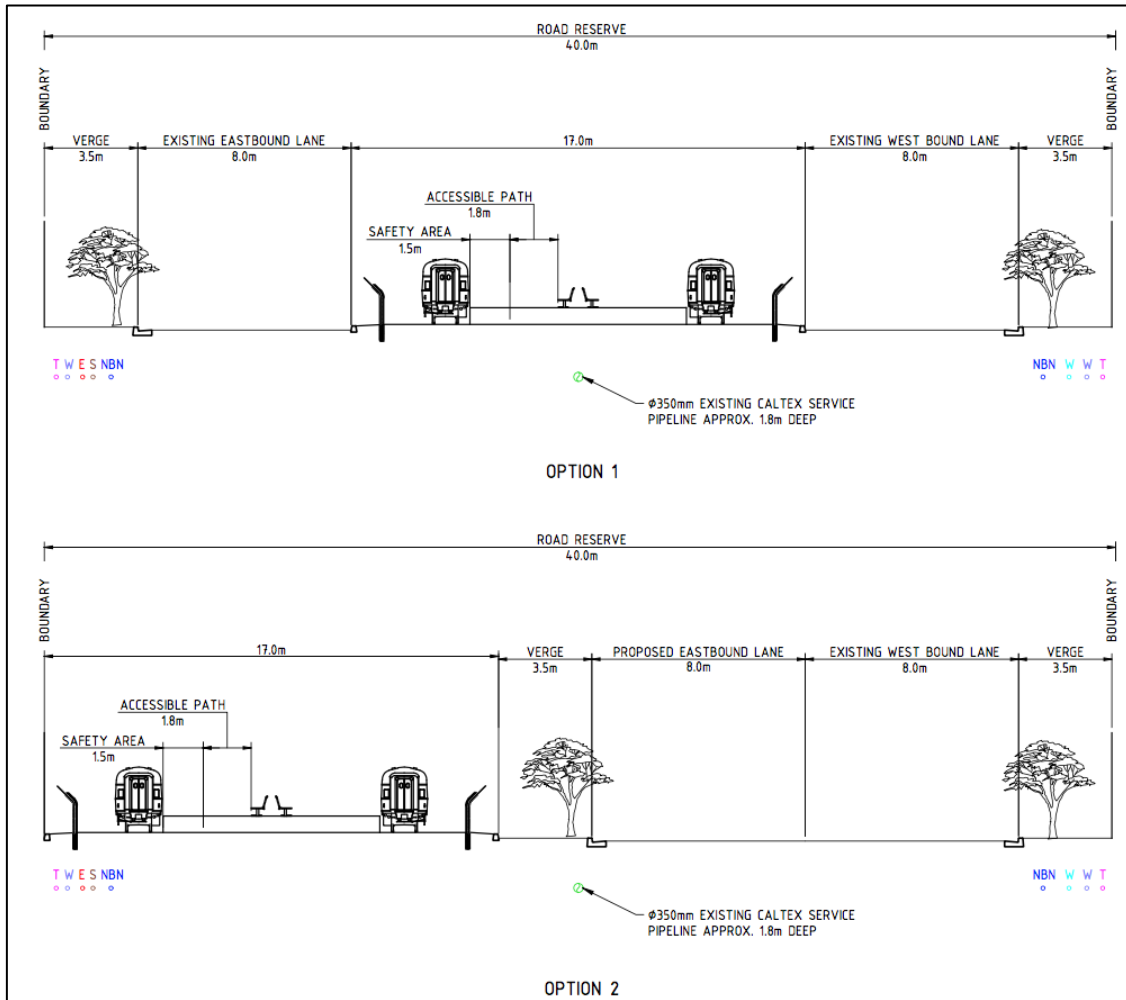


Figure 9 Indicative sections of Grand Avenue Light Rail alignment (BG&E)

Heritage

Grand Avenue (approximately 40-42 metres wide) represents the original alignment of the tram that brought punters to Rosehill racecourse from a wharf at Silverwater in the late 19th century and then continued to Tramway Avenue to the front gates of Parramatta Park. The tram alignment of Grand Avenue is listed as an Item of Local Significance in the *Parramatta Local Environmental Plan 2011* (PLEP 2011).

A heritage report by NBRS prepared on behalf of the Billbergia Group in support of its Planning Proposal advises that the wide street alignment of Grand Avenue (tram alignment) is demonstrative of the former tramway line, an important private development associated with the river's use as a corridor.

Physical evidence remains in the alignment of Grand Avenue and in the remaining tracks along the eastern end of this road. The history of the tramway is given as follows:

In 1881, a special Act was passed to allow the development of a privately-owned tramway between the Duck River Wharf and Parramatta. The tramway was built by Charles Jeanneret, owner of the Parramatta River Steamers and Tramway Company to provide

a direct link between Sydney and Parramatta via the waterway. The line was opened in 1884 and by the following year the company was advertising 8 daily services to Parramatta. By 1895 this had been reduced to 6 services and in 1928 regular passenger ferries ceased to operate on upper reaches of the river. Source: National Trust (Parramatta Branch).

Recognition of the heritage associations of Grand Avenue's tramway history in the planning and design of rail infrastructure and surrounding development will also enhance the visitor experience.

Occupational Health and Safety Issues/Access Issues

The Camellia Town Centre and broader Precinct is proposed to be delivered in a staged manner over the next 5-10 years. Its orderly progress will be compromised and complicated by the works in association with the light rail line which are likely to commence during this period.

Access during development will involve numerous and frequent construction vehicles and activities which will need to cross the line if it is within the corridor and this will compromise construction activities, giving rise to OHS issues and cause potential damage to assets. These impacts will affect both the delivery and operation of both the future Light Rail and the adjoining landuses – ultimately leading to an inefficient and inferior outcome.

The light rail will need to cross Grand Avenue at a relatively short distance from the intersection of Colquhoun Street with Grand Avenue, to access the depot site from land to the north of Grand Avenue.

Given the need for remediation of the land (potentially including the Sandown easement), access to the precinct will require several access points all of which need to traverse the rail line, which will impede access requirements.

Further, commencement of works along the Sandown line prior to the full development of the Town Centre raises security concerns for the current landowners during both construction and operation.

Remediation

We understand that contamination of the neighbouring land of Billbergia will require extensive remediation, involving asbestos and other serious contaminants.

Having rail traverse the site may give rise to potential exposure to operators and users of the rail line, particularly during the remediation stage but also during construction.

From a remediation methodology perspective, it would be beneficial if the land occupied by the Sandown Easement (which is also likely to be contaminated) be remediated at the same time by the same party as for the Billbergia site to ensure the remediation process can be contained safely and fully controlled.

Conclusion

The Billbergia Group has a strong track record in working closely with government to produce environmentally, economically and socially beneficial developments. Based on this report, we recommend that the EIS be amended to re-align the PLR along Grand Avenue as part of an amended application.

Given the significance of this project to the urban renewal of the Camellia Precinct, GPOP and the City of Parramatta, we request that any amended EIS be placed on further public exhibition.

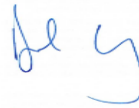
We look forward to continuing to work with DP&E, Council and TfNSW to provide much needed residential accommodation and a new town centre in the Parramatta LGA, consistent with the vision outlined in the *Land Use and Infrastructure Strategy for Camellia*.

Should you require any additional information, please do not hesitate to contact Michael Woodland on 0448 726 214 or email michael@keylan.com.au in the first instance.

Yours sincerely



Michael Woodland BTP
Director



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Director