

CONNECT

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LTMP 2040:
BRINGING
SINGAPORE
TOGETHER



**A RAIL-LY
GOOD TIME**

1 SPACE, 4 USES:
TRANSPORT PLANNING IN
LAND-SCARCE SINGAPORE

**ACTIVE
MOBILITY:**
RIDE SAFELY, EVERYONE

HOW WELL DO
YOU KNOW OUR
EXPRESSWAYS?

READ & WIN

STAND A CHANCE TO WIN PRIZES WORTH \$40!



LTMP 2040: BRINGING SINGAPORE TOGETHER

Fast forward 20 years and enter a future where we not only get to places faster, but also more conveniently and comfortably. This is the vision mapped out in the Land Transport Master Plan 2040 (LTMP 2040), where transport will be even more connected, inclusive, and sustainable.

Commuters got a glimpse of this future during the launch of the LTMP2040 on 25 May, where several activities were lined up, including taking a joyful ride on the #SGHappyBus which promotes a gracious commuter culture, and competing in a board game to prove who is the best transport planner.



SPOT THE #SGHAPPYBUS



It's hard to miss the #SGHappyBus with its bright and colourful stickers. A collaboration between LTA and The Hidden Good, a youth-led social enterprise whose work aims to uncover the good in Singapore society, the #SGHappyBus supports one of the LTMP 2040 themes of developing a gracious and caring commuting culture.

Through this initiative, The Hidden Good wants to show how little things can make our daily journeys on public transport more pleasant.

In 2014, The Hidden Good staged a series of short performances at MRT stations called "Train of Dreams", designed to spring joyful surprise acts on commuters. Now, with the thematic "Happy Bus", volunteers on board conduct a social experiment to see how genuine commuters react when they encounter other commuters who may need help during their journey.



IN THE WORKS

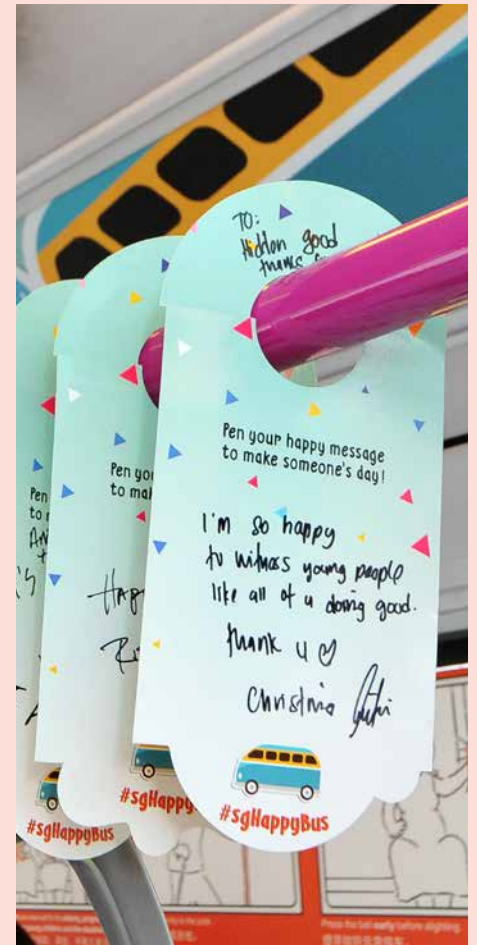
They also hope to “uncover the goodness” (The Hidden Good’s mission statement) by springing pleasant surprises on the commuters. This will remind the public that gracious and caring behaviour from each of us will play a part in making journeys more enjoyable for everyone.

On board the #SGHappyBus, passengers can pen positive messages on bus hanger cards and pass it on to make somebody else’s day more cheerful. Passengers could also receive an unexpected round of applause from the plain-clothes volunteers when they exhibit acts of kindness, such as offering help to a visually-handicapped passenger, or giving up their seat to someone who needs it more. Many passengers responded positively to the social experiment, with many displaying gracious behaviour, and receiving acknowledgement of their own thoughtful actions in turn!

So the next time you commute, even if it is not on the #SGHappyBus, remember that a little act of kindness towards our fellow commuters can go a long way to make our journeys more enjoyable.

In a video interview aboard the #SGHappyBus, a commuter said,

“We must be mindful of our environment and help people whenever you can. It doesn’t cost us anything.”



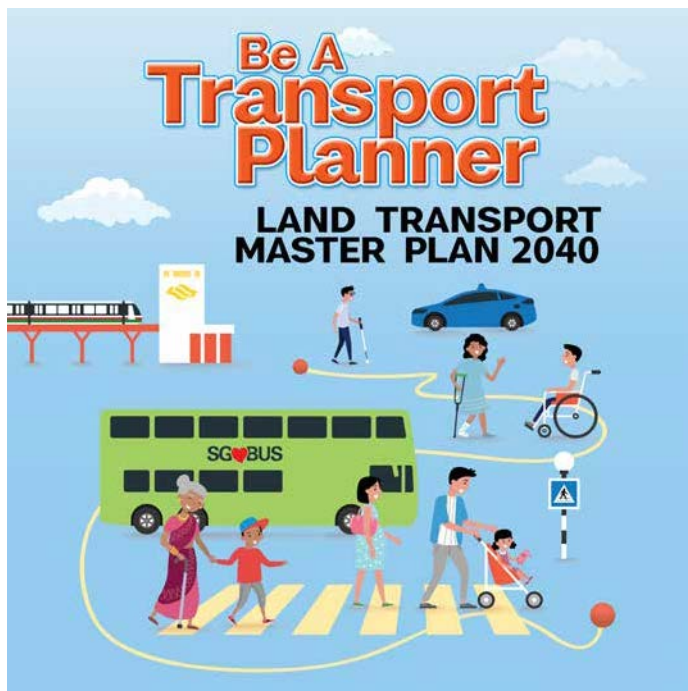
View the video to find out how small, gracious acts from each of us can make commutes that much more pleasant.



GAME TO BE A MASTER TRANSPORT PLANNER?

Armed with S\$100,000 of game money, students got a taste of what it is like to design the future of our land transport system.

The teams had to figure out how much to spend on decisions such as building roads or train tracks. Should convenience be prioritised over comfort, or should they opt for the lowest cost? According to the players, there was no easy answer.



This is the challenge of the “Be A Transport Planner” board game. Developed by the Land Transport Authority (LTA), the game aims to bring out the trade-offs in planning public transport systems.

Held as part of the LTMP 2040 launch on 25 May, the competition brought together 45 students from 9 schools for an afternoon of intensive transport planning at library@harbourfront.

Each of the teams was given a fixed budget to move 4,000 people from their homes to work or nearby amenities.

Participants could purchase transport infrastructure and asset cards – such as roads with bus and cycling lanes, and trains, as well as additional booster cards to enhance the comfort of commuting via sheltered walkways, more seats on trains, and smaller buses with guaranteed seating.

Trade-offs had to be carefully considered. As the game progressed, players found it increasingly tough when compromises had to be made in prioritising convenience, comfort and cost, across the different modes of transport.

“We have to keep track of the number of people, the total cost, and also how many people are going to which link,” said Eng Jin Yu from St Andrew’s Junior College.

At the end of the game, teams were scored according to their total spending, how many comfort booster cards and transport cards were used, the number of commuters on the fastest travel route, and the connection to amenities.



IN THE WORKS

Raffles Institution emerged as champion, with St Andrew's Junior College and Tampines Meridian Junior College in second and third place respectively.

Through the game, the students became more appreciative of the in-depth and complicated planning that goes into ensuring a seamless public transport system that is convenient and comfortable for commuters.

"It's quite challenging. They need to cater to different needs, and the varying needs for different people always changes with time," said Lee Ke Hua from Jurong Pioneer Junior College.



"With so many aspects, it was initially very difficult to approach public transport planning. But as the game progressed, we were able to pick up the pace, and finally, we managed to solve the puzzle."

ENG JIN YU
ST. ANDREW'S JUNIOR COLLEGE

"In real life, LTA also has restrictions when planning for our land transport. That's why I think being a transport planner is quite difficult. Through this game, I definitely think that I've learnt more about transport planning."

WEE IKE-RAE
TAMPINES MERIDIAN JUNIOR COLLEGE

"The challenge is the capacity, and how to transfer huge numbers of people to work. The game is similar to transport planning for Singapore for all the residential heartlands into the CBD."

LEE KE HUA
JURONG PIONEER JUNIOR COLLEGE

Are you game to be a master transport planner? Grab a limited-edition game set from the Knackstop Flagship store at the SG Mobility Gallery at Hampshire Road. Priced at \$80 each, all proceeds will go to the LTA Cares Fund which caters to the transportation needs of the less fortunate.





WHAT IS THE LAND TRANSPORT MASTER PLAN (LTMP) 2040?

As Singapore develops, so will the country's public transport system. Looking to find the best solutions, an LTMP Advisory Panel, comprising 15 individuals, was formed. The LTA launched a public engagement exercise in August 2018 to gather views for creating more inclusive commutes, and improving the quality of life through public transport.

More than 7,400 members of the public came forward with their vision of what land transport could look like 20 years from now.

The ideas were collated into the LTMP2040 which covers three key themes – more connected public transport with 20-minute towns and a 45-minute city, more inclusive transport for all, as well as safer and healthier journeys.

This plan was presented to the Government in February 2019 and the recommendations were accepted a month later.

"Now, the hard work and heavy lifting begins...and we will deliver on these promises.

But we will have to do so together," said Dr Janil Puthucheary, Senior Minister of State, Ministry of Transport, at the LTMP 2040 launch.

"The Land Transport Master Plan is about bringing Singapore together. And I hope (everyone will) continue to work with us on this journey, so that we can deliver on our promises together."

JANIL PUTHUCHEARY
SENIOR MINISTER OF STATE,
MINISTRY OF TRANSPORT



Watch this video to get up to speed on the #LTMP2040 vision.



Find out more about how public transport will be redefined in the future in this BBC StoryWorks video.

20-Minute Towns and a 45-Minute City

By walking, cycling, or riding, you can:

- Reach your nearest neighbourhood centre within 20 minutes.
- Spend no more than 45 minutes to complete most peak-period journeys between your home and workplace.

Transport for All

You can look forward to an inclusive land transport system with more barrier-free journeys. You can also co-create a more gracious and caring commuting culture to make our daily commutes pleasant and enjoyable for all.

Healthy Lives, Safer Journeys

Initiatives and improvements to our land transport system can also contribute to a safer, healthier, and more liveable environment – one that is filled with vibrant community spaces.

To achieve the LTMP 2040 vision, Walk-Cycle-Ride transport modes will be prioritised and integrated to make them more attractive so that they become the preferred way to travel.

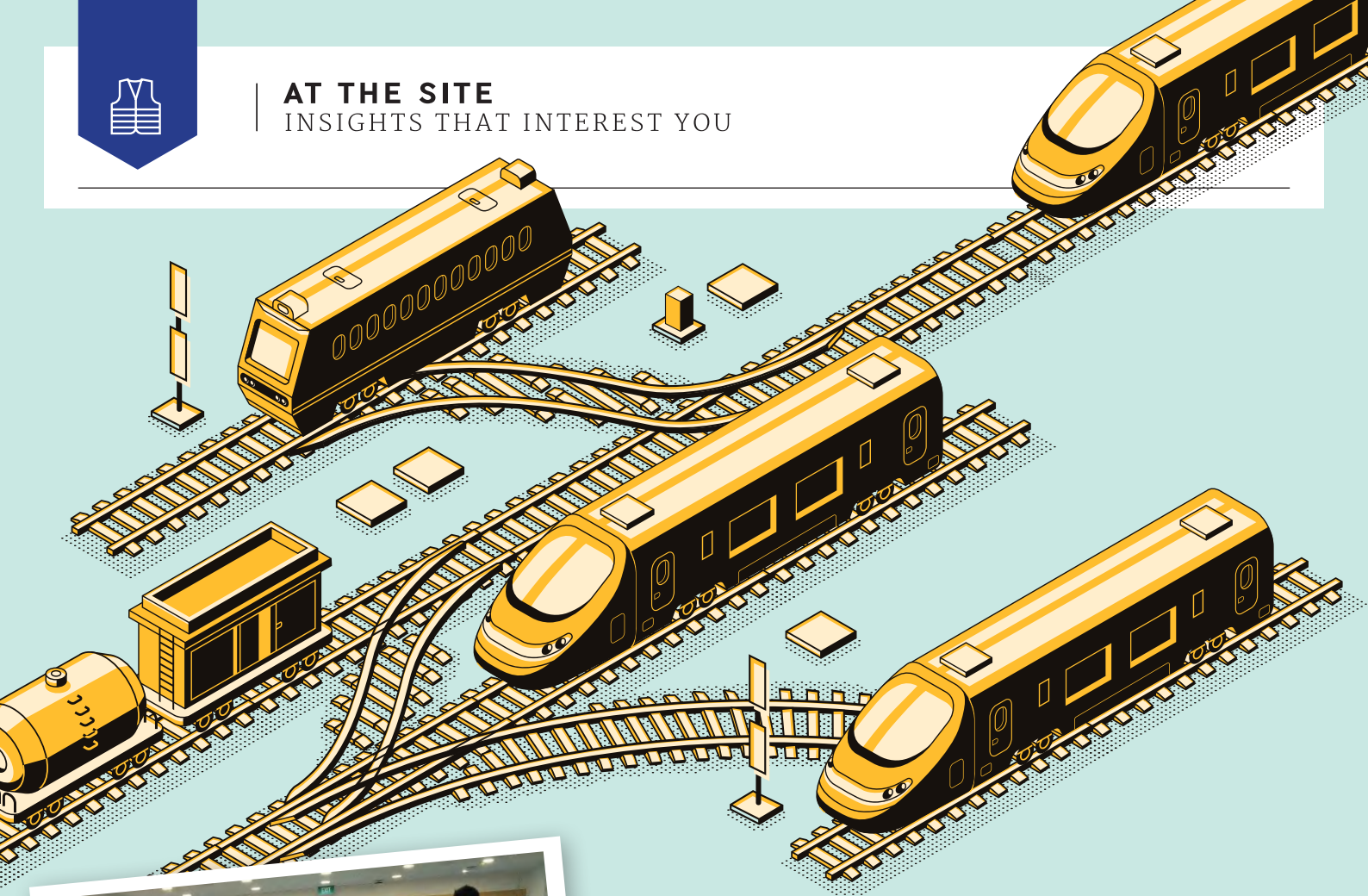
WALK CYCLE RIDE

Active Mobility Modes
You will be able to cover short distances easily by walking, cycling or using personal mobility devices like electric scooters.

Mass Public & Shared Transport Modes
For longer journeys, you can count on mass public transport like buses and trains, and shared transport like taxis, private hire cars, and car-sharing.



AT THE SITE
INSIGHTS THAT INTEREST YOU



**Putting their heads together
for the Railway Challenge**

A RAIL-LY GOOD TIME

The recent school holidays saw some children getting model trains running... or even crashing them intentionally. From building a scaled MRT network from scratch to assembling miniature train fare gates, 400 students between the ages of 10 to 16 years had an insiders' taste of what it is like to be a railway expert.

Ever wondered about the mechanics behind the automatic fare gates at train stations, or how trains avoid colliding with one another?

Young curious minds found the answers to these questions at LTA's school holiday workshops in March and June. Twenty interactive sessions covering seven topics offered an introductory crash course into various aspects of rail engineering and transport planning in Singapore.



A NOVEL IDEA:

GAMIFYING RAILWAY PLANNING

In between designing depots for the upcoming Jurong Regional Line and the Cross Island Line, LTA engineer Shawn Laight was one of the masterminds behind some of the land transport-themed games that were played.

The idea was sparked last year when his team was tasked to design an icebreaking activity for a senior management retreat. They decided to develop a game to help colleagues from other agencies better understand and appreciate the complexities that go into designing a rail system.

To start off, "realistic" railway models were needed for the game. Shawn found these at hobby stores.

"They had to be a very realistic representation in terms of their limitations. For example, if we build a track with a curve, and players put the model train on it and accelerate it at a high speed, it will go off the track because of physics," said the Executive Engineer from the Rolling Stock and Depot Engineering division.

Next, the team thought hard about how to structure the game, and this was how the Railway Challenge was born.

In the game, players have to work together to build a rail network from scratch and connect as many towns as possible in the most practical manner.

But the team decided to make it more challenging by adding complexities into the game. Players have to connect a minimum number of stations across a map of Singapore, and must build a working train system within one hour.

This game proved to be a huge challenge, even for adults.

"When we tried the game with our own staff, we found that many people would spend a large portion of time debating over something as simple as putting a track in a certain position. And when



Trying out track circuits and interlocking railways



they eventually got around to testing their plan and it did not go well, the time would be up," he noted.

Children are natural train engineers

When the game was introduced at the inaugural school holiday workshop in March this year, a surprising discovery was made – children were actually much better at this game than adults.

"The children performed very well because they learn by doing and are not afraid to try. They would keep trying to solve the puzzle. If it didn't work, they would try again,"

SHAWN LAIGHT

EXECUTIVE ENGINEER, ROLLING STOCK AND DEPOT ENGINEERING

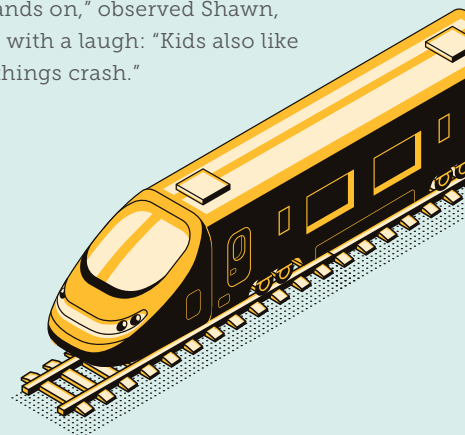
Another game that Shawn and his team developed was the 'Train Safety Challenge'. Inspired by a workshop

that he attended while studying in the University of Birmingham involving an actual model train crash, he adapted the idea into a game about safety.

In this challenge, players have to prevent a quail's egg "passenger" from cracking during a train crash. They have to carefully select different risk factors that are placed into the train carriages – such as different shaped rocks that represent actual hazards in a train crash.

From there, they would be given time and raw materials to devise creative solutions to protect the train and make it crash in a safe manner. The game helps them to understand that there are many features that go into train safety which are not apparent to the daily commuter.

"A lot of kids do enjoy it because it's very hands on," observed Shawn, adding with a laugh: "Kids also like to see things crash."





LTA HOLIDAY WORKSHOPS

A series of workshops were conducted during the March and June holidays for children between the ages of 10 and 16. The programme attracted some 400 participants over nine days this year.

The games were developed by LTA's Rolling Stock, Strategic Planning, Fare System and Road & Commuter Infrastructure Development Groups. During the programme, participants had the opportunity to interact with real-life engineers and planners from LTA.

Train Safety Challenge



How strong are our trains? Participants learnt about the principles that make our trains crash-worthy in the event of emergencies. They also had a chance to get creative by using tools or accessories to reduce the impact of crashes.

Railway Challenge



Does your estate have an MRT station nearby? How connected will your ideal MRT network be? Participants were taught how to build an MRT network from scratch based on a given scenario, and experienced the challenges engineers face.

Railway Track Circuit



A track circuit is a simple electric device used to detect the presence or absence of a train. In this workshop, participants learnt the basic principles of how track circuits work and had the chance to build a model track circuit.

Transport Planning



How to be a good transport planner? Participants learnt about basic transport planning concepts and trade-offs through games using Lego bricks.

Railway Interlocking



Signalling interlocking plays an important role in ensuring the safe operation of train services by preventing conflicting train movements along the tracks. Participants learnt the basic principles of mechanical interlocking through 3D parts. They also built and ran trains along the tracks using interlocking principles.

Automatic Fare Collection



How does a fare gate work? Participants were introduced to the basic components of an automatic fare collection system and had the opportunity to assemble a miniature fare gate.

Bridge Building Challenge



What makes a good bridge? Participants learnt the basic principles of designing and building the most efficient bridge.





FROM BUDDING RAIL EXPERTS TO TRAIN SUSHI CHEFS

Some 20 junior Friends of Land Transport learnt about our MRT network through games, storytelling, and even bento-making during the June holidays.

After cracking their heads at solving the Railway Challenge (see main story), a storytelling session transported them into a fascinating world about Uncle Joe's work at the LTA. They learnt about many things from noise barriers to tunnel boring machines – which are like giant earthworms the height of five children standing atop each other.

The session wrapped up with these junior transport enthusiasts creating their very own sushi Thomson East Coast Line train bento – which they got to eat or take home as a perfect memento.



"Train"-ing our young sushi chefs



DO YOU WANT TO BE A RAILWAY ENGINEER?

Growing up, LTA railway engineer Shawn Laight wanted to be an aerospace or automotive engineer.

But he decided to give rail engineering a go and ended up falling in love with trains.

Noting that the rail industry here is always on the lookout for talent, he hopes to inspire children to become railway engineers just like him.

His plan? Using games as a first touchpoint.

"It's very rare for a child to grow up to say, 'I like land transport.' We hope to reshape the mentality through this programme. And I think parents play a huge role at changing the perception," he noted.

"At the end of the workshops, many of them have come forward to say that they're very interesting. Hopefully, with their support, we can get more children into rail engineering."



MISSED OUT ON LTA'S HOLIDAY PROGRAMME THIS YEAR?

Keep a lookout on our facebook page [Land Transport Authority – We Keep Your World Moving](#) for the next holiday programme in March 2020!





1 SPACE, 4 USES: TRANSPORT PLANNING IN LAND-SCARCE SINGAPORE

At just 724.2 sq km, land is a prized resource in Singapore. With so many uses vying for the limited space, it takes some ingenious planning to optimise land use for transport. Here's how the idea for the 4-in-1 East Coast Integrated Depot was born.



Adrian Teo's initial brief in 2009 was straightforward: Design a train depot for the Thomson-East Coast Line (TEL) in the most cost-effective and sustainable manner.

But the LTA engineer and his team of engineers and architects went one better. They came up with an audacious plan to house four major infrastructures – three rail depots and one bus depot – within one compound instead of separately.

This plan came during a time when LTA needed to build a second depot for the Downtown Line (DTL) in the eastern side of Singapore – not far away from the potential sites of the TEL depot and the existing site of the Changi Depot for the East-West Line (EWL).

Adrian, the principal manager of rail design and development says,

“Like coffee, there was 2-in-1, 3-in-1 and now 4-in-1 (for infrastructure).”

The impetus for this idea was simple. “In land-scarce Singapore, we need to save land and depots take up a lot of land. Unlike cars which can go up much steeper inclines, trains cannot. So, a train depot needs to be built within a single level which

takes up a large footprint,” he explained. They found an unconventional solution: By stacking the depots one above the other instead of securing individual ground-level sites, they could save 22 hectares of land, about the size of over 61 soccer fields.

Better yet, the design saved them a whopping \$2 billion in costs.

This is because housing multiple depots together allows LTA to save on land acquisition and capitalise on the efficiency of shared resources at the depots, while housing all this in a structurally efficient building.



THE 4-IN-1 CONCEPT

At the site of the former Bedok Reclamation Plant, the convergence of four depots is underway as part of a massive \$3.2 billion project to futureproof our transport infrastructure. It is slated for completion in 2024.

His team worked closely with like-minded partners from other agencies, such as the Urban Redevelopment Authority. A working group was formed to tackle the challenge of saving land area in the construction of future depots.

This marks the first time LTA is integrating more than one rail depot, which also proved to be an engineering challenge when the chosen site was constrained all round – from obstructions underground to height constraints due to its proximity to the airport.



“People often imagine a government agency to be sticking to the tried and tested,” said Adrian. But he found a receptive management that was open to this breakthrough idea.

“Everyone bought into the simple impetus to save land, while achieving LTA’s requirements and transport goals in an economically viable way,” he added.

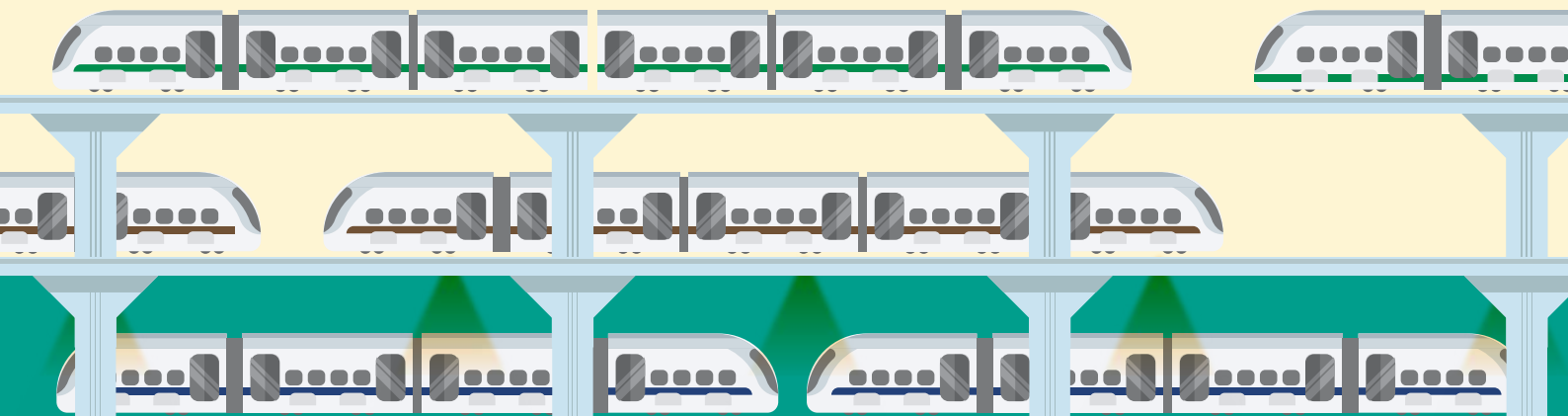
Many studies were carried out with consultants and industry experts. While the team encountered several hurdles along the way – such as the poor ground conditions and dense networks of drains and pipelines which could hinder the tunnel works – they were able to overcome them with teamwork.

“Everything is a collaborative effort. Tapping on everyone’s mind, the combined effort is what brings about success, so teamwork is very important.”

“Like pieces of a jigsaw puzzle, the idea of stacking rail depots on top of each other started to come together as the answer to the ultimate objective to save land.”

ADRIAN TEO
PRINCIPAL MANAGER, RAIL DESIGN AND DEVELOPMENT

“There was a pervasive collaborative spirit that came together naturally when faced with the monumental task of building this 4-in-1 depot,” Adrian shared.





MAKING TRANSPORT LESS LAND-INTENSIVE

The East Coast Integrated Depot sets a new bar in land transport infrastructure. By co-locating several depots in a single compound, it has the capacity to house about 220 trains and 760 buses within just 36 hectares of land.

With roads taking up 12 per cent of Singapore's total land area, transport remains one of the most land-use intensive sectors here. In fact, roads occupy almost as much space as housing, which sits on some 15 per cent of total land.

Singapore's growing population will place further demands on the land transport system. While building more roads might seem to be the most straightforward solution to congestion, expanding roads are difficult in a built environment.

So a more efficient use of land resources in transport planning is needed to free up more space for other developments, such as recreation and housing. Seeking more efficient modes of transport is also the way to a more sustainable future.

GOING CAR-LITE

Cars are a land-inefficient mode of travelling. LTA is limiting land-intensive private car travel and prioritising the development of more land-efficient public transport options.

On a single trip and at full capacity, a single-deck bus is able to carry up to 90 passengers, while a six-car train can ferry up to 1,600 passengers. But the average passenger sedan car can fit only up to 5 persons, including the driver.

To encourage more people to utilise more land-efficient forms of transport and reduce reliance on private cars, LTA has cut Singapore's annual car growth to zero since February 2018.

MAKING PUBLIC TRANSPORT THE PREFERRED MODE OF TRANSPORT

LTA has given commuters more viable options in sustainable modes of transport.

With the growing emphasis on developing our public transport infrastructure – from walking and cycling networks to new rail lines – it is easier than ever to ditch the car and walk, cycle or ride to our destinations instead.

MOVING INFRASTRUCTURE UNDERGROUND

It typically costs less to build on the surface. But as our towns and estates grow, it is high time to look below.

Given today's advanced tunnel boring technologies, constructing new subterranean infrastructure – such as underground road, train tunnels, bus interchanges and depots – is much less challenging. This frees up the land on the surface for better uses.

INTEGRATING LAND-USE DEVELOPMENTS

Transit-oriented developments are springing up across the island in the form of Integrated Transport Hubs (ITHs). These are nodes where train stations and bus interchanges are conveniently co-located with residential, retail, and commercial developments so that commuters can transit easily while enjoying the facilities that various ITHs offer.

For instance, bus interchanges can be integrated with shopping malls, saving on land space while making it easier for shoppers to travel by public transport.

CO-LOCATING TRANSPORT INFRASTRUCTURE

The East Coast Integrated (4-in-1) Depot is LTA's latest initiative at optimising land use by our transport infrastructure.

By co-locating transport infrastructure and building vertically – upwards or downwards – the land space can be maximised for transport infrastructure. This provides more parking spaces for buses and trains while they are off-service.

Kim Chuan Depot in Hougang, the world's largest underground train depot, serves as a futuristic model where locomotives can be parked underground while buses sit above the trains.





ACTIVE MOBILITY: RIDE SAFELY, EVERYONE!

Are active mobility users pedestrians or motorists? They are somewhere in between both, and a set of rules and code of conduct has been put in place for the safety of all path users.

Many of us enjoy the convenience of having our meals delivered to us piping hot, whenever we wish, wherever we are by our friendly food deliveryman (or woman), usually on a personal mobility device (PMD). Others like the convenience of nipping around the neighbourhood on their e-scooter to run errands in a shorter time than previously. PMDs are now part and parcel of our lives and have become an additional Walk-Cycle-Ride option, with some already relying on such devices for their livelihoods.

While PMDs offer commuters more convenience and a wider choice of transport options, we also need to manage their impact on safety on paths. The question is how?

Education and enforcement are equally important measures adopted by LTA to ensure smooth journeys for all who use our paths. This sets the wheels in motion to encourage active mobility users to share paths graciously and to always prioritise safety over speed.

Learning the Ropes

“Through education, we want to nurture behavioural change in the long run, such that people ride with safety as their



priority and show consideration for the people sharing the paths with them,” said Ms Christabel Chuang, Deputy Manager, Active Mobility Group.

Education is key to encouraging good rider etiquette and behaviour. One such effort is the Safe Riding Programme (SRP).

Launched in February 2018, the SRP educates cyclists, and PMD and power-assisted bicycle (PABs) users on safe riding practices, the proper use of active mobility infrastructure and the rules and code of conduct under the Active Mobility Act (AMA).

“When you first learn how to ride a bike, you don’t learn the rules, but now that is something you have to keep in mind on the streets,” said Gary Seah, Manager, Active Mobility Group, noting that active mobility users may need time to familiarise themselves with the regulations and how to apply them in when they ride on the paths.

“The majority of active mobility users don’t intend to cause harm to others, but more often than not, they are not fully aware how their riding can affect other users sharing the paths or roads with them. This is why the SRP is useful; we get them to step into the shoes of pedestrians to better appreciate the importance of safe riding.”

MS CHRISTABEL CHUANG
DEPUTY MANAGER, ACTIVE MOBILITY GROUP



Apart from the SRP, LTA also engages the public through Active Mobility Patrols (AMP), a scheme that was set up in April 2016. It supports volunteer teams formed by grassroots and non-government organisations to educate users in their communities on the rules and codes under the AMA through self-organised patrols.

AMP volunteers are equipped with knowledge on AMA rules and trained to interact with the public in a friendly and approachable manner. They help educate active mobility users on a personalised level and this complements mass educational efforts rolled out by LTA. Their efforts go a long way in helping to inculcate a social norm in which active mobility users, be they cyclists, PMD users or pedestrians, look out for one another.

What About Inconsiderate Riders?

Despite the best education efforts, some riders continue to flout the rules, endangering themselves and others. "More than 1,700 active mobility

offences were detected in the first half of 2019. Common offences include speeding, using PMDs on roads, and using non-compliant devices.

LTA takes a firm stand on enforcement to keep the streets safe. Active Mobility Enforcement Officers (AMEOs) have been patrolling the streets since 2016, and recent laws have increased their scope of enforcement.

Willy Soo, Manager (Enforcement), Traffic and Road Operations, tells us that "To ramp up efforts to deal with errant active mobility users, LTA uses various methods including covert operations in plain clothes and ring fencing, where AMEOs surround accident hotspots to prevent such users from escaping after breaking rules."

Despite such comprehensive deterrence strategies, LTA hopes that the key takeaway for active mobility users is "safety above all".

The debate about the potential dangers of PMDs is unlikely to stop soon but hopefully, people will also be able to see another perspective which is the long-term benefits of active mobility.

"People need to buy into the idea that we should have fewer vehicles on the road. It should be a long-term commitment to promote a liveable space by reducing carbon emissions, and one way is through active mobility."

WILLY SOO,
MANAGER (ENFORCEMENT),
TRAFFIC AND ROAD OPERATIONS.



#DidYouKnow

The Safe Riding Programme is a 90-minute session comprising a theory segment on the proper use of infrastructure and key AMA rules, and a practical component where participants practise device handling skills and safe riding behaviour on different path scenarios. The programme is free to the public and continues to be fully subsidised until December 2019.

Find out more about the SRP, including [how to sign up here!](#)

SAFE RIDING PROGRAMME



#DidYouKnow

In just three years, the number of Active Mobility Patrol teams have grown to 62, with over 1,000 volunteers across the country. They patrol the streets and educate the public on active mobility dos and don'ts.

#DidYouKnow

From 1 July 2019, all e-scooters used on public paths have to be registered. Those who fail to do so may face a fine of up to \$2,000 and/or be jailed for up to three months for the first offence.

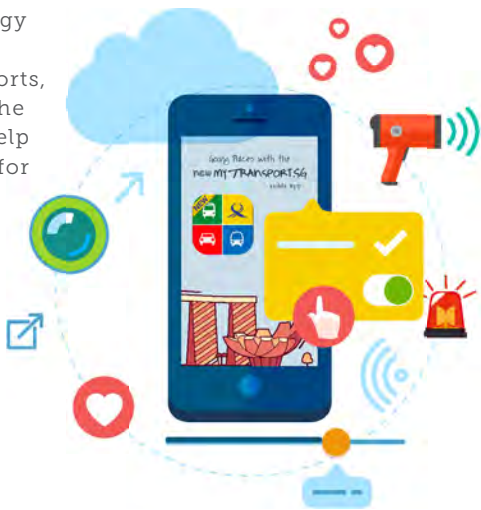
\$2000

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MORE #EYESONTHEGROUND

We use technology to help with enforcement efforts, and encourage the community to help keep an eye out for rule breakers.



- From 31 July 2019, the public will be able to send photos or videos of errant riders via the "report PMD/PAB incident" feature in the MyTransport.SG app.
- Closed-circuit television cameras will be trialled in hotspots to deter and detect errant riders.

AN EASY GUIDE ON WHERE YOU CAN RIDE

Over the years, more people are embracing Active Mobility as a mode of transport in Singapore. That's a good sign of a city that's becoming more liveable and sustainable. Let's realise this vision by working together to make our city an inclusive, safe, and pleasant place for all to walk, cycle, and scoot.

BUT FIRST, DO YOU KNOW WHERE YOU CAN RIDE AND THE SPEED LIMITS TO OBSERVE?

Shared Paths
Cycling Paths/Park Connector Network (PCNs)
Speed Limit: **25km/h**

Power-Assisted Bicycle (PAB)
Electric Bicycle or e-bike

Bicycle

Personal Mobility Device (PMD)
Kick Scooters, Electric Scooters, Unicycles, Hoverboards and etc.

Personal Mobility Aid (PMA)
Motorised Wheelchairs or Mobility Scooters
The maximum device speed for motorised PMAs is 10km/h

Footpaths
Speed Limit: **10km/h**

Bicycle

Personal Mobility Device (PMD)
Kick Scooters, Electric Scooters, Unicycles, Hoverboards and etc.

Personal Mobility Aid (PMA)
Motorised Wheelchairs or Mobility Scooters
The maximum device speed for motorised PMAs is 10km/h

Roads
Keep within the speed limit on road

Power-Assisted Bicycle (PAB)
Electric Bicycle or e-bike

Bicycle

Personal Mobility Device (PMD)
Kick Scooters, Electric Scooters, Unicycles, Hoverboards and etc.

SPOT SNAP SEND



Report **errant riders** using
Report PMD/PAB Incident
feature in MyTransport.SG



Scan to download
the app now

iOS:



Android:





HOW WELL DO YOU KNOW OUR EXPRESSWAYS?

AYE, BKE, CTE – Singapore’s love for acronyms can be seen in the names of our 10 expressways that currently criss-cross the island. Discover interesting facts about these speedy routes.

UNDER THE SEA

A landmark stretch of a 420m undersea road was completed as part of Marina Coastal Expressway (MCE), which opened in 2013. The first of its kind to go under the sea bed, the tunnel runs 20m below the mean sea level at its deepest point.



FIRST UNDER-GROUND ROADS

The Central Expressway (CTE) is the first to feature underground tunnels. Completed in 1991, its two tunnels remained as the only underground roads in Singapore for over a decade, until the Fort Canning Tunnel was opened in 2007.



HIGHWAY WITH A HERITAGE

The Pan Island Expressway (PIE) is not only Singapore’s oldest, but also the longest. Construction started in 1966 and the last phase was completed in 1992. The 42.8km expressway connects Changi Airport in the east with Tuas in the west in less than 45 minutes – half the time it would normally take via trunk routes.

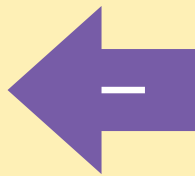
DID YOU KNOW?



Our highways are typically abbreviated by the first letter of the first two syllables, followed by the first letter of the last word – except for KPE and MCE. So Tampines Expressway is TPE, and Ayer Rajah Expressway is AYE, while KPE stands for Kallang-Paya Lebar Expressway.



Singapore’s only right-hand expressway exit is about to disappear. Construction work is currently underway to replace the Clementi exit along PIE (Tuas) with an underpass exit on the side where it typically belongs – the left.



LONGEST TUNNEL MARVEL



At 9km, the Kallang-Paya Lebar Expressway (KPE) became the longest road tunnel in Southeast Asia when it was fully opened in 2008. The tunnel was launched with much fanfare, which included a car rally, a trishaw race, a human race, and even a lantern parade!



ANIMAL-FRIENDLY CROSSING

The PIE may be the winner for having the greatest number of flyovers (18), but the Bukit Timah Expressway (BKE), which is maintained by NParks, has one special overpass that allows animals to cross. The 62m Eco-Link@BKE was built in 2013 to allow wildlife to expand their habitat across two nature reserves. This helps to improve the biodiversity of the surrounding environment.

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2. What is the name of the programme which equips cyclists and personal mobility device (PMD) users with safe riding practices?

3. How much land will the 4-in-1 depot save?

Email your answers to connect@lta.gov.sg by 31 August 2019, and include your name with the subject "Connect July 2019". The winners will be notified via email. Good luck!

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