



# **Attachment 1 to Item 4.5.1**

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## **Local Traffic Committee Report**

Date of meeting: 21 November 2023  
Location: Council Chambers  
Time: 6:30 p.m.



**LOCAL TRAFFIC COMMITTEE**  
**4. REPORTS FOR DETERMINATION**  
**Meeting Date: 11 September 2023**

**4.1.2. LTC - Proposed Traffic Calming Road Safety Treatments along Francis Street, Richmond (Hawkesbury) - (80245, 123265)**

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**INTRODUCTION:**

Funding to the value of \$5000,000 has been provided under the 2022/2023 Australian Government Black Spot Program to improve the safety and functionality along Francis Street, Richmond between Onus Lane and Toxana Street and within the extent outlined in Figure 1.

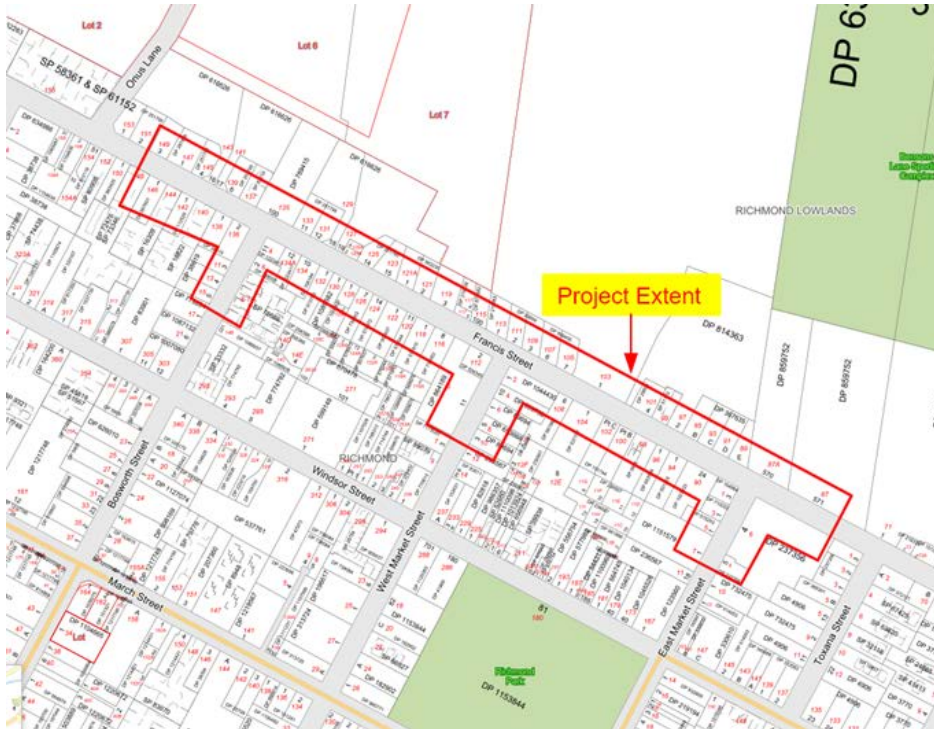
This location, as a result of its injury crash history, has met the criteria for the funding.

**DISCUSSION:**

The works will include the following treatments:

1. Installation of Speed Humps (Watts Profiles) and associated centre line (BB) and edge line (E1) linemarking along Francis Street between the following side streets:
  - a) Onus Lane and Bosworth Street
  - b) Bosworth Street and West Market Street
  - c) West Market Street and East Market Street.
2. Installation of Pedestrian Refuges in:
  - a) Bosworth Street at Francis Street
  - b) East Market Street at Francis Street
3. Installation of a single lane roundabout at the intersection of Francis Street and West Market Street.
4. Speed Cushions in:
  - a) East Market Street in the north bound lane adjacent to the new Pedestrian Refuge.
  - b) Francis Street on both approaches to the on-grade pedestrian crossing between East Market Street and Toxana Street.

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**Figure 1: Project Extent along Francis Street, Richmond**

The Crash pattern along Francis Street at this location is made up of the following road user movement (RUM) crashes; 'right far' (11), 'right through' (21), 'left off carriageway into object' (71), 'right off carriageway into object' (73) and 'off carriageway right into object' (85). There were five Injury Accidents recorded between July 2015 and June 2020. The crash locations are outlined in Figure 2 and Attachment 7.

The speed limit along Francis Street and adjacent side roads is 50km/h. Francis Street is on the north-eastern fringe of the Richmond business district. This area is a mix of residential and commercial, with a bus service that travels along Francis Street.



**Figure 2: Crash Diagram - Francis Street, Richmond**

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The provision of the Speed Humps (Watts Profiles) and associated centre line (BB) and edge line (E1) linemarking along Francis Street is to reduce the overall speed of vehicles travelling along this section of road. The treatments are generally mid block and located between Onus Lane and Bosworth Street, Bosworth Street and West Market Street, West Market Street and East Market Street, as well as the speed cushions on both approaches to the on-grade pedestrian crossing between East Market Street and Toxana Street. There are no proposed changes to existing parking restrictions along Francis Street due to the provision of the Speed Humps and Speed Cushions. Details are included in Attachments 2, 3 and 4.

The provision of the Pedestrian Refuges in Bosworth Street at Francis Street and East Market Street at Francis Street incorporating existing Giveway controls will improve pedestrian and traffic safety through better definition of the intersection layout, vehicle turning paths as well as defining the termination of both Bosworth Street and East Market Street at Francis Street.

The Pedestrian Refuge in Bosworth Street will require changes to the existing parking zones only in Bosworth Street. The proposed changes to the existing parking zones are to ensure minimum sight distance and vehicle manoeuvring requirements are met. The existing No Stopping zone on the north-western side of Bosworth Street will be extended by 10metres. This will result in the loss of approximately 1 parking space and is balanced by the safety improvements provided for both drivers and pedestrians. Details are included in Attachment 1.

The Pedestrian Refuge in East Market Street will require changes to the existing parking zones in both East Market Street and Francis Street. The proposed changes to the existing parking zones are to ensure minimum sight distance and vehicle manoeuvring requirements are met. The existing No Stopping zone on the north-western and south-eastern side of East Market Street will be extended by 10metres. The existing No Stopping zone on the north-eastern side of Francis Street will be extended in a north-westerly direction by 24 metres opposite to the intersection. These changes to the parking restrictions will result in the loss of approximately 6 parking spaces and is balanced by the safety improvements provided for both drivers and pedestrians. Details are included in Attachment 3.

The provision of the single lane roundabout at the intersection of Francis Street and West Market Street is to provide traffic calming and mitigate potential collisions at the intersection. The roundabout will provide safer turning within the intersection, with the approach splitter islands providing refuge for pedestrians crossing both roads. The existing intersection is a T-Junction with the priority through movement along Francis Street, with West Market Street being the controlled movement with Give Way controls.

The design for the roundabout has been undertaken which includes, traffic calming devices, pedestrian refuge facilities, line marking, lighting and signage. As part of the design process a road safety audit has also been undertaken.

As part of the intersection improvements, the functionality of the intersection and its approach roads will alter. This will result in changes to the existing on-street parking in both Francis Street and West Market Street as these changes are required to improve safety at this location as well as allow the roundabout to function. The existing No Stopping zones on both the north-western and south-eastern side of West Market Street will be extended by 10metres. The existing No Stopping zones on the south-western side of Francis Street will be extended in a north-westerly direction by 5 metres and 15 metres in a south-easterly direction. The north-eastern side of Francis Street will be provided with a new No Stopping zone for a distance of 56 metres which will be opposite the intersection. These changes to the parking restrictions will result in the loss of approximately 12 parking spaces (taking into consideration there are existing driveways within the proposed zones) with the loss of parking balanced by the safety improvements provided for both drivers and pedestrians. Details are included in Attachment 5.

The proposed roundabout is considered to be the most effective means of improving road safety with an overall benefit to the community by treating the accident trend at this location as well as reducing speed and providing improved manoeuvring at the intersection.

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Other options of traffic calming devices such as chicanes were considered but did not provide the overall benefit compared to the roundabout, and/or resulted in a greater loss of on-street parking which could not be justified given their reduced efficacy. The chicanes are not suited close to an intersection and generally the positioning of these devices is restricted due to the close proximity of driveways that result in access issues. The resultant loss of parking to facilitate chicanes on both approaches along Francis Street will require further losses in street parking compared to the proposed roundabout. Roundabouts are known to reduce certain accident trends by up to 70%. The proposed roundabout provides for the following benefits which include:

1. Providing a clear right of way opportunity for vehicles and helps manage traffic flows in the road network.
2. Speeds are reduced as the roundabout acts as traffic calming due to the horizontal deflection.
3. Pedestrian safety is improved as pedestrians have a two stage crossing opportunity with their exposure to the roadway reduced.

The provision of these safety improvements will result in the loss of 19 parking spaces which is balanced by the safety improvements provided for across the broader community for both drivers and pedestrians. Further parking is available within this area, with the existing parking currently not being fully utilised.

Details of the turning paths in relation to the proposed pedestrian refuges and the roundabout are included in Attachments 1, 3, 6 and 7 to this report. Bus movements are in a straight direction along Francis Street at West Market Street with some turns undertaken at East Market Street. The roundabout can accommodate the straight movement through the roundabout for both buses (12.5metres) and Semi-trailers (19metres).

#### **Consultation:**

Consultation with residents generally within the extent of the proposed works and as outlined in Figure 1 was undertaken in November 2022. Responses were only received from two residents in the vicinity of the proposed roundabout location providing feedback based on the potential loss of parking and requiring further details. These residents did not object to the proposed roundabout.

After the Completion of the detailed design for the roundabout, further consultation was undertaken by way of face-to-face meetings in May 2023 with residents in the vicinity of the roundabout. At this point objections were received from residents located at Nos. 111 and 113 Francis Street due to the proposed roundabout layout which they indicated would affect their driveway access. Adjustment to the driveways at the kerb line were undertaken in the design to incorporate further widening and improve turning movements to alleviate their concerns. Specific turning path diagrams were presented to these residents to demonstrate that their vehicles could manoeuvre in and out of their properties unimpeded by the proposed roundabout.

Access to No. 113 has been further enhanced by modifying one of the median Island on the departure side of the kerb line to be a painted Island. This further improves the left turn into the property with other access available by turning right from Francis Street as well as travelling straight along West Market Street. The roundabout will provide additional protection for the vehicle turning into the property as approaching vehicles need to give way whilst the turning vehicle is within the roundabout. Attachment 7 provides details on how the vehicle can manoeuvre both in a forward direction and reverse out of the property. In addition to this, there is existing available space within No. 113 for a vehicle to turnaround and leave the property in a forward direction.

Further concerns were raised by residents in the vicinity of the roundabout with a meeting held on site on 16 August 2023 to work through their concerns. At this meeting, three key objections were raised:

- Impacts on access/egress to house no. 113

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- Loss of on-street parking, and
- Heavy vehicle (19m articulated) access along Francis Street in both directions

While no further changes to the design resulted from this meeting, the traffic calming options were again reviewed and the roundabout determined to be the most appropriate solution, balancing broad community need with impacts on residents. Additionally, further analysis of the access/egress to house no. 113 was undertaken and determined that there would be no undue constraints.

As has been mentioned, the roundabout represents the option with the lesser amount of lost on-street parking. The other alternative, being the chicanes, would likely result in a greater loss of on-street parking across a larger area and impacting on more residents.

A check was undertaken of the swept path for a 19m articulated heavy vehicle and it was confirmed that there would be no access issues in either direction of travel along Francis Street.

In relation to the proposed Speed Humps (Watts Profiles), further consultation was undertaken in June 2023 with residents adjacent to the proposed facilities with no objections received. The consultation was undertaken by door-knocking these properties.

**Summary:**

It is proposed that the provision of traffic safety and traffic calming treatments which include Speed Humps (Watts Profiles), Speed Cushions, Pedestrian Refuges and a Single Lane Roundabout, with associated linemarking, signage and lighting, to improve the safety and functionality along Francis Street, Richmond between Onus Lane and Toxana Street, Richmond be undertaken in accordance with the details outlined in Attachments 1 to 7 (Project No. 23006).

It is noted that the provision of these safety improvements will result in the loss of 19 parking spaces which is balanced by the safety improvements provided for across the broader community for both drivers and pedestrians.

**RECOMMENDATION TO COMMITTEE:**

That the provision of traffic safety and traffic calming treatments which include Speed Humps (Watts Profiles), Speed Cushions, Pedestrian Refuges and a Single Lane Roundabout, with associated linemarking, signage and lighting, to improve the safety and functionality along Francis Street, Richmond between Onus Lane and Toxana Street, Richmond be undertaken in accordance with the details outlined in Attachments 1 to 7 (Project No. 23006).

**ATTACHMENTS:**

- AT – 1** Proposed Pedestrian Refuge in Bosworth Street at Francis Street, Richmond - Plan No. 23006\_D01.
- AT - 2** Proposed Speed Humps in Francis Street, Richmond - Plan No. 23006\_D02.
- AT - 3** Proposed Pedestrian Refuge in East Market Street at Francis Street, Richmond - Plan No. 23006\_D03.
- AT - 4** Proposed Speed Cushions in Francis Street, Richmond – Plan No. 23006\_D04.
- AT – 5** Proposed Roundabout at Francis Street and West Market Street, Richmond – Signs and Linemarking Plan No. 23006D10.

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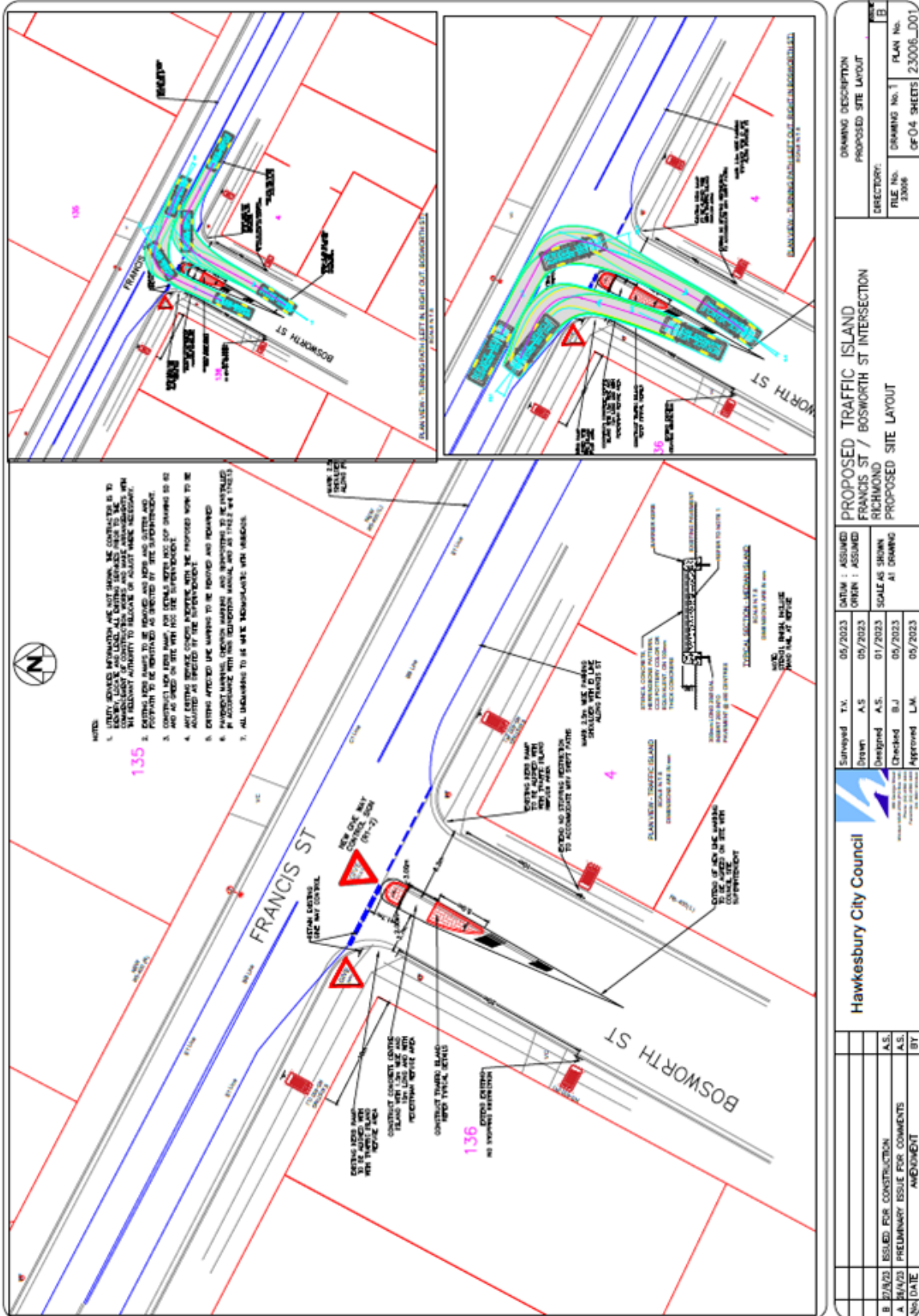
**Meeting Date:** 11 September 2023

- AT - 6** Proposed Roundabout at Francis Street and West Market Street, Richmond – Service Vehicle Turning Path Plan No. 23006D12.
- AT - 7** Proposed Roundabout at Francis Street and West Market Street, Richmond – No. 113 Vehicle Turning Path and 19m Semi-Trailer Plan No. 23006D13.
- AT - 8** Proposed Traffic Calming Road Safety Treatments and Crash Diagram along Francis Street, Richmond (Project 23006). (*Distributed under separate cover*).



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**AT – 1 Proposed Pedestrian Refuge in Bosworth Street at Francis Street, Richmond - Plan No. 23006\_D01**

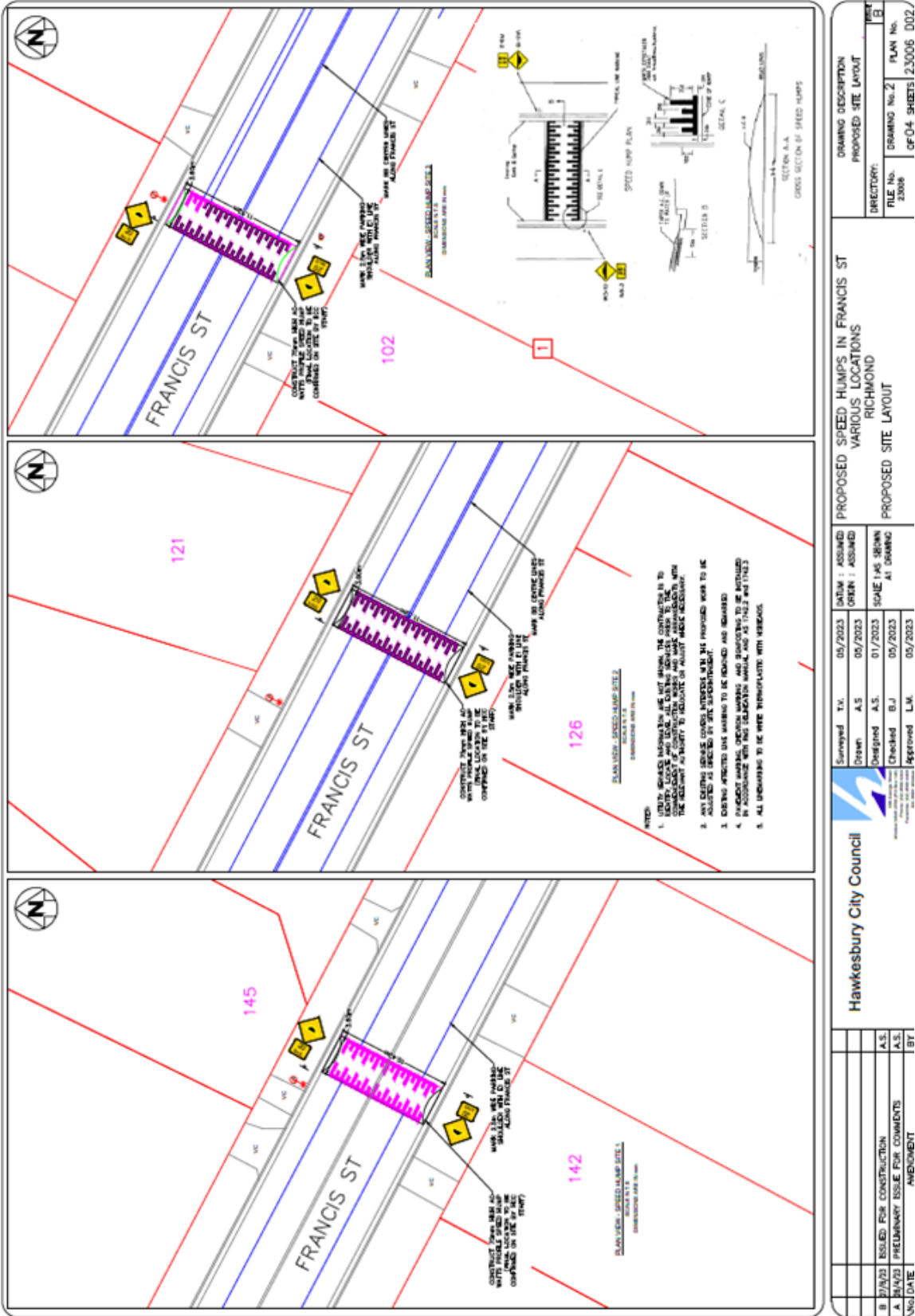


- NOTES:**
1. LIMIT EXISTING INFORMATION AND NOT SHOW THE CONTRACTOR TO THE COMPLETION OF CONTRACT WORK AND MAKE ARRANGEMENTS WITH THE RELEVANT AUTHORITY TO REMOVE OR ADJUST WHERE NECESSARY.
  2. EXISTING TO BE REMOVED AND REPEATED WITH A REINFORCED REFUGE AND 1000mm TYPICAL DETAILS.
  3. CONSTRUCT NEW AREA MARK FOR SIGNALS WITH 100mm SHOWN IN THE DRAWING AND 100mm TYPICAL DETAILS.
  4. ANY EXISTING REFUGE CONFLICTING WITH THE PROPOSED WORK TO BE ADJUSTED AS DIRECTED BY THE SUPERVISOR.
  5. EXISTING APPROVED LINE MARKINGS TO BE REPEATED AND REPAIRED.
  6. PROTECT EXISTING UTILITY MARKS AND REPEATED AS NECESSARY.
  7. ALL DIMENSIONS TO BE WITH TOLERANCES WITH RESPECT.

<b>Hawkesbury City Council</b>		<b>PROPOSED TRAFFIC ISLAND FRANCIS ST / BOSWORTH ST INTERSECTION RICHMOND PROPOSED SITE LAYOUT</b>	DRAWING DESCRIPTION PROPOSED SITE LAYOUT
Submitted: T.V. 05/2023 Drawn: A.S. 05/2023 Designed: A.S. 01/2023 Checked: B.J. 05/2023 Approved: L.M. 05/2023		CUSTOMER: ASSUMED ORDER: ASSUMED SCALE: AS SHOWN ALL DRAWING	DIRECTOR: FILE No. 23006 DRAWING No. 1 PLAN No. OF 04 SHEETS 23006_D01
No.	DATE	ISSUED FOR CONSTRUCTION	A.S.
A	PRELIMINARY	ISSUE FOR COMMENTS	A.S.
B	AMENDMENT	BT	BT

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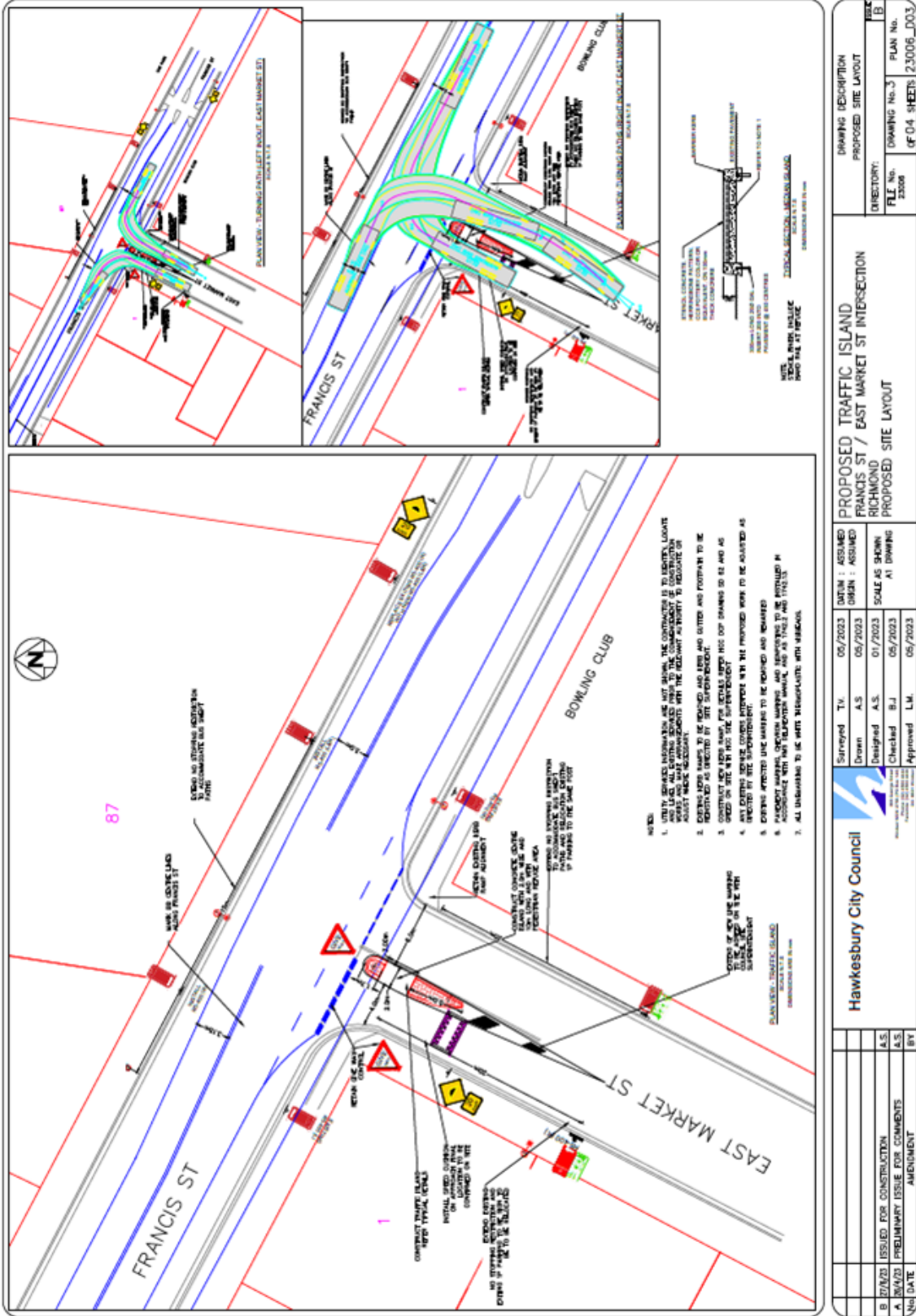
**AT - 2 Proposed Speed Humps in Francis Street, Richmond - Plan No. 23006 D02**



DRAWING DESCRIPTION PROPOSED SITE LAYOUT		DRAWING No. 2 23006		PLAN No. D02	
DIRECTOR: 33008		DRAWING No. 2 23006		PLAN No. D02	
PROPOSED SPEED HUMPS IN FRANCIS ST VARIOUS LOCATIONS RICHMOND		DATE: 05/2023		SCALE: 1:45 (BROWN)	
PROPOSED SITE LAYOUT		DESIGNED: A.S.		CHECKED: B.J.	
		APPROVED: L.M.		DATE: 05/2023	
Hawkesbury City Council		SURVEYED: T.V.		DRAWN: A.S.	
		DESIGNED: A.S.		CHECKED: B.J.	
		APPROVED: L.M.		DATE: 05/2023	
		ISSUED FOR CONSTRUCTION		A.S.	
		PRELIMINARY ISSUE FOR COMMENTS		A.S.	
		AMENDMENT		BY	

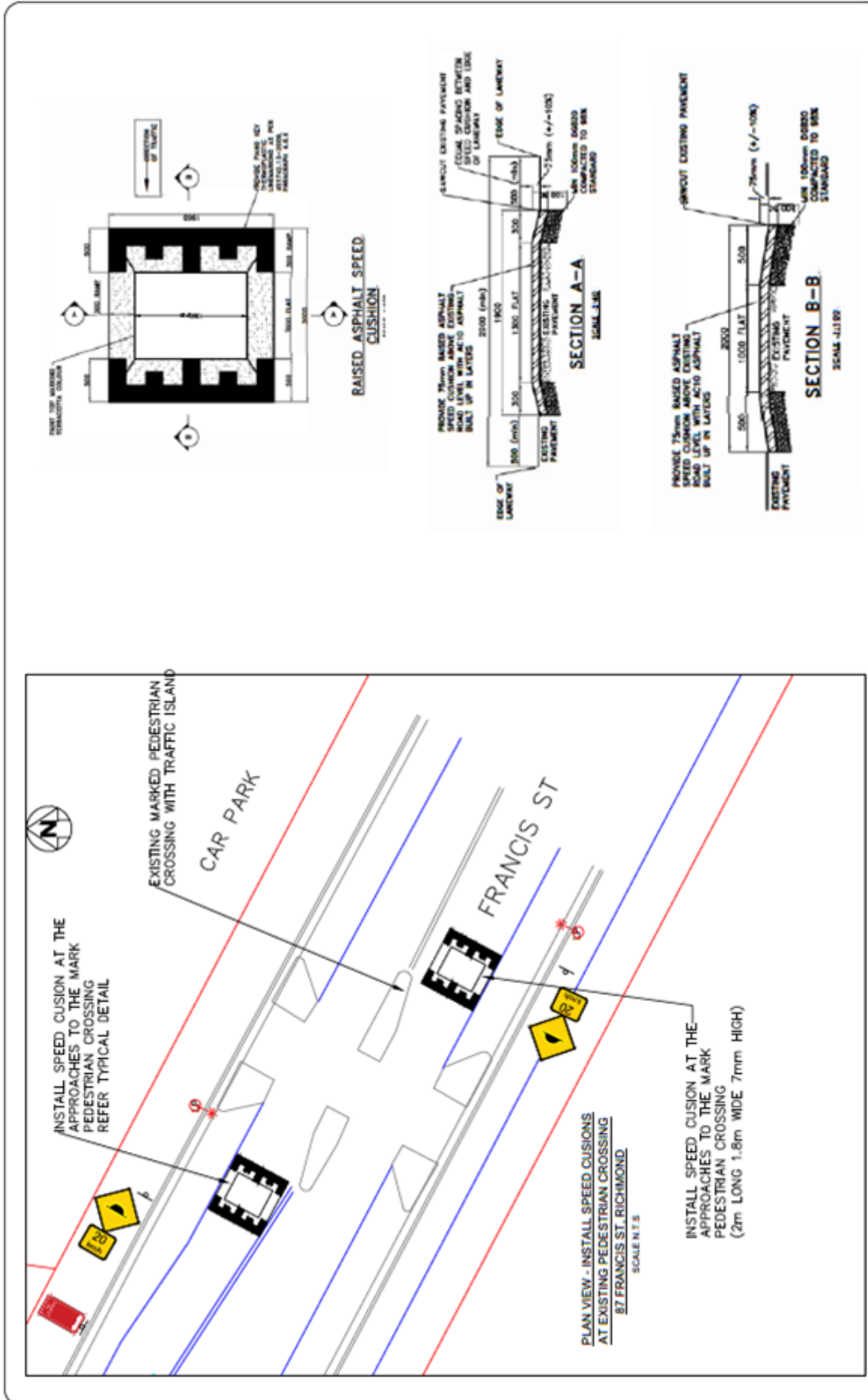
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**AT - 3 Proposed Pedestrian Refuge in East Market Street at Francis Street, Richmond - Plan No. 23006\_D03**



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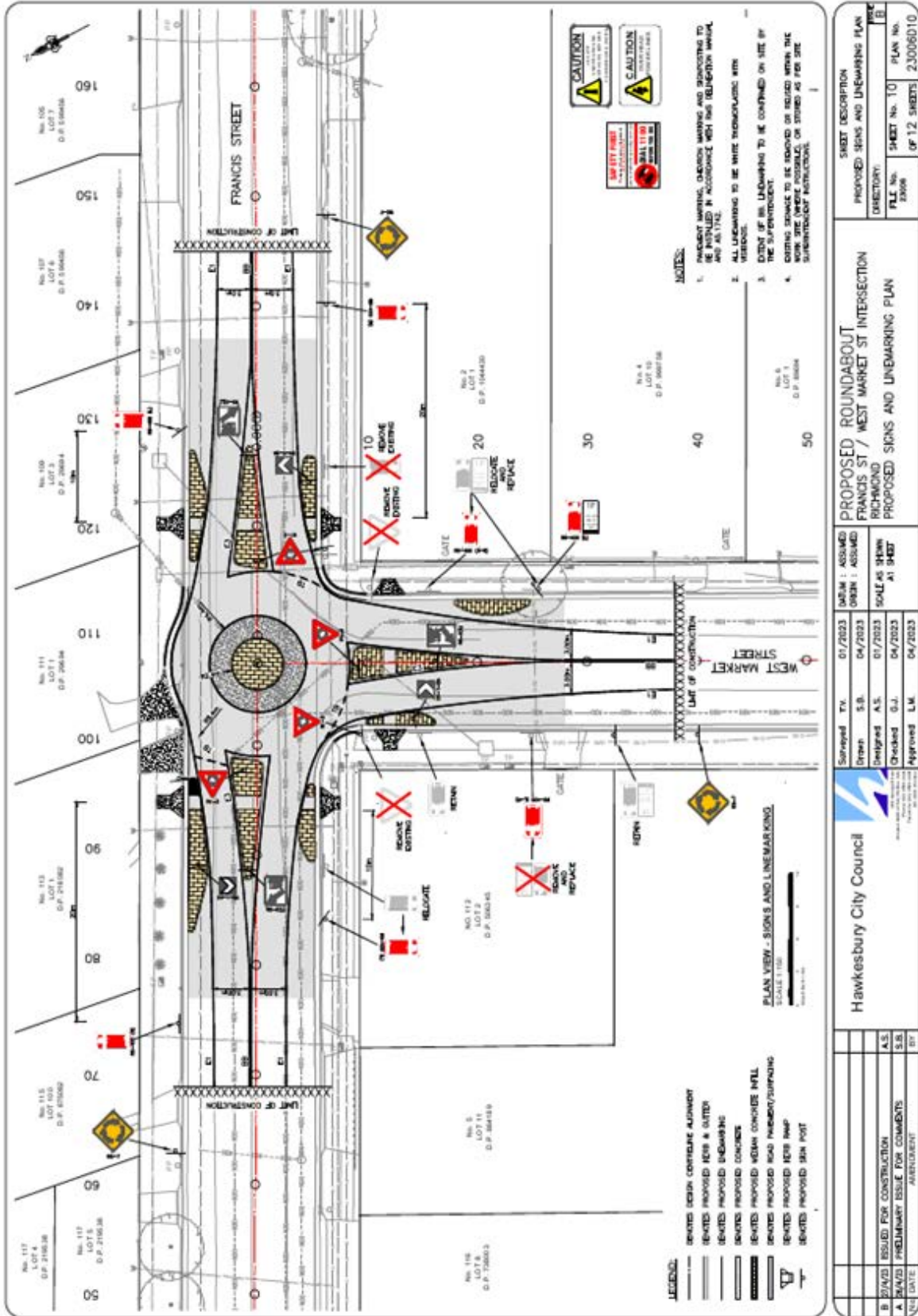
**AT - 4 Proposed Speed Cushions in Francis Street, Richmond - Plan No. 23006 D04**



DRAWING DESCRIPTION PROPOSED SITE LAYOUT		DRAWING No. J PLAN No.	
DIRECTORY: FILE No. 23006		OF 05 SHEETS 23006_D04	
<b>PROPOSED SPEED CUSHION</b> FRANCIS ST, OUTSIDE BOWLING CLUB RICHMOND PROPOSED SITE LAYOUT			
Surveyed T.V. Drawn A.S. Designed A.S. Checked B.J. Approved L.M.	05/2023 05/2023 01/2023 05/2023 05/2023	DATUM : ASSUMED ORIGIN : ASSUMED SCALE AS SHOWN AT DRAWING	DRAWING No. J PLAN No.
Hawkesbury City Council		SCALE 1:50 SCALE 1:100	
B (24/23) ISSUED FOR CONSTRUCTION A (20/23) PRELIMINARY ISSUE FOR COMMENTS	A.S. A.S.	BY	

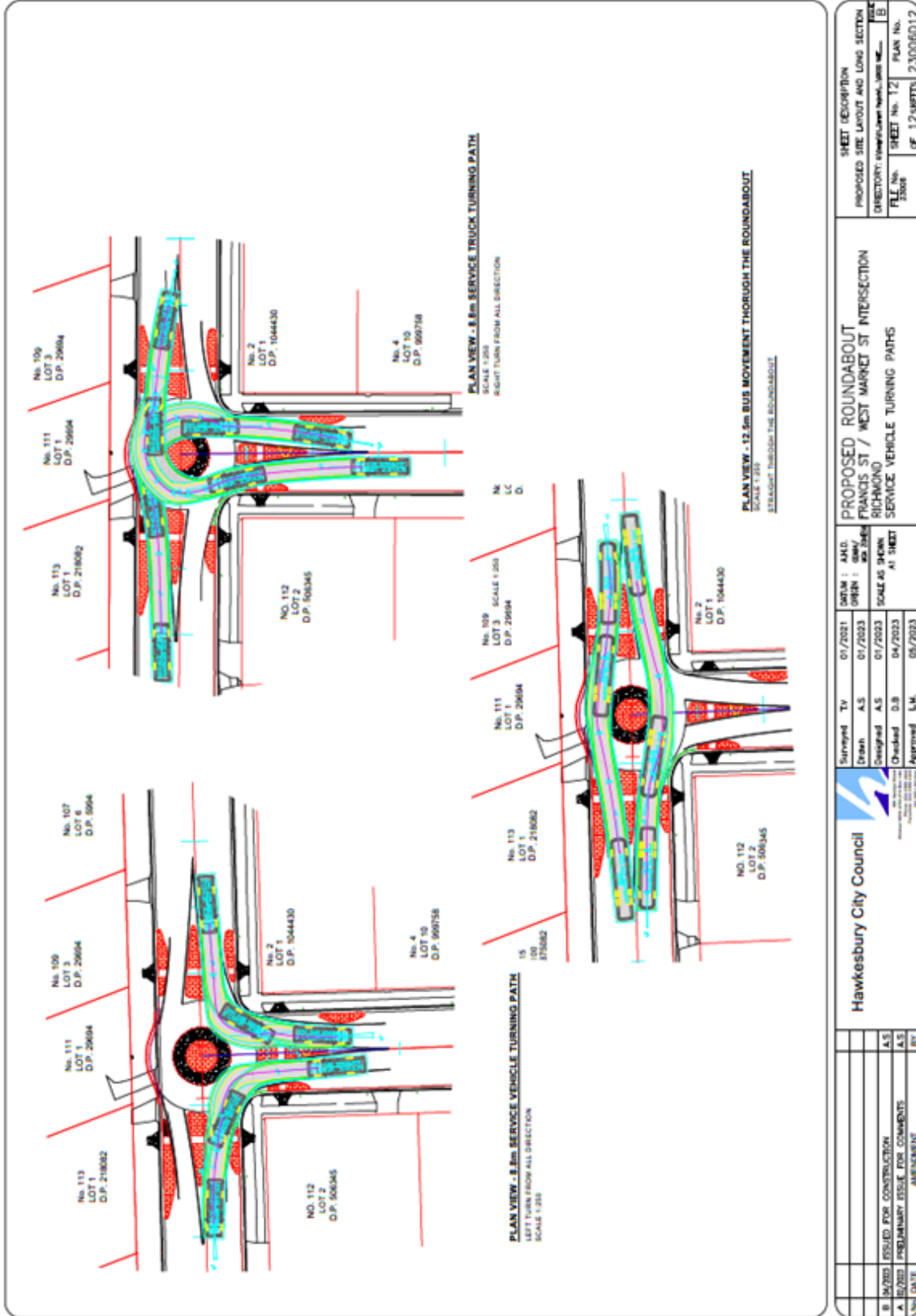
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**AT - 5 Proposed Roundabout at Francis Street and West Market Street, Richmond – Signs and Linemarking Plan No. 23006D10**



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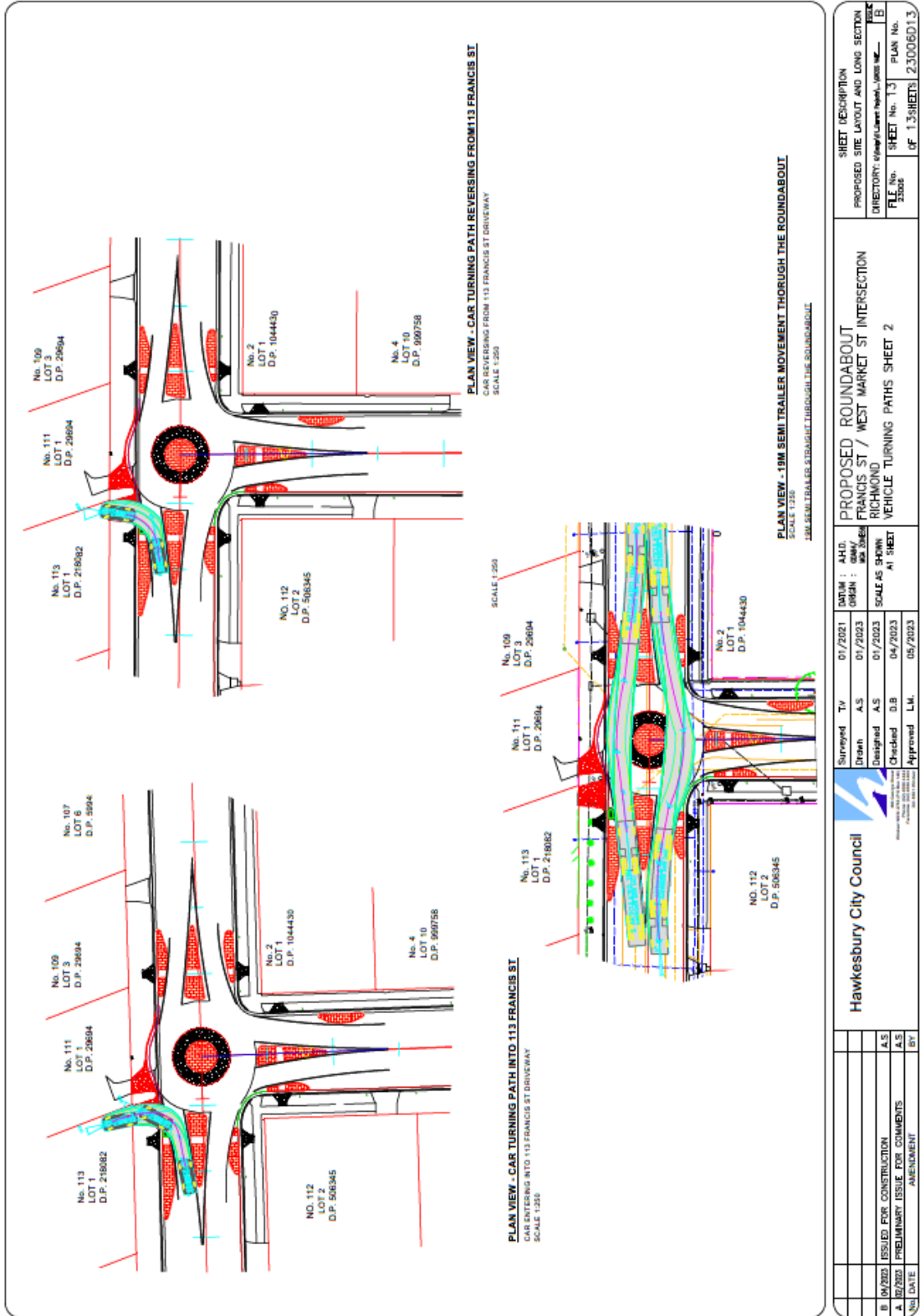
**AT - 6 Proposed Roundabout at Francis Street and West Market Street, Richmond – Service Vehicle Turning Path Plan No. 23006D12**



<b>PROPOSED ROUNDABOUT</b> FRANCIS ST / WEST MARKET ST INTERSECTION RICHMOND SERVICE VEHICLE TURNING PATHS		SHEET DESCRIPTION PROPOSED SITE LAYOUT AND LONG SECTION DIRECTORY: K:\HW\Project\New... FILE No. 23006 SHEET No. 12 PLAN No. 23006D12 OF 12 SHEETS
Surveyed: TV Drawn: AS Designed: AS Checked: D.B. Approved: L.M.	DATE: 01/2021 DATE: 01/2023 DATE: 01/2023 DATE: 04/2023 DATE: 05/2023	DIM: 1: 6M/100 DIM: 2: 6M/100 DIM: 3: 6M/100 DIM: 4: 6M/100 DIM: 5: 6M/100
Hawkesbury City Council		No. DATE BY: A.S. BY: A.S. BY: A.S.

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**AT - 7 Proposed Roundabout at Francis Street and West Market Street, Richmond – No. 113**  
**Vehicle Turning Path and 19m Semi-Trailer Plan No. 23006D13.**



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