

**For discussion
on 15 May 2017**

**Legislative Council Panel on Health Services
Redevelopment of Prince of Wales Hospital, Phase 2 (Stage 1)
– Preparatory Works**

Purpose

This paper briefs Members on the preparatory works of the proposed redevelopment of Prince of Wales Hospital (PWH), phase 2 (stage 1).

Background

2. PWH is a major acute hospital with 1 650 beds (as at 31 March 2016) in the New Territories East Cluster (NTEC) of the Hospital Authority (HA). Currently, it provides a comprehensive range of secondary and tertiary services for the residents in NTEC as well as highly specialized quaternary services¹ for patients from other clusters in HA. It is also the teaching hospital for the Faculty of Medicine, the Chinese University of Hong Kong.

3. PWH, which was designed and built in the 1970s, commenced operation in 1984. Notwithstanding the completion of Main Clinical Block and Trauma Centre in 2010 in the phase 1 redevelopment of PWH, which

¹ Quaternary services refer to medical services that are highly complex in nature with respect to skills, technology and expertise. Service networks are set up to support patients from different HA clusters by designated centres. Typical examples of such services are transplant services and cardiothoracic surgery.

aimed at presenting the hospital with the opportunities to overcome the severe constraints on its ability to meet service and teaching demand at that time, many clinical services in PWH remain scattered in the old buildings under suboptimal conditions. Against such background, HA has formulated a Clinical Services Plan (CSP) for the NTEC in 2015. The CSP maps out the cluster's clinical strategies and future service directions for meeting the long-term needs of the community and to facilitate and guide the redevelopment of PWH.

Need for Redevelopment of PWH

Increasing service demand

4. The population of Sha Tin District has grown considerably over the years. According to the population projection of the Planning Department, the population in Sha Tin District was 664 700 in 2015 and is projected to reach 721 100 in 2024, representing a projected increase of 8%. In addition, the elderly population aged 65 years or above is projected to increase from 92 700 in 2015 to 154 200 in 2024, representing a significant increase of around 66%. The growing and ageing population in the district gives rise to increasing demand for both ambulatory and in-patient services. The existing facilities at PWH become inadequate in terms of space, capacity and design to cope with the rising service demand, the present day service standard and future service requirement.

Outdated design and facilities

5. As the hospital was built in the 1970s, the building design becomes a limiting factor for PWH to meet the demand of a modern teaching

hospital. In particular, there is a lack of sufficient headroom for installation of information technology (IT) and communications infrastructure for modern medical technology and mode of service delivery. Some floors can hardly allow the installation of additional trunking for IT infrastructure and pipes for fire sprinkler system. Incremental growth and piecemeal developments over the years have resulted in a lack of proper services zoning for easy co-location and patient-centred orientation. Related or even the same services are scattered over different locations, leading to poorly aligned functional relationship amongst departments and lengthening travelling time for both staff and patients.

6. Furthermore, the existing hospital has only one access route and vehicular ramp, which is always occupied by a high volume of vehicles, making the repair and maintenance of the only vehicular access of the hospital blocks very difficult. It is proposed to provide additional access routes and vehicular ramps to meet the needs for hospital operations as well as public access.

7. After several decades of heavy utilization², the physical condition and facilities of PWH have become dilapidated and cannot meet the service requirement of a modern tertiary acute hospital. Deterioration in building conditions causing roof leakages and drainage blockages pose risks to normal hospital operation. Physical constraints of the buildings hinder the upgrading of building services systems which have reached their full capacity. The existing capacity of medical gas supply system is insufficient to cope with the increasing demand for additional number of gas outlets supporting various clinical activities.

² In 2015-16, the in-patient bed occupancy rate for medicine specialty in PWH was 109%. This severe overcrowding became worse during winter surge period, in which the in-patient bed occupancy rate for medicine specialty in PWH from January to March 2016 and from October to December 2016 were 113% and 117% respectively.

The PWH Redevelopment

8. It is imperative to carry out the proposed phase 2 redevelopment of PWH in order to overcome the constraints of its existing infrastructure and facilities to meet the rising demand for services. Based on the CSP for the NTEC, a Concept Plan for the redevelopment of PWH has been developed, which aims to position the hospital as a major acute hospital and a hub for the NTEC academic health sciences network. The phase 2 redevelopment will provide additional space to meet operational needs and service developments, and promote integrated research, teaching and education. In this redevelopment, PWH will adopt a patient-oriented design, with well aligned and integrated services, as well as better accessibility for more efficient and cost-effective medical care to meet the long-term needs of the population of NTEC.

9. The proposed redevelopment of PWH will involve the demolition of the Staff Quarters Blocks A, C, D and E, and Lecture Theatre Building to construct a new In-patient Extension Block, providing obstetrics and gynaecology, paediatrics and related clinical services, and pathology and clinical laboratory services, etc. To facilitate the decanting arrangement of the buildings under demolition, an off-site decanting building will be built at Shatin Hospital. Non-clinical services, mainly offices, stores and some education facilities, will be relocated to the decanting building, while the remaining Staff Quarters Block B will house call rooms and overnight rooms of medical, nursing and supporting staff for the provision of 24-hour service. The Hospital Old Buildings Group including Day Treatment Block, Special Block, Clinical Sciences Building, Podium Block, Eye Centre and Li Ka Shing Specialist Clinics (North Wing) will also be demolished to construct a

new block to accommodate an Ambulatory Care Centre, a new Cancer Centre and amenity areas. With these two new buildings, PWH will have larger floor plates to accommodate the re-aligned and well-coordinated clinical services as well as research and educational facilities. To facilitate the expanded capacity and improved service efficiency, the redevelopment project will incorporate both a zonal approach³ and a programme floor concept⁴.

10. We propose to carry out the phase 2 redevelopment of PWH in two stages. The scope of the proposed project comprises the following –

- (a) Stage 1 will involve -
 - (i) demolition of Staff Quarters Blocks A, C, D and E, and the Lecture Theatre Building; and
 - (ii) construction of a new In-patient Extension Block.

- (b) Stage 2 will involve -
 - (i) demolition of the Hospital Old Buildings Group; and
 - (ii) construction of a new block for Ambulatory Care Centre and new Cancer Centre.

11. Stage 1 of the phase 2 redevelopment of PWH is one of the projects covered by the Ten-year Hospital Development Plan announced in 2016 Policy Address to provide 450 additional beds and 16 additional operating theatres. Both stage 1 and stage 2 works will involve construction

³ A zonal approach to the planning of a hospital complex provides functional zones which are physically discrete and readily identifiable promoting efficiency for staff deployment and movement, as well as facilitating patients and visitors in their way-finding.

⁴ A programme floor concept is applied to integrated clinical programmes where appropriate specialties are co-located with their in-patient beds, diagnostics, clinics, teaching and research facilities all in one unit and preferably on the same floor or in close proximity.

of link bridges and service tunnels to connect the new In-patient Extension Block and the new block for Ambulatory Care Centre and new Cancer Centre with other hospital buildings for easy access by staff, patients and the public. Upon completion of the whole phase 2 redevelopment, the new buildings will accommodate clinical services with around 1 650 in-patient and day beds, a peri-operative centre with 16 operating theatres and associated medical and supporting facilities.

Project Scope – Preparatory Works for PWH Redevelopment

12. Before we embark on the construction works for the phase 2 (stage 1) redevelopment, we need to carry out preparatory works which comprise –

- (a) initial surveys and site investigations, including ground/geotechnical investigation, condition survey and asbestos survey and removal on existing buildings, topographic survey and tree survey;
- (b) survey on existing utilities and underground services;
- (c) demolition works of Staff Quarters Blocks C and E, and Lecture Theatre Building and associated services diversion;
- (d) construction of an off-site decanting building at Shatin Hospital;
- (e) on-site alteration and addition works/refurbishment to the existing Main Clinical Block and Trauma Centre and Staff Quarters Block B; and

- (f) consultancy services for outline sketch design, detailed design, tender documentation and assessment for subsequent demolition, decanting building works, alternation and addition works to existing buildings, foundation works, and main works as well as contract administration for demolition and decanting works, management of Resident Site Staff (RSS) and remuneration of RSS for demolition and decanting works.

13. We plan to engage professional consultants to carry out the preparatory works. The estimated cost of the preparatory works is in the order of \$1,377.6 million in money-of-the-day prices⁵. We target to seek funding support and approval from the Public Works Subcommittee and Finance Committee (FC) for the above preparatory works in mid-2017. Subject to FC's funding approval, we plan to commence the preparatory works immediately afterwards, with a view to completing stage 1 of the phase 2 redevelopment of PWH in 2027. We plan to commence planning for stage 2 in due course having regard to the scheduled completion of stage 1. PWH will remain functional at all times and any disruption of services, if unavoidable, will be kept to a minimum.

14. Site and location plans showing the existing layout of PWH and the proposed redevelopment are at **Enclosures I and II** respectively. The site and location plan showing the proposed decanting building at Shatin Hospital is at **Enclosure III**. The location plan showing both locations of the decanting building at Shatin Hospital and the proposed new buildings at PWH is at **Enclosure IV**.

Public Consultation

⁵ This figure represents the latest estimate of capital cost pending tender return. We will update the cost estimate before submission to the Public Works Subcommittee.

15. HA consulted the Health and Environment Committee (HEC) of the Sha Tin District Council (STDC) on 9 March 2017. Members of the HEC of the STDC supported the proposed project.

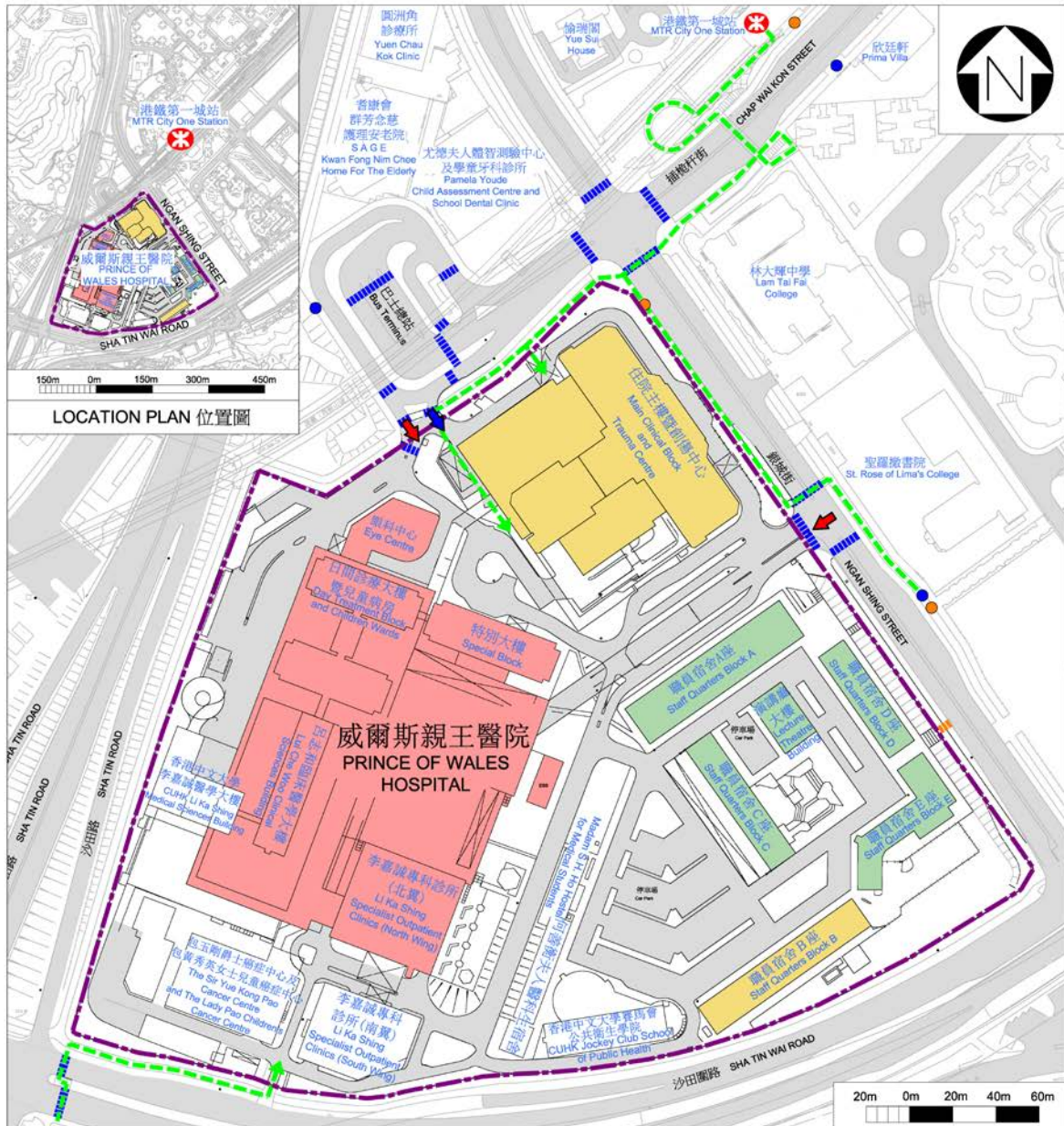
Advice Sought

16. Members are invited to comment on the proposed project as outlined in this paper.

Food and Health Bureau

Hospital Authority

May 2017

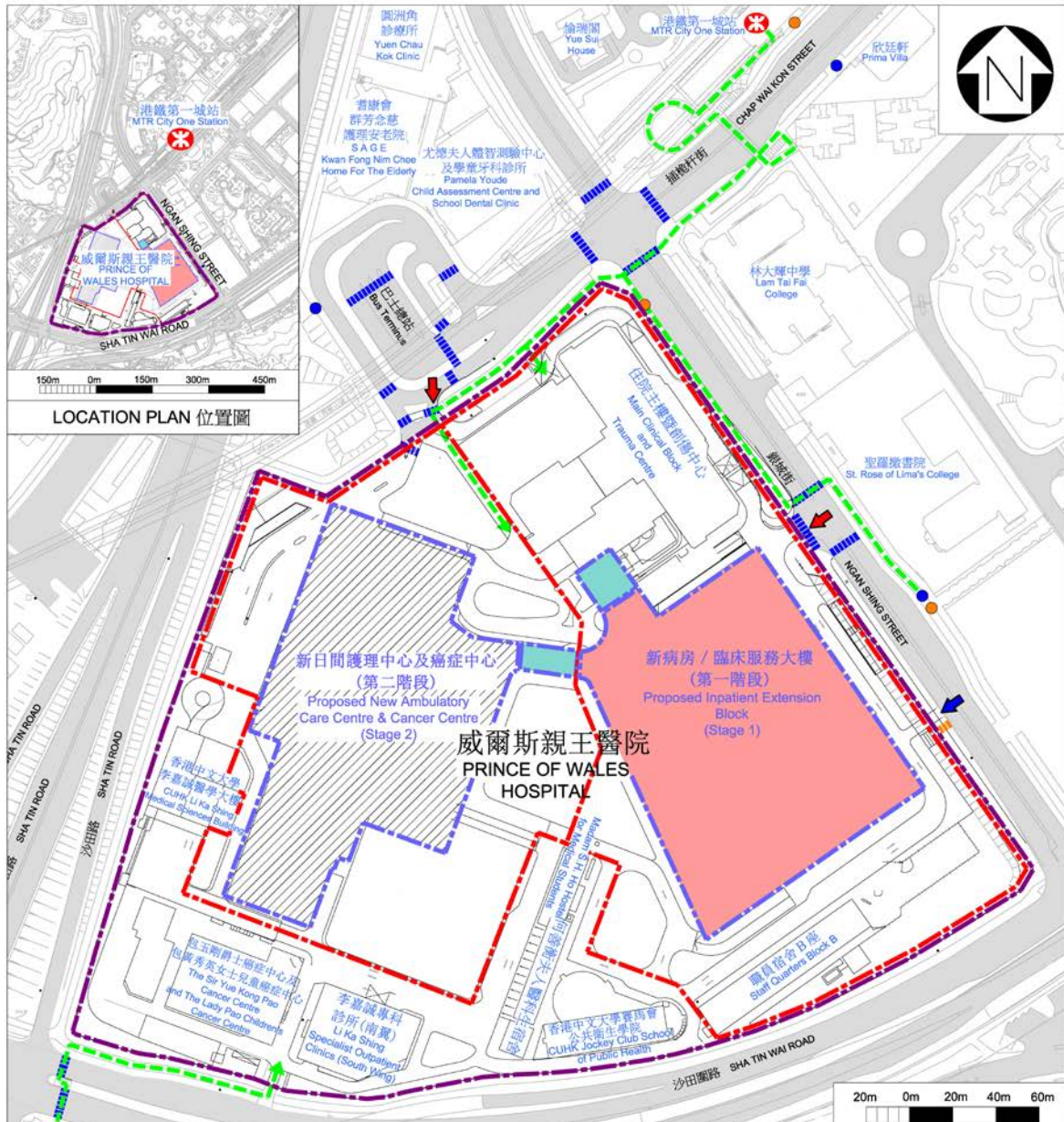


LEGENDS 圖例:

- | | | | | | |
|---|---|---|--|---|---|
|  | HOSPITAL BOUNDARY
醫院範圍 |  | PROPOSED PEDESTRIAN CROSSING
擬新增行人過路處 |  | AMBULANCE INGRESS / EGRESS
救護車出入口 |
|  | BUILDINGS TO BE DEMOLISHED (STAGE 1)
即將拆卸的樓宇(第一階段) |  | EXISTING BUS STOP
現有巴士站 |  | PEDESTRIAN / BARRIER FREE ROUTE
行人 / 無障礙道路 |
|  | BUILDINGS TO BE DEMOLISHED (STAGE 2)
即將拆卸的樓宇(第二階段) |  | EXISTING MINI-BUS STOP
現有小巴士站 |  | EXISTING MTR STATION
現有港鐵站 |
|  | ALTERATION AND ADDITION WORKS AREA
改建及加建範圍 |  | VEHICULAR INGRESS / EGRESS
車輛出入口 | | |
|  | EXISTING PEDESTRIAN CROSSING
現有行人過路處 | | | | |

SITE PLAN (DEMOLITION AND ALTERATION AND ADDITION)
工地平面圖
(拆卸和改建及加建工程)

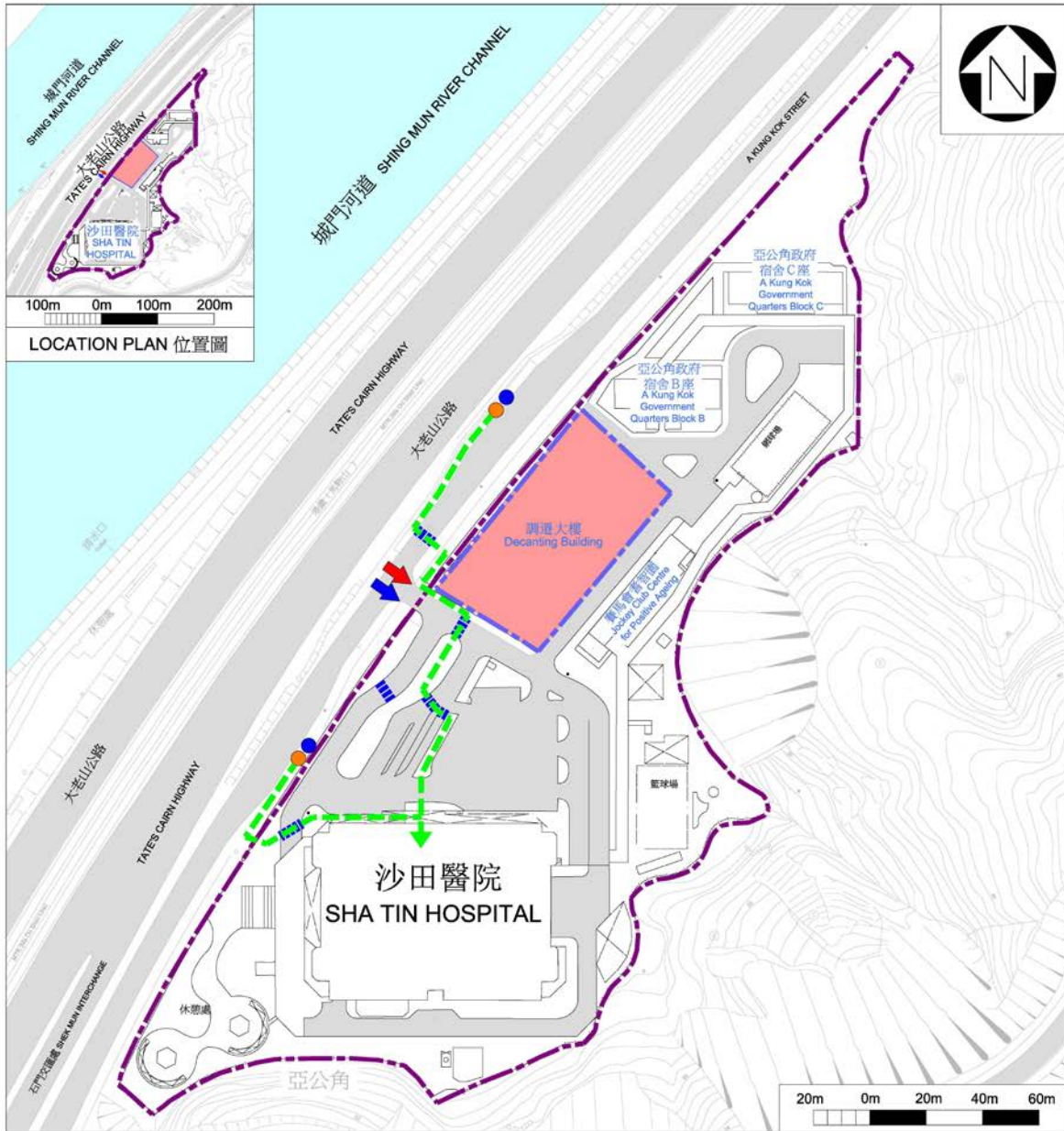
3075MM
REDEVELOPMENT OF PRINCE OF WALES HOSPITAL, PHASE 2
威爾斯親王醫院重建計劃第二期



LEGENDS 圖例:			
	HOSPITAL BOUNDARY 醫院範圍		VEHICULAR INGRESS / EGRESS 車輛出入口
	STAGE 1 & STAGE 2 SITE BOUNDARY 一期及二期工地範圍		AMBULANCE INGRESS / EGRESS 救護車出入口
	PROPOSED NEW BUILDING (STAGE 1) 擬建新大樓 (第一階段)		PEDESTRIAN / BARRIER FREE ROUTE 行人 / 無障礙道路
	PROPOSED NEW BUILDING (STAGE 2) 擬建新大樓 (第二階段)		EXISTING MTR STATION 現有港鐵站
	PROPOSED LINK BRIDGE 擬建連接橋		EXISTING PEDESTRIAN CROSSING 現有行人過路處
	PROPOSED PEDESTRIAN CROSSING 擬新增行人過路處		EXISTING BUS STOP 現有巴士站
	EXISTING BUS STOP 現有巴士站		EXISTING MINI-BUS STOP 現有小巴士站

**SITE PLAN
(CONSTRUCTION)**
工地平面圖(建造工程)

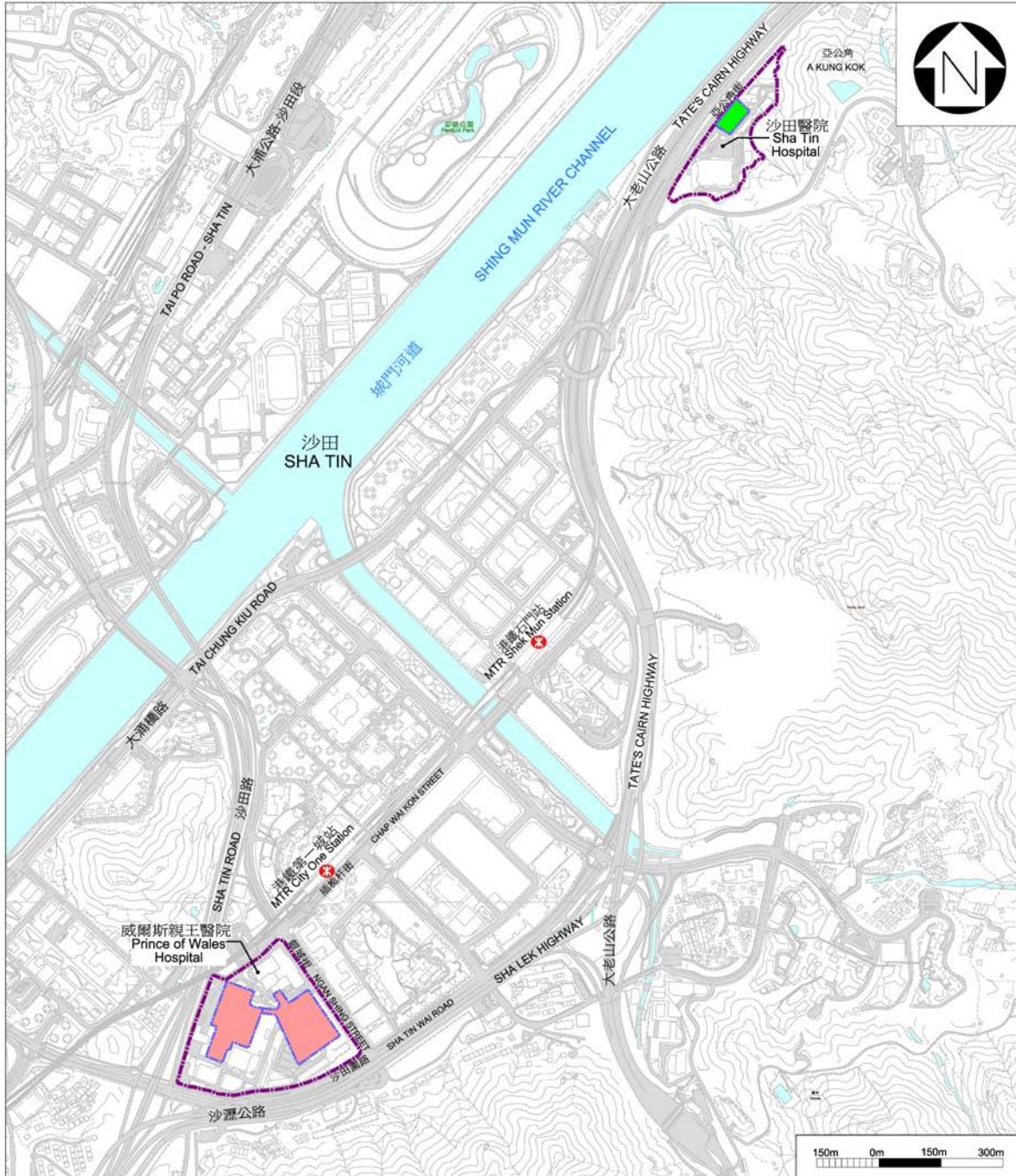
3075MM
REDEVELOPMENT OF PRINCE OF WALES HOSPITAL, PHASE 2
威爾斯親王醫院重建計劃第二期



LEGENDS 圖例

HOSPITAL BOUNDARY 醫院範圍	EXISTING BUS STOP 現有巴士站	AMBULANCE INGRESS / EGRESS 救護車出入口
PROPOSED DECANTING BUILDING 擬建調遷大樓	EXISTING MINI-BUS STOP 現有巴士站	PEDESTRIAN / BARRIER FREE ROUTE 行人 / 無障礙道路
EXISTING PEDESTRIAN CROSSING 現有行人過路處	VEHICULAR INGRESS / EGRESS 車輛出入口	

<p>SITE LOCATION PLAN 工地平面圖</p>	<p>3075MM REDEVELOPMENT OF PRINCE OF WALES HOSPITAL, PHASE 2 DECANTING BUILDING AT SHATIN HOSPITAL 威爾斯親王醫院重建計劃第二期 位於沙田醫院的調遷大樓</p>
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LEGENDS 圖例:

- HOSPITAL BOUNDARY
醫院範圍
- ✱

EXISTING MTR STATION
現有港鐵站
- PROPOSED NEW BUILDINGS
擬建新大樓
- PROPOSED DECANTING BUILDING
擬建調遷大樓

LOCATION PLAN
位置圖

3075MM
REDEVELOPMENT OF PRINCE OF WALES HOSPITAL, PHASE 2
威爾斯親王醫院重建計劃第二期