



APPENDIX F

LANDSCAPE INTENT PLAN



VantageYatala



1985

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WarehouseDevelopment

2 Highlands Street, and 2 Fairway Street, Stapylton

LANDSCAPE INTENT PACKAGE

FPI Queensland Pty Ltd

Material Change of Use for Industry
Reconfiguration of a Lot for Access
Easement
Operational Works the Change of
Ground Level

LOT 204 & 205 SP316171

Lot 2 Highlands Street and
2 Fairway Street, Stapylton
STAPYLTON QUEENSLAND 4207

DECEMBER 2024
Issue D - For Approval

Prepared By
Gassman Development Perspectives
Job No. 6172



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- 02** Site Characteristics & Development Proposal
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SITE CHARACTERISTICS

In terms of location context, Lot 204 and 205 are both irregular shaped allotments encompassing approved Stage 2 of Vantage Yatala Industrial Estate. The site (Lot 204 and 205), is located within the Gold Coast suburb of Stapylton (4207).

Lot 204 fronts Christensen Road to the west, and Homestead Drive and Fairway Street to the north. Lot 205 is located to the east of Lot 204 and is bound by Highlands Street to the south, Fairway Street to the east and Homestead Drive to the north. Primary access to the site will be via Highlands Street once construction of this road is complete, with secondary accesses to Christensen Road and Homestead Drive.

The subject land is vacant; predominantly cleared; and resembles a civil construction site as it has been provisionally prepared to accommodate this industrial subdivision through the undertaking of bulk earthworks and vegetation clearing.

DEVELOPMENT PROPOSAL

The proposed development seeks to establish a Warehouse use over the subject site.

The proposed development will include the following development aspects:

- Material Change of Use for Industry (Speculative Warehouse) with ancillary Office
- Reconfiguring a Lot for an Access Easement
- Operational Work for Change to Ground Level

Supporting documentation to be read in conjunction with this landscape intent package, is as follows;

- Preliminary approval , Current Decision Notice - MIN/2020/659 Gassman Development Perspectives - Appendix B
- Architectural Proposal Plans, Frasers Property Australia - Appendix C
- Code Assessment, Gassman Development Perspectives - Appendix D
- Bulk Earthworks Plan, Gassman Development Perspectives - Appendix F
- Civil Services Report, Gassman Development Perspectives - Appendix G
- Acoustic Impact Assessment, Acoustic Works - Appendix H
- Traffic Impact Assessment, Rytenskild Traffic Engineering - Appendix I



SITE LOCALITY

In terms of location context, Lot 204 and 205 are both an irregular shaped allotments encompassing approved Stage 2 of Vantage Industrial Estate. The site is located within M38 Industrial Place Code, with both sites being located in Precinct B.

The overall subject site is irregular in shape and covers 80,010m².

The proposed development has a total Gross Floor Area (GFA) of 18,016m² consisting of the following:

- 18,527 m² Warehouse area; and
- 744m² ancillary office (double storey) located to the front of the building.

The overall subject site is located approximately:

- 0.5 kilometers from the Pacific Motorway, Yatala north interchange;
- 5.5 kilometers from the Beenleigh CBD;
- 5 kilometers from Beenleigh Transit Centre;
- 36.5 kilometers from Southport CBD; and
- 38.2 kilometers from Brisbane CBD.



Map Source: Near Map

LANDSCAPE STRATEGY

The landscape design intent for the speculative warehouse is to establish a warehouse with ancillary office.

The Landscape intent is to facilitate the development of functional, well serviced, amenable, and attractive industrial warehouse that holds regard to its local context.

To create a sense of spaciousness defined by wide roads and buildings, and a flow of landscape between.

To promote a development that integrates with the surrounding environment through the use of compatible landscaping, materials, colours and building forms.

To reduce the potential for conflict between vehicle and pedestrian traffic there will be an appropriate level of separation and/or way finding throughout the site.

To ensure soft-scaping softens the built form, yet is durable and requires minimal maintenance.

To create open breakout / recreational areas for staff and visitors of the warehouse development.

The Landscape design will respect the environmental aspects of responsible design, planning and construction which will respond to issues of biodiversity.

The scale and nature of landscaping materials and selected plant species will be appropriately selected to compliment the size of proposed warehouse and office structure nominated for the site, whilst being sensitive to available space.

Way finding will be promoted by using nominated hardscape, furnishing and planting and palettes, that will be reflected through the site's entirety. Clear view lines will further promote legibility. Some open space and breakout areas will be provided with furniture to create resting / passive use areas.

Planting will be selected for suitability and tolerance to the varying site conditions. The planting scheme used is predominantly native species which has been nominated to soften the built form, compliment the surrounding natural ecosystems, minimize water usage and limit maintenance.



Mass planting arrangement

The planting arrangement has been designed in a contemporary arrangement with mass planting of individual species. The arrangement will be laid in a three tier arrangement of Trees, shrubs and groundcovers with accent feature planting as well as cascading species to fall over retaining wall structures.



Contemporary planting arrangement

A contemporary planting arrangement consisting of groupings of endemic species will be used to screen and frame the built form, whilst highlighting entry areas, providing shade to car parking and pedestrian paths.



Use of endemic species

The proposed planting arrangement will consist of mainly Australian native species suitable for growth within South-east Queensland. The nature of such plants are more drought tolerant and most suitable for the site.



Green Walls

The contemporary styled office / warehouse will offer a series of green wall systems to allow for visual softening of the built form and other aesthetics that will benefit the employees / visitors of the space.



Legibility and Way finding

Way finding will be promoted by using nominated hardscape, furnishing and planting and palettes, that will be reflected through the site's entirety. Clear view lines will further promote legibility.



Sandstone block wall

Retaining is required for the site between built form and streetscape boundaries. A sandstone block wall has been proposed with planting to screen the wall as well as cascading plant species nominated to grow over and soften the walls appearance.



Breakout Spaces

Outdoor breakout areas with facilities such as a shaded courtyard with bench seating will be provided to allow an option for outdoor recreational space used for staff lunch or corporate events.



Water sensitive urban design

Water Sensitive Urban Design (WSUD) principles will be applied throughout the site to manage water in a sustainable way, and provide opportunities for the development to achieve a healthy outcome for the surrounding environment.



Buffer Planting

Buffer planting consulting of a tiered style arrangement using native plant species will be incorporated to both the retaining wall and road frontage with intention of providing screening of the proposed built form and carparking areas.

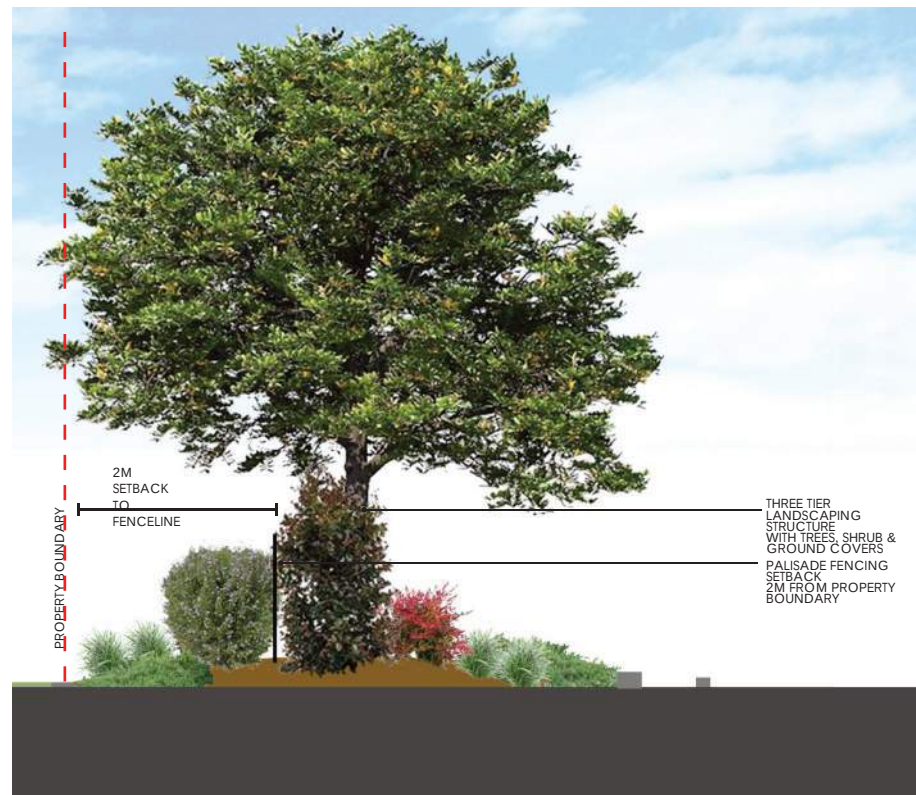
LANDSCAPE INTENT PLAN

LEGEND

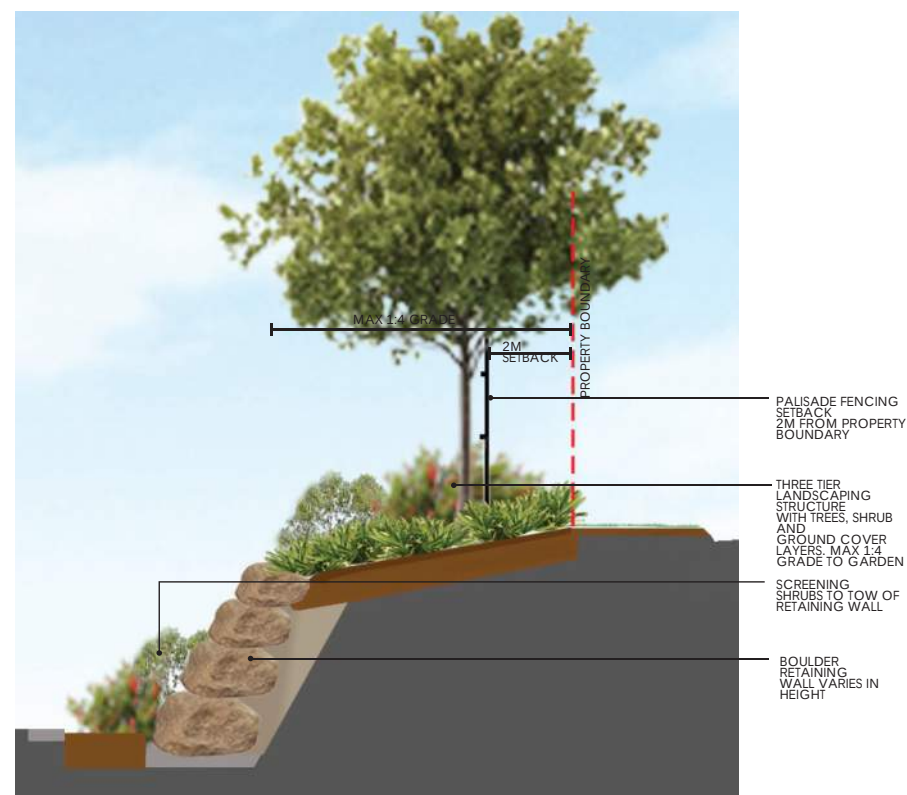
- Site Boundary
Lot 2 Highlands Street and 2 Fairway Street, Stapylton (Lot 204 on SP316171)
- Proposed Fencing 1
1.8mH black palisade fencing set back 2m from boundary with tiered planting of shrubs and groundcovers in front
- Proposed Fencing 2
Chain Wire Fencing 1.8m in height. Installed as per CoGC detail drawing no. 05.014
- Sight Triangle
2m x 2.5m sight triangle. Low planting less than 500mm high in these zones only.
- Driveways and Carparking Areas
in accordance with SC6.11 City Plan Policies and Transport Network Standards
- Pedestrian Path
1.5m wide generally in accordance with SC6.11 City Plan Policy
- Existing and Proposed Streetscape
Existing and proposed footpath and turf verge treatments as per OPW/2020/960 and OPW/2021/1370. Verge to be retained and made good should building damage occur
- Stormwater Easement
Proposed stormwater easement planted with groundcover species only
- Existing Cut Rock Batter
- Retaining Wall
Random rock boulder retaining wall
- Feature Tree
400lt / ex ground feature tree species using *Triplaris lusciosa* or *Waterhousea floribunda*
- Existing Street Tree
As part of approval OPW/2021/1370, Lot 501 SP295994, to be retained.
- Shade Tree
200lt shade tree species using *Cupaniopsis anacardioides*, *Harpalea pendula*
- Planting Arrangement Type 1
Layered planting condition of groundcovers, shrubs and screening shrubs
- Planting Arrangement Type 2
Layered planting condition of groundcovers and feature shrubs
- Planting Arrangement Type 3
Mass planting of screening shrubs
- Office Breakout - Courtyard
With seating, shade tree and screening shrubs
- BBQ Area
Proposed bbq and staff break out area
- Existing Retaining Wall
Boulder retaining wall situated on adjacent lot
- Greenwall
- Section Marker
Refer to page 6 for further detail



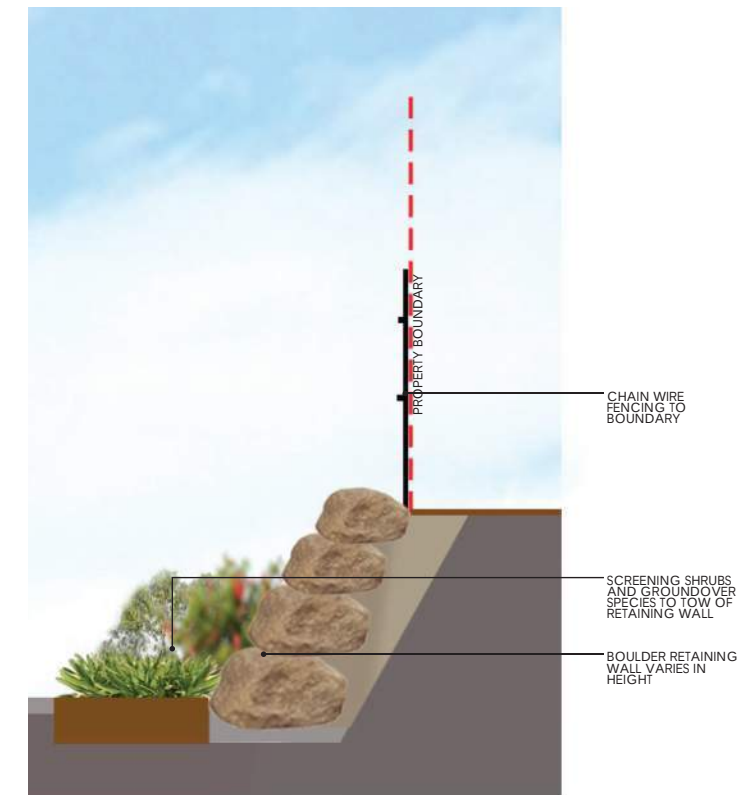
TYPICAL SECTION ELEVATIONS



SECTION AA TYPICAL PLANTING ARRANGEMENT TO FRONTAGE

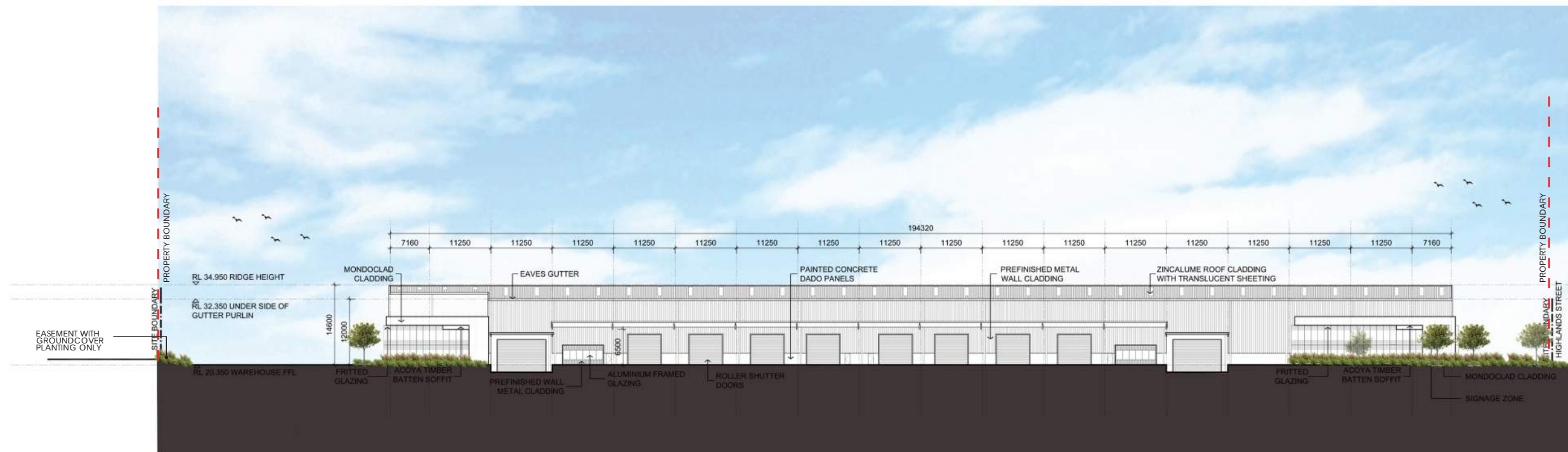


SECTION BB TYPICAL PLANTING ARRANGEMENT TO RETAINING WALL

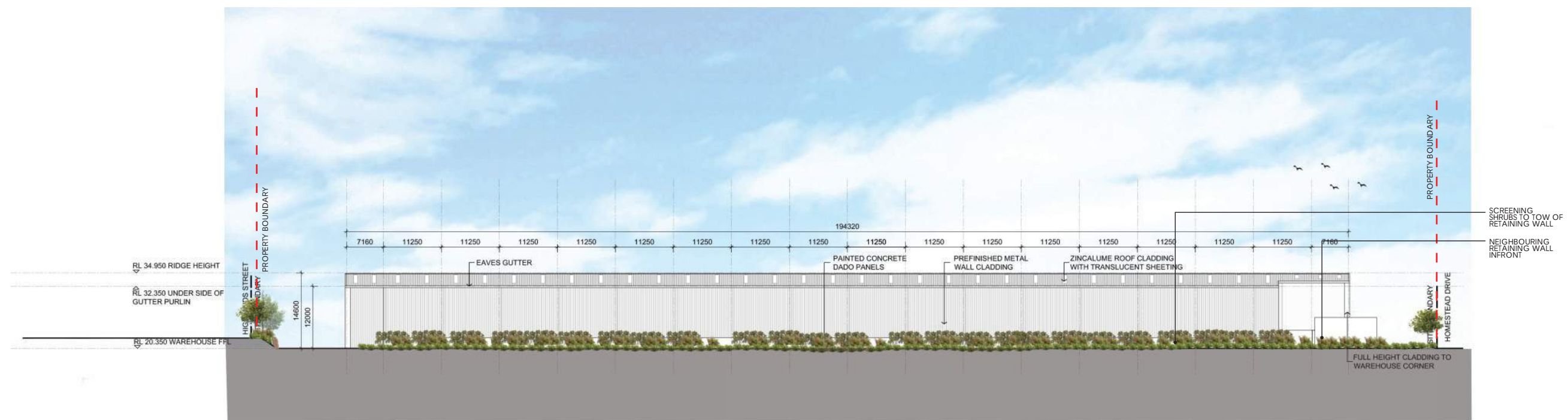


SECTION CC TYPICAL PLANTING ARRANGEMENT TO REAR RETAINING WALL

ELEVATION DRAWINGS

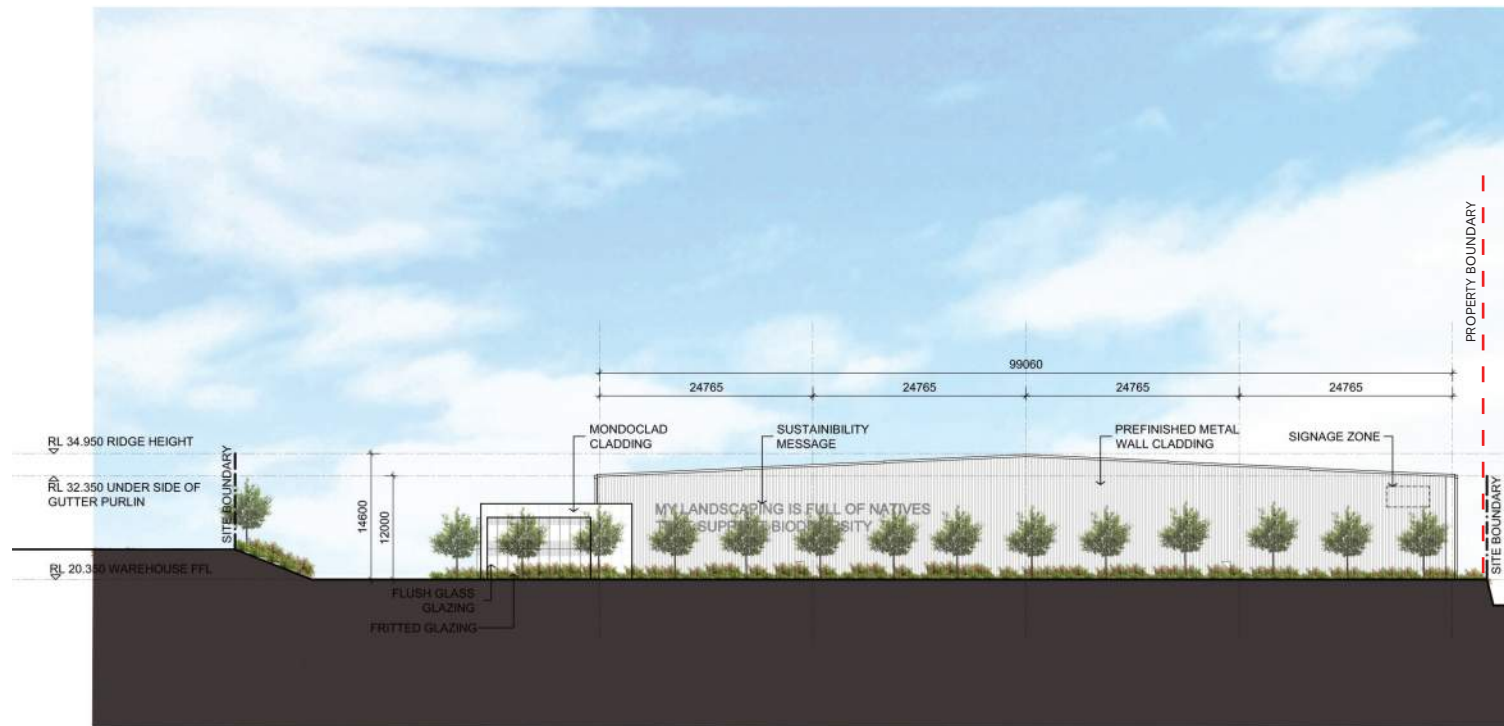


ELEVATION DD - WESTERN ELEVATION

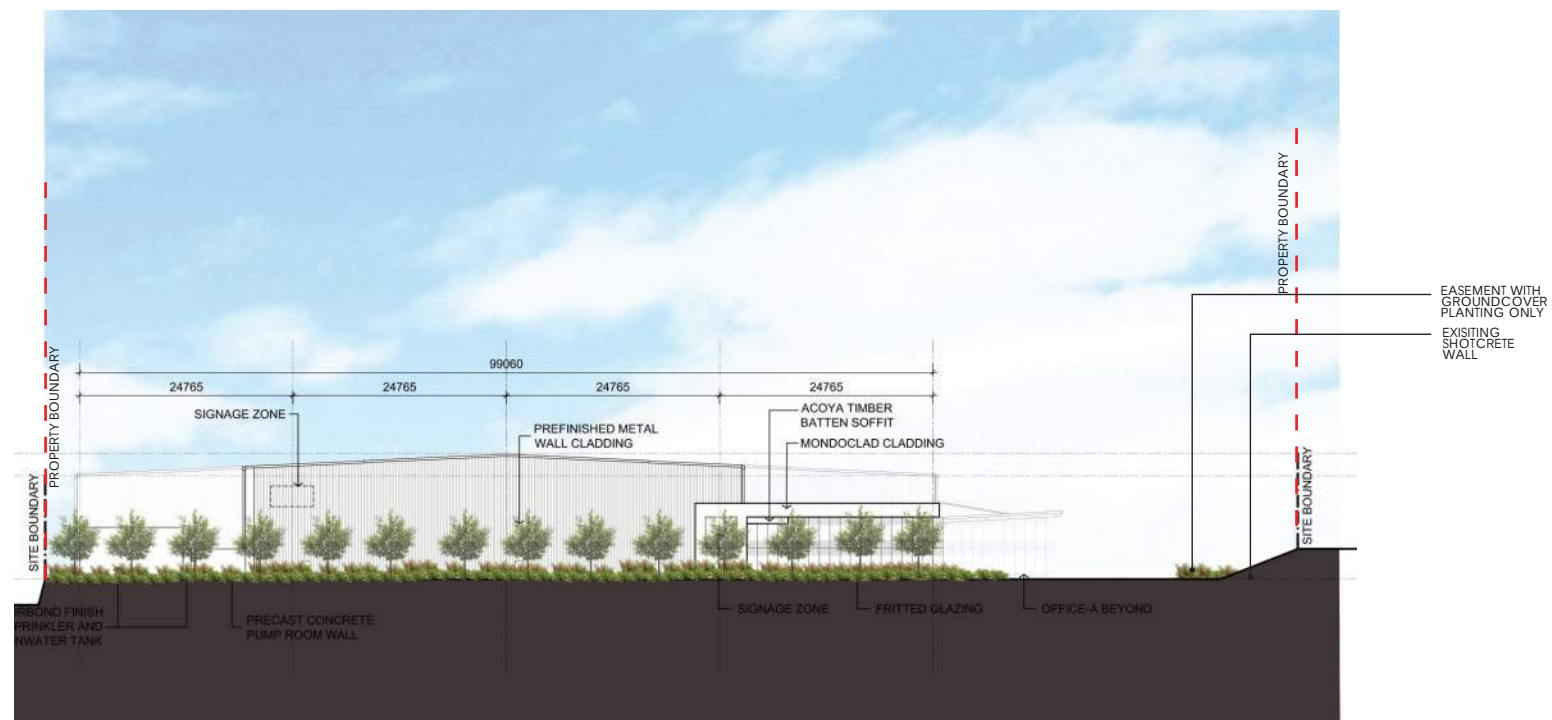


ELEVATION EE - EASTERN ELEVATION

ELEVATION DRAWINGS



ELEVATION FF- SOUTHERN ELEVATION



ELEVATION GG - NORTHERN ELEVATION

MATERIALS AND HARDSCAPE PALETTE



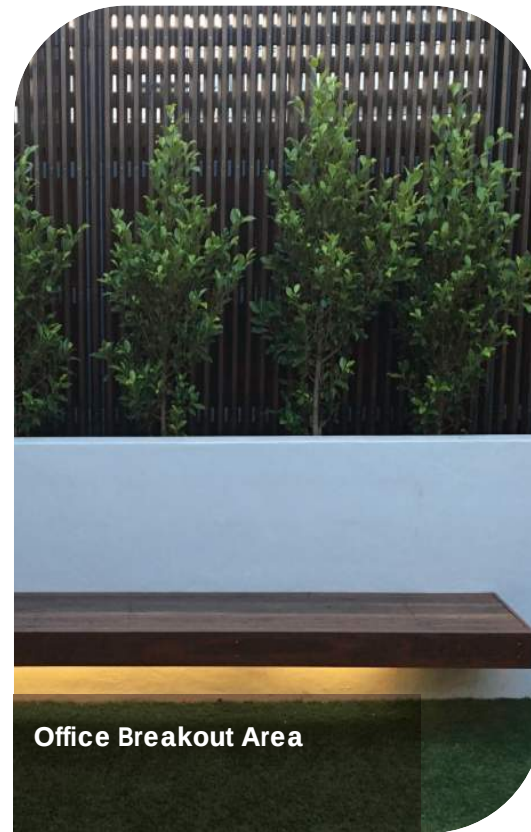
Plain grey broom finished
concrete path network



Palisade Fencing



Entry signage example



Office Breakout Area



Green wall (option)



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MATERIALS PALETTE

Date: 03.12.24
Project no: 6172
Rev: C Dwn: JLS

PLANTING PALETTE

SHADE TREE SPECIES



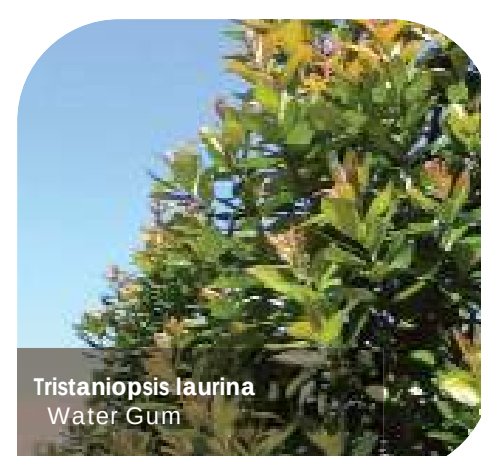
Cupaniopsis anacardioides
tuckeroo



Harpullia pendula
tulip wood



Delonix regia
poinciana



Tristaniopsis laurina
Water Gum



Elaeocarpus eumundi
Quondong



Waterhousia floribunda
weeping lilly pilli

SCREENING SHRUB SPECIES



Syzygium resilience
lilly pilli



Acmena smithii
lilly pilli



Michelia figo
port wine magnolia



Westringea fruitcosa
Coastal Rosemary



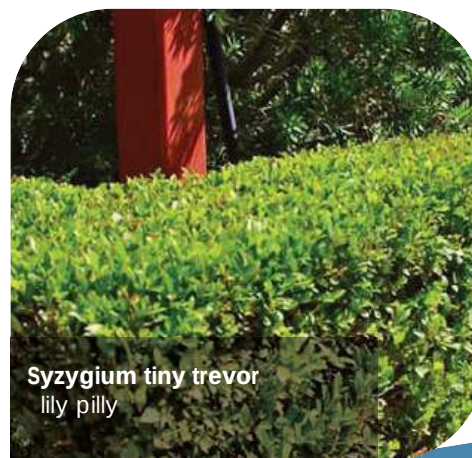
Crinum pedunculatum
swamp lily



Philodendron rojo congo
rojo congo

FEATURE SHRUB SPECIES

SHRUB SPECIES



Syzygium tiny trevor
lilly pilli



Melaleuca claret tops
claret tops



Philodendron xanadu
xanadu



Nandina gulf stream
sacred bamboo



Banksia spinulosa
candlestick banksia



Callistamen viminalis
little john

PLANTING PALETTE

GROUND COVER SPECIES



Carpobrotus glaucescens
pig face



dianella little jess
little jess



Liriope evergreen giant
liriope



Lomandra lime tuff
lime tough mat rush



Trachelospermum jasminoides
star jasmine



Myoporum parvifolium
creeping boobialla



APPENDIX H

CIVIL SERVICES REPORT

VantageYatala



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ENGINEERING SERVICES REPORT

APPLICATION FOR MATERIAL CHANGE OF USE – WAREHOUSE AND AN ANCILLARY OFFICE

ADDRESS

2 Highlands Street, Stapylton

REAL PROPERTY DESCRIPTION

Lot 204 on SP316171

PREPARED FOR

FPI Queensland Pty Ltd

DECEMBER 2024



gassman
development
perspectives

project coordination
urban + regional planning
landscape + urban design
engineering services
environmental management
visualisation + spatial services
surveying services
advisory services

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In preparing this report we have made certain assumptions. We have assumed that all information and documents provided to us by the Client or as a result of a specific request or enquiry were complete, accurate and up-to-date. Where we have obtained information from a government register or database, we have assumed that the information is accurate. Where an assumption has been made, we have not made any independent investigations with respect to the matters the subject of that assumption. We are not aware of any reason why any of the assumptions are incorrect.

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GDP DOCUMENT CONTROL

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Approval for Issue

Rev. No.	Name	Position	Signature	Date
1.	Mitchell Gassman	Civil Project Engineer RPEQ 16939		12 December 2024

Final Distribution

FPI Queensland Pty. Ltd. (Client)	1 electronic copy
City of Gold Coast Council (Assessment Manager)	1 electronic copy
GDP File	1 electronic copy

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1.0 INTRODUCTION

Gassman Development Perspectives (GDP) has been engaged by FPI Queensland Pty Ltd (Applicant) to prepare an Engineering Services Report over land situated at 2 Highlands Street, Stapylton (Lot 204 on SP316171) within Stage 2A of the Vantage Yatala industrial development.

This report has been prepared for submission to City of Gold Coast Council (Council) as part of an Application for a Development Permit for Material Change of Use - Warehouse and an Ancillary Office.

The purpose of this report is to supply information relating specifically to Civil Engineering infrastructure, services and issues over the subject lot and how the proposed warehouse facility within Lot 204 can be managed through the use of existing civil services constructed as part of Stage 2A of the Vantage Yatala industrial estate.

2.0 SITE DESCRIPTION

2.1 SITE LOCATION

The subject site is located within the City of Gold Coast Council's (Council) local government boundaries, in Council's "Future Low Impact Industry" and "Future Medium Impact Industry" zone precinct. The subject site is bounded by Stage 1 (Homestead Drive) of the Vantage development to the north-west, Christensen Road and existing industrial uses to the west and Vantage Stage 2A (Highlands Street) to the south (refer to **Figure 2.1**).



Figure 2.1: Site Locality Plan, Source: QLD Globe (December 2024)

2.2 LAND ENCUMBRANCES

The subject site contains one easement intersecting Lot 204. It is an approved stormwater easement running partially along the western and northern boundaries of Lot 204 (as approved under MIN/2022/245) which collects and conveys an upstream stormwater catchment from the west of the lot through to Homestead Drive. The proposed development does not seek to delete or alter this easement.

2.3 EXISTING LAND USES

The subject land is currently vacant with earthworks having been completed as part of the ROL-associated development works.

2.4 TOPOGRAPHY

The overall subject site has undergone significant earthworks to provide future industrial pads on the subject site within the initial stages of the development.

2.5 EXISTING VEGETATION

The subject site is clear of vegetation following clearing completed under Council approvals OPW201800486 and OPW201801219.

2.6 CONTAMINATED LAND

The subject site is not known to be contaminated.

3.0 EARTHWORKS

Due to the natural topography of the subject site (refer **Appendix B**) major bulk earthworks have been undertaken as part of delivering Stage 2 of the Vantage Yatala development (Council Ref: MIN/2022/245) to provide a generally flat pad suitable for the intended industrial use over Lot 204 at RL20.1m AHD.

The warehouse facility proposed over Lot 204 triggers the need for a further earthwork and retaining walls design over and above the currently flat earthworks pad to address the land use requirements and suitably grade access, car parking and hardstand provisions for the facility. A copy of this detailed earthworks and retaining strategy is contained within **Appendix C**.

4.0 ROADWORKS AND ACCESS

Lot 204 will gain access via two (2) locations being the existing approved road network through Stage 1 (Homestead Drive) of the development which links the subject site to the State-controlled Stapylton Jacobs Well Road via a signalised intersection along with a secondary connection to the local road network (Christensen Road) via Highlands Street on the southern boundary of the subject lot. Due to Vantage Yatala's proximity to Exit 38 of the M1 Motorway the design and construction of the Christensen Road external intersection has included access provisions for A-Double vehicular movements into the development.

In accordance with the superseded planning scheme approval in place over the subject site, the internal road network of Vantage Yatala is to be constructed in accordance with the typical cross section shown on Council standard drawing 05-02-004 for an Industrial Collector Street (refer **Figure 4.1** below). It is noted this road reserve configuration has been applied to internal roads that would typically be classed as "Industrial Access Streets" to maintain greater access and manoeuvrability throughout the proposed development. In line with the design intent of the external intersection, the radii of kerb return throughout the estate have also been designed to accommodate A-Double vehicular movements.

Lot 204 will utilise its frontages to Christensen Road, Highlands Street and Homestead Drive for a combination of light and heavy duty access crossovers to service the facility ensuring all vehicular movements to and from the site are in a forward gear.

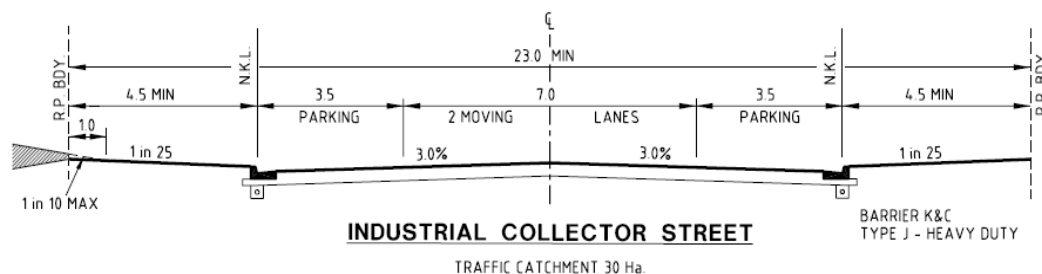


Figure 4.1: Proposed Internal Roads Cross Section, Source: CoGC Std Dwg 05-02-004

5.0 INFRASTRUCTURE SERVICES

5.1 SEWERAGE

A sewer property connection for Lot 204 has been constructed under Operational Works Approval (Council Ref: MIN/2023/161, Decision Notice dated 13 September 2023) from CoGC as part of delivery of Vantage Stage 2A. This sewer property connection is located off Homestead Drive shown on the Concept Civil Servicing Strategy Plan contained within **Appendix D** along with in the exert from Council's stamp-approved OPW plan in **Figure 5.1** below. Both proposed tenancies will utilise the Lot 204 sewer connection location.

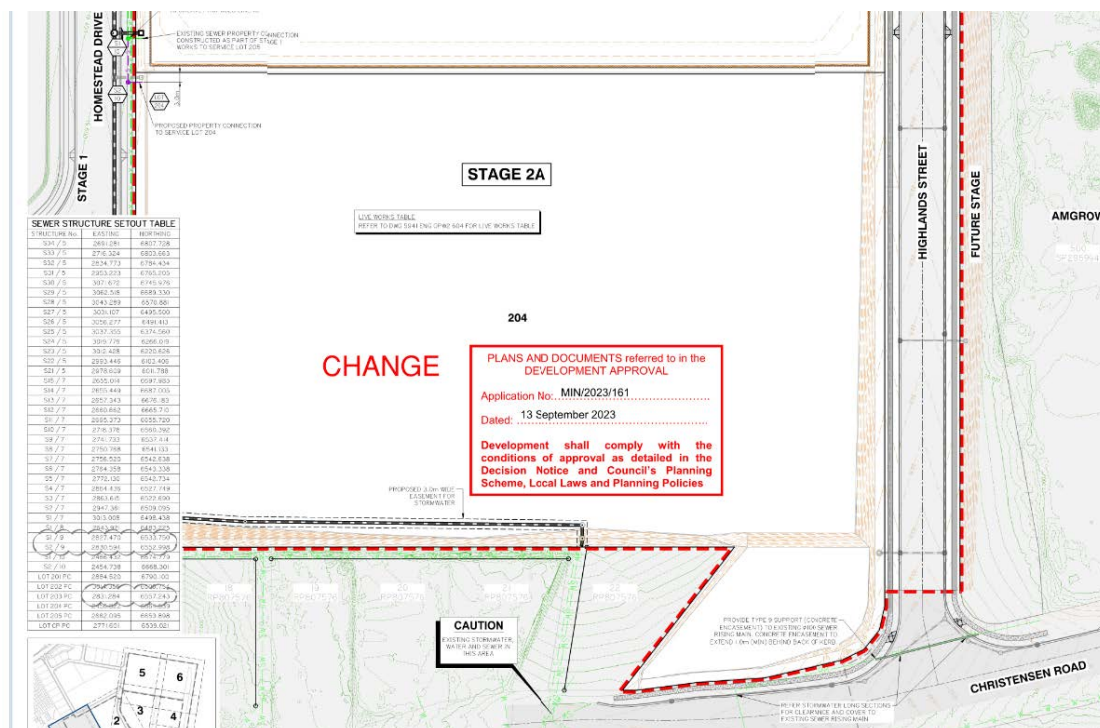


Figure 5.1: Lot 204 Sewer Property Connection Location

The proposed warehouse is consistent with the land use assumptions made in the overall network planning for the development and as such the OPW-approved gravity network for Stage 2 has sufficient capacity to accommodate the site use.

5.2 WATER SUPPLY

A connection to Council's potable water network is readily available to facilitate development over Lot 204 with existing live 150mm diameter DICL water mains running along the subject lot's frontage with both Homestead Drive and Highlands Street. The location of these potable water mains are shown within the Concept Civil Servicing Strategy Plan contained within **Appendix D** of this report along with in the exert from Council's stamp-approved OPW plan in **Figure 5.2** below.

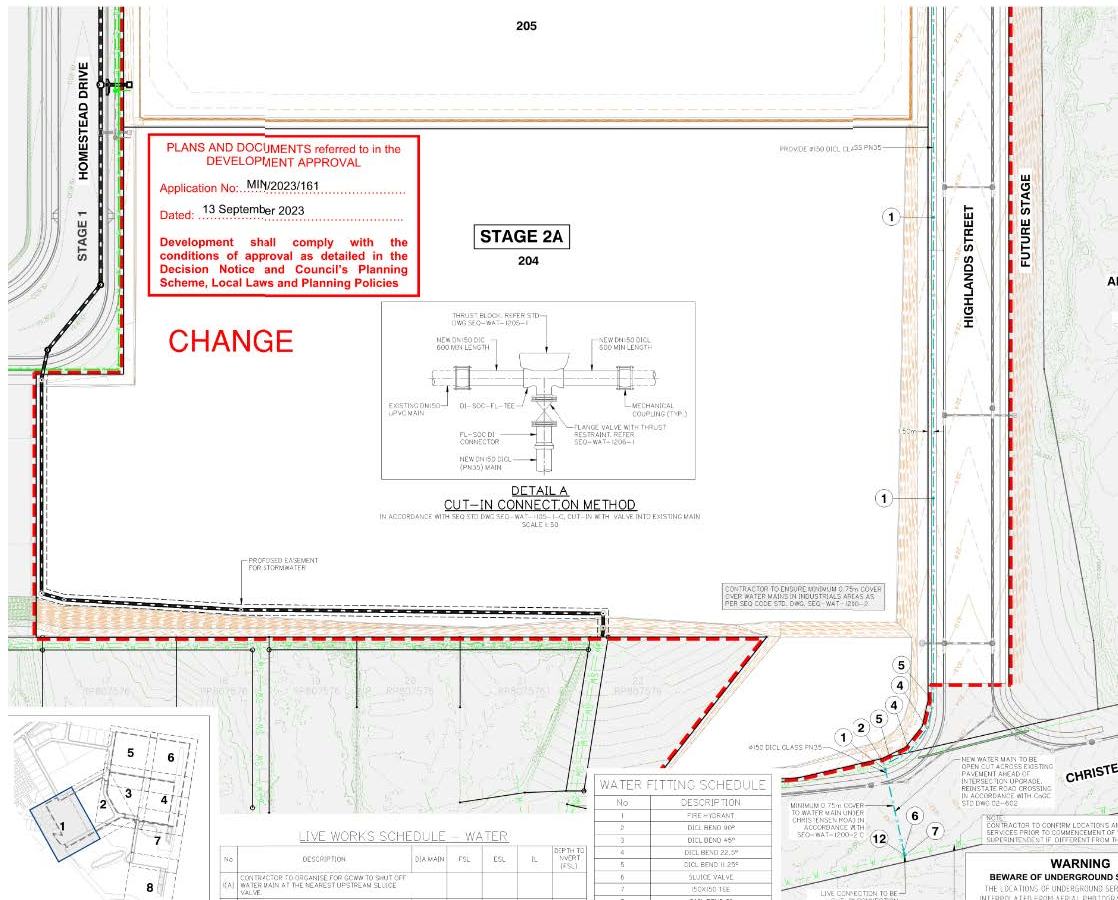


Figure 5.2: Lot 204 and Potable Water Main locations for connection

GDP have previously completed and had approved by Council a detailed Water Network Analysis as part of the original Preliminary Approval conditions-compliance process in accordance with Council's requirements to confirm minimum service supply and fire demand can be met for the proposed development.

Both proposed tenancies will utilise the Lot 204 potable water connection location with a master meter assembly to be installed and individual tenancy sub-metering to be installed as part of future plumbing and drainage works.

5.3 ELECTRICITY AND TELECOMMUNICATIONS

Stages 1 and 2 of the Vantage industrial development has underground reticulated electrical and telecommunications (NBN) networks constructed by the relevant service authorities. The adequacy of this infrastructure in its current form along with the necessity for any augmentation or upgrades to cater for the proposed use will be confirmed through the detailed design process by the appointed electrical consultant.

6.0 SITE BASED STORMWATER MANAGEMENT

6.1 STORMWATER CONVEYANCE

A private stormwater drainage network will be designed within the Lot 204 extent to ensure the proposed warehouse facility and associated hardstand areas discharge to the OPW-approved (Council-ref: OPW/2021/1255 and MIN/2023/161) Legal Points of Discharge (LPoD) for Lot 204 along Homestead Drive and Highlands Street. A schematic of how the proposed development will utilise the approved LPoDs is contained within **Appendix D** with the catchment allocation to the respective LPoDs consistent with the overarching Council-approved SWMP for Vantage Stage 2 being Site Based Stormwater Management Plan – Vantage Yatala – Stage 2, Development Application for Reconfiguring a Lot prepared by Gassman Development Perspectives dated February 2023 (Version 6).

6.2 STORMWATER QUANTITY

A Site Based Stormwater Management Plan has been prepared by Gassman Development Perspectives and approved by CoGC for Stage 2 of the Vantage Yatala development (Version 6, dated February 2023) as part of MIN/2023/142 that demonstrates that attenuation measures are able to be incorporated into the proposed development to ensure there is no adverse impacts to downstream properties, waterways or infrastructure as a result of an increase in peak stormwater flow rates discharging from the subject site upon development.

This is achieved through the conceptual design of appropriately sized detention basins that comply with City of Gold Coast Council's Land Development Guidelines along with the Queensland Urban Drainage Manual (QUDM).

The proposed development over Lot 204 is generally consistent with the site cover assumptions made as part of the overarching approved SWMP and as such no lot-based measures are required over and above connection to the estate-based stormwater drainage network which discharges to the estate-based combined bioretention and detention basin.

6.2 STORMWATER QUALITY

A suitable stormwater treatment train is to be implemented as part of the construction of Vantage Stage 2 to ensure the servicing of the proposed industrial lots, surrounding public road reserves and common property.

A site based stormwater management plan for the subject site outlining how all necessary steps to ensure that the quality of stormwater discharging from the subject site meets the necessary standards to comply with City of Gold Coast Council's Water Sensitive Urban Design (WSUD) requirements, Queensland Urban Drainage Manual (QUDM) and the performance objectives of the Queensland State Planning Policy (SPP) has been prepared by Gassman Development Perspectives and lodged under separate cover for Compliance Assessment by Council.

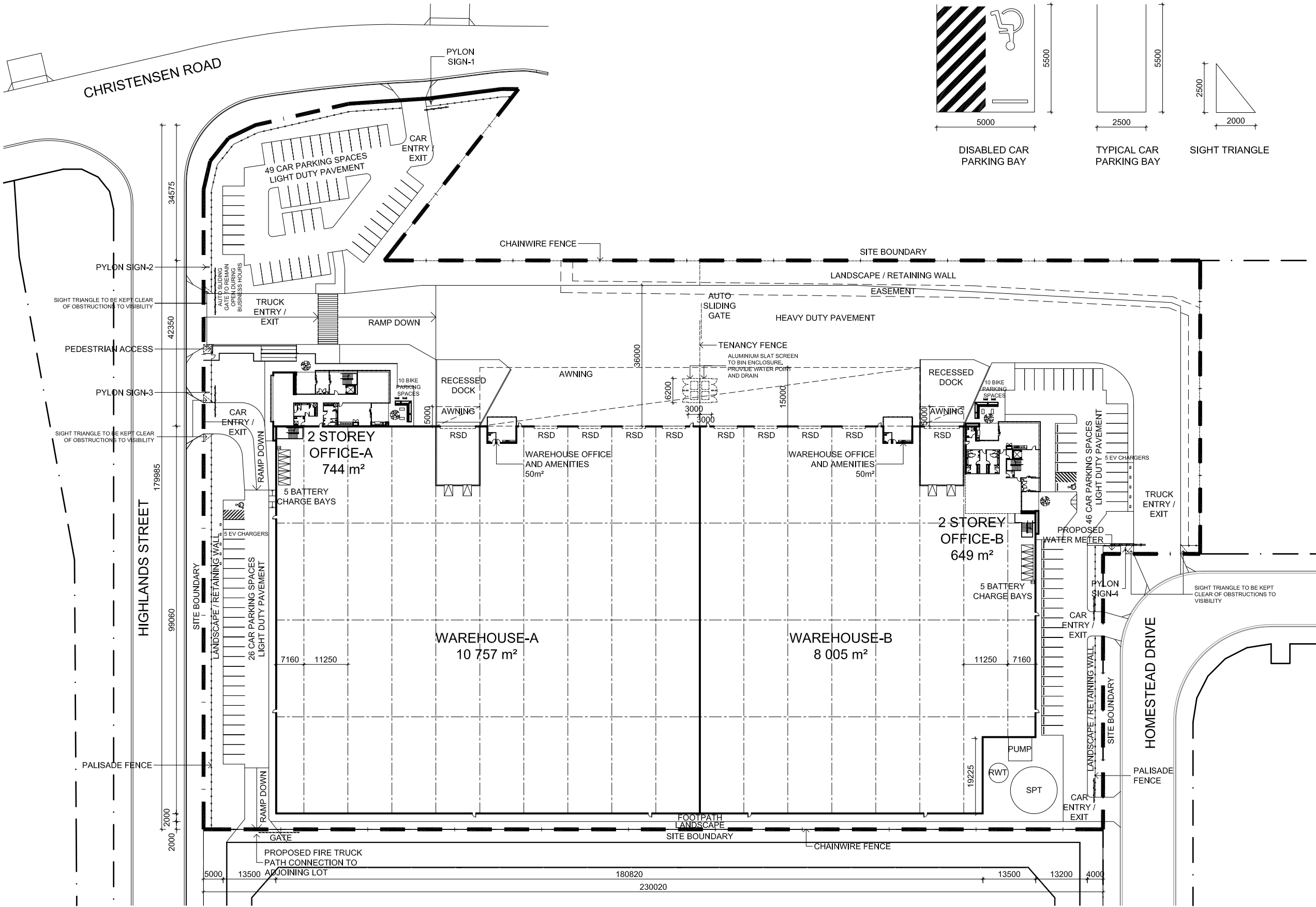
The proposed development over Lot 204 is generally consistent with the site cover assumptions made as part of the overarching approved SWMP and as such no lot-based measures are required over and above connection to the estate-based stormwater drainage network which discharges to the estate-based combined bioretention and detention basin.

7.0 CONCLUSION

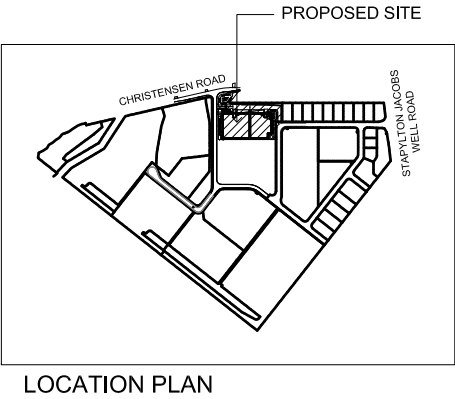
The above reporting demonstrates that proposed warehouse development can be undertaken through the construction of Civil Engineering infrastructure and services that meet the requirements of City of Gold Coast City Council's Land Development Guidelines and associated Australian Standards.

Appendix A – Proposed Site Plan

REV	DESCRIPTION	DATE
A	ISSUE FOR DA	06.12.24



DEVELOPMENT SUMMARY	
SITE AREA	37662 m²
WAREHOUSE-A Including Warehouse Office	10757 m²
2 STOREY OFFICE-A	744 m²
WAREHOUSE-B Including Warehouse Office	8005 m²
2 STOREY OFFICE-B	649 m²
TOTAL BUILDING AREA	20155 m²
CAR PARKING PROVIDED	121
AWNING	1800 m²
HEAVY DUTY PAVEMENT	7215 m²
LIGHT DUTY PAVEMENT	4086 m²
SITE EFFICIENCY	53.5 %
SITE COVERAGE (Ground Floor Building + Awning / Site Area)	56.4 %



FOR DEVELOPMENT APPLICATION

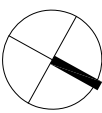


FRASERS PROPERTY INDUSTRIAL
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WEST END, QLD 4101
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PROPOSED INDUSTRIAL DEVELOPMENT
LOT-204 'VANTAGE YATALA' HIGHLANDS STREET,
STAPYLTON, QUEENSLAND

SITE PLAN



JOB	DATE	
Q23-006A-DA-002	06.12.24	
SCALE	DRN.	REV.
1:500 @ A1	MS	A

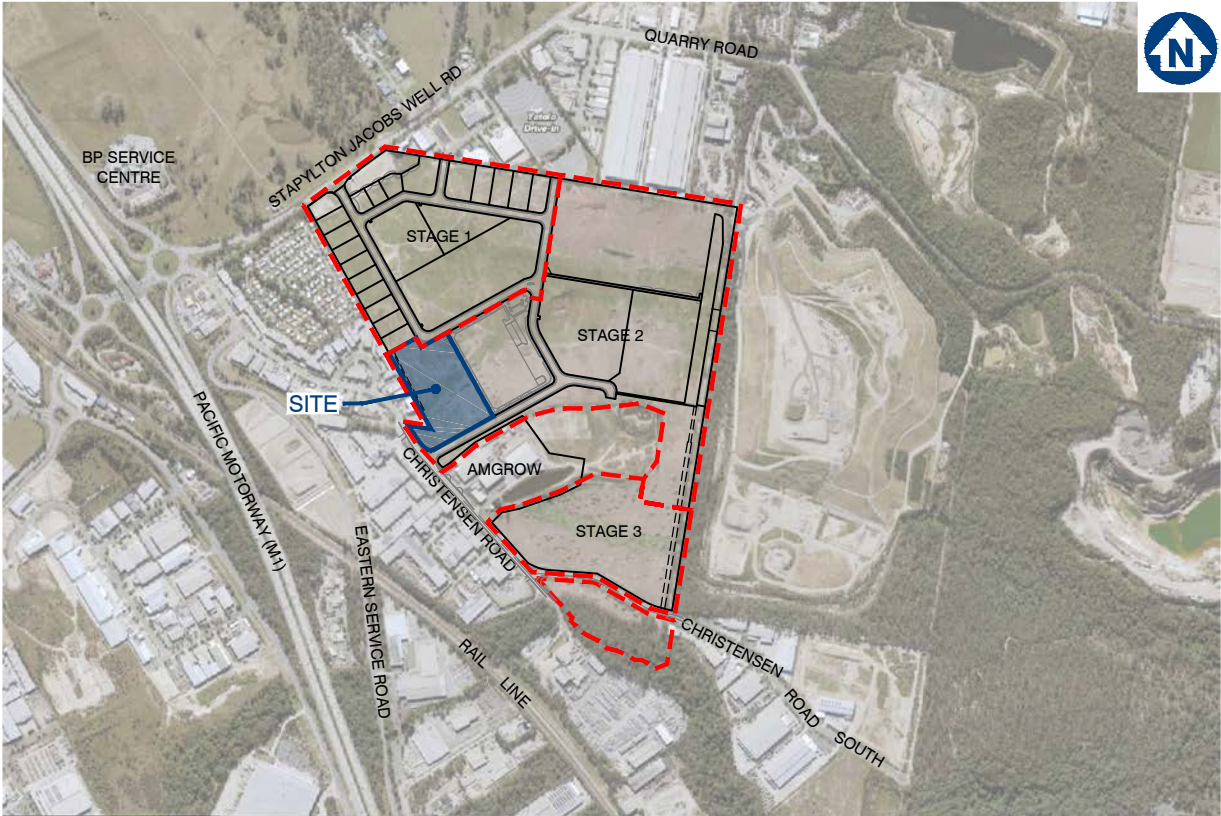
Appendix B – Site Survey



Appendix C – Lot 204 Bulk Earthworks Strategy Plans

OPERATIONAL WORKS APPLICATION FOR CHANGE TO GROUND LEVEL - LOT 204 DUAL TENANCY

DRAWING LIST		
DRAWING NO	REVISION	TITLE
6172 ENG BE2 001	A	DRAWING INDEX AND LOCALITY PLAN
6172 ENG BE2 002	A	GENERAL NOTES SHEET 1 OF 2
6172 ENG BE2 003	A	GENERAL NOTES SHEET 2 OF 2
6172 ENG BE2 004	A	DRAWING LEGENDS
6172 ENG BE2 010	A	EXISTING LAYOUT PLAN
6172 ENG BE2 020	A	SEDIMENT AND EROSION CONTROL LAYOUT PLAN
6172 ENG BE2 021	A	SEDIMENT AND EROSION CONTROL NOTES AND DETAILS
6172 ENG BE2 050	A	BULK EARTHWORKS LAYOUT PLAN
6172 ENG BE2 100	A	FINISHED SURFACE LAYOUT PLAN
6172 ENG BE2 150	A	FINISHED SURFACE CROSS SECTIONS SHEET 1 OF 2
6172 ENG BE2 151	A	FINISHED SURFACE CROSS SECTIONS SHEET 1 OF 2
6172 ENG BE2 200	A	RETAINING WALL LAYOUT PLAN
6172 ENG BE2 201	A	RETAINING WALL ELEVATIONS AND SETOUT TABLES
6172 ENG BE2 202	A	RETAINING WALL TYPICAL DETAILS



LOCALITY PLAN
NOT TO SCALE

CLIENT
FPI QUEENSLAND
PTY. LTD.

SITE ADDRESS
2 HIGHLANDS STREET,
STAPYLTON, QLD 4207

ISSUED FOR APPROVAL
DWG NO.6172 ENG BE2 001 - A

DECEMBER 2024

GENERAL NOTES

1. **CONTRACT DOCUMENTATION**
ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE CONTRACT SPECIFICATION AND CoGC STANDARD DRAWINGS AND SPECIFICATIONS.
2. **DATUM**
LEVELS SHOWN ON THE PLANS ARE A.H.D.
3. **SURVEY SETOUT**
THE SURVEY SET OUT INFORMATION TO ALLOW THE CONTRACTOR TO ACCURATELY SET OUT THE WORKS HAS BEEN ESTABLISHED ON SITE BY THE PRINCIPAL'S SURVEYOR. THE CONTRACTOR IS NOT TO SCALE FROM THESE PLANS AS A MEANS OF OBTAINING SETOUT INFORMATION.
4. **EXISTING SURVEY CONTROL STATIONS**
IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT EXISTING SURVEY CONTROL STATIONS ARE NOT DISTURBED OR DAMAGED BY CONSTRUCTION ACTIVITIES. SHOULD THE CONTRACTOR IDENTIFY ANY CONFLICT BETWEEN EXISTING SURVEY CONTROL AND THE REQUIRED CONTRUCTION ACTIVITIES THE SUPERINTENDENT IS TO BE NOTIFIED IMMEDIATELY.
5. **EXISTING SERVICES**
THE LOCATION OF EXISTING SERVICES WHERE SHOWN ON THE PLANS ARE INDICATIVE ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE RELEVANT SERVICE AUTHORITIES TO ASCERTAIN THE EXACT LOCATION OF ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF WORKS AND TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO THE EXISTING SERVICES.
6. **SITE ACCESS**
THE CONTRACTOR SHALL ONLY GAIN ACCESS TO THE SITE VIA ACCESS LOCATIONS APPROVED BY THE SUPERINTENDENT. FREEDOM OF ACCESS TO OTHER WORK AREAS ON THE SITE SHALL BE MAINTAINED AT ALL TIMES.
7. **PROVISION FOR TRAFFIC**
PROVISION FOR TRAFFIC ON LOCAL ROADS SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND CoGC COUNCIL REQUIREMENTS.
8. **WORK EXTENT**
THE CONTRACTOR IS TO RESTRICT ACTIVITIES TO THOSE AREAS DESIGNATED AS WORKS AREAS UNDER THE CONTRACT. AT NO TIME IS THE CONTRACTOR TO ENTER ADJOINING PROPERTIES OR CONTRACT AREAS WITHOUT THE WRITTEN AUTHORISATION OF THE SUPERINTENDENT.
9. **TESTING**
ALL TESTING IS TO BE CARRIED OUT BY AN APPROVED N.A.T.A TESTING AUTHORITY IN ACCORDANCE WITH THE PROJECT SPECIFICATION AND REQUIREMENTS OF CoGC COUNCIL.
10. **"AS CONSTRUCTED" SURVEY**
"AS CONSTRUCTED" SURVEY SHALL BE CARRIED OUT BY THE PRINCIPAL'S SURVEYOR AS WORK PROCEEDS. THE CONTRACTOR IS TO PROVIDE ADEQUATE NOTICE TO THE PRINCIPAL'S SURVEYOR ON WHEN THIS IS REQUIRED TO ENSURE COMPLIANCE WITH THE REQUIREMENTS OF CoGC COUNCIL.
11. **MAINTENANCE OF SITE CONDITION**
AT THE COMPLETION OF WORKS THE SITE IS TO BE LEFT IN A CLEAN AND TIDY CONDITIO

8. **DAMS AND PONDS**
WHERE POSSIBLE, WATER FROM DAMS AND PONDS SHALL BE MAINTAINED AND UTILISED FOR CONSTRUCTION PURPOSES AND DUST SUPPRESSION. DAMS AND PONDS NOT TO BE RETAINED SHALL BE DEWATERED, CLEARED OF ANY FOREIGN MATTER AND ORGANIC MATERIAL WITH THIS MATERIAL TO BE REMOVED OFF SITE.
9. **RETAINING STRUCTURES**
THE DESIGN AND STRUCTURAL CERTIFICATION OF RETAINING STRUCTURES SHALL BE UNDERTAKEN BY THE CONTRACTOR'S STRUCTURAL ENGINEER (RPEQ) IN CONSULTATION WITH THE PROJECT'S CIVIL ENGINEER AND LANDSCAPE CONSULTANT. THE CONTRACTOR IS RESPONSIBLE FOR THE SUBMISSION AND APPROVAL COORDINATION OF THE ASSOCIATED DRAWINGS AND CERTIFICATION TO GCCC. A COPY OF THIS SUBMISSION IS TO BE PROVIDED TO THE SUPERINTENDENT.
10. **TOPSOIL REPLACEMENT**
ALL BATTERS AND ALLOTMENT CUT & FILL AREAS SHALL BE TOP SOILED FROM ONSITE STOCKPILES. IF DIRECTED BY THE SUPERINTENDENT THE TOPSOIL SHALL BE SCREENED PRIOR TO PLACING. THE CONTRACTOR SHALL ALLOW IN THEIR RATE FOR SCREENING AND THE DISPOSAL OF REJECT MATERIAL TO TIP OFFSITE INCLUDING ALL FEES. THE CONTRACTOR MUST ENSURE THAT THE STRIPPING SHALL BE UNDERTAKEN IN SUCH A MANNER AS TO AVOID CONTAMINATION BY OVER CUTTING. IF TOPSOIL IS CONTAMINATED BY OVER CUTTING AND DETERMINED NOT SUITABLE FOR REUSE BY THE SUPERINTENDENT, THE CONTRACTOR SHALL BEAR THE COST OF REMOVAL FROM SITE OF ALL CONTAMINATED TOPSOIL AND THE COST TO SUPPLY AND IMPORT SUITABLE TOPSOIL FOR RE–SPREADING.
11. **GRASSING / SEEDING**
ALL CUT & FILL AREAS AND DISTURBED AREAS SHALL BE GRASSED OR SEED

SEDIMENT AND EROSION

1. THE OBJECTIVES OF THE EROSION AND SEDIMENT CONTROL PROGRAM ARE:

a. ALLOW STORMWATER TO PASS THROUGH THE SITE IN A CONTROLLED MANNER AT NON–EROSIVE FLOW VELOCITIES.

b. MINIMISE SOIL EROSION FROM WATER AND WIND

c. MINIMISE ADVERSE EFFECTS OF SEDIMENT RUNOFF.

d. MINIMISE OR PREVENT ENVIRONMENTAL HARM ASSOCIATED WITH DISCHARGE FROM THE CONSTRUCTED SITE.

e. ENSURE THAT THE VALUE AND USE OF RESIDENTIAL AND INDUSTRIAL PROPERTIES ADJACENT TO THE DEVELOPMENT ARE NOT DIMINISHED AS A RESULT OF THE MIGRATION OF SEDIMENT FROM THE DEVELOPMENT.
2. THE EROSION AND SEDIMENT CONTROL PROGRAM SHALL COMPLY WITH THE ENVIRONMENTAL BEST ENGINEERING GUIDELINES FOR QUEENSLAND CONSTRUCTION SITES. THE CURRENT INSTITUTION OF ENGINEERS AUSTRALIA AND LOCAL AUTHORITY GUIDELINES. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO CONTROL EROSION AND DOWNSTREAM SEDIMENTATION DURING ALL STAGES OF CONSTRUCTIONS INCLUDING THE MAINTENANCE PERIOD. NOTWITHSTANDING THE FINISHED EARTHWORK DESIGN SHOWN ON THE DRAWINGS THE CONTRACTOR IS RESPONSIBLE TO IMPLEMENT ADDITIONAL SEDIMENT CONTROL MEASURES AND DEVICES USING BEST PRACTICES AS NECESSARY TO MINIMISE THE QUANTITY LEAVING THE SITE DURING CONSTRUCTION AND UPON COMPLETION OF EARTHWORKS.
3. THE CONTRACTOR IS TO FOLLOW CONSTRUCTION PHASE AS OUTLINED IN THE CONSTRUCTION SEQUENCE/SILT MANAGEMENT PROGRAM. ALL SEDIMENT CONTROL DEVICES SHALL BE MONITORED, CLEANED AND/OR REPLACED WHENEVER THE ACCUMULATED SEDIMENT REDUCES THE CAPACITY BY 50%. ALL PERIMETER BANK/SWALES SHALL HAVE UNINTERRUPTED POSITIVE GRADE TO AN OUTLET. AT ALL TIMES THE CONTRACTOR SHALL MONITOR THE PREVAILING WEATHER CONDITIONS AND PROTECT ANY DOWNSTREAM CONSTRUCTION AND GULLY INLETS. INLETS TO HAVE SILT PROTECTION IN ACCORDANCE WITH KERB INLET PROTECTION DETAIL AT LOCATIONS SHOWN OR AS INDICATED BY THE ENGINEER.
4. PRIOR TO THE COMMENCEMENT OF EARTHWORKS, THE CONTRACTOR IS TO CARRY OUT SOIL TESTING (IF REQUIRED BY SUPERINTENDENT) TO DETERMINE THE DISPERSIVE CHARACTERISTICS OF THE SOIL AND RESULTS TO BE GIVEN TO THE ENGINEERS SO THE FINALIZATION OF THE EROSION AND SEDIMENT CONTROL PLAN CAN BE COMPLETE.
5. TOPSOIL SHALL BE STRIPPED AND STOCKPILED IN LOCATIONS AGREED WITH THE SUPERINTENDENT. CLEARING OF SITE AND STOCKPILE AREAS TO BE AS DIRECTED BY THE SUPERVISING ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROLLING DUST AT ALL TIMES INCLUDING WEEKENDS AND PUBLIC HOLIDAYS.
6. SUITABLE ACCESS SHALL BE PROVIDED TO ALLOW MAINTENANCE OF ALL SEDIMENT CONTROL DEVICES (IT IS TO BE NOTED THAT CLEARING SHALL ONLY OCCUR IN AREAS WHERE THERE IS NO OTHER ALTERNATIVE TO GAIN ACCESS TO THE LOCATION OF THE SEDIMENT CONTROL DEVICES). APPROVAL FOR REMOVAL OF PROTECTED SITE VEGETATION MUST BE OBTAINED PRIOR TO CLEARING.
7. ROCK BUNDS TO BE PLACED AROUND ALL HEADWALLS DURING CONSTRUCTION.
8. 0.8m TURF IS TO BE PLACED BEHIND ON ALL BATTERS WITHIN PRIVATE OPEN SPACE STEEPER THAN 1:4 UNLESS OTHERWISE NOTED. THE EXTENT OF GRASSING SHALL BE DETERMINED BY THE ENGINEER AND SHALL BE SEED

CONSTRUCTION SEQUENCE/SILT MANAGEMENT PROGRAM

1. **PRE START**

a. ERECT SITE SIGNAGE. CONSTRUCT ENTRY AND EXIT POINT AS INDICATED CONSTRUCT VEHICLE WASH–DOWN AREA AND ASSOCIATED SILT MANAGEMENT DEVICES.

b. CONSTRUCT SITE OFFICE AND STORAGE COMPOUND AREA

c. ERECT SILT FENCE AT LOW POINTS OF THE SITE AS DEMONSTRATED

d. ERECT TEMPORARY TREE PROTECTION FENCING FOR VEGETATION TO BE RETAINED IN ACCORDANCE WITH AN OPW (TREE CLEARING) APPROVAL OR IN ACCORDANCE WITH AS4970 PROTECTION OF TREES ON DEVELOPMENT SITE.

e. CONSTRUCT ROCK CHECK DAMS AND SILT FENCE DOWN STREAM OF BASIN.

f. CONSTRUCT BASIN TO FULL DEPTH.

g. CONSTRUCT BALANCE OF BASIN IN CONJUNCTION WITH CLEARING AND BULK EARTHWORKS OPERATIONS.

h. BASIN TO BE UTILISED AS A TEMPORARY SEDIMENT BASIN. DO NOT FILL IN FILTRATION MATERIAL UNTIL CONSTRUCTION OF DEVELOPMENT IS COMPLETE.
2. **CLEARING AND BULK EARTHWORKS**
THERE SHALL BE NO CLEARING OF PROTECTED SITE VEGETATION WITHOUT AN APPROVED TREE CLEARING PLAN WHICH SHALL BE IN ACCORDANCE WITH AS4970. SILT FENCE, SAND BAGS AND EARTH RILLS WITHIN ROADS TO BE ERECTED AS INDICATED OR REQUIRED DURING CLEARING & EARTHWORKS. SUPERINTENDENT TO CONFIRM THE EXTENT OF CLEARING PRIOR TO COMMENCEMENT OF WORKS.
3. **CONSTRUCTION OF SEWER/ROOFWATER/ STORMWATER/SERVICES**
EXCAVATED MATERIAL TO BE PLACED ON HIGH SIDE OF TRENCH AND TO PROTECT PIPE WORK AND DIRECT SURFACE MATERIAL AWAY FROM EXCAVATIONS. TOPSOIL AND GRASS SEED AREAS IN ALLOTMENTS IMMEDIATELY AFTER COMPLETING THE SEWER AND ROOFWATER DRAINAGE CONSTRUCTION. DEPRESS GROUND AROUND TEMPORARY FIELD INLETS TO CREATE SILT POND.
4. **CONSTRUCTION – SEDIMENT BASINS**
SEDIMENT BASIN TO BE CONSTRUCTED TO THE EARTHWORK PROFILES SHOWN. STORMWATER OUTLET PIPES TO BE TEMPORARY BLOCKED OFF UNTIL DECOMMISSIONING OF SEDIMENT BASIN (SUBSEQUENT TO CONSTRUCTION OF ALL STAGES). PLACE SPOIL FROM SEDIMENT BASIN INTO ALLOCATED AREAS AS ENGINEERED FILL IN ACCORDANCE WITH THE STAGING ORDER. SEDIMENT BASIN SHALL ONLY BE REMOVED AFTER APPROVAL BY SUPERINTENDENT AND COUNCIL.
5. **CONSTRUCTION – STOCKPILING**
TEMPORARY SILT FENCE TO BE ERECTED 5m FROM TOE OF BATTER ON LOW SIDE OF STOCKPILING. STOCKPILE SITE TO BE CLEARED OF ADJACENT PROPERTY BOUNDARIES SO AS NOT TO CAUSE NUISANCE TO ADJOINING PROPERTIES. NO STOCKPILES ARE TO BE LOCATED WITHIN THE DRIP ZONE OR STRUCTURAL ROOT ZONE OF ANY RETAINED VEGETATION.
6. **CONSTRUCTION – ROADWORKS**
SILT FENCES TO ALLOTMENTS TO BE ERECTED. KERB INLET PROTECTION TO BE PROVIDED TO ALL GULLIES.
7. **CONSTRUCTION – ALLOTMENTS**
TOPSOIL AND SEED ALLOTMENTS. SILT FENCES TO ALLOTMENTS TO BE RE–ERECTED. COVERS TO GULLY GRATES TO BE REMOVED IF THE SUPERINTENDENT INDICATE THE GRASS STRIKE IS SUFFICIENT (80% WITHIN 30 CALENDAR DAYS OF FINAL ALLOTMENT RIMMING).
8. **POST CONSTRUCTION – ALLOTMENTS**
TOPSOIL AND GRASS SEED ALL ALLOTMENTS. COVERS TO GULLY GRATES TO BE REMOVED IF THE SUPERINTENDENT INDICATES THE GRASS STRIKE IS SUFFICIENT (80% WITHIN 30 CALENDAR DAYS OF FINAL ALLOTMENT TRIMMING).
9. **POST CONSTRUCTION – BASIN**
BASIN TO CONTINUE ACTING AS SEDIMENT BASIN UNTIL COMPLETION OF ALL STAGES.
10. **POST CONSTRUCTION – ROAD RESERVES**
TOPSOIL AND TURFING IS TO BE PROVIDED BEHIND KERB.
11. **MAINTENANCE (PRE TO POST CONSTRUCTION)**
THE SILT FENCES ARE TO BE INSPECTED WEEKLY. ANY REPAIRS REQUIRED ARE TO BE EFFECTED IMMEDIATELY. SILT AFTER RAIN IS TO BE CLEANED FROM STREETS AND ALLOTMENTS IMMEDIATELY AND CORRECTIVE ACTION TAKEN TO AVOID A RE–OCCURRENCE OF THE FAILURE.
12. **BASIN CONSTRUCTION**
PRIOR TO COMMENCING CONSTRUCTION OF THE DETENTION BASIN THE DIVERSION OF SURFACE WATER FROM THE PROPOSED WORK AREAS, USING MEASURES SUCH AS OPEN DRAINS/SUMPS, ARE REQUIRED TO AID IN SITE DE–WATERING. BASIN TO CONTINUE ACTING AS SEDIMENT BASIN UNTIL 85% OF CATCHMENT CONSTRUCTION IS COMPLETE. THE CLAY FILLING FOR THE BASIN WALLS SHALL BE PLACED IN HORIZONTAL LAYERS OF 200mm THICKNESS AND COMPACTED TO DENSITY RATIO WITHIN THE RANGE 98%–102% STANDARD COMPACTION (AS 1289.5.1.1). PLACEMENT MOISTURE CONTENT SHOULD BE WITHIN THE RANGE OMC –1% TO OMC –2% (WHERE OMC = OPTIMUM MOISTURE CONTENT FOR STANDARD COMPACTION). CONTRACTOR TO PROVIDE SAFETY FENCING TO BASIN DURING CONSTRUCTION AND APPROPRIATE SIGNAGE (PERMANENT OR TEMPORARY).



EARTHWORKS

1. **PRECEDENCE**
EARTHWORKS SPECIFICATION PREPARED BY PROJECT GEOTECHNICAL ENGINEER TO TAKE PRECEDENCE OVER STANDARD COUNCIL EARTHWORKS NOTES.
2. **TOPSOIL STRIPPING**
TOPSOIL SHALL BE STRIPPED ACROSS THE ENTIRE LIMIT OF THE EARTHWORKS CUT AND FILL AREAS AND SHALL BE STOCKPILED IN A LOCATION APPROVED BY THE SUPERINTENDENT. THE EXISTING STRATA IS TO BE TREATED IN ACCORDANCE WITH THE SPECIFICATION PRIOR TO PLACING ANY FILL.
3. **EARTHWORKS LEVELS**
EARTHWORKS LEVELS SHOWN ON THE DRAWING ARE TO FINISHED SURFACE LEVELS AND INCLUDE 100mm OF TOPSOIL. THE CONTRACTOR SHALL VERIFY BENCH MARK LEVELS AND ADVISE THE SUPERINTENDENT OF ANY DISCREPANCY BEFORE COMMENCEMENT OF CONSTRUCTION.
4. **UNDESIRABLE MATERIAL**
THE ENTIRE SITE/WORK AREAS SHALL BE CLEARED OF ALL UNDESIRABLE MATTER. THIS SHALL INCLUDE DEAD TIMBER, GRASS, OLD FOUNDATIONS, CONCRETE, MASONRY REMAINS, GARBAGE, DEBRIS AND ALL OTHER OBSTRUCTIONS TO THE WORKS UNLESS NOTED OTHERWISE. HOLES LEFT BY THE REMOVAL OF ANY OF THE ABOVE SHALL BE FILLED WITH APPROVED COMPACTED MATERIAL WITH PROPERTIES AT LEAST SIMILAR TO INSITU SOILS.
5. **COMPACTION STANDARD**
FILL MATERIAL SHALL BE COMPACTED TO THE FOLLOWING STANDARD, WHERE DRY DENSITY RATIO IS DETERMINED IN ACCORDANCE WITH AS 1289 USING STANDARD COMPACTION METHODS.

a. 100% DRY DENSITY RATIO IN COHESIVE MATERIAL OR 80% IN COHESIONLESS MATERIAL FOR ROAD SUBGRADE.

b. 98% DRY DENSITY RATIO IN COHESIVE MATERIAL OR 65% IN COHESIONLESS MATERIAL FOR ALL AREAS OTHER THAN THE ROADWAY AND BUILDING PADS.

c. 98% DRY DENSITY RATIO IN COHESIVE MATERIAL OR 70% IN COHESIONLESS MATERIAL FOR BUILDING PADS.
5. **PAVEMENT DEPTHS**
EARTHWORKS VOLUMES DO NOT INCLUDE DESIGN PAVEMENT DEPTHS AS INDICATED ON THE TYPICAL BULK EARTHWORKS ROAD SECTION.
6. **TESTING**
ALL EARTHWORKS TO BE CARRIED OUT UNDER LEVEL 1 SUPERVISION IN ACCORDANCE WITH AUSTRALIAN STANDARDS AS 3798 UNLESS DIRECTED OTHERWISE BY THE SUPERINTENDENT. ALL COMPACTION TESTING SHALL BE CARRIED OUT BY AN APPROVED N.A.T.A TESTING AUTHORITY.
7. **ROCK**
THE CONTRACTOR IS TO INCLUDE ROCK EXCAVATION AS PART OF THEIR EARTHWORKS RATES UNLESS SCHEDULED OTHERWISE WITHIN THE CONTRACT DOCUMENT.



planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FPI QUEENSLAND
PTY. LTD

Project:

LOT 204 DUAL TENANCY
WAREHOUSE

Site Address:

2 HIGHLANDS STREET,
STAYPLTON QLD, 4207

RPD:

Lot: LOT 204
Plan: SP316171
Local Authority: CITY OF GOLD COAST

Level Datum: AHD
Meridian:
PSM:
RL:

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Drawing Title:

GENERAL NOTES
SHEET 1 OF 2

A	9/12/24	ORIGINAL ISSUE	TGP	MG
Rev	Date	Description	DRN	CHK
DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE			A1 UNREDUCED	
CULVERT AND PIPE SIZES IN MILLIMETRES			A3 REDUCED	

Scale:

PROJECT NORTH POINT	
Project No. 6172	
Designed: TGP	Drafted: TGP
Approved:	MG
RPEQ	16939
Signed:	
Date:	09/12/2024
Drawing No: 6172 ENG BE2 002	Revision A

Client:

FPI QUEENSLAND
PTY. LTD

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LOT 204 DUAL TENANCY
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2 HIGHLANDS STREET,
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GENERAL NOTES.

Drawing Title:

DRAWING LEGENDS

A	9/12/24	ORIGINAL ISSUE	TGP	MG
Rev	Date	Description	DRN	CHK

DIMENSIONS IN METRES EXCEPT WHERE
SHOWN OTHERWISE
CULVERT AND PIPE SIZES IN MILLIMETRES

A1 UNREDUCED

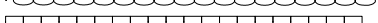
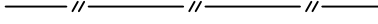
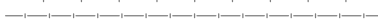
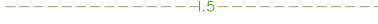
A3 REDUCED

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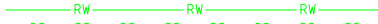
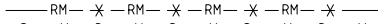
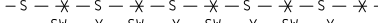
PROJECT NORTH POINT

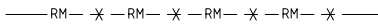
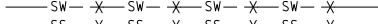
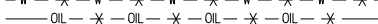
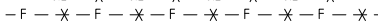
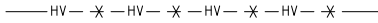
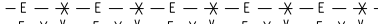
Project No.	6172
Designed: TGP	Drafted: TGP
Approved:	MG
RPEQ	16939
Signed:	
Date:	09/12/2024
Drawing No:	Revision
6172 ENG BE2 004	A

FEATURE LEGEND

	OVERLAND FLOW PATH/SWALE
	CATCH DRAIN (NOT LINED)
	DIVERSION CHANNEL
	TABLE DRAIN
	STREAM INVERT
	CATCH DRAIN (CONCRETE LINED)
	SUBSOIL DRAINAGE
	SAWCUT
	SEDIMENT FENCE
	CHAINWIRE FENCE
	WOODEN FENCE
	BRIFEN WIRE SAFETY BARRIER
	GUARDRAIL (STANDARD)
	RETAINING WALL (PILED)
	RETAINING WALL (WITH FOOTINGS)
	RETAINING WALL
	ROCKBLOCK RETAINING WALL
	TOP OF BATTER / BERM
	NOISE WALL
	EDGE OF VEGETATION
	PROPERTY LINE
	PROPERTY LINE WITH FENCE
	PROPOSED KERB, FOOTPATH
	CONTROL LINE / CENTER OF ROAD
	RAILWAY (MAJOR)
	RAILWAY (MINOR)
	EXISTING PROPERTY LINE
	EXISTING PROPERTY LINE WITH FENCE
	EXISTING KERB, FOOTPATH
	EXISTING EDGE OF BITUMEN
	EXISTING RAILWAY (MAJOR)
	EXISTING RAILWAY (MINOR)
	LIMIT OF WORKS
	LIMIT OF SITE
	CATCHMENT BOUNDARY
	EXISTING CONTOURS
	DESIGN CONTOURS

SERVICES LEGEND

	PROPOSED RISING MAIN
	PROPOSED SEWER
	PROPOSED STORMWATER
	PROPOSED ROOFWATER
	PROPOSED ROOFWATER
	PROPOSED SUBSOIL
	PROPOSED WATER
	PROPOSED RECYCLED WATER
	PROPOSED OIL
	PROPOSED FUEL
	PROPOSED GAS
	PROPOSED PIPELINE
	PROPOSED HIGH VOLTAGE ELECTRICITY
	PROPOSED UNDERGROUND ELECTRICITY
	PROPOSED OVERHEAD ELECTRICITY
	PROPOSED LIGHTING
	PROPOSED TELSTRA
	PROPOSED COMMUNICATIONS
	PROPOSED GAS, ELECT
	PROPOSED GAS, TELSTRA
	PROPOSED ELECT, TELSTRA
	PROPOSED GAS, ELECTRICITY, TELSTRA
	EXISTING RISING MAIN
	EXISTING SEWER
	EXISTING STORMWATER
	EXISTING ROOFWATER
	EXISTING SUBSOIL
	EXISTING WATER
	EXISTING RECYCLED WATER
	EXISTING OIL
	EXISTING FUEL
	EXISTING GAS
	EXISTING PIPELINE
	EXISTING HIGH VOLTAGE ELECTRICITY
	EXISTING UNDERGROUND ELECTRICITY
	EXISTING OVERHEAD ELECTRICITY
	EXISTING LIGHTING
	EXISTING TELSTRA
	EXISTING COMMUNICATIONS
	EXISTING GAS, ELECT
	EXISTING GAS, TELSTRA
	EXISTING ELECT, TELSTRA
	EXISTING GAS, ELECTRICITY, TELSTRA

	DEMOLISH RISING MAIN
	DEMOLISH SEWER
	DEMOLISH STORMWATER
	DEMOLISH SUBSOIL
	DEMOLISH WATER
	DEMOLISH OIL
	DEMOLISH FUEL
	DEMOLISH HIGH VOLTAGE ELECTRICITY
	DEMOLISH UNDERGROUND ELECTRICITY
	DEMOLISH OVERHEAD ELECTRICITY
	DEMOLISH LIGHTING
	DEMOLISH GAS
	DEMOLISH PIPELINE
	DEMOLISH TELSTRA
	DEMOLISH COMMUNICATIONS

SYMBOLS

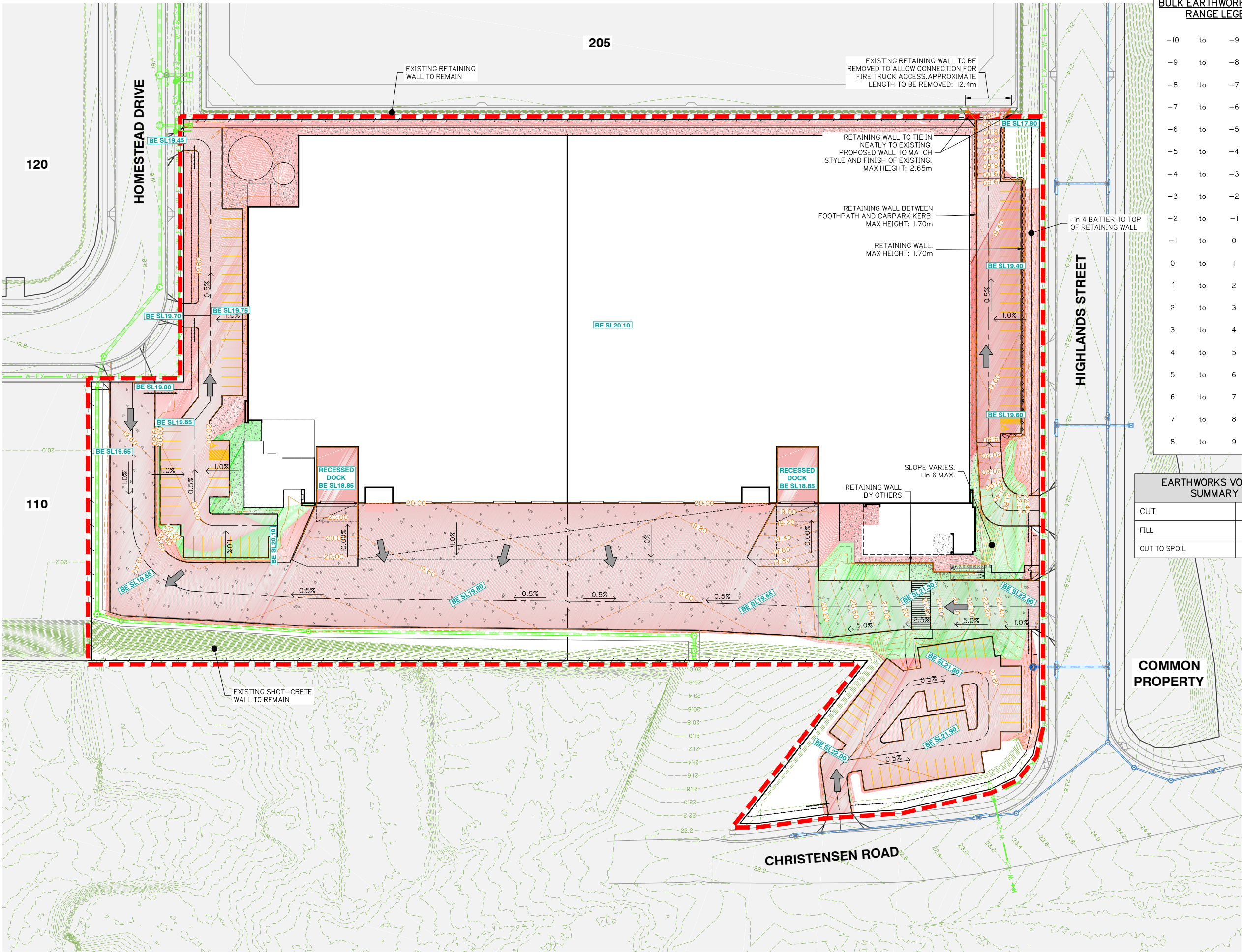
BK(A)	BARRIER KERB (A)
BK(B)	BARRIER KERB (B)
BK(G)	BARRIER KERB (G)
MK(D)	MOUNTABLE KERB (D)
SMK(C)	SEMI MOUNTABLE KERB (C)
ER(E)	EDGE RESTRAINT (E)
KER(F)	KERB EDGE RESTRAINT (F)
RK&C(H)	ROLL TOP KERB & CHANNEL (H)
BK&C(J)	BARRIER KERB & CHANNEL (J)
ERH	KERB EDGE RESTRAINT (HIGH)
ERL	KERB EDGE RESTRAINT (LOW)
CS(K/L)	CHANNEL SECTION (K/L)
PMB	PRECAST MOTOR BED
DD	DISH DRAIN
K&G	KERB AND GUTTER
K&T	KERB AND TOE
KO	KERB ONLY
MK	MOUNTABLE KERB
RK	ROLL KERB
	EXISTING SIGN
	PROPOSED SIGN
	PROPOSED ROAD EDGE GUIDE POST
	EXISTING BIN
	POST BOX
	TELEPHONE BOX
	TELSTRA PIT
	TELSTRA MARKER POST
	WATER METER
	WATER VALVE
	FIRE HYDRANT
	WATER TAP
	WATER HYDRANT
	WATER TEE
	WATER REDUCER
	WATER ENDCAP
	WATER CONNECTION
	WATER CROSSING
	WATER DICL
	SEWER MAINTENANCE HOLE
	SEWER RODDING END
	SEWER BEND
	SEWER MAINTENANCE SHAFT
	SEWER 'T' END
	SEWER SLUICE VALVE
	SEWER PIT

	SEWER PUMP STATION
	TEMPORARY SEWER PUMP STATION
	SEWER / STORMWATER PIT NO/LINE
	SETOUT POINT
	OFFSET PIT WITH GRATE
	IN LINE PIT WITH GRATE
	JUNCTION PIT
	LETTERBOX PIT
	GRATED INLET PIT
	MANHOLE
	GULLY PIT (LIP INLINE) BARRIER KERB - GRADE
	GULLY PIT (LIP INLINE) BARRIER KERB - SAG
	GULLY PIT (LIP INLINE) ROLL TOP KERB - GRADE
	GULLY PIT (LIP INLINE) ROLL TOP KERB - SAG
	GULLY PIT (KERB INLINE) - GRADE
	GULLY PIT (KERB INLINE) - SAG
	INFILTRATION TRENCH
	HEADWALL
	GROSS POLLUTANT TRAP
	STORMWATER CHAMBER

	BUND
	POWER POLE
	POWER POLE WITH LIGHT
	LIGHT POLE
	STAY POLE
	LIGHT POLE WITH EXTENSION
	ELECTRICAL INSPECTION BOX
	ELECTRICAL POLE
	ELECTRICAL TURRET
	TRAFFIC SIGNAL
	MAIN ROADS PIT
	TANGENT POINT
	KERB RETURN NO.
	PRAM RAMP
	GRAVEL ROCK CHECK DAM
	MESH & GRAVEL INLET FILTER
	STORMWATER INLET FILTER
	DIRECTION OF OVERLAND FLOW
	VEHICLE SHAKEDOWN
	GATE
	NOT IN SCOPE OF WORKS
	DEMOLITION
	PROPOSED CONCRETE FOOTPATH
	SCOUR PROTECTION
	TREES
	TADPOLE

DRAWING LEGENDS





BULK EARTHWORKS DEPTH RANGE LEGEND

-10	to	-9 m	
-9	to	-8 m	
-8	to	-7 m	
-7	to	-6 m	
-6	to	-5 m	
-5	to	-4 m	
-4	to	-3 m	
-3	to	-2 m	
-2	to	-1 m	
-1	to	0 m	
0	to	1 m	
1	to	2 m	
2	to	3 m	
3	to	4 m	
4	to	5 m	
5	to	6 m	
6	to	7 m	
7	to	8 m	
8	to	9 m	

EARTHWORKS VOLUME SUMMARY	
CUT	-5,395 m ³
FILL	1,846 m ³
CUT TO SPOIL	3,549 m ³

Client:
FPI QUEENSLAND PTY. LTD

Project:
LOT 204 DUAL TENANCY WAREHOUSE

Site Address:
2 HIGHLANDS STREET, STAYPLTON QLD, 4207

RPD:
Lot: LOT 204
Plan: SP316171
Local Authority: CITY OF GOLD COAST

Level Datum: AHD
Meridian:
PSM:
RL:

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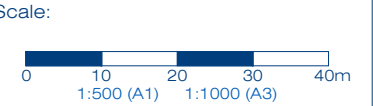
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Drawing Title:
BULK EARTHWORKS LAYOUT PLAN

Rev	Date	DESCRIPTION	TGP	MG
A	9/12/24	ORIGINAL ISSUE	TGP	MG
Rev		Description	DRN	CHK

DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE
CULVERT AND PIPE SIZES IN MILLIMETRES

A1 UNREDUCED
A3 REDUCED



PROJECT NORTH POINT

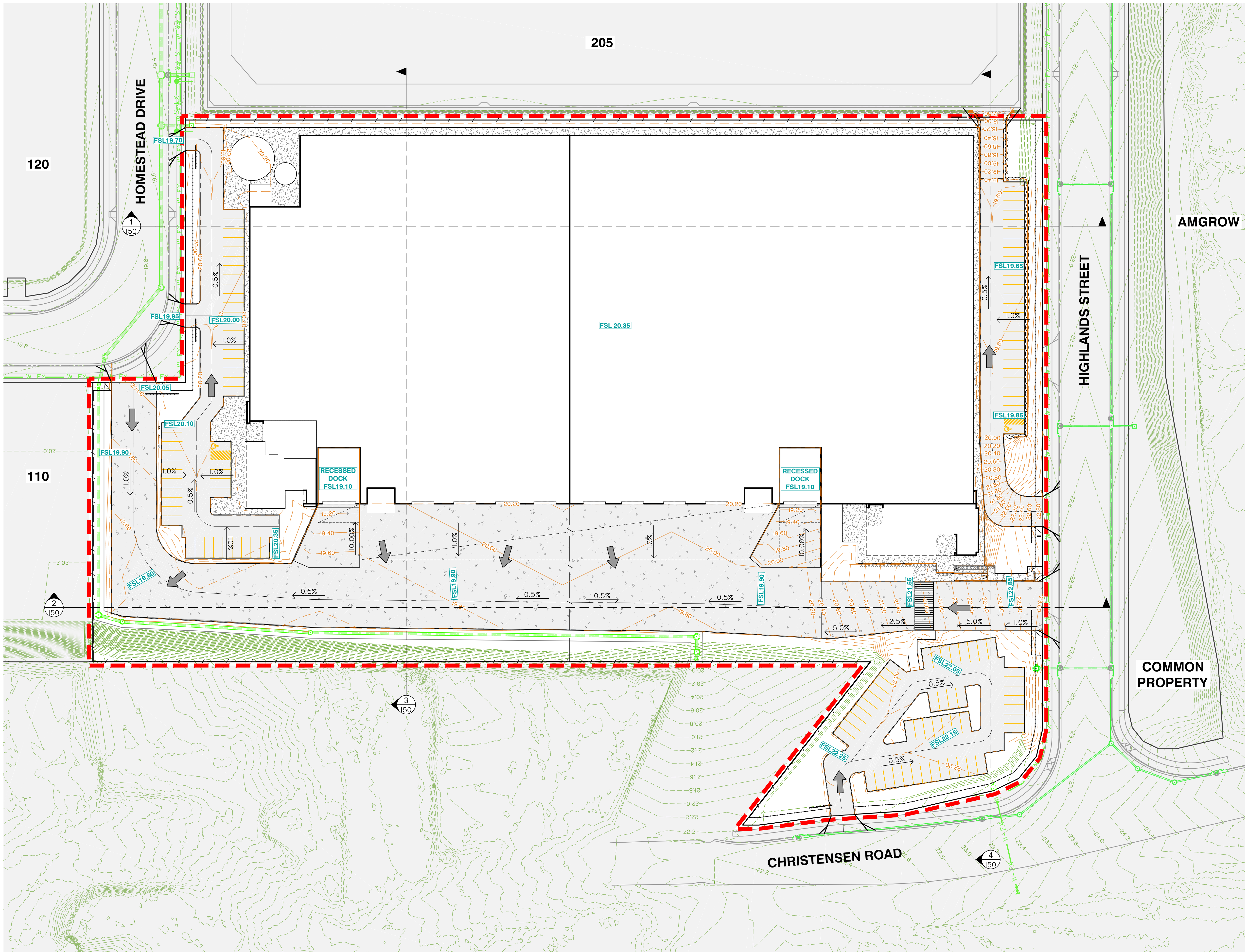
Project No.: 6172

Designed: TGP	Drafted: TGP
Approved:	MG
RPEQ	16939
Signed:	
Date:	09/12/2024
Drawing No:	Revision
6172 ENG BE2 050	A

NOTE:
1. FOR GENERAL DRAWING LEGENDS, REFER TO SHEET 004
2. FOR GENERAL NOTES, REFER TO SHEETS 002 AND 003

BULK EARTHWORKS LAYOUT PLAN

G:\Projects\6172\ENGINEERING\A3\adBE2 - DUAL CO6172 ENG BE2 050.dwg



NOTE:
1. FOR GENERAL DRAWING LEGENDS, REFER TO SHEET 004
2. FOR GENERAL NOTES, REFER TO SHEETS 002 AND 003

FINISHED SURFACE LAYOUT PLAN

Client:
**FPI QUEENSLAND
PTY. LTD**

Project:
**LOT 204 DUAL TENANCY
WAREHOUSE**

Site Address:
**2 HIGHLANDS STREET,
STAYPLTON QLD, 4207**

RPD:
Lot: LOT 204
Plan: SP316171
Local Authority: CITY OF GOLD COAST
Level Datum: AHD
Meridian:
PSM:
RL:

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**FINISHED SURFACE
LAYOUT PLAN**

A	9/12/24	ORIGINAL ISSUE	TGP	MG
Rev	Date	Description	DRN	CHK

DIMENSIONS IN METRES EXCEPT WHERE
SHOWN OTHERWISE
CULVERT AND PIPE SIZES IN MILLIMETRES

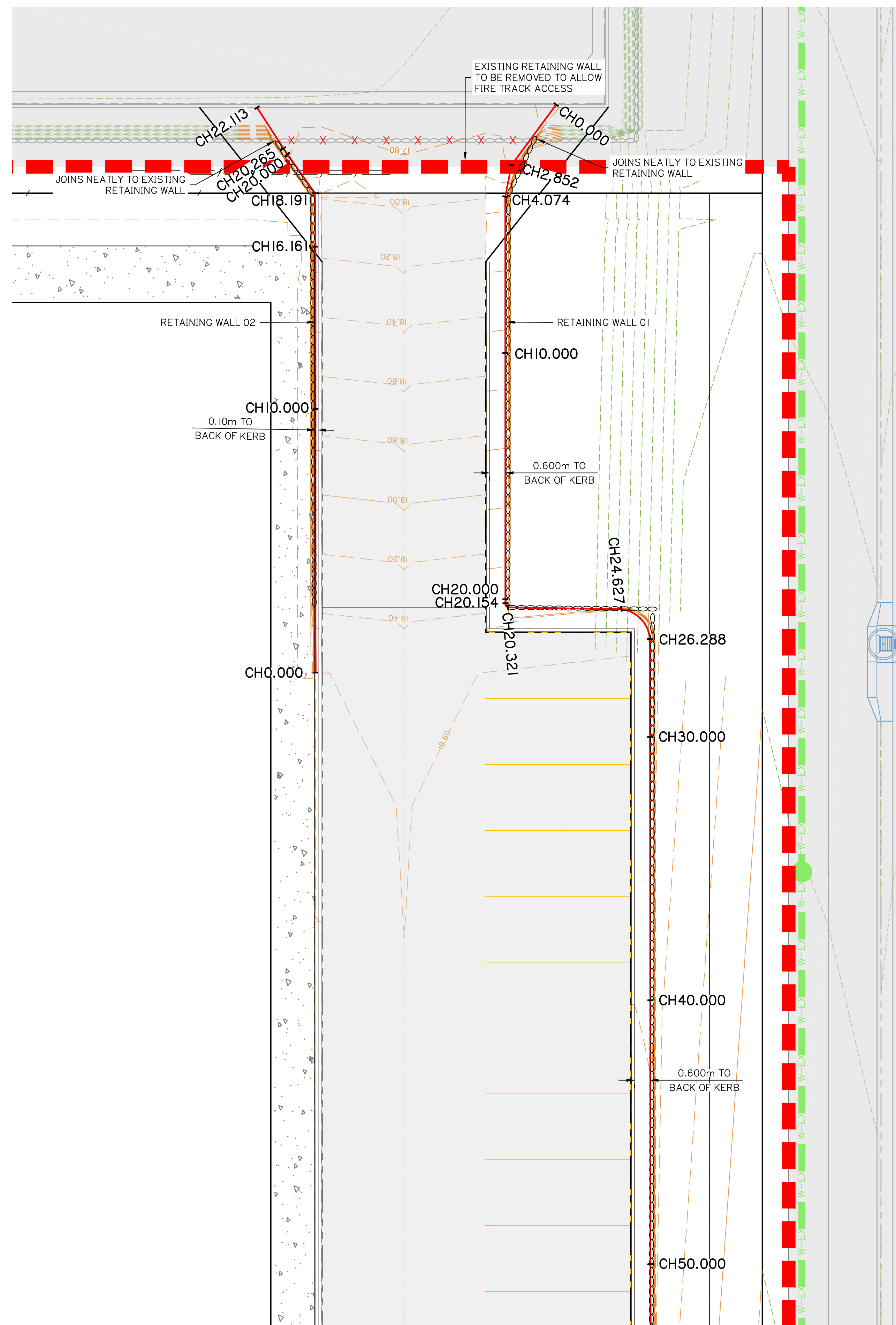
A1 UNREDUCED
A3 REDUCED

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1:500 (A1) 1:1000 (A3)

PROJECT NORTH POINT

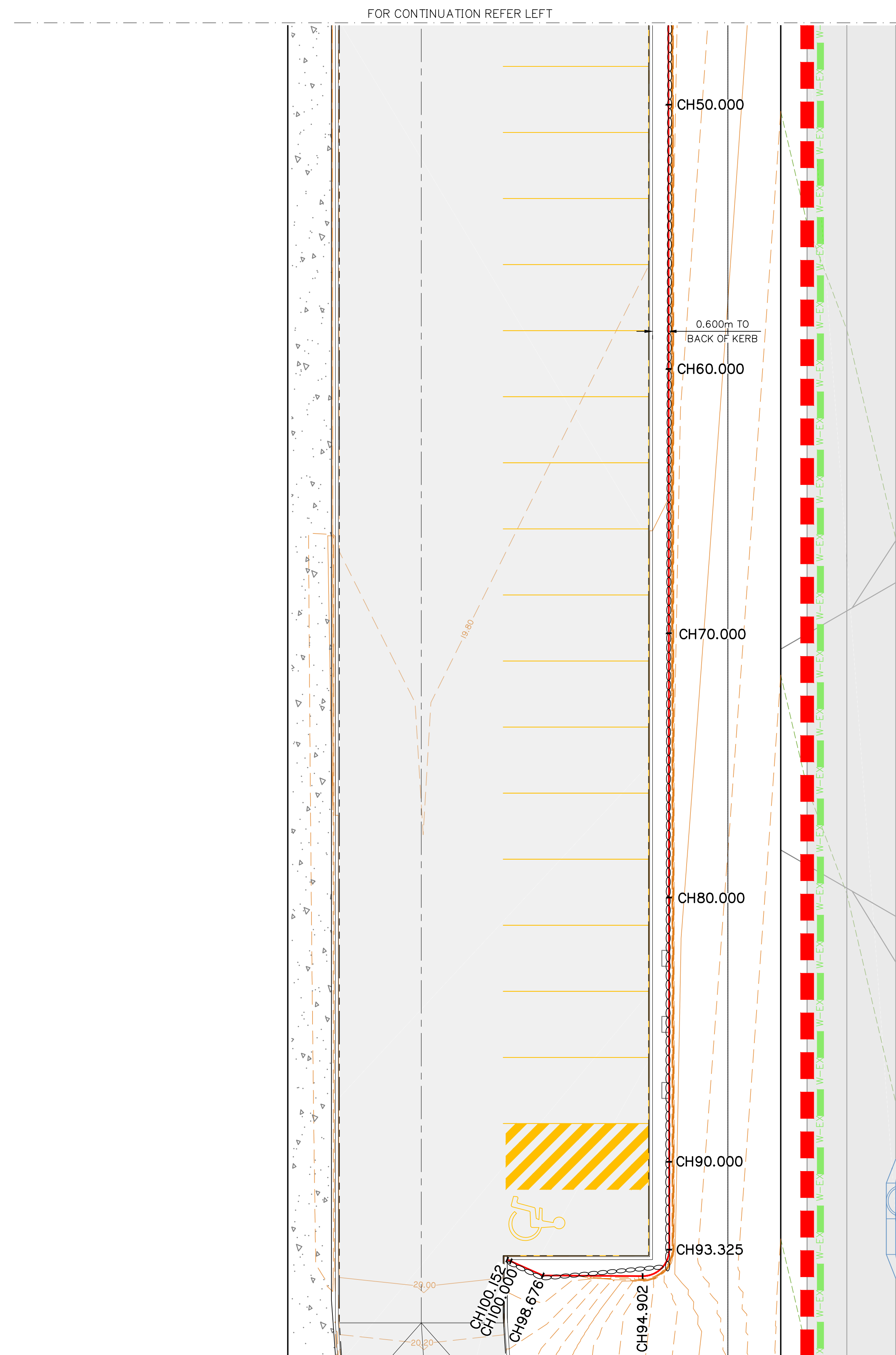


Project No. 6172	
Designed: TGP	Drafted: TGP
Approved:	MG
RPEQ	16939
Signed:	
Date:	09/12/2024
Drawing No: 6172 ENG BE2 100	Revision: A



NOTE:

1. FOR GENERAL DRAWING LEGENDS, REFER TO SHEET 004
2. FOR GENERAL NOTES, REFER TO SHEETS 002 AND 003
3. FOR RETAINING WALL ELEVATIONS AND SETOUT TABLES, REFER TO SHEET 201
4. FOR RETAINING WALL TYPICAL DETAILS, REFER TO SHEET 202



Client:

FPI QUEENSLAND
PTY. LTD

Project:

LOT 204 DUAL TENANCY WAREHOUSE

Site Address:

2 HIGHLANDS STREET,
STAYPLTON QLD, 4207

RPD:

Lot:	LOT 204
Plan:	SP316171
Local Authority:	CITY OF GOLD COAST

Level Datum: AHD
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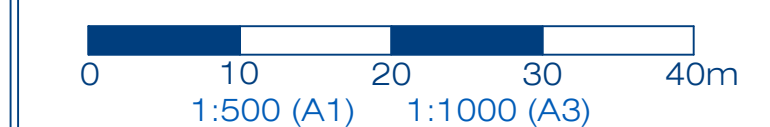
RETAINING WALL LAYOUT PLAN

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A	9/12/24	ORIGINAL ISSUE	TGP	MG
Rev	Date	Description	DRN	CHK

DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE.	A1 UNREDUCED
CULVERT AND PIPE SIZES IN MILLIMETRES	A3 REDUCED

Scale:



PROJECT NORTH POINT



Project No. 6172

Designed: TGP

Approved:

MG

RPEQ

16939

Signed:

[Signature]

Date:

09/12/2024

Drawing No:

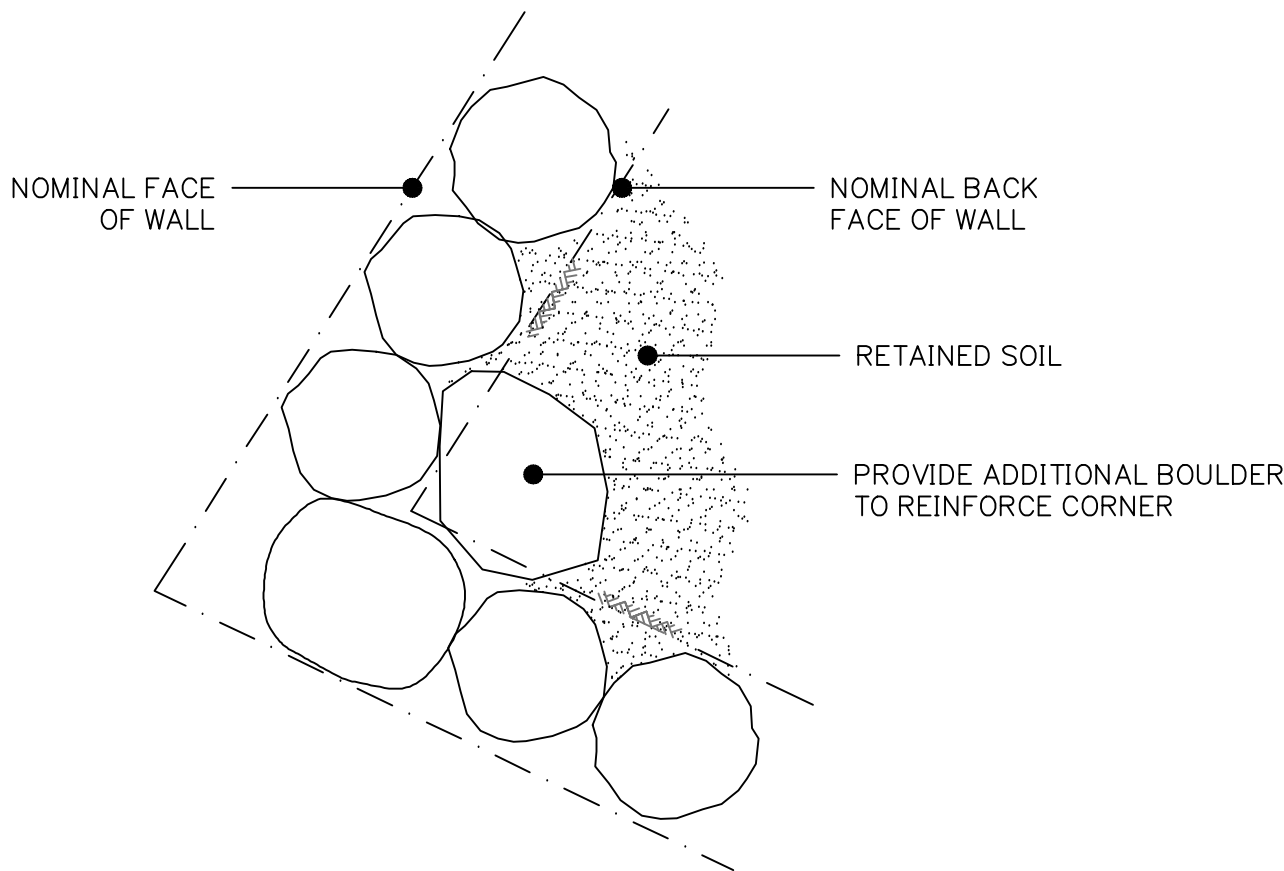
Revision

6172 ENG BE2 200

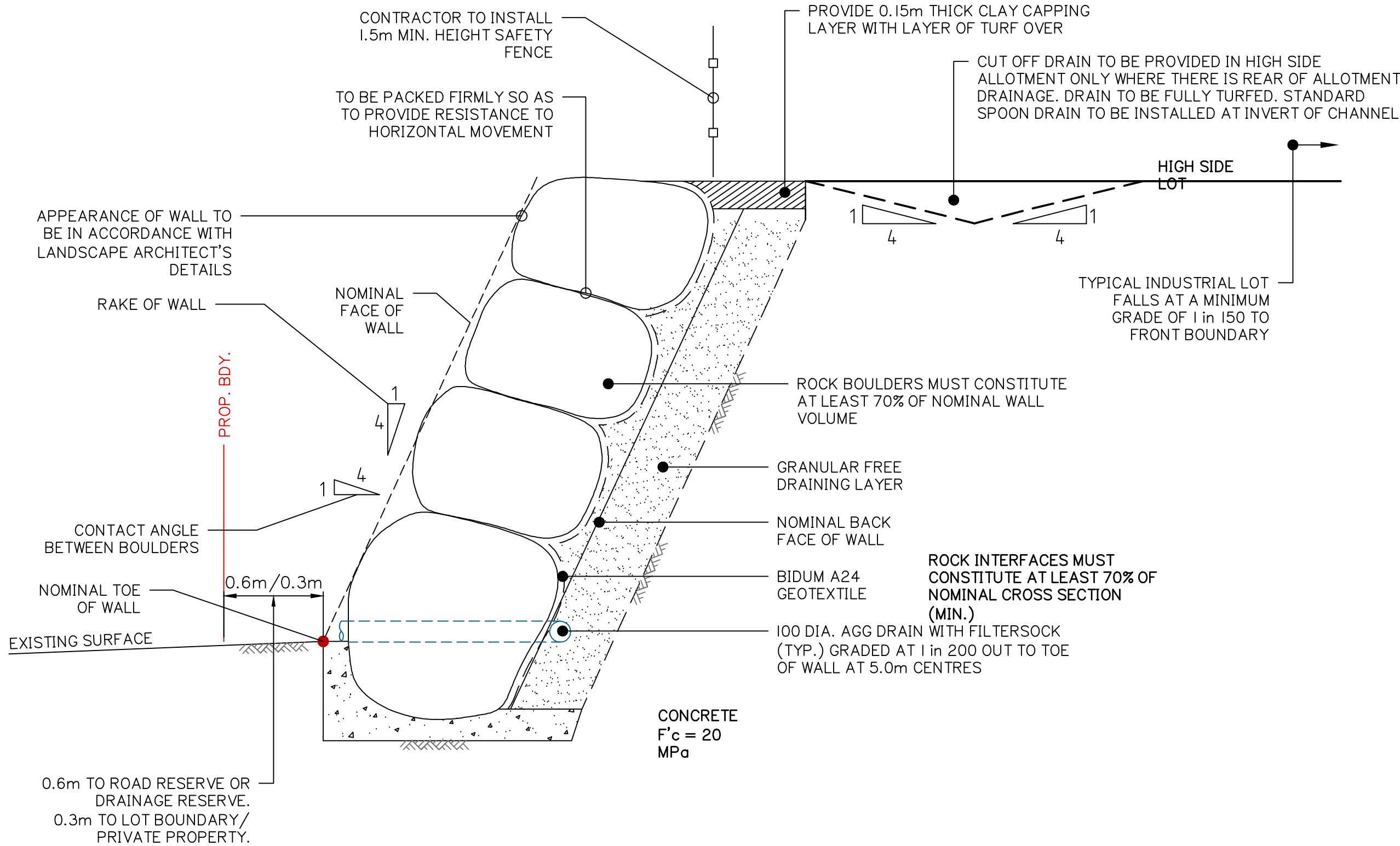
A



RETAINING WALL 02 SETOUT TABLE					
PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING
IP 1	0.000	2545.820	6472.550	19.754	61°00'36.36"
	10.000	2554.567	6477.397	18.862	61°00'36.36"
IP 2	16.161	2559.956	6480.383	18.312	
IP 3	18.191	2561.720	6481.386	18.119	
	20.000	2562.509	6483.014	17.790	25°51'17.13"
IP 4	20.265	2562.625	6483.252	17.743	
IP 5	22.113	2563.500	6484.880	17.724	28°15'09.61"



PLAN VIEW TYPICAL BOULDER WALL CORNER DETAIL



TYPICAL SECTION OF: BOULDER RETAINING WALL (2.5m HEIGHT)

- NOTE:**
1. RETAINING WALLS TO BE IN ACCORDANCE WITH CITY OF GOLD COAST SCHEDULE 6 CITY PLAN POLICY – LAND DEVELOPMENT GUIDELINES SC6.11.3 CHANGE TO GROUND LEVEL STANDARDS. THEY SHALL NOT EXCEED 5.0m IN HEIGHT UNLESS SUITABLY BENCHED.
 2. THE BOULDER RETAINING WALL DETAILS SHOWN ON THIS DRAWING ARE TYPICAL ONLY. CONSTRUCTION TO BE UNDERTAKEN TO STRUCTURAL ENGINEERS SPECIFICATION.
 3. CONTRACTOR TO ARRANGE FOR DESIGN AND CONSTRUCTION OF WALLS AND SHALL PROVIDE STRUCTURAL CERTIFICATION OF DESIGN (FORM I5) AND FINAL CONSTRUCTION (FORM I6).
 4. CONSTRUCTION SETOUT POINT FOR BOULDER WALLS IS TYPICALLY AT THE 'LOW SIDE TOE OF WALL' WHERE IT INTERFACES WITH EXISTING SURFACE LEVEL OR THE LOW SIDE PAD FSL.

Client:
**FPI QUEENSLAND
PTY. LTD**

Project:
**LOT 204 DUAL TENANCY
WAREHOUSE**

Site Address:
**2 HIGHLANDS STREET,
STAYPLTON QLD, 4207**

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Lot: LOT 204
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Drawing Title:
**RETAINING WALL
TYPICAL DETAILS**

A	9/12/24	ORIGINAL ISSUE	TGP	MG
Rev	Date	Description	DRN	CHK
DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE. CULVERT AND PIPE SIZES IN MILLIMETRES			A1 UNREDUCED A3 REDUCED	

Scale:
NOT TO SCALE
PROJECT NORTH POINT

Project No. 6172	
Designed: TGP	Drafted: TGP
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RPEQ	16939
Signed:	
Date:	09/12/2024
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Appendix D – Civil Servicing Strategy Plan



Drawing No:	Rev. No:
6172 ENG ESR DUAL 001	A



APPENDIX I

ACOUSTIC IMPACT ASSESSMENT



VantageYatala



1985

g a s s m a n
development
perspectives

planning
environment
landscape
engineering
survey



Proposed Warehouse Development
Lot 204 on SP316171
2 Highlands Street
Stapylton

ACOUSTIC REPORT



Client:
Fraser's Property
ATTN: James Jarimba

Reference:
2024481 R01B Lot 204 Vantage Yatala Estate ENV.docx

Date Issued:
12 December 2024

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Report Register

Date	Revision	Author	Reviewer
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12/12/24	R01B	Marco Scoca	Greg Pearce

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1. Introduction

This report is in response to a request by Frasers Property for an environmental noise assessment of a proposed warehouse development to be located on the Vantage Yatala subdivision, located at 2 Highlands Street, Stapylton. To facilitate the assessment, unattended noise monitoring was conducted in the vicinity of nearby residence to establish the criteria for onsite activities. Based on the data obtained, onsite activities were assessed to surrounding sensitive receivers with recommendations for acoustic treatments specified in this report.

2. Site Description

2.1 Site Location

The proposed site is described by the following:

Lot 204 on SP316171
2 Highlands Street, Stapylton

Refer to Figure 1 for site location.

Figure 1: Site Location (Not to Scale)



A comprehensive site survey was conducted on the 28th November 2024 and identified the following:

- a) The site is currently vacant.
- b) The surrounding area consists primarily of industrial/commercial land uses.
- c) Single storey and highset dwellings are located to the northwest.
- d) Stapylton Jacobs Well Road separates the site from agricultural/rural residential land uses to the north.
- e) The Pacific Motorway is located approximately 600m west of the site.

2.2 Proposal

The proposal seeks construction of a Warehouse with associated signage, landscaping and car parking. The proposal consists of the following:

- Total site area of 37,662m².
- Warehouse A including warehouse office – Total area of 10,757m²
- 2 storey office A with an area of 744m².
- Warehouse B including warehouse office – Total area of 8,005m²
- 2 storey office B with an area of 649m²
- Proposed 24/7 hours of operation.
- 121 car parking spaces with site access via Christenses Road and Highlands Street.

Refer to the Appendix for development plans.

2.3 Acoustic Environment

The acoustic environment of the surrounding area is primarily affected by existing industrial/commercial activities in the area and road traffic noise from Stapylton Jacobs Well Road and the Pacific Motorway.

3. Equipment

The following equipment was used to record noise levels:

- Rion NL42 Environmental Noise Monitor
- Pulsar 105 Sound Calibrator

The Environmental Noise Monitor holds current NATA Laboratory Certification and was field calibrated before and after the monitoring period, with no significant drift from the reference signal recorded.

4. Receivers and Noise Monitoring

4.1 Receiver Locations

The nearest residential receiver locations were identified as follows;

1. Single storey and highset dwellings fronting Cedar Drive to the northwest.
2. Highset dwelling at 33 Stapylton Jacobs Well Road to the northwest.
3. Residential land uses at Hillside Drive to the north.

These locations were chosen as being representative of the nearest residential receivers to the proposed development.

Refer to Figure 2 for receiver locations.

Figure 2: Receivers and Noise Monitoring Location



4.2 Unattended Ambient Noise Monitoring

A Rion NL42 environmental noise monitor was placed onsite at 60 Stapylton Jacobs Well Road to measure existing ambient noise levels. The monitor was located in a free field position with the microphone approximately 1.4 metres above ground surface level. The noise monitor was set to record noise levels between the 11th and 24th of October 2019.

The environmental noise monitor was set to record noise levels in "A" Weighting, Fast response using 15 minute statistical intervals. Ambient noise monitoring was conducted generally in accordance with Australian Standard AS1055:2018 *Acoustics – Description and measurement of environmental noise*. For the unattended noise monitoring location refer to Figure 2.

5. Measured Noise Levels

The following table presents the results from the unattended noise survey. Any periods of inclement weather or extraneous noise were omitted from the measurements prior to determining the results.

5.1 Ambient Noise Levels

The measured ambient noise levels measured at the monitoring location are as follows;

Table 1: Measured ambient noise levels – all time periods

Day	Date	L90 dB(A)		
		Day	Evening	Night
Saturday	12/10/19	53	50	45
Sunday	13/10/19	48	47	46
Monday	14/10/19	50	53	48
Tuesday	15/10/19	51	56	49
Wednesday	16/10/19	52	52	52
Thursday	17/10/19	53	55	52
Friday	18/10/19	48	50	50
Saturday	19/10/19	45	53	46
Sunday	20/10/19	49	47	46
Monday	21/10/19	49	48	46
Tuesday	22/10/19	48	49	49
Wednesday	23/10/19	47	47	49
Overall value		49	51	48

Refer to the appendix for graphical representation.

6. Noise Criteria

6.1 Environmental Noise Criteria

The noise criteria as applied by City of Gold Coast are as follows;

6.1.1 Acoustic Quality Objectives

Table 2 presents the acoustic quality objectives at noise sensitive receptors as detailed in Schedule 1 of the Environmental Protection Policy (Noise) 2008.

Table 2: Acoustic Quality Objectives at Noise Sensitive Properties

Sensitive Receptor	Time of Day	Acoustic Quality Objectives, dB(A)		
		$L_{Aeq,adj,1hr}$	$L_{A10,adj,1hr}$	$L_{A1,adj,1hr}$
Dwelling (outdoors)	Day and Evening (7am – 10pm)	50	55	65
Dwelling (Indoors)	Day and Evening (7am – 10pm)	35	40	45
	Night (10pm – 7am)	30	35	40

6.1.2 Background Creep

The Background Creep criteria are as follows;

Time-varying noise:

$$L_{Aeq,adj,T} \leq \text{Ambient } L_{A90,T} + 5\text{dB(A)}$$

Steady-state noise:

$$L_{A90,T} \leq \text{Ambient } L_{A90,T}$$

The time period (T) is a time interval of at least 15 minutes, or if the noise continues for less than 15 minutes, the duration of the noise source.

Based on the results of ambient noise monitoring, the project specific background creep noise limits are shown in Table 3.

Table 3: Background creep noise limits

Time Period	Noise Level Limits SPL dBA	
	$L_{Aeq,adj,T}$	$L_{A90,T}$
Day 7am – 6pm	54	49
Evening 6pm – 10pm	56	51
Night 10pm – 7am	53	48

6.1.3 Sleep Disturbance Criteria

Criteria for sleep disturbance under the WHO Guideline is addressed is as follows:

"As a rule for planning for short-term or transient noise events, for good sleep over 8 hours the indoor sound pressure level measured as a maximum instantaneous value should not exceed approximately 45 dB(A) $L_{A,(Max)}$ more than 10 or 15 times per night'.

7. Onsite Activities

Noise associated with the development was assessed based on previous measurements of similar activities. The calculations assume that the nominated activities are located at the closest representative point within the development site to each receiver location. Any relevant shielding, building transmission loss or recommended acoustic screens are taken into account for these activities.

7.1.1 Acoustic Quality Objectives

The average maximum noise source levels and predicted levels at the receiver locations are shown in Table 4. Note: L_{A10} and L_{A1} results are not shown in cases where the total duration of the events is less than the minimum time required e.g. $L_{A10(1hr)}$ requires noise events to occur for at least 360 seconds of an hour long period. L_{Aeq} results are not shown where the calculated total is less than 0dBA.

Table 4: Acoustic quality objective noise levels, 1 hour

Receiver	Receivers															Amenity																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	Description	1. Cedar Drive (NW) 2. 33 Stapylton Jacobs Well Road (NW) 3. Hillside Drive (N)										L _{Aeq} Compliance																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
		Source Leq @1m dB(A)	Correction dB(A)*	No. of events per 1hr Day	No. of events per 1hr Eve	No. of events per 1hr Night	Duration per event	Distance (m)	Inc	Barrier height (m))	Barrier screening dB	Building TL or shield dB	Topo screening dB	Dist atten. @ 600m/dd	Source L10 Leq dB	Source L1 Leq dB	L _{Aeq} adj. 1hr ext. dB(A) Day	L _{Aeq} adj. 1hr int. dB(A) Day	L _{Aeq} adj. 1hr ext. dB(A) Eve	L _{Aeq} adj. 1hr int. dB(A) Eve	L _{Aeq} adj. 1hr ext. dB(A) Night	L _{Aeq} adj. 1hr int. dB(A) Night	L _{Aeq} adj. 1hr ext. dB(A) Day	L _{Aeq} adj. 1hr int. dB(A) Day	L _{Aeq} adj. 1hr ext. dB(A) Eve	L _{Aeq} adj. 1hr int. dB(A) Eve	L _{Aeq} adj. 1hr ext. dB(A) Night	L _{Aeq} adj. 1hr int. dB(A) Night	Day / eve	Day / eve indoor	Night indoor	Day / eve	Day / eve indoor	Night indoor	Day / eve	Day / eve indoor	Night indoor																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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*Correction due to tonality and impulsiveness as per AS1055:1997.

Compliance is predicted for all onsite activities during the proposed operating hours.

7.1.2 Background Creep

Based on assessment of all time periods, the noise source levels and predicted impacts at the receiver locations are shown as follows;

Table 5: Background Creep noise levels, 15 minutes

Receiver	Receivers																					
	1. Cedar Drive (NW) 2. 33 Stapylton Jacobs Well Road (NW) 3. Hillside Drive (N)																					
	Description	Source Leq@1m dB(A)	Correction dB(A)*	Corrected dB(A)	No. of events per 15min Day	No. of events per 15min Eve	No. of events per 15min Night	Duration per event	Distance (m)	Inc	Barrier (height (m))	Barrier screening dB	Building TL dB	Building Screening dB	Dist atten. @-6dB/dd	LAeq adj, T ext. dB(A) Day	LAeq adj, T ext. dB(A) Eve	LAeq adj, T ext. dB(A) Night	LAeq 15 min Compliance			
																			Day	Eve	Night	
	Criteria																		54	56	53	
1	Voice conversation External Car Park	68		68	1	1	1	900	156				-15	-44	9		9		Yes	Yes	Yes	
	Car passby	71		71	10	5	2	15	156				-15	-44	4	1			Yes	Yes	Yes	
	Car start	72	2	74	10	5	2	2	156				-15	-44					Yes	Yes	Yes	
	Car door closure	71	2	73	10	5	2	2	156				-15	-44					Yes	Yes	Yes	
	Warehouse Activities	75		75	5	2	1	900	170			-5	-15	-45	17	13	10		Yes	Yes	Yes	
	Forklift reverse	89	5	94	7	5	2	240	160				-15	-45	37	35	31		Yes	Yes	Yes	
	Forklift (external)	84		84	7	5	2	10	160				-15	-45	13	11	7		Yes	Yes	Yes	
	Forklift (internal)	84		84	7	5	2	10	160			-5	-15	-45	8	6	2		Yes	Yes	Yes	
	Truck air brakes	100	2	102	5	3	2	2	140				-15	-43	24	22	20		Yes	Yes	Yes	
	Truck starting	90	2	92	1	1	1	900	140				-15	-43	34	34	34		Yes	Yes	Yes	
	Truck manouevring	86		86	5	3	2	30	140				-15	-43	20	18	16		Yes	Yes	Yes	
	Total														39	38	36		Yes	Yes	Yes	
	Criteria																		54	56	53	
2	Voice conversation External Car Park	68		68	1	1	1	900	475				-15	-54					Yes	Yes	Yes	
	Car passby	71		71	10	5	2	15	475				-15	-54					Yes	Yes	Yes	
	Car start	72	2	74	10	5	2	2	475				-15	-54					Yes	Yes	Yes	
	Car door closure	71	2	73	10	5	2	2	475				-15	-54					Yes	Yes	Yes	
	Warehouse Activities	75		75	5	2	1	900	490			-5	-15	-54	8	4	1		Yes	Yes	Yes	
	Forklift reverse	89	5	94	7	5	2	240	460				-15	-53	28	27	23		Yes	Yes	Yes	
	Forklift (external)	84		84	7	5	2	10	460				-15	-53	5	3			Yes	Yes	Yes	
	Forklift (internal)	84		84	7	5	2	10	460			-5	-15	-53					Yes	Yes	Yes	
	Truck air brakes	100	2	102	5	3	2	2	460				-15	-53	14	12	10		Yes	Yes	Yes	
	Truck starting	90	2	92	1	1	1	900	460				-15	-53	24	24	24		Yes	Yes	Yes	
	Truck manouevring	86		86	5	3	2	30	460				-15	-53	10	8	6		Yes	Yes	Yes	
	Total														30	29	27		Yes	Yes	Yes	
	Criteria																		54	56	53	
3	Voice conversation External Car Park	68		68	1	1	1	900	560				-15	-55					Yes	Yes	Yes	
	Car passby	71		71	10	5	2	15	560				-15	-55					Yes	Yes	Yes	
	Car start	72	2	74	10	5	2	2	560				-15	-55					Yes	Yes	Yes	
	Car door closure	71	2	73	10	5	2	2	560				-15	-55					Yes	Yes	Yes	
	Warehouse Activities	75		75	5	2	1	900	570			-5	-15	-55	7	3			Yes	Yes	Yes	
	Forklift reverse	89	5	94	7	5	2	240	560				-15	-55	27	25	21		Yes	Yes	Yes	
	Forklift (external)	84		84	7	5	2	10	560				-15	-55	3	1			Yes	Yes	Yes	
	Forklift (internal)	84		84	7	5	2	10	560			-5	-15	-55					Yes	Yes	Yes	
	Truck air brakes	100	2	102	5	3	2	2	560				-15	-55	12	10	9		Yes	Yes	Yes	
	Truck starting	90	2	92	1	1	1	900	560				-15	-55	22	22	22		Yes	Yes	Yes	
	Truck manouevring	86		86	5	3	2	30	560				-15	-55	8	6	4		Yes	Yes	Yes	
	Total														28	27	25		Yes	Yes	Yes	

*Correction due to tonality and impulsiveness as per AS1055:1997.

Compliance is predicted for all onsite activities during the proposed operating hours.

7.1.3 Sleep Disturbance Criteria

The noise source levels and predicted levels of noise at the receiver locations are shown in Table 7.

Table 6: Sleep Disturbance Criteria

Receiver	Receivers												Complies Night dB(A)
	1. Cedar Drive (NW) 2. 33 Stapylton Jacobs Well Road (NW) 3. Hillside Drive (N)	Source Lmax @1m dB(A)	Correction dB(A)*	Corrected dB(A)	Distance (m)	No Barrier (height (m)	Topography screening	Building TL dB	Building Screening dB	Dist atten. @-6dB/dd	Lmax adj,T ext. dB(A)	Lmax adj,T int. dB(A)	
	Description												
	Criteria												45
1	Warehouse Activities	86		86	170		-6	-5	-15	-45	15	10	Yes
	External Voice Conversation	74		74	156		-6		-15	-44	9	4	Yes
	Car passby	77		77	156		-6		-15	-44	12	7	Yes
	Car start	77	2	79	156		-6		-15	-44	14	9	Yes
	Car door closure	85	2	87	156		-6		-15	-44	22	17	Yes
	Forklift Reverse	94	5	99	160		-6		-15	-44	34	29	Yes
	Forklift (external)	90		90	160		-6		-15	-44	25	20	Yes
	Forklift (internal)	90		90	160		-6	-5	-15	-44	20	15	Yes
	Truck Air Brakes	107	2	109	140		-6		-15	-43	45	40	Yes
	Truck Starting	98	2	100	140		-6		-15	-43	36	31	Yes
	Truck Manoeuvring	90		90	140		-6		-15	-43	26	21	Yes
	2	Criteria											
Warehouse Activities		86		86	490			-5	-15	-54	12	7	Yes
External Voice Conversation		74		74	475				-15	-54	5	0	Yes
Car passby		77		77	475				-15	-54	8	3	Yes
Car start		77	2	79	475				-15	-54	10	5	Yes
Car door closure		85	2	87	475				-15	-54	18	13	Yes
Forklift Reverse		94	5	99	460				-15	-53	31	26	Yes
Forklift (external)		90		90	460				-15	-53	22	17	Yes
Forklift (internal)		90		90	460			-5	-15	-53	17	12	Yes
Truck Air Brakes		105	2	107	460				-15	-53	39	34	Yes
Truck Starting		97	2	99	460				-15	-53	31	26	Yes
Truck Manoeuvring		90		90	460				-15	-53	22	17	Yes
3		Criteria											
	Warehouse Activities	86		86	570			-5	-15	-55	11	6	Yes
	Internal Residency Activities	70		70	560				-15	-55	0	-5	Yes
	External Voice Conversation	74		74	560				-15	-55	4	-1	Yes
	Car passby	77		77	560				-15	-55	7	2	Yes
	Car start	77	2	79	560				-15	-55	9	4	Yes
	Car door closure	85	2	87	560				-15	-55	17	12	Yes
	Forklift Reverse	94	5	99	560				-15	-55	29	24	Yes
	Forklift (external)	90		90	560				-15	-55	20	15	Yes
	Forklift (internal)	90		90	560			-5	-15	-55	15	10	Yes
	Truck Air Brakes	105	2	107	560				-15	-55	37	32	Yes
	Truck Starting	97	2	99	560				-15	-55	29	24	Yes
	Truck Manoeuvring	90		90	560				-15	-55	20	15	Yes

*Correction due to tonality and impulsiveness as per AS1055:1997.

Compliance is predicted for all onsite activities during the proposed operating hours.

8. Recommendations

8.1 Onsite Activities

Compliance is predicted for the proposed 24/7 operation of the site without the need for further acoustic treatment.

8.1.1 Onsite Mechanical Plant

No information regarding any new mechanical services was available at the time of the assessment. We recommend that any new mechanical plant is designed to comply with the criteria stated in Section 6.1.2 with an assessment by qualified acoustic consultant to be conducted prior to installation.

9. Conclusion

An environmental noise assessment was conducted for the proposed warehouse facility at 2 Highlands Street, Stapylton. On the condition the recommendations detailed in Section 8 are implemented, compliance is predicted with City of Gold Coast assessment criteria.

If you should have any queries please do not hesitate to contact us.

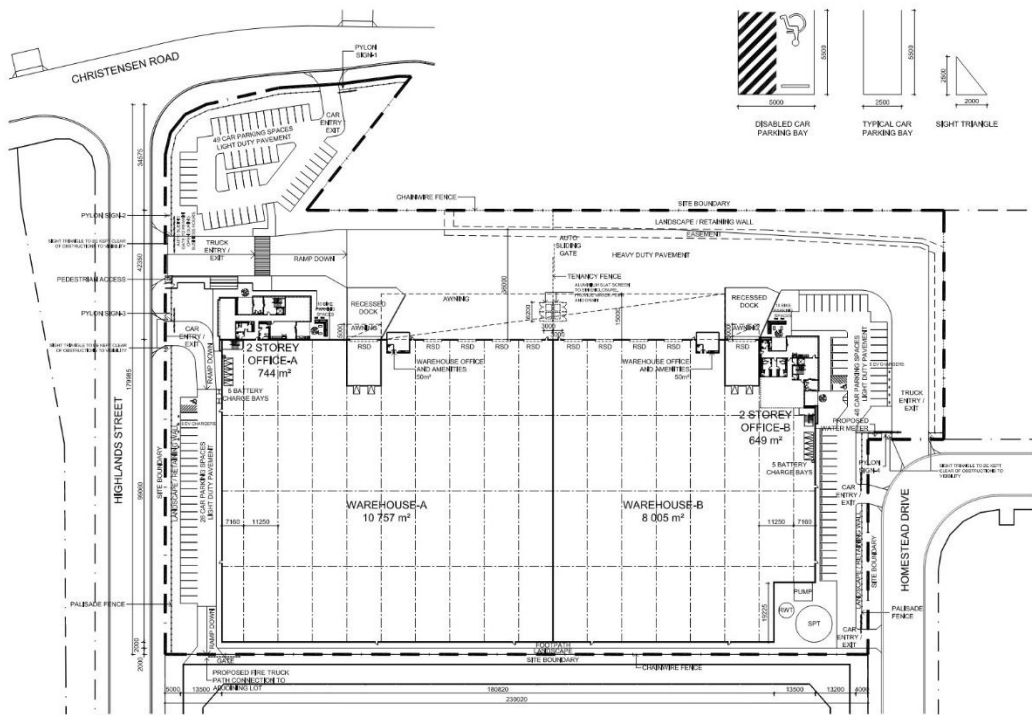
Report prepared by,



Marco Scoca
Acoustic Consultant
BEng (Civil Eng. Hons)
GradDipEngSc (Mechanical Eng.)
acousticworks)))

10. Appendices

10.1 Development Plans



REV	DESCRIPTION	DATE
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A	ISSUE FOR DA	06/12/24
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DEVELOPMENT SUMMARY	
SITE AREA	37662 m²
WAREHOUSE-A	10757 m²
In-Building Warehouse Office	744 m²
2 STOREY OFFICE-A	744 m²
WAREHOUSE-B	8005 m²
In-Building Warehouse Office	649 m²
2 STOREY OFFICE-B	649 m²
TOTAL BUILDING AREA	20155 m²
CAR PARKING PROVIDED	121
AWNING	1900 m²
HEAVY DUTY PAVEMENT	7215 m²
LIGHT DUTY PAVEMENT	4086 m²
SITE EFFICIENCY	53.5 %
SITE COVERAGE	56.4 %
(Ground Floor Building + Awning / Site Area)	



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PROPOSED INDUSTRIAL DEVELOPMENT
LOT-204 'VANTAGE YATALA' HIGHLANDS STREET,
STAPYLTON, QUEENSLAND

SITE PLAN

FOR DEVELOPMENT APPLICATION

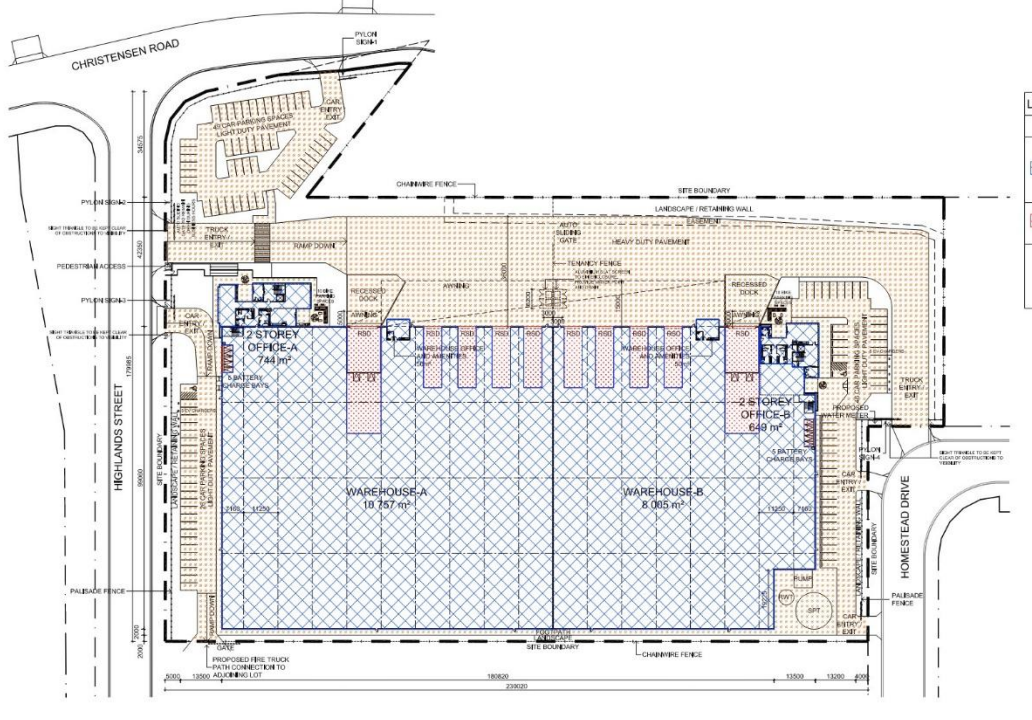


JOB: Q23-005A-DA03
DATE: 06/12/24

SCALE: 1:200 @ A1
DRAWN: MS
REV: A

REV	DESCRIPTION	DATE
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A	ISSUE FOR DA	06/12/24
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LEGEND	
AREA USE	AREA
INDUSTRY	
In-Building Warehouse Office	1374 m²
Warehouse A-B	18543 m²
Warehouse A-B	18543 m²
GFA EXCLUSION ZONE (Loading Area)	1780 m²
IMPERVIOUS AREA	
In-Building Warehouse Office	1913 m²
GFA Exclusion Zone	1913 m²
Warehouse	18543 m²
Office A-B Ground Floor	1221 m²
Paved Area	12500 m²



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PROPOSED INDUSTRIAL DEVELOPMENT
LOT-204 'VANTAGE YATALA' HIGHLANDS STREET,
STAPYLTON, QUEENSLAND

SITE PLAN
GFA - IMPERVIOUS AREA

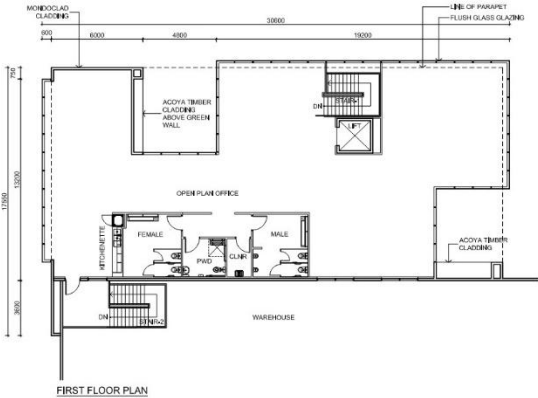
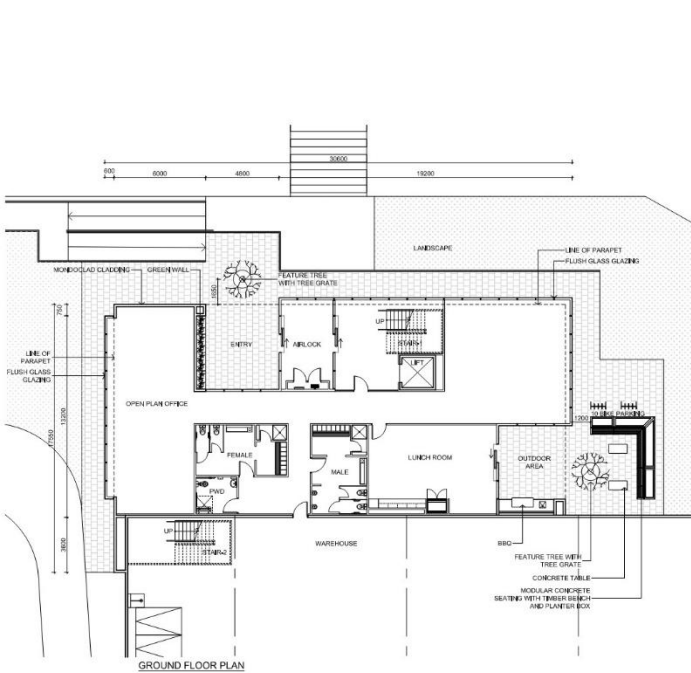
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JOB: Q23-005A-DA03
DATE: 06/12/24

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A	ISSUE FOR DA	06.12.24



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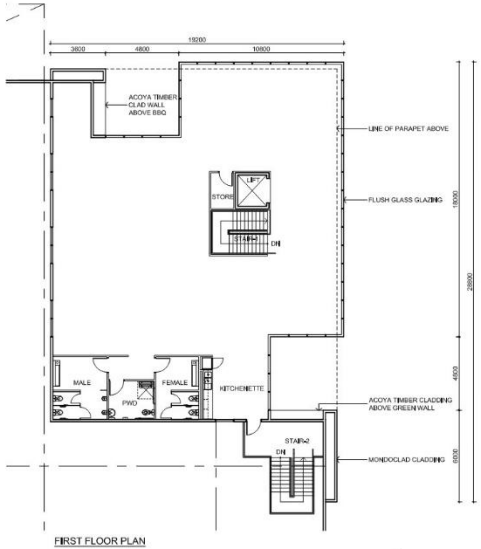
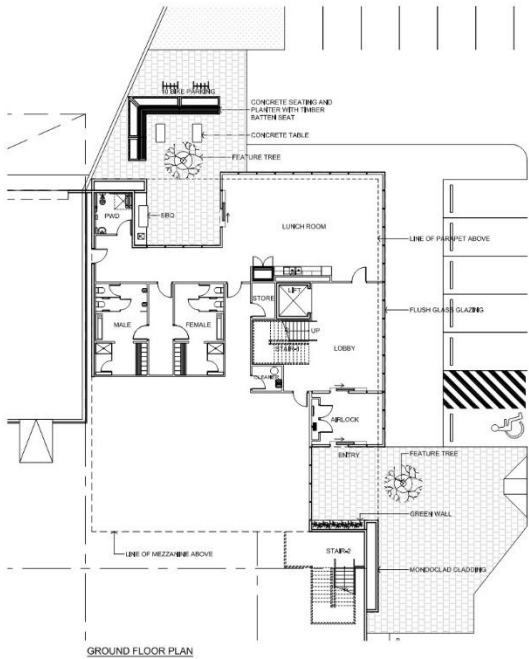
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PROPOSED INDUSTRIAL DEVELOPMENT
LOT-204 'VANTAGE YATALA' HIGHLANDS STREET,
STAPYLTON, QUEENSLAND

OFFICE PLAN
OFFICE-A

FOR DEVELOPMENT APPLICATION				
JOB	DATE	DRN	REV	
0204-005A-04110	06.12.24			
SCALE	12'00" @ A1	MS	A	

REV	DESCRIPTION	DATE
A	ISSUE FOR DA	06.12.24



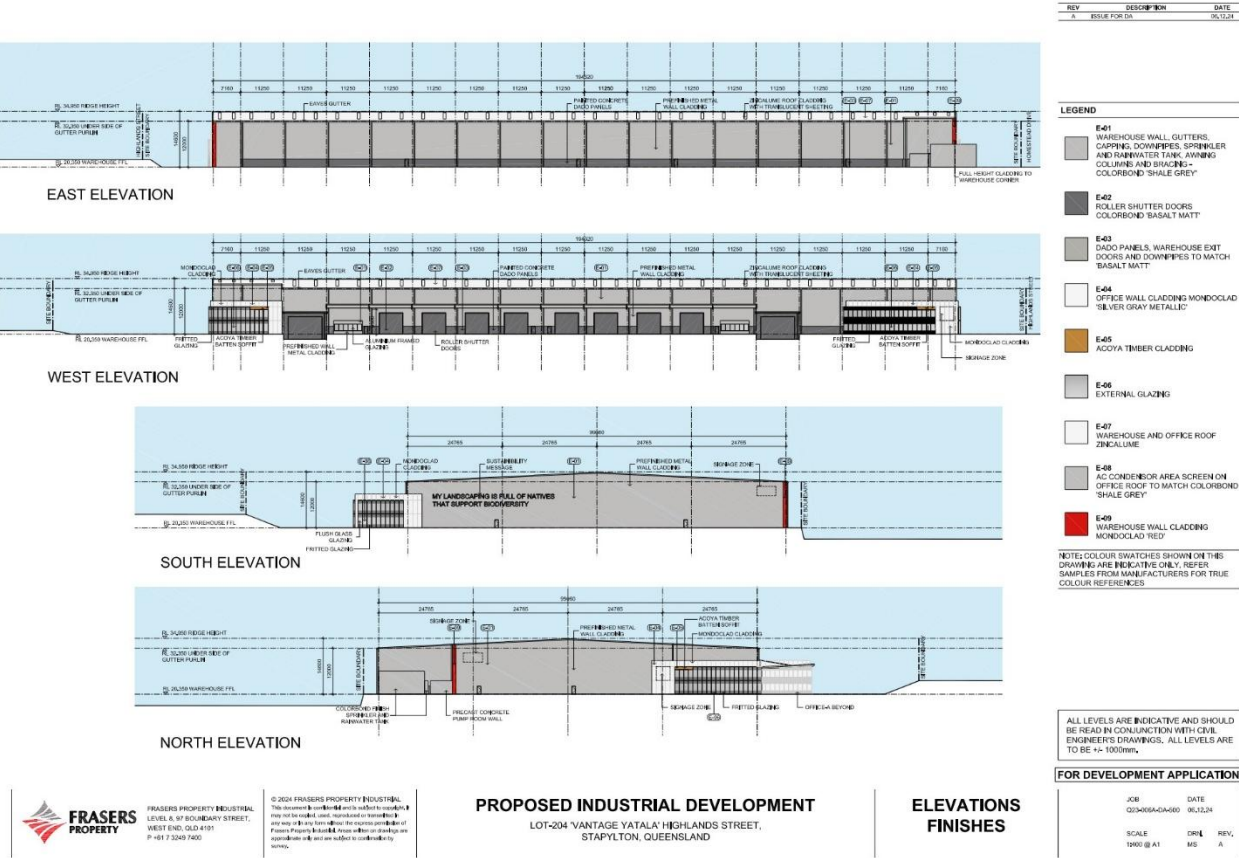
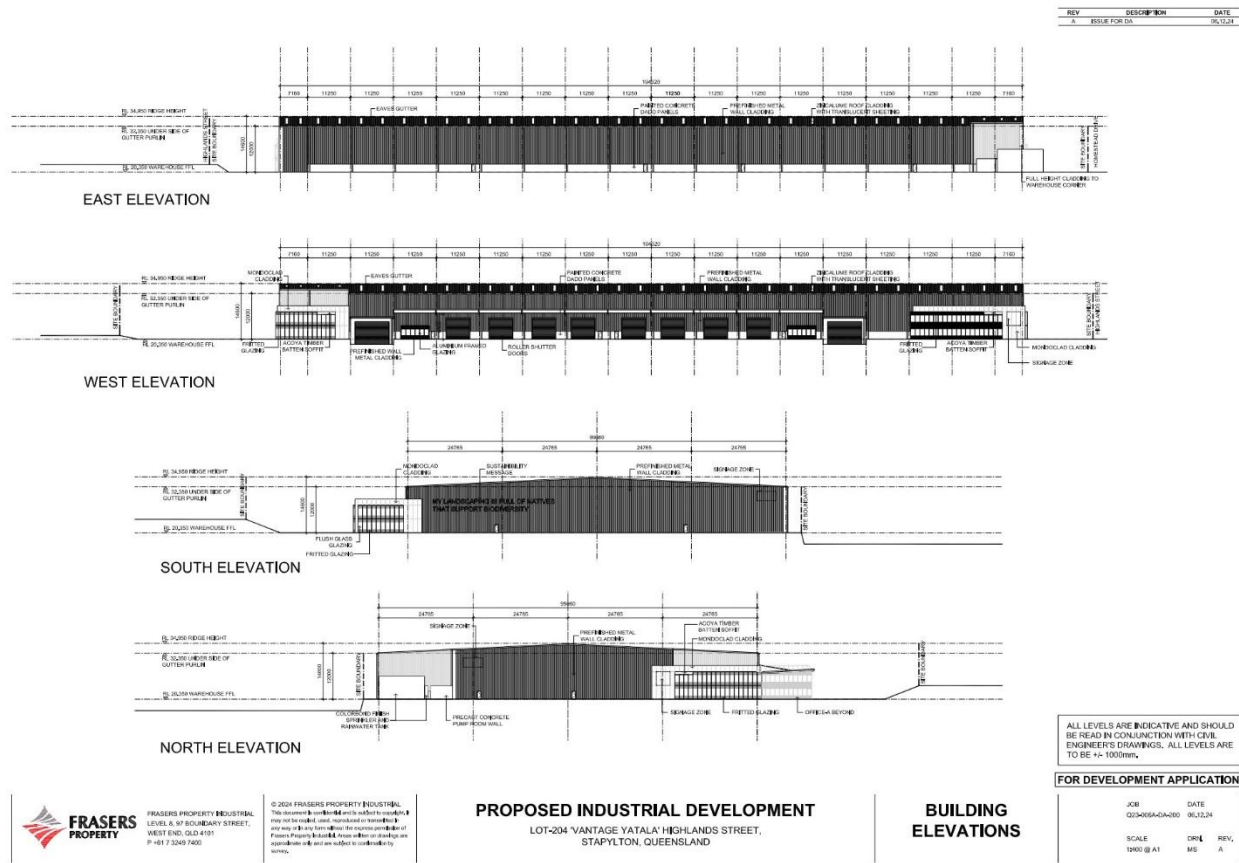
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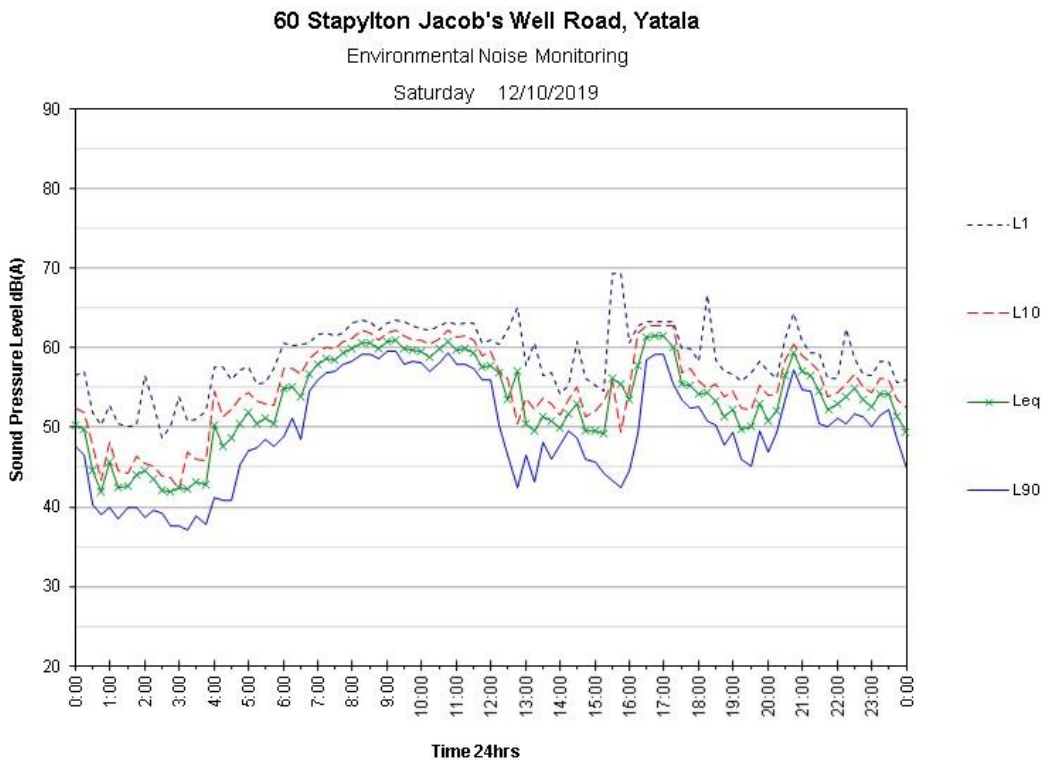
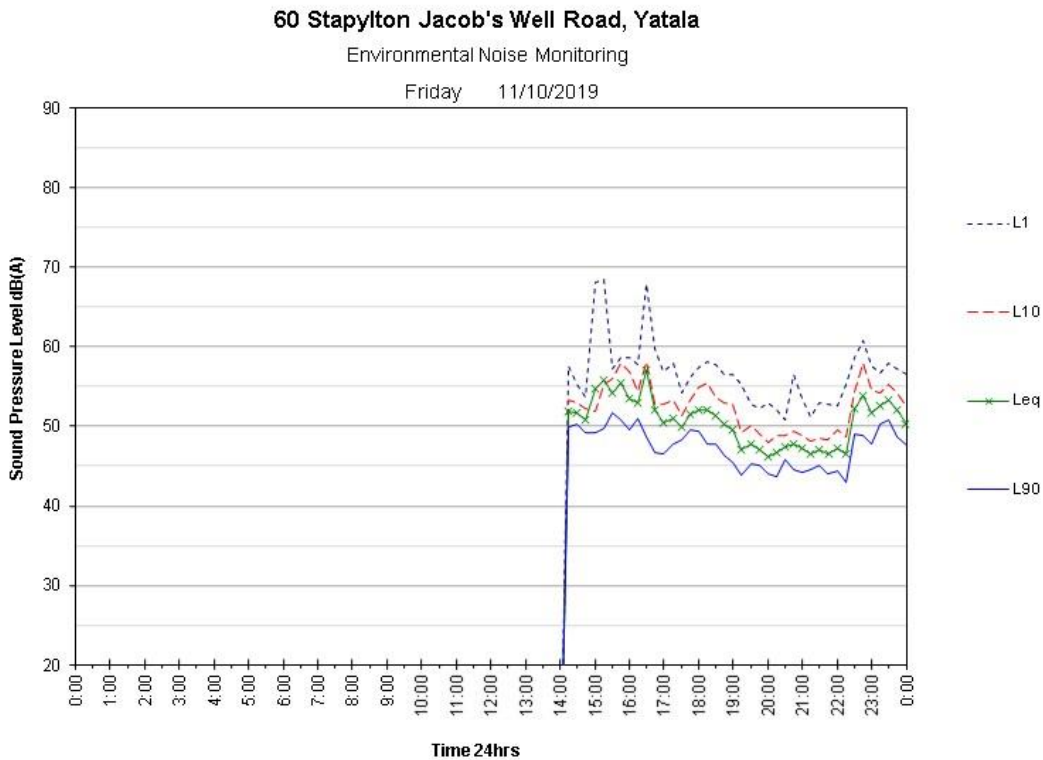
PROPOSED INDUSTRIAL DEVELOPMENT
LOT-204 'VANTAGE YATALA' HIGHLANDS STREET,
STAPYLTON, QUEENSLAND

OFFICE PLAN
OFFICE-B

FOR DEVELOPMENT APPLICATION				
JOB	DATE	DRN	REV	
0204-005A-04111	06.12.24			
SCALE	12'00" @ A1	MS	A	



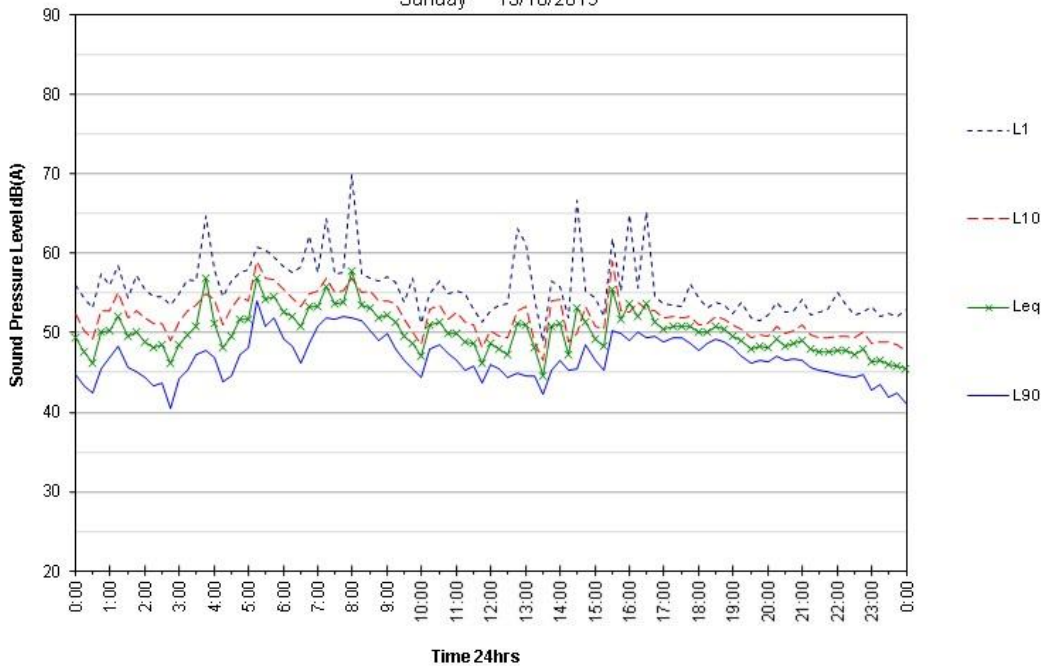
10.2 Noise Monitoring Charts



60 Stapylton Jacob's Well Road, Yatala

Environmental Noise Monitoring

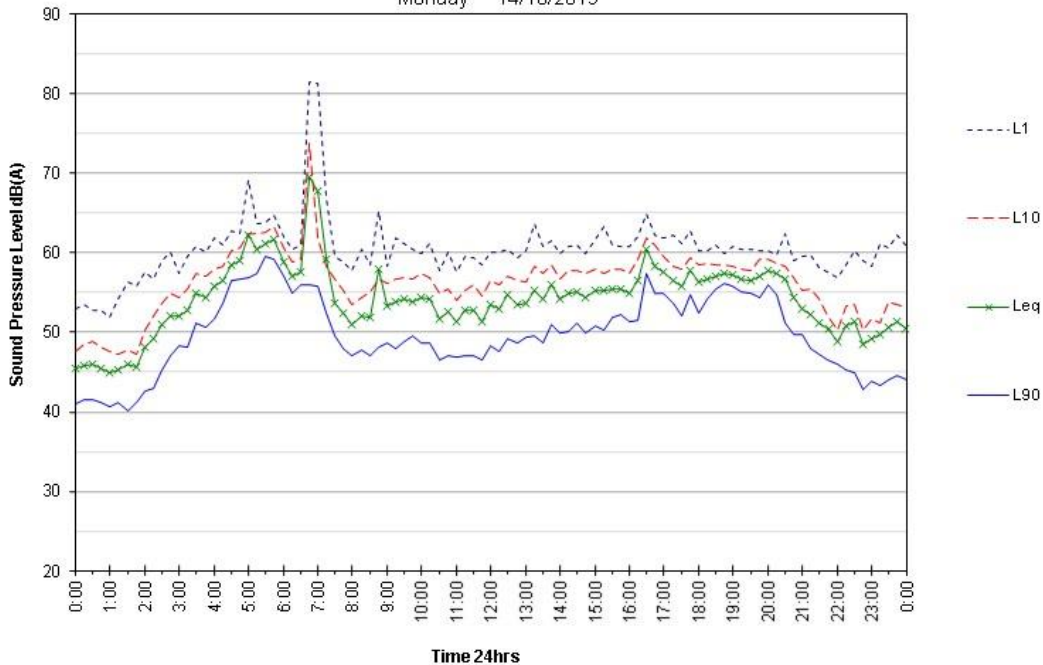
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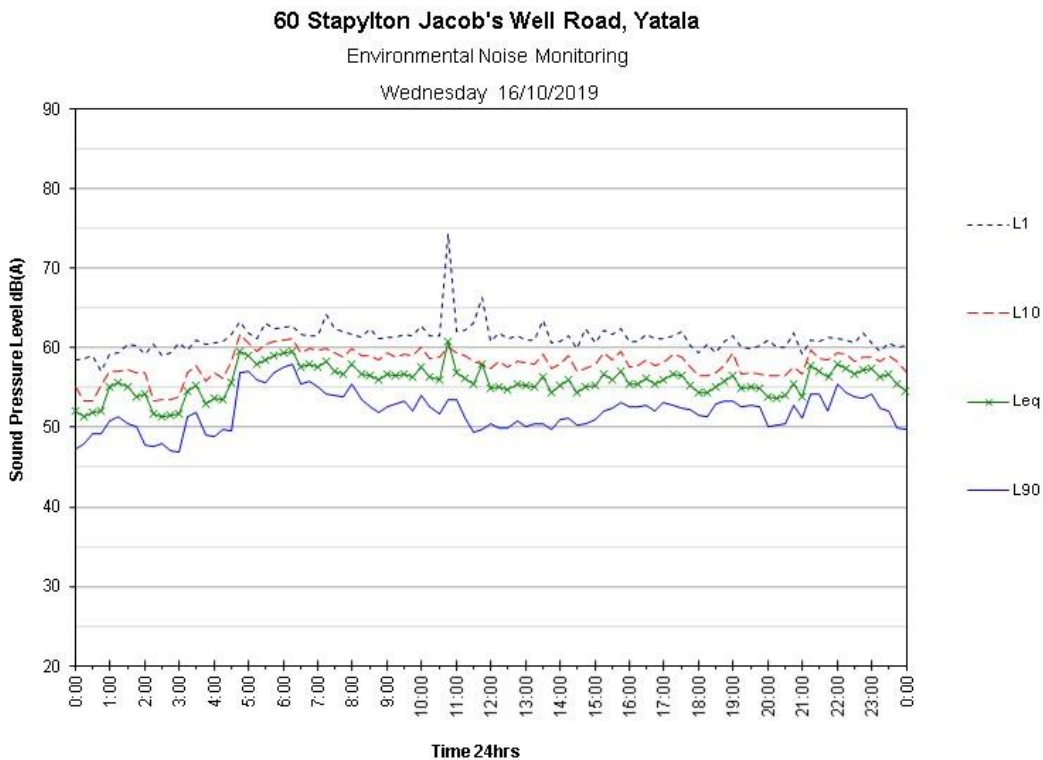
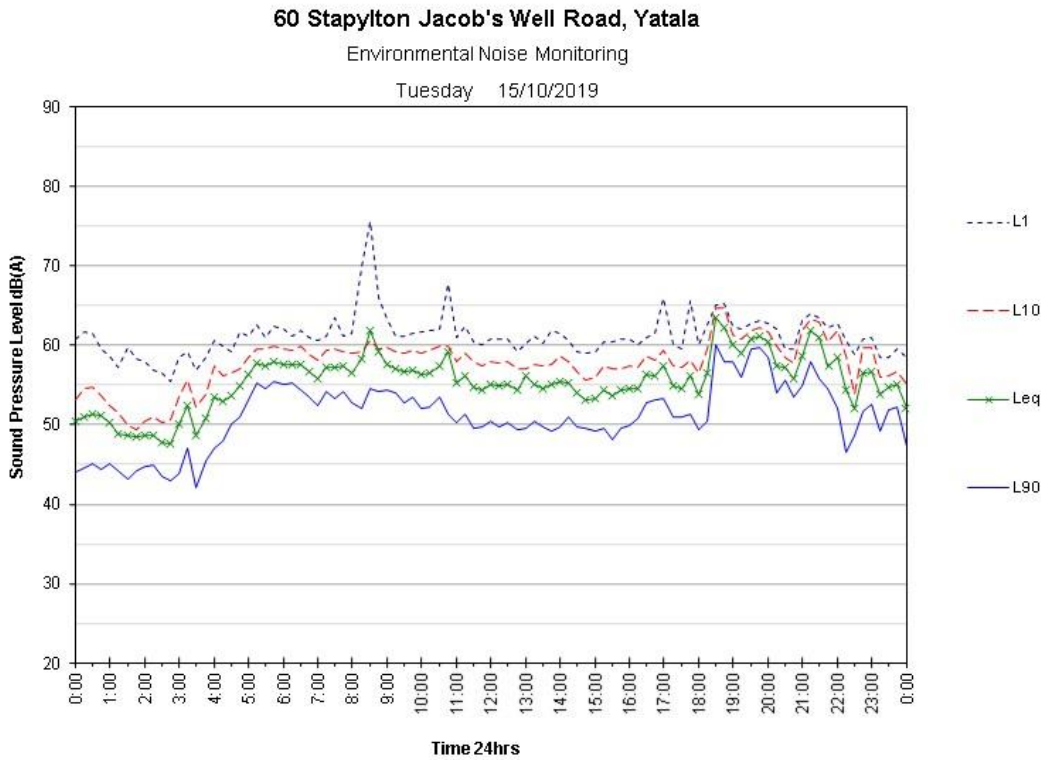


60 Stapylton Jacob's Well Road, Yatala

Environmental Noise Monitoring

Monday 14/10/2019

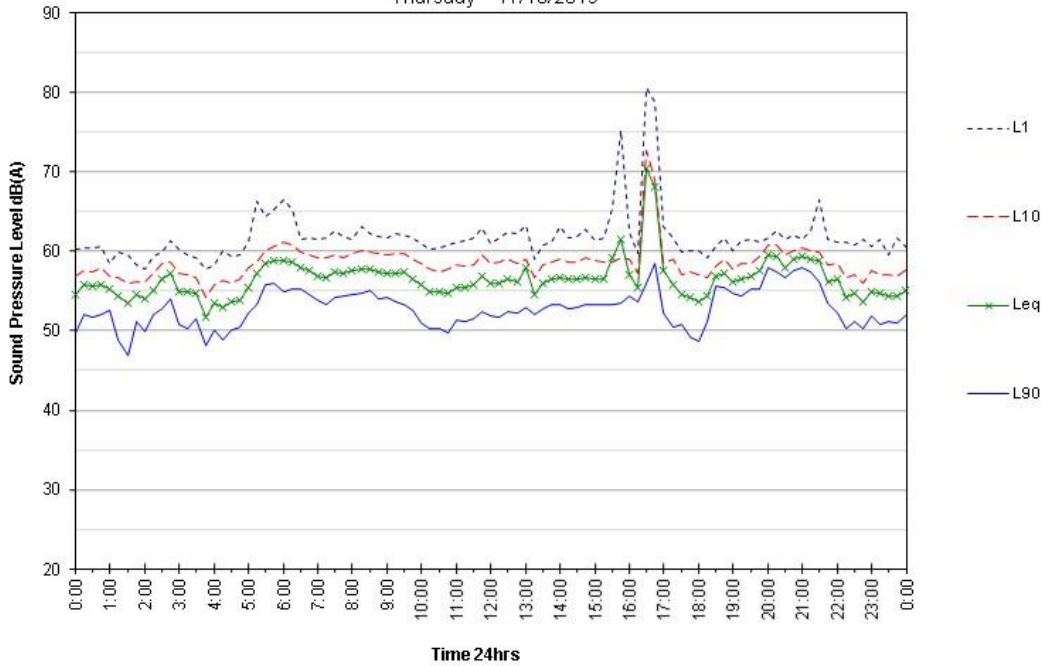




60 Stapylton Jacob's Well Road, Yatala

Environmental Noise Monitoring

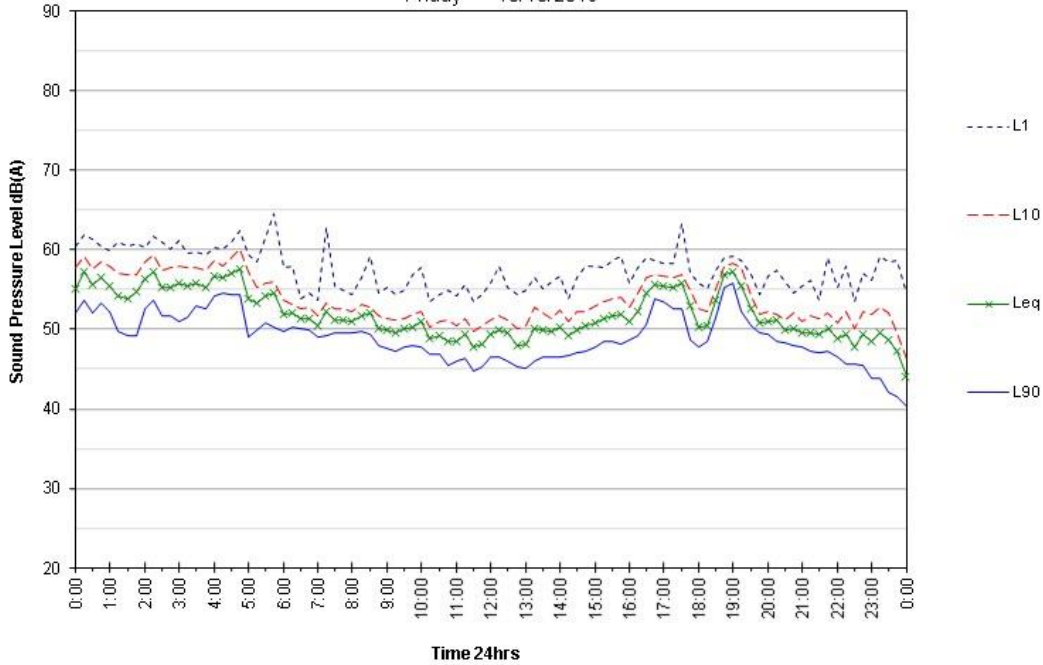
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60 Stapylton Jacob's Well Road, Yatala

Environmental Noise Monitoring

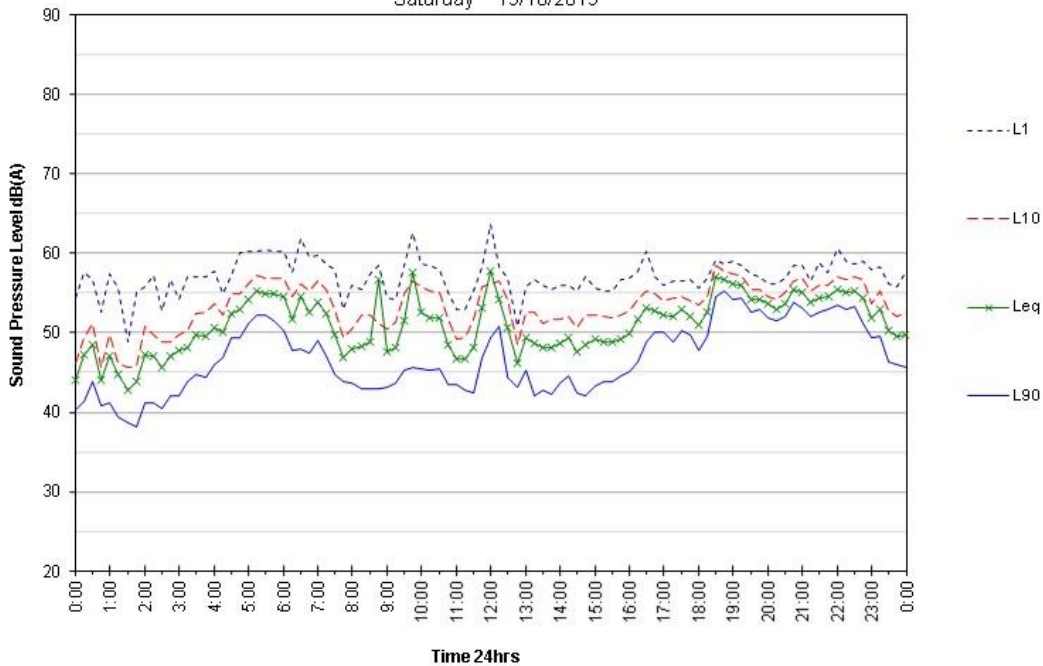
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60 Stapylton Jacob's Well Road, Yatala

Environmental Noise Monitoring

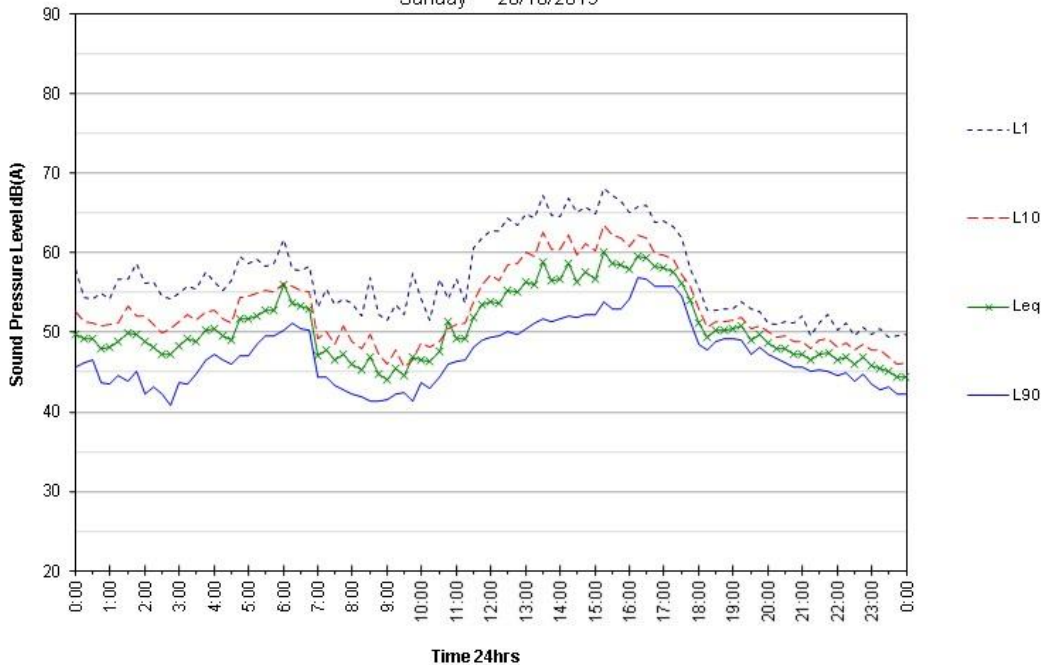
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60 Stapylton Jacob's Well Road, Yatala

Environmental Noise Monitoring

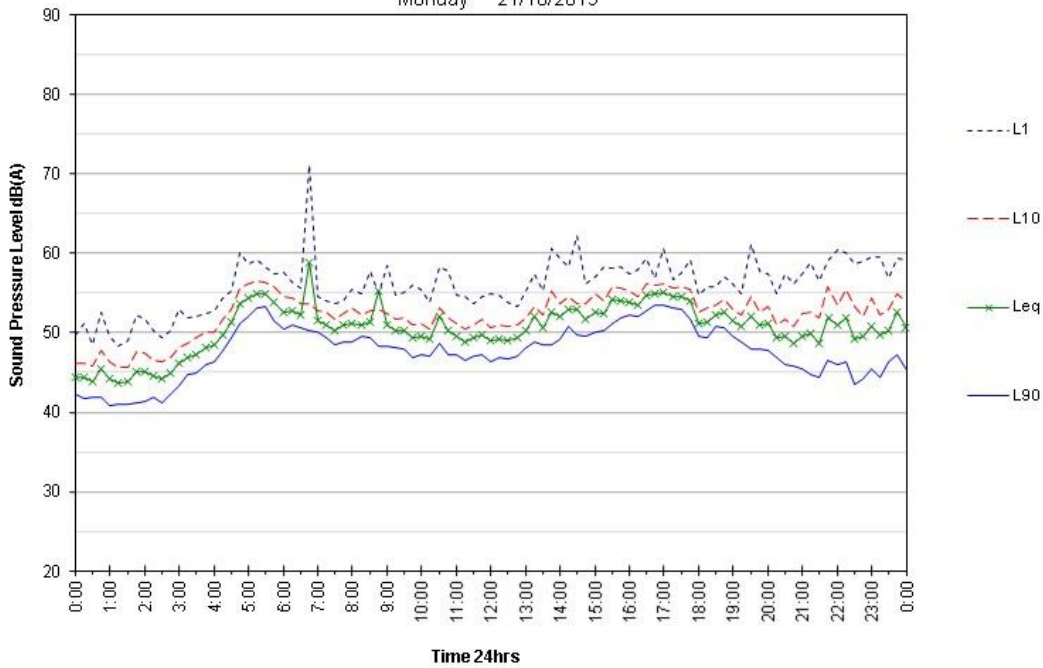
Sunday 20/10/2019



60 Stapylton Jacob's Well Road, Yatala

Environmental Noise Monitoring

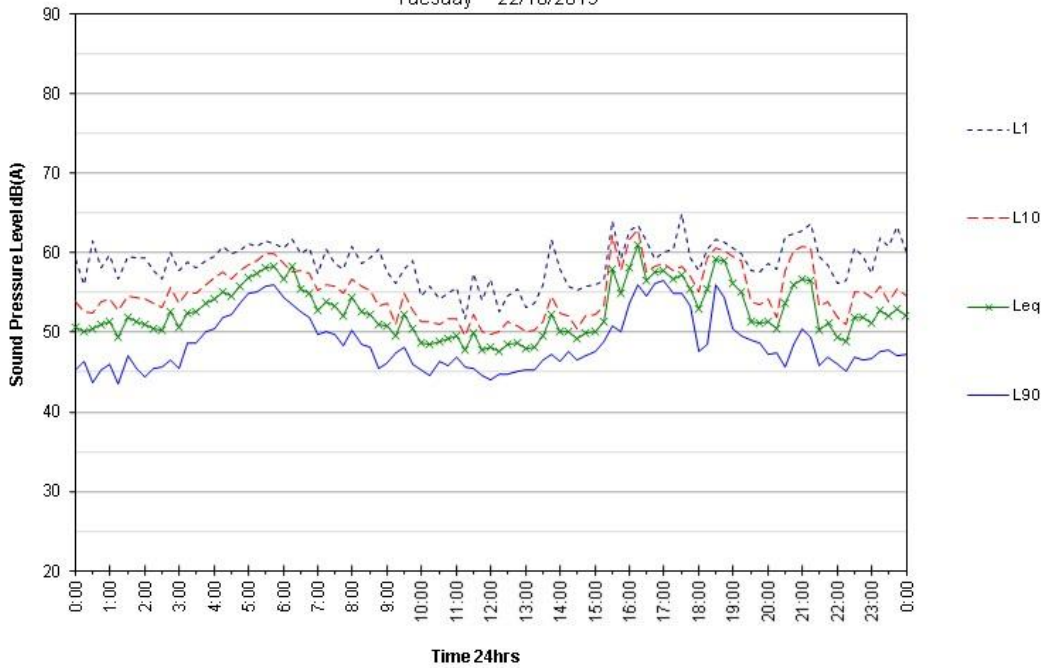
Monday 21/10/2019

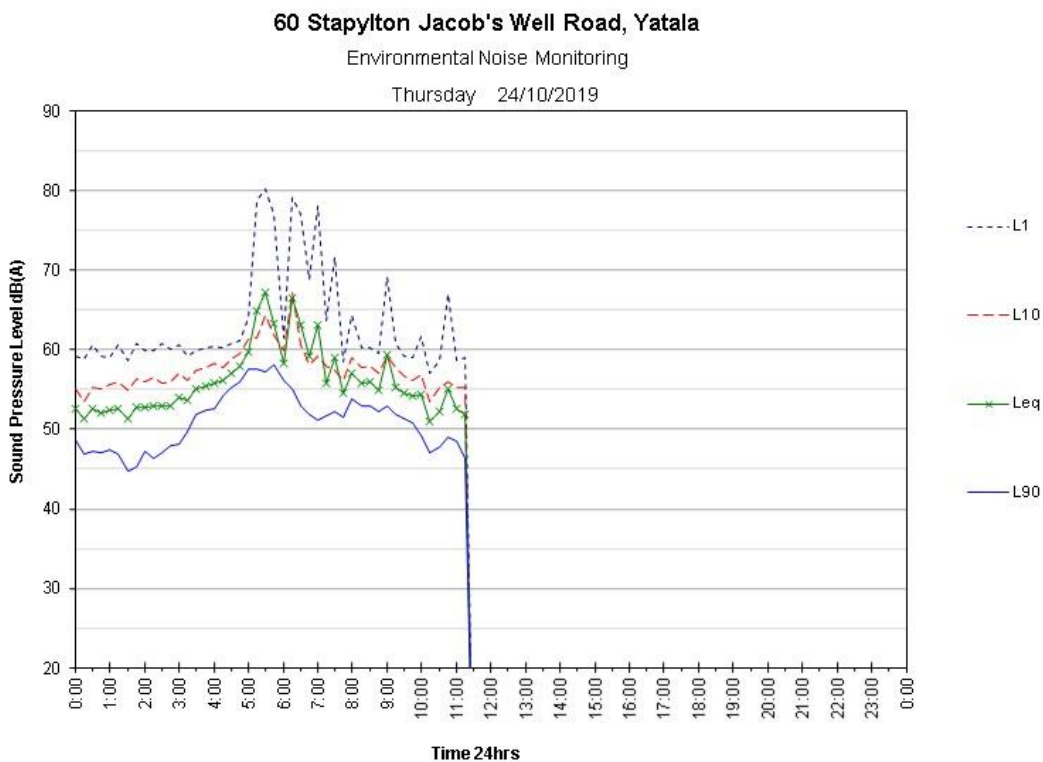
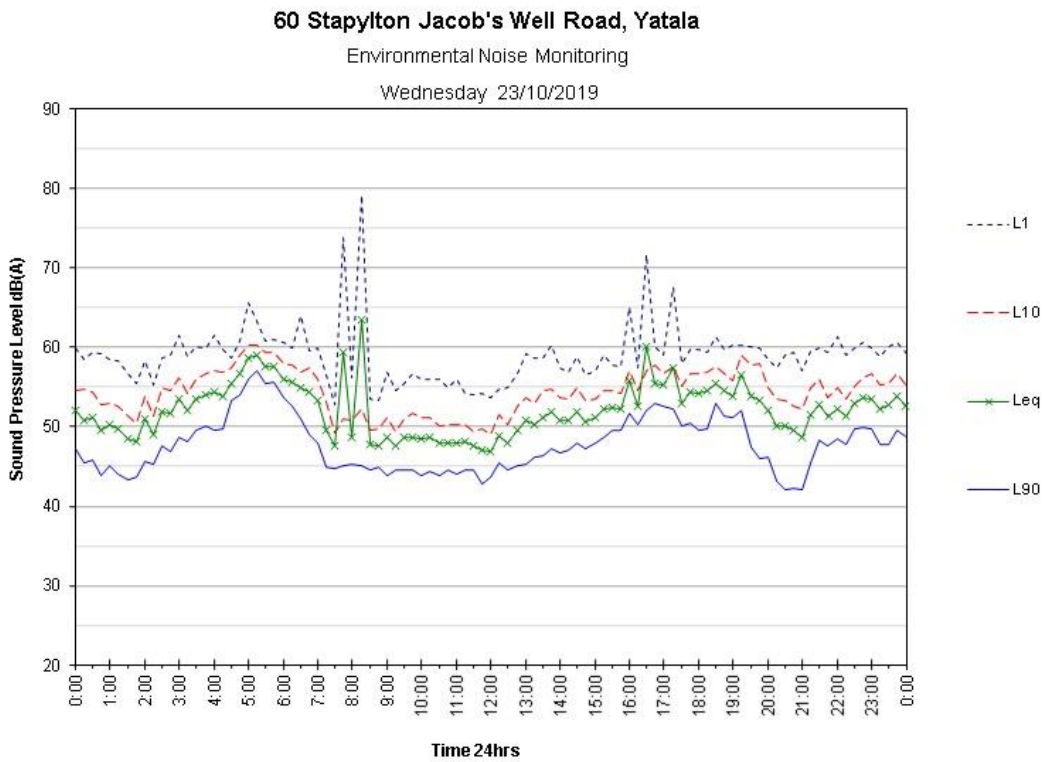


60 Stapylton Jacob's Well Road, Yatala

Environmental Noise Monitoring

Tuesday 22/10/2019







APPENDIX J

TRAFFIC IMPACT ASSESSMENT



VantageYatala



gasman
development
perspectives

planning
environment
landscape
engineering
survey



TRANSPORT IMPACT ASSESSMENT
PROPOSED WAREHOUSE DEVELOPMENT
LOT 204 VANTAGE INDUSTRIAL ESTATE, YATALA

Prepared for
FPI QUEENSLAND PTY LTD

16 DECEMBER 2024

DOCUMENT REGISTER

RTE Reference 24260

Document History

Version	Version date	Details	Reviewed and Authorised	
			Name / Position	Signature
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2	16 December 2024	DA ISSUE	Luke Rytenskild Director RPEQ 6293	

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COMPANY INFORMATION

CRG Traffic Pty Ltd as trustee for the Rytenskild CRG Trust trading as Rytenskild Traffic Group
ABN 24 401 134 418
ACN 151 846 847
Director: Luke Rytenskild RPEQ 6293

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Mermaid Beach QLD 4218

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Brisbane QLD 4000

SYDNEY

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1.0 INTRODUCTION

Rytenskild Traffic Engineering (RTE) has been engaged by FPI Queensland Pty Ltd to prepare a Transport Impact Assessment of its proposed warehouse development at Yatala.

This report forms part of a Development Application to be lodged with the City of Gold Coast. The following issues have been addressed during the study:

- Site access arrangements;
- Car parking supply and design;
- Provision for pedestrians and cyclists;
- Provision for heavy vehicles.

Responses to the Car Parking, Access, and Transport Integration Constraint Code (2003) are included as appendices to this report.

2.0 SUBJECT SITE

As shown in Figure 2.1, the subject site is located within the approved Stage 2 site of the Vantage Industrial Estate. The site is identified as Lot 204 on SP329485 and has a site area of 37,662m².

The site is located within the low and medium impact industry zone.

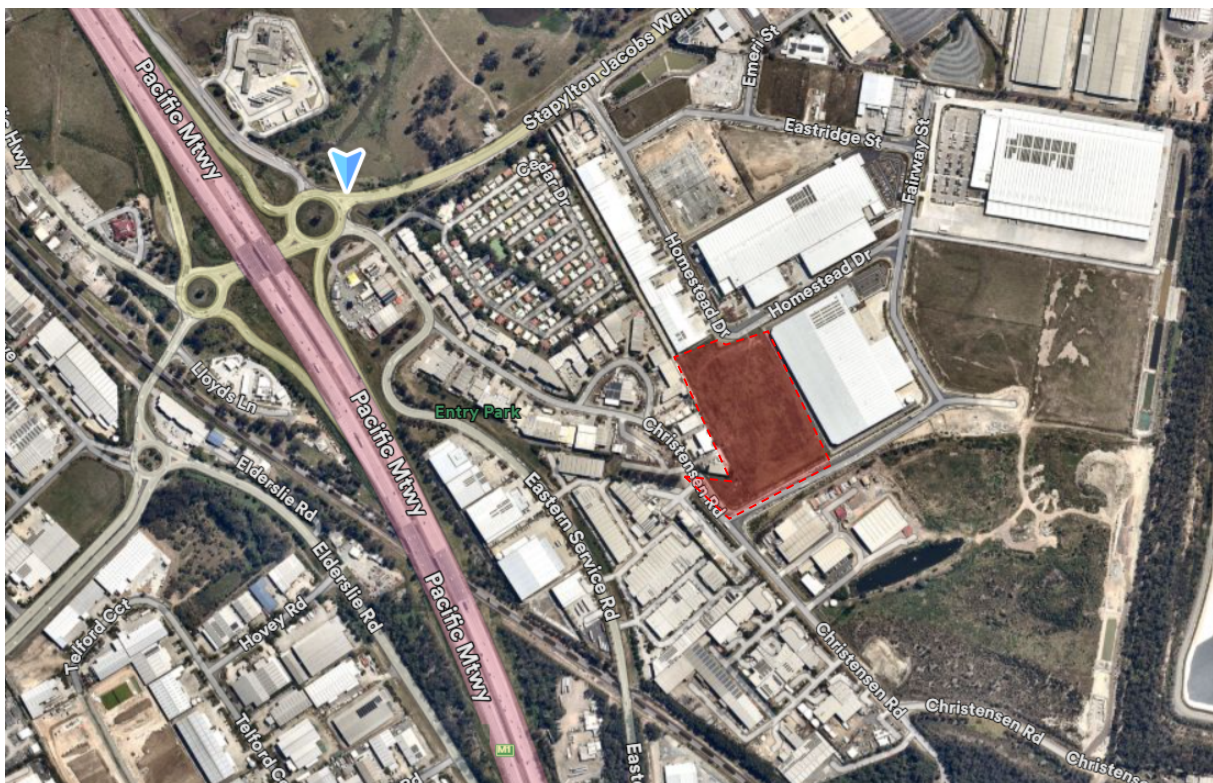


FIGURE 2.1 – LOCATION OF SUBJECT SITE

3.0 DEVELOPMENT PROPOSAL

The proposed plan of development comprises of a dual tenancy Warehouse and Distribution Centre with associated signage, landscaping and car parking. The proposal has a Gross Floor Area (GFA) of 18,374m².

A total of 121 car parking spaces are proposed to be provided across three car parking areas.

Access is proposed to be gained via six separate vehicle crossovers at the following locations:

- | | |
|---|--------------------------------------|
| • Western crossover (Christensen Road): | Entry/exit for light vehicles. |
| • Southwestern-most crossover (Highlands Street): | Entry/exit for heavy vehicles. |
| • Southwestern crossover (Highlands Street): | Entry/exit for light vehicle access. |
| • Northernwestern-most crossover (Homestead Drive): | Entry/exit for heavy vehicles. |
| • Northernwestern crossover (Homestead Drive): | Entry/exit for light vehicle access. |
| • Northerneastern crossover (Homestead Drive): | Entry/exit for light vehicle access. |

It is noted that a road connection to the adjoining lot has been provided at the southeastern corner of the site, which is restricted to emergency fire truck access only.

The proposed site plan is shown in Figure 3.1.

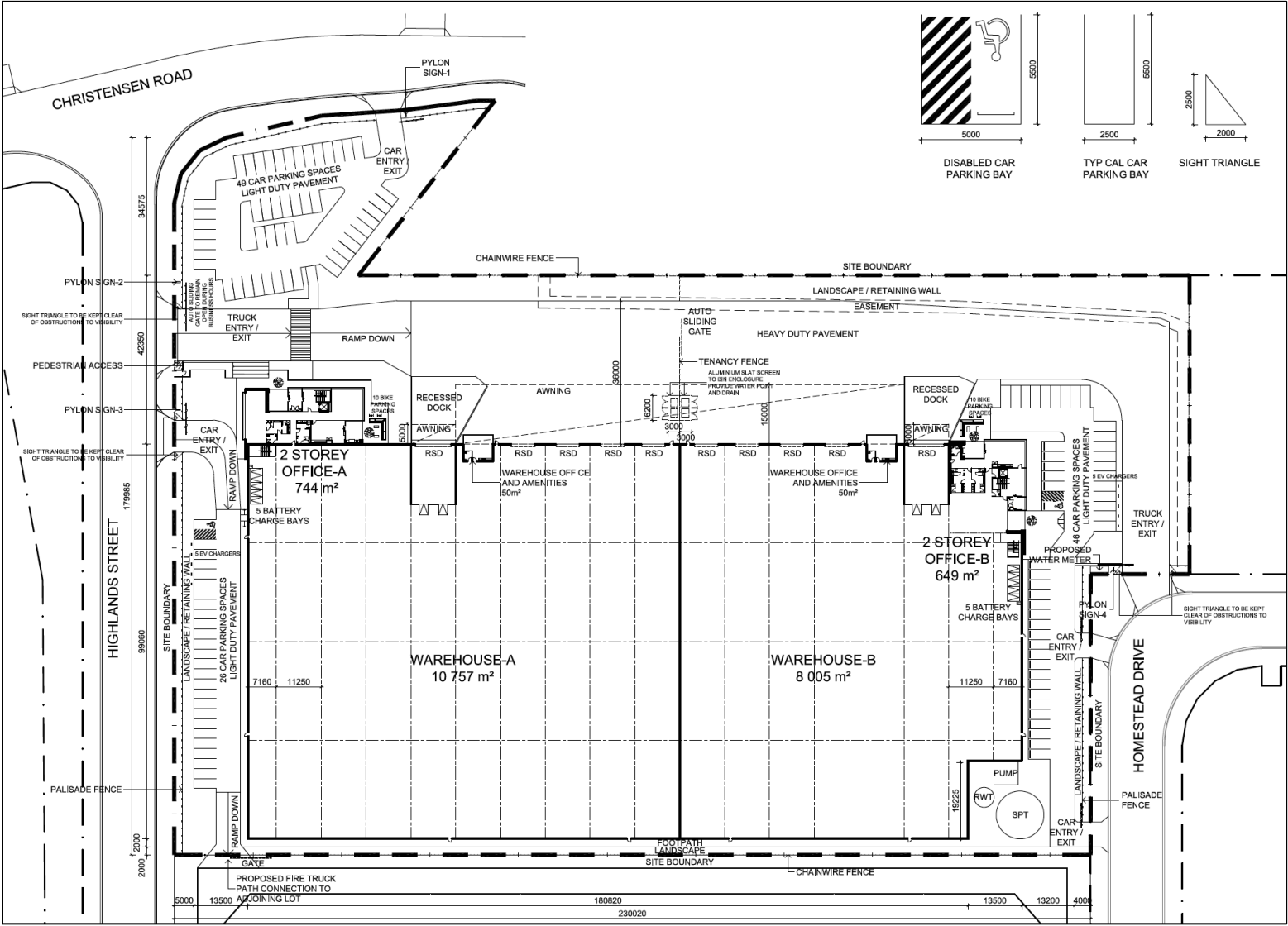


FIGURE 3.1 – PROPOSED SITE PLAN

4.0 CAR PARKING

4.1 Car Parking Supply

In accordance with the *M38 Industrial Place Code – AS8.1.2*, the following rates are applicable to the proposed use:

Warehouse:

2 spaces per tenancy or lot plus

1 space per 50m² of GFA up to and including 500m², and

1 space per 100m² of GFA over 500m²

Application of the above rates to the proposal (18,374m²) results in the following requirements:

4 spaces +

10 spaces for the first 500m²

179 spaces for the balance of 17,874m²

Total – 193 spaces

Application of the above rate to the proposal yields a minimum requirement of 193 car parking spaces. The proposal provides 121 spaces and is therefore considerably short of the Acceptable Outcome.

The tenant is yet to be confirmed; however, the building has been designed for warehouse use and can only be operated by a limited number of persons. It has not been designed for manufacturing or other industrial purposes that typically generate a relatively high density of workers. It is estimated that the overall building will have a maximum of 111 staff members and 10 visitors on-site at any one time.

The proposed provision of 121 car parking spaces will comfortably accommodate the expected staffing levels. This approach is consistent with recent approvals for Lots 120 and 122 in Vantage Estate, where the proposed parking supply was designed to suit the likely levels of workforce and visitation.

As depicted in Figures 4.1 – 4.3, a review of car parking utilisation has been carried out using Nearmap aerial imagery. As shown, the surveyed sites indicate low car parking utilisation, with car parking rates as low as 1 space per 600m² GLFA. For the above reasons, the proposed provision of 121 car parking spaces will adequately service the proposed building without causing an overflow of parking demand into the public street system.



FIGURE 4.1 – CAR PARKING DEMANDS AT 1 BLUESTONE PLACE, YATALA (GFA APPROX: 9,000M²)

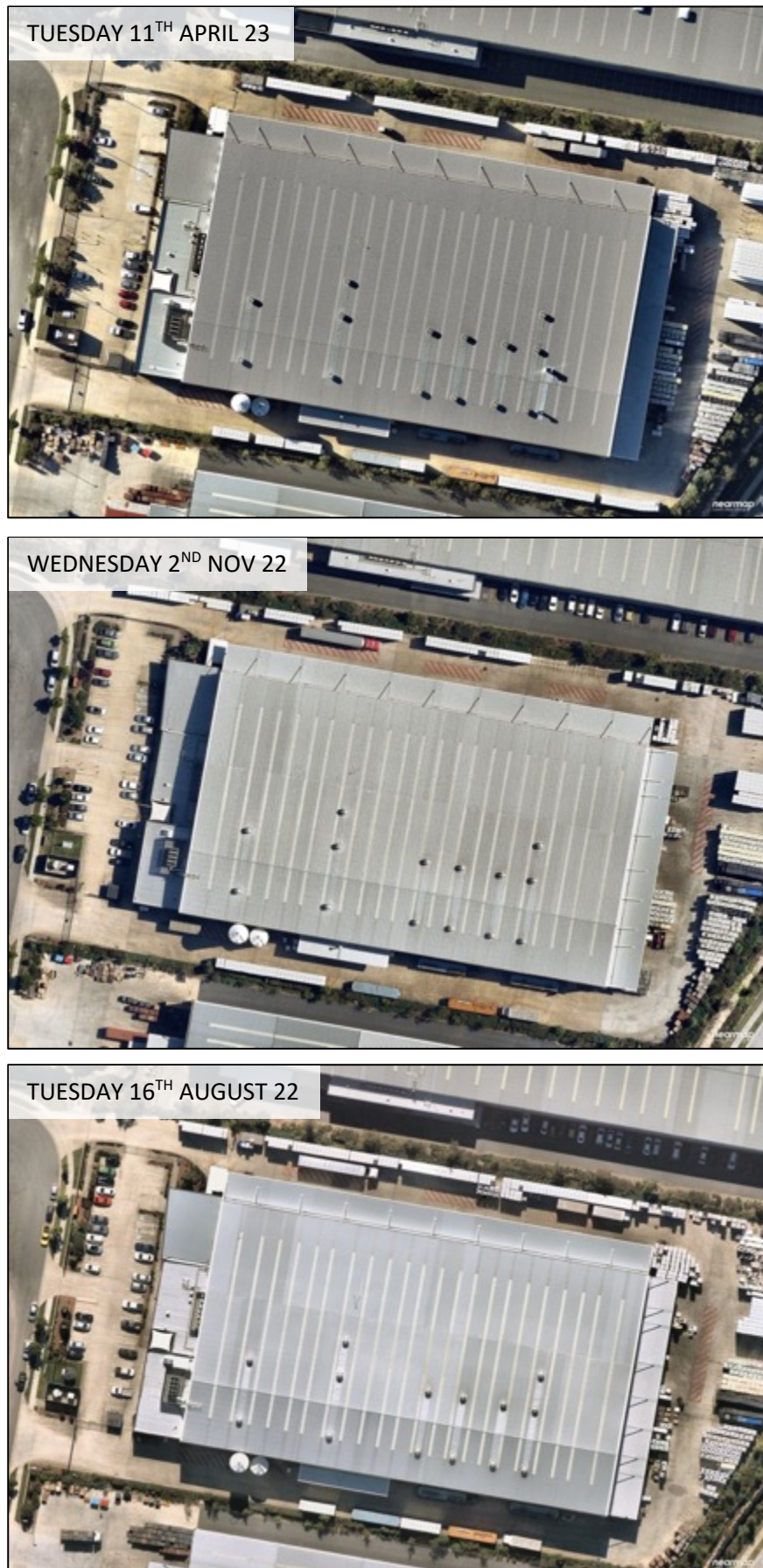


FIGURE 4.2 – CAR PARKING DEMANDS AT 23 ARTHUR DIXON COURT, YATALA (GFA APPROX: 8,000M²)



FIGURE 4.3 – CAR PARKING DEMANDS AT 14 THOMAS HANLON COURT, YATALA (GFA APPROX: 2,500M²)

4.2 Car Parking Design

The geometric layout of the proposed parking facilities has generally been designed to comply with the relevant requirements specified in the Transport Code and AS2890.1: 2004.

The proposed car parking layout has the following dimensions:

Table 4.2 – Car Parking Design Characteristics

Design Aspect	Minimum AS2890.1 Standard	Proposed	Compliance
Parking space length: - General - PWD Bay	5.4 metres 5.4 metres	5.4 metres 5.4 metres	Compliant Compliant
Parking space width: - General - PWD Bay	2.5 metres 2.4 metres, plus 2.4m wide shared zone	2.5 metres 2.5 metres, plus 2.5m wide shared zone	Compliant Compliant
Aisle Width: - Parking aisle - Circulation aisle	5.8 metres 5.8 metres	6.2 metres 6.2 metres	Compliant Compliant
Maximum Gradient - Parking Bay - Parking Aisle - PWD Bay	1:20 (5.0%) 1:16 (6.25%) 1:40 (2.5%)	<1:20 (5.0%) <1:20 (5.0%) <1:40 (2.5%)	Compliant
Maximum Change in Grade	1:8 (12.5%) summit 1:6.67 (15.0%) sag	<1:8 (12.5%) summit <1:8 (12.5%) sag	Compliant
Height Clearance - General Min. - Absolute Min.	2.2 metres N/A	N/A	N/A
Parking Aisle Extension	1 metre beyond last bay	3.3 metres	Compliant

Dimensioned plans of the typical parking configuration at various modules throughout the site are shown in Figures 4.4 – 4.10.

A swept path analysis has been prepared for the proposed parking arrangements in accordance with AS2890.1:2004, adopting B85 and B99 design vehicles. As shown in Figures 4.11 – 4.17, such can satisfactorily negotiate the proposed arrangements and enter and exit the site in a forward gear.



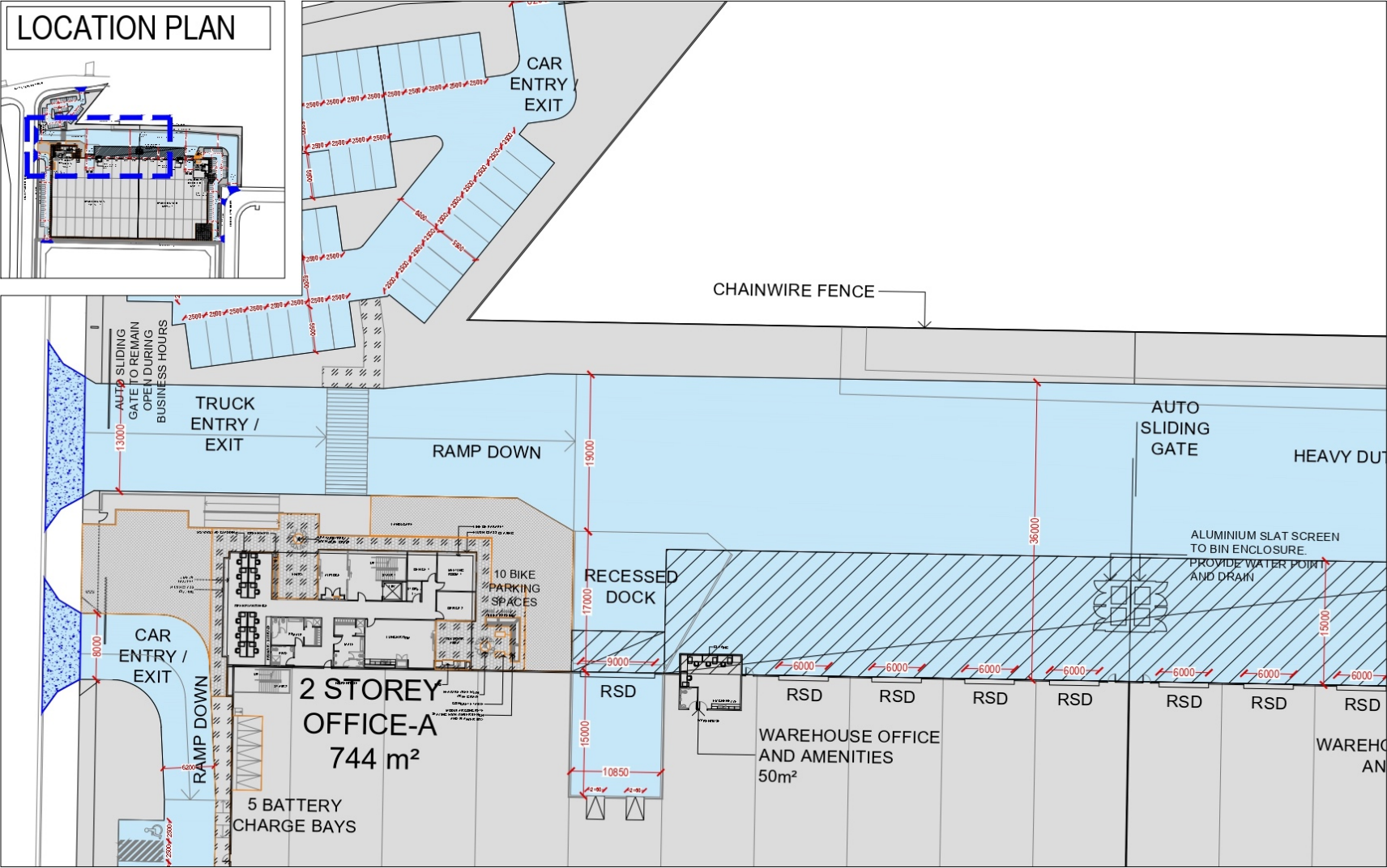
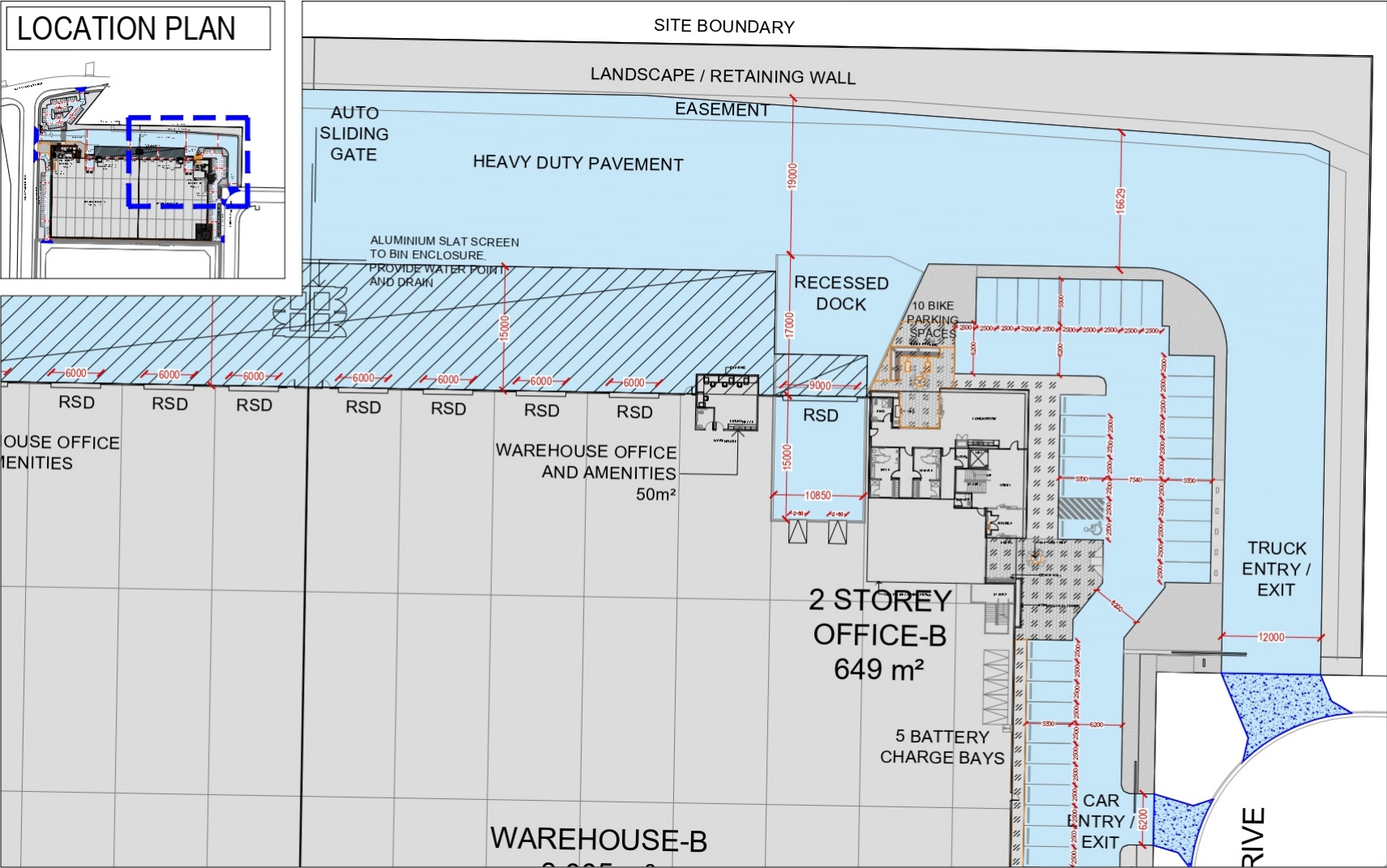


FIGURE 4.5 – DIMENSIONED CAR PARKING LAYOUT



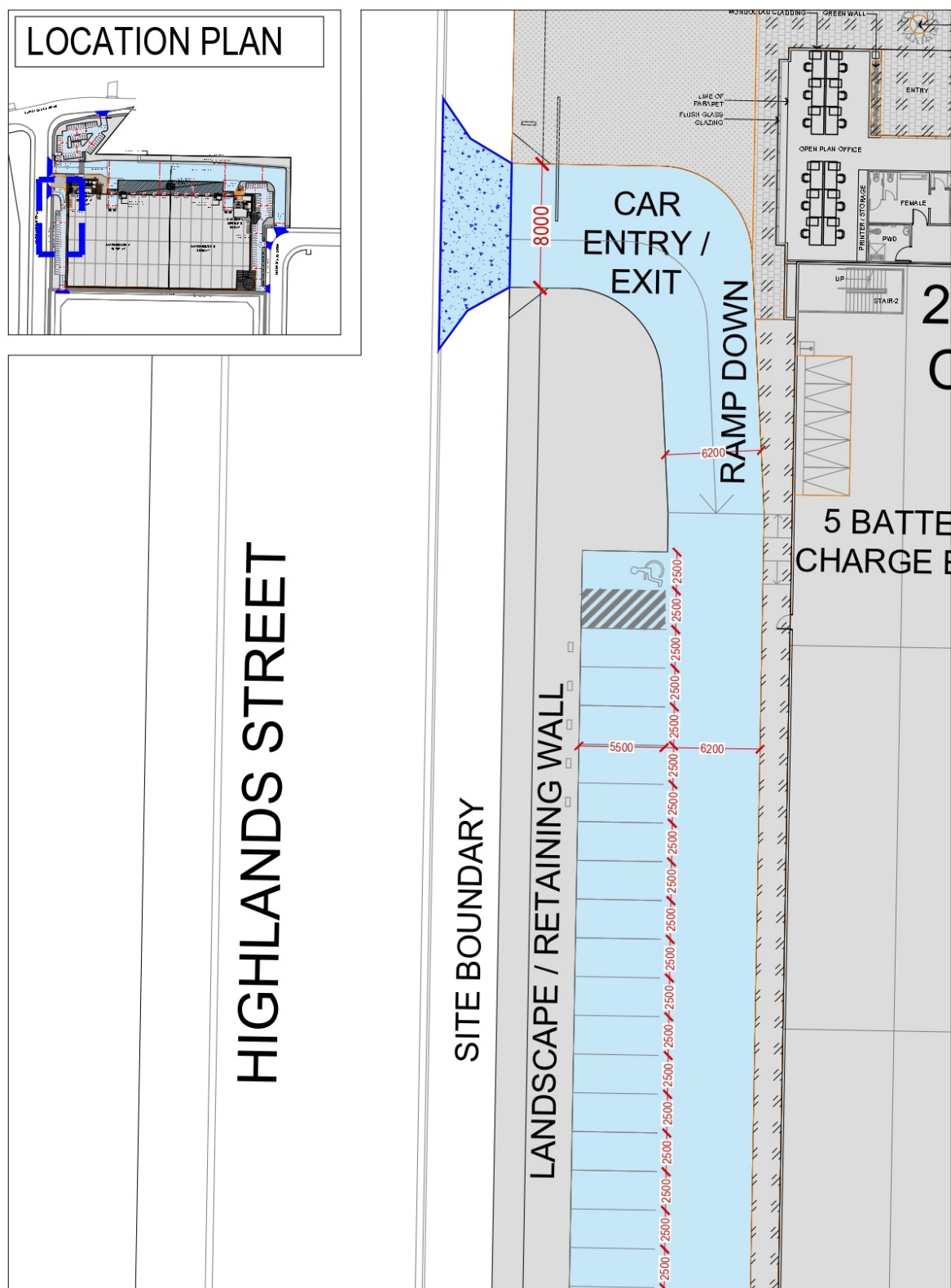


FIGURE 4.7 – DIMENSIONED CAR PARKING LAYOUT

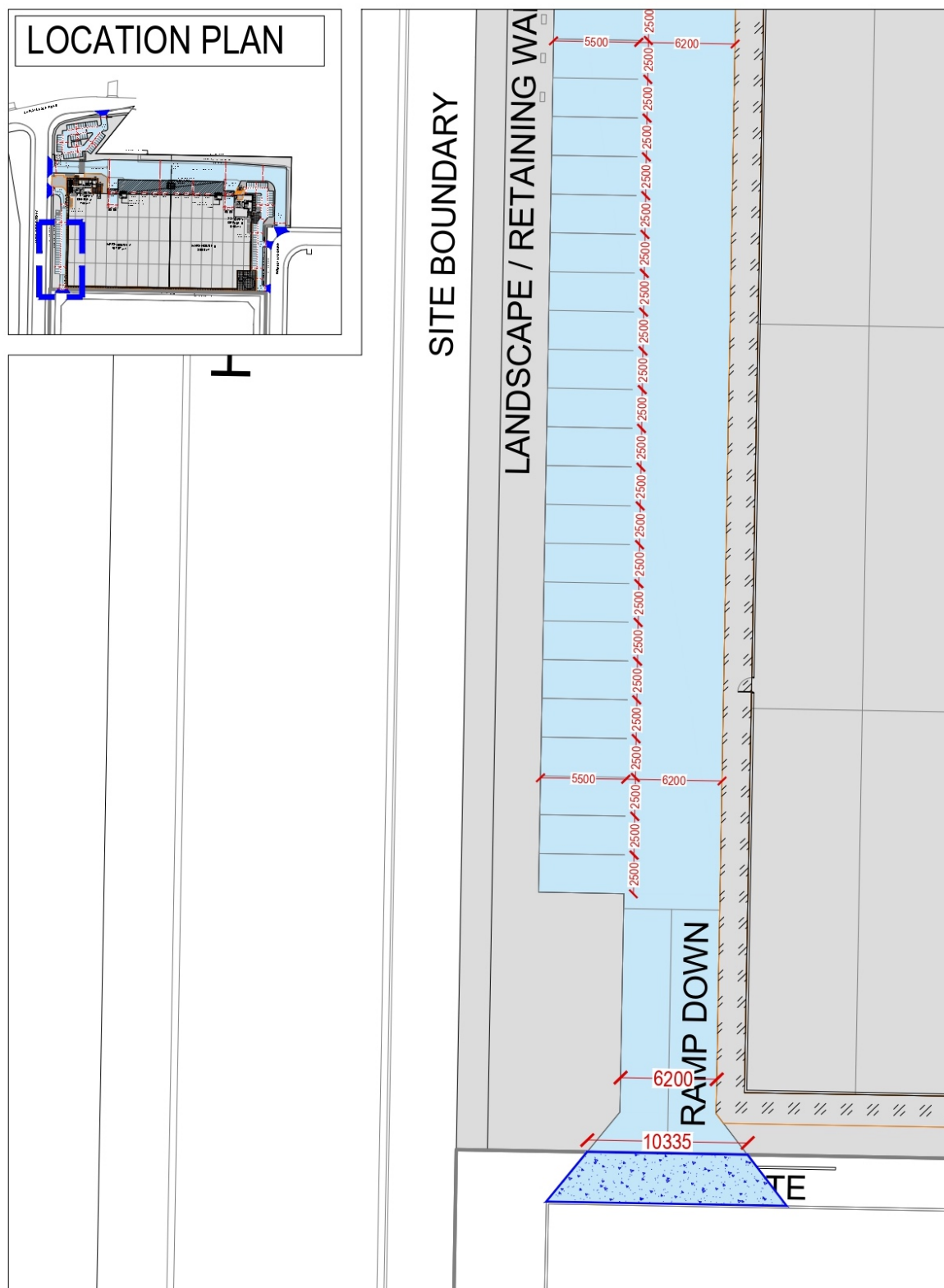


FIGURE 4.8 – DIMENSIONED CAR PARKING LAYOUT

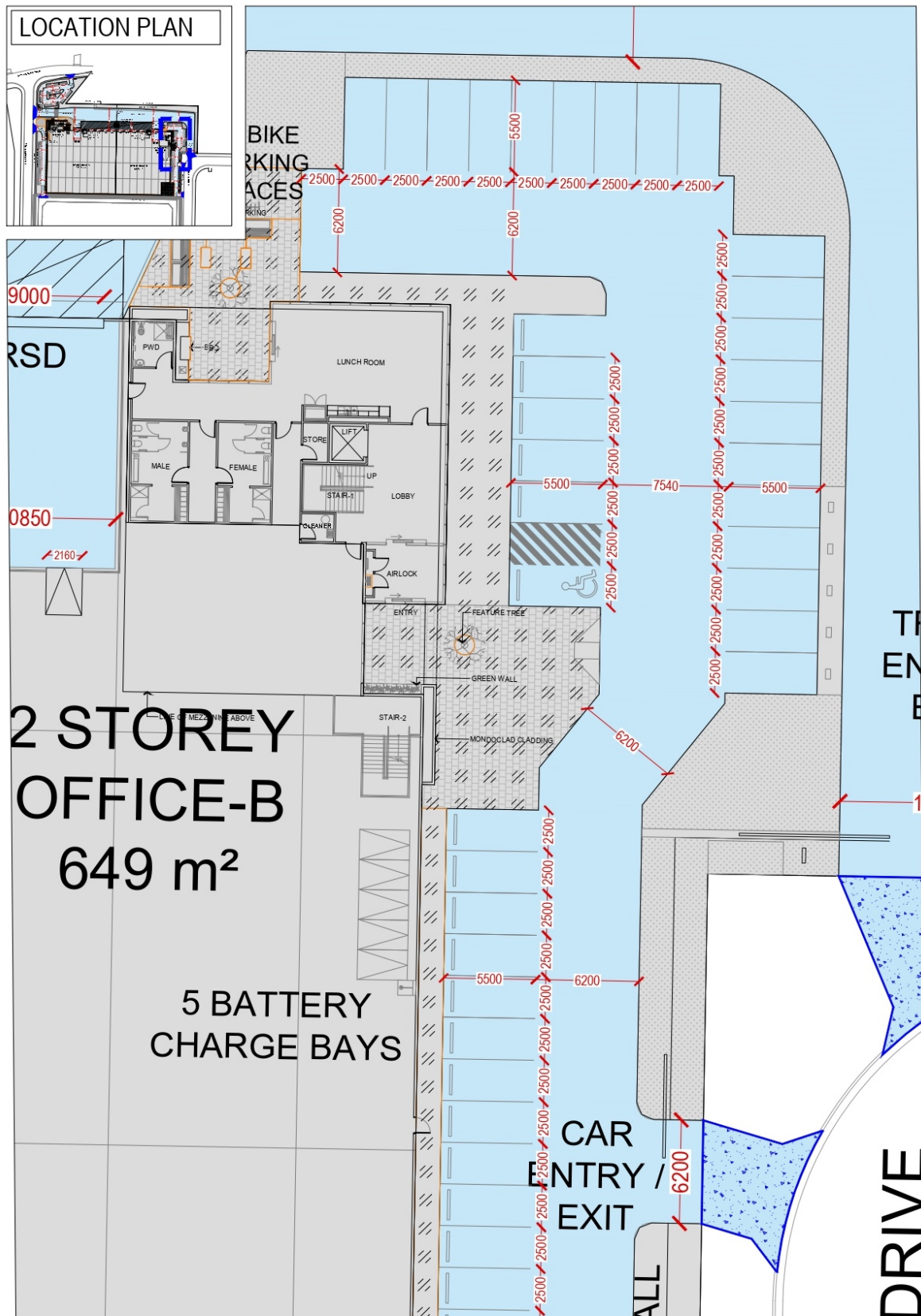


FIGURE 4.9 – DIMENSIONED CAR PARKING LAYOUT

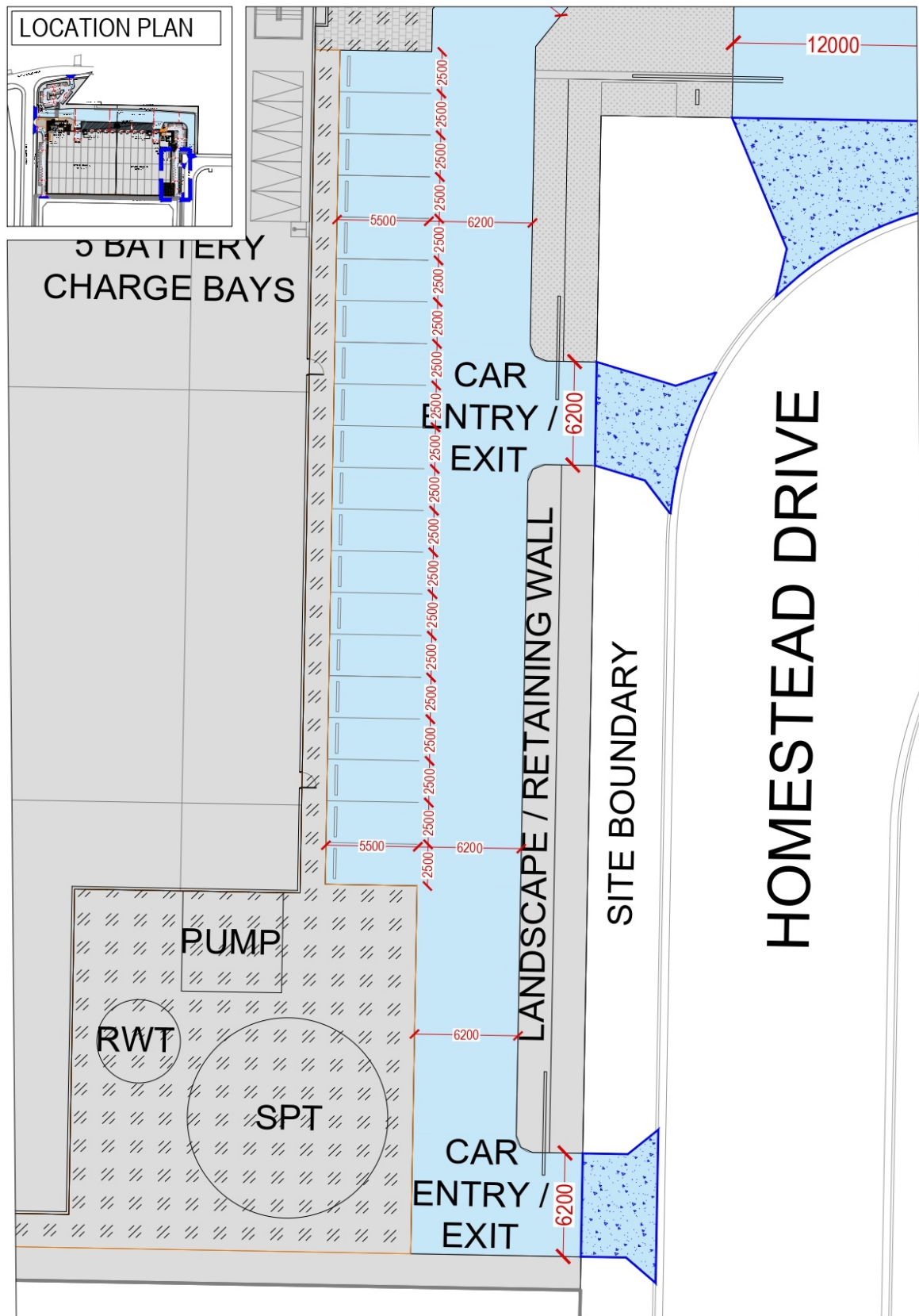


FIGURE 4.10 – DIMENSIONED CAR PARKING LAYOUT

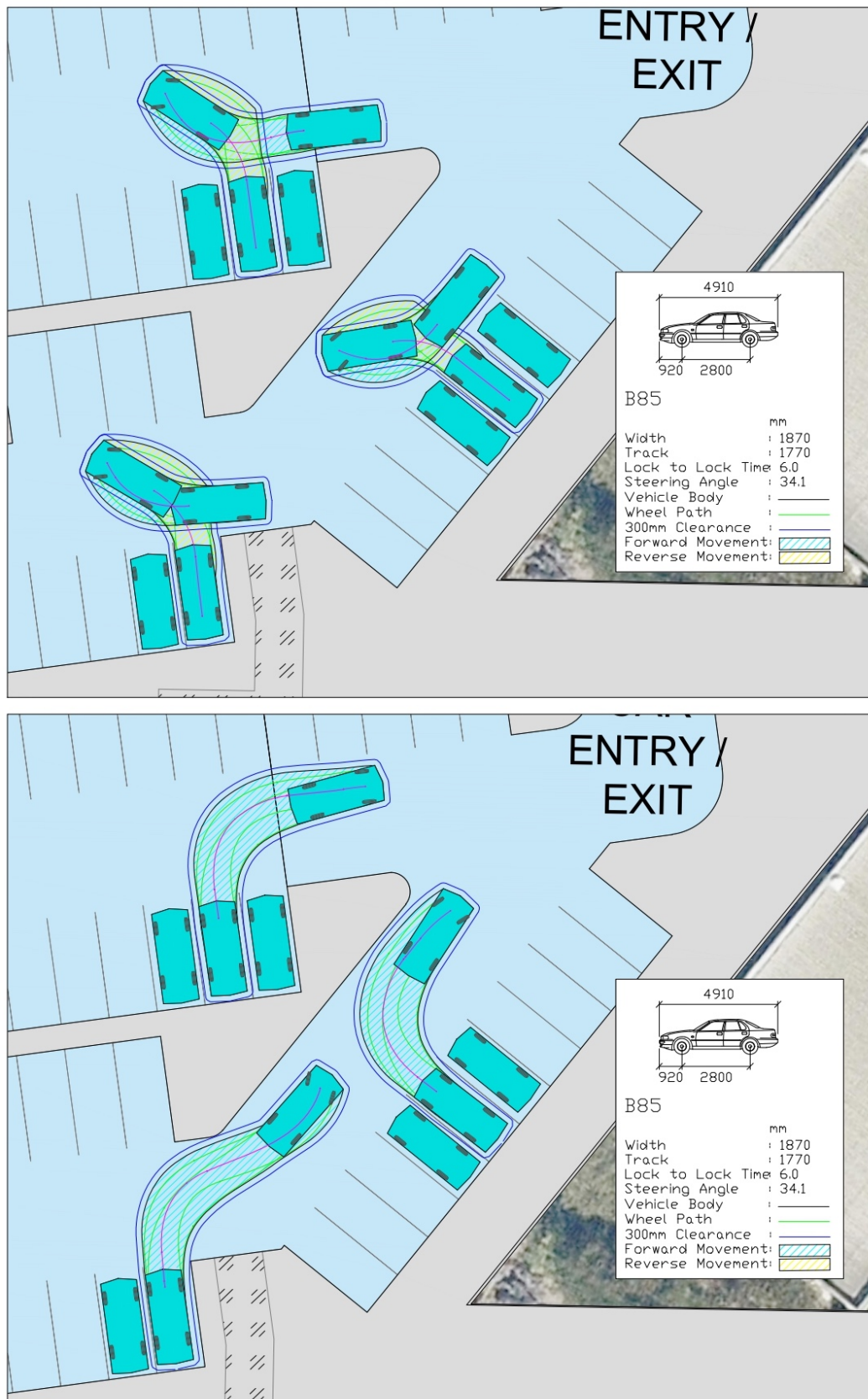


FIGURE 4.11 – 85TH PERCENTILE VEHICLE MANOEUVRING

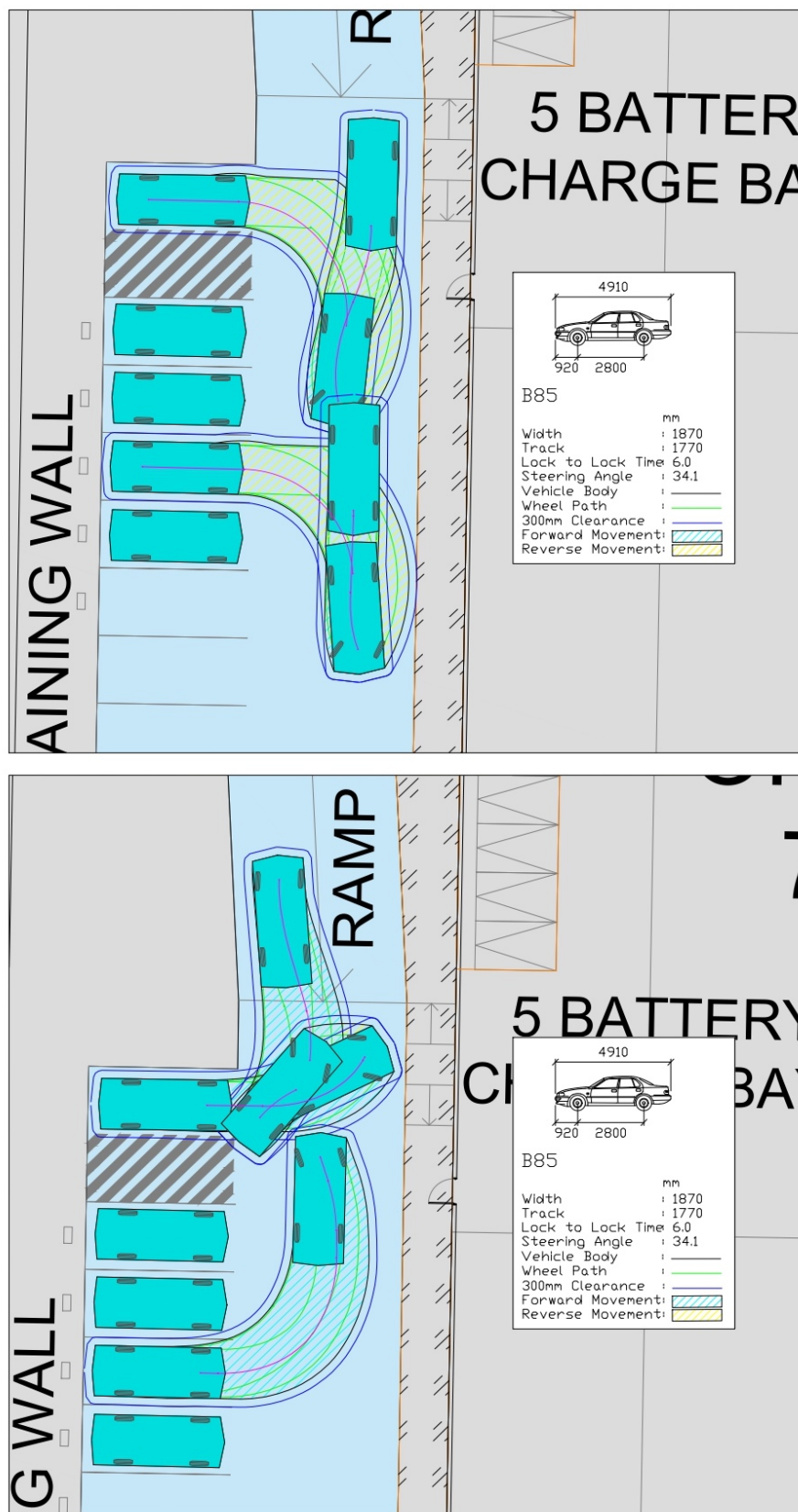


FIGURE 4.12 – 85TH PERCENTILE VEHICLE MANOEUVRING

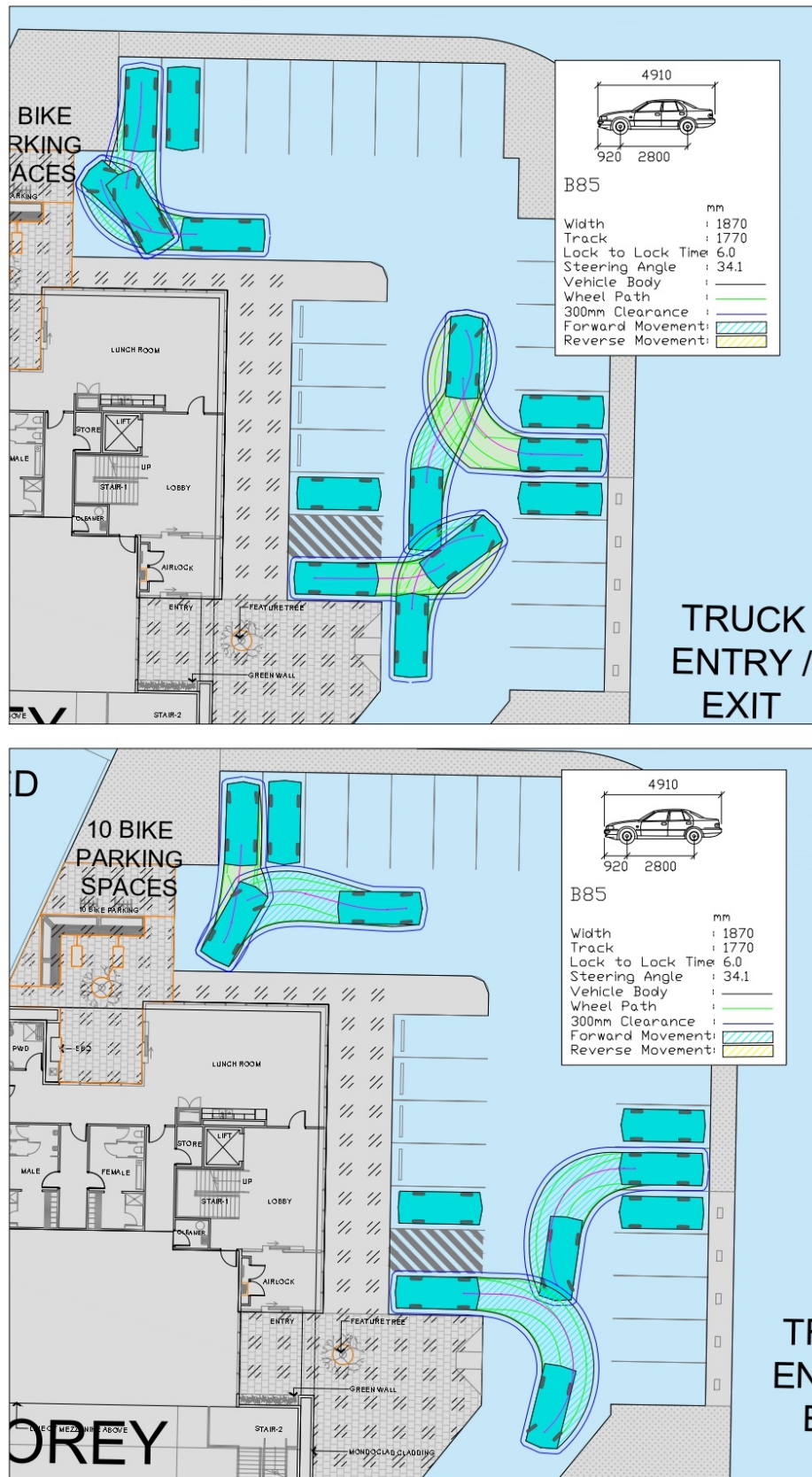


FIGURE 4.13 – 85TH PERCENTILE VEHICLE MANOEUVRING

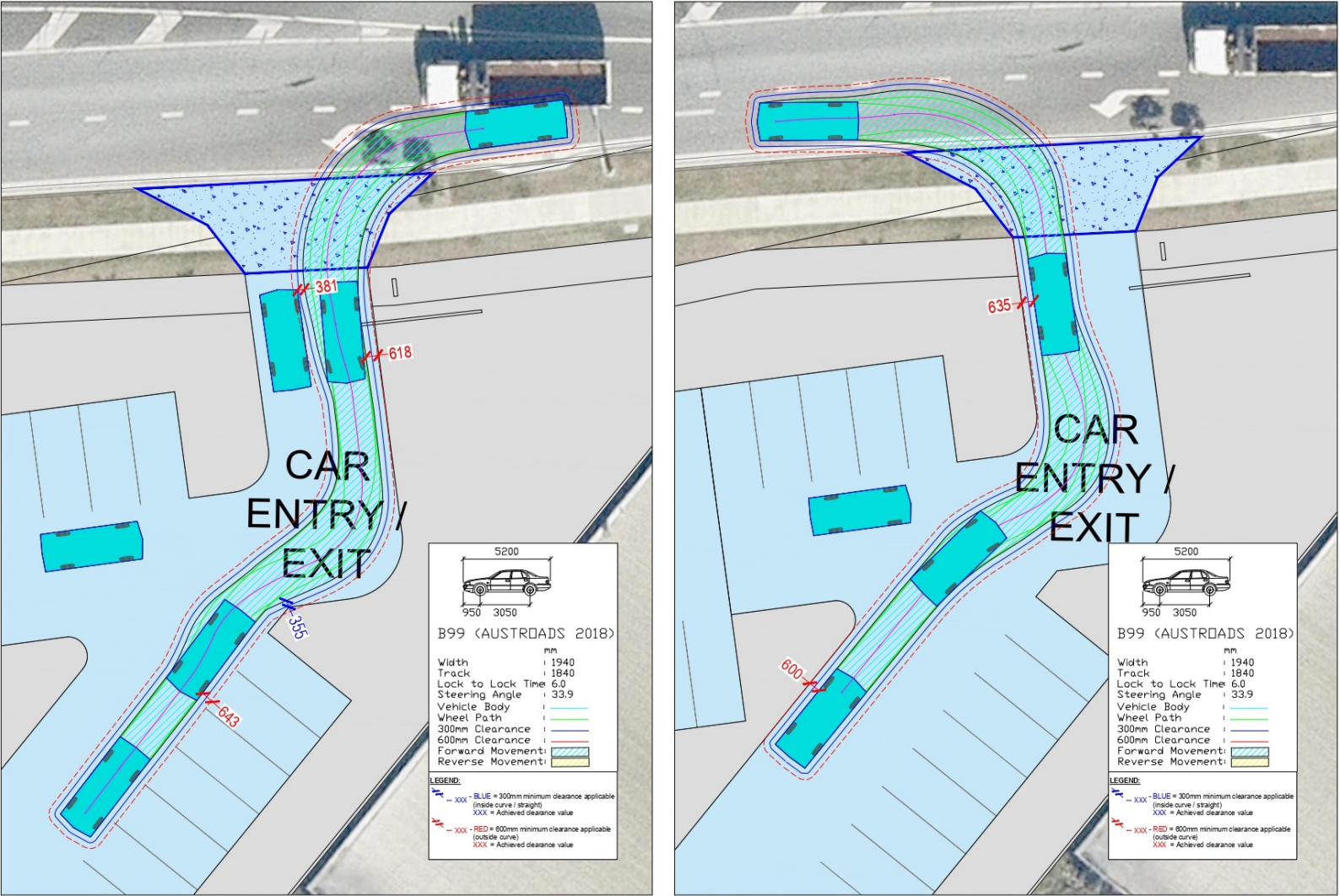


FIGURE 4.14 – 99TH PERCENTILE VEHICLE MANOEUVRING

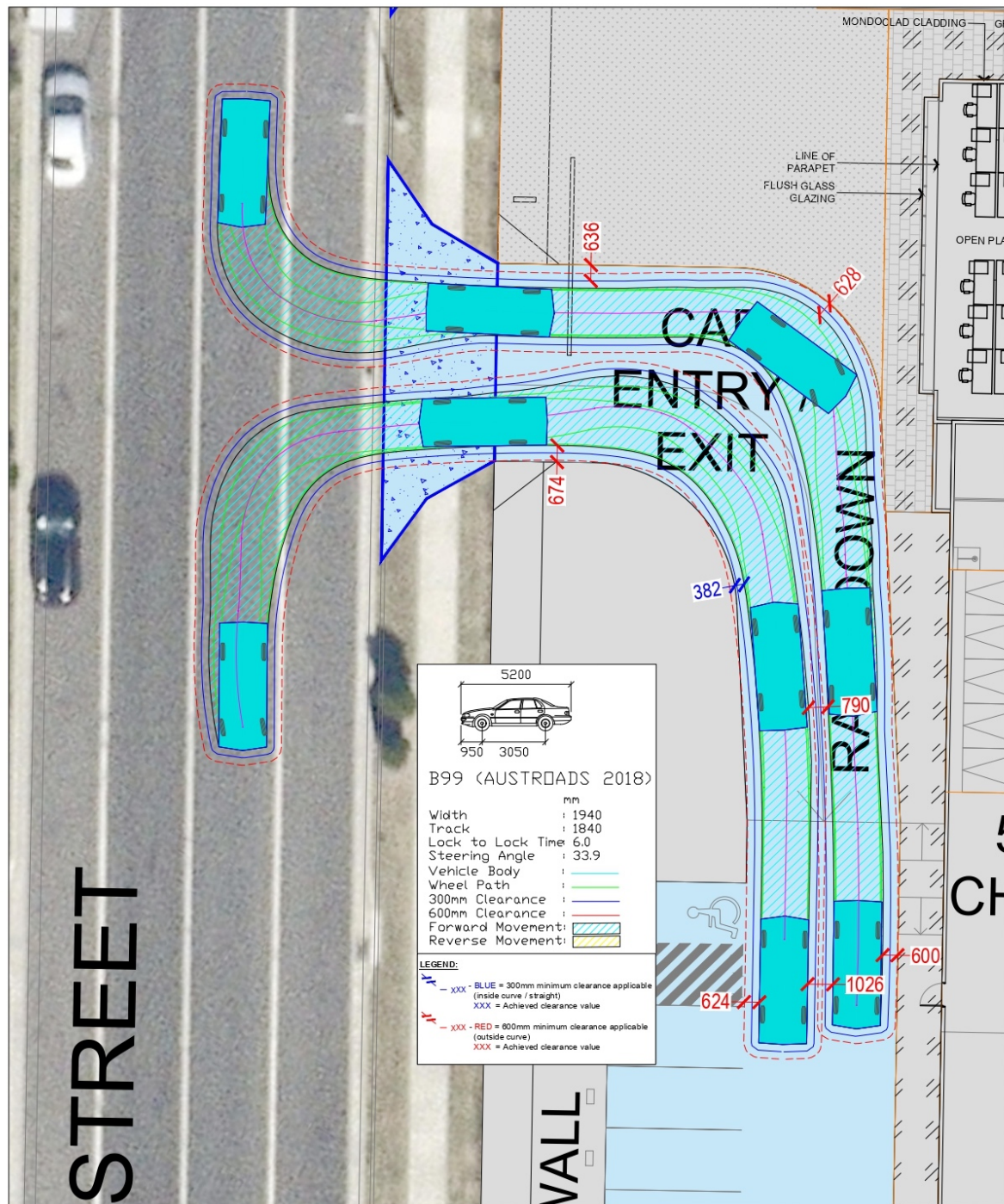


FIGURE 4.15 – 99TH PERCENTILE VEHICLE MANOEUVRING

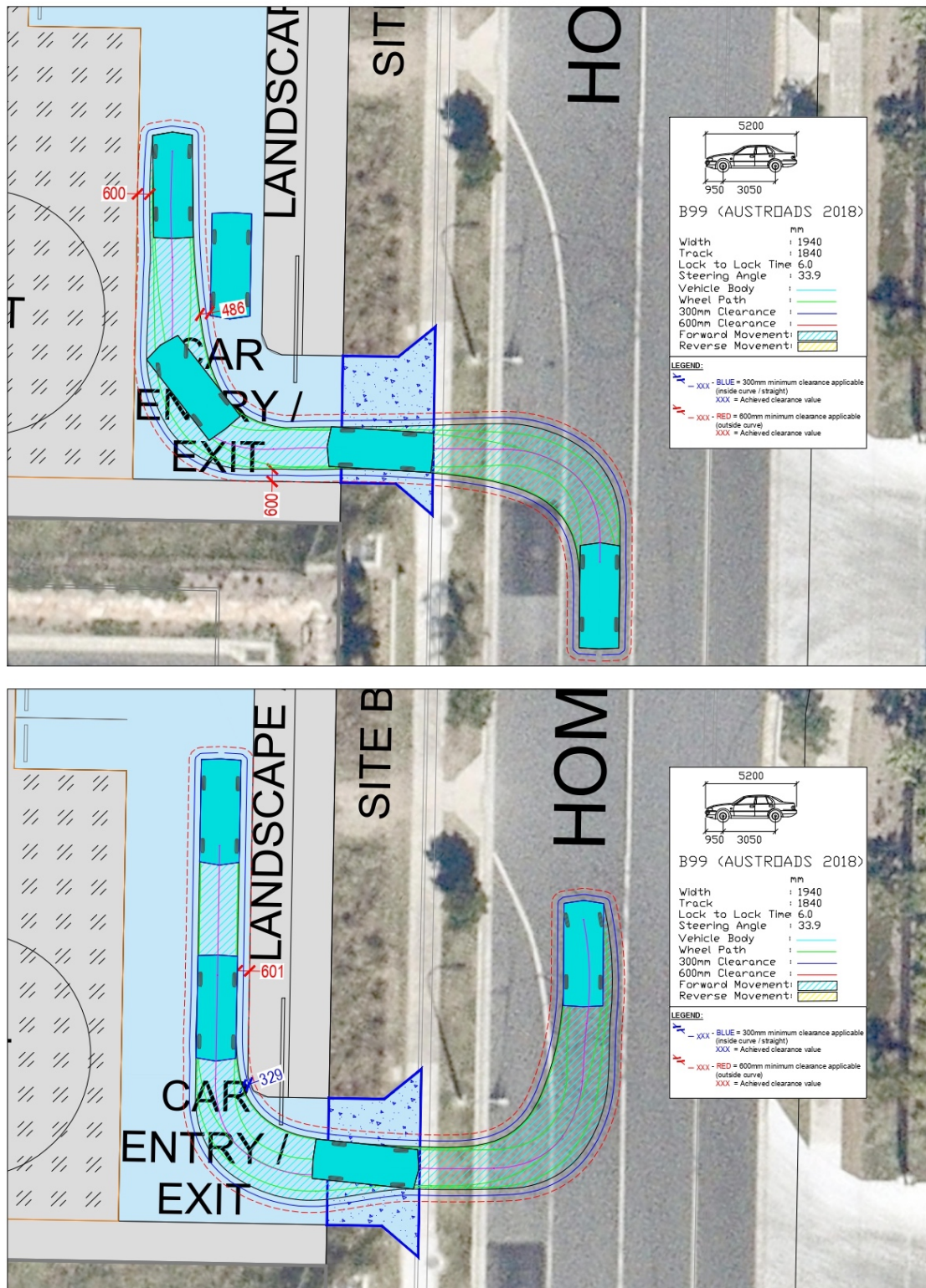


FIGURE 4.16 – 99TH PERCENTILE VEHICLE MANOEUVRING

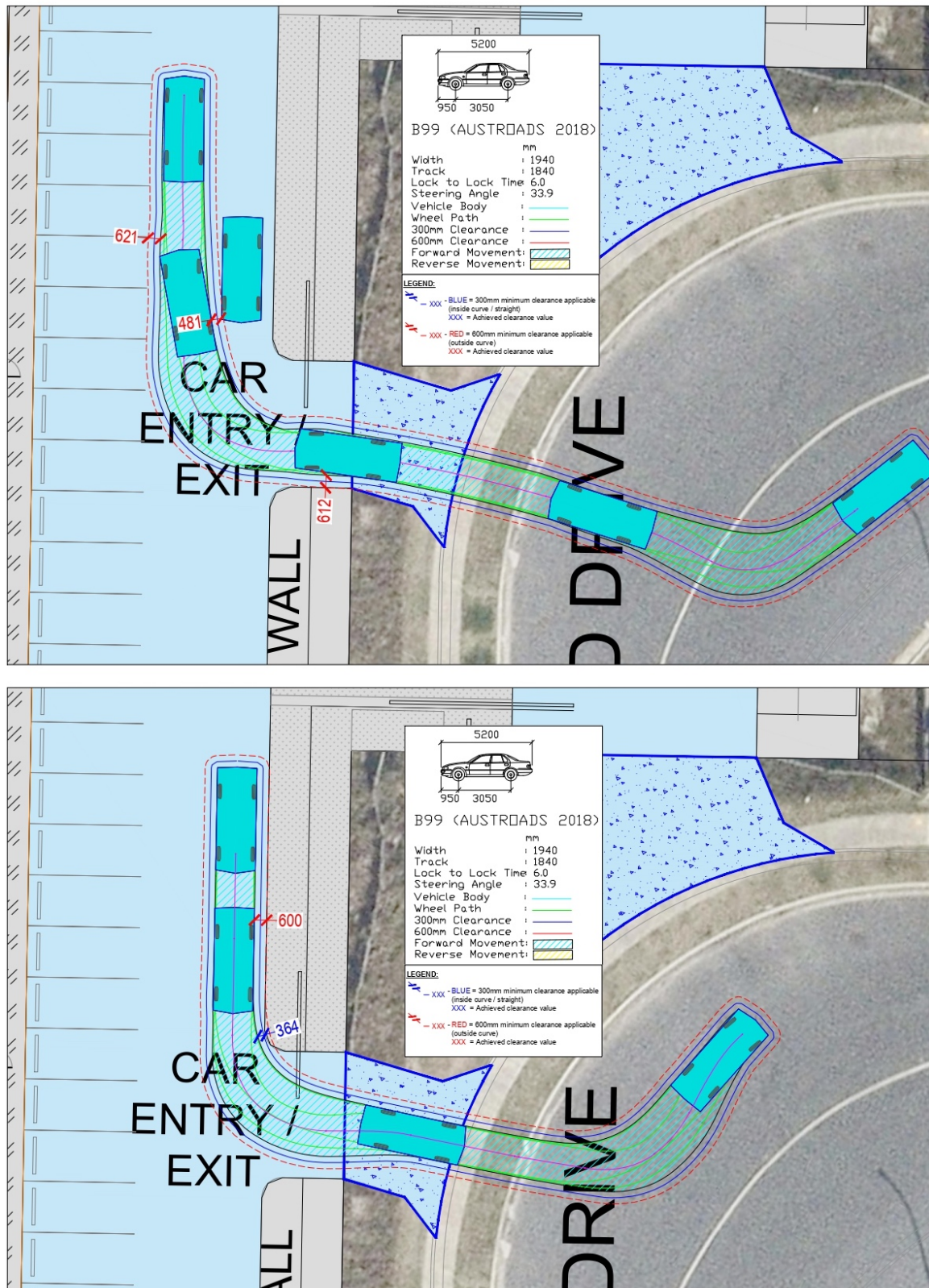


FIGURE 4.17 – 99TH PERCENTILE VEHICLE MANOEUVRING

5.0 ACCESS ARRANGEMENTS

Access is proposed to be gained via six separate vehicle crossovers at the following locations:

- | | |
|---|--------------------------------------|
| • Western crossover (Christensen Road): | Entry/exit for light vehicles. |
| • Southwestern-most crossover (Highlands Street): | Entry/exit for heavy vehicles. |
| • Southwestern crossover (Highlands Street): | Entry/exit for light vehicle access. |
| • Northernwestern-most crossover (Homestead Drive): | Entry/exit for heavy vehicles. |
| • Northernwestern crossover (Homestead Drive): | Entry/exit for light vehicle access. |
| • Northerneastern crossover (Homestead Drive): | Entry/exit for light vehicle access. |

It is noted that a road connection to the adjoining lot has been provided at the southeastern corner of the site, which is restricted to emergency fire truck access only.

As shown in Figures 5.1 – 5.7, the proposed vehicle crossovers have been designed in accordance with the IPWEA Standard Drawings RS-051 suitable for the intended design vehicle.

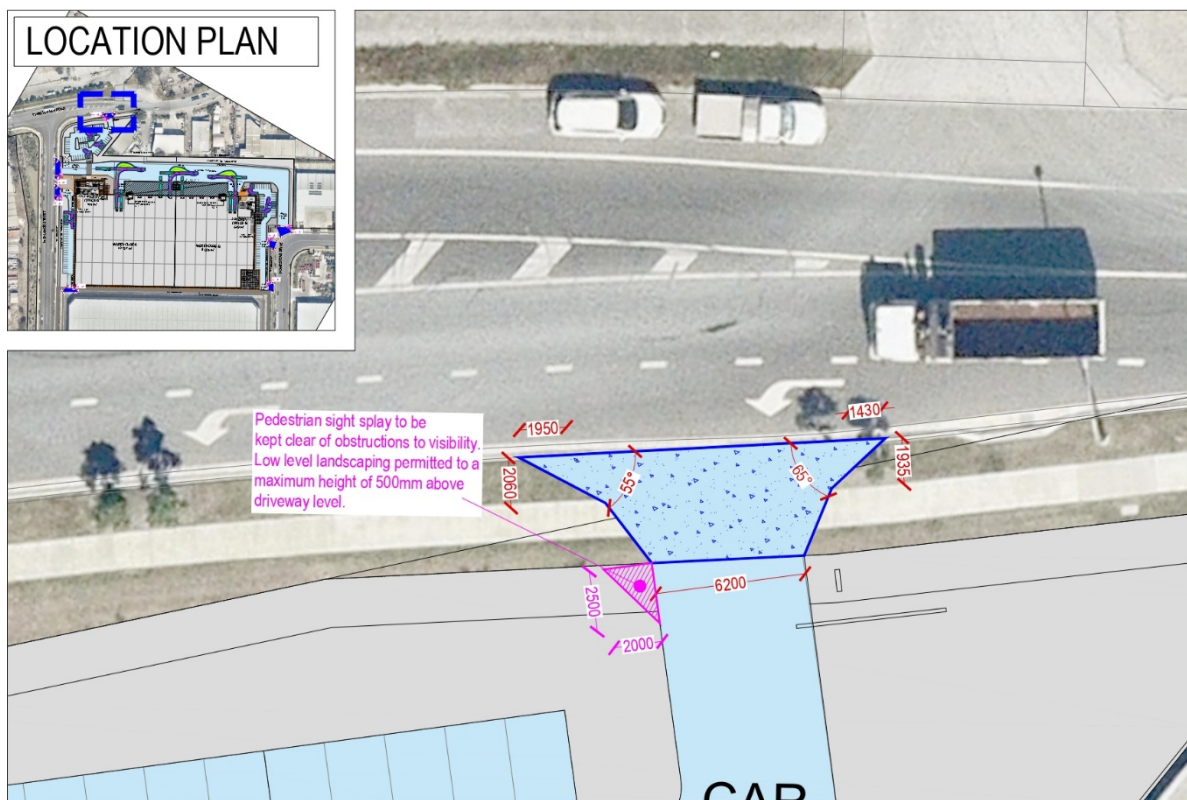


FIGURE 5.1 – ACCESS ARRANGMENTS (CHRISTENSEN ROAD CROSSOVER – LIGHT VEHICLES)

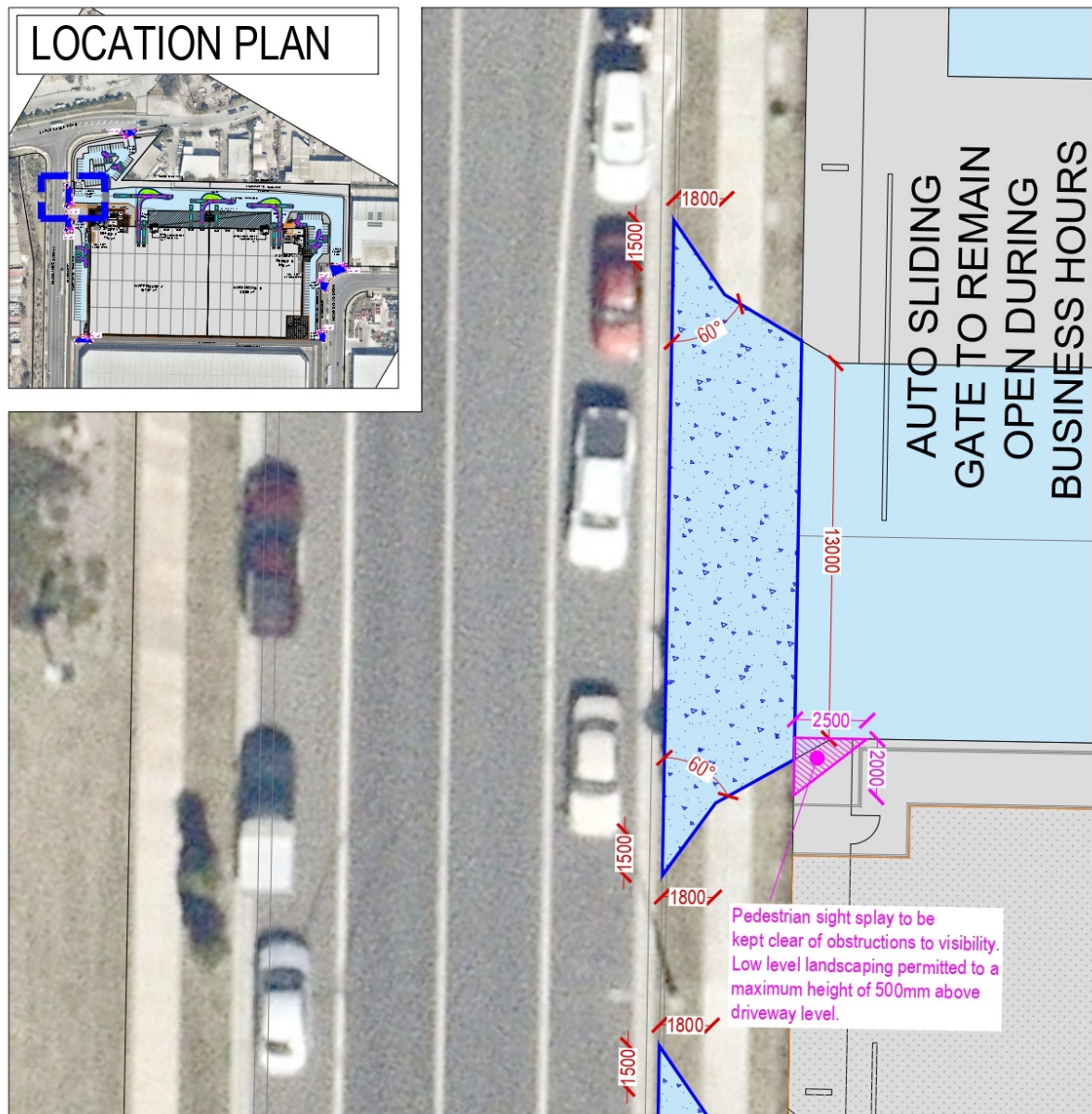


FIGURE 5.2 – ACCESS ARRANGMENTS (HIGHLANDS STREET CROSSOVER – HEAVY VEHICLE)

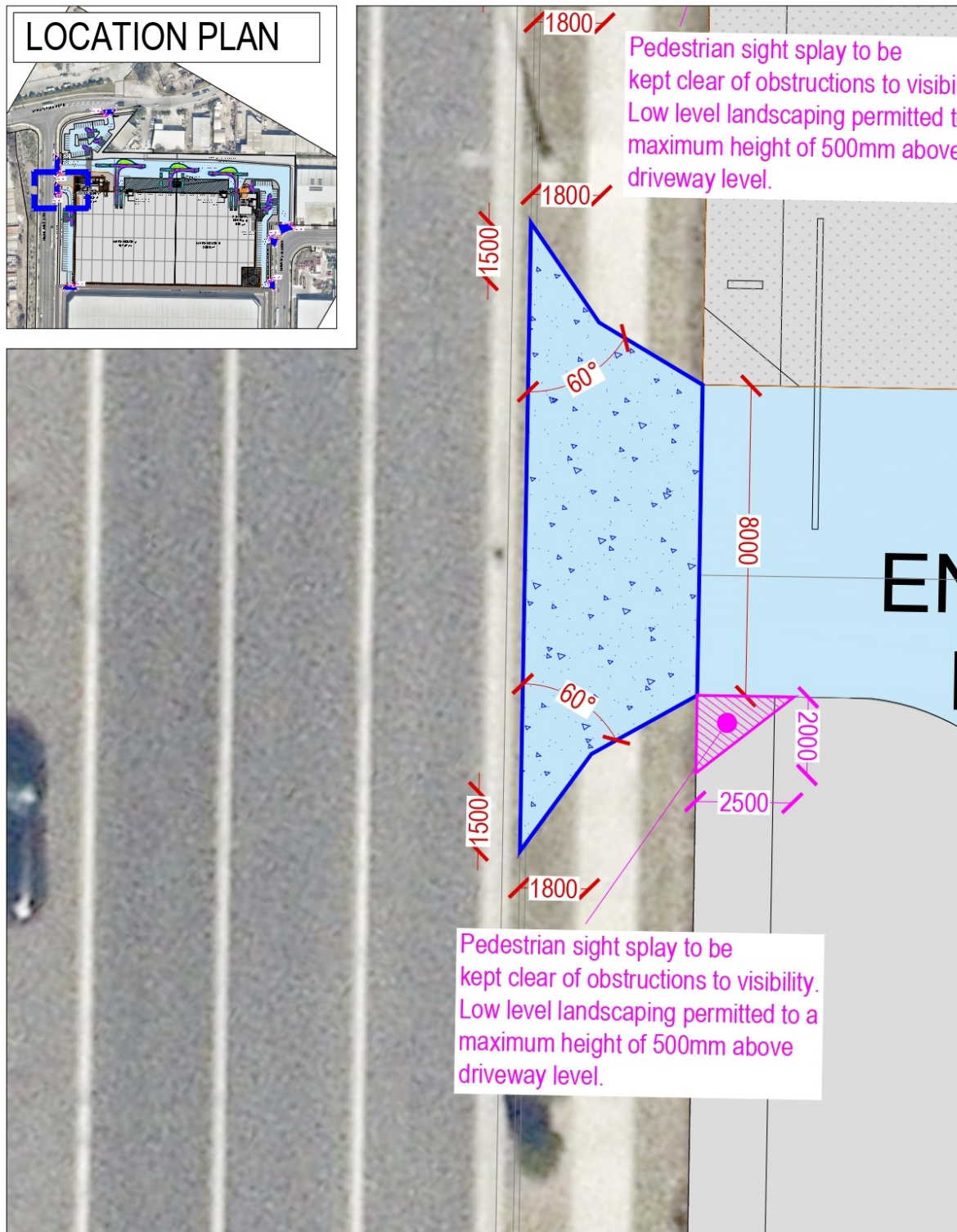


FIGURE 5.3 – ACCESS ARRANGMENTS (HIGHLANDS STREET CROSSOVER – HEAVY VEHICLES)

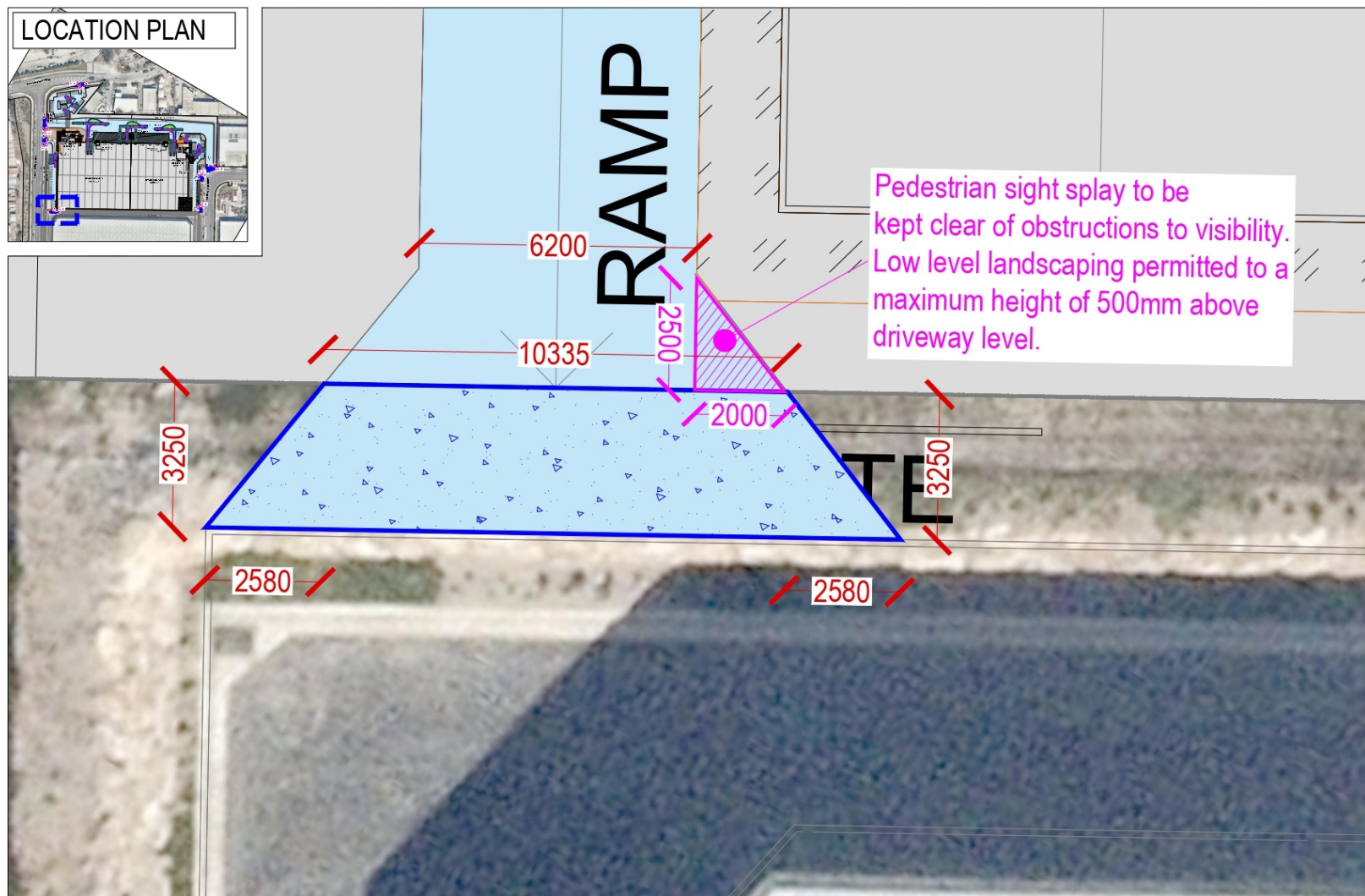


FIGURE 5.4 – ACCESS ARRANGMENTS (FIRE TRUCK ACCESS TO ADJACENT LOT)

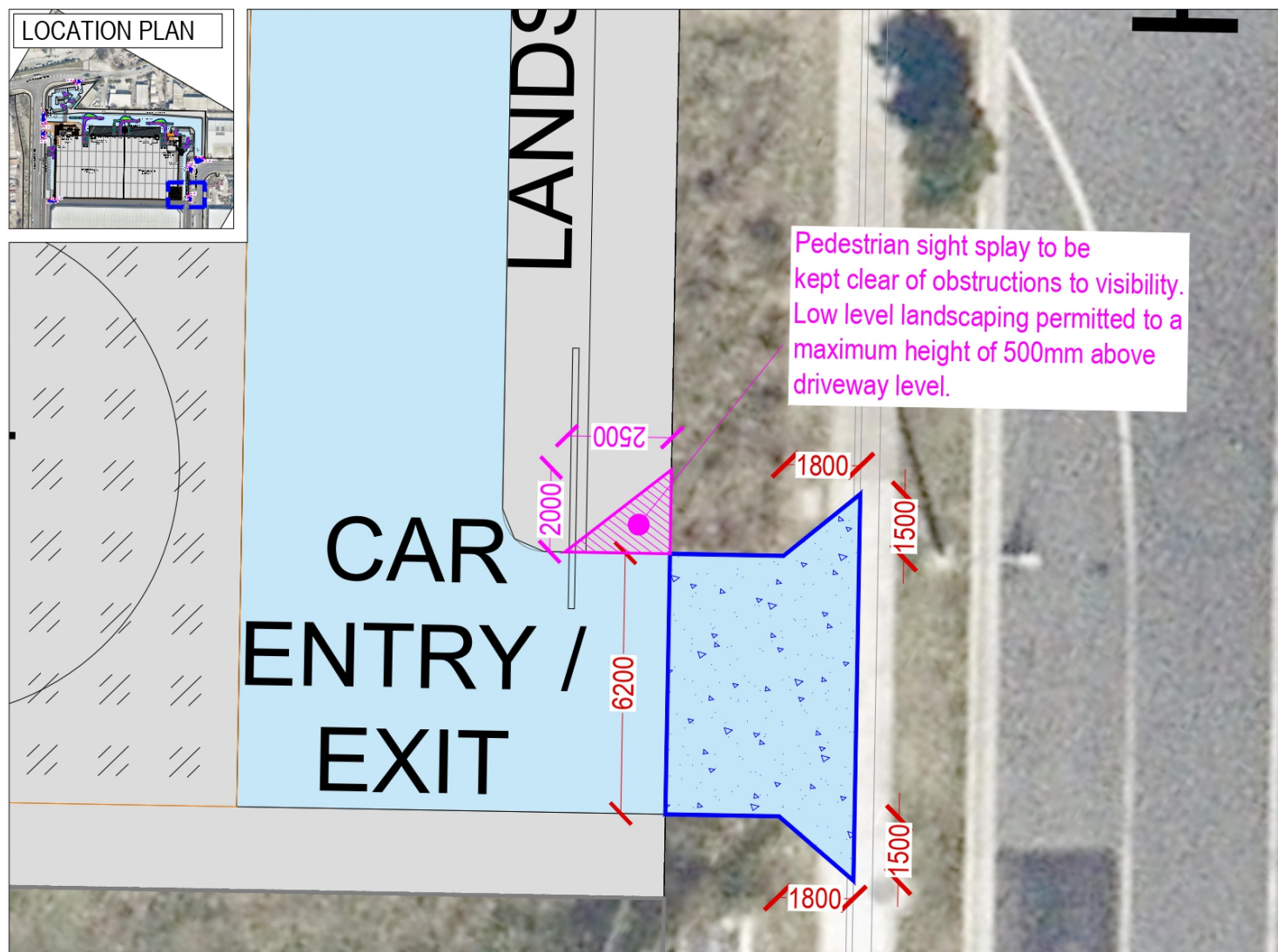


FIGURE 5.5 – ACCESS ARRANGMENTS (HOMESTEAD DRIVE – LIGHT VEHICLES)

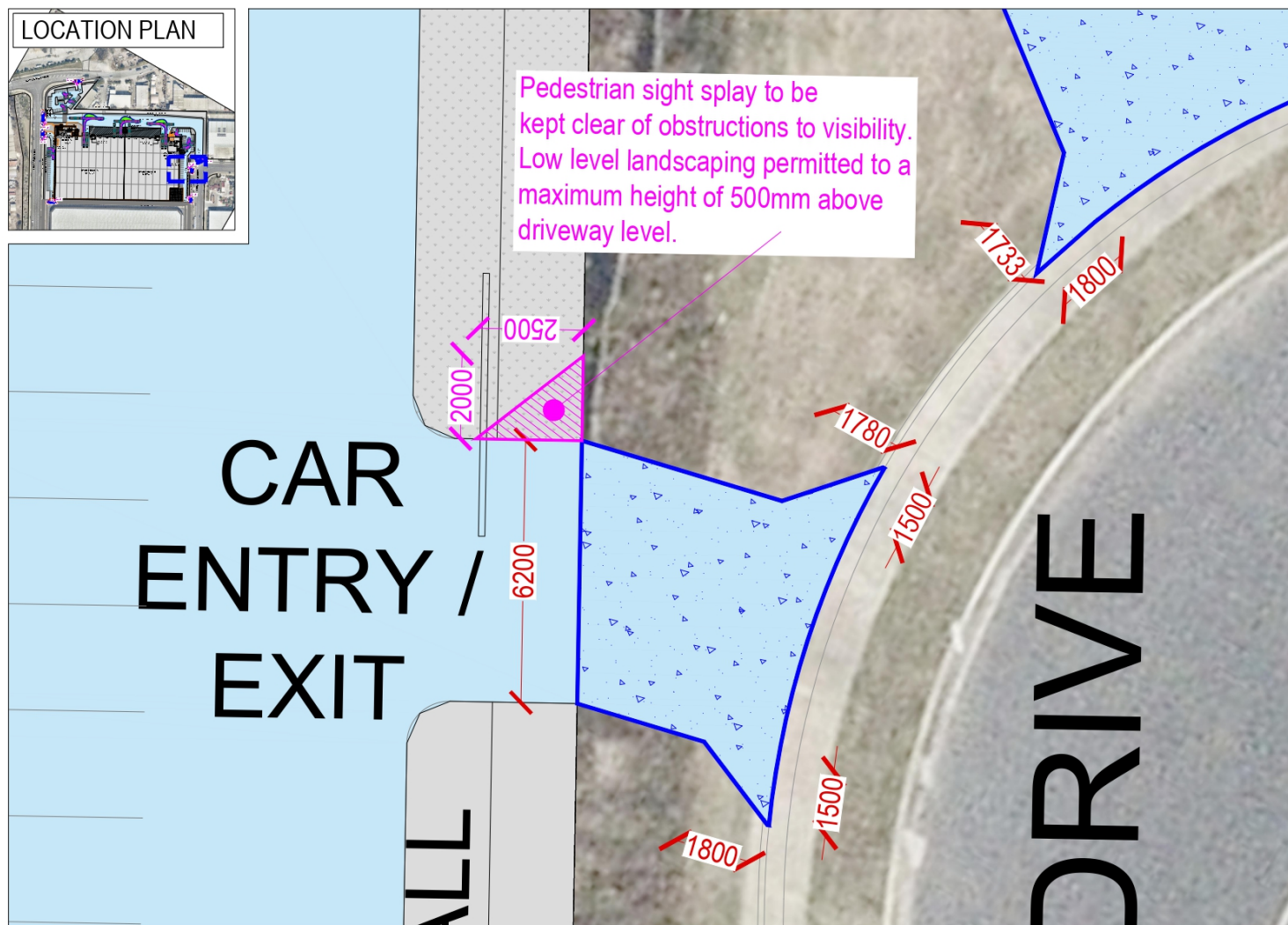


FIGURE 5.6 – ACCESS ARRANGMENTS (HOMESTEAD DRIVE – LIGHT VEHICLES)

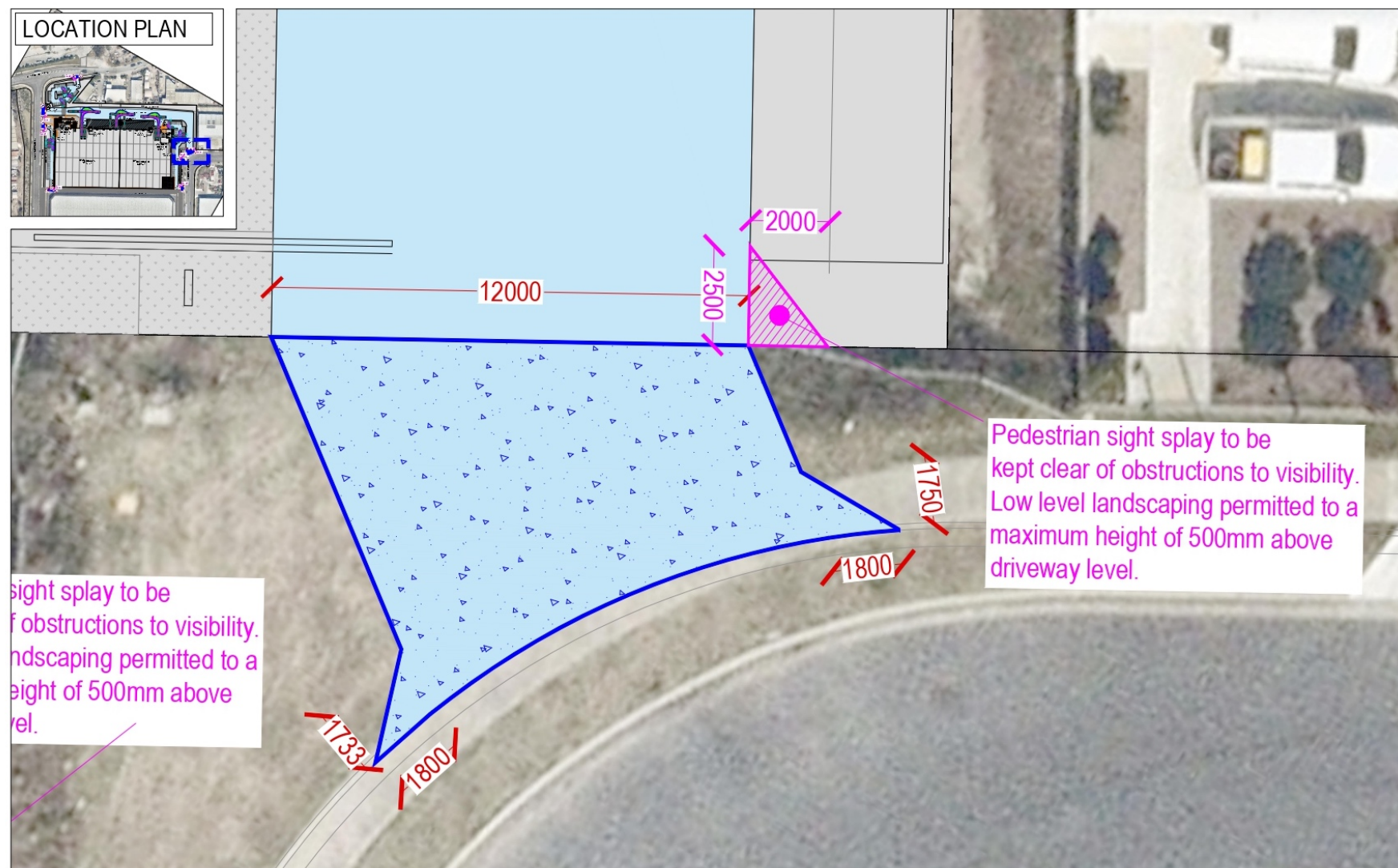


FIGURE 5.7 – ACCESS ARRANGMENTS (HOMESTEAD DRIVE – HEAVY VEHICLES)

6.0 PROVISION FOR SERVICE VEHICLES

The proposed plan of development has been designed to allow vehicles up to a 20 metre long Articulated Vehicle (AV) to satisfactorily access and circulate through the site whilst maintaining 0.3 metres clearance to obstructions at all times.

Swept path analysis of an Articulated Vehicle (AV) negotiating the proposed arrangements are shown in Figure 6.1 – 6.3.

Whilst not required under the City Plan, Figures 6.4 - 6.5 demonstrates that a 26 metre B-Double vehicle will be able to access and manoeuvre through the site satisfactorily.

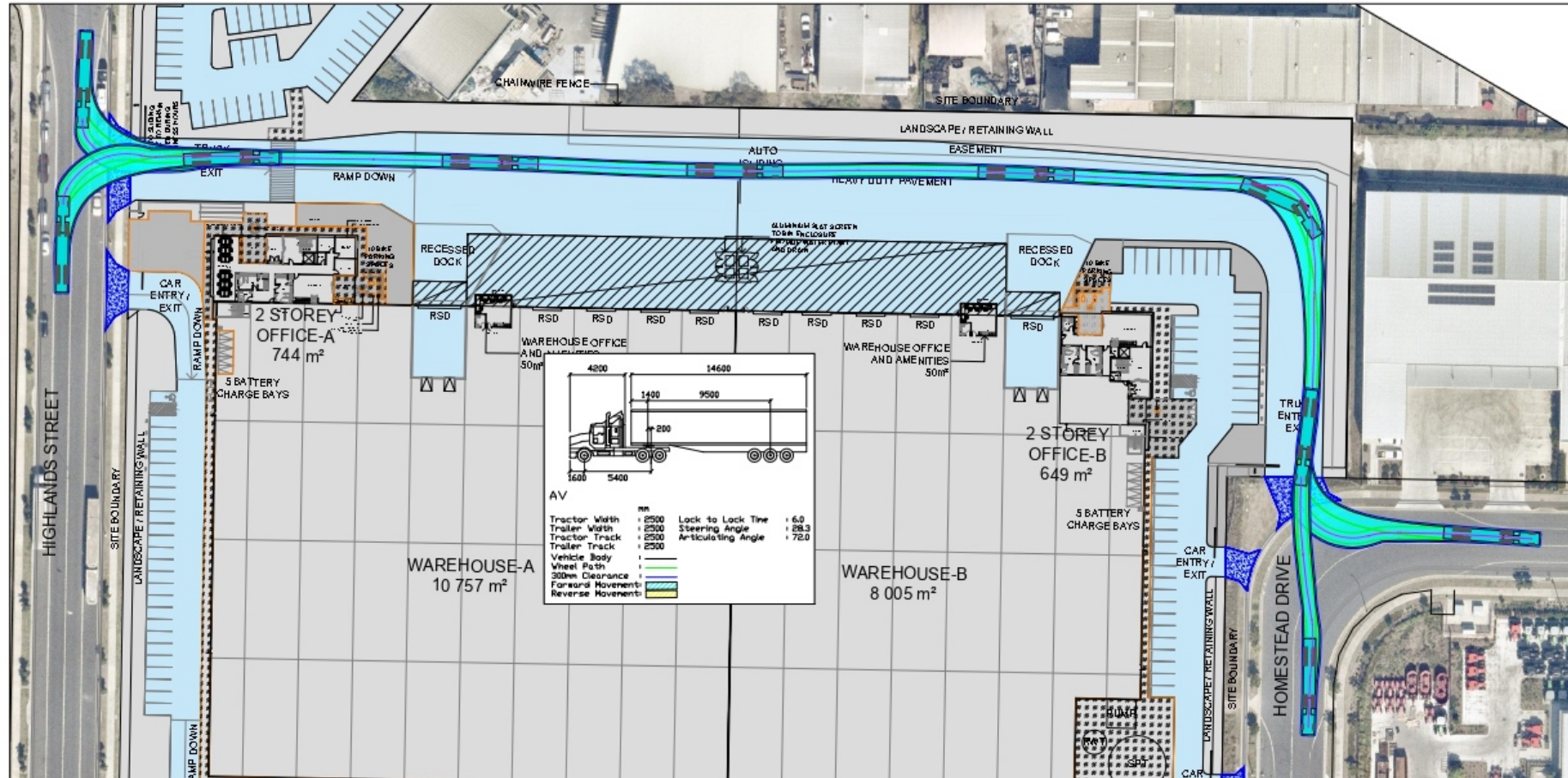


FIGURE 6.1 – ON-SITE SERVICE VEHICLE MANOEUVRING (20 METRE ARTICULATED VEHICLE (AV))

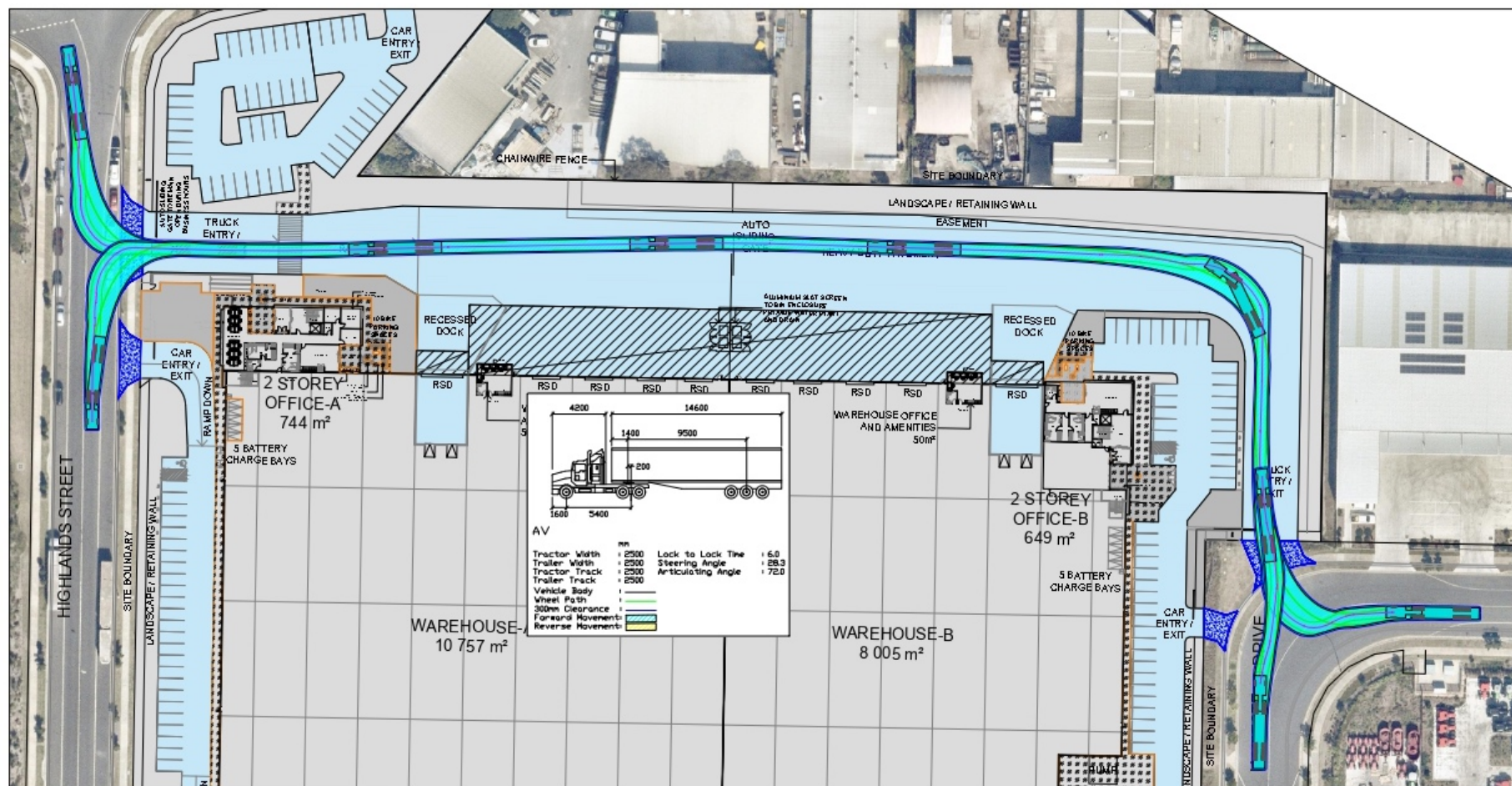


FIGURE 6.2 – ON-SITE SERVICE VEHICLE MANOEUVRING (20 METRE ARTICULATED VEHICLE (AV))

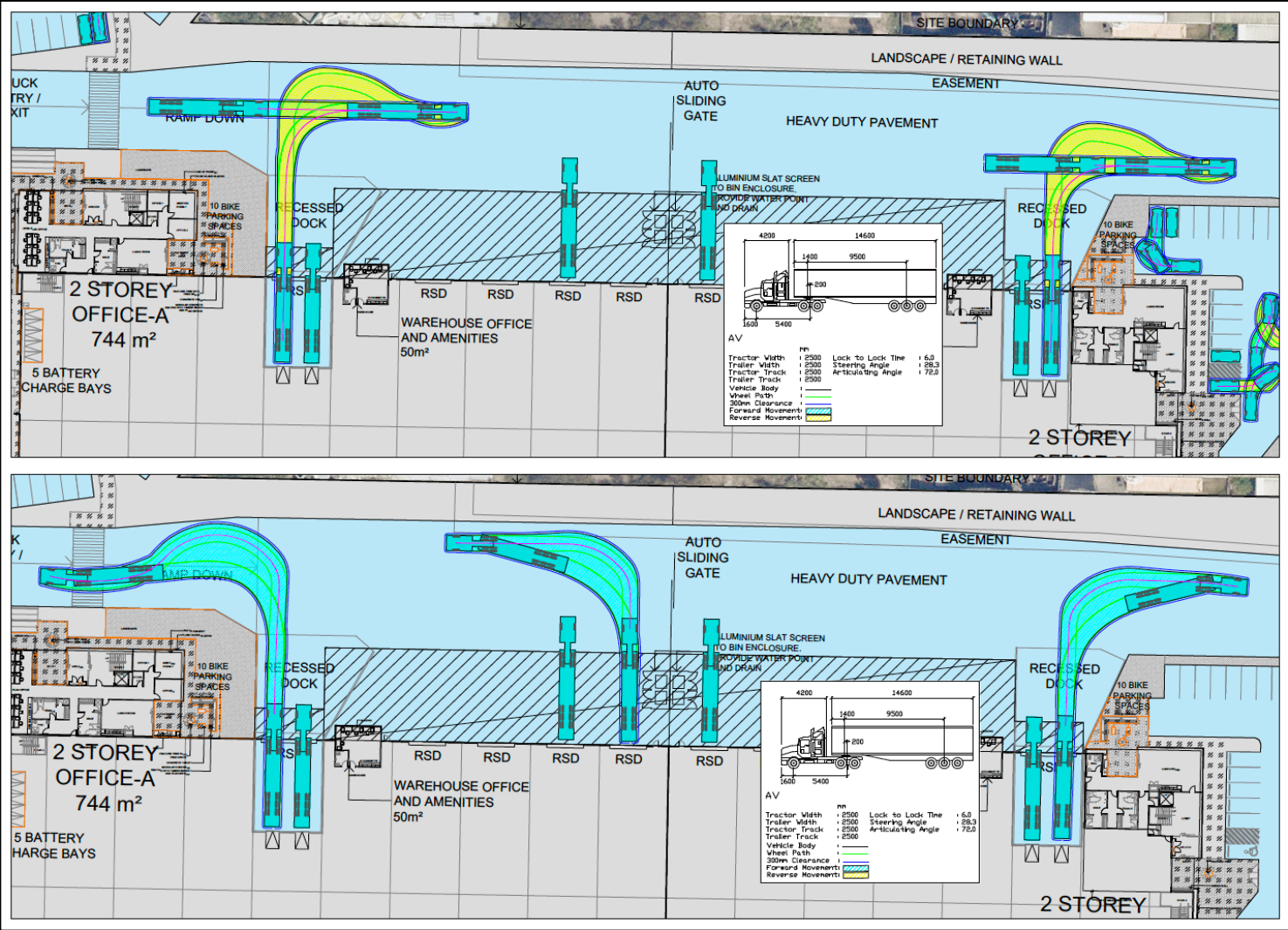


FIGURE 6.3 – ON-SITE SERVICE VEHICLE CIRCULATING (20 METRE ARTICULATED VEHICLE (AV))

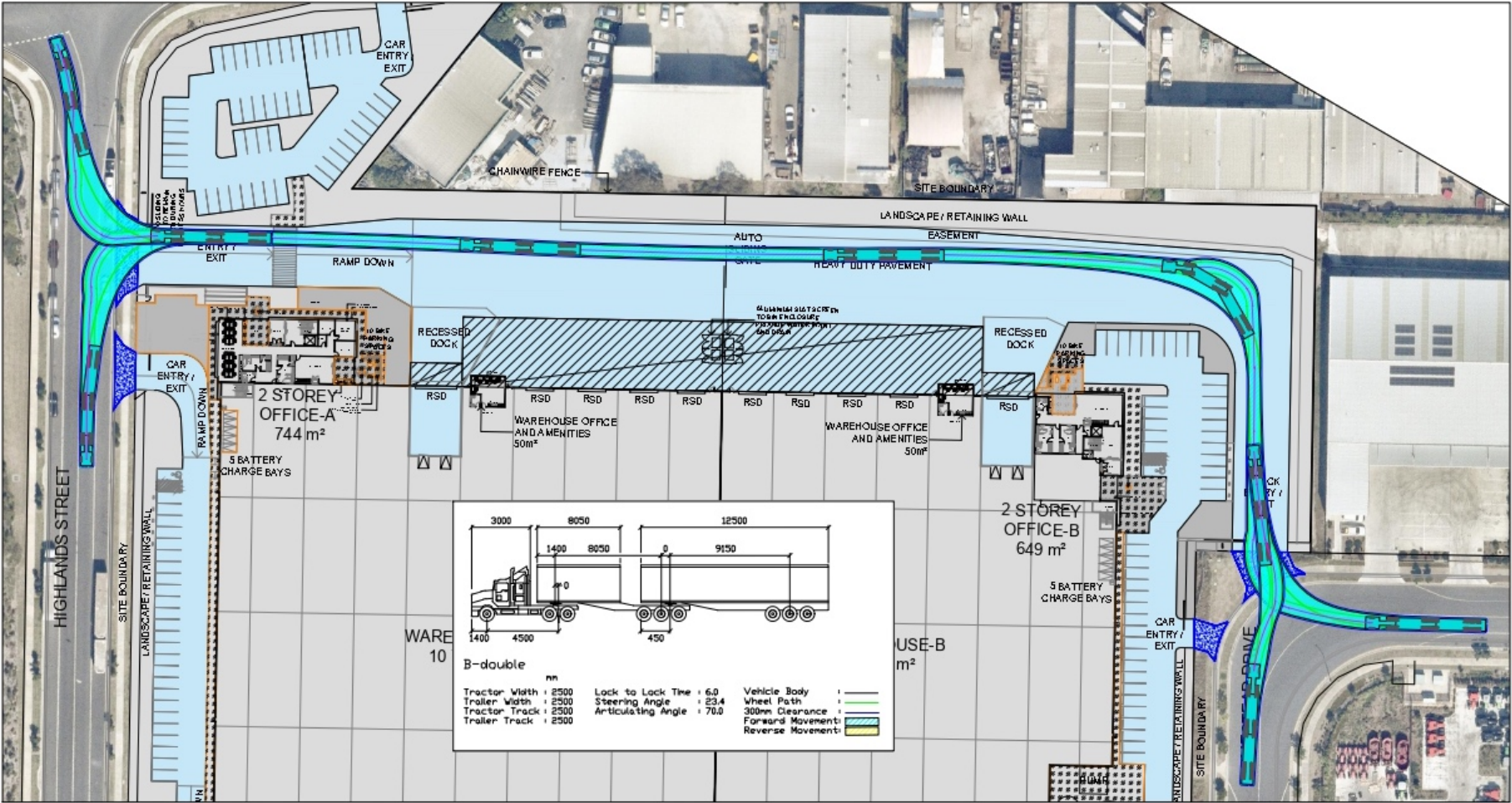


FIGURE 6.4 – ON-SITE SERVICE VEHICLE CIRCULATING (26 METRE B-DOUBLE VEHICLE)

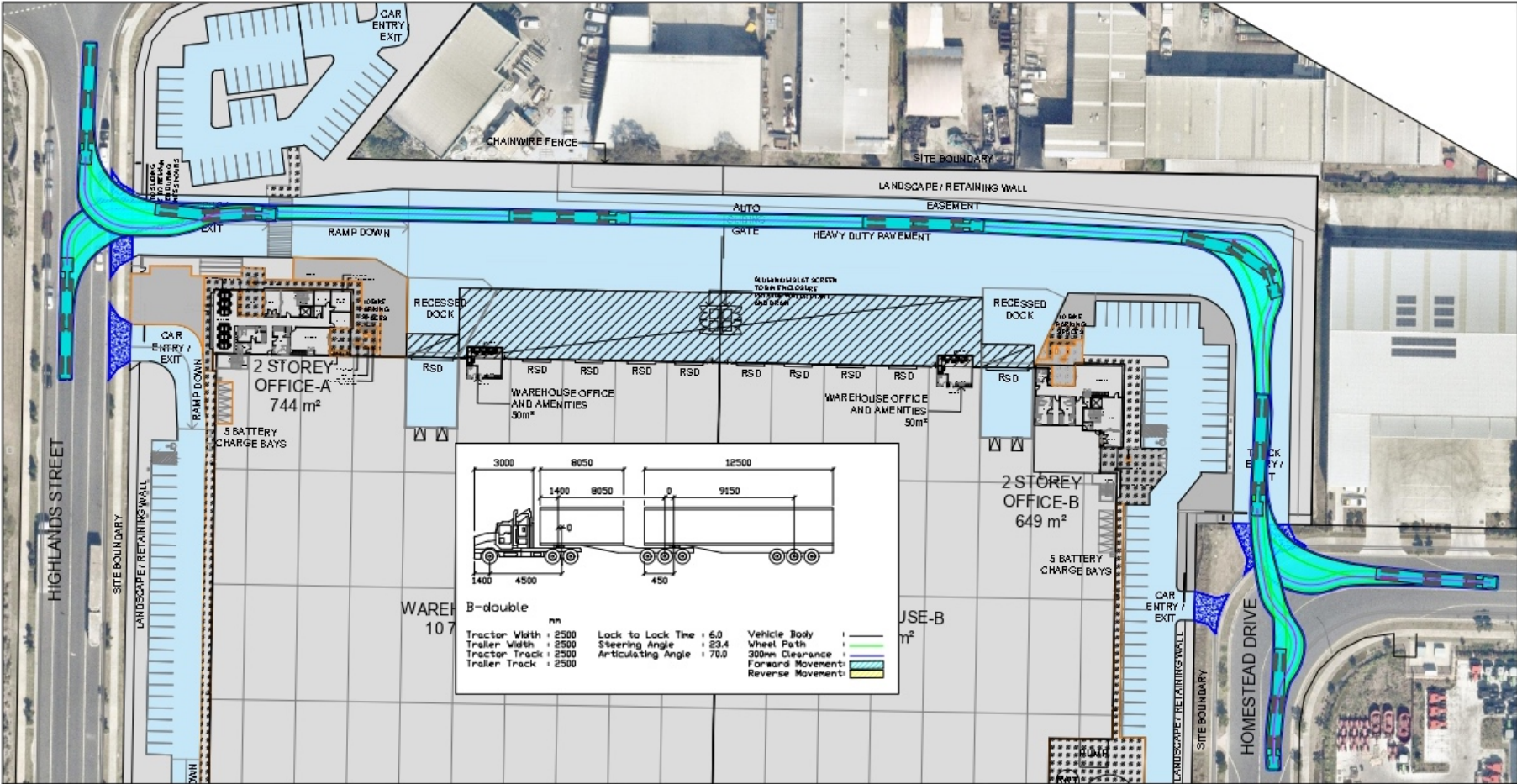


FIGURE 6.5 – ON-SITE SERVICE VEHICLE CIRCULATING (26 METRE B-DOUBLE VEHICLE)

7.0 PROVISION FOR PEDESTRIANS AND BICYCLES

In accordance with the *M38 Industrial Place Code – AS41.4*, the following rate applies to the proposed use:

Warehouse:

1 space per 800m² of GFA plus.

Based on the above, the Acceptable Outcome for bicycle parking for the proposed development (18,374m² GFA) is 23 spaces.

The proposal includes a total of 20 bicycle parking spaces, with 10 spaces adjacent to each office tenancy. These provisions are deemed satisfactory given the site's location and the nature of the proposed use, as only a small number of workers are expected to commute by bicycle. End-of-trip facilities, including showers and change rooms, will be provided.

The proposal provides for safe access pedestrians with a separate pathway leading from the road frontage to the building entrance, and safe movement through the car park.

8.0 SUMMARY OF CONCLUSIONS & RECOMMENDATIONS

- The subject site is located on the north-eastern corner of the Christensen Road / Highlands Street intersection. The site is identified as Lot 204 and has a site area of 37,662m². The site is located within the low and medium impact industry zone.
- The proposed plan of development comprises of a dual tenancy warehouse building with associated office facilities, with a Gross Floor Area (GFA) of 18,374m².
- Application of the rates prescribed in the M38 Industrial Place Code to the proposal yields a minimum requirement of 193 car parking spaces. The proposal provides 121 spaces and therefore is considerably short of the Acceptable Outcome.
- The proposed supply of 121 spaces equates to approximately 1 space / 151m² of GFA. This is considered satisfactory to accommodate the operational demand of the proposed development, and is typical for warehouse developments of the scale proposed.
- The geometric layout of the proposed parking facilities has generally been designed to comply with the relevant requirements specified in the Australian Standard publication AS2890.1:2004.
- In accordance with the Transport code, the proposed plan of development has been designed to allow vehicles up to a 20 metre long Articulated Vehicle (AV) to satisfactorily access and circulate throughout the site whilst maintaining 0.3 metres to obstructions at all times.

APPENDICES

APPENDIX A – RESPONSE TO CAR PARKING, ACCESS, AND TRANSPORT INTEGRATION CONSTRAINT CODE (2003)

APPENDIX A – RESPONSE TO CAR PARKING, ACCESS, AND TRANSPORT INTEGRATION CONSTRAINT CODE (2003)

Part 7 Codes

Division 3 Constraint Codes

Chapter 4 Car Parking, Access and Transport Integration

1.0 Purpose

To ensure that transport needs, including car parking and service vehicle requirements, associated with the development of land are met by:

- supply of car and bicycle parking facilities;
- provision of loading and service facilities; and
- integration of public transport with private and public development in the City.

Key objectives include:

-
- a) the availability of car park opportunities that are easy to locate and use, in close proximity to all major developments and uses within the City, with on-site provision available for occupants and on-street provision and/or public car parks available for visitors;
 - b) the effective use of all car park infrastructure provided in the City; and
 - c) streets that are pedestrian and cyclist friendly.

2.0 Application

- 2.1 This code applies to development indicated as self, code or impact assessable in the Table of Development in the domain or Local Area Plan (LAP) within which the development is proposed.
- 2.2 This code specifically applies to development (whether on private or public land) that requires one or more of the following:
 - private or public car parking;
 - bicycle parking and associated facilities;
 - goods loading and circulation in public or private places; and
 - integration of public transport with private or public development in the City.
- 2.3 This code also applies to any development that is proposed for sites identified on Domain Maps or the Priority Infrastructure Plan Maps as being affected by Future Road Requirements, including areas required for future road corridor development.
- 2.4 Where a domain or LAP Place Code contains car parking requirements that differ from this code, the LAP requirements take precedence.
- 2.5 Performance Criteria PC1-PC24 apply to all code and impact assessable development referred to in this code. For development identified as self assessable, in the relevant domain or LAP, only the acceptable solutions to Performance Criteria PC1-PC16 apply.

Development RequirementsPerformance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
Development that is Self Assessable, Code Assessable or Impact Assessable			
Protection and Preservation of Areas Required for Road Widening, the Provision of Public Transport Facilities or New Transport Corridors			
PC1 Land affected by any proposed road realignment or widening must not have development constructed over that part of the land required for road realignment or road widening.	AS1 All sites that are affected by Future Road Requirement as shown on the Domain Maps, do not have buildings or structures erected forward of the indicated building setback line. This requirement does not apply to a fence with a height not exceeding 1.8 metres and a width not exceeding 0.5 metres.	NOT APPLICABLE, THE PROPOSED CHANGE DOES NOT IMPACT ON FUTURE ROAD REQUIREMENTS	
Port Cocheres			
PC2 Where provision is made for a <i>porte cochere</i> , it must be designed to enable vertical clearance, manoeuvring, access and queuing of vehicles. The capacity of the <i>porte cochere</i> and associated access and manoeuvring must accommodate vehicles entirely within the site, including the queuing of vehicles.	AS2 The <i>porte cochere</i> has a minimum vertical clearance of 4.5 metres.	NOT APPLICABLE, PROPOSAL DOES NOT PROVIDE A PORTE COCHERE.	
Design of Car Parking Areas and Car Park Spaces			

Development RequirementsPerformance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
PC3 All car parking spaces must be constructed and line marked to the correct size and standard.	AS3.1 All car parking spaces and facilities are constructed, sealed, line marked and maintained in accordance with the layout requirements of AS2890.1 – Parking Facilities Part 1: Off Street Car Parking and AS2890.2 – Off Street Parking Part 2: Commercial Vehicles. AS3.2 Where the development includes a combination of low turnover and high turnover car spaces, the parking spaces and aisles are designed to the high turnover or Class 3 requirements in AS2980.1 – Parking Facilities Part 1: Off Street Car Parking.	THE PROPOSAL MEETS THE AO	
PC4 Car parking areas must be landscaped to reduce visual impact and to provide opportunities for shade.	AS4 In car parking areas exceeding 300m² in site area: a) at least 5% of the area is landscaped; b) a landscaped buffer, with a minimum height of 600mm and width of 1500mm, is provided along any public street frontage and the common boundary to the adjoining property; and c) one landscaped tree bay is to be provided for every 21 car parking spaces.	THE PROPOSAL MEETS THE AO	

Signs and Line Marking

Development RequirementsPerformance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
PC5 Signs and line marking must be provided to indicate the location of the car park and the position of the access points for all car parks used by the public where: a) a car park is located at the rear of the site; b) access to the car park is not located in the main frontage road; c) there are a number of access points serving different parts of the site.	AS5.1 Signs incorporate the standard Service Sign Series 'P' sign, as detailed under Guide Signs in the Manual of Uniform Traffic Control Devices, Queensland. (This does not apply to residential developments with less than 10 units) AS5.2 Signs are used to mark car parking bays which are provided for disabled drivers, motorcycles and special zones, such as bus zones.	THE PROPOSAL MEETS THE AO	

Tandem Car Spaces

Development RequirementsPerformance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
PC6 Tandem car parking must only be used in circumstances where no inconvenience arises from its use.	AS6.1 Tandem car parking spaces (ie. two car parking spaces, nose to tail) are counted as one space, except in the following cases: a) the development is for residential purposes; b) the tandem spaces are to be used by the occupants of the site, in one tenancy; c) the car park area is to be operated as a public car park with on-site management. In this case, a tandem car park may be counted as no more than 1.5 car spaces. AS6.2 The minimum length of the tandem car space is 10.4 metres. AS6.3 Tandem garages have a minimum internal length of 11 metres.	NOT APPLICABLE	

Access to Car Park Areas

Development RequirementsPerformance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
PC7 Car parking areas must not cause vehicle queues into the frontage road system or encourage drivers to reverse into the road system.	AS7.1 For developments in excess of 100 residential units with frontage to major roads, a turn round facility with a minimum diameter of 12.0m is provided between the gate and the road. AS7.2 All car parking facilities, except those associated with detached dwellings and duplex dwellings is designed so that all vehicles enter and exist the site in a forward gear. AS7.3 Provision is made for a defined queuing area, free of any parking manoeuvres or internal intersections in accordance with the provisions of the Table to Acceptable Solution AS7.3, for developments comprising of more than two dwelling units and where a security gate is proposed.	THE PROPOSAL MEETS THE AO	

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
PC8 Car parking areas providing more than 20 car parking spaces must allow for the separation of vehicles and pedestrians.	AS8 Sealed pedestrian footpaths, at a gradient not exceeding 1:12, are provided from the car parking area along the shortest possible route to the point of destination.	THE PROPOSAL MEETS THE PO – THE PROPOSAL PROVIDES GOOD ACCESS BY PEDESTRIANS	
PC9 Access to car parking spaces must be provided for employees and visitors.	AS9.1 Car park areas have no gateways, doors or similar devices which restrict vehicular access by employees or visitors.	THE PROPOSAL MEETS THE AO – THE PROPOSAL INCLUDES AUTOMATED SLIDING GATES AT EACH CROSSOVER. HOWEVER, THESE WILL REMAIN OPEN DURING BUSINESS HOURS.	
Driveways and Crossovers			
PC10 Driveways from car parks or developments into public roads must be minimised to reduce interference with public road traffic and pedestrians.	AS10.1 The maximum number of crossovers for residential developments is one for detached dwelling properties and two for multiple unit dwelling complexes. AS10.2 The maximum number of crossovers for non-residential developments is two crossovers per property. AS10.3 A vehicle crossover is separated from any other vehicle crossover by a minimum distance of three metres.	THE PROPOSAL MEETS THE PO – SIX CROSSOVERS ARE PROPOSED. HOWEVER THE PROPOSED ARRANGEMENTS ARE CONSIDERED SATISFACTORY GIVEN THEY SEPARATE LIGHT AND HEAVY VEHICLES, AND THUS IMPROVE SAFETY.	

PC11 All development must make provision for safe access to roads or streets adjacent to the site. Crossovers must be constructed to a standard consistent with the vehicles using the site.	AS11.1 The geometric design of entry and exit driveways conforms with Standard Drawing No 59218 of Planning Scheme Policy 11 – Land Development Guidelines. AS11.2 Access to roads or streets adjacent to the site is consistent with AS2890.1 – Parking Facilities Part 1: Off Street Car Parking and AS2890.2 – Off Street Parking Part 2: Commercial Vehicles. AS11.3 Where separate entry and exit driveways are used, the first driveway reached from the kerbside land is clearly delineated and sign-posted. AS11.4.1 Access to developments on dual carriageway roads is left in/left out. OR AS11.4.2 A new intersection is provided between the access way and the dual carriageway. AS11.5 Developments with traffic signal controlled or roundabout access to the frontage road dedicate land as public road to accommodate all intersection infrastructure, including traffic signal loops. AS11.6	THE PROPOSAL MEETS THE AO	
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Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
	The boundaries of the frontage road are modified to accommodate all intersection infrastructure within the public road. AS11.7 Developments with new traffic signal controlled access, within network traffic systems, provide the necessary infrastructure to integrate the new signals.		

Internal Circulation

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
PC12 All developments must provide internal circulation to avoid use of the public road system for movement between different car parking and vehicle service areas in the development.	AS12.1 The internal layout of the site is consistent with AS2890.1 – Parking Facilities Part 1: Off Street Car Parking and AS2890.2 – Off Street Parking Part 2: Commercial Vehicles. AS12.2 Parking and circulation aisles have a maximum length of 100 metres. AS12.3 Dead end aisles do not exceed 20 metres in length. AS12.4 Aisle design does not include cross intersections. AS12.5 Car parking space/s is/are not located in areas used for manoeuvring of heavy vehicles. AS12.6 Car parks are designed so that vehicles do not reverse across pedestrian crossings. AS12.7 Speed humps are not provided in entry or exit queuing areas.	THE PROPOSAL MEETS THE AO	

Loading Bay and Set Down Area Requirements

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
PC13 Development must make provision for loading bays and set down areas for the: a) collection and set down of passengers; b) parking of trailers; c) service vehicle parking; and d) loading and unloading of goods.	AS13 Loading and set down areas are provided consistent with the AS2890.2 – Off Street Parking Part 2: Commercial Vehicles .	THE PROPOSAL MEETS THE AO	

Design Service Vehicle Requirements

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
PC14 Development must provide for the required 'design service vehicle' to service the development.	AS14.1 Provision is made for service vehicles, in accordance with the Table to Acceptable Solution AS14.1. AS14.2 Provision is made for service vehicles, in accordance with the Table to Acceptable Solution AS14.2, for sites less than 4,000m² in area that require access by service vehicles. AS14.3 Provision is made for height clearance of 4.5 metres for service station canopies and access clearance height associated with the appropriate design vehicle in other applicable developments. AS14.4 A driveway which caters for heavy vehicles is designed in accordance with AS2890.2 – Off Street Parking Part 2: Commercial Vehicles and Standard Drawing No 59218 Section 7.4 of Planning Scheme Policy 11 – Land Development Guidelines.	THE PROPOSAL MEETS THE AO	