



HIGHWAYS &  
TRANSPORTATION

# CAPABILITY STATEMENT

**G&P Highways & Transportation Sdn Bhd**

(863912-D)

WISMA G&P

39-5, JALAN 3/146, Bandar Tasik Selatan, 57000 Kuala Lumpur



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# Corporate Philosophy

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- **VISION**

To obtain the Hallmark for Quality Services, Technical Excellence, Reliability and Safety.

- **OBJECTIVES**

To provide Innovative & Economical Designs and to ensure Safety & Ease of Construction.

- **VALUES**

We value our staff for their Creativity & Commitment to Quality.

We instill Teamwork in our staff to ensure the Best Solution for our Clients.

We uphold Integrity in all our dealings with our Clients and Colleagues.



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## The Company

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**G&P HIGHWAYS & TRANSPORTATION SDN BHD**, a specialist company of the **G&P Professional Group**, is an engineering consultant company providing services encompassing the discipline of engineering specializing in transport planning, traffic studies and urban traffic management, engineering design of highways and interchanges, bridges and railways works.

**G&P HIGHWAYS & TRANSPORTATION SDN BHD** has among its staff and associates diverse engineering specialists capable of undertaking the respective projects tailored to meet the clients' requirements. Projects undertaken include major urban transport planning and studies, traffic impact assessment, junction studies, detailed engineering design of highways and railway works.

**G&P HIGHWAYS & TRANSPORTATION SDN BHD** strives for an efficient operation of modern consulting practice which adopts many new knowledge management techniques and operational tools, including the utilization of computer aided system, computer simulation and modeling which supports the most sophisticated transport planning and engineering analysis, design and draughting software available today. Integration of our knowledge and expertise together with computer aided design and draughting facilities are extensively utilized to optimize our design.



HIGHWAYS &  
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# Professional Services

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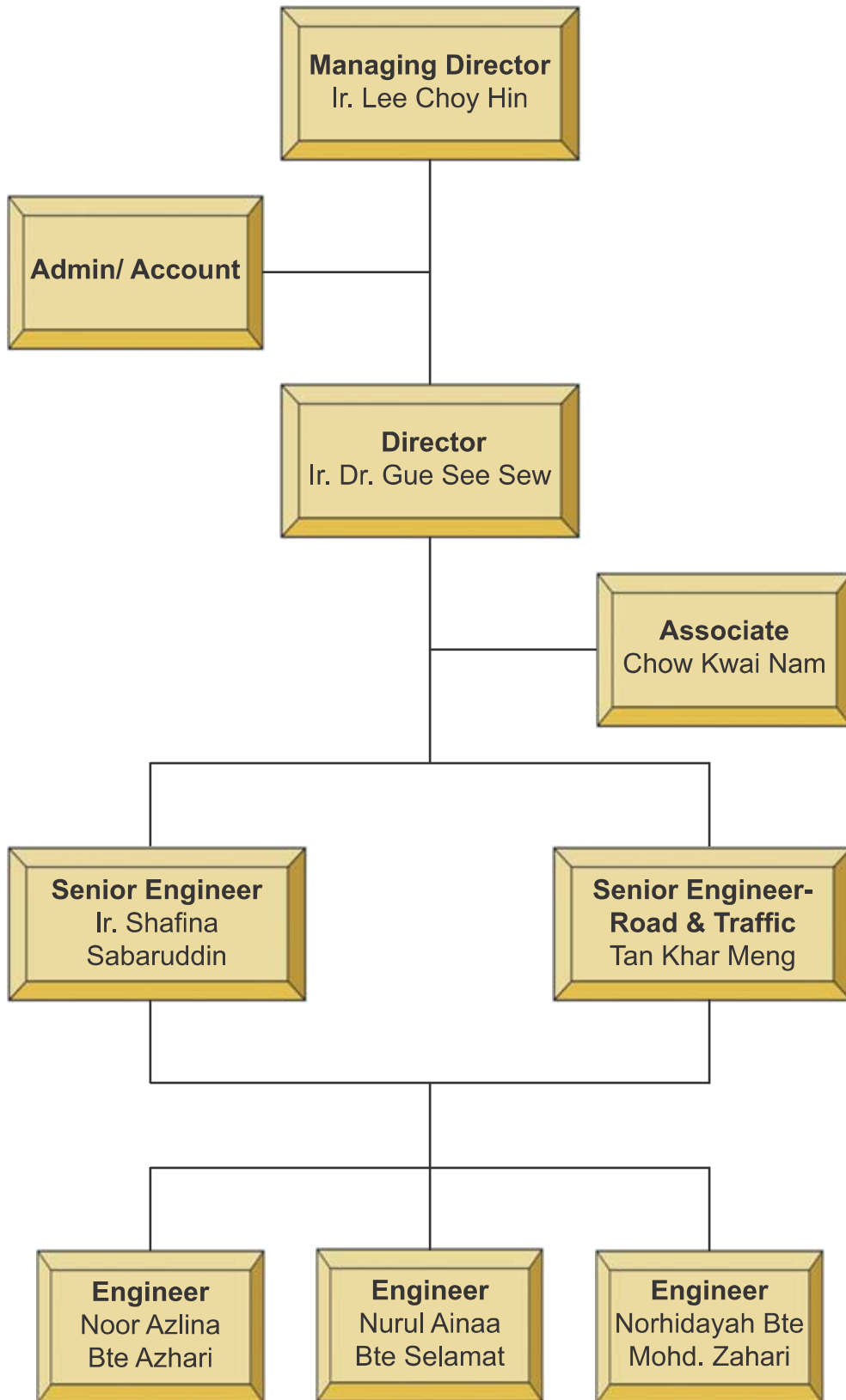
## **G&P HIGHWAYS & TRANSPORTATION SDN BHD**

provides a wide range of engineering consultancy service in the fields of transport planning, engineering design of highways and roads; and rail works.

These involve:

- Highway, railway engineering
- Transportation
  - Transport and traffic studies
  - Urban traffic management
  - Traffic impact assessment

# Organisation Chart



## **Selected Projects & Clients Done By The Principals**

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### **Highway, Railway Engineering and Transportation (Design & Implementation)**



#### **New Link to Westport Container Terminal**

**Client : Wijaya Baru Sdn Bhd**

Design of the 700m long bridge foundations with ground treatment of the approach embankments linking existing road to Westport Container Terminal 4 (CT4).

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#### **Indah Point Interchange at Pulau Indah, Selangor, Malaysia.**

**Client : Wijaya Baru Sdn Bhd**

Design of the 1700m long bridge with ground treatment for approach embankments to the two ramps at Indah Point.

## **Selected Projects & Clients Done By The Principals**

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### **Highway, Railway Engineering and Transportation (Design & Implementation)**



**Design and Construction of Jelutong Expressway, Penang, Malaysia.**

**Client : IJM Corporation Bhd / JKR Penang**

Engineering Design, Construction and Completion of the Jelutong Expressway including interchanges and bridges implemented under privatization concept.



**Design and Construction of Interchange Access to Water Front City, Penang, Malaysia.**

**Client : IJM Corporation Bhd / JKR Penang**

Engineering Design, Construction and Completion of Interchanges and Upgrading Works for Waterfront City (e-Gate) developed by IJM Corporation Bhd.

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## **Selected Projects & Clients Done By The Principals**

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### **Highway, Railway Engineering and Transportation (Design & Implementation)**



**Vehicular and Pedestrian Bridges at Malacca River, Melaka, Malaysia**

**Client : Kejuruteraan Asas Jaya Sdn. Bhd. / Majlis Bandaraya Melaka Bersejarah**

Engineering Design of three Vehicular and two Pedestrian Bridges in Melaka town.



**Approach Embankment to Bridge across PLUS Expressway at Bernam Jaya**

**Client : Syarikat Muhibbah Perniagaan & Pembinaan Sdn Bhd.**

Design of alternative foundation system for the bridge approach embankment. The alternative foundation system proposed is pile embankment with variable pile length (transition piles) together with temporary surcharge. This alternative system prevents differential settlement between the bridge and approach embankment which is a common problem on bridge approaches.

# Selected Projects & Clients Done By The Principals

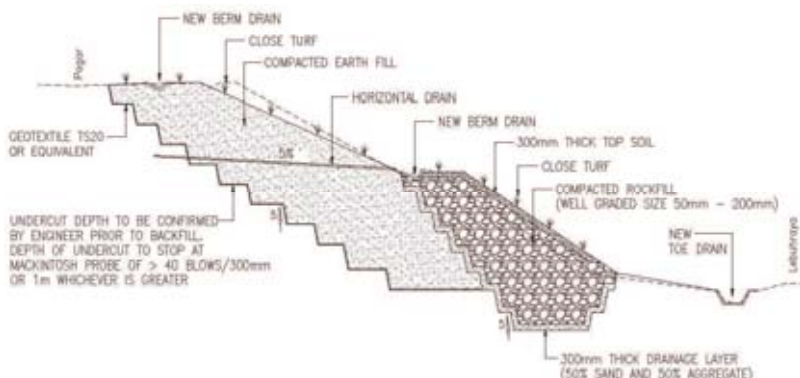
## Highway, Railway Engineering and Transportation (Design & Implementation)



**Slope Rehabilitation Works at KM 32.6 SB Linkedua Expressway near Senai, Johor**

**Client : Linkedua Expressway Bhd**

Design of the rehabilitation measures to remedy the 2-berm slope with improvement of the surface and sub-surface drainage system.

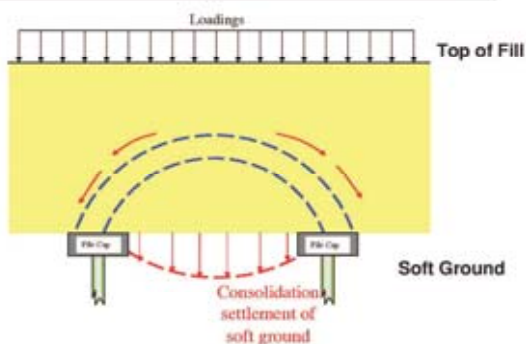


**Softground Improvement Works at KM 64BB, Section N2, North-South Expressway near Pendang, Kedah**

**Client : PLUS Expressway Bhd**

Design of remedial measures to alleviate uneven surface settlement and depressions on road embankments supported by piles with isolated pile caps. A very cost effective and a short construction duration method on remedial work was successfully innovated to solve the problem.

**Mechanism of Soil Arching - "Mushroom" Effects**



## **Selected Projects & Clients Done By The Principals**

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### **Highway, Railway Engineering and Transportation (Design & Implementation)**



**Bandar Botanic Development, Klang.**

**Client : Harum Intisari Sdn Bhd**

Design of ground treatment and foundation system for bridges and all roads within the development ensuring long term performance of these infrastructures and to provide comfortable driving experience of all users.



**Bandar Botanic Development, Klang.**

**Client : Harum Intisari Sdn Bhd**

Design of ground treatment and foundation system for bridges and roads within the development over soft compressible Marine Clay.

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## Selected Projects & Clients Done By The Principals

### Highway, Railway Engineering and Transportation (Design & Implementation)



#### INVESTIGATION & REMEDIAL DESIGN OF NSE CENTRAL LINK & KLIA EXPRESSWAY KM 21.5 TO KM 22.1

**Client : Pengurusan Lebuhraya Berhad**

Investigation into the serviceability problem encountered at the affected stretch.

The works involved planning of subsurface investigation and instrumentation works to determine the causes of the serviceability problem and propose appropriate long-term remedial measures.



#### DESIGN AND CONSTRUCTION OF THE CENTRAL WORKSHOP MAINTENANCE RAILWAY DEVELOPMENT AT BATU GAJAH, PERAK

**Client : Kinta Samudra Sdn Bhd**

Design and construction of the central workshop over ex-mining land.

The design and construction component involved piling works for the building structures, ground treatment using vertical drain and vibro-compaction for railway embankment and pond reclamation works.



## Selected Projects & Clients Done By The Principals

### Highway, Railway Engineering and Transportation (Design & Implementation)



**Remedial Work Design of Sg. Pasai Bridge, Sibuloh, Sarawak.**

**Client : Tradewinds Plantation Services S/B**

Design of a tilted abutment and approach embankment for 70m long, three span bridge across Sg. Pasai.



**Geotechnical works (foundation and ground treatment) for Kuala Lumpur □ Putrajaya Dedicated Highway.**

**Client : Leighton Contractors (M) Sdn Bhd (Motibina Sdn Bhd)**

Review on the geotechnical works which inclusive of based pile, caisson pile and ground treatment of the 26km Kuala Lumpur □ Putrajaya Dedicated Highway.



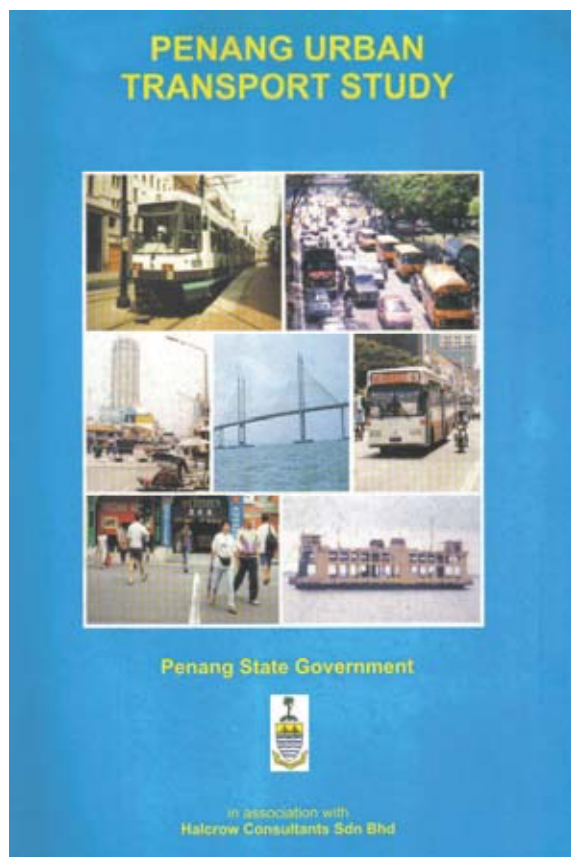
**Kajang Traffic Dispersal Ring Road (Section 3C) - SILK**

**Client : Sunway Construction Sdn Bhd**

Ground treatment design (piled embankment, stone column, surcharge, etc) of the 3.5km Kajang Dispersal Ring Road at Section 3B and 3C.

## Selected Projects & Clients Done By The Principals

### Highway, Railway Engineering and Transportation (Studies)



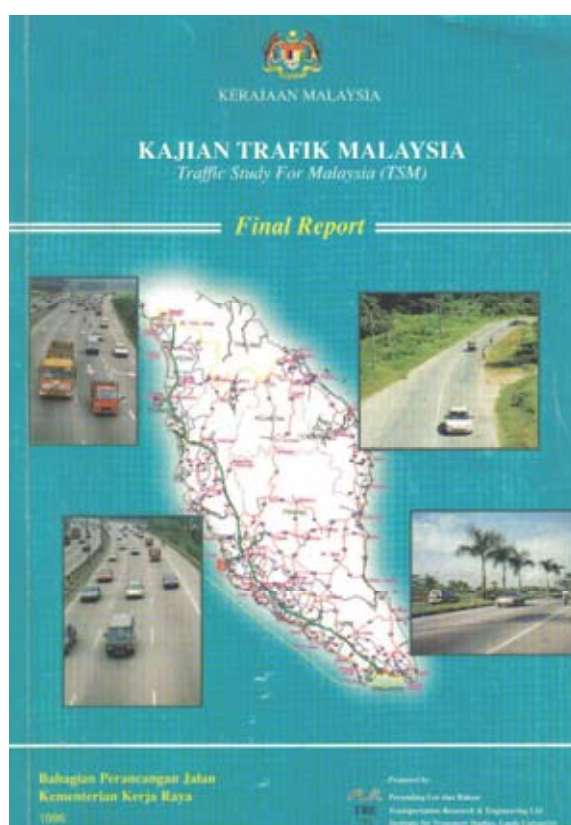
#### Penang Urban Transport Study

**Client : Penang State Government, Malaysia.**

The scope of the Study involves Problem Identification, Data Collection and Analysis, Transport Modelling, Proposed Solutions and Recommendations.

The Study includes the evaluation of alternatives for the location of Penang Second Bridge, the option recommended was selected by the Government for implementation.

The Study was done in association with Halcrow Consultants Sdn. Bhd.



#### Traffic Study for Malaysia

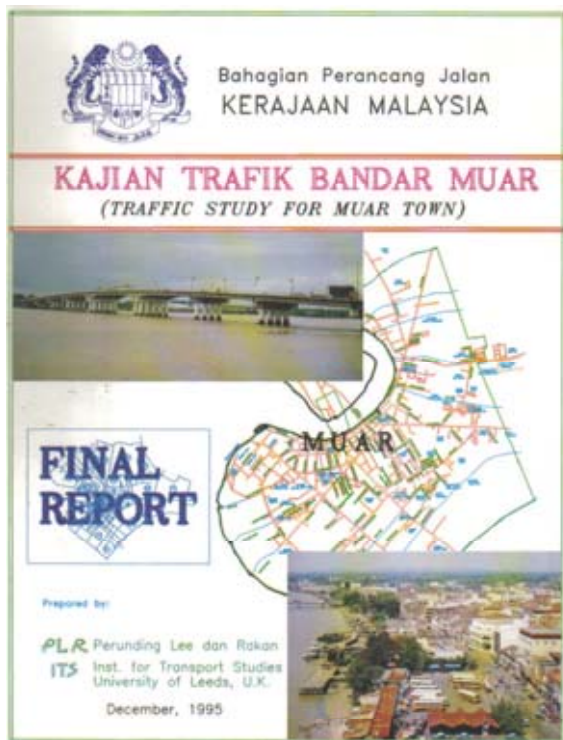
**Client : Highway Planning Unit; Ministry of Works, Malaysia.**

This is an empirical study carried out to obtain *passenger car equivalence (pce)* and *peak hour factor (phf)* for rural conditions. The Study duration was 18 months involving analysis using Computer Simulation and Compilation of Findings for the data collected on main trunk roads throughout West Malaysia.

The Study was done in association with Transport Research and Engineering Ltd (TRE) and Institute for Transport Studies (ITS) University of Leeds, UK.

## Selected Projects & Clients Done By The Principals

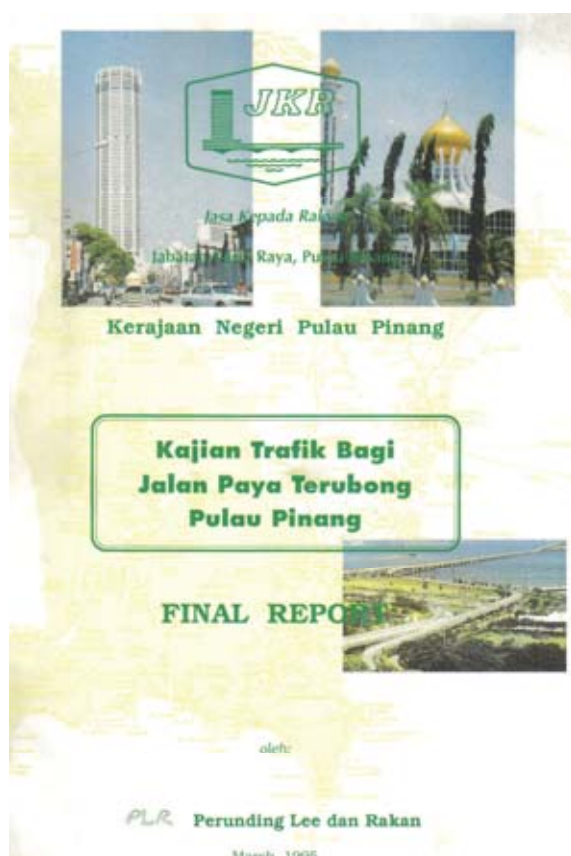
### Highway, Railway Engineering and Transportation (Studies)



#### Traffic Study For Bandar Muar, Malaysia.

**Client : Highway Planning Unit; Ministry of Works, Malaysia.**

The objective of the Study is to identify problems and issues and to recommend counter-measures to mitigate or resolve urban congestion in Bandar Muar. The scope includes Evaluation of Alternatives and submission of Proposals to alleviate urban traffic congestion.



#### Traffic Study and Preliminary Design of Jalan Paya Terubong, Penang, Malaysia.

**Client : Jabatan Kerja Raya Pulau Pinang, Malaysia.**

The Study was carried out to assess the capacity requirement of Jalan Paya Terubong to effectively serve the development corridor in central region of Penang Island.

The scope includes preliminary design for the upgrading of road and junctions of Jalan Paya Terubong based on the Study carried out.

## Selected Projects & Clients Done By The Principals

### Highway, Railway Engineering and Transportation (Studies)



**Capacity Study for Lane Extension of Penang Bridge, Penang, Malaysia.**

**Client : Intria Bhd (UEM Group)**

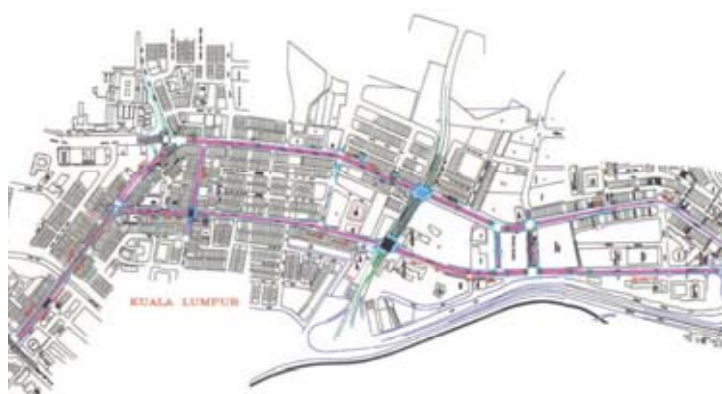
The Penang Bridge Concession Company, Intria Bhd under the UEM Group intended to extend the existing Penang Bridge due to congestion problem. Traffic Study was done to evaluate the proposed bridge extension.



**Penang LRT Studies**

**Client : Penang Government (Privatization Proposal)**

The Study was done in association with Bombardier Transportation and SNC-Lavalin of Canada as a privatization proposal to the Penang Government. The light rail transit (LRT) studies focused on Demand Forecasting, Route Selection and choice of Rolling Stocks covering Penang Island and Mainland Urban Centres.



**Proposed Bus Priority Scheme for Kuala Lumpur**

**Client : Dewan Bandaraya (City Hall) Kuala Lumpur**

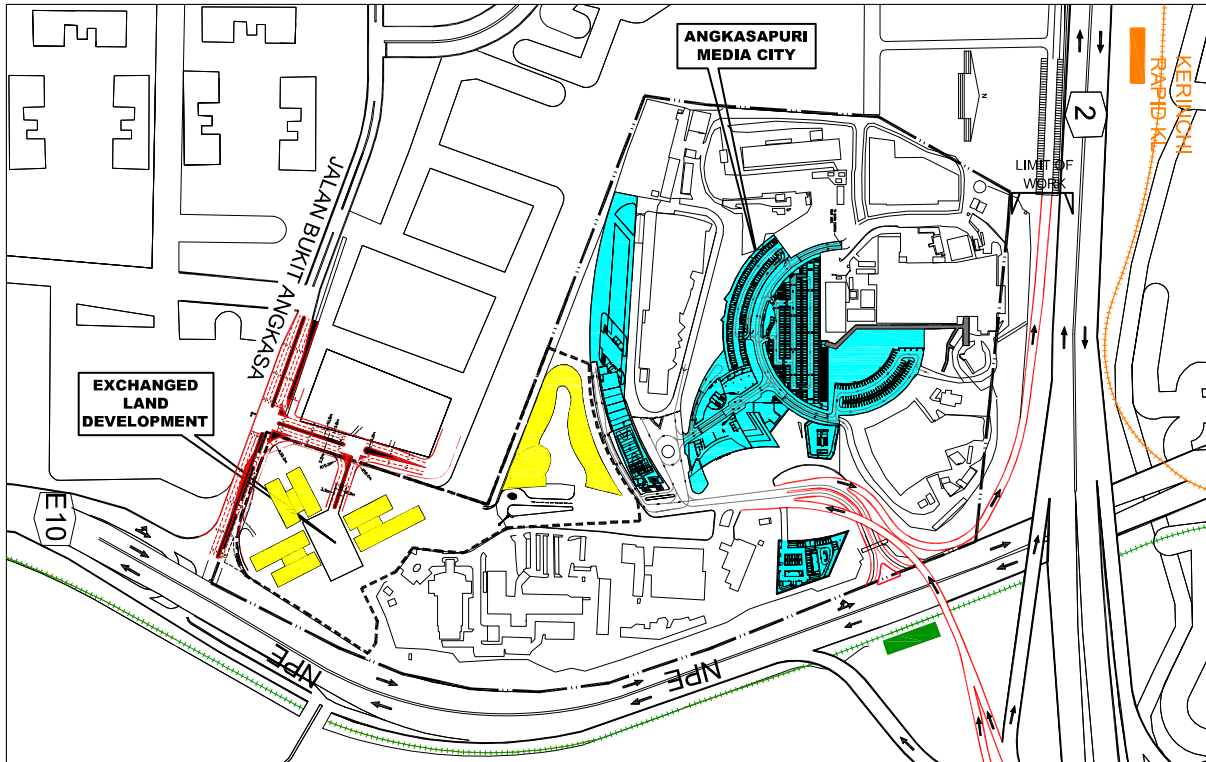
This was done as a Pilot Study to assess the need and implementation of Bus Priority Scheme in Kuala Lumpur. The Study included evaluation of Alternative Measures, Design and Implementation of the Scheme adopted based on the Study performed.

The project was done in association with Acer Consultants Sdn. Bhd.



## Selected Projects & Clients Done By The Principals

### Traffic Impact Assessment And Traffic Study Projects



#### Traffic Study & Engineering Design for Media City Development, Kuala Lumpur

**Client : Media City Development Sdn. Bhd.**

A project involves data collection and analysis, the study of future traffic demand, existing road and T-intersection improvement to cater for the future demand and engineering design of dedicated grade separated ingress and egress to Media City.

## **Selected Projects & Clients Done By The Principals**

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### **Traffic Impact Assessment And Traffic Study Projects**

#### **Traffic Impact Assessment for Townvilla and Condominium Development at Bandar Puteri, Puchong, Selangor**

**Client : Flora Development Sdn. Bhd.**

A project involves data collection and analysis, the study of future traffic demand by considering the future development at the vicinity, existing road and road upgrading work to ensure smooth flow of traffic at the access road, as well as smooth traffic movement in and around the Flora's development.

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#### **Engineering Design of Access & Traffic Impact Assessment for Mixed Development at Sungai Buloh, Selangor**

**Client : Fortson Properties Sdn. Bhd.**

A project involves data collection and analysis, the study of future traffic demand by integration of Kg. Baru Sg. Buloh MRT station, existing road and T-intersection improvement to cater for the future demand and engineering design of dedicated ingress and egress to Fortson's development.

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#### **Traffic Impact Assessment & Internal Traffic Circulation Study for Service Apartment Development at Jalan Talalla, Kuala Lumpur**

**Client : Star Effort Sdn. Bhd.**

A project involves data collection and analysis, the study of future traffic demand, external and internal traffic circulation study to ensure smooth flow of traffic at the access road, as well as smooth traffic movement in and around the new apartment.

## **Selected Projects & Clients Done By The Principals**

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### **Traffic Impact Assessment And Traffic Study Projects**

#### **Traffic Impact Assessment for Semi-D Shop Office Development at Kota Damansara**

**Client : Prosper Villa Sdn. Bhd.**

A project involves data collection and analysis, the study of future traffic demand, to ensure efficient flow of traffic at the access road as well as smooth traffic movement in and out the development.

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#### **Engineering Design of Access, Traffic Impact Assessment & Traffic Light Installation for Condominium Development at Setapak, Kuala Lumpur**

**Client : Beneton Properties Sdn. Bhd.**

A project involves data collection and analysis, the study of future traffic demand, traffic light installation, existing road and T-intersection improvement to cater for the future traffic.

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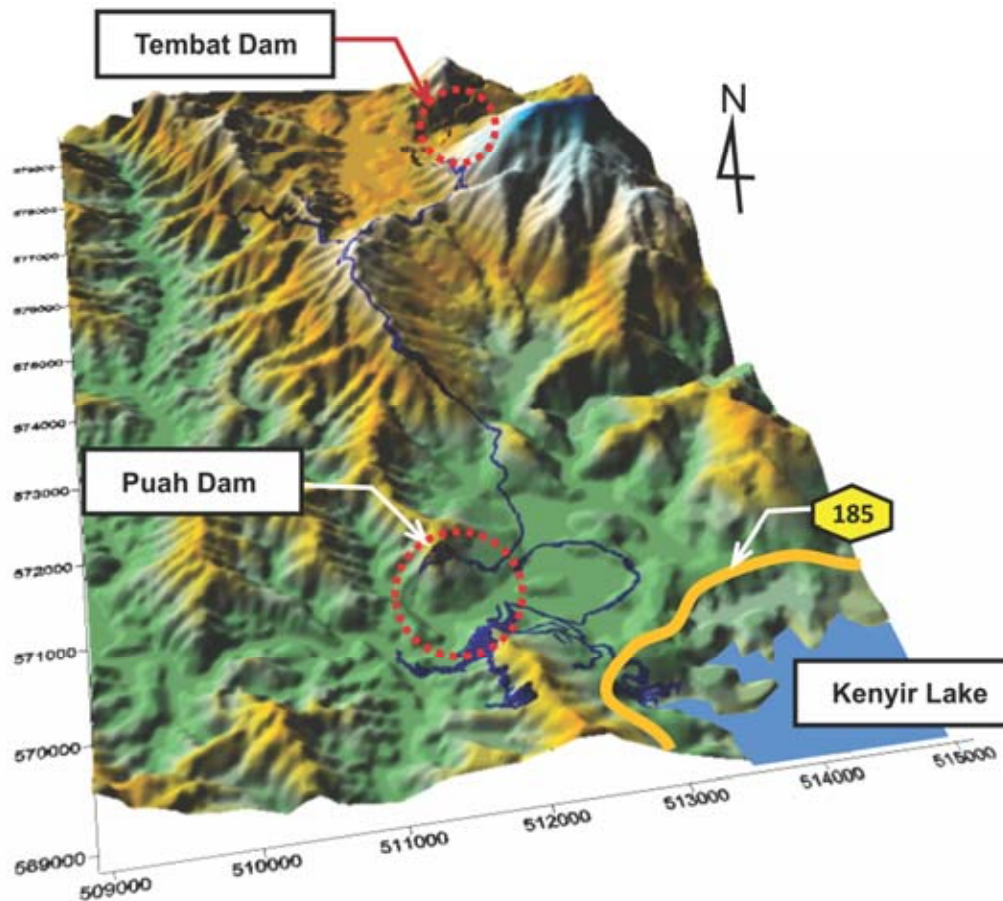
#### **External & Internal Traffic Circulation Study for Hospital Raja Permaisuri Bainun, Ipoh**

**Client : Hospital Raja Permaisuri Bainun**

A project involves of external and internal traffic circulation study to ensure efficient flow of traffic at all the access roads, as well as smooth traffic movement in and around the new hospital through effective and efficient traffic management measures.

## Selected Projects & Clients Done By The Principals

### Engineering Design of Infrastructure



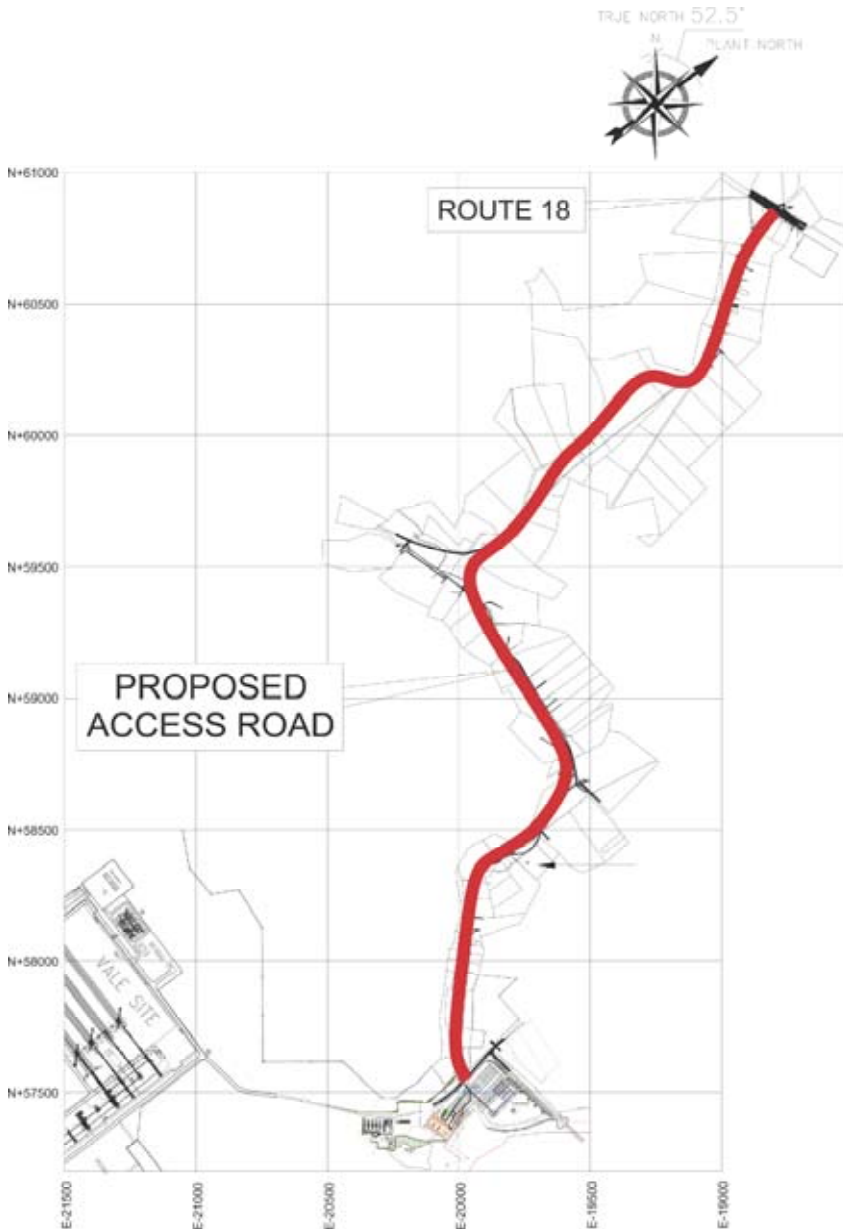
**Engineering Design of Access Road to Puah & Tembat Dam & Upgrading of 3 Nos. Existing T-intersection at Federal Route 185, Hulu Terengganu**

**Client : Tenaga Nasional Berhad**

Design and construction of access road linking to Puah and Tembat dam, upgrading and road widening of 3 nos. existing T-intersection at Federal Route 185 to cater for the future traffic and provide compatibility of road cross-section on safety ground.

## Selected Projects & Clients Done By The Principals

### Engineering Design of Infrastructure



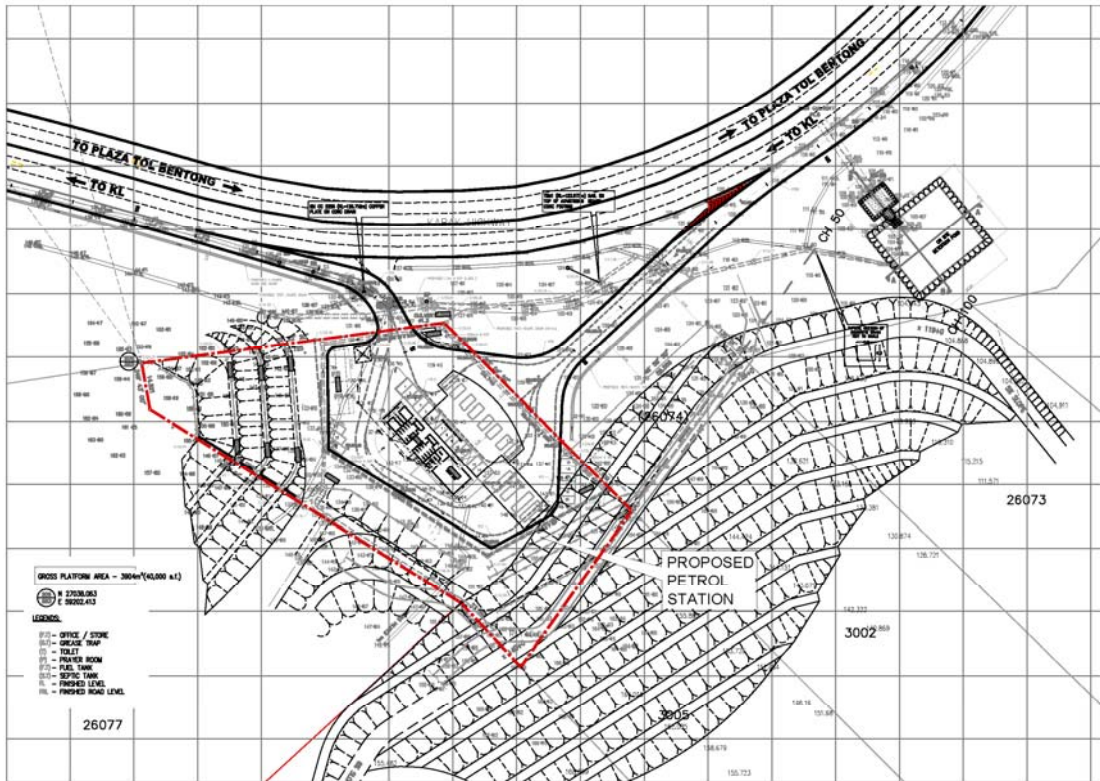
**Engineering Design of Access Road from Route 18 to Iron Ore and Pellet Plant, Manjung, Perak.**

**Client : Vale (Malaysia) Minerals Sdn. Bhd.**

A project involves design and upgrading of an access road from Route 18 to Iron Ore and Pellet Plant. The work consists of designing a new road and upgrading work for an existing road to cater for the future traffic and provide compatibility of road cross-section on safety ground.

## Selected Projects & Clients Done By The Principals

### Engineering Design of Infrastructure



### Engineering Design of Access and Infrastructure for the Proposed Petrol Station at KM 60 Karak Highway, Bentong

**Client : Jernih Cendana Sdn. Bhd.**

A project involves engineering design of expressway diverging and merging lane, major earthwork, sewerage system, internal road and drainage system for the proposed petrol station.

### Planning and Infrastructure Design for 5 units of Bungalow Lot at Bukit Tunku, Kuala Lumpur.

**Client : Pelanduk Puncak Sdn. Bhd.**

A project involves planning and engineering design of major infrastructure e.g. earthwork, sewerage system, water supply, road and drainage system for 5 units of bungalow lot.

## CURRICULUM VITAE

**NAME** : Ir Lee Choy Hin **DATE OF BIRTH** : 21 Mar 1954  
**PROFESSION** : Engineer **NATIONALITY** : Malaysian  
**POSITION IN FIRM** : Managing Director  
G&P Highways & Transportation Sdn Bhd

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### 1. KEY EXPERIENCE/SPECIALISATIONS:

Ir Lee Choy Hin was engaged by the Highway Planning Unit (HPU), Ministry of Works Malaysia to carry out a pilot study to develop passenger car equivalent (pce), peak hour factors (phf) and other related parameters as a prelude to developing the Malaysian Highway Capacity Manual. He was also engaged to conduct the Urban Transport Studies for Muar by HPU. He carried out bus-lane studies for Kuala Lumpur, a pilot study project commissioned by the Kuala Lumpur City Hall.

He is a specialist in urban transport planning and traffic management, intersections and highway capacity studies, as well as road design.

Ir Lee Choy Hin has been involved in various urban transport studies and numerous traffic impact assessment for development projects in various parts of the country.

He was involved in various traffic studies projects overseas such as China, Philippines, Ghana, Singapore and Vietnam.

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### 2. QUALIFICATIONS

Master of Science in Transport Planning & Engineering, University of Leeds (1987)  
Bachelor of Science in Engineering (Honours), University of Aberdeen, United Kingdom (1981)

Fellow of the Institution of Engineers Malaysia (IEM)  
Council Member of the Institution of Engineers Malaysia (IEM)  
Member of the Institution of Highways and Transportation (MIHT)  
Member of the Road Engineering Association of Malaysia (REAM)  
Member of the Road Engineering Association of Asia & Australasia (REAAA)  
Registered Professional Engineer with the Board of Engineers Malaysia (BEM)

Past Chairman, Highway and Transport Engineering Technical Division of the Institution of Engineers (IEM)  
Past Honorary Secretary of the Institution of Highway and Transportation Malaysia Branch  
Past Committee Member of various Sub-committees of the Institution of Engineers, Malaysia (IEM)  
Past Advisor to various technical working groups of the Institution of Engineers, Malaysia (IEM)  
Past member of the Executive Committee of the First Malaysian Road Conference  
Organising Committee, 6<sup>th</sup> Conference of the REAAA  
Organising Committee, Asia Pacific ITS Conference

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### 3. AWARDS

nil

**4. APPOINTMENT AS ADVISOR/TECHNICAL COMMITTEE MEMBER TO THE FOLLOWING GOVERNMENT AUTHORITIES :**

none

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**5. LANGUAGES:**

English : reading, writing and speaking - good  
B. Malaysia : reading, writing and speaking - good  
Mandarin : reading, writing and speaking – good

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**6. EXPERIENCE RECORD:**

**Traffic Study for Malaysia**

*Client: Bahagian Perancang Jalan, Kementerian Kerja Raya*

Development of traffic engineering parameters such as passenger car equivalent (pce); peak hour factors (PHF) & speed-flow characteristics with the aim of developing a Highway Capacity Manual for Malaysian road condition.

**Muar Traffic Study**

*Client: Bahagian Perancang Jalan, Kementerian Kerja Raya*

A project to study the urban congestion in Muar & to recommend measures, both short and long term, to overcome these problems

**Bus Lane Study for Kuala Lumpur**

*Client: Dewan Bandaraya Kuala Lumpur*

A project to study, recommend and design appropriate bus priority measures to be implemented in Kuala Lumpur

**Transportation Study for Penang**

*Client: Penang State Government*

A project in association with Halcrow Fox of United Kingdom, The project aimed at conducting detailed transportation study to formulate transport policy & instruments appropriate for efficient transport and traffic planning implementation and management for the whole of Penang

**Transport Study for Penang Bridge**

*Client: Intra Urus Sdn Bhd*

This project involved capacity study of the existing Penang Bridge and other related issues.

**Traffic Study & Engineering Design for Jalan Paya Terubong, Penang**

*Client: Jabatan Kerja Raya, Pulau Pinang*

A project to study the future traffic demand along the corridor of Jalan Paya Terubong, and to propose future road improvement required to cater for the future demand in view of the numerous developments proposed in the area. The firm was also engaged to undertake the engineering design of the road improvement works.

**Jelutong Expressway Traffic Study, Penang**

*Client: Jelutong Development Sdn Bhd*

A project involves the construction of a major arterial road linking the Penang Bridge to Georgetown in Penang Island. This project was awarded to a subsidiary company of IJM Corporation Bhd on a Build-Operate-Transfer (BOT) basis. However, the road will be toll free and the concession company is given the rights to reclaim and develop the coastal area north of the Penang Bridge.



**Proposed Bridge Crossing at Yangtze – River, JiangJang, Szechuan, P.R. China**

*Client: Nam Fatt Berhad*

**Feasibility Study for TanSonNhat Airport-BinhLoi-Ring Road Highway in Ho Chi Minh City, Vietnam**

*Client: Multi-Usage Bhd*

This project involved the construction of a link road from the airport in Ho Chi Minh city to the city centre. The road was to be implemented on BOT basis with the concession company given the right to collect toll from the highway. The project reached approval stage from the Prime Minister's Department but was shelved due to the economic crisis that hit the Asian Region in late 1997.

**Proposed Tolls on Kwame-Nkrumah Motorway, Accra, Ghana**

*Client: Bridgecon Bhd*

This project involved the study of the implementation of the proposed Trans-African Highway segment in Accra, Ghana. It was to be implemented on BOT basis with toll levy.

**South Penang Development Link Study**

*Client: IJM Corporation Bhd*

A proposal was mooted to provide a second link south of the existing Penang Bridge to ease the heavy traffic at the Penang Bridge; and to stimulate future development along the corridor in the area concerned. The study was completed and the report was submitted to the state authorities. However, due to events happening then, the State Government decided to carry out a macro transportation study for Penang and the proposal did not proceed further.

**Kajian Trafik bagi Jalan Lingkar Luar, Pulau Pinang, Pakej A dari Gelugor ke Persiaran Gurney, Pulau Pinang**

*Client: Jabatan Kerja Raya, Pulau Pinang*

**Projek Jalan Lingkar Tengah II Kuala Lumpur – Pakej 9B**

*Client: Jabatan Kerja Raya, Malaysia*

**Proposed Privatisation of the Iskandar Petri International Gateway, Johor**

*Client: Bridgecon Bhd*

**Proposed Light Rail Transit, Pulau Pinang**

*Client: Utara Rapid Transit Sdn Bhd*

**Proposed Privatisation of Expressway from Skudai to Pasir Gudang, Johor**

*Client: Bina Puri Bhd*

**Proposed Privatisation of West Coastal Expressway**

*Client: Strong Project Managers Sdn Bhd*

**Lead Consultant for PUTRAJAYA Traffic Light Installation (PUTRAJAYA CORE ISLAND)**

*Client: Norangkasa-Light Style JV/Perbadanan Putrajaya*

**Traffic Impact Assessment – Singapore Turf Club Redevelopment**

*Study for Singapore Transport Authority*

**Pulau Pangkor/ Lumut Development**

*Client: Cloud Seven Sdn Bhd*

**Proposed Mixed Development in Tambun, Ipoh**

*Client: Sunway City Bhd*

This is a joint-venture property development project between Bandar Sunway Bhd and the State Economic Development Corporation of Perak. The project is located along Jalan Tambun about 8km from Ipoh. Total area is about 1,700 acres.

**Bayan Baru Mixed Development, Pulau Pinang**

*Client: Sunway Tunas Sdn Bhd*

This is a joint-venture project between Koperasi Tunas Muda and Bandar Sunway Berhad. This involved the development of apartments, shopping complex, hotels and shop houses at Bayan Baru, Penang Island.

**Proposed Bandar Cyber, Ipoh, Perak**

*Client: Cyberland Sdn Bhd*

**Lebuhraya Damansara-Puchong-Putra Jaya, Selangor**

**Kajang Traffic Dispersal Ring Road (Section D-E), Selangor**

**Proposed Jelutong Expressway, Pulau Pinang**

*Client: Jelutong Development Sdn Bhd*

**Proposed Water Front City Development, Georgetown, Penang**

*Client: IJM Corporation Bhd*

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**7. EMPLOYMENT BACKGROUND**

**MANAGING DIRECTOR**

**G&P HIGHWAYS & TRANSPORTATION SDN BHD (Since July 2009)**

**MANAGING DIRECTOR**

**PERUNDING LEE DAN RAKAN (PLR)/ EXCELCET SDN BHD (since 1991)**

**EXECUTIVE ENGINEER, ROAD ENGINEER, PROJECT ENGINEER, SENIOR ENGINEER, DISTRICT ENGINEER (1981 to 1991)**

**Jabatan Kerja Raya**

Ir. Lee began his career with the Public Works Department (PWD) of Malaysia as an Executive Engineer after graduation from University of Aberdeen, United Kingdom in 1981. In 1986, he was given the Federal Government Scholarship and study leave to pursue a post graduate degree and he obtained a M.Sc. in Transport Planning & Engineering from the University of Leeds in 1987. He continued his service with the PWD since then until 1991, i.e. a total period of 11 years. Ir. Lee was posted to various positions during his terms of employment with PWD, beginning as an Executive Engineer, Road Engineer to Project Engineer and Senior Engineer. He has also acted as District Engineer and majority of the period of his service was with the Road Design Unit, Roads Branch, where he obtained hands-on experience on road design. He was also involved in highway planning and alignment studies, formulation of road design guidelines and standards, project supervision and coordination, road safety and traffic studies etc.

(1 September 2009)