



GIS@LTA – Delivering NEW Value

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About Land Transport Authority

Mission

To provide an **Efficient & Cost-effective** land transport system for **Different Needs**



LTA Website : www.lta.gov.sg



Core Business

Formulate & Advise Singapore Government on **Land Transport Policies**

Plan, Develop & Manage Land Transport (Road & Rail) **Infrastructure**

Agent of Singapore Government for the Administration of **Public & Private Transport Regulations**

GIS@LTA

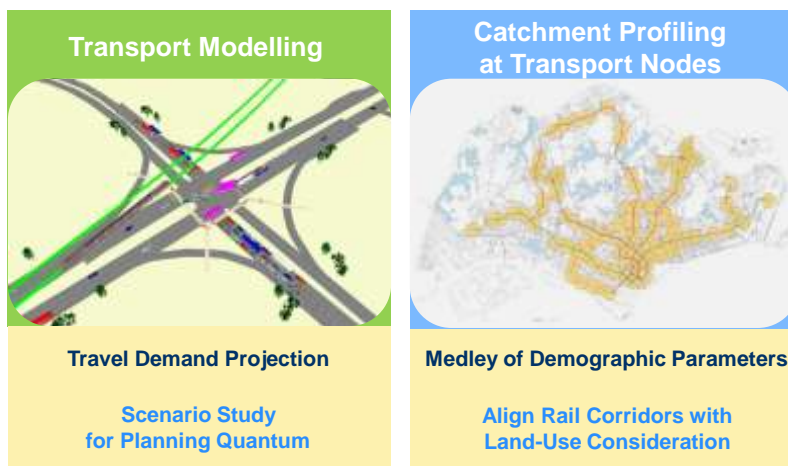
Enabling Land Transport Infrastructure Lifecycle



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Strategic Land Transport Planning

Looking into the Crystal Ball



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Designing Construction Approach

Saving Time & Money

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Subterranean Profiling



> 10,000 Borehole Records



Borehole Cross-Section

Study Soil Strata Condition

- Determine **groundwater** level
- Determine **foundation** design
- Determine **tunneling** method



Borehole Location Map

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Improving Construction Safety

Saving Lives

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Geotechnical Analysis

> 500,000 sensors



Geotechnical Instruments

Monitoring & Early Alerts

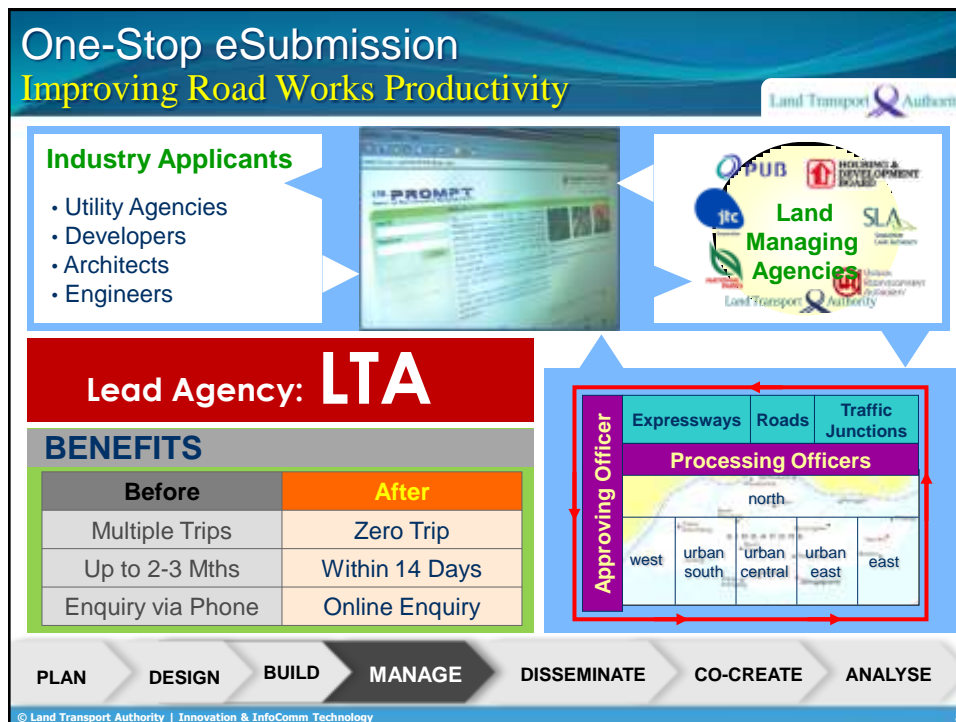
- Ground **movement** & **settlement**
- Tilting** of adjacent structures
- Deflection** of retaining structures



> 100 million readings

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Improving Motoring Experience

Safe & Smooth Driving

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Survey Data

Traffic Volume

Road Works

Road Carriageway Conditioning

- Monitor **roughness** index
- Determine **deterioration** rate
- Implement **preventive maintenance**

Minimise Skidding & Potholes

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Improving Motoring Experience

Integrating GIS & Traffic Sensors

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Traffic Speed & Cameras

MyTransport.sg
Your Transport Companion

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Improving Motoring Experience Integrating GIS & Parking Facilities



The app interface displays two main features: 'Availability of Parking Lots' and 'Locations of Park & Ride Carparks'. The 'Availability of Parking Lots' screen shows a map of a city area with a pop-up for 'Raffles City' indicating 'Parking Lot Availability is correct as at 04:02 PM' and a '333' rating. The 'Locations of Park & Ride Carparks' screen shows a map with a 'Park and Ride' location highlighted.




**Availability of
Parking Lots**

**Locations of
Park & Ride Carparks**


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MANAGE
DISSEMINATE
CO-CREATE
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Promoting Healthy Lifestyle Integrating GIS & Green Transport



The app interface displays two main features: 'Cycling Information' and 'Park Connectors'. The 'Cycling Information' screen shows a map with a 'Cycling Path' highlighted in orange. The 'Park Connectors' screen shows a map with a 'Park Connector' highlighted in green. The 'Cycling Information' screen also includes a 'Cycling Paths' section with a list of paths and a 'Park Connectors' section with a list of connectors.



Cycling Information

- Cycling Paths
- Park Connectors
- Bicycle Parking

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Public Engagement Integrating GIS & Crowdsourcing

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TOP Crowdsourcing App



MyTransport.sg
Your Transport Companion



Crowdsourcing

- Street Pothole
- Footpath/Bridge/Underpass
- Streetlight
- Traffic Light
- Signage Railing
- Cycling Path

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13

Promoting Innovation thru Data-Sharing Co-creating with Next-Generation

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> 10 million
Hits Per Month



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14

Land Transport Authority
We Keep Your World *Moving*



Thank You