

## **TDC Submission to the Expert Panel Forum, HEC Sub-committee on WD II Review**

The TDC fully endorse and support the proposed Trunk Road under the WD II Development as it would benefit the entire community.

It is also the expressed view of the Council that some of the proposed connection roads between this Trunk Road and the Wan Chai North area may need to be carefully looked at before they are implemented.

- a. The east bound off ramp from the Trunk Road up to Expo Drive :

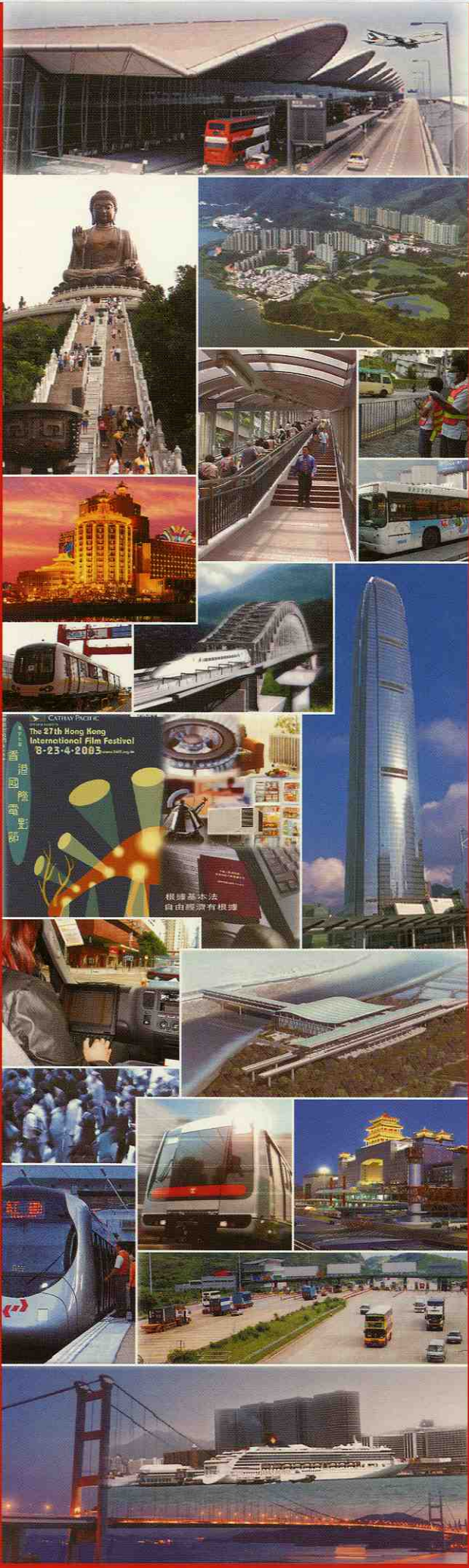
This connection road, we understand, is to give access to Wanchai south via Expo Drive East and Fleming Road next to Gold Bauhinia Square. In fact, the roads around the HKCEC Phase 2 building will be used as a roundabout for each traffic. As we all know, this area is now an important civic facility, with flag raising ceremony and tourist activity. The introduction of a major traffic route passing this area is undesirable. The HKCEC is often used as the venue for events attended by VVIPs requiring very tight security. The closure of this connection road during such events would result in great public in-convenience. (Please refer to Point a in the attached drawing).

- b. The east bound approach ramp leading from Road P2 down into the Trunk road directly under the HKCEC Phase 2 Building :

The TDC shares the view expressed by the Wanchai District Council and various environmental groups that the pedestrian access on grade to the Wanchai waterfront should not be cut off by roads. Such ramps may be relocated away from the HKCEC which would attract large crowds to the waterfront. (Please refer to Point b in the attached drawing).

We have commissioned our traffic consultant M/S MVA to prepare a Study Report on alternatives to the above connection roads. A copy of the Report 'Conceptual Wanchai North Road Layout Alternatives' dated February 2005 is attached herewith for your consideration. Please note that the same has been forwarded to the Environment, Transport and Works Bureau in June 2005.

We request the Expert Panel to consider the above issues at the Expert Panel Forum on 3 September 2005.



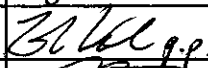


Hong Kong Convention and Exhibition  
Centre Atrium Link Extension  
- Conceptual Wanchai North Road  
Layout Alternatives

MVA



**Hong Kong Convention and Exhibition  
 Centre Atrium Link Extension  
 - Conceptual Wanchai North Road  
 Layout Alternatives**

<b>Project No.</b>	25774-3
<b>Version No.</b>	1
<b>Prepared for</b>	Wong & Ouyang (HK) Limited

	<b>Name</b>	<b>Title</b>	<b>Signature</b>	<b>Date</b>
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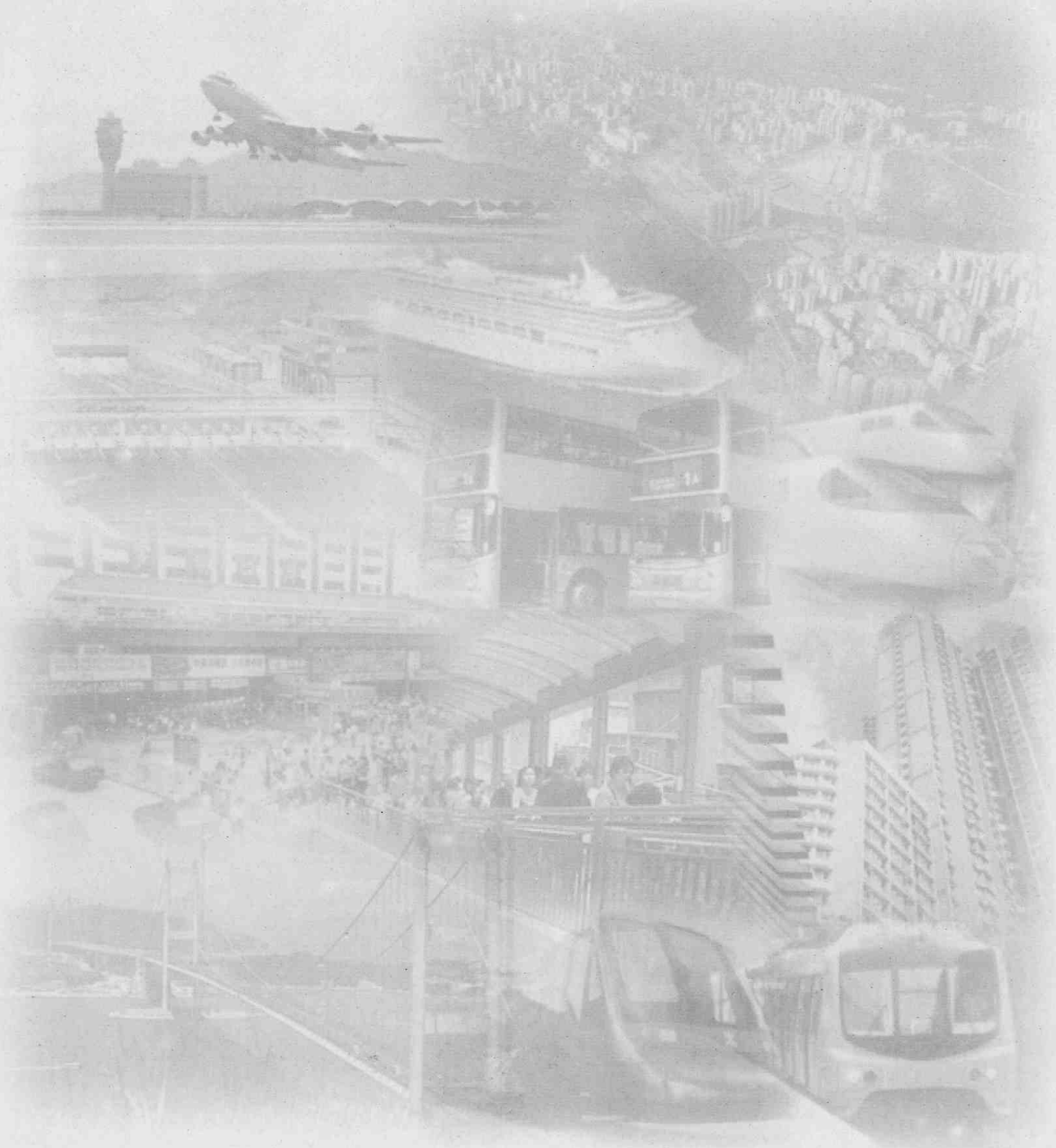
## 1. INTRODUCTION

### 1.1 Background

- 1.1.1 MVA Hong Kong Limited was commissioned by Wong & Ouyang (HK) Limited to conduct a review of the Wanchai North road layout alternative as part of the overall Hong Kong Convention and Exhibition Centre (HKCEC) Atrium Link Extension project for Trade and Development Council.
- 1.1.2 The HKCEC is located in the Wanchai North waterfront. Since its operation in 1988, ongoing refinements to its traffic operations have been carried out to improve both internal traffic operations and external traffic impact. Although HKCEC was once perceived by the public as main source of causing traffic congestion to the Wanchai North area, to date the traffic generation of the HKCEC no longer cause any major impact to the external road network during a major event with the ongoing effort and gradual implementation of more efficient management system. Most lorry queuing activities are now resolved by means of central forwarder policy, time management, and off site vehicle marshalling area. The rest of the lorry queuing would be self contained on the "reclamation island", away from key traffic routes such as Convention Avenue, Hung Hing Road, Fleming Road, and Harbour Road.
- 1.1.3 It is understood that subsequent to the decision of the Court of Final Appeal in 2004, there is an ongoing Wanchai Development Phase II Review carried out by the government. Furthermore, a public involvement in the form of Harbour-Front Enhancement Review-Wanchai and Adjoining Area (HER) is also currently ongoing aiming to collect views from the public. In the latest Central-Wanchai Bypass proposal brought to the public's attention via HER, 3 options were presented. Similar to the previous CWB alignments, all 3 options proposed to connect an eastbound off-ramp from the bypass tunnel to Expo Drive on the "reclamation island".
- 1.1.4 In late 2004, the Trade and Development Council initiated a proposal to expand the HKCEC via extension of the existing atrium link. Despite the proposed extension, the existing operation of the HKCEC frequently requires the road space on the island such as Expo Drive, Expo Drive Central, and Expo Drive East to provide buffer area for lorries, and therefore it is not preferred to construct a new slip road leading strategic traffic on to the island. Moreover, tourist and pedestrian activities on Expo Drive near Golden Bauhinia Square would also disbenefit from the presence of additional strategic traffic. In addition, major events held out at the HKCEC with VIPs requiring tight security will sometimes require closing off the roads on the island. This will cause major traffic disruption if the proposed slip road is connected to the island. In view of this, there is an imminent need to review the CWB slip road arrangements to avoid conflicts between pedestrians, the normal and ad-hoc operations of the HKCEC, and strategic traffic movements.

## 1.2 Objective

- 1.2.1 The objective of this paper is to explore and present alternative slip road and adjoining road network concepts which may be further considered. The concepts are developed from a transport planning and operation point of view, and are expected to undergo further highway and civil engineering feasibility review.



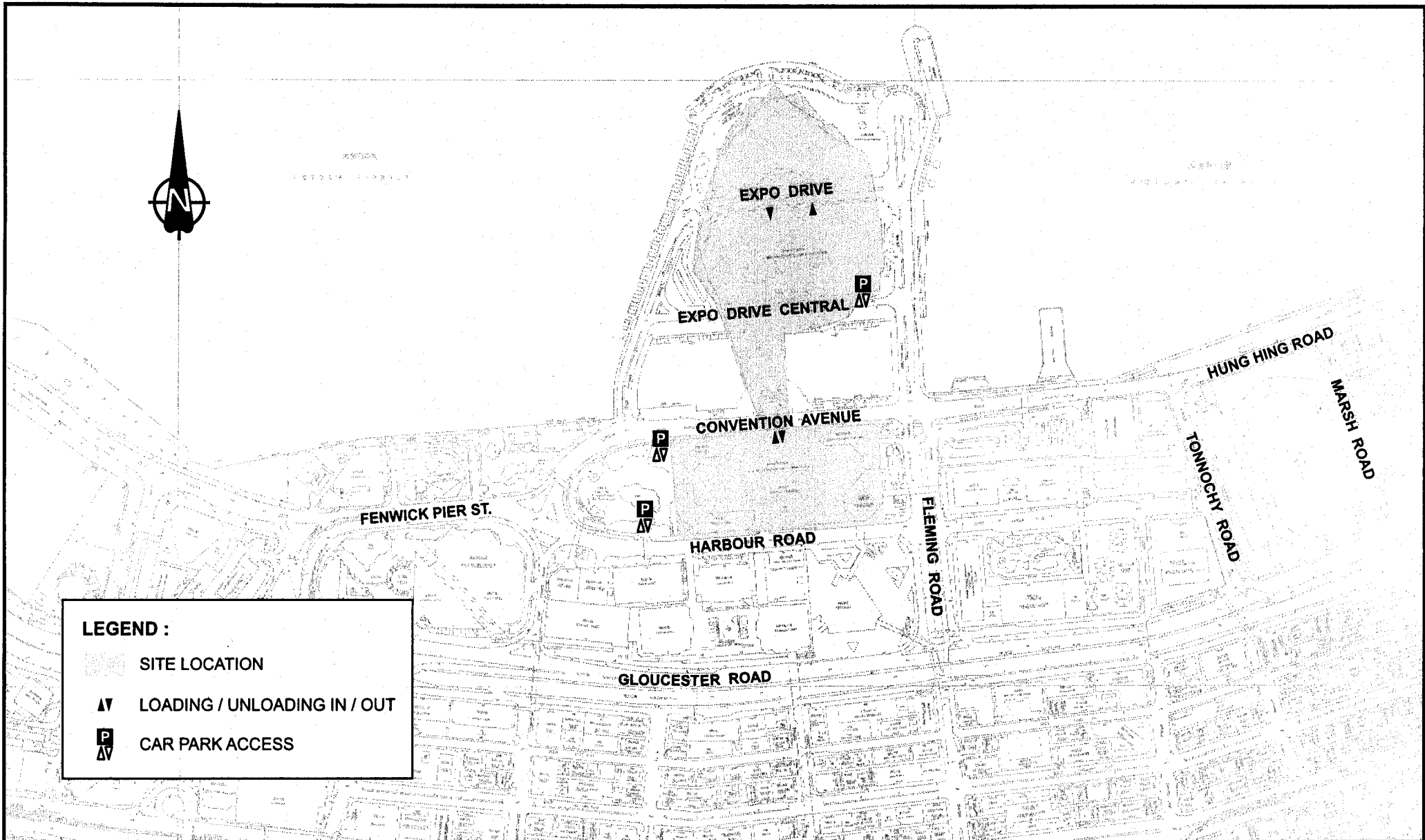
## 2. KEY ISSUES IDENTIFIED

### 2.1 Existing Condition




- 2.1.1 The existing HKCEC comprises of two phases. Phase 1 is located between Convention Avenue and Harbour Road. Phase 2 is located to the north of Convention Avenue on a "reclamation island". The two phases are connected via a pedestrian atrium link across Convention Avenue. The location of HKCEC and the associated car park/loading area vehicular entrances and exits are shown in **Figure 2.1.1**.
- 2.1.2 Loading and unloading vehicular access point for Phase 1 is located on Convention Avenue, and Phase 2 located on Expo Drive. Private car parking of Phase 1 is located on Convention Avenue and Harbour Road, while Phase 2 is located on Expo Drive Central. Therefore, traffic access to the HKCEC is solely relied on roads on the reclamation island including Expo Drive, Expo Drive East, and Expo Drive Central. During a major exhibition event, a daily lorry volume of some 1,000 vehicles are required to access the loading area. Currently, traffic condition is acceptable given that the roads on the island are mostly for access only with no through traffic.
- 2.1.3 Furthermore, extensive tourist coaches and pedestrian activities are present on Expo Drive East near the Golden Bauhinia Square. A well established management system is currently implemented during major exhibition events to ensure both the traffic operations of this tourist attraction and the HKCEC's are working in harmony.

### 2.2 Future Planned Central Wanchai Bypass

- 2.2.1 Under the HER, 3 Central Wanchai Bypass options were presented, as illustrated in **Figure 2.2.1**. Of particular interest, all 3 options maintained the original eastbound off-ramp slip road from the bypass tunnel to Expo Drive. However, this is expected to result in insurmountable problem causing difficulties to the HKCEC operation, inconvenience and safety problem for pedestrian and tourists, and inefficient traffic operation of the strategic traffic from the bypass.
- 2.2.2 The intention of the off-ramp at Wanchai North is to provide traffic access to the Wanchai North from Rumsey Street Flyover (Route 4), Western Harbour Crossing and beyond. Since the CWB connects Central North to the west and Island Eastern Corridor to the east, access to Wanchai North has become relatively important to maximize the full use of this new urban trunk road.
- 2.2.3 The key future issues relating to the proposed slip road are summarized in **Figure 2.2.2**.
- 2.2.4 In order to provide a mutually beneficial solution, hence avoiding conflict between the HKCEC, Golden Bauhinia Square, and the strategic traffic brought about by the additional slip road, it is essential to develop alternative CWB interchange options at Wanchai North.



**LEGEND :**

-  SITE LOCATION
-  LOADING / UNLOADING IN / OUT
-  CAR PARK ACCESS

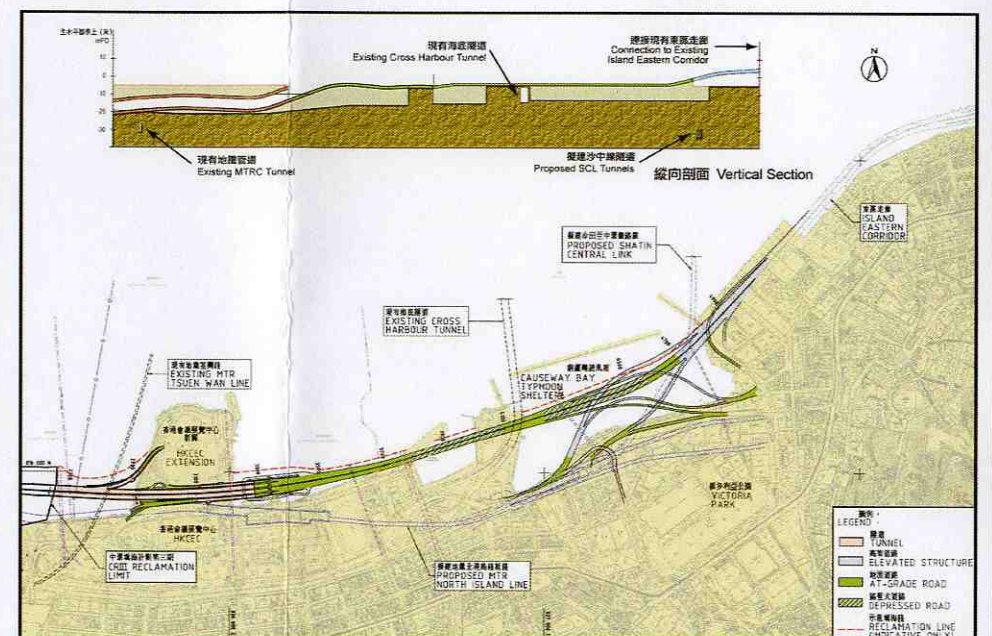
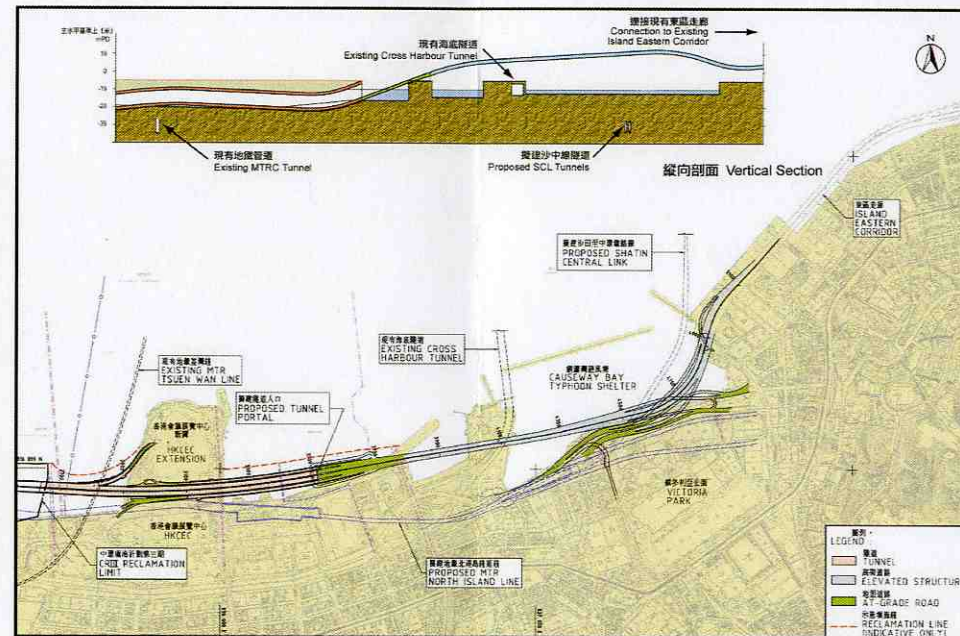
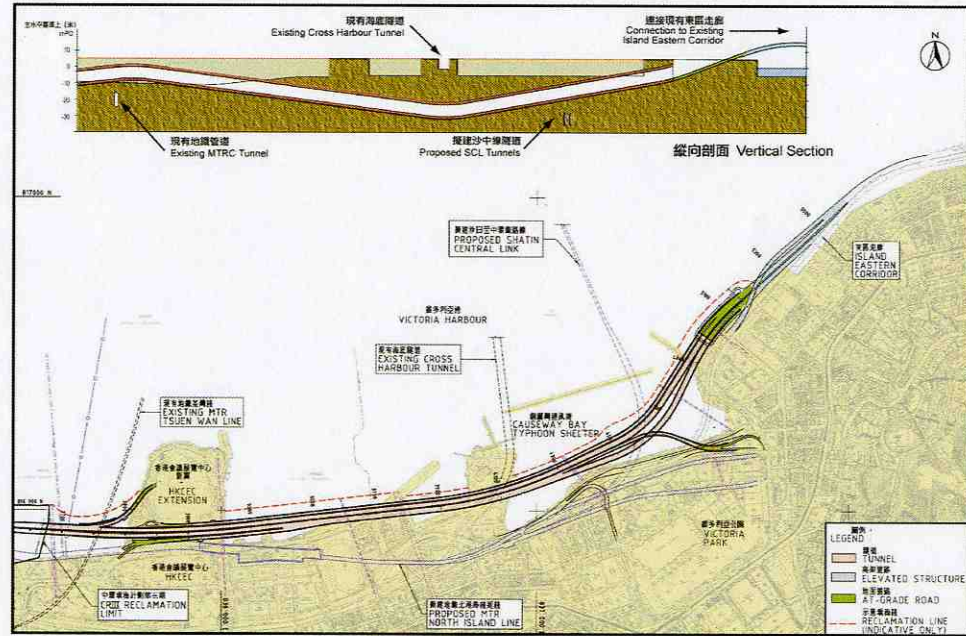
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**HONG KONG CONVENTION & EXHIBITION CENTRE ATRIUM LINK EXTENSION  
- CONCEPTUAL WANCHAI NORTH ROAD LAYOUT ALTERNATIVES**

**SITE LOCATION PLAN**

Figure No.	<b>2.1.1</b>	Rev.
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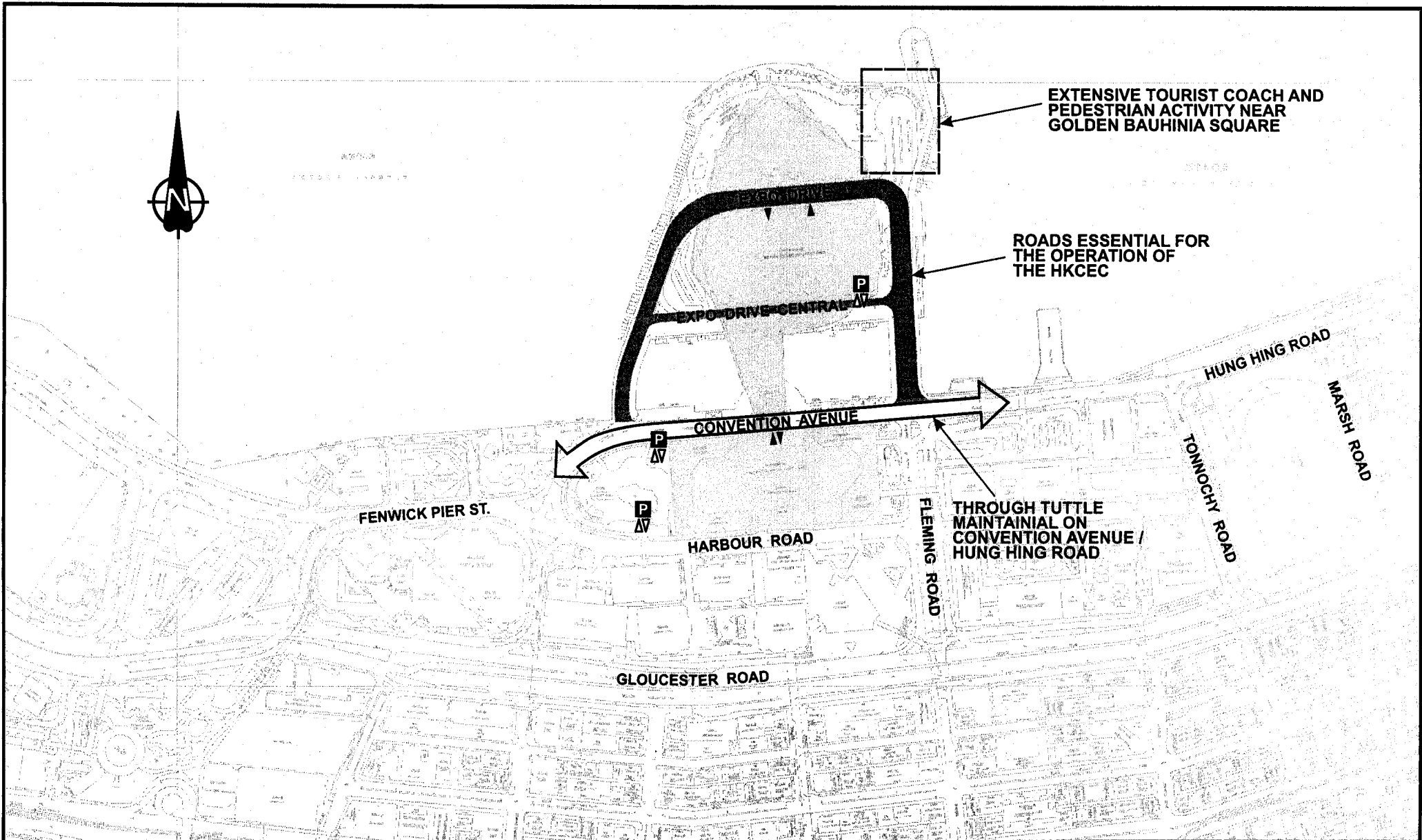
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- CONCEPTUAL WANCHAI NORTH ROAD LAYOUT ALTERNATIVES

**CENTRAL WANCHAI BYPASS OPTIONS**

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Figure No.	<b>2.2.1</b>		Rev.
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- CONCEPTUAL WANCHAI NORTH ROAD LAYOUT ALTERNATIVES

**KEY FUTURE ISSUES**

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### 3. POSSIBLE WAN CHAI NORTH INTERCHANGE ALTERNATIVES

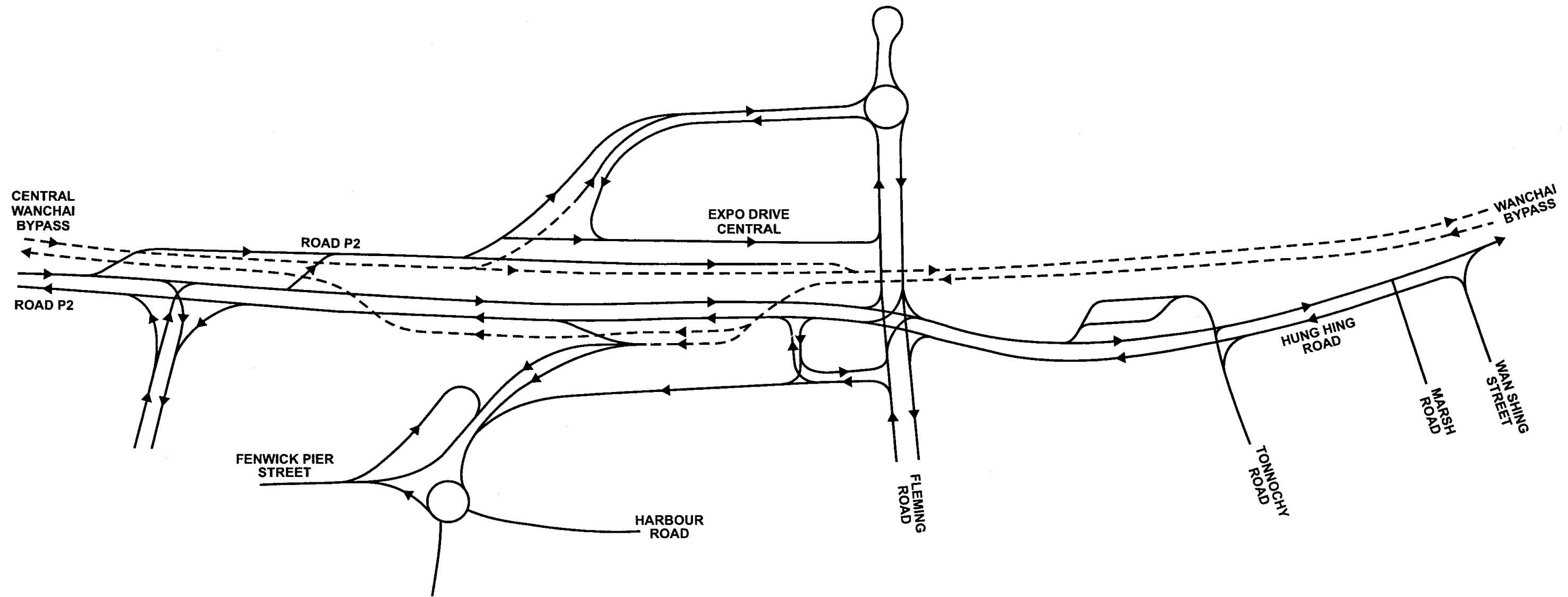
#### 3.1 Possible Alternative Road Arrangements (Option 1)

- 3.1.1 Under the HER, the 3 options developed for the CWB have the same slip road connections and at-grade road layout near the HKCEC. The traffic connections of this planned road layout is illustrated schematically in **Figure 3.1.1**. Under this layout an eastbound off-ramp from the CWB is connected to Expo Drive on the reclamation island. This would result in conflict between strategic traffic and the traffic operation of the HKCEC, and the extensive tourist activities near Golden Bauhinia Square.
- 3.1.2 In order to minimize the impact of the additional slip road traffic to the existing operation of the reclamation island, an alternative slip road arrangement is proposed. The conceptual traffic connections are shown in **Figure 3.1.2A** and the corresponding preliminary road layout is illustrated in **Figure 3.1.2B**.
- 3.1.3 It is proposed to connect the eastbound CWB off-ramp slip road to the eastbound carriageway of Road P2 before Fleming Road junction. A "Q turn" loop is also proposed in the eastbound direction of Road P2 just east of Fleming Road junction to facilitate right turn into Fleming Road from Road P2. This additional road section would function relatively similar to the loop on the southwest corner of the Road P2/Fleming Road junction. It would ensure the accessibility of the CWB traffic to the rest of the Wanchai North, while minimizing the impact to the capacity of the Road P2/Fleming Road junction.
- 3.1.4 In order to accommodate the proposed off-ramp slip road, the at-grade section of Road P2 would also need to be slightly modified. In the original layout, Road P2 diverges to become two eastbound carriageways. The near side diverge lanes provide connections to the on-ramp slip road of CWB and Expo Drive. This carriageway and all its connections could be maintained. However, due to the proposed off-ramp arrangement, this section of Road P2 would need to be realigned. To minimize reclamation, the slip road connecting between Road P2 and Expo Drive could utilize the existing alignment of Expo Drive as much as possible.
- 3.1.5 No changes are proposed for the CWB and associated at-grade roads in the westbound direction.

#### 3.2 Possible Alternative Road Arrangements (Option 2)

- 3.2.1 A further road layout option is developed to resolve the possible conflict of the additional structural columns for the HKCEC atrium extension and the future CWB slip roads between Expo Drive Central and Convention Avenue just west of Fleming Road. The traffic connections of the possible Option 2 are shown schematically in **Figure 3.2.1A** and the preliminary road layout is shown in **Figure 3.2.1B**.

- 3.2.2 Unlike Option 1, conceptually the difference between Option 1 and Option 2 is that the eastbound on-ramp slip road would be located from its original location west of Fleming Road to a new location to the east of Fleming Road. This would then provide additional physical space to accommodate the structural columns of the proposed atrium link extension. At this stage the architects and the consultants of the CWB are actively liaising to resolve this issue based on the original road layout and this alternative option only provides a possible traffic alternative in case the issue could not be resolved. From traffic operation point of view the relocation of the eastbound on-ramp slip road is not essential, subject to ongoing discussion.



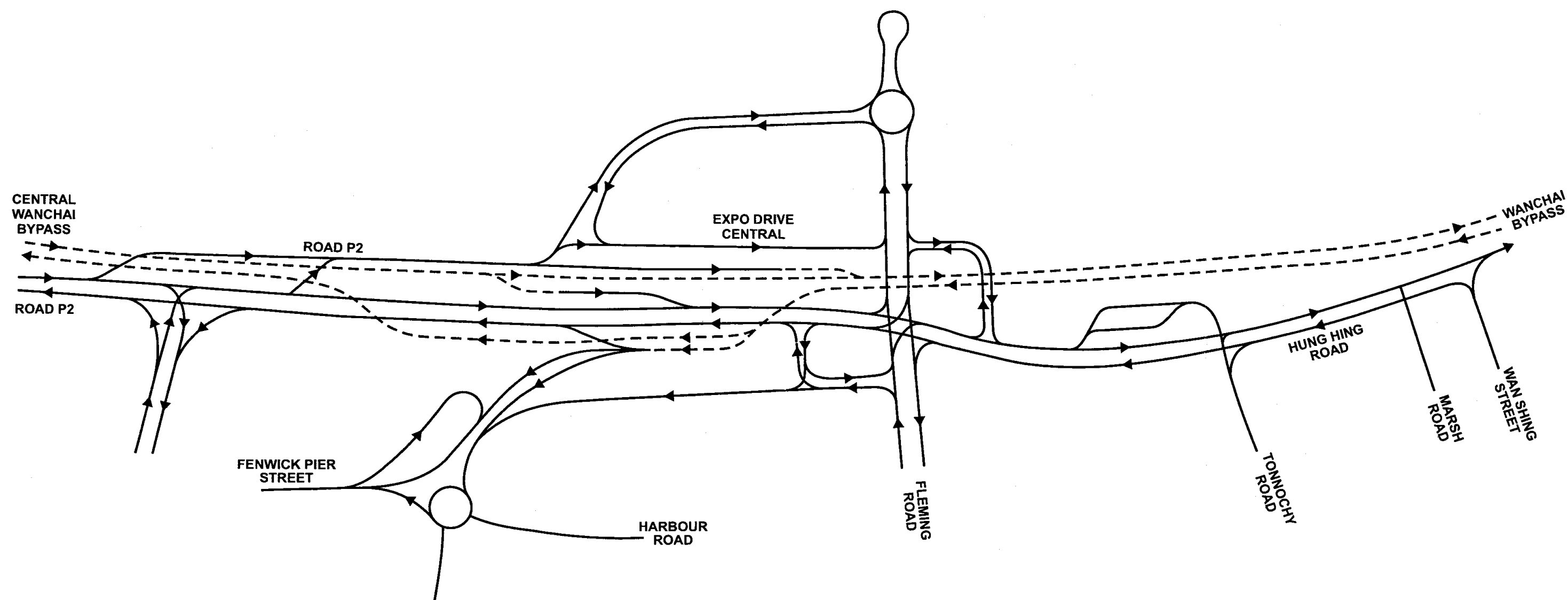
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 - CONCEPTUAL WANCHAI NORTH ROAD LAYOUT ALTERNATIVES

**PLANNED ROAD NETWORK CONNECTIONS**

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Figure No.	<b>3.1.1</b>	Rev.	
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 - CONCEPTUAL WANCHAI NORTH ROAD LAYOUT ALTERNATIVES

**POSSIBLE ROAD ARRANGEMENT  
 - OPTION 1 (1 OF 2)**

Figure No.	<b>3.1.2A</b>	Rev.	
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維多利亞港  
VICTORIA HARBOUR



現有地鐵荃灣綫  
EXISTING MTR  
TSUEN WAN LINE

P2 路  
ROAD P2

灣仔繞道隧道  
WAN CHAI  
BYPASS TUNNEL

中環填海計劃第三期  
CR III

博覽道中  
EXPO DRIVE CENTRAL

香港會議展覽中心  
HKCEC

灣仔運動場  
WAN CHAI  
SPORTS GROUND

分域碼頭街  
FENWICK PIER STREET

港灣道  
HARBOUR ROAD

菲林明道  
FLEMING ROAD

杜老誌道  
TUNNOCHY ROAD

馬師道  
MARSH ROAD

NOTE : SUBJECT TO ENGINEERING FEASIBILITY

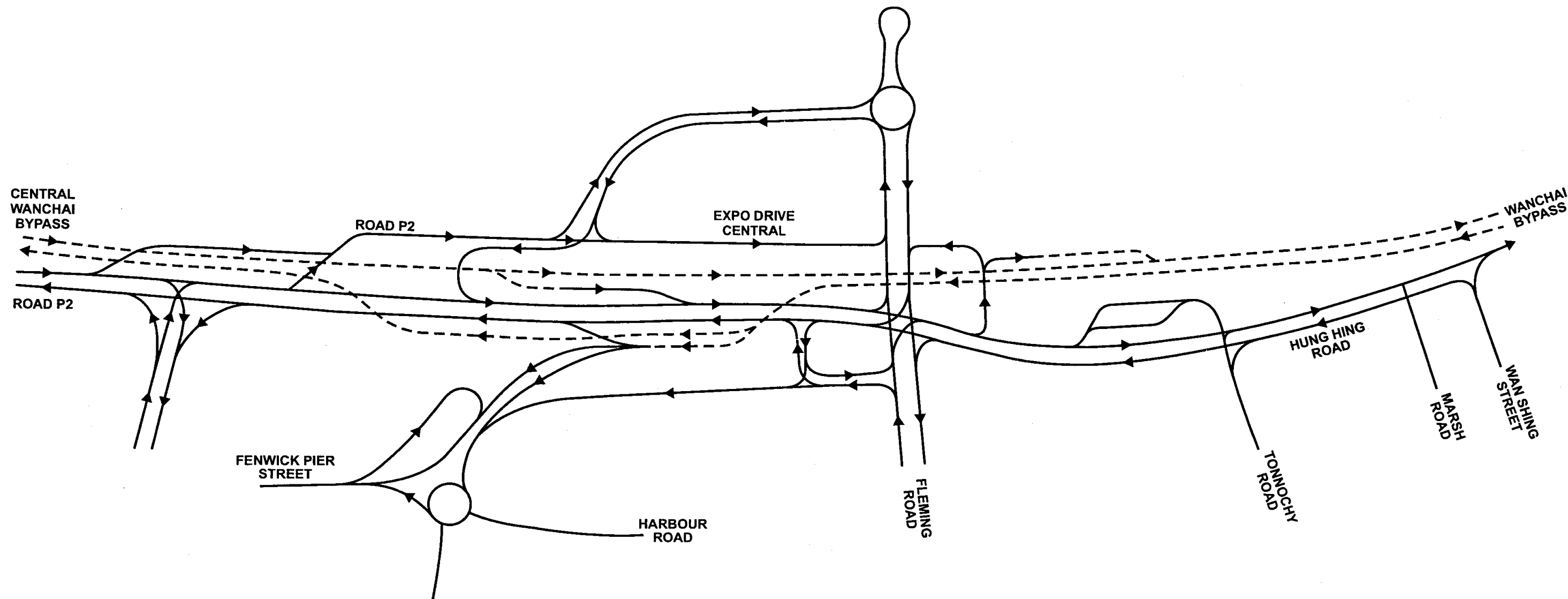
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- CONCEPTUAL WANCHAI NORTH ROAD LAYOUT ALTERNATIVES

**POSSIBLE ROAD ARRANGEMENT**  
**- OPTION 1 (2 OF 2)**

Figure No. <b>3.1.2B</b>		Rev.
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 - CONCEPTUAL WANCHAI NORTH ROAD LAYOUT ALTERNATIVES

**POSSIBLE ROAD ARRANGEMENT  
 - OPTION 2 (1 OF 2)**

Figure No.	<b>3.1.3A</b>	Rev.	
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FLEMING ROAD

杜老誌道  
TONNOCHY ROAD

灣仔運動場  
WAN CHAI  
SPORTS GROUND

馬利道  
MARSH ROAD

NOTE : SUBJECT TO ENGINEERING FEASIBILITY

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- CONCEPTUAL WANCHAI NORTH ROAD LAYOUT ALTERNATIVES

**POSSIBLE ROAD ARRANGEMENT**  
- OPTION 2 (2 OF 2)

Figure No.		3.1.3B		Rev.
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## 4. CONCLUSION

### 4.1 Summary

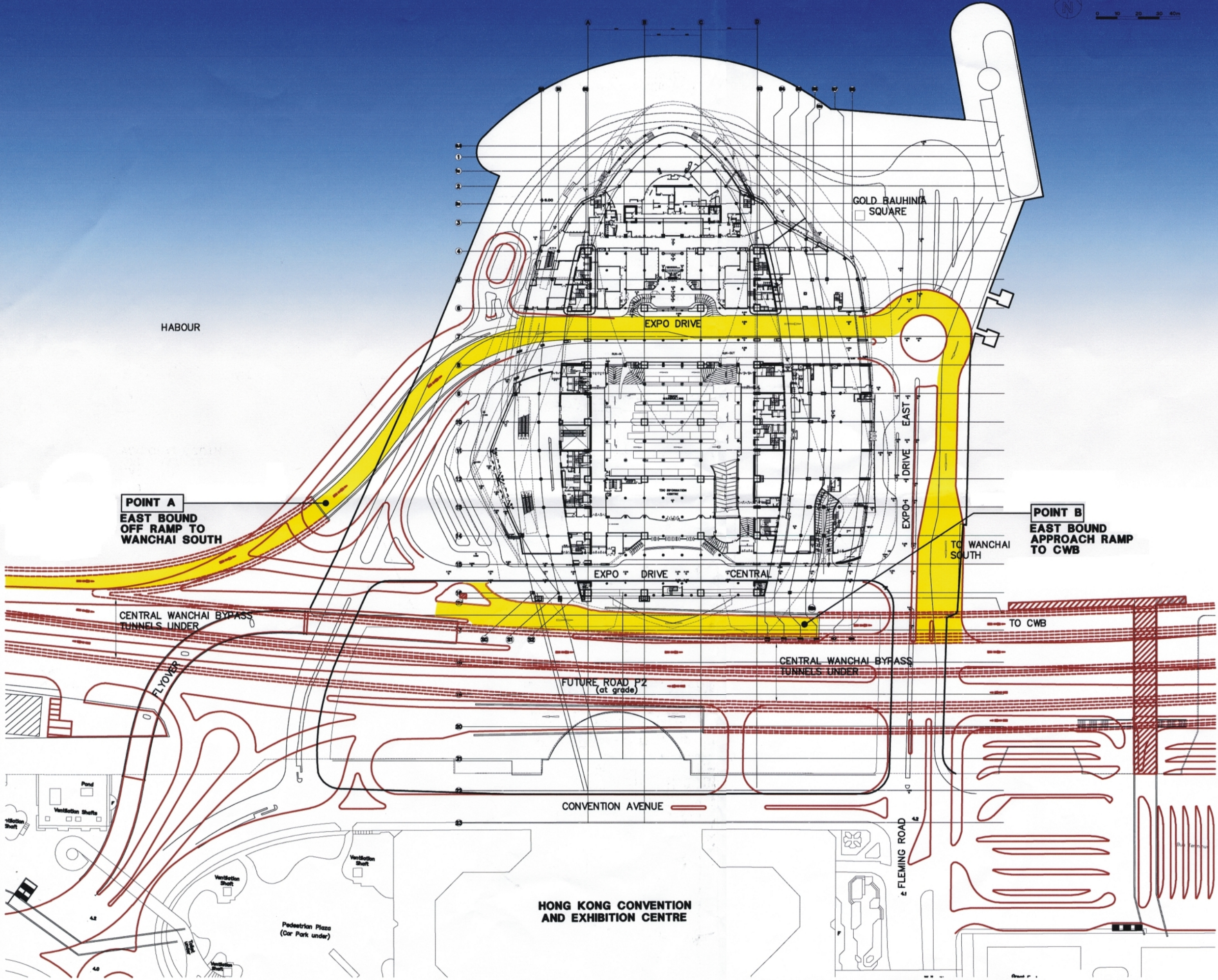
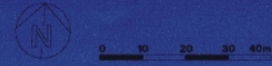
- 4.1.1 In order to eliminate the possible conflict between the government's proposed CWB off-ramp and the traffic operation of HKCEC and the Golden Bauhinia Square, this report has presented 2 possible alternative CWB slip road options at Wanchai North. Option 1 is considered essential from traffic point of view to ensure the existing traffic operation constraint of the HKCEC would not conflict with the additional strategic traffic expected to be brought about by the additional CWB eastbound off-ramp.
- 4.1.2 Option 2 is developed as a possible alternative to maximize the physical space available to accommodate the structural columns of the HKCEC atrium link extension, and is not essential from traffic point of view, subject to ongoing discussion.
- 4.1.3 From the initial assessment, both the proposed slip road alternative options are considered to be feasible from traffic connection point of view. Further engineering feasibility study is required to ascertain the design from highway and civil engineering point of view.

B.L.D. REF

F.S.D. REF

REVISIONS

NUMBER	DESCRIPTION	DATE



### LEGEND

- EXISTING ROAD SYSTEM
- FUTURE ROAD SYSTEM

**WONG & OUYANG (HK) LTD**  
ARCHITECTS AND ENGINEERS HONG KONG

PROJECT  
 Hong Kong Convention  
 And Exhibition Centre  
 Proposed Atrium Link Extension

DRAWING TITLE  
 Road System  
 Around HKCEC  
 (as proposed in WD II)

SIGNATURE FOR SUBMISSION/CONSTRUCTION		
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ENTERED BY		PLOT DATE
CHECKED BY		DATE
SCALE	1:1200 @A2 PRINT DATE	
JOB NUMBER	DRAWING NUMBER	REVISION

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