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ROAD TRAFFIC VOLUME MALAYSIA
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FOREWORD

Assalamualaikum w.b.h

In line with the Ministry of Works's (MoW) strategic thrust, development the road and highway infrastructure will spur economic growth and stimulate development in the surrounding areas. It is pertinent that MoW strives to provide efficient, safe and high quality road network for people's convenience and comfort.

To realize this aspiration, proper planning, accurate data and full commitment are required. Hence, MoW has prepared Road Traffic Volume Malaysia (RTVM) reports annually as a reference to road industry player to undertake road infrastructure projects. RTVM provide current traffic data for various location throughout Malaysia which includes federal and state roads.

Congratulations to Highway Planning Division for publishing RTVM 2017 and for starting the effort to use Intelligent Transportation System (ITS) in traffic data collection replacing the manual counts.



DATO' SRI ZOHARI BIN HAJI AKOB

Secretary General
MINISTRY OF WORKS MALAYSIA
June 2018



PREFACE

It gives me immense pleasure to take part in introducing the latest edition of Road Traffic Volume Malaysia (RTVM) 2017. On behalf of Highway Planning Division, I would like to convey my heartiest congratulations to the Cawangan Pengangkutan Bandar dan Data Trafik as an editorial board for their dedication and hard work in producing traffic data and update on the current status of federal and state traffic condition around Malaysia.

There are 554 stations established nationwide. Currently, Highway Planning Division are in the process of migrating and progressing towards automation data collection. The exploration of new automation data collection technologies and wireless communication media in recent year, has allowed us to experience various automation method. We have already experienced three (3) pilot projects by using pneumatic loop, camera video and radar detection method.

In planning for the future, Highway Planning Division will continue to keep abreast with the latest traffic data collection technology in order to provide accurate and updated traffic data. On this note, Highway Planning Division would like to thank the team at Public Works Department Malaysia, Ministry of Transport Malaysia, Malaysian Highway Authority and other agencies for this impeccable and timely publication. We trust the RTVM will serve as a useful reference for continuous development of road infrastructure.

Before concluding this message, I would like to congratulate the Editorial Board again for the great effort and wish for the continued success of this RTVM. Thank you.



A handwritten signature in black ink that reads 'Jamilah Mohd Marjan'.

Dr. JAMILAH MOHD MARJAN

Undersecretary
HIGHWAY PLANNING DIVISION
May 2018

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NATIONAL TRAFFIC CENSUS

There are a total of 554 traffic census stations in Malaysia and the census data in both directions are recorded hourly for the Federal Roads and the State Roads in Malaysia. The form used for the manual data collection is as in Appendix A.

The National Traffic Census is carried out twice a year during the month of March / April & September / October conducted by the State Public Works Department (JKR Negeri) and coordinated by Highway Planning Division since 1967. The census data will be submitted to Highway Planning Division for further data analysing and processing.

Data collections are divided into three types as Figure 1.



Figure 1 : Types of Data Collection for National Traffic Census

In RTVM, the vehicles are classified into six classes as shown in Figure 2. Figure 2 shows the overall composition according to the vehicle classification on Malaysian roads based on National Traffic Census at the 554 census stations for the year 2017.

The ratio of bus to cars and taxis is 1:65. The amount of small vans and utilities is almost the total amount of both Class 3 and Class 4 lorries combined. Motorcycles and scooters are the second largest amount of vehicles on the road after cars and taxis.

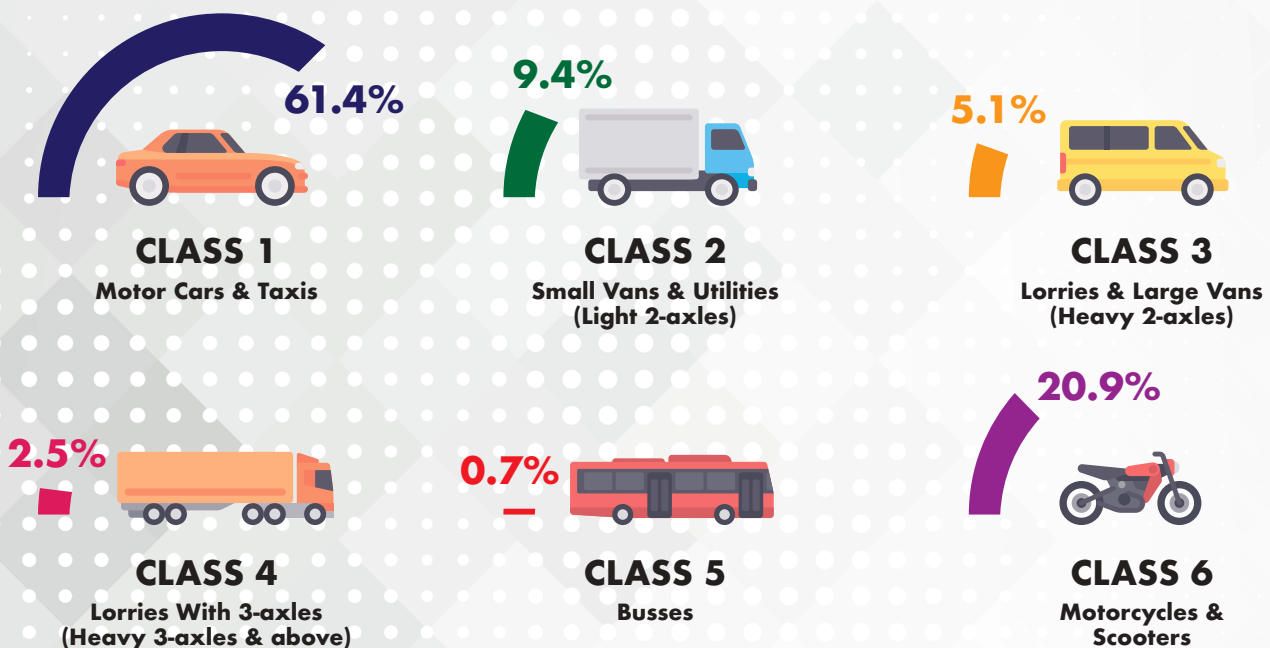


Figure 2 : Vehicle Classification and Composition

TRANSITION BETWEEN MANUAL & AUTOMATION TRAFFIC COUNT

The detection of vehicular presence and road occupancies has historically been performed primarily on or near the surface of the road. The exploitation of new electromagnetic spectra and wireless communication media in recent year, has allowed traffic detection to occur in a non-intrusive fashion, at locations above or to the side of the roadway. Pavement-based traffic detection currently relatively inexpensive, will be met with fierce competition in the coming years from detectors that are liberated from the road surface. The most commonly used detector types are :



Pneumatic Tubes

These tubes placed on the top of road surfaces at locations where traffic counting is required. As vehicles pass over the tube, the resulting compression sends a burst of air to an air switch, which can be installed in any type of traffic counting devices. Air switches can provide accurate axle counts even when compressions occur more than 30 metre from the traffic counter.



Inductive Loop

Inductive loop detector consists of embedded turned wire from which it gets its name. It includes an oscillator, and a cable, which allows signals to pass from the loop to the traffic counting device. The counting device is activated by the change in the magnetic field when a vehicle passes over the loop.



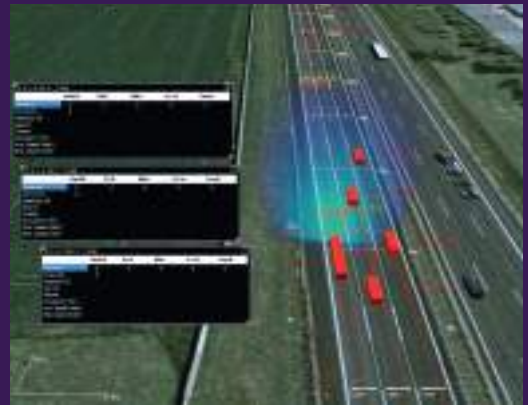
Weigh-in-Motion Sensor

A variety of traffic sensors and loops are used world-wide to count, weigh and classify vehicles while in motion, and these are collectively known as Weigh In Motion (WIM) sensor systems. Whereas sensor pads can be used on their own traffic speed and axle weighing equipment, they are triggered by “leading” inductive loops placed before them on the roadbed. This scenario is adopted where axles, speed and statistical data are required.



Micro-Millimetre Wave Radar Detector

Radar detectors actively emits radio active signals at frequencies ranging from the ultra-high frequencies (UHF) of 100 MHz, to 100 GHz, and can register vehicular presence and speed depending upon signals returned upon reflection from the vehicle.



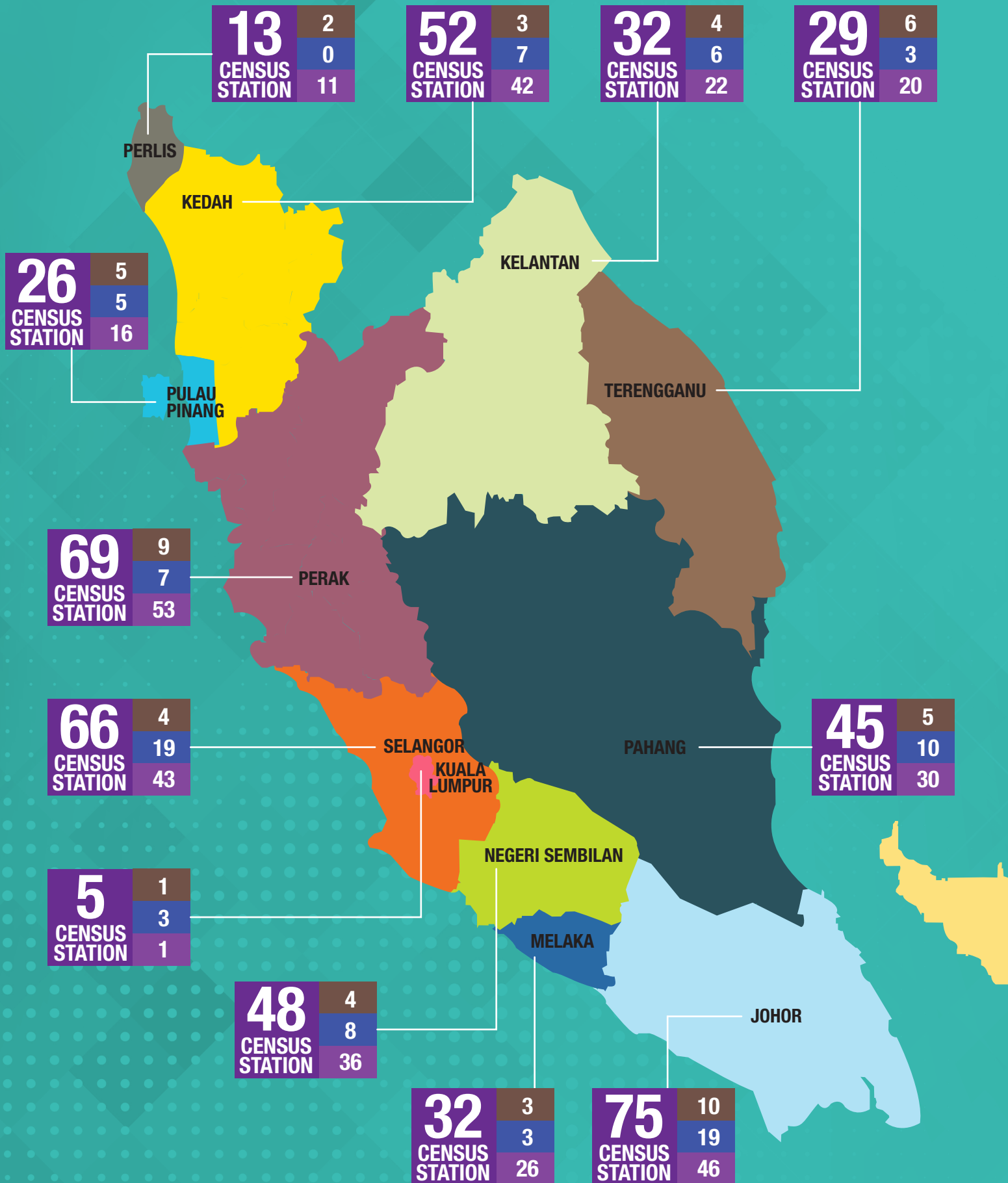
Video Camera

Video image processing system utilise machine vision technology to detect vehicles and capture details about individual vehicles when necessary. A video processing system usually monitors multiple lanes simultaneously, and therefore it requires high level of computing power.



PENINSULAR MALAYSIA

492 TRAFFIC CENSUS STATIONS



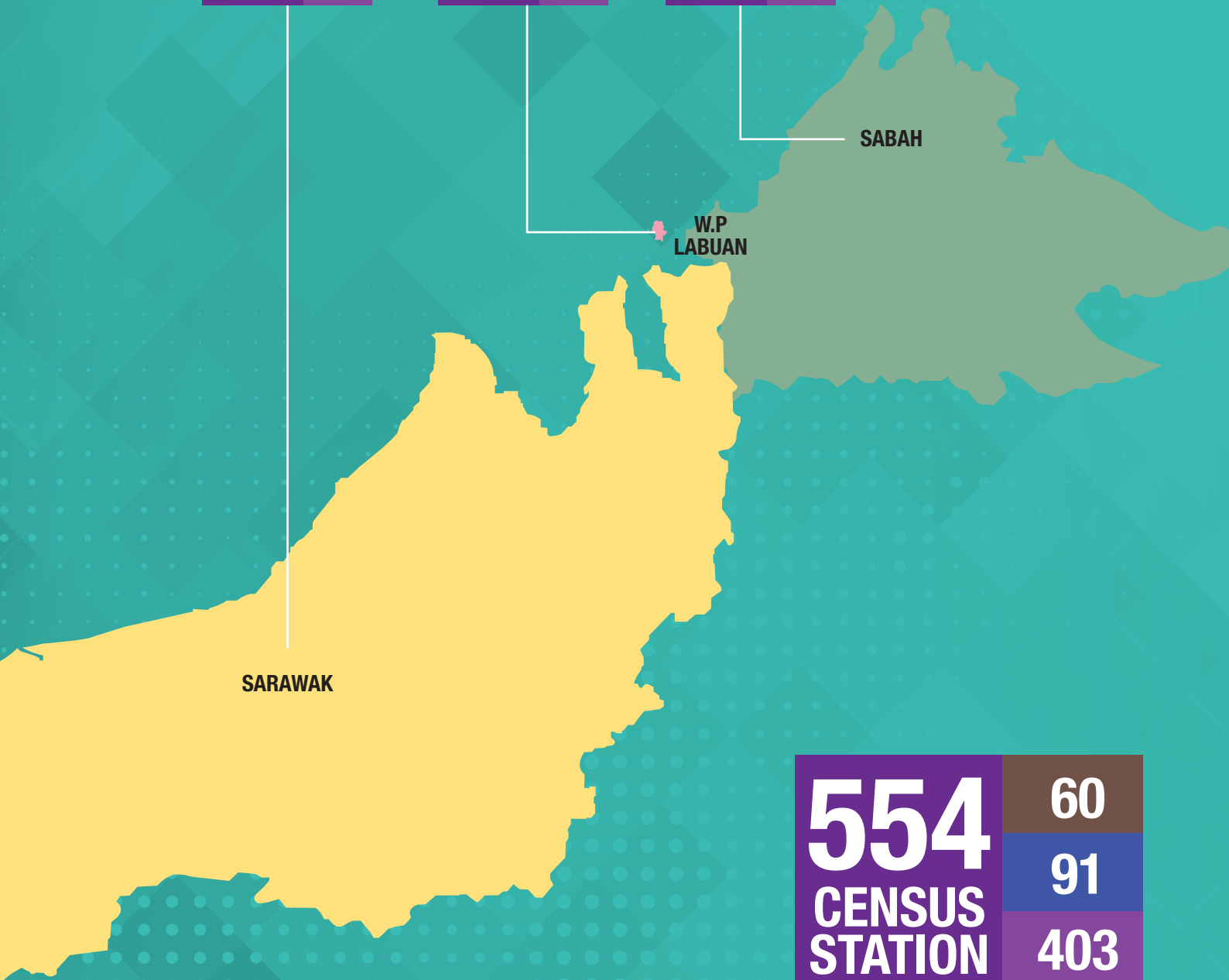
SABAH, SARAWAK & W.P LABUAN

62 TRAFFIC CENSUS STATIONS

33 CENSUS STATION	0
	0
	33

8 CENSUS STATION	0
	1
	7

21 CENSUS STATION	4
	0
	17



554 CENSUS STATION	60
	91
	403



TYPE 0 TYPE 1 TYPE 3

ROAD TRAFFIC VOLUME MALAYSIA (RTVM)

Road Traffic Volume Malaysia (RTVM) was first published in 1982 in the form of printed copy and in the form of digital copy (Compact Disc) from onwards (Compact Disc). Starting from 2014, RTVM became available in online version.

The National Traffic Census data collected from the State Public Works Department (JKR Negeri) are analysed and documented in the RTVM. The RTVM report for the current year will be published in the month of June the following year.

The contents of RTVM consists of :

- Traffic Census Stations location description
- Road Traffic Volume information
- Level of Service
- Capacity Year
- Annual Traffic Growth Rates
- Road Mileage
- Vehicle Registration

The benefit of RTVM are as follows:

- Provides proper road network planning and roadside development
- Provides detailed study on the traffic flow criteria
- Provides current traffic information for research and study
- Provides comprehensive overview about the current road capacity
- Provides current Level of Service (LOS) of the respective roads. Kindly refer to Appendix 'C' for types of LOS
- Provides information on the traffic growth and projection of traffic



RTVM is also available to the public for online version at RM100.00. The access code can be purchase at:

✉ Cawangan Pengurusan Perolehan dan Harta,
Ground Floor, Block A, Ministry of Works,
Jalan Sultan Salahuddin, 50580 Kuala Lumpur

☎ 03-2771 4096
☎ 03-2711 1944
🌐 <http://rtvm.kkr.gov.my>

RTVM LIMITATION

The chosen census station site is only representative traffic pattern for the section of the road.

Census station must be located based on criterias below:



Census station are set up along Federal highway/Major state road with Average Daily Traffic (ADT) more than 3000 veh/day



Census station are established between urban centers with population more than 5000 and other activity on traffic generating center like airport, port, industrial, and development areas, tourism and recreational centers.



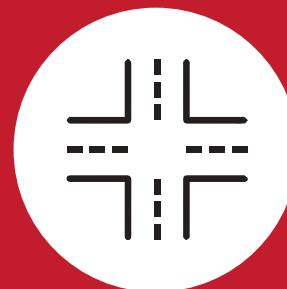
It is not necessary to set up two stations on both sides of a small town (with population less than 5000) on a through road.



Road segment must have uniform geometry 1km before and after census station (number of lanes and lane width)



No alternative roads align with census station road section.



Census station needs to set up far away from main junction or at least 500m from main junction.



It should be away from major access, junction, school area, u-turn and etc. where intra traffic tends to be prominent.



A straight, flat portion of road and no obstruction is preferred to enable enumerators to spot vehicles at distance (to minimise missing in counting).

TYPE OF CARRIAGEWAY

There are two types of carriageway. Based on NTJ 27/2012 Terminologi Jalan shows that the type of the carriageway divides into two categories which is single carriageway and dual carriageway. The detail of the description as figure below:

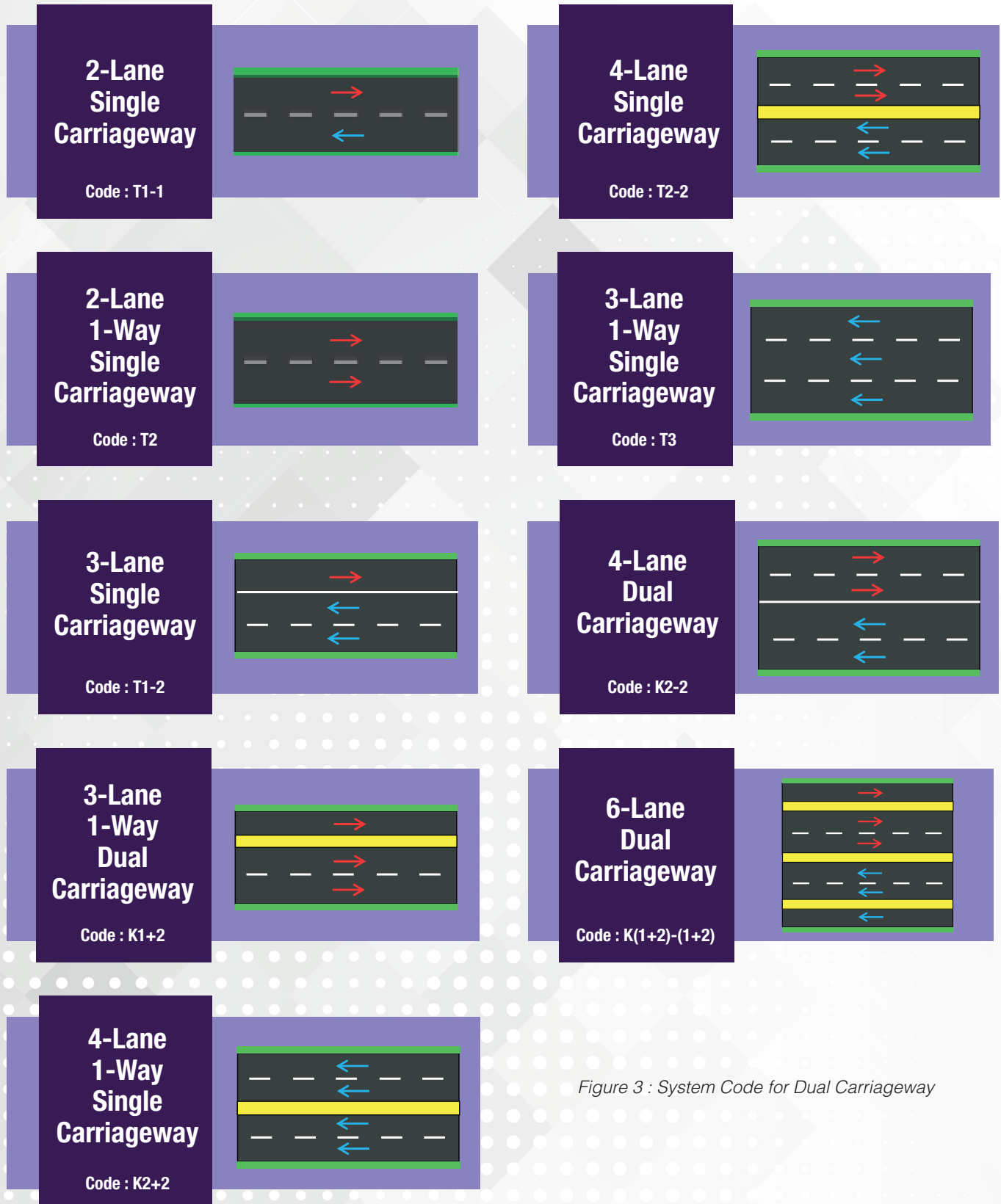


Figure 3 : System Code for Dual Carriageway

LEVEL OF SERVICE (LOS)

Level of Service (LOS) in general, is a measure of effectiveness by which engineers determine the quality of services on elements of transportation infrastructure. It is a qualitative measure of the effect of a number of factors, which include speed and travel time, traffic interruptions, freedom of manouvere, safety, driving comfort and convenience and operating cost.

Service Volume

The service volume is the maximum volume of traffic that a designed road will be able to serve without the degree of congestion falling below a preselected level as defined by Level of Service (LOS), which is the operating conditions of the Level of Service (LOS) used.













		AVERAGE TRAVEL SPEED (KM/H)	TECNICAL DESCRIPTION
LOS A		70	Highest quality of service. Traffic flows freely with little or no restrictions on speed or maneuverability. NO DELAYS
LOS B		60	Traffic is stable and flows freely. The ability to maneuver in traffic is only slightly restricted. NO DELAYS
LOS C		50	Few restrictions on speed. Freedom to maneuver is restricted. Drivers must be more careful when changing lanes. MINIMAL DELAYS
LOS D		40	Speeds decline slightly and density increases. Freedom to maneuver is noticeably limited. MINIMAL DELAYS
LOS E		30	Vehicles are closely spaced, with little room to maneuver. Driving comfort is poor. SIGNIFICANT DELAYS
LOS F		30	Very congested traffic with traffic jams, especially in areas where vehicles have to merge. CONSIDERABLE DELAYS

Table 1 : Level of Service (LOS)

Basic Calculation to determine the LOS (Mainline) Level of Service (LOS)

The Level of Service (LOS) is calculated into volume of capacity ratio (V/C) as per equation 1.0 below. Maximum hourly traffic volume in the formula must be converted to passenger car unit (pcu) by using the pcu equivalent factor in Table 2. Table 3 also gives the ranges of V/C ratio as an indicator for the Level of Service.

$$LOS = \frac{\text{Maximum Hourly Traffic Volume, } V \text{ (pcu)}}{\text{Maximum Hourly Capacity, } C \text{ (pcu)}} \quad (\text{equation 1.0})$$

VEHICLE CLASSES	PCU Equivalent Factor (Rural Standards)	PCU Equivalent Factor (Urban Standards)	PCU Equivalent Factor (Roundabout Design)	PCU Equivalent Factor (Traffic Signal Design)
Passenger Cars 	1.00	1.00	1.00	1.00
Motorcycles 	1.00	0.75	0.75	0.33
Light Vans 	2.00	2.00	2.00	2.00
Medium Lorries 	2.50	2.50	2.80	1.75
Heavy Lorries 	3.00	3.00	2.80	2.25
Buses 	3.00	3.00	2.80	2.25

Source: A Guide On Geometric Design of Roads, REAM-GL 2/2002

Table 2 : PCU Equivalent Factor

LOS A	LOS B	LOS C	LOS D	LOS E	LOS F
V/C Ratio < 0.6	V/C Ratio 0.60 - 0.69	V/C Ratio 0.70 - 0.79	V/C Ratio 0.80 - 0.89	V/C Ratio 0.90 - 0.99	V/C Ratio > 1.0
Free flow	Stable flow with slight delay	Stable flow with acceptable delay	Approaching unstable flow with tolerable delay	Unstable flow	Forced flow

Table 3 : Level of Service Indicator

Capacity

The term highway capacity pertains to the ability of a roadway to accommodate traffic. It is defined as the maximum number of vehicles that can pass over a given section of a lane or a roadway during time period under prevailing roadway and traffic conditions. Capacity often stated in terms of passenger car unit (pcu).

Capacity Under Ideal Condition

Under the ideal condition, the possible capacity for uninterrupted flow are as follows:

- a)** For 2-lane two way (total) = 2,800 pcu/hour **b)** For multi lane (per lane) = 2,000 pcu/hour

Ideal conditions consist of the following for two lane roads:

- i. Design speed greater than or equal to 100 kph
- ii. Lane width greater than or equal to 3.65m (12')
- iii. Clear shoulders wider than or equal to 1.83m (6')
- iv. No "No Passing Zone" on the highway
- v. All passenger cars in the traffic streams
- vi. A 50/50 directional speed
- vii. No impediment to through traffic due to traffic control or turning vehicles
- viii. Level terrain

Where one or more of these conditions are not met, the actual capacity can be calculated as above.

Maximum Hourly Capacity, C

The maximum hourly traffic capacity

$$C = I \times R \times T \quad (\text{equation 2.0})$$

where

C = is the maximum one way hourly capacity

I = is the ideal hourly capacity as per Table 4 below

R = is the roadways Reduction Factor as in Table 5 below

T = is the traffic reduction factor as in Table 6 below

ROAD TYPE	Passenger Vehicle Units (PCU) Per Hour
MULTILANE	2000 per lane
TWO LANES (Bothways)	2800 for bothways

Table 4 : Maximum Hourly Capacity

CARRIAGEWAY WIDTH	Paved Shoulder Width			
	V/C Ratio	2.00m	1.50m	1.25m
7.5m	1.00m	0.97m	0.94m	0.90m
7.0m	0.88m	0.86m	0.83m	0.79m
6.0m	0.81m	0.78m	0.76m	0.73m
5.0m	0.72m	0.70m	0.67m	0.64m

Source : Arahan Teknik Jalan 5/85

**Table 5 : Carriageways Roadway Reduction Factor

Type of Terrain



MOUNTAINOUS

$$T = 100 / (100 + 5 * P_c)$$



ROLLING

$$T = 100 / (100 + 2 * P_c)$$



FLAT

$$T = 100 / (100 + P_c)$$

**Table 6 : Traffic Reduction Factor

NOTE

- *P_c is the estimated percentage of commercial vehicles referred to medium and heavy goods vehicles with unladen weight exceeding 1.5 tonne.
- **For the Mainline Highways R5/R6 and U5/U6 table 4 and 5 are considered not necessary.

Level of Services (LOS) are the qualitative measures that describe traffic conditions in terms of speed, travel time, freedom to manoeuvre, comfort, convenience, traffic interruption and safety. LOS A represents the best condition, while LOS F represents heavily congested flow with traffic demands exceeding highway capacity.

By referring to the National Traffic Census 2017, Figure 4 shows that 29% of the roads in 2017 at the 554 census stations is already saturated (LOS F). There have been an improvement in traffic flowing of 4% at census station which had LOS E. There is also a decrease of LOS A in road segments with uncongested traffic flow. These shows that the Level of Service (LOS) of these roads getting worse due to the increase of traffic volume at the particular roads.

Capacity is the maximum rate at which vehicles can traverse a point or short segment during a specified time period. Projected capacity year is the year of traffic volume is estimated to reach road capacity. In this report, the R value shows that the LOS has already reached F. However, there is some of census station shows the reduction of percentage growth rate that represent by symbol (-).

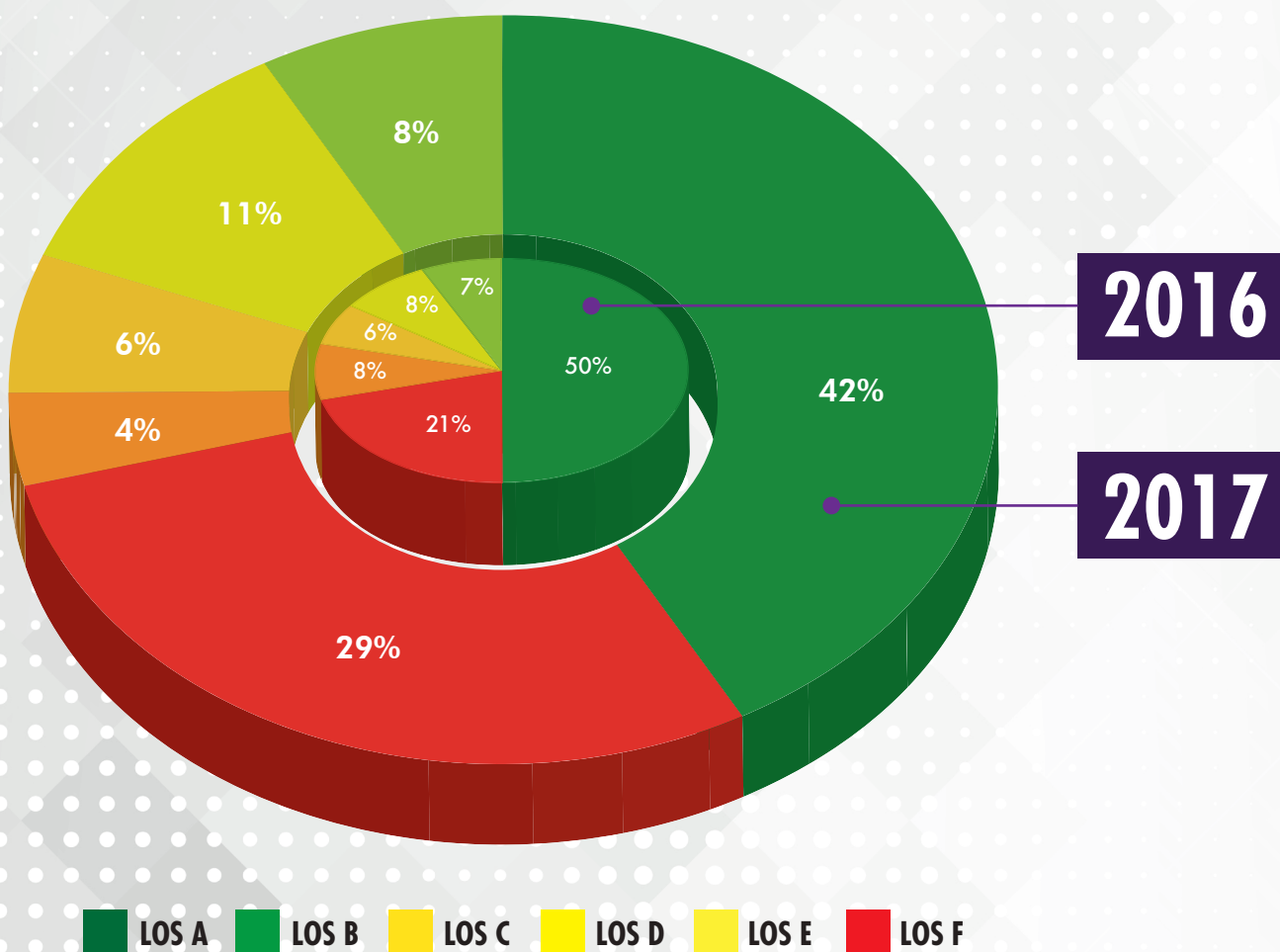


Figure 4 : The distribution of LEVEL OF SERVICE (LOS) of the roads at the 554 census stations in 2016 and 2017

TRAFFIC SCENARIO IN MALAYSIA

By using the Method of Least Squared Regression Analysis of traffic flow data for the years 2008 to 2017, RTVM gathered the traffic growth rates based on the calculation of compound 'normal' traffic growth in terms of percentage growth of total traffic per year. Extrapolation based on this rate is used for the capacity year computation. Capacity year refers to the year when the projected traffic volume equals the computed road capacity.

Figure 5 shows the Malaysian Yearly 16-Hour Traffic Volume from the year 2008 to 2017 based on National Traffic Census station. As highlighted, a decrease 1.2% in 2017 can be seen for the 16-hour traffic volume compared to the year 2016.

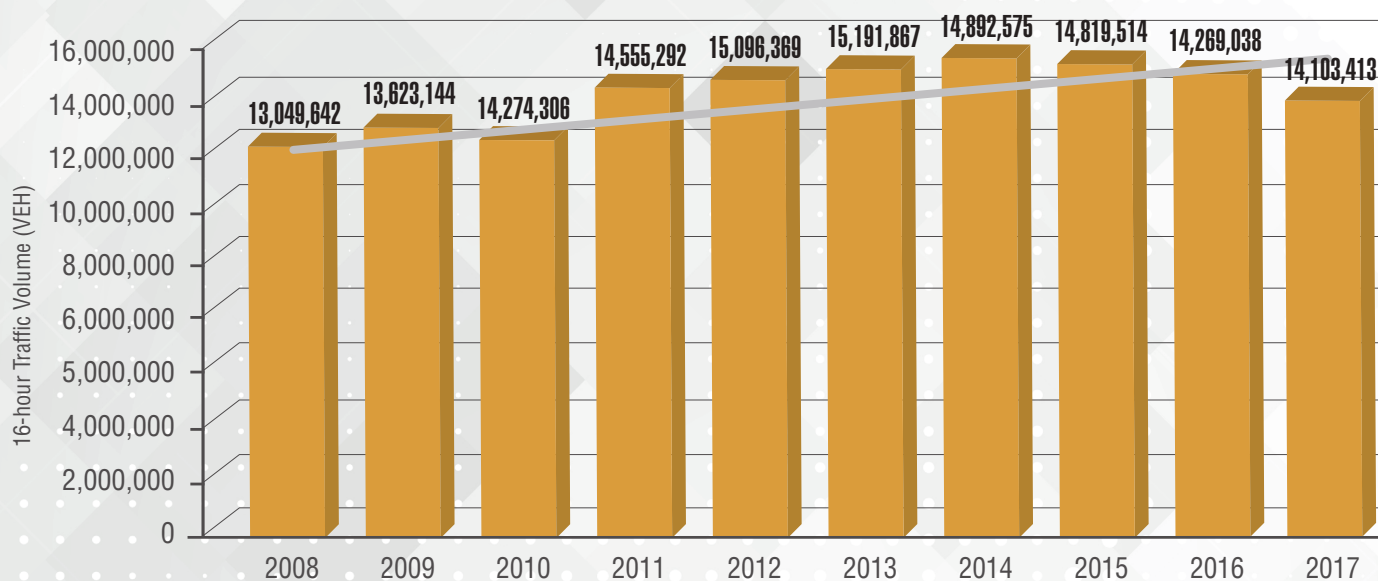


Figure 5 : Yearly 16-hour Traffic Volume (2008 - 2017)

$$y = 2.2263e^{0.0078x} \mid R^2 = 0.2444$$

NORMAL GROWTH = 0.78%

The 2017 Normal Traffic Growth Rate (%) based on National Traffic Census in Malaysia at the 554 census station is 0.78% as can be seen in Figure 5. This value was obtained from the equation of the exponential trendline for the 10 years of 16-hours traffic volume.

PERLIS



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PERLIS

📍 TYPE 0
 📍 TYPE 1
 📍 TYPE 3



13 📍 **2**
📍 **0**
CENSUS STATIONS 📍 **11**

DISTRIBUTION OF SURVEY STATIONS

Perlis 📍 2 📍 0 📍 11

PERLIS

Census Station Number	Survey Type	Route Number	KM	Description of Location	GPS Coordinate (WGS84) (Latitude, Longitude)	Type of Carriageway
RR101	3	194	5.0	Kuala Perlis - Changlun (100m from Kg.Behor Lateh junction)	6.394 100.157	K 2-2
RR102	3	265	30.5	Titi Tinggi - Tasoh	6.637 100.221	T 1-1
RR103	3	7	10.6	Kangar - Padang Besar	6.523 100.230	T 1-1
RR104	3	7	2.0	Kangar - Padang Besar	6.452 100.206	K 2-2
RR105	0	7	3.5	Kangar - Alor Star (Seriab)	6.413 100.183	K 2-2
RR106	3	7	8.1	Kangar - Alor Star (Behor Mali)	6.371 100.183	T 1-1
RR107	3	7	22.6	Kangar - Padang Besar (Titi Tinggi)	6.618 100.257	T 1-1
RR108	3	R1	2.2	Jalan Raja Syed Alwi	6.416 100.199	K 2-2
RR109	3	R9	5.5	Mata Ayer - Beseri (Persimpangan Arau)	6.446 100.241	T 1-1
RR110	3	179	14.0	Kangar - Kodiang (Arau)	6.403 100.292	K 2-2
RR111	0	179	9.9	Kangar - Kodiang (Arau)	6.439 100.267	K 2-2
RR112	3	194	16.0	Kuala Perlis - Changlun (2km from Arau - Kuala Perlis bridge)	6.413 100.243	K 2-2
RR113	3	R16	22.2	Jalan Kubang Tiga - Padang Besar Ke Chuping	6.585 100.280	T 1-1

PERLIS

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
RR101	N/A	18,250	1,847	1700-1800	63.4	4.8	3.8	0.2	1.0	26.9	100.0
RR102	N/A	6,063	865	0700-0800	42.5	4.4	5.6	0.1	0.8	46.5	100.0
RR103	N/A	11,785	1,300	1700-1800	62.4	4.8	3.3	0.4	0.6	28.5	100.0
RR104	N/A	30,342	3,963	0700-0800	66.2	5.3	0.1	0.3	0.3	26.2	100.0
RR105	33,233	29,384	2,783	1700-1800	68.3	5.0	2.7	0.3	1.2	22.5	100.0
RR106	N/A	13,939	1,541	0700-0800	59.6	6.9	4.6	1.1	1.4	26.4	100.0
RR107	N/A	6,431	733	1700-1800	61.7	7.2	5.5	0.9	1.0	23.8	100.0
RR108	N/A	24,182	2,268	0700-0800	64.3	6.0	1.8	0.1	0.5	27.2	100.0
RR109	N/A	11,375	1,032	1400-1500	55.5	5.7	3.9	0.7	0.1	34.0	100.0
RR110	N/A	10,378	1,167	0700-0800	65.9	6.2	6.6	0.4	0.3	20.5	100.0
RR111	33,661	30,109	2,840	1700-1800	66.7	3.1	1.9	0.5	0.5	27.3	100.0
RR112	N/A	18,263	1,827	1700-1800	74.6	6.2	2.7	0.5	1.1	14.9	100.0
RR113	N/A	2,848	291	0700-0800	61.1	10.1	4.5	0.5	0.1	23.8	100.0

PERLIS

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
RR101	N/A	18,610	1,681	1700-1800	60.5	4.9	3.0	0.2	1.2	30.1	100.0
RR102	N/A	7,327	1,026	1200-1300	43.4	4.5	4.6	0.2	1.7	45.5	100.0
RR103	N/A	20,023	2,861	0900-1000	54.3	3.9	2.7	0.4	0.4	38.3	100.0
RR104	N/A	28,901	3,076	1700-1800	69.7	4.7	2.2	0.1	0.3	23.0	100.0
RR105	32,603	28,830	2,662	1800-1900	69.0	5.8	2.9	0.2	1.1	21.1	100.0
RR106	N/A	14,762	1,711	0700-0800	62.0	5.2	4.6	1.1	1.0	26.1	100.0
RR107	N/A	5,814	586	1700-1800	63.9	5.4	3.4	0.8	1.3	25.2	100.0
RR108	N/A	24,201	2,353	0700-0800	67.4	5.1	1.8	0.1	0.6	24.9	100.0
RR109	N/A	11,194	1,176	1700-1800	60.0	4.8	4.2	0.7	0.5	29.8	100.0
RR110	N/A	9,954	1,109	0700-0800	70.3	5.5	4.0	0.8	0.4	19.0	100.0
RR111	30,646	27,561	2,834	0700-0800	67.8	3.6	2.0	0.5	0.6	25.5	100.0
RR112	N/A	18,575	1,949	1700-1800	77.1	5.0	2.8	0.3	1.0	13.8	100.0
RR113	N/A	3,364	343	1400-1500	57.2	8.7	10.2	0.6	0.0	23.3	100.0

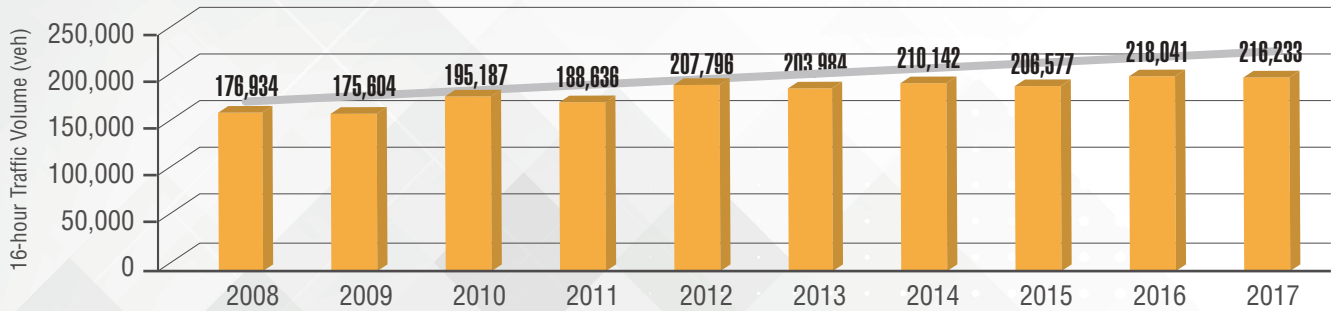
PERLIS

Census Station Number	16-Hour Traffic	Peak Hour	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Buses	Motorcycles	Total	Level of Service (LOS)	Capacity Year
RR101	18,430	1,764	61.9	4.8	3.4	0.2	1.1	28.5	100%	A	2064
RR102	6,695	946	43.0	4.5	5.1	0.2	1.3	46.0	100%	A	2030
RR103	15,904	2,081	58.3	4.4	3.0	0.4	0.5	33.4	100%	F	R
RR104	29,622	3,520	68.0	5.0	1.2	0.2	0.3	24.6	100%	A	-
RR105	29,107	2,723	68.7	5.4	2.8	0.2	1.1	21.8	100%	A	2037
RR106	14,351	1,626	60.8	6.0	4.6	1.1	1.2	26.3	100%	E	2022
RR107	6,123	660	62.8	6.3	4.4	0.8	1.1	24.5	100%	A	2047
RR108	24,192	2,311	65.9	5.6	1.8	0.1	0.5	26.1	100%	A	-
RR109	11,285	1,104	57.8	5.3	4.0	0.7	0.3	31.9	100%	A	2021
RR110	10,166	1,138	68.1	5.9	5.3	0.6	0.3	19.8	100%	A	2144
RR111	28,835	2,837	67.2	3.4	2.0	0.5	0.5	26.4	100%	A	2064
RR112	18,419	1,888	75.8	5.6	2.7	0.4	1.1	14.4	100%	A	2028
RR113	3,106	317	59.2	9.4	7.3	0.5	0.1	23.5	100%	A	-

PERLIS

Census Station Number	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Normal Growth (%/yr)	R ²
RR101	14,558	14,573	15,198	15,422	16,728	17,063	15,925	17,186	17,980	18,430	2.6	0.89
RR102	4,450	3,782	4,418	8,309	8,967	5,430	4,381	6,148	6,061	6,695	3.8	0.16
RR103	14,689	14,181	14,855	19,892	14,730	13,216	15,889	17,202	17,411	15,904	1.3	0.11
RR104	29,308	27,854	30,944	19,528	25,887	25,886	23,572	27,287	30,390	29,622	0.4	0.01
RR105	20,769	21,321	21,758	23,234	25,577	26,155	25,092	27,257	27,827	29,107	3.8	0.94
RR106	13,281	13,422	13,316	14,296	14,625	13,042	14,367	14,707	15,279	14,351	1.2	0.47
RR107	4,678	4,465	4,739	4,752	5,617	5,941	6,136	5,924	6,401	6,123	4.2	0.84
RR108	23,159	22,018	21,992	20,466	23,430	20,570	22,811	21,986	25,427	24,192	1.0	0.19
RR109	6,090	6,294	14,372	7,384	14,513	20,570	22,811	10,555	10,768	11,285	7.0	0.21
RR110	8,526	10,264	11,419	11,627	11,461	10,183	10,864	10,997	10,634	10,166	0.8	0.07
RR111	26,042	25,847	27,311	27,300	28,853	28,269	28,776	28,581	29,453	28,835	1.3	0.80
RR112	8,409	8,551	10,798	13,026	13,627	14,422	16,450	15,919	17,623	18,419	9.0	0.93
RR113	2,975	3,032	4,067	3,400	3,784	3,240	3,071	2,829	2,789	3,106	-1.5	0.14

YEARLY 16-HOUR TRAFFIC VOLUME (2008 - 2017)



$y = 4E-16e^{0.0237x} \mid R^2 = 0.8459$
NORMAL GROWTH = 2.37%

*Yearly 16-hour Traffic Volume (2008-2017)
 & Normal Traffic Growth with Exponential Trendline for the Year 2017 in Perlis*

**0.8%
Decrease**

In Perlis, there are 13 census stations. The 16-hour traffic volume shows an increase of vehicles from year 2008 to year 2017. It also shows a slight decrease in traffic volume for year 2009, 2011, 2013 and 2015. The figure shows an decrease of 0.8% in 2017.

For the year 2017, the observed traffic growth rate for the state of Perlis is 2.37%. The basis of traffic growth rate for road forethought as well as for the expansion of current and new roads in Perlis.





TRAFFIC VOLUME SCALE

- ≤ 10,000
- 10,001 - 30,000
- > 30,000

KEDAH



JKR NEGERI KEDAH

Jalan Sultan Badlishah,

05582 Alor Setar,

Kedah Darul Aman

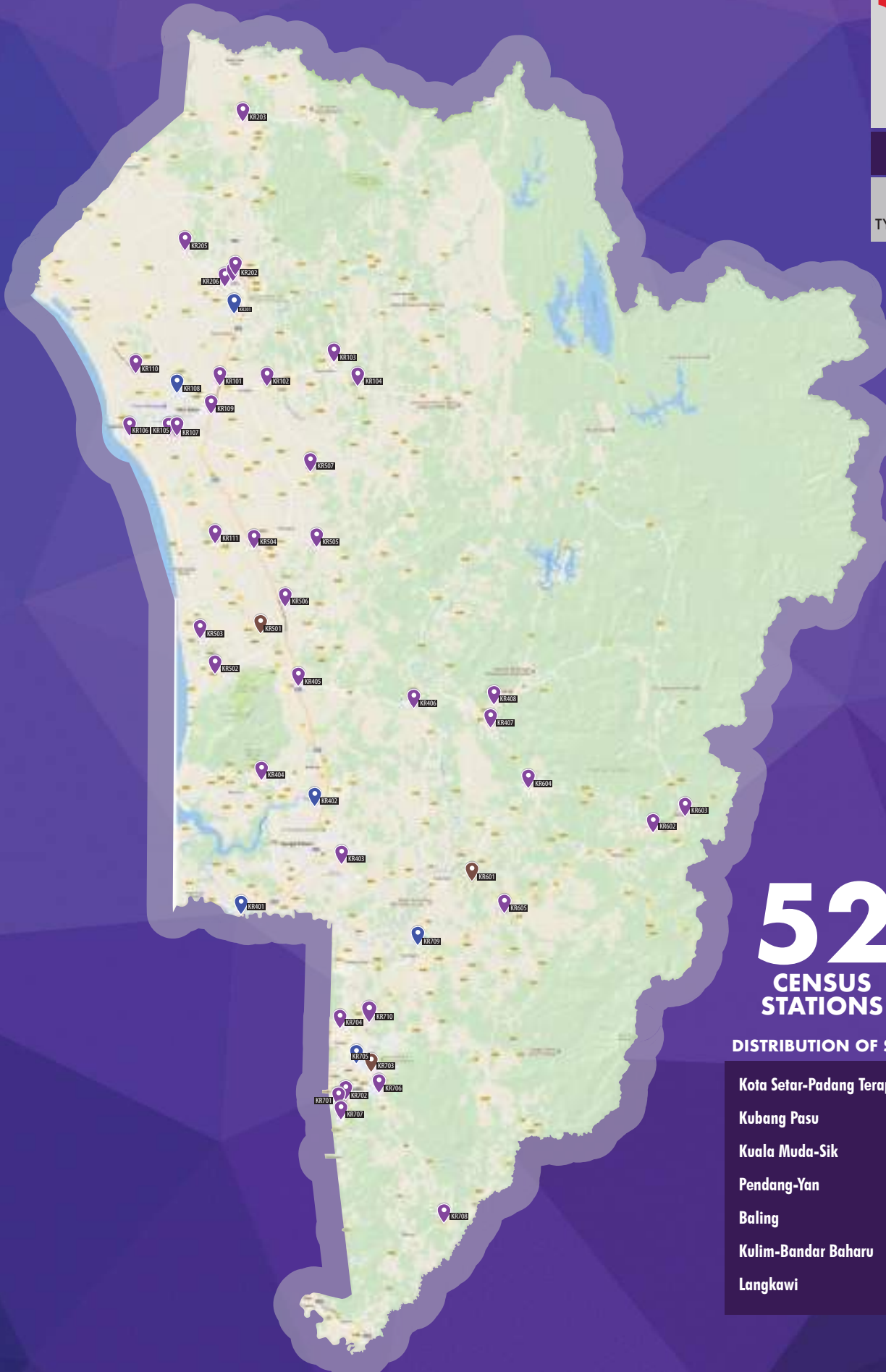
Tel : 04-774 8000 | Fax : 04-733 1535

www.jkrkedah.gov.my



KEDAH

 TYPE 0
  TYPE 1
  TYPE 3



52  **3**
CENSUS  **7**
STATIONS  **42**

DISTRIBUTION OF SURVEY STATIONS

Kota Setar-Padang Terap	 0	 1	 10
Kubang Pasu	 0	 1	 5
Kuala Muda-Sik	 0	 2	 6
Pendang-Yan	 1	 0	 6
Baling	 1	 0	 4
Kulim-Bandar Baharu	 1	 2	 7
Langkawi	 0	 1	 4



LANGKAWI

TYPE 0 TYPE 1 TYPE 3



KOTA SETAR - PADANG TERAP

Census Station Number	Survey Type	Route Number	KM	Description of Location	GPS Coordinate (WGS84) (Latitude, Longitude)	Type of Carriageway
KR101	3	175	4.0	Langgar Road (Highway Bridge)	6.151 100.403	K 2-2
KR102	3	175	12.0	Alor Star - Langgar - Pokok Sena	6.151 100.456	K 2-2
KR103	3	K8	23.0	Alor Star - Pokok Sena - Kuala Nerang	6.178 100.530	T 1-1
KR104	3	175	27.0	Alor Star - Kg. Bukit Payong - Naka	6.151 100.557	T 1-1
KR105	3	78	4.0	Alor Star - Kuala Kedah	6.096 100.347	K 2-2
KR106	3	78	7.0	Alor Star - Kuala Kedah	6.096 100.303	K 2-2
KR107	3	255	5.0	West Alor Star Bypass	6.094 100.355	K 2-2
KR108	1	255	3.0	Package LLM Expressway	6.143 100.356	K 2-2
KR109	3	135	3.5	Alor Star - Padang (Jalan Titi Hj. Idris)	6.120 100.394	T 1-1
KR110	3	7	8.0	Alor Star - Simpang Empat - Kangar	6.164 100.310	T 1-1
KR111	3	1	16.0	Alor Star - Guar Chempedak	5.976 100.399	T 1-1

KUBANG PASU

KR201	1	1	16.9	Alor Star - Jitra	6.231 100.420	K 2-2
KR202	3	1	20.6	Alor Star - Changlun	6.271 100.420	K 2-2
KR203	3	1	40.3	Jitra - Changlun	6.443 100.430	K 2-2
KR204	3	176	20.6	Alor Star - Jitra - Kodiang	6.267 100.418	K 2-2
KR205	3	176	27.4	Jitra - Kodiang	6.301 100.365	K 2-2
KR206	3	K4	1.6	Jitra - Ayer Hitam	6.262 100.409	T 1-1

KUALA MUDA - SIK

KR401	1	1	70.8	Alor Star - Sungai Petani - Butterworth (Bumbong Lima)	5.567 100.428	T 1-1
KR402	1	1	53.1	Alor Star - Sungai Petani (Sungai Lalang)	5.685 100.510	K 2-2
KR403	3	1	7.0	Alor Star - Sungai Petani - Kuala Ketil (Econsave)	5.620 100.543	K 2-2
KR404	3	253	1.0	Bedong - Tanjong Dawai (UiTM Merbok)	5.715 100.450	T 1-1
KR405	3	175	36.2	Alor Star - Gurun - Jeniang	5.818 100.491	K 2-2
KR406	3	K17	64.4	Jeniang - Bukit Selambau	5.794 100.619	T 1-1
KR407	3	K15	4.0	From Junction Batu Lima - Parit Panjang road	5.462 100.422	T 1-1
KR408	3	175	66.8	Alor Star - Jeniang - Sik	5.476 100.423	T 1-1

PENDANG - YAN

KR501	0	1	29.0	Alor Star - Sungai Petani (Bt. 18 Guar Chempedak)	5.877 100.449	T 1-1
KR502	3	K146	38.6	Alor Star - Guar Chempedak - Yan (in front of Sek. Men. Agama Yan)	5.833 100.398	T 1-1
KR503	3	K1	33.8	Alor Star - Kuala Kedah - Yan (Sedaka)	5.870 100.382	T 1-1
KR504	3	K133	5.0	Alor Star - Kota Sarang Semut - Padang - Titi Hj. Idris	5.973 100.444	T 1-1
KR505	3	K151	4.0	Pendang - Sg. Tiang (Cegar)	5.973 100.511	T 1-1
KR506	3	K147	10.0	Pendang - Jenun - Pdg. Lembu (Sek. Keb. Jenun)	5.906 100.477	T 1-1
KR507	3	K128	9.0	Pendang - Tobiar - Kubur Panjang (in front of Maktab Mahmud)	6.057 100.504	T 1-1

BALING

Census Station Number	Survey Type	Route Number	KM	Description of Location	GPS Coordinate (WGS84) (Latitude, Longitude)	Type of Carriageway
KR601	0	67	23.9	S. Petani - Baling (Before K722 Junction)	5.601 100.684	T 1-1
KR602	3	67	51.5	S. Petani - Baling (in front of Sek. Keb. Pulau)	5.657 100.886	T 1-1
KR603	3	76	1.0	Gerik Road - Pkln. Hulu - Baling (0.3km from Baling Roundabout)	5.674 100.922	T 1-1
KR604	3	K15	1.3	Bt. 5 - Parit Panjang - Bt. 42 (0.3km from Parit Panjang Roundabout)	5.705 100.747	T 1-1
KR605	3	4	46.0	Kulim - Baling - Gerik	5.566 100.721	T 1-1

KULIM - BANDAR BARU

KR701	3	254	5.5	Kulim - Bukit Mertajam	5.354 100.536	K 2-2
KR702	3	254	4.7	Kulim - Bukit Mertajam	5.358 100.543	K 2-2
KR703	0	169	30.5	Kulim - Junjong (Petronas)	5.392 100.572	K 2-2
KR704	3	136	56.0	Kulim - Mahang (Hospital)	5.439 100.537	T 1-1
KR705	1	136	49.0	Kulim - Lunas - Pdg. Serai - Merbau Pulas	5.401 100.556	K 2-2
KR706	3	136	45.5	Kulim - Lunas - Pdg. Serai - Merbau Pulas	5.368 100.581	K 2-2
KR707	3	K145	5.0	Kulim - Junjong	5.338 100.538	T 1-1
KR708	3	171	5.0	Serdang - Selama	5.224 100.624	T 1-1
KR709	1	136	74.6	Kulim - Lunas - Pdg. Serai - Merbau Pulas	5.531 100.624	T 1-1
KR710	3	4	24.2	Jalan Kulim - Lunas - Sg. Karangan - Baling	5.446 100.569	T 1-1

LANGKAWI

KR801	1	112	4.5	Pekan Kuah - Padang Matsirat	6.325 99.808	K 2-2
KR802	3	112	1.5	Pekan Kuah - Tanjung Rhu	6.335 99.864	T 1-1
KR803	3	112	1.0	Padang Lalang - Ulu Melaka	6.421 99.803	T 1-1
KR804	3	113	1.0	Kampung Kok - Kampung Ewa	6.388 99.712	T 1-1
KR805	3	116	1.0	Simpang Kedawang - Lapangan Terbang	6.327 99.737	T 1-1

KOTA SETAR - PADANG TERAP

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
KR101	N/A	49,982	5,468	0700-0800	61.5	8.9	1.7	1.6	0.2	26.2	100.0
KR102	N/A	24,289	2,608	0700-0800	58.2	6.6	4.7	1.5	0.4	28.7	100.0
KR103	N/A	15,718	1,560	0700-0800	51.1	6.8	3.2	1.3	0.5	37.1	100.0
KR104	N/A	7,068	624	1800-1900	47.3	7.5	6.1	1.6	0.2	37.4	100.0
KR105	N/A	43,541	4,506	1800-1900	65.1	5.5	3.1	0.8	0.2	25.3	100.0
KR106	N/A	29,667	2,519	1800-1900	51.4	8.0	2.5	2.1	0.3	35.8	100.0
KR107	N/A	42,330	3,431	1800-1900	59.8	5.9	6.8	2.8	0.5	24.1	100.0
KR108	N/A	38,430	3,249	1700-1800	61.5	6.0	2.0	0.6	1.4	28.4	100.0
KR109	N/A	33,017	3,273	0700-0800	50.5	6.4	1.2	0.7	0.2	41.1	100.0
KR110	N/A	23,717	2,237	1800-1900	53.7	6.6	6.7	1.7	0.7	30.6	100.0
KR111	N/A	21,547	2,161	1800-1900	53.5	7.6	6.5	5.0	0.6	26.9	100.0

KUBANG PASU

KR201	N/A	30,182	2,789	1800-1900	62.9	5.8	2.1	0.3	0.4	28.5	100.0
KR202	N/A	40,127	4,320	0700-0800	53.8	9.6	3.7	1.4	0.2	31.3	100.0
KR203	N/A	20,234	2,802	0700-0800	58.2	8.8	2.6	4.2	1.0	25.1	100.0
KR204	N/A	17,177	1,796	0700-0800	54.6	6.8	3.5	0.5	0.2	34.4	100.0
KR205	N/A	19,917	2,223	0700-0800	57.0	7.4	3.5	0.9	0.3	31.0	100.0
KR206	N/A	8,577	1,004	0700-0800	45.5	5.6	5.5	0.9	0.0	42.5	100.0

KUALA - MUDA

KR401	N/A	22,030	2,005	1700-1800	60.8	4.7	5.0	0.9	0.4	28.0	100.0
KR402	N/A	48,746	3,964	0700-0800	60.3	4.8	4.4	1.3	0.4	28.8	100.0
KR403	N/A	26,706	2,757	0700-0800	65.8	9.8	3.8	1.6	0.6	18.5	100.0
KR404	N/A	15,370	1,508	0700-0800	42.7	8.5	4.0	2.3	0.3	42.2	100.0
KR405	N/A	21,805	1,958	1700-1800	53.1	11.9	4.1	3.6	0.3	27.0	100.0
KR406	N/A	4,651	418	1700-1800	45.8	12.0	9.7	5.8	0.3	26.4	100.0
KR407	N/A	8,985	950	1600-1700	50.2	5.4	4.2	2.2	1.3	36.6	100.0
KR408	N/A	13,338	1,196	0700-0800	56.2	5.4	3.0	1.6	0.8	33.0	100.0

PENDANG - YAN

KR501	22,394	20,342	1,801	0700-0800	51.9	9.0	8.3	4.2	0.5	26.2	100.0
KR502	N/A	10,788	1,109	0700-0800	53.0	8.4	4.3	0.7	0.0	33.5	100.0
KR503	N/A	7,120	633	0900-1000	46.8	7.3	5.4	8.7	0.5	31.3	100.0
KR504	N/A	9,738	873	0700-0800	49.7	6.2	5.4	5.8	0.4	32.4	100.0
KR505	N/A	13,096	1,236	0700-0800	49.0	5.9	5.4	2.0	0.2	37.6	100.0
KR506	N/A	7,033	763	0700-0800	36.3	5.2	3.9	0.9	0.1	53.7	100.0
KR507	N/A	8,388	854	0700-0800	42.1	10.9	6.5	4.9	0.0	35.6	100.0

BALING

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
KR601	13,756	12,394	1,194	1800-1900	55.6	8.4	4.3	1.9	1.1	28.7	100.0
KR602	N/A	27,585	2,275	1400-1500	61.5	4.1	3.3	0.3	0.6	30.1	100.0
KR603	N/A	10,417	828	1700-1800	53.2	6.0	3.7	0.8	0.8	35.5	100.0
KR604	N/A	7,563	696	1700-1800	40.1	6.8	4.6	0.9	0.3	47.3	100.0
KR605	N/A	8,172	849	0700-0800	49.6	10.5	9.1	5.4	1.2	24.1	100.0

KULIM - BANDAR BAHARU

KR701	N/A	35,430	4,191	0700-0800	66.1	4.3	2.3	1.2	0.3	25.8	100.0
KR702	N/A	40,672	5,072	0700-0800	64.2	4.6	3.6	0.8	0.4	26.4	100.0
KR703	30,061	27,933	2,823	1700-1800	70.4	3.5	1.6	0.6	0.3	23.6	100.0
KR704	N/A	17,556	1,973	0700-0800	55.1	4.6	4.0	1.0	0.8	34.4	100.0
KR705	N/A	39,557	3,449	1800-1900	67.4	3.0	2.3	1.0	0.5	25.8	100.0
KR706	N/A	17,161	2,147	0700-0800	51.0	5.0	3.9	1.4	0.5	38.2	100.0
KR707	N/A	20,609	2,118	1800-1900	62.7	5.7	2.6	4.5	0.3	24.2	100.0
KR708	N/A	5,077	531	1700-1800	43.8	9.1	8.1	6.2	1.0	31.7	100.0
KR709	N/A	11,042	1,099	0700-0800	50.6	7.6	7.6	4.5	1.3	28.3	100.0
KR710	N/A	22,557	2,961	0700-0800	50.1	7.7	7.7	7.2	1.1	26.2	100.0

LANGKAWI

KR801	N/A	32,745	2,834	1700-1800	59.1	8.8	3.7	1.1	0.3	27.0	100.0
KR802	N/A	16,754	1,597	1700-1800	55.3	5.5	3.4	1.3	0.9	33.6	100.0
KR803	N/A	13,445	1,267	1800-1900	44.3	5.0	3.3	1.6	0.4	45.3	100.0
KR804	N/A	5,294	551	1700-1800	43.1	6.7	5.4	2.6	2.0	40.3	100.0
KR805	N/A	19,277	1,895	1800-1900	46.0	6.1	3.6	1.0	0.6	42.7	100.0

KOTA SETAR - PADANG TERAP

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
KR101	N/A	51,392	5,416	0700-0800	66.5	6.4	1.7	1.6	0.2	23.7	100.0
KR102	N/A	24,613	2,438	0700-0800	56.2	8.2	5.8	2.6	0.3	27.0	100.0
KR103	N/A	16,216	1,723	0700-0800	51.2	8.0	5.5	1.8	0.4	33.1	100.0
KR104	N/A	7,203	782	0700-0800	47.3	9.4	4.6	1.5	0.1	37.0	100.0
KR105	N/A	32,116	2,862	0700-0800	64.3	6.5	3.4	0.7	0.3	24.8	100.0
KR106	N/A	28,037	2,628	0700-0800	56.1	9.9	2.4	1.5	0.2	29.8	100.0
KR107	N/A	34,473	3,187	1800-1900	65.7	5.7	6.5	2.1	0.3	19.7	100.0
KR108	N/A	37,425	2,867	1700-1800	62.7	6.0	2.0	0.6	1.4	27.3	100.0
KR109	N/A	32,840	3,107	0700-0800	54.1	5.9	1.5	0.6	0.2	37.7	100.0
KR110	N/A	22,469	2,237	1700-1800	56.4	5.1	6.4	1.6	0.4	30.1	100.0
KR111	N/A	21,788	1,873	1700-1800	53.1	5.3	7.6	2.2	0.5	31.3	100.0

KUBANG PASU

KR201	N/A	31,629	2,735	0700-0800	61.8	4.5	2.3	0.6	0.5	30.5	100.0
KR202	N/A	39,211	3,716	1700-1800	57.9	6.5	2.2	0.3	0.2	32.8	100.0
KR203	N/A	21,750	2,314	0700-0800	60.9	8.1	3.2	5.2	0.9	21.7	100.0
KR204	N/A	14,591	1,449	1800-1900	58.4	6.5	3.2	0.5	0.3	31.1	100.0
KR205	N/A	20,389	1,852	1700-1800	60.0	7.3	4.0	0.8	0.3	27.5	100.0
KR206	N/A	8,346	839	1800-1900	51.4	5.4	3.9	0.6	0.2	38.4	100.0

KUALA - MUDA

KR401	N/A	19,468	1,828	1700-1800	57.5	6.6	4.5	0.7	0.6	30.2	100.0
KR402	N/A	44,728	3,873	1800-1900	54.5	10.1	3.9	2.6	0.3	28.6	100.0
KR403	N/A	31,353	2,791	0700-0800	69.7	5.6	4.4	1.0	0.4	18.9	100.0
KR404	N/A	15,775	1,924	0700-0800	47.6	5.6	6.4	1.2	0.2	39.0	100.0
KR405	N/A	22,665	2,393	1700-1800	60.4	6.5	5.4	2.5	0.3	25.0	100.0
KR406	N/A	5,291	540	1800-1900	50.0	8.8	10.4	4.1	0.5	26.2	100.0
KR407	N/A	10,850	946	1500-1600	49.3	8.2	3.6	2.0	1.2	35.8	100.0
KR408	N/A	12,071	1,158	1500-1600	54.6	6.3	5.2	1.8	0.8	31.2	100.0

PENDANG - YAN

KR501	17,327	15,153	1,427	1800-1900	58.8	8.9	6.7	2.4	0.6	22.6	100.0
KR502	N/A	11,431	1,069	1700-1800	47.4	10.2	9.6	0.9	0.1	31.9	100.0
KR503	N/A	10,308	1,079	1700-1800	48.2	11.5	7.1	1.0	0.4	31.8	100.0
KR504	N/A	9,186	992	1700-1800	54.2	6.2	6.5	3.1	0.5	29.4	100.0
KR505	N/A	12,854	1,130	1000-1100	42.5	8.4	7.0	3.5	0.2	38.4	100.0
KR506	N/A	5,729	603	1800-1900	33.6	6.2	3.4	2.5	0.0	54.4	100.0
KR507	N/A	6,986	681	0700-0800	42.7	10.4	5.5	5.2	0.0	36.2	100.0

BALING

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
KR601	14,367	13,190	1,177	1700-1800	52.6	8.3	4.2	1.4	0.9	32.5	100.0
KR602	N/A	24,391	2,188	1700-1800	63.0	6.1	2.7	0.3	0.5	27.4	100.0
KR603	N/A	9,516	808	1300-1400	54.4	9.4	4.1	0.6	0.9	30.6	100.0
KR604	N/A	10,313	1,269	1100-1200	43.9	7.8	4.4	0.4	0.3	43.2	100.0
KR605	N/A	9,032	902	0700-0800	52.4	11.3	8.6	5.2	1.1	21.4	100.0

KULIM - BANDAR BARAHU

KR701	N/A	34,412	3,483	1800-1900	63.8	4.7	3.2	0.8	0.2	27.2	100.0
KR702	N/A	50,152	5,593	1800-1900	69.3	5.1	2.6	0.9	0.3	21.8	100.0
KR703	31,892	29,667	2,704	1700-1800	72.9	3.6	1.3	0.6	0.3	21.4	100.0
KR704	N/A	17,446	2,644	0700-0800	50.8	10.7	4.8	0.6	0.8	32.4	100.0
KR705	N/A	36,119	3,302	1700-1800	67.1	3.2	2.2	0.9	0.5	26.2	100.0
KR706	N/A	17,301	1,987	0700-0800	50.7	6.7	4.6	1.7	0.4	35.8	100.0
KR707	N/A	16,730	1,988	0700-0800	58.1	5.9	6.4	1.3	0.4	27.8	100.0
KR708	N/A	5,104	505	0800-0900	47.2	9.1	7.8	4.3	1.1	30.5	100.0
KR709	N/A	11,469	1,098	0700-0800	51.4	7.6	7.4	3.9	1.3	28.4	100.0
KR710	N/A	29,744	4,693	0700-0800	62.8	4.6	5.3	5.0	0.6	21.7	100.0

LANGKAWI

KR801	N/A	38,529	3,032	1700-1800	63.9	7.1	4.8	1.5	1.0	21.7	100.0
KR802	N/A	14,372	1,225	1800-1900	53.8	8.0	3.5	0.7	0.4	33.5	100.0
KR803	N/A	10,360	1,349	1700-1800	50.6	6.8	3.4	1.2	0.3	37.7	100.0
KR804	N/A	3,381	341	1700-1800	49.9	7.2	4.6	0.5	0.4	37.3	100.0
KR805	N/A	16,845	1,472	1800-1900	47.7	6.8	3.0	0.6	0.3	41.6	100.0

KOTA SETAR - PADANG TERAP

Census Station Number	16-Hour Traffic	Peak Hour	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Buses	Motorcycles	Total	Level of Service (LOS)	Capacity Year
KR101	50,687	5,442	64.0	7.6	1.7	1.6	0.2	25.0	100%	F	R
KR102	24,451	2,523	57.2	7.4	5.2	2.1	0.3	27.9	100%	A	2042
KR103	15,967	1,642	51.1	7.4	4.4	1.5	0.5	35.1	100%	E	2021
KR104	7,136	703	47.3	8.4	5.4	1.5	0.1	37.2	100%	A	2085
KR105	37,829	3,684	64.7	6.0	3.3	0.8	0.2	25.0	100%	B	2046
KR106	28,852	2,574	53.8	9.0	2.4	1.8	0.2	32.8	100%	A	2050
KR107	38,402	3,309	62.8	5.8	6.7	2.4	0.4	21.9	100%	C	2029
KR108	37,928	3,058	62.1	6.0	2.0	0.6	1.4	27.9	100%	A	2064
KR109	32,929	3,190	52.3	6.2	1.4	0.6	0.2	39.4	100%	F	R
KR110	23,093	2,237	55.1	5.8	6.6	1.6	0.6	30.3	100%	F	R
KR111	21,668	2,017	53.3	6.4	7.1	3.6	0.6	29.1	100%	F	R

KUBANG PASU

KR201	30,906	2,762	62.3	5.1	2.2	0.4	0.4	29.5	100%	A	2060
KR202	39,669	4,018	55.8	8.1	3.0	0.9	0.2	32.1	100%	B	2056
KR203	20,992	2,558	59.5	8.4	2.9	4.7	1.0	23.4	100%	A	2089
KR204	15,884	1,623	56.5	6.7	3.4	0.5	0.3	32.7	100%	A	2074
KR205	20,153	2,038	58.5	7.4	3.8	0.8	0.3	29.3	100%	A	-
KR206	8,462	922	48.5	5.5	4.7	0.8	0.1	40.5	100%	A	2053

KUALA MUDA - SIK

KR401	20,749	1,916	59.2	5.7	4.8	0.8	0.5	29.1	100%	F	R
KR402	46,737	3,919	57.4	7.4	4.1	2.0	0.4	28.7	100%	C	-
KR403	29,030	2,774	67.8	7.7	4.1	1.3	0.5	18.7	100%	A	2041
KR404	15,573	1,716	45.1	7.1	5.2	1.7	0.3	40.6	100%	E	2017
KR405	22,235	2,176	56.7	9.2	4.8	3.0	0.3	26.0	100%	A	2052
KR406	4,971	479	47.9	10.4	10.0	4.9	0.4	26.3	100%	A	2033
KR407	9,918	948	49.7	6.8	3.9	2.1	1.3	36.2	100%	A	2028
KR408	12,705	1,177	55.4	5.9	4.1	1.7	0.8	32.1	100%	B	2035

PENDANG - YAN

KR501	17,748	1,614	55.4	8.9	7.5	3.3	0.5	24.4	100%	F	R
KR502	11,110	1,089	50.2	9.3	7.0	0.8	0.0	32.7	100%	B	2034
KR503	8,714	856	47.5	9.4	6.3	4.9	0.5	31.5	100%	A	2044
KR504	9,462	933	52.0	6.2	6.0	4.5	0.5	30.9	100%	A	2031
KR505	12,975	1,183	45.8	7.1	6.2	2.8	0.2	38.0	100%	C	-
KR506	6,381	683	34.9	5.7	3.6	1.7	0.0	54.0	100%	A	2025
KR507	7,687	768	42.4	10.7	6.0	5.0	0.0	35.9	100%	A	2026

BALING

Census Station Number	16-Hour Traffic	Peak Hour	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Buses	Motorcycles	Total	Level of Service (LOS)	Capacity Year
KR601	12,792	1,185	54.1	8.4	4.3	1.7	1.0	30.6	100%	B	2038
KR602	25,988	2,232	62.2	5.1	3.0	0.3	0.6	28.8	100%	F	R
KR603	9,967	818	53.8	7.7	3.9	0.7	0.8	33.1	100%	A	2074
KR604	8,938	983	42.0	7.3	4.5	0.7	0.3	45.3	100%	A	2025
KR605	8,602	876	51.0	10.9	8.9	5.3	1.2	22.8	100%	B	2023

KULIM - BANDAR BAHARU

KR701	34,921	3,837	65.0	4.5	2.7	1.0	0.3	26.5	100%	C	2030
KR702	45,412	5,333	66.7	4.8	3.1	0.8	0.3	24.1	100%	E	2018
KR703	28,800	2,764	71.6	3.5	1.5	0.6	0.3	22.5	100%	A	2044
KR704	17,501	2,309	52.9	7.6	4.4	0.8	0.8	33.4	100%	F	R
KR705	37,838	3,376	67.2	3.1	2.2	0.9	0.5	26.0	100%	B	2067
KR706	17,231	2,067	50.9	5.8	4.3	1.5	0.4	37.0	100%	A	2029
KR707	18,670	2,053	60.4	5.8	4.5	2.9	0.4	26.0	100%	F	R
KR708	5,091	518	45.5	9.1	8.0	5.3	1.1	31.1	100%	A	2094
KR709	11,255	1,098	51.0	7.6	7.5	4.2	1.3	28.4	100%	C	2049
KR710	16,459	2,155	50.3	7.3	5.6	4.2	0.7	32.0	100%	F	R

LANGKAWI

KR801	35,637	2,933	61.5	7.9	4.3	1.3	0.7	24.3	100%	A	2025
KR802	15,563	1,411	54.5	6.8	3.5	1.0	0.7	33.5	100%	C	2023
KR803	11,903	1,308	47.5	5.9	3.4	1.4	0.4	41.5	100%	C	2023
KR804	4,338	446	46.5	7.0	5.0	1.5	1.2	38.8	100%	A	2031
KR805	18,061	1,684	46.8	6.5	3.3	0.8	0.4	42.2	100%	E	2019

KOTA SETAR - PADANG TERAP

Census Station Number	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Normal Growth (%/yr)	R ²
KR101	48,051	47,342	42,729	46,813	42,213	46,801	54,634	55,909	54,311	50,687	2.0	0.39
KR102	23,222	22,512	26,056	22,888	23,422	29,246	25,587	29,875	26,755	24,451	1.8	0.28
KR103	17,076	13,741	14,362	19,143	14,737	21,353	17,789	15,940	17,873	15,967	1.2	0.07
KR104	4,879	4,876	5,785	7,277	5,719	6,416	4,979	5,433	7,209	7,136	2.9	0.30
KR105	30,227	31,710	35,308	27,783	33,955	37,715	38,710	37,417	34,867	37,829	2.5	0.46
KR106	26,310	24,987	21,887	21,717	24,217	25,894	25,197	26,817	27,313	28,852	1.8	0.36
KR107	30,201	33,415	39,139	38,074	41,811	46,195	45,140	39,654	39,136	38,402	2.4	0.32
KR108	40,252	41,077	43,602	45,001	45,944	44,954	45,114	40,335	39,302	37,928	-0.8	0.11
KR109	33,926	28,343	33,589	26,744	32,255	28,764	27,154	32,632	31,501	32,929	0.2	0.00
KR110	31,067	28,433	28,137	23,023	24,145	23,108	21,379	21,374	21,275	23,093	-3.8	0.74
KR111	20,024	23,290	24,572	24,310	21,367	18,226	24,533	18,361	18,144	21,668	-1.6	0.15

KUBANG PASU

KR201	29,717	28,501	30,253	28,098	34,230	36,690	36,720	29,834	31,898	30,906	1.2	0.13
KR202	51,314	34,715	30,402	32,311	42,822	47,474	34,003	39,660	38,036	39,669	-0.1	0.00
KR203	25,426	26,608	21,873	21,549	22,093	25,439	20,458	21,373	20,115	20,992	-2.3	0.49
KR204	13,521	14,204	12,841	14,174	18,542	18,806	15,486	13,730	15,175	15,884	1.5	0.13
KR205	16,419	16,949	18,328	17,803	22,273	15,186	12,432	16,509	18,294	20,153	0.2	0.00
KR206	8,289	12,630	5,318	7,708	6,797	15,761	8,136	8,192	8,285	8,462	0.2	0.00

KUALA MUDA - SIK

KR401	16,123	19,052	24,002	22,195	23,141	23,971	23,672	24,779	21,656	20,749	2.2	0.24
KR402	43,949	43,741	42,989	41,858	42,018	44,288	45,565	42,823	45,430	46,737	0.7	0.31
KR403	22,722	26,231	23,337	22,551	24,494	27,266	26,565	27,263	27,150	29,030	2.3	0.63
KR404	11,624	12,162	13,942	13,483	13,291	13,715	13,623	13,359	14,405	15,573	2.2	0.68
KR405	18,631	19,097	20,697	21,254	20,640	21,416	23,458	19,570	20,452	22,235	1.3	0.31
KR406	2,834	3,392	4,295	4,511	4,578	4,820	4,542	4,573	4,225	4,971	4.2	0.54
KR407	5,257	5,869	8,082	8,134	7,324	7,862	8,217	8,044	8,366	9,918	5.0	0.68
KR408	8,088	8,861	8,631	10,055	9,649	9,458	9,374	9,666	12,559	12,705	4.2	0.72

PENDANG - YAN

KR501	17,586	19,169	19,387	19,618	19,249	18,853	17,797	19,854	18,221	17,748	-0.3	0.04
KR502	7,151	8,979	9,539	9,261	7,551	9,584	9,438	9,777	8,516	11,110	2.4	0.33
KR503	5,846	6,338	6,612	6,229	5,982	7,111	6,215	6,948	7,401	8,714	3.1	0.61
KR504	7,246	10,173	9,157	6,569	9,193	9,813	9,601	10,982	10,892	9,462	3.0	0.31
KR505	10,737	8,429	8,516	7,201	7,678	8,394	9,467	9,245	11,445	12,975	3.1	0.27
KR506	-	-	-	-	3,975	3,554	6,158	5,259	5,644	6,381	10.3	0.64
KR507	-	-	-	-	5,631	5,552	6,377	7,008	7,633	7,687	7.4	0.93

BALING

Census Station Number	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Normal Growth (%/yr)	R ²
KR601	10,119	10,675	10,707	11,404	10,718	12,104	11,807	12,503	12,593	12,792	2.6	0.89
KR602	21,386	22,286	22,612	18,731	38,641	21,934	22,592	22,645	24,396	25,988	1.5	0.05
KR603	8,491	8,287	9,122	9,245	9,353	11,005	9,499	9,231	9,758	9,967	1.8	0.44
KR604	2,876	5,966	6,265	6,248	6,701	7,569	7,580	8,175	8,177	8,938	8.8	0.68
KR605	5,745	6,717	7,277	7,926	10,322	9,864	9,109	9,926	7,527	8,602	3.9	0.38

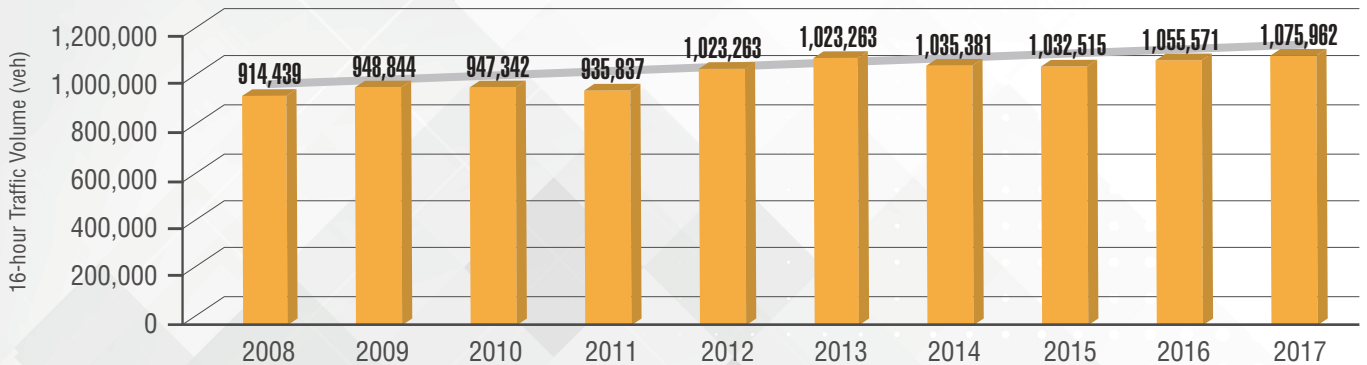
KULIM - BANDAR BARU

KR701	25,051	31,792	32,514	28,866	28,326	31,797	32,196	31,656	39,434	34,921	2.9	0.52
KR702	36,922	37,711	31,213	34,851	41,465	40,665	46,061	43,516	44,203	45,412	3.3	0.62
KR703	25,013	28,158	30,188	27,994	30,128	30,948	26,691	26,614	29,960	28,800	0.6	0.07
KR704	11,409	13,135	13,728	14,695	14,007	14,474	15,091	16,238	16,328	17,501	3.8	0.90
KR705	33,132	36,056	32,223	35,762	38,518	38,560	38,995	34,769	30,938	37,838	0.5	0.03
KR706	11,204	14,030	16,113	16,446	15,548	17,987	18,556	20,440	17,510	17,231	4.3	0.61
KR707	12,456	13,810	13,935	14,510	14,422	16,186	14,664	16,301	20,838	18,670	4.5	0.80
KR708	6,125	4,289	4,298	4,295	4,530	4,851	4,759	4,452	4,385	5,091	-0.6	0.03
KR709	8,095	17,090	8,486	9,479	9,896	10,458	10,493	8,334	10,419	11,255	-0.1	0.00
KR710	14,426	17,644	15,148	16,853	14,529	15,544	14,020	15,756	19,861	16,459	1.1	0.09

LANGKAWI

KR801	20,936	22,049	22,918	24,412	25,641	26,422	31,009	32,875	35,740	35,637	6.5	0.97
KR802	10,561	11,659	12,051	11,346	13,376	13,420	14,220	13,834	15,763	15,563	4.2	0.91
KR803	7,726	7,873	9,611	8,454	9,358	11,272	9,917	11,460	11,523	11,903	4.9	0.84
KR804	2,729	2,890	3,095	3,148	12,722	9,638	3,682	4,100	3,877	4,338	4.7	0.08
KR805	12,322	11,901	12,471	13,837	14,135	15,773	16,934	17,505	18,869	18,061	5.5	0.94

YEARLY 16-HOUR TRAFFIC VOLUME (2008 - 2017)



$y = 2E-10e^{0.0181x} \mid R^2 = 0.818$
NORMAL GROWTH = 1.81%

*Yearly 16-hour Traffic Volume (2008 - 2017)
 & Normal Traffic Growth with Exponential Trendline for the Year 2017 in Kedah*

**1.90%
Increase**

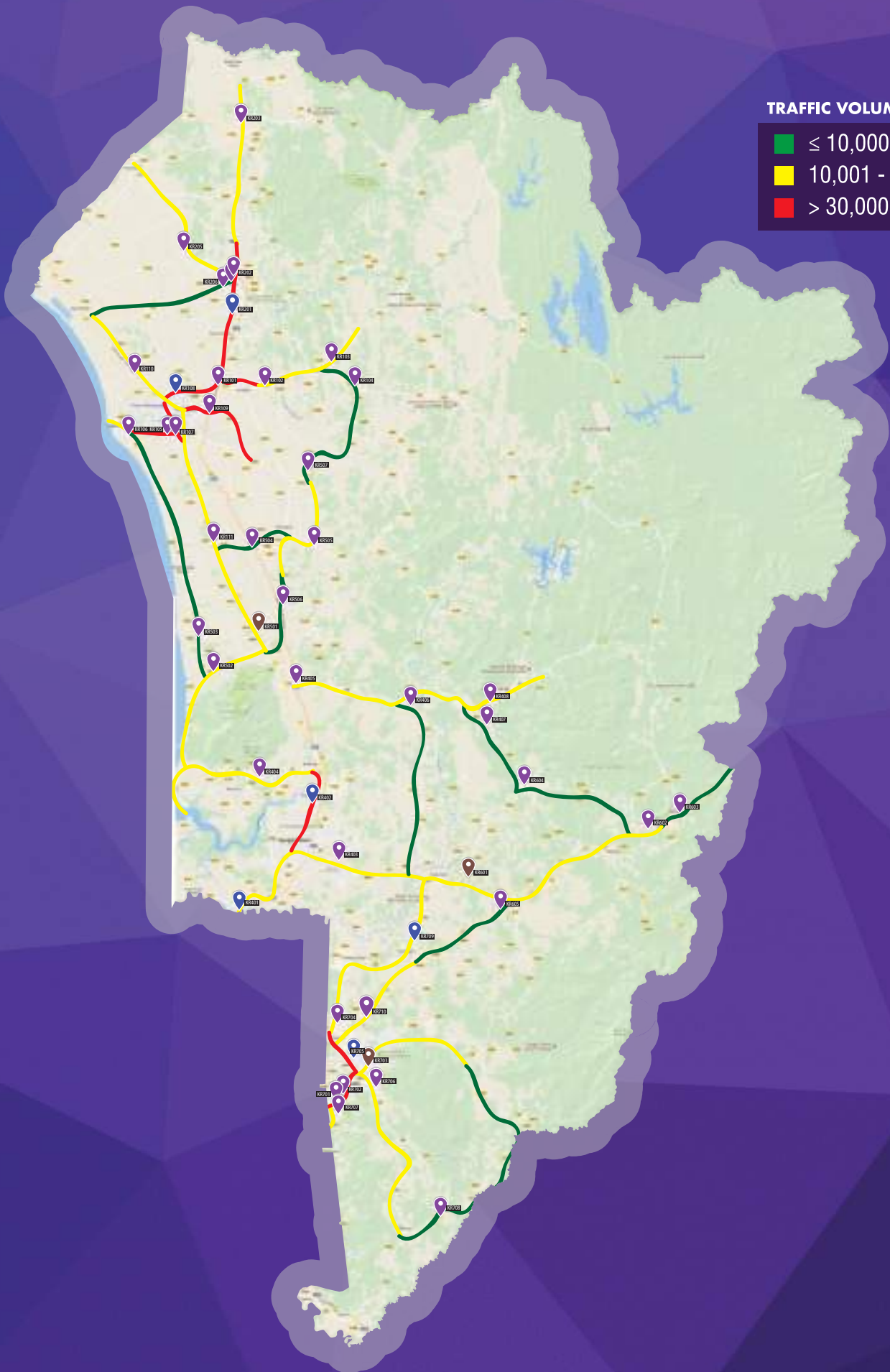
There are 52 census stations in Kedah where the 16-hour traffic volume demonstrates that the year 2017 possessed the highest traffic volume with 1,075,962 vehicles since the year 2008 until 2017. Between 2016 and 2017, there was rise of 1.90% vehicles.

For the year 2017, the observed traffic growth rate for the state of Kedah is 1.81%. The basis of traffic growth rate record is to be used as a projection indicator of subsequent traffic growth rate for road forethought as well as for the expansion of current and new roads in Kedah.



TRAFFIC VOLUME SCALE

- ≤ 10,000
- 10,001 - 30,000
- > 30,000



TRAFFIC VOLUME SCALE

- ≤ 10,000
- 10,001 - 30,000
- > 30,000



PULAU PINANG



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PULAU PINANG



26 **5**
5
CENSUS STATIONS **16**

DISTRIBUTION OF SURVEY STATIONS

Seberang Perai Utara	0	2	3
Seberang Perai Tengah	0	3	6
Seberang Perai Selatan	0	1	2
Pulau Pinang Timur Laut	2	0	2
Pulau Pinang Barat Daya	2	0	3

SEBERANG PERAI UTARA

Census Station Number	Survey Type	Route Number	KM	Description of Location	GPS Coordinate (WGS84) (Latitude, Longitude)		Type of Carriageway
PR101	3	P1	12.9	Titi Mukim - Permatang Bendahari	5.503	100.384	T 1-1
PR102	1	1	19.0	Butterworth - Kepala Batas - Sungai Petani	5.523	100.427	T 1-1
PR103	1	1	8.1	Butterworth - Bagan Ajam - Telok Ayer Tawar	5.462	100.383	T 1-1
PR104	3	P198	12.1	Butterworth - Sungai Dua - Lahar Yoi	5.455	100.441	T 1-1
PR105	3	P118	25.4	100m from Ara Kuda - Lunas junction	5.438	100.514	T 1-1

SEBERANG PERAI TENGAH

PR106	3	P119	21.7	Butterworth - Kubang Ulu - Ara Kuda	5.468	100.514	T 1-1
PR107	3	P188	8.1	Butterworth - Permatang Pauh - Kubang Semang	5.411	100.414	T 1-1
PR108	3	P12	20.9	Butterworth - Bukit Mertajam - Kulim	5.356	100.468	T 1-1
PR109	3	P12	15.8	Butterworth - Bukit Mertajam - Kulim	5.344	100.518	T 1-1
PR110	1	P12	9.7	Butterworth - Bukit Mertajam	5.365	100.435	T 2-2
PR111	3	P143	20.9	B'worth - Bukit Mertajam - Junjong (through Machang Bubok - Tasek)	5.330	100.515	T 1-1
PR112	3	P139	3.2	From junction to Route 1 (Jalan Rozhan)	5.326	100.478	T 2-2
PR116	1	1	16.9	Butterworth - Taiping	5.319	100.459	T 1-1
PR117	0	1	8.1	Butterworth - Taiping (through Prai)	5.370	100.416	K 2-2

SEBERANG PERAI SELATAN

PR113	3	P124	24.2	Butterworth - Simpang Empat - Tasek	5.285	100.496	T 1-1
PR114	3	P145	30.6	Butterworth - Tasek - Val D'or	5.243	100.496	T 1-1
PR115	1	1	32.2	Butterworth - Taiping	5.195	100.492	T 1-1

PULAU PINANG TIMUR LAUT

PR201	3	6	11.1	George Town - Telok Bahang (Jalan Keliling Pulau)	5.466	100.281	K 2-2
PR202	0	6	65.5	George Town - Bayan Lepas - Gelugor (Jalan Keliling Pulau)	5.357	100.310	K 2-2
PR207	3	220	11.0	Paya Terubong - Ayer Hitam	5.388	100.275	T 1-1
PR208	0	3113	0.5	Lebuhraya Lim Cheong Eu	5.345	100.308	K 3-3

PULAU PINANG BARAT DAYA

PR203	0	6	57.2	George Town - Bayan Lepas - Gelugor	5.298	100.270	K 3-3
PR204	3	6	45.1	George Town - Balik Pulau - Teluk Kumbar (Jalan Keliling Pulau)	5.333	100.217	T 1-1
PR205	3	6	38.6	George Town - Telok Bahang - Balik Pulau (Jalan Keliling Pulau)	5.365	100.217	T 1-1
PR206	3	P14	16.9	Jalan Tun Saadon	5.350	100.252	T 1-1
PR209	0	3113	7.0	Lebuhraya Bayan Lepas (Georgetown - Batu Maung)	5.318	100.301	K 3-3

SEBERANG PERAI UTARA

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
PR101	N/A	7,746	845	1800-1900	41.9	7.0	2.5	0.3	0.7	47.6	100.0
PR102	N/A	20,038	1,730	1800-1900	45.5	11.9	3.8	0.7	0.8	37.3	100.0
PR103	N/A	38,022	3,536	1800-1900	56.9	5.2	2.1	0.3	0.6	35.0	100.0
PR104	N/A	33,765	3,811	0700-0800	42.5	7.6	4.8	1.7	0.7	42.8	100.0
PR105	N/A	14,084	1,612	1800-1900	53.8	6.8	6.6	1.2	0.4	31.1	100.0

SEBERANG PERAI TENGAH

PR106	N/A	8,139	719	1200-1300	47.8	10.2	8.3	1.9	0.5	31.3	100.0
PR107	N/A	41,472	5,370	0800-0900	50.2	2.2	1.5	1.7	0.2	44.1	100.0
PR108	N/A	52,253	5,424	0800-0900	66.4	5.5	3.7	0.4	0.2	23.8	100.0
PR109	N/A	37,066	4,584	0700-0800	62.5	5.2	4.0	1.1	0.2	27.0	100.0
PR110	N/A	50,556	3,936	1700-1800	60.7	7.1	2.2	0.5	0.4	29.1	100.0
PR111	N/A	3,508	392	0800-0900	59.4	6.7	3.4	0.9	0.0	29.5	100.0
PR112	N/A	37,505	3,189	1200-1300	67.8	7.6	5.7	1.4	0.3	17.2	100.0
PR116	N/A	53,356	4,721	0700-0800	61.3	6.4	5.6	1.5	0.7	24.6	100.0
PR117	128,880	119,159	11,333	1800-1900	63.9	4.9	4.1	1.0	0.4	25.7	100.0

SEBERANG PERAI SELATAN

PR113	N/A	20,777	2,343	1800-1900	46.1	6.6	4.5	2.6	0.4	39.8	100.0
PR114	N/A	13,763	1,378	1500-1600	45.4	11.7	12.4	7.1	0.3	23.1	100.0
PR115	N/A	43,717	3,526	1800-1900	57.6	6.1	6.1	1.9	0.7	27.6	100.0

PULAU PINANG TIMUR LAUT

PR201	N/A	23,297	2,300	2000-2100	63.9	4.7	2.6	0.8	2.0	26.1	100.0
PR202	72,334	65,037	6,305	1800-1900	63.7	2.2	1.3	0.2	0.9	31.6	100.0
PR207	N/A	30,295	2,694	1800-1900	57.4	1.8	2.4	0.4	1.5	36.5	100.0
PR208	(130,826)	117,220	10,006	0800-0900	69.6	3.2	3.3	0.8	0.6	22.6	100.0

PULAU PINANG BARAT DAYA

PR203	66,776	59,182	6,446	0700-0800	57.7	2.0	2.2	0.3	1.2	36.6	100.0
PR204	N/A	28,956	4,790	0700-0800	47.6	1.7	2.4	0.1	0.9	47.2	100.0
PR205	N/A	14,312	1,864	0700-0800	43.7	4.4	3.0	0.3	0.7	48.0	100.0
PR206	N/A	11,906	1,559	0700-0800	53.8	3.6	1.9	0.5	0.6	39.7	100.0
PR209	43,920	38,930	3,690	0800-0900	60.4	4.6	6.4	1.6	1.4	25.6	100.0

SEBERANG PERAI UTARA

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
PR102	N/A	18,956	1,651	0700-0800	56.5	6.3	3.9	0.5	0.9	31.9	100.0
PR103	N/A	36,136	3,375	0700-0800	57.9	3.1	2.1	0.6	0.6	35.6	100.0
PR104	N/A	29,937	3,531	0700-0800	44.7	7.0	4.8	1.6	0.7	41.3	100.0
PR105	N/A	12,026	1,294	1800-1900	55.8	8.5	7.5	2.8	0.3	25.2	100.0

SEBERANG PERAI TENGAH

PR106	N/A	6,382	756	1700-1800	48.6	11.3	8.4	1.1	0.3	30.3	100.0
PR107	N/A	19,318	2,225	0700-0800	42.4	7.2	3.9	2.9	0.4	43.1	100.0
PR108	N/A	63,588	5,789	1800-1900	49.9	10.4	2.1	0.5	0.1	36.9	100.0
PR109	N/A	42,561	4,087	0800-0900	53.2	11.9	2.3	1.4	0.2	31.0	100.0
PR110	N/A	46,337	3,371	1800-1900	55.7	6.6	3.3	0.6	0.6	33.3	100.0
PR111	N/A	11,909	5,034	1800-1900	38.2	4.7	2.8	1.1	0.0	53.1	100.0
PR112	N/A	63,119	7,143	1800-1900	51.5	8.7	4.8	2.4	0.2	32.5	100.0
PR116	N/A	50,835	4,807	0800-0900	66.4	5.6	4.3	1.6	0.7	21.4	100.0
PR117	123,300	115,362	10,623	0700-0800	66.5	5.1	4.0	1.2	0.4	22.8	100.0

SEBERANG PERAI SELATAN

PR113	N/A	24,158	2,363	1800-1900	45.7	6.1	4.3	2.6	0.2	41.0	100.0
PR114	N/A	12,232	1,141	0700-0800	45.8	10.1	11.0	10.7	0.5	21.8	100.0
PR115	N/A	43,421	3,573	1800-1900	56.6	7.1	6.2	2.1	0.7	27.3	100.0

PULAU PINANG TIMUR LAUT

PR201	N/A	20,715	2,147	1400-1500	65.7	4.5	2.4	1.0	1.4	25.0	100.0
PR202	70,200	63,058	5,874	1700-1800	58.2	3.7	1.8	0.3	1.3	34.6	100.0
PR207	N/A	36,268	3,379	0600-0700	65.4	0.9	2.5	0.6	0.8	29.7	100.0
PR208	131,453	117,632	13,087	0700-0800	73.3	3.0	3.0	1.2	0.7	18.7	100.0

PULAU PINANG BARAT DAYA

PR203	73,883	64,457	5,559	0700-0800	58.0	2.0	1.8	0.5	1.3	36.3	100.0
PR204	N/A	14,296	1,473	0700-0800	40.8	6.0	4.5	0.5	2.7	45.5	100.0
PR205	N/A	12,923	1,368	1900-2000	46.7	3.8	3.7	0.4	1.1	44.3	100.0
PR206	N/A	11,187	1,418	1700-1800	50.4	4.6	2.0	0.3	0.7	41.9	100.0
PR209	63,829	56,308	6,512	1800-1900	65.0	3.4	4.8	1.2	1.1	24.5	100.0

SEBERANG PERAI UTARA

Census Station Number	16-Hour Traffic	Peak Hour	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Buses	Motorcycles	Total	Level of Service (LOS)	Capacity Year
PR101	8,014	1,065	41.3	6.3	2.2	0.3	0.8	49.1	100%	B	2042
PR102	19,497	1,690	51.0	9.1	3.8	0.6	0.8	34.6	100%	C	2037
PR103	37,079	3,456	57.4	4.1	2.1	0.5	0.6	35.3	100%	F	R
PR104	31,851	3,671	43.6	7.3	4.8	1.6	0.7	42.1	100%	F	R
PR105	13,055	1,453	54.8	7.7	7.1	2.0	0.3	28.2	100%	C	2043

SEBERANG PERAI TENGAH

PR106	7,261	738	48.2	10.8	8.3	1.5	0.4	30.8	100%	A	-
PR107	30,395	3,798	46.3	4.7	2.7	2.3	0.3	43.6	100%	F	R
PR108	57,921	5,607	58.1	8.0	2.9	0.5	0.2	30.4	100%	F	R
PR109	39,814	4,336	57.8	8.5	3.2	1.2	0.2	29.0	100%	F	R
PR110	48,446	3,654	58.2	6.9	2.8	0.5	0.5	31.2	100%	E	-
PR111	7,709	2,713	48.8	5.7	3.1	1.0	0.0	41.3	100%	F	R
PR112	50,312	5,166	59.6	8.1	5.2	1.9	0.2	24.8	100%	F	R
PR116	52,095	4,764	63.8	6.0	4.9	1.5	0.7	23.0	100%	F	R
PR117	117,260	10,978	65.2	5.0	4.0	1.1	0.4	24.3	100%	F	R

SEBERANG PERAI SELATAN

PR113	22,468	2,353	45.9	6.4	4.4	2.6	0.3	40.4	100%	F	R
PR114	12,998	1,260	45.6	10.9	11.7	8.9	0.4	22.5	100%	F	R
PR115	43,569	3,549	57.1	6.6	6.2	2.0	0.7	27.4	100%	F	R

PULAU PINANG TIMUR LAUT

PR201	22,006	2,224	64.8	4.6	2.5	0.9	1.7	25.6	100%	A	2064
PR202	64,047	6,089	61.0	3.0	1.6	0.3	1.1	33.1	100%	F	R
PR207	33,282	3,037	61.4	1.4	2.4	0.5	1.2	33.1	100%	F	R
PR208	117,426	11,546	71.4	3.1	3.1	1.0	0.6	20.7	100%	F	R

PULAU PINANG BARAT DAYA

PR203	61,819	6,002	57.8	2.0	2.0	0.4	1.2	36.5	100%	A	2028
PR204	21,626	3,132	44.2	3.9	3.5	0.3	1.8	46.4	100%	F	R
PR205	13,618	1,616	45.2	4.1	3.4	0.3	0.9	46.1	100%	D	2033
PR206	11,547	1,489	52.1	4.1	2.0	0.4	0.7	40.8	100%	C	-
PR209	47,619	5,101	62.7	4.0	5.6	1.4	1.2	25.1	100%	B	2068

SEBERANG PERAI UTARA

Census Station Number	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Normal Growth (%/yr)	R ²
PR101	7,616	7,485	7,187	6,652	7,650	7,432	8,681	6,688	7,792	8,014	0.7	0.07
PR102	18,037	18,035	20,746	20,478	20,738	21,200	19,453	18,230	18,396	19,497	0.0	0.00
PR103	37,454	37,590	42,788	33,928	31,303	31,130	34,966	34,613	34,619	37,079	-1.0	0.10
PR104	24,703	23,855	24,469	25,815	24,670	26,257	27,494	27,980	29,816	31,851	2.9	0.86
PR105	12,446	11,134	12,205	12,757	11,339	12,690	13,996	10,710	12,916	13,055	0.7	0.07

SEBERANG PERAI TENGAH

PR106	13,369	11,998	10,757	12,293	13,530	13,716	9,564	10,955	7,707	7,261	-5.6	0.55
PR107	8,260	8,666	10,353	10,553	9,921	12,143	13,952	22,437	22,244	30,395	14.1	0.89
PR108	22,605	31,712	30,706	46,409	45,483	43,724	49,981	44,252	52,455	57,921	8.5	0.78
PR109	34,363	37,012	24,609	45,895	45,001	52,655	52,986	49,173	42,627	39,814	3.9	0.25
PR110	50,214	48,730	52,129	49,765	41,678	44,632	43,738	37,662	44,666	48,446	-1.7	0.28
PR111	4,560	5,829	4,943	3,455	4,345	4,003	4,517	3,924	3,202	7,709	0.1	0.00
PR112	37,081	29,947	23,488	36,876	33,210	39,050	39,358	41,603	46,215	50,312	5.5	0.57
PR116	53,451	56,601	56,349	60,230	56,932	64,993	48,588	65,716	59,320	52,095	0.2	0.00
PR117	78,171	89,263	95,869	102,391	117,380	132,813	161,699	128,962	112,635	117,260	5.0	0.52

SEBERANG PERAI SELATAN

PR113	15,302	20,160	19,887	21,811	24,090	28,563	27,542	20,751	24,341	22,468	3.6	0.36
PR114	11,713	11,523	14,544	13,017	9,923	9,898	10,279	13,015	11,906	12,998	-0.1	0.00
PR115	35,236	35,062	37,548	39,617	43,137	44,684	44,249	42,148	41,309	43,569	2.4	0.65

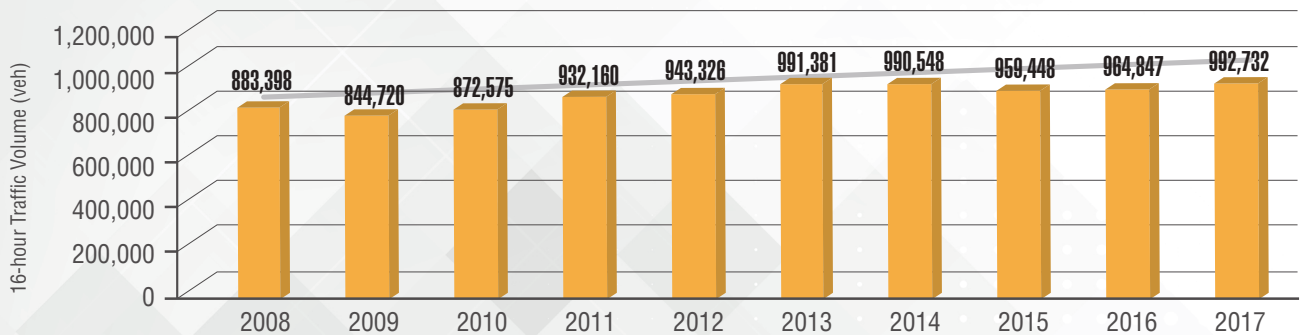
PULAU PINANG TIMUR LAUT

PR201	24,392	24,799	27,334	26,085	28,442	27,106	28,419	24,774	23,255	22,006	-1.0	0.13
PR202	73,316	75,234	81,717	82,488	91,517	81,583	72,034	67,613	69,456	64,047	-2.0	0.30
PR207	24,982	15,175	27,213	29,440	32,807	31,036	27,676	32,022	32,025	33,282	5.1	0.43
PR208	161,094	106,482	99,652	107,749	100,205	100,571	92,251	97,112	125,126	117,426	-1.4	0.07

PULAU PINANG BARAT DAYA

PR203	43,232	47,285	50,776	50,950	59,900	62,207	63,049	62,464	56,678	61,819	3.8	0.71
PR204	7,191	8,155	8,281	8,693	10,637	11,519	13,674	18,614	16,837	21,626	12.4	0.95
PR205	9,714	12,042	12,283	9,725	9,846	11,296	9,487	10,843	13,214	13,618	1.9	0.18
PR206	12,751	13,326	16,634	12,835	9,229	12,942	12,417	12,493	11,027	11,547	-2.1	0.18
PR209	62,145	57,620	60,108	62,253	60,415	63,543	60,502	54,699	45,068	47,619	-2.8	0.51

YEARLY 16-HOUR TRAFFIC VOLUME (2008 - 2017)



$y = 5E-09e^{0.0163x} \mid R^2 = 0.7203$
NORMAL GROWTH = 1.63%

*Yearly 16-hour Traffic Volume (2008 - 2017)
 & Normal Traffic Growth with Exponential Trendline for the Year 2017 in Pulau Pinang*

**2.81%
Increase**

For Pulau Pinang, there are 26 census stations. The 16-hour traffic volume displays the increase of vehicles for the year 2008 but dropped slightly in the following year. However, the traffic volume has increased 2.81% from the year 2016 to 2017.

For the year 2017, the observed traffic growth rate for the state of Pulau Pinang is 1.63%. The basis of traffic growth rate record is to be used as a projection indicator of subsequent traffic growth rate for road forethought as well as for the expansion of current and new roads in Pulau Pinang.



TRAFFIC VOLUME SCALE

- ≤ 10,000
- 10,001 - 30,000
- > 30,000

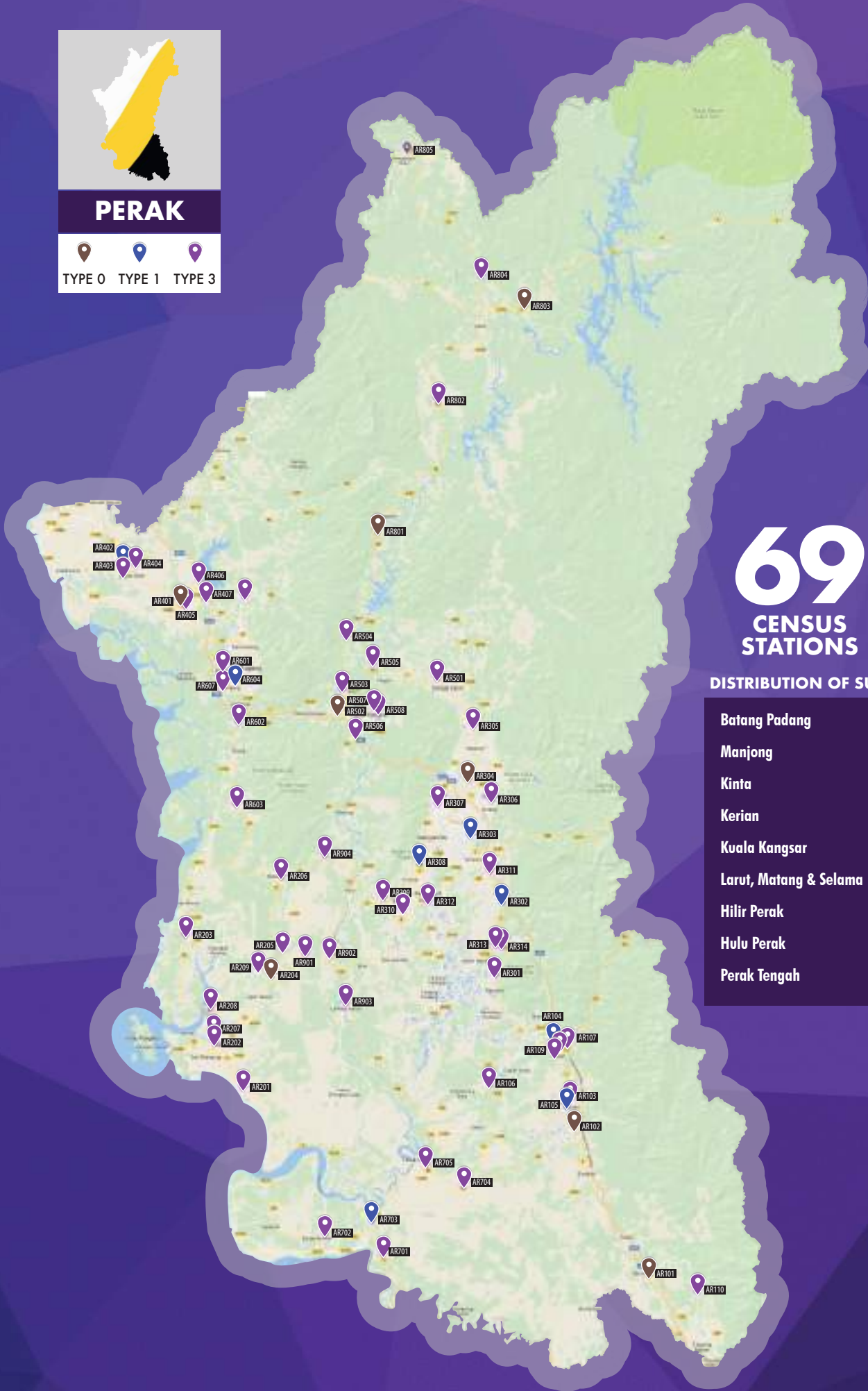


PERAK



JKR NEGERI PERAK

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69
CENSUS STATIONS

9
 7
 53

DISTRIBUTION OF SURVEY STATIONS

Batang Padang	3	1	6
Manjong	1	0	8
Kinta	1	3	10
Kerian	1	1	5
Kuala Kangsar	1	0	7
Larut, Matang & Selama	0	1	6
Hilir Perak	0	1	4
Hulu Perak	2	0	3
Perak Tengah	0	0	4

BATANG PADANG

Census Station Number	Survey Type	Route Number	KM	Description of Location	GPS Coordinate (WGS84) (Latitude, Longitude)		Type of Carriageway
AR101	0	1	106.6	Ipoh - Tanjong Malim (Slim River toll house)	3.821	101.415	K 2-2
AR102	0	1	70.8	Ipoh - Tanjong Malim (south of Bidor)	4.070	101.289	T 2-2
AR103	3	1	62.8	Ipoh - Tapah-Bidor	4.121	101.280	K 2-2
AR104	1	1	54.7	Ipoh - Tapah	4.213	101.255	T 1-1
AR105	0	58	68.4	Ipoh - Bidor - Telok Anson	4.105	101.275	T 1-1
AR106	3	70	56.4	Ipoh - Kampar - Changkat Jering	4.142	101.145	T 1-1
AR107	3	59	4.8	Tapah - Cameron Highlands	4.220	101.282	T 1-1
AR108	3	A119	3.2	Tapah - Chendering	4.206	101.259	T 1-1
AR109	3	A10	1.6	Tapah - Kampong Changkat Pantai	4.199	101.253	T 1-1
AR110	3	A121	122.4	Ipoh - Slim River - Behrang Ulu	3.741	101.503	T 1-1

MANJONG

AR201	3	5	103.0	Ipoh/Sitiawan - Kayan	4.137	100.728	T 1-1
AR202	3	18	95.8	Ipoh - Lumut	4.211	100.680	K 2-2
AR203	3	60	86.9	Damar Laut - Pantai Remis	4.394	100.631	T 1-1
AR204	0	5	78.9	Ipoh - Lumut	4.325	100.776	K 2-2
AR205	3	71	72.5	Ayer Tawar - Beruas	4.372	100.794	T 1-1
AR206	3	73	55.5	Tanjong Belanja - Beruas	4.493	100.793	T 1-1
AR207	3	100	5.0	Ipoh - Lumut	4.227	100.677	T 1-1
AR208	3	60	29.0	Pantai Remis - Kg Baru	4.274	100.673	T 1-1
AR209	3	A12	3.0	Air Tawar - Pantai Remis	4.338	100.753	T 1-1

KINTA

AR301	3	1	35.9	Ipoh - Kampar	4.328	101.155	K 2-2
AR302	1	1	22.5	Ipoh - Kampar	4.449	101.166	K 2-2
AR303	1	1	5.6	Ipoh - Gopeng	4.562	101.112	K 2-2
AR304	0	1	8.1	Ipoh - Kuala Kangsar	4.657	101.109	K 2-2
AR305	3	1	18.7	Ipoh - Kuala Kangsar	4.746	101.118	K 2-2
AR306	3	A13	9.7	Ipoh - Tanjong Rambutan	4.622	101.149	K 3-3
AR307	3	A1	3.4	Ipoh - Jelapang	4.616	101.058	K 3-3
AR308	1	5	9.7	Ipoh - Lumut	4.517	101.027	T 1-1
AR309	3	73	22.5	Ipoh - Siputeh	4.457	100.966	T 1-1
AR310	3	5	22.5	Ipoh - Lumut	4.436	101.999	K 2-2
AR311	3	A8	15.3	Ipoh - Batu Gajah	4.502	101.146	K 2-2
AR312	3	A15	22.5	Batu Gajah - Tanjong Tualang	4.450	101.042	T 1-1
AR313	3	A114	1.6	Kuala Dipang - Malim Nawar	4.377	101.155	T 1-1
AR314	3	A119	32.2	Kuala Dipang - Sahom	4.374	101.166	T 1-1

KERIAN

Census Station Number	Survey Type	Route Number	KM	Description of Location	GPS Coordinate (WGS84) (Latitude, Longitude)		Type of Carriageway
AR401	0	1	98.2	Ipoh - Butterworth	4.952	100.628	T 1-1
AR402	1	1	111.1	Ipoh - Butterworth	5.027	100.527	K 2-2
AR403	3	75	11.0	Bagan Serai - Kuala Kurau	5.016	100.523	T 1-1
AR404	3	147	31.0	Bagan Serai - Selama	5.019	100.546	T 1-1
AR405	3	A100	25.0	Semanggol - Kuala Kurau	4.951	100.629	T 1-1
AR406	3	A111	35.0	Semanggol - Changkat Lobak	4.994	100.653	T 1-1
AR407	3	A4	21.0	Gunung Semanggol - Taiping	4.962	100.665	T 1-1

KUALA KANGSAR

AR501	3	1	30.8	Ipoh - Kuala Kangsar	4.714	101.142	K 2-2
AR502	0	1	56.0	Ipoh - Kuala Kangsar - Changkat Jering (Kg. Kuala Dal)	4.771	100.889	T 1-1
AR503	3	A76	56.4	Ipoh - Kuala Kangsar - Lenggong (Lunuk Merbau)	4.808	100.896	T 1-1
AR504	3	A76	68.1	Ipoh - Kuala Kangsar - Grik (Kg. Chuar Hulu)	4.897	100.903	T 1-1
AR505	3	A11	46.7	Ipoh - Kampong Tamuan - Kati (Kg. Lubuk Chapin)	4.853	100.948	T 1-1
AR506	3	A3	53.9	Ipoh - Kuala Kangsar - Kenas RPA 4, Jerlun)	4.746	100.920	T 1-1
AR507	3	A164	5.0	Simpang Sayong - Jambatan Sultan Abdul Jalil	4.781	100.953	K 2-2
AR508	3	A164	6.0	Simpang Sayong - Tg. Belanja	4.779	100.953	K 2-2

LARUT, MATANG & SELAMA

AR601	3	1	82.1	Ipoh - Butterworth	4.848	100.694	T 1-1
AR602	3	60	79.7	Sitiawan - Taiping	4.754	100.720	T 1-1
AR603	3	60	96.6	Sitiawan - Taiping	4.614	100.717	T 1-1
AR604	1	74	83.7	Kuala Sepetang - Taiping	4.824	100.714	K 2-2
AR605	3	A7	101.4	Taiping - Selama	4.965	100.730	T 1-1
AR606	3	A5	101.4	Kuala Sepetang - Taiping	4.965	4.965	T 1-1
AR607	3	74	8.1	Kuala Sepetang - Taiping	4.814	100.695	T 1-1

HILIR PERAK

AR701	3	5	112.7	Ipoh - Telok Intan - Sabak	3.855	100.965	K 2-2
AR702	3	69	117.5	Ipoh - Simpang Empat - Bagan Datoh	3.890	100.867	T 1-1
AR703	1	5	106.3	Ipoh - Telok Intan - Simpang Empat	3.913	100.946	T 1-1
AR704	3	58	78.9	Ipoh - Changkat Jong - Telok Intan	3.974	101.101	T 1-1
AR705	3	109	-	100m north of Sg. Manik / Kg.Gajah Road junction	4.009	101.038	T 1-1

HULU PERAK

Census Station Number	Survey Type	Route Number	KM	Description of Location	GPS Coordinate (WGS84) (Latitude, Longitude)	Type of Carriageway
AR801	0	76	40.0	Kuala Kangsar - Baling	5.074 100.956	T 1-1
AR802	3	76	133.6	Ipoh - Lenggong - Grik	5.295 101.058	T 1-1
AR803	0	4	2.4	Lebuhraya Timur - Barat	5.455 101.204	T 1-1
AR804	3	76	164.2	Ipoh - Grik - Kroh	5.506 101.132	T 1-1
AR805	3	77	2.0	Pengkalan Hulu - Bentong	5.717 101.005	T 1-1

PERAK TENGAH

AR901	3	5	49.1	Ipoh - Pusing - Bota Kiri - Sitiawan	4.363 100.833	K 2-2
AR902	3	72	0.9	Tanjong Belanja - Kampong Bota Kiri	4.363 100.875	T 1-1
AR903	3	109	26.6	Parit - Kg. Gajah	4.279 100.902	T 1-1
AR904	3	A3	82.9	Ipoh - Kuala Kangsar - Kampong Buloh Akar	4.530 100.866	T 1-1

BATANG PADANG

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	BusSES	Motorcycles	Total
AR102	17,097	14,383	1,108	1800-1900	65.6	9.3	8.4	5.3	0.8	10.6	100.0
AR103	N/A	13,442	1,167	1700-1800	57.1	9.8	8.8	5.4	0.7	18.2	100.0
AR104	N/A	14,535	1,246	1700-1800	60.8	8.3	7.1	6.5	0.8	16.4	100.0
AR105	7,912	7,019	558	0700-0800	50.3	11.7	7.6	2.4	0.7	27.4	100.0
AR106	N/A	6,373	550	0700-0800	49.1	12.0	15.5	7.1	1.1	15.2	100.0
AR107	N/A	7,780	714	0700-0800	47.6	10.3	5.1	1.3	0.7	35.0	100.0
AR108	N/A	1,323	171	0700-0800	28.0	8.2	4.8	1.1	0.1	57.7	100.0
AR109	N/A	8,164	978	0700-0800	59.1	8.6	5.3	1.1	0.9	25.0	100.0
AR110	N/A	1,827	220	1700-1800	38.5	8.3	3.8	1.3	0.3	47.8	100.0

MANJONG

AR201	N/A	17,581	1,638	0700-0800	56.5	11.6	7.1	6.2	0.8	17.8	100.0
AR202	N/A	47,256	3,634	1400-1500	65.1	12.0	2.0	0.1	0.4	20.3	100.0
AR203	N/A	12,008	984	1700-1800	53.0	13.6	10.6	7.6	0.5	14.6	100.0
AR204	28,630	26,238	2,339	1800-1900	61.6	11.3	6.7	4.7	0.8	14.9	100.0
AR205	N/A	4,532	405	1800-1900	52.7	8.5	7.7	2.6	1.0	27.4	100.0
AR206	N/A	5,677	554	1400-1500	36.4	7.4	5.4	1.9	0.6	48.3	100.0
AR207	N/A	19,720	1,898	0700-0800	63.2	12.6	3.5	1.4	0.6	18.7	100.0
AR208	N/A	14,560	1,245	1700-1800	53.1	12.1	6.9	11.5	0.7	15.7	100.0
AR209	N/A	6,676	552	0700-0800	52.1	15.9	12.2	4.4	1.0	14.4	100.0

KINTA

AR301	N/A	28,275	2,487	1700-1800	67.6	6.0	7.7	2.9	1.1	14.6	100.0
AR302	N/A	26,986	2,576	1700-1800	69.6	5.9	6.6	4.5	0.9	12.4	100.0
AR303	N/A	86,954	6,917	1700-1800	75.5	7.1	3.6	0.5	0.4	12.8	100.0
AR304	87,353	78,962	7,315	0700-0800	63.4	5.4	4.0	2.0	0.5	24.7	100.0
AR305	N/A	20,611	2,101	0700-0800	57.9	6.1	5.1	2.6	0.9	27.5	100.0
AR306	N/A	34,716	3,552	1700-1800	61.4	6.2	3.4	0.2	0.3	28.5	100.0
AR307	N/A	36,568	2,985	1400-1500	54.6	8.2	6.1	0.9	0.5	29.6	100.0
AR308	N/A	29,701	2,798	0800-0900	75.7	5.4	4.4	2.1	0.4	11.9	100.0
AR309	N/A	6,234	643	0900-1000	50.1	15.8	5.8	2.2	3.2	23.0	100.0
AR310	N/A	20,362	2,246	1700-1800	58.0	12.1	5.6	5.5	1.6	17.2	100.0
AR311	N/A	14,356	1,398	0800-0900	38.9	18.1	13.7	5.0	1.9	22.5	100.0
AR312	N/A	13,015	1,376	0700-0800	58.8	4.7	3.8	1.7	0.9	30.0	100.0
AR313	N/A	6,894	681	1700-1800	52.0	5.9	6.3	4.8	0.8	30.2	100.0
AR314	N/A	756	182	0600-0700	30.4	9.4	10.3	11.1	2.9	35.8	100.0

KERIAN

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
AR402	N/A	15,421	1,395	1700-1800	58.9	8.0	8.1	4.1	0.9	19.9	100.0
AR403	N/A	15,692	1,515	1700-1800	47.7	6.6	4.6	0.6	0.6	39.9	100.0
AR404	N/A	8,423	916	1000-1100	46.8	9.7	6.8	1.3	0.3	35.2	100.0
AR405	N/A	7,140	683	0800-0900	38.9	5.0	3.9	0.8	0.5	50.8	100.0
AR406	N/A	4,081	501	0700-0800	51.5	7.1	4.8	1.4	0.4	34.8	100.0
AR407	N/A	5,992	595	0700-0800	51.0	6.7	5.6	1.2	0.9	34.6	100.0

KUALA KANGSAR

AR501	N/A	20,039	1,990	0700-0800	52.6	8.7	5.9	3.7	1.0	28.0	100.0
AR502	16,061	14,356	1,276	1700-1800	58.2	6.3	6.7	7.4	0.5	20.9	100.0
AR503	N/A	9,751	849	0700-0800	60.7	11.5	5.9	2.8	1.5	17.7	100.0
AR504	N/A	7,055	576	0700-0800	63.2	12.4	5.8	4.6	1.2	12.8	100.0
AR505	N/A	4,828	468	0700-0800	48.1	9.2	5.7	3.0	0.2	33.7	100.0
AR506	N/A	9,702	908	0700-0800	52.3	7.5	3.6	1.9	0.9	33.8	100.0
AR507	N/A	14,060	1,585	1700-1800	53.1	7.6	6.9	4.7	0.7	27.0	100.0
AR508	N/A	10,734	987	0700-0800	45.3	7.6	6.4	3.5	0.5	36.8	100.0

LARUT, MATANG & SELAMA

AR601	N/A	20,055	2,299	0700-0800	51.1	7.9	11.3	6.8	1.1	21.6	100.0
AR602	N/A	14,227	1,176	1700-1800	49.4	9.6	12.2	7.5	0.5	20.7	100.0
AR603	N/A	4,582	414	1700-1800	32.0	9.5	15.3	10.0	0.4	32.8	100.0
AR604	N/A	39,588	3,273	1800-1900	61.0	8.6	3.9	1.2	0.6	24.7	100.0
AR605	N/A	3,417	293	1700-1800	49.0	8.8	5.6	1.4	0.6	34.7	100.0
AR606	N/A	11,439	1,361	0700-0800	51.3	6.9	7.4	0.9	0.6	32.9	100.0
AR607	N/A	19,105	1,796	1700-1800	50.8	8.4	6.4	1.1	0.4	32.8	100.0

HILIR PERAK

AR701	N/A	10,283	985	1700-1800	46.3	15.5	14.9	14.0	0.7	8.7	100.0
AR702	N/A	10,461	1,014	1700-1800	55.6	10.0	5.0	2.1	0.5	26.8	100.0
AR703	27,555	27,555	2,126	1500-1600	62.1	14.9	7.4	4.4	0.5	19.8	100.0
AR704	N/A	11,872	1,001	1700-1800	57.6	11.4	9.5	5.8	1.7	14.0	100.0
AR705	N/A	6,358	593	1700-1800	63.6	12.1	7.0	3.1	0.3	13.9	100.0

HULU PERAK

AR801	6,272	5,595	485	1700-1800	66.6	13.6	7.9	2.9	1.1	8.0	100.0
AR802	N/A	6,859	648	0700-0800	47.2	12.2	6.1	3.2	1.0	30.3	100.0
AR803	4,395	3,646	316	1700-1800	59.1	13.0	7.8	6.2	1.3	12.5	100.0
AR804	N/A	5,903	699	1700-1800	46.4	8.6	4.4	1.4	0.7	38.4	100.0
AR805	N/A	5,107	628	1100-1200	38.7	10.0	2.8	1.3	0.2	47.1	100.0

PERAK TENGAH

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
AR902	N/A	4,645	419	0700-0800	44.6	10.9	12.0	1.9	0.2	30.4	100.0
AR903	N/A	6,438	569	0900-1000	54.1	11.8	5.7	2.0	0.5	25.8	100.0
AR904	N/A	1,609	145	1800-1900	44.3	10.0	8.3	4.2	1.2	32.1	100.0

BATANG PADANG

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
AR102	13,339	10,969	876	1700-1800	54.7	11.3	10.0	7.8	0.8	15.4	100.0
AR103	N/A	14,053	1,280	0700-0800	49.7	17.1	6.1	3.5	0.9	22.7	100.0
AR104	N/A	15,655	1,371	1700-1800	61.4	7.8	5.9	6.6	0.7	17.7	100.0
AR105	7,692	6,946	546	1900-2000	52.7	8.3	6.1	3.7	0.6	28.6	100.0
AR106	N/A	6,689	509	1700-1800	50.5	12.7	18.0	5.5	0.9	12.4	100.0
AR107	N/A	8,640	751	1700-1800	47.1	9.9	4.8	2.7	0.9	34.7	100.0
AR108	N/A	14,053	1,280	0700-0800	37.3	7.2	5.7	0.0	0.0	49.9	100.0
AR109	N/A	9,335	1,065	0700-0800	60.1	10.2	5.7	0.8	0.7	22.5	100.0
AR110	N/A	1,679	235	0700-0800	40.6	8.5	4.1	1.7	0.4	44.8	100.0

MANJONG

AR201	N/A	14,600	1,528	0700-0800	49.7	17.1	6.1	3.5	0.9	22.7	100.0
AR202	N/A	45,878	3,819	1500-1600	63.1	16.5	2.5	0.1	0.4	17.5	100.0
AR203	N/A	11,667	1,032	1700-1800	53.8	13.9	10.0	6.5	0.5	15.3	100.0
AR204	31,192	28,529	2,429	1700-1800	60.4	12.2	7.3	5.8	0.9	13.4	100.0
AR205	N/A	4,959	462	0700-0800	49.1	10.5	8.9	5.0	0.8	25.7	100.0
AR206	N/A	5,195	581	0700-0800	40.8	7.1	7.7	3.6	0.5	40.3	100.0
AR207	N/A	18,890	1,855	0700-0800	59.4	18.4	4.0	1.3	0.8	16.1	100.0
AR208	N/A	13,136	1,178	1700-1800	51.5	19.2	7.6	4.9	0.6	16.2	100.0
AR209	N/A	6,913	596	0700-0800	54.0	14.0	12.9	4.6	1.2	13.4	100.0

KINTA

AR301	N/A	31,547	3,526	0700-0800	60.9	9.2	8.3	5.7	1.4	14.5	100.0
AR302	N/A	29,229	3,018	1800-1900	71.1	5.7	6.1	4.4	0.8	12.0	100.0
AR303	N/A	87,059	7,254	1800-1900	72.7	8.8	4.3	0.7	0.4	13.1	100.0
AR304	75,415	68,695	5,954	0700-0800	61.9	10.1	4.4	2.0	0.6	21.1	100.0
AR305	N/A	23,615	2,853	0700-0800	53.6	6.1	5.6	2.9	1.6	30.2	100.0
AR306	N/A	34,485	3,786	1700-1800	64.2	4.6	3.8	0.8	0.5	26.0	100.0
AR307	N/A	39,404	3,590	1700-1800	58.1	8.3	3.5	0.9	0.7	28.4	100.0
AR308	N/A	26,966	2,660	0700-0800	74.0	5.6	5.0	2.2	0.4	12.8	100.0
AR309	N/A	6,743	861	1700-1800	49.1	16.0	5.7	1.1	0.7	27.3	100.0
AR310	N/A	20,585	1,798	1800-1900	55.3	14.4	8.9	5.8	0.6	15.0	100.0
AR311	N/A	24,128	2,561	0700-0800	49.9	10.7	7.1	1.6	0.7	30.0	100.0
AR312	N/A	24,128	2,561	0700-0800	49.9	10.7	7.1	1.6	0.7	30.0	100.0
AR313	N/A	6,697	643	1700-1800	56.0	7.0	5.9	4.6	0.9	25.6	100.0
AR314	N/A	1,334	274	0600-0700	36.3	8.8	10.3	12.2	1.2	31.2	100.0

KERIAN

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
AR401	17,909	16,072	1,293	0700-0800	64.2	6.3	7.1	3.4	0.7	18.3	100.0
AR402	N/A	15,046	1,189	1700-1800	55.9	9.1	7.4	4.1	0.9	22.6	100.0
AR403	N/A	13,614	1,262	0700-0800	46.9	7.3	3.3	0.3	0.4	41.8	100.0
AR404	N/A	7,233	627	0700-0800	48.6	9.7	6.5	1.0	0.5	33.7	100.0
AR405	N/A	6,676	832	0700-0800	42.0	6.9	3.8	0.6	0.5	46.3	100.0
AR406	N/A	3,795	429	0700-0800	54.0	9.3	5.8	1.4	0.4	29.1	100.0
AR407	N/A	6,242	760	0700-0800	56.6	8.9	4.0	0.5	1.0	28.9	100.0

KUALA KANGSAR

AR501	N/A	20,846	2,021	0700-0800	56.4	8.4	4.8	4.8	0.9	24.7	100.0
AR502	16,098	14,315	1,262	1700-1800	58.3	8.0	6.7	6.2	0.4	20.4	100.0
AR503	N/A	9,952	962	1700-1800	64.2	9.6	5.5	3.2	1.2	16.3	100.0
AR504	N/A	7,413	590	1600-1700	62.0	13.2	7.2	4.9	0.9	11.8	100.0
AR505	N/A	4,558	543	0700-0800	51.1	9.1	6.7	3.4	0.1	29.6	100.0
AR506	N/A	9,191	994	0700-0800	54.5	6.9	4.1	1.7	0.8	32.1	100.0
AR507	N/A	7,013	708	0700-0800	47.7	5.2	5.7	2.4	0.2	38.7	100.0
AR508	N/A	8,623	946	0700-0800	53.9	5.9	3.8	2.2	0.2	34.0	100.0

LARUT, MATANG & SELAMA

AR601	N/A	18,061	2,169	0700-0800	47.6	9.8	12.0	7.2	1.2	22.1	100.0
AR602	N/A	4,249	417	1700-1800	29.6	8.4	16.6	13.6	0.4	31.4	100.0
AR603	N/A	13,871	1,079	1700-1800	45.0	11.0	13.6	7.6	0.5	22.3	100.0
AR604	N/A	36,550	2,982	1700-1800	61.2	8.7	4.2	1.2	0.9	23.7	100.0
AR605	N/A	2,994	258	0700-0800	50.6	8.8	7.3	2.0	0.5	30.7	100.0
AR606	N/A	9,965	1,422	0700-0800	53.9	7.0	6.5	1.3	0.7	30.6	100.0
AR607	N/A	20,482	2,075	1800-1900	49.8	8.9	6.0	0.7	0.5	34.1	100.0

HILIR PERAK

AR701	N/A	9,333	836	1400-1500	45.6	17.2	16.8	11.5	0.8	8.2	100.0
AR702	N/A	10,627	1,042	0700-0800	54.6	10.0	8.1	3.1	0.4	23.9	100.0
AR703	N/A	24,880	1,948	1700-1800	56.3	11.3	7.7	4.5	0.6	19.6	100.0
AR704	N/A	11,788	1,096	1700-1800	52.1	17.1	9.8	5.3	1.8	13.9	100.0
AR705	N/A	11,235	889	1700-1800	58.1	12.9	9.9	10.2	0.9	7.9	100.0

HULU PERAK

AR801	6,645	5,857	530	1600-1700	66.4	13.8	7.3	3.3	1.1	8.1	100.0
AR802	N/A	6,546	628	1400-1500	48.7	12.4	6.5	5.2	1.3	25.9	100.0
AR803	5,072	4,201	357	1500-1600	61.6	10.9	6.4	5.9	1.4	13.8	100.0
AR804	N/A	5,617	567	0700-0800	44.0	11.0	4.4	1.6	0.9	38.1	100.0
AR805	N/A	6,912	770	1800-1900	39.0	12.4	1.8	0.6	0.2	46.0	100.0

PERAK TENGAH

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
AR901	N/A	25,505	2,147	0700-0800	59.4	10.4	9.2	6.1	0.8	14.1	100.0
AR902	N/A	5,275	572	0600-0700	43.8	10.9	12.9	5.3	0.1	27.0	100.0
AR903	N/A	7,661	717	0700-0800	52.3	8.2	8.4	7.8	0.5	22.8	100.0
AR904	N/A	1,541	139	1400-1500	47.8	8.6	8.0	4.2	1.2	30.1	100.0

BATANG PADANG

Census Station Number	16-Hour Traffic	Peak Hour	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Buses	Motorcycles	Total	Level of Service (LOS)	Capacity Year
AR101	14,913	1,335	64.2	8.9	5.8	5.4	0.5	15.2	100%	A	2087
AR102	12,676	992	60.1	10.3	9.2	6.5	0.8	13.0	100%	C	2049
AR103	13,748	1,224	53.4	13.4	7.5	4.4	0.8	20.5	100%	A	2140
AR104	15,095	1,308	61.1	8.1	6.5	6.5	0.8	17.0	100%	E	2029
AR105	6,982	552	51.5	10.0	6.8	3.0	0.7	28.0	100%	A	-
AR106	6,531	530	49.8	12.3	16.8	6.3	1.0	13.8	100%	A	2090
AR107	8,210	733	47.3	10.1	4.9	2.0	0.8	34.9	100%	A	2039
AR108	7,688	726	32.6	7.7	5.3	0.6	0.0	53.8	100%	A	2034
AR109	8,750	1,022	59.6	9.4	5.5	0.9	0.8	23.7	100%	A	2030
AR110	1,753	643	39.5	8.4	3.9	1.5	0.3	46.3	100%	A	2047

MANJONG

AR201	16,091	1,583	53.1	14.4	6.6	4.8	0.8	20.2	100%	F	R
AR202	46,567	3,727	64.1	14.3	2.2	0.1	0.4	18.9	100%	A	2052
AR203	11,838	1,008	53.4	13.8	10.3	7.0	0.5	14.9	100%	C	2030
AR204	27,384	2,384	61.0	11.8	7.0	5.3	0.8	14.1	100%	A	2047
AR205	4,746	434	50.9	9.5	8.3	3.8	0.9	26.5	100%	A	2057
AR206	5,436	568	38.6	7.2	6.5	2.8	0.6	44.3	100%	A	2032
AR207	19,305	1,877	61.3	15.5	3.7	1.3	0.7	17.4	100%	D	2019
AR208	13,848	1,212	52.3	15.6	7.2	8.2	0.6	16.0	100%	C	2023
AR209	6,795	574	53.1	14.9	12.5	4.5	1.1	13.9	100%	A	2051

KINTA

AR301	29,911	3,007	64.3	7.6	8.0	4.3	1.3	14.6	100%	C	2030
AR302	28,108	2,797	70.4	5.8	6.3	4.5	0.9	12.2	100%	B	2049
AR303	87,006	7,086	74.1	7.9	3.9	0.6	0.4	12.9	100%	F	R
AR304	73,829	6,634	62.6	7.7	4.2	2.0	0.5	22.9	100%	F	R
AR305	22,113	2,477	55.8	6.1	5.3	2.7	1.2	28.9	100%	A	2082
AR306	34,601	3,669	62.8	5.4	3.6	0.5	0.4	27.3	100%	A	2053
AR307	37,986	3,288	56.4	8.3	4.8	0.9	0.6	29.0	100%	A	2026
AR308	28,334	2,729	74.9	5.5	4.7	2.2	0.4	12.4	100%	F	R
AR309	6,489	752	49.6	15.9	5.7	1.6	2.0	25.2	100%	A	-
AR310	20,474	2,022	56.7	13.2	7.3	5.7	1.1	16.1	100%	A	-
AR311	19,242	1,980	44.4	14.4	10.4	3.3	1.3	26.2	100%	A	2032
AR312	18,572	1,969	54.3	7.7	5.5	1.7	0.8	30.0	100%	F	R
AR313	6,796	662	54.0	6.4	6.1	4.7	0.8	27.9	100%	A	2059
AR314	1,045	228	33.4	9.1	10.3	11.7	2.1	33.5	100%	A	2091

KERIAN

Census Station Number	16-Hour Traffic	Peak Hour	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Buses	Motorcycles	Total	Level of Service (LOS)	Capacity Year
AR401	16,265	1,282	62.4	7.2	7.5	3.2	0.7	18.9	100%	C	2030
AR402	15,233	1,292	57.4	8.5	7.8	4.1	0.9	21.2	100%	A	2099
AR403	14,653	1,389	47.3	6.9	4.0	0.5	0.5	40.9	100%	C	2054
AR404	7,828	772	47.7	9.7	6.6	1.1	0.4	34.5	100%	A	2072
AR405	6,908	758	40.5	6.0	3.9	0.7	0.5	48.5	100%	A	2039
AR406	3,938	465	52.7	8.2	5.3	1.4	0.4	32.0	100%	A	2087
AR407	6,117	678	53.8	7.8	4.8	0.9	0.9	31.8	100%	A	2069

KUALA KANGSAR

AR501	20,443	2,006	54.5	8.5	5.4	4.2	1.0	26.4	100%	A	2054
AR502	14,335	1,269	58.2	7.2	6.7	6.8	0.4	20.7	100%	D	2032
AR503	9,852	906	62.4	10.5	5.7	3.0	1.3	17.0	100%	A	2041
AR504	7,234	583	62.6	12.8	6.5	4.8	1.0	12.3	100%	A	2110
AR505	4,693	506	49.6	9.1	6.2	3.2	0.2	31.7	100%	A	2063
AR506	9,447	951	53.4	7.2	3.8	1.8	0.9	33.0	100%	A	2035
AR507	10,537	1,147	50.4	6.4	6.3	3.6	0.5	32.9	100%	A	2045
AR508	9,679	967	49.6	6.7	5.1	2.9	0.4	35.4	100%	A	2071

LARUT, MATANG & SELAMA

AR601	19,058	2,234	49.4	8.9	11.7	7.0	1.2	21.9	100%	F	R
AR602	9,238	797	39.5	9.0	14.4	10.5	0.5	26.1	100%	B	2054
AR603	9,227	747	38.5	10.2	14.4	8.8	0.5	27.5	100%	B	2064
AR604	38,069	3,127	61.1	8.7	4.0	1.2	0.8	24.2	100%	B	-
AR605	3,206	276	49.8	8.8	6.5	1.7	0.6	32.7	100%	A	2100
AR606	10,702	1,392	52.6	6.9	7.0	1.1	0.6	31.7	100%	D	2023
AR607	19,794	1,936	50.3	8.6	6.2	0.9	0.5	33.5	100%	F	R

HILIR PERAK

AR701	9,808	911	45.9	16.3	15.8	12.7	0.7	8.4	100%	A	2134
AR702	10,544	1,028	55.1	10.0	6.6	2.6	0.4	25.3	100%	B	2035
AR703	26,218	2,037	59.2	13.1	7.5	4.4	0.6	19.7	100%	F	R
AR704	11,830	1,049	54.9	14.2	9.7	5.5	1.7	13.9	100%	D	2031
AR705	8,797	741	60.9	12.5	8.4	6.6	0.6	10.9	100%	A	2055

HULU PERAK

Census Station Number	16-Hour Traffic	Peak Hour	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Buses	Motorcycles	Total	Level of Service (LOS)	Capacity Year
AR801	2,798	507	66.5	13.7	7.6	3.1	1.1	8.1	100%	A	-
AR802	6,703	638	47.9	12.3	6.3	4.2	1.2	28.1	100%	A	-
AR803	3,923	336	60.4	12.0	7.1	6.0	1.4	13.2	100%	A	2067
AR804	5,760	633	45.2	9.8	4.4	1.5	0.8	38.3	100%	A	-
AR805	6,010	699	38.8	11.2	2.3	0.9	0.2	46.6	100%	A	2076

PERAK TENGAH

AR901	24,280	2,126	59.0	12.7	9.0	4.8	0.8	13.8	100%	A	2028
AR902	4,960	496	44.2	10.9	12.4	3.6	0.2	28.7	100%	A	2032
AR903	7,050	643	53.2	10.0	7.1	4.9	0.5	24.3	100%	A	2035
AR904	1,575	142	46.1	9.3	8.2	4.2	1.2	31.1	100%	A	2079

BATANG PADANG

Census Station Number	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Normal Growth (%/yr)	R ²
AR101	13,854	15,038	15,323	14,039	14,431	15,328	16,501	16,736	15,187	14,913	1.0	0.26
AR102	12,041	11,503	14,454	13,191	14,225	13,812	11,147	11,109	14,530	12,676	0.2	0.00
AR103	15,054	14,632	14,966	15,057	14,994	15,341	14,832	14,400	14,410	13,748	-0.7	0.44
AR104	14,984	15,618	14,944	15,991	15,253	15,199	15,320	14,427	15,023	15,095	-0.3	0.12
AR105	8,970	8,057	8,923	7,368	7,099	6,687	6,232	6,898	6,650	6,982	-3.3	0.64
AR106	7,084	7,852	7,427	7,841	7,565	7,310	7,240	7,804	6,382	6,531	-1.3	0.31
AR107	6,260	5,853	6,244	6,473	7,153	7,796	7,024	8,107	8,862	8,210	4.2	0.85
AR108	2,294	2,410	2,168	2,080	2,343	2,302	2,493	3,717	1,226	7,688	5.7	0.13
AR109	7,071	7,582	7,297	7,644	8,292	7,978	9,150	10,594	9,472	8,750	3.5	0.70
AR110	1,060	957	1,203	1,054	1,131	1,278	1,543	1,845	1,889	1,753	7.7	0.84

MANJONG

AR201	13,375	13,935	14,342	14,331	14,975	15,077	15,254	16,457	17,420	16,091	2.5	0.87
AR202	44,049	46,594	43,896	47,749	48,757	46,346	46,749	46,926	46,005	46,567	0.4	0.13
AR203	10,162	10,693	10,767	11,160	10,273	11,052	10,788	11,942	11,121	11,838	1.3	0.55
AR204	21,138	23,920	22,389	23,758	25,283	25,942	23,834	26,494	25,939	27,384	2.3	0.74
AR205	4,730	4,890	5,171	5,412	5,678	5,812	5,301	5,838	4,866	4,746	0.3	0.02
AR206	6,161	6,656	6,552	6,915	6,967	6,786	6,823	7,554	6,247	5,436	-0.6	0.04
AR207	12,776	13,958	14,620	15,866	15,647	17,179	17,027	18,977	18,448	19,305	4.4	0.95
AR208	10,549	11,400	11,780	11,663	12,445	13,049	12,921	14,811	14,145	13,848	3.3	0.88
AR209	5,193	6,373	6,254	6,227	6,214	6,765	6,201	6,577	6,882	6,795	2.0	0.56

KINTA

AR301	23,050	23,659	31,022	30,311	27,497	28,520	27,126	30,592	24,654	29,911	1.4	0.14
AR302	23,180	23,341	23,518	19,485	25,951	25,176	24,263	26,103	28,239	28,108	2.6	0.51
AR303	71,205	79,513	84,135	73,487	85,819	77,195	78,210	78,136	77,483	87,006	0.8	0.14
AR304	60,968	71,845	80,595	70,470	82,923	73,024	64,750	76,894	81,402	73,829	1.2	0.13
AR305	25,699	25,075	26,251	29,168	39,267	29,117	25,116	25,904	22,594	22,113	-1.8	0.11
AR306	42,284	38,475	41,786	38,155	38,194	48,879	41,249	42,366	41,382	34,601	-0.5	0.02
AR307	29,434	23,614	34,204	46,163	51,996	49,227	60,125	62,591	47,598	37,986	6.6	0.41
AR308	20,742	23,084	24,336	22,253	27,970	28,020	25,433	29,775	29,482	28,334	3.6	0.73
AR309	7,109	5,804	6,207	7,280	6,303	6,209	5,734	5,303	4,851	6,489	-2.2	0.28
AR310	17,239	18,561	15,378	19,306	15,522	14,681	19,823	18,624	21,533	20,474	2.2	0.25
AR311	7,208	6,643	8,087	8,286	8,638	10,312	8,614	10,475	13,546	19,242	9.3	0.79
AR312	11,683	11,899	11,750	11,956	13,356	13,361	12,964	11,647	12,463	18,572	2.8	0.38
AR313	8,670	9,230	8,350	9,994	12,777	14,818	7,422	7,013	6,498	6,796	-3.8	0.18
AR314	1,748	2,266	1,951	2,124	2,260	1,956	3,249	1,933	896	1,045	-6.1	0.24

KERIAN

Census Station Number	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Normal Growth (%/yr)	R ²
AR401	14,112	14,743	14,777	15,143	16,130	16,268	15,728	16,248	17,169	16,265	1.8	0.81
AR402	18,207	17,491	17,972	16,679	21,074	21,116	21,245	17,641	16,178	15,233	-0.9	0.06
AR403	12,325	12,685	12,287	11,724	11,629	11,235	10,735	15,748	14,466	14,653	2.1	0.25
AR404	6,488	6,414	7,315	6,760	6,583	7,028	6,692	7,089	7,098	7,828	1.4	0.46
AR405	5,353	5,520	5,932	5,746	5,550	6,522	6,552	7,198	6,829	6,908	3.2	0.82
AR406	3,843	4,166	4,698	4,433	4,246	4,084	4,347	4,295	4,194	3,938	-0.2	0.01
AR407	5,447	5,852	5,670	5,660	6,312	5,501	5,679	6,159	5,858	6,117	0.8	0.25

KUALA KANGSAR

AR501	18,036	19,085	19,426	22,500	19,251	20,478	18,578	19,895	19,936	20,443	0.6	0.10
AR502	11,687	14,348	13,309	12,599	12,008	11,485	11,729	14,071	14,459	14,335	1.2	0.14
AR503	8,135	10,312	8,739	8,966	8,847	8,352	9,061	12,262	16,447	9,852	4.0	0.32
AR504	5,886	7,103	6,891	6,420	6,625	7,927	6,470	6,267	7,077	7,234	0.9	0.11
AR505	3,588	3,357	4,335	4,132	4,121	4,202	4,377	4,435	4,558	4,693	3.0	0.72
AR506	7,824	8,463	8,406	8,536	8,647	10,216	10,052	9,432	10,590	9,447	2.7	0.68
AR507	5,135	6,791	5,809	6,537	6,376	6,670	6,662	7,633	9,031	10,537	6.0	0.77
AR508	7,164	7,512	6,741	7,044	8,183	7,595	7,463	7,696	9,348	9,679	3.0	0.61

LARUT, MATANG & SELAMA

AR601	16,091	16,752	14,128	3,379	19,410	20,588	19,881	20,664	21,327	19,058	6.4	0.12
AR602	2,705	7,163	11,385	11,831	3,181	3,412	3,365	3,034	3,197	9,238	-3.0	0.02
AR603	10,034	7,076	10,270	18,646	12,586	12,938	12,531	12,949	13,919	9,227	2.4	0.08
AR604	44,168	45,713	36,198	37,714	39,945	30,367	36,469	39,156	38,731	38,069	-1.5	0.16
AR605	3,431	3,293	3,947	3,594	3,299	3,778	3,514	3,198	3,345	3,206	-0.9	0.15
AR606	8,071	8,832	8,784	9,351	9,627	10,209	10,144	10,212	10,950	10,702	3.1	0.93
AR607	10,931	11,066	13,415	12,599	13,254	13,071	14,503	14,420	16,660	19,794	5.4	0.85

HILIR PERAK

AR701	10,206	9,643	10,286	10,192	10,047	10,554	10,962	10,885	19,096	9,808	3.0	0.21
AR702	8,612	9,482	9,629	10,132	10,241	10,872	10,581	10,433	10,234	10,544	1.8	0.62
AR703	24,244	25,159	25,365	25,004	28,465	25,489	25,865	27,249	33,024	26,218	1.8	0.37
AR704	8,806	9,504	9,758	10,135	11,064	9,249	9,776	9,784	10,360	11,830	1.8	0.41
AR705	5,033	5,588	5,668	5,655	6,216	5,516	5,704	6,039	6,112	8,797	3.6	0.52

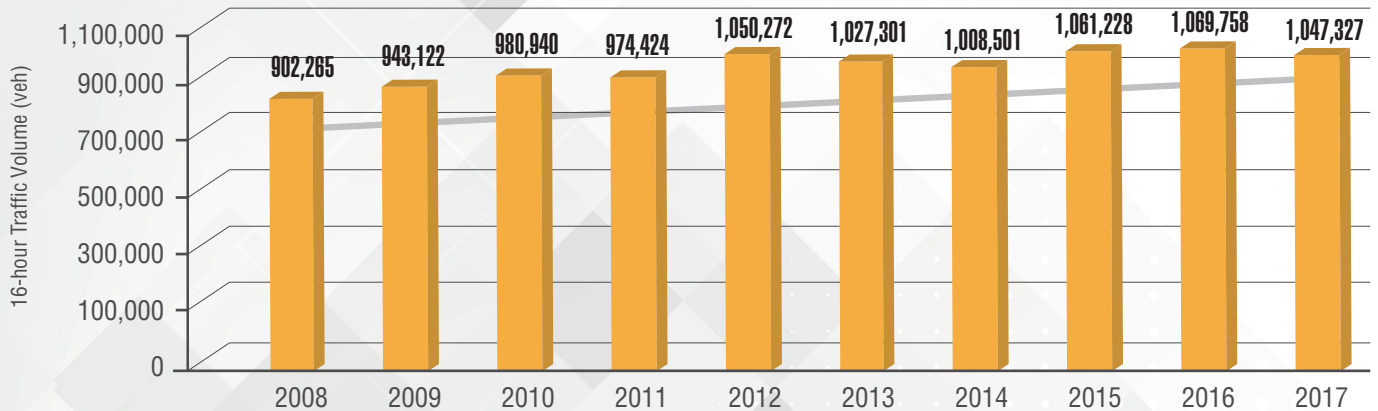
HULU PERAK

AR801	2,509	2,715	1,724	3,110	3,562	3,487	2,826	3,139	3,017	2,798	2.7	0.15
AR802	7,498	8,006	10,831	6,760	6,930	7,627	6,975	6,476	5,729	6,703	-3.5	0.39
AR803	2,946	3,078	3,337	3,148	3,944	3,796	3,636	3,293	3,818	3,923	2.7	0.56
AR804	5,953	5,638	8,234	5,586	5,869	6,306	7,114	6,492	6,043	5,760	-0.1	0.00
AR805	6,555	7,812	5,477	6,167	6,552	6,862	6,253	7,615	5,483	6,010	-0.9	0.05

PERAK TENGAH

Census Station Number	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Normal Growth (%/yr)	R ²
AR901	15,405	13,191	14,543	16,257	21,547	21,573	21,064	19,953	25,788	24,280	6.8	0.80
AR902	3,110	3,129	3,426	3,648	4,300	4,599	4,280	4,997	4,186	4,960	5.3	0.80
AR903	4,249	4,189	4,575	4,813	5,831	4,891	5,641	5,096	6,562	7,050	5.2	0.79
AR904	1,454	1,321	1,363	1,567	1,637	1,918	1,606	1,520	1,629	1,575	1.8	0.27

YEARLY 16-HOUR TRAFFIC VOLUME (2008 - 2017)



$y = 5E+09e^{0.0164x} \mid R^2 = 0.782$
NORMAL GROWTH = 1.64%

*Yearly 16-hour Traffic Volume (2008-2017)
 & Normal Traffic Growth with Exponential Trendline for the Year 2017 in Perak*

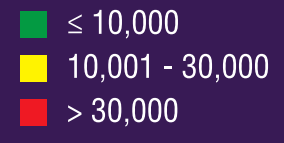
**2.14%
Decrease**

There are 69 census stations in Perak. From the yearly 16-hour traffic volume, there is a slight decline for the number of vehicles decreased by 2.14% from year 2016-2017 which is equivalent to 22,431 vehicles.

For the year 2017, the observed traffic growth rate for the state of Perak is 1.64%. The basis of traffic growth rate record is to be used as a projection indicator of subsequent traffic growth rate for road forethought as well as for the expansion of current and new roads in Perak.



TRAFFIC VOLUME SCALE





SELANGOR

JKR NEGERI SELANGOR

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SELANGOR



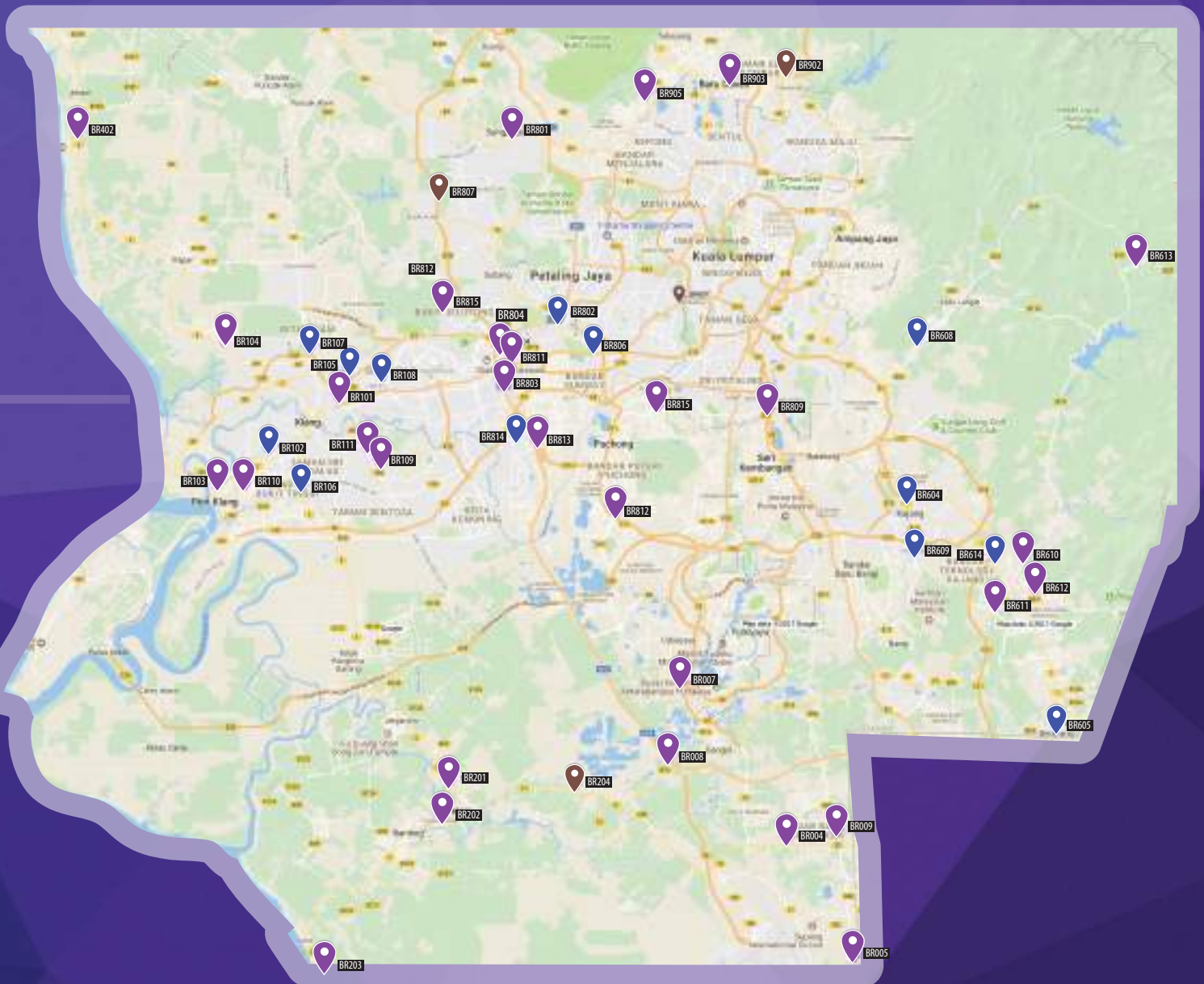

 TYPE 0 TYPE 1 TYPE 3

66
CENSUS STATIONS

 **4**
 **19**
 **43**

DISTRIBUTION OF SURVEY STATIONS

Sepang	 0	 1	 6
Klang	 0	 5	 6
Kuala Langat	 1	 0	 3
Kuala Selangor	 0	 0	 5
Sabak Bernam	 1	 0	 3
Hulu Langat	 0	 5	 0
Hulu Selangor	 0	 4	 6
Petaling	 1	 3	 8
Gombak	 1	 1	 3



SEPANG

Census Station Number	Survey Type	Route Number	KM	Description of Location	GPS Coordinate (WGS84) (Latitude, Longitude)		Type of Carriageway
BR004	3	32	15.0	Salak Tinggi - Bukit Changgang - Banting (IKTBN Sepang)	2.806	101.719	K 2-2
BR005	3	B48	6.0	Kuala Lumpur - Salak - Sepang (Labu Johnson)	2.738	101.755	T 1-1
BR006	1	5	50.0	Klang - Sepang (Batu Dua)	2.664	101.731	T 1-1
BR007	3	29	1.0	KLIA - Putrajaya (PICC)	2.895	101.658	K 3-3
BR008	3	31	2.0	Jln Dengkil - Banting (Plantation)	2.851	101.650	T 1-1
BR009	3	B48	0.0	Jalan Sepang - Kajang (Taman Rekreasi Pejabat Daerah Sepang)	2.810	101.746	T 1-1

KLANG

*	BR101	3	2	12.0	Kuala Lumpur - Klang	3.057	101.471	K 2-2
	BR102	1	2	6.0	Klang - Port Klang (Persiaran Raja Muda Musa)	3.026	101.423	K 3-3
*	BR103	3	2	6.0	Jalan Pelabuhan - near Northport	3.007	101.394	K 2-2
	BR104	3	5	444.0	Klang - Kuala Selangor	3.087	101.398	K 3-3
	BR105	1	5	438.0	Klang - Kuala Selangor	3.061	101.473	K 2-2
	BR106	1	5	429.0	Klang - Telok Datok	3.005	101.442	K 2-2
	BR107	1	3217	10.0	Klang - Meru	3.083	101.446	K 2-2
	BR108	1	20	0.3	300m fr junction Federal Highway - North Klang Straits Bypass	3.062	101.473	K 3-3
	BR109	3	190	10.0	Kuala Lumpur - Kg. Batu Enam - Klang Jalan Kebun	3.023	101.482	T 1-1
	BR110	3	3218	3.5	Langat Road - Pandamaran (Pandamaran Road)	3.006	101.410	T 1-1
	BR111	3	190	4.8	K. Lumpur - Puchong - Kg. Batu Enam (Jln Bukit Kemuning)	3.024	101.481	T 1-1

KUALA LANGAT

	BR201	3	5	406.0	Klang - Telok Datok	2.838	101.527	K 2-2
	BR202	3	5	402.0	Klang - Telok Datok-Banting	2.819	101.521	K 2-2
	BR203	3	5	379.0	Klang - Morib-Batu Laut	2.730	101.455	T 1-1
	BR204	0	31		Kelang - Telok Datok - Morib - Sepang	2.835	101.598	T 1-1

KUALA SELANGOR

	BR401	3	5	480.0	Klang - Kuala Selangor	3.336	101.252	K 2-2
	BR402	3	5	463.0	Klang - Kuala Selangor	3.205	101.315	K 2-2
	BR403	3	B42	14.0	Pasir Penambang - Batang Berjantai (Jalan Raja Musa)	3.405	101.358	T 1-1
	BR404	3	B33	1.0	Kuala Lumpur - Rawang-Kuala Selangor	3.328	101.262	T 1-1
	BR405	3	54	15.0	Kuala Lumpur - Kepong - Kuala Selangor	3.313	101.418	K 2-2

SABAK BERNAM

	BR501	0	5	506.6	Klang - Sabak Bernam	3.493	101.112	K 2-2
	BR502	3	5	541.7	Kuala Lumpur - Kuala Selangor - Sabak	3.746	100.976	K 2-2
	BR503	3	B44	503.0	Jalan Sg. Panjang - Ulu Bernam - Tg. Malim	3.731	101.104	T 1-1
	BR504	3	B55	65.0	Sabak Bernam - Sungai Ayer Tawar (Sungai Ayer Tawar Road)	3.759	100.904	T 1-1

HULU LANGAT

Census Station Number	Survey Type	Route Number	KM	Description of Location	GPS Coordinate (WGS84) (Latitude, Longitude)		Type of Carriageway
BR604	1	1	359.8	Kuala Lumpur - Kajang - Telok Datok (Bt 14 Jln Cheras)	2.999	101.785	T 1-1
BR605	1	1	340.0	Kuala Lumpur - Seremban	2.869	101.870	T 1-1
BR608	1	B52	3.0	Kuala Lumpur - Cheras-Kampung Ulu Lui (Sg.Serai)	3.089	101.792	T 1-1
BR609	1	B17	11.6	Kuala Lumpur - Kajang - Telok Datok (Jln. Reko)	2.968	101.790	T 1-1
BR610	3	B19	1.0	Kuala Lumpur - Ulu Semenyih	2.953	101.846	T 1-1
BR611	3	31	47.0	Kuala Lumpur - Semenyih - Bangi (1km from Semenyih)	2.937	101.836	T 1-1
BR612	3	B34	1.0	Kuala Lumpur - Semenyih - Broga	2.946	101.852	K 2-2
BR613	3	B32	34.0	Kajang - Genting Peras - Jelebu	3.134	101.916	T 1-1
BR614	1	1		Kajang - Mantin	2.958	101.841	K 2-2

HULU SELANGOR

BR701	1	1	448.0	Kuala Lumpur - Kuala Kubu Bahru Junction (south of junction)	3.557	101.643	K 2-2
BR702	1	1	466.0	Kuala Lumpur - Tanjong Malim	3.659	101.541	K 2-2
BR703	3	55		Kuala Lumpur - Kuala Kubu Baru - Gap	3.562	101.668	T 1-1
BR704	3	B56	0.8	Simpang Sg. Choh - Sg. Buaya	3.357	101.576	T 1-1
BR705	1	B23	26.5	Hulu Gombak - Hulu Yam Baru	3.409	101.663	T 1-1
BR706	3	B113	3.0	Batang Kali - Hulu Yam	3.462	101.656	K 2-2
BR707	1	B66	9.0	Jalan Hulu Kali - Genting Highland	3.429	101.729	T 1-1
BR708	3	1	56.0	Jalan Ampang Pechah - Kg. Bukit Raja	3.537	101.655	T 1-1
BR709	3	B44	5.0	Jalan Hulu Bernam - Tanjong Malim	3.669	101.516	T 1-1
BR710	3	B44	75.3	Jalan Hulu Bernam - Sungai Besar	3.671	101.517	T 1-1

PETALING

	BR801	3	54	39.2	Kuala Lumpur - Kuala Selangor	3.207	101.562	K 2-2
*	BR802	1	15		Kuala Lumpur - Subang Airport	3.101	101.589	T 1-1
*	BR803	3	3214		Kuala Lumpur - Batu Tiga - Puchong	3.068	101.556	K 2-2
	BR804	3	B9		Batu Tiga - Damansara Road	3.085	101.555	K 3-3
*	BR806	1	2		Kuala Lumpur - Klang	3.084	101.607	K 3-3
*	BR807	0	2		Kuala Lumpur - Petaling Jaya (Fed. H'way-180m east of EPF blg)	3.112	101.656	K 3-3
	BR811	3	3213		Jalan Bt. 3 (Opposite Balai Polis Bt. 3)	3.076	101.557	T 1-1
*	BR813	3	B7		Kuala Lumpur - Puchong-Shah Alam	3.030	101.575	K 3-3
	BR814	1	B7		Kuala Lumpur - Puchong-Shah Alam	3.032	101.569	K 2-2
*	BR815	3	207		Kuala Lumpur - Bukit Jalil - Puchong	3.050	101.644	K 2-2

NOTE:

* Automation Traffic Count

GOMBAK

Census Station Number	Survey Type	Route Number	KM	Description of Location	GPS Coordinate (WGS84) (Latitude, Longitude)	Type of Carriageway
BR901	1	1	415.5	Kuala Lumpur - Ipoh	3.304 101.595	T 1-1
BR902	0	28	14.1	Jalan Lingkar Tengah 2 (MRR2)	3.241 101.718	K 3-3
* BR903	3	28	60.0	Jalan Lingkar Tengah 2 (MRR2)	3.235 101.685	K 2-2
BR904	3	B27	39.1	Rawang - Kuala Selangor	3.319 101.516	T 1-1
BR905	3	B22	9.9	Selayang - Kepong	3.227 101.638	K 3-3

NOTE:

* Automation Traffic Count

SEPANG

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
BR005	N/A	26,227	3,134	0700-0800	60.6	10.5	8.5	6.1	0.8	13.5	100.0
BR006	N/A	27,171	2,443	1800-1900	61.3	21.7	3.8	1.6	0.6	10.9	100.0
BR007	N/A	57,295	6,039	1700-1800	72.4	8.6	3.8	2.2	1.2	11.8	100.0
BR008	N/A	17,772	2,357	0700-0800	61.5	9.0	6.2	5.2	0.5	17.6	100.0
BR009	N/A	19,120	2,431	1700-1800	74.2	8.5	2.4	1.4	0.1	13.4	100.0

KLANG

BR101	N/A	157,607	16,021	1800-1900	75.0	4.4	5.5	0.8	0.4	13.9	100.0
BR102	N/A	44,812	3,428	1800-1900	74.6	4.0	3.2	1.3	0.5	16.4	100.0
BR103	N/A	64,981	6,128	0900-1000	44.9	3.3	7.8	21.6	0.5	21.9	100.0
BR104	N/A	48,232	4,831	1800-1900	60.7	4.0	10.3	7.2	0.9	16.9	100.0
BR105	N/A	45,211	3,834	1800-1900	72.5	6.4	4.4	1.0	0.5	15.2	100.0
BR106	N/A	79,212	6,063	1800-1900	82.5	5.7	3.0	0.4	0.2	8.2	100.0
BR107	N/A	105,665	7,901	0900-1000	57.8	8.5	6.1	1.4	0.3	25.9	100.0
BR108	N/A	104,725	7,782	0800-0900	75.6	2.6	3.4	2.3	0.3	15.8	100.0
BR109	N/A	32,099	2,606	0800-0900	63.7	5.0	8.3	3.5	0.8	18.7	100.0
BR110	N/A	42,776	3,313	0900-1000	65.0	4.4	7.2	1.8	0.5	21.2	100.0
BR111	N/A	33,466	3,278	1800-1900	60.6	4.0	11.1	3.2	1.2	19.9	100.0

KUALA LANGAT

BR201	N/A	61,891	16,409	2000-2100	72.4	5.6	4.2	4.1	0.4	13.2	100.0
BR202	N/A	63,480	7,224	0700-0800	65.5	6.4	4.4	2.2	1.0	20.5	100.0
BR203	N/A	7,969	707	0700-0800	56.6	13.4	7.2	3.4	0.8	18.7	100.0
BR204	33,187	28,966	3,380	1800-1900	62.7	11.4	4.3	6.7	0.5	14.4	100.0

KUALA SELANGOR

BR401	N/A	35,231	4,126	0700-0800	56.2	12.7	8.2	5.9	1.2	15.8	100.0
BR402	N/A	21,546	2,323	0700-0800	51.7	13.3	10.7	7.7	0.9	15.7	100.0
BR403	N/A	3,609	408	0700-0800	46.7	11.7	14.4	6.7	0.1	20.4	100.0
BR404	N/A	17,404	1,354	0700-0800	66.6	5.0	3.2	0.5	0.5	24.2	100.0
BR405	N/A	22,426	2,036	0700-0800	51.2	12.4	10.1	6.7	0.5	19.1	100.0

SABAK BERNAM

BR501	27,753	24,253	2,801	1200-1300	70.1	7.3	7.4	4.3	0.4	10.4	100.0
BR502	N/A	6,751	766	1700-1800	61.9	7.0	7.5	0.6	0.1	22.9	100.0
BR503	N/A	13,441	1,390	1200-1300	37.4	9.6	21.1	4.8	0.0	27.2	100.0
BR504	N/A	6,851	766	1700-1800	62.4	6.9	7.4	0.6	0.1	22.6	100.0

HULU LANGAT

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
BR605	N/A	11,804	978	1800-1900	56.6	13.0	6.0	4.0	0.6	19.8	100.0
BR608	N/A	28,675	2,687	0700-0800	48.4	11.5	5.2	3.7	0.6	30.6	100.0
BR609	N/A	44,254	3,304	1700-1800	64.2	5.8	2.9	0.5	1.2	25.3	100.0
BR610	N/A	9,613	1,035	0700-0800	45.2	11.9	7.8	5.2	0.6	29.3	100.0
BR611	N/A	14,954	1,588	1900-2000	57.5	13.3	4.9	3.1	0.3	20.9	100.0
BR612	N/A	22,441	2,008	1700-1800	64.6	9.8	3.6	1.7	0.5	19.9	100.0
BR613	N/A	628	57	0700-0800	39.5	18.5	9.7	6.5	0.0	25.8	100.0
BR614	N/A	61,985	5,516	1700-1800	64.8	9.3	5.3	1.2	0.4	19.0	100.0

HULU SELANGOR

BR701	N/A	14,651	1,280	1700-1800	57.4	18.5	8.4	3.6	0.8	11.4	100.0
BR702	N/A	14,386	1,307	1700-1800	57.7	14.6	6.9	2.3	0.8	17.7	100.0
BR703	N/A	1,253	151	1300-1400	41.4	8.8	6.0	1.8	0.7	41.3	100.0
BR704	N/A	19,352	2,019	1600-1700	76.5	6.7	2.2	0.7	0.7	13.3	100.0
BR705	N/A	6,670	637	0800-0900	61.7	8.3	3.9	0.5	0.2	25.4	100.0
BR706	N/A	14,077	1,593	1300-1400	68.4	7.8	4.5	1.9	0.9	16.6	100.0
BR707	N/A	4,877	511	1700-1800	65.5	11.4	3.8	1.6	1.2	16.5	100.0
BR708	N/A	8,741	791	1300-1400	70.6	7.7	3.5	0.2	0.9	17.1	100.0
BR709	N/A	8,892	772	1800-1900	60.4	8.3	6.6	0.9	1.1	22.8	100.0
BR710	N/A	1,858	216	1200-1300	38.3	10.9	8.2	2.8	0.7	39.1	100.0

PETALING

BR801	N/A	80,170	7,203	1700-1800	67.4	2.5	1.6	1.3	0.4	26.8	100.0
BR802	N/A	151,269	12,035	1600-1700	80.4	5.5	0.8	0.6	0.2	12.5	100.0
BR803	N/A	158,757	13,985	0700-0800	57.0	14.4	9.4	2.1	0.4	16.7	100.0
BR804	N/A	169,039	12,509	0700-0800	56.8	8.9	8.6	0.9	0.6	24.2	100.0
BR806	N/A	192,456	14,551	1700-1800	55.3	9.3	7.8	3.2	0.2	24.2	100.0
BR807	275,926	223,380	18,128	0700-0800	54.7	8.5	6.5	2.8	0.2	27.2	100.0
BR809	N/A	235,210	19,585	0800-0900	87.2	4.0	3.9	0.3	0.3	4.3	100.0
BR811	N/A	15,933	2,061	1300-1400	68.5	5.1	4.8	0.2	0.1	21.4	100.0
BR812	N/A	110,939	9,007	0700-0800	56.2	10.9	7.6	8.9	0.4	16.0	100.0
BR813	N/A	85,455	8,105	0900-1000	43.0	21.4	7.5	0.8	0.2	27.1	100.0
BR814	N/A	75,605	6,733	1800-1900	64.7	10.2	1.7	0.9	0.2	22.3	100.0
BR815	N/A	73,997	6,047	0800-0900	71.1	13.5	1.3	0.6	0.3	13.2	100.0

GOMBAK

BR901	N/A	72,446	6,549	1800-1900	68.7	6.8	4.9	1.2	0.3	18.1	100.0
BR902	204,040	173,329	13,942	0700-0800	76.9	8.1	3.3	0.9	0.6	10.2	100.0
BR903	N/A	170,368	13,366	0700-0800	56.0	7.8	7.4	3.7	0.2	24.8	100.0
BR904	N/A	28,934	2,961	1700-1800	50.2	21.4	5.6	2.9	0.8	19.2	100.0
BR905	N/A	48,469	6,439	1900-2000	64.5	8.7	2.9	0.7	0.0	23.1	100.0

SEPANG

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
BR005	N/A	27,061	3,266	0800-0900	62.9	9.2	6.8	5.7	0.8	14.5	100.0
BR006	N/A	25,048	1,989	0700-0800	61.0	22.5	4.5	1.5	0.8	9.7	100.0
BR007	N/A	85,575	7,777	0700-0800	81.2	3.2	3.0	2.3	0.6	9.7	100.0
BR008	N/A	23,501	3,554	0700-0800	69.3	6.0	5.8	5.2	0.4	13.3	100.0
BR009	N/A	17,639	2,029	0700-0800	73.0	9.9	2.5	1.4	0.2	13.0	100.0

KLANG

BR101	N/A	140,943	12,152	0700-0800	50.9	11.0	9.6	4.2	0.3	24.1	100.0
BR102	N/A	50,229	3,871	1200-1300	75.3	4.5	3.5	1.3	0.5	14.9	100.0
BR103	N/A	65,850	6,792	1800-1900	38.6	9.0	10.0	19.2	1.2	21.9	100.0
BR104	N/A	43,783	4,062	1900-2000	68.0	4.2	10.1	7.4	0.6	9.7	100.0
BR105	N/A	37,000	3,363	1800-1900	71.3	6.6	5.1	1.3	0.5	15.3	100.0
BR106	N/A	71,938	6,042	1800-1900	78.8	7.7	2.9	0.5	0.3	9.8	100.0
BR107	N/A	94,683	7,937	0800-0900	57.6	8.5	6.6	1.3	0.3	25.6	100.0
BR108	N/A	99,060	7,790	1700-1800	74.0	2.8	3.2	2.4	0.3	17.4	100.0
BR109	N/A	26,822	2,193	1800-1900	64.4	4.5	8.2	2.7	0.9	19.2	100.0
BR110	N/A	42,577	4,537	1800-1900	65.7	4.1	7.0	2.1	0.6	20.5	100.0
BR111	N/A	32,166	2,845	0800-0900	56.8	4.4	13.5	3.8	1.6	20.0	100.0

KUALA LANGAT

BR201	N/A	51,651	9,009	0700-0800	69.0	5.9	6.2	5.5	0.5	12.8	100.0
BR202	N/A	42,359	4,608	1700-1800	47.3	6.1	3.3	2.4	0.7	40.3	100.0
BR203	N/A	3,837	428	0700-0800	63.0	6.0	8.1	3.0	0.9	19.0	100.0
BR204	38,895	33,584	3,242	0700-0800	54.1	17.9	6.3	6.0	0.4	15.3	100.0

KUALA SELANGOR

BR401	N/A	31,218	2,790	1800-1900	55.7	13.3	9.4	5.7	1.3	14.6	100.0
BR402	N/A	21,107	2,582	0700-0800	51.3	13.4	9.7	7.8	1.0	16.8	100.0
BR403	N/A	4,316	478	0700-0800	42.8	11.0	16.4	11.8	0.1	18.0	100.0
BR404	N/A	20,765	1,824	1700-1800	63.7	9.5	4.3	1.2	0.4	20.9	100.0
BR405	N/A	20,709	2,066	0700-0800	52.0	12.4	10.4	6.6	0.6	18.0	100.0

SABAK BERNAM

BR501	21,971	19,031	1,738	1800-1900	70.8	6.1	7.5	4.2	0.5	10.9	100.0
BR502	N/A	14,705	1,627	0700-0800	48.4	14.0	11.8	9.4	0.4	16.1	100.0
BR503	N/A	5,093	645	1300-1400	42.0	8.3	15.5	2.5	0.0	31.7	100.0
BR504	N/A	7,193	829	0700-0800	48.4	14.0	11.8	9.4	0.4	16.1	100.0

HULU LANGAT

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
BR605	N/A	10,301	954	0700-0800	59.2	10.4	5.7	4.2	0.6	19.9	100.0
BR608	N/A	27,019	2,120	0800-0900	46.4	13.6	5.8	1.5	0.6	32.1	100.0
BR609	N/A	40,071	3,011	1800-1900	67.2	4.4	2.7	0.6	1.4	23.8	100.0
BR610	N/A	9,622	1,035	0700-0800	45.2	11.9	7.8	5.2	0.6	29.3	100.0
BR611	N/A	25,495	2,687	1700-1800	50.5	19.8	4.0	2.4	0.2	23.1	100.0
BR612	N/A	23,978	2,010	1700-1800	68.8	9.5	4.0	1.3	0.4	16.0	100.0
BR613	N/A	596	52	1100-1200	42.8	20.3	9.6	6.5	0.2	20.6	100.0
BR614	N/A	67,212	6,274	1800-1900	62.1	11.2	6.5	1.6	0.4	18.2	100.0

HULU SELANGOR

BR701	N/A	12,301	984	1700-1800	59.1	20.0	7.4	3.3	1.1	9.0	100.0
BR702	N/A	15,935	1,325	1800-1900	62.9	11.9	7.3	2.0	0.9	15.1	100.0
BR703	N/A	1,372	117	1200-1300	43.5	8.1	4.8	1.8	0.1	41.7	100.0
BR704	N/A	19,215	1,835	1700-1800	68.3	6.1	3.2	0.7	0.8	20.9	100.0
BR705	N/A	6,888	715	0800-0900	62.6	7.0	4.0	0.5	0.2	25.7	100.0
BR706	N/A	13,597	1,336	0700-0800	62.8	10.4	3.9	1.3	0.9	20.6	100.0
BR707	N/A	6,026	585	1800-1900	65.9	9.8	3.7	1.6	1.4	17.6	100.0
BR708	N/A	9,849	847	1300-1400	71.1	8.4	3.2	0.4	0.3	16.6	100.0
BR709	N/A	8,937	797	1300-1400	60.9	8.7	5.7	1.7	1.0	22.0	100.0
BR710	N/A	1,760	207	1300-1400	38.8	10.2	6.1	2.5	0.6	41.9	100.0

PETALING

BR801	N/A	92,794	12,272	0600-0700	63.2	3.6	2.9	2.5	0.5	27.3	100.0
BR802	N/A	119,315	9,536	0700-0800	52.7	14.2	11.5	3.3	0.2	18.0	100.0
BR803	N/A	89,249	8,472	0700-0800	56.2	5.4	4.6	3.6	0.2	30.0	100.0
BR804	N/A	156,667	11,384	0700-0800	63.9	10.7	9.9	1.1	0.8	13.6	100.0
BR806	N/A	190,439	14,700	1700-1800	56.8	7.1	7.1	3.9	0.3	24.9	100.0
BR807	268,242	216,688	18,210	0700-0800	55.8	8.1	5.8	2.6	0.2	27.5	100.0
BR809	#REF!	92,794	12,272	0600-0700	63.2	3.7	3.7	0.3	0.3	3.7	74.9
BR811	N/A	18,690	1,907	1700-1800	64.6	5.0	4.1	0.6	0.4	25.3	100.0
BR812	#REF!	18,690	1,907	1700-1800	64.6	11.4	7.1	7.7	0.4	16.1	107.2
BR813	N/A	89,654	8,026	0700-0800	57.4	4.9	5.4	4.1	0.2	27.9	100.0
BR814	N/A	84,681	7,237	1800-1900	64.1	10.7	1.8	0.9	0.2	22.3	100.0
BR815	N/A	76,103	6,828	1800-1900	54.7	10.8	9.3	4.8	0.1	20.2	100.0

GOMBAK

BR901	N/A	79,954	7,365	1700-1800	63.2	8.8	7.4	1.4	0.4	18.8	100.0
BR902	156,903	133,761	11,494	1800-1900	79.1	7.4	3.3	1.3	0.4	8.5	100.0
BR903	N/A	57,754	5,311	0800-0900	74.0	9.1	5.1	0.5	0.1	11.3	100.0
BR904	N/A	25,112	2,407	0700-0800	57.8	11.9	8.2	5.0	0.1	16.9	100.0
BR905	N/A	169,624	13,788	0700-0800	56.4	7.3	7.0	4.0	0.2	25.1	100.0

SEPANG

Census Station Number	16-Hour Traffic	Peak Hour	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Buses	Motorcycles	Total	Level of Service (LOS)	Capacity Year
BR004	66,317	6,473	68.0	11.7	4.0	3.0	0.7	12.7	100%	F	R
BR005	26,644	3,200	61.7	9.8	7.7	5.9	0.8	14.0	100%	F	R
BR006	26,109	2,216	61.2	22.1	4.2	1.5	0.7	10.3	100%	F	R
BR007	71,435	6,908	76.8	5.9	3.4	2.2	0.9	10.8	100%	C	2043
BR008	41,273	2,956	65.4	7.5	6.0	5.2	0.4	15.5	100%	F	R
BR009	36,759	2,230	73.6	9.2	2.4	1.4	0.2	13.2	100%	F	R

KLANG

BR101	149,275	14,087	62.9	7.7	7.6	2.5	0.3	19.0	100%	F	R
BR102	47,521	3,649	74.9	4.2	3.4	1.3	0.5	15.7	100%	A	2042
BR103	65,416	6,460	41.8	6.1	8.9	20.4	0.9	21.9	100%	F	R
BR104	46,008	4,447	64.3	4.1	10.2	7.3	0.8	13.3	100%	B	2041
BR105	41,105	3,599	71.9	6.5	4.8	1.1	0.5	15.2	100%	C	2030
BR106	75,575	6,052	80.6	6.7	3.0	0.4	0.3	9.0	100%	F	R
BR107	100,174	7,919	57.7	8.5	6.3	1.4	0.3	25.7	100%	F	R
BR108	101,893	7,786	74.8	2.7	3.3	2.3	0.3	16.6	100%	D	2024
BR109	29,461	2,400	64.1	4.8	8.3	3.1	0.8	18.9	100%	F	R
BR110	42,677	3,925	65.3	4.2	7.1	1.9	0.6	20.9	100%	F	R
BR111	32,816	3,062	58.7	4.2	12.3	3.5	1.4	20.0	100%	F	R

KUALA LANGAT

BR201	56,771	12,709	70.7	5.8	5.2	4.8	0.5	13.0	100%	F	R
BR202	52,920	5,916	56.4	6.3	3.8	2.3	0.8	30.4	100%	F	R
BR203	5,903	568	59.8	9.7	7.6	3.2	0.8	18.8	100%	A	2063
BR204	31,275	3,311	58.4	14.7	5.3	6.3	0.5	14.9	100%	F	R

KUALA SELANGOR

BR401	33,225	3,458	56.0	13.0	8.8	5.8	1.2	15.2	100%	D	2025
BR402	21,327	2,453	51.5	13.3	10.2	7.7	1.0	16.2	100%	B	2030
BR403	3,963	443	44.8	11.3	15.4	9.2	0.1	19.2	100%	A	2048
BR404	19,085	1,589	65.2	7.3	3.7	0.8	0.5	22.6	100%	D	2019
BR405	21,568	2,051	51.6	12.4	10.2	6.7	0.5	18.5	100%	A	2079

SABAK BERNAM

BR501	21,642	2,270	70.5	6.7	7.5	4.2	0.5	10.7	100%	A	2040
BR502	10,728	1,197	55.1	10.5	9.6	5.0	0.2	19.5	100%	A	2055
BR503	9,267	1,018	39.7	9.0	18.3	3.6	0.0	29.4	100%	D	-
BR504	7,022	798	55.4	10.5	9.6	5.0	0.2	19.3	100%	A	2025

HULU LANGAT

Census Station Number	16-Hour Traffic	Peak Hour	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Buses	Motorcycles	Total	Level of Service (LOS)	Capacity Year
BR604	46,607	3,311	70.7	8.7	2.6	0.5	0.5	16.9	100%	F	R
BR605	11,052	966	57.9	11.7	5.9	4.1	0.6	19.8	100%	A	-
BR608	27,847	2,404	47.4	12.6	5.5	2.6	0.6	31.3	100%	F	R
BR609	42,162	3,157	65.7	5.1	2.8	0.6	1.3	24.5	100%	F	R
BR610	9,618	1,035	45.2	11.9	7.8	5.2	0.6	29.3	100%	C	-
BR611	20,225	2,138	54.0	16.5	4.5	2.7	0.3	22.0	100%	F	R
BR612	23,210	2,009	66.7	9.7	3.8	1.5	0.4	18.0	100%	A	2025
BR613	612	55	41.1	19.4	9.6	6.5	0.1	23.2	100%	A	-
BR614	64,599	5,895	63.5	10.3	5.9	1.4	0.4	18.6	100%	F	R

HULU SELANGOR

BR701	13,476	1,132	58.2	19.2	7.9	3.5	1.0	10.2	100%	A	2044
BR702	15,160	1,316	60.3	13.2	7.1	2.2	0.8	16.4	100%	A	2152
BR703	1,313	134	42.5	8.4	5.4	1.8	0.4	41.5	100%	A	2085
BR704	19,284	1,927	72.4	6.4	2.7	0.7	0.8	17.1	100%	F	R
BR705	6,779	676	62.2	7.7	4.0	0.5	0.2	25.5	100%	A	2068
BR706	13,837	1,465	65.6	9.1	4.2	1.6	0.9	18.6	100%	A	-
BR707	5,452	548	65.7	10.6	3.7	1.6	1.3	17.0	100%	A	2036
BR708	9,295	819	70.8	8.1	3.4	0.3	0.6	16.8	100%	A	2099
BR709	8,915	785	60.6	8.5	6.1	1.3	1.0	22.4	100%	A	-
BR710	1,809	212	38.5	10.5	7.2	2.6	0.7	40.5	100%	A	2036

PETALING

BR801	86,482	9,738	65.3	3.1	2.3	1.9	0.5	27.0	100%	F	R
BR802	135,292	10,786	66.5	9.9	6.2	2.0	0.2	15.3	100%	F	R
BR803	124,003	11,229	56.6	9.9	7.0	2.9	0.3	23.4	100%	F	R
BR804	162,853	11,947	60.3	9.8	9.2	1.0	0.7	18.9	100%	F	R
BR806	191,448	14,626	56.0	8.2	7.5	3.6	0.2	24.5	100%	F	R
BR807	220,034	18,169	55.2	8.3	6.2	2.7	0.2	27.4	100%	F	R
BR809	164,002	15,929	75.2	3.9	3.8	0.3	0.3	4.0	100%	F	R
BR811	17,312	1,984	66.5	5.0	4.4	0.4	0.3	23.4	100%	F	R
BR812	64,815	5,457	60.4	11.1	7.3	8.3	0.4	16.0	100%	C	-
BR813	87,555	8,066	50.2	13.1	6.5	2.5	0.2	27.5	100%	E	2019
BR814	80,143	6,985	64.4	10.5	1.7	0.9	0.2	22.3	100%	F	R
BR815	75,050	6,438	62.9	12.1	5.3	2.7	0.2	16.7	100%	F	R

GOMBAK

Census Station Number	16-Hour Traffic	Peak Hour	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Buses	Motorcycles	Total	Level of Service (LOS)	Capacity Year
BR901	76,200	6,957	66.0	7.8	6.1	1.3	0.3	18.5	100%	F	R
BR902	153,545	12,718	78.0	7.7	3.3	1.1	0.5	9.4	100%	F	R
BR903	114,061	9,339	65.0	8.5	6.3	2.1	0.1	18.1	100%	F	R
BR904	27,023	2,684	54.0	16.6	6.9	4.0	0.4	18.0	100%	F	R
BR905	109,047	10,114	60.5	8.0	5.0	2.4	0.1	24.1	100%	F	R

SEPANG

Census Station Number	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Normal Growth (%/yr)	R ²
BR004	36,575	44,072	53,252	53,673	51,485	57,683	63,597	68,578	65,081	66,317	6.0	0.84
BR005	21,878	32,971	24,946	28,140	29,373	32,280	36,159	25,094	27,696	26,644	0.9	0.03
BR006	14,621	15,838	17,256	19,603	17,011	26,643	20,847	22,201	17,821	26,109	4.8	0.51
BR007	-	-	68,166	80,875	64,854	91,523	87,554	66,348	51,299	71,435	-2.3	0.09
BR008	-	-	17,904	16,655	33,969	33,908	31,675	33,869	35,087	41,273	11.3	0.69
BR009	-	-	14,750	13,561	23,471	30,621	27,566	28,503	35,281	36,759	13.9	0.81

KLANG

BR101	94,591	104,201	103,515	91,005	128,931	142,038	124,226	140,640	140,880	149,275	5.3	0.76
BR102	47,817	46,690	52,901	53,983	57,835	56,513	52,563	49,706	47,687	47,521	-0.2	0.01
BR103	55,135	71,532	66,090	71,297	68,957	65,872	55,881	77,972	60,456	65,416	0.3	0.00
BR104	59,230	52,893	53,429	56,127	56,044	52,447	45,270	50,775	49,373	46,008	-2.3	0.63
BR105	38,562	41,338	44,030	46,574	45,911	46,587	39,623	41,558	42,806	41,105	0.0	0.00
BR106	76,439	79,057	94,404	118,734	101,095	96,518	103,959	97,271	96,336	75,575	0.6	0.02
BR107	72,095	91,094	90,918	89,381	94,676	94,351	111,139	86,906	86,349	100,174	1.8	0.25
BR108	129,408	122,468	141,121	135,678	140,780	143,223	136,424	131,348	128,988	101,893	-1.3	0.15
BR109	37,321	36,315	32,174	34,501	35,025	37,540	39,440	35,272	33,206	29,461	-1.1	0.16
BR110	39,130	40,798	39,588	42,084	43,890	44,564	49,585	43,956	41,300	42,677	1.2	0.26
BR111	40,515	47,543	40,677	44,995	38,626	41,693	38,891	34,594	35,408	32,816	-3.1	0.66

KUALA LANGAT

BR201	38,597	41,048	41,443	48,678	35,126	37,352	44,922	50,001	44,247	56,771	2.9	0.36
BR202	52,459	55,814	52,429	56,444	53,809	64,219	55,501	65,496	63,504	52,920	1.4	0.22
BR203	6,711	7,023	7,101	6,852	7,128	7,777	7,741	7,890	7,999	5,903	0.5	0.02
BR204	26,203	27,159	29,916	29,299	32,117	31,669	29,535	31,199	31,281	31,275	1.7	0.57

KUALA SELANGOR

BR401	39,750	43,210	34,266	35,376	34,238	35,485	46,517	37,696	37,649	33,225	-0.8	0.04
BR402	16,825	16,866	16,133	16,686	19,872	22,195	23,605	18,623	19,230	21,327	3.0	0.46
BR403	2,554	2,751	3,379	3,126	3,438	3,110	3,154	3,159	4,016	3,963	3.8	0.65
BR404	11,377	13,014	13,263	12,848	14,132	12,750	19,427	23,711	21,853	19,085	7.5	0.74
BR405	19,332	20,938	22,822	23,003	23,648	21,278	22,618	21,611	22,277	21,568	0.6	0.10

SABAK BERNAM

BR501	17,354	19,773	20,466	21,743	23,370	22,174	22,443	20,838	24,554	21,642	2.2	0.48
BR502	12,676	16,100	15,806	16,081	15,892	15,046	16,161	17,138	17,048	10,728	-0.4	0.01
BR503	3,666	3,101	2,893	2,849	2,453	2,487	2,468	3,289	4,569	9,267	6.8	0.26
BR504	2,516	4,671	7,330	7,664	7,410	6,649	7,421	7,290	8,223	7,022	7.9	0.44

HULU LANGAT

Census Station Number	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Normal Growth (%/yr)	R ²
BR604	57,286	58,929	56,609	57,591	53,689	59,023	54,222	48,737	48,199	46,607	-2.5	0.72
BR605	13,538	13,960	11,834	11,927	11,947	11,341	11,999	12,465	13,006	11,052	-1.3	0.26
BR608	37,338	38,264	33,086	28,098	27,617	27,877	28,572	30,374	28,903	27,847	-3.0	0.54
BR609	41,555	40,369	50,648	54,987	62,314	56,205	53,977	53,020	46,636	42,162	0.7	0.02
BR610	15,335	6,815	11,424	12,860	12,222	11,525	11,120	9,090	8,561	9,618	-2.6	0.11
BR611	9,051	10,155	15,392	14,877	16,207	18,778	17,554	19,083	26,451	20,225	9.5	0.82
BR612	5,858	7,864	10,737	11,973	13,654	15,346	16,728	16,364	18,161	23,210	13.0	0.92
BR613	924	972	789	830	691	488	603	640	775	612	-4.6	0.43
BR614	62,612	63,914	65,123	66,174	70,499	79,801	83,329	84,275	64,230	64,599	1.5	0.14

HULU SELANGOR

BR701	12,307	13,209	18,293	13,430	13,320	15,082	15,022	15,538	16,063	13,476	1.1	0.08
BR702	13,464	13,308	14,827	12,429	10,994	12,624	13,556	12,323	13,511	15,160	0.4	0.02
BR703	986	1,134	1,123	1,073	1,703	1,267	1,572	1,990	1,897	1,313	6.0	0.5266
BR704	17,387	16,508	10,307	26,689	23,697	16,769	17,283	22,759	18,287	19,284	2.4	0.0775
BR705	6,041	7,186	8,785	8,147	8,172	8,240	8,836	8,035	7,960	6,779	0.9	0.06
BR706	9,985	10,764	8,297	10,525	12,997	12,144	9,824	10,594	1,915	13,837	-5.0	0.07
BR707	5,336	4,228	4,504	5,047	7,131	6,677	7,405	5,994	7,108	5,452	3.8	0.34
BR708	7,599	7,287	6,928	7,951	7,211	8,415	9,286	6,792	9,152	9,295	2.4	0.3478
BR709	8,837	8,433	7,189	8,276	9,591	6,126	7,309	4,560	7,618	8,915	-2.3	0.0977
BR710	909	946	807	1,248	1,410	5,309	1,271	4,535	1,625	1,809	12.1	0.32

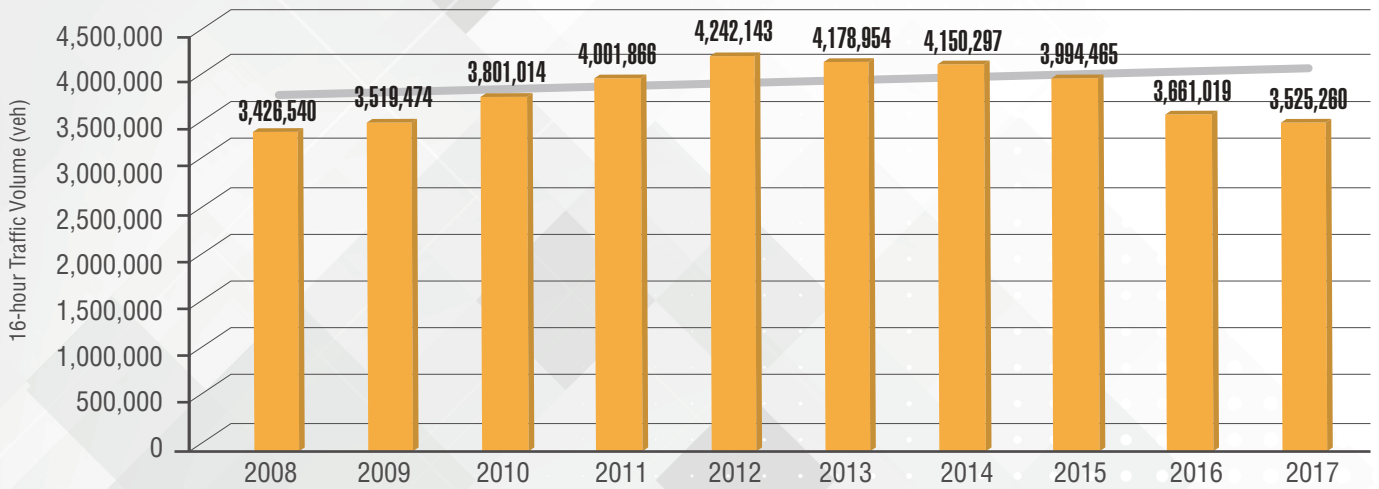
PETALING

BR801	131,808	178,059	206,864	207,643	146,240	156,700	119,307	53,045	112,247	86,482	-9.3	0.46
BR802	89,164	80,427	95,650	142,062	150,838	176,171	228,163	175,841	139,249	135,292	7.4	0.46
BR803	72,350	91,091	94,410	101,892	109,350	140,230	114,847	120,929	146,680	124,003	6.1	0.75
BR804	100,452	102,542	142,364	68,660	130,436	128,947	113,281	75,401	124,395	162,853	2.4	0.07
BR806	250,359	292,856	274,278	281,803	280,347	242,844	249,898	219,634	222,575	191,448	-3.6	0.66
BR807	394,821	337,370	369,479	313,431	349,936	348,056	357,032	383,080	260,288	220,034	-3.9	0.42
BR809	81,330	172,931	158,945	157,546	203,738	163,442	190,774	201,043	207,378	164,002	5.5	0.3795
BR811	12,368	15,865	17,487	18,609	16,372	20,525	19,037	26,605	17,000	17,312	3.6	0.3066
BR812	189,045	108,030	106,137	129,074	102,649	149,789	100,944	134,666	93,605	64,815	-5.9	0.381
BR813	107,642	121,609	91,437	122,191	221,495	72,274	102,022	151,632	77,046	87,555	-2.5	0.05
BR814	68,934	82,000	78,876	60,675	112,538	98,459	94,404	108,972	67,103	80,143	1.7	0.0586
BR815	112,600	65,762	133,701	109,705	133,308	167,137	136,854	171,629	75,817	75,050	-0.3	0.00

GOMBAK

Census Station Number	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Normal Growth (%/yr)	R ²
BR901	69,161	70,271	85,300	82,766	83,885	81,958	66,189	75,365	80,532	76,200	0.3	0.01
BR902	137,870	150,213	129,345	144,334	151,486	147,449	144,308	129,579	138,711	153,545	0.2	0.01
BR903	62,931	62,126	77,375	139,717	93,510	78,087	84,126	152,619	73,586	114,061	5.0	0.23
BR904	13,038	15,214	16,004	13,897	15,104	14,795	30,382	15,694	24,566	27,023	7.4	0.53
BR905	192,982	150,585	164,292	276,234	271,289	242,876	263,361	89,040	108,690	109,047	-6.5	0.22

YEARLY 16-HOUR TRAFFIC VOLUME (2008 - 2017)



$$y = 290.72e^{0.0047x} \mid R^2 = 0.0315$$

NORMAL GROWTH = 0.47%

Yearly 16-hour Traffic Volume (2008- 2017)
& Normal Traffic Growth with Exponential Trendline for the Year 2017 in Selangor

**3.85%
Decrease**

The state of Selangor consists of 66 census stations. The 16-hour traffic volume indicates a steady growth from year 2008 until year 2012. However, there is a decline in traffic volume for the year 2013 until 2017. For the following year, 2013 until 2017 shows a decline in traffic volume. The figure shows that there is a decrease of 3.85% from the year 2016 to 2017.

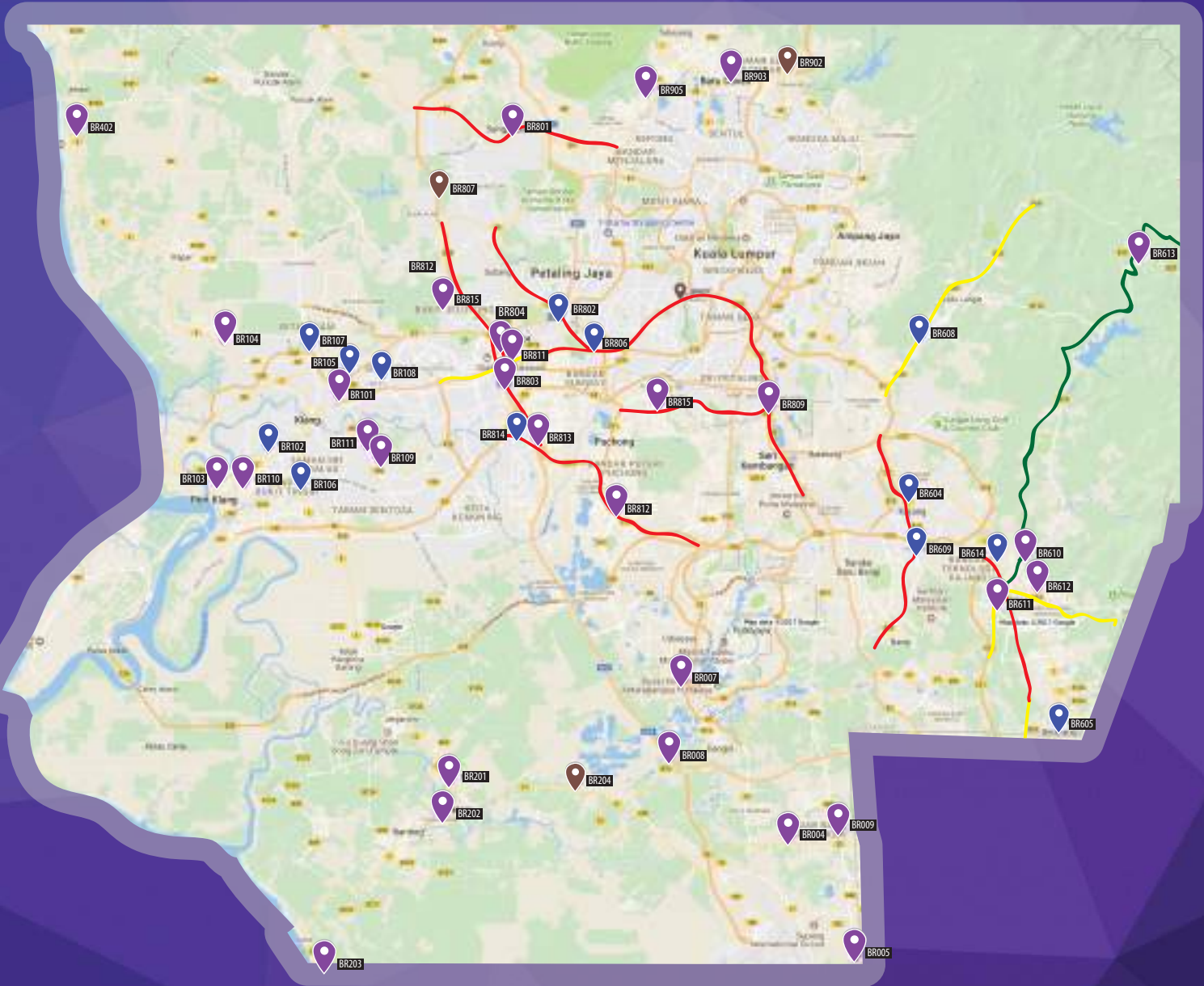
For the year 2017, the observed traffic growth rate for the state of Selangor is 0.47%. The basis of traffic growth rate record is to be used as a projection indicator of subsequent traffic growth rate for road forethought as well as for the expansion of current and new roads in Selangor.





TRAFFIC VOLUME SCALE

- ≤ 10,000
- 10,001 - 30,000
- > 30,000



WILAYAH PERSEKUTUAN KUALA LUMPUR



JKR WILAYAH PERSEKUTUAN KUALA LUMPUR

Blok D, Lot 8,
Jalan Chan Sow Lin,
50582 Kuala Lumpur,
Wilayah Persekutuan Kuala Lumpur
Tel: 03-9206 4400 | Faks: 03-9287 4781
www.wpkl.jkr.gov.my



W.P
KUALA LUMPUR



5
CENSUS
STATIONS

1
3
1

DISTRIBUTION OF SURVEY STATIONS

W.P Kuala Lumpur 3 1 6

W.P. KUALA LUMPUR

Census Station Number	Survey Type	Route Number	KM	Description of Location	GPS Coordinate (WGS84) (Latitude, Longitude)	Type of Carriageway
* WR101	1	54	8.9	Kuala Lumpur - Kuala Selangor (Jalan Kepong)	3.205 101.667	K 3-3
* WR102	0	1	12.1	Kuala Lumpur - Ipoh	3.236 101.671	K 3-3
* WR103	1	1	8.1	Kuala Lumpur - Ipoh	3.223 101.670	K 3-3
* WR107	1	E2	8.1	Kuala Lumpur - Seremban Expressway	3.076 101.702	K 3-3
* WR108	3	W106	5.8	Kuala Lumpur - Damansara	3.138 101.658	K 3-3

NOTE:

* Automation Traffic Count

W.P. KUALA LUMPUR

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
WR101	N/A	98,601	7,424	1200-1300	57.4	7.1	6.8	4.3	0.3	24.1	100.0
WR102	182,295	148,904	12,149	1800-1900	56.6	6.8	5.8	3.4	0.2	27.1	100.0
WR103	N/A	139,490	11,798	1800-1900	45.9	10.6	13.9	7.4	0.4	21.8	100.0
WR105	N/A	216,521	15,806	1800-1900	78.7	5.5	4.2	1.0	0.9	9.7	100.0
WR106	N/A	152,629	13,647	0700-0800	81.9	3.5	0.7	0.1	0.1	13.6	100.0

W.P. KUALA LUMPUR

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
WR101	N/A	107,446	8,460	1800-1900	57.4	7.0	6.7	4.1	0.2	24.7	100.0
WR102	158,735	128,050	11,559	1900-2000	57.7	6.8	5.5	3.4	0.2	26.4	100.0
WR103	N/A	148,602	13,191	1800-1900	58.3	5.8	5.0	2.7	0.2	28.0	100.0
WR105	N/A	175,115	13,021	1800-1900	59.1	6.3	6.0	3.8	0.3	24.5	100.0
WR106	N/A	172,331	13,329	0700-0800	56.0	8.5	7.7	2.8	0.2	24.9	100.0

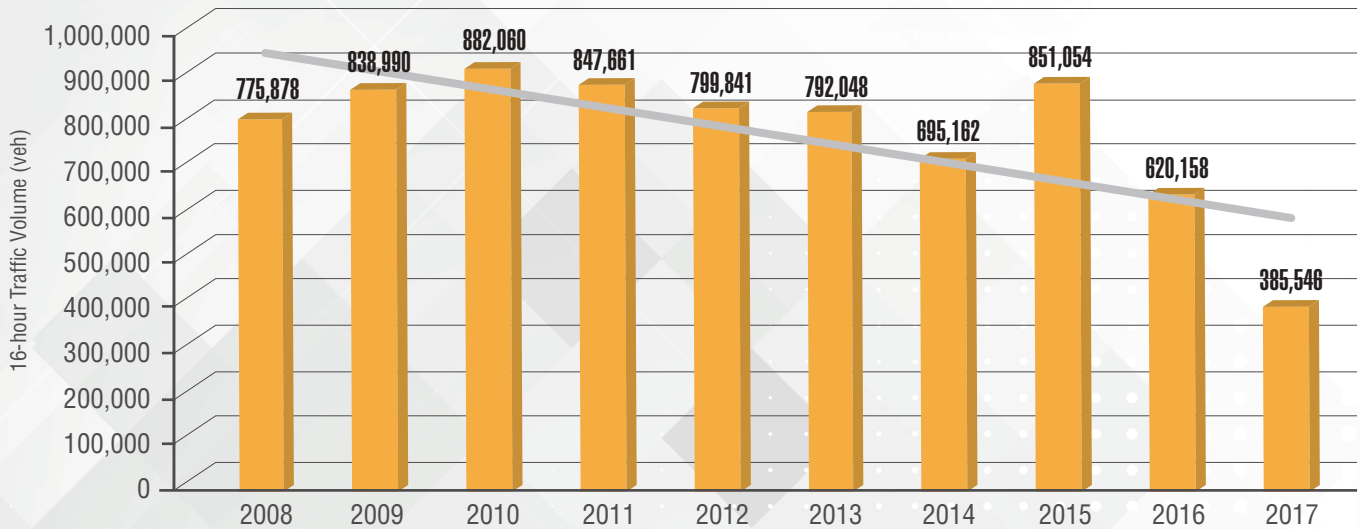
W.P. KUALA LUMPUR

Census Station Number	16-Hour Traffic	Peak Hour	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Buses	Motorcycles	Total	Level of Service (LOS)	Capacity Year
WR101	103,024	7,942	57.4	7.0	6.7	4.2	0.3	24.4	100%	E	-
WR102	138,477	11,854	57.2	6.8	5.7	3.4	0.2	26.8	100%	F	R
WR103	144,046	12,495	52.1	8.2	9.5	5.1	0.3	24.9	100%	F	R
WR107	195,818	14,414	68.9	5.9	5.1	2.4	0.6	17.1	100%	F	R
WR108	162,480	13,488	69.0	6.0	4.2	1.4	0.2	19.3	100%	F	R

W.P. KUALA LUMPUR

Census Station Number	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Normal Growth (%/yr)	R ²
WR101	138,727	190,272	153,564	136,860	139,737	160,694	132,401	111,097	122,688	103,024	-4.4	0.57
WR102	161,161	214,746	277,797	276,092	252,341	253,179	214,760	211,188	169,218	138,477	-3.1	0.16
WR103	205,867	194,287	196,796	209,224	203,277	216,424	192,223	162,596	205,686	144,046	-2.4	0.33
WR106	270,123	239,685	253,903	225,435	204,487	161,751	155,777	145,108	122,566	195,818	-7.1	0.6652
WR107									150,233	162,480		

YEARLY 16-HOUR TRAFFIC VOLUME (2008 - 2017)



$y = 4E+54e^{-0.056x} \mid R^2 = 0.4604$
NORMAL GROWTH = -5.60%

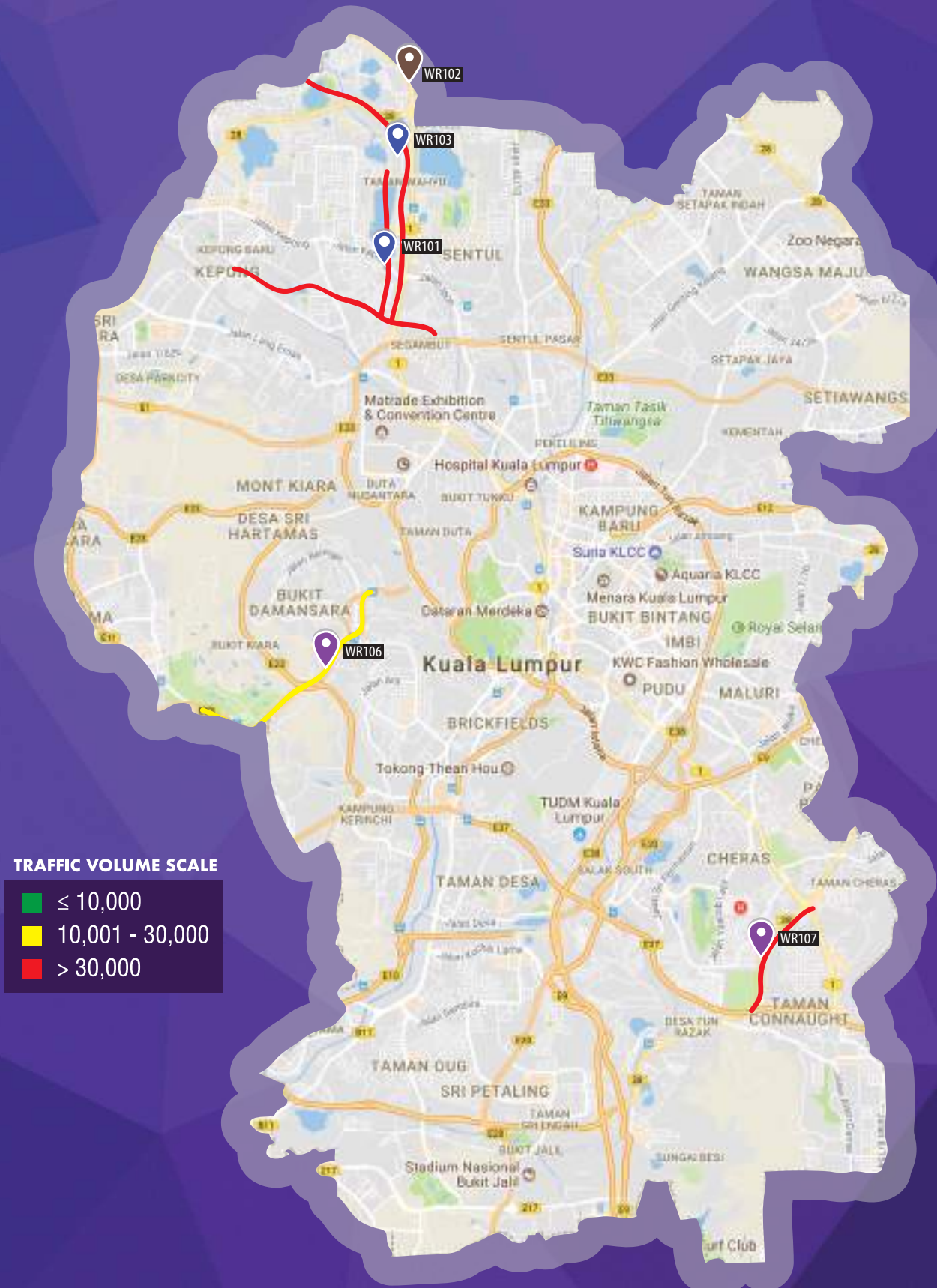
*Yearly 16-hour Traffic Volume (2008-2017)
 & Normal Traffic Growth with Exponential Trendline for the Year 2017 in W.P Kuala Lumpur*

**60.85%
Decrease**

There are 5 census stations in Wilayah Persekutuan Kuala Lumpur. The pattern of 16-hour traffic volume has fluctuated since the year 2008 until the year 2017. Between the year 2016 and 2017, there is a huge difference between the traffic volumes by 60.85% which shows that the number of vehicles in the year 2017 has decreased by 234,612.

For the year 2017, the observed traffic growth rate for the state of Wilayah Persekutuan Kuala Lumpur is -5.60%. The basis of traffic growth rate record is to be used as a projection indicator of subsequent traffic growth rate for road forethought as well as for the expansion of current and new roads in Wilayah Persekutuan Kuala Lumpur.





TRAFFIC VOLUME SCALE

- ≤ 10,000
- 10,001 - 30,000
- > 30,000

NEGERI SEMBILAN



JKR NEGERI SEMBILAN

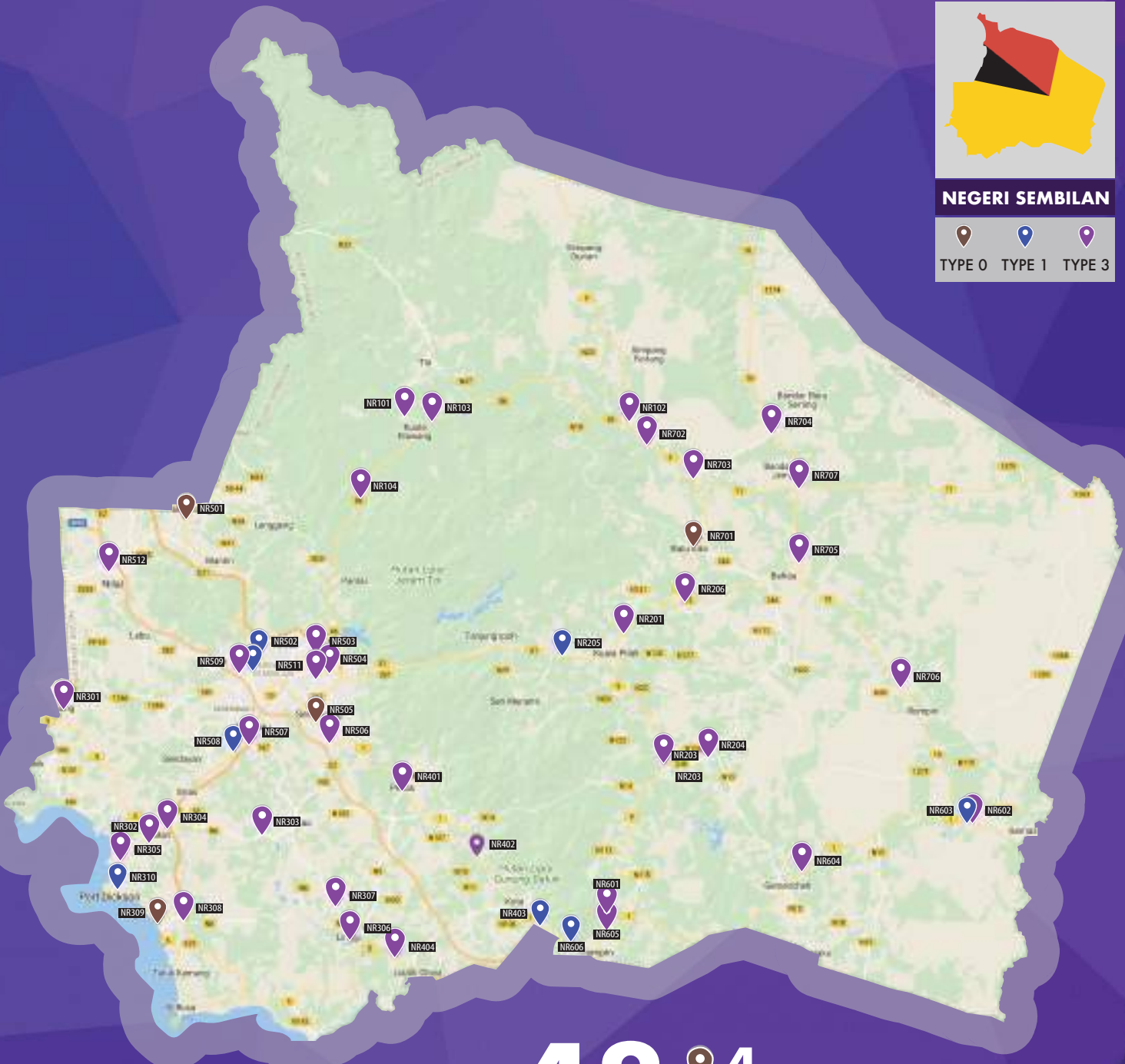
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NEGERI SEMBILAN




 TYPE 0 TYPE 1 TYPE 3



48  **4**
 **8**
CENSUS STATIONS  **36**

DISTRIBUTION OF SURVEY STATIONS

Jelebu	 0	 0	 4
Kuala Pilah	 0	 1	 4
Port Dickson	 1	 1	 8
Rembau	 0	 1	 3
Seremban	 2	 3	 7
Tampin	 0	 2	 4
Jempol	 1	 0	 6

JELEBU

Census Station Number	Survey Type	Route Number	KM	Description of Location	GPS Coordinate (WGS84) (Latitude, Longitude)	Type of Carriageway
NR101	3	N32	2.5	Kuala Klawang - Genting Peras	2.952 102.060	T 1-1
NR102	3	9	72.0	Kuala Pilah - Manchis (Simpang Pertang)	2.947 102.259	T 1-1
NR103	3	86	1.6	Kuala Klawang - Simpang Pertang (Peradong)	2.947 102.084	T 1-1
NR104	3	86	26.8	Seremban - Kuala Klawang	2.879 102.020	T 1-1

KUALA PILAH

NR201	3	9	42.7	Tampin - Kuala Pilah - Batu Kikir	2.760 102.255	T 1-1
NR203	3	9	19.3	Tampin - Kuala Pilah	2.640 102.292	T 1-1
NR204	3	N17	3.8	Dangi - Kepis - Jelai	2.647 102.330	T 1-1
NR205	1	51	33.0	Seremban - Kuala Pilah	2.738 102.200	T 1-1
NR206	3	13	2.1	Juasseh - Bahau	2.786 102.311	T 1-1

PORT DICKSON

NR301	3	5	26.3	Sepang - Port Dickson (Tanah Merah)	2.690 101.754	T 1-1
NR302	3	5	8.5	Sepang - Port Dickson (Lukut)	2.574 101.832	K 2-2
NR303	3	N6	4.8	Rantau - Siliu	2.579 101.932	T 1-1
NR304	3	53	10.2	Seremban - Port Dickson (Lukut)	2.582 101.848	K 2-2
NR305	3	5	4.0	Seremban - Port Dickson	2.554 101.807	K 2-2
NR306	3	5	41.6	Port Dickson - Lubok Cina (Linggi)	2.483 102.012	T 1-1
NR307	3	N7	28.7	Seremban - Rantau - Linggi	2.513 101.999	T 1-1
NR308	3	N8	16.1	Jalan Rantau/Linggi - camp Si Rusa - Port Dickson	2.502 101.862	T 1-1
NR309	0	5	6.4	Port Dickson - Lubok Cina (Jalan Pantai)	2.496 101.840	T 1-1
NR310	1	5	30.6	Seremban - Port Dickson (Port Dickson Bypass)	2.530 101.803	K 2-2

REMBAU

NR401	3	1	20.9	Seremban - Tampin	2.619 102.059	T 1-1
NR402	3	1	33.0	Seremban - Tampin	2.558 102.125	T 1-1
NR403	1	1	41.7	Seremban - Tampin	2.496 102.182	T 1-1
NR404	3	5	46.7	Linggi - Lubok Cina	2.467 102.052	T 1-1

SEREMBAN

Census Station Number	Survey Type	Route Number	KM	Description of Location	GPS Coordinate (WGS84) (Latitude, Longitude)	Type of
NR501	0	1	20.0	Seremban - Kuala Lumpur (Old road)	2.859 101.864	T 1-1
NR502	1	1	2.5	Seremban - Kuala Lumpur (Old road)	2.738 101.930	T 1-1
NR503	3	86	9.7	Seremban - Kuala Klawang	2.740 101.981	T 1-1
NR504	3	51	9.7	Seremban - Kuala Pilah	2.723 101.993	K 2-2
NR505	0	1	9.3	Seremban - Gemas (Sri Senawang Industrial Area)	2.678 101.980	K 2-2
NR506	3	N5	9.7	Seremban - Sungai Gadut / Ulu Sawah	2.660 101.994	T 1-1
NR507	3	N7	11.3	Seremban - Kuala Sawah	2.658 101.922	T 1-1
NR508	1	53	11.4	Seremban - Port Dickson	2.651 101.908	T 1-1
NR509	3	362	1.3	Seremban - Labu	2.722 101.912	T 1-1
NR510	1	241	1.3	Sg. Ujong (in front of Shell)	2.723 101.924	K 2-2
NR511	3	97	9.0	Paroi - Senawang	2.718 101.980	T 1-1
NR512	3	32	2.5	Nilai - KLIA	2.812 101.795	K 2-2

TAMPIN

NR601	3	9	3.2	Tampin - Kuala Pilah	2.506 102.240	T 1-1
NR602	3	1	96.8	Seremban - Gemas (140m east of Rompin junction)	2.587 102.567	T 1-1
NR603	1	1	95.8	Seremban - Gemas (60m west of Rompin junction)	2.588 102.562	T 1-1
NR604	3	1	77.3	Seremban - Gemas	2.544 102.415	T 1-1
NR605	3	1	52.8	Seremban - Gemas	2.494 102.240	T 1-1
NR606	1	1	46.5	Seremban - Tampin	2.481 102.209	T 1-1

JEMPOL

NR701	0	9	55.5	Seremban - Batu Kikir - Bahau	2.834 102.319	T 1-1
NR702	3	9	70.8	Kuala Pilah - Manchis (Serting Ulu)	2.925 102.277	T 1-1
NR703	3	245	3.2	Serting Ulu - Ayer Hitam	2.898 102.317	T 1-1
NR704	3	10	16.9	Bahau - Ayer Hitam - Kemayan	2.936 102.389	T 1-1
NR705	3	10	4.8	Bahau - Kemayan	2.821 102.413	T 1-1
NR706	3	10	82.1	Bahau - Rompin	2.709 102.504	T 1-1
NR707	3	11	62.5	Lebuhraya Bahau - Keratong	2.887 102.413	T 1-1

JELERU

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
NR101	N/A	13,611	1,528	0700-0800	56.2	9.4	2.5	0.8	0.4	30.8	100.0
NR102	N/A	4,069	401	1400-1500	45.8	9.2	7.7	5.3	0.5	31.6	100.0
NR103	N/A	12,352	1,528	0700-0800	52.5	12.3	2.6	1.5	0.4	30.7	100.0
NR104	N/A	7,654	812	0700-0800	66.4	10.7	5.5	3.4	0.6	13.5	100.0

KUALA PILAH

NR201	N/A	18,384	1,753	1700-1800	64.9	9.4	5.4	4.7	1.2	14.4	100.0
NR203	N/A	4,849	464	0700-0800	58.8	7.7	6.9	4.4	0.7	21.6	100.0
NR204	N/A	2,884	242	0700-0800	45.3	10.2	8.6	6.2	0.7	29.1	100.0
NR205	N/A	25,135	2,220	1700-1800	73.4	7.2	4.0	2.5	0.9	12.1	100.0
NR206	N/A	10,492	993	1700-1800	66.6	9.0	5.7	2.7	1.4	14.6	100.0

PORT DICKSON

NR301	N/A	20,089	1,911	2000-2100	74.7	8.3	5.4	4.0	0.5	7.1	100.0
NR302	N/A	36,764	3,256	1900-2000	76.3	7.3	4.6	3.4	0.5	7.9	100.0
NR303	N/A	5,444	441	1600-1700	47.3	13.6	7.2	4.0	1.1	26.8	100.0
NR304	N/A	49,700	4,749	0700-0800	78.6	6.7	3.7	2.5	0.6	7.9	100.0
NR305	N/A	58,077	6,200	0700-0800	79.9	6.9	2.2	1.6	0.5	8.9	100.0
NR306	N/A	5,535	621	1300-1400	47.0	13.0	7.1	1.9	0.9	30.1	100.0
NR307	N/A	3,817	377	0700-0800	52.4	12.2	7.2	3.2	1.3	23.7	100.0
NR308	N/A	11,100	1,746	0700-0800	61.3	11.6	3.5	1.0	0.6	22.0	100.0
NR309	30,971	27,327	2,283	1700-1800	66.5	8.1	2.1	0.3	0.8	22.2	100.0
NR310	N/A	18,758	1,872	0700-0800	70.3	6.7	2.7	2.3	0.5	17.4	100.0

REMBAU

NR401	N/A	21,171	2,271	0700-0800	67.2	7.8	6.4	2.1	0.6	16.0	100.0
NR402	N/A	11,868	1,266	0700-0800	62.5	9.2	9.2	3.6	0.7	14.8	100.0
NR403	N/A	12,967	1,113	1700-1800	66.0	9.9	8.0	3.1	0.7	12.3	100.0
NR404	N/A	2,575	243	1700-1800	52.5	11.2	10.6	4.7	0.7	20.3	100.0

SEREMBAN

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
NR501	12,620	11,492	876	0800-0900	60.7	9.7	7.0	4.7	0.7	17.2	100.0
NR502	N/A	39,247	3,001	1800-1900	72.7	6.6	3.8	0.3	0.3	16.2	100.0
NR503	N/A	17,193	2,088	0700-0800	62.2	13.2	5.3	3.0	0.4	16.1	100.0
NR504	N/A	22,819	2,272	0700-0800	62.3	14.1	5.8	3.9	1.2	12.7	100.0
NR505	55,234	50,404	3,961	0700-0800	69.8	7.4	5.8	2.0	0.4	14.7	100.0
NR506	N/A	13,392	1,758	0700-0800	51.5	15.6	4.4	1.5	0.9	26.1	100.0
NR507	N/A	20,546	1,957	1700-1800	55.9	12.2	6.7	3.3	0.8	21.1	100.0
NR508	N/A	15,671	1,333	1800-1900	66.2	6.0	5.0	2.0	0.9	19.9	100.0
NR509	N/A	23,939	2,167	0700-0800	62.9	14.2	6.5	2.4	0.3	13.8	100.0
NR510	N/A	50,210	4,117	0700-0800	79.7	5.9	1.7	0.2	1.2	11.3	100.0
NR511	N/A	19,876	2,091	0700-0800	63.1	13.6	3.9	1.5	0.3	17.6	100.0
NR512	N/A	31,784	3,391	1700-1800	70.0	11.4	2.9	1.8	0.5	13.5	100.0

TAMPIN

NR601	N/A	4,138	367	0700-0800	58.3	7.8	6.5	2.5	0.7	24.2	100.0
NR602	N/A	11,491	1,080	1700-1800	55.3	12.0	7.6	8.5	0.8	15.7	100.0
NR603	N/A	11,578	959	1700-1800	60.4	10.9	6.9	6.6	1.2	14.0	100.0
NR604	N/A	9,463	886	0700-0800	55.5	10.6	7.8	8.2	0.8	17.1	100.0
NR605	N/A	11,177	1,247	0800-0900	61.5	13.0	6.2	2.5	0.7	16.1	100.0
NR606	N/A	15,002	1,326	1700-1800	68.8	9.3	5.2	5.2	0.7	13.8	100.0

JEMPOL

NR701	18,916	17,919	1,741	1700-1800	68.2	11.3	3.9	3.3	0.5	12.9	100.0
NR702	N/A	6,795	642	0700-0800	53.3	11.8	8.2	4.2	0.2	22.2	100.0
NR703	N/A	7,244	667	1600-1700	32.9	16.7	12.8	17.4	0.1	20.0	100.0
NR704	N/A	23,531	1,924	0800-0900	48.1	14.9	8.5	8.8	0.4	19.3	100.0
NR705	N/A	9,883	764	1400-1500	50.0	14.9	7.6	10.0	0.2	17.3	100.0
NR706	N/A	9,695	896	1700-1800	36.8	16.6	11.2	16.2	0.8	18.4	100.0
NR707	N/A	15,906	1,781	1300-1400	57.8	15.7	9.2	8.0	0.5	8.8	100.0

JELEBU

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
NR101	N/A	14,795	2,192	0700-0800	51.0	8.8	2.6	0.5	1.0	36.1	100.0
NR102	N/A	4,062	387	1400-1500	47.7	8.0	8.7	5.7	0.6	29.4	100.0
NR103	N/A	11,887	1,247	1500-1600	53.4	12.8	3.1	1.2	0.3	29.1	100.0
NR104	N/A	7,516	944	0700-0800	64.6	10.7	5.7	1.8	0.5	16.6	100.0

KUALA PILAH

NR201	N/A	15,625	1,395	1700-1800	68.0	5.6	5.8	5.3	1.4	13.9	100.0
NR203	N/A	4,855	460	1700-1800	54.6	9.9	7.8	5.2	0.6	21.9	100.0
NR204	N/A	2,948	272	1700-1800	44.9	12.1	8.6	6.2	0.6	27.6	100.0
NR205	N/A	24,948	2,057	1700-1800	73.0	7.5	4.0	2.4	0.8	12.3	100.0
NR206	N/A	9,562	929	1700-1800	65.8	10.2	5.7	2.3	1.0	15.1	100.0

PORT DICKSON

NR301	N/A	18,126	1,568	1700-1800	66.2	10.9	5.9	5.9	0.7	10.4	100.0
NR302	N/A	31,880	3,390	1400-1500	69.9	10.3	5.3	3.9	0.5	10.1	100.0
NR303	N/A	5,090	475	0700-0800	47.6	9.8	9.4	5.4	1.4	26.4	100.0
NR304	N/A	48,001	5,511	0700-0800	74.8	9.1	4.0	3.5	0.7	7.9	100.0
NR305	N/A	63,484	6,946	0700-0800	78.6	8.7	2.8	2.4	0.6	6.8	100.0
NR306	N/A	4,217	560	1100-1200	50.0	7.6	5.2	1.4	1.3	34.5	100.0
NR307	N/A	3,066	280	0700-0800	52.2	11.2	7.2	1.9	1.2	26.3	100.0
NR308	N/A	10,619	1,461	0700-0800	67.4	9.2	2.3	0.5	0.5	20.1	100.0
NR309	33,607	29,290	2,349	1700-1800	67.9	8.6	1.9	0.3	0.8	20.4	100.0
NR310	N/A	21,000	1,799	0700-0800	66.3	10.8	2.7	2.6	0.7	16.9	100.0

REMBAU

NR401	N/A	20,746	2,166	0700-0800	62.1	9.7	7.6	2.7	0.6	17.3	100.0
NR402	N/A	12,284	1,242	0700-0800	60.9	10.7	9.1	3.7	0.8	14.7	100.0
NR403	N/A	13,863	1,265	0700-0800	66.8	9.5	8.0	2.6	0.7	12.4	100.0
NR404	N/A	2,787	258	1600-1700	48.9	15.7	11.4	7.4	0.5	16.1	100.0

SEREMBAN

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
NR501	12,355	11,136	1,074	1500-1600	63.0	8.2	5.9	4.9	0.6	17.3	100.0
NR502	53,139	47,994	4,040	1700-1800	70.4	6.7	5.4	2.1	0.3	14.9	100.0
NR503	N/A	17,283	2,165	0700-0800	64.5	10.6	4.6	4.2	0.4	15.5	100.0
NR504	N/A	24,021	2,452	0700-0800	65.3	12.2	5.3	4.2	0.9	12.1	100.0
NR505	53,139	47,994	4,040	1700-1800	70.4	6.7	5.4	2.1	0.3	14.9	100.0
NR506	N/A	15,054	2,112	0700-0800	53.3	13.6	5.1	1.4	0.7	25.9	100.0
NR507	N/A	20,496	1,919	1700-1800	61.5	9.0	6.4	3.2	0.7	19.2	100.0
NR508	N/A	15,986	1,331	1800-1900	64.3	6.5	5.1	2.4	1.0	20.7	100.0
NR509	N/A	25,594	2,163	1700-1800	65.0	10.9	5.7	2.8	0.3	15.4	100.0
NR510	N/A	48,354	3,608	0700-0800	80.3	7.1	1.8	0.2	1.1	9.6	100.0
NR511	N/A	20,865	2,420	0700-0800	68.5	7.2	3.4	1.8	0.3	18.9	100.0
NR512	N/A	29,508	2,390	1700-1800	68.7	11.0	3.7	1.8	0.7	14.0	100.0

TAMPIN

NR601	N/A	4,058	390	0700-0800	56.2	8.0	6.2	3.3	0.6	25.7	100.0
NR602	N/A	12,320	1,153	1700-1800	56.2	12.2	7.7	8.1	0.6	15.2	100.0
NR603	N/A	11,631	1,024	1700-1800	62.0	10.6	7.0	6.3	0.6	13.5	100.0
NR604	N/A	10,054	898	0700-0800	58.2	10.1	7.2	6.7	0.8	17.0	100.0
NR605	N/A	10,814	973	0700-0800	63.3	9.3	5.9	3.3	0.6	17.6	100.0
NR606	N/A	15,253	1,280	1700-1800	69.7	8.2	5.2	2.0	0.7	14.1	100.0

JEMPOL

NR701	21,858	19,071	1,718	1700-1800	69.5	8.6	3.5	4.0	0.6	13.8	100.0
NR702	N/A	6,405	642	1700-1800	44.7	16.2	10.4	7.1	0.4	21.1	100.0
NR703	N/A	2,916	369	0700-0800	52.7	9.4	10.0	9.7	0.6	17.6	100.0
NR704	N/A	19,334	1,583	1700-1800	61.3	12.7	6.3	3.1	0.3	16.4	100.0
NR705	N/A	10,727	1,029	1700-1800	45.4	13.9	8.3	10.9	0.3	21.3	100.0
NR706	N/A	8,147	895	1700-1800	44.9	13.7	9.1	14.1	0.3	17.9	100.0
NR707	N/A	12,471	1,123	1000-1100	54.9	12.7	7.0	10.1	0.4	14.8	100.0

JELERU

Census Station Number	16-Hour Traffic	Peak Hour	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Buses	Motorcycles	Total	Level of Service (LOS)	Capacity Year
NR101	14,203	1,860	53.6	9.1	2.5	0.6	0.7	33.4	100%	F	R
NR102	4,066	394	46.7	8.6	8.2	5.5	0.5	30.5	100%	A	2149
NR103	12,120	1,388	52.9	12.6	2.9	1.3	0.4	29.9	100%	C	2023
NR104	7,585	878	65.5	10.7	5.6	2.6	0.5	15.1	100%	A	2034

KUALA PILAH

NR201	17,005	1,574	66.5	7.5	5.6	5.0	1.3	14.1	100%	F	R
NR203	4,852	462	56.7	8.8	7.3	4.8	0.6	21.8	100%	A	-
NR204	2,916	257	45.1	11.2	8.6	6.2	0.6	28.3	100%	A	-
NR205	25,041	2,138	73.2	7.3	4.0	2.4	0.9	12.2	100%	F	R
NR206	10,027	961	66.2	9.6	5.7	2.5	1.2	14.8	100%	A	-

PORT DICKSON

NR301	19,108	1,740	70.4	9.6	5.7	5.0	0.6	8.7	100%	F	R
NR302	34,322	3,323	73.1	8.8	5.0	3.6	0.5	9.0	100%	C	-
NR303	5,267	458	47.4	11.7	8.3	4.7	1.2	26.6	100%	A	2130
NR304	48,851	5,130	76.7	7.9	3.9	3.0	0.7	7.9	100%	F	R
NR305	60,781	6,573	79.3	7.8	2.5	2.0	0.6	7.8	100%	F	R
NR306	4,876	591	48.5	10.3	6.1	1.6	1.1	32.3	100%	A	-
NR307	3,442	329	52.3	11.7	7.2	2.5	1.2	25.0	100%	A	2100
NR308	10,860	1,604	64.3	10.4	2.9	0.8	0.6	21.0	100%	D	2019
NR309	28,309	2,316	67.2	8.3	2.0	0.3	0.8	21.3	100%	E	2019
NR310	19,879	1,835	68.3	8.8	2.7	2.5	0.6	17.2	100%	A	2068

REMBAU

NR401	20,959	2,219	64.7	8.7	7.0	2.4	0.6	16.6	100%	F	R
NR402	12,076	1,254	61.7	9.9	9.2	3.7	0.8	14.8	100%	B	-
NR403	13,415	1,189	66.4	9.7	8.0	2.8	0.7	12.3	100%	C	-
NR404	2,681	251	50.7	13.5	11.0	6.0	0.6	18.2	100%	A	2183

SEREMBAN

Census Station Number	16-Hour Traffic	Peak Hour	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Buses	Motorcycles	Total	Level of Service (LOS)	Capacity Year
NR501	11,314	975	61.8	9.0	6.4	4.8	0.6	17.3	100%	B	-
NR502	43,620	3,520	71.6	6.7	4.6	1.2	0.3	15.6	100%	F	R
NR503	17,238	2,127	63.4	11.9	4.9	3.6	0.4	15.8	100%	F	R
NR504	23,420	2,362	63.8	13.1	5.6	4.1	1.1	12.4	100%	A	2032
NR505	49,199	4,001	70.1	7.0	5.6	2.1	0.4	14.8	100%	C	2025
NR506	14,223	1,935	52.4	14.6	4.8	1.4	0.8	26.0	100%	F	R
NR507	20,521	1,938	58.7	10.6	6.5	3.2	0.8	20.2	100%	F	R
NR508	15,828	1,332	65.3	6.3	5.0	2.2	0.9	20.3	100%	C	2023
NR509	24,767	2,165	63.9	12.6	6.1	2.6	0.3	14.6	100%	F	R
NR510	49,282	3,863	80.0	6.5	1.7	0.2	1.2	10.4	100%	C	-
NR511	20,371	2,256	65.8	10.4	3.6	1.7	0.3	18.2	100%	F	R
NR512	30,646	2,891	69.4	11.2	3.3	1.8	0.6	13.7	100%	A	2025

TAMPIN

NR601	4,098	379	57.2	7.9	6.4	2.9	0.7	24.9	100%	A	-
NR602	11,906	1,117	55.8	12.1	7.6	8.3	0.7	15.5	100%	D	2022
NR603	11,604	991	61.2	10.7	6.9	6.4	0.9	13.8	100%	C	2031
NR604	9,759	892	56.8	10.4	7.5	7.5	0.8	17.0	100%	B	2061
NR605	10,996	1,110	62.4	11.2	6.1	2.9	0.6	16.9	100%	C	-
NR606	15,128	1,303	69.2	8.8	5.2	3.6	0.7	13.9	100%	D	2037

JEMPOL

NR701	18,495	1,729	68.8	9.9	3.7	3.7	0.6	13.3	100%	F	R
NR702	6,600	642	49.0	14.0	9.3	5.7	0.3	21.7	100%	A	2052
NR703	5,080	518	42.8	13.1	11.4	13.6	0.4	18.8	100%	A	2039
NR704	21,433	1,754	54.7	13.8	7.4	5.9	0.3	17.8	100%	F	R
NR705	10,305	897	47.7	14.4	8.0	10.4	0.3	19.3	100%	C	2032
NR706	8,921	896	40.9	15.1	10.1	15.2	0.6	18.1	100%	D	-
NR707	14,189	1,452	56.3	14.2	8.1	9.1	0.5	11.8	100%	F	R

JELEBU

Census Station Number	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Normal Growth (%/yr)	R ²
NR101	13,053	13,221	15,191	12,810	12,553	12,699	12,550	12,894	14,632	14,203	0.4	0.03
NR102	3,689	3,636	3,588	4,135	4,444	4,439	3,803	4,026	3,698	4,066	0.8	0.09
NR103	7,442	8,312	9,454	9,899	9,486	9,274	10,220	9,425	12,489	12,120	4.4	0.75
NR104	5,081	6,795	6,104	6,527	6,305	7,081	5,494	6,192	7,387	7,585	2.3	0.31

KUALA PILAH

NR201	15,078	15,159	18,275	16,325	13,054	18,015	17,366	8,726	12,961	17,005	-1.9	0.07
NR203	4,626	3,847	3,177	5,212	4,738	3,616	3,568	1,783	4,465	4,852	-1.7	0.03
NR204	2,858	2,707	2,823	3,255	3,671	3,576	3,408	1,955	2,484	2,916	-1.3	0.04
NR205	19,844	19,809	21,601	23,422	24,579	24,141	23,984	24,572	24,895	25,041	2.7	0.78
NR206	8,417	7,219	8,339	10,185	9,202	8,927	8,884	4,968	7,523	10,027	-0.7	0.01

PORT DICKSON

NR301	28,144	28,268	35,671	17,207	27,411	24,273	27,331	22,956	19,433	19,108	-4.3	0.3343
NR302	38,945	51,177	46,261	36,334	39,319	41,120	46,479	35,197	27,474	34,322	-3.7	0.3841
NR303	4,724	5,802	5,165	5,574	5,667	5,448	5,216	5,304	6,492	5,267	1.0	0.13
NR304	68,327	67,092	65,580	46,201	54,394	59,864	62,112	57,613	41,295	48,851	-3.7	0.43
NR305	106,925	102,377	106,143	72,372	96,685	74,129	87,872	74,402	53,157	60,781	-6.7	0.71
NR306	3,778	4,248	4,093	4,871	3,881	3,608	3,848	3,798	4,549	4,876	1.0	0.07
NR307	3,877	4,352	4,377	5,105	4,013	3,995	4,165	4,662	4,356	3,442	-0.8	0.05
NR308	5,289	8,097	6,699	7,353	8,453	7,799	6,971	8,601	11,903	10,860	6.2	0.64
NR309	27,032	32,047	26,376	26,645	27,367	27,534	27,745	28,624	15,881	28,309	-2.4	0.15
NR310	17,693	19,613	17,602	20,705	19,254	19,573	19,659	22,274	20,273	19,879	1.4	0.38

REMBAU

NR401	15,867	18,231	16,353	17,326	16,856	17,427	16,004	18,419	11,492	20,959	-0.2	0.00
NR402	11,614	11,621	11,678	12,620	11,775	9,910	9,332	10,536	6,999	12,076	-2.9	0.25
NR403	12,990	13,073	12,690	12,565	12,832	12,645	11,459	12,465	12,737	13,415	-0.2	0.01
NR404	2,631	2,848	2,694	2,913	2,674	2,673	2,744	2,716	1,767	2,681	-2.0	0.19

SEREMBAN

NR501	14,329	12,530	12,052	11,964	11,397	10,671	11,810	11,870	10,984	11,314	-2.0	0.53
NR502	40,839	44,119	43,126	42,148	39,784	39,538	34,353	38,853	39,378	43,620	-0.8	0.11
NR503	24,952	9,793	10,778	14,080	11,882	13,933	14,754	15,649	15,455	17,238	1.2	0.02
NR504	18,121	17,048	17,423	18,817	19,923	20,620	20,937	20,520	21,008	23,420	3.0	0.85
NR505	38,197	33,697	35,708	38,378	57,639	50,484	48,002	47,976	48,966	49,199	4.2	0.51
NR506	16,955	16,879	20,621	22,052	22,302	23,784	21,647	13,851	11,604	14,223	-3.7	0.21
NR507	14,115	15,974	17,087	17,825	18,194	17,083	17,802	18,232	17,143	20,521	2.5	0.61
NR508	13,264	6,218	14,728	15,310	16,349	15,911	15,820	15,831	16,086	15,828	5.3	0.29
NR509	18,692	14,456	21,511	22,881	25,373	25,246	27,050	25,733	22,475	24,767	4.3	0.46
NR510	65,787	67,554	58,814	58,337	60,592	60,615	57,729	52,092	52,512	49,282	-3.0	0.83
NR511	19,362	20,111	17,400	17,875	19,044	17,951	18,800	18,772	17,625	20,371	0.0	0.00
NR512	18,200	18,414	21,625	25,022	25,048	22,912	26,634	24,621	26,198	30,646	4.8	0.79

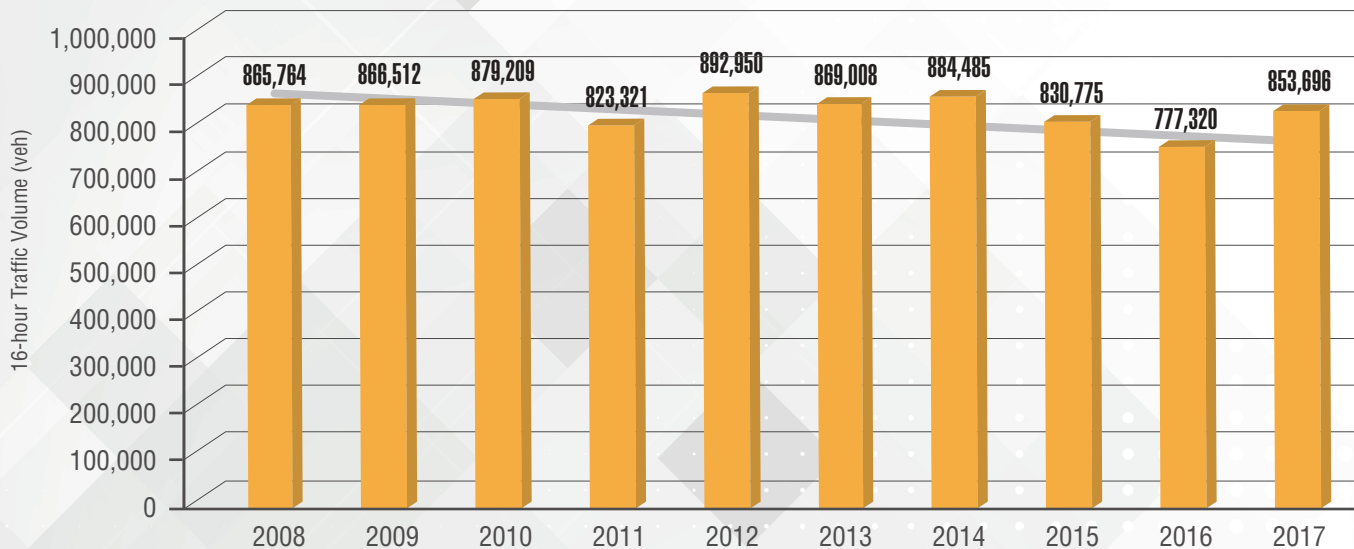
TAMPIN

Census Station Number	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Normal Growth (%/yr)	R ²
NR601	4,218	4,504	4,040	4,096	4,177	3,964	3,826	3,726	4,376	4,098	-0.7	0.13
NR602	10,161	10,632	10,726	10,240	11,614	11,234	11,639	12,166	12,776	11,906	2.2	0.79
NR603	10,331	10,723	10,231	10,855	11,816	11,791	11,582	12,220	12,174	11,604	1.8	0.71
NR604	10,580	11,050	11,312	10,837	11,007	10,976	11,142	9,739	9,824	9,759	-1.3	0.48
NR605	9,349	9,359	9,721	10,055	9,894	9,477	7,220	7,594	9,961	10,996	-0.2	0.00
NR606	14,890	14,431	13,993	15,056	14,965	14,986	14,747	14,961	15,004	15,128	0.4	0.28

JEMPOL

NR701	15,388	15,845	16,407	16,020	19,559	17,685	17,289	20,380	22,456	18,495	3.2	0.63
NR702	5,645	5,865	5,739	6,242	5,391	5,587	6,362	5,536	5,780	6,600	0.7	0.11
NR703	3,203	5,933	6,629	4,667	4,322	4,802	5,537	4,695	4,359	5,080	0.5	0.01
NR704	7,098	7,103	7,304	8,321	8,072	7,610	7,670	7,692	10,383	21,433	7.6	0.47
NR705	24,334	26,119	21,951	21,282	26,948	31,858	30,974	28,123	22,842	10,305	-3.7	0.12
NR706	10,743	9,510	7,911	8,456	8,160	7,920	7,466	8,492	8,929	8,921	-1.3	0.14
NR707	9,087	9,094	12,438	12,944	10,892	10,616	13,490	9,353	10,688	14,189	2.3	0.18

YEARLY 16-HOUR TRAFFIC VOLUME (2008 - 2017)



$y = 1E+11e^{-0.006x} \mid R^2 = 0.186$
NORMAL GROWTH = -0.60%

*Yearly 16-hour Traffic Volume (2008-2017)
 & Normal Traffic Growth with Exponential Trendline for the Year 2017 in Negeri Sembilan*

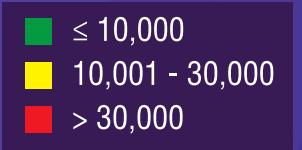
**8.95%
Increase**

In Negeri Sembilan, there are 48 census stations. The yearly 16-hour traffic volume from year 2008 until 2017 displays the least traffic volume in the year 2011 and year 2016 which were 823,321 and 777,320 vehicle respectively. The traffic volume also increased 8.95% from the year 2016 to the year 2017.

For the year 2017, the observed traffic growth rate for the state of Negeri Sembilan is -0.60%. The basis of traffic growth rate record is to be used as a projection indicator of subsequent traffic growth rate for road forethought as well as for the expansion of current and new roads in Negeri Sembilan.



TRAFFIC VOLUME SCALE





MELAKA

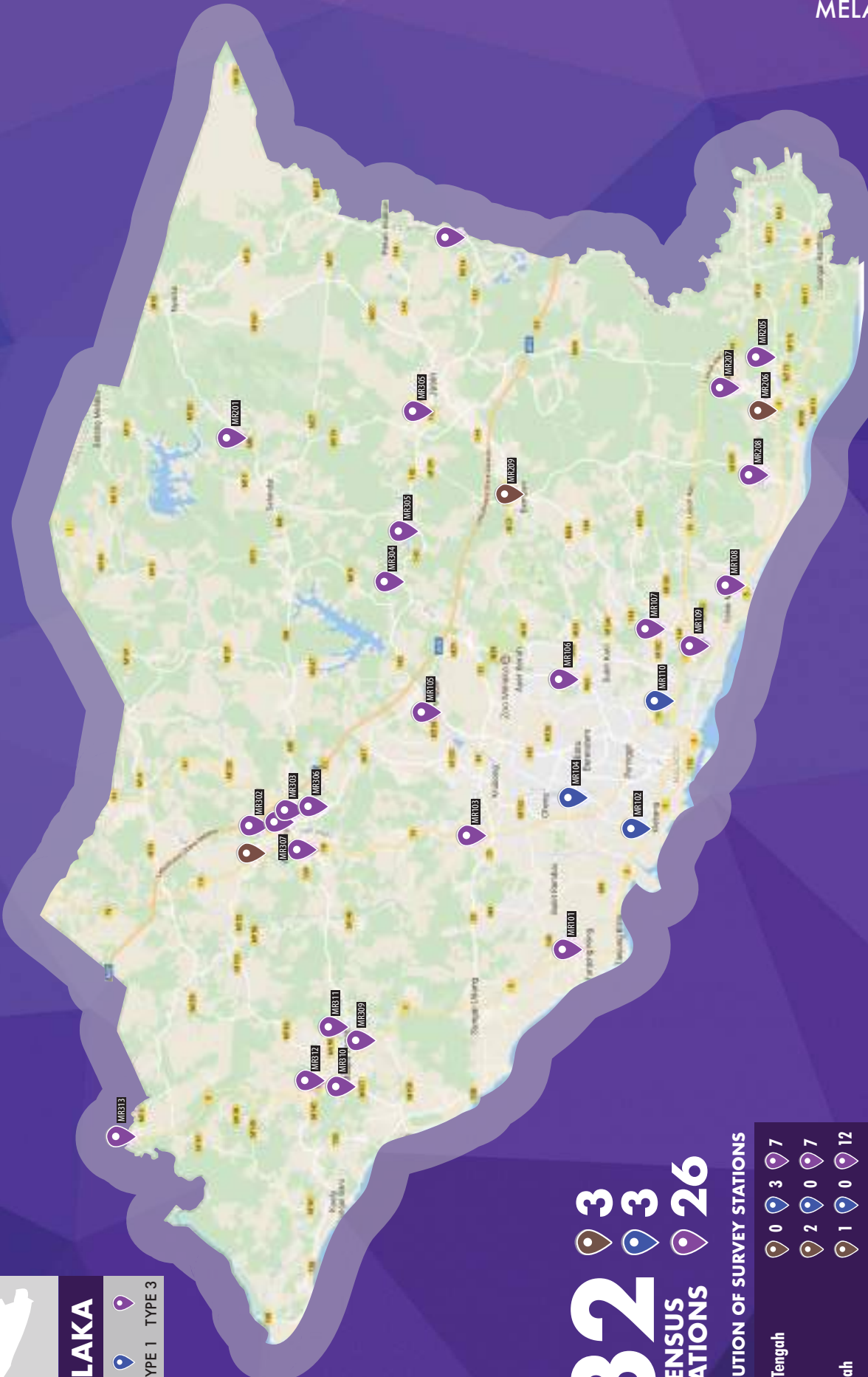


JKR NEGERI MELAKA
Peti Surat 96, Jalan Taming Sari,
75906 Melaka,
Melaka Bandaraya Bersejarah
Tel : 06-285 4600 | Fax : 06-284 7792
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MELAKA

TYPE 0 TYPE 1 TYPE 3



32
CENSUS STATIONS

DISTRIBUTION OF SURVEY STATIONS

Melaka Tengah	0	3	7
Jasin	2	0	7
Alor Gajah	1	0	12

MELAKA TENGAH

Census Station Number	Survey Type	Route Number	KM	Description of Location	GPS Coordinate (WGS84) (Latitude, Longitude)	Type of Carriageway
MR101	3	5	14.2	Jalan Melaka - Masjid Tanah	2.239 102.160	T 1-1
MR102	1	5	5.2	Jalan Melaka - Sungai Udang	2.207 102.218	T 1-1
MR103	3	19	11.3	Lebuah AMJ (Melaka - Alor Gajah)	2.285 102.214	K 2-2
MR104	1	19	5.0	Lebuah AMJ (Melaka - Kendong)	2.237 102.233	K 2-2
MR105	3	M2	9.7	Melaka - Durian Tunggal	2.307 102.273	K 2-2
MR106	3	M31	14.0	Jalan Bukit Katil	2.241 102.290	K 2-2
MR107	3	M27	9.7	Melaka - Kampung Kandang - Bemban	2.199 102.314	T 1-1
MR108	3	5	12.1	Jalan Melaka - Muar	2.161 102.334	T 1-1
MR109	3	5	4.0	Jalan Melaka-Muar (Bandar Hilir - Kg. Kendong road)	2.178 102.306	T 1-1
MR110	1	5	3.2	Jalan Melaka - Muar	2.195 102.279	K 3-3

JASIN

MR201	3	M8	38.6	Selandar - Nyalas	2.400 102.406	T 1-1
MR202	3	M2	35.4	Durian Tunggal - Jasin	2.312 102.418	T 1-1
MR203	3	M2	38.6	Jasin - Kampong Chohong	2.295 102.502	T 1-1
MR204	3	M2	32.2	Jasin - Simpang Kerayong	2.295 102.502	T 1-1
MR205	3	M14	24.2	Merlimau - Batu Gajah	2.148 102.445	T 1-1
MR206	0	5	22.9	Jalan Melaka - Muar	2.146 102.419	T 1-1
MR207	3	M25	24.2	Merlimau - Jasin	2.164 102.430	T 1-1
MR208	3	M109	32.2	Serkam - Bemban	2.150 102.388	T 1-1
MR209	0	144	2.1	Jasin - Bemban	2.267 102.378	T 1-1

ALOR GAJAH

MR301	0	19	25.0	Lebuah AMJ (Alor Gajah - Kendong)	2.391 102.206	T 1-1
MR302	3	61	25.8	Jalan Alor Gajah - Tampin	2.389 102.219	T 1-1
MR303	3	M8	34.3	Alor Gajah - Machap	2.373 102.226	T 1-1
MR304	3	M2	20.9	Durian Tunggal - Simpang Gading - Kesang Pajak	2.325 102.336	T 1-1
MR305	3	M2	17.7	Durian Tunggal - Simpang Gading	2.318 102.361	T 1-1
MR306	3	M17	25.8	Durian Tunggal - Alor Gajah	2.362 102.228	T 1-1
MR307	3	M17	27.4	Durian Tunggal - Alor Gajah	2.378 102.221	T 1-1
MR308	3	19	22.5	Lebuah AMJ (Melaka - Alor Gajah)	2.366 102.208	T 2-2
MR309	3	5	27.4	Melaka - Masjid Tanah	2.340 102.117	T 1-1
MR310	3	M157	30.6	Masjid Tanah - Pengkalan Balak	2.349 102.095	T 1-1
MR311	3	139	33.8	Jalan Masjid Tanah - Lendu - Alor Gajah	2.352 102.123	T 1-1
MR312	3	5	30.6	Jalan Melaka - Masjid Tanah - Lubok China	2.363 102.096	T 1-1
MR313	3	5	43.5	Jalan Melaka - Masjid Tanah - Lubok China	2.453 102.070	T 1-1

MELAKA TENGAH

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	BusSES	Motorcycles	Total
MR101	N/A	14,994	1,324	1300-1400	64.9	13.9	0.8	0.0	0.6	19.8	100.0
MR102	N/A	22,823	1,873	1700-1800	71.5	3.4	2.6	0.9	0.6	21.0	100.0
MR103	N/A	51,946	6,606	1800-1900	62.7	16.0	5.7	1.8	0.3	13.5	100.0
MR104	N/A	102,460	8,620	1800-1900	73.7	7.2	2.4	0.4	0.4	16.0	100.0
MR105	N/A	48,302	6,234	0700-0800	58.8	17.6	4.3	0.6	1.1	17.6	100.0
MR106	N/A	43,875	5,866	0700-0800	56.3	21.8	1.4	0.2	0.3	20.2	100.0
MR107	N/A	14,777	1,635	0800-0900	61.8	13.7	3.0	0.3	0.3	20.9	100.0
MR108	N/A	21,976	2,266	0700-0800	55.4	12.4	2.7	0.3	0.3	29.0	100.0
MR109	N/A	11,145	945	1600-1700	55.8	15.0	1.8	0.2	0.2	26.9	100.0
MR110	N/A	53,284	4,564	1800-1900	74.4	5.2	3.0	0.6	0.6	16.0	100.0

JASIN

MR201	N/A	3,810	384	0700-0800	37.3	8.2	10.3	16.4	0.1	27.8	100.0
MR202	N/A	6,856	778	0700-0800	50.6	11.0	3.9	0.6	0.9	32.9	100.0
MR203	N/A	8,659	753	1400-1500	52.5	9.7	11.2	1.9	0.3	24.5	100.0
MR204	N/A	11,667	1,143	0700-0800	50.1	11.2	3.9	0.6	0.5	33.6	100.0
MR205	N/A	7,498	849	1700-1800	48.3	8.5	4.2	0.5	0.4	38.0	100.0
MR206	18,699	16,623	1,265	0700-0800	57.3	4.6	2.9	0.7	0.5	33.9	100.0
MR207	N/A	13,381	1,222	1800-1900	60.6	9.3	4.0	1.1	0.6	24.6	100.0
MR208	N/A	7,665	857	1800-1900	51.2	6.2	4.1	2.3	0.3	36.0	100.0
MR209	25,051	22,615	1,971	0700-0800	65.2	7.6	4.7	0.8	0.3	21.4	100.0

ALOR GAJAH

MR301	20,583	19,112	1,667	0700-0800	59.2	3.9	3.7	0.6	0.6	31.9	100.0
MR302	N/A	14,393	1,682	0700-0800	62.4	7.2	6.1	0.8	0.5	23.0	100.0
MR303	N/A	18,663	2,020	1200-1300	58.1	6.9	5.5	1.2	0.7	27.6	100.0
MR304	N/A	3,986	606	1700-1800	52.8	11.6	11.4	2.7	0.2	21.3	100.0
MR305	N/A	10,533	1,102	1200-1300	50.2	9.6	13.5	3.2	0.5	23.0	100.0
MR306	N/A	14,284	1,556	0700-0800	56.8	7.7	8.9	2.2	0.8	23.7	100.0
MR307	N/A	16,668	1,957	0700-0800	57.7	7.4	7.4	1.5	0.7	25.2	100.0
MR308	N/A	18,327	2,250	0700-0800	56.8	5.7	5.0	1.3	0.9	30.2	100.0
MR309	N/A	22,415	2,421	1800-1900	60.1	6.4	3.2	0.3	0.4	29.6	100.0
MR310	N/A	16,277	1,779	1200-1300	56.3	5.0	2.5	0.3	0.3	35.6	100.0
MR311	N/A	12,413	1,437	0700-0800	59.8	6.3	4.0	0.5	0.4	29.0	100.0
MR312	N/A	19,216	1,794	1900-2000	60.2	5.9	3.4	0.6	0.4	29.6	100.0
MR313	N/A	8,614	1,050	1800-1900	54.0	6.2	3.7	0.9	0.3	34.9	100.0

MELAKA TENGAH

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
MR101	N/A	15,924	1,582	1800-1900	56.2	16.5	0.9	0.2	0.5	25.6	100.0
MR102	N/A	19,063	2,014	1700-1800	62.7	5.7	2.9	0.5	0.7	27.6	100.0
MR103	N/A	51,079	5,283	1700-1800	55.7	19.1	6.1	1.7	0.5	17.0	100.0
MR104	N/A	103,328	8,888	1300-1400	74.4	7.8	2.5	0.4	0.3	14.6	100.0
MR105	N/A	44,402	4,679	1800-1900	54.3	19.3	4.6	0.7	1.2	19.9	100.0
MR106	N/A	39,820	5,231	1800-1900	56.6	15.7	2.1	0.3	0.3	25.1	100.0
MR107	N/A	12,490	1,238	1800-1900	54.5	19.9	3.5	0.3	0.3	21.5	100.0
MR108	N/A	22,838	2,266	1700-1800	51.6	15.4	2.5	0.2	0.3	29.9	100.0
MR109	N/A	12,418	1,197	1800-1900	51.7	22.0	1.6	0.1	0.3	24.3	100.0
MR110	N/A	61,820	5,550	1800-1900	75.7	3.9	2.6	0.7	0.6	16.5	100.0

JASIN

MR201	N/A	2,867	337	0700-0800	44.5	6.7	17.8	2.3	0.7	28.1	100.0
MR202	N/A	5,985	682	0700-0800	60.7	4.0	4.2	0.3	0.5	30.3	100.0
MR203	N/A	5,985	682	0700-0800	54.4	7.8	11.6	1.6	0.7	24.0	100.0
MR204	N/A	9,619	1,151	0700-0800	62.6	3.4	5.5	0.6	0.6	27.2	100.0
MR205	N/A	4,306	417	1400-1500	41.0	14.0	5.0	1.0	0.9	38.1	100.0
MR206	17,987	16,036	1,402	1800-1900	57.4	5.4	2.6	0.5	0.6	33.5	100.0
MR207	N/A	14,167	1,327	1800-1900	52.2	4.2	1.9	0.9	1.1	39.6	100.0
MR208	N/A	6,099	910	0700-0800	52.7	4.9	2.9	0.9	0.6	37.9	100.0
MR209	25,557	23,101	2,098	0700-0800	66.6	6.6	4.8	0.8	0.3	21.0	100.0

ALOR GAJAH

MR301	17,895	16,448	1,635	0700-0800	64.8	3.6	2.5	0.7	0.6	27.7	100.0
MR302	N/A	15,214	1,743	0700-0800	59.1	10.7	4.0	0.7	0.5	25.0	100.0
MR303	N/A	19,347	1,908	0700-0800	57.2	10.9	3.8	0.9	0.3	26.9	100.0
MR304	N/A	5,210	553	1400-1500	48.0	5.2	8.7	3.9	0.7	33.5	100.0
MR305	N/A	11,365	998	1200-1300	51.5	5.1	6.3	1.3	0.7	35.1	100.0
MR306	N/A	16,010	1,557	1300-1400	54.9	4.3	6.3	2.2	1.5	30.8	100.0
MR307	N/A	15,085	1,524	1800-1900	55.7	3.4	4.1	1.1	0.8	34.9	100.0
MR308	N/A	17,312	2,251	0700-0800	51.8	9.3	3.9	1.3	0.8	32.9	100.0
MR309	N/A	17,560	1,782	0700-0800	65.7	4.1	4.7	0.6	0.5	24.5	100.0
MR310	N/A	11,609	1,538	0700-0800	62.8	4.7	2.8	0.4	0.3	29.0	100.0
MR311	N/A	11,348	1,307	0700-0800	62.1	5.8	4.1	0.5	0.4	27.2	100.0
MR312	N/A	17,424	1,854	0700-0800	60.1	5.2	3.5	0.8	0.5	29.9	100.0
MR313	N/A	8,300	825	1400-1500	54.6	5.5	5.5	1.2	0.3	32.9	100.0

MELAKA TENGAH

Census Station Number	16-Hour Traffic	Peak Hour	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Buses	Motorcycles	Total	Level of Service (LOS)	Capacity Year
MR101	15,459	1,453	60.6	15.2	0.9	0.1	0.5	22.7	100%	C	2023
MR102	20,943	1,943	67.1	4.5	2.7	0.7	0.6	24.3	100%	F	R
MR103	51,513	5,945	59.2	17.6	5.9	1.7	0.4	15.3	100%	F	R
MR104	102,894	8,754	74.0	7.5	2.4	0.4	0.3	15.3	100%	F	R
MR105	46,352	5,457	56.5	18.4	4.5	0.7	1.1	18.8	100%	F	R
MR106	41,848	5,549	56.4	18.7	1.7	0.2	0.3	22.6	100%	F	R
MR107	13,634	1,437	58.2	16.8	3.2	0.3	0.3	21.2	100%	D	2021
MR108	22,407	2,266	53.5	13.9	2.6	0.3	0.3	29.5	100%	F	R
MR109	11,782	1,071	53.8	18.5	1.7	0.2	0.3	25.6	100%	B	2055
MR110	57,552	5,057	75.1	4.6	2.8	0.7	0.6	16.3	100%	A	-

JASIN

MR201	3,339	361	40.9	7.4	14.0	9.3	0.4	27.9	100%	A	-
MR202	6,421	730	55.7	7.5	4.1	0.4	0.7	31.6	100%	A	-
MR203	7,322	718	53.5	8.7	11.4	1.7	0.5	24.3	100%	A	-
MR204	10,643	1,147	56.4	7.3	4.7	0.6	0.5	30.4	100%	B	-
MR205	5,902	633	44.6	11.3	4.6	0.7	0.6	38.1	100%	A	2036
MR206	16,329	1,333	57.4	5.0	2.8	0.6	0.6	33.7	100%	C	-
MR207	13,774	1,275	56.4	6.7	3.0	1.0	0.8	32.1	100%	C	2054
MR208	6,882	884	52.0	5.5	3.5	1.6	0.5	37.0	100%	A	2028
MR209	22,858	2,035	65.9	7.1	4.8	0.8	0.3	21.2	100%	F	R

ALOR GAJAH

MR301	17,780	1,651	62.0	3.8	3.1	0.7	0.6	29.8	100%	D	2020
MR302	14,804	1,713	60.8	8.9	5.1	0.7	0.5	24.0	100%	E	2018
MR303	19,005	1,964	57.6	8.9	4.7	1.0	0.5	27.3	100%	F	R
MR304	4,598	580	50.4	8.4	10.1	3.3	0.5	27.4	100%	A	2045
MR305	10,949	1,050	50.8	7.3	9.9	2.3	0.6	29.1	100%	B	2055
MR306	15,147	1,557	55.9	6.0	7.6	2.2	1.1	27.2	100%	E	2018
MR307	15,877	1,741	56.7	5.4	5.8	1.3	0.8	30.1	100%	F	R
MR308	17,820	2,251	54.3	7.5	4.5	1.3	0.9	31.5	100%	B	-
MR309	19,988	2,102	62.9	5.3	3.9	0.5	0.5	27.0	100%	F	R
MR310	13,943	1,659	59.5	4.8	2.7	0.4	0.3	32.3	100%	D	2020
MR311	11,881	1,372	60.9	6.1	4.0	0.5	0.4	28.1	100%	C	2023
MR312	18,320	1,824	60.1	5.6	3.4	0.7	0.5	29.7	100%	E	-
MR313	8,457	938	54.3	5.9	4.6	1.0	0.3	33.9	100%	A	2039

MELAKA TENGAH

Census Station Number	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Normal Growth (%/yr)	R ²
MR101	12,959	13,324	13,263	14,820	15,908	16,436	14,480	17,926	14,204	15,459	2.1	0.38
MR102	21,348	25,440	25,536	25,430	22,884	30,915	36,495	37,017	21,457	20,943	1.1	0.03
MR103	36,035	36,079	39,634	37,335	44,607	43,876	51,397	59,399	51,670	51,513	5.3	0.82
MR104	79,525	83,893	93,299	96,793	96,894	92,695	98,086	107,617	109,500	102,894	3.0	0.79
MR105	27,531	25,053	31,681	35,593	34,499	36,848	40,502	39,243	38,462	46,352	5.6	0.84
MR106	36,517	36,020	35,818	39,464	41,988	42,982	47,661	43,702	41,664	41,848	2.3	0.56
MR107	9,340	9,130	7,579	10,199	11,133	10,888	13,136	12,673	13,108	13,634	5.6	0.78
MR108	18,224	18,925	19,298	19,723	21,897	19,909	24,130	22,430	21,632	22,407	2.5	0.67
MR109	8,880	8,882	10,415	11,968	11,174	10,111	11,317	10,336	11,059	11,782	2.3	0.43
MR110	82,706	87,224	81,156	45,710	84,604	87,011	69,786	48,764	53,327	57,552	-4.8	0.32

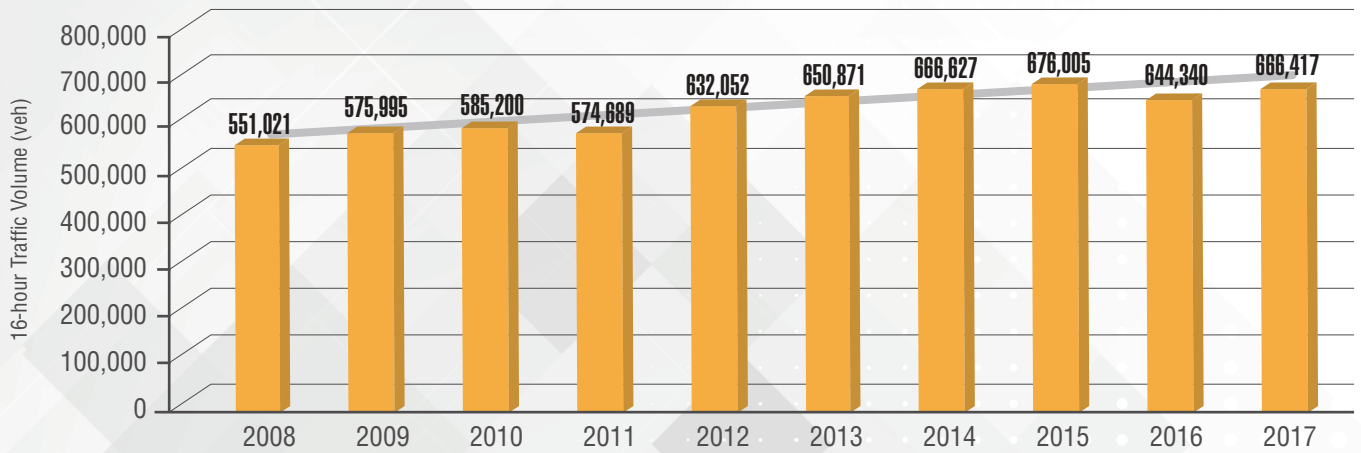
JASIN

MR201	7,681	3,549	3,260	3,081	2,748	3,091	3,242	2,793	2,850	3,339	-5.8	0.34
MR202	5,499	5,293	3,933	5,187	4,946	5,268	5,701	3,914	5,255	6,421	1.0	0.04
MR203	8,304	8,047	7,672	8,088	6,760	8,257	7,822	5,219	5,977	7,322	-3.1	0.35
MR204	9,206	10,637	10,139	9,958	8,723	9,836	10,337	8,498	8,415	10,643	-0.6	0.04
MR205	3,784	5,674	3,819	4,922	4,818	4,833	5,477	10,186	4,244	5,902	4.4	0.22
MR206	14,057	15,501	15,679	16,426	17,044	16,779	17,112	17,182	15,640	16,329	1.2	0.34
MR207	11,066	15,120	12,735	13,703	15,204	10,377	12,579	11,281	13,772	13,774	0.0	0.00
MR208	3,822	5,385	4,574	5,511	4,691	6,539	7,386	6,756	5,554	6,882	5.3	0.57
MR209	15,928	16,672	16,113	18,495	20,079	20,578	21,005	22,178	22,827	22,858	4.5	0.93

ALOR GAJAH

MR301	11,057	9,986	11,472	11,465	11,170	15,715	15,665	16,885	19,662	17,780	7.4	0.86
MR302	12,779	13,613	13,817	12,885	12,949	14,712	14,800	19,349	15,162	14,804	2.6	0.42
MR303	6,622	11,743	10,734	13,780	13,566	18,595	18,689	20,287	18,955	19,005	10.5	0.79
MR304	1,894	1,939	2,421	1,981	2,060	2,158	2,541	2,690	3,394	4,598	8.0	0.73
MR305	7,691	8,339	8,544	8,123	8,956	9,394	9,216	8,655	8,557	10,949	2.3	0.54
MR306	9,331	9,620	10,456	10,387	11,237	12,433	11,790	12,970	12,397	15,147	4.7	0.91
MR307	12,085	12,514	13,184	13,117	13,487	14,868	14,933	14,896	16,319	15,877	3.3	0.94
MR308	15,980	14,565	14,284	14,184	16,009	14,974	14,140	15,686	15,612	17,820	1.1	0.22
MR309	17,782	18,420	19,111	18,400	20,074	19,802	18,986	21,167	19,737	19,988	1.3	0.57
MR310	9,436	12,243	13,868	13,687	14,472	14,115	14,821	16,614	16,589	13,943	4.1	0.59
MR311	9,204	9,975	11,708	11,268	12,676	11,183	13,522	11,579	11,740	11,881	2.3	0.41
MR312	16,569	15,481	12,140	14,922	16,322	16,602	10,867	16,916	17,439	18,320	1.5	0.07
MR313	8,179	7,709	7,858	8,084	8,480	9,097	9,013	11,202	8,165	8,457	1.7	0.24

YEARLY 16-HOUR TRAFFIC VOLUME (2008 - 2017)



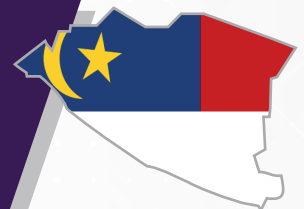
$y = 2E-14e^{0.0224x} \mid R^2 = 0.8167$
NORMAL GROWTH = -2.24%

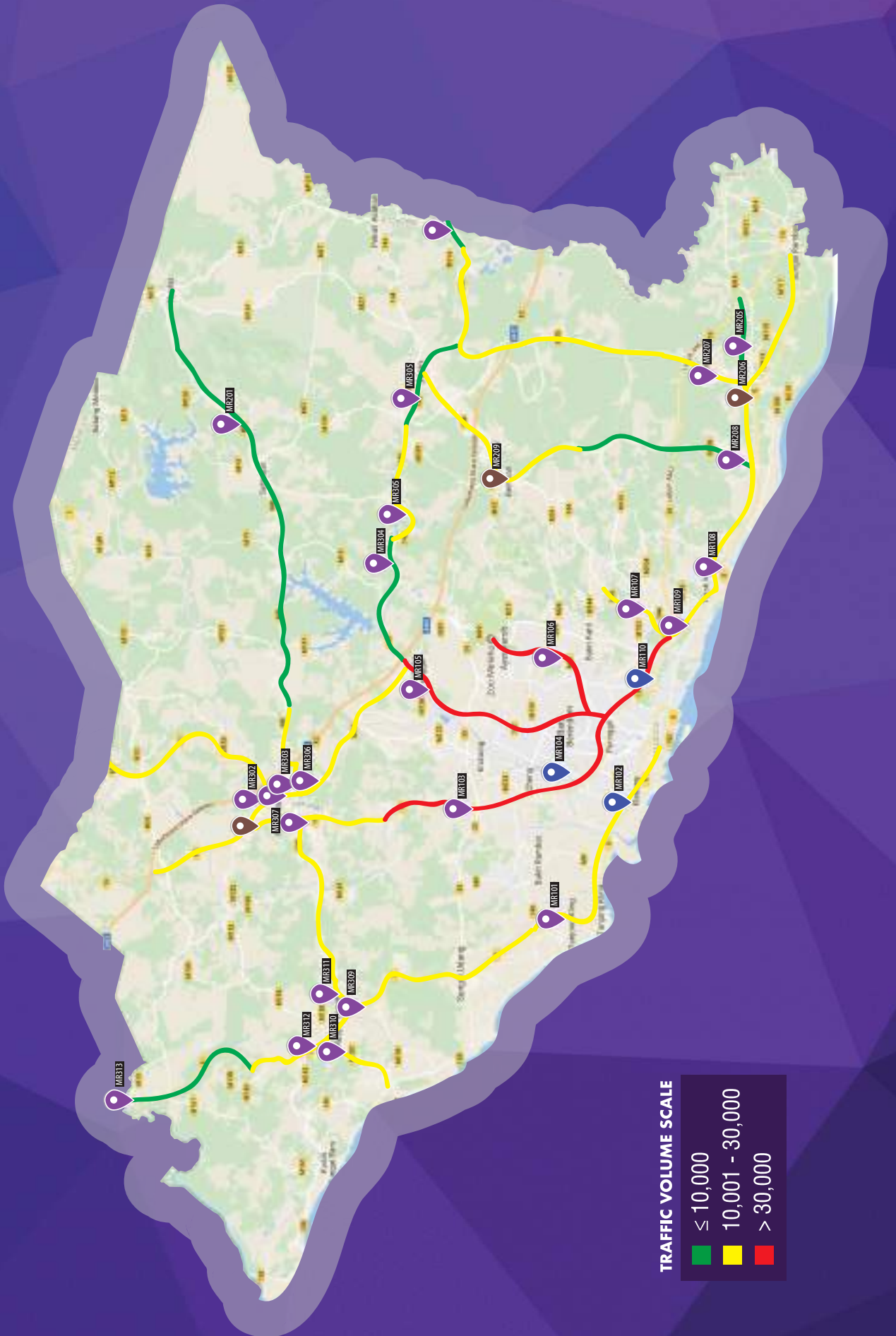
*Yearly 16-hour Traffic Volume (2008 - 2017)
 & Normal Traffic Growth with Exponential Trendline for the Year 2017 in Melaka*

**3.31%
Increase**

The state of Melaka consists of 32 census stations. The gradual increase is displayed on the 16-hour traffic volume since the year 2008 until the year 2015, excluding years 2011 and 2016 which show a slight reduction of traffic volume. For the year 2017, it exhibited an increase 3.31% vehicles compared to the year 2015.

For the year 2017, the observed traffic growth rate for the state of Melaka is -2.24%. The basis of traffic growth rate record is to be used as a projection indicator of subsequent traffic growth rate for road forethought as well as for the expansion of current and new roads in Melaka.





TRAFFIC VOLUME SCALE

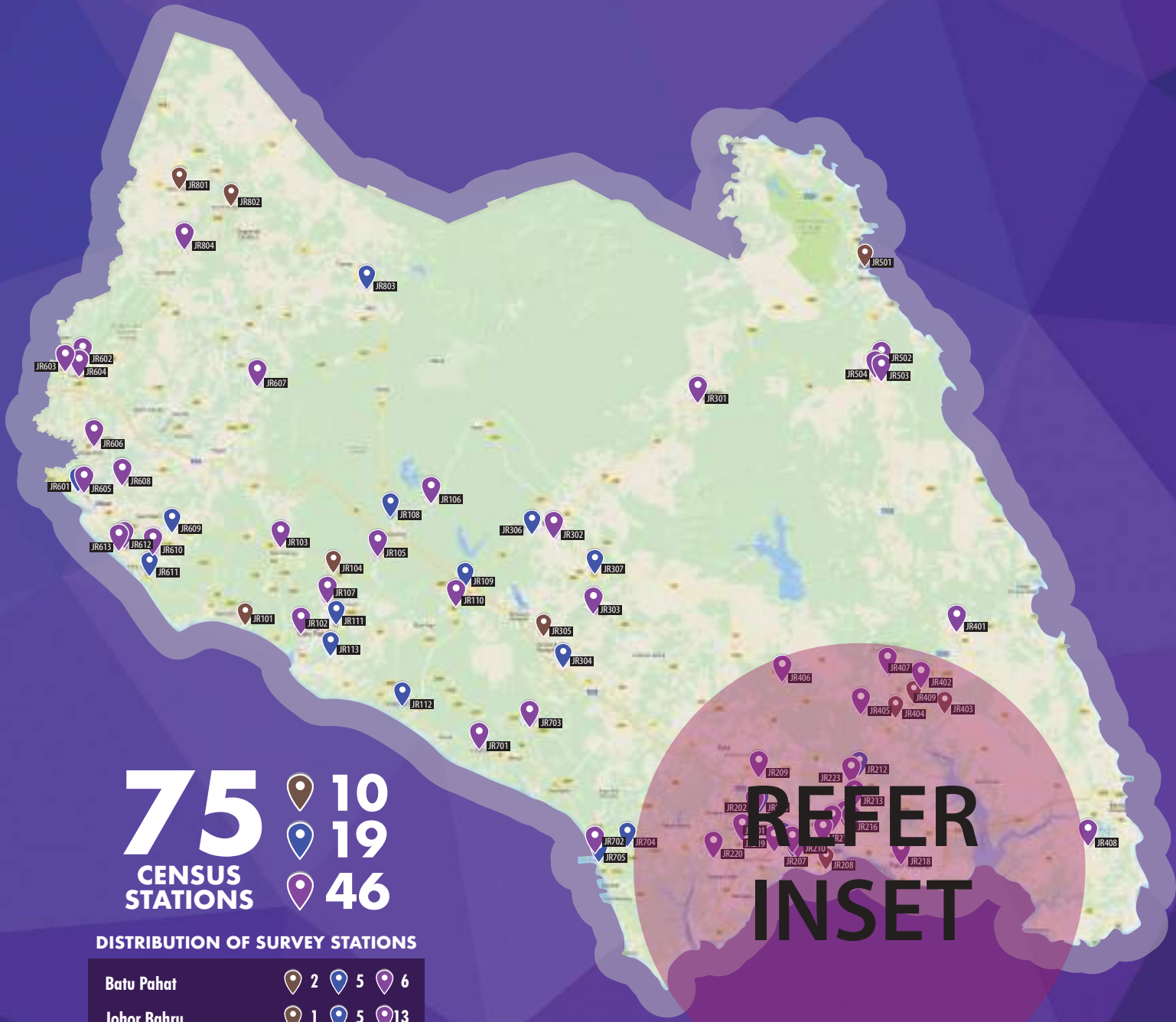
- ≤ 10,000
- 10,001 - 30,000
- > 30,000



JOHOR

JKR NEGERI JOHOR

Bangunan Dato' Abdul Rahman Andak,
Kota Iskandar, Iskandar Puteri,
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75  **10**
 **19**
CENSUS STATIONS  **46**

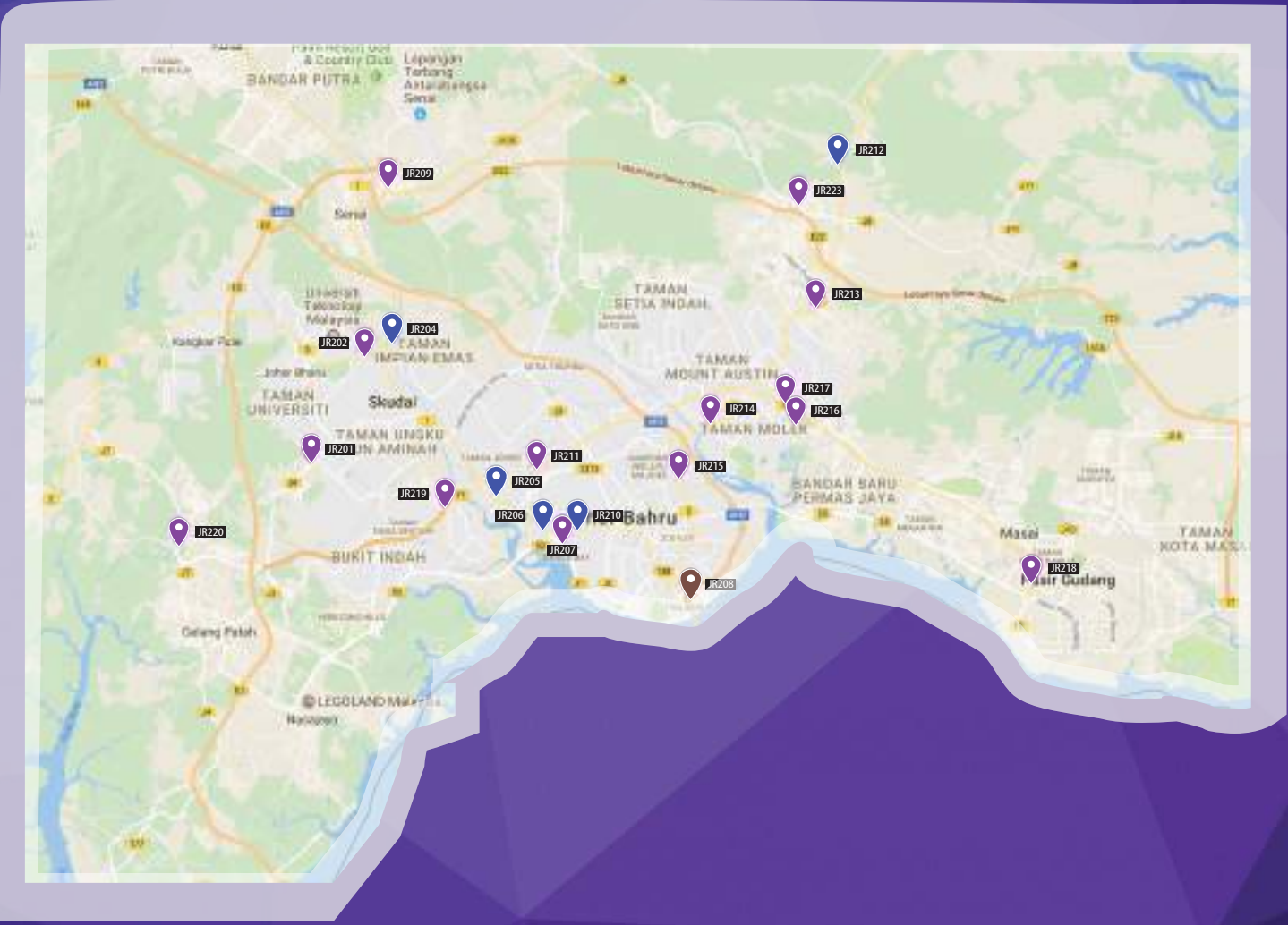
DISTRIBUTION OF SURVEY STATIONS

Batu Pahat	 2	 5	 6
Johor Bahru	 1	 5	 13
Kulai Jaya	 0	 0	 1
Kluang	 1	 3	 3
Kota Tinggi	 3	 0	 6
Mersing	 1	 0	 3
Ledang	 0	 1	 5
Muar	 0	 2	 5
Pontian	 0	 2	 2
Segamat	 2	 1	 1



JOHOR

- TYPE 0
- TYPE 1
- TYPE 3



BATU PAHAT

Census Station Number	Survey Type	Route Number	KM	Description of Location	GPS Coordinate (WGS84) (Latitude, Longitude)	Type of Carriageway
JR101	0	5	142.0	Batu Pahat - Muar (Seri Pengkalan)	1.864 102.815	T 1-1
JR102	3	5	127.5	Batu Pahat - Muar (Peserai)	1.849 102.905	T 1-1
JR103	3	J128	68.0	Jalan Kangkar Senangar	1.991 102.873	T 1-1
JR104	0	24	127.2	Muar - Yong Peng (Southeast of J13 junction)	1.949 102.961	T 1-1
JR105	3	24	115.6	Muar - Yong Peng (3.8km South of Yong Peng (U) Interchange)	1.973 103.033	T 1-1
JR106	3	J16	122.4	Yong Peng - Kangkar Baru	2.063 103.121	T 1-1
JR107	3	J13	7.2	Jalan Tongkang Pechah	1.900 102.949	T 1-1
JR108	1	1	115.0	Yong Peng - Segamat (North of Route 184 junction)	2.036 103.055	T 1-1
JR109	1	1	96.0	Ayer Hitam - Yong Peng (1km Northwest of Route 50 junction)	1.927 103.177	T 1-1
JR110	3	50	29.5	Batu Pahat - Ayer Hitam (Parit Sonto)	1.896 103.161	T 2-2
JR111	1	50	5.0	Batu Pahat - Ayer Hitam (near Batu Pahat Mall)	1.864 102.965	K 2-2
JR112	1	5	111.0	Pontian - Batu Pahat (Senggarang)	1.727 103.074	T 1-1
JR113	1	5	129.0	Pontian - Batu Pahat	1.815 102.955	T 1-1

JOHOR BAHRU

JR201	3	J4	22.0	Johor Bahru - Gelang Patah/ Pendas (Lima Kedai)	1.512 103.630	K 2-2
JR202	3	5	19.0	Johor Bahru - Pontian (140m West of Route 1 junction)	1.549 103.654	K 2-2
JR204	1	1	20.8	Tambak Johor - Senai (400m North of Route 5 junction)	1.550 103.658	K 3-3
JR205	1	1	11.0	Tambak Johor - Senai (near Pekan Rabu)	1.500 103.697	K 3-3
JR206	1	1	6.0	Tambak Johor - Senai (Skudai Kiri)	1.488 103.714	K 3-3
JR207	3	J1	6.4	Johor Bahru - Skudai (Danga Bay)	1.483 103.721	K 3-3
JR208 (mansuh)	0	1	-	Malaysia/ Singapore Border - Tambak Johor (Causeway)	1.463 103.767	K 3-3
JR210	1	1	7.0	Tambak Johor - Senai (Jalan Tun Abdul Razak)	1.488 103.726	K 2-2
JR211	3	17	13.0	Jalan Pelabuhan Pasir Gudang (1km West of Route 1)	1.510 103.711	K 2-2
JR212	1	3	23.0	Johor Bahru - Endau (Bandar Tiram)	1.619 103.820	K 2-2
JR213	3	3	16.0	Johor Bahru - Endau (1.8km South of E22 Interchange)	1.567 103.812	K 3-3
JR214	3	3	10.0	Johor Bahru - Endau (100m East of Kangkar Tebrau junction)	1.526 103.774	K 3-3
JR215	3	3	8.0	Johor Bahru - Endau (near Maybank Tebrau)	1.506 103.763	K 3-3
JR216	3	J10	13.1	Johor Bahru - Masai (Jalan Masai Lama)	1.525 103.805	K 2-2
JR217	3	17	25.0	Jalan Pelabuhan Pasir Gudang (Johor Jaya)	1.533 103.801	K 2-2
JR218	3	17	35.1	Jalan Pelabuhan Pasir Gudang (Taman Mawar)	1.469 103.890	K 2-2
JR219	3	17	2.0	Jalan Pelabuhan Pasir Gudang (Johor Bahru - Link Kedua)	1.496 103.678	K 3-3
JR220	3	J7	3.0	Ulu Choh - Gelang Patah	1.482 103.583	K 2-2
JR223	3	1375	24.0	Jalan Felda Ulu Tebrau	1.605 103.806	T 1-1

KULAI JAYA

Census Station Number	Survey Type	Route Number	KM	Description of Location	GPS Coordinate (WGS84) (Latitude, Longitude)	Type of Carriageway
JR209	3	16	2.1	Jalan Lapangan Terbang Sultan Ismail	1.611 103.658	K 2-2

KLUANG

JR301	3	50	86.8	Kluang - Jemaluang (Kahang)	2.227 103.555	T 1-1
JR302	3	J25	102.9	Kluang - Renggam	2.004 103.323	T 2-2
JR303	3	J26	9.7	Renggam - Simpang Renggam	1.880 103.388	T 1-1
JR304	1	1	71.4	Johor Bahru - Ayer Hitam (1km Southeast of Route 96 junction)	1.796 103.335	T 1-1
JR305	0	1	77.3	Johor Bahru - Ayer Hitam (5.6km Northwest of Route 96 junction)	1.845 103.304	T 1-1
JR306	1	50	49.1	Ayer Hitam - Kluang	2.012 103.285	K 2-2
JR307	1	91	76.0	Kota Tinggi - Kluang	1.948 103.385	T 1-1

KOTA TINGGI

JR401	3	99	57.6	Jalan Lok Heng	1.852 103.980	T 1-1
JR402	3	3	48.3	Kota Tinggi - Mersing	1.761 103.926	T 2-2
JR403	0	92	49.9	Kota Tinggi - Sungai Rengit	1.717 103.961	T 1-1
JR404	0	3	38.6	Johor Bahru - Kota Tinggi	1.710 103.880	T 1-1
JR405	3	94	54.7	Kota Tinggi - Kulai	1.714 103.826	T 1-1
JR406	3	93	4.6	Jalan Sungai Sayong	1.768 103.696	T 1-1
JR407	3	91	7.0	Kota Tinggi - Kluang	1.779 103.869	T 1-1
JR408	3	89	16.0	Jalan Tanjung Belungkor	1.500 104.198	T 1-1
JR409	0	3	36.8	Johor Bahru - Kota Tinggi (Bypass)	1.734 103.914	T 1-1

MERSING

JR501	0	3	135.0	Johor Bahru - Endau (2.4km North of Mersing town)	2.450 103.830	T 1-1
JR502	3	3	114.0	Johor Bahru - Endau (Northeast of Jemaluang)	2.284 103.857	T 1-1
JR503	3	3	111.0	Johor Bahru - Endau (Southwest of Jemaluang)	2.268 103.854	T 1-1
JR504	3	50	137.0	Kluang - Jemaluang (0.1km West of Route 3 junction)	2.269 103.853	T 1-1

LEDANG

JR601	1	5	189.0	Muar - Melaka	2.082 102.543	K 2-2
JR602	3	J123	1.0	Tangkak - Bekoh	2.289 102.550	T 1-1
JR603	3	J21	2.0	Tangkak - Melaka (Jalan Sialang)	2.280 102.520	T 1-1
JR604	3	23	26.0	Muar - Segamat (Tangkak)	2.271 102.542	T 1-1
JR605	3	23	3.0	Muar - Segamat (Parit Bunga)	2.080 102.550	K 2-2
JR606	3	J33	3.0	Sungai Mati - Bukit Gambir	2.154 102.569	T 1-1

MUAR

Census Station Number	Survey Type	Route Number	KM	Description of Location	GPS Coordinate (WGS84) (Latitude, Longitude)	Type of
JR607	3	J32	45.5	Muar - Labis (Lenga)	2.252 102.836	T 1-1
JR608	3	J32	186.4	Muar - Labis (Bukit Pasir)	2.090 102.617	T 1-1
JR609	1	24	161.5	Muar - Yong Peng (East of Route J131 junction)	2.015 102.696	T 1-1
JR610	3	J131	2.8	Parit Jawa - Air Manis	1.977 102.667	T 1-1
JR611	1	5	170.5	Batu Pahat - Muar (Parit Jamil)	1.943 102.658	T 1-1
JR612	3	J31	9.2	Jalan Temenggong Ahmad	1.985 102.620	T 1-1
JR613	3	5	178.5	Batu Pahat - Muar (Parit Haji Ali)	1.984 102.608	T 1-1

PONTIAN

JR701	3	5	87.0	Pontian - Batu Pahat (Tampok)	1.658 103.200	T 1-1
JR702	3	5	66.5	Pontian - Batu Pahat (near Hospital Pontian)	1.498 103.385	T 1-1
JR703	3	96	6.0	Simpang Renggam - Benut	1.696 103.285	T 1-1
JR704	1	5	54.5	Johor Bahru - Pontian Kechil	1.500 103.442	T 1-1
JR705	1	95	1.0	Johor Bahru - Pontian Kechil - Kukup	1.475 103.394	T 1-1

SEGAMAT

JR801	0	1	200.0	Johor Bahru - Segamat - Batu Enam	2.574 102.709	T 1-1
JR802	0	12	50.0	Lebuhraya Tun Abdul Razak (500m Segamat - Kuantan junction)	2.549 102.794	T 1-1
JR803	1	1	158.0	Johor Bahru - Segamat(Labis)	2.411 103.015	T 1-1
JR804	3	23	60.0	Johor Bahru - Segamat (Jementah)	2.476 102.718	T 1-1

BATU PAHAT

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
JR102	N/A	22,794	2,916	0700-0800	65.1	6.6	4.6	0.8	0.8	22.2	100.0
JR103	N/A	8,577	781	0700-0800	47.0	12.8	11.5	5.5	0.8	22.5	100.0
JR104	23,013	23,013	1,491	1800-1900	38.5	27.2	22.1	5.0	0.3	6.9	100.0
JR105	N/A	15,455	1,532	1700-1800	58.3	14.0	11.3	5.9	0.7	9.8	100.0
JR106	N/A	3,265	405	1800-1900	47.7	12.5	5.2	2.4	0.5	31.8	100.0
JR107	N/A	35,541	3,035	0700-0800	66.5	8.7	5.5	1.8	0.3	17.1	100.0
JR108	N/A	10,784	831	1800-1900	45.8	19.2	12.8	7.0	1.1	14.0	100.0
JR109	N/A	12,059	1,049	1800-1900	50.7	15.2	12.1	4.6	0.4	16.9	100.0
JR110	N/A	26,869	2,700	1700-1800	71.6	6.0	4.3	1.1	1.1	16.0	100.0
JR111	N/A	58,259	5,013	0700-0800	72.0	6.2	4.2	1.8	0.6	15.2	100.0
JR112	N/A	15,316	1,122	1600-1700	63.1	9.0	8.4	1.6	0.8	17.1	100.0
JR113	N/A	40,268	3,085	1900-2000	74.8	7.7	4.2	0.8	0.3	12.2	100.0

JOHOR BAHRU

JR201	N/A	37,680	4,377	1800-1900	59.6	6.2	7.8	1.0	0.9	24.5	100.0
JR202	N/A	124,142	10,193	1800-1900	72.3	8.3	4.4	1.0	1.1	13.0	100.0
JR204	N/A	108,449	8,338	0700-0800	72.6	7.9	4.5	1.6	1.9	11.5	100.0
JR205	N/A	173,699	14,526	1800-1900	74.8	4.3	2.7	0.8	1.5	15.9	100.0
JR206	N/A	153,172	11,109	0700-0800	73.5	3.9	1.7	0.5	1.5	18.9	100.0
JR207	N/A	87,876	6,906	1800-1900	78.1	5.0	1.6	0.6	1.4	13.3	100.0
JR208	155,492	121,135	12,237	0600-0700	27.4	1.2	1.1	1.4	1.4	67.5	100.0
JR210	N/A	155,901	15,534	0600-0700	61.0	8.2	1.4	0.5	1.1	27.8	100.0
JR211	N/A	95,307	7,624	0900-1000	72.7	8.5	5.2	2.7	0.4	10.5	100.0
JR212	N/A	35,770	3,739	1300-1400	69.4	12.6	4.5	3.1	0.9	9.6	100.0
JR213	N/A	130,270	14,411	0800-0900	73.6	3.3	5.7	3.4	0.9	13.1	100.0
JR214	N/A	142,668	11,402	1700-1800	75.0	2.1	2.5	1.4	0.8	18.2	100.0
JR215	N/A	69,220	5,763	1200-1300	83.4	1.4	0.8	0.2	1.0	13.3	100.0
JR216	N/A	31,638	2,910	1200-13.00	78.4	3.8	3.0	0.6	1.0	13.1	100.0
JR217	N/A	117,709	10,994	0700-0800	69.7	4.4	5.3	7.5	0.4	12.7	100.0
JR218	N/A	45,649	5,317	1900-2000	65.0	4.7	5.4	8.8	0.4	15.8	100.0
JR219	N/A	113,612	9,437	0800-0900	70.6	8.9	3.7	1.9	0.4	14.6	100.0
JR220	N/A	58,774	5,726	0700-0800	67.2	8.9	4.4	2.9	0.8	15.7	100.0
JR223	N/A	18,383	2,169	0700-0800	69.1	4.4	5.3	3.2	0.5	17.4	100.0

KULAI JAYA

JR209	N/A	57,770	11,506	1900-2000	72.4	5.9	6.1	4.6	2.1	8.9	100.0
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KLUANG

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
JR301	N/A	4,545	397	1400-1500	46.0	13.6	14.1	10.5	1.1	14.6	100.0
JR302	N/A	12,447	1,706	0700-0800	64.4	8.6	4.0	2.2	0.8	20.0	100.0
JR303	N/A	6,968	659	0800-0900	57.8	9.7	7.8	8.7	1.2	14.8	100.0
JR304	N/A	10,175	763	1000-1100	47.6	11.7	14.4	11.1	0.9	14.3	100.0
JR305	28,417	23,937	1,966	1800-1900	45.7	15.7	9.5	6.0	0.4	22.7	100.0
JR306	N/A	43,407	3,336	1700-1800	72.2	8.3	4.5	2.5	0.8	11.7	100.0
JR307	N/A	8,398	626	1800-1900	59.7	9.2	6.8	7.2	0.6	16.5	100.0

KOTA TINGGI

JR401	N/A	7,235	750	1700-1800	55.3	7.1	6.0	6.5	0.5	24.6	100.0
JR402	N/A	16,520	1,457	1100-1200	57.5	10.8	8.4	8.0	1.6	13.7	100.0
JR403	19,790	17,309	1,243	1800-1900	72.0	8.1	4.9	3.0	0.9	11.1	100.0
JR404	20,110	17,699	1,419	0700-0800	76.8	5.2	3.9	1.5	1.2	11.5	100.0
JR405	N/A	5,633	572	1500-1600	70.4	9.7	5.0	2.4	0.7	11.8	100.0
JR406	N/A	7,549	819	1800-1900	58.0	9.7	6.0	7.6	1.2	17.5	100.0
JR407	N/A	4,409	384	1700-1800	49.6	11.9	9.4	9.8	0.5	18.8	100.0
JR408	N/A	4,525	406	1800-1900	59.3	13.6	8.1	5.2	0.9	12.9	100.0
JR409	20,871	17,586	1,397	1800-1900	70.5	8.4	6.4	6.0	0.8	7.9	100.0

MERSING

JR501	17,762	15,799	1,290	1700-1800	59.9	6.6	4.4	2.4	0.6	26.1	100.0
JR502	N/A	4,457	403	1500-1600	70.6	5.1	7.8	7.3	1.3	7.9	100.0
JR503	N/A	4,185	389	1700-1800	49.2	20.2	11.9	7.9	1.2	9.5	100.0
JR504	N/A	986	103	1200-1300	27.6	27.2	14.3	8.3	0.9	21.7	100.0

LEDANG

JR601	N/A	24,408	2,348	1800-1900	70.7	7.7	6.2	1.3	0.6	13.5	100.0
JR602	N/A	3,394	356	0900-1000	45.6	15.8	12.2	1.0	0.5	24.9	100.0
JR603	N/A	11,501	1,133	1600-1700	51.8	10.8	8.4	1.7	0.5	26.8	100.0
JR604	N/A	28,841	3,779	0600-0700	59.5	7.8	6.3	1.9	0.6	23.8	100.0
JR605	N/A	83,701	8,710	0800-0900	58.9	14.0	8.1	1.1	0.3	17.6	100.0
JR606	N/A	15,442	1,896	0600-0700	57.8	10.6	7.8	0.7	0.7	22.3	100.0

MUAR

JR607	N/A	4,052	399	1200-1300	49.9	8.2	3.9	0.4	0.4	37.2	100.0
JR608	N/A	17,769	1,428	0700-0800	56.4	8.1	10.0	4.0	1.0	20.6	100.0
JR609	N/A	7,008	623	0700-0800	55.1	11.8	15.0	4.2	0.4	13.5	100.0
JR610	N/A	5,295	489	0700-0800	47.7	8.7	15.5	5.8	0.1	22.2	100.0
JR611	N/A	16,098	1,329	1800-1900	58.3	11.9	6.6	1.3	0.9	21.0	100.0
JR612	N/A	14,945	1,500	1700-1800	63.7	6.3	5.5	1.4	0.6	22.5	100.0
JR613	N/A	9,528	919	1800-1900	66.0	6.1	4.9	1.2	0.6	21.3	100.0

PONTIAN

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
JR701	N/A	12,498	1,012	1200-1300	63.7	5.5	8.9	1.3	0.8	19.8	100.0
JR702	N/A	13,140	1,076	1600-1700	68.7	7.2	6.1	3.9	0.9	13.3	100.0
JR703	N/A	6,880	559	0800-0900	58.6	12.4	6.8	4.7	1.3	16.4	100.0
JR704	N/A	11,592	904	1600-1700	69.1	8.5	6.3	3.2	1.6	11.4	100.0
JR705	N/A	17,152	1,392	1800-1900	65.0	10.3	4.7	1.0	0.6	18.4	100.0

SEGAMAT

JR801	19,571	16,629	1,274	1800-1900	55.5	9.9	5.1	4.1	0.6	24.8	100.0
JR802	15,585	13,994	1,143	1700-1800	60.0	15.7	8.1	4.7	0.6	10.9	100.0
JR803	N/A	12,842	1,053	1700-1800	66.2	11.2	8.3	5.0	1.0	8.2	100.0
JR804	N/A	7,776	673	1600-1700	53.7	14.5	9.2	5.4	2.5	14.6	100.0

BATU PAHAT

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
JR101	16,856	14,276	1,270	1900-2000	65.4	7.3	7.1	0.7	0.9	18.7	100.0
JR102	N/A	24,334	2,143	1600-1700	64.3	11.4	5.6	1.3	0.9	16.5	100.0
JR103	N/A	8,140	1,123	1400-1500	45.9	13.3	12.3	6.9	0.8	20.7	100.0
JR104	27,892	24,979	2,021	1800-1900	43.1	23.1	17.2	4.3	0.4	11.9	100.0
JR105	N/A	15,990	1,352	1700-1800	56.7	15.3	10.6	6.6	0.7	10.1	100.0
JR106	N/A	2,918	258	1000-1100	47.6	7.6	4.8	4.3	0.8	34.9	100.0
JR107	N/A	38,395	3,765	1900-2000	70.3	11.6	5.1	1.7	11.2	0.2	100.0
JR108	N/A	11,613	963	1700-1800	48.4	17.9	11.9	7.2	1.1	13.5	100.0
JR109	N/A	11,392	889	1700-1800	51.6	12.6	11.7	6.4	0.4	17.3	100.0
JR110	N/A	24,711	1,835	0700-0800	70.5	9.6	5.3	3.0	0.9	10.7	100.0
JR111	N/A	60,044	5,138	1700-1800	74.8	5.6	4.1	1.4	0.6	13.6	100.0
JR112	N/A	14,283	1,029	1600-1700	61.6	10.3	8.7	2.2	0.6	16.6	100.0
JR113	N/A	45,871	3,611	1900-2000	76.3	8.1	4.3	0.8	0.3	10.3	100.0

JOHOR BAHRU

JR201	N/A	40,669	4,351	1800-1900	62.8	7.2	4.2	1.0	1.0	23.8	100.0
JR202	N/A	106,817	8,447	0700-0800	81.6	6.1	1.7	0.4	0.7	9.5	100.0
JR204	N/A	181,709	15,775	1700-1800	72.8	6.4	5.7	1.9	1.3	11.9	100.0
JR205	N/A	179,751	13,740	1700-1800	75.7	4.6	2.5	0.5	1.4	15.2	100.0
JR206	N/A	157,934	12,484	1800-1900	72.8	4.1	1.9	0.5	1.6	19.1	100.0
JR207	N/A	81,280	7,504	0700-0800	81.5	6.1	1.4	0.5	1.3	9.2	100.0
JR208	N/A	40,669	4,351	1800-1900	62.8	1.1	0.9	1.2	1.5	67.8	135.3
JR210	N/A	126,216	9,502	1200-1300	69.6	4.4	1.6	0.5	1.3	22.4	100.0
JR211	N/A	107,689	8,221	1900-2000	68.2	9.6	6.1	3.1	0.5	12.4	100.0
JR212	N/A	36,886	2,759	0700-0800	74.5	8.4	4.5	3.4	0.9	8.4	100.0
JR213	N/A	105,490	9,545	0800-0900	66.1	3.7	4.7	4.3	1.1	20.1	100.0
JR214	N/A	40,669	4,351	1800-1900	66.6	3.5	2.8	1.9	1.2	24.0	100.0
JR215	N/A	67,134	6,594	1500-1600	78.0	2.3	1.0	0.2	1.0	17.6	100.0
JR216	N/A	26,794	2,440	1700-1800	73.3	5.0	3.4	0.7	1.0	16.6	100.0
JR217	N/A	122,018	14,479	0700-0800	69.0	5.2	5.1	6.5	0.6	13.6	100.0
JR218	N/A	38,963	6,561	0700-0800	58.4	5.6	4.9	10.7	0.6	19.8	100.0
JR219	N/A	116,827	9,880	1700-1800	76.7	6.1	1.2	0.6	0.5	14.9	100.0
JR220	N/A	54,158	6,164	1700-1800	67.7	8.9	4.7	3.5	0.7	14.6	100.0
JR223	N/A	17,381	1,703	1800-1900	67.1	5.8	5.5	3.3	0.7	17.6	100.0

KULAI JAYA

JR209	N/A	61,566	6,914	1700-1800	73.6	5.6	4.2	2.8	1.7	12.0	100.0
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KLUANG

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
JR301	N/A	4,580	443	1700-1800	42.9	14.8	12.0	13.9	1.2	15.2	100.0
JR302	N/A	14,250	1,940	0700-0800	57.6	12.6	5.9	2.4	0.8	20.6	100.0
JR303	N/A	10,175	904	1700-1800	48.5	13.3	6.8	5.2	0.5	25.7	100.0
JR304	N/A	9,356	734	1700-1800	40.6	15.5	18.3	11.3	0.9	13.2	100.0
JR305	20,522	17,267	1,568	1800-1900	46.6	15.7	9.0	7.1	0.4	21.2	100.0
JR306	N/A	44,135	3,434	1700-1800	69.8	9.1	4.8	3.3	0.8	12.2	100.0
JR307	N/A	9,233	720	1700-1800	56.8	9.9	7.8	7.7	0.6	17.2	100.0

KOTA TINGGI

JR401	N/A	7,345	801	0700-0800	60.8	8.3	5.4	4.3	0.4	20.7	100.0
JR402	N/A	18,712	1,613	1700-1800	65.0	11.9	6.3	7.1	1.0	8.8	100.0
JR403	20,083	17,797	1,436	1700-1800	70.3	9.3	4.8	2.8	0.8	12.0	100.0
JR404	19,826	17,502	1,382	1800-1900	75.6	5.8	4.2	1.8	1.3	11.2	100.0
JR405	N/A	6,375	551	1800-1900	72.2	9.3	5.5	3.9	0.8	8.2	100.0
JR406	N/A	6,821	797	0700-0800	55.9	8.5	6.8	9.6	1.0	18.1	100.0
JR407	N/A	5,033	488	1700-1800	60.5	13.3	10.7	3.8	0.3	11.3	100.0
JR408	N/A	4,662	465	1800-1900	63.3	9.9	8.5	4.3	1.1	12.9	100.0
JR409	22,671	19,446	1,578	1700-1800	67.1	9.2	7.3	7.2	0.7	8.6	100.0

MERSING

JR501	17,184	15,399	1,232	1400-1500	60.0	6.7	4.8	3.2	0.7	24.5	100.0
JR502	N/A	5,446	438	1300-1400	60.9	14.7	9.8	6.9	1.5	6.2	100.0
JR503	N/A	4,512	397	1700-1800	50.8	21.4	8.8	10.5	1.1	7.4	100.0
JR504	N/A	899	97	1700-1800	35.3	25.4	12.8	8.3	0.4	17.8	100.0

LEDANG

JR601	N/A	22,178	2,412	1800-1900	72.8	6.2	6.0	1.1	0.5	13.3	100.0
JR602	N/A	3,730	335	1500-1600	46.0	17.5	7.7	1.8	0.2	26.8	100.0
JR603	N/A	10,709	1,060	1800-1900	53.1	11.1	6.8	2.8	0.3	25.8	100.0
JR604	N/A	20,293	2,360	0700-0800	56.1	9.9	6.1	2.0	0.8	25.2	100.0
JR605	N/A	42,026	3,667	1800-1900	60.9	12.7	4.8	3.1	0.6	17.9	100.0
JR606	N/A	22,401	2,249	0700-0800	65.3	11.1	4.5	1.1	0.4	17.5	100.0

MUAR

JR607	N/A	2,641	364	0700-0800	41.8	12.2	7.2	2.8	0.9	35.1	100.0
JR608	N/A	17,111	1,475	1800-1900	52.7	12.4	10.6	3.8	1.1	19.5	100.0
JR609	N/A	6,766	625	1700-1800	56.1	11.9	14.9	4.3	0.3	12.5	100.0
JR610	N/A	5,472	566	0700-0800	41.7	13.4	18.2	5.8	0.1	20.8	100.0
JR611	N/A	15,822	1,213	1700-1800	61.2	11.4	6.9	1.0	0.8	18.6	100.0
JR612	N/A	14,625	1,278	0700-0800	60.4	10.6	6.2	1.2	0.8	20.8	100.0
JR613	N/A	9,929	1,088	1700-1800	62.5	13.2	3.5	0.5	0.3	20.0	100.0

PONTIAN

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
JR701	N/A	11,434	1,180	1700-1800	58.7	8.1	7.7	2.6	0.8	22.1	100.0
JR702	N/A	12,960	1,144	1700-1800	70.9	7.9	6.4	1.8	0.7	12.3	100.0
JR703	N/A	6,614	588	1700-1800	54.0	8.5	9.9	2.5	8.1	17.0	100.0
JR704	N/A	13,141	1,141	1800-1900	66.6	9.3	6.8	2.8	1.2	13.3	100.0
JR705	N/A	16,934	1,255	1700-1800	75.8	4.8	2.0	1.1	0.6	15.7	100.0

SEGAMAT

JR801	18,269	16,408	1,337	1700-1800	55.3	9.6	6.9	4.8	0.7	22.6	100.0
JR802	14,859	13,329	1,096	1200-1300	60.1	15.7	6.9	6.0	0.7	10.6	100.0
JR803	N/A	13,925	1,349	1700-1800	66.3	10.3	8.7	5.7	1.0	8.0	100.0
JR804	N/A	8,107	862	1400-1500	57.7	13.6	9.3	5.6	1.9	11.9	100.0

BATU PAHAT

Census Station Number	16-Hour Traffic	Peak Hour	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Buses	Motorcycles	Total	Level of Service (LOS)	Capacity Year
JR101	13,424	1,148	64.8	8.4	7.5	0.7	1.0	17.7	100%	C	2027
JR102	23,564	2,530	64.7	9.0	5.1	1.0	0.8	19.3	100%	F	R
JR103	8,359	952	46.5	13.0	11.9	6.2	0.8	21.6	100%	C	2047
JR104	23,996	1,756	40.8	25.1	19.7	4.6	0.4	9.4	100%	F	R
JR105	15,723	1,442	57.5	14.7	10.9	6.3	0.7	10.0	100%	F	R
JR106	3,092	332	47.6	10.1	5.0	3.3	0.6	33.4	100%	A	-
JR107	36,968	3,400	68.4	10.1	5.3	1.7	5.7	8.7	100%	F	R
JR108	11,199	897	47.1	18.6	12.3	7.1	1.1	13.8	100%	C	-
JR109	11,725	969	51.2	13.9	11.9	5.5	0.4	17.1	100%	C	2036
JR110	25,790	2,268	71.1	7.8	4.8	2.1	1.0	13.3	100%	B	2032
JR111	59,152	5,075	73.4	5.9	4.1	1.6	0.6	14.4	100%	E	2017
JR112	14,800	1,075	62.4	9.6	8.5	1.9	0.7	16.8	100%	C	-
JR113	43,070	3,348	75.5	7.9	4.2	0.8	0.3	11.3	100%	F	R

JOHOR BAHRU

JR201	39,175	4,364	61.2	6.7	6.0	1.0	1.0	24.2	100%	E	2018
JR202	115,480	9,320	76.9	7.2	3.1	0.7	0.9	11.2	100%	F	R
JR204	145,079	12,056	72.7	7.2	5.1	1.7	1.6	11.7	100%	F	R
JR205	176,725	14,133	75.3	4.5	2.6	0.6	1.5	15.5	100%	F	R
JR206	155,553	11,796	73.1	4.0	1.8	0.5	1.5	19.0	100%	F	R
JR207	84,578	7,205	79.8	5.6	1.5	0.6	1.3	11.2	100%	C	2021
JR208 (mansuh)	80,902	8,294	45.1	1.1	1.0	1.3	1.5	67.6	100%	F	R
JR210	141,059	12,518	65.3	6.3	1.5	0.5	1.2	25.1	100%	F	R
JR211	101,498	7,923	70.5	9.1	5.6	2.9	0.5	11.5	100%	F	R
JR212	36,328	3,249	72.0	10.5	4.5	3.2	0.9	9.0	100%	C	-
JR213	117,880	11,978	69.9	3.5	5.2	3.9	1.0	16.6	100%	F	R
JR214	91,669	7,877	70.8	2.8	2.7	1.7	1.0	21.1	100%	D	2029
JR215	68,177	6,179	80.7	1.9	0.9	0.2	1.0	15.4	100%	B	-
JR216	29,216	2,675	75.9	4.4	3.2	0.7	1.0	14.8	100%	A	2074
JR217	119,864	12,737	69.4	4.8	5.2	7.0	0.5	13.2	100%	F	R
JR218	42,306	5,939	61.7	5.1	5.2	9.7	0.5	17.8	100%	F	R
JR219	115,220	9,659	73.6	7.5	2.4	1.2	0.5	14.8	100%	F	R
JR220	56,466	5,945	67.5	8.9	4.6	3.2	0.7	15.1	100%	F	R
JR223	17,882	1,936	68.1	5.1	5.4	3.3	0.6	17.5	100%	F	R

KULAI JAYA

JR209	59,668	9,210	73.0	5.7	5.1	3.7	1.9	10.5	100%	F	R
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KLUANG

Census Station Number	16-Hour Traffic	Peak Hour	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Buses	Motorcycles	Total	Level of Service (LOS)	Capacity Year
JR301	4,563	420	44.4	14.2	13.1	12.2	1.2	14.9	100%	A	2048
JR302	13,349	1,823	61.0	10.6	5.0	2.3	0.8	20.3	100%	A	2024
JR303	8,572	782	53.1	11.5	7.3	7.0	0.9	20.2	100%	A	-
JR304	9,766	749	44.1	13.6	16.4	11.2	0.9	13.8	100%	B	2042
JR305	20,602	1,767	46.2	15.7	9.3	6.5	0.4	21.9	100%	F	R
JR306	43,771	3,385	71.0	8.7	4.7	2.9	0.8	11.9	100%	B	2030
JR307	8,816	673	58.3	9.5	7.3	7.5	0.6	16.9	100%	A	2029

KOTA TINGGI

JR401	7,290	1,289	56.4	6.9	5.2	3.6	0.5	27.4	100%	C	-
JR402	17,616	1,535	61.3	11.3	7.3	7.5	1.3	11.2	100%	A	-
JR403	17,553	1,340	71.2	8.7	4.9	2.9	0.8	11.6	100%	C	2035
JR404	17,601	1,401	76.2	5.5	4.0	1.7	1.2	11.4	100%	D	2040
JR405	6,004	562	71.3	9.5	5.2	3.2	0.8	10.0	100%	A	-
JR406	7,185	808	56.9	9.1	6.4	8.6	1.1	17.8	100%	A	-
JR407	4,721	436	55.1	12.6	10.1	6.8	0.4	15.1	100%	A	-
JR408	4,594	436	61.3	11.7	8.3	4.8	1.0	12.9	100%	A	-
JR409	18,516	1,488	68.8	8.8	6.9	6.6	0.7	8.2	100%	F	R

MERSING

JR501	15,599	1,261	60.0	6.6	4.6	2.8	0.6	25.3	100%	B	-
JR502	4,952	421	65.7	9.9	8.8	7.1	1.4	7.0	100%	A	2054
JR503	4,349	393	50.0	20.8	10.4	9.2	1.2	8.5	100%	A	-
JR504	943	100	31.4	26.3	13.5	8.3	0.7	19.8	100%	A	2050

LEDANG

JR601	23,293	2,380	71.8	7.0	6.1	1.2	0.6	13.4	100%	A	2046
JR602	3,562	346	45.8	16.6	9.9	1.4	0.3	25.9	100%	A	2154
JR603	11,105	1,097	52.4	10.9	7.6	2.3	0.4	26.3	100%	C	2030
JR604	24,567	3,070	57.8	8.9	6.2	1.9	0.7	24.5	100%	F	R
JR605	62,864	6,189	59.9	13.3	6.5	2.1	0.5	17.8	100%	F	R
JR606	18,922	2,073	61.5	10.9	6.2	0.9	0.6	19.9	100%	F	R

MUAR

JR607	3,347	382	45.9	10.2	5.6	1.6	0.6	36.1	100%	A	-
JR608	17,440	1,452	54.5	10.3	10.3	3.9	1.0	20.0	100%	D	-
JR609	6,887	624	55.6	11.8	14.9	4.3	0.4	13.0	100%	A	2063
JR610	5,384	528	44.7	11.0	16.9	5.8	0.1	21.5	100%	A	2031
JR611	15,960	1,271	59.8	11.7	6.7	1.2	0.9	19.8	100%	C	2022
JR612	14,785	1,389	62.1	8.5	5.9	1.3	0.7	21.6	100%	C	2031
JR613	9,729	1,004	64.2	9.6	4.2	0.9	0.4	20.7	100%	A	2030

PONTIAN

Census Station Number	16-Hour Traffic	Peak Hour	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Buses	Motorcycles	Total	Level of Service (LOS)	Capacity Year
JR701	11,966	1,096	61.2	6.8	8.3	1.9	0.8	21.0	100%	B	2030
JR702	13,050	1,110	69.8	7.5	6.2	2.9	0.8	12.8	100%	B	-
JR703	6,747	574	56.3	10.4	8.4	3.6	4.7	16.7	100%	A	2042
JR704	12,367	1,022	67.9	8.9	6.6	3.0	1.4	12.4	100%	B	-
JR705	17,043	1,324	70.4	7.5	3.3	1.1	0.6	17.1	100%	C	2049

SEGAMAT

JR801	16,518	1,306	55.4	9.8	6.0	4.4	0.7	23.7	100%	C	2025
JR802	13,662	1,120	60.1	15.7	7.5	5.3	0.7	10.7	100%	D	2026
JR803	13,383	1,201	66.3	10.7	8.5	5.3	1.0	8.1	100%	C	2029
JR804	7,942	768	55.7	14.1	9.3	5.5	2.2	13.2	100%	A	2034

BATU PAHAT

Census Station Number	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Normal Growth (%/yr)	R ²
JR101	10,736	12,735	11,162	11,711	14,847	18,659	15,491	12,321	12,562	13,424	2.1	0.14
JR102	19,665	21,195	20,237	15,020	21,881	25,305	21,429	17,176	18,177	23,564	0.6	0.01
JR103	5,509	8,649	6,539	15,428	7,866	8,531	7,183	8,032	8,433	8,359	1.5	0.03
JR104	32,094	33,381	25,916	40,092	23,361	34,672	32,757	25,310	16,289	23,996	-4.8	0.31
JR105	14,764	15,369	14,770	15,230	15,993	16,189	14,695	16,282	14,554	15,723	0.4	0.06
JR106	3,266	3,133	3,144	3,666	4,035	4,419	3,561	2,495	3,379	3,092	-0.7	0.02
JR107	27,620	22,105	24,961	28,189	29,330	30,117	27,119	24,410	27,461	36,968	2.4	0.27
JR108	12,557	12,869	12,262	13,025	12,369	11,628	11,521	11,985	9,733	11,199	-2.1	0.58
JR109	9,686	9,646	9,722	9,418	10,184	10,507	10,339	10,618	11,312	11,725	2.2	0.84
JR110	22,271	22,282	22,463	24,236	25,758	25,816	23,090	27,763	28,648	25,790	2.4	0.63
JR111	40,929	48,391	68,097	47,852	74,604	71,408	62,409	66,123	70,098	59,152	4.0	0.34
JR112	13,508	13,803	34,077	13,505	12,996	12,921	12,867	11,390	12,491	14,800	-3.3	0.11
JR113	24,710	27,870	30,932	33,455	33,260	34,935	42,064	41,264	36,566	43,070	5.5	0.85

JOHOR BAHRU

JR201	21,466	24,684	36,243	32,527	35,398	40,123	37,859	34,273	44,524	39,175	6.0	0.65
JR202	78,069	91,544	100,402	96,248	126,786	126,934	126,242	115,530	127,658	115,480	4.5	0.62
JR204	97,582	99,254	101,856	107,591	104,684	114,704	105,441	108,858	110,498	145,079	2.8	0.59
JR205	154,952	218,035	221,084	213,390	162,454	189,292	191,427	178,012	184,136	176,725	-0.8	0.04
JR206	172,548	189,659	181,637	167,933	171,102	168,344	159,157	122,004	154,587	155,553	-2.7	0.47
JR207	42,635	62,177	59,676	75,358	78,405	98,298	81,724	84,064	86,620	84,578	6.5	0.65
JR208	128,068	141,198	161,424	217,277	157,555	137,107	115,133	112,822	126,698	80,902	-5.3	0.38
JR210	116,611	143,369	153,246	142,980	153,822	134,361	145,134	140,621	129,419	141,059	0.3	0.01
JR211	80,232	87,976	95,655	101,081	110,548	112,581	94,216	98,601	88,895	101,498	1.3	0.14
JR212	39,508	44,448	36,424	34,111	36,709	36,170	34,325	29,664	35,904	36,328	-2.0	0.34
JR213	90,144	115,202	124,581	138,535	124,847	116,207	138,276	120,147	120,091	117,880	1.5	0.14
JR214	136,236	148,047	146,961	118,971	144,677	145,556	144,552	132,776	127,342	91,669	-2.8	0.317
JR215	83,085	90,853	95,603	117,179	59,861	60,912	66,720	77,496	66,794	68,177	-4.0	0.31
JR216	29,348	33,820	34,422	32,865	70,925	34,264	31,640	54,830	31,327	29,216	0.6	0.00
JR217	100,249	131,280	129,556	116,193	72,235	102,406	109,088	61,369	105,760	119,864	-2.1	0.07
JR218	43,457	46,426	49,309	40,428	47,563	26,552	26,502	29,045	43,134	42,306	-3.2	0.16
JR219	87,857	95,096	116,486	131,153	123,232	117,251	102,915	107,704	133,704	115,220	2.2	0.25
JR220	9,095	11,091	22,276	26,675	27,101	40,304	43,880	45,657	57,300	56,466	20.3	0.90
JR223	17,810	18,708	16,529	18,747	18,383	18,371	15,701	17,418	17,707	17,882	-0.4	0.04

KULAI JAYA

JR209	29,106	25,673	26,689	28,084	30,378	43,167	40,454	60,232	30,713	43,557	6.3	0.47
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KLUANG

Census Station Number	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Normal Growth (%/yr)	R ²
JR301	5,443	5,177	5,210	5,208	5,432	6,223	5,913	5,742	5,249	4,563	-0.3	0.01
JR302	9,616	12,978	16,412	15,217	15,149	13,923	15,070	13,822	14,273	13,349	1.6	0.11
JR303	10,514	7,103	9,322	7,769	9,269	8,101	7,941	7,802	10,676	8,572	0.0	0.00
JR304	7,203	7,585	7,705	7,469	7,889	8,496	8,481	9,189	12,179	9,766	4.5	0.73
JR305	14,708	15,261	14,810	14,894	15,398	13,911	15,847	17,359	17,598	20,602	3.0	0.60
JR306	33,897	33,572	34,964	36,952	39,674	38,053	38,366	41,632	41,936	43,771	2.9	0.92
JR307	7,550	8,585	8,479	8,336	8,293	8,960	11,589	9,898	8,848	8,816	2.1	0.30

KOTA TINGGI

JR401	14,695	13,494	6,676	16,043	7,372	7,859	6,704	5,809	6,948	7,290	-8.6	0.48
JR402	19,628	19,890	17,768	17,026	19,618	15,404	18,095	13,424	16,602	17,616	-2.2	0.31
JR403	15,591	16,450	15,504	16,044	15,672	15,644	17,770	18,115	17,125	17,553	1.5	0.55
JR404	19,417	19,182	20,302	20,106	23,273	22,103	19,750	19,745	18,984	17,601	-6.1	0.59
JR405	9,746	9,796	10,089	6,992	8,332	6,556	5,293	8,471	5,666	6,004	-3.0	0.32
JR406	8,725	9,643	6,672	7,703	6,535	5,908	6,272	6,002	7,285	7,185	-3.9	0.50
JR407	5,231	5,604	4,856	4,772	4,604	4,535	4,888	3,521	4,228	4,721	-2.7	0.42
JR408	4,212	4,141	3,784	4,042	4,514	4,926	4,038	5,349	4,271	4,594	1.7	0.25
JR409	16,676	15,424	15,869	14,588	13,322	15,017	13,993	15,827	17,060	18,516	1.0	0.09

MERSING

JR501	17,192	16,688	15,598	13,445	13,411	14,412	14,391	14,672	15,336	15,599	-0.9	0.11
JR502	5,824	4,671	4,590	5,073	7,080	7,544	5,533	5,508	5,222	4,952	0.3	0.00
JR503	4,262	4,477	4,633	4,481	4,490	4,720	4,143	2,656	4,969	4,349	-1.2	0.05
JR504	841	1,032	1,062	1,126	1,055	1,178	1,099	1,840	946	943	1.9	0.08

LEDANG

JR601	20,782	23,513	20,582	20,376	19,157	16,513	18,558	24,358	28,809	23,293	1.7	0.11
JR602	4,266	4,616	5,022	5,230	4,690	4,579	4,823	4,379	4,301	3,562	-1.9	0.28
JR603	7,682	9,293	12,793	11,166	9,917	11,017	10,961	8,938	8,947	11,105	2.3	0.14
JR604	13,746	14,292	12,866	12,493	14,246	14,989	17,714	15,846	16,136	24,567	5.0	0.60
JR605	32,018	33,881	31,746	26,870	25,276	26,589	22,197	30,888	29,672	62,864	2.7	0.09
JR606	10,509	12,387	15,519	15,162	19,072	19,434	16,346	19,916	14,847	18,922	4.9	0.50

MUAR

JR607	12,223	4,329	4,231	4,566	4,227	3,835	11,939	15,688	3,493	3,347	-2.3	0.01
JR608	23,100	16,391	17,594	17,384	16,027	16,327	11,024	9,194	17,438	17,440	-4.1	0.22
JR609	6,536	7,738	7,121	6,063	6,871	7,753	7,046	7,178	6,282	6,887	-0.2	0.01
JR610	3,055	3,219	3,686	4,282	5,505	3,064	4,570	5,450	4,597	5,384	5.6	0.50
JR611	9,163	11,437	12,798	12,066	15,618	15,756	13,869	13,192	14,518	15,960	4.4	0.59
JR612	10,232	11,201	10,031	9,743	12,852	10,729	13,120	11,390	13,833	14,785	3.7	0.60
JR613	7,920	5,785	6,283	6,394	8,142	7,617	8,866	10,881	12,115	9,729	6.5	0.65

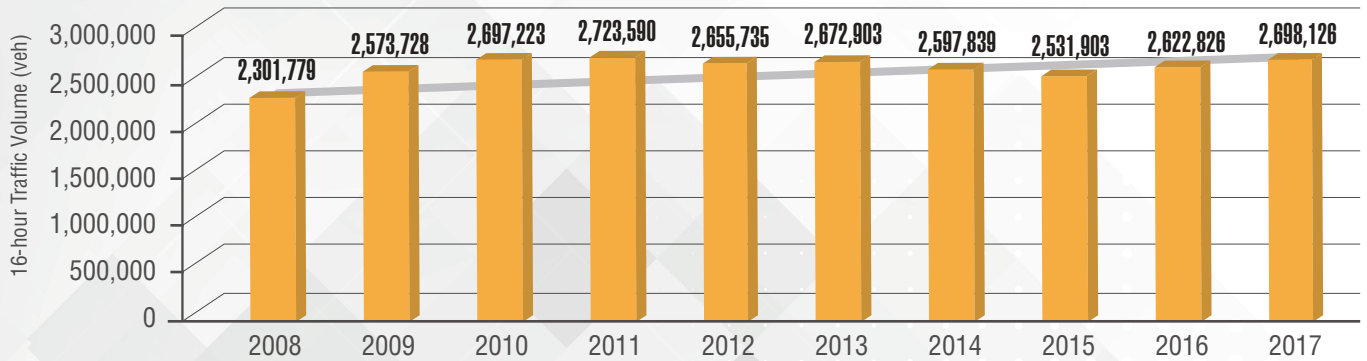
PONTIAN

Census Station Number	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Normal Growth (%/yr)	R ²
JR701	9,193	9,965	10,068	12,845	10,080	11,176	10,357	12,605	12,039	11,966	2.6	0.47
JR702	17,789	14,480	14,406	12,125	16,772	15,061	14,678	15,945	16,690	13,050	-0.5	0.02
JR703	5,569	6,578	6,385	6,436	6,455	6,680	6,669	9,015	7,644	6,747	2.8	0.45
JR704	18,656	18,950	18,006	16,482	15,967	15,658	14,920	14,102	14,480	12,367	-4.3	0.94
JR705	17,535	18,470	20,268	18,103	17,452	18,948	17,533	16,039	17,762	17,043	-1.0	0.25

SEGAMAT

JR801	14,145	14,648	15,237	15,781	15,875	16,826	16,800	17,751	15,954	16,518	1.8	0.65
JR802	12,367	12,779	12,968	13,938	14,985	14,283	14,595	14,834	14,421	13,662	1.5	0.47
JR803	10,875	11,031	11,067	12,085	12,418	12,342	11,718	13,014	13,110	13,383	2.3	0.84
JR804	8,074	8,024	9,900	9,561	10,614	12,257	9,462	8,637	7,839	7,942	-0.5	0.01

YEARLY 16-HOUR TRAFFIC VOLUME (2008 - 2017)



$y = 3.46e^{0.0067x} \mid R^2 = 0.171$
NORMAL GROWTH = 0.67%

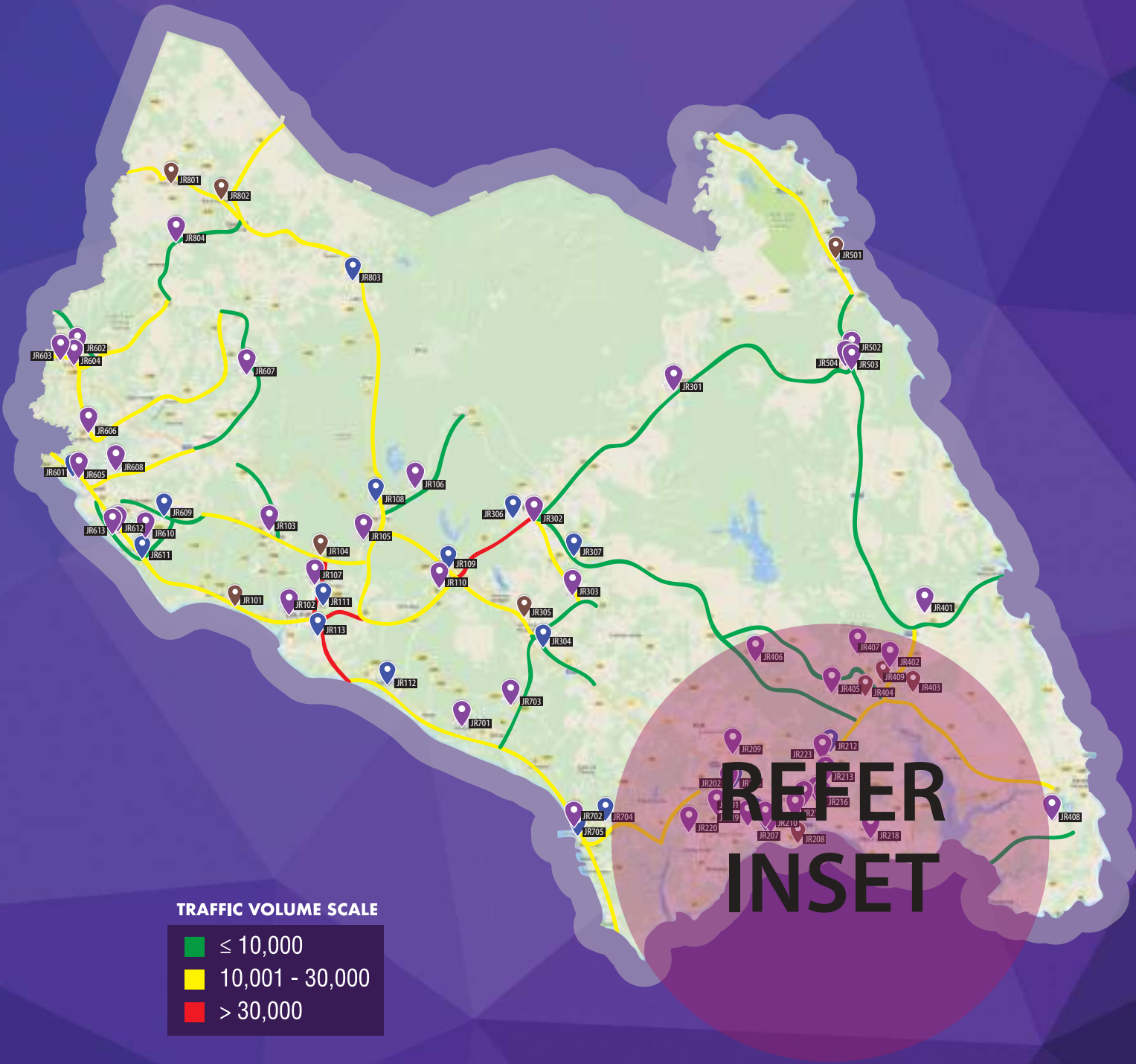
*Yearly 16-hour Traffic Volume (2008 - 2017)
 & Normal Traffic Growth with Exponential Trendline for the Year 2017 in Johor*

**2.80%
Increase**

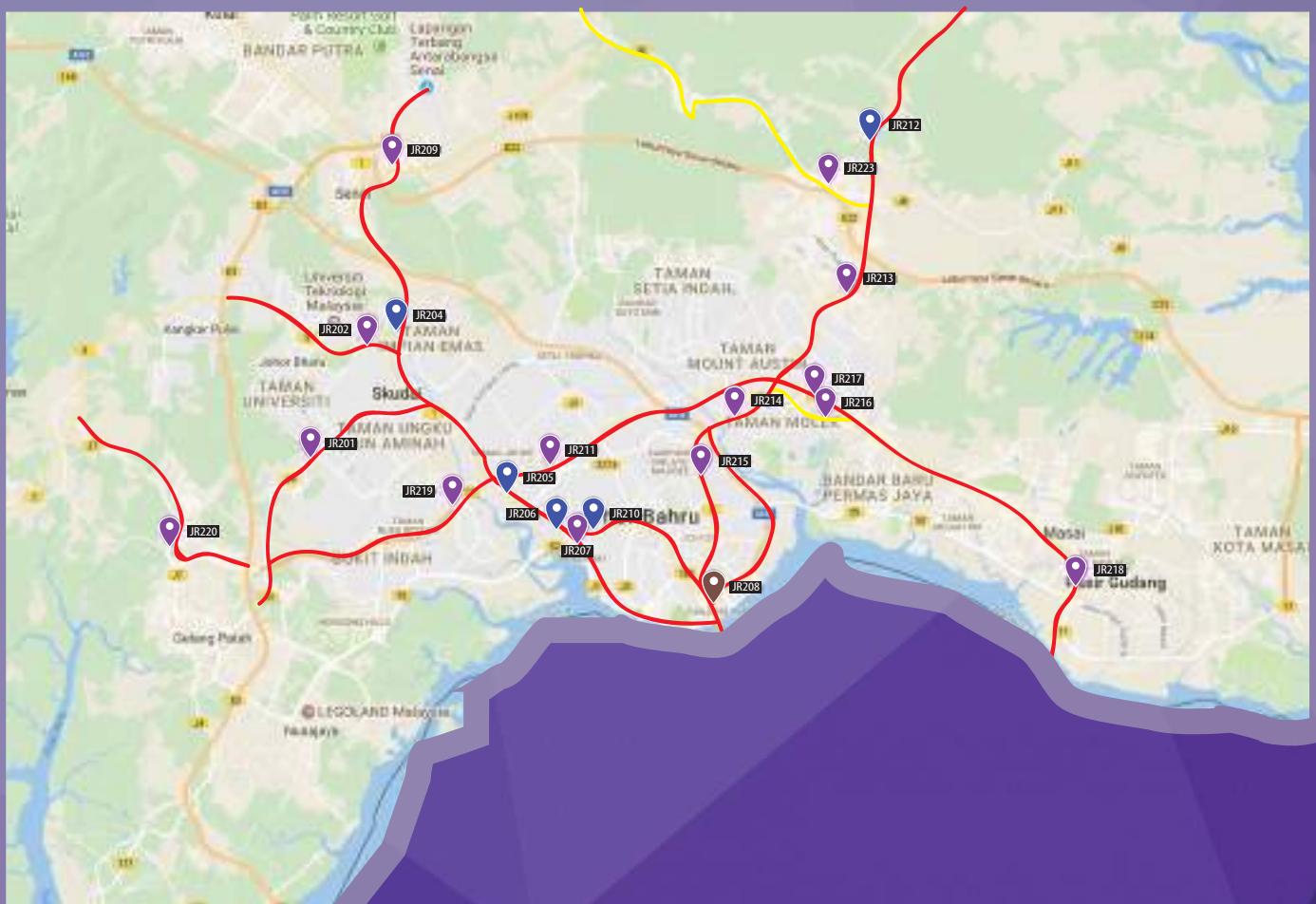
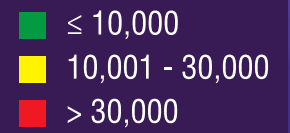
There are 75 census stations in Johor. The 16-hour traffic volume shows a steady and gradual growth throughout the year 2008 until the year 2017, a side for years 2012, 2014 and 2015 which have undergone a slight drop in number of vehicles. As can be observed, for the year 2017, it showed an increase of traffic volume of 2.80% equivalent to 75,300 vehicles compared to the year 2016.

For the year 2017, the observed traffic growth rate for the state of Johor is 0.67%. The basis of traffic growth rate record is to be used as a projection indicator of subsequent traffic growth rate for road forethought as well as for the expansion of current and new roads in Johor.





TRAFFIC VOLUME SCALE



PAHANG

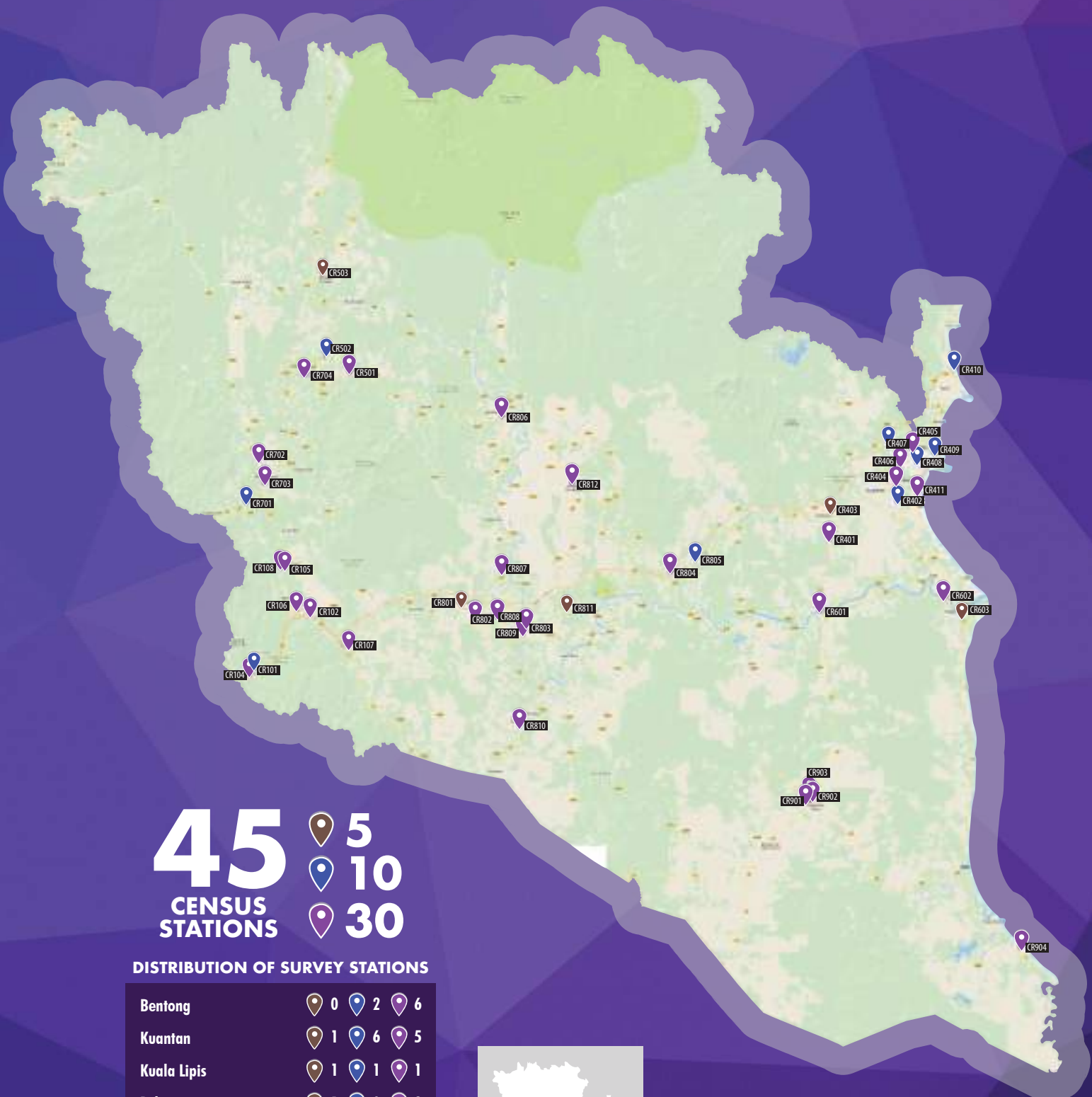


JKR NEGERI PAHANG

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25582 Kuantan, Pahang

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45
CENSUS STATIONS

5
10
30

DISTRIBUTION OF SURVEY STATIONS

Bentong	0	2	6
Kuantan	1	6	5
Kuala Lipis	1	1	1
Pekan	1	0	2
Raub	0	1	3
Temerloh	1	0	5
Bera	0	0	1
Maran	1	1	2
Jerantut	0	0	1
Rompin	0	0	4



PAHANG



BENTONG

Census Station Number	Survey Type	Route Number	KM	Description of Location	GPS Coordinate (WGS84) (Latitude, Longitude)	Type of Carriageway
CR101	1	2	42.8	Kuantan-Kuala Lumpur (KL-Karak H'way)	3.353 101.826	K 2-2
CR102	1	2	68.1	Kuala Lumpur - Kuantan (KL-Karak H'way)	3.480 101.955	K 2-2
CR103	3	2	88.8	Jalon Karak - Sempadan Temerloh	3.480 101.955	T 1-1
CR104	3	68	225.4	Kuantan-Kuala Lumpur (Old Road)	3.345 101.821	T 1-1
CR105	3	8	204.5	Jalan Kuala Lumpur - Sempadan Kota Bharu	3.581 101.894	T 1-1
CR106	3	68	195.5	Jalan Kuala Lumpur - Sempadan Kota Bharu	3.496 101.926	T 1-1
CR107	3	9	1.6	Jalan Karak- Sempadan Negeri Sembilan	3.410 102.041	T 1-1
CR108	3	8	1.0	Bentong-Raub (Old Road)	3.581 101.892	T 1-1

KUANTAN

CR401	3	12	34.0	Kuantan-Segamat	3.648 103.119	T 1-1
CR402	1	3	16.0	Pekan-Kuantan	3.732 103.269	K 2-2
CR403	0	2	27.0	Kuantan-Maran	3.708 103.122	K 2-2
CR404	3	2	8.1	Kuantan-Maran	3.774 103.265	K 2-2
CR405	3	3	7.0	Kuantan Bypass (East Bound) (1km. from clover leaf junction)	3.847 103.302	K 2-2
CR406	3	3	7.5	Kuantan Bypass (West Bound) (1km. from clover leaf junction)	3.816 103.275	K 2-2
CR407	1	231	13.0	Kuantan-Sungai Lembing	3.863 103.250	T 1-1
CR408	1	231	2.0	Kuantan-Sungai Lembing	3.819 103.312	K 2-2
CR409	1	2	4.8	Kuantan-Kemaman	3.837 103.353	K 2-2
CR410	1	3	30.5	Kuantan - Kemaman (Sg. Ular)	4.034 103.397	T 1-1
CR411	3	183	8.5	Kuantan-Tanjung Lumpur-Penor	3.749 103.314	K 2-2

KUALA LIPIS

CR501	3	64	212.5	Kuantan-Jerantut-Benta (after Kampong Tanjong Besar)	4.018 102.044	T 1-1
CR502	1	8	227.8	Kuantan-Jerantut-Benta-Kuala Lipis (2.4km to Kuala Lipis road)	4.174 102.016	T 1-1
CR503	0	8	282.0	Kuala Lumpur-Kuala Lipis-Kampong Padang Tuanku-Kota Bahru	4.241 101.983	T 1-1

PEKAN

CR601	3	12	40.0	Pekan-Batu Balik (Simpang Paloh Hinai)	3.487 103.096	T 1-1
CR602	3	82	5.0	Pekan-Batu Balik (Kg. Pulau Keladi)	3.518 103.376	T 1-1
CR603	0	3	48.0	Pekan-Nenasi (In front of JKR Pekan)	3.490 103.417	T 1-1

RAUB

CR701	1	55	230.6	Kuantan-Tranum-Gap (50m east of the junction)	3.728 101.812	T 1-1
CR702	3	C5	4.8	Raub-Cheroh	3.824 101.841	T 1-1
CR703	3	8	239.9	Kuantan-Tranum-Raub	3.773 101.853	T 1-1
CR704	3	8	228.6	Kuantan-Benta-Raub	4.012 101.942	T 1-1

TEMERLOH

Census Station Number	Survey Type	Route Number	KM	Description of Location	GPS Coordinate (WGS84) (Latitude, Longitude)		Type of Carriageway
CR801	0	2	115.0	Kuantan-Karak	3.501	102.293	T 1-1
CR802	3	2	219.5	Mentakab Bypass (400m. fr. first junction towards Temerloh)	3.470	102.323	T 1-1
CR803	3	2	130.4	Kuantan-Temerloh (500 ft from Temerloh bridge towards Maran)	3.446	102.433	K 2-2
CR807	3	98	146.5	Kuantan-Temerloh-Jerantut	3.575	102.382	T 1-1
CR808	3	87	132.0	Kuantan-Mentakab	3.474	102.371	K 2-2
CR809	3	10	126.7	Kuantan-Temerloh-Triang	3.436	102.431	T 1-1

BERA

CR810	3	10	93.0	Kuantan-Temerloh-Kemayan	3.229	102.423	T 1-1
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MARAN

CR804	3	2	80.5	Kuantan - Maran (Kg. Kemap)	3.573	102.762	T 1-1
CR805	1	2	70.9	Kuantan - Maran (Kg. Luit)	3.601	102.816	T 1-1
CR811	0	83	32.7	Kuantan - Maran - Jerantut (Kg. Awah)	3.493	102.531	T 1-1
CR812	3	83	39.0	Jerantut - Maran	3.772	102.542	T 1-1

JERANTUT

CR806	3	98	1.6	Jerantut - Kampong Kerdau	3.921	102.384	T 1-1
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ROMPIN

CR901	3	12	104.4	Kuantan - Segamat (400m Bkt. Ibam - Rompin junction south bound)	3.059	103.062	T 1-1
CR902	3	12	102.2	Kuantan - Segamat (400m Bkt. Ibam - Rompin junction north bound)	3.074	103.071	T 1-1
CR903	3	63	18.1	Bkt. Ibam - Rompin (400m from Kuantan - Segamat junction east bound)	3.064	103.075	T 1-1
CR904	3	3	146.6	Kuantan - Rompin - Endau	2.734	103.545	T 1-1

BENTONG

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
CR101	N/A	2,512	274	0700-0800	51.2	13.4	8.0	3.1	0.7	23.6	100.0
CR102	N/A	1,795	152	1800-1900	45.0	14.9	10.3	7.3	0.2	22.4	100.0
CR103	N/A	6,390	488	1800-1900	47.3	16.2	11.4	10.6	0.8	13.8	100.0
CR104	N/A	3,942	390	1700-1800	55.5	18.0	11.0	5.9	1.0	8.5	100.0
CR105	N/A	12,321	970	1600-1700	58.7	17.6	7.4	3.7	1.1	11.5	100.0
CR106	N/A	17,327	1,363	1700-1800	56.0	15.2	5.8	1.8	0.5	20.6	100.0
CR107	N/A	3,910	403	1700-1800	41.5	19.9	7.3	4.3	0.4	26.5	100.0
CR108	N/A	1,457	142	1300-1400	39.6	22.6	5.4	2.7	1.1	28.7	100.0

KUANTAN

CR401	N/A	9,722	866	1800-1900	63.3	12.5	8.2	8.4	0.9	6.7	100.0
CR402	N/A	27,728	3,045	0700-0800	74.3	10.8	3.5	3.4	0.6	7.4	100.0
CR403	36,475	31,123	3,056	2000-2100	73.0	9.6	5.1	4.6	1.0	6.8	100.0
CR404	N/A	69,050	6,321	1700-1800	66.8	9.2	3.5	1.2	0.6	18.7	100.0
CR405	N/A	46,537	5,816	0700-0800	62.0	17.9	9.1	3.8	0.4	6.8	100.0
CR406	N/A	59,524	5,700	1700-1800	67.8	10.8	3.6	3.3	0.5	14.0	100.0
CR407	N/A	27,732	2,269	1700-1800	69.9	7.7	3.2	1.7	0.6	16.9	100.0
CR408	N/A	37,410	3,882	1000-1100	72.1	11.2	1.8	0.2	0.6	14.1	100.0
CR409	N/A	39,078	3,685	1700-1800	78.2	5.8	1.7	0.6	0.3	13.5	100.0
CR410	N/A	29,622	4,000	0700-0800	60.3	12.1	4.3	3.6	0.6	19.1	100.0
CR411	N/A	26,847	2,843	0700-0800	66.8	11.0	2.7	1.5	0.3	17.7	100.0

KUALA LIPIS

CR501	N/A	1,799	208	0700-0800	51.0	10.6	5.8	3.8	0.4	28.5	100.0
CR502	N/A	8,154	749	1700-1800	66.3	13.5	6.8	4.0	1.3	8.1	100.0
CR503	9,946	8,261	687	1800-1900	61.1	9.5	6.0	5.0	0.9	17.6	100.0

PEKAN

CR601	N/A	9,203	736	1700-1800	60.6	9.6	11.1	9.4	0.7	8.6	100.0
CR602	N/A	4,564	492	1400-1500	53.0	16.6	4.5	6.5	0.2	19.2	100.0
CR603	12,265	11,210	890	0700-0800	56.9	12.8	4.5	3.0	0.6	22.3	100.0

RAUB

CR701	N/A	608	57	1400-1500	44.2	12.9	8.1	6.2	0.0	28.7	100.0
CR702	N/A	4,999	504	1400-1500	56.6	10.4	6.3	1.7	0.7	24.3	100.0
CR703	N/A	15,477	1,257	1300-1400	66.0	9.5	6.5	3.2	1.1	13.8	100.0
CR704	N/A	8,533	754	1700-1800	66.0	8.5	7.8	6.2	1.2	13.3	100.0

TEMERLOH

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
CR801	19,195	16,782	1,797	1400-1500	60.9	9.4	8.3	5.1	0.6	15.8	100.0
CR802	N/A	8,773	735	1100-1200	56.1	8.9	8.8	15.3	0.3	10.5	100.0
CR803	N/A	29,541	2,672	1500-1600	72.6	6.5	3.9	2.3	0.2	14.5	100.0
CR807	N/A	10,893	1,036	1800-1900	63.7	10.9	6.3	4.3	0.8	13.9	100.0
CR808	N/A	22,817	1,797	1300-1400	69.9	5.9	3.9	2.8	0.5	17.0	100.0
CR809	N/A	13,216	1,214	1700-1800	66.4	8.2	5.1	6.2	0.5	13.6	100.0

BERA

CR810	N/A	9,555	900	1800-1900	46.6	17.7	10.4	8.2	0.2	16.8	100.0
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MARAN

CR804	N/A	7,173	634	1700-1800	60.5	11.4	10.2	4.4	0.4	13.1	100.0
CR805	N/A	6,671	540	1700-1800	61.3	11.5	8.3	5.3	0.3	13.3	100.0
CR811	10,455	9,462	771	1700-1800	66.4	10.6	5.6	2.1	0.2	15.1	100.0
CR812	N/A	10,122	961	1700-1800	62.1	15.7	5.4	3.3	0.2	13.3	100.0

JERANTUT

CR806	N/A	16,627	1,635	1700-1800	62.7	15.4	4.6	2.2	0.3	14.7	100.0
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ROMPIN

CR901	N/A	9,889	817	1700-1800	65.6	11.8	5.4	7.3	1.0	8.9	100.0
CR902	N/A	10,538	961	1800-1900	61.2	12.1	5.7	7.7	0.7	12.6	100.0
CR903	N/A	10,273	835	1800-1900	65.0	12.0	3.4	2.4	0.8	16.4	100.0
CR904	N/A	8,146	737	1800-1900	61.6	11.2	4.8	9.1	0.9	12.3	100.0

BENTONG

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
CR102	N/A	1,871	164	1700-1800	45.4	13.9	9.8	8.8	0.6	21.5	100.0
CR103	N/A	7,223	611	1800-1900	49.2	14.4	11.3	11.9	0.8	12.5	100.0
CR104	N/A	4,695	447	1500-1600	57.6	17.1	9.7	5.8	1.6	8.2	100.0
CR105	N/A	12,235	1,013	1500-1600	58.5	16.7	10.0	5.4	1.7	7.7	100.0
CR106	N/A	20,359	1,845	0700-0800	57.5	14.3	6.0	3.1	0.8	18.2	100.0
CR107	N/A	4,193	360	1700-1800	40.4	19.0	8.7	5.5	0.5	25.9	100.0
CR108	N/A	1,757	156	1700-1800	38.8	24.0	6.9	3.9	1.1	25.3	100.0

KUANTAN

CR401	N/A	10,684	1,014	1100-1200	57.7	8.0	8.1	20.4	0.5	5.2	100.0
CR402	N/A	24,201	2,712	0700-0800	69.1	12.6	4.3	5.8	0.7	7.5	100.0
CR403	40,123	35,370	3,453	1800-1900	71.1	11.4	5.1	4.9	1.0	6.5	100.0
CR404	N/A	53,039	5,431	1700-1800	65.0	11.0	4.1	2.7	0.7	16.5	100.0
CR405	N/A	52,415	6,634	1700-1800	53.6	23.7	10.6	3.4	0.3	8.5	100.0
CR406	N/A	54,093	6,317	0700-0800	73.3	3.6	3.2	2.7	0.3	16.9	100.0
CR407	N/A	20,993	1,649	1700-1800	61.7	15.4	2.8	1.5	0.6	17.8	100.0
CR408	N/A	39,547	3,022	1700-1800	73.1	11.6	1.9	0.3	0.7	12.5	100.0
CR409	N/A	32,715	3,592	1700-1800	77.2	4.9	2.2	0.7	0.3	14.8	100.0
CR410	N/A	30,483	4,343	0700-0800	62.4	11.2	4.4	3.4	0.5	18.0	100.0
CR411	N/A	28,017	3,630	0700-0800	63.6	12.8	2.9	3.6	0.2	16.8	100.0

KUALA LIPIS

CR501	N/A	1,865	164	0700-0800	47.6	12.1	8.6	4.7	0.2	26.9	100.0
CR502	N/A	9,020	838	1700-1800	68.7	12.5	6.6	3.9	1.4	6.9	100.0
CR503	10,228	8,343	695	1700-1800	61.8	10.2	5.1	6.0	1.1	15.8	100.0

PEKAN

CR601	N/A	8,531	675	1600-1700	49.9	22.9	9.3	8.7	0.9	8.4	100.0
CR602	N/A	4,566	423	1700-1800	59.5	11.0	6.3	6.2	0.4	16.6	100.0
CR603	13,022	12,002	1,046	1700-1800	55.7	13.3	4.6	3.9	0.6	21.9	100.0

RAUB

CR701	N/A	710	59	1500-1600	46.7	13.7	7.4	2.6	0.0	29.6	100.0
CR702	N/A	8,522	765	1700-1800	60.2	8.4	5.9	3.0	0.6	21.9	100.0
CR703	N/A	17,307	1,428	0700-0800	64.8	10.1	7.4	4.1	1.1	12.6	100.0
CR704	N/A	7,119	718	1700-1800	63.7	7.7	9.2	6.6	2.0	10.8	100.0

TEMERLOH

CR801	18,186	16,679	1,641	1400-1500	54.5	13.5	10.3	6.2	0.5	15.0	100.0
CR802	N/A	8,120	705	0700-0800	57.3	7.0	12.3	11.2	0.4	11.8	100.0
CR803	N/A	33,163	3,137	1700-1800	75.0	4.5	3.5	2.9	0.2	14.0	100.0
CR807	N/A	11,284	986	0700-0800	70.6	5.7	7.9	4.2	0.8	10.8	100.0
CR808	N/A	23,340	2,191	1700-1800	71.9	3.8	4.5	1.5	0.5	17.7	100.0
CR809	N/A	12,603	1,080	1600-1700	70.5	5.3	6.0	4.2	1.1	13.0	100.0

BERA

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
CR810	N/A	10,536	958	1700-1800	49.2	19.2	11.9	6.1	0.3	13.3	100.0

MARAN

CR804	N/A	7,315	707	1800-1900	59.8	13.3	9.5	5.9	0.5	11.0	100.0
CR805	N/A	7,158	590	1500-1600	59.7	12.9	8.9	6.0	0.4	12.1	100.0
CR811	10,916	9,898	854	1700-1800	68.1	11.2	5.3	1.7	0.3	13.4	100.0
CR812	N/A	11,319	1,166	1700-1800	62.8	14.5	7.5	4.2	0.3	10.7	100.0

JERANTUT

CR806	N/A	15,898	1,476	1400-1500	68.8	10.3	4.4	2.5	0.4	13.6	100.0
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MARAN

CR901	N/A	11,047	916	1800-1900	61.8	16.1	6.1	7.5	0.8	7.7	100.0
CR902	N/A	10,293	856	1500-1600	56.0	18.6	5.5	9.4	0.7	9.8	100.0
CR903	N/A	10,731	974	1700-1800	60.6	17.4	3.4	3.3	0.8	14.5	100.0
CR904	N/A	9,222	1,089	1800-1900	58.5	15.1	6.5	7.1	1.1	11.7	100.0

BENTONG

Census Station Number	16-Hour Traffic	Peak Hour	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Buses	Motorcycles	Total	Level of Service (LOS)	Capacity Year
CR101	2,759	308	49.9	14.7	7.6	3.2	0.6	24.1	100%	A	2104
CR102	1,833	158	45.2	14.4	10.0	8.1	0.4	21.9	100%	A	2084
CR103	6,807	550	48.3	15.3	11.3	11.2	0.8	13.1	100%	A	-
CR104	4,319	419	56.6	17.5	10.3	5.9	1.3	8.4	100%	A	2027
CR105	12,278	992	58.6	17.1	8.7	4.6	1.4	9.6	100%	C	2023
CR106	18,843	1,604	56.8	14.8	5.9	2.5	0.6	19.4	100%	F	R
CR107	4,052	382	40.9	19.5	8.0	4.9	0.5	26.2	100%	A	2095
CR108	1,607	149	39.2	23.3	6.1	3.3	1.1	27.0	100%	A	2061

KUANTAN

CR401	10,203	940	60.5	10.2	8.2	14.4	0.7	6.0	100%	C	2023
CR402	25,964	2,879	71.7	11.7	3.9	4.6	0.7	7.4	100%	A	2025
CR403	33,247	3,254	72.0	10.5	5.1	4.8	1.0	6.6	100%	B	2028
CR404	61,045	5,876	65.9	10.1	3.8	2.0	0.6	17.6	100%	F	R
CR405	49,476	6,225	57.8	20.8	9.8	3.6	0.3	7.6	100%	F	R
CR406	56,809	6,009	70.5	7.2	3.4	3.0	0.4	15.5	100%	F	R
CR407	24,362	1,959	65.8	11.6	3.0	1.6	0.6	17.4	100%	F	R
CR408	38,479	3,452	72.6	11.4	1.8	0.3	0.6	13.3	100%	B	-
CR409	35,897	3,639	77.7	5.3	1.9	0.6	0.3	14.1	100%	A	2030
CR410	30,052	4,172	61.3	11.7	4.4	3.5	0.6	18.6	100%	F	R
CR411	27,432	3,237	65.2	11.9	2.8	2.6	0.3	17.3	100%	A	2024

KUALA LIPIS

CR501	1,832	186	49.3	11.3	7.2	4.2	0.3	27.7	100%	A	2227
CR502	8,587	793	67.5	13.0	6.7	3.9	1.4	7.5	100%	A	2035
CR503	8,302	691	61.5	9.8	5.5	5.5	1.0	16.7	100%	A	2047

PEKAN

CR601	8,867	706	55.2	16.2	10.2	9.1	0.8	8.5	100%	A	2027
CR602	4,565	458	56.2	13.8	5.4	6.4	0.3	17.9	100%	A	2053
CR603	11,606	968	56.3	13.0	4.5	3.5	0.6	22.1	100%	A	2024

RAUB

CR701	659	58	45.4	13.3	7.7	4.4	0.0	29.1	100%	A	2248
CR702	6,761	635	58.4	9.4	6.1	2.3	0.7	23.1	100%	A	2029
CR703	16,392	1,343	65.4	9.8	7.0	3.6	1.1	13.2	100%	D	2020
CR704	7,826	736	64.8	8.1	8.5	6.4	1.6	12.0	100%	A	2025

TEMERLOH

Census Station Number	16-Hour Traffic	Peak Hour	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Buses	Motorcycles	Total	Level of Service (LOS)	Capacity Year
CR801	16,731	1,719	57.7	11.4	9.3	5.7	0.6	15.4	100%	F	R
CR802	8,447	720	56.7	8.0	10.6	13.2	0.3	11.2	100%	B	2041
CR803	31,352	2,905	73.8	5.5	3.7	2.6	0.2	14.2	100%	A	2073
CR807	11,089	1,011	67.1	8.3	7.1	4.3	0.8	12.4	100%	B	2021
CR808	23,079	1,994	70.9	4.8	4.2	2.1	0.5	17.4	100%	A	-
CR809	12,910	1,147	68.5	6.7	5.6	5.2	0.8	13.3	100%	C	2034

BERA

CR810	10,046	929	47.9	18.5	11.1	7.2	0.3	15.1	100%	C	2021
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MARAN

CR804	7,244	671	60.1	12.4	9.8	5.1	0.5	12.0	100%	A	-
CR805	6,915	565	60.5	12.2	8.6	5.7	0.4	12.7	100%	A	-
CR811	9,680	813	67.3	10.9	5.4	1.9	0.3	14.2	100%	A	2042
CR812	10,721	1,064	62.5	15.1	6.5	3.8	0.3	12.0	100%	C	2028

JERANTUT

CR806	16,263	1,556	65.7	12.9	4.5	2.3	0.4	14.2	100%	D	2022
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ROMPIN

CR901	10,468	867	63.7	14.0	5.8	7.4	0.9	8.3	100%	B	2029
CR902	10,416	909	58.6	15.4	5.6	8.6	0.7	11.2	100%	B	2028
CR903	10,502	905	62.8	14.7	3.4	2.9	0.8	15.5	100%	A	2023
CR904	8,684	913	60.1	13.2	5.7	8.1	1.0	12.0	100%	B	2026

BENTONG

Census Station Number	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Normal Growth (%/yr)	R ²
CR101	26,758	27,091	27,039	31,444	29,697	32,903	31,920	33,272	34,887	2,759	-10.6	0.18
CR102	20,703	22,224	28,109	27,653	28,470	26,509	28,300	30,436	31,036	1,833	-11.6	0.17
CR103	6,517	7,618	6,286	7,009	6,348	6,259	6,204	6,640	6,386	6,807	-0.6	0.07
CR104	162	172	205	195	321	299	347	490	319	4,319	24.2	0.59
CR105	10,624	10,992	11,627	14,439	14,057	14,381	15,168	14,844	13,112	12,278	2.4	0.31
CR106	14,712	15,237	16,000	17,574	15,490	13,768	18,488	15,702	16,291	18,843	1.6	0.24
CR107	3,245	3,688	4,144	4,152	4,228	4,439	3,616	3,362	3,714	4,052	0.4	0.01
CR108	1,204	1,514	1,510	1,852	1,551	1,777	2,139	1,683	1,609	1,607	2.5	0.25

KUANTAN

CR401	5,712	7,510	7,298	7,710	8,817	8,153	7,157	9,288	6,201	10,203	2.9	0.25
CR402	11,212	11,687	14,589	13,645	14,737	14,961	21,024	25,039	23,768	25,964	10.0	0.91
CR403	23,395	26,064	28,248	29,142	31,138	31,416	31,876	29,856	30,231	33,247	2.9	0.69
CR404	43,855	53,191	59,580	66,023	78,340	81,363	67,420	56,196	63,925	61,045	2.5	0.17
CR405	28,877	35,804	35,325	37,595	48,105	58,126	61,322	51,699	54,823	49,476	6.9	0.69
CR406	29,194	31,827	37,703	36,093	72,396	59,122	56,172	53,066	65,019	56,809	8.4	0.63
CR407	21,231	25,334	23,845	28,580	31,994	36,043	36,464	43,477	24,585	24,362	3.0	0.15
CR408	36,189	41,475	42,503	39,016	37,735	38,351	37,162	40,659	30,188	38,479	-1.2	0.15
CR409	31,550	33,672	34,986	35,911	42,538	44,054	45,060	40,395	37,748	35,897	2.1	0.27
CR410	20,260	22,249	22,079	23,278	22,911	21,601	22,995	20,827	24,850	30,052	2.4	0.43
CR411	13,854	18,450	18,150	21,213	21,479	22,434	22,181	24,926	23,897	27,432	5.9	0.85

KUALA LIPIS

CR501	1,867	1,806	1,632	1,646	1,537	1,760	1,766	1,757	1,794	1,832	0.3	0.02
CR502	6,342	7,103	7,093	7,617	8,108	7,608	7,918	8,960	8,633	8,587	3.2	0.84
CR503	6,609	6,159	6,253	7,053	7,513	6,985	7,319	8,063	8,757	8,302	3.5	0.82

PEKAN

CR601	3,711	3,059	3,660	3,298	2,857	3,403	3,428	8,775	9,236	8,867	12.3	0.59
CR602	4,359	3,644	3,843	4,088	5,517	4,608	4,846	4,497	4,997	4,565	2.3	0.31
CR603	5,746	7,738	8,650	9,761	10,319	11,563	11,535	10,741	11,620	11,606	6.6	0.75

RAUB

CR701	1,112	884	833	779	910	822	713	735	894	659	-3.4	0.48
CR702	14,059	15,871	17,863	19,414	21,940	24,419	25,041	14,589	15,429	6,761	-4.2	0.11
CR703	24,490	20,522	25,779	23,229	29,577	29,976	21,153	21,086	8,828	16,392	-6.5	0.31
CR704	11,287	10,409	18,299	18,922	18,409	16,792	12,188	13,718	7,678	7,826	-5.0	0.20

TEMERLOH

Census Station Number	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Normal Growth (%/yr)	R ²
CR801	11,567	11,614	11,771	11,597	13,281	13,328	15,673	14,874	15,730	16,731	4.6	0.90
CR802	6,844	7,177	7,173	7,776	8,118	8,101	7,992	7,606	8,484	8,447	2.1	0.74
CR803	27,191	32,628	32,933	33,902	31,265	31,256	27,535	26,479	25,606	31,352	-1.3	0.15
CR807	8,310	8,421	10,740	10,572	10,307	18,428	17,616	13,220	10,970	11,089	4.6	0.27
CR808	26,310	28,237	27,610	27,939	28,179	23,899	24,660	21,012	22,969	23,079	-2.7	0.63
CR809	11,332	11,472	14,260	14,339	14,243	13,807	13,244	12,522	13,668	12,910	0.9	0.10

BERA

CR810	7,434	7,109	9,721	11,348	12,300	14,429	13,257	12,490	10,513	10,046	4.4	0.33
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MARAN

CR804	7,647	7,350	7,516	7,487	6,885	4,837	5,937	7,054	6,297	7,244	-1.8	0.14
CR805	6,587	6,761	6,890	7,317	7,088	6,952	6,714	6,369	6,841	6,915	-0.1	0.01
CR811	8,253	8,074	8,599	9,499	9,991	10,290	9,820	8,683	8,630	9,680	1.3	0.19
CR812	8,447	9,950	7,902	8,761	10,837	11,550	10,293	11,250	11,022	10,721	3.1	0.51

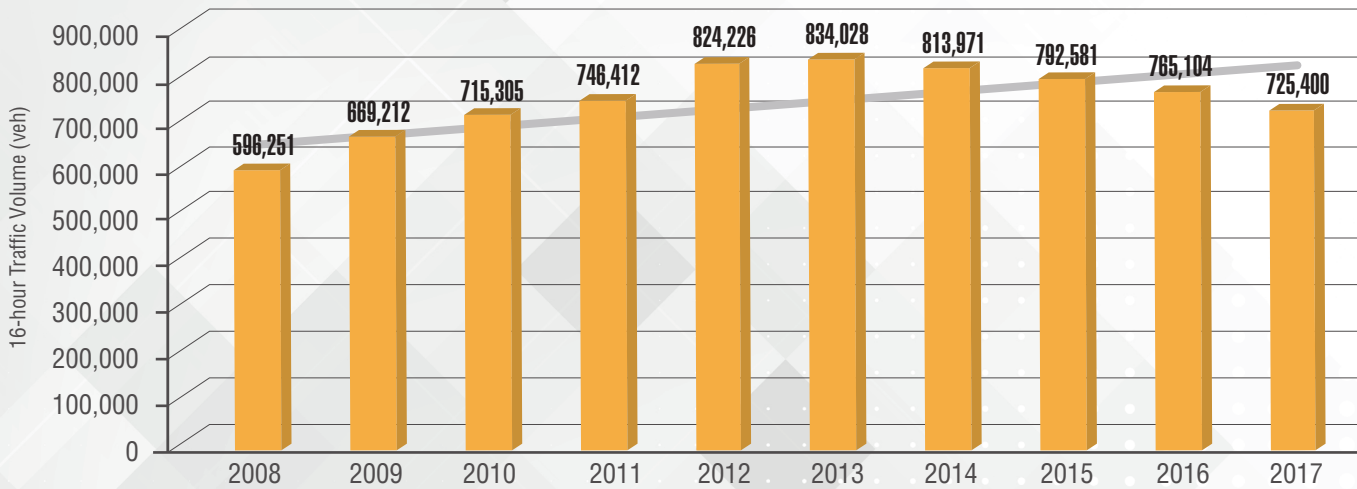
JERANTUT

CR806	14,799	18,831	26,852	26,461	20,879	20,530	15,715	17,669	14,935	16,263	-2.7	0.14
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ROMPIN

CR901	6,761	14,792	8,916	8,855	9,085	9,641	9,576	10,321	9,785	10,468	1.3	0.04
CR902	7,316	11,634	8,102	8,427	9,545	8,763	9,314	9,985	10,514	10,416	2.3	0.24
CR903	2,857	5,948	6,303	6,672	7,673	7,089	7,901	10,276	10,506	10,502	11.3	0.78
CR904	5,760	6,220	6,886	7,129	7,517	7,241	7,808	8,001	8,187	8,684	4.0	0.93

YEARLY 16-HOUR TRAFFIC VOLUME (2008 - 2017)



$y = 3E-13e^{0.0211x} \mid R^2 = 0.3728$
NORMAL GROWTH = 2.11%

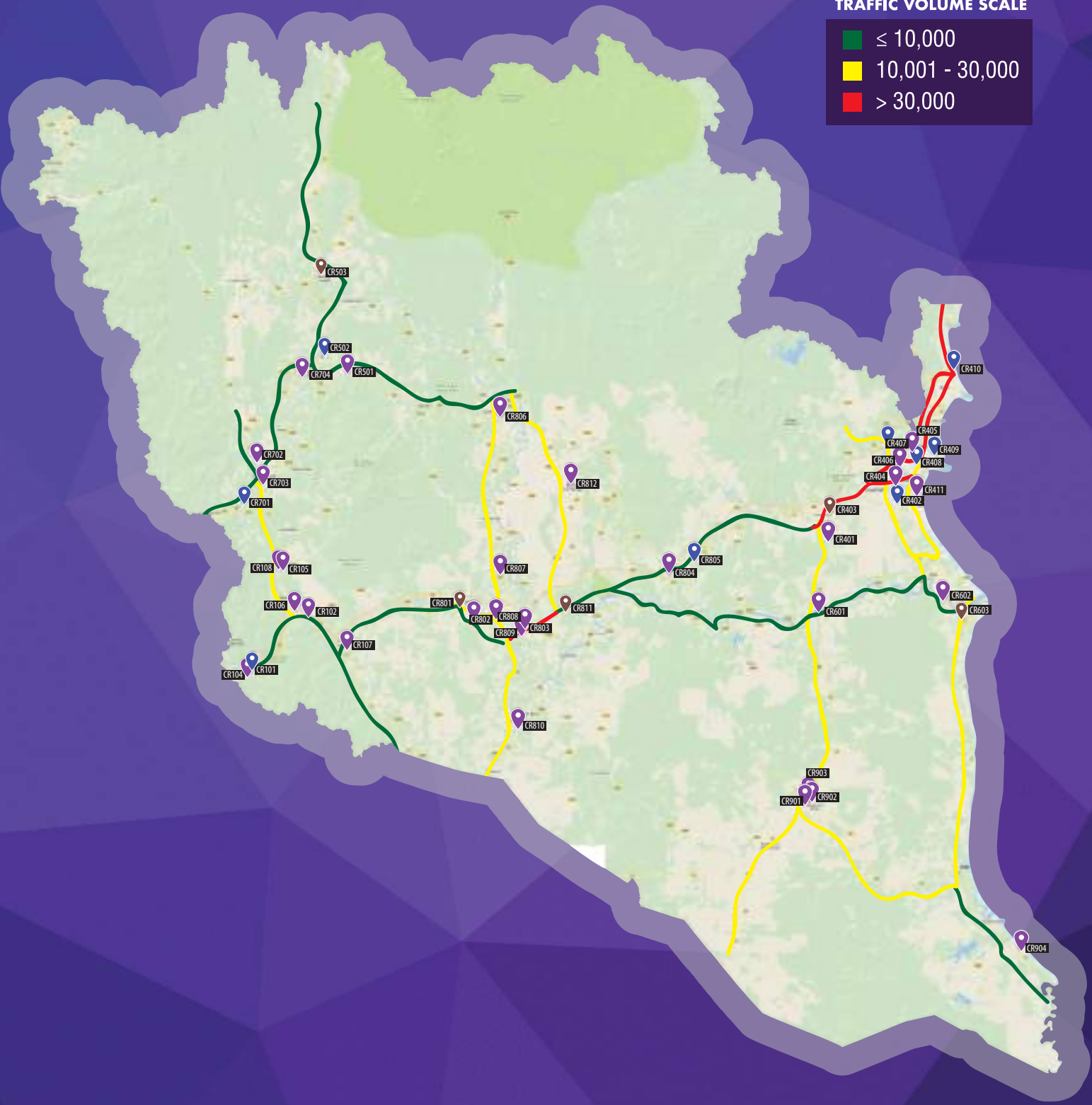
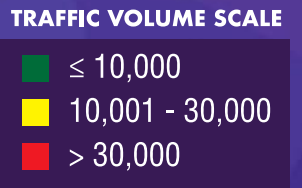
*Yearly 16-hour Traffic Volume (2008 - 2017)
 & Normal Traffic Growth with Exponential Trendline for the Year 2017 in Pahang*

**5.47%
Decrease**

In the state of Pahang, there are 45 census stations. The pattern of 16-hour traffic volume exhibits a gradual increment from the year 2008 until the year 2013. The traffic volume starts to drop from the year 2014 until 2017. The number of vehicles dipped for about 39,704 which is 5.47% when it comes to the year 2017, compared to the year 2016.

For the year 2017, the observed traffic growth rate for the state of Pahang is 2.11%. The basis of traffic growth rate record is to be used as a projection indicator of subsequent traffic growth rate for road forethought as well as for the expansion of current and new roads in Pahang.





TERENGGANU



JKR NEGERI TERENGGANU

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20200 Kuala Terengganu,
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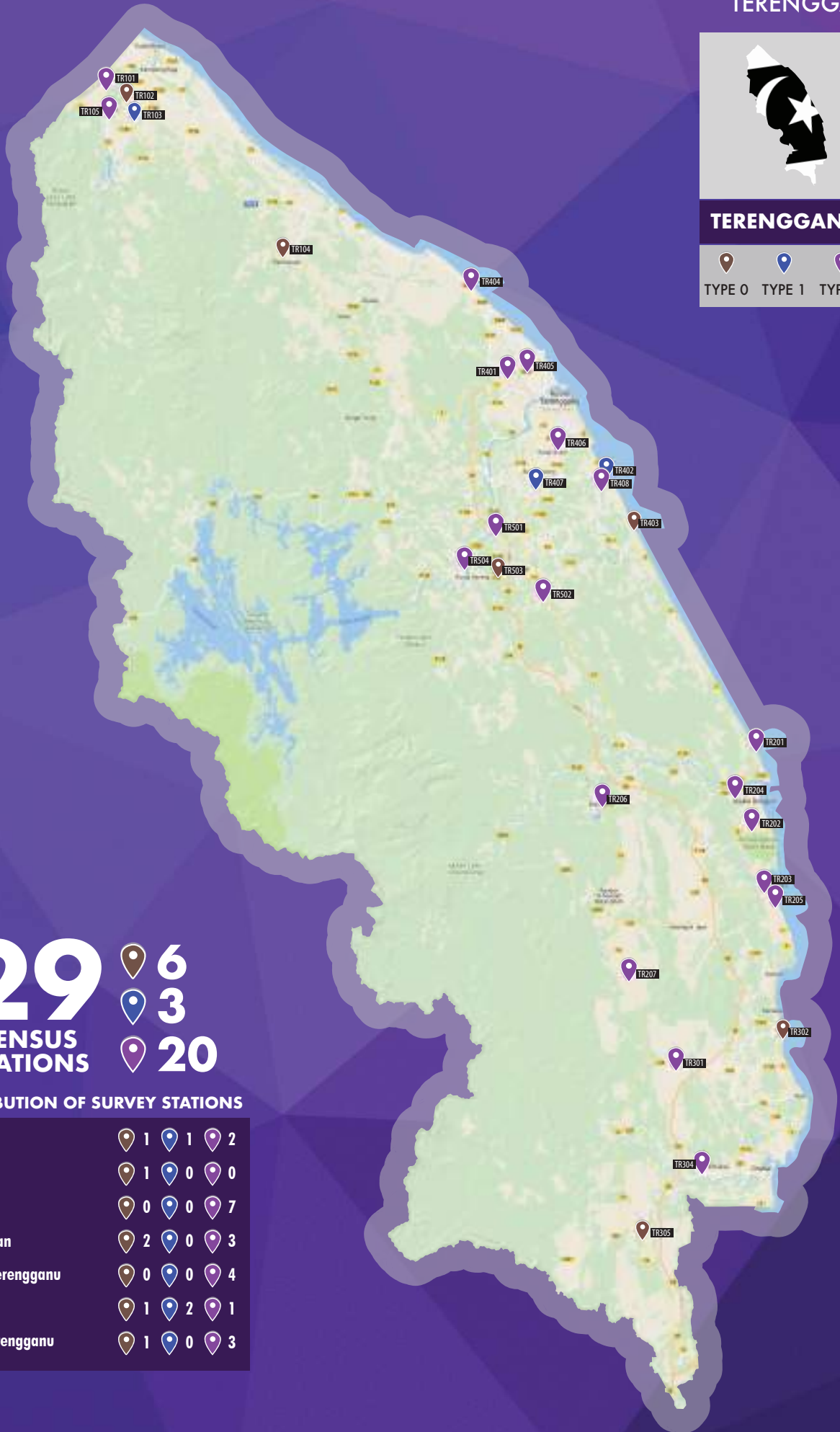


TERENGGANU





TYPE 0 TYPE 1 TYPE 3



29
CENSUS STATIONS

 6
 3
 20

DISTRIBUTION OF SURVEY STATIONS

Besut	 1	 1	 2
Setiu	 1	 0	 0
Dungun	 0	 0	 7
Kemaman	 2	 0	 3
Kuala Terengganu	 0	 0	 4
Marang	 1	 2	 1
Hulu Terengganu	 1	 0	 3

BESUT

Census Station Number	Survey Type	Route Number	KM	Description of Location	GPS Coordinate (WGS84) (Latitude, Longitude)		Type of Carriageway
TR101	3	189	3.0	Jerteh - Kuala Besut	5.767	102.489	T 1-1
TR102	0	84	4.0	Jerteh - Kuala Besut (Kg. Raja)	5.758	102.532	T 1-1
TR103	1	3	62.0	Kuala Terengganu - Jerteh - Kota Bharu	5.726	102.524	T 1-1
TR105	3	T5	1.6	Jerteh - Keruak	5.726	102.492	T 1-1

SETIU

TR104	0	3	70.8	Kuala Terengganu - Kota Bharu (Bandar Permaisuri)	5.529	102.740	T 1-1
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DUNGUN

TR201	3	3	67.2	Kuala Terengganu - Dungun (Kg. Kuala Abang)	4.828	103.416	T 1-1
TR202	3	3	80.2	Kuala Terengganu - Dungun - Kemaman (Kuala Dungun - Paka)	4.712	103.410	K 2-2
TR203	3	122	5.6	Paka - Rasau	4.624	103.428	K 2-2
TR204	3	132	4.1	Kuala Dungun - Jambatan Jerangau (Kg. Che Lijah)	4.761	103.386	T 1-1
TR205	3	3	102.2	Paka - Kerteh (Hadapan YTL)	4.603	103.443	K 2-2
TR206	3	14	79.3	Lebuhraya Jerangau - Jabor (Bukit Besi (Besol))	4.746	103.197	T 1-1
TR207	3	14	111.2	Jalan Jerangau - Jabor (Kuari Pondok Limau)	4.498	103.234	T 1-1

KEMAMAN

TR301	3	124	1.0	Kemasik - Sri Bandi (Jerangau - Jabor Junction)	4.371	103.301	T 1-1
TR302	0	3	124.2	Kuala Terengganu - Kemaman - Kuantan	4.396	103.448	T 1-1
TR303	3	T13	7.0	Chukai - Paman	4.224	103.340	T 1-1
TR304	3	237	7.0	Air Putih - Paman	4.223	103.339	T 1-1
TR305	0	14	48.0	Cheneh - Kuala Terengganu (Jalan Jabor - Jerangau)	4.132	103.255	T 1-1

KUALA TERENGGANU

TR401	3	3	16.8	Kuala Terengganu - Jerteh (Tepoh)	5.356	103.061	K 2-2
TR404	3	3685	33.1	Kuala Terengganu - Kg. Merang (Meng. Panjang - Bt. Rakit)	5.483	103.009	T 1-1
TR405	3	3685	15.2	Gong Badak - Kuala Terengganu	5.365	103.090	K 2-2
TR406	3	T100	15.5	Kuala Terengganu - Chedering (Surau Panjang)	5.253	103.150	T 1-1

MARANG

TR402	1	3	17.0	Kuala Terengganu - Marang	5.211	103.203	K 2-2
TR403	0	3	26.0	Kuala Terengganu - Marang	5.141	103.242	T 1-1
TR407	1	14	17.0	Kuala Terengganu - Kuala Berang	5.198	103.102	K 2-2
TR408	3	T2	1.6	Marang - Wakaf Tapai	5.197	103.194	T 1-1

HULU TERENGGANU

Census Station Number	Survey Type	Route Number	KM	Description of Location	GPS Coordinate (WGS84) (Latitude, Longitude)		Type of
TR501	3	T107	11.0	Kuala Berang - Tanggol - Wakaf Tapai	5.125	103.062	T 1-1
TR502	3	14	146.0	Kuala Terengganu - Ajil - Jerangau	5.040	103.111	T 1-1
TR503	0	106	5.0	Kuala Terengganu - Ajil - Kuala Berang	5.073	103.047	K 2-2
TR504	3	247	1.0	Kuala Terengganu - Kuala Berang - Kg. Kuala Peng (Sg. Tong Setiu)	5.085	102.998	K 2-2

BESUT

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
TR101	N/A	11,396	1,121	0700-0800	57.8	9.9	3.3	0.8	0.2	28.0	100.0
TR102	19,203	17,461	1,436	1700-1800	73.7	9.0	1.9	0.9	0.3	14.1	100.0
TR103	N/A	22,057	1,694	1700-1800	66.4	12.2	2.7	2.1	0.6	16.0	100.0
TR105	N/A	10,924	1,222	0700-0800	60.0	11.3	2.8	0.5	0.2	25.1	100.0

SETIU

TR104	17,464	15,741	1,425	0700-0800	65.1	14.3	4.0	2.5	0.7	13.3	100.0
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DUNGUN

TR201	N/A	10,432	1,023	1800-1900	65.6	8.9	5.6	2.1	1.7	16.2	100.0
TR202	N/A	22,490	2,624	1700-1800	55.0	12.9	4.2	1.1	1.0	25.8	100.0
TR203	N/A	15,216	2,210	0700-0800	54.5	9.2	3.4	2.0	0.3	30.6	100.0
TR204	N/A	8,773	1,068	0700-0800	57.1	9.1	4.7	1.4	0.2	27.5	100.0
TR205	N/A	38,361	6,137	0800-0900	57.7	9.9	5.0	2.7	0.4	24.3	100.0
TR206	N/A	4,255	391	1700-1800	60.3	13.2	7.1	9.0	0.1	10.2	100.0
TR207	N/A	2,372	336	1700-1800	47.0	21.2	11.4	14.3	0.3	5.7	100.0

KEMAMAN

TR301	N/A	2,088	201	0700-0800	40.0	19.0	8.1	3.1	0.5	29.3	100.0
TR302	20,213	18,054	1,866	1700-1800	73.3	8.8	2.9	3.2	0.7	11.2	100.0
TR303	N/A	1,047	122	1700-1800	34.2	17.8	5.8	5.1	0.0	37.2	100.0
TR304	N/A	5,279	554	1700-1800	49.5	15.6	7.2	2.0	0.1	25.6	100.0
TR305	4,701	4,095	379	0700-0800	49.5	15.6	9.0	7.7	0.3	18.0	100.0

KUALA TERENGGANU

TR401	N/A	24,685	2,460	0700-0800	61.4	10.6	4.4	2.0	0.5	21.1	100.0
TR404	N/A	9,572	937	1800-1900	65.0	12.2	4.9	1.0	0.5	16.3	100.0
TR405	N/A	60,298	7,199	0700-0800	67.9	8.5	2.7	0.6	0.3	20.0	100.0
TR406	N/A	19,726	2,001	0700-0800	49.5	9.0	5.5	1.7	0.2	34.1	100.0

MARANG

TR402	N/A	34,850	3,052	1700-1800	66.1	9.0	3.0	0.7	0.6	20.5	100.0
TR403	16,791	14,754	1,266	1700-1800	72.9	7.4	4.0	0.9	1.2	13.6	100.0
TR407	N/A	22,303	2,103	0700-0800	66.7	8.6	4.7	1.1	0.4	18.5	100.0
TR408	N/A	12,305	1,467	0700-0800	57.1	5.9	2.7	1.0	0.2	33.1	100.0

HULU TERENGGANU

TR501	N/A	4,237	680	0700-0800	54.0	9.7	4.7	1.2	0.0	30.4	100.0
TR502	N/A	10,687	1,075	0700-0800	59.8	9.4	5.0	4.4	0.2	21.1	100.0
TR503	21,150	19,196	1,757	1700-1800	71.2	12.1	2.9	1.4	0.3	12.1	100.0
TR504	9,393	9,393	908	1700-1800	61.9	11.2	4.4	2.1	0.1	20.3	100.0

BESUT

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
TR101	N/A	12,716	1,169	1800-1900	58.1	10.0	2.7	1.9	0.3	27.0	100.0
TR102	20,294	18,643	1,563	1700-1800	69.8	11.2	2.5	1.2	0.4	14.8	100.0
TR103	N/A	20,215	1,682	1700-1800	68.5	10.6	2.1	2.0	0.6	16.2	100.0
TR105	N/A	12,375	1,441	0700-0800	60.4	12.8	3.5	0.7	0.4	22.2	100.0

SETIU

TR104	17,876	15,864	1,297	1400-1500	70.0	11.1	4.0	2.6	0.8	11.6	100.0
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DUNGUN

TR201	N/A	12,609	1,253	1800-1900	59.1	13.3	7.2	3.2	1.8	15.3	100.0
TR202	N/A	23,928	2,401	0700-0800	57.1	11.5	3.4	1.7	1.0	25.3	100.0
TR203	N/A	13,360	1,425	0700-0800	52.3	10.8	4.5	2.8	0.4	29.2	100.0
TR204	N/A	8,875	963	0700-0800	52.4	9.4	4.9	1.1	0.3	32.0	100.0
TR205	N/A	35,505	4,690	0700-0800	61.2	9.0	4.0	2.2	0.4	23.3	100.0
TR206	N/A	4,492	500	1700-1800	59.6	14.9	7.1	11.2	0.4	6.8	100.0
TR207	N/A	2,691	260	1700-1800	53.7	14.1	10.4	17.1	0.3	4.5	100.0

KEMAMAN

TR301	N/A	2,006	241	0700-0800	44.8	13.9	7.0	5.0	0.3	29.1	100.0
TR302	18,565	17,009	1,669	0700-0800	69.0	11.8	4.2	2.5	0.7	11.8	100.0
TR303	N/A	1,071	120	1700-1800	38.3	16.6	4.1	6.0	0.0	35.0	100.0
TR304	N/A	4,367	456	1800-1900	54.0	18.4	2.6	1.2	0.3	23.4	100.0
TR305	5,090	4,441	406	0700-0800	47.7	15.7	9.6	9.7	0.2	17.1	100.0

KUALA TERENGGANU

TR401	N/A	17,523	2,003	0700-0800	61.1	11.1	4.6	1.8	0.6	20.8	100.0
TR404	N/A	11,616	1,134	1700-1800	70.9	10.8	3.6	0.7	0.8	13.2	100.0
TR405	N/A	66,431	7,962	0700-0800	69.6	7.7	2.8	0.3	0.2	19.4	100.0
TR406	N/A	18,508	2,006	0700-0800	50.6	9.5	6.3	0.6	0.1	32.9	100.0

MARANG

TR402	N/A	36,003	3,018	1700-1800	70.5	6.6	2.6	0.5	0.6	19.3	100.0
TR403	19,225	16,776	1,453	1800-1900	72.8	8.7	3.6	0.9	1.1	12.9	100.0
TR407	N/A	23,687	2,132	0700-0800	67.2	8.8	4.6	1.1	0.3	17.9	100.0
TR408	N/A	11,147	1,368	0700-0800	57.7	6.3	2.1	0.3	0.2	33.3	100.0

HULU TERENGGANU

TR501	N/A	6,190	992	1700-1800	64.8	11.6	2.6	0.3	0.1	20.5	100.0
TR502	N/A	10,132	1,174	0700-0800	65.7	10.0	4.2	4.2	0.2	15.7	100.0
TR503	22,653	20,276	1,832	1700-1800	73.6	12.1	2.6	1.9	0.3	9.5	100.0
TR504	N/A	11,575	1,090	1700-1800	68.7	12.0	2.8	2.2	0.2	14.1	100.0

TRAFFIC VOLUME, 16-HOUR TRAFFIC COMPOSITION & LOS

AVERAGE 2017 TERENGGANU

BESUT

Census Station Number	16-Hour Traffic	Peak Hour	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Buses	Motorcycles	Total	Level of Service (LOS)	Capacity Year
TR101	12,056	1,145	58.0	9.9	3.0	1.4	0.3	27.5	100%	B	2023
TR102	18,052	1,499	71.8	10.1	2.2	1.1	0.4	14.5	100%	D	-
TR103	21,136	1,688	67.4	11.4	2.4	2.1	0.6	16.1	100%	D	2023
TR105	11,650	1,332	60.2	12.1	3.1	0.6	0.3	23.7	100%	C	2026

SETIU

TR104	15,803	1,361	67.5	12.7	4.0	2.6	0.7	12.4	100%	D	2023
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DUNGUN

TR201	11,521	1,138	62.4	11.1	6.4	2.7	1.7	15.8	100%	C	2050
TR202	23,209	2,513	56.0	12.2	3.8	1.4	1.0	25.6	100%	A	2045
TR203	14,288	1,818	53.4	10.0	4.0	2.4	0.4	29.9	100%	A	2125
TR204	8,824	1,016	54.7	9.2	4.8	1.3	0.2	29.7	100%	A	2031
TR205	36,933	5,414	59.5	9.4	4.5	2.4	0.4	23.8	100%	F	R
TR206	4,374	446	60.0	14.0	7.1	10.1	0.2	8.5	100%	A	-
TR207	2,532	298	50.4	17.7	10.9	15.7	0.3	5.1	100%	A	-

KEMAMAN

TR301	2,047	221	42.4	16.4	7.5	4.0	0.4	29.2	100%	A	2081
TR302	17,531	1,767	71.1	10.3	3.5	2.9	0.7	11.5	100%	E	2019
TR303	1,059	121	36.2	17.2	5.0	5.5	0.0	36.1	100%	A	2086
TR304	4,823	505	51.8	17.0	4.9	1.6	0.2	24.5	100%	A	2044
TR305	4,268	393	48.6	15.7	9.3	8.7	0.2	17.5	100%	A	2052

KUALA TERENGGANU

TR401	21,104	2,232	61.3	10.8	4.5	1.9	0.5	21.0	100%	A	2076
TR404	10,594	1,036	68.0	11.5	4.2	0.9	0.6	14.8	100%	A	2026
TR405	63,365	7,581	68.7	8.1	2.8	0.5	0.2	19.7	100%	F	R
TR406	19,117	2,004	50.0	9.2	5.9	1.1	0.2	33.5	100%	F	R

MARANG

TR402	35,427	3,035	68.3	7.8	2.8	0.6	0.6	19.9	100%	A	2073
TR403	15,765	1,360	72.8	8.1	3.8	0.9	1.2	13.3	100%	C	2033
TR407	22,995	2,118	66.9	8.7	4.7	1.1	0.4	18.2	100%	A	2084
TR408	11,726	1,418	57.4	6.1	2.4	0.6	0.2	33.2	100%	C	-

HULU TERENGGANU

TR501	5,214	836	59.4	10.6	3.7	0.7	0.1	25.4	100%	A	2069
TR502	10,410	1,125	62.7	9.7	4.6	4.3	0.2	18.4	100%	C	-
TR503	19,736	1,795	72.4	12.1	2.7	1.7	0.3	10.8	100%	A	2061
TR504	10,484	999	65.3	11.6	3.6	2.2	0.2	17.2	100%	A	-

BESUT

Census Station Number	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Normal Growth (%/yr)	R ²
TR101	11,724	13,870	11,217	12,422	14,611	18,010	16,147	15,204	17,030	12,056	2.6	0.22
TR102	16,395	17,325	18,550	16,663	17,695	16,086	14,740	15,598	17,026	18,052	-0.4	0.0236
TR103	23,357	21,313	24,196	25,551	27,325	27,066	19,490	23,584	22,605	21,136	-0.9	0.0581
TR105	12,420	9,424	11,199	12,827	12,895	13,896	14,343	11,940	13,561	11,650	1.6	0.1631

SETIU

TR104	12,572	12,088	14,188	14,451	14,882	14,693	15,806	15,569	17,222	15,803	3.2	0.81
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DUNGUN

TR201	7,813	10,652	10,440	13,386	8,929	9,821	9,007	8,068	8,669	11,521	-0.2	0.0013
TR202	23,463	29,051	28,602	30,035	27,856	29,864	28,124	28,171	24,852	23,209	-0.8	0.07
TR203	13,581	12,412	11,028	13,605	14,453	13,818	12,820	14,526	16,973	14,288	2.3	0.38
TR204	6,534	8,017	8,300	10,791	8,393	9,284	10,027	10,166	9,951	8,824	3.1	0.40
TR205	20,500	29,995	29,818	33,471	26,867	37,896	34,451	35,009	48,112	36,933	6.0	0.63
TR206	5,937	6,623	6,350	6,945	5,952	5,896	5,513	4,758	5,183	4,374	-4.0	0.69
TR207	23,204	25,151	22,096	22,898	25,761	24,011	9,565	3,423	1,805	2,532	-30.5	0.74

KEMAMAN

TR301	1,744	1,660	1,649	1,655	2,090	2,091	2,173	1,860	1,898	2,047	2.3	0.41
TR302	15,228	15,417	16,831	17,498	18,418	19,086	19,298	16,258	17,747	17,531	1.5	0.2901
TR303	901	1,211	881	2,156	988	1,452	1,712	755	1,007	1,059	-0.6	0.0027
TR304	1,353	2,441	4,400	2,424	3,337	3,434	3,424	3,878	5,021	4,823	10.3	
TR305	5,363	5,381	5,590	6,553	7,566	8,036	7,667	4,105	3,992	4,268	-3.1	0.13

KUALA TERENGGANU

TR401	21,153	20,282	23,673	22,183	22,263	22,722	22,556	25,586	21,616	21,104	0.5	0.06
TR404	9,104	9,474	14,219	11,812	12,679	15,597	13,667	11,455	11,356	10,594	1.3	0.0544
TR405	63,719	61,587	51,546	44,675	47,067	56,821	50,950	61,598	54,860	63,365	0.4	0.0078
TR406	14,275	15,256	16,727	18,504	18,465	20,190	21,619	20,738	22,258	19,117	4.2	0.74

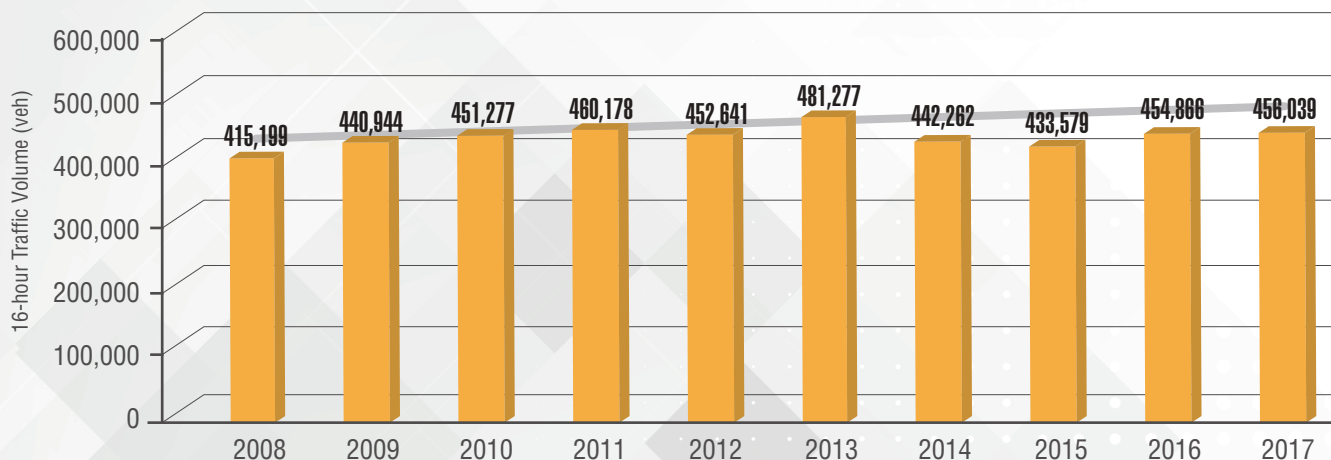
MARANG

TR402	24,933	24,852	25,887	27,451	29,532	31,227	31,686	24,887	34,408	35,427	3.5	0.5906
TR403	13,347	13,288	14,409	15,103	14,435	13,712	15,221	12,925	8,317	15,765	-1.4	0.0565
TR407	18,263	17,214	17,751	17,384	17,360	19,041	19,224	19,524	24,690	22,995	3.3	0.66
TR408	6,022	11,275	13,517	12,868	12,211	11,737	8,878	5,861	10,424	11,726	0.1	0.00

HULU TERENGGANU

TR501	2,750	2,918	3,050	2,840	2,956	2,894	2,702	2,884	3,546	5,214	4.0	0.3904
TR502	13,132	14,701	14,695	12,649	10,092	8,715	8,739	9,561	9,047	10,410	-5.4	0.6082
TR503	14,758	15,301	18,188	19,064	17,140	15,461	15,446	17,601	12,834	19,736	0.3	0.0045
TR504	11,654	12,765	12,280	12,314	10,426	8,723	7,271	8,092	8,862	10,484	-4.5	0.47

YEARLY 16-HOUR TRAFFIC VOLUME (2008 - 2017)



$y = 24.668e^{0.0049x} \mid R^2 = 0.1418$
NORMAL GROWTH = 0.49%

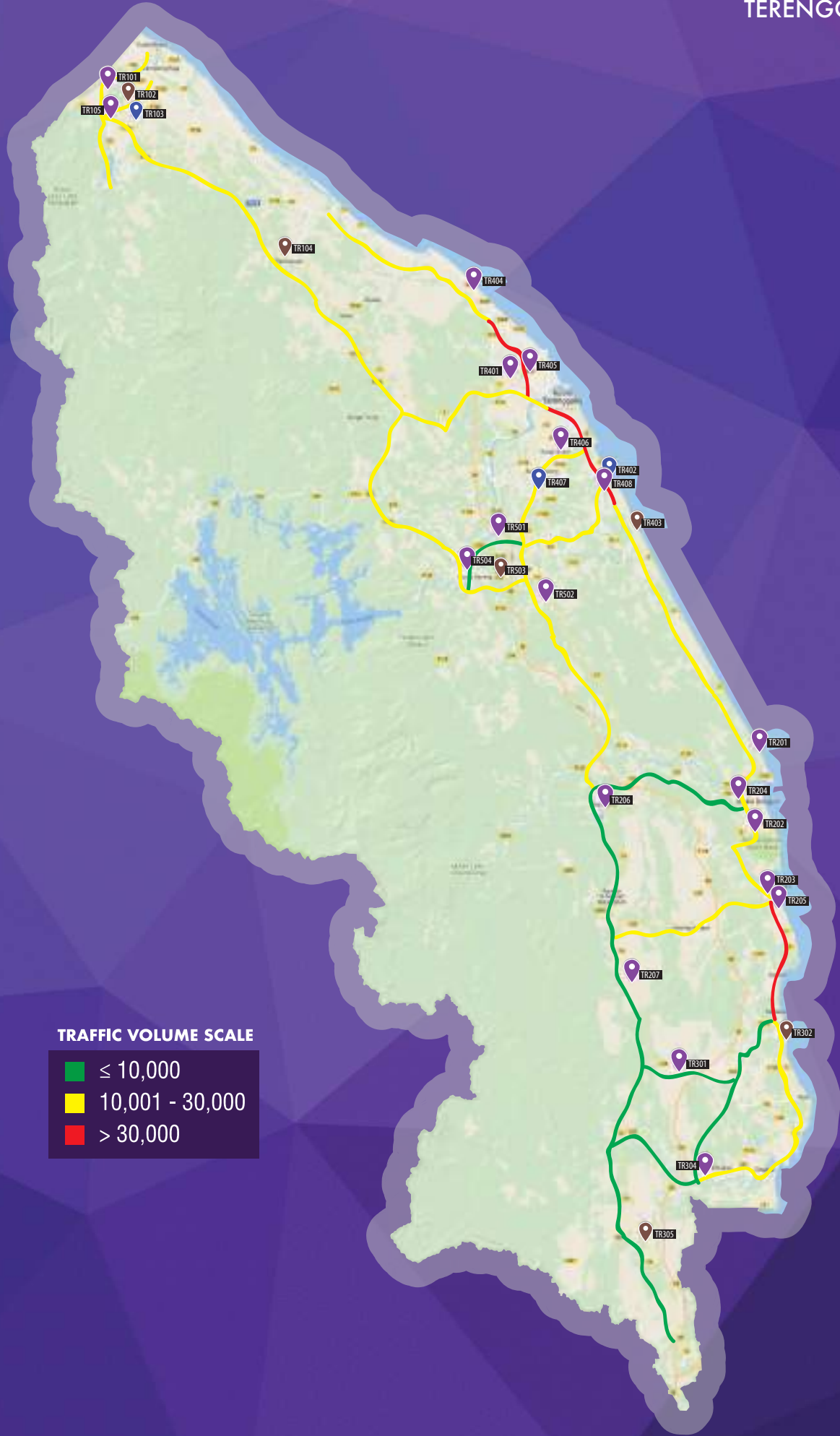
*Yearly 16-hour Traffic Volume (2008-2017)
 & Normal Traffic Growth with Exponential Trendline for the Year 2017 in Terengganu*

**0.26%
Increase**

There are 29 census stations in Terengganu. The yearly 16-hour traffic volume shows a fluctuation in the number of vehicle since the year 2008 until year 2017. There is a rise of 0.26% of traffic volume for the year 2017 which corresponds to 1,173 vehicles compared to the year 2016.

For the year 2017, the observed traffic growth rate for the state of Terengganu is 0.49%. The basis of traffic growth rate record is to be used as a projection indicator of subsequent traffic growth rate for road forethought as well as for the expansion of current and new roads in Terengganu.





TRAFFIC VOLUME SCALE

- ≤ 10,000
- 10,001 - 30,000
- > 30,000

KELANTAN



JKR NEGERI KELANTAN

Jalan Kuala Krai,
15050 Kota Bharu,
Kelantan Darul Naim
Tel : 09-745 5800 | Fax : 09-744 7877
www.kelantan.jkr.gov.my

32  **4**
CENSUS  **6**
STATIONS  **22**

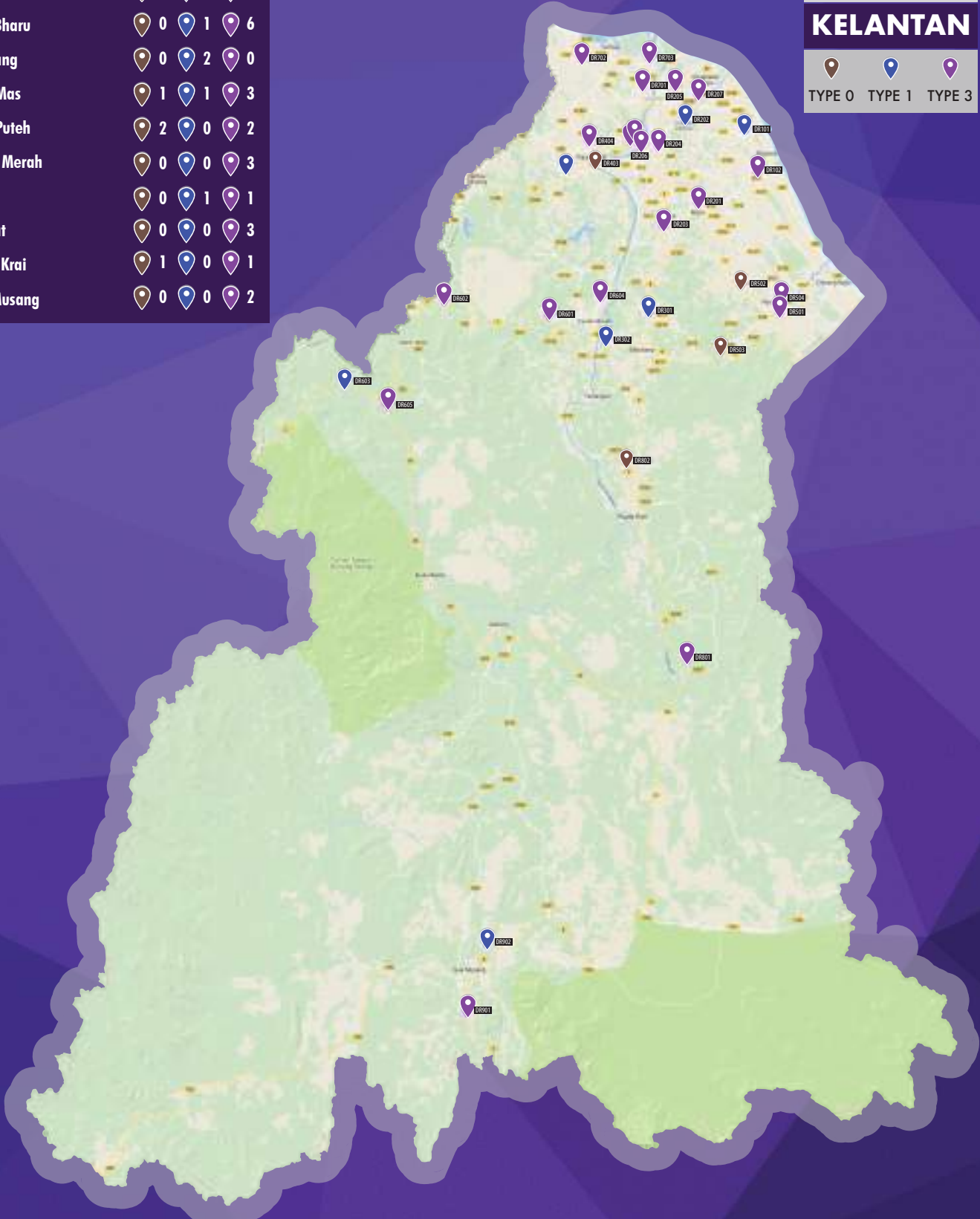
DISTRIBUTION OF SURVEY STATIONS

Bachok	 0	 1	 1
Kota Bharu	 0	 1	 6
Machang	 0	 2	 0
Pasir Mas	 1	 1	 3
Pasir Puteh	 2	 0	 2
Tanah Merah	 0	 0	 3
Jeli	 0	 1	 1
Tumpat	 0	 0	 3
Kuala Krai	 1	 0	 1
Gua Musang	 0	 0	 2



KELANTAN

 TYPE 0  TYPE 1  TYPE 3



BACHOK

Census Station Number	Survey Type	Route Number	KM	Description of Location	GPS Coordinate (WGS84) (Latitude, Longitude)	Type of Carriageway
DR101	1	D10	28.2	Kota Bharu - Peringat - Gunong - Bachok	6.012 102.381	T 1-1
DR102	3	211	18.7	Kota Bharu - Pengkalan Baru - Bachok	6.072 102.362	T 1-1

KOTA BHARU

DR201	3	3	19.3	Kota Bharu - Pasir Puteh	5.967 102.295	K 2-2
DR202	1	3	6.4	Kota Bharu - Pasir Puteh	6.086 102.277	K 2-2
DR203	3	8	20.9	Kota Bharu - Machang	5.956 102.249	T 1-1
DR204	3	8	8.1	Kota Bharu - Machang	6.050 102.238	T 1-1
DR205	3	57	4.0	Kota Bharu - Pengkalan Chepa	6.135 102.263	K 2-2
DR206	3	130	9.5	Wakaf Che Yeh - Salor - Pasir Mas	6.048 102.214	T 1-1
DR207	3	131	4.0	Kubang Krian - Sabak	6.122 102.295	T 1-1

MACHANG

DR301	1	8	35.5	Kota Bharu - Machang	5.813 102.225	K 2-2
DR302	1	4	47.2	Machang - Tanah Merah - Jeli	5.773 102.163	T 1-1

PASIR MAS

DR401	1	3	6.5	Pasir Mas - Rantau Panjang	6.018 102.107	T 1-1
DR402	3	3	6.5	Pasir Mas - Kota Bahru (Kg. Tar Tujuh)	6.057 102.198	T 1-1
DR403	0	129	1.0	Pasir Mas - Tanah Merah (Kg. Lemal)	6.023 102.148	T 1-1
DR404	3	D25	1.3	Pasir Mas - Meranti	6.056 102.139	T 1-1
DR405	3	208	7.2	Tendong - Pendek (Jambatan Sultan Ismail)	6.064 102.205	T 1-1

PASIR PUTEH

DR501	3	3	44.0	Kota Bharu - Pasir Puteh - Batu Melintang	5.812 102.413	T 1-1
DR502	0	3	34.1	Kota Bharu - Kuala Terengganu	5.852 102.357	T 1-1
DR503	0	4	19.5	Pasir Puteh - Machang	5.759 102.328	T 1-1
DR504	3	D7	41.0	Kota Bharu - Pasir Puteh - Kuala Semerak	5.832 102.413	T 1-1

TANAH MERAH

DR601	3	4	56.2	Kota Bharu - Tanah Merah - Batu Melintang	5.808 102.082	T 1-1
DR602	3	4	76.4	Kota Bharu - Tanah Merah	5.830 101.932	T 1-1
DR604	3	129	27.0	Kota Bharu - Pasir Mas - Tanah Merah	5.835 102.156	T 1-1

JELI

DR603	1	4	6.1	Lebuhraya Timur - Barat	5.714 101.790	T 1-1
DR605	3	66	6.0	Jeli - Dabong	5.680 101.851	T 1-1

TUMPAT

Census Station Number	Survey Type	Route Number	KM	Description of Location	GPS Coordinate (WGS84) (Latitude, Longitude)		Type of Carriageway
DR701	3	D21	9.5	Kota Bharu - Tumpat / Palekbang	6.135	102.216	T 1-1
DR702	3	134	16.6	Kota Bharu - Pengkalan Kubor	6.173	102.128	T 1-1
DR703	3	D21	6.4	Chabang Tiga - Tumpat	6.174	102.226	T 1-1

KUALA KRAI

DR801	3	8	102.6	Kota Bharu - Gua Musang	5.318	102.280	T 1-1
DR802	0	8	61.5	Kota Bharu - Kuala Krai	5.601	102.192	T 1-1

GUA MUSANG

DR901	3	8	10.0	Gua Musang - Merapoh	4.814	101.965	T 1-1
DR902	3	8	5.0	Gua Musang - Renok - Kuala Krai	4.913	101.993	T 1-1

BACHOK

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
DR101	N/A	18,640	1,707	0700-0800	56.9	7.1	3.2	0.6	0.3	31.9	100.0
DR102	N/A	22,655	2,157	0700-0800	65.5	6.1	4.1	0.8	0.2	23.3	100.0

KOTA BHARU

DR201	N/A	99,478	10,696	0700-0800	26.6	14.4	14.2	13.9	13.7	17.1	100.0
DR202	N/A	48,694	4,289	0700-0800	72.0	3.1	1.4	0.4	0.3	22.8	100.0
DR203	N/A	25,952	2,960	1100-1200	75.9	4.2	0.8	0.5	0.5	18.1	100.0
DR204	N/A	24,458	2,111	1000-1100	72.6	3.9	1.1	0.2	0.4	21.7	100.0
DR205	N/A	51,891	5,199	0700-0800	65.9	4.4	1.0	0.1	0.2	28.3	100.0
DR206	N/A	9,994	920	1700-1800	65.8	4.9	2.5	0.3	0.7	25.8	100.0
DR207	N/A	27,902	2,473	1700-1800	62.7	4.5	2.4	1.0	0.3	29.1	100.0

MACHANG

DR301	N/A	28,386	2,680	1700-1800	75.7	7.4	3.7	1.2	0.5	11.5	100.0
DR302	N/A	20,013	1,808	1700-1800	71.6	9.2	5.3	2.4	0.4	11.2	100.0

PASIR MAS

DR401	N/A	23,131	2,046	1700-1800	65.7	10.2	4.5	2.0	0.7	16.9	100.0
DR402	N/A	17,250	1,563	1800-1900	60.3	11.6	2.4	0.2	0.5	25.1	100.0
DR403	20,035	18,278	1,509	0700-0800	68.0	7.2	5.2	0.6	0.7	18.3	100.0
DR404	N/A	11,184	1,086	1700-1800	52.6	8.8	2.4	0.2	0.2	35.9	100.0
DR405	N/A	17,893	2,110	1700-1800	58.9	11.7	9.0	1.5	0.1	18.8	100.0

PASIR PUTEH

DR501	N/A	15,976	1,511	0700-0800	68.7	8.6	3.9	1.2	0.7	16.9	100.0
DR502	25,833	23,220	1,827	0700-0800	70.5	8.4	2.7	0.8	0.6	17.1	100.0
DR503	11,981	10,568	1,027	1500-1600	70.3	10.1	4.7	2.5	0.7	11.7	100.0
DR504	N/A	9,443	919	0700-0800	62.6	8.0	3.4	0.3	0.3	25.3	100.0

TANAH MERAH

DR601	N/A	15,033	1,705	1700-1800	67.0	10.1	5.8	3.0	0.4	13.8	100.0
DR602	N/A	10,891	1,097	0700-0800	61.9	11.2	7.5	4.2	0.5	14.7	100.0
DR604	N/A	17,102	1,845	1700-1800	63.7	9.9	4.9	0.9	0.6	20.1	100.0

JELI

DR603	N/A	6,566	637	1500-1600	63.9	10.7	5.8	4.5	0.8	14.4	100.0
DR605	N/A	5,267	675	0700-0800	54.3	13.5	6.0	3.2	0.3	22.8	100.0

TUMPAT

DR701	N/A	30,177	2,998	1700-1800	60.7	6.4	2.0	0.3	0.1	30.5	100.0
DR702	N/A	14,163	1,409	0700-0800	56.2	7.3	4.2	0.3	0.5	31.6	100.0
DR703	N/A	20,249	2,549	0700-0800	59.2	6.6	1.8	0.3	0.2	31.9	100.0

KUALA KRAI

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
DR801	N/A	11,474	1,347	0700-0800	55.7	20.0	8.3	4.8	1.0	10.3	100.0
DR802	25,245	22,240	1,853	1700-1800	57.8	16.4	6.2	2.3	0.6	16.7	100.0

GUA MUSANG

DR901	N/A	9,003	813	1700-1800	51.3	23.9	4.6	4.3	0.9	14.9	100.0
DR902	N/A	12,204	1,033	1700-1800	54.2	22.1	6.4	4.9	0.8	11.5	100.0

BACHOK

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
DR101	N/A	18,930	1,786	1700-1800	58.3	7.7	3.1	0.5	0.3	30.1	100.0
DR102	N/A	19,197	2,112	0700-0800	62.5	7.6	3.7	0.4	0.3	25.5	100.0

KOTA BHARU

DR201	N/A	31,558	3,416	1500-1600	69.5	5.5	5.7	1.1	0.6	17.7	100.0
DR202	N/A	44,211	4,137	0800-0900	72.1	3.5	1.5	0.3	0.9	21.6	100.0
DR203	N/A	23,428	2,180	1700-1800	74.5	5.8	1.2	0.6	0.6	17.3	100.0
DR204	N/A	28,857	2,584	1800-1900	75.0	3.5	1.5	0.3	0.5	19.1	100.0
DR205	N/A	69,428	8,033	0800-0900	68.8	2.1	0.9	0.1	0.2	27.9	100.0
DR206	N/A	9,928	919	1400-1500	65.3	6.9	2.5	0.2	0.8	24.3	100.0
DR207	N/A	33,620	2,987	1700-1800	67.0	2.9	2.4	0.8	0.3	26.7	100.0

MACHANG

DR301	N/A	27,689	2,879	1700-1800	74.5	7.8	4.0	1.4	0.5	11.7	100.0
DR302	N/A	17,812	1,566	1700-1800	72.3	9.4	4.3	2.9	0.5	10.5	100.0

PASIR MAS

DR401	N/A	20,608	1,797	1700-1800	67.3	10.6	3.6	0.8	0.7	17.0	100.0
DR402	N/A	19,256	1,945	1700-1800	61.2	9.6	2.7	0.2	0.4	25.9	100.0
DR403	23,192	21,271	1,976	1700-1800	71.3	6.1	4.8	0.5	0.5	16.8	100.0
DR404	N/A	12,479	1,414	0700-0800	60.9	8.7	2.2	0.1	0.1	28.0	100.0
DR405	N/A	19,008	2,203	1700-1800	60.3	10.4	7.5	1.2	0.1	20.5	100.0

PASIR PUTEH

DR501	N/A	15,263	1,338	0700-0800	64.1	11.2	4.4	1.3	0.7	18.3	100.0
DR502	24,768	22,310	1,931	1700-1800	68.4	10.1	3.3	0.7	0.6	16.9	100.0
DR503	12,333	10,950	948	1800-1900	70.5	10.5	4.9	2.4	0.9	10.8	100.0
DR504	N/A	11,430	1,365	0700-0800	63.8	9.2	2.5	0.4	0.3	23.7	100.0

TANAH MERAH

DR601	N/A	14,753	1,331	1500-1600	67.2	9.3	6.0	3.6	0.6	13.4	100.0
DR602	N/A	10,519	1,295	0700-0800	66.9	7.3	6.9	3.5	0.8	14.6	100.0
DR604	N/A	17,284	1,584	0700-0800	66.5	8.0	4.4	1.2	0.4	19.4	100.0

JELI

DR603	N/A	6,033	509	1700-1800	59.5	13.2	6.1	4.4	0.9	15.9	100.0
DR605	N/A	6,800	694	0700-0800	60.3	11.0	5.2	1.5	0.4	21.7	100.0

TUMPAT

DR701	N/A	23,661	2,140	1700-1800	61.2	7.0	2.6	0.3	0.1	28.8	100.0
DR702	N/A	13,890	1,429	1700-1800	56.2	8.0	4.1	0.4	0.7	30.6	100.0
DR703	N/A	20,735	2,113	0700-0800	61.0	7.8	2.3	0.3	0.1	28.5	100.0

KUALA KRAI

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
DR801	N/A	10,483	936	1400-1500	60.0	17.8	6.5	4.5	1.3	9.9	100.0
DR802	24,598	22,080	1,997	1700-1800	62.9	13.2	5.3	2.3	0.6	15.7	100.0

GUA MUSANG

DR901	N/A	8,354	851	1400-1500	49.3	25.5	4.6	6.2	1.0	13.5	100.0
DR902	N/A	9,435	846	1700-1800	53.7	22.6	8.0	5.4	1.0	9.2	100.0

BACHOK

Census Station Number	16-Hour Traffic	Peak Hour	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Buses	Motorcycles	Total	Level of Service (LOS)	Capacity Year
DR101	18,785	1,746	57.6	7.4	3.1	0.5	0.3	31.0	100%	E	2019
DR102	20,926	2,135	64.0	6.8	3.9	0.6	0.3	24.4	100%	F	R

KOTA BHARU

DR201	65,518	7,056	48.0	9.9	10.0	7.5	7.1	17.4	100%	F	R
DR202	46,452	4,213	72.1	3.3	1.4	0.4	0.6	22.2	100%	B	-
DR203	24,690	2,570	75.2	5.0	1.0	0.5	0.5	17.7	100%	F	R
DR204	26,658	2,348	73.8	3.7	1.3	0.2	0.5	20.4	100%	E	2026
DR205	60,660	6,616	67.3	3.3	1.0	0.1	0.2	28.1	100%	F	R
DR206	9,961	920	65.6	5.9	2.5	0.3	0.7	25.1	100%	A	2043
DR207	30,761	2,730	64.9	3.7	2.4	0.9	0.3	27.9	100%	F	R

MACHANG

DR301	28,037	2,780	75.1	7.6	3.9	1.3	0.5	11.6	100%	A	2045
DR302	18,913	1,687	72.0	9.3	4.8	2.7	0.5	10.8	100%	F	R

PASIR MAS

DR401	21,869	1,922	66.5	10.4	4.0	1.4	0.7	17.0	100%	F	R
DR402	18,253	1,754	60.7	10.6	2.6	0.2	0.4	25.5	100%	E	2020
DR403	19,775	1,743	69.7	6.6	5.0	0.6	0.6	17.5	100%	E	2019
DR404	11,832	1,250	56.7	8.8	2.3	0.1	0.1	32.0	100%	B	2031
DR405	18,451	2,157	59.6	11.1	8.3	1.3	0.1	19.6	100%	F	R

PASIR PUTEH

DR501	15,620	1,425	66.4	9.9	4.2	1.3	0.7	17.6	100%	D	2027
DR502	22,765	1,879	69.5	9.2	3.0	0.7	0.6	17.0	100%	F	R
DR503	10,759	988	70.4	10.3	4.8	2.5	0.8	11.3	100%	A	2036
DR504	10,437	1,142	63.2	8.6	2.9	0.4	0.3	24.5	100%	B	-

TANAH MERAH

DR601	14,893	1,518	67.1	9.7	5.9	3.3	0.5	13.6	100%	D	2024
DR602	10,705	1,196	64.4	9.2	7.2	3.9	0.6	14.7	100%	C	2030
DR604	17,193	1,715	65.1	9.0	4.6	1.1	0.5	19.8	100%	D	2030

JELI

DR603	6,300	573	61.7	12.0	6.0	4.4	0.8	15.1	100%	A	2083
DR605	6,034	685	57.3	12.3	5.6	2.3	0.3	22.2	100%	A	2044

TUMPAT

Census Station Number	16-Hour Traffic	Peak Hour	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Buses	Motorcycles	Total	Level of Service (LOS)	Capacity Year
DR701	26,919	2,569	60.9	6.7	2.3	0.3	0.1	29.7	100%	F	R
DR702	14,027	1,419	56.2	7.6	4.2	0.3	0.6	31.1	100%	C	2040
DR703	20,492	2,331	60.1	7.2	2.0	0.3	0.2	30.2	100%	F	R

KUALA KRAI

DR801	10,979	1,142	57.9	18.9	7.4	4.6	1.1	10.1	100%	D	2025
DR802	22,160	1,925	60.4	14.8	5.8	2.3	0.6	16.2	100%	F	R

GUA MUSANG

DR901	8,679	832	50.3	24.7	4.6	5.2	0.9	14.2	100%	B	-
DR902	10,820	940	54.0	22.4	7.2	5.2	0.9	10.3	100%	C	2024

BACHOK

Census Station Number	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Normal Growth (%/yr)	R ²
DR101	19,996	19,231	20,824	12,711	21,889	24,537	22,613	23,149	19,173	18,785	1.1	0.03
DR102	13,738	14,485	17,184	9,386	19,150	21,368	21,284	25,955	23,351	20,926	7.1	0.50

KOTA BHARU

DR201	30,698	43,222	31,602	37,939	42,433	32,263	26,043	39,257	28,405	65,518	2.2	0.06
DR202	43,771	55,608	48,957	57,936	46,291	47,187	46,128	49,541	47,234	46,452	-0.7	0.06
DR203	40,224	29,167	33,260	41,274	35,356	35,119	27,703	30,010	21,304	24,690	-5.0	0.53
DR204	36,175	42,681	31,934	37,301	38,669	34,111	32,932	26,937	31,981	26,658	-3.7	0.56
DR205	61,525	51,299	52,560	51,363	51,770	43,734	47,241	56,104	58,061	60,660	0.4	0.01
DR206	8,195	6,867	7,246	8,991	9,667	7,232	8,641	10,390	8,565	9,961	2.9	0.36
DR207	30,799	31,822	30,154	29,824	44,473	39,093	33,763	32,210	39,188	30,761	1.2	0.07

MACHANG

DR301	22,157	22,312	23,023	23,725	24,919	25,688	24,350	25,635	28,778	28,037	2.8	0.88
DR302	15,530	15,731	17,188	18,756	19,101	18,465	19,002	19,286	15,393	18,913	1.3	0.19

PASIR MAS

DR401	17,128	17,359	18,193	19,270	19,442	19,632	19,418	19,526	21,579	21,869	2.5	0.89
DR402	18,138	17,275	17,028	16,438	17,614	16,311	19,292	18,965	18,313	18,253	0.9	0.21
DR403	19,197	20,585	18,873	18,831	20,095	20,824	19,831	20,522	19,965	19,775	0.4	0.12
DR404	11,793	14,464	11,604	11,588	11,990	12,011	13,894	13,910	13,435	11,832	0.6	0.04
DR405	14,562	15,377	18,208	19,876	19,922	17,443	17,896	17,914	17,466	18,451	1.5	0.21

PASIR PUTEH

DR501	12,742	19,051	19,240	16,698	15,656	13,970	16,096	17,042	14,563	15,620	-0.5	0.02
DR502	20,388	19,685	24,831	23,795	21,093	23,781	22,035	22,608	22,582	22,765	0.8	0.12
DR503	9,066	9,677	12,369	13,133	10,300	11,331	10,430	10,577	11,269	10,759	0.7	0.04
DR504	11,069	14,673	16,304	14,365	13,323	14,814	12,432	10,152	9,859	10,437	-3.6	0.37

TANAH MERAH

DR601	13,799	13,398	14,380	14,516	15,713	14,768	15,124	15,789	20,402	14,893	2.5	0.43
DR602	8,614	8,856	9,260	9,901	10,177	9,871	10,216	10,474	11,160	10,705	2.6	0.89
DR604	15,459	18,686	16,643	17,495	17,419	17,313	18,955	15,111	18,009	17,193	0.3	0.01

JELI

DR603	5,224	5,296	5,440	5,863	6,275	6,029	6,141	4,718	6,344	6,300	1.4	0.18
DR605	5,350	2,659	5,837	5,375	6,748	5,940	6,342	4,735	6,859	6,034	4.3	0.22

TUMPAT

Census Station Number	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Normal Growth (%/yr)	R ²
DR701	23,870	22,099	25,635	28,666	29,956	27,868	29,532	31,640	29,564	26,919	2.5	0.47
DR702	12,383	13,194	12,664	13,051	15,143	13,922	17,340	15,597	15,625	14,027	2.5	0.48
DR703	17,522	18,706	19,189	21,622	22,243	26,287	22,655	24,422	25,409	20,492	3.1	0.47

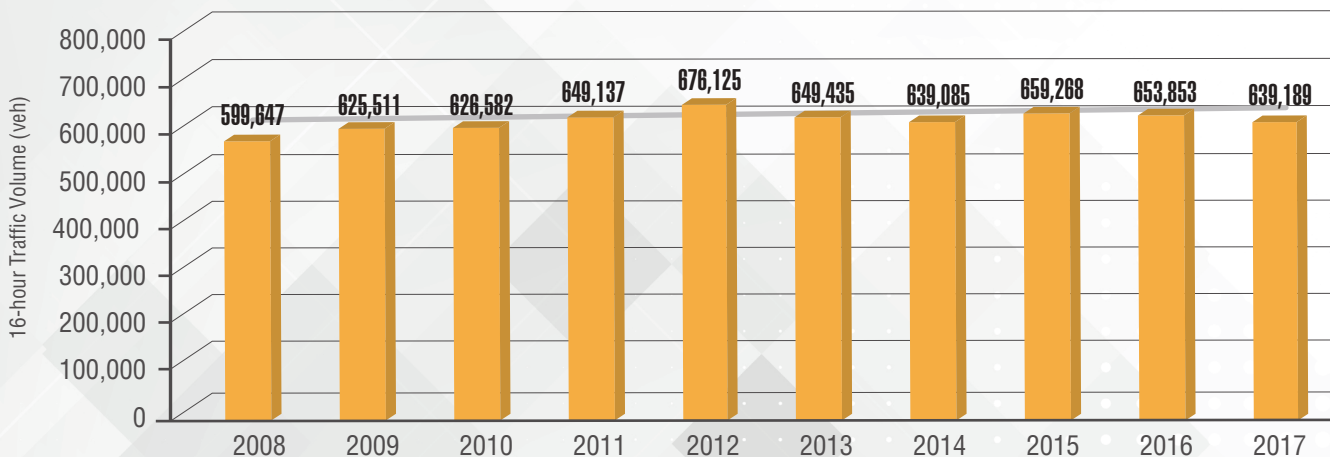
KUALA KRAI

DR801	9,132	8,974	10,122	10,565	9,995	10,783	11,860	9,685	10,314	10,979	1.7	0.38
DR802	18,707	19,521	20,623	22,308	23,381	21,200	22,523	23,345	21,969	22,160	1.8	0.52

GUA MUSANG

DR901	5,425	5,596	7,365	7,356	7,082	7,859	7,293	4,898	7,220	8,679	2.5	0.17
DR902	7,271	7,955	8,842	9,219	8,848	8,688	10,087	9,167	10,519	10,820	3.6	0.81

YEARLY 16-HOUR TRAFFIC VOLUME (2008 - 2017)



$$y = 1.7146e^{0.0064x} \mid R^2 = 0.3376$$

NORMAL GROWTH = 0.64%

*Yearly 16-hour Traffic Volume (2008 - 2017)
& Normal Traffic Growth with Exponential Trendline for the Year 2017 in Kelantan*

**2.29%
Decrease**

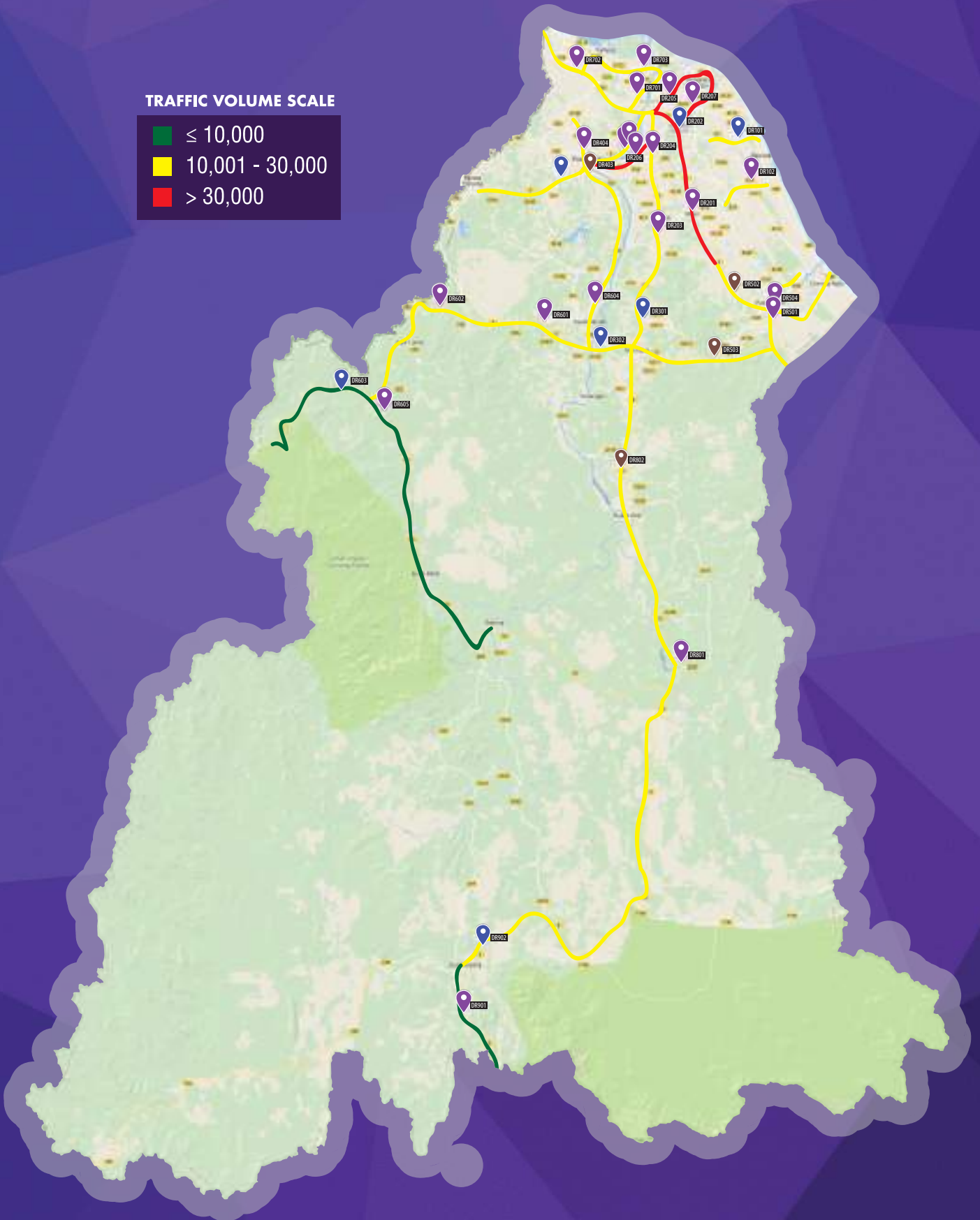
The state of Kelantan consists of 32 census stations. The gradual rise is observed since the year 2008 until the year 2012 in the yearly 16-hour traffic volume. The traffic volume has slightly dropped from the year 2013 and 2014. The traffic volume continues to drop keeps dropping by 2.29% for the year 2017 since 2015.

For the year 2017, the observed traffic growth rate for the state of Kelantan is 0.64%. The basis of traffic growth rate record is to be used as a projection indicator of subsequent traffic growth rate for road forethought as well as for the expansion of current and new roads in Kelantan.



TRAFFIC VOLUME SCALE

- ≤ 10,000
- 10,001 - 30,000
- > 30,000





SABAH

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Jalan Sembulan,
88582 Kota Kinabalu
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21
CENSUS STATIONS

4
0
17

DISTRIBUTION OF SURVEY STATIONS

Beaufort	0	0	2
Tambunan	0	0	1
Tenom	1	0	0
Sipitang	0	0	1
Papar	1	0	1
Penampang	0	0	1
Kota Kinabalu	1	0	0
Kota Belud	0	0	2
Ranau	0	0	2
Kota Marudu	0	0	2
Sandakan	0	0	1
Kinabatangan	0	0	1
Tawau	0	0	1
Semporna	0	0	1
Lahad Datu	1	0	1



BEAUFORT

Census Station Number	Survey Type	Route Number	KM	Description of Location	GPS Coordinate (WGS84) (Latitude, Longitude)	Type of Carriageway
HR101	3	1	4.8	Beaufort / Sipitang - Sindumin Road	5.286 115.683	T 1-1
HR105	3	502	15.0	Klias Kecil - Beaufort Menubuk Highway	5.432 115.646	T 1-1

TAMBUNAN

HR103	3	500	9.0	KK - Sepulut Highway	5.614 116.311	T 1-1
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TENOM

HR104	0	A33	9.0	Tenom - Tomani / Bekuku H'way	5.063 115.951	T 1-1
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SIPITANG

HR106	3	1	133.5	A2, KK / Sindumin (0.5km Mesapol - Sipitang)	5.110 115.587	T 1-1
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PAPAR

HR201	0	1	22.0	Kota Kinabalu - Sindumin (Kg Mook)	5.815 116.044	T 1-1
HR209	3	1	57.0	Kota Kinabalu - Sindumin (Mandahan)	5.582 115.879	T 1-1

PENAMPANG

HR202	3	500	18.0	A3, KK - Tambunan (8km from A / A31 Intersection)	5.921 116.161	T 1-1
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KOTA KINABALU

HR203	0	1	25.0	Telipok Town	6.093 116.199	K 2-2
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KOTA BELUD

HR204	3	1	69.0	KK - Kudat (Kg Mantanau)	6.336 116.400	T 1-1
HR300	3	1	105.0	KK - Kudat (Kg. Lentigi)	6.504 116.568	T 1-1

RANAU

HR207	3	22	81.0	KK - Sandakan (junction towards Ranau)	5.981 116.562	T 1-1
HR208	3	22	114.0	KK - Sandakan (after Poring junction)	5.987 116.691	T 1-1

KOTA MARUDU

HR301	3	1		Kudat - Kota Kinabalu (Batutai)	6.590 116.722	T 1-1
HR302	3	A12		Kota Marudu - Pitas (Marasinsim)	6.614 116.871	T 1-1

SANDAKAN

HR403	3	22	25.0	KK - Sandakan (25 km from Sandakan towards KK - (Gum-Gum))	5.892 117.925	T 1-1
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KINABATANGAN

HR404	3	13	54.0	Sandakan - Lahad Datu	5.763 117.772	T 1-1
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TAWAU

Census Station Number	Survey Type	Route Number	KM	Description of Location	GPS Coordinate (WGS84) (Latitude, Longitude)		Type of
HR501	3	13	35.0	Tawau - Sandakan Highway (Near Balung Junction)	4.367	118.106	T 1-1

SEMPORNA

HR506	3	A51	0.2	Jalan Sing - Sing (18km from Bandar Semporna)	4.423	118.476	T 1-1
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LAHAD DATU

HR504	0	13	14.5	Sg. Segama Crossing	5.102	118.233	T 1-1
HR507	3	13	81.0	Kunak - Lahad Datu	4.690	118.212	T 1-1

BEAUFORT

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
HR101	N/A	6,303	561	1700-1800	48.0	32.3	6.4	2.7	0.7	10.0	100.0
HR105	N/A	4,958	435	1400-1500	51.3	26.0	6.8	2.5	1.0	12.4	100.0

TAMBUNAN

HR103	N/A	3,221	258	0800-0900	46.7	23.9	10.8	8.5	0.0	10.0	100.0
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TENOM

HR104	7,513	5,448	407	0700-0800	39.4	27.9	11.0	2.3	0.1	19.4	100.0
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SIPITANG

HR106	N/A	7,272	686	1700-1800	54.6	26.8	5.7	2.9	0.2	9.8	100.0
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PAPAR

HR201	16,654	15,239	1,361	0700-0800	56.6	26.7	6.2	3.4	0.8	6.2	100.0
HR209	N/A	9,719	816	1600-1700	54.6	26.9	6.8	2.9	1.0	7.8	100.0

PENAMPANG

HR202	N/A	4,373	451	1800-1900	40.1	25.1	16.2	9.9	0.0	8.6	100.0
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KOTA KINABALU

HR203	73,335	57,404	5,490	1800-1900	53.3	26.8	10.0	3.4	0.5	6.0	100.0
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KOTA BELUD

HR204	N/A	16,570	1,689	1800-1900	42.3	33.4	10.1	4.9	2.1	7.2	100.0
HR300	N/A	5,416	510	1600-1700	44.2	39.2	8.8	3.3	0.2	4.4	100.0

RANAU

HR207	N/A	4,365	386	1200-1300	36.6	40.4	11.9	6.4	2.1	2.6	100.0
HR208	N/A	3,741	350	1300-1400	39.3	37.9	9.8	7.0	1.6	4.4	100.0

KOTA MARUDU

HR301	N/A	4,187	378	0700-0800	41.3	39.4	7.5	2.3	0.3	9.2	100.0
HR302	N/A	4,902	435	1400-1500	39.5	43.8	5.5	2.3	0.1	8.8	100.0

SANDAKAN

HR403	N/A	13,891	1,159	1700-1800	34.9	36.3	11.5	10.7	1.9	4.7	100.0
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KINABATANGAN

HR404	N/A	4,540	377	1600-1700	29.4	41.6	13.5	12.9	1.2	1.5	100.0
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TAWAU

HR501	N/A	12,249	1,025	1400-1500	32.9	33.9	12.5	8.4	0.7	11.6	100.0
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SEMPORNA

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
HR506	N/A	1,850	161	1900-2000	43.9	31.9	10.9	5.0	1.2	7.1	100.0

LAHAD DATU

HR504	7,649	6,859	550	1300-1400	25.7	45.4	12.3	7.8	0.7	8.0	100.0
HR507	N/A	8,282	973	1700-1800	45.3	26.8	11.1	10.0	0.6	6.1	100.0

BEAUFORT

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
HR101	N/A	6,234	571	1500-1600	46.5	32.6	6.7	3.5	1.5	9.2	100.0
HR105	N/A	5,310	519	1500-1600	51.1	26.4	6.5	1.8	0.7	13.4	100.0

TAMBUNAN

HR103	N/A	3,053	258	1500-1600	44.9	26.6	11.7	8.3	0.0	8.5	100.0
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TENOM

HR104	8,591	5,788	496	1500-1600	37.7	29.2	10.9	3.7	0.1	18.3	100.0
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SIPITANG

HR106	N/A	7,359	674	1500-1600	52.4	28.0	5.4	3.2	0.4	10.6	100.0
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PAPAR

HR201	18,076	16,545	1,742	1500-1600	58.9	25.2	6.3	3.2	0.6	5.8	100.0
HR209	N/A	10,185	873	1500-1600	59.4	22.2	6.5	4.4	0.8	6.7	100.0

PENAMPANG

HR202	N/A	4,240	439	1500-1600	49.9	23.4	9.9	7.1	0.1	9.6	100.0
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KOTA KINABALU

HR203	62,613	49,470	5,245	1500-1600	49.9	25.8	13.1	3.7	0.6	6.9	100.0
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KOTA BELUD

HR204	N/A	14,738	1,585	1500-1600	41.3	31.0	11.3	6.8	2.6	7.0	100.0
HR300	N/A	5,439	483	1500-1600	41.7	41.6	8.2	4.3	0.3	4.0	100.0

RANAU

HR207	N/A	4,504	382	1300-1400	32.3	43.8	12.2	7.0	1.7	3.0	100.0
HR208	N/A	3,900	405	1500-1600	37.5	39.0	10.3	8.0	1.5	3.7	100.0

KOTA MARUDU

HR301	N/A	4,268	370	0700-0800	38.8	38.5	8.5	5.0	0.4	8.8	100.0
HR302	N/A	4,684	434	1500-1600	42.5	39.0	7.1	4.4	0.1	7.0	100.0

SANDAKAN

HR403	N/A	13,131	1,158	1500-1600	37.6	40.2	8.8	9.4	1.4	2.5	100.0
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KINABATANGAN

HR404	N/A	5,658	538	1500-1600	29.7	41.3	11.7	11.6	0.9	4.8	100.0
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TAWAU

HR501	N/A	13,048	1,019	1500-1600	34.4	32.6	14.2	8.9	0.4	9.5	100.0
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SEMPORNA

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
HR506	N/A	3,528	279	1500-1600	44.1	36.7	12.6	2.3	0.1	4.2	100.0

LAHAT DATU

HR504	7,519	6,805	564	1200-1300	30.6	43.3	9.4	8.1	0.6	7.9	100.0
HR507	N/A	8,495	843	1500-1600	39.6	29.5	12.9	9.2	4.4	4.5	100.0

BEAUFORT

Census Station Number	16-Hour Traffic	Peak Hour	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Buses	Motorcycles	Total	Level of Service (LOS)	Capacity Year
HR101	6,269	566	47.2	32.4	6.6	3.1	1.1	9.6	100%	A	-
HR105	5,134	477	51.2	26.2	6.6	2.2	0.9	12.9	100%	A	-

TAMBUNAN

HR103	3,137	258	45.8	25.3	11.2	8.4	0.0	9.3	100%	A	2151
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TENOM

HR104	5,618	452	38.6	28.5	10.9	3.0	0.1	18.9	100%	A	-
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SIPITANG

HR106	7,316	680	53.5	27.4	5.5	3.0	0.3	10.2	100%	A	2026
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PAPAR

HR201	15,892	1,551	57.8	25.9	6.3	3.3	0.7	6.0	100%	F	R
HR209	5,501	845	57.0	24.6	6.7	3.6	0.9	7.3	100%	A	2037

PENAMPANG

HR202	4,307	445	45.0	24.3	13.0	8.5	0.1	9.1	100%	A	-
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KOTA KINABALU

HR203	53,437	5,367	51.6	26.3	11.5	3.6	0.6	6.5	100%	F	R
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KOTA BELUD

HR204	15,654	1,637	41.8	32.2	10.7	5.8	2.3	7.1	100%	F	R
HR300	5,428	497	42.9	40.4	8.5	3.8	0.2	4.2	100%	A	-

RANAU

HR207	4,435	384	34.5	42.1	12.1	6.7	1.9	2.8	100%	A	2048
HR208	3,821	378	38.4	38.4	10.0	7.5	1.5	4.1	100%	A	2028

KOTA MARUDU

HR301	4,228	374	40.0	38.9	8.0	3.7	0.4	9.0	100%	A	2044
HR302	4,793	435	41.0	41.4	6.3	3.3	0.1	7.9	100%	A	2052

SANDAKAN

HR403	13,511	1,159	36.3	38.3	10.1	10.0	1.7	3.6	100%	F	R
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KINABATANGAN

HR404	5,099	458	29.5	41.4	12.6	12.2	1.0	3.2	100%	A	-
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TAWAU

Census Station Number	16-Hour Traffic	Peak Hour	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Buses	Motorcycles	Total	Level of Service (LOS)	Capacity Year
HR501	12,649	1,022	33.6	33.3	13.3	8.7	0.5	10.5	100%	E	-

SEMPORNA

HR506	2,689	220	44.0	34.3	11.8	3.6	0.7	5.7	100%	A	2104
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LAHAD DATU

HR504	6,832	557	28.2	44.4	10.9	8.0	0.7	8.0	100%	A	2070
HR507	8,389	908	42.5	28.2	12.0	9.6	2.5	5.3	100%	D	-

BEAUFORT

Census Station Number	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Normal Growth (%/yr)	R ²
HR101	7,454	4,811	4,924	5,965	5,422	5,694	6,508	6,710	6,493	6,269	1.5	0.10
HR105	5,181	3,818	3,941	5,457	4,550	4,254	4,566	4,759	4,561	5,134	0.9	0.06

TAMBUNAN

HR103	3,048	2,454	2,739	3,000	3,171	2,938	3,018	2,792	2,782	3,137	0.7	0.08
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TENOM

HR104	4,566	4,566	4,294	4,425	2,123	2,450	2,378	2,299	6,943	5,618	-0.0	0.00
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SIPITANG

HR106	5,403	6,112	6,441	6,626	5,914	7,585	11,392	10,093	7,800	7,316	5.2	0.44
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PAPAR

HR201	6,453	7,968	9,370	11,791	14,491	14,406	15,329	15,786	15,999	15,892	9.9	0.83
HR209	3,859	5,932	5,561	6,992	6,249	5,778	8,301	7,408	5,855	5,501	3.0	0.19

PENAMPANG

HR202	3,578	3,701	3,835	3,881	3,353	3,839	4,478	4,105	3,351	4,307	1.1	0.13
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KOTA KINABALU

HR203	27,288	25,247	30,288	35,489	39,394	42,886	43,647	47,846	51,482	53,437	8.5	0.95
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KOTA BELUD

HR204	9,855	9,450	11,189	11,138	9,953	13,909	11,923	12,388	13,887	15,654	4.8	0.75
HR300	4,429	5,449	6,367	5,029	4,777	6,369	5,084	5,659	5,626	5,428	1.1	0.08

RANAU

HR207	3,425	3,488	3,732	4,745	5,021	3,813	4,103	3,947	4,111	4,435	1.8	0.20
HR208	2,618	2,396	2,705	3,498	3,872	2,924	3,413	6,833	3,940	3,821	6.8	0.47

KOTA MURUDU

HR301	4,184	5,062	5,023	6,180	6,381	7,838	8,258	4,731	4,294	4,228	-0.2	0.00
HR302	6,525	3,830	4,277	4,578	5,533	6,481	6,586	3,697	4,314	4,793	-0.9	0.01

SANDAKAN

HR403	9,207	12,285	16,610	14,321	14,845	15,097	14,975	18,232	17,405	13,511	3.9	0.37
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KINABATANGAN

HR404	12,504	16,088	16,831	13,029	6,049	8,022	6,746	5,336	5,074	5,099	-14.3	0.79
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TAWAU

Census Station Number	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Normal Growth (%/yr)	R ²
HR501	16,860	9,407	10,074	10,035	10,455	10,327	10,229	11,508	11,694	12,649	-0.2	0.00

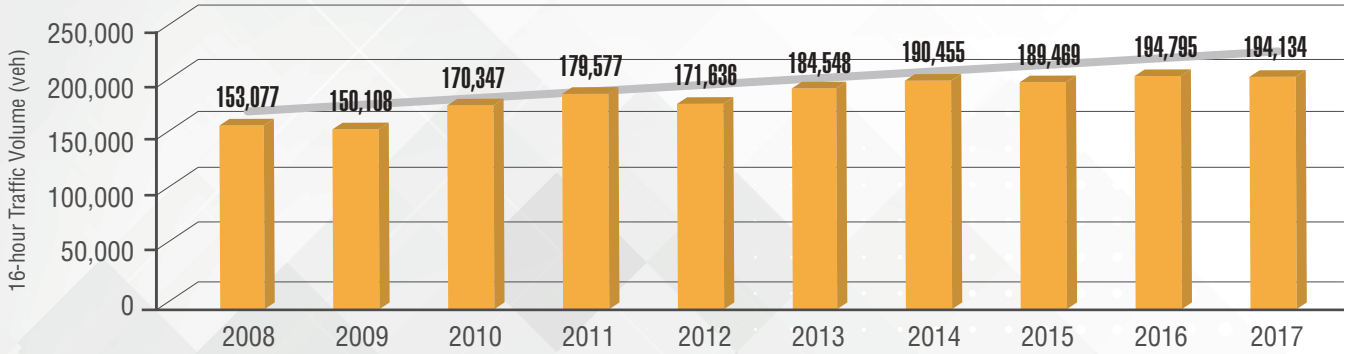
SEMPORNA

HR506	2,485	2,663	2,711	3,074	2,742	2,704	3,087	2,310	3,609	2,689	1.2	0.09
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LAHAD DATU

HR504	6,987	6,781	8,294	8,691	7,641	9,407	8,739	6,335	7,412	6,832	-0.4	0.01
HR507	7,168	8,600	11,141	11,633	9,706	7,831	7,699	6,700	8,169	8,389	-1.8	0.09

YEARLY 16-HOUR TRAFFIC VOLUME (2008 - 2017)



$y = 1E-20e^{0.0287x} \mid R^2 = 0.8489$
NORMAL GROWTH = 2.87%

*Yearly 16-hour Traffic Volume (2008 2017)
 & Normal Traffic Growth with Exponential Trendline for the Year 2017 in Sabah*

**0.34%
Decrease**

In the state of Sabah, there are 21 census stations. The yearly 16-hour traffic volume documented shows a decline in traffic volume for the year 2009 and year 2012. The highest number of traffic volume was in 2016 which was declined at 2017 by 0.34% equals to 661 vehicles.

For the year 2017, the observed traffic growth rate for the state of Sabah is 2.87%. The basis of traffic growth rate record is to be used as a projection indicator of subsequent traffic growth rate for road forethought as well as for the expansion of current and new roads in Sabah.







WILAYAH PERSEKUTUAN LABUAN



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W.P LABUAN

TYPE 0 TYPE 1 TYPE 3



8
CENSUS STATIONS

0
 1
 7

DISTRIBUTION OF SURVEY STATIONS

W.P Labuan 0 1 7

W.P. LABUAN

Census Station Number	Survey Type	Route Number	KM	Description of Location	GPS Coordinate (WGS84) (Latitude, Longitude)		Type of Carriageway
LR101	1	L700	1.5	Jalan Tun Mustapha (1.5km from town)	5.290	115.248	K 3-3
LR102	3	L700	1.4	Jalan Patau – Patau (1.4km from Jalan Tun Mustapha / Jalan Ranza – Ranza junction)	5.287	115.235	K 2-2
LR103	3	L706	0.3	Jalan Ranza – Ranza (0.3km from Tun Mustapha / Jalan Ranza – Ranza junction)	5.297	115.238	T 1-1
LR104	3	L707	0.9	Jalan Pulau Buah (0.9km from Jalan Pulau Buah / Jalan Tun Mustapha signalized junction)	5.316	115.242	T 1-1
LR105	3	L704	0.3	Jalan Mohamad Salleh (0.3km from Jalan Pohon Batu / Jalan Mohamad Salleh / Jalan Tun Mustapha junction)	5.310	115.231	T 1-1
LR106	3	L700	0.3	Jalan Pohon Batu (0.3km from Pohon Batu / Jalan Mohamad Salleh / Jalan Tun Mustapha junction)	5.312	115.232	K 2-2
LR107	3	L703	0.3	Jalan OKK Daud (0.3km from Jalan OKK Daud / Jalan Pohon Batu junction)	5.358	115.228	T 1-1
LR108	3	L700	6.0	KM 6 Jalan Pohon Batu (in front of Masjid Kg Gangarak WP Labuan)	5.313	115.231	K 2-2

W.P. LABUAN

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
LR101	N/A	39,096	3,642	1700-1800	69.2	12.6	4.6	0.7	0.2	12.6	100.0
LR102	N/A	22,894	2,285	1700-1800	58.8	24.0	3.0	1.9	0.5	11.8	100.0
LR103	N/A	17,412	1,626	1700-1800	61.0	20.5	5.1	1.6	0.4	11.4	100.0
LR104	N/A	14,244	1,605	0700-0800	63.0	19.4	5.3	0.4	0.1	11.7	100.0
LR105	N/A	18,916	2,062	1700-1800	56.2	19.1	3.5	1.7	0.7	18.8	100.0
LR106	N/A	22,637	2,425	1700-1800	59.7	20.0	3.4	1.0	0.4	15.6	100.0
LR107	N/A	3,512	379	1700-1800	59.1	14.9	5.2	2.5	1.7	16.6	100.0
LR108	N/A	7,954	891	0600-0700	56.7	14.5	4.5	0.7	0.7	22.8	100.0

W.P. LABUAN

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
LR101	N/A	40,675	3,390	1500-1600	71.4	11.4	4.6	0.3	0.3	11.9	100.0
LR102	N/A	19,895	2,867	1500-1600	65.7	13.6	4.3	1.6	0.6	14.1	100.0
LR103	N/A	17,699	1,745	1500-1600	65.1	15.8	6.4	1.0	0.6	11.0	100.0
LR104	N/A	13,900	1,498	1500-1600	68.6	15.0	3.8	0.3	0.4	11.8	100.0
LR105	N/A	14,825	1,796	1500-1600	63.2	12.5	3.5	1.7	0.9	18.1	100.0
LR106	N/A	23,591	2,520	1500-1600	61.8	14.5	4.8	1.9	0.7	16.4	100.0
LR107	N/A	3,069	417	1500-1600	56.8	15.0	5.7	2.8	1.6	18.0	100.0
LR108	N/A	6,967	749	1500-1600	59.3	10.4	6.1	1.3	0.4	22.5	100.0

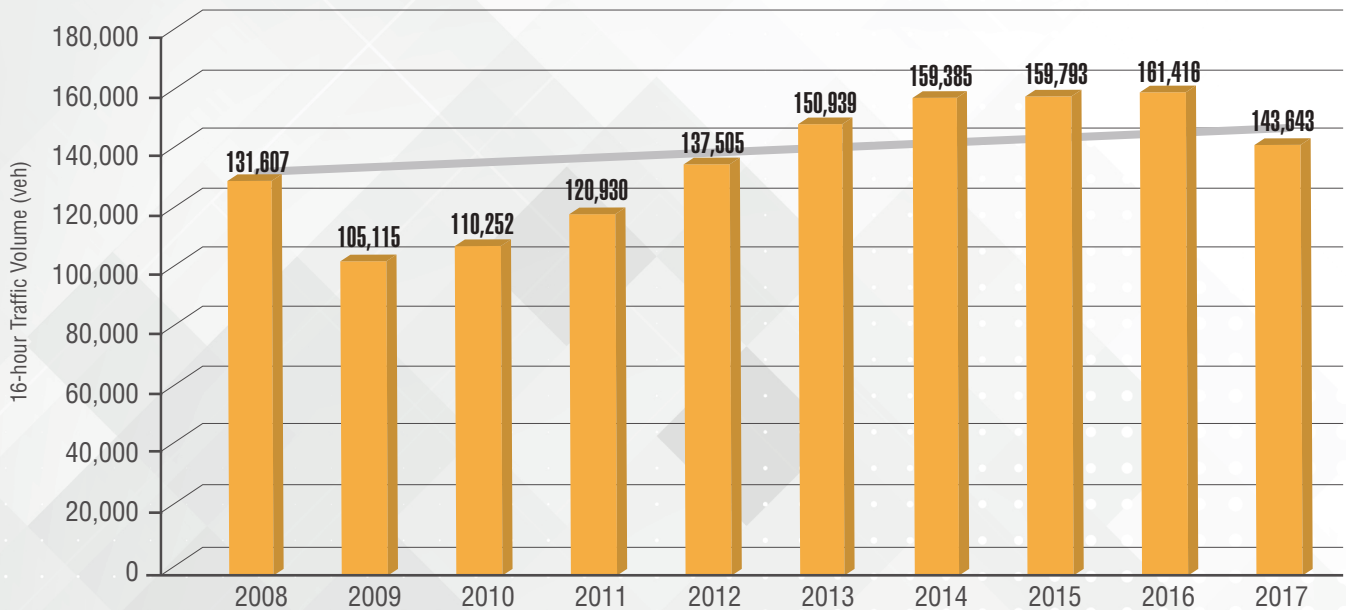
W.P. LABUAN

Census Station Number	16-Hour Traffic	Peak Hour	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Buses	Motorcycles	Total	Level of Service (LOS)	Capacity Year
LR101	39,886	3,516	70.3	12.0	4.6	0.5	0.3	12.3	100%	A	2040
LR102	21,395	2,576	62.3	18.8	3.7	1.8	0.6	12.9	100%	A	2022
LR103	17,556	1,686	63.1	18.2	5.7	1.3	0.5	11.2	100%	F	R
LR104	14,072	1,552	65.8	17.2	4.5	0.4	0.3	11.8	100%	E	2020
LR105	16,871	1,929	59.7	15.8	3.5	1.7	0.8	18.4	100%	F	R
LR106	23,114	2,473	60.7	17.2	4.1	1.4	0.5	16.0	100%	A	2081
LR107	3,291	398	57.9	15.0	5.4	2.7	1.7	17.3	100%	A	2029
LR108	7,461	820	58.0	12.4	5.3	1.0	0.5	22.6	100%	A	2063

W.P. LABUAN

Census Station Number	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Normal Growth (%/yr)	R ²
LR101	39,218	37,854	38,889	37,905	48,329	45,086	45,523	47,872	44,867	39,886	1.7	0.29
LR102	14,489	11,148	12,162	18,000	18,215	27,587	29,543	29,675	28,761	21,395	10.0	0.66
LR103	9,183	9,225	9,045	13,533	13,740	13,764	14,396	15,002	16,187	17,556	7.6	0.87
LR104	12,080	10,314	10,562	10,102	10,913	13,462	13,687	12,995	13,818	14,072	3.4	0.59
LR105	25,713	12,303	13,991	16,586	16,656	18,451	20,522	20,428	21,966	16,871	1.8	0.06
LR106	13,143	17,822	19,046	16,920	16,934	19,011	21,458	23,755	23,821	23,114	5.5	0.78
LR107	2,000	1,958	2,388	2,031	4,273	3,682	5,433	3,629	3,637	3,291	8.3	0.50
LR108	15,781	4,491	4,169	5,853	8,446	9,897	8,825	6,439	8,361	7,461	0.7	0.00

YEARLY 16-HOUR TRAFFIC VOLUME (2008 - 2017)



$y = 2E-30e^{0.0398x} \mid R^2 = 0.5952$
NORMAL GROWTH = 3.98%

*Yearly 16-hour Traffic Volume (2008-2017)
 & Normal Traffic Growth with Exponential Trendline for the Year 2017 in W.P Labuan*

**12.37%
Decrease**

The Federal Territory of Labuan consists of 8 census stations. The 16-hour traffic volume exhibits an increase of traffic volume since the year 2009 until 2016. A drop of 12.37% occurs between the year 2016 and 2017, which is equivalent to 17,773 vehicles in the yearly 16-hour traffic volume.

For the year 2017, the observed traffic growth rate for the Federal Territory of Labuan is 3.98%. The basis of traffic growth rate record is to be used as a projection indicator of subsequent traffic growth rate for road forethought as well as for the expansion of current and new roads in Federal Territory of Labuan.





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KUCHING

Census Station Number	Survey Type	Route Number	KM	Description of Location	GPS Coordinate (WGS84) (Latitude, Longitude)	Type of Carriageway
SR101	3	1	16.1	Bau - Semantan	1.488 110.041	T 1-1
SR102	3	Q6	8.1	Bau - Kuching	1.442 110.228	T 1-1
SR103	3	1	27.4	Kuching - Serian	1.364 110.404	K 2-2
SR105	3	1	18.8	Bau - Kuching	1.457 110.160	T 1-1
SR106	3	1	10.5	Kuching - Serian	1.486 110.331	K 2-2
SR107	3	31	4.5	Kuching Bypass	1.511 110.351	K 3-3
SR110	3	900	-	Jalan Kuching (Airport Access - between BDC roundabout and airport roundabout)	1.499 110.349	K 3-3

SAMARAHAN

SR104	3	1	83.7	Kuching - Serian	1.115 110.624	T 1-1
SR108	3	1	10.0	Jalan Datuk Mohamad Musa	1.454 110.410	T 1-1
SR109	3	21	22.0	Serian - Tebedu	1.123 110.418	T 1-1

SRI AMAN

SR201	3	1	41.9	Sri Aman - Sarikei	1.172 111.660	T 1-1
SR202	3	1	46.9	Sri Aman - Serian	1.085 111.192	T 1-1
SR203	3	3	18.5	Batang Ai Road	1.219 111.655	T 1-1

BETONG

SR204	3	1	84.9	Betong - Sarikei (Simpang Jalan Paku)	1.462 111.567	T 1-1
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SIBU

SR301	3	1	9.0	Durin Ferry - Junction to Sibu	2.208 112.015	K 2-2
SR302	3	1	50.8	Sibu - Junc. to Mukah	2.433 112.167	T 1-1
SR303	3	1	121.6	Sibu - Tatau	2.735 112.668	T 1-1
SR304	3	800-10A	10.0	Rejang Port access road	2.292 111.896	K 2-2

BINTULU

SR401	3	1	20.0	Bintulu - Sibu	3.099 113.023	T 1-1
SR402	3	1	29.0	Bintulu - Miri	3.226 113.161	T 1-1
SR405	3	36	9.5	Bintulu - Tg. Kidurong	3.233 113.089	K 2-2

MIRI

SR403	3	1	6.2	Miri - Bintulu (before junction to Airport)	4.338 114.000	T 1-1
SR404	3	22	11.3	Miri - Brunei Border	4.486 114.007	K 2-2
SR406	3	1	90.2	Miri - Sg. Suai	3.734 113.777	T 1-1
SR407	3	1	37.4	Miri - Junc. Beluru	4.145 114.004	T 1-1

LIMBANG

Census Station Number	Survey Type	Route Number	KM	Description of Location	GPS Coordinate (WGS84) (Latitude, Longitude)	Type of Carriageway
SR502	3	22	23.3	Limbang - Brunei Border (Tedungan)	4.644 114.892	T 1-1
SR503	3	22	1.6	Limbang - Brunei Border (Sg.Padaruan)	4.762 115.022	T 1-1
SR505	3	Q296	32.2	Limbang - Ukong	4.559 114.887	T 1-1

LAWAS

SR501	3	23	5.6	Lawas - Merapok	4.809 115.410	T 1-1
SR504	3	23	1.6	Lawas - Trusan	4.856 115.394	T 1-1

SARIKEI

SR601	3	1	29.0	Sarikei - Sibu	2.060 111.693	T 1-1
SR602	3	1	50.4	Sarikei - Junc. to Bintangor	2.062 111.514	T 1-1
SR603	3	1	40.3	Bintangor - Durin Ferry	2.059 111.911	T 1-1

KUCHING

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
SR101	N/A	4,971	477	0600-0700	45.2	22.2	7.5	6.6	0.8	17.7	100.0
SR102	N/A	11,763	1,586	0700-0800	54.5	14.0	7.6	6.5	0.7	16.8	100.0
SR103	N/A	36,557	4,220	0600-0700	53.5	16.2	5.3	5.9	1.1	18.1	100.0
SR105	N/A	9,130	874	1700-1800	56.7	19.2	4.4	2.7	0.5	16.6	100.0
SR106	N/A	58,614	5,858	0700-0800	64.7	11.7	3.5	1.1	0.5	18.6	100.0
SR107	N/A	79,178	6,927	1700-1800	71.6	12.6	3.5	2.0	0.2	10.1	100.0
SR110	N/A	66,506	5,903	0700-0800	74.5	11.5	2.7	1.0	0.1	10.1	100.0

SAMARAHAN

SR104	N/A	29,612	2,989	0700-0800	56.5	12.6	8.6	2.8	0.8	18.7	100.0
SR108	N/A	28,598	2,921	0700-0800	54.3	15.3	3.5	2.1	0.4	24.4	100.0
SR109	N/A	2,481	274	0700-0800	42.8	26.4	9.5	1.1	2.9	17.3	100.0

SRI AMAN

SR201	N/A	5,981	523	1600-1700	45.2	27.9	11.1	7.2	1.3	7.3	100.0
SR202	N/A	3,949	404	1200-1300	38.3	24.6	10.1	15.8	2.7	8.6	100.0
SR203	N/A	3,098	281	0800-0900	31.7	29.4	11.7	7.4	0.5	19.4	100.0

BETONG

SR204	N/A	6,117	587	1700-1800	45.5	26.2	10.7	9.4	1.4	6.8	100.0
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SIBU

SR301	N/A	20,343	1,633	0600-0700	33.9	21.8	15.2	10.3	0.2	18.6	100.0
SR302	N/A	7,293	555	0700-0800	47.4	24.4	11.7	13.1	1.4	2.0	100.0
SR303	N/A	7,807	564	0900-1000	40.9	24.1	18.5	13.3	1.3	1.9	100.0
SR304	N/A	29,963	2,353	0600-0700	30.8	23.9	13.5	11.7	0.7	19.3	100.0

BINTULU

SR401	N/A	5,390	468	1300-1400	32.0	36.3	5.3	20.9	2.0	3.5	100.0
SR402	N/A	8,751	1,402	0800-0900	39.1	45.8	3.3	4.8	1.1	5.9	100.0
SR405	N/A	22,491	2,254	0700-0800	57.6	26.9	7.6	1.4	0.7	5.9	100.0

MIRI

SR403	N/A	10,637	1,082	0700-0800	53.7	22.9	5.7	5.3	1.0	11.5	100.0
SR404	N/A	9,162	1,071	1300-1400	47.7	33.2	5.2	3.3	2.1	8.5	100.0
SR406	N/A	5,022	431	1600-1700	31.0	42.2	5.3	6.8	2.5	12.2	100.0
SR407	N/A	4,036	356	1100-1200	24.4	34.6	10.0	20.5	2.4	8.1	100.0

LIMBANG

SR502	N/A	6,428	629	0600-0700	58.0	15.0	4.6	5.0	0.7	16.7	100.0
SR503	N/A	14,249	2,062	0600-0700	48.4	15.9	2.3	1.5	0.4	31.6	100.0
SR505	N/A	2,726	331	0700-0800	32.0	14.2	13.8	8.0	0.7	31.3	100.0

LAWAS

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
SR501	N/A	4,418	363	0800-0900	41.6	37.3	8.4	3.8	0.1	8.8	100.0
SR504	N/A	9,491	906	1700-1800	47.7	30.6	4.5	1.6	0.0	15.5	100.0

SARIKEI

SR601	N/A	4,063	436	1600-1700	47.1	23.2	3.5	1.8	0.1	24.3	100.0
SR602	N/A	2,645	275	1700-1800	32.4	29.3	10.6	15.0	1.3	11.4	100.0
SR603	N/A	2,059	190	0700-0800	45.9	32.6	4.3	3.2	0.1	13.8	100.0

KUCHING

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
SR101	N/A	5,304	478	0700-0800	39.4	25.3	8.4	9.2	0.7	16.9	100.0
SR102	N/A	12,295	1,584	0700-0800	53.0	16.1	6.8	7.0	0.7	16.3	100.0
SR103	N/A	7,784	823	1700-1800	66.4	5.5	9.3	7.3	1.7	9.8	100.0
SR105	N/A	8,818	1,046	0700-0800	59.6	15.9	4.5	2.1	0.3	17.6	100.0
SR106	N/A	63,613	6,525	1700-1800	59.4	15.0	3.3	1.0	0.4	21.0	100.0
SR107	N/A	80,126	6,744	1600-1700	67.2	18.7	3.3	1.2	0.2	9.4	100.0
SR110	N/A	71,252	6,619	0800-0900	69.0	18.5	2.9	0.7	0.1	8.8	100.0

SAMARAHAN

SR104	N/A	33,245	3,156	0700-0800	65.5	6.4	5.2	2.3	0.6	20.0	100.0
SR108	N/A	28,020	2,661	0700-0800	55.4	17.6	3.6	1.1	0.4	21.9	100.0
SR109	N/A	2,169	224	0700-0800	65.5	6.4	5.2	2.3	0.6	20.0	100.0

SRI AMAN

SR201	N/A	4,669	400	1600-1700	41.7	20.7	12.6	13.8	2.5	8.8	100.0
SR202	N/A	3,803	379	1200-1300	37.9	24.0	9.7	17.4	2.3	8.7	100.0
SR203	N/A	2,869	400	0800-0900	33.1	28.6	11.1	9.9	0.2	17.0	100.0

BETONG

SR204	N/A	4,188	434	0700-0800	46.1	23.0	7.7	14.5	1.6	7.0	100.0
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SIBU

SR301	N/A	23,107	1,794	0600-0700	33.1	23.6	15.8	9.8	0.2	17.6	100.0
SR302	N/A	4,620	358	1200-1300	21.1	32.8	23.1	14.1	3.2	5.8	100.0
SR303	N/A	5,040	424	1600-1700	26.2	21.7	18.3	19.8	3.9	10.1	100.0
SR304	N/A	28,896	2,469	0700-0800	31.9	20.2	14.8	13.8	1.3	18.0	100.0

BINTULU

SR401	N/A	5,979	580	1500-1600	28.5	33.8	10.0	22.4	1.7	3.6	100.0
SR402	N/A	7,249	667	1800-1900	33.1	36.1	9.3	12.5	1.0	8.0	100.0
SR405	N/A	21,644	2,295	0700-0800	57.4	26.1	6.3	2.1	1.1	7.0	100.0

MIRI

SR403	N/A	9,085	1,053	0700-0800	50.4	23.2	7.2	8.0	1.0	10.1	100.0
SR404	N/A	9,689	931	0600-0700	46.8	32.1	6.9	4.9	1.5	7.8	100.0
SR406	N/A	5,230	409	1300-1400	27.0	38.9	7.0	13.5	1.7	11.8	100.0
SR407	N/A	7,130	623	1300-1400	25.4	43.4	6.8	14.1	1.4	8.9	100.0

LIMBANG

SR502	N/A	6,350	561	1500-1600	60.6	14.0	5.9	5.2	0.6	13.7	100.0
SR503	N/A	16,193	2,266	1500-1600	49.5	14.8	2.7	1.6	0.5	30.9	100.0
SR505	N/A	2,759	308	1500-1600	35.9	16.9	15.5	7.8	0.7	23.2	100.0

LAWAS

Census Station Number	24-Hour Traffic	16-Hour Traffic	Peak Hour Traffic		Percentage of Vehicle Composition (%)						
			Traffic	Time	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Busses	Motorcycles	Total
SR501	N/A	4,848	470	0600-0700	40.2	36.4	7.3	6.3	0.1	9.8	100.0
SR504	N/A	9,788	1,046	1500-1600	42.8	35.7	3.6	2.0	0.0	15.9	100.0

SARIKEI

SR601	N/A	4,713	551	1100-1200	50.0	25.0	3.2	1.9	0.1	19.9	100.0
SR602	N/A	3,109	322	1500-1600	41.2	28.3	10.0	11.8	0.8	7.9	100.0
SR603	N/A	3,193	279	1500-1600	50.7	27.9	6.9	2.4	0.2	11.9	100.0

KUCHING

Census Station Number	16-Hour Traffic	Peak Hour	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Buses	Motorcycles	Total	Level of Service (LOS)	Capacity Year
SR101	5,138	478	42.3	23.8	7.9	7.9	0.7	17.3	100%	A	2035
SR102	12,029	1,585	53.8	15.0	7.2	6.7	0.7	16.6	100%	F	R
SR103	22,171	2,522	59.9	10.9	7.3	6.6	1.4	13.9	100%	A	2028
SR105	8,974	960	58.2	17.6	4.4	2.4	0.4	17.1	100%	A	2032
SR106	61,114	6,192	62.0	13.4	3.4	1.1	0.4	19.8	100%	F	R
SR107	79,652	6,836	69.4	15.7	3.4	1.6	0.2	9.7	100%	D	2027
SR110	47,263	4,282	64.9	14.6	3.1	1.1	0.3	16.0	100%	A	-

SAMARAHAN

SR104	31,429	3,073	61.0	9.5	6.9	2.5	0.7	19.4	100%	F	R
SR108	28,309	2,791	54.9	16.4	3.5	1.6	0.4	23.2	100%	F	R
SR109	2,325	249	54.1	16.4	7.4	1.7	1.8	18.6	100%	A	2033

SRI AMAN

SR201	5,325	462	43.4	24.3	11.8	10.5	1.9	8.1	100%	A	2031
SR202	3,876	392	38.1	24.3	9.9	16.6	2.5	8.6	100%	A	2036
SR203	2,984	341	32.4	29.0	11.4	8.6	0.4	18.2	100%	A	2032

BETONG

SR204	5,153	511	45.8	24.6	9.2	12.0	1.5	6.9	100%	A	2027
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SIBU

SR301	21,725	1,714	33.5	22.7	15.5	10.1	0.2	18.1	100%	A	2020
SR302	5,957	457	34.2	28.6	17.4	13.6	2.3	3.9	100%	A	2027
SR303	6,424	494	33.5	22.9	18.4	16.6	2.6	6.0	100%	A	2025
SR304	29,430	2,411	31.4	22.1	14.1	12.8	1.0	18.7	100%	D	-

BINTULU

SR401	5,685	524	30.3	35.0	7.7	21.6	1.9	3.5	100%	B	-
SR402	8,000	1,035	36.1	41.0	6.3	8.6	1.1	7.0	100%	E	2019
SR405	22,068	2,275	57.5	26.5	6.9	1.8	0.9	6.5	100%	A	2024

MIRI

SR403	9,861	1,068	52.1	23.1	6.4	6.6	1.0	10.8	100%	D	2023
SR404	9,426	1,001	47.2	32.7	6.1	4.1	1.8	8.1	100%	A	2061
SR406	5,126	420	29.0	40.5	6.1	10.2	2.1	12.0	100%	A	2030
SR407	5,583	490	24.9	39.0	8.4	17.3	1.9	8.5	100%	A	-

LIMBANG

Census Station Number	16-Hour Traffic	Peak Hour	Cars & Taxis	Vans & Utilities	Medium Lorries	Heavy Lorries	Buses	Motorcycles	Total	Level of Service (LOS)	Capacity Year
SR502	6,389	595	59.3	14.5	5.2	5.1	0.6	15.2	100%	A	2120
SR503	15,221	2,164	49.0	15.3	2.5	1.5	0.4	31.3	100%	F	R
SR505	2,743	320	33.9	15.6	14.7	7.9	0.7	27.2	100%	A	2038

LAWAS

SR501	4,566	457	45.8	31.2	5.8	2.8	0.1	14.3	100%	A	2056
SR504	9,640	976	45.2	33.2	4.0	1.8	0.0	15.7	100%	A	2024

SARIKEI

SR601	4,388	494	48.5	24.1	3.3	1.8	0.1	22.1	100%	A	2028
SR602	2,877	299	36.8	28.8	10.3	13.4	1.1	9.6	100%	A	2088
SR603	2,626	235	48.3	30.3	5.6	2.8	0.2	12.8	100%	A	2040

KUCHING

Census Station Number	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Normal Growth (%/yr)	R ²
SR101	3,188	3,143	3,091	3,504	5,780	3,512	3,582	4,090	3,429	5,138	3.6	0.26
SR102	14,825	20,595	18,113	21,718	15,568	22,340	19,354	9,461	11,967	12,029	-5.4	0.31
SR103	22,225	24,564	30,616	31,112	32,889	27,987	32,808	34,874	34,950	22,171	1.9	0.10
SR105	5,710	6,496	6,322	6,893	10,032	7,430	7,351	7,621	7,920	8,974	3.8	0.48
SR106	35,994	30,385	40,996	39,562	53,073	68,841	50,640	52,597	58,820	61,114	7.0	0.68
SR107	50,441	37,394	50,352	46,154	42,332	54,475	57,770	60,830	78,422	79,652	6.8	0.70
SR110	44,995	40,554	28,674	34,868	38,175	28,102	31,940	39,016	44,963	47,263	1.3	0.04

SAMARAHAN

SR104	4,187	5,047	5,244	5,608	6,092	11,200	6,440	7,575	9,011	31,429	15.2	0.63
SR108	19,691	26,053	17,594	29,842	21,143	32,729	14,831	24,320	26,543	28,309	2.0	0.06
SR109	1,576	1,618	1,895	1,909	2,043	11,346	2,443	3,104	3,118	2,325	7.9	0.17

SRI AMAN

SR201	3,374	4,157	4,216	4,197	4,658	3,776	5,643	4,852	4,364	5,325	3.5	0.48
SR202	2,587	2,632	2,426	2,950	3,264	3,063	3,867	3,545	3,716	3,876	5.3	0.84
SR203	1,613	1,773	1,716	1,914	2,474	2,495	2,302	2,454	2,492	2,984	6.2	0.85

BETONG

SR204	3,039	2,727	3,747	4,796	6,231	5,992	4,742	4,716	4,148	5,153	5.3	0.36
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SIBU

SR301	1,700	1,353	4,365	4,698	8,827	8,837	14,386	16,523	21,019	21,725	31.6	0.92
SR302	8,072	5,396	3,310	4,471	5,683	7,778	7,280	16,244	5,508	5,957	4.3	0.10
SR303	1,987	2,090	2,726	3,269	4,444	6,557	4,518	5,068	6,674	6,424	14.0	0.85
SR304	34,674	27,969	24,998	23,730	25,254	28,252	28,728	23,860	24,934	29,430	-1.1	0.08

BINTULU

SR401	7,250	9,808	10,957	14,520	4,342	4,476	5,125	5,841	5,563	5,685	-7.5	0.31
SR402	5,924	7,880	8,507	4,178	5,355	9,139	8,677	7,452	7,428	8,000	2.6	0.10
SR405	15,814	21,873	19,003	36,245	28,603	28,131	28,995	28,352	16,967	22,068	1.5	0.03

MIRI

SR403	9,984	11,060	10,506	12,211	11,805	10,865	10,887	12,329	9,092	9,861	-0.7	0.04
SR404	11,992	7,633	9,489	10,228	9,248	10,771	10,981	12,329	9,188	9,426	0.5	0.01
SR406	3,063	4,159	4,030	3,567	3,539	3,586	3,670	6,528	4,650	5,126	4.8	0.43
SR407	8,858	6,698	10,990	4,645	3,926	3,521	4,385	6,175	4,520	5,583	-6.1	0.26

LIMBANG

Census Station Number	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Normal Growth (%/yr)	R ²
SR502	3,957	4,065	4,037	8,335	4,144	4,660	4,638	4,926	5,063	6,389	3.2	0.16
SR503	16,319	14,141	19,032	13,519	11,014	12,742	11,150	12,807	13,245	15,221	-2.1	0.15
SR505	958	888	1,052	1,054	872	1,312	1,301	1,576	1,900	2,743	10.8	0.79

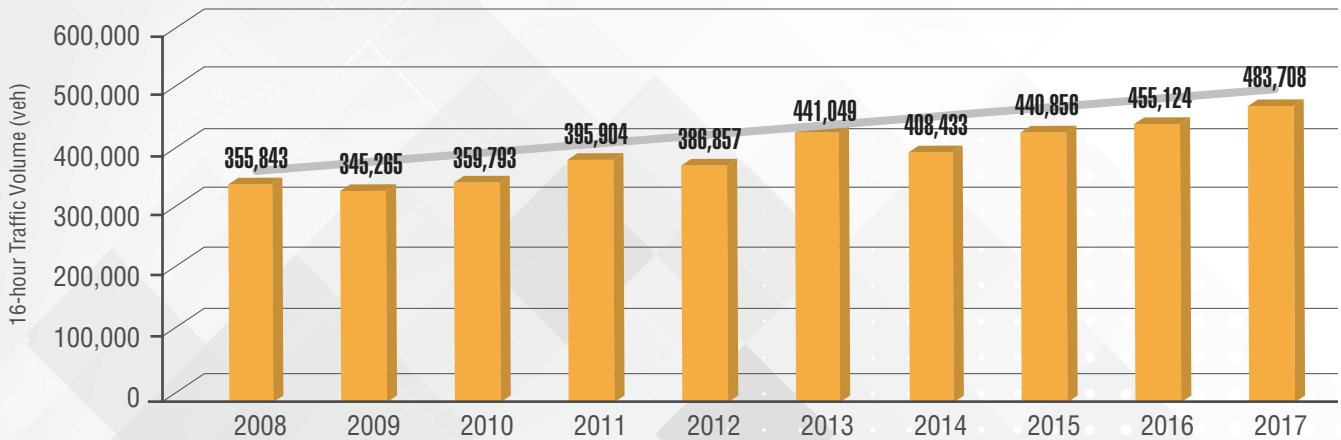
LAWAS

SR501	3,265	3,584	3,217	3,911	3,582	3,512	4,742	4,612	4,383	4,566	4.1	0.70
SR504	4,519	5,139	3,653	6,683	6,448	7,243	7,200	7,912	11,701	9,640	10.2	0.79

SARIKEI

SR601	1,503	1,581	1,665	2,088	2,169	2,321	3,177	3,821	4,600	4,388	13.7	0.96
SR602	1,395	1,536	1,808	1,866	2,033	2,144	2,448	3,300	2,408	2,877	8.2	0.86
SR603	1,164	1,274	1,446	1,659	1,821	1,922	2,440	2,157	2,426	2,626	9.1	0.95

YEARLY 16-HOUR TRAFFIC VOLUME (2008 - 2017)



$y = 1E-26e^{0.036x} \mid R^2 = 0.9013$
NORMAL GROWTH = 3.60%

*Yearly 16-hour Traffic Volume (2008-2017)
 & Normal Traffic Growth with Exponential Trendline for the Year 2017 in Sarawak*

**5.91%
Increase**

There are 33 census stations in Sarawak. The yearly 16-hour traffic volume displays the highest traffic volume in the years 2017 which are 483,708 vehicles. From the figures, there is an escalation of 5.91% of traffic volume for the year 2017 compared to 2016.

For the year 2017, the observed traffic growth rate for the Sarawak is 3.60%. The basis of traffic growth rate record is to be used as a projection indicator of subsequent traffic growth rate for road forethought as well as for the expansion of current and new roads in Sarawak.





TRAFFIC VOLUME SCALE

- ≤ 10,000
- 10,001 - 30,000
- > 30,000

ROAD MILEAGE



TOTAL MALAYSIA ROAD MILEAGE BY YEAR (KM) - 1955 UNTIL 2017

YEAR	FEDERAL ROAD			JALAN NEGERI			TOTAL OF ROAD MILEAGE		
	Paved	Unpaved	Jumlah	Paved	Unpaved	Jumlah	Paved	Unpaved	Jumlah
1955	3,334.34	382.86	3,717.20	4,706.46	1,982.44	6,688.90	8,040.80	2,365.30	10,406.10
1956	3,115.14	385.60	3,500.74	5,067.02	1,879.96	6,946.98	8,182.16	2,265.56	10,447.72
1957	3,379.82	218.35	3,598.17	5,044.76	1,917.59	6,962.35	8,424.58	2,135.94	10,560.52
1958	3,783.11	249.20	4,032.31	4,787.82	1,903.63	6,691.45	8,570.93	2,152.83	10,723.76
1959	3,820.42	180.82	4,001.24	4,980.15	1,945.30	6,925.45	8,800.57	2,126.12	10,926.69
1960	3,879.58	163.99	4,043.57	5,183.62	1,930.68	7,114.30	9,063.20	2,094.67	11,157.87
1961	3,844.02	192.73	4,036.75	5,324.59	1,928.30	7,252.89	9,168.61	2,121.03	11,289.64
1962	3,897.50	203.86	4,101.36	5,873.57	2,375.97	8,249.54	9,771.07	2,579.83	12,350.90
1963	3,967.75	148.93	4,116.68	6,283.31	2,468.40	8,751.71	10,251.06	2,617.33	12,868.39
1964	4,005.63	232.95	4,238.58	6,899.82	2,590.23	9,490.05	10,905.45	2,823.18	13,728.63
1965	4,262.67	325.74	4,588.41	7,391.01	2,569.04	9,960.05	11,653.68	2,894.78	14,548.46
1966	4,335.36	354.02	4,689.38	7,750.56	2,535.23	10,285.79	12,085.92	2,889.25	14,975.17
1967	4,417.52	438.69	4,856.21	8,182.25	2,400.65	10,582.90	12,599.77	2,839.34	15,439.11
1968	4,522.49	413.27	4,935.76	8,599.01	2,417.16	11,016.17	13,121.50	2,830.43	15,951.93
1969	4,559.12	393.29	4,952.41	8,900.10	2,371.76	11,271.86	13,459.22	2,765.05	16,224.27
1970	4,612.22	384.56	4,996.78	9,161.37	2,264.67	11,426.04	13,773.59	2,649.23	16,422.82
1971	4,689.19	356.33	5,045.52	9,438.03	2,068.93	11,506.96	14,127.22	2,425.26	16,552.48
1972	4,714.11	439.59	5,153.70	9,794.34	2,083.42	11,877.76	14,508.45	2,523.01	17,031.46
1973	4,717.90	424.85	5,142.75	10,102.72	2,007.99	12,110.71	14,820.62	2,432.84	17,253.46
1974	4,706.81	447.66	5,154.47	10,351.43	2,130.75	12,482.18	15,058.24	2,578.41	17,636.65
1975	4,716.82	535.41	5,252.23	10,576.38	2,133.75	12,710.13	15,293.20	2,669.16	17,962.36
1976	4,797.60	751.74	5,549.34	10,906.13	2,508.06	13,414.19	15,703.73	3,259.80	18,963.53
1977	4,845.47	810.88	5,656.35	11,332.67	2,671.10	14,003.77	16,178.14	3,481.98	19,660.12
1978	4,921.10	1,005.37	5,926.47	11,455.15	2,788.49	14,243.64	16,376.25	3,793.86	20,170.11
1979	4,939.23	1,087.57	6,026.80	12,036.23	2,624.90	14,661.13	16,975.46	3,712.47	20,687.93
1980	5,268.67	1,107.90	6,376.57	12,586.87	2,950.95	15,537.82	17,855.54	4,058.85	21,914.39
1981	5,386.14	1,264.22	6,650.36	12,816.61	3,318.93	16,135.54	18,202.75	4,583.15	22,785.90
1982	6,484.45	1,621.50	8,105.95	13,634.77	3,800.96	17,435.73	20,119.22	5,422.46	25,541.68
1983	6,505.53	1,894.76	8,400.29	13,928.52	4,225.13	18,153.65	20,434.05	6,119.89	26,553.94
1984	7,060.03	2,117.33	9,177.36	14,059.36	3,996.90	18,056.26	21,119.39	6,114.23	27,233.62
1985	7,231.30	2,299.45	9,530.75	17,867.06	11,472.10	29,339.16	25,098.36	13,771.55	38,869.91
1986	8,531.85	3,632.26	12,164.11	22,763.82	4,141.55	26,905.37	31,295.67	7,773.81	39,069.48
1987	9,994.03	2,331.08	12,325.11	22,972.72	4,034.59	27,007.31	32,966.75	6,365.67	39,332.42
1988	9,436.96	3,729.04	13,166.00	25,624.24	13,799.07	39,423.31	35,061.20	17,528.11	52,589.31
1989	10,310.21	2,749.96	13,060.17	24,293.96	13,761.15	38,055.11	34,604.17	16,511.11	51,115.28
1990	10,330.40	2,730.50	13,060.90	27,448.30	13,475.20	40,923.50	37,778.70	16,205.70	53,984.40
1991	12,623.10	1,639.70	14,262.80	27,448.20	14,026.60	41,474.80	40,071.30	15,666.30	55,737.60
1992	12,972.40	1,368.90	14,341.30	29,162.67	13,987.69	43,150.36	42,135.07	15,356.59	57,491.66
1993	13,589.95	960.19	14,550.14	30,710.20	14,497.26	45,207.46	44,300.15	15,457.45	59,757.60
1994	13,759.77	990.50	14,750.27	31,743.31	14,713.71	46,457.02	45,503.08	15,704.21	61,207.29
1995	13,846.57	990.50	14,837.07	31,743.31	14,713.71	46,457.02	45,589.88	15,704.21	61,294.09
1996	14,423.75	961.42	15,385.17	32,731.64	15,266.32	47,997.96	47,155.39	16,227.74	63,383.13
1997	14,749.16	961.42	15,710.58	33,920.85	15,349.20	49,270.05	48,670.01	16,310.62	64,980.63
1998	15,141.98	938.91	16,080.89	34,187.41	15,283.33	49,470.74	49,329.39	16,222.24	65,551.63
1999	15,350.50	855.42	16,205.92	34,561.22	15,110.21	49,671.43	49,911.72	15,965.63	65,877.35
2000	15,920.50	855.42	16,775.92	35,845.39	14,969.15	50,814.54	51,765.89	15,824.57	67,590.46
2001	16,001.08	855.42	16,856.50	41,135.32	15,025.76	56,161.08	57,136.40	15,881.18	73,017.58
2002	16,128.53	855.42	16,983.95	41,457.35	14,961.68	56,419.03	57,585.88	15,817.10	73,402.98
2003	16,461.09	908.18	17,369.27	44,285.08	16,778.99	61,064.07	60,746.17	17,687.17	78,433.34
2004	17,737.86	356.99	18,094.85	43,337.47	18,082.85	61,420.32	61,075.32	18,439.84	79,515.16
2005	17,451.75	313.18	17,764.93	51,888.69	18,860.87	70,749.56	69,340.44	19,174.05	88,514.49
2006	17,508.80	256.18	17,764.98	55,272.55	18,582.07	73,854.62	72,781.35	18,838.25	91,619.60
2007	17,758.99	256.18	18,015.17	55,272.55	18,582.07	73,854.62	73,031.54	18,838.25	91,869.79
2008	18,146.37	10.40	18,156.77	55,272.58	18,582.12	73,854.70	73,418.95	18,592.52	92,011.47
2009	18,570.33	10.40	18,580.73	81,432.12	24,642.99	106,075.12	100,002.45	24,653.39	124,655.85
2010	18,920.07	0.00	18,920.07	92,457.46	25,841.96	118,299.42	111,377.53	25,841.96	137,219.49
2011	19,216.24	0.00	19,216.24	108,300.72	29,650.26	137,950.98	127,516.96	29,650.26	157,167.22
2012	19,427.51	0.00	19,427.51	123,584.82	39,686.97	163,271.79	143,012.33	39,686.97	182,699.30
2013	19,461.79	0.00	19,461.79	138,543.39	46,164.95	184,708.34	158,005.18	46,164.95	204,170.13
2014	19,714.22	0.00	19,714.22	134,979.44	49,094.36	184,073.80	154,693.66	49,094.36	203,788.02
2015	19,819.31	0.00	19,819.31	144,213.60	52,801.45	197,015.05	164,032.91	52,801.45	216,834.36
2016	19,802.16	0.00	19,802.16	160,391.79	58,595.99	218,987.78	180,193.95	58,595.99	238,823.14
2017	19,950.61	0.00	19,950.61	160,391.79	57,504.76	217,896.55	180,342.40	57,504.76	237,847.16

Source : Road Facilities Maintenance Division, JKR Malaysia

ROAD MILEAGE IN MALAYSIA BY YEAR (1955-2017)

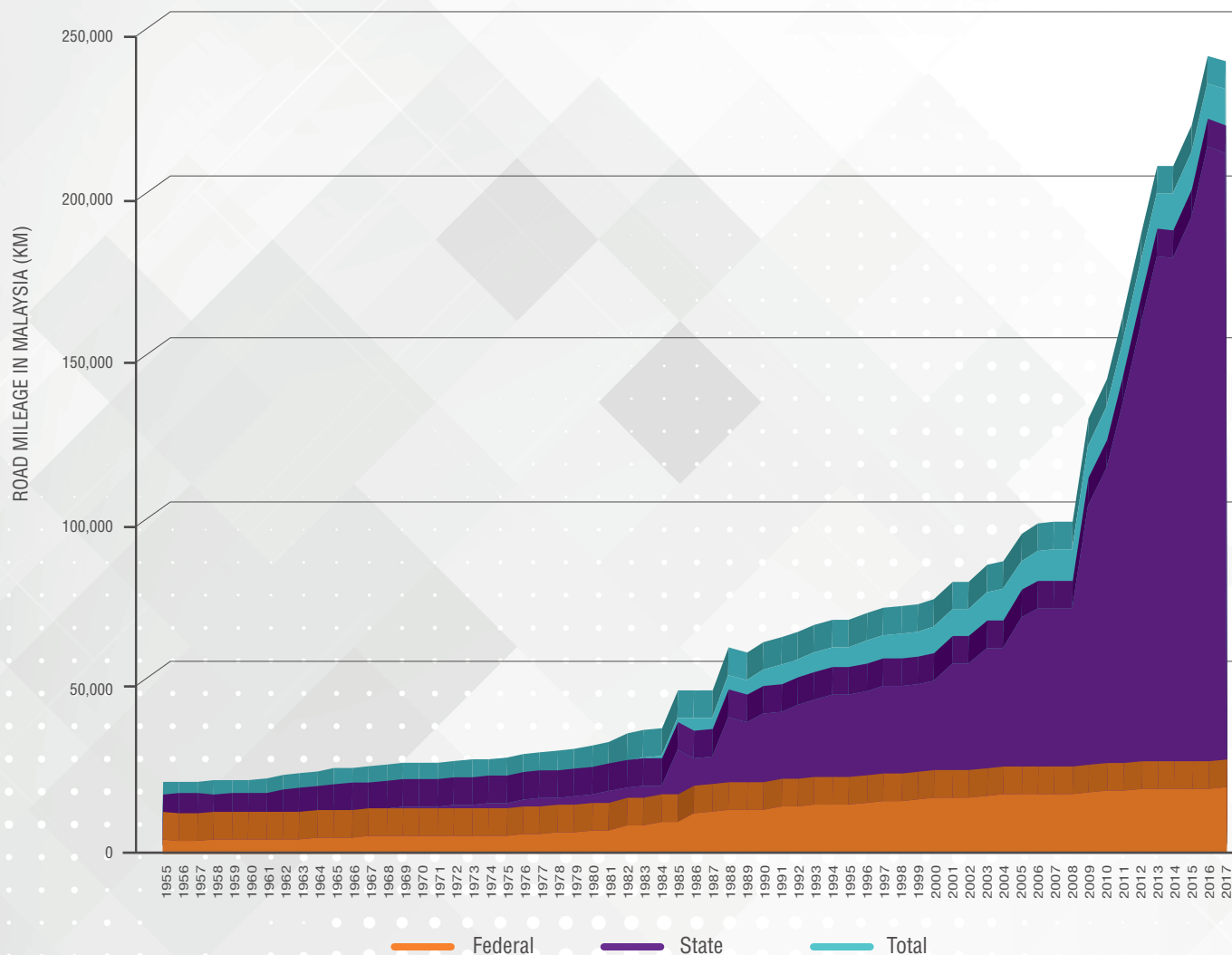


Figure 6 : Road Mileage in Malaysia by Year (1955-2017)

Figure 6 shows the summary of road mileage for both State and Federal Roads, from year 1955 to 2017. For both State and Federal Roads, road mileage recorded a slow growth from the year 1956 to 1984. However, rapid growth started to show the year after, with 84% increase between year 1986 to 2017. Meanwhile, road mileage for federal roads maintained below 20,000 km until 2017

TOTAL ROAD MILEAGE BY STATE (KM)

STATE	FEDERAL ROAD				STATE ROAD				TOTAL			GRAND TOTAL
	Paved (Berturap)	Gravel (Kelikir)	Earth (Tanah)	Total	Paved (Berturap)	Gravel (Kelikir)	Earth (Tanah)	Total	Paved (Berturap)	Gravel (Kelikir)	Earth (Tanah)	
Johor	2,414.60	0	0	2,414.60	19,852.20	1,923.55	392.984	22,168.73	22,266.80	1,923.55	392.984	24,583.33
Melaka	312.77	0	0	312.77	4,255.63	277.675	90.351	4,623.66	4,568.40	277.675	90.351	4,936.43
N. Sembilan	1,398.94	0	0	1,398.94	14,307.57	236.398	63.098	14,607.07	15,706.51	236.398	63.098	16,006.00
Selangor	988.126	0	0	988.126	17,681.57	1,120.98	542.812	19,345.36	18,669.70	1,120.98	542.812	20,333.48
Perak	1,514.06	0	0	1,514.06	17,519.33	11,593.19	2,244.40	31,356.92	19,033.39	11,593.19	2,244.40	32,870.98
P. Pinang	190.575	0	0	190.575	3,628.65	1,056.23	47.254	4,732.14	3,819.23	1,056.23	47.254	4,922.71
Kedah	1,105.55	0	0	1,105.55	12,337.69	1,364.67	187.367	13,889.73	13,443.24	1,364.67	187.367	14,995.28
Perlis	247.195	0	0	247.195	1,489.21	524.42	185.7	2,199.33	1,736.41	524.42	185.7	2,446.53
Pahang	3,874.40	0	0	3,874.40	13,511.36	2,969.18	414.96	16,895.50	17,385.76	2,969.18	414.96	20,769.90
Terengganu	1,281.78	0	0	1,281.78	10,112.98	3,169.67	1,648.50	14,931.15	11,394.76	3,169.67	1,648.50	16,212.93
Kelantan	1,380.53	0	0	1,380.53	15,684.39	3,059.10	1,254.31	19,997.79	17,064.92	3,059.10	1,254.31	21,378.32
K. Lumpur	22.453	0	0	22.453	564.38	14.888	0	579.268	586.833	14.888	0	601.721
Putrajaya	155.864	0	0	155.864	0	0	0	0	155.864	0	0	155.864
Subtotal	14,886.84	0	0	14,886.84	130,944.95	27,309.95	7,071.74	165,326.63	145,831.79	27,309.95	7,071.74	180,213.48
Sabah	1,501.84	0	0	1,501.84	10,260.67	10,297.16	1,488.44	22,046.27	11,762.51	10,297.16	1,488.44	23,548.11
Sarawak	1,423.79	0	0	1,423.79	18,288.55	5,078.18	6,259.29	29,626.02	19,712.34	5,078.18	6,259.29	31,049.81
W.P. Labuan	137.26	0	0	137.26	72.816	0	0	72.816	210.076	0	0	210.076
Subtotal	3,062.89	0	0	3,062.89	28,622.03	15,375.34	7,747.73	51,745.11	31,684.92	15,375.34	7,747.73	54,808.00
Lebuhraya Bertol	2,000.88	0	0	2,000.88	0	0	0	0	2,000.88	0	0	2,000.88
TOTAL	19,950.61	0	0	19,950.61	160,391.79	42,685.29	14,819.47	217,071.74	179,517.59	42,685.29	14,819.47	237,847.16

Note : 1. Perangkaan Jalan Persekutuan mengikut Warta Jalan Persekutuan sehingga 31.12.2017

DISTRIBUTION OF FEDERAL & STATE ROAD IN MALAYSIA

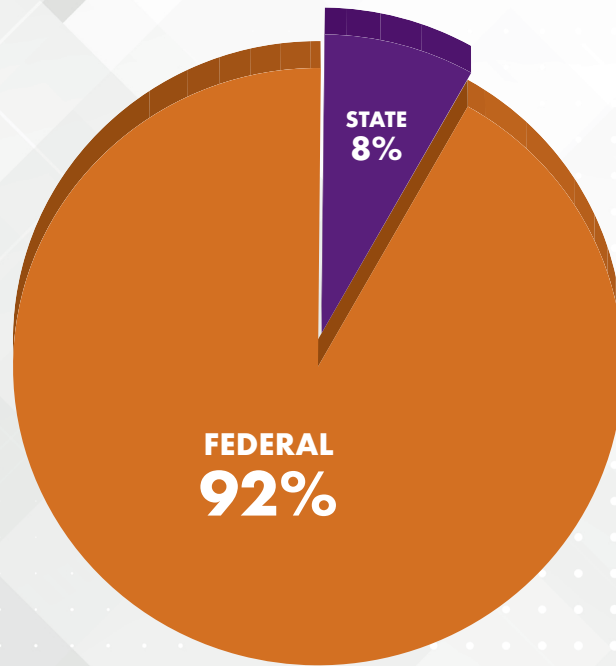


Table 7 : Distribution of Federal & State Road in Malaysia

DISTRIBUTION OF PAVEMENT TYPES IN FEDERAL & STATE ROAD IN MALAYSIA

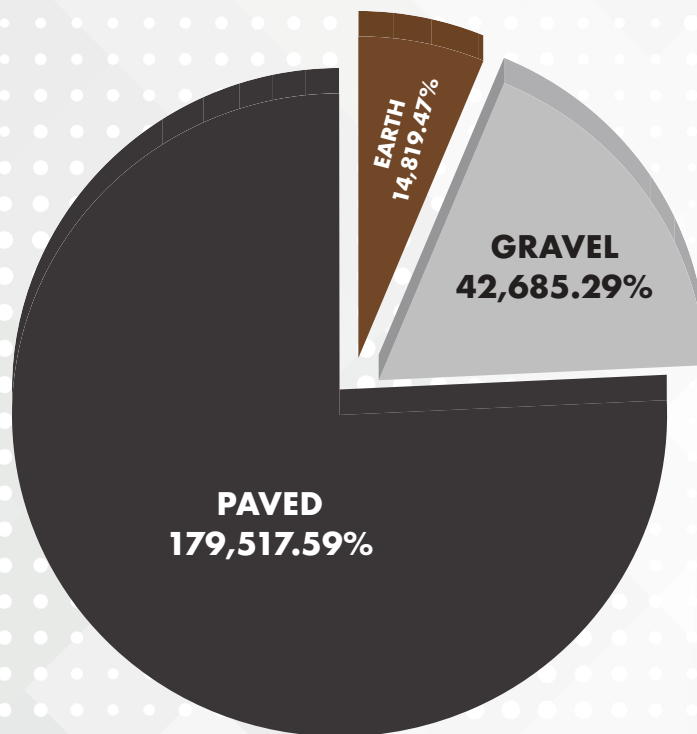


Table 8 : Distribution of Pavement Types in Fedral & State Road in Malaysia

DISTRIBUTION OF FEDERAL & STATE ROAD NETWORK BASED ON ROAD LENGTH BY STATES IN MALAYSIA

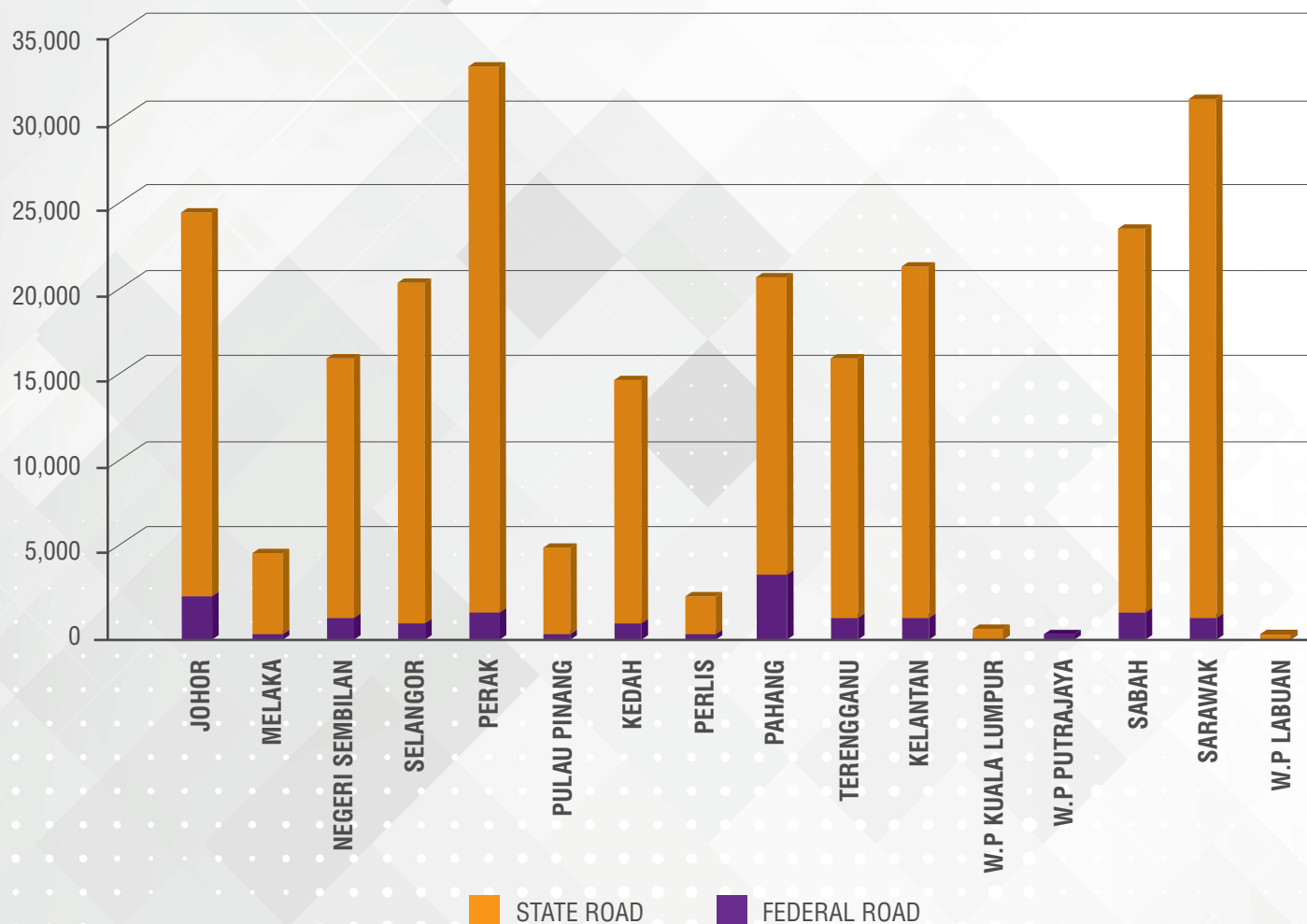


Figure 7 : Distribution of Federal & State Road in Malaysia

Federal Road can be categorized as Main Federal Roads, FELDA/FELCRA Federal Roads, Road to Main Federal Institutions, Road to Industrial Area, Road to the Regional Development, Main Federal Roads in Sabah, Sarawak & W.P Labuan and Toll Expressways & Toll Highways.

State Road can be categorized as Main State Road, Municipal Roads, Low-Cost Housing Area Roads, Back Alley, Agricultural Road, Rural Roads and Tourist Island Roads.

The total mileage ratio of the Federal Road to the State Road is 1:2.

As shown in Figure 7, Perak have the highest total road mileage in Malaysia which include 1,514.06km of Federal Road and 31,356.919km of State Road which is also the highest of State Road mileage. Meanwhile, Sarawak is the second highest total road mileage in Malaysia which include 1,423.79km of Federal Road and 29,626.024km of State Road. The highest of Federal Road mileage is in Pahang which is 3,874.4km. Most of the road is asphalt and concrete pavement (76%), follows by gravel (18%) and earth (6%)

VEHICLE REGISTRATION



TOTAL CUMULATIVE OF NEW REGISTRATION OF MOTOR VEHICLES

By Type of Vehicle

Year	Motorcycle	Car	Taxi	Bus	Goods Vehicle	Hire Car	Trailer	Other	Total
1986	2,522,173	1,419,542	23,973	21,222	306,980	3,947	26,467	115,645	4,439,949
1987	2,611,396	1,479,871	24,628	21,901	319,114	3,810	26,625	113,039	4,600,384
1988	2,702,932	1,549,600	25,132	23,346	328,594	4,154	26,503	122,655	4,782,916
1989	2,848,717	1,658,567	26,078	24,828	349,737	4,725	26,807	132,327	5,071,786
1990	3,035,930	1,811,160	28,811	26,803	380,330	5,666	27,348	146,730	5,462,778
1991	3,251,289	1,970,934	31,842	28,229	411,149	6,181	27,998	159,554	5,887,176
1992	3,473,643	2,107,005	34,178	30,013	442,401	6,791	28,744	172,733	6,295,508
1993	3,703,838	2,255,420	36,458	33,358	466,871	7,586	29,077	179,871	6,712,479
1994	3,977,047	2,426,546	40,088	34,771	495,736	10,279	28,788	196,834	7,210,089
1995	3,564,756	2,532,396	27,276	35,224	430,716	28,969	-	183,038	6,802,375
1996	3,951,931	2,886,536	49,485	38,965	512,165	9,971	-	237,631	7,686,684
1997	4,328,997	3,271,304	51,293	43,444	574,622	10,826	-	269,983	8,550,469
1998	4,692,183	3,452,852	45,643	54,590	599,149	10,142	-	269,983	9,124,542
1999	5,082,473	3,787,047	55,626	47,674	642,976	10,020	-	304,135	9,929,951
2000	5,356,604	4,145,982	56,152	48,662	665,284	10,433	-	315,687	10,598,804
2001	5,592,150	4,528,490	56,464	49,669	688,367	10,053	-	327,369	11,252,562
2002	5,825,960	4,974,850	57,920	51,008	711,738	10,107	-	344,058	11,975,641
2003	6,164,958	5,428,774	60,723	52,846	740,482	10,210	-	361,275	12,819,268
2004	6,572,366	5,911,752	65,008	54,997	772,218	10,661	-	377,835	13,764,837
2005	7,021,117	6,370,046	69,645	57,036	807,895	13,075	-	397,536	14,736,350
2006	7,458,128	6,941,996	70,409	59,991	836,579	11,638	-	411,991	15,790,732
2007	7,943,364	7,419,643	72,374	62,308	871,234	12,368	-	432,652	16,813,943
2008	8,486,486	7,956,735	76,307	63,645	914,967	16,811	-	455,595	17,970,546
2009	8,929,386	8,470,689	80,417	65,609	949,698	18,946	-	474,517	18,989,262
2010	9,427,427	9,055,993	85,443	67,676	990,585	22,223	-	497,987	20,147,334
2011	9,969,735	9,650,603	90,390	70,081	1,030,303	25,791	-	522,430	21,359,333
2012	9,969,735	9,650,603	90,390	70,081	1,030,303	25,791	-	522,430	21,359,333
2013	11,087,878	10,534,575	99,921	62,784	1,116,167	53,954	-	863,516	23,818,795
2014	11,629,265	11,199,910	105,689	65,044	1,159,872	58,945	-	882,467	25,101,192
2015	12,094,790	11,871,696	108,149	66,999	1,197,987	63,885	-	898,446	26,301,952
2016	12,677,041	12,977,839	99,705	59,977	1,191,310	26,094	-	1,191,310	27,163,120
2017	13,173,069	13,582,636	96,584	61,059	1,223,396	25,588	-	575,844	28,738,176

Source : Road Transport Department of Malaysia

TOTAL CUMULATIVE OF NEW REGISTRATION OF MOTOR VEHICLES FOR MOTORCYCLE, CAR, TAXI, BUS, GOODS VEHICLE, HIRE CAR AND OTHER VEHICLE IN MALAYSIA UNTIL 2017

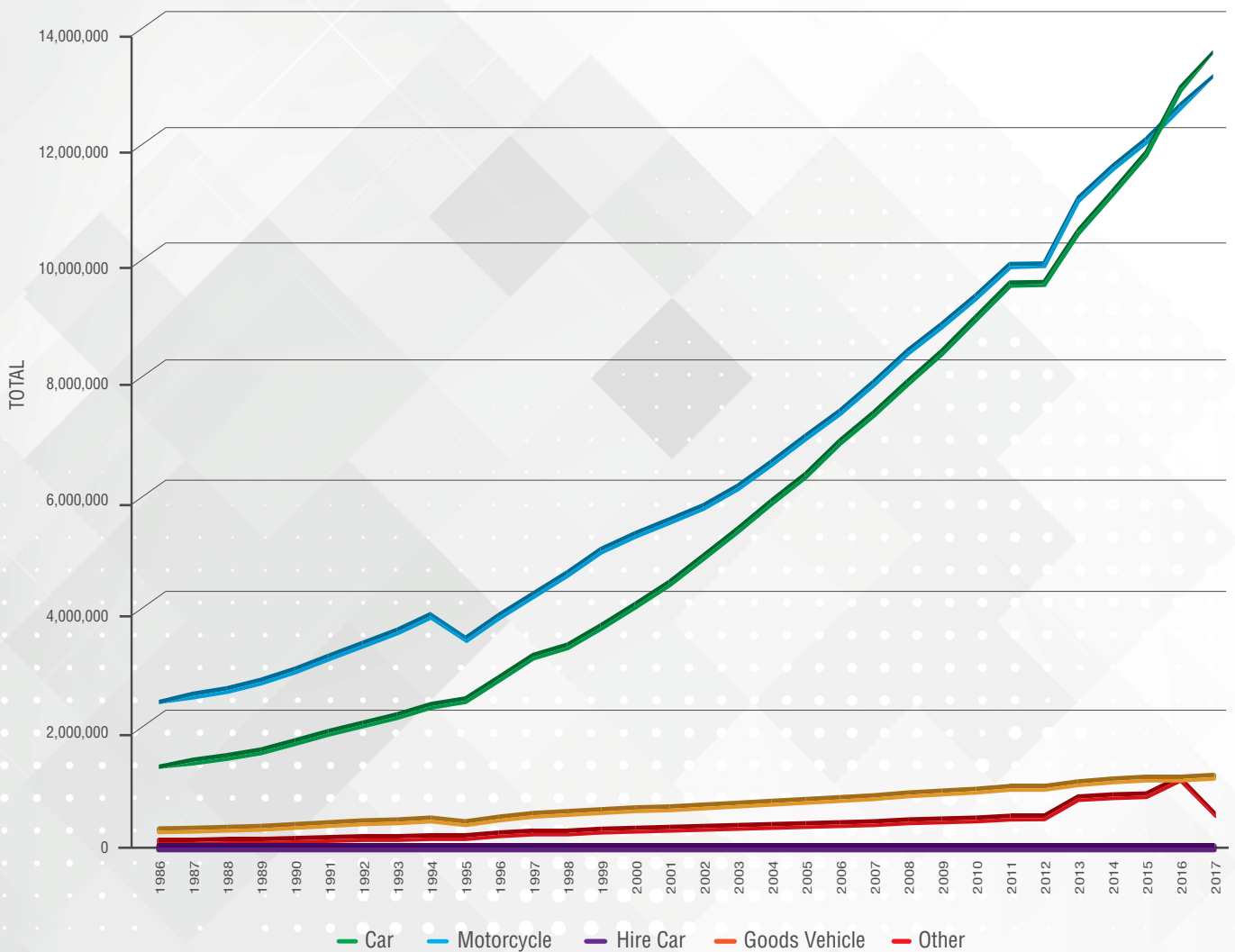


Figure 8 : Total Cumulative Of New Registration Of Motor Vehicles For Motorcycle, Car, Taxi, Bus, Goods Vehicle, Hire Car And Other Vehicle In Malaysia Until 2017

Figure 8 shows the total cumulative of new registration of motor vehicles for cars, taxis, buses, goods vehicles, hire cars, and others for the years between 1986 to 2017. The highest increase are cars, whereas the lowest are hire cars. Three types of vehicles which are motorcycle, bus and goods vehicle continued to increase but did not exceed 200,000 units from the year 1986 until year 2017.

TOTAL CUMULATIVE OF MOTOR VEHICLES

By State & Type of Vehicle 2017

Type Of Vehicle State	Private Vehicle		Public Vehicle			Lorry & Van	Other	Total
	Motocycle	Car	Bus	Taxi	Hire Car			
Perlis	85750	26702	186	192	1	2008	1392	116,231
Kedah	969227	343241	2882	3766	570	41098	20165	1,380,949
Pulau Pinang	1421810	1134077	4734	4305	509	81436	27035	2,673,906
Perak	1371358	774447	4820	4648	72	76391	42989	2,274,725
Selangor	1438858	1162316	7533	15647	1011	198578	107239	2,931,182
W.P Putrajaya	92713	56485	347	607	3	4339	2313	156,807
W.P Kuala Lumpur	1793555	3955176	18456	37647	20058	267897	121025	6,213,814
Negeri Sembilan	562634	343888	2417	2206	24	51366	7835	970,370
Melaka	477469	345641	1490	1905	58	28677	8954	864,194
Johor	1892124	1504077	7708	12220	227	155857	66651	3,638,864
Pahang	607702	393571	1836	2434	9	46108	14802	1,066,462
Terengganu	399768	211608	1018	1111	20	22214	5997	641,736
Kelantan	553313	310721	1913	1964	23	29841	7249	905,024
Sabah	394495	653932	2863	5132	1023	115358	65735	1,238,538
Sarawak	809235	819370	2770	2233	608	96796	73234	1,804,246
W.P Labuan	17754	50464	86	154	67	1576	631	70,732
Portal Rakan Niaga	285304	1496920	0	413	1305	3856	2598	1,790,396
TOTAL	13,173,069	13,582,636	61,059	96,584	25,588	1,223,396	575,844	28,738,176

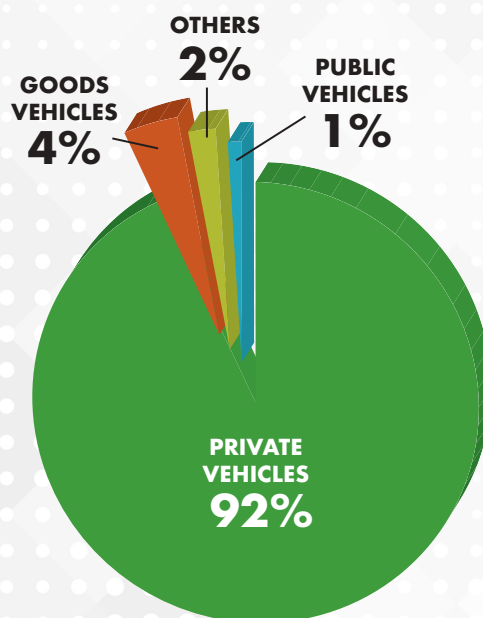


Figure 9 : By State and Type of Vehicle 2017

As recorded until 31 December 2017, the total accumulated motor vehicles in Malaysia are 28,738,176 vehicles. The total accumulated motor vehicles increased 5.5% in the year 2017. The motor vehicles can be categorized as Private Vehicle, Public Vehicle, Goods Vehicles and Others. The composition of the 2017 accumulated motor vehicles are Private Vehicle 93%, Public Vehicle 1%, Goods Vehicle 4% and Others 2%. The Private Vehicle includes 13,173,069 motorcycles and 13,582,636 cars. While the Public Vehicle includes 61,059 busses, 96,584 taxis and 25,588 hire cars.

NEW REGISTRATION OF MOTOR VEHICLES

By State & Type of Vehicle 2017

Type Of Vehicle State	Private Vehicle		Public Vehicle			Lorry & Van	Other	Total
	Motocycle	Car	Bus	Taxi	Hire Car			
Perlis	2591	429	0	0	0	15	55	3,090
Kedah	31090	3725	2	10	21	728	299	35,875
Pulau Pinang	29109	7250	30	29	61	2526	577	39,582
Perak	24453	3782	54	9	3	1684	647	30,632
Selangor	36353	9277	605	151	243	7666	5430	59,725
W.P Putrajaya	298	65	0	0	0	4	0	367
W.P Kuala Lumpur	44954	42275	334	161	2661	7811	1855	100,051
Negeri Sembilan	11416	1787	9	4	4	2111	178	15,509
Melaka	10568	2523	2	3	16	467	308	13,887
Johor	41395	10578	80	204	25	4818	1882	58,982
Pahang	15545	2707	2	1	0	895	376	19,526
Terengganu	14023	927	5	1	0	131	48	15,135
Kelantan	8087	2176	8	1	0	415	77	10,764
Sabah	19491	10556	12	15	128	1720	1193	33,115
Sarawak	22446	10798	24	8	60	3046	2689	39,071
W.P Labuan	1071	1291	1	0	3	13	4	2,383
Portal Rakan Niaga	182720	462927	0	58	486	1266	749	648,206
TOTAL	495,610	573,073	1,168	655	3,711	35,316	16,367	1,125,900

NEW REGISTRATION OF MOTOR VEHICLES BY STATE

Total New Registration of Motor Vehicles In Malaysia By State For The Year 2017

NEGERI	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Perlis	3,655	3,811	4,109	4,205	5,602	4,566	5,434	4,202	5,475	3,627	6,266	5,709	3,936	3,090
Kedah	41,308	45,479	45,312	45,265	53,638	48,211	55,835	62,929	66,138	60,915	55,969	50,130	40,283	35,875
Pulau Pinang	98,281	100,824	101,515	101,949	109,033	92,320	111,882	106,514	113,340	92,863	91,505	56,515	47,108	39,582
Perak	72,212	75,923	74,959	80,369	88,783	78,040	84,199	87,577	94,952	82,438	71,812	47,496	41,292	30,632
Selangor	98,912	103,718	96,165	101,439	109,890	87,465	105,787	101,439	103,681	101,757	118,698	99,777	76,231	59,725
Wilayah Persekutuan	238,302	268,398	248,158	258,205	293,064	272,373	306,513	328,578	359,239	356,897	293,622	168,453	115,409	
W.p. Putrajaya														367
W.p. Kuala Lumpur														100,051
Negeri Sembilan	33,690	35,728	35,046	34,309	36,384	30,931	34,168	33,736	35,446	30,384	31,260	26,543	19,472	15,509
Terengganu	31,101	34,108	31,434	33,591	36,609	30,919	33,692	33,530	36,354	29,761	30,267	23,598	17,803	13,887
Johor	129,079	139,529	132,133	141,679	156,013	130,485	145,040	155,611	172,608	161,963	143,029	93,235	75,888	58,982
Pahang	36,130	39,805	37,766	41,869	52,410	41,543	44,646	48,464	50,180	44,904	37,411	29,373	23,971	19,526
Terengganu	19,967	21,644	23,527	26,354	32,797	30,170	33,086	32,165	35,663	30,252	25,272	17,836	15,566	15,135
Kelantan	26,439	29,248	33,374	38,414	45,840	40,732	45,686	44,591	51,189	41,951	40,436	27,880	17,461	10,764
Sabah	37,085	46,691	44,593	49,737	61,338	58,834	69,301	79,229	85,049	74,124	73,355	49,605	37,096	33,115
Sarawak	66,202	75,202	63,422	65,826	75,202	70,772	82,803	93,434	102,435	90,838	91,028	63,162	41,750	39,071
W.p. Labuan														2,383
Portal Rakan Niaga	0	0	0	0	0	0	0	0	0	0	172,006	441,448	528,769	648,206
TOTAL	932,363	1,020,108	971,513	1,023,211	1,156,603	1,017,361	1,158,072	1,211,999	1,311,749	1,202,674	1,281,936	1,200,760	1,102,035	1,125,900

NEW REGISTRATION OF MOTOR VEHICLES IN MALAYSIA BY STATE

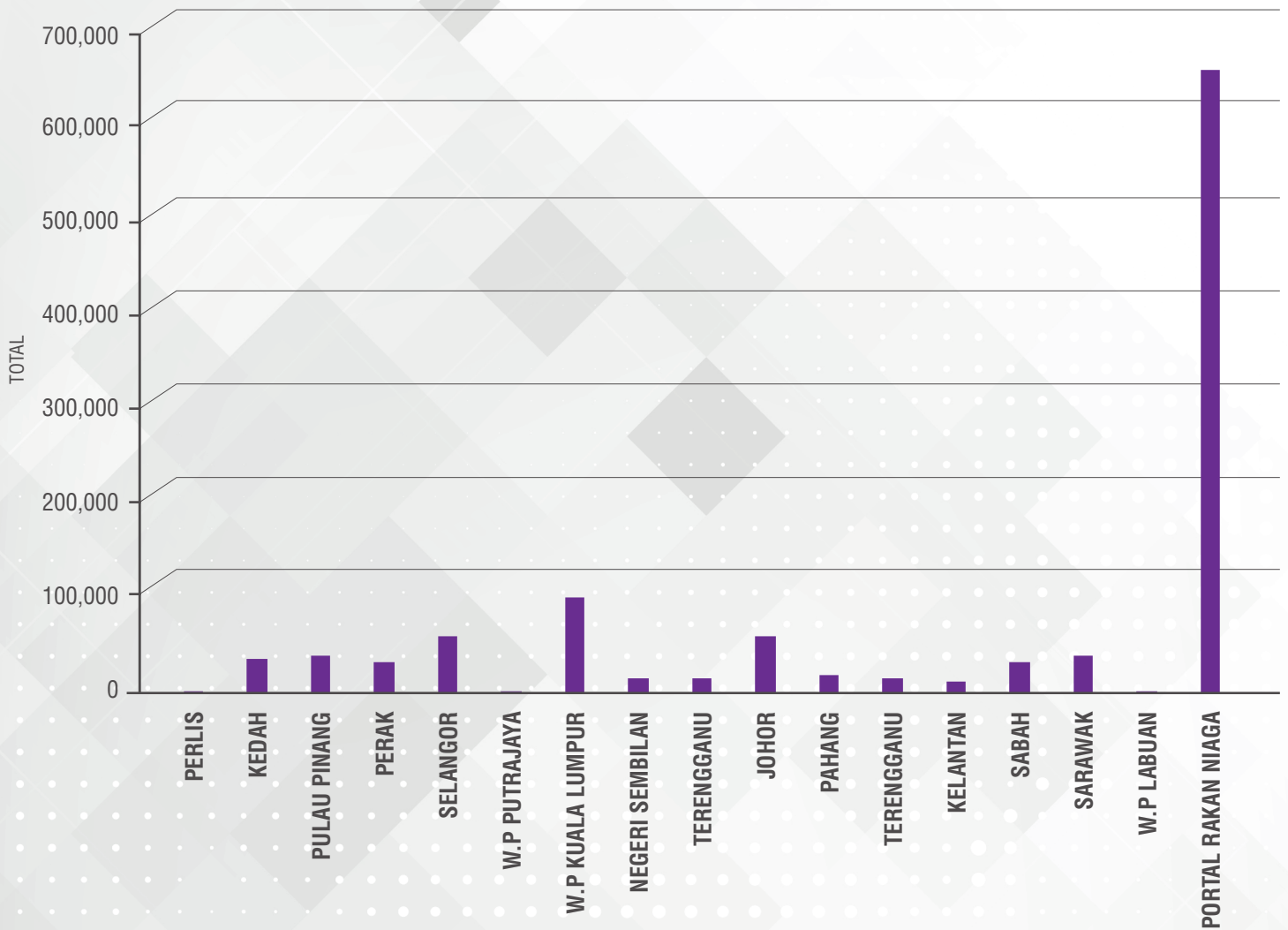


Figure 10 : New Registration of Motor Vehicles In Malaysia By State

As shown in Figure 10, 648,206 of the new motor vehicles in 2017 were registered in Portal Rakan Niaga. Portal Rakan Niaga allows vehicle registration management via online transaction since year 2014. Based on highest number of registration via Portal Rakan Niaga, it indicates that people prefer to switch to the online transaction to manage their vehicle registration. This might be one of the reasons most of the states decreased of their motor vehicles new registration except Wilayah Persekutuan Kuala Lumpur with 100,051 number of new vehicle registration.

