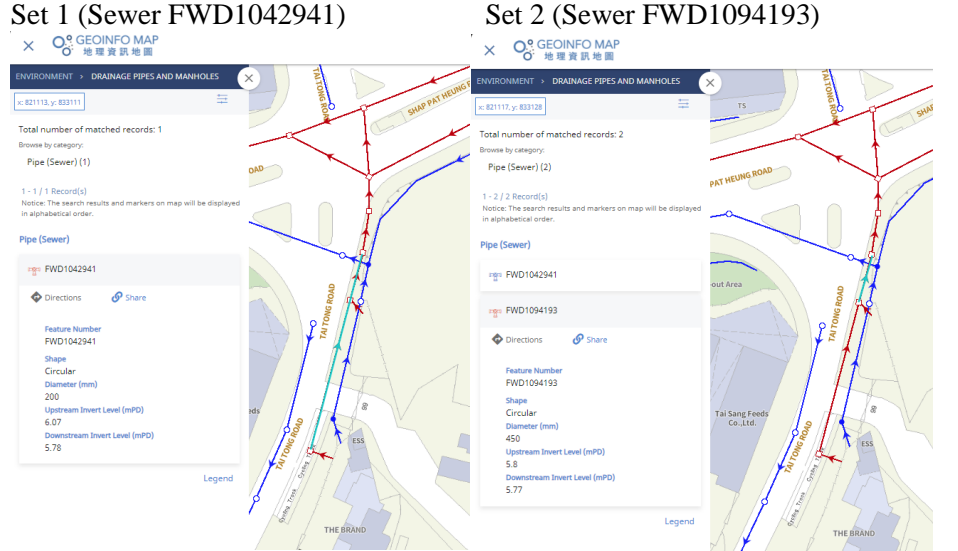


Items	Comments	Responds									
Comments from Environmental Protection Department dated 27 November 2023											
4. Sewerage Impact Assessment											
(a)	Appendix D3, D4, D5 and E: Please correct the pipe no. FWD1081044 to FWD1043909;	Appendices D3, D4, D5 and E are updated accordingly.									
(b)	Appendix D4: Please check peaking factor of pipe FMD-P2;	The peaking factor of pipe FMD-P2 is 5. Table 5.2 and Appendix D4 are updated.									
(c)	Appendix D5: Pipe full flow capacity and flow velocity of pipe FWD1043910 and FWD1043909 are inconsistent with that in Appendix D3 and D4. Please check; and	<p>The full flow capacity and flow velocity of pipes FWD1043910 and FWD1043909 in Appendix D5 are revised. The full flow capacity and flow velocity for pipes FWD1043910 and FWD1043909 are as follow: -</p> <table border="1" data-bbox="1167 571 2018 715"> <thead> <tr> <th>Pipe</th> <th>Pipe Full Flow Velocity (m/s)</th> <th>Utilization (%)</th> </tr> </thead> <tbody> <tr> <td>FWD1043910</td> <td>0.79</td> <td>41%</td> </tr> <tr> <td>FWD1043909</td> <td>1.25</td> <td>18%</td> </tr> </tbody> </table>	Pipe	Pipe Full Flow Velocity (m/s)	Utilization (%)	FWD1043910	0.79	41%	FWD1043909	1.25	18%
Pipe	Pipe Full Flow Velocity (m/s)	Utilization (%)									
FWD1043910	0.79	41%									
FWD1043909	1.25	18%									
(d)	Appendix E:- i. Please check the cumulative sewage flow and hence the contribution population and peak flow from FWD1043891 and FWD1043892 under the proposed condition; and	<p>The cumulative daily sewage flow with catchment inflow factor from FWD1043891 and FWD1043892 under proposed condition should be read as 8.41 l/s (i.e. 7.86 + 0.55). Hence, cumulative peak flow discharge to existing sewers FWD1043910 and FWD1043909 under proposed condition is 58.11 l/s.</p> <p>Appendix E is revised accordingly.</p>									
(d)	ii. Please advise how the design discharge are distributed to FWD1043910 and FWD1043909.	The distribution of flow to pipes FWD1043910 and FWD1043909 is based on the hydraulic gradient and hydraulic head of corresponding pipe. Since the pipes have same invert level at upstream side of distribution, they shall have same water depth in order to achieve same hydraulic head at upstream end. In light of the differences in diameter and gradient for pipes FWD1043910 and FWD1043909, Colebrook-White equation and Wallingford charts are used to find out the proportional discharge (Q/Q_0) and the proportional depth (d/D) of respective pipe so that the same water depth at upstream end is obtained.									
Comments from Drainage Services Department dated 27 November 2023											
Sewerage Impact Assessment											

Proposed Flat and Shop and Services Uses with Minor Relaxation of Plot Ratio Restriction at Lots 4614 and 4615RP in DD116, and Lots 1753sBRP (part), 1753sBss3 (part), 1756sA (part), 1756RP (part), 1757, 1758RP, 1760RP in DD120, and adjoining Government Land, Tai Kei Leng, Yuen Long

Items	Comments	Responds
(a)	<p>Section 5.1.3 and Table 5.1 - Please confirm if the concerned section for upgrading the existing sewers from 200mm to 250mm diameter is between FMH1035400 and FMH1064703. Besides, please indicate in the report that the project proponent will be responsible for the implementation of the required upgrading works and the proposed sewerage works, whether within or outside the application site;</p>	<p>In accordance with the sewerage record on Geoinfo Map of Lands Department, there are two set of existing sewers, including an existing sewer FWD1042941, 200mm diameter (from FMH1035400 to FMH1035401) and an existing sewer FWD1094193, 450mm diameter (from FMH1064703 to FMH1035401). There is no existing sewer connecting from FMH1035400 to FMH1064703. The existing 200mm diameter sewer FWD1042941 between FMH1035400 and FMH1035401 will be upgraded to 250mm diameter by the project proponent.</p> <p>Section 5.2.4 is updated and included the construction responsibility of the required upgrading works and the proposed sewerage works.</p> <p>Set 1 (Sewer FWD1042941)</p> <p>Set 2 (Sewer FWD1094193)</p> 
(b)	<p>Appendix C - Please be reminded that the maximum spacing between manholes will not exceed 80m for sewers smaller than and including 675mm diameter and 100m for pipe larger than 675mm and up to 1050mm diameters;</p>	<p>An additional manhole, FMH-03, is added between FMH-02 and FMH1035400. The maximum spacing between all proposed manholes are less than 80m. Table 5.2, Appendices C, D.4 and D.5 are updated to include FMH-03 and FMD-P3.</p>
(c)	<p>Appendix C - The size of the incoming sewer at FMH1064703 should be 250mm diameter after the upgrading works. Please review;</p>	<p>As mentioned above, there is no existing sewer connecting from FMH1035400 to FMH1064703. The existing 200mm diameter sewer FWD1042941 between</p>

Items	Comments	Responds
		FMH1035400 and FMH1035401 will be upgraded to 250mm diameter. Change of incoming pipe at FMH1064703 is considered not necessary for Appendix C.
(d)	Appendix D.5 - Please provide supporting document to demonstrate that the proposed 250mm OD PE pipe could have at least 238mm ID for our reference; and	Please be clarified that the proposed 250mm PE refers to PE pipe with internal 250mm internal diameter. For Appendix D.5, it is demonstrating the hydraulic performance of the proposed pipes and the upgraded pipes after rehabilitation in future. It is assumed that the lining thickness for rehabilitation of 250mm diameter pipe is 6mm, thus the internal diameter of the proposed/ upgraded 250mm diameter pipes is assumed to be 238mm (i.e. $250 - 6 \times 2$).
(e)	Appendix D.5 - The cumulative peak sewerage flow at downstream pipe no. FMD-P2 should be more than the upstream pipe no. FMD-P1, please review the cumulative sewerage flow along the proposed and existing sewer system accordingly. Furthermore, please provide a clear drawing showing the distribution of the sewerage flow generated from the application site(s) and/or the sub-catchment area for our reference.	<p>The cumulative peak sewerage flow is equal to <i>Cumulative Daily Sewage Flow time Catchment Inflow Factor time Peaking Factor plus Instant Peak Flow from Swimming Pool</i>. According to the Guidelines for Estimating Sewage Flows for Sewage Infrastructure Planning (GESF-EPD) issued by EPD, the peaking factor is determined based on Table T-5 with the contributing population. In this case, the contributing populations for FMD-P1 and FMD-P2 are 985 and 1024 respectively, thus the peaking factors for FMD-P1 and FMD-P2 are 6 and 5 respectively according to GESF-EPD. Since the peaking factors of FMD-P1 is greater than FMD-P2, the calculated cumulative peak sewerage flows of FMD-P1 is also greater than FMD-P2. In view that the downstream sewer shall have same or greater sewage flow as compared with upstream sewer, the calculated cumulative peak sewerage flow of FMH-P1 (upstream sewer) has been adopted for FMH-P2 (downstream sewer). Appendix D.5 updated accordingly.</p> <p>Appendix B2 is added to show the distribution of the sewage generated from the application site(s) and/or the sub-catchments of assessed sewers under proposed condition.</p>

Proposed Flat and Shop and Services Uses with Minor Relaxation of Plot Ratio Restriction at Lots 4614 and 4615RP in DD116, and Lots 1753sBRP (part), 1753sBss3 (part), 1756sA (part), 1756RP (part), 1757, 1758RP, 1760RP in DD120, and adjoining Government Land, Tai Kei Leng, Yuen Long

Appendix 1

Proposed Minor Relaxation of Plot Ratio Restriction for Permitted Flat and Proposed Shop and Services Uses at Lots 4614 and 4615 RP in D.D. 116, Lots 1753 S.B ss.3 (Part), 1753 S.B RP (Part), 1756 S.A (Part), 1756 RP (Part), 1757, 1758 RP and 1760 RP in D.D. 120, and Adjoining Government Land, Tai Kei Leng, Yuen Long, New Territories

Sewerage Impact Assessment (Revision C)

December 2023