

**Legislative Council Panel on Transport**  
**Route 9 – section between Tsing Yi and Cheung Sha Wan and**  
**section between Cheung Sha Wan and Sha Tin**

**Supplementary Information Paper**

**Purpose**

This paper provides the supplementary information requested by Members at the meeting of the Legislative Council Panel on Transport held on 7 May 2001 regarding the proposed project Route 9 – Section between Tsing Yi and Cheung Sha Wan (TYCSW) and Section between Cheung Sha Wan and Sha Tin (CSWST). The supplementary information includes –

- (a) updated cost breakdown;
- (b) contract packages;
- (c) traffic forecasts for Ting Kau Bridge, Tuen Mun Road and Shing Mun Tunnel;
- (d) detailed noise assessment;
- (e) details of the objections received against Route 9 - CSWST; and
- (f) tolling strategy.

**Updated Cost Breakdown**

2. The updated cost breakdown of the projects is given below –

**711TH – Route 9 between Tsing Yi and Cheung Sha Wan**

<b>Phase of Works</b>	<b>Estimated Cost (MOD) \$M</b>
Ngong Shuen Chau Viaduct	3,650
Nam Wan Tunnel and Approach Viaducts	4,640
Stonecutters Bridge	4,048
TCSS	240
<b>Total</b>	<b>12,578</b>

**694TH – Route 9 between Cheung Sha Wan and Sha Tin**

<b>Phase of Works</b>	<b>Estimated Cost (MOD) \$M</b>
Enabling Works	31
Sha Tin Section	2,226
Kowloon Section	5,579
<b>Total</b>	<b>7,836</b>

3. The above estimates were updated based on the new inflation figures adopted by the Government with effect from 1 May 2001.

**Contract Packages**

4. We will split the project into a number of contract packages to enable more local contractors to participate in bidding these contracts. Currently, we propose to implement the project under the following contract packages –

**711TH – Route 9 between Tsing Yi and Cheung Sha Wan**

<b>Phase of Works</b>	<b>Contracts</b>	<b>Estimated Contract Price (MOD) \$M</b>
Ngong Shuen Chau Viaduct	1. Ngong Shuen Chau Viaduct	3,069
Nam Wan Tunnel and Approach Viaduct	2. Nam Wan Tunnel	2,430
	3. East Tsing Yi Viaduct	1,510
Stonecutters Bridge	4. Stonecutters Bridge	3,315
	5. Look out point	85
TCSS	6. Traffic Control and Surveillance System	200

### 694TH – Route 9 between Cheung Sha Wan and Sha Tin

Phase of Works	Contracts	Estimated Contract Price (MOD) \$M
Enabling Works	1. Enabling Works	27
Kowloon Section	2. Lai Chi Kok Viaduct	1,328
	3. Eagle's Nest Tunnel	3,248
	4. Chlorination House	13
Sha Tin Section	5. Toll Plaza Formation	87
	6. Sha Tin Heights Tunnel	1,731

5. The total value of the contracts is less than the total project cost as the latter includes also consultancy fees and contingency costs.

### Traffic Forecast

6. The forecast peak hour v/c ratios in Ting Kau Bridge (TKB) and Tuen Mun Road with or without the proposed section of Route 9 – TYCSW are as below –

	2001	2007		2011 <sup>Note 1</sup>		2016 <sup>Note 1</sup>	
		without R9-TYCSW	with R9-TYCSW	without R9-TYCSW	with R9-TYCSW	Without R9-TYCSW	with R9-TYCSW
Ting Kau Bridge <small>Note 2</small>	1.0	1.0	1.0	0.8	1.0	1.0	1.1
Tuen Mun Road (Tsuen Wan to Ting Kau)	0.9	1.2	1.2	1.2	1.1	1.3	1.2

Note 1: The forecasted v/c ratio for TKB is worked out based on the assumption that Tsing Lung Bridge will be in place by 2011.

Note 2: TKB is currently in dual 3-lane operation. However it has the capability to be converted to dual 4-lane operation if necessary. The corresponding v/c ratios in 2011 and 2016 will then be reduced to below 1.0 with or without R9-TYCSW.

7. It should be noted that with the completion of Route 9 – TYCSW the traffic condition of Route 3 including Cheung Tsing Highway, Cheung Tsing Tunnel and Tsing Kwai Highway will improve. Route 9 - TYCSW will also provide a route for container traffic to access the Container Terminal No. 9 without the need to go through the Tsing Yi local road network.

8. The forecast peak hour V/C ratios in Shing Mun Tunnel with or without the proposed Route 9 - CSWST are as below –

	2001	2007		2011		2016	
	Without Route 9-CSWST	Without Route 9-CSWST	With Route 9-CSWST	Without Route 9-CSWST	With Route 9-CSWST	Without Route 9-CSWST	With Route 9-CSWST
Shing Mun Tunnel	1.0	0.9	0.7	0.9	0.7	1.0	0.8

### Detailed Noise Assessment

9. The predicted noise levels of the Noise Sensitive Receivers (NSRs) in Site 10 and Site 6 at various levels are shown in the table below. The locations of these NSRs are shown at Enclosure 1.

NSR	Floor Level	Without 3-metre noise barriers	With 3-metre noise barriers
NSR 1 in Site 10	Low	63	60
	Medium	73	68
	High	74	70
NSR 2 in Site 10	Low	56	49
	Medium	68	62
	High	67	64
NSR3 in Site 6	Low	65	55
	Medium	70	66
	High	69	66

10. We have undertaken an Environmental Impact Assessment (EIA) for the project under which the noise impact in Site 10 and Site 6 has been investigated. The relevant noise mitigation measures as recommended in the EIA study include the provision of low noise surfacing on the new road and the installation of 3 metres high noise barriers. We have also liaised closely with the Director of Housing (D of H) during the EIA process and D of H, in undertaking the detailed design for Site 10, has taken the adjoining environmental conditions into consideration and ensured an integrated approach to minimize the impact through measures like setting back of tower blocks overlooking Route 9, and orienting the layout of tower blocks so that the noise sensitive parts of housing flats will not face the noise sources directly.

11. The difference in the heights of noise barriers to be provided along the viaducts under Route 9 - TYCSW and Route 9 - CSWST is due to the fact that the viaduct of the latter section is comparatively nearer to the NSRs (a distance of 33 metres) than the viaduct of the former section (a distance of 68 metres). Therefore, it is necessary to provide higher noise barriers (5 metres) along the viaduct under Route 9 - CSWST.

12. The full enclosure mentioned in paragraph 32 of the panel paper is proposed to be provided along the Shatin Approach Road, which is the section of the Route 9 mainline north of the Sha Tin Heights Tunnel, at the request of the objectors from the Shatin Heights. With the proposed noise enclosures in place, the road traffic noise level, including the impact of Route 9, that may be experienced at Shatin Heights would be kept to under 70 dB(A) at various floor levels. A table of the predicted traffic noise levels at three representative noise sensitive receivers is shown at Enclosure 2.

### **Details of the objections received against Route 9 - CSWST**

13. The details of the objections received against Route 9 – CSWST are at Enclosure 3.

### **Tolling Strategy**

14. We intend to impose a toll for the tunnel portion of Route 9 - CSWST as a toll is charged for the other three tunnels connecting Sha Tin and Kowloon/Tsuen Wan. On the other hand, we do not have plans to charge for Route 9 – TYCSW including Stonecutters Bridge.

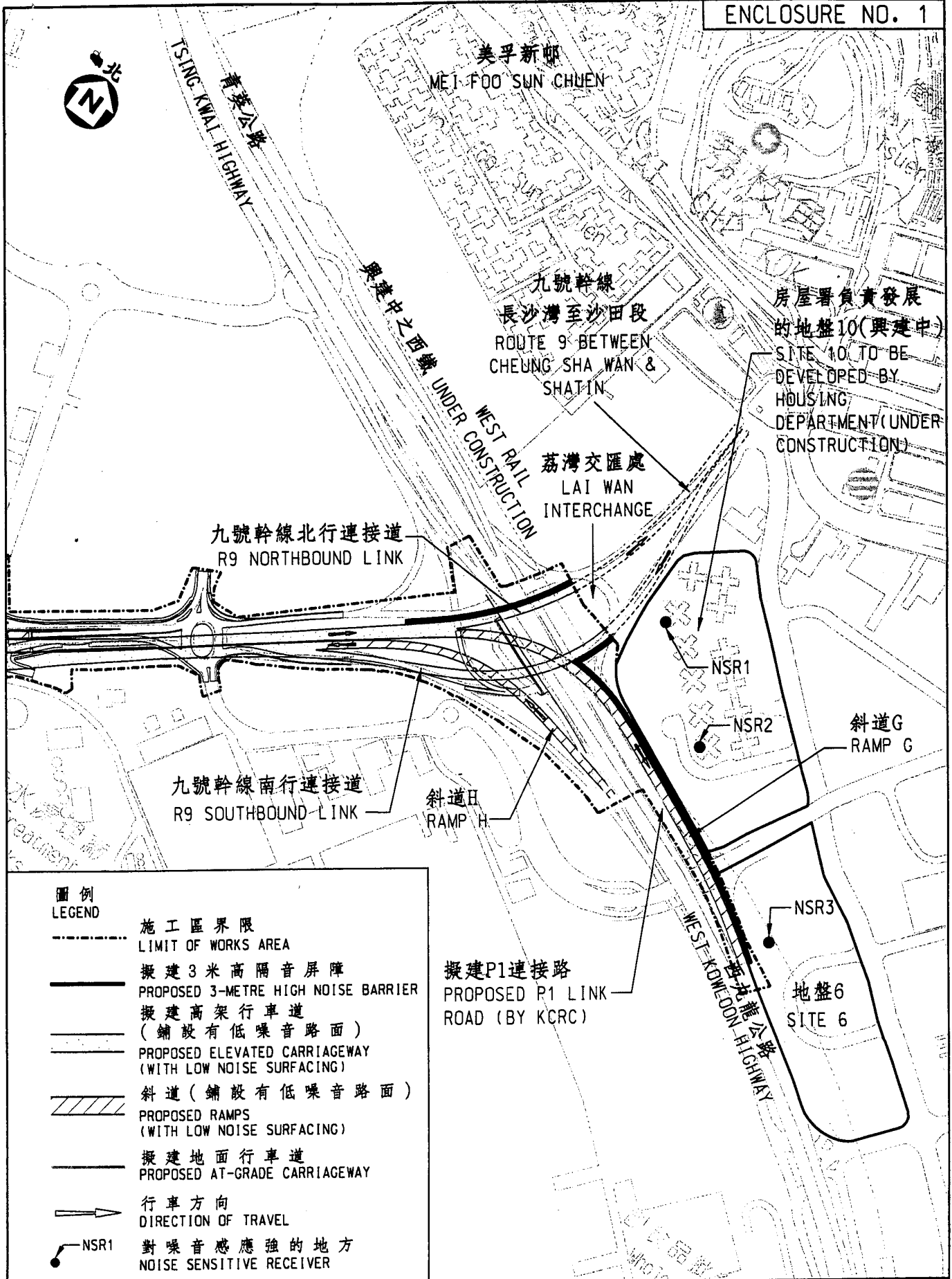
15. As Route 9 will be completed only in 2007, a decision has yet to be made on the exact level of tolls to be levied for the Route 9 tunnel. As a matter of principle, a basket of factors including cost recovery, public acceptability, public affordability and toll level of alternative routes will be considered when deciding the toll level. While cost recovery would be one of the factors to be considered, only the

capital cost for Route 9 – CSWST will be taken into account as the two sections of Route 9 will be regarded as separate projects as traffic could leave Route 9 – CSWST through slip roads without getting on to Route 9 – TYCSW. The need to set the toll level to ensure traffic diversion will also be taken into account.

### **Advice Sought**

16. Members are requested to note the content of this paper. We will seek the approval of the Public Works Sub-Committee of the Finance Committee in June 2001 to upgrade part of Route 9 – TYCSW to enable the commencement of the construction of Ngong Shuen Chau Viaduct in March 2002.

**Transport Bureau**  
**May 2001**



圖例  
LEGEND

- 施工區界限  
LIMIT OF WORKS AREA
- 擬建3米高隔音屏障  
PROPOSED 3-METRE HIGH NOISE BARRIER
- 擬建高架行車道  
(鋪設有低噪音路面)  
PROPOSED ELEVATED CARRIAGEWAY  
(WITH LOW NOISE SURFACING)
- //// 斜道(鋪設有低噪音路面)  
PROPOSED RAMPS  
(WITH LOW NOISE SURFACING)
- 擬建地面行車道  
PROPOSED AT-GRADE CARRIAGEWAY
- 行車方向  
DIRECTION OF TRAVEL
- NSR1 對噪音感應強的地方  
NOISE SENSITIVE RECEIVER

drawing title 圖則名稱  
工務計劃項目第711號 - 九號幹線青衣至長沙灣段  
PWP ITEM NO.711TH - ROUTE 9 BETWEEN TSING YI  
AND CHEUNG SHA WAN  
**對噪音感應強的地方位置圖**  
**LOCATION OF NOISE  
SENSITIVE RECEIVER**

designed  
K. C. LAI  
14/05/01

drawn  
H. Y. YIP  
11/05/01

drawing no. 圖號  
MW6711TH-SP0007

scale 比例  
1 : 7 500

checked  
K. C. LAI  
13/05/01

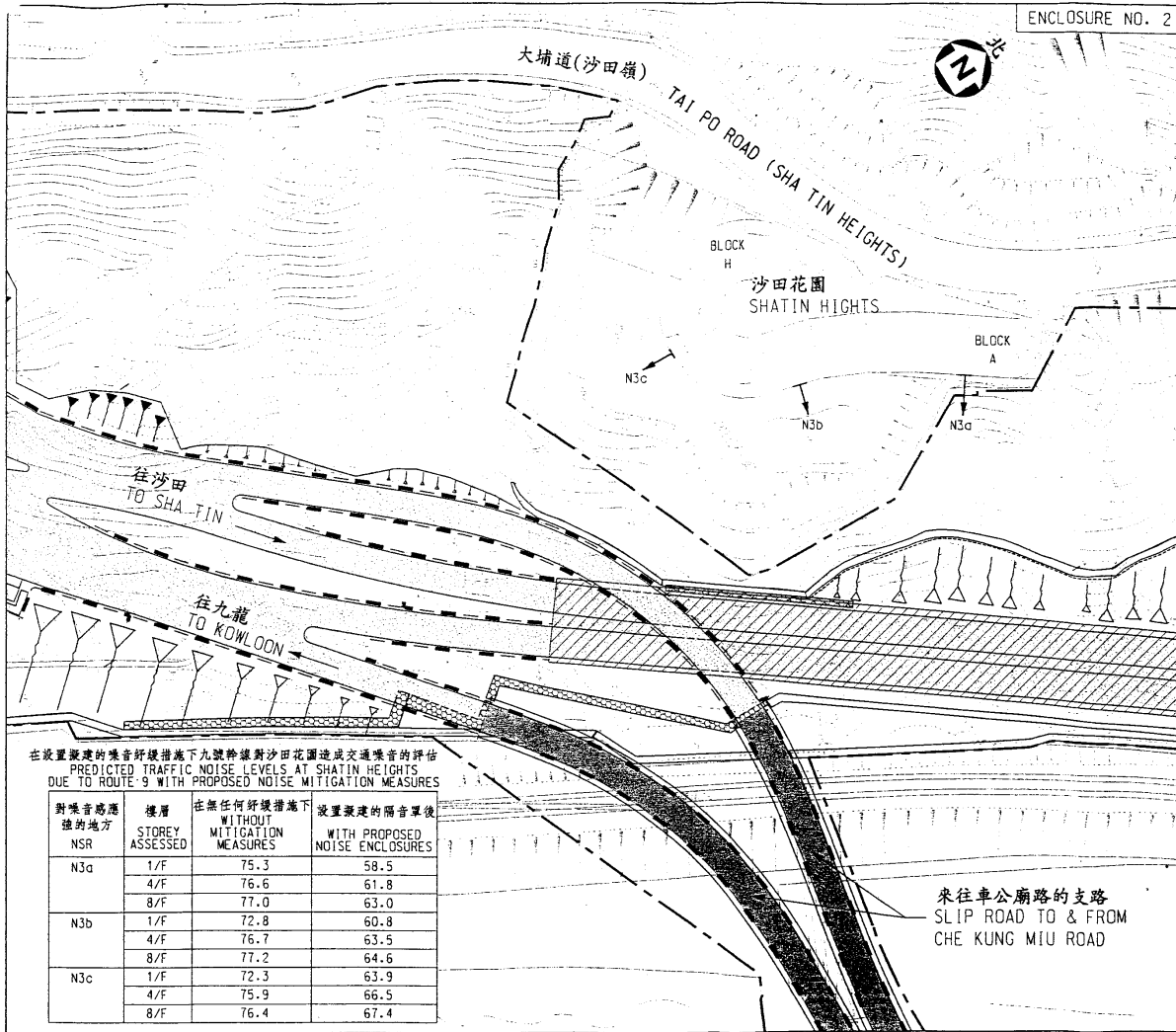
approved  
K. S. NG  
13/05/01

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office MAJOR WORKS  
PROJECT MANAGEMENT OFFICE  
主要工程管理處



HIGHWAYS 路  
DEPARTMENT 政  
HONG KONG 署



圖例 LEGEND:

- N3b 對噪音感應強的地方  
NOISE SENSITIVE RECEIVER NO.
- - - 隔音屏障  
NOISE BARRIER
- ▨ 擋土牆  
RETAINING WALL
- ▨ 隔音罩  
NOISE ENCLOSURE

no.	date	description	initial
REVISION			
designer	T. D. WOO	drawn	H. Y. YIP
checked	T. D. WOO	approved	T. D. WOO
contract no. 合約編號			
file no. 檔案編號			
project no. 6694TH			
contract 合約 九龍幹線長沙灣至沙田段 ROUTE 9 BETWEEN CHEUNG SHA WAN AND SHA TIN			
drawing title 圖則名稱 評估於沙田花園的交通噪音 PREDICTED TRAFFIC NOISE LEVEL AT SHATIN HEIGHTS			
drawing no. 圖號 MW6694TH-SP009		scale 比例 1 : 1000	
COPYRIGHT RESERVED 版權所有 備印必究			
office MAJOR WORKS PROJECT MANAGEMENT OFFICE 主要工程管理處			
HONG KONG HIGHWAYS DEPARTMENT 路政署			

在設置擬建的噪音舒緩措施下九龍幹線對沙田花園造成交通噪音的評估  
 PREDICTED TRAFFIC NOISE LEVELS AT SHATIN HEIGHTS  
 DUE TO ROUTE 9 WITH PROPOSED NOISE MITIGATION MEASURES

對噪音感應強的地方 NSR	樓層 STOREY ASSESSED	在無任何舒緩措施下 WITHOUT MITIGATION MEASURES	設置擬建的隔音罩後 WITH PROPOSED NOISE ENCLOSURES
N3a	1/F	75.3	58.5
	4/F	76.6	61.8
	8/F	77.0	63.0
N3b	1/F	72.8	60.8
	4/F	76.7	63.5
	8/F	77.2	64.6
N3c	1/F	72.3	63.9
	4/F	75.9	66.5
	8/F	76.4	67.4

來往車公廟路的支路  
 SLIP ROAD TO & FROM  
 CHE KUNG MIU ROAD



**PWP Item No. 694TH - Route 9 between Cheung Sha Wan and Sha Tin**  
**Objection Details**

Objector	No. of Objections	Objector's concerns	Government's response to the objections
Hong Kong and China Gas Company Limited	1 [with-drawn]	(a) Potential hazard imposed on their gas offtake station due to the construction and operation of Route 9	The Government devised a series of precautionary and protection measures to be implemented during the construction and operation of the Route 9. The objector was satisfied with our response and withdrew his objection.
Residents of Wai Man Tsuen	63 (including 60 standard letters)  [2 objections withdrawn]	(a) Revise the proposed road alignment to avoid Wai Man Tsuen	We explained that the clearance of Wai Man Tsuen does not arise from the Route 9 project, rather from the policy to clear all cottage areas by 2001. The Government only make use of the cleared area for the construction of Route 9.  Also, the present road alignment of Route 9 had been so selected to avoid a number of constraints within the built-up area of Cheung Sha Wan, including multi-storey industrial buildings, correctional services institution and Lai Chi Kok Hospital. As such, the alignment of Route 9 could not possibly be modified to an extent as to avoid Wai Man Tsuen.
		(b) Compensate for their housing structures regardless of re-housing arrangements	We explained that, according to legal advice and court ruling, the cottage area is on government land and the Government has the right to manage and clear the area, and does not have the liability to compensate the residents for the housing structures upon clearance.
		(c) Effect the clearance under the Roads (Works, Use and Compensation) Ordinance	We explained that since the clearance does not arise from the Route 9 project and is effected by the Housing Ordinance, it would be inappropriate to invoke the Road Ordinance.

Objector	No. of Objections	Objector's concerns	Government's response to the objections
			It was also pointed out that the residents would be enjoying more relaxed conditions of clearance than people affected under normal clearance of government land. For example, they are not subject to income and asset assessment in being re-housed, and could apply for other housing subsidies under first priority.
		(d) Re-house the residents of Wai Man Tsuen to the future Lai Chi Kok Estate	It was explained that the newly completed Fu Cheong Estate would be allocated as the reception housing estate since Lai Chi Kok Estate could not be completed in time to meet the clearance schedule. Nevertheless, the Government agrees to closely keep in view the construction progress of Lai Chi Kok Estate to see if the residents' request could be met.
		(e) Assist senior or disabled residents of Wai Man Tsuen in re-settling into the new housing estate	It was explained that cases requiring assistance would be referred to Social Welfare Department if this is agreeable to the concerned residents.
		(f) Complaints about the management of Wai Man Tsuen	The Government has responded to the complaints and taken appropriate measures to deal with the issues raised.
Butterfly Valley New Village	1	(a) The detailed arrangement for the clearance and re-housing programme	The detailed re-housing arrangement has been explained to the residents and continuous liaison with the residents will be made until the clearance is satisfactorily completed.
		(b) Lai Chi Kok Estate as reception housing estate	It was explained that the newly completed Fu Cheong Estate would be allocated as the reception housing estate since Lai Chi Kok Estate might not be completed in time to meet the clearance schedule. Nevertheless, the Government agreed to closely keep in view the construction progress of Lai Chi Kok Estate to see if the residents' request could be met.

Objector	No. of Objections	Objector's concerns	Government's response to the objections
		(c) 1-bedroom unit for a family of 2, 2-bedroom unit for a family of 4 and 3-bedroom unit for a family of 5	We explained that the existing housing policy is to assign a small unit for a family of 1 to 2, 1-bedroom unit for a family of 3 to 4 , 2-bedroom unit for a family of 5 to 6 and 3-bedroom unit for a family of more than 6. It was explained that the Government had to adhere to this policy but would consider request for bigger units under special circumstances.
		(d) Reimburse the maintenance and repair cost of the housing structures that the objectors had paid during their residency	The Government confirmed that they had already been maintaining the housing structures upon receipt of request for repairs from the residents under their existing mechanism and would not pay for the cost of any maintenance and repair costs initiated and paid by the residents themselves.
A resident of No. 10, Caldecott Road	1	(a) Considers that an alignment previously considered by the Administration, which runs in tunnels near Butterfly Valley, is better than the gazetted scheme	It was explained that the alignment previously considered was inferior in terms of traffic operation and safety. Taking into account traffic, functional requirement, safety, engineering difficulties, cost and environmental considerations, the presently chosen alignment was better than the other options studied.
		(b) The gazetted scheme induces environmental impacts on Butterfly Valley	We explained that comprehensive EIA study was undertaken to address the environmental effects. All relevant environmental standards would be complied with and the as-built environment would be made as pleasing as possible. Environmental measures include provision of compensatory woodland planting, extensive hard landscape works and planting under the viaducts, re-create natural streamcourse and a series of noise abatement measures, including low noise road surfacing, noise barrier and semi-enclosure along the road within Butterfly Valley. Noise assessment at a representative noise sensitive receiver chosen at the residential block in which the objector was residing in shows that the noise level contributed by Route 9 at 1/F level would be reduced from 73.8dB to 64.1dB if the proposed mitigation measures are in place.

Objector	No. of Objections	Objector's concerns	Government's response to the objections
		(c) Worried that the shifting of the existing overhead lines, to make way for the construction of Route 9, would cause a health hazard problem	We explained that, as advised by China Light and Power Hong Kong Limited (CLP), no causal relationship has been established between adverse health effects and exposure to electro-magnetic field (EMF) emanating from high voltage conductors such as power lines. Nevertheless, CLP had accepted the guidelines issued by the International Commission on Non-Ionizing Radiation Protection on the limits of exposure of power frequency EMF. CLP had confirmed that the EMF on the objector's residential block due to the relocated OHL would be far below the limit set in the guidelines. The Hong Kong Planning Standards and Guidelines also states that there is no conclusive scientific evidence to date to support the hypothesis of adverse health effects arising from exposure to power frequency EMF.
		(d) The road scheme would cause a depreciation of government and private land and properties values	We explained that the market value of land would depend on a number of social and economic factors, and it would be very difficult to say whether the building of a new road would affect a property's value one way or the other. We would ensure that any environmental effects on them are kept to a minimum during the construction and operational stages.
		(e) Insufficient publicity of the road scheme	We explained that all necessary publicity required by the Ordinance had been properly done.
		(f) Insufficient traffic justification for the proposed road	We explained that Route 9 was fully justified to cater for the traffic increase and economic development of the territory.
No. 53 Sha Tin Pak Shek Village	1	(a) Extend the resumption limit to cover the remaining 1/3 of the lot	We explained that the gazette limit of works would adequately serve the project needs and there was no ground to extend the resumption limit.
		(b) Loss of access due to resumption	The Government will re-provide the access to the remaining lot.

Objector	No. of Objections	Objector's concerns	Government's response to the objections
		(c) Re-provide the utility supplies	We explained that the objector could apply to the concerned utility services providers.
		(d) Re-provide the irrigation pond and agriculture shed	The Government had no legal obligation to re-provide such facilities. Also, since the objector was not the lot owner, the government had no right to construct any facilities in a private area without any consent or request from the lot owner.
Shatin Heights	1	(a) Lower a proposed slip road close to their property by 2m	We proposed to lower the slip road by 1.4m at the location requested by the objectors. Further lowering is impracticable due to geometric constraint.
		(b) Provide landscape treatment to the slopes between their property and Route 9	We confirmed that slopes below Shatin Heights would be extensively replanted to provide buffer and screens.
		(c) Prohibit vehicles exceeding 15 tonnes from using Tai Po Road upon opening of the Route 9 to minimize the nuisance to them	We explained that the traffic management issue on Tai Po Road was not directly related to Route 9. The total volume of traffic on Tai Po Road was expected to decrease substantially upon the opening of Route 9. The traffic conditions along Tai Po Road would be closely monitored after the commissioning of Route 9 to see if it would warrant to implement certain traffic management measures to further alleviate the traffic noise problems along Tai Po Road.
		(d) High residual traffic noise level and demanded that a noise enclosure be provided to the new road below their property	We proposed to adopt the noise enclosure design as requested. With the proposed enclosures in place, the traffic noise level contributed by Route 9 experienced at three representative noise sensitive residential blocks of Shatin Heights is expected to reduce by 8.4 to 16.8 dB at various floor levels.