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#### SINGAPORE

30 Cecil Street #11-08 Prudential Tower, Singapore 049712 Tel: (65) 6392 0060 Fax: (65) 6299 3033

#### SHANGHAI

No. 1099 South Wan Ping Road, Xuhui District, Shanghai 200323 Tel: (86-21) 5359 9950 Fax: (86-21) 5359 9591



STEC Singapore Company Profile

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## **About STECS**

Established in 1996, Shanghai Tunnel Engineering Singapore (STECS) is a leading civil engineering and construction firm in Singapore. Our first project in Singapore was as a subcontractor in LTA North-East Line project. We have since grown to become one of the top civil main contractors in Singapore.

Over the years, we have been trusted by our clients to construct many of the major civil projects in Singapore. Today, we have successfully undertaken and completed projects for Land Transport Authority (LTA), Public Utilities Board (PUB) and Marina Bay Sands (MBS).

Our involvement in all the major MRT lines, from North East Line to the current Thomson East Coast Line, is a testament to our client's confidence in our technical capabilities and competencies in handling large infrastructure projects.



STEC Singapore Company Profile Milestones

### Milestones



1996

Established in Singapore



998

Awarded LTA Subcontracts

North-East Line C703, C704, C708 and C810



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First Project as a Design and Build Main Contractor in Singapore

> PUB Deep Tunnel Sewerage System (DTSS) T-01



2001

First LTA Project as a Main Contractor in Singapore

Circle Line Stage 1 C825



2002 - 2004

Awarded 1 LTA Subcontract and 2 LTA Joint Venture Main Contracts

- » Circle Line Stage 2 C822
- » Circle Line Stage 3 C852» Circle Line Stage 4 & 5 C855



2008

First Project as an Independent Main Contractor

Marina Bay Sands Integrated Resort P8402 Bayfront Infrastructure Project



2009 - 2011

Awarded 4 LTA Main Contracts. First Viaduct Project in Singapore.

- » Downtown Line Stage 2 C920
   » Downtown Line Stage 3 C923A
   » North-East Line C713
   » Tuas West Extension C1688
- 2013 2017

  Awarded 1 PUB Contract and 4 LTA Main Contracts

» Thomson-East Coast Line T206, T225, T305 and T310 » PUB DTSS T-11



2018 - 2019

Awarded 3 LTA Main Contracts

 » North South Corridor N109A
 » Jurong Region Line J102
 » Underground Infrastucture at Changi Airport T316



STEC Singapore Company Profile Major Projects



# **Major Projects**

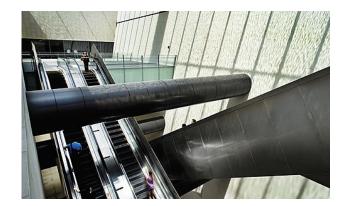


**DTSS T-01**Deep Tunnel Sewerage System

Client: Public Utilities Board

The first design and build project which STECS undertook in a joint venture with Woh Hup. Using New Austrian tunneling method and tunnel boring method, this project featured a 7.2 m diameter EPB machine to construct the bored tunnels.

Tunnel: 6 m diameter and a total length of 5.8 km Contract Value: S\$80.6 million Contract Period: Jan 2000 - Jan 2005



**C825**Promenade, Esplanade, Bras Basah and Dhoby Ghaut Stations

Client: Land Transport Authority

Featuring 3.2 km TBM tunnels, 0.6 km C&C tunnel and 110 m overrun tunnel using SCL method, the project utilized two 6.35 m diameter mix face EPB machines to construct the bored tunnels. The project was situated in the heart of urban Singapore, close to iconic landmarks such as Raffles Hotel, Chijmes, office and shopping buildings along Raffles Boulevard, as well as existing MRT stations and tunnels.

Tunnel: **5.8** m diameter and a total length of **3.2** km Contract Value: **\$\$343.94** million Contract Period: **Aug 2001** - **Mar 2008** 



### Serangoon Interchange Station

Client: Land Transport Authority

C852

A build only project in a joint venture with Woh Hup and Alpine Mayreder. The project includes construction of the underground station and interconnecting tunnels to Lorong Chuan station and to Bartley Station. Two 6.35 m diameter EPB machines were used to construct the bored tunnels

Tunnel: **5.8 m diameter with a total length of 3.8 km**Contract Value: **\$\$155.95 million**Contract Period: **Aug 2003 - Aug 2008** 



C855

Holland Village, Buona Vista, Kent Ridge and One North Stations

Client: Land Transport Authority

A design and build project under a joint venture with Woh Hup and Alpine Mayreder which includes the construction of 4 underground stations for Circle Line Stage 4 along with 8.25km TBM tunnels and 0.35km C&C tunnel. The bored tunnels were constructed using two 6.35m diameter EPB machines and two 6.35m diameter slurry machines.

Tunnel: **5.8 m diameter with a total length of 8.25 km**Contract Value: **\$\$399.91 million**Contract Period: **Aug 2004 - Dec 2009** 

STEC Singapore Company Profile Major Projects





#### P8402

Marina Bay Sands Integrated Resort Development

Client: Marina Bay Sands Pte Ltd

The project comprises of the construction of basement retail concourse, car park and two-directional, two-line MRT section tunnels underneath.

Contract Value: **\$\$167.9 million**Contract Period: **Jun 2008 - Jun 2010** 



#### C902

**Promenade Station** 

**Client: Land Transport Authority** 

The design and build project includes the extension of existing Promenade Station and construction of 1.12km interconnection tunnels. One 6.35m diameter EPB machine was used to construct the bored tunnels. Project C902 won the first place in the Safety Competition for Downtown Line Projects held by the Land Transport Authority (LTA)

Tunnel: 5.8 m diameter with a total length of 1.12 km

Contract Value: **\$\$230.97 million**Contract Period: **Apr 2008 - Sep 2013** 



#### C713

North East Line Extension

Client: Land Transport Authority

This project comprises of a 48m C&C tunnel and a two-tier box tunnel linked to the existing parking tunnel. The works include traffic turn pouring, the design and construction of temporary retaining structures, soil excavation and support, tunnels and the main structure, and the connection of existing water pumps, pipe, fire hose and emergency contact system to the new tunnels and other auxiliary work.

Tunnel: **48 m Cut & Cover Tunnel**Contract Value: **\$\$8.16 million**Contract Period: **Oct 2011 - Dec 2014** 



#### C920

**Newton Station** 

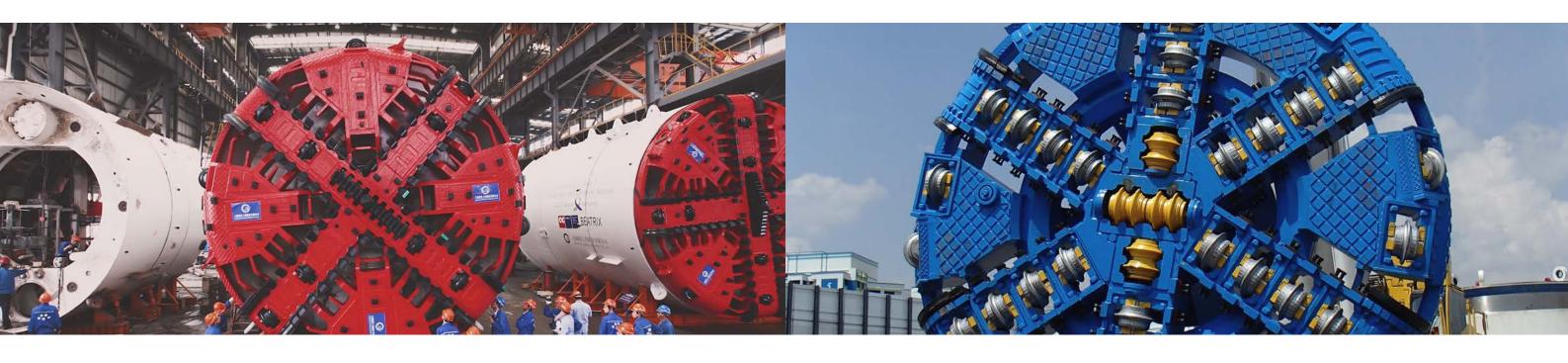
Client: Land Transport Authority

This design and build project involves the construction of the underground Newton Station and four tunnels that connect to Little India Station and Stevens Station as well as a Cable Tunnel using pipe jacking method. Four 6.35m diameter EPS machines were used to construct the bored tunnels

Tunnel: **5.8 m diameter with a total length of 5.32 km** 

Contract Value: **\$\$355.7 million**Contract Period: **Sep 2009 - Jul 2015** 

STEC Singapore Company Profile Major Projects





T206

#### Thomson Line Tunnels

#### Client: Land Transport Authority

Design and construction of mainline bored tunnels between Woodlands Station & Woodlands South Station and between Woodlands South Station and Sembawang Airbase. T206 also includes reception bored tunnels between Mandai Depot and crossover tunnels at Sembawang Airbase, associated four launching shafts, two escape shafts and four cross passages. Three 6.35m diameter EPB machines and two 6.35m diameter slurry TBMs were used to construct the bored tunnels.

Tunnel: 5.8 m diameter with a total length of 6.15 km

Contract Value: **\$\$421.58 million**Contract Period: **Jul 2013 - Sep 2019** 



#### T225

#### **Shenton Way Station**

#### Client: Land Transport Authority

Construction of a 5-storey underground Shenton Way Station. Bored tunnels between Shenton Way and Maxwell Station and between Shenton Way and Marina Bay Station. The station features three entrances and new passageway links connecting to adjacent buildings. Two 6.35m diameter EPB machines were used to construct the bored tunnels.

Tunnel: 5.8 diameter with a total length of 2.28 km  $\,$ 

Contract Value: **\$\$368.16 million**Contract Period: **May 2014 - Dec 2020** 



#### C923A

### Downtown Line Stage 3 Tunnels

#### **Client: Land Transport Authority**

Construction of tunnels between Tampines East and Upper Changi Stations, a TBM launching shaft and eight cross passages. Two 6.35m diameter EPB machines were used to construct the bored tunnels.

Tunnel: 5.8 m diameter with a total length of 4.76 km

Contract Value: **\$\$91.3 million**Contract Period: **Aug 2011 - Dec 2016** 



#### C1688

#### Tuas West Extension

#### **Client: Land Transport Authority**

STEC's first viaduct project in Singapore, C1688 entails the construction of one elevated 3-storey interchange station Gul Circle and 3.05km of elevated MRT viaduct. In addition, a further 600m of elevated viaduct for the Tuas South Extension (TSE) were constructed.

Contract Value: **\$\$190.0** million Contract Period: **Nov 2011 - Jul 2016** 

STEC Singapore Company Profile





**T310**Bayshore Station

#### Client: Land Transport Authority

Undertaken as a joint venture with Woh Hup, this project includes the construction of underground Bayshore Station with five entrances, bored tunnels between Bayshore and Siglap Station and between Bayshore and Bedok South Station, along with one escape shaft and one cross passage. Three 6.35m diameter EPB machines are used to construct the bored tunnels

Tunnel: 5.8 diameter with a total length of 3.55 km

Contract Value: **\$\$295.86 million**Contract Period: **Mar 2016 - Feb 2023** 



#### T305

#### Katong Park Station

#### Client: Land Transport Authority

Construction of underground Katong Park Station with two entrances, bored tunnels between Katong Park and Tanjong Rhu Station and between Katong Park and Amber Station and two cross passages. Two 6.35m diameter EPB machines are used to construct the bored tunnels.

Tunnel: 5.8 m diameter with a total length of 3.6 km

Contract Value: **\$\$293.45** million Contract Period: **2016 - 2023** 



**DTSS T-11** 

#### Deep Tunnel Sewerage System Phase 2

#### Client: Public Utilities Board

The project consists of the design and construction of a 6 km South Main Sewerage Tunnel, a 5.5 km South Linkway Sewerage Tunnel, fifteen working shafts and related facilities. Two 3.0m diameter slurry TBMs and three 3.3m diameter slurry TBMs are used to construct the bored tunnels..

Contract Value: **\$\$472.17 million**Contract Period: **Nov 2017 - Mar 2023** 



T316

#### Changi Airport Underground Infrastructure

#### Client: Land Transport Authority

T316 encompasses the construction and completion of twin bored tunnels from Changi Airport Terminal 5 (T5) development towards Changi Airport (CGA) Station Terminal 2 (T2) North Finger Pier. It also includes construction and completion of associated cross passages, launch shaft, underground infrastructure, tunnels low point sumps and the associated ancillary works.

Contract Value: **\$\$321.7 million**Contract Period: **Oct 2019 - Sept 2026** 





#### J102

**Jurong Region Line Stations** 

**Client: Land Transport Authority** 

Jurong Region Line J102 project comprises the design and construction of Choa Chu Kang, Choa Chu Kang West and Tengah Stations with a 4.3 km viaduct between Choa Chu Kang and Tengah along Choa Chu Kang Ave 3. This project includes addition and alteration works to the existing Choa Chu Kang station on the North-South Line, to integrate it with the new JRL station.

Contract Value: **\$\$465.1 million**Contract Period: **Sep 2019 - Feb 2026** 



#### N109A

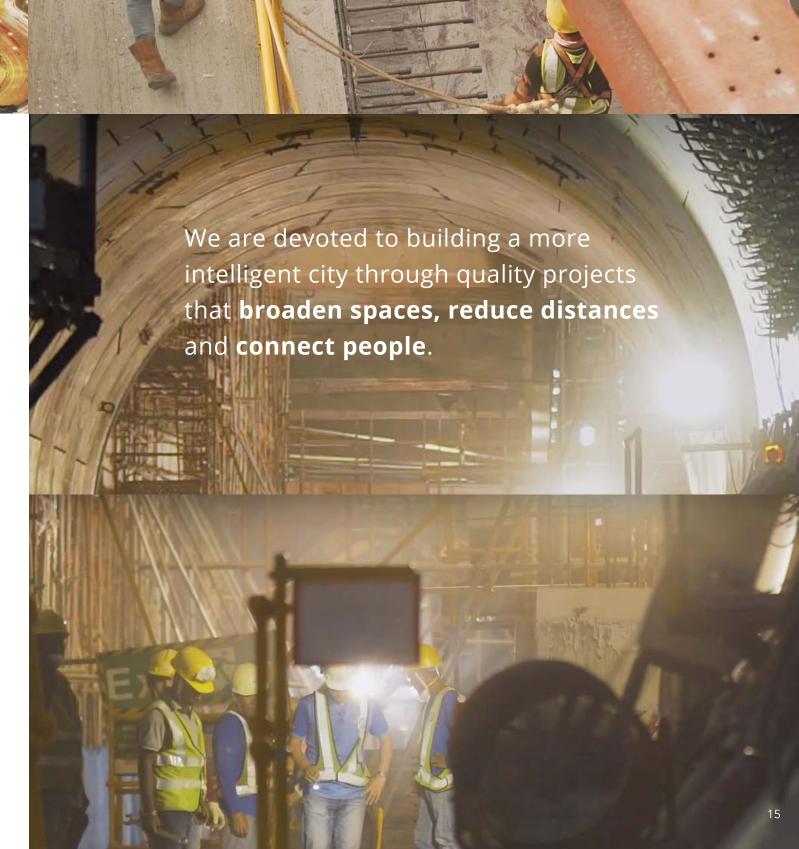
North-South Corridor

Client: Land Transport Authority

Construction of an 800 m long road tunnel featuring a pair of three-lane roads which will be integrated with Teck Ghee Station on the future Cross Island Line.

The project also involves the construction of an MRT station box - an underground structure that lays the foundation for a future station - and commuter facilities, including pedestrian overhead bridges, bus stops, sheltered walkways, and cycling paths. N109A is a part of the North-South Corridor, a 21.5km expressway which will connect towns in the north to the city centre.

Contract Value: **\$\$615.90 million**Contract Period: **Jan 2019 - Feb 2028** 



STEC Singapore Company Profile



# Quality Management

STECS is dedicated to deliver projects in a high-quality standard. This means inculcating a strong quality culture in our organization and continuously enhancing the features and characteristics of our services to increase efficiency and effectiveness during the production and delivery of each project.

STECS's commitment is to never compromise on the quality and compliance of our products and services. This requires every individual to understand their responsibility in achieving our quality objectives and to be empowered to protect our clients and our brand. We have adopted an Integrated Quality Management approach involving the client, subcontractors and suppliers, coupled with an efficient in-house Quality Assessment System that has led to greater efficiency during construction.



#### **QUALITY MANAGEMENT CERTIFICATIONS**

The company is registered with the SGS International Certification Services Singapore Pte Ltd in the Mechanical and Electrical works, Civil Engineering, Underground Construction, General Building Works and Tendering. In 2018, STECS was awarded the ISO 9001-2015 by the SGS International Certification Services Singapore Pte Ltd.







Our construction teams are trained to understand and apply the requirements to ensure consistent delivery of high standard of workmanship. Quality is an integral part of STECS's business principles which guide our actions to deliver high-quality services to our clients. They are the core element of our pursuit of being recognized and trusted as a leading construction company.

STECS implement an on-going and continuous quality improvement program to improve our services and products by identifying problems, implementing and monitoring corrective action and studying its effectiveness.

We use a structured process to identify areas in the project delivery system that need improvement and develop as well as implement improvement strategies when such areas are found. We are committed in the evaluation and enhancement of the processes we use to provide quality services and products that meet the needs and exceeds the expectations of our clients.

STECS has won the following awards from government agencies such as Building Construction Authority and Land Transport Authority. They serve as testament to our work ethic, dedication and unique specialty and demonstrate the applicable systems developed within our company.

Year	Awards	Category	Authority	Project
2013	Green and Gracious STAR Award	Winner	Building and Construction Authority	Corporate
2017	Construction Excellence Award	Excellence	Building and Construction Authority	C920
2018	Construction Excellence Award	Excellence	Building and Construction Authority	C1688
2019	Best Managed Rail/Road Infrastructure Project Partner	Excellence	Land Transport Authority	C1688
	Green and Gracious Star Champion Award	Winner	Building and Construction Authority	Corporate
	Project of the Year	Merit Award	Tunnelling and Underground Construction Society (Singapore) (TUCSS)	T225



STEC Singapore Company Profile WSHE Management



# **WSHE Management**

#### TOTAL WORKPLACE SAFETY, HEALTH AND ENVIRONMENT (WSHE)

A safe and healthy workplace is one that has workers and managers collaborating in a constant improvement process to protect and promote the health, safety, and well-being of all workers and the sustainability of the workplace. Integrating programs that control risks in the workplace together with the promotion of health can result in improved productivity and performance, reduction in sickness absence, employee retention, financial performance, return on investment and better quality of life.

#### **WSHE MANAGEMENT SYSTEM**

We employ safety officers in all our projects, led by a corporate safety manager who directly reports to the managing director. The safety professionals are part of a core team responsible for the effective implementation of Project Safety, Health and Environmental Management System.

#### A STRONG WSHE CULTURE

At STECS, our goal for safety is as clear and simple as our workplace safety slogan: **Zero Accident and Zero Harm for Everyone.** We accomplish that by integrating workplace safety and health management into our planning, design and construction process. STECS is committed to eliminate and prevent all workplace injuries and provide an environment where all employees go home in the same shape as when they came to work through firm and effective implementation of safety management rules and policy.

#### **VISUALIZATION TECHNOLOGY IN WSHE TRAINING**

In line with our core value of putting safety as a top priority, STECS establishes WSHE training facilities in all project sites and enhances them with Virtual Reality (VR) technology, which provides realistic simulations of various site-specific hazards. With VR training in areas such as work-at-height, electrical and lifting safety, STECS ensures that site personnel are equipped with heightened situational awareness and skills to prevent accidents.



#### **PROMOTING WSHE AWARENESS**

To realise an accident-free workplace, promoting WSH awareness is of paramount importance. Our managing director together with WSHE Committee conduct monthly inspection for all projects. On top of that, we hold an annual Corporate WSHE Campaign to raise awareness as well as recognize individual safety efforts and performance. We fully support MOM's 'VISION ZERO' and LTA's 'ZERO ACCIDENT MOVEMENT', which can be achieved through the strong commitment of the company's top management and active participation of supervisory staffs and workers.



#### **WSHE AWARDS**

As a WSHE leader, we are proud that our efforts over the years have been recognized in the industry.

Year	Awards	Category	Authority	Project
2018	Contractors Challenge Shield	Winner	Land Transport Authority	
	Environment Excellence Award	Winner		T225
	Safety Excellence Award	Winner		
	Safety Merit Award	Merit Award		T305
	WSH (SHARP) Award	Winner	Ministry of Manpower	T225 & T206
2019	Construction Safety Innovation Award	Winner	Land Transport Authority	T305
	WSH Officer Recognition Award	Winner		T310
	WSH (SHARP) Award	Winner	– Ministry of Manpower –	T11, T305, T225 & T206
	WSH Performance Award	Silver Award		Corporate
	Design and Engineering Safety	Merit Award	Building and Construction Authority	C1688







STEC Singapore Company Profile Social Responsibility



# Social Responsibility

STECS is committed to being a positive contributor to the local community. Our activities are focused on benefiting the places where we live and work, increasing knowledge in areas ranging from arts to geosciences, and creating a sustainable environment. Our employees actively participate in our outreach events, improving everything from green spaces to public education and more, all done with the belief that our efforts will make an impact and build a more resilient society.

#### COMMUNITY

Our outreach activities contribute to building safe, healthy and strong communities. Our employees, along with their families and friends, volunteer their time and enthusiasm to help us make a difference.











#### **KNOWLEDGE**

Our support for educational initiatives is part of a corporate commitment to programs that enhance understanding of science, arts, literature and more. Whether it's developing the talents of our youth or creating a bridge for cross-cultural learning, we work with organizations whose efforts pique curiosity and bring about new points of view.



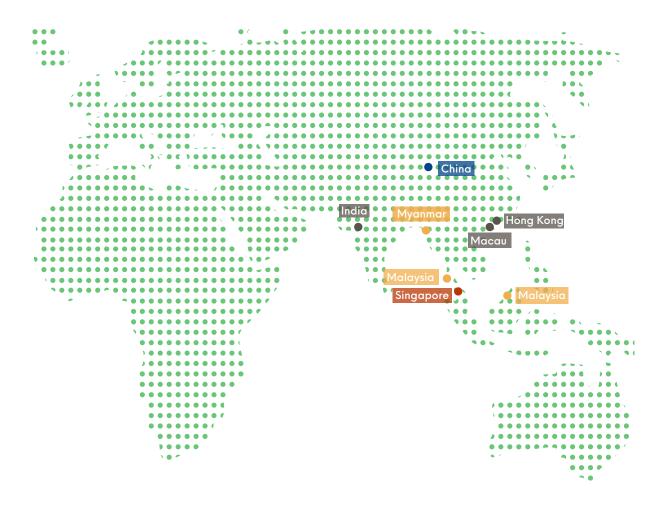
#### **ENVIRONMENT**

We team with non-profits dedicated to a range of environmental initiatives. Our sponsorships and employee volunteering efforts support conservation, rehabilitation and more. In the spirit of innovation, STECS also partners with organizations that leverage new technologies to improve the way we care for the environment.





## International Market



- STEC Headquarter
- STEC Singapore
- STEC Singapore Subsidiaries
- Operated under STEC Singapore

