Opening Address

The Honorable Minister of Works, Malaysia

Y.B. Dato’ Seri S. Samy Vellu
INTERNATIONAL SEMINAR
ON INTELLIGENT
TRANSPORT SYSTEMS (ITS)
IN ROAD NETWORK OPERATIONS

Organised by:

Co-organised by:
Rising Car Ownership
Use of ITS
Fulfilling National Objectives

- Developed nation by 2020
- Capital intensive sophisticated technology
- Continue to improve economic foundation:
  - Quantity and quality of human resources
  - Development of indigenous R & D
  - Adequate supply of modern infrastructure
Optimizing user costs and cost of maintenance

Protocol Roads

<table>
<thead>
<tr>
<th>Year</th>
<th>Site</th>
<th>Road</th>
<th>Budget (k€)</th>
<th>Average Roughness (IRI)</th>
<th>Target IRI</th>
<th>Protocol Roads</th>
</tr>
</thead>
<tbody>
<tr>
<td>2024</td>
<td>001</td>
<td>123</td>
<td>5000</td>
<td>5.0</td>
<td>N/A</td>
<td>Road Network Access</td>
</tr>
</tbody>
</table>
# Optimizing user costs and cost of maintenance

**HDM-4**

**Optimum Economic-Based Intervention Standards**

<table>
<thead>
<tr>
<th>Roughness (IRI m/km)</th>
<th>Cracking (%)</th>
<th>AADT</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
<td>10 - 15,000</td>
</tr>
<tr>
<td>&lt; 2.5 OR &lt; 20</td>
<td>Nil</td>
<td>Nil</td>
</tr>
<tr>
<td>2.5 - 3.5 OR &gt; 20</td>
<td>Nil</td>
<td>MP40L40</td>
</tr>
<tr>
<td>3.5 - 4.5 OR &gt; 30</td>
<td>L40</td>
<td>MP40L40</td>
</tr>
<tr>
<td>4.5 - 5.5 OR &gt; 40</td>
<td>M40R40</td>
<td>M40R40</td>
</tr>
<tr>
<td>&gt; 5.5 OR &gt; 50</td>
<td>M40R80</td>
<td>M40R80</td>
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</table>

Note: Does NOT apply when SNP < 5
Optimizing user costs and cost of maintenance

HDM-4 OUTPUT

HDM-4 Work Programme Unconstrained by Year

<table>
<thead>
<tr>
<th>Year</th>
<th>Section</th>
<th>Road Class</th>
<th>Length (km)</th>
<th>ADT</th>
<th>Surface Class</th>
<th>Work Description</th>
<th>NPI/CAP</th>
<th>Financial Costs</th>
<th>Com. Costs</th>
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</thead>
<tbody>
<tr>
<td>2020</td>
<td>0060 - 0060.1</td>
<td>Primary (Road)</td>
<td>0.0</td>
<td>39843</td>
<td>Bitumen</td>
<td>M4-H Rep. 35 @ 2.5 RI</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
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<tr>
<td>0060 - 0060.1</td>
<td>Primary (Road)</td>
<td>1.1</td>
<td>52053</td>
<td>Bitumen</td>
<td>M4-H Rep. 35 @ 2.5 RI</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td></td>
</tr>
<tr>
<td>0070 - 0070.1</td>
<td>Primary (Road)</td>
<td>1.1</td>
<td>52053</td>
<td>Bitumen</td>
<td>M4-H Rep. 35 @ 2.5 RI</td>
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<td>0.01</td>
<td>0.01</td>
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<tr>
<td>0080 - 0080.1</td>
<td>Primary (Road)</td>
<td>2.2</td>
<td>59458</td>
<td>Bitumen</td>
<td>M4-H Rep. 35 @ 2.5 RI</td>
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<td>0.01</td>
<td>0.01</td>
<td></td>
</tr>
<tr>
<td>0090 - 0090.1</td>
<td>Primary (Road)</td>
<td>3.3</td>
<td>59458</td>
<td>Bitumen</td>
<td>M4-H Rep. 35 @ 2.5 RI</td>
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<td>1000 - 1000.1</td>
<td>Primary (Road)</td>
<td>4.4</td>
<td>59458</td>
<td>Bitumen</td>
<td>M4-H Rep. 35 @ 2.5 RI</td>
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<td>1010 - 1010.1</td>
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<td>5.5</td>
<td>59458</td>
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</tr>
<tr>
<td>1020 - 1020.1</td>
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<td>6.6</td>
<td>59458</td>
<td>Bitumen</td>
<td>M4-H Rep. 35 @ 2.5 RI</td>
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<td>0.01</td>
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</tr>
<tr>
<td>1030 - 1030.1</td>
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<td>7.7</td>
<td>59458</td>
<td>Bitumen</td>
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<td>0.01</td>
<td>0.01</td>
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</tr>
</tbody>
</table>


All costs are expressed in Malaysian Ringgit (RM)
Roads upgrade and construction
ITS Strategic Plan

- Produced by Road Engineering Association of Malaysia (REAM) in 1999
- Endorsed by Malaysian Government
- Overall strategy to maximize the benefits to users and provider
ITS Masterplan Study for Malaysia

KAJIAN PELAN INDUK
SISTEM PENGANGKUTAN PINTAR (ITS)

FOR
HIGHWAY PLANNING UNIT
MINISTRY OF WORKS MALAYSIA
GOVERNMENT OF MALAYSIA

FINAL REPORT
January 2004
ITS Strategic Focus

- Identification of proposed ITS projects
- Identification of strategic ITS projects
- Designation of national ITS corridors
- Identification of priority areas for enhancement of ITS deployment
Kuala Lumpur City Hall Integrated Transport Information System (ITIS)

Transport Management Centre - the Hub of ITIS

The Transport Management Centre (TMC) is located at Kuala Lumpur City Hall and is equipped with state-of-the-art technologies such as the Intelligent Transport Systems (ITS) platform, which provides real-time information to the public on traffic conditions and emergency services. The TMC serves as the central hub for all traffic-related data, ensuring smooth traffic flow and efficient transportation management.

The TMC is equipped with advanced software that analyzes and processes traffic data from various sources, including cameras, sensors, and other monitoring equipment. This information is then used to generate real-time traffic updates and to make informed decisions about traffic management. The TMC also serves as the main communication center for coordinating traffic control measures in response to unexpected events or emergencies.

The TMC is staffed with trained professionals who monitor traffic conditions and respond to incidents in real-time. This includes coordinating with emergency services, providing guidance to drivers, and implementing traffic control measures to ensure the safety and efficiency of the city's transportation network.

In conclusion, the Kuala Lumpur City Hall Integrated Transport Information System (ITIS) is a comprehensive solution that leverages advanced technologies to enhance traffic management and provide real-time information to the public. This system plays a crucial role in ensuring the smooth flow of traffic and improving the overall transportation experience for residents and visitors in Kuala Lumpur.
Malaysian ITS System Architecture

- Development and adoption of critical standards
- Nationwide inter-operability and compatibility among ITS user-services
- Harmonizing with global ITS standardization activities
Public Works Department ITS Project: Johor Bahru Inner Ring Road

- Installation of Variable Message Signs
- CCTV Surveillance Systems
- Interactive Traffic Monitoring Center
MHA – Traffic Management Centre
PLUS Expressways Berhad
Regional Communication Centres
First-Class Infrastructures