Attachment 7 – Replacement Pages of the Water Supply Impact Assessment



Proposed Amendments to an Approved Comprehensive Residential Development Scheme and Minor Relaxation of Gross Floor Area and Building Height Restrictions at Various Lots in D.D. 385 and Adjoining Government Land, Tai Lam Chung, Tuen Mun

Table 4-6 – Water Demand Estimation of the Village Housing Sites

Development Type	Flow Type	Population	Fresh Water UDD	Flushing Water UDD	Water Demand (m ³ /d)	
			(L/head/day)	(L/head/day)	Fresh Water	Flushing Water
Domestic	Village	672	300	106	202	72
Non-domestic	Service Trade	672	35	-	24	-
Required water demand					226	72

Remarks:

Daily water demand does not include water demand for fire-fighting. Service trade adopted 100% of domestic population.

4.6.3 Since the village housing arrangement plan is currently unavailable, each pipe tee-off size is conservatively estimated to handle 50% of the total water demand for each village housing site. The calculation of pipe size estimation is shown in **Appendix B**.

5 POTENTIAL WATER SUPPLY IMPACTS AND MITIGATION MEASURES

5.1 Fresh Water Supply System for the Proposed Development Site

- 5.1.1 As mentioned in **Section 2.2** there are existing fresh water supply in the vicinity of the Application Site. At the west of the site, a 300mm fresh water main is proposed to tee-off from the existing 400mm fresh water main along Tai Lam Chung Road to supply fresh water to the Proposed Development. The proposed 300mm fresh water main is approximately 320m in length. It is proposed to tee-off a 250mm fresh water main at the entrance of the proposed development to serve the proposed development.
- 5.1.2 The proposed fresh water supply alignment is shown in **Drawing No. WSIA/405.** The hydraulic review of existing water mains and the proposed water mains are shown in **Appendix A**.
- 5.1.3 The size of the proposed fresh water supply system within the site and associated fittings will be further developed in detailed design stage.

5.2 Flushing Water Supply System for the Proposed Development Site

- 5.2.1 As mentioned in **Section 2.3**, since there is no saltwater supply in the vicinity of the Application Site, flushing water is supplied by TMF mains in the vicinity of the Proposed Development.
- 5.2.2 At the west of the site, a 150mm flushing water main is proposed to tee-off from the existing 150mm TMF mains along Luen Hong Lane to supply flushing water to the Proposed Development. The proposed 150mm flushing water main is approximately 70m in length.
- 5.2.3 The proposed flushing water supply alignment is shown in **Drawing No. WSIA/407.**The hydraulic review of existing water mains and the proposed water mains are shown in **Appendix A**.
- 5.2.4 The size of the proposed flushing water supply system within the site and associated fittings will be further developed in the detailed design stage.



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- 6.2.2 One section of the existing WSD Access Road falls within the area designated for future village housing and will be blocked. As shown in the approved gazette plan in **Appendix D**, the alignment of the future village access road will be modified and will be capable of providing continued access for the WSD. The modified village access road will ensure proper access for WSD operations. The details are illustrated in **Appendix C2**.
- 6.2.3 The detailed design of the roadworks will be developed during the detailed design stage. A maintenance matrix for the relevant road sections will be prepared and submitted to the relevant government departments, including the WSD, for approval at that stage.

6.3 Water Mains

Water mains fall within the Development Boundary

- 6.3.1 Certain water mains fall within the Development Boundary and currently supply water to an existing public toilet. The public toilet will be relocated, and the water mains within the Development Site will be demolished after the existing public toilet is relocated.
- 6.3.2 The details of the demolition will be designed at a later stage. The demolition of water mains will be carried out in accordance with WSD's standards and procedures to minimize any potential impact on water supply services.
- 6.3.3 Due to the planned realignment of future village access, some of the existing water mains will need to be diverted to accommodate the new alignment. The proposed diversion works are shown in **Drawing No. WSIA/405**.

<u>Water mains fall within the Village Housing Site Boundary and Public Facilities</u> <u>Reserved Site Boundary</u>

- 6.3.4 Site formation works will be conducted in village housing sites, and public facilities will be constructed in the reserved site. Certain water mains located within the Village Housing Site Boundary and Public Facilities Reserved Site Boundary may be affected by the proposed works.
- 6.3.5 To facilitate the proposed site formation works, it is proposed to divert the existing water mains if necessary. The proposed diversion works are shown in **Drawing No. WSIA/405**.
- 6.3.6 It is proposed to retain the remaining water mains during the construction period. The construction works will be carried out in accordance with the WSD's standards and procedures to ensure minimal disruption to existing water supply services.

7 MAINTENANCE RESPONSIBILITY

Proposed Development Site

7.1.1 The Applicant will be responsible for construction of all proposed water supply facilities within the development site boundary including all internal water mains, water supply lead-in valves and those proposed water distribution pipes.



