Queensland Government

Stantec

Aura Town Centre, Urban Village 2, Engineering Services Report

Prepared for Stockland Development Pty Ltd

Reference no. 304700147 | 28 August 2025

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Revision	Date	Description	Author	Quality Check	Independent Review
1	25/02/2025	Draft for Review	JC	LH	LH
2	30/04/2025	Further Issues Letter Response	TE	LH	LH
3	28/08/2025	Further Issues Letter Response	TE	LH	LH

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APPENDICES

1 Introduction

Stantec has been commissioned by Stockland Development Pty Ltd to provide an engineering assessment of the proposed Aura Town Centre Urban Village 2 Development. The development is located within Precinct 9 of the Caloundra South Priority Development Area (PDA).

The proposed development is bound by Aura Boulevard, Jubilee Street, Festival Street and Celebration Street. The site is located within Bells Creek in the Sunshine Coast and is proposed to be accessed via Bells Creek Arterial Road, which is connected to the development via Central Avenue.

The development under the current proposal generally consists of 175 lots (terrace lots), 4 high density sites (6-7 storeys), 1 neighbourhood centre, and 1 childcare centre, in total, 181 lots.

The proposed layout of the precinct is generally described below in **Figure 1**.

Figure 1 Proposed Aura Town Centre Urban Village 2 Development

2 Existing Site Characteristics

The Aura Town Centre Precinct 9 development is located east of the Bruce Highway, north of the Bells Creek Road/Roys Road overpass. The development footprint for the precinct covers an area of approximately 9.15 hectares. The land area subject to the current application is approximately 9.15 hectares located North of the existing Festival Street, Bells Creek.

Bulk Earthworks operations are being completed within the footprint of the development site currently as part of master development works to achieve developable levels within the Aura Town Centre area. Only minor earthworks are required to finalise site levels for Urban Village 2, which will be completed at the time of construction.

The site naturally grades towards the eastern boundary of the site via a central overland flow corridor which discharges to the Festival Street stormwater network and ultimately discharges to Bells Creek South.

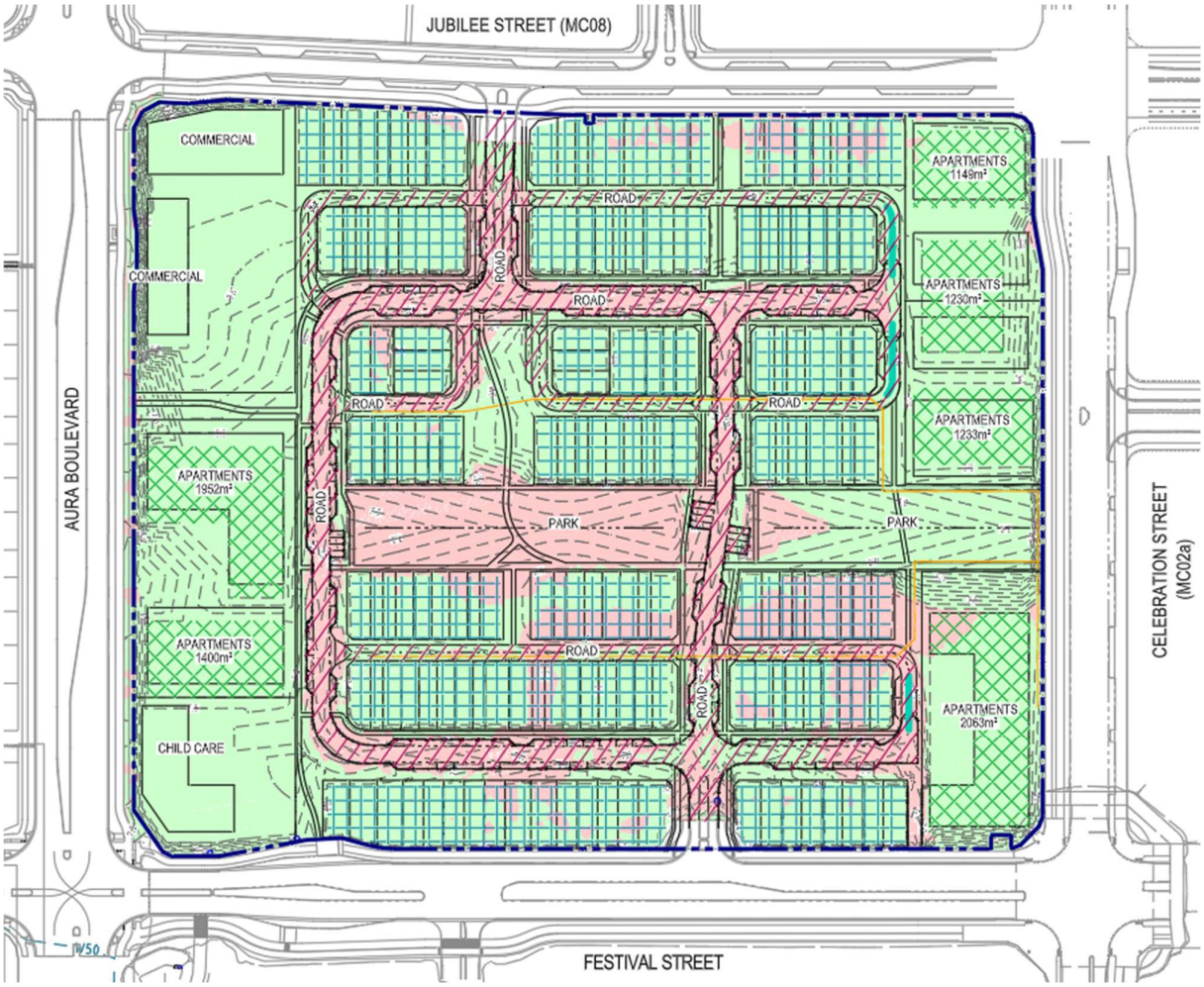
3 Bulk Earthworks Strategy

3.1 General Principals

Bulk Earthworks operations are being completed within the footprint of the development site currently as part of master development works to achieve developable levels within the Aura Town Centre area. Earthworks proposed as part of the development works in order to deliver detailed allotment levels, roadway gradients to support stormwater drainage and provide pedestrian connections through greenways and to external roadways.

The earthworks to be completed within the site as part of this development application requires 8,143 m^3 of material to be imported to achieve proposed site levels, as shown in **Figure 2** below.

Figure 2 Earthworks Cut/Fill Plan



Bulk earthworks are required across the Aura Town Centre site in order to provide a suitable development profile for the subdivision which aligns with the objectives of the greater Aura masterplan. The development of the proposed bulk earthworks design for the Urban Village 2 Precinct 9 development has taken into a number of factors considerations including the following:

- Development of proposed stormwater catchment boundaries which align with the layout but generally reflect the pre-development conditions. Stormwater catchments have been shaped in order to direct flows to areas in which stormwater quality management devices are positioned;
- Providing a well-resolved interface with key roadway corridors including Festival Street, Celebration Street and Aura Boulevard. All major roadways have been master planned in order to ensure that the initial alignments and levels will be well-integrated with the ultimate development form;
- Allowing for erosion and sediment control facilities within the site in order to manage the impacts of bulk earthworks; and
- Optimise the use of developable area through efficient design.

All excess earthworks material from this stage will be transported internally to the development for use within the Town Centre development area (Precinct 7-9).

Proposed earthworks and erosion control arrangements are included on the relevant plans within **Appendix A**.

3.2 Bulk Earthworks Specifications

All earthworks on the site will be carried out in accordance with Level 1 supervision and testing requirements, with any existing dams and/or unsound materials being removed and replaced under Level 1 supervision. Due to the significant depth of fill material required to be imported across the entire site, a well-documented history of the quality of material and compaction standards achieved will be critical to informing future foundation designs within the precinct.

As part of a submission package to tenderers for building construction works all knowledge from previous works completed should be compiled including:

- Depths of topsoil respread to site;
- Confirmation of quality of material and compaction standards achieved to confirm that all filling is controlled in nature and
- Details of site groundwater conditions and underlying natural materials.

3.3 Erosion and Sediment Control Strategy

In addition to the requirements of the CEMP, it is proposed that in conjunction with the Operational Works Application phase of development works, a detailed erosion and sediment control plan be prepared in order to address the specific measures to be implemented on site to manage sediment discharge offsite. During the construction phase, the Contractor is to have a certified erosion and sediment control plan on site at all times.

General measures to be implemented during the construction phase in order to prevent the erosion of sediment from the site are as follows:

- Sediment filter fencing is to be located at the downstream end of all open earthworks to remove sediment from overland flow prior to discharging off site;
- Truck shake down areas shall be provided to remove any loose materials from vehicles prior to departure from the site;
- All sediment control structures must be maintained in an effective operational condition. These structures must not be allowed to accumulate sediment volumes in excess of forty percent of the sediment storage design capacity;
- If topsoil will be stripped and stockpiled, perimeter silt fences are to be installed around the stockpile areas to prevent the material discharging from the site;
- All sediment control structures are to be supplied and installed in accordance with Ipswich City Council standards; and
- A sediment pond is to be constructed to suit the construction site profile.

Sediment basins are already established onsite treat run-off water prior to discharge into the receiving waterways. The positioning of the basins has been selected in order to allow for the devices to remain throughout future development stages to cater for staged earthworks completion. Clean water flows from developed catchments shall be diverted away from sediment basins and towards ultimate WSUD devices at such time that the catchments are appropriately developed.

The proposed stormwater strategy is included within **Appendix A** of this report.

4 Road and Movement Network

The Urban Village 2 Precinct 9 is proposed to be serviced by a series of public and private roadways in accordance with the provisions of the approved plan of development. Access to the development will be primarily provided by the junctions at Festival Street and Jubilee Street on the Southern and Northern boundaries of the site respectively.

The road network within the proposed development has been designed in conjunction with modelling performed by PWC in order to ensure that appropriate provision for vehicular traffic volumes are provided throughout the site. In addition to vehicle capacity, the road network has been designed to consider the following elements:

- Contraflow cycle movements;
- Service vehicle access provisions;
- Intersection geometry requirements; and
- Public Transport Access.

4.1 Road Hierarchy Concept Plan

A road hierarchy concept plan has been put together which demonstrates the appropriate road cross section based on the environmental capacity the road is exposed to as well as achieving effective cross sectional widths which are equal to or greater than the required road reserve widths within the Local Government Infrastructure Agreement. The Economic Development Queensland (EDQ) *Street and movement network PDA guideline no.06 (2019)* and the Institute of Public Works Engineering Australia (IPWEA) *Street Design Manual: Walkable Neighbourhoods* are used as reference to determine an appropriate road classification based on traffic volumes estimated for the Aura development.

The proposed road hierarchy is outlined in **Figure 3** for reference.

Figure 3 Proposed Road Hierarchy

The typical road cross sections corresponding with each of the street types nominated above are included within **Appendix A** of this report.

4.2 Commercial Vehicle Access

4.2.1 Design Vehicle

The design vehicles for the proposed development have been determined based on proposed uses utilising the internal road. In accordance with *AS2890.2: Off-street Commercial Vehicle Facilities*, the following service vehicle requirements are specified for the proposed development:

- Internal roads: Heavy Rigid Vehicle (HRV) and Refuse Collection Vehicle (RCV)

On the basis of the above, the largest service vehicle required to be accommodated by the proposed development is a HRV for servicing within the PDA.

4.2.2 Servicing Arrangements

Stantec has undertaken a swept path assessment to demonstrate the suitability of the internal road layout and access roundabouts to safely accommodate a side loading collection vehicle (Garbage and/or recycle truck) and a front loading collection vehicle as per Table SC6.18D of Sunshine Coast Planning Scheme 2014 Schedule 6 Section 6.18. The design vehicle specifications adopted have been included in **Table 4-1** below.

Table 4-1 Waste Vehicle Specifications as per Table SC6.18d of Sunshine Coast Planning Scheme 2014

	Side loading collection vehicle		Front loading collection vehicle
			
	Garbage truck	Recycling truck	Front loading collection vehicle
Length overall	8.70m	9.90m	9.90m
Front overhang	1.42m	0.85m	1.42m
Wheelbase	5.00m	5.30m	5.84m
Rear overhang	2.30m	2.65m	2.64m
Turning circle (curb to curb)	16.40m	18.70m	22.10m
Turning circle (wall to wall)	N/A	N/A	23.66m
Front of vehicle to collection arm	18.14m	19.20m	N/A
Maximum reach of side arm	2.70m	3.30m	N/A
Travel height	2.00m	1.70M	3.64
Clearance height for loading	4.00M	3.80M	6.10m

The swept paths can be found at **Appendix A** in sketches 160 to 164.

The swept path assessment undertaken on the internal layout indicates that the streets generally allow safe access for a side loading collection vehicle and a front-loading collection vehicle, as illustrated on drawings included within **Appendix A**. Slow points within access streets have been tested for design vehicle compliance and are demonstrated to be serviceable.

4.3 Active Transport Access

Active transport facilities will be provided in line with the road cross sections and the available road reserve. Contraflow bicycle tracks will not be provided within the development, but the internal network will connect to the contraflow bicycle tracks at Jubilee Street and Festival Street.

For Local Access Streets, pedestrian footpaths will be implemented. Additionally, it is noted that the urban access streets and laneways are of low speed environment, therefore these roads are categorised as bicycle friendly.

Active transport connection to the broader network within the PDA will be provided via the external sub-arterial roads.

Further, Bells Creek Arterial Road has been identified by TMR as a Future Principal Route within the Southeast Queensland Principal Cycle Network. It is expected that seamless active transport connection to this arterial road will be provided from the development via the surrounding roads, Aura Boulevard, Festival Street, Celebration Street and Jubilee Street.

The active transport modes are shown in **Appendix A**.

4.4 Public Transport Access

The Caloundra South Priority Development Area Infrastructure agreement indicates that an external priority bus stop is to be implemented at the Southern boundary on Festival Street. At this stage, details regarding the operation of these services (e.g. routes, number of services, frequencies) are unknown albeit it is expected that further collector services will be provided to satisfy the demand for public transport generated by the precincts and ensure 400m walkable catchments.

It is also anticipated that these services will link to the existing public transport network to ensure connectivity to the greater South East Queensland area.

Figure 4 below shows the bus stop location in red, which complies with a servicing radius of 400m along trunk connector and sub-arterial roadways.

Figure 4 Public Transport Network

5 Water & Sewer Assessment

5.1 Development Population

The following table shows the Equivalent Population (EP) derived for the proposed development for water and sewerage services. The EP is calculated in accordance with the Caloundra South Infrastructure Agreement (Water and Wastewater Infrastructure), Ref 40769743v9.

Table 5-1 Estimated Development EP Demand

Land Use	Yield	Rate	Total Equivalent Persons
Detached Dwellings	0 dwellings	2.7 EP / dwelling	0 EP
Attached Dwellings* *also for multiple dwellings & detached lots under 200m^2	175 dwellings	1.8 EP / dwelling	315 EP
High Density Dwellings	296 dwellings	1.8 EP / dwelling	533 EP
Childcare	3,000 m^2	1.4 EP/100 m^2	42 EP
Neighbourhood Centre	6,575 m^2	1.1 EP/100 m^2	72 EP
TOTAL			**962 EP**

The above proposed network loads within this precinct are consistent and within the allowances included within the Water and Wastewater master plans for the development site.

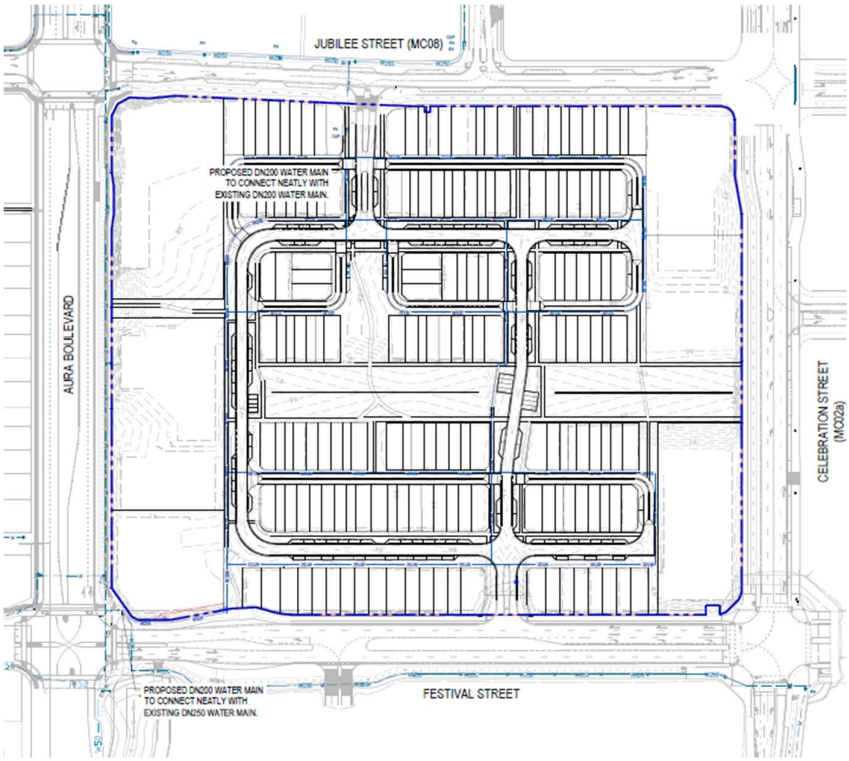
5.2 Water

The overall site strategy for water reticulation servicing for Aura has been prepared by Parsons Brinckerhoff in the *Caloundra South Water and Wastewater Infrastructure Plan*. This strategy has been recently updated in the *Aura and Aura South Water and Wastewater Infrastructure Master Plan* prepared by Calibre Professional Services.

The water supply for this development application is to be via a DN200 to DN250 connection at the Jubilee Street junction, and via a DN200 to DN250 connection at Festival Street.

The water network to service the proposed development is shown in **Figure 5** below:

Figure 5 Proposed Water Network



The proposed internal water network is shown indicatively on the engineering conceptual drawings included within **Appendix A**.

All water infrastructure is proposed to be designed generally in accordance with Unitywater Standards, The SEQ Water Supply and Sewerage Design and Construction Code or as otherwise agreed with Unitywater.

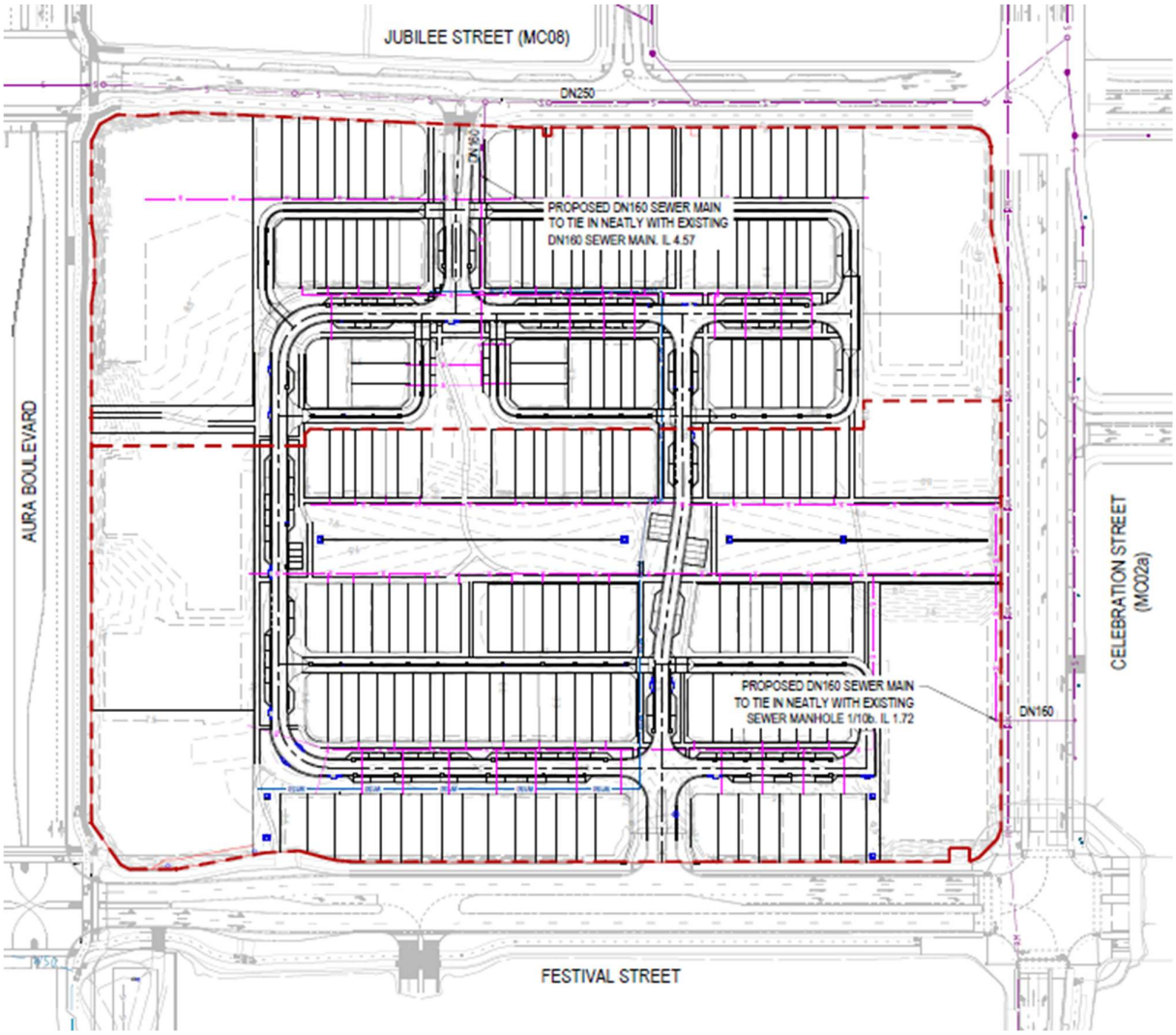
5.3 Sewerage

The overall site strategy for sewerage servicing for Aura has been prepared by Parsons Brinckerhoff in the *Caloundra South Water and Wastewater Infrastructure Plan*. This strategy has been recently updated in the *Aura and Aura South Water and Wastewater Infrastructure Master Plan* prepared by Calibre Professional Services.

The development is proposed to be serviced via DN160 gravity mains internally, connecting at Festival Street and Celebration Street.

The sewerage network to service the proposed development including proposed sewerage pump station is shown in **Figure 6** below:

Figure 6 Proposed Sewerage Network



The proposed internal sewer network is shown indicatively on the engineering conceptual drawings included within **Appendix A**.

All sewer infrastructure is proposed to be designed generally in accordance with Unitywater Standards, The SEQ Water Supply and Sewerage Design and Construction Code or as otherwise agreed with Unitywater.

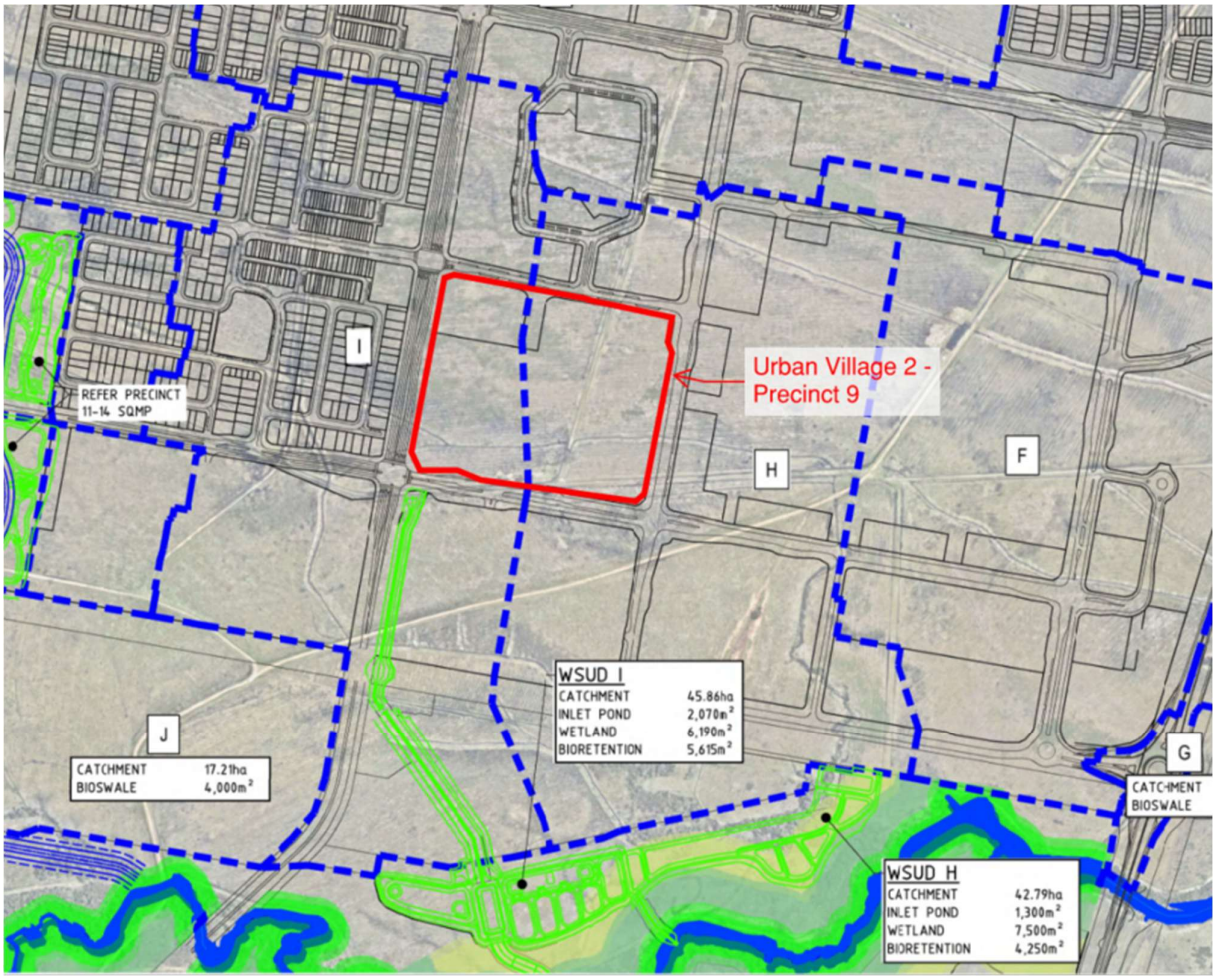
6 Stormwater Assessment

6.1 Flooding Assessment

Modelling of the Aura Town Centre Precinct by BMT have shown that the development footprint for the site detailed in this report is outside of the flood extent for the 1% AEP 2100 RCP8.5 climate change scenario. As such, the proposed development does not interact with the anticipated flooding extents included within the results of the approved regional flood model.

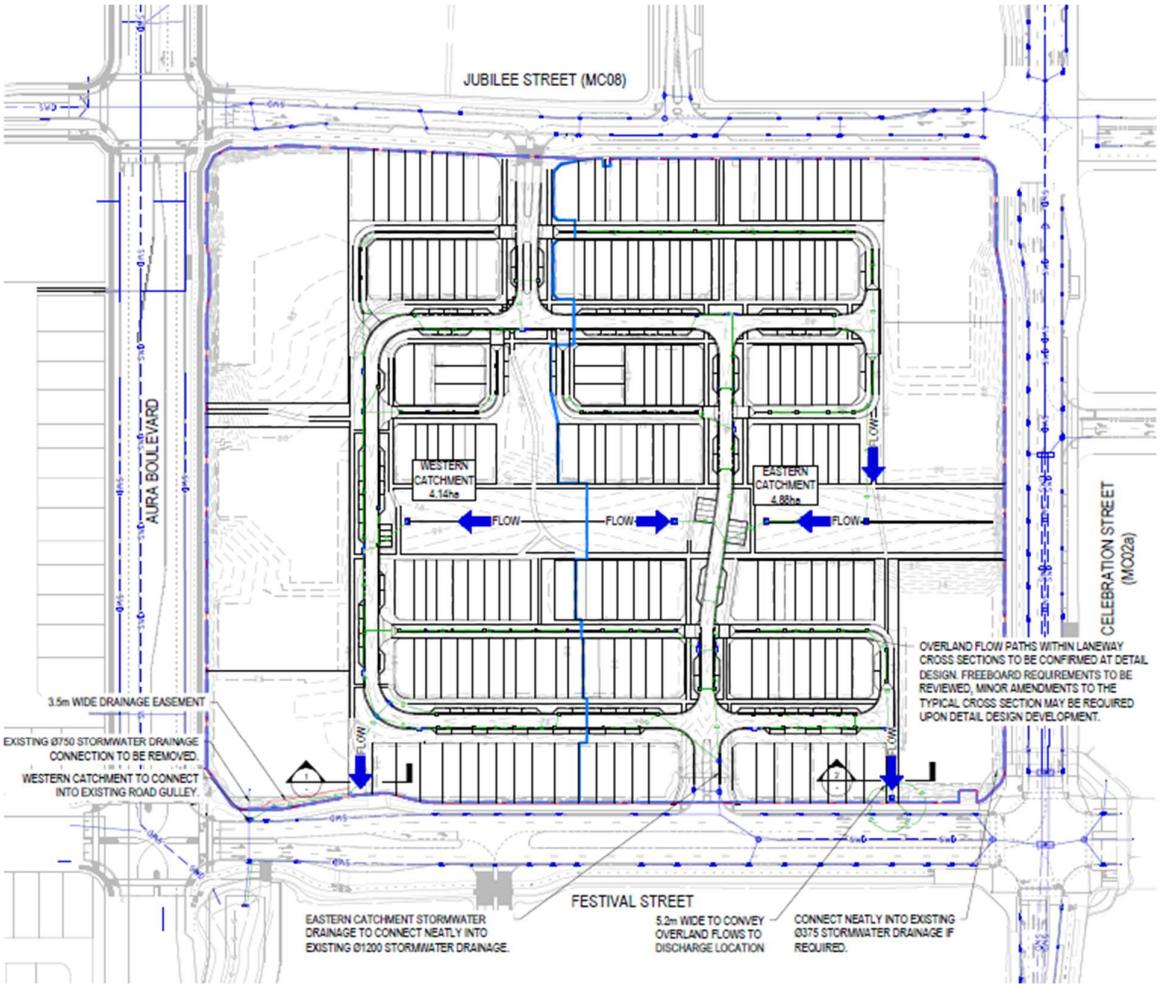
The proposed development is located across both Catchment I and Catchment H of the overall Aura Town Centre stormwater quality management plan (Nov 2022).

Figure 7 Overall Stormwater Catchments



Areas of the development within proximity of Central Avenue discharge into existing infrastructure. The southern areas of the Urban Village 2 development will require the early delivery of piped stormwater drainage infrastructure in order to discharge flows into existing infrastructure provided within Aura Boulevard. The stormwater drainage pipework is proposed to be located within future laneway and open space connections in the ultimate development scenario. The extent of stormwater drainage pipework proposed as part of the Urban Village 2 development is highlighted in **Figure 8** below:

Figure 8 Proposed Stormwater Network



6.2 Stormwater Quality

The water quality strategy has been developed by Bligh Tanner and includes the following treatment devices:

- Rainwater tanks utilised within the development;
- End of line sediment forebays;
- End of line bioretention basins and
- End of line wetlands.

Stormwater Quality and Quantity management for Catchments H and I of the Aura development are achieved through the implementation of end of line facilities as part of the master development strategy. The proposed development works for this precinct are compliant with the catchments assumed in the overall masterplan and as such are compliant with this regime.

In addition to the end of line devices, the stormwater quality management masterplan denotes that rainwater re-use tanks are required to be installed to all dwellings. Each of the proposed dwellings within the Urban Village 2 area are proposed to have a compliant 1kL tank in accordance with this strategy. Accordingly, the proposed development is compliant with the requirements of the overarching water quality and quantity management plans.

7 Electrical & Telecommunications Assessment

The Aura Town Centre is serviced by NBN, Low Voltage Power and High Voltage power services within the road reserve corridors.

8 Conclusion

Based upon the assessment within the above memo, the proposed infrastructure detailed within the reporting to support this ROL application is adequate to service the proposed development.

Appendices

Appendices

Appendices

Appendix A: Precinct 18 First Development Application Stantec Engineering Sketches

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AURA

STOCKLAND DEVELOPMENT PTY LTD
AURA PRECINCT 9
URBAN VILLAGE 2

Project Number: 304700147

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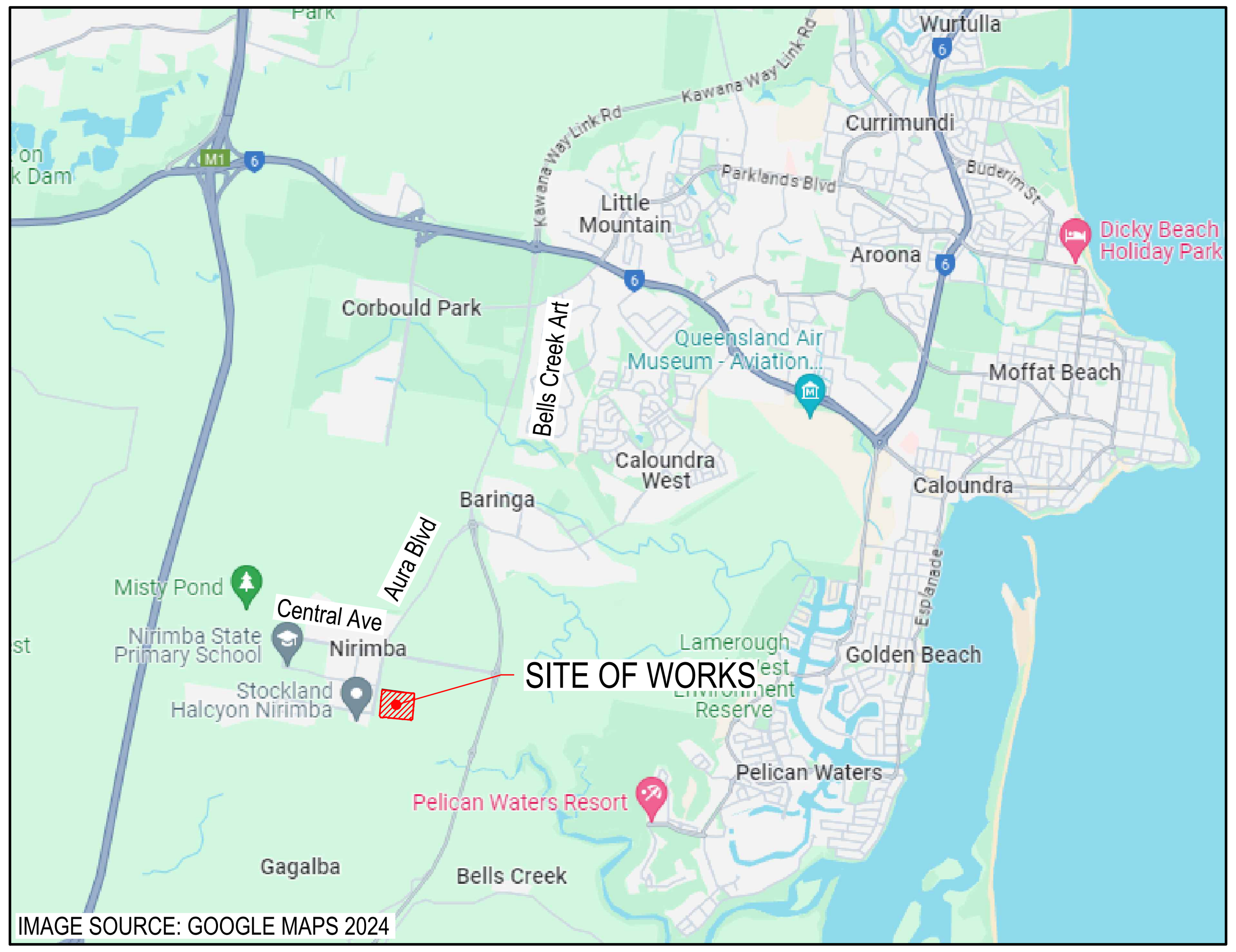
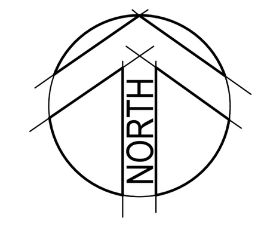
SCHEDULE OF DRAWINGS		
DRAWING NO.	REV.	DESCRIPTION
35-CI-SK100	2	COVER SHEET
35-CI-SK101	2	LOCALITY PLAN AND SCHEDULE OF DRAWINGS
35-CI-SK130	2	BULK EARTHWORKS PLAN
35-CI-SK140	2	ROADWORKS PLAN
35-CI-SK141	2	ROADWORKS TYPICAL CROSS SECTIONS AND DETAILS
35-CI-SK160	1	VEHICLE SWEPT PATHS - SHEET 1
35-CI-SK161	1	VEHICLE SWEPT PATHS - SHEET 2
35-CI-SK162	2	VEHICLE SWEPT PATHS - SHEET 3
35-CI-SK163	1	VEHICLE SWEPT PATHS - SHEET 4
35-CI-SK170	2	STORMWATER DRAINAGE PLAN
35-CI-SK180	2	SEWERAGE RETICULATION PLAN
35-CI-SK190	2	WATER RETICULATION PLAN

STANDARD DRAWINGS		
DRG. NO.	REV.	DESCRIPTION
TO BE READ IN ACCORDANCE WITH SUNSHINE COAST REGIONAL COUNCIL DRAWING ADDENDUMS LIST		
INSTITUTE OF PUBLIC WORKS ENGINEERING AUSTRALASIA (QLD) (IPWEAQ)		
PARKS		
PS-016	G	BIKEWAY FURNITURE DETAILS DEFLECTION AND REST RAIL DETAIL
ROADS		
RS-065	I	CONCRETE PATHWAYS CONSTRUCTION DETAIL
RS-080	F	KERB AND CHANNEL PROFILES AND DIMENSIONS INCLUDING EDGE RESTRAINTS, MEDIAN & CHANNEL
RS-081	F	KERB AND CHANNEL RESIDENTIAL DRAINAGE CONNECTIONS
RS-090	J	KERB RAMPS RAMPED PEDESTRIAN CROSSINGS
RS-092	H	KERB RAMPS INSTALLATION OF TGI's ON RAMPED KERB CROSSINGS
RS-100	F	PUBLIC UTILITIES TYPICAL SERVICE CORRIDORS AND ALIGNMENTS
RS-140	H	SUBSOIL DRAINS DETAILS AND LOCATIONS
RS-142	G	SUBSOIL DRAINS ACCESS POINTS
DRAINAGE		
DS-010	E	STORMWATER ACCESS CHAMBER DETAIL 1050 TO 2100 DIAMETER
DS-015	C	MANHOLE FRAME (ROADWAY AND NON-ROADWAY) 1050 TO 2100 DIAMETER
DS-019	C	MANHOLE COVER (ROADWAY) 1050 TO 2100 DIAMETER
DS-020	C	MANHOLE COVER (NON-ROADWAY) 1050 TO 2100 DIAMETER
DS-021	C	MANHOLE COVER CONCRETE INFILL (PEDESTRIAN TRAFFIC) 1050 TO 2100 DIAMETER
DS-030	F	EXCAVATION, BEDDING AND BACKFILLING RIGID & FLEXIBLE DRAINAGE PIPES
DS-050	E	DRAINAGE PITS FIELD INLET TYPE 1 AND TYPE 2
DS-061	B	DRAINAGE PITS KERB INLET PRECAST LINTEL DETAILS
DS-062	D	DRAINAGE PITS KERB INLET GRATE AND FRAME
DS-063	C	DRAINAGE PITS KERB INLET - LIP IN LINE GENERAL ARRANGEMENT
SCRC		
R-095	A	ROAD EXIT AND ENTRY RAMPS
CONCRETE JOINTING (RTA)		
MD.R83	CJ SHEET 08	LONGITUDINAL / SAWN / FORMED AND TRANSVERSE / SAWN / FORMED
MD.R83	CJ SHEET 09	EXPANSION / DOWELLED





LOCALITY PLAN

SCALE A1 - N.T.S.
A3 - N.T.S.

Notes

2	ISSUE FOR APPROVAL	TE	LH	2025.08.28
1	ISSUE FOR APPROVAL	AH	LH	2025.02.24
Issued/Revision		By	Appd	YYYY.MM.DD

Issue Status

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AURA
Stockland

Client/Project
STOCKLAND DEVELOPMENT PTY LTD

AURA PRECINCT 9
URBAN VILLAGE 2

Authorised	RPEQ #	YYYY.MM.DD	JM	AH	LH	2025.02.24
			Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title
LOCALITY PLAN AND SCHEDULE OF DRAWINGS

Project No. 304700147
Scale AS SHOWN A1
Revision 2
Drawing No. 35-CI-SK101

ORIGINAL SHEET - ISO A1 COORD - #### DATUM - DATUM

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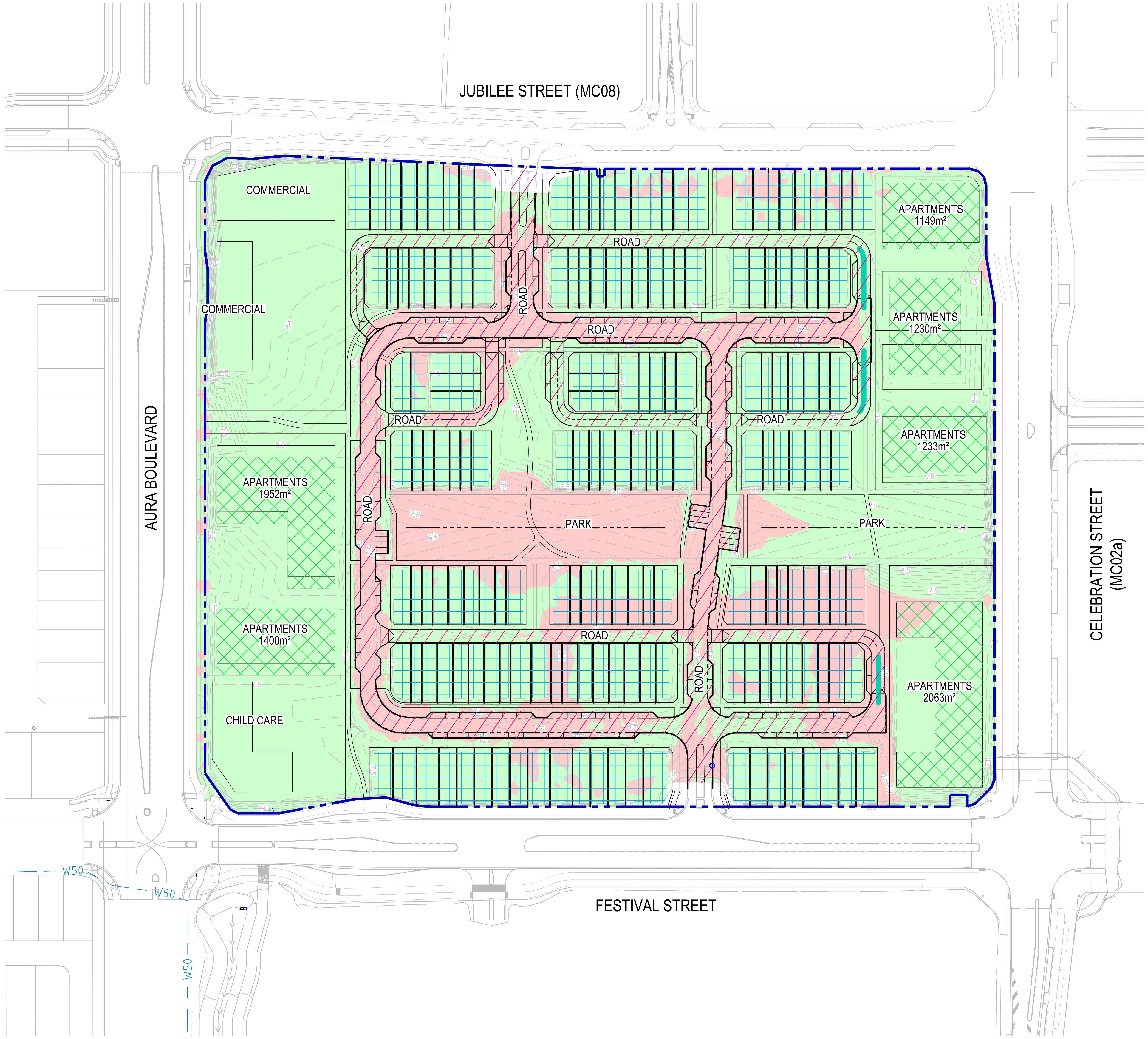


BULK EARTHWORKS PLAN

SCALE 1:1000

PRELIMINARY BULK EARTHWORK VOLUMES

Volumes from tin "35 S EXIST" to tin "35 DESIGN"
cut volumes are negative
fill volumes are positive

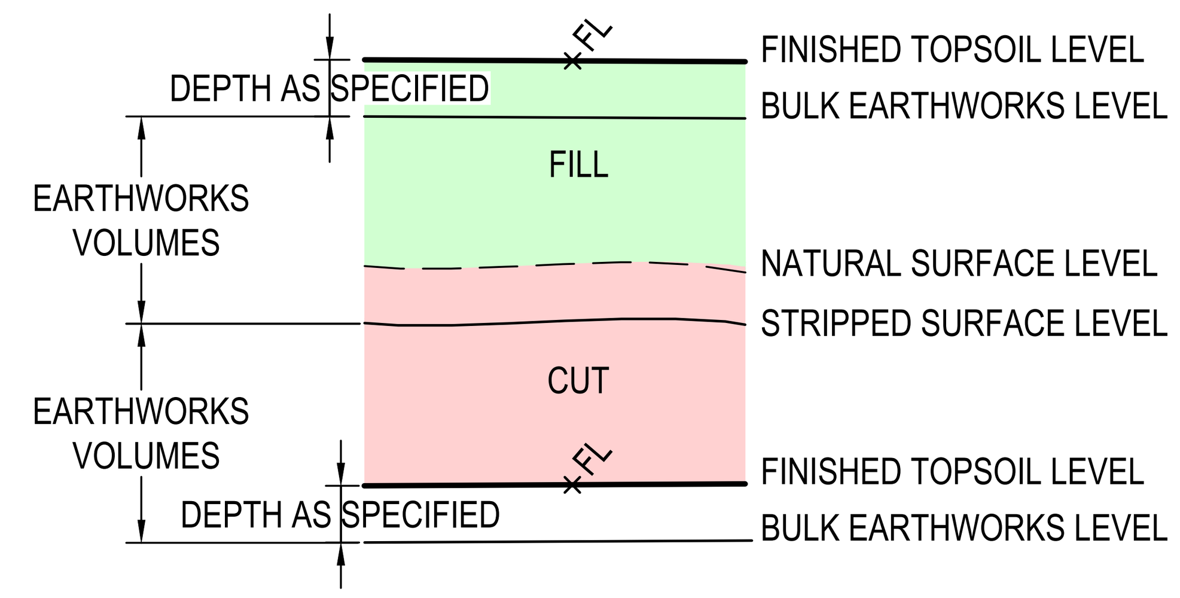
Total cut	-7,772.266 m³
Total fill	16,185.050 m³
Total balance	8,412.783 m³
ie excess of fill over cut	

NOTE:

1. INDICATED EARTHWORKS VOLUMES ARE NETT AND EXCLUDE BULKING / COMPACTION FACTORS.
2. NO ALLOWANCE HAS BEEN MADE FOR SPOIL GENERATED FROM SERVICE TRENCHING
3. NO ALLOWANCE HAS BEEN MADE FOR THE STRIPPING OF TOPSOIL
4. NO ALLOWANCE HAS BEEN MADE FOR FOOTING FOUNDATIONS

ADDITIONAL EARTHWORKS ASSUMPTIONS

		AREA(m²)	DEPTH(m)	VOLUME(m³)
	APARTMENT BASEMENT EXCAVATION	9,028	-3.0	-27,074
	TERRACE HOUSING BULK EARTHWORKS LEVEL	24,982	-0.3	-7,495
	ROAD PAVEMENT BOXING	12,770	-0.4	-5,108
	ADJUST FOR SITE TOPSOIL STRIPPING	90,181	0.1	+9,018



EARTHWORKS PAYLINES

N.T.S.

WARNING

BEWARE OF UNDERGROUND SERVICES
THE LOCATION OF UNDERGROUND SERVICES HAVE BEEN INTERPOLATED FROM GIS DATA OR KNOWN POSITIONS OF VALVES, MANHOLES ETC. OR INFORMATION SUPPLIED BY SERVICE AUTHORITIES. NO RESPONSIBILITY IS TAKEN FOR THE ACCURACY OF THE INTERPOLATED INFORMATION SUPPLIED. ENSURE ALL SERVICES ARE ACCURATELY LOCATED PRIOR TO COMMENCEMENT OF WORK

LEGEND:

- STAGE BOUNDARY
- TOP OF EMBANKMENT
- BOTTOM OF EMBANKMENT
- EXISTING CONTOURS (0.25m INTERVAL)
- FINISHED CONTOURS (0.25m INTERVAL)
- PROPOSED LOT BOUNDARIES

Notes

0 20 40 60 80 100m
SCALE 1:1000 @A1

Rev	Issued/Revision	By	Appd	YYYY.MM.DD
2	ISSUE FOR APPROVAL	TE	LH	2025.08.28
1	ISSUE FOR APPROVAL	AH	LH	2025.02.24

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Title

BULK EARTHWORKS PLAN

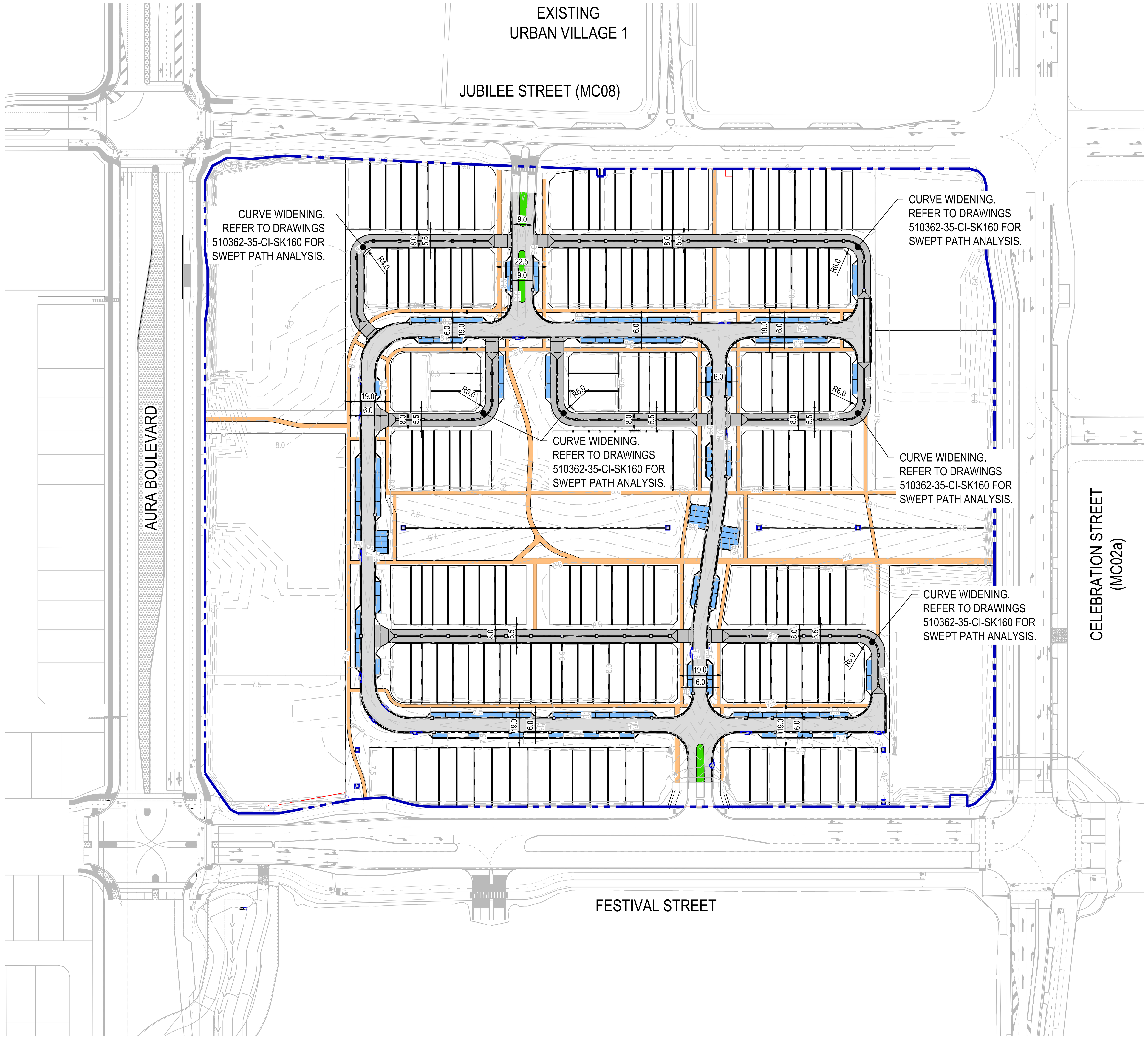
Project No. 304700147

Scale AS SHOWN A1

Revision 2

Drawing No. 35-CI-SK130

ORIGINAL SHEET - ISO A1 COORD - #### DATUM - DATUM



ROADWORKS PLAN
SCALE 1:1000

NOTE:
1. REFER TO SK141 FOR TYPICAL CROSS SECTIONS

WARNING
BEWARE OF UNDERGROUND SERVICES
THE LOCATION OF UNDERGROUND SERVICES HAVE BEEN INTERPOLATED FROM GIS DATA OR KNOWN POSITIONS OF VALVES, MANHOLES ETC. OR INFORMATION SUPPLIED BY SERVICE AUTHORITIES. NO RESPONSIBILITY IS TAKEN FOR THE ACCURACY OF THE INTERPOLATED INFORMATION SUPPLIED. ENSURE ALL SERVICES ARE ACCURATELY LOCATED PRIOR TO COMMENCEMENT OF WORK

LEGEND:
- STAGE BOUNDARY
- TOP OF EMBANKMENT
- BOTTOM OF EMBANKMENT
- DESIGN CONTOURS (0.25m INTERVAL)
- PROPOSED NOMINAL KERB LINE
- PROPOSED PAVEMENT
- PROPOSED LANEWAYS
- PROPOSED FOOTPATH
- PROPOSED CARPARK
- PROPOSED MEDIAN ISLANDS

Notes

0 20 40 60 80 100m
SCALE 1:1000 @A1

Issued/Revision		By	Appd	YYYY.MM.DD
2	ISSUE FOR APPROVAL	TE	LH	2025.08.28
1	ISSUE FOR APPROVAL	AH	LH	2025.02.24

Issue Status
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Notes

File Name: 304700147-35-CI-SK140

Stantec
Stantec Australia Pty Ltd | ABN 17 007 820 322
Level 6, Springfield Tower, 145 Sinnathamby Boulevard
Springfield Central QLD 4300
Tel: 07 3381 0111
Web: www.stantec.com/au

Client/Project Logo
AURA
Stockland

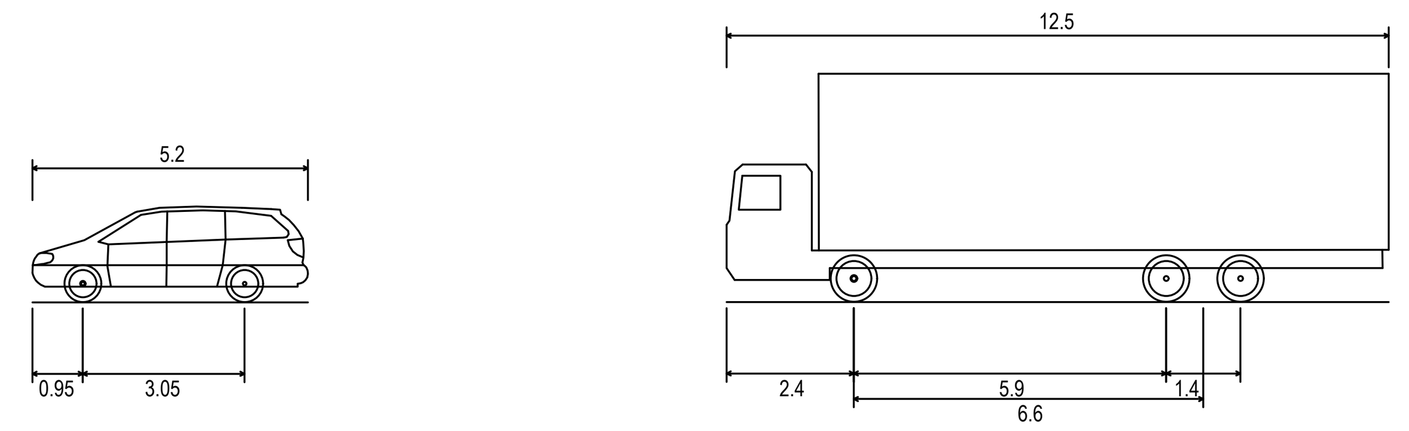
Client/Project
STOCKLAND DEVELOPMENT PTY LTD
AURA PRECINCT 9
URBAN VILLAGE 2

YYYY.MM.DD	Dwn.	Dsgn.	Chkd.	YYYY.MM.DD
	JM	AH	LH	2025.02.24

Title
ROADWORKS PLAN

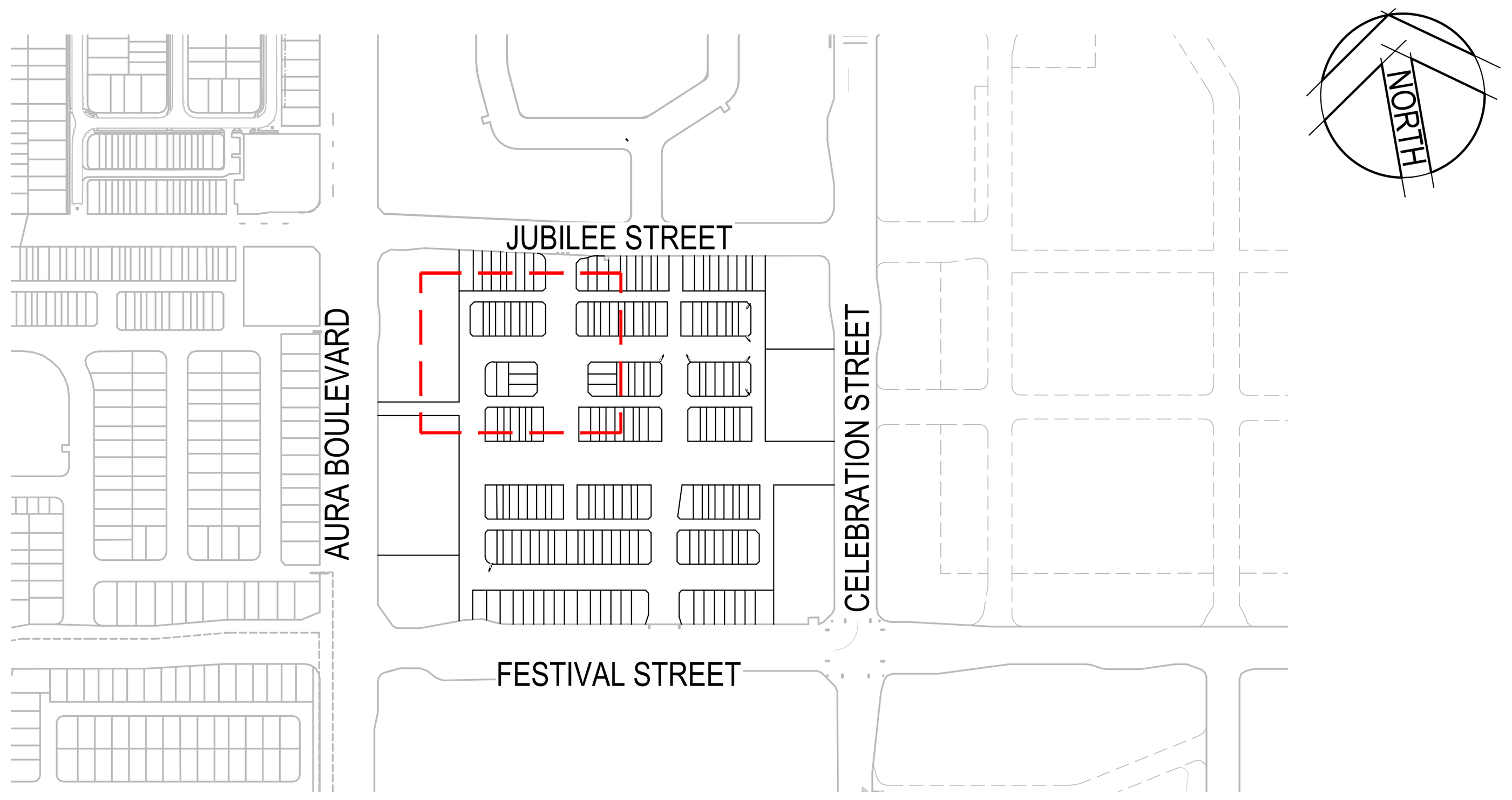
Project No. 304700147
Scale AS SHOWN A1
Revision 2
Drawing No. 35-CI-SK140

ORIGINAL SHEET - ISO A1 COORD - #### DATUM - DATUM



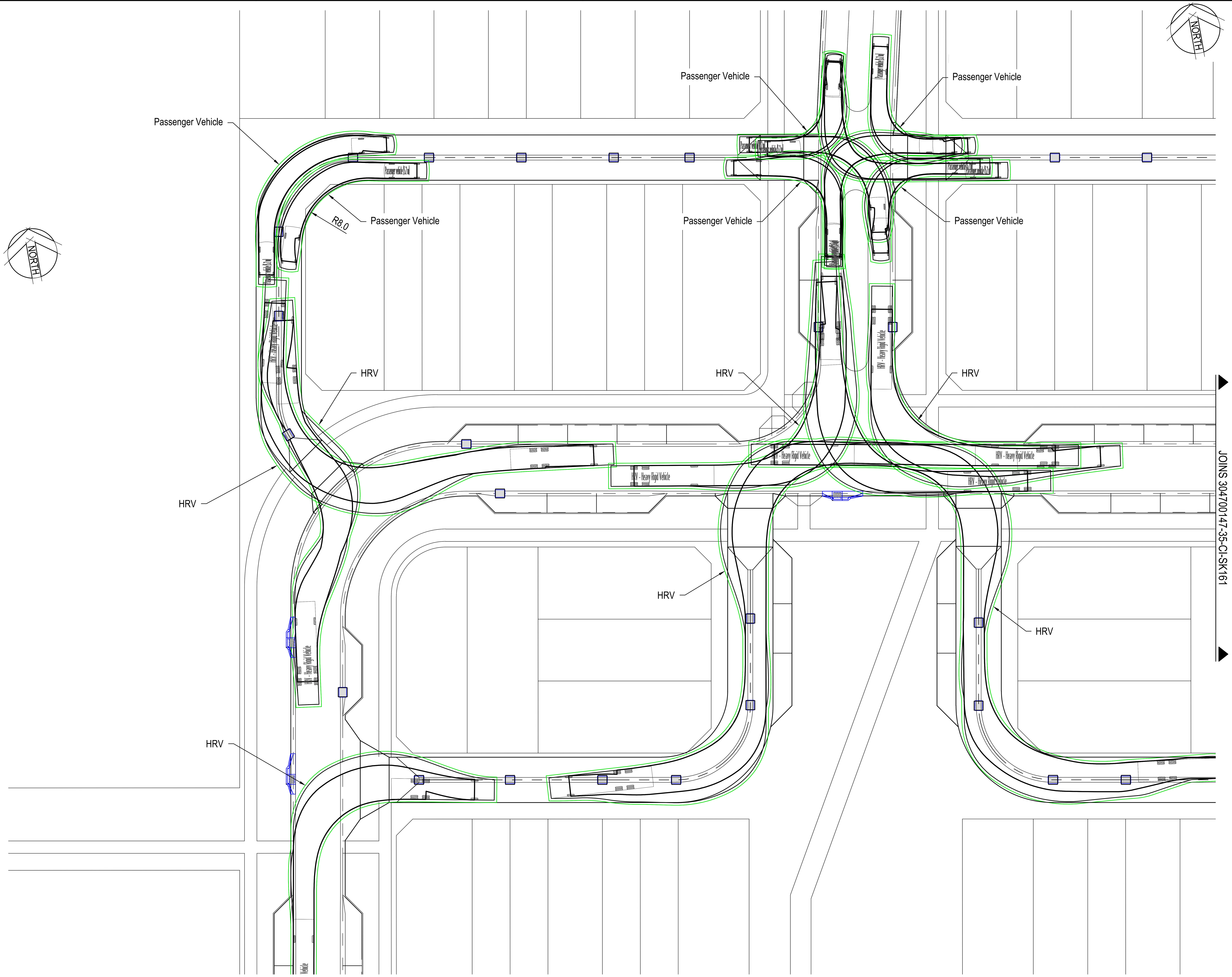
Passenger vehicle (5.2 m)	
Overall Length	5.200m
Overall Width	1.940m
Overall Body Height	1.804m
Min Body Ground Clearance	0.295m
Track Width	1.840m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	6.300m

HRV - Heavy Rigid Vehicle	
Overall Length	12.500m
Overall Width	2.500m
Overall Body Height	4.300m
Min Body Ground Clearance	0.417m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12.500m



KEY PLAN

NTS



LAYOUT PLAN

SCALE 1:250

Notes

0 5 10 15 20 25m

SCALE 1:250 @A1

Revision	Issued/Revision	By	Appd	YYYY.MM.DD
1	ISSUE FOR APPROVAL	AH	LH	2025.02.17

Issue Status

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Notes

File Name: 304700147-35-CI-SK160

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Client/Project

STOCKLAND DEVELOPMENT PTY LTD

AURA PRECINCT 9
URBAN VILLAGE 2

YYYY.MM.DD	Dwn.	Dsgn.	Chkd.	YYYY.MM.DD
	JM	AH	LH	2025.02.17

Title

VEHICLE SWEPT PATHS
SHEET 1

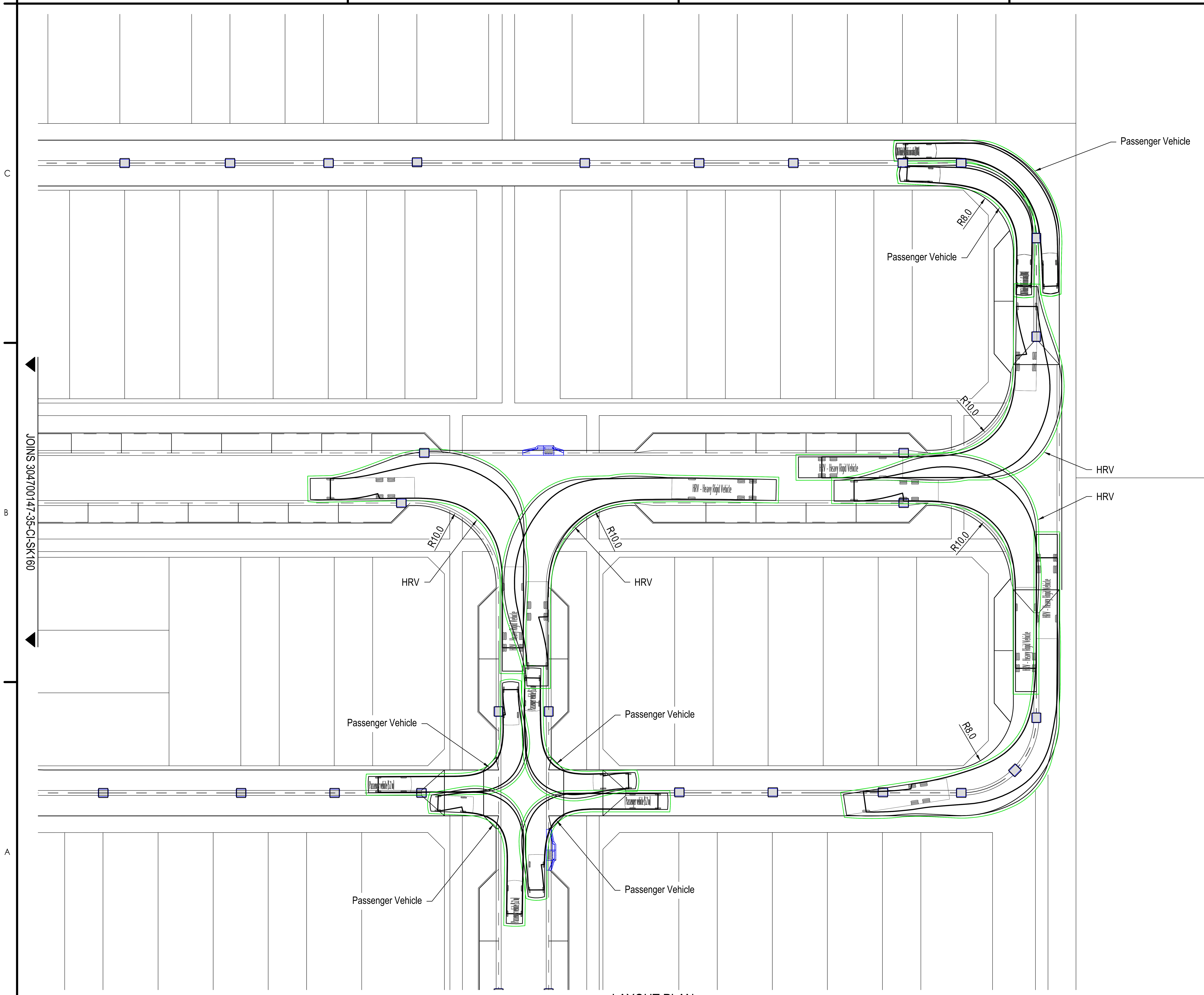
Project No. 304700147

Scale AS SHOWN A1

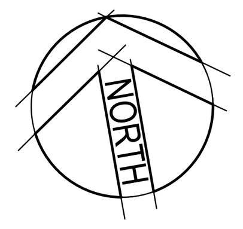
Revision 1

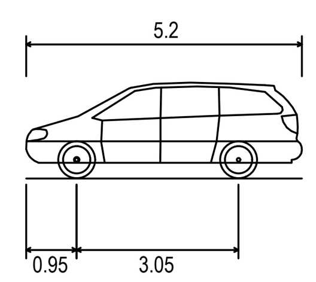
Drawing No. 35-CI-SK160

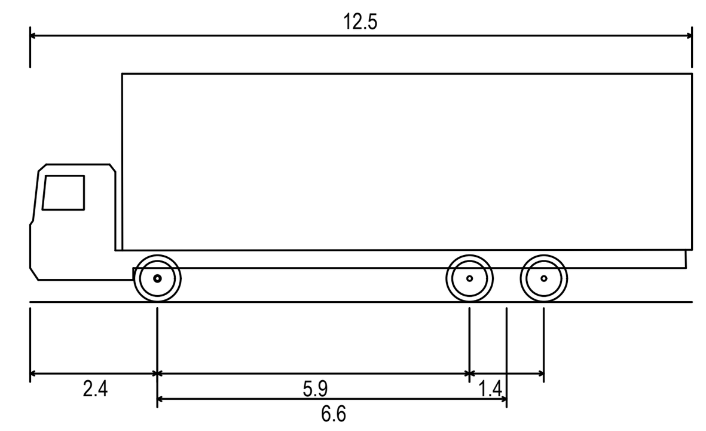
ORIGINAL SHEET - ISO A1 COORD - #### DATUM - DATUM



LAYOUT PLAN
SCALE 1:250







Passenger vehicle (5.2 m)	
Overall Length	5.200m
Overall Width	1.940m
Overall Body Height	1.804m
Min Body Ground Clearance	0.295m
Track Width	1.840m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	6.300m

HRV - Heavy Rigid Vehicle	
Overall Length	12.500m
Overall Width	2.500m
Overall Body Height	4.300m
Min Body Ground Clearance	0.417m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12.500m

KEY PLAN
NTS

Notes

0 5 10 15 20 25m
SCALE 1:250 @A1

Rev	Issued/Revision	By	Appd	YYYY.MM.DD
1	ISSUE FOR APPROVAL	AH	LH	2025.02.17

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Notes

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304700147-35-CI-SK160

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STOCKLAND DEVELOPMENT PTY LTD

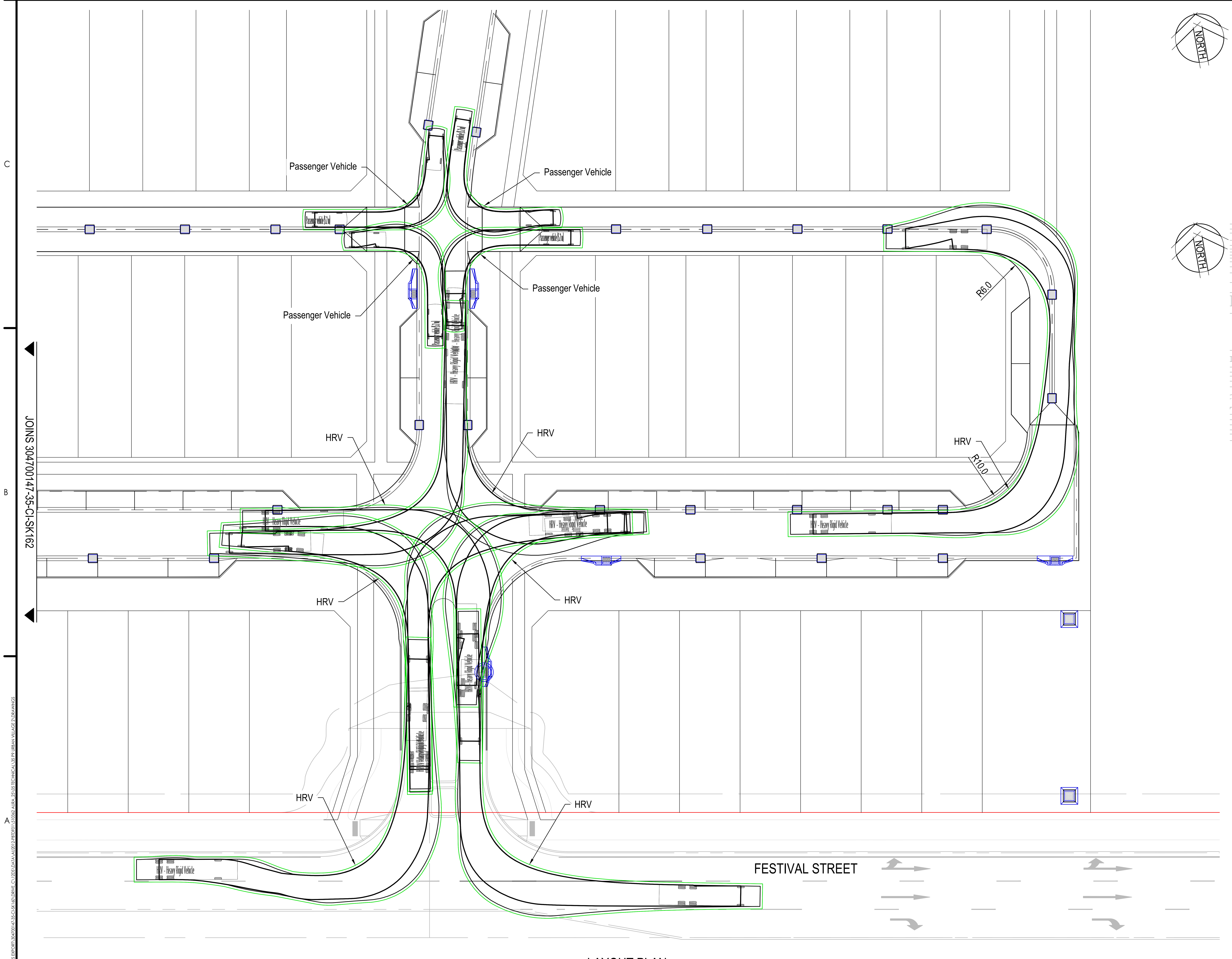
AURA PRECINCT 9
URBAN VILLAGE 2

	Dwn.	Dsgn.	Chkd.	YYYY.MM.DD
	JM	AH	LH	2025.02.17

Title
VEHICLE SWEPT PATHS
SHEET 2

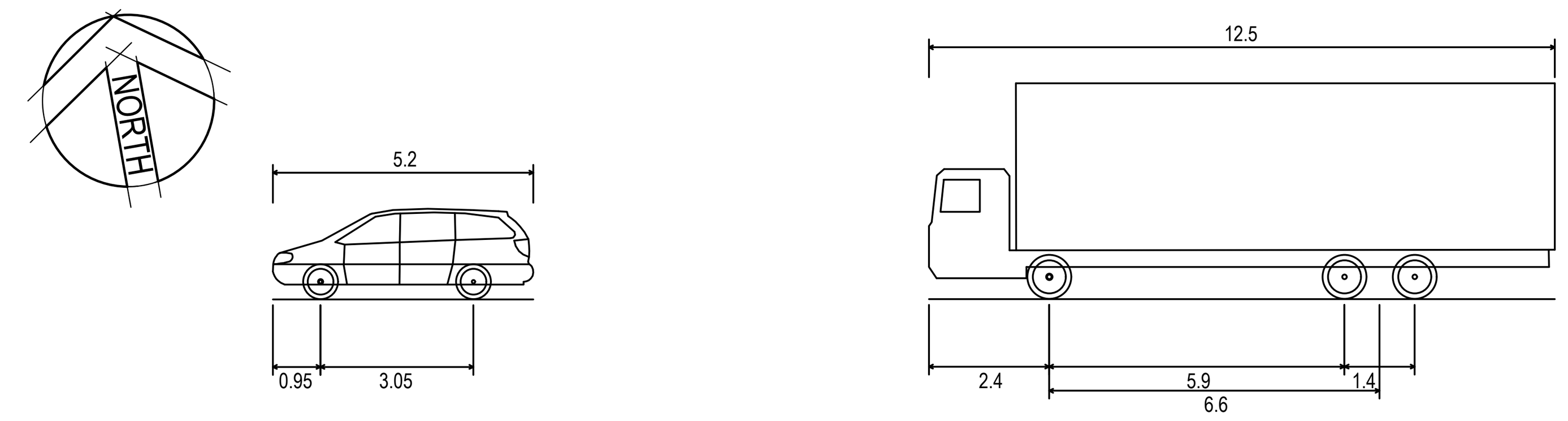
Project No. 304700147
Scale AS SHOWN A1
Revision 1
Drawing No. 35-CI-SK161

ORIGINAL SHEET - ISO A1 COORD - #### DATUM - DATUM



LAYOUT PLAN

SCALE 1:250



Passenger vehicle (5.2 m)	
Overall Length	5.200m
Overall Width	1.940m
Overall Body Height	1.804m
Min Body Ground Clearance	0.295m
Track Width	1.840m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	6.300m

HRV - Heavy Rigid Vehicle	
Overall Length	12.500m
Overall Width	2.500m
Overall Body Height	4.300m
Min Body Ground Clearance	0.417m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12.500m

KEY PLAN

NTS

Notes

0 5 10 15 20 25m

SCALE 1:250 @A1

Rev	Description	By	Appd	Date
2	ISSUE FOR APPROVAL	TE	LH	2025.04.28
1	ISSUE FOR APPROVAL	AH	LH	2025.02.24
Issued/Revision		By	Appd	YYYY.MM.DD

Issue Status

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Notes

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AURA PRECINCT 9
URBAN VILLAGE 2

	JM	AH	LH	2025.02.24
YYYY.MM.DD	Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Title

VEHICLE SWEPT PATHS
SHEET 4

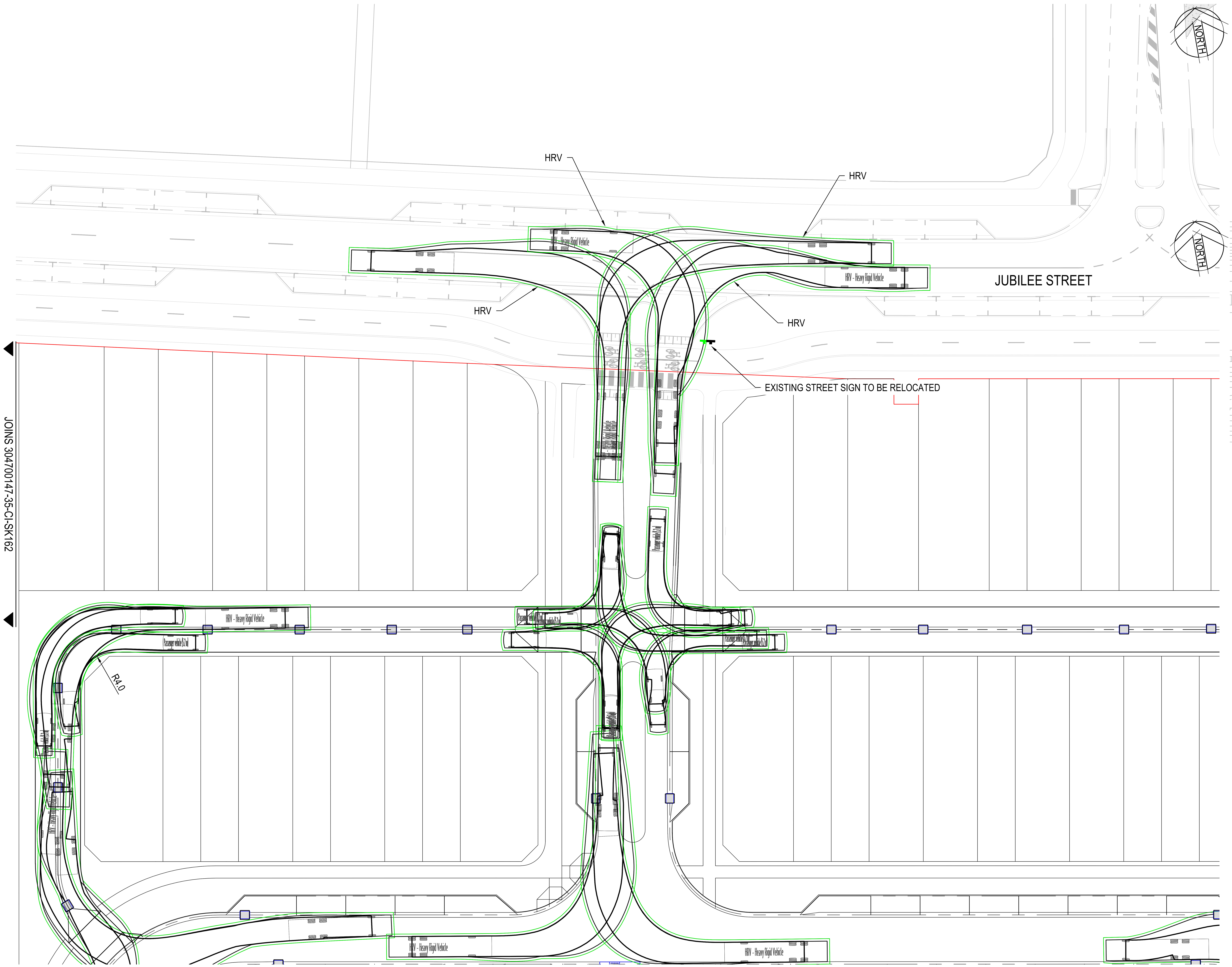
Project No. 304700147

Scale AS SHOWN A1

Revision 2

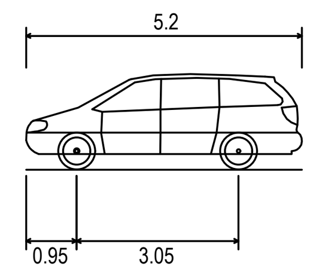
Drawing No. 35-CI-SK163

ORIGINAL SHEET - ISO A1 COORD - #### DATUM - DATUM



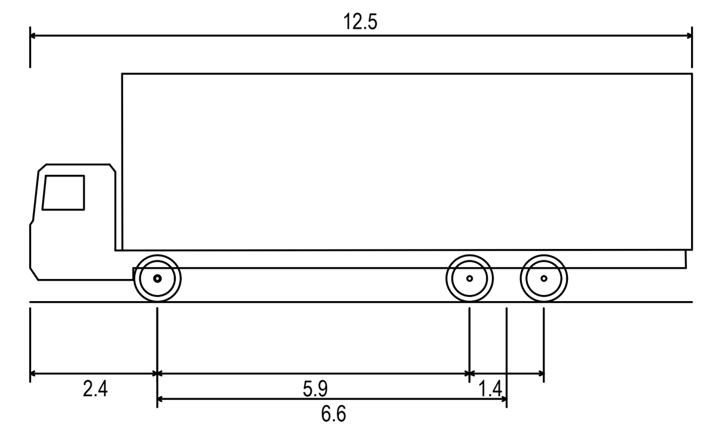
LAYOUT PLAN

SCALE 1:250



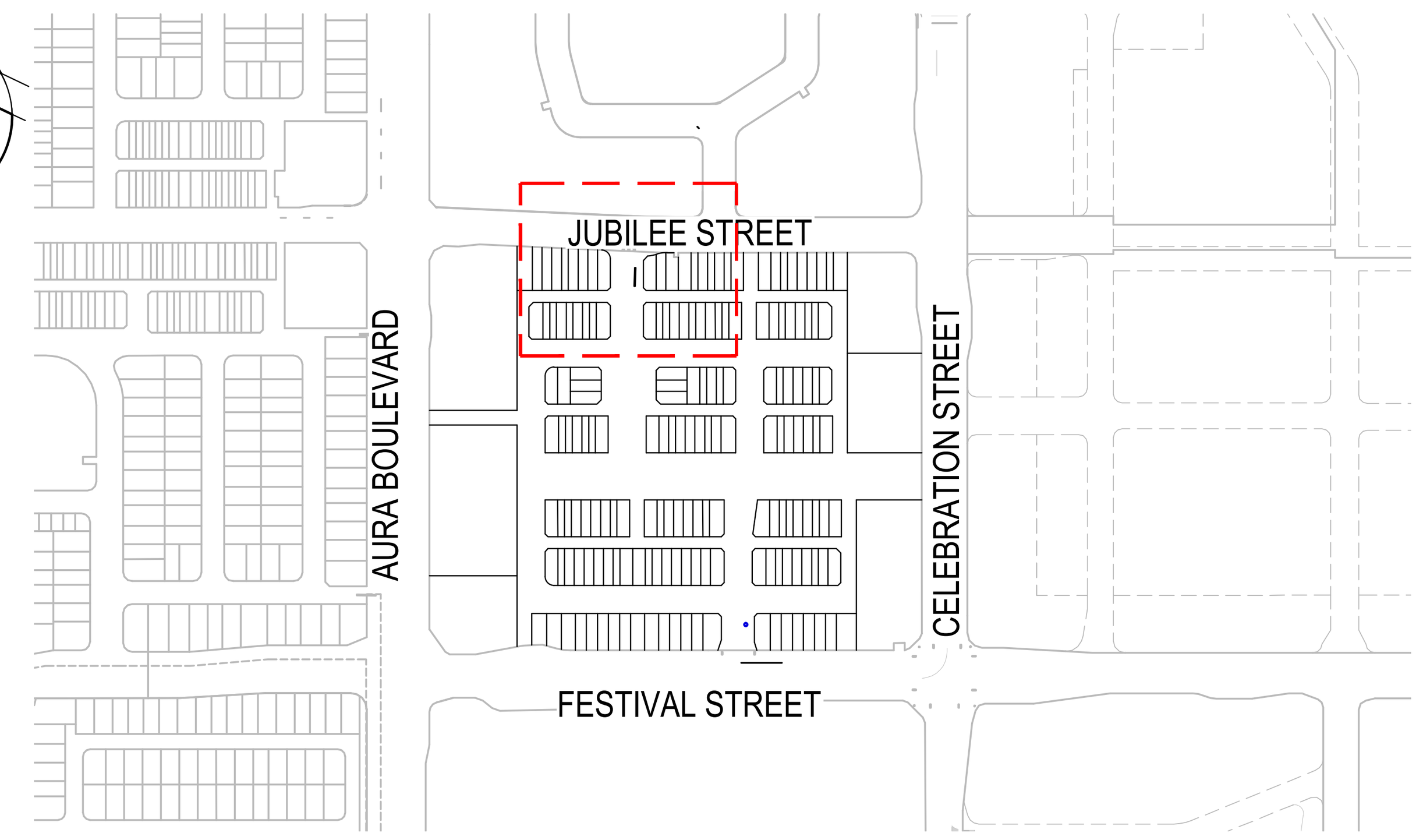
Passenger vehicle (5.2 m)

Overall Length	5.200m
Overall Width	1.940m
Overall Body Height	1.804m
Min Body Ground Clearance	0.295m
Track Width	1.840m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	6.300m



HRV - Heavy Rigid Vehicle

Overall Length	12.500m
Overall Width	2.500m
Overall Body Height	4.300m
Min Body Ground Clearance	0.417m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12.500m



KEY PLAN

NTS

Notes

0 5 10 15 20 25m

SCALE 1:250 @A1

Issue/Revision	By	Appd	YYYY.MM.DD
1 ISSUE FOR APPROVAL	TE	LH	2025.04.28

Issue Status

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Notes

File Name: 304700147-35-CI-SK160

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Client/Project

STOCKLAND DEVELOPMENT PTY LTD

AURA PRECINCT 9
URBAN VILLAGE 2

YYYY.MM.DD	Dwn.	Dsgn.	Chkd.	YYYY.MM.DD
	TE	AH	LH	2025.04.28

Title

VEHICLE SWEPT PATHS
SHEET 5

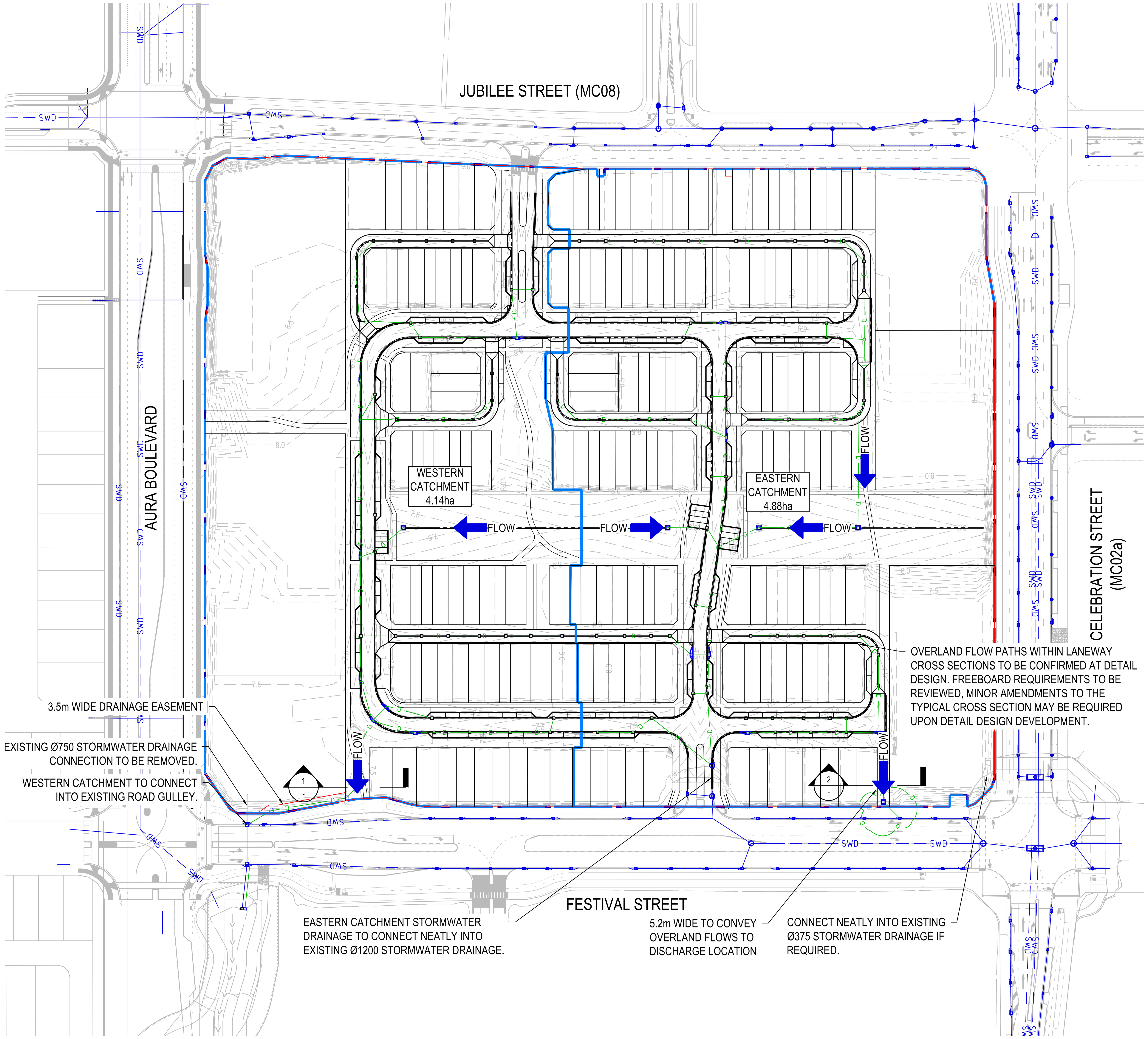
Project No. 304700147

Scale AS SHOWN A1

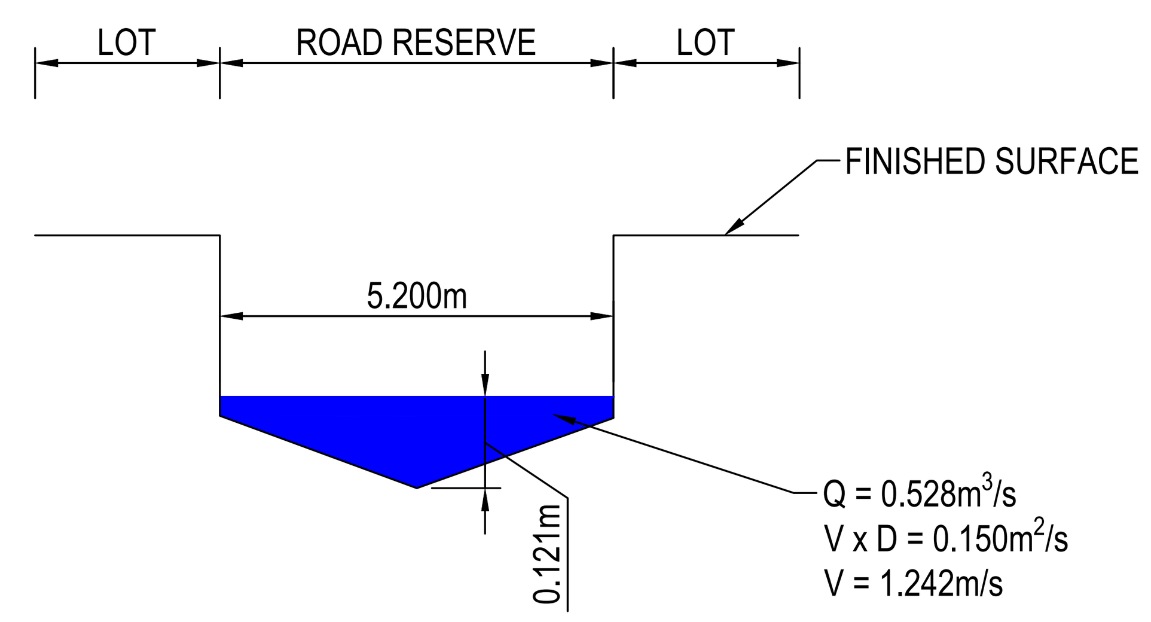
Revision 1

Drawing No. 35-CI-SK164

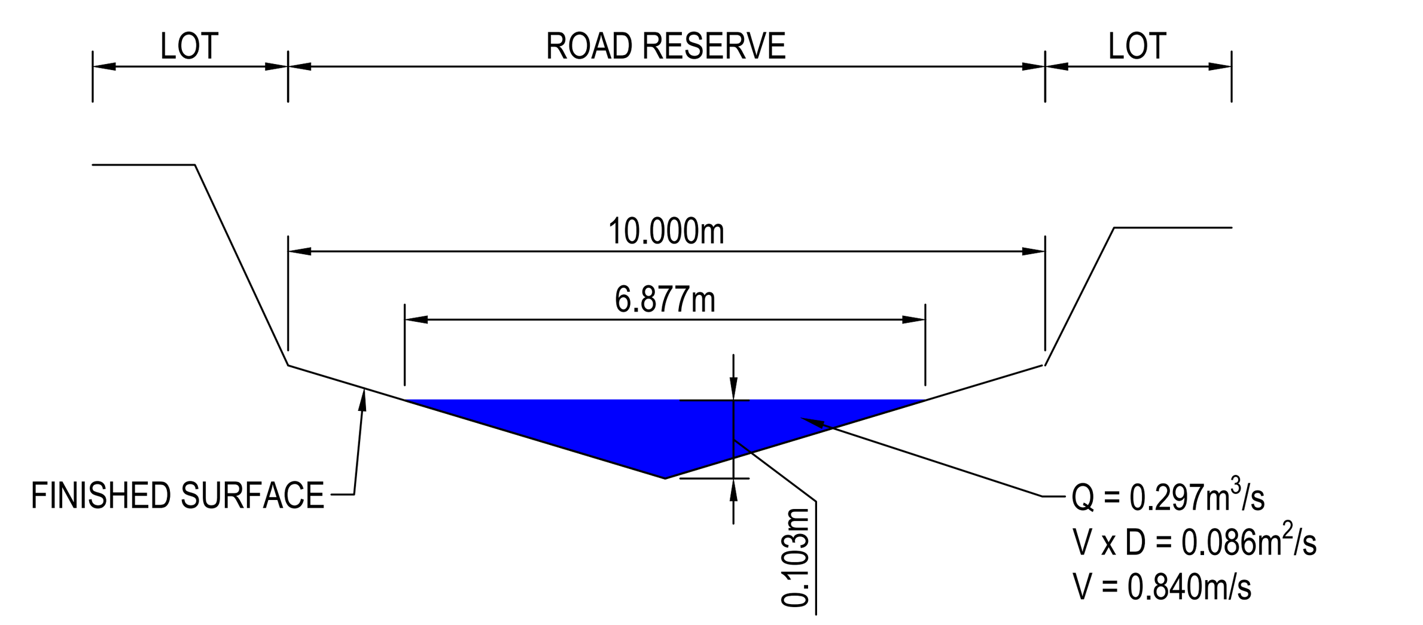
ORIGINAL SHEET - ISO A1 COORD - #### DATUM - DATUM



STORMWATER PLAN
SCALE 1:1000



2 OLFP CROSS SECTION
SCALE - AS SHOWN



1 OLFP CROSS SECTION
SCALE - AS SHOWN

NOTE:
1. PROPOSED STORMWATER DRAINAGE PIPE SIZES AND OVERLAND FLOW CAPACITIES TO CONFIRMED DURING DETAILED DESIGN PHASE.

WARNING
BEWARE OF UNDERGROUND SERVICES
THE LOCATION OF UNDERGROUND SERVICES HAVE BEEN INTERPOLATED FROM GIS DATA OR KNOWN POSITIONS OF VALVES, MANHOLES ETC. OR INFORMATION SUPPLIED BY SERVICE AUTHORITIES. NO RESPONSIBILITY IS TAKEN FOR THE ACCURACY OF THE INTERPOLATED INFORMATION SUPPLIED. ENSURE ALL SERVICES ARE ACCURATELY LOCATED PRIOR TO COMMENCEMENT OF WORK

LEGEND:
- STAGE BOUNDARY
- DESIGN CONTOURS (0.25m INTERVAL)
- PROPOSED NOMINAL KERB LINE
- PROPOSED ROAD RESERVE BOUNDARY
- COUNCIL STORMWATER DRAINAGE
- PRIVATE STORMWATER DRAINAGE
- PROPOSED STORMWATER EASEMENT
- EXISTING STORMWATER DRAINAGE

Notes

0 20 40 60 80 100m
SCALE 1:1000 @A1

Issued/Revision		By	Appd	YYYY.MM.DD
2	ISSUE FOR APPROVAL	TE	LH	2025.08.28
1	ISSUE FOR APPROVAL	AH	LH	2025.02.24

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Notes

File Name: 304700147-35-CI-SK170

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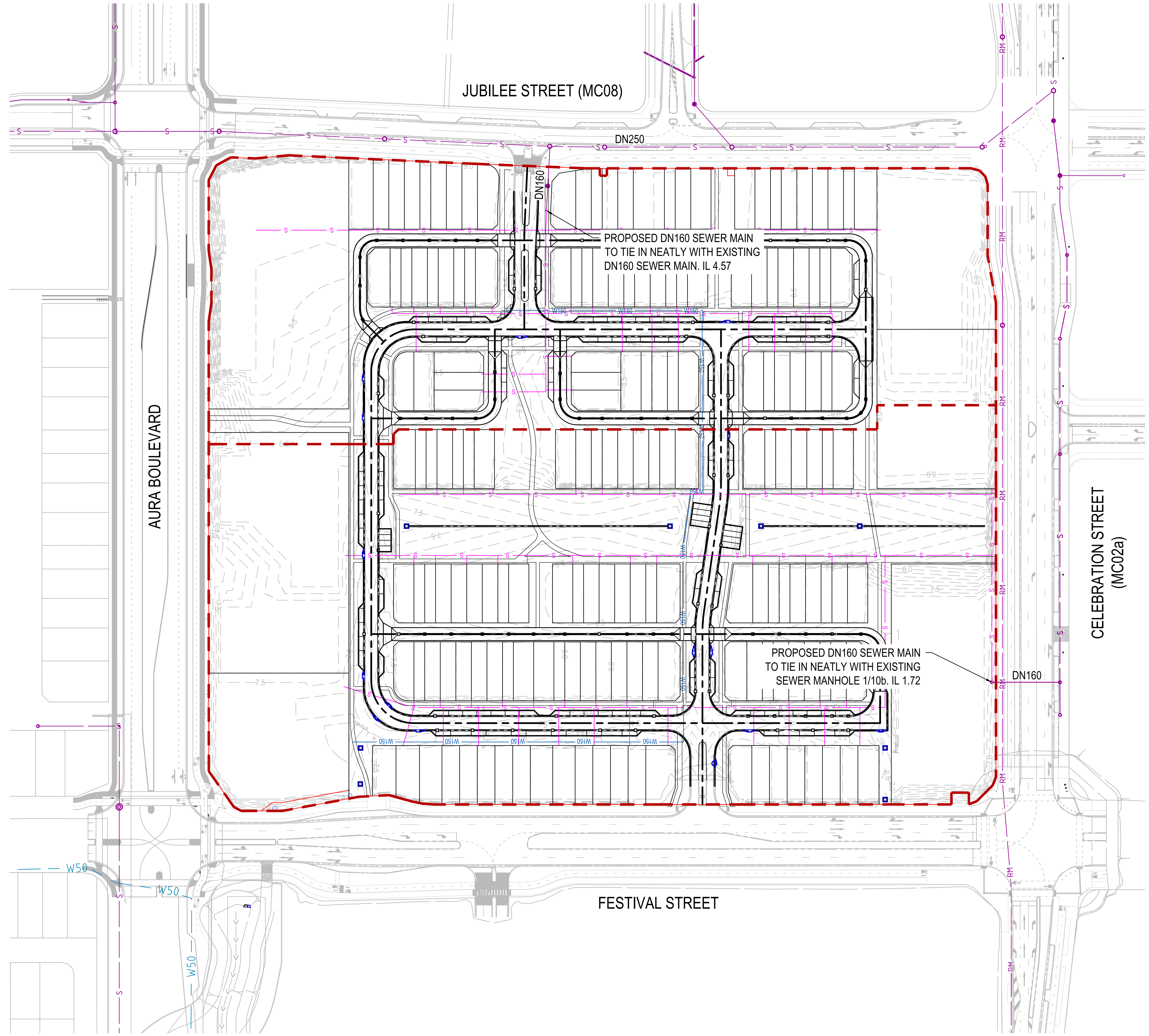
AURA PRECINCT 9
URBAN VILLAGE 2

Dwn.	Dsgn.	Chkd.	YYYY.MM.DD
JM	AH	LH	2025.02.24

Title
STORMWATER DRAINAGE PLAN

Project No. 304700147
Scale AS SHOWN A1
Revision 2
Drawing No. 35-CI-SK170



SEWERAGE PLAN

SCALE 1:1000

NOTE:

1. PROPOSED SEWER PIPE SIZES TO BE CONFIRMED DURING DETAILED DESIGN PHASE.

WARNING

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LEGEND:

- STAGE BOUNDARY
- DESIGN CONTOURS (0.25m INTERVAL)
- PROPOSED NOMINAL KERB LINE
- PROPOSED ROAD RESERVE BOUNDARY
- S160 UNITY WATER SEWER RETICULATION
- S PRIVATE SANITARY DRAINAGE
- S EXISTING SEWER MAIN
- RM EXISTING SEWER RISING MAIN
- S FUTURE SEWER MAIN
- PROPOSED SEWER EASEMENT
- PROPOSED SEWER CATCHMENT

Notes

0 20 40 60 80 100m
SCALE 1:1000 @A1

Issued/Revision		By	Appd	YYYY.MM.DD
2	ISSUE FOR APPROVAL	TE	LH	2025.08.28
1	ISSUE FOR APPROVAL	AH	LH	2025.02.24

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Notes

File Name:
304700147-35-CI-SK180

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STOCKLAND DEVELOPMENT PTY LTD

AURA PRECINCT 9
URBAN VILLAGE 2

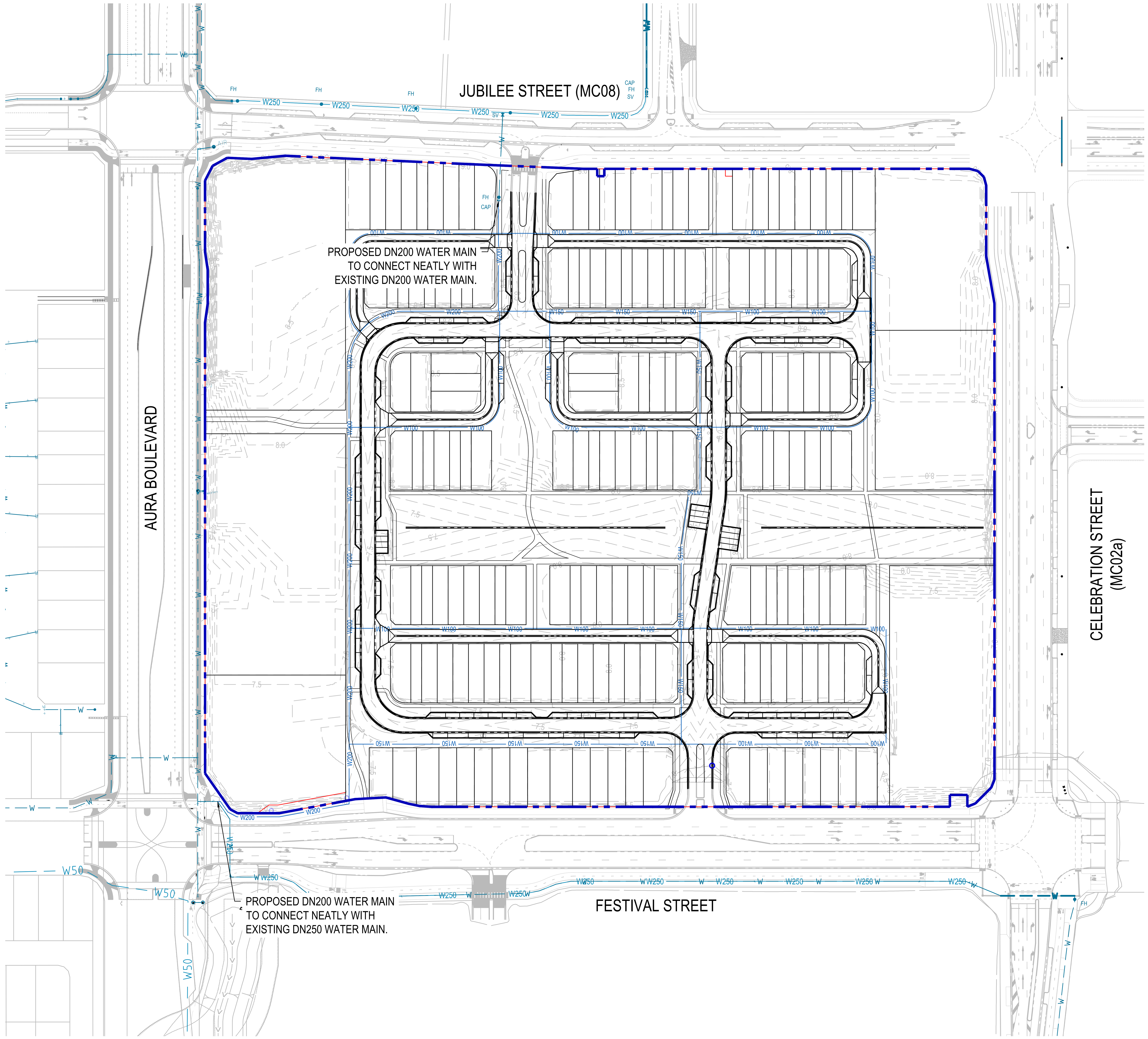
YYYY.MM.DD	Dwn.	Dsgn.	Chkd.	YYYY.MM.DD
	JM	AH	LH	2025.02.24

Title
SEWER RETICULATION PLAN

Project No. 304700147
Scale AS SHOWN A1
Revision 2
Drawing No. 35-CI-SK180

Plotted: 28/08/2025 12:58:36 PM By: EDWARDS, TAYLOR
C:\12DS\DATA\AU2012-PBTDF01\510362 AURA 25\05 TECHNICAL\35 P9 URBAN VILLAGE 2\DRAWINGS

ORIGINAL SHEET - ISO A1 COORD - #### DATUM - DATUM



WATER PLAN
SCALE 1:1000

NOTE:
1. PROPOSED WATER PIPE SIZES TO BE CONFIRMED DURING DETAILED DESIGN PHASE.

WARNING
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LEGEND:
- STAGE BOUNDARY
- DESIGN CONTOURS (0.25m INTERVAL)
- PROPOSED NOMINAL KERB LINE
- PROPOSED ROAD RESERVE BOUNDARY
- W100 — UNITY WATER DN100 WATER RETICULATION
- W150 — UNITY WATER DN150 WATER RETICULATION
- W250 — UNITY WATER DN250 WATER RETICULATION
- W — PRIVATE WATER SUPPLY
- PROPOSED BULK WATER METER
- W — EXISTING WATER RETICULATION
- W — FUTURE WATER RETICULATION
- PROPOSED WATER EASEMENT

Notes

0 20 40 60 80 100m
SCALE 1:1000 @A1

Rev	Issued/Revision	By	Appd	YYYY.MM.DD
2	ISSUE FOR APPROVAL	TE	LH	2025.08.28
1	ISSUE FOR APPROVAL	AH	LH	2025.02.24

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Notes

File Name: 304700147-35-CI-SK190

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URBAN VILLAGE 2

Dwn.	Dsgn.	Chkd.	YYYY.MM.DD
JM	AH	LH	2025.02.24

Title
WATER RETICULATION PLAN

Project No. 304700147
Scale AS SHOWN A1
Revision 2
Drawing No. 35-CI-SK190

ORIGINAL SHEET - ISO A1 COORD - #### DATUM - DATUM

Stantec Australia

Level 6, Springfield Tower
145 Sinnathamby Boulevard
Springfield Central QLD 4300

T: (07) 3381 0111

Communities are fundamental. Whether around the corner or across the globe, they provide a foundation, a sense of place and of belonging. That's why at Stantec, we always design with community in mind.

We care about the communities we serve—because they're our communities too. This allows us to assess what's needed and connect our expertise, to appreciate nuances and envision what's never been considered, to bring together diverse perspectives so we can collaborate toward a shared success.

We're designers, engineers, scientists, and project managers, innovating together at the intersection of community, creativity, and client relationships. Balancing these priorities results in projects that advance the quality of life in communities across the globe.

Stantec trades on the TSX and the NYSE under the symbol STN. Visit us at **stantec.com** or find us on social media.

Design with community in mind