PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL

Approval no: DEV2025/1586

Date: 11 November 2025

Queensland Government

Engineering Report Incl. Stormwater Management

Lot 1127 Aura Industrial Park, Baringa, QLD

Arcos Project: 2500277

ARCOS

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Attention: Thompson Building Group
C/- Brett Robinson
By Email

14 October 2025
Arcos Project: 2500277
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Engineering Report Incl. Stormwater Management
Lot 1127 Aura Industrial Park,
Baringa, QLD

Document Control

Version	Date	Details	Prepared	Checked	Approved
0	19/08/25	For Approval	HD	GM	GM
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1 Introduction

Arcos Unit Group Pty Ltd (Arcos) has been commissioned by **Thompson Building Group** to prepare this Engineering Report including stormwater management and For Approval drawings as part of an Industrial development application with Economic Development Queensland (EDQ). The subject site is described as Lot 1127 on SP347408 and has an area of 1515m^2. A site locality plan is presented in **Figure 1**. The industrial development will be located at the proposed 30 Squire Crescent, Baringa, Queensland.

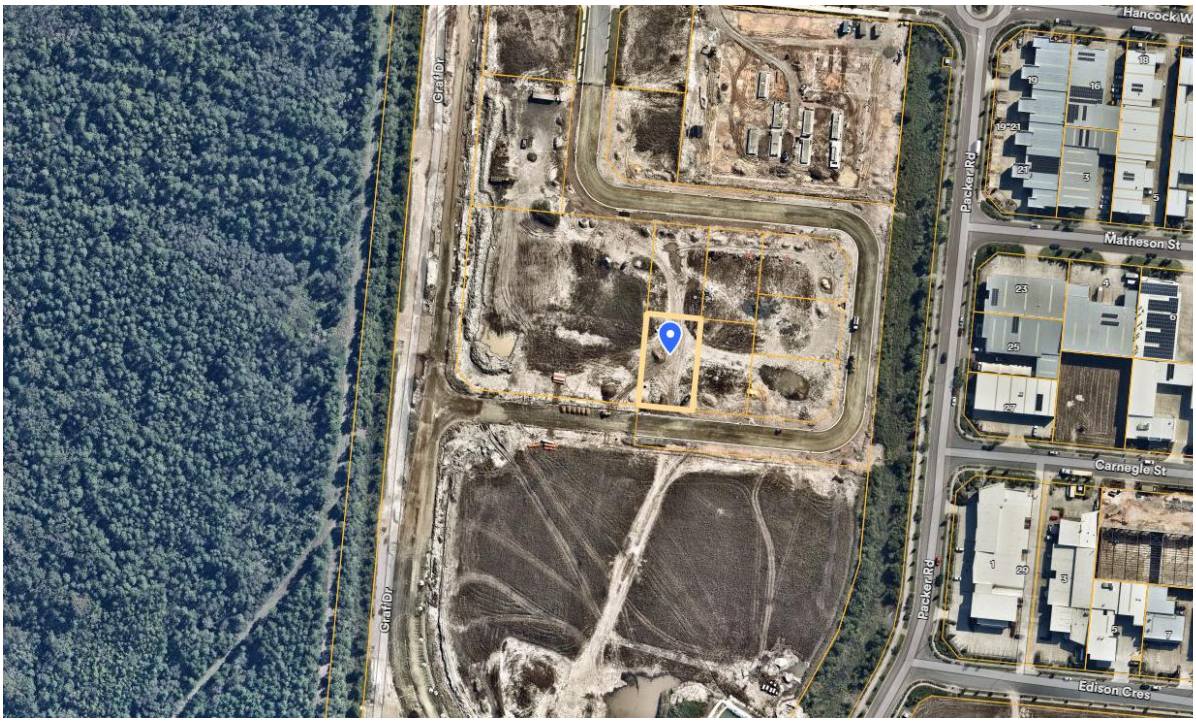

FIGURE 1: SITE LOCALITY (SOURCE: NEARMAPS)

The site is currently vacant, with service connections provided in the site's frontage.

This report addresses engineering considerations such as site works, servicing provisions, access, and a site-based stormwater management plan to assess the stormwater quality and quantity requirements.

2 Proposed Development

The proposed development consists of a two-unit industrial complex from Squire Crescent as shown in **Figure 2**.

FIGURE 2: PERSPECTIVE 3D RENDER (SOURCE: ZEEN DESIGN)

2.1 Reference Information

The following documents should be read in conjunction with this report:

TABLE 1: INFORMATION TO BE READ IN CONJUNCTION

Document Name	Source	Document Type	Attached
124697-5-176	RPS AAP Consulting	Detail & Contour Survey	Yes
Concept Design Rev 2	Zeen Design	Architectural Design	No
Flood Search Certificate	SCC	Flood Search Certificate	Yes

3 Access

3.1 Road & Driveway Type

The site sits along the northern side of Squire Crescent, no other roads bound the site**. Table 2** below describes the existing hierarchy and access requirements for the proposed development.

TABLE 2 – ROAD & DRIVEWAY TYPE

Description	Standard
Squire Crescent	Industrial Access Street
Vehicle Access	Type B access as per EDQ Plan of Development. Min 7m in accordance with AS2890.2, Table 3.1

3.2 Sight Distances

There is sufficient sight distance for vehicles exiting the development down Squire Cresent. It is not expected that vehicles will be regularly passing the development as the lot is on a lower order road with a limited number of daily traffic movements and is considered acceptable and safe.

3.3 Vehicle Turn Paths

The vehicle turn paths have been checked to confirm an 8.8m MRV can access the premises and exit using a reverse gear. Passenger vehicles can safely access parks, manoeuvre the site considering service and waste vehicles, and exit in a forward gear.

3.4 Parking Provisions

Car parking and visitor spaces have been provided in accordance with the relevant precinct approval under the PDA Development Scheme for Caloundra South. The design includes min 20% visitor parks (Class 3, AS2890) with the remainder employee parking (Class 1A, AS2890), a PWD park, MRV standing area and 6 bicycle spaces.

3.5 Waste Collection

The site proposes a bin enclosure in the centre of the site. The development will be serviced by Council's front-loading Waste Collection Vehicle (WCV) from within the site.

4 Earthworks

The existing site is located above the adjacent road level and gently slopes towards the road. The internal site levels range between 13.2m AHD to 11.6m AHD, with an approximately 1m high retaining wall surrounding the western, northern and eastern boundary.

Building pad earthwork levels have been designed above the 1% AEP flood level with the majority of overland flow through the drainage easement on an adjacent lot.

All cutting and filling are to be carried out in accordance with AS3798:2007 Guidelines on Earthworks for Commercial and Residential Developments. Any site filling will be from site spoil (subject to Geotechnical Investigation), provided it meets the requirements of AS3798 and is placed with controlled compaction.

Impacts of proposed earthworks on overland flow conditions will not adversely affect adjacent or downstream properties. Proposed earthworks will not encroach on adjacent properties or affect the function of stormwater catchments external to the site.

All construction activities, including Erosion and Sediment Control (ESC) methods, would be managed under the control measures of a Construction Environmental Management Plan (CEMP) for the development site. The CEMP and ESC plans would be prepared for submission with the future application for Operational Works Approval.

5 Stormwater Management

5.1 General

The proposed stormwater management identified in this report generally complies with the requirements of the EDQ Stormwater Quality Management Plan, Queensland Urban Drainage Manual 2017 (QUDM) and other relevant codes and guidelines.

The minor storm event is the 10% Annual Exceedance Probability (AEP), and major storm event is the 1% AEP event in accordance with EDQ Management Plan for Precincts 3-5.

The minor drainage system is generally limited to kerb flows, inlets, underground drainage etc., for pedestrian safety and convenience, and vehicle access. Generally, the major drainage system consists of overland flow paths designed for flows above the capacity of the minor drainage system (i.e. 1% AEP minus minor storm AEP) up to and including the major storm event.

5.2 Drainage

The site is located to the north of Squire Crescent, which falls towards the south. The site itself grades southwest down Squire Crescent. A stormwater gully pit is located in the southwest corner of the subject lot, connected to the local stormwater infrastructure via Ø375 RCP.

There appears to be overland flow from the northern external catchments affecting this lot, these external catchments will be directed through the site via subsoil drainage, pit & pipe and overland flow provisions. Adjacent sites draining toward their frontages and into the road reserve, away from the subject site.

5.3 Flooding

The site is identified as being impacted by flooding as per SCC Flood Hazard Mapping.

A flood search certificate has been requested with the 1% AEP conditions at year 2100 adjacent to the development indicates a flood level of 13.80m AHD.

Table 8.2.7.3.3 of the SCC Flood Hazard Overlay Code indicates that the minimum floor level is DFE/DSTE + 0.3m or Historical + 0.6m. Therefore, a minimum floor level of 12.10m is required.

5.4 Lawful Point of Discharge

The lawful Point of Discharge (LPD) for the proposed development is the existing stormwater pit within the site, connected to the network in Squire Crescent. This lawful point of discharge is compliant with Section 3.9.1 requirements of QUDM.

5.5 Stormwater Quality Management

The EDQ Stormwater Management Design Objectives for Precinct 4 (the subject site's precinct) specify that only gross pollutant traps (GPTs) and rainwater harvesting are required onsite, in accordance with the wider precinct stormwater management plan.

The SWMP Aura Precincts 3–5 identifies that, by design, flows from catchment P4 West discharge to Bells Creek, with end-of-line treatments provided for the catchment. Refer to Section 4.2 of the SWMP for the treatment strategy.

For the subject site, a rainwater harvesting and reuse tank is required at a rate of 1kL per toilet (minimum 5kL per site). A 7kL rainwater harvesting tank is required, along with GPTs installed in all stormwater pits.

5.5.1 Construction Phase

The site's management is important in ensuring water quality standards are achieved during the construction phase. Implementing best practice Erosion and Sediment Control techniques is imperative to managing the runoff quality affected by construction works.

Best practice measures shall be utilised during the construction phase to minimise the potential impacts of the pollutants mentioned above. Detailed Erosion and Sediment Control Management Plans should be developed in conjunction with the Operational Works design prior to construction works commencing in accordance with the International Erosion Control Association (IECA) - "Best Practice Erosion and Sediment Control (BPESC) document" and overseen by a Certified Professional in Erosion and Sediment Control (CPESC) or Registered Professional Engineer Queensland (RPEQ).

Through their principal contractor, the developer shall be responsible for ensuring that temporary sediment and erosion controls are installed and maintained correctly.

5.5.1.1 Pollutants

The pollutants that would typically be generated during the construction of the proposed development are outlined in **Table 3**.

TABLE 3: TYPICAL CONSTRUCTION PHASE POLLUTANTS

Pollutant	Source
Litter	Paper, construction packaging, food packaging, cement bags, offcuts
Sediment	Unprotected exposed soils and stockpiles during earthworks and building
Hydrocarbons	Fuel and oil spills, leaks from construction equipment
Toxic Materials	Cement slurry, asphalt prime, solvents, cleaning agents, wash waters e.g. from tile works)
Ph Altering Substances	Acid sulphate soils, cement slurry

5.5.1.2 Potential Impacts

Construction activities can have a potential impact on water quality. Removal of vegetation, earthworks and changes to drainage patterns can result in erosion and sediment being washed into waterways. This can impact the physical-chemical parameters of the receiving water, the decline in the health of aquatic ecosystems, and overall aesthetics. The potential impacts on the development site's surrounding receiving waters will be minimised during the construction phase with typical measures outlined below. These measures should be adequately detailed on erosion and sediment control plans as part of the development's Operational Works application.

5.5.1.3 Performance Objectives

The amount of runoff traversing and discharging from the site while under construction should be kept to a minimum. This will restrict soil erosion and mobilisation of sediments and pollutants through and off the site. During the construction phase, stormwater runoff at discharge points shall comply with the objectives detailed in QLD SPP (July 2017).

5.5.1.4 Control Measures

The following are typical treatment measures that should be implemented before the commencement of any construction works. Detailed erosion and sediment control procedures shall be based on the erosion and sediment control plans lodged at the Operational Works phase.

5.5.1.5 Maintenance

Maintenance of erosion and control treatment measures (such as sediment fences) will be undertaken if it is observed that they have not been properly installed or the capacity of the measure falls below 75%.

5.5.1.6 Minimise Disturbance Area

Clearing of land is to be minimised to areas planned to be actively under construction in the near term (e.g. within the next 3-6 months).

5.5.1.7 Stabilise Disturbed Areas

Provide temporary stabilisation of disturbed soils whenever active construction is not occurring on a portion of the site. Provide permanent stabilisation during finish grade and landscape the site.

5.5.1.8 Protect Slopes and Channels

Safely convey runoff from the top of the slope and stabilise temporary and permanent channel crossings as quickly as possible and ensure that increases in runoff velocity caused by the project do not erode the channel.

5.5.1.9 Diversions of Upslope Runoff

Upslope runoff should be diverted away from areas of exposed soil to prevent the contamination of clean runoff. This may be achieved by installing tightly abutting sandbags, creating a 'sandbag perimeter bank' to divert flow.

5.5.1.10 Sediment Fences and Inlet Protection

Delineate site perimeter to prevent disturbing areas outside the project limits. Sediment fences should be installed around the perimeter of works to ensure contaminated runoff is filtered and sediment is trapped before leaving the site. Sandbags or geofabric should also be placed around/over existing stormwater inlets/grates throughout the site to filter any contaminated runoff before entering the existing piped stormwater network.

5.5.1.11 Retain Sediment

Retain sediment-laden waters from disturbed, active areas within the site.

5.5.1.12 Stabilised Vehicle Entry/Exit Point

A stabilised entry/exit point should be constructed to minimise the transport of sediment off-site. All vehicles entering and leaving the site must use this designated entry/exit point.

5.5.1.13 Stockpiles

Stockpile locations should be identified before the commencement of works. Ideally, they should be located in a flat area at least 15m from any water body or stormwater inlet. Sediment fences should be installed downslope of all erodible stockpiles, and upslope protection measures should be used (i.e. sandbags or sediment fence) to divert runoff in the event of rain. At the end of each working day, stockpiles should be covered with geofabric if rain or high winds are forecast.

5.5.1.14 Street Sweeping

Ensure that local roads are swept as required. This will minimise the potential for sediment tracked onto the road to be washed into the stormwater system. If there is a large quantity of sediment being tracked onto the surrounding streets, the stabilised entry/exit point may need to be raked or reinforced with rock treatment to provide more effective sediment removal for vehicles.

5.5.1.15 Erosion Control Matting and Permanent Stabilisation

Exposed areas onsite should be permanently stabilised (i.e. with turf) as the construction works progress. Erosion control matting or mulching should be used as a temporary measure to stabilise exposed areas before permanent stabilisation can be undertaken.

5.5.1.16 Monitoring

Monitoring and recording of the performance of the drainage control devices are to be undertaken in accordance with local government requirements. It is further recommended that the proposed construction works be undertaken during periods of dry weather to reduce the potential for sediment to be transported off-site during construction.

5.6 Stormwater Quality Asset Maintenance

5.6.1 Maintenance Schedule

Outlined below in **Table 4** are the recommended maintenance schedules for the treatment types.

TABLE 4: STORMWATER QUALITY ASSETS MAINTENANCE SCHEDULE

Stormwater Asset	Maintenance Frequency	Tasks
Media Filtration (General Guidance – advice should be sought from the proprietary provider of technology)	Four-monthly inspections 10-years	General cleaning (remove the build-up of debris/pollutants >150mm) Every 10 years, the filter media cartridges are to be replaced.

5.7 Stormwater Quantity Management

5.7.1 General

Stormwater detention is not required onsite, as the broader Stormwater Quality Management Plan (SQMP) for Aura Precincts 3–5 (DesignFlow, 2022, Approved by EDQ) has already incorporated precinct-wide detention and treatment infrastructure, including bioretention basins, wetlands, and bioswales. These end-of-line facilities collectively manage stormwater flows and treatment for the entire precinct. Accordingly, no onsite detention tanks are necessary for this development.

6 Service Provisions

6.1 Water

The site is serviced by a 150mm diameter water reticulation main and stub from Squire Crescent. A new master water meter and fire supply will be required to service the development.

6.2 Sewer

The site is serviced by an existing 150mm dia. sewer stub into the property, which can service the entire development.

6.3 Communications & Electrical

Details of electrical supply and communication infrastructure and services proposed for the development site are outside the scope of this report. However, we understand that supply to the development can be provided via an extension to the adjacent underground electricity network.

7 Conclusion

This Engineering Services Report has been prepared to provide a review and information on the Engineering requirements to support the application for MCU/OPW on the proposed development at Lot 1127 Aura Industrial Park, Baringa, QLD.

The following requirements have been reviewed as part of this report:

- Suitable access can be provided off Squire Crescent to access the development and appropriate manoeuvring of vehicles;
- The proposed building and site parking levels are above the flood level requirements of the site;
- Stormwater quality and quantity requirements for drainage discharge can be provided for the site;
- Sewerage reticulation can be connected to the existing Unitywater network; and
- Water reticulation can be connected to the existing Unitywater network.

In summary, this report shows that the development site can be adequately serviced and provision made as currently shown and in further detailed design for this development to be in accordance with EDQ's requirements.

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LIMITATIONS

Arcos Unit Group Pty Ltd (Arcos) has prepared this document for the project described on the title page for the client's exclusive use. The document is specific to this particular project and for the purposes as described within the document. The document cannot be used for any other project on the same site or other sites or relied upon by a third party. Any party relying upon this document beyond its exclusive use and purpose as stated above, and without the express written consent of Arcos, does so entirely at its own risk and without recourse to Arcos for any loss or damage. Arcos has necessarily relied upon information provided by the client and/or their agents.

The required detailed design for the service infrastructure will be subject to the conditions (if any), attached to the Development Approval provided by Council and any nominated referral agencies.

The advice given in this document is based upon the assumed conditions and data outlined herein. The relevance and accuracy of advice given are directly affected by variations in the information supplied and open source information relied upon.

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Appendix A – Site Survey

WARNING NOTES

Boundaries
The boundaries on this plan were reinstated and marked at the time of the endorsement of RPS Survey Plan SP347408.

Services
The services on this plan have been derived by survey and compiled from existing records. Before the commencement of any construction works, the location of all services must be verified on site by the relevant authorities.

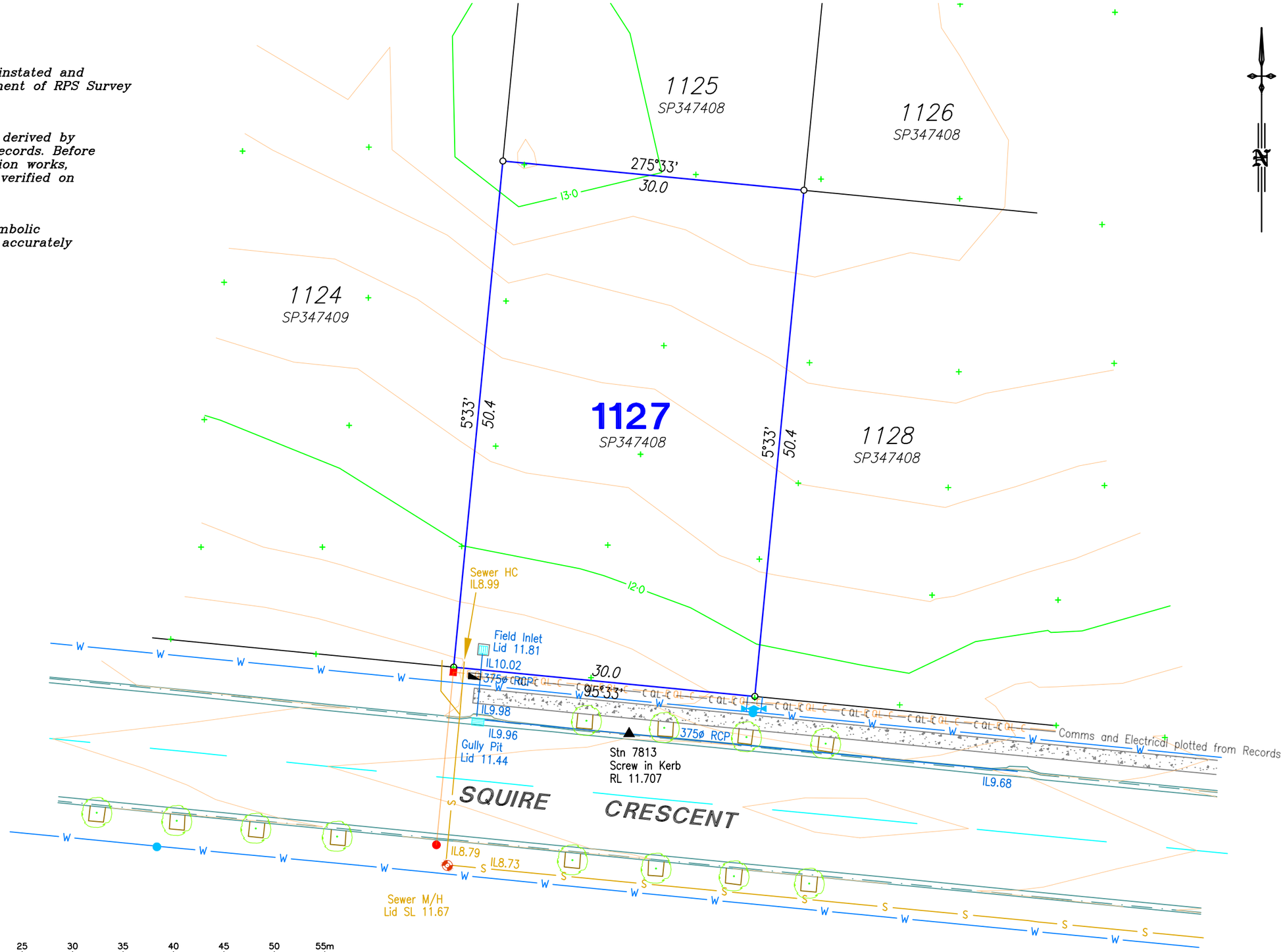
Symbols
The shapes depicting services are symbolic representations, and whilst they are accurately positioned, they are not to scale.

Trees
The trees shown on this plan are a representation of the street trees at the time of the survey. The extent of this information should be verified by relevant parties. The type and significance of the trees shown should be confirmed. The symbols and dimensions shown are indicative only.

Other Notes
The Digital File is a 3D AutoCAD File.
Note that any distances measured in AutoCAD will be slope distances.

For clarity, levels have not been shown. To obtain levels, turn on layer RL*.* in the associated digital file.

Contour Interval : 0.2m
Indexed : 1.0m
Co-ordinate Datum : Arbitrary
Meridian : SP347408



5 0 5 10 15 20 25 30 35 40 45 50 55m

Scale 1:400@A3

LINEWORK

- Subject Lot Boundary
- Adjoining Boundary
- OHP Overhead Power Line
- E Underground Power Cable
- G Gas Line
- S Sewer Line
- D Stormwater Line
- T Telstra Cable
- O Optical Fibre Cable
- W Water Reticulation Line
- Edge Of Vegetation
- Paving
- Centre-Line of Gully
- Change of Grade
- Top of Bank
- Bottom of Bank
- Top of Wall
- Bottom of Wall
- Fence Line
- Edge of Bitumen
- IL of Kerb
- Back of Kerb
- Crown of Road
- Concrete

SYMBOLS

Electricity Pit, Electricity Manhole, Electricity Pillar, Power Pole, Light Pole, Electricity Marker, Telstra Pit, Telstra Manhole, Telstra Pillar, Telstra Marker, Fence Post, Gas Valve, Stormwater Manhole, Gully Trap, Field Inlet, Sewer Manhole, Inspection Opening, Traffic Light, Water Meter, Tap, Water Valve, Fire Hydrant, Water Marker, Sign, Tree, Shrub, Palm Tree, Bench Mark, Traffic Sign

PROJECT : **Aura Business Park**	CLIENT : **Thompson Building Group**
12d File Ref : 124697-5-070	Date Drafted : 01.07.2025
Level Datum : AHD Der	Drafted By : RCG
Origin : PSM 200446 RL 10.285	Surveyed : ADW
	Checked By : DJC
	DWG Name : 124697-5-176.dwg
	Scale : 1:400@A3

Detail and Contour Survey Over Lot 1127 on SP347408 Squire Crescent, Aura Business Park

A3 | Local Authority : Sunshine Coast Regional Council

RPS AAP Consulting Pty. Ltd.
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Plan Reference **124697-5-176** | Sheet 1 of 1

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Appendix B – Flood Report

Sunshine Coast COUNCIL

Request Type

☒ Self-Assessable Dwelling

☐ All Other

Flood Information Search

This search is issued in response to an information request for a property which is located within the geographical boundaries of Sunshine Coast Council. This search is valid for 6 months from date of issue.

Applicant's Name	Arcos Group	Issue Date	28 July 2025
Applicant's Address	177C Brisbane Rd MOOLOOLABA QLD 4557	Land Number	1549926
		Property Description	Lot 1127 SP 347408
		Address	30 Squire Cres BARINGA QLD 4551
		Our Reference	Cer25/08859
Email Address	civil@arcosgroup.com.au	Issuing Officer	JDM
		Your Reference	NA

ENQUIRY DATE: 25/07/2025

REGISTERED OWNER(S) NAME: Thompson Projects Al1127 Pty Ltd

TABLE 1 - APPLICABLE VALUES REQUIRED TO COMPLY WITH BUILDING REGULATIONS:

Flood Hazard Area for Building Regulation Purposes – Minimum Design Floor Level For the purposes of the QDC MP 3.5 (2012) & The Building Regulations S8.1 (2021). levels provided in this table for new buildings are a declaration of the Finished Floor Level requirements for Class 1 buildings built in all or part of the Flood Hazard Area			
Minimum Design Floor Level	12.10 mAHD		
Source of Data	RPEQ Certified Lot Table Information		
Maximum Flow Velocity	Not Available	**Backwater or inactive flow area**	Velocity Not provided

TABLE 2 - LEVELS RELEVANT TO THIS LOT:

Flood Mechanism	Source of information	Event	Location of Level	DFE level	Freeboard
Regional\Riverine	RPEQ Certified Lot Table Information	1% AEP Year 2100	Peak Level	11.57 mAHD	500mm
Drainage\Overland Flow	RPEQ Certified Lot Table Information	1% AEP Year 2100	Peak Level	11.80 mAHD	300mm

CLIMATE ASSUMPTIONS

The advice provided in this search is based upon standards relating to current and year 2100 climatic conditions and historically recorded flood events only. Year 2100 estimates include allowances for future climate conditions which specifically include increased rainfall intensity (20%) and higher mean sea level (0.8m).

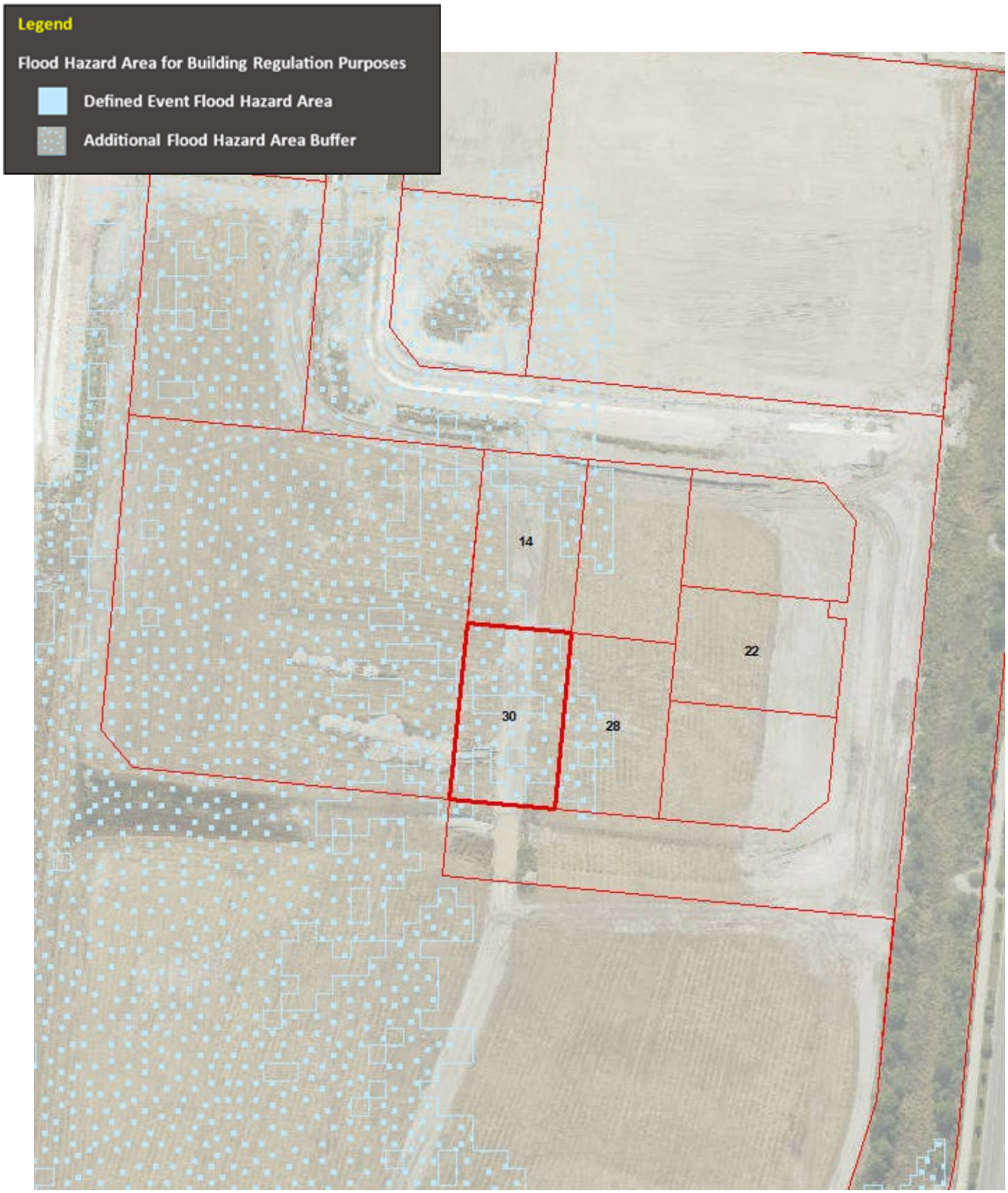

Figure 1 - Flood Hazard Area for Building Regulation Purposes Map

The flood hazard area for building regulation purposes map is based on the defined flood event, but also includes additional buffer flood hazard areas which incorporate freeboard allowance, overland flow paths and street drainage. This map triggers the request for a flood information search from council, to obtain the flood level, floor level and velocity information relevant to the property. If building works are proposed within the Flood Hazard Area for Building Regulation Purposes (including the additional buffer area), then the declared flood level, velocity and finished floor level is required to comply with MP3.5.

Figure 2 - Regional Flooding Map

INTERPRETATION NOTES FOR THIS SEARCH

1. Minimum finished floor levels are provided for residential land uses only in accordance with the criteria for self-assessable development in the Sunshine Coast Planning Scheme, 2014, Flood Overlay Code. For other types of development the flood overlay code of the planning scheme may assign a different event probability to the Defined Flood Event and specify different freeboard requirements. Refer to Table 8.2.7.3.3 of the Flood Overlay Code. In such instances a development application should already be lodged and the Development Services staff assisting with this application will provide guidance on the determination of minimum finished floor levels.
2. This search has not been prepared with knowledge of the date of construction or approval for development. It is incumbent upon the applicant, or the agent representing the applicant, in a purchasing situation to determine the date of approval for development in order to ascertain which of the minimum floor levels provided on this search are appropriate.
3. The absence of local flood mapping does not imply that the above property is not subject to localised stormwater flooding. Please be aware of the natural topography in your area and the location of drainage infrastructure. Water runoff which exceeds the capacity of the drainage system (if present) and/or concentrates in surface depressions and gullies can cause localised stormwater flooding which may not be identified in this search.
4. The MINIMUM DESIGN FLOOR LEVEL as required by the Flood Overlay Code of the Sunshine Coast Council Planning Scheme, 2014, is calculated as whichever is greater of either:
   (a) 500mm freeboard added to the Defined Flood Event Level (Regional, Riverine or Storm Tide) for the site; or
   (b) 300mm freeboard added to the Defined Flood Event Level (Drainage/Overland Flow) for the site as per the Queensland Urban Drainage Manual.
5. Surface water should be managed according to the requirements of the National Construction Code (Volume 2 and the ABCB Housing Provisions). In order to meet these requirements, the Floor Level may need to be higher than specified in this search.
6. Construction of all internal stormwater drainage must comply with the relevant sections of Australian Standard *AS/NZS 3500.3 – Plumbing and Drainage*.
7. Building certifiers should be aware that their certification requires them to ensure no unacceptable off-site or on-site impacts associated with the drainage of buildings or land.
8. If the property is located within a declared Drainage Deficient Area as shown on Figure 8.27 Drainage Deficient Areas of the Sunshine Coast Planning Scheme (2014) Flood Overlay Code the MINIMUM DESIGN FLOOR LEVEL may be returned as 'DDA Survey Required'. If so, refer Drainage Deficient Area requirements attachment for details.
9. If marked as "DDA Not Filled", Council advises that no record exists of this property previously satisfying DDA requirements of the Sunshine Coast Planning Scheme (2014) Flood Overlay Code or the relevant prior planning scheme(s). An attachment will be included with this search that provides detail on the filling and survey requirements.
10. For properties located adjacent to Lake Weyba or within 200m of the Pumicestone Passage, when calculating MINIMUM FINISHED FLOOR LEVEL an additional 300mm allowance for wave setup is added to the 500mm freeboard for properties. This results in a total freeboard of 800mm above the Defined Flood Level.
11. All buildings shall conform to the relevant Planning Scheme Code in the Sunshine Coast Regional Council, 2014.
12. Flood modelling is based on periodic aerial laser survey of the ground surface which filters out buildings and fences. Flow diversions caused by solid obstructions may not be identified in this search. Changes to surface levels and drainage may have altered the overland flow and flood behaviour within this property.
13. Council advises that if there are openings to basements these openings require a minimum level at least equal to the minimum finished floor level.
14. The levels and velocities provided on this search are derived from information relating to the flood hazard that is deemed most current and reliable at the time of search provision. This information may supersede flood information contained on the Sunshine Coast Regional Council Planning Scheme Flood Overlay (2014) which requires planning scheme amendment to maintain currency.
15. Section 8 of Building Regulations defines an inactive flow or backwater area to mean *all or part of a flood hazard area where the maximum flow velocity of water is not likely to be greater than 1.5m/s*. Council advises that velocity in some waterways, floodways and overland flow paths is less than 1.5m/s and would therefore meet this definition. Obstructing such flow paths is inherently problematic and likely to cause adverse impact. The declaration of a backwater area or inactive flow path should not be interpreted as acceptable to obstruct.
16. Additional information on the frequency and extent of flooding within this property can be found on Council's online mapping at: https://www.sunshinecoast.qld.gov.au/Development/Development-Tools-and-Guidelines/Sunshine-Coast-Mapping-MyMaps

DISCLAIMERS

Flood information provided by Council represents the best information available to Council. It should only be used as a guide to the extent of flooding on the property. This information may be inaccurate or incomplete and it is recommended that purchasers make their own local enquiries with regard to the flooding and drainage history of the site.

The flood level information supplied does not represent the highest possible flood level that could occur on this property. Statistics indicate that a flood of equivalent or greater magnitude than the defined flood event is possible and has a 1% chance of occurring in any given year and similarly a 50% chance of occurring within 70 years.

The absence of flood information does not imply that the property is not subject to flooding, simply that Council has no information for this property flooding. If the property has a history of flooding or drainage problems, Council recommends you seek professional advice on this matter.

GLOSSARY OF TERMS

Term	Definition
Applicant	The individual(s) requesting a flood search to be completed for a specified property.
Registered Owners	The individual(s) that are registered by Council as owning the property for which a flood search is requested.
AHD	The Australian Height Datum (AHD) is the reference level for defining reduced levels adopted by the National Mapping Council of Australia. The level of 0.0 m AHD is approximately mean sea level.
Defined Flood Event Level	A water level derived through mathematical modelling of the Defined Flood Event.
Defined Flood Event	Terminology consistent with Single State Planning Policy (SPP, 2013) which states “Defined Flood Event is the flood event adopted by a local government for the management of development in a particular area”. This may also be the defined storm tide event where the flood level of the storm tide exceeds the flood level of the freshwater flood event (at the AEP of the defined flood event).
Source of Information	Is a reference to the document summarising the results of the anticipated flooding relevant to this location.
Minimum Finished Floor Level	The minimum finished floor level calculated in accordance with the planning scheme flood overlay through the addition of the relevant freeboard to the Defined Flood Event Level. The minimum finished floor level on this search relates to a flooding requirement. In some instances town planning notation may also specify a minimum finished floor level. The applicant should ensure that a town planning notation search is also undertaken. The minimum finished floor level is the higher of the level provided on this search and a minimum finished floor level from a town planning notation.
AEP	Annual Exceedance Probability. The 1% AEP has a 1% chance of exceedance in any year.
Rainfall Intensity	The amount of rainfall occurring in a unit of time, usually expressed in millimetres/hour.
Mean Sea Level	A tidal datum; the arithmetic mean of hourly heights of the sea at the tidal station observed over a period of time (preferably 19 years). Source: BOM This is approximately 0.0 m AHD
Storm Tide	The elevation of water generated by a severe weather event such as an east coast low pressure system or tropical cyclone above the normal astronomical tide.
Tropical Cyclone	A tropical cyclone is a low-pressure system which is sufficiently intense to produce sustained winds of at least 63 km/h or greater and gusts in excess of 90 km/h near the centre.
Freeboard	A factor of safety usually expressed as a height above the adopted Defined Flood Level. A freeboard tends to compensate for factors such as wave action and historical and modelling uncertainties.
Flood Hazard Area	An area, whether or not mapped, designated by a local government as a natural hazard area (flood) in the Building Regulation 2021, section 8.
Drainage Flood	This flood type has a flood level derived from a stormwater drainage study with rainfall as the source of flooding. This is normally a local area study that incorporates elements of the stormwater network in the assessment. These studies can provide flood levels associated with overland flow beyond the flood extent shown derived from a Riverine\Creek flood study
Regional/Riverine	This flood type has a flood level derived from a Regional (Riverine or Creek) flood study with rainfall as the source of flooding. As these studies are for larger areas they only consider surface flows and not the sub surface drainage network. Often flows will be input into the flood model at ‘source points’ and thus overland flows are not represented for the whole catchment area.
Storm Tide Flood	This flood type has a flood level derived from a Storm Tide flood study with the ocean condition as the source of flooding.

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CONTACT
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Appendix C – Civil Drawings

PROJECT & PHASE

WAREHOUSE DEVELOPMENT
OPERATIONAL WORKS - CIVIL

CLIENT

THOMPSON BUILDING GROUP

SITE ADDRESS / PROPERTY ID

LOT 1127 AURA INDUSTRIAL PARK, BARINGA, QLD

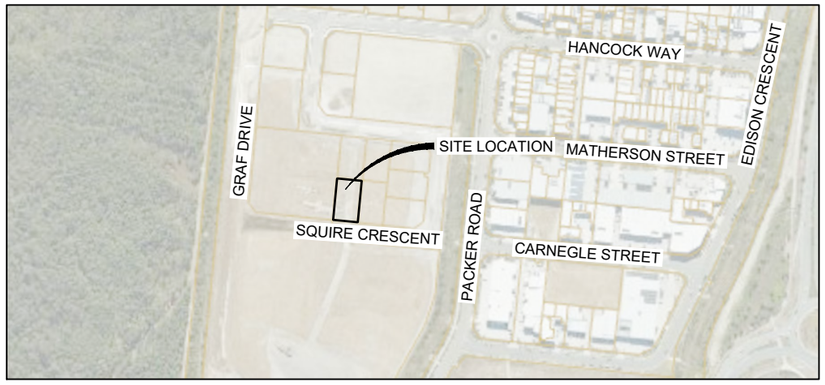

IMAGE (NEARMAPS)

LOCALITY PLAN

SCALE N.T.S

ARCOS

DRAWING INDEX

DRAWING No.	REV	DRAWING TITLE
2500277-OPW-C-001	A	COVER SHEET, LOCALITY & DRAWING INDEX
2500277-OPW-C-011	A	GENERAL NOTES & DETAILS
2500277-OPW-C-101	A	EXISTING FEATURES PLAN
2500277-OPW-C-201	A	EARTHWORKS PLAN
2500277-OPW-C-211	A	EARTHWORKS SECTIONS & DETAILS
2500277-OPW-C-231	A	EROSION & SEDIMENT CONTROL NOTES & STANDARD DETAILS
2500277-OPW-C-301	A	DEVELOPMENT SITE PLAN
2500277-OPW-C-371	A	CONCRETE JOINTING PLAN
2500277-OPW-C-372	A	CONCRETE JOINTING DETAILS
2500277-OPW-C-411	A	STORMWATER LONGITUDINAL SECTIONS
2500277-OPW-C-501	A	SEWER & WATER NOTES & DETAILS
2500277-OPW-C-502	A	SEWER & WATER PLAN

SURVEY DATA

SURVEYED BY RPS AAP CONSULTING PTY. LTD DATED 01/07/2025.
PLAN REFERENCE 124697-5-176

RP DESCRIPTION

LOT 1127 SP347408
SITE AREA = 1512m²

PERMIT No. TBA

Project No.	Status	Drawing No.	Rev No.
2500277	FOR APPROVAL	OPW-C-001	A

GENERAL NOTES:

1. DRAWINGS TO BE READ IN CONJUNCTION WITH ALL RELEVANT DOCUMENTATION, LOCAL AUTHORITY SPECIFICATIONS (OR ARCOS GROUP SPECIFICATIONS IF SUPPLIED). ANY POINT OF CONFLICT IS TO BE IDENTIFIED BY THE CONTRACTOR AN WILL BE RESOLVED BY THE SUPERINTENDENT.
2. THE DEVELOPER IS TO NOMINATE THE SUPERINTENDENT AND/OR THE SUPERVISING RPEQ FOR THE WORKS AND NOTIFY ALL RELEVANT PARTIES PRIOR TO COMMENCEMENT OF CONSTRUCTION.
3. DIMENSIONS IN METRES U.N.O. DO NOT SCALE FROM DRAWINGS. USE PRINTED DIMENSIONS ONLY AND IF IN DOUBT ASK SUPERINTENDENT FOR CLARIFICATION.
4. ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH COUNCIL APPROVAL CONDITIONS, DEVELOPMENT GUIDELINES, ASSOCIATED STANDARD DRAWINGS AND SPECIFICATIONS U.N.O.
5. EXISTING SERVICES AND STRUCTURES HAVE BEEN PLOTTED FROM SUPPLIED DATA AND AS SUCH THEIR ACCURACY CANNOT BE GUARANTEED. IT IS THE CONTRACTORS RESPONSIBILITY TO ESTABLISH THE LOCATION AND LEVEL OF ALL EXITING SERVICES PRIOR TO COMMENCEMENT OF ANY WORK. DISCREPANCIES SHALL BE REPORTED TO THE SUPERINTENDENT.
6. ON COMPLETION OF SERVICES INSTALLATION, ALL AREAS SHALL BE RESTORED TO ORIGINAL LEVEL, INCLUDING KERBS, FOOTPATHS, CONCRETE AREAS, GRAVEL AREAS, GRASSED AREAS AND ROAD PAVEMENTS.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF ANY DAMAGE TO COUNCILS INFRASTRUCTURE. SUCH REPAIR OR REINSTATEMENT TO BE CARRIED OUT IMMEDIATELY TO THE SATISFACTION OF LOCAL COUNCIL.
8. THE CONTRACTOR SHALL PROVIDE ALL MANAGEMENT PLANS, INCLUDING TRAFFIC MANAGEMENT PLAN, ENVIRONMENTAL MANAGEMENT PLAN AND WORKPLACE HEALTH AND SAFETY PLAN FOR REVIEW AND APPROVAL OF PRINCIPAL AND SUPERINTENDENT, PRIOR TO CONSTRUCTION.
9. ALL MATERIALS SPECIFIED ARE TO BE UTILISED, UNLESS WRITTEN APPROVAL FROM THE SUPERINTENDENT, SUPERVISING RPEQ OR APPROVING AUTHORITY.
10. THE CONTRACTOR IS TO UNDERTAKE ALL WORKS IN ACCORDANCE WITH ALL WORKPLACE HEALTH AND SAFETY REQUIREMENTS.
11. WHERE ANY EXCAVATION OR CONSTRUCTION WORKS ARE IN CLOSE PROXIMITY TO NEIGHBOURING LOT BOUNDARIES OR INFRASTRUCTURE, THE CONTRACTOR IS TO ALLOW IN SCOPE OF WORKS TO PROVIDE ALL MEASURES NECESSARY TO ENSURE THE INTEGRITY OF EXISTING BOUNDARIES AND INFRASTRUCTURE. THIS MAY INCLUDE THE USE OF LOW VIBRATION EQUIPMENT, TRENCH SHORING ETC AS REQUIRED.
12. THE CONTRACTOR SHALL NOTIFY ALL RELEVANT AUTHORITIES AND ENSURE REQUIRED CONDITIONS HAVE BEEN MET PRIOR TO COMMENCEMENT. THE CONTRACTOR SHALL NOTIFY ARCOS GROUP PRIOR TO COMMENCING WORKS AND RECEIVE WRITTEN CONFIRMATION THAT THE WORKS CAN COMMENCE.
13. CONTRACTOR SHALL PROVIDE AS CONSTRUCTED DRAWINGS FOR ALL CONSTRUCTED WORKS IN ACCORDANCE WITH COUNCIL REQUIREMENTS UNLESS OTHERWISE ADVISED BY ARCOS GROUP.
14. THE CONSTRUCTION PRE-START MEETING IS AN OPPORTUNITY FOR ALL PARTIES TO DISCUSS CRITICAL ISSUES, SUCH AS:
    - KEY OBJECTIVES OF THE EROSION AND SEDIMENT CONTROL PLAN;
    - REQUIRED WATER QUALITY OBJECTIVES;
    - PERFORMANCE MONITORING AND INSPECTION PROCEDURES;
    - IDENTIFICATION OF THE RESPONSIBLE SITE OFFICERS;
    - IDENTIFICATION OF CRITICAL ENVIRONMENTAL CONCERNS;
    - REPORTING PROCEDURES FOR NON-COMPLIANCE ACTIVITIES AND EVENTS.

ENVIRONMENTAL MANAGEMENT NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR ALL ENVIRONMENTAL PROTECTION MEASURES BEING IMPLEMENTED ON SITE PRIOR AND DURING CONSTRUCTION.
2. NO VEGETATION BEYOND THE EXTENT OF EARTHWORKS OR THAT SHOWN ON THE PLANS IS TO BE UNDERTAKEN WITHOUT PRIOR CONSENT FROM THE SUPERINTENDENT.
3. ALL VEGETATION BEING RETAINED ON SITE MUST BE IDENTIFIED AND PROTECTED FROM DAMAGE.
4. EROSION AND SEDIMENT CONTROL IS THE RESPONSIBILITY OG THE CONTRACTOR AND MUST BE IMPLEMENTED PRIOR TO CONSTRUCTION COMMENCING AND DURING CONSTRUCTION.
5. ALL DISTURBED AREAS SHALL BE LEFT IN A STABLE CONDITION. THIS WILL INVOLVE SEEDING OR TURFING WITH APPROPRIATE GRASS SPECIES. ANY DISTURBED SLOPES SHALL BE COVERED WITH A SUITABLE FORM OF EROSION CONTROL.
6. PIPELINES ADJACENT TO SIGNIFICANT TREES MUST BE INSTALLED BY BORING OR DIRECTIONAL DRILLING UNLESS OTHERWISE AGREED WITH THE SUPERINTENDENT.
7. TOPSOIL AND SUBSOIL MUST BE STOCKPILED SEPARATELY AND NOT LOCATED UNDER TREE CANOPIES.
8. ALL STOCKPILES MUST HAVE APPROPRIATE SEDIMENT CONTROLS IN ACCORDANCE WITH THE ENVIRONMENTAL MANAGEMENT PLAN.
9. NO SOIL CAN BE STOCKPILED WITHIN 5M OF ANY CREEK OR WATER COURSE.
10. ANY SOIL DISTURBED ON SITE IS TO BE REUSED ON SITE. ANY UNSUITABLE MATERIAL NOT REUSED MUST BE DISPOSED OF AT A REGULATED WASTE DISPOSAL FACILITY.

RETAINING WALL NOTES:

1. RETAINING WALLS LESS THAN 1m IN HEIGHT TO BE IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS. ALL WALLS OVER 1m IN HEIGHT, SUBJECT TO LOADING OR ADJACENT EXISTING STRUCTURES TO BE DESIGNED BY STRUCTURAL RPEQ AND REFERENCE IS MADE TO OTHERS.
2. SUPPORTED MATERIAL IS TO BE NATURAL INSITU SOIL OR WELL COMPACTED FILL, CAPABLE OF STANDING UNSUPPORTED DURING CONSTRUCTION OF THE WALL
3. FILL MATERIAL BEHIND WALL SHALL BE COMPACTED IN LAYERS NOT EXCEEDING 200mm DEPTH COMPACTED TO 95% MDD (AS1289) AND TO EXTEND A MINIMUM OF 2m BEYOND THE FRONT FACE OF WALL BEFORE BEING TRIMMED BACK ENSURING SOLID COMPACTION.
4. 20mm SCREENINGS BACKFILL MATERIAL IS TO BE GRANULAR, FREE DRAINING AND IN A MEDIUM DENSE CONDITION.
5. FOUNDATION TO BE CHECKED BY AN EXPERIENCED GEOTECHNICAL ENGINEER TO CONFIRM BEARING CAPACITY PRIOR TO PLACEMENT OF BLINDING LAYER/FIRST LAYER OF ROCK WALL.
6. ALL ROCK TO BE SOUND AND NOT DISPOSED TO DETRIMENTAL WEATHERING.
7. EROSION AND SEEPAGE SHALL BE CONTROLLED TO ELIMINATE CONCENTRATED FLOWS OVER OR THROUGH THE COMPLETED WORK.
8. AG DRAIN TO DISCHARGE TO CONNECT TO STORMWATER AT MAX 30m CENTRES OR DIRECTED TO LAWFUL POINT OF DISCHARGE TO SATISFACTION OF COUNCIL ENGINEERS
9. THE CONTRACTOR IS RESPONSIBLE FOR THE ADEQUACY OFF ALL TEMPORARY WORKS INCLUDING PROPPING AND BRACING. WHERE NECESSARY THE CONTRACTOR SHALL ENGAGE THE SERVICES OF A STRUCTURAL ENGINEER TO DESIGN AND CERTIFY TEMPORARY WORKS. TEMPORARY PROPPING DURING BACKFILLING PROCEDURES MAY BE REQUIRED.
10. THIS DESIGN DOES NOT CONSIDER GLOBAL STABILITY AND IT IS THE RESPONSIBLE OF THE CONTRACTOR TO PROVIDE STABILITY REPORT AND MEASURES AGAINST SITE SLIPPAGE.

ROADWORKS & DRIVEWAY NOTES:

1. COMPACT THE EXPOSED SUBGRADE OR LOOSE TOP LEVEL MATERIAL TO A MINIMUM 100% STANDARD MAXIMUM DRY DENSITY (MDD) TO AS1289. ANY 'SOFT SPOTS' IDENTIFIED BY THE PROOF ROLLING SHALL BE REMOVED AND REPLACED WITH A COMPACTED IMPORTED GENERAL FILL MATERIAL TO THE ABOVE COMPACTION REQUIREMENTS.
2. ALL EXPOSED SUBGRADE AREAS SHALL BE COMPACTED IN LAYERS NOT EXCEEDING 150mm COMPACTED THICKNESS.
3. GEOTECHNICAL INVESTIGATIONS REQUIRED IN ORDER TO DETERMINE SUBGRADE PROPERTIES & PREPARATION DETAILS. CONTRACTOR TO UNDERTAKE 4-DAY SOAKED CBR ON EXISTING SUBGRADE AND RESULTS TO BE A MINIMUM OF 5%. TESTING TO BE PROVIDED TO SUPERVISING ENGINEER PRIOR TO PROOF ROLL.
4. LEVELS SHOWN ARE FINISHED SURFACE LEVELS INCLUSIVE OF TOPSOIL LAYER OR BUILDING SLAB THICKNESS.
5. FINISHED SURFACES TO ALL DISTURBED AREAS ARE TO BE TREATED IN ACCORDANCE WITH LANDSCAPE DRAWINGS AND/OR TYPICAL SECTIONS.
6. CONTRACTOR TO OBTAIN ROADWORKS AND FOOTPATH PERMITS FOR ANY PROPOSED WORKS EXTERNAL TO THE SITE BOUNDARY.
7. SUBSOIL DRAINAGE UNDER KERBS TO BE IN ACCORDANCE WITH IPWEA STD DRG RS-140.
8. ALL TEMPORARY AND FINAL BATTER SLOPES ARE TO BE INSPECTED BY AN APPROVED GEOTECHNICAL ENGINEER.

EARTHWORKS NOTES:

1. ALL EXCAVATION AND FILLING SHALL BE CONSTRUCTED IN ACCORDANCE WITH AS3798 AND IN ACCORDANCE WITH THE CURRENT LOCAL AUTHORITY AND ARCOS SPECIFICATIONS.
2. ALL DRAINAGE, EROSION AND SEDIMENT CONTROLS TO BE INSTALLED AND FULLY OPERATIONAL BEFORE COMMENCING UP-SLOPE EARTHWORKS.
3. THE CONTRACTOR SHALL REMOVE ALL STRUCTURES, DEBRIS AND FENCES FROM THE SITE TO THE SATISFACTION OF THE SUPERINTENDENT.
4. EXISTING SURFACE IS TO BE CLEAR OF ORGANIC MATERIAL PRIOR TO THE START OF FILLING.
5. FILL IS TO BE OF GOOD QUALITY AND FREE OF UNSUITABLE MATERIAL.
6. FILL TO BE PLACED IN MAXIMUM 200mm LIFTS, UNLESS APPROVED OTHERWISE BY A SUITABLY QUALIFIED CONSULTANT, AND COMPACTED TO SPECIFICATION.
7. NOTWITHSTANDING THE LIMITS OF CUTTING AND FILLING SHOWN ON THE DRAWINGS, THE ACTUAL LIMITS SHALL BE DETERMINED ON SITE BY THE SUPERINTENDENT DURING CONSTRUCTION. SIMILARLY, THE FINISHED SURFACE LEVELS MAY BE ADJUSTED BY THE WRITTEN DIRECTION OF THE SUPERINTENDENT DURING CONSTRUCTION AFTER AMENDED DRAWINGS HAVE BEEN APPROVED BY COUNCIL.
8. ALL AREAS SUBJECT TO EARTHWORKS ARE TO BE FREE DRAINING WITH A MINIMUM SLOPE OF 1:100 (1%).
9. ALL DRAINAGE STRUCTURES ARE TO BE PRESERVED FROM THE EFFECTS OF STRUCTURAL LOADING GENERATED BY THE EARTHWORKS.
10. ANY AREA DISTURBED OUTSIDE OF THE WORKS AREA SHOWN SHALL BE REHABILITATED TO A MINIMUM OF THE PRE-CONSTRUCTION CONDITIONS, AT THE CONTRACTORS EXPENSE.
11. EARTHWORKS BATTERS ARE TO BE TREATED AS FOLLOWS:
    - 1:4 OR FLATTER TO BE GRASS SEEDED U.N.O
    - STEEPER THAN 1:4 TO BE MULCHED & PLANTED IN ACCORDANCE WITH THE LANDSCAPE PLANS
13. TREE REMOVAL WORKS TO BE UNDERTAKEN BY A SUITABLY QUALIFIED AND INSURED CONTRACTOR. TIMBER IS TO BE REMOVED, REUSED OR RECYCLES IN AN APPROPRIATE AND A SUSTAINABLE MANNER WHERE POSSIBLE.

STORMWATER DRAINAGE NOTES:

1. ALL STORMWATER DRAINAGE HAS BEEN DESIGNED AND IS TO BE CONSTRUCTED IN ACCORDANCE WITH AS3500, LOCAL COUNCIL AUTHORITY REQUIREMENTS, IPWEA AND QUDM.
2. EXCAVATION, BEDDING AND BACKFILLING OF STORMWATER DRAINAGE PIPES TO BE IN ACCORDANCE WITH IPWEA STD DRG DS-030.
3. ALL MANHOLES TO BE MIN 1050mm DIAMETER IN ACCORDANCE WITH IPWEA STD DRG DS-010.
4. ALL GRATES & MANHOLE COVERS LOCATED WITHIN ROADWAY TO BE SOLID DUCTILE CAST IRON CLASS 'D', AND WHERE NOT LOCATED WITHIN ROADWAY TO BE CLASS 'B' U.N.O, IN ACCORDANCE WITH IPWEA STD DRG DS-019 & DS-020.
5. ALL GULLY PITS TO BE LIP IN LIL (L.I.L) U.N.O IN ACCORDANCE WITH IPWEA STD DRG DS-063.
5. ALL FIELD INLETS TO BE IN ACCORDANCE WITH IPWEA STD DRG DS-050.
6. ALL REINFORCED CONCRETE PIPES ARE TO BE INSTALLED USING TYPE 'HS2' SUPPORT U.N.O AS DEFINED IN AS3725 - LOADS ON BURIED CONCRETE PIPES. IF ALTERNATIVE BEDDING METHODS ARE TO BE USED THE PIPE CLASS MUST BE REVIEWED.
7. ALL PIPES ABOVE 300Ø RCP TO BE RRJ CLASS 3 U.N.O. PIPES 300Ø AND BELOW TO BE UPVC U.N.O. HDPE/PP MAY BE USED AS AN RCP ALTERNATIVE FOR INTERNAL AND COUNCIL STORMWATER WHERE APPROVED BY THE SUPERVISING ENGINEER AND COUNCIL WHERE REQUIRED.
8. STORMWATER PIPE CLASSES HAVE BEEN DESIGNED FOR SERVICE LOADS ONLY, THE CONTRACTOR SHALL ASSESS ANTICIPATED CONSTRUCTION LOADS AND UPGRADE THE PIPE CLASSES, IF NECESSARY, IN ACCORDANCE WITH AS3725, AT THE CONTRACTORS COST.
9. UNLESS DIRECTED OTHERWISE STORMWATER STRUCTURES INCLUDING HEADWALLS ARE TO HAVE AG-PIPE DRAINAGE STUBS (WITH END CAP) TO DEWATER DRAINAGE TRENCH.
10. THE CONTRACTOR IS TO CONSIDER CONSTRUCTION LOADING ON EXISTING AND NEW STORMWATER PIPES AND STRUCTURES.
11. ALL PIPE PENETRATIONS WILL BE NEATLY MORTARED ON THE INSIDE FACE OF MANHOLES/PITS.
12. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL TRENCH EXCAVATION AND CONSTRUCTION IS IN ACCORDANCE WITH CURRENT CONSTRUCTION SAFETY ACT AND WORKPLACE HEALTH AND SAFETY LEGISLATION.
13. THE CONTRACTOR IS TO TAKE ALL POSSIBLE MEASURES TO ENSURE PROPER COMPACTION TO BACKFILLING OF TRENCHES AND STRUCTURES.
14. THE CONTRACTOR SHALL DEMONSTRATE NO DAMAGE TO EXISTING STORMWATER INFRASTRUCTURE HAS OCCURRED DURING THE CONSTRUCTION OF THESE WORKS.
15. UPON COMPLETION, ALL STORMWATER DRAINAGE INFRASTRUCTURE WILL BE CLEAR OF DEBRIS AND OTHER BLOCKAGES. THE CONTRACTOR IS TO PROVIDE A CCTV SURVEY OF ALL NEWLY CONSTRUCTED STORMWATER ASSETS FOR APPROVAL BY THE ENGINEER AND/OR LOCAL AUTHORITY.
16. ALL DEFECTS IDENTIFIED BY THE CCTV SURVEY WILL BE REPAIRED TO A SATISFACTORY STANDARD BY THE CONTRACTOR. PAYMENT FOR THESE REPAIRS WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR, UNLESS IT CAN BE DEMONSTRATED THAT THE IDENTIFIED DAMAGE WAS PRE-EXISTING AND THE RESPONSIBILITY OF OTHER PARTIES.
17. RESIDENTIAL DRAINAGE CONNECTIONS TO KERB AND CHANNEL IN ACCORDANCE WITH IPWEA STD DRG RS-081.

REINFORCED CONCRETE NOTES:

GENERAL

CONCRETE SHALL BE IN ACCORDANCE WITH AUSTRALIAN STANDARD SPECIFICATIONS
- AS 3600 - "SAA CONCRETE STRUCTURES CODE".

IN ADDITION TO THE ABOVE CODE THE FOLLOWING AUSTRALIAN STANDARD SPECIFICATIONS AND CODES OR THEIR LATEST REVISION SHALL APPLY:
- AS1012 PARTS 1-19 - METHODS FOR THE TESTING OF CONCRETE (METRIC UNITS)
- AS3583.1,2,3,8 - METHODS OF TEST FOR SUPPLEMENTARY CEMENTITIOUS MATERIALS FOR USE WITH PORTLAND CEMENT
- AS3582.1 - SUPPLEMENTARY CEMENTITIOUS MATERIALS FOR USE WITH PORTLAND CEMENT- FLY ASH
- AS1141 - METHODS FOR SAMPLING AND TESTING AGGREGATES
- AS1302 - STEEL REINFORCING BARS FOR CONCRETE
- AS1303 - HARD DRAWN STEEL REINFORCING WIRE FOR CONCRETE
- AS1304 - HARD DRAWN STEEL WIRE REINFORCING FABRIC FOR CONCRETE
- AS3972 - PORTLAND AND BLENDED CEMENTS
- AS1379 - READY-MIXED CONCRETE (METRIC UNITS)
- AS2758 - CONCRETE AGGREGATES
- AS1478, AS1479 - CODE OF PRACTICE FOR USE OF CHEMICAL ADMIXTURES IN CONCRETE
- AS3610 - FORMWORK FOR CONCRETE

SUPPLY

1. ALL CONCRETE IS TO BE SUPPLIED BY A LICENSED READY MIXED CONCRETE MANUFACTURER. NO ON SITE BATCHING IS ACCEPTABLE.
2. MANUFACTURERS MUST HAVE AN APPROVED AND CERTIFIED QUALITY ASSURANCE PROGRAM IN PLACE AND BE APPROVED BY THE ENGINEER PRIOR TO SUPPLY OF ANY CONCRETE.
3. ALL MATERIALS, STORAGE, BATCHING, ETC TO CONFORM TO THE REQUIREMENTS OF THE RELEVANT AUSTRALIAN STANDARDS.
4. ALL CONCRETE TO BE NORMAL-CLASS IN ACCORDANCE WITH AS3600 UNLESS NOTED OTHERWISE.
5. ALL CONCRETE SHALL HAVE A SHRINKAGE STRAIN NOT EXCEEDING 600 MICROSTRAIN.
6. ALL CONCRETE IS SPECIFIED BY 28 DAY COMPRESSIVE STRENGTH U.N.O.
7. ALL REINFORCEMENT TO BE SUPPLIED BY A REGISTERED MANUFACTURER WITH AN APPROVED AND CERTIFIED QUALITY
8. ASSURANCE PROGRAM IN PLACE. ALL REINFORCEMENT IS TO COMPLY WITH THE REQUIREMENTS OF AS1302, AS1303 AND AS1304 AS APPLICABLE.
9. ALL REINFORCEMENT IS TO BE DELIVERED TO SITE FREE FROM OIL, GREASE OR OTHER SURFACE COATINGS WHICH MAY IMPAIR BOND TO CONCRETE.
10. ALL REINFORCEMENT TO BE 500 MPA MINIMUM YIELD U.N.O.

FORMWORK

1. ALL CONCRETE OTHER THAN CAST AGAINST GROUND, SHALL BE PLACED AGAINST TIMBER, PLYWOOD OR STEEL FORMS.
2. ALL FORMWORK SHALL COMPLY WITH THE REQUIREMENTS OF AS15O9 AND AS151O.
3. REFER ARCHITECT'S DRAWINGS FOR REQUIRED FORMWORK CLASS WHERE APPLICABLE. CLASS B FORMWORK SHALL BE ADOPTED U.N.O.
4. ALL TEMPORARY FORMWORK, FALSEWORK, PROPPING, BRACING, TO BE DESIGNED AND CERTIFIED BY A REGISTERED PROFESSIONAL ENGINEER (RPEQ) PRIOR TO ERECTION.
5. ALL REINFORCEMENT TO BE SUPPORTED OFF FORMS WITH PLASTIC OR PLASTIC TIPPED WIRE CHAIRS TO PROVIDE THE SPECIFIED COVER. ALL CONCRETE CAST AGAINST GROUND TO BE UNDERLAIN BY WATERPROOF MEMBRANE.

TRANSPORT

1. ALL CONCRETE IS TO BE TRANSPORTED TO SITE IN AGITATOR TRUCKS. CONCRETE NOT PLACED WITHIN ONE HOUR AFTER BATCHING MAY BE REJECTED AT THE ENGINEER'S DISCRETION

PLACEMENT, COMPACTION AND FINISHING

1. CONCRETE TO BE PLACED IN FORMS BY HORIZONTAL 'CHUTING' NO MORE THAN 3m³, CONCRETE PUMPING OR KIBBLING. UNDER NO CIRCUMSTANCES SHALL CONCRETE BE INDUCED TO FLOW HORIZONTALLY BY USE OF VIBRATORS.
2. ALL CONCRETE SHALL BE PLACED CONTINUOUSLY BETWEEN CONSTRUCTION JOINTS AS DETAILED, IN SUCH A MANNER AS TO AVOID 'COLD JOINTS'. CONSTRUCTION JOINTS SHALL BE LOCATED AS DETAILED ON DRAWINGS OR AS INSTRUCTED IN WRITING BY THE ENGINEER.
3. ALL CONCRETE IS TO BE COMPACTED UPON PLACEMENT USING 5OMM DIAMETER VIBRATORS.
4. SLABS AND BEAMS ARE TO HAVE A FILM OF APPROVED ALPHATIC ALCOHOL APPLIED TO THE SURFACE, DIRECTLY AFTER SCREEDING, PRIOR TO FLOATING, REGARDLESS OF WEATHER CONDITIONS.
5. ADDITIONAL PROTECTIVE MEASURES SUCH AS CHILLED MIX WATER, SHADING PLACEMENT AREAS, WIND BREAKS, ETC MAY BE REQUIRED BY THE ENGINEER IF PLACING CONCRETE DURING UNUSUALLY HOT, DRY OR WINDY CONDITIONS.
6. ALL CONCRETE SLABS SHALL BE STEEL TROWEL FINISHED U.N.O.
7. BROOM FINISHING, WHERE SPECIFIED, SHALL BE CARRIED OUT AFTER STEEL TROWEL FINISHING.
8. ALL CONCRETE TO BE ORDERED AND PLACED AT 8OMM SLUMP U.N.O.
9. NO WATER TO BE ADDED ON SITE UNLESS APPROVED BY THE ENGINEER.

TESTING

1. ALL CONCRETE TESTING IS TO BE CARRIED OUT BY A NATA REGISTERED LABORATORY, IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF AS1012.
2. THE FOLLOWING TESTING SCHEDULE IS TO BE ADOPTED IN ADDITION TO THE REQUIREMENTS OF THE MANUFACTURER'S QUALITY ASSURANCE PROGRAM:
    - A MINIMUM OF ONE TEST (3 CYLINDERS) TO BE TAKEN FROM EACH ELEMENT CAST ON ANY GIVEN DAY (EG. COLUMNS, FOOTINGS, ETC)
    - A MINIMUM OF ONE TEST (3 CYLINDERS) TO BE TAKEN FROM EACH CONCRETE STRENGTH GRADE CAST ON ANY GIVEN DAY.
    - A MINIMUM OF ONE TEST (3 CYLINDERS) TO BE TAKEN FROM EACH 5OM³ OR PART THEREOF CAST ON A GIVEN DAY FOR EACH STRENGTH GRADE.
3. ALL SAMPLES ARE TO BE TAKEN FROM THE AGITATOR, ON SITE. IF WATER IS ADDED ON SITE, WITH THE ENGINEER'S PERMISSION, SAMPLES FOR TESTING SHALL BE TAKEN AFTER THE ADDITION OF WATER.

CURING

1. ALL CONCRETE IS TO BE CURED BY AN APPROVED METHOD FOR A MINIMUM OF 28 DAYS AFTER FINISHING. CURING METHOD IS TO BE APPROVED BY THE ENGINEER PRIOR TO CONCRETE PLACEMENT AND SHALL GENERALLY CONSIST OF ONE OR A COMBINATION OF THE FOLLOWING METHODS:
    - CONTINUOUS WATER PONDING.
    - COMPLETE ENCASEMENT IN A WATERPROOF FILM (EG. POLYTHENE).
    - APPLICATION OF AN APPROVED CURING COMPOUND.

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WARNING

BEWARE OF UNDERGROUND SERVICES

POSITION OF EXISTING UNDERGROUND SERVICES SHOWN IS APPROXIMATE ONLY. EXACT POSITION SHALL BE PROVEN ON SITE BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF CONSTRUCTION

LOCATION OF SERVICES

PRIOR TO COMMENCEMENT OF NEW WORK THE CONTRACTOR SHALL CONFIRM LOCATIONS, LEVELS AND DETAILS OF EXISTING CONNECTION POINTS AND SERVICE CROSSINGS BY POT HOLING. IF A VARIATION OCCURS CONTACT THE ENGINEER PRIOR TO CONSTRUCTION.

PROTECTION OF SERVICES

THE CONTRACTOR SHALL CONTACT THE RELEVANT AUTHORITIES AND ARRANGE FOR RELOCATION AND / OR PROTECTION OF EXISTING SERVICES AS REQUIRED TO SUIT SURROUNDING NEW WORK, CONSTRUCTION LOADINGS AND TO SUIT FINAL FINISHED SURFACE LEVELS AND GRADES.

SETTING OUT

DESIGN FINISHED SURFACE LEVELS OF STRUCTURES ARE FOR THE CONTRACTOR'S GUIDANCE ONLY. ACTUAL FINISHED LEVELS SHALL BE SET OUT AS DIRECTED ON-SITE IN KEEPING WITH THE REQUIREMENTS AND SPECIFICATIONS OF THE LOCAL AUTHORITY AND ACTUAL FINISHED GROUND LEVELS.

INSPECTIONS & HOLD POINTS:

- PRE-START MEETING
- SET OUT
- SUBGRADE PROOF-ROLLS
- CONCRETE PRE-POURS
- STORMWATER
- BIO BASIN MATERIALS & DRAINAGE
- PAVEMENT PRE SEAL
- FINAL INSPECTION
- ON MAINTENANCE

Rev	Revision Description	Date	Approved
A	FOR APPROVAL	19.08.25	GM

North Point

Scale

Horiz. Datum: LOCAL

Vert. Datum: AHD

RL Datum

Client: THOMPSON BUILDING GROUP

Consultant: ARCOS

CIVIL | STRUCTURAL | GEOTECHNICAL
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Project: WAREHOUSE DEVELOPMENT OPERATIONAL WORKS - CIVIL LOT 1127 AURA INDUSTRIAL PARK, BARINGA, QLD

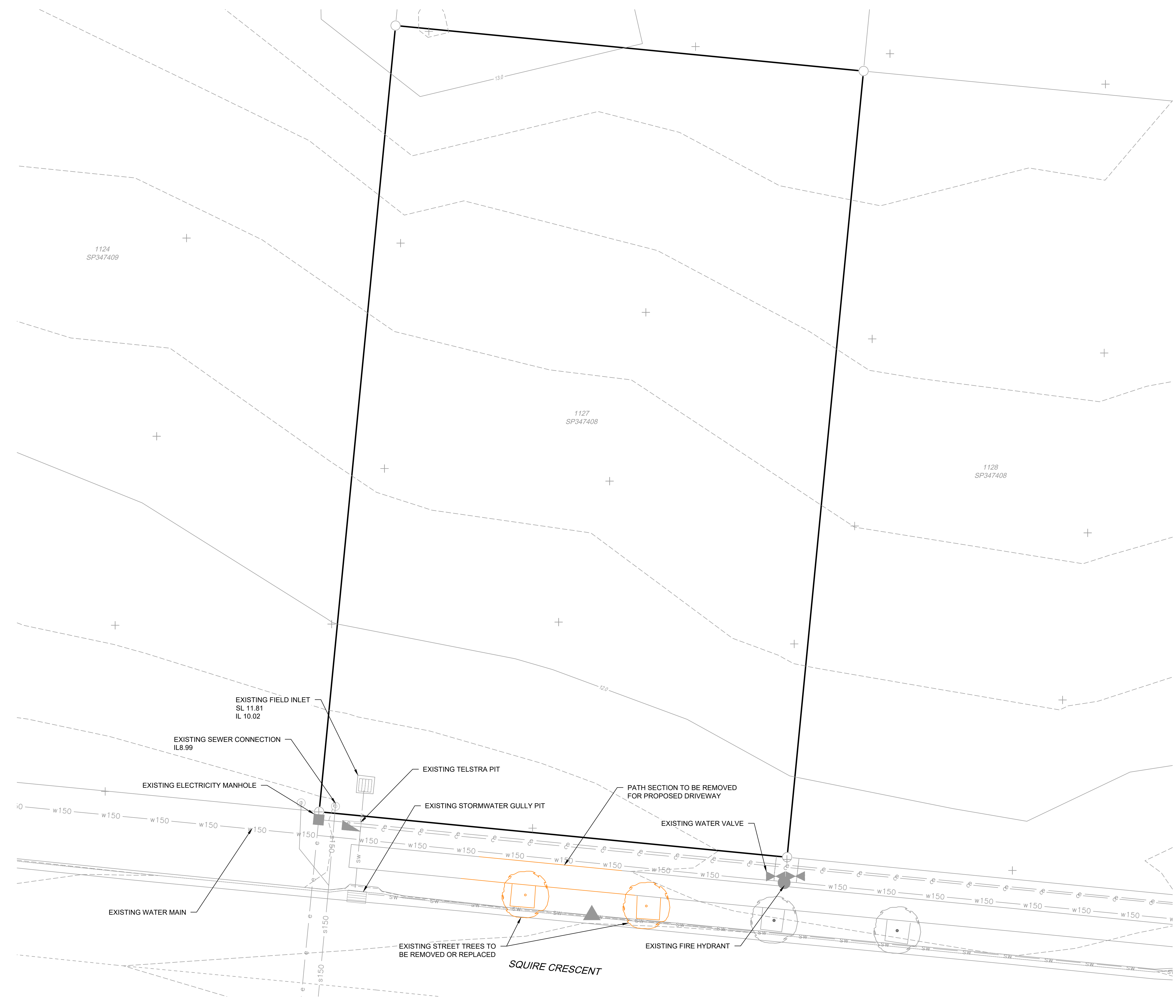
Drawn	KT
Design	HD
Check	GM

Drawing: GENERAL NOTES & DETAILS

Approved: GRANT MINCHEV, RPEQ 35023 | Approved Date: 19.08.25 | Signed

Project No.: 2500277 | Drawing No.: OPW-C-011 | Rev No.: A

Status: FOR APPROVAL | Sheet Size: A1



EXISTING LEGEND

- SUBJECT PROPERTY BOUNDARY
- 4.00 — MAJOR CONTOUR
- MINOR CONTOUR
- s150 — SEWER MAIN
- w150 — WATER MAIN
- c — U/G TELECOMMS
- e — ELECTRICAL U/G
- TO BE REMOVED

NOTES:

1. FOR GENERAL NOTES REFER DRG C-011.

DEMOLITION

DEMOLISH OR RELOCATE OFF SITE ALL EXISTING BUILDINGS AND/OR STRUCTURES ON SITE AND DISCONNECT AND WHERE REQUIRED CAP ALL ASSOCIATED SERVICES IN ACCORDANCE WITH A PLUMBING AND DRAINAGE APPLICATION PRIOR TO DEMOLITION COMMENCING.

CLEARING

THE CONTRACTOR SHALL REMOVE ALL EXISTING VEGETATION WITHIN THE SITE IN ACCORDANCE WITH THE APPROVED TREE RETENTION PLAN IF SPECIFIED.

Rev	Revision Description	Date	Approved
A	FOR APPROVAL	19.08.25	GM

North Point: N

Scale: 0m 3.125 6.25 — A1 1:125

Horiz. Datum: LOCAL
Vert. Datum: AHD
RL Datum

Client: THOMPSON BUILDING GROUP

Consultant: ARCOS
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Project: WAREHOUSE DEVELOPMENT OPERATIONAL WORKS - CIVIL LOT 1127 AURA INDUSTRIAL PARK, BARINGA, QLD

Drawn: KT
Design: HD
Check: GM
Approved: GRANT MINCHEV
RPEQ 35023
Approved Date: 19.08.25
Signed

Drawing: EXISTING FEATURES PLAN

Project No.: 2500277
Drawing No.: OPW-C-101
Rev No.: A
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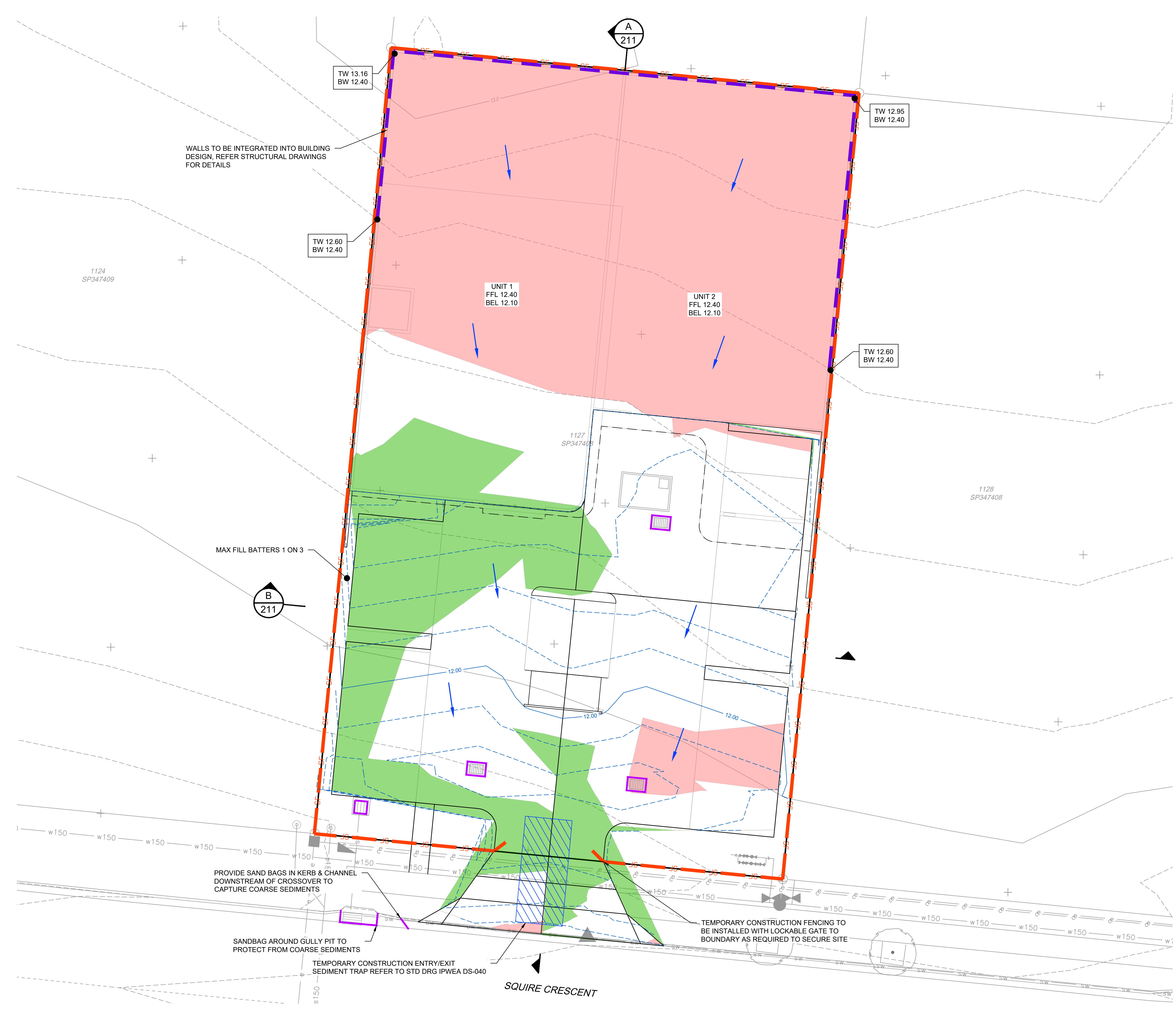


EXISTING LEGEND

- SUBJECT PROPERTY BOUNDARY
- 4.00 — MAJOR CONTOUR
- MINOR CONTOUR
- s150 — SEWER MAIN DN150
- w150 — WATER MAIN DN150
- c — U/G TELECOMMS
- e — ELECTRICAL U/G
- sw — STORMWATER
- / — / — FENCE
- X 20.000 — SURFACE LEVEL

PROPOSED LEGEND

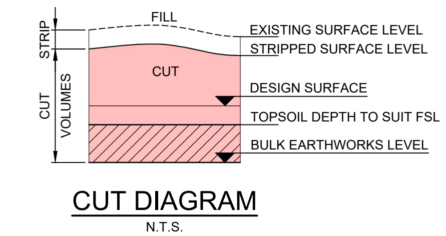
- CUT
- FILL
- 50.00 — MAJOR CONTOUR 0.5m INTERVAL
- MINOR CONTOUR 0.1m INTERVAL
- FLOW DIRECTION
- SF — SEDIMENT FENCE
- RETAINING WALL - BUILDING WORKS
- X 20.000 — DESIGN SURFACE LEVEL
- INLET PROTECTION

EARTHWORKS QUANTITIES

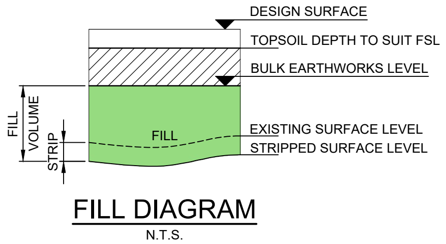
TOP SOIL STRIP:	227m^3
EARTHWORKS CUT:	-321m^3
EARTHWORKS FILL:	19m^3
BALANCE:	-302m^3

NOTES:
1. ALL VOLUMES INDICATED ARE SOLID VOLUMES.
2. ASSUMED TOP SOIL STRIP 150mm THICK.
3. EARTHWORKS QUANTITIES BASED ON COMPARISON BETWEEN SUBGRADE SURFACE AND STRIP SURFACE.

NOTES:
1. FOR GENERAL & EARTHWORKS NOTES REFER DRG C-011.
2. FOR EROSION & SEDIMENT CONTROL NOTES & DETAILS REFER DRG C-231.
3. RETAINING WALLS TO BE DESIGNED BY OTHERS/STRUCTURAL ENGINEER.



CUT DIAGRAM
N.T.S.



FILL DIAGRAM
N.T.S.

THE EROSION & SEDIMENT CONTROL PLAN IS A CONCEPT PLAN DEMONSTRATING AN APPROACH TO EROSION & SEDIMENTATION CONTROL FOR THE SITE. IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE AN EROSION & SEDIMENT CONTROL DESIGN AND A COMPLETED DESIGN CERTIFICATE PRIOR TO COMMENCEMENT OF WORK. CERTIFICATION MUST BE UNDERTAKEN BY A SUITABLY QUALIFIED, EXPERIENCED PROFESSIONAL.

Rev	Revision Description	Date	Approved
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North Point: N

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Drawn: KT
Design: HD
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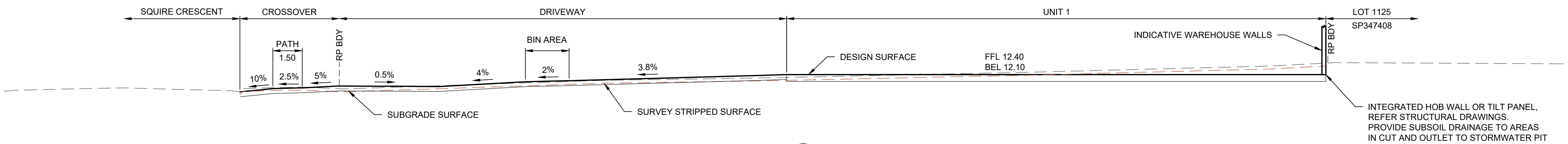
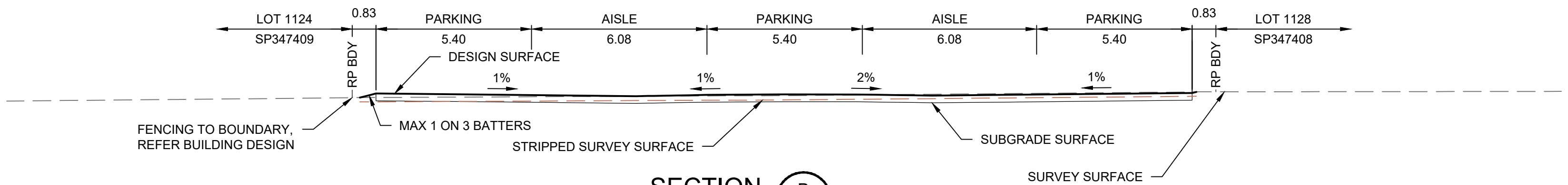
Approved: GRANT MINCHEV, RPEQ 35023
Approved Date: 19.08.25
Signed

Drawing: EARTHWORKS PLAN

Project No.: 2500277
Drawing No.: OPW-C-201
Rev No.: A
Status: FOR APPROVAL
Sheet Size: A1



SECTION A/201
SCALE 1:125



SECTION B/201
SCALE 1:125

Rev	Revision Description	Date	Approved
A	FOR APPROVAL	19.08.25	GM

North Point

Scale: 0m 3.125 6.25 (A1 1:125)

Horiz. Datum: LOCAL
Vert. Datum: AHD
RL Datum

Client: THOMPSON BUILDING GROUP

Consultant: ARCOS
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Project: WAREHOUSE DEVELOPMENT
OPERATIONAL WORKS - CIVIL
LOT 1127 AURA INDUSTRIAL PARK,
BARINGA, QLD

Drawn	KT
Design	HD
Check	GM

Approved: GRANT MINCHEV, RPEQ 35023
Approved Date: 19.08.25
Signed

Drawing: EARTHWORKS SECTIONS & DETAILS

Project No.	Drawing No.	Rev No.
2500277	OPW-C-211	A

Status: FOR APPROVAL
Sheet Size: A1

GENERAL:

1. TO BE READ IN CONJUNCTION WITH 'SEDIMENT CONTROL DEVICES', REFER STD DRG IPWEA DS-040 & DS-041.
2. TEMPORARY DRAINAGE CONTROL FLOW SHOULD BE DIVERTED AROUND THE WORK SITE WHERE POSSIBLE.
3. ALL DRAINAGE, EROSION AND SEDIMENT CONTROLS TO BE INSTALLED AND BE OPERATIONAL BEFORE COMMENCING UP-SLOPE EARTHWORKS.
4. CONTROL MEASURES TO BE INSPECTED AT LEAST WEEKLY AND AFTER SIGNIFICANT RUNOFF PRODUCING STORMS.
5. IN AREAS WHERE RUNOFF TURBIDITY IS TO BE CONTROLLED, EXPOSED SURFACES TO BE EITHER MULCHED, COVERED WITH EROSION CONTROL BLANKETS OR TURFED IF EARTHWORKS ARE EXPECTED TO BE DELAYED FOR MORE THAN I4 DAYS.
6. CONTROL MEASURES MAY BE REMOVED WHEN ON-SITE EROSION IS CONTROLLED AND 70% PERMANENT SOIL COVERAGE IS OBTAINED OVER ALL UPSTREAM DISTURBED LAND.
7. STRAW BALE SEDIMENT TRAPS ARE TO BE SECONDARY OPTION WHICH GENERALLY SHOULD NOT BE USED IF OTHER OPTIONS ARE AVAILABLE.
3. ALL CAPTURED RUNOFF MUST BE TREATED TO <75NTU PRIOR TO DISCHARGE.
4. SITE TO BE PROGRESSIVELY STABILISED, AIMING FOR 60% STABILISATION WITHIN 20 DAYS FROM START OF WORKS AND 70% OR GREATER WITHIN 2 MONTHS.
5. ALL INLET PITS TO BE PROTECTED IMMEDIATELY.
6. EROSION AND SEDIMENT CONTROL MEASURES TO BE PROGRESSIVELY REMOVED AS SITE STABILISATION IS ACHIEVED.

SEDIMENT CONTROL:

1. ALL SEDIMENT & EROSION CONTROL MEASURES TO BE IN ACCORDANCE WITH INTERNATIONAL EROSION CONTROL ASSOCIATION (IECA) AUSTRALIA GUIDELINES AND THE SPECIFICATIONS. THE BASIC PRINCIPLES ARE TO:
   - MINIMISE THE AREA OF DISTURBANCE;
   - CONTROL DRAINAGE PATHS UPSTREAM OF SITE AND AT OUTLETS FROM SITE;
   - MINIMISE EROSION;
   - MINIMISE SEDIMENTATION;
   - PROGRESSIVELY REVEGETATE AND REHABILITATE THE SITE
2. SEDIMENT & EROSION CONTROL DETAILS SHOWN ARE MINIMUM REQUIREMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSTALL ADDITIONAL CONTROL MEASURES AS DEEMED NECESSARY THROUGHOUT CONSTRUCTION.
3. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN ALL SEDIMENT CONTROL DEVICES IN A FUNCTIONAL ORDER AND REPLACE ALL BLOCKED SEDIMENT DEVICES AS REQUIRED UNTIL SUCCESSFUL OFF MAINTENANCE OF WORKS.
4. CONSTRUCTION OF ALL SEDIMENT MANAGEMENT DEVICES TO THE SATISFACTION OF THE SUPERINTENDENT. SHALL BE COMPLETED AND EFFECTIVE PRIOR TO:
   a. STRIPPING OF TOPSOIL AND GRASS.
   b. BULK EARTHWORKS TO THE SITE.
   c. SERVICES INSTALLATION.
   d. PAVEMENT CONSTRUCTION.
6. ALL SEDIMENT MANAGEMENT MEASURES ARE TO REMAIN IN PLACE UNTIL INSTRUCTION IS RECEIVED IN WRITING FROM THE SUPERINTENDENT TO REMOVE ALL OR PART OF THE SILT CONTROL APPLICATIONS.
7. BOTH TEMPORARY AND PERMANENT SEDIMENT MANAGEMENT/EROSION CONTROL DEVICES SHALL BE MAINTAINED AT A SUITABLE LEVEL/CONDITION THROUGHOUT CONSTRUCTION TO THE SATISFACTION OF THE SUPERINTENDENT. SEDIMENT FENCES ARE TO BE CLEANED OUT WHEN CAPACITY IS REDUCED BY 30%.
8. THE BULK EARTHWORKS AND SEDIMENT CONTROL LAYOUT PLAN SHALL BE READ IN CONJUNCTION WITH THE APPROVED DRAWINGS.
9. PRIOR TO COMMENCEMENT OF CONSTRUCTION APPROVAL IS TO BE OBTAINED FROM THE SUPERINTENDENT FOR THE LOCATION OF THE SITE ACCESS POINT AND WASH DOWN AREA WHICH ARE TO BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.
10. IF EROSION AND SEDIMENT CONTROL DEVICES HAVE BEEN FOUND TO BE DIFFERENT OR FAILED IN SERVICE, CORRECTIVE ACTION IS TO BE UNDERTAKEN IMMEDIATELY WHICH MAY INCLUDE AMENDMENTS' ADDITIONS TO THE ORIGINAL APPROVED EROSION CONTROL PLANS. SUCH AMENDMENTS ARE TO BE APPROVED BY SUPERINTENDENT, IF DEEMED NECESSARY AND RELEVANT.
11. SEDIMENT TRAP TO BE FLOCCULATED AND DE-SILTED AS NECESSARY.
12. WATER QUALITY TESTING / MONITORING TO BE UNDERTAKEN BY CONTRACTOR.

SEDIMENT FENCE:

1. NOT TO BE LOCATED IN AREAS OF CONCENTRATED FLOW.
2. NORMALLY LOCATED ALONG THE CONTOUR WITH A MAXIMUM CATCHMENT AREA 0.6Ha PER 100m LENGTH OF FENCE
3. WOVEN FABRICS ARE PREFERRED, NON-WOVEN FABRICS MAY BE USED ON SMALL WORK SITES, I.E. OPERATIONAL PERIOD LESS THAN 6 MONTHS OR ON SITES WHERE SIGNIFICANT SEDIMENT RUNOFF IS NOT EXPECTED
4. WHERE FENCES NEED TO BE LOCATED ACROSS THE CONTOUR THE LAYOUT SHALL CONFORM TO 'TYPICAL LAYOUT' ACROSS GRADE.
5. FENCES ARE REQUIRED 2m MIN. FROM TOE OF CUT OR FILL BATTERS, WHERE NOT PRACTICAL ONE FENCE CAN BE AT THE TOE WITH A SECOND FENCE 1m MIN AWAY. FENCE SHOULD NOT BE LOCATED PARALLEL WITH TOE IF CONCENTRATION OF FLOW WILL OCCUR BEHIND THE FENCE

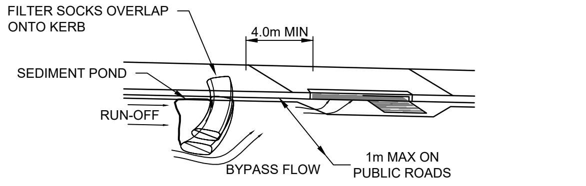
TEMPORARY CONSTRUCTION ENTRY / EXIT:

1. ADJACENT STORMWATER RUNOFF TO BE DIVERTED AWAY FROM ENTRY/EXIT.
2. WHEEL-WASH OR SPRAY UNIT MAY BE REQUIRED DURING WET WEATHER.

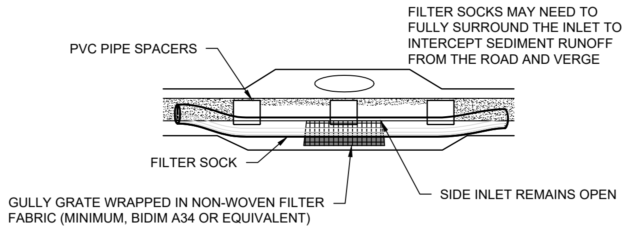
STANDARD SPECIFICATIONS:

DRAWING TO BE READ IN CONJUNCTION WITH INTERNATIONAL EROSION CONTROL ASSOCIATION (IECA) AUSTRALASIA BEST PRACTICES STANDARD DRAWINGS & SPECIFICATIONS. IECA STANDARD DRAWINGS GENERALLY AS LISTED BELOW BUT NOT LIMITED TO:

- EXIT-01 - CONSTRUCTION EXIT - ROCK PAD
- EXIT-02 - CONSTRUCTION EXIT - ROCK PAD
- EXIT-03 - ROCK PADS FOR BUILDING SITES
- CD-01 - CATCH DRAINS
- CD-02 - CATCH DRAINS - EARTH LINED
- RCD-01 - CHECK DAMS
- FF-01 - FILTER FENCE
- SF-01 - SEDIMENT FENCE
- SF-02 - SEDIMENT FENCE
- ESC-02 - GRATED STORMWATER (FIELD) INLET SEDIMENT TRAP
- ESC-03 - KERB INLET SEDIMENT TRAPS
- R-01 - RENEGOTIATION - GENERAL



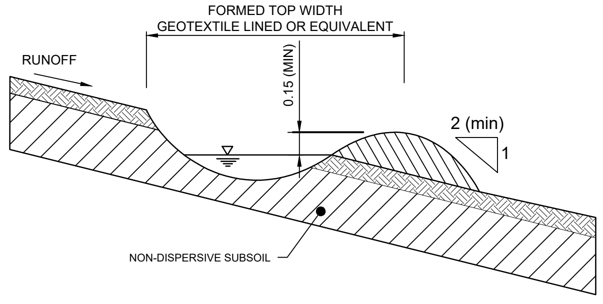
(a) ON-GRADE KERB INLET SEDIMENT TRAP



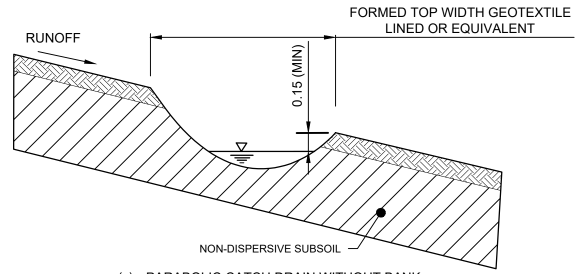
(b) SAG INLET SEDIMENT TRAP

KERB INLET PROTECTION

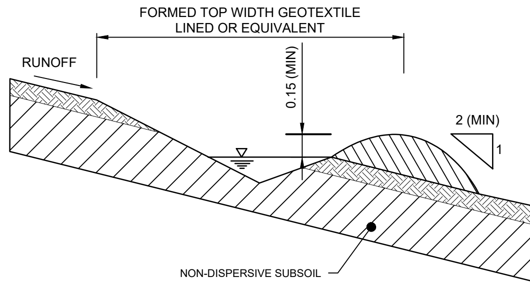
SCALE N.T.S.



(a) PARABOLIC CATCH DRAIN WITH DOWN-SLOPE BANK



(c) PARABOLIC CATCH DRAIN WITHOUT BANK



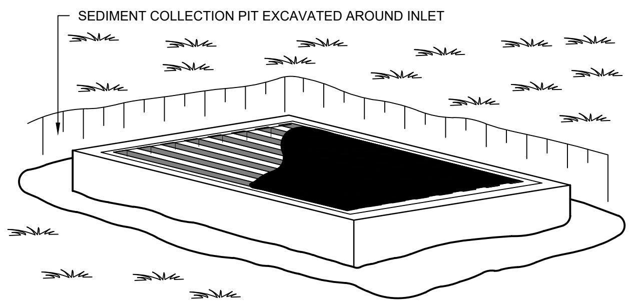
(b) TRIANGULAR V-DRAIN WITH DOWN-SLOPE BANK

CONSTRUCTED DIMENSIONS OF PARABOLIC CATCH DRAINS		
DRAIN TYPE	FORMED TOP WIDTH WITH OR WITHOUT BANK	FORMED DEPTH WITH OR WITHOUT BANK
TYPE - A	1.6m	0.3m
TYPE - B	2.4m	0.45m
TYPE - C	3.6m	0.65m

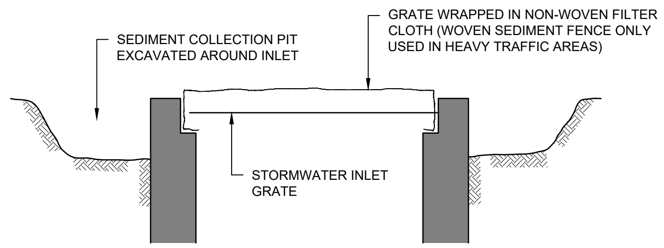
CONSTRUCTED DIMENSIONS OF TRIANGULAR V-DRAINS		
DRAIN TYPE	FORMED TOP WIDTH WITH OR WITHOUT BANK	FORMED DEPTH WITH OR WITHOUT BANK
TYPE - AV	2.0m	0.3m
TYPE - BV	2.7m	0.45m
TYPE - CV	3.9m	0.65m

LINED CATCH DRAIN

SCALE N.T.S.



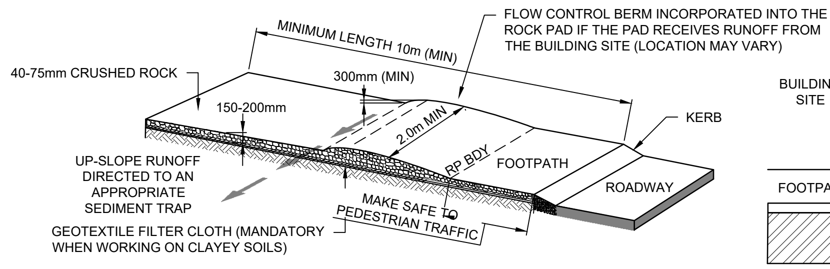
(a) FABRIC WRAP DROP INLET PROTECTION WITH TRENCH



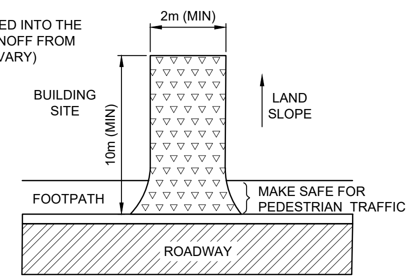
(b) TYPICAL DETAILS OF EXCAVATED SEDIMENT COLLECTION TRENCH

FIELD INLET PROTECTION

SCALE N.T.S.



(a) ROCK ENTRY/EXIT PAD FOR BUILDING SITES



(b) ROCK PAD SLOPING AWAY FROM ROAD

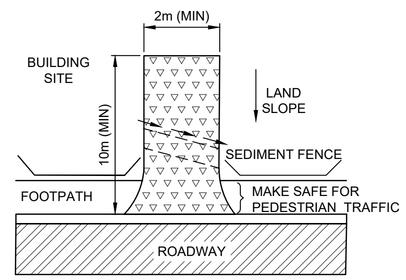
CONSTRUCTION NOTES:

MATERIALS

1. ROCK: WELL GRADED, HARD, ANGULAR, EROSION RESISTANT ROCK, NOMINAL DIAMETER OF 40 TO 75mm.
2. FOOTPATH STABILISING AGGREGATE: 25 TO 50mm GRAVEL OR AGGREGATE (IF REQUIRED).
3. GEOTEXTILE FABRIC: HEAVY-DUTY, NEEDLE-PUNCHED, NON-WOVEN FILTER CLOTH ('BIDIM' A24 OR EQUIVALENT).

INSTALLATION

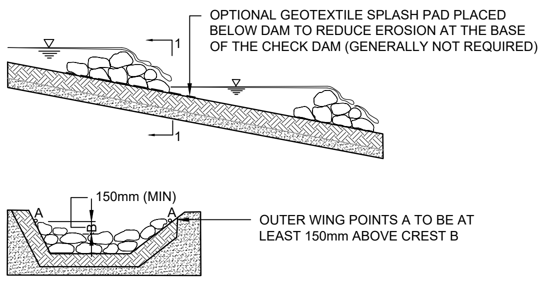
4. INSPECT ALL SITE ENTRY AND EXIT POINTS PRIOR TO FORECAST RAIN, DAILY DURING EXTENDED PERIODS OF RAINFALL, AFTER RUNOFF-PRODUCING RAINFALL, OR OTHERWISE AT FORTNIGHTLY INTERVALS.
5. IF SAND, SOIL, SEDIMENT OR MUD IS TRACKED OR WASHED ONTO THE ADJACENT SEALED ROADWAY, THEN SUCH MUST BE PHYSICALLY REMOVED, FIRST USING A SQUARE-EDGED SHOVEL, AND THEN A STIFF-BRISTLED BROOM, AND THEN BY A MECHANICAL VACUUM UNIT, IF AVAILABLE.
6. IF NECESSARY FOR SAFETY REASONS, THE ROADWAY SHALL ONLY BE WASHED CLEAN AFTER ALL REASONABLE EFFORTS HAVE BEEN TAKEN TO SHOVEL AND SWEEP THE MATERIAL FROM THE ROADWAY.
7. WHEN THE VOIDS BETWEEN THE ROCK BECOMES FILLED WITH MATERIAL AND THE EFFECTIVENESS OF THE ROCK PAD IS REDUCED TO A POINT WHERE SEDIMENT IS BEING TRACKED OFF THE SITE, A NEW 100mm LAYER OF ROCK MUST BE ADDED AND/OR THE ROCK PAD MUST BE EXTENDED.
8. ENSURE ANY ASSOCIATED DRAINAGE CONTROL MEASURES (e.g. FLOW CONTROL BERM) ARE MAINTAINED IN ACCORDANCE WITH THEIR DESIRED OPERATIONAL CONDITION.
9. DISPOSE OF SEDIMENT AND DEBRIS IN A MANNER THAT WILL NOT CREATE AN EROSION OR POLLUTION HAZARD.



(c) ROCK PAD SLOPING TOWARD THE ROAD

ROCK PADS FOR BUILDING SITES

SCALE N.T.S.

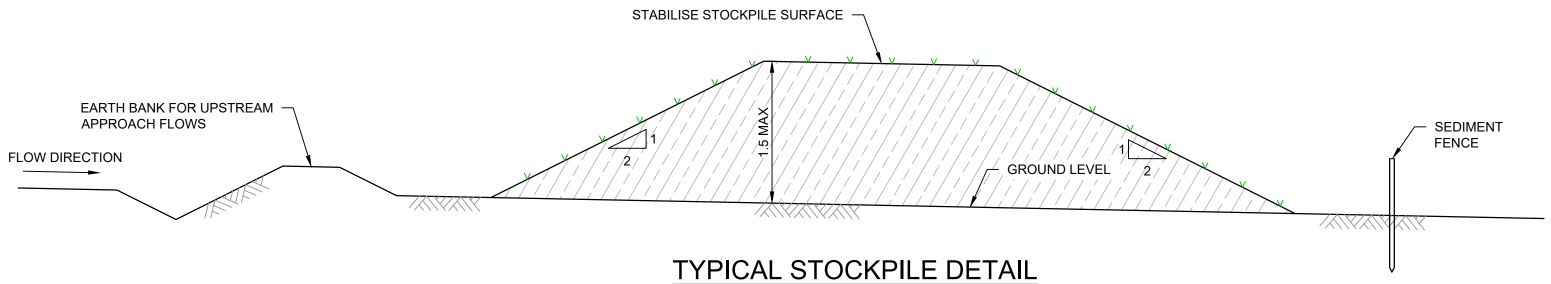


SECTION 1-1

FIGURE 1 - LAYOUT PROFILE OF CHECK DAMS (ROCK CHECK DAMS SHOWN)

ROCK CHECK DAMS

SCALE N.T.S.



TYPICAL STOCKPILE DETAIL

SCALE N.T.S.

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Drawing: EROSION & SEDIMENT CONTROL NOTES & STANDARD DETAILS

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Drawing No.: OPW-C-231
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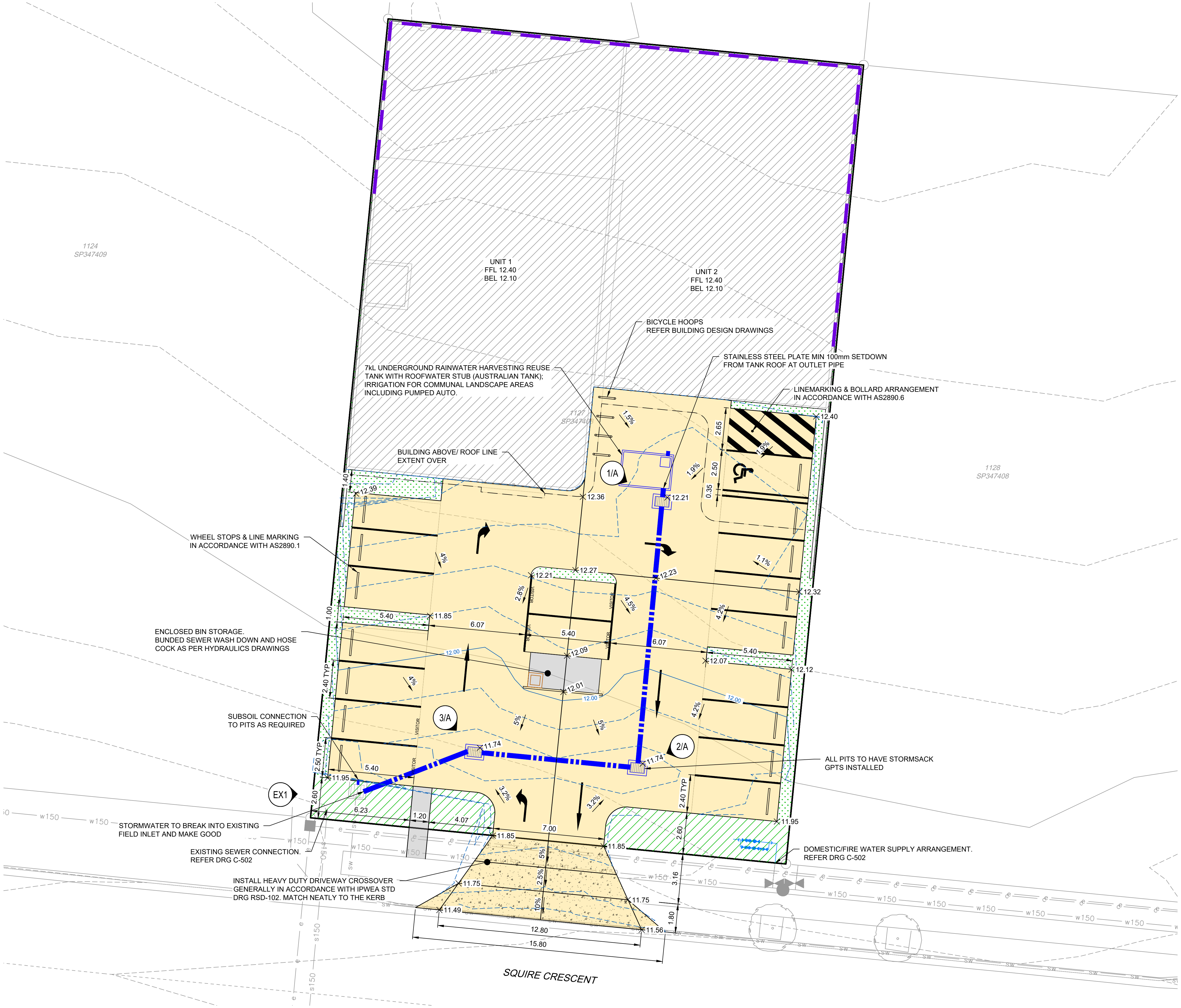

EXISTING LEGEND

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- 4.00 MAJOR CONTOUR
- MINOR CONTOUR
- s150 SEWER MAIN DN150
- w150 WATER MAIN DN150
- c U/G TELECOMMS
- e ELECTRICAL U/G
- sw STORMWATER
- / FENCE
- X 20.000 SURFACE LEVEL

PROPOSED LEGEND

- CONCRETE DRIVEWAY CROSSOVER
- INTERNAL CONCRETE DRIVEWAY
- CONCRETE PATH
- DWELLING
- LANDSCAPE
- LANDSCAPE BUFFER
- RETAINING WALL - BUILDING WORKS
- STORMWATER
- 50.00 MAJOR CONTOUR 0.5m INTERVAL
- MINOR CONTOUR 0.1m INTERVAL
- X 20.000 SURFACE LEVEL
- 3% CROSSFALL/SLOPE
- SYMBOLS

NOTES:

1. FOR GENERAL & ROADWORKS/DRIVEWAY NOTES REFER DRG C-011.

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Drawn	KT
Design	HD
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Approved Date: 19.08.25
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Drawing: DEVELOPMENT SITE PLAN

Project No.: 2500277
Drawing No.: OPW-C-301
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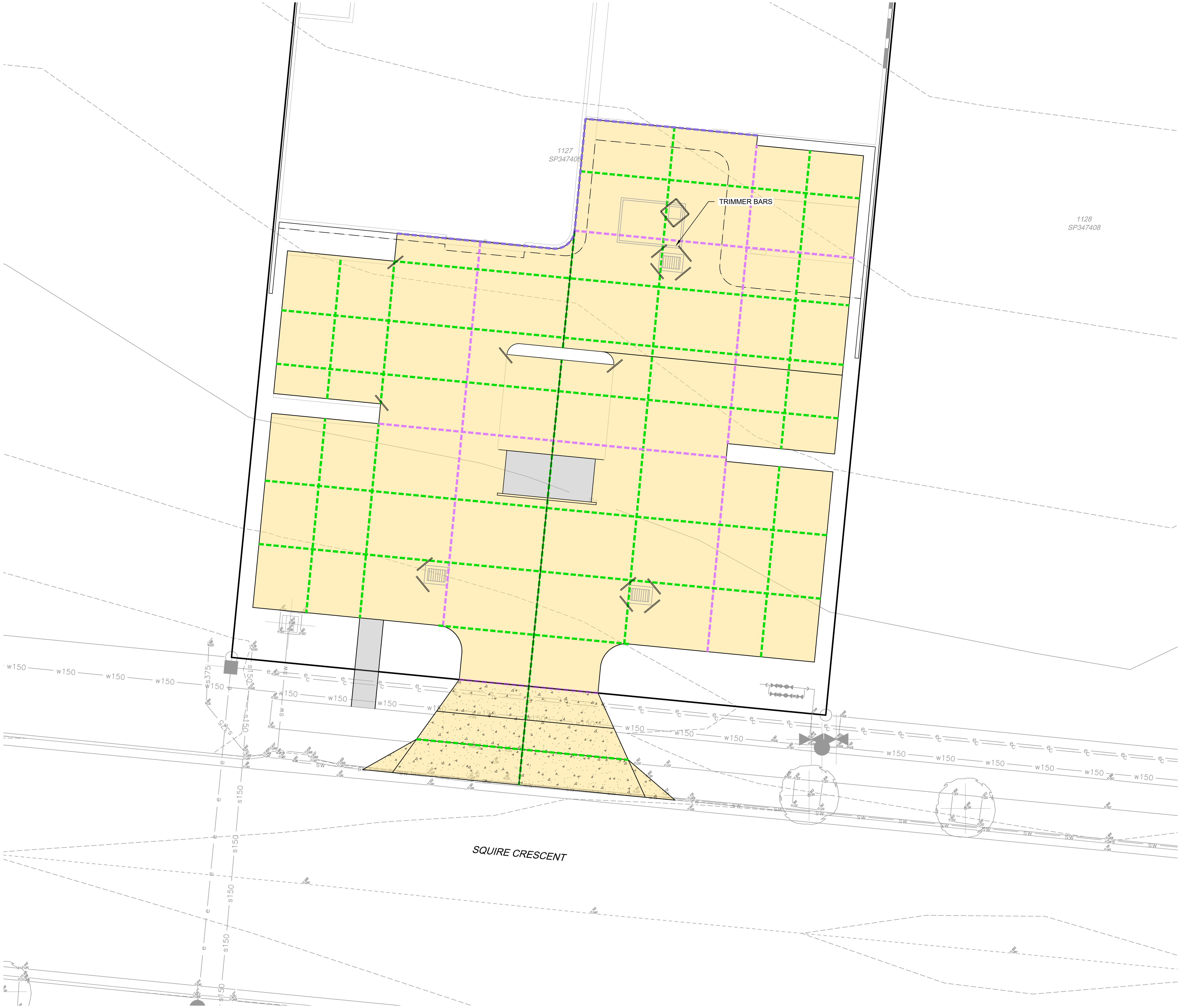

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- w150 WATER MAIN DN150
- c U/G TELECOMMS
- e ELECTRICAL U/G
- sw STORMWATER
- / / / FENCE
- × 20.000 SURFACE LEVEL

PROPOSED LEGEND

- CONCRETE DRIVEWAY CROSSOVER
- INTERNAL CONCRETE DRIVEWAY
- CONCRETE PATH
- CONTROL JOINT (CJ)
- EXPANSION JOINT (EJ & KJ)
- ISOLATION JOINT (IJ)

NOTES:

1. FOR GENERAL NOTES REFER DRG C-011.
2. FOR CONCRETE DETAILS REFER TO DRG C-372.

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Consultant: ARCOS
CIVIL | STRUCTURAL | GEOTECHNICAL
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Project: WAREHOUSE DEVELOPMENT OPERATIONAL WORKS - CIVIL LOT 1127 AURA INDUSTRIAL PARK, BARINGA, QLD

Drawn	KT
Design	HD
Check	GM

Drawing: CONCRETE JOINTING PLAN

Approved: GRANT MINCHEV RPEQ 35023 — Approved Date: 19.08.25 — Signed

Project No.: 2500277 — Drawing No.: OPW-C-371 — Rev No.: A

Status: FOR APPROVAL — Sheet Size: A1

DOWEL BAR SCHEDULE U.N.O

SLAB THICKNESS (mm)	DIA. (mm)	MIN LENGTH (mm)	MAX SPACING (mm)
125	16	350	300
150	20	400	300
150-200	24	450	300

TABLE IN ACCORDANCE WITH AS3727

CONCRETE DETAILS

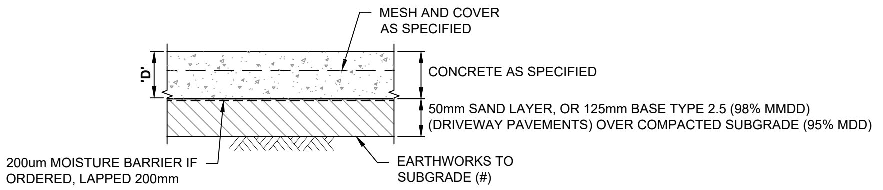
	HEAVY DUTY DRIVEWAY CROSSOVER	PATHS	INTERNAL HEAVY DUTY DRIVEWAY	INTERNAL BIN PADS
DEPTH (D)	175mm	125mm	150mm	125mm
CONC. STRENGTH (f'c)	32 MPa	32 MPa	32 MPa	25 MPa
REINF. MESH	SL82	SL72	SL82	SL72

TABLE IN ACCORDANCE WITH COUNCIL REQUIREMENTS AND AS3727

MESH COVER

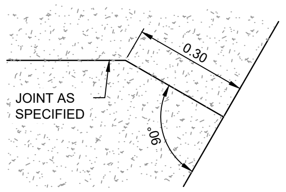
TOP	50mm
SIDES	50mm
SIDE (CONTROL JOINT)	75mm (FORMED JOINT) 75mm (WEAKENED PLANE JOINT)

NOTE:
- SUBGRADE (MIN CBR 5%) TO BE CONFIRMED BY 4 DAY SOAKED CBR TESTING
- CONCRETE PATH JOINTS IN ACCORDANCE WITH IPWEA RS-065 FOR PATHS
- HARDSTAND CONSTRUCTION AND JOINTING TO BE IN ACCORDANCE WITH THE 'GUIDE TO RESIDENTIAL STREETS & PATHS' - CEMENT AND CONCRETE ASSOCIATION OF AUSTRALIA FOR DRIVEWAYS



TYPICAL CONCRETE PAVEMENT

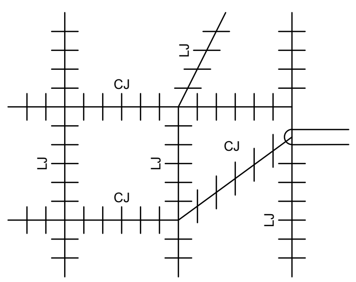
SCALE N.T.S



JOINT TERMINATION DETAIL OBLIQUE SLAB EDGE

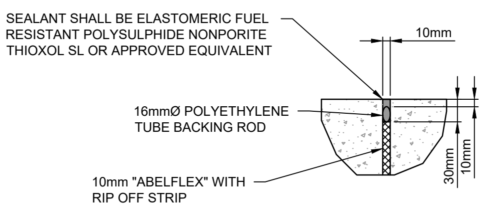
SCALE N.T.S

NOTE: WHERE CONTRACTION JOINTS ARE SKEW TO THE MAIN JOINTING LAYOUT. ENSURE THAT DOWELS ARE ALIGNED PARALLEL WITH THE MAIN JOINTING LAYOUT.



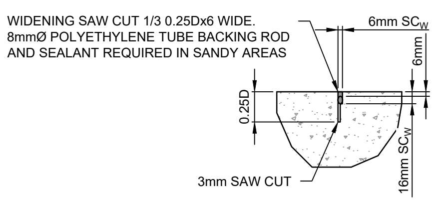
DOWEL ORIENTATIONS

SCALE N.T.S



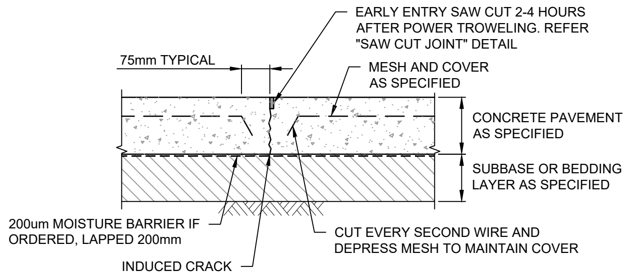
FORMED JOINT

SCALE N.T.S



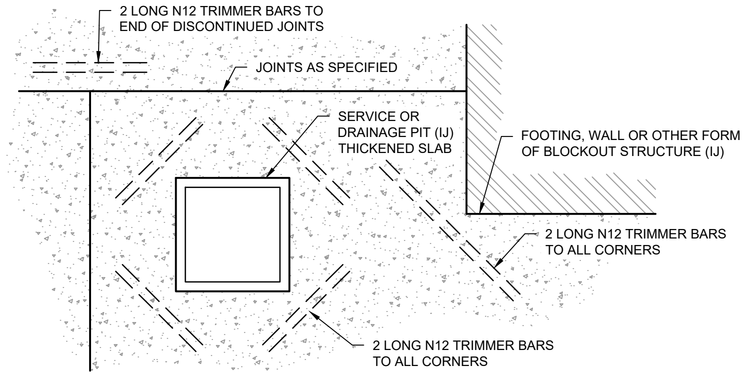
SAW CUT JOINT

SCALE N.T.S



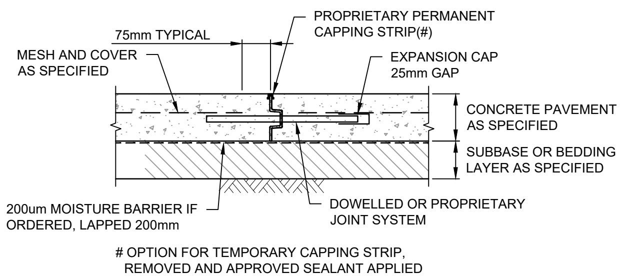
SAWN CONTRACTION JOINT (CJ)

SCALE N.T.S
(MAX JOINT SPACING; PATHS 2m NOM OR PATH WIDTH, SLABS 6m OR 1.5 TIMES WIDTH OF SLAB PANEL)



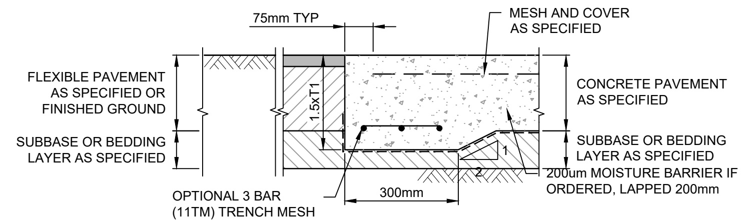
TYPICAL TRIMMER BAR ARRANGEMENT AT INTERNAL CORNERS

SCALE N.T.S



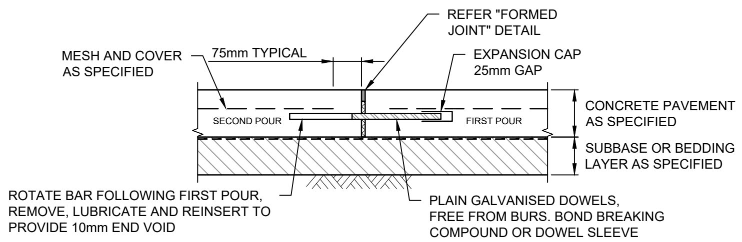
EXPANSION JOINT (KJ) WITH KEY

SCALE N.T.S
(MAX JOINT SPACING; 12m)



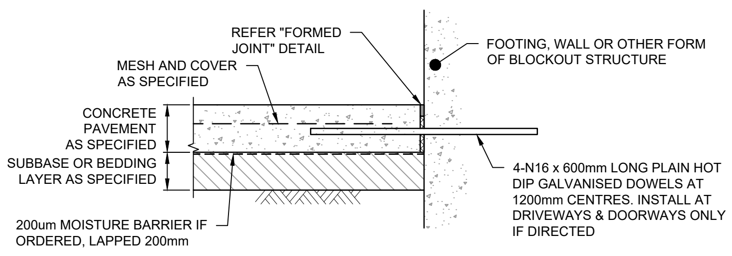
CONCRETE EDGE THICKENING (ET1)

SCALE N.T.S



EXPANSION JOINT (EJ), DOWEL BAR

SCALE N.T.S



ISOLATION JOINT ABUTTING STRUCTURE (IJ)

SCALE N.T.S

Rev	Revision Description	Date	Approved
A	FOR APPROVAL	19.08.25	GM

North Point

Scale: 0m 0.125 0.25 — A1 1:5; 0m 0.25 0.5 — A1 1:10

Horiz. Datum: LOCAL
Vert. Datum: AHD
RL Datum

Client: THOMPSON BUILDING GROUP

Consultant: ARCOS
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Project: WAREHOUSE DEVELOPMENT OPERATIONAL WORKS - CIVIL LOT 1127 AURA INDUSTRIAL PARK, BARINGA, QLD

Drawn: KT
Design: HD
Check: GM
Approved: GRANT MINCHEV RPEQ 35023
Approved Date: 19.08.25
Signed

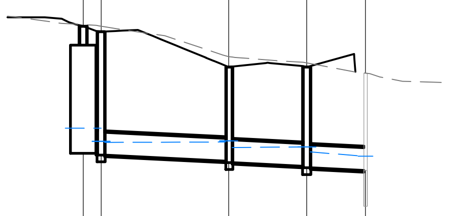
Drawing: CONCRETE JOINTING DETAILS

Project No.: 2500277
Drawing No.: OPW-C-372
Rev No.: A
Status: FOR APPROVAL
Sheet Size: A1

STRUCTURE NAME	1/A	2/A	3/A	4/A	EX1
STRUCTURE DESCRIPTION	TANK	STD FIELD INLET 900x600	STD FIELD INLET 900x600	STD FIELD INLET 900x600	EXISTING PIT

PIT SIZE

REFER TO IPWEA DS-050	
0-1.0 DEPTH	600mm x 600mm
1-1.5 DEPTH	600mm x 900mm
0-2.0 DEPTH	900mm x 900mm
2.0 GREATER	STANDARD MH WITH APPROVED INLET



	1/A – 2/A	2/A – 3/A	3/A – 4/A	4/A – EX1
PIPE SIZE (mm)	300	300	300	300
PIPE CLASS & TYPE	PP SN8	PP SN8	PP SN8	PP SN8
PIPE GRADE (%)	0.50%	0.50%	0.51%	0.51%
PIPE SLOPE (1 in X)	200.0	201.3	196.1	197.0
FULL PIPE VELOCITY (m/s)	0.60	0.66	0.81	1.02
NORMAL DEPTH VELOCITY (m/s)	1.35	1.38	1.46	1.53
PIPE FLOW (cumecs)	0.043	0.047	0.057	0.072
CAPACITY FLOW (cumecs)	0.099	0.098	0.100	0.100

DATUM RL 4.000

	1/A	2/A	3/A	4/A	EX1
HGL IN PIPE & WSE IN STRUCTURE	10.933 / 10.760	10.759 / 10.745	10.750 / 10.767 / 10.677	10.685 / 10.619	10.563
NATURAL SURFACE LEVEL	12.304	12.282	11.880	11.797	11.661
INVERT LEVEL	10.600	10.599 / 10.578	10.498 / 10.478	10.430 / 10.410	10.374 / 10.374
DEPTH TO INVERT	1.681	1.611 / 1.631	1.245 / 1.265	1.313 / 1.333	1.287 / 1.287
SETOUT LEVEL	12.281	12.209	11.742	11.742	11.661
SETOUT COORDS	4574.226 E 24262.438 N	4575.296 E 24260.525 N	4573.666 E 24243.747 N	4563.439 E 24244.741 N	4556.067 E 24242.301 N
CHAINAGE	0.000	2.363	19.220	29.535	37.301

	1/A – 2/A	2/A – 3/A	3/A – 4/A	4/A – EX1
CHAINAGE (length)	0.244m	16.107m	9.415m	7.090m

LINE A

Rev	Revision Description	Date	Approved
A	FOR APPROVAL	19.08.25	GM

North Point

Scale: 0m 1.25 2.5 A1 1:50; 0m 12.5 25 A1 1:500

Horiz. Datum: LOCAL
Vert. Datum: AHD
RL Datum

Client: THOMPSON BUILDING GROUP

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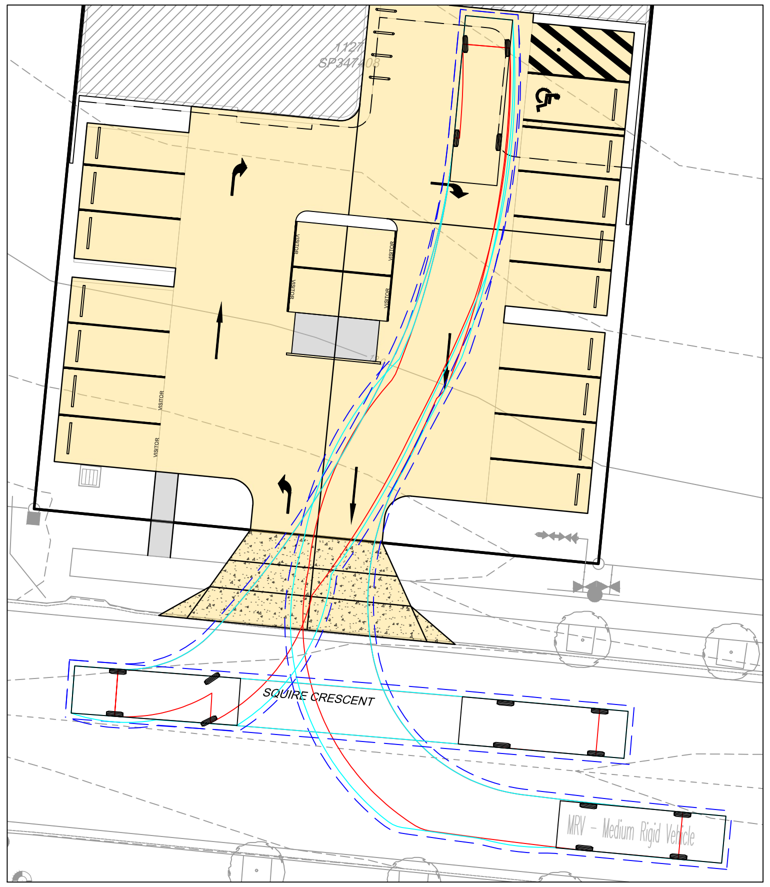
Project: WAREHOUSE DEVELOPMENT OPERATIONAL WORKS - CIVIL LOT 1127 AURA INDUSTRIAL PARK, BARINGA, QLD

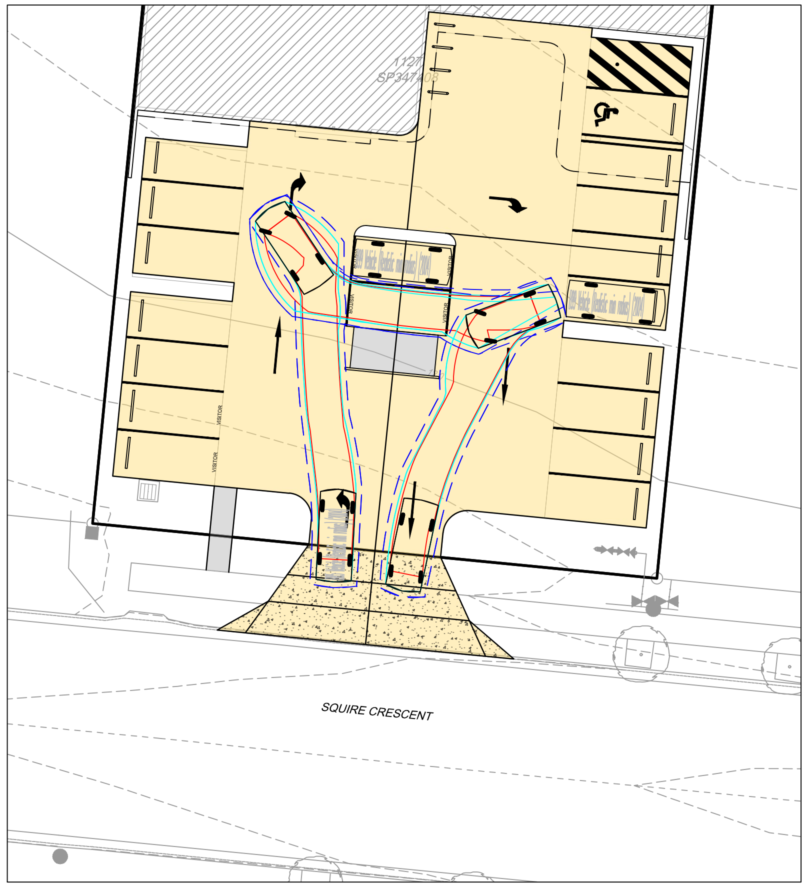
Drawn: KT
Design: HD
Check: GM
Approved: GRANT MINCHEV RPEQ 35023
Approved Date: 19.08.25
Signed

Drawing: STORMWATER LONGITUDINAL SECTIONS

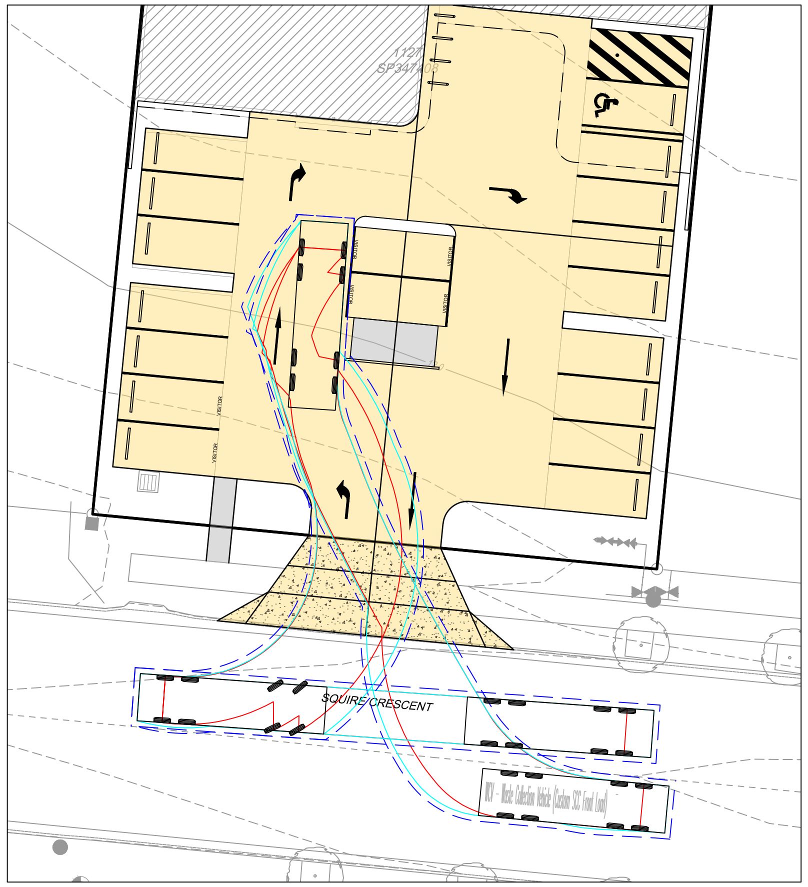
Project No.: 2500277
Drawing No.: OPW-C-411
Rev No.: A
Status: FOR APPROVAL
Sheet Size: A1



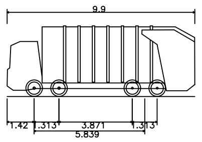
MRV - ACCESS & SERVICING
SCALE 1:200



B85 ISLAND PARKING
SCALE 1:200

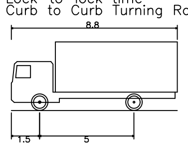


WCV ACCESS
SCALE 1:200



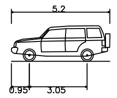
WCV – Waste Collection Vehicle (Custom SCC Bulk Front Load

Overall Length	9.900m
Overall Width	2.500m
Overall Body Height	3.752m
Min Body Ground Clearance	0.304m
Track Width	2.500m
Lock–to–lock time	6.00s
Curb to Curb Turning Radius	11.050m



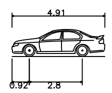
MRV – Medium Rigid Vehicle

Overall Length	8.800m
Overall Width	2.500m
Overall Body Height	3.633m
Min Body Ground Clearance	0.428m
Track Width	2.500m
Lock–to–lock time	4.00s
Curb to Curb Turning Radius	10.000m



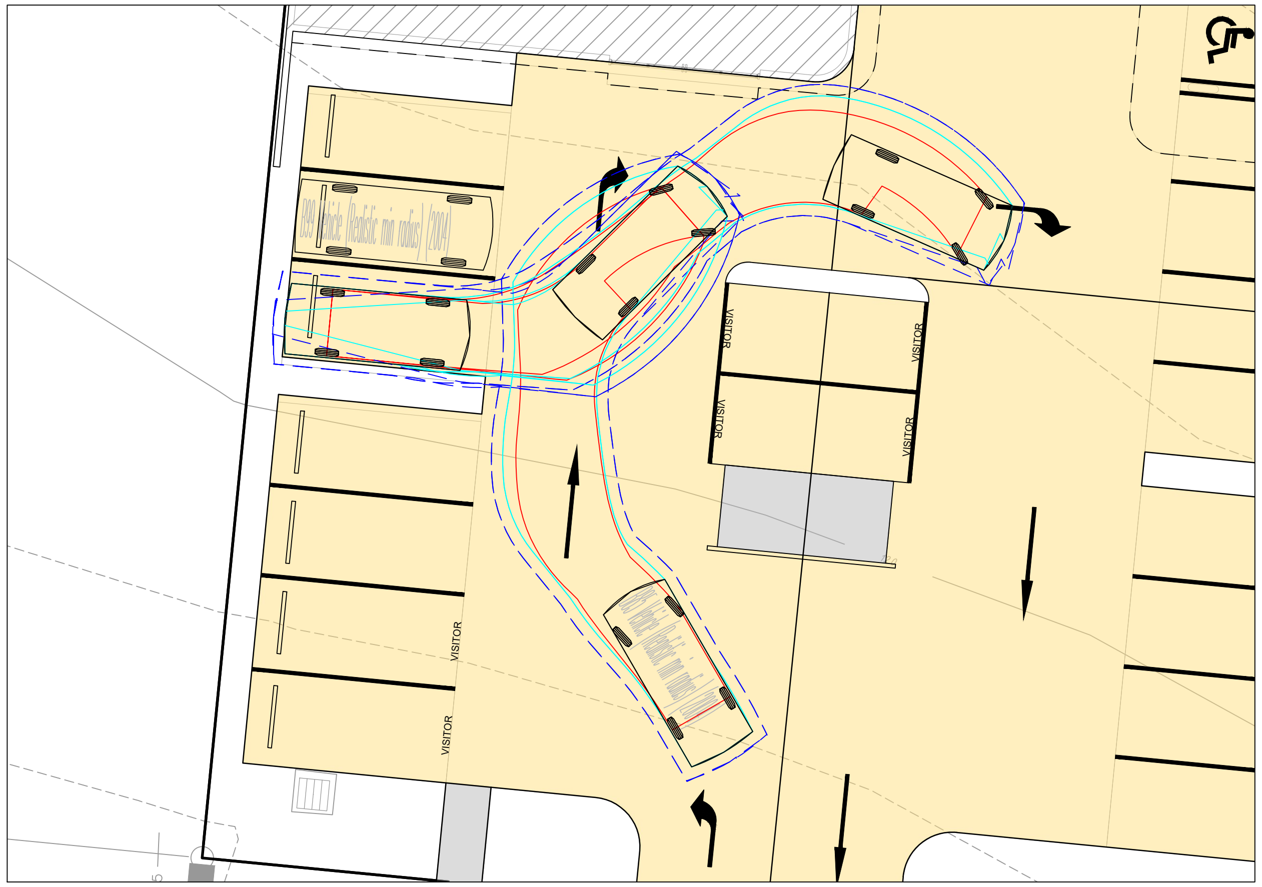
B99 Vehicle (Realistic min radius) (2004)

Overall Length	5.200m
Overall Width	1.940m
Overall Body Height	1.878m
Min Body Ground Clearance	0.272m
Track Width	1.840m
Lock–to–lock time	4.00s
Curb to Curb Turning Radius	6.250m

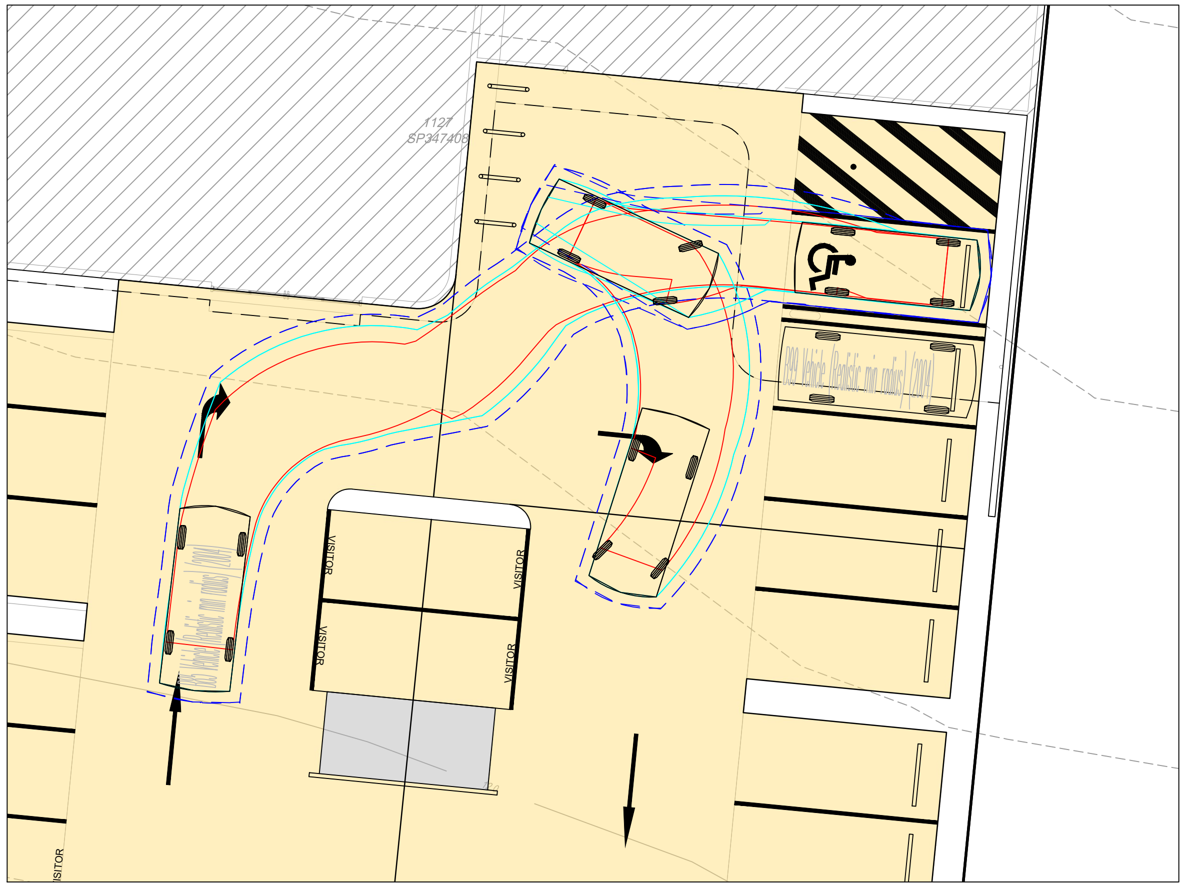


B85 Vehicle (Realistic min radius) (2004)

Overall Length	4.910m
Overall Width	1.870m
Overall Body Height	1.421m
Min Body Ground Clearance	0.159m
Track Width	1.770m
Lock–to–lock time	4.00s
Curb to Curb Turning Radius	5.750m



B85 - PARKING
SCALE 1:100



B85 - PWD PARKING
SCALE 1:100

Rev	Revision Description	Date	Approved
B	EDQ RESPONSE	14.10.25	GM
A	FOR APPROVAL	19.08.25	GM

North Point: N

Scale: 0m 2.5 5 (A1 1:100); 0m 5 10 (A1 1:200)

Horiz. Datum: LOCAL
Vert. Datum: AHD
RL Datum

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Drawn: KT
Design: HD
Check: GM
Approved: GRANT MINCHEV, RPEQ 35023
Approved Date: 19.08.25
Signed

Drawing: VEHICLE TRACKING PLAN

Project No.: 2500277
Drawing No.: SKT-C-001
Rev No.: B
Status: FOR APPROVAL
Sheet Size: A1