Prepared for Sheppard Street Pty Ltd

Our reference: 18436T -REP01-F01

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Proposed Rezoning

3-5, 4, 6, 7, 8, 10 and 16-20 Sheppard Street, 2-4 and 6 Norris Street, part of 39A Shorts Road, and the former right of way abutting the western boundary of 11 Norris Street, Coburg North (the Land)

30 November 2021

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8 Gwynne Street Cremorne VIC 3121 ABN 93 983 380 225 Prepared for:

Sheppard Street Pty Ltd

Our reference 18436T -REP01-F01

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Appendix A	Public Transport Map
Appendix B	Bicycle Network Map
Appendix C	Existing Traffic Volumes
Appendix D	Post Development Traffic Volumes
Appendix E	SIDRA Results

Ratio Consultants Pty Ltd was commissioned by Sheppard Street Pty Ltd to review at a strategic level the traffic impacts of the proposed rezoning of the site 3-5, 4, 6, 7, 8, 10 and 16-20 Sheppard Street, 2-4 and 6 Norris Street, part of 39A Shorts Road, and the former right of way abutting the western boundary of 11 Norris Street, Coburg North (the Land).

Preliminary yield analysis indicates the development will comprise in the order of:

- 250-350 dwellings;
- Up to 650sqm of non-residential use;

This report has been prepared to address the traffic impacts of the proposed rezoning. It is based on surveys and observations in the vicinity of the site and on previous studies of similar developments elsewhere in Melbourne.

Further detailed transport analysis will be undertaken at the planning permit stage.

2.1 Location and Environment

The subject site is located on the south side of Shorts Road to the east of Hosken Reserve and accessed by both Sheppard Street and Norris Street. The site's location relative to the surrounding road network is shown in Figure 2.1, whilst an aerial view of the subject site and surrounds is provided in Figure 2.2.

Figure 2.1: Site Location



Source: Melways Edition 39

Figure 2.2: Aerial View of the Site and Surrounds



Source: www.landchecker.com.au

The Land is currently occupied by a number of industrial properties as discussed in more detail in Section 2.2 below.

There are eight existing crossovers to the Land, summarised as follows:

- Five crossovers to Sheppard Street.
- Three crossovers to Norris Street.

Surrounding land use is mixed in nature. To the north and east, land use comprises established residential land. To the immediate west is Hosken Reserve and Merlynston Tennis Centre, whilst to the south-west is the Australian International Academy. To the south, land use is primarily established industrial.

2.2 Existing Uses

The proposed rezoning will eventually see a replacement of the existing buildings and uses on the Land. A summary of the existing uses is outlined below, including an estimate of the floor area based on aerial photograph measurements.

- 3-5 Sheppard Street
- 7 Sheppard Street
- 16-20 Sheppard Street
- 10 Sheppard Street
- 8 Sheppard Street
- 6 Sheppard Street
- 4 Sheppard Street (Units 1-5)
- 2-4 & 6 Norris Street

Total Industry Total Warehouse Total Office ~1,149sqm industrial

~387sqm warehouse ~5,534sqm industrial

~245sqm warehouse

~245sqm warehouse

~284sgm warehouse

~850sqm office

~779sqm industrial

7,462sqm Industry 1,161sqm Warehouse 850sqm Office

2.3 Mobility Context

The site has excellent access to alternative transport modes as summarised below.

Public Transport Network – see Appendix A for map

The Land is partially located within the Principal Pubic Transport Network Area (PPTN Area), reflecting the site's excellent access to public transport options outlined below.

- Trains Merlynston Station is located a 500m (7 minute walk) to the north of the Land on the Upfield Rail Line, 27 minutes from the Melbourne CBD.
- **Trams** Tram Route 19 operates along Sydney Road, with the northern terminus located 800m (9 minute walk) from the Land.
- Buses Route 534 operates along Shorts Road, nearest stop 270m walk from the Land. Routes 530 and 531 operate along Sydney Road, with stops located 650m (7 minute walk) from the Land.

Pedestrian Movements

Pedestrian movements to and from the Land are well catered for, as summarised below.

- Existing pedestrian level crossing on Shorts Road, providing convenient connection to the Aldi Supermarket on Sydney Road (500m walk – 6 minute walk).
- Upfield Shared Path, 260m (3 minute walk) from the Land via the existing pedestrian level crossing at Shorts Road.
- Signalised crossing at Sydney Road, 260m (3 minute rwalk) from the Land via the existing pedestrian level crossing at Shorts Road

Figure 2.3: Pedestrian level crossing – Shorts Road looking west



Cycle Network – see Appendix B for map

Cyclists are well catered for in this area of Moreland, as summarised below.

- Upfield Shared User Path, 260m (3 minute walk) from the Land via the existing pedestrian level crossing at Shorts Road (Route 1 of the Cycle Moreland network). The Upfield Shared User Path runs for approximately 8km from Park Street, Brunswick to Box Forest Road in Hadfield. It accommodates 2,500 bicycle riders daily and connects key routes such as the Merri Creek Trail, Moonee Ponds Creek Trail and the Capital City Trail.
- The Upfield Shared User Path is currently being refurbished in the vicinity of the Land through the Safer Cyclist and Pedestrian Fund, which will improve safety for people walking and cycling on the Upfield Shared Path between the Western Ring Road in Fawkner and O'Hea Street in Coburg North. The upgrades will include new LED lighting and other refurbishments to fencing and linemarking.
- Merlynston to Pascoe Vale East-West Route (Route 12 of the Cycle Moreland network), accessed via Shorts Road where the route connects to Shorts Road via Lorenson Avenue.

Car Share

There is an existing car share pod located nearby at Merlynston Station operated by GoGet and there are a number of car share vehicles available through Car Next Door that are located within close walking distance.

Car share services provide users with a more sustainable means of car usage to private vehicle ownership.

Moreland Integrated Transport Strategy 2019

The Moreland Integrated Transport Strategy 2019 seeks to reduce car use by encouraging walking, cycling and public transport, so that limited road space and parking resources can be used by people who have the greatest need to drive. As outlined above, the Land is well located to meet the objectives of reduced car dependency given the site's excellent accessibility to alternative transport modes and amenities.

Figure 2.4: Moreland Travel Mode Share (All Trips)



Moreland Integrated Transport Strategy 2019

2.4 Existing Traffic Volumes

Turning movement data was collected on the surrounding road network in November 2019 by ML Traffic as part of a separate study. Notably, the data was collected prior to the Covid-19 pandemic, thereby representing 'normal' conditions. A summary of this data was provided and is included in Appendix C.

2.5 Parking Conditions

Due to the current Covid-19 pandemic, it was not possible to commission representative car parking surveys on the surrounding road network.

Kerbside parking on the surrounding local road network is typically unrestricted. There are some 'no parking' restrictions in place for the spaces on the eastern side of Sheppard Street.

Aerial photographs suggest that at times, there is substantial demand for the parking located along Sheppard Street adjacent to Hoskens Reserve which would appear to be associated with the Australian International Academy. With the exception of these areas, low levels of demand are typically observed on the local streets in the area.

2.6 Road Network

Shorts Road – is a local road operating east to west and provides connections to Sussex Street to the west and terminates at the pedestrian level crossing at its eastern end. Shorts Road continues to the east of the railway line where it becomes Keady Street to the east side of the signalised intersection with Sydney Road.

It has a carriageway width of approximately 7.5m, catering for two-way traffic and permits kerbside parking on both sides. There are some locations where kerbside parking is restricted between the hours of 4pm – 6pm to facilitate two-way passing opportunities. It carries the default speed limit of 50km/hr and provides constructed footpaths on both sides of the road.

Figure 2.5: Shorts Road, looking west



Norris Street – is a local road which provides access to a number of residential properties including part of the Land. It connects to Shorts Road and terminates at the southern end.

It has a carriageway width of approximately 7.2m and permits parking on both sides of the road. Constructed footpaths are provided on both sides of the road and carries the default speed limit of 50 km/hr.



Figure 2.6: Norris Street looking south towards its terminus

Sheppard Street - is a local road which provides access to a number of residential properties, the subject Land as well as the Hosken Reserve. It has a carriageway width of approximately 9.1m and permits kerbside parking on both sides of the road. It carries the default speed limit of 50 km/hr and has constructed footpaths on both sides of the road.

West of the 90-degree bend, approximately 85m south of its intersection with Shorts Road, Sheppard Street effectively enters Council owned land associated with Hosken Reserve and ceases to be a formal road but is nevertheless constructed and accessible. Within the Council owned section of Sheppard Street, it provides access to formal car parking spaces along its length as well as providing secondary access to 3-5 Sheppard Street and the Australian International Academy at the southern end (56 Bakers Road).

Figure 2.7 - Sheppard Street looking towards Shorts Road



Figure 2.8 - Sheppard Street – Within Council Land (Hoskens Reserve)





The Incorporated Plan prepared for the proposed rezoning divides the Land into five precincts and applies the Mixed Use Zone (Precinct 2, 3 and 4) and the General Residential Zone (Precincts 1 and 5), with heights varying between 3-5 storeys as illustrated in the figures below extracted from the Incorporated Plan.



Figure 3.1: Precinct and Interface Plan – as per Incorporated Plan





3.2 Yield Estimate

The rezoning will facilitate the following estimated development potential, which for the purposes of this assessment have been adopted:

- 250-350 dwellings;
- Up to 650 square metres of non-residential floor area.

3.3 Access

As per the Incorporated Plan, vehicle access to the Land will be via vehicle crossings from both Sheppard Street and Norris Street.

Precinct 3 Access Requirements

For Precinct 3, the Incorporated Plan notes that the development of the Land must provide:

- Access to and through the site for alternative modes of transport (e.g. walking and cycling), and
- Road infrastructure to ensure that service and emergency vehicles are able to attend the Land safely.

Compliance with this requirement will be achieved through either a Connector Road or Court Bowl layout, as detailed in the Table below. Either option is anticipated to require some modification to the public roads contained in Precincts 1 and 5, at the expense of the developer.

	Option	Road	Alternative Transport Link
Connector Road Option		The provision of a road to Council's satisfaction connecting Sheppard Street and Norris Street. The road should be either a public road or made permanently available for public use by an alternative means to the satisfaction of the responsible authority.	Provision of a walking and cycling link between the proposed public road and Hosken Reserve. The link should be open to the sky and should be either a public road or made permanently available for public use by an alternative means to the satisfaction of the responsible authority.
	Court Bowl Option Modifications to Sheppard Street and Norris Street to allow vehicles, including service and emergency vehicles, to turn within a public road at the termination of each street.		Provision of walking and cycling links connecting Sheppard Street, Norris Street and Hosken Reserve. The links should be open to the sky and should be either public roads or made permanently available for public use by an alternative means to the satisfaction of the responsible authority.

Table 3.1: Access Options for Precinct 3 – as per Incorporated Plan

As per the Incorporated Plan, the proposed road and alternative transport links will form part of the public realm in assessment of a planning application. They will be designed to provide a high level of amenity and safety and include:

- Alternative transport link widths as depicted in the figure below.
- Landscaping, including tree planting, that supports the amenity, attractiveness and safety of the public.

- Use of soft and hard landscaping treatments to imply boundaries between the link/s and adjoining private spaces.
- Lighting; and
- Passive surveillance from living areas and non-residential uses at the ground floor.

Figure 3.2: Alternative Transport Link Section – as per Incorporated Plan





4.1 Clause 52.06 Parking Requirements

Parking requirements for development, including a new use on an existing site, are outlined under Clause 52.06 of the Moreland Planning Scheme. The purpose of Clause 52.06 is defined in the Planning Scheme as follows:

- To ensure that car parking is provided in accordance with the Municipal Planning Strategy and the Planning Policy Framework.
- To ensure the provision of an appropriate number of car parking spaces having regard to the demand likely to be generated, the activities on the land and the nature of the locality.
- To support sustainable transport alternatives to the motor car.
- To promote the efficient use of car parking spaces through the consolidation of car parking facilities.
- To ensure that car parking does not adversely affect the amenity of the locality.
- To ensure that the design and location of car parking is of a high standard, creates a safe environment for users and enables easy and efficient use.

As per Amendment VC148, Column B rates of Table 1 from Clause 52.06 of the Planning Scheme apply if:

- Any part of the land is identified as being within the Principal Public Transport Network Area as shown in the Principal Public Transport Network Area Maps (State Government of Victoria, 2018); or
- A Schedule to the Parking Overlay or another provision of the planning scheme specifies that Column B applies.

Most of the Land falls within the Principle Public Transport Network Area (PPTN Area), where the Column B rates of Table 1 in Clause 52.06 are applicable for the statutory number of car spaces to be provided for various uses. The properties at 7 Sheppard Street, 10 Sheppard Street fall outside the PPTN Area, and therefore attract the Column A rates of Clause 52.06). The statutory car parking requirements for uses relevant to the proposed rezoning are detailed in Table 4.1 and Table 4.2 respectively.

Use	Requirement	
Dwellings /	1 space to each one or two bedroom dwelling	
Retirement Village / Residential	2 spaces to each three or more bedroom dwelling (with studies or studios that are separate rooms counted as bedrooms)	
Village	0 spaces for visitors	
Shop	3.5 spaces to each 100 sqm of leasable floor area	
Office	3.0 spaces to each 100sqm of net floor area	
Food and Drink Premises	3.5 spaces to each 100sqm of leasable floor area	

Table 4.1: Clause 52.06 Parking Requirements – Column B rates (sample)

Table 4.2: Clause 52.06 Parking Requirements – Column A rates (sample) Applicable to Nos. 7 and 10 Sheppard Street only

Use	Requirement	
Dwellings / Retirement Village / Residential Village	1 space to each one or two bedroom dwelling	
	2 spaces to each three or more bedroom dwelling (with studies or studios that are separate rooms counted as bedrooms)	
	1 spaces for visitors for each 5 dwellings	
Shop	4 spaces to each 100 sqm of leasable floor area	
Office	3.5 spaces to each 100sqm of net floor area	
Food and Drink Premises	4 spaces to each 100sqm of leasable floor area	

Under Clause 52.06-6 of the Planning Scheme, the Responsible Authority is able to reduce the parking requirements (including to zero), provided the permit applicant satisfies the responsible authority that the provision of car parking is justified on the basis of:

- The car parking demand likely to be generated by the use;
- Whether it is appropriate to allow fewer spaces to be provided than the number likely to be generated by the use.

The rezoning does not seek to adopt alternative parking provision rates to the relevant rates contained in Clause 52.06 of the Planning Scheme. The parking provision for each permit application will be considered on its merits. Notwithstanding, the Land is a suitable candidate to support a reduced level of parking provision:

- Local and State policy seek reduced car dependency, particularly for those areas well located to alternative transport modes.
- The Land is within walking distance to numerous public transport options including train, tram and bus.
- The Land has good pedestrian connectivity to public transport and amenities such as supermarkets and recreational areas.
- The area features dedicated on and off-road cycle infrastructure that supports cycling to and from the Land.
- There are car share services operating within walking distance for those that require use of a vehicle from time to time.
- The ABS Census car ownership data (below) indicates that apartment style dwellings in the vicinity of the site have car parking ownership well below the statutory requirements indicating an ability for apartment residents to live in the area without a vehicle.

Table 4.3: ABS Car Ownership data

	Average Car Ownership - apartments		
Area	One bedroom	Two Bedroom	Three Bedroom
Coburg North	0.39	0.68	Insufficient data
Moreland	0.37	1.01	1.27
Average	0.38	0.84	0.89

Green Travel Plan

It is recommended that a Green Travel Plan be prepared as part of any town planning application seeking a reduction to the statutory parking requirements. Green Travel Plans act to further encourage utilisation of the wide availability of sustainable transport alternatives and subsequently reduce parking demands and traffic generation associated with development.



5.1 Clause 52.34 Parking Requirements

The provisions set out under Clause 52.34-3 (Bicycle Facilities) of the Moreland Planning Scheme require that bicycle parking for the relevant uses be provided at the rates shown in Table 5.1. Clause 52.34-3 also requires that showers and change rooms are provided in accordance with the rates in Table 5.2.

			• • • • • • • • • • • • • • • • • •
i able 5.1: Blc	ycie Parking	g Statutory	Requirements

Use	Requirement	
Dwellings	In developments of four or more storeys, 1 to each 5 dwellings for residents	
	In developments of four or more storeys, 1 to each 10 dwellings for visitors	
Shop	1 to each 600 sqm of leasable floor area for employees if the leasable floor area exceeds 1,000 sqm	
	1 to each 500 sqm of leasable floor area for shoppers if the leasable floor area exceeds 1,000 sqm	
Retail	1 to each 600 sqm of leasable floor area for employees if the leasable floor area exceeds 1,000 sqm	
	1 to each 500 sqm of leasable floor area for shoppers if the leasable floor area exceeds 1,000 sqm	
Office	1 to each 300 sqm of net floor area for employees if the net floor area exceeds 1,000 sqm	
Onice	1 to each 1,000 sqm of net floor area for visitors if the net floor area exceeds 1,000 sqm	

Table 5.2: Employee Shower and Change Room Statutory Requirements

Component	Employee Requirement	
Showers	If 5 or more employee bicycle spaces are required, 1 shower for the first 5 employee bicycle spaces, plus 1 to each 10 employee bicycle spaces thereafter.	
Change Rooms	1 change room or direct access to a communal change room to each shower. The change room may be a combined shower and change room.	

5.2 Moreland Apartment Design Code

Amendment C142 was incorporated into the Moreland Planning Scheme in November 2017. The amendment introduced the Moreland Apartment Design Code (MADC) into the Planning Scheme with an aim to improve the quality of development of five or more storeys in Moreland by providing a set of objectives, standards and decision guidelines.

Of particular relevance to this assessment, Table D.2.9.1 of the MADC lists bicycle parking requirements for dwelling, office and shop land uses. It is noted that the 'Retail' land use is not listed within Table D.2.9.1. For such an instance, it is assumed that the bicycle parking requirement reverts to the Clause 52.34 requirement.

The bicycle parking requirements of the proposal under the MADC are subsequently detailed within Table 5.3.



Table 5.3: Bicycle Parking Requirements	- Moreland Apartment Design Code
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Use	Rate
Duuellingo	1 space per studio and 1-bedroom dwelling
Dwenings	2 spaces per 2+ bedroom dwelling
	1 employee space per 200 square metres gross floor area
Office	1 visitor space per 750 square metres over 1,000sqm
Dista il	1 to each 300 square metres of leasable floor area for staff
Ketali	1 to each 500 square metres of leasable floor area for shoppers

Bicycle facilities for permit applications on the Land shall be assessed against the relevant rates outlined in either Clause 52.34 (for residential applications less than five storeys) or MADC (for residential applications greater than five storeys).

6.1 Clause 65.01 Loading Requirements

Clause 65.01 of Planning Scheme outlines the decision guidelines for the approval of an application or a plan stating the following:

"Before deciding on an application or approval of a plan, the responsible authority must consider, as appropriate:

• The adequacy of loading and unloading facilities and any associated amenity, traffic flow and road safety impacts."

The loading and unloading facilities of any permit application associated with the Land shall be considered against the above guidelines. Typically, loading activities for the scale and type of development estimated are either undertaken on-street or on-site for small waste collection vehicles and vans.

7.1 Traffic Generation

Residents

In consideration of the locality of the site, it is conservatively estimated that the 350 dwellings assumed for the residential component of the development will generate traffic at a rate of 5 daily vehicle movements per dwelling, inclusive of 0.5 peak hour vehicle movements per dwelling during the AM and PM peak hours.

Applying the above rates results in an anticipated daily traffic volume of 1,750 daily vehicle movements, including an anticipated 175 peak hour residential vehicle movements during the AM and PM peak hours.

Non-residential

For the up to 650sqm of non-residential uses contemplated as part of the rezoning, a peak hour traffic generation rate of 2.5 vehicle movements per 100sqm has been assumed, which is considered to be at the upper end of what could be generated, and is based on an office use. A retail or food and drink use outcome would generate much less traffic than this. Applying the rate of 2.5 vehicle movements per 100sqm equates to 16 peak hour non-residential vehicle movements during the AM and PM peak hours.

Inbound / Outbound Split

For residential activities, traffic generation during the AM peak hour typically comprises 20% inbound movements and 80% outbound movements whilst traffic generation during the PM peak hour typically comprises 70% inbound movements and 30% outbound movements.

Non-residential activities typically show a different pattern, with employees arriving in the AM peak and departing in the PM peak, and business trips being made to and from the site throughout the day. It is assumed that in the AM peak, 60% of trips will be inbound / 40% outbound and in the PM peak, 40% inbound / 60% outbound.

Further, based on the spatial arrangement of the Land, it is assumed that 20% of traffic movements will be generated to Norris Street, whilst the remaining majority (80%) will be generated on Sheppard Street.

Table 7.1: Anticipated Traffic Generation

Lagation	AM Peak			PM Peak			
Location	IN	OUT	Total	IN	OUT	Total	
To Norris Street	9	29	38	26	12	38	
To Sheppard Street	36	117	153	103	50	153	
Total	45	147	191	129	62	191	

7.2 Traffic Distribution

Based on a review of the surrounding road network, likely trip destinations and origins and an analysis of existing traffic movement patters, the following trip distribution has been assumed

- 40% of traffic is to/from the north, including:
 - 16% to Boundary Road via Galeka Street; and
 - 24% to Boundary Road via Merlyn Street and Lorenson Avenue.
- 15% of traffic is to/from the west, including:
 - 5% via Sussex Street;
 - 10% using Boundary Road via Galeka Street;
- 15% of traffic is to/from the south-west:
 - 9% via Shorts Road and Sussex Street
 - 6% via Pallet Street and Bakers Road
- 30% of traffic is to/from the south-east:
 - 30% via Shorts Road and Bakers Road

A diagram illustrating the estimated post development traffic volumes on the surrounding road network consistent with the assumptions above is contained at Appendix D.

7.3 Traffic Impact

In order to assess the impact of the proposal, post development conditions at the following key intersections have been modelled using 'Sidra Intersection' analysis software.

- 1. Pallet Street / Bakers Road
- 2. Shorts Road / Pallet Street / Galeka Street
- 3. Sussex Street / Shorts Road
- 4. Shorts Road / Sheppard Street
- 5. Shorts Road / Norris Street / Lorensen Avenue
- 6. Lorenson Avenue / Orvieto Street / Merlyn Street
- 7. Boundary Road / Merlyn Street

Figure 7.1: Analysed Intersections



The parameters used to assess the intersections are summarised below.

Degree of Saturation (D.O.S.) is a ratio of arrival (or demand) flow to capacity. Degrees of saturation above 1.00 represent oversaturated conditions and degrees of saturation below 1.00 represent under saturated conditions. At priority-controlled intersections, D.O.S for the intersection is taken as the worst D.O.S on any approach road.

The relationship between D.O.S and a qualitative description of intersection performance is summarised in Table 7.2.

Degree of Saturation (D.O.S)	Rating
Up to 0.6	Excellent
0.61 to 0.70	Very Good
0.71 to 0.80	Good
0.81 to 0.90	Fair
0.91 to 1.00	Poor
Greater than 1	Very poor

Table 7.2: Degree of Saturation Ratings¹

Worst Movement Delay is the average time, in seconds, that vehicles can be expected to wait at an intersection on the worst movement at the intersection.

Level of Service (L.O.S) ratings based on average delay are detailed in Table 7.3.

Table 7.3: Level of Service Definitions Based on Average Delay²

Average Delay (seconds/vehicle)	Level of Service (L.O.S)	Rating
Up to 10	А	Excellent
10.1 to 15	В	Very Good
15.1 to 25	С	Good
25.1 to 35	D	Fair
35.1 to 50	Е	Poor
Greater than 50	F	Very poor

7.4 SIDRA Results

The existing conditions (Base Case) and post development results are presented in Table 7.4 and Table 7.5 below for the AM and PM Peak periods respectively. Detailed results are provided in Appendix E.

It is noted that no discount was made for the removal of any existing traffic volumes associated with the Land. The analysis simply added the

¹ Table 8.2.5, Sidra Intersection User Guide (August 2019)

² Table 5.14.1, Sidra Intersection User Guide (August 2019)

development traffic to the recorded volumes. The analysis approach is therefore conservative.

	Base Cas	se Conditio	ons*	Post Development Conditions			
Intersection	D.O.S.	L.O.S	Worst Movement Delay (s)	D.O.S.	L.O.S	Worst Movement Delay (s)	
Pallett St / Bakers Rd	0.159	А	9.2	0.213	А	9.8	
Shorts Rd/Pallett St / Galeka St	0.064	A	5.1	0.124	A	5.3	
Sussex St / Shorts Rd	0.358	А	7.9	0.360	А	7.9	
Shorts Rd / Sheppard St	0.049	А	4.7	0.090	А	4.8	
Shorts Rd / Norris St / Lorensen Ave	0.056	A	4.7	0.065	A	4.8	
Lorensen Ave / Orvieto St / Merlyn St	0.087	0.087 A 4.8		0.095	A	4.9	
Boundary Rd / Merlyn St	0.536	С	17.3	0.546	С	20.2	

Table 7.4: SIDRA Results - Base Case / Post Development Comparison - AM Peak

Table 7.5: SIDRA Results – Base Case / Post Development Comparison – PM Peak

	Base Cas	se Condit	ions*	Post Development Conditions			
Intersection	D.O.S.	L.O.S	Worst Movement Delay (s)	D.O.S.	L.O.S	Worst Movement Delay (s)	
Pallett St / Bakers Rd	0.137	А	8.2	0.158	А	8.7	
Shorts Rd/Pallett St / Galeka St	0.071	А	4.8	0.107	А	5.0	
Sussex St / Shorts Rd	0.368	А	6.5	0.377	A	6.6	
Shorts Rd / Sheppard St	0.020	А	4.7	0.068	A	4.8	
Shorts Rd / Norris St / Lorensen Ave	0.023	А	4.7	0.043	A	4.7	
Lorensen Ave / Orvieto St / Merlyn St	0.034	A	4.7	0.055	А	4.8	
Boundary Rd / Merlyn St	0.419	В	12.2	0.425	В	13.0	

A review of the results indicates that all of the intersections analysed are modelled to experience only minimal increases to delays, and do not experience any change to their current Level of Service (L.O.S). This reflects a modest total increase in traffic volume, distributed across the multiple approach and departure routes that are available to and from the site. With all modelled intersections already operating at 'good' or better, these small changes are not enough to move any of the intersections out of their existing L.O.S bands. Furthermore, the L.O.S at each of the intersections analysed are and continue to be no worse than L.O.S C, representing 'good' conditions which is for the Boundary Road / Merlyn Street intersection. All other intersections are modelled to operate at L.O.S A, representing 'excellent' operating conditions.

The changes in the worst movement delay at each of the intersections analysed do not exceed three seconds, meaning there will not be a discernible change to the operating conditions on the surrounding road network as result the increase in traffic resulting from the rezoning of the Land.

In the base case, all modelled intersections have a D.O.S that is less than 0.6, reflecting excellent operating conditions. This remains the case in the post-development scenario, with the highest D.O.S for any intersection being 0.546.



It is proposed to rezone the subject site to Mixed Use Zone (MUZ) and General Residential Zone 1 (GRZ1). The proposed rezoning will result in the order of 250-350 dwellings, with up to 650sqm ground floor non-residential uses.

The proposal will include an active walking and cycling link through the site to Hosken Reserve, with primary vehicle access provided via Sheppard Street and Norris Street.

Based on the assessment undertaken above, it is concluded as follows:

- The site is well located to support the adoption of more sustainable transport modes, this being one of the key objectives of the Moreland Integrated Strategy and local and state policy objectives.
- A reduced level of parking to the statutory parking requirements can be supported on the subject Land, subject to a considered assessment at the permit application stage.
- Bicycle parking and end of trip facilities shall be provided in accordance with the statutory requirements as a minimum.
- Loading activities could be catered for either on-street or on-site.
- The traffic anticipated to be generated by the proposal can be readily accommodated by the existing road network. The analysis suggests the modelled increase in traffic will not have a discernible impact to the operation of the surrounding road network.

Appendix A Public Transport Map





Appendix B Bicycle Network Map





Appendix C Existing Traffic Volumes







Appendix D Post Development Traffic Volumes





Appendix E SIDRA Results



∇ Site: 101 [Pallett/Bakers AM Ex]

New Site Site Category: (None) Giveway / Yield (Two-Way)



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∇ Site: 101 [Shorts/Pallett/Galeka AM Ex]

New Site Site Category: (None) Giveway / Yield (Two-Way)



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▽ Site: 101 [Sussex/Shorts AM Dev]

New Site Site Category: (None) Giveway / Yield (Two-Way)



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∇ Site: 101 [Shorts/Sheppard AM Ex]

New Site Site Category: (None) Giveway / Yield (Two-Way)



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∇ Site: 101 [Shorts/Norris/Lorensen AM Ex]

New Site Site Category: (None) Giveway / Yield (Two-Way)



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▽ Site: 101 [Lorensen/Orvieto/Merlyn AM Ex]

New Site Site Category: (None) Giveway / Yield (Two-Way)



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∇ Site: 101 [Boundary/Merlyn AM Ex]

New Site Site Category: (None) Giveway / Yield (Two-Way)



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♥ Site: 101 [Pallett/Bakers AM Ex]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Movement Performance - Vehicles													
Mov ID	Turn	Demand F Total veh/h	lows HV %_	Deg. Satn v/ <u>c</u>	Average Delay se <u>c</u>	Level of Service	95% Back Vehicles veh	of Queue Distance <u>m</u>	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/ <u>h</u>	
South	: Pallett :	Street (Sout	h)										
1	L2	2	5.0	0.034	5.4	LOS A	0.1	0.8	0.51	0.68	0.51	44.6	
2	T1	6	5.0	0.034	6.7	LOS A	0.1	0.8	0.51	0.68	0.51	44.8	
3	R2	13	5.0	0.034	9.2	LOS A	0.1	0.8	0.51	0.68	0.51	44.4	
Appro	ach	21	5.0	0.034	8.1	LOS A	0.1	0.8	0.51	0.68	0.51	44.5	
East:	Bakers F	Road (East)											
4	L2	24	5.0	0.120	4.6	LOS A	0.0	0.0	0.00	0.06	0.00	49.1	
5	T1	199	5.0	0.120	0.0	LOS A	0.0	0.0	0.00	0.06	0.00	49.6	
6	R2	109	5.0	0.061	5.4	LOS A	0.3	2.3	0.40	0.56	0.40	45.3	
Appro	ach	333	5.0	0.120	2.1	NA	0.3	2.3	0.13	0.22	0.13	48.1	
North:	Pallett S	Street (North	ı)										
7	L2	167	5.0	0.158	6.1	LOS A	0.7	5.4	0.44	0.61	0.44	45.5	
8	T1	2	5.0	0.158	7.3	LOS A	0.7	5.4	0.44	0.61	0.44	45.7	
9	R2	7	5.0	0.158	8.4	LOS A	0.7	5.4	0.44	0.61	0.44	45.3	
Appro	ach	177	5.0	0.158	6.2	LOS A	0.7	5.4	0.44	0.61	0.44	45.5	
West:	Bakers I	Road (West)											
10	L2	12	5.0	0.159	4.6	LOS A	0.0	0.0	0.00	0.02	0.00	49.3	
11	T1	287	5.0	0.159	0.0	LOS A	0.0	0.0	0.00	0.02	0.00	49.9	
12	R2	2	5.0	0.001	5.1	LOS A	0.0	0.0	0.33	0.49	0.33	45.4	
Appro	ach	301	5.0	0.159	0.2	NA	0.0	0.0	0.00	0.02	0.00	49.8	
All Ve	hicles	832	5.0	0.159	2.5	NA	0.7	5.4	0.16	0.25	0.16	48.0	

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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

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

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♥ Site: 101 [Pallett/Bakers AM Dev]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand F Total veh/h	Flows HV %	Deg. Satn v/ <u>c</u>	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/ <u>h</u>
South	: Pallett	Street (Sout	h)									
1	L2	2	5.0	0.036	5.4	LOS A	0.1	0.9	0.52	0.70	0.52	44.4
2	T1	6	5.0	0.036	6.9	LOS A	0.1	0.9	0.52	0.70	0.52	44.6
3	R2	13	5.0	0.036	9.8	LOS A	0.1	0.9	0.52	0.70	0.52	44.2
Appro	ach	21	5.0	0.036	8.5	LOS A	0.1	0.9	0.52	0.70	0.52	44.3
East: I	Bakers I	Road (East)										
4	L2	24	5.0	0.120	4.6	LOS A	0.0	0.0	0.00	0.06	0.00	49.1
5	T1	199	5.0	0.120	0.0	LOS A	0.0	0.0	0.00	0.06	0.00	49.6
6	R2	123	5.0	0.069	5.4	LOS A	0.4	2.7	0.41	0.57	0.41	45.3
Appro	ach	346	5.0	0.120	2.3	NA	0.4	2.7	0.14	0.24	0.14	48.0
North:	Pallett	Street (North	ı)									
7	L2	214	5.0	0.213	6.2	LOS A	1.0	7.5	0.46	0.63	0.46	45.5
8	T1	2	5.0	0.213	7.7	LOS A	1.0	7.5	0.46	0.63	0.46	45.7
9	R2	17	5.0	0.213	8.7	LOS A	1.0	7.5	0.46	0.63	0.46	45.3
Appro	ach	233	5.0	0.213	6.4	LOS A	1.0	7.5	0.46	0.63	0.46	45.5
West:	Bakers	Road (West))									
10	L2	15	5.0	0.160	4.6	LOS A	0.0	0.0	0.00	0.03	0.00	49.3
11	T1	287	5.0	0.160	0.0	LOS A	0.0	0.0	0.00	0.03	0.00	49.8
12	R2	2	5.0	0.001	5.1	LOS A	0.0	0.0	0.33	0.49	0.33	45.4
Appro	ach	304	5.0	0.160	0.3	NA	0.0	0.0	0.00	0.03	0.00	49.8
All Vel	nicles	904	5.0	0.213	2.8	NA	1.0	7.5	0.19	0.28	0.19	47.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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

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

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▽ Site: 101 [Pallett/Bakers PM Ex]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand F Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South	: Pallett	Street (Sout	h)									
1	L2	2	5.0	0.050	5.4	LOS A	0.2	1.3	0.50	0.69	0.50	44.7
2	T1	3	5.0	0.050	5.9	LOS A	0.2	1.3	0.50	0.69	0.50	44.9
3	R2	28	5.0	0.050	8.2	LOS A	0.2	1.3	0.50	0.69	0.50	44.5
Appro	ach	34	5.0	0.050	7.8	LOS A	0.2	1.3	0.50	0.69	0.50	44.6
East:	Bakers	Road (East)										
4	L2	15	5.0	0.111	4.6	LOS A	0.0	0.0	0.00	0.04	0.00	49.2
5	T1	193	5.0	0.111	0.0	LOS A	0.0	0.0	0.00	0.04	0.00	49.8
6	R2	128	5.0	0.063	5.0	LOS A	0.3	2.5	0.30	0.53	0.30	45.5
Appro	ach	336	5.0	0.111	2.1	NA	0.3	2.5	0.11	0.23	0.11	48.0
North:	Pallett	Street (North	ı)									
7	L2	167	5.0	0.137	5.4	LOS A	0.7	4.8	0.32	0.54	0.32	45.8
8	T1	2	5.0	0.137	6.3	LOS A	0.7	4.8	0.32	0.54	0.32	46.0
9	R2	7	5.0	0.137	7.4	LOS A	0.7	4.8	0.32	0.54	0.32	45.6
Appro	ach	177	5.0	0.137	5.4	LOS A	0.7	4.8	0.32	0.54	0.32	45.8
West:	Bakers	Road (West))									
10	L2	9	5.0	0.091	4.6	LOS A	0.0	0.0	0.00	0.03	0.00	49.2
11	T1	162	5.0	0.091	0.0	LOS A	0.0	0.0	0.00	0.03	0.00	49.8
12	R2	2	5.0	0.001	5.1	LOS A	0.0	0.0	0.32	0.48	0.32	45.4
Appro	ach	174	5.0	0.091	0.3	NA	0.0	0.0	0.00	0.04	0.00	49.7
All Ve	hicles	720	5.0	0.137	2.8	NA	0.7	4.8	0.16	0.28	0.16	47.7

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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

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

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▽ Site: 101 [Pallett/Bakers PM Dev]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov	Turn	Demand F	lows ਮੁਪ	Deg. Sata	Average	Level of	95% Back	of Queue	Prop.	Effective Stop Rate	Aver. No.	Average Speed
		veh/h	%	V/C	Sec	Ocivice	venicies	m	Queueu		Cycles	km/h
South	: Pallett :	Street (Sout	h)									
1	L2	2	5.0	0.053	5.4	LOS A	0.2	1.3	0.52	0.71	0.52	44.5
2	T1	3	5.0	0.053	6.2	LOS A	0.2	1.3	0.52	0.71	0.52	44.7
3	R2	28	5.0	0.053	8.7	LOS A	0.2	1.3	0.52	0.71	0.52	44.3
Appro	ach	34	5.0	0.053	8.3	LOS A	0.2	1.3	0.52	0.71	0.52	44.3
East:	Bakers F	Road (East)										
4	L2	15	5.0	0.111	4.6	LOS A	0.0	0.0	0.00	0.04	0.00	49.2
5	T1	193	5.0	0.111	0.0	LOS A	0.0	0.0	0.00	0.04	0.00	49.8
6	R2	169	5.0	0.084	5.1	LOS A	0.5	3.4	0.31	0.53	0.31	45.5
Appro	ach	377	5.0	0.111	2.5	NA	0.5	3.4	0.14	0.26	0.14	47.7
North:	Pallett S	Street (North	ı)									
7	L2	187	5.0	0.158	5.4	LOS A	0.8	5.6	0.32	0.54	0.32	45.8
8	T1	2	5.0	0.158	6.7	LOS A	0.8	5.6	0.32	0.54	0.32	46.0
9	R2	12	5.0	0.158	7.8	LOS A	0.8	5.6	0.32	0.54	0.32	45.6
Appro	ach	201	5.0	0.158	5.5	LOS A	0.8	5.6	0.32	0.54	0.32	45.8
West:	Bakers I	Road (West))									
10	L2	18	5.0	0.096	4.6	LOS A	0.0	0.0	0.00	0.05	0.00	49.1
11	T1	162	5.0	0.096	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	49.7
12	R2	2	5.0	0.001	5.1	LOS A	0.0	0.0	0.32	0.48	0.32	45.4
Appro	ach	182	5.0	0.096	0.5	NA	0.0	0.0	0.00	0.06	0.00	49.6
All Ve	hicles	794	5.0	0.158	3.0	NA	0.8	5.6	0.17	0.31	0.17	47.5

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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

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

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▽ Site: 101 [Shorts/Pallett/Galeka AM Ex]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Move	Movement Performance - Vehicles												
Mov ID	Turn	Demand F Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h	
South	: Pallett :	Street (Sout	h)										
1	L2	32	3.0	0.063	4.8	LOS A	0.2	1.6	0.17	0.53	0.17	46.3	
2	T1	17	3.0	0.063	3.6	LOS A	0.2	1.6	0.17	0.53	0.17	46.4	
3	R2	48	3.0	0.063	5.1	LOS A	0.2	1.6	0.17	0.53	0.17	45.9	
Appro	ach	97	3.0	0.063	4.7	LOS A	0.2	1.6	0.17	0.53	0.17	46.1	
East:	Shorts R	oad (East)											
4	L2	44	3.0	0.064	4.6	LOS A	0.1	0.4	0.03	0.23	0.03	48.1	
5	T1	68	3.0	0.064	0.0	LOS A	0.1	0.4	0.03	0.23	0.03	48.6	
6	R2	7	3.0	0.064	4.8	LOS A	0.1	0.4	0.03	0.23	0.03	47.6	
Appro	ach	120	3.0	0.064	2.0	NA	0.1	0.4	0.03	0.23	0.03	48.4	
North:	Galeka	Street (Nort	h)										
7	L2	3	3.0	0.043	4.8	LOS A	0.1	0.9	0.20	0.50	0.20	46.8	
8	T1	47	3.0	0.043	3.6	LOS A	0.1	0.9	0.20	0.50	0.20	46.8	
9	R2	11	3.0	0.043	5.0	LOS A	0.1	0.9	0.20	0.50	0.20	46.3	
Appro	ach	61	3.0	0.043	3.9	LOS A	0.1	0.9	0.20	0.50	0.20	46.8	
West:	Shorts F	Road (West)											
10	L2	4	3.0	0.060	4.8	LOS A	0.2	1.6	0.17	0.22	0.17	47.8	
11	T1	68	3.0	0.060	0.2	LOS A	0.2	1.6	0.17	0.22	0.17	48.3	
12	R2	45	3.0	0.060	4.9	LOS A	0.2	1.6	0.17	0.22	0.17	47.3	
Appro	ach	118	3.0	0.060	2.1	NA	0.2	1.6	0.17	0.22	0.17	47.9	
All Ve	hicles	396	3.0	0.064	3.0	NA	0.2	1.6	0.13	0.34	0.13	47.4	

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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

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

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▽ Site: 101 [Shorts/Pallett/Galeka AM Dev]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand F Total veh/h	lows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South	: Pallett	Street (Sout	h)									
1	L2	32	3.0	0.079	4.9	LOS A	0.3	2.0	0.21	0.55	0.21	46.2
2	T1	17	3.0	0.079	3.8	LOS A	0.3	2.0	0.21	0.55	0.21	46.3
3	R2	65	3.0	0.079	5.3	LOS A	0.3	2.0	0.21	0.55	0.21	45.8
Appro	ach	114	3.0	0.079	5.0	LOS A	0.3	2.0	0.21	0.55	0.21	46.0
East:	Shorts F	Road (East)										
4	L2	100	3.0	0.124	4.7	LOS A	0.3	2.4	0.10	0.31	0.10	47.4
5	T1	89	3.0	0.124	0.1	LOS A	0.3	2.4	0.10	0.31	0.10	47.9
6	R2	48	3.0	0.124	4.8	LOS A	0.3	2.4	0.10	0.31	0.10	46.9
Appro	ach	238	3.0	0.124	3.0	NA	0.3	2.4	0.10	0.31	0.10	47.5
North:	Galeka	Street (Nort	h)									
7	L2	16	3.0	0.052	4.8	LOS A	0.2	1.2	0.20	0.51	0.20	46.7
8	T1	47	3.0	0.052	3.9	LOS A	0.2	1.2	0.20	0.51	0.20	46.7
9	R2	11	3.0	0.052	5.1	LOS A	0.2	1.2	0.20	0.51	0.20	46.2
Appro	ach	74	3.0	0.052	4.3	LOS A	0.2	1.2	0.20	0.51	0.20	46.7
West:	Shorts	Road (West)										
10	L2	4	3.0	0.065	5.0	LOS A	0.2	1.8	0.23	0.21	0.23	47.7
11	T1	75	3.0	0.065	0.3	LOS A	0.2	1.8	0.23	0.21	0.23	48.2
12	R2	45	3.0	0.065	5.1	LOS A	0.2	1.8	0.23	0.21	0.23	47.2
Appro	ach	124	3.0	0.065	2.2	NA	0.2	1.8	0.23	0.21	0.23	47.8
All Ve	hicles	549	3.0	0.124	3.4	NA	0.3	2.4	0.17	0.37	0.17	47.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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

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

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▽ Site: 101 [Shorts/Pallett/Galeka PM Ex]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Move	ment P	erformanc	e - Ve	hicles								
Mov ID	Turn	Demand I Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South	: Pallett	Street (Sout	h)									
1	L2	49	3.0	0.071	4.7	LOS A	0.3	1.9	0.10	0.50	0.10	46.7
2	T1	45	3.0	0.071	3.4	LOS A	0.3	1.9	0.10	0.50	0.10	46.7
3	R2	25	3.0	0.071	4.8	LOS A	0.3	1.9	0.10	0.50	0.10	46.2
Appro	ach	120	3.0	0.071	4.2	LOS A	0.3	1.9	0.10	0.50	0.10	46.6
East:	Shorts R	load (East)										
4	L2	29	3.0	0.033	4.6	LOS A	0.0	0.3	0.03	0.29	0.03	47.8
5	T1	28	3.0	0.033	0.0	LOS A	0.0	0.3	0.03	0.29	0.03	48.3
6	R2	5	3.0	0.033	4.7	LOS A	0.0	0.3	0.03	0.29	0.03	47.3
Approach		63	3.0	0.033	2.5	NA	0.0	0.3	0.03	0.29	0.03	47.9
North:	Galeka	Street (Nort	:h)									
7	L2	2	3.0	0.019	4.7	LOS A	0.1	0.4	0.13	0.47	0.13	46.9
8	T1	22	3.0	0.019	3.4	LOS A	0.1	0.4	0.13	0.47	0.13	47.0
9	R2	5	3.0	0.019	4.9	LOS A	0.1	0.4	0.13	0.47	0.13	46.5
Appro	ach	29	3.0	0.019	3.8	LOS A	0.1	0.4	0.13	0.47	0.13	46.9
West:	Shorts F	Road (West)										
10	L2	6	3.0	0.032	4.7	LOS A	0.1	0.7	0.10	0.20	0.10	48.0
11	T1	38	3.0	0.032	0.1	LOS A	0.1	0.7	0.10	0.20	0.10	48.6
12	R2	18	3.0	0.032	4.7	LOS A	0.1	0.7	0.10	0.20	0.10	47.6
Appro	ach	62	3.0	0.032	1.9	NA	0.1	0.7	0.10	0.20	0.10	48.2
All Ve	hicles	275	3.0	0.071	3.3	NA	0.3	1.9	0.08	0.38	0.08	47.3

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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

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

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▽ Site: 101 [Shorts/Pallett/Galeka PM Dev]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Move	ement F	Performanc	e - Vel	hicles								
Mov ID	Turn	Demand F Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South	: Pallett	Street (Sout	h)									
1	L2	49	3.0	0.107	4.7	LOS A	0.4	2.8	0.12	0.52	0.12	46.5
2	T1	45	3.0	0.107	3.5	LOS A	0.4	2.8	0.12	0.52	0.12	46.6
3	R2	74	3.0	0.107	5.0	LOS A	0.4	2.8	0.12	0.52	0.12	46.1
Appro	ach	168	3.0	0.107	4.5	LOS A	0.4	2.8	0.12	0.52	0.12	46.4
East:	Shorts F	Road (East)										
4	L2	53	3.0	0.058	4.6	LOS A	0.1	1.0	0.08	0.34	0.08	47.3
5	T1	37	3.0	0.058	0.1	LOS A	0.1	1.0	0.08	0.34	0.08	47.8
6	R2	22	3.0	0.058	4.7	LOS A	0.1	1.0	0.08	0.34	0.08	46.8
Approach		112	3.0	0.058	3.1	NA	0.1	1.0	0.08	0.34	0.08	47.4
North	: Galeka	Street (Nort	h)									
7	L2	38	3.0	0.038	4.8	LOS A	0.2	1.1	0.14	0.49	0.14	46.5
8	T1	22	3.0	0.038	3.5	LOS A	0.2	1.1	0.14	0.49	0.14	46.6
9	R2	5	3.0	0.038	5.0	LOS A	0.2	1.1	0.14	0.49	0.14	46.1
Appro	ach	65	3.0	0.038	4.4	LOS A	0.2	1.1	0.14	0.49	0.14	46.5
West:	Shorts	Road (West)										
10	L2	6	3.0	0.041	4.8	LOS A	0.1	0.7	0.10	0.16	0.10	48.3
11	T1	56	3.0	0.041	0.1	LOS A	0.1	0.7	0.10	0.16	0.10	48.8
12	R2	18	3.0	0.041	4.8	LOS A	0.1	0.7	0.10	0.16	0.10	47.8
Appro	ach	80	3.0	0.041	1.5	NA	0.1	0.7	0.10	0.16	0.10	48.5
All Ve	hicles	425	3.0	0.107	3.6	NA	0.4	2.8	0.11	0.40	0.11	47.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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

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

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▽ Site: 101 [Sussex/Shorts AM Ex]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Move	ment P	erformanc	e - Vel	nicles								
Mov ID	Turn	Demand F Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South	: Sussex	Road (Sout	th)									
2	T1	396	5.0	0.246	0.5	LOS A	0.5	3.7	0.17	0.06	0.17	49.2
3	R2	41	3.0	0.246	7.8	LOS A	0.5	3.7	0.17	0.06	0.17	48.2
Appro	ach	437	4.8	0.246	1.2	NA	0.5	3.7	0.17	0.06	0.17	49.1
East: Shorts		oad										
4	L2	82	3.0	0.119	7.9	LOS A	0.5	3.5	0.58	0.76	0.58	45.0
6	R2	36	3.0	0.119	6.4	LOS A	0.5	3.5	0.58	0.76	0.58	44.6
Appro	ach	118	3.0	0.119	7.4	LOS A	0.5	3.5	0.58	0.76	0.58	44.8
North:	Sussex	Road (North	n)									
7	L2	31	3.0	0.358	4.6	LOS A	0.0	0.0	0.00	0.02	0.00	49.3
8	T1	645	5.0	0.358	0.0	LOS A	0.0	0.0	0.00	0.02	0.00	49.8
Appro	ach	676	4.9	0.358	0.3	NA	0.0	0.0	0.00	0.02	0.00	49.8
All Vel	hicles	1231	4.7	0.358	1.3	NA	0.5	3.7	0.12	0.11	0.12	49.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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

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

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∇ Site: 101 [Sussex/Shorts AM Dev]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Move	ment Pe	erformanc	e - Veh	icles								
Mov ID	Turn	Demand F Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South:	Sussex	Road (Sout	th)									
2	T1	396	5.0	0.249	0.6	LOS A	0.6	4.1	0.19	0.07	0.19	49.1
3	R2	45	3.0	0.249	7.8	LOS A	0.6	4.1	0.19	0.07	0.19	48.1
Approa	ach	441	4.8	0.249	1.3	NA	0.6	4.1	0.19	0.07	0.19	49.0
East: S	Shorts Ro	bad										
4	L2	96	3.0	0.140	7.9	LOS A	0.6	4.2	0.59	0.77	0.59	44.9
6	R2	43	3.0	0.140	6.4	LOS A	0.6	4.2	0.59	0.77	0.59	44.5
Approa	ach	139	3.0	0.140	7.5	LOS A	0.6	4.2	0.59	0.77	0.59	44.8
North:	Sussex I	Road (North	n)									
7	L2	33	3.0	0.360	4.6	LOS A	0.0	0.0	0.00	0.03	0.00	49.3
8	T1	645	5.0	0.360	0.0	LOS A	0.0	0.0	0.00	0.03	0.00	49.8
Approa	ach	678	4.9	0.360	0.3	NA	0.0	0.0	0.00	0.03	0.00	49.8
All Veh	nicles	1258	4.7	0.360	1.4	NA	0.6	4.2	0.13	0.12	0.13	48.9

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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

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

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∇ Site: 101 [Sussex/Shorts PM Ex]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Move	ment Pe	erformanc	ce - Veł	nicles								
Mov ID	Turn	Demand l Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South	Sussex	Road (Sou	th)									
2	T1	636	5.0	0.368	0.2	LOS A	0.6	4.1	0.11	0.04	0.12	49.5
3	R2	49	3.0	0.368	6.5	LOS A	0.6	4.1	0.11	0.04	0.12	48.4
Appro	ach	685	4.9	0.368	0.7	NA	0.6	4.1	0.11	0.04	0.12	49.4
East: Shorts		bad										
4	L2	52	3.0	0.065	6.1	LOS A	0.3	1.9	0.44	0.65	0.44	45.6
6	R2	29	3.0	0.065	6.3	LOS A	0.3	1.9	0.44	0.65	0.44	45.1
Appro	ach	81	3.0	0.065	6.2	LOS A	0.3	1.9	0.44	0.65	0.44	45.4
North:	Sussex	Road (Nort	h)									
7	L2	18	3.0	0.221	4.6	LOS A	0.0	0.0	0.00	0.02	0.00	49.3
8	T1	399	5.0	0.221	0.0	LOS A	0.0	0.0	0.00	0.02	0.00	49.8
Appro	ach	417	4.9	0.221	0.2	NA	0.0	0.0	0.00	0.02	0.00	49.8
All Vel	nicles	1183	4.7	0.368	0.9	NA	0.6	4.1	0.10	0.08	0.10	49.2

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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

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

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∇ Site: 101 [Sussex/Shorts PM Dev]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Move	ment Pe	rformanc	e - Veh	nicles								
Mov ID	Turn	Demand F Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South:	Sussex I	Road (Sout	th)									
2	T1	636	5.0	0.377	0.3	LOS A	0.7	5.3	0.14	0.05	0.15	49.3
3	R2	62	3.0	0.377	6.6	LOS A	0.7	5.3	0.14	0.05	0.15	48.3
Approa	ach	698	4.8	0.377	0.9	NA	0.7	5.3	0.14	0.05	0.15	49.2
East: S	Shorts Ro	ad										
4	L2	58	3.0	0.073	6.1	LOS A	0.3	2.1	0.45	0.65	0.45	45.6
6	R2	33	3.0	0.073	6.4	LOS A	0.3	2.1	0.45	0.65	0.45	45.1
Approa	ach	91	3.0	0.073	6.2	LOS A	0.3	2.1	0.45	0.65	0.45	45.4
North:	Sussex F	Road (North	ר)									
7	L2	24	3.0	0.225	4.6	LOS A	0.0	0.0	0.00	0.03	0.00	49.3
8	T1	399	5.0	0.225	0.0	LOS A	0.0	0.0	0.00	0.03	0.00	49.8
Approa	ach	423	4.9	0.225	0.3	NA	0.0	0.0	0.00	0.03	0.00	49.8
All Veh	nicles	1212	4.7	0.377	1.1	NA	0.7	5.3	0.11	0.09	0.12	49.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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

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

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▽ Site: 101 [Shorts/Sheppard AM Ex]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Move	ment Pe	erformanc	e - Vel	nicles								
Mov ID	Turn	Demand F Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South:	Sheppa	rd Street										
1	L2	28	3.0	0.025	4.7	LOS A	0.1	0.8	0.11	0.51	0.11	46.3
3	R2	20	3.0	0.025	4.7	LOS A	0.1	0.8	0.11	0.51	0.11	45.9
Approa	ach	48	3.0	0.025	4.7	LOS A	0.1	0.8	0.11	0.51	0.11	46.2
East: S	Shorts Ro	oad (East)										
4	L2	51	3.0	0.049	4.6	LOS A	0.0	0.0	0.00	0.30	0.00	47.8
5	T1	41	3.0	0.049	0.0	LOS A	0.0	0.0	0.00	0.30	0.00	48.3
Approa	ach	92	3.0	0.049	2.5	NA	0.0	0.0	0.00	0.30	0.00	48.0
West:	Shorts R	oad (West)										
11	T1	33	3.0	0.043	0.2	LOS A	0.2	1.5	0.19	0.33	0.19	47.7
12	R2	55	3.0	0.043	4.8	LOS A	0.2	1.5	0.19	0.33	0.19	46.7
Approa	ach	87	3.0	0.043	3.1	NA	0.2	1.5	0.19	0.33	0.19	47.1
All Veh	nicles	227	3.0	0.049	3.2	NA	0.2	1.5	0.10	0.35	0.10	47.3

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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

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

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▽ Site: 101 [Shorts/Sheppard AM Dev]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Move	ment Pe	erformanc	e - Vel	nicles								
Mov ID	Turn	Demand F Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South:	Sheppa	rd Street										
1	L2	122	3.0	0.090	4.8	LOS A	0.4	3.1	0.16	0.51	0.16	46.2
3	R2	49	3.0	0.090	4.8	LOS A	0.4	3.1	0.16	0.51	0.16	45.8
Approa	ach	172	3.0	0.090	4.8	LOS A	0.4	3.1	0.16	0.51	0.16	46.1
East: S	Shorts Ro	oad (East)										
4	L2	60	3.0	0.067	4.6	LOS A	0.0	0.0	0.00	0.26	0.00	48.0
5	T1	64	3.0	0.067	0.0	LOS A	0.0	0.0	0.00	0.26	0.00	48.5
Approa	ach	124	3.0	0.067	2.2	NA	0.0	0.0	0.00	0.26	0.00	48.3
West:	Shorts R	oad (West)										
11	T1	40	3.0	0.061	0.3	LOS A	0.3	2.2	0.24	0.35	0.24	47.4
12	R2	83	3.0	0.061	4.9	LOS A	0.3	2.2	0.24	0.35	0.24	46.5
Approa	ach	123	3.0	0.061	3.4	NA	0.3	2.2	0.24	0.35	0.24	46.8
All Veh	nicles	419	3.0	0.090	3.6	NA	0.4	3.1	0.13	0.39	0.13	46.9

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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

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

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▽ Site: 101 [Shorts/Sheppard PM Ex]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Move	ment P	erformand	ce - Vel	nicles								
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South:	Sheppa	rd Street										
1	L2	2	3.0	0.004	4.7	LOS A	0.0	0.1	0.09	0.52	0.09	46.4
3	R2	5	3.0	0.004	4.7	LOS A	0.0	0.1	0.09	0.52	0.09	45.9
Approa	ach	7	3.0	0.004	4.7	LOS A	0.0	0.1	0.09	0.52	0.09	46.1
East: S	Shorts R	oad (East)										
4	L2	2	3.0	0.020	4.6	LOS A	0.0	0.0	0.00	0.03	0.00	49.3
5	T1	36	3.0	0.020	0.0	LOS A	0.0	0.0	0.00	0.03	0.00	49.8
Approa	ach	38	3.0	0.020	0.3	NA	0.0	0.0	0.00	0.03	0.00	49.8
West:	Shorts R	Road (West))									
11	T1	35	3.0	0.019	0.0	LOS A	0.0	0.1	0.01	0.03	0.01	49.8
12	R2	2	3.0	0.019	4.7	LOS A	0.0	0.1	0.01	0.03	0.01	48.8
Approa	ach	37	3.0	0.019	0.3	NA	0.0	0.1	0.01	0.03	0.01	49.7
All Veh	nicles	82	3.0	0.020	0.7	NA	0.0	0.1	0.01	0.08	0.01	49.4

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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

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

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▽ Site: 101 [Shorts/Sheppard PM Dev]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Move	ment Pe	erformanc	e - Vel	nicles								
Mov ID	Turn	Demand F Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South:	Sheppa	rd Street										
1	L2	42	3.0	0.031	4.7	LOS A	0.1	1.0	0.12	0.51	0.12	46.3
3	R2	18	3.0	0.031	4.8	LOS A	0.1	1.0	0.12	0.51	0.12	45.9
Approa	ach	60	3.0	0.031	4.7	LOS A	0.1	1.0	0.12	0.51	0.12	46.2
East: S	Shorts Ro	oad (East)										
4	L2	28	3.0	0.039	4.6	LOS A	0.0	0.0	0.00	0.21	0.00	48.3
5	T1	45	3.0	0.039	0.0	LOS A	0.0	0.0	0.00	0.21	0.00	48.8
Approa	ach	74	3.0	0.039	1.8	NA	0.0	0.0	0.00	0.21	0.00	48.6
West:	Shorts R	oad (West)										
11	T1	56	3.0	0.068	0.1	LOS A	0.3	2.4	0.17	0.32	0.17	47.8
12	R2	84	3.0	0.068	4.8	LOS A	0.3	2.4	0.17	0.32	0.17	46.8
Approa	ach	140	3.0	0.068	2.9	NA	0.3	2.4	0.17	0.32	0.17	47.2
All Veh	nicles	274	3.0	0.068	3.0	NA	0.3	2.4	0.11	0.33	0.11	47.3

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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

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

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▽ Site: 101 [Shorts/Norris/Lorensen AM Ex]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Move	ment F	Performanc	e - Ve	hicles								
Mov ID	Turn	Demand F Total veh/h	lows HV %_	Deg. Satn v/ <u>c</u>	Average Delay se <u>c</u>	Level of Service	95% Back Vehicles veh	of Queue Distance <u>m</u>	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/ <u>h</u>
South	Norris	Street										
1	L2	8	3.0	0.007	4.6	LOS A	0.0	0.2	0.01	0.51	0.01	46.8
2	T1	3	3.0	0.007	3.3	LOS A	0.0	0.2	0.01	0.51	0.01	46.8
3	R2	1	3.0	0.007	4.6	LOS A	0.0	0.2	0.01	0.51	0.01	46.3
Appro	ach	13	3.0	0.007	4.3	LOS A	0.0	0.2	0.01	0.51	0.01	46.7
East: \$	Shorts F	Road (East)										
4	L2	1	3.0	0.002	4.6	LOS A	0.0	0.0	0.08	0.26	0.08	47.8
5	T1	2	3.0	0.002	0.0	LOS A	0.0	0.0	0.08	0.26	0.08	48.3
6	R2	1	3.0	0.002	4.7	LOS A	0.0	0.0	0.08	0.26	0.08	47.3
Approach		4	3.0	0.002	2.4	NA	0.0	0.0	0.08	0.26	0.08	47.9
North:	Lorens	en Avenue										
7	L2	1	3.0	0.056	4.6	LOS A	0.2	1.1	0.05	0.54	0.05	46.5
8	T1	2	3.0	0.056	3.3	LOS A	0.2	1.1	0.05	0.54	0.05	46.5
9	R2	85	3.0	0.056	4.7	LOS A	0.2	1.1	0.05	0.54	0.05	46.0
Appro	ach	88	3.0	0.056	4.6	LOS A	0.2	1.1	0.05	0.54	0.05	46.1
West:	Shorts	Road (West)										
10	L2	48	3.0	0.029	4.6	LOS A	0.0	0.2	0.01	0.52	0.01	46.6
11	T1	1	3.0	0.029	0.0	LOS A	0.0	0.2	0.01	0.52	0.01	47.1
12	R2	5	3.0	0.029	4.6	LOS A	0.0	0.2	0.01	0.52	0.01	46.2
Appro	ach	55	3.0	0.029	4.5	NA	0.0	0.2	0.01	0.52	0.01	46.6
All Vel	nicles	160	3.0	0.056	4.5	NA	0.2	1.1	0.04	0.52	0.04	46.3

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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

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

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▽ Site: 101 [Shorts/Norris/Lorensen AM Dev]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Move	ment F	Performanc	e - Ve	hicles								
Mov ID	Turn	Demand F Total veh/h	lows HV %	Deg. Satn v/ <u>c</u>	Average Delay se <u>c</u>	Level of Service	95% Back Vehicles veh	of Queue Distance <u>m</u>	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/ <u>h</u>
South	Norris	Street										
1	L2	32	3.0	0.023	4.6	LOS A	0.1	0.8	0.01	0.51	0.01	46.8
2	T1	11	3.0	0.023	3.3	LOS A	0.1	0.8	0.01	0.51	0.01	46.8
3	R2	1	3.0	0.023	4.6	LOS A	0.1	0.8	0.01	0.51	0.01	46.3
Appro	ach	43	3.0	0.023	4.3	LOS A	0.1	0.8	0.01	0.51	0.01	46.8
East: \$	Shorts F	Road (East)										
4	L2	1	3.0	0.002	4.7	LOS A	0.0	0.0	0.11	0.25	0.11	47.7
5	T1	2	3.0	0.002	0.1	LOS A	0.0	0.0	0.11	0.25	0.11	48.2
6	R2	1	3.0	0.002	4.7	LOS A	0.0	0.0	0.11	0.25	0.11	47.2
Approach		4	3.0	0.002	2.4	NA	0.0	0.0	0.11	0.25	0.11	47.8
North:	Lorens	en Avenue										
7	L2	1	3.0	0.065	4.6	LOS A	0.2	1.3	0.07	0.54	0.07	46.5
8	T1	4	3.0	0.065	3.3	LOS A	0.2	1.3	0.07	0.54	0.07	46.5
9	R2	95	3.0	0.065	4.8	LOS A	0.2	1.3	0.07	0.54	0.07	46.0
Appro	ach	100	3.0	0.065	4.7	LOS A	0.2	1.3	0.07	0.54	0.07	46.1
West:	Shorts I	Road (West)										
10	L2	78	3.0	0.049	4.6	LOS A	0.1	0.5	0.01	0.52	0.01	46.6
11	T1	1	3.0	0.049	0.0	LOS A	0.1	0.5	0.01	0.52	0.01	47.1
12	R2	13	3.0	0.049	4.6	LOS A	0.1	0.5	0.01	0.52	0.01	46.2
Appro	ach	92	3.0	0.049	4.5	NA	0.1	0.5	0.01	0.52	0.01	46.5
All Vel	nicles	239	3.0	0.065	4.5	NA	0.2	1.3	0.04	0.52	0.04	46.4

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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

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

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▽ Site: 101 [Shorts/Norris/Lorensen PM Ex]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Move	Movement Performance - Vehicles													
Mov ID	Turn	Demand F Total veh/h	lows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h		
South	: Norris	Street												
1	L2	7	3.0	0.005	4.6	LOS A	0.0	0.2	0.01	0.52	0.01	46.7		
2	T1	1	3.0	0.005	3.3	LOS A	0.0	0.2	0.01	0.52	0.01	46.7		
3	R2	1	3.0	0.005	4.6	LOS A	0.0	0.2	0.01	0.52	0.01	46.2		
Appro	ach	9	3.0	0.005	4.4	LOS A	0.0	0.2	0.01	0.52	0.01	46.6		
East: 3	Shorts I	Road (East)												
4	L2	1	3.0	0.002	4.6	LOS A	0.0	0.0	0.09	0.34	0.09	47.3		
5	T1	1	3.0	0.002	0.0	LOS A	0.0	0.0	0.09	0.34	0.09	47.8		
6	R2	1	3.0	0.002	4.7	LOS A	0.0	0.0	0.09	0.34	0.09	46.8		
Appro	ach	3	3.0	0.002	3.1	NA	0.0	0.0	0.09	0.34	0.09	47.3		
North:	Lorens	en Avenue												
7	L2	1	3.0	0.022	4.6	LOS A	0.1	0.4	0.04	0.54	0.04	46.5		
8	T1	1	3.0	0.022	3.2	LOS A	0.1	0.4	0.04	0.54	0.04	46.6		
9	R2	34	3.0	0.022	4.6	LOS A	0.1	0.4	0.04	0.54	0.04	46.1		
Appro	ach	36	3.0	0.022	4.6	LOS A	0.1	0.4	0.04	0.54	0.04	46.1		
West:	Shorts	Road (West)												
10	L2	37	3.0	0.023	4.6	LOS A	0.0	0.2	0.01	0.52	0.01	46.6		
11	T1	1	3.0	0.023	0.0	LOS A	0.0	0.2	0.01	0.52	0.01	47.1		
12	R2	5	3.0	0.023	4.6	LOS A	0.0	0.2	0.01	0.52	0.01	46.2		
Appro	ach	43	3.0	0.023	4.5	NA	0.0	0.2	0.01	0.52	0.01	46.6		
All Vel	hicles	92	3.0	0.023	4.5	NA	0.1	0.4	0.02	0.52	0.02	46.4		

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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

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

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▽ Site: 101 [Shorts/Norris/Lorensen PM Dev]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Movement Performance - Vehicles													
Mov ID	Turn	Demand F Total veh/h	lows HV %	Deg. Satn v/ <u>c</u>	Average Delay se <u>c</u>	Level of Service	95% Back Vehicles veh	of Queue Distance <u>m</u>	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/ <u>h</u>	
South	: Norris	Street											
1	L2	17	3.0	0.011	4.6	LOS A	0.1	0.4	0.01	0.52	0.01	46.7	
2	T1	3	3.0	0.011	3.3	LOS A	0.1	0.4	0.01	0.52	0.01	46.8	
3	R2	1	3.0	0.011	4.6	LOS A	0.1	0.4	0.01	0.52	0.01	46.3	
Appro	ach	21	3.0	0.011	4.4	LOS A	0.1	0.4	0.01	0.52	0.01	46.7	
East:	Shorts F	Road (East)											
4	L2	1	3.0	0.002	4.7	LOS A	0.0	0.0	0.10	0.34	0.10	47.3	
5	T1	1	3.0	0.002	0.1	LOS A	0.0	0.0	0.10	0.34	0.10	47.7	
6	R2	1	3.0	0.002	4.7	LOS A	0.0	0.0	0.10	0.34	0.10	46.8	
Appro	ach	3	3.0	0.002	3.1	NA	0.0	0.0	0.10	0.34	0.10	47.3	
North:	Lorens	en Avenue											
7	L2	1	3.0	0.043	4.6	LOS A	0.1	0.8	0.05	0.54	0.05	46.5	
8	T1	6	3.0	0.043	3.3	LOS A	0.1	0.8	0.05	0.54	0.05	46.6	
9	R2	60	3.0	0.043	4.7	LOS A	0.1	0.8	0.05	0.54	0.05	46.1	
Appro	ach	67	3.0	0.043	4.6	LOS A	0.1	0.8	0.05	0.54	0.05	46.2	
West:	Shorts	Road (West)											
10	L2	49	3.0	0.039	4.6	LOS A	0.1	0.9	0.01	0.52	0.01	46.6	
11	T1	1	3.0	0.039	0.0	LOS A	0.1	0.9	0.01	0.52	0.01	47.1	
12	R2	26	3.0	0.039	4.6	LOS A	0.1	0.9	0.01	0.52	0.01	46.2	
Appro	ach	77	3.0	0.039	4.5	NA	0.1	0.9	0.01	0.52	0.01	46.4	
All Ve	hicles	168	3.0	0.043	4.5	NA	0.1	0.9	0.03	0.53	0.03	46.4	

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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

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

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▽ Site: 101 [Lorensen/Orvieto/Merlyn AM Ex]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Movement Performance - Vehicles													
Mov ID	Turn	Demand F Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h	
South	: Lorense	en Avenue (South)										
1	L2	8	3.0	0.040	4.6	LOS A	0.1	0.9	0.01	0.48	0.01	47.2	
2	T1	52	3.0	0.040	3.2	LOS A	0.1	0.9	0.01	0.48	0.01	47.3	
3	R2	5	3.0	0.040	4.8	LOS A	0.1	0.9	0.01	0.48	0.01	46.8	
Appro	ach	65	3.0	0.040	3.5	LOS A	0.1	0.9	0.01	0.48	0.01	47.2	
East:	Orvieto S	Street (East)											
4	L2	1	3.0	0.003	4.6	LOS A	0.0	0.1	0.07	0.45	0.07	46.8	
5	T1	1	3.0	0.003	0.0	LOS A	0.0	0.1	0.07	0.45	0.07	47.3	
6	R2	5	3.0	0.003	4.6	LOS A	0.0	0.1	0.07	0.45	0.07	46.4	
Appro	ach	7	3.0	0.003	4.0	NA	0.0	0.1	0.07	0.45	0.07	46.6	
North:	Merlyn	Street											
7	L2	25	3.0	0.087	4.6	LOS A	0.3	2.0	0.04	0.48	0.04	47.1	
8	T1	102	3.0	0.087	3.2	LOS A	0.3	2.0	0.04	0.48	0.04	47.1	
9	R2	17	3.0	0.087	4.7	LOS A	0.3	2.0	0.04	0.48	0.04	46.6	
Appro	ach	144	3.0	0.087	3.7	LOS A	0.3	2.0	0.04	0.48	0.04	47.1	
West:	Orvieto	Street (West	t)										
10	L2	12	3.0	0.011	4.6	LOS A	0.0	0.2	0.01	0.41	0.01	47.2	
11	T1	5	3.0	0.011	0.0	LOS A	0.0	0.2	0.01	0.41	0.01	47.7	
12	R2	5	3.0	0.011	4.6	LOS A	0.0	0.2	0.01	0.41	0.01	46.8	
Appro	ach	22	3.0	0.011	3.5	NA	0.0	0.2	0.01	0.41	0.01	47.2	
All Ve	hicles	239	3.0	0.087	3.6	NA	0.3	2.0	0.03	0.47	0.03	47.1	

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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

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

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▽ Site: 101_[Lorensen/Orvieto/Merlyn AM Dev]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Movement Performance - Vehicles													
Mov ID	Turn	Demand F Total veh/h	Flows HV %	Deg. Satn v/ <u>c</u>	Average Delay se <u>c</u>	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/ <u>h</u>	
South	: Lorens	en Avenue (South)										
1	L2	8	3.0	0.063	4.6	LOS A	0.2	1.3	0.02	0.47	0.02	47.3	
2	T1	88	3.0	0.063	3.2	LOS A	0.2	1.3	0.02	0.47	0.02	47.3	
3	R2	5	3.0	0.063	4.9	LOS A	0.2	1.3	0.02	0.47	0.02	46.8	
Appro	ach	102	3.0	0.063	3.4	LOS A	0.2	1.3	0.02	0.47	0.02	47.3	
East:	Orvieto	Street (East)											
4	L2	1	3.0	0.003	4.6	LOS A	0.0	0.1	0.07	0.45	0.07	46.8	
5	T1	1	3.0	0.003	0.0	LOS A	0.0	0.1	0.07	0.45	0.07	47.3	
6	R2	5	3.0	0.003	4.6	LOS A	0.0	0.1	0.07	0.45	0.07	46.4	
Appro	ach	7	3.0	0.003	4.0	NA	0.0	0.1	0.07	0.45	0.07	46.6	
North:	Merlyn	Street											
7	L2	25	3.0	0.095	4.6	LOS A	0.3	2.2	0.04	0.48	0.04	47.1	
8	T1	114	3.0	0.095	3.2	LOS A	0.3	2.2	0.04	0.48	0.04	47.2	
9	R2	17	3.0	0.095	4.8	LOS A	0.3	2.2	0.04	0.48	0.04	46.7	
Appro	ach	156	3.0	0.095	3.6	LOS A	0.3	2.2	0.04	0.48	0.04	47.1	
West:	Orvieto	Street (West	t)										
10	L2	12	3.0	0.011	4.6	LOS A	0.0	0.2	0.01	0.41	0.01	47.2	
11	T1	5	3.0	0.011	0.0	LOS A	0.0	0.2	0.01	0.41	0.01	47.7	
12	R2	5	3.0	0.011	4.6	LOS A	0.0	0.2	0.01	0.41	0.01	46.8	
Appro	ach	22	3.0	0.011	3.5	NA	0.0	0.2	0.01	0.41	0.01	47.2	
All Ve	hicles	287	3.0	0.095	3.6	NA	0.3	2.2	0.03	0.47	0.03	47.2	

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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

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

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▽ Site: 101 [Lorensen/Orvieto/Merlyn PM Ex]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Movement Performance - Vehicles													
Mov ID	Turn	Demand F Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h	
South	: Lorens	en Avenue (South)										
1	L2	3	3.0	0.025	4.6	LOS A	0.1	0.5	0.07	0.46	0.07	47.2	
2	T1	36	3.0	0.025	3.3	LOS A	0.1	0.5	0.07	0.46	0.07	47.2	
3	R2	1	3.0	0.025	4.7	LOS A	0.1	0.5	0.07	0.46	0.07	46.7	
Appro	ach	40	3.0	0.025	3.4	LOS A	0.1	0.5	0.07	0.46	0.07	47.2	
East:	Orvieto	Street (East)											
4	L2	4	3.0	0.013	4.6	LOS A	0.1	0.4	0.07	0.33	0.07	47.5	
5	T1	11	3.0	0.013	0.0	LOS A	0.1	0.4	0.07	0.33	0.07	48.0	
6	R2	13	3.0	0.013	4.6	LOS A	0.1	0.4	0.07	0.33	0.07	47.0	
Appro	ach	27	3.0	0.013	2.9	NA	0.1	0.4	0.07	0.33	0.07	47.5	
North:	Merlyn	Street											
7	L2	5	3.0	0.034	4.6	LOS A	0.1	0.7	0.06	0.50	0.06	46.9	
8	T1	28	3.0	0.034	3.3	LOS A	0.1	0.7	0.06	0.50	0.06	47.0	
9	R2	20	3.0	0.034	4.7	LOS A	0.1	0.7	0.06	0.50	0.06	46.4	
Appro	ach	54	3.0	0.034	3.9	LOS A	0.1	0.7	0.06	0.50	0.06	46.8	
West:	Orvieto	Street (Wes	t)										
10	L2	12	3.0	0.014	4.6	LOS A	0.0	0.4	0.05	0.40	0.05	47.1	
11	T1	6	3.0	0.014	0.0	LOS A	0.0	0.4	0.05	0.40	0.05	47.6	
12	R2	9	3.0	0.014	4.6	LOS A	0.0	0.4	0.05	0.40	0.05	46.6	
Appro	ach	27	3.0	0.014	3.6	NA	0.0	0.4	0.05	0.40	0.05	47.1	
All Ve	hicles	148	3.0	0.034	3.5	NA	0.1	0.7	0.06	0.44	0.06	47.1	

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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

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

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▽ Site: 101_[Lorensen/Orvieto/Merlyn PM Dev]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Movement Performance - Vehicles													
Mov ID	Turn	Demand F Total veh/h	lows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h	
South	: Lorens	en Avenue (South)										
1	L2	3	3.0	0.035	4.6	LOS A	0.1	0.7	0.07	0.46	0.07	47.2	
2	T1	52	3.0	0.035	3.3	LOS A	0.1	0.7	0.07	0.46	0.07	47.3	
3	R2	1	3.0	0.035	4.8	LOS A	0.1	0.7	0.07	0.46	0.07	46.7	
Appro	ach	56	3.0	0.035	3.4	LOS A	0.1	0.7	0.07	0.46	0.07	47.2	
East:	Orvieto S	Street (East)											
4	L2	4	3.0	0.013	4.6	LOS A	0.1	0.4	0.07	0.33	0.07	47.5	
5	T1	11	3.0	0.013	0.0	LOS A	0.1	0.4	0.07	0.33	0.07	48.0	
6	R2	13	3.0	0.013	4.6	LOS A	0.1	0.4	0.07	0.33	0.07	47.0	
Appro	ach	27	3.0	0.013	2.9	NA	0.1	0.4	0.07	0.33	0.07	47.5	
North:	Merlyn	Street											
7	L2	5	3.0	0.055	4.6	LOS A	0.2	1.1	0.06	0.48	0.06	47.0	
8	T1	61	3.0	0.055	3.3	LOS A	0.2	1.1	0.06	0.48	0.06	47.1	
9	R2	20	3.0	0.055	4.8	LOS A	0.2	1.1	0.06	0.48	0.06	46.6	
Appro	ach	86	3.0	0.055	3.7	LOS A	0.2	1.1	0.06	0.48	0.06	47.0	
West:	Orvieto	Street (Wes	t)										
10	L2	12	3.0	0.014	4.6	LOS A	0.0	0.4	0.05	0.40	0.05	47.1	
11	T1	6	3.0	0.014	0.0	LOS A	0.0	0.4	0.05	0.40	0.05	47.6	
12	R2	9	3.0	0.014	4.6	LOS A	0.0	0.4	0.05	0.40	0.05	46.6	
Appro	ach	27	3.0	0.014	3.6	NA	0.0	0.4	0.05	0.40	0.05	47.1	
All Ve	hicles	197	3.0	0.055	3.5	NA	0.2	1.1	0.07	0.44	0.07	47.1	

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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

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

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Site: 101 [Boundary/Merlyn AM Ex]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Movement Performance - Vehicles													
Mov ID	Turn	Demand I Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h	
South:	Merlyn	Street											
1	L2	12	3.0	0.203	10.7	LOS B	0.7	4.7	0.85	0.95	0.90	40.6	
3	R2	53	3.0	0.203	17.3	LOS C	0.7	4.7	0.85	0.95	0.90	40.3	
Appro	ach	64	3.0	0.203	16.1	LOS C	0.7	4.7	0.85	0.95	0.90	40.3	
East: Bounda		/ Road (Eas	st)										
4	L2	138	3.0	0.536	4.7	LOS A	0.0	0.0	0.00	0.07	0.00	48.9	
5	T1	868	5.0	0.536	0.1	LOS A	0.0	0.0	0.00	0.07	0.00	49.4	
Approa	ach	1006	4.7	0.536	0.7	NA	0.0	0.0	0.00	0.07	0.00	49.4	
West:	Boundar	y Road (We	est)										
11	T1	774	5.0	0.413	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	49.9	
12	R2	27	3.0	0.041	9.8	LOS A	0.2	1.2	0.73	0.83	0.73	43.3	
Approa	ach	801	4.9	0.413	0.4	NA	0.2	1.2	0.02	0.03	0.02	49.7	
All Vel	nicles	1872	4.8	0.536	1.1	NA	0.7	4.7	0.04	0.08	0.04	49.1	

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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

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

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▽ Site: 101 [Boundary/Merlyn AM Dev]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Movement Performance - Vehicles													
Mov ID	Turn	Demand I Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h	
South:	Merlyn	Street											
1	L2	12	3.0	0.352	12.7	LOS B	1.2	8.8	0.89	1.00	1.07	39.2	
3	R2	89	3.0	0.352	20.2	LOS C	1.2	8.8	0.89	1.00	1.07	38.8	
Approa	ach	101	3.0	0.352	19.4	LOS C	1.2	8.8	0.89	1.00	1.07	38.9	
East: E	Boundary	/ Road (Eas	st)										
4	L2	149	3.0	0.546	4.7	LOS A	0.0	0.0	0.00	0.08	0.00	48.9	
5	T1	876	5.0	0.546	0.1	LOS A	0.0	0.0	0.00	0.08	0.00	49.4	
Approa	ach	1025	4.7	0.546	0.8	NA	0.0	0.0	0.00	0.08	0.00	49.3	
West:	Boundar	y Road (We	est)										
11	T1	798	5.0	0.425	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	49.9	
12	R2	27	3.0	0.047	10.1	LOS B	0.2	1.2	0.72	0.88	0.72	43.1	
Approa	ach	825	4.9	0.425	0.4	NA	0.2	1.2	0.02	0.03	0.02	49.7	
All Vel	nicles	1952	4.7	0.546	1.6	NA	1.2	8.8	0.06	0.11	0.07	48.8	

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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

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

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▽ Site: 101 [Boundary/Merlyn PM Ex]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Movement Performance - Vehicles													
Mov ID	Turn	Demand F Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h	
South:	Merlyn	Street											
1	L2	27	3.0	0.140	7.7	LOS A	0.5	3.5	0.71	0.84	0.71	43.3	
3	R2	48	3.0	0.140	12.2	LOS B	0.5	3.5	0.71	0.84	0.71	42.9	
Approa	ach	76	3.0	0.140	10.6	LOS B	0.5	3.5	0.71	0.84	0.71	43.0	
East: Bounda		/ Road (Eas	st)										
4	L2	54	3.0	0.364	4.6	LOS A	0.0	0.0	0.00	0.04	0.00	49.2	
5	T1	633	5.0	0.364	0.0	LOS A	0.0	0.0	0.00	0.04	0.00	49.7	
Approa	ach	686	4.8	0.364	0.4	NA	0.0	0.0	0.00	0.04	0.00	49.6	
West:	Boundar	y Road (We	est)										
11	T1	787	5.0	0.419	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	49.9	
12	R2	11	3.0	0.009	6.9	LOS A	0.0	0.3	0.59	0.63	0.59	44.8	
Approa	ach	798	5.0	0.419	0.2	NA	0.0	0.3	0.01	0.01	0.01	49.8	
All Veh	nicles	1560	4.8	0.419	0.8	NA	0.5	3.5	0.04	0.06	0.04	49.4	

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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

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

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▽ Site: 101 [Boundary/Merlyn PM Dev]

New Site Site Category: (None) Giveway / Yield (Two-Way)

Movement Performance - Vehicles													
Mov ID	Turn	Demand F Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h	
South:	Merlyn S	Street											
1	L2	27	3.0	0.187	8.0	LOS A	0.6	4.6	0.75	0.87	0.76	42.8	
3	R2	64	3.0	0.187	13.0	LOS B	0.6	4.6	0.75	0.87	0.76	42.4	
Appro	ach	92	3.0	0.187	11.5	LOS B	0.6	4.6	0.75	0.87	0.76	42.5	
East: E	Boundary	Road (Eas	st)										
4	L2	86	3.0	0.394	4.6	LOS A	0.0	0.0	0.00	0.06	0.00	49.0	
5	T1	655	5.0	0.394	0.1	LOS A	0.0	0.0	0.00	0.06	0.00	49.6	
Appro	ach	741	4.8	0.394	0.6	NA	0.0	0.0	0.00	0.06	0.00	49.5	
West:	Boundary	y Road (We	est)										
11	T1	798	5.0	0.425	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	49.9	
12	R2	11	3.0	0.010	7.2	LOS A	0.0	0.3	0.61	0.65	0.61	44.6	
Appro	ach	808	5.0	0.425	0.2	NA	0.0	0.3	0.01	0.01	0.01	49.8	
All Vel	nicles	1641	4.8	0.425	1.0	NA	0.6	4.6	0.05	0.08	0.05	49.2	

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

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

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

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