



路政署
Highways Department

中九龍 幹線 Central Kowloon Route

HY/2014/20 – Central Kowloon Route - Yau Ma Tei West

Build King – SKEC Joint Venture (YMTW)
CIC Site Safety Gathering
Sharing Session for Working-at Height Safety

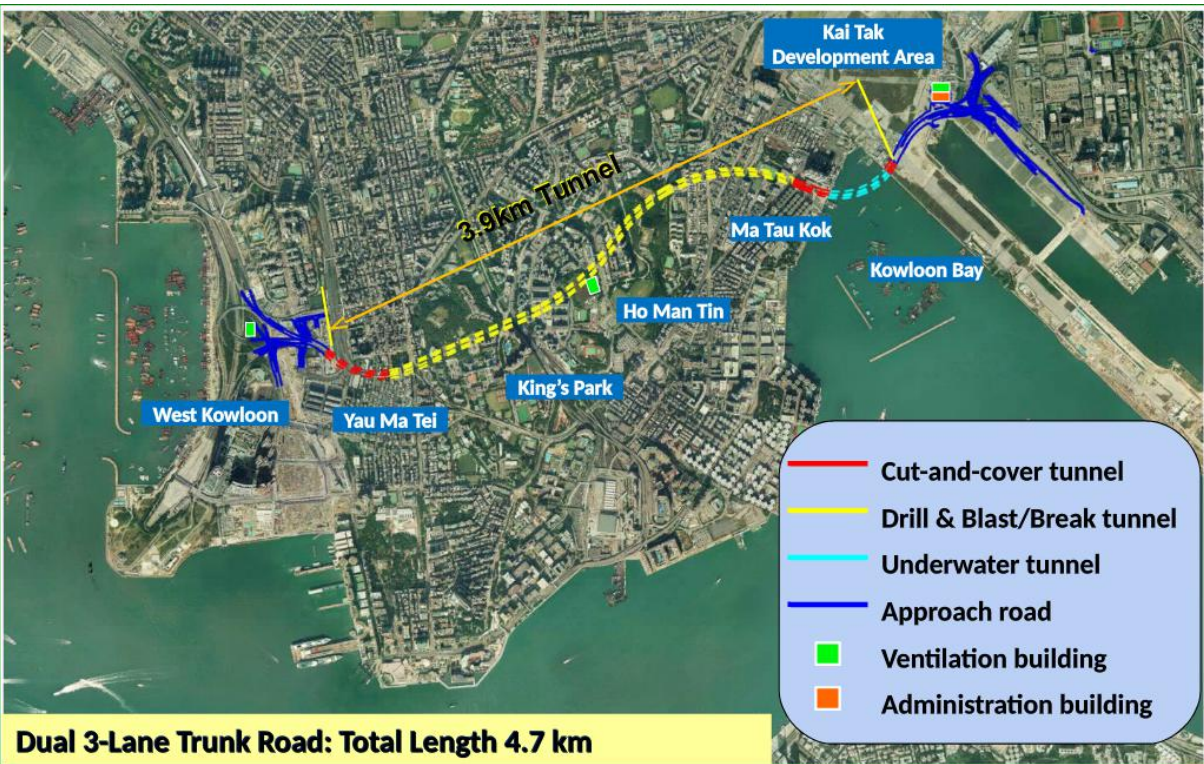


ARUP

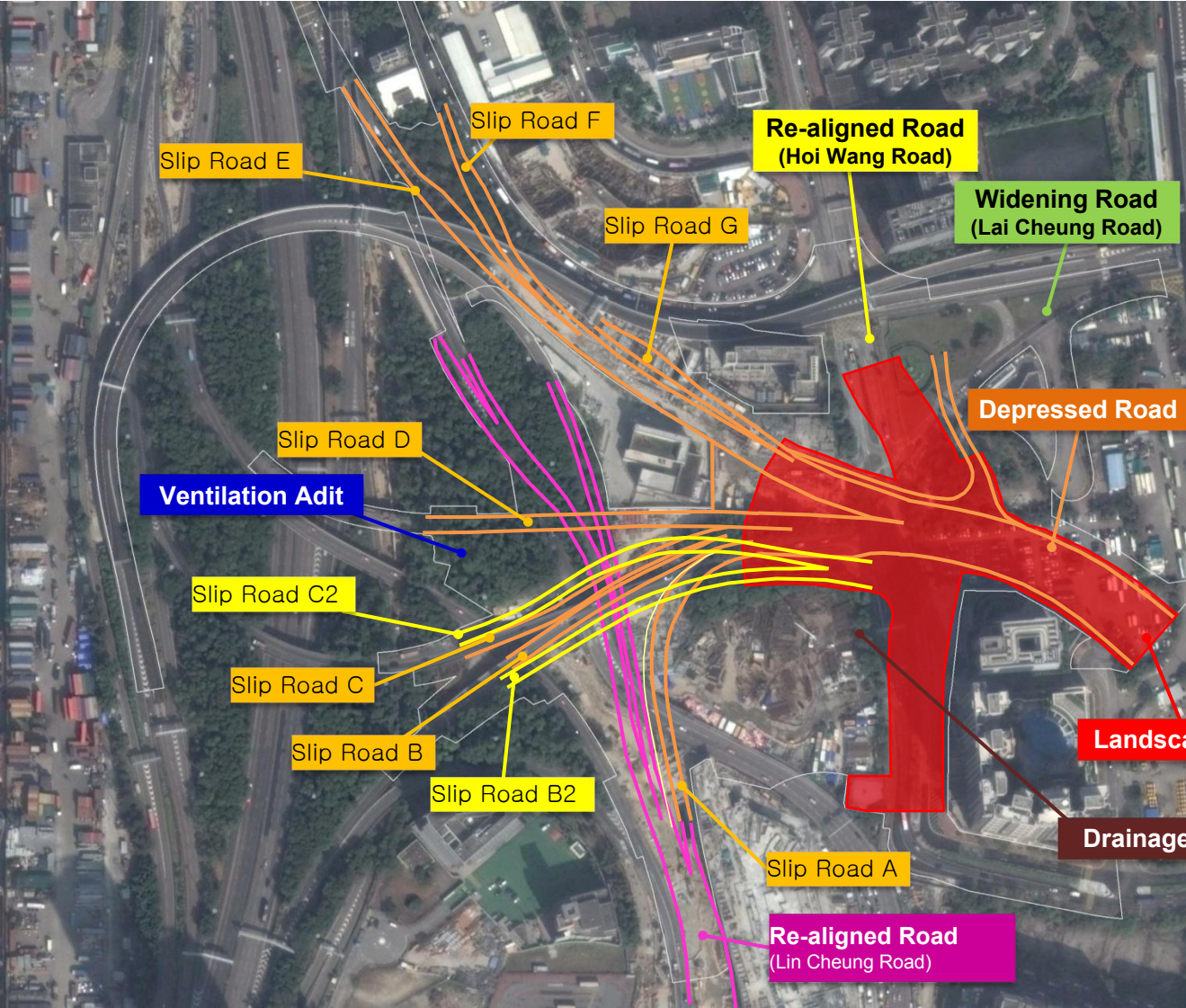
Joint Venture



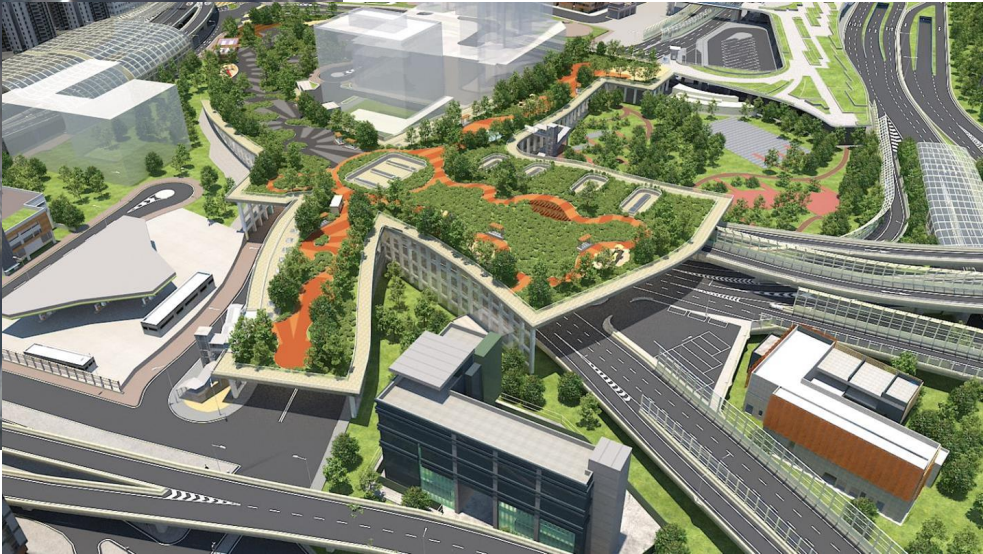
1. Overview of CKR Project



2. Scope of Work



| Scope of Works | |
|---------------------------------|----------------------|
| Depressed Road | 250m |
| Slip Roads and Bridges | 9ea / 7ea |
| Landscaped Deck | 22,735m ² |
| Noise Mitigation Measures | Semi : 120m |
| | Vertical : 530m |
| | Cantilever : 765m |
| Ventilation Adit | 465m |
| Drain Diversion | 215m |
| Re-alignment of Lin Cheung Road | |
| Re-alignment of Hoi Wang Road | |
| Widening of Lai Cheung Road | |



3. Video of YMTW Project



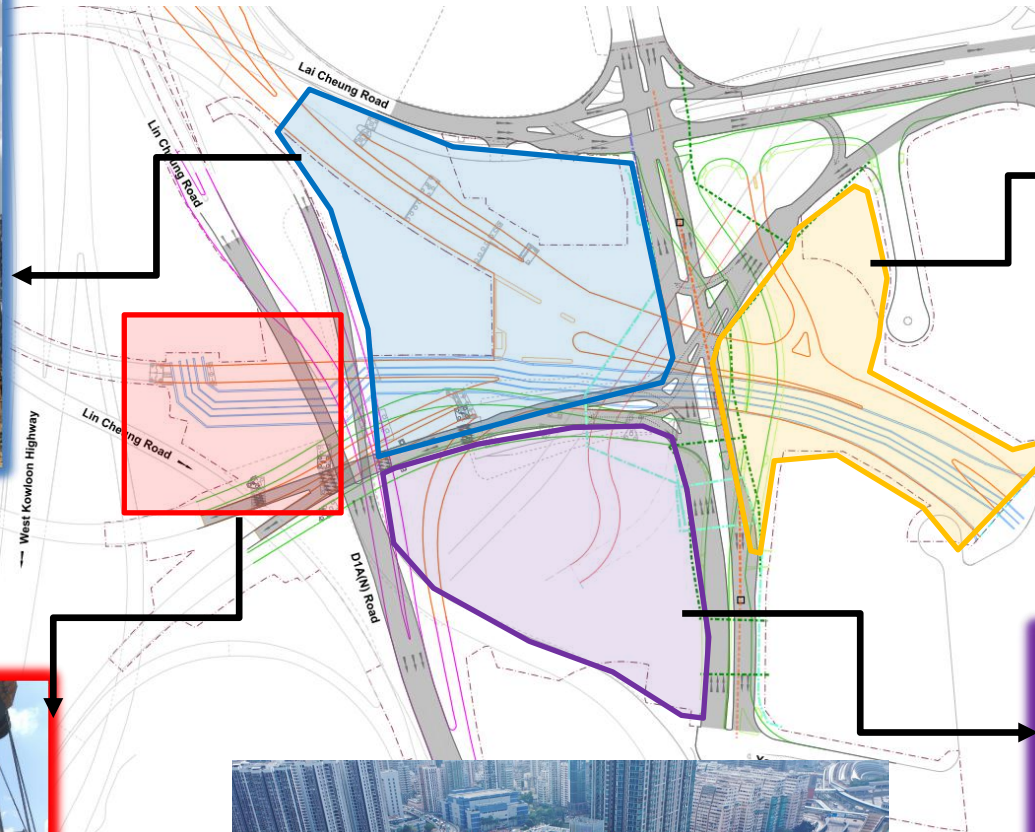
4. Work Activities with Relatively Higher Risk on Working at Height



4. Socket H-pile Construction at Portion 1B



3. Bored Pile Construction at Portion 1E



1. Diaphragm wall Construction at Portion 1F and 10



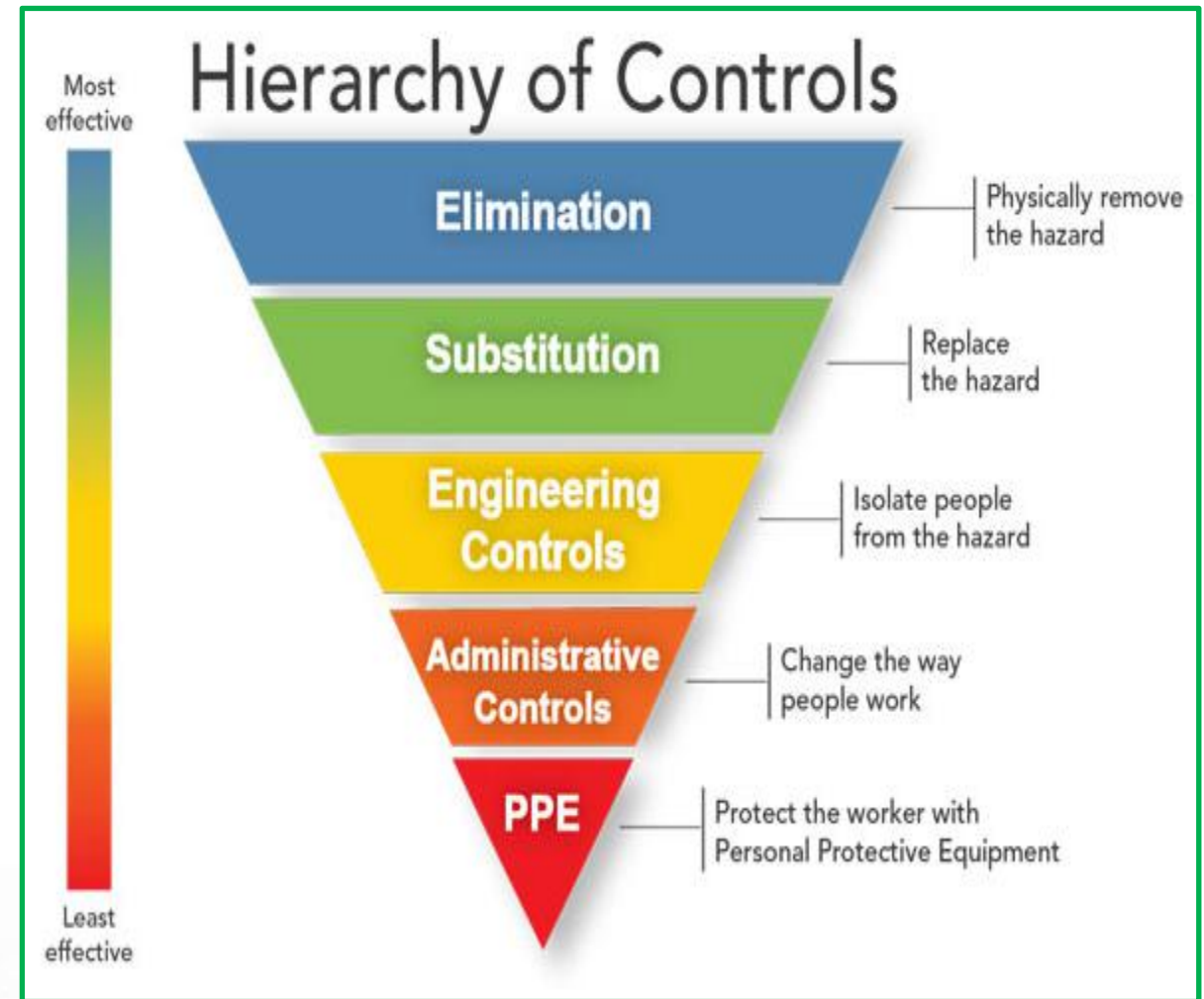
2. Box Culvert Construction at Portion 17



4. Work Activities with Relatively Higher Risk on Working at Height



Our project's strategy:
Elimination and substitution are
the priority of the hazards control.

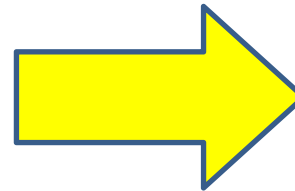


5. Safety Measure on Works Activities

Method Review

1) Diaphragm Wall Construction

Initial Plan: Adopt metal scaffolding during the rebar cage connection works



After Method Review: The connection work can be conducted at ground level

5. Safety Measure on Works Activities

Prefabricated Protection

1) Diaphragm Wall Construction



Standard of edge / ground opening protection

5. Safety Measure on Works Activities

Prefabricated Protection

1) Diaphragm Wall Construction



1

Setting up of metal frames for rebar cage

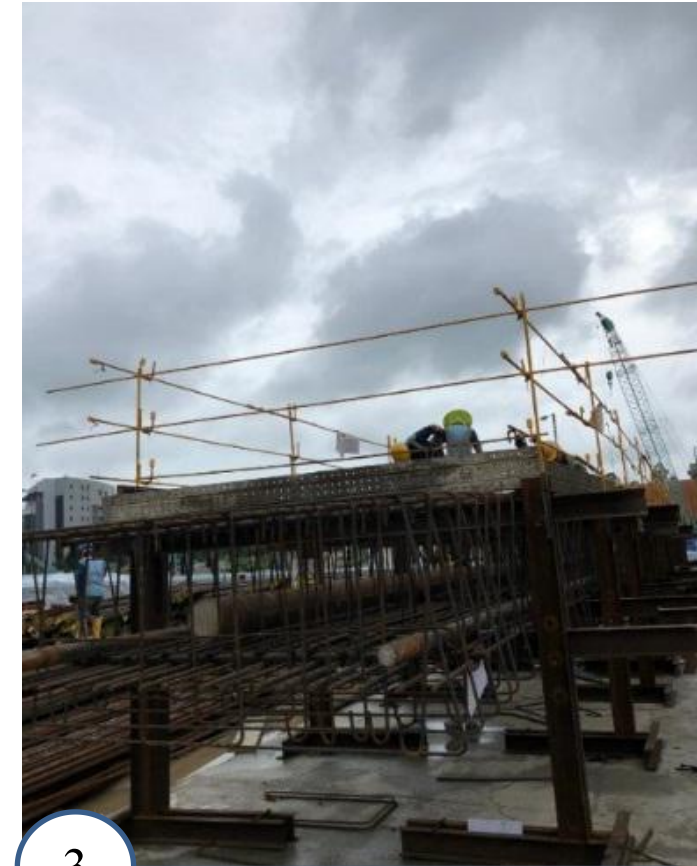
2

Tailor-made post for pre-fabricated guardrails



3

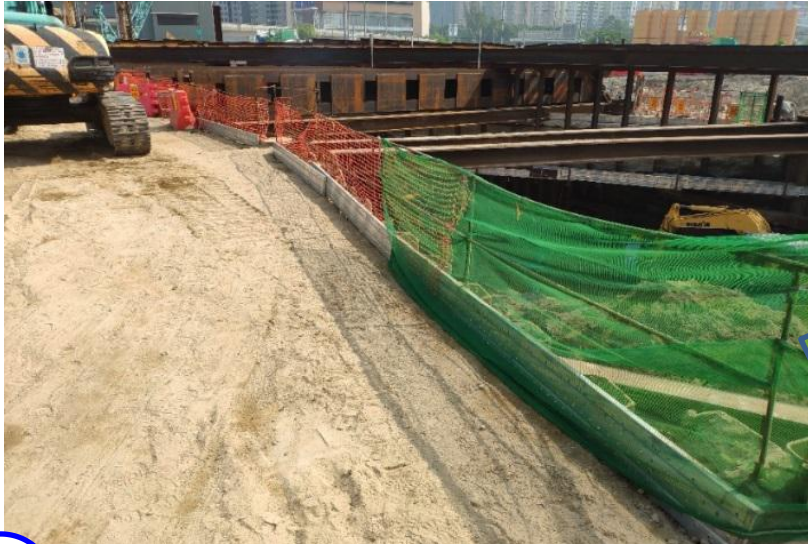
Pre-fabricated guardrails



5. Safety Measure on Works Activities

Sequence of Work

2) Box Culvert Construction



Documents include:

- 1) Statutory Form
- 2) Design Certificate
- 3) ICE Certificate
- 4) Permit to Excavate
- 5) U/U Detection Report
- 6) Emergency Contact



Pictorial sequence
of works

5. Safety Measure on Works Activities

Prefabricated Protection

3) Bored Pile Construction



Pre-fabricated Guardrail



Safety Net

5. Safety Measure on Works Activities

PPE

4) Socket H-pile Construction



Independent
lifeline



6. Working at Height Control Measures

Works Above Ground Safety Measure

i) Metal Scaffolding

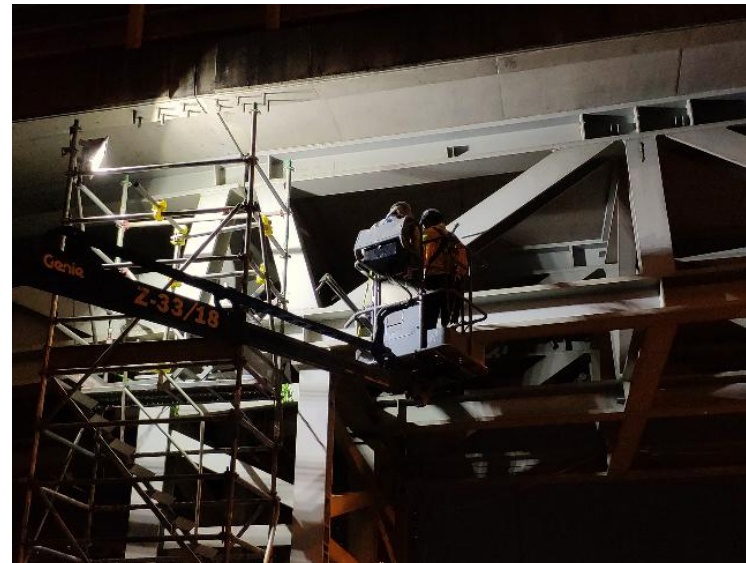
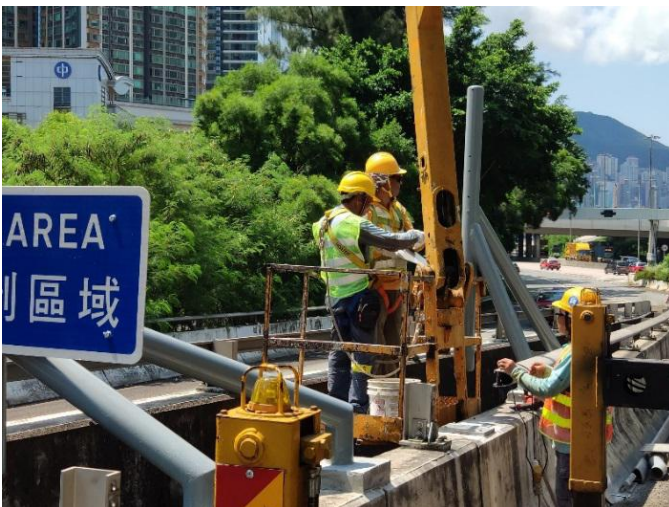


Access tower and platform

6. Working at Height Control Measures

Works Above Ground Safety Measure

ii) Mobile Elevated Platform

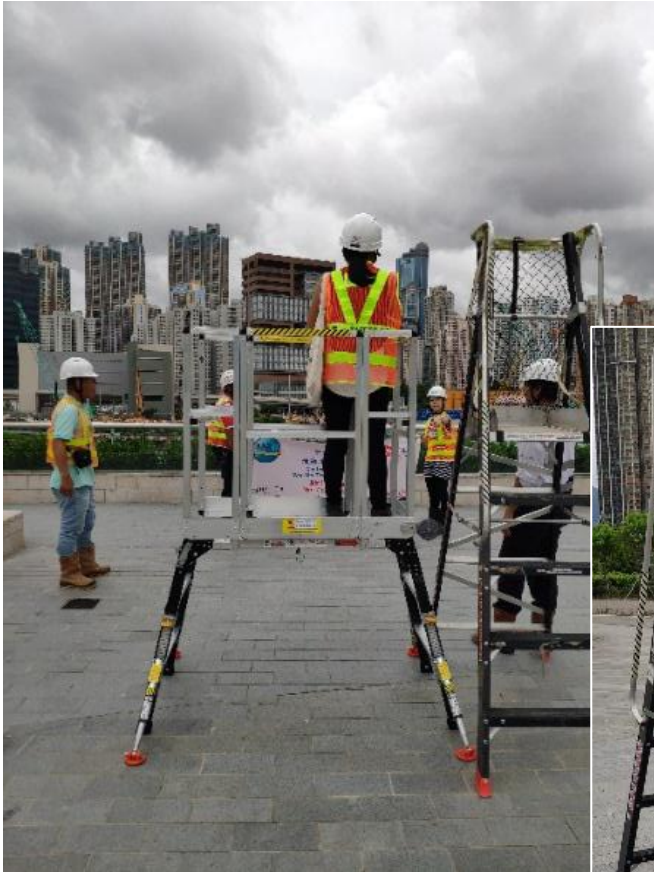


Different types of Mobile Elevated Platform are to be adopted

6. Working at Height Control Measures

Works Above Ground Safety Measure

iii) Light-Duty Working Platform



**Equipment
Label**



6. Working at Height Control Measures

Works Above Ground Safety Measure

iv) Fall arresting system (Full body harness + secure anchorage point)



Access Ladder



Fall arresting system



Independent lifeline

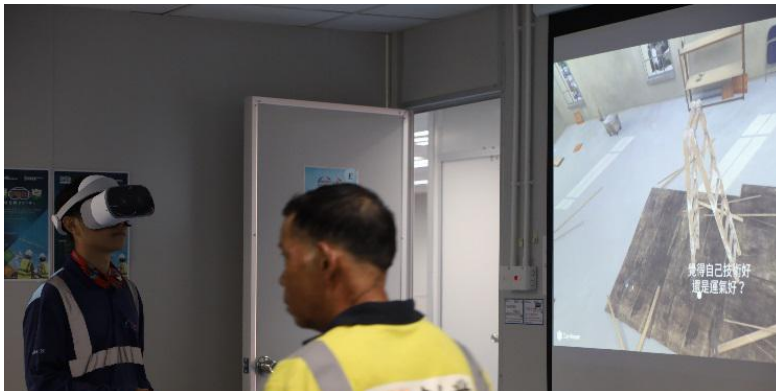
6. Working at Height Control Measures

Training & Promotion



6. Working at Height Control Measures

Training & Promotion



Virtual Reality Training (VR)

7. Innovative Measure in Working at Height Safety

Alert Device



Alert Device installed on the man cage



Magnetic control installed on the door



Control device at the anchor point

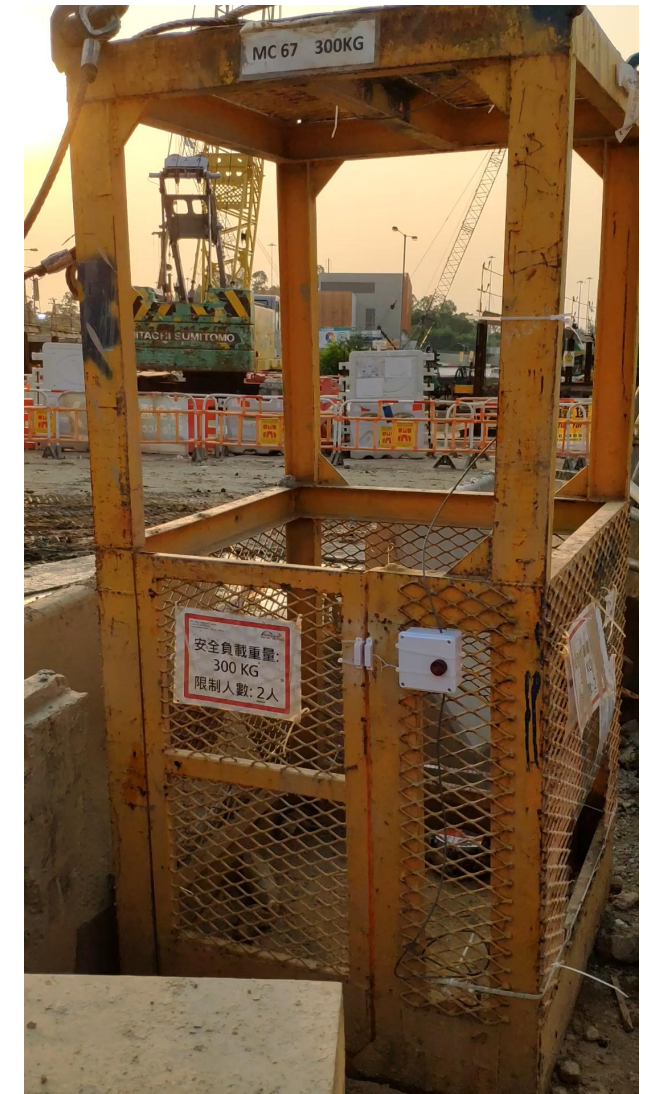


The signal of LED lighting (Green colour) showing the use of anchorage point

Buzzer with light alert when door was not closed properly

7. Innovative Measure in Working at Height Safety

Alert Device



End of Presentation

Thank You!!