



TRAFFIC IMPACT ASSESSMENT

PROPOSED ROAD CLOSURE

CORONATION STREET, KINGSVILLE

29 OCTOBER 2024

CORONATION STREET, KINGSVILLE

CLIENT: Maribyrnong City Council

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1 INTRODUCTION

O'Brien Traffic has been engaged by Maribyrnong City Council to undertake a traffic impact assessment of a proposed road closure of Coronation Street in Kingsville. The closure would be adjacent to the Bell Reserve north of Webb Street.

In the course of preparing this report:

- Plans and relevant documentation have been examined;
- The subject site and surrounding area have been inspected;
- Traffic surveys have been undertaken and the results analysed; and
- The traffic implications of the proposal have been assessed.

2 EXISTING CONDITIONS

2.1 LOCATION

The subject site is the section of Coronation Street adjacent to Bell Reserve, north of the Webb Street intersection, as shown in **Figure 1**. An aerial view is shown in **Figure 2**.



FIGURE 1: LOCATION OF PROPOSED ROAD CLOSURE OF CORONATION STREET, KINGSVILLE



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FIGURE 2: AERIAL VIEW OF CORONATION STREET NORTH OF WEBB STREET

2.2 STREET FUNCTION AND CROSS SECTION

Coronation Street is a local street under the care and maintenance of Council. It runs in a north-south orientation between Sommerville Road and a Geelong Road service road, providing access to residential properties.

For most of its length, Coronation Street is a two-way road except between Chatfield Street and Webb Street where it is one-way northbound. The street generally has a carriageway width of approximately 9.2m except adjacent to Bell Reserve where it narrows to approximately 6m, and at narrow points each end and midblock along the one-way section where it has a width of 3.5m.

The intersection of Coronation and Webb Streets is a cross-intersection controlled by a Give Way signs on the northern and southern legs. No entry movements are permitted to the southern leg which is one-way northbound.

A 40 km/h Area speed limit applies to Coronation Street and the surrounding local streets.

Views of Coronation Street in the vicinity of the road closure are shown in **Figure 3** and **Figure 4**.



FIGURE 3: CORONATION STREET FACING SOUTH (TOWARDS WEBB STREET)



FIGURE 4: CORONATION STREET FACING NORTH (FROM WEBB STREET)

2.3 SURROUNDING ROAD NETWORK

Webb Street is a local street under the care and maintenance of Council. It runs in an east-west orientation between Williamstown Road and Kingsville Street. It provides for two-way traffic movements within a carriageway width of approximately 6.2m.

Shackell Street is a local street which runs in an east-west orientation between Williamstown Road and Wales Street. It provides for two-way traffic movements within a carriageway width of approximately 6.2m. Speed humps are provided along the length of the street.

Wales Street is a local street which runs in a north-south orientation between Geelong Road and Sommerville Road. It provides for two-way traffic movements within a carriageway width of approximately 9.3m. The cross-intersections at Webb Street and at Chatfield Street are treated with raised pavement intersections.

Empress Avenue is a local street which runs in a north-south orientation between Geelong Road and Somerville Road. It provides for two-way traffic movements except between Webb Street and Shackell Street which is one-way northbound.

Chirnside Street is a local street which runs in a north-south orientation between Geelong Road and Somerville Road. It provides for two-way traffic movements except between Chatfield Street and Webb Street where it is one-way southbound.

2.4 EXISTING TRAFFIC VOLUMES

2.4.1 Automatic Tube Counts

O'Brien Traffic commissioned automatic tube counts, conducted over a one-week period (Saturday 14th to Friday 20th September 2024) at the following locations:

- Wales Street between Shakell and Webb Streets,
- Coronation Street south of Shakell Street,
- Empress Avenue between Shakell and Webb Streets, and
- Chirnside Street between Shakell and Webb Streets.

Council also provided automatic tube count data collected at Coronation Street adjacent to Bell Reserve for one week between Tuesday 23rd and Monday 29th July 2024.

The automatic traffic counts are summarised in **Figure 5**.



FIGURE 5: EXISTING WEEKDAY AVERAGE TRAFFIC VOLUMES

2.4.2 Intersection Turning Movement Counts

O'Brien Traffic commissioned turning movement counts at the following intersections during the AM and PM peaks on Tuesday 17th September 2024:

- Shackell Street / Wales Street,
- Shackell Street / Coronation Street,
- Shackell Street / Empress Avenue,
- Shackle Street / Chirnside Street,
- Webb Street / Wales Street,
- Webb Street / Coronation Street,
- Webb Street / Empress Avenue, and
- Webb Street / Chirnside Street

The surveyed peak hours at the intersection of Coronation and Webb Street are 7:45am to 8:45am and 3:15pm to 4:15pm. The vehicle turning movement volumes for these peak hours are summarised in **Figure 6**.

2.5 CASUALTY CRASH HISTORY

Casualty crash data (from 30 April 2018 to 30 April 2023) was reviewed for Coronation Street and the surrounding streets. The data indicated the following:

- No crashes occurred on Coronation Street;
- One 'other injury' crash occurred at the Chatfield Street/Chirnside Street intersection, (cross-intersection crash) in October 2019; and
- One 'serious injury' crash occurred at the intersection of Williamstown Road/Shackell Street (Left Far) in April 2022.

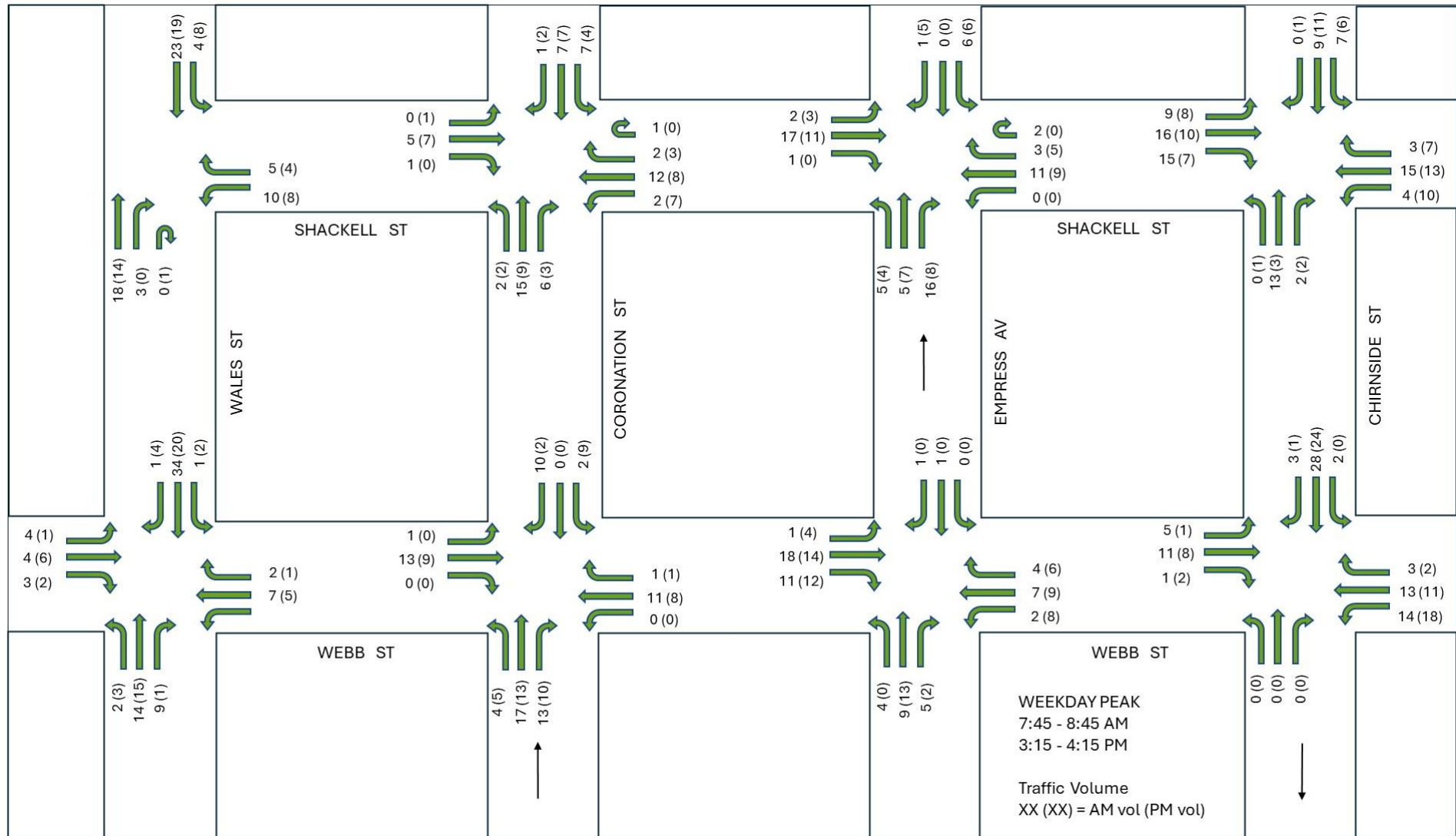


FIGURE 6: EXISTING PEAK HOUR INTERSECTION TURNING MOVEMENT DATA (TUESDAY 17TH SEPTEMBER 2024)

2.6 SITE OBSERVATIONS

Traffic conditions at the Coronation Street and Webb Street and at the Coronation Street and Shackell Street intersections were observed during the morning and afternoon peak periods on Tuesday 8 October 2024. Observations indicate the following:

Morning Period

- No delays or vehicle queuing was observed.
- Of the vehicles that approach from the north approximately 60% turned left and 40% turned right into Webb Street.
- All the of the through traffic which approached from south of Webb Street drove straight through to Coronation Street north of Shackell Street.
- 11% of the vehicles that entered Coronation Street north of Webb Street parked between Webb and Shackell Streets.
- All traffic which approached from the north of Shackell Street drove straight through to Coronation Street and turned left or right at Webb Street.
- 13% of the vehicles that turned into Webb Street from the north were parked in Coronation Street between Webb and Shackell Streets, 80% approached from north of Shackell Street and the remaining 7% turned left from Shackell Street.

Afternoon Period

- No delays or vehicle queuing was observed.
- Of the vehicles that approached from the north, approximately 50% turned left and 50% turned right into Webb Street.
- Of the vehicles that turned left into Webb Street from the north, approximately 50% then turned left into Empress Avenue (as Empress Avenue, between Webb and Shackell Streets cannot be accessed from the north) and 30% turned right into Empress Avenue.
- 55% of traffic which approached from the south of Webb Street drove straight through to Coronation Street north of Shackell Street, 25% parked on Coronation Street between Webb and Shackell Streets and the other 20% turned right into Shackell Street.
- 20% of the vehicles that entered Coronation Street north of Webb Street parked between Webb and Shackell Streets.
- Most traffic which approached from the north of Shackell Street drove straight through to Coronation Street south of Webb Street.
- 25% of the vehicles that turned into Webb Street from the north were parked in Coronation Street between Webb and Shackell Streets, 60% approached from north of Shackell Street, and the remaining 15% turned left from Shackell Street.
- Of the vehicles that turned right into Webb Street, 80% then turned left into Wales Street (as Coronation Street between Webb and Chatfield Streets is one-way northbound and cannot be entered from the north end at Webb Street).

3 THE PROPOSAL

It is proposed to implement a permanent road closure of Coronation Street north of Webb Street, adjacent to Bell Reserve. The closure would allow the reserves on each side of the road to be combined into a larger space (no longer disconnected by the road and vehicular traffic).

The proposal would prevent all vehicular movements to and from the northern leg of Coronation Street at the Webb Street intersection (pedestrian and cyclist movements would be permitted).

4 TRAFFIC REDISTRIBUTION

The proposed road closure will prevent vehicles from turning into and out of the northern leg of Coronation Street at Webb Street and will redistribute traffic movements at both the Shackell Street and Webb Street intersections with Coronation Street to the surrounding road network. This traffic redistribution is likely to be more dynamic, rather than static due to the presence of a grid network in the surrounding area. Drivers are likely to divert to different routes and then settle on the route with the least delays.

Based on the site observations it is anticipated that:

- Northbound vehicles travelling on Coronation Street which across Webb Street would reroute to Wales Street or to Empress Avenue and either:
 - continue straight through to the Geelong Road service road; or
 - circle back to Coronation Street via Shackell Street.
- Vehicles that turn left and right from Webb Street into Coronation Street would reroute to Wales Street if approaching from the west and to Empress Avenue if approaching from the east.
- Southbound vehicles on Coronation Street from Shackell Street and north of Shackell Street that currently turn into Webb Street would evenly reroute to either Wales Street or Chirnside Street via Shackell Street. This includes vehicles that want to access the one-way northbound section of Empress Avenue at Webb Street which are anticipated to use Chirnside Street.
- Southbound vehicles which originate in Coronation Street, between Shackell and Webb Streets, are likely to reroute to Wales Street via Shackell Street.

The anticipated re-routed traffic, based on the above assumptions, is shown **Figure 7**.

The overall traffic volumes following the traffic redistribution, based on the above, is shown in **Figure 8**.

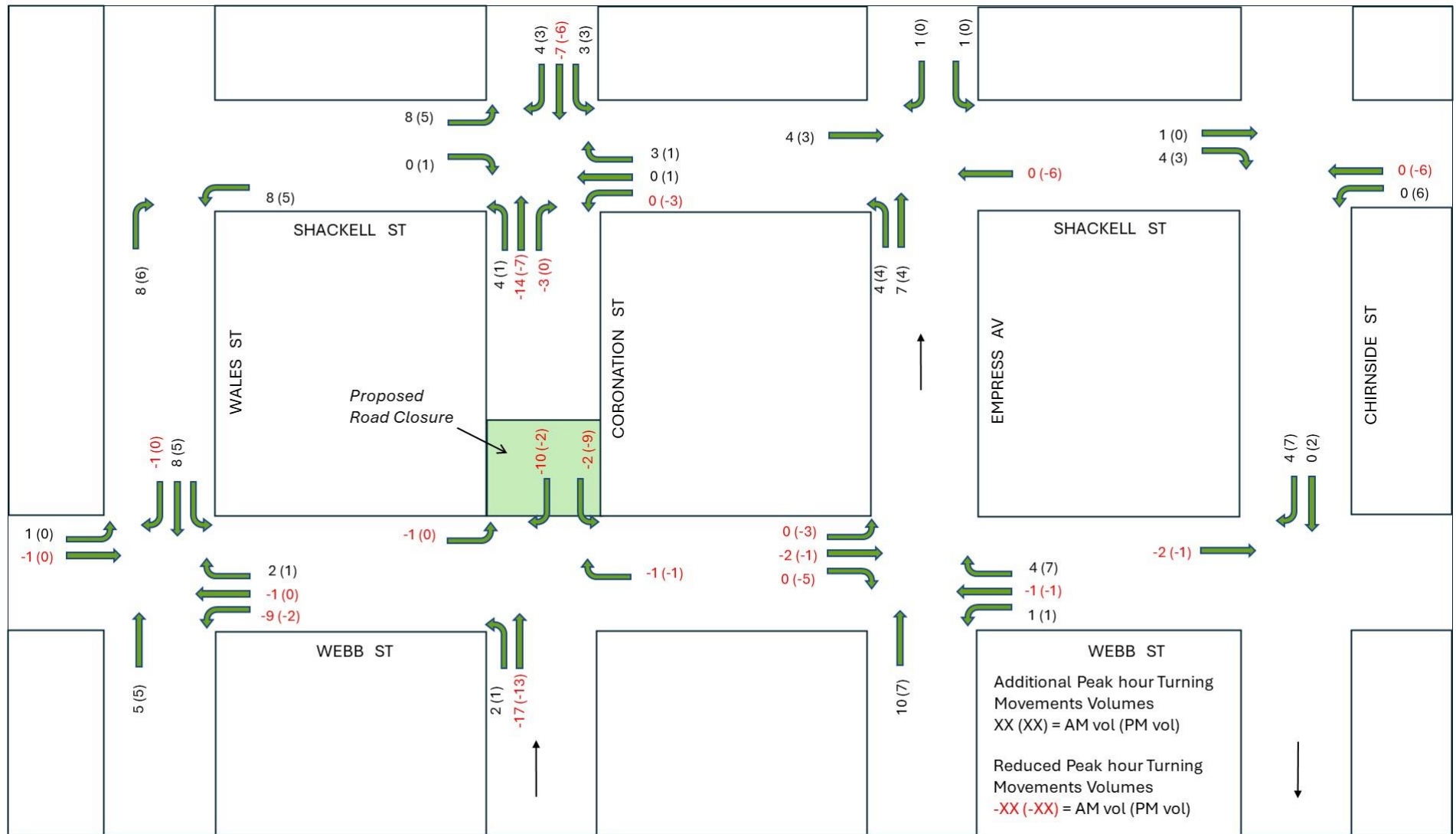


FIGURE 7: ANTICIPATED TRAFFIC RE-ROUTED FOLLOWING IMPLEMENTATION OF CORONATION STREET ROAD CLOSURE

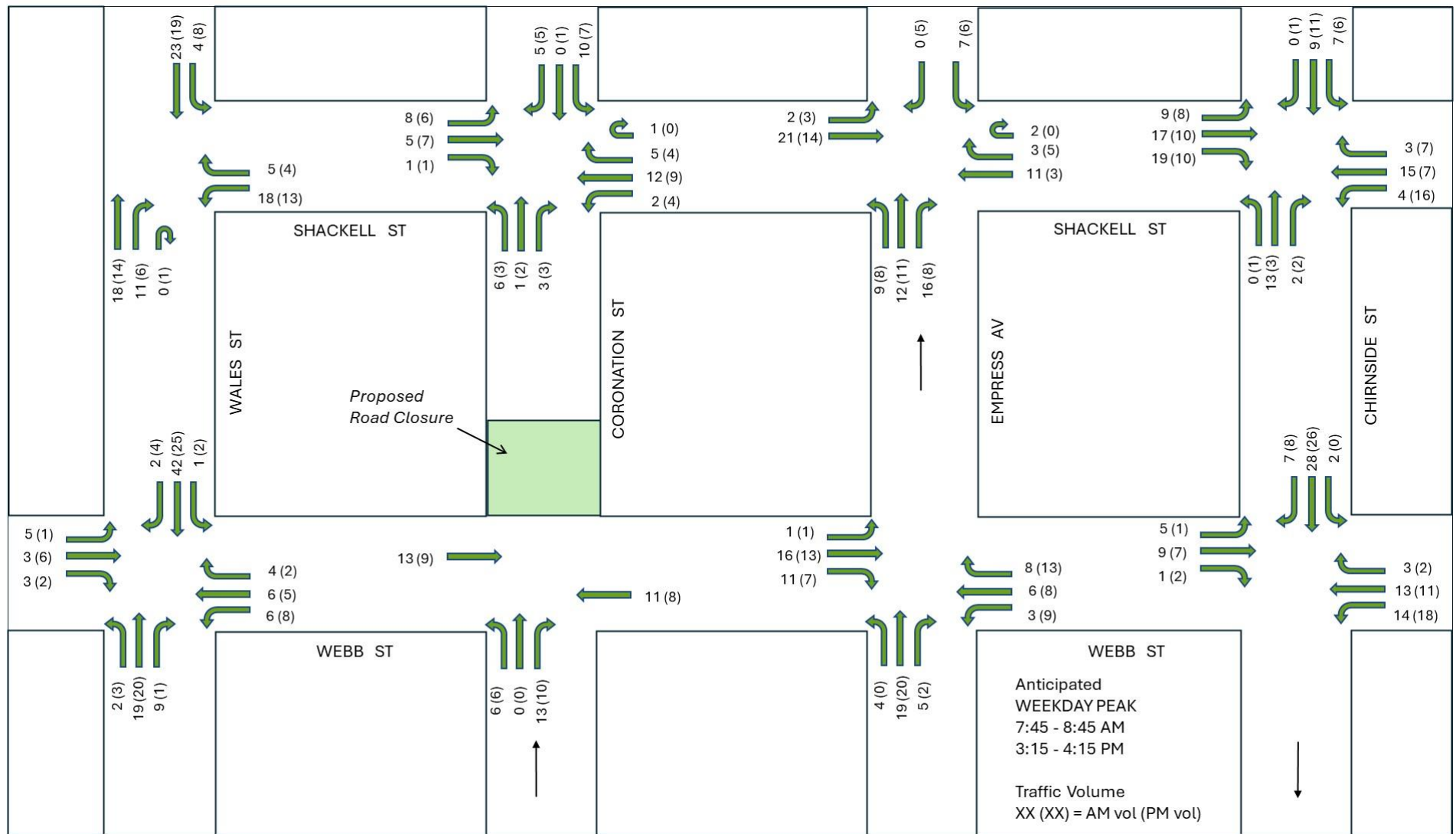


FIGURE 8: ANTICIPATED TRAFFIC REDISTRIBUTION FOLLOWING IMPLEMENTATION OF CORONATION STREET ROAD CLOSURE

5 TRAFFIC IMPACT

5.1 CORONATION STREET

The road closure of Coronation Street north of Webb Street is anticipated to have the following impact on traffic along Coronation Street:

- Reduce traffic volumes between Shackell and Webb Streets by up to 20 vehicles per hour (vph) in the AM peak hour, and 14 vph in the PM peak hour.
- Reduce traffic volumes north of Shackell Street by up to 3 vph in the AM peak hour, and 1 vph in the PM peak hour.
- Reduce traffic volumes south of Webb Street by up to 15 vph in the AM peak hour, and 12 vph in the PM peak hour.

5.2 SURROUNDING ROAD NETWORK

5.2.1 Wales Street

The additional traffic anticipated to use Wales Street, up to 16 vph in the AM peak period and up to 11 vph in the PM peak period, will be imperceptible. Approximately one additional car every 3 to 5 minutes during the weekday peak periods.

5.2.2 Empress Avenue

The additional traffic anticipated to use Empress Street, up to 11 vph in the AM peak period and up to 8 vph in the PM peak period, will be imperceptible.

5.2.3 Chirnside Street

The additional traffic anticipated to use Chirnside Street, up to 4 vehicles per hour in the AM peak period and up to 9 vehicles per hour in the PM peak period, will be imperceptible.

To put the above additional volumes into context, local access streets such as Wales Street, Empress Avenue and Chirnside Street have a peak hour traffic threshold of 2,000 to 3,000 vehicles per day. Typically, 10 percent of the traffic movements would occur in the peak hour which equates to 200 to 300 vph. Based on the existing traffic volumes, as shown in **Figure 5** above, Wales Street, Empress Avenue and Chirnside Street have adequate spare capacity to accommodate the additional traffic volumes that would be redistributed because of the proposed road closure.

5.2.4 Webb Street

The road closure of Coronation Street north of Webb Street is anticipated to have the following impact on traffic along Webb Street:

- Reduce traffic volumes between Wales and Coronation Streets by up to 9 vph in the AM peak hour, and 1 vph in the PM peak hour.
- Reduce traffic volumes between Coronation Street and Empress Avenue by up to 3 vph in the AM peak hour, and up to 10 vph in the PM peak hour.

- Increase traffic volumes between Empress Avenue and Chirnside Street by up to 2 vph in the AM peak hour, and up to 6 vph in the PM peak hour. The additional traffic will be imperceptible.

5.2.5 Shackell Street

The road closure of Coronation Street north of Webb Street is anticipated to have the following impact on traffic along Shackell Street:

- Increase traffic volumes between Wales and Coronation Streets by up to 16 vph in the AM peak hour, and 11 vph in the PM peak hour.
- Increase traffic volumes between Coronation Street and Empress Avenue by up to 7 vph in the AM peak hour, and up to 2 vph in the PM peak hour.
- Increase traffic volumes between Empress Avenue and Chirnside Street by up to 5 vph in the AM peak hour but reduce by up to 3 vph in the PM peak hour.

The additional traffic will be imperceptible.

5.2.6 Somerville Road

There will be no noticeable traffic impact on Somerville Road. Vehicles currently turning from Somerville Road into Coronation Street will either divert to Wales Street or to Empress Avenue. The small volume of additional traffic is unlikely to have any adverse impact on the intersections of Somerville Road/Coronation Street and Somerville Road/Empress Avenue.

5.2.7 Williamstown Road

No change is anticipated to traffic conditions along Williamstown Road parallel to the road closure.

5.3 INTERSECTION ANALYSIS

SIDRA software was utilised to model the operation of the 8 intersections surrounding the proposed road closure for existing conditions and for the road closure scenario during the weekday AM and PM peak hours.

SIDRA produces statistics on the performance of an intersection but typically the main characteristic used to assess the operation of the intersection is the Degree of Saturation (DoS), the 95th percentile queue lengths and average delay. An explanation of the intersection operating characteristics is provided in **Table 1**. The maximum desirable DoS at an unsignalised intersections is generally 0.85.

DEGREE OF SATURATION (DoS)	OPERATION
< 0.6	Excellent operating conditions, minimal delays.
0.6 – 0.699	Very good operating conditions, minimal delays.
0.70 – 0.799	Good operating conditions, delays and queuing increasing.
0.80 – 0.899	Fair operating conditions, delays and queues growing. Any interruption to flow such as minor incidents causes increasing delays.
0.90 – 1.0	Poor operating conditions, flows starting to breakdown and queues and delays increase rapidly.
> 1.0	Very poor operating conditions with queues and delays increasing rapidly. Once queues develop it takes significant time for queues to dissipate resulting in long delays to traffic movements.

TABLE 1: DEFINITIONS OF INTERSECTION OPERATION FOR SIGN CONTROLLED (UNSIGNALISED) INTERSECTION

The SIDRA analysis of the intersections surrounding the road closure location for existing conditions and for the ‘Coronation Street Road Closure’ scenario during the weekday AM and PM peak hours are summarised in **Table 2** and **Table 3**, respectively. Full SIDRA Movement Summary reports are provided in **Appendix A**.

The SIDRA analysis indicates:

- The DoS for the existing and post road closure conditions is less than 0.6. The analysis shows that it is typically less than 0.03 during the peak hours. Therefore, the intersections currently operate excellently and will continue to operate excellently.
- Average delays will not increase or decrease by any significant amount. The analysis indicates that the most the average delay will increase by is 1.6 seconds (from 1.2 to 2.8 seconds) during the AM peak on the western approach of the Coronation Street/Shackell Street intersection. These small changes in the average delay will not be noticeable.
- There will not be any significant change in queuing at the intersections. Queue lengths are currently less than 1m (i.e. less than 1 car length) and will continue to be less than 1m.

The SIDRA analysis indicates that the small changes in volumes at each of the intersections as a result of the proposed road closure will not have any significant adverse impact on the operation of these intersections.

INTERSECTION	APPROACH	EXISTING			CORONATION STREET ROAD CLOSURE		
		DOS	AVERAGE DELAY (SEC)	95% QUEUE (M)	DOS	AVERAGE DELAY (SEC)	95% QUEUE (M)
Wales Street / Shackell Street	South	0.012	0.5	0.1	0.017	1.4	0.4
	East	0.011	3.6	0.3	0.016	3.6	0.4
	North	0.015	0.5	0.0	0.015	0.5	0.0
Coronation Street / Shackell Street	South	0.019	4.7	0.5	0.008	5.5	0.2
	East	0.010	1.3	0.2	0.012	1.8	0.3
	North	0.011	4.9	0.3	0.012	5.5	0.3
	West	0.004	1.2	0.0	0.008	2.8	0.1
Empress Avenue / Shackell Street	South	0.023	5.5	0.6	0.032	5.3	0.8
	East	0.010	1.5	0.2	0.010	1.5	0.2
	North	0.005	5.6	0.1	0.006	5.6	0.2
	West	0.011	0.5	0.0	0.013	0.4	0.0
Chirnside Street / Shackell Street	South	0.014	4.6	0.3	0.014	4.6	0.3
	East	0.013	1.4	0.2	0.013	1.4	0.2
	North	0.013	5.0	0.3	0.013	5.0	0.3
	West	0.023	2.6	0.6	0.026	2.7	0.8
Wales Street / Webb Street	South	0.022	4.9	0.5	0.026	4.8	0.5
	East	0.014	3.1	0.1	0.009	2.7	0.1
	North	0.030	4.4	0.8	0.036	4.3	0.8
	West	0.006	3.5	0.1	0.006	4.0	0.1
Coronation Street / Webb Street	South	0.029	5.0	0.7	0.015	5.7	0.4
	East	0.007	0.4	0.0	0.006	0.0	0.0
	North	0.011	5.7	0.3	-	-	-
	West	0.008	0.3	0.0	0.007	0.0	0.0
Empress Avenue / Webb Street	South	0.015	5.0	0.4	0.023	4.7	0.6
	East	0.008	2.1	0.2	0.010	2.9	0.3
	West	0.017	1.7	0.4	0.016	1.8	0.4
Chirnside Street / Webb Street	East	0.017	2.4	0.2	0.017	2.4	0.2
	North	0.028	4.5	0.7	0.031	4.6	0.8
	West	0.010	1.5	0.1	0.009	1.7	0.1

TABLE 2: AM PEAK HOUR SIDRA ANALYSIS SUMMARY RESULTS

INTERSECTION	APPROACH	EXISTING			CORONATION STREET ROAD CLOSURE		
		DOS	AVERAGE DELAY (SEC)	95% QUEUE (M)	DOS	AVERAGE DELAY (SEC)	95% QUEUE (M)
Wales Street / Shackell Street	South	0.010	0.6	0.1	0.013	1.4	0.6
	East	0.009	3.6	0.2	0.012	3.6	0.8
	North	0.015	1.0	0.0	0.015	1.0	0.0
Coronation Street / Shackell Street	South	0.012	4.7	0.3	0.007	5.3	0.2
	East	0.011	2.6	0.2	0.011	2.2	0.2
	North	0.010	4.9	0.3	0.010	5.5	0.3
	West	0.005	1.0	0.1	0.008	2.2	0.1
Empress Avenue / Shackell Street	South	0.016	5.2	0.4	0.022	5.1	0.6
	East	0.009	1.8	0.2	0.006	3.0	0.2
	North	0.009	5.6	0.2	0.009	5.6	0.2
	West	0.008	0.9	0.0	0.010	0.8	0.0
Chirnside Street / Shackell Street	South	0.005	5.0	0.1	0.005	5.0	0.1
	East	0.017	2.4	0.3	0.017	3.3	0.3
	North	0.014	4.8	0.4	0.014	4.8	0.4
	West	0.015	2.6	0.3	0.016	2.8	0.4
Wales Street / Webb Street	South	0.015	4.5	0.4	0.019	4.4	0.5
	East	0.009	3.0	0.1	0.009	2.9	0.1
	North	0.022	4.6	0.5	0.028	4.5	0.7
	West	0.005	1.9	0.1	0.005	1.8	0.1
Coronation Street / Webb Street	South	0.024	5.0	0.6	0.012	5.7	0.3
	East	0.005	0.5	0.0	0.004	0.0	0.0
	North	0.008	5.6	0.2	-	-	-
	West	0.006	0.4	0.0	0.005	0.0	0.0
Empress Avenue / Webb Street	South	0.013	4.6	0.3	0.019	4.5	0.5
	East	0.013	2.7	0.3	0.018	3.3	0.5
	West	0.018	2.3	0.5	0.012	1.6	0.3
Chirnside Street / Webb Street	East	0.018	2.8	0.1	0.018	2.8	0.1
	North	0.022	4.4	0.5	0.030	4.6	0.7
	West	0.006	1.2	0.1	0.006	1.4	0.1

TABLE 3: PM PEAK HOUR SIDRA ANALYSIS SUMMARY RESULTS

5.4 PEDESTRIANS

The proposed road closure should have no detrimental impact on pedestrians who will be able to continue along Coronation Street through the open space within the proposed road closure.

It is recommended that a pedestrian path be maintained along Coronation Street through the road closure (or Bell Reserve).

5.5 CYCLISTS

Cyclists riding on the road would have to comply with the road closure and re-route around the closure. However, cyclists would have the option to dismount and walk their bicycle through the closure.

Alternatively, a shared path should be provided through the road closure (or Bell Reserve) so that cyclists do not need to dismount or re-route.

5.6 EMERGENCY VEHICLES

It is unlikely that emergency vehicles would currently use Coronation Street on route to a call (unless their destination is in Coronation Street). In any case, due to the presence of a grid network in the surrounding area, any emergency vehicle using Coronation Street would be able to use one of the adjacent parallel or intersecting streets such as Wales Street and Empress Avenue. This would not have any significant adverse impact on travel times.

5.7 BUS SERVICES

No public bus services will be affected by the proposed road closure.

5.8 SERVICE VEHICLES

As with other vehicles, service vehicles using the section of Coronation Street which is proposed to be closed to traffic would re-route to Wales Street, Empress Avenue or Chirnside Street.

Consideration will need to be given regarding how waste collection occurs in the section of Coronation Street north of the proposed road closure (i.e. between Shackell Street and the northern end of the road closure) which will become a dead-end street.

A turning area could potentially be provided at the northern end of the road closure in the form of a court bowl, or a 'T' or 'Y' cul-de-sac head.

A court bowl will require a radius of approximately 10m to accommodate a truck which is approximately 8.8m long to undertake a kerb to kerb turn in a single forward manoeuvre. As shown by the sketch in **Figure 9**,



FIGURE 9: COURT BOWL CONCEPT SKETCH AT NORTHERN END OF PROPOSED CORONATION STREET ROAD CLOSURE

The court bowl would:

- occupy a considerable area of the existing open space,
- require the removal of at least two existing street trees,
- potentially impact two existing large trees in the reserves,
- require the relocation of a power/light pole; and
- potentially require the relocation of telecommunications pits in the eastern footpath.

A typical 'T' or 'Y' cul-de-sac head allows a vehicle turn around by providing space to undertake a 3-point turn. This usually involves a vehicle turning right into one end of the head, then reverse into the other end of the head to then turn back in the direction it came from. As shown in **Figure 10**, the cul-de-sac head would occupy a smaller area of the existing reserves than a court bowl, but the trade-off is that it will introduce a reversing manoeuvre. It is understood that refuse vehicles are fitted with reversing cameras, as well as reversing alarms/beepers, to reduce the risk with reversing in such circumstances.



FIGURE 10: 'T' OR 'Y' CUL-DE-SAC HEAD CONCEPT SKETCH AT NORTHERN END OF PROPOSED CORONATION STREET ROAD CLOSURE

A typical 'T' or 'Y' cul-de-sac head would still require the removal of at least one street tree and may impact one of the existing large trees in the western reserve. It will also require the footpaths on both sides of the road to be realigned around it.

A modified 'T' cul-de-sac head, as shown in **Figure 11**, would still require a vehicle to undertake a 3-point turn but by driving past a turning area which it then reverses into before turn back in the direction it came from. The modified 'T' cul-de-sac head would reduce any impact on the large tree in the reserve and only obstruct the eastern footpath.



FIGURE 11: MODIFIED 'T' CUL-DE-SAC HEAD CONCEPT SKETCH AT NORTHERN END OF PROPOSED CORONATION STREET ROAD CLOSURE A

On the basis of the above, the modified 'T' cul-de-sac head would likely have the least impact on the existing vegetation but would require refuse vehicles to undertake a 3-point reverse turning manoeuvre at the northern end of the reserve. While refuse trucks may be fitted with reversing cameras consideration could be given to scheduling waste to be collected at a time(s) when pedestrian activity in the street and use of the reserves is low.

Consideration could also be given to constructing the court bowl or cul-de-sac head as a raised pavement (similar to a driveway) at the same level as the park and with a different appearance to the road (e.g. different texture, pattern, material and/or colour) so that it does not appear like a road but as part of the park.

Alternatively, refuse vehicles and other large vehicles would need to reverse into/out of this section of Coronation Street, via Shackell Street as is assumed occurs in other similar circumstances such as Charlotte Street in Yarraville (between Stony Creek and Julian Street), and at Sredna Street in West Footscray (south of Gwelo Street).

5.9 OTHER ISSUES

It is recommended that consultation be undertaken with local residents and affected stakeholders.

Appropriate signage should be installed in Coronation Street to advise motorists of the road closure and be highly visible. Appropriate signage would include:

- No Through Road signs facing southbound traffic on Coronation Street just south of Shackell Street. It is suggested that both the G9-18 (black on white) sign and the supplementary G5-10 (black on yellow) street blade sign be used; and
- Hazard/obstruction markers at both ends of the road closure.

6 CONCLUSION

Based on the assessment above, it is considered that a road closure of Coronation Street, just north of Webb Street, would not have any adverse impact on traffic conditions in the surrounding road network.

It is recommended that:

- consideration be given to how waste collection vehicles would access/egress the section of Coronation Street north of the proposed road closure (between Shackell and Webb Streets);
- consideration be given to maintaining pedestrian access and permitting bicycle access, e.g. by providing a shared path link;
- appropriate signage be installed if the road closure is implemented; and
- consultation be undertaken with local residents and affected stakeholders.

APPENDIX A

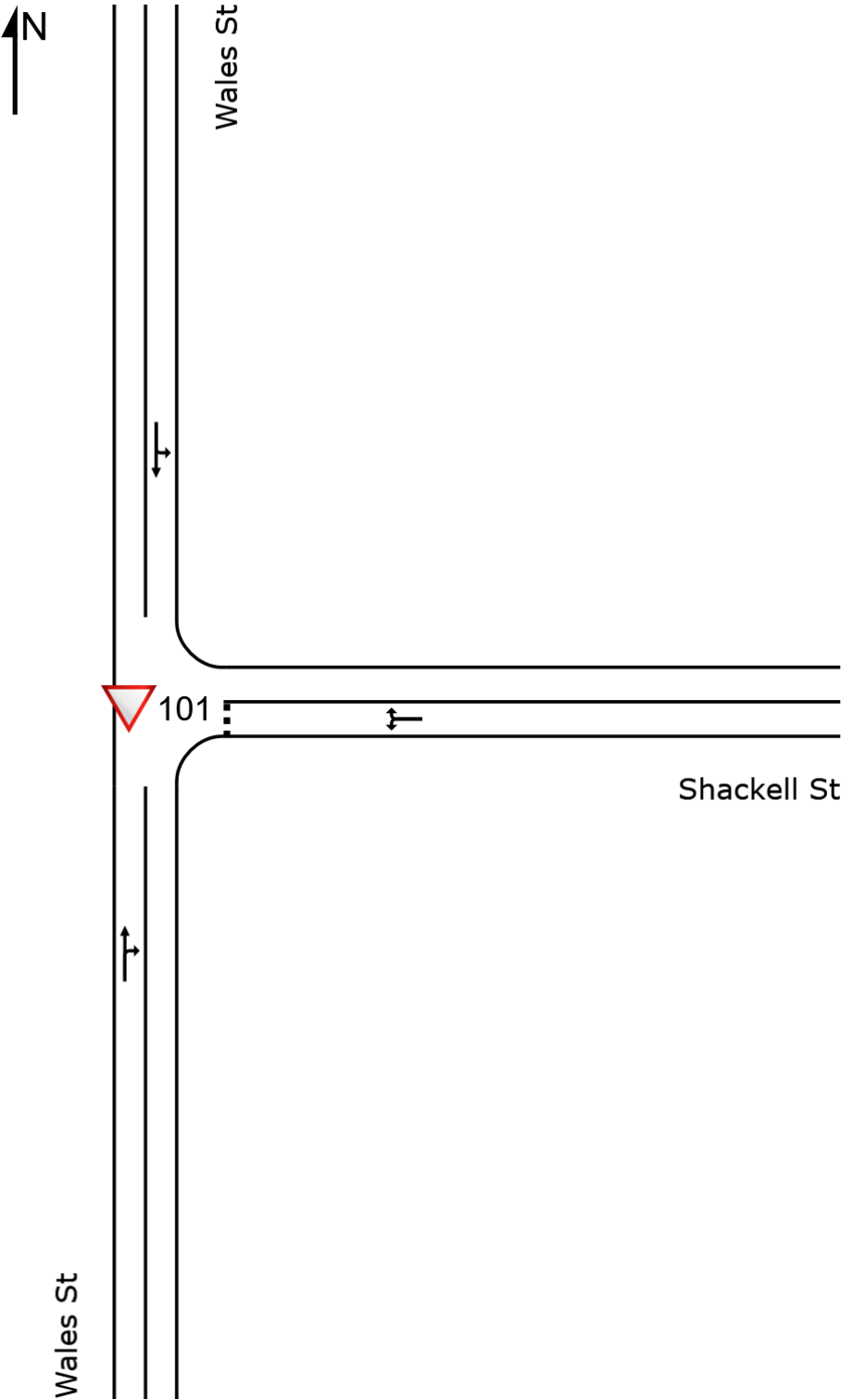
SIDRA - MOVEMENT SUMMARY REPORTS

SITE LAYOUT

▼ Site: 101 [Wales St/Shackell St Existing AM (Site Folder: Wales St/ Shackell St)]

Wales St/Shackell St Existing Conditions - 7:45-8:45 AM
Site Category: (None)
Give-Way (Two-Way)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



MOVEMENT SUMMARY

▼ Site: 101 [Wales St/Shackell St Existing AM (Site Folder: Wales St/ Shackell St)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Wales St/Shackell St Existing Conditions - 7:45-8:45 AM

Site Category: (None)

Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. Dist] veh m		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Wales St															
2	T1	All MCs	19	2.0	19	2.0	0.012	0.0	LOS A	0.0	0.1	0.03	0.08	0.03	39.1
3	R2	All MCs	3	2.0	3	2.0	0.012	3.7	LOS A	0.0	0.1	0.03	0.08	0.03	36.5
Approach			22	2.0	22	2.0	0.012	0.5	NA	0.0	0.1	0.03	0.08	0.03	38.8
East: Shackell St															
4	L2	All MCs	11	2.0	11	2.0	0.011	3.5	LOS A	0.0	0.3	0.09	0.45	0.09	32.9
6	R2	All MCs	5	2.0	5	2.0	0.011	3.8	LOS A	0.0	0.3	0.09	0.45	0.09	31.0
Approach			16	2.0	16	2.0	0.011	3.6	LOS A	0.0	0.3	0.09	0.45	0.09	32.3
North: Wales St															
7	L2	All MCs	4	2.0	4	2.0	0.015	3.4	LOS A	0.0	0.0	0.00	0.07	0.00	36.7
8	T1	All MCs	24	2.0	24	2.0	0.015	0.0	LOS A	0.0	0.0	0.00	0.07	0.00	39.3
Approach			28	2.0	28	2.0	0.015	0.5	NA	0.0	0.0	0.00	0.07	0.00	39.0
All Vehicles			66	2.0	66	2.0	0.015	1.3	NA	0.0	0.3	0.03	0.16	0.03	37.4

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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MOVEMENT SUMMARY

▼ Site: 101 [Wales St/Shackell St Existing PM (Site Folder: Wales St/ Shackell St)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Wales St/Shackell St Existing Conditions - 3:15-4:15 PM

Site Category: (None)

Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Wales St															
2	T1	All MCs	15	2.0	15	2.0	0.010	0.0	LOS A	0.0	0.1	0.03	0.08	0.03	38.8
3	R2	All MCs	1	2.0	1	2.0	0.010	3.7	LOS A	0.0	0.1	0.03	0.08	0.03	34.2
3u	U	All MCs	1	0.0	1	0.0	0.010	5.5	LOS A	0.0	0.1	0.03	0.08	0.03	34.7
Approach			17	1.9	17	1.9	0.010	0.6	NA	0.0	0.1	0.03	0.08	0.03	38.4
East: Shackell St															
4	L2	All MCs	8	2.0	8	2.0	0.009	3.5	LOS A	0.0	0.2	0.08	0.45	0.08	28.7
6	R2	All MCs	4	2.0	4	2.0	0.009	3.8	LOS A	0.0	0.2	0.08	0.45	0.08	31.2
Approach			13	2.0	13	2.0	0.009	3.6	LOS A	0.0	0.2	0.08	0.45	0.08	29.7
North: Wales St															
7	L2	All MCs	8	2.0	8	2.0	0.015	3.4	LOS A	0.0	0.0	0.00	0.14	0.00	35.9
8	T1	All MCs	20	2.0	20	2.0	0.015	0.0	LOS A	0.0	0.0	0.00	0.14	0.00	37.9
Approach			28	2.0	28	2.0	0.015	1.0	NA	0.0	0.0	0.00	0.14	0.00	37.3
All Vehicles			58	2.0	58	2.0	0.015	1.4	NA	0.0	0.2	0.03	0.19	0.03	35.9

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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MOVEMENT SUMMARY

Site: 101 [Wales St/Shackell St Proposed AM (Site Folder: Wales St/ Shackell St)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Wales St/Shackell St Existing Conditions - 7:45-8:45 AM

Site Category: (None)

Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Wales St															
2	T1	All MCs	19	2.0	19	2.0	0.017	0.0	LOS A	0.1	0.4	0.07	0.20	0.07	37.8
3	R2	All MCs	12	2.0	12	2.0	0.017	3.7	LOS A	0.1	0.4	0.07	0.20	0.07	35.1
Approach			31	2.0	31	2.0	0.017	1.4	NA	0.1	0.4	0.07	0.20	0.07	36.9
East: Shackell St															
4	L2	All MCs	19	2.0	19	2.0	0.016	3.5	LOS A	0.1	0.4	0.09	0.45	0.09	33.0
6	R2	All MCs	5	2.0	5	2.0	0.016	3.8	LOS A	0.1	0.4	0.09	0.45	0.09	31.1
Approach			24	2.0	24	2.0	0.016	3.6	LOS A	0.1	0.4	0.09	0.45	0.09	32.6
North: Wales St															
7	L2	All MCs	4	2.0	4	2.0	0.015	3.4	LOS A	0.0	0.0	0.00	0.07	0.00	36.7
8	T1	All MCs	24	2.0	24	2.0	0.015	0.0	LOS A	0.0	0.0	0.00	0.07	0.00	39.3
Approach			28	2.0	28	2.0	0.015	0.5	NA	0.0	0.0	0.00	0.07	0.00	39.0
All Vehicles			83	2.0	83	2.0	0.017	1.7	NA	0.1	0.4	0.05	0.23	0.05	36.4

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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MOVEMENT SUMMARY

▼ Site: 101 [Wales St/Shackell St Proposed PM (Site Folder: Wales St/ Shackell St)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Wales St/Shackell St Existing Conditions - 3:15-4:15 PM

Site Category: (None)

Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Wales St															
2	T1	All MCs	15	2.0	15	2.0	0.013	0.0	LOS A	0.0	0.3	0.06	0.18	0.06	38.3
3	R2	All MCs	6	2.0	6	2.0	0.013	3.7	LOS A	0.0	0.3	0.06	0.18	0.06	35.5
3u	U	All MCs	1	0.0	1	0.0	0.013	6.8	LOS A	0.0	0.3	0.06	0.18	0.06	41.1
Approach			22	1.9	22	1.9	0.013	1.4	NA	0.0	0.3	0.06	0.18	0.06	37.7
East: Shackell St															
4	L2	All MCs	14	2.0	14	2.0	0.012	3.5	LOS A	0.0	0.3	0.08	0.45	0.08	33.0
6	R2	All MCs	4	2.0	4	2.0	0.012	3.8	LOS A	0.0	0.3	0.08	0.45	0.08	31.1
Approach			18	2.0	18	2.0	0.012	3.6	LOS A	0.0	0.3	0.08	0.45	0.08	32.6
North: Wales St															
7	L2	All MCs	8	2.0	8	2.0	0.015	3.4	LOS A	0.0	0.0	0.00	0.14	0.00	35.8
8	T1	All MCs	20	2.0	20	2.0	0.015	0.0	LOS A	0.0	0.0	0.00	0.14	0.00	38.6
Approach			28	2.0	28	2.0	0.015	1.0	NA	0.0	0.0	0.00	0.14	0.00	38.0
All Vehicles			68	2.0	68	2.0	0.015	1.8	NA	0.0	0.3	0.04	0.23	0.04	36.5

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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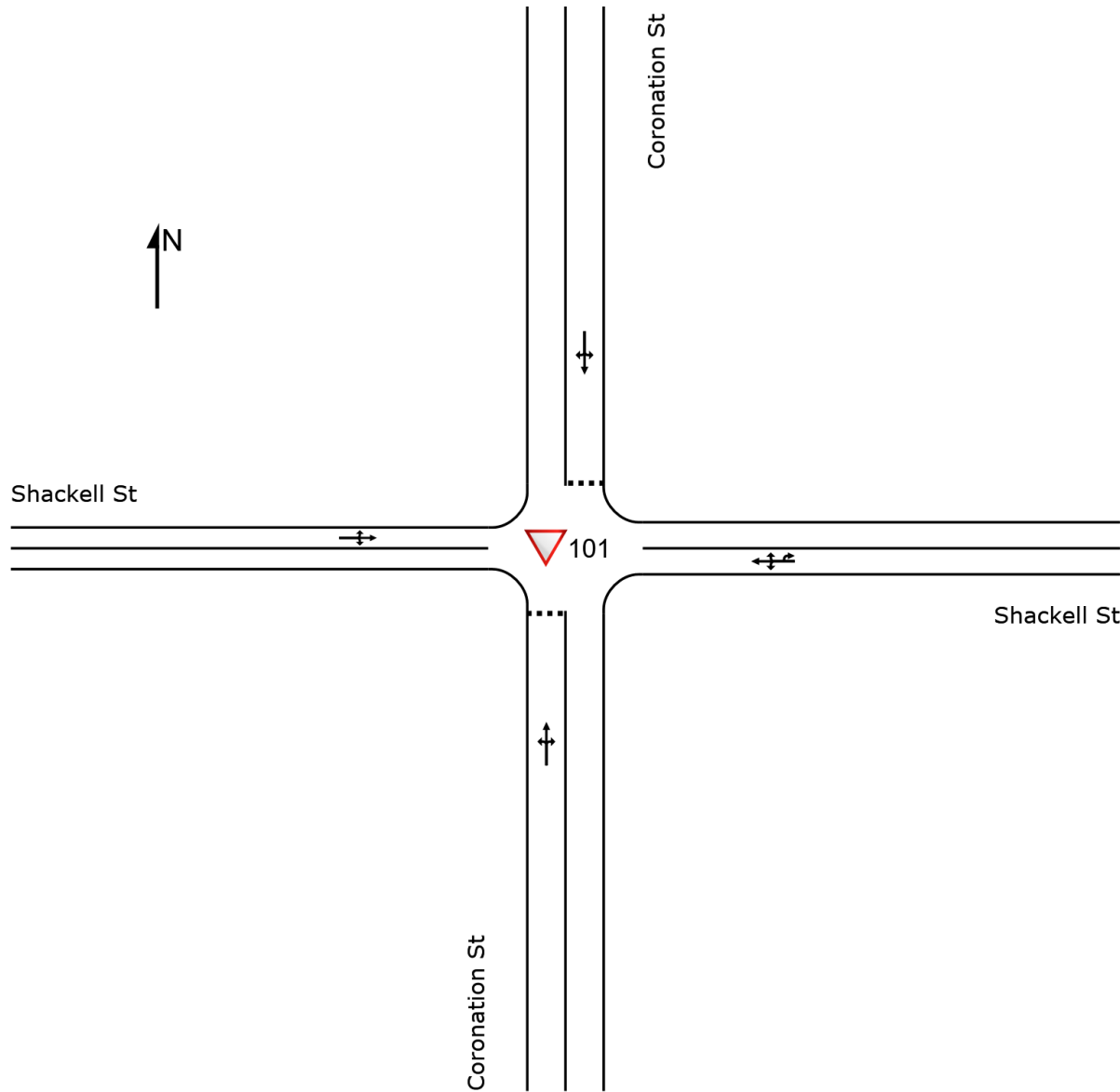
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SITE LAYOUT

▼ Site: 101 [Coronation St/Shackell St Existing AM (Site Folder: Coronation St/ Shackell St)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



MOVEMENT SUMMARY

▼ Site: 101 [Coronation St/Shackell St Existing AM (Site Folder: Coronation St/ Shackell St)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Coronation St															
1	L2	All MCs	2	2.0	2	2.0	0.019	5.6	LOS A	0.1	0.5	0.08	0.53	0.08	31.4
2	T1	All MCs	16	2.0	16	2.0	0.019	4.2	LOS A	0.1	0.5	0.08	0.53	0.08	45.6
3	R2	All MCs	6	2.0	6	2.0	0.019	5.7	LOS A	0.1	0.5	0.08	0.53	0.08	39.7
Approach			24	2.0	24	2.0	0.019	4.7	LOS A	0.1	0.5	0.08	0.53	0.08	43.1
East: Shackell St															
4	L2	All MCs	2	2.0	2	2.0	0.010	4.3	LOS A	0.0	0.2	0.02	0.18	0.02	46.9
5	T1	All MCs	13	2.0	13	2.0	0.010	0.0	LOS A	0.0	0.2	0.02	0.18	0.02	51.1
6	R2	All MCs	2	2.0	2	2.0	0.010	4.2	LOS A	0.0	0.2	0.02	0.18	0.02	46.6
6u	U	All MCs	1	2.0	1	2.0	0.010	5.5	LOS A	0.0	0.2	0.02	0.18	0.02	26.6
Approach			18	2.0	18	2.0	0.010	1.3	NA	0.0	0.2	0.02	0.18	0.02	47.4
North: Coronation St															
7	L2	All MCs	7	2.0	7	2.0	0.011	5.6	LOS A	0.0	0.3	0.05	0.54	0.05	32.5
8	T1	All MCs	7	2.0	7	2.0	0.011	4.2	LOS A	0.0	0.3	0.05	0.54	0.05	45.4
9	R2	All MCs	1	2.0	1	2.0	0.011	5.6	LOS A	0.0	0.3	0.05	0.54	0.05	32.2
Approach			16	2.0	16	2.0	0.011	4.9	LOS A	0.0	0.3	0.05	0.54	0.05	38.7
West: Shackell St															
10	L2	All MCs	1	2.0	1	2.0	0.004	4.3	LOS A	0.0	0.0	0.02	0.17	0.02	47.4
11	T1	All MCs	5	2.0	5	2.0	0.004	0.0	LOS A	0.0	0.0	0.02	0.17	0.02	51.6
12	R2	All MCs	1	2.0	1	2.0	0.004	4.2	LOS A	0.0	0.0	0.02	0.17	0.02	46.4
Approach			7	2.0	7	2.0	0.004	1.2	NA	0.0	0.0	0.02	0.17	0.02	49.4
All Vehicles			65	2.0	65	2.0	0.019	3.4	NA	0.1	0.5	0.05	0.39	0.05	42.7

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

▼ Site: 101 [Coronation St/Shackell St Existing PM (Site Folder: Coronation St/ Shackell St)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Coronation St															
1	L2	All MCs	2	2.0	2	2.0	0.012	5.6	LOS A	0.0	0.3	0.07	0.53	0.07	31.4
2	T1	All MCs	9	2.0	9	2.0	0.012	4.2	LOS A	0.0	0.3	0.07	0.53	0.07	45.6
3	R2	All MCs	3	2.0	3	2.0	0.012	5.6	LOS A	0.0	0.3	0.07	0.53	0.07	39.8
Approach			15	2.0	15	2.0	0.012	4.7	LOS A	0.0	0.3	0.07	0.53	0.07	42.5
East: Shackell St															
4	L2	All MCs	7	2.0	7	2.0	0.011	4.3	LOS A	0.0	0.2	0.03	0.34	0.03	44.1
5	T1	All MCs	8	2.0	8	2.0	0.011	0.0	LOS A	0.0	0.2	0.03	0.34	0.03	45.1
6	R2	All MCs	3	2.0	3	2.0	0.011	4.3	LOS A	0.0	0.2	0.03	0.34	0.03	44.0
6u	U	All MCs	1	2.0	1	2.0	0.011	5.5	LOS A	0.0	0.2	0.03	0.34	0.03	25.0
Approach			20	2.0	20	2.0	0.011	2.6	NA	0.0	0.2	0.03	0.34	0.03	43.2
North: Coronation St															
7	L2	All MCs	4	2.0	4	2.0	0.010	5.6	LOS A	0.0	0.3	0.06	0.53	0.06	32.5
8	T1	All MCs	7	2.0	7	2.0	0.010	4.2	LOS A	0.0	0.3	0.06	0.53	0.06	45.5
9	R2	All MCs	2	2.0	2	2.0	0.010	5.6	LOS A	0.0	0.3	0.06	0.53	0.06	32.2
Approach			14	2.0	14	2.0	0.010	4.9	LOS A	0.0	0.3	0.06	0.53	0.06	39.6
West: Shackell St															
10	L2	All MCs	1	2.0	1	2.0	0.005	4.3	LOS A	0.0	0.1	0.02	0.13	0.02	48.1
11	T1	All MCs	7	2.0	7	2.0	0.005	0.0	LOS A	0.0	0.1	0.02	0.13	0.02	53.2
12	R2	All MCs	1	2.0	1	2.0	0.005	4.2	LOS A	0.0	0.1	0.02	0.13	0.02	47.0
Approach			9	2.0	9	2.0	0.005	1.0	NA	0.0	0.1	0.02	0.13	0.02	51.1
All Vehicles			58	2.0	58	2.0	0.012	3.4	NA	0.0	0.3	0.05	0.40	0.05	42.5

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [Coronation St/Shackell St Proposed AM (Site Folder: Coronation St/ Shackell St)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. Dist] veh m		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Coronation St															
1	L2	All MCs	6	2.0	6	2.0	0.008	5.6	LOS A	0.0	0.2	0.07	0.55	0.07	30.8
2	T1	All MCs	1	2.0	1	2.0	0.008	4.2	LOS A	0.0	0.2	0.07	0.55	0.07	44.6
3	R2	All MCs	3	2.0	3	2.0	0.008	5.6	LOS A	0.0	0.2	0.07	0.55	0.07	38.7
Approach			11	2.0	11	2.0	0.008	5.5	LOS A	0.0	0.2	0.07	0.55	0.07	34.3
East: Shackell St															
4	L2	All MCs	2	2.0	2	2.0	0.012	4.3	LOS A	0.0	0.3	0.04	0.24	0.04	45.7
5	T1	All MCs	13	2.0	13	2.0	0.012	0.0	LOS A	0.0	0.3	0.04	0.24	0.04	48.5
6	R2	All MCs	5	2.0	5	2.0	0.012	4.3	LOS A	0.0	0.3	0.04	0.24	0.04	45.5
6u	U	All MCs	1	2.0	1	2.0	0.012	5.5	LOS A	0.0	0.3	0.04	0.24	0.04	25.9
Approach			21	2.0	21	2.0	0.012	1.8	NA	0.0	0.3	0.04	0.24	0.04	45.5
North: Coronation St															
7	L2	All MCs	11	2.0	11	2.0	0.012	5.6	LOS A	0.0	0.3	0.05	0.56	0.05	32.0
8	T1	All MCs	1	2.0	1	2.0	0.012	4.2	LOS A	0.0	0.3	0.05	0.56	0.05	44.7
9	R2	All MCs	5	2.0	5	2.0	0.012	5.6	LOS A	0.0	0.3	0.05	0.56	0.05	31.8
Approach			17	2.0	17	2.0	0.012	5.5	LOS A	0.0	0.3	0.05	0.56	0.05	32.7
West: Shackell St															
10	L2	All MCs	8	2.0	8	2.0	0.008	4.3	LOS A	0.0	0.1	0.01	0.37	0.01	44.2
11	T1	All MCs	5	2.0	5	2.0	0.008	0.0	LOS A	0.0	0.1	0.01	0.37	0.01	44.4
12	R2	All MCs	1	2.0	1	2.0	0.008	4.3	LOS A	0.0	0.1	0.01	0.37	0.01	43.2
Approach			15	2.0	15	2.0	0.008	2.8	NA	0.0	0.1	0.01	0.37	0.01	44.1
All Vehicles			63	2.0	63	2.0	0.012	3.6	NA	0.0	0.3	0.04	0.41	0.04	38.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [Coronation St/Shackell St Proposed PM (Site Folder: Coronation St/ Shackell St)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Coronation St															
1	L2	All MCs	3	2.0	3	2.0	0.007	5.6	LOS A	0.0	0.2	0.07	0.55	0.07	30.9
2	T1	All MCs	2	2.0	2	2.0	0.007	4.2	LOS A	0.0	0.2	0.07	0.55	0.07	44.9
3	R2	All MCs	3	2.0	3	2.0	0.007	5.6	LOS A	0.0	0.2	0.07	0.55	0.07	39.0
Approach			8	2.0	8	2.0	0.007	5.3	LOS A	0.0	0.2	0.07	0.55	0.07	37.4
East: Shackell St															
4	L2	All MCs	4	2.0	4	2.0	0.011	4.3	LOS A	0.0	0.2	0.04	0.29	0.04	44.7
5	T1	All MCs	9	2.0	9	2.0	0.011	0.0	LOS A	0.0	0.2	0.04	0.29	0.04	46.4
6	R2	All MCs	4	2.0	4	2.0	0.011	4.3	LOS A	0.0	0.2	0.04	0.29	0.04	44.6
6u	U	All MCs	1	2.0	1	2.0	0.011	5.5	LOS A	0.0	0.2	0.04	0.29	0.04	25.3
Approach			19	2.0	19	2.0	0.011	2.2	NA	0.0	0.2	0.04	0.29	0.04	43.9
North: Coronation St															
7	L2	All MCs	7	2.0	7	2.0	0.010	5.6	LOS A	0.0	0.3	0.05	0.56	0.05	32.0
8	T1	All MCs	1	2.0	1	2.0	0.010	4.2	LOS A	0.0	0.3	0.05	0.56	0.05	44.6
9	R2	All MCs	5	2.0	5	2.0	0.010	5.6	LOS A	0.0	0.3	0.05	0.56	0.05	31.7
Approach			14	2.0	14	2.0	0.010	5.5	LOS A	0.0	0.3	0.05	0.56	0.05	32.9
West: Shackell St															
10	L2	All MCs	6	2.0	6	2.0	0.008	4.3	LOS A	0.0	0.1	0.01	0.29	0.01	45.4
11	T1	All MCs	7	2.0	7	2.0	0.008	0.0	LOS A	0.0	0.1	0.01	0.29	0.01	47.1
12	R2	All MCs	1	2.0	1	2.0	0.008	4.2	LOS A	0.0	0.1	0.01	0.29	0.01	44.4
Approach			15	2.0	15	2.0	0.008	2.2	NA	0.0	0.1	0.01	0.29	0.01	45.9
All Vehicles			56	2.0	56	2.0	0.011	3.5	NA	0.0	0.3	0.04	0.39	0.04	39.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SITE LAYOUT

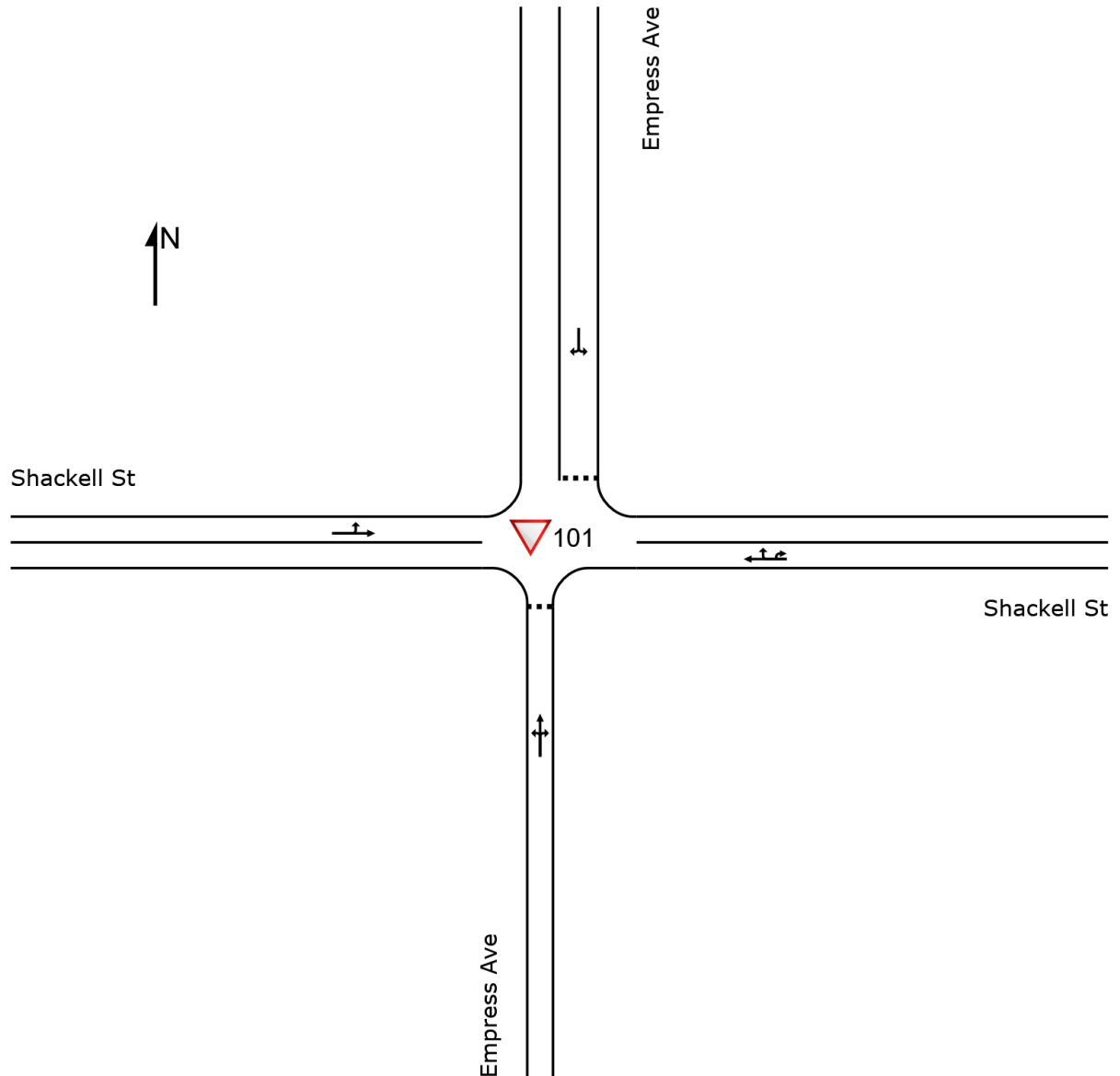
▽ Site: 101 [Empress Ave/Shackell St Existing AM (Site Folder:
Empress Ave/ Shackell St)]

New Site

Site Category: (None)

Give-Way (Two-Way)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



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Organisation: O'BRIEN TRAFFIC | Licence: PLUS / FLOATING | Created: Tuesday, 15 October 2024 5:24:43 PM

Project: C:\Users\TerryAlexandrou\OneDrive - O'Brien Traffic\Shared Documents - Company Data\General\Document\Current Documents\26473
\Documents\26473 SIDRA.sip9

MOVEMENT SUMMARY

Site: 101 [Empress Ave/Shackell St Existing AM (Site Folder: Empress Ave/ Shackell St)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Empress Ave															
1	L2	All MCs	5	2.0	5	2.0	0.023	5.6	LOS A	0.1	0.6	0.09	0.57	0.09	31.2
2	T1	All MCs	5	2.0	5	2.0	0.023	4.3	LOS A	0.1	0.6	0.09	0.57	0.09	44.2
3	R2	All MCs	17	2.0	17	2.0	0.023	5.9	LOS A	0.1	0.6	0.09	0.57	0.09	37.9
Approach			27	2.0	27	2.0	0.023	5.5	LOS A	0.1	0.6	0.09	0.57	0.09	37.9
East: Shackell St															
5	T1	All MCs	12	2.0	12	2.0	0.010	0.0	LOS A	0.0	0.2	0.05	0.20	0.05	49.7
6	R2	All MCs	3	2.0	3	2.0	0.010	4.3	LOS A	0.0	0.2	0.05	0.20	0.05	45.7
6u	U	All MCs	2	2.0	2	2.0	0.010	5.5	LOS A	0.0	0.2	0.05	0.20	0.05	37.6
Approach			17	2.0	17	2.0	0.010	1.5	NA	0.0	0.2	0.05	0.20	0.05	46.9
North: Empress Ave															
7	L2	All MCs	6	2.0	6	2.0	0.005	5.6	LOS A	0.0	0.1	0.08	0.55	0.08	38.8
9	R2	All MCs	1	2.0	1	2.0	0.005	5.7	LOS A	0.0	0.1	0.08	0.55	0.08	38.4
Approach			7	2.0	7	2.0	0.005	5.6	LOS A	0.0	0.1	0.08	0.55	0.08	38.7
West: Shackell St															
10	L2	All MCs	2	2.0	2	2.0	0.011	4.3	LOS A	0.0	0.0	0.00	0.06	0.00	49.2
11	T1	All MCs	18	2.0	18	2.0	0.011	0.0	LOS A	0.0	0.0	0.00	0.06	0.00	56.7
Approach			20	2.0	20	2.0	0.011	0.5	NA	0.0	0.0	0.00	0.06	0.00	55.2
All Vehicles			72	2.0	72	2.0	0.023	3.2	NA	0.1	0.6	0.05	0.34	0.05	42.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

▼ Site: 101 [Empress Ave/Shackell St Existing PM (Site Folder: Empress Ave/ Shackell St)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Empress Ave															
1	L2	All MCs	4	2.0	4	2.0	0.016	5.6	LOS A	0.1	0.4	0.08	0.56	0.08	31.5
2	T1	All MCs	7	2.0	7	2.0	0.016	4.3	LOS A	0.1	0.4	0.08	0.56	0.08	44.6
3	R2	All MCs	8	2.0	8	2.0	0.016	5.9	LOS A	0.1	0.4	0.08	0.56	0.08	38.4
Approach			20	2.0	20	2.0	0.016	5.2	LOS A	0.1	0.4	0.08	0.56	0.08	39.4
East: Shackell St															
5	T1	All MCs	9	2.0	9	2.0	0.009	0.0	LOS A	0.0	0.2	0.05	0.24	0.05	48.3
6	R2	All MCs	5	2.0	5	2.0	0.009	4.3	LOS A	0.0	0.2	0.05	0.24	0.05	45.0
6u	U	All MCs	1	2.0	1	2.0	0.009	5.5	LOS A	0.0	0.2	0.05	0.24	0.05	36.7
Approach			16	2.0	16	2.0	0.009	1.8	NA	0.0	0.2	0.05	0.24	0.05	45.9
North: Empress Ave															
7	L2	All MCs	6	2.0	6	2.0	0.009	5.6	LOS A	0.0	0.2	0.07	0.56	0.07	38.8
9	R2	All MCs	5	2.0	5	2.0	0.009	5.6	LOS A	0.0	0.2	0.07	0.56	0.07	38.4
Approach			12	2.0	12	2.0	0.009	5.6	LOS A	0.0	0.2	0.07	0.56	0.07	38.6
West: Shackell St															
10	L2	All MCs	3	2.0	3	2.0	0.008	4.3	LOS A	0.0	0.0	0.00	0.12	0.00	48.0
11	T1	All MCs	12	2.0	12	2.0	0.008	0.0	LOS A	0.0	0.0	0.00	0.12	0.00	53.8
Approach			15	2.0	15	2.0	0.008	0.9	NA	0.0	0.0	0.00	0.12	0.00	51.7
All Vehicles			62	2.0	62	2.0	0.016	3.4	NA	0.1	0.4	0.05	0.37	0.05	42.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [Empress Ave/Shackell St Proposed AM (Site Folder: Empress Ave/ Shackell St)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. Dist] veh m		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Empress Ave															
1	L2	All MCs	9	2.0	9	2.0	0.032	5.6	LOS A	0.1	0.8	0.09	0.56	0.09	31.4
2	T1	All MCs	13	2.0	13	2.0	0.032	4.3	LOS A	0.1	0.8	0.09	0.56	0.09	44.5
3	R2	All MCs	17	2.0	17	2.0	0.032	5.9	LOS A	0.1	0.8	0.09	0.56	0.09	38.3
Approach			39	2.0	39	2.0	0.032	5.3	LOS A	0.1	0.8	0.09	0.56	0.09	38.7
East: Shackell St															
5	T1	All MCs	12	2.0	12	2.0	0.010	0.0	LOS A	0.0	0.2	0.06	0.21	0.06	49.6
6	R2	All MCs	3	2.0	3	2.0	0.010	4.3	LOS A	0.0	0.2	0.06	0.21	0.06	45.7
6u	U	All MCs	2	2.0	2	2.0	0.010	5.5	LOS A	0.0	0.2	0.06	0.21	0.06	37.6
Approach			17	2.0	17	2.0	0.010	1.5	NA	0.0	0.2	0.06	0.21	0.06	46.8
North: Empress Ave															
7	L2	All MCs	7	2.0	7	2.0	0.006	5.6	LOS A	0.0	0.2	0.08	0.55	0.08	38.7
9	R2	All MCs	1	2.0	1	2.0	0.006	5.8	LOS A	0.0	0.2	0.08	0.55	0.08	38.4
Approach			8	2.0	8	2.0	0.006	5.6	LOS A	0.0	0.2	0.08	0.55	0.08	38.7
West: Shackell St															
10	L2	All MCs	2	2.0	2	2.0	0.013	4.3	LOS A	0.0	0.0	0.00	0.05	0.00	49.5
11	T1	All MCs	22	2.0	22	2.0	0.013	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	57.3
Approach			24	2.0	24	2.0	0.013	0.4	NA	0.0	0.0	0.00	0.05	0.00	55.9
All Vehicles			88	2.0	88	2.0	0.032	3.3	NA	0.1	0.8	0.06	0.35	0.06	42.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [Empress Ave/Shackell St Proposed PM (Site Folder: Empress Ave/ Shackell St)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. Dist] veh m		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Empress Ave															
1	L2	All MCs	8	2.0	8	2.0	0.022	5.6	LOS A	0.1	0.6	0.04	0.56	0.04	31.8
2	T1	All MCs	12	2.0	12	2.0	0.022	4.2	LOS A	0.1	0.6	0.04	0.56	0.04	44.9
3	R2	All MCs	8	2.0	8	2.0	0.022	5.8	LOS A	0.1	0.6	0.04	0.56	0.04	38.8
Approach			28	2.0	28	2.0	0.022	5.1	LOS A	0.1	0.6	0.04	0.56	0.04	39.3
East: Shackell St															
5	T1	All MCs	3	2.0	3	2.0	0.006	0.0	LOS A	0.0	0.2	0.07	0.39	0.07	42.9
6	R2	All MCs	5	2.0	5	2.0	0.006	4.3	LOS A	0.0	0.2	0.07	0.39	0.07	42.4
6u	U	All MCs	1	2.0	1	2.0	0.006	5.5	LOS A	0.0	0.2	0.07	0.39	0.07	33.5
Approach			9	2.0	9	2.0	0.006	3.0	NA	0.0	0.2	0.07	0.39	0.07	41.7
North: Empress Ave															
7	L2	All MCs	6	2.0	6	2.0	0.009	5.6	LOS A	0.0	0.2	0.08	0.55	0.08	38.8
9	R2	All MCs	5	2.0	5	2.0	0.009	5.7	LOS A	0.0	0.2	0.08	0.55	0.08	38.4
Approach			12	2.0	12	2.0	0.009	5.6	LOS A	0.0	0.2	0.08	0.55	0.08	38.6
West: Shackell St															
10	L2	All MCs	3	2.0	3	2.0	0.010	4.3	LOS A	0.0	0.0	0.00	0.10	0.00	48.4
11	T1	All MCs	15	2.0	15	2.0	0.010	0.0	LOS A	0.0	0.0	0.00	0.10	0.00	54.8
Approach			18	2.0	18	2.0	0.010	0.8	NA	0.0	0.0	0.00	0.10	0.00	52.8
All Vehicles			67	2.0	67	2.0	0.022	3.7	NA	0.1	0.6	0.04	0.41	0.04	41.3

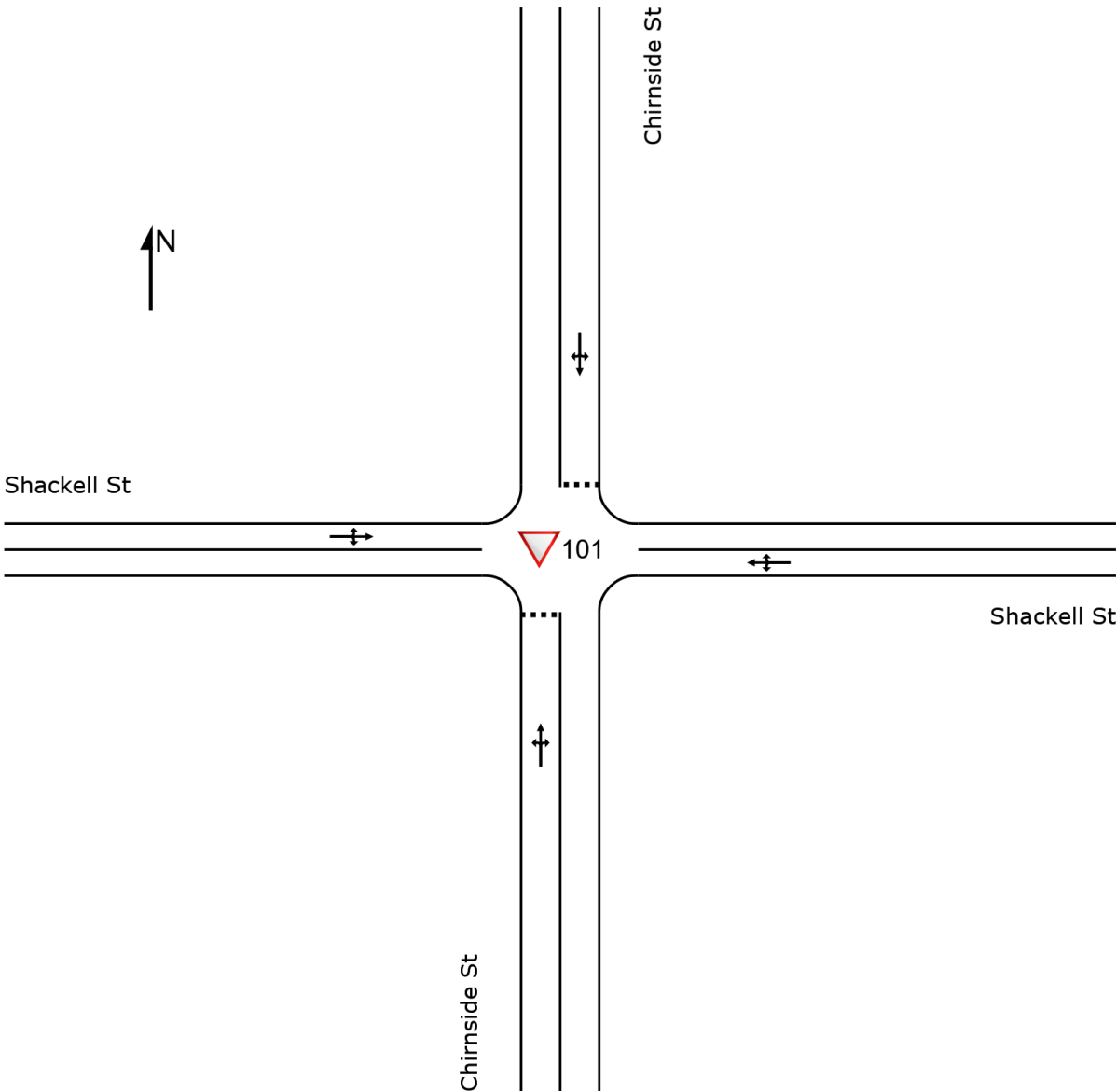
Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SITE LAYOUT

▼ Site: 101 [Chirnside St/Shackell St Existing AM (Site Folder: Chirnside St/ Shackell St)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



MOVEMENT SUMMARY

Site: 101 [Chirnside St/Shackell St Existing AM (Site Folder: Chirnside St/ Shackell St)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh Dist] veh m		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Chirnside St															
1	L2	All MCs	1	2.0	1	2.0	0.014	5.6	LOS A	0.0	0.3	0.13	0.51	0.13	32.0
2	T1	All MCs	14	2.0	14	2.0	0.014	4.4	LOS A	0.0	0.3	0.13	0.51	0.13	45.4
3	R2	All MCs	2	2.0	2	2.0	0.014	5.8	LOS A	0.0	0.3	0.13	0.51	0.13	39.8
Approach			17	2.0	17	2.0	0.014	4.6	LOS A	0.0	0.3	0.13	0.51	0.13	44.0
East: Shackell St															
4	L2	All MCs	4	2.0	4	2.0	0.013	4.3	LOS A	0.0	0.2	0.03	0.18	0.03	46.7
5	T1	All MCs	16	2.0	16	2.0	0.013	0.0	LOS A	0.0	0.2	0.03	0.18	0.03	50.6
6	R2	All MCs	3	2.0	3	2.0	0.013	4.3	LOS A	0.0	0.2	0.03	0.18	0.03	46.1
Approach			23	2.0	23	2.0	0.013	1.4	NA	0.0	0.2	0.03	0.18	0.03	48.6
North: Chirnside St															
7	L2	All MCs	7	2.0	7	2.0	0.013	5.6	LOS A	0.0	0.3	0.09	0.52	0.09	31.8
8	T1	All MCs	9	2.0	9	2.0	0.013	4.4	LOS A	0.0	0.3	0.09	0.52	0.09	45.0
9	R2	All MCs	1	2.0	1	2.0	0.013	5.8	LOS A	0.0	0.3	0.09	0.52	0.09	31.6
Approach			18	2.0	18	2.0	0.013	5.0	LOS A	0.0	0.3	0.09	0.52	0.09	38.9
West: Shackell St															
10	L2	All MCs	9	2.0	9	2.0	0.023	4.4	LOS A	0.1	0.6	0.06	0.34	0.06	43.8
11	T1	All MCs	17	2.0	17	2.0	0.023	0.0	LOS A	0.1	0.6	0.06	0.34	0.06	44.5
12	R2	All MCs	16	2.0	16	2.0	0.023	4.3	LOS A	0.1	0.6	0.06	0.34	0.06	43.3
Approach			42	2.0	42	2.0	0.023	2.6	NA	0.1	0.6	0.06	0.34	0.06	43.7
All Vehicles			100	2.0	100	2.0	0.023	3.1	NA	0.1	0.6	0.07	0.36	0.07	43.3

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [Chirnside St/Shackell St Existing PM (Site Folder: Chirnside St/ Shackell St)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Chirnside St															
1	L2	All MCs	1	2.0	1	2.0	0.005	5.6	LOS A	0.0	0.1	0.10	0.53	0.10	31.7
2	T1	All MCs	3	2.0	3	2.0	0.005	4.3	LOS A	0.0	0.1	0.10	0.53	0.10	44.9
3	R2	All MCs	2	2.0	2	2.0	0.005	5.8	LOS A	0.0	0.1	0.10	0.53	0.10	39.3
Approach			6	2.0	6	2.0	0.005	5.0	LOS A	0.0	0.1	0.10	0.53	0.10	41.0
East: Shackell St															
4	L2	All MCs	11	2.0	11	2.0	0.017	4.3	LOS A	0.0	0.3	0.04	0.32	0.04	44.2
5	T1	All MCs	14	2.0	14	2.0	0.017	0.0	LOS A	0.0	0.3	0.04	0.32	0.04	45.4
6	R2	All MCs	7	2.0	7	2.0	0.017	4.3	LOS A	0.0	0.3	0.04	0.32	0.04	43.7
Approach			32	2.0	32	2.0	0.017	2.4	NA	0.0	0.3	0.04	0.32	0.04	44.4
North: Chirnside St															
7	L2	All MCs	6	2.0	6	2.0	0.014	5.6	LOS A	0.1	0.4	0.08	0.52	0.08	32.0
8	T1	All MCs	12	2.0	12	2.0	0.014	4.3	LOS A	0.1	0.4	0.08	0.52	0.08	45.3
9	R2	All MCs	1	2.0	1	2.0	0.014	5.7	LOS A	0.1	0.4	0.08	0.52	0.08	31.8
Approach			19	2.0	19	2.0	0.014	4.8	LOS A	0.1	0.4	0.08	0.52	0.08	40.2
West: Shackell St															
10	L2	All MCs	8	2.0	8	2.0	0.015	4.4	LOS A	0.0	0.3	0.06	0.34	0.06	43.8
11	T1	All MCs	11	2.0	11	2.0	0.015	0.0	LOS A	0.0	0.3	0.06	0.34	0.06	44.6
12	R2	All MCs	7	2.0	7	2.0	0.015	4.3	LOS A	0.0	0.3	0.06	0.34	0.06	43.3
Approach			26	2.0	26	2.0	0.015	2.6	NA	0.0	0.3	0.06	0.34	0.06	43.8
All Vehicles			83	2.0	83	2.0	0.017	3.2	NA	0.1	0.4	0.06	0.39	0.06	42.5

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [Chirnside St/Shackell St Proposed AM (Site Folder: Chirnside St/ Shackell St)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh Dist] veh m		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Chirnside St															
1	L2	All MCs	1	2.0	1	2.0	0.014	5.6	LOS A	0.0	0.3	0.14	0.51	0.14	32.0
2	T1	All MCs	14	2.0	14	2.0	0.014	4.4	LOS A	0.0	0.3	0.14	0.51	0.14	45.3
3	R2	All MCs	2	2.0	2	2.0	0.014	5.8	LOS A	0.0	0.3	0.14	0.51	0.14	39.8
Approach			17	2.0	17	2.0	0.014	4.6	LOS A	0.0	0.3	0.14	0.51	0.14	44.0
East: Shackell St															
4	L2	All MCs	4	2.0	4	2.0	0.013	4.3	LOS A	0.0	0.2	0.03	0.18	0.03	46.7
5	T1	All MCs	16	2.0	16	2.0	0.013	0.0	LOS A	0.0	0.2	0.03	0.18	0.03	50.6
6	R2	All MCs	3	2.0	3	2.0	0.013	4.3	LOS A	0.0	0.2	0.03	0.18	0.03	46.1
Approach			23	2.0	23	2.0	0.013	1.4	NA	0.0	0.2	0.03	0.18	0.03	48.6
North: Chirnside St															
7	L2	All MCs	7	2.0	7	2.0	0.013	5.6	LOS A	0.0	0.3	0.10	0.52	0.10	31.8
8	T1	All MCs	9	2.0	9	2.0	0.013	4.4	LOS A	0.0	0.3	0.10	0.52	0.10	45.0
9	R2	All MCs	1	2.0	1	2.0	0.013	5.8	LOS A	0.0	0.3	0.10	0.52	0.10	31.6
Approach			18	2.0	18	2.0	0.013	5.0	LOS A	0.0	0.3	0.10	0.52	0.10	38.9
West: Shackell St															
10	L2	All MCs	9	2.0	9	2.0	0.026	4.4	LOS A	0.1	0.8	0.07	0.35	0.07	43.6
11	T1	All MCs	18	2.0	18	2.0	0.026	0.0	LOS A	0.1	0.8	0.07	0.35	0.07	44.1
12	R2	All MCs	20	2.0	20	2.0	0.026	4.3	LOS A	0.1	0.8	0.07	0.35	0.07	43.1
Approach			47	2.0	47	2.0	0.026	2.7	NA	0.1	0.8	0.07	0.35	0.07	43.4
All Vehicles			105	2.0	105	2.0	0.026	3.1	NA	0.1	0.8	0.08	0.37	0.08	43.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

▼ Site: 101 [Chirnside St/Shackell St Proposed PM (Site Folder: Chirnside St/ Shackell St)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Chirnside St															
1	L2	All MCs	1	2.0	1	2.0	0.005	5.6	LOS A	0.0	0.1	0.09	0.53	0.09	31.8
2	T1	All MCs	3	2.0	3	2.0	0.005	4.3	LOS A	0.0	0.1	0.09	0.53	0.09	45.0
3	R2	All MCs	2	2.0	2	2.0	0.005	5.8	LOS A	0.0	0.1	0.09	0.53	0.09	39.4
Approach			6	2.0	6	2.0	0.005	5.0	LOS A	0.0	0.1	0.09	0.53	0.09	41.1
East: Shackell St															
4	L2	All MCs	17	2.0	17	2.0	0.017	4.3	LOS A	0.0	0.3	0.04	0.43	0.04	42.5
5	T1	All MCs	7	2.0	7	2.0	0.017	0.0	LOS A	0.0	0.3	0.04	0.43	0.04	42.0
6	R2	All MCs	7	2.0	7	2.0	0.017	4.3	LOS A	0.0	0.3	0.04	0.43	0.04	42.0
Approach			32	2.0	32	2.0	0.017	3.3	NA	0.0	0.3	0.04	0.43	0.04	42.3
North: Chirnside St															
7	L2	All MCs	6	2.0	6	2.0	0.014	5.6	LOS A	0.1	0.4	0.08	0.52	0.08	32.0
8	T1	All MCs	12	2.0	12	2.0	0.014	4.4	LOS A	0.1	0.4	0.08	0.52	0.08	45.3
9	R2	All MCs	1	2.0	1	2.0	0.014	5.7	LOS A	0.1	0.4	0.08	0.52	0.08	31.8
Approach			19	2.0	19	2.0	0.014	4.8	LOS A	0.1	0.4	0.08	0.52	0.08	40.2
West: Shackell St															
10	L2	All MCs	8	2.0	8	2.0	0.016	4.4	LOS A	0.1	0.4	0.07	0.36	0.07	43.4
11	T1	All MCs	11	2.0	11	2.0	0.016	0.0	LOS A	0.1	0.4	0.07	0.36	0.07	43.7
12	R2	All MCs	11	2.0	11	2.0	0.016	4.3	LOS A	0.1	0.4	0.07	0.36	0.07	42.9
Approach			29	2.0	29	2.0	0.016	2.8	NA	0.1	0.4	0.07	0.36	0.07	43.2
All Vehicles			86	2.0	86	2.0	0.017	3.6	NA	0.1	0.4	0.06	0.43	0.06	41.8

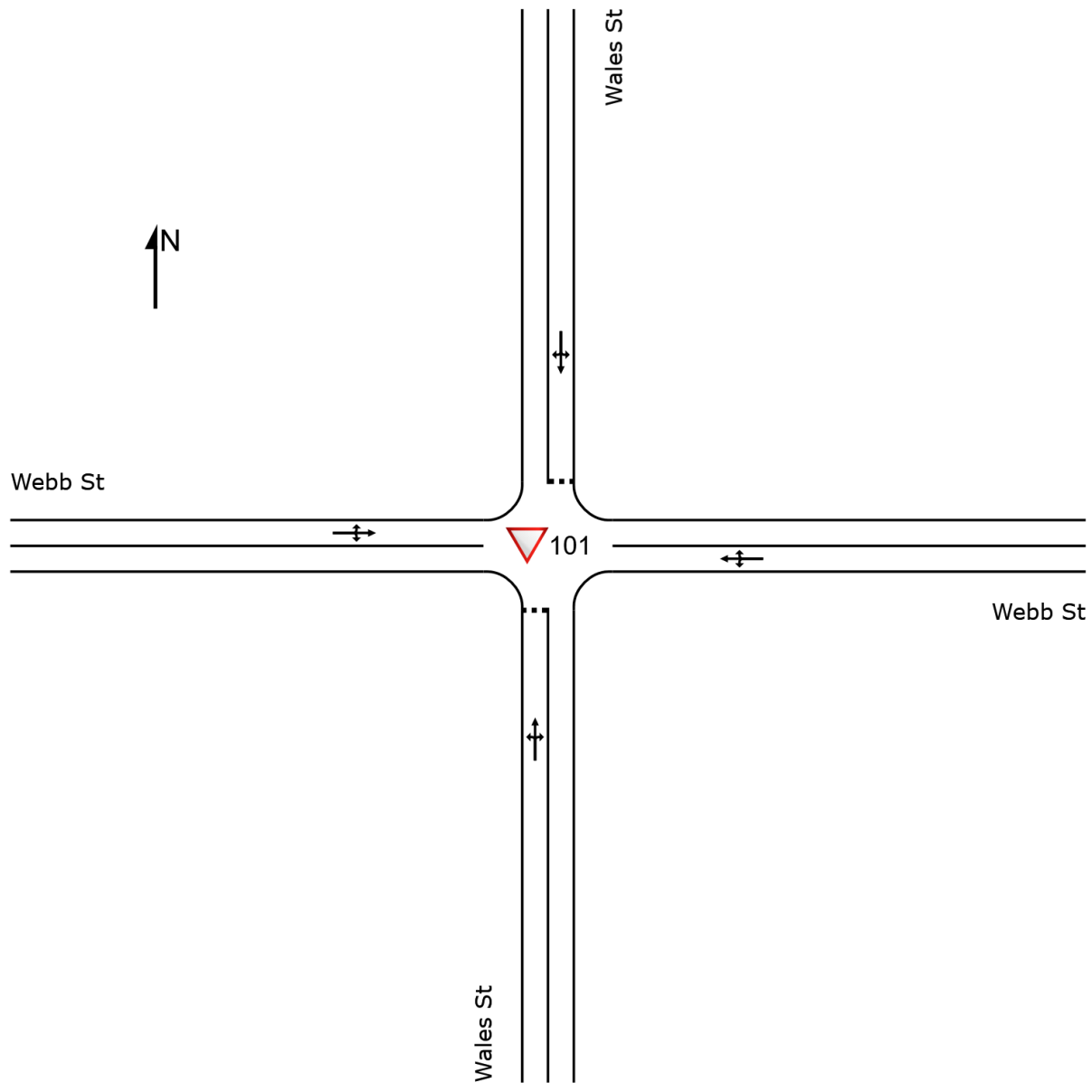
Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SITE LAYOUT

▼ Site: 101 [Wales St/Webb St Existing AM (Site Folder: Wales St/Webb St)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



MOVEMENT SUMMARY

Site: 101 [Wales St/Webb St Existing AM (Site Folder: Wales St/Webb St)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh Dist] veh m		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Wales St															
1	L2	All MCs	2	2.0	2	2.0	0.022	5.6	LOS A	0.1	0.5	0.09	0.54	0.09	33.8
2	T1	All MCs	15	2.0	15	2.0	0.022	4.3	LOS A	0.1	0.5	0.09	0.54	0.09	45.1
3	R2	All MCs	9	2.0	9	2.0	0.022	5.8	LOS A	0.1	0.5	0.09	0.54	0.09	39.1
Approach			26	2.0	26	2.0	0.022	4.9	LOS A	0.1	0.5	0.09	0.54	0.09	42.3
East: Webb St															
4	L2	All MCs	16	2.0	16	2.0	0.014	4.3	LOS A	0.0	0.1	0.01	0.40	0.01	43.1
5	T1	All MCs	7	2.0	7	2.0	0.014	0.0	LOS A	0.0	0.1	0.01	0.40	0.01	46.2
6	R2	All MCs	2	2.0	2	2.0	0.014	4.3	LOS A	0.0	0.1	0.01	0.40	0.01	42.2
Approach			25	2.0	25	2.0	0.014	3.1	NA	0.0	0.1	0.01	0.40	0.01	43.7
North: Wales St															
7	L2	All MCs	1	2.0	1	2.0	0.030	5.6	LOS A	0.1	0.8	0.09	0.51	0.09	32.4
8	T1	All MCs	36	2.0	36	2.0	0.030	4.3	LOS A	0.1	0.8	0.09	0.51	0.09	45.9
9	R2	All MCs	1	2.0	1	2.0	0.030	5.7	LOS A	0.1	0.8	0.09	0.51	0.09	33.9
Approach			38	2.0	38	2.0	0.030	4.4	LOS A	0.1	0.8	0.09	0.51	0.09	45.2
West: Webb St															
10	L2	All MCs	4	2.0	4	2.0	0.006	5.6	LOS A	0.0	0.1	0.06	0.37	0.06	43.6
11	T1	All MCs	4	2.0	4	2.0	0.006	0.0	LOS A	0.0	0.1	0.06	0.37	0.06	44.0
12	R2	All MCs	3	2.0	3	2.0	0.006	5.6	LOS A	0.0	0.1	0.06	0.37	0.06	42.8
Approach			12	2.0	12	2.0	0.006	3.5	NA	0.0	0.1	0.06	0.37	0.06	43.4
All Vehicles			101	2.0	101	2.0	0.030	4.1	NA	0.1	0.8	0.07	0.47	0.07	43.9

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [Wales St/Webb St Existing PM (Site Folder: Wales St/Webb St)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh Dist] veh m		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Wales St															
1	L2	All MCs	3	2.0	3	2.0	0.015	5.6	LOS A	0.1	0.4	0.06	0.52	0.06	34.3
2	T1	All MCs	16	2.0	16	2.0	0.015	4.2	LOS A	0.1	0.4	0.06	0.52	0.06	45.7
3	R2	All MCs	1	2.0	1	2.0	0.015	5.7	LOS A	0.1	0.4	0.06	0.52	0.06	39.9
Approach			20	2.0	20	2.0	0.015	4.5	LOS A	0.1	0.4	0.06	0.52	0.06	43.6
East: Webb St															
4	L2	All MCs	11	2.0	11	2.0	0.009	4.3	LOS A	0.0	0.1	0.01	0.39	0.01	43.3
5	T1	All MCs	5	2.0	5	2.0	0.009	0.0	LOS A	0.0	0.1	0.01	0.39	0.01	46.6
6	R2	All MCs	1	2.0	1	2.0	0.009	4.3	LOS A	0.0	0.1	0.01	0.39	0.01	42.4
Approach			17	2.0	17	2.0	0.009	3.0	NA	0.0	0.1	0.01	0.39	0.01	44.0
North: Wales St															
7	L2	All MCs	2	2.0	2	2.0	0.022	5.6	LOS A	0.1	0.5	0.08	0.52	0.08	32.2
8	T1	All MCs	21	2.0	21	2.0	0.022	4.2	LOS A	0.1	0.5	0.08	0.52	0.08	45.6
9	R2	All MCs	4	2.0	4	2.0	0.022	5.7	LOS A	0.1	0.5	0.08	0.52	0.08	33.7
Approach			27	2.0	27	2.0	0.022	4.6	LOS A	0.1	0.5	0.08	0.52	0.08	42.7
West: Webb St															
10	L2	All MCs	1	2.0	1	2.0	0.005	5.6	LOS A	0.0	0.1	0.04	0.20	0.04	47.0
11	T1	All MCs	6	2.0	6	2.0	0.005	0.0	LOS A	0.0	0.1	0.04	0.20	0.04	50.2
12	R2	All MCs	2	2.0	2	2.0	0.005	5.5	LOS A	0.0	0.1	0.04	0.20	0.04	46.0
Approach			9	2.0	9	2.0	0.005	1.9	NA	0.0	0.1	0.04	0.20	0.04	48.4
All Vehicles			74	2.0	74	2.0	0.022	3.8	NA	0.1	0.5	0.05	0.45	0.05	43.7

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

▼ Site: 101 [Wales St/Webb St Proposed AM (Site Folder: Wales St/Webb St)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh Dist] veh m		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Wales St															
1	L2	All MCs	2	2.0	2	2.0	0.026	5.6	LOS A	0.1	0.6	0.08	0.53	0.08	34.0
2	T1	All MCs	20	2.0	20	2.0	0.026	4.2	LOS A	0.1	0.6	0.08	0.53	0.08	45.3
3	R2	All MCs	9	2.0	9	2.0	0.026	5.8	LOS A	0.1	0.6	0.08	0.53	0.08	39.3
Approach			32	2.0	32	2.0	0.026	4.8	LOS A	0.1	0.6	0.08	0.53	0.08	42.9
East: Webb St															
4	L2	All MCs	6	2.0	6	2.0	0.009	4.3	LOS A	0.0	0.2	0.03	0.36	0.03	43.7
5	T1	All MCs	6	2.0	6	2.0	0.009	0.0	LOS A	0.0	0.2	0.03	0.36	0.03	47.3
6	R2	All MCs	4	2.0	4	2.0	0.009	4.3	LOS A	0.0	0.2	0.03	0.36	0.03	42.8
Approach			17	2.0	17	2.0	0.009	2.7	NA	0.0	0.2	0.03	0.36	0.03	44.4
North: Wales St															
7	L2	All MCs	1	2.0	1	2.0	0.036	5.6	LOS A	0.1	0.9	0.08	0.51	0.08	32.4
8	T1	All MCs	43	2.0	43	2.0	0.036	4.2	LOS A	0.1	0.9	0.08	0.51	0.08	45.9
9	R2	All MCs	2	2.0	2	2.0	0.036	5.7	LOS A	0.1	0.9	0.08	0.51	0.08	33.9
Approach			46	2.0	46	2.0	0.036	4.3	LOS A	0.1	0.9	0.08	0.51	0.08	45.0
West: Webb St															
10	L2	All MCs	5	2.0	5	2.0	0.006	5.6	LOS A	0.0	0.1	0.04	0.42	0.04	42.8
11	T1	All MCs	3	2.0	3	2.0	0.006	0.0	LOS A	0.0	0.1	0.04	0.42	0.04	42.8
12	R2	All MCs	3	2.0	3	2.0	0.006	5.5	LOS A	0.0	0.1	0.04	0.42	0.04	42.1
Approach			12	2.0	12	2.0	0.006	4.0	NA	0.0	0.1	0.04	0.42	0.04	42.6
All Vehicles			106	2.0	106	2.0	0.036	4.2	NA	0.1	0.9	0.07	0.48	0.07	44.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

▼ Site: 101 [Wales St/Webb St Proposed PM (Site Folder: Wales St/Webb St)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh Dist] veh m		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Wales St															
1	L2	All MCs	3	2.0	3	2.0	0.019	5.6	LOS A	0.1	0.5	0.06	0.52	0.06	34.4
2	T1	All MCs	21	2.0	21	2.0	0.019	4.2	LOS A	0.1	0.5	0.06	0.52	0.06	45.8
3	R2	All MCs	1	2.0	1	2.0	0.019	5.7	LOS A	0.1	0.5	0.06	0.52	0.06	39.9
Approach			25	2.0	25	2.0	0.019	4.4	LOS A	0.1	0.5	0.06	0.52	0.06	44.1
East: Webb St															
4	L2	All MCs	8	2.0	8	2.0	0.009	4.3	LOS A	0.0	0.1	0.02	0.38	0.02	43.5
5	T1	All MCs	5	2.0	5	2.0	0.009	0.0	LOS A	0.0	0.1	0.02	0.38	0.02	46.8
6	R2	All MCs	2	2.0	2	2.0	0.009	4.3	LOS A	0.0	0.1	0.02	0.38	0.02	42.5
Approach			16	2.0	16	2.0	0.009	2.9	NA	0.0	0.1	0.02	0.38	0.02	44.1
North: Wales St															
7	L2	All MCs	2	2.0	2	2.0	0.028	5.6	LOS A	0.1	0.7	0.08	0.52	0.08	32.3
8	T1	All MCs	29	2.0	29	2.0	0.028	4.2	LOS A	0.1	0.7	0.08	0.52	0.08	45.7
9	R2	All MCs	4	2.0	4	2.0	0.028	5.7	LOS A	0.1	0.7	0.08	0.52	0.08	33.8
Approach			36	2.0	36	2.0	0.028	4.5	LOS A	0.1	0.7	0.08	0.52	0.08	43.5
West: Webb St															
10	L2	All MCs	1	2.0	1	2.0	0.005	5.6	LOS A	0.0	0.1	0.03	0.20	0.03	47.0
11	T1	All MCs	6	2.0	6	2.0	0.005	0.0	LOS A	0.0	0.1	0.03	0.20	0.03	50.3
12	R2	All MCs	2	2.0	2	2.0	0.005	5.5	LOS A	0.0	0.1	0.03	0.20	0.03	46.1
Approach			9	2.0	9	2.0	0.005	1.8	NA	0.0	0.1	0.03	0.20	0.03	48.4
All Vehicles			86	2.0	86	2.0	0.028	3.9	NA	0.1	0.7	0.06	0.46	0.06	44.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SITE LAYOUT

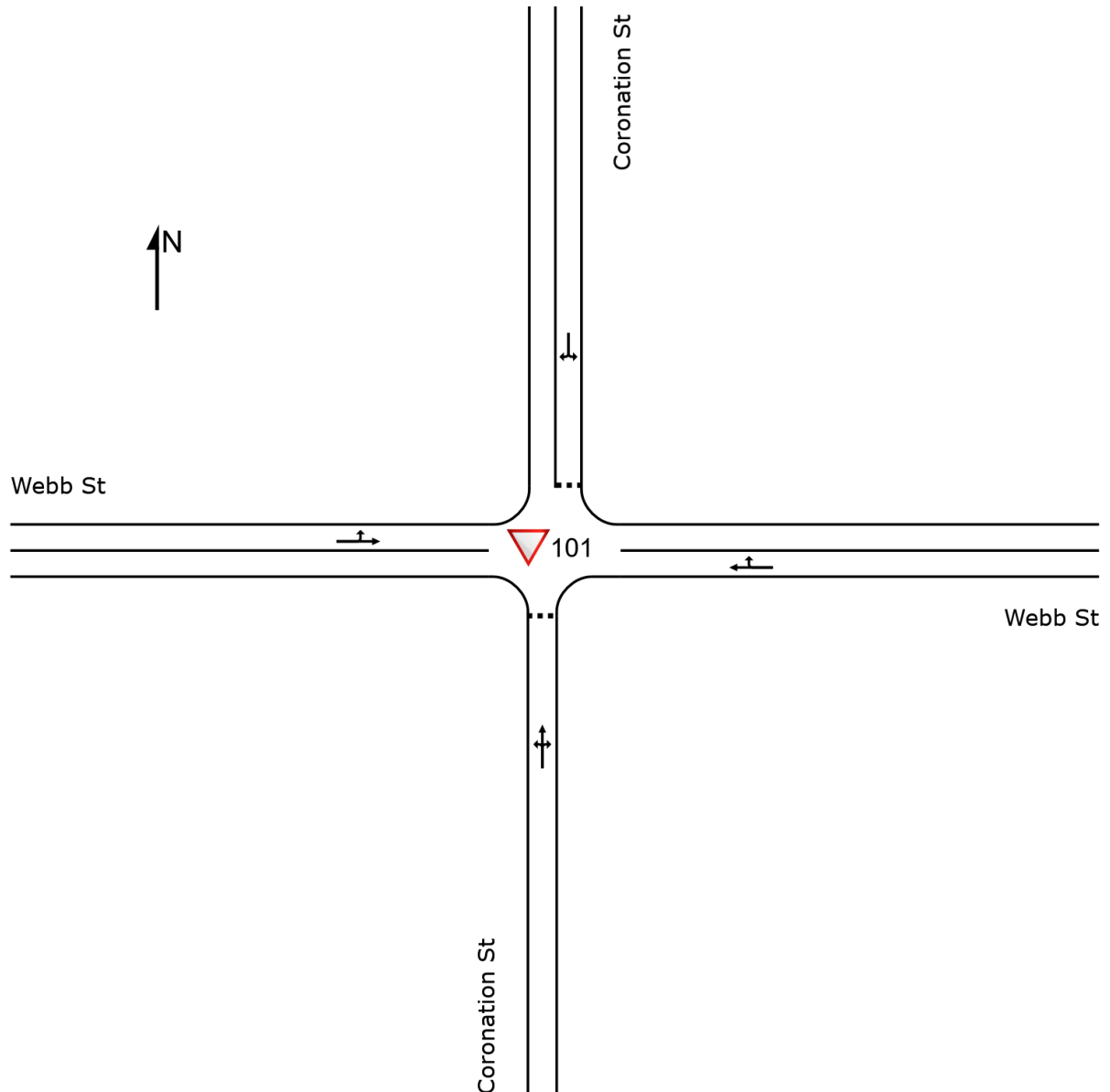
▼ Site: 101 [Coronation St/ Webb St Existing AM (Site Folder: Coronation St/ Webb St)]

New Site

Site Category: (None)

Give-Way (Two-Way)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



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Organisation: O'BRIEN TRAFFIC | Licence: PLUS / FLOATING | Created: Tuesday, 15 October 2024 5:35:58 PM

Project: C:\Users\TerryAlexandrou\OneDrive - O'Brien Traffic\Shared Documents - Company Data\General\Document\Current Documents\26473
Documents\26473 SIDRA.sip9

MOVEMENT SUMMARY

Site: 101 [Coronation St/ Webb St Existing AM (Site Folder: Coronation St/ Webb St)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Coronation St															
1	L2	All MCs	4	2.0	4	2.0	0.029	5.6	LOS A	0.1	0.7	0.08	0.55	0.08	31.7
2	T1	All MCs	18	2.0	18	2.0	0.029	4.2	LOS A	0.1	0.7	0.08	0.55	0.08	44.9
3	R2	All MCs	14	2.0	14	2.0	0.029	5.9	LOS A	0.1	0.7	0.08	0.55	0.08	38.7
Approach			36	2.0	36	2.0	0.029	5.0	LOS A	0.1	0.7	0.08	0.55	0.08	41.2
East: Webb St															
5	T1	All MCs	12	2.0	12	2.0	0.007	0.0	LOS A	0.0	0.0	0.01	0.05	0.01	57.1
6	R2	All MCs	1	2.0	1	2.0	0.007	4.3	LOS A	0.0	0.0	0.01	0.05	0.01	48.1
Approach			13	2.0	13	2.0	0.007	0.4	NA	0.0	0.0	0.01	0.05	0.01	55.6
North: Coronation St															
7	L2	All MCs	2	2.0	2	2.0	0.011	5.6	LOS A	0.0	0.3	0.10	0.57	0.10	38.5
9	R2	All MCs	11	2.0	11	2.0	0.011	5.7	LOS A	0.0	0.3	0.10	0.57	0.10	37.8
Approach			13	2.0	13	2.0	0.011	5.7	LOS A	0.0	0.3	0.10	0.57	0.10	37.9
West: Webb St															
10	L2	All MCs	1	2.0	1	2.0	0.008	4.3	LOS A	0.0	0.0	0.00	0.04	0.00	49.6
11	T1	All MCs	14	2.0	14	2.0	0.008	0.0	LOS A	0.0	0.0	0.00	0.04	0.00	57.7
Approach			15	2.0	15	2.0	0.008	0.3	NA	0.0	0.0	0.00	0.04	0.00	56.5
All Vehicles			76	2.0	76	2.0	0.029	3.4	NA	0.1	0.7	0.06	0.37	0.06	43.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

▼ Site: 101 [Coronation St/ Webb St Existing PM (Site Folder: Coronation St/ Webb St)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. Dist] veh m		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Coronation St															
1	L2	All MCs	5	2.0	5	2.0	0.024	5.6	LOS A	0.1	0.6	0.07	0.55	0.07	31.7
2	T1	All MCs	14	2.0	14	2.0	0.024	4.2	LOS A	0.1	0.6	0.07	0.55	0.07	44.9
3	R2	All MCs	11	2.0	11	2.0	0.024	5.8	LOS A	0.1	0.6	0.07	0.55	0.07	38.7
Approach			29	2.0	29	2.0	0.024	5.0	LOS A	0.1	0.6	0.07	0.55	0.07	40.5
East: Webb St															
5	T1	All MCs	8	2.0	8	2.0	0.005	0.0	LOS A	0.0	0.0	0.01	0.07	0.01	56.3
6	R2	All MCs	1	2.0	1	2.0	0.005	4.3	LOS A	0.0	0.0	0.01	0.07	0.01	47.8
Approach			9	2.0	9	2.0	0.005	0.5	NA	0.0	0.0	0.01	0.07	0.01	54.4
North: Coronation St															
7	L2	All MCs	9	2.0	9	2.0	0.008	5.6	LOS A	0.0	0.2	0.05	0.56	0.05	38.9
9	R2	All MCs	2	2.0	2	2.0	0.008	5.6	LOS A	0.0	0.2	0.05	0.56	0.05	38.2
Approach			12	2.0	12	2.0	0.008	5.6	LOS A	0.0	0.2	0.05	0.56	0.05	38.8
West: Webb St															
10	L2	All MCs	1	2.0	1	2.0	0.006	4.3	LOS A	0.0	0.0	0.00	0.06	0.00	49.2
11	T1	All MCs	9	2.0	9	2.0	0.006	0.0	LOS A	0.0	0.0	0.00	0.06	0.00	56.9
Approach			11	2.0	11	2.0	0.006	0.4	NA	0.0	0.0	0.00	0.06	0.00	55.4
All Vehicles			61	2.0	61	2.0	0.024	3.6	NA	0.1	0.6	0.04	0.39	0.04	42.3

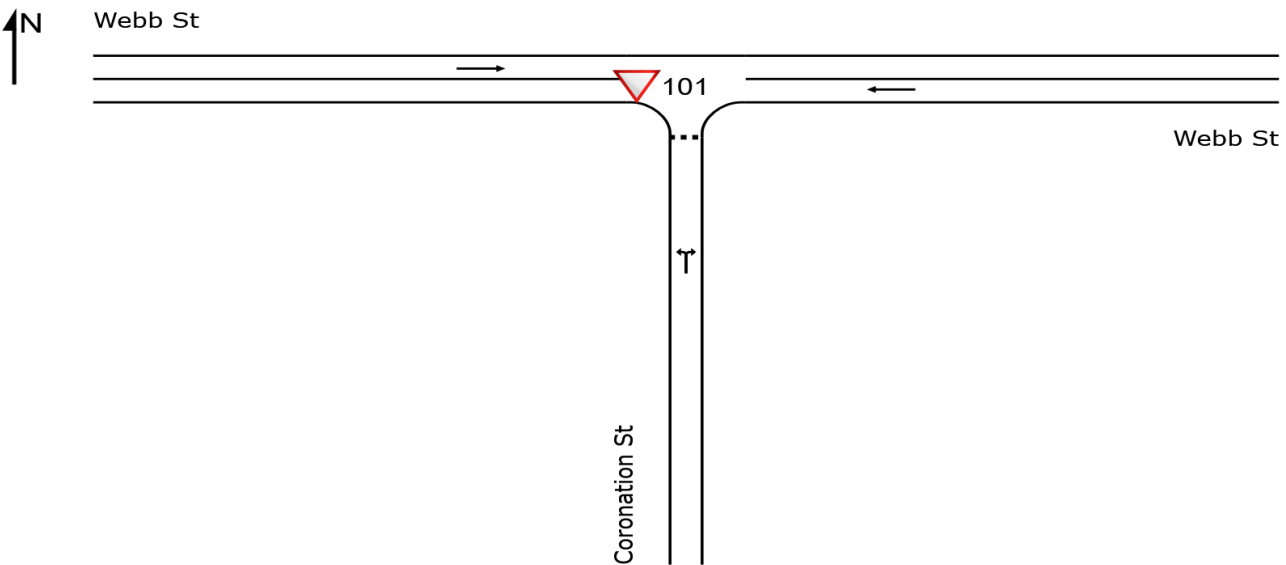
Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akcelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SITE LAYOUT

▽ Site: 101 [Coronation St/ Webb St Proposed AM (Site Folder: Coronation St/ Webb St)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



MOVEMENT SUMMARY

Site: 101 [Coronation St/ Webb St Proposed AM (Site Folder: Coronation St/ Webb St)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Coronation St															
1	L2	All MCs	6	2.0	6	2.0	0.015	5.6	LOS A	0.1	0.4	0.06	0.59	0.06	38.5
3	R2	All MCs	14	2.0	14	2.0	0.015	5.8	LOS A	0.1	0.4	0.06	0.59	0.06	37.6
Approach			20	2.0	20	2.0	0.015	5.7	LOS A	0.1	0.4	0.06	0.59	0.06	37.9
East: Webb St															
5	T1	All MCs	12	2.0	12	2.0	0.006	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
Approach			12	2.0	12	2.0	0.006	0.0	NA	0.0	0.0	0.00	0.00	0.00	60.0
West: Webb St															
11	T1	All MCs	14	2.0	14	2.0	0.007	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
Approach			14	2.0	14	2.0	0.007	0.0	NA	0.0	0.0	0.00	0.00	0.00	60.0
All Vehicles			45	2.0	45	2.0	0.015	2.5	NA	0.1	0.4	0.03	0.26	0.03	44.3

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [Coronation St/ Webb St Proposed PM (Site Folder: Coronation St/ Webb St)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Coronation St															
1	L2	All MCs	6	2.0	6	2.0	0.012	5.6	LOS A	0.0	0.3	0.05	0.59	0.05	38.6
3	R2	All MCs	11	2.0	11	2.0	0.012	5.8	LOS A	0.0	0.3	0.05	0.59	0.05	37.7
Approach			17	2.0	17	2.0	0.012	5.7	LOS A	0.0	0.3	0.05	0.59	0.05	38.1
East: Webb St															
5	T1	All MCs	8	2.0	8	2.0	0.004	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
Approach			8	2.0	8	2.0	0.004	0.0	NA	0.0	0.0	0.00	0.00	0.00	60.0
West: Webb St															
11	T1	All MCs	9	2.0	9	2.0	0.005	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
Approach			9	2.0	9	2.0	0.005	0.0	NA	0.0	0.0	0.00	0.00	0.00	60.0
All Vehicles			35	2.0	35	2.0	0.012	2.8	NA	0.0	0.3	0.02	0.29	0.02	43.7

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SITE LAYOUT

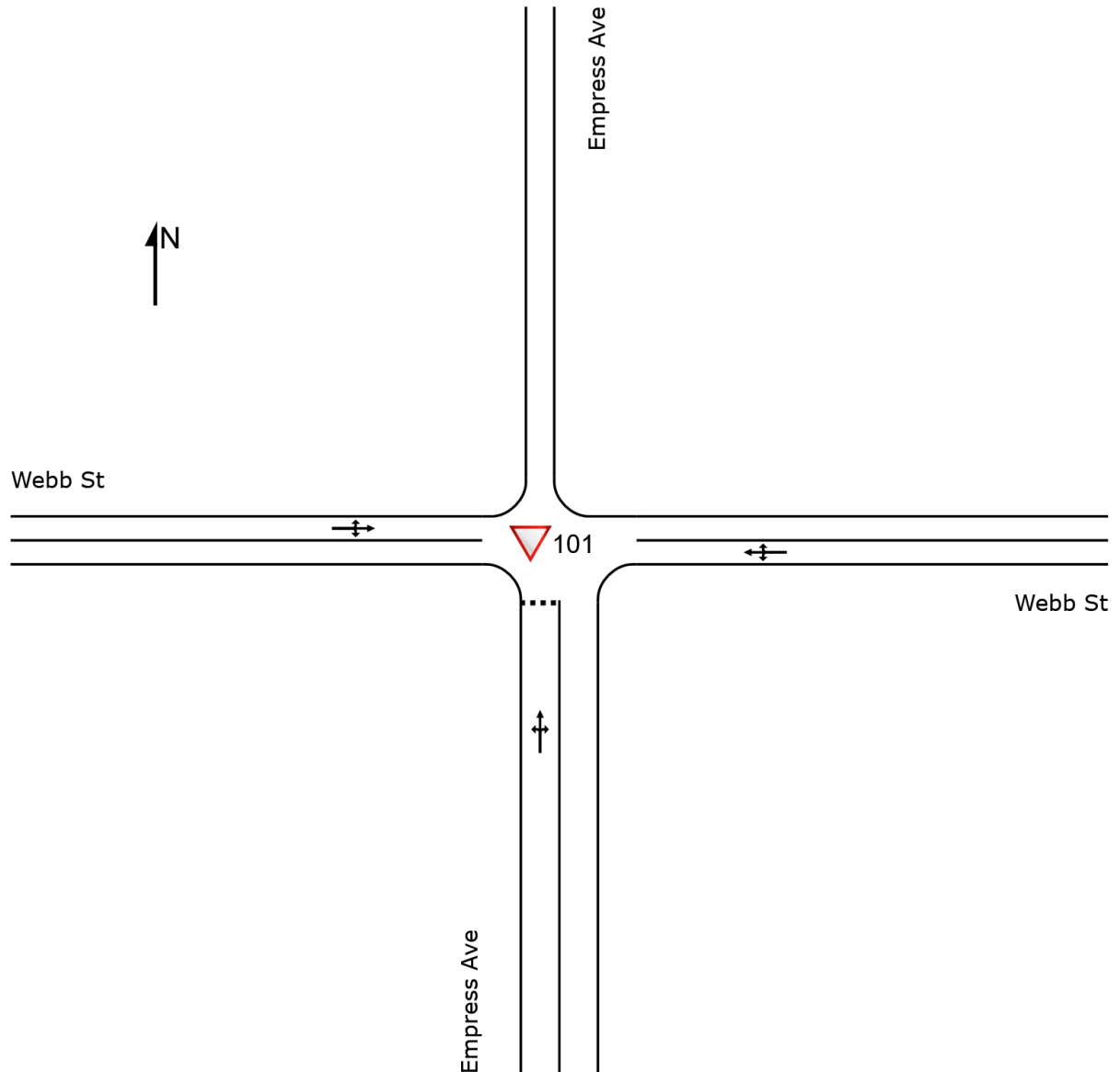
▽ Site: 101 [Empress Ave/ Webb St Existing AM (Site Folder: Empress Ave/ Webb St)]

New Site

Site Category: (None)

Give-Way (Two-Way)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



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Project: C:\Users\TerryAlexandrou\OneDrive - O'Brien Traffic\Shared Documents - Company Data\General\Document\Current Documents\26473
\Documents\26473 SIDRA.sip9

MOVEMENT SUMMARY

▼ Site: 101 [Empress Ave/ Webb St Existing AM (Site Folder: Empress Ave/ Webb St)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Empress Ave															
1	L2	All MCs	4	2.0	4	2.0	0.015	5.6	LOS A	0.1	0.4	0.08	0.53	0.08	31.9
2	T1	All MCs	9	2.0	9	2.0	0.015	4.3	LOS A	0.1	0.4	0.08	0.53	0.08	45.1
3	R2	All MCs	5	2.0	5	2.0	0.015	5.7	LOS A	0.1	0.4	0.08	0.53	0.08	39.4
Approach			19	2.0	19	2.0	0.015	5.0	LOS A	0.1	0.4	0.08	0.53	0.08	40.7
East: Webb St															
4	L2	All MCs	2	2.0	2	2.0	0.008	4.3	LOS A	0.0	0.2	0.05	0.28	0.05	45.0
5	T1	All MCs	7	2.0	7	2.0	0.008	0.0	LOS A	0.0	0.2	0.05	0.28	0.05	46.9
6	R2	All MCs	4	2.0	4	2.0	0.008	4.5	LOS A	0.0	0.2	0.05	0.28	0.05	43.7
Approach			14	2.0	14	2.0	0.008	2.1	NA	0.0	0.2	0.05	0.28	0.05	45.1
West: Webb St															
10	L2	All MCs	1	2.0	1	2.0	0.017	4.3	LOS A	0.1	0.4	0.04	0.23	0.04	45.9
11	T1	All MCs	19	2.0	19	2.0	0.017	0.0	LOS A	0.1	0.4	0.04	0.23	0.04	48.8
12	R2	All MCs	12	2.0	12	2.0	0.017	4.3	LOS A	0.1	0.4	0.04	0.23	0.04	45.3
Approach			32	2.0	32	2.0	0.017	1.7	NA	0.1	0.4	0.04	0.23	0.04	46.8
All Vehicles			64	2.0	64	2.0	0.017	2.7	NA	0.1	0.4	0.05	0.33	0.05	43.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [Empress Ave/ Webb St Existing PM (Site Folder: Empress Ave/ Webb St)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. Dist] veh m		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Empress Ave															
1	L2	All MCs	1	2.0	1	2.0	0.013	5.6	LOS A	0.0	0.3	0.11	0.51	0.11	32.1
2	T1	All MCs	14	2.0	14	2.0	0.013	4.3	LOS A	0.0	0.3	0.11	0.51	0.11	45.5
3	R2	All MCs	2	2.0	2	2.0	0.013	5.7	LOS A	0.0	0.3	0.11	0.51	0.11	39.9
Approach			17	2.0	17	2.0	0.013	4.6	LOS A	0.0	0.3	0.11	0.51	0.11	44.1
East: Webb St															
4	L2	All MCs	8	2.0	8	2.0	0.013	4.3	LOS A	0.0	0.3	0.05	0.36	0.05	43.7
5	T1	All MCs	9	2.0	9	2.0	0.013	0.0	LOS A	0.0	0.3	0.05	0.36	0.05	44.3
6	R2	All MCs	6	2.0	6	2.0	0.013	4.5	LOS A	0.0	0.3	0.05	0.36	0.05	42.5
Approach			24	2.0	24	2.0	0.013	2.7	NA	0.0	0.3	0.05	0.36	0.05	43.4
West: Webb St															
10	L2	All MCs	4	2.0	4	2.0	0.018	4.4	LOS A	0.1	0.5	0.06	0.30	0.06	44.4
11	T1	All MCs	15	2.0	15	2.0	0.018	0.0	LOS A	0.1	0.5	0.06	0.30	0.06	45.8
12	R2	All MCs	13	2.0	13	2.0	0.018	4.3	LOS A	0.1	0.5	0.06	0.30	0.06	43.9
Approach			32	2.0	32	2.0	0.018	2.3	NA	0.1	0.5	0.06	0.30	0.06	44.6
All Vehicles			73	2.0	73	2.0	0.018	3.0	NA	0.1	0.5	0.07	0.37	0.07	44.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

▼ Site: 101 [Empress Ave/ Webb St Proposed AM (Site Folder: Empress Ave/ Webb St)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh Dist] veh m		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Empress Ave															
1	L2	All MCs	4	2.0	4	2.0	0.023	5.6	LOS A	0.1	0.6	0.08	0.52	0.08	32.1
2	T1	All MCs	20	2.0	20	2.0	0.023	4.3	LOS A	0.1	0.6	0.08	0.52	0.08	45.4
3	R2	All MCs	5	2.0	5	2.0	0.023	5.7	LOS A	0.1	0.6	0.08	0.52	0.08	39.8
Approach			29	2.0	29	2.0	0.023	4.7	LOS A	0.1	0.6	0.08	0.52	0.08	42.7
East: Webb St															
4	L2	All MCs	3	2.0	3	2.0	0.010	4.4	LOS A	0.0	0.3	0.06	0.39	0.06	43.1
5	T1	All MCs	6	2.0	6	2.0	0.010	0.0	LOS A	0.0	0.3	0.06	0.39	0.06	43.3
6	R2	All MCs	8	2.0	8	2.0	0.010	4.5	LOS A	0.0	0.3	0.06	0.39	0.06	41.9
Approach			18	2.0	18	2.0	0.010	2.9	NA	0.0	0.3	0.06	0.39	0.06	42.5
West: Webb St															
10	L2	All MCs	1	2.0	1	2.0	0.016	4.3	LOS A	0.1	0.4	0.04	0.25	0.04	45.6
11	T1	All MCs	17	2.0	17	2.0	0.016	0.0	LOS A	0.1	0.4	0.04	0.25	0.04	48.2
12	R2	All MCs	12	2.0	12	2.0	0.016	4.3	LOS A	0.1	0.4	0.04	0.25	0.04	45.0
Approach			29	2.0	29	2.0	0.016	1.8	NA	0.1	0.4	0.04	0.25	0.04	46.3
All Vehicles			77	2.0	77	2.0	0.023	3.2	NA	0.1	0.6	0.06	0.38	0.06	43.6

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

▼ Site: 101 [Empress Ave/ Webb St Proposed PM (Site Folder: Empress Ave/ Webb St)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. Dist] veh m		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Empress Ave															
1	L2	All MCs	1	2.0	1	2.0	0.019	5.6	LOS A	0.1	0.5	0.11	0.51	0.11	32.2
2	T1	All MCs	21	2.0	21	2.0	0.019	4.3	LOS A	0.1	0.5	0.11	0.51	0.11	45.6
3	R2	All MCs	2	2.0	2	2.0	0.019	5.7	LOS A	0.1	0.5	0.11	0.51	0.11	40.0
Approach			24	2.0	24	2.0	0.019	4.5	LOS A	0.1	0.5	0.11	0.51	0.11	44.7
East: Webb St															
4	L2	All MCs	9	2.0	9	2.0	0.018	4.3	LOS A	0.1	0.5	0.06	0.43	0.06	42.5
5	T1	All MCs	8	2.0	8	2.0	0.018	0.0	LOS A	0.1	0.5	0.06	0.43	0.06	42.0
6	R2	All MCs	14	2.0	14	2.0	0.018	4.5	LOS A	0.1	0.5	0.06	0.43	0.06	41.3
Approach			32	2.0	32	2.0	0.018	3.3	NA	0.1	0.5	0.06	0.43	0.06	41.8
West: Webb St															
10	L2	All MCs	1	2.0	1	2.0	0.012	4.3	LOS A	0.0	0.3	0.05	0.22	0.05	45.9
11	T1	All MCs	14	2.0	14	2.0	0.012	0.0	LOS A	0.0	0.3	0.05	0.22	0.05	49.0
12	R2	All MCs	7	2.0	7	2.0	0.012	4.3	LOS A	0.0	0.3	0.05	0.22	0.05	45.3
Approach			22	2.0	22	2.0	0.012	1.6	NA	0.0	0.3	0.05	0.22	0.05	47.0
All Vehicles			78	2.0	78	2.0	0.019	3.2	NA	0.1	0.5	0.07	0.39	0.07	44.0

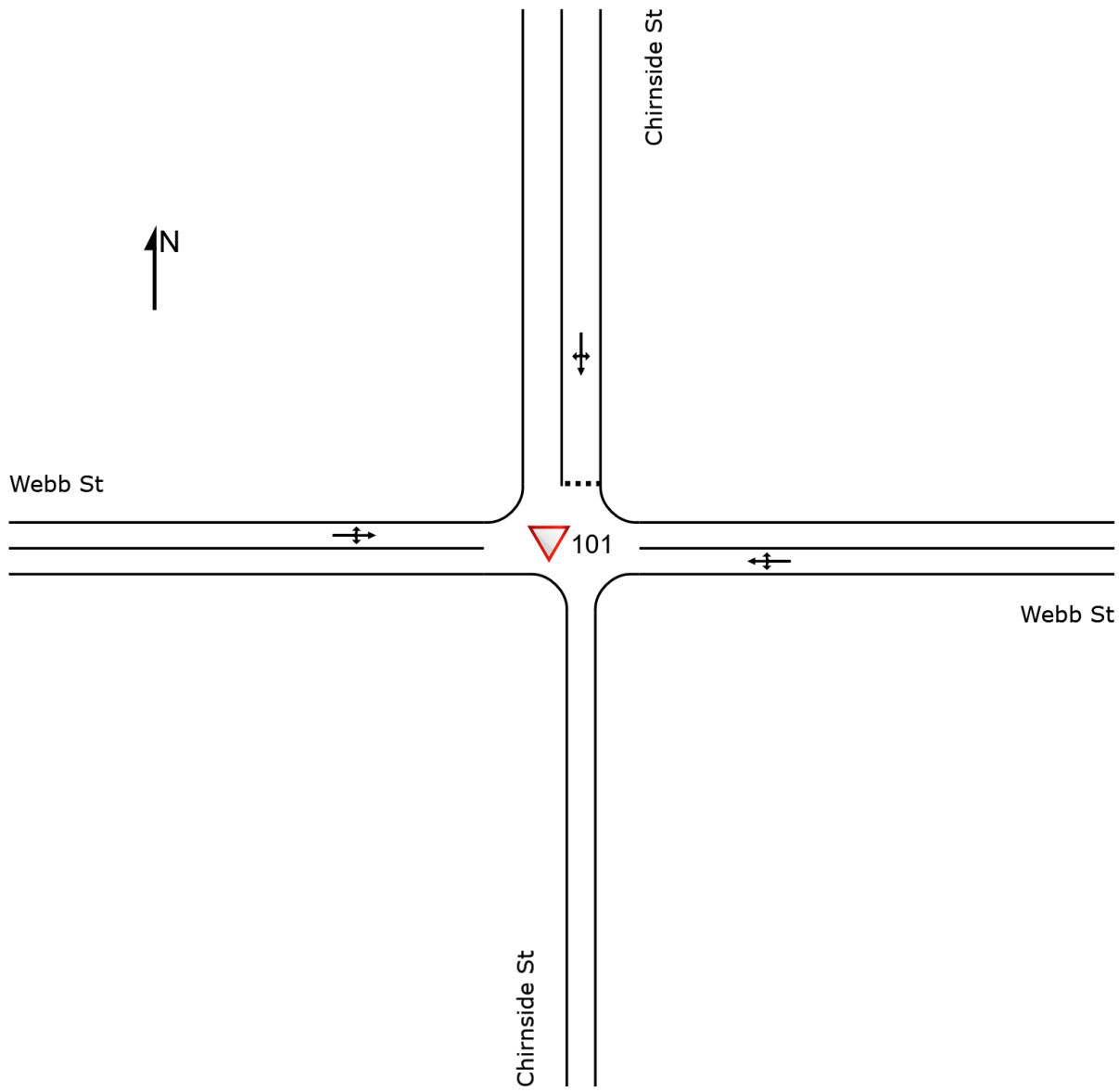
Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SITE LAYOUT

▼ Site: 101 [Chirnside St/Webb St Existing AM (Site Folder: Chirnside St/ Webb St)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



MOVEMENT SUMMARY

Site: 101 [Chirnside St/Webb St Existing AM (Site Folder: Chirnside St/ Webb St)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
East: Webb St															
4	L2	All MCs	15	2.0	15	2.0	0.017	4.3	LOS A	0.0	0.2	0.02	0.32	0.02	44.4
5	T1	All MCs	14	2.0	14	2.0	0.017	0.0	LOS A	0.0	0.2	0.02	0.32	0.02	45.7
6	R2	All MCs	3	2.0	3	2.0	0.017	4.3	LOS A	0.0	0.2	0.02	0.32	0.02	43.9
Approach			32	2.0	32	2.0	0.017	2.4	NA	0.0	0.2	0.02	0.32	0.02	44.7
North: Chirnside St															
7	L2	All MCs	2	2.0	2	2.0	0.028	5.6	LOS A	0.1	0.7	0.11	0.51	0.11	32.2
8	T1	All MCs	29	2.0	29	2.0	0.028	4.3	LOS A	0.1	0.7	0.11	0.51	0.11	45.6
9	R2	All MCs	3	2.0	3	2.0	0.028	5.6	LOS A	0.1	0.7	0.11	0.51	0.11	31.9
Approach			35	2.0	35	2.0	0.028	4.5	LOS A	0.1	0.7	0.11	0.51	0.11	43.6
West: Webb St															
10	L2	All MCs	5	2.0	5	2.0	0.010	4.3	LOS A	0.0	0.1	0.02	0.21	0.02	46.4
11	T1	All MCs	12	2.0	12	2.0	0.010	0.0	LOS A	0.0	0.1	0.02	0.21	0.02	50.0
12	R2	All MCs	1	2.0	1	2.0	0.010	4.5	LOS A	0.0	0.1	0.02	0.21	0.02	45.1
Approach			18	2.0	18	2.0	0.010	1.5	NA	0.0	0.1	0.02	0.21	0.02	48.0
All Vehicles			84	2.0	84	2.0	0.028	3.1	NA	0.1	0.7	0.06	0.38	0.06	44.5

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [Chirnside St/Webb St Existing PM (Site Folder: Chirnside St/ Webb St)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. Dist] veh m		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
East: Webb St															
4	L2	All MCs	19	2.0	19	2.0	0.018	4.3	LOS A	0.0	0.1	0.01	0.37	0.01	43.7
5	T1	All MCs	12	2.0	12	2.0	0.018	0.0	LOS A	0.0	0.1	0.01	0.37	0.01	44.5
6	R2	All MCs	2	2.0	2	2.0	0.018	4.3	LOS A	0.0	0.1	0.01	0.37	0.01	43.2
Approach			33	2.0	33	2.0	0.018	2.8	NA	0.0	0.1	0.01	0.37	0.01	43.9
North: Chirnside St															
7	L2	All MCs	1	2.0	1	2.0	0.022	5.6	LOS A	0.1	0.5	0.10	0.51	0.10	32.3
8	T1	All MCs	25	2.0	25	2.0	0.022	4.3	LOS A	0.1	0.5	0.10	0.51	0.10	45.8
9	R2	All MCs	1	2.0	1	2.0	0.022	5.6	LOS A	0.1	0.5	0.10	0.51	0.10	32.0
Approach			27	2.0	27	2.0	0.022	4.4	LOS A	0.1	0.5	0.10	0.51	0.10	44.7
West: Webb St															
10	L2	All MCs	1	2.0	1	2.0	0.006	4.4	LOS A	0.0	0.1	0.04	0.17	0.04	47.0
11	T1	All MCs	8	2.0	8	2.0	0.006	0.0	LOS A	0.0	0.1	0.04	0.17	0.04	51.3
12	R2	All MCs	2	2.0	2	2.0	0.006	4.5	LOS A	0.0	0.1	0.04	0.17	0.04	45.6
Approach			12	2.0	12	2.0	0.006	1.2	NA	0.0	0.1	0.04	0.17	0.04	49.0
All Vehicles			72	2.0	72	2.0	0.022	3.2	NA	0.1	0.5	0.05	0.39	0.05	44.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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.
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HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [Chirnside St/Webb St Proposed AM (Site Folder: Chirnside St/ Webb St)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			[Total HV]	%	[Total HV]	%	v/c	sec		[Veh. veh	Dist] m				km/h
East: Webb St															
4	L2	All MCs	15	2.0	15	2.0	0.017	4.3	LOS A	0.0	0.2	0.02	0.32	0.02	44.4
5	T1	All MCs	14	2.0	14	2.0	0.017	0.0	LOS A	0.0	0.2	0.02	0.32	0.02	45.7
6	R2	All MCs	3	2.0	3	2.0	0.017	4.3	LOS A	0.0	0.2	0.02	0.32	0.02	43.9
Approach			32	2.0	32	2.0	0.017	2.4	NA	0.0	0.2	0.02	0.32	0.02	44.7
North: Chirnside St															
7	L2	All MCs	2	2.0	2	2.0	0.031	5.6	LOS A	0.1	0.8	0.10	0.52	0.10	32.1
8	T1	All MCs	29	2.0	29	2.0	0.031	4.3	LOS A	0.1	0.8	0.10	0.52	0.10	45.4
9	R2	All MCs	7	2.0	7	2.0	0.031	5.6	LOS A	0.1	0.8	0.10	0.52	0.10	31.8
Approach			39	2.0	39	2.0	0.031	4.6	LOS A	0.1	0.8	0.10	0.52	0.10	42.2
West: Webb St															
10	L2	All MCs	5	2.0	5	2.0	0.009	4.3	LOS A	0.0	0.1	0.02	0.23	0.02	45.9
11	T1	All MCs	9	2.0	9	2.0	0.009	0.0	LOS A	0.0	0.1	0.02	0.23	0.02	49.0
12	R2	All MCs	1	2.0	1	2.0	0.009	4.5	LOS A	0.0	0.1	0.02	0.23	0.02	44.6
Approach			16	2.0	16	2.0	0.009	1.7	NA	0.0	0.1	0.02	0.23	0.02	47.1
All Vehicles			86	2.0	86	2.0	0.031	3.3	NA	0.1	0.8	0.06	0.39	0.06	43.5

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [Chirnside St/Webb St Proposed PM (Site Folder: Chirnside St/ Webb St)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh Dist] veh m		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
East: Webb St															
4	L2	All MCs	19	2.0	19	2.0	0.018	4.3	LOS A	0.0	0.1	0.01	0.37	0.01	43.7
5	T1	All MCs	12	2.0	12	2.0	0.018	0.0	LOS A	0.0	0.1	0.01	0.37	0.01	44.5
6	R2	All MCs	2	2.0	2	2.0	0.018	4.3	LOS A	0.0	0.1	0.01	0.37	0.01	43.2
Approach			33	2.0	33	2.0	0.018	2.8	NA	0.0	0.1	0.01	0.37	0.01	43.9
North: Chirnside St															
7	L2	All MCs	1	2.0	1	2.0	0.030	5.6	LOS A	0.1	0.7	0.10	0.52	0.10	32.1
8	T1	All MCs	27	2.0	27	2.0	0.030	4.3	LOS A	0.1	0.7	0.10	0.52	0.10	45.4
9	R2	All MCs	8	2.0	8	2.0	0.030	5.6	LOS A	0.1	0.7	0.10	0.52	0.10	31.8
Approach			37	2.0	37	2.0	0.030	4.6	LOS A	0.1	0.7	0.10	0.52	0.10	42.0
West: Webb St															
10	L2	All MCs	1	2.0	1	2.0	0.006	4.4	LOS A	0.0	0.1	0.05	0.19	0.05	46.6
11	T1	All MCs	7	2.0	7	2.0	0.006	0.0	LOS A	0.0	0.1	0.05	0.19	0.05	50.6
12	R2	All MCs	2	2.0	2	2.0	0.006	4.5	LOS A	0.0	0.1	0.05	0.19	0.05	45.3
Approach			11	2.0	11	2.0	0.006	1.4	NA	0.0	0.1	0.05	0.19	0.05	48.3
All Vehicles			80	2.0	80	2.0	0.030	3.5	NA	0.1	0.7	0.06	0.41	0.06	43.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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 (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
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Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.