

***Erf 18354 Brackenfell***  
***Transport Impact Assessment***  
***Western Cape***

***July 2021***

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## SUMMARY SHEET

Report Type	Transport Impact Assessment
Title	Erf 18354 Brackenfell
Location	Western Cape
Client	Duro Brick Company (Pty) LTD
Reference Number	ITS 4346
Project Team	Christoff Krogscheepers Pieter Arangie Tarshia Williams
Contact Details	Tel: 021 914 6211
Date	July 2021
Report Status	First Draft
File Name	G:\4346 TIA Erf 18354 Brackenfell\12 Reports\Issued\4346 TIA Erf 18354 Brackenfell_FirstDraft_PA_2021-07-12.docx

*It is herewith certified that this Traffic Impact Assessment has been prepared according to requirements of the South African Traffic Impact and Site Traffic Assessment Manual.*

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## REPORT - SUMMARY TABLE

*This transport impact assessment is reported only in a summary table instead of a lengthy report to assist review and interpretation of the results. This summary table includes all the relevant information that is normally contained in a report. It should be sufficient for review and interpretation of the expected transport impacts as well as the comprehension of the required measures to mitigate the transport impact. If any more detail is required, please contact the authors.*

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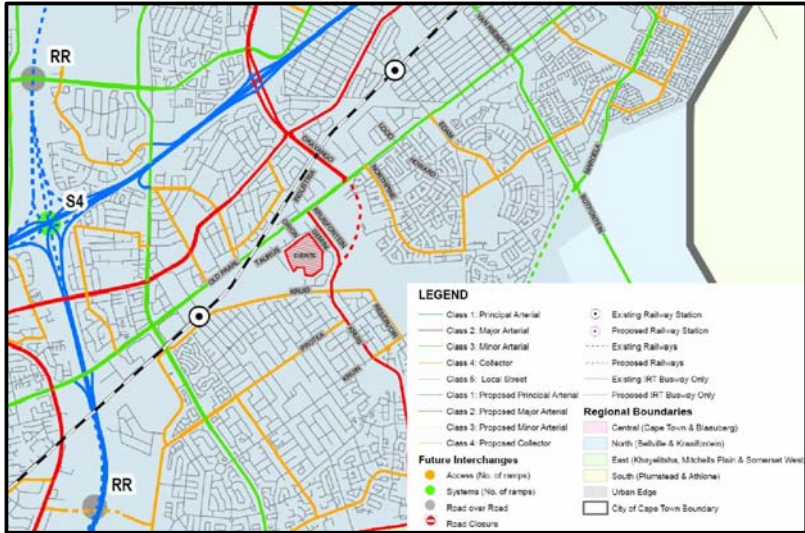
<b>Table 1:</b>	Study Intersection
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## ABBREVIATIONS

COTO	Committee of Transport Officials
Ha	Hectare
HCM	Highway Capacity Manual
SDP	Site Development Plan
LOS	Level of Service
NMT	Non-motorised Transport
SATGR	South African Trip Generation Rates
SQM	Square Meters (m <sup>2</sup> )
TIA	Transport Impact Assessment
V/C	Volume to Capacity Ratio
WCG	Western Cape Government

# Transport Impact Assessment

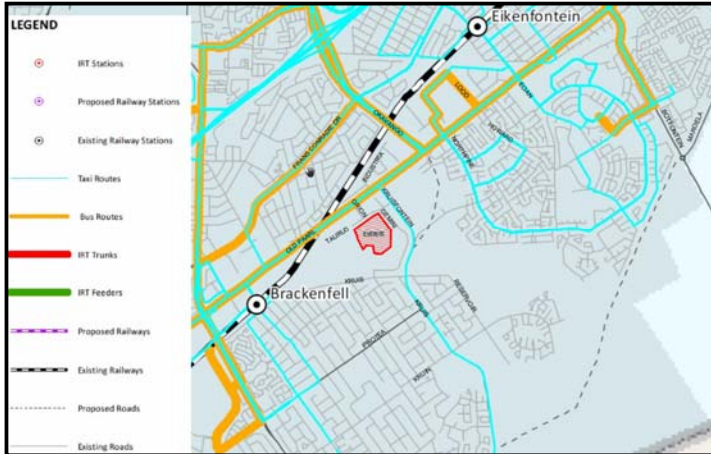
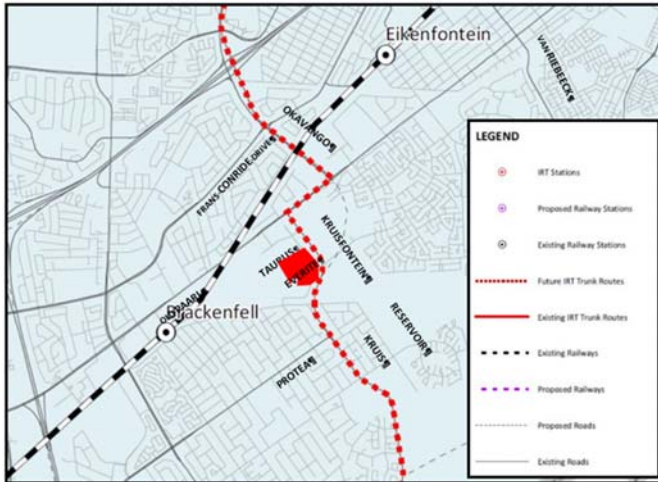
Erf 18354 Brackenfell

<p><b>1 Purpose of Study</b></p>	<p>This report assesses the expected transport related impact of the proposed development in Brackenfell. This report summarises the existing transport conditions within the site vicinity and provides an assessment of the transport impacts of the proposed development on the surrounding transport network.</p>
<p><b>2 Locality</b></p>	<p><b>Erf Number:</b> Erven 18354, Brackenfell.</p> <p><b>Description:</b> Located within the existing Everite industrial area to the south of Taurus Street and to the west of Gemini Street.</p> <p>Refer to <b>Figure 1</b> in Appendix A for the Locality Plan.</p>
<p><b>3 Land Use</b></p>	<p>The development will consist of Industrial use with a total of 43 093 gross lettable area (GLA).</p> <p>Refer to <b>Figure 2</b> in Appendix A for the Site Development Plan (SDP).</p>
<p><b>4 Existing Roadways</b></p>	<p>The existing road network surrounding the site is discussed below with reference to the City of Cape Town's Road classification map dated 2017.</p>  <p><i>Source: City of Cape Town, Right of Way Map, 2017</i></p> <p><b>Old Paarl Road (MR189):</b> Provincial Main Road, Class 3 Secondary Arterial, two lanes per direction with a kerbed median, paved shoulders and sidewalks in the site vicinity, 60km/h.</p> <p><b>Kruis Road (DR1081):</b> The section between Kruin Street and Bottellary road is a Provincial Divisional Road, Class 2 Primary Arterial, undivided two lanes per direction between Reservoir Street and Kruin Street and one lane per direction between Kruin Street and Bottellary Road, 60km/h, gravel shoulders and partial sidewalk.</p>

	<p><b>Kruisfontein Road:</b> Class 2 - Undivided two lanes per direction, 60km/h, no medians, gravel shoulders and partial sidewalk.</p> <p><b>Northpine Drive:</b> Class 4 Collector, one lane per direction with partial sidewalks.</p> <p><b>Taurus Street:</b> Class 5 Local Street, one lane per direction, parking allowed.</p> <p><b>Gemini Street:</b> Class 5 Local Street, one lane per direction, parking allowed.</p> <p><b>Orion Street:</b> Class 5 Local Street, one lane per direction, parking partially allowed.</p> <p>Refer to the Locality Map, <b>Figure 1</b> in Appendix A for the roads in relation to the proposed development.</p>																																	
5     Analyses Hours	<p>The traffic analyses are based on weekday a.m. and p.m. peak hours. The following peak hours are representative of the study area:</p> <ul style="list-style-type: none"><li>• a.m. peak hour: 07:15 to 08:15</li><li>• p.m. peak hour: 16:30 to 17:30</li></ul>																																	
6     Scenarios Analysed	<p>The transport impact of the proposed development was analysed for the following scenarios:</p> <ol style="list-style-type: none"><li>1. 2021 Existing conditions</li><li>2. 2026 Background traffic conditions (2020 existing traffic conditions plus background growth)</li><li>3. 2026 Total traffic conditions (2025 background traffic conditions plus development trips)</li></ol> <p>The traffic growth assumptions used to analyse future scenarios are discussed in Section 9.</p>																																	
7     Study Intersections (existing control)	<p>The scope of the analyses included the intersections summarised in <b>Table 1</b>.</p> <table><tr><th colspan="3">Table 1: Study Intersection</th></tr><tr><th>No.</th><th>Name</th><th>Existing Control</th></tr><tr><td>1</td><td>Old Paarl Road/Orion Road</td><td>Priority Control</td></tr><tr><td>2</td><td>Old Paarl Road/Industria Road</td><td>Traffic Signal</td></tr><tr><td>3</td><td>Old Paarl Road/Kruisfontein Road</td><td>Traffic Signal</td></tr><tr><td>4</td><td>Old Paarl Road/Okavango Road</td><td>Traffic Signal</td></tr><tr><td>5</td><td>Old Paarl Road/Northpine Drive/Chrome Street</td><td>Traffic Signal</td></tr><tr><td>6</td><td>Taurus Road/Orion Road</td><td>All-way Stop Control</td></tr><tr><td>7</td><td>Taurus Road/Gemini Street</td><td>Priority Control</td></tr><tr><td>8</td><td>Taurus Road/ Kruisfontein Road</td><td>Traffic Signal</td></tr><tr><td>9</td><td>Gemini Street/ Leo Close</td><td>All-way Stop Control</td></tr></table> <p>Refer to <b>Figure 3A</b> in Appendix A for the existing lane configuration and intersection controls.</p>	Table 1: Study Intersection			No.	Name	Existing Control	1	Old Paarl Road/Orion Road	Priority Control	2	Old Paarl Road/Industria Road	Traffic Signal	3	Old Paarl Road/Kruisfontein Road	Traffic Signal	4	Old Paarl Road/Okavango Road	Traffic Signal	5	Old Paarl Road/Northpine Drive/Chrome Street	Traffic Signal	6	Taurus Road/Orion Road	All-way Stop Control	7	Taurus Road/Gemini Street	Priority Control	8	Taurus Road/ Kruisfontein Road	Traffic Signal	9	Gemini Street/ Leo Close	All-way Stop Control
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<p><b>8 Existing Intersection Operations</b></p>	<p>The 2021 Existing Traffic conditions are based on existing intersection geometries, controls and traffic volumes. Traffic counts were undertaken on 18 and 19 March 2021. These counts were compared and adjusted with historic counts where necessary to allow for the Covid-19 impact.</p> <p>Based on the existing traffic capacity analyses results, all the intersections are currently operating at an acceptable LOS, except for the following:</p> <ul style="list-style-type: none"> <li>• <u>Old Paarl Road/Orion Road Intersection</u>: Operating with a LOS F.</li> </ul> <p>The high northbound left-turn volume during the a.m. peak hour is due to rat-run traffic trying to avoid congestion elsewhere on the network and no upgrades are recommended at this intersection. Motorist do have the opportunity to access Old Paarl Road via the signalised Kruisfontein Road intersection.</p> <p>Refer to <b>Figure 3B &amp; 3C</b> in Appendix A for the existing peak hour traffic operations and <b>Table 4</b> in Appendix B for a summary of the intersection measures of efficiency.</p>
<p><b>9 Approved Developments/ Latent Rights</b></p>	<p>Any possible latent development trips within the surrounding area are associated with an anticipated annual traffic growth. A growth rate of 3% per annum was applied on the existing traffic volumes over the next five years. The growth rates were calculated from historical traffic volumes.</p>
<p><b>10 Site Access</b></p>	<p>Access is proposed via the existing Leo Close off Gemini Street.</p> <p>Refer to <b>Figure 2</b> in Appendix A for the proposed access configuration.</p>
<p><b>11 Background Traffic Conditions</b></p>	<p>The 2026 Background Traffic volumes were calculated by applying a 3 percent growth rate per annum over a five-year period to the existing counted traffic volumes.</p> <p>Based on the analyses results, all intersections will continue operating at acceptable LOS by 2026 provided the following upgrades are implemented:</p> <ul style="list-style-type: none"> <li>• Okavango Road/Old Paarl Road: Upgrade the eastern approach leg to include a double right lane. With this upgrade the northern leg of the intersection should also be widened to provide a northbound acceleration lane for the existing eastbound left-turn slip lane.</li> </ul> <p>The Old Paarl Road/Orion Road intersection is still expected to operate with a LOS F. However, as discussed above the congestion at this intersection is due to rat-run traffic and no upgrade is proposed at this intersection.</p> <p>Refer to <b>Figure 4A</b> in Appendix A for the recommended lane configuration and <b>Figures 4B &amp; 4C</b> in Appendix A for the a.m. and p.m. peak hour traffic operations for the background traffic conditions. The intersection measures of efficiencies are summarised in <b>Table 5</b> in Appendix B.</p>

12 Trip Generation Rates and Development Trips	The expected trip generation rates were obtained from the Committee of Transport Officials, South African Trip Data Manual, TMH17, Version 1.01, 2013 (COTO) Trip Generation, 7th Edition. Displayed in <b>Table 2</b> below:									
	Table 2: Trip Generation Rate									
	Land Use	Units	Source	Size	Weekday AM Peak Hour			Weekday PM Peak Hour		
					Rate	In	Out	Rate	In	Out
	Industrial	100m²	COTO130	43093	0.8	70%	30%	0.9	25%	75%
Based on the above trip generation rates, the development is expected to generate the development trips as summarised in <b>Table 3</b> below.										
Table 3: Total Development Trips										
Land Use	Trip Type	Weekday AM Peak Hour			Weekday PM Peak Hour					
		In	Out	Total	In	Out	Total			
	Industrial	Total Trips	242	104	346	87	259	364		
Total Trips		242	104	364	87	259	364			
The development is expected to generate 364 new peak hour vehicle trips during the a.m. and p.m. peak hours.										
The development trips are illustrated in <b>Figure 5A and 5B</b> in Appendix A for the respective peak hours.										
13 Trip Distribution	The following trip distribution was used:									
	20% of trips West via Old Paarl Road 20% of trips North via Okavango Road 5% of trips North via Van Riebeeck Street 5% of trips East via Old Paarl Road 20% of trips West via Bottelary Road 10% of trips East via Bottelary Road 20% Internal trips between the different developments in the area.									
Refer to <b>Figure 5A</b> and <b>Figure 5B</b> in Appendix A for an illustration of the expected trip generation and distribution pattern.										
14 Total Traffic Conditions	The 2026 Total Traffic volumes were calculated by adding the expected development trips to the 2026 Background Traffic volumes. It is assumed that the upgrades recommended for the 2025 Background conditions will be in place.									
	Based on the traffic analyses results, all study intersections will continue to operate at acceptable LOS except the Old Paarl Road/Orion Road intersection. However, as discussed for the existing and background conditions the congestion at this intersection is due to rat-run traffic and no upgrade is proposed at this intersection.									
Refer to Refer to <b>Figure 6A &amp; 6B</b> in Appendix A for the traffic conditions and <b>Table 6</b> in Appendix B for a summary of the intersection MOEs.										

<p><b>15 Non-Motorised Transport</b></p>	<p>There are existing NMT facilities to accommodate pedestrians along majority of the roads within the site vicinity. It is recommended that a sidewalk should be provided along the southern side of Leo Close and sidewalks should also be provided along the major internal roads.</p>
<p><b>16 Public Transport</b></p>	<p>The area is served by rail, bus and minibus taxis services. The Brackenfell station is located approximately two kilometres to the west of the study area and the Eikefontein station is located approximately two kilometres to the north of the study area.</p>  <p><i>City of Cape Town - Existing Public Transport Services – PT2.1, Aug 2013</i></p> <p>Based on the City of Cape Town’s Existing Public Transport Services. Bus and minibus taxi services are available along Old Paarl Road while the neighbouring residential areas to the study area are served mainly by minibus taxis.</p>  <p><i>City of Cape Town Integrated Rapid Public Transport Network (IRPTN)</i></p> <p>Based on the CoCT IRPTN map: services will be provided along Okavango Road, Kruisfontein Road and Kruis Road will be an IRT Trunk Route while Northpine Drive and Kruin Street will be Feeder Routes.</p>

<p><b>17 Parking</b></p>	<p>Based on the City of Cape Town's latest zoning scheme requirements, parking should be provided at a rate of 1.5 bays per 100m<sup>2</sup> GLA for units up to 3 000m<sup>2</sup> GLA and 1 bay per 100m<sup>2</sup> GLA for units larger than 3 000m<sup>2</sup> GLA. The specific parking requirements for each erf should be confirmed with the SDP applications for each erf.</p>
<p><b>18 Conclusion &amp; Recommendations</b></p>	<p>This report summarises the existing transport conditions within the site vicinity and provides an assessment of the transport impact of the proposed development on the surrounding road network. The traffic impact analyses resulted in the following conclusions and recommendations.</p> <p><b>Existing Traffic:</b> All the study intersections currently operate at an acceptable LOS except the Old Paarl Road/Orion Street intersection. The congestion at this intersection is due to rat-run traffic avoiding congestion elsewhere on the network and no upgrades are recommended at this intersection. Motorist do have the opportunity to access Old Paarl Road via the signalised Kruisfontein Road intersection</p> <p><b>Background Traffic:</b> All the study intersections will continue to operate at an acceptable LOS except the Old Paarl Road/Okavango Road intersection. It is recommended that an additional right-turn lane be provided westbound along Old Paarl Road and the northern approach should be widened to provide a new northbound acceleration lane along Okavango Road for the eastbound left-turn slip lane.</p> <p><b>Development Trips:</b> It is expected that the development will generate approximately <b>346 trips</b> during the a.m. peak hour and p.m. peak hours.</p> <p><b>Total Traffic:</b> Based on the capacity analyses, all the study intersections will operate at an acceptable LOS during the weekday peak hours with the proposed development completed. The Old Paarl Road/Orion Street intersection will operate at a LOS=F, but as discussed for the existing and background conditions, no upgrades are recommended at this intersection. Motorists have the opportunity to access Old Paarl Road via the signalised Kruisfontein Road intersection.</p> <p><b>Access:</b> Access is proposed via the existing Leo Close off Gemini Street.</p> <p><b>Non-Motorised Transport and Public Transport:</b> The existing facilities in the site vicinity is sufficient. No additional facilities are recommended.</p> <p><b>Parking:</b> Parking should be provided in accordance with the latest City of Cape Town zoning scheme requirements. The specific parking requirements for each erf will be confirmed during SDP applications stage.</p> <p>Based on the above investigation, it is evident that the proposed development can be accommodated with the mitigation measures proposed implemented. Hence, it is recommended that this development be considered for approval, from a transport point of view.</p>

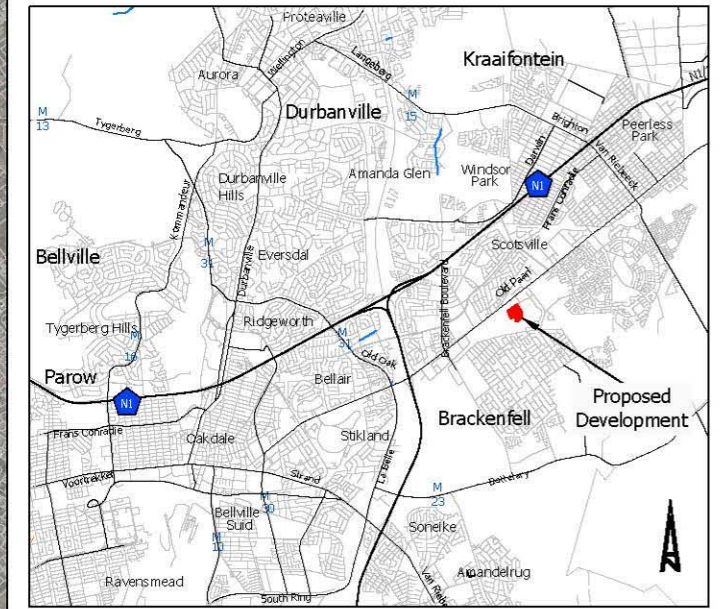
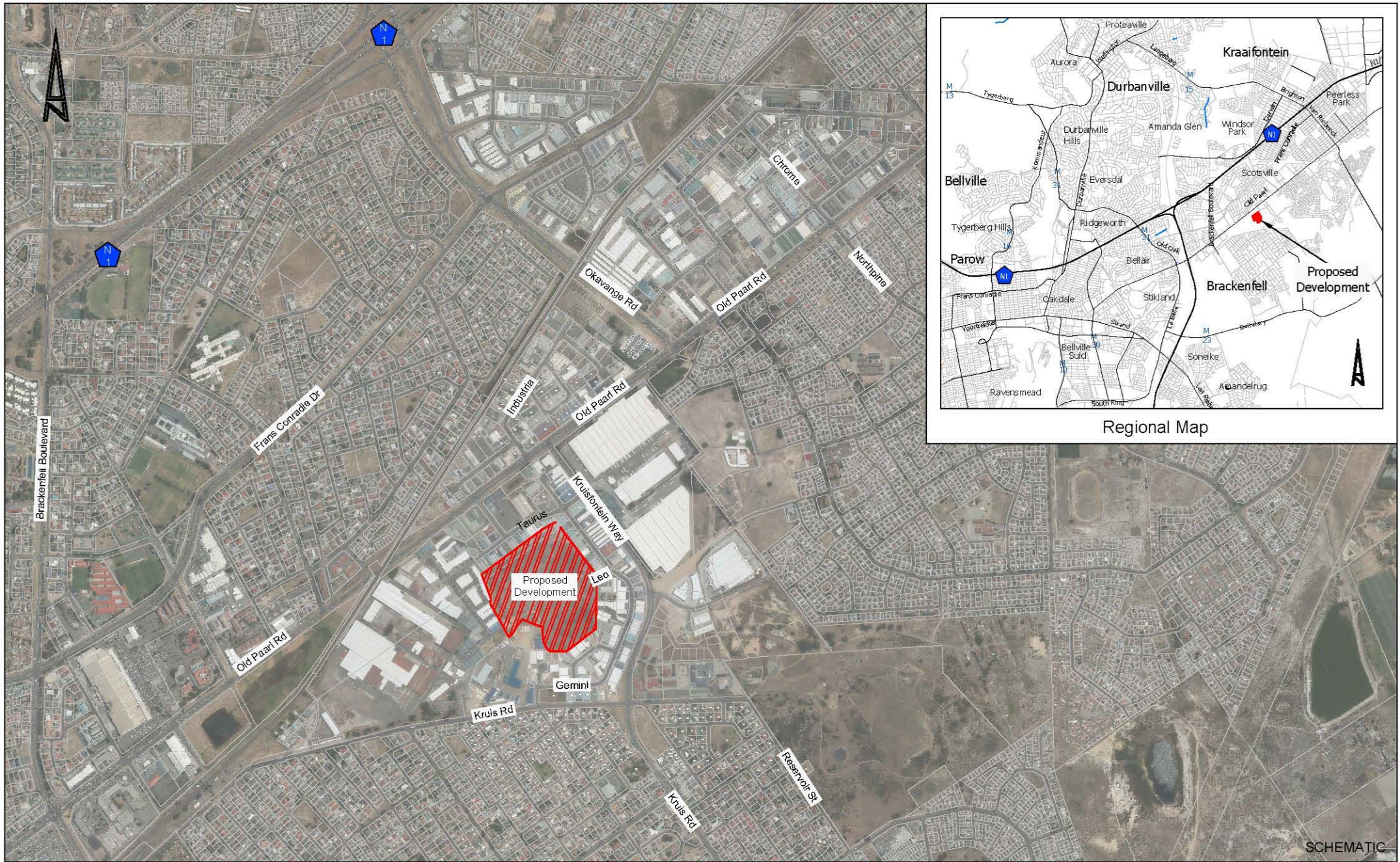
## REFERENCES

1. City of Cape Town, Municipal Planning By-law, Amended, 2019
2. Committee of Transport Officials, South African Trip Data Manual, TMH17, Version 1.1, September 2013
3. Provincial Administration Western Cape, Road Access Guidelines, May 2001
4. Transportation Research Board, Highway Capacity Manual (HCM), Quality and Level-of-Service Concepts, 9 March 2015

## Appendix A

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### Figures



Regional Map

ANALYSTS' CONCLUSIONS ABOUT THE NEW MARKET ORIENTED BANKS' PERFORMANCE ARE MIXED. IN GENERAL, THE BANKS' PERFORMANCE HAS BEEN POSITIVE IN THE FIRST YEAR OF OPERATION. HOWEVER, THE BANKS' PERFORMANCE HAS NOT BEEN AS GOOD AS THE BANKS' PERFORMANCE IN THE FIRST YEAR OF OPERATION. THE BANKS' PERFORMANCE HAS NOT BEEN AS GOOD AS THE BANKS' PERFORMANCE IN THE FIRST YEAR OF OPERATION.

SDP Option 5

**EXP 18354 Breckenfell**

PERIMETER	<input type="checkbox"/> TYPICAL DRAWINGS
SECTION PLANS	<input checked="" type="checkbox"/> STANDARD DRAWINGS
MECHANICAL DRAWINGS	<input type="checkbox"/> FINAL DRAWINGS



Chameleon Architects

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10	Number of employees	100
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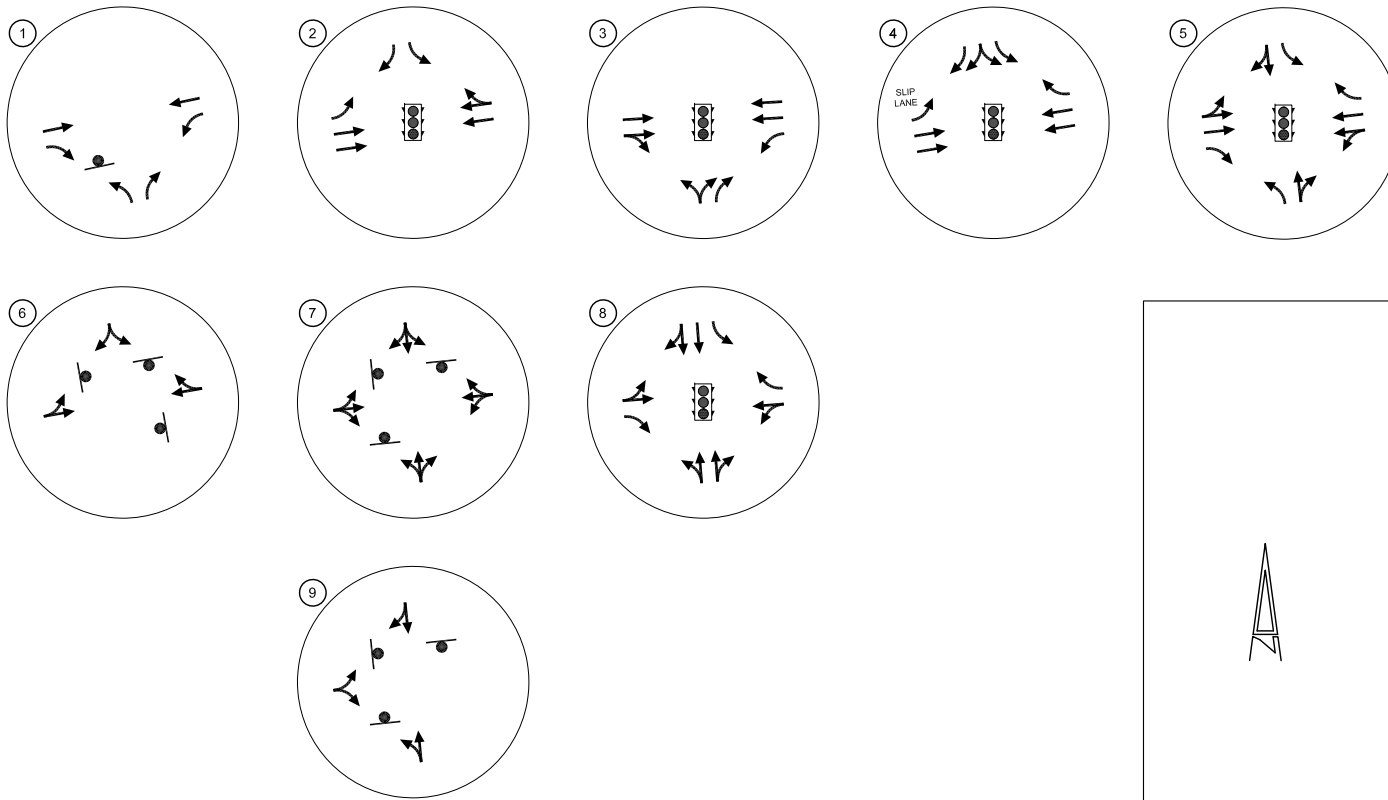
SCS-001



**Proposed SDP (With Contours)** SCALE 1:1000

**Proposed SDP** (SCALE 1-750)Proposed Road Section SCALE 1"=40'

**FIGURE 2  
SITE DEVELOPMENT PLAN**

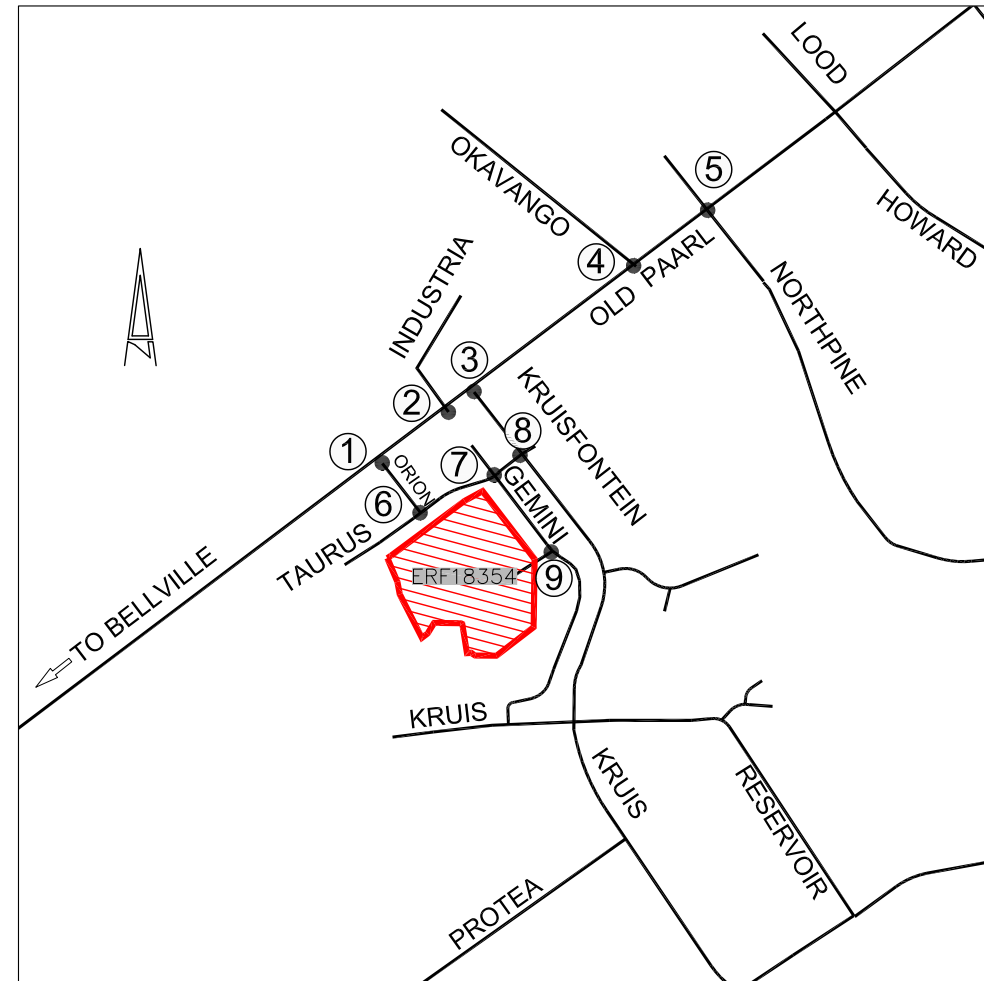


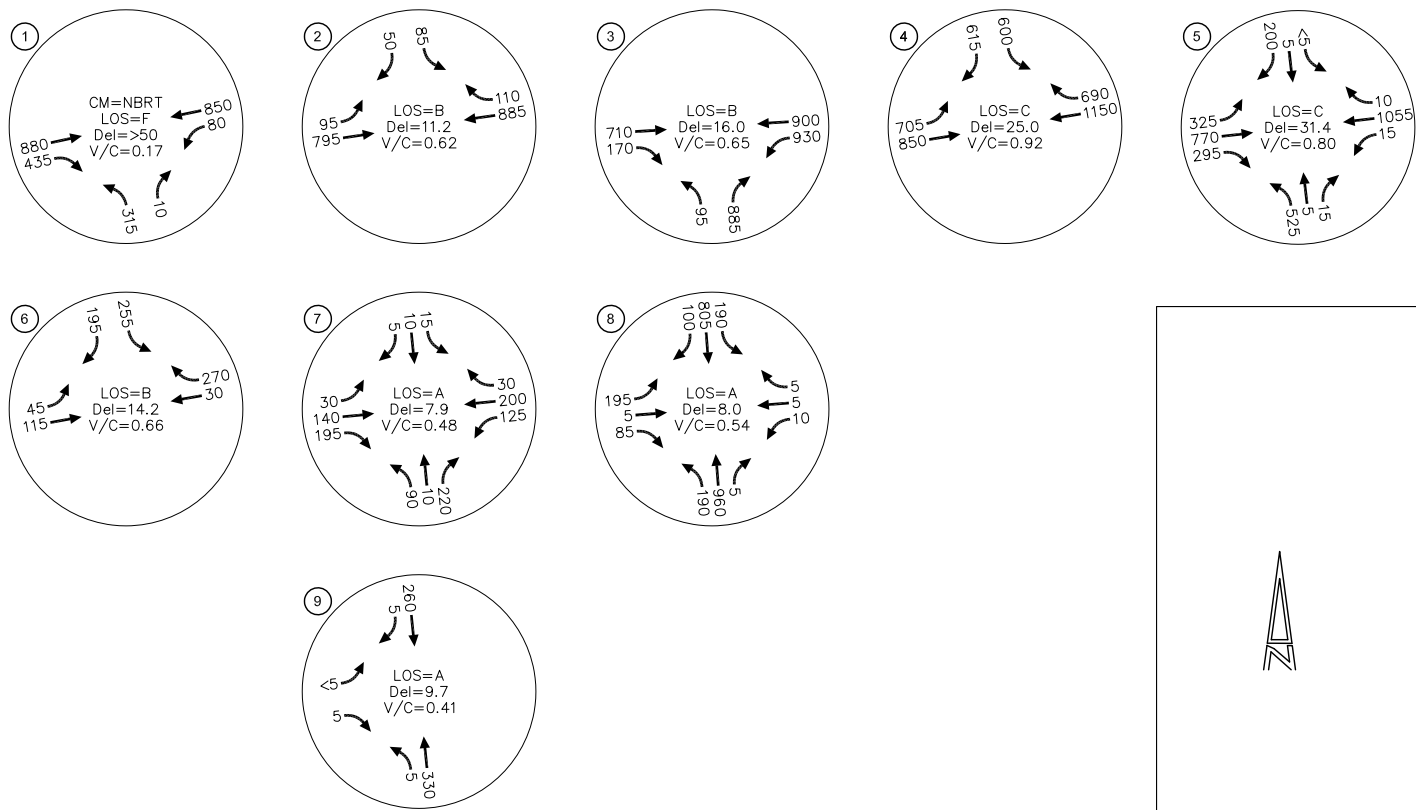
#### LEGEND

CM = CRITICAL MOVEMENT (UNSIGNALISED)  
 LOS = INTERSECTION LEVEL OF SERVICE (SIGNALISED) /  
 CRITICAL MOVEMENT LEVEL OF SERVICE (UNSIGNALISED)  
 Del = INTERSECTION AVERAGE DELAY (SIGNALISED) /  
 CRITICAL MOVEMENT DELAY UNSIGNALISED  
 V/C = CRITICAL VOLUME-TO-CAPACITY RATIO

● STOP/ YIELD CONTROL  
 TRAFFIC SIGNAL  
 UPGRADED LANE CONFIGURATION

SCHEMATIC



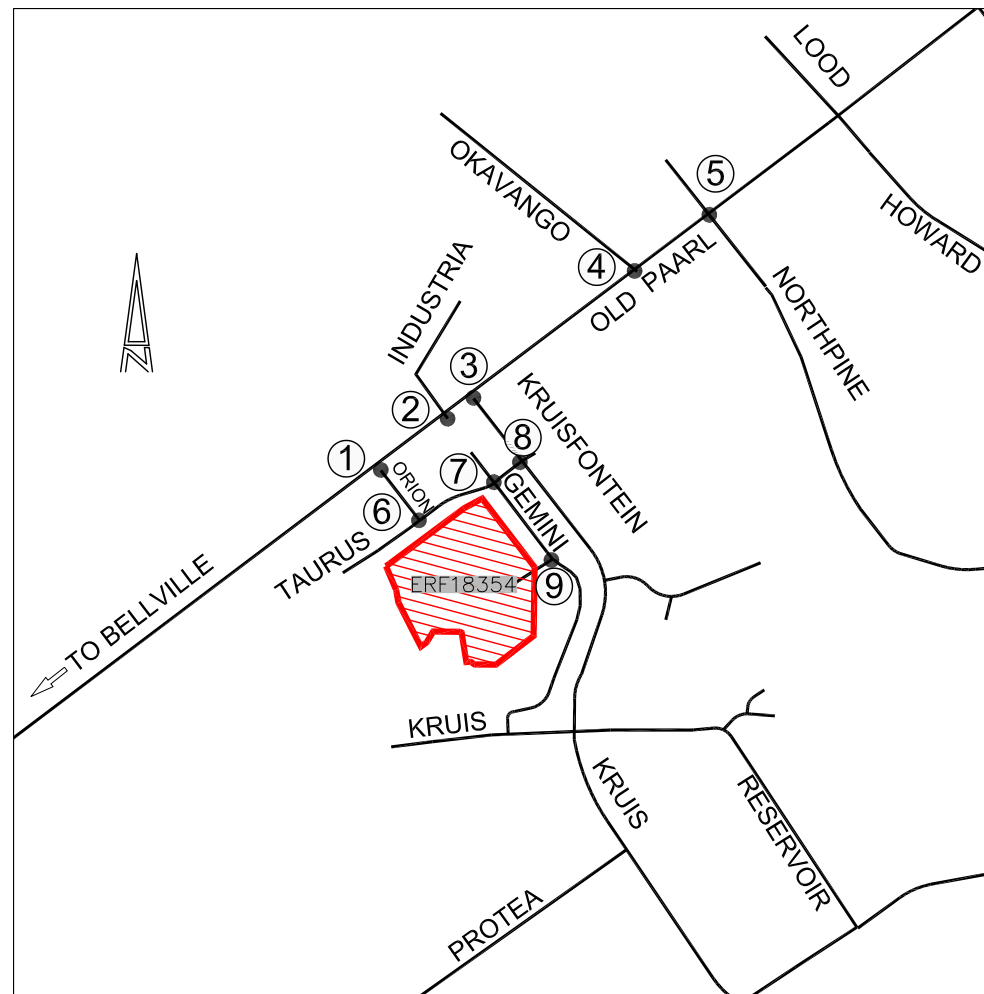


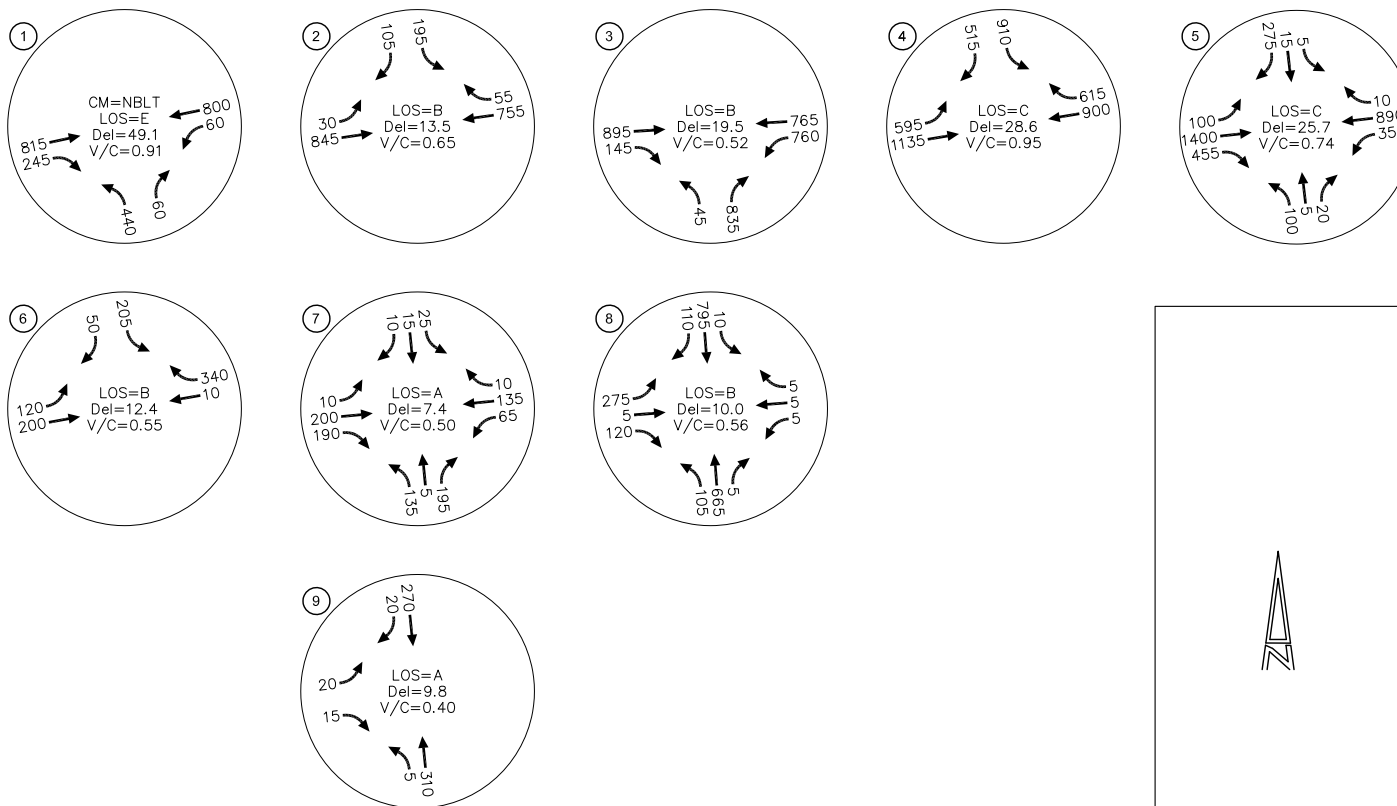
NOTE:  
CAPACITY ANALYSIS BASED ON LANE CONFIGURATION AS SHOWN IN FIGURE 3.

#### LEGEND

CM = CRITICAL MOVEMENT (UNSIGNALISED)  
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SCHEMATIC



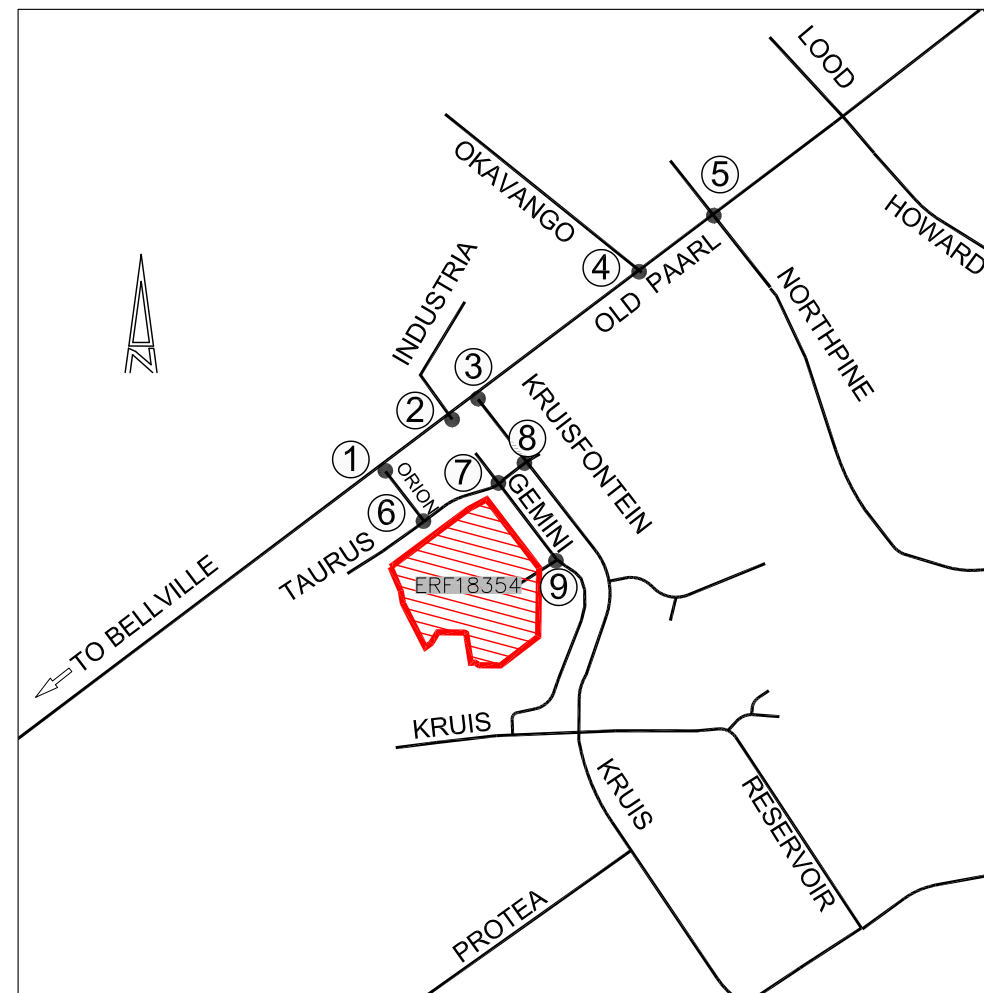


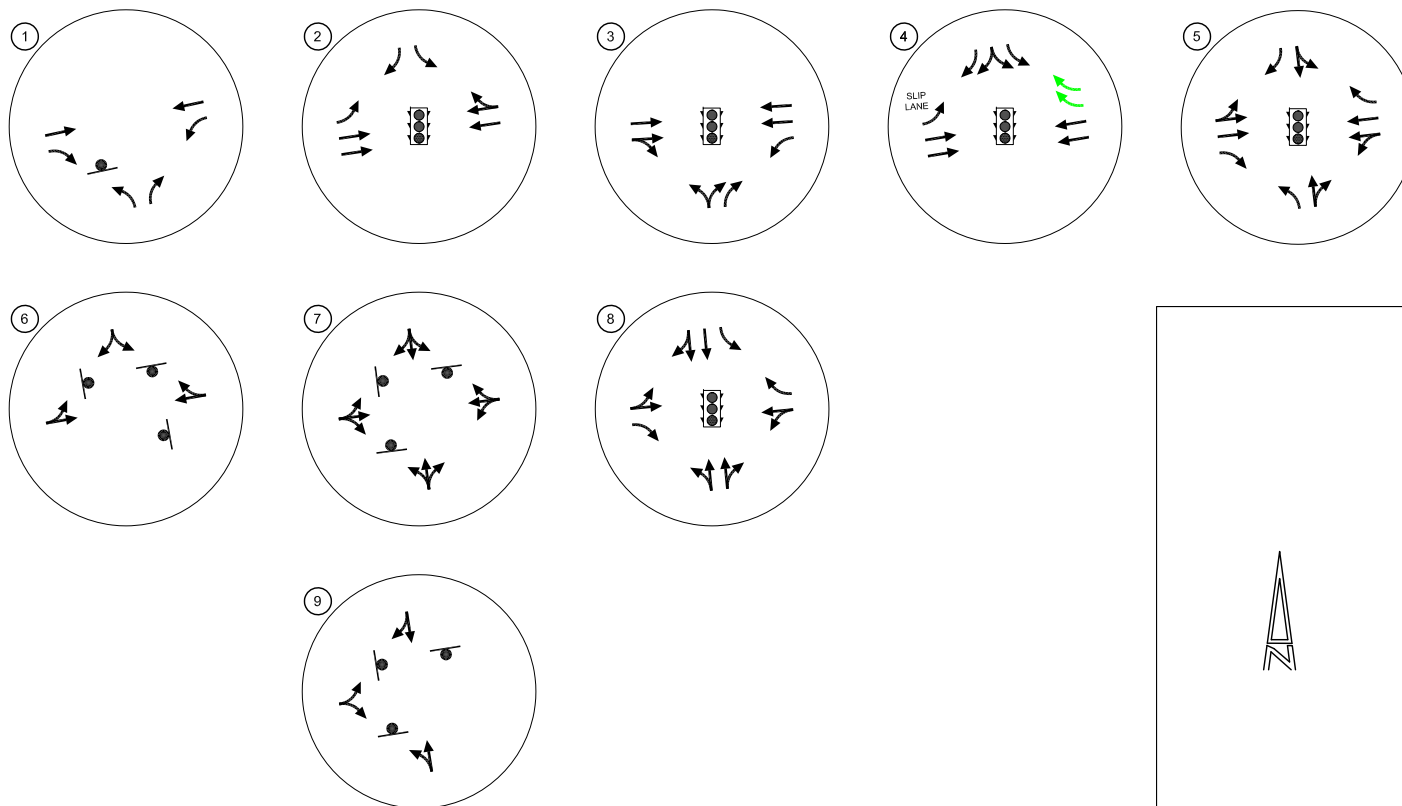
NOTE:  
CAPACITY ANALYSIS BASED ON LANE CONFIGURATION AS SHOWN IN FIGURE 3.

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CRITICAL MOVEMENT DELAY UNSIGNALISED  
V/C = CRITICAL VOLUME-TO-CAPACITY RATIO

SCHEMATIC



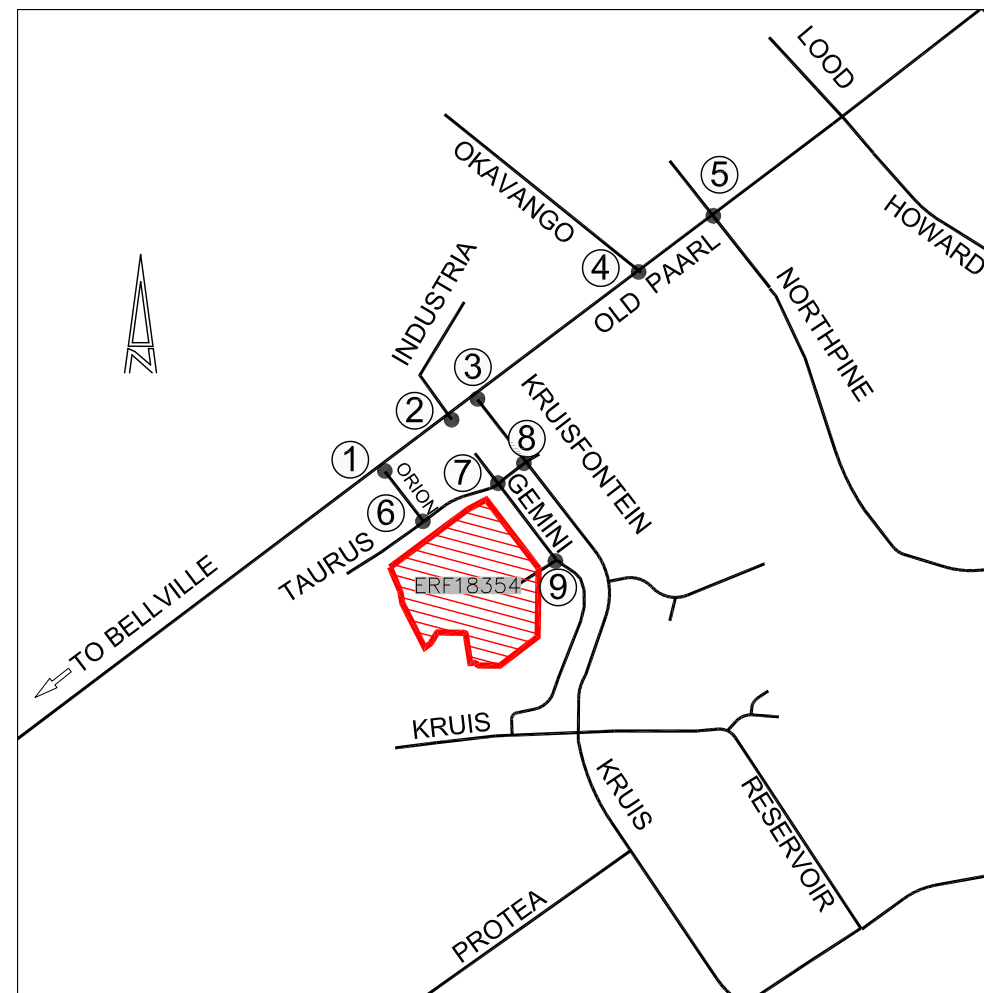


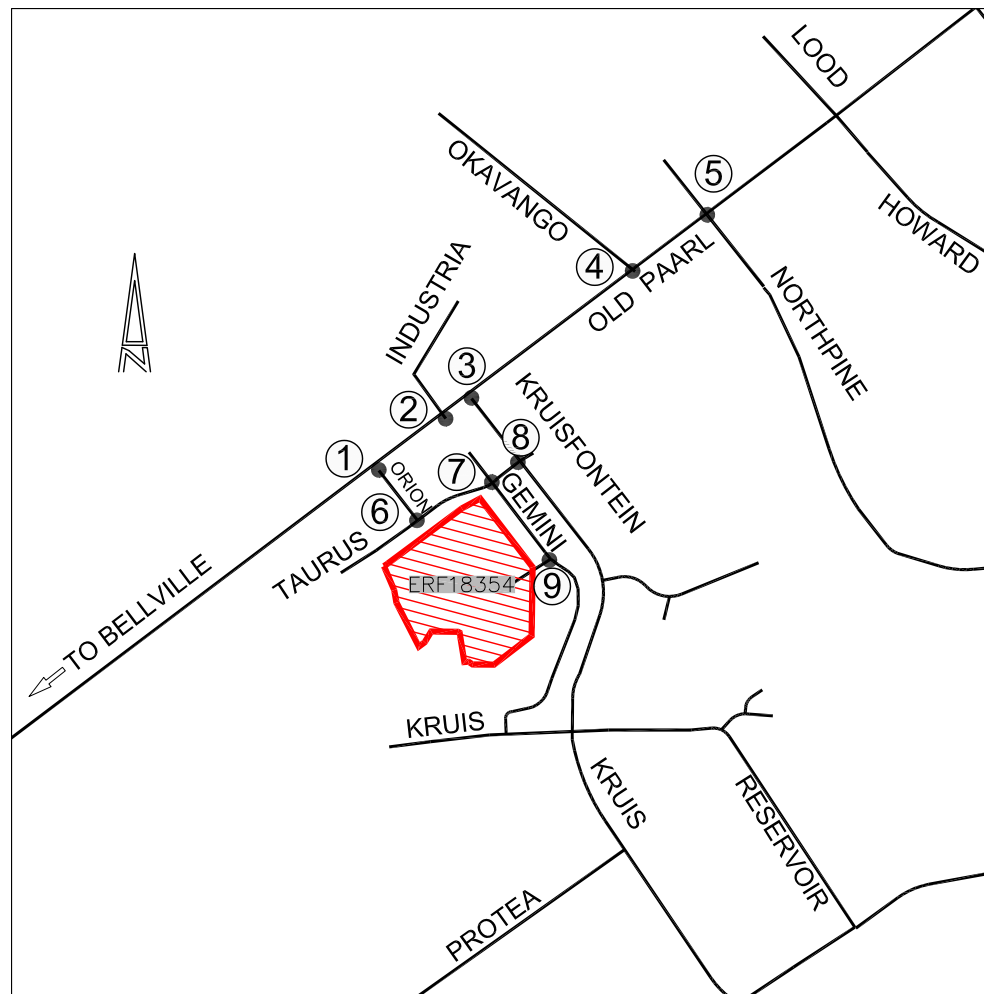
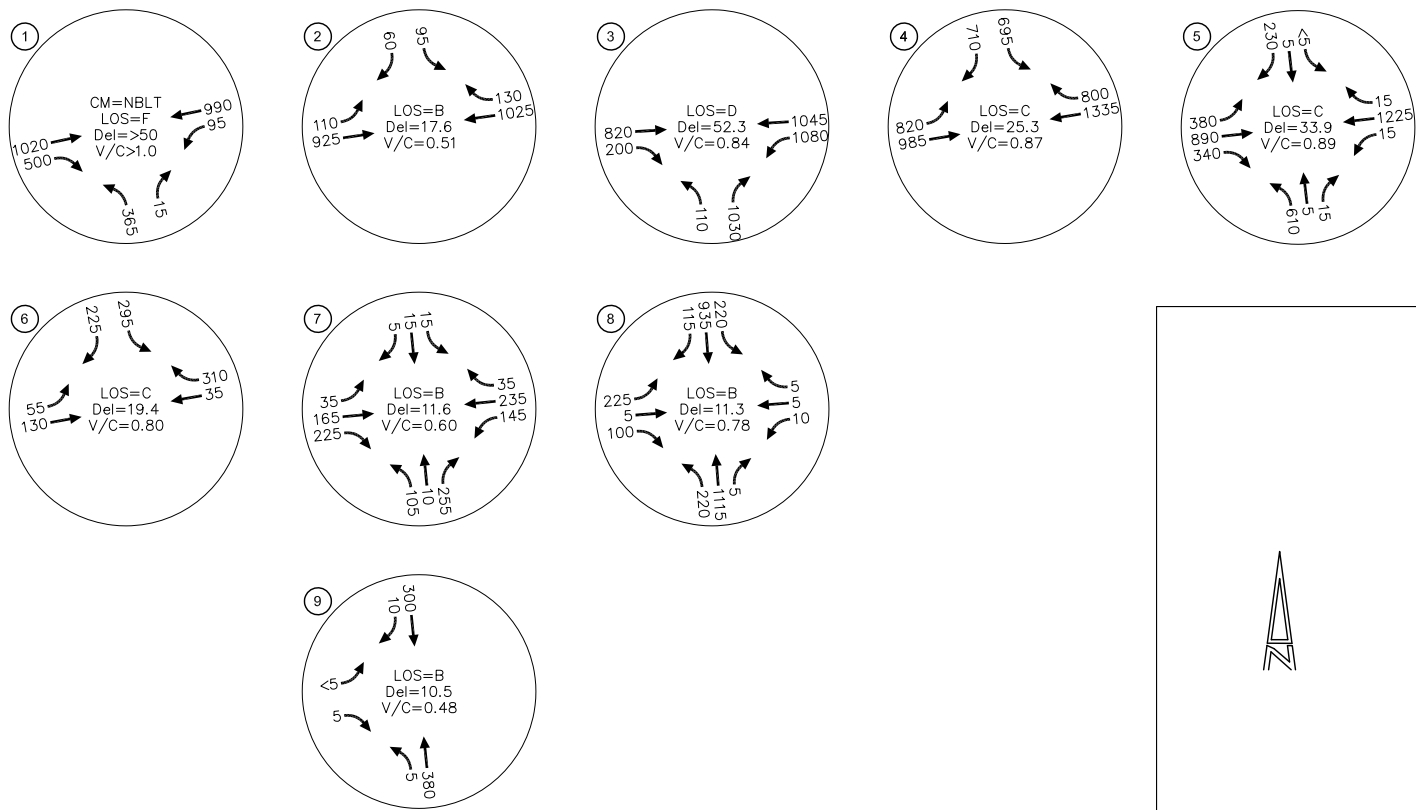
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CM = CRITICAL MOVEMENT (UNSIGNALISED)  
 LOS = INTERSECTION LEVEL OF SERVICE (SIGNALISED) /  
 CRITICAL MOVEMENT LEVEL OF SERVICE (UNSIGNALISED)  
 Del = INTERSECTION AVERAGE DELAY (SIGNALISED) /  
 CRITICAL MOVEMENT DELAY UNSIGNALISED  
 V/C = CRITICAL VOLUME-TO-CAPACITY RATIO

● STOP/ YIELD CONTROL  
 🚦 TRAFFIC SIGNAL  
 ➡ UPGRADED LANE CONFIGURATION

SCHEMATIC



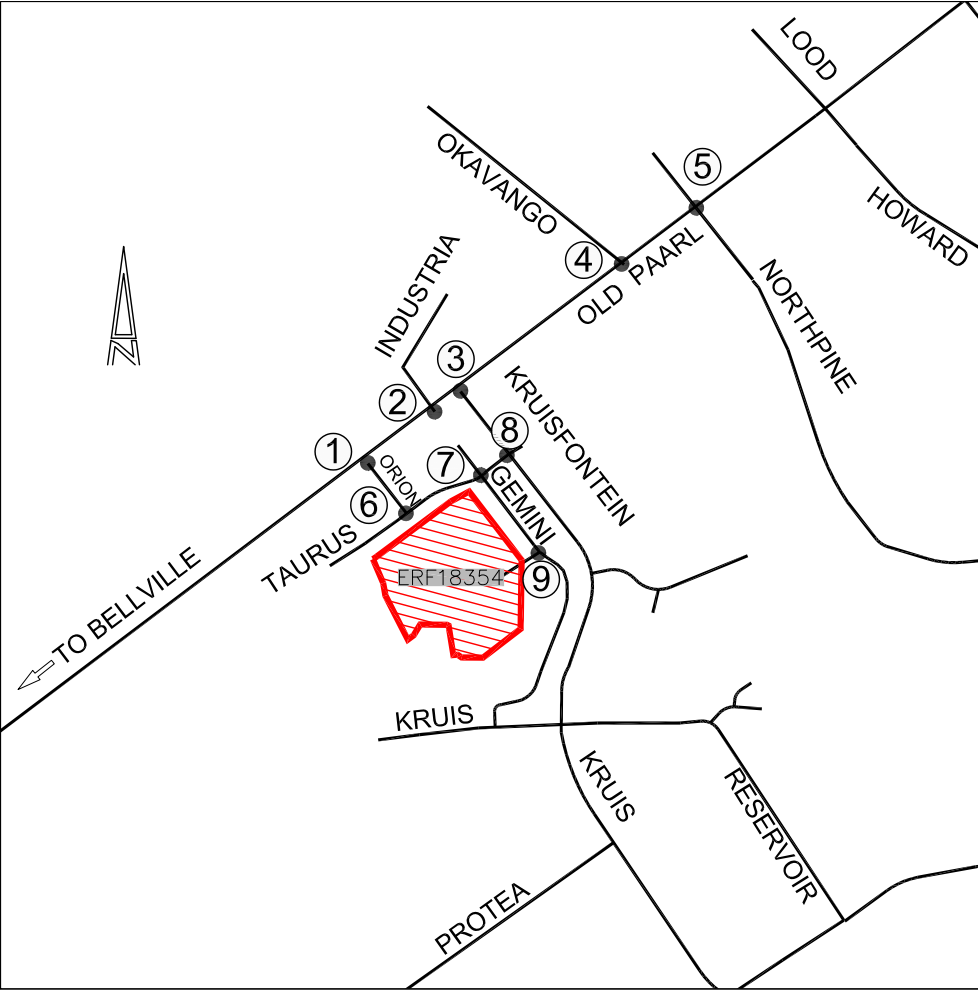
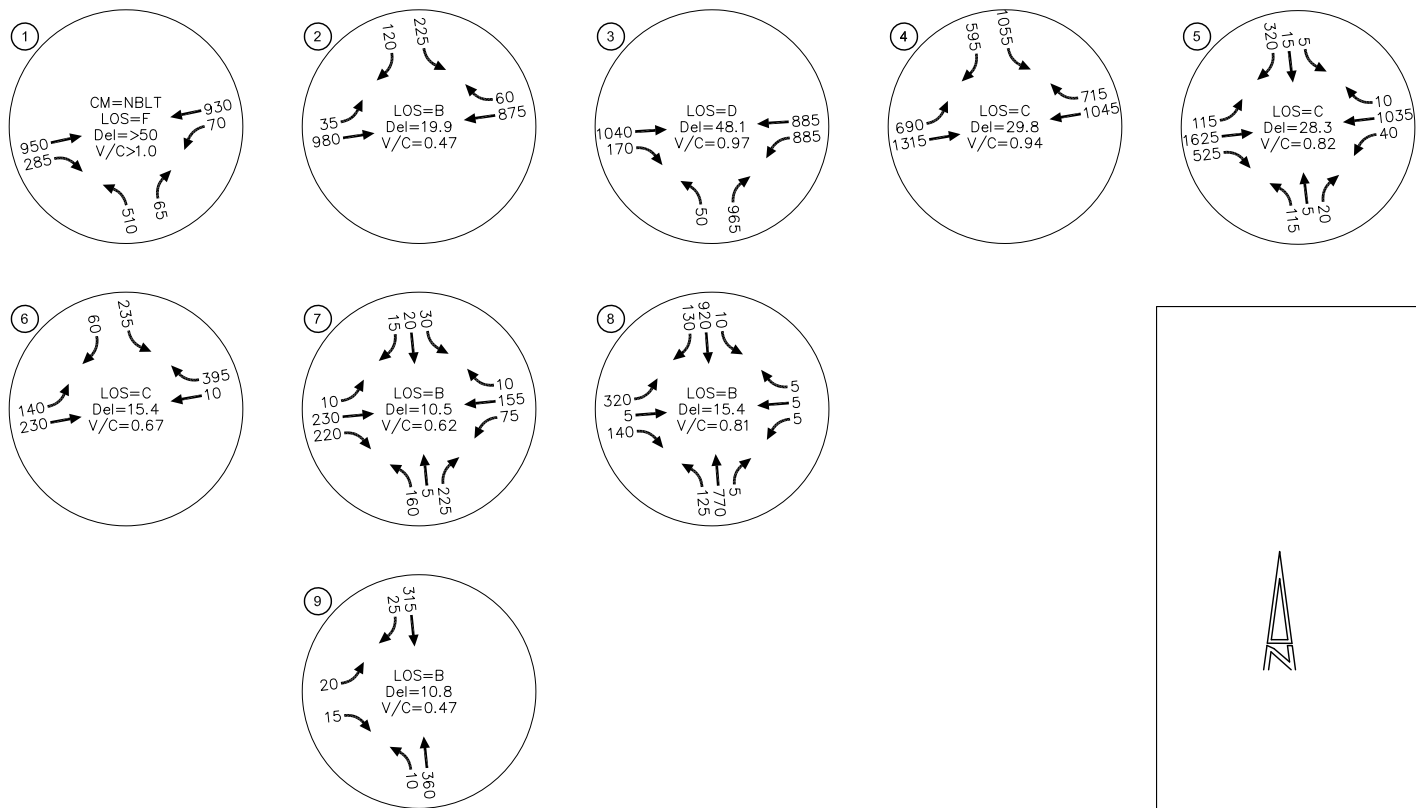


NOTE:  
CAPACITY ANALYSIS BASED ON UPGRADED LANE CONFIGURATION AS SHOWN IN FIGURE 4A.

#### LEGEND

CM = CRITICAL MOVEMENT (UNSIGNALISED)  
LOS = INTERSECTION LEVEL OF SERVICE (SIGNALISED) /  
CRITICAL MOVEMENT LEVEL OF SERVICE (UNSIGNALISED)  
Del = INTERSECTION AVERAGE DELAY (SIGNALISED) /  
CRITICAL MOVEMENT DELAY UNSIGNALISED  
V/C = CRITICAL VOLUME-TO-CAPACITY RATIO

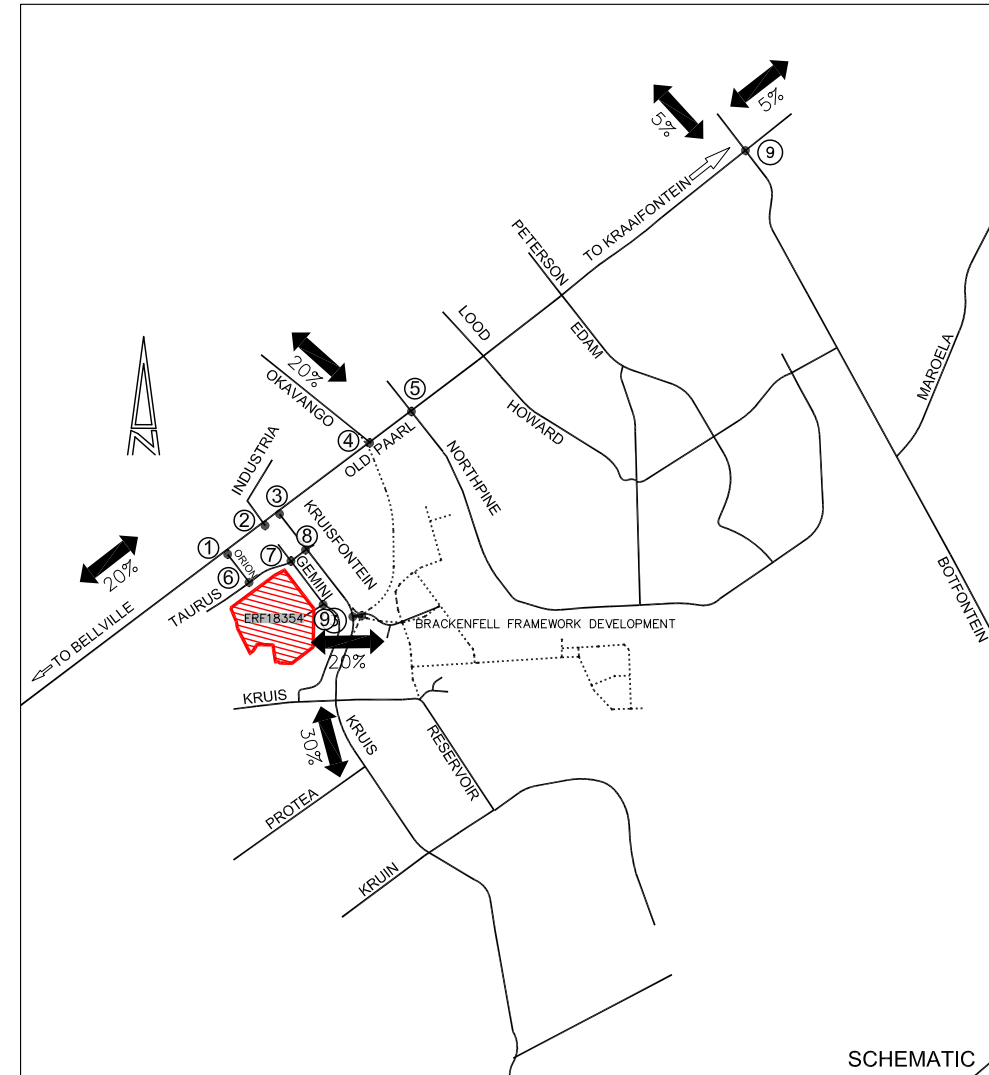
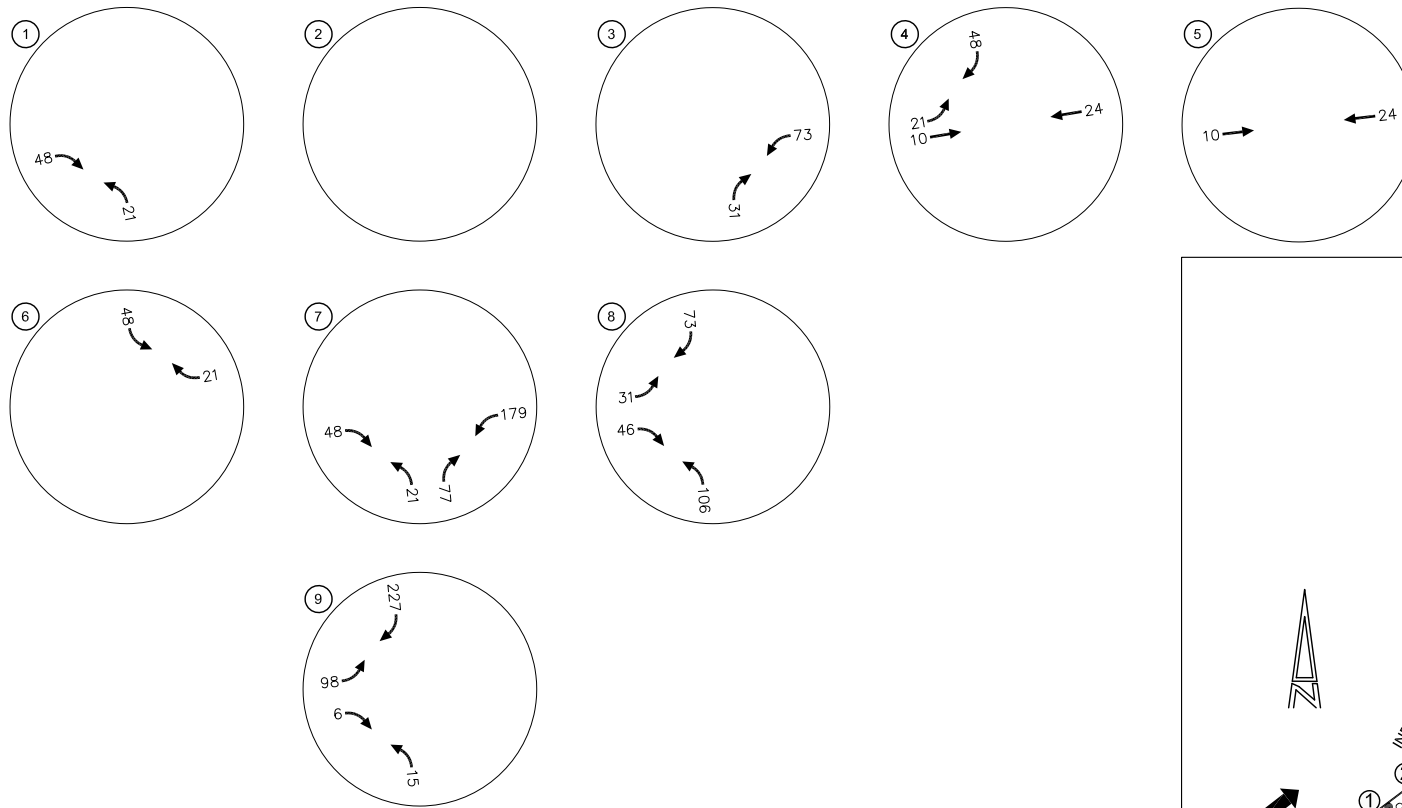
SCHEMATIC



NOTE:  
CAPACITY ANALYSIS BASED ON UPGRADED LANE CONFIGURATION AS SHOWN IN FIGURE 4A.

LEGEND
CM = CRITICAL MOVEMENT (UNSIGNALISED)
LOS = INTERSECTION LEVEL OF SERVICE (SIGNALISED) / CRITICAL MOVEMENT LEVEL OF SERVICE (UNSIGNALISED)
Del = INTERSECTION AVERAGE DELAY (SIGNALISED) / CRITICAL MOVEMENT DELAY UNSIGNALISED
V/C = CRITICAL VOLUME-TO-CAPACITY RATIO

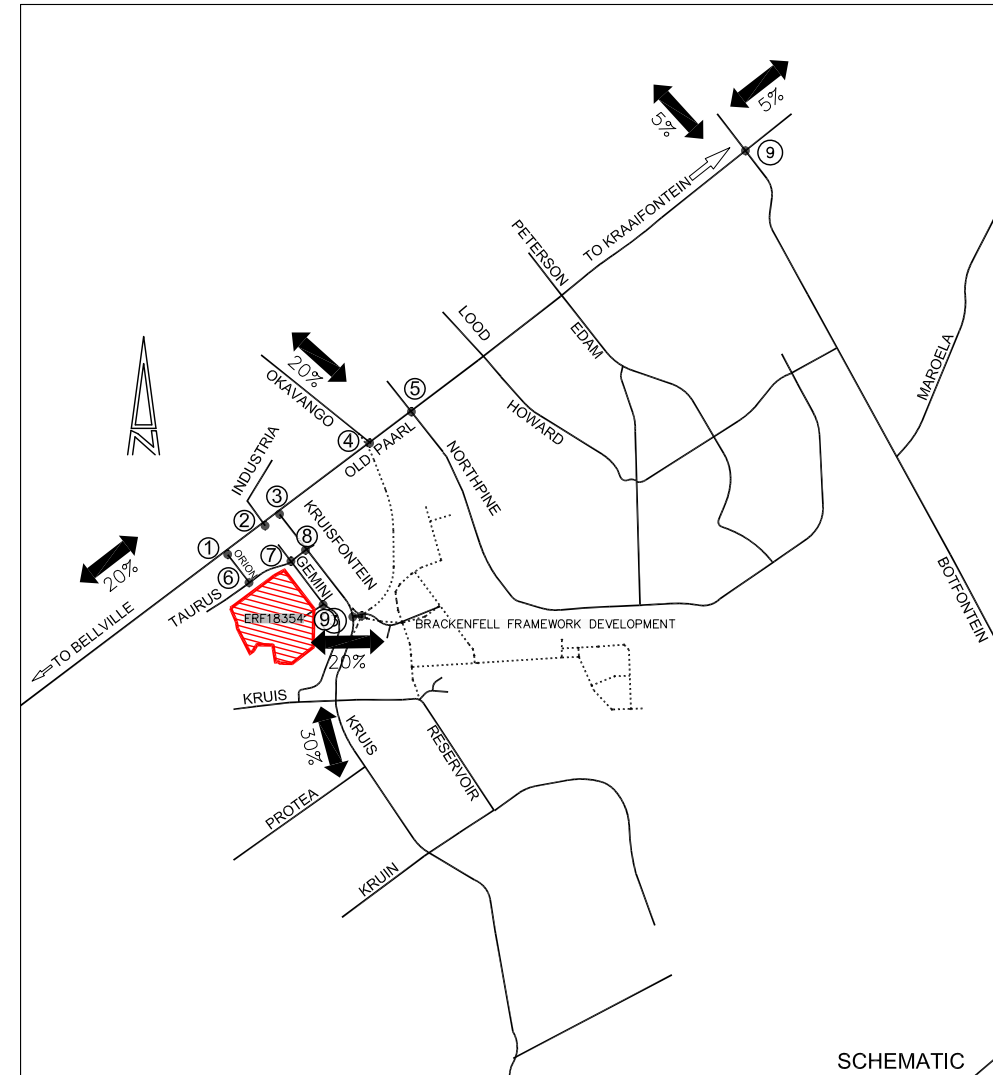
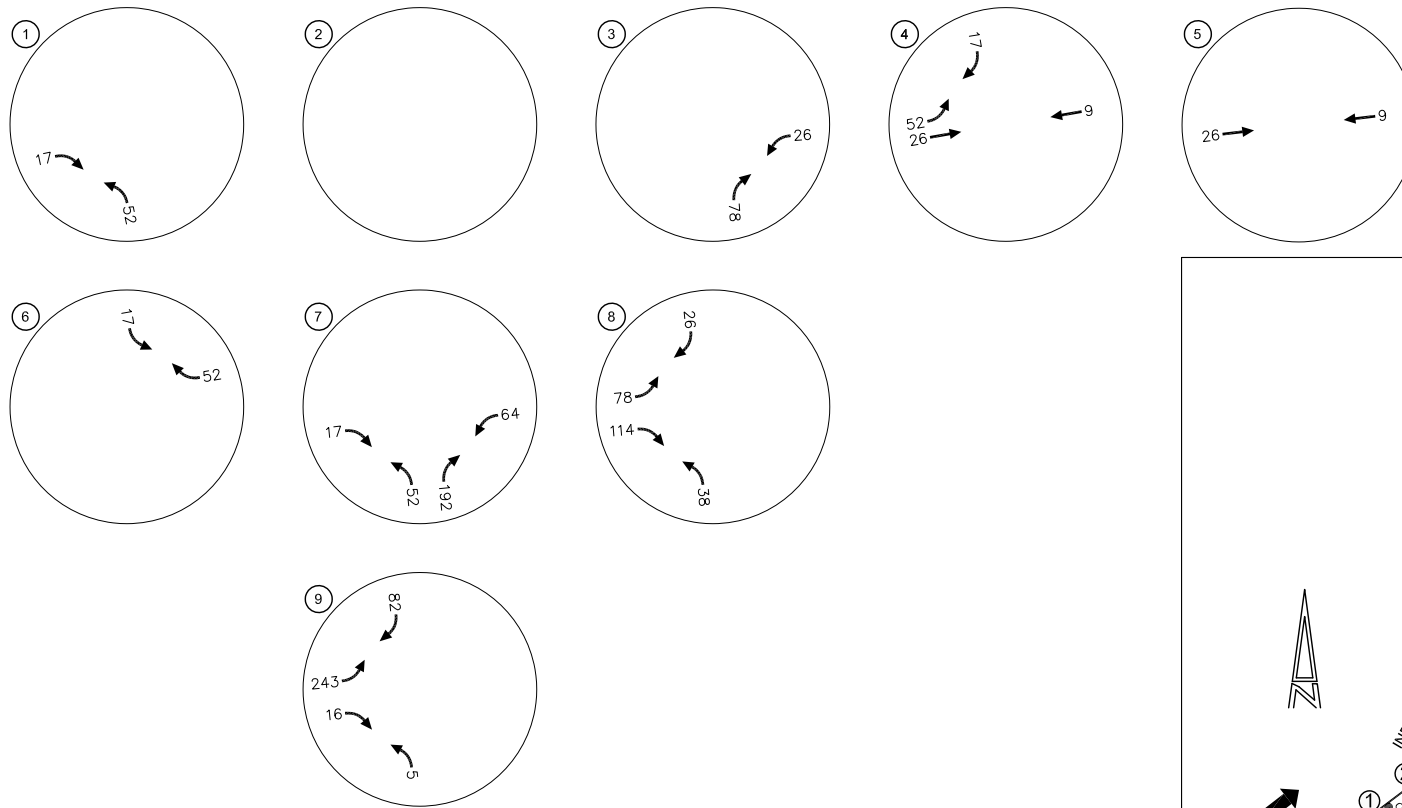
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SCHEMATIC

#### ESTIMATED SITE GENERATED TRIPS

PEAK HOUR	IN	OUT	TOTAL
AM	242	104	346



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#### ESTIMATED SITE GENERATED TRIPS

PEAK HOUR	IN	OUT	TOTAL
PM	87	259	346



PROJECT:

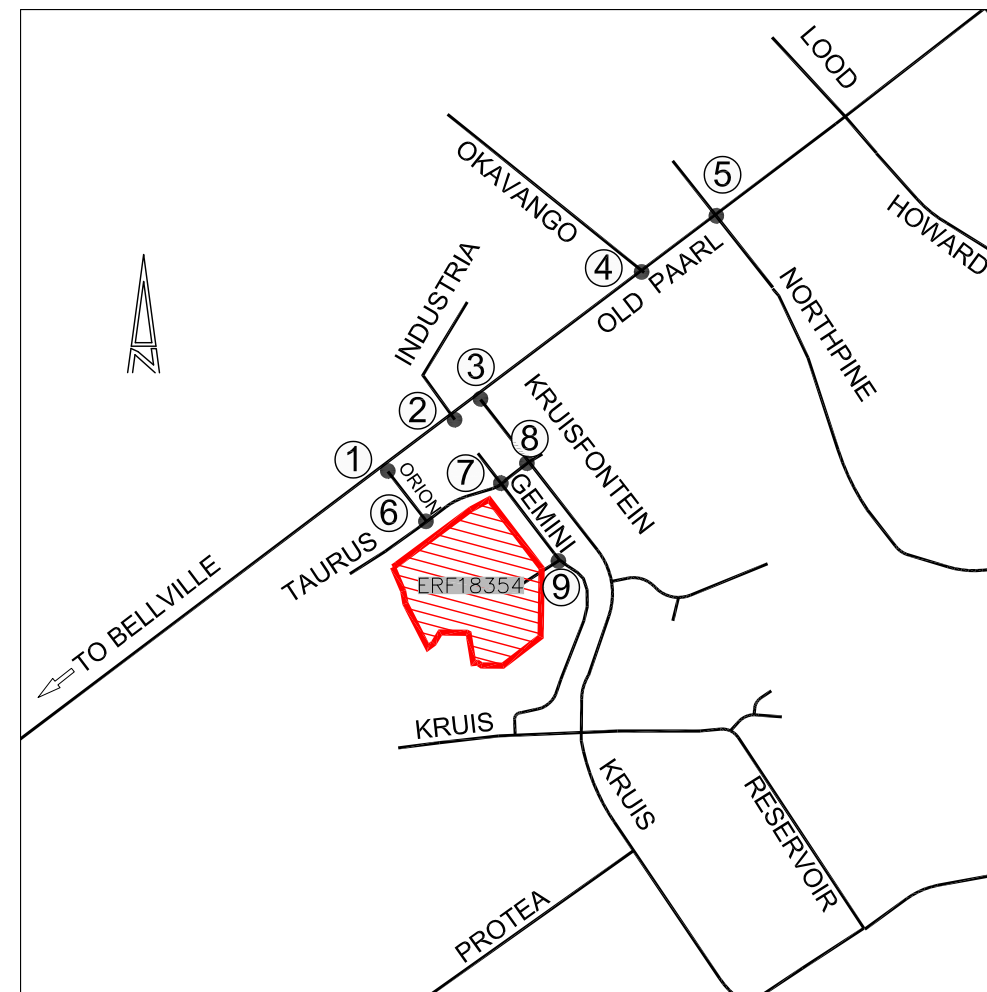
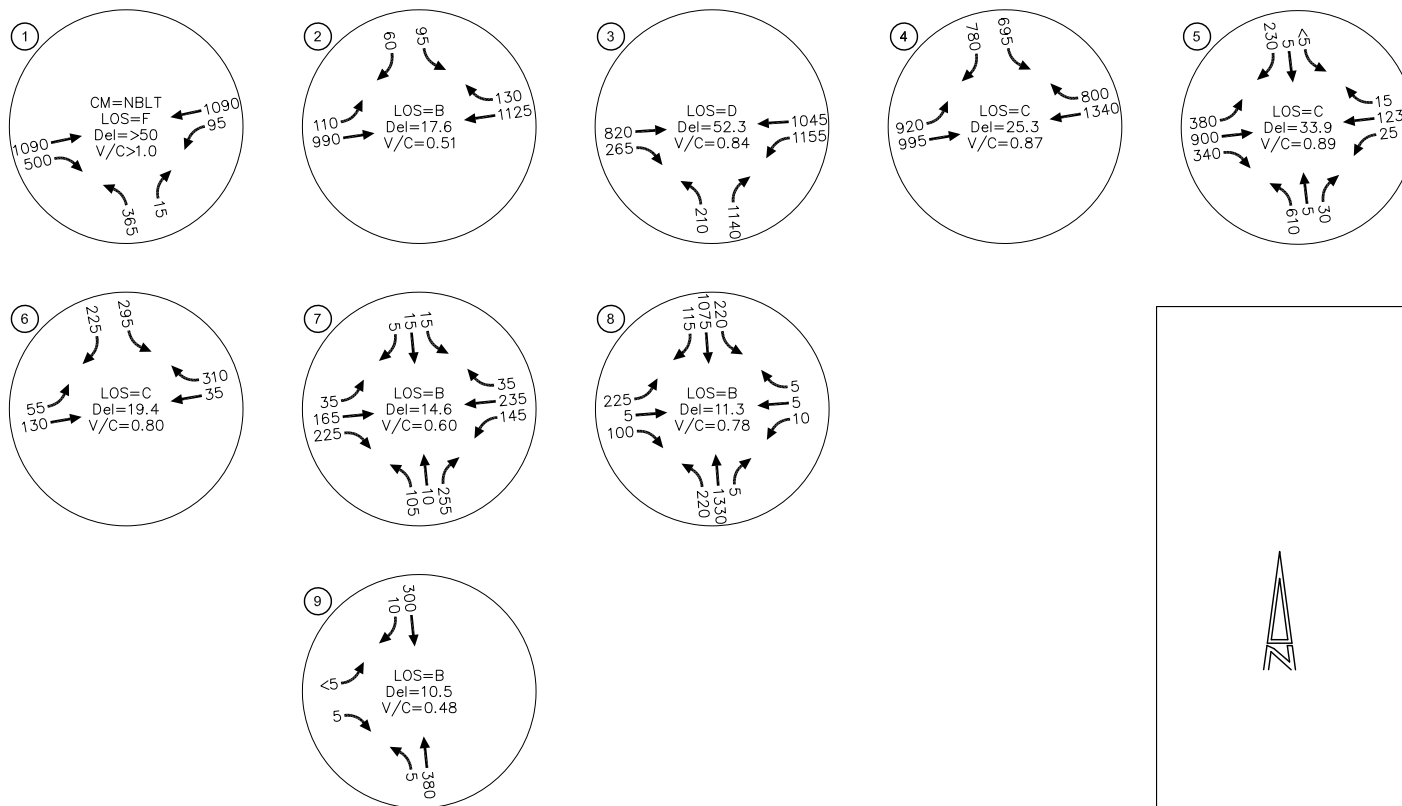
ERF 18354 BRACKENFELL

FIGURE:

DEVELOPMENT EXPECTED TRIP DISTRIBUTION  
AND SITE GENERATED TRIPS - PM PEAK HOUR

NUMBER:

5B



NOTE:  
CAPACITY ANALYSIS BASED ON UPGRADED LANE CONFIGURATION AS SHOWN IN FIGURE 4A.

LEGEND
CM = CRITICAL MOVEMENT (UNSIGNALISED)
LOS = INTERSECTION LEVEL OF SERVICE (SIGNALISED) / CRITICAL MOVEMENT LEVEL OF SERVICE (UNSIGNALISED)
Del = INTERSECTION AVERAGE DELAY (SIGNALISED) / CRITICAL MOVEMENT DELAY UNSIGNALISED
V/C = CRITICAL VOLUME-TO-CAPACITY RATIO

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PROJECT:

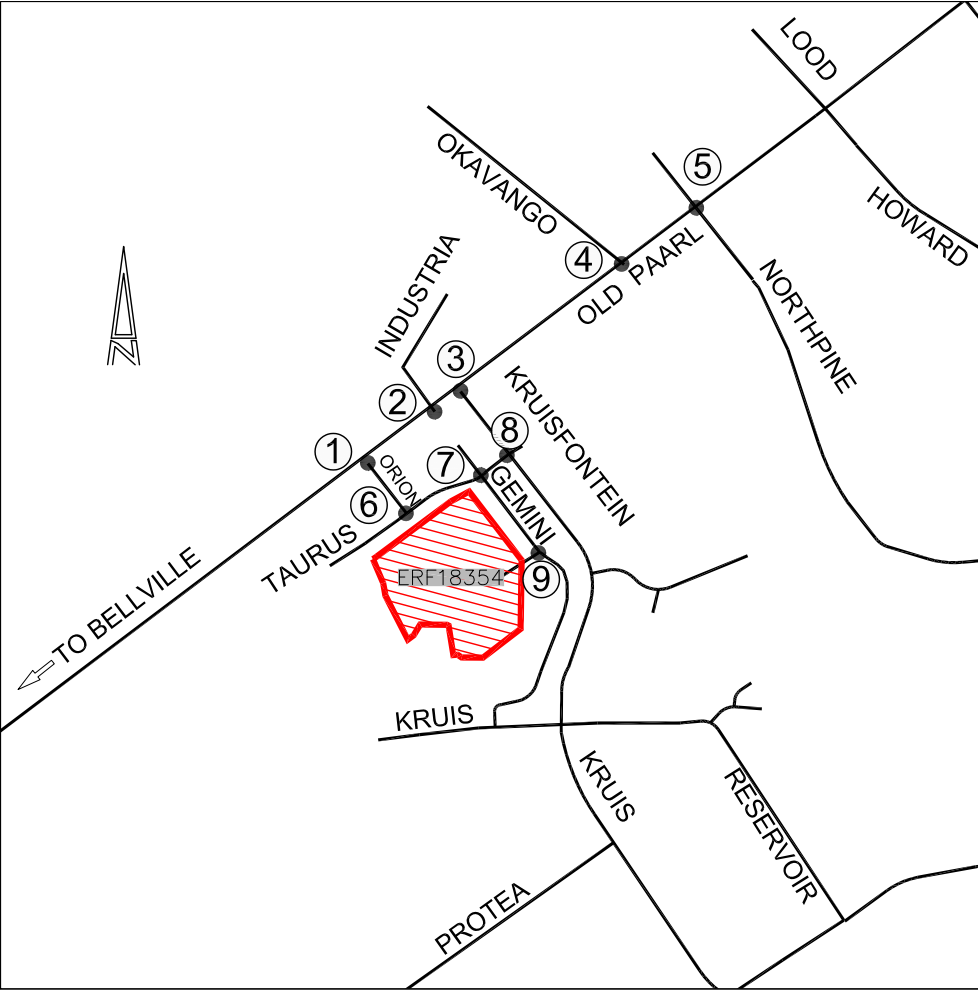
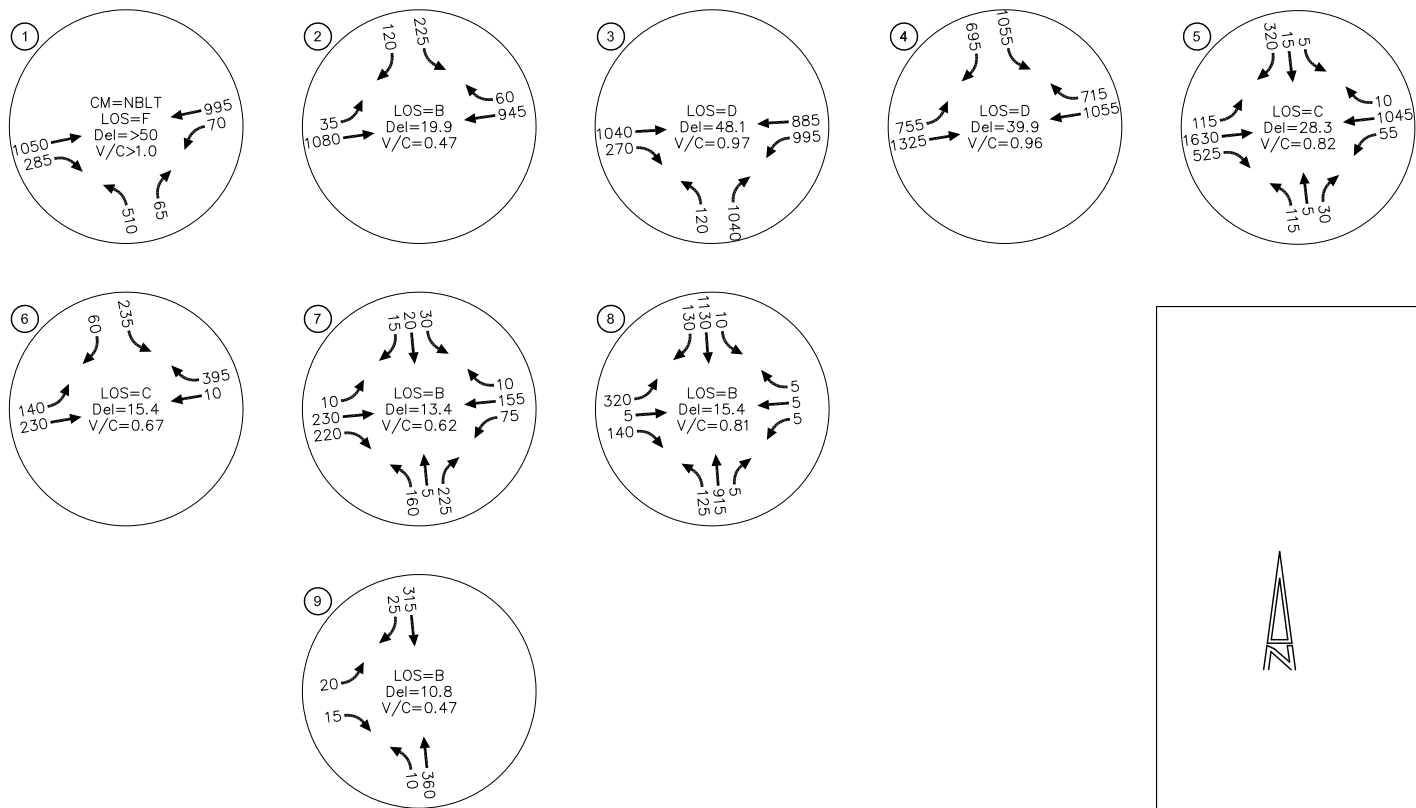
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FIGURE:

2026 TOTAL TRAFFIC CONDITIONS - AM PEAK HOUR

NUMBER:

6A



NOTE:  
CAPACITY ANALYSIS BASED ON UPGRADED LANE CONFIGURATION AS SHOWN IN FIGURE 4A.

LEGEND
CM = CRITICAL MOVEMENT (UNSIGNALISED)
LOS = INTERSECTION LEVEL OF SERVICE (SIGNALISED) / CRITICAL MOVEMENT LEVEL OF SERVICE (UNSIGNALISED)
Del = INTERSECTION AVERAGE DELAY (SIGNALISED) / CRITICAL MOVEMENT DELAY UNSIGNALISED
V/C = CRITICAL VOLUME-TO-CAPACITY RATIO

SCHEMATIC

## Appendix B

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### Tables

**Table 4: Scenario 1 – 2021 Existing Traffic Conditions**

Intersection	Weekday a.m. Peak Hour				Weekday p.m. Peak Hour			
	CM	LOS	Del	V/C	CM	LOS	CM	V/C
1. Old Paarl Road/Orion Road	NBRT	F	>50	0.17	NBLT	E	49.1	0.91
2. Old Paarl Road/Industria Road		B	11.2	0.62		B	13.5	0.65
3. Old Paarl Road/Kruisfontein Road		B	16.0	0.65		B	19.5	0.52
4. Old Paarl Road/Okavango Road		C	25.0	0.92		C	28.6	0.95
5. Old Paarl Road/Northpine Drive/Chrome Street		C	31.4	0.80		C	25.7	0.74
6. Taurus Road/Orion Road		B	14.2	0.66		B	12.4	0.55
7. Taurus Road/Gemini Street		A	7.9	0.48		A	7.4	0.50
8. Taurus Road/ Kruisfontein Road		A	8.0	0.54		B	10.0	0.56
9. Gemini Street/ Leo Close		A	9.7	0.41		A	9.8	0.40

LOS – Level of Service; CM – Critical Movement; Delay – Seconds per Vehicle; V/C – Volume per Capacity

**Table 5: Scenario 2 – 2026 Background Traffic Conditions**

Intersection	Weekday a.m. Peak Hour				Weekday p.m. Peak Hour			
	CM	LOS	Del	V/C	CM	LOS	CM	V/C
1. Old Paarl Road/Orion Road	NBLT	F	>50	>1.0	NBLT	F	>50	>1.0
2. Old Paarl Road/Industria Road		B	17.6	0.51		B	19.9	0.47
3. Old Paarl Road/Kruisfontein Road		D	52.3	0.84		D	48.1	0.97
4. Old Paarl Road/Okavango Road		C	25.3	0.87		C	29.8	0.94
5. Old Paarl Road/Northpine Drive/Chrome Street		C	33.9	0.89		C	28.3	0.82
6. Taurus Road/Orion Road		C	19.4	0.80		C	15.4	0.67
7. Taurus Road/Gemini Street		B	11.6	0.60		B	10.5	0.62
8. Taurus Road/ Kruisfontein Road		B	11.3	0.78		B	15.4	0.81
9. Gemini Street/ Leo Close		B	10.5	0.48		B	10.8	0.47

LOS – Level of Service; CM – Critical Movement; Delay – Seconds per Vehicle; V/C – Volume per Capacity

**Table 6:** Scenario 3 – 2026 Total Traffic Conditions

Intersection	Weekday a.m. Peak Hour				Weekday p.m. Peak Hour			
	CM	LOS	Del	V/C	CM	LOS	Del	V/C
1. Old Paarl Road/Orion Road	NBLT	F	>50	>1.0	NBLT	F	>50	>1.0
2. Old Paarl Road/Industria Road		B	17.6	0.51		B	19.9	0.47
3. Old Paarl Road/Kruisfontein Road		D	52.3	0.84		D	48.1	0.97
4. Old Paarl Road/Okavango Road		C	25.3	0.87		D	39.9	0.96
5. Old Paarl Road/Northpine Drive/Chrome Street		C	33.9	0.89		C	28.3	0.82
6. Taurus Road/Orion Road		C	19.4	0.80		C	15.4	0.67
7. Taurus Road/Gemini Street		B	14.6	0.60		B	13.4	0.62
8. Taurus Road/ Kruisfontein Road		B	11.3	0.78		B	15.4	0.81
9. Gemini Street/ Leo Close		B	10.5	0.48		B	10.8	0.74

LOS – Level of Service; CM – Critical Movement; Delay – Seconds per Vehicle; V/C – Volume per Capacity

## DECLARATION OF THE SPECIALIST

**Note:** Duplicate this section where there is more than one specialist.

I Christoff Krogscheepers....., as the appointed Specialist hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that:

- In terms of the general requirement to be independent:
  - other than fair remuneration for work performed in terms of this application, have no business, financial, personal or other interest in the development proposal or application and that there are no circumstances that may compromise my objectivity; or
  - am not independent, but another specialist (the "Review Specialist") that meets the general requirements set out in Regulation 13 of the NEMA EIA Regulations has been appointed to review my work (Note: a declaration by the review specialist must be submitted);
- In terms of the remainder of the general requirements for a specialist, have throughout this EIA process met all of the requirements;
- I have disclosed to the applicant, the EAP, the Review EAP (if applicable), the Department and I&APs all material information that has or may have the potential to influence the decision of the Department or the objectivity of any Report, plan or document prepared or to be prepared as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations.

  
\_\_\_\_\_  
Signature of the Specialist:

13/09/2021

\_\_\_\_\_  
Date:

Innovative Transport Solutions (Pty) Ltd  
\_\_\_\_\_  
Name of company (if applicable):