## **Edenfield Community Neighbourhood Forum**

## **Highways Development Access and Capacity Review**

29<sup>th</sup> August 2019.

## **Hope View Market Street Edenfield**





### SK TRANSPORT PLANNING TRAFFIC TRANSPORT HIGHWAYS



#### DEVELOPMENT ACCESS & CAPACITY REVIEW

Date: 27<sup>th</sup> August 2019

Project: Rossendale Local Plan – Edenfield Capacity Study

#### 1. Introduction

- 1.1 This Development Access and Capacity Review (DACR) has been prepared on behalf of the Edenfield Community Neighbourhood Forum (ECNF). The group has appointed SK Transport Planning (SKTP) to consider Rossendale Council's plan to allocate land in the village for 456 new dwellings.
- 1.2 By way of background Rossendale Council is currently preparing its Local Plan for the period 2019 to 2034. This document will be the key planning document for both the Council and developers to reference and guide decision-making on the appropriate use and type of development on land within the Borough.
- 1.3 The preparation of the Local Plan is led by a structured evidence base, and as part of that evidence base consideration has to be given to traffic and transport matters. Local authorities, when reviewing or preparing their evidence base must give due regard to technical matters, and the findings will ensure that both the Council and site promoters have clarity that the sites are deliverable and accessible, and that the traffic and transport impacts of the development have been assessed and any required mitigation measures identified at an early stage.
- 1.4 This technical assessment work will also guide the scale of development in particular locations, and also confirm that any proposed site allocations can be appropriately accessed and are deliverable within the plan period.
- 1.5 For ease of reference the development scale proposed by Rossendale Council across the Borough is summarised in the Council's Highway Capacity Study produced by Mott Macdonald. The report states:
  - 3,180 new dwellings, of which 1,240 are proposed within the first five years of the plan period to 2024 and the remaining 1,940 dwellings proposed for the period 2024 to 2034
  - 20.53 (19.95 new and 0.58 on an existing site) Hectares Gross Area for employment (B1, B2, B8), and A further 3.08 hectares of land for mixed use sites.
- 1.6 At the time of writing the Council is proposing that Edenfield accommodates 456 new residential dwellings, an increase of 46.8% over the current 974 residential dwellings in the village.
- 1.7 SKTP, on behalf of the ECNF has undertaken a review of the Council's supporting traffic and transport data prepared by Mott McDonald in October 2018, as well as the promotional material submitted by the site promotors in October 2018.
- 1.8 The review has also incorporated a number of site visits to the village, to consider the proposed pedestrian, cycle and vehicular accesses to the development sites. The ECNF has also commissioned independent traffic surveys at the following locations in the village:
  - Market Street (the B6527)
  - the Blackburn Road/Burnley Road signalised junction
  - the Market Street/Rochdale Road/Bury Road mini-roundabout junction
- 1.9 This document provides a concise review of the Council's allocation proposals and considers both the potential impact of the proposed development and the proposed access strategies to the development sites in detail. The document provides technical evidence on traffic and transport matters which have not been presented to the Council to date in either their own Consultant's assessment or in supporting documentation presented by site promoters.



1.10 This report identifies a number of fundamental issues which have not been considered to date as part of the site evaluation exercise. These technical matters will be presented and discussed at the forthcoming Local Plan Examination by a representative of the ECNF.

#### 2. Technical Evidence

- 2.1 The ECNF has supplied SKTP with a number of technical reports to review and comment on as part of this commission. These include:
  - a Mott MacDonald Technical Note dated 12/01/18 summarising their technical appointment and Highway Capacity Analysis (HCA) across the Borough
  - the Rossendale Local Plan Highway Capacity Study (prepared by Mott Macdonald) dated 01/08/18)
  - three Highways England letters (two dated 04/10/18 and a third dated 25/01/18) all
    providing materially different comments on the Pre-Submission of the Local Plan
  - the Rossendale Draft Local Plan Regulation 19 Consultation containing "Additional Comments and Information Received from Respondents of the Consultation"
- 2.2 A summary of these reports is provided below.

#### The Mott MacDonald Reports

- 2.3 Mott MacDonald (MM) has been appointed by Rossendale Council to undertake a Highways Capacity Study in relation to the Rossendale Local Plan. The 12/01/18 Technical Note (TN) confirms that this assessment work "has been undertaken to inform both the allocations process and to provide appropriate commitment to the formal Duty to Cooperate process."
- 2.4 The TN confirms that the assessment work has prepared operational analysis for a number of key junctions in the Borough for the following assessment years:
  - 2019 Baseline
  - 2024 Reference Case
  - 2024 Local Plan
  - 2034 Reference Case
  - 2034 Local Plan
- 2.5 The 2019 assessment year is the assumed year for adoption of the Local Plan, the 2024 year are the 5-year build out within the plan and the 2034 year represents the ultimate life of the plan. The TN confirms that the assessment work has been prepared using 2017 traffic flow data sourced from Lancashire Council (LCC) and then the use of TEMPRO growth factors, committed development traffic volumes and housing/employment traffic volumes. The distribution of traffic has been based on 2011 Census Journey to Work data and GIS fastest route analysis.
- 2.6 With regard to Edenfield the TN confirms that the only two junctions assessed as part of this study have been the A56/M66 junction and the Rochdale Road/Market Street roundabout in Edenfield. No other junctions or links have been assessed within the village as part of this technical assessment work.
- 2.7 The TN provides a brief summary of the operational assessments. For ease of reference we have provided the summaries for the two junctions below.

#### The A56/M66 Junction

"Junction 10 has been assess (sic) using the Arcady software.

There are no noted operational issues at this junction in either the 2019, 2024 or 2034 assessment years and scenarios.

It is considered that this junction can accommodate the build out of the Local Plan up to 2034."



2.8 Based on this summary the MM TN concludes that there will be no operational or capacity issues in any of the assessment years and scenarios, and that the junction can accommodate the build out of the Local Plan up to 2034.

#### Rochdale Road/Market Street Roundabout, Edenfield

"Junction 11 has been assess (sic) using the Arcady software.

There are no significant operational issues experienced at this junction at either 2019 or 2024, in both the Reference Case and Local Plan scenarios. As such, it is considered that this junction can accommodate the build out of the Local Plan up to 2024.

At 2034 there is a noted worsening of performance in the morning peak at the Local Plan scenario when compared to the Reference Case. (our emphasis)

It is considered therefore that discussion with LCC should take place as to whether an intervention is required at this junction due to the Local Plan build out to 2034. It should be noted however that the existing configuration of the junction and the general nature of the surrounding built up area, may prohibit the development of a scheme within the existing highway boundary." (our emphasis)

- 2.9 The MM response is clear in that at the mini-roundabout junction in the 2034 assessment there is a noticeable worsening of the junction performance when compared to the reference case. The Council's own consultant confirms that potential mitigation measures to enhance capacity at this location are limited by the junction configuration and surrounding third party land.
- 2.10 This position is reinforced in MM's assessment summary table in the report (table 3 page 7), which confirms that this junction can accommodate development traffic in the first five years of the plan, but cannot accommodate the full fifteen years of traffic associated with the plan. The table does not confirm if further analysis of this junction is required, but it does state that the views of LCC (as highway authority) should be sought regarding this identified issue.
- 2.11 Turning to the MM Rossendale Local Plan Highway Capacity Study (October 2018) this document provides a more comprehensive appraisal of the impacts of the proposed residential allocation in the village. As with the previously reviewed technical note this report concentrates on an assessment of junction capacity, and give limited weight or assessment to the impacts of additional traffic within the village.
- 2.12 As an example whilst the report does provide a brief summary of collision records, this only focuses on the junctions identified in the initial MM TN, and does not include any assessment of collision rates at the proposed development site access locations.
- 2.13 In addition the report very much focuses on the impacts, in capacity terms at a single junction of the traffic associated with the proposed allocations being brought forward. There is no assessment within the report on the expected development access proposals, suitability of existing highway links to accommodate additional traffic and compliance with industry-standard design guidance to achieve safe and appropriate access for all modes of travel. This is considered to be a major omission in the site appraisal process. Further commentary on these technical matters is provided later in this report.
- 2.14 Returning to the MM report the summary of the ARCADY model outputs for the assessment years presented in paragraph 2.4 are presented in **table 2.1** for ease of reference. The modelling results confirm:
  - in the 2019 AM and PM peak Base, 2024 Reference Case and 2024 Local Plan assessments the junction is predicted to operate within accepted Ratios of Flow to Capacity (RFC) and with limited queuing on all approach arms
  - in the 2034 Reference Case assessments the junction performance is comparable, and not materially worse than the 2024 Reference Case
  - in the 2034 Local Plan AM and PM peak assessments the MM modelling confirms a significant and material degradation of junction performance



- in the 2034 AM peak the modelling confirms that on the Rochdale Road the RFC value is in excess of 1 and that predicted queue lengths will increase from 4.49 vehicles (30 metres) to 26.9 vehicles (162 metres).
- In the 2034 PM peak on the Bury Road (south) arm the RFC value increases from 0.89 to 1.13 between the Reference Case and Local Plan assessment and estimated queue lengths will increase from 6.95 vehicles (42 metres) to in excess of 375m.
- 2.15 As confirmed in the MM TN (dated 12/01/18) this junction is predicted to operate well in excess of accepted capacity thresholds in the 2034 Local Plan assessment years, with no clear and identifiable way of enhancing the capacity or mitigating the development impact at this roundabout junction. The MM Highway Capacity Study states on page 68 that:

"The 2034 analysis results show a notable difference between the Reference Case and Local Plan scenario results for the Rochdale Road arms in the morning peak and the Bury Road South arm in the evening peak."

	2	2019 Bas	е	20	24 Ref Ca	ase	202	4 Local F	Plan	203	34 Ref Ca	ase	203	4 Local I	Plan
Lane Description	Q (pcu)	RFC	LoS	Q (pcu)	RFC	LoS	Q (pcu)	RFC	LoS	Q (pcu)	RFC	LoS	Q (pcu)	RFC	LoS
Bury Rd North	1.85	0.65	В	1.93	0.66	В	2.31	0.7	В	2.34	0.71	В	9.09	0.92	E
Rochdale Rd	3.02	0.76	С	3.32	0.78	С	3.74	0.8	С	4.49	0.83	С	26.9	1.04	F
Bury Rd South	0.92	0.48	Α	0.97	0.5	Α	1.04	0.51	Α	1.09	0.52	Α	2.67	0.73	C

Table 32. Junction 11 Rochdale Road / Market Street Edenfield Evening Peak Results

	2	2019 Bas	е	202	24 Ref Ca	ase	202	4 Local F	Plan	203	34 Ref Ca	ise	203	4 Local F	lan
Lane Description	Q (pcu)	RFC	LoS	Q (pcu)	RFC	LoS	Q (pcu)	RFC	LoS	Q (pcu)	RFC	LoS	Q (pcu)	RFC	LoS
Bury Rd North	0.5	0.34	Α	0.53	0.35	Α	0.59	0.37	Α	0.58	0.37	Α	1.51	0.6	A
Rochdale Rd	1.63	0.62	Α	1.69	0.63	Α	1.82	0.65	В	1.93	0.66	В	3.72	0.8	С
Bury Rd South	4.61	0.83	C	4.87	0.84	D	6.73	0.88	D	6.95	0.89	E	62.5	1.13	F

Table 2.1: Mott MacDonald October 2018 Rochdale Road/Market Street ARCADY Results

- 2.16 Having identified this junction capacity issue the MM report then attempts to play down the impacts in the 2034 Local Plan assessments, by stating that the distribution of traffic to and from the proposed allocation sites, which predominantly fall to the north of the roundabout will mean that development traffic will not need to route through this roundabout junction. In addition, the MM report attempts to place weight on a highway scheme in Bury that would provide a southern bypass to Edenfield. The report confirms this this scheme has no highway status, but if implemented would:
  - "likely provide a reduction in traffic volumes within Edenfield, thereby representing a much more efficient and sensible approach to dealing with forecast future delay within the village."
- 2.17 The findings from the MM report are both contradictory and inconsistent. Geographically any traffic in the village wishing to travel either towards Rochdale, Ramsbottom, Bury or the M66 will travel southwards through the Rochdale Road/Market Street mini roundabout. The assertion that development traffic would travel north from the village either via Blackburn Road/Manchester Road to join the A56, or via Bury Road to join the Rawtenstall Gyratory to then route south onto the A56 would result in a circa 7km diversion to return back to the A56/M66 junction.



2.18 Based on the MM assessment work it is considered that their technical modelling appraisal is fit for purpose and the predicted impacts at the Rochdale Road/Market Street mini-roundabout junction modelling are robust and reflect expected future traffic conditions. What is not accepted is the MM conclusions that place a reliance on end occupiers of the draft site allocations undertaking significantly longer diversionary routes to avoid the junction, or a reliance on highway schemes in a neighbouring authority which has no status is considered incorrect and not an accurate representation. This position is reinforced by other assessment work undertaken by site promoters, Highways England and SKTP as part of this technical review.

#### Highways England Position

- 2.19 As part of the appraisal of the emerging Rossendale Local Plan Highways England (HE) has provided comments on the proposed site allocations and development impact. In their original responses dated 4<sup>th</sup> October 2018 they provided very clear and concise comments on both the suitability of the proposed residential allocation west of Market Street in Edenfield (site H72), as well as the expected access arrangements for the site.
- 2.20 With regard to accessing this development whilst HE acknowledged that masterplans would be prepared to support proposed residential allocations of more than 50 dwellings they have raised concerns that the potential allocation has:

"the potential to significantly impact upon the safety and operation of the SRN. It is unclear what access arrangements have been considered for this housing allocation, or that appropriate mitigation measures have been identified to address any significant impact on the SRN. As such at this stage Highways England do not consider there is robust evidence to support the inclusion of this allocation and its removal from the Green Belt." (HE emphasis)

- 2.21 This position regarding development impact is confirmed in the MM technical assessment work. The modelling confirms that the development will have an impact at the only assessed junction in the 2034 Local Plan modelled period, and the impact of the Local Plan allocation will have a material and potentially severe impact on the performance of the Rochdale Road/Market Street mini roundabout junction.
- 2.22 Whilst not a traffic and transport matter HE has also formally commented that there are geotechnical issues with the development of site H72. They have stated in their 4<sup>th</sup> October 2018 response:
  - "...the presence of an existing land-slip beneath the site now dictates that the Council must now carry out a geotechnical assessment in order to provide a robust indication of the extent to which the allocation may be developed / contribute towards the housing target."
- 2.23 In their subsequent letter of the 25<sup>th</sup> January 2019 HE provided an update to their 4<sup>th</sup> October 2018 letter. In their final letter HE's confirmed that their original response:
  - "...commented on several areas covering RBC's Highway Capacity Study, as well as viability matters linked to geotechnics and ground conditions concerning three proposed allocations. <u>It is on this latter aspect</u> on which we now write, specifically in respect of comments made about the housing site allocation reference 'H72' known as 'Land West of Market Street, Edenfield'.
- 2.24 Their January 2019 response provides a concise update that their concerns regarding the ground stability risks on part of the land that forms part of H72. HE has recommended that a:



- "....comprehensive (and intrusive) site survey and geotechnical assessment is carried out before planning decisions affecting the development layout (and therefore quantum of development) are taken."
- 2.25 Turning to traffic and transport matters it is noted that HE has stopped short of commenting on the impact of the development proposals on the local highway network. This is as expected as HE is responsible for the trunk road network.
- 2.26 The HE has confirmed in their January letter that the MM study does identify the need to widen the A56 to three lanes in each direction, and HE are aware this could be needed towards the early 2030's. The letter confirms HE has no proposals to take this scheme forward at this time, but would want to reserve the right to do so in the future. HE has stated in their response:
  - "RBC and any future developer(s) of the H72 site may wish to consider this when planning the permanent internal layout and landscaping of a 'new' development."
- 2.27 In conclusion the HE's January 2019 response is carefully caveated by saying that they are "satisfied in principle" that the H72 site allocation could be development for housing without adverse impact on the A56 trunk road, provided a careful approach is taken to its planning and construction.
- 2.28 The combination of technical evidence produced by MM in their Highway Capacity Study, coupled with the HE's material concerns regarding land stabilisation within H72 brings into question whether this site is appropriate for residential development, and the scale of development proposed. To date we are not aware of any geotechnical information submitted to the Council to support the draft allocation in the emerging Local Plan.

#### Site Promoter Traffic and Transport Comments

- 2.29 As part of the "Additional Comments and Information Received from Respondents of the Consultation" responses from the site promoters transport consultants have been submitted. The report has been prepared by Croft Transport Planning and Design, on Behalf of Taylor Wimpey UK Limited and Methodist Church (the site promoters). For clarity the report confirms that the draft allocation (H72) will deliver a total of 400 residential units on the site, which is made up of three land parcels, known as:
  - land west of Market Street
  - land off Exchange Street
  - land to the west of Blackburn Road
- 2.30 The Croft report was prepared after the issuing of the MM Highway Capacity Study and refers to the technical assessment work presented in this report. It acknowledges that the MM concluded that in the future year assessments spare capacity would exist at the M66/A56 roundabout junction.
- 2.31 However the Croft report also acknowledged the findings of the capacity constraints at the Rochdale Road/Market Street mini roundabout junction. The report states in paragraph 2.1.4:
  - "The Market Street/Bury Road/Rochdale Road mini-roundabout is more constrained and it was concluded within the report that intervention may be required by the end of the plan period."
- 2.32 The Croft report confirms that the technical work within the document was prepared to review the likely impact of the proposals on the local highway network, in particular the Rochdale Road/Market Street mini roundabout junction.



2.33 Working through the impact appraisal there are a both a number of technical matters that are consistent with our findings and the appraisal undertaken by MM, but also some material differences that will have an effect on the overall assessment. These are summarised below.

#### Surveyed Flows

- 2.34 The Croft report confirms that the 2017 LCC traffic data has been used for their appraisal. As this data only included turning movements for the Rochdale Road/Market Street junction this is the only junction modelled in the site promoters appraisal. It is noted that no assessment of traffic conditions, traffic flow or detailed assessment of the development site access arrangements has been included in these representations. Further commentary on this is provided later in this report.
- 2.35 In terms of surveyed traffic flows through the Rochdale Road/Market Street junction we confirm that the 2017 LCC data, growthed to a 2019 Base year correlates well with the ECNF late June/early July 2019 survey data. We also take the opportunity to highlight that the directional flows on Market Street immediately adjacent to the proposed site access were recorded as:
  - AM Peak 352 Passenger Car Units (PCUs) northbound and 367 PCUs southbound
  - PM Peak 487 Passenger Car Units (PCUs) northbound and 268 PCUs southbound
- 2.36 The ECNF data confirms that the weekday two-way flows on Market Street in the AM and PM peak periods are 719 and 755 PCUs respectively.

#### TEMPRO Growth Factors & Committed Development Traffic

2.37 We have reviewed the Croft approach to the use of TEMPRO, and the adjustment to the household and jobs within the local area. Having reviewed the approach we agree with the suggested growth factors. With regard to the lack of inclusion of committed development flows whilst we are aware of some developments that have planning approval and/or are under construction in the village these are of a scale that would not be expected to result in a material difference to base traffic flows across the network.

#### Allocation Site Trip Rates and Traffic Distribution

2.38 The Croft report acknowledges that the residential trip rates used in the MM assessment are from a range of Transport Assessments. Whilst the Croft report does not formally challenge the MM trip rates, the report states:

"Given the myriad residential sites identified within the emerging local plan, this is considered a reasonable approach when preparing a borough wide study, but this <u>may result</u> (our emphasis) in an overestimate of development trips in a specific location.

As such, consideration has been given the potential trips that would occur as a result of potential residential development within Edenfield."

2.39 Whilst the Croft methodology to calculate alternative trip rates is in line with the industry-standard approach, we draw caution in allowing the individual assessment of sites to materially deviate from the Council's own recommended trip rates. To demonstrate the effect of the alternative trip rates table 2.2 summarises the difference between the MM and Croft vehicle trip rates.



			AM Peak			PM Peak	
		Arrival	Departure	Total	Arrival	Departure	Total
MM Residential Trip Rates (from Report)		0.142	0.416	0.558	0.404	0.221	0.625
400 Units	400	57	166	223	162	88	250
			AM Peak			PM Peak	
		Arrival	Departure	Total	Arrival	Departure	Total
Croft Trip Rates		29	121	150	124	61	185
Difference between MM and Croft Trip Rates			AM Peak			PM Peak	
		Arrival	Departure	Total	Arrival	Departure	Total
	Vehicle Difference	-27.8	-45.4	-73.2	-37.6	-27.4	-65
_	<b>Percentage Changes</b>	-48.9%	-27.3%		-23.3%	-31.0%	

Table 2.2: Comparison between Mott MacDonald and Croft Development Trip Rates

- Table 2.2 confirms that the application of the Croft vehicular trip rates result in a material reduction in predicted traffic flows to and from the draft allocation sites in the peak periods. The MM trip rates estimate 223 and 250 two-way vehicle movements in the AM and PM peak periods respectively, whereas the Croft trip rates estimate 150 and 185 two-way vehicle movements for the same time periods. This is a 33% reduction in development trip rates in the AM peak and a 26% reduction in the PM peak.
- 2.41 The application of these materially lower vehicular trip rates has the potential to supress the actual impact of the proposed development on the surrounding highway network, and for this reason we consider any assessment work utilising these trip rates should be treated with a significant degree of caution.
- 2.42 For the reasons given above we consider that it is appropriate and transparent for all potential allocation sites to use agreed residential trip rates when appraising site allocations, and in line with this we recommend that the Croft "sensitivity test analysis" provides a more realistic assessment of the development impact.

#### Capacity Assessment

- 2.43 The Croft report presents ARCADY modelling for the 2024 Base and "with allocation" flows, as well as the 2034 Base and "with allocation" flows as a sensitivity test. When comparing the 2024 AM and PM peak base flows with the MM assessments the modelling is broadly comparable in terms of RFC values and queue lengths.
- 2.44 However, there is a material difference between the two assessments in the "with allocation" scenarios. The use of materially lower development trip rates results in the Croft assessment presents a reduced development impact in this location. Notwithstanding this the Croft assessment shows a material degradation of junction performance in the 2034 future year assessment. Their assessment confirms in the weekday AM peak that the Rochdale Road junction arm will see the max queue length increase from 10 to 23 vehicles and the max RFC increases from 0.92 to 1.00.
- 2.45 In the 2034 PM peak the impacts are more significant. In line with the MM assessment the Bury Road junction arm RFC value is predicted to increase from 0.87 to 0.99, with the maximum queues increasing from 6 to 25 vehicles. Motorists are predicted to experience an increase in delay from 34 to 121 seconds on this junction arm.
- 2.46 The Croft report summarises the above position by stating:

"The assessment indicates that the junction would only just reach capacity at 2034 following the additional of traffic associated with the draft allocation site, however, even then, increases in delay are unlikely to impact on overall journey times.

Notwithstanding the above, as set out in the MM highway capacity study, the junction performance could benefit from the formalisation of the existing uncontrolled crossing on the Bury Road North



arm of the junction (note – this crossing is on Market Place) into a demand controlled signalised crossing, if this is considered necessary by the local highway authority at the time of a planning future planning application(s)."

- 2.47 The Croft report states the modelling is "...unlikely to impact on journey times". This is incorrect as their own modelling confirms motorists will experience a material increase in queues and time delay. In addition we question how they have arrived at the potential solution to the capacity issue being the upgrading of the uncontrolled pedestrian crossing to a controlled operation.
- 2.48 Their own modelling, which compares the "base" traffic conditions against "with allocation" flows clearly shows a material degradation in junction performance. This is in line with the MM modelling, albeit the level of congestion and delay is lower than the more robust MM assessment.
- 2.49 Based on the above assessment we disagree with the conclusions laid out in the Croft assessment, which states:
  - "...it can be concluded that the Market Street/Rochdale Road/Bury Road mini-roundabout can accommodate the likely levels of traffic associated with the draft allocation sites without any significant impacts on the surrounding highway network."
- 2.50 Their own modelling, presented in tables 2.11 and 2.12 in their report clearly shows a material worsening of the junction performance in the 2034 "base" and "with allocation" flows. We are of the professional opinion that the MM conclusions regarding the performance of the Rochdale Road/Market Street mini-roundabout junction are correct. For ease of reference their comments are provided below for information.

At 2034 there is a noted worsening of performance in the morning peak at the Local Plan scenario when compared to the Reference Case. (our emphasis)

It is considered therefore that discussion with LCC should take place as to whether an intervention is required at this junction due to the Local Plan build out to 2034. It should be noted however that the existing configuration of the junction and the general nature of the surrounding built up area, may prohibit the development of a scheme within the existing highway boundary." (our emphasis)

2.51 Based on the findings in both the MM and Croft reports it is evident that there is a capacity issue at an existing junction on the local highway network in the 2034 future year assessment. This brings into question the scale of development proposed for the village, and the ability of the local highway network to accommodate the traffic associated with the draft allocation.

#### Revised Junction Assessment

- 2.52 To validate the findings from the MM and Croft assessments we have prepared an assessment of the Rochdale Road/Market Street mini-roundabout junction using the ECNF 2019 AM and PM peak traffic flows growthed to 2024 and 2034. The junction has been modelled in JUNCTIONS 9 for the AM and PM peak periods, using the MM and Croft development trip rates presented in their respective documents.
- 2.53 The full modelling outputs are provided in **appendix a** for the MM assessments, with junction summaries presented in **tables 2.3 and 2.4**.



			2024 Ba	se Flows			2024 "With Allocation" Flows						
	W	eekday A	М	We	Weekday PM			Weekday AM			Weekday PM		
Arm	Max RFC	Max Queue	Delay (secs	Max RFC				Max Queue	Delay (secs	Max RFC	Max Queue	Delay (secs	
Rochdale Road	0.82	4.7	32	0.73	2.9	20	0.89	7.4	50	0.78	3.6	24	
Bury Road	0.63	1.8	14	0.93	10.4	59	0.68	2.2	16	1.08	40.8	177	
Market Street	0.73	2.9	21	0.45	0.9	11	0.87	6.5	41	0.52	1.2	12	

Table 2.3: 2024 ECNF Traffic Flows and Mott MacDonald Development Trips (Rochdale Road/Market Street Mini-Roundabout Junction)

			2034 Ba	ase Flows			2034 "With Allocation" Flows						
	W	eekday A	М	We	Weekday PM			eekday Al	М	Weekday PM			
Arm	Max RFC	Max Queue	Delay (secs	Max RFC	Max Queue	Delay (secs	Max RFC	Max Queue	Delay (secs	Max RFC	Max Queue	Delay (secs	
Rochdale Road	0.86	5.8	38	0.76	3.3	21	0.93	9.7	63	0.80	4.2	27	
Bury Road	0.67	2.2	16	0.97	14.2	76	0.72	2.7	19	1.12	52	218	
Market Street	0.77	3.5	25	0.47	1.0	11	0.91	8.6	53	0.53	1.2	12	

Table 2.4: 2034 ECNF Traffic Flows and Mott MacDonald Development Trips (Rochdale Road/Market Street Mini-Roundabout Junction)

- 2.54 The modelling summaries presented above confirm that, in line with the Council's own assessments the mini-roundabout junction is predicted to operate with RFC values in excess of 1 in the 2024 and 2034 "with allocation" assessments in the PM peak.
- 2.55 Most notably the Bury Road junction arm experiences significant increases in queuing and delay in the PM peaks, with queue lengths increasing from 14 to 52 vehicles on this junction arm. In the PM peak period the delay to motorists increases from 76 seconds to 218 seconds on this junction arm.
- 2.56 Turning to the Croft trip rate assessment **tables 2.5 and 2.6** provide a summary of the JUNCTIONS9 model outputs. The full modelling outputs are provided in **appendix b**.



			2024 Ba	se Flows			2024 "With Allocation" Flows						
	W	eekday A	М	We	eekday PN	Л	W	eekday Al	М	Weekday PM			
Arm	Max RFC	Max Queue	Delay (secs	Max Max Delay RFC Queue (secs			Max RFC	Max Queue	Delay (secs	Max RFC	Max Queue	Delay (secs	
Rochdale Road	0.82	4.7	32	0.73	2.9	20	0.87	6.3	43	0.76	3.3	22	
Bury Road	0.63	1.8	14	0.93	10.4	59	0.65	2.0	15	1.02	24.4	117	
Market Street	0.73	2.9	21	0.45	0.9	11	0.83	5.0	33	0.50	1.1	12	

Table 2.5: 2024 ECNF Traffic Flows and Croft Development Trips (Rochdale Road/Market Street Mini-Roundabout Junction)

			2034 Ba	ase Flows			2034 "With Allocation" Flows						
	W	eekday A	М	We	Weekday PM			eekday Al	М	Weekday PM			
Arm	Max RFC	Max Queue	Delay (secs	Max RFC	Max Queue	Delay (secs	Max RFC	Max Queue	Delay (secs	Max RFC	Max Queue	Delay (secs	
Rochdale Road	0.86	5.8	38	0.76	3.3	21	0.91	8.1	53	0.79	3.8	25	
Bury Road	0.67	2.2	16	0.97	14.2	76	0.69	2.4	17	1.08	40.9	178	
Market Street	0.77	3.5	25	0.47	1.0	11	0.87	6.4	41	0.51	1.1	12	

Table 2.6: 2034 ECNF Traffic Flows and Croft Development Trips (Rochdale Road/Market Street Mini-Roundabout Junction)

- 2.57 The modelling summaries presented above are in line with the overall Croft modelling assessments, albeit that they predict greater queuing and delay on the Bury Road arm than the Croft assessment.
- 2.58 In summary in line with both the MM and Croft assessments is that <u>all the modelling outputs</u> produced by three separate organisations confirm that the traffic associated by the draft allocation in the village will have a material, and potentially severe impact at the mini-roundabout junction.
- 2.59 <u>We recommend this matter needs careful consideration by the Council when considering the scale</u> of residential development proposed for the village.
- 2.60 The next stage of this report considers in detail the proposed access arrangements for the draft site allocation, as presented on plan 2 in their report.

#### Site Access Review

- 2.61 The Randall Thorp Combined Illustrative Masterplan shows access strategies to the three draft allocation land parcels. These are:
  - a simple priority junction access from Blackburn Road to the northern land parcel
  - a simple priority junction access from Market Street to land to the west of Market Street
  - an extension of Exchange Street to connect into the southern land parcel



2.62 A review of each access strategy is provided below.

#### Northern Development Parcel Access Review

- 2.63 The northern development parcel is confirmed to deliver a simple priority junction onto Blackburn Road. The access will be formed onto a 30mph section of the adopted highway.
- 2.64 The site visit confirms that during term time this section of the adopted highway is regularly used for kerbside car parking associated with the nearby school. Photographic evidence of the car parking is provided in **photos 2.1 and 2.2 below**.



Photo 2.1: Looking North on Blackburn Road



Photo 2.2: Looking South on Blackburn Road



- 2.65 Any access strategy in this location would require this parking to be removed and displaced anywhere in the local area. A review of the Crashmap database confirms that there have been two recorded Personal Injury Collisions (PICs) immediately to the south of the proposed vehicular site access.
- 2.66 A General Arrangement (GA) drawing has been prepared to check that the required visibility splays at the proposed development site access can be delivered. The GA drawing confirms that the visibility splays would cross the adjacent footway and also cross the adjacent field and stone wall.
- 2.67 We recommend that as part of the assessment of the ability to deliver the site for housing the Council makes the appropriate checks to ensure this access strategy is deliverable and all land required for the access and visibility splays can be delivered by the site promoter.

#### Land West of Market Street Development Parcel Access Review

2.68 The Croft report confirms that Market Street development parcel will be accessed via a simple priority junction along the eastern site frontage. This section of Market Street has a 9m carriageway width, a 1m footway on the eastern side of the carriageway and a standard width footway on the western (site side) of the carriageway. This section of Market Street has on-street parking on both sides of the carriageway, as shown in **figures 2.3 and 2.4**.



**Photo 2.3: Looking North on Market Street** 





Photo 2.4: Looking North on Market Street

- 2.69 As with the northern land parcel this kerbside parking on the western side of the carriageway would need to be permanently removed to deliver the junction visibility splays as the proposed site access.
- 2.70 As reported earlier in this report a seven-day ATC was placed on Market Street to record both the directional vehicle speeds at the proposed site access, as well as the directional traffic flows. The traffic and vehicle speeds are presented in **table 2.7**, with the full survey data presented in **appendix c**.

	Market Street Traffic and	Speed Survey Summary
	Northbound	Southbound
85 <sup>th</sup> Percentile Speeds	34.2mph	32.4mph
Average Speeds	28.6mph	27.6mph
AM Peak Traffic Flow (PCUs)	352	367
PM Peak Traffic Flow (PCUs)	487	268

Table 2.7: Market Street Traffic and Speed Survey Summary (ECNF 2019 ATC Data)

- 2.71 **Table 2.7** confirms that existing 85<sup>th</sup> percentile vehicle speeds are in excess of the 30mph speed limit past the draft allocation site access. In addition the traffic flow data confirms that Market Street accommodates 719 and 755 two-way vehicle movements in the AM and PM peaks respectively.
- 2.72 The two-way peak period traffic flows confirms Market Street is a well-used route, and this corridor is also the diversion route for traffic if the A56/M66 is closed between Haslingden and Ramsbottom.
- 2.73 A review of the traffic survey data for each surveyed 24-hour period is provided in table 2.8.



	Market Street Tra	ffic and Speed Survey Summ	ary (Vehicles)
	Northbound	Southbound	Two-Way Flow
27/06/19	4064	3690	7754
28/06/19	4598	4016	8614
29/06/19 (Sat)	3411	3164	6575
30/06/19 (Sun)	2845	2811	5656
01/07/19	3834	3710	7544
02/07/19	4217	3923	8140
03/07/19	4231	3812	8043

Table 2.8: Market Street Traffic and Speed Survey Summary (ECNF 2019 ATC Data)

- 2.74 **Table 2.8** confirms that the weekday daily two-way traffic flows are in excess of 8,000 vehicles per day. The Croft report confirms in table 2.7 that this access will accommodate 100 and 124 vehicle movements in the AM and PM peaks respectively.
- 2.75 The Croft report does not provide a daily development trip generation figure. However, it is generally accepted that the daily development trip generation will be 5 x the combined AM and PM two-way traffic flows. In this instance the daily two-way traffic flows through the Market Street development access will be in excess of 1,100 vehicles.
- 2.76 The reason the daily two-way flows on Market Street and the development traffic flows are relevant is the choice of access proposed in the Croft report. The document states that the development will be accessed by a simple priority junction, but this form of access will not be appropriate when referenced against the design guidance in TD 42/95 Geometric Design of Major/Minor Priority Junctions, as discussed below.
- 2.77 Paragraph 2.12 and figure 2/2 in TD 42/95 considers the appropriate form of junctions on the adopted highway. The document states:

"Fig 2/2 may be useful when considering further the options for a site. For single carriageway roads it shows approximately the various levels of T-junction which may be applicable for different combinations of flows. The information takes into account geometric and traffic delays, entry and turning traffic flows, and accident costs."

2.78 For ease of reference Figure 2/2 is provided overleaf.



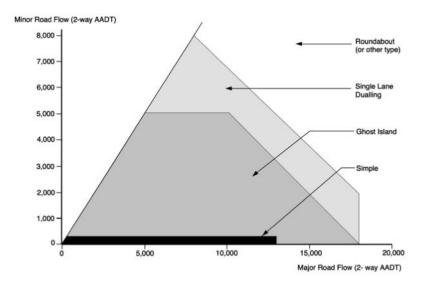


Figure 2/2 : Approximate Level of Provision of T-junctions on New Single Carriageway Roads for Various Major and Minor Road Design Year Traffic Flows (paras 2.2, 2.14)

2.79 With reference to Figure 2.2 TD 42/95 states in paragraphs 2.15 and 2.16:

"Simple junctions are appropriate for most minor junctions on single carriageway roads, but must not be used for wide single carriageways or dual carriageways. For new rural junctions they shall only be used when the design flow in the minor road is not expected to exceed about 300 vehicles 2-way AADT, and that on the major road is not expected to exceed 13,000 vehicles 2-way AADT.

At existing rural, and at urban junctions the cost of upgrading a simple junction to provide a right turning facility will vary from site to site. However, upgrading should always be considered where the minor road flow exceeds 500 vehicles 2-way AADT, a right turning accident problem is evident, or where vehicles waiting on the major road to turn right inhibit the through flow and create a hazard."

- 2.80 TD 42/95 is quite clear that where the daily minor arm flows are expected to be in excess of 500 vehicles per day then a ghosted right turn junction should be provided. This is supported by Market Street also, on occasion having to accommodate traffic flow significantly higher that the 8,000 vehicles per day when the A56/M66 is closed and diversionary routes are in place.
- 2.81 To consider the ability of a ghosted right turn junction to be delivered on Market Street to serve the development a GA drawing has been prepared. This has been prepared in line with the design guidance in TD 42/95, and confirms that the ghosted right turn junction cannot be accommodated in the available space along the site frontage. The GA drawing is provided in **appendix d**.
- 2.82 This review of traffic flows on Market Street and the estimated development traffic flows that will use the Market Street access confirms that a simple priority junction is not appropriate based on the design guidance presented in TD 42/95. The review of the ability to deliver a ghosted right turn junction on Market Street confirms that this cannot be accommodated within the land controlled by the site promoter.

#### Southern Development Parcel Access Review

2.83 The Croft report confirms that southern development parcel will the accessed by extending Exchange Street into the draft allocation site.



- 2.84 This access proposal appears to have overlooked the existing residential parking demand on Exchange Street, as well as the constrained junction and visibility splays at the Exchange Street/Market Street junction.
- 2.85 Considering the implications of the existing on-street parking demand the site visits have confirmed that the eastern section of Exchange Street already accommodates a significant level of on-street car parking, effectively reducing the carriageway width down to single way working with a useable carriageway width less than the advised 4.1m carriageway width identified in Manual for Streets that would allow two private cars to pass.



Photo 2.5: Looking West on Exchange Street

- 2.86 The effect of this on-street residential car parking is shown in **photo 2.5**, which confirms that the route can only accommodate shuttle working on the eastern section of the carriageway.
- 2.87 Turning to the existing visibility splays at the Exchange Street/Market Street priority junction the site visits have confirmed that the achievable visibility splays are deficient in terms of the "Y" distance dimensions when compared to the recommended splay dimensions presented in Manual for Streets. For ease of reference the Manual for Streets visibility splay table is presented below.

Table 7.1 Derived SSDs for streets (figures rounded).

Speed	Kilometres per hour	16	20	24	25	30	32	40	45	48	50	60
	Miles per hour	10	12	15	16	19	20	25	28	30	31	37
SSD (metres)		9	12	15	16	20	22	31	36	40	43	56
SSD adjusted length. See 7		11	14	17	18	23	25	33	39	43	45	59

Additional features will be needed to achieve low speeds

Table 2.9: 2007 Manual for Streets Visibility Splay Requirements

2.88 The above table confirms this access should provide visibility splays of 2.4m x 43m in both the leading and trailing traffic directions for a 30mph street.



2.89 The photographic evidence presented in **photos 2.6 and 2.7** confirm the achievable visibility splays at the Exchange Street/Market Street junction.



Photo 2.6: Looking South from Exchange Street onto Market Place



Photo 2.7: Looking North from Exchange Street onto Market Street

2.90 **Photo 2.6** confirms that using the required "X" distance measurement of 2.4m the achievable "Y" distance is 23m, 20m short of the required splay. The geometric alignment of the junction, coupled with the building on the southern side of the junction restricts the visibility in the leading traffic direction as shown on the GA drawing in **appendix e**.



- 2.91 To the north the visibility splay is partly protected by the carriageway approach markings to the zebra crossing. To the north of these markings the intervisibility between motorists on Market Street and Exchange Street is limited by parked vehicles on the western side of the carriageway.
- 2.92 This review of the achievable visibility splays at the Exchange Street/Market Street junction confirms that the proposed access from the southern development land parcel is severely constrained both in terms of the physical width of the carriageway of Exchange Street and the substandard visibility in the leading traffic direction at the Exchange Street/Market Street junction.
- 2.93 None of these technical matters have been highlighted in either the MM or Croft reports, suggesting that the identification of suitable access arrangements has not been appropriately assessed when considering these draft site allocations. The need to ensure these sites are deliverable to meet the Council's housing requirements should be appropriately assessed at this stage.

#### 3. Summary and Conclusions

- 3.1 This Development Access and Capacity Review (DACR) has been prepared on behalf of the Edenfield Community Neighbourhood Forum (ECNF). The group has appointed SK Transport Planning (SKTP) to consider Rossendale Council's plan to allocate land in the village for 456 new dwellings.
- 3.2 Rossendale Council is currently preparing its Local Plan for the period 2019 to 2034, with Edenfield village identified to accommodate 456 of the 3,180 new dwellings in the plan period. This is 14.2% of the total draft housing allocation in one village. In a village of 974 dwellings this represents a 46.8% increase in the overall number of dwellings.
- 3.3 This document provides a concise review of the Council's allocation proposals, and has also considered the potential impact (in traffic and transport terms) as well as the proposed access strategies.
- 3.4 The evidence base for this assessment has been the Council's own highway capacity study undertaken by Mott MacDonald, as well as supporting material from the site promoters via the Croft technical assessment report. Commentary has also been provided on the Highways England response to the draft local plan allocations for the village.
- 3.5 This review has identified a number of technical matters that draw into question both the scale of residential development proposed, and the access strategies to identified land parcels. The evidence presented clearly demonstrates that the effects, in traffic and transport terms have not been appropriately assessed and the impacts at the assessed junction in the village are severe in the 2034 future year assessment.
- 3.6 Considering the technical assessment work undertaken to date by both the Council and site promoters the following technical matters have been identified under the Development Impact and Access Strategy headings:

#### **Development Impact Assessment**

- the technical assessment work <u>has only considered the impact</u> (in traffic and transport terms) of the proposed allocation on a single junction within the village
- <u>no technical appraisal</u> has been undertaken of the traffic impact on highway links or other junctions in the village
- the assessments <u>have not considered in any detail</u> the deliverability of the access proposals to the land parcels, as shown in the Croft technical assessment
- the assessments rely on traffic flow data <u>for a single junction</u> to the south of the village –
  the technical assessments have not considered peak period or daily traffic flow on Market
  Street through the village



- all the technical assessment work from MM, Croft and SKTP of the only modelled junction (the Rochdale Road/Market Street mini-roundabout junction) confirm in the 2034 assessment this junction will have a material worsening in its performance when compared to the reference case
- the MM report confirms that at the Rochdale Road/Market Street junction there are limited opportunities to enhance the junction to increase capacity the report states that the surrounding built up area "may prohibit the development of a scheme within the existing highway boundary"
- there are material differences between the findings from the MM study, which identifies the need to widen the A56 to three lanes and the HE response which confirms that as an organisation they have no proposals to take this widening scheme forward at this time
- the use of lower development vehicle trip rates by Croft inevitably results in their technical modelling showing a lower level of degradation at the aforementioned junction, but the overall effects of this significant level of additional residential development are shown in their technical modelling
- all the technical modelling confirms a fundamental issue with the impact of development traffic at this junction, indicating the scale of development proposed will have an adverse impact

#### Access Strategies

- no access appraisal work has been submitted by either the Council or site promoters to demonstrate the development parcels can be safely accessed
- the SKTP access review has confirmed that the access strategy for the southern development land parcel is severely constrained by both the existing sub-standard visibility at the Exchange Street/Market Street simple priority junction, and also the narrowing of the eastern section of Exchange Street to single way traffic working due to on-street residential parking
- the Land West of Market Street development parcel proposes a simple priority junction arrangement onto Market Street this is in a location where residential parking currently takes place on both sides of the carriageway, and vehicle speeds have been recorded to be in excess of the 30mph speed limit
- the two-way traffic flows on Market Street have been recorded as exceeding 8,000 vehicles
  per day, and an indicative assessment of the expected daily two-way vehicle movements
  from the development are predicted to be in excess of 1,000 movements this flow data
  indicates that a ghosted right turn priority junction arrangement should be provided to safely
  access the development site, in line with TD 42/95
- this ghosted right turn junction arrangement cannot be accommodated within the land controlled by the site promoter or the adopted highway, indicating that there is a fundamental issue with the allocation of this site for the scale of development proposed
- at the northern development site access to achieve the required 2.4m x 43m junction visibility splays land across the adjacent field to the north would have to be brought into the proposed site allocation area
- 3.7 These findings demonstrate that the technical work prepared by the Council and site promoters to date has not appropriately assessed the impact of the scale of residential development on the village.
- 3.8 In addition detailed assessments of the proposed access strategies to the various land parcels have not been presented, and from our site visits fundamental issues have been identified that bring into question the delivery of these sites for residential development.
- 3.9 The importance of undertaking detailed and robust appraisals of all traffic and transport matters as part of the consideration of potential development allocations in the emerging Local Plan should not be underestimated. A failure to appropriately assess the development impact, access strategies and potential mitigation measures at this stage could result in a Planning Inspector finding the Local



- Plan unsound, and an inability by the site promoter to implement their schemes if the Local Plan is adopted.
- 3.10 From all interested parties perspective it is vitally important that all technical matters relating to development impact, access and mitigation measures are assessed before any Local Plan Examination takes place. Based on the information presented to date the draft residential site allocations have been shown to have an adverse and potentially severe impact on the surrounding highway network.
- 3.11 Following this review the ECNF have a robust evidence base to present at the Local Plan Examination that the Council and Site Promoters own evidence base has failed to adequately assess the impact of the development proposals, consider the deliverability of the access strategies for the site and identify any form of robust mitigation package to address the impact of the development scale proposed.
- 3.12 Representatives from the ECNF will be presenting the findings from this technical review at the forthcoming Local Plan Examination.

#### **APPENDIX A**



### **Junctions 9**

#### **ARCADY 9 - Roundabout Module**

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Filename: Market St RA SKTP Base + RBC Flows.j9

Path: W:\Promo\Edenfield Capacity Study Report generation date: 22/07/2019 20:24:11

»Market St R/A - SKTP 2024 Base + RBC, AM

»Market St R/A - SKTP 2034 Base + RBC, AM

»Market St R/A - SKTP 2024 Base + RBC, PM

»Market St R/A - SKTP 2034 Base + RBC, PM

#### Summary of junction performance

		AM			PM					
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS		
		Market S	t R/A	- SKT	P 2024 Base	+ RBC				
Arm 1	7.4	50.07	0.89	F	3.6	23.94	0.78	С		
Arm 2	2.2	16.15	0.68	С	40.8	177.09	1.08	F		
Arm 3	6.5	40.77	0.87	Е	1.2	11.99	0.52	В		
		Market S	t R/A	- SKT	P 2034 Base	+ RBC				
Arm 1	9.7	63.16	0.93	F	4.2	27.03	0.80	D		
Arm 2	2.7	18.57	0.72	С	52.0	218.29	1.12	F		
Arm 3	8.6	52.84	0.91	F	1.2	12.32	0.53	В		

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

#### File summary

#### **File Description**

Title	Market Street, Edenfield
Location	Edenfield
Site number	1
Date	22/07/2019
Version	
Status	(new file)
Identifier	
Client	Edenfield Action Group
Jobnumber	Sk21941
Enumerator	Michael-PC\Michael
Description	

#### **Units**

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin



### **Analysis Options**

Mini-roundabout model	Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9			0.85	36.00	20.00

#### **Demand Set Summary**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	SKTP 2024 Base + RBC	AM	ONE HOUR	07:15	08:45	15
D10	SKTP 2034 Base + RBC	AM	ONE HOUR	07:15	08:45	15
D12	SKTP 2024 Base + RBC	PM	ONE HOUR	16:45	18:15	15
D14	SKTP 2034 Base + RBC	PM	ONE HOUR	16:45	18:15	15

#### **Analysis Set Details**

ID	Name	Network flow scaling factor (%)
A1	Market St R/A	100.000



# Market St R/A - SKTP 2024 Base + RBC, AM

#### **Data Errors and Warnings**

No errors or warnings

#### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.89	50.07	50.07 7.4	
2	0.68	16.15	2.2	С
3	0.87	40.77	6.5	Е

#### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	391	266	714	0.548	386	1.3	11.893	В
2	351	131	794	0.442	347	0.9	8.806	А
3	418	197	755	0.553	413	1.3	11.389	В

#### 07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	467	319	683	0.685	464	2.3	17.746	С
2	419	158	778	0.538	417	1.3	10.923	В
3	499	236	732	0.682	495	2.2	16.477	С

#### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	573	385	644	0.889	556	6.3	39.214	Е
2	513	189	760	0.675	509	2.2	15.586	С
3	611	289	701	0.872	597	5.8	34.029	D

#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	573	392	640	0.895	568	7.4	50.072	F
2	513	193	757	0.678	513	2.2	16.154	С
3	611	291	700	0.873	608	6.5	40.769	Е

#### 08:15 - 08:30

Arn	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	467	332	675	0.692	487	2.6	22.750	С
2	419	166	774	0.541	423	1.3	11.395	В
3	499	239	730	0.683	515	2.5	19.568	С



#### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	391	272	711	0.551	396	1.4	12.797	В
2	351	135	792	0.443	353	0.9	9.053	A
3	418	200	754	0.555	422	1.4	12.109	В



# Market St R/A - SKTP 2034 Base + RBC, AM

#### **Data Errors and Warnings**

No errors or warnings

#### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.93	63.16	9.7	F
2	0.72	18.57	2.7	С
3	0.91	52.84	8.6	F

#### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	404	273	711	0.568	398	1.4	12.457	В
2	371	135	792	0.469	367	1.0	9.253	А
3	429	209	748	0.574	423	1.4	12.005	В

#### 07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	482	327	678	0.710	477	2.5	19.268	С
2	443	162	776	0.571	441	1.4	11.773	В
3	512	252	723	0.709	508	2.5	18.061	С

#### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	590	392	640	0.922	569	7.8	45.853	Е
2	543	193	757	0.717	538	2.6	17.671	С
3	628	307	690	0.909	608	7.3	40.939	Е

#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	590	401	635	0.930	583	9.7	63.163	F
2	543	198	755	0.719	542	2.7	18.567	С
3	628	309	689	0.911	623	8.6	52.844	F

#### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	482	345	668	0.721	508	3.1	27.970	D
2	443	173	770	0.576	448	1.5	12.486	В
3	512	255	721	0.711	535	2.9	23.496	С



#### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	404	280	706	0.571	410	1.5	13.627	В
2	371	139	789	0.470	373	1.0	9.571	Α
3	429	213	746	0.575	435	1.5	12.937	В



## Market St R/A - SKTP 2024 Base + RBC, PM

#### **Data Errors and Warnings**

No errors or warnings

#### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.78	23.94	3.6	С
2	1.08	177.09	40.8	F
3	0.52	11.99	1.2	В

#### Main Results for each time segment

#### 16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	388	161	776	0.500	384	1.1	9.993	Α
2	537	167	773	0.694	527	2.4	15.582	С
3	245	226	738	0.333	243	0.5	7.970	А

#### 17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	464	194	757	0.613	461	1.7	13.281	В
2	641	200	753	0.851	630	5.2	29.559	D
3	293	270	712	0.412	292	0.8	9.415	А

#### 17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	568	237	732	0.776	561	3.5	22.303	С
2	785	244	728	1.079	707	24.6	92.995	F
3	359	304	692	0.519	357	1.2	11.766	В

#### 17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	568	238	731	0.777	567	3.6	23.942	С
2	785	246	726	1.081	720	40.8	177.094	F
3	359	309	689	0.521	359	1.2	11.987	В

#### 17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	464	195	756	0.613	471	1.8	14.222	В
2	641	205	751	0.854	731	18.3	150.940	F
3	293	314	686	0.427	294	0.8	10.144	В



#### 18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	388	163	775	0.501	391	1.1	10.390	В
2	537	170	771	0.696	599	2.7	30.283	D
3	245	257	720	0.341	246	0.6	8.387	А



# Market St R/A - SKTP 2034 Base + RBC, PM

#### **Data Errors and Warnings**

No errors or warnings

#### Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.80	27.03	4.2	D
2	1.12	218.29	52.0	F
3	0.53	12.32	1.2	В

#### Main Results for each time segment

#### 16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	400	165	774	0.516	395	1.1	10.333	В
2	551	171	770	0.715	541	2.6	16.579	С
3	251	233	734	0.343	249	0.6	8.131	А

#### 17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	477	198	754	0.633	475	1.8	14.011	В
2	658	206	750	0.877	644	6.1	33.479	D
3	300	277	708	0.424	299	0.8	9.671	А

#### 17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	585	242	728	0.803	576	3.9	24.688	С
2	806	250	724	1.113	709	30.2	109.216	F
3	368	305	691	0.532	366	1.2	12.114	В

#### 17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	585	243	728	0.803	584	4.2	27.026	D
2	806	253	722	1.116	719	52.0	218.292	F
3	368	309	689	0.534	368	1.2	12.319	В

#### 17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	477	200	754	0.633	486	2.0	15.260	С
2	658	211	747	0.881	732	33.6	212.980	F
3	300	315	686	0.438	302	0.9	10.355	В



#### 18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	400	167	773	0.517	403	1.2	10.793	В
2	551	174	768	0.717	673	3.2	68.991	F
3	251	290	701	0.359	252	0.6	8.857	А

#### **APPENDIX B**



### **Junctions 9**

#### **ARCADY 9 - Roundabout Module**

Version: 9.0.2.5947 © Copyright TRL Limited, 2017

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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: Market St RA SKTP Base + TW Flows.j9

Path: W:\Promo\Edenfield Capacity Study Report generation date: 22/07/2019 20:20:42

»Market St R/A - SKTP 2024 Base + TW, AM

»Market St R/A - SKTP 2034 Base + TW, AM

»Market St R/A - SKTP 2024 Base + TW, PM

»Market St R/A - SKTP 2034 Base + TW, PM

#### Summary of junction performance

		AM			PM					
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS		
		Market S	t R/A	- SK	TP 2024 Base + TW					
Arm 1	6.3	42.81	0.87	Е	3.3	22.19	0.76	С		
Arm 2	2.0	14.99	0.65	В	24.4	116.84	1.02	F		
Arm 3	5.0	32.62	0.83	D	1.1	11.64	0.50	В		
		Market S	t R/A	- SK	TP 2034 Bas	e + TW				
Arm 1	8.1	53.37	0.91	F	3.8	24.84	0.79	С		
Arm 2	2.4	17.07	0.69	С	40.9	177.52	1.08	F		
Arm 3	6.4	40.83	0.87	Е	1.1	11.86	0.51	В		

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

#### File summary

#### File Description

Title	Market Street, Edenfield
Location	Edenfield
Site number	1
Date	22/07/2019
Version	
Status	(new file)
Identifier	
Client	Edenfield Action Group
Jobnumber	Sk21941
Enumerator	Michael-PC\Michael
Description	

#### **Units**

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin



## **Analysis Options**

Mini-roundabout model	Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9			0.85	36.00	20.00

## **Demand Set Summary**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	SKTP 2024 Base + TW	AM	ONE HOUR	07:15	08:45	15
D9	SKTP 2034 Base + TW	AM	ONE HOUR	07:15	08:45	15
D11	SKTP 2024 Base + TW	PM	ONE HOUR	16:45	18:15	15
D13	SKTP 2034 Base + TW	PM	ONE HOUR	16:45	18:15	15

## **Analysis Set Details**

ID	Name	Network flow scaling factor (%)
A1	Market St R/A	100.000



# Market St R/A - SKTP 2024 Base + TW, AM

#### **Data Errors and Warnings**

No errors or warnings

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.87	42.81	6.3	Е
2	0.65	14.99	2.0	В
3	0.83	32.62	5.0	D

#### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	389	251	723	0.538	384	1.2	11.513	В
2	339	129	795	0.426	336	0.8	8.562	А
3	399	197	755	0.528	394	1.2	10.832	В

#### 07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	465	301	694	0.670	461	2.1	16.775	С
2	405	155	780	0.519	403	1.2	10.472	В
3	476	236	732	0.651	473	2.0	15.139	С

#### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	569	364	656	0.867	555	5.6	35.141	Е
2	495	187	761	0.651	492	2.0	14.552	В
3	584	289	701	0.832	573	4.6	28.755	D

#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	569	370	653	0.872	566	6.3	42.810	Е
2	495	191	759	0.653	495	2.0	14.988	В
3	584	291	700	0.834	582	5.0	32.621	D

#### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	465	310	688	0.675	480	2.4	20.279	С
2	405	162	776	0.521	408	1.2	10.843	В
3	476	239	730	0.652	488	2.2	17.023	С



#### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	389	256	720	0.540	394	1.3	12.277	В
2	339	132	793	0.427	340	0.8	8.776	Α
3	399	200	754	0.530	403	1.3	11.396	В



# Market St R/A - SKTP 2034 Base + TW, AM

#### **Data Errors and Warnings**

No errors or warnings

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.91	53.37	8.1	F
2	0.69	17.07	2.4	С
3	0.87	40.83	6.4	E

#### Main Results for each time segment

#### 07:15 - 07:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	401	257	720	0.558	396	1.3	12.045	В
2	359	133	793	0.453	356	0.9	8.983	А
3	410	209	748	0.549	405	1.3	11.391	В

#### 07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	479	309	689	0.695	475	2.4	18.143	С
2	429	160	777	0.552	427	1.3	11.254	В
3	490	252	723	0.678	486	2.2	16.483	С

#### 07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	587	372	652	0.900	569	6.8	40.973	Е
2	525	191	759	0.692	521	2.3	16.384	С
3	600	307	690	0.869	586	5.7	34.101	D

#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	587	379	648	0.906	582	8.1	53.369	F
2	525	195	756	0.695	525	2.4	17.067	С
3	600	309	689	0.871	597	6.4	40.834	Е

#### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	479	321	682	0.703	500	2.8	23.922	С
2	429	168	772	0.555	433	1.4	11.806	В
3	490	255	721	0.680	506	2.5	19.548	С



#### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	401	263	716	0.560	407	1.4	13.008	В
2	359	137	791	0.454	361	0.9	9.256	Α
3	410	213	746	0.550	415	1.4	12.107	В



# Market St R/A - SKTP 2024 Base + TW, PM

#### **Data Errors and Warnings**

No errors or warnings

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.76	22.19	3.3	С
2	1.02	116.84	24.4	F
3	0.50	11.64	1.1	В

#### Main Results for each time segment

#### 16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	385	151	782	0.493	381	1.0	9.775	А
2	509	164	775	0.657	501	2.0	14.081	В
3	233	227	738	0.316	231	0.5	7.787	А

#### 17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	460	181	765	0.602	458	1.6	12.822	В
2	608	197	755	0.805	600	4.0	24.246	С
3	279	271	711	0.392	278	0.7	9.123	А

#### 17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	564	221	741	0.761	557	3.2	20.878	С
2	744	239	730	1.019	695	16.4	69.238	F
3	341	314	686	0.498	340	1.1	11.391	В

#### 17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	564	222	740	0.762	563	3.3	22.187	С
2	744	242	729	1.022	712	24.4	116.838	F
3	341	322	681	0.501	341	1.1	11.645	В

#### 17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	460	182	764	0.603	467	1.7	13.609	В
2	608	201	753	0.807	683	5.6	69.205	F
3	279	309	689	0.404	280	0.8	9.713	А



### 18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	385	153	781	0.493	388	1.1	10.132	В
2	509	167	773	0.658	522	2.2	16.577	С
3	233	237	732	0.319	234	0.5	7.975	А



# Market St R/A - SKTP 2034 Base + TW, PM

#### **Data Errors and Warnings**

No errors or warnings

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
1	0.79	24.84	3.8	С
2	1.08	177.52	40.9	F
3	0.51	11.86	1.1	В

#### Main Results for each time segment

#### 16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	397	154	780	0.509	392	1.1	10.098	В
2	536	168	772	0.694	527	2.4	15.590	С
3	239	233	734	0.326	237	0.5	7.942	А

#### 17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	474	186	762	0.622	471	1.7	13.501	В
2	640	202	752	0.851	629	5.2	29.590	D
3	286	278	707	0.404	285	0.7	9.360	А

#### 17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	580	227	737	0.787	573	3.6	23.000	С
2	784	246	726	1.079	706	24.6	93.154	F
3	350	312	687	0.510	349	1.1	11.648	В

#### 17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	580	228	737	0.787	579	3.8	24.841	С
2	784	249	725	1.082	719	40.9	177.524	F
3	350	318	684	0.512	350	1.1	11.861	В

#### 17:45 - 18:00

Arn	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	474	187	761	0.623	482	1.9	14.536	В
2	640	207	750	0.854	730	18.4	151.502	F
3	286	323	681	0.420	287	0.8	10.094	В



### 18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
1	397	156	779	0.509	400	1.2	10.516	В
2	536	171	770	0.696	599	2.7	30.454	D
3	239	265	715	0.335	240	0.6	8.362	А

## **APPENDIX C**

LOCATION: MARKET STREET

Direction: NORTHBOUND

Thursday 27/06/2019						VEHICLI	E CLASSIF	ICATION						TOTAL
Hr Ending	1	2	3	4	5	6	7	8	9	10	11	12	13	
1	13	0	0	0	0	0	0	0	0	0	0	0	0	13
2	6	0	0	0	0	0	0	0	0	0	0	0	0	6
3	7	0	0	0	0	0	0	0	0	0	0	0	0	7
4	3	0	0	0	0	0	0	0	0	0	0	0	0	3
5	8	0	0	0	0	0	0	0	0	0	0	0	0	8
6	32	1	0	0	0	0	0	0	0	0	0	0	0	33
7	83	4	0	0	0	0	0	1	0	0	0	1	0	89
8	269	9	0	0	0	0	0	1	0	0	0	5	0	284
9	336	9	0	0	0	0	0	0	1	0	1	8	0	355
10	200	6	0	0	0	0	0	0	0	0	0	5	0	211
11	159	5	0	0	0	0	0	0	0	0	0	9	0	173
12	169	5	0	0	0	0	0	0	0	0	0	7	0	181
13	187	6	0	1	0	0	0	1	0	0	0	7	0	202
14	197	4	0	0	0	0	0	0	0	0	0	5	0	206
15	277	9	0	1	0	0	0	0	0	0	0	7	0	294
16	255	8	0	0	0	0	0	0	1	0	0	6	0	270
17	379	8	0	1	0	0	0	0	0	0	0	4	0	392
18	463	9	0	1	0	0	0	0	0	0	0	3	0	476
19	306	8	0	0	0	0	0	0	0	0	0	4	0	318
20	205	4	0	0	0	0	0	0	0	0	0	4	0	213
21	124	3	0	0	0	0	0	0	0	0	0	2	0	129
22	104	3	0	0	0	0	0	0	0	0	0	2	0	109
23	63	1	0	0	0	0	0	0	0	0	0	1	0	65
24	25	1	0	0	0	0	0	0	0	0	0	1	0	27
7-19	3197	86	0	4	0	0	0	2	2	0	1	70	0	3362
6-22	3713	100	0	4	0	0	0	3	2	0	1	79	0	3902
6-24	3801	102	0	4	0	0	0	3	2	0	1	81	0	3994
0-24	3870	103	0	4	0	0	0	3	2	0	1	81	0	4064

Thursday 27/06/2019						VEHICLE	CLASSIF	ICATION						TOTAL
Hr Ending	1	2	3	4	5	6	7	8	9	10	11	12	13	
1	16	0	0	0	0	0	0	0	0	0	0	0	0	16
2	6	0	0	0	0	0	0	0	0	0	0	0	0	6
3	7	0	0	0	0	0	0	0	0	0	0	0	0	7
4	3	0	0	0	0	0	0	0	0	0	0	0	0	3
5	7	0	0	0	0	0	0	0	0	0	0	0	0	7
6	44	1	0	0	0	0	0	0	0	0	0	1	0	46
7	157	3	0	1	0	0	0	0	0	0	0	2	0	163
8	417	7	0	0	0	0	0	0	0	0	0	6	0	430
9	344	7	0	0	0	0	0	0	0	0	0	1	0	352
10	201	4	0	0	0	0	0	0	0	0	0	2	0	207
11	179	6	0	0	0	0	0	0	0	0	0	4	0	189
12	187	5	0	0	0	0	0	0	0	0	0	4	0	196
13	194	4	0	0	0	0	0	0	0	0	0	3	0	201
14	194	5	0	0	0	0	0	0	0	0	0	4	0	203
15	221	5	0	0	0	0	0	0	0	0	0	4	0	230
16	262	6	0	1	0	0	0	1	0	0	0	6	0	276
17	252	5	0	2	0	0	0	0	0	0	0	5	0	264
18	227	3	1	0	0	0	0	1	1	0	0	3	0	236
19	171	3	0	0	0	0	0	0	0	0	0	4	0	178
20	170	3	0	0	0	0	0	1	0	0	0	3	0	177
21	140	2	0	0	0	0	0	0	0	0	0	2	0	144
22	77	0	0	0	0	0	0	0	0	0	0	0	0	77
23	58	0	0	0	0	0	0	0	0	0	0	1	0	59
24	22	1	0	0	0	0	0	0	0	0	0	0	0	23
7-19	2849	60	1	3	0	0	0	2	1	0	0	46	0	2962
6-22	3393	68	1	4	0	0	0	3	1	0	0	53	0	3523
6-24	3473	69	1	4	0	0	0	3	1	0	0	54	0	3605
0-24	3556	70	1	4	0	0	0	3	1	0	0	55	0	3690

LOCATION: MARKET STREET

Direction: NORTHBOUND

Thursday 27/06/2019					٧	EHICLE SI	PEED (MPH	ł)					TOTAL
Hr Ending	0-10	11-20	21-30	31-35	36-40	41-45	46-50	51-55	56-60	61-70	71-80	81-120	
1	0	0	2	6	3	2	0	0	0	0	0	0	13
2	0	0	3	0	2	1	0	0	0	0	0	0	6
3	0	0	4	2	1	0	0	0	0	0	0	0	7
4	0	0	2	1	0	0	0	0	0	0	0	0	3
5	0	1	3	2	2	0	0	0	0	0	0	0	8
6	0	1	8	12	9	3	0	0	0	0	0	0	33
7	0	6	20	38	21	4	0	0	0	0	0	0	89
8	0	17	193	63	11	0	0	0	0	0	0	0	284
9	2	33	277	39	4	0	0	0	0	0	0	0	355
10	4	21	136	43	7	0	0	0	0	0	0	0	211
11	3	17	137	14	2	0	0	0	0	0	0	0	173
12	0	8	146	24	3	0	0	0	0	0	0	0	181
13	2	19	136	40	4	1	0	0	0	0	0	0	202
14	0	7	161	35	3	0	0	0	0	0	0	0	206
15	0	9	227	50	6	2	0	0	0	0	0	0	294
16	0	9	193	61	7	0	0	0	0	0	0	0	270
17	1	10	286	85	10	0	0	0	0	0	0	0	392
18	0	36	332	98	5	5	0	0	0	0	0	0	476
19	1	8	208	78	19	3	0	1	0	0	0	0	318
20	0	3	117	75	16	1	1	0	0	0	0	0	213
21	0	9	67	36	11	3	2	1	0	0	0	0	129
22	0	6	57	38	8	0	0	0	0	0	0	0	109
23	0	1	34	20	8	1	1	0	0	0	0	0	65
24	0	0	13	12	2	0	0	0	0	0	0	0	27
7-19	13	194	2432	630	81	11	0	1	0	0	0	0	3362
6-22	13	218	2693	817	137	19	3	2	0	0	0	0	3902
6-24	13	219	2740	849	147	20	4	2	0	0	0	0	3994
0-24	13	221	2762	872	164	26	4	2	0	0	0	0	4064

Thursday													
Thursday 27/06/2019					١	EHICLE SI	PEED (MPH	<del>l</del> )					TOTAL
Hr Ending	0-10	11-20	21-30	31-35	36-40	41-45	46-50	51-55	56-60	61-70	71-80	81-120	
1	0	0	10	5	1	0	0	0	0	0	0	0	16
2	0	0	0	4	2	0	0	0	0	0	0	0	6
3	0	0	2	4	1	0	0	0	0	0	0	0	7
4	0	0	2	1	0	0	0	0	0	0	0	0	3
5	0	0	1	4	0	2	0	0	0	0	0	0	7
6	0	0	13	28	3	2	0	0	0	0	0	0	46
7	0	1	88	58	15	1	0	0	0	0	0	0	163
8	0	36	327	57	9	1	0	0	0	0	0	0	430
9	1	40	282	29	0	0	0	0	0	0	0	0	352
10	0	18	166	22	1	0	0	0	0	0	0	0	207
11	2	28	138	19	2	0	0	0	0	0	0	0	189
12	0	20	156	18	2	0	0	0	0	0	0	0	196
13	2	18	164	15	2	0	0	0	0	0	0	0	201
14	0	7	171	25	0	0	0	0	0	0	0	0	203
15	1	25	186	17	1	0	0	0	0	0	0	0	230
16	0	20	225	27	4	0	0	0	0	0	0	0	276
17	2	9	216	35	2	0	0	0	0	0	0	0	264
18	1	28	181	23	2	1	0	0	0	0	0	0	236
19	0	12	121	42	2	1	0	0	0	0	0	0	178
20	0	10	107	51	7	2	0	0	0	0	0	0	177
21	0	1	98	41	3	1	0	0	0	0	0	0	144
22	0	1	50	19	6	1	0	0	0	0	0	0	77
23	0	3	30	24	1	1	0	0	0	0	0	0	59
24	0	0	10	8	2	2	0	1	0	0	0	0	23
7-19	9	261	2333	329	27	3	0	0	0	0	0	0	2962
6-22	9	274	2676	498	58	8	0	0	0	0	0	0	3523
6-24	9	277	2716	530	61	11	0	1	0	0	0	0	3605
0-24	9	277	2744	576	68	15	0	1	0	0	0	0	3690

LOCATION: MARKET STREET

Direction: NORTHBOUND

Friday 28/06/2019						VEHICLI	CLASSIF	ICATION						TOTAL
Hr Ending	1	2	3	4	5	6	7	8	9	10	11	12	13	
1	16	0	0	0	0	0	0	0	0	0	0	0	0	16
2	10	0	0	0	0	0	0	0	0	0	0	0	0	10
3	5	0	0	0	0	0	0	0	0	0	0	0	0	5
4	5	0	0	0	0	0	0	0	0	0	0	0	0	5
5	8	0	0	0	0	0	0	0	0	0	0	0	0	8
6	26	0	0	0	0	0	0	0	0	0	0	0	0	26
7	91	3	0	0	0	0	0	0	0	0	0	0	0	94
8	239	7	0	0	0	0	0	0	0	0	0	11	0	257
9	351	10	0	0	0	0	0	1	1	0	0	4	0	367
10	198	7	0	0	0	0	0	0	0	0	0	4	0	209
11	218	7	0	0	0	0	0	0	0	0	0	6	0	231
12	170	6	0	0	0	0	0	0	1	0	0	4	0	181
13	232	7	0	0	0	0	0	0	0	0	0	5	0	244
14	267	7	0	0	0	0	0	0	1	0	0	4	0	279
15	326	7	0	1	0	0	0	1	1	0	0	7	0	343
16	344	10	0	0	0	0	0	1	0	0	0	6	0	361
17	473	12	0	0	0	0	0	0	0	0	0	2	0	487
18	452	11	0	0	0	0	0	0	0	0	0	6	0	469
19	335	7	0	0	0	0	0	0	0	0	1	5	0	348
20	222	3	0	0	0	0	0	0	0	0	0	3	0	228
21	153	2	0	0	0	0	0	0	0	0	0	3	0	158
22	123	0	0	0	0	0	0	0	0	0	0	1	0	124
23	80	2	0	0	0	0	0	0	0	0	0	0	0	82
24	64	0	0	1	0	0	0	0	0	0	0	1	0	66
7-19	3605	98	0	1	0	0	0	3	4	0	1	64	0	3776
6-22	4194	106	0	1	0	0	0	3	4	0	1	71	0	4380
6-24	4338	108	0	2	0	0	0	3	4	0	1	72	0	4528
0-24	4408	108	0	2	0	0	0	3	4	0	1	72	0	4598

Friday 28/06/2019						VEHICLE	CLASSIF	ICATION						TOTAL
Hr Ending	1	2	3	4	5	6	7	8	9	10	11	12	13	
1	17	0	0	0	0	0	0	0	0	0	0	0	0	17
2	13	0	0	0	0	0	0	0	0	0	0	0	0	13
3	2	0	0	0	0	0	0	0	0	0	0	0	0	2
4	9	0	0	0	0	0	0	0	0	0	0	0	0	9
5	4	0	0	0	0	0	0	0	0	0	0	0	0	4
6	52	0	0	0	0	0	0	0	0	0	0	1	0	53
7	139	5	0	0	0	0	0	0	0	0	0	2	0	146
8	366	8	0	0	0	0	0	0	0	0	0	5	0	379
9	355	6	0	0	0	0	0	0	0	0	0	3	0	364
10	216	6	0	0	0	0	0	1	0	0	0	2	0	225
11	193	8	0	0	0	0	0	0	0	0	0	5	0	206
12	224	7	0	1	0	0	0	0	1	0	0	5	0	238
13	216	4	0	0	0	0	0	0	0	0	0	4	0	224
14	245	6	0	0	0	0	0	0	0	0	0	3	0	254
15	222	6	0	0	0	0	0	0	1	0	0	4	0	233
16	318	4	0	1	0	0	0	0	0	0	0	5	0	328
17	246	5	0	0	0	0	0	0	0	0	0	4	0	255
18	268	5	0	0	0	0	0	1	0	0	0	4	0	278
19	246	3	0	1	0	0	0	0	0	0	0	3	0	253
20	184	3	0	0	0	0	0	0	0	0	0	2	0	189
21	137	3	0	0	0	0	0	0	0	0	0	1	0	141
22	80	2	0	0	0	0	0	0	0	0	0	0	0	82
23	72	0	0	0	0	0	0	0	0	0	0	1	0	73
24	49	0	0	1	0	0	0	0	0	0	0	0	0	50
7-19	3115	68	0	3	0	0	0	2	2	0	0	47	0	3237
6-22	3655	81	0	3	0	0	0	2	2	0	0	52	0	3795
6-24	3776	81	0	4	0	0	0	2	2	0	0	53	0	3918
0-24	3873	81	0	4	0	0	0	2	2	0	0	54	0	4016

LOCATION: MARKET STREET

Direction: NORTHBOUND

Friday 28/06/2019					\	ÆHICLE SI	PEED (MPH	<del>l</del> )					TOTAL
Hr Ending	0-10	11-20	21-30	31-35	36-40	41-45	46-50	51-55	56-60	61-70	71-80	81-120	
1	0	0	5	7	4	0	0	0	0	0	0	0	16
2	0	1	0	7	0	1	0	1	0	0	0	0	10
3	0	0	1	3	1	0	0	0	0	0	0	0	5
4	0	0	0	3	1	1	0	0	0	0	0	0	5
5	0	0	3	3	1	1	0	0	0	0	0	0	8
6	1	0	7	12	6	0	0	0	0	0	0	0	26
7	0	6	28	36	16	8	0	0	0	0	0	0	94
8	0	15	159	64	17	2	0	0	0	0	0	0	257
9	7	24	289	41	6	0	0	0	0	0	0	0	367
10	0	21	164	22	2	0	0	0	0	0	0	0	209
11	0	18	163	40	10	0	0	0	0	0	0	0	231
12	1	13	122	37	7	1	0	0	0	0	0	0	181
13	0	8	185	42	9	0	0	0	0	0	0	0	244
14	0	30	193	48	6	1	1	0	0	0	0	0	279
15	0	23	252	58	10	0	0	0	0	0	0	0	343
16	1	21	258	77	4	0	0	0	0	0	0	0	361
17	2	16	291	154	22	2	0	0	0	0	0	0	487
18	5	35	303	107	18	1	0	0	0	0	0	0	469
19	2	6	229	94	17	0	0	0	0	0	0	0	348
20	0	10	140	67	9	2	0	0	0	0	0	0	228
21	1	4	90	42	18	3	0	0	0	0	0	0	158
22	0	7	68	30	15	4	0	0	0	0	0	0	124
23	0	0	46	28	6	2	0	0	0	0	0	0	82
24	0	6	30	20	9	1	0	0	0	0	0	0	66
7-19	18	230	2608	784	128	7	1	0	0	0	0	0	3776
6-22	19	257	2934	959	186	24	1	0	0	0	0	0	4380
6-24	19	263	3010	1007	201	27	1	0	0	0	0	0	4528
0-24	20	264	3026	1042	214	30	1	1	0	0	0	0	4598

Friday					١	/EHICLE SI	PEED (MPH	1)					TOTAL
28/06/2019	- 10	44.00			00.40			· 				04.400	TOTAL
Hr Ending	0-10	11-20	21-30	31-35	36-40	41-45	46-50	51-55	56-60	61-70	71-80	81-120	4.7
1 2	0	0	9	7	1	0	0	0	0	0	0	0	17
	0	0	13 1	0 1	0	0	0	0	0	0	0	0	13
<u>3</u>	0	0	2		0	0	0	0	0	0		·	2
	0	0		6	0	0	0	0	0	0	0	0	9
5	0	0	2	2	-		0	0	0	0			
6	0		16	24	9	3	_	0	·	ŭ	0	0	53
7	3	7 12	65 278	48	23	2	1	0	0	0	0	0	146
<u>8</u> 9	10	37	278	75 18	9	0	0	0	0	0	0	0	379 364
10	2	34	298 171	17	1	0	0	0	0	0	0	0	225
10	0	6	163	33	4	0	0	0	0	0	0	0	206
12							_	_	_				
	1	13	192	32	0	0	0	0	0	0	0	0	238
13	1	27 31	171	22 21	1	0	0	0	0	0	0	0	224 254
14 15	0		201	31	1	1	0	0	0	0	0	0	233
16	2	14 12	186 266	41	7	_	0	0	0	0	0	0	328
17	1	13	185	41	9	0	0	0	0	0	0	0	255
18	0	22	203	46	7	0	0	0	0	0	0	0	278
19	0	9	188	51	3	2	0	0	0	0	0	0	253
20	0	7	129	42	9	2	0	0	0	0	0	0	189
21	1	8	88	42	3	0	0	0	0	0	0	0	141
22	0	2	51	22	7	0	0	0	0	0	0	0	82
23	0	4	52	12	4	0	0	1	0	0	0	0	73
24	1	1	40	4	4	0	0	0	0	0	0	0	50
24			40	4	4	U	U	U	U	U	U	U	50
7-19	20	230	2502	434	45	5	0	1	0	0	0	0	3237
6-22	21	254	2835	587	87	9	1	1	0	0	0	0	3795
6-24	22	259	2927	603	95	9	1	2	0	0	0	0	3918
0-24	22	259	2970	643	106	12	2	2	0	0	0	0	4016
0-24	22	259	2510	043	100	12			U	U	Ü	U	4010

LOCATION: MARKET STREET

Direction: NORTHBOUND

Saturday 29/06/2019						VEHICLE	ECLASSIF	ICATION						TOTAL
Hr Ending	1	2	3	4	5	6	7	8	9	10	11	12	13	
1	26	0	0	0	0	0	0	0	0	0	0	0	0	26
2	20	0	0	0	0	0	0	0	0	0	0	0	0	20
3	7	2	0	0	0	0	0	0	0	0	0	0	0	9
4	4	0	0	0	0	0	0	0	0	0	0	0	0	4
5	4	0	0	0	0	0	0	0	0	0	0	0	0	4
6	16	0	0	0	0	0	0	0	0	0	0	0	0	16
7	29	0	0	0	0	0	0	0	0	0	0	0	0	29
8	68	4	0	0	0	0	0	0	0	0	0	1	0	73
9	158	5	0	0	0	0	0	0	0	0	0	2	0	165
10	209	6	0	0	0	0	0	1	0	0	0	2	0	218
11	231	5	0	0	0	0	0	0	0	0	0	6	0	242
12	265	7	0	1	0	0	0	0	0	0	0	5	0	278
13	301	6	0	0	0	0	0	0	0	0	0	4	0	311
14	281	4	0	1	0	0	0	0	0	0	0	6	0	292
15	263	3	0	0	0	0	0	1	0	0	0	6	0	273
16	218	4	0	0	0	0	0	0	0	0	0	5	0	227
17	278	5	0	0	0	0	0	0	0	0	0	7	0	290
18	209	4	0	0	0	0	0	0	0	0	0	7	0	220
19	181	2	0	0	0	0	0	0	0	0	0	5	0	188
20	168	2	0	0	0	0	0	0	0	0	0	3	0	173
21	112	2	0	0	0	0	0	0	0	0	0	3	0	117
22	75	1	0	0	0	0	0	0	0	0	0	2	0	78
23	99	1	0	0	0	0	0	0	0	0	0	0	0	100
24	57	0	0	0	0	0	0	0	0	0	0	1	0	58
7-19	2662	55	0	2	0	0	0	2	0	0	0	56	0	2777
6-22	3046	60	0	2	0	0	0	2	0	0	0	64	0	3174
6-24	3202	61	0	2	0	0	0	2	0	0	0	65	0	3332
0-24	3279	63	0	2	0	0	0	2	0	0	0	65	0	3411

Saturday 29/06/2019						VEHICLE	CLASSIF	ICATION						TOTAL
Hr Ending	1	2	3	4	5	6	7	8	9	10	11	12	13	
1	31	0	0	0	0	0	0	0	0	0	0	0	0	31
2	16	0	0	0	0	0	0	1	0	0	0	0	0	17
3	9	0	0	0	0	0	0	0	0	0	0	0	0	9
4	3	0	0	0	0	0	0	0	0	0	0	0	0	3
5	9	0	0	0	0	0	0	0	0	0	0	0	0	9
6	18	0	0	0	0	0	0	0	0	0	0	0	0	18
7	34	2	0	0	0	0	0	0	0	0	0	0	0	36
8	92	3	0	0	0	0	0	0	0	0	0	1	0	96
9	146	3	0	0	0	0	0	0	0	0	0	4	0	153
10	172	4	0	0	0	0	0	0	0	0	0	5	0	181
11	221	5	0	0	0	0	0	0	0	0	0	5	0	231
12	253	6	0	0	0	0	0	0	0	0	0	5	0	264
13	262	5	0	0	0	0	0	0	0	0	0	6	0	273
14	291	2	0	2	0	0	0	0	0	0	0	6	0	301
15	237	4	0	0	0	0	0	0	0	0	0	4	0	245
16	233	2	0	0	0	0	0	0	0	0	0	6	0	241
17	215	3	0	1	0	0	0	0	0	0	0	4	0	223
18	165	2	0	0	0	0	0	0	0	0	0	5	0	172
19	161	1	0	0	0	0	0	0	0	0	0	2	0	164
20	159	2	0	0	0	0	0	0	0	0	0	3	0	164
21	120	2	0	0	0	0	0	0	0	0	0	2	0	124
22	82	2	0	0	0	0	0	0	0	0	0	1	0	85
23	69	0	0	0	0	0	0	0	0	0	0	1	0	70
24	53	1	0	0	0	0	0	0	0	0	0	0	0	54
7-19	2448	40	0	3	0	0	0	0	0	0	0	53	0	2544
6-22	2843	48	0	3	0	0	0	0	0	0	0	59	0	2953
6-24	2965	49	0	3	0	0	0	0	0	0	0	60	0	3077
0-24	3051	49	0	3	0	0	0	1	0	0	0	60	0	3164

LOCATION: MARKET STREET

Direction: NORTHBOUND

Saturday 29/06/2019					١	ÆHICLE S	PEED (MPH	<del>l</del> )					TOTAL
Hr Ending	0-10	11-20	21-30	31-35	36-40	41-45	46-50	51-55	56-60	61-70	71-80	81-120	
1	0	0	10	14	2	0	0	0	0	0	0	0	26
2	0	0	2	4	11	0	2	1	0	0	0	0	20
3	0	0	3	6	0	0	0	0	0	0	0	0	9
4	1	0	1	1	1	0	0	0	0	0	0	0	4
5	0	0	3	1	0	0	0	0	0	0	0	0	4
6	0	1	3	8	3	1	0	0	0	0	0	0	16
7	1	6	7	10	4	1	0	0	0	0	0	0	29
8	0	2	24	32	13	2	0	0	0	0	0	0	73
9	0	13	96	47	7	2	0	0	0	0	0	0	165
10	4	12	144	48	8	2	0	0	0	0	0	0	218
11	1	21	175	37	7	1	0	0	0	0	0	0	242
12	0	22	213	39	4	0	0	0	0	0	0	0	278
13	2	33	224	43	9	0	0	0	0	0	0	0	311
14	3	12	204	55	14	4	0	0	0	0	0	0	292
15	0	12	178	74	7	2	0	0	0	0	0	0	273
16	1	10	137	67	12	0	0	0	0	0	0	0	227
17	1	10	203	64	10	1	1	0	0	0	0	0	290
18	0	9	146	59	6	0	0	0	0	0	0	0	220
19	0	6	101	70	10	1	0	0	0	0	0	0	188
20	1	3	110	49	9	1	0	0	0	0	0	0	173
21	0	1	65	41	9	1	0	0	0	0	0	0	117
22	0	0	51	20	6	1	0	0	0	0	0	0	78
23	0	3	49	39	8	1	0	0	0	0	0	0	100
24	0	2	31	18	4	3	0	0	0	0	0	0	58
7-19	12	162	1845	635	107	15	1	0	0	0	0	0	2777
6-22	14	172	2078	755	135	19	1	0	0	0	0	0	3174
6-24	14	177	2158	812	147	23	1	0	0	0	0	0	3332
0-24	15	178	2180	846	164	24	3	1	0	0	0	0	3411

Saturday 29/06/2019					١	ÆHICLE SI	PEED (MPH	l)					TOTAL
Hr Ending	0-10	11-20	21-30	31-35	36-40	41-45	46-50	51-55	56-60	61-70	71-80	81-120	
1	0	0	18	8	4	1	0	0	0	0	0	0	31
2	0	0	9	6	1	1	0	0	0	0	0	0	17
3	0	0	4	3	2	0	0	0	0	0	0	0	9
4	0	1	1	1	0	0	0	0	0	0	0	0	3
5	0	1	1	2	1	4	0	0	0	0	0	0	9
6	0	0	9	6	3	0	0	0	0	0	0	0	18
7	2	2	17	9	6	0	0	0	0	0	0	0	36
8	0	2	55	30	6	1	1	0	1	0	0	0	96
9	0	12	102	32	7	0	0	0	0	0	0	0	153
10	2	14	130	31	4	0	0	0	0	0	0	0	181
11	0	25	189	17	0	0	0	0	0	0	0	0	231
12	4	21	219	20	0	0	0	0	0	0	0	0	264
13	2	29	202	35	4	1	0	0	0	0	0	0	273
14	1	9	240	46	3	2	0	0	0	0	0	0	301
15	0	8	194	42	1	0	0	0	0	0	0	0	245
16	0	11	184	37	7	2	0	0	0	0	0	0	241
17	4	14	180	22	3	0	0	0	0	0	0	0	223
18	0	7	137	23	4	1	0	0	0	0	0	0	172
19	1	6	109	40	7	1	0	0	0	0	0	0	164
20	0	6	106	45	7	0	0	0	0	0	0	0	164
21	1	6	77	36	3	1	0	0	0	0	0	0	124
22	0	2	60	20	2	0	0	1	0	0	0	0	85
23	0	1	45	18	3	3	0	0	0	0	0	0	70
24	0	2	26	18	4	4	0	0	0	0	0	0	54
7-19	14	158	1941	375	46	8	1	0	1	0	0	0	2544
6-22	17	174	2201	485	64	9	1	1	1	0	0	0	2953
6-24	17	177	2272	521	71	16	1	1	1	0	0	0	3077
0-24	17	179	2314	547	82	22	1	1	1	0	0	0	3164

LOCATION: MARKET STREET

Direction: NORTHBOUND

Sunday 30/06/2019						VEHICLE	CLASSIF	ICATION						TOTAL
Hr Ending	1	2	3	4	5	6	7	8	9	10	11	12	13	
1	32	0	0	0	0	0	0	0	0	0	0	1	0	33
2	24	1	0	0	0	0	0	0	0	0	0	0	0	25
3	20	0	0	0	0	0	0	0	0	0	0	0	0	20
4	8	0	0	0	0	0	0	0	0	0	0	0	0	8
5	6	0	0	0	0	0	0	0	0	0	0	0	0	6
6	11	0	0	0	0	0	0	0	0	0	0	0	0	11
7	21	1	0	0	0	0	0	0	0	0	0	0	0	22
8	31	2	0	0	0	0	0	0	0	0	0	0	0	33
9	71	2	0	0	0	0	0	0	0	0	0	0	0	73
10	152	1	0	0	0	0	0	0	0	0	0	0	0	153
11	176	2	0	0	0	0	0	0	0	0	0	3	0	181
12	209	2	0	0	0	0	0	0	0	0	0	3	0	214
13	211	4	0	0	0	0	0	0	0	0	0	3	0	218
14	264	4	0	0	0	0	0	0	0	0	0	2	0	270
15	252	2	0	0	0	0	0	1	0	0	0	2	0	257
16	280	5	0	0	0	0	0	0	0	0	0	4	0	289
17	228	3	0	1	0	0	0	0	0	0	0	4	0	236
18	216	2	0	0	0	0	0	0	0	0	0	3	0	221
19	153	2	0	0	0	0	0	0	0	0	0	2	0	157
20	149	4	0	0	0	0	0	0	0	0	0	1	0	154
21	93	2	0	0	0	0	0	0	0	0	0	0	0	95
22	75	1	0	0	0	0	0	0	0	0	0	0	0	76
23	54	0	0	0	0	0	0	0	0	0	0	0	0	54
24	39	0	0	0	0	0	0	0	0	0	0	0	0	39
7-19	2243	31	0	1	0	0	0	1	0	0	0	26	0	2302
6-22	2581	39	0	1	0	0	0	1	0	0	0	27	0	2649
6-24	2674	39	0	1	0	0	0	1	0	0	0	27	0	2742
0-24	2775	40	0	1	0	0	0	1	0	0	0	28	0	2845

Sunday 30/06/2019						VEHICLE	CLASSIF	ICATION						TOTAL
Hr Ending	1	2	3	4	5	6	7	8	9	10	11	12	13	
1	41	0	0	0	0	0	0	0	0	0	0	0	0	41
2	30	0	0	0	0	0	0	0	0	0	0	0	0	30
3	16	0	0	0	0	0	0	0	0	0	0	0	0	16
4	6	0	0	0	0	0	0	0	0	0	0	0	0	6
5	7	0	0	0	0	0	0	0	0	0	0	0	0	7
6	9	0	0	0	0	0	0	0	0	0	0	0	0	9
7	12	0	0	0	0	0	0	0	0	0	0	0	0	12
8	43	1	0	0	0	0	0	0	0	0	0	0	0	44
9	76	1	0	0	0	0	0	0	0	0	0	1	0	78
10	114	2	0	0	0	0	0	1	0	0	0	1	0	118
11	178	3	0	0	0	0	0	0	0	0	0	4	0	185
12	209	3	0	0	0	0	0	1	0	0	0	3	0	216
13	281	3	0	0	0	0	0	0	0	0	0	3	0	287
14	286	2	0	0	0	0	0	0	0	0	0	1	0	289
15	258	1	0	2	0	0	0	0	0	0	0	0	0	261
16	231	2	0	0	0	0	0	1	0	0	0	3	0	237
17	232	3	0	0	0	0	0	0	0	0	0	4	0	239
18	179	3	0	0	0	0	0	0	1	0	0	4	0	187
19	172	3	0	0	0	0	0	0	0	0	0	0	0	175
20	134	1	0	0	0	0	0	0	0	0	0	1	0	136
21	86	1	0	0	0	0	0	0	0	0	0	0	0	87
22	81	2	0	0	0	0	0	0	0	0	0	0	0	83
23	46	0	0	0	0	0	0	0	0	0	0	0	0	46
24	22	0	0	0	0	0	0	0	0	0	0	0	0	22
7-19	2259	27	0	2	0	0	0	3	1	0	0	24	0	2316
6-22	2572	31	0	2	0	0	0	3	1	0	0	25	0	2634
6-24	2640	31	0	2	0	0	0	3	1	0	0	25	0	2702
0-24	2749	31	0	2	0	0	0	3	1	0	0	25	0	2811

LOCATION: MARKET STREET

Direction: NORTHBOUND

Sunday 30/06/2019					١	ÆHICLE S	PEED (MPH	<del>l</del> )					TOTAL
Hr Ending	0-10	11-20	21-30	31-35	36-40	41-45	46-50	51-55	56-60	61-70	71-80	81-120	
1	0	0	12	11	8	2	0	0	0	0	0	0	33
2	0	0	10	5	8	2	0	0	0	0	0	0	25
3	0	1	4	8	6	0	1	0	0	0	0	0	20
4	0	0	2	2	4	0	0	0	0	0	0	0	8
5	0	0	3	1	1	0	0	1	0	0	0	0	6
6	0	0	3	2	5	0	1	0	0	0	0	0	11
7	0	4	3	8	4	2	1	0	0	0	0	0	22
8	0	7	7	13	4	2	0	0	0	0	0	0	33
9	0	8	31	24	7	3	0	0	0	0	0	0	73
10	2	26	74	44	7	0	0	0	0	0	0	0	153
11	0	13	116	38	11	3	0	0	0	0	0	0	181
12	0	25	132	49	8	0	0	0	0	0	0	0	214
13	1	16	150	45	6	0	0	0	0	0	0	0	218
14	0	25	203	41	1	0	0	0	0	0	0	0	270
15	1	12	188	54	2	0	0	0	0	0	0	0	257
16	1	26	222	33	6	1	0	0	0	0	0	0	289
17	0	40	157	31	7	0	1	0	0	0	0	0	236
18	1	22	161	30	7	0	0	0	0	0	0	0	221
19	1	19	102	31	4	0	0	0	0	0	0	0	157
20	0	9	87	45	11	2	0	0	0	0	0	0	154
21	0	3	58	27	6	1	0	0	0	0	0	0	95
22	0	1	43	27	4	0	1	0	0	0	0	0	76
23	0	0	34	14	2	2	0	2	0	0	0	0	54
24	0	0	18	17	4	0	0	0	0	0	0	0	39
7-19	7	239	1543	433	70	9	1	0	0	0	0	0	2302
6-22	7	256	1734	540	95	14	3	0	0	0	0	0	2649
6-24	7	256	1786	571	101	16	3	2	0	0	0	0	2742
0-24	7	257	1820	600	133	20	5	3	0	0	0	0	2845

Sunday 30/06/2019					١	ÆHICLE SI	PEED (MPH	<del>l</del> )					TOTAL
Hr Ending	0-10	11-20	21-30	31-35	36-40	41-45	46-50	51-55	56-60	61-70	71-80	81-120	
1	0	2	11	20	7	1	0	0	0	0	0	0	41
2	0	1	7	9	9	1	2	0	1	0	0	0	30
3	0	1	8	5	2	0	0	0	0	0	0	0	16
4	0	0	0	4	2	0	0	0	0	0	0	0	6
5	0	0	1	0	1	4	0	1	0	0	0	0	7
6	0	0	3	5	1	0	0	0	0	0	0	0	9
7	0	1	5	4	2	0	0	0	0	0	0	0	12
8	0	2	20	17	5	0	0	0	0	0	0	0	44
9	0	2	47	25	4	0	0	0	0	0	0	0	78
10	0	8	82	22	6	0	0	0	0	0	0	0	118
11	0	9	132	40	3	1	0	0	0	0	0	0	185
12	0	19	161	33	3	0	0	0	0	0	0	0	216
13	0	19	227	35	6	0	0	0	0	0	0	0	287
14	1	29	232	25	2	0	0	0	0	0	0	0	289
15	1	19	200	37	4	0	0	0	0	0	0	0	261
16	6	20	193	15	3	0	0	0	0	0	0	0	237
17	1	19	189	27	2	1	0	0	0	0	0	0	239
18	0	10	155	22	0	0	0	0	0	0	0	0	187
19	0	14	127	26	8	0	0	0	0	0	0	0	175
20	0	13	95	25	3	0	0	0	0	0	0	0	136
21	0	0	63	20	4	0	0	0	0	0	0	0	87
22	0	0	61	16	6	0	0	0	0	0	0	0	83
23	0	3	28	12	1	1	1	0	0	0	0	0	46
24	0	0	10	10	1	1	0	0	0	0	0	0	22
7-19	9	170	1765	324	46	2	0	0	0	0	0	0	2316
6-22	9	184	1989	389	61	2	0	0	0	0	0	0	2634
6-24	9	187	2027	411	63	4	1	0	0	0	0	0	2702
0-24	9	191	2057	454	85	10	3	1	1	0	0	0	2811

LOCATION: MARKET STREET

Direction: NORTHBOUND

Monday 01/07/2019						VEHICLE	CLASSIF	ICATION						TOTAL
Hr Ending	1	2	3	4	5	6	7	8	9	10	11	12	13	
1	12	0	0	0	0	0	0	0	0	0	0	0	0	12
2	6	0	0	0	0	0	0	0	0	0	0	0	0	6
3	3	0	0	0	0	0	0	0	0	0	0	0	0	3
4	3	0	0	0	0	0	0	0	0	0	0	0	0	3
5	4	0	0	0	0	0	0	0	0	0	0	0	0	4
6	21	1	0	0	0	0	0	0	0	0	0	0	0	22
7	77	2	0	0	0	0	0	0	0	0	0	1	0	80
8	240	7	0	0	0	0	0	0	0	0	0	5	0	252
9	325	9	0	0	0	0	0	0	0	0	0	10	0	344
10	186	8	0	0	1	0	0	0	0	0	0	5	0	200
11	164	6	0	0	0	0	0	0	0	0	0	5	0	175
12	174	6	0	0	0	0	0	0	0	0	0	7	0	187
13	189	5	0	0	0	0	0	0	0	0	0	7	0	201
14	170	6	0	0	0	0	0	0	0	0	0	7	0	183
15	253	5	0	0	0	0	0	1	0	0	0	8	0	267
16	270	5	0	0	0	0	0	0	0	0	0	2	0	277
17	361	8	0	0	0	0	0	0	0	0	0	7	0	376
18	440	10	0	0	0	0	0	1	0	0	0	4	0	455
19	243	4	0	0	0	0	0	1	0	0	0	4	0	252
20	192	3	0	0	0	0	0	0	0	0	0	3	0	198
21	142	3	0	1	0	0	0	0	0	0	0	1	0	147
22	112	2	0	0	0	0	0	0	0	0	0	2	0	116
23	38	1	0	0	0	0	0	0	0	0	0	1	0	40
24	34	0	0	0	0	0	0	0	0	0	0	0	0	34
7-19	3015	79	0	0	1	0	0	3	0	0	0	71	0	3169
6-22	3538	89	0	1	1	0	0	3	0	0	0	78	0	3710
6-24	3610	90	0	1	1	0	0	3	0	0	0	79	0	3784
0-24	3659	91	0	1	1	0	0	3	0	0	0	79	0	3834

Monday 01/07/2019						VEHICLE	CLASSIF	ICATION						TOTAL
Hr Ending	1	2	3	4	5	6	7	8	9	10	11	12	13	
1	13	0	0	0	0	0	0	0	0	0	0	0	0	13
2	4	0	0	0	0	0	0	0	0	0	0	0	0	4
3	6	0	0	0	0	0	0	0	0	0	0	0	0	6
4	3	0	0	0	0	0	0	0	0	0	0	0	0	3
5	7	0	0	0	0	0	0	0	0	0	0	0	0	7
6	43	1	0	0	0	0	0	0	0	0	0	2	0	46
7	136	2	0	0	0	0	0	0	0	0	0	4	0	142
8	418	4	1	0	0	0	0	0	0	0	0	3	0	426
9	406	6	0	0	0	0	0	0	0	0	0	3	0	415
10	208	5	0	1	0	0	0	0	0	0	0	3	0	217
11	189	4	0	0	0	0	0	0	0	0	0	4	0	197
12	189	5	0	0	0	0	0	0	0	0	0	4	0	198
13	204	5	0	0	0	0	0	0	0	0	0	2	0	211
14	199	4	0	1	0	0	0	0	0	0	0	4	0	208
15	181	3	0	0	0	0	0	0	0	0	0	3	0	187
16	297	4	0	0	0	0	0	1	0	0	0	2	0	304
17	233	4	0	1	0	0	0	1	0	0	0	5	0	244
18	263	6	0	0	0	0	0	0	0	0	0	3	0	272
19	180	3	0	0	0	0	0	1	0	0	0	4	0	188
20	156	2	0	0	0	0	0	0	0	0	0	1	0	159
21	113	2	0	0	0	0	0	0	0	0	0	2	0	117
22	78	1	0	0	0	0	0	0	0	0	0	0	0	79
23	41	0	0	0	0	0	0	0	0	0	0	0	0	41
24	26	0	0	0	0	0	0	0	0	0	0	0	0	26
7-19	2967	53	1	3	0	0	0	3	0	0	0	40	0	3067
6-22	3450	60	1	3	0	0	0	3	0	0	0	47	0	3564
6-24	3517	60	1	3	0	0	0	3	0	0	0	47	0	3631
0-24	3593	61	1	3	0	0	0	3	0	0	0	49	0	3710

LOCATION: MARKET STREET

Direction: NORTHBOUND

Monday 01/07/2019					١	ÆHICLE S	PEED (MPH	<del>l</del> )					TOTAL
Hr Ending	0-10	11-20	21-30	31-35	36-40	41-45	46-50	51-55	56-60	61-70	71-80	81-120	
1	0	1	5	4	2	0	0	0	0	0	0	0	12
2	0	0	1	3	1	0	1	0	0	0	0	0	6
3	0	1	1	1	0	0	0	0	0	0	0	0	3
4	0	0	2	1	0	0	0	0	0	0	0	0	3
5	0	0	1	2	1	0	0	0	0	0	0	0	4
6	1	0	10	5	4	1	1	0	0	0	0	0	22
7	1	3	26	37	13	0	0	0	0	0	0	0	80
8	2	18	159	70	3	0	0	0	0	0	0	0	252
9	4	42	274	24	0	0	0	0	0	0	0	0	344
10	0	14	159	26	1	0	0	0	0	0	0	0	200
11	2	21	121	28	3	0	0	0	0	0	0	0	175
12	1	13	154	18	1	0	0	0	0	0	0	0	187
13	1	14	171	13	2	0	0	0	0	0	0	0	201
14	1	7	128	35	12	0	0	0	0	0	0	0	183
15	0	36	186	42	3	0	0	0	0	0	0	0	267
16	1	26	198	46	2	4	0	0	0	0	0	0	277
17	0	0	252	108	15	1	0	0	0	0	0	0	376
18	0	7	311	124	9	1	3	0	0	0	0	0	455
19	4	11	179	46	12	0	0	0	0	0	0	0	252
20	1	15	117	55	10	0	0	0	0	0	0	0	198
21	0	7	79	48	9	1	2	0	1	0	0	0	147
22	0	3	62	38	12	0	0	0	0	1	0	0	116
23	0	1	22	12	1	4	0	0	0	0	0	0	40
24	0	0	11	16	6	0	0	1	0	0	0	0	34
7-19	16	209	2292	580	63	6	3	0	0	0	0	0	3169
6-22	18	237	2576	758	107	7	5	0	1	1	0	0	3710
6-24	18	238	2609	786	114	11	5	1	1	1	0	0	3784
0-24	19	240	2629	802	122	12	7	1	1	1	0	0	3834

Monday 01/07/2019					١	ÆHICLE S	PEED (MPH	<del>l</del> )					TOTAL
Hr Ending	0-10	11-20	21-30	31-35	36-40	41-45	46-50	51-55	56-60	61-70	71-80	81-120	
1	0	0	7	3	1	2	0	0	0	0	0	0	13
2	0	0	0	2	1	1	0	0	0	0	0	0	4
3	0	0	4	1	1	0	0	0	0	0	0	0	6
4	0	0	1	1	1	0	0	0	0	0	0	0	3
5	0	0	4	3	0	0	0	0	0	0	0	0	7
6	0	0	21	17	6	2	0	0	0	0	0	0	46
7	0	4	68	49	18	3	0	0	0	0	0	0	142
8	1	75	300	46	3	0	1	0	0	0	0	0	426
9	0	68	329	18	0	0	0	0	0	0	0	0	415
10	0	21	186	7	3	0	0	0	0	0	0	0	217
11	2	39	143	13	0	0	0	0	0	0	0	0	197
12	0	24	149	24	1	0	0	0	0	0	0	0	198
13	1	28	167	15	0	0	0	0	0	0	0	0	211
14	0	17	171	20	0	0	0	0	0	0	0	0	208
15	0	17	157	12	1	0	0	0	0	0	0	0	187
16	1	28	253	22	0	0	0	0	0	0	0	0	304
17	0	16	192	30	6	0	0	0	0	0	0	0	244
18	2	14	201	46	9	0	0	0	0	0	0	0	272
19	0	10	140	33	4	1	0	0	0	0	0	0	188
20	0	11	103	34	11	0	0	0	0	0	0	0	159
21	0	4	85	26	2	0	0	0	0	0	0	0	117
22	0	2	48	20	7	2	0	0	0	0	0	0	79
23	0	0	22	16	2	1	0	0	0	0	0	0	41
24	0	0	17	8	1	0	0	0	0	0	0	0	26
7-19	7	357	2388	286	27	1	1	0	0	0	0	0	3067
6-22	7	378	2692	415	65	6	1	0	0	0	0	0	3564
6-24	7	378	2731	439	68	7	1	0	0	0	0	0	3631
0-24	7	378	2768	466	78	12	1	0	0	0	0	0	3710

LOCATION: MARKET STREET

Direction: NORTHBOUND

Tuesday 02/07/2019						VEHICLE	CLASSIF	ICATION						TOTAL
Hr Ending	1	2	3	4	5	6	7	8	9	10	11	12	13	
1	19	0	0	0	0	0	0	0	0	0	0	0	0	19
2	10	0	0	0	0	0	0	0	0	0	0	0	0	10
3	3	0	0	0	0	0	0	0	0	0	0	0	0	3
4	2	0	0	0	0	0	0	0	0	0	0	0	0	2
5	9	0	0	0	0	0	0	0	0	0	0	0	0	9
6	25	1	0	0	0	0	0	0	0	0	0	0	0	26
7	77	4	0	0	0	0	0	0	0	0	0	1	0	82
8	256	5	0	0	0	0	0	0	0	0	0	4	0	265
9	317	10	0	0	0	0	0	0	0	0	0	11	0	338
10	207	7	0	0	0	0	0	0	0	0	1	7	0	222
11	171	6	1	0	0	0	0	0	0	0	0	8	0	186
12	205	6	0	1	0	0	0	0	0	0	0	4	0	216
13	197	6	0	0	0	0	0	0	0	0	0	5	0	208
14	215	9	0	0	0	0	0	0	0	0	0	5	0	229
15	265	9	0	0	0	0	0	0	0	0	0	9	0	283
16	314	6	0	0	0	0	0	0	0	0	0	5	0	325
17	392	11	0	0	0	0	0	0	0	0	0	5	0	408
18	444	8	0	0	0	0	0	1	0	0	0	6	0	459
19	330	6	0	0	0	0	0	0	0	0	0	4	0	340
20	223	5	0	0	0	0	0	1	0	0	0	4	0	233
21	149	2	0	0	0	0	0	1	0	0	0	3	0	155
22	95	2	0	0	0	0	0	0	0	0	0	2	0	99
23	63	0	0	0	0	0	0	0	0	0	0	1	0	64
24	36	0	0	0	0	0	0	0	0	0	0	0	0	36
7-19	3313	89	1	1	0	0	0	1	0	0	1	73	0	3479
6-22	3857	102	1	1	0	0	0	3	0	0	1	83	0	4048
6-24	3956	102	1	1	0	0	0	3	0	0	1	84	0	4148
0-24	4024	103	1	1	0	0	0	3	0	0	1	84	0	4217

Tuesday 02/07/2019						VEHICLE	CLASSIF	ICATION						TOTAL
Hr Ending	1	2	3	4	5	6	7	8	9	10	11	12	13	
1	10	0	0	0	0	0	0	0	0	0	0	0	0	10
2	4	0	0	0	0	0	0	0	0	0	0	0	0	4
3	1	0	0	0	0	0	0	0	0	0	0	0	0	1
4	2	0	0	0	0	0	0	0	0	0	0	0	0	2
5	9	1	0	0	0	0	0	0	0	0	0	0	0	10
6	48	1	0	0	0	0	0	0	0	0	0	1	0	50
7	157	3	0	0	0	0	0	1	0	0	0	3	0	164
8	414	8	0	1	0	0	0	0	0	0	0	6	0	429
9	377	7	0	0	0	0	0	1	0	0	0	4	0	389
10	217	6	0	0	0	0	0	0	0	0	0	4	0	227
11	185	6	0	0	0	0	0	0	0	0	0	4	0	195
12	183	4	0	0	0	0	0	1	0	0	0	6	0	194
13	234	4	0	0	0	0	0	0	0	0	0	6	0	244
14	200	4	0	0	0	0	0	0	0	0	0	7	0	211
15	224	8	0	0	0	0	0	0	0	0	0	4	0	236
16	260	6	0	0	0	0	0	0	0	0	0	4	0	270
17	277	5	0	0	0	0	0	0	0	0	0	5	0	287
18	284	6	0	1	0	0	0	0	0	0	0	3	0	294
19	216	1	0	0	0	0	0	0	0	0	0	3	0	220
20	164	2	0	0	0	0	0	0	0	0	0	3	0	169
21	139	2	0	0	0	0	0	0	0	0	0	1	0	142
22	87	2	0	0	0	0	0	0	0	0	0	0	0	89
23	55	1	0	0	0	0	0	0	0	0	0	0	0	56
24	30	0	0	0	0	0	0	0	0	0	0	0	0	30
7-19	3071	65	0	2	0	0	0	2	0	0	0	56	0	3196
6-22	3618	74	0	2	0	0	0	3	0	0	0	63	0	3760
6-24	3703	75	0	2	0	0	0	3	0	0	0	63	0	3846
0-24	3777	77	0	2	0	0	0	3	0	0	0	64	0	3923

LOCATION: MARKET STREET

Direction: NORTHBOUND

Tuesday 02/07/2019					١	EHICLE S	PEED (MPH	<del>l</del> )					TOTAL
Hr Ending	0-10	11-20	21-30	31-35	36-40	41-45	46-50	51-55	56-60	61-70	71-80	81-120	
1	0	0	7	7	2	0	3	0	0	0	0	0	19
2	0	1	1	3	5	0	0	0	0	0	0	0	10
3	0	1	0	1	1	0	0	0	0	0	0	0	3
4	0	0	0	0	2	0	0	0	0	0	0	0	2
5	0	0	5	2	2	0	0	0	0	0	0	0	9
6	0	1	6	10	5	3	1	0	0	0	0	0	26
7	0	2	19	32	23	6	0	0	0	0	0	0	82
8	0	17	173	64	9	2	0	0	0	0	0	0	265
9	1	22	238	66	11	0	0	0	0	0	0	0	338
10	1	16	170	31	4	0	0	0	0	0	0	0	222
11	2	23	131	28	2	0	0	0	0	0	0	0	186
12	3	39	158	16	0	0	0	0	0	0	0	0	216
13	3	14	159	28	4	0	0	0	0	0	0	0	208
14	0	16	181	29	3	0	0	0	0	0	0	0	229
15	1	23	224	28	7	0	0	0	0	0	0	0	283
16	0	42	240	34	7	2	0	0	0	0	0	0	325
17	0	32	290	77	8	0	0	0	0	1	0	0	408
18	0	29	336	81	11	1	1	0	0	0	0	0	459
19	1	22	262	47	7	0	0	1	0	0	0	0	340
20	1	7	145	66	12	2	0	0	0	0	0	0	233
21	0	9	80	58	8	0	0	0	0	0	0	0	155
22	0	3	57	32	6	1	0	0	0	0	0	0	99
23	0	1	33	22	6	2	0	0	0	0	0	0	64
24	0	1	15	14	6	0	0	0	0	0	0	0	36
		-	-	-			-		-			-	
7-19	12	295	2562	529	73	5	1	1	0	1	0	0	3479
6-22	13	316	2863	717	122	14	1	1	0	1	0	0	4048
6-24	13	318	2911	753	134	16	1	1	0	1	0	0	4148
0-24	13	321	2930	776	151	19	5	1	0	1	0	0	4217

Tuesday 02/07/2019					١	ÆHICLE SI	PEED (MPH	ł)					TOTAL
Hr Ending	0-10	11-20	21-30	31-35	36-40	41-45	46-50	51-55	56-60	61-70	71-80	81-120	
1	0	1	2	5	2	0	0	0	0	0	0	0	10
2	0	0	4	0	0	0	0	0	0	0	0	0	4
3	0	0	1	0	0	0	0	0	0	0	0	0	1
4	0	0	2	0	0	0	0	0	0	0	0	0	2
5	0	0	7	1	2	0	0	0	0	0	0	0	10
6	0	1	19	18	10	1	0	0	1	0	0	0	50
7	0	3	88	57	15	1	0	0	0	0	0	0	164
8	9	70	282	59	9	0	0	0	0	0	0	0	429
9	2	43	322	22	0	0	0	0	0	0	0	0	389
10	2	28	179	17	1	0	0	0	0	0	0	0	227
11	2	26	150	17	0	0	0	0	0	0	0	0	195
12	0	41	144	9	0	0	0	0	0	0	0	0	194
13	1	21	204	12	6	0	0	0	0	0	0	0	244
14	0	18	172	21	0	0	0	0	0	0	0	0	211
15	6	42	170	18	0	0	0	0	0	0	0	0	236
16	3	33	213	20	1	0	0	0	0	0	0	0	270
17	1	22	232	28	4	0	0	0	0	0	0	0	287
18	0	20	234	38	2	0	0	0	0	0	0	0	294
19	3	20	167	27	3	0	0	0	0	0	0	0	220
20	0	15	119	34	0	1	0	0	0	0	0	0	169
21	0	3	101	32	4	1	1	0	0	0	0	0	142
22	0	4	61	19	4	0	1	0	0	0	0	0	89
23	0	0	29	18	6	2	0	1	0	0	0	0	56
24	0	0	19	6	5	0	0	0	0	0	0	0	30
7-19	29	384	2469	288	26	0	0	0	0	0	0	0	3196
6-22	29	409	2838	430	49	3	2	0	0	0	0	0	3760
6-24	29	409	2886	454	60	5	2	1	0	0	0	0	3846
0-24	29	411	2921	478	74	6	2	1	1	0	0	0	3923

LOCATION: MARKET STREET

Direction: NORTHBOUND

Wednesday 03/07/2019						VEHICLE	CLASSIF	ICATION						TOTAL
Hr Ending	1	2	3	4	5	6	7	8	9	10	11	12	13	
1	16	0	0	0	0	0	0	0	0	0	0	0	0	16
2	6	0	0	0	0	0	0	0	0	0	0	0	0	6
3	7	0	0	0	0	0	0	0	0	0	0	0	0	7
4	2	0	0	0	0	0	0	0	0	0	0	0	0	2
5	7	0	0	0	0	0	0	0	0	0	0	0	0	7
6	28	1	0	0	0	0	0	0	0	0	0	0	0	29
7	88	2	0	0	0	0	0	0	0	0	0	1	0	91
8	252	11	0	0	0	0	0	0	0	0	0	4	0	267
9	335	7	0	0	0	0	0	1	1	0	0	2	0	346
10	193	7	0	0	0	0	0	0	0	0	0	3	0	203
11	231	6	0	0	0	0	0	0	0	0	0	9	0	246
12	170	7	0	0	0	0	0	0	0	0	0	5	0	182
13	204	9	0	0	0	0	0	1	0	0	0	7	0	221
14	228	6	0	0	0	0	0	0	0	0	0	7	0	241
15	228	8	0	0	0	0	0	0	1	0	0	6	0	243
16	239	6	0	0	0	0	0	0	0	0	0	4	0	249
17	396	10	0	1	0	0	0	2	0	0	0	6	0	415
18	506	9	0	0	0	0	0	1	0	0	0	5	0	521
19	315	8	0	0	0	0	0	0	0	0	0	2	0	325
20	223	4	0	0	0	0	0	0	0	0	0	3	0	230
21	175	4	0	0	0	0	0	0	0	0	0	2	0	181
22	93	1	0	0	0	0	0	0	0	0	0	2	0	96
23	64	1	0	0	0	0	0	0	0	0	0	1	0	66
24	41	0	0	0	0	0	0	0	0	0	0	0	0	41
7-19	3297	94	0	1	0	0	0	5	2	0	0	60	0	3459
6-22	3876	105	0	1	0	0	0	5	2	0	0	68	0	4057
6-24	3981	106	0	1	0	0	0	5	2	0	0	69	0	4164
0-24	4047	107	0	1	0	0	0	5	2	0	0	69	0	4231

Wednesday 03/07/2019						VEHICLE	CLASSIF	ICATION						TOTAL
Hr Ending	1	2	3	4	5	6	7	8	9	10	11	12	13	
1	11	0	0	0	0	0	0	0	0	0	0	0	0	11
2	3	0	0	0	0	0	0	0	0	0	0	0	0	3
3	8	0	0	0	0	0	0	0	0	0	0	0	0	8
4	2	0	0	0	0	0	0	0	0	0	0	0	0	2
5	6	0	0	0	0	0	0	0	0	0	0	0	0	6
6	43	0	0	0	0	0	0	0	0	0	0	1	0	44
7	156	3	0	0	0	0	0	0	0	0	0	5	0	164
8	430	8	0	1	0	0	0	3	0	0	0	8	0	450
9	355	6	0	0	0	0	0	0	0	0	0	2	0	363
10	221	5	0	0	0	0	0	1	0	0	0	2	0	229
11	189	6	0	0	0	0	0	1	0	0	0	6	0	202
12	141	4	0	0	0	0	0	0	0	0	0	3	0	148
13	179	7	0	0	0	0	0	1	0	0	0	3	0	190
14	175	4	0	0	0	0	0	0	0	0	0	5	0	184
15	217	5	0	0	0	0	0	0	1	0	0	5	0	228
16	261	3	0	0	0	0	0	0	0	0	1	7	0	272
17	274	4	0	0	0	0	0	1	0	0	0	5	0	284
18	264	6	0	0	0	0	0	0	0	0	0	1	0	271
19	228	3	0	0	0	0	0	1	0	0	0	3	0	235
20	162	2	0	0	0	0	0	0	0	0	0	3	0	167
21	155	2	0	0	0	0	0	0	0	0	0	1	0	158
22	92	1	0	0	0	0	0	0	0	0	0	0	0	93
23	64	1	0	0	0	0	0	0	0	0	0	0	0	65
24	35	0	0	0	0	0	0	0	0	0	0	0	0	35
7-19	2934	61	0	1	0	0	0	8	1	0	1	50	0	3056
6-22	3499	69	0	1	0	0	0	8	1	0	1	59	0	3638
6-24	3598	70	0	1	0	0	0	8	1	0	1	59	0	3738
0-24	3671	70	0	1	0	0	0	8	1	0	1	60	0	3812

LOCATION: MARKET STREET

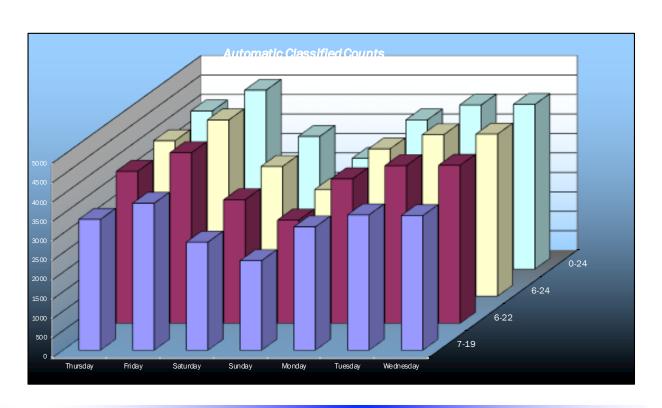
Direction: NORTHBOUND

Wednesday 03/07/2019					١	EHICLE S	PEED (MPH	<del>l</del> )					TOTAL
Hr Ending	0-10	11-20	21-30	31-35	36-40	41-45	46-50	51-55	56-60	61-70	71-80	81-120	
1	0	1	2	3	9	1	0	0	0	0	0	0	16
2	0	0	0	3	2	0	1	0	0	0	0	0	6
3	0	0	4	1	1	0	0	1	0	0	0	0	7
4	0	0	1	0	0	1	0	0	0	0	0	0	2
5	0	0	3	2	2	0	0	0	0	0	0	0	7
6	1	0	8	9	9	2	0	0	0	0	0	0	29
7	0	7	19	34	20	9	1	1	0	0	0	0	91
8	2	27	145	77	15	1	0	0	0	0	0	0	267
9	4	25	280	28	8	1	0	0	0	0	0	0	346
10	0	19	164	18	2	0	0	0	0	0	0	0	203
11	0	14	166	48	17	1	0	0	0	0	0	0	246
12	0	11	138	32	1	0	0	0	0	0	0	0	182
13	6	18	161	32	4	0	0	0	0	0	0	0	221
14	0	27	162	47	4	1	0	0	0	0	0	0	241
15	1	27	181	31	2	1	0	0	0	0	0	0	243
16	0	25	172	47	4	1	0	0	0	0	0	0	249
17	1	21	287	97	9	0	0	0	0	0	0	0	415
18	2	34	373	105	7	0	0	0	0	0	0	0	521
19	1	21	209	82	10	1	1	0	0	0	0	0	325
20	1	12	131	70	13	2	0	0	1	0	0	0	230
21	0	1	113	49	16	2	0	0	0	0	0	0	181
22	0	2	52	31	11	0	0	0	0	0	0	0	96
23	0	4	33	25	4	0	0	0	0	0	0	0	66
24	0	0	13	18	8	2	0	0	0	0	0	0	41
7-19	17	269	2438	644	83	7	1	0	0	0	0	0	3459
6-22	18	291	2753	828	143	20	2	1	1	0	0	0	4057
6-24	18	295	2799	871	155	22	2	1	1	0	0	0	4164
0-24	19	296	2817	889	178	26	3	2	1	0	0	0	4231

Wednesday 03/07/2019					١	ÆHICLE SI	PEED (MPH	l)					TOTAL
Hr Ending	0-10	11-20	21-30	31-35	36-40	41-45	46-50	51-55	56-60	61-70	71-80	81-120	
1	0	1	3	5	2	0	0	0	0	0	0	0	11
2	0	0	1	2	0	0	0	0	0	0	0	0	3
3	0	0	4	2	1	1	0	0	0	0	0	0	8
4	0	0	1	0	0	0	1	0	0	0	0	0	2
5	0	0	0	4	2	0	0	0	0	0	0	0	6
6	0	0	21	15	8	0	0	0	0	0	0	0	44
7	0	8	95	52	9	0	0	0	0	0	0	0	164
8	1	43	336	63	7	0	0	0	0	0	0	0	450
9	15	41	290	15	2	0	0	0	0	0	0	0	363
10	3	37	172	14	3	0	0	0	0	0	0	0	229
11	0	6	166	27	3	0	0	0	0	0	0	0	202
12	2	28	112	6	0	0	0	0	0	0	0	0	148
13	0	17	152	21	0	0	0	0	0	0	0	0	190
14	0	26	124	27	7	0	0	0	0	0	0	0	184
15	1	44	167	16	0	0	0	0	0	0	0	0	228
16	0	38	208	22	4	0	0	0	0	0	0	0	272
17	0	27	207	40	8	1	1	0	0	0	0	0	284
18	1	20	200	45	5	0	0	0	0	0	0	0	271
19	1	21	169	35	7	2	0	0	0	0	0	0	235
20	1	13	106	42	4	0	1	0	0	0	0	0	167
21	0	6	114	34	3	1	0	0	0	0	0	0	158
22	0	1	62	26	2	1	1	0	0	0	0	0	93
23	0	2	46	12	4	1	0	0	0	0	0	0	65
24	0	0	15	17	2	1	0	0	0	0	0	0	35
7-19	24	348	2303	331	46	3	1	0	0	0	0	0	3056
6-22	25	376	2680	485	64	5	3	0	0	0	0	0	3638
6-24	25	378	2741	514	70	7	3	0	0	0	0	0	3738
0-24	25	379	2771	542	83	8	4	0	0	0	0	0	3812

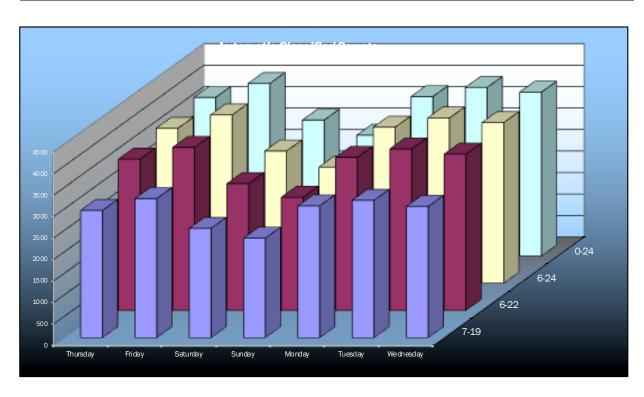
LOCATION: MARKET STREET

				VEHICL	E FLOWS				
Hr Ending	Thursday 27-Jun-19	Friday 28-Jun-19	Saturday 29-Jun-19	Sunday 30-Jun-19	Monday 1-Jul-19	Tuesday 2-Jul-19	Wednesday 3-Jul-19	WEEKDAY AVERAGE	WEEK AVERAGE
1	13	16	26	33	12	19	16	15	19
2	6	10	20	25	6	10	6	8	12
3	7	5	9	20	3	3	7	5	8
4	3	5	4	8	3	2	2	3	4
5	8	8	4	6	4	9	7	7	7
6	33	26	16	11	22	26	29	27	23
7	89	94	29	22	80	82	91	87	70
8	284	257	73	33	252	265	267	265	204
9	355	367	165	73	344	338	346	350	284
10	211	209	218	153	200	222	203	209	202
11	173	231	242	181	175	186	246	202	205
12	181	181	278	214	187	216	182	189	206
13	202	244	311	218	201	208	221	215	229
14	206	279	292	270	183	229	241	228	243
15	294	343	273	257	267	283	243	286	280
16	270	361	227	289	277	325	249	296	285
17	392	487	290	236	376	408	415	416	372
18	476	469	220	221	455	459	521	476	403
19	318	348	188	157	252	340	325	317	275
20	213	228	173	154	198	233	230	220	204
21	129	158	117	95	147	155	181	154	140
22	109	124	78	76	116	99	96	109	100
23	65	82	100	54	40	64	66	63	67
24	27	66	58	39	34	36	41	41	43
7-19	3362	3776	2777	2302	3169	3479	3459	3449	3189
6-22	3902	4380	3174	2649	3710	4048	4057	4019	3703
6-24	3994	4528	3332	2742	3784	4148	4164	4124	3813
0-24	4064	4598	3411	2845	3834	4217	4231	4189	3886



LOCATION: MARKET STREET

				SOUTH	HBOUND				
Hr Ending	Thursday 27-Jun-19	Friday 28-Jun-19	Saturday 29-Jun-19	Sunday 30-Jun-19	Monday 1-Jul-19	Tuesday 2-Jul-19	Wednesday 3-Jul-19	WEEKDAY AVERAGE	WEEK AVERAGE
1	16	17	31	41	13	10	11	13	20
2	6	13	17	30	4	4	3	6	11
3	7	2	9	16	6	1	8	5	7
4	3	9	3	6	3	2	2	4	4
5	7	4	9	7	7	10	6	7	7
6	46	53	18	9	46	50	44	48	38
7	163	146	36	12	142	164	164	156	118
8	430	379	96	44	426	429	450	423	322
9	352	364	153	78	415	389	363	377	302
10	207	225	181	118	217	227	229	221	201
11	189	206	231	185	197	195	202	198	201
12	196	238	264	216	198	194	148	195	208
13	201	224	273	287	211	244	190	214	233
14	203	254	301	289	208	211	184	212	236
15	230	233	245	261	187	236	228	223	231
16	276	328	241	237	304	270	272	290	275
17	264	255	223	239	244	287	284	267	257
18	236	278	172	187	272	294	271	270	244
19	178	253	164	175	188	220	235	215	202
20	177	189	164	136	159	169	167	172	166
21	144	141	124	87	117	142	158	140	130
22	77	82	85	83	79	89	93	84	84
23	59	73	70	46	41	56	65	59	59
24	23	50	54	22	26	30	35	33	34
7-19	2962	3237	2544	2316	3067	3196	3056	3104	2911
6-22	3523	3795	2953	2634	3564	3760	3638	3656	3410
6-24	3605	3918	3077	2702	3631	3846	3738	3748	3502
0-24	3690	4016	3164	2811	3710	3923	3812	3830	3589



LOCATION: MARKET STREET

	AVERAGE SPEEDS									
Hr Ending	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday			
Til Lilang	27-Jun-19	28-Jun-19	29-Jun-19	30-Jun-19	1-Jul-19	2-Jul-19	3-Jul-19			
1	34.5	31.9	30.5	32.1	29.3	33.1	34.4			
2	32.6	34.3	37.5	32.4	35.1	33.0	37.2			
3	29.4	32.5	30.5	32.9	24.7	28.8	32.3			
4	28.0	36.0	25.5	33.6	28.0	38.0	34.3			
5	29.3	32.1	27.4	33.4	32.4	29.9	31.2			
6	32.9	31.1	32.1	34.6	30.4	33.3	32.2			
7	31.8	31.4	27.7	31.3	30.4	33.0	32.6			
8	27.0	27.7	31.2	28.9	26.9	27.2	27.3			
9	25.4	25.5	27.6	28.8	24.6	26.7	25.5			
10	26.1	25.4	26.9	26.3	25.8	26.0	25.4			
11	24.9	26.6	26.1	27.4	25.5	25.3	27.3			
12	26.3	26.8	25.9	26.5	25.5	24.0	26.3			
13	26.2	26.9	25.7	26.6	25.3	25.8	25.5			
14	26.6	26.1	27.1	25.8	27.3	25.9	26.1			
15	26.8	26.5	27.5	26.6	25.5	25.7	25.4			
16	27.2	26.6	27.8	25.7	26.1	25.4	26.2			
17	27.1	28.1	27.3	25.3	28.2	26.5	27.0			
18	26.6	26.8	27.4	25.8	27.8	26.6	26.5			
19	28.0	27.8	28.7	26.0	26.7	26.2	27.2			
20	29.1	27.9	28.1	28.2	27.4	28.0	28.2			
21	28.9	28.9	29.2	28.3	28.9	28.4	28.8			
22	28.5	28.8	28.6	29.0	29.3	28.6	29.1			
23	29.8	29.4	29.3	29.6	29.6	29.6	28.5			
24	29.8	28.8	29.3	30.1	32.0	30.2	32.1			
10-12	25.6	26.7	26.0	27.0	25.5	24.6	26.8			
14-16	27.0	26.5	27.7	26.2	25.8	25.5	25.8			
0-24	28.5	28.9	28.5	29.0	28.0	28.5	29.0			

	85TH PERCENTILE								
Hr Ending	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday		
TI CHUING	27-Jun-19	28-Jun-19	29-Jun-19	30-Jun-19	1-Jul-19	2-Jul-19	3-Jul-19		
1	40.0	36.8	34.7	37.8	35.8	41.0	41.3		
2	40.6	43.6	44.1	38.7	42.6	40.4	43.0		
3	34.6	37.0	34.3	39.8	33.4	40.6	42.7		
4	32.3	40.5	39.8	39.1	32.3	38.0	46.6		
5	36.9	38.5	31.1	44.3	37.5	35.5	36.9		
6	39.3	38.0	38.6	41.6	39.1	40.5	39.8		
7	38.3	38.2	36.8	40.7	36.4	38.9	40.2		
8	31.8	33.0	36.8	37.4	32.0	32.2	33.3		
9	29.8	30.3	33.1	35.6	29.0	31.4	30.1		
10	31.9	29.6	32.5	33.0	29.7	30.4	29.3		
11	29.7	31.4	31.1	32.9	30.8	30.5	32.4		
12	30.0	32.0	30.2	31.9	29.4	29.0	30.3		
13	31.5	31.0	30.8	31.5	29.1	30.6	30.9		
14	30.4	31.3	32.4	30.0	32.2	29.9	31.2		
15	30.9	30.9	32.2	30.9	30.4	30.0	30.2		
16	31.3	31.0	32.9	30.3	31.1	30.3	31.1		
17	31.3	33.0	32.0	30.8	32.2	31.4	31.5		
18	31.4	32.2	31.9	30.8	32.1	31.1	31.0		
19	33.1	32.5	33.6	31.4	31.9	30.7	32.3		
20	34.0	32.8	32.9	33.7	32.8	33.0	33.9		
21	35.7	34.6	33.8	33.3	35.0	33.6	33.5		
22	33.8	34.9	33.2	33.9	35.4	33.5	34.2		
23	35.5	34.2	34.4	36.2	35.8	35.0	33.8		
24	34.1	35.3	35.1	34.6	37.9	35.6	37.3		
10-12	29.9	31.7	30.6	32.4	30.1	29.8	31.3		
14-16	31.1	31.0	32.6	30.6	30.8	30.2	30.6		
0-24	33.7	34.3	34.1	35.0	33.5	33.9	34.9		

7 DAY AVERAGE SPEED	28.6
7 DAY AVERAGE 85th PERCENTILE	34.2

LOCATION: MARKET STREET

Direction: SOUTHBOUND

			AVERAGE	SPEEDS			
Hr Ending	Thursday 27-Jun-19	Friday 28-Jun-19	Saturday 29-Jun-19	Sunday 30-Jun-19	Monday 1-Jul-19	Tuesday 2-Jul-19	Wednesday 3-Jul-19
1	28.6	29.3	29.6	31.2	30.9	30.8	30.3
2	34.7	25.5	29.9	34.3	36.8	25.5	30.5
3	31.6	29.3	30.8	28.8	28.8	25.5	31.1
4	28.0	31.9	24.7	34.7	32.2	25.5	36.8
5	34.8	29.3	35.2	41.2	28.7	28.8	34.7
6	31.6	32.4	30.1	31.1	30.7	31.5	30.3
7	29.4	29.8	27.8	29.3	29.8	29.2	28.1
8	26.0	26.9	29.2	29.4	24.6	24.7	25.7
9	24.9	24.3	26.9	28.3	24.2	24.7	23.9
10	25.5	24.4	26.1	26.9	24.9	24.7	24.2
11	24.7	26.7	25.0	26.9	23.8	24.6	26.4
12	25.3	25.9	25.0	25.9	25.3	23.7	23.6
13	25.1	25.2	25.5	26.0	24.6	25.2	25.4
14	26.1	24.9	26.5	25.2	25.4	25.4	25.7
15	24.9	26.0	26.5	26.0	25.1	23.8	24.0
16	25.7	26.2	26.7	24.8	25.1	24.7	24.9
17	26.1	26.7	25.4	25.6	26.1	25.6	26.1
18	25.1	26.3	26.5	25.8	26.5	25.9	26.2
19	26.8	26.9	27.5	26.4	26.6	25.4	26.2
20	27.8	27.6	27.7	26.2	27.3	26.2	26.9
21	27.9	27.2	27.5	27.8	27.0	27.6	27.1
22	28.4	28.3	27.6	27.8	28.7	27.5	28.2
23	28.6	27.2	28.6	27.9	29.5	30.4	27.6
24	31.9	26.5	29.9	30.3	28.3	29.1	30.4
10-12	25.0	26.3	25.0	26.4	24.5	24.2	25.0
14-16	25.3	26.1	26.6	25.4	25.1	24.2	24.5
0-24	27.9	27.3	27.7	28.7	27.5	26.5	27.7

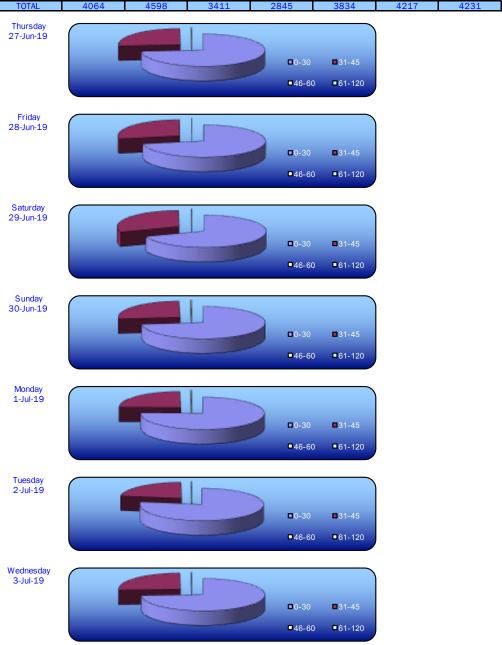
			85TH PER	RCENTILE			
Hr Ending	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday
ni chung	27-Jun-19	28-Jun-19	29-Jun-19	30-Jun-19	1-Jul-19	2-Jul-19	3-Jul-19
1	33.0	33.7	35.0	37.1	37.7	37.6	36.9
2	37.2	25.5	35.3	42.7	41.5	25.5	34.8
3	36.1	34.6	36.1	34.7	34.2	-	37.9
4	32.3	35.9	33.4	37.2	38.5	25.5	52.7
5	41.0	33.6	44.9	49.5	32.7	34.2	37.2
6	36.2	38.0	35.1	35.5	36.0	38.3	35.3
7	34.1	35.9	35.8	35.8	35.3	34.1	33.1
8	30.4	31.5	35.2	34.8	29.8	30.7	30.3
9	29.0	29.1	31.9	32.9	28.3	28.7	29.3
10	29.4	29.2	31.1	31.7	28.6	29.2	29.3
11	29.8	30.4	28.8	31.3	28.8	29.3	29.9
12	29.4	29.7	29.2	30.4	29.7	28.3	28.5
13	29.4	30.1	30.4	30.1	28.9	29.3	29.3
14	29.3	29.1	30.5	29.3	29.1	29.2	31.0
15	29.1	29.9	30.1	30.3	28.8	29.2	28.8
16	29.6	30.2	31.1	29.6	28.9	29.2	29.4
17	29.9	31.3	30.0	30.0	30.2	29.7	31.0
18	29.8	30.8	30.5	29.3	31.2	29.8	30.7
19	31.5	31.1	32.4	31.2	31.0	30.3	31.3
20	32.9	32.3	32.3	31.0	32.5	30.9	32.3
21	32.0	32.3	32.7	31.7	31.1	32.2	31.4
22	33.2	33.1	32.5	32.0	34.0	32.5	32.9
23	33.7	32.8	33.7	34.0	34.1	36.4	32.5
24	39.3	31.7	36.1	35.3	32.3	34.1	35.1
10-12	29.6	30.0	29.0	30.8	29.3	28.8	29.2
14-16	29.3	30.1	30.6	30.0	28.8	29.2	29.1
0-24	32.4	31.7	33.1	33.6	32.2	31.0	33.0

7 DAY AVERAGE SPEED 27.6
7 DAY AVERAGE 85th PERCENTILE 32.4

LOCATION: MARKET STREET

Direction: NORTHBOUND

			SPEED SI	UMMARY			
SPEED (MPH)	Thursday 27-Jun-19	Friday 28-Jun-19	Saturday 29-Jun-19	Sunday 30-Jun-19	Monday 1-Jul-19	Tuesday 2-Jul-19	Wednesday 3-Jul-19
0-30	2996	3310	2373	2084	2888	3264	3132
31-45	1062	1286	1034	753	936	946	1093
46-60	6	2	4	8	9	6	6
61-120	0	0	0	0	1	1	0
TOTAL	4064	4598	3411	2845	3834	4217	4231

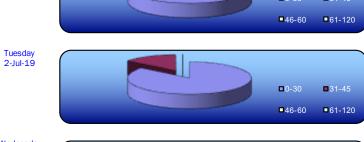


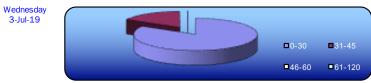
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LOCATION: MARKET STREET

Direction: SOUTHBOUND

SPEED (MPH)	Thursday 27-Jun-19	Friday 28-Jun-19	Saturday 29-Jun-19	Sunday 30-Jun-19	Monday 1-Jul-19	Tuesday 2-Jul-19	Wednesday 3-Jul-19
0-30	3030	3251	2510	2257	3153	3361	3175
31-45	659	761	651	549	556	558	633
46-60	1	4	3	5	1	4	4
61-120	0	0	0	0	0	0	0
01110		, , ,		<u> </u>			
TOTAL	3690	4016	3164	2811	3710	3923	3812
Thursday 27-Jun-19				□0-30 □46-60	□31-45		
Friday 28-Jun-19				□0-30 ■46-60	■31-45 ■61-120		
Saturday 29-Jun-19				□0-30 ■46-60	■31-45 ■61-120		
Sunday 30-Jun-19				□0-30 ■46-60	■31-45 ■61-120		
Monday 1-Jul-19				<b>D</b> 0-30	<b>1</b> 21- <i>1</i> 5		

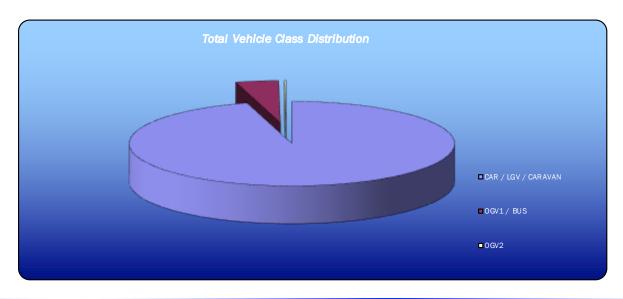




survey and presentation by trafficsense Ltd.

LOCATION: MARKET STREET

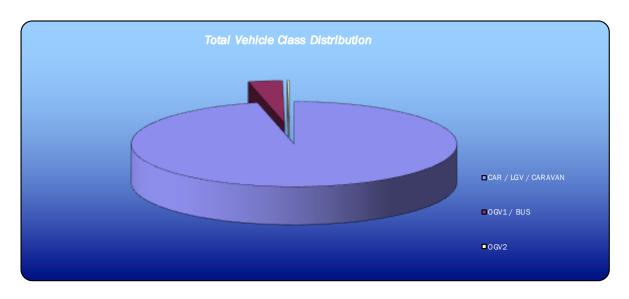
VEHICLE CLASSIFICATION								
	CAR / LGV / CARAVAN	OGV1 / BUS	OGV2	TOTAL				
27-Jun-19								
7-19	3197	156	9	3362				
6-22	3713	179	10	3902				
6-24	3801	183	10	3994				
0-24	3870	184	10	4064				
28-Jun-19								
7-19	3605	162	9	3776				
6-22	4194	177	9	4380				
6-24	4338	180	10	4528				
0-24	4408	180	10	4598				
29-Jun-19								
7-19	2662	111	4	2777				
6-22	3046	124	4	3174				
6-24	3202	126	4	3332				
0-24	3279	128	4	3411				
30-Jun-19								
7-19	2243	57	2	2302				
6-22	2581	66	2	2649				
6-24	2674	66	2	2742				
0-24	2775	68	2	2845				
1-Jul-19		(//////////////////////////////////////						
7-19	3015	151	3	3169				
6-22	3538	168	4	3710				
6-24	3610	170	4	3784				
0-24	3659	171	4	3834				
2-Jul-19								
7-19	3313	163	3	3479				
6-22	3857	186	5	4048				
6-24	3956	187	5	4148				
0-24	4024	188	5	4217				
3-Jul-19								
7-19	3297	154	8	3459				
6-22	3876	173	8	4057				
6-24	3981	175	8	4164				
0-24	4047	176	8	4231				
AVERAGE	7//////////	111111111111111111111111111111111111111	1//////////////////////////////////////	1//////////////////////////////////////				
7-19	3047	136	5	3189				
6-22	3544	153	6	3703				
6-24	3652	155	6	3813				
0-24	3723	156	6	3886				



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LOCATION: MARKET STREET

VEHICLE CLASSIFICATION								
	CAR / LGV / CARAVAN	OGV1 / BUS	OGV2	TOTAL				
27-Jun-19								
7-19	2849	107	6	2962				
6-22	3393	122	8	3523				
6-24	3473	124	8	3605				
0-24	3556	126	8	3690				
28-Jun-19								
7-19	3115	115	7	3237				
6-22	3655	133	7	3795				
6-24	3776	134	8	3918				
0-24	3873	135	8	4016				
29-Jun-19								
7-19	2448	93	3	2544				
6-22	2843	107	3	2953				
6-24	2965	109	3	3077				
0-24	3051	109	4	3164				
30-Jun-19								
7-19	2259	51	6	2316				
6-22	2572	56	6	2634				
6-24	2640	56	6	2702				
0-24	2749	56	6	2811				
1-Jul-19								
7-19	2967	94	6	3067				
6-22	3450	108	6	3564				
6-24	3517	108	6	3631				
0-24	3593	111	6	3710				
2-Jul-19								
7-19	3071	121	4	3196				
6-22	3618	137	5	3760				
6-24	3703	138	5	3846				
0-24	3777	141	5	3923				
3-Jul-19	11/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1	11/1/1/1/1/1/1/	1//////////////////////////////////////					
7-19	2934	111	11	3056				
6-22	3499	128	11	3638				
6-24	3598	129	11	3738				
0-24	3671	130	11	3812				
AVERAGE								
7-19	2806	99	6	2911				
6-22	3290	113	7	3410				
6-24	3382	114	7	3502				
0-24	3467	115	7	3589				



## **APPENDIX D**



## **APPENDIX** E

