

**JABATAN KEJURUTERAAN
MAJLIS BANDARAYA SEBERANG PERAI**

SYARAT PENGEMUKAAN LAPORAN TIA

JENIS-JENIS PEMBANGUNAN YANG DISYARATKAN MENGEMUKAKAN LAPORAN KAJIAN KESAN LALULINTAS (TIA)

Laporan kajian kesan lalulintas (TIA) perlu dikemukakan dan mendapat kelulusan sebelum pengemukaan permohonan Pelan Kebenaran Merancang (PKM).

A. Jenis-jenis pembangunan tersebut adalah seperti berikut :-

Bil	Jenis pembangunan	Trigger Levels
1.	Pembangunan rumah kediaman	200 unit dan ke atas
2.	a) Institutional b) Educational c) Community Facilities and recreation d) Commercial e) Industrial f) Terminals (rujuk Malaysian Trip Generation Manual)	45,000 kaki persegi (keluasan lantai) dan ke atas
3.	Lain-lain pembangunan	Tertakluk kepada keperluan MBSP/JKR Pulau Pinang berhak mensyaratkan pengemukaan TIA bagi mana-mana pembangunan baru yang tidak terdapat di dalam kategori di atas atau lain-lain seperti yang dinyatakan di dalam <i>Guidelines for Traffic Impact Assessment</i> .

B. Bersama-sama ini disertakan sesalinan *Guidelines for Traffic Impact Assessment*, item 9.2 *Criteria and Trigger Levels No. 3 and 4* berserta *Malaysian Trip Generation (land use)* untuk rujukan.

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9. WHEN IS TIA REQUIRED?

9.1 General

It is necessary to know when a traffic impact assessment is required. This is because not all developments will cause significant impact on their surroundings, especially those in the rural areas. Generally, the criteria for warranting a TIA are as follows:

- When a development generates a specified number of peak hour trips;
- When a development generates a specified number of daily trips;
- When a development contains a specified number of dwelling units or specified built-up floor area;
- When a development occurs in a sensitive area; or
- When the Appropriate Authority considers it necessary under unusual situation.

9.2 Criteria and Trigger Levels

The criteria and their corresponding trigger levels for warranting a TIA shall be:

No.	Criteria	Trigger Levels
1.	Peak Hour Trip Generation (Commuter peak)	150 added vehicles per hour (2-Way)
2.	Off-Peak Hour Trip Generation (Generator peak occurs at the off-peak period)	200 added vehicles per hour (2-Way)
3.	Size of residential development	200 dwelling units
4.	Size of Commercial development	45,000 sq.ft. (gross floor area)

Note: Trip Generation Rates shall be based on the Malaysian Trip Generation Manual published by the Highway Planning Unit of the Ministry of Works, Malaysia.

All the four (4) criteria must be tested, and if **any one** of the criteria for the proposed development reaches the prescribed trigger level, then a TIA study is required. However, in specific cases where the Approving Authority deems necessary, TIA may be imposed even if the trigger level has not been reached.

**LAND USE CATEGORIES AND CODES
TRIP GENERATION MANUAL**

MAJOR GROUP	MINOR GROUP	UNIT GROUP	DESCRIPTION OF LAND USE
01	01 01		<u>RESIDENTIAL</u>
			HOUSING
		01 01 01	Terrace/Link
		01 01 02	Town House
		01 01 03	Semi-Detached
		01 01 04	Detached
		01 01 05	Flat
		01 01 06	Apartment
		01 01 07	Condominium
		01 01 20	Low Cost Housing
		01 01 25	Site and Service (resettlement)
		01 01 30	Workers' Hostel
		01 01 40	Retirement Village
		01 01 50	Institutional Quarters
02			<u>INSTITUTIONAL</u>
	02 01		GOVERNMENT/STATUTORY ORGANIZATION OFFICES
		02 01 01	Government Office Complex
	02 02		COURTS
		02 02 01	Syariah Court
		02 02 02	Magistrate Court
		02 02 03	Session Court
		02 02 04	High Court
		02 02 05	Court Complexes
	02 03		MEDICAL SERVICES
		02 03 01	General/Referral Hospital
		02 03 02	Specialist Hospital
		02 03 03	Nucleus Hospital
		02 03 04	District Hospital
		02 03 05	Polyclinic
		02 03 06	Government Health Centre
		02 03 10	Private Hospital
		02 03 11	Nursing Home
		02 03 12	Clinic
	02 04		MILITARY BASES
		02 04 01	Army Base
		02 04 02	Air Force Base
		02 04 03	Naval Base
	02 05		EMERGENCY SERVICES
		02 05 01	Police Station
		02 05 02	Police Field Force
		02 05 03	Fire Station
	02 06		RESEARCH INSTITUTION
		02 06 01	Research Centre
		02 06 02	Training Centre
	02 07		PUBLIC AND SOCIAL SERVICE
		02 07 01	Public Library
		02 07 02	Welfare Homes
		02 07 03	Old Folks' Home

MAJOR GROUP	MINOR GROUP	UNIT GROUP	DESCRIPTION OF LAND USE	
02	02 08	02 08 00	PRISON AND DETENTION CENTRES	
		02 09	UTILITIES	
	02 09 01		Telecommunication	
	02 09 02		Power Supply	
	02 09 03		Gas Distribution Centre	
02 09 04	Environmental Services			
03	03 01	03 01 01 03 01 02 03 01 10 03 01 20 03 01 30	<u>RELIGIOUS</u>	
			PLACES OF WORSHIP	
			Mosque	
			Surau/Madrasah	
			Church	
			Temple (Buddhist,Taoist,Hindu,Sikh) Other Religious Centre	
04	04 01	04 01 01 04 01 02 04 01 03 04 01 04 04 01 05	<u>EDUCATIONAL</u>	
			TERTIARY EDUCATION	
			University/College	
			Private University/College	
			Polytechnic	
	Training Institute			
	Teachers' College			
	04 02	04 02 01 04 02 02 04 02 03 04 02 04 04 02 05 04 02 06	SECONDARY/PRIMARY	
			Primary School	
			Secondary School	
			Kindergarten	
			Private -- Primary and Secondary with Boarding	
Private -- Primary and Secondary without Boarding				
Private -- Combined Kindergarten, Primary and Secondary (without Boarding)				
05	05 01 05 02	05 01 00	<u>BURIAL</u>	
		05 02 00	CEMETERY/MEMORIAL PARK CREMATORIUM	
	06	06 01	06 01 01 06 01 02 06 01 03 06 01 04 06 01 05 06 01 06	<u>COMMUNITY FACILITIES AND RECREATION</u>
				OPEN SPACE/PARKS
National/State Parks				
Public Parks				
Botanical Parks				
Open Space				
Children's Playground				
Recreational Forest				
06 02		06 02 00	PUBLIC BEACH	
			SPORT FACILITIES	
06 03		06 03 01 06 03 03 06 03 04 06 03 05 06 03 06 06 03 07 06 03 10 06 03 20	Sport Complex	
			Clubs	
			Tennis Centre	
			Squash Centre	
			Badminton Halls	
	Public Swimming Pool			
	Golf Course			
	Stadium			

MAJOR GROUP	MINOR GROUP	UNIT GROUP	DESCRIPTION OF LAND USE	
06	06 03	06 03 30	SPORT FACILITIES Polo Ground	
		06 03 40	Horse Race Track	
		06 03 41	Race Track	
	06 04	06 04 01	CULTURAL CENTRE Open Air Theatre	
		06 04 02	Cultural Centre	
	06 05	06 05 01	THEME PARK Amusement Park	
		06 05 02	Zoo	
		06 05 03	Aquarium	
		06 05 04	Bird Park	
		06 05 05	Science Park	
	06 06	06 06 01	COMMUNITY FACILITIES Day-care Centre/Nursery	
		06 06 02	Community Hall	
	07	07 01	07 01 01	COMMERCIAL OFFICE COMPLEX General Office
			07 01 02	Finance & Banking
			07 01 03	Business & Professional Services
			07 01 04	Share Broker/Security Services
07 01 05			Services/Insurances	
07 02		07 02 01	SHOPHOUSE BUILDINGS Shop House	
		07 02 02	Shop Office	
07 03		07 03 01	RETAIL PREMISES Shopping Complex	
		07 03 10	Supermarket	
		07 03 11	Emporium	
		07 03 20	Discount Store/Hyper Market	
		07 03 30	Convenience Store	
07 04		07 04 01	HOTEL General Hotel	
		07 04 10	Beach Resort Hotel	
		07 04 11	Hill Resort Hotel	
		07 04 20	Condo/Apartment Hotel	
07 05		07 05 01	RESTAURANT General Restaurant	
		07 05 10	Fast Food Restaurant	
		07 05 11	Drive-In Restaurant	
		07 05 20	Coffee Shop	
		07 05 30	Pubs	
		07 06	07 06 01	COMMERCIAL ENTERTAINMENT Discotheque
07 06 02			Karaoke Lounge	
07 06 10			Cinema	
07 06 11			Cineplex	
07 06 20			Video Arcade	
07 06 30			Snooker Parlor	
07 07	07 07 01		PETROL STATION Petrol Service Station	
	07 07 02	Petrol Station with Convenience store		

MAJOR GROUP	MINOR GROUP	UNIT GROUP	DESCRIPTION OF LAND USE
07	07 08	07 08 01	MARKET Wholesale Market
		07 08 02	Wet Market
	07 09	07 09 01	URBAN INFORMAL SECTOR Hawker Centre
		07 09 02	Night Market
		07 09 03	Day Market
08	08 01	08 01 01	<u>INDUSTRIAL</u> LIGHT INDUSTRIAL Light Industrial Area
		08 01 02	Detached Factory
		08 01 03	Terrace Factory
		08 01 04	Semi-Detached Factory
		08 01 05	Flatted Factory
	08 02	08 02 01	SMALL & MEDIUM INDUSTRIAL Small and Medium Industrial Area
		08 02 02	Detached Factory
		08 02 03	Terrace Factory
		08 02 04	Semi-Detached Factory
		08 02 05	Flatted Factory
	08 03	08 03 01	HEAVY INDUSTRIAL Heavy Industrial Area
		08 03 02	Detached Factory
	08 04	08 04 00	HIGH-TECH
	08 05	08 05 00	SERVICE WORKSHOP
	08 06	08 06 00	FREE TRADE ZONE
08 10	08 10 01	WAREHOUSING General Warehousing	
	08 10 02	Bonded Warehousing	
09	09 01	09 01 01	<u>AGRICULTURE/FORESTRY/FISHERY</u> AGRICULTURE Plant Nursery
		09 01 02	Horticulture Centre
		09 01 03	General Agriculture
		09 01 04	Research Institute
	09 02	09 02 01	FORESTRY Forestry Research Institute
	09 03	09 03 01	FISHERIES Fisheries Research Institute
10	10 01	10 01 01	<u>TERMINALS</u> WATER TERMINALS Waterport/Marine Terminal (Port)
		10 01 02	Marina
		10 01 03	Jetty
		10 01 04	Ferry Terminal
	10 02	10 02 00	INLAND PORT

MAJOR GROUP	MINOR GROUP	UNIT GROUP	DESCRIPTION OF LAND USE
10	10 03	10 03 01	AIR TERMINAL International/Regional Airport
		10 03 02	Domestic Airport
		10 03 03	Air Landing Strips
		10 03 04	City Air Terminal
	10 04	10 04 01	ROAD TERMINAL Truck Terminal
		10 04 02	Taxi/Bus Terminal
		10 04 03	Bus Depot
		10 04 04	Trishaw Terminal
	10 05	10 05 01	RAIL TERMINAL Railway Station/Passenger Terminal
		10 05 02	Urban Mass Rapid Transit Terminal
		10 05 03	Integrated Rail and Rapid Transit Station
	10 06	10 06 01	OFF-STREET CAR PARK Park & Ride Station
		10 06 02	Multi-storey Car Park
		10 06 03	Open Car Park