

COUNCIL ASSESSMENT REPORT NORTHERN REGIONAL PLANNING PANEL

PANEL REFERENCE & DA NUMBER	PPSNTH-201 – DA 2023/006
PROPOSAL	Extension of Existing Waste Management Facility
ADDRESS	Lot 213, DP 1173230, 258 Merriwa Road, Willow Tree
APPLICANT	Shaun Lawer
OWNER	Liverpool Plains Shire Council
DA LODGEMENT DATE	17 February 2023
APPLICATION TYPE	Development Application (Integrated) (Designated)
REGIONALLY SIGNIFICANT CRITERIA	Section 2.19(1) and Clause 3 of Schedule 6 of State Environmental Planning Policy (Planning Systems) 2021 declares the proposal regionally significant development as: Council related development over \$5 million
CIV	\$10,170,000.00 (excluding GST)
CLAUSE 4.6 REQUESTS	Not Applicable
KEY SEPP/LEP	• <i>State Environmental Planning Policy (Biodiversity and Conservation) 2021</i> • <i>State Environmental Planning Policy (Planning Systems) 2021</i> • <i>State Environmental Planning Policy (Resilience and Hazards) 2021</i> • <i>State Environmental Planning Policy (Resources and Energy) 2021</i> • <i>State Environmental Planning Policy (Transport and Infrastructure) 2021</i> • <i>Liverpool Plains Local Environmental Plan 2011</i> • <i>Liverpool Plains Development Control Plan 2012</i>
AGENCY REFERRALS	NSW Environmental Protection Authority (NSW EPA)
TOTAL & UNIQUE SUBMISSIONS KEY ISSUES IN SUBMISSIONS	The first exhibition period was from Wednesday 3 May 2023 to Wednesday 31 May 2023. The second exhibition period was from Wednesday 9 August 2023 to Monday 11 September 2023. No submissions were received for the proposal during either period.

DOCUMENTS SUBMITTED FOR CONSIDERATION	Draft Conditions of Consent Environmental Impact Statement Aboriginal Due Diligence Assessment Concept Design (Survey Plan, Site Plan, Staging Plans etc.) Landfill Extension Masterplan Noise and Vibration Assessment Water Impact Assessment Air Quality Assessment Environmental Noise and Vibration Assessment Traffic Assessment Odour and Dust Assessment Biodiversity Assessment Report
SPECIAL INFRASTRUCTURE CONTRIBUTIONS (S7.24)	Not Applicable
RECOMMENDATION	Approval, subject to conditions of consent.
PEER REVIEW	9 October 2023 - 27 October 2023
DRAFT CONDITIONS TO APPLICANT	Yes
SCHEDULED MEETING DATE	14 November 2023
PLAN VERSION	9 December 2022 Project No.12534581, Version No B
PREPARED BY	Nathan Bartlett, Town Planner
DATE OF REPORT	9 November 2023

Please Note: All changes to the Final assessment Report resulting from Peer Review Comments have been are listed as red for ease of reader identification.

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Acronyms, Figures and Tables

Acronyms

EP&A Act 1979	Environmental Planning and Assessment Act 1979
WTWMF	Willow Tree Waste Management Facility
WMS	Waste Management Strategy
NSW EPA	New South Wales Environment Protection Authority
LGA	Local Government Area
EIS	Environmental Impact Statement
SEPP	State Environmental Planning Policy
TPA	Tonnes Per Annum
EPL	Environment Protection License
DUAP 2001	Department of Urban Affairs and Planning 2001
VMP	Vegetation Management Program
CPTED	Crime Prevention Through Environmental Design
SEARs	Secretary's Environmental Assessment Requirements
ESD	Ecologically Sustainable Development
AQA	Air Quality Assessment
PAD	Potential Archaeological Deposit
GTAs	General Terms of Approval
LPDCP 2012	Liverpool Plains Development Control Plan 2012
LPLEP 2011	Liverpool Plains Local Environmental Plan 2011
POEO Act 1997	Protection of the Environment Operations Act 1997
BOS	Biodiversity Offset Scheme
BAM	Biodiversity Assessment Method
BAR	Biodiversity Assessment Report
KPoM	Koala Plan of Management
BDAR	Biodiversity Development Assessment Report
AHD	Australian Height Datum
DCCEEW	Department of Climate Change, Energy, the Environment and Water
NRPP	Norther Regional Planning Panel
TfNSW	Transport for New South Wales
NSW RFS	New South Wales Rural Fire Service
The Regulation	Environmental Planning and Assessment Regulation 2021

TIA	Traffic Impact Assessment
TMP	Traffic Management Plan
ESCP	Erosion and Sediment Control Plans
LPSC	Liverpool Plains Shire Council
PIRMP	Pollution Incident Reduction Management Plan
TEC	Threatened Ecological Community
DPE	Department of Planning and Environment
EPBC Act 1999	Environment Protection and Biodiversity Conservation Act 1999
NML	Noise Management Level
TNMS	Traffic Noise Management Strategy
WIA	Water Impact Assessment
WMP	Waste Management Plan

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1. EXECUTIVE SUMMARY

This report considers a Development Application (DA 2023/006) and seeks consent for the staged expansion of an existing waste management facility at the Willow Tree Waste Management Facility (WTWMF) ('the proposal') located at Lot 213, DP 1173230, Merriwa Road, Willow Tree (the site). The proposed development has been assessed against the relevant requirements of the *Environmental Planning and Assessment Act 1979* (EP&A Act 1979).

The town of Willow Tree is located approximately 3.2 kilometres (km) north-east of the subject site. The closest residence is approximately 500 metres (m) east of the site. The site is not identified as being subject to flooding nor does it contain an item of heritage significance. The subject land is however identified as bushfire prone by the New South Wales Rural Fire Service (NSW RFS) Bushfire Map.

The existing operation, known as the Willow Tree Waste Management Facility (WTWMF), covers an area of approximately 0.5 ha. Isolated patches of native vegetation comprising disturbed woodland and grassland occur over the remainder of the site. Existing development on the site consists of excavation works and structures associated within the current operation of the Facility. Sediment ponds capture stormwater runoff from the exposed parts of the site before discharging into Warrah Creek downstream. Other parts of the site have been disturbed by previous quarrying activities and excavations.

The project would involve the staged expansion of the existing landfill at the WTWMF. Stage 1 proposes bulk earthworks and construction of the Stage 1 basal and side wall liners, leachate barrier system and leachate pond. This stage also includes installation of a weighbridge, site office and amenities, resource recovery area including a community recycling centre, drop-off locations for domestic customers for tyres, concrete, steel, green waste, bulky wastes, etc and small vehicles transfer station. Stages 2 and 3 would be progressively commenced upon completion of landfilling of Stage 1.

The proposed expansion would facilitate increasing the capacity of the WTWMF from 4,400 tonnes per annum (tpa) up to 9,000 tpa, based on waste projections contained in Liverpool Plains Shire Council's (LPSC's) Waste Management Strategy.

Pursuant to clause 2.19(1) of *State Environmental Planning Policy (Planning Systems) 2021*, the proposal is declared regionally significant as a consequence of clause 7(c) to Schedule 6.

Approval for the project will be sought under Part 4, Division 4.3, Clause 4.10 of the *Environmental Planning and Assessment Act 1979* (EP&A Act 1979) as designated development. As integrated development, approvals would also be sought from the NSW Environment Protection Authority (NSW EPA) pursuant to the *Protection of the Environment Operations Act 1997*. The proposal will be assessed against relevant local, State and Commonwealth legislation.

The site is zoned part *SP1 Special Activities* and part *RU1 Primary Production* and a 'waste management facility' is identified as permissible in the *SP1 Special Activities* zone pursuant to Clause 2.2 of the *Liverpool Plains Local Environmental Plan 2011* ('LPLEP 2011'). The proposal, located within the *SP1* zone, also obtains its permissibility pursuant to clause 2.152(1) of *State Environmental Planning Policy (Transport and Infrastructure) 2021*, where development for the purpose of a waste or resource management facility may be carried out by any person with consent on land in a prescribed zone; *SP1* is a prescribed zone. A portion of the proposed development also extends into the *RU1 - Primary Production* zone and the provisions 2.153 (1) of the *Transport and Infrastructure SEPP* provides that development for the purposes of waste or resource management facilities may be carried out by any person with consent on land in a prescribed zone.

The proposal was referred externally to New South Wales Environmental Protection Authority (NSW EPA) under the provisions of the *Protection of the Environment Operations Act 1997*. The NSW EPA requested additional information during their assessment which was provided, satisfying their

requirements. No objections or concerns were raised and General Terms of Approval (GTAs) were issued 5 October 2023.

A referral to Transport for New South Wales (TfNSW) pursuant to *State Environmental Planning Policy (Transport and Infrastructure) 2021* ('Transport and Infrastructure SEPP' 2021) was sent for comment and feedback and no objections or concerns were raised.

The principle planning controls relevant to the proposal include *State Environmental Planning Policy (Resilience and Hazards) 2021* ('SEPP (Resilience and Hazards) 2021'), *State Environmental Planning Policy (Transport and Infrastructure) 2021* ('SEPP (Transport and Infrastructure) 2021'), *NSW EPA's Environmental Guidelines: Solid Waste Landfills (2016)*, the *Liverpool Plains Local Environmental Plan 2011* and the *Liverpool Plains Development Control Plan 2012* ('LPDCP 2012'). The proposal is consistent with various provisions of the planning controls including:

- The provisions of SEPP (Transport and Infrastructure) 2021 including Chapter 2 Infrastructure in relation to the impact of traffic & access on Merriwa Road and the New England highway and Clause 2.122 Traffic-generating development;
- State Environmental Planning Policy (Biodiversity & Conservation) 2021 proposed development satisfies the requirements of this Policy;
- Section 4.6 of the State Environmental Planning Policy (Resilience & Hazards) 2021 for consideration of whether the land is contaminated;
- The proposed development satisfied the provisions of the EPBC Act 1999.
- New South Wales Environmental Protection Authority (NSW EPA);
- The general provisions of the LPDCP 2012 which have been thoroughly addressed in this assessment and determined that no detrimental impacts have been identified as a result of the proposed development. The proposed extension fits within the locality and it is considered the site attributes are conducive to the development;
- The proposed development being permissible on land zoned *SP1 Special Activities* pursuant to the LPLEP 2011;
- all objects of the EP&A Act 1979 and is not contrary to the public interest; and
- The proposal also adequately addresses all matters for consideration under Section 4.15(1) of the EP&A Act 1979 in relation to potential adverse impacts to surrounding areas.

The proposal was notified in accordance with Council's Community Consultation Plan from Wednesday, 3 May 2023 to Wednesday, 31 May 2023, and Wednesday, 9 August 2023 to Monday, 11 September 2023. No submissions were received during these notification periods.

Further, the application was also referred to the NSW Environmental Protection Authority (NSW EPA), Transport for NSW (TfNSW), NSW Rural Fire Service, Environment, Energy and Science Group, for assessment in accordance with the Secretary's Environmental Assessment Requirements (SEARs) and the EP&A Regulation 2021. No concerns were raised to the proposal.

The application is referred to the Northern Regional Planning Panel ('the Panel') as the development is '*regionally significant development*', pursuant to Section 2.19(1) and Clause (5)(b) of Schedule 6 of *State Environmental Planning Policy (Planning Systems) 2021* as the proposal is development for a *waste management facility* with a CIV over \$5 million. A briefing was held with the Northern Regional Planning Panel (NRPP) 25 May 2023, where key issues were discussed, including boundary confirmation of the proposed expansion, rehabilitation / management plans for the life of the development and thereafter, potential impacts on receptors and the environment and clarification on traffic movements. Comments on the proposed excavation works and cell design of the landfill liner profiles were also raised. Issues identified during the Briefing Meeting are considered to be adequately addressed through the submission of additional information and technical reports.

A copy of the draft Notice of Determination was not made available to the applicant before the completion of this report.

The key issues associated with the proposal, and as per the obligations of the SEARs, included:

1. *Strategic and statutory context* - The criteria against the provisions of the Regulations, planning instruments and local instruments are required to be addressed by the proponent and have been discussed throughout this report.
2. *Waste management* - The appropriate management of ongoing operations are important to ensure consistency with the aims, objectives and guidelines of the *NSW Waste Avoidance and Sustainable Materials Strategy 2041*.
3. *Design, Construction and Rehabilitation during and after the operation* - If not appropriately managed during construction, operation and after the lifespan of the WTWMF Project there is the potential for the development to have detrimental cumulative impacts on the health and safety of the community and the environment.
4. *Hazards and risk, fire and incident management* - The potential hazards and risks must be identified in order to appropriately manage on the site. The protection against and management of any fires is an important consideration to prevent the associated risks.
5. *Impact of noise, vibration and air quality* - The potential impacts to nearby receptors including existing commercial development, dwellings, and Willow Tree during construction and operation. The potential for noise, vibration, odour and dust to impact on adjoining properties.
6. *Soil and water* - The development has the potential to cause erosion, impact on stormwater, and contaminate surface and subsurface conditions if appropriate mitigation, management and rehabilitation measures are not implemented.
7. *Traffic and safety* - The suitability of the road for the proposed expansion of the Waste Management Facility and the impact of increased traffic and vehicular movement on the existing road network. Additionally, the landfill operation in relation to waste transfer stations located in the LPSC's shire villages and subsequent volume of truck movements.
8. *Biodiversity impacts* - The potential for the Waste Management Facility to have an impact on flora and fauna species during the construction, operation and post stages of the development.
9. *Heritage* - The potential impacts on aboriginal and non-aboriginal cultural heritage.
10. *Visual* - The potential impacts of the proposal on adjoining receptors and public vantage points.

The applicant has provided suitable information including technical reports which adequately address these concerns.

This report summarises and evaluates the key issues, as identified in the SEARs, associated with the development application. Additionally, the report provides an assessment of the relevant matters of consideration in accordance with the *Environmental Planning and Assessment Act 1979*, *Environmental Planning and Assessment Regulation 2021*, the *Liverpool Plains Local Environmental Plan 2011* and the *Liverpool Plains Development Control Plan 2012*. The *Environmental Impact Statement (EIS)* has also met the requirements of Part 8 *Infrastructure and environmental impact assessment*, Clause 192 and 193 of the Regulations, which has been discussed throughout this report.

Accordingly, the proposal is considered to be suitable for the site and in the public interest and is therefore unlikely to result in adverse impacts in the locality. After consideration of the proposal having regard to the matters for consideration under Section 4.15(1) of the EP&A Act 1979, the provisions of the relevant State environmental planning policies and other legislative requirements it is considered the proposal can be approved subject to recommended conditions contained at **Attachment A** of this report.

2. THE SITE AND LOCALITY

2.1 The Site

The subject site described as Lot 213, DP 1173230, 258 Merriwa Road and is located 3.2 kilometres (km) south-west of the town of Willow Tree and covers an area of 20.8 hectares (ha). The existing operation, known as the Willow Tree Waste Management Facility (WTWMF) covers an area of approximately 0.5 ha. Sediment ponds capture stormwater runoff from the exposed parts of the site before discharging into Warrah Creek downstream. Other parts of the site have been disturbed by previous quarrying activities and excavations. Isolated patches of native vegetation comprising disturbed woodland and grassland occur over the remainder of the site. The site is not connected to reticulated sewer, water, electricity, or telecommunication services.

The property is described as an irregular allotment with undulating topography and access to the site is provided off Merriwa Road. A ridgeline runs in a roughly north-south direction through the site, with an unsealed access track along it. The northern part of this ridge has been removed by quarrying such that the high point is now near the central western area of the site. The land slopes away from this high point in all directions. The landfill expansion area specifically slopes south-west towards Merriwa Road. A gravel driveway provides access to the site from this road. Another driveway branching off of this track provides access to the adjacent property, which is used as a gravel quarry. Merriwa Road is the only access route, which connects the site directly to the township of Willow Tree and the New England Highway.

Physically the land adjoins a mixture of residential and rural development. The site is not identified as being subject to flooding nor does it contain an item of heritage significance. The subject land is however identified as bushfire prone by the New South Wales Rural Fire Service (NSW RFS) Bushfire Map. An aerial photograph is depicted in Figure 1, while a locality map of the subject site is identified in Figure 2. Photographs of the subject site are also provided in **Attachment A**.



Figure 1: Aerial Photograph - Willow Tree Waste Management Facility on Merriwa Road

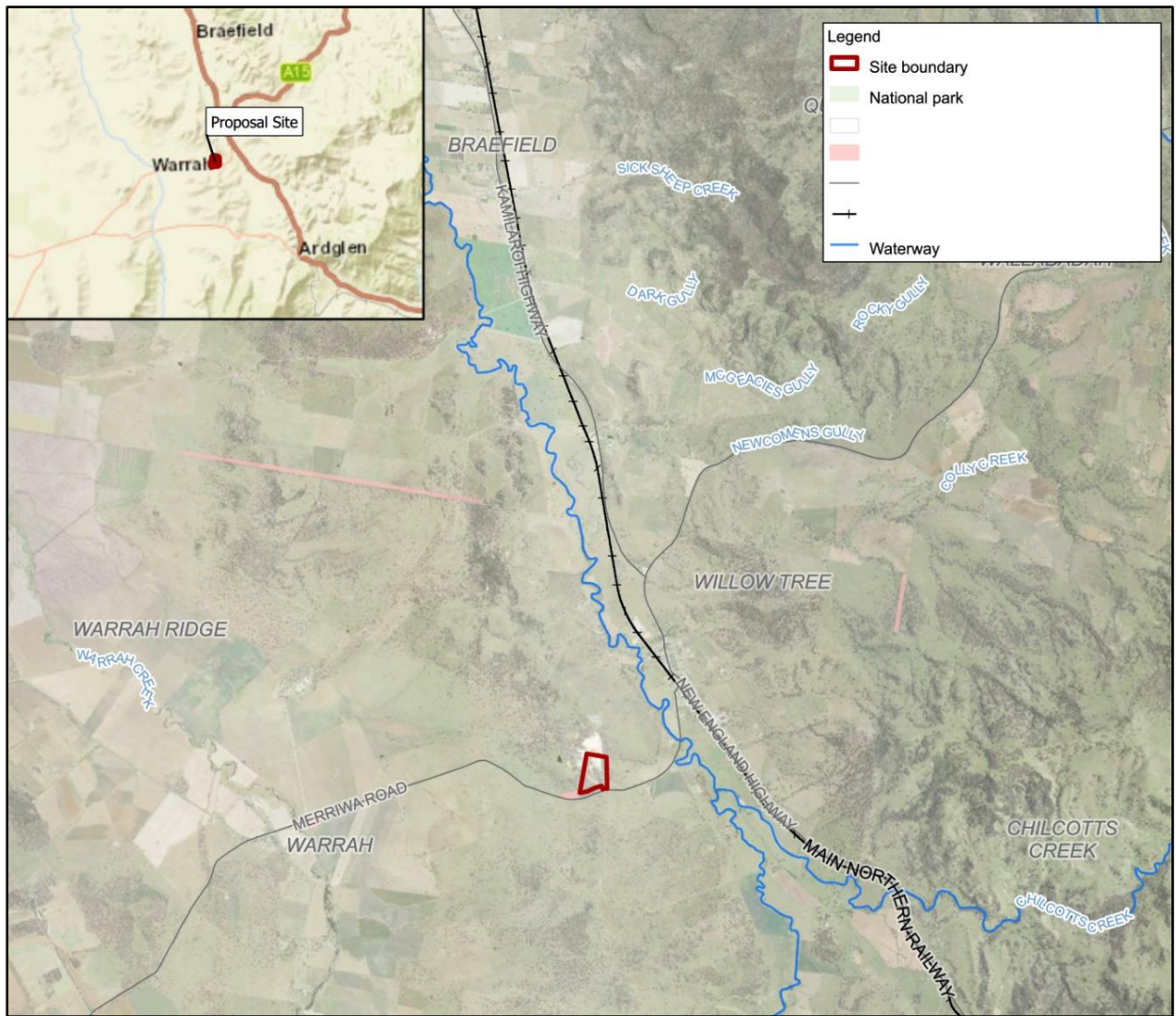


Figure 2: Locality Map of the Subject Land

2.2 The Locality

All land surrounding the site is zoned *RU1 Primary Production* and is used for rural activities and primary production. The majority of the adjoining lands are utilised for grazing. The Willow Tree Gravels quarry, operating under Environmental Protection Licence (EPL) 5154), exists on adjacent lots to the west (Lot 1 DP 502092), and to the north (Lot 121 DP 857377).

The town of Willow Tree is located approximately 3.2 kilometres (km) north-east of the subject site. This is a small rural township of approximately 308 people. The closest residence is approximately 500 metres (m) east of the site. Hidden Valley Homestead, which operates as a bed and breakfast is approximately 830 m south-east of the site. An aerial view in Figure 3 below confirm details of the subject land and its immediate surrounds.

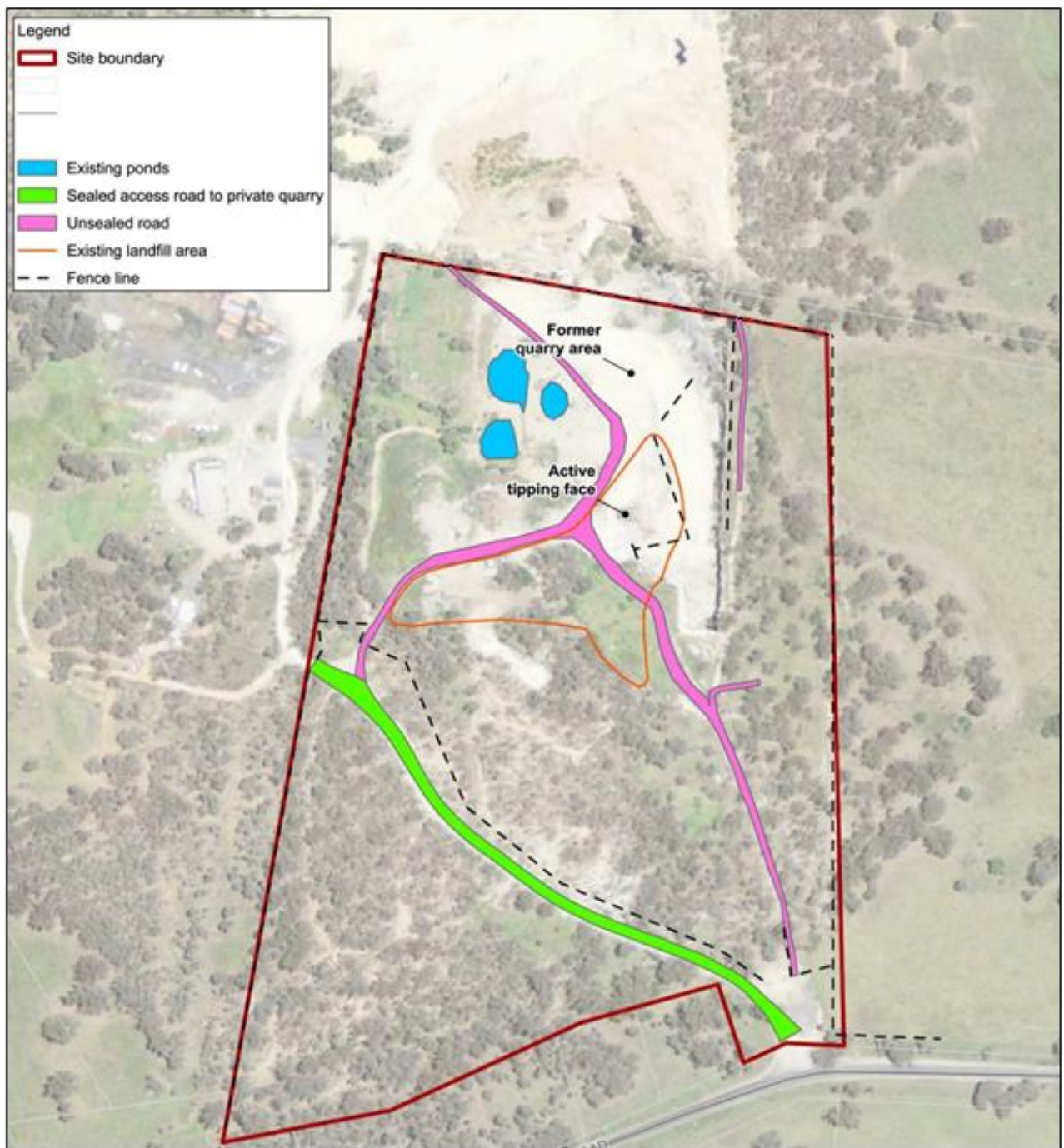


Figure 3: Aerial details of the Subject Site

A part sealed and part gravel driveway provides access to the site from Merriwa Road, which is the only access route by road. This road also connects the site directly to the township of Willow Tree and the New England Highway, which is a major state road. A secondary internal driveway branches off from the entry point to the subject site and also provides access to the adjoining property, Willow Tree Gravel Quarry to the north.

There are no public transport routes (i.e. bus services) located on Merriwa Road and no train stations exist nearby the subject land. Furthermore, there is no provision for pedestrian facilities such as paved footpaths along either side of Merriwa Road.

3. THE PROPOSAL AND BACKGROUND

3.1 The Proposal

The proposed expansion would facilitate increasing the capacity of the WTWMF from 4,400 tonnes per annum (tpa) up to 9,000 tpa, based on waste projections contained in Liverpool Plains Shire Council's (LPSC's) Waste Management Strategy (WMS). The SEARs were also applied for and obtained on the basis of 9,000 tpa. The landfill extension is estimated to provide approximately 30 years of landfilling life. Construction of the project will involve 1) Site establishment and ground preparation; and 2) Construction as the key stages. These are described in more detail below.

Stage 1 - Site establishment and ground preparation

Site establishment and ground preparation works are expected to include:

- Establishment of site environmental controls including sediment and erosion controls and leachate management.
- Construction of internal roads and parking areas, that would be gravel construction.

Stage 2 - Construction

Construction works are expected to include:

- Excavation will be limited to a minimum, primarily to establish a suitable grading along the landfill base for construction and operation.
- Construction of liner consistent with NSW EPA's Environmental Guidelines: Solid Waste Landfill 2016.

Construction of the project is intended to generally occur during standard hours for construction work as outlined in the Interim Construction Noise Guideline (DECC, 2009) which are:

- Monday to Friday - 7:00 am to 6:00 pm
- Saturday - 8:00 am to 1:00 pm
- Sundays or Public Holidays - No works

Specifically, the proposal seeks consent for staged expansion of an existing landfill. This includes cell construction, to receive up to 9,000 tonnes per year of domestic putrescible, organic and clean fill waste. The proposed landfill expansion area will be progressed in three (3) separate stages (refer Figure 4). Stage 1 of the proposed landfill area will involve bulk earthworks and the construction of:

- The Stage 1 basal and side wall liners,
- Leachate barrier system and leachate pond,
- A weighbridge, site office and amenities,
- A resource recovery area including a community recycling centre, and drop-off locations for domestic customers for tyres, concrete, steel, green waste, bulky wastes, etc, and
- A small vehicle transfer station for domestic customers, for transfer by the site operator or collections contractor to the landfill cells.

Stage 1 of the proposed extension is predicted to have a life span of ten (10) years. Stages 2 and 3, which is anticipated to have approximately a twenty (20) year lifespan, would be progressively commenced upon completion of the landfilling of the Stage 1 basal and wall liner area.

Operating Hours

The proposed hours of operation for the project are from 7.00 am to 6.00 pm, 7 days per week, but will not operate during public holidays.

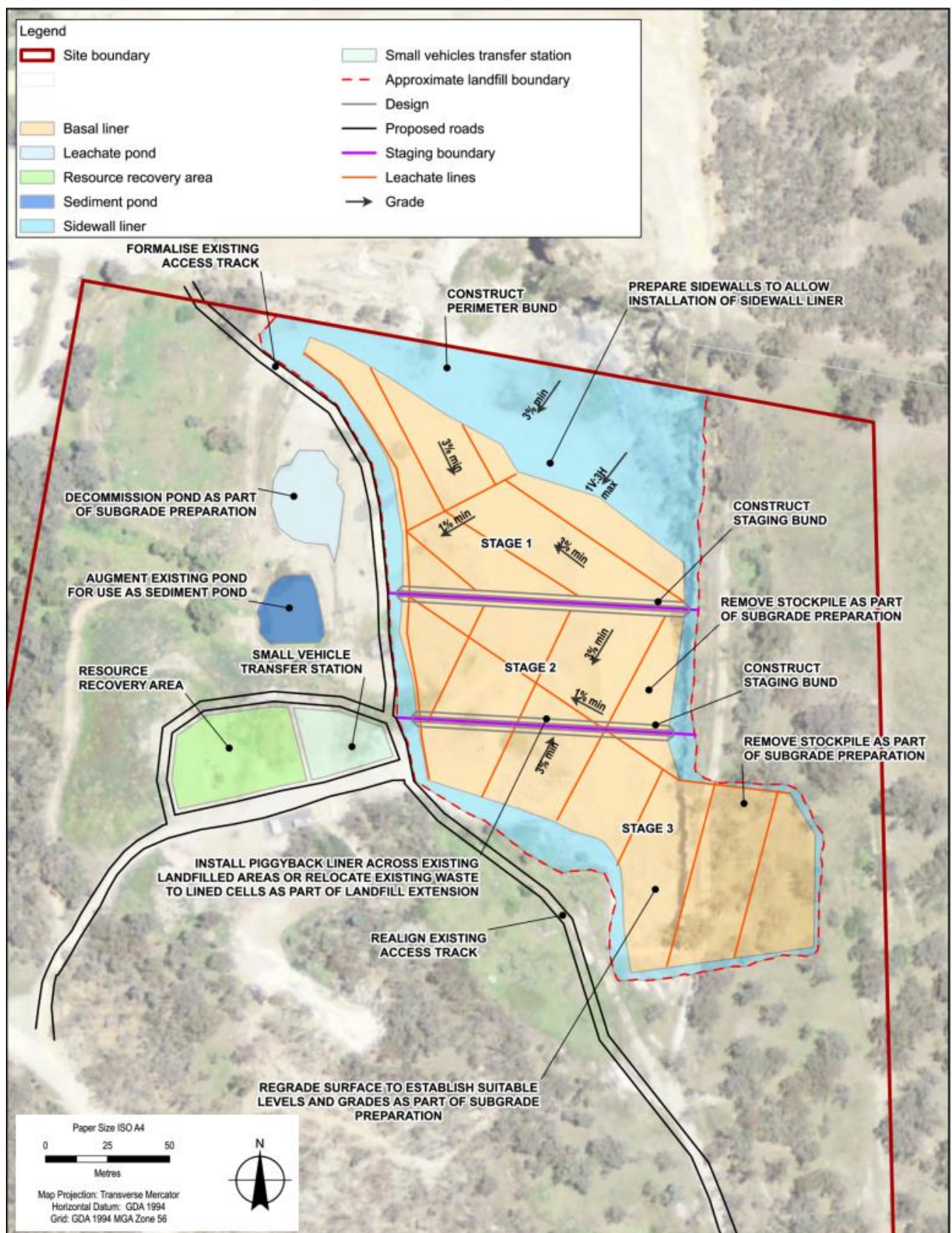


Figure 4: Details of the proposed staging of the development

The proposed landfill expansion covers an area of 3.95 hectares. Native vegetation loss, including vegetation considered to be a Threatened Ecological Community (TEC) and habitat loss associated with the project, covers approximately 0.05 hectares. The majority of vegetation exists outside of the proposed landfill expansion, with almost all of the proposed landfill expansion area being disturbed by the former gravel quarry extraction.

The land use is defined as a 'waste or resource management facility' and is permissible in the *SP1 Special Activities* zone of the *Liverpool Plains Local Environmental Plan 2011* (LPLEP 2011). The key development data for the proposal is provided in **Table 1**.

Table 1: Key Development Data

Control	Proposal
Site area	20.8 hectares (ha)
GFA	N/A
FSR (retail/residential)	Nil
Clause 4.6 Requests	No
No of apartments	N/A
Maximum Height	No height restrictions apply to development of this type. However, the highest structure is 3.1 metres to the peak and is considered suitable.
Landscaped area	N/A
Car Parking spaces	Five (5) spaces for staff vehicles
Setbacks	Comply with LPDCP 2012

3.2 Background

The site is currently used primarily for the existing WTWMF. The existing operation covers an area of approximately 0.5 ha. Other parts of the site have been disturbed by previous quarrying activities and excavations. Isolated patches of native vegetation comprising disturbed woodland and grassland occur over the remainder of the site.

The development application was lodged on 17 February 2023. A chronology of the development application since lodgement is outlined below in **Table 2** and includes the NRPP's involvement (briefings, deferrals etc.) with the application:

Table 2: Chronology of the DA

Date	Event
17 February 2023	DA lodged
22 February 2023	Request for information from Council to applicant to provide Cost Summary Report
6 March 2023	Additional information submitted
3 May 2023	Exhibition of the application
11 May 2023	Request to have Referral to NSW EPA reinstated due to cancellation by NSW Planning Portal
17 May 2023	DA referred to external agency (NSW EPA)
19 May 2023	Additional Information request for amended plans (boundary adjustments and construction plans for sheds, office / amenities and shelters).
19 May 2023	Staff site inspection – Council Assessing Officer

25 May 2023	NRPP briefing meeting
30 May 2023	DA referred to external agency (TfNSW)
31 May 2023	Cessation 1st Exhibition period
1 June 2023	Panel Record of Briefing issued
15 June 2023	Second request from Council to applicant for amended plans and further clarification of report
23 June 2023	Request from NSW EPA to Council for further information
23 June 2023	Request for NSW EPA information from Council to applicant
23 June 2023	Amended plans lodged with Council were not accessible. A further request was sent to applicant seeking plans in accessible format.
12 July 2023	Response from TfNSW provided to Council
18 July 2023	On-site Meeting with NRPP
18 July 2023	Plans lodged with Council (inclusion of elevations and sections of weighbridge, office and associated infrastructure)
26 July 2023	Applicant provides Council with additional information (modified Air Quality Assessment requested by NSW EPA)
27 July 2023	Additional information (modified Air Quality Assessment) from applicant referred to NSW EPA.
27 July 2023	NRPP Record of site visit issued
9 August 2023	Amended plans lodged with Council (inclusion of elevations, 3D model and sections of weighbridge, office, amenities and associated infrastructure) and accepted by Council under CI 38(1) of the <i>Environmental Planning and Assessment Regulation 2021</i> ('the Regulation') on 9 August 2023.
9 August 2023	Commencement of second exhibition
11 September 2023	Cessation of 2nd exhibition period
6 October 2023	Planning Report and draft Notice of Determination uploaded to Portal
27 October 2023	Request for information from Council in response to peer review (assessment partially complete)
9 November 2023	Additional information provided by applicant incorporated into report
9 November 2023	Completed assessment of peer review received by Council
14 November 2023	Panel Determination Meeting

3.3 Site History

Historically, the subject land was initially used for agricultural purposes requiring vegetation clearing. Following this a quarry operated on the subject site, where the land has been significantly disturbed by quarrying activities and excavations. The property then became the Willow Tree Waste Management Facility in 1974, under the management of the former Murrurundi Shire Council. Following the amalgamation of Parry, Murrurundi and Quirindi Council's in 2004 the facility

continued its operation under Liverpool Plains Shire Council. In 2018, Liverpool Plains Shire Council (LPSC) developed a 10-year Waste Management Strategy for the ongoing management of waste within the region. The Waste Management Strategy (WMS), was formed under the *NSW Waste Avoidance and resource Recovery Act 2001* and is consistent with the *NSW Waste Avoidance and Sustainable Materials Strategy 2041*. The vision for the Strategy was to maintain and improve on a reliable, independent and sustainable waste management system for LPSC's residents.

4. STATUTORY CONSIDERATIONS

4.1 Protection of the Environment Operations Act 1997

The proposal comprises 'Integrated development' in accordance with Clause 4.47(2) of the EP&A Act 1979 and clauses 43, 48 and 51 of the Protection of the Environment Operations Act 1997 (POEO Act 1997) as it requires an EPL. These clauses provide that the New South Wales Environment Protection Authority (NSW EPA) must issue its General Terms of Approval (GTA) for integrated development, as well as a licence for 'Scheduled activities', prior to such works commencing.

The existing operation of the WTWMF does not currently operate under an EPL as it receives less than 5,000 tonnes per annum, the threshold for requiring an EPL in an unregulated area under the POEO Act 1997. As the proposal would be processing up to 9,000 tonnes per annum, the development is considered a scheduled activity as it fits within the definition of 'Resource recovery' and 'Waste disposal' (clauses 34 and 39 of Schedule 1 to the POEO Act 1997). Consequently, an EPL would be required for this activity. The application was referred to the NSW EPA for their GTA. This is discussed further at Section 4.4.3 of the report.

4.2 NSW Waste Avoidance and Resource Recovery Act 2001

4.2.1 Liverpool Plains Shire Council's Waste Management Strategy 2018

In 2018, Liverpool Plains Shire Council (LPSC) developed a 10-year Waste Management Strategy (MRA Consulting Group, 2018) for the ongoing management of waste within the region. The Waste Management Strategy (WMS), prepared by Council, was formed under the *NSW Waste Avoidance and resource Recovery Act 2001*. The vision for the 10-year strategy was to maintain and improve on a reliable, independent and sustainable waste management system for LPSC's residents. Specifically, four themes were envisioned: maintaining the LGA's independence and self-sufficiency, optimising waste management costs, improving amenity and environmental management, and increasing the accessibility of waste facilities for residents.

The strategy proposed to rationalise landfilling operations across the region by establishing the Willow Tree Waste Management Facility (the project) as the primary landfill location to service the Liverpool Plains local government area (LGA). This required an expansion of the existing landfill and a focus on promoting better recycling at the facility. As a consequence, the remaining facilities servicing the LPSC, that either have reached life expectancy or don't comply with current regulations, will cease operation. In line with the Strategy, the WTWMF, located at Lot 213, DP 1173230, Merriwa Road, Willow Tree (the site), is identified as the most suitable location.

In order to achieve the goals of the Strategy the proposed expansion of the WTWMF intends to provide cost efficient security of waste disposal and processing to maximise resource recovery. The project also identifies a reduction in the amount of waste going to landfill and an increase the availability of recycled products. The utilisation of recycled materials also contributes to the conservation of natural resources and biodiversity and is consistent with the principles of Ecologically Sustainable Development.

The proposed expansion of the existing facility is considered to be an investment into the future waste disposal capabilities of the Liverpool Plains LGA and wider region.

4.3 New England North West Regional Plan 2041

The *New England North West Regional Plan 2041* takes a cross-border approach to economic investment, sustainability, infrastructure delivery, servicing provision and housing development. The plan nominates twenty-two (22) objectives for the New England North West region.

One of the objectives of the Plan, *Objective 10: Support a circular economy*, identifies that over the next 20 years, NSW waste generation is projected to grow from 21 million tonnes to over 31 million tonnes. As a result, waste-related freight in NSW is expected to rise by 43% by 2036. The Plan also indicates the NSW Government is developing a 20-Year Waste Strategy to provide a long-term strategic focus where communities, industry and all levels of government work together to build resilient services and markets for waste resources with a focus on sustainability, reliability and affordability.

The proposal would contribute to achieving the objective as the WTWMF intends to provide cost efficient security of waste disposal in a central location to maximise resource recovery. The project also identifies a reduction in the amount of waste going to landfill and an increase in the availability of recycled products. The utilisation of recycled materials also contributes to the conservation of natural resources and biodiversity and is consistent with the principles of Ecologically Sustainable Development (ESD).

4.4 Environmental Planning and Assessment Act 1979

4.4.1 Section 1.3 - Objects of Act

In making an assessment the objects should be considered to the extent they are relevant. A response to the objects of the EP&A Act is provided below:

- (a) *to promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources,*
- The proposal has the potential to provide a range of social benefits which align with the NSW State Priorities, in particular 'Delivering Infrastructure';
 - The proposal would provide for continued construction employment opportunities;
 - The development would not negatively impact on the economic welfare of the community or the State's natural resources; and
 - The proposal has been designed to minimise impacts to the site's natural and built resources, where possible.
- (b) *to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,*

The EP&A Act adopts the definition of ESD found in the *Protection of the Environment Administration Act 1991*. Section 6(2) of that Act states that ESD requires the effective integration of economic and environmental considerations in decision making processes and that ESD can be achieved through the implementation of:

- the precautionary principle,
- inter-generational equity,
- conservation of biological diversity and ecological integrity, and
- improved valuation, pricing and incentive mechanisms.

Council considers the proposal satisfactorily addresses the ESD principles as follows:

- *The Precautionary Principle:* The project would reduce the amount of waste going to landfill and increase the availability of recycled products. Utilisation of recycled materials

contributes to the conservation of natural resources and biodiversity. This minimises adverse impacts in regard to waste generation and demand on natural resources. By avoiding the necessity to transport materials from alternative locations, the proposal would also minimise impact on the environment with respect to reduced transport costs and vehicular emissions.

- *Inter-Generational Equity:* The proposal would not cause significant impact on the health, diversity and productivity of the environment. The project would operate on a former quarry site and the property is currently utilised for landfilling. As Australia transitions towards net zero emissions targets by 2050, projects that minimise their environmental footprint are a key part of the solution. This project reduces mileage associated with transporting recyclable materials to other facilities.

In addition to the previously mentioned environmental, social and economic benefits, the project would service the increasing demand for recycling infrastructure in the Newcastle and wider Hunter region. The local community has voiced support for a local recyclable materials facility, which would be realised by this project. The project will meet the needs of future generations and support the interests of the community in regard to increased accessibility and connectivity between the local areas.

- *Conservation of Biological Diversity and Ecological Integrity:* The proposal would operate within the existing footprint of the former quarry site and current landfill. The proposed landfill expansion would cover an area of 3.95 ha. Native vegetation loss, including vegetation considered a Threatened Ecological Community (TEC) and habitat loss associated with the project covers an area of approximately 0.05 hectares. The proposed development has been designed to minimise impacts on vegetation and habitat values, locating most of the proposed disturbance in areas of minimal to no habitat values. To facilitate operational works minor site preparation would be required regarding vegetation clearing, excavation or construction. As such, the proposal would not result in threats to endangered species, communities or their habitat.
- *Improved Valuation, Pricing and Incentive Mechanisms:* The project is a direct response to LPSC's 10-year strategy for the ongoing management of waste within their LGA. The strategy proposes to rationalise landfilling operations across the area by establishing the WTWMF as the primary landfill servicing the Liverpool Plains LGA, via an expansion of the existing landfill. It would support an innovative resource recovery strategy that is beneficial for the environment through the recycling and reuse of waste.

(c) *to promote the orderly and economic use and development of land,*

The proposal is an orderly use and development of the land within an existing site which is capable of managing expected impacts.

(d) *to promote the delivery and maintenance of affordable housing,*

Not applicable.

(e) *to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats,*

The operation of the development is proposed within a modified and disturbed environment and would not impact on local or regional biodiversity values.

(f) *to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),*

The site is not identified as a heritage item within the LPLEP 2011. The site is heavily disturbed with the likelihood of impacting Aboriginal cultural heritage being low.

- (g) *to promote good design and amenity of the built environment,*
- (h) *to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants,*

The proposed structures have been designed to comply with the BCA provisions and therefore meet health and safety requirements for the intended occupants.

- (i) *to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State,*

The application shall be determined by the Northern Region Planning Panel as per *State Environmental Planning Policy (Planning Systems) 2021*.

- (j) *to provide increased opportunity for community participation in environmental planning and assessment.*

The proposal was publicly exhibited, including notifying adjoining landowners, placing a notice in newspaper, as well as displaying the proposal on Council's website.

It is noted that the proposal is considered to be:

- Designated Development (s4.10)
- Integrated Development (s4.46)
- Requiring concurrence/referral (s4.13)

4.4.2 Section 4.10 Designated development

The proposal is nominated as designated development pursuant to clause 45 of Schedule 3 of the *Environmental Planning and Assessment Regulation 2021* (the Regulation) as the project is classified as waste management facilities or works. Pursuant to Clause 4.12(8) of the EP&A Act, 1979, a development application for the purpose of Designated Development is to be accompanied by an Environmental Impact Statement (EIS). The development application has been submitted with an EIS in accordance with the SEARs (refer Section 4.5 for further information).

4.4.3 Section 4.46 What is “integrated development”?

The proposal involves an increase in processing of waste for the existing WTWMF to 9,000 tonnes per annum. As a consequence, the development is considered a ‘scheduled activity’ as it fits within the definition of ‘Resource recovery’ and ‘Waste disposal’ (clauses 34 and 39 of Schedule 1 to the POEO Act 1997). Consequently, an Environmental Protection Licence (EPL) is required for this activity and the proposal is lodged as integrated development.

The application was referred to NSW EPA for their General Terms of Approval (GTAs). In their initial response 23 June 2023, the NSW EPA requested further information seeking “...a quantitative assessment of particulate matter impacts in accordance with the *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW*”. The technical document (Air Quality Assessment) was modified as per this request and provided by the proponent 26 July 2023.

In their final response dated 5 October 2023, the NSW EPA did not raise objection to the proposal advising they would be able to issue a licence, subject to a number of conditions. This would require the applicant making a separate application to the NSW EPA for the EPL, should the proposal be approved.

4.4.4 Section 4.5 Designation of consent authority

Waste management facilities or works which meet the requirements for designated development under clause 45 of Schedule 3 to the Regulation are classified as regionally significant development in accordance with Clause 7, Schedule 6 of *State Environmental Planning Policy (Planning Systems) 2021*. Consequently, the NRPP is the consent authority for the proposed development.

4.5 Environmental Planning Instruments, proposed instrument, development control plan, planning agreement and the regulations

The relevant environmental planning instruments, proposed instruments, development control plans, planning agreements and the matters for consideration under the Regulation are considered below.

4.5.1 Section 4.15 Evaluation

When determining a development application, the consent authority must take into consideration the matters outlined in Section 4.15(1) of the 'EP&A Act'. These matters as are of relevance to the development application include the following:

- (a) *the provisions of any environmental planning instrument, proposed instrument, development control plan, planning agreement and the regulations*
 - (i) *any environmental planning instrument, and*
 - (ii) *any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Planning Secretary has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved), and*
 - (iii) *any development control plan, and*
 - (iiia) *any planning agreement that has been entered into under section 7.4, or any draft planning agreement that a developer has offered to enter into under section 7.4, and*
 - (iv) *the regulations (to the extent that they prescribe matters for the purposes of this paragraph),*
- (b) *that apply to the land to which the development application relates,*
- (b) *the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality,*
- (c) *the suitability of the site for the development,*
- (d) *any submissions made in accordance with this Act or the regulations,*
- (e) *the public interest.*

These matters are further considered below.

(a) Section 4.15(1)(a)(i) - Provisions of Environmental Planning Instruments

The following Environmental Planning Instruments are relevant to this application:

- *State Environmental Planning Policy (Biodiversity and Conservation) 2021*
- *State Environmental Planning Policy (Planning Systems) 2021*
- *State Environmental Planning Policy (Primary Production) 2021*
- *State Environmental Planning Policy (Resilience and Hazards) 2021*
- *State Environmental Planning Policy (Resources and Energy) 2021*
- *State Environmental Planning Policy (Transport and Infrastructure) 2021*
- *Liverpool Plains Local Environmental Plan 2011*

A summary of the key matters for consideration arising from these State Environmental Planning Policies are outlined in **Table 3** and considered in more detail below.

Table 3: Summary of Applicable Environmental Planning Instruments

EPI	Matters for Consideration	Comply (Y/N)
State Environmental Planning Policy (Biodiversity & Conservation) 2021	The site does not have an approved Koala Plan of Management (KPoM) and it is considered the vegetation in the study area is unlikely to constitute core Koala habitat as defined under Chapter 4 of the SEPP. The Test of Significance assessment undertaken as part of the proposal, under the provisions of Part 7, Division 1, Section 7.3 of the <i>Biodiversity Conservation Act 2016</i>, deemed the loss of 0.05 ha through the proposed development would not have a significant impact on the Threatened Ecological Community (TEC). Therefore, a Biodiversity Development Assessment Report (BDAR), or a referral to the DCCEEW for approval is not required under the EPBC Act 1999. Recommendation: Vegetation Management Program (VMP) was recommended to guide the restoration of the rehabilitation area and surrounding TEC, which would include specific actions and outcomes of the rehabilitation area. This will be listed as a proposed condition, should the development be supported.	Y
BASIX State Environmental Planning Policy	-	N/A
State Environmental Planning Policy (Housing) 2021	-	N/A
State Environmental Planning Policy (Industry and Employment) 2021	-	N/A
State Environmental Planning Policy 65	-	N/A
State Environmental Planning Policy (Planning Systems) 2021	<i>Chapter 2: State and Regional Development</i> - Section 2.19(1) declares the proposal regionally significant development pursuant to Clause 3 of Schedule 6. Clause 2.19(1) of <i>State Environmental Planning Policy (Planning Systems) 2021</i> states that development specified in Schedule 6 is declared to be regionally significant development for the purposes of the Act as a result of two specific clauses including Clause 3 and 7.	Y

	The capital investment value of the project is \$10 million and therefore would meet the definition of regionally significant development.	
State Environmental Planning Policy (Precincts—Central River City) 2021 or State Environmental Planning Policy (Precincts—Eastern Harbour City) 2021 or State Environmental Planning Policy (Precincts—Regional) 2021 or State Environmental Planning Policy (Precincts—Western Parkland City) 2021	-	N/A
State Environmental Planning Policy (Primary Production) 2021	As part of the subject property and surrounding land are zoned <i>RU1 Primary Production</i> the provisions of this Policy apply to the development. The aims of Chapter 2 Primary production and rural development must be considered. The proposal complies with the provisions of the SEPP as the development will have negligible impact on the established rural landscape character of the locality. Note: the subject land is not proposed on land that is zoned RU1.	Y
SEPP (Resilience & Hazards) 2021	Hazardous and offensive development The Resilience and Hazards SEPP applies to any project which falls under the policy's definition of 'potentially hazardous industry' or 'potentially offensive industry'. Resource recovery facilities have the potential to be hazardous or offensive to the local environment if not appropriately managed. A preliminary risk screening has been completed as part of the proposed development. The screening indicated the project is not considered to be "potentially hazardous" or 'potentially offensive' so the Resilience and Hazards SEPP does not apply. Chapter 4: Remediation of Land Section 4.6 – A search on the NSW EPA's record of notified and contaminated sites determined the site is not listed in the register. The site has not been identified as being contaminated and it is therefore considered that the site is suitable for the project, in respect to contamination.	Y

State Environmental Planning Policy (Resources and Energy) 2021	<i>Chapter 2 Mining, petroleum production and extractive industries</i> - The Willow Tree Gravels operates a quarry on the adjacent lot to the west, Lot 1 DP 502092, and to the north, Lot 121 DP 857377, under EPL 5154. Where a proposal is in the vicinity of an existing extractive industry, clause 2.19 of this SEPP applies to the application and the consent authority must consider the relevant provisions.	N/A
State Environmental Planning Policy (Transport and Infrastructure) 2021	<i>Chapter 2 Infrastructure</i> <i>Part 2.3 Development controls</i> <i>Division 17 Roads and traffic</i> The application is considered traffic generating as it is a waste or resource management facility with “Any size or capacity” in accordance with Schedule 3 to this SEPP. <i>2.122 Traffic-generating development</i> contains matters for a consent authority to take into consideration when determining a development application for this type of development. The proposal was referred to TfNSW for comment who reviewed the information and provided advice 12 July 2023. TfNSW raised no objection to or requirements for the proposed development.	Y
Proposed Instruments	No compliance issues identified.	Y
Liverpool Plains LEP 2011	Clause 2.3 – Permissibility and zone objectives The site is predominantly zoned <i>SP1 Special Activities</i> under LPLEP 2011. A portion of the site is also zoned <i>RU1 Primary Production</i> but is not the subject of the proposed landfill expansion. That is, the project is located within the SP1 zone. Use of the land for the indicated purpose is permissible with consent in the SP1 zone.	Y
Liverpool Plains DCP 2012	The Liverpool Plains Development Control Plan 2012 (LPDCP 2012) contains further guidance on how to implement the statutory provisions in the LPLEP 2011. The LPDCP 2012 does not contain any controls for waste management facilities. Section 4.2 of the LPDCP 2012 contains requirements for information to be submitted with a development application. This information has been included in this EIS.	Y

The *New England North West Regional Plan 2041* takes a cross-border approach to economic investment, sustainability, infrastructure delivery, servicing provision and housing development. The Plan nominates twenty-two (22) objectives for the New England North West region.

One of the objectives of the Plan, *Objective 10: Support a circular economy*, identifies that over the next 20 years, NSW waste generation is projected to grow from 21 million tonnes to over 31 million tonnes. As a result, waste-related freight in NSW is expected to rise by 43% by 2036. The Plan also indicates the NSW Government is developing a 20-Year Waste Strategy to provide a long-term strategic focus where communities, industry and all levels of government work together to build resilient services and markets for waste resources with a focus on sustainability, reliability and affordability.

The proposal would contribute to achieving the objective as the WTWMF intends to provide cost efficient security of waste disposal in a central location to maximise resource recovery. The project also identifies a reduction in the amount of waste going to landfill and an increase the availability of recycled products. The utilisation of recycled materials also contributes to the conservation of natural resources and biodiversity and is consistent with the principles of Ecologically Sustainable Development.

State Environmental Planning Policy (Biodiversity and Conservation) 2021

This consolidated Policy applies in the Liverpool Plains local government area to land that has an area of more than 1 hectare. Therefore, the provisions of this Policy require consideration as part of the proposed development. This environmental planning instrument encourages the conservation and management of natural vegetation areas that provide habitat for koalas and was formerly identified as a separate Policy (SEPP (Koala Habitat Protection) 2021).

Significant disturbance and modification of the natural environment has occurred on the subject land as a result of historic land uses such as agricultural, quarrying and landfill development. In this regard, some areas of the subject land have been previously cleared to accommodate the land uses, with remaining vegetation comprising native trees and various species of shrubs south on the subject site.

The Koala Habitat Data Map 2019, provided by the Department of Planning and Environment (DPE), does not confirm the land as being within an area of Koala significance. **However, the Biodiversity Report identifies minimal koala feed trees, confirming the loss to accommodate the project as acceptable.**

A Biodiversity Assessment Report prepared by *Biodiversity Australia Pty Ltd* confirmed that no threatened flora or fauna species were recorded during a survey. However, the vegetation on site (approximately 7.61 hectares) does qualify as having White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland TEC. Thus, a number of threatened species were deemed to have a moderate to fair chance of occurring on the Subject Land. Out of this area approximately 6.05 hectares is considered to be in moderate condition, with 1.56 hectares in poor condition. The project proposes to remove a minor portion (0.05 ha) of this vegetation.

Given the project is considered regionally significant and designated development, the Biodiversity Offset Scheme (BOS) applies in accordance with Section 7.7 of the *Biodiversity Conservation Act 2016*, and an assessment was required in accordance with the NSW Biodiversity Assessment Method (BAM). A Test of Significance under the provisions of Part 7, Division 1, Section 7.3 of the *Biodiversity Conservation Act 2016* was carried out which determined the proposed development would not result in a significant impact on threatened species or ecological communities. Therefore, a BDAR was not required for the development proposal. The significance assessment also deemed the loss of 0.05 ha through the proposal would not have a significantly detrimental impact on the TEC and therefore referral to DPE is not required.

Although no significant impact was determined the precautionary principle has been applied to the proposal and an area of 0.3 ha was recommended for rehabilitation. Under the provisions of the

EPBC Act 1999, the offsetting area was assessed using the offset assessment guide. The assessment determined the proposed rehabilitation area would meet minimum 90% offsetting requirement.

A VMP was recommended to guide the restoration of the rehabilitation area and surrounding TEC, which would include specific actions and outcomes of the rehabilitation area. This will be listed as a condition, should the development be supported.

It should be noted that a successful rehabilitation program of the above size will give a net increase in area of the TEC and improve the condition of the TEC that currently exists on the site. In this regard, the proposed development satisfies the requirements of this Policy.

State Environmental Planning Policy (Planning Systems) 2021

Chapter 2: State and Regional Development

The site is located at 258 Merriwa Road, Willow Tree and the *State Environmental Planning Policy (Planning Systems) 2021* is relevant to the development application. Chapter 2: State and Regional Development - Section 2.19(1) declares the proposal regionally significant development.

The proposal is *regionally significant development* pursuant to Section 2.19(1) as it satisfies the criteria in Clause 3 of Schedule 6 of the Planning Systems SEPP. That is, the proposal is development for a waste or resource management facility and the capital investment value of the project is \$10 million. Accordingly, the NRPP is the consent authority for the application. The proposal is consistent with this Policy.

State Environmental Planning Policy (Primary Production) 2021

Given part of the subject property and surrounding land are zoned *RU1 Primary Production* the provisions of this Policy apply to the development. It must be noted that the proposal will be located on part of the land zoned *SP1 Special Activities* and is permissible in the zone. One of the aims of *Chapter 2 Primary production and rural development* states that land use conflict and sterilisation of rural land is to be reduced by balancing potential development and the protection of native vegetation, biodiversity and water resources.

The abovementioned matters have been taken into consideration during this assessment of the proposed development. The documents submitted by the proponent for the expansion of the WTWMF have adequately addressed the abovementioned. This development would have negligible impact on the established rural landscape character of the locality, and not result in adverse environmental harm. In its construction and operation, the proposal does have the potential for noise, dust and odour impacts for adjoining land. This can be minimised by way of appropriate conditions and management plans that can regulate these potential impacts.

State Environmental Planning Policy (Resilience and Hazards) 2021

The Resilience and Hazards SEPP 2021 presents a systematic approach to planning and assessing projects for potentially hazardous and offensive development or industry. The Resilience and Hazards SEPP applies to any project which falls under the policy's definition of 'potentially hazardous industry' or 'potentially offensive industry'.

Hazards and offensive development

Waste management facilities have the potential to be hazardous or offensive to the local environment if not appropriately managed. A preliminary risk screening of construction and operational risks has been completed as part of the proposed development in accordance with *State Environmental Planning Policy (Resilience and Hazards) 2021* (R&H SEPP).

This screening considered:

- Dangerous goods
- Dangerous goods transportation
- Potential chemicals / products such as Diesel Fuel, General oils and lubricants.

The screening assessment recognised that these potentially dangerous goods / chemicals and the intended storage quantities did not exceed the R&H SEPP threshold levels. It was recognised that these would also be appropriately stored in a separate bunded tank, away from any other flammable materials stored onsite. It was also considered that the transport of dangerous goods to and from the site is not potentially hazardous and does not require further evaluation.

In conclusion, the screening indicated the Project is not considered to be 'potentially hazardous' or 'potentially offensive' so the Resilience and Hazards SEPP does not apply in this regard. However, mitigation measures will be listed as conditions of consent in the Notice of Determination should the proposed expansion of the WTWMF be supported.

Chapter 4: Remediation of Land

The provisions of Chapter 4 of *State Environmental Planning Policy (Resilience and Hazards) 2021* ('the Resilience and Hazards SEPP') have been considered in the assessment of the development application. Section 4.6 of Resilience and Hazards SEPP requires consent authorities to consider whether the land is contaminated, and if the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for of the project. In order to consider this, a Preliminary Site Investigation ('PSI') has been prepared for the site. A site inspection was conducted on the property 4 May 2023. The NSW EPA's record of notified and contaminated sites was also searched on 15 June 2022. The site is not listed in the register. The site has not been identified as being contaminated and it is therefore considered that the site is suitable for the project, in respect to contamination.

Conditions will be imposed in the Notice of Determination, should the development be supported, relating to the ongoing management and remediation during and after the operation of the facility.

State Environmental Planning Policy (Resources and Energy) 2021

Chapter 2 Mining, petroleum production and extractive industries – As the proposal is in the vicinity of an existing extractive industry, clause 2.19 of this SEPP applies to the application. The consent authority must:

(a) consider:

(i) *the existing uses and approved uses of land in the vicinity of the development, and*

The lawful uses in the vicinity of the development comprise an approved extractive industry on the adjacent lot to the west, Lot 1 DP 502092, and to the north, Lot 121 DP 857377, a mixture of agricultural pursuits, and smaller rural lots.

(ii) *whether or not the development is likely to have a significant impact on current or future extraction or recovery of minerals, petroleum or extractive materials (including by limiting access to, or impeding assessment of, those resources), and*

The project would provide for a staged landfill expansion (3 stages) to cater for the forecast waste generated to 2051 of 9,000 tpa (refer Figure 3). The management of waste streams would be in accordance with the principles of the waste hierarchy, where emphasis is placed upon reduce, re-use, recycle prior to disposal of wastes. Substantial management plans are imposed for the duration of the operation as per legislative requirements and no land use conflicts are expected from the proposed expansion. Consequently, it is unlikely the proposal would have a significant impact on the current and future extraction potential of the site.

- (iii) *any ways in which the development may be incompatible with any of those existing or approved uses or that current or future extraction or recovery, and*

The proposal has the potential to result in increased noise and air borne particles to the locality. The proposal would generate additional traffic movements to and from the site which has the potential to be incompatible from a vehicular safety perspective. The intersection of the site access with the Merriwa Road and connecting New England Highway is considered suitable to cater for the size and quantity of vehicles turning out of the site. TfNSW are satisfied with the proposed traffic volumes for the Waste Management Facility, indicating they are not expected to significantly impact the operation of the New England Highway / Merriwa Road intersection.

Incompatibility with other existing and approved land uses surrounding the site is not envisaged, particularly with noise conditions imposed. No incompatibility is envisaged with respect to current or future extraction or recovery.

- (b) *evaluate and compare the respective public benefits of the development and the uses, extraction and recovery referred to in paragraph (a)(i) and (ii), and*

The proposal would result in positive environmental and economic benefits for the local community in that it would result in a redirection and more efficient disposal of waste materials. Other benefits include:-

- Reduction of greenhouse gasses from transport vehicles;
- Investment in local infrastructure;
- Servicing the increasing demand for recycling infrastructure in the Newcastle and wider Hunter region;
- Energy and water savings; and
- Providing an opportunity for local jobs during construction.

It is unlikely the proposal would have a significant impact on the current and future extraction potential on the adjoining site. In this regard, the proposal is considered to be beneficial for the community.

- (c) *evaluate any measures proposed by the applicant to avoid or minimise any incompatibility, as referred to in paragraph (a)(iii).*

During construction and operation, the proposal will result in an increase in traffic. However, the Traffic Impact Assessment (TIA) has determined that these volumes are minor and are expected to fall within typical fluctuations of daily traffic movements on the adjoining road network. Therefore, it is concluded the expansion will not adversely affect the operation of the existing road network in proximity to the site. It is also expected that there would not be any impact on the performance of the intersection of New England Highway and Merriwa Road.

Additionally, TfNSW have raised no objection to the proposal from a traffic and intersection safety perspective on the basis that the above mitigation measures are implemented.

2.122 Traffic-generating development

The application is considered traffic generating as it is a waste or resource management facility with any size or capacity in accordance with Schedule 3 to this SEPP. Therefore, prior to determining a development application, the consent authority must provide written notice of the application to TfNSW. Transport for New South Wales (TfNSW) was consulted in relation to the proposed development and provided a response 12 July 2023.

The TIA submitted with the EIS indicated the proposed operational volumes are minor and are expected to fall within typical fluctuations of daily traffic movements on the adjoining road network. The report also indicated the volumes would not adversely affect the operation of the existing road network in proximity to site. The existing weekly vehicle activity at the site (excluding staff) and the estimated maximum future weekly activity at the site are detailed as follows:-

Existing traffic

- The current WTWMF currently generates 18 inbound and 18 outbound vehicle movements per week

Future traffic

- The project will generate an additional 40 inbound and 40 outbound vehicle movements per week (commercial, recycling and self-haul).

Upon completion, the WTWMF will operate 7:00 am to 5:00 pm, seven days per week. On average, this will generate approximately six inbound and outbound heavy vehicles per day and less than one inbound and outbound heavy vehicle per hour.

Traffic impacts

- During construction the project is expected to generate (on average):
 - Ten inbound and outbound vehicle movements per day associated with workers
 - Six inbound and six outbound vehicle movements per day
- During operation the project is expected to generate (on average):
 - Five inbound and outbound vehicle movements per day associated with workers
 - Six inbound and six outbound vehicle movements per day

TfNSW reviewed the information provided in the TIA and raised no objection to or requirements for the proposed development. TfNSW also advised the proposed traffic volumes for the WTWMF “...are not expected to significantly impact the operation of the New England Highway / Merriwa Road intersection.”

Consequently, the proposal is considered acceptable in terms of traffic safety, vehicular access and frequency associated with the Merriwa Road and the New England Highway.

Liverpool Plains Local Environmental Plan 2011

The relevant local environmental plan applying to the site is the *Liverpool Plains Local Environmental Plan 2011* (‘the LEP’) and is considered below.

1.2 Aims of Plan

The aims of the LPLEP 2011 include: -

- “(2)(c) to promote ecologically sustainable urban and rural development...
- (e) to minimise land use conflict...

- (f) to ensure that development has regard to the capability of the land...
- (i) to enable development that has proper regard to the environmental constraints of the land and minimises impacts on biodiversity, water resources and natural landforms.”

The proposal is consistent with the relevant aims of the LPLEP 2011 in that it would be expanding on and promoting an ecologically sustainable method of recycling of materials and facilitating improvements in waste disposal. The development would be undertaken on a site that is established and operates in a manner that can appropriately manage environmental risks.

2.3 Zone objectives and Land Use Table

The site is predominantly zoned *SP1 Special Activities* under LPLEP 2011. A portion of the site is also zoned *RU1 Primary Production*. Use of the land for the indicated purpose is permissible with consent in the SP1 zone but prohibited in the RU1 zone. However, the provisions of the SEPP (Transport and Infrastructure) 2021 prevail over the LPLEP 2011, making the proposal a permissible use on the site in the RU1 zone. That is, clause 2.153(1) of the Transport and Infrastructure SEPP provides that development for the purposes of waste or resource management facilities may be carried out by any person with consent on land in a prescribed zone. Clause 2.152 identifies RU1 as a prescribed zone.

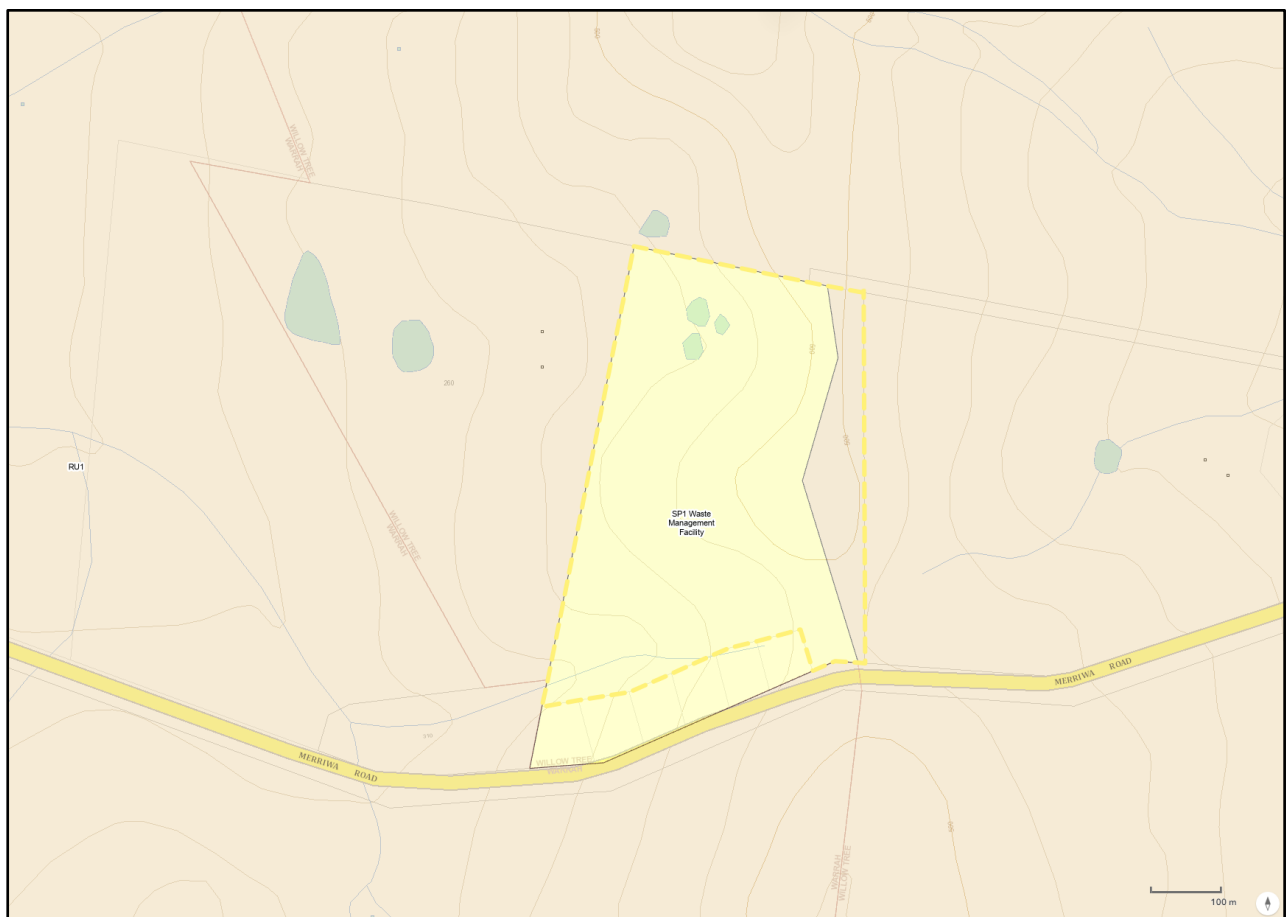


Figure 5: Existing Zoning pursuant to Clause 2.2 of the LPLEP 2011.

According to the definitions contained in the ‘Dictionary’, the proposal satisfies the definition of a ‘waste or resource management facility’ and, as previously identified, is a permissible use with consent in the *SP1 Special Activities* zone. The land use is identified as follows:-

- “**waste or resource management facility** means any of the following—
- (a) a resource recovery facility,
 - (b) a waste disposal facility,

- (c) a waste or resource transfer station,
- (d) a building or place that is a combination of any of the things referred to in paragraphs (a)–(c).”

The zone objectives include the following (pursuant to the Land Use Table in Clause 2.3):

- To provide for special land uses that are not provided for in other zones.
- To provide for sites with special natural characteristics that are not provided for in other zones.
- To facilitate development that is in keeping with the special characteristics of the site or its existing or intended special use, and that minimises any adverse impacts on surrounding land.

The proposal is considered to be consistent with these zone objectives in that the proposed expansion of the existing use is specifically suitable to this zone. Furthermore, the development would not impact the established rural landscape character of the locality, and not result in adverse environmental harm. During operation the proposal has the potential to impact nearby residential receivers with noise, dust and odour. This can be minimised by way of conditions regulating these potential impacts.

General Controls and Development Standards (Part 2, 4, 5 and 6)

The LEP also contains controls relating to development standards, miscellaneous provisions and local provisions. The controls relevant to the proposal are considered in **Table 4** over the page.

Table 4: Consideration of the LEP Controls

Control	Requirement	Proposal	Comply
Height of buildings (CI 4.3(2))	Not Adopted	Several structures (i.e. sheds, amenities building, and shelters have also been proposed as part of the development. Out of all structures there is a maximum height of 3.1 metres to the peak, which is considered appropriate.	N/A
FSR (CI 4.4(2))	Not Adopted	-	N/A
Land acquisition (CI 5.1)	Not Applicable	-	N/A
Heritage (CI 5.10)	Applicable	No items of Heritage significance are identified on the subject site. Construction activities resulting in increased dust, noise and traffic, have the potential to disturb items of historic heritage. However, due to their distance from potential sites (greater than 500 metres), the implementation of mitigation measures, the project is not expected to result in any impacts to items of historic heritage identified.	Yes
Flood planning (CI 5.21)	Applicable	The site is not mapped within the Large Design Flood Map extent of the Floodplain Management Plan for the Upper Namoi Valley Floodplain. Topographically, the project sits at a minimum approximated relief of 480 m AHD, with Borambil	Yes

		Creek to the east at approximately 427 m AHD and Warrah Creek to the west at approximately 375 m AHD. This indicates the site is unlikely to be flood prone.	
Earthworks (CI 7.1)	Applicable	Earthworks will apply to the development during both construction and operation. Consequently, Council must consider the impact of earthworks associated with the proposal. The construction works encompass bulk earthworks for the entire initial landfill cell area, with the stages of lining works to provide the landfill cell stages. Consequently, Council must consider the impact of earthworks associated with the proposal and in particular: a) the likely disruption of, or any detrimental effect on, existing drainage patterns and soil stability in the locality, b) the effect of the proposed development on the likely future use or redevelopment of the land, c) the quality of the fill or of the soil to be excavated, or both, d) the effect of the proposed development on the existing and likely amenity of adjoining properties, e) the source of any fill material or the destination of any excavated material, f) the likelihood of disturbing Aboriginal objects or other relics, g) proximity to and potential for adverse impacts on any watercourse, drinking water catchment or environmentally sensitive area. Conditions of consent would be imposed in relation to the following matters: • Implementation of runoff and erosion control measures conditioned by NSW EPA. • Ensuring all matters are complied with in the Environmental Management Plans, stormwater / sediment management measures, and the associated Soil and Surface Water management Plan; • Controls for earthworks, excavation and importation of material. Compliance with the abovementioned conditions would ensure the proposed earthworks satisfy the relevant matters for consideration.	
Essential Services (CI 7.4)	Applicable	Development currently operating on the subject site is identified as a Waste Management Facility and the proposal is an expansion on the existing activity. The subject site is not connected to	Yes

		reticulated sewer, water, electricity, or telecommunication services. Water and on-site sewer will be required for the amenities block and shall be connected via an on-site potable supply (water tank). Potable water is also required for the site office. A section 68 approval shall be required to be issued for the on-site septic system and stormwater prior to the commencement of building works, pursuant to the provisions of the <i>Local Government Act 1993</i>. As confirmed, the site is not currently connected to electricity. This service will be connected to the site to power the site office and amenities. The site also does not have access to telecommunications, however, employees will utilise mobile phones. Water may be required during construction to achieve required earthworks moisture content, and to suppress dust. If required, water will be sourced from existing sediment basins or carted from the closest potable source to the site. The site will continue to have vehicular access from Merriwa Road.	
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The proposal is considered to be generally consistent with the provisions of the LPLEP 2011.

(d) Section 4.15 (1)(a)(ii) - Provisions of any Proposed Instruments

There are no draft instruments relevant to the proposal that require consideration.

(e) Section 4.15(1)(a)(iii) - Provisions of any Development Control Plan

The following Development Control Plan is relevant to this application:

- *Liverpool Plains Development Control Plan 2012*

The Liverpool Plains Development Control Plan 2012 (LPDCP 2012) contains further guidance on how to implement the statutory provisions in the LPLEP 2011. The LPDCP 2012 does not contain any controls for waste management facilities. However, the following controls generally apply to the development and a response has been generated for each provision: -

Building setbacks

There are no specific controls in the LPDCP 2012 relating to Waste Management Facilities. However, the standard setback requirements for ancillary structures in a rural zone is 20 metres (front) and 10 metres (side / rear). These provisions can be applied to the proposal as they are the maximum setback distances in the LPDCP 2012. The proposed setbacks for all structures (i.e. weighbridge, site office and amenities) would comply as the closest side setback is approximately 47 metres and is significantly screened by vegetation. The potential visual impacts of the project have however been assessed and previously considered in the report. It was determined the

development is unlikely to cause any adverse impacts given the distance of all setbacks, topography of the land and significant vegetation screening.

Traffic and access

The TIA determined that the proposed development is not expected to have any impact on the performance of the intersection of New England Highway and Merriwa Road and associated road network.

The application was also referred to TfNSW for their comments as the proposed development is deemed a 'traffic generating development'. Merriwa Road (MR358) is also classified (regional) road and New England Highway (HW9) and is a classified (State) road. TfNSW advised:

"...the proposed traffic volumes for the Waste Management Facility are not expected to significantly impact the operation of the New England Highway / Merriwa Road intersection."

In their response, TfNSW also raised no objection to or requirements for the proposed development.

Parking

A total of five (5) car parking are proposed adjacent to the site office for staff, contractors and other visitors. The proposed parking meets Council's requirements and is considered to be satisfactory.

Utilities and services

The site does not have access to reticulated water, sewer, power or telecommunications. It is proposed that rainwater tanks are to be installed for use by staff in office and amenities. A pump out toilet is also proposed for ablutions. A generator is proposed for power requirements, with Mobile phones to be used by staff on-site.

Design

The project has been designed taking into consideration the existing site features and the operational requirements and specifications set by the NSW EPA and LPSC.

Fencing

The site is currently fenced and this fencing would be maintained during the operation of the project.

Outdoor lighting

No outdoor lighting is proposed as part of the project.

Outdoor signage

The proposal includes only a business sign at the frontage of the site and safety signage to alert staff and visitors to the hazards present at the site. Council is satisfied with the proposed signage in this regard.

Loading and unloading

Loading and unloading of plant and equipment would occur on-site, clear of any public facilities roads and trafficable areas under guidance from site personnel. Council is satisfied with the proposal in this regard.

Noise & vibration

The proposal is considered to satisfy the relevant objectives in that it would not impact the established rural landscape character of the locality, and not result in adverse environmental harm. The proposal has the potential for noise impacts associated with the processing of material to nearby residential receivers. This can be minimised by way of conditions regulating noise.

Noise generated during both the construction of the landfill cells and during operation has been determined and assessed in Section 4.4.

Landscaping

Recommendations from the Biodiversity Assessment Report (BAR) confirmed a Vegetation Management Program would be appropriate which consisted of tree plantings to replace the removed vegetation which facilitated the expansion. Existing vegetation on the site, not directly impacted by the project, would also be maintained and protected.

Groundwater

The proposed surface water management system is intended to manage clean and dirty water (sediment laden) separately. In this regard, the volume of clean water captured within the dirty water systems is minimised. There are no groundwater inflows expected into the expansion area of the development as only minimal excavation is proposed to establish suitable grades for the landfill floor.

Additionally, leachate generated in the operation phase of the project will be separated from the clean and dirty water management systems and be designed so that it avoids contact with stormwater. Any runoff potentially containing leachate will be directed to the leachate pond for disposal via evaporation to minimise discharges.

The proposal is therefore not deemed to adversely impact runoff or infiltration and is considered satisfactory in this regard.

Pollution

Any waste site has the potential to cause damage to the natural environment and threaten the health and well-being of the community. A site Pollution Incident Reduction Management Plan (PIRMP) as required by the POEO Act for operations with EPLs, will be included as part of the proposal for monitoring purposes. These measures are proposed as part of the operation and construction to avoid any potential impacts. Conditions will be listed as part of the consent reflecting these strategies, should approval be supported.

Sustainability

It is believed the operation of the project will reduce the amount of waste going to landfill and increase the availability of recycled products. Utilisation of recycled materials contributes to the conservation of natural resources and biodiversity and is consistent with the principles of ESD. The management of waste streams are in accordance with the principles of the waste hierarchy, where emphasis is placed upon reduce, re-use, recycle prior to disposal of wastes.

Erosion and Sediment Control

Erosion and sediment controls will be implemented in accordance with *Managing Urban Stormwater Soils and Construction* (Landcom, 2004). Erosion and sediment control plans (ESCP) are also proposed for construction and operation of the development to ensure good management practice.

Bushfire risk management

The subject land is identified as bushfire prone by the New South Wales Rural Fire Service (NSW RFS) Bushfire Map. However, given the proposal is not defined as a Special Fire Protection Purpose development, the provisions of the *Rural Fires Act 1997* do not apply.

Heritage

An Aboriginal Due Diligence Assessment (Biosis Pty Ltd, 2022) was undertaken for the project. The result determined that no Aboriginal sites or areas of Potential Archaeological Deposit (PAD) were identified within the site and no previously recorded sites are located within, or in close proximity to the site.

Additionally, no items of heritage significance are identified on the subject site. Construction activities resulting in increased dust, noise and traffic, have the potential to disturb items of historic heritage. However, due to their distance from site (greater than 500 metres), and the implementation of mitigation measures the project is not expected to result in any impacts to items of historic heritage identified.

Land Use Buffers

A Waste Management Facility requires a 250 metre buffer distance to rural dwellings and proposed dwelling envelopes. The closest residential receiver is a rural homestead which is approximately 500 metre east from the project site. The proposed development also complies with the recommended buffers in the NSW DPI *Living and Working in Rural Areas Handbook*.

It is also noted the proposal is for expansion within proximity of the existing WTWMF site. Any proposed mitigation / management strategies and conditions will minimise any potential impact to surrounding rural land.

On-site Wastewater Management Systems

The wastewater collected from site facilities such as toilets, lunchroom and washing, and the laboratory are to be directed to a site Advanced Wastewater Treatment System (AWTS) for on-site treatment. The clarified effluent is proposed to be irrigated for disposal to the tipping area for dust suppression and vegetation establishment as required. As an alternative, clarified effluent may also be directed to the Leachate Pond for evaporation. A Section 68 approval as per the provisions of the *Local Government Act 1993* (LG Act 1993) will be required for connection.

Section 7.18 – Contributions plans

The following contributions plans are relevant pursuant to Section 7.18 of the EP&A Act 1979 and have been considered in the recommended conditions (notwithstanding Contributions Plans are not DCPs and are required to be considered):

- *Liverpool Plains Shire Council Section S7.11 Development Contributions Plan 2022*

This Contributions Plan has been considered and it is identified in the Plan that Council are exempt from paying the Section 7.12 Contributions Levy given the development is a facility / service for the community undertaken by Liverpool Plains Shire Council.

(f) Section 4.15(1)(a)(iia) – Planning agreements under Section 7.4 of the EP&A Act

There have been no planning agreements entered into and there are no draft planning agreements being proposed for the site.

(g) Section 4.15(1)(a)(iv) - Provisions of Regulations

Clause 61

Clause 61 of the Regulations contains additional matters that must be taken into consideration by a consent authority in determining an application. No matters raised in this clause are relevant for consideration with this proposal.

Schedule 3 - Designated Development

The provisions of Schedule 3, Clause 45 apply to the proposal as the project involves the disposal of approximately 9,000 tpa, identifying the proposal as designated development. In accordance with Section 4.12(8), of the EP&A Act 1979, a development application for designated development needs to be accompanied by an EIS prepared by or on behalf of the applicant in the form prescribed by the Regulations. The development application has been submitted with an EIS in accordance with the SEARs. The application has been assessed by Council and external government agencies as required by the SEARs and no issues were raised, subject to conditions of consent.

Additionally, waste management facilities or works which meet the requirements for designated development under clause 45 of Schedule 3 to the EP&A Regulation 2021 are classified as regionally significant development in accordance with Clause 7, Schedule 6 of *State Environmental Planning Policy (Planning Systems) 2021*. Consequently, the NRPP is the consent authority for the proposed development.

These provisions of the Regulation have been considered and are addressed in the recommended draft conditions (where necessary).

Part 8 Infrastructure and environmental impact assessment

The EIS has met the requirements of Part 8 Infrastructure and environmental impact assessment, Clause 192 and 193 of the Regulations, which has been addressed throughout this report.

Clause 192 – Content of environmental impact statement

The proponent has adequately addressed the criteria of this clause in their submission, in particular, the relevant strategic and statutory context. The engagement process during the preparation of the EIS have also been included (refer Section 5.4). All key issues identified in the SEARs have been discussed within this report.

Clause 193 – Principles of ecologically sustainable development

The EIS has addressed the principles of ecologically sustainable development as per the provisions of Clause 193 of the Regulations. That is, the proposal recognises the four (4) principles, confirming the proposed development can be justified on bio-physical, economic, social and ecologically sustainable development grounds. Specific management and mitigation measures have also been proposed during construction and operation to minimise potential impacts. It is considered the EIS satisfies the requirements of the clause in this regard (see Section 4.4 of this report).

4.6 Section 4.15(1)(b) - Likely Impacts of Development

The likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality must be considered. In this regard, potential impacts related to the proposal have been considered in response to SEPPs, LEP and DCP controls outlined above and the key Issues section below.

Context and setting

The site is situated within a predominantly rural and agricultural setting. The area surrounding the site is used primarily for rural and agricultural purposes. The locality is undulating and ranges from heavily to sporadically vegetated with spanning views of articulated topography. The proposal is considered to be generally consistent with the context of the site, in that the proposed expansion of the existing development is an appropriate use for the land zoned *SP1 - Waste Management Facility*.

The closest residence is approximately 500 metres (m) east of the site. The next closest conglomerate of residences is in Willow Tree, to the north east. Other sensitive receivers include members of the community travelling or moving in close proximity to site and transportation routes.

Air and Microclimate

Dust & Odour

Construction:-

Sources of dust emission during construction are expected to include:

- Vehicular movements on unsealed roads during working hours.
- Clearing of vegetation.
- Earthmoving activities (e.g. earthworks required for the leachate dam construction).
- Excavating, spreading and compacting of overburden in preparation for installation of site infrastructure.
- Wind erosion dust emissions from exposed and disturbed soil surfaces.
- Dust emissions during construction would occur for relatively short periods of time during each construction phase of each stage (4 months based on each anticipated construction program) and are expected to vary significantly, in both spatial distribution and intensity, based on the construction works being undertaken.

Operation:-

Sources of dust and odour emissions during operations are expected to include:

- Vehicular movements on unsealed roads during working hours.
- Handling of waste including dumping, transferring, and compacting waste at the tipping face.
- Covering and excavation of cover material on exposed waste.
- Handling and screening of product.
- Wind erosion from unsealed surfaces and stockpile Operational dust emissions are expected to be largely unchanged compared to current operations of the site.

The nearest sensitive receptor to the WTWMF is located approximately 500 m from the site boundary and therefore complies with the recommended separation distances, and the NSW EPA limitations.

Additionally, the topography and vegetation screening provide an advantage for the site in ensuring any potential impacts are minimal. Therefore, odour and dust emissions are not expected to cause significant impacts at the nearby sensitive receptors. The Air Quality Assessment (AQA) Report has also indicated that the dust and odour emissions from the proposed expansion of the facility would be largely unchanged compared to current site operations.

In order to ensure any potential impacts are kept to a minimum the report has recommended a number mitigation measures.

Dust Mitigation and Management:-

- Prepare a dust control protocol that forms part of the Construction Environmental Management Plan (CEMP) to detail management measures, a method for recording dust complaints and monitoring requirements.

- On days with forecast and actual high winds (i.e. over 10 m/s) reduce work effort accordingly if wind blown dust is observed to be leaving the site boundary.
- Plant and equipment should be maintained in good condition to minimise ignition risk, spills and air emissions that may cause nuisance.
- Dust suppression should be undertaken as required using water sprays, water extension agents, soil stabilising polymers or other media on:
 - Unpaved work areas subject to traffic or wind;
 - During the loading and unloading of dust generating materials.
 - Unpaved access tracks
- If the works are creating levels of dust which may significantly impact on residential amenity, works should be modified or stopped until the dust hazard is reduced to an acceptable level.
- On days with high background dust levels (due to fire or offsite dust events for example), increase dust mitigation in the form of watering or reduce dusty construction activities.
- Vehicles with potential for loss of loads (such as dust or litter) should be covered when using public roads.

Odour Mitigation and Management:-

- Establish 24 hour emergency maintenance agreements with equipment manufacturers to limit the impact of equipment failures
- If the works are emitting odour concentrations which may significantly impact the nearby receptors, the works should be modified or stopped until the hazard is reduced to an acceptable level
- Minimise the size of the active landfill face, considering the practicalities, safety, access, traffic management, etc
- Cover odorous wastes as soon as possible after delivery
- Train staff (internal and contractors) on odour management strategy and all relevant procedures.

The abovementioned mitigation measures will be listed as proposed conditions should the proposed development be supported.

Amenity

Residential, agricultural and commercial land uses surround the subject site. The development site currently exists, operating as a WTWMF and prior to this a quarry. The excavation works from the quarry are appropriate for the development as they also facilitate the proposed construction for the expansion. It is considered the proposal is unlikely to result in any significant adverse impacts upon the amenity of the locality.

The impacts on the landscape character and visual amenity of the area as a result of the project, have also been assessed as low to negligible. The site is highly modified and adjoins similar type development (i.e. adjoining quarry). The development site is also generally within an area that is enclosed and screened by trees and / or undulating hills.

The proposed development has been deliberately drafted to be consistent with the context of the immediate surroundings and to provide appropriate on-site infrastructure and management. The assessment reports for the proposed expansion of the facility have identified the increase in impacts on the surrounds would be marginal. Additionally, the imposition of management plans will assist in the operation phase to minimise any potential impacts to the environment.

Noise and vibration

A Noise & Vibration Assessment report prepared by GHD, dated 1 December 2022 was submitted in support of the application which identifies the ambient and background noise and assessed the potential noise impacts associated with the construction and operational phases of the project. The assessment concluded that predicted noise levels during all stages of the development (construction / operation) are predicted to result in noise levels below the Noise Management Level (NML) at all

receptors. Furthermore, traffic noise levels are anticipated to remain within 2 dB of current levels, and therefore additional mitigation measures are not required.

The operational hours for the project proposed are from 7.00 am to 6.00 pm, 7 days per week. The premises will not operate on public holidays.

The report also identified a number of mitigation measures to be undertaken during the construction and operation phases of the development (Pages 36 - 38 of the Assessment). These will form part of the proposed conditions of consent, should the development be supported.

The NSW EPA have advised that a Noise Management Plan (NMP) is to be prepared to help implement the measures listed in the submitted Noise & Vibration Assessment report. A Traffic Noise Management Strategy (TNMS) was also requested to ensure that feasible and reasonable noise management strategies are identified and applied for vehicle movements associated with the facility.

Access and traffic

The key roads in proximity to the site are the New England Highway and Merriwa Road. Merriwa Road is a local road that links the New England Highway to the current WTWMF and Willow Tree Gravel. Merriwa Road has a 50 km/h speed limit for approximately 750 metres south of New England Highway and a 100 km/h speed limit thereafter. The site has frontage to Merriwa Road. Access arrangement for the proposal is detailed as follows:-

- Access from the Merriwa Road via formalisation of the existing access track running through the site for both domestic and commercial vehicles.
- Combined access to the weighbridge for domestic and commercial vehicles, followed by delineation of these vehicles to separate routes.

The traffic generation for the development is discussed as follows:-

Construction traffic generation

During construction the project is expected to generate (on average):

- Ten inbound and outbound vehicle movements per day associated with workers; and
- Six inbound and seven outbound vehicle movements per day.

The TIA identified the volumes as minor and expected them to be within typical fluctuations of daily traffic movements on the adjoining road network. Consequently, it was considered this would not adversely affect the operation of the existing road network in proximity to site. Furthermore, the development is not expected to have any impact on the performance of the intersection of New England Highway and Merriwa Road.

Operation traffic generation

The Traffic Impact Assessment (TIA) states the current commercial vehicle movement is 2 per week and 1 per week for Recycling. The existing WTWMF operation currently generates 18 inbound and 18 outbound vehicle movements per week.

During operation, the project is expected to generate (on average):

- Five inbound and outbound vehicle movements per day associated with workers; and
- Six inbound and seven outbound vehicle movements per day.

The maximum estimated increase the project will generate is 40 inbound and 40 outbound vehicle movements per week (commercial, recycling and self-haul). The TIA considers the increase to have minimal impact. TfNSW raised no objection to or requirements for the proposed development

confirming that “...the proposed traffic volumes for the Waste Management Facility are not expected to significantly impact the operation of the New England Highway / Merriwa Road intersection.”

Therefore, the proposed increase during operation are considered minor and are also expected to fall within the typical fluctuation of daily traffic movement, as detailed in the Traffic Report.

Parking

Informal parking for at least five (5) staff vehicles is proposed onsite and is considered to comply with car parking requirements.

Public Domain

The impacts of the proposed development on the public domain are expected to be limited as identified throughout the assessment. This is due in part to the location of the development site, the nature of surrounding areas and the distance of the proposal from key receptors within the locality.

The impact of the proposed development on surrounding residences, rural land and adjoining extractive industry has been considered in detail throughout this assessment report. The submitted studies and reports (i.e. Traffic Impact Study, Air Quality Impact Assessment, Noise & Vibration Assessment etc.) address any potential issues and make recommendations for the proposal in order to minimise any potential impacts.

Considering the above, the proposed development is not expected to have an adverse impact on the public domain.

Utilities

The site does not have access to reticulated water, sewer, power or telecommunications. It is proposed that rainwater tanks are to be installed for use by staff in office and amenities. A pump out toilet is also proposed for ablutions. A generator is proposed for power requirements, with Mobile phones to be used by staff on-site. It is considered their proposed utilities will be capable of supporting the WTWMF expansion.

Heritage

There are no items of heritage significance identified on the subject site within Schedule 5 of the LPLEP 2011. Construction activities resulting in increased dust, noise and traffic, have the potential to disturb items of historic heritage. However, due to their distance from potential sites (greater than 500 metres), the implementation of mitigation measures the project is not expected to result in any impacts to items of historic heritage identified.

The site is also heavily disturbed and the likelihood of impacts on Aboriginal cultural heritage is low. The Aboriginal Due Diligence Assessment (Biosis Pty Ltd, 2022) also determined that no Aboriginal sites or areas of PAD were identified within the site and no previously recorded sites are located within, or in close proximity to the site.

Waste

The proposal would allow the processing up to 9,000 tpa (4,600 tpa increase) of waste at the existing WTWMF. This will provide an upgraded and central facility to service the Liverpool Plains Local Government Area. At present, certain waste types are sent to landfill instead of being recycled, as current landfills are not capable of recycling these types of waste.

The project would reduce the amount of waste going to landfill and increase the availability of recycled products. Utilisation of recycled materials contributes to the conservation of natural

resources and biodiversity and is consistent with the principles of ecologically sustainable development (ESD). The management of waste streams during operation are expected to be in accordance with the principles of the waste hierarchy, where emphasis is placed upon reduce, re-use, recycle prior to disposal of wastes. The proposal is considered a positive solution that lessens the environmental costs of waste generation and disposal.

Other land resources

As discussed previously in this report, the nature of the proposal and the mitigative measures proposed would not result in an adverse impact on the existing mineral and extractive resources of the adjoining site.

Flora and fauna impacts

Part of the proposal requires 0.05 hectares of vegetation to be removed to facilitate suitable access. This was considered as a TEC and habitat loss. The project is also identified as regionally significant and designated development. Therefore, the BOS applies in accordance with Section 7.7 of the *Biodiversity Conservation Act 2016*. A Test of Significance under the provisions of Part 7, Division 1, Section 7.3 of the *Biodiversity Conservation Act 2016* determined the proposed development would not result in a significant impact on threatened species or ecological communities.

The significance assessment also deemed the removal of vegetation would not have a significantly detrimental impact on the TEC. Consequently, the proposal is not considered to require a BDAR, or referral to the Department of Climate Change, Energy, the Environment and Water (DCCEEW) for approval under the EPBC Act 1999.

Although no significant impact was determined the precautionary principle has been applied to the proposal and an area of 0.3 ha was recommended for rehabilitation in the Report. A VMP was recommended to guide the restoration of the rehabilitation area and surrounding TEC, which would include specific actions and outcomes of the rehabilitation area. This will be listed as a condition, should the development be supported.

The proposed development is considered unlikely to impact on the protection and management of threatened species, critical habitats, threatened or endangered ecological communities.

Natural environment

The construction of the development will result in excavation works to create basal and side wall liners, internal access and the leachate barrier system and leachate pond. Tree removal from the site will also occur to facilitate access. However, given the pre-existing nature of the land no significant works are required.

Surface water and groundwater resources

A Water Impact Assessment was prepared by GHD, dated December 2022 to assess the potential surface water and groundwater impacts of the project. The site and surrounding areas are not mapped as being in a groundwater vulnerable area. Furthermore, there are no aquaculture farms, wetlands or drinking water catchments at the site or near the site.

The proposed water management system at the WTWMF will include perimeter drains bunds to divert upslope catchment runoff around the WTWMF, a sediment pond to collect catchment runoff from the disturbed area of the quarry and a leachate pond to store and treat captured leachate.

The proposed surface water management system is intended to manage clean and dirty (sediment laden) separately, thereby minimising the volume of clean water captured within the dirty water systems. There are no groundwater inflows expected into the expansion area as only minimal excavation is proposed to establish suitable grades for the landfill floor.

Leachate generated by the project operation will be separated from the clean and dirty water management systems and will be designed to avoid contact with stormwater. Any runoff potentially containing leachate will be directed to the leachate pond for disposal via evaporation to minimise discharges.

The assessment report recommended a number of measures to be implemented during construction and operation to minimise potential impacts on hydrology, water quality and flooding. These will be identified as proposed conditions of consent should approval be supported.

The NSW EPA has assessed the Water Impact Assessment (WIA) and Waste Management Plan (WMP) and raised no concerns subject to the imposition of GTAs for the development.

Soils

The site is identified as having a Ferrosol and Kandosol soil landscape. The soil landscape is characterised by undulating to rolling low hills with slopes ranging 5-15%. The typical soil profile consists of fine sandy loam to silt loam, overlying a loamy clay to clay.

The site has not been listed as being contaminated by the NSW EPA. It is possible however that leachate and other contaminants from the existing unlined landfill may have resulted in contamination at the site. However, results of geotechnical and groundwater quality investigations undertaken in and around the site however have not identified any such contamination.

While no contamination has been identified at the site there is the potential for the project to uncover unidentified contamination and cause contamination during construction and operation by:

- Inappropriate disposal of wastes;
- Spillage of fuels, oils and chemicals;
- Inadequate installation of basal and sidewall liners and leachate barrier systems; and
- Failure of leachate pond and discharges to downstream receiving waters.

However, mitigation measures are to be implemented, should the development be supported, during construction, operation and after the project has reached its lifespan to minimise potential impacts on soils and contamination.

Natural hazards

The land is identified as bushfire prone and under the provisions of Clause 100B of the *Rural Fire Act 1997*. However, the development is not required to be referred to NSW Rural Fire Service as it is not listed as a special fire protection purpose.

Council's flood mapping in the LPLEP 2011 identifies the land is not subject to localised flooding. Additionally, the proposed development is not identified as being affected by any further natural hazards that may affect the ability of the development to proceed.

Safety, security and crime prevention

The development will not result in any decrease in safety, security and prevention of crime in the surrounding area. The development is located in a rural area and passive surveillance of the environment will occur throughout the locality.

The five (5) Crime Prevention Through Environmental Design (CPTED) principles (i.e. surveillance, lighting, access control, territorial reinforcement, space management) are also to be considered in the development to ensure it does not create or exacerbate crime risk. The proposed expansion satisfies the requirements prepared by the former NSW Department of Urban Affairs and Planning (DUAP 2001).

Council Officers are satisfied that suitable safety and security measures (security cameras, surveillance, Secure entry and exit points, lighting, landscaping etc.) would be incorporated into the expansion of the WTWMF to minimise risk associated with the continued management of the existing development.

Economic and Social impact

The proposed development is expected to have a positive economic impact in the locality and the region during the construction and operation phase of the development. The proposal seeks to utilise an existing property that is suitable for the development. The project is unlikely to have any negative economic impacts.

The intermittent use, extensive screening, management plans (construction and operation) and topography of the WTWMF will ensure there will be little social impact on the surrounding area.

At the same time as having these positive economic and social impacts the proposal has the potential to have adverse impacts related to safety, health, security and criminal activity during construction and operation. The applicant and study / report recommendations undertaken have put forward various measures to manage the risk of these adverse social impacts occurring in relation to the proposal. Where these proposed measures are incorporated into the development it is considered that the proposal may be supported from a social impact perspective.

Site and internal design

The proposed design, associated structures of the development and measures to be undertaken (either enforced by Council or executed by the applicant) are not expected to result in any significant land use conflicts or adversely affect the amenity of surrounding land. It is considered the measures imposed for the construction and during operation will encourage consistency with development on adjoining allotments and is not expected to result in any unacceptable impacts for development within the locality.

Construction

At a minimum, the construction phase of the development will be required to address the following:

- Hours of construction work (to be consistent with NSW State Guidelines);
- Construction waste storage and management;
- Noise and dust management and control of other potential pollutants;
- Continuity of public access to services; and
- Signage.

Should the proposal be supported the abovementioned construction matters will be required to be addressed as per the recommended conditions of development consent.

Cumulative impacts

The proposal is considered to be compatible with surrounding land uses and approval of the application is not expected to result in any unacceptable land use conflicts. The Proposal involves the staged expansion of the existing WTWMF. The proposed recommendations and conditions are considered to minimise any impacts. Furthermore, pertinent matters have been addressed in detail in this assessment report, which demonstrates that the development is consistent with applicable planning legislation.

Accordingly, it is considered that the proposal will not result in any significant adverse impacts in the locality as outlined above.

4.7 Section 4.15(1)(c) - Suitability of the site

The subject site is considered suited for the proposed development. Known environmental hazards and / or constraints associated with the allotment have been assessed through the report. The following key points are discussed below:

- The development is compatible with and sympathetic to the existing built environment;
- The site is located within a former quarry and established waste disposal facility and considered appropriate for the operation of an expanded waste management facility, which includes a resource recovery facility;
- Utilities and services available to the site are adequate for the development;
- The air quality and microclimate are appropriate for the development, subject to recommended conditions;
- No hazardous land uses or activities are within the vicinity of the site;
- It has been demonstrated that impacts of the development can be mitigated and managed, where required, through compliance with conditions of consent;
- Noise levels would not impact on nearby sensitive receivers, with the imposition of recommended conditions;
- The development is compatible with the identified bushfire risk; and
- The development would result in removal of minimal native vegetation that is to be replaced as per recommendations in the Biodiversity assessment.

4.8 Section 4.15(1)(d) - Public Submissions

The exhibition periods for the proposed development was from Wednesday, 3 May 2023 to Wednesday, 31 May 2023 and Wednesday, 9 August 2023 to Monday, 11 September 2023. There were no submissions received for the proposal during both exhibition periods.

4.9 Section 4.15(1)(e) - Public interest

Potential visual, social, economic and environmental impacts have been thoroughly addressed in this assessment, and no detrimental impacts have been identified as a result of the proposed development. The proposed extension fits within the locality and it is considered the site attributes are conducive to the development.

The expansion of the WTWMF facilitates project reduces mileage associated with transporting recyclable materials to other facilities. This reduces greenhouse gas emissions and contributes to the circular economy. Additionally, as Australia transitions towards net zero emissions targets by 2050, projects that minimise their environmental footprint are a key part of the solution. The local community has also voiced support for a local recyclable materials facility, which would be realised by this development. The proposal is considered to be in the public interest on the following basis:

- Potential impacts associated with the proposal are mitigated or are addressed through the imposition of conditions of consent, as demonstrated throughout this assessment report.
- The development lessens the environmental costs of waste disposal by creating an efficient facility in a central location.
- The assessment in this Report indicates the proposal is generally consistent with all relevant planning controls.
- The proposal would result in reduced transportation requirements for waste and recycling materials.
- Neighbouring landowners were notified of the proposal and no issues were raised.
- The proposal would not have a detrimental effect on the health and safety of the public as a result of compliance with relevant planning controls, standards, construction codes and recommendations made in supporting technical reports.

In this regard, the subject application is considered to be in the public interest.

5. REFERRALS AND SUBMISSIONS

5.1 Agency Referrals and Concurrence

The development application has been referred to various agencies for comment / concurrence / referral as required by the EP&A Act 1979 and outlined over the page in **Table 5**. There are no outstanding issues arising from these concurrence and referral requirements subject to the imposition of the recommended conditions of consent being imposed.

Table 5: Concurrence and Referrals to agencies

Agency	Concurrence/ referral trigger	Comments (Issue, resolution, conditions)	Resolved
Concurrence Requirements (s4.13 of EP&A Act)			
Environment Agency Head (Environment, Energy & Science Group within DPIE)	S7.12(2) - <i>Biodiversity Conservation Act 2016</i>	A BAR has been prepared by <i>Biodiversity Australia Pty Ltd</i> to accompany the DA. This report concluded the project is not considered likely to result in a significant impact to species or communities listed under the EPBC Act 1999, and as such a referral to the Minister of the Environment and Energy is not required.	N/A
Rail authority for the rail corridor	-	-	N/A
Referral/Consultation Agencies			
NSW RFS	S4.14 – EP&A Act Development on bushfire prone land	The site is bushfire prone. As the project is not defined as a Special Fire Protection Purpose development, the provisions of the <i>Rural Fires Act 1997</i> do not apply.	N/A
Northern Region Planning Panel	Section 2.19(1) and Clause 3 of Schedule 6 of State Environmental Planning Policy (Planning Systems) 2021	Referral for Assessment required as development is Council related development over \$5 million.	Y
Rail authority	-	-	N/A
Transport for NSW	Section 2.122 – <i>State Environmental Planning Policy (Transport and Infrastructure) 2021</i> Development that is deemed to be traffic generating development in Schedule 3.	TfNSW raised no objection to or identified any requirements for the proposed development. TfNSW advised traffic volumes for the WTWMF are not expected to significantly impact the operation of the New England Highway / Merriwa Road intersection.	Y

Design Review Panel	-	-	N/A
Integrated Development (S 4.46 of the EP&A Act)			
Environment Protection Authority	<i>Protection of the Environment Operations Act 1997, Schedule 1</i>	An EPL is required for operation. The proposal would process up to 9,000 tonnes of general waste. The proposal is therefore, a “Scheduled Activity”, and requires separate licensing as required by Section 39 of the POEO Act. The proposal was consequently lodged as integrated development and referred to the NSW EPA for their GTAs. The NSW EPA did not raise objection to the proposal. The NSW EPA advised they would issue an EPL to accommodate the proposal, subject to conditions.	Y

5.2 Council Officer Referrals

The development application has been referred to various Council officers for technical review as outlined **Table 6**.

Table 6: Consideration of Council Referrals

Officer	Comments	Resolved
Engineering	Council's Development Engineer has assessed the proposal and raised no concerns in relation to traffic generation, access and car parking, subject to conditions of consent.	Yes
Building	Council's Building Inspector has advised that an Access Consultants Report and Draft Fire Safety Schedule from a Registered Fire Engineer or consultant will be required to be submitted to Council prior to the issue of a Construction Certificate (CC).	Yes
Health	Staff not available to provide advice / recommendations, however NSW EPA recommendations should suffice.	Yes
Waste	Staff not available for advice however NSW EPA recommendations should suffice.	Yes
Public Domain/ Assets	Council's Public Domain / Assets Officer has assessed the proposal and raised no concerns in relation to the technical reports and proposed plans for the development, subject to conditions of consent.	Yes

Heritage	Council does not have a designated Heritage Officer. However, an Aboriginal Due Diligence Assessment (Biosis Pty Ltd, 2022) was undertaken for the project. The result determined that no Aboriginal sites or areas of potential archaeological deposit PAD were identified within the site and no previously recorded sites are located within, or in close proximity to the site. Additionally, no items of heritage significance are identified on or adjoining the subject site. Construction activities resulting in increased dust, noise and traffic, have the potential to disturb items of historic heritage. However, due to their distance from site (greater than 500 metres), and the implementation of mitigation measures the project is not expected to result in any impacts to items of historic heritage identified.	Yes
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Any issues raised by Council officers are also considered in the Key Issues section of this report.

5.3 Community Consultation

The proposal was notified / advertised in accordance with the LPDCP 2012 / Council's Community Participation Plan from 3 May 2023 until 31 May 2023. The notification included the following:

- An advertisement in the local newspaper, Quirindi Advocate;
- Notification letters sent to adjoining and adjacent properties (approximately 50 letters sent);
- Notification on Liverpool Plains Shire Council's website.

The Council did not receive any submissions, as a result of the notification period.

The proposal was further notified / advertised from 9 August 2023 to 11 September 2023 as the previous public consultation did not adequately address the requirements of the legislation for designated and integrated development. The second notification period complied with the legislative requirements of the EP&A Act 1979 and also did not receive any submissions.

5.4 Consultation by the Proponent

An obligation of the SEARs involved providing details of consultation and issues raised with the following groups/bodies during the preparation of the EIS:-

- NSW Environmental Protection Authority (NSW EPA);
- Environment, Energy and Science Group;
- Transport for NSW (TfNSW);
- NSW Rural Fire Service (NSW RFS);
- Liverpool Plains Shire Council; and
- Surrounding landholders likely to be impacted.

Each of the above government agencies were consulted during the scoping and EIS phases. During the preparation of the EIS clarification was sought from select agencies by the applicant to confirm the requirements of the SEARs. Each specialist report was then prepared to respond to the consultation and requirements received from each relevant government agency. As the project was delivered on behalf of LPSC, the work involved in the EIS preparation was presented and approved by LPSC, as the applicant, prior to formal DA lodgement. In addition to the consultation with the relevant government agencies, LPSC also sent out letters to each of the adjoining landowners prior to the preparation of the EIS with no issues being raised from this consultation.

6. KEY ISSUES

The following key issues are relevant to the assessment of this application having considered the relevant planning controls and the proposal in detail:

6.1 Council Strategies

Issues Raised

The Record of Briefing confirmed the assessment report is to include an overview of Council's waste management and collection strategy.

Response:

This has been addressed in Section 4.2 of this report.

6.2 Clarification of Boundary Expansion Area

Issues Raised

The Panel requested that the Boundary Expansion Area be clarified as it appeared to exceed the site boundary.

Response:

Amended plans were provided to Council 23 May 2023 for consideration. The proposed development was located within the site boundaries of the subject land. On this basis, it is considered that the issue identified is resolved.

6.3 Air Quality

Issue Raised

Dust & Odour

Assessment report must consider dust and odour suppression and the sensitive receptor points, including impacts to nearby dwellings and Willow Tree during construction and operation.

Response:

Potential issues relate to dust and fine air particles during both construction and operation essentially from earthworks, vehicles wind erosion from disturbed soil. Odour is already present as the WTWMF is currently operational.

A high-level dust assessment has been undertaken which reviewed the potential dust emissions from the project and the recommended separation distances per state guidelines. Additionally, the *Environmental Guideline for Solid Waste Landfills* (NSW EPA, 2016) provides a list of inappropriate areas for landfilling. The limitations relevant to emissions to air such as dust and odour include:

- Within 250 metres (or other protection zone) of an area of significant environmental or conservation value identified under relevant legislation or environmental planning instruments, including national parks, historic and heritage areas, conservation areas, wilderness areas, wetlands, littoral rainforests, critical habitats, scenic areas, scientific areas and cultural areas.
- Within 250 metres of a residential zone or dwelling, school or hospital not associated with the facility.

The nearest sensitive receptor to the WTWMF is located approximately 500 m from the site boundary and therefore this site complies with the recommended separation distances, and the NSW EPA limitations. Furthermore, the topography and vegetation screening provide an advantage for the site in ensuring any potential impacts are minimal. Therefore, odour and dust emissions are not expected to cause significant impacts at the nearby sensitive receptors.

The AQA Report has also indicated that the dust and odour emissions from the proposed expansion of the facility would be largely unchanged compared to current site operations. However, standard air quality conditions would be imposed to ameliorate dust and odour issues. In order to ensure any

potential impacts are kept to a minimum the report has recommended a number mitigation measures for both odour and dust.

Resolution: The identified issues have been resolved through recommended conditions of consent. These conditions / recommendations have been discussed in Section 4.2.3 of the report.

6.4 Noise and vibration

Issue Raised

Noise and Vibration

Assessment report must consider the sensitive receptor points, including impacts to nearby dwellings and Willow Tree during construction and operation.

The potential for noise and vibration to impact on adjoining properties is an important consideration given the works proposed during construction and the ongoing operation of the facility. The application was accompanied by a Noise & Vibration Assessment report prepared by GHD, dated 1 December 2022 which considered this issue.

The report concluded that predicted noise levels during all stages of the development (construction / operation) are predicted to result in noise levels below the Noise Management Level (NML) at all receptors. Furthermore, traffic noise levels are anticipated to remain within 2 dB of current levels, and therefore additional mitigation measures are not required.

Resolution: The issue has been resolved through recommended conditions of consent as outlined in **Attachment B**.

6.5 Biodiversity

Issue Raised

The Panel made comment requesting further clarification on the Biodiversity assessment.

Response:

The site is identified as having a significant area (approximately 7.61 hectares) of Critically Endangered White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland, with approximately 6.05 hectares in moderate condition and 1.56 hectares in poor condition. The project proposes to remove a minute portion of this (0.05 ha) of TEC in moderate condition. Given the development is considered regionally significant and designated development, the BOS applies in accordance with Section 7.7 of the Biodiversity Conservation Act 2016, and an assessment is required in accordance with the NSW BAM (DPIE 2020a). A BAR has been prepared by *Biodiversity Australia Pty Ltd* to accompany the DA.

The significance assessment deemed that the loss of 0.05 ha through the proposed development would not have a significantly detrimental impact on the TEC and therefore referral to DPE is not required.

Although no significant impact was determined the precautionary principle has been applied to the proposal and an area of 0.3 ha is proposed for rehabilitation. Under the EPBC Act 1999 this offsetting area has been assessed using the Offset assessment guide and determined that the proposed rehabilitation area would meet minimum 90% offsetting requirement.

Resolution: To guide the restoration of the rehabilitation area and surrounding TEC a VMP is recommended which would include specific actions and outcomes of the rehabilitation area. This will give a net increase in area of the TEC and improve the condition of the TEC that currently exists on the site.

6.6 Traffic and Transport

Issues Raised

The Panel identified the development had not been referred to Transport for NSW (TfNSW). The assessment report was also to consider road suitability for the development. Further clarification was also required in relation to the TIA regarding vehicular movement and whether the data included private vehicular movements in total numbers recorded.

The Panel also confirmed the submitted documentation should address the landfill operation in relation to waste transfer stations located in shire villages and consequent volume of truck movements.

Response:

The volume of traffic measured in the TIA is inclusive of commercial, recycling and self-haul vehicles.

The submitted EIS adequately addresses the landfill operation in relation to waste transfer stations located in nearby shire villages and the consequential volume of truck movements.

TfNSW was consulted in relation to the proposed development who provided a response 12 July 2023. TfNSW raised no objection to or requirements for the proposed development. TfNSW also advised the proposed traffic volumes for the Waste Management Facility “...are not expected to significantly impact the operation of the New England Highway / Merriwa Road intersection.”

Resolution: The issues relating to potential impacts on safety and traffic have been resolved and accordingly, warrants approval of the application.

6.7 Hazardous and offensive development

Issues Raised

The Panel identified the assessment report is to consider hazardous and offensive development.

Response:

Preliminary risk screening of construction and operational risks was undertaken to determine if a preliminary hazard analysis is required. This screening considered:

- Dangerous goods
- Dangerous goods transportation

It was determined that no dangerous goods storage quantities exceeded the R&H SEPP threshold levels. Potential chemicals / products identified included Diesel Fuel, General oils and lubricants. It was recognised that these would also be appropriately stored in a separate bunded tank, away from any other flammable materials stored onsite. It was also considered that the transport of dangerous goods to and from the site is not potentially hazardous and did not require further evaluation.

In conclusion, the screening indicated the project is not considered to be ‘potentially hazardous’ or ‘potentially offensive’ so the R&H SEPP does not apply in this regard. Mitigation measures were also required to be implemented to minimise potential hazards and risk related to the project.

6.8 Surface water and groundwater resources

Issues Raised

The assessment report should consider the potential impact the development will have on surface water and ground water resources.

Response:

The proposed water management system at the WTWMF will include perimeter drains bunds to divert upslope catchment runoff around the WTWMF, a sediment pond to collect catchment runoff from the disturbed area of the quarry and a leachate pond to store and treat captured leachate.

The proposed surface water management system is intended to manage clean and dirty (sediment laden) separately, thereby minimising the volume of clean water captured within the dirty water systems. There are no groundwater inflows expected into the expansion area as only minimal excavation is proposed to establish suitable grades for the landfill floor.

Leachate generated by the project operation will be separated from the clean and dirty water management systems and will be designed to avoid contact with stormwater. Any runoff potentially containing leachate will be directed to the leachate pond for disposal via evaporation to minimise discharges.

Resolution: A number of measures are to be implemented during construction and operation to minimise potential impacts on hydrology, water quality and flooding.

6.9 Soils, geology and contamination

Issues Raised

Comments relating to the proposed excavation works, cell design of the landfill liner profiles and potential impacts of contamination were raised.

Response:

Earthworks will apply to the development during both construction and operation. In this regard, the impact of earthworks and ongoing operations associated with the proposal is a significant consideration. The construction works encompass bulk earthworks for the entire initial landfill cell area, with the stages of lining works to provide the landfill cell stages. Consequently, Council must consider the impacts of earthworks and soil contamination associated with the proposal and in particular the:

- likely disruption of, or any detrimental effect on, existing drainage patterns and soil stability in the locality,
- effect of the proposed development on the likely future use or redevelopment of the land,
- quality of the fill or of the soil to be excavated, or both,
- effect of the proposed development on the existing and likely amenity of adjoining properties,
- source of any fill material or the destination of any excavated material,
- likelihood of disturbing Aboriginal objects or other relics, and
- proximity to and potential for adverse impacts on any watercourse, drinking water catchment or environmentally sensitive area.

To ensure the proper management of the development and to avoid any potential environmental impacts associated with contamination, conditions of consent are to be imposed which relate to the following matters:

- Implementation of runoff and erosion control measures conditioned by NSW EPA.
- Ensuring all matters are complied with in the Environmental Management Plans, stormwater management measures, and the associated Soil and Surface Water Management Plan;
- Controls for earthworks, excavation and importation of material.

Resolution: The issues have been resolved via recommended conditions of consent outlined in **Attachment B**.

6.10 Staging and lifespan of operation

Issues Raised

The Panel required information on the staging of the development and the indicative lifespan of the operation of the facility.

Response:

Stage 1 of the proposed extension to the existing WTWMF area will involve bulk earthworks and the construction of:

- The Stage 1 basal and side wall liners,
- One Leachate barrier system and leachate pond,
- A weighbridge, site office and amenities,
- A resource recovery area including a community recycling centre, and drop-off locations for domestic customers for tyres, concrete, steel, green waste, bulky wastes, etc, and
- A small vehicles transfer station for domestic customers, for transfer by the site operator or collections contractor to the landfill cells.

Stages 2 and 3 will be progressively commenced upon completion of landfilling of the Stage 1 basal and wall liner area, which is anticipated to have a life span of ten (10) years. The remaining stages will have a lifespan of approximately twenty (20) years

6.11 Rehabilitation management

Issues Raised

The Panel discussed the requirement for rehabilitation management plans, which included progressive rehabilitation based on the growth of facility and as the responsibility of the contractor. The assessment report should consider rehabilitation, which also addresses surface flow absorption and drainage infrastructure.

Response:

Rehabilitation management is intended to occur during construction, operation and after the WTWMF expansion project has reached its lifespan.

A VMP is to occur during the development, which would include specific actions and outcomes of the 0.05 hectares of land that is required to be rehabilitated as a result of tree removal during construction. Additionally, any activities that result in ground disturbance associated with the project will have detailed management plans (e.g. stockpiles, sediment basins, sediment and erosion control, ground and surface water, leachate etc.) for the duration of the project and thereafter.

It is intended that following landfilling operations, the future land use of the site would be restricted to open space, with the potential to retain infrastructure as part of a future waste transfer station operation.

Resolution: With the imposition of recommended conditions relating to ongoing management and rehabilitation measures, it is considered that the issue identified is resolved.

7. CONCLUSION

This development application has been considered in accordance with the requirements of the EP&A Act and the Regulations as outlined in this report. **The application was referred to external government agencies as per the requirements of the Secretary's Environmental Assessment Requirements (SEARs).** No concerns were raised to the proposal. Following a thorough assessment of the relevant planning controls, issues raised in submissions and the key issues identified in this report, it is considered that the application can be supported.

A review of the EIS, plans and all associated documentation submitted with the Application has been undertaken, and the merits of the proposal have been assessed. The assessment has included consideration of internal referrals, external government agencies and the public submissions, in conjunction with analysis of the potential environmental impacts of the proposal.

Council considers the key issues associated with the proposal relates to:

- traffic and safety with the existing operations of the road network and the proposal;
- **operational waste management control;**
- noise and vibration impacts;
- **hazards and risk;**
- air quality impacts;
- biodiversity impacts;
- **soil and water impacts**
- potential for contamination;
- **visual impacts;**
- **potential impacts on Aboriginal and European heritage;**
- implementation of mitigation and management strategies; and
- rehabilitation during and after operation of the WTWMF Project.

The proposed development is appropriately located within the *SP1 Special Activities* zone under the relevant provisions of *Liverpool Plains Local Environmental Plan 2011* and is permissible in the *RU1 - Primary Production* zone under the provisions of clause 2.153(1) of the SEPP (Transport and Infrastructure) 2021. The proposal is consistent with all statutory and non-statutory controls applying to the development.

It is considered that the key issues as outlined in Section 6 have been resolved satisfactorily through amendments to the proposal and in the recommended draft conditions included at **Attachment A**.

8. RECOMMENDATION

That the Development Application No. 2023/006 for the extension of an existing Waste Management Facility (WTWMF) at Lot 213, DP 1173230, 258 Merriwa Road, Willow Tree be APPROVED pursuant to Section 4.16(1)(a) of the *Environmental Planning and Assessment Act 1979* subject to the draft conditions of consent attached to this report at **Attachment B**.

The following attachments are provided:

- Attachment A: Site Photographs
- Attachment B: Draft Conditions of consent
- Attachment C: Design Plans



Photograph 1: View south west depicting intersection of Merriwa Road and access road to subject site



Photograph 2: Existing entrance to adjoining Quarry



Photograph 3: South view of subject site from Merriwa Road



Photograph 4: North view of subject site from Merriwa Road



Photograph 5: Access to existing recycling facility at the Willow Tree Waste Management Facility



Photograph 6: View south west at intersection of Merriwa Road and access to Waste Management Facility

PART A: GENERAL**A1 Approved Plans and Supporting Documentation**

The development must be implemented in accordance with the approved plans, specifications and supporting documentation listed below which have been endorsed by Council's approved stamp, except where amended by conditions of this consent:

Plan/Report Title	Reference No	Revision	Prepared by	Date
3D Design Drawings	Project No. NWI-DWG-001	1	NWI Group	25/07/2022
Site Layout Plan	12534581-SK001	A	GHD	07/12/2022
Proposed Landfill Expansion Plan	Project No. 12534581	A	GHD	16/06/2023
Proposed Staging Plan	Project No. 12534581	A	GHD	16/06/2023
Proposed Final Landform	Project No. 12534581	A	GHD	16/06/2023
Cell Arrangement Plan	Project No. 12534581	C	GHD	21/07/2023
Landfill Extension Concept Design	Project No. 12534581	B	GHD	09/12/2022

In the event of any inconsistency between conditions of this approval and the drawings/documents referred to above, the conditions prevail. In the event of any inconsistency between the approved plans and the supporting documentation, the approved plans prevail.

Reason: To ensure the development proceeds in the manner assessed by Council and all parties are aware of the approved plans and supporting documentation that applies to the development.

A2 Report Recommendations

The development must be constructed and operated in accordance with the approved specialist reports including the following key recommendations:

Plan/Report Title (incl Reference, date, author)	Recommendation(s)	Stage
Willow Tree Waste Management Facility Aboriginal Due Diligence Assessment Prepared by <i>biosis</i> 22 December 2022	Recommendations in Section 5.2 of the report relating to Aboriginal objects or suspected potential Aboriginal Ancestral Remains encountered during works or activity (refer pages 41 - 42).	Pre-construction/ Construction/ Operation
Air Quality Impact Assessment Prepared by GHD 21 July 2023 Revision 1	Management, monitoring and mitigation measures that have been identified in the report.	Construction/Operation

Noise and Vibration Assessment Prepared by GHD 1 December 2022	Mitigation measures identified in Section 8 of the report.	Pre-construction/ Construction/Operation/ Post approval
Landfill Expansion Masterplan Prepared by GHD 13 September 2021	Recommendations for capping in relation to the proposed basal liner options and management of groundwater, surface water and leachate.	Construction/Operation
Water Impact Assessment Prepared by GHD 1 December 2022	Management, monitoring and mitigation measures that have been identified in the report.	Construction/Operation
Biodiversity Development Assessment Report Prepared by Biodiversity Australia Pty. Ltd. 13 October 2022	The key recommendations from Section 9.3 of the Report regarding: • General Clearing Measures • Animal Welfare Considerations • Sedimentation and Erosion Control • Weed Control • Threatened Ecological Community Rehabilitation • Fencing be implemented to minimise potential impacts on biodiversity (refer pages 38 - 42).	Pre-construction / Construction / Operation

A3 Signage

A separate application shall be submitted to Council prior to the erection of any signage unless the proposed signage is 'exempt development' under *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008* or any other applicable environmental planning instrument.

Reason: To ensure any signage is assessed in accordance with the planning controls.

A4 Compliance with the Building Code of Australia

All building work shall be carried out in accordance with the provisions of the Building Code of Australia / NCC. A reference to the *Building Code of Australia* is a reference to that Code as in force on the date the application is made for the relevant construction certificate.

Reason: To ensure the building work complies with the Building Code of Australia.

A5 Lapsing of consent

This consent is limited to a period of 5 years from the date of the Notice of Determination unless the works associated with the development have physically commenced.

Reason: To ensure compliance with Section 4.53 of the *Environmental Planning and Assessment Act 1979*

A6 Vegetation Retention and Removal

Approved vegetation removal shall be carried out by an appropriately qualified person to avoid any risk to life or damage to property and must have adequate public liability insurance. This is to occur in accordance with an approved Vegetation Management Program (VMP) as per the recommendations of the Biodiversity Assessment Report prepared by *Biodiversity Australia*, October 2022.

Existing vegetation on the site is to be retained and protected from damage during work, with the exception of the vegetation (0.05 hectares) outlined within the development footprint of the proposed plans prepared by GHD.

Reason: To protect vegetation on the site to be retained.

A7 Decommissioning

The land must be returned to its pre-existing condition, as far as is practicable, (prior to use as a Waste Management Facility) and all infrastructure removed once the facility has reached life expectancy and is decommissioned. The land must be rehabilitated. The project owner or operator shall be responsible for decommissioning and rehabilitation unless there is an agreement with the 'host landowner' that that clearly outlines alternate responsibilities.

Reason: To ensure the rehabilitation of the site.

A8 Construction

A copy of all stamped approved plans, specifications and documents must always be kept on site so as to be readily available for perusal by any officer of Council or the Principal Certifier.

Reason: To confirm and clarify the terms of approval and ensure compliance with the conditions.

A9 Requirements of Government Agencies (General Terms of Approval)

The following conditions have been imposed by the New South Wales Environmental Protection Authority in accordance with the provisions of Section 4.47(3) of the *Environmental Planning and Assessment Act 1979*.

Reason: To ensure compliance with Section 4.47(3) of the *Environmental Planning and Assessment Act 1979* and the conditions of Government agencies are complied with.

1 Administrative conditions

A1 What the approval/licence authorises and regulates

A1.1 This approval/licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation.

Unless otherwise further restricted by a condition of this approval/licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition.

Scheduled Activity	Fee Based Activity	Scale
Waste disposal (application to land)	Waste disposal by application to land	Any capacity

A2 Premises or plant to which this approval/licence applies

A2.1 The approval/licence applies to the following premises:

Premises Details
WILLOW TREE WASTE MANAGEMENT FACILITY 258 MERRIWA ROAD WILLOW TREE NSW 2339 LOT 213 DP 1173230

A3 Information supplied to the EPA

A3.1 Except as expressly provided by these general terms of approval, works and activities must be carried out in accordance with the proposal contained in:

- The development application DA 2023/006 submitted to Liverpool Plains Shire Council on 17 February 2023;
- Any environmental impact statement *Willow Tree Waste Management Expansion dated 12 January 2023* relating to the development; and
- All additional documents supplied to the EPA in relation to the development, including:
 - Aboriginal Due Diligence Assessment, dated 22 December 2022
 - Concept Design (Survey Plan, Site Plan, Staging Plans etc.)
 - Landfill Extension Masterplan, dated 13 September 2021
 - Water Impact Assessment, dated 1 December 2022
 - Air Quality Impact Assessment, dated 1 December 2022
 - Environmental Noise and Vibration Assessment, dated 1 December 2022
 - Traffic Assessment, dated 19 December 2022
 - Biodiversity Development Assessment Report, dated October 2022

A4 Fit and Proper Person

A4.1 The applicant must, in the opinion of the EPA, be a fit and proper person to hold a licence under the *Protection of the Environment Operations Act 1997*, having regard to the matters in s.83 of that Act.

2 Discharges to Air and Water Applications to Land

P1 Location of monitoring/discharge points and areas

P1.1 The following points referred to in the table below are identified in this approval/licence for the purposes of monitoring and/or the setting of limits for the emissions of pollutants to the air from the point.

Air

EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description
Exact points to be confirmed on the Environmental Protection Licence (EPL)	Air Emissions Monitoring Ambient Air Quality Monitoring Sub surface gas monitoring		The EPA intends to establish air quality monitoring points on the licence before construction and operation of the landfill commences.

P1.2 The following points referred to in the table are identified in this approval/licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.

Water

EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description
Exact points to be confirmed on the EPL	Sediment Dam Quality Monitoring Leachate Quality Monitoring Surface water quality Monitoring Discharge quality monitoring Groundwater Quality Monitoring Ambient water quality monitoring	Discharge to waters Discharge quality monitoring Volume monitoring Surface water quality monitoring	It is the EPA's intention to add water monitoring points for leachate, surface water (clean and dirty), ambient (upstream and downstream of the landfill site) and groundwater. Water discharge points from clean area sediment dams will also be added. Controlled discharges of leachate/dirty water from the premises will not be permitted.

P1.3 The following points referred to in the table below are identified in this approval/licence for the purposes of weather and/or noise monitoring and/or setting limits for the emission of noise from the premises.

Noise/Weather

EPA Identification Number	Type of Monitoring Point	Description of Location
W1	Meteorological Station	Meteorological Station located on the premises (exact location to be confirmed)

3 Limit Conditions

L1 Pollution of waters

L1.1 Except as may be expressly provided in any other condition of this approval/licence, the proponent must comply with section 120 of the Protection of the Environment Operations Act 1997.

L2 Concentration limits

L2.1 For each discharge point specified in the tables below, the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified for that pollutant in the table.

L2.2 Where a pH quality limit is specified in the Table, the specified percentage of samples must be within the specified ranges.

L2.3 To avoid any doubt, this condition does not authorise the discharge or emission of any other pollutants.

L2.4 Water and or/Land Concentration Limits

POINTS - Sediment Pond discharge limits (exact locations TBC)

Pollutant	Units of Measure	100% concentration limit
TSS	mg/L	50
Nitrogen (ammonia)	mg/L	0.9
<pH>		6.5-8.5

L2.5 The proponent is taken not to have breached the concentration limits specified in this approval/licence for the discharge of total suspended solids in condition L2.4 if:

- (a) the dams overflow is caused by a rainfall event exceeding the 5 day 90%ile rainfall; and,
- (b) the proponent has taken all practical measures to avoid or minimise water pollution.

Note: The proponent is to confirm the rainfall depth terms in millimetres upon the application for the EPL.

L3 Waste

L3.1 The proponent must prepare a Waste Classification Report and provide it to the EPA prior to commencing operations at the premises. The Waste Classification report must accompany the EPL application.

L3.2 The proponent must not cause, permit or allow any waste to be received at the premises, except the wastes expressly referred to in the column titled "Waste" and meeting the definition, if any, in the column titled "Description" in the table below.

Any waste received at the premises must only be used for the activities referred to in relation to that waste in the column titled “Activity” in the table below.

Any waste received at the premises is subject to those limits or conditions, if any, referred to in relation to that waste contained in the column titled “Other Limits” in the table below.

This condition does not limit any other conditions in this approval/licence.

Code	Waste	Description	Activity	Other Limits
	General Solid Waste (non-putrescible)	As defined in Schedule 1 of the POEO Act, as in force from time to time.	Waste disposal (application to land)	TBD
	General Solid Waste (putrescible)	As defined in Schedule 1 of the POEO Act, as in force from time to time.	Waste disposal (application to land)	TBD
	Waste	Any waste received on site that is below licensing thresholds in Schedule 1 of the POEO Act, as in force from time to time.		TBD

Note: The total amount of waste disposed of at the premises must not exceed 10,000 tonnes per annum. The proponent must provide a break down of waste types to be disposed of at the premises as supporting information in the EPL application.

L3.4 Disposal of asbestos must be in accordance with Clause 80 of the Protection of the Environment Operations (Waste) Regulation 2014

L4 Noise limits

L4.1 Noise generated at the premises must not exceed the noise limits at the times and locations in the table below. The locations referred to in the table below are indicated by Figure 4.2 of the Willow Tree Waste Management Facility Noise and Vibration Assessment by GHD ref: 12534581, dated 1 December 2022.

Location	Noise Limits in dB(A)	
	Morning Shoulder	Day
	^L Aeq(15 minute)	^L Aeq(15 minute)
200 Merriwa Road, Willow Tree (Lot 214, DP 1173230)	36	40
104 Merriwa Road, Willow Tree (Lot 1, DP 136316)	35	40

L4.2 For the purposes of condition L4.1:

- (a) Morning Shoulder means the period from 7am to 8am Sunday and public holidays.
- (b) Day means the period from 7am to 6pm Monday to Saturday and the period from 8am to 6pm Sunday and public holidays.

L4.3 Standard Meteorological Conditions

(a) The noise limits set out in condition L4.1 apply under the following meteorological conditions:

Assessment Period	Meteorological Conditions
Day	Stability Categories A, B, C and D with wind speeds up to and including 0.5m/s at 10m above ground level
Evening	Stability Categories A, B, C and D with wind speeds up to and including 0.5m/s at 10m above ground level
Night	Stability Categories A, B, C and D with wind speeds up to and including 0.5m/s at 10m above ground level

(b) For those meteorological conditions not referred to in condition L4.3(a), the noise limits that apply are the noise limits in condition L4.1 plus 5dB.

L4.4 For the purposes of condition L4.3: -

- (a) The meteorological conditions are to be determined from meteorological data obtained from the site meteorological weather station identified as point W1.
- (b) Stability category shall be determined using the following method from Fact Sheet D of the *Noise Policy for Industry* (NSW EPA, 2017):
 - (i) Use of sigma-theta data (section D1.4).

L4.5 To assess compliance:

- (a) with the LAeq(15 minutes) noise limits in condition L4.1 and L4.3, the noise measurement equipment must be located:
 - (i) approximately on the property boundary, where any residence is situated 30 metres or less from the property boundary closest to premises; or where applicable,
 - (ii) in an area within 30 metres of a residence façade, but not closer than 3 metres where any residence on the property is situated more than 30 metres from the property boundary closest to the premises; or, where applicable,
 - (iii) in an area within 50 metres of the boundary of a National Park or Nature Reserve,
 - (iv) at any other location identified in condition L4.1
- (b) with the LAeq(15 minutes) noise limits in condition L4.1 and L4.3, the noise measurement equipment must be located:
 - (i) at the reasonably most affected point at a location where there is no residence at the location; or,
 - (ii) at the reasonably most affected point within an area at a location prescribed by condition L4.5 (a).

L4.6 A non-compliance of conditions L4.1 and L4.3 will still occur where noise generated from the premises is measured in excess of the noise limit at a point other than the reasonably most affected point at the locations referred to in condition L4.5 (a) or L4.5 (b).

Note to L4.5 and L4.6: The reasonably most affected point is a point at a location or within an area at a location experiencing or expected to experience the highest sound pressure level from the premises.

L4.7 For the purpose of determining the noise generated from the premises, the modifying factor corrections in Table C1 in Fact Sheet C of the *Noise Policy for Industry* (NSW EPA, 2017) may be applied, if appropriate, to the noise measurements by the noise monitoring equipment.

L4.8 Noise measurements must not be undertaken where rain or wind speed at microphone level will affect the acquisition of valid measurements.

L4.9 Truck movements to and from the site be restricted to daytime hours only to minimise the impact on sleep during the night time period.

L4.10 The proponent must prepare and implement a Noise Management Plan that covers all premises based activities and transport operations. The plan must include but need not be limited to:

- (a) All measures necessary to satisfy the limits in Table L4.1 at all times,
- (b) A system that allows for periodic assessment of Best Management Practice (BMP) and Best Available Technology Economically Achievable (BATEA) that has the potential to minimise noise levels from the facility,
- (c) Effective implementation of identified BMP and BATEA measures, where considered feasible and reasonable,
- (d) Measures to monitor noise performance and respond to complaints,
- (e) Measures for community consultation including site contact details,
- (f) Noise monitoring and reporting procedures.

L4.11 The proponent must prepare and implement a detailed Construction Noise Management Plan (CNMP), prior to commencement of construction activities, that includes but is not necessarily limited to;

- (a) Identification of each work area, site compound and access route (both private and public),
- (b) Identification of the specific activities that will be carried out and associated noise sources at the premises and access routes,
- (c) Identification of all potentially affected sensitive receivers,
- (d) The construction noise and vibration objectives identified in the Environmental Assessment,
- (e) Assessment of potential noise and vibration from the proposed construction methods (including noise from construction traffic) against the objectives identified in the Environmental Assessment,
- (f) Where the objectives are predicted to be exceeded an analysis of feasible and reasonable noise mitigation measures that can be implemented to reduce construction noise impacts,
- (g) Description of management methods and procedures and specific noise mitigation treatments that will be implemented to control noise and vibration during construction, including the early erection of any operational noise control barriers,
- (h) Procedures for notifying residents of construction activities that are likely to affect their noise and vibration amenity,
- (i) Measures to monitor noise performance and respond to complaints.

L4.12 Subject to any express provision to the contrary in this approval/licence, measurement and analysis of noise required by this approval/licence must be done in accordance with the Approved Methods for the Measurement and Analysis of Environmental Noise in NSW.

Definitions for L4

LAeq (15 minute) - the value of the A-weighted sound pressure level of a continuous steady sound that, over a 15 minute time interval, has the same mean square sound pressure level as a sound under consideration with a level that varies with time (Australian Standard AS 1055:2018 Acoustics: description and measurement of environmental noise).

Noise Policy for Industry - the document entitled "Noise Policy for Industry" published by the NSW Environment Protection Authority in October 2017.

Noise – 'sound pressure levels' for the purposes of conditions L4.1 to L4.8.

L5 Hours of operation

L5.1 The proponent shall comply with the operating hours shown in the table below.

Activity	Day	Hours
Construction	Monday – Friday	7am – 6pm
Construction	Saturday	8am – 1pm
Construction	Any other time	Only with the prior written approval of the EPA and subject to any conditions that may be imposed.
Operation	Monday – Sunday	7am – 5pm
Operation	Any other time	Only with the prior written approval of the EPA and subject to any conditions that may be imposed.

L5.2 This condition does not apply to the delivery of material outside the hours of operation permitted by condition L5.1, if that delivery is required by police or other authorities for safety reasons; and/or the operation or personnel or equipment are endangered. In such circumstances, prior notification is provided to the EPA and affected residents as soon as possible, or within a reasonable period in the case of emergency.

L5.3 The hours of operation specified in conditions L5.1 may be varied with written consent if the EPA is satisfied that the amenity of the residents in the locality will not be adversely affected.

4 Operating conditions

O1 Odour

O1.1 No condition in this approval/licence identifies a potentially offensive odour for the purposes of section 129 of the Protection of the Environment Operations Act 1997.

Note: Section 129 of the Protection of the Environment Operations Act 1997 provides that the proponent must not cause or permit the emission of any offensive odour from the premises but provides a defence if the emission is identified in the relevant environment protection licence as a potentially offensive odour and the odour was emitted in accordance with the conditions of a licence directed at minimising odour.

O2 Dust

O2.1 All operations and activities occurring at the premises must be carried out in a manner that will minimise the emission of dust from the premises.

O2.2 Trucks entering and leaving the premises that are carrying loads must be covered at all times, except during loading and unloading.

O2.3 The premises must be maintained in a manner that prevents or minimises the emission of air pollutants from the premises.

O3 Waste management

O3.1 Surface drainage must be diverted away from any area where waste is being or has been landfilled.

O3.2 There must be no incineration or burning of any waste at the premises.

O3.3 The proponent must have in place and implement procedures to identify and prevent the disposal of any waste not permitted by this approval/licence to be disposed of at the premises.

O3.4 The proponent must minimise the tracking of waste and mud by vehicles.

O3.5 Cover material must meet the specifications within section 8 of the Environmental Guidelines: Solid Waste Landfills" (EPA, Second Edition, 2016), unless otherwise approved by the EPA and the following:

(a) Daily cover

Cover material must be applied to a minimum depth of 150 millimetres over all exposed landfilled waste prior to ceasing operations at the end of each day.

(b) Intermediate cover

Cover material must be applied to a depth of 300 millimetres over surfaces of the landfilled waste at the premises which are to be exposed for more than 90 days.

(c) Cover material stockpile

At least two weeks cover material must be available at the premises under all weather conditions. This material may be won on site, or alternatively a cover stockpile must be maintained adjacent to the tip face.

O3.6 Alternative daily cover options may be considered and approved by the EPA if the proponent can demonstrate that the alternative approach can achieve the required outcomes for cover in section 8 of the "Environmental Guidelines: Solid Waste Landfills" (EPA, Second Edition, 2016).

O3.7 The proponent must submit to the EPA within twelve months prior to the last load of waste to be landfilled a closure plan in accordance with Section 76 of the Protection of the Environment Operations Act 1997.

O3.8 The proponent must ensure that the landfill cells are capped progressively.

O3.9 The proponent must ensure that the leachate dam is constructed with:

(a) sufficient capacity as determined in accordance with the processes detailed within section 2 of the "Environmental Guidelines: Solid Waste Landfills" (EPA, Second Edition, 2016); and

(b) is lined in accordance with section 2.1 of the "Environmental Guidelines: Solid Waste Landfills" (EPA, Second Edition, 2016) or an alternative system approved in writing by the EPA.

O3.10 The level of leachate above the basal liner in the all landfill cells must be maintained to be less than 300mm.

O3.11 Water which contains or has come into contact with waste, other than Virgin Excavated Natural Material, must be managed as leachate.

O3.12 The surface water and leachate management systems must be maintained to ensure that their design capacity is available for the storage and management of stormwater and leachate.

O3.13 Leachate must only be disposed of by:

(a) Evaporation;

(b) Irrigation within the leachate dam or within the active cell of the landfill; or

(c) Disposal of at a facility licensed to accept such waste.

O3.14 Irrigation of leachate must only be undertaken:

- (a) During dry weather; and
- (b) Such that ponding or run off within the active cell does not occur and if the active tipping face is enclosed by a 300mm high earthen bund.
- (c) Spray from wastewater application must not drift beyond the boundary of the wastewater utilisation area to which it is applied.

O3.16 The proponent must have in place and implement procedures to identify and prevent the disposal of any waste not permitted by this approval/license to be disposed of at the premises.

O3.17 The proponent must undertake a weekly boundary litter patrol of the premises so that all windblown litter caught on the boundary fence and/or in neighbouring paddocks is collected and returned to the appropriate place of disposal.

O3.18 The proponent must have in place and operate a calibrated weighbridge to record the weight in tonnes of all waste brought into the premises and to determine the occupier's Protection of the Environment Operations Act 1997 section 88 levy liability.

O3.19 The proponent must pay the waste levy applicable to any waste received from the regulated area as required by section 88 of the Protection of the Environment Operations Act 1997 and the Protection of the Environment Operations (Waste) Regulation 2014.

O4. Stormwater/sediment control

O4.1 Prior to commencing construction of landfilling operations, a Site Water Management Plan (SWMP) must be prepared to the satisfaction of the EPA. The SWMP must be implemented before landfilling operation commence. The SWMP must include:

- design detail and calculations that demonstrate any clean area sediment basin associated with the landfill are constructed and will be managed in a manner that is consistent with Managing Urban Stormwater: Soils and Construction: Volume 2B Waste Landfills (Landcom, 2008);
- detail that demonstrates that any clean area sediment basins associated with the landfill have been designed on the basis of volumetric runoff coefficient of 0.9 within the affected catchments, given the nature of the site and the relatively impermeable surfaces present throughout;
- detail that demonstrates that Landcom (2008) clean sediment basin sizing, and related discharge considerations, only apply to catchments that are collecting clean sediment, i.e. areas not affected by leachate in any way; and
- detail that demonstrates that where concentrations of pollutants other than sediment are elevated in stormwater, the polluted water must be transferred to the leachate system.

O5 Emergency response

O5.1 The proponent must extinguish fires at the premises as soon as possible.

O5.2 The proponent must have in place and implement procedures to minimise the risk of fire at the premises.

O6 Processes and management

O6.1 The drainage from all areas at the premises which will liberate suspended solids when stormwater runs over these areas must be diverted into sedimentation basins.

O6.2 The proponent must take all practicable steps to control entry to the premises.

O6.3 The proponent must install and maintain a stockproof perimeter fence around the premises.

O6.4 The proponent must install and maintain lockable security gates at all access and departure locations.

O6.5 The proponent must ensure that all gates are locked whenever the landfill is unattended.

O6.6 The proponent must control pests, vermin and weeds at the premises.

O6.7 The proponent must ensure that adequately trained staff are available at the premises in order to administer the requirements of this approval/licence.

O6.8 All practicable measures must be undertaken to manage all sediment dams such that they have sufficient capacity to store run-off from the 90th percentile 5 day rainfall event. The proponent is to use the Australian Rainfall and Runoff Data and rainfall data from the Australian Bureau of Meteorology for the premises to calculate the runoff generated in a 90th percentile 5 day rainfall event.

Note: The proponent is to confirm the rainfall depth terms in millimetres upon the application for the EPL.

O6.9 The proponent must have in place and implement a litter management program.

5 Monitoring and recording conditions

M1 Monitoring records

M1.1 The results of any monitoring required to be conducted by the EPA's general terms of approval, or a licence under the Protection of the Environment Operations Act 1997, in relation to the development must be recorded and retained as set out in conditions M1.2 and M1.3.

M1.2 All records required to be kept by the approval/licence must be:

- (a) in a legible form, or in a form that can readily be reduced to a legible form;
- (b) kept for at least 4 years after the monitoring or event to which they relate took place; and
- (c) produced in a legible form to any authorised officer of the EPA who asks to see them.

M1.3 The following records must be kept in respect of any samples required to be collected: the date(s) on which the sample was taken;

- (a) the time(s) at which the sample was collected;
- (b) the point at which the sample was taken; and
- (c) the name of the person who collected the sample.

M2 Requirement to monitor concentration of pollutants discharged

M2.1 For each monitoring/discharge point specified below (by a point number), the proponent must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The proponent must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:

M2.2 Water and/or Land Monitoring Requirements

Points - Ground water quality monitoring points (number and location of points to be confirmed in EPL)

Pollutant	Unit of Measure	Frequency	Sampling Method
Alkalinity (as calcium carbonate)	Milligrams per litre	Quarterly	Representative sample
Arsenic	Milligrams per litre	Quarterly	Representative sample
Boron	Milligrams per litre	Quarterly	Representative sample
Cadmium	Milligrams per litre	Quarterly	Representative sample
Calcium	Milligrams per litre	Quarterly	Representative sample
Carbon dioxide	Milligrams per litre	Quarterly	Representative sample
Chloride	Milligrams per litre	Quarterly	Representative sample
Chromium	Milligrams per litre	Quarterly	Representative sample
Conductivity	Micro-Siemens per centimetre	Quarterly	In situ
Copper	Milligrams per litre	Quarterly	Representative sample
Dissolved Oxygen	Milligrams per litre	Quarterly	In situ
Hardness (as calcium carbonate)	Milligrams per litre	Quarterly	Representative sample
Iron	Milligrams per litre	Quarterly	Representative sample
Iron Oxide	Milligrams per litre	Quarterly	Representative sample
Lead	Milligrams per litre	Quarterly	Representative sample
Magnesium	Milligrams per litre	Quarterly	Representative sample
Manganese	Milligrams per litre	Quarterly	Representative sample
Nitrate + Nitrite (oxidised nitrogen)	Milligrams per litre	Quarterly	Representative sample
Nitrogen (ammonia)	Milligrams per litre	Quarterly	Representative sample
Nitrogen (total)	Milligrams per litre	Quarterly	Representative sample
pH	pH	Quarterly	In situ
Potassium	Milligrams per litre	Quarterly	Representative sample
Redox Potential	Millivolts	Quarterly	In situ
Sodium	Milligrams per litre	Quarterly	Representative sample
Standing water level	metres	Quarterly	In situ
Sulfate	Milligrams per litre	Quarterly	Representative sample
Temperature	Degrees Celcius	Quarterly	In situ
Total Kjeldahl Nitrogen	Milligrams per litre	Quarterly	Representative sample
Total organic carbon	Milligrams per litre	Quarterly	Representative sample

Total Phosphorus-unfiltered sample	Milligrams per litre	Quarterly	Representative sample
Total Suspended solids	Milligrams per litre	Quarterly	Representative sample
Volumetric flow rate	kilolitres per day	Quarterly	Representative sample
Turbidity	nephelometric turbidity units	Quarterly	In situ
Zinc	Milligrams per litre	Quarterly	Representative sample

POINTS - Sediment Dam - water quality monitoring (exact points to be confirmed in the EPL)

Pollutant	Unit of Measure	Frequency	Sampling Method
Alkalinity (as calcium carbonate)	Milligrams per litre	Quarterly	Grab sample
Aluminium	Milligrams per litre	Quarterly	Grab sample
Arsenic	Milligrams per litre	Quarterly	Grab sample
Boron	Milligrams per litre	Quarterly	Grab sample
Cadmium	Milligrams per litre	Quarterly	Grab sample
Calcium	Milligrams per litre	Quarterly	Grab sample
Carbon dioxide	Milligrams per litre	Quarterly	Grab sample
Chloride	Milligrams per litre	Quarterly	Grab sample
Chromium	Milligrams per litre	Quarterly	Grab sample
Conductivity	Micro-Siemens per centimetre	Quarterly	In situ
Copper	Milligrams per litre	Quarterly	Grab sample
Dissolved Oxygen	Milligrams per litre	Quarterly	In situ
Hardness (as calcium carbonate)	Milligrams per litre	Quarterly	Grab sample
Iron	Milligrams per litre	Quarterly	Grab sample
Iron Oxide	Milligrams per litre	Quarterly	Grab sample
Lead	Milligrams per litre	Quarterly	Grab sample
Magnesium	Milligrams per litre	Quarterly	Grab sample
Manganese	Milligrams per litre	Quarterly	Grab sample
Nitrate + Nitrite (oxidised nitrogen)	Milligrams per litre	Quarterly	Grab sample
Nitrogen (ammonia)	Milligrams per litre	Quarterly	Grab sample
Nitrogen (total)	Milligrams per litre	Quarterly	Grab sample
pH	pH	Quarterly	In situ
Potassium	Milligrams per litre	Quarterly	Grab sample
Redox potential	millivolts	Every 6 months	In situ

Sodium adsorption ratio	Milligrams per litre	Quarterly	Grab sample
Sulfate	Milligrams per litre	Quarterly	Grab sample
Temperature	Milligrams per litre	Quarterly	Grab sample
Total Kjeldahl	Milligrams per litre	Quarterly	Grab sample
Total organic carbon	Milligrams per litre	Quarterly	Grab sample
Total Phosphorus-unfiltered sample	Milligrams per litre	Quarterly	Grab sample
Total Suspended solids	Milligrams per litre	Quarterly	Grab sample
Turbidity	nephelometric turbidity units	Quarterly	In situ
Volume	Kililitres	Quarterly	In situ
Zinc	Milligrams per litre	Quarterly	Grab sample

POINTS - Leachate Quality monitoring (exact points to be confirmed in the EPL)

Pollutant	Unit of Measure	Frequency	Sampling Method
Alkalinity (as calcium carbonate)	Milligrams per litre	Quarterly	Grab sample
Arsenic	Milligrams per litre	Quarterly	Grab sample
Boron	Milligrams per litre	Quarterly	Grab sample
Cadmium	Milligrams per litre	Quarterly	Grab sample
Calcium	Milligrams per litre	Quarterly	Grab sample
Carbon dioxide	Milligrams per litre	Quarterly	Grab sample
Chloride	Milligrams per litre	Quarterly	Grab sample
Chromium (total)	Milligrams per litre	Quarterly	Grab sample
Conductivity	Micro-Siemens per centimetre	Quarterly	In situ
Copper	Milligrams per litre	Quarterly	Grab sample
Dissolved Oxygen	Milligrams per litre	Quarterly	In situ
Hardness (as calcium carbonate)	Milligrams per litre	Quarterly	Grab sample
Iron	Milligrams per litre	Quarterly	Grab sample
Iron Oxide	Milligrams per litre	Quarterly	Grab sample
Lead	Milligrams per litre	Quarterly	Grab sample
Magnesium	Milligrams per litre	Quarterly	Grab sample
Manganese	Milligrams per litre	Quarterly	Grab sample
Nitrate + Nitrite (oxidised nitrogen)	Milligrams per litre	Quarterly	Grab sample
Nitrogen (ammonia)	Milligrams per litre	Quarterly	Grab sample

Nitrogen (total)	Milligrams per litre	Quarterly	Grab sample
pH	pH	Quarterly	In situ
phenols	Milligrams per litre	Quarterly	Grab sample
Polycyclic aromatic hydrocarbons	Milligrams per litre	Quarterly	Grab sample
Potassium	Milligrams per litre	Quarterly	Grab sample
Redox potential	millivolts	Quarterly	In situ
Sulfate	Milligrams per litre	Quarterly	Grab sample
Temperature	Degrees Celsius	Quarterly	In situ
Total Kjeldahl Nitrogen	Milligrams per litre	Quarterly	Grab sample
Total organic carbon	Milligrams per litre	Quarterly	Grab sample
Total Phosphorus-(unfiltered)	Milligrams per litre	Quarterly	Grab sample
Total Suspended solids	Milligrams per litre	Quarterly	Grab sample
Volatile organic compounds	Milligrams per litre	Quarterly	Grab sample
Volume	Kilolitres	Quarterly	In situ
Zinc	Milligrams per litre	Quarterly	Grab sample

POINTS - Sediment dam discharge point/s (exact points to be confirmed in the EPL)

Pollutant	Unit of Measure	Frequency	Sampling Method
Conductivity	Micro-Siemens per centimetre	Special frequency 1	In situ
Nitrate + Nitrite (oxidised nitrogen)	Milligrams per litre	Special frequency 1	Representative sample
Nitrogen (ammonia)	Milligrams per litre	Special frequency 1	Representative sample
pH	pH	Special frequency 1	In situ
Total Kjeldahl Nitrogen	Milligrams per litre	Special frequency 1	Representative sample
Total Phosphorus-(unfiltered)	Milligrams per litre	Special frequency 1	Representative sample
Total Suspended solids	Milligrams per litre	Special frequency 1	Representative sample

Note: For the purpose of this condition, 'special frequency 1 ' means as soon as practicable after overflow commences and in any cases not more than 12 hours after any overflow commencing and prior to any controlled discharge from the sedimentation basin to demonstrate compliance with the concentration limits defined at condition L2.3.

POINTS - leachate pond discharge point/s (exact points to be confirmed in the EPL)

Pollutant	Units of Measure	Frequency	Sampling Method
Conductivity	Micro-Siemens per centimetre	Special frequency 2	In situ
Nitrate + Nitrite (oxidised nitrogen)	Milligrams per litre	Special frequency 2	Representative sample
Nitrogen (ammonia)	Milligrams per litre	Special frequency 2	Representative sample
pH	pH	Special frequency 2	In situ
Total Kjeldahl	Milligrams per litre	Special frequency 2	Representative sample
Total Phosphorus (unfiltered)	Milligrams per litre	Special frequency 2	Representative sample
Total Suspended solids	Milligrams per litre	Special frequency 2	Representative sample

Note: For the purpose of this condition, 'special frequency 2' means as soon as practicable after overflow commences and in any cases not more than 12 hours after any overflow commencing.

Point Ambient surface water monitoring (exact points to be confirmed in EPL)

Pollutant	Units of Measure	Frequency	Sampling Method
Alkalinity (as calcium carbonate)	Milligrams per litre	Quarterly	Grab sample
Aluminium	Milligrams per litre	Quarterly	Grab sample
Arsenic	Milligrams per litre	Quarterly	Grab sample
Boron	Milligrams per litre	Quarterly	Grab sample
Cadmium	Milligrams per litre	Quarterly	Grab sample
Calcium	Milligrams per litre	Quarterly	Grab sample
Carbon dioxide	Milligrams per litre	Quarterly	Grab sample
Chloride	Milligrams per litre	Quarterly	Grab sample
Chromium	Milligrams per litre	Quarterly	Grab sample
Conductivity	Micro-Siemens per centimetre	Quarterly	In situ
Copper	Milligrams per litre	Quarterly	Grab sample
Dissolved Oxygen	Milligrams per litre	Quarterly	In situ
Hardness (as calcium carbonate)	Milligrams per litre	Quarterly	Grab sample
Iron	Milligrams per litre	Quarterly	Grab sample
Iron Oxide	Milligrams per litre	Quarterly	Grab sample
Lead	Milligrams per litre	Quarterly	Grab sample
Magnesium	Milligrams per litre	Quarterly	Grab sample
Manganese	Milligrams per litre	Quarterly	Grab sample

Nitrate + Nitrite (oxidised nitrogen)	Milligrams per litre	Quarterly	Grab sample
Nitrogen (ammonia)	Milligrams per litre	Quarterly	Grab sample
Nitrogen (total)	Milligrams per litre	Quarterly	Grab sample
pH	pH	Quarterly	In situ
Potassium	Milligrams per litre	Quarterly	Grab sample
Redox potential	millivolts	Every 6 months	In situ
Potassium	Milligrams per litre	Quarterly	Grab sample
Sodium adsorption ratio	Milligrams per litre	Quarterly	Grab sample
Sulfate	Milligrams per litre	Quarterly	Grab sample
Temperature	Milligrams per litre	Quarterly	Grab sample
Total Kjeldahl	Milligrams per litre	Quarterly	Grab sample
Total organic carbon	Milligrams per litre	Quarterly	Grab sample
Total Phosphorus-unfiltered sample	Milligrams per litre	Quarterly	Grab sample
Total Suspended solids	Milligrams per litre	Quarterly	Grab sample
Turbidity	nephelometric turbidity units	Quarterly	In situ
Volume	Kilolitres	Quarterly	estimate
Zinc	Milligrams per litre	Quarterly	Grab sample

M2.3 Air Monitoring Requirements (exact locations TBC)

Pollutant	Units of measure	Frequency	Sampling Method
Methane	percent by volume	Quarterly	Special Method 3

M2.4 For the purposes of the above table(s), Special Method 3 means methane monitoring in accordance with Section 5.2 Landfill gas surface emissions monitoring, and Section 5.4 Gas accumulation monitoring in enclosed structures as defined in the Environmental Guidelines: Solid Waste Landfills, 2nd edition 2016.

Note: "Special Method 3" means methane monitoring must be performed on the gas within the landfill subsurface monitoring well before any admixture or purging of air into that well. The gas detector must: a) have a current calibration certificate b) a minimum level of detection and minimum resolution of 1% (v/v) methane c) be capable of accurately measuring methane in a reduced oxygen atmosphere d) be tested with an in-date calibration gas before and after the testing to ensure that all sensors are functional and accurate. Subsurface gas monitoring must be performed following the procedures in benchmark techniques 15 and 16 in the EPA's Environmental Guidelines: Solid Waste Landfills.

Note: The Protection of the Environment Operations (Clean Air) Regulation 2021 requires testing for certain purposes to be conducted in accordance with test methods contained in the publication "Approved Methods for the Sampling and Analysis of Air Pollutants in NSW". Where the "Approved Method" refers to a standard that has been updated the updated standard can be used, (AM-19 refers to AS 3580.10.1-1991 which has now been updated to AS 3580.10.1-2016).

Note: the monitoring requirements may be varied by the EPA subject to ongoing review and assessment of monitoring results.

M3 Testing methods - concentration limits

M3.1 Monitoring for the concentration of a pollutant emitted to the air required to be conducted by the EPA's general terms of approval, or a licence under the Protection of the Environment Operations Act 1997, in relation to the development or in order to comply with a relevant local calculation protocol must be done in accordance with:

- (a) any methodology which is required by or under the POEO Act 1997 to be used for the testing of the concentration of the pollutant; or
- (b) if no such requirement is imposed by or under the POEO Act 1997, any methodology which the general terms of approval or a condition of the licence or the protocol (as the case may be) requires to be used for that testing; or
- (c) if no such requirement is imposed by or under the POEO Act 1997 or by the general terms of approval or a condition of the licence or the protocol (as the case may be), any methodology approved in writing by the EPA for the purposes of that testing prior to the testing taking place.

Note: The Protection of the Environment Operations (Clean Air) Regulation 2022 requires testing for certain purposes to be conducted in accordance with test methods contained in the publication "Approved Methods for the Sampling and Analysis of Air Pollutants in NSW".)

M3.2 Subject to any express provision to the contrary in this approval/licence, monitoring for the concentration of a pollutant discharged to waters must be done in accordance with the Approved Methods Publication unless another method has been approved by the EPA in writing before any tests are conducted.

M4 Weather Monitoring

M4.1 At the point(s) identified below, the proponent must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1 of the table below, using the corresponding sampling method, units of measure, averaging period and sampling frequency, specified opposite in the Columns 2, 3, 4 and 5 respectively.

Point W1

Parameter	Sampling Method	Units of measure	Averaging period	Frequency
Rainfall	M-4	millimetres per hour	1 hour	continuous
Wind speed at 10 metres	AM-2 & M-4	metres per second	15 minutes	continuous
Wind direction at 10 metres	AM-2 & M-4	Degrees in a clockwise direction from True North	15 minutes	continuous
Temperature at 2 metres	M-4	degrees Celsius	15 minutes	continuous
Temperature at 10 metres	M-4	degrees Celsius	15 minutes	continuous
Sigma Theta	M-4	Degrees in a clockwise direction from True North	15 minutes	continuous
Total Solar Radiation	M-4	Watts per square metre	15 minutes	continuous

M5 Requirement to monitor volume or mass

M5.1 For each discharge point or utilisation area specified below, the licensee must monitor:

- (a) the volume of liquids discharged to water or applied to the area;
- (b) the mass of solids applied to the area;
- (c) the mass of pollutants emitted to the air; at the frequency and using the method and units of measure, specified below.

Discharge Points (exact locations TBC)

Frequency	Unit of Measure	Sampling Method
Continuous during discharge	Kilolitres per day	By calculation (volume flow rate or pump capacity multiplied by operating time)

6 Reporting conditions

R1 Annual Return

R1.1 The proponent must provide an annual return to the EPA in relation to the development as required by any licence under the Protection of the Environment Operations Act 1997 in relation to the development. In the return the applicant must report on the annual monitoring undertaken (where the activity results in pollutant discharges), provide a summary of complaints relating to the development, report on compliance with licence conditions and provide a calculation of licence fees (administrative fees and, where relevant, load based fees) that are payable.

7 General Conditions

G1 Pollution Incident Response Management Plan

G1.1 The proponent must maintain, and implement as necessary, a current Pollution Incident Response Management Plan (PIRMP) for the premises in accordance with section 153(A) of the Protection of the Environment Operations Act 1997. The proponent must keep the PIRMP on the premises at all times. The PIRMP must document systems and procedures to deal with all types of incidents (e.g. spills, explosions or fire) that may occur at the premises or that may be associated with activities that occur at the premises and which are likely to cause harm to the environment. If a current PIRMP does not exist at the date on which this condition is attached to the licence, the proponent must develop a PIRMP within one month of that date.

G1.2 A notification protocol for downstream water users must be generated in consultation with downstream water users and the adjoining Willow Tree Gravels Quarry, should the EPL water quality limits be exceeded.

G2 Signage

G2.1 Each monitoring and discharge point must be clearly marked by a permanent sign that indicates the EPA point identification number.

8 Special conditions

E1 Detailed Design Report

E1.1 Prior to commencing construction activities, the proponent must provide to the EPA for approval a detailed design report addressing the requirements of the Environmental Guidelines: Solid Waste Landfills (EPA, 2016). This report must be prepared by an appropriately qualified and experienced person as defined in the Landfill Guidelines. The report must contain:

- (a) Detailed designs of the cell lining and leachate barrier system in accordance with Minimum Standards Part 1 of the Landfill Guidelines. If alternative designs are proposed, for example on the quarry walls, the design report must contain an assessment of the soundness of the in situ geology as per the requirements of Part 1.10.
- (b) Detailed designs of final capping in accordance with Minimum Standards Part 9 of the Landfill Guidelines. If a phytocap is proposed as an alternative to an engineered barrier cap, the design report must address the design requirements for phytocaps set out in Minimum Standards Part 9.4.
- (c) Construction Quality Assurance (CQA) Plans for all proposed construction works in accordance with Minimum Standards Part 11 of the Landfill Guidelines. The CQA Plans must include procedures to cover the proposed staged or incremental quarry wall lining technique (called the 'shingle' approach in the EIS).
- (d) Water quality monitoring programs in accordance with Minimum Standards Part 4 of the Landfill Guidelines. These programs must include proposals to characterise existing (background) groundwater and surface water quality at and near the site before landfilling commences.

E2 Final Capping Requirements

E2.1 Six months prior to commencing progressive final capping, the proponent must submit the detailed design and quality assurance/quality control plan for the capping to the EPA. Final capping must not be undertaken until written approval for the design and QA/QC is received from the EPA. Where the final capping design does not conform to design specifications in EPA's Environmental Guidelines: Solid Waste Landfill, the proponent must provide supporting information that the alternative design will meet the environmental goals defined in the Guidelines.

Attachment B – Mandatory Conditions for all EPA licences

Administrative conditions

Activities must be carried out in a competent manner

Licensed activities must be carried out in a competent manner.

This includes:

- (a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and
- (b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the act

Maintenance of plant and equipment

All plant and equipment installed at the premises or used in connection with the licensed activity:

- (a) must be maintained in a proper and efficient condition; and
- (b) must be operated in a proper and efficient manner.

Monitoring and recording conditions

Recording of pollution complaints

The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.

The record must include details of the following:

- the date and time of the complaint;
- the method by which the complaint was made;
- any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;
- the nature of the complaint;
- the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and
- if no action was taken by the licensee, the reasons why no action was taken.

The record of a complaint must be kept for at least 4 years after the complaint was made.

The record must be produced to any authorised officer of the EPA who asks to see them.

Telephone complaints line

The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.

The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint. This condition does not apply until 3 months after this condition takes effect.

Reporting conditions

Annual Return documents

What documents must an Annual Return contain?

The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:

1. a Statement of Compliance,
2. a Monitoring and Complaints Summary,
3. a Statement of Compliance - Licence Conditions,
4. a Statement of Compliance - Requirement to Prepare Pollution Incident Response Management Plan,
5. a Statement of Compliance - Requirement to Publish Pollution Monitoring Data; and
6. a Statement of Compliance - Environmental Management Systems and Practices.

At the end of each reporting period, the EPA will provide to the licensee notification that the Annual Return is due.

A copy of the form in which the Annual Return must be supplied to the EPA accompanies this licence. Before the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.

Period covered by Annual Return

An Annual Return must be prepared in respect of each reporting, except as provided below

Note: The term “reporting period” is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period.

Where this licence is transferred from the licensee to a new licensee,

- (a) the transferring licensee must prepare an annual return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and
- (b) the new licensee must prepare an annual return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.

Note: An application to transfer a licence must be made in the approved form for this purpose.

Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an annual return in respect of the period commencing on the first day of the reporting period and ending on

- (a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or
- (b) in relation to the revocation of the licence – the date from which notice revoking the licence operates.

Deadline for Annual Return

The Annual Return for the reporting period must be supplied to the EPA by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the ‘due date’).

Notification where actual load cannot be calculated

(Licences with assessable pollutants)

Where the licensee is unable to complete a part of the Annual Return by the due date because the licensee was unable to calculate the actual load of a pollutant due to circumstances beyond the licensee’s control, the licensee must notify the EPA in writing as soon as practicable, and in any event not later than the due date.

The notification must specify:

- (a) the assessable pollutants for which the actual load could not be calculated; and
- (b) the relevant circumstances that were beyond the control of the licensee.

Licensee must retain copy of Annual Return

The licensee must retain a copy of the annual return supplied to the EPA for a period of at least 4 years after the annual return was due to be supplied to the EPA.

Certifying of Statement of Compliance and Signing of Monitoring and Complaints Summary

Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:

- (a) the licence holder; or
- (b) by a person approved in writing by the EPA to sign on behalf of the licence holder.

A person who has been given written approval to certify a Statement of Compliance under a licence issued under the Pollution Control Act 1970 is taken to be approved for the purpose of this condition until the date of first review this licence.

Notification of environmental harm

Note: The licensee or its employees must notify the EPA of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act

Notifications must be made by telephoning the EPA's Pollution Line service on 131 555.

The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.

Written report

Where an authorised officer of the EPA suspects on reasonable grounds that:

- (a) where this licence applies to premises, an event has occurred at the premises; or
- (b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence,

and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.

The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.

The request may require a report which includes any or all of the following information:

- (a) the cause, time and duration of the event;
- (b) the type, volume and concentration of every pollutant discharged as a result of the event;
- (c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event; and
- (d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort;
- (e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants;
- (f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event;
- (g) any other relevant matters.

The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.

General conditions

Copy of licence kept at the premises or on the vehicle or mobile plant

A copy of this licence must be kept at the premises or on the vehicle or mobile plant to which the licence applies.

The licence must be produced to any authorised officer of the EPA who asks to see it.

The licence must be available for inspection by any employee or agent of the licensee working at the premises or operating the vehicle or mobile plant.

Reporting of fires

In the event of a fire at the facility the applicant must record:

- (a) the time and date when the fire was deliberately started or reported;
- (b) whether the fire was authorised by the applicant, and, if not, the circumstances which ignited the fire;
- (c) the time and date that the fire ceased and whether it burnt out or was extinguished;
- (d) the location of fire (e.g. clean timber stockpile, putrescible garbage cell, etc);
- (e) the prevailing weather conditions;
- (f) any observations made in regard to smoke direction and dispersion;
- (g) the amount of waste that was combusted by the fire; and
- (h) the action taken to extinguish the fire.

The applicant or its employees or agents must notify the EPA in accordance with the above section 'Notification of environmental harm' of all fires at the premises within 7 days of the date on which the incident occurred.

Reporting of leachate discharge

Whenever leachate is discharged to surface waters from the premises the licensee must notify the event to the EPA in accordance with above section 'Notification of environmental harm'. The licensee must provide a written report of any leachate discharge(s) which exit the premises to the EPA within 7 days of the date on which the incident occurred.

The report must include the following information:

- (a) the volume of the leachate discharged and over what time period the discharge occurred;
- (b) the date and time of the commencement of the overflow;
- (c) the weather conditions at the time of the discharge, specifying the amount of rainfall on a daily basis that had fallen: - on the day(s) of the discharge; and - for the one week period prior to the discharge.
- (d) the most recent monitoring results of the chemical composition of the leachate;
- (e) an explanation as to why the discharge occurred;
- (f) the location(s) of the discharge; and
- (g) a plan of action to prevent a similar discharge in the future.

PART B: PRIOR TO THE ISSUE OF ANY CONSTRUCTION CERTIFICATE

B1 Construction Certificate

Building work, demolition or excavation in accordance with the Notice of Determination must not be commenced until a Construction Certificate required by s.6.3 of 'the Act' for the relevant part of the works has been issued in accordance with the provisions of 'the Act' and 'the Regulation'.

Reason: To ensure compliance with the *Environmental Planning and Assessment Act 1979* and appropriate safeguarding measures are in place prior to the commencement of any building work or excavation.

B2 Construction Plans

Prior to submission of the Construction Certificate application to a Private Certifier, all construction plans associated with the development are to be finalised and provided to Council for approval.

Reason: To ensure the intent of the approved development has been addressed.

B3 Access Report

An Access Consultant's Report from an accredited consultant will be required to be submitted to Council prior to the issue of a Construction Certificate (CC).

Reason: To ensure safe, practical and legal access is provided to the site.

B4 Draft Fire Safety Schedule

A Draft Fire Safety Schedule from a Registered Fire Engineer or consultant will be required to be submitted to Council prior to the issue of a Construction Certificate (CC).

Reason: Prescribed by legislation.

B5 Other Approvals

The following approvals are required:

Section 68 of the Local Government Act 1993 – Approvals required under Section 68 include installation of an:-

- (a) Onsite Sewerage Management System; and
- (b) Plumbing and Drainage.

Reason: To ensure all work complies with relevant legislation.

B6 Servicing

In relation to services, the following must be undertaken by the applicant where relevant:

- (a) **Adequate services** – the applicant must demonstrate that adequate services for water, electricity and wastewater are available to the site,
- (b) **Dial before your dig** - the applicant shall contact "Dial Before You Dig on 1100" to obtain a Service Diagram. The sequence number obtained from "Dial Before You Dig" shall be forwarded to the Principal Certifier (PC) and Council for their records.

Details shall be provided with the Construction Certificate application.

Reason: To ensure work is carried out having regard to existing services and underground infrastructure for safety and efficiency.

B7 Vehicle Access Requirements

Entry and exit points are to be clearly signposted and visible from both the street and the site at all times. All required works are to be completed in accordance with Council/Transport for NSW standards prior to the commencement of construction works on the site. Details must be provided on the Construction Certificate plans.

Reason: To ensure safe, practical and legal vehicle access is provided to the site.

B8 External Lighting

Any lighting used on the site in connection with the development is to comply with AS 4282 – *Control of the obtrusive effects of Outdoor lighting*. The applicant must minimise off-site lighting impacts arising from the development and any external lighting is installed as low intensity lighting except where required for safety or emergency purposes. Details are to be shown on the Construction Certificate plans.

Reason: To protect the amenity of the surrounding area.

B9 Internal Access and Car Parking

Areas Accessed by the General Public

All driveways, access ramps, vehicular crossings and car parking spaces, access by the general public, up to and including the transfer stations areas shall be designed and constructed in accordance with the current version of Australian Standards, AS 2890.1-2004: *Parking Facilities – Off-street Car Parking* and AS 2890.2:2018 - *Parking facilities Off-street commercial vehicle facilities*. This is to be a bitumen sealed all-weather surface with appropriate line marking and signage.

Staff Parking

All car parking for the operation of the Willow Tree Waste Management Facility is to be provided on a bitumen sealed surface and line marked for a minimum of five (5) vehicles.

All other Internal Access Roads

All other internal areas of access for the development will require the formation of a minimum 3 metre wide all weather access road using dust suppressed ridge gravel in accordance with Council's Subdivision and Development Guidelines.

Details for the above mentioned are to be provided with the Construction Certificate application.

Reason: To ensure driveways, access ramps, vehicular crossings and car parking complies with the relevant Australian Standards.

PART C: PRIOR TO WORKS COMMENCING

C1 Appointment of Principal Certifier

Prior to the commencement of work, the person having the benefit of the development consent and a Construction Certificate shall:

- (a) Appoint a Principal Certifier (PC) and notify the Council of the appointment (if Council is not appointed); and
- (b) Notify Council of their intention to commence building work (at least 2 days' notice is required).

Reason: To ensure compliance with the *Environmental Planning and Assessment Act 1979*.

C2 Signs on site

A sign must be erected in a prominent position on any site on which building work or demolition work is being carried out:

- (a) showing the name, address and telephone number of the principal certifier for the work, and
- (b) showing the name of the principal contractor (if any) for any building work and a telephone number on which that person may be contacted outside working hours, and
- (c) stating that unauthorised entry to the work site is prohibited.

Any such sign is to be maintained while the building work or demolition work is being carried out but must be removed when the work has been completed.

Reason: Prescribed Condition under Clause 98A(2) and (3) of the Regulation.

C3 Sediment and Erosion Control

Where construction or excavation activity requires the disturbance of the soil surface and existing vegetation, adequate measures for erosion and sediment control must be provided. As a minimum, control techniques are to be in accordance with The Blue Book published by Landcom provisions on Erosion and Sediment Control.

All required erosion and sedimentation techniques must be properly installed prior to the commencement of any 'site' 'works' and maintained in a functional and effective condition throughout the construction activities until the 'site' is stabilised.

The installation is to be approved by the 'Principal Certifier' prior to any further commencement of 'site' 'works'.

Reason: To protect the environment from the effects of sedimentation and erosion from development sites.

C4 Construction and Operational Environmental Management Plan

Prior to works commencing, the applicant must prepare the following Plans:-

- (a) Operational Environmental Management Plan (OEMP); and
- (b) Construction Environmental Management Plan (CEMP).

The must describe the mitigation and management measures identified in the Environmental Impact Statement and accompanying Reports.

Reason: To ensure environmental protection throughout the operation of the development.

C5 Toilet Facilities during Construction

Toilet facilities must be provided on the work site during construction at the rate of one toilet for every 20 persons or part of 20 persons employed at the work site. Each toilet provided must:

- (a) Be a standard flushing toilet, or
- (b) If connection to a public sewer is not available, to an on-site effluent disposal system approved by the council, or
- (c) A portable toilet.

Reason: To provide appropriate on-site amenities during demolition and construction work.

C6 Preparation of a Traffic Noise Management Strategy

A Traffic Noise Management Strategy (TNMS) is to be developed by the proponent, prior to commencement of construction and operation activities to ensure that feasible and reasonable noise management strategies for vehicle movements associated with the facility are identified and applied, that include but are not necessarily limited to the following:

- (a) driver training to ensure that noisy practices such as the use of compression engine brakes are not unnecessarily used near sensitive receivers,
- (b) best noise practice in the selection and maintenance of vehicle fleets,
- (c) movement scheduling where practicable to reduce impacts during sensitive times of the day,
- (d) communication and management strategies for non-licensee/proponent owned and operated vehicles to ensure the provision of the TNMS are implemented,
- (e) a system of audited management practices that identifies non-conformances, initiates and monitors corrective and preventative action (including disciplinary action for breaches of noise minimisation procedures) and assesses the implementation and improvement of the TNMS,
- (f) specific procedures for drivers to minimise impacts at identified sensitive receivers,
- (g) clauses in conditions of employment, or in contracts, of drivers that require adherence to the noise minimisation procedures and facilitate effective implementation of the disciplinary actions for breaches of the procedures.

Reason: To ensure measures that will protect the public, and the surrounding environment, during site works, construction and operation are implemented prior to works commencing on the site.

C7 Dust Mitigation and Management

A Construction Environmental Management Plan (CEMP) is to be developed by the proponent, prior to commencement of construction and operation activities for dust mitigation and management, that include but are not necessarily limited to the following:

- (a) Preparation of a dust control protocol that forms part of the Construction Environmental Management Plan (CEMP) to detail management measures, a method for recording dust complaints and monitoring requirements.
- (b) On days with forecast and actual high winds (i.e. over 10 m/s) reduce work effort accordingly if wind blown dust is observed to be leaving the site boundary.
- (c) Plant and equipment should be maintained in good condition to minimise ignition risk, spills and air emissions that may cause nuisance.
- (d) Dust suppression should be undertaken as required using water sprays, water extension agents, soil stabilising polymers or other media on:
 - (i) Unpaved work areas subject to traffic or wind;
 - (ii) During the loading and unloading of dust generating materials.

- (iii) Unpaved access tracks
- (e) If the works are creating levels of dust which may significantly impact on residential amenity, works should be modified or stopped until the dust hazard is reduced to an acceptable level.
- (f) On days with high background dust levels (due to fire or offsite dust events for example), increase dust mitigation in the form of watering or reduce dusty construction activities.
- (g) Vehicles with potential for loss of loads (such as dust or litter) should be covered when using public roads.

Reason: To protect the environment and the amenity of the surrounding area.

C8 Landscaping

Prior to works commencing a suitable landscaping plan is to be provided and approved by the Principal Certifier for the areas surrounding the weighbridge, staff parking, site office and amenities landscaping, with drought tolerant and frost hardy species. The location and type is to be to the satisfaction of the Principal Certifier.

Reason: To ensure amenity of area.

PART D: DURING WORKS

D1 Earthworks

Any earthworks (including any structural support or other related structure for the purposes of the development) must: -

- (a) not cause a danger to life or property or damage to any adjoining building or structure on the lot or to any building or structure on any adjoining lot;
- (b) not redirect the flow of any surface or ground water or cause sediment to be transported onto an adjoining property;
- (c) in the first instance be reused on 'site';
- (d) ensure that any fill brought to the 'site' contains only virgin excavated natural material (VENM) as defined in Part 3 of Schedule 1 to the *Protection of the Environment Operations Act 1997* or any other waste-derived material the subject of a resource recovery exemption;
- (e) ensure that any excavated soil to be removed from the 'site' is be disposed of in accordance with any requirements under the Protection of the Environment Operations (Waste) Regulation 2005;
- (f) ensure that documentation verifying the lawful disposal of all waste is to be kept by the applicant and provided to 'Council' on request.
- (g) not permit fill to change existing ground levels at the property boundary. Cutting and filling is to be restricted to that described in the submitted documentation. Any further cutting or filling will require separate approval.
- (h) ensure that any excavation is carried out in accordance with *Excavation Work: Code of Practice* (ISBN 978-0-642-785442), published in October 2013 by Safe Work Australia.

Reason: To ensure structural safety and to ensure excavation and fill are handled correctly.

D2 Discovery of Aboriginal Objects

While excavation, demolition or building work is being carried out, all such works must cease immediately if a relic or Aboriginal object is unexpectedly discovered. The applicant must notify the *Heritage Council of NSW* in respect of a relic and notify the Secretary of the *Department of Planning and Environment* and the *Heritage Council of NSW* in respect of an Aboriginal object.

Building work may recommence at a time confirmed by either the *Heritage Council of NSW* or the Secretary of the *Department of Planning and Environment*.

In this condition:

- “relic” means any deposit, artefact, object or material evidence that:
 - (a) relates to the settlement of the area that comprises New South Wales, not being Aboriginal settlement, and
 - (b) is of State or local heritage significance; and
- “Aboriginal object” means any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction and includes Aboriginal remains.

Reason: To ensure the protection of objects of potential significance during works.

D3 Discovery of Contamination

Should any unexpected contaminated, scheduled, hazardous or asbestos material be discovered before or during construction works, the applicant and contractor shall ensure the appropriate regulatory authority is notified and that such material is contained, encapsulated, sealed, handled or otherwise disposed of to the requirements of such Authority.

Reason: To ensure contamination discovered during construction is dealt with as quickly as possible and to protect the health of the community and the environment.

D4 Critical Stage Inspections

Building work must be inspected on the occasions set out in clause 162A (Critical stage inspections for building work) under the *Environmental Planning and Assessment Regulation 2021*.

Reason: To require approval to proceed with building work following each critical stage inspection and comply with the Regulation.

D5 Clearing Vegetation

There must be no removal or disturbance of native vegetation except as outside of the development footprint as authorised by this consent, including canopy trees, understorey and ground cover vegetation without the prior written consent of Council.

Reason: To ensure vegetation is maintained on the site.

PART E: PRIOR TO THE ISSUE OF THE OCCUPATION CERTIFICATE

E1 Occupation Certificate

Occupation and operation of the Waste Management Facility is not to occur until all work has been completed, all of the conditions of consent have been satisfied and an Occupation Certificate has been issued by the Principal Certifier pursuant to Section 6.10 of the *Environmental Planning and Assessment Act 1979*.

Reason: To ensure compliance with the *Environmental Planning and Assessment Act 1979*.

E2 Completion of Public Utility Services

Before the issue of the relevant Occupation Certificate, the principal certifier must ensure any adjustment or augmentation of any public utility services including water, on-site sewer, electricity, required as a result of the development, and is completed to the satisfaction of the relevant authority. Before the issue of the Occupation Certificate, the certifier must request written confirmation from the relevant authority that the relevant services have been completed.

Reason: To ensure required changes to public utility services are completed, in accordance with the relevant agency requirements, before occupation.

E3 Emergency Management Plan

An Emergency Management Plan ('EMP') shall be prepared for the life of the operation of the development and shall be updated if required.

Reason: To ensure the protection of human life, the environment and adjoining property in the event of fire or other emergency generated by the development.

E4 Vehicle Access Requirements

Entry and exit points, and internal access areas are to be clearly signposted and visible from the street, the site and within the site at all times. All required signage are to be completed in accordance with Council / Transport for NSW standards prior to the commencement of operation on the site.

Reason: To ensure safe, practical and legal vehicle access is provided to the site.

E5 New and Replacement Fencing

New fencing is required to be installed along the boundary where it does not exist. Any existing fencing that is dilapidated is required to be repaired or replaced. The occupier of the premises is to maintain the fencing in a good state of repair at all times.

Reason: Security and safety purposes and to protect the amenity of the area while the facility is in operation.

E6 Landscaping

For the areas surrounding the weighbridge, staff parking, site office and amenities landscaping is to be provided, with drought tolerant and frost hardy species as per the approved Landscaping Plan. The location and type is to be to the satisfaction of the Principal Certifier.

Reason: To ensure amenity of area.

E7 Waste Management

Prior to the commencement of operation, a Landfill Management Plan (LMP) is to be prepared to incorporate operational waste handling and management. The LMP will ensure that waste management conforms to the requirements of relevant guidance documents and adheres to the waste management hierarchy principles contained in the *Waste Avoidance and Resource Recovery Act 2001*. The LMP must include, but not be limited to, the following:

- Expected types, quantities and classifications of waste received on-site;
- Waste receipt, screening, handling, management procedures;
- Procedures for identifying and managing unacceptable and non-conforming waste delivery

- Waste classification procedures and details of how all waste streams would be recycled or disposal of in accordance with the Waste Classification Guidelines Part 1: Classifying waste (NSW EPA, 2014) and the waste provisions contained within the POEO Act, Waste Regulation and other relevant legislative and policies; and
- Record keeping and reporting requirements.

Reason: To ensure the intent and objectives of the *Waste Avoidance and Sustainable Materials Strategy 2041* are satisfied.

PART F: OPERATIONAL CONDITIONS

F1 Decommission Management Plan

A Concept Decommission Plan must be prepared by a suitably qualified consultant and provided to Council (or relevant approval authority) for review and approval no later than 12 months prior to the proposed cessation of operations. It must include, but not be limited to, the following:

- Expected timeline for rehabilitation completion;
- Decommissioning of the Waste Management Facility and any other structures or infrastructure relating the approved development;
- Programme of site restoration to ensure the land is returned to its previous state prior to use as a Waste Management Facility, with the retention of landscaping; and
- Details on waste management and recycling of all materials arising from the operation of the development.

Reason: To ensure the decommissioning of the Waste Management Facility occurs in an orderly and sustainable manner, that the amenity of the area is maintained while the Willow Tree Waste Management Facility is being decommissioned and to ensure the site can be returned to its original condition, or as far as is practicable.

F2 Vehicle Management

The premises shall be operated in accordance with the following vehicle management requirements:

- All loading and unloading of vehicles must be undertaken wholly within the site and all vehicles must enter and leave the site a forward direction.
- Sufficient car parking is to be provided on the site, with no car parking to occur on the public road network in the vicinity of the site.
- The vehicle entry and exit points are to be clearly signposted and visible from both the street and the site at all times and must be maintained in good condition for the life of the development.

Reason: To ensure the operation of the Willow Tree Waste Management Facility does not adversely affect the surrounding road network and has adequate car parking provided on the site.

F3 Operation of Plant and Equipment

The Applicant must ensure that all plant and equipment used on the site or in connection with the development is maintained and operated in a proper and efficient condition and manner.

Reason: To ensure all plant and machinery on the site is in good working order and is operated in a safe manner.

F4 Storage of Hazardous Materials

The applicant must store and handle all dangerous and hazardous materials on site in accordance with AS 1940-2004: *The storage and handling of flammable and combustible liquids*. The storage of any dangerous and hazardous materials must be provided in a suitably bunded and impervious area and in such a way as to minimise spills of hazardous materials or hydrocarbons. Clean up any spills must occur as soon as possible.

Reason: To minimise harm to the environment.

F5 Maintenance of Wastewater and Stormwater Treatment Device

During occupation and ongoing use of the amenities building, the applicant must ensure all wastewater and stormwater treatment devices (including drainage systems, sumps and traps, and on-site detention) are regularly maintained, to remain effective and in accordance with any positive covenant (if applicable).

Reason: To protect sewerage and stormwater systems.

F6 Noise Control During Operation

Any noise generated from the operation of the Waste Management Facility, including noise from any associated infrastructure, must not be intrusive or constitute offensive noise as defined by the *Protection of the Environment Operations Act 1997* at any private residential receiver.

The operation of the Waste Management Facility must satisfy the NSW EPA maximum noise criteria pursuant to the NSW EPA's *Noise Policy for Industry (2017)*. If, at any time, these levels are exceeded, operation of the Waste Management Facility shall immediately be modified, including suspension of operations if necessary, to ensure compliance.

Reason: To protect the amenity of the area while the facility is in operation.

F7 Mitigation and Management of Odour

The following is to be included in the operation plan for the mitigation and management of odour:

- (a) Establish 24 hour emergency maintenance agreements with equipment manufacturers to limit the impact of equipment failures
- (b) If the works are emitting odour concentrations which may significantly impact the nearby receptors, the works should be modified or stopped until the hazard is reduced to an acceptable level
- (c) Minimise the size of the active landfill face, considering the practicalities, safety, access, traffic management, etc
- (d) Cover odorous wastes as soon as possible after delivery
- (e) Train staff (internal and contractors) on odour management strategy and all relevant procedures.

Reason: To protect the amenity of the area while the facility is in operation.

F8 Operational Maintenance

The approved development footprint of the Willow Tree Waste Management Facility is to be kept in an organised and tidy manner at all times (e.g. free from plastic bags and other forms of refuse along the fence line).

Reason: To keep the Waste Management Facility in an organised and tidy manner and ensure amenity of the area.

F9 Security

Whilst the Willow Tree Waste Management Facility is not in operation the site access should be physically closed to restrict vehicle movements from the public.

Reason: To keep the Waste Management Facility secure outside of operating hours.

PART G: CONDITIONS TO BE COMPLIED WITH AT ALL TIMES

G1 Impact on the Amenity of the Locality

At all times the implementation and intensity of this development must not adversely affect the amenity of the locality by reason of the emission of noises, noxious fumes, odours, waste and traffic generation.

Reason: To ensure that the amenity of the surrounding locality is not adversely affected by the nature of the approved activity.

G2 Occupant Safety

All persons entering the premises must comply with the relevant requirements of WorkCover NSW and the Occupational Health and Safety Act at all times.

Reason: To ensure the safety of all persons entering the premises.

PART H: POST OPERATION PERIOD

H1 Site Restoration

At the end of the Waste Management Facilities life the land must, as far as is practicable, be restored to the condition in which it was before the commencement of the use.

This restoration must occur as detailed in a Decommission Management Plan approved by Council.

Reason: To ensure the land is restored to the condition in which it was before the commencement of the use.

PART I: ADVISORY INFORMATION

- (a) Prior to commencing any building, or associated constructions works, the following provisions of *'the Act'* are to be complied with:
 - (i) A Construction Certificate is to be obtained in accordance with Section 6.3 of *'the Act'* and all structures to be built on site are to comply with the BCA/NCC.
 - (ii) A Principal Certifier is to be appointed and Council is to be notified of the appointment in accordance with Section 6.6 of the Act.
 - (iii) Council is to be notified at least two (2) days of the intention to commence building works, in accordance with Section 6.6(2)(a) of the Act.
- (b) Prior to any 'Work' commencing on 'site' all services should be clearly located and identified by contacting "Dial before you Dig" by telephoning 1100 or utilising www.1100.com.au

LIVERPOOL PLAINS SHIRE COUNCIL

WILLOW TREE WASTE MANAGEMENT FACILITY

LANDFILL EXTENSION CONCEPT DESIGN

12534581

GHD



LOCALITY PLAN

SCALE NTS

DRAWING LIST

DRG No.	DRAWING TITLE
12534581-C001	COVER SHEET, LOCALITY PLAN AND DRAWING LIST
12534581-C002	EXISTING SITE PLAN
12534581-C003	CELL ARRANGEMENT PLAN
12534581-C004	FINAL LANDFORM PLAN
12534581-C005	CONCEPT STAGING PLAN SHEET 1 OF 2
12534581-C006	CONCEPT STAGING PLAN SHEET 2 OF 2
12534581-C007	TYPICAL LONG SECTIONS
12534581-C010	TYPICAL SECTIONS AND DETAILS SHEET 1 OF 2
12534581-C011	TYPICAL SECTIONS AND DETAILS SHEET 2 OF 2

B	FOR APPROVAL	09/12/22	
A	INITIAL ISSUE	09/09/22	
Rev	Description	Checked	Approved Date
Author	R. LOPEZ	Drafting Check	
Designer	M. LE	Design Check	

Plot Date: 9 December 2022 - 2:38 PM Plotted by: Mai Le

File Name: \\ghdnet\ghd\AU\Newcastle\Projects\22\12534581\CADD\Drawings\12534581-C001.dwg



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Project No.
12534581

Client	LIVERPOOL PLAINS SHIRE COUNCIL
Project	WILLOW TREE WASTE MANAGEMENT FACILITY
Status	FOR APPROVAL

Drawing Title	LANDFILL EXTENSION CONCEPT DESIGN COVER SHEET, LOCALITY PLAN AND DRAWING LIST
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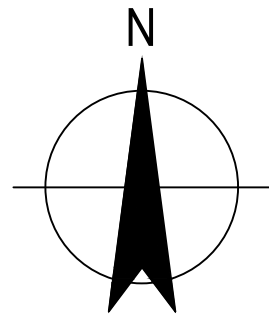
Status Code

S4

Drawing No.
12534581-C001

Size
A1

Rev
B



LEGEND

- EXISTING CONTOURS
- CADASTRE
- FENCE LINE
- SEALED ROAD
- UNSEALED ROAD
- EXISTING PONDS
- EXISTING SURFACE WATER DRAINAGE PATH

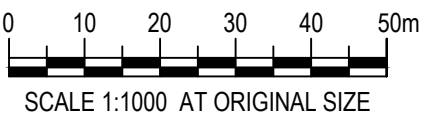
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- CONTOURS AND CADASTRE TAKEN FROM BATH STEWART ASSOCIATES SURVEY DATED 14/05/20. REF. 20096. AND PHOTOGRAMMETRY BY DIOSPACIAL DATED 31/05/2022.
- INFERRED WASTE FOOTPRINT BASED ON SITE AERIAL, SITE INSPECTIONS AND GEOTECHNICAL INVESTIGATION (GHD, 2020).
- ALL LOCATIONS ARE APPROXIMATE.

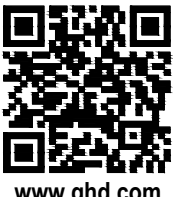
EXISTING SITE PLAN

SCALE 1:1500

B	FOR APPROVAL	09/12/22	
A	INITIAL ISSUE	09/09/22	
Rev	Description	Checked	Approved Date
Author	R. LOPEZ	Drafting Check	
Designer	M. LE	Design Check	



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Project No.
12534581

Client	LIVERPOOL PLAINS SHIRE COUNCIL
Project	WILLOW TREE WASTE MANAGEMENT FACILITY
Status	FOR APPROVAL

Drawing Title
LANDFILL EXTENSION CONCEPT DESIGN
EXISTING SITE PLAN

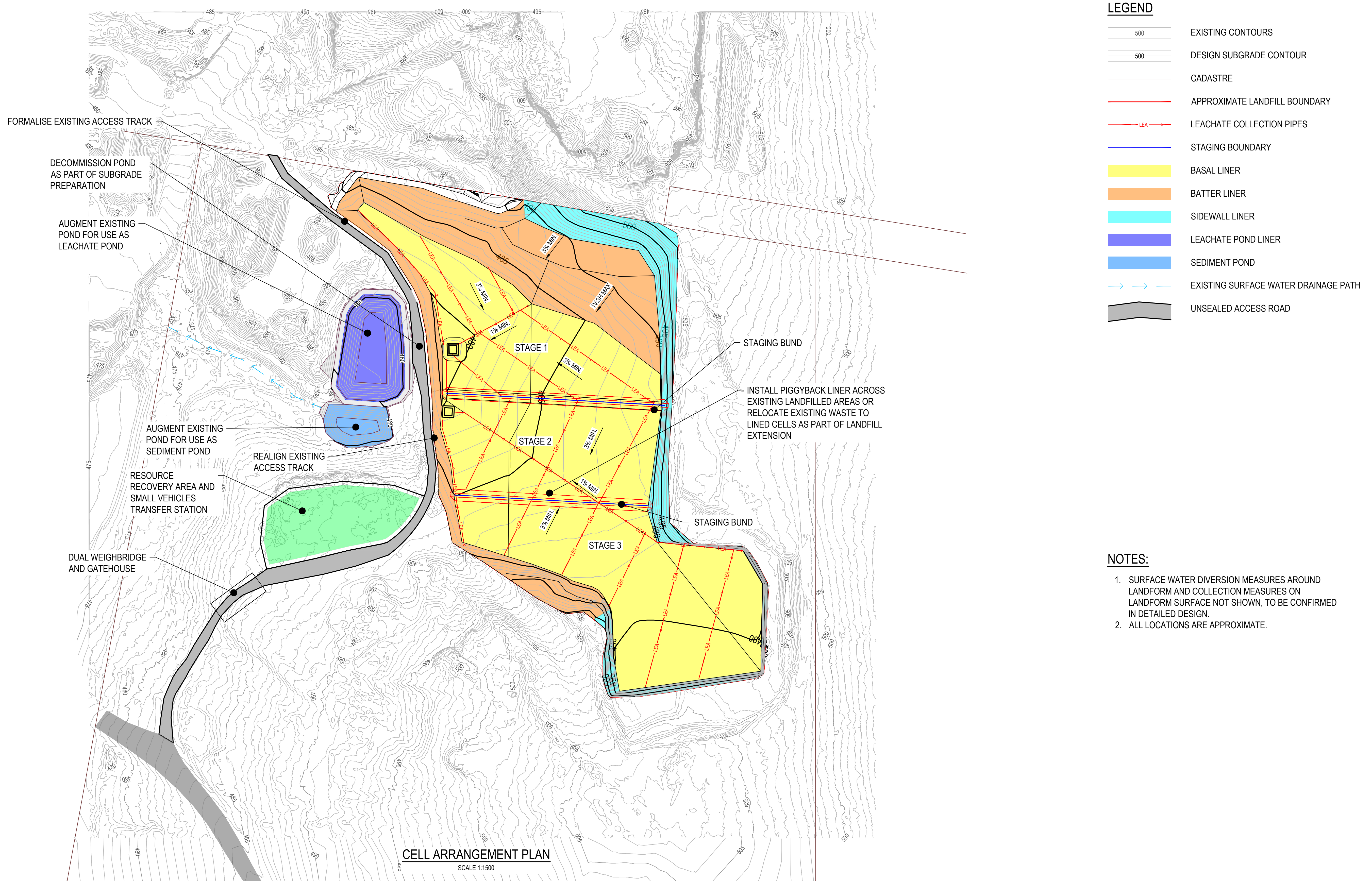
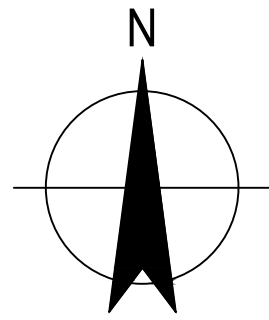
Status Code

S4

Drawing No.
12534581-C002

Size
A1

Rev
B



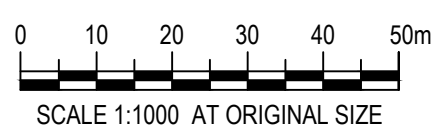
LEGEND

	EXISTING CONTOURS
	DESIGN SUBGRADE CONTOUR
	CADASTRE
	APPROXIMATE LANDFILL BOUNDARY
	LEACHATE COLLECTION PIPES
	STAGING BOUNDARY
	BASAL LINER
	BATTER LINER
	SIDEWALL LINER
	LEACHATE POND LINER
	SEDIMENT POND
	EXISTING SURFACE WATER DRAINAGE PATH
	UNSEALED ACCESS ROAD

NOTES:

- SURFACE WATER DIVERSION MEASURES AROUND LANDFORM AND COLLECTION MEASURES ON LANDFORM SURFACE NOT SHOWN, TO BE CONFIRMED IN DETAILED DESIGN.
- ALL LOCATIONS ARE APPROXIMATE.

Rev	Description	Checked	Approved	Date
B	FOR APPROVAL			12/09/22
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Author	R. LOPEZ	Drafting Check		
Designer	M. LE	Design Check		



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Project No.
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Client	LIVERPOOL PLAINS SHIRE COUNCIL
Project	WILLOW TREE WASTE MANAGEMENT FACILITY
Status	FOR APPROVAL

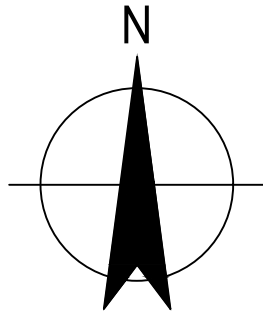
Drawing Title
LANDFILL EXTENSION CONCEPT DESIGN
CELL ARRANGEMENT PLAN

Status Code
S4

Drawing No.
12534581-C003

Size
A1

Rev
B



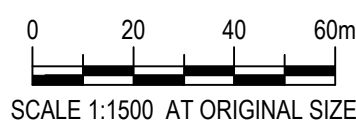
LEGEND

	EXISTING CONTOURS
	FINAL LANDFORM DESIGN CONTOURS
	APPROXIMATE LANDFILL BOUNDARY
	CADASTRE
	LEACHATE POND LINER
	SEDIMENT POND

NOTES:

- SURFACE WATER DIVERSION MEASURES AROUND LANDFORM AND COLLECTION MEASURES ON LANDFORM SURFACE NOT SHOWN, TO BE CONFIRMED IN DETAILED DESIGN.
- ALL LOCATIONS ARE APPROXIMATE.

Rev	Description	Checked	Approved	Date
B	FOR APPROVAL			09/12/22
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Author	R. LOPEZ	Drafting Check		
Designer	M. LE	Design Check		



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Project No.
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Client	LIVERPOOL PLAINS SHIRE COUNCIL
Project	WILLOW TREE WASTE MANAGEMENT FACILITY
Status	FOR APPROVAL

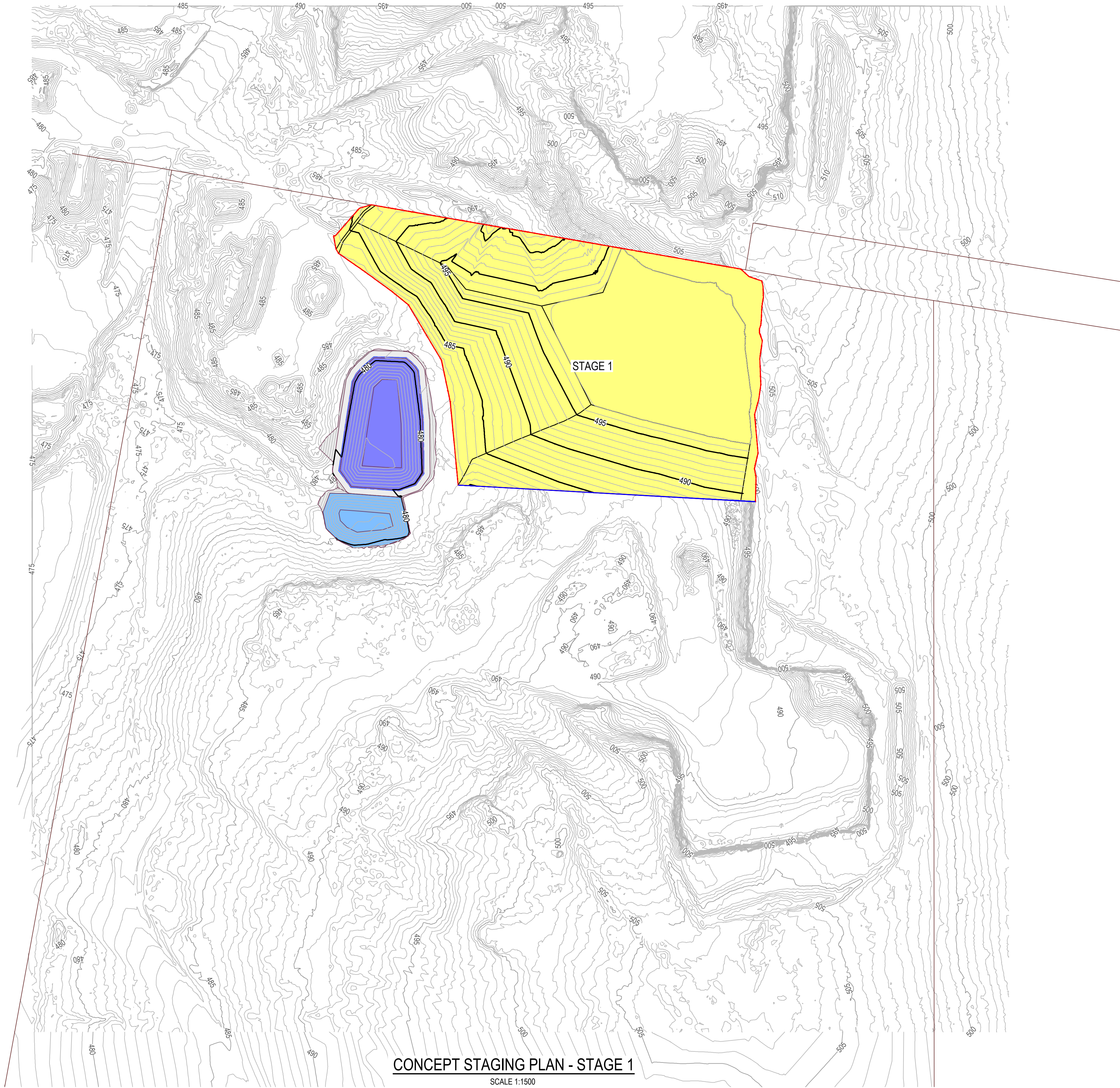
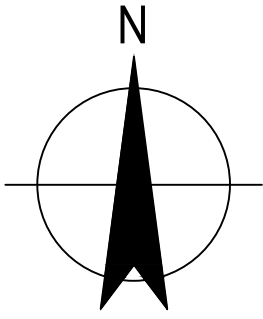
Drawing Title
LANDFILL EXTENSION CONCEPT DESIGN
FINAL LANDFORM PLAN

Status Code
S4

Drawing No.
12534581-C004

Size
A1

Rev
B



LEGEND

- EXISTING CONTOURS
- FINAL LANDFORM DESIGN CONTOURS
- APPROXIMATE LANDFILL BOUNDARY
- STAGING BOUNDARY
- CADASTRE
- LEACHATE POND LINER
- SEDIMENT POND

NOTES:

- SURFACE WATER DIVERSION MEASURES AROUND LANDFORM AND COLLECTION MEASURES ON LANDFORM SURFACE NOT SHOWN, TO BE CONFIRMED IN DETAILED DESIGN.
- INTERIM WASTE BATTERS TO BE ESTABLISHED AT 1V:3H AT STAGE INTERFACE LOCATIONS.
- ALL LOCATIONS ARE APPROXIMATE.

Rev	Description	Checked	Approved	Date
B	FOR APPROVAL			09/12/22
A	INITIAL ISSUE			09/09/22
Author	R. LOPEZ	Drafting Check		
Designer	M. LE	Design Check		



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Project No.
12534581

Client	LIVERPOOL PLAINS SHIRE COUNCIL
Project	WILLOW TREE WASTE MANAGEMENT FACILITY
Status	FOR APPROVAL

Drawing Title
LANDFILL EXTENSION CONCEPT DESIGN
CONCEPT STAGING PLAN
SHEET 1 OF 2

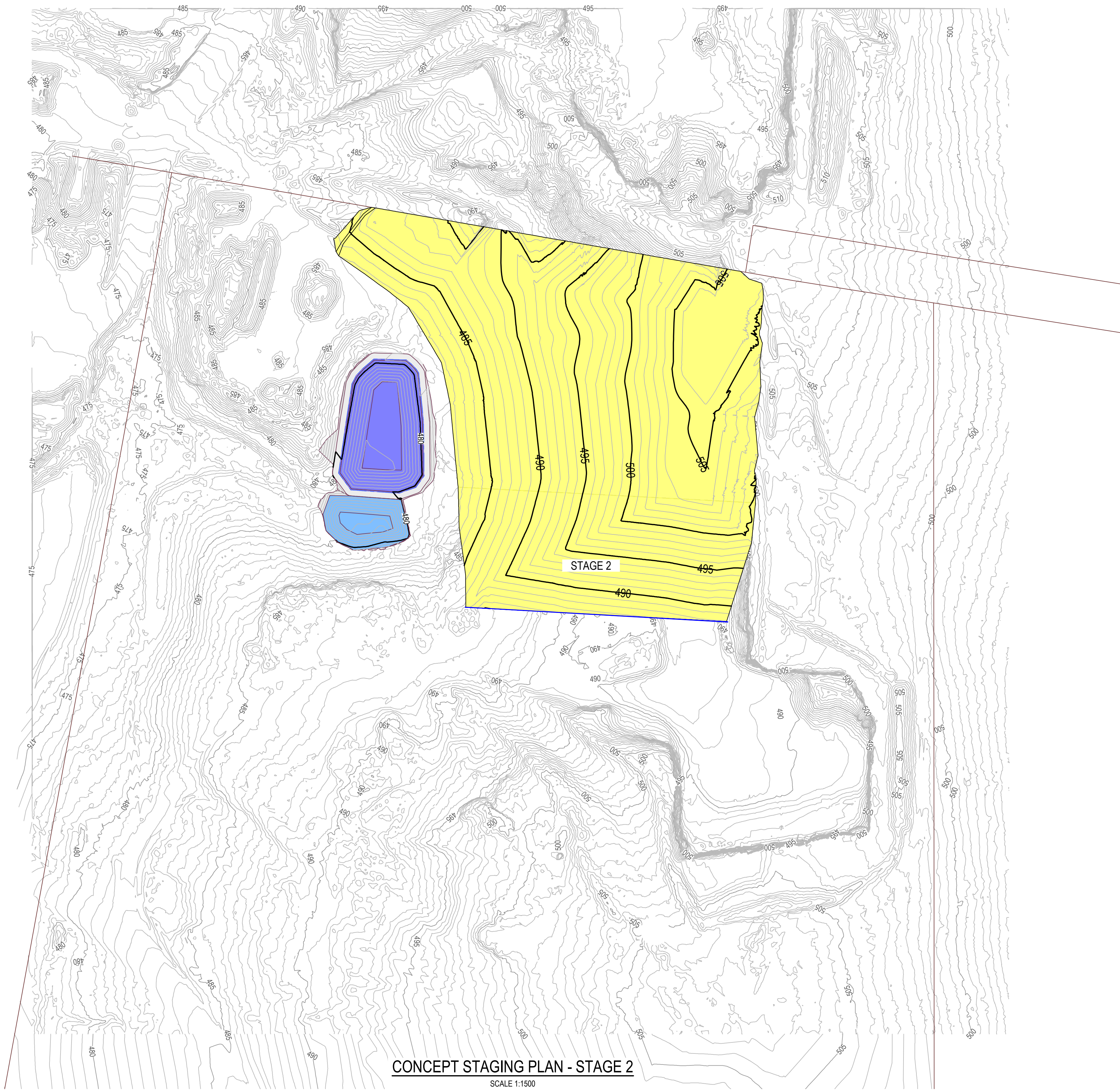
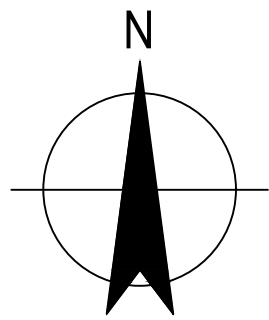
Status Code

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Drawing No.
12534581-C005

Size
A1

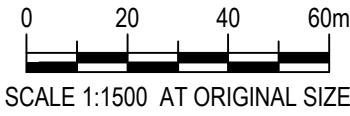
Rev
B



- LEGEND**
- EXISTING CONTOURS
 - FINAL LANDFORM DESIGN CONTOURS
 - APPROXIMATE LANDFILL BOUNDARY
 - STAGING BOUNDARY
 - CADASTRE
 - LEACHATE POND LINER
 - SEDIMENT POND

- NOTES:**
- SURFACE WATER DIVERSION MEASURES AROUND LANDFORM AND COLLECTION MEASURES ON LANDFORM SURFACE NOT SHOWN, TO BE CONFIRMED IN DETAILED DESIGN.
 - INTERIM WASTE BATTERS TO BE ESTABLISHED AT 1V:3H AT STAGE INTERFACE LOCATIONS.
 - ALL LOCATIONS ARE APPROXIMATE.

Rev	Description	Checked	Approved	Date
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Author	R. LOPEZ	Drafting Check		
Designer	M. LE	Design Check		



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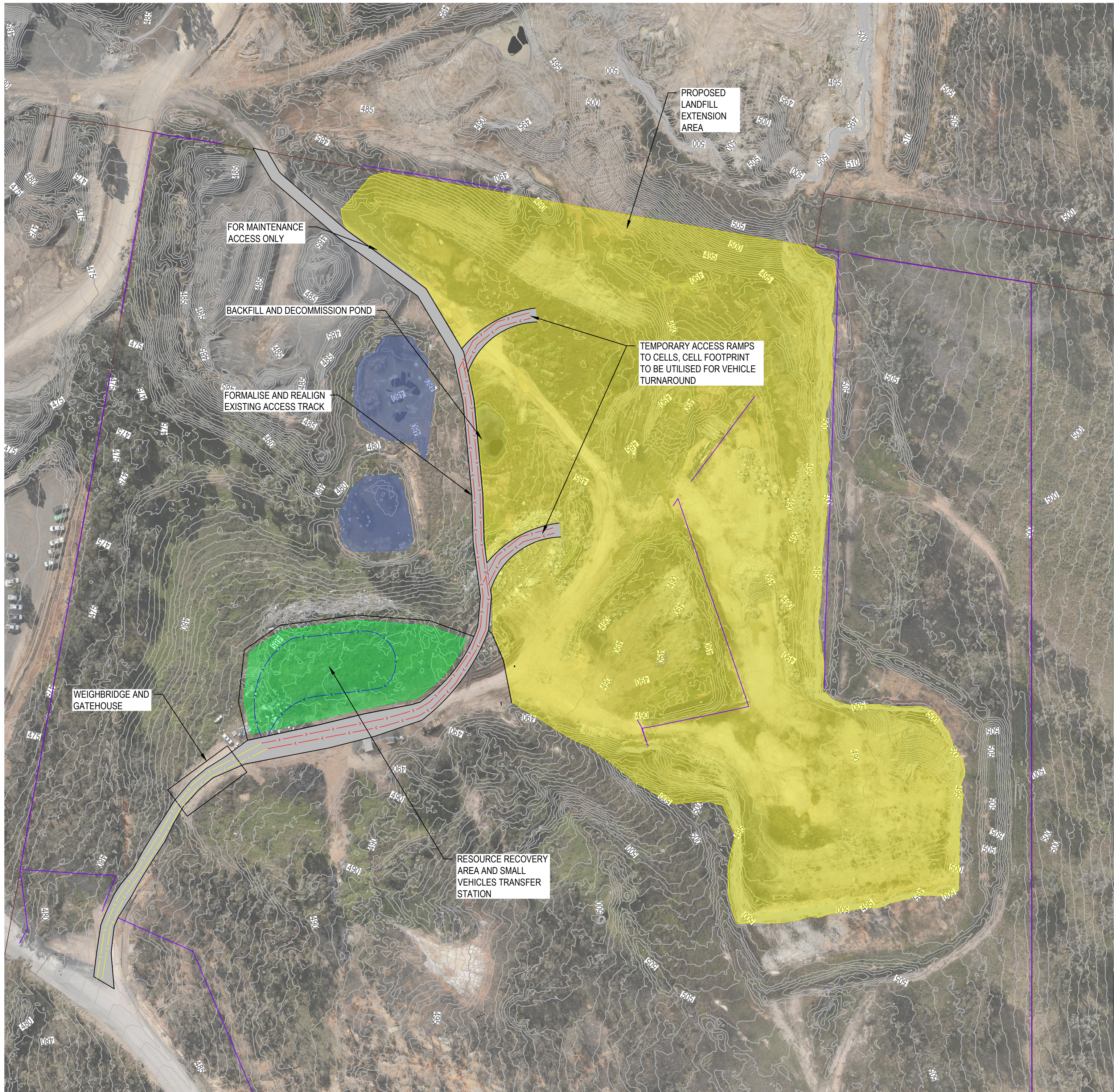
Project No.
12534581

Client LIVERPOOL PLAINS SHIRE COUNCIL
Project WILLOW TREE WASTE MANAGEMENT FACILITY
Status FOR APPROVAL

Drawing Title
LANDFILL EXTENSION CONCEPT DESIGN
CONCEPT STAGING PLAN
SHEET 2 OF 2

Size
A1

Rev
B



500

EXISTING CONTOURS m A.H.D

CADASTRE

FENCE LINE

COMMERCIAL TRAFFIC PATHWAY

SHARED TRAFFIC PATHWAY

DOMESTIC TRAFFIC PATHWAY

1. CONTOURS AND CADASTRE TAKEN FROM BATH STEWART ASSOCIATES SURVEY DATED 14/05/20. REF. 20096.
2. INFERRED WASTE FOOTPRINT BASED ON SITE AERIAL, SITE INSPECTIONS AND GEOTECHNICAL INVESTIGATION (GHD, 2020).
3. ALL LOCATIONS ARE APPROXIMATE.

SCALE 1:1000

SCALE 1:1000 AT ORIGINAL SIZE



Project No.
12534581

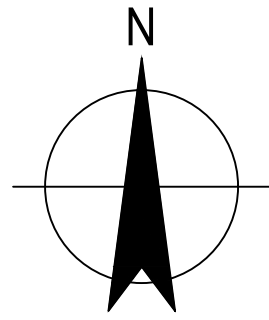
Status **PRELIMINARY**

Size
A1

Status Code S4

Drawing No. 12534581-SK001

Rev
A



LEGEND

- 500 EXISTING CONTOURS
- CADASTRE
- FENCE LINE
- SEALED ROAD
- UNSEALED ROAD
- EXISTING PONDS
- EXISTING SURFACE WATER DRAINAGE PATH

- STAFF BYPASS ROUTE
- COMMERCIAL VEHICLES
- SHARED ROUTE
- DOMESTIC VEHICLES

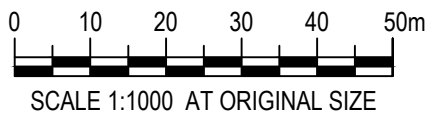


NOTES:

- EXISTING CONTOURS BASED ON SURVEY SUPPLIED BY BATH STEWART ASSOCIATES DATED 14 MAY 2020 AND DIOSPATIAL DATED 19 MAY 2022.
- AERIAL PHOTOGRAPHY SUPPLIED BY DIOSPATIAL DATED 19 MAY 2022 AND SOURCED FROM GOOGLE EARTH DATED 2021.
- EXISTING SURFACE WATER DRAINS ARE INDICATIVE ONLY.

EXISTING SITE PLAN

SCALE 1:1000



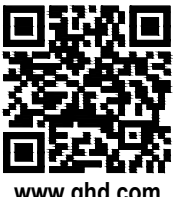
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Project No.
12534581

Client LIVERPOOL PLAINS SHIRE COUNCIL

Project WILLOW TREE WASTE MANAGEMENT FACILITY

Status TENDER

Drawing Title LANDFILL EXTENSION STAGE 1
EXISTING SITE PLAN

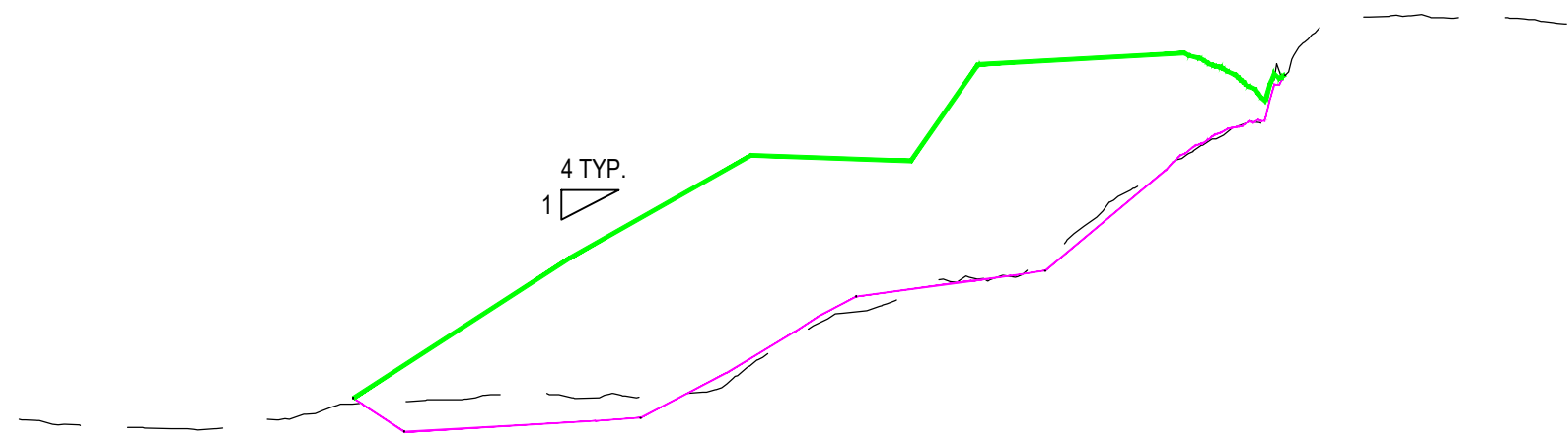
Status Code S4

Drawing No.
12534581-C102

Size
A1

Rev
B

Plot Date: 24 November 2022 - 1:08 PM Plotted by: Riken Joshua Lopez

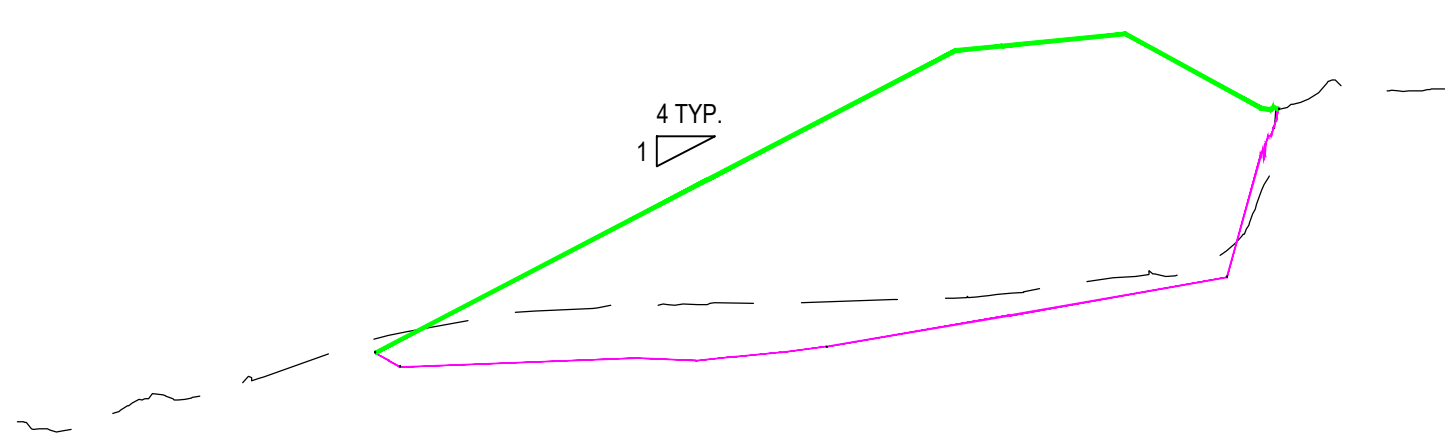


DATUM RL. 472.00

DESIGN FINAL LANDFORM				486.94	493.16	498.25	498.23	504.69	504.33			
DESIGN SUBGRADE SURFACE				479.99	480.58	485.25	489.34	491.55	499.55			
EXISTING SURFACE LEVEL	480.99	479.96	481.03	481.94	482.27	484.85	489.27	492.28	499.37	507.50	507.48	507.07
CHAINAGE	0.00	20.00	40.00	60.00	80.00	100.00	120.00	140.00	160.00	180.00	200.00	207.43

LONGITUDINAL SECTION - A

HORZ 1:1000 VERT 1:500

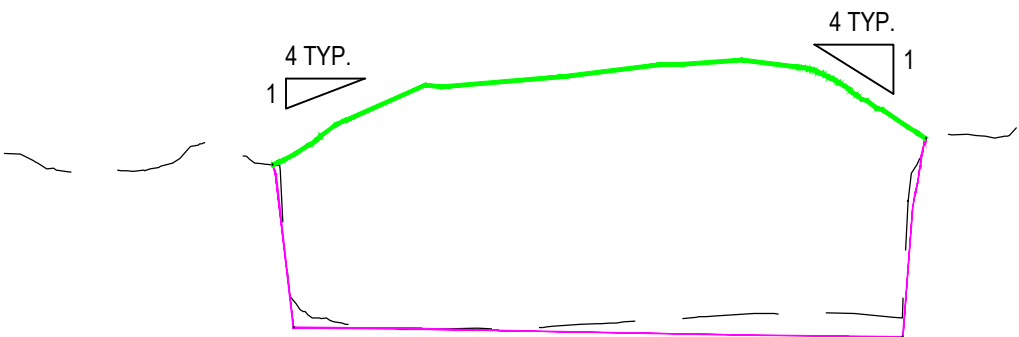


DATUM RL. 470.00

DESIGN FINAL LANDFORM				486.65	491.57	497.08	502.28	504.13	500.77			
DESIGN SUBGRADE SURFACE				482.59	482.96	483.33	484.86	486.59	488.41			
EXISTING SURFACE LEVEL	478.79	480.43	483.10	485.52	486.49	486.62	486.93	487.95	490.15	500.60	500.82	
CHAINAGE	0.00	20.00	40.00	60.00	80.00	100.00	120.00	140.00	160.00	180.00	188.74	

LONGITUDINAL SECTION - B

HORZ 1:1000 VERT 1:500



DATUM RL. 481.00

DESIGN FINAL LANDFORM			501.34	505.35	506.33	506.88	502.48
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EXISTING SURFACE LEVEL	500.87	499.91	490.31	489.29	489.64	490.28	499.51
CHAINAGE	0.00	20.00	40.00	60.00	80.00	100.00	120.00
							133.81

LONGITUDINAL SECTION - C

HORZ 1:1000 VERT 1:500

B	FOR APPROVAL		09/12/22
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Rev	Description	Checked	Approved Date
Author	R. LOPEZ	Drafting Check	
Designer	M. LE	Design Check	



File Name: \\ghdnet\ghd\AU\Newcastle\Projects\22\12534581\CADD\Drawings\12534581-C007.dwg



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Client LIVERPOOL PLAINS SHIRE COUNCIL

Project WILLOW TREE WASTE MANAGEMENT FACILITY

Status FOR APPROVAL

Drawing Title LANDFILL EXTENSION CONCEPT DESIGN
TYPICAL LONG SECTIONS

Status Code

S4

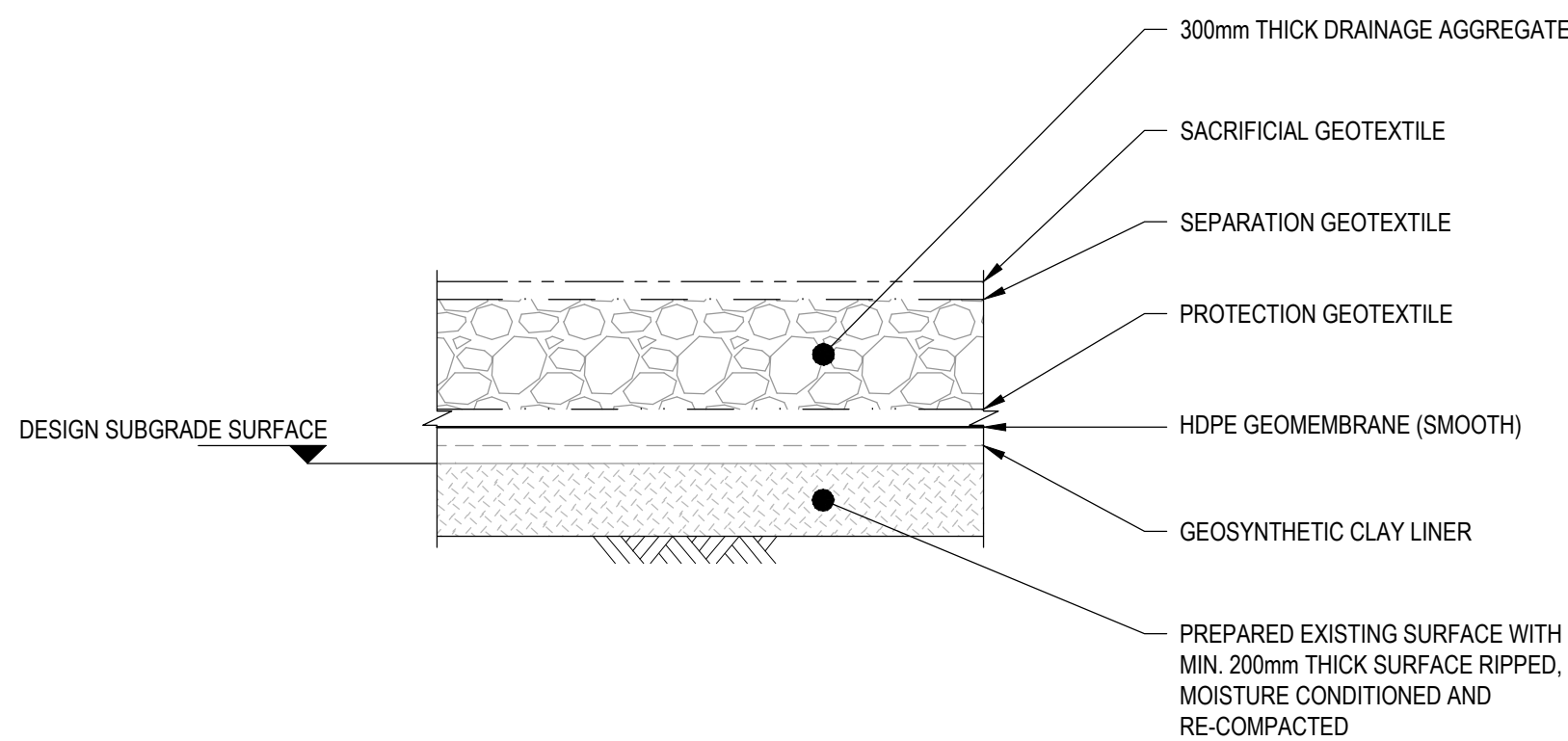
Drawing No.
12534581-C007

Size
A1

Rev
B

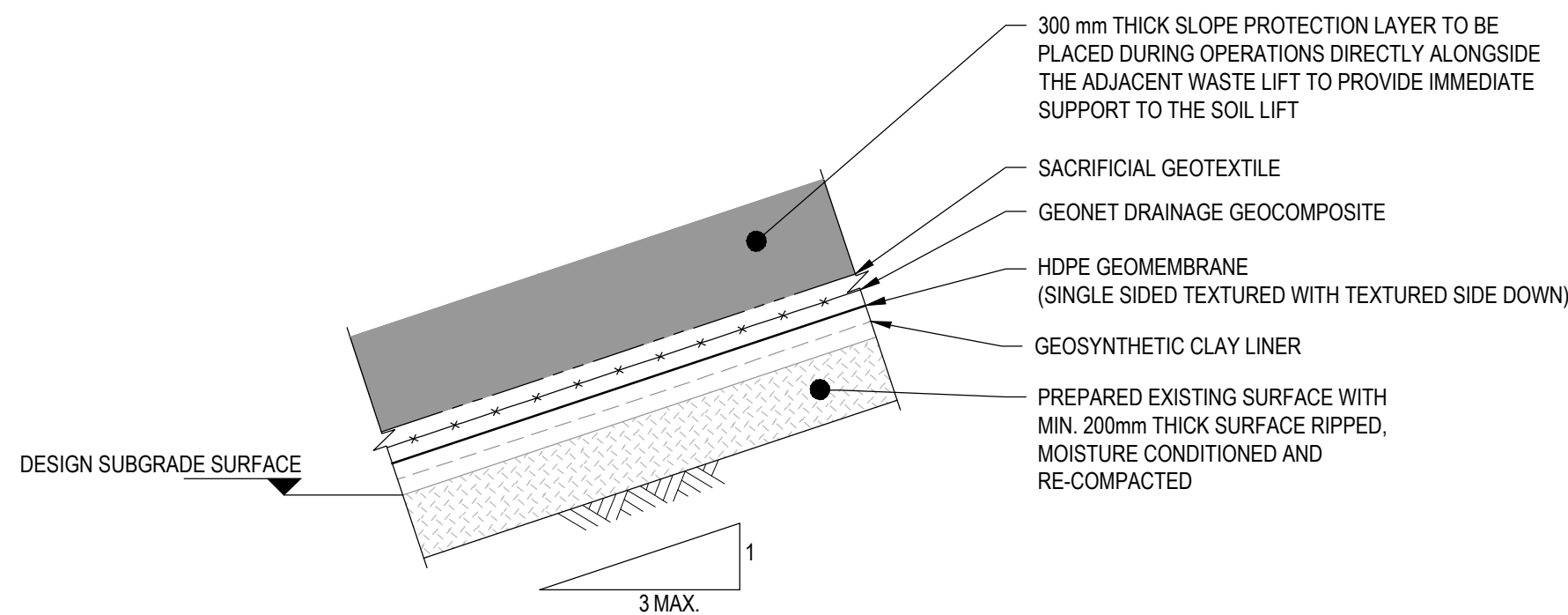
Plot Date: 9 December 2022 - 5:38 PM

Plotted by: Chris Nivison-Smith



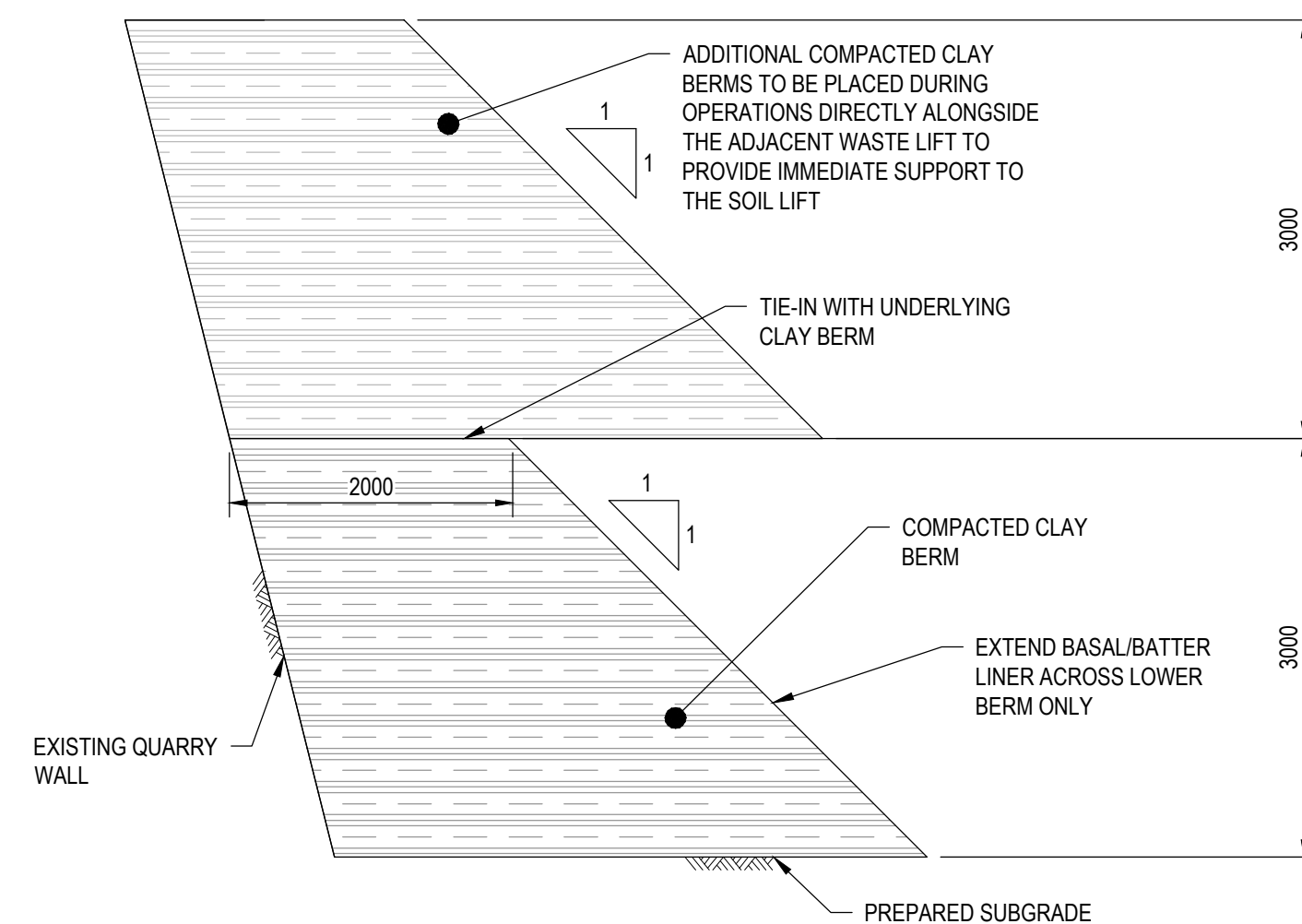
BASAL LINER

1 DETAIL
SCALE 1 : 20



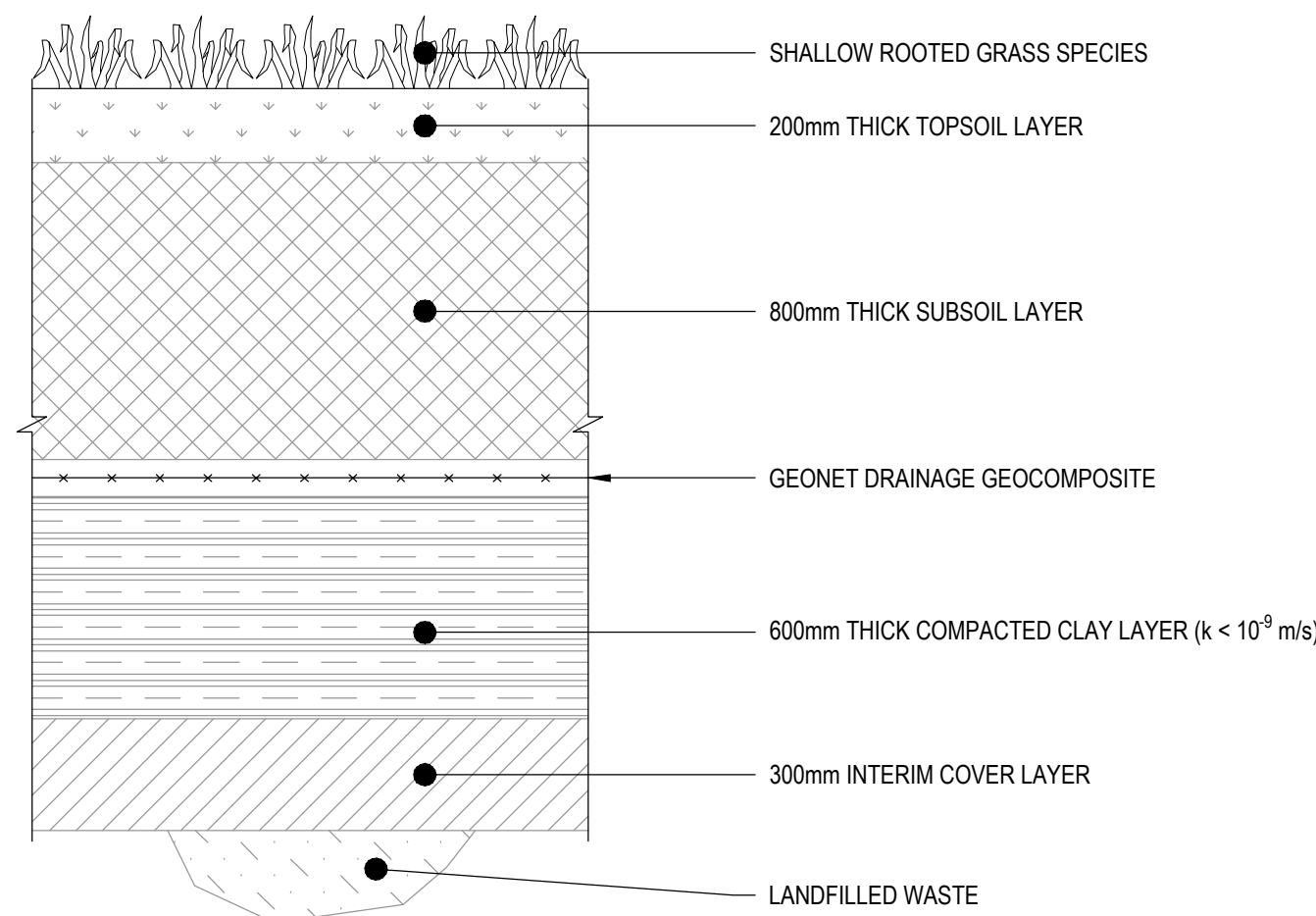
BATTER LINER

2 DETAIL
SCALE 1 : 20



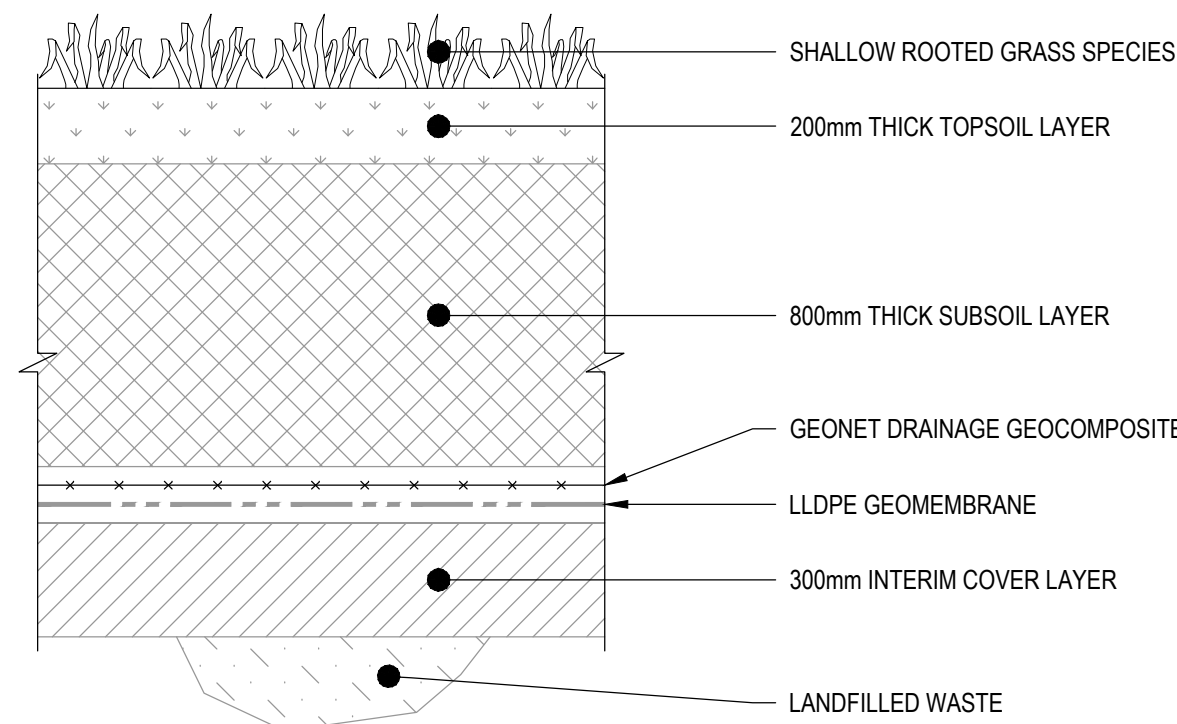
SIDEWALL LINER

3 DETAIL
SCALE 1 : 50



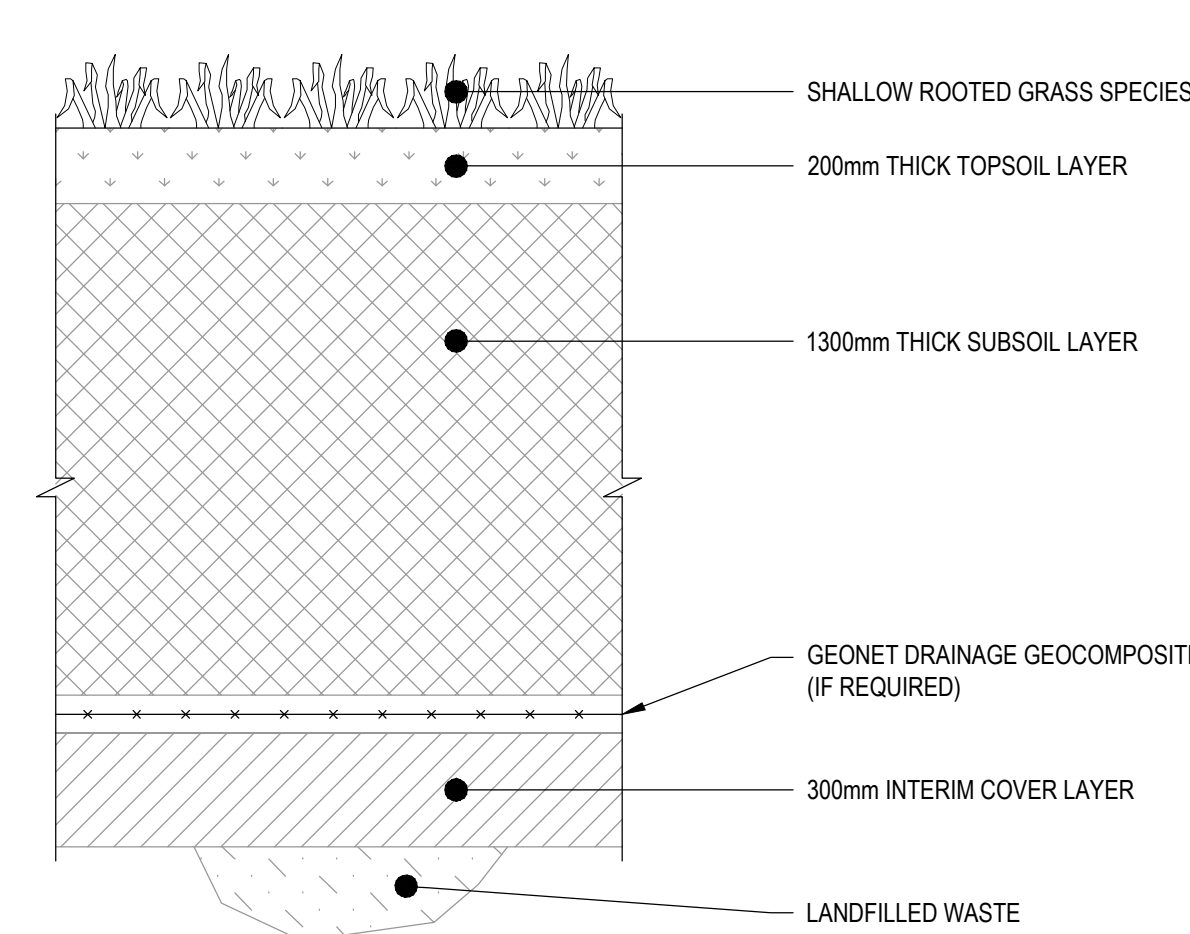
CAPPING PROFILE OPTION 1

4A DETAIL
SCALE 1 : 20



CAPPING PROFILE OPTION 2

4B DETAIL
SCALE 1 : 20



CAPPING PROFILE OPTION 3 (REFER NOTE 1)

4C DETAIL
SCALE 1 : 20

NOTE:

1. FINAL PROFILE TO BE CONFIRMED BASED ON SITE SPECIFIC PHYTOCAP MODELLING, IF PURSUED.

Rev	Description	Checked	Approved	Date
B	FOR APPROVAL			09/12/22
A	INITIAL ISSUE			09/09/22
Author	R. LOPEZ	Drafting Check		
Designer	M. LE	Design Check		

0 0.2 0.4 0.6 0.8 1.0m
SCALE 1:20 AT ORIGINAL SIZE



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E sydmil@ghd.com W www.ghd.com



Project No.
12534581

Client LIVERPOOL PLAINS SHIRE COUNCIL
Project WILLOW TREE WASTE MANAGEMENT FACILITY
Status FOR APPROVAL

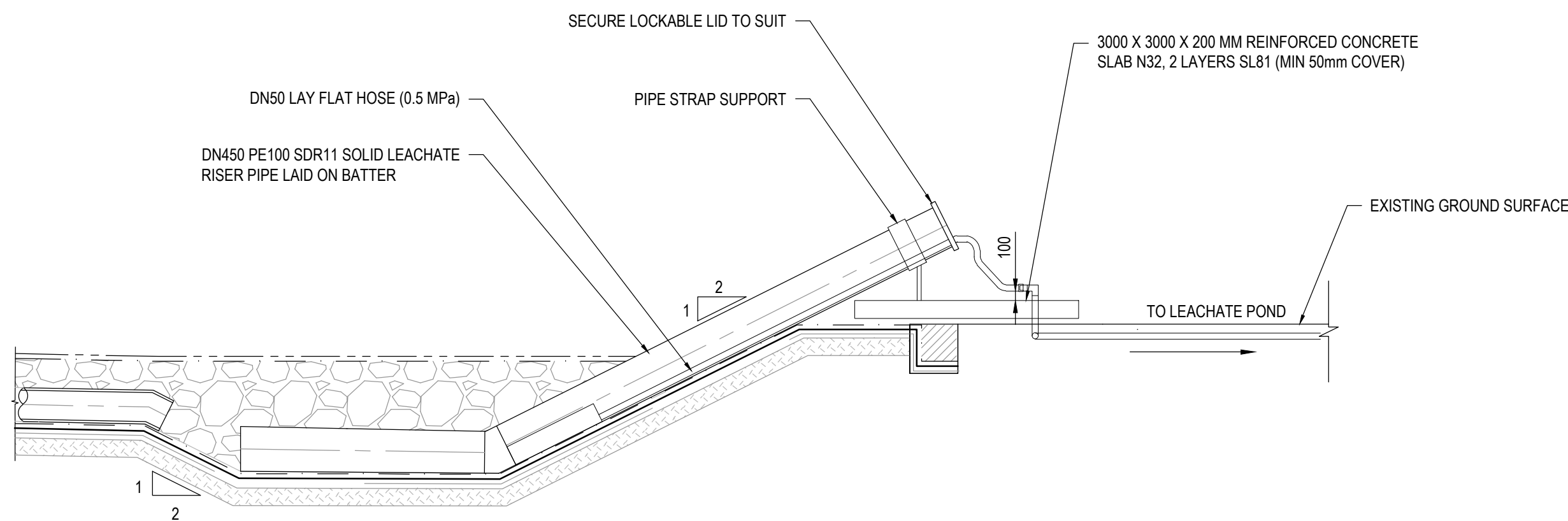
Status Code S4

Drawing Title LANDFILL EXTENSION CONCEPT DESIGN
TYPICAL SECTIONS AND DETAILS
SHEET 1 OF 2

Drawing No.
12534581-C010

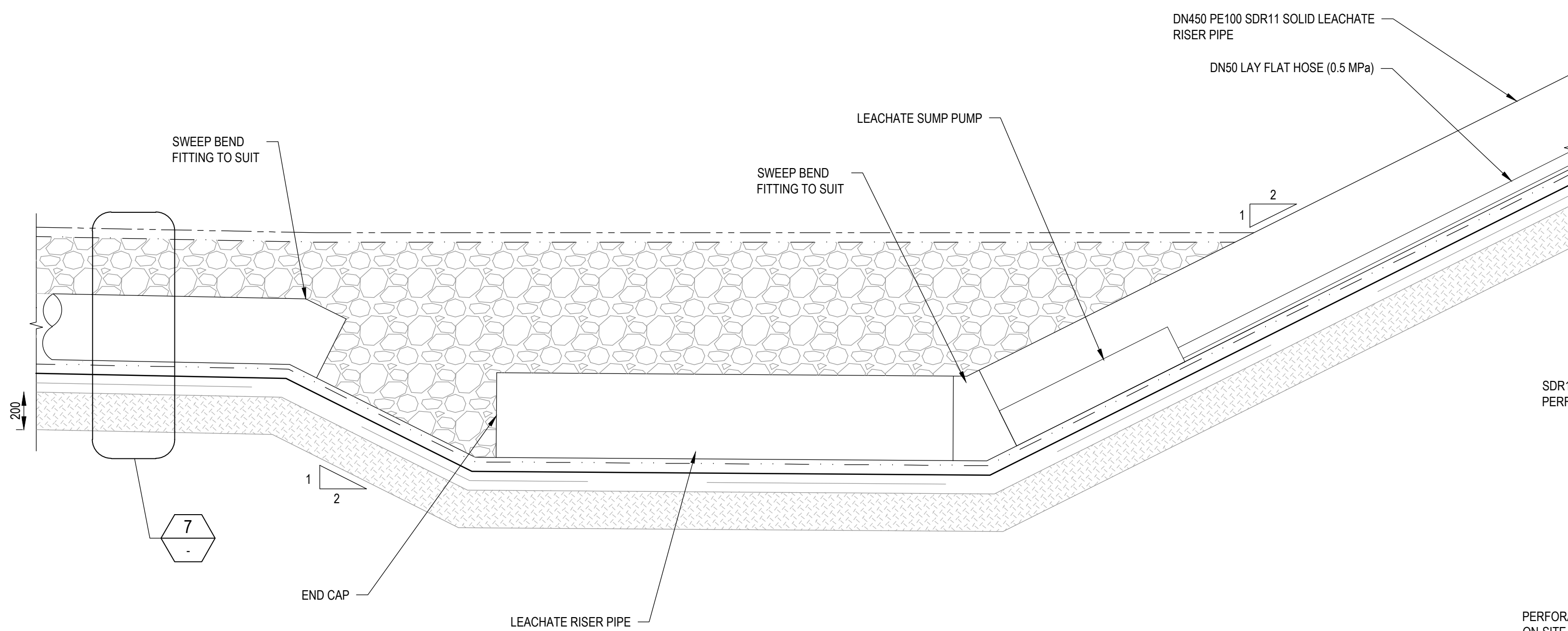
Size
A1

Rev
B



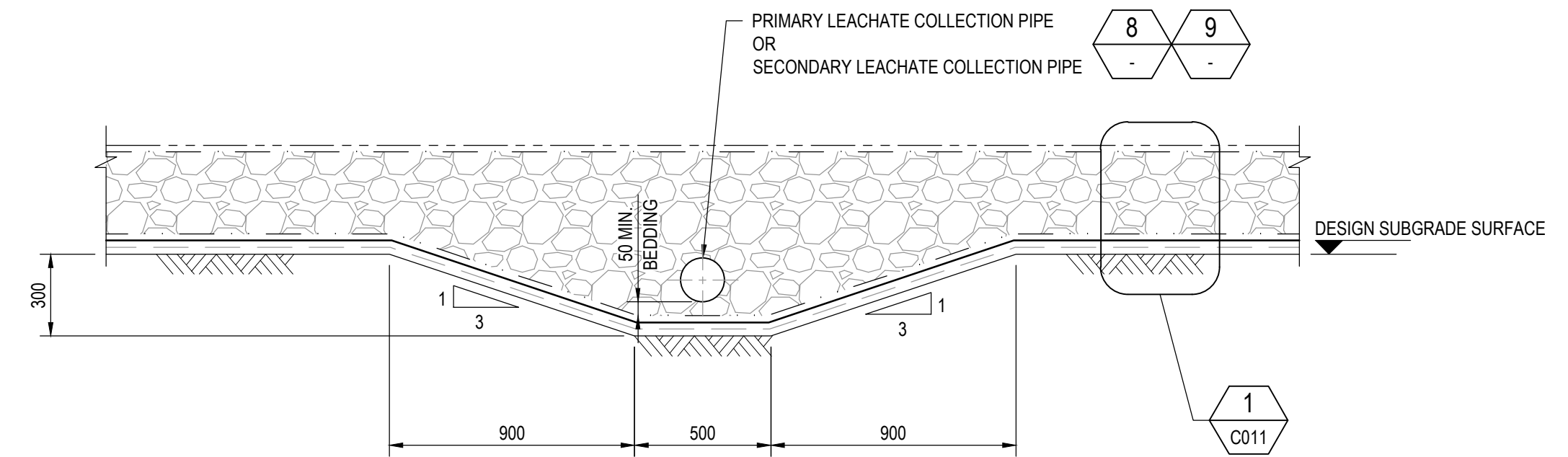
LEACHATE SUMP

5 DETAIL
SCALE 1 : 50



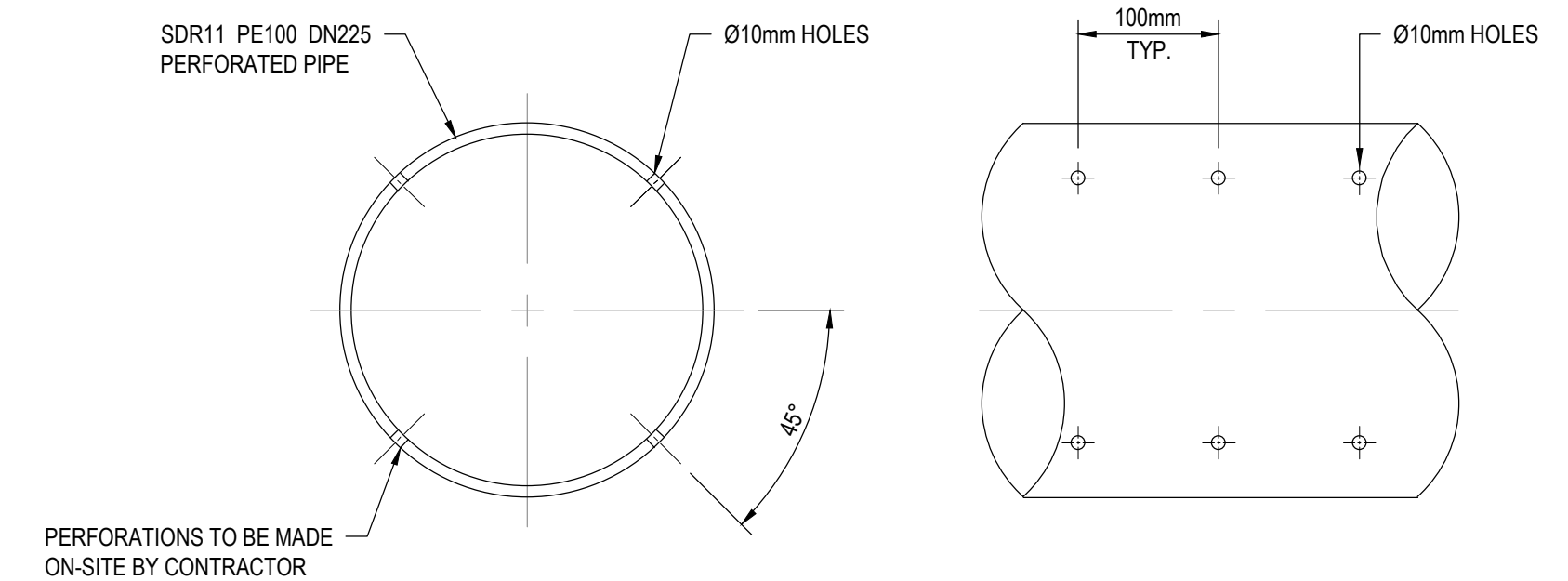
LEACHATE SUMP DETAIL

6 DETAIL
SCALE 1 : 20



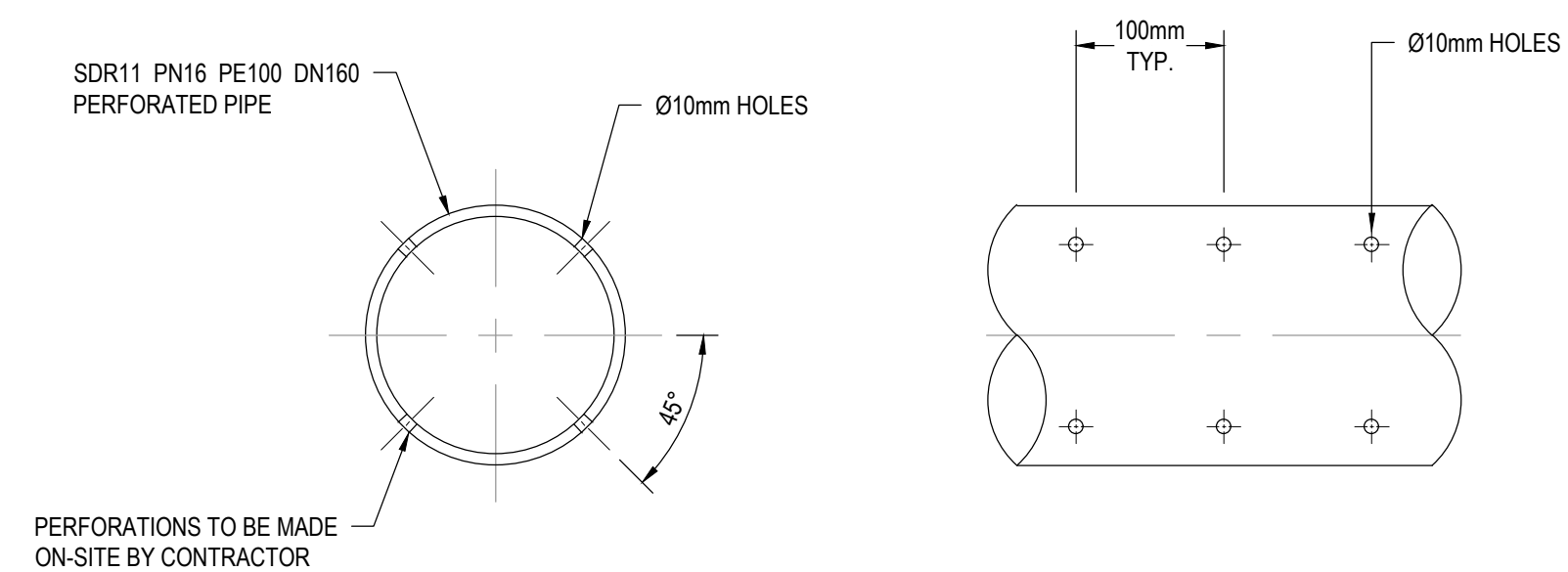
LEACHATE DRAINAGE PIPE TRENCH

7 DETAIL
SCALE 1 : 20



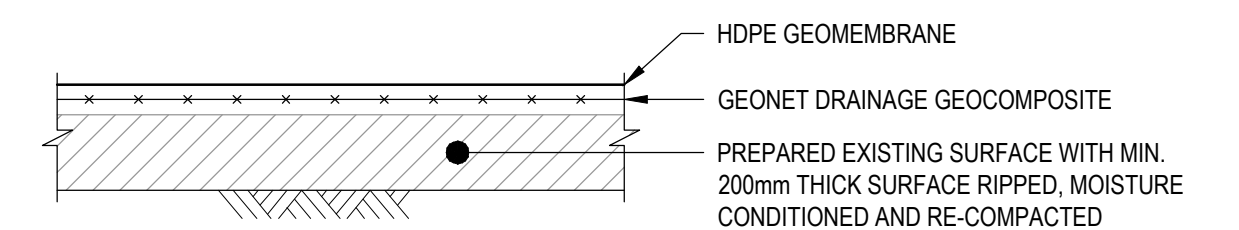
PRIMARY LEACHATE DRAINAGE PIPE PERFORATION

8 DETAIL
SCALE 1 : 5



SECONDARY LEACHATE COLLECTION PIPE PERFORATION

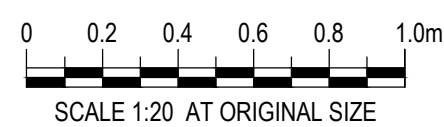
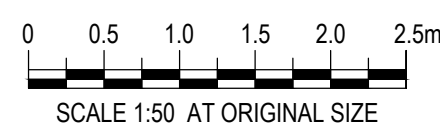
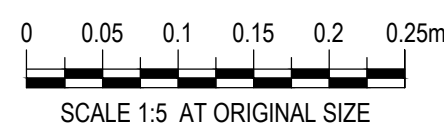
9 DETAIL
SCALE 1 : 5



LEACHATE POND LINER

10 DETAIL
SCALE 1 : 20

Rev	Description	Checked	Approved	Date
B	FOR APPROVAL			09/12/22
A	INITIAL ISSUE			09/09/22
Author	R. LOPEZ	Drafting Check		
Designer	M. LE	Design Check		



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Project No.
12534581

Client LIVERPOOL PLAINS SHIRE COUNCIL

Project WILLOW TREE WASTE MANAGEMENT FACILITY

Status FOR APPROVAL

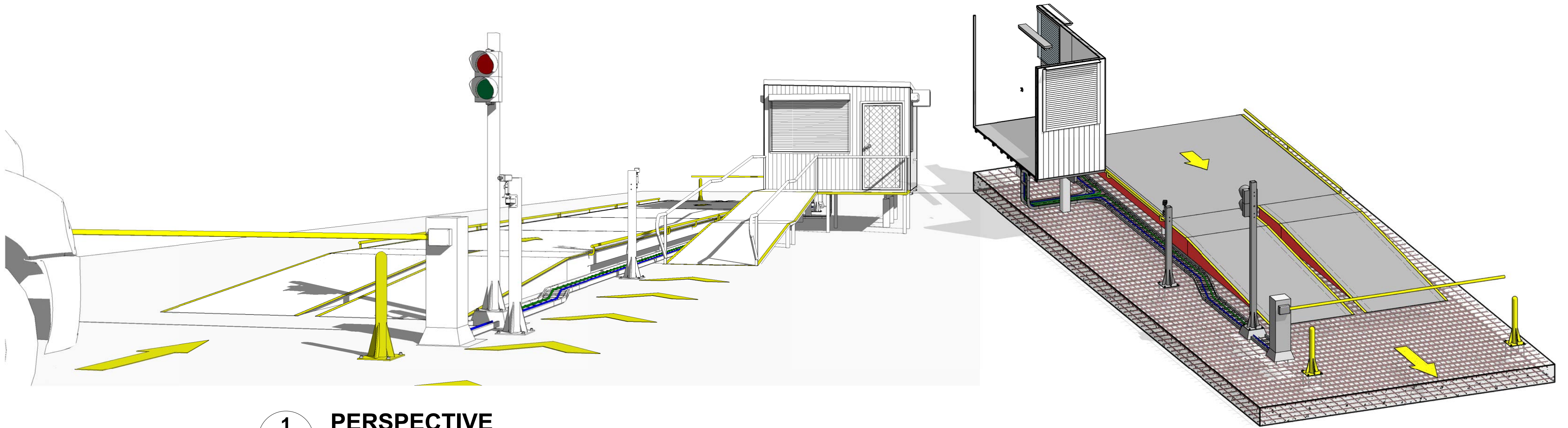
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TYPICAL SECTIONS AND DETAILS
SHEET 2 OF 2

Status Code S4

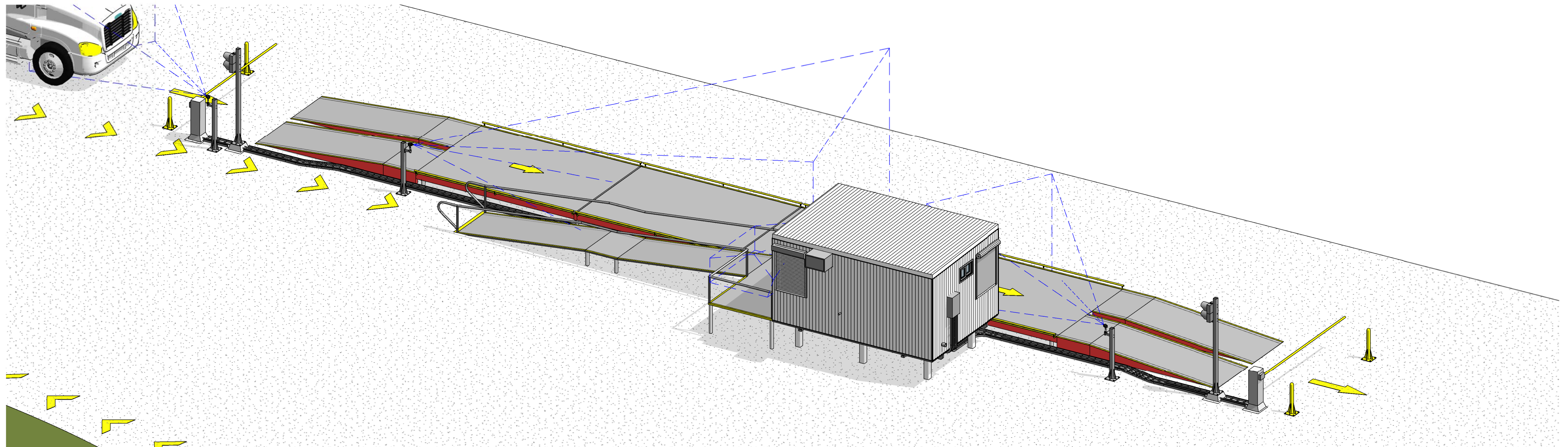
Drawing No.
12534581-C011

Size
A1

Rev
B



1 **PERSPECTIVE**
A-00 scale:



DESIGN DEVELOPMENT

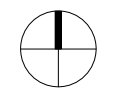


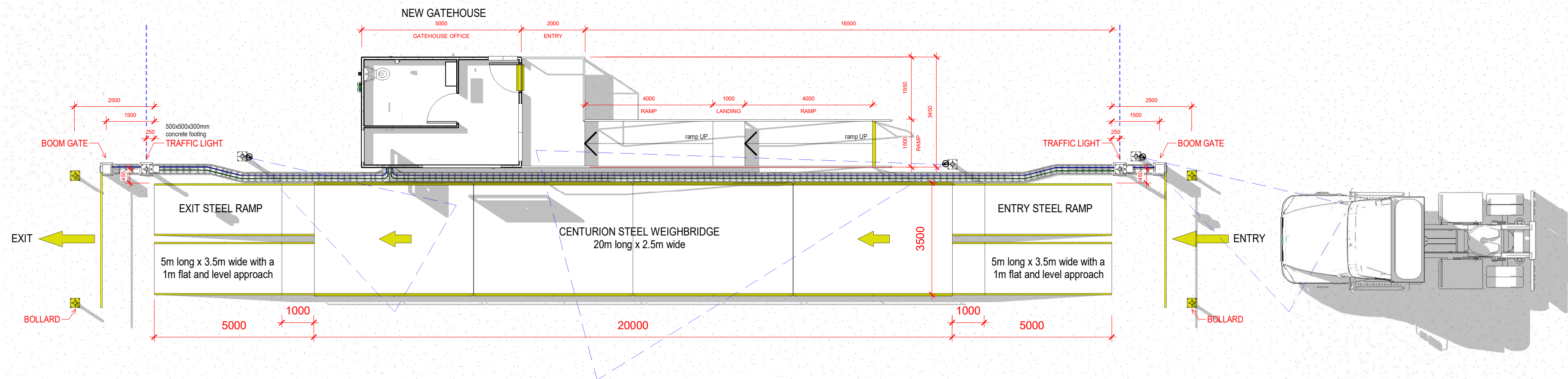
NWI Weighing
NWI Instrumentation
NWI Systems
NWI Fabrications
NWI Calibration
► Unit 1/88 Magowar Road, Girraween NSW 2145, Australia
► +61 1300 669 162
► info@nwigroup.com.au
► <https://nwigroup.com.au>

No	Date	Description

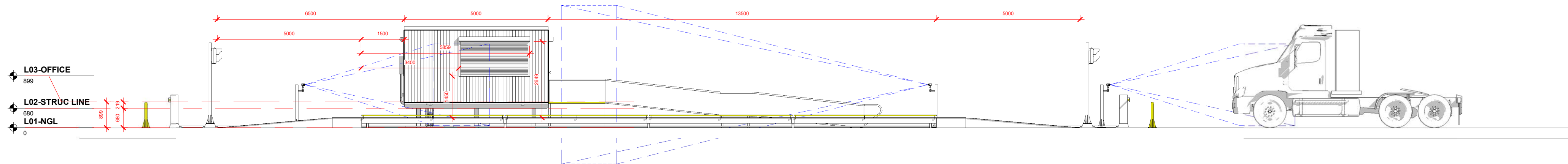
PROJECT TITLE
CUSTOMER
Owner

DRAWING TITLE
PERSPECTIVE
SCALE: @ A2
PROJECT No: NWI-DWG-001
DATE: 2022-07-25
DESIGN BY: NWI Group
DRAWN BY: gds_ronald
CHECKED BY: Jonathon
APPROVE BY: Jonathon
Sheet No: A-00

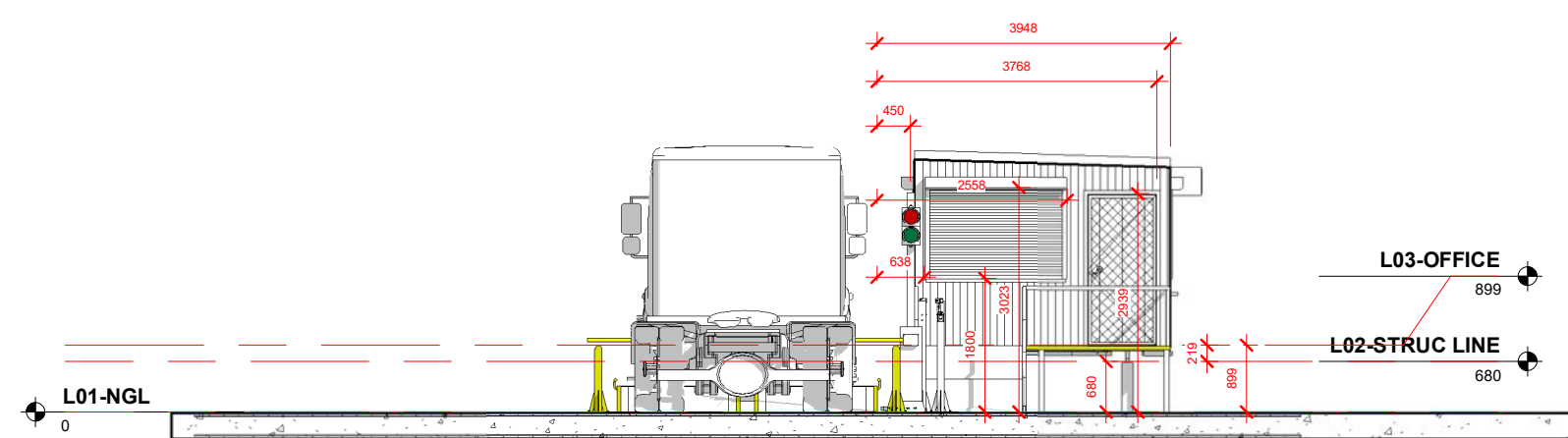




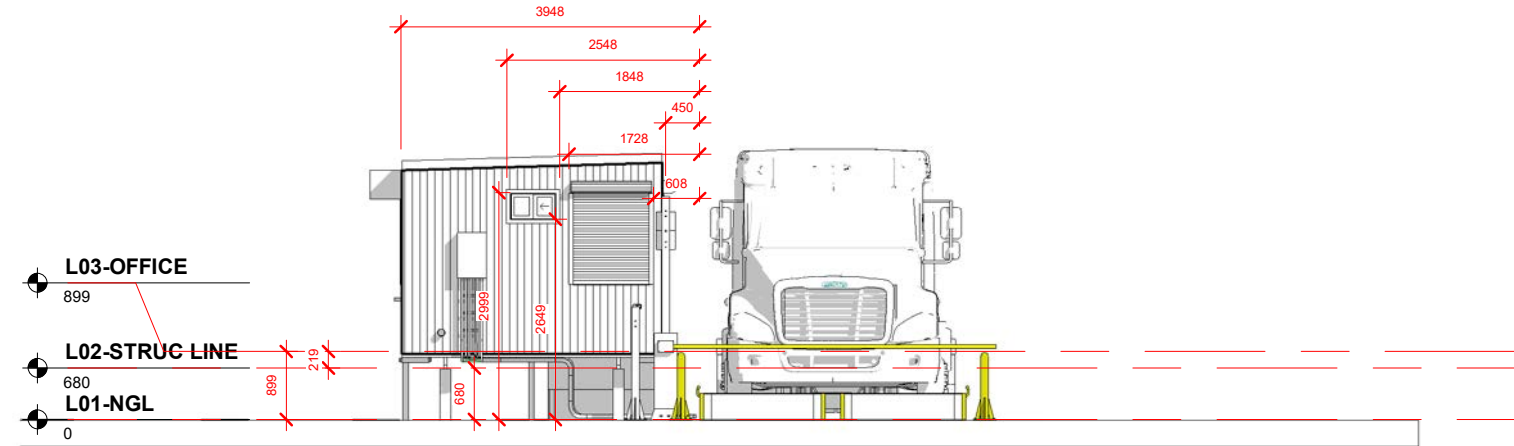
1
A-01
scale: 1 : 100
L01-NGL



2
A-01
scale: 1 : 100
FRONT ELEVATION



3
A-01
scale: 1 : 100
RIGHT ELEVATION



4
A-01
scale: 1 : 100
LEFT ELEVATION



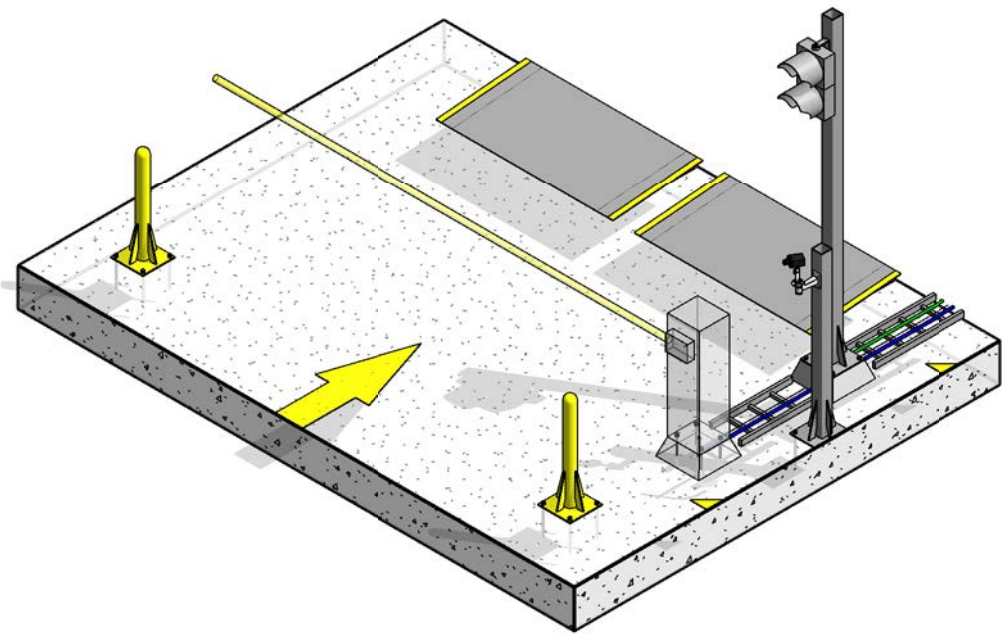
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No	Date	Description

PROJECT TITLE
CUSTOMER
Owner

DRAWING TITLE FLOOR PLAN + ELEVATION	
SCALE: @ A2 1 : 100	PROJECT No: NWI-DWG-001
DATE: 2022-07-25	DESIGN BY: NWI Group
DRAWN BY: gds_ronald	CHECKED BY: Jonathon
APPROVE BY: Jonathon	
Sheet No: A-01	

DESIGN DEVELOPMENT

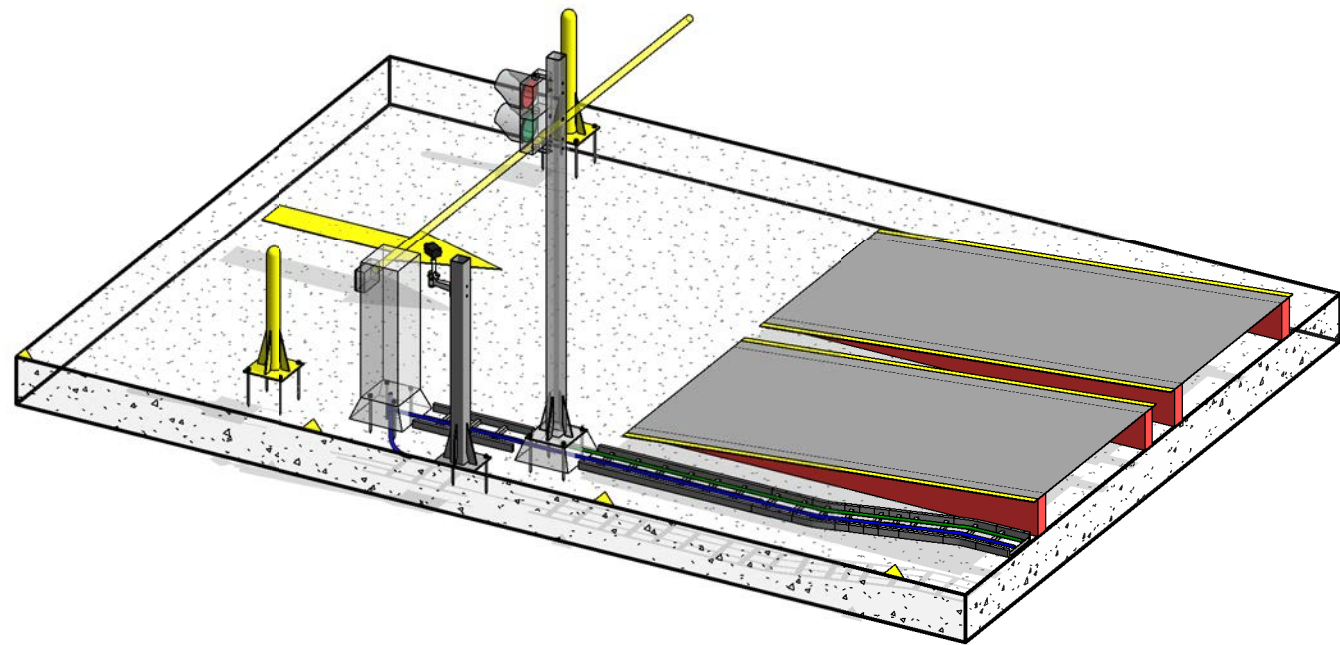


1

A-02

scale:

3D BOOM+TRAFFIC LIGHTS

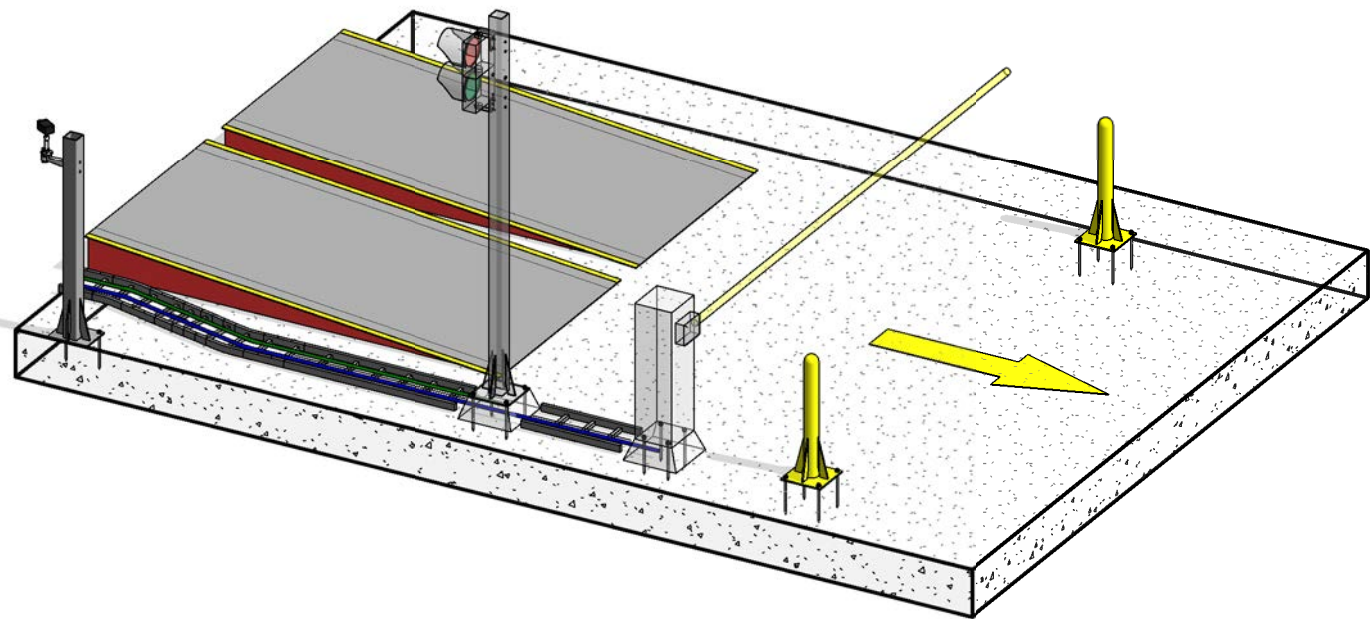


2

A-02

scale:

3D CONDUIT LAYOUT 1

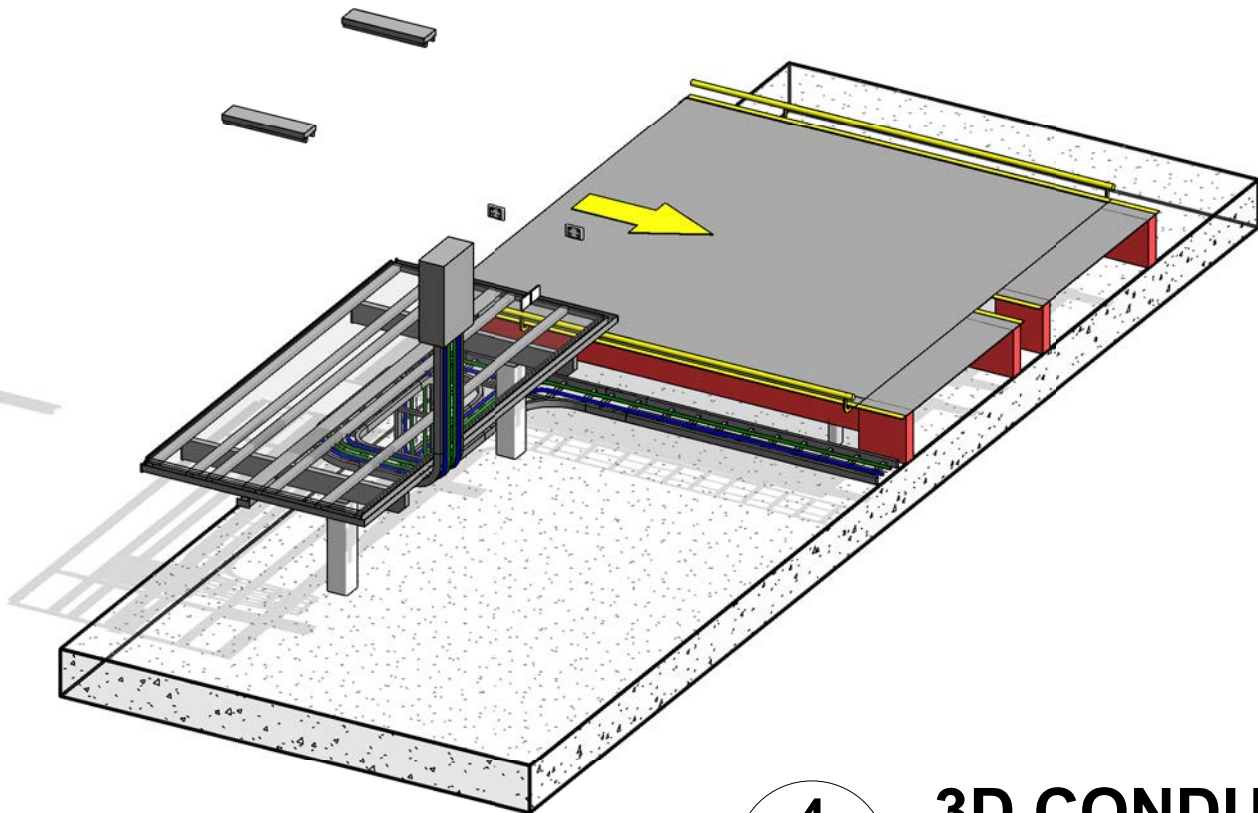


3

A-02

scale:

3D CONDUIT LAYOUT 2

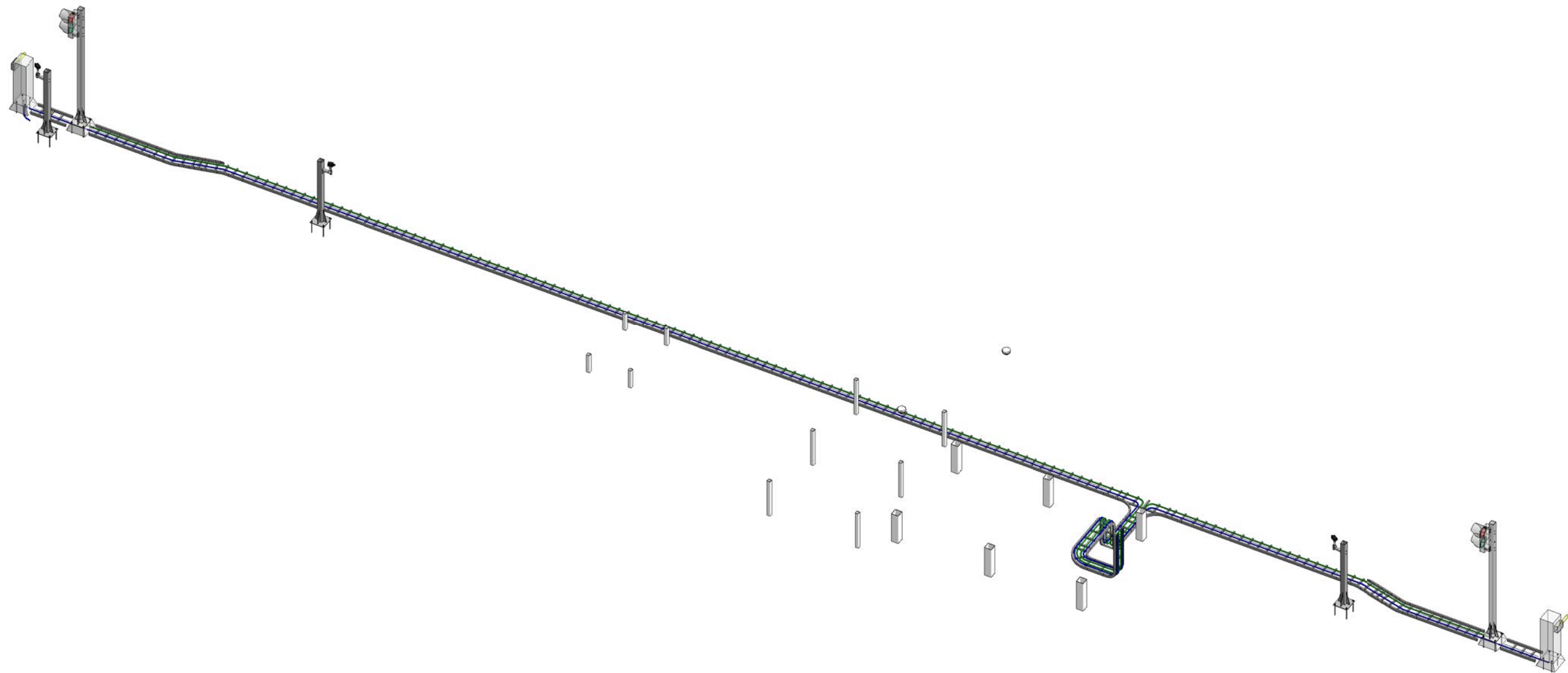


4

A-02

scale:

3D CONDUIT LAYOUT 3

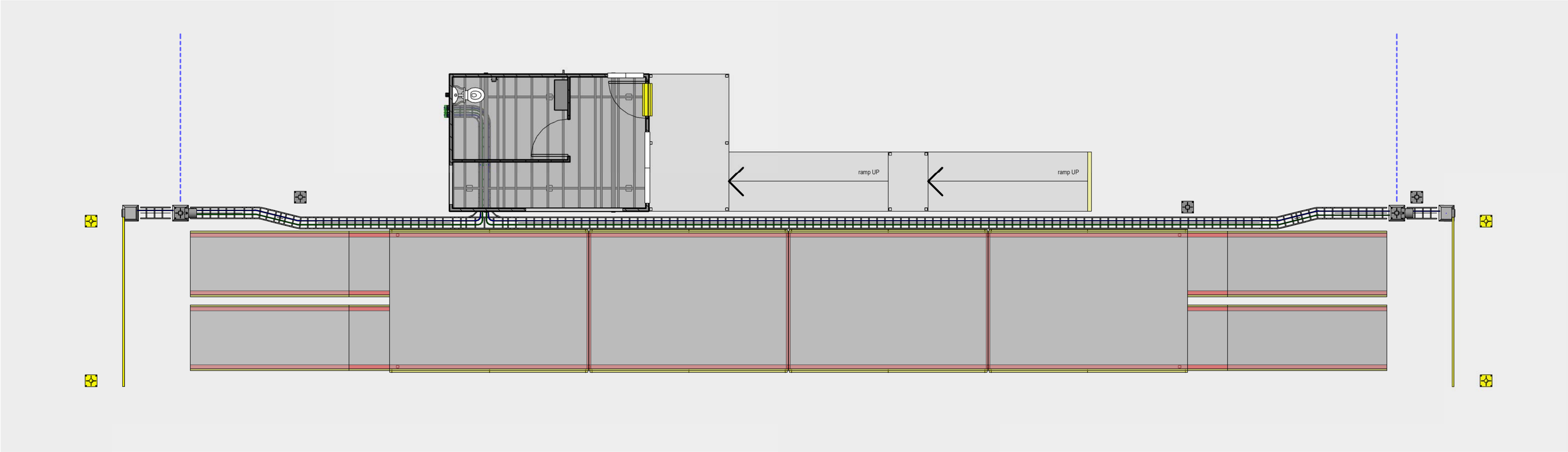


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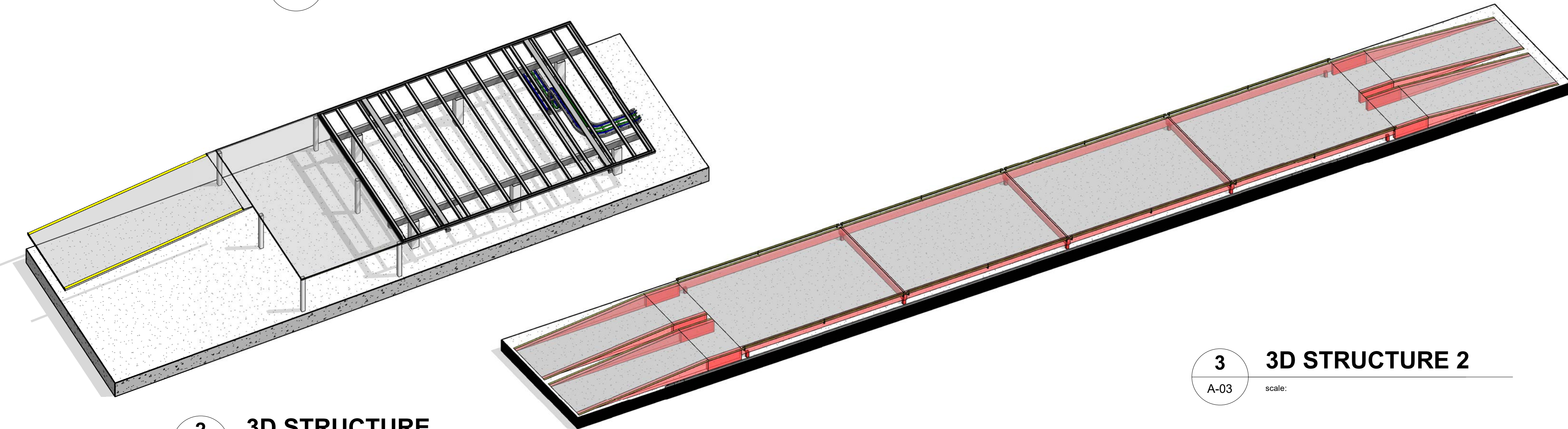
A-02

scale:

3D CONDUIT FULL LAYOUT



1 **STRUCTURE LAYOUT**
A-03 scale: 1 : 75



2 **3D STRUCTURE**
A-03 scale:

3 **3D STRUCTURE 2**
A-03 scale:



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No	Date	Description

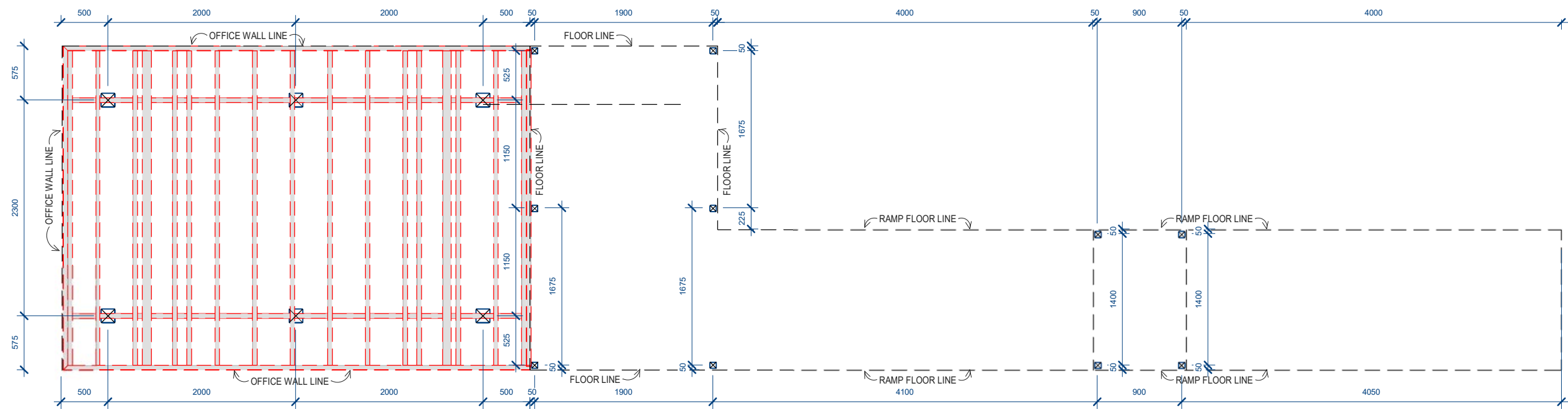
PROJECT TITLE
CLIENT
Owner

DRAWING TITLE
3D STRUCTURAL
SCALE: @ A2
1 : 75
DATE: 08/02/22
DRAWN BY: gds_ronald
CHECKED BY: Jonathon
DESIGN BY: NWI Group
APPROVE BY: Jonathon

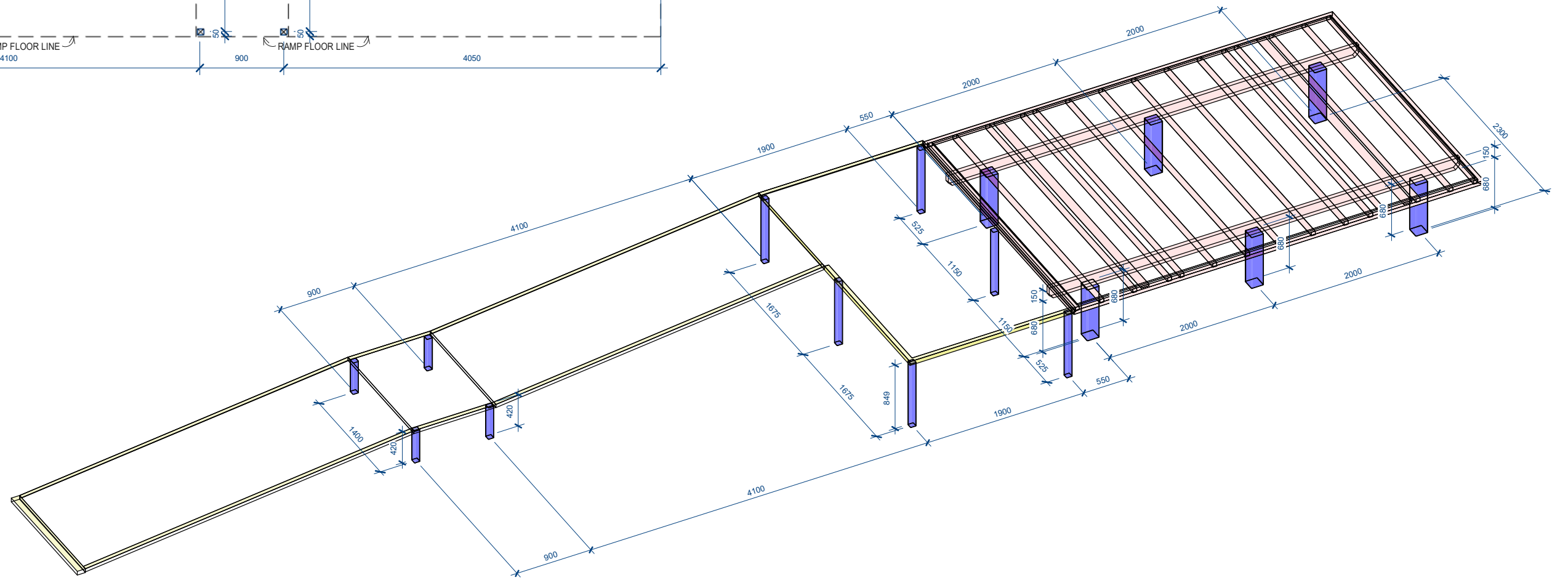
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NWI-DWG-001
Sheet No:
A-03



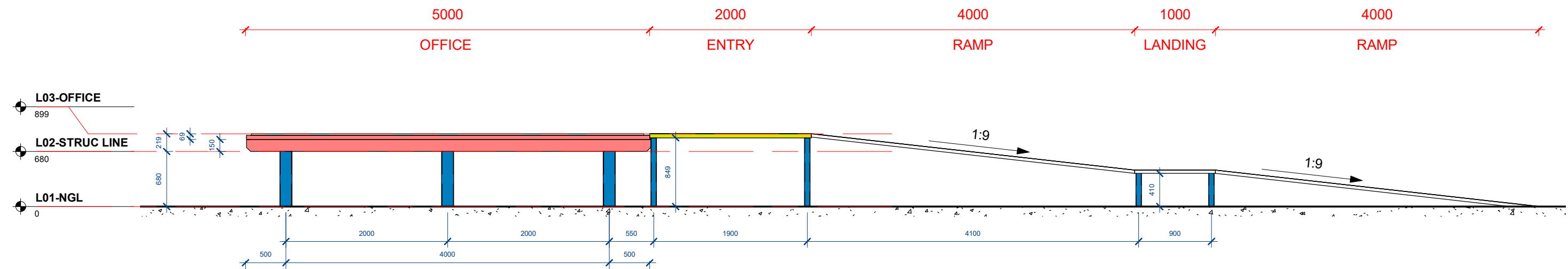
DESIGN DEVELOPMENT



1
A-04
COLUMN LAYOUT
scale: 1 : 50



3
A-04
3D STRUCTURE OFFICE
scale:



2
A-04
OFFICE ELEVATION 1
scale: 1 : 50



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No	Date	Description

PROJECT TITLE	
CUSTOMER	Owner

DRAWING TITLE	OFFICE STRUCTURAL LAYOUT
SCALE: @ A2	1 : 50
PROJECT No:	NWI-DWG-001
DATE:	09/14/22
DESIGN BY:	Designer
DRAWN BY:	Author
CHECKED BY:	Checker
APPROVE BY:	Approver



Sheet No:
A-04

DESIGN DEVELOPMENT