



# Traffic Study

Project:	KHCP Town Centre
Client:	Shire of Katanning
Author:	Leigh Dawson
Revision:	A
Document #	1808006-TN-001

CONSULTING CIVIL AND TRAFFIC ENGINEERS  
1 ST. FLOOR, 908 ALBANY HIGHWAY, EAST VICTORIA PARK WA 6101.  
PHONE|+61 8 9355 1300  
FACSIMILE| +61 8 9355 1922  
EMAIL| admin@shawmac.com.au



## Document Status

Version	Document Status	Prepared By	Reviewed By	Approved By	Date
A	Client Review	J Stanes	L Dawson	L Dawson	05/09/2018



**Contents**

- 1. Summary..... 3
- 2. Background Data ..... 4
  - 2.1. Site Location ..... 4
  - 2.2. Regional Context ..... 4
  - 2.3. Existing Roads ..... 4
  - 2.4. Road Hierarchy vs Actual Flows ..... 6
- 3. Aberdeen Street / Arbour Street..... 6
  - 3.1. Existing Conditions ..... 6
  - 3.2. Proposed Modifications..... 6
- 4. Aberdeen Street / Clive Street..... 7
  - 4.1. Existing Configuration ..... 7
- 5. Clive Street / Austral Terrace Roundabout..... 7
- 6. Car Park Concept for Austral Terrace ..... 8
- Appendix A – Concept Sketches..... 10

**Figures**

- Figure 1 - Site Locations in relation to RV Park..... 4
- Figure 2 - Road Hierarchy ..... 5
- Figure 3 – AS/NZS 2890.5 On Street Parking Dimension Configuration..... 9
- Figure 4 – Footpath and Pedestrian crossings..... 9





## 1. Summary

---

Shawmac was commissioned to assess the 3 intersections and a car park within the Katanning Town Centre as part of the KHCP project.

The items reviewed included:

- Aberdeen Street/ Arbour Street intersection – Review Recreational Vehicles swept paths and provide solutions for the intersection
- Aberdeen Street and Clive Street intersection – Review intersection layout to provide pedestrian crossing and improved delineation of the intersection
- Clive Street and Austral Terrace – Determine modification to roundabout to accommodate larger vehicles
- Austral Terrace car park – Review of the car park concept

The following conclusions have been made in regards to the intersections:

- The intersection of Aberdeen Street/ Arbour Street intersection is difficult for RVs to utilise and modifications are required to realign the Aberdeen Street approach to Arbour Street to suit the RV swept path and improve safety
- The relocation of the pedestrian crossing west of Aberdeen Street on Clive Street within the pedestrian desire line is not feasible due to the turn paths of the RV right out of Aberdeen Street and the pedestrian crossing would be in line with the laneway introducing further conflict. It was therefore proposed to provide a crossing to the east of Aberdeen Street and maintain the existing crossing location to create a more pedestrian friendly environment
- The parking concept layout can be compliant with AS2890.5 requirements and would reduce the speed environment along Austral Terrace;
- The roundabout can accommodate RVs however a number of turns result in the vehicle body overhanging the kerbing during the right turn and left turn from Clive Street west into Austral Terrace.



## 2. Background Data

### 2.1. Site Location

The subject sites are located as shown in **Figure 1**.



Figure 1 - Site Locations in relation to RV Park

### 2.2. Regional Context

As part of the revitalisation of the RV Park on Aberdeen Street the Shire want to improve RV accessible to the park, pedestrian access across Clive Street and provide a larger park area as part of the Austral Terrace streetscape.

### 2.3. Existing Roads

An extract of the Main Roads *Road Information Mapping* web tool is shown in **Figure 2** and shows the road hierarchy surrounding the site.



Figure 2 - Road Hierarchy

### Aberdeen Street

Aberdeen Street is a two-way, two-lane single carriageway road with a width of approximately 10.0m which includes provision for unmarked parallel on street parking. Under the MRWA Functional Road Hierarchy, Aberdeen Street is classified as an Access Road with a 50kph speed limit.

### Arbour Street

Aberdeen Street is a two-way, two-lane single carriageway road with an approximate width of 9.0m which includes. Under the MRWA Functional Road Hierarchy, Arbour Street is classified as an Access Road with a 50kph speed limit.

### Clive Street

Clive Street is a two-way, two-lane single carriageway road with a varying width (12.0 to 14.0m) which includes provision for marked parallel on street parking on both sides. Under the MRWA Functional Road Hierarchy, Clive Street is classified as a Local Distributor with a 50kph speed limit.

### Austral Terrace Street

Austral Terrace is a two-way, two-lane single carriageway road with 7.0m width dedicated to lanes and an

additional 7.5m dedicated to 45 degree parking. Under the MRWA Functional Road Hierarchy, Austral Terrace is classified as a Local Distributor with a 50kph speed limit.

## 2.4. Road Hierarchy vs Actual Flows

The latest traffic volumes of the surrounding roads were derived from traffic counts undertaken by the Shire of Katanning.

**Table 1** compares existing traffic volumes with MRWA indicative traffic volumes based on road classifications. Detailed traffic count data is included in **Appendix B**.

**Table 1 - Road Classification and Indicative Traffic Volumes**

Road Name	Road Features	MRWA Classification / Indicative Daily Volume (vpd)	Traffic Volume	Heavy Vehicles (Class 3 -12)	Recreation Vehicles (Class 2)	Source
Clive Street	Two lane single carriageway	Local Distributor / below 6,000	4450	188	62	2017 SoK
Austral Terrace	Two lane single carriageway	Local Distributor / below 6,000	2440	241	31	2017 SoK
Aberdeen Street	Two lane single carriageway	Access Road / below 3,000	500*	NA		NA
Arbour Street	Two lane single carriageway	Access Road / below 3,000	1000*	NA		NA

\*Traffic Volumes assumed based on observation during the site visit

As shown, the traffic volumes are within the MRWA classification and are considered to be able to accommodate any growth in traffic due to the RV park.

A review of the traffic data of indicates that whilst Austral Terrace experience a larger proportion of heavy vehicles Clive Street experiences approximately 5.9% heavy vehicles including 1.4% RVs whilst Austral Terrace carries 5.9% heavy vehicle containing 1.5% RVs.

## 3. Aberdeen Street / Arbour Street

### 3.1. Existing Conditions

Aberdeen Street forms a staggered T intersection with Arbour Street. The existing southern approach of Aberdeen Street to Arbour Street has a reverse curve to achieve the stagger with the northern leg of Aberdeen Street. As shown by the sketches 1808006-SK-001 to 005 (Refer to Appendix A) the RVs would not be able to negotiate the reverse curve without conflict with opposing vehicles. The sight distance through the reverse curves is not satisfactory and further compromises safety for RVs and general traffic. A review of crash data indicates no crashes within the last 5 years.

### 3.2. Proposed Modifications

The proposed modifications to the intersection convert the staggered T intersection back into a four way

intersection by removing the reserve curve from the southern leg of Aberdeen Street. The proposed layout is shown in 1808006- SK-006 to 008. The sketches show that the safe intersection sight distance can be achieved with maintenance of vegetation (to less than a metre high) and removal of a street tree. The proposed design reduces the length of indented parking bay on Arbour Street outside the church to allow the alignment of Aberdeen Street to be straighten. Additional indented parking has therefore been provided on Aberdeen Street to replace the parking removed on Arbour Street.

The proposed design is considered safer than staggered intersection due to the removal of the reverse curves conflict points. The proposed design meets sight distance requirements and given the low volume of traffic on both roads the design is considered acceptable.

## **4. Aberdeen Street / Clive Street**

---

### **4.1. Existing Configuration**

The intersection of Aberdeen Street / Clive street is a priority controlled T intersection with a one way lane staggered 10m to the west of Aberdeen Street. There is a pedestrian refuge to the west of the laneway opposite Chicken Treat. Initially it was proposed to relocate this pedestrian refuge adjacent to the intersection however it was determined, based on the swept paths of the RVs right turning out of Aberdeen Street, that the pedestrian refuge would line up with the laneway which is not feasible. To address the lack of pedestrian crossing for pedestrian from Aberdeen to cross Clive Street and head east it is proposed to provide a pedestrian crossing to the east of Aberdeen Street. It is also proposed to provide additional linemarking to delineate the approach to Aberdeen Street from Clive Street west.

Pedestrian sight distance to the proposed pedestrian refuge is satisfactory as outline in sketch is the distance to enable a normally alert driver, travelling at the design speed on wet pavement, to perceive, react and brake to a stop before reaching a hazard on the road ahead.

## **5. Clive Street / Austral Terrace Roundabout**

---

Swept path were completed at the roundabout to determine whether there were any issues for RVs negotiating the roundabout and are included in Appendix A 1808006-SK-009 to 018. The swept paths show that the 12.5m bus that represents the largest RV and the car with trailer/caravan can negotiate the roundabout with ease except for the following manoeuvres:

- 12.5 m bus left turn from Austral Terrace north into Clive Street east
- 12.5 m bus left turn from Clive Street west into Austral Terrace north



- 12.5 m bus right turn from Clive Street west into Austral Terrace south

For these manoeuvres the issue is the leading edge of the body envelope conflicts with the kerbs whilst the wheels are maintained within the existing road pavement. For the left turns the conflict is with the splitter island and therefore with the pedestrian refuge. Whilst the splitter islands could be modified to remove the conflict this would reduce the overall width of the pedestrian refuge and likely create greater conflict therefore modifications to the splitter islands is not recommended.

The mountable central island section was observed whilst on site and provided good delineation to cars drivers and was easily driven over by larger vehicles. The roundabout is considered to operate well and no modifications are required to accommodate the RVs.

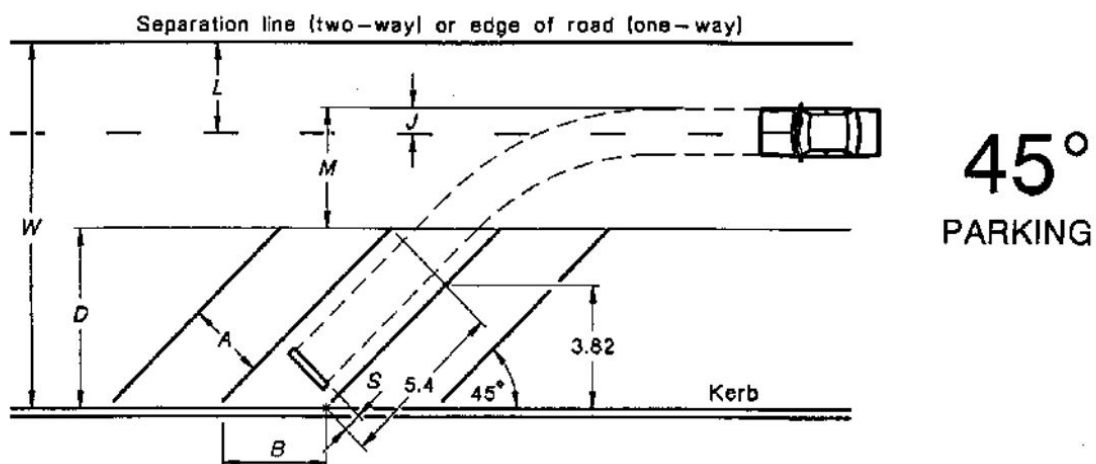
## 6. Car Park Concept for Austral Terrace

The proposed car park concept converts the existing car parking area to on street angled parking. A review of the proposed car park concept has been undertaken to determine its impact on Austral Terrace and whether other modifications should be proposed.

The existing off street area with 30 degree parking adjacent to Austral Terrace and substandard parallel parking on the other side of the aisle. Whilst small RVs can access the existing car parks the use of the parallel bays would adversely affect the reversing manoeuvre of the cars in the angled bays.

The proposed car park concept will result in on street angled car parking the parking should match the 45 degrees parking on the western side of Austral Terrace with the following dimensions based on AS/NZS 2890.5:

- A – Space Width 2.6m
- D – Depth 5.7m with wheel stops provided
- M – 3.5m manoeuvring space



**Figure 3 – AS/NZS 2890.5 On Street Parking Dimension Configuration**

The concept should also include a footpath adjacent to the new car park and at least one additional pedestrian crossing point to facilitate pedestrian movements and encourage speed reduction. Refer to Figure 4 for detail.



**Figure 4 – Footpath and Pedestrian crossings**

There are a number of other car parking opportunities adjacent to this car park including the car park outside the Katanning Railway Station and along Albion Street which would allow for parallel parking of RVs (which can not use angled parking). These areas are underutilised and provide convenient parking in the vicinity of Clive Street.



---

## Appendix A – Concept Sketches

---





**LEGEND**

- EXISTING KERB TO BE REMOVED
- \_\_\_\_\_ EXISTING KERB TO BE RETAINED
- PROPOSED KERB
- CENTRE LINE

SCALE 1:250  
A  
1

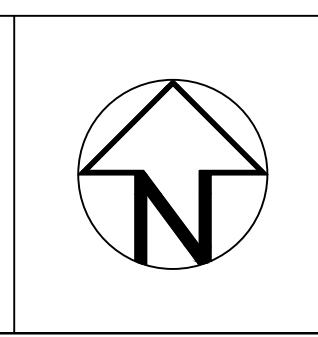
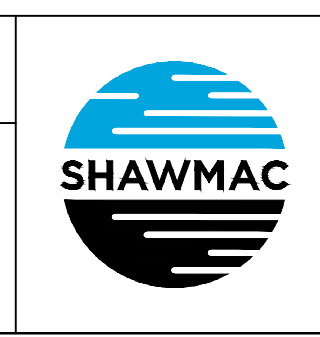
REV	DATE	DESCRIPTION	APPROVED
A	10.08.18	ISSUED FOR INFORMATION	LD

CLIENT

LOCAL GOVERNMENT AUTHORITY

SCALE @A1  
HORIZ: 1:250

DATUM  
HORIZONTAL: LOCAL  
VERTICAL: LOCAL



**ISSUED FOR INFORMATION**

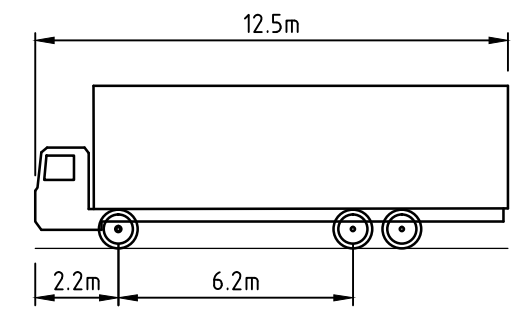
DATE DRAWN:	10.08.18
DESIGNED:	N/A
DRAWN:	KL
CHECKED:	JS
APPROVED:	LD

**KHCP TOWN CENTRE TRAFFIC STUDY**  
**ABERDEEN STREET / ARBOUR STREET INTERSECTION**  
**CONCEPT LAYOUT**

DRAWING NUMBER: 1808006-SK-001

REV. A





**SINGLE UNIT TRUCK/BUS (12.5m)**

OVERALL LENGTH	12.500m
OVERALL WIDTH	2.500m
OVERALL BODY HEIGHT	4.300m
MIN BODY GROUND CLEARANCE	0.490m
TRACK WIDTH	2.500m
LOCK-TO-LOCK TIME	6.00s
CURB TO CURB TURNING RADIUS	12.500m

**LEGEND**

-----	EXISTING KERB TO BE REMOVED
————	EXISTING KERB TO BE RETAINED
	STANDARD 8.8m SINGLE UNIT TRUCK/BUS TURNING TEMPLATE

SCALE 1:250  
A 1

REV	DATE	DESCRIPTION	APPROVED
A	10.08.18	ISSUED FOR INFORMATION	LD

ISSUE AND REVISION HISTORY

CLIENT

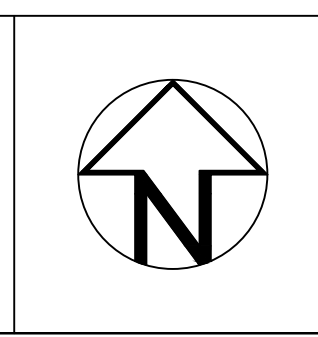
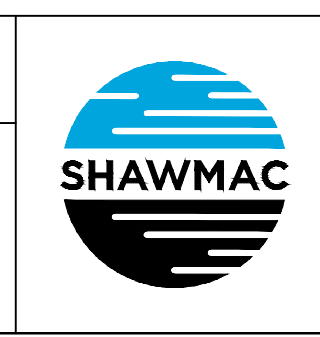
Shire of Katanning  
Heart of the Great Southern

LOCAL GOVERNMENT AUTHORITY

Shire of Katanning  
Heart of the Great Southern

SCALE @A1  
HORIZ: 1:250

DATUM  
HORIZONTAL: LOCAL  
VERTICAL: LOCAL

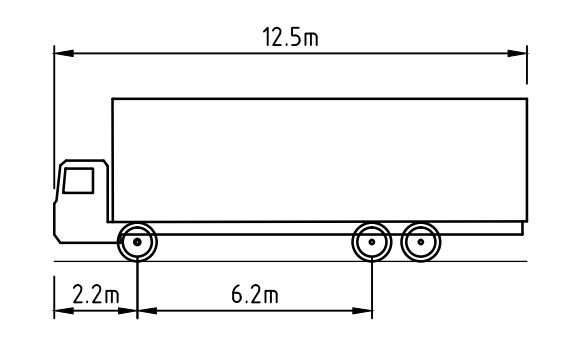


ISSUED FOR INFORMATION

DATE DRAWN:	10.08.18
DESIGNED:	N/A
DRAWN:	KL
CHECKED:	JS
APPROVED:	LD

KHCP TOWN CENTRE TRAFFIC STUDY ABERDEEN STREET / ARBOUR STREET INTERSECTION STANDARD 12.5m SINGLE UNIT TRUCK / BUS EXISTING LAYOUT - LEFT TURN FROM ARBOUR STREET	
DRAWING NUMBER: 1808006-SK-002	REV. A





**SINGLE UNIT TRUCK/BUS (12.5m)**

OVERALL LENGTH	12.500m
OVERALL WIDTH	2.500m
OVERALL BODY HEIGHT	4.300m
MIN BODY GROUND CLEARANCE	0.490m
TRACK WIDTH	2.500m
LOCK-TO-LOCK TIME	6.00s
CURB TO CURB TURNING RADIUS	12.500m

**LEGEND**

	EXISTING KERB TO BE REMOVED
	EXISTING KERB TO BE RETAINED
	STANDARD 8.8m SINGLE UNIT TRUCK/BUS TURNING TEMPLATE

SCALE 1:250  
A 1

REV	DATE	DESCRIPTION	APPROVED
A	10.08.18	ISSUED FOR INFORMATION	LD

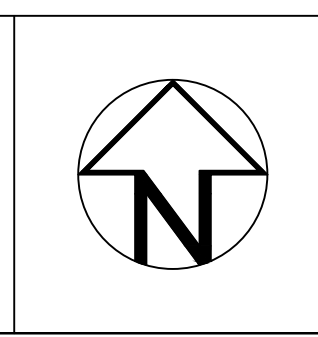
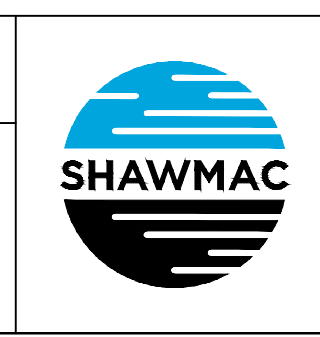
ISSUE AND REVISION HISTORY

CLIENT

LOCAL GOVERNMENT AUTHORITY

SCALE @A1  
HORIZ: 1:250

DATUM  
HORIZONTAL: LOCAL  
VERTICAL: LOCAL

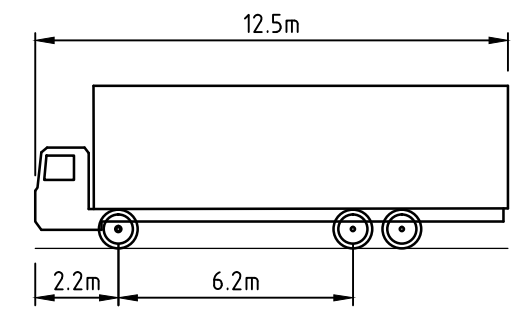


ISSUED FOR INFORMATION

DATE DRAWN:	10.08.18
DESIGNED:	N/A
DRAWN:	KL
CHECKED:	JS
APPROVED:	LD

KHCP TOWN CENTRE TRAFFIC STUDY ABERDEEN STREET / ARBOUR STREET INTERSECTION STANDARD 12.5m SINGLE UNIT TRUCK / BUS EXISTING LAYOUT - RIGHT TURN FROM ABERDEEN STREET	
DRAWING NUMBER: 1808006-SK-003	REV. A





**SINGLE UNIT TRUCK/BUS (12.5m)**

OVERALL LENGTH	12.500m
OVERALL WIDTH	2.500m
OVERALL BODY HEIGHT	4.300m
MIN BODY GROUND CLEARANCE	0.490m
TRACK WIDTH	2.500m
LOCK-TO-LOCK TIME	6.00s
CURB TO CURB TURNING RADIUS	12.500m

**LEGEND**

-----	EXISTING KERB TO BE REMOVED
—————	EXISTING KERB TO BE RETAINED
	STANDARD 8.8m SINGLE UNIT TRUCK/BUS TURNING TEMPLATE

SCALE 1:250  
A 1

REV	DATE	DESCRIPTION	APPROVED
A	10.08.18	ISSUED FOR INFORMATION	LD

ISSUE AND REVISION HISTORY

CLIENT

Shire of Katanning  
Heart of the Great Southern

LOCAL GOVERNMENT AUTHORITY

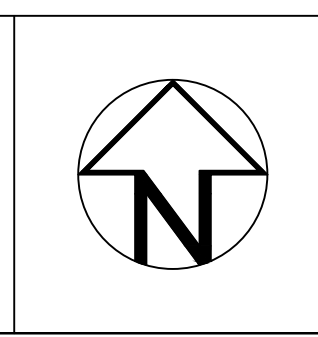
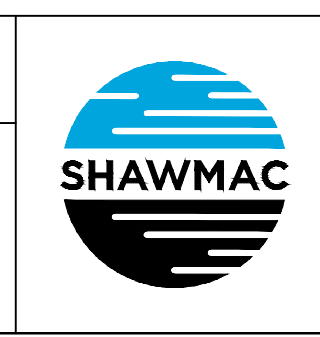
Shire of Katanning  
Heart of the Great Southern

SCALE @A1  
HORIZ: 1:250

DATUM

HORIZONTAL: LOCAL

VERTICAL: LOCAL

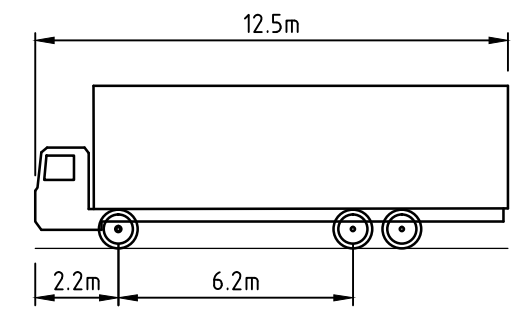


ISSUED FOR INFORMATION

DATE DRAWN:	10.08.18
DESIGNED:	N/A
DRAWN:	KL
CHECKED:	JS
APPROVED:	LD

KHCP TOWN CENTRE TRAFFIC STUDY ABERDEEN STREET / ARBOUR STREET INTERSECTION STANDARD 12.5m SINGLE UNIT TRUCK / BUS EXISTING LAYOUT - RIGHT TURN FROM ARBOUR STREET	
DRAWING NUMBER: 1808006-SK-004	REV. A





**SINGLE UNIT TRUCK/BUS (12.5m)**

OVERALL LENGTH	12.500m
OVERALL WIDTH	2.500m
OVERALL BODY HEIGHT	4.300m
MIN BODY GROUND CLEARANCE	0.490m
TRACK WIDTH	2.500m
LOCK-TO-LOCK TIME	6.00s
CURB TO CURB TURNING RADIUS	12.500m

**LEGEND**

- EXISTING KERB TO BE REMOVED
- EXISTING KERB TO BE RETAINED
- STANDARD 8.8m SINGLE UNIT TRUCK/BUS TURNING TEMPLATE

SCALE 1:250

REV	DATE	DESCRIPTION	APPROVED
A	10.08.18	ISSUED FOR INFORMATION	LD

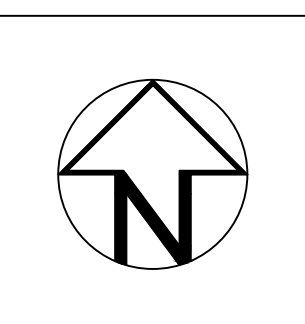
ISSUE AND REVISION HISTORY

CLIENT

LOCAL GOVERNMENT AUTHORITY

SCALE @A1  
HORIZ: 1:250

DATUM  
HORIZONTAL: LOCAL  
VERTICAL: LOCAL

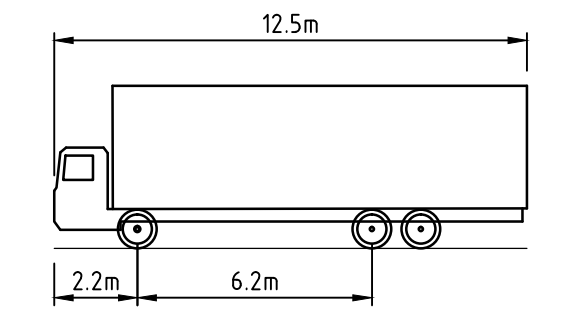


ISSUED FOR INFORMATION

DATE DRAWN:	10.08.18
DESIGNED:	N/A
DRAWN:	KL
CHECKED:	JS
APPROVED:	LD

KHCP TOWN CENTRE TRAFFIC STUDY ABERDEEN STREET / ARBOUR STREET INTERSECTION STANDARD 12.5m SINGLE UNIT TRUCK / BUS EXISTING LAYOUT - LEFT TURN FROM ABERDEEN STREET	
DRAWING NUMBER: 1808006-SK-005	REV. A





SINGLE UNIT TRUCK/BUS (12.5m)	
OVERALL LENGTH	12.500m
OVERALL WIDTH	2.500m
OVERALL BODY HEIGHT	4.300m
MIN BODY GROUND CLEARANCE	0.490m
TRACK WIDTH	2.500m
LOCK-TO-LOCK TIME	6.00s
CURB TO CURB TURNING RADIUS	12.500m

**LEGEND**

- EXISTING KERB TO BE REMOVED
- EXISTING KERB TO BE RETAINED
- PROPOSED KERB
- CENTRE LINE
- STANDARD 8.8m SINGLE UNIT TRUCK/BUS TURNING TEMPLATE - LEFT-TURN
- STANDARD 8.8m SINGLE UNIT TRUCK/BUS TURNING TEMPLATE - RIGHT-TURN

SCALE 1:250 A 1

REV	DATE	DESCRIPTION	APPROVED
A	10.08.18	ISSUED FOR INFORMATION	LD

CLIENT

Shire of Katanning  
Heart of the Great Southern

LOCAL GOVERNMENT AUTHORITY

Shire of Katanning  
Heart of the Great Southern

SCALE @A1  
HORIZ: 1:250

DATUM  
HORIZONTAL: LOCAL  
VERTICAL: LOCAL

ISSUED FOR INFORMATION

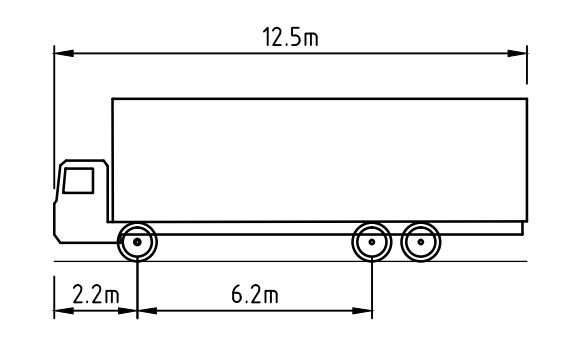
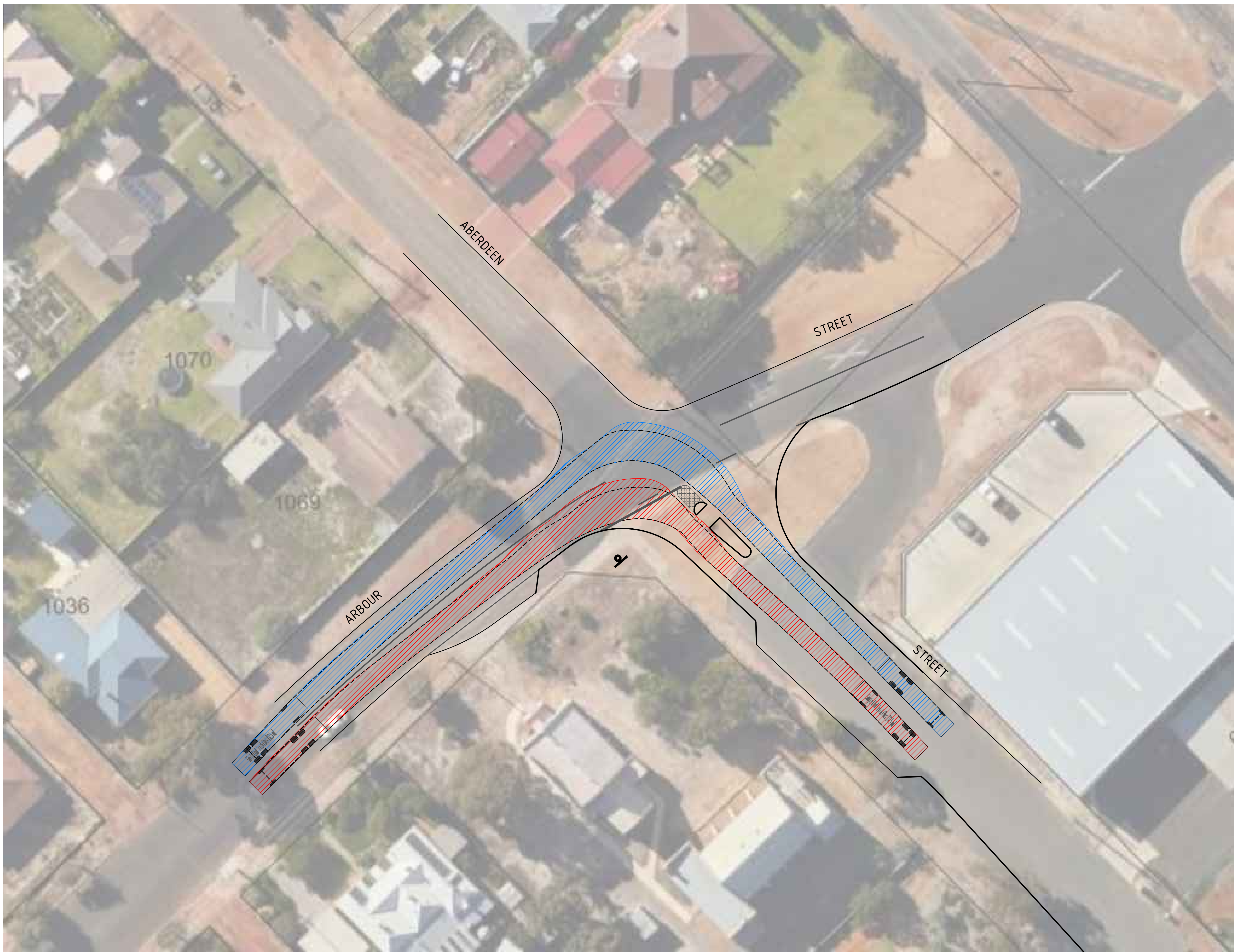
DATE DRAWN:	10.08.18
DESIGNED:	N/A
DRAWN:	KL
CHECKED:	JS
APPROVED:	LD

**KHCP TOWN CENTRE TRAFFIC STUDY**  
**ABERDEEN STREET / ARBOUR STREET INTERSECTION**  
 STANDARD 12.5m SINGLE UNIT TRUCK / BUS  
 PROPOSED LAYOUT - TWO-WAY NE-SE MOVEMENT

DRAWING NUMBER: 1808006-SK-006

REV. A





SINGLE UNIT TRUCK/BUS (12.5m)	
OVERALL LENGTH	12.500m
OVERALL WIDTH	2.500m
OVERALL BODY HEIGHT	4.300m
MIN BODY GROUND CLEARANCE	0.490m
TRACK WIDTH	2.500m
LOCK-TO-LOCK TIME	6.00s
CURB TO CURB TURNING RADIUS	12.500m

**LEGEND**

- EXISTING KERB TO BE REMOVED
- EXISTING KERB TO BE RETAINED
- PROPOSED KERB
- CENTRE LINE
- STANDARD 8.8m SINGLE UNIT TRUCK/BUS TURNING TEMPLATE - LEFT-TURN
- STANDARD 8.8m SINGLE UNIT TRUCK/BUS TURNING TEMPLATE - RIGHT-TURN

SCALE 1:250 A 1

REV	DATE	DESCRIPTION	APPROVED
A	10.08.18	ISSUED FOR INFORMATION	LD

CLIENT

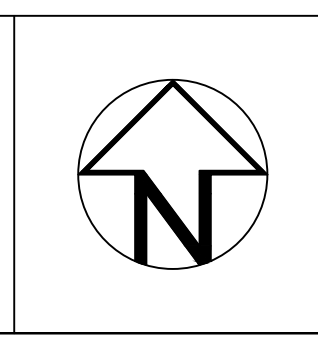
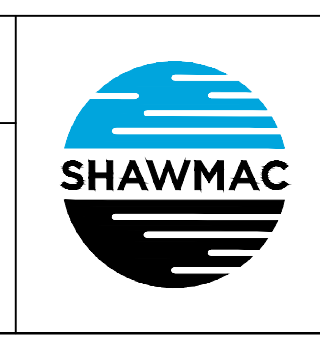
Shire of Katanning  
Heart of the Great Southern

LOCAL GOVERNMENT AUTHORITY

Shire of Katanning  
Heart of the Great Southern

SCALE @A1  
HORIZ: 1:250

DATUM  
HORIZONTAL: LOCAL  
VERTICAL: LOCAL



ISSUED FOR INFORMATION

DATE DRAWN:	10.08.18
DESIGNED:	N/A
DRAWN:	KL
CHECKED:	JS
APPROVED:	LD

KHCP TOWN CENTRE TRAFFIC STUDY ABERDEEN STREET / ARBOUR STREET INTERSECTION STANDARD 12.5m SINGLE UNIT TRUCK / BUS PROPOSED LAYOUT - TWO-WAY SW-SE MOVEMENT	
DRAWING NUMBER: 1808006-SK-007	REV. A





- LEGEND**
- EXISTING KERB TO BE RETAINED
  - PROPOSED KERB
  - CENTRE LINE
  - SIGHT LINE TO ACHIEVE MINIMUM SIGHT DISTANCE 123m

SCALE 1:400  
A  
1

REV	DATE	DESCRIPTION	APPROVED
A	10.08.18	ISSUED FOR INFORMATION	LD

CLIENT

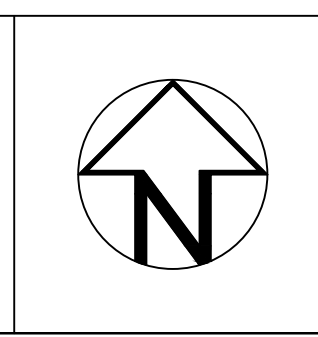
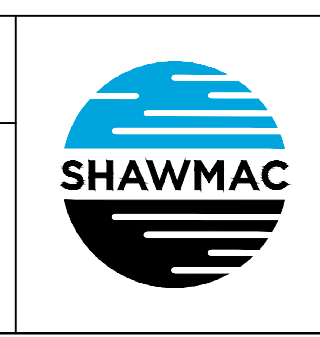
Shire of Katanning  
Heart of the Great Southern

LOCAL GOVERNMENT AUTHORITY

Shire of Katanning  
Heart of the Great Southern

SCALE @A1  
HORIZ: 1:400

DATUM  
HORIZONTAL: LOCAL  
VERTICAL: LOCAL



ISSUED FOR INFORMATION

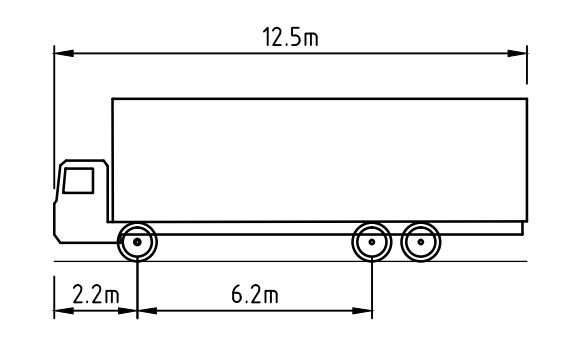
DATE DRAWN: 10.08.18  
DESIGNED: N/A  
DRAWN: KL  
CHECKED: JS  
APPROVED: LD

**KHCP TOWN CENTRE TRAFFIC STUDY  
ABERDEEN STREET / ARBOUR STREET INTERSECTION  
SIGHT DISTANCE CHECK**

DRAWING NUMBER:  
**1808006-SK-008**

REV. **A**





**SINGLE UNIT TRUCK/BUS (12.5m)**

OVERALL LENGTH	12.500m
OVERALL WIDTH	2.500m
OVERALL BODY HEIGHT	4.300m
MIN BODY GROUND CLEARANCE	0.490m
TRACK WIDTH	2.500m
LOCK-TO-LOCK TIME	6.00s
CURB TO CURB TURNING RADIUS	12.500m

**LEGEND**

- EXISTING KERB TO BE RETAINED
- CENTRE LINE
- STANDARD 8.8m SINGLE UNIT TRUCK/BUS TURNING TEMPLATE - NW BOUND MOVEMENT
- STANDARD 8.8m SINGLE UNIT TRUCK/BUS TURNING TEMPLATE - SE BOUND MOVEMENT

SCALE 1:250  
A 1

REV	DATE	DESCRIPTION	APPROVED
A	20.08.18	ISSUED FOR INFORMATION	LD

ISSUE AND REVISION HISTORY

CLIENT

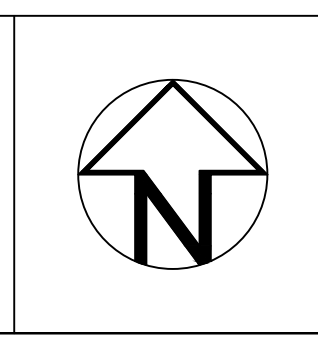
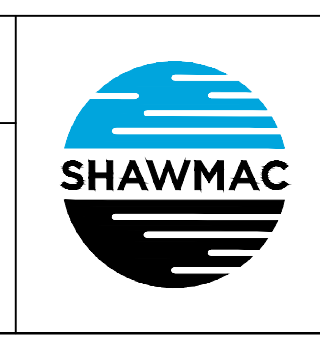
Shire of Katanning  
Heart of the Great Southern

LOCAL GOVERNMENT AUTHORITY

Shire of Katanning  
Heart of the Great Southern

SCALE @A1  
HORIZ: 1:250

DATUM  
HORIZONTAL: LOCAL  
VERTICAL: LOCAL



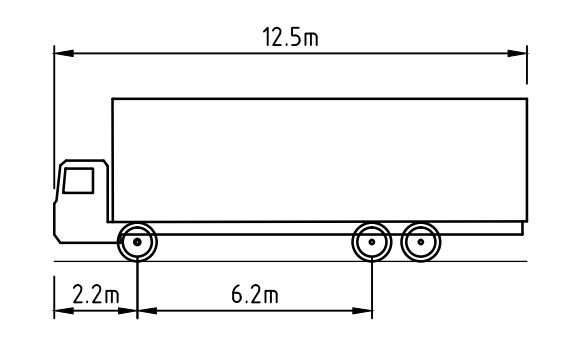
ISSUED FOR INFORMATION

DATE DRAWN:	20.08.18
DESIGNED:	N/A
DRAWN:	KL
CHECKED:	JS
APPROVED:	LD

**KHCP TOWN CENTRE TRAFFIC STUDY**  
CILVE STREET / AUSTRAL TERRACE INTERSECTION  
STANDARD 12.5m SINGLE UNIT TRUCK / BUS  
PROPOSED LAYOUT THROUGH MOVEMENTS 01

DRAWING NUMBER: 1808006-SK-009  
REV. A





**SINGLE UNIT TRUCK/BUS (12.5m)**

OVERALL LENGTH	12.500m
OVERALL WIDTH	2.500m
OVERALL BODY HEIGHT	4.300m
MIN BODY GROUND CLEARANCE	0.490m
TRACK WIDTH	2.500m
LOCK-TO-LOCK TIME	6.00s
CURB TO CURB TURNING RADIUS	12.500m

**LEGEND**

- EXISTING KERB TO BE RETAINED
- CENTRE LINE
- STANDARD 8.8m SINGLE UNIT TRUCK/BUS TURNING TEMPLATE - NE BOUND MOVEMENT
- STANDARD 8.8m SINGLE UNIT TRUCK/BUS TURNING TEMPLATE - SW BOUND MOVEMENT

SCALE 1:250 A 1

REV	DATE	DESCRIPTION	APPROVED
A	20.08.18	ISSUED FOR INFORMATION	LD

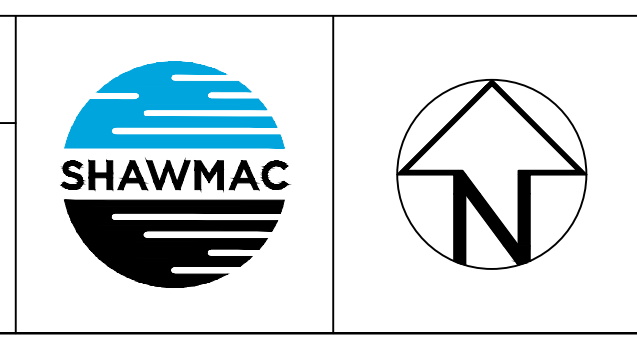
ISSUE AND REVISION HISTORY

CLIENT

LOCAL GOVERNMENT AUTHORITY

SCALE @A1  
HORIZ: 1:250

DATUM  
HORIZONTAL: LOCAL  
VERTICAL: LOCAL



ISSUED FOR INFORMATION

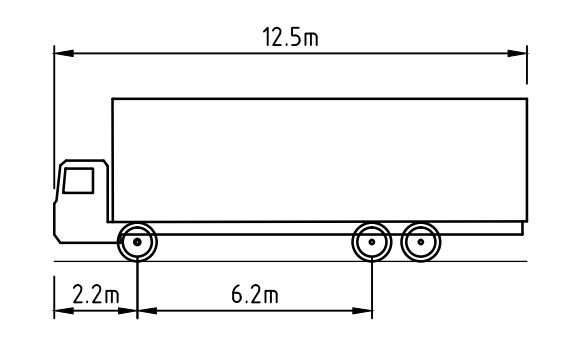
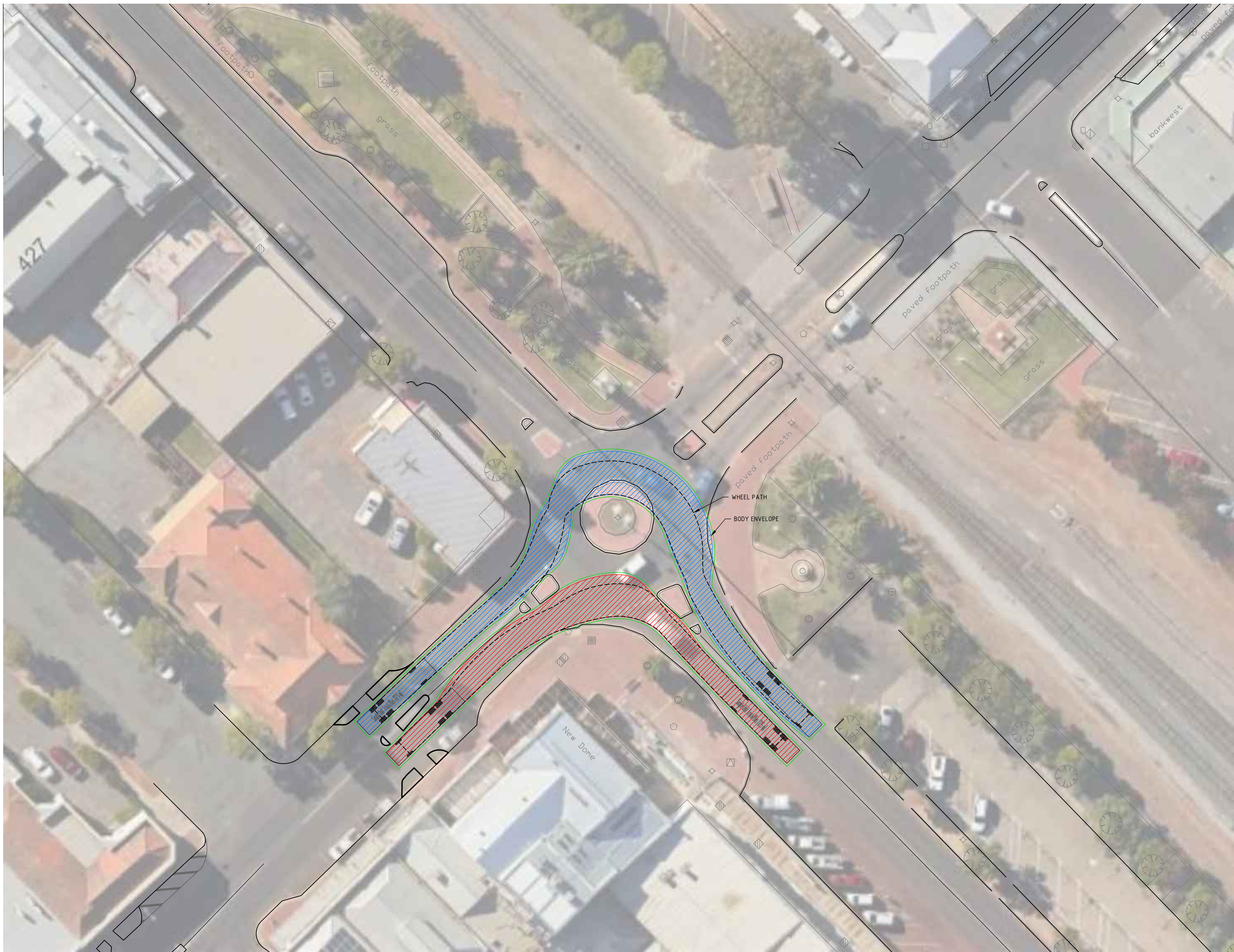
DATE DRAWN:	20.08.18
DESIGNED:	N/A
DRAWN:	KL
CHECKED:	JS
APPROVED:	LD

**KHCP TOWN CENTRE TRAFFIC STUDY**  
 CILVE STREET / AUSTRAL TERRACE INTERSECTION  
 STANDARD 12.5m SINGLE UNIT TRUCK / BUS  
 PROPOSED LAYOUT THROUGH MOVEMENTS 02

DRAWING NUMBER: 1808006-SK-010

REV. A





SINGLE UNIT TRUCK/BUS (12.5m)	
OVERALL LENGTH	12.500m
OVERALL WIDTH	2.500m
OVERALL BODY HEIGHT	4.300m
MIN BODY GROUND CLEARANCE	0.490m
TRACK WIDTH	2.500m
LOCK-TO-LOCK TIME	6.00s
CURB TO CURB TURNING RADIUS	12.500m

**LEGEND**

- EXISTING KERB TO BE RETAINED
- CENTRE LINE
- STANDARD 8.8m SINGLE UNIT TRUCK/BUS TURNING TEMPLATE - LEFT TURN
- STANDARD 8.8m SINGLE UNIT TRUCK/BUS TURNING TEMPLATE - RIGHT TURN

SCALE 1:250  
A 1

REV	DATE	DESCRIPTION	APPROVED
A	20.08.18	ISSUED FOR INFORMATION	LD

ISSUE AND REVISION HISTORY

CLIENT

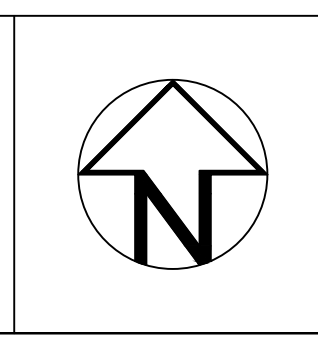
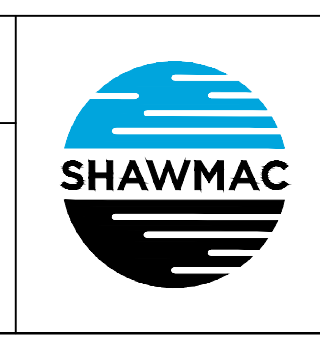
Shire of Katanning  
Heart of the Great Southern

LOCAL GOVERNMENT AUTHORITY

Shire of Katanning  
Heart of the Great Southern

SCALE @A1  
HORIZ: 1:250

DATUM  
HORIZONTAL: LOCAL  
VERTICAL: LOCAL



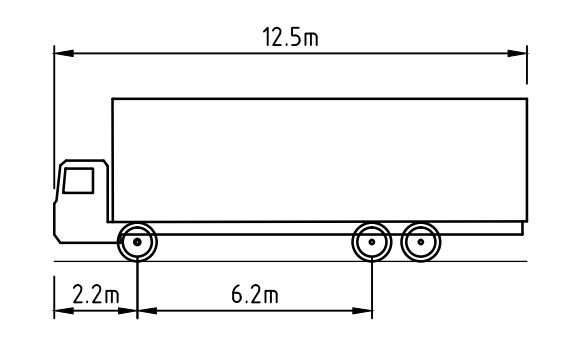
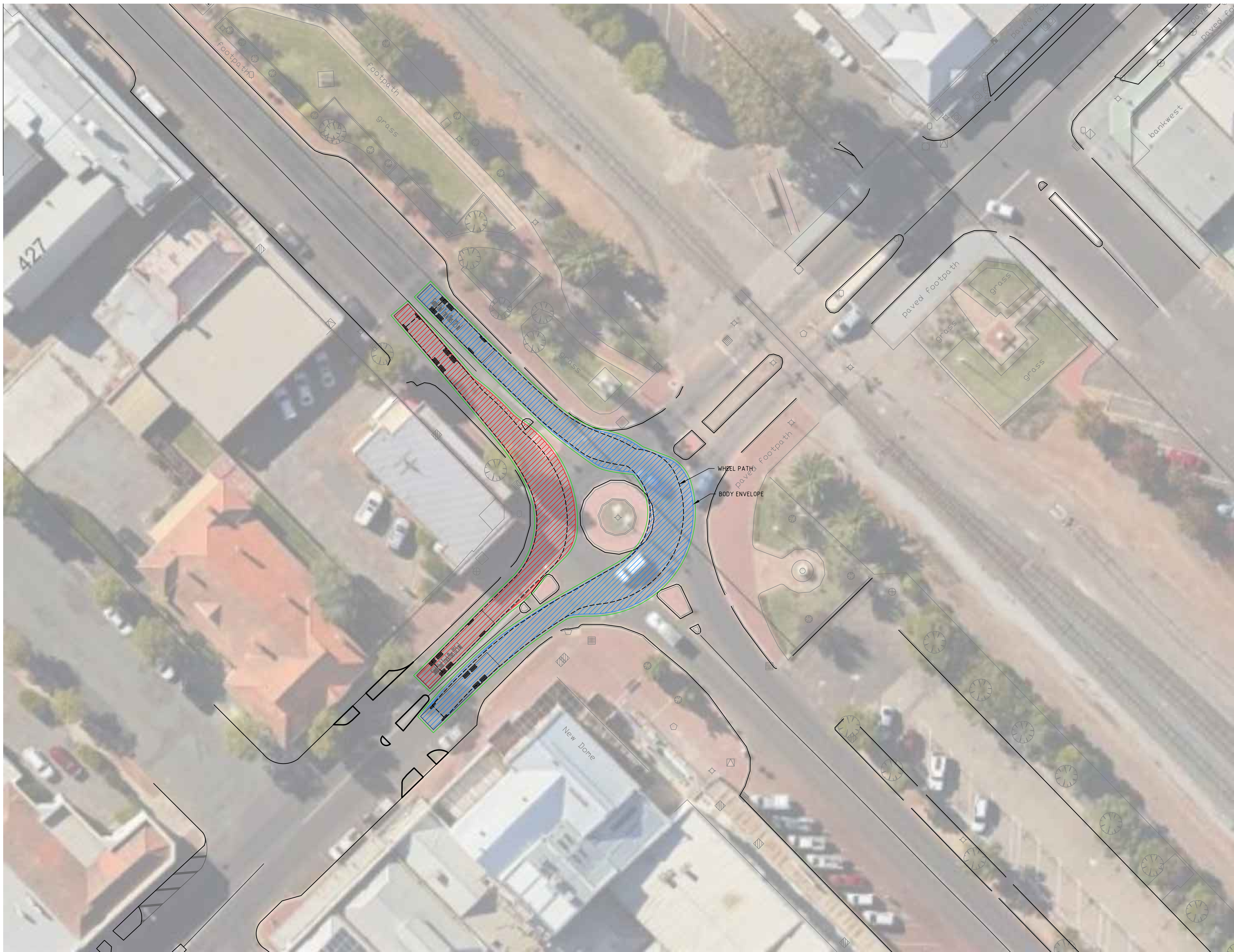
ISSUED FOR INFORMATION

DATE DRAWN:	20.08.18
DESIGNED:	N/A
DRAWN:	KL
CHECKED:	JS
APPROVED:	LD

**KHCP TOWN CENTRE TRAFFIC STUDY**  
CILVE STREET / AUSTRAL TERRACE INTERSECTION  
STANDARD 12.5m SINGLE UNIT TRUCK / BUS  
PROPOSED LAYOUT TURNING MOVEMENTS 01

DRAWING NUMBER: 1808006-SK-011  
REV. A





**SINGLE UNIT TRUCK/BUS (12.5m)**

OVERALL LENGTH	12.500m
OVERALL WIDTH	2.500m
OVERALL BODY HEIGHT	4.300m
MIN BODY GROUND CLEARANCE	0.490m
TRACK WIDTH	2.500m
LOCK-TO-LOCK TIME	6.00s
CURB TO CURB TURNING RADIUS	12.500m

**LEGEND**

- EXISTING KERB TO BE RETAINED
- CENTRE LINE
- STANDARD 8.8m SINGLE UNIT TRUCK/BUS TURNING TEMPLATE - LEFT TURN
- STANDARD 8.8m SINGLE UNIT TRUCK/BUS TURNING TEMPLATE - RIGHT TURN

SCALE 1:250 A 1

REV	DATE	DESCRIPTION	APPROVED
A	20.08.18	ISSUED FOR INFORMATION	LD

ISSUE AND REVISION HISTORY

CLIENT

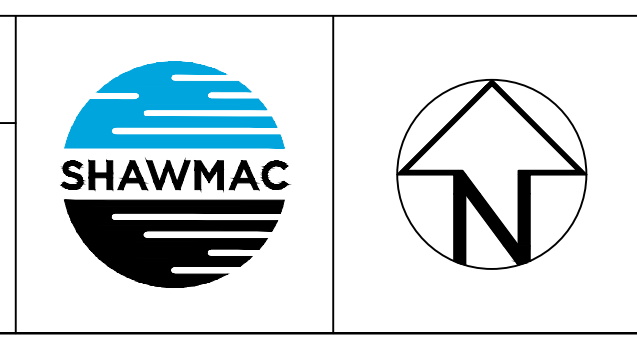
Shire of Katanning  
Heart of the Great Southern

LOCAL GOVERNMENT AUTHORITY

Shire of Katanning  
Heart of the Great Southern

SCALE @A1  
HORIZ: 1:250

DATUM  
HORIZONTAL: LOCAL  
VERTICAL: LOCAL



ISSUED FOR INFORMATION

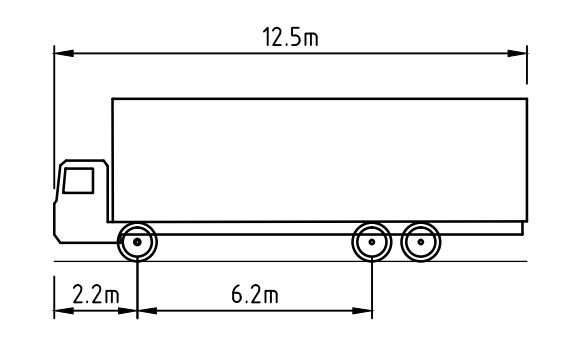
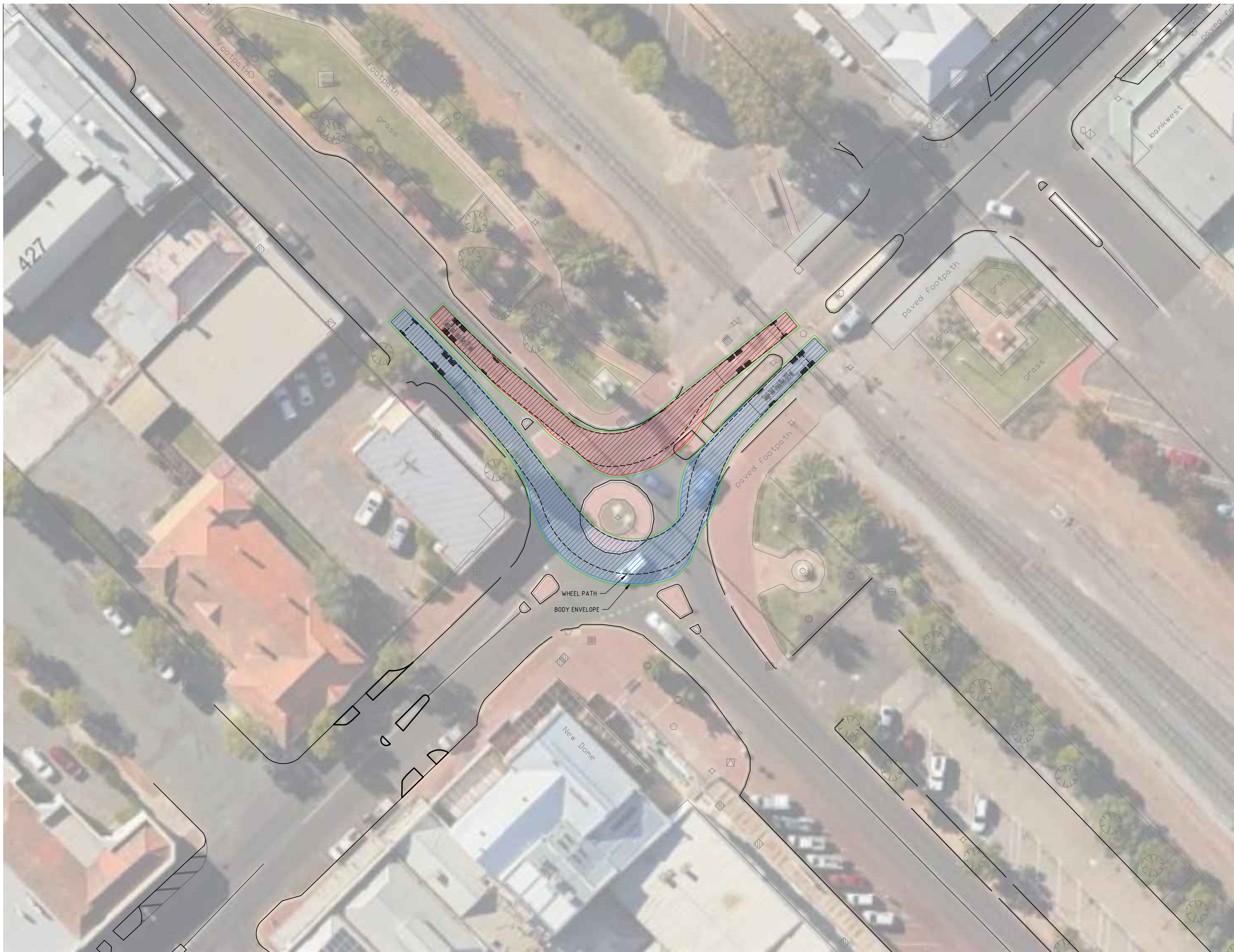
DATE DRAWN:	20.08.18
DESIGNED:	N/A
DRAWN:	KL
CHECKED:	JS
APPROVED:	LD

**KHCP TOWN CENTRE TRAFFIC STUDY**  
CILVE STREET / AUSTRAL TERRACE INTERSECTION  
STANDARD 12.5m SINGLE UNIT TRUCK / BUS  
PROPOSED LAYOUT TURNING MOVEMENTS 02

DRAWING NUMBER: 1808006-SK-012

REV. A





**SINGLE UNIT TRUCK/BUS (12.5m)**

OVERALL LENGTH	12.500m
OVERALL WIDTH	2.500m
OVERALL BODY HEIGHT	4.300m
MIN BODY GROUND CLEARANCE	0.490m
TRACK WIDTH	2.500m
LOCK-TO-LOCK TIME	6.00s
CURB TO CURB TURNING RADIUS	12.500m

**LEGEND**

- EXISTING KERB TO BE RETAINED
- CENTRE LINE
- STANDARD 8.8m SINGLE UNIT TRUCK/BUS TURNING TEMPLATE - LEFT TURN
- STANDARD 8.8m SINGLE UNIT TRUCK/BUS TURNING TEMPLATE - RIGHT TURN

SCALE 1:250

REV	DATE	DESCRIPTION	APPROVED
A	20.08.18	ISSUED FOR INFORMATION	LD

ISSUE AND REVISION HISTORY

CLIENT

Shire of Katanning  
Heart of the Great Southern

LOCAL GOVERNMENT AUTHORITY

Shire of Katanning  
Heart of the Great Southern

SCALE @A1  
HORIZ: 1:250

DATUM  
HORIZONTAL: LOCAL  
VERTICAL: LOCAL

ISSUED FOR INFORMATION

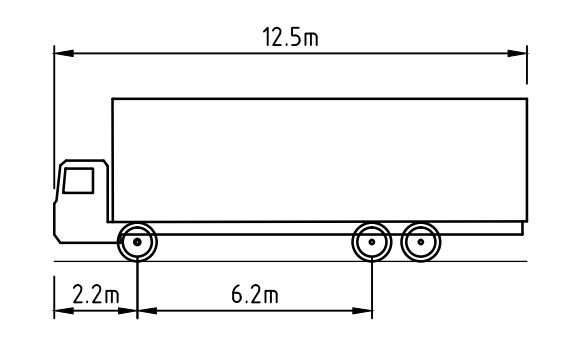
DATE DRAWN:	20.08.18
DESIGNED:	N/A
DRAWN:	KL
CHECKED:	JS
APPROVED:	LD

**KHCP TOWN CENTRE TRAFFIC STUDY**  
CILVE STREET / AUSTRAL TERRACE INTERSECTION  
STANDARD 12.5m SINGLE UNIT TRUCK / BUS  
PROPOSED LAYOUT TURNING MOVEMENTS 03

DRAWING NUMBER: 1808006-SK-013

REV. A





**SINGLE UNIT TRUCK/BUS (12.5m)**

OVERALL LENGTH	12.500m
OVERALL WIDTH	2.500m
OVERALL BODY HEIGHT	4.300m
MIN BODY GROUND CLEARANCE	0.490m
TRACK WIDTH	2.500m
LOCK-TO-LOCK TIME	6.00s
CURB TO CURB TURNING RADIUS	12.500m

**LEGEND**

- EXISTING KERB TO BE RETAINED
- CENTRE LINE
- STANDARD 8.8m SINGLE UNIT TRUCK / BUS TURNING TEMPLATE - LEFT TURN
- STANDARD 8.8m SINGLE UNIT TRUCK / BUS TURNING TEMPLATE - RIGHT TURN

SCALE 1:250 A 1

REV	DATE	DESCRIPTION	APPROVED
A	20.08.18	ISSUED FOR INFORMATION	LD

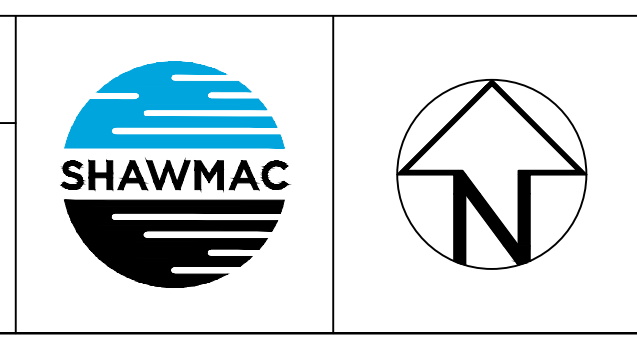
ISSUE AND REVISION HISTORY

CLIENT

LOCAL GOVERNMENT AUTHORITY

SCALE @A1  
HORIZ: 1:250

DATUM  
HORIZONTAL: LOCAL  
VERTICAL: LOCAL



ISSUED FOR INFORMATION

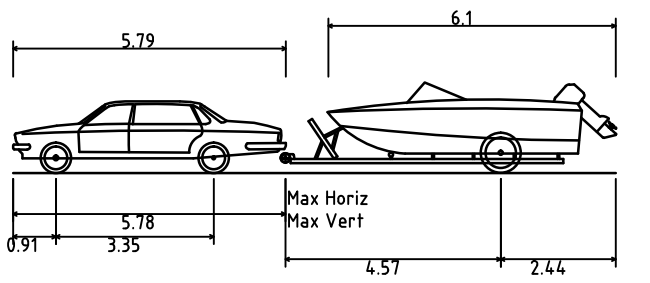
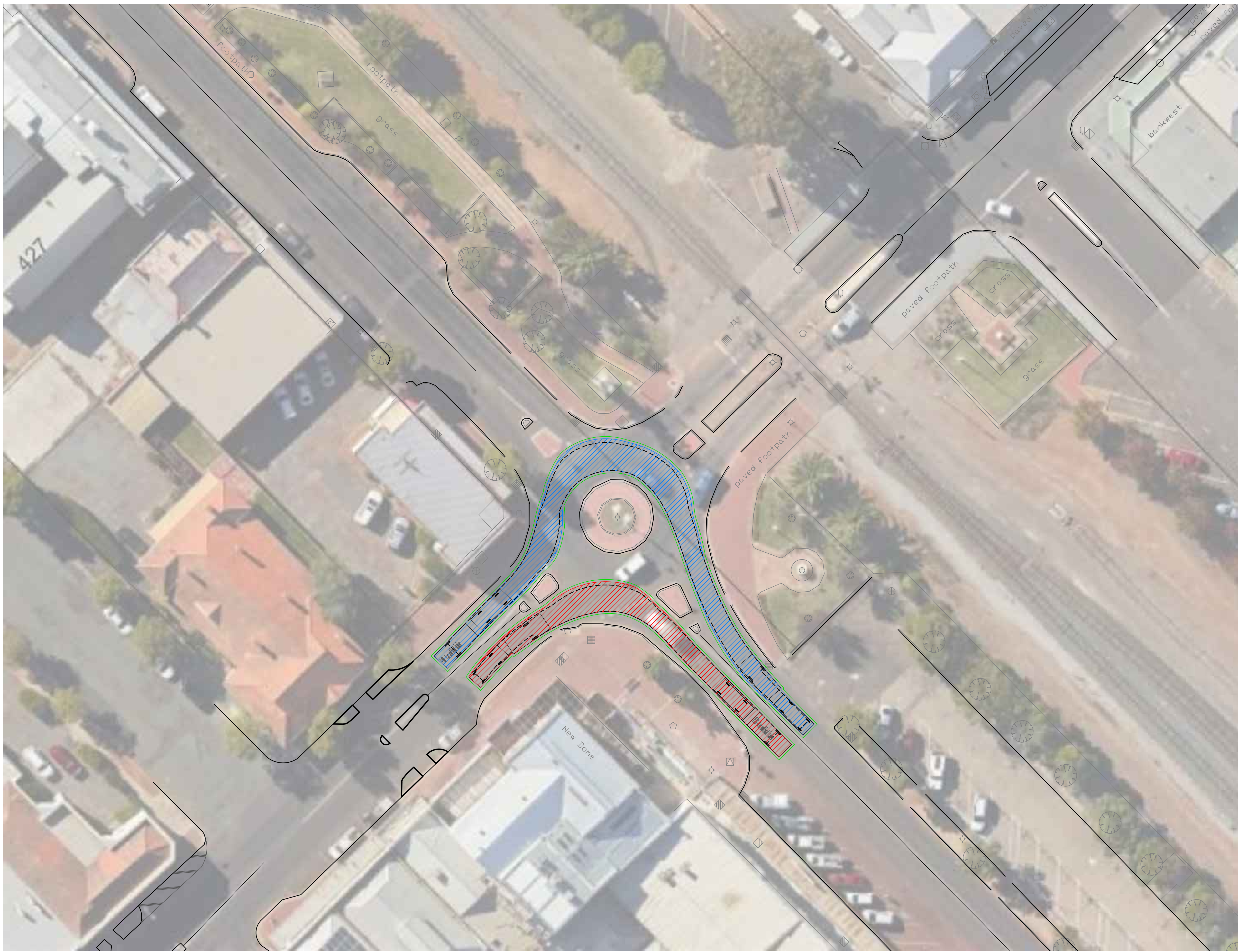
DATE DRAWN:	20.08.18
DESIGNED:	N/A
DRAWN:	KL
CHECKED:	JS
APPROVED:	LD

**KHCP TOWN CENTRE TRAFFIC STUDY**  
**CILVE STREET / AUSTRAL TERRACE INTERSECTION**  
**STANDARD 12.5m SINGLE UNIT TRUCK / BUS**  
**PROPOSED LAYOUT TURNING MOVEMENTS 04**

DRAWING NUMBER: 1808006-SK-014

REV. A





CUSTOM CAR AND BOAT TRAILER	
OVERALL LENGTH	12.790m
OVERALL WIDTH	2.440m
OVERALL BODY HEIGHT	1.922m
MIN BODY GROUND CLEARANCE	0.208m
MAX TRACK WIDTH	2.440m
LOCK TO LOCK TIME	4.00s
KERB TO KERB TURNING RADIUS	7.300m

**LEGEND**

- EXISTING KERB TO BE RETAINED
- CENTRE LINE
- CUSTOM CAR AND BOAT TRAILER TURNING TEMPLATE - LEFT TURN MOVEMENT
- CUSTOM CAR AND BOAT TRAILER TURNING TEMPLATE - RIGHT TURN MOVEMENT

SCALE 1:250

REV	DATE	DESCRIPTION	APPROVED
A	28.08.18	ISSUED FOR INFORMATION	LD

CLIENT

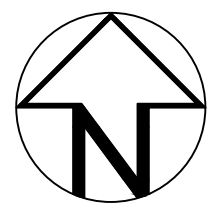
Shire of Katanning  
Heart of the Great Southern

LOCAL GOVERNMENT AUTHORITY

Shire of Katanning  
Heart of the Great Southern

SCALE @A1  
HORIZ: 1:250

DATUM  
HORIZONTAL: LOCAL  
VERTICAL: LOCAL



ISSUED FOR INFORMATION

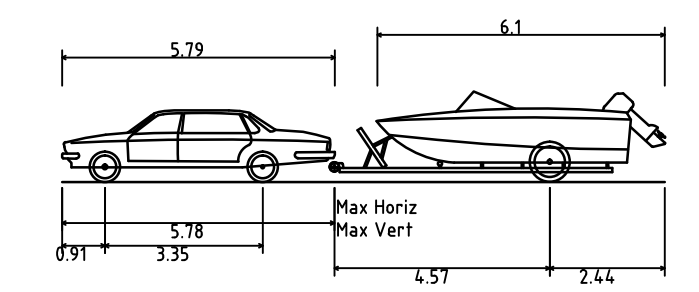
DATE DRAWN:	28.08.18
DESIGNED:	N/A
DRAWN:	KL
CHECKED:	JS
APPROVED:	LD

**KHCP TOWN CENTRE TRAFFIC STUDY**  
CILVE STREET / AUSTRAL TERRACE INTERSECTION  
CUSTOM CAR AND BOAT TRAILER  
PROPOSED LAYOUT TURNING MOVEMENTS 01

DRAWING NUMBER: 1808006-SK-015

REV. A





CUSTOM CAR AND BOAT TRAILER	
OVERALL LENGTH	12.790m
OVERALL WIDTH	2.440m
OVERALL BODY HEIGHT	1.922m
MIN BODY GROUND CLEARANCE	0.208m
MAX TRACK WIDTH	2.440m
LOCK TO LOCK TIME	4.00s
KERB TO KERB TURNING RADIUS	7.300m

**LEGEND**

- EXISTING KERB TO BE RETAINED
- CENTRE LINE
- CUSTOM CAR AND BOAT TRAILER TURNING TEMPLATE - LEFT TURN MOVEMENT
- CUSTOM CAR AND BOAT TRAILER TURNING TEMPLATE - RIGHT TURN MOVEMENT

SCALE 1:250  
A 1

REV	DATE	DESCRIPTION	APPROVED
A	28.08.18	ISSUED FOR INFORMATION	LD

CLIENT

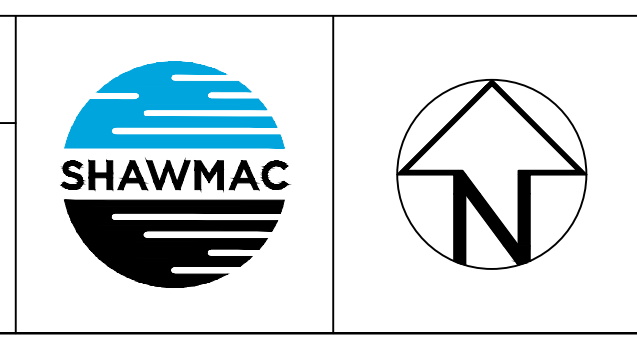
Shire of Katanning  
Heart of the Great Southern

LOCAL GOVERNMENT AUTHORITY

Shire of Katanning  
Heart of the Great Southern

SCALE @A1  
HORIZ: 1:250

DATUM  
HORIZONTAL: LOCAL  
VERTICAL: LOCAL



ISSUED FOR INFORMATION

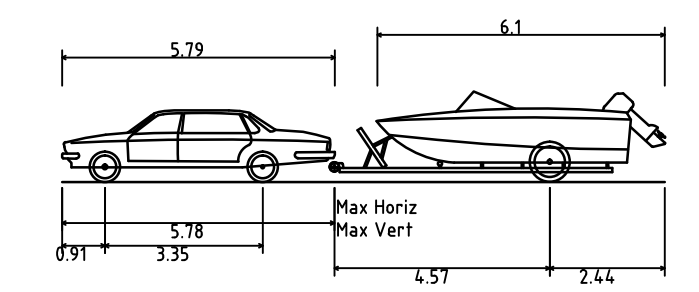
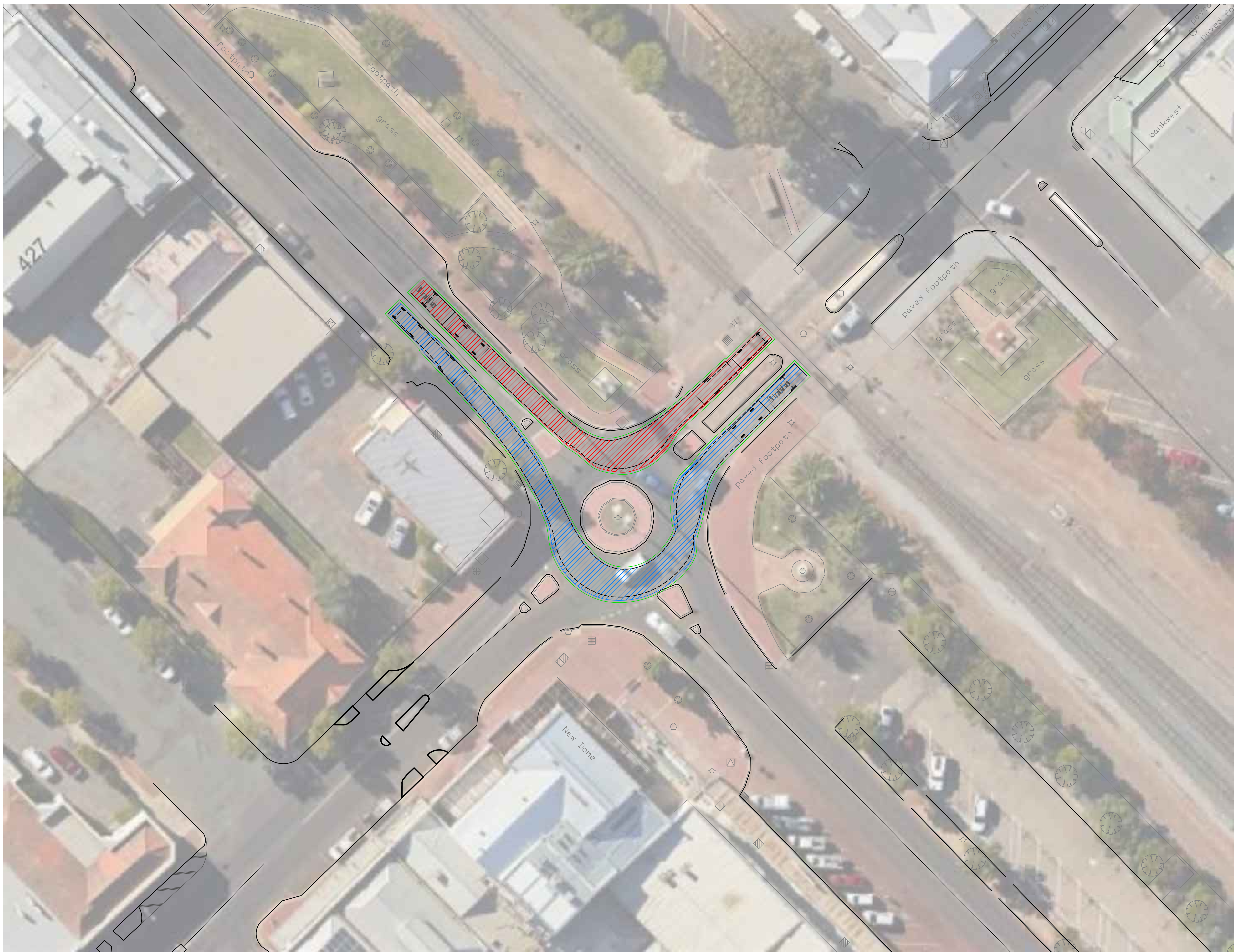
DATE DRAWN:	28.08.18
DESIGNED:	N/A
DRAWN:	KL
CHECKED:	JS
APPROVED:	LD

**KHCP TOWN CENTRE TRAFFIC STUDY**  
CILVE STREET / AUSTRAL TERRACE INTERSECTION  
CUSTOM CAR AND BOAT TRAILER  
PROPOSED LAYOUT TURNING MOVEMENTS 01

DRAWING NUMBER: 1808006-SK-016

REV. A





CUSTOM CAR AND BOAT TRAILER	
OVERALL LENGTH	12.790m
OVERALL WIDTH	2.440m
OVERALL BODY HEIGHT	1.922m
MIN BODY GROUND CLEARANCE	0.208m
MAX TRACK WIDTH	2.440m
LOCK TO LOCK TIME	4.00s
KERB TO KERB TURNING RADIUS	7.300m

**LEGEND**

- EXISTING KERB TO BE RETAINED
- CENTRE LINE
- CUSTOM CAR AND BOAT TRAILER TURNING TEMPLATE - LEFT TURN MOVEMENT
- CUSTOM CAR AND BOAT TRAILER TURNING TEMPLATE - RIGHT TURN MOVEMENT

SCALE 1:250  
A 1

REV	DATE	DESCRIPTION	APPROVED
A	28.08.18	ISSUED FOR INFORMATION	LD

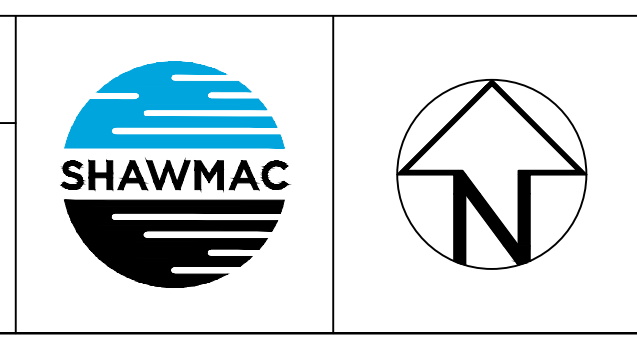
ISSUE AND REVISION HISTORY

CLIENT

LOCAL GOVERNMENT AUTHORITY

SCALE @A1  
HORIZ: 1:250

DATUM  
HORIZONTAL: LOCAL  
VERTICAL: LOCAL



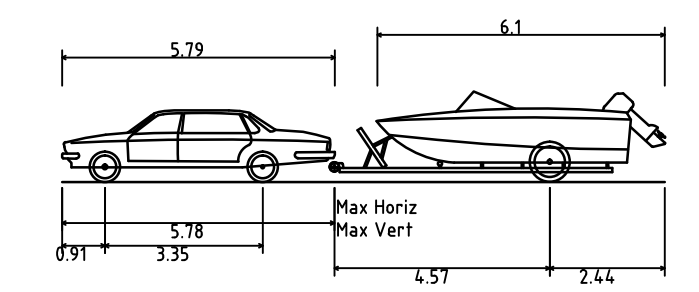
ISSUED FOR INFORMATION

DATE DRAWN:	28.08.18
DESIGNED:	N/A
DRAWN:	KL
CHECKED:	JS
APPROVED:	LD

**KHCP TOWN CENTRE TRAFFIC STUDY**  
CILVE STREET / AUSTRAL TERRACE INTERSECTION  
CUSTOM CAR AND BOAT TRAILER  
PROPOSED LAYOUT TURNING MOVEMENTS 01

DRAWING NUMBER: 1808006-SK-017  
REV. A





CUSTOM CAR AND BOAT TRAILER	
OVERALL LENGTH	12.790m
OVERALL WIDTH	2.440m
OVERALL BODY HEIGHT	1.922m
MIN BODY GROUND CLEARANCE	0.208m
MAX TRACK WIDTH	2.440m
LOCK TO LOCK TIME	4.00s
KERB TO KERB TURNING RADIUS	7.300m

**LEGEND**

- EXISTING KERB TO BE RETAINED
- CENTRE LINE
- CUSTOM CAR AND BOAT TRAILER TURNING TEMPLATE - LEFT TURN MOVEMENT
- CUSTOM CAR AND BOAT TRAILER TURNING TEMPLATE - RIGHT TURN MOVEMENT

SCALE 1:250  
A 1

REV	DATE	DESCRIPTION	APPROVED
A	28.08.18	ISSUED FOR INFORMATION	LD

ISSUE AND REVISION HISTORY

CLIENT

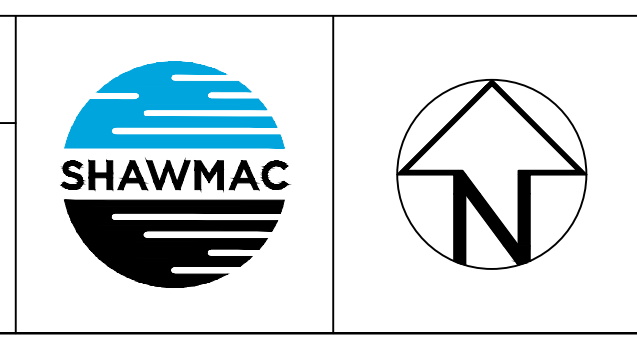
Shire of Katanning  
Heart of the Great Southern

LOCAL GOVERNMENT AUTHORITY

Shire of Katanning  
Heart of the Great Southern

SCALE @A1  
HORIZ: 1:250

DATUM  
HORIZONTAL: LOCAL  
VERTICAL: LOCAL



ISSUED FOR INFORMATION

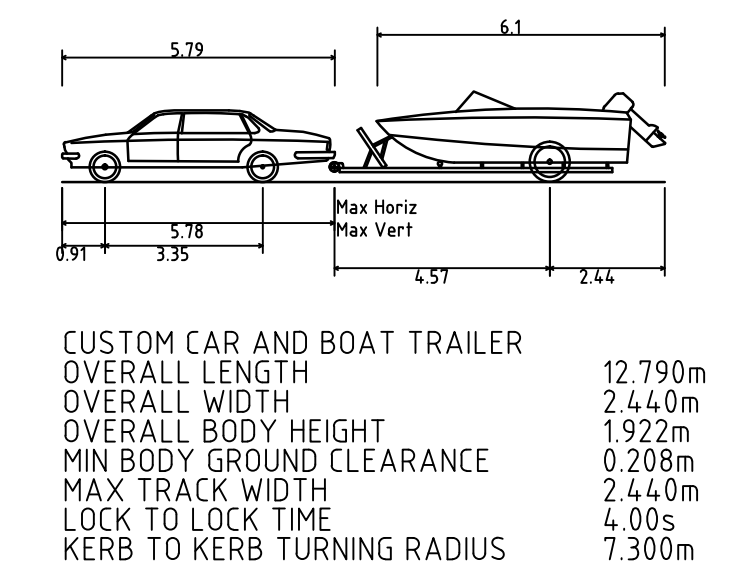
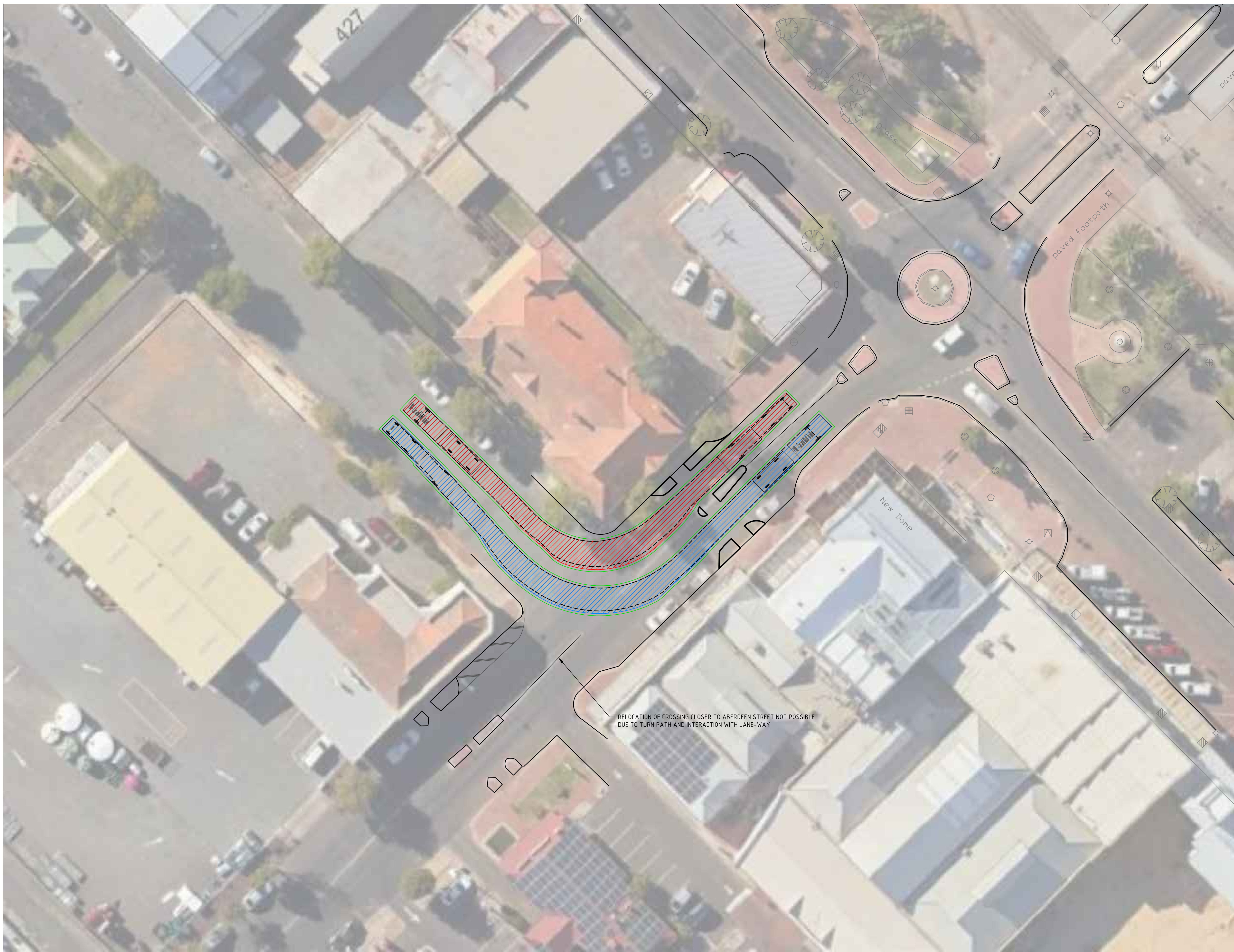
DATE DRAWN:	28.08.18
DESIGNED:	N/A
DRAWN:	KL
CHECKED:	JS
APPROVED:	LD

**KHCP TOWN CENTRE TRAFFIC STUDY**  
CILVE STREET / AUSTRAL TERRACE INTERSECTION  
CUSTOM CAR AND BOAT TRAILER  
PROPOSED LAYOUT TURNING MOVEMENTS 01

DRAWING NUMBER: 1808006-SK-018

REV. A





CUSTOM CAR AND BOAT TRAILER	12.790m
OVERALL LENGTH	2.440m
OVERALL WIDTH	1.922m
OVERALL BODY HEIGHT	0.208m
MIN BODY GROUND CLEARANCE	2.440m
MAX TRACK WIDTH	4.00s
LOCK TO LOCK TIME	7.300m
KERB TO KERB TURNING RADIUS	

RELOCATION OF CROSSING CLOSER TO ABERDEEN STREET NOT POSSIBLE DUE TO TURN PATH AND INTERACTION WITH LANE-WAY

**LEGEND**

- EXISTING KERB TO BE RETAINED
- CENTRE LINE
- CUSTOM CAR AND BOAT TRAILER TURNING TEMPLATE - LEFT TURN MOVEMENT
- CUSTOM CAR AND BOAT TRAILER TURNING TEMPLATE - RIGHT TURN MOVEMENT

SCALE 1:250  
A  
1

REV	DATE	ISSUE AND REVISION HISTORY	APPROVED
A	28.08.18	ISSUED FOR INFORMATION	LD

CLIENT

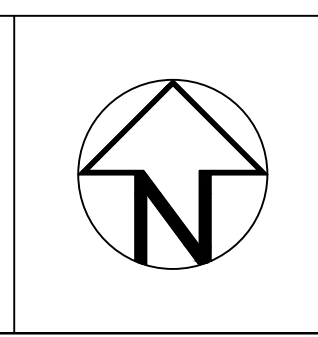
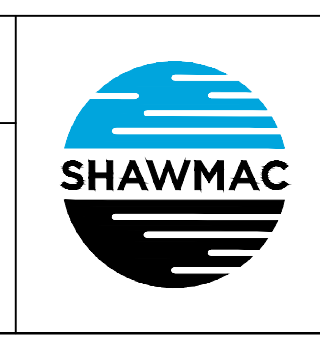
Shire of Katanning  
Heart of the Great Southern

LOCAL GOVERNMENT AUTHORITY

Shire of Katanning  
Heart of the Great Southern

SCALE @A1  
HORIZ: 1:250

DATUM  
HORIZONTAL: LOCAL  
VERTICAL: LOCAL



ISSUED FOR INFORMATION

DATE DRAWN:	28.08.18
DESIGNED:	N/A
DRAWN:	KL
CHECKED:	JS
APPROVED:	LD




**KHCP TOWN CENTRE TRAFFIC STUDY**  
CILVE STREET / ABERDEEN STREET INTERSECTION  
CUSTOM CAR AND BOAT TRAILER  
PROPOSED LAYOUT TURNING MOVEMENTS

DRAWING NUMBER: 1808006-SK-019

REV. A





- LEGEND**
-  EXISTING KERB TO BE RETAINED
  -  CENTRE LINE
  -  PEDESTRIAN SIGHT LINE

SCALE 1:1000  
A  
1

REV	DATE	ISSUE AND REVISION HISTORY	APPROVED
A	28.08.18	ISSUED FOR INFORMATION	LD

CLIENT



Shire of Katanning  
Heart of the Great Southern

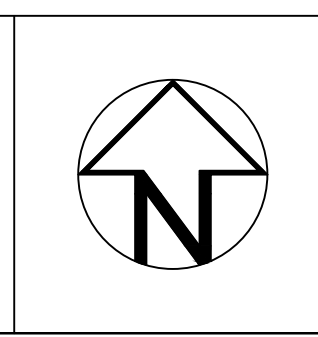
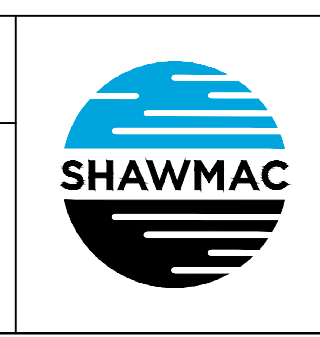
LOCAL GOVERNMENT AUTHORITY



Shire of Katanning  
Heart of the Great Southern

SCALE @A1  
HORIZ: 1:1000

DATUM  
HORIZONTAL: LOCAL  
VERTICAL: LOCAL



ISSUED FOR INFORMATION

DATE DRAWN:	28.08.18
DESIGNED:	N/A
DRAWN:	KL
CHECKED:	JS
APPROVED:	LD

**KHCP TOWN CENTRE TRAFFIC STUDY**  
CILVE STREET / ABERDEEN STREET INTERSECTION  
PROPOSED PEDESTRIAN CROSSING  
SIGHT DISTANCE CHECK

DRAWING NUMBER:  
**1808006-SK-020**

REV. **A**