

ROCKWOODS

INVESTMENT GROUP

ABN: 68 087 935 313

Submissions Report

for the

Western Riverina Quarry



Prepared by:

RWCorkery&co

October 2022



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Western Riverina Quarry

Submissions Report

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1. Introduction

1.1 Scope

This *Submissions Report* has been compiled to provide a response to the key matters raised in the submissions lodged with the Carrathool Shire Council (“Council”) during the exhibition period for the *Environmental Impact Statement* (EIS) for the continued operation and extension of the Western Riverina Quarry (“the Proposal”) as proposed by Rockwoods Investment Group Pty Ltd (“the Applicant”). The EIS and supporting technical assessments were exhibited by Council from 5 May 2022 to 1 June 2022. During that period, a total of eight government agency submissions and one public submission were received.

The Applicant notes that, as the Proposal is Designated Development, the development application will be determined by the Western Regional Planning Panel. Council will prepare an assessment report and provide recommended conditions of consent to assist with this process. The Applicant is confident that the matters raised in the submissions have been appropriately identified and addressed in this report.

The Applicant considers that this *Submissions Report*, when reviewed with the EIS and supporting documents, provides sufficient information for the Western Regional Planning Panel to determine the development application.

1.2 Document Format

This document has been compiled in six sections, outlined as follows.

- Section 1: introduces the scope and format of this document.
- Section 2: presents an analysis of submissions categorised according to the matters raised.
- Section 3: provides the Applicant’s responses to the matters raised in submissions received from Government agencies.
- Section 4: provides the Applicant’s responses to matters raised in public submissions.
- Section 5: presents an evaluation of the merits of the Proposal, drawing upon the relevant responses to the matters raised in submissions.
- Section 6: presents the documents referenced in this Report.

2. Analysis of Submissions

A total of eight Government agencies provided feedback following review of the EIS. It is noted that the government agency submissions provided feedback and recommendations on the matters relevant to the administrative functions of each agency. Advice was provided by the following agencies.

- Carrathool Shire Council
- Biodiversity, Conservation and Science Directorate
- Heritage NSW
- Transport for New South Wales
- Water NSW
- Western Regional Planning Panel
- Department of Primary Industries – Agriculture (no response required)
- Environment Protection Authority (no response required)

One individual submission from a member of the general public was received by Council following public exhibition of the EIS.

The most raised matters related to clarifications around the management and mitigation of potential impacts to air quality, surface water runoff and drainage in the vicinity of the Quarry Site.

3. Response to Government Agencies

3.1 Introduction

The following subsections present a response to the matters raised in feedback received from various Government agencies following review of the EIS for the Proposal. Where feedback acknowledged acceptance of the outcomes of the assessment(s), no further commentary has been provided.

3.2 Carrathool Shire Council

Representative Comment(s)

Submit evidence to indicate that the existing internal private access road over Lot 29 DP751727 and Lot 1 DP755180 is a legal access to the development site.

Response

A right of carriageway has been established over the existing access road within Lot 29 DP751727 and Lot 1 DP 755180 to provide legal access to the Quarry (see DP1286927).

Representative Comment(s)

Council records indicate that all of Lot 2 DP821515, Part of Lot 1 DP755180 and all of Lot 29 DP751727 is owned by a private owner, whereas, page 4-8 of your EIS indicates that these lots are still owned by "State of NSW - State Forrest". Please clarify and amend this ownership detail page.

Response

An updated version of Figure 4.4 from the EIS presenting updated land ownership information is provided as **Figure 1**. It is noted that Lot 2 DP821515 was subdivided following the submission of the EIS and now comprises Lots 11 and 12 DP1286927.

Representative Comment(s)

Page 1-8 of the EIS states that the proposed DA is to supersede the existing DA2/91 approved by Carrathool Shire Council on the 19 July 1991 for a Quarry allowed to extract, process and transport an unspecified quantity of material, whereas your submitted Development application form on the PP states that the development is for "expansion and continued use of Extractive Industry (Quarry)". Therefore, pursuant to Sec 4.63(1) of the EP&A Act 1979, the original development consent is to be surrendered by the Applicant of the existing DA, in accordance with the requirements of Sec 68 of the EP&A Reg 2021. Alternatively, a condition can be attached to the new DA in relation to the continuation of the development authorised by the existing consent to be surrendered OR a deferred commencement condition can be attached to the new consent requiring the surrender of the existing consent prior to the new consent becoming Operational.

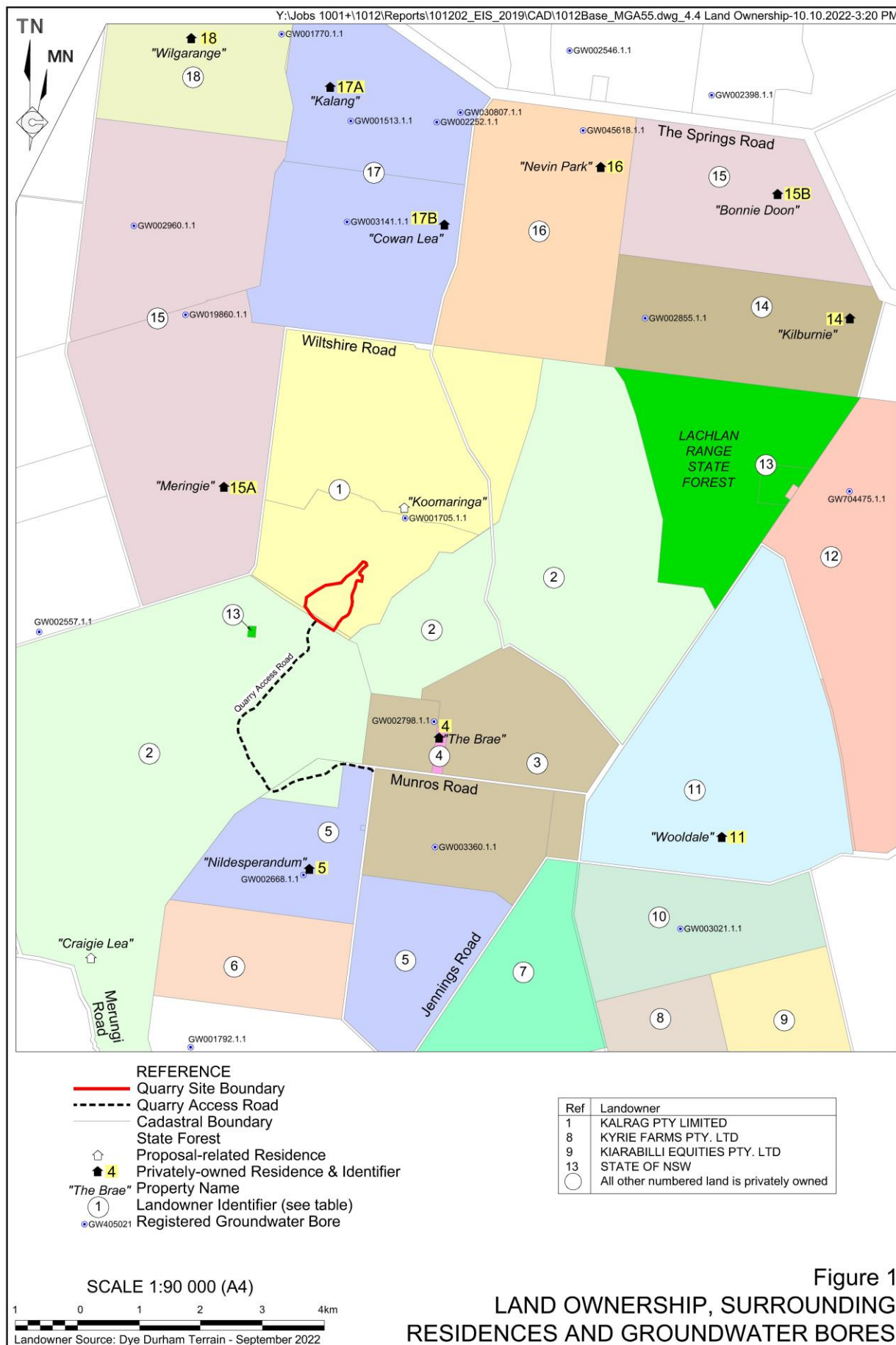


Figure 1
LAND OWNERSHIP, SURROUNDING
RESIDENCES AND GROUNDWATER BORES

Response

As identified in Section 2.1.3. of the EIS, the new development consent would supersede DA2/91 which would be formally surrendered to Council upon commencement of the activities proposed under the new development consent.

3.3 Biodiversity, Conservation and Science Directorate

3.3.1 PCT Selection

Representative Comment(s)

The selection of PCT 82 should be reviewed. This PCT is dominated by Western Grey Box (Eucalyptus microcarpa) in the tree stratum. A review of the plot data sheets revealed that this species was not recorded in any plots and the review against the TEC listing in section 5.3 of the BDAR indicates that no Inland Grey Box were recorded, and the nearest records are more than 12 kilometres away. The justification for selection of each PCT in Table 5.1 requires further analysis of species composition, landscape position and consideration of other potential PCTs with justification for why each potential PCT was discarded.

Response

BAM plot datasheets compiled by OzArk identified areas of PCT 82 within the subject land, however, the floristic data did not include any occurrences of Grey Box (*Eucalyptus microcarpa*). A recent site visit confirmed that the only examples of *Eucalyptus microcarpa* comprised minor occurrences adjacent to the access track, outside of the impact boundary. The selection of PCT 82 has therefore been revisited and updated to PCT 72. This PCT contains the major observed species (*Eucalyptus populnea* subsp. *bimbil* and *Callitris glaucophylla*) and may, but does not necessarily, include *E. microcarpa*. The identified vegetation zone also occurs on a landform (footslopes) which is considered appropriate for PCT 72. The BDAR has been updated to reflect this change, as has the BAM-C case.

The recent site visit also determined that the original extent of vegetation mapped as PCT 82 contained inclusions of *Eucalyptus dwyeri* and *Callitris glaucophylla* which could more accurately be mapped as PCT 185. It also became apparent that plot WRQ13, which contained *E. dwyeri* and *C. glaucophylla* as its only canopy species, had been wrongly assigned to PCT 186 (which contains *C. endlicheri*, not *C. glaucophylla*) instead of PCT 185. These changes are now reflected in the BDAR and the BAM-C case. A more expansive justification for each PCT identification is included in Table 5-1 of the BDAR.

It is noted that these revisions have had flow-on effects, including:

- changes to the species credit and ecosystem credit species generated by the BAM-C;
- changes to the required targeted surveys; and
- updates to the overall credit obligation associated with the proposal.

The BDAR has been revised to reflect these changes.

3.3.2 Targeted Surveys

Representative Comment(s)

The revised BDAR should, at a minimum, include consideration of the following matters:

- *Summary Table 3-3 does not accurately capture the survey effort, timing and associated PCTs that require survey effort for each candidate species.*
- *The suitable surveys months for each candidate species are not recorded in the BDAR relative to survey effort.*

Response

An additional table (now Table 3-3) has been included in the updated BDAR to provide more detail regarding the survey effort required and undertaken. The BAM survey months, actual survey period, and associated vegetation zones are given in that table. The former Table 3-3 (now 3-4) has been retained to provide additional information concerning the fauna surveys.

Representative Comment(s)

The revised BDAR should, at a minimum, include consideration of the following matters:

- *Where survey effort does not meet the recommended or minimum survey requirements in the Threatened Biodiversity Data Collection (TBDC) or threatened survey guidelines, justification for survey effort and outcomes must be provided. For example, what is the justification for one night of survey effort for Barking Owl?*

Response

The threatened species section and survey effort descriptions have been revised following changes to the PCT mapping. In the case of the Barking Owl, survey guidelines contained in the TBDC indicate that surveys should be concentrated on potential nest trees in order to detect evidence of breeding activity. As there are no trees with suitable hollows within the impact footprint, and only one that has been located within the standard 100m species polygon buffer of the subject land, additional survey for impacts to breeding habitat was deemed unnecessary. The additional site visit further determined that this hollow did not occur within 100m of a PCT associated with this species. Consequently, the species has now been excluded due to habitat constraints.

Representative Comment(s)

The revised BDAR should, at a minimum, include consideration of the following matters:

- *Justification for the species polygon generated for Sloane's Froglet detailing suitable habitats observed, any habitat buffers applied and justification for application of buffer sizes.*

Response

Following the revisions to the PCT mapping described above, Sloane's Froglet no longer generates in the BAM calculator. Consequently, this issue is no longer relevant to the assessment.

Representative Comment(s)

The revised BDAR should, at a minimum, include consideration of the following matters:

- *Justification for assumed presence for species where two additional survey seasons have passed between the 2019 surveys and the April 2022 lodgement date.*

Response

In the interval between the initial field surveys and the BDAR lodgement date, the design of the Proposal was refined to optimise the recovery of the targeted resource and avoid impacts to biodiversity and Aboriginal cultural heritage. During this time the BDAR was effectively placed on hold and OzArk concurrently underwent a complete change in ecology staff. Upon provision of the final disturbance footprint for the Proposal, the newly appointed ecology staff identified that the appropriate survey periods for the targeted species had passed.

3.3.3 Prescribed and Indirect Impacts

Representative Comment(s)

Prescribed impacts have not been assessed in accordance with section 8.3 of the BAM 2020 and the BDAR does not identify the entities at risk for each prescribed impact. The map of prescribed impacts in Figure 7-1 of the BDAR lacks detail and does not include reference to the extent, frequency, duration and timing of impact associated with construction and operation.

Response

The revised BDAR includes an expanded discussion of prescribed impacts associated with the Proposal. Where possible, threatened entities at risk of prescribed impacts have been identified. Figure 7-1 of the updated BDAR should be read in concert with this expanded discussion in Table 7-3 and with the timing and duration information included in Table 7-2.

3.3.4 Biodiversity Offset Credit Obligation

Representative Comment(s)

We understand that there is currently a commitment to establish a Biodiversity Stewardship Agreement (BSA) to meet the required credit obligation. While section 2.15 of the EIS identifies the potential 'Colinroobie' BSA site, no assessment of the credits potentially available at the site has been provided. It is not known if the site provides suitable credits to meet the like for like credit requirements for the project. The most efficient way for the applicant to meet any residual credits not able to be offset at the proposed 'Colinroobie' BSA is by paying into the Biodiversity Conservation Fund.

Response

The description of the Applicant's obligations under the Biodiversity Offset Scheme (BOS) in the updated BDAR has been expanded to include preliminary credit outputs from the proposed Biodiversity Stewardship Agreement (BSA). As this will only account for one relevant ecosystem credit, the bulk of the obligation will necessarily be offset by retiring credits through the open market or by paying into the BCF.

3.4 Heritage NSW

Representative Comment(s)

The information provided in the ACHAR is insufficient to support this IDA. Specifically, our concerns relate to insufficient information regarding the impact of the development on the values of the Koomaringa Aboriginal Place.

We require the following information to be uploaded to the CNR portal:

- *A final copy of the Koomaringa Aboriginal Place Management Plan.*
- *An updated ACHAR that considers the appropriateness of the proposed impact within the context of the Koomaringa Aboriginal Place Management Plan and the values associated with the Aboriginal Place.*

Response

The Applicant notes that a *Plan of Management – Koomaringa Aboriginal Place (PoM)* prepared in accordance with the *Guidelines for Developing Management Plans for Declared Aboriginal Places* (OEH, 2017) is currently undergoing preparation and will be uploaded to the CNR portal following finalisation.

Outcomes from consultation with Registered Aboriginal Parties (RAPs) and other stakeholders undertaken during preparation of the PoM will be used to develop specific management measures to mitigate risk to heritage sites identified within the Koomaringa Aboriginal Place and inform the updated *Aboriginal Cultural Heritage Assessment Report (ACHAR)*. The updated ACHAR will be uploaded to the CNR portal following finalisation.

3.5 Transport for NSW

Representative Comment(s)

Have the applicant certify that the intersection of Mid Western Highway and Munros Road is compliant with the general minimum preferred treatment for rural road intersections, being a Basic Auxiliary Left (BAL) and Basic Auxiliary Right (BAR) treatment, as per Austroads (2020b) warrants for greenfields rural intersection treatments? The certification must be by a suitably qualified person (i.e. civil design engineer) for the design speed (posted speed + 10km/h) as per Austroads Guide to Road Design for a Road Train Route.

Response

An assessment of the intersection of the Mid Western Highway and Munros Road was undertaken by Mr Grant Dowling of JME Civil Pty Ltd. This assessment identified that minor works would be required to seal and widen the left-in bend from the Mid Western Highway to Munros Road. Indicative drawings are provided as **Appendix 1**.

The Applicant commits to undertaking these intersection upgrade works should approval be granted.

3.6 Water NSW

Representative Comment(s)

The landowner should be aware that any extraction and use of water, must be done so in accordance with Water Management Act 2000.

Response

The Applicant notes that any extraction and use of water will be undertaken in accordance with the *Water Management Act 2000*.

Representative Comment(s)

The applicant must make application to WaterNSW to attach a Water Access Licence to the works prior to any water being taken through the bore. Should the applicant use the bore to extract water without having a Water Access Licence attached they will be in breach of the Water Management Act.

Response

The Applicant holds Water Access Licence (WAL) 28615 which will be linked to groundwater bore GW001705 (70CA617191) to provide for the extraction of up to 10ML of groundwater annually. It is noted that an application to link the works approval to the WAL was lodged in July 2022. This allocation would be used towards the Proposal's bulk water requirements.

3.7 Western Regional Planning Panel

3.7.1 Dust Generation and Suppression

Representative Comment(s)

The Panel advised Council they are of the view that the dust impacts need to be further considered as the watering system proposed by the applicant to address dust may not be sufficient to minimise impacts on the adjoining property.

The Panel recommended consideration be given to the partial sealing of the access road to manage dust and its impacts on the neighbouring property. The Panel requested Council seek feedback from the applicant on sealing the access road along the frontage of the adjoining property approximately 1/2km as an alternative measure to manage the impact of the dust.

Response

As identified in Section 5.2.7 of the EIS and Section 6 of the *Air Quality Impact Assessment* accompanying the EIS prepared by Northstar Air Quality Pty Ltd (Northstar, 2022), air quality impact assessment outcomes conclude that emissions attributable to the Proposal would comply with the annual average air quality criteria with respect to PM_{2.5}, PM₁₀, TSP and dust deposition at all sensitive receptor locations, even when cumulative emissions are considered. In addition, assessment of cumulative 24-hour PM₁₀ and 24-hour PM_{2.5} impacts indicated that there would be no additional exceedances of the assessment criteria as a result of the Proposal (i.e. there would be no exceedances of the criteria other than those predicted by background concentrations alone).

Section 6.4 of Northstar (2022) also notes that assessment of air quality impacts associated with both on-site and off-site road haulage is an intrinsic part of the assessment process and there would be no measurable increase in air quality impacts at receptors in proximity to haulage routes.

Notwithstanding, the Applicant has committed implementing the following best practice mitigation measures to ensure that dust impacts are minimised.

- The dust collection system on the drill rig would be regularly serviced to ensure it remains effective.
- Misting water sprays would be used on crushers and screens within the “Top Plant” and “Bottom Plant”.
- All unsealed internal roads would be surfaced with appropriate materials to limit dust lift-off, as required.
- Unsealed roads and unformed tracks and/or surfaces utilised by vehicles (e.g. tracks used by product transport trucks within the extraction area) would be watered, as required.
- Appropriate care would be taken to avoid spillage during loading.
- Load size would be limited, as appropriate, to ensure materials do not extend above truck sidewalls.
- Each truck cover would be fully extended on laden product transport trucks before each truck leaves the Quarry Site.
- All vehicles travelling on internal unsealed roads or unformed tracks within the Quarry Site would be limited to a speed no greater than 20km/h.
- The Applicant’s complaints management system would continue to be maintained to ensure that all complaints are dealt with through investigation and implementation of corrective treatments.

Considering the above, the Applicant contends that air quality impacts associated with the Proposal have been comprehensively assessed and would be appropriately managed should approval be granted.

3.7.2 Drainage and Runoff Management

Representative Comment(s)

The Panel requested Council seek a response from the applicant relating to the issues raised in the public submissions regarding road drainage and the measures proposed to be deployed to avoid drainage problems occurring on the neighbouring property.

Response

These matters are addressed in Section 4.3 of this document.

3.7.3 Site Layout

Representative Comment(s)

In order to understand the site boundaries, the extent of existing operations, and future land disturbance, the Panel requested Council to provide a draft conditions requiring the submission of a cadastral survey plan to:

- Define the physical boundaries of the site; and*
- Identify and map the proposed disturbance footprint; and*
- Delineate sensitive Aboriginal areas within the site; and*
- Specify the location and extent of vegetation, its management and proposed revegetation on the site.*
- The location and extent of site rehabilitation.*

Response

The Applicant has no objection to a condition of consent requesting the submission of a cadastral survey plan presenting the information identified in the above submission.

3.7.4 Management of Road Haulage and Maintenance of Local Roads

Representative Comment(s)

Council agreed to investigate and provide advice around the implications of the costs of maintaining local public roads affected by haulage routes. The Panel requested Council ensure they are satisfied with the arrangements around the options to levy or negotiate ongoing management costs associated with maintenance of haulage routes on local public roads.

Response

It is noted that the Applicant had previously entered into a road maintenance Deed of Agreement with Council in conjunction with the existing DA2/91, this Deed is currently in effect after being recently re-enacted.

4. Response to Public Submission

4.1 Introduction

The following subsections present a response to the matters raised in feedback received from the individual public submission following review of the EIS for the Proposal.

4.2 Dust Generation and Suppression

Representative Comment(s)

My property, “Nil Desperandum”, adjoins the Quarry on the southern access road form Munro’s Rd, the main southern access road to the quarry runs along the northern boundary of my farm.

As a consequence we are almost continuously affected by dust from trucks entering and leaving the site. At certain times of the year when atmospheric inversion is present, Autumn and early Spring, the whole valley of the southern approach to the quarry is often completely shrouded in dust early in the morning and late in the afternoon.

Whilst I have no overall objection to the proposed expansion of the project I have ongoing concerns about the effect of the constant veil of dust that those of us who live in the immediate vicinity of the quarry are subject to.

Response

As identified in Section 5.2.7 of the EIS and Section 6 of the *Air Quality Impact Assessment* accompanying the EIS prepared by Northstar Air Quality Pty Ltd (Northstar, 2022), air quality impact assessment outcomes conclude that emissions attributable to the Proposal would comply with the annual average air quality criteria with respect to PM_{2.5}, PM₁₀, TSP and dust deposition at all sensitive receptor locations, even when cumulative emissions are considered. In addition, assessment of cumulative 24-hour PM₁₀ and 24-hour PM_{2.5} impacts indicated that there would be no additional exceedances of the assessment criteria as a result of the Proposal (i.e. there would be no exceedances of the criteria other than those predicted by background concentrations alone).

Section 6.4 of Northstar (2022) also notes that assessment of air quality impacts associated with both on-site and off-site road haulage is an intrinsic part of the assessment process and there would be no measurable increase in air quality impacts at receptors in proximity to haulage routes.

Notwithstanding, the Applicant has committed implementing the following best practice mitigation measures to ensure that dust impacts are minimised.

- The dust collection system on the drill rig would be regularly serviced to ensure it remains effective.
- Misting water sprays would be used on crushers and screens within the “Top Plant” and “Bottom Plant”.

- All unsealed internal roads would be surfaced with appropriate materials to limit dust lift-off, as required.
- Unsealed roads and unformed tracks and/or surfaces utilised by vehicles (e.g. tracks used by product transport trucks within the extraction area) would be watered, as required.
- Appropriate care would be taken to avoid spillage during loading.
- Load size would be limited, as appropriate, to ensure materials do not extend above truck sidewalls.
- Each truck cover would be fully extended on laden product transport trucks before each truck leaves the Quarry Site.
- All vehicles travelling on internal unsealed roads or unformed tracks within the Quarry Site would be limited to a speed no greater than 20km/h.
- The Applicant's complaints management system would continue to be maintained to ensure that all complaints are dealt with through investigation and implementation of corrective treatments.

Considering the above, the Applicant contends that air quality impacts associated with the Proposal have been comprehensively assessed and would be appropriately managed should approval be granted.

4.3 Drainage and Runoff Management

Representative Comment(s)

My other major concern with this project is the effect of runoff from the access road leading to the quarry. My property is directly below the quarry and its southern access road, and receives all the runoff from the watercourses and creek lines in this range of hills. In the past we have been severely impacted by runoff caused by a poorly constructed dam at the quarry that burst during heavy rain and flooded my farm. There was, as a result, damage to fences and during this event large amounts of water flooded the foundations of the two houses on my property.

Response

As noted in Section 5.4.3 of the EIS, the sediment basin storage capacity calculations included as Appendix 6 of the EIS applied estimates of rainfall and erosion data, the soil hydrologic group and the catchment area to determine the maximum required capacity for each sediment basin within the Quarry Site. The capacities comprise the minimum settlement and storage requirements for a 90th percentile 5-day rainfall event, namely 26.3mm, the design rainfall event specified in Volume 2E of *Managing Urban Stormwater: Soils and Construction* (Landcom, 2004) for standard receiving environments.

As identified in Section 2.4.3 of the EIS, the dam referred to in the above submission, SB1, would be upgraded to provide a minimum total capacity of 1,408m³ comprising a sediment storage zone of at least 178m³ and a water settlement zone of at least 1,230m³. Water would overflow from SB1 via a rock-lined spillway. It is envisaged that SB1 would be enlarged during the early stages

of development to provide sufficient capacity for sediment-laden runoff from the contributing catchment. SB1 would ultimately be backfilled at the beginning of Stage 3 as the contributing catchment is stabilised with vegetation. Sediment basins would be maintained such that they would continue to meet capacity requirements. This would involve excavation of sediment when this exceeds the sediment storage zone for each respective sediment basin and stabilisation of drainage and sediment basin walls.

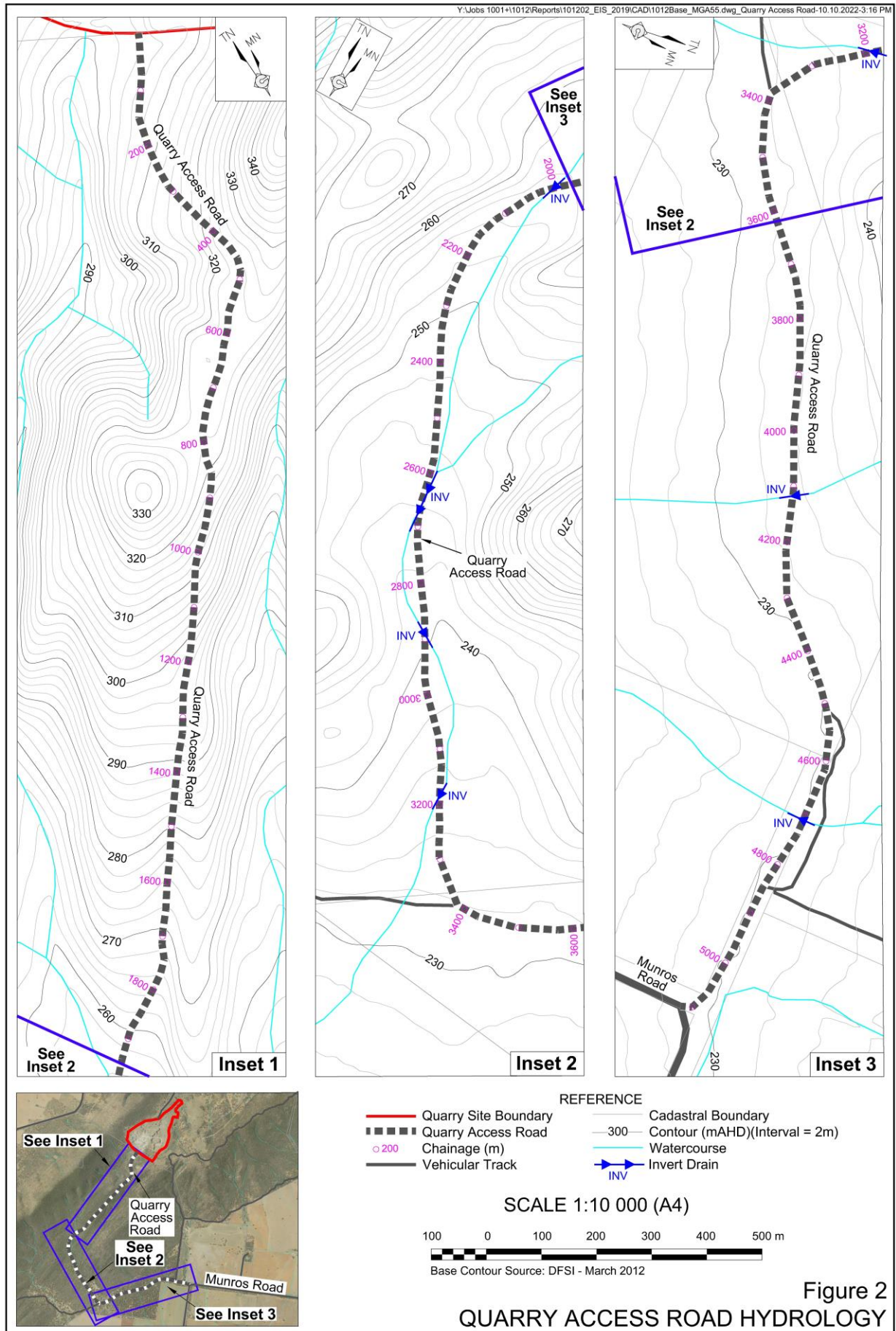
Considering the above, the Applicant contends that management of sediment basins within the Quarry Site in accordance with the measures and specifications outlined above and detailed in the EIS would ensure that the risk of discharge of sediment laden water off-site is negligible.

Representative Comment(s)

In recent times there has been work done on this access road that, in my opinion, interferes with the natural flow of these watercourses that may impact my property in the future.

Figure 2 presents the Quarry Access Road and its hydrological context. It is acknowledged that several non-perennial watercourses cross the Quarry Access Road with a total of six crossings identified. The Applicant proposes to construct inverts at each crossing to ensure adequate cross drainage and the maintenance of flow regimes. Inverts would be constructed with the finished surface at, or just below, the level of the existing stream bed. It is anticipated that the inverts would be filled with granular material to provide a trafficable surface.

A controlled activity approval under the *Water Management Act 2000* (WM Act) may be required to allow for a specified controlled activity on waterfront land.



5. Evaluation

5.1 Introduction

This section provides an update to the evaluation of the merits of the proposed modification presented in Section 7 of the EIS. It takes into account amendments made to the Proposal and refinements to management and mitigation that have been made in response to the submissions received from Government agencies and the public. As the majority of assessment outcomes have not changed as a result of the review of submissions, this section presents the relevant updates to the merits of the Project. That is, this section does not replicate or supersede the evaluation of merits presented in Section 7 of the EIS, except where it discusses the amended outcomes of assessment. A final review of the public interest is provided in conclusion to the document.

5.2 Amendments and Refinements to the Project

In response to the submission received from Biodiversity, Conservation and Science Directorate, an updated BDAR has been prepared for the Proposal as detailed in Section 3.3. Changes to PCTs identified within the Quarry Site during preparation of the updated BDAR resulted in various revisions to assessment outcomes, including changes to the species credit and ecosystem credit species generated by the BAM-C, changes to the required targeted surveys and updates to the overall credit obligation associated with the Proposal.

As noted in Section 3.5, an updated ACHAR is currently being prepared for the Proposal in response to the submission from Heritage NSW.

5.3 Updated Context for the Project

A thorough analysis of the statutory and strategic context for the Proposal was presented in Section 3 of the EIS. It is considered that the outcomes of the response to submissions do not change the statutory or strategic context of the Proposal, and that no further consideration on these matters is required.

5.4 Updated Justification Of The Project

5.4.1 Social and Economic Considerations

As described in Section 7.2.3 of the EIS, the Proposal would ensure that downward pressure is exerted on costs associated with construction material supply and influence market costs associated with construction and infrastructure projects. The Proposal would also provide for the ongoing employment of local persons which would contribute to economic growth within the Carrathool LGA and support local businesses and services. The Applicant's estimated annual expenditure of approximately \$2 million would also have considerable direct and indirect economic benefits.

Consultation with the local community has identified that the existing operation has been operating with minimal social impacts or loss of amenity. Given the large distances between the Quarry Site and surrounding residences, it is anticipated that there would not be a significant change in the current level of social impact. Notwithstanding this, the Proposal incorporates a range of management and mitigation measures to ensure that the Proposal would operate with only minor residual impacts. The Applicant would continue to maintain an open-door policy regarding complaints, questions and feedback from the local community.

5.4.2 Biophysical Considerations

In response to review of Government agency and public submissions, the Applicant has committed to the implementation of additional management or mitigation measures relating to biophysical considerations, as follows.

- Road upgrades at the intersection of the Mid Western Highway and Munros Road.
- The installation of inverts across the Quarry Access Road to restore and/or maintain natural flow regimes.

A detailed summary of the biophysical outcomes of assessment for the Proposal was presented in Section 7.2.2 of the EIS. There have been no significant changes to the outcomes of technical assessments as a result of review of the Government agency, organisational and public submissions received following public exhibition of the EIS.

Additional clarification has been provided in relation to the identification of PCTs within the Quarry Site, however, these matters do not change the outcomes of assessment of potential biodiversity impacts.

5.5 The Consequences of Not Proceeding with the Project

The consequences of not proceeding with the Project relate principally to the lost opportunity to access the hard rock resource that would be extracted by the Applicant to produce a range of Quarry products for use in construction and infrastructure projects. Given that the demand for these products would remain, it is expected that alternative greenfield sources would need to be developed, which would almost certainly result in much greater impacts to the biophysical environment than the incremental impacts addressed for the Proposal. Alternatively, products would be drawn from other quarries operated by the Applicant which would result in longer transport distances to end-users and consequently higher costs for all consumers.

5.6 Conclusion

The Proposal has been designed to permit the ongoing efficient extraction of an important hard rock resource within the Quarry Site. The Proposal incorporates a range of design and operational management and mitigation measures to ensure all relevant statutory goals and criteria, environmental objectives and reasonable community expectations are satisfied.

This document and the range of specialist consultant studies undertaken have identified that the Proposal should proceed because it would:

- contribute towards satisfying the demand for Quarry products required for construction and infrastructure projects within the Carrathool LGA and the broader Riverina Region;
- have a minimal and manageable impact on the biophysical environment;
- satisfy sustainable development principles; and
- result in a net benefit for the local community, the Carrathool Shire Council and the State of NSW.

6. References

Austroads (2020b). *Austroads Guide to Road Design for a Road Train Route.*

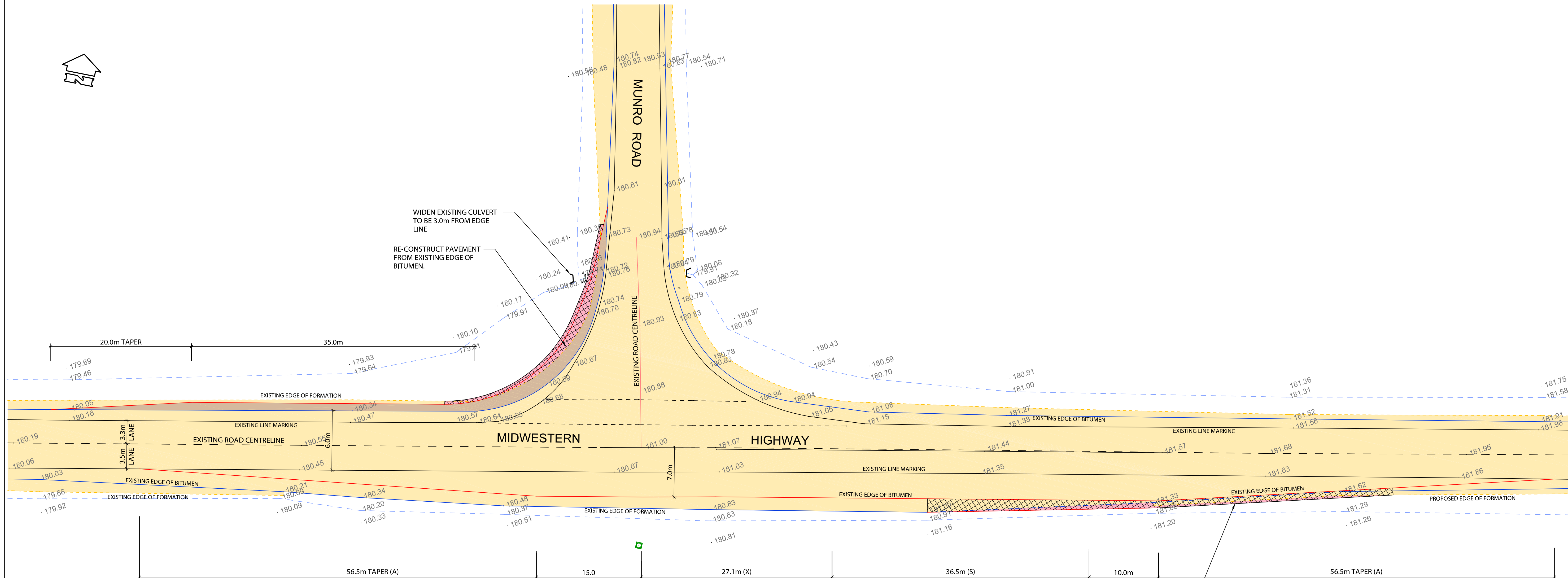
Landcom (2004). *Managing Urban Stormwater: Soils and Construction.*

Northstar Air Quality Pty Ltd (2022). *Air Quality Impact Assessment.* Presented as Appendix 4 of the *Environmental Impact Statement.*

Appendix 1

Intersection Drawings

(Total No. of pages including blank pages = 3)



LEGEND

- PROPOSED EXTENTS OF PAVEMENT WIDENING
- EXISTING PAVEMENT
- PROPOSED PAVEMENT RECONSTRUCTION AREA
- PROPOSED SEALING TO EXISTING PAVEMENT
- PROPOSED EXTENTS OF DESIGN TREATMENT
- EXISTING TABLE DRAIN
- EXISTING EDGE OF BITUMEN
- EXISTING EDGE OF SHOULDER / FORMATION

NOTES:

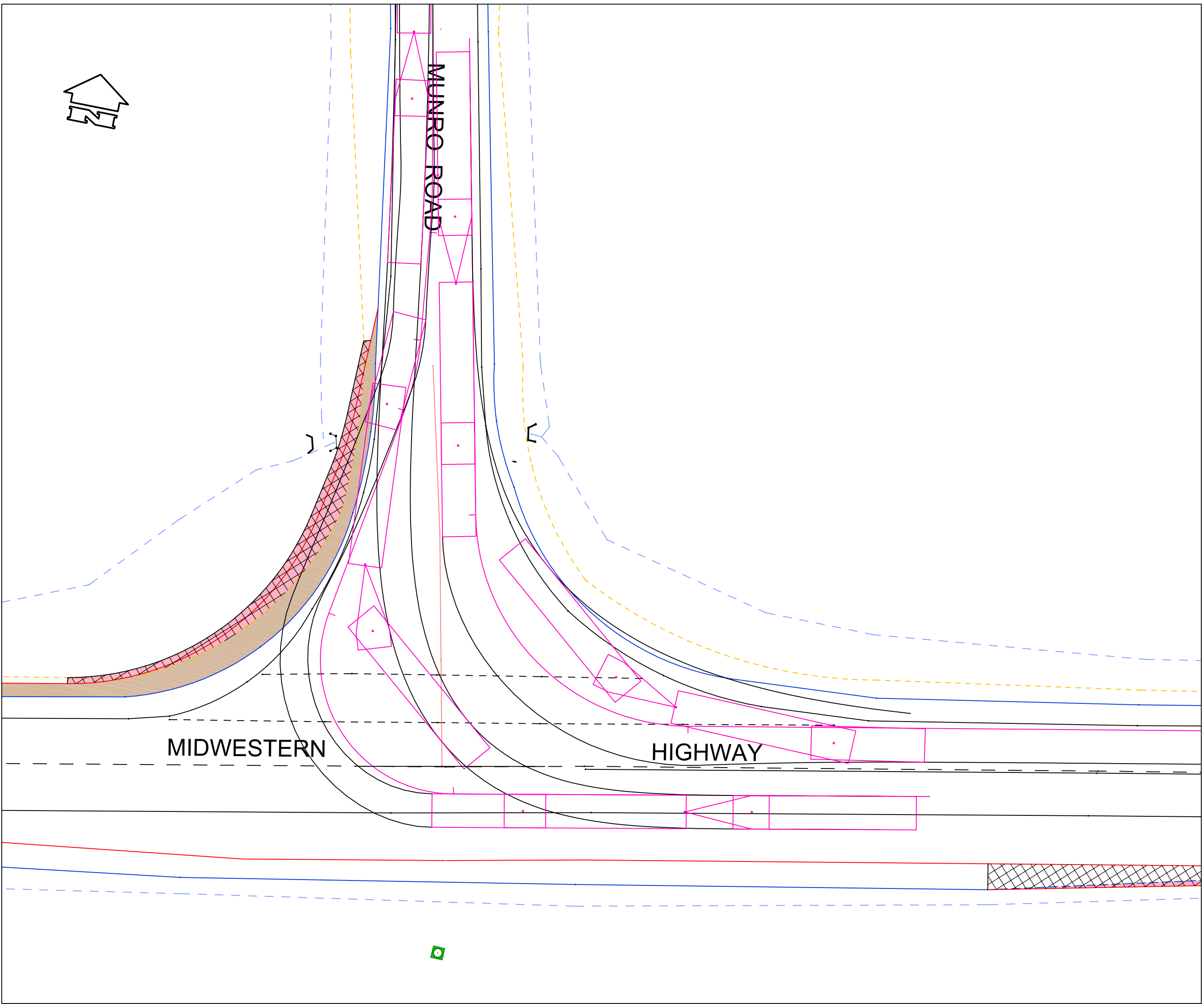
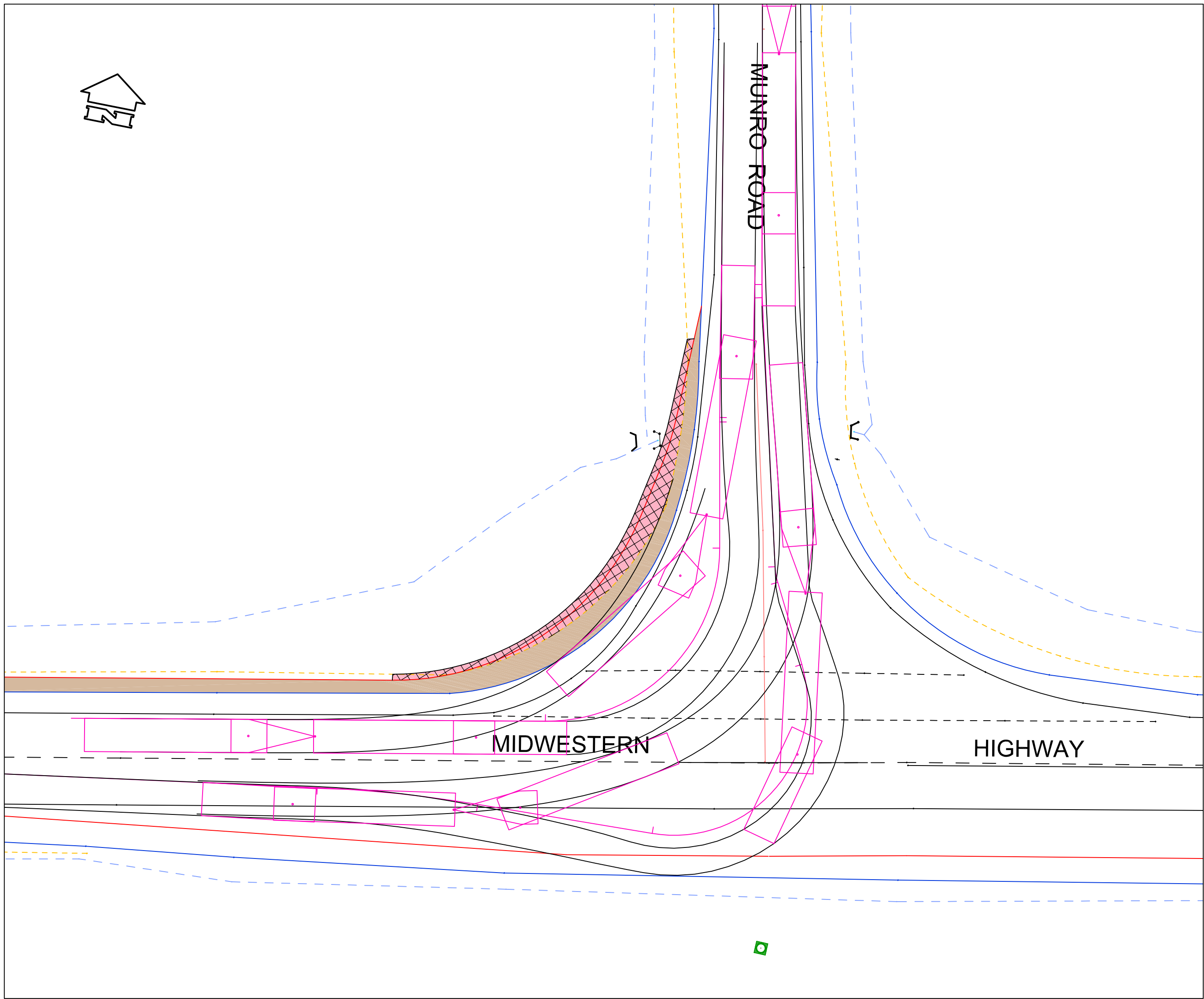
- TURNING PATHS SHOWN BASED ON MAX 5km/hr MANOEUVRE SPEEDS (ABSOLUTE MINIMUM RADII FROM AUSTRROADS PUBLICATION AUSTRROADS: Design Vehicles and Turning Path Templates 2006) FOR A 36.2m A-DOUBLE (TYPE 1 ROAD TRAIN).
- ALL EXISTING SIGNAGE AND GUIDE POSTS TO BE RE-INSTATED UPON COMPLETION OF WORKS.

RE-CONSTRUCT PAVEMENT FROM EXISTING EDGE OF BITUMEN.

NOT FOR CONSTRUCTION



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- NOTES:
- 1) TURNING PATHS SHOWN BASED ON MAX 5km/hr MANOEUVRE SPEEDS (ABSOLUTE MINIMUM RADII FROM AUSTRROADS PUBLICATION AUSTRROADS: Design Vehicles and Turning Path Templates 2006) FOR A 36.2m A-DOUBLE (TYPE 1 ROAD TRAIN).
 - 2) ALL EXISTING SIGNAGE AND GUIDE POSTS TO BE RE-INSTATED UPON COMPLETION OF WORKS.

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