

ARUP	Job No.	Sheet No.	Rev.
	256383	2	A
Job Title	Shuen Wan Golf Course		
Member/Location	Drg. Ref. Drawing 2.2		
Calculation	Peak Sewage Flow of Proposed and Existing Sewerage Catchments	Made by SY	Date 02/2019 Chd. YL

Table B1 Sewage Flow Estimation of the Proposed Development

Contributing Sewerage Catchment	ADWF (m ³ /day)	Peaking Factor	Peak Flow (l/s)
The proposed development	485	6	33.71

Table B2 Sewage Flow Estimation of the Existing Contributing Sewerage Catchment at upstream of Manhole FMH1027325 for the existing DN600 along Ting Kok Road

Contributing Sewerage Catchment ID ⁽¹⁾	No of Residents	Total Residents	UFF for (m ³ /day)	ADWF of Domestic Flow (m ³ /day)	ADWF of Commercial Flow ⁽²⁾ (m ³ /day)	Total ADWF (m ³ /day)	Total ADWF (m ³ /day)	Total Contributing Population	Peaking Factor	Total Peak Flow (l/s)
6	4,637	4,637	0.27	1,252	187.80	1,440				
Existing Shuen Wan Site ⁽³⁾			-			10	1,935	7,167	5	112
Proposed Development			-			485				

Note:

- Refer to Drawing 2.2 for location and extent of the contributing Sewerage Catchments in the vicinity of the proposed Golf Development. Based on the SIA of the upgrading works along Ting Kok Road under PWP No. 4403DS, sewage Flow from existing Sewerage Catchment 1 to 5 will be collected by the upgraded TKR SPS No. 7 and further conveyed to TKR SPS No. 5 directly (not to the existing DN600 sewers along the Ting Kok Road any more). Sewage Flow from existing Sewerage Catchment 1 to 5 will be collected by the upgraded TKR SPS No. 7 and further conveyed to TKR SPS No. 5 directly (not to the existing DN600 sewers along the Ting Kok Road any more) through the proposed rising mains and gravity sewers under the PWP No. 4403DS.
- Assume the commercial sewage flow to be 15% of the domestic sewage flow considering the nature of the relevant sewage catchment
- To be conservative, sewage flow of the existing Shuen Wan Site is based on the discharge limit of 10 m³/day for the sewage treatment facility to handle the sewage from the toilets of SWL golf driving range as stipulated in the WPCO license No. WT00021902-2015 (Part B)

Table B3 Sewage Flow Estimation of the Existing Contributing Sewerage Catchment at upstream of Manhole FMH1027333 for the existing DN600 along Ting Kok Road

Contributing Sewerage Catchment ID ⁽¹⁾	No of Residents	Total Residents	UFF for (m ³ /day)	ADWF of Domestic Flow (m ³ /day)	ADWF of Commercial Flow ⁽²⁾ (m ³ /day)	Total ADWF (m ³ /day)	Total ADWF (m ³ /day)	Total Contributing Population	Peaking Factor	Total Peak Flow (l/s)
6	4,637	8,915	0.27	2,407	361.06	2,768				
7	4,278									
Existing Shuen Wan Site ⁽³⁾			-			10	3,263	12,087	4	151
Proposed Development			-			485				

Note:

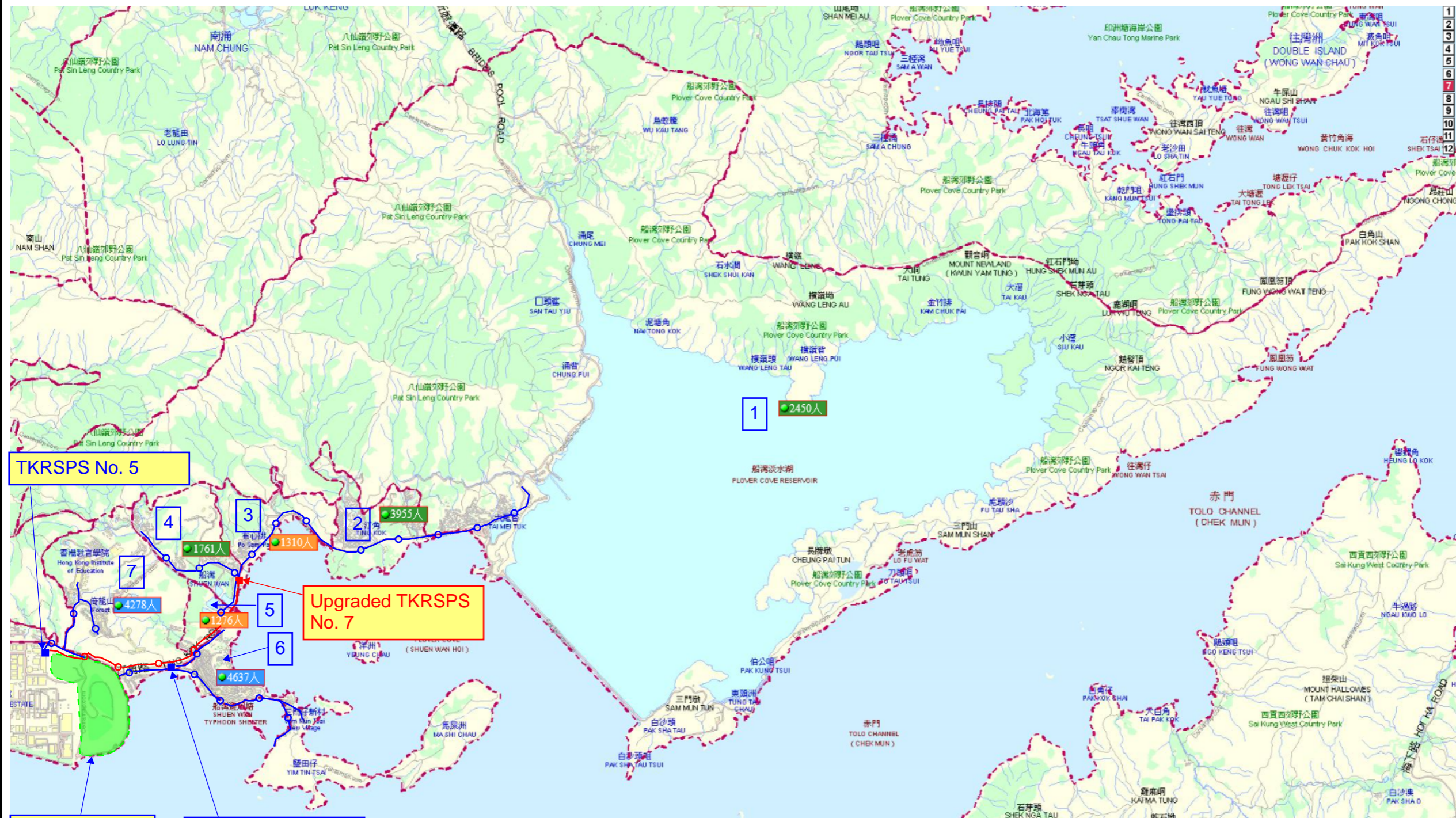
- Refer to Drawing 2.2 for location and extent of the contributing Sewerage Catchments in the vicinity of the proposed Golf Development. Based on the SIA of the upgrading works along Ting Kok Road under PWP No. 4403DS, sewage Flow from existing Sewerage Catchment 1 to 5 will be collected by the upgraded TKR SPS No. 7 and further conveyed to TKR SPS No. 5 directly (not to the existing DN600 sewers along the Ting Kok Road any more). Sewage Flow from existing Sewerage Catchment 1 to 5 will be collected by the upgraded TKR SPS No. 7 and further conveyed to TKR SPS No. 5 directly (not to the existing DN600 sewers along the Ting Kok Road any more) through the proposed rising mains and gravity sewers under the PWP No. 4403DS.
- Assume the commercial sewage flow to be 15% of the domestic sewage flow considering the nature of the relevant sewage catchment
- To be conservative, sewage flow of the existing Shuen Wan Site is based on the discharge limit of 10 m³/day for the sewage treatment facility to handle the sewage from the toilets of SWL golf driving range as stipulated in the WPCO license No. WT00021902-2015 (Part B)
- To be conservative, assume the population for the southwest corner of the Sewerage Catchment 1 will be 100% of the total population within the sewerage catchment 1

Table B4 Sewage Flow Estimation of the Existing Contributing Sewerage Catchment at upstream TKR No. 5 SPS

Contributing Sewerage Catchment ID ⁽¹⁾	No of Residents	Total Residents	UFF for (m ³ /day)	ADWF of Domestic Flow (m ³ /day)	ADWF of Commercial Flow ⁽²⁾ (m ³ /day)	Total ADWF (m ³ /day)	Total ADWF (m ³ /day)	Total Contributing Population	Peaking Factor	Total Peak Flow (l/s)	
1 ⁽⁴⁾	2,450	19,667	0.27	5,310	796.51	6,107					
2	3,955										
3	1,310										
4	1,761										
5	1,276										
6	4,637										
7	4,278										
Existing Shuen Wan Site ⁽³⁾			-			10	6,602	24,452	4	306	
Proposed Development			-			485					

Note:

- Refer to Drawing 2.2 for location and extent of the contributing Sewerage Catchments in the vicinity of the proposed Golf Development. Based on the SIA of the upgrading works along Ting Kok Road under PWP No. 4403DS, sewage Flow from existing Sewerage Catchment 1 to 5 will be collected by the upgraded TKR SPS No. 7 and further conveyed to TKR SPS No. 5 directly (not to the existing DN600 sewers along the Ting Kok Road any more). Sewage Flow from existing Sewerage Catchment 1 to 5 will be collected by the upgraded TKR SPS No. 7 and further conveyed to TKR SPS No. 5 directly (not to the existing DN600 sewers along the Ting Kok Road any more) through the proposed rising mains and gravity sewers under the PWP No. 4403DS.
- Assume the commercial sewage flow to be 15% of the domestic sewage flow considering the nature of the relevant sewage catchment
- To be conservative, sewage flow of the existing Shuen Wan Site is based on the discharge limit of 10 m³/day for the sewage treatment facility to handle the sewage from the toilets of SWL golf driving range as stipulated in the WPCO license No. WT00021902-2015 (Part B)
- To be conservative, assume the population for the southwest corner of the Sewerage Catchment 1 will be 100% of the total population within the sewerage catchment 1



TKRSPS No. 5

Upgraded TKRSPS No. 7

Proposed Golf Development

TKRSPS No. 6

Legend:

- New gravity sewer/rising main of on-going upgrading works along Ting Kok Road under PWP No. 4403DS
- Existing gravity sewer/rising main
- Upgraded SPS
- Existing SPS
- Works Boundary for the Development Site
- Sewage Catchment Boundary
- Contributing Sewerage Catchment ID
- Total Population within the Sewerage Catchment

	By	Date

ARUP

SHUEN WAN GOLF COURSE

Drawing title

EXISTING UPSTREAM CONTRIBUTION SEWERAGE CATCHMENT

Drawing no.	2.2	Rev.	A
Drawn	SY	Date	04/18
Checked	YL	Approved	AW
Scale	NTS	Status	PRELIMINARY

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Note:
1. Population figures, boundary of the sewerage catchment and the basemap are extracted from <http://hk.centamap.com/gc/home.aspx>