



APPENDIX F

LANDSCAPE INTENT PLAN



VantageYatala



1985

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survey

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 C - For Approval

Prepared By
Gassman Development Perspectives
Job No. 6172



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- 03** Site Locality Plan
- 04** Landscape Strategy
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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.



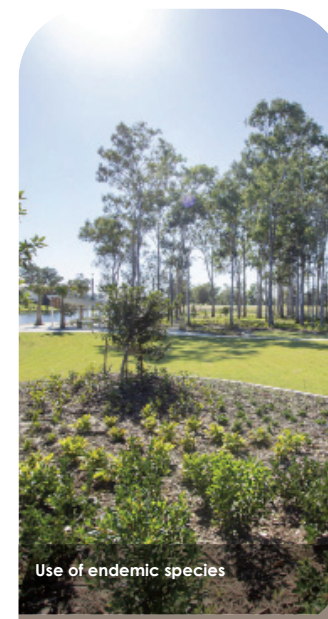
Mass planting arrangement

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.



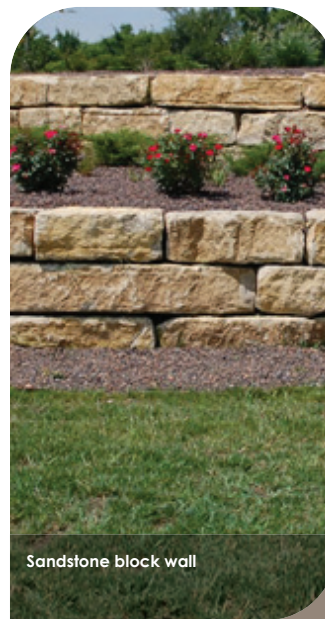
Green Walls

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.



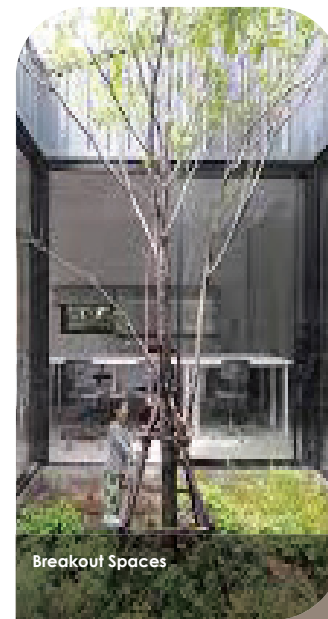
Legibility and Way finding

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 consisting 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.

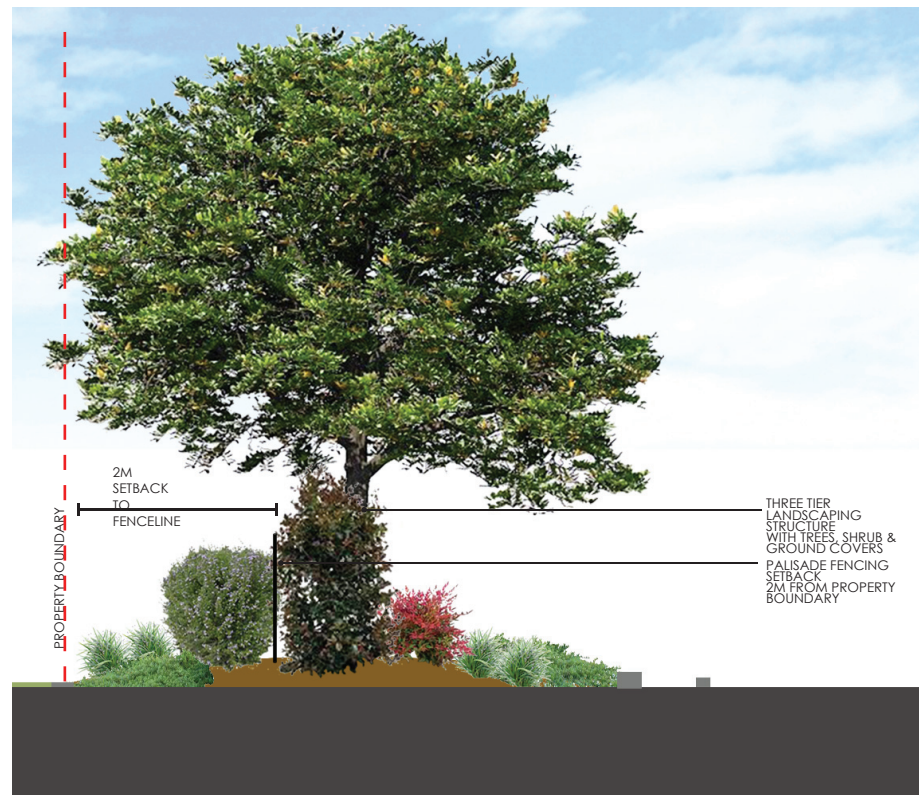
LANDSCAPE INTENT PLAN

LEGEND

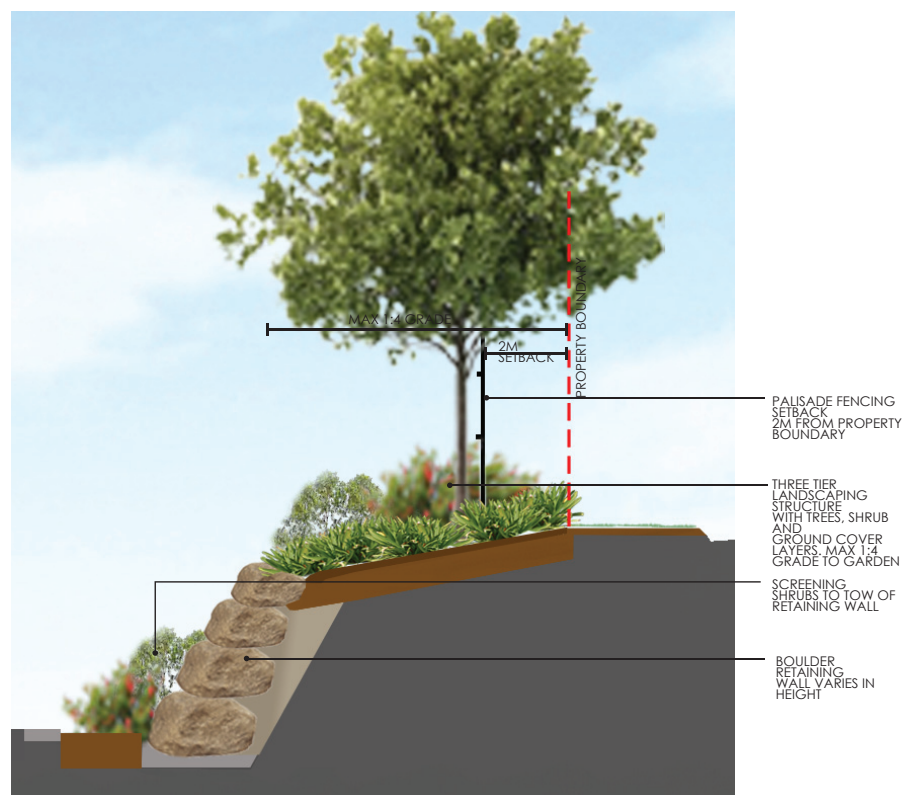
- Site Boundary
Lot 2 Highlands Street and 2 Fairway Street, Stapylton (Lot 204 on SP316171)
- Proposed Fencing 1
1.8mH black palisade fencing set back 2m from boundary with tiered planting of shrubs and groundcovers in front
- Proposed Fencing 2
Chain Wire Fencing 1.8m in height. Installed as per CoGC 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 luscious* 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
- Green Wall
Proposed green wall system with irrigation
- Existing Retaining Wall
Boulder retaining wall situated on adjacent lot
- Section Marker
Refer to page 6 for further detail



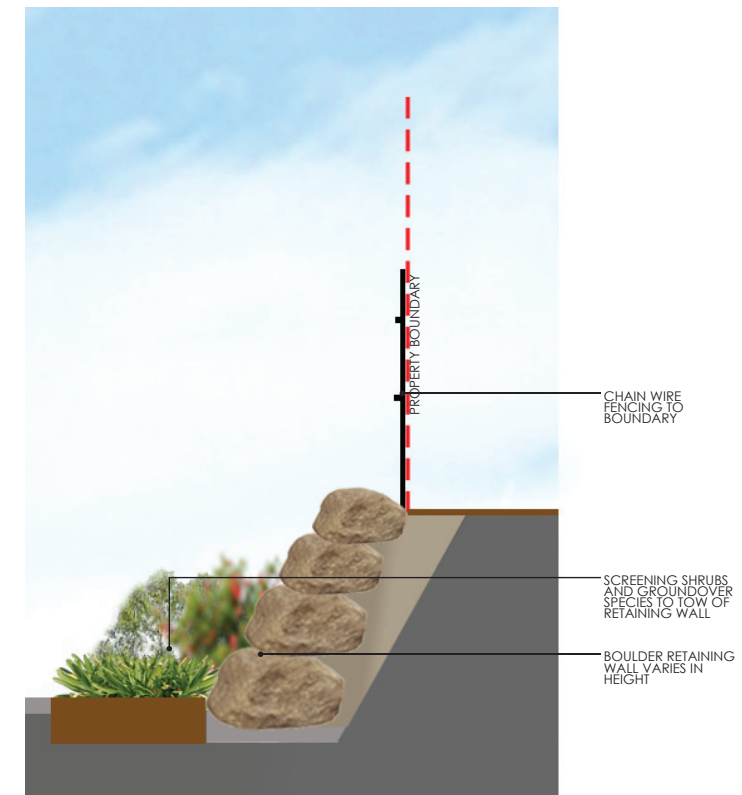
TYPICAL SECTION ELEVATIONS



SECTION AA TYPICAL PLANTING ARRANGEMENT TO FRONTAGE

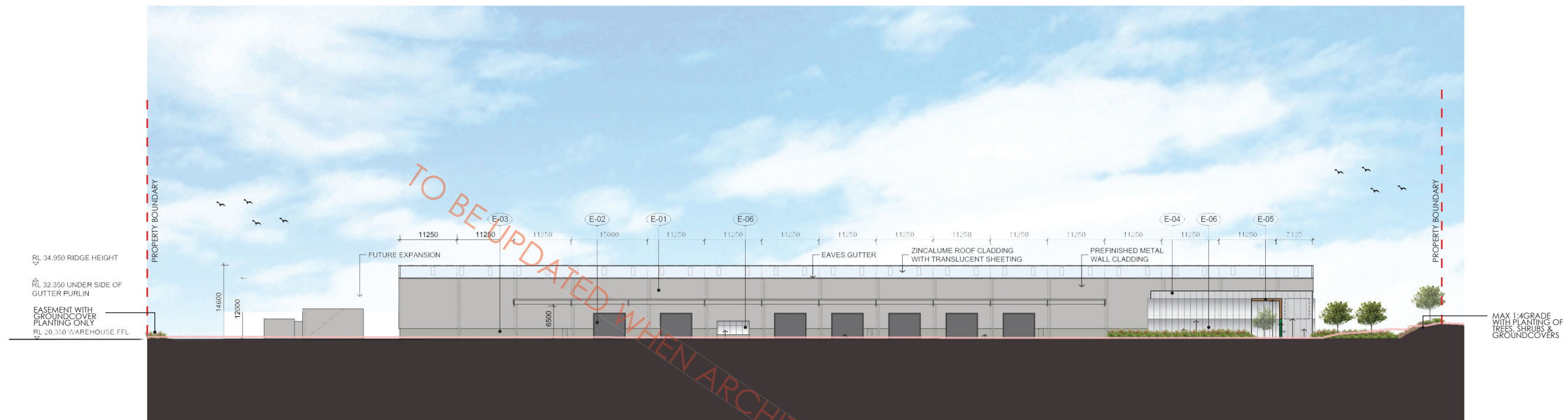


SECTION BB TYPICAL PLANTING ARRANGEMENT TO RETAINING WALL

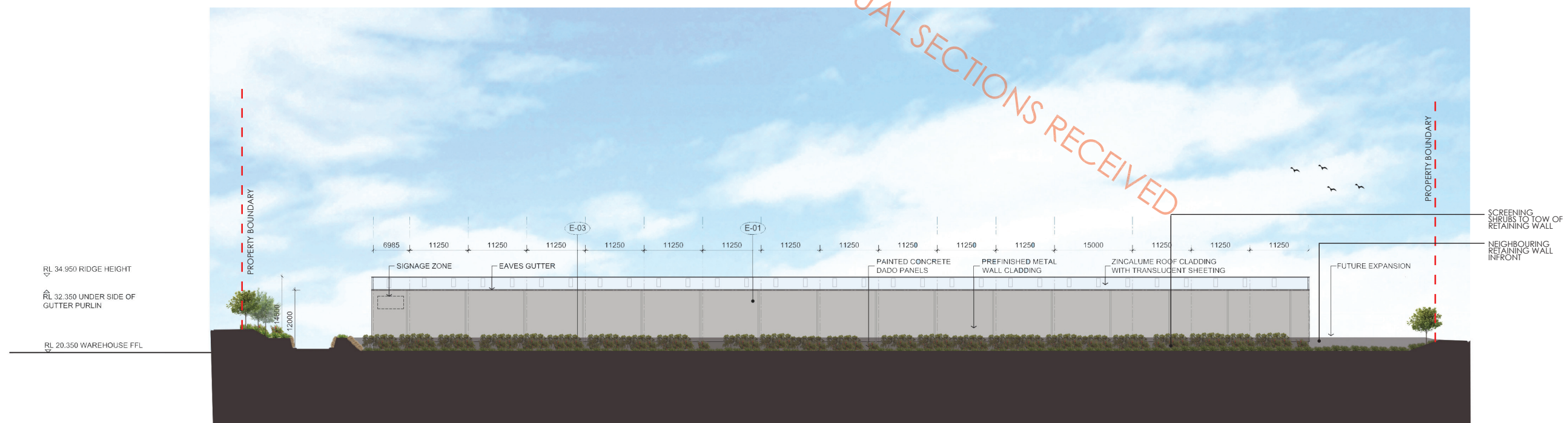


SECTION CC TYPICAL PLANTING ARRANGEMENT TO REAR RETAINING WALL

ELEVATION DRAWINGS



ELEVATION DD - WESTERN ELEVATION

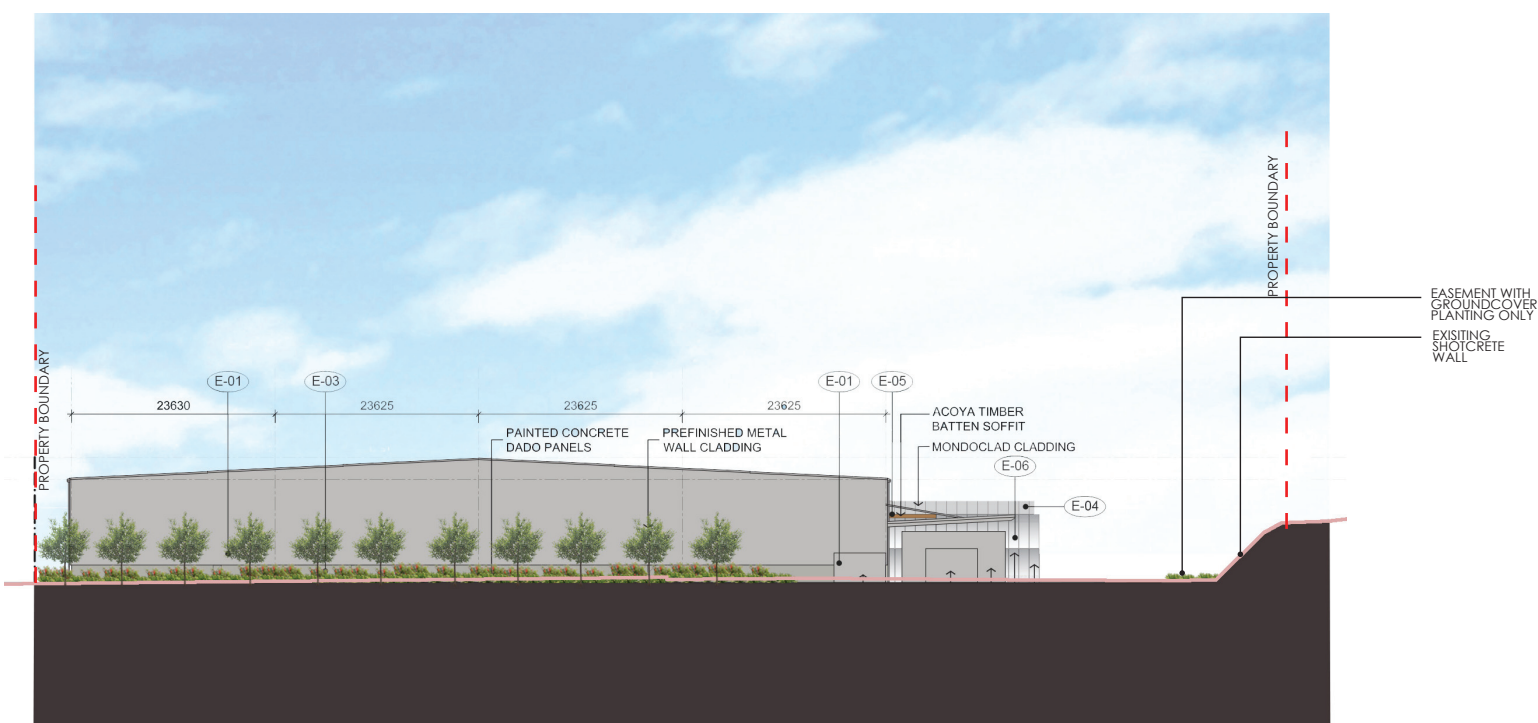


ELEVATION EE - EASTERN ELEVATION

ELEVATION DRAWINGS



ELEVATION FF- SOUTHERN ELEVATION



ELEVATION GG - NORTHERN ELEVATION

MATERIALS AND HARDSCAPE PALETTE



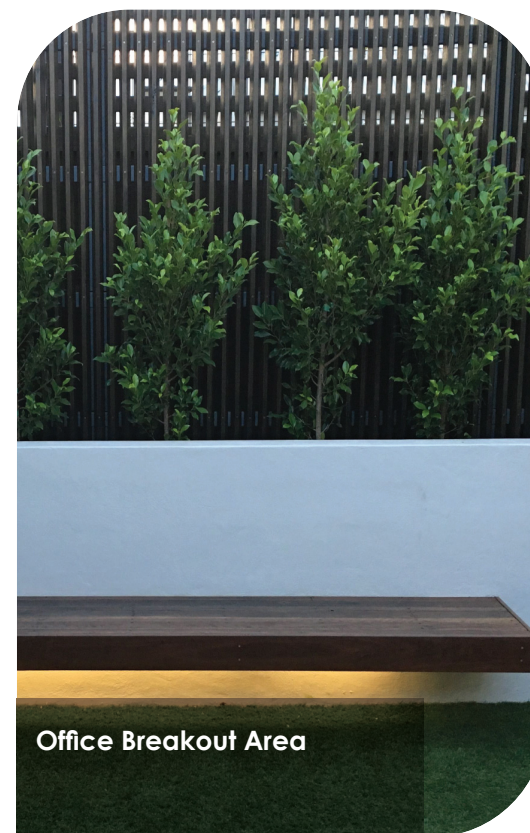
Plain grey broom finished
concrete path network



Palisade Fencing



Entry signage example



Office Breakout Area



Green wall (option)



PLANTING PALETTE

SHADE TREE SPECIES



Cupaniopsis anacardioides
tuckeroo



Harpullia pendula
tulip wood



Delonix regia
poinciana



Tristaniaopsis 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 fruticosa
Coastal Rosemary



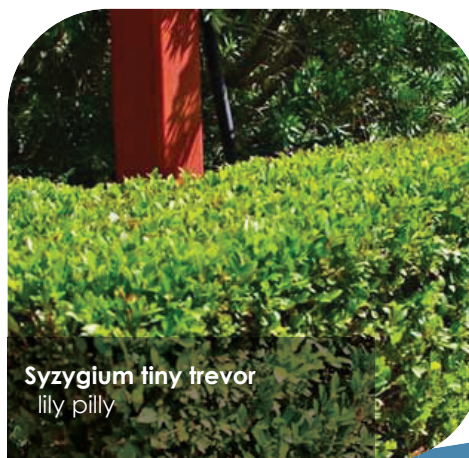
Crinum pedunculatum
swamp lily



Philodendron rojo congo
rojo congo

FEATURE SHRUB SPECIES

SHRUB SPECIES



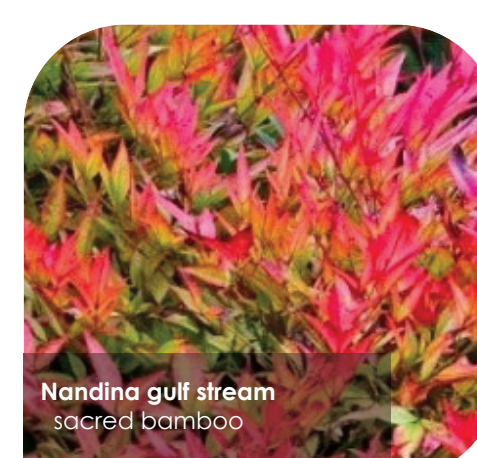
Syzygium tiny trevor
lilly pilli



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

ENGINEERING 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 QLD

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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Revision / Checking History

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Approval for Issue

Rev. No.	Name	Position	Signature	Date
1.	Mitchell Gassman	Civil Project Engineer RPEQ 16939		3 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.

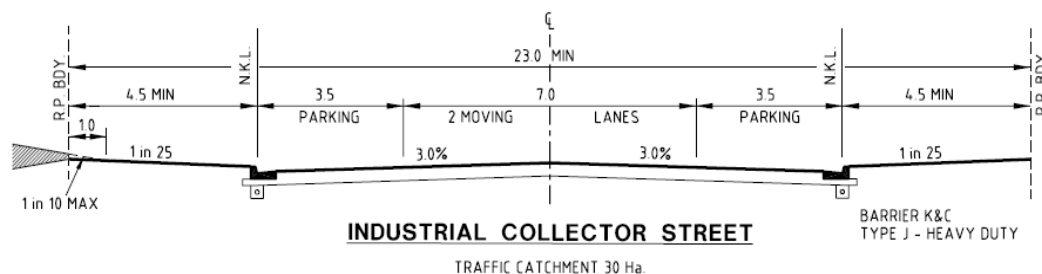


Figure 4.1: Proposed Internal Roads Cross Section, Source: CoGC Std Dwg 05-02-004

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..

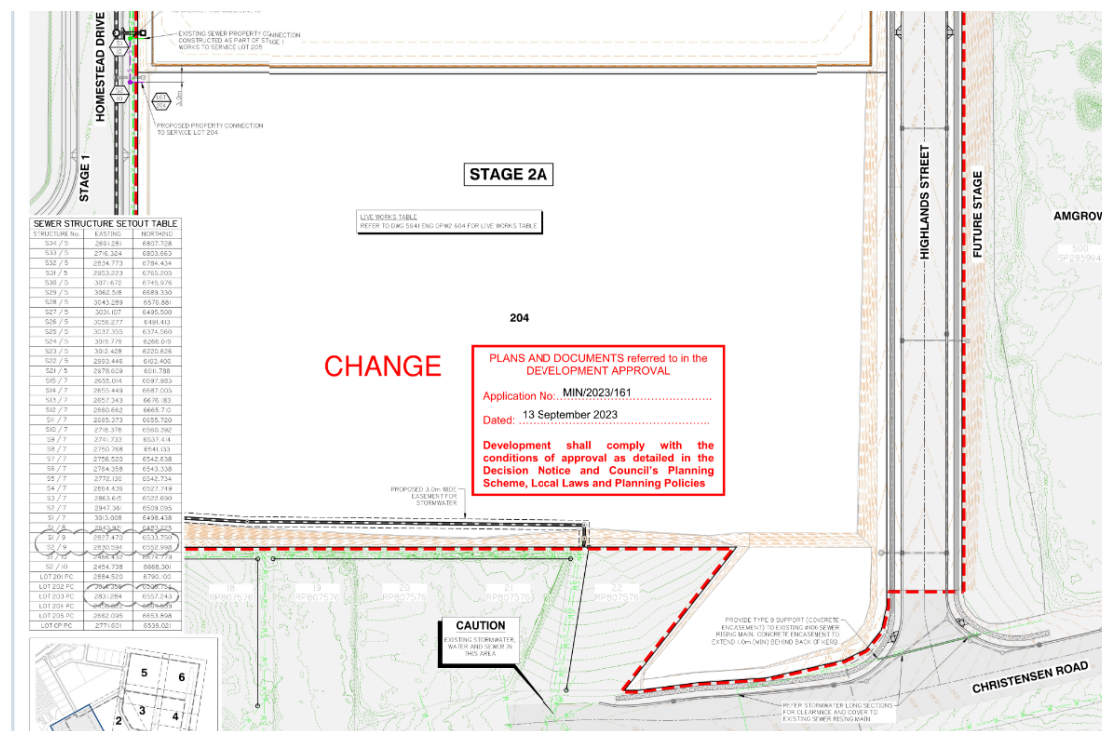


Figure 5.1: Lot 204 Sewer Property Connection Location

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.

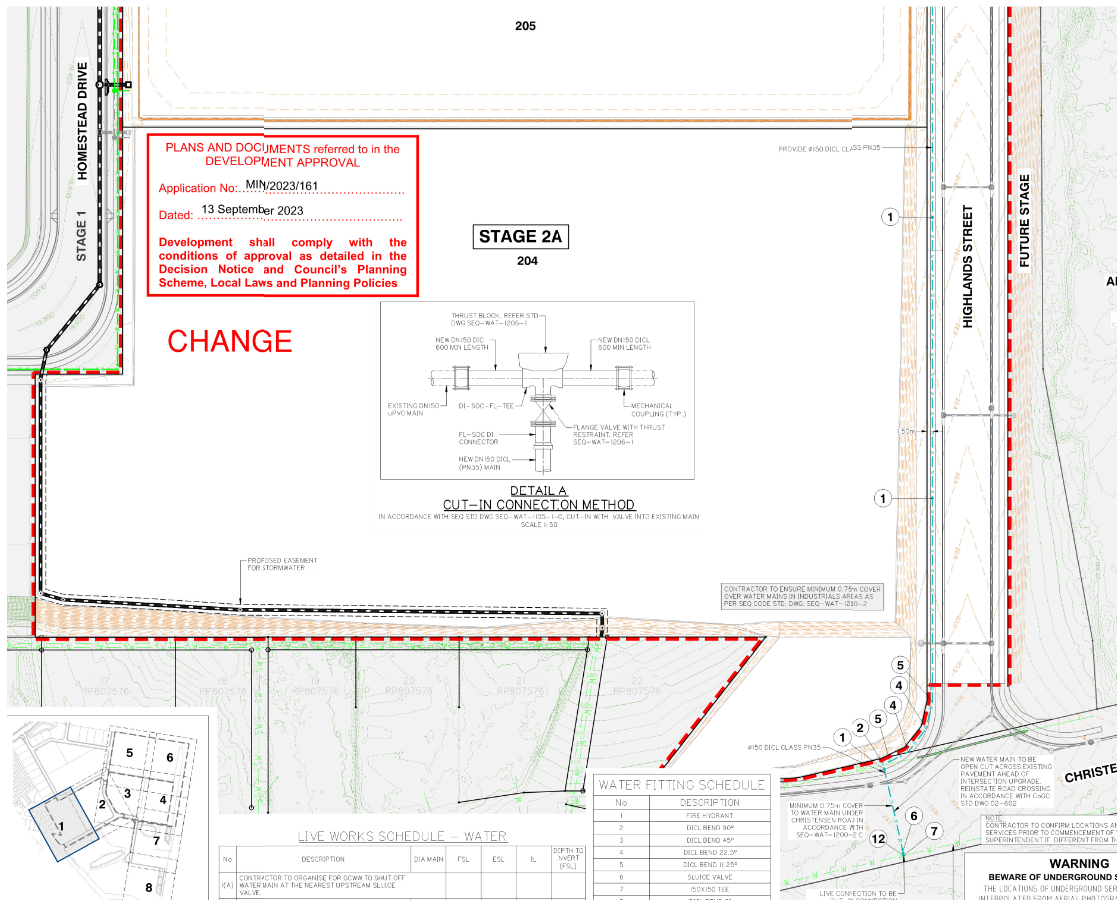


Figure 5.2: Lot 204 and Potable Water Main locations for connection

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.

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

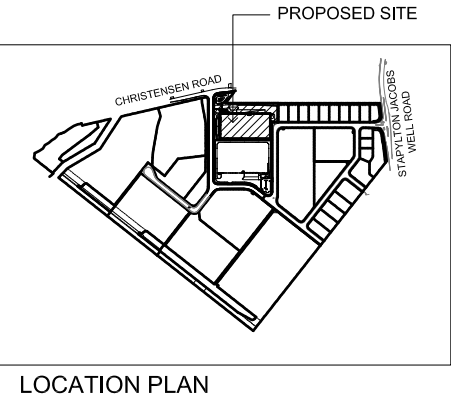
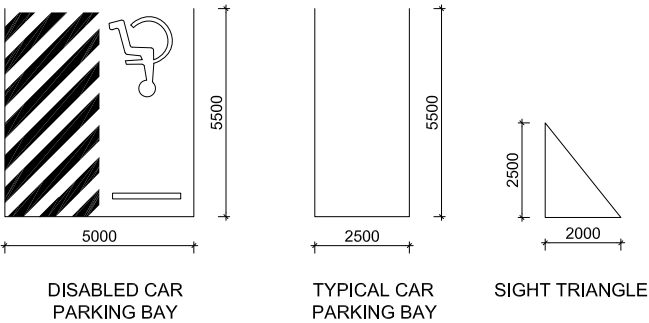
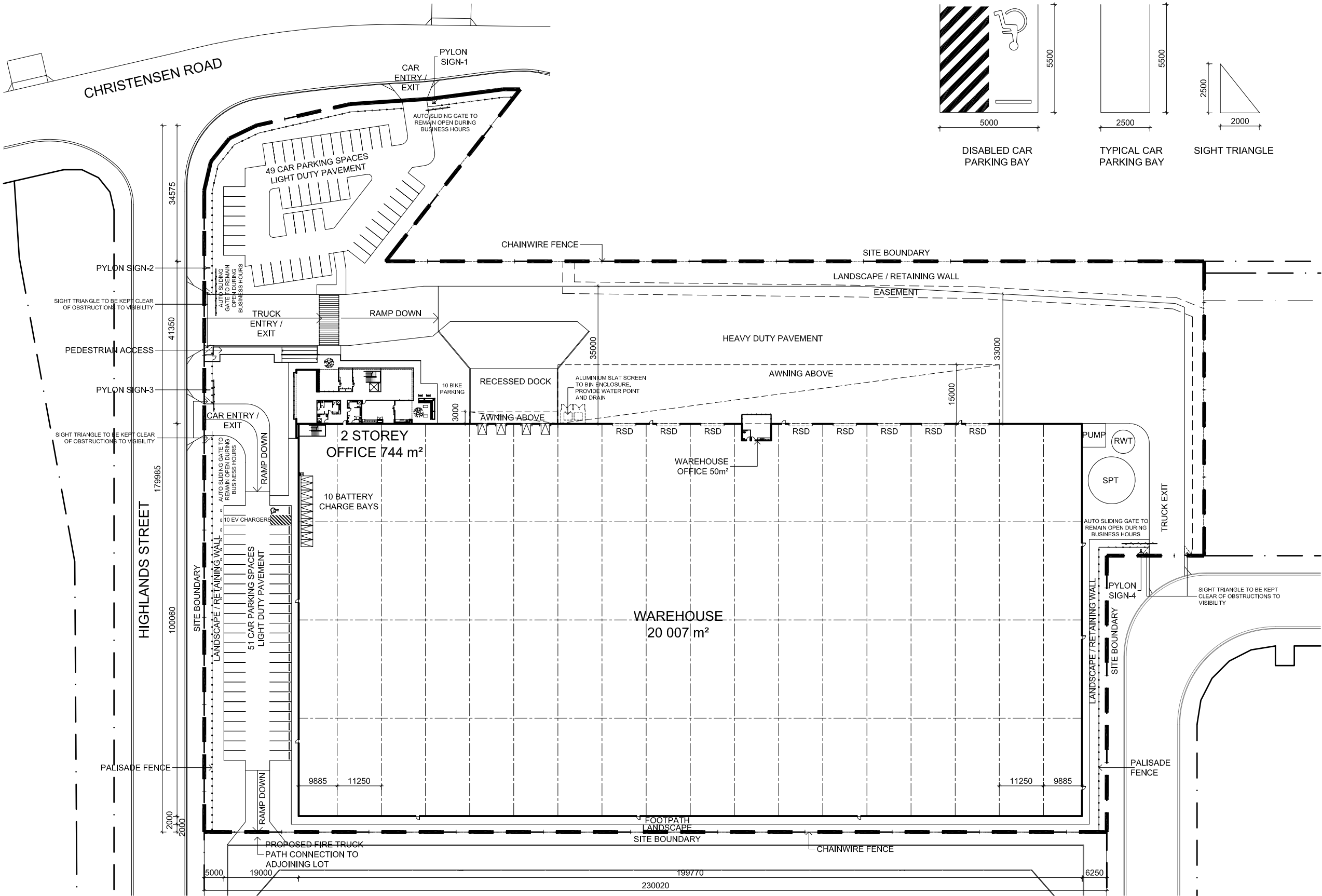
The above reporting demonstrates that proposed warehouse development can be undertaken through the construction of Civil Engineering infrastructure and services that meet the requirements of City of Gold Coast City Council's Land Development Guidelines and associated Australian Standards.

Appendix A – Proposed Site Plan

REV	DESCRIPTION	DATE
A	ISSUE FOR DA	14.12.23
B	GFA AND HARDSTAND UPDATE, EV CHARGERS ADDED	07.11.24

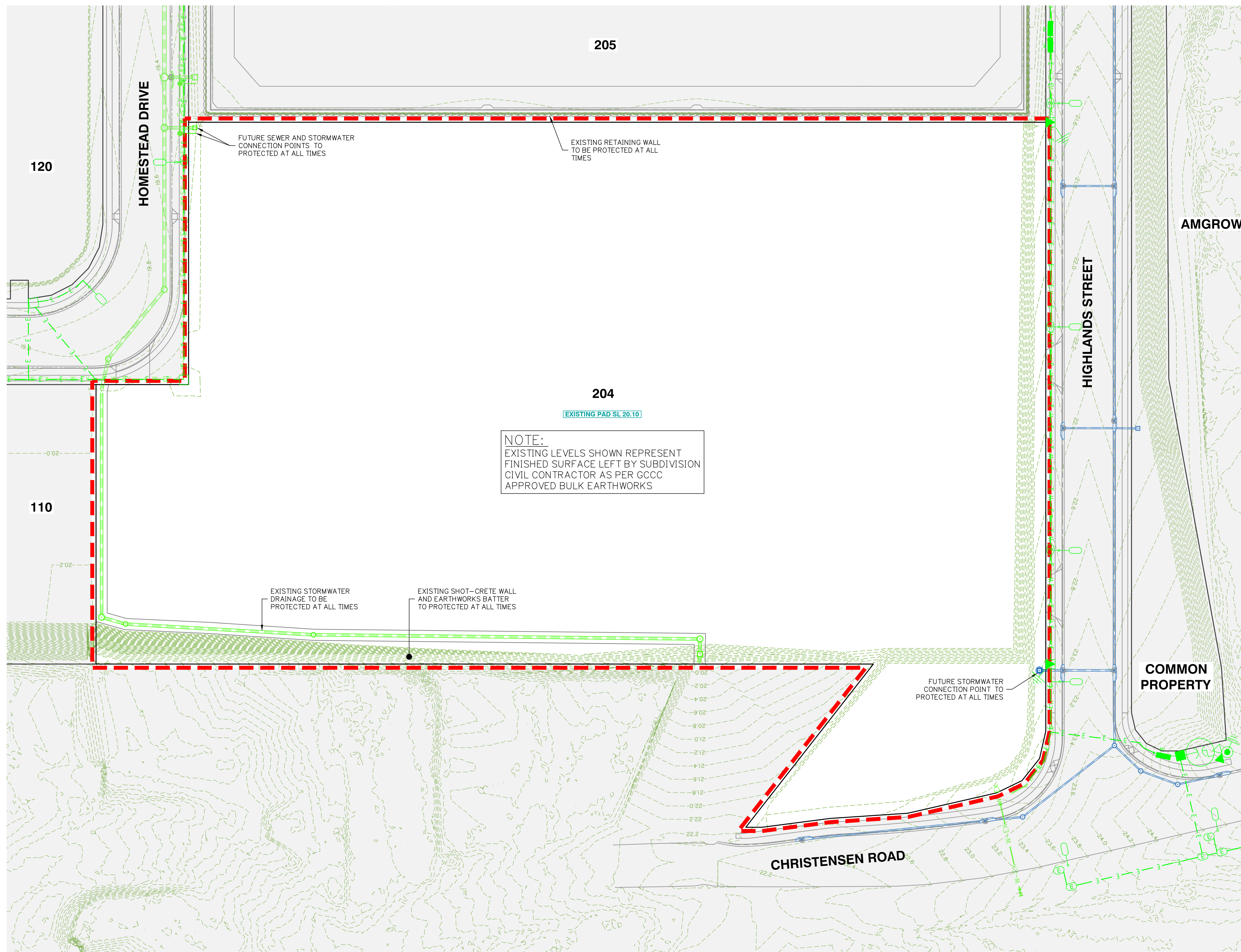
DEVELOPMENT SUMMARY

SITE AREA	37662 m ²
WAREHOUSE Including Warehouse Office	20007 m ²
2 STOREY OFFICE	744 m ²
TOTAL BUILDING AREA	20751 m ²
CAR PARKING PROVIDED	100
AWNING	1754 m ²
HEAVY DUTY PAVEMENT	7384 m ²
LIGHT DUTY PAVEMENT	2930 m ²
SITE EFFICIENCY	55.1 %
SITE COVER (Ground Floor Building + Awning / Site Area)	58.9 %



FOR DEVELOPMENT APPLICATION

Appendix B – Site Survey



NOTE:

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

EXISTING LAYOUT PLAN

Client:

FPI QUEENSLAND
PTY. LTD

Project:

LOT 204 SINGLE TENANCY
WAREHOUSE

Site Address:

2 HIGHLANDS STREET
STAPYLTON - QLD, 4207

RPD:

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

Level Datum: AHD
Meridian:
PSM:
RL:

FOR APPROVAL
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ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH
GENERAL NOTES.

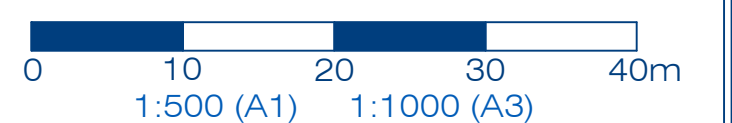
Drawing Title:

EXISTING LAYOUT PLAN

[illegible]

A	05/12/24	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:

Michelle K...

Date:

05/12/2024

Drawing No:

Revision

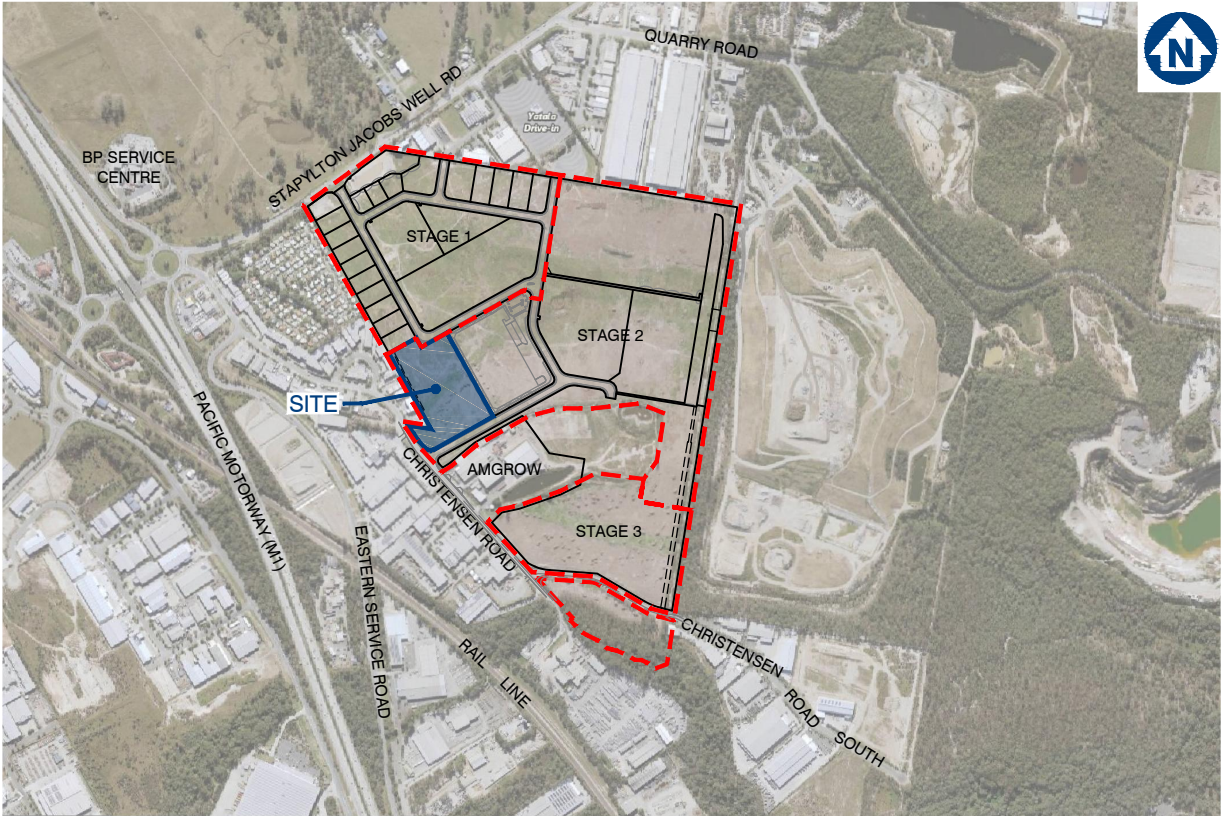
6172 ENG BE 010

A

Appendix C – Lot 204 Bulk Earthworks Strategy Plans

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

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

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.

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-SREADING.
11. **GRASSING / SEEDING**
ALL CUT & FILL AREAS AND DISTURBED AREAS SHALL BE GRASSED OR SEEDED TO THE SATISFACTION OF THE SUPERINTENDENT.
12. **STOCKPILES**
ALL MATERIAL/SPOIL ARISING FROM WORKS ON SITE SHALL BE COMPACTED TO AN APPROPRIATE STANDARD WITHIN THE FILL AREAS OF FUTURE STAGES AS NOMINATED BY THE SUPERINTENDENT. THE CONTRACTOR IS NOT TO CREATE STOCKPILES OF SURPLUS MATERIALS UNLESS WRITTEN AUTHORIZATION IS RECEIVED FROM THE SUPERINTENDENT.

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 SEEDED, AS SPECIFIED, WITHIN 7 DAYS OF FINAL TRIMMING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT GRASS STRIKE RATES ARE ACHIEVED AT ON AND OFF MAINTENANCE INSPECTION IN ACCORDANCE WITH COUNCIL REQUIREMENTS.
9. TURF IS TO BE PLACED FROM BACK OF KERB TO ROAD RESERVE BOUNDARY ON ALL ROADS AFTER EARTHWORKS ARE COMPLETE.
10. GEO-FABRIC LINING OF CHANNELS AND CHECK DAMS MAY BE REQUIRED SUBJECT TO THE SITE CONDITIONS.
11. FILLING AND OR MAINTENANCE OF EXISTING AND OR SEDIMENT BASINS MAY REQUIRE FLOCCULATION.
12. BATTERS WITHIN PUBLIC OPEN SPACE TO BE VEGETATED IN ACCORDANCE WITH THE APPROVED OPEN SPACE MANAGEMENT PLAN (OSMP).
13. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CLEAN OUT GPT'S, SEDIMENT FOREBAYS AND ALL OTHER SEDIMENT CONTROL DEVICES DURING CONSTRUCTION AND PRIOR BOTH ON AND OFF MAINTENANCE INSPECTIONS WITH CoGC. THE CONTRACTOR SHALL ALLOW FOR THE COST OF THESE WORKS WITHIN THEIR SUBMITTED TENDER PRICE.

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).



planning | environment | landscape | engineering | survey
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Gold Coast | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:

FPI QUEENSLAND
PTY. LTD

Project:

LOT 204 SINGLE TENANCY
WAREHOUSE

Site Address:

2 HIGHLANDS STREET
STAPYLTON - 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	05/12/24	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:	05/12/2024
Drawing No:	Revision
6172 ENG BE 002	A

Client:

FPI QUEENSLAND
PTY. LTD

Project:

LOT 204 SINGLE TENANCY
WAREHOUSE

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2 HIGHLANDS STREET
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Drawing Title:

DRAWING LEGENDS

A	05/12/24	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:

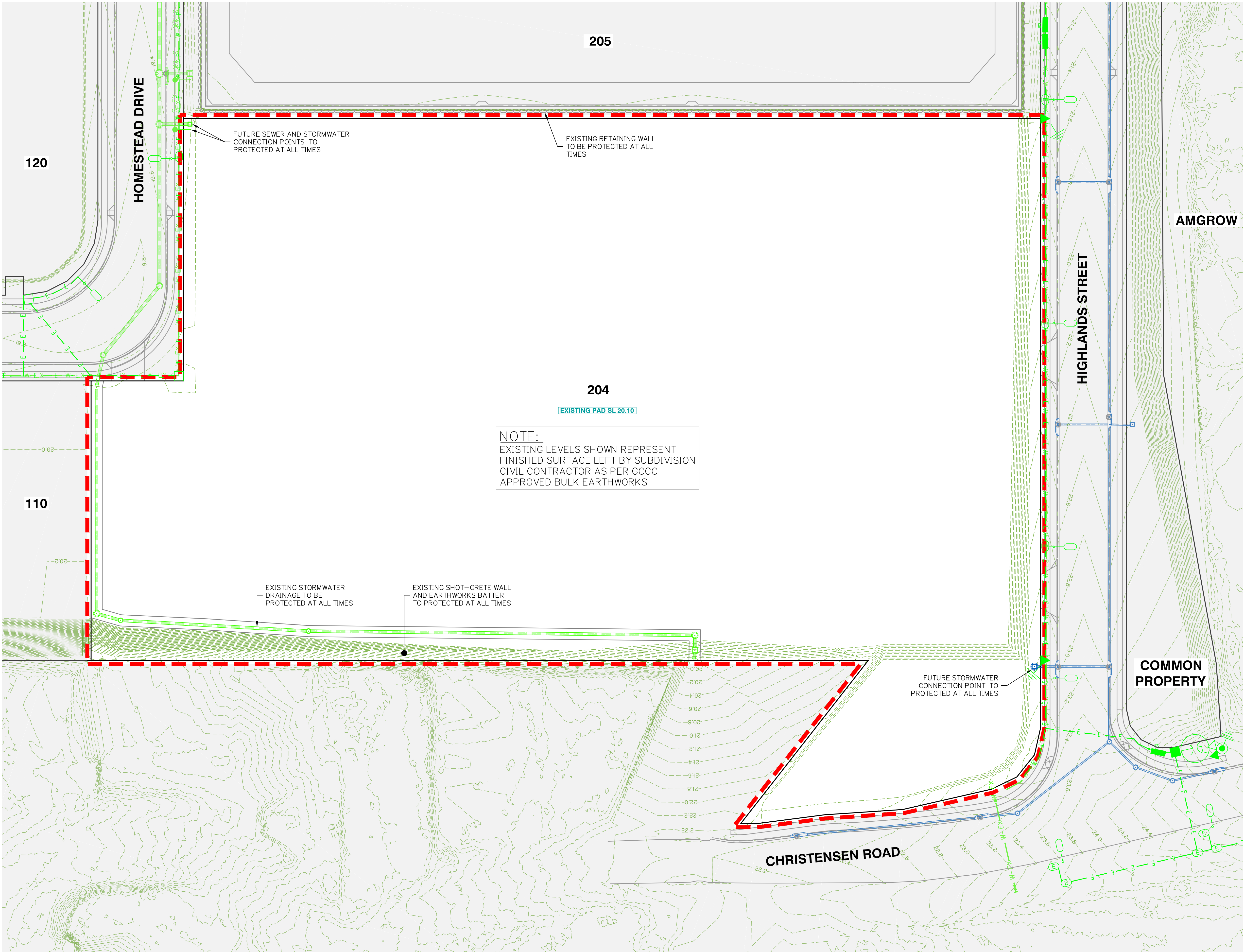
PROJECT NORTH POINT

Project No. 6172	
Designed: TGP	Drafted: TGP
Approved:	MG
RPEQ	16939
Signed:	
Date:	05/12/2024
Drawing No:	Revision
6172 ENG BE 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



NOTE:
EXISTING LEVELS SHOWN REPRESENT
FINISHED SURFACE LEFT BY SUBDIVISION
CIVIL CONTRACTOR AS PER GCCC
APPROVED BULK EARTHWORKS

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

EXISTING LAYOUT PLAN

Client:
**FPI QUEENSLAND
PTY. LTD**

Project:
**LOT 204 SINGLE TENANCY
WAREHOUSE**

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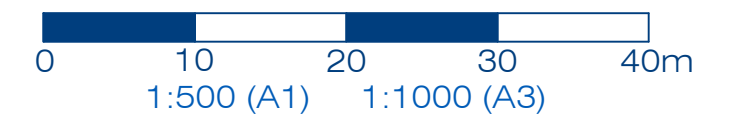
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EXISTING LAYOUT PLAN

Rev	Date	DESCRIPTION	TGP	MG
A	05/12/24	ORIGINAL ISSUE		
			DRN	CHK

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

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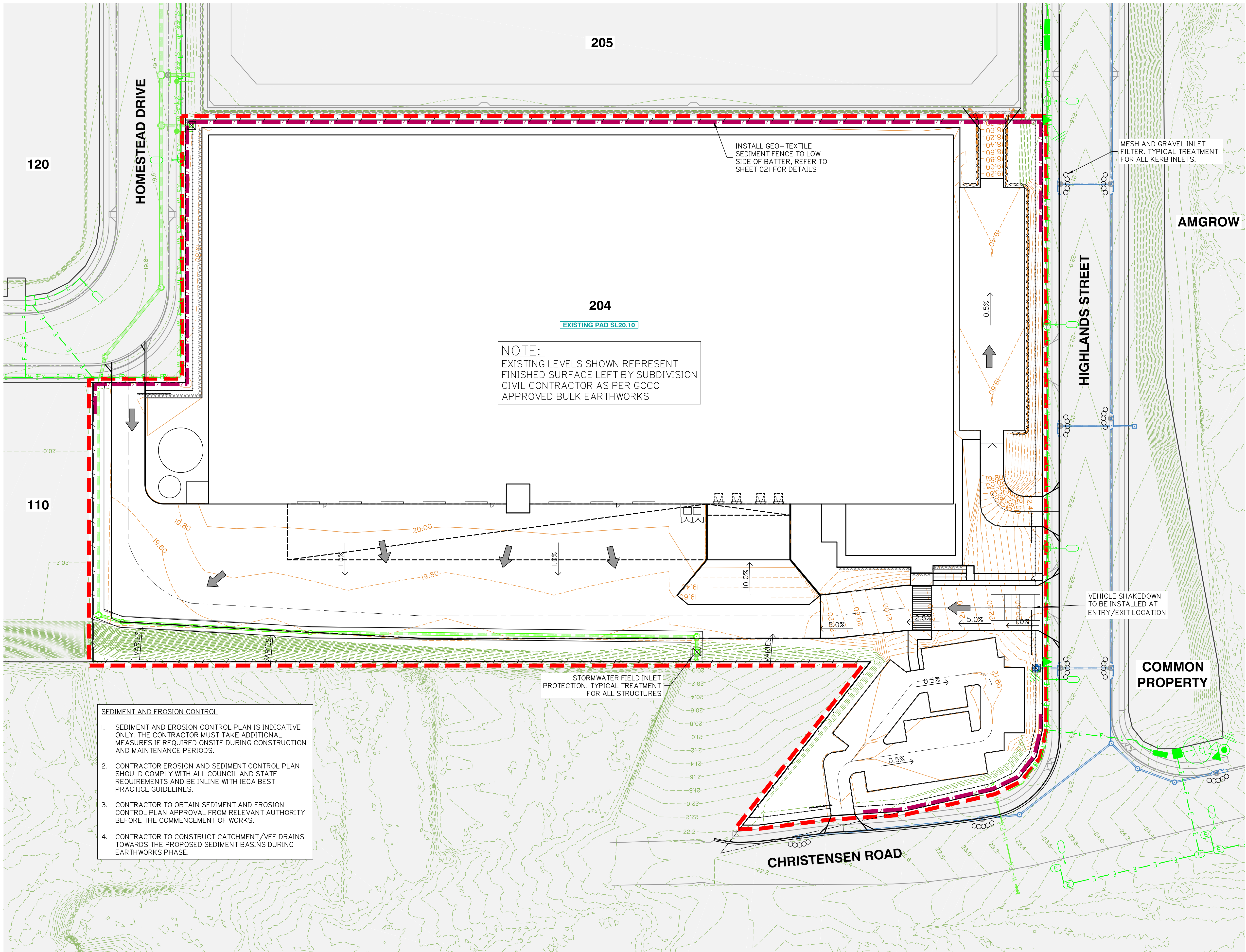
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RPEQ	16939
Signed:	
Date:	05/12/2024
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NOTE:

- FOR GENERAL DRAWING LEGENDS, REFER TO SHEET 004
- FOR GENERAL NOTES, REFER TO SHEETS 002 AND 003
- FOR SEDIMENT AND EROSION CONTROL NOTES AND DETAILS REFER TO SHEET 021

SEDIMENT AND EROSION CONTROL LAYOUT PLAN

Client:

FPI QUEENSLAND
PTY. LTD

Project:

LOT 204 SINGLE TENANCY
WAREHOUSE

Site Address:

2 HIGHLANDS STREET
STAPYLTON - QLD, 4207

RPD:

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

Level Datum: AHD
Meridian:
PSM:
RL:

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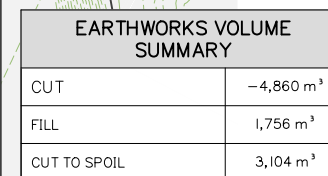
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CONTROL LAYOUT PLAN

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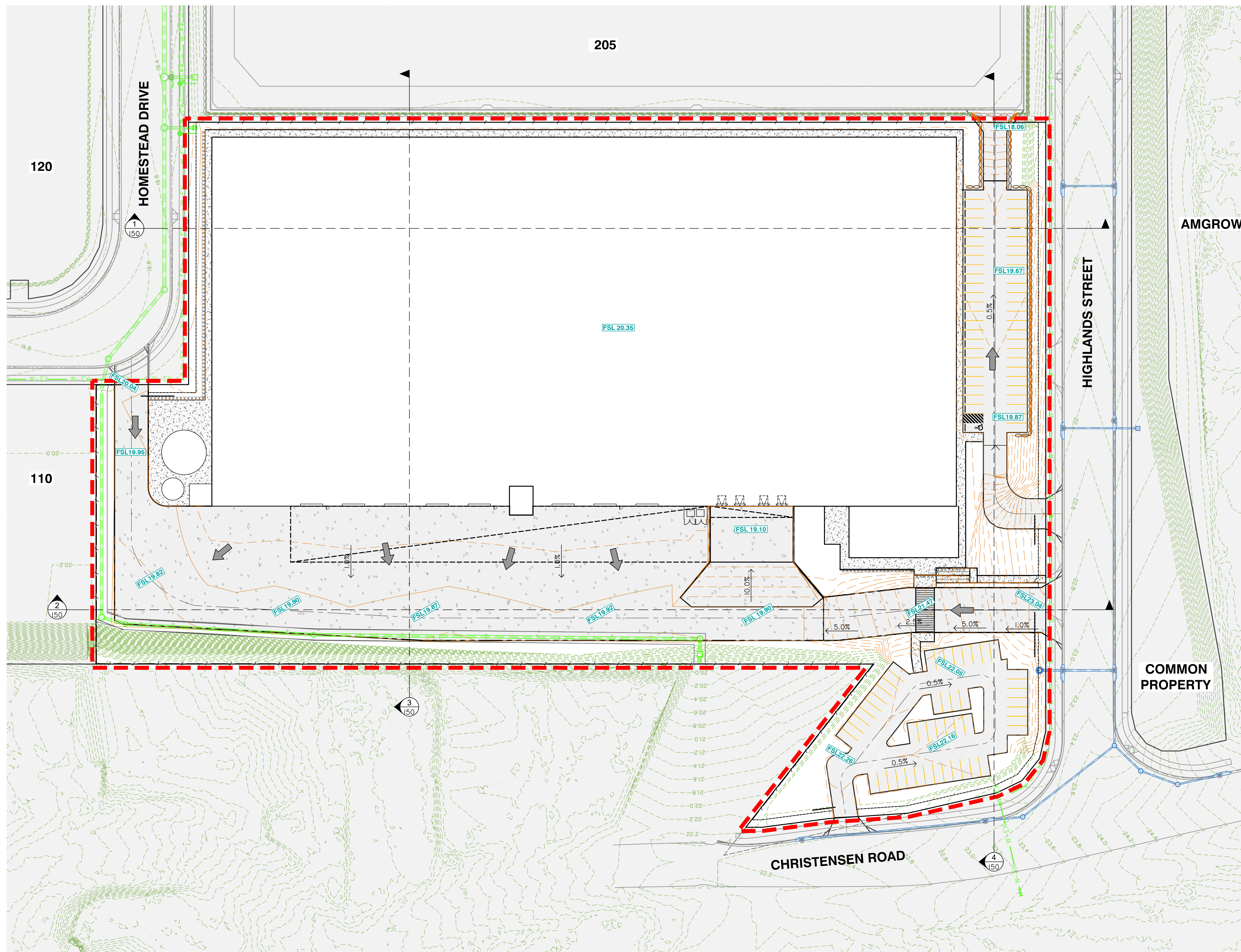
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**BULK EARTHWORKS
LAYOUT PLAN**

Scale:

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

BULK EARTHWORKS LAYOUT PLAN



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FPI QUEENSLAND
PTY. LTD

Project:

LOT 204 SINGLE TENANCY
WAREHOUSE

Site Address:

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FINISHED SURFACE
CROSS SECTIONS
SHEET 1 OF 2

A	05/12/24	ORIGINAL ISSUE	TGP	MG
Rev	Date	Description	DRN	CHK

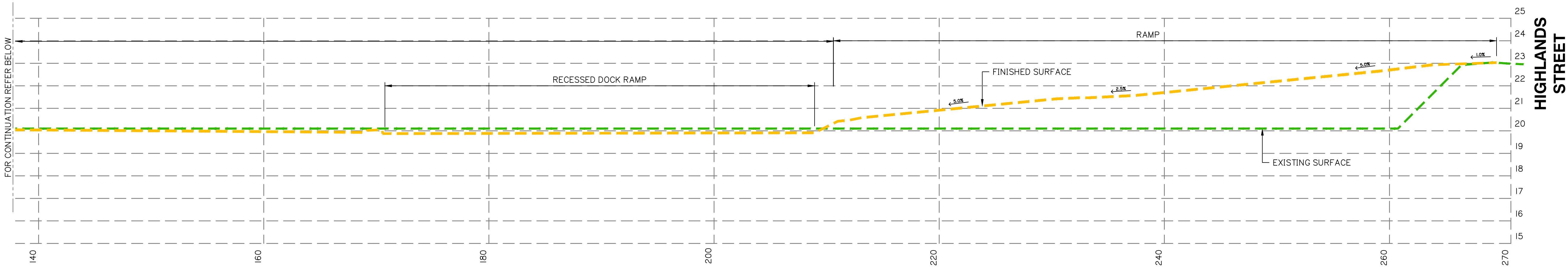
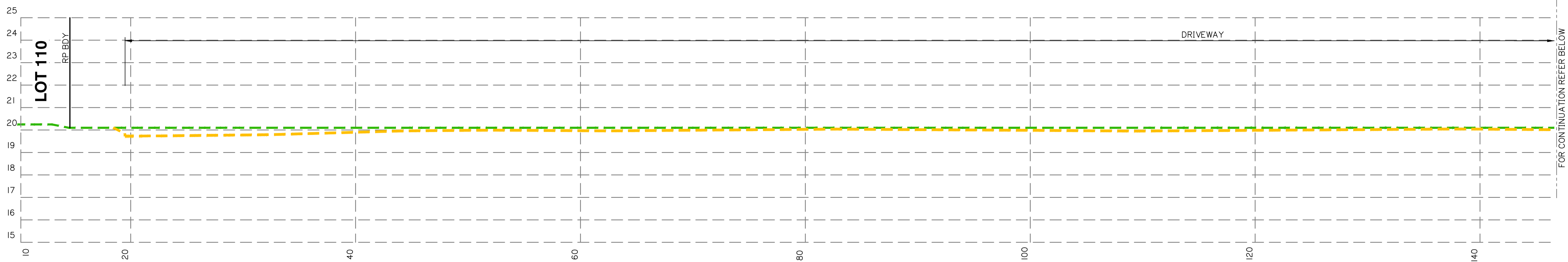
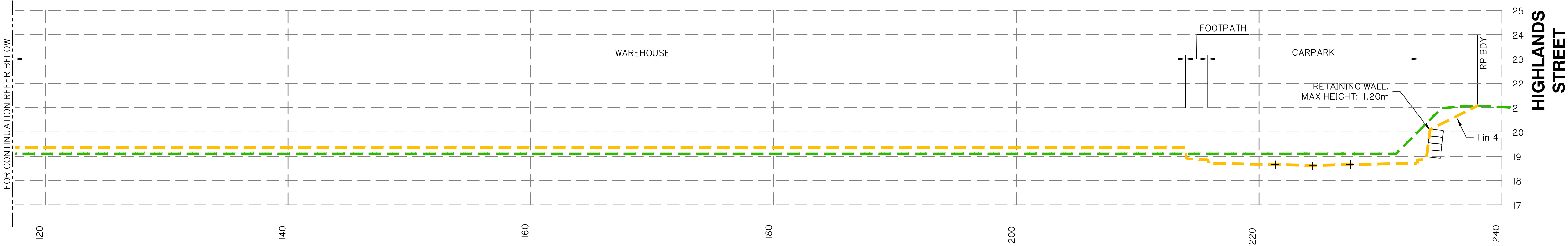
DIMENSIONS IN METRES EXCEPT WHERE
SHOWN OTHERWISE
CULVERT AND PIPE SIZES IN MILLIMETRES

A1 UNREDUCED
A3 REDUCED

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1:200 (A1) 1:400 (A3)
0 2 4 6 8m
1:100 (A1) 1:200 (A3)

PROJECT NORTH POINT

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Date:	05/12/2024
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SECTION 2
SCALE:
1:200 HORIZ.
1:100 VERT.

Client:

FPI QUEENSLAND
PTY. LTD

Project:

LOT 204 SINGLE TENANCY
WAREHOUSE

Site Address:

2 HIGHLANDS STREET
STAPYLTON - QLD, 4207

RPD:

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

Level Datum: AHD
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FINISHED SURFACE
CROSS SECTIONS
SHEET 1 OF 2

A	05/12/24	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:

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1:200 (A1) 1:400 (A3)

0 2 4 6 8m

1:100 (A1) 1:200 (A3)

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Project No. 6172

Designed: TGP

Drafted: TGP

Approved:

MG

RPEQ

16939

Signed:



Date:

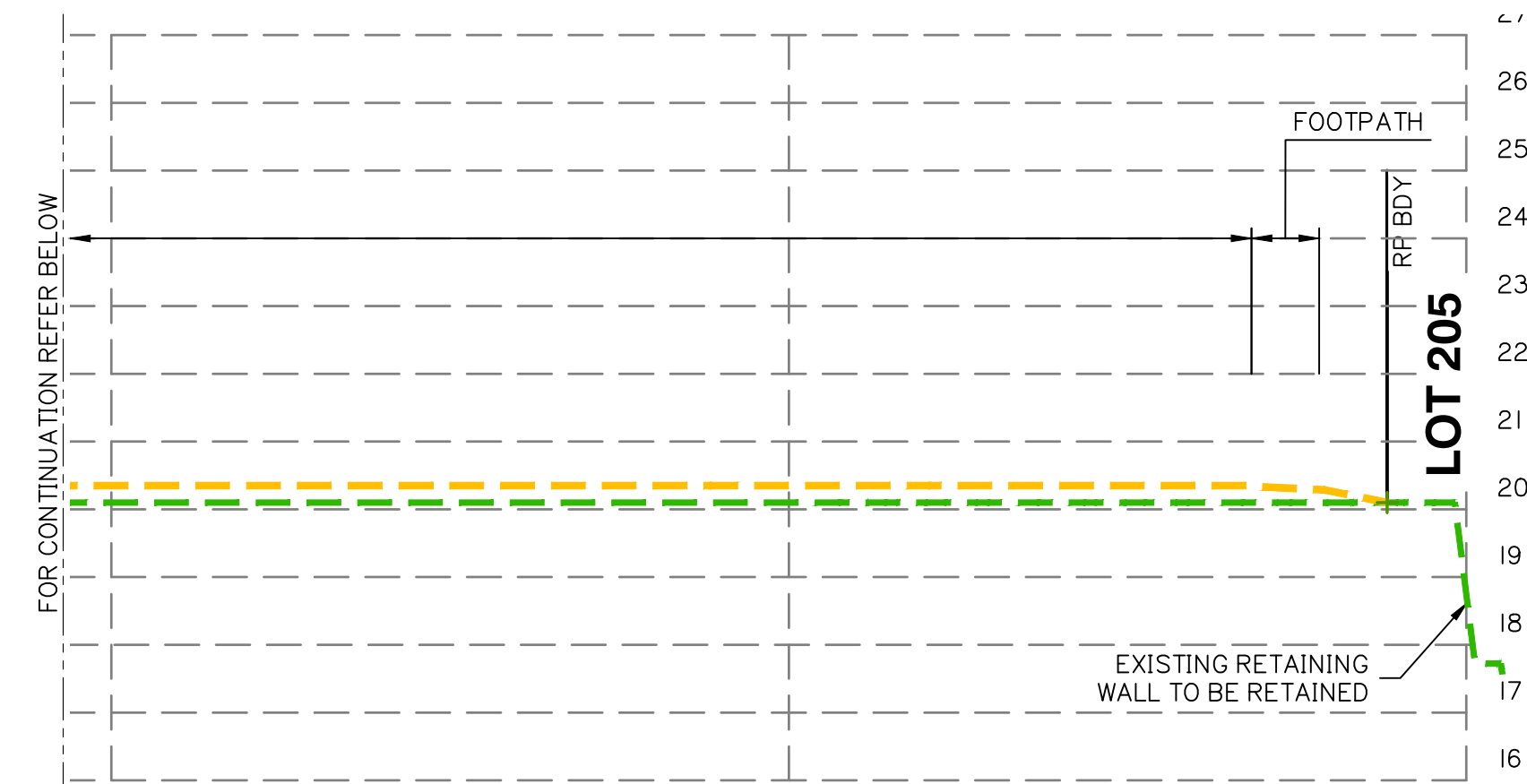
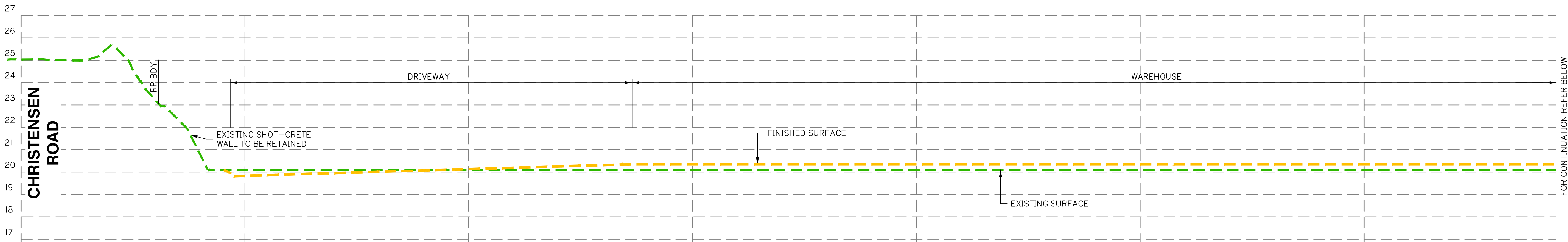
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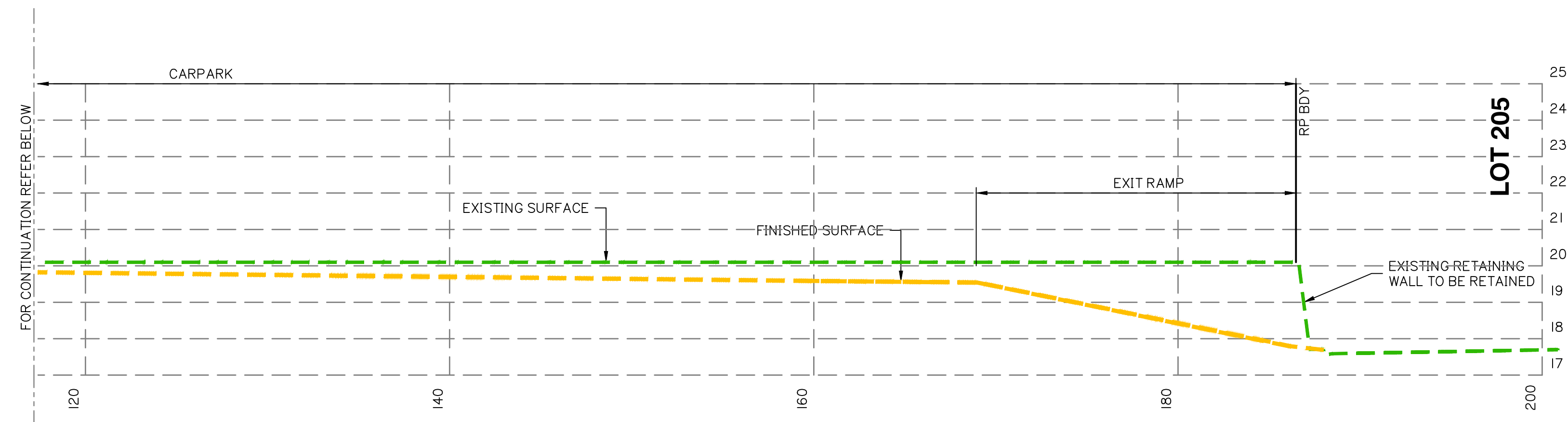
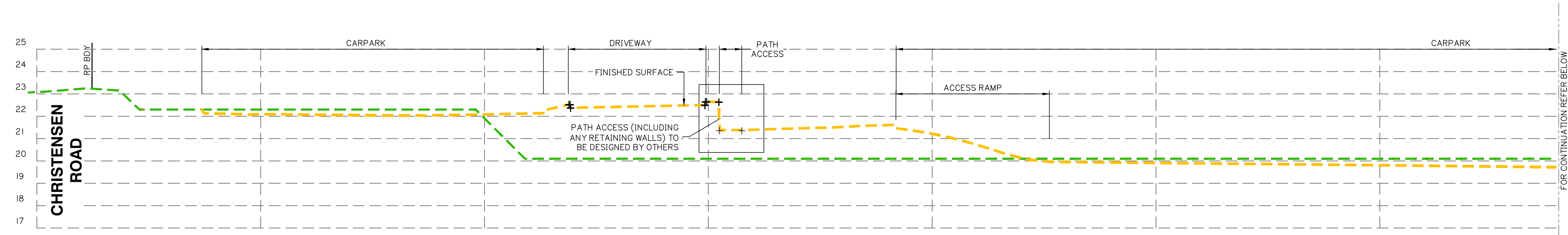
6172 ENG BE 151

Revision

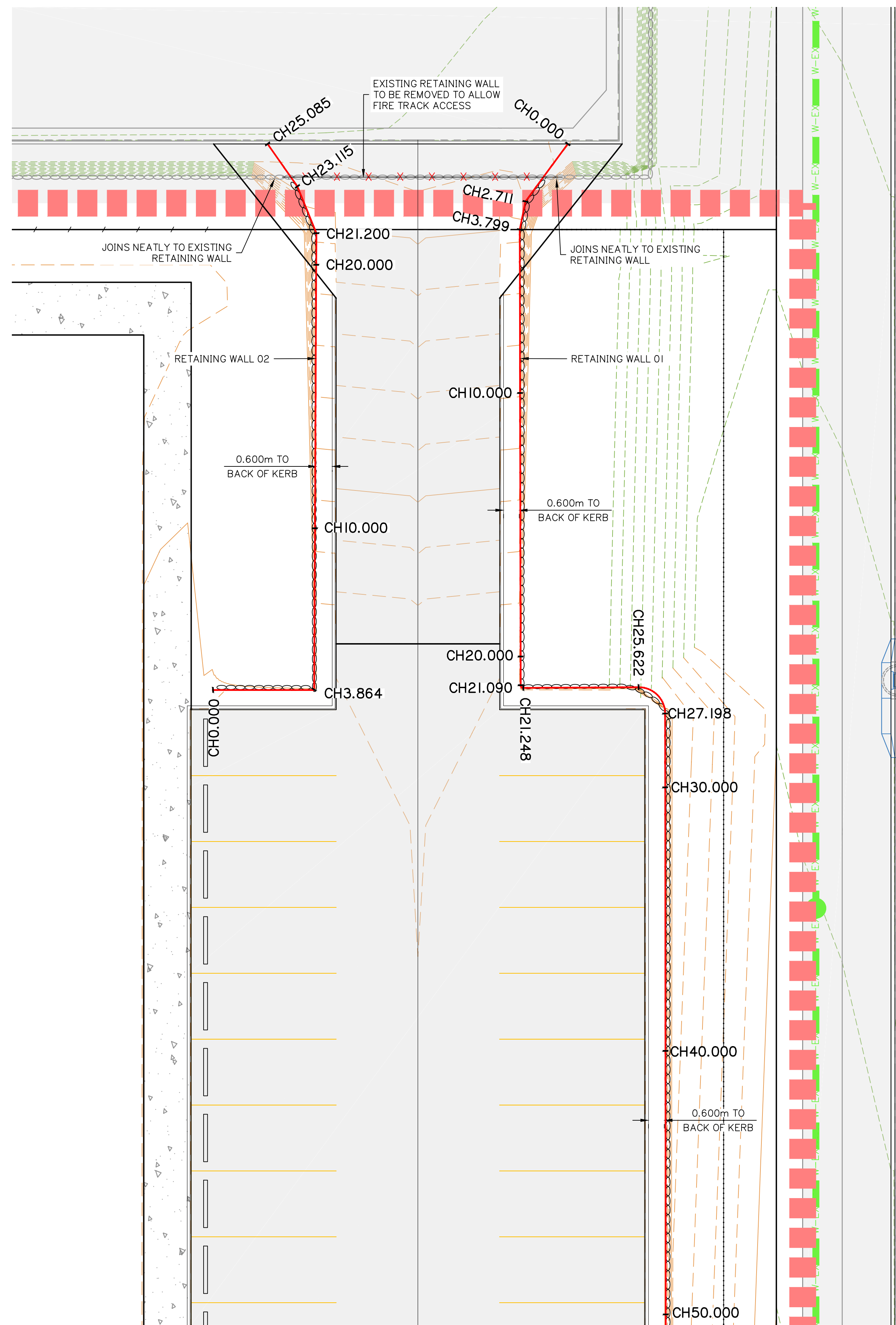
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SECTION 3
SCALE:
1:200 HORIZ.
1:100 VERT.



SECTION 4
SCALE:
1:200 HORIZ.
1:100 VERT.



Client:

FPI QUEENSLAND
PTY. LTD

Project:

LOT 204 SINGLE TENANCY
WAREHOUSE

Site Address:

2 HIGHLANDS STREET
STAPYLTON - QLD, 4207

RPD:

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

Level Datum: AHD
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Drawing Title:

RETAINING WALL
TYPICAL DETAILS

A	05/12/24	ORIGINAL ISSUE	TGP	MG
Rev	Date	Description	DRN	CHK

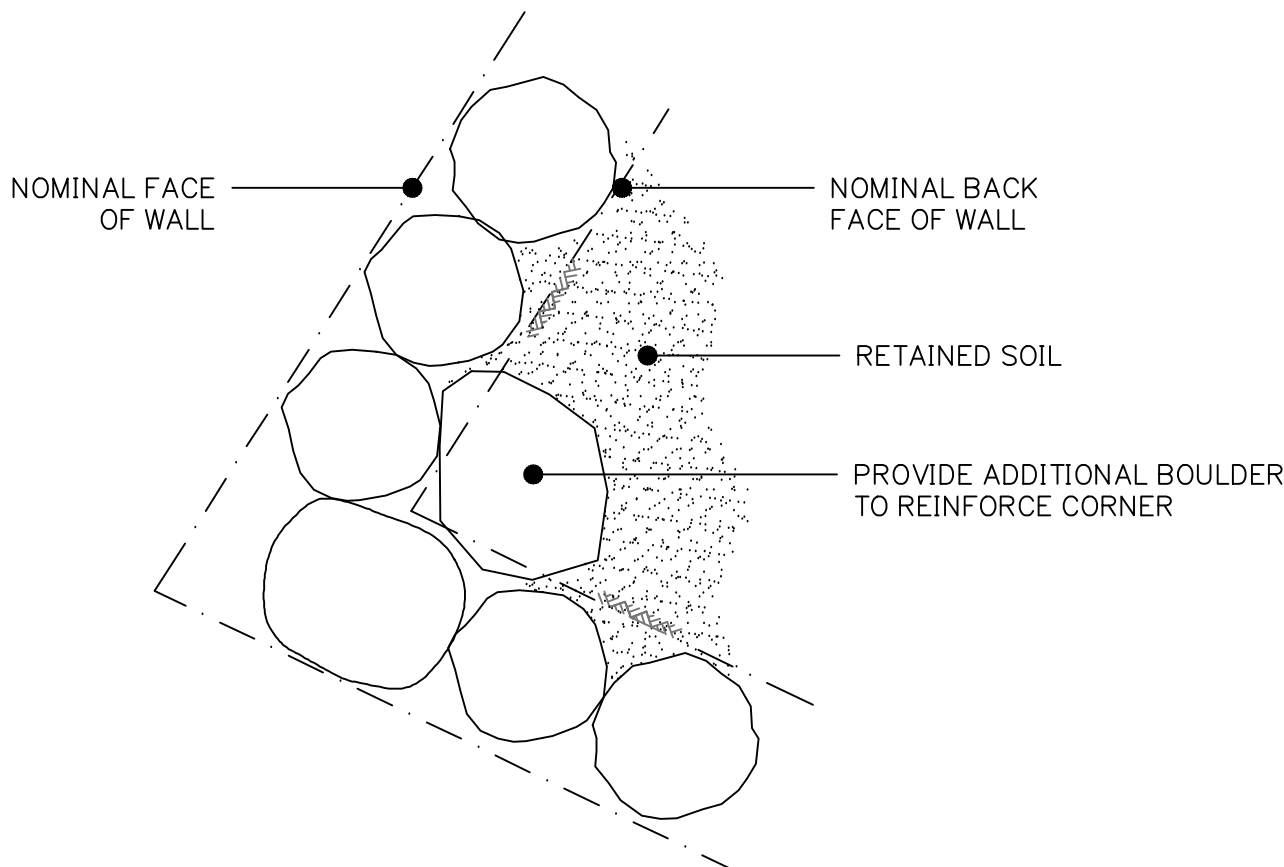
DIMENSIONS IN METRES EXCEPT WHERE
SHOWN OTHERWISE. A1 UNREDUCED
CULVERT AND PIPE SIZES IN MILLIMETRES A3 REDUCED

Scale:

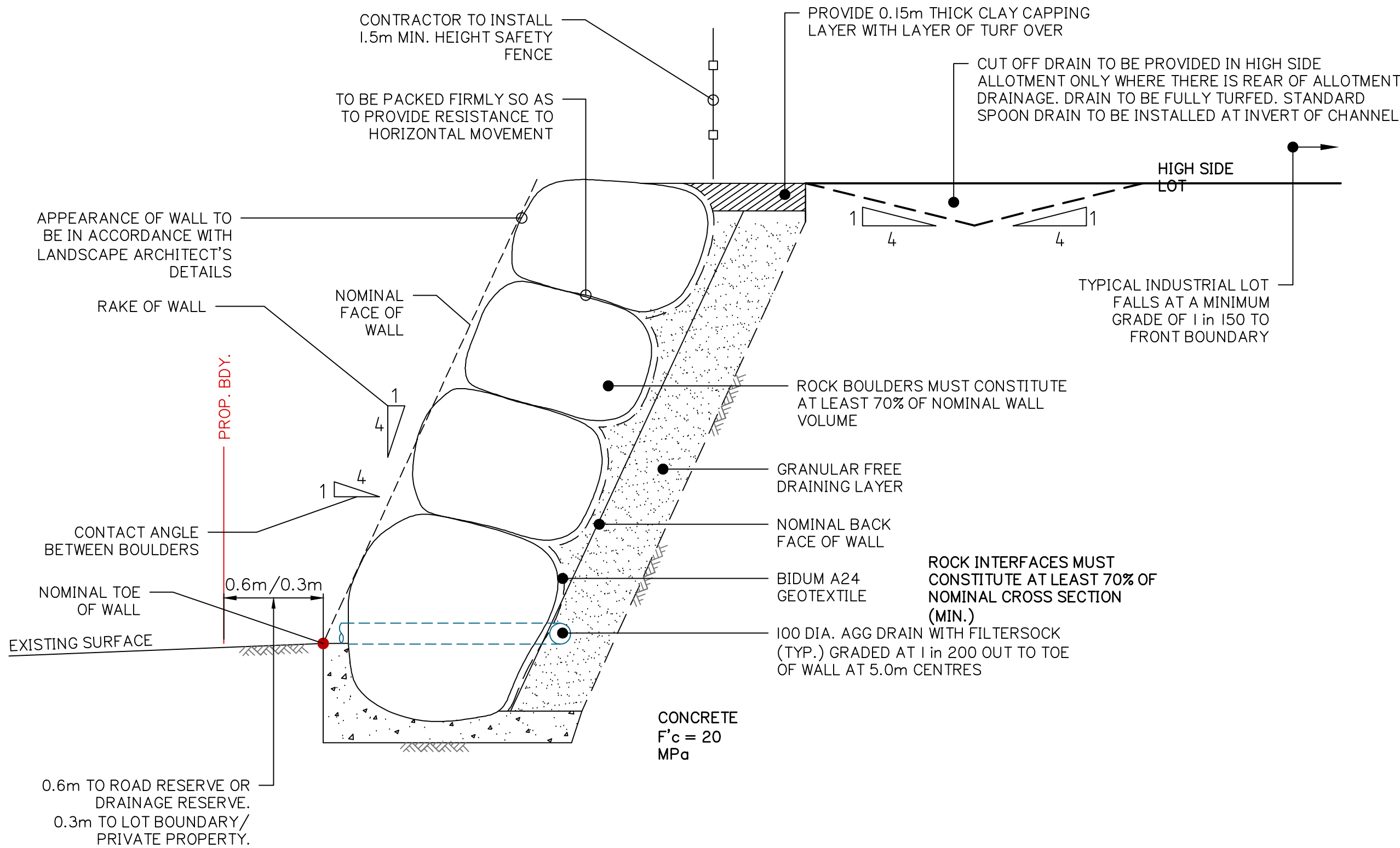
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Approved:	MG
RPEQ	16939
Signed:	
Date:	05/12/2024
Drawing No: 6172 ENG BE 202	Revision: A



PLAN VIEW TYPICAL BOULDER
WALL CORNER DETAIL

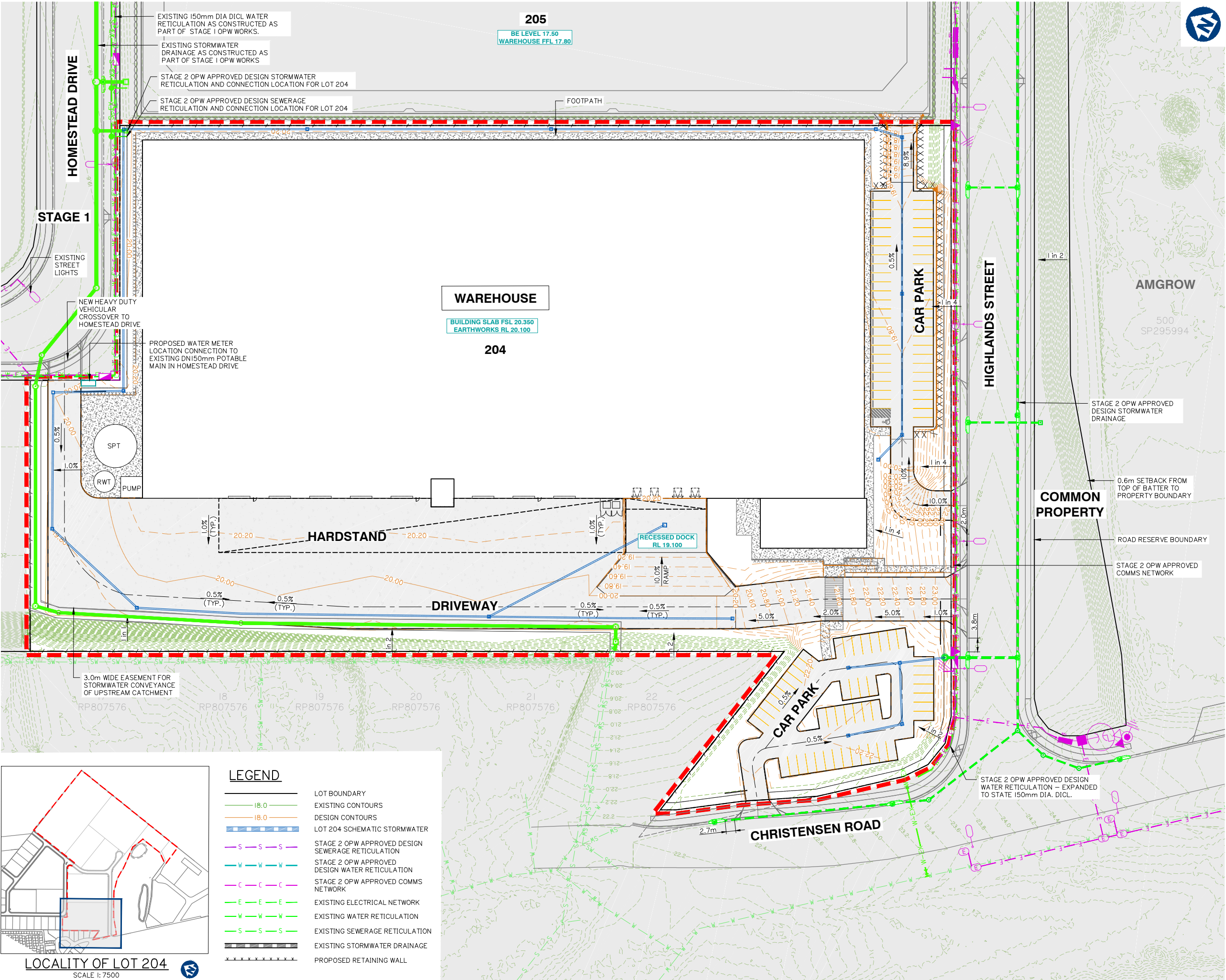


TYPICAL SECTION OF:
BOULDER RETAINING WALL (2.5m HEIGHT)

RAKE OF STONE FACE
EXAGGERATED
(N.T.S)

- NOTE:
- 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.
 - THE BOULDER RETAINING WALL DETAILS SHOWN ON THIS DRAWING ARE TYPICAL ONLY. CONSTRUCTION TO BE UNDERTAKEN TO STRUCTURAL ENGINEERS SPECIFICATION.
 - CONTRACTOR TO ARRANGE FOR DESIGN AND CONSTRUCTION OF WALLS AND SHALL PROVIDE STRUCTURAL CERTIFICATION OF DESIGN (FORM I5) AND FINAL CONSTRUCTION (FORM I6).
 - 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.

Appendix D – Civil Servicing Strategy Plan



Client:



FPI QUEENSLAND
PTY. LTD.

Project:

SPECULATIVE USE

Site Address:

LOT 204 HIGHLANDS STREET,
STAPYLTON QLD 4207

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RPD:

Lot: 204
Plan: SP316137
Local Authority: CITY OF GOLD COAST
COUNCIL
Level Datum: AHD
Meridian: -
Contour Interval: -
PSM: -
RL: -

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DRAWING TITLE
LOT 204 - ENGINEERING
SERVICES STRATEGY
PLAN

Issue	Date	Original Issue Description	TGP	MG
A	05-12-2024			

SCALE IN METRES



1:500 (FULL SIZE A1)
1:1000 (HALF SIZE A3)

Scale at A1: 1:500

Designed: TGP

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RPEQ: 16939

Signed:

Date: 05-12-2024

Drawing No:
6172 ENG SK 001

Rev. No:
A

APPENDIX I

ACOUSTIC IMPACT ASSESSMENT



VantageYatala



gasman
development
perspectives

planning
environment
landscape
engineering
survey



Proposed Warehouse Development
Lot 502 Homestead Drive
Stapylton

ACOUSTIC REPORT



Client:

Frasers Property
ATTN: James Jarimba

Reference:

2022527 R01E Lot 204 Stapylton Jacobs Well Road Yatala ENV.docx

Date Issued:

18 November 2024

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Report Register

Date	Revision	Author	Reviewer
12/12/2022	R01A	Matthew Bechara	Greg Pearce
21/12/2022	R01B	Matthew Bechara	Greg Pearce
03/02/2023	R01C	Matthew Bechara	Greg Pearce
10/02/2023	R01D	Matthew Bechara	Greg Pearce
18/11/2024	R01E	Benjamin Rushton	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 Lot 502 Homestead Drive, 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 502 Homestead Drive, Stapylton
Lot 504 on SP316137

Refer to Figure 1 for site location.

Figure 1: Site Location (Not to Scale)



A comprehensive site survey was conducted on the 9th November 2022 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 500m west of the site.

2.2 Proposal

The proposal seeks development permit for Material Change of Use – Industry (plus ancillary warehouse and office), Reconfiguring a Lot – access easement and Operation Work – change to ground level. The proposal consists of the following:

- Total site area of 37,662m².
- Warehouse and warehouse office– Total area of 20,007m²
- 2 storey office with an area of 744m².
- Ten internal loading areas.
- Warehouse Amenities.
- Proposed 24/7 hours of operation.
- 100 car parking spaces with site access via 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

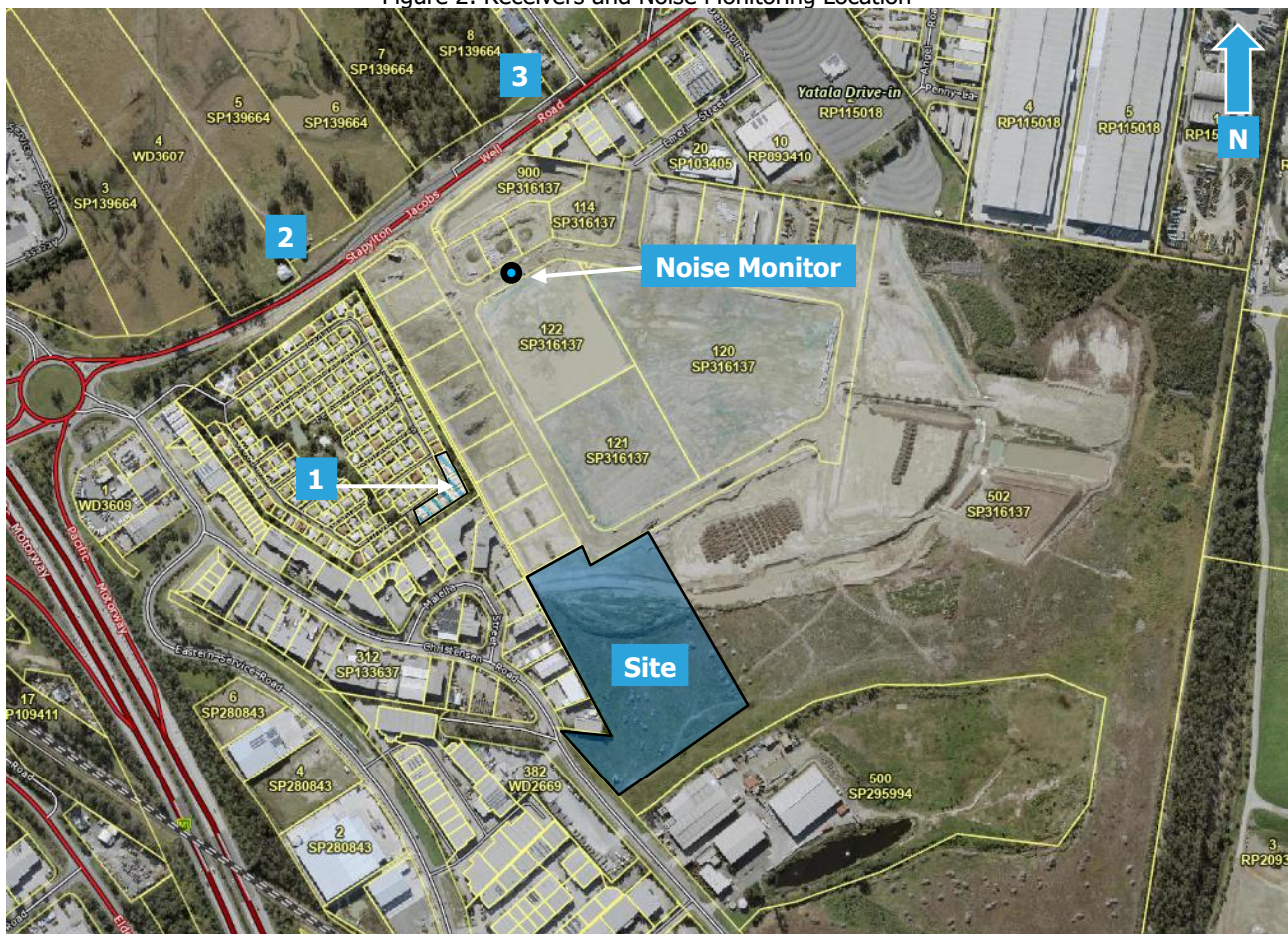
The nearest residential receiver locations were identified as follows;

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 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

7.1 Methodology

Noise predictions were determined with SoundPLAN 8.2 noise modelling software, which applied CONCAWE methodology. The CONCAWE algorithm takes into account distance, intervening terrain and buildings, screening features and meteorological conditions. For the purposes of this assessment, neutral wind conditions were applied in the noise model.

7.2 Source Sound Power Levels

Source sound power levels associated with normal operation was assessed based on previous measurements of similar activities and are presented in Table 4.

Table 4: Source sound power levels

Activity	Sound power level dB(A)	Reverberant sound pressure level dB(A)
Truck passbys	104	-
Truck air brakes	112	-
Truck reverse alarm	105	-
Car passbys	77	-
Car door closure	85	-
Car start	94	-
Forklifts	90	-
Forklift reverse alarms	97	-
Voice Conversation	78	-
Internal warehouse activities	-	78

All activities include corrections for tonality and impulsiveness as per AS1055:2018, where applicable.

7.3 Predicted Noise Levels

7.3.1 Background Creep Criteria

Predicted noise levels for the site utilising the data in Table 4 is presented in Table 5 and compared to the Background Creep criteria. A noise contour map for the site is presented in Section 7.4.

Table 5: Predicted noise levels - Background Creep LAeq 15min

Receiver	Predicted Noise Level, dB(A) Leq, 15min	Leq Compliance		
		Day	Evening	Night
Criteria		54	56	53
1. Cedar Drive (northwest)	45	Yes	Yes	Yes
2. 33 Stapylton Jacobs Well Rd (northwest)	33	Yes	Yes	Yes
3. Hillside Drive (north)	31	Yes	Yes	Yes

Compliance is predicted with the Background Creep criteria for the 24 hour operation of the site without the need for further acoustic treatment.

7.3.2 Acoustic Quality Objectives

Predicted noise levels for the modelled scenario compared to the Acoustic Quality Objectives are presented in Table 6. A noise contour map for the site is presented in Section 7.4.

Table 6: Predicted noise levels - Acoustic Quality Objectives 1 hour

Receiver	Predicted Noise Level, dB(A) Leq, 1 hour		Predicted Noise Level, dB(A) L10, 1 hour		Predicted Noise Level, dB(A) L01, 1 hour		Leq Compliance			LA10 Compliance			LA01 Compliance		
							Day/Eve		Night	Day/Eve		Night	Day/Eve		Night
	External	Internal	External	Internal	External	Internal	External	Internal	Internal	External	Internal	Internal	External	Internal	Internal
Criteria	45	35	48	38	52	42	50	35	30	55	40	35	65	45	40
1. Cedar Drive (northwest)	45	35	48	38	52	42	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No
2. 33 Stapylton Jacobs Well Rd (northwest)	33	23	36	26	41	31	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
3. Hillside Drive (north)	31	21	34	24	39	29	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Exceedances of the acoustic quality objectives are predicted, however the measured background levels already exceed this criteria. Therefore, as the background creep criteria is predicted to comply, noise impacts from onsite activities are not expected to significantly impact the acoustic amenity of nearby sensitive receivers.

7.3.3 Sleep Disturbance

Predicted noise levels for the modelled scenario compared to the Sleep Disturbance criteria are presented in Table 7. A noise contour map for the site is presented in Section 7.4.

Table 7: Predicted noise levels – Sleep Disturbance LAmax

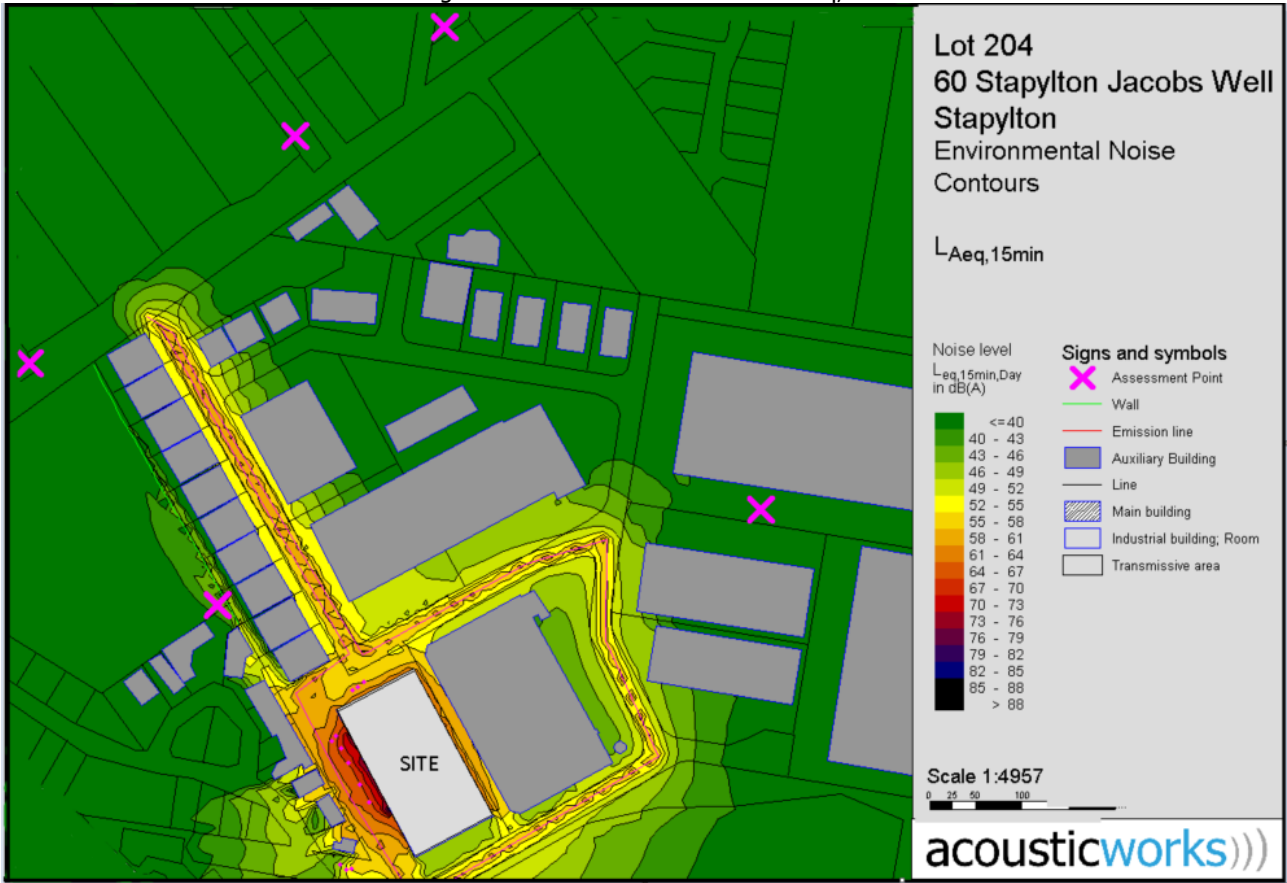
Receiver	Predicted Noise Level, dB(A) LAmax		LAmax Compliance
	External	Internal	
Criteria			45
1. Cedar Drive (northwest)	52	42	Yes
2. 33 Stapylton Jacobs Well Rd (northwest)	41	31	Yes
3. Hillside Drive (north)	39	29	Yes

Compliance is predicted with the Sleep Disturbance criteria without the need for further acoustic treatment.

7.4 Noise Contour Maps

A noise contour map for the development, utilising the noise data in Table 4, is presented in Figure 3.

Figure 3: Predicted Noise Levels - LAeq, T



8. Recommendations

8.1 Onsite Activities

Compliance is predicted for the proposed 24/7 operation for 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 Lot 502 Homestead Drive, 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



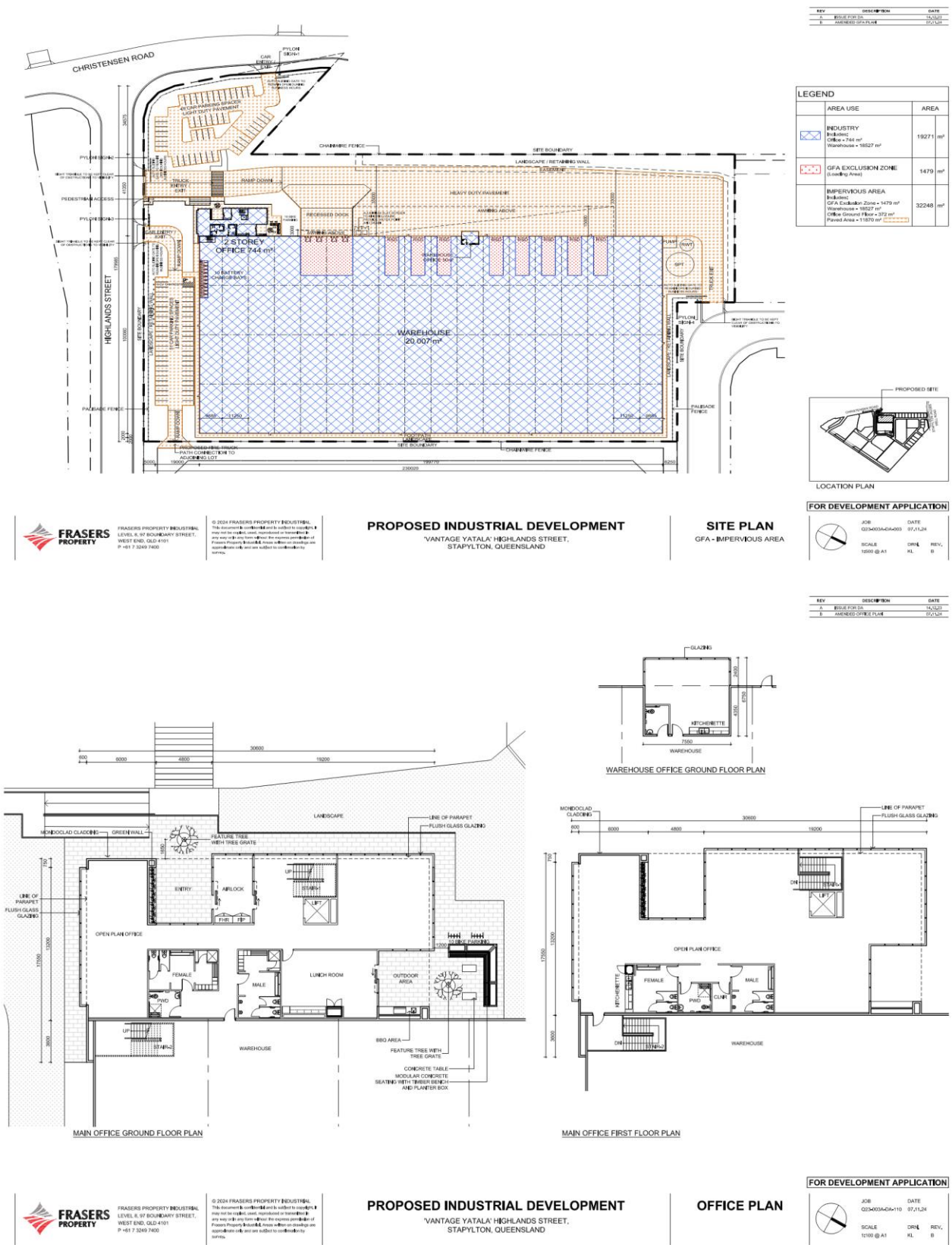
Benjamin Rushton

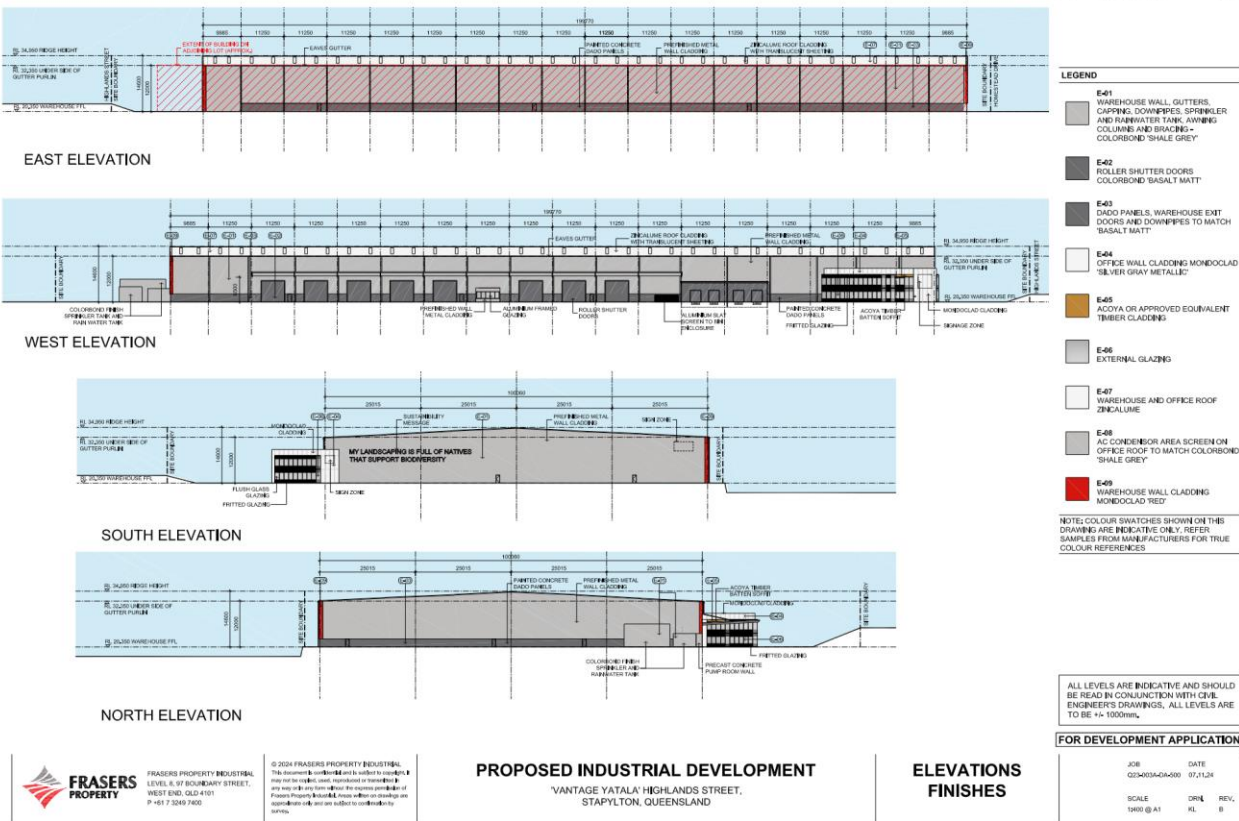
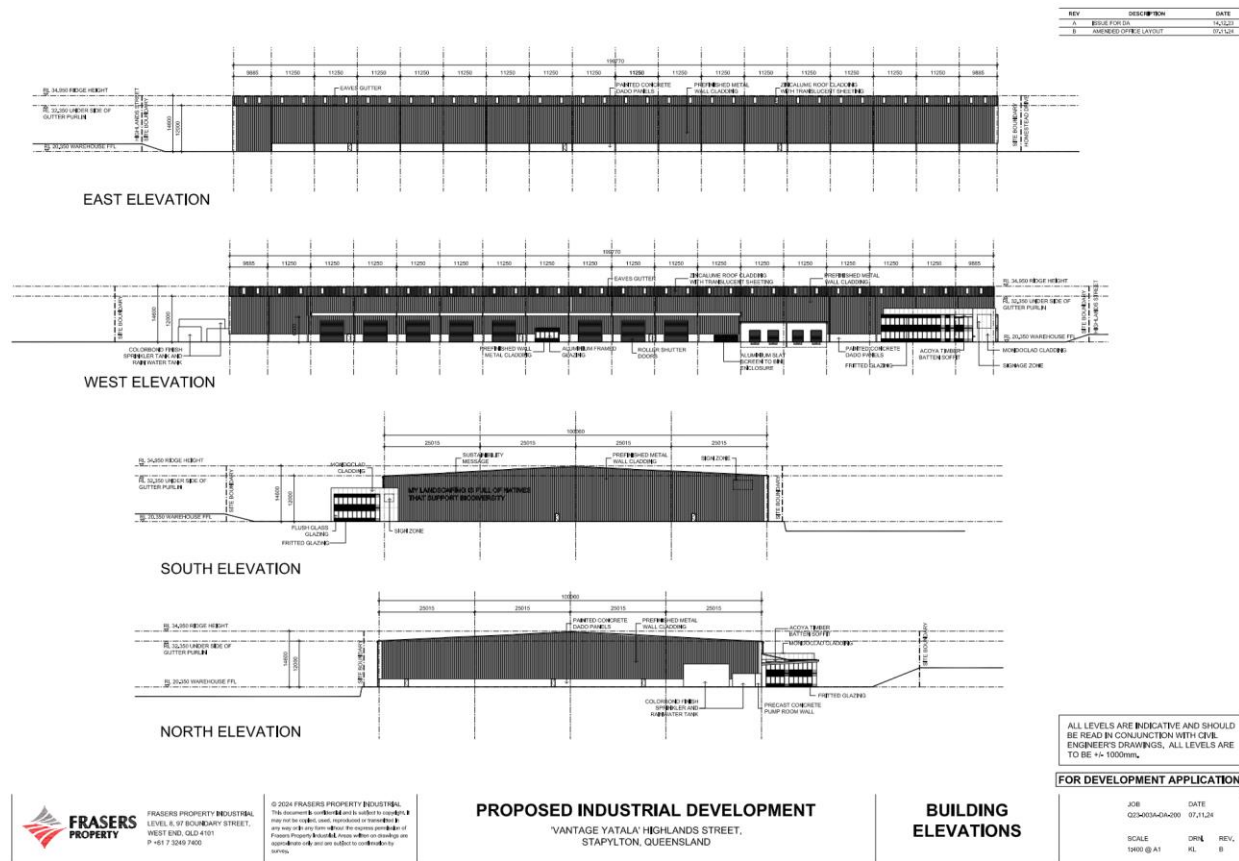
Acoustic Consultant

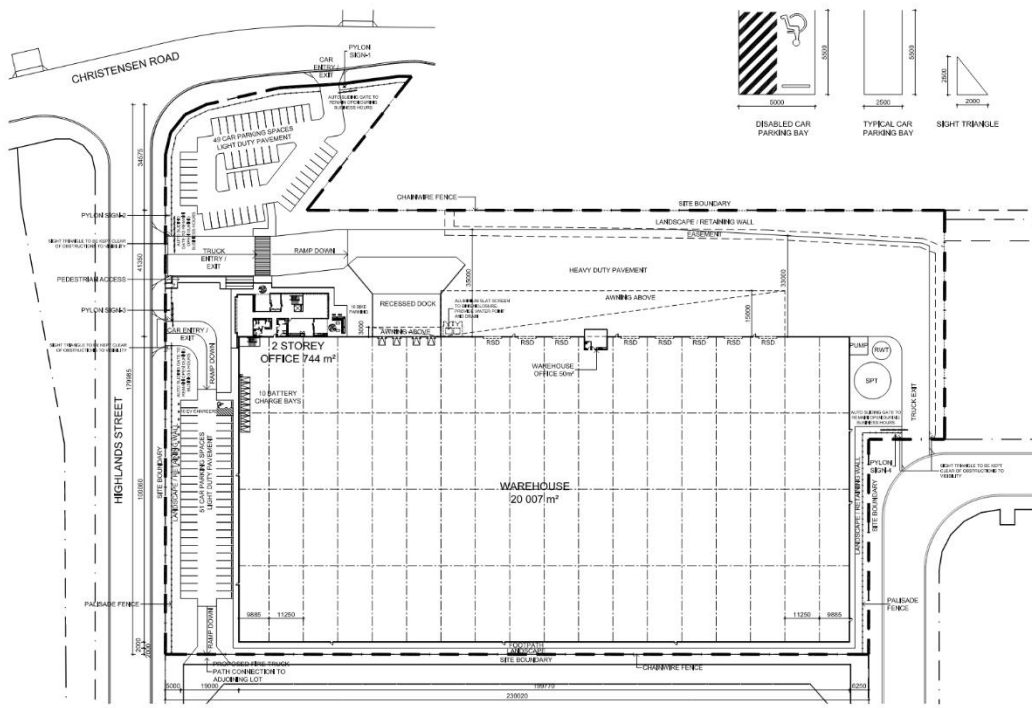
acousticworks)))

10. Appendices

10.1 Development Plans

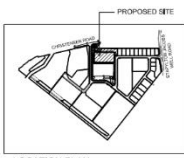






REV	DESCRIPTION	DATE
A	REVISION	14/10/24
B	FOR DEVELOPMENT APPLICATION	14/10/24

DEVELOPMENT SUMMARY	
SETBACK AREA	37662 m²
WAREHOUSE	20007 m²
2-STOREY OFFICE	744 m²
TOTAL BUILDING AREA	20751 m²
CAR PARKING PROVIDED	100
AWNINGS	1754 m²
HEAVY DUTY PAVEMENT	7384 m²
LIGHT DUTY PAVEMENT	2930 m²
SITE EFFICIENCY	55.1 %
SETBACK COVER	55.0 %





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PROPOSED INDUSTRIAL DEVELOPMENT
"VANTAGE YATALA" HIGHLANDS STREET,
STAPYLTON, QUEENSLAND

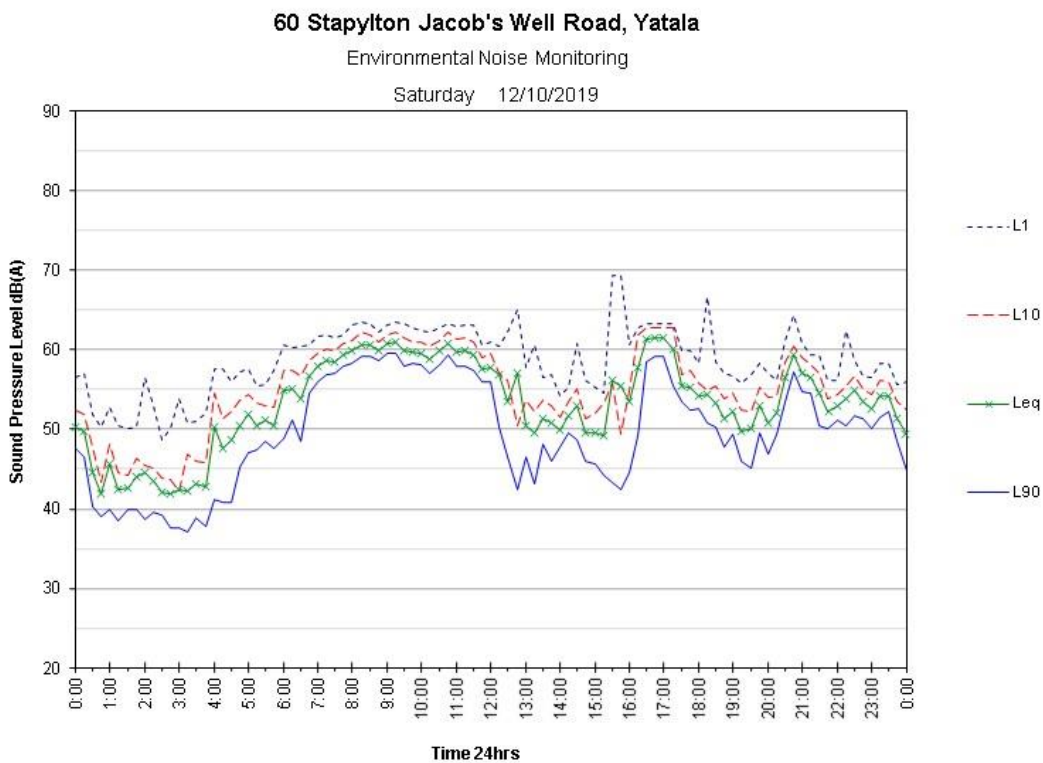
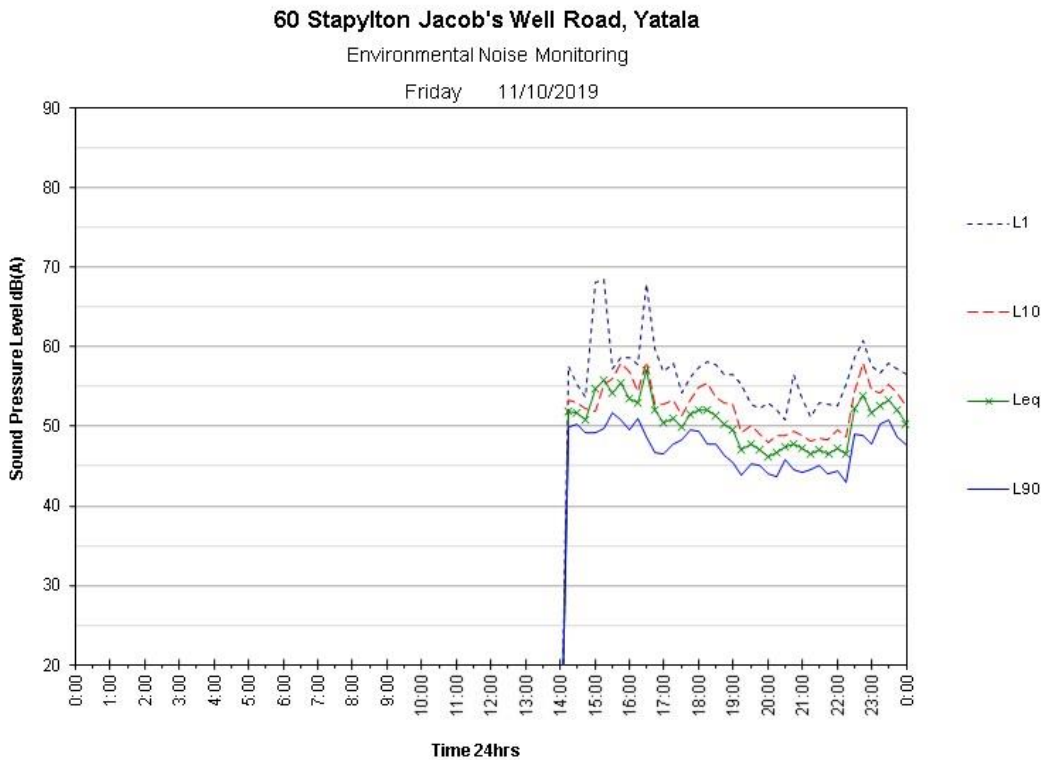
SITE PLAN

FOR DEVELOPMENT APPLICATION



JOB: QUAKES-CHASER
SCALE: 1200 @ A1
DATE: 07/11/24
DRL: RL
REV: B

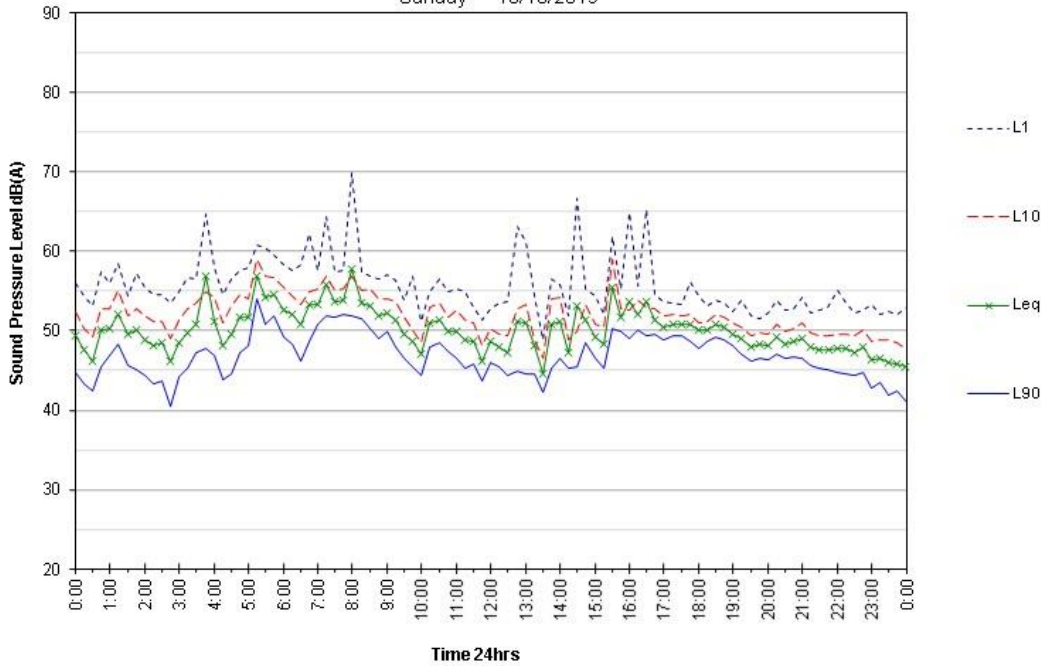
10.2 Noise Monitoring Charts



60 Stapylton Jacob's Well Road, Yatala

Environmental Noise Monitoring

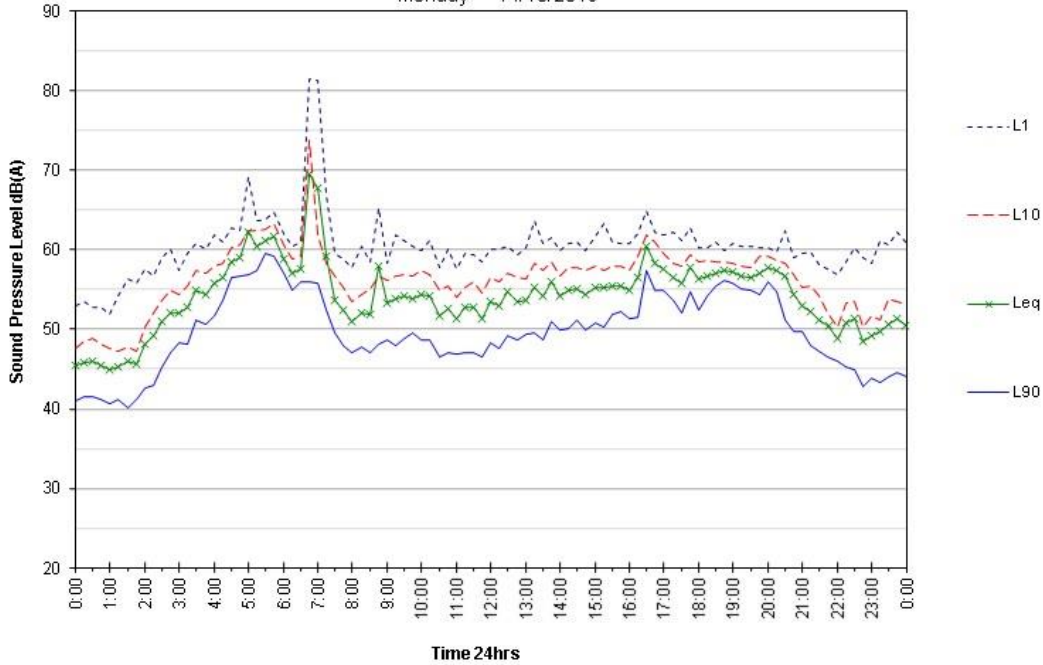
Sunday 13/10/2019

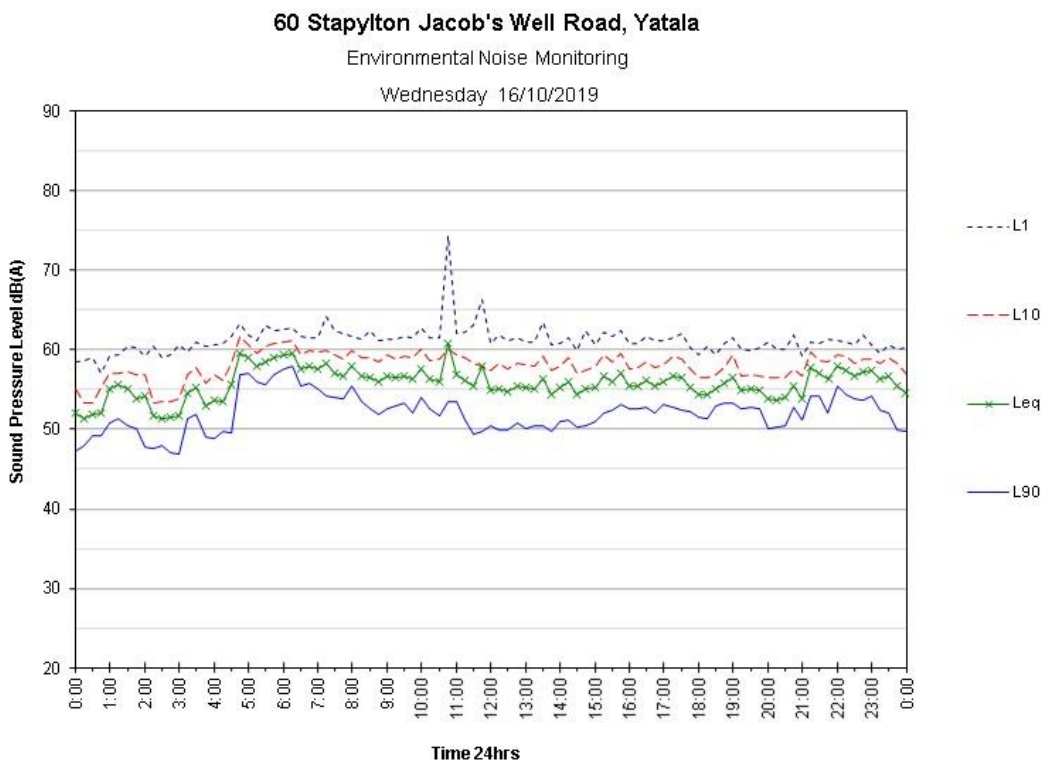
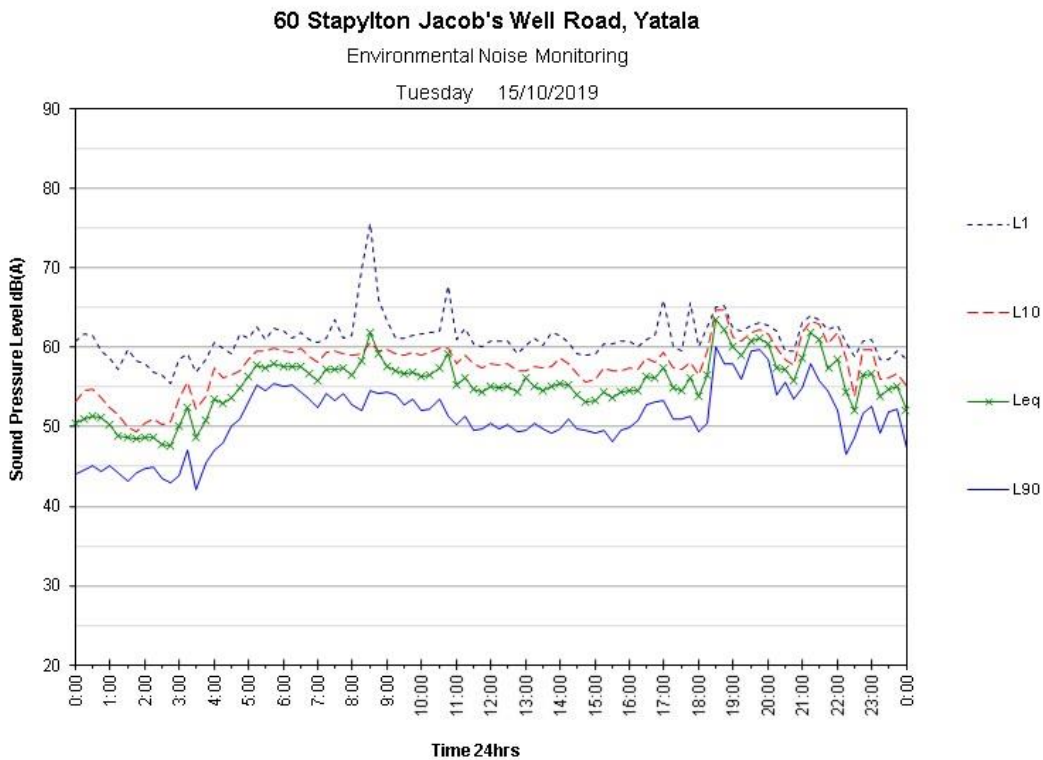


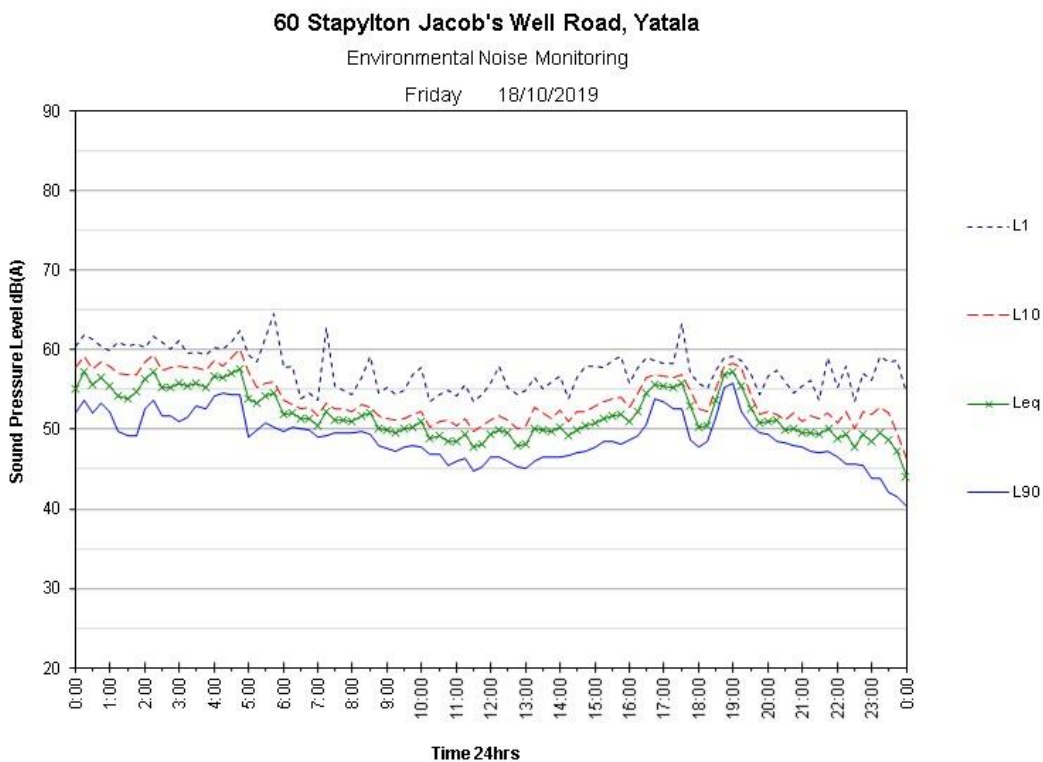
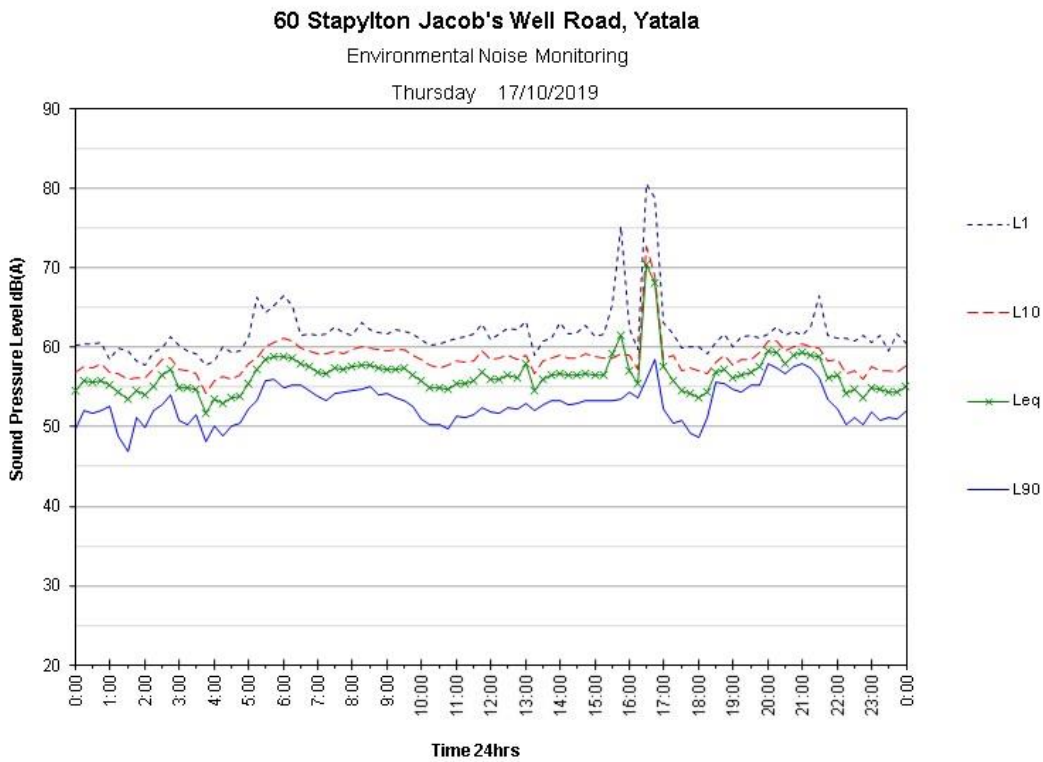
60 Stapylton Jacob's Well Road, Yatala

Environmental Noise Monitoring

Monday 14/10/2019



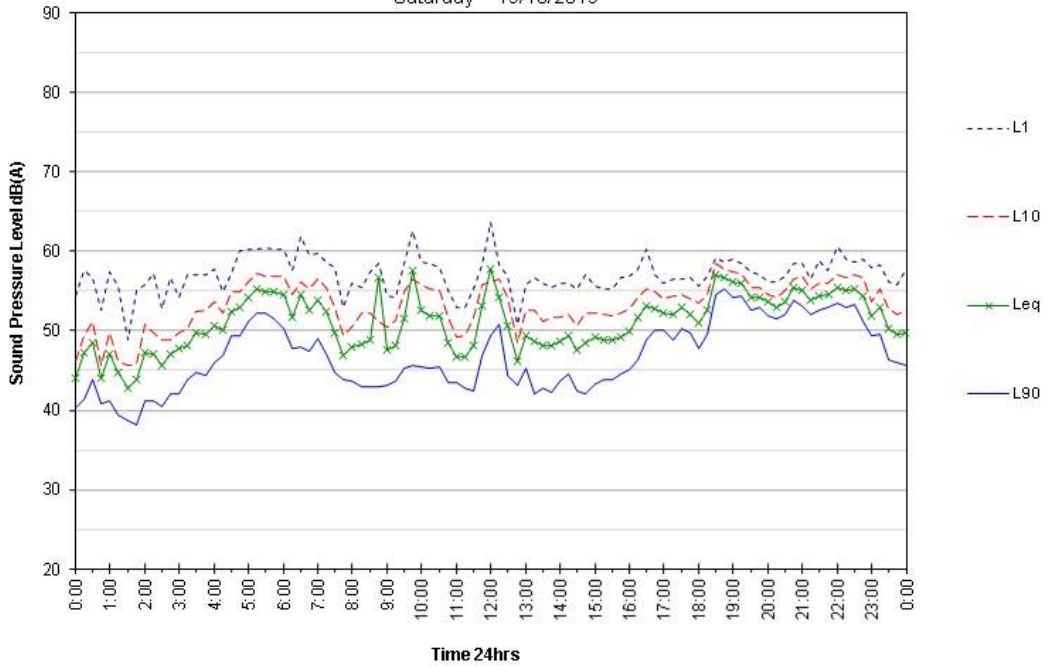




60 Stapylton Jacob's Well Road, Yatala

Environmental Noise Monitoring

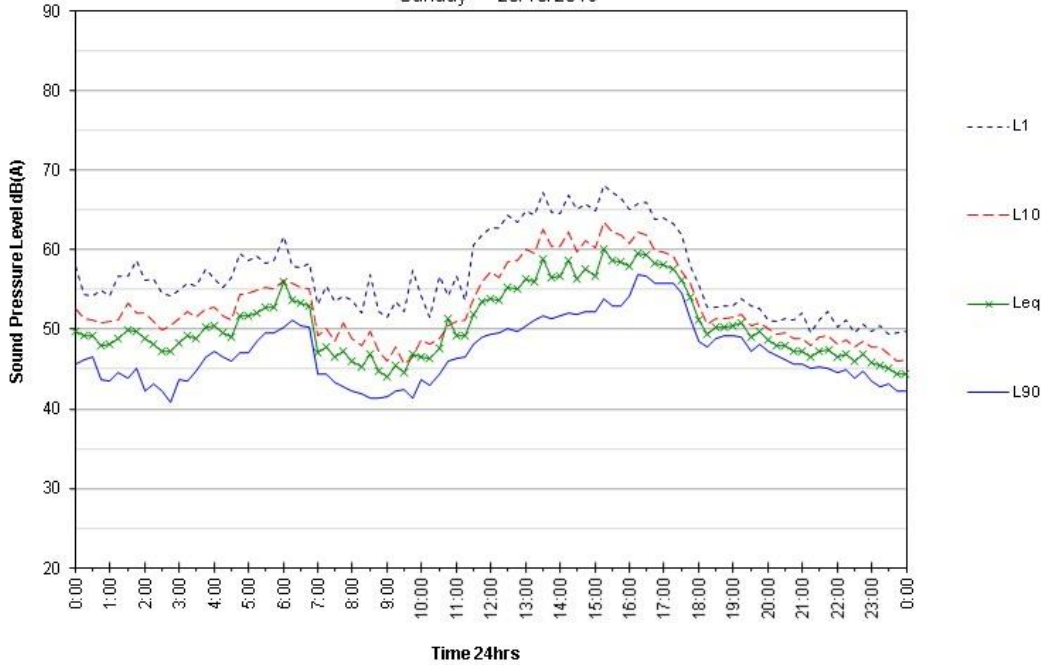
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Environmental Noise Monitoring

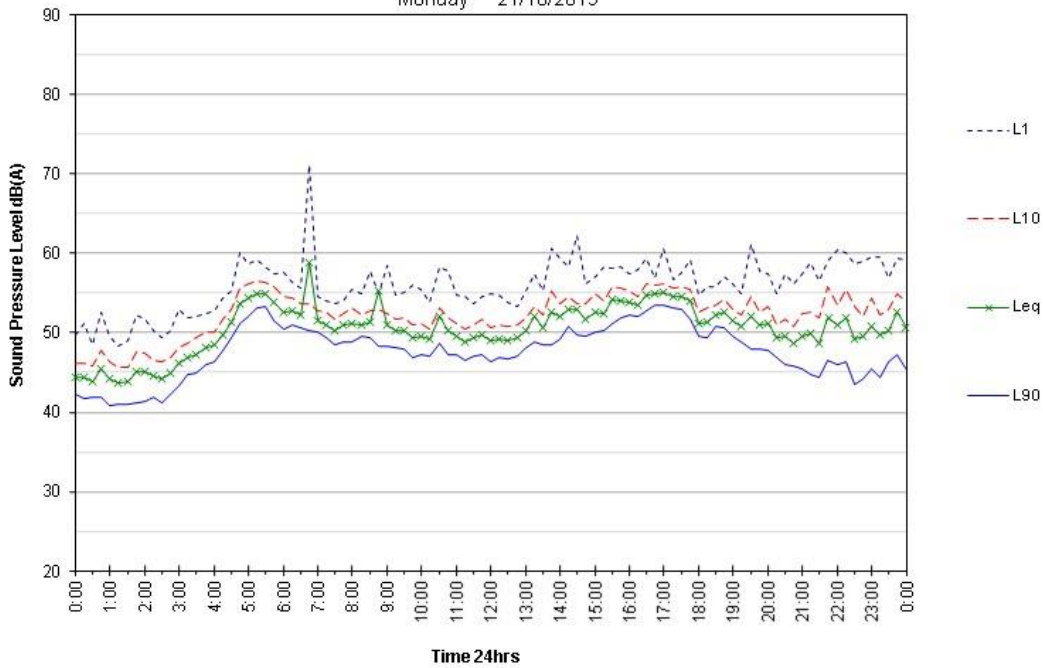
Sunday 20/10/2019



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Environmental Noise Monitoring

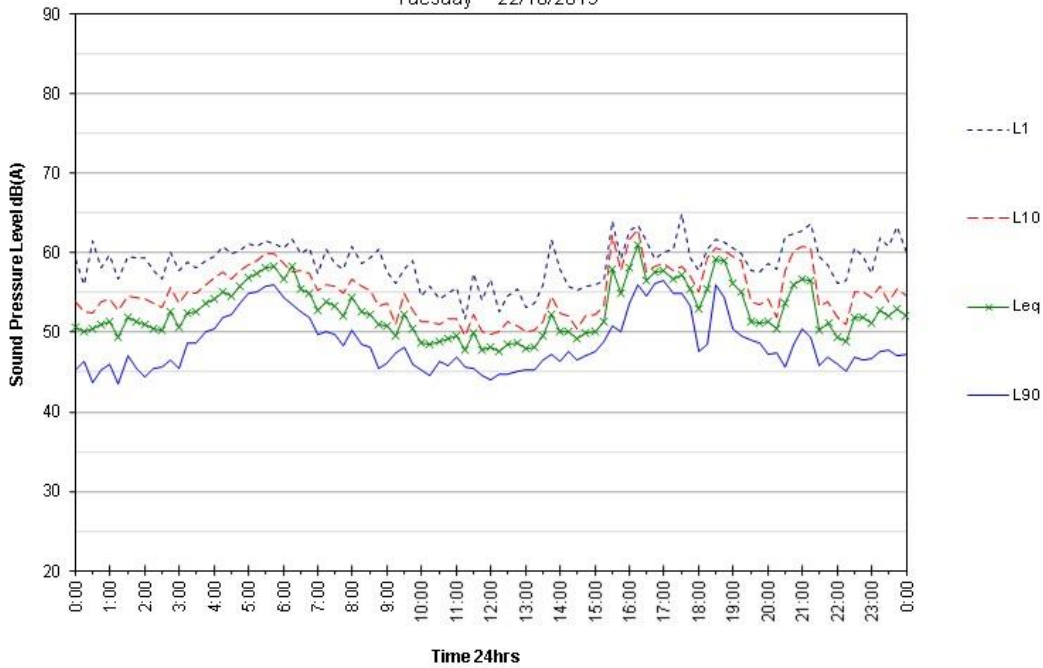
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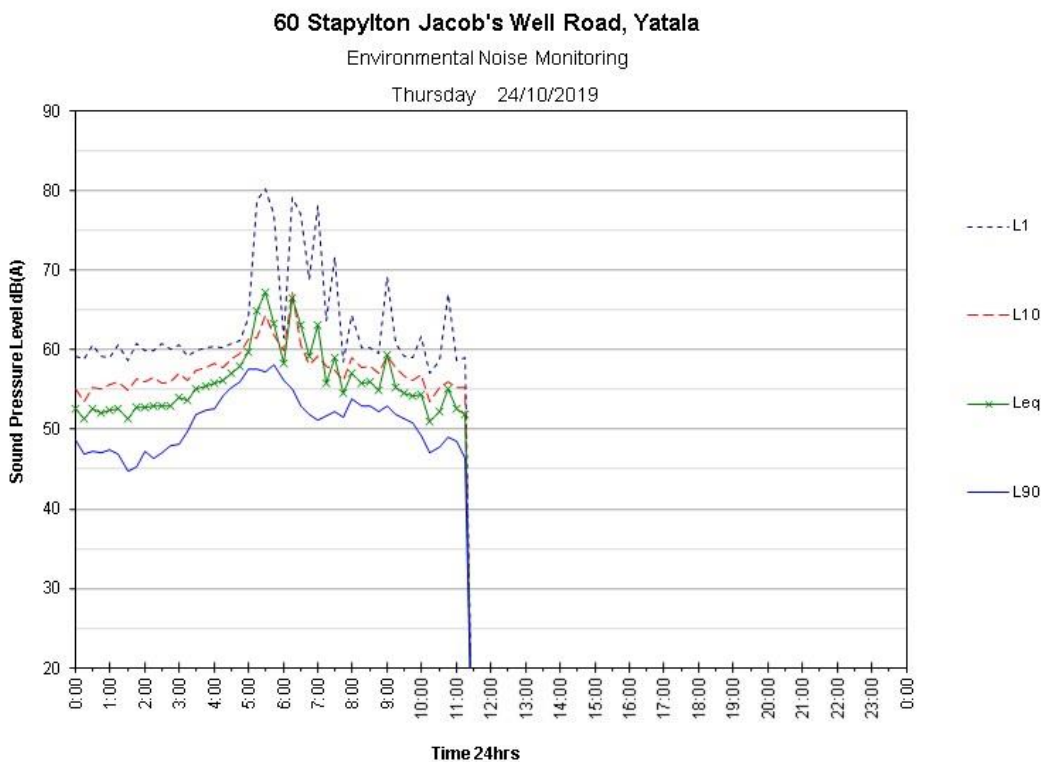
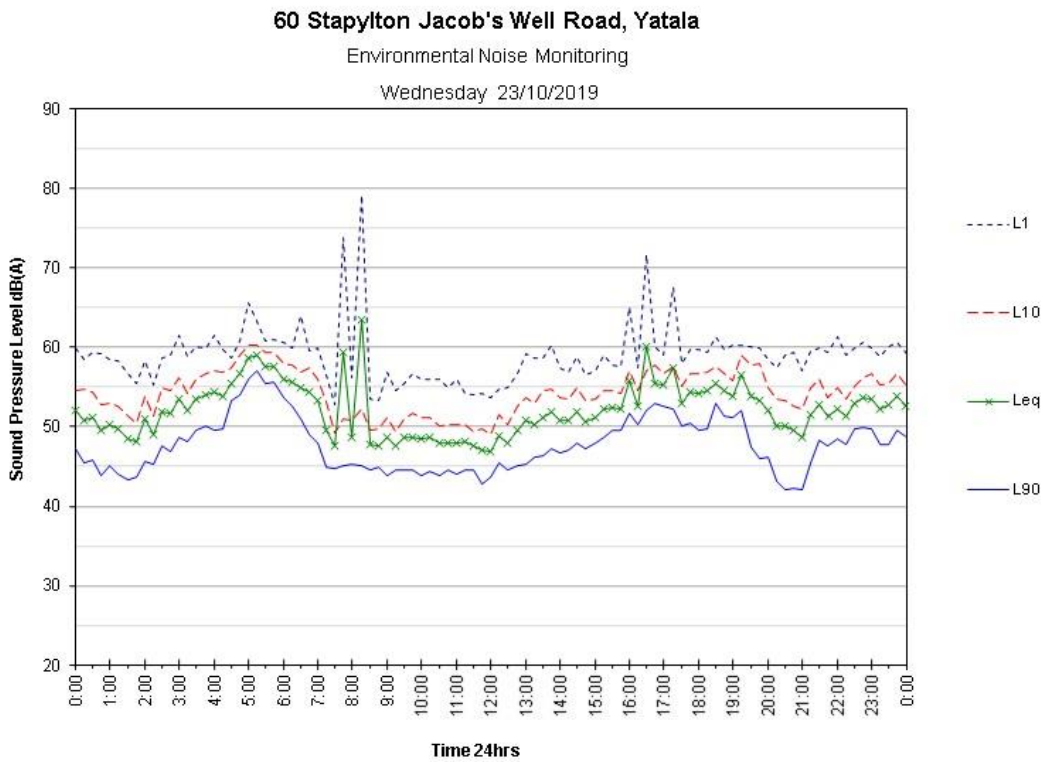


60 Stapylton Jacob's Well Road, Yatala

Environmental Noise Monitoring

Tuesday 22/10/2019







APPENDIX J

TRAFFIC IMPACT ASSESSMENT



VantageYatala



gassman
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



27 NOVEMBER 2024



DOCUMENT REGISTER

RTE Reference 24261

Document History

Version	Version date	Details	Reviewed and Authorised	
			Name / Position	Signature
1	27 November 2024	DA ISSUE	Luke Rytenskild Director RPEQ 6293	

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8.0	SUMMARY OF CONCLUSIONS & RECOMMENDATIONS	32
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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.

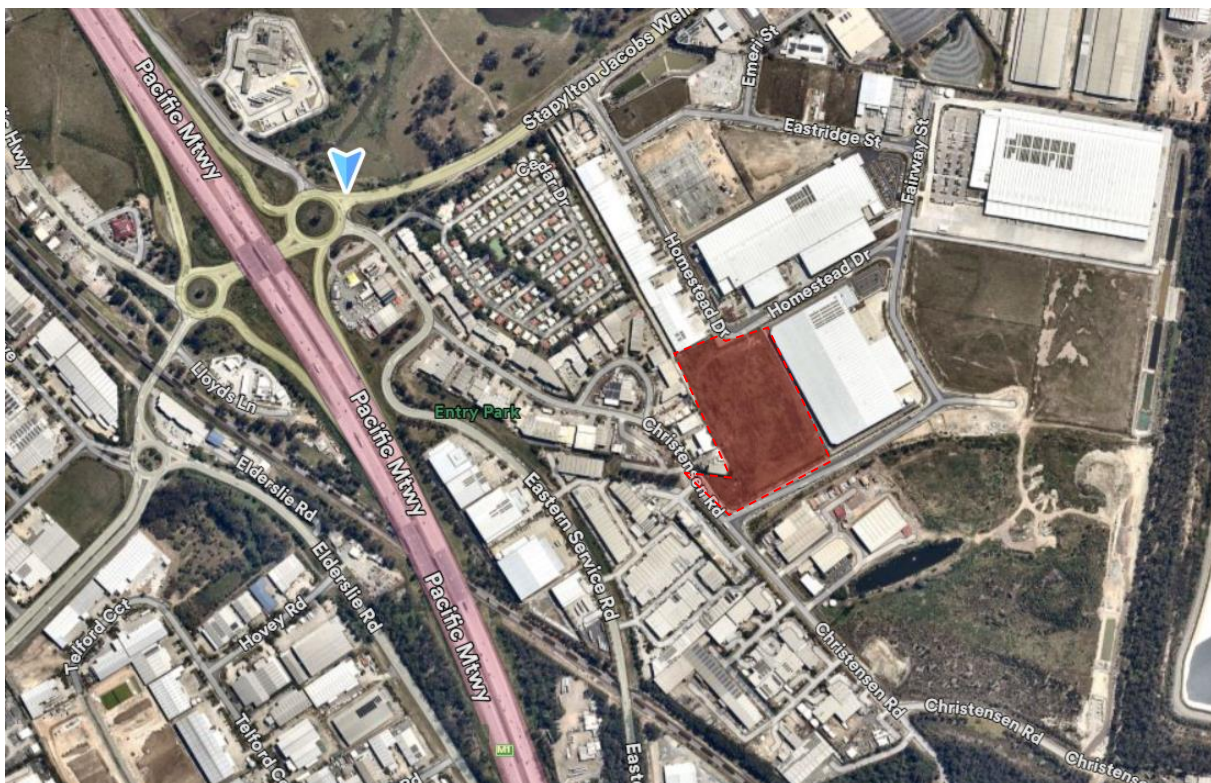


FIGURE 2.1 – LOCATION OF SUBJECT SITE

3.0 DEVELOPMENT PROPOSAL

The proposed plan of development comprises of a warehouse building with ancillary office facilities, with a Gross Floor Area (GFA) of 20,751m².

A total of 100 car parking spaces are proposed to be provided.

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

- Western crossover (Christensen Road): Entry/exit for light vehicles for car parking.
- Southwestern-most crossover (Highlands Street): Entry/exit for heavy vehicles.
- Southwestern crossover (Highlands Street): Entry/exit for light vehicle access.
- Northern crossover (Homestead Drive): Exit only for heavy vehicles.

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.

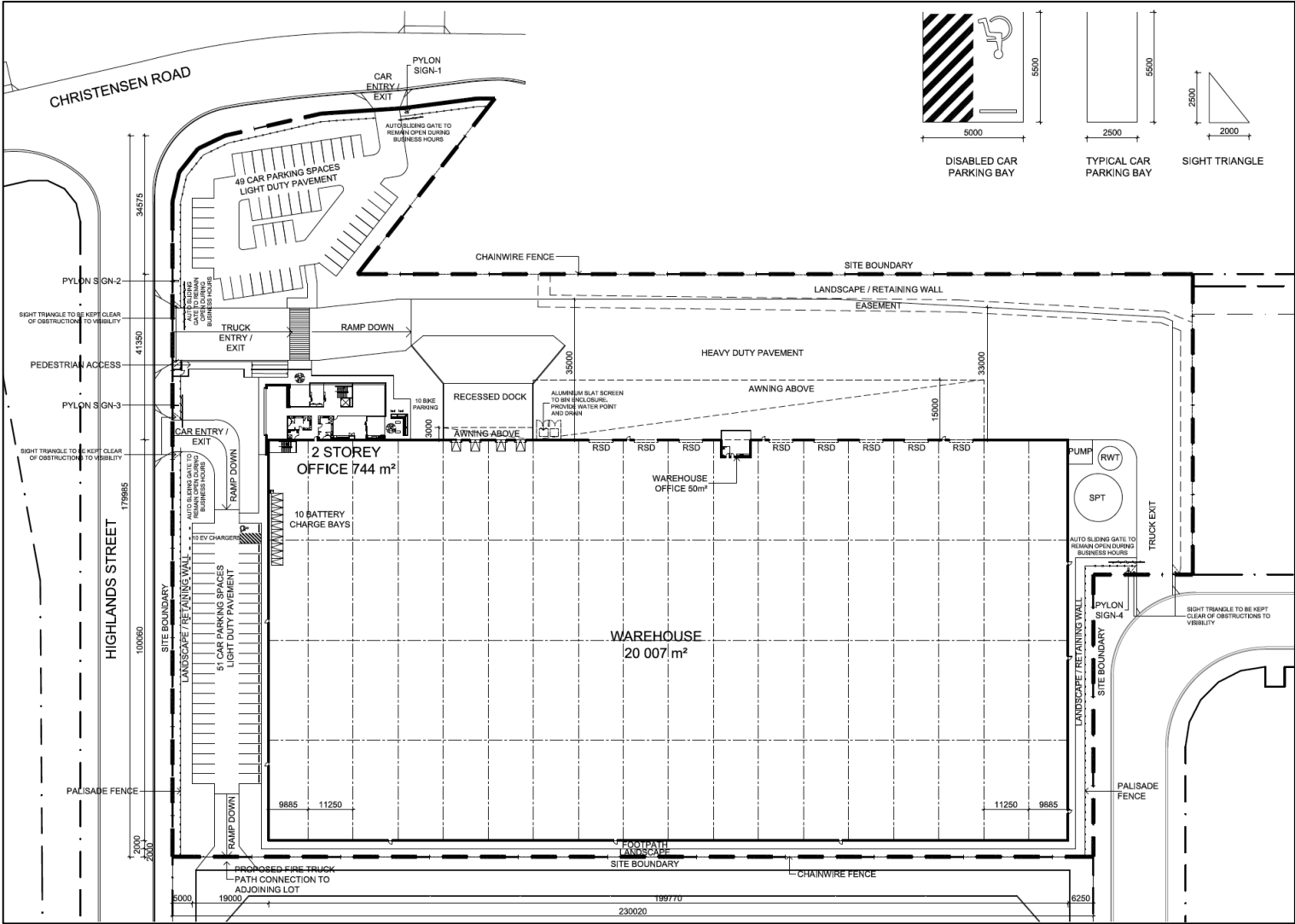


FIGURE 3.1 – PROPOSED SITE PLAN

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 (20,751m²) results in the following requirement:

2 spaces +

10 spaces for the first 500m²

203 spaces for the balance of 20,251m²

Total – 215 spaces

Application of the above rate to the proposal yields a minimum requirement of 215 car parking spaces. The proposal provides 100 spaces and therefore is 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 workforce of 95 staff members on-site at any one time.

The proposed provision of 100 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 100 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)

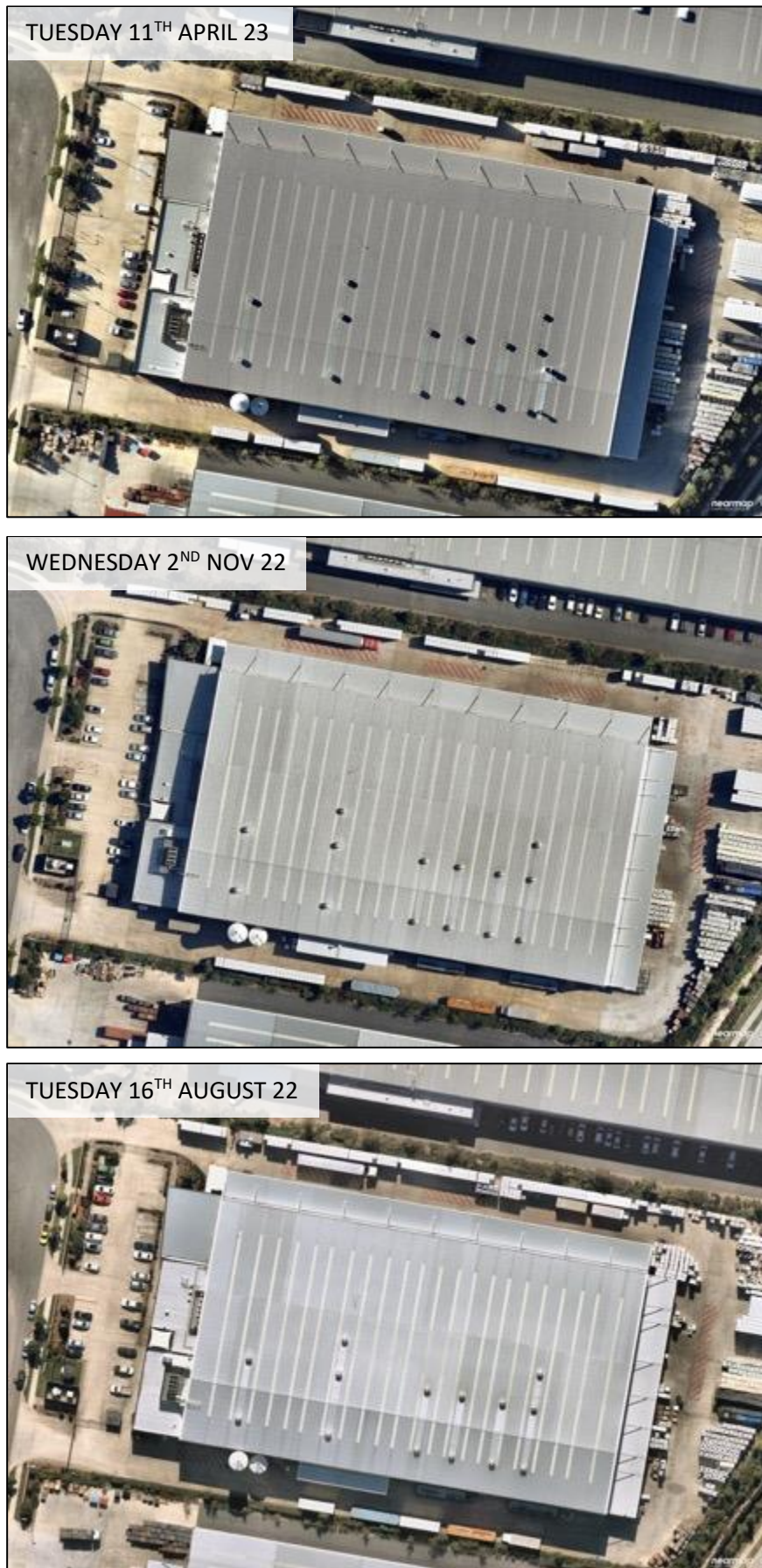


FIGURE 4.2 – CAR PARKING DEMANDS AT 23 ARTHUR DIXON COURT, YATALA (GFA APPROX: 8,000M²)

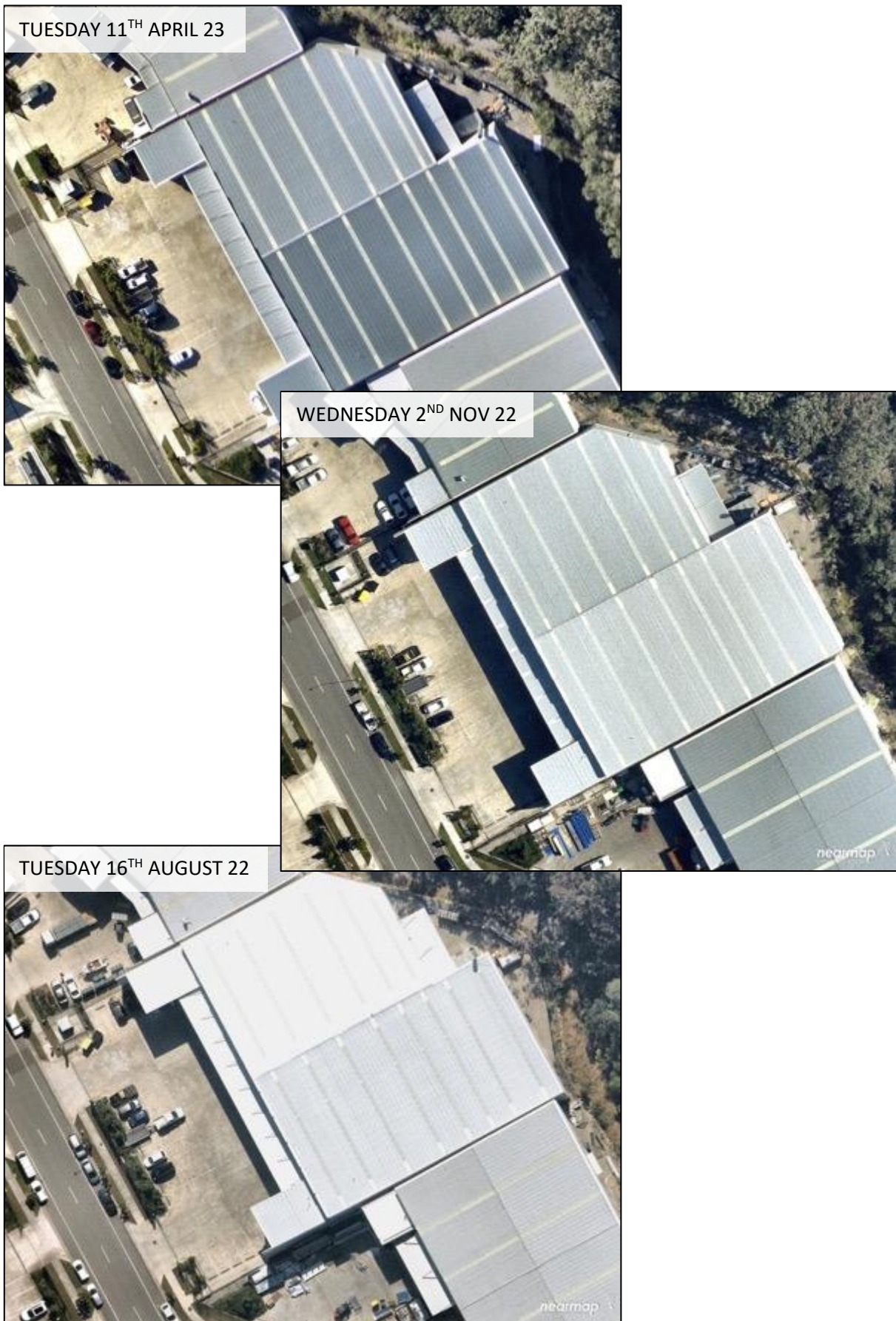


FIGURE 4.3 – CAR PARKING DEMANDS AT 14 THOMAS HANLON COURT, YATALA (GFA APPROX: 2,500M²)

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 4.1 – 4.5.

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 4.6 – 4.9, such can satisfactorily negotiate the proposed arrangements and enter and exit the site in a forward gear.

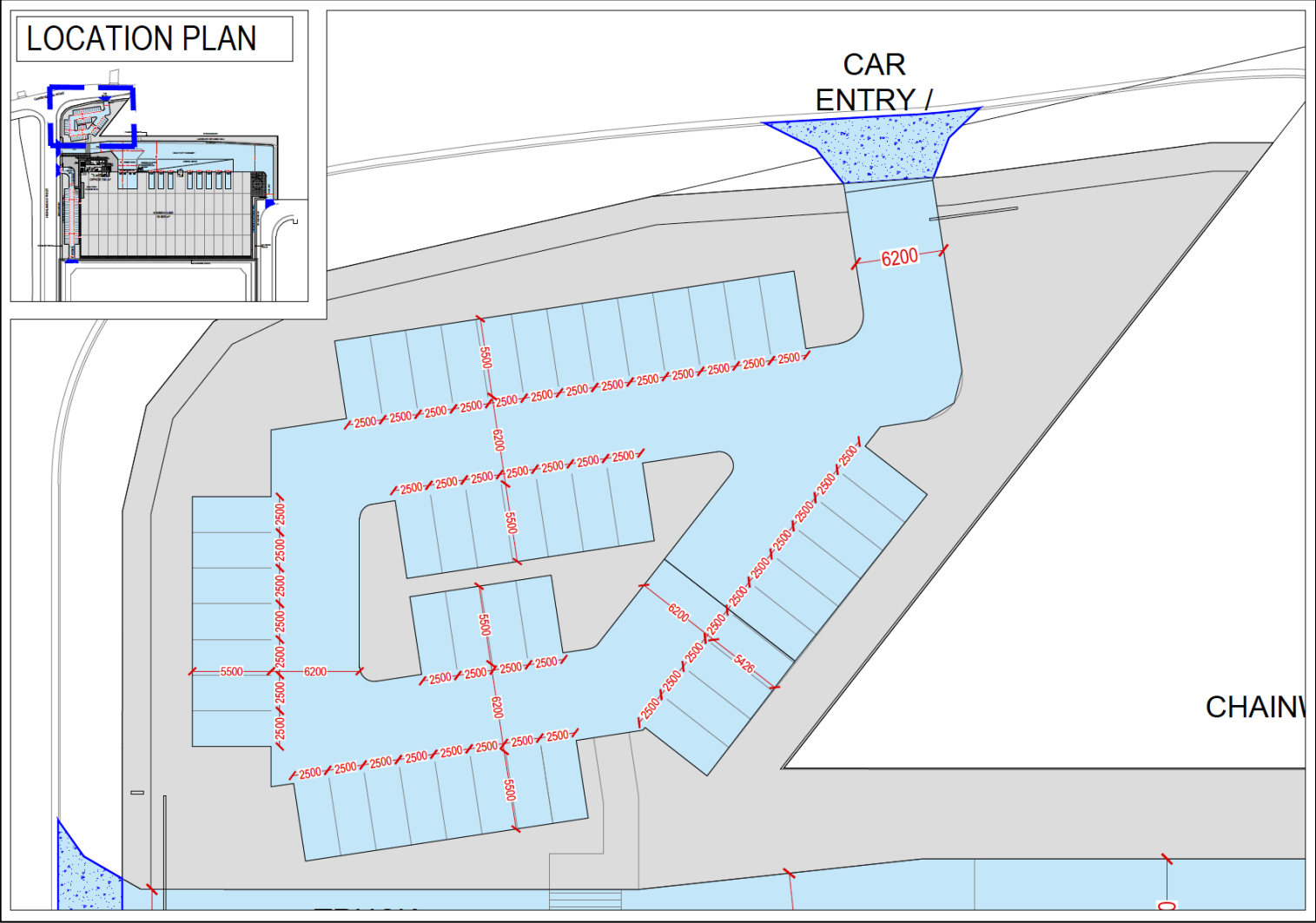


FIGURE 4.1 – DIMENSIONED CAR PARKING LAYOUT



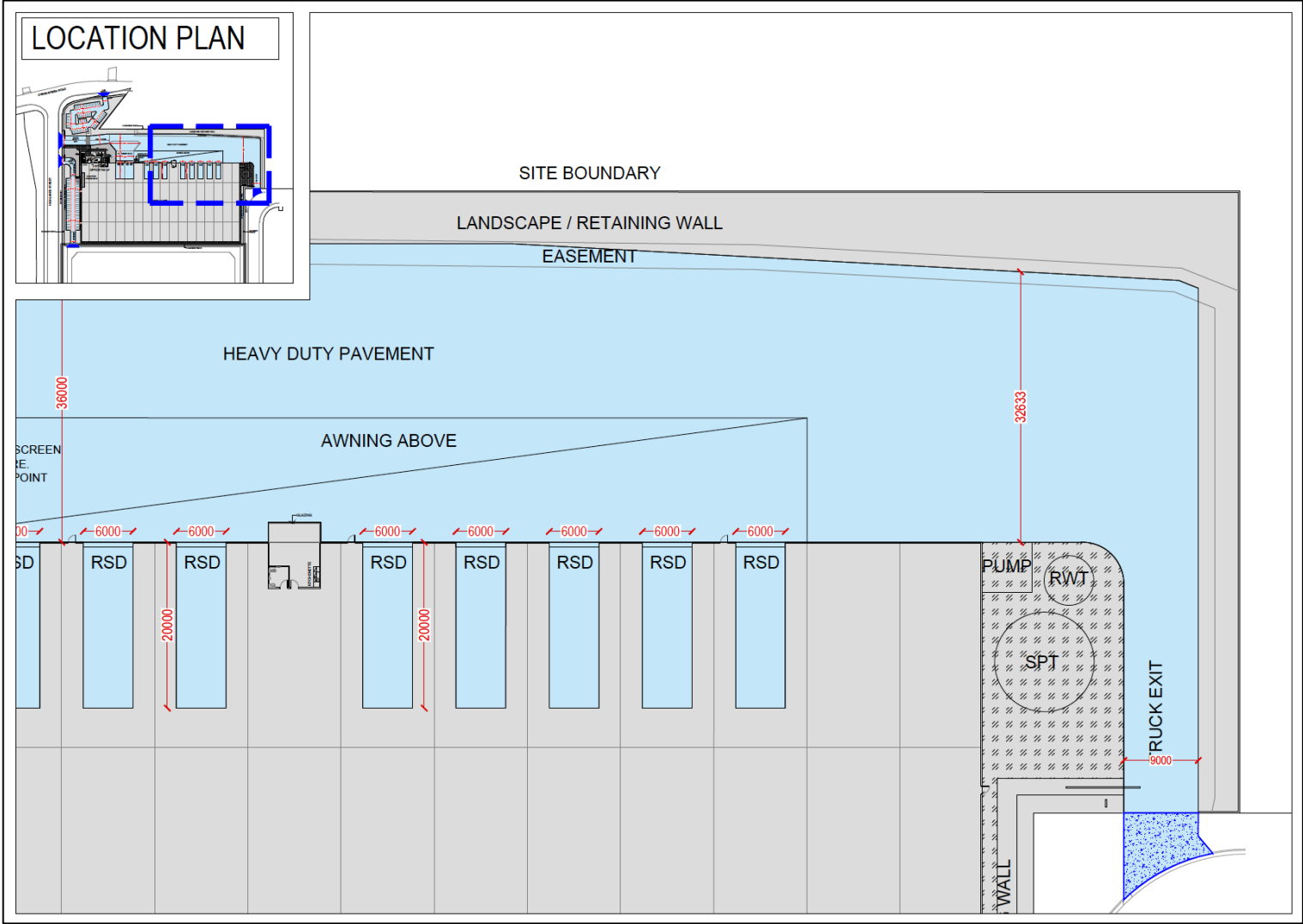


FIGURE 4.3 – DIMENSIONED CAR PARKING LAYOUT

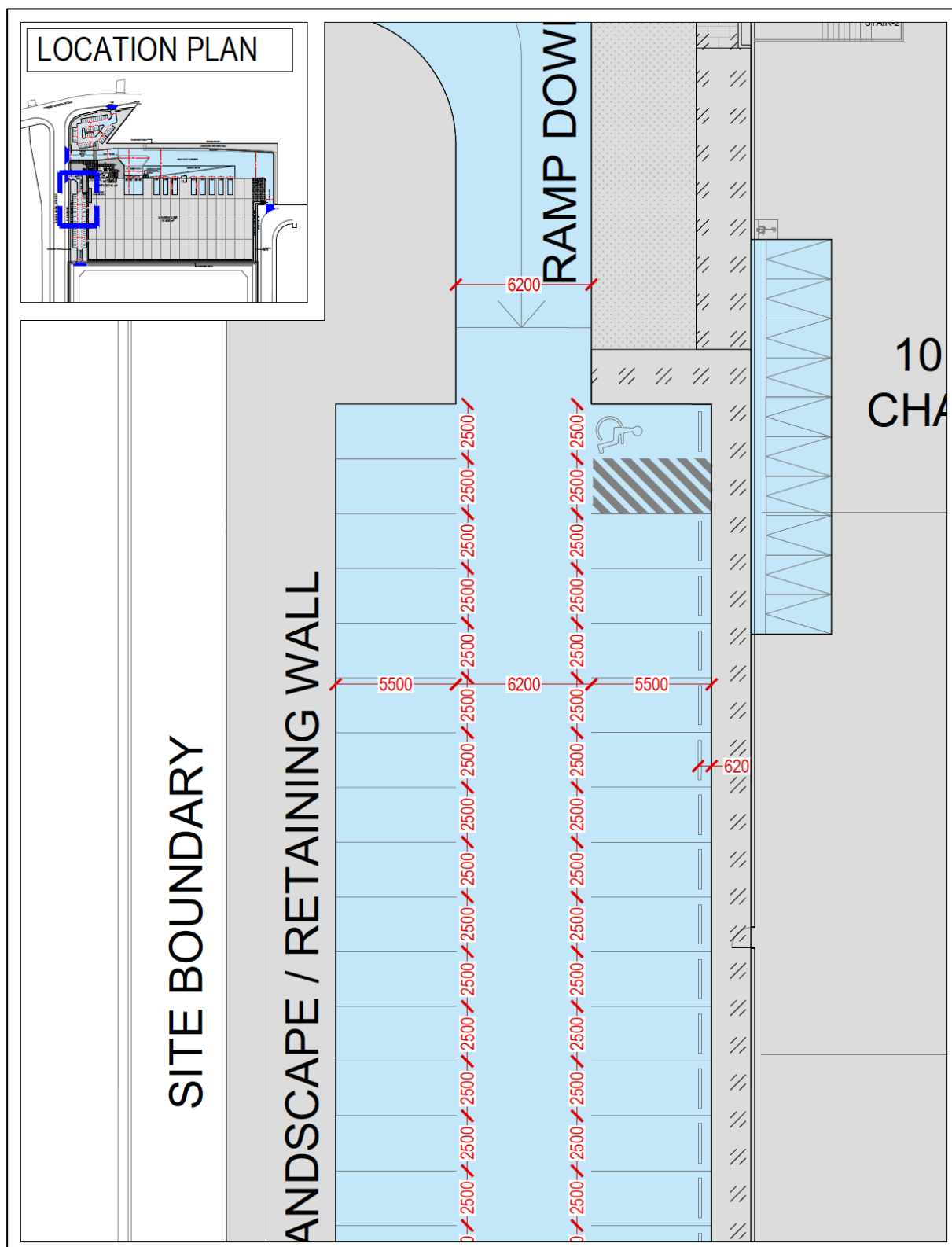
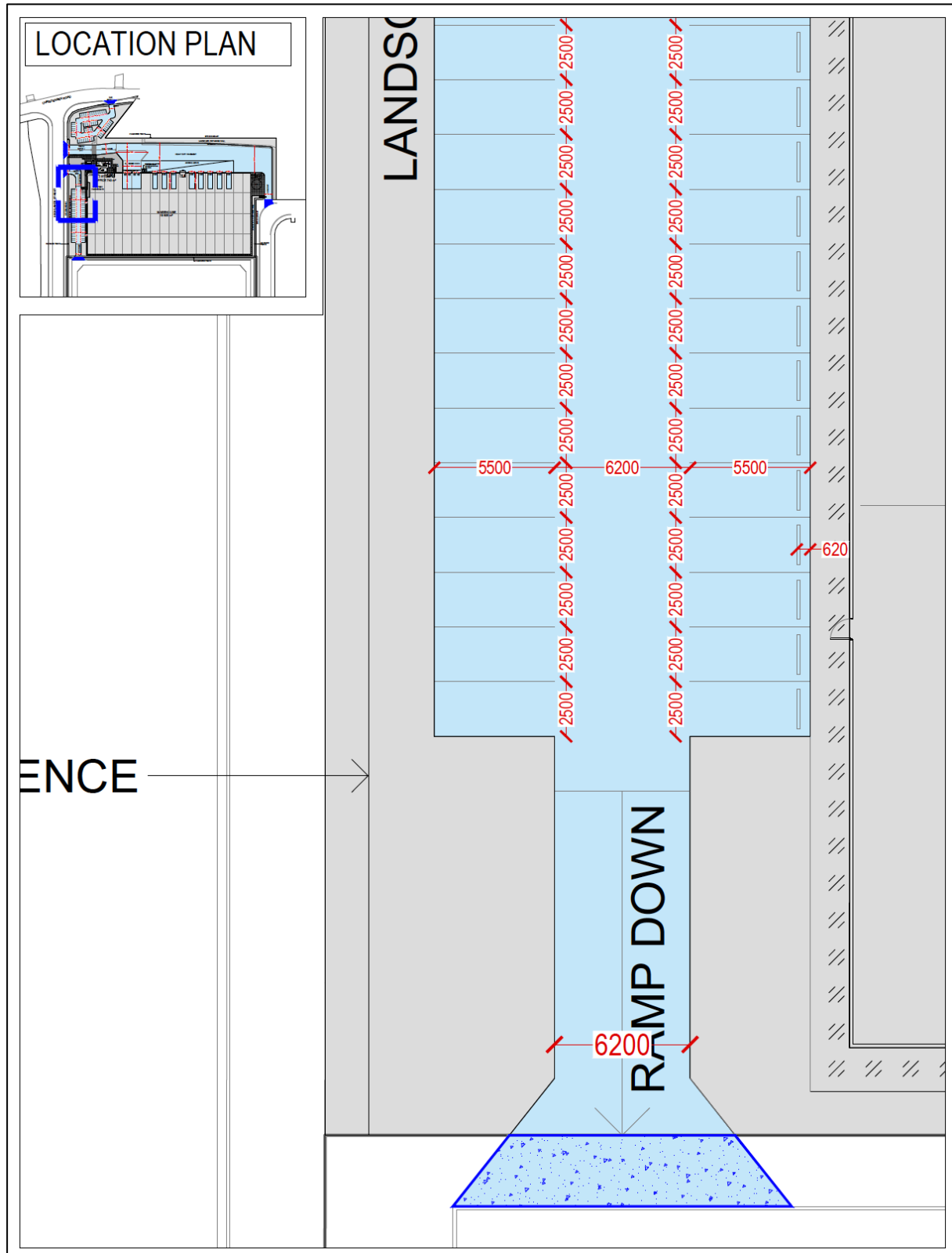


FIGURE 4.4 – DIMENSIONED CAR PARKING LAYOUT



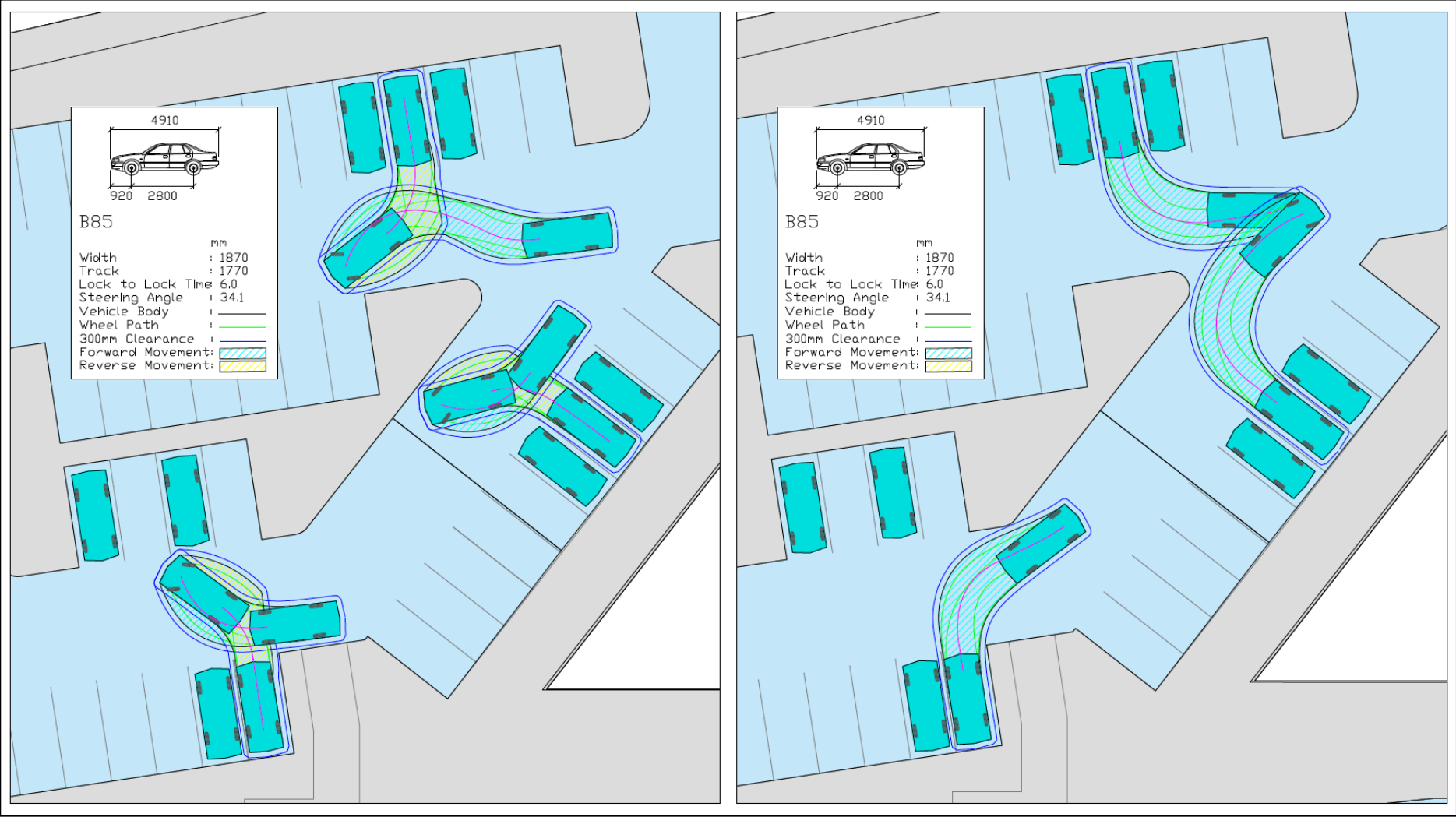


FIGURE 4.6 – 85TH PERCENTILE VEHICLE MANOEUVRING

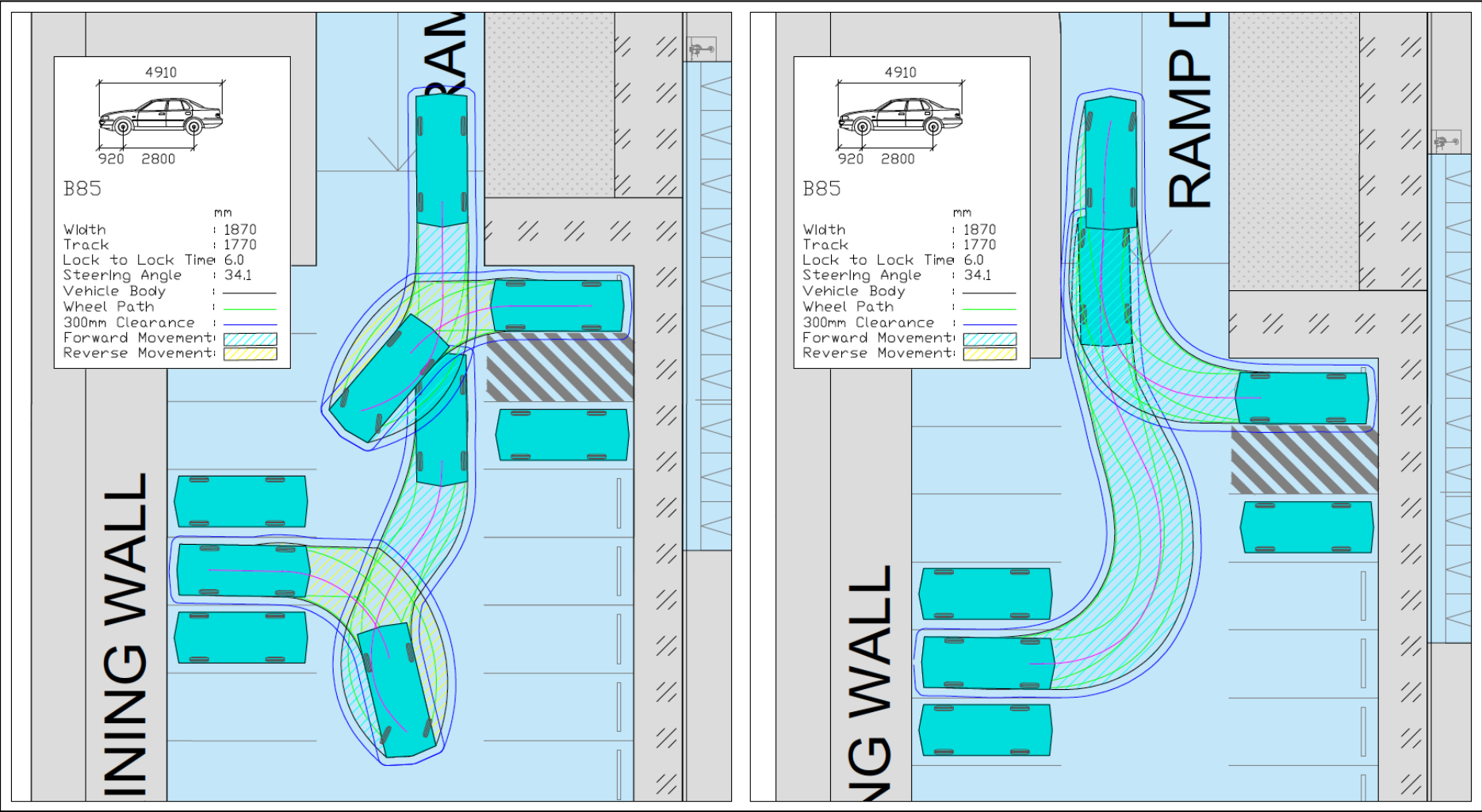


FIGURE 4.7 – 85TH PERCENTILE VEHICLE MANOEUVRING

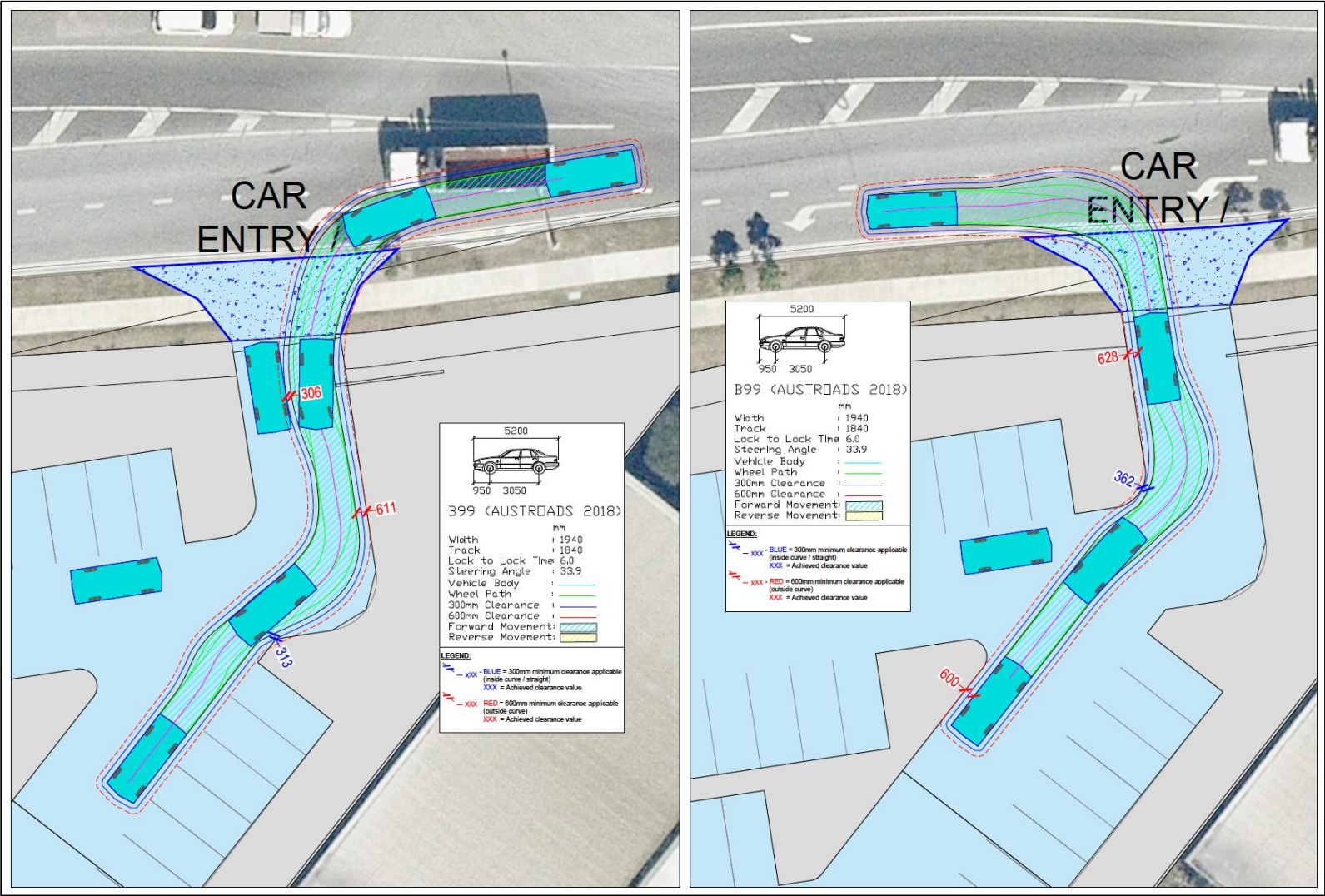


FIGURE 4.8 – 99TH PERCENTILE VEHICLE MANOEUVRING

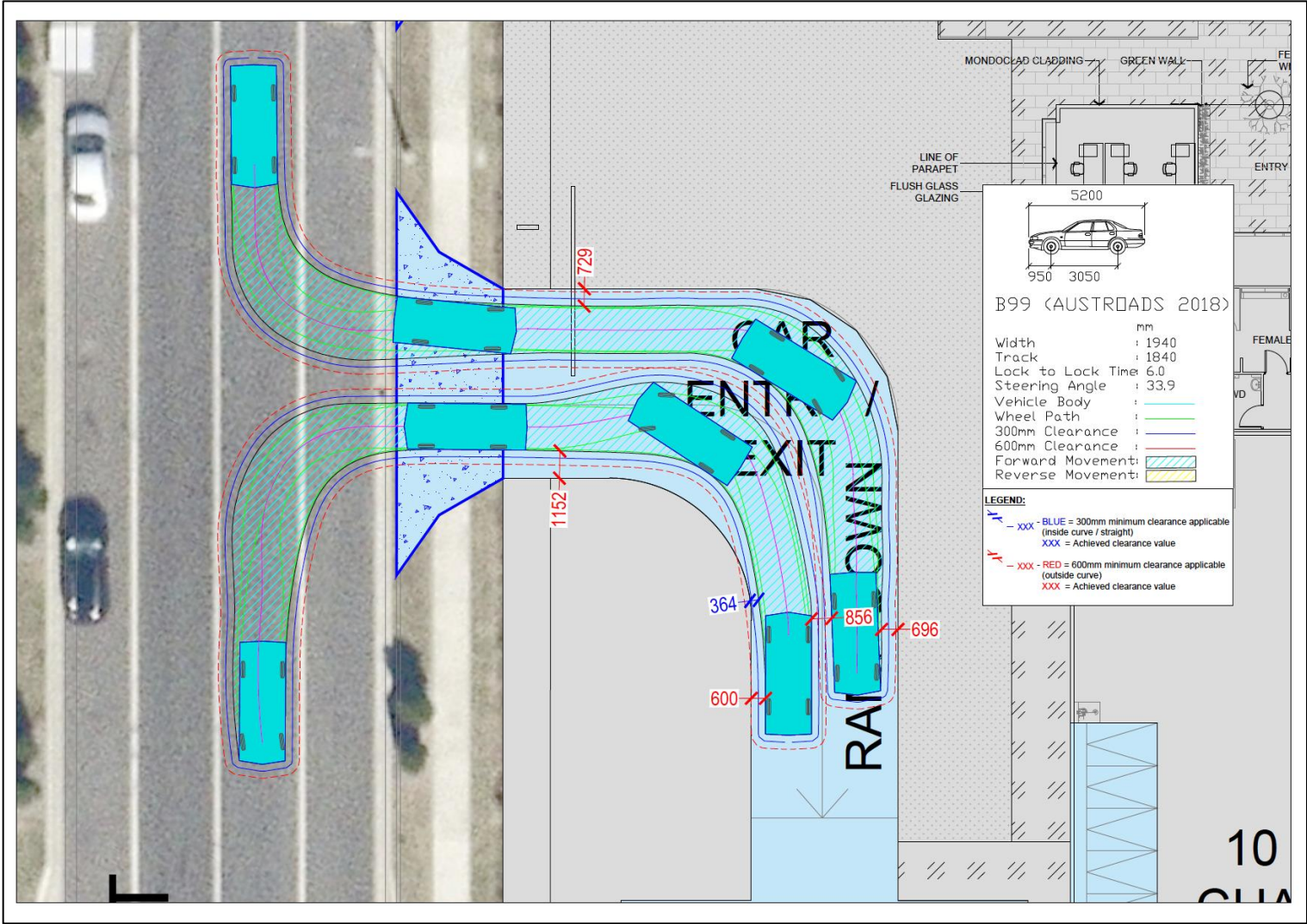


FIGURE 4.9 – 99TH PERCENTILE VEHICLE MANOEUVRING

5.0 ACCESS ARRANGEMENTS

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

- Western crossover (Christensen Road): Entry/exit for light vehicles for car parking.
- Southwestern-most crossover (Highlands Street): Entry/exit for heavy vehicles.
- Southwestern crossover (Highlands Street): Entry/exit for light vehicle access.
- Northern crossover (Homestead Drive): Exit only for heavy vehicles.

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 – 5.4, the proposed vehicle crossovers have been designed in accordance with the IPWEA Standard Drawings RS-051 suitable for the intended design vehicle.

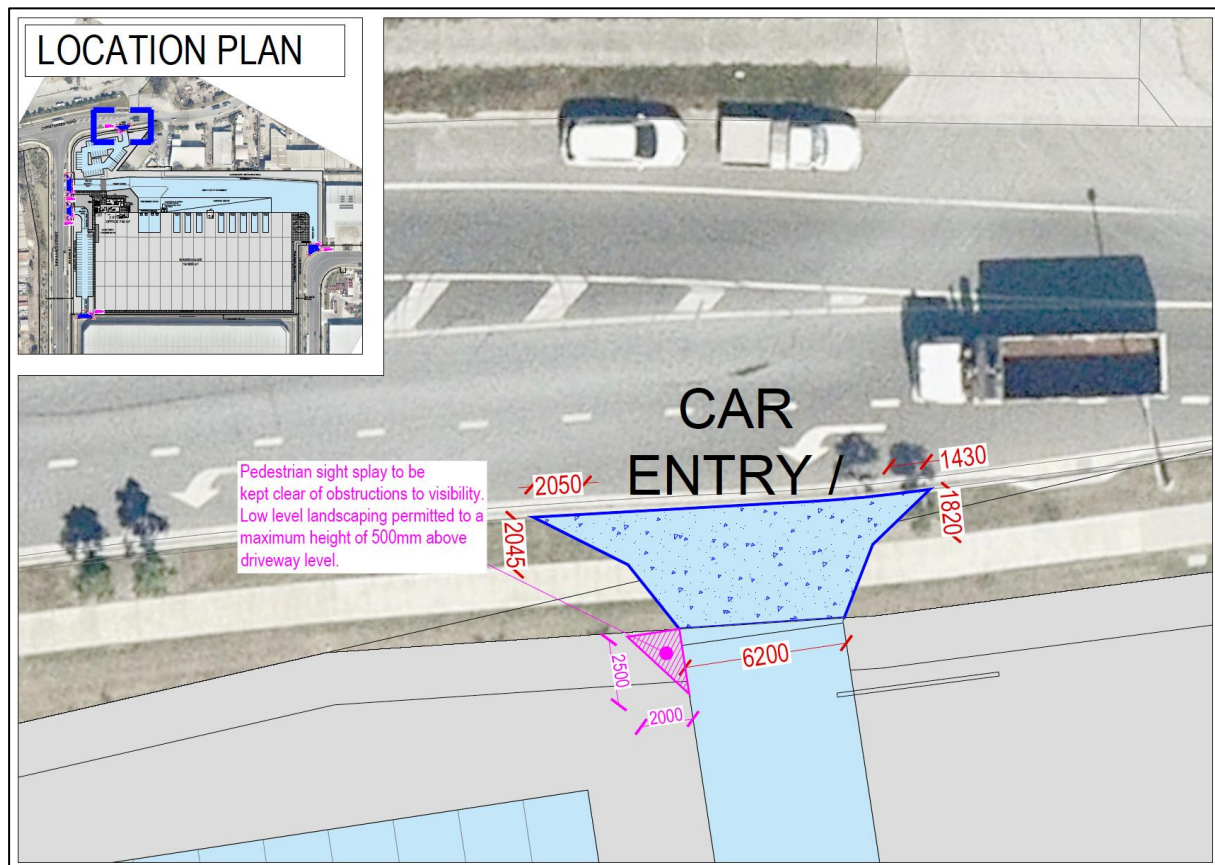


FIGURE 5.1 – ACCESS ARRANGMENTS (CHRISTENSEN ROAD CROSSOVER)

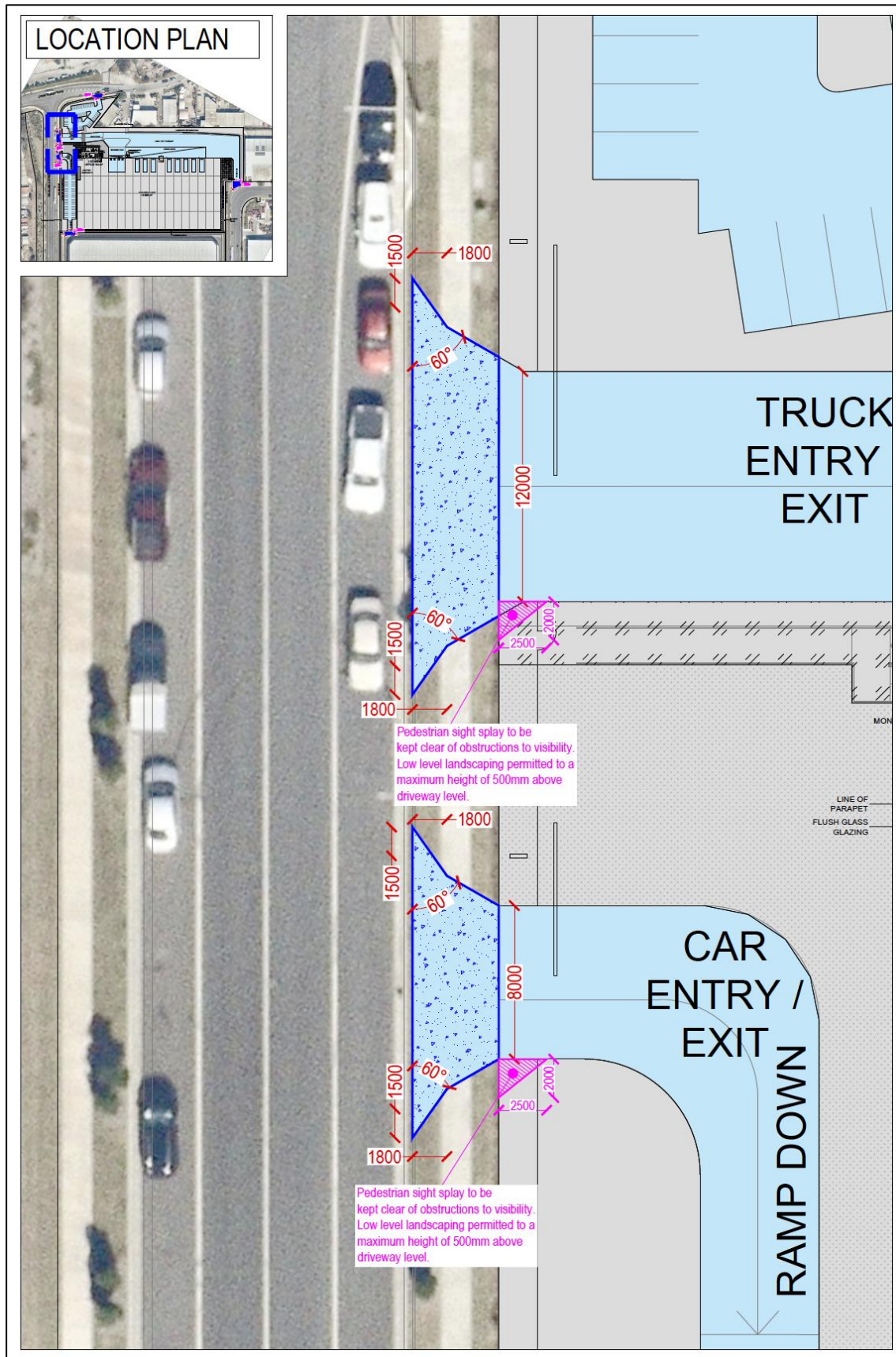


FIGURE 5.2 – ACCESS ARRANGMENTS (HIGHLANDS STREET CROSSOVERS)

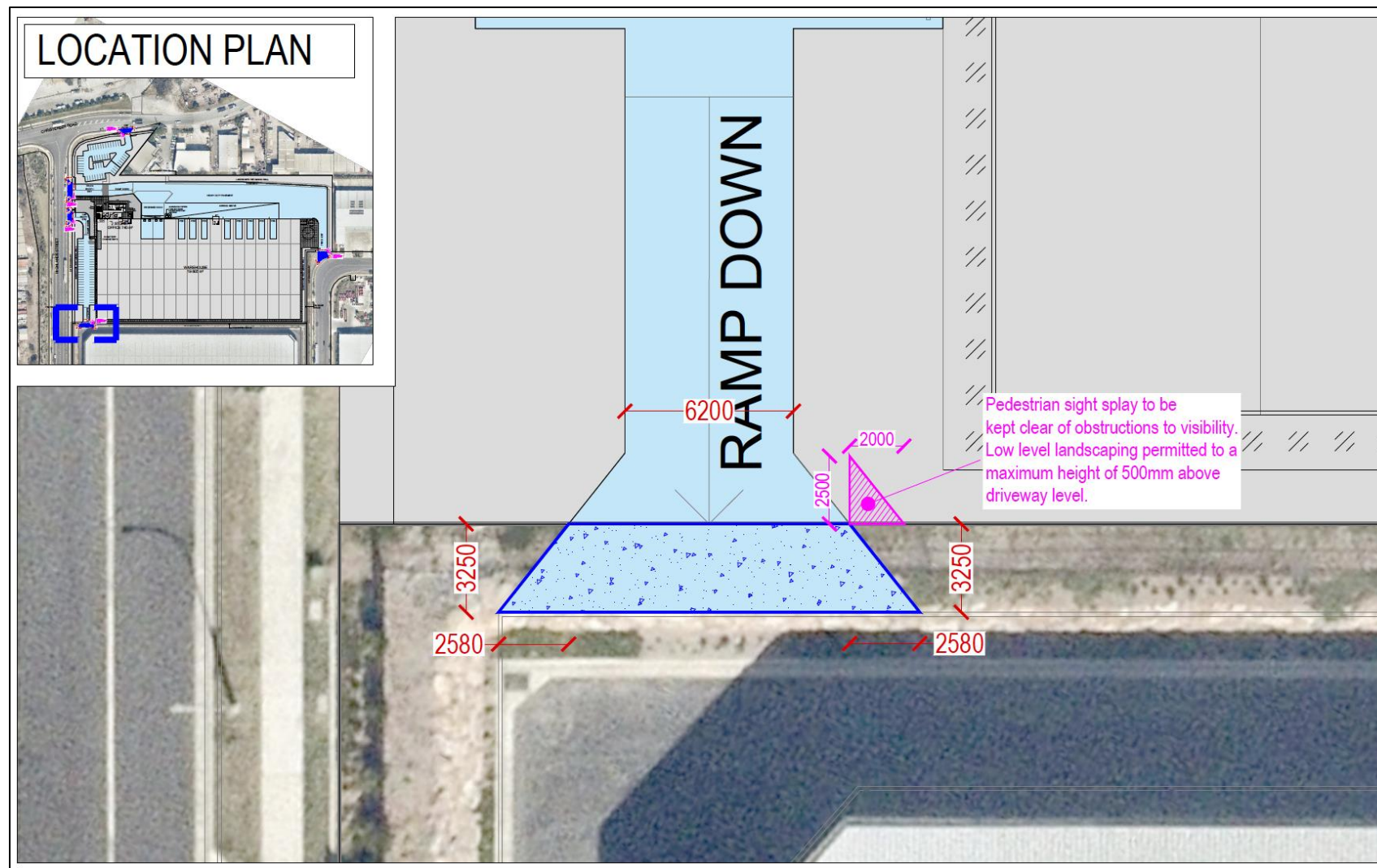


FIGURE 5.3 – ACCESS ARRANGMENTS (FIRE TRUCK ACCESS TO ADJACENT LOT)

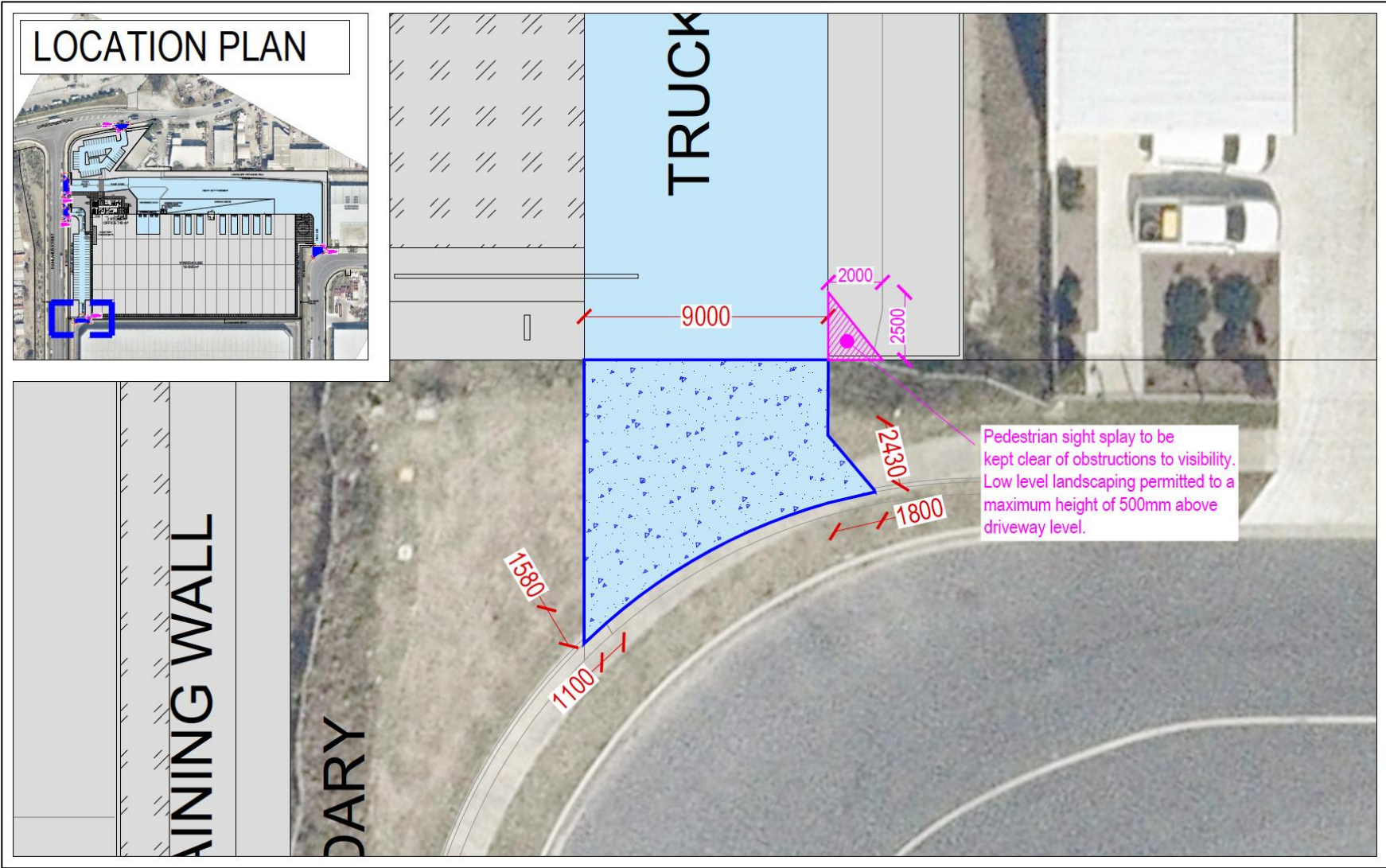


FIGURE 5.4 – ACCESS ARRANGMENTS (HOMESTEAD DRIVE)

6.0 PROVISION FOR HEAVY 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 Figures 6.1 – 6.4.

Whilst not required under the City Plan, Figures 6.5-6.6 demonstrates that a 26 metre B-Double vehicle will be able to access and manoeuvre through the site satisfactorily.

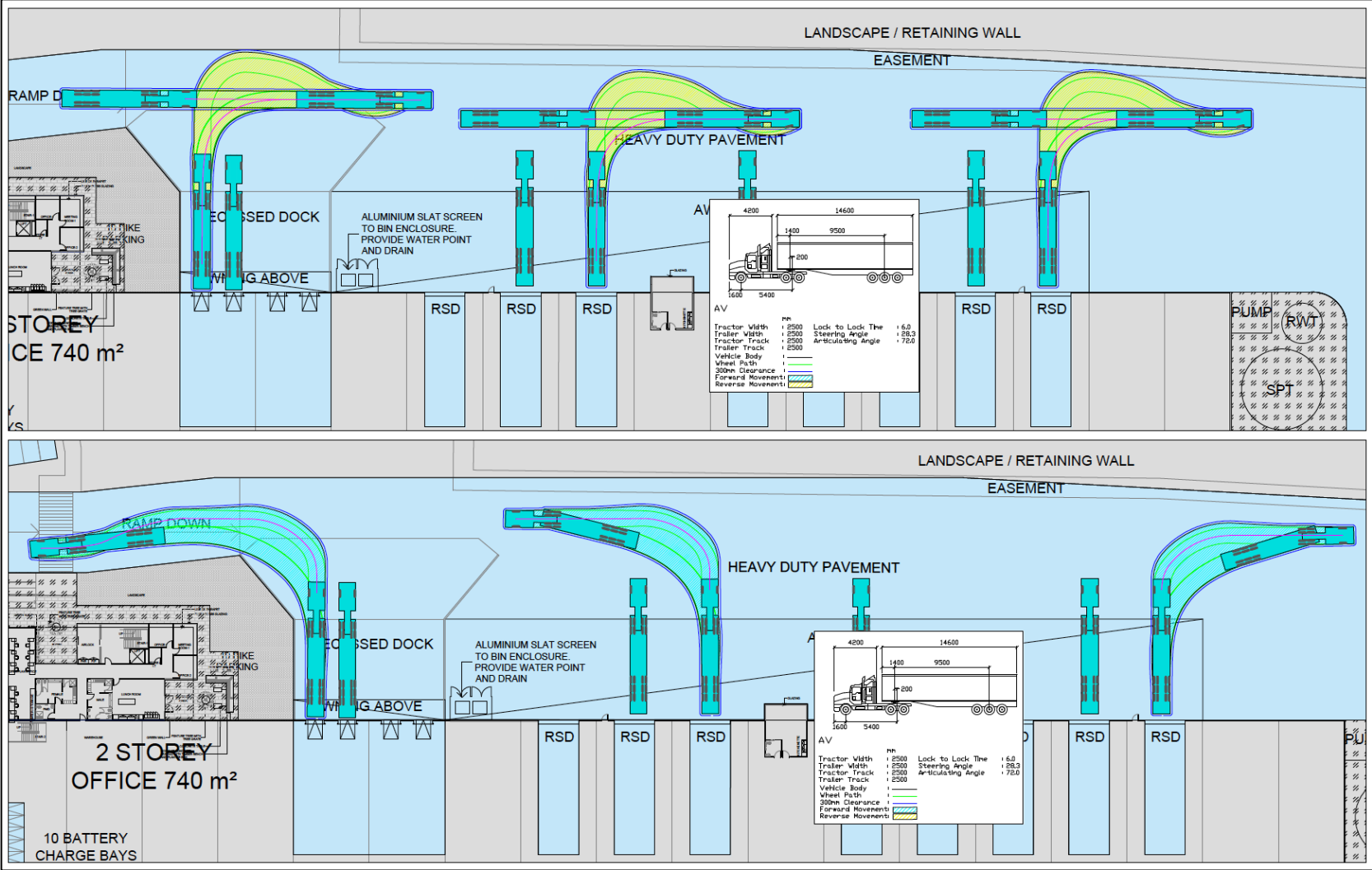
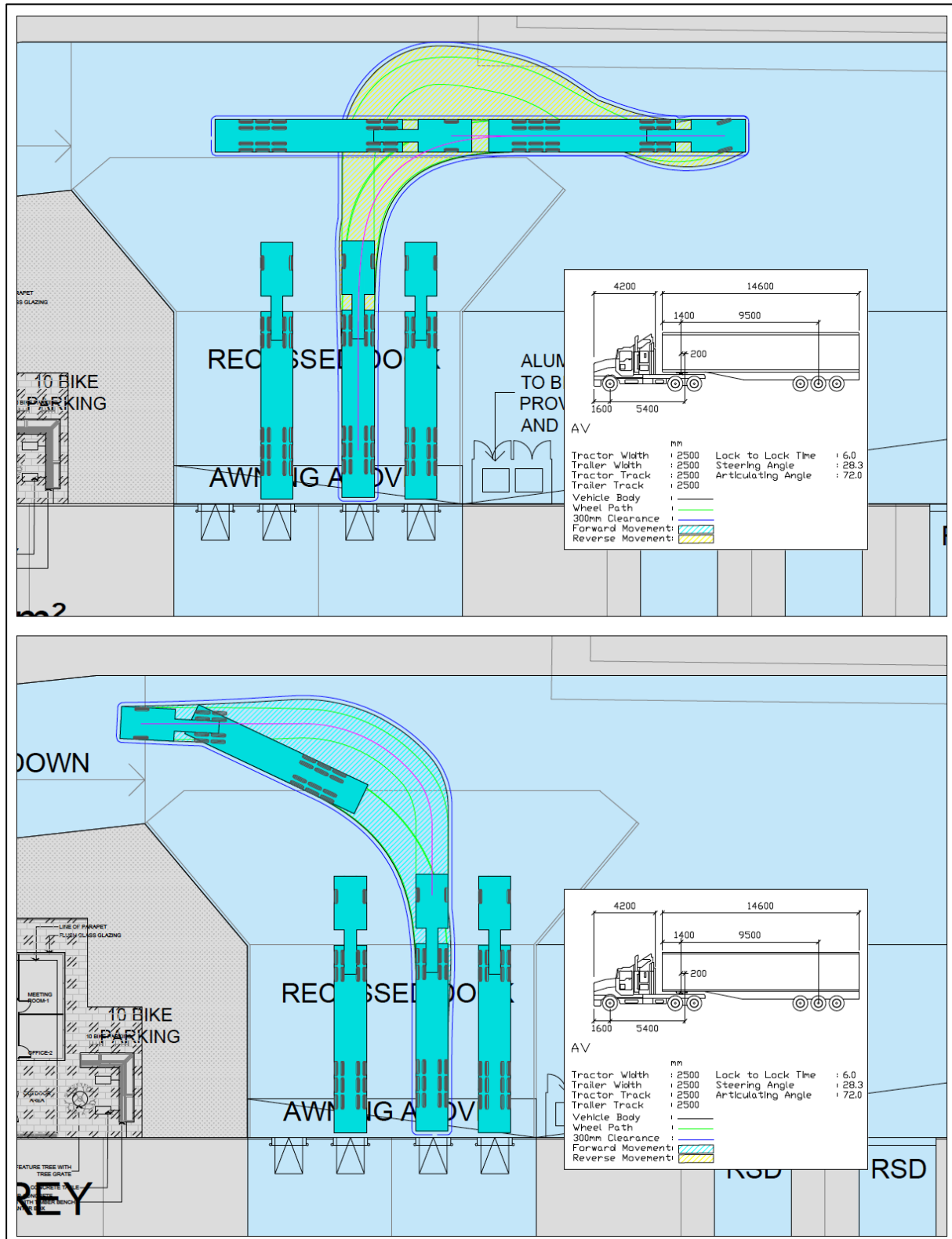


FIGURE 6.1 – ON-SITE SERVICE VEHICLE MANOEUVRING (20 METRE ARTICULATED VEHICLE (AV))



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

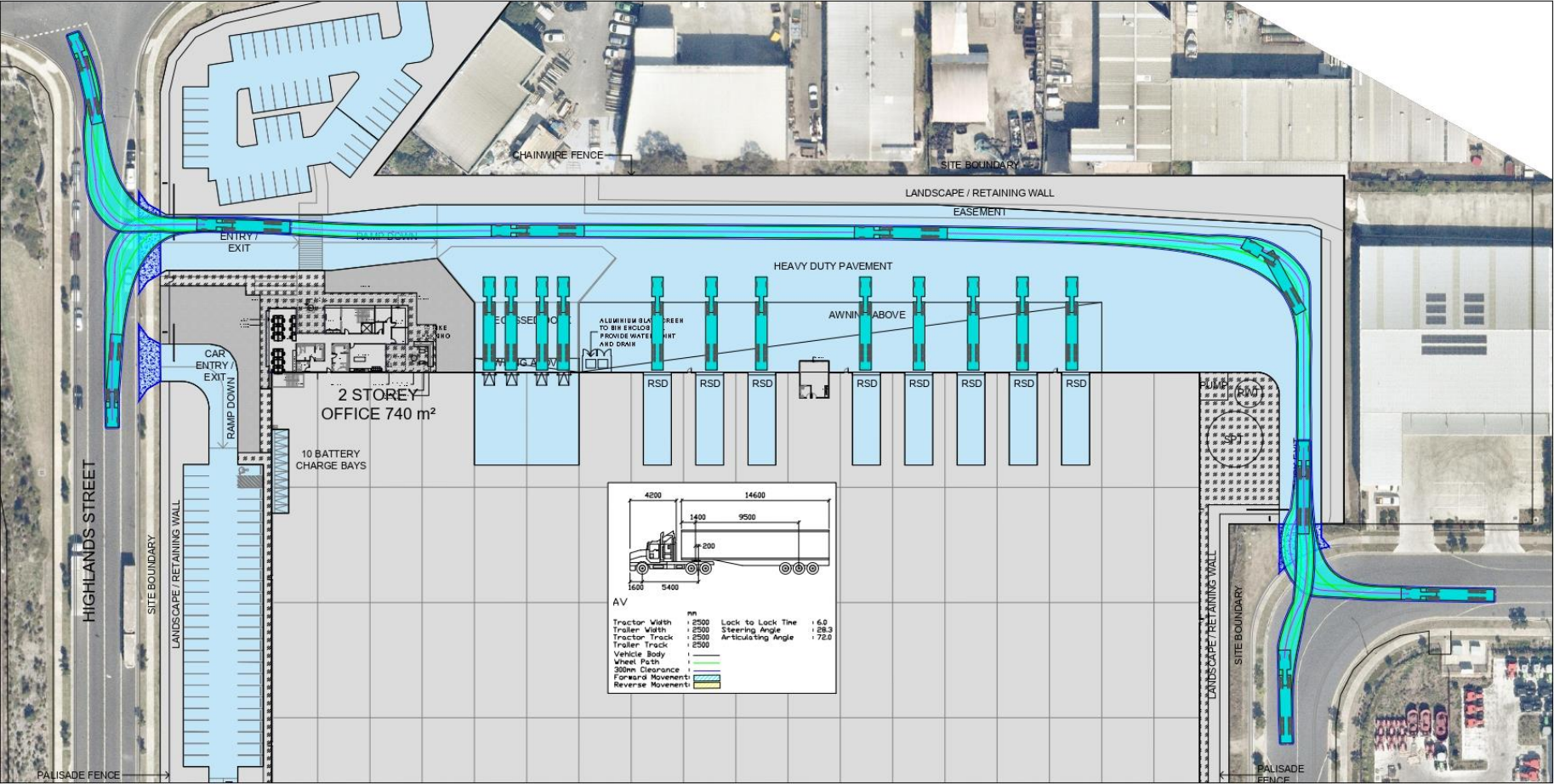


FIGURE 6.3 – ON-SITE SERVICE VEHICLE CIRCULATING (20 METRE ARTICULATED VEHICLE (AV))

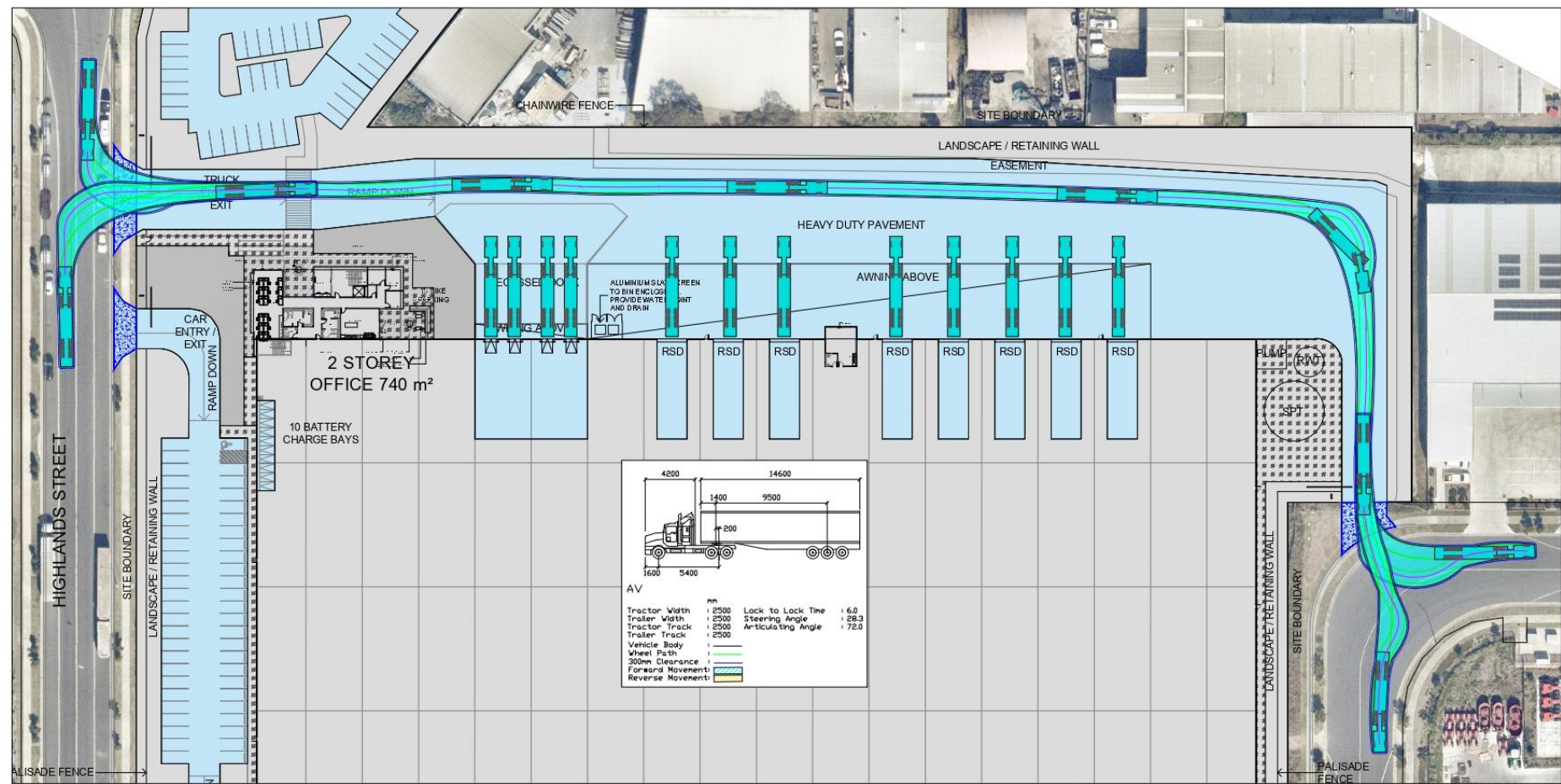


FIGURE 6.4 – ON-SITE SERVICE VEHICLE CIRCULATING (20 METRE ARTICULATED VEHICLE (AV))

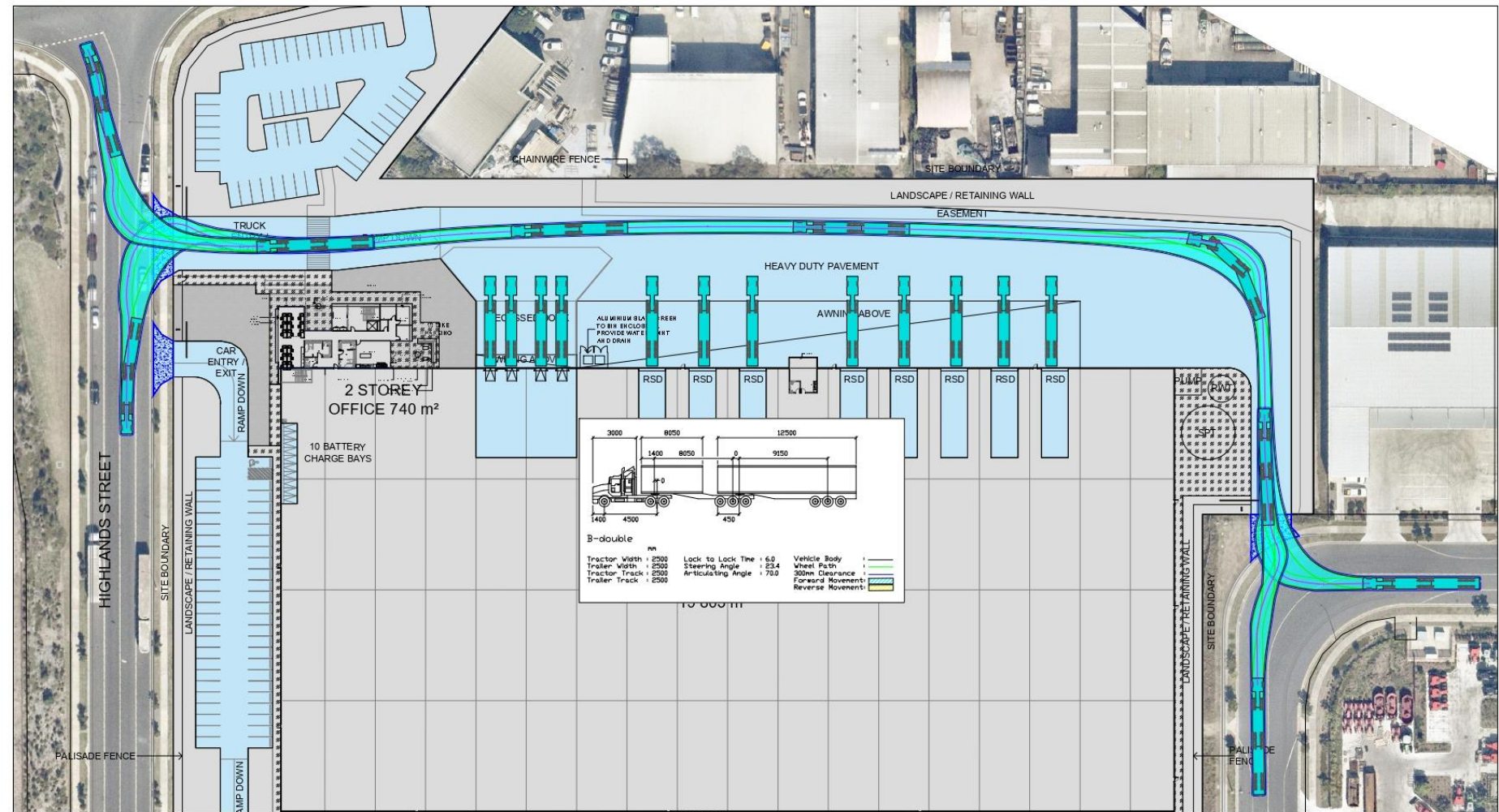


FIGURE 6.5 – ON-SITE SERVICE VEHICLE CIRCULATING (26 METRE B-DOUBLE VEHICLE)

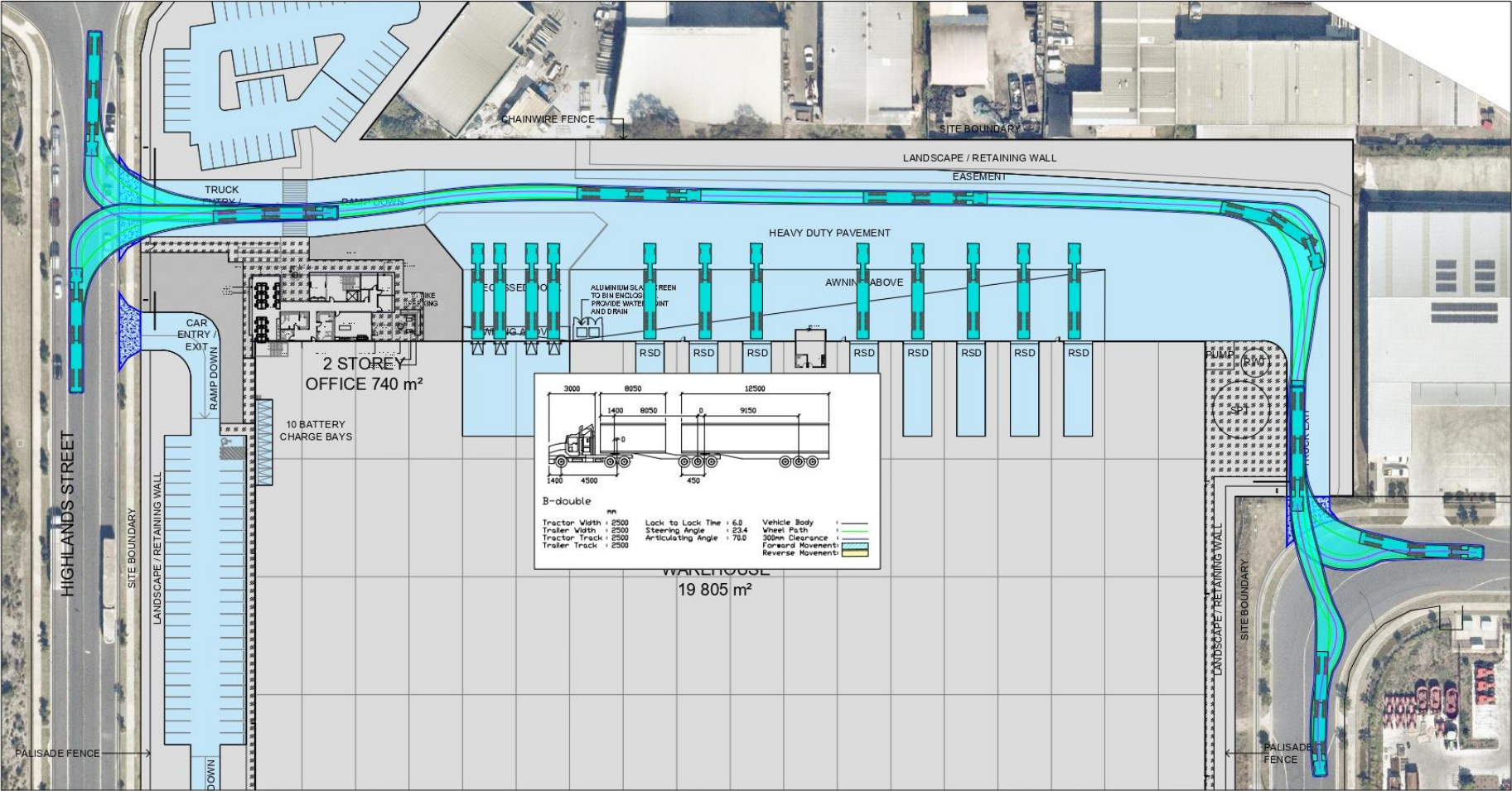


FIGURE 6.6 – ON-SITE SERVICE VEHICLE CIRCULATING (26 METRE B-DOUBLE VEHICLE)

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 car parking for the proposed development (20,751m² GFA) is 26 spaces. The proposed development provides a secured bicycle parking facility, suitable for 10 bicycles, adjacent to the office. Given the location of the site and type of use proposed it is considered that only a very small number of workers would travel by bicycle. The proposed car parking supply is therefore considered satisfactory.

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 warehouse building with associated office facilities, with a Gross Floor Area (GFA) of 20,751m².
- Application of the rates prescribed in the M38 Industrial Place Code to the proposal yields a minimum requirement of 215 car parking spaces. The proposal provides 100 spaces and therefore is considerably short of the Acceptable Outcome.
- The proposed supply of 100 spaces equates to approximately 1 space / 192m² of GFA. This is considered satisfactory to accommodate the operational demand of the proposed development, and is conventional for warehouse developments of this scale. Warehouse developments have a significantly lower parking generation than other industrial uses where more intense activities are carried out (e.g. manufacturing).
- 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. The proposal site plan also allows for a 26 metre B-Double to access and circulate through the site satisfactorily.

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.

3.0 Development 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?
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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	
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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.	
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Design of Car Parking Areas and Car Park Spaces

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?
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.	NOT APPLICABLE, APPLICATION OF FOR A CHANGE TO A RECONFIGURATION OF A LOT.	
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.	NOT APPLICABLE, APPLICATION OF FOR A CHANGE TO A RECONFIGURATION OF A LOT.	

Signs and Line Marking

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?
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.	NOT APPLICABLE, APPLICATION OF FOR A CHANGE TO A RECONFIGURATION OF A LOT.	

Tandem Car Spaces

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?
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, APPLICATION OF FOR A CHANGE TO A RECONFIGURATION OF A LOT.	

Access to Car Park Areas

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?
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.	NOT APPLICABLE, APPLICATION OF FOR A CHANGE TO A RECONFIGURATION OF A LOT.	

Table to Acceptable Solution AS7.3	
Car Park Capacity (Number of Spaces)	Minimum Queue Length (Vehicles) *
1 to 25	1
26 to 50	2
51 to 75	3
76 to 100	4
101 to 150	5
151 to 200	6
201 to 250	7
More than 250	7 plus 1% of capacity over 250 spaces
* Note: Each vehicle shall be taken to occupy 6.0 metres in length.	

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.	NOT APPLICABLE, APPLICATION OF FOR A CHANGE TO A RECONFIGURATION OF A LOT.	
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.	NOT APPLICABLE, APPLICATION OF FOR A CHANGE TO A RECONFIGURATION OF A LOT.	
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.	NOT APPLICABLE, APPLICATION OF FOR A CHANGE TO A RECONFIGURATION OF A LOT.	

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	NOT APPLICABLE, APPLICATION OF FOR A CHANGE TO A RECONFIGURATION OF A LOT.	
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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.	NOT APPLICABLE, APPLICATION OF FOR A CHANGE TO A RECONFIGURATION OF A LOT.	

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 .	NOT APPLICABLE, APPLICATION OF FOR A CHANGE TO A RECONFIGURATION OF A LOT.	

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.	NOT APPLICABLE, APPLICATION OF FOR A CHANGE TO A RECONFIGURATION OF A LOT.	

Table to Acceptable Solution AS14.1

Use or Development	Service Vehicle Provisions
Aged Persons Accommodation	HRV
Animal Husbandry	AV
Aquaculture	HRV

Table to Acceptable Solution AS14.1	
Use or Development	Service Vehicle Provisions
Bulk Garden Supplies	HRV
Cafe	SRV
Cinema	SRV
Commercial Services	SRV
Community Care Centre	SRV
Community Purposes	SRV
Convenience Shop	SRV
Educational Establishment	SRV
Fast Food Premises	HRV
Freight Depot	AV
Fuel Depot	AV
Funeral Parlour	SRV
Hospital	HRV
Industry	AV
Indoor Recreation including: a) squash court or any other court game; b) meeting place, public hall, pinball parlour, amusement arcade; c) theatre, cinema; d) licensed club; e) skating rink, swimming pool; f) gymnasium; and g) public library, public lecture hall, art gallery, museum, any other indoor recreation.	SRV
Kennel	SRV
Manufacturers Shop	HRV

Table to Acceptable Solution AS14.1	
Use or Development	Service Vehicle Provisions
Marina	AV
Marina Shop	SRV
Market	SRV
Medical Centre	SRV
Milk Depot	AV
Mini-Storage Warehousing	HRV
Minor Tourist Facility	SRV
Motel	SRV
Motor Vehicle Repairs	HRV
Night Club	SRV
Outdoor Sport and Recreation: a) tennis court or other court game (where not ancillary to other development); b) lawn bowls; c) skating rinks, swimming pools; d) golf course.	SRV
Office	SRV
Place of Worship	SRV
Reception Room	SRV
Resort Hotel	HRV
Restaurant	SRV
Restricted Club	HRV
Retail Plant Nursery	HRV
Rural Industry	AV

Table to Acceptable Solution AS14.1

Use or Development	Service Vehicle Provisions
Salvage Yard	HRV
Service Industry	SRV
Service Station	AV
Shop	SRV
Shop with GFA of less than 400m ²	SRV
Shop with GFA 400m ² – 1500m ²	HRV
Shop with GFA larger than 1500m ²	AV
Shopping Centre Development	AV
Showroom	HRV
Storage	SRV
Take-Away Food Premises	SRV
Tavern	HRV
Temporary Use	AV
Theatre	SRV
Tourist Shop	SRV
Transit Centre	HRV
Transport Terminal	AV
Vehicle Hire Premises	AV
Vehicle Sales Premises	AV
Warehouse	AV
Waterfront Industry	HRV

Note: SRV: Small Rigid Vehicle as defined in AS2890.2 – Off Street Parking Part 2: Commercial Vehicles.
HRV: Heavy Rigid Vehicle as defined in AS2890.2 – Off Street Parking Part 2: Commercial Vehicles.

AV: Articulated Vehicle as defined in AS2890.2 – Off Street Parking Part 2: Commercial Vehicles.

Table to Acceptable Solution AS14.2	
HRV and AV Requirements	
Site Area (m ²)	Requirement
Less than 1000m ²	Demonstrate that the development can accommodate the particular design vehicle but a separate service bay and associated manoeuvring are not required. Where it can be demonstrated that loading and unloading can take place within the road reserve, without impacting on the safe and efficient operation of traffic and with no detrimental impact on amenity, Council or its delegate may determine that HRV and AV access is not required.
1000m ² – 2000m ²	a) service bay for HRV is required. b) restricted manoeuvring on site for HRV or AV (as required). c) full on-site manoeuvring for other classes of service vehicle is required.
2000m ² – 4000m ²	a) service bay to be provided for HRV or AV (as required). b) restricted manoeuvring on site for AV (as required). c) full on-site manoeuvring for HRV and other classes of service vehicle is required.