

17 October 2022

Our Ref: 11584--1

Donna Clarke
Development Assessment
Penrith City Council
601 High Street
Penrith NSW 2750
Attn: Donna Clarke – Consultant Planner

Dear Ms. Clarke,

RE: DA22/0417 – Response to RFI - Supporting information

Property: 158-164 Old Bathurst Road, Emu Plains

I refer to the above development application (**DA**) seeking consent for the proposed industrial subdivision of the land at 158-164 Old Bathurst Road, Emu Plains (the **Site**) and the request for information from Penrith Council to help it complete its assessment.

This correspondence builds on previous responses to request for information submitted under letter/s dated:

- 20 September 2022 – containing Transport and Traffic information
- 5 October 2022 – containing:
 - Subdivision Concept Plan
 - Remediation Action Plan – Gap Analysis
 - Site Auditor Review.

The information provided in and attached to this correspondence responds to all remaining matters raised by Penrith City Council (**Council**) in the request for information dated 14 June 2022. Attached to this correspondence is:

- Attachment A – Civil Engineering Package including:
 - Civil Design Plans
 - Stormwater Report
 - DRAINS and MUSIC models
- Attachment B – Detailed Response to Engineering items in the RFI.
- Attachment C – Confirmation of Council ownership and management of Lot 32
- Attachment D - Flood Report & Flood Emergency Response Strategy
- Attachment E – Arborist Report
- Attachment F – Landscape Design
- Attachment G - BDAR
- Attachment H – Visual Impact Analysis


In an effort to enable an efficient assessment and approval, Council agreed to accept some reports and plans for assessment prior to submission of the full response package. As shown in Table 1 Summary of supporting documents **Table 1**, all of the updated reports have now been received.

Table 1 Summary of supporting documents

| Updated Reports/Assessments | Date provided | Included in this Letter |
|---|-------------------|-------------------------|
| Arborist Report - Tree removal plan - Tree removal and retention table | 17 October 2022 | ✓ |
| Biodiversity Development Assessment Report | 17 October 2022 | ✓ |
| Remediation Action Plan – additional assessments/details | 30 September 2022 | Previously provided |
| Flood Impact Assessment | 17 October 2022 | ✓ |
| Landscape Plan - Pedestrian and cycle circulation plan | 17 October 2022 | ✓ |
| Visual Impact Assessment | 17 October 2022 | ✓ |
| Subdivision Concept Plan | 30 September 2022 | Previously provided |
| Stormwater Management Plan (in Civil Package) - Wetland Design - MUSIC modelling | 17 October 2022 | ✓ |
| Transport Impact Assessment & Road Safety Audit | 20 September 2022 | Previously provided |
| Response to Council's RFI letters and meeting notes | 17 October 2022 | ✓ |
| Confirmation from Council Asset Management Department - Acceptance of infrastructure | 17 October 2022 | ✓ |
| Signage and Fencing plan (in Landscape Plans) | 17 October 2022 | ✓ |
| Swept Paths | 17 October 2022 | ✓ |
| Traffic Control Signal Design | 17 October 2022 | ✓ |

Revised Layout & Civil Engineering Package

The revised Concept Subdivision Plan was provided in the correspondence dated 30 September 2022. This included a summary of the changes adopted and an assessment against the relevant controls in the *Penrith Local Environmental Plan 2010 (PLEP)* and *Penrith Development Control Plan 2014 (DCP)*. The revised Civil Engineering Package in **Appendix A** supports this revised layout.



To summarise the amendment to the layout detailed in the 30 September 2022 correspondence, the revised layout has been designed to:

- Maximise the retention of vegetation of value. This includes maintaining the existing vegetation wherever possible along Old Bathurst Road, the train line interface, the interface with the Transport for NSW commuter car park as well as in the Site's south western corner.
- Removal of direct vehicular access from Old Bathurst Road and replacement with a pedestrian access as well as minor realignment/rationalisation of the David Road/Old Bathurst Road intersection.
- Exemplary landscaping that will result in a significant net increase in canopy cover as well as a logical pedestrian footpath strategy that includes pedestrian connectivity through the Site as well as along the Old Bathurst Road frontage and down David Road.
- Rationalisation of lot boundaries so that they result in compliant and logical boundaries that will support future industrial uses. This subsequently results in a reduction of lots from 41 to 39.
- Reconsideration of the drainage infrastructure including the constructed wetlands at the south western corner of the Site including incorporating the stormwater infrastructure into the adjoining lot, which will:
 - Remain a Torrens Title allotment,
 - Will be kept in Council's ownership, and
 - Be managed (including the infrastructure) by Council as owners of the lot.

The Civil Engineering Design provided in **Appendix A** supports the above objectives of the revised layout. The approach is generally consistent with that originally proposed, with refinements included to reflect the revised layout and address items raised by Council. The approach still requires cut and fill across the Site to ensure suitable fall can be achieved. The stormwater strategy continues to include two constructed wetlands in the southwestern corner of the Site.

The Civil Engineering package has been amended to reflect the new layout, further reduce the amount of cut and fill to retain additional trees, incorporate splay corners, refine the wetland infrastructure design, realign the intersection of David Road and Old Bathurst Road and accommodate footpaths along the Old Bathurst Road and David Road frontages.

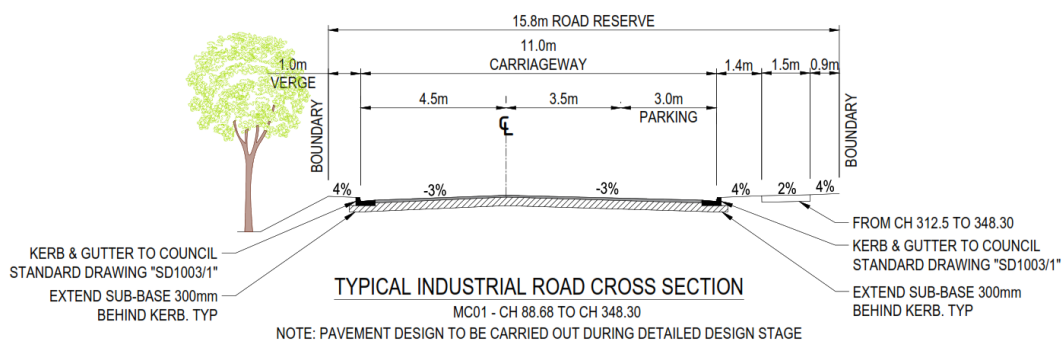
In relation to the retention of trees, the project Civil Engineers, ACOR have worked closely with project Arborists (Civica) and Landscape Architect (Group GSA) to deliver a unique road reserve solution along the eastern Site boundary, that will accommodate the carriageway and stormwater whilst maintaining and enhancing a treed corridor (see **Figure 1**). The batter up to the carriageway as well as quantity of water that enters this location has been considered for future survival of the existing trees. This represents a departure from the standard industrial road geometry but was developed with input and feedback from Council and despite the departure, the ability to accommodate the retention of existing trees in the industrial landscape is an overall positive outcome.

As well as making physical changes to the proposal to support the revised layout, this correspondence also builds on information previously submitted to give Council greater comfort,

including, but is not limited to, additional detail on the construction, function and operation of the wetland stormwater infrastructure. However, it must be noted that a final Operation and Maintenance Manual cannot be provided until such time the detail design of the infrastructure has been prepared as part of the Subdivision Works Certificate. The Applicant expects Council to condition any approval to require this detail at the Subdivision Works Certificate stage.

Additional detail in the form of semi-trailer turning circles have also been included in the Civil Engineering Package. This is to demonstrate that two semi-trailers are able to pass each other on each corner in the development.

The Table in **Attachment B** includes a detailed description of how the revised Civil Engineering Package has addressed the relevant items raised by Council's engineers.



Source: ACOR

Figure 1 Proposed section of Road on the Site's eastern boundary

Ownership of infrastructure and through site links

Council's request for information required confirmation of the ownership structure of the lot containing the stormwater infrastructure (Lot 32), specifically the wetlands. The land is to be owned by Council and the maintenance of the infrastructure and titling of the land is an internal matter. However, the intention is that the lot will remain freehold. The Applicant will maintain the infrastructure on the lot for a period of five years before hand over to Council's asset management team.

Confirmation of this approach from Council's Director of City Services is provided in **Attachment C**.

The arrangement for the vegetated corridor and pedestrian through site link along the Site's eastern boundary was also discussed with Council at the meeting on 11 August 2022, where several different ownership and management structures were described. At the meeting Council advised that the most logical approach was for this land to be included as road reserve. The Concept Subdivision Plan submitted on 20 September 2022 and the plans submitted under this correspondence reflects this approach to the ownership and maintenance.



Flood Report and Emergency Response

The revised layout required the Flood Impact Assessment prepared by Advisian to be updated. Although no comments were provided by Council in the 14 June 2022 correspondence that were specifically relevant to flooding, a follow-up email received on 12 July 2022 outlined Council's flooding engineers had raised the following:

"No major objections have been raised, however, issues have been raised with flood evacuation, as raised in Cl 5.21(2)(c) of PLEP:

- The site is a low flood island and flood evacuation will be required during larger flood events. A flood evacuation strategy is proposed how the site will be evacuated during larger flood events.*
- The Flood Emergency Response Strategy report prepared by Advisian recommends a flood evacuation strategy how to evacuate the site during larger flood events up to the PMF. However this report did not undertake any flood evacuation modelling to assess the evacuation capacity or the impact on the evacuation.*

The reports submitted does not include any flood evacuation modelling. As such, you are required to provide the modelling or liaise directly with the SES to evaluate the capacity and impacts and provide written advice in response from SES".

A Revised Flood Impact Assessment has been prepared and is accompanied by a Flood Emergency Response Strategy in **Attachment D**. As previously found, the proposal will improve the flood situation on the Site and surrounds, with the proposal providing all lots with design levels that ensure each building will have a floor level that is greater than 0.5m above the potential 1% AEP design flood level. Despite this filling on the site, Advisian has advised that the model indicates there will be no loss in the flood storage volume on the Site.

It is recognised that in accordance with cl.5.21(3) of the PLEP and the Department of Planning, Industry and Environment (the **Department**) direction to Council in relation to flooding consideration – that the application was submitted to the Department for consideration. The Department has responded by stating that a "decision is not required", meaning that the DA did not meet the requirements under the direction for referral, and thereby the flooding to or from the development is not of concern in the context of the implementation of the new Flood Prone Land Planning Package being development by the Department, which also addresses climate change and evacuation.

Despite the Department not requiring additional assessment, for completeness in addressing cl.5.21 of the PLEP, the documentation prepared by Advisian in **Attachment D** has includes consideration of the impacts the development will have on flood behaviour as a result of climate change and provided an evacuation strategy.

Climate Change

To evaluate the impact the development will have on flooding resulting from climate change, Advisian modelled the following scenarios:

- 1% AEP flood with 4.9% increase in rainfall (RCP 8.5 projection for the year 2030)

- 1% AEP flood with 9.1% increase in rainfall (RCP 4.5 projection for the year 2090)
- 1% AEP flood with 13.9% increase in rainfall (RCP 6 projection for the year 2090)
- 1% AEP flood with 18.6% increase in rainfall (RCP 8.5 projection for the year 2090).

The modelling found that the proposal will have minimal impact on future flooding events that may result from climate change. The lowest scenarios (other than no change), where the predicted flooding as a result of climate change only increases rainfall by 4.9% by 2030 shows no effect on flood levels resulting from the development. In more dramatic predictions, such as a 18.6% increase in rainfall by 2090 the development will increase the flood level by 0.32m – however it must be noted that under the 18.6% scenario the 1% AEP level will be 1.25m higher in any case.

Evacuation

The Advisian Reports in **Appendix D** outlines that Old Bathurst Road begins to be overtopped by floodwaters in a 1%AEP Flood event – however the Site remains unaffected until a 1 in 200 AEP. From a flood emergency response perspective, Advisian have categorised the site as a “low flood island”.

Considering industrial development on a low flood island does not constitute the same risk as residential development (where flooding can occur when people are sleeping on site), Advisian have outlined that evacuation of the industrial subdivision is achievable in light of the following:

- *The associated industrial developments will only be occupied during business hours and will not include any overnight accommodations.*
- *Each future industrial development is proposed to have a dedicated Flood Warden who will be responsible for monitoring flood warnings on a day-to-day basis according to the requirements of this FERS. They will be able to trigger any required evacuation from the business with sufficient warning time prior to flood evacuation routes being cut by floodwaters, and/or advise site personnel and visitors to avoid attending the business if there is an active flood warning in place prior to the commencement of work for the day.*
- *The Flood Warden for each business will also be responsible for flood awareness and education activities for site personnel, such as training/information sessions and printing/distributing evacuation route posters and flyers.*

After assessing various evacuation routes out of the Site, Advisian have determined that the safest evacuation route from the Site is in a western direction. The evacuation strategy as outlined in the Flood Emergency Response Strategy involves:

“site preparations should commence when a Major Flood warning is issued by BoM for the Nepean River at Penrith, or once the Moderate Flood Level is reached at the 567047 gauge. Site preparation would involve securing of machinery and equipment or moving items onto higher ground if possible. This would also involve notifying site personnel of possible evacuation.

During this time, the flood levels at the 567047 gauge should be closely monitored to assess the rate of rise of floodwaters. The flood level hydrographs in Figure 3-3 show that for an event that manifests to become a PMF, the Major Flood Level would be reached approximately 6 hours after the Moderate Flood Level.

Formal evacuation of the site should be triggered when the Major Flood Level is reached at the 567047 gauge. A total of 3.5 hours would then be available for workers and staff to evacuate along Old Bathurst Road towards Blaxland, or along

This amount of warning time is considered adequate given that the individual lots are relatively small and the distance to be travelled is short. It would be feasible for the Flood Warden of each business (refer Chapter 4) to ensure that the entire lot is evacuated in a timely manner.

The progression of inundation during the PMF event over a period of several hours after the time of the proposed evacuation trigger (i.e., the Major Flood Level being reached) is shown in Figure 3-4".

As demonstrated, the strategy provides sufficient time for persons to secure and evacuate the Site in the event of a major flood. The Flood Emergency Response Strategy also includes requirements for flood preparedness and awareness including nomination of Flood Wardens, preparation of Flood Emergency Response Strategy, Emergency Signs/Posters, Training and reviews.

Tree Retention

In response to Council's request for further information one of the main objectives is to maximise tree retention and provide exemplary landscaping. In the context of the revised Civil Design, Civica have prepared an Arboriculture Report in **Attachment E**

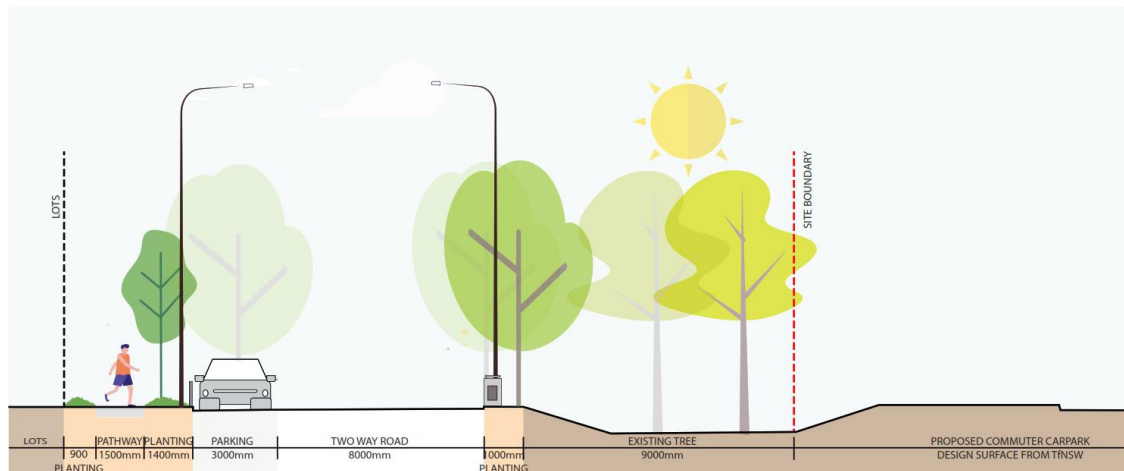
The Site in the current state contains 728 trees. Group GSA have undertaken a study (see **Attachment F**) and determined that the existing trees on the Site equate to a canopy coverage of approximately 15% of the Site area. In accordance with the Civica Report, the revised proposal will result in the retention of 326 trees. Of the trees recommended for removal, 81 are recommended for removal "due to their being considered hazardous, in irreversible decline or weed species". This is in stark contrast to the 195 trees that were retained under the previous scheme, meaning the proposal retains 67% more trees than the original subdivision scheme. In addition to the 326 retained trees, the proposal includes planting of 282 additional trees which will result in a future canopy coverage of 27-28% of the Site area. It should also be considered that as part of the development of each resultant allotment at least 2-3 trees will be provided – once developed the estate will accommodate a tree canopy coverage conservatively calculated at between 35%-37% which exceeds many residential developments.

Landscape Design

The Landscape Strategy (**Appendix F**) has also been amended in accordance with Council's comments. Street tree planting has been increased, a Swift Parrot corridor and through site link as well as increased pedestrian pathways have been created and areas of amenity have been included.

In accordance with Council's Urban Heat Management Chapter in the DCP, the development includes street tree planting every 8m. The choice of tree species has given preference to those known to be foraging trees for the Swift Parrot (*Lathamus discolor*) as informed by the Biodiversity Development Assessment Report (**BDAR**) in **Appendix G**. To further support the Swift Parrot, the development has retained and enhanced the vegetation along the eastern boundary, where it adjoins the Transport for NSW commuter car park. The delivery of the car park has removed the majority of the mapped Swift Parrot habitat, however the revised subdivision plan will retain the

remaining vegetation through delivery of a modified road reserve located along the eastern site boundary (see **Figure 2**).



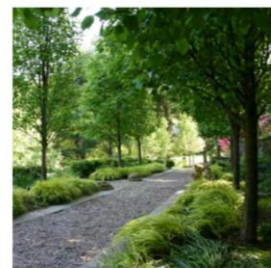
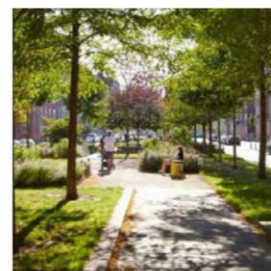
Source: Group GSA

Figure 2 Section of Road Reserve adjoining the eastern site boundary

The beginning and terminus of this corridor incorporates an area of amenity and connectivity for future occupants of the estate. The northern end of the corridor will include a through site link, linking the estate to Old Bathurst Road and the Transport for NSW commuter car park (see **Figure 3**). There will be opportunity in this through site link to provide pockets of additional planting and informational signage on the Swift Parrot, the exact design of which will be provided as part of the detailed design.

The southern terminus of the corridor will include a cluster of trees and open space (**Figure 4**) that will serve three purposes:

- Providing additional tree canopy cover and Swift Parrot habitat,
- Amenity for the future occupants of the site, and
- Screen the view of the site from the adjoining rail corridor.



- 15m Staggered pathway design to retain the existing trees while breaking the monotony for linear pathway in narrow lane.
- Pockets of planting around pathways to develop interest.
- Connection to Old Bathurst Road and Emu Plains station.

Source: Group GSA

Figure 3 Landscape Plan of the through site link



Source: Group GSA

Figure 4 Landscape design at the south eastern corner of the Site

View Analysis

Council's request for further information outlined that one of the critical considerations in the assessment of the development is the protection of the scenic values of the Site particularly in the context of cl.7.5 of the PLEP which states:

"Development consent must not be granted for any development on land to which this clause applies unless the consent authority is satisfied that measures will be taken, including in relation to the location and design of the development, to minimise the visual impact of the development from major roads and other public places".

The view of the site from the rail line as well as along Old Bathurst Road have highlighted, with particular emphasis on mounding that has been placed in the north east corner of the Site by Rocla. When reviewing visual impact of the development, it is important to compare it to the existing Site conditions and surrounding approved development. The Site was previously occupied by Rocla, who utilised the Site for pipe manufacturing, which includes large open areas for storage (see **Figure 5**). The fencing provided is chain link and the tokenistic landscaping buffer is unkept and is of little intrinsic environmental value. The proposal on the other hand includes subdivision of the Site that includes well considered landscaped buffers that are furnished with native species and those selected to be foraging species to encourage the Swift Parrot. The subdivision will be further improved by buildings and associated landscaping delivered under separate DAs – which will also be required to comply with Council's development controls.

It is evident that the subdivision of the Site for future modern industrial buildings will improve the visual presentation of the Site. To support this statement, a view analysis of how the landscaping and future development of the Site will present to the adjoining train line and Old Bathurst Road has been prepared by Group GSA and is provided in **Attachment H**.



Source: Nearmaps 2022

Figure 5 Existing Site condition

View from train line

As outlined in the previous section of this response, a corridor along the eastern and southern boundary of the Site will retain existing trees as well as provide additional landscaping. As well as adding amenity for the future occupants and Swift Parrot habitat, the trees will act as a screen for people on the train. **Figure 6** below shows the existing views from the train line, whilst **Figure 7** demonstrates the improvement as a result of the development. Again, this must be considered in the context that further landscaping will occur as built form will occur across the estate.



Source: Group GSA

Figure 6 Existing view from trainline



Source: Group GSA

Figure 7 Resultant view from the trainline



View from Old Bathurst Road

Of particular concern to Council was the development's proposal to remove the existing mound in the north western corner of the Site. It was outlined that this mound was provided to screen the existing development and suggested it should remain as part of this development. The Applicant disagrees with this approach as retaining the landscaped mound in lieu of providing more appropriate and better landscaping is a poorer outcome for the Site, visually, ecologically and economically.

Firstly, the vegetation in the north western corner of the Site is not remnant, it was planted between 1976 and 1994 as Rocla's use of the Site expanded. Before this time the Site was cleared as cropping land. The vegetation appears to consist of some planted trees, to which the mound has been pushed up to, which has then been covered in a range of "weedy trees". The BDAR prepared by Anne Clements & Associates in **Attachment G** specifically describes the vegetation in this area as:

"native species Casuarina glauca, non-local native Melia azedarach and exotic Jacaranda mimosifolia.

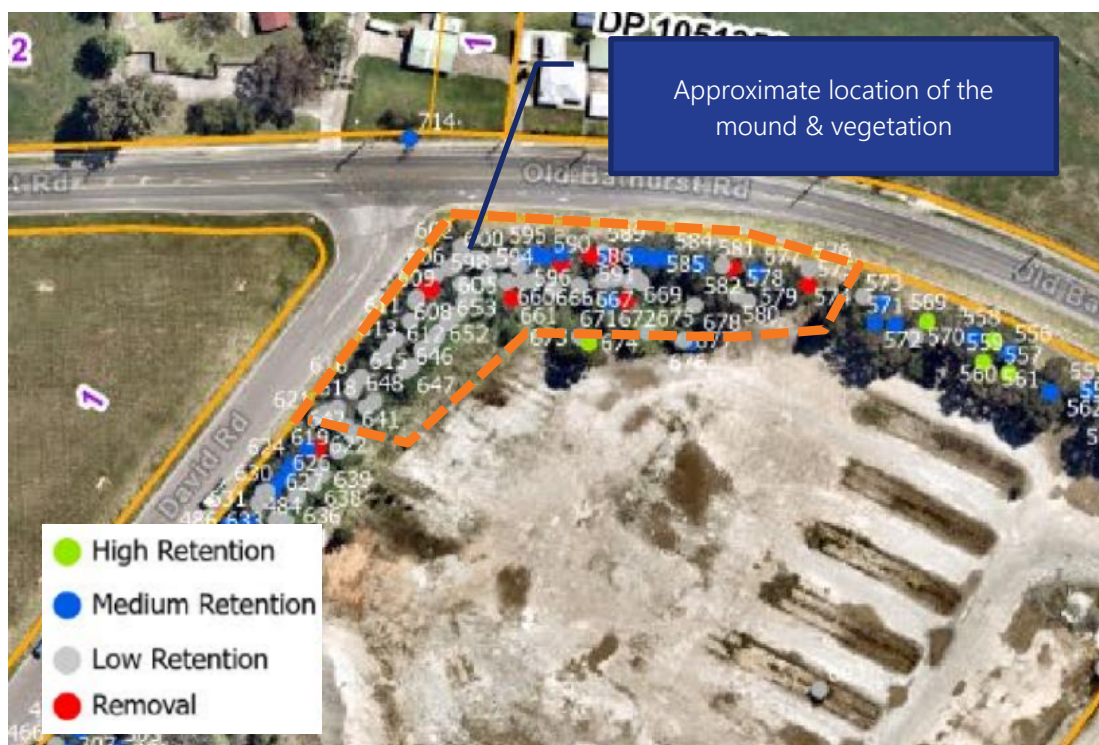
The naturally colonised weedy trees recorded were Ligustrum lucidum, Ligustrum sinense, Morus alba.

The understorey was predominantly exotic weed including Araujia sericifera, Asparagus asparagoides, Eragrostis curvula, and the exotic pasture grass Cenchrus clandestinus and cover grass Chloris gayana. The native component were Cayratia clematidea, Glycine tabacina, Microlaena stipoides, and the cosmopolitan Solanum americanum and the fern Pellaea falcata".

The Arborist Report in **Attachment E** identifies most of this vegetation as low value or for removal. Only a handful of trees are identified as medium retention value and one as high retention value (see **Figure 8**). The replacement planting will provide a much greater concentration of native species. Considering the mounds appear to have been constructed by just pushing the ground up against the edge of the Site, there is potential for these mounds to contain contamination, for which the Applicant is undertaking testing to supplement the Phase 2 investigations under the Remediation Action Plan.

The retention of poor quality vegetation and a constructed mound in lieu of creating a positive landscaped area that will improve the visual aesthetic and contribute to establishing Swift Parrot habitat would be an opportunity missed. The Applicant therefore strongly advocates for the removal of the mound and associated low quality vegetation that was established as an inexpensive way of screening activities on the Site by Rocla, in lieu of a well considered plantings that will better contribute to the surrounding locality in the short, medium and longer term.

The existing vegetation and mound as viewed from Old Bathurst Road shown in **Figure 9**, with a photomontage of the resultant view provided in **Figure 10**. It is also important to consider the context of the development in comparison to what has been delivered addressing Old Bathurst Road further west of the Site. The proposal provides a far superior outcome than has been established elsewhere in Emu Plains (see **Figure 11**).



Source: Civica

Figure 8 Snapshot of Tree Retention Value Mapping



Source: Group GSA

Figure 9 Image of the existing vegetation and mound at the corner of Old Bathurst Road and David Road



Source: Group GSA

Figure 10 Resultant view from Old Bathurst Road



Source: GLN Planning 2022

Figure 11 Development opposite the Site on the corner of Old Bathurst Road and David Road intersection

Biodiversity Development Assessment Report

As requested by Council, the Biodiversity Development Assessment Report (**BDAR**) has been revised to reflect the updated design and layout as well as to address the concerns raised by Council (**Attachment G**). The BDAR is required on account the north-eastern corner of the Site is mapped on Biodiversity Values Map as an Important Area for Swift Parrot, which is the same as mapped on the recently cleared land to the east. The north-eastern corner of the Site consists of garden beds which include planted trees with the winter flower *Eucalyptus sideroxylon*. The revised proposal retains these trees, with the BDAR providing the following additional measures that have been implemented to mitigate impact from the development:

- *As many as practicable of the existing perimeter trees be retained, including the winter-flowering eucalypts in the north-east corner;*
- *Supplementary planting using local provenance native trees, shrubs and groundcovers to enhance the amenity of the subject land, and to provide habitat for native flora and fauna species. This includes extensive planting of winter flowering local native eucalypts along Old Bathurst Road to enhance the foraging habitat of the Swift Parrot; and*
- *The re-engineered constructed wetlands, are to be designed to provide shade, moisture and increased diversity of the native habitats.*

The BDAR has found that no offsets are required. The Preamble of the BDAR includes a detailed response to the issues raised in Council's request for further information.

Traffic Control Signal Plan

As outlined in the 20 September 2022 response to Council's request for information, it was advised that the Traffic Control Signal Plan was being finalised and would be submitted under separate cover. This correspondence has attached the Traffic Signal Control Plan in **Attachment I**. This can be provided to Transport for NSW to consider in their referral.

Should you have any questions regarding information provided in this letter or attached, do not hesitate to contact me directly on 0403 239 230.

Yours faithfully

GLN PLANNING PTY LTD



MICHAEL HANISCH
SENIOR PLANNER



Attachment A – Civil Design



Attachment B – Engineering Detailed Response



Attachment C – Accepting Infrastructure in Lot 32



Attachment D – Flood Report and Flood Evacuation Strategy



Attachment E – Arborist Report



Attachment F – Landscape Report



Attachment G – Biodiversity Development Assessment Report



Attachment H – View Analysis



Attachment I – Traffic Control Signal Plan