

Preferred Project Report



Lot A Burley Road, Horsley Park

Concept Plan & Concurrent Project Application for Employment Lands and Stage 1 Industrial Development

Submitted to Department of Planning & Infrastructure On Behalf of Jacfin Pty Ltd

August 2012 • 10002

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1.0 Introduction

An Environmental Assessment Report (EAR) for a Concept Plan and concurrent Stage 1 Project Application for employment lands at Horsley Park was publicly exhibited between 31 March 2011 and 23 May 2011. That report was prepared by JBA on behalf of Jacfin Pty Ltd (the Proponent).

In total 117 submissions were received from 102 properties in response to the public exhibition of the Concept Plan and Project Application. This includes 78 petition letters. The following key issues were identified with the proposal:

- Impact on residential amenity, in particular noise and visual impact
- Traffic generation and access
- Construction Impacts
- Stormwater Management
- Ecological Impact
- Air Quality

In addition to the above submissions two community meetings were held with residents residing in Greenway Place and Capitol Hill Drive. The first meeting was held at Fairfield City Council and was attended by planning assessment officers from the Department of Planning and Infrastructure (DPI), Penrith City Council and Fairfield City Council. The second meeting was held on site where the same representatives viewed the site from the rear gardens of several properties along Greenway Place and 1 Capitol Hill Drive.

On 9 December 2011 the Proponent lodged a `Response to Submissions' (the Response document) which outlined a revised Industrial Option that was considered to address the issues raised in the submissions. The Response to Submissions was made publicly available to residents who previously made a submission and also the relevant agencies.

A similar number of submissions, including a second petition, were received in relation to the Response document, many raising issues similar to those raised in the initial public consultation period.

On 10 February 2012 the DPI issued a further letter requesting that Jacfin lodge a Preferred Project Report (PPR) and a detailed response to the issues raised by both the public authorities and the nearby residents.

Jacfin met with the DPI officers on 6 March 2012 to brief the DPI officers of the changes it had proposed in the Response to Submissions and also to better understand the concerns the DPI had with the proposal.

Representatives of Jacfin also attended a public meeting convened by Fairfield Council on 8 March 2012. The issues raised in that meeting primarily related to:

- Visual Impacts
- Acoustic Impacts
- Lack of Investigation of Alternative Land Uses and Design Options
- Lack of Community Consultation

Additional consultation was undertaken with the residents immediately adjoining the site. Representatives of Jacfin met individually with 12 owners of the adjoining properties, all of whom had made submissions.

These meetings, between $16^{th} - 18^{th}$ July 2012, were held to discuss the preferred project scheme and measures proposed to mitigate environmental impacts.

The Proponent, and its specialist consultant team have reviewed and considered the DPI's comments and the public submissions and, in accordance with clause 75H(6) of the *Environmental Planning and Assessment Act 1979* (EP&A Act), has responded to the issues raised. This Preferred Project Report (PPR) sets out the proponent's response to the issues raised, details the final project including a number of revisions to the Concept Plan and Stage 1 Project Application and a Final Statement of Commitments for which concept and project approval is now sought.

The changes made to the scheme compared to the original proposal exhibited in April/May 2012 include the following:

- Introduction of a raised earth mound along the eastern and southern boundaries of the site, with substantial landscaping;
- Retention of the knoll within the south-eastern corner of the site and additional planting on part of the knoll;
- Along the southern boundary:
 - Building footprints have been reduced so as to create additional view corridors between the buildings.
 - Maximum building height of RL94 to be imposed.
 - Boundary setbacks have been increased and now range between 39m 54m (previously 20m)
- Along the eastern boundary:
 - Southern most building has been re-orientated to allow for the retention of the knoll.
 - The northern most building has been re-orientated to open up view corridors towards the horizon views of the Blue Mountains.
 - Pad levels have been reduced by an additional 1m to RL79.
 - Building heights have been limited to a maximum of RL93 (14 metres).
 - Boundary setbacks have been increased to 54m.
- Introduction of additional stormwater management response, to account for runoff at the base of the proposed mound;
- Reconfiguration of the internal road layout as a result of the DPI's revisions to the regional road layout as well as the reconfiguration of buildings in the southern portion of the precinct; and
- Consequential amendments to the site specific Design Guidelines and Voluntary Planning Agreement.

This report should be read in conjunction with the Environmental Assessment Report (EAR) dated March 2011 and forms part of the Concept Plan and Stage 1 Project Applications.

2.0 Revised Concept Plan

In accordance with its commitment to address the concerns of the Department of Planning, Penrith Council, Fairfield Council, Blacktown Council, various agencies and the public, Jacfin Pty Ltd has modified its Concept Plan. The following section describes the proposed changes to the Concept Plan.

The revised Concept Plan and associated drawings have been prepared by JBA Planning and are located at **Appendix A**. The original Concept Plan is shown in **Figure 1** and the revised Concept Plan layout is shown in **Figure 2** (both over the page).

2.1 Treatment to Southern and Eastern Boundaries

It is proposed to construct a landscaped earth mound along the southern and eastern boundaries of the site to provide acoustic mitigation and also visual screening from the proposed industrial development.

Clouston Associates have developed sections and topographical plans which detail the modulation of the proposed earth mound and its landscaping treatment. Along the southern boundary the earth mound will have a maximum height of 4.0m - 5.6m (max RL89) and a varying width of approximately 35m to 39m although the setbacks will range between 39m and 54m.

Along the eastern boundary the earth mound will have a varying height of 3.5m – 7m (maximum of RL93) and a varying width of 37.5m to 39m, although the overall setback is generally 54m. The landscaping detailed in the sections, plans and photomontages is shown at five years maturity.

The sections at **Appendix B** provide the maximum RLs and widths of the earth mound at the interface of each adjoining property.

The proposed mound has been designed having regard to the following principles and objectives:

- to largely screen the proposed buildings from view
- to largely shield adjoining residential development from unacceptable noise impacts of the industrial development;
- to orient buildings and modulate the mound to allow view corridors between the building and over the site towards the Blue Mountains;
- to modulate the mound vertically and horizontally to create a more natural appearance and to avoid a wall or barrier effect on neighbouring residential properties;
- to limit the maximum gradient of the mound to 1:3 to allow for the successful establishment of landscaping and for maintenance purposes;
- to embellish the mound with a selection of native species that will further obscure the proposed buildings but will maintain some long distance views across the site. In light of this the predominant landscape treatment comprises low and mid level native vegetation that will grow to a mature height of 2m;
- to clump trees along the eastern boundary to maintain a more natural landscape appearance and to maintain views between the clumps of trees;
- to taper the mound into the existing knoll to create a naturalistic blending of the natural and introduced land forms; and
- to taper the mound to the west along the southern boundary of the site to meet ground level at the western boundary of the site.



Figure 1 - Original Horsley Park Concept Plan



Figure 2 - Preferred Project Scheme (revised Concept Plan)

A landscape principles report has been prepared by Clouston further explaining the design process which has been undertaken and the principles which have been adopted for the project. The report is included at **Appendix B**.

In summary the following process was undertaken:

- A surveyor was engaged to measure the existing ground levels of the adjoining residential properties in Greenway Place and Capitol Hill Drive;
- Clouston (landscape architects) and Urbaine (Photomontage consultant) were engaged by the proponent and undertook a site visit where photos of the site and existing views from neighbouring properties were obtained by both consultants.
- Clouston then prepared an initial concept design for the mounding and landscaping in accordance with the design principles and objectives established for the project;
- The initial concept was then superimposed by Urbaine into the existing site photos so as to illustrate the visual impacts of the initial concept;
- An iterative process then ensued where Clouston would amend their landscape scheme to respond to specific issues identified in the photomontages and Urbaine would then update their photomontages to reflect Cloustons amended scheme.
- Several versions of the scheme were prepared until a preferred scheme was developed which provided an optimum balance between screening the proposed buildings and retaining long ranging views towards the Blue Mountains.

It is noted that the proposed landscaping scheme will be further developed at the DA stage. With each DA a detailed landscape plan will be prepared to take into account the final building designs and layout. This plan will confirm the mound's topography and the specific species of planting proposed. A commitment to provide the detailed landscaping information in accordance with the principles established in this PPR is provided at Section 5.

As discussed further in Sections 4.1 and 4.2 of this PPR we believe that the revised scheme satisfactorily addresses the visual and acoustic impact issues raised in submissions.

2.2 Regional Road Alignment & Internal Road Network

In August 2011 the DPI publicly exhibited a revised regional road network for the Western Sydney Employment Area (WSEA). The revised alignment that is preferred by the DPI no longer runs through the Horsley Park site. Instead the regional road will follow the existing Burley Road alignment to the north of the site and then curve to the south-west, cutting off the north-western corner of the site. The plan at **Appendix C** shows the preferred alignment that was publicly exhibited by the Department in August 2011.

As a consequence of the amendment, the north-south regional road within the Concept Plan has been deleted and replaced with a local road which runs in a similar north south alignment. The replacement of the regional road means that the warehouses can be accessed directly from the main through road and no longer require secondary roads for access.

In order to maintain connectivity to the industrial zoned land to the west and to provide a secondary exit/entrance to the Jacfin site from the Regional Road, a local road connection is proposed just north of the E2 zoned land.

This will allow for a future road connection when the adjacent site is redeveloped for industrial purposes.

In the Preferred Project, the relocated regional road occupies a smaller portion of the site at the very northern boundary. The civil plans prepared by Brown Consulting demonstrate that a 40m wide road reserve can be accommodated under the proposed Concept Plan layout in a manner consistent with the approved Goodman development to the north (see **Appendix D**).

In addition the internal ring road in the southern portion of the Jacfin site has been slightly repositioned to the west to reflect the revised building layout of the warehouses in the south of the site and also to reduce the heights of the retaining walls that would otherwise be required with the retention of the knoll.

The revised road layout is shown on the civil plans at **Appendix D**. The new local road will have the same width as that of the existing local road in the southern portion of the site (21.5m) and the same local road building setbacks (7.5m) will apply.

The design allows for the future installation of a signalised intersection at the junction of the regional road with the northern end of the proposed local road.

2.3 Building Envelopes

In order to ensure that the warehouses are not readily visible from the neighbouring residential properties the maximum height limits have been lowered as follows:

- Southern Boundary Maximum ridge height RL92
- Eastern Boundary Maximum ridge height RL93

In addition the following changes have been made:

- The building in the north-eastern corner of the site has been re-orientated to create additional view corridors between the proposed buildings.
- The building immediately south, directly west of 33 Greenway Place has been moved further west to align with the building in the north-eastern corner.
- The pad levels of the buildings have been lowered for the buildings in the north eastern corner of the site to RL79.
- Buildings with facades which face, and roofs which are visible from, the residential development will be finished in a colour similar to the landscape to further reduce the visual impact of the buildings that may be glimpsed in places behind the landscaped mound.

The above principles have been applied in the photomontages to demonstrate the effect these design controls will have on the outlook from neighbouring properties.

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2.4 Acoustic Treatments

In order to address the issues raised in relation to acoustic impacts the following acoustic mitigation measures will be implemented on the site:

- Construction of the earth mound
- Restrictions on the location of lading zones on buildings with a residential interface
- Acoustic treatments to external fixed plant such as barriers, enclosures or silencers

The above mitigative measures are in part recommendations made by the project acoustic consultant Wilkinson Murray (see the report **Appendix E** and further discussion at Section 4.3) and will be further detailed in development applications once the specific site operations are known.

2.5 Revised Design Guidelines

The design guidelines have been updated to reflect the preferred project and also in response to public and authority submissions made during the public exhibition of the concept plan application. A tracked changes version of revised design guidelines is provided at **Appendix F**.

The changes include:

- Inclusion of maximum building heights at the residential interface;
- Implementation of a building colour scheme at the residential interface;
- Additional landscaping requirements at the boundaries to residential development; and
- Additional acoustic mitigation measures.

3.0 Revised Project Application

As a consequence of the changes to the Regional Road alignment, the following changes are required to the Stage 1 Project Application.

3.1 Stage 1 Road Works

As part of the Stage 1 Project Application the following works are proposed to connect the site to the southern end of Old Wallgrove Road:

- Construct the main north-south local road through the site, from a point just south of the first development stage driveway, to the east-west Regional Road. This local road will have a temporary cul-de-sac head for turning at its southern end.
- Construct the southern carriageway of the future divided east-west Regional Road between the southern end of Old Wallgrove Road and the proposed local road. This would have two traffic lanes and operate as a two way single carriageway road until traffic flows warrant its duplication.
- Construct temporary intersections at both ends of this section of the east-west Regional Road.

The Stage 1 road works are detailed on the civil plans located at Appendix D.

3.2 Access to Lot One

As the regional road is no longer proposed through the Jacfin site, direct access off the local road to the proposed warehouse is able to be provided. The application has thus been amended, to reflect this thereby making access and egress to the site easier and more direct (see **Figure 3**).

The architectural drawings of the revised proposal have been prepared by MNIA Architects and are located at **Appendix G**.

3.3 Boundary Adjustment

The revised road alignment requires an amendment to the site subdivision plan. RPS has prepared a revised subdivision plan for the application which is provided at **Appendix H**.

The Lot 1 (One) boundary now follows the revised road layout and consequently the area of the lot has increased from 6ha up to 8ha.



Figure 3 – Revised ground level layout for Warehouse Building 1 Source: MNIA Architects

4.0 Key Issues and Proponent's Response

The following section provides a response to the key issues raised by the DPI following a detailed review of the submissions. **Appendix I** provides a detailed response to all the issues raised during the public exhibition period, including resident and agency submissions.

4.1 Visual Impact

One of the key issues raised in the residents' submissions was the visual impact of the proposed development and the loss of views towards the Blue Mountains escarpment and a rural outlook.

In order to address the visual impact of the development the proposal now includes the landscaped earth mound which will predominantly obscure views of the building. Further to this design guidelines are proposed which will further reduce the impact of the proposed development on the landscape including reduction of building height and use of appropriate building colours.

4.2 View Impact

In order to understand the exact view impacts of the proposed development Urbaine was engaged to prepare photomontages, which are provided at **Appendix J**. The series of images prepared by Urbaine show:

- A photograph of the existing view;
- The view with the proposed development and the earth mound only; and
- The view with the proposed development, the earth mound and landscaping (the preferred project scheme).

Urbaine has provided a methodology statement as to how the photomontages were prepared which is also provided at **Appendix J**.

Photomontages have been prepared for five properties along Greenway Place and one property in Capitol Hill Drive. The properties assessed were chosen as they reflect the lowest and highest viewpoints available and also a range of views available across the site. The photomontages illustrate the proposed landscaping scheme at five years maturity.

All of the views taken are from the rear primary outdoor living areas of the properties. It has been assumed that if the views of the Blue Mountains are largely retained from this point then, views from the upper levels of the dwellings will also be maintained.

An appropriate point of reference to consult when considering the reasonableness of view impacts to residents is the planning principle enunciated by the decision of Senior Commissioner Roseth in *Tenacity Consulting Pty Ltd v Warringah Council* [2004] NSWLEC 140. Commissioner Roseth provides a four step test for assessment to determine whether an impact on views is significant.

Step 1

The **first step** is the **assessment of views to be affected**. Senior Commissioner Roseth cites that water views are valued more highly than land views. Iconic views (e.g. Opera House, Harbour Bridge and North Head) are valued more highly than views without icons. Whole views are valued more highly than partial views, e.g. a water view in which the interface between land and water is visible is more valuable than one in which it is obscured.

Assessment of Greenway Place Properties

Immediate views from the properties along the western side of Greenway Place are of a rural setting. Long distances or horizon views of the Blue Mountains escarpment are also available from the rear of these properties.

The current rural views have existed long before the Greenway Place houses were erected by virtue of the historic agricultural use of the subject land and its former rural zoning. These panoramic views are highly prized by the residents of Greenway Place and make valuable contributions to the amenity of these properties.

Whilst attractive these rural views would however not be classified as `iconic' and they will inevitably change as a result of the development of the land in accordance with its employment zoning.

Assessment of Capitol Hill Properties

The northern outlook from the properties at the eastern end of Capitol Hill Drive is a view of the southern ridgeline and existing dwelling at the top of the knoll on the Jacfin site. These views are not long distance and are not iconic.

Further west in the approved residential subdivision the views to the north are more expansive due to the tapering of the ridgeline at this point.

These properties also have regional/rural views available to the west however these are likely to change with the approved residential subdivision. The views to the west are not affected by the proposed development on the Jacfin land.

Step 2

The second step is to consider from what part of the property the views are obtained. For example the protection of views across side boundaries is often more difficult than the protection of views from front and rear boundaries. In addition, whether the view is enjoyed from a standing or sitting position may also be relevant. Sitting views are more difficult to protect than standing views. The expectation to retain side views and sitting views is often unrealistic.

Assessment of Greenway Place Properties

The views from these dwellings are obtained from the rear of the properties over the rear boundary line. Views can be obtained from a seated or standing position from the rear ground level private open space.

Assessment of Capitol Hill Properties

The views from these dwellings/properties are obtained from the rear of the properties over the rear boundary line. Views can be obtained from a seated or standing position from the rear ground level private open space.

Step 3

The **third step** is to assess the **extent of the impact**. This should be done for the whole of the property, not just for the view that is affected. The impact on views from living areas is more significant than from bedrooms or service areas. The impact may be assessed quantitatively. However, it is usually more useful to assess the view loss qualitatively as negligible, minor, moderate, severe or devastating.

Table 1 – Assessment of Greenway Place Properties

Property	Extent of View Impact
41-43 Greenway Place (View 1)	This property will lose its immediate rural outlook in the foreground which will be replaced by the green landscaped mound. Long distance views to the Blue Mountains escarpment will be maintained in corridors through the proposed landscaping. None of the proposed warehouse buildings will be readily visible from the ground level of this dwelling. The view impact is considered to be moderate.
38 Greenway Place (View 2)	This property is positioned at the lowest point along Greenway Place and consequently views from this property are not as expansive as those located further south in Greenway Place. The immediate rural outlook is partially obscured by existing plantings in the rear yard of the dwelling. The rural outlook beyond these trees will be lost and replaced with the green landscaped mound. Horizon views towards the Blue Mountains will be moderately affected by the proposal, however corridor views will be maintained between the clumps of trees on the mound.
33-37 Greenway Place (View 3)	The main living area of this dwelling sits relatively high compared to others along the street and thus views are more expansive. The immediate rural views will be lost and replaced by the landscaped mound, however some of the roofs of the industrial buildings will be visible. These could be further obscured, however, when details of internal site landscaping are developed ¹ . Horizon views towards the Blue Mountains are largely retained under the proposed scheme with a small impact from a few clumps of trees penetrating the skyline.
29 Greenway Place (View 4)	The view corridor of this dwelling is narrowed by existing outbuildings and vegetation in neighbouring lots as well as the natural ground levels which rise towards the north and obscure north westerly views. The proposed development will result in the loss of the foreground rural view. Horizon views towards the Blue Mountains will be affected to a small extent by clumps of trees penetrating the skyline, but will be largely maintained by the proposed development.
21-26 Greenway Place (View 5)	21-26 Greenway Place is another of the dwellings positioned at a high point in the street. As is the case in View 3, the immediate rural views will be lost and replaced by the landscaped mound however some of the roofs of the industrial buildings will be visible. Totally obscuring the buildings in this view is not possible because of the consequential impacts this has on view corridors created for properties further north in the street, which are positioned at a lower ground level. In other words, introduction of additional trees in this view would obscure a large proportion of the views obtained from neighbouring dwellings. In order to reduce the visual impact of the external colours of the buildings at the perimeter of the development to blend with those of the landscape. Internal landscaping will also be required to further obscure the more distant buildings. Views of the Blue Mountains escarpment are unaffected by the proposed development at this location.

Note, the photomontages only show landscaping around the perimeter of the site, details of internal landscaping of the individual sites and future roads are yet to be developed and will be provided with each Project Application.

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Property	Extent of View Impact
1 Capitol Hill Drive (View 6)	The views from this property are across the rear garden of the development towards the boundary tree planting with the southern ridgeline of the application site beyond. Whilst the existing ridgeline will be totally obscured by the proposal, a similar but closer (foreground) outlook will be created with the proposed mound. The roofs of some of the warehouse buildings will project above the mound, however these will be obscured by the proposed landscaping. The view impact is considered to be minor.
Future residential subdivision	There are no dwellings erected on these properties and as such no existing residents will be affected by the proposed development. Notwithstanding this the views from these properties have been considered having regard to the fact that a residential subdivision has been approved on the site.
	The current northerly rural outlook will be replaced with a view of the landscaped mound. However, as the mound is required to taper down towards the existing ground level at the western boundary, a greater amount of landscaping, including mature trees, is proposed to obscure the southern facades of the industrial buildings, in this corner of the site.

Assessment of Capitol Hill Properties

Step 4

The fourth step is to assess the reasonableness of the proposal that is causing the impact. Commissioner Roseth states:

"Development that complies with all planning controls would be considered more reasonable than one that breaches them. Where an impact on views arises as a result of non-compliance with one or more planning controls, even a moderate impact may be considered unreasonable."

We have broken down our assessment into the two relevant considerations being:

- Whether or not the proposal complies with all of the relevant planning controls; and
- If compliant, whether or not a more skilful design would provide the applicant with the same development potential and amenity and reduce the impact on the views of the neighbours?

Compliance with planning controls?

The proposed development complies with:

- The land use zoning of the site as contained within the WSEA SEPP, noting that warehouses are permissible within the industrial zone;
- The minimum side and rear setback controls contained within clause 4.3.2. of the Penrith DCP 2006, Part 6 Section 6.10 being a minimum of 5m; and
- The maximum height control for buildings being 15m, as prescribed in clause 4.1.2 of the Penrith DCP 2006, Part 6 Section 6.10.

When considering the above the proposed development is considered to comply with the all of the relevant built form controls applying to the site, including the requirements contained within the WSEA SEPP (see Section 4.5 for a further discussion on this). It is noted however that the Council's DCP controls will be superseded by the proposed design guidelines that are to apply to the site. In many instances the guidelines will go over and beyond that required by Council's DCP. For example greater building setbacks will be required from residential properties and the height of buildings will be restricted to a maximum of 14m on the site.

With a complying proposal, would a more skilful design provide the applicant with the same development potential and amenity and reduce the impact on the views of the neighbours?

This PPR has considered the two options put forward by the residents in terms of alternative site layouts and has demonstrated that neither option would maintain the same development potential. Both would have greater environmental impacts, and both would be unfairly onerous when considering the planning controls which apply (refer to Section 4.11 of this report).

The PPR outlines an amended scheme which goes to a considerable lengths to mitigate the visual impact of the proposed warehouse buildings whilst still maintaining the long distance views. Specifically the proposed scheme:

- Sets maximum building heights which ensure that future buildings will be positioned below the horizon views of the Blue Mountains escarpment obtained from the properties in Greenway Place;
- Sets lower maximum building heights along the southern boundary that reflect the closer proximity of the development to the neighbouring residential buildings and also ensure that the buildings will not be readily visible from those houses;
- Includes the construction of a substantial earth mound which will not only largely obscure views of the proposed buildings but will also act as an acoustic barrier; and
- Provides significant landscaping on the mound that will further mitigate the visual impact of the new built environment upon the neighbouring properties.

To require additional setbacks and the further lowering of building heights is considered to be unreasonable in this instance given that:

- The development provides building setbacks from the residential dwellings that are already significantly greater than that required by the Penrith DCP, or found in other places where industrial and residential development interface;
- Additional excavation would be required to lower the building heights thus having an increased environmental impact;
- Increased setbacks would further reduce the development potential of the site, thus reducing the amount of employment able to be generated on the site;
- The proposal provides significant boundary treatments beyond that found at other residential/industrial interfaces found within the WSEA; and
- The proposed mitigation measures achieve a good, if not better, environmental outcome rendering such measures unnecessary.

When considering the proposal's compliance with the relevant planning controls and the significant mitigation measures that are proposed to address and balance the visual impacts and the view impacts, the subject development is considered reasonable and not inconsistent with the planning principle established in *Tenacity Consulting Pty Ltd v Warringah Council [2004] NSWLEC 140.*

4.3 Acoustic Impact

Wilkinson Murray was commissioned to update their acoustic assessment in light of the amendments that have been made to the scheme. Their report is provided at **Appendix E** and is summarised below.

Updated Data

Wilkinson Murray undertook noise monitoring on the site between 4 - 16 August 2012 to establish current 2012 noise levels of the area. They also obtained twelve month weather data for the year 2011 from the Horsley Park weather station.

The above data has been used to establish the relevant noise criteria for the project. It has also revealed that the site is not subject to weather conditions which require assessment of wind conditions and temperature inversions as outlined in the Industrial Noise Policy.

Construction Noise Assessment

Wilkinson Murray has the worst case scenario for construction being the earthmoving phase, with up to six machines including scrapers, excavators, trucks, a dozer and a grader working around the site simultaneously where a total site L_{Aeq} sound power of 116dBA can be expected.

The results show that the construction noise criterion is likely to be exceed during the earthmoving phase at rural residences immediately to the east and south of the site when works are undertaken at those boundary locations. Wilkinson Murray not `*Exceedances of construction noise criteria are quite common for construction projects and given the relatively short duration of construction work compared to the life of the development, some tolerance is usually expected*'.

In order to reduce these impacts Wilkinson Murray has recommended the following mitigation measures:

- Construction activities that are likely to be audible at any residence must not occur outside the usual hours of 7.00am-6.00pm Monday to Friday and 8.00am-1.00pm on Saturday.
- Noisy activities such as earthworks in close proximity to residences should ideally be programmed to avoid early mornings and Saturdays. While this may not be always practical, consideration should be given to surrounding residential receivers when planning the construction program.
- Diesel powered machines such as trucks, bobcats and excavators should be switched off if not required for more than a few minutes rather than left idling unnecessarily.
- Machines used on site should be maintained in good condition, particularly considering the exhaust system on diesel powered machines, to minimise noise emissions. Excessively loud machines should be repaired, modified or removed from the site. Sound pressure level measurements should be conducted on all plant prior to works beginning on-site.
- A representative from the construction contractor should be available to respond to questions and complaints from the community in a professional, considerate and timely manner.
- Reverse alarms should be controlled to the minimum sound level consistent with safety by, where feasible, replacing, shielding or relocating the alarm unit on noisy machines.

Operational Noise Assessment

As the detailed operational noise emissions are not yet known Wilkinson Murray has modeled a `worst case' scenario being the following:

- All buildings operating 24-hours, i.e. day and night operation;
- 1 truck per site manoeuvring for one minute in the 15-minute assessment period;
- Two to three trucks per warehouse unloading depending on warehouse size;
- One to three forklifts operating at each warehouse depending on warehouse size;
- One to two reversing alarms at each warehouse operating for 10 seconds; and
- Two to four roof top fans operating at each warehouse depending of warehouse size.
- A bund on the southern and eastern side of the site as illustrated in the concept plan.
- Three trucks on the central road.

The results of the assessment show that compliance with the established intrusive noise criteria will be met with the exception of one instance at 14-20 Greenway Place where a marginal exceedance of 1 dBA is predicted during the night period. Wilkinson Murray note that this level of exceedance is not considered acoustically significant and that the 1dBA exceedance is predicted at 30 metres from the residences whilst noise levels at the actual dwelling on this site will comply. It is also noted that this is an assessment is a `worst case scenario' and the subsequent noise assessments will be submitted with future development applications.

In order to manage operational noise emissions, Wilkinson Murray have made the following recommendations:

- Noise generated within buildings will need to be contained within building envelope.
- Indicatively, where internal noise levels are likely to exceed 65-70 dBA then treatment to the building façade and roof may be required. The actual treatment will need to be determined at the project application stage. These guideline values apply particularly to buildings on the eastern and southern sides of the site.
- Any fixed external plant should be located such that the building acts as a noise barrier between the equipment and residences. In addition appropriate noise controls should be adopted as necessary. These may consist of barriers, enclosures or silencers.
- Roof Fans should acoustically treated as determined necessary.
- Loading docks on the buildings aligning the southern and eastern boundaries should be restricted to the northern and western sides respectively.
- Reversing alarms on forklifts should be fitted with broadband "quacker" type reversing alarms.

These recommendations have been incorporated into the design guidelines and a commitment has been made.

4.4 Boundary Setbacks

The stated objectives of the setback controls within Penrith DCP 2006: Part 6 Section 6.10 Erskine Park are the following:

- To provide an open streetscape with substantial areas for landscaping; and
- To enhance the visual quality of development and the urban landscape.

The setback controls are the following:

- Designated Roads (Mamre & Erskine Park) 20m
- Northern Access Road (Lenore Drive and future Link Road to Westlink M7) 20m
- Western Access Road (Trunk Collector) 20m
- Other frontages 15m
- Rear and side boundaries 5m
- Boundary adjacent to 1(f) (Floodway) zone 10m

There is no minimum setback stated from a residential development. Consequently the rear or side boundary provision would apply in this instance and a minimum setback of 5m is required from the southern and eastern boundaries.

The Preferred Project establishes the following setback controls for future development (**Table 2**).

Table 2 – Minimum se	etback controls
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Location	Minimum Setback Control
Regional Road Frontage	20m
Local Road Frontage	7.5
Secondary Street Frontage to a Local Road on a corner allotment	5m
Side or rear boundary setback (industrial interface only)	5m
Boundary setback from Residential Development in Greenway Place	Varies as per Clouston sections at Appendix B , generally 54m
Boundary setback from Residential Development in Capitol Hill Drive	Varies as per Clouston sections at Appendix B , ranging between 39m and 54m

In terms of general planning principles, the usual purpose of providing boundary setbacks between two developments is to:

- Provide appropriate building separation;
- Provide a suitable space for landscaping; and
- Mitigate visual and acoustic impacts.

The proposed design solution seeks to achieve the above purposes by providing increased boundary setbacks and more detailed design and landscaping treatments that will mitigate acoustic impacts, predominantly screen the proposed warehouse development and naturally mitigate the visual impact, whilst maintaining long distance views across the site towards the Blue Mountains. Further detail has also been provided which demonstrates how the mound will be landscaped so as to ensure a pleasant undulating green outlook from the surrounding residential properties in their foreground views.

4.5 Boundary Treatments in Other New Industrial Areas

In order to understand how a residential/industrial interface is controlled in other new industrial release areas we have undertaken research on the following precincts in the Sydney Growth Centres:

- Marsden Park Industrial Precinct
- Riverstone West Precinct
- Riverstone Precinct
- Oran Park Precinct
- Turner Road Precinct

The controls relating to industrial development setbacks with a residential interface are discussed in the section below and summarised in **Table 3**. Full size copies of the precinct plans and relevant controls for those areas are provided at **Appendix K**. As can be seen, in most instances industrial development is separated from residential development by either a road or an alternative land use such as a business park. None of the controls prescribe a setback of more than 20m.

The analysis demonstrates that Horsley Park is an unusual situation where industrial and residential zoned lands have a direct boundary interface. It also demonstrates that the setbacks proposed are significantly greater than that required in other areas for industrial developments.

Location	Minimum setback control from residentially zoned land
Marsden Park Industrial Precinct	Minimum 20m
Riverstone Precinct	Minimum 20m
Oran Park Precinct	 No specific setback dimensions. Rather the following is required: `Provide setbacks appropriate to the proposed use of the land and characteristics of the location. Setback areas should allow for adequate landscaping and to reduce the bulk and scale of buildings and enhance streetscape amenity'.
Turner Road Precinct	 Minimum setback of 2m – 5m.

Table 3 – Summary of setback controls for industrial development in the growth centres

4.5.1 Marsden Park Industrial Precinct

Within the Marsden Park Industrial Precinct there is no direct industrial/residential interface. Residential landuses are separated from such development by land zoned for business purposes, major arterial roads or freeway reservations.

The setback controls as contained in the Marsden Park Industrial Precinct are shown in **Figure 4**. The diagram shows that the maximum setback control for industrial development is 20m from the property boundary.

There are no specific objectives stated for industrial development within close proximity of residential development.



Figure 4 - Setback controls for Marsden Park Industrial Precinct

4.5.2 Riverstone Precinct

The Riverstone Precinct Plan contains instances where industrial development is located within close proximity of residential development with only a local road separating the two. The Riverstone Precinct DCP contains specific design controls for such instances and requires buildings to have a setback of 20m from the front property boundary. Noisy aspects of a development are to be located towards the rear of the development away from residentially zoned land. When assessing industrial development adjacent to residentially zoned land the Council must consider the following:

- The appearance of the development when viewed from the residential area, including the building facade, roof and parapet treatments, outdoor areas including landscaping and parking areas, and signage;
- The bulk and scale of the proposed building when viewed from the residential area;
- Impacts on solar access to residential properties;
- The proposed management of air quality, water quality and noise emanating from the proposed development;
- Impacts on solar access to residential properties;
- The proposed management of air quality, water quality and noise emanating from the proposed development; and
- Likely impacts on traffic generation, in particular the potential for heavy vehicle movements to increase in residential areas.



Figure 5 - Riverstone Precinct Indicative Layout Plan

4.5.3 Oran Park Precinct

The Oran Park Precinct is located within the South-West Growth Centre. The Precinct Plan prepared for that precinct includes one industrial area in the north of the precinct (see **Figure 6**).

The industrial area is bounded by riparian land to the south and Medium Density residential to the north. The medium density residential zoned land has a direct interface with the industrial land and is not separated by a road or another land use.

The specific design controls for the industrial precinct are yet to be incorporated into the Oran Park DCP and consequently no numerical set back controls currently apply. However, broad principles have been prepared. For industrial development with a residential interface the following principles apply:

- All development is to be designed and operated to minimise impacts on adjacent residential areas in terms of noise, traffic and circulation, emissions, and bulk and scale.
- Site servicing and loading facilities, waste storage and other infrastructure are to be designed to minimise visual impact on the public domain and impacts on neighbours.



Figure 6 - Oran Park Indicative Layout Plan

4.5.4 Turner Road Precinct

The Turner Road employment precinct, also located in the South West Growth Centre, is separated from residential development by a riparian corridor and local roads. The controls for new industrial development within the precinct are contained within Part B of the Turner Road DCP. **Figure 7** provides an extract from the DCP and the setbacks that are required. As can seen a minimum setback of 2m to 5m is required from the property boundaries that align the riparian corridor or a local road.

In addition to the setback control the following design consideration is stated for development with an interface with residential properties:

- Be designed and operated to minimise impacts on adjacent residential areas in terms of noise, traffic and circulation, light spill emissions, and bulk and scale.
- Heavy vehicle access is not permitted on local roads at the residential interface.



Figure 7 – Building setbacks for Turner Road Employment Precinct

4.6 Compliance with WSEA SEPP

Many of the submissions raised particular concern of the proposal's compliance with clauses 21 and 23 of State Environmental Planning Policy (Western Sydney Employment Area) 2009. Our assessment of the preferred project's compliance with these clauses is addressed below.

4.6.1 Clause 21 – Height of Buildings

Clause 21 of the WSEA SEPP states the following:

21 Height of buildings

The consent authority must not grant consent to development on land to which this Policy applies unless it is satisfied that:

- (a) building heights will not adversely impact on the amenity of adjacent residential areas, and
- (b) site topography has been taken into consideration.'

The revised concept plan drawings detail the building floor levels and maximum building heights. As can be seen the building heights across the site are varied, taking into account the existing site levels and also the context of neighbouring development.

To the south of the site, buildings have been limited in height to a maximum of RL92 due to the closer proximity of residential development at the boundary with the site.

Along the eastern boundary buildings have been positioned on either side of the knoll that will now be retained. Retention of the knoll recognises this significant topographical feature on the site and its high visibility in the surrounding area. No buildings are proposed on the knoll which reaches RL94 and the closest buildings to the south have been limited in height to a maximum RL93m.

The maximum height of buildings on the eastern and southern boundaries range between 10m and 14m, less than the maximum height of 15m prescribed for the site under clause 4.1.2 of the Penrith DCP 2006, Part 6 Section 6.10.

The plans and sections prepared by Clouston Associates (see **Appendix B**) demonstrate that the boundary treatment of a landscaped mound has been further developed with the site topography in mind. The height of the mound is variable at the edge of the site, reflecting the varied ground levels at the boundary of the site. The mound has also been varied in height so it undulates gently as it rises and falls to create a more naturalistic form, rather than a consistent wall like characteristic of the earth mound by the adjoining CSR quarry located immediately north of the Jacfin site.

In terms of the height controls' objective to protect the amenity of adjacent residential areas, the proposed development will not result in adverse impacts in terms of solar access or privacy. Noise related impacts are addressed satisfactorily (see Section 4.3) and largely arise from the acoustic screening effect of the mound and many of the buildings themselves. The main impact on residential amenity is the changed outlook or visual impact of the development and the impact on views.

The mound, building locations and heights have been carefully designed to largely maintain the existing long distance views from adjoining lanes across the site towards the Blue Mountains. Retained views can be seen in the photomontages prepared by Urbaine at **Appendix J**.

The photomontages show that the view in the immediate foreground will be of a green landscaped rolling mound whilst long distance views of the Blue Mountains will be retained over and between the proposed warehouse buildings.

The visual impact assessment demonstrates that the proposed Concept Plan has been designed to account for the site's topography and to maintain a suitable outlook from residential properties adjoining the subject site. The consent authority can therefore be satisfied that Clause 21 of the WSEA has been suitably considered and responded to and most importantly the outcomes achieved are satisfactory.

The subject development is therefore able to achieve the clause 21 objectives for building heights in that local residential amenity is reasonable protected and the sites' topography is taken into account.

4.6.2 Clause 23 – Development Adjoining Residential Land

Clause 23 of the WSEA SEPP states the following:

23 Development adjoining residential land

- (1) This clause applies to any land to which this Policy applies that is within 250 metres of land zoned primarily for residential purposes.
- (2) The consent authority must not grant consent to development on land to which this clause applies unless it is satisfied that:
 - (a) wherever appropriate, proposed buildings are compatible with the height, scale, siting and character of existing residential buildings in the vicinity, and
 - (b) goods, plant, equipment and other material resulting from the development are to be stored within a building or will be suitably screened from view from residential buildings and associated land, and
 - (c) the elevation of any building facing, or significantly exposed to view from, land on which a dwelling house is situated has been designed to present an attractive appearance, and
 - (d) noise generation from fixed sources or motor vehicles associated with the development will be effectively insulated or otherwise minimised, and
 - (e) the development will not otherwise cause nuisance to residents, by way of hours of operation, traffic movement, parking, headlight glare, security lighting or the like, and
 - (f) the development will provide adequate off-street parking, relative to the demand for parking likely to be generated, and
 - (g) the site of the proposed development will be suitably landscaped, particularly between any building and the street alignment.'

The site is within 250m of land zoned for rural residential purposes and consequently clause 23 of the SEPP is applicable to that portion of the site. Our assessment of the Preferred Project scheme against the criteria listed in clause 23(2) is provided in **Table 4**.

	Key Issue	Jacfin Response
2(a)	wherever appropriate, proposed buildings are compatible with the height, scale, siting and character of existing residential buildings in the vicinity, and	The scale of the warehouse buildings is consistent with other warehouse buildings existing in the WSEA and by their very nature and purposes are not <i>comparable</i> in scale, character to that of dwelling houses. However, at the residential interface the visible scale of the proposed warehouse development has been minimised by the lowering of pad levels in the vicinity of residential development, the construction of an earth mound at the relevant boundaries of the site and the dense landscaping of the mound, and the generous setbacks of the buildings from the boundary. The resultant effect is that the proposed warehouse buildings will not be readily visible from the residential area and consequently will not adversely impact on the residential character of the neighbouring development within the vicinity of the site.
2(b)	goods, plant, equipment and other material resulting from the development are to be stored within a building or will be suitably screened from view from residential buildings and associated land, and	Design details of plant and equipment associated with the buildings located within 250m of a residential boundary will be detailed at the development application stage. Conditions of any consent are expected to require storage within the building. As a result of the installation of the earth mound and landscaping the consent authority can be confident that any such material will be further screened from the view of neighbouring residential land.
2(c)	the elevation of any building facing, or significantly exposed to view from, land on which a dwelling house is situated has been designed to present an attractive appearance, and	The detailed design of the warehouse buildings will be determined at the development application stage. However the consent authority can be confident that the warehouses along the boundary edge and within the estate can be designed to present an attractive appearance as the design guidelines prepared for the site require this. Specifically the warehouse buildings at the edge of the development will be finished in materials that are of a similar colour to the traditional rural landscape and native vegetation characteristic of the Cumberland Plain and the backdrop of the Blue Mountains. Signage and lighting at the residential interface will also be carefully controlled.
2(d)	noise generation from fixed sources or motor vehicles associated with the development will be effectively insulated or otherwise minimised, and	An acoustic report has been prepared for the Concept Plan application which establishes noise criteria for development on the site. Each subsequent development application will be subject to a further acoustic assessment which will detail specific design mitigation measures to ensure that the Concept Plan criteria are complied with. A commitment (commitment 11) to undertake acoustic impact assessments has been made at Section 5 of this report. This approach is consistent with that applied at other developments within the WSEA including the Oakdale and Ropes Creek developments to the north.
2(e)	the development will not otherwise cause nuisance to residents, by way of hours of operation, traffic movement, parking, headlight glare, security lighting or the like, and	 The application seeks consent for 24 hour operation on the site. The acoustic report submitted with the Concept Plan application concluded that the site can operate during all hours with acceptable acoustic levels and impacts on neighbouring properties, subject to the implementation of acoustic mitigation measures. The Concept Plan has been specifically designed to keep the industrial roads as far away as possible from adjoining residential properties so vehicular traffic and associated noise impacts are minimised. In addition vehicular movements within individual properties have been restricted where the interface with residentially zoned land. As set out in the guidelines for buildings adjoining residential properties there will be no loading or truck movements permitted in the setback areas between the building and a residential boundary. Further, any internal access driveways around the buildings shall be for small vehicle (cars, vans, motorbike) movements only.

Table 4 – Compliance with Clause 23 WSEA SEPP

	Key Issue	Jacfin Response
		 A commitment has been made to prepare a driver code of conduct management plan which will ensure that traffic movements on the site are undertaken with regard to neighbouring residential amenity. Again this approach has been endorsed by the DPI on other industrial estates within the WSEA, including the Ropes Creek Employment Precinct. On-site parking has been minimised as Council's rates are generous and tend to lead to an oversupply of parking. Given the separation of the site access from residential streets, and the acoustic protection characteristics of the earth mound proposed, traffic movements associated with the proposed development will not have any significant adverse impact on neighbouring residential properties. Due to the location and height of the earth mound headlight glare will not be an issue for surrounding residential properties. A commitment has been made to submit a lighting assessment with future development applications so as to ensure that onsite lighting complies with Australia Standard AS4282:1997 – Control of the Obtrusive Effects of Outdoor Lighting (see Commitment No. 10 at Section 5).
2(f)	the development will provide adequate off-street parking, relative to the demand for parking likely to be generated, and	The traffic report prepared by Halcrow confirms that the car parking provision rates suggested for the site are sufficient for the development proposed. Should a development require additional parking the controls within the design guidelines are flexible and provide for overflow parking where necessary.
2(g)	the site of the proposed development will be suitably landscaped, particularly between any building and the street alignment.	The Concept Plan includes a landscape concept and landscape guidelines, prepared by Clouston Associates. This now includes further landscaping details for the setback areas between the proposed building line and adjoining residential boundaries. The consent authority can therefore be reasonably satisfied that the development will be suitably landscaped at the residential interface and also within the internal streetscapes.

4.7 Built Form

The location and appearance of the warehouse buildings on the site will be designed and detailed as part of future applications. Notwithstanding this several design principles have been established as part of this application so as to ensure that the eventual built form is appropriate for the locality.

In particular the following principles are proposed:

- Establishment of maximum building pad levels which ensure that the buildings are located with consideration of the site topography as well as having regard to the height relationship of the proposed buildings with those existing on neighbouring properties.
- Establishment of maximum building heights at the eastern and southern boundaries.

4.8 Regional Road Alignment

Local councils noted in their submissions that the regional road alignment proposed in the Concept Plan was inconsistent with the preferred alignment that had been developed by the DPI in consultation with them. At the time the Concept Plan was submitted for assessment the preferred alignment was not publicly available and consequently Jacfin had no other option but to lodge the Concept Plan with the alignment as per the route depicted in the WSEA SEPP.

The preferred route has since been exhibited and we understand from advice received from the DPI is likely to be adopted by government. Consequently Jacfin has amended the Concept Plan to reflect the preferred route alignment. The DPI's revised preferred alignment is shown on the plan in **Figure 8**.

The proposed road alignments are shown on the amended Concept Plan documents at **Appendix A**.

4.9 Alternative Land Uses

Many of the submissions made by local residents questioned why alternative uses such as a business park or rural residential development could not be provided at the immediate interface to the residential properties in Greenway Place and Capitol Hill Drive.

Under the WSEA SEPP the following land uses are permissible with development consent:

Depots; Food and drink premises; Freight transport facilities; Industrial retail outlets; Industries (other than offensive or hazardous industries); Neighbourhood shops; Roads; Service stations; Transport depots; Truck depots; Warehouse or distribution centres.

Any other land use, including business parks and rural residential, not listed above are prohibited in the general industrial zone.

Whilst the Minister technically has the power under the former Part 3A of the EP&A Act and the subsequent transitional arrangements since the repeal of this part of the Act to approve a Concept Plan that proposes a prohibited land use, the DPI has advised that this power will not be used. Consequently the Jacfin application can only include, and the consent authority can only approve, land uses that are permissible within the General Industrial Zone.

If a commercial or rural residential use were to be pursued on the site this would need to be achieved via a Planning Proposal lodged with Penrith Council. Council declined to support this option.



Figure 8 – Revised Regional Road Alignments Source: Department of Planning and Infrastructure

4.10 Stormwater Management

Brown Consulting was commissioned to review the proposed design amendments and to update the proposed stormwater drainage strategy for the site. Their addendum letter specifically addresses stormwater management at the residential interfaces and is provided at **Appendix L**.

Browns have determined that it will be necessary to incorporate drainage at the boundary of the site in order to accommodate existing runoff upstream of the mound and to maintain or reduce the pre-development stormwater flows. At this stage the following drainage is proposed:

- Sag Point 1 (rear of 38 Greenway Place)
 - 3x600mm diameter pipe culvert through the proposed mound to allow overland flow of up to 100 year ARI from Greenway Place to drain through the proposed development and bypass Basin 4 to Ropes Creek downstream.
- Sag Point 2 (rear of 21-26 Greenway Place)
 - 6x600mm diameter pipe culvert through the proposed vegetated mound to allow overland flow of up to 100 year ARI from Greenway Place to drain through the proposed development and bypass Basin 3 to Ropes Creek downstream.
- Sag Point 3 (rear of 1-5 Greenway Place)
 - Construct a vegetated swale of 2m base width, 0.5m depth and 1 in 4 batter slope with a longitudinal slope between 1% and 1.5% to direct overland flow of up to 100 year ARI around the south-eastern corner of the site towards the west and then allow it to discharge to existing surface area beyond 1 Capitol Hill Drive.

All of the above infrastructure is to be provided on the site. Following consultation with the residents along Greenway Place the mound has been setback 1 - 2m so that a naturalised drainage swale can be provided along the eastern side of the mound (also on Jacfin's land).

4.11 Heritage

Godden Mackay Logan (GML) has updated its heritage assessment to respond to the issues raised by the Office for Environment and Heritage (OEH) and also to incorporate the outcomes of the additional consultation that was undertaken. Their revised report is provided at **Appendix M**. Also located at **Appendix M** is a table which itemises the issues identified by OEH and how these have been specifically addressed in the Preferred Project.

4.12 Traffic

GTA was commissioned to review the revised proposal and to comment on the proposed access to and within the site. Their report is provided at **Appendix N**.

4.12.1 Traffic Generation

Using the 15 trips per developable hectare adopted by the RMS (formerly the RTA), GTA has calculated that the preferred project scheme with a developable area of approximately 98 hectares, would generate about 1,470 vehicle trips per peak hour at full development.

GTA note however that the trip generation rate adopted by the RMS is conservatively high and that recent surveys undertaken by Council show that large format distribution warehouses are more likely to generate trip rates in the order of 6.6 to 7.9 trips per hectare of developable area per hour. If so the road system for the area as planned would have excess capacity compared to original estimates.

4.12.2 Road Layout

Interim Access Via Old Wallgrove Road

RMS traffic modelling for the land south of the pipeline conducted as part of the Erskine Park Link Road investigation incorporated the traffic generation of the equivalent of 165 ha of development onto Old Wallgrove Road and then to the M4/M7. Thus any development beyond 165 ha south of the pipeline (of the approximate 241 ha zoned) would need access via the east-west Regional Road system between Bakers Lane and Chandos Street and via the regional north-south link across the water pipeline to Erskine Park.

In terms of the operation of Old Wallgrove Road, GTA consider that the section of Old Wallgrove Road south of the Erskine Park Link Road can operate safely as a single lane road until approximately 120 hectares of land south of the pipeline is developed at which time Old Wallgrove Road would need to be widened to two traffic lanes each way.

GTA note that the threshold for widening of Old Wallgrove Road south of the Erskine Park Link Road depends on the relative split of north-south traffic travelling on Old Wallgrove Road and on whether the actual traffic generation of future developments was as high as that assumed for the purposes of analysis. The situation would thus need to be monitored as development proceeded south of the water pipeline to reassess if/when Old Wallgrove Road should be widened to four traffic lanes.

Ultimate Access

GTA has reviewed the ultimate revised road layout for the Horsley Park precinct. It is proposed that the intersection of the Regional Road with the main internal local road be controlled by traffic signals. The intersection of the main internal local road with the loop road system would be controlled by stop signs with traffic on the loop road system having to yield. This layout is shown on the Civil plans at **Appendix D**.

GTA has undertaken a SIDRA analysis of the proposed road layout and has found that it would operate at a level of service C which is satisfactory.

4.12.3 Stage 1 Project Application

GTA has also reviewed the revisions to the Stage 1 Project Application and found that:

- The proposed level of on-site parking is appropriate to the proposed use, and if required overflow parking can be made available.
- The site access, internal roads and car and truck parking and loading areas can comply with the relevant Australian Standards.
- The proposed interim access is able to accommodate the traffic generated by the proposed development.

4.13 Residents Preferred Option

4.13.1Creation of new ridgeline between two high points

In submissions and at the community meetings, local residents presented an alternative option that proposes the construction of a new ridgeline between the two high points in the southern portion of the Jacfin site as shown in **Figure 9**. Under their proposal land to the east of the ridge line would be either rural residential development or open space and to the west would be industrial development.

As shown on the plan and section at **Appendix O** this option would involve the construction of an earth mound with a height ranging between 17m to 23m across a length of approximately 600m. This would involve substantial earthworks to construct, significantly more than that required to construct the earth mound proposed near the eastern and southern boundaries, which has an average height of 4-6m above existing ground level. The construction of the mound proposed by the residents would also involve a significant take up of land given that the mound would be designed with a maximum slope of 1 in 3m, and would therefore need up to 140m, approximately 70m either side at its widest point, in order to gain the required height.

This option would sterilise also land to the west of the mound as no vehicular access could be obtained from Greenway Place or Capitol Hill Drive to the residual land for industrial or warehouse purposes and all other land uses are prohibited. We estimate approximately 16 hectares would be effectively for industrial uses, notwithstanding the zoning. This equates to 15% of the site area, or 320 - 640 jobs (assuming a job generation rate of 20 - 40 jobs per developable hectare). This loss of 16hecatres of developable industrial land would have a significant adverse economic impact on the land owner and reduce the amount of State Infrastructure contributions that could be raised for roads etc.

The maintenance and upkeep of such a large portion of non-developable land would also form an unreasonable financial burden on the landowner.



Figure 9 – Residents Preferred Option Source: Extract from resident submission

4.13.2 Retention of Southern Ridgeline

The second proposal put forward by some residents of Capitol Hill Drive is the retention of the southern ridgeline in its entirety. The current proposal retains the southern knoll but proposes the removal of the western extent of the ridgeline to accommodate new warehouse development.

Retention of the ridgeline would result in the loss of up to 15 hectares of developable area. This again would cause a loss of potential employment generation on the site and would also generate an unreasonable financial burden on the landowner.

These options are also unnecessary and unreasonable when taking into account the revised Concept Plan proposal for the boundary mound and landscaping that will achieve an attractive green landscaped outlook from the properties in Capitol Hill Drive which satisfactorily addresses both visual and acoustic impacts.

4.14 Community Consultation

The following community consultation has occurred during the assessment of the application:

- Notification by DPI to neighbouring landowners advising of the original Concept Plan and Stage 1 Project Application – on exhibition between 31 March 2011 and 23 May 2011
- A community meeting at Fairfield City Council offices on 8 June 2011 attended by DPI and council representatives, local residents and Jacfin representatives
- A site visit attended by representatives of DPI, Jacfin and local residents on 28 June 2011
- Residents advised by DPI that Response to Submissions document is on exhibition December 2011 – February 2012
- Jacfin representatives visited adjoining properties to obtain survey levels of neighbouring properties on 2 March 2012 and talk to residents
- A second community meeting organised by Fairfield Council officers on 8 March 2012 which was attended by DPI and council representatives, local residents and Jacfin representatives – refer to summary of meeting at Appendix P.
- Jacfin representatives visited adjoining properties to obtain additional information in relation to levels and site photos on 23 March 2012 – refer to summary of items discussed on site at Appendix P.
- Jacfin representatives met individually with most of the immediately adjoining residents of Greenway Place and Capitol Hill Drive between 16 18th July 2012 to discuss the Preferred Project and Jacfin's response to resident issues. A summary of the issues raised during those consultation meetings is provided at Appendix P.

In addition, Jacfin is also proposing a final meeting with the community and representatives of the DPI and Councils at Fairfield Council, to present and discuss the preferred scheme.

5.0 Final Concept Plan Statement of Commitments

In accordance with Part 3A of the *Environmental Planning and Assessment Act 1979*, the following are the commitments made by Jacfin Pty Ltd to manage and minimise potential impacts arising from the Concept Plan proposal. These commitments replace the draft commitments included with the EAR.

Table 5 – Final Concept Plan	Statement of Commitments
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Subject	No.	Commitments	Timing
Construction Management	1.	A Construction and Environmental Management Plan will be prepared for each development by the appointed building contractor and will be submitted to the Principal Certifying Authority for sign off. The CEMP will address the following issues: - Site Management; - Air Quality; - Noise and Vibration Management; - Soil and Water Management; - Construction Traffic Management; - Waste and Hazardous Materials Management; and - Protection of E2 zoned land	Prior to works commencing. Copies of the CEMPs are to be provided to Penrith and Fairfield Councils.
	2.	The construction noise mitigation measures recommended by the Acoustic Consultant will be incorporated into the Construction and Environmental Management Plans for each project as relevant.	Prior to works commencing.
Geotech	3.	 Future Development Applications within the Precinct will demonstrate compliance with the recommendations of the Geotechnical Assessment in relation to: Bulk Earthworks; Structural Design; Ground Water Management; Acid Sulphate Soils; and Soil Salinity. 	Details to be provided with the relevant Development Application(s).
Stormwater Management	4.	Future Development Applications will demonstrate compliance with the targets in the Stormwater Masterplan and Trunk Drainage Strategy prepared by Brown Consulting Engineers.	Details to be provided with the relevant Development Application(s).
	5.	 Future Development Applications will demonstrate that: the project water quality targets will be met; stormwater flow rates will be equal to less than the current existing flow rates; and stormwater works will be consistent with the requirements of the NSW Office of Water. 	Details to be provided with the relevant Development Application(s).
Waste Management	6.	An Operational Waste Management Plan will be prepared for each of the warehouse buildings on the site.	Prior to the occupation of each warehouse.
Hazardous Materials	7.	Should storage of hazardous materials be required by the occupants of a warehouse building, a hazardous materials assessment will be prepared.	Prior to the occupation of the relevant warehouse, if applicable
Bushfire Protection	8.	 Future Development Applications within the Precinct will demonstrate compliance with the recommendations of the Bushfire Consultant, in relation to: Access to the bushfire prone vegetation in the E2 Environmental Conservation corridor; Building setbacks; 	Details to be provided with the relevant Development Application(s).

Subject	No.	Commitments	Timing
-		 Building construction requirements; 	
		 Landscape Maintenance; and 	
		 Emergency Planning. 	
Signage and Lighting	9.	Future applications will provide detail on signage and lighting.	Details to be provided with the relevant Development Application(s).
	10.	Lighting will be designed to comply with Australia Standard AS4282:1997 – Control of the Obtrusive Effects of Outdoor Lighting. Specialist consultant reports confirming compliance will be submitted with each development application.	Details to be provided with the relevant Development Application(s).
Noise	11.	Acoustic Assessments will be submitted with future development applications for each warehouse building detailing acoustic mitigation measures where required.	Details to be provided with the relevant Development Application(s).
		 For buildings on lots with boundary to the Greenway Place properties: Loading docks are to be located on the western side of the buildings; and Barriers in the order of 5 metres in height are to be constructed in the gaps between the buildings. 	
		 For buildings on lots with boundary to the Capitol Hill Drive properties: Buildings are to be orientated in an eastwest direction to form a barrier to Capitol Hill Drive and; Loading docks are to be located on the northern side of the buildings. 	
Waste Management	12.	An Operational Waste Management Plan will be prepared for each of the warehouse buildings on the site.	Prior to the occupation of each warehouse.
Biodiversity	13.	A Hollow-bearing Tree Protocol will be prepared by a suitably qualified ecologist and implemented.	Prior to the removal of any trees within the Employment Precinct
Heritage	14.	A test excavation program will be undertaken in 4 PADs identified by GML. An Archaeological Research Design (ARD) will be developed prior to the test excavation program and presented to the relevant Aboriginal stakeholders for review and comment.	Prior to issue of a Construction Certificate for any parts of the site which include a PAD.
	15.	An Aboriginal Heritage Management Plan will be prepared for the precinct or Aboriginal Heritage Impact Assessments will be submitted with future Development Applications.	Prior to the lodgement of any Development Application beyond Stage 1
Visual Impact Assessment	16.	Future project applications for developments with a boundary to adjoining residential areas will detail mitigation measures to be implemented to minimise any visual impacts.	Details to be provided with the relevant Development Application(s).
Contamination	17.	That a phase 2 assessment be undertaken for future developments located along the north-eastern boundary.	Details to be provided with the relevant Development Application(s).
NSW Office of Water	18.	Flood mitigation and stormwater basins should be located outside of the riparian area; and	Details to be provided with the relevant Development Application(s).
	19.	The basins are to be planted to complement the native plant communities of the riparian corridor.	Details to be provided with the relevant Development Application(s).
Landscaping	20.	Detailed landscape plans will be prepared for each future development application which will demonstrate compliance with the landscape principles established in this PPR.	Details to be provided with the relevant Development Application(s).
Driver Code of Conduct	21.	A driver code of conduct will be prepared for the site which will detail operational traffic management measures.	To be implemented prior to the issue of the first occupation certificate.

6.0 Final Project Application Statement of Commitments

In accordance with Part 3A of the *Environmental Planning and Assessment Act 1979*, the following are the commitments made by Jacfin Pty Ltd to manage and minimise potential impacts arising from the Stage 1 Project Application. These commitments replace the draft commitments included with the EAR.

Subject	No.	Commitments	Timing
Construction Management	1.	A Construction and Environmental Management Plan will be prepared by the appointed building contractor and will be submitted to the Principal Certifying Authority for sign off. The CEMP will address the following issues: - Site Management; - Air Quality; - Noise and Vibration Management; - Soil and Water Management; - Construction Traffic Management; - Waste and Hazardous Materials Management; and - Protection of E2 zoned land.	Prior to works commencing.
	2.	The construction noise mitigation measures recommended by the Acoustic Consultant will be incorporated into the Construction and Environmental Management Plan.	Prior to works commencing.
Waste Management	3.	An Operational Waste Management Plan will be prepared for the Stage 1 Warehouse Building.	Prior to the occupation of the warehouse.
	4.	If required a Hazard Assessment for the storage of hazardous goods will be undertaken.	Prior to the issue of a Construction Certificate relating to the construction of a hazardous material storage facility.
Signage and Lighting	5.	Future applications will be lodged providing detail on signage and lighting for the Stage 1 Warehouse Building.	Prior to the occupation and use of the warehouse building.
Building Code of Australia	6.	The Stage 1 warehouse building will comply with the relevant provisions of the Building Code of Australia.	Prior to issue of a Construction Certificate.
Heritage	7.	Prior to works commencing a test excavation program will be undertaken in PAD 3. An Archaeological Research Design (ARD) will be developed prior to the test excavation program and presented to the relevant Aboriginal stakeholders for review and comment.	Prior to issue of a Construction Certificate.
Contributions	8.	Jacfin will enter into an agreement with the Department of Planning as part of the Stage 1 Project Application, in accordance with Division 6 of Part 4 of the EP&A Act, to provide for regional infrastructure contributions, as outlined in Section 6.14 of the this report.	Prior to the issue of an Occupation Certificate.

7.0 Conclusion

This Preferred Project Report has been submitted in response to the issues raised by the Department of Planning and Infrastructure, agency and public submissions. It provides details in relation to the amendments that have been made to the scheme in order to address boundary interface issues raised by local residents and incorporate the revised regional road network.

The report demonstrates that:

- Sufficient visual impact mitigation measures (in the form of extensive earth mounding, landscaping, building locations, setbacks, pad levels and heights) combine to ensure that the visual impact of the proposed industrial development is acceptable in protecting residential amenity;
- The proposed visual impact mitigation measures provide for view corridors and the retention of horizon views from adjoining houses on Greenway Place to the Blue Mountains;
- Sufficient acoustic mitigation measures are proposed ensuring that neighbouring residents will not be adversely affected in terms of noise impacts;
- Suitable vehicular access can be provided to the site in the short term as well as within the long-term regional road network;
- On-site stormwater management will ensure that neighbouring properties will not be adversely affected and that stormwater flows will be appropriately managed; and
- The proposed development satisfies the relevant considerations and planning objectives under the Western Sydney Employment Area SEPP.

In light of the demonstrated benefits of the proposed scheme, and in the absence of any adverse environmental impacts, the application is recommended for approval.