WOLLONGONG CITY COUNCIL

Traffic Committee Minutes of Meeting

11 May 2021

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MINUTES CITY OF WOLLONGONG TRAFFIC COMMITTEE

at 9.15 am

11 May 2021

RECOMMENDATION

In accordance with the powers delegated to Council by the Road Transport Act 2013 and the Roads Act 1993, as outlined in TfNSW (previously RMS) document 'A guide to the Delegation to Councils for the Regulation of Traffic – including the operation of Traffic Committees':

1 The remaining Recommendations of the City of Wollongong Traffic Committee (excluding all Temporary Road Closures which require adoption by full Council), be adopted.

2 Appropriate persons and Departments be advised of Council's decisions.

Author's Name	Author's Title	Date
Amit Chowdhury	Traffic Engineer	24 May 2021
Rob Gaudiosi	Traffic Engineer	24 May 2021
Andrew Byers	Traffic and Transport Unit Leader (Acting)	24 May 2021
Isabelle Ghetti	Transport and Stormwater Services – Manager (Acting)	24 May 2021
Trish McClure	Infrastructure Strategy and Planning – Manager	24 May 2021
Jo Page	Director – Infrastructure and Works (Acting)	25 May 2021
Name	**Title**	**Date**
Greg Doyle	General Manager	26 May 2021

Wollongong City Council
Infrastructure, Strategy and Planning Division
Transport and Stormwater

The City of Wollongong Traffic Committee is not a Committee of Wollongong City Council however a Technical Committee of Transport for New South Wales (TfNSW). The Committee operates under the authority conferred to Council by TfNSW under the Transport Administration Act 1988. Council has resolved to manage the Traffic Committee under a Charter which sets out the membership, timelines for the preparation of the Agenda and the distribution of Minutes, in accordance with TfNSW document 'A guide to the delegation to councils for the regulation of traffic' (including the operation of Traffic Committees.)

Council has been delegated certain powers, from TfNSW, with regard to traffic matters upon its local roads. A condition of this delegation is that Council must consider the Traffic Committee recommendations.

There are four permanent members of the Traffic Committee, *each of whom has a single vote only.*

- The members are representatives of the NSW Police Force, Transport for New South Wales, the Local State Member of Parliament (for the location of the issue to be voted upon), and a representative of Wollongong City Council.

- If TfNSW or NSW Police Force disagrees with any Traffic Committee recommendation, or Council's resolution on any Traffic Committee recommendation, that member may lodge an appeal with the Regional Traffic Committee for determination. The appeal must be lodged in writing within 14 days of Council's resolution. Any action relative to any issue under appeal must cease until the matter is determined. The Regional Traffic Committee is chaired by an independent chairperson and submissions and representations are welcomed from all interested parties.

IMPORTANT NOTE:
Council can only resolve that:
1 The Traffic Committee recommendation be adopted.
2 The Traffic Committee recommendation not be adopted.
3 The Traffic Committee reconsider this issue.

PRESENT	
Amit Chowdhury	Wollongong City Council
Rob Gaudiosi	Wollongong City Council
Andrew Byers	Wollongong City Council
Robyn Dorman	Wollongong City Council
Steve Dill	Wollongong City Council
Charlie Bevan	Wollongong City Council
Senior Constable Elisabeth Catto	NSW Police
Jesse Fogg	Transport for NSW
John Burns	Representing the Member for Keira and Member for Wollongong

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1 STANDING AGENDA ITEMS

1.1 Welcome

1.2 Acknowledgement of Country

An Acknowledgement of Country was presented by Amit Chowdhury.

1.3 Declarations of Interest

No conflicts of interest were declared.

1.4 Apologies

An apology was received and accepted by Trish McClure, Mel Lausz, Les Dion, Paul Thomson (Lake Illawarra Police), Busabout.

1.5 Confirmation of Minutes

COMMITTEE'S RECOMMENDATION:

The Committee confirmed the previous minutes as an accurate record.

CARRIED UNANIMOUSLY

1.6 Business Arising from Previous Meeting

There was no business arising from the previous meeting.

2 GENERAL BUSINESS

2.1 FARMBOROUGH HEIGHTS Waples Road – Ward 3

Waples Road, Farmborough Heights – Millingaa Park Timed Parking Restrictions

BACKGROUND

Council has received a customer request regarding on street parking on Waples Road near Murrogun Crescent adjacent to the Millingaa Park playground. The customer identified a lack of parking availability on Waples Road near the playground during school days, due to high parking demand from senior students attending Cedars Christian College. This results in playground visitors with small children and prams needing to travel a significant distance on the grass verge to the playground.

A two hour parking restriction during weekdays for four car spaces directly adjacent to the playground is proposed to enhance access for users.

CONSULTATION

No consultation is required.

COMMITTEE'S RECOMMENDATION:

Installation of four, 2-hour parking (8:30am-4:30pm Monday to Friday) car spaces on the south side of Waples Road between Murrogun Crescent and Coachwood Drive directly adjacent to the playground starting from the existing No Stopping (L) sign.

It is to be confirmed that a footpath from the timed parking spaces to the playground is included in the footpath priority list.

CARRIED UNANIMOUSLY

2.2 BULLI Service Road opposite Godolphin Street – Ward 1

Service Road opposite Godolphin Street, Bulli – Change Timed Loading Zone to an Untimed Loading Zone

BACKGROUND

The Bulli Beach Café owners have requested that the timed loading zone (6am-11am) located at the cul-de-sac of the service road opposite Godolphin Street be changed to a full-time loading zone. The café owners have requested the change, as there are several deliveries in the afternoon period also.

CONSULTATION

No further consultation is required.

COMMITTEE'S RECOMMENDATION:

Remove the times from the loading zone at the cul-de-sac adjacent to Bulli Beach Café.

CARRIED UNANIMOUSLY

2.3 GWYNNEVILLE Madoline Street – Ward 2

Western end of Madoline Street from Paulsgrove Street to Wollongong Botanic Garden, Gwynneville – Proposed Parking Bays

BACKGROUND

In response to feedback from Parking Compliance Officers, Council is proposing parking bay line marking and associated signage at the western end of Madoline Street, from Paulsgrove Street to Wollongong Botanic Garden, Gwynneville. The installation of parking bay line marking will ensure consistency with nearby parking treatments.

CONSULTATION

Traffic and Transport Unit have consulted with Botanic Gardens, who support the proposed parking arrangement. A community consultation letter and plan will be sent shortly to adjacent residents. We anticipate there will be no issues with the proposal given there are no proposed changes to existing parking restrictions.

COMMITTEE'S RECOMMENDATION:

Drawing SK01 be approved.

CARRIED UNANIMOUSLY

2.4 BALGOWNIE New Mount Pleasant Road – Ward 3

New Mount Pleasant Road, Balgownie – Install Bus Zone at existing stop

BACKGROUND

The bus stop sign located at 14 New Mount Pleasant Road has gone missing and it is planned that bus zone signs be installed to replace it.

CONSULTATION

Consultation with the residents of 12 and 14 New Mount Pleasant Road has been carried out.

COMMITTEE'S RECOMMENDATION:

Install a bus zone 15m in length on the departure side of a wide existing driveway at 14 New Mount Pleasant Road.

CARRIED UNANIMOUSLY

3 REGULATION OF TRAFFIC

There are no Regulation of Traffic items.

4 DESIGN MATTERS

4.1 MOUNT KEIRA Mount Keira Road – Ward 2

Intersection of Mount Keira Road and Spring Street, Mount Keira – Proposed Roundabout, Blisters and Signage

BACKGROUND

This intersection sees a number of loss of control crashes and the project is being funded under the NSW Government Safer Roads Program. Mount Keira Road and Spring Street are both used as a bus route, so a semi-mountable roundabout is proposed as the most appropriate solution for improving safety at this intersection. Mount Keira Road is a popular on-road cycle route, so bicycle safety has been addressed in the design. The proposed design consists of:

- Semi-mountable roundabout
- Kerb extensions
- Regrading of road surface to improve crossfalls
- Signage and line marking
- Tree trimming to improve sight lines

CONSULTATION

Consultation is a requirement of the design process.

COMMITTEE'S RECOMMENDATION:

Plans PJ-4016 – 6895_C111_B and PJ-4016 – 6895_SK012_B be approved subject to:

-the inclusion of sharrows as part of the bicycle marking
-a roundabout warning sight for northbound motorists on Mount Keira Road.
-raised reflective pavement markers (RRPMs) for all approaches for 15-20m at 5 metre centres; include centre line and splitter island
-one of the hazard markers on the north side of the roundabout is not labelled, label with appropriate sign code

CARRIED UNANIMOUSLY

4.2 WOLLONGONG Mercury Street - Ward 2

Intersection of Mercury Street and Greenacre Road, Wollongong – Proposed Roundabout, Kerb Extensions, Blisters and Signage

BACKGROUND

Mercury Street is a collector road running between Foley Street, Throsby Drive and Crown Street, connecting the northern and western suburbs of Wollongong with the CBD and Hospital precinct. This creates a substantial number of turning conflicts at the existing give-way controlled T-intersection of Greenacre Road. The project is being funded under the NSW Government Safer Roads Program to address the current crash pattern and improve safety of pedestrians in this area. Mercury Street is used as a bus route, so a semi-mountable roundabout is proposed as the most appropriate solution for improving safety at this intersection. The proposed design consists of:

- Semi-mountable roundabout
- Kerb extensions
- Kerb ramps
- Regrading of road surface to improve crossfalls
- Signage and Line marking
- Relocation of existing southbound bus stop

CONSULTATION

Consultation is a requirement of the design process.

COMMITTEE'S RECOMMENDATION:

Plans PJ-4018 – 6894-C111-B and PJ-4018 – 6894-SK012-B be approved subject to:

-removal of the old kerb ramps at the corner of the intersection
-raised reflective pavement markers (RRPMs) for all approaches for 15-20m at 5 metre centres; include centre line and splitter island
-continue chevron line marking to the crossing facility in Mercury St north of Greenacre Rd

CARRIED UNANIMOUSLY

4.3 WOLLONGONG Denison Street – Ward 2

Denison Street, Wollongong – Road Safety Upgrades Including a Roundabout and Multiple Kerb Blisters with Kerb Ramps

BACKGROUND

Denison Street provides an alternate route for traffic outside of the CBD. The main issues on this street are vehicle speed and safe pedestrian crossing locations. Grant funding has been obtained for the safety upgrades of Denison Street under the NSW Government Safer Roads Program. To address the current crash patterns and improve safety in the area, a semi-mountable roundabout is proposed at the intersection of Denison Street and Loftus Street. Kerb blisters with kerb ramps are proposed near the Hercules Street intersection and on the south western side of the existing Robinson Street/Victoria Street roundabout to address pedestrian safety. The proposed design consists of:

- Semi-mountable roundabout
- Kerb extensions
- Kerb ramps
- Minor regrading of road surface at roundabout to improve crossfalls
- Signage and Line marking

CONSULTATION

Consultation is a requirement of the design process.

COMMITTEE'S RECOMMENDATION:

Plans PJ-4021 – 6893-C111-B, PJ-4021 – 6893-C112-B, PJ-4021 – 6893-C021-B and PJ-4021 – 6893-SK013-B be approved subject to:

-infill the proposed grass section between the existing path and the crossing point on the north western side of the intersection

CARRIED UNANIMOUSLY

4.4 WOLLONGONG Burelli Street – Ward 2

Intersection of Burelli Street and Church Street, Wollongong – Proposed Traffic Signal Modifications and Associated Footpath Works

BACKGROUND

The Burelli Street / Church Street intersection has had a number of pedestrian related crashes recorded. Traffic signal modifications are proposed to address this issue by introducing a scramble crossing phase to improve pedestrian safety. The project is being funded under the NSW Government Safer Roads Program. The proposed design consists of:

- Traffic control signal modification to include a scramble crossing phase and countdown timers
- Kerb ramps
- Signage
- Line marking
- Footpath upgrade

CONSULTATION

Consultation is a requirement of the design process.

COMMITTEE'S RECOMMENDATION:

Plan PJ-4017 – 6914_SK01_1 be approved.

CARRIED UNANIMOUSLY

4.5 WEST WOLLONGONG Abercrombie Street – Ward 2

Abercrombie Street, West Wollongong – Street Cycling Route Improvements

BACKGROUND

It is proposed to provide upgraded cycling and shared path facilities on Abercrombie Street. Abercrombie Street is a key link between the existing shared user paths on the Princes Highway and the expanding shared user path network proposed to the north.

The proposed route has several treatments due to the varying nature of the road. These are:

- In the southern section, we are proposing advisory signage and pavement markings, along with warning signage
- In the steeper middle section, we are also proposing to install a cyclist climbing lane. This will allow road users to safely pass climbing cyclists using the road
- In the northern section, between Gundarun Street and Mount Keira Road, we are proposing to install an off-road shared path link to enable riders to ride off-road. We are also proposing additional warning and advisory signage

CONSULTATION

Consultation is a requirement of the design process.

COMMITTEE'S RECOMMENDATION:

Plan 6871_1 be approved subject to review of clearance requirements for vehicle door opening.

CARRIED UNANIMOUSLY

4.6 GWYNNEVILLE Foley Street – Ward 2

Foley Street, Gwynneville – Proposed Blisters, Signage and Line Marking

BACKGROUND

As part of the construction for proposed blisters and kerb ramps along Foley Street, Gwynneville, Council is also proposing additional signage/line marking. This project has previously been to traffic committee. This project is being resubmitted to capture recent changes including:

- Painted chevron on Foley Street and removal of "Keep Clear" line marking at Lucinda Street
- Stop line at Kiernan Street (existing Stop sign control)
- Give way sign at Lucinda Street

CONSULTATION

Consultation is a requirement of the design process.

COMMITTEE'S RECOMMENDATION:

Plan 5001_SK01_2 be approved, subject to the removal of the cyclist marking on the inside of the curve at Foley St/Porter St and prioritising the upgrade of the footpath to a shared path at this location to improve safety.

CARRIED UNANIMOUSLY

5 DEVELOPMENT MATTERS

5.1 AVONDALE Avondale Road – Ward 3

Avondale Road, Avondale – Line Marking

BACKGROUND

A new residential development to the south west of the railway level crossing on Avondale Road has a Consent condition requiring the setting out of a right turn facility for vehicles entering the development. The reason is to reduce or eliminate any queuing back to the level crossing, as a result of drivers making a right turn into the site from Avondale Road. A basic line marking arrangement is acceptable in these circumstances.

This proposal has previously been discussed at traffic committee, where the committee raised concerns over queuing across the nearby level crossing.

CONSULTATION

The developer (or their traffic consultant) will attend the Traffic Committee meeting to discuss the proposal along with the Traffic Engineer from Council's Development Engineering team.

COMMITTEE'S RECOMMENDATION:

Plan P4650.001D be approved.

CARRIED UNANIMOUSLY

5.2 KEMBLA GRANGE Darkes Road – Ward 3

Darkes Road, Kembla Grange – Sanctuary Views Stage 4 – DA-2020-989 – CS-2021/1

BACKGROUND

As a requirement of the development consent, the developer is required to submit a signs and lines plan for Council approval.

The subdivision is located between Darkes Road and West Dapto Road and forms part of a larger 3 staged subdivision approved under DA-2018/104. The previous three stages have been completed and the land and roads registered.

The road design and layout has been prepared and approved as part of the development application assessment. The plans are designed in accordance with AUSTROADS Guide to Road Design, Council's Development Control Plan and Council's Subdivision Policy.

The 16 lot subdivision includes a new road connecting to Darkes Road and three extensions of existing roads and associated intersections which connect to the completed subdivision.

With regard to the proposed Interim Darkes Road/Road 11 Priority-Controlled Intersection; As indicated in Section 4.7 of the TIA, under strict application of AUSTROADS guidelines, the interim Darkes Road/Road 11 priority-controlled intersection requires BAR and BAL turn treatments.

However, it is acknowledged that it would not be possible or reasonable to provide this type of intersection in this location due to the following design constraints:

- The location of utilities (ie. power poles).
- The existing Darkes Road alignment through the intersection, including carriageway and road reserve widths.
- The location of the future Darkes Road/Road 11 roundabout.

While the proposed interim intersection does not meet typical requirements for BAR and BAL turn treatments, the following is noted:

- The intersection location complies with the approved neighbourhood plan.
- The Road 11 location and alignment optimises cooperation from adjoining landowners.
- The intersection has been designed to allow a B99 design vehicle to pass a right turning heavy vehicle rigid (HRV).
- HRV turn movements at the interim Darkes Road/ Road 11 priority-controlled intersection, show that an HRV does not cross the centreline of either road, and that a HRV can prop in Darkes Road to turn right while a B99 vehicle continues around it (see swept paths).
- Sight distances exceed the AUSTROADS minimum requirements as follows:
    - An approach sight distance (ASD) of 83 metres is required under AUSTROADS guidance. A review of the plans found that 190 metres is available.
    - The required safe intersection sight distance (SISD) is 214 metres. A review of the development plans indicates that available SISD exceeds the SISD requirement.
- Based on the submission of a pre-lodgement for the adjacent site (PL-2021/24) and intent from landowners to proceed with development, it is expected that the roundabout would be provided in the coming years.
- The proposed give way intersection would provide an intersection with good sight distance and vehicle manoeuvrability in the interim until such time as the ultimate intersection treatment is provided.

The following signage and linemarking is proposed for the interim Darkes Road/Road 11 priority controlled intersection as a condition of Construction Certificate application CS-2021/1:

- Give Way Line (TB line) on Road 11 at intersection.
- Give Way (R1-2) sign on Road 11 at intersection.

- Bi-Directional Hazard Marker (D4-2-3) on Darkes Road at intersection facing Road 11.
- T-intersection Beyond a Curve (W2-14(L)) sign on Road 11, 80m prior to give way line.

CONSULTATION

Consultation and notification of the development is undertaken during the development application assessment. A traffic engineer from Council's Development Engineering Team will attend the meeting to discuss this proposal in detail.

COMMITTEE'S RECOMMENDATION:

Plan 1799C-CC-S4-0601 be approved, with the inclusion of a 50km/h sign at the entrance to the subdivision with a 50 pavement marking.

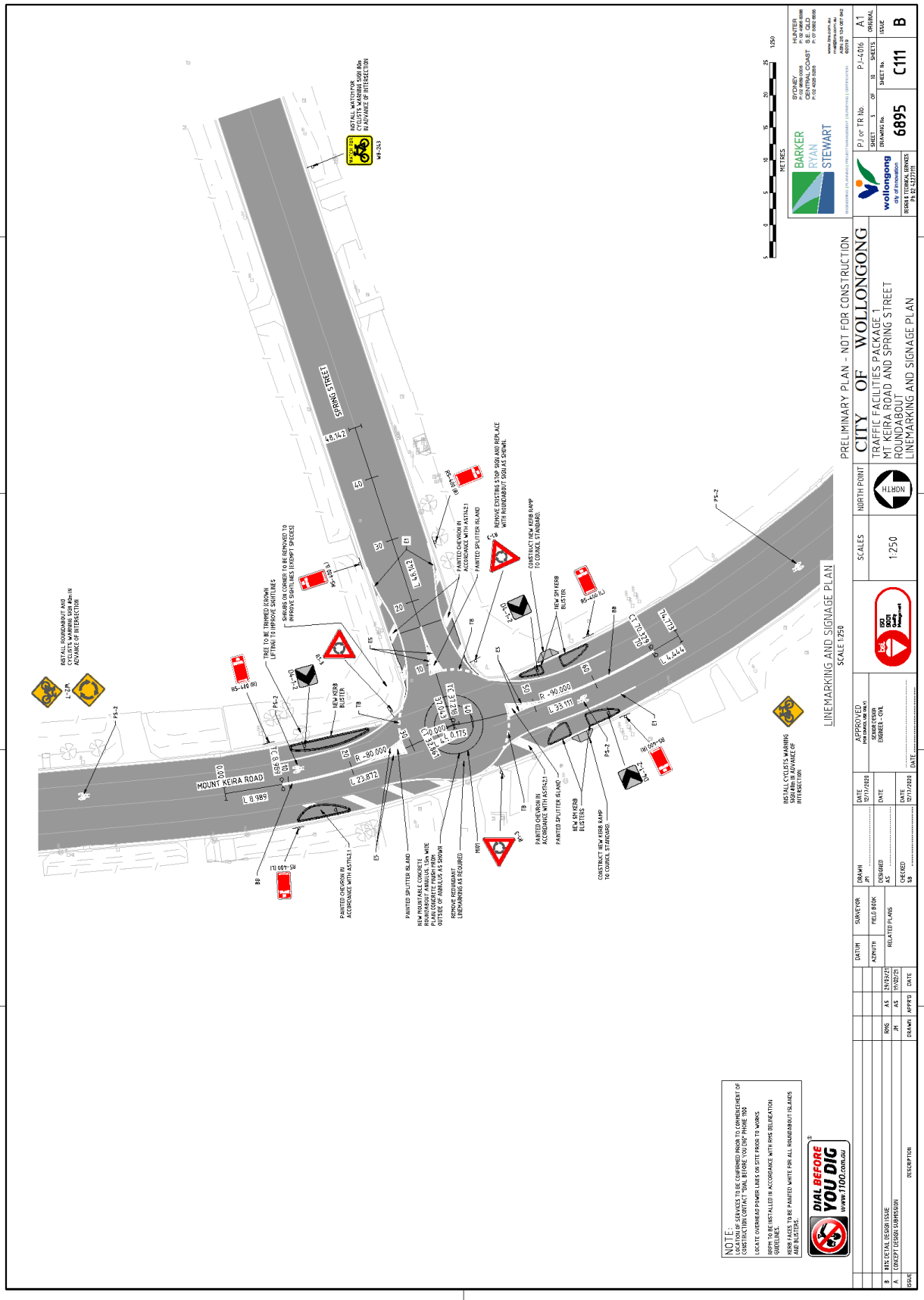
CARRIED UNANIMOUSLY

The meeting closed at 10:45am.

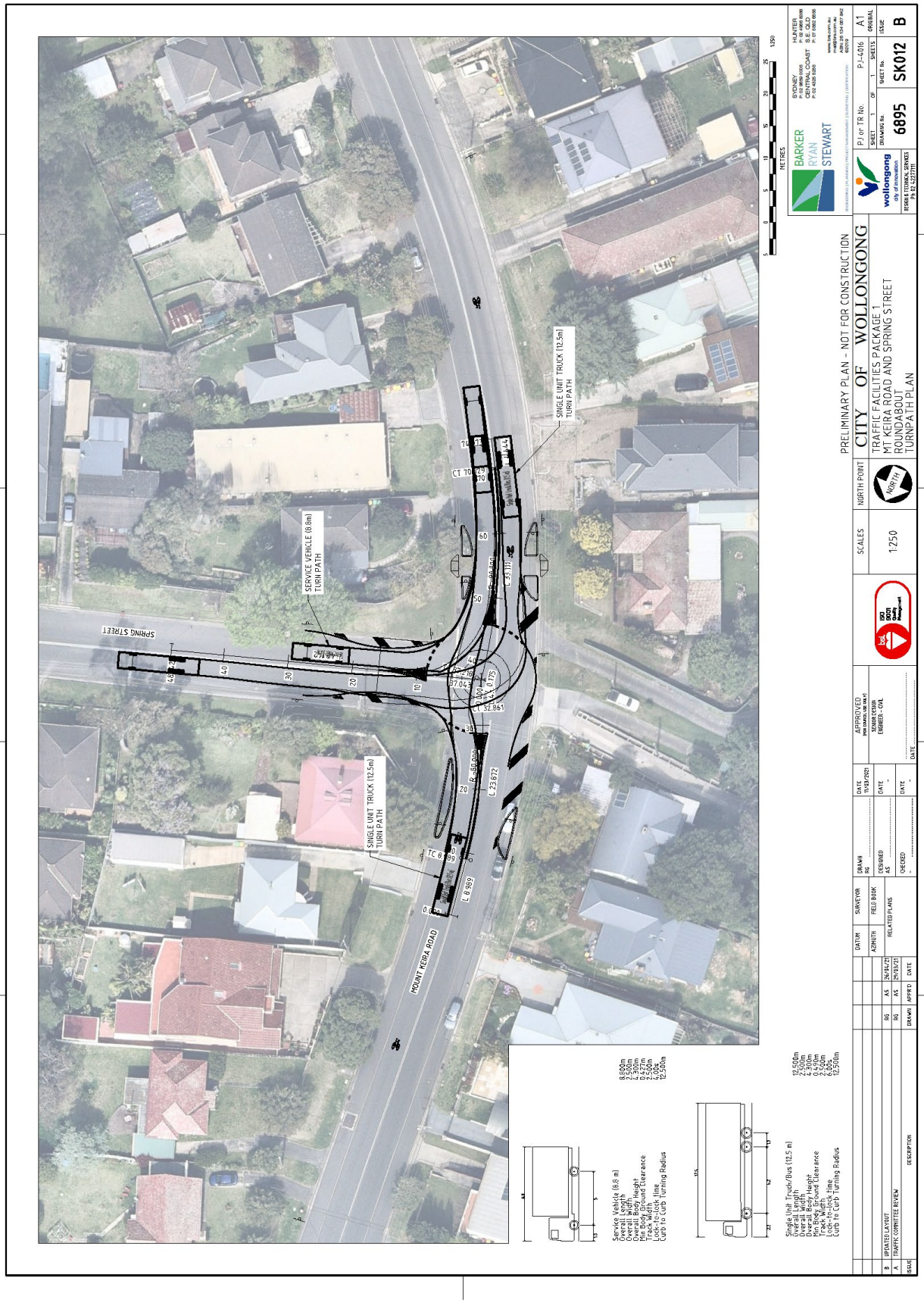
The next meeting of the City of Wollongong Traffic Committee will be held on 1 June 2021 at 9:15am.

Madoline Street, Gwynneville – Proposed Parking Bays - Drawing SK01

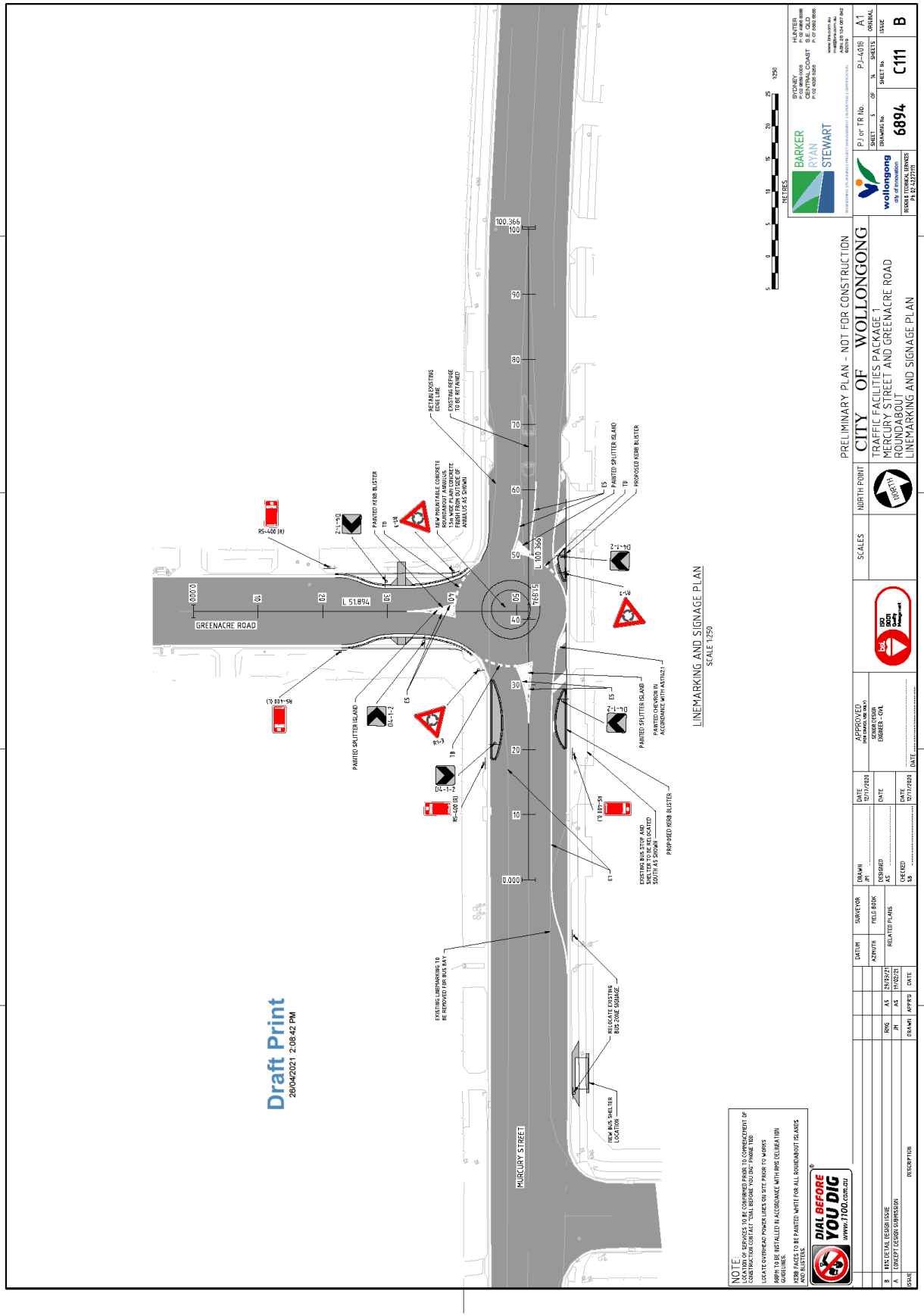
Intersection of Mount Keira Road and Spring Street, Mount Keira – Proposed Roundabout, Blisters and Signage – Plan PJ-4016 – 6895_C111_B – Page 1 of 2



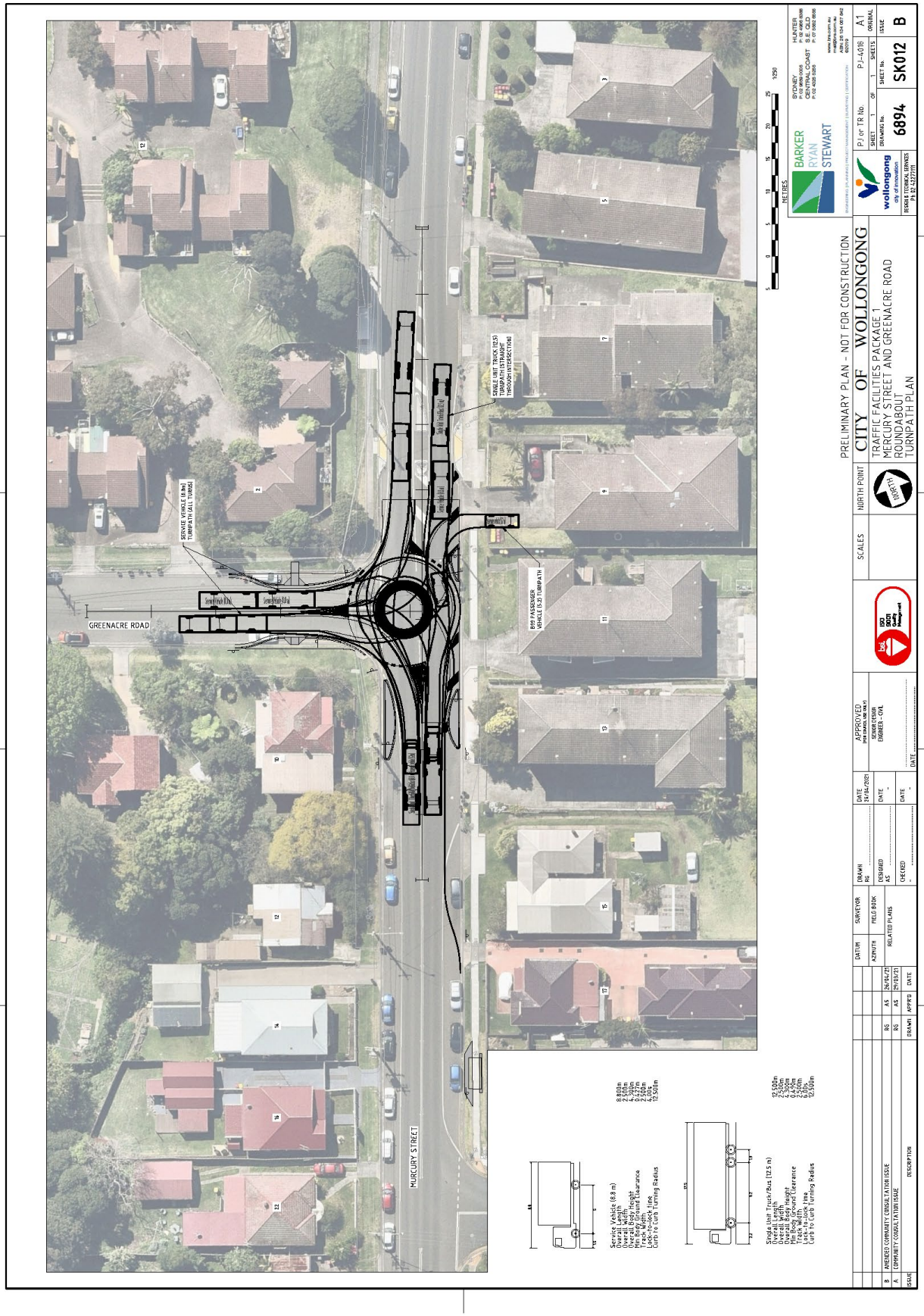
Intersection of Mount Keira Road and Spring Street, Mount Keira – Proposed Roundabout, Blisters and Signage – Plan PJ-4016 – 6895_SK012_B – Page 2 of 2



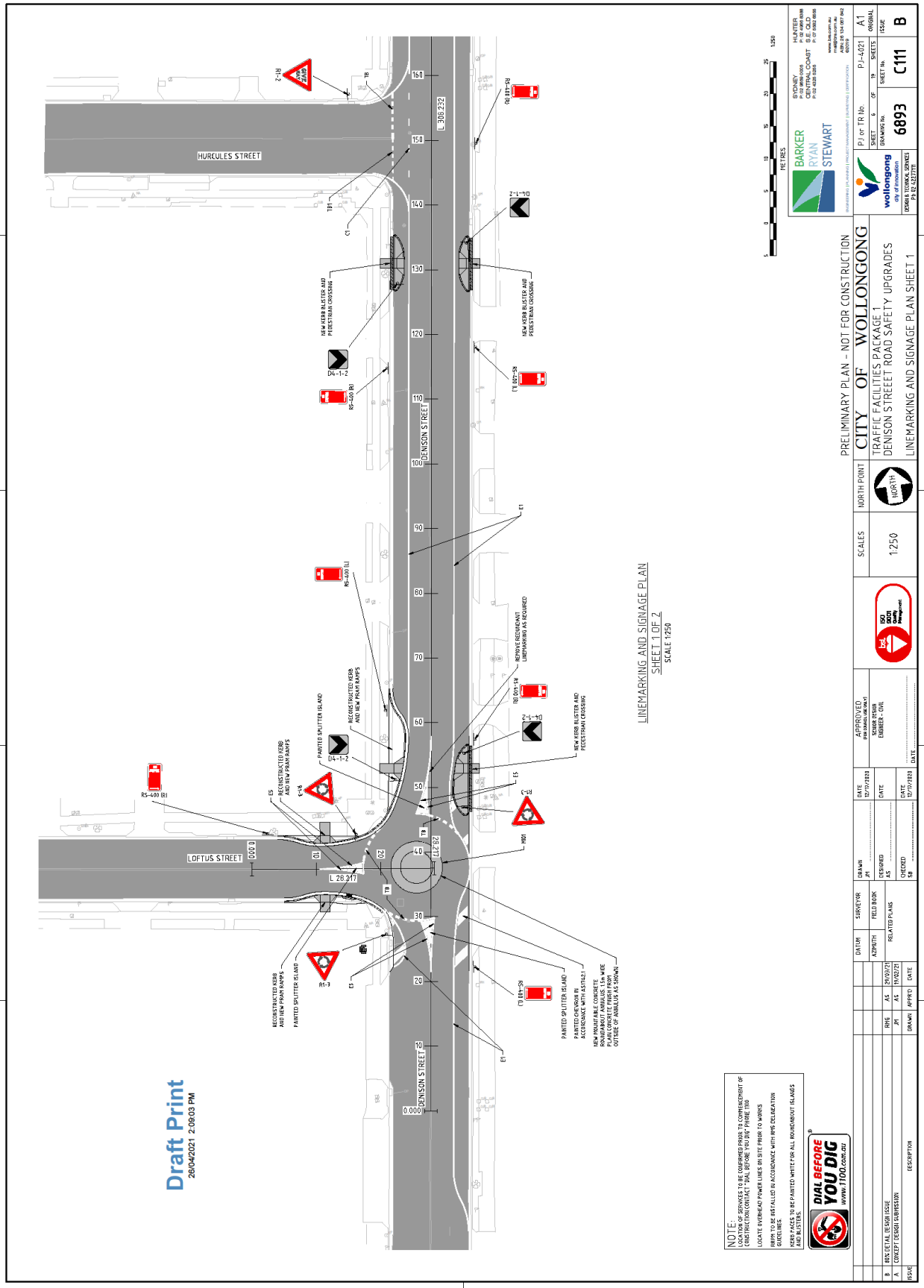
Intersection of Mercury Street and Greenacre Road, Wollongong – Proposed Roundabout, Kerb Extensions, Blisters and Signage – Plan PJ-4018 – 6894-C111-B – Page 1 of 2



Intersection of Mercury Street and Greenacre Road, Wollongong – Proposed Roundabout, Kerb Extensions, Blisters and Signage – Plan PJ-4018 – 6894-SK012-B – Page 2 of 2



Denison Street, Wollongong – Road Safety Upgrades Including a Roundabout and Multiple Kerb Blisters with Kerb Ramps – Plan PJ-4021 – 6893-C111-B – Page 1 of 4



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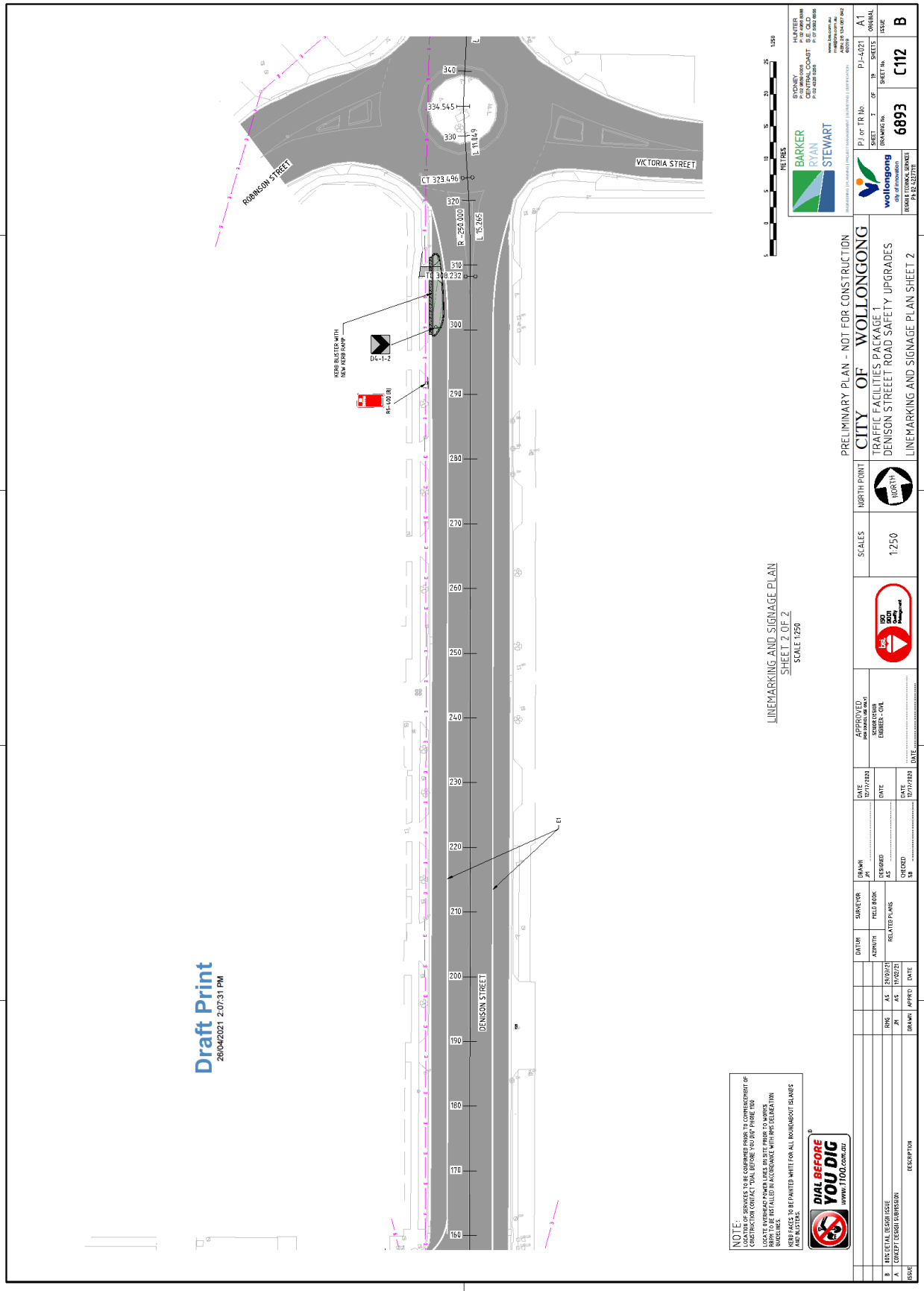
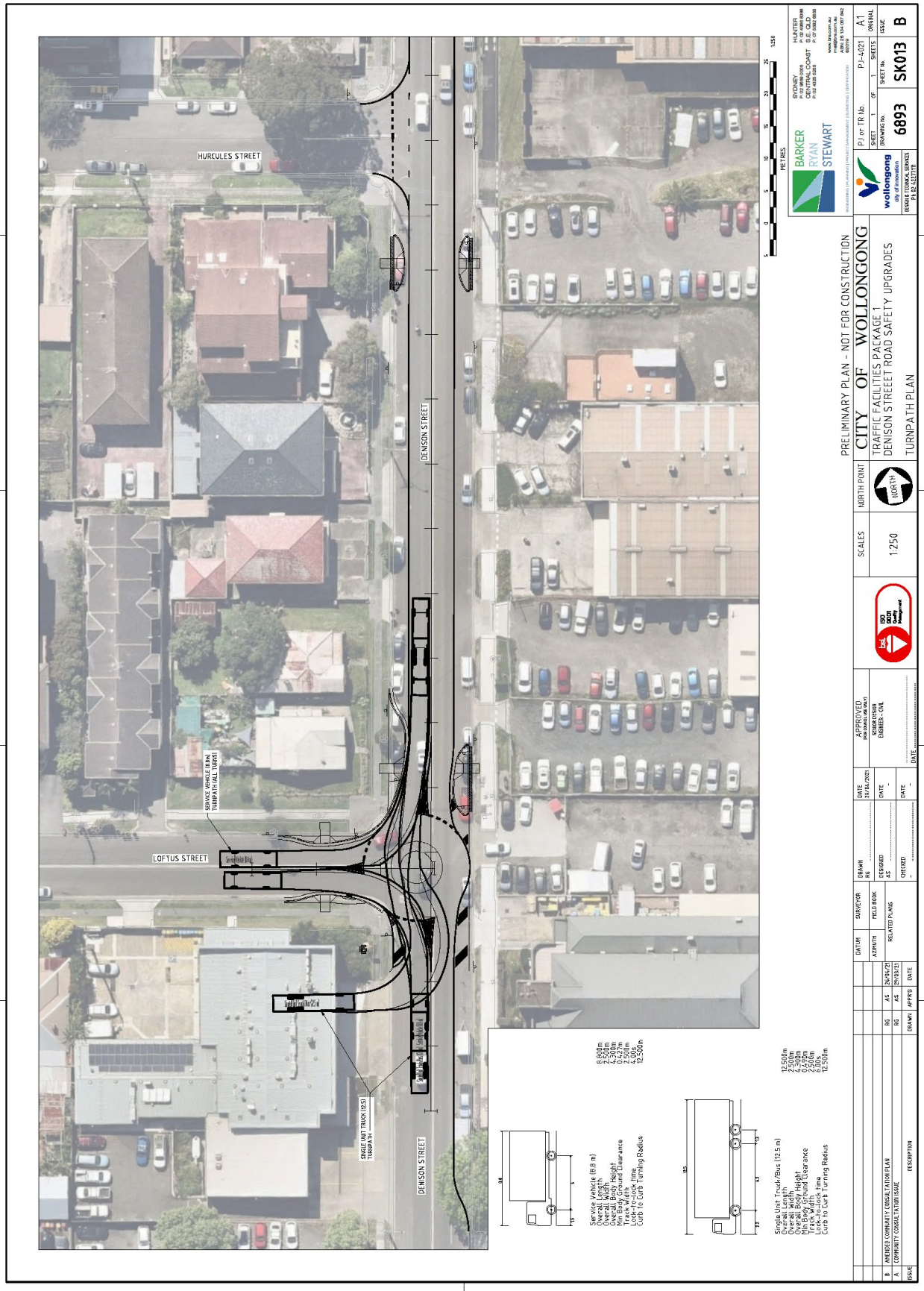
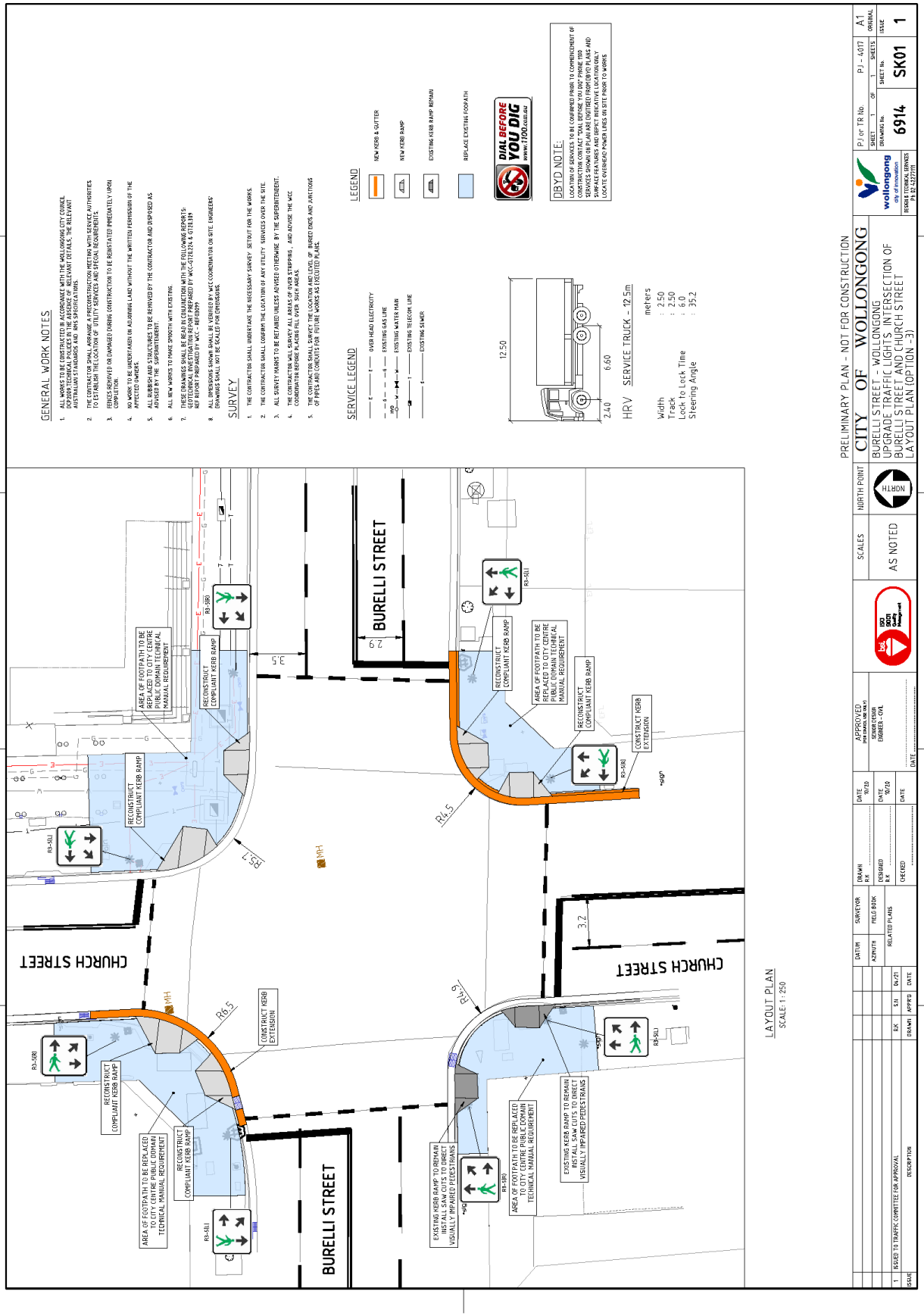


Denison Street, Wollongong – Road Safety Upgrades Including a Roundabout and Multiple Kerb Blisters with Kerb Ramps – Plan PJ-4021 – 6893-C021-B – Page 3 of 4

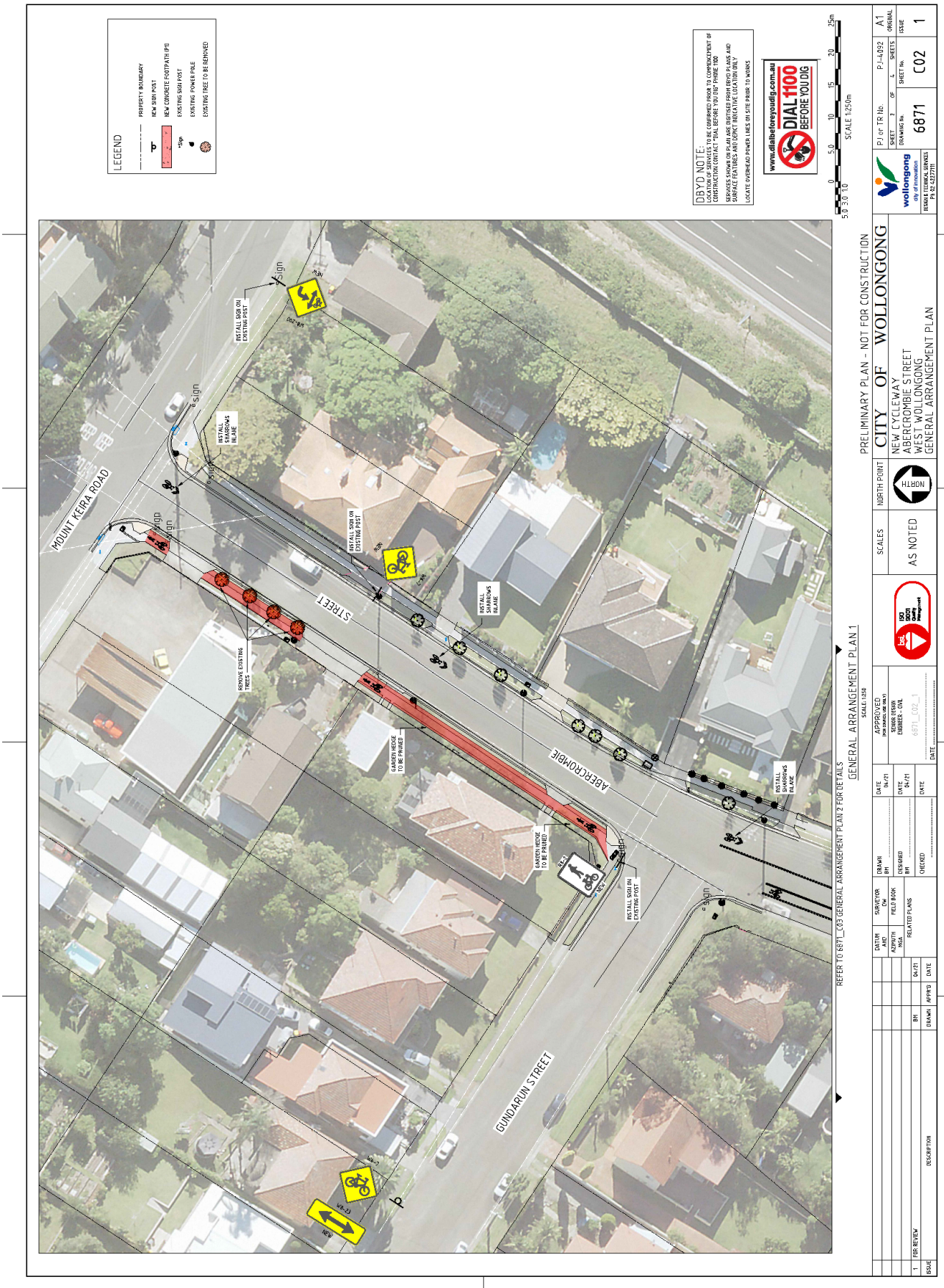
Denison Street, Wollongong – Road Safety Upgrades Including a Roundabout and Multiple Kerb Blisters with Kerb Ramps – Plan PJ-4021 – 6893-SK013-B – Page 4 of 4



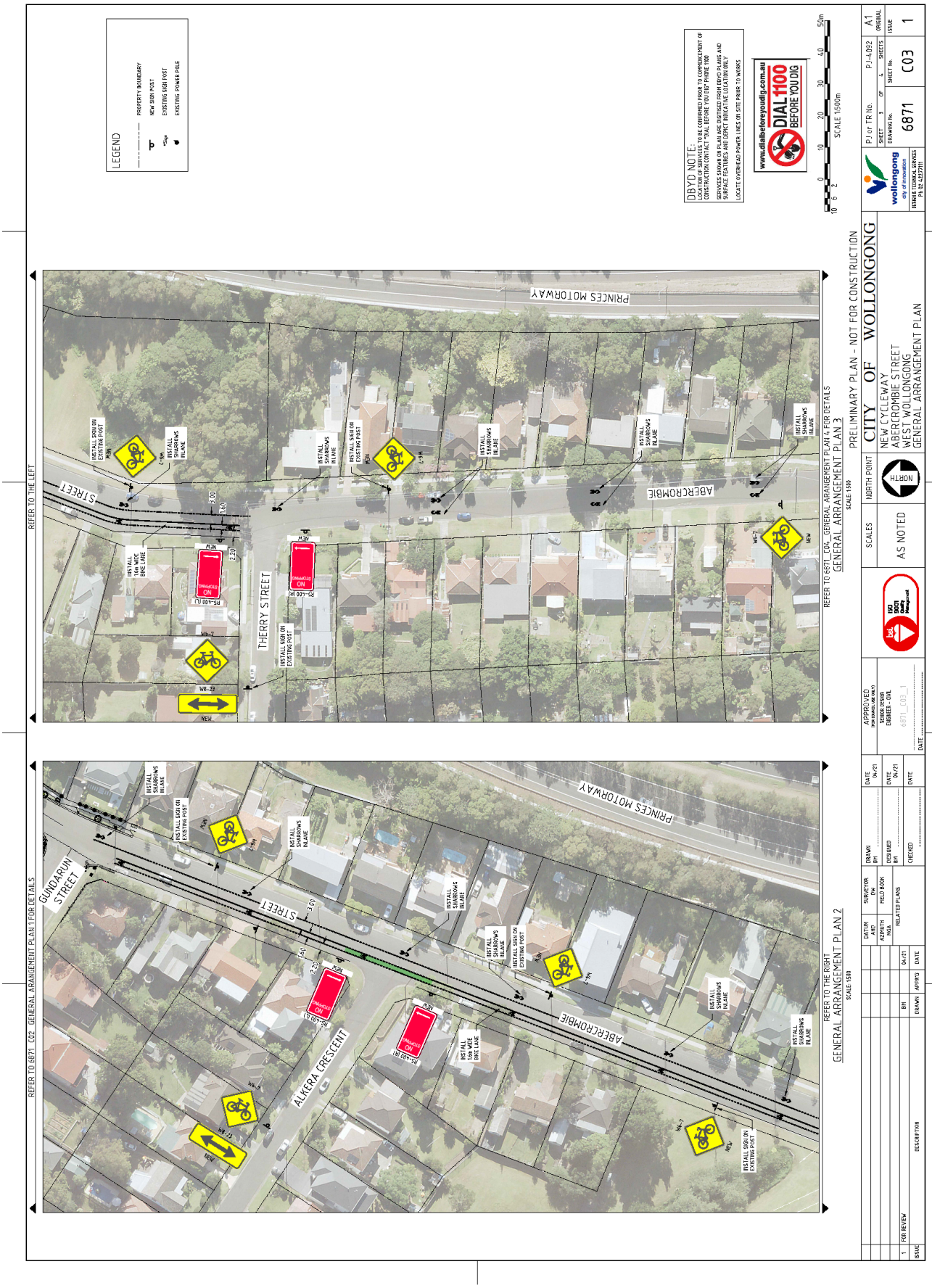
Intersection of Burelli and Church Street, Wollongong – Proposed Traffic Signal Modifications and associated Footpath Works - Plan PJ-4017 – 6914_SK01_1



Abercrombie Street, North Wollongong – Proposed Street Cycling Route Improvements – Plan 6871_1 – Page 1 of 3



Abercrombie Street, North Wollongong – Proposed Street Cycling Route Improvements – Plan 6871_1 – Page 2 of 3



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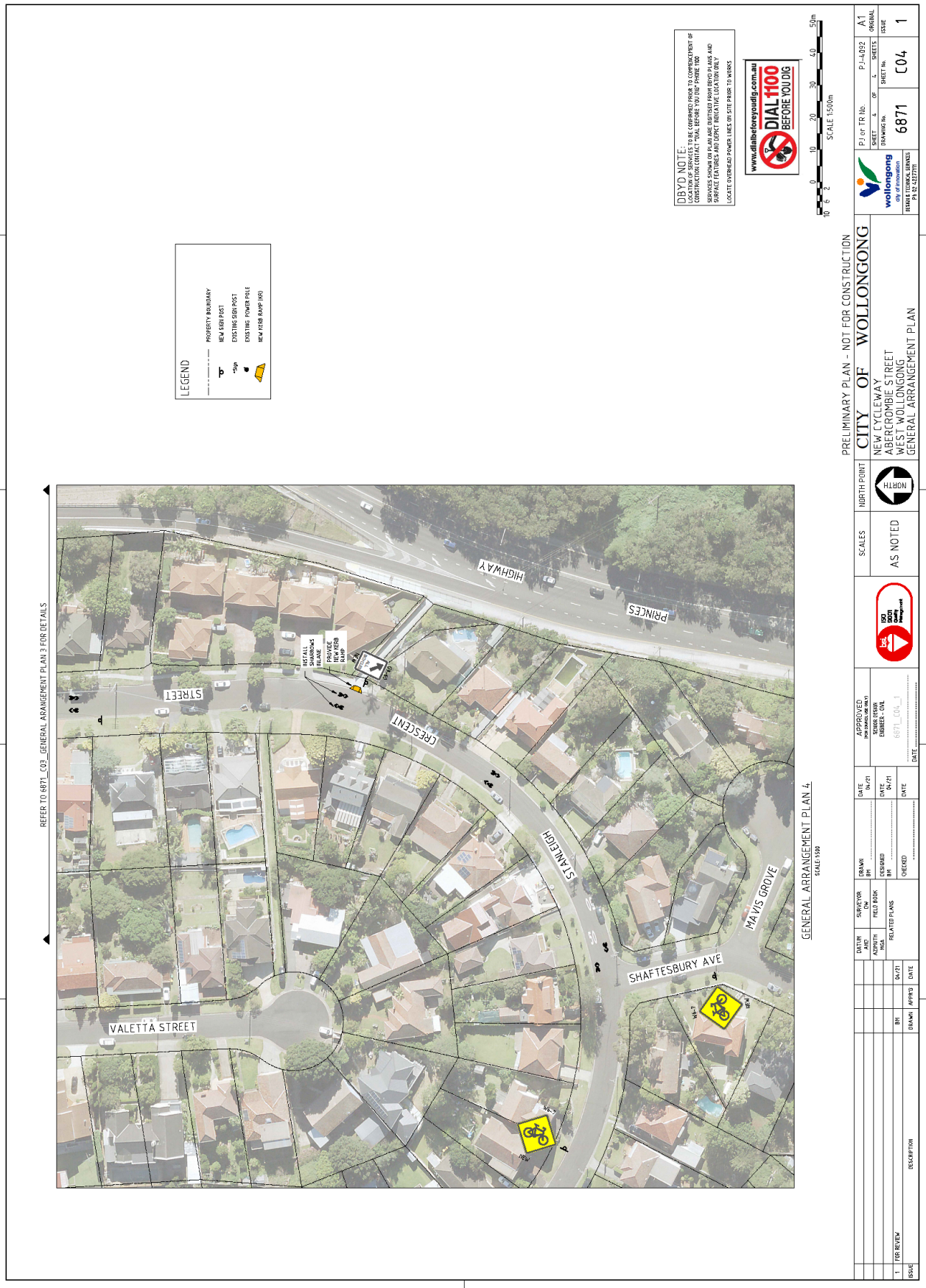
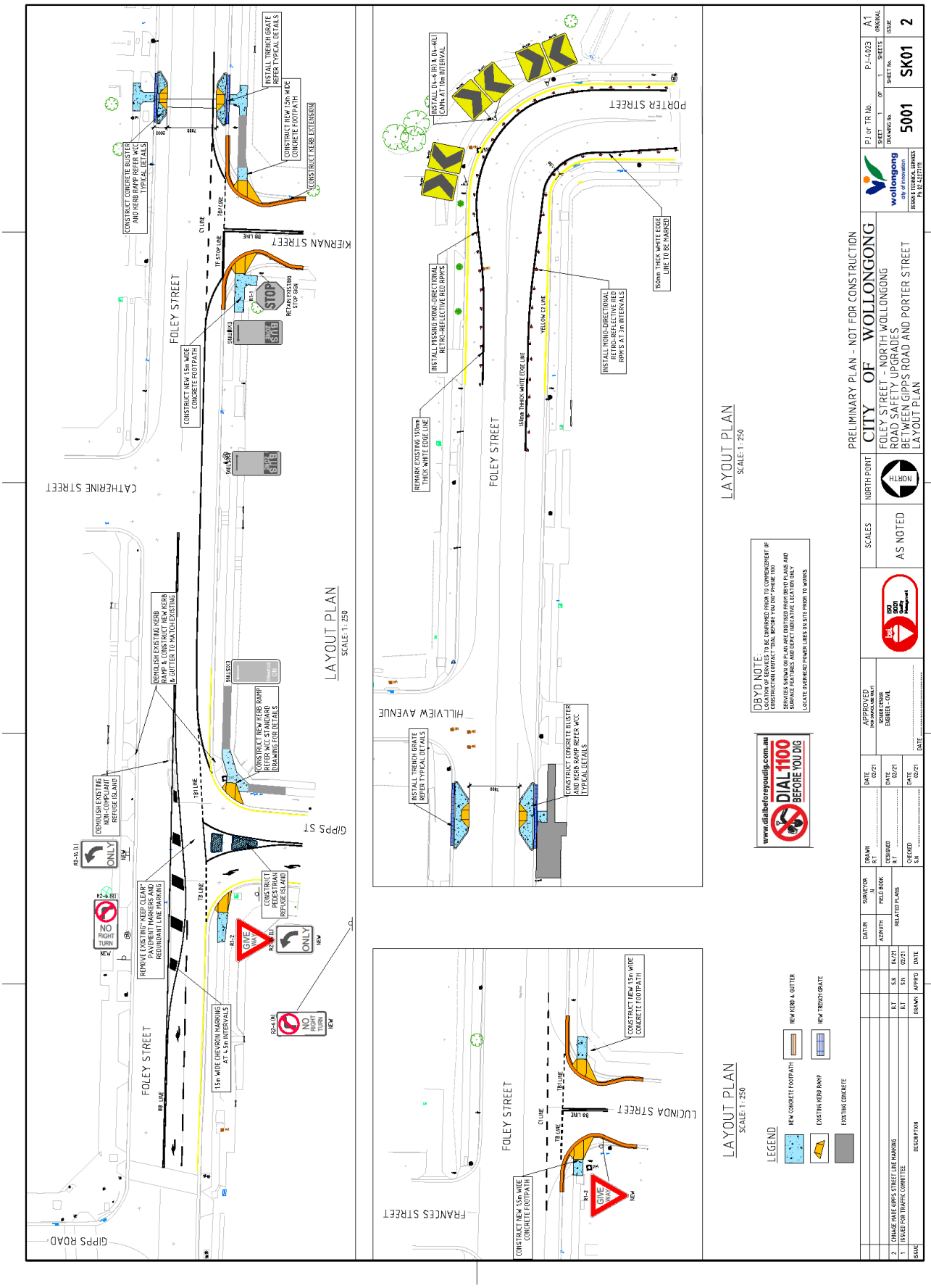
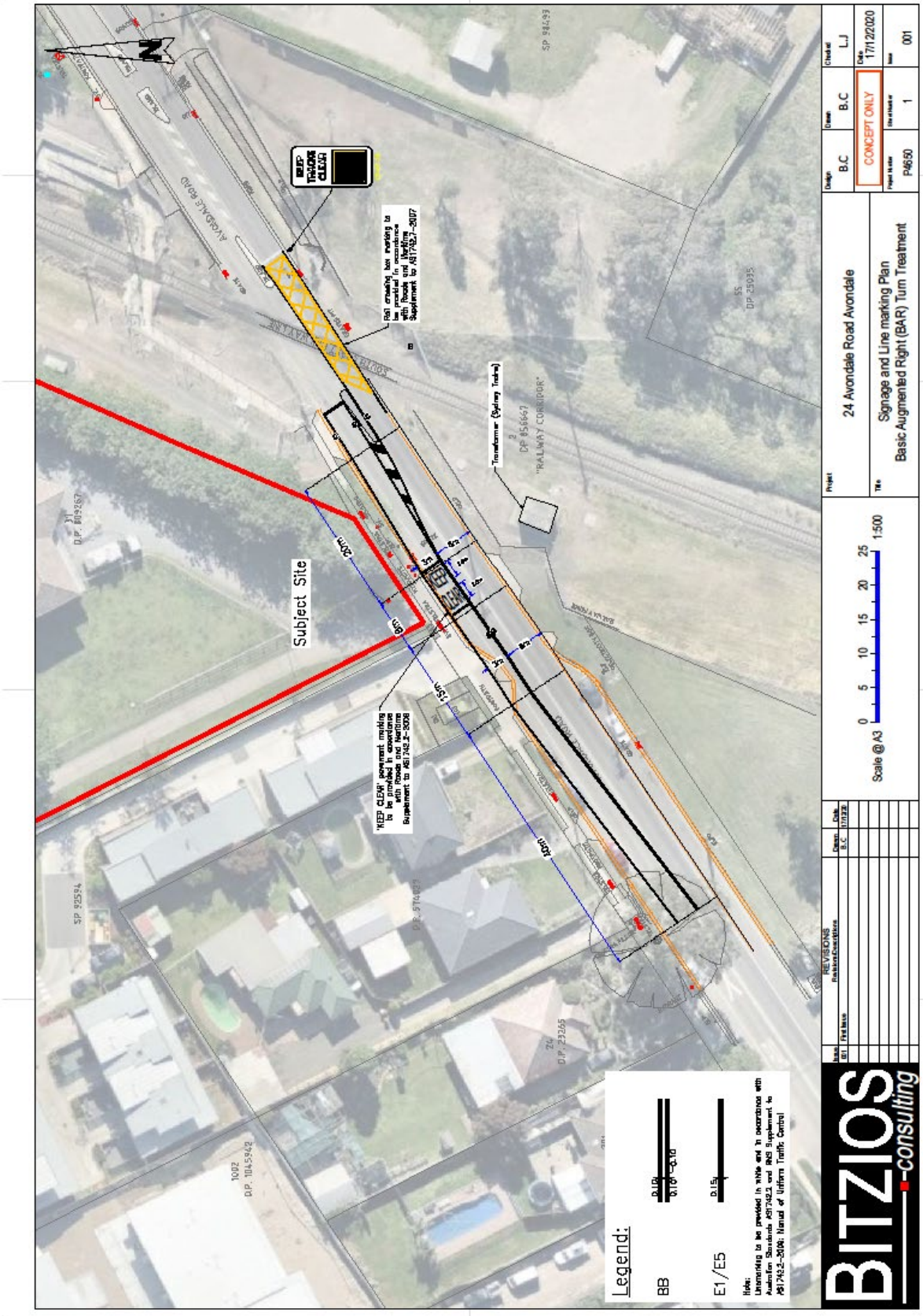


Foley Street, Gwynneville – Proposed Blisters, Signage and Line Marking- Plan 5001_SK01_2



Avondale Road, Avondale – Line Marking – Plan P4650.001D – Page 1 of 7



Avondale Road, Avondale – Line Marking – Page 2 of 7

MOVEMENT SUMMARY

Site: 101 [2036_AM_With_Development]

Avondale Road / Development Access Priority-Controlled Intersection
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Avondale Road											
5	T1	399	0.0	0.212	0.1	LOS A	0.1	0.9	0.04	0.03	59.6
6	R2	12	0.0	0.212	9.1	LOS A	0.1	0.9	0.04	0.03	17.2
Approach		411	0.0	0.212	0.3	NA	0.1	0.9	0.04	0.03	55.8
North: Development Access											
7	L2	45	0.0	0.050	1.5	LOS A	0.2	1.3	0.44	0.33	16.6
9	R2	5	0.0	0.050	4.5	LOS A	0.2	1.3	0.44	0.33	16.6
Approach		51	0.0	0.050	1.8	LOS A	0.2	1.3	0.44	0.33	16.6
West: Avondale Road											
10	L2	1	0.0	0.211	8.9	LOS A	0.0	0.0	0.00	0.00	57.3
11	T1	414	0.0	0.211	0.0	LOS A	0.0	0.0	0.00	0.00	59.9
Approach		415	0.0	0.211	0.0	NA	0.0	0.0	0.00	0.00	59.9
All Vehicles		876	0.0	0.212	0.3	NA	0.2	1.3	0.04	0.03	50.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay Includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: P:\P2876 24 Avondale Road TIA\Technical Work\Models\2036_Avondale Road.sip7

Avondale Road, Avondale – Line Marking – Page 3 of 7

MOVEMENT SUMMARY

Site: 101 [2036_AM_With_Development]

Avondale Road / Development Access Priority-Controlled Intersection
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Avondale Road											
5	T1	399	4.8	0.219	0.1	LOS A	0.1	0.9	0.04	0.03	59.6
6	R2	12	0.0	0.219	9.2	LOS A	0.1	0.9	0.04	0.03	17.2
Approach		411	4.7	0.219	0.3	NA	0.1	0.9	0.04	0.03	55.8
North: Development Access											
7	L2	45	0.0	0.051	1.5	LOS A	0.2	1.3	0.45	0.34	16.6
9	R2	5	0.0	0.051	4.7	LOS A	0.2	1.3	0.45	0.34	16.6
Approach		51	0.0	0.051	1.9	LOS A	0.2	1.3	0.45	0.34	16.6
West: Avondale Road											
10	L2	1	0.0	0.217	8.9	LOS A	0.0	0.0	0.00	0.00	57.3
11	T1	414	4.8	0.217	0.0	LOS A	0.0	0.0	0.00	0.00	59.9
Approach		415	4.8	0.217	0.0	NA	0.0	0.0	0.00	0.00	59.9
All Vehicles		876	4.5	0.219	0.3	NA	0.2	1.3	0.04	0.03	50.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay Includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: P:\P4650 24 Avondale Road Avondale Traffic Services\Technical Work\Models\2036_Avondale Road.sip7

Avondale Road, Avondale – Line Marking – Page 4 of 7

MOVEMENT SUMMARY

Site: 101 [2036_PM_With_Development]

Avondale Road / Development Access Priority-Controlled Intersection
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Avondale Road											
5	T1	459	0.0	0.265	0.2	LOS A	0.4	2.9	0.10	0.07	59.0
6	R2	40	0.0	0.265	8.9	LOS A	0.4	2.9	0.10	0.07	17.2
Approach		499	0.0	0.265	0.9	NA	0.4	2.9	0.10	0.07	49.4
North: Development Access											
7	L2	17	0.0	0.018	1.1	LOS A	0.1	0.5	0.40	0.26	16.6
9	R2	2	0.0	0.018	4.7	LOS A	0.1	0.5	0.40	0.26	16.6
Approach		19	0.0	0.018	1.5	LOS A	0.1	0.5	0.40	0.26	16.6
West: Avondale Road											
10	L2	4	0.0	0.181	8.9	LOS A	0.0	0.0	0.00	0.01	57.3
11	T1	353	0.0	0.181	0.0	LOS A	0.0	0.0	0.00	0.01	59.9
Approach		357	0.0	0.181	0.1	NA	0.0	0.0	0.00	0.01	59.8
All Vehicles		875	0.0	0.265	0.6	NA	0.4	2.9	0.07	0.05	50.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Avondale Road, Avondale – Line Marking – Page 5 of 7

MOVEMENT SUMMARY

Site: 101 [2036_PM_With_Development]

Avondale Road / Development Access Priority-Controlled Intersection
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Avondale Road											
5	T1	459	4.8	0.272	0.2	LOS A	0.4	3.0	0.10	0.08	59.0
6	R2	40	0.0	0.272	8.9	LOS A	0.4	3.0	0.10	0.08	17.2
Approach		499	4.4	0.272	0.9	NA	0.4	3.0	0.10	0.08	49.3
North: Development Access											
7	L2	17	0.0	0.019	1.2	LOS A	0.1	0.5	0.41	0.26	16.6
9	R2	2	0.0	0.019	4.9	LOS A	0.1	0.5	0.41	0.26	16.6
Approach		19	0.0	0.019	1.6	LOS A	0.1	0.5	0.41	0.26	16.6
West: Avondale Road											
10	L2	4	0.0	0.187	8.9	LOS A	0.0	0.0	0.00	0.01	57.3
11	T1	353	4.8	0.187	0.0	LOS A	0.0	0.0	0.00	0.01	59.9
Approach		357	4.7	0.187	0.1	NA	0.0	0.0	0.00	0.01	59.8
All Vehicles		875	4.5	0.272	0.6	NA	0.4	3.0	0.07	0.05	50.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
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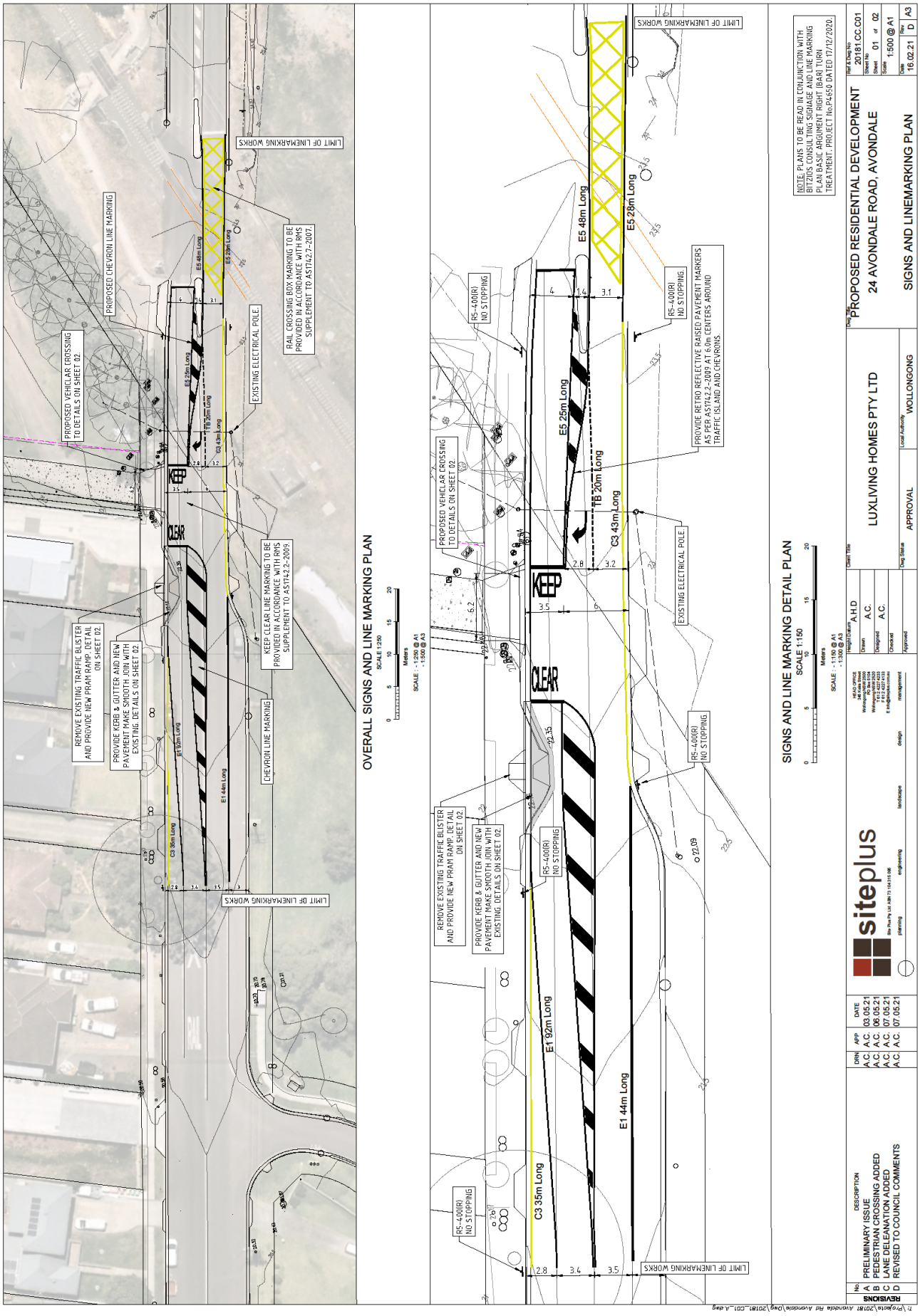
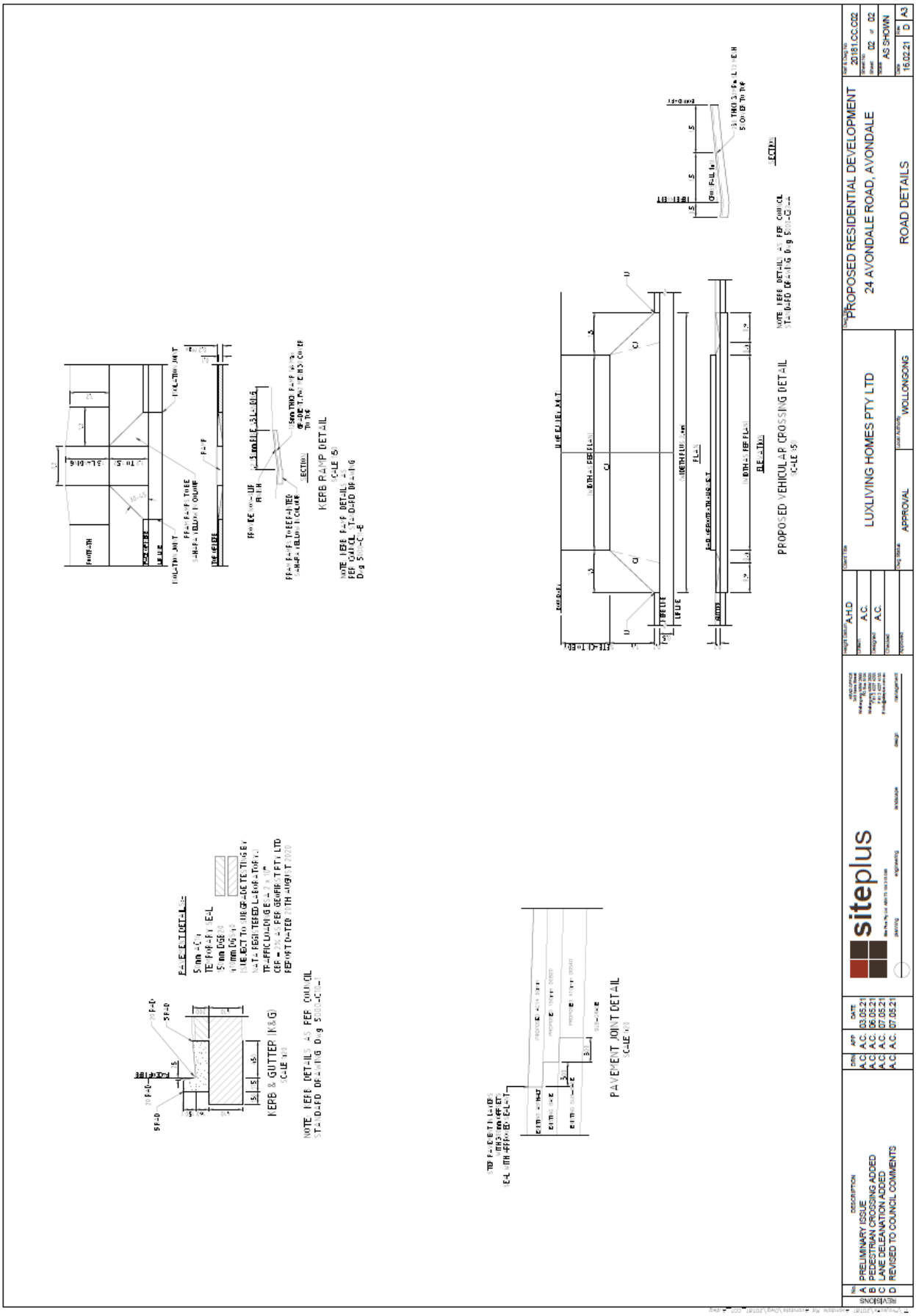
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Avondale Road, Avondale – Line Marking – Page 6 of 7



Avondale Road, Avondale – Line Marking – Page 7 of 7



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Darkes Road, Kembla Grange – Sanctuary Views Stage 4 – Page 2 of 2