

ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE

HEAD 705 – CIVIL ENGINEERING

Transport – Ferry Piers

58TF – Improvement works at Kau Sai Village Pier

59TF – Improvement works at Lai Chi Chong Pier

Members are invited to recommend to the Finance Committee –

- (a) the upgrading of **58TF** to Category A at an estimated cost of \$77.8 million in money-of-the-day (MOD) prices; and
- (b) the upgrading of **59TF** to Category A at an estimated cost of \$108.8 million in MOD prices.

PROBLEM

We need to carry out the following works –

- (a) **58TF** for reconstruction of Kau Sai Village Pier to improve the berthing condition and facilities of the pier; and
- (b) **59TF** for reconstruction of Lai Chi Chong Pier to improve the structural condition and facilities of the pier.

/PROPOSAL

PROPOSAL

2. The Director of Civil Engineering and Development, with the support of the Secretary for Development, proposes to upgrade the following projects to Category A –

- (a) **58TF** at an estimated cost of \$77.8 million in MOD prices for the reconstruction of Kau Sai Village Pier; and
- (b) **59TF** at an estimated cost of \$108.8 million in MOD prices for the reconstruction of Lai Chi Chong Pier.

PROJECT SCOPE

————— 3. Details of the above two projects are provided at **Enclosures 1 and 2** respectively.

Development Bureau
April 2021

58TF – Improvement works at Kau Sai Village Pier

PROJECT SCOPE

We propose to upgrade **58TF** to Category A and the scope of works comprises –

- (a) reconstruction of the existing pier, including provision of ancillary facilities such as roof cover, lighting system, benches, solar panels, Wi-Fi device, etc.; and
- (b) environmental monitoring and mitigation measures for the proposed works.

2. A layout plan and photomontage showing the proposed works are at **Annex 1** and **Annex 2 to Enclosure 1** respectively.

3. We plan to commence the proposed works upon obtaining funding approval from the Finance Committee for target completion in around 3 years.

JUSTIFICATION

4. The Kau Sai Village Pier (“Pier”) is located on the south of Kau Sai Chau in Sai Kung District, and was reconstructed in the 1990s. Fishermen rely on the Pier for fishing operation, and tourists also use the Pier travelling to/from Hung Shing Temple¹ which was a declared monument on Kau Sai Chau. The existing Pier is small, and the berthing of vessels is easily affected by the rough sea condition. The insufficient water depth of the berth also makes berthing difficult during low tide in particular, causing inconvenience to passengers when boarding and alighting. Besides, the Pier has only one primitive berth with a narrow access, which cannot cope with high utilization on holidays or weekends. The local villagers and fishermen have been repeatedly requesting the Government to improve the Pier.

/The

¹ The Hung Shing Temple is the most important historical building in Kau Sai Village. In 2000, it received the UNESCO Asia-Pacific Heritage Award for Culture Heritage Conservation, and was declared a monument in 2002. During the Hung Shing Festival every year, a huge inflow of tourists and worshippers come to join this special occasion.

The Government agrees there is a need to reconstruct the Pier to improve the berthing condition and facilities of the Pier, with a view to bringing convenience to the public and tourists travelling to/from Kai Sai Village and Hung Shing Temple. A photo showing the existing condition of the Pier is at **Annex 3 to Enclosure 1**.

FINANCIAL IMPLICATIONS

5. We estimate the capital cost of the proposed works to be about \$77.8 million in MOD prices, broken down as follows –

	\$ million (in MOD prices)
(a) Demolition of the existing pier	1.1
(b) Construction of a new pier	56.9
(c) Construction of roof cover and other ancillary facilities	10.5
(d) Environmental mitigation measures and environmental monitoring and audit (EM&A) programme	2.0
(e) Consultants' fees for independent environmental checker services ²	0.3
(f) Contingencies	7.0
Total	77.8

A breakdown of the estimates for consultants' fees by man-month is at **Annex 4 to Enclosure 1**.

6. The Civil Engineering and Development Department (CEDD) will undertake contract administration and site supervision of the project by in-house resources.

/7.

² We will commission consultants to provide independent environmental checker services to review and audit the environmental monitoring works and results for the proposed works, as part of the EM&A programme.

7. Subject to funding approval, we plan to phase the expenditure as follows –

Year	\$ million (in MOD prices)
2021 – 2022	2.1
2022 – 2023	30.7
2023 – 2024	29.8
2024 – 2025	8.7
2025 – 2026	6.5
	<hr/>
	77.8
	<hr/>

8. We have derived the MOD estimates on the basis of the Government's latest forecast of trend rate of change in the prices of public sector building and construction output from 2021 to 2026. We will deliver the proposed works in a remeasurement contract under New Engineering Contract (NEC) form³ because the quantities of works may vary depending on actual ground conditions. The contract will provide for price adjustments.

9. We estimate the annual recurrent expenditure arising from the proposed works to be about \$0.4 million.

PUBLIC CONSULTATION

10. We consulted the Working Group on Tourism and Economic Development of Sai Kung District Council on the proposed works on 8 April 2019 and obtained their support.

/11.

³ NEC is a suite of contracts developed by the Institution of Civil Engineers, United Kingdom. It is a contract form that emphasises cooperation, mutual trust and collaborative risk management between contracting parties.

11. We also consulted the local stakeholders (including relevant District Council members, representatives of Sai Kung Rural Committee and fishermen), ferry operators, hiking groups, organizations of people with disabilities and green groups between September 2018 and July 2020. They supported the proposed works in general. We have considered their opinions when carrying out the detailed design.

12. The proposed pier reconstruction works were gazetted under the Foreshore and Seabed (Reclamations) Ordinance (Cap. 127) on 21 and 28 August 2020. No objection was received during the objection period. The proposed pier reconstruction works were authorised under that Ordinance on 13 November 2020.

13. We consulted the Legislative Council Panel on Development on 23 March 2021. Members supported submitting the funding proposal to the Public Works Subcommittee.

ENVIRONMENTAL IMPLICATIONS

14. The proposed works are not a designated project under the Environmental Impact Assessment Ordinance (Cap. 499). We have completed a Preliminary Environmental Review (PER) for the proposed works, which was agreed by the Director of Environmental Protection in March 2020. The PER concluded that the proposed works would not cause any long-term adverse environmental impact. We will incorporate mitigation measures recommended in the PER in the relevant contract to control short-term environmental impacts during construction to within established standards and guidelines. These measures include the deployment of silt curtain to minimise the water quality impacts, water quality monitoring at the site and at the nearby area, and implementation of standard noise and dust control measures. We have included in the project estimate the cost required to implement these environmental mitigation measures recommended in the PER.

15. At the planning and design stages, we have considered the layout and construction sequence of the proposed works with a view to reducing the generation of construction waste where possible. We will require the contractor to reuse inert construction waste (e.g. excavated materials) on site or in other suitable construction sites, in order to minimise the disposal of inert construction waste at

/public

public fill reception facilities⁴. We will encourage the contractor to use recycled or recyclable inert construction waste, and use non-timber formwork to further minimise the generation of construction waste.

16. At the construction stage, we will require the contractor to submit for the Government's approval a plan setting out the waste management measures, which will include appropriate mitigation means to avoid, reduce, reuse and recycle inert construction waste. We will ensure that the day-to-day operations on site comply with the approved plan, and will require the contractor to separate the inert portion from non-inert construction waste on site for disposal at appropriate facilities. We will control the disposal of inert construction waste and non-inert construction waste at public fill reception facilities and landfills respectively through a trip-ticket system.

17. We estimate that the proposed works will generate an approximate total of 760 tonnes construction waste. Of these, we will deliver 720 tonnes (95%) of the inert construction waste to public fill reception facilities for subsequent reuse. We will dispose of the remaining 40 tonnes (5%) non-inert construction waste at landfills. The total cost for disposal of construction waste at public fill reception facilities and landfill sites is estimated to be about \$0.06 million (calculated based on a unit charge rate of \$71 per tonne for disposal at public fill reception facilities, and \$200 per tonne at landfills as stipulated in the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N)).

HERITAGE IMPLICATIONS

18. The proposed works will not affect any heritage site, i.e. all declared monuments, proposed monuments, graded historic sites or buildings, sites of archaeological interest and government historic sites identified by the Antiquities and Monuments Office.

LAND ACQUISITION

19. The proposed works does not require resumption of private land.

/TRAFFIC

⁴ Public fill reception facilities are specified in Schedule 4 of the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap 354N). Disposal of inert construction waste at public fill reception facilities requires a licence issued by the Director of Civil Engineering and Development.

TRAFFIC IMPLICATIONS

20. During the construction stage, we will provide a temporary pier for the use of vessels.

BACKGROUND INFORMATION

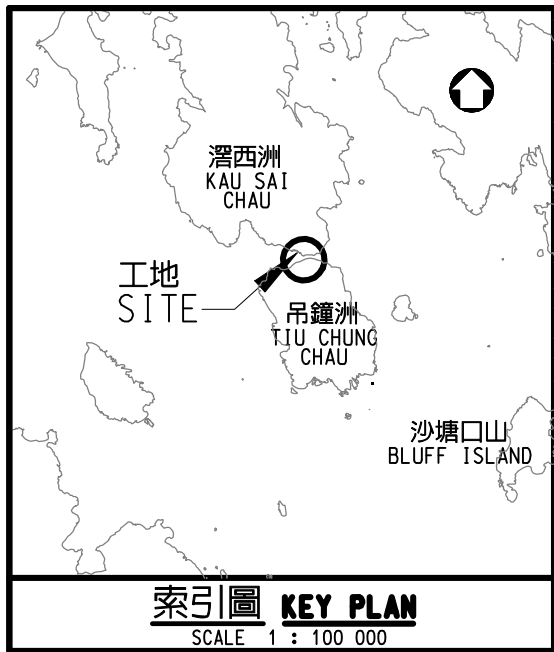
21. The Government has launched a policy initiative of Pier Improvement Programme (PIP), aiming to upgrade the structural safety and facilities of a number of existing public piers at remote areas in the New Territories and outlying islands, with a view to facilitating public's access to countryside scenic spots and natural heritage as well as meeting the basic needs of some local villagers relying on boats as their main transportation mode or fishermen's operation. We are implementing the first phase of the PIP covering 10 public piers in full swing, and have advanced to kick off the second phase of the PIP to enhance another 13 public piers. Kau Sai Village Pier is one of the piers included in the first phase of the PIP.

22. We upgraded **58TF** to Category B in August 2019.

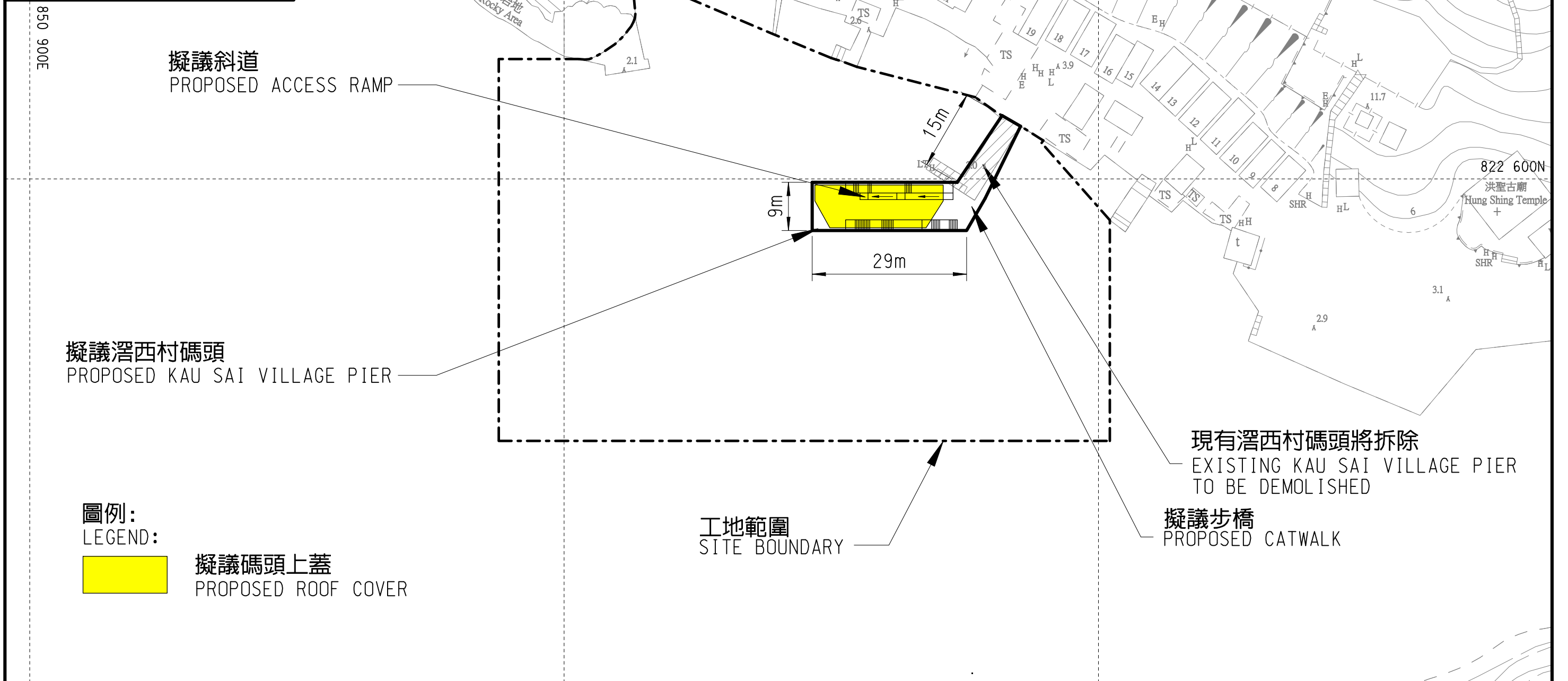
23. We engaged a consultant to undertake investigation study and PER, and a contractor to undertake ground investigation works, at a total cost of about \$4.65 million, chargeable to Capital Works Reserve Fund block allocations **Head 705 Subhead 5101CX** "Civil engineering works, studies and investigations for items in Category D of the Public Works Programme". CEDD undertook the detailed design by in-house resources.

24. The proposed works will not involve any tree removal or planting proposals.

25. We estimate that the proposed works will create about 23 jobs (19 for labourers and another 4 for professional or technical staff), providing a total employment of 600 man-months.



索引圖 KEY PLAN
SCALE 1 : 100 000



圖例：
LEGEND:



擬議碼頭上蓋
PROPOSED ROOF COVER

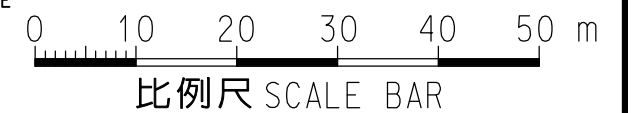
工程名稱
PROJECT TITLE

工務工程計劃項目 58TF 號 - 滘西村碼頭改善工程
PWP ITEM NO. 58TF - IMPROVEMENT WORKS AT KAU SAI VILLAGE PIER

圖則名稱
DRAWING TITLE

平面圖
LAYOUT PLAN

比例
SCALE





工程名稱
PROJECT TITLE

工務工程計劃項目 58TF 號 - 濶西村碼頭改善工程
PWP ITEM NO. 58TF - IMPROVEMENT WORKS AT KAU SAI VILLAGE PIER

圖則名稱
DRAWING TITLE

擬議碼頭電腦模擬圖
PHOTOMONTAGE OF PROPOSED PIER



工程名稱
PROJECT TITLE

工務工程計劃項目 58TF 號 - 濶西村碼頭改善工程
PWP ITEM NO. 58TF - IMPROVEMENT WORKS AT KAU SAI VILLAGE PIER

圖則名稱
DRAWING TITLE

現有濶西村碼頭
EXISTING KAU SAI VILLAGE PIER

58TF – Improvement works at Kau Sai Village Pier

Breakdown of the estimates for consultants' fees (in September 2020 prices)

		Estimated man- months	Average MPS* salary point	Multiplier (Note 1)	Estimated fee (\$ million)
Consultants' fee for independent environmental checker services (Note 2)	Professional	1	38	2.0	0.2
	Technical	2	14	2.0	0.1
Total					0.3#

* MPS = Master Pay Scale

Notes

1. A multiplier of 2.0 is applied to the average MPS salary point to estimate the full staff costs, including the consultants' overheads and profit, as the staff will be employed in the consultants' offices (as at now, MPS salary point 38 = \$85,870 per month and MPS salary point 14 = \$30,235 per month).
2. The actual man-months and actual costs will only be known after selection of the consultants and completion of the construction works.

Remarks

The cost figures in this Annex are shown in constant prices to correlate with the MPS salary point of the same year. The figure marked with # is shown in money-of-the-day prices in paragraph 5 of Enclosure 1.

59TF – Improvement works at Lai Chi Chong Pier

PROJECT SCOPE

We propose to upgrade **59TF** to Category A and the scope of works comprises –

- (a) reconstruction of the existing pier, including provision of ancillary facilities such as floating platform, roof cover, lighting system, benches, solar panels, Wi-Fi device, etc.; and
- (b) environmental monitoring and mitigation measures for the proposed works.

2. A layout plan and photomontage showing the proposed works are at **Annex 1** and **Annex 2 to Enclosure 2** respectively.

3. We plan to commence the proposed works upon obtaining funding approval from the Finance Committee for target completion in around 3.5 years.

JUSTIFICATION

4. The Lai Chi Chong Pier (“Pier”) is located at Tolo Channel in Tai Po District and was built in 1962. The Pier is adjacent to Lai Chi Chong Geotour Route of the Hong Kong UNESCO Global Geopark¹ (Geopark), and is currently served by scheduled kaito ferry service² for tourists to access to/from the Geopark. Owing to the aging structures of the Pier, it is currently strengthened by steel frames subsequently constructed under the soffit of the slabs, and requires enhanced

/inspection

¹ Lai Chi Chong has various geological relics. The western shore of Lai Chi Chong Pier showcases rare volcanic sedimentary rocks and a variety of special sedimentary structures, and is an ideal destination for field studies and leisure.

² The kaito ferry service concerned is “Ma Liu Shui – Shum Chung – Lai Chi Chong – Tap Mun – Ko Lau Wan – Chek Keng – Wong Shek Pier”, with two return trips on weekdays and three return trips on weekends and holidays.

inspection and maintenance to cope with the problem of aging structures. The local villagers have been repeatedly requesting the Government to improve the Pier. The Government agrees there is a need to reconstruct the Pier to improve the structural condition and facilities of the Pier effectively, which will facilitate easier and safer boarding and alighting of passengers, and bring convenience to the tourists to/from the Geopark. A photo showing the existing condition of the Pier is at **Annex 3 to Enclosure 2**.

FINANCIAL IMPLICATIONS

5. We estimate the capital cost of the proposed works to be about \$108.8 million in MOD prices, broken down as follows –

	\$ million (in MOD prices)
(a) Demolition of the existing pier	6.9
(b) Construction of a new pier and floating platform	76.9
(c) Construction of roof cover and other ancillary facilities	12.9
(d) Environmental mitigation measures and environmental monitoring and audit (EM&A) programme	2.0
(e) Consultants' fees for independent environmental checker services ³	0.3
(f) Contingencies	9.8
Total	108.8

A breakdown of the estimates for consultants' fees by man-month is at **Annex 4 to Enclosure 2**.

/6.

³ We will commission consultants to provide independent environmental checker services to review and audit the environmental monitoring works and results for the proposed works, as part of the EM&A programme.

6. The Civil Engineering and Development Department (CEDD) will undertake contract administration and site supervision of the project by in-house resources.

7. Subject to funding approval, we plan to phase the expenditure as follows –

Year	\$ million (in MOD prices)
2021 – 2022	2.2
2022 – 2023	41.6
2023 – 2024	43.0
2024 – 2025	13.8
2025 – 2026	8.2
	<hr/> 108.8 <hr/>

8. We have derived the MOD estimates on the basis of the Government's latest forecast of trend rate of change in the prices of public sector building and construction output from 2021 to 2026. We will deliver the proposed works in a remeasurement contract under New Engineering Contract (NEC) form⁴ because the quantities of works may vary depending on actual ground conditions. The contract will provide for price adjustments.

9. We estimate the annual recurrent expenditure arising from the proposed works to be about \$0.82 million.

/PUBLIC

⁴ NEC is a suite of contracts developed by the Institution of Civil Engineers, United Kingdom. It is a contract form that emphasises cooperation, mutual trust and collaborative risk management between contracting parties.

PUBLIC CONSULTATION

10. We consulted the Traffic and Transport Committee of Tai Po District Council on the proposed works on 12 July 2019 and obtained their support.

11. We also consulted the local stakeholders (including relevant District Council members and representatives of Sai Kung North Rural Committee), ferry operators, hiking groups, organisations of people with disabilities and green groups between September 2018 and July 2020. They support the proposed works in general. We have considered their opinions when carrying out the detailed design.

12. The proposed pier reconstruction works were gazetted under the Foreshore and Seabed (Reclamations) Ordinance (Cap. 127) on 14 and 21 August 2020. No objection was received during the objection period. The proposed pier reconstruction works were authorised under that Ordinance on 27 October 2020.

13. We consulted the Legislative Council Panel on Development on 23 March 2021. Members supported submitting the funding proposal to the Public Works Subcommittee.

ENVIRONMENTAL IMPLICATIONS

14. The proposed works are not a designated project under the Environmental Impact Assessment Ordinance (Cap. 499). We have completed a Preliminary Environmental Review (PER) for the proposed works, which was agreed by the Director of Environmental Protection in June 2020. The PER concluded that the proposed works would not cause any long-term adverse environmental impact. We will incorporate mitigation measures recommended in the PER in the relevant contract to control short-term environmental impacts during construction to within established standards and guidelines. These measures include the deployment of silt curtain to minimise the water quality impacts, and implementation of standard dust control measures. We have included in the project estimate the cost required to implement these environmental mitigation measures recommended in the PER.

/15.

15. At the planning and design stages, we have considered the layout and construction sequence of the proposed works with a view to reducing the generation of construction waste where possible. We will require the contractor to reuse inert construction waste (e.g. excavated materials) on site or in other suitable construction sites, in order to minimise the disposal of inert construction waste at public fill reception facilities⁵. We will encourage the contractor to use recycled or recyclable inert construction waste, and use non-timber formwork to further minimise the generation of construction waste.

16. At the construction stage, we will require the contractor to submit for the Government's approval a plan setting out the waste management measures, which will include appropriate mitigation means to avoid, reduce, reuse and recycle inert construction waste. We will ensure that the day-to-day operations on site comply with the approved plan, and will require the contractor to separate the inert portion from non-inert construction waste on site for disposal at appropriate facilities. We will control the disposal of inert construction waste and non-inert construction waste at public fill reception facilities and landfills respectively through a trip-ticket system.

17. We estimate that the proposed works will generate an approximate total of 1 260 tonnes construction waste. Of these, we will deliver 1 220 tonnes (97%) of the inert construction waste to public fill reception facilities for subsequent reuse. We will dispose of the remaining 40 tonnes (3%) non-inert construction waste at landfills. The total cost for disposal of construction waste at public fill reception facilities and landfill sites is estimated to be about \$0.1 million (calculated based on a unit charge rate of \$71 per tonne for disposal at public fill reception facilities and \$200 per tonne at landfills as stipulated in the Waste Disposal (Charges for Disposal of Construction Waste Regulation) (Cap. 354N)).

HERITAGE IMPLICATIONS

18. The proposed works will not affect any heritage site, i.e. all declared monuments, proposed monuments, graded historic sites or buildings, sites of archaeological interest and government historic sites identified by the Antiquities and Monuments Office.

/LAND

⁵ Public fill reception facilities are specified in Schedule 4 of the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap 354N). Disposal of inert construction waste at public fill reception facilities requires a licence issued by the Director of Civil Engineering and Development.

LAND ACQUISITION

19. The proposed works does not require resumption of private land.

TRAFFIC IMPLICATIONS

20. During the construction stage, we will provide a temporary pier to maintain the kaito ferry service and for the use of other vessels.

BACKGROUND INFORMATION

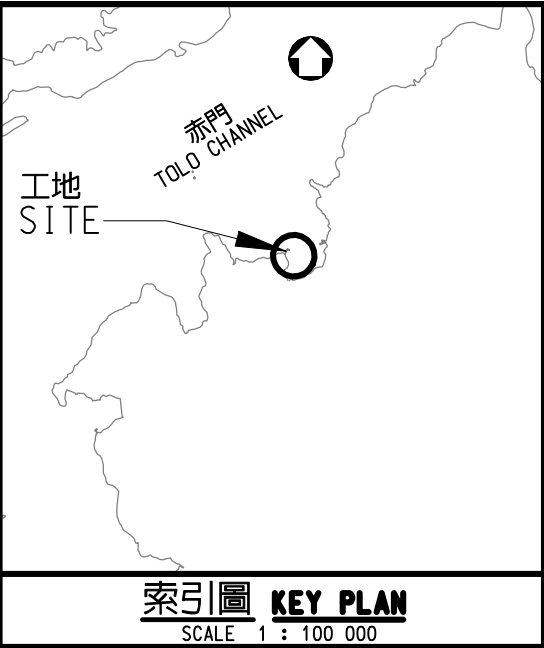
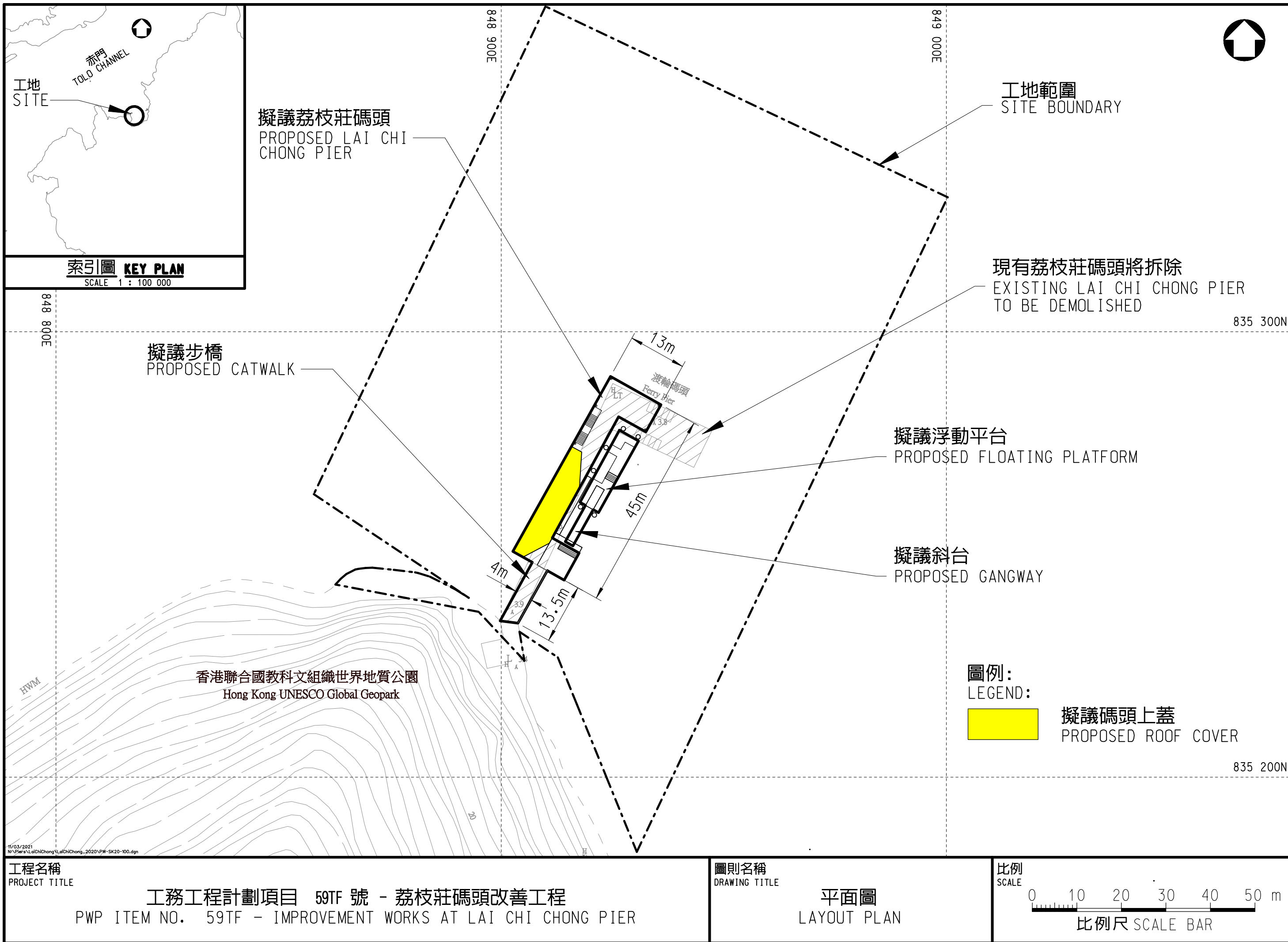
21. The Government has launched a policy initiative of Pier Improvement Programme (PIP), aiming to upgrade the structural safety and facilities of a number of existing public piers at remote areas in the New Territories and outlying islands, with a view to facilitating public's access to countryside scenic spots and natural heritage as well as meeting the basic needs of some local villagers relying on boats as their main transportation mode or fishermen's operation. We are implementing the first phase of the PIP covering 10 public piers in full swing, and have advanced to kick off the second phase of the PIP to enhance another 13 public piers. Lai Chi Chong Pier is one of the piers included in the first phase of the PIP.

22. We upgraded **59TF** to Category B in August 2019.

23. We engaged a consultant to undertake investigation study and PER, and a contractor to undertake ground investigation works, at a total cost of about \$5.21 million, chargeable to Capital Works Reserve Fund block allocations **Head 705 Subhead 5101CX** "Civil engineering works, studies and investigations for items in Category D of the Public Works Programme". CEDD undertook the detailed design by in-house resources.

24. The proposed works will not involve any tree removal or planting proposals.

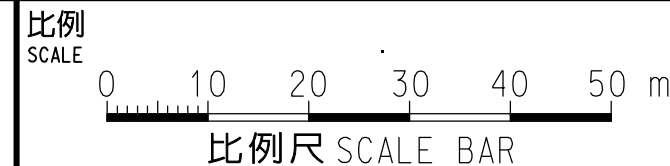
25. We estimate that the proposed works will create about 29 jobs (24 for labourers and another 5 for professional or technical staff), providing a total employment of 800 man-months.



圖例:
LEGEND:
 擬議碼頭上蓋
PROPOSED ROOF COVER

工程名稱
PROJECT TITLE
工務工程計劃項目 59TF 號 - 荔枝莊碼頭改善工程
PWP ITEM NO. 59TF - IMPROVEMENT WORKS AT LAI CHI CHONG PIER

圖則名稱
DRAWING TITLE
平面圖
LAYOUT PLAN





工程名稱
PROJECT TITLE

工務工程計劃項目 59TF 號 - 荔枝莊碼頭改善工程
PWP ITEM NO. 59TF - IMPROVEMENT WORKS AT LAI CHI CHONG PIER

圖則名稱
DRAWING TITLE

擬議碼頭電腦模擬圖
PHOTOMONTAGE OF PROPOSED PIER



工程名稱
PROJECT TITLE

工務工程計劃項目 59TF 號 - 荔枝莊碼頭改善工程
PWP ITEM NO. 59TF - IMPROVEMENT WORKS AT LAI CHI CHONG PIER

圖則名稱
DRAWING TITLE

現有荔枝莊碼頭
EXISTING LAI CHI CHONG PIER

59TF – Improvement works at Lai Chi Chong Pier

Breakdown of the estimates for consultants' fees (in September 2020 prices)

		Estimated man- months	Average MPS* salary point	Multiplier (Note 1)	Estimated fee (\$ million)
Consultants' fee for independent environmental checker services (Note 2)	Professional	1	38	2.0	0.2
	Technical	2	14	2.0	0.1
Total					0.3#

* MPS = Master Pay Scale

Notes

1. A multiplier of 2.0 is applied to the average MPS salary point to estimate the full staff costs, including the consultants' overheads and profit, as the staff will be employed in the consultants' offices (as at now, MPS salary point 38 = \$85,870 per month and MPS salary point 14 = \$30,235 per month).
2. The actual man-months and actual costs will only be known after selection of the consultants and completion of construction works.

Remarks

The cost figures in this Annex are shown in constant prices to correlate with the MPS salary point of the same year. The figure marked with # is shown in money-of-the-day prices in paragraph 5 of Enclosure 2.