

Ref : HyD GR/1-50/1

Tel : 2762 3304

Highways Department  
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88 Chung Hau Street  
Homantin  
Kowloon

8 November 2023

Highways Department Technical Circular No. 2/2022A

Supply of Digital Maps and LiDAR Data

**1. Introduction**

- 1.1 This Technical Circular (TC) lays down the arrangements for users of Highways Department (HyD) including HyD's Staff/Consultants/Contractors (HyD's users) to acquire Digital Maps and LiDAR (Light Detection and Ranging) Data from the Survey and Mapping Office (SMO) of Lands Department (LandsD) and the Survey Division of Civil Engineering and Development Department (CEDD), upon opening up of Digital Maps and LiDAR Data.
- 1.2 Chief Land Surveyor (CLS) is appointed as the departmental agent to liaise with SMO and CEDD for obtaining the latest Digital Maps and LiDAR Data.
- 1.3 This TC updates the procedures for acquiring data as promulgated by SMO and CEDD, and supersedes HyDTC No. 2/2022.

**2. Digital Map Data**

- 2.1 With effect from April 2021, LandsD has opened up most of the Digital Maps<sup>1</sup> to the general public for free download and use. These Digital Maps are known as "Open Digital Maps". All other Digital Maps which are not opened-up are still supplied to the general public at a prevailing charge or to the government Bureaux/Departments (B/Ds) for internal use. In the context of this Circular, this set of non-opened up Digital Maps is called "Internal-use Digital Maps".

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<sup>1</sup> Details of the Digital Maps can be found on the SMO website (<https://www.landsd.gov.hk/en/survey-mapping/mapping.html>).

*Open Digital Maps*

- 2.2 Open Digital Maps, which include the commonly used large-scale Digital Topographic Map, Digital Land Boundary Map, 3D Spatial Data, etc., are listed on LandsD website at [landsd.gov.hk/en/spatial-data/open-data.html](https://landsd.gov.hk/en/spatial-data/open-data.html). An abstract of the list as on 8 November 2023 is at Table 1 of Appendix A. HyD's users who wish to obtain the Open Digital Maps can visit the website of Common Spatial Data Infrastructure (CSDI) Portal<sup>2</sup> ([portal.csdi.gov.hk/csdi-webpage/](https://portal.csdi.gov.hk/csdi-webpage/)) for browsing and free downloading. It should be noted that users shall abide by the whole set of Terms and Conditions of Use of Data on the CSDI Portal.

*Internal-use Digital Maps*

- 2.3 Internal-use Digital Maps, which include large size aerial photos, small scale maps, orthophotos in specific file formats, etc., are listed at Table 2 of Appendix A. CLS shall be responsible for supplying the Internal-use Digital Maps to HyD's users according to the procedures in the ensuing paragraphs. A flowchart outlining the procedures for obtaining Internal-use Digital Maps is attached at Appendix B.
- 2.4 **HyD's Staff** who wishes to obtain Internal-use Digital Maps from CLS shall submit a request to CLS for the supply of the map data via memo/email. HyD's Staff shall abide by the "Terms and Conditions on the Use of Digital Map from Survey and Mapping Office, Lands Department (For Government Users)" at Appendix B1. The Internal-use Digital Maps shall not be released in part or in whole, or in whatever forms or media to any other third parties without the prior consent of CLS.
- 2.5 **HyD's Consultant/Contractor** who wishes to use Internal-use Digital Maps is required to follow the procedures as described below -
- 2.5.1 HyD's Consultant/Contractor is required to complete the Internal-use Digital Map Order Form at Appendix B2, sign the "Undertakings by Consultant/Contractor on the Use of Digital Map from the Survey & Mapping Office, Lands Department" (SMF-0096) at Appendix B3 and forward them to the responsible HyD project officer for follow-up actions as stipulated in the following paragraph.
- 2.5.2 The project officer shall check if the requested Digital Maps listed in the Digital Map Order Form tally with the project requirements. If the project officer is satisfied that the Consultant/Contractor's request is genuine, he shall complete and forward the

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<sup>2</sup> The Common Spatial Data Infrastructure (CSDI) Portal, which is an online one-stop geospatial information service provided by the Development Bureau to the public for obtaining geo-referenced information, was officially launched on 29 December 2022 to replace its alpha version namely Hong Kong GeoData Store.

standard memo of request at Appendix B4, the Digital Map Order Form and the Undertaking to CLS. The project officer shall make sure that the Consultant/Contractor has strictly observed the acknowledgement requirements as stipulated in Clause 10 of the Undertaking when the Internal-use Digital Maps are required to be distributed to third party or be used on the Internet.

2.5.3 If the Consultant/Contractor needs additional Internal-use Digital Maps for the same project, he has to submit a fresh Digital Map Order Form and Undertaking through the project officer to CLS for action. A fresh standard memo of request is not required.

2.5.4 Within two weeks upon completion of the project, the Consultant/Contractor is required to inform CLS in writing using the “Confirmation by Government’s Consultant/Contractor on the Cessation of the Use of Digital Map from the Survey and Mapping Office, Lands Department” (SMF-0097) at Appendix B5 that he has ceased to use the Internal-use Digital Maps as previously supplied and that all such digital data have been permanently erased from his computer systems. CLS shall then forward a copy of the Cessation Confirmation Form to SMO for record upon request.

2.5.5 If the Consultant/Contractor still requires to use the Internal-use Digital Maps for the project after the expected completion date as quoted in the Undertaking, he has to sign a fresh Undertaking with revised completion date indicated and submit to CLS through the project officer. The expected completion date is normally the date of submission of all deliverables as required under a consultancy agreement, or the date of substantial completion of construction works.

2.6 Derived digital maps are those Digital Maps incorporated with or enhanced with the department’s own data (e.g. road alignments, project limits, etc.). The derived digital maps containing the Internal-use Digital Maps may be released to the Consultant/Contractor provided that he has signed the Undertaking before such maps are released to him. On completion of the project, the Consultant/Contractor has to follow the procedures laid down in paragraph 2.5.4 above for ceasing the use of such derived digital maps.

### **3. LiDAR Data**

3.1 CEDD has two LiDAR Datasets, namely LiDAR Data (2010) and LiDAR Data (2020), which were collected by LiDAR survey between 1 December 2010 and 8 January 2011 and between 20 December 2019 and 2 February 2020 respectively. The LiDAR Datasets can be utilized in producing territory-wide terrain information for various engineering applications. These LiDAR Datasets are open for public use since July 2020.

3.2 HyD's users can visit CEDD Spatial Data Portal website (<https://sdportal.cedd.gov.hk>) for browsing and free downloading of different types and formats of data<sup>3</sup>. It should be noted that users shall abide by the whole set of Terms and Conditions of Use of LiDAR Data published on the CEDD Spatial Data Portal.


#### **4. Technical Support Services**

4.1 A full set of Open Digital Maps, Internal-use Digital Maps and the LiDAR Data has been provided to HyD. Updated datasets are also provided to HyD regularly by SMO and CEDD. Should HyD's users require assistance from CLS for obtaining the Open Digital Maps and LiDAR Data, when necessary, they shall follow the procedures as stipulated in Appendix C. CLS shall provide the following liaison and advisory services if necessary –

- a. To provide advice on quality, suitability and applications of the Digital Maps and LiDAR Data; and
- b. To arrange updating the geographic information systems of HyD at quarterly basis, in particular, Digital Topographic Maps at the departmental intranet [http://portal.hyd/template/portal/tech/digital\\_map/](http://portal.hyd/template/portal/tech/digital_map/).

#### **5. Enquiries**

5.1 Enquiries on this Circular shall be addressed to SLS/P&A, Survey Division (Tel. no. 3903 6683).



( Jimmy P M CHAN )  
Director of Highways

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<sup>3</sup> Some datasets of the LiDAR Data are also available on the CSDI Portal. Please access the CSDI Portal for details.

**Table 1 Open Digital Map available from Lands Department<sup>(i)</sup> on 8 November 2023**

The Lands Department provides the following Open Digital Maps free of Charge.

Type of Product	Product Name	Scale	Data Format					Coverage (Sheet) <sup>(ii)</sup>	
			FGDB	GML <sup>(ii)</sup>	DWG	DGN v8	GeoTIFF		
Digital Topographic Map	iB1000	1:1000	FGDB	GML <sup>(ii)</sup>	DWG	DGN v8	GeoTIFF	3,328	
	iB5000	1:5000						192	
	iB10000	1:10000						59	
	iB20000	1:20000						18	
Digital Land Boundary Map	iC1000	1:1000	FGDB	GML <sup>(ii)</sup>	DWG	DGN v8		4,672	
Geo-Reference Database	iG1000		ASCII <sup>(ii)</sup>	FGDB	GML <sup>(ii)</sup>	DWG	DGN v8		56
Digital Orthophoto	DOP1000-1963P (Plain Image Version)	1:1000	GeoTIFF with World file						2,776
	DOP1000-1963G (Grid Line Version)								
	DOP1000-1982P (Plain Image Version)								
	DOP1000-1982G (Grid Line Version)								
	DOP5000	1:5000	GeoTIFF with World file						192
	DOP5000-1982								182
	TDOP	1:5000	GeoTIFF with World file						192
	DOPM50-L0	1:50000	GeoTIFF with World file						1
	DOMP100-L0	1:100000	GeoTIFF with World file						1
	Digital Aerial Photo	DAP		TIFF with camera calibration report					N.A.
DAP_RGBI		TIFF with camera calibration report and World file							
DAP_RGB, DAP_CIR		TIFF with camera calibration report and World file							
DAP-L0		JPEG							
DAP-L0_RGB, DAP_L0_CIR		JPEG							
GeoCommunity Database	iGeoCom		MS Excel, Access & CSV <sup>(iii)</sup>						1
3D Spatial Data	3D-BIT00		3D Max, 3ds, FBX, VRML						3,271
Map APIs <sup>(iv)</sup>	Topographic Map API Imagery Map API Lot Index API Vector Map API		N.A.						N.A.

Notes:

(i) For the up-to-date list of Open Digital Map, please visit LandsD website at [landsd.gov.hk/en/spatial-data/open-data.html](https://landsd.gov.hk/en/spatial-data/open-data.html).

(ii) Sheet No. varies from time to time, please refer to Sheet Index at SMO website for the latest coverage

(iii) Open and machine-readable format

(iv) API means Application Programming Interface. These APIs enable users to integrate LandsD's digital map with their map application

**Table 2 Internal-use Digital Map (Chargeable Digital Map and Digital Map for Government's Internal Use)**

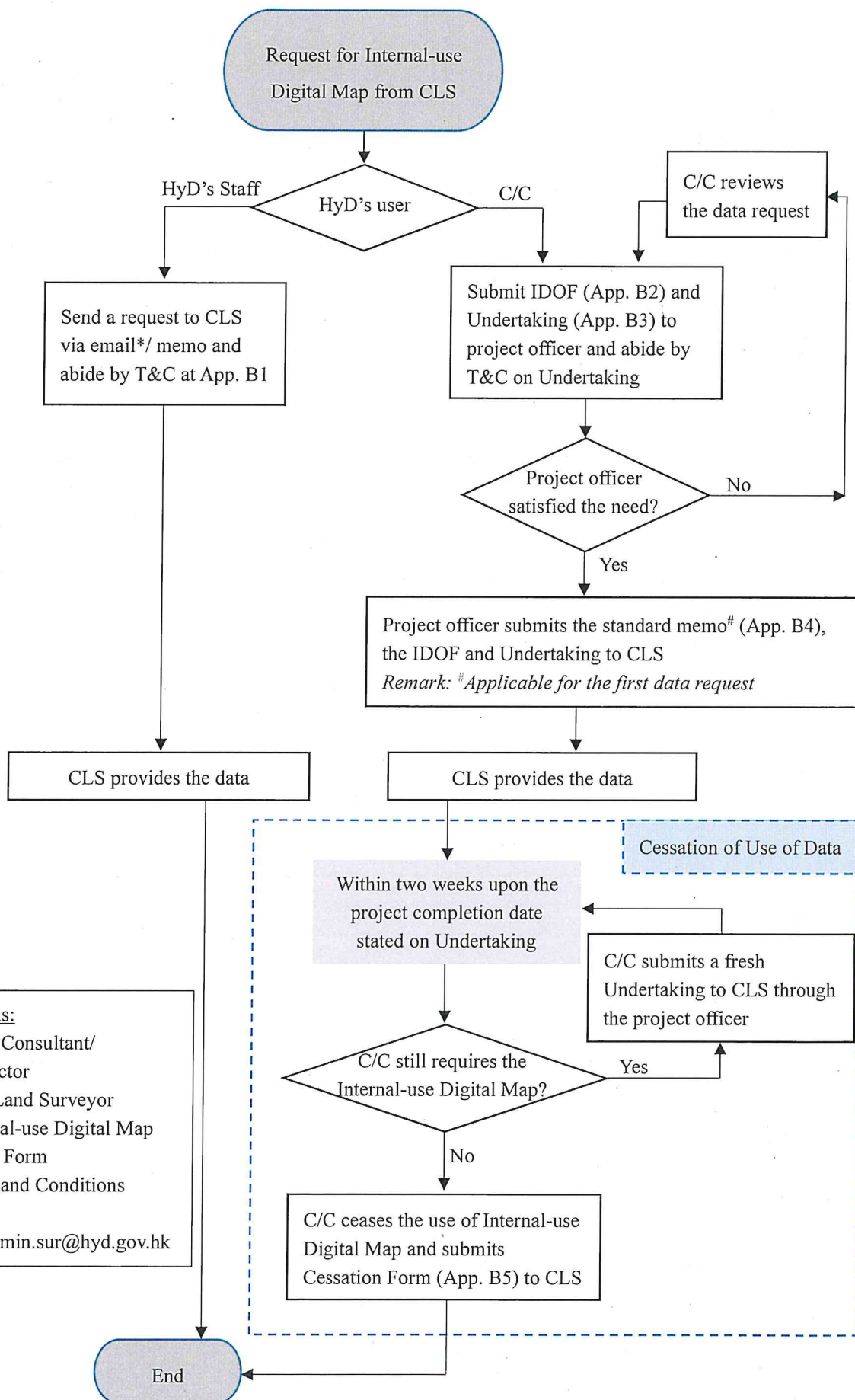
The Lands Department provides the following Internal-use Digital Maps with charges.

Type of Product	Product Name	Scale	Data Format				Coverage (Sheet)
Digital Aerial Photo	DAP	N.A.	TIFF (with camera calibration report)				N.A.
	DAP_RGBI, DAP_RGB, DAP_CIR		TIFF (with camera calibration report and Worldfile)				

The following Internal-use Digital Maps are provided for Government's internal use only. They are NOT available for sale nor included in the Open Digital Maps.

Type of Product	Product Name	Scale	Data Format				Coverage (Sheet)
Digital Topographic Map	iB50000	1:50000	FGDB	DGN	TIFF	1	
	iB200000	1:200000				1	
Digital Orthophoto	DOP5000	1:5000	ECW30	ECW60	MrSID30	MrSID60	N.A.

**Procedures for Obtaining Internal-use Digital Map from CLS**



**Abbreviations:**  
 C/C: HyD's Consultant/  
 Contractor  
 CLS: Chief Land Surveyor  
 IDOF: Internal-use Digital Map  
 Order Form  
 T&C: Terms and Conditions  
 \* Email: lsadmin.sur@hyd.gov.hk







**Survey and Mapping Office (SMO)**

**Lands Department**

**The Government of the Hong Kong Special Administrative Region**

(Remark: This Licence Agreement was downloaded from LandsD's website on 08.11.2023. For latest version, please visit LandsD's website at [https://www.landsd.gov.hk/doc/en/forms/download\\_form/Form\\_LA.pdf](https://www.landsd.gov.hk/doc/en/forms/download_form/Form_LA.pdf))

**Licence Agreement for Using Government Digital Map**

**IMPORTANT - READ CAREFULLY:** This Licence Agreement is a legal agreement between the Customer and the Government pursuant to which the Digital Map required by the Customer in the Form are supplied under the corresponding Licence.

**DEFINITIONS**

1. In this Licence Agreement, unless the context otherwise requires, the following expressions have the following meanings:

"the Charge"	means the charge or charges payable by the Customer to the Government for the supply of Digital Map as calculated and specified in the price list of the Government from time to time;
"the Computer Configuration"	means the assembly of computer equipment used by the Customer at the Customer's location for storing, processing, retrieving, displaying and printing the Digital Map supplied under this Licence Agreement;
"this Licence Agreement"	means the agreement entered into between the Government and the Customer on the terms and conditions herein contained;
"the Customer"	means any individual, body of persons, corporate or unincorporated who enters into this Licence Agreement with the Government and whose name and address are set out in the Form;
"the Digital Map"	means map or map image or compilation of map data in digital form produced by the Government and supplied to the Customer with charges under this Licence Agreement including Digital Aerial Photo products (Product Name: DAP, DAP_RGBI, DAP_RGB and DAP_CIR);
"the Form"	means the order information to be filled in and completed by the Customer to enable the Government to supply the Digital Map under request as specified in the paper-based or electronic order form;
"the Government"	means the Government of the Hong Kong Special Administrative Region;
"the Government's Representative"	means the Director of Lands or any person duly authorised by him from time to time to act for and on his behalf under this Licence Agreement;
"the Licence"	means the non-exclusive and non-transferable licence to use the Digital Map in the manner, for such purposes, in the Computer Configuration, and at the location as set out in this Licence Agreement.
"Intellectual Property Rights"	means patents, trade marks, service marks, trade names, design rights, copyright, domain names, database rights, rights in know-how, new inventions, designs or processes and other intellectual property rights of whatever nature and wheresoever arising, whether now known or hereafter created, and in each case whether registered or unregistered and including applications for the grant of any such rights.
"the Resource Files"	means the digital files containing the ancillary resources such as fonts, symbols, product information and other related data for supporting the licensed use of the Digital Map.

2. Each gender includes the others and vice versa.
3. The singular includes the plural and vice versa.
4. In the event of any inconsistency or ambiguity between the English version and the Chinese version of this Licence Agreement, the English version shall prevail.

#### **GENERAL TERMS AND CONDITIONS**

1. The Digital Map under this Licence Agreement is supplied to the Customer on the basis of the particulars and information provided by the Customer in the Form and on the warranty and undertaking that such particulars and information so provided are true and accurate.
2. The Customer is granted the right to store, process, retrieve, display and print the Digital Map in its Computer Configuration at the location specified in the Form. The Customer may use the Digital Map internally within the Customer's organization. The Government reserves all rights that are not expressly granted in this Licence Agreement.
3. All money paid to the Government under this Licence Agreement shall not be refundable, in any circumstances, whether in part or in whole for any reason whatsoever.
4. If the Digital Map supplied is found to be corrupted or defective within one (1) calendar month from the date of collection by the Customer, the Government's Representative shall replace the Digital Map free of charge. The Digital Map will not be regarded as corrupted or defective if it can be loaded into and displayed on the computer system of the Government's Representative.
5. The Customer shall allow the Government's Representative to have access without prior notice to the Customer's location for the purpose of verifying the Computer Configuration in which the Digital Map is stored and used for the purposes and in the manner as specified in the Form by the Customer.
6. The Customer shall notify the Government's Representative in writing any changes to the Computer Configuration and location as specified in the Form within one (1) calendar month of the occurrence of such changes. Failure to notify as set out herein shall entitle the Government to terminate this Licence Agreement forthwith without notice.
7. Upon termination of the Licence Agreement for whatsoever reason, the Customer shall immediately cease using the Digital Map and confirm to the Government's Representative in writing within fourteen (14) days that he is no longer in possession of the Digital Map or any part thereof or any copy thereof in any medium or in any form and that the same has been permanently erased and/or duly destroyed, as the case may be. The Government's Representative shall have the right to enter the Customer's premises at the location to inspect the computer equipment of the Customer and to take such steps as Government may think fit to ensure that the written confirmation so given by the Customer is accurate.
8. For the avoidance of doubt, in the event the Licence Agreement is terminated for whatsoever reason and the Customer continues to maintain possession or use of the Digital Map or any part thereof or any copy thereof in any medium or in any form, he may be liable for any infringement of Intellectual Property Rights the Government may have in the same and may be called upon to compensate the Government for any loss or damage.
9. The Government shall not be responsible to install the Digital Map or provide any training in the use of the Digital Map and gives no warranty that the Digital Map can be processed in the Computer Configuration.
10. The Customer acknowledges that the Digital Map has not been prepared to meet his individual requirements and purposes and that he will not have any recourse against the Government for any damage or loss he may suffer in any use or attempted use of the Digital Map.
11. The Government gives no warranty that the Digital Map is error-free and the Government shall in no way be held liable for any loss or damage which may be suffered by the Customer or any other person from the use of the Digital Map.
12. Except as expressly provided in this Licence Agreement, no warranty, condition, undertaking or term expressed or implied is given or assumed by the Government.
13. The Customer shall indemnify and keep the Government fully indemnified against all losses, damages, demands, actions, claims, proceedings, costs and expenses (including any damages or compensation paid by the Government on the advice of its, his or their legal advisors to compromise or settle any claim) arising out of or in relation to any breach of this Licence Agreement or any allegation which if substantiated would constitute such a breach.
14. The Customer shall indemnify the Government and keep the Government fully and effectively indemnified against all actions costs claims demands damages expenses (including without limitation the fees and disbursements of lawyers agents

and expert witnesses) and any awards and costs which may be agreed to be paid in settlement of any proceedings (where that settlement has first been proposed or approved in writing by/on behalf of the Customer) and liabilities of whatsoever nature arising out of or in connection with any allegation and/or claim that the design, development, use, possession or operation of the Computer Configuration infringes any Intellectual Property Rights of any party.

15. The provisions of Clauses 13 and 14 above shall survive the termination of this Licence Agreement (howsoever occasioned) and shall continue in full force and effect notwithstanding such termination.

16. The Government owns the Intellectual Property Rights' subsisting in the Digital Map at all times. The Customer shall not copy whether in whole or in part for the purposes other than permitted in Clause 2 or otherwise infringe any Intellectual Property Rights the Government may have in the Digital Map.

17. The Customer shall use the Resource Files, supplied together with the Digital Map, for the licensed use of the Digital Map only. The Customer shall not use the Resource Files nor extract the content of Intellectual Property Rights therein for purposes other than the licensed use of the Digital Map.

18. The Customer must apply to and obtain from the Government for prior written consent on a case-by-case basis subject to the payment of a fee to the Government before the Customer is permitted to incorporate the Digital Map or any part thereof, whether on hardcopy, in digital form or in any other form in whatever media for distribution to any third party, with or without charges.

19. The Customer shall be entitled to purchase the updated version of the Digital Map which he has the Licence to use at the rate as stipulated in the price list of the Government from time to time in force.

20. This Licence Agreement shall be governed by and construed in accordance with the laws of Hong Kong. The parties irrevocably agree to submit to the exclusive jurisdiction of the Courts of Hong Kong.



For Office Use	
File Ref.	( ) in HYD SD/18-4/2/3
LS/Admin	

## Internal – use Digital Map Order Form (For Hyd’s Consultant/Contractor Only)

This form will be annexed to and form part of the Undertakings by Consultant/Contractor on the use of Internal-use Digital Map from the Highways Department

### PART A General Information

#### 1. Consultant / Contractor

I. Name of Company \_\_\_\_\_

II. Address \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

III. Name and Post of Contact Person \_\_\_\_\_

IV. Telephone No. \_\_\_\_\_

Fax No. \_\_\_\_\_

E-mail Address \_\_\_\_\_

#### 2. Intended Uses of the Internal-use Digital Map \*

Note: the information collected in the Digital Map Order Form will be used for the purpose of processing your request only.

#### 3. Hardware and Software Configuration of the Computer for using the Digital Map

Hardware (OS Platform) : \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Software (Application Software): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

LAN Environment (LAN of Standalone) : \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Part B Internal-use Digital Map** (Digital Map listed in Table 2 of Appendix A)**1. Terms and Conditions of Uses**

Users shall abide by the conditions on use of Digital Map in the Undertakings of the Form SMF-0096, which can be downloaded from LandsD's website below:

([landsd.gov.hk/doc/en/forms/download\\_form/smf-0096.pdf](http://landsd.gov.hk/doc/en/forms/download_form/smf-0096.pdf))

**2. Internal-use Digital Map to Order****I Digital Orthophoto**

**DOP5000** (1:5000 territory-wide Digital Orthophoto)

**II Digital Topographic Map**

**iB50000** (1:50000 territory-wide Digital Topographic Map)

**iB200000** (1:200000 territory-wide Digital Topographic Map)

**III Digital Aerial Photos (DAP/ DAP-RGBI/DAP\_RGB/DAP\_CIR in Tiff format)**

Fill in the photo number required below\*

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**IV Others\***


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**3. Data Formats Required**

Tick ONE format per Digital Map only

Internal-use Digital Map	Product Format			
	ECW30	ECW60	MrSID30	MrSID60
DOP5000				
	FGDB	DGN	TIFF	
iB50000				
iB200000				

**Part C Storage Media**

The storage media to be provided by consultant/contractor (Tick ONE storage media only)

Writable CD or DVD-R

Other Portable Storage Device

Remark: \* If the space is not enough, please complete the listing/description on separate sheets

(Remark: This undertaking form was downloaded from LandsD's website on 08.11.2023. For latest version, please visit LandsD's website at [https://www.landsd.gov.hk/doc/en/forms/download\\_form/smf-0096.pdf](https://www.landsd.gov.hk/doc/en/forms/download_form/smf-0096.pdf))



**UNDERTAKINGS BY CONSULTANT/CONTRACTOR  
ON THE USE OF DIGITAL MAP FROM THE  
SURVEY AND MAPPING OFFICE, LANDS DEPARTMENT**

PLEASE COMPLETE IN BLOCK LETTERS AND RETURN IT TO  
THE SURVEY AND MAPPING OFFICE, LANDS DEPARTMENT

We, \_\_\_\_\_  
(Name of Consultant/Contractor in full)

agree to abide by the following conditions in the use of Digital Map from the Survey and Mapping Office, Lands Department for the Contract/Agreement \_\_\_\_\_

\_\_\_\_\_  
(Contract/Agreement Title and Number)

with \_\_\_\_\_  
(Name of Government Bureau/Department in full)

concerning \_\_\_\_\_  
(Details of Contract/Agreement)

1. Digital Map means map or map image or compilation of map data, in digital form produced by the Survey and Mapping Office (hereinafter referred to as "SMO"), Lands Department and supplied to the public with charges or/and supplied to the Government for internal distribution.
2. The provided Digital Map shall not be used for any purposes other than the above Contract/Agreement.
3. The provided Digital Map shall not be distributed in whole or in part or in whatever forms or media to any third party.
4. The Digital Map stored in our computer systems and storage media shall all be destroyed immediately after completion of the work for the above Contract/Agreement. The expected date of completion is \_\_\_\_\_. We shall confirm to SMO and our client Government Bureau/Department that we are no longer in possession of the Digital Map or any part thereof in any media or in any form by completing and returning the form of "Confirmation by Government's Consultant/Contractor on the Cessation of the Use of Digital Map from the Survey and Mapping Office, Lands Department" (SMF-0097) to the above said Government Bureau/Department within two weeks upon completion of the work for the Contract/Agreement.
5. SMO shall not be responsible to install the Digital Map or provide any training in the use of the Digital Map and gives no warranty that the Digital Map can be processed on our computer systems.
6. We acknowledge that the Digital Map has not been prepared specifically to meet our individual requirements and purposes and that we will not have any recourse against SMO for any damage or loss we may suffer in any use or attempted use of the Digital Map.
7. SMO gives no warranty that the Digital Map is error-free and SMO shall in no way be

held for any loss or damage which may be suffered by the users or any other persons from the use of the Digital Map.

8. The Government of the Hong Kong SAR remains the owner of the Digital Map at all times. We shall not copy or otherwise infringe any intellectual property rights the Government may have in the Digital Map, whether in whole or in part.
9. We shall use all the Resource Files, including but not limited to fonts, symbols, product information and other related data, together with the Digital Map at all times. We shall not extract the Resource Files from the Digital Map, or use or apply the said Files for any other purposes.
10. We must obtain prior written consent from Chief Land Surveyor/Technical, Lands Department before the Digital Map is permitted to be incorporated in whatever forms, in whole or in part, with any data or that of the products derived therefrom to :-
  - (a) be distributed to any third party, with or without charges.
  - (b) be used on the Internet.If such is permitted, we shall display on and in the products containing the Digital Map an acknowledgement with the specific wordings provided by the Lands Department.
11. We understand that our staff have to abide by the above conditions upon their use of the Digital Map. If they are proved to be liable for the infringement of copyright of the Digital Map, our company has to compensate the Government for any loss and damage.
12. We understand that the Government reserves the right to charge our company for the loss and damage caused to the Government arising from the violation of any condition in this Undertakings, including but not limited to the data charge, copyright charge and relevant administrative charges.

Signed for and on behalf of the Consultant/Contractor

Signature \_\_\_\_\_

Name \_\_\_\_\_

Designation \_\_\_\_\_

E-mail Address \_\_\_\_\_

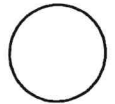
Tel. No. \_\_\_\_\_

Company Address \_\_\_\_\_

\_\_\_\_\_  
Company Chop

\_\_\_\_\_  
Date \_\_\_\_\_



**MEMO**From Office HeadTo Chief Land SurveyorRef. ( ) in HyD

(Attn. \_\_\_\_\_)

Tel. No. \_\_\_\_\_

Your Ref. ( ) in \_\_\_\_\_

Fax. No. \_\_\_\_\_

dated \_\_\_\_\_ Fax. No. \_\_\_\_\_

Date \_\_\_\_\_

Total Pages \_\_\_\_\_

Agreement/Contract No. \_\_\_\_\_

(Project Title) \_\_\_\_\_

**Request for Internal-use Digital Map**

I should be grateful if you would provide the Internal-use Digital Map as listed in the attached **Internal-use Digital Map Order Form**.

2. I confirm that:

(a) The types of Internal-use Digital Map required are appropriate for the consultant/contractor to complete the assignment/works stipulated in the consultancy agreement/ contract except \_\_\_\_\_.

(b) The sheets of Internal-use Digital Map required are relevant to the implementation of the project except sheet no(s). \_\_\_\_\_.

(c) The Internal-use Digital Map will be used by the consultant/contractor mainly for the purpose(s) of \_\_\_\_\_.

(d) The computer hardware and software used by the consultant/contractor are appropriate for producing the following deliverables mentioned in the assignment brief/contract:

(i) \_\_\_\_\_.

(ii) \_\_\_\_\_.

3. The **completed Undertaking** signed by the consultant/contractor is returned herewith for your necessary action.

4. The project would last for \_\_\_\_\_ months and upon completion of the project, I will inform the consultant/contractor to complete the Cessation Confirmation Form and forward the completed form to you for action.

5. It would be appreciated if the required data could be available by \_\_\_\_\_. Please contact \_\_\_\_\_ at \_\_\_\_\_ for collection of the data.

(XXX XXX)

Office Head



(Remark: This confirmation form was downloaded from LandsD's website on 08.11.2023. For latest version, please visit LandsD's website at [https://www.landsd.gov.hk/doc/en/forms/download\\_form/smf-0097.pdf](https://www.landsd.gov.hk/doc/en/forms/download_form/smf-0097.pdf))



For Official Use	
Licence No.	G
File Ref.	( ) in LD SMO/MI

**CONFIRMATION BY GOVERNMENT'S CONSULTANT/CONTRACTOR  
ON THE CESSATION OF THE USE OF DIGITAL MAP FROM THE  
SURVEY AND MAPPING OFFICE, LANDS DEPARTMENT**

(Please complete in Block Letters)

This is to confirm that we, \_\_\_\_\_,  
(Name of Consultant/Contractor in full)  
 have ceased using the Digital Map from the Survey and Mapping Office, Lands Department  
 with effect from \_\_\_\_\_  
(Date)  
 for the Contract/Agreement No. \_\_\_\_\_ with  
 \_\_\_\_\_  
(Name of Government Bureau/Department in full)  
 concerning \_\_\_\_\_  
(Title of Project/Study)

We are no longer in possession of the above Digital Map or any part thereof in any media or in any forms and that the same has been permanently erased and/or duly destroyed from our computer systems.

Signed for and on behalf of the Consultant/Contractor

Signature \_\_\_\_\_

Name \_\_\_\_\_

Designation \_\_\_\_\_

E-mail Address \_\_\_\_\_

Tel. No. \_\_\_\_\_

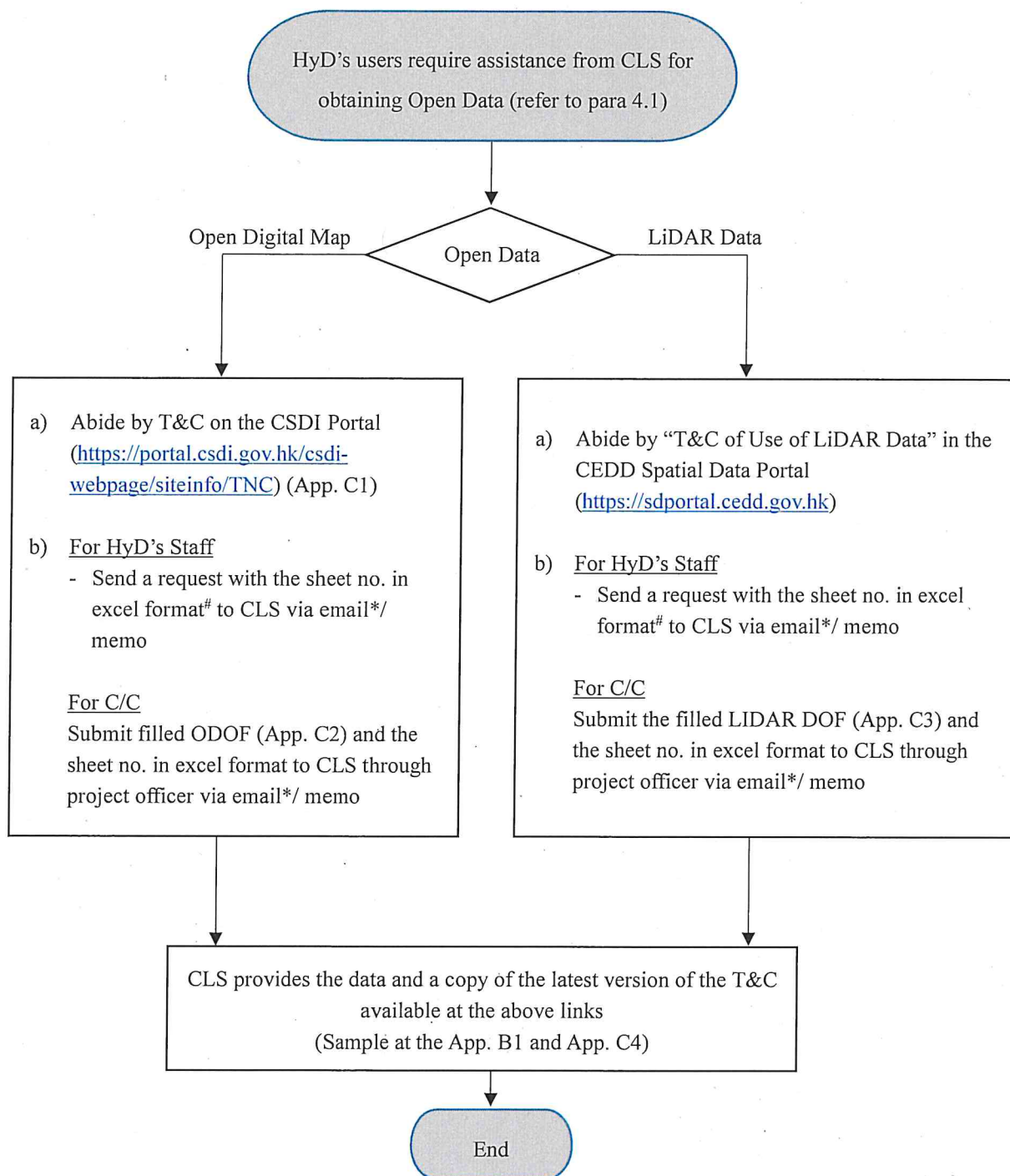
Company Address \_\_\_\_\_

\_\_\_\_\_  
 Company Chop

Date \_\_\_\_\_



## Procedures for Obtaining Open Digital Map and LiDAR Data from CLS



### Abbreviations:

C/C: HyD's Consultant/ Contractor  
 CLS: Chief Land Surveyor  
 ODOF: Open Digital Map Order Form  
 LIDAR DOF: LIDAR Data Order Form  
 T&C: Terms and Conditions

\* Email: [lsadmin.sur@hyd.gov.hk](mailto:lsadmin.sur@hyd.gov.hk)

# Examples at App. C5





(Remark: This Terms & Conditions of Use was downloaded from CSDI Portal on 08.11.2023. For latest version, please visit CSDI Portal website at <https://portal.csd.gov.hk/csd-di-webpage/doc/TNC>)

## CSDI PORTAL (Public)

### TERMS AND CONDITIONS OF USE

#### General

1. The CSDI Portal is an online one-stop geospatial information service provided by the Development Bureau of the Government of the Hong Kong Special Administrative Region (the "Government") to the public for obtaining geo-referenced information.
2. In these Terms and Conditions of Use of the CSDI Portal ("Terms of Use"):
  - a. "Data" include the "Spatial Data#" and all other contents provided by the Government and/or other organisations (such organisations are referred to as "the relevant organisations") to the public on the CSDI Portal;
  - b. "Spatial Data" include all data in the form of digital maps, text, graphics, drawings, diagrams, photographs, compilation of data, data specifications, metadata and Application Programming Interface ("API").

#### Use of Data on CSDI Portal

3. You are allowed to browse, download, distribute, reproduce, hyperlink to and print the Data for both commercial and non-commercial purposes on a free-of-charge basis on the condition that:-
  - o you shall comply with the Terms of Use;
  - o you shall identify clearly the Government and the CSDI Portal as the source of the Data and acknowledge the Government and the relevant organisations' ownership of the intellectual property rights in the Data and in all copies thereof including but not limited to paper copies, digital copies and copies placed on other websites;
  - o you shall indemnify the Government and the relevant organisations against any allegations or claims of infringement of the rights of any person and all costs, losses, damages and liabilities incurred by the Government and the relevant organisations, which in any case arise directly or indirectly in relation to your use, reproduction and/or distribution of the Data

#### Disclaimer and Limitation of Liability

4. The Data are provided by the Government and the relevant organisations to you on an "as is" and "as available" basis. No statement, representation or warranty of any kind (whether

express or implied) is given by the Government or the relevant organisations in relation to the Data (including its accuracy, correctness, completeness, non-infringement, reliability, security, timeliness and appropriateness of the use of the Data in any particular circumstances). The Government or the relevant organisations shall not be liable for any errors, omissions, deficiencies, inconsistencies, misstatements or misrepresentations (express or implied), concerning any Data, and shall not have or accept any liability, obligation or responsibility whatsoever for any loss, destruction or damage (including without limitation consequential loss, destruction or damage or other costs or expenses) howsoever arising from or in respect of any use or misuse of or reliance on the Data, or any inability to use the Data (including any breakdown, suspension, non-function, mal-function or interruption of operation of the CSDI Portal).

5. In consideration of the Government and the relevant organisations providing the Data on the CSDI Portal, by using the CSDI Portal, you hereby unconditionally accept the Terms of Use. **IF YOU DO NOT AGREE TO THE TERMS OF USE, PLEASE DO NOT USE THE CSDI PORTAL OR THE DATA PROVIDED THEREON.** The Terms of Use may be revised and/or amended from time to time by the Government or the relevant organisations without prior notice to any person. Accessing or using or linking to the CSDI Portal or using any Data after such amendments constitutes acceptance of such amendments. Please check the Terms of Use regularly for any revisions and/or amendments which may be made.
6. The Government and the relevant organisations shall not be responsible for any loss or damage whatsoever arising out of or in connection with the Data. The Government reserves the right to revise, omit or edit the Data or to suspend or terminate the provision of the Data, the CSDI Portal or any part thereof at any time in its absolute discretion without giving any reason or prior notice to any person (including you).

### Linked Information and other Third-Party Websites

7. The CSDI Portal may provide or assist in providing links to third-party websites through the CSDI Portal. The links are produced solely as a convenience to users of the CSDI Portal. Provision of, or assistance in providing, any links at the CSDI Portal to any third-party website does not give rise to any statement, representation or warranty, express or implied, that the Government agrees with, approves, recommends or endorses the contents of any such third-party websites. The provision of any links to third-party websites shall not constitute any form of co-operation or affiliation with the Government of any such third parties or external websites. The Government shall not have or accept any liability, obligation or responsibility whatsoever for any loss, destruction or damage (including without limitation consequential loss, destruction or damage or other costs or expenses) howsoever arising from or in respect of your use or misuse of or reliance on, or inability to use such links to any third-party website or your use or reliance on the contents of any such third-party websites. You should refer to the terms and conditions of each such third-party website when using such website.

### Privacy Policy

8. The Government may record visits to the CSDI Portal without collecting your personal data. Information relating to visits to the CSDI Portal are collected by the Government for the compilation of statistical reports and the investigation and diagnosis of problems with or concerning computer systems.



## Intellectual Property Rights

9. Unless otherwise indicated, the Government is the owner of the intellectual property rights of all contents available on the CSDI Portal, including but not limited to all Data.

## Governing Law

10. The Terms of Use shall be governed and construed in accordance with the laws of the Hong Kong Special Administrative Region of the People's Republic of China ("Hong Kong"). You also agree to submit to the exclusive jurisdiction of the Hong Kong Courts.

## Chinese text

11. In the event of any conflict or inconsistency between the English text and the Chinese translation of these Terms of Use, the English text shall prevail.

## #Note

- "Spatial data" is defined with reference to the definition of "Geospatial Data" published by the Open Geospatial Consortium as "location properties related to any terrestrial feature or phenomena". "Location properties" may include any information about the location or area of, and relationships among, and descriptive information about geographic features and phenomena. This includes remotely sensed data, vector map data, addresses, coordinates, etc. Note that "geospatial data" is more precise in many contexts than "geographic data" because geospatial data is often used in ways that do not involve a graphic representation, or map, created from the data." (<https://www.ogc.org/ogc/glossary/g>).





**Survey Division  
Highways Department**

For Office Use	
File Ref.	( ) in HYD SD/18-4/2/3
LS/Admin	

**Open Digital Map Order Form  
(For Hyd's Consultant/Contractor Only)**

**PART A General Information**

**1. Consultant / Contractor**

I. Name of Company

II. Address

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

III. Name and Post of Contact Person

\_\_\_\_\_

IV. Telephone No.

Fax No.

E-mail Address

\_\_\_\_\_

Note: the general information collected in the Open Digital Map Order Form will be used for the purpose of processing your request only.

**PART B Open Digital Map (Digital Map listed in Table 1 of Appendix A)**

**1. Terms and Conditions of Uses**

Users shall abide by the "Terms and Conditions of Use of Data" stipulated at CSDI portal (<http://portal.csdi.gov.hk/csdi-webpage/>). Users are deemed to have agreed with the Terms and Conditions of Use of Data once Part B of this form is completed and submitted.

**2 Open Digital Map to Order**

Users shall provide a digital file in excel format storing the sheet number of the requested digital map.

**I Digital Topographic Map**

a. **iB1000 (1:1000 Digital Topographic Map)**

Fill in the sheet number required below\*: (Refer to the Sheet Index of iB1000 for the sheet numbers)

Total No. of sheets:			

b. **iB5000 (1:5000 Digital Topographic Map)**

Fill in the sheet number required below\*: (Refer to the Sheet Index of iB5000 for the sheet numbers )

Total No. of sheets:			

c. **iB10000 (1:10000 Digital Topographic Map)**

Fill in the sheet number required below\*: (Refer to the Sheet Index of iB10000 for the sheet numbers )

Total No. of sheets:			

d. **iB20000 (1:20000 Digital Topographic Map)**

Tick the sheet number required below: (Refer to the Sheet Index of iB20000 for the sheet numbers )

Sheet No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Required																		

II **Digital Land Boundary Map****iC1000 (1:1000 Digital Land Boundary Map)**

Fill in the sheet number required below\*: (Refer to the Sheet Index of iC1000 for the sheet numbers )

Total No. of sheets:			

III **Geo-Reference Database****iG1000 (Geo-Reference Database)**

Fill in the sheet number required below\*: (Refer to the Sheet Index of iG1000 for the sheet numbers )

Total No. of sheets:			

IV **GeoCommunity Database**
 **iGeoCom** (territory-wide GeoCommunity Database)
V **Digital Orthophoto**
 **DOPM50-L0** (1:50000 territory-wide Digital Orthophoto in JPEG format)

 **DOP5000** (1:5000 Digital Orthophoto in GeoTIFF format)

 **DOP1000-1963P** (1:1000 Digital Orthophoto in GeoTIFF format)

 **DOP1000-1963G** (1:1000 Digital Orthophoto in GeoTIFF format)

Fill in the sheet number required below if DOP5000/ DOP1000-1963P/DOP1000-1963G is chosen\*  
 (Refer to the Sheet Index of iB5000 for DOP5000 and iB1000 for DOP1000-1963P and DOP1000-1963G for the sheet numbers)

Total No. of sheets:			

**VI 3D Spatial Data**

**3D-BIT00** (1:1000 digital 3D model data)

Fill in the sheet number required below\*: (Refer to the Sheet Index of iB1000 for the sheet numbers )

Total No. of sheets:			

**VII Digital Aerial Photos (DAP-L0/ DAP\_L0\_RGB/ DAP\_L0\_CIR in JPEG format)**

Fill in the photo number required below\*

---



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**3. Data Formats Required**

Open Digital Map	Product Format				
	FGDB	GML	DWG	DGN v8	GeoTIFF
iB1000					
iB5000					
iB10000					
iB20000					
iC1000	FGDB		GML		DGN v8
iG1000	FGDB	GML	DWG	DGN v8	ASCII
iGeoCom	MDB		XLS		CSV
3D-BIT00	3DS		MAX	VRML	FBX

**Part C Storage Media**

The storage media to be provided by consultant/contractor (Tick ONE storage media only)

Writable CD or DVD-R

Other Portable Storage Device

Remark: \* If the space is not enough, please complete the listing/description on separate sheets





**4. Data Formats Required for LiDAR Data (2010)**

<b>a. LAS</b>	All Data	<input type="checkbox"/>	Ground	<input type="checkbox"/>				
<b>b. ASCII</b>	DEM	<input type="checkbox"/>	DSM	<input type="checkbox"/>				
<b>c. dBase IV</b>	DEM	<input type="checkbox"/>	DSM	<input type="checkbox"/>				
<b>d. Raster</b>	Vegetation		ERS	<input type="checkbox"/>	GeoTIFF	<input type="checkbox"/>	PIX	<input type="checkbox"/>
	DTM		ERS	<input type="checkbox"/>	GeoTIFF	<input type="checkbox"/>	PIX	<input type="checkbox"/>
	DSM		ERS	<input type="checkbox"/>	GeoTIFF	<input type="checkbox"/>	PIX	<input type="checkbox"/>
	Intensity Imagery		ERS	<input type="checkbox"/>	GeoTIFF	<input type="checkbox"/>	PIX	<input type="checkbox"/>

**5. Data Formats Required for LiDAR Data (2020)**

<b>a. LAS</b>	All Data	<input type="checkbox"/>	Building	<input type="checkbox"/>	Transmission Tower	<input type="checkbox"/>	Ground	<input type="checkbox"/>	Vegetation	<input type="checkbox"/>	Water	<input type="checkbox"/>
<b>b. ASCII</b>	DTM	<input type="checkbox"/>	DSM	<input type="checkbox"/>								
<b>c. dBase IV</b>	DTM	<input type="checkbox"/>	DSM	<input type="checkbox"/>								
<b>d. Raster</b>	Vegetation		ERS	<input type="checkbox"/>	GeoTIFF	<input type="checkbox"/>	PIX	<input type="checkbox"/>				
	DTM		ERS	<input type="checkbox"/>	GeoTIFF	<input type="checkbox"/>	PIX	<input type="checkbox"/>				
	DSM		ERS	<input type="checkbox"/>	GeoTIFF	<input type="checkbox"/>	PIX	<input type="checkbox"/>				
	Intensity Imagery		ERS	<input type="checkbox"/>	GeoTIFF	<input type="checkbox"/>	PIX	<input type="checkbox"/>				

**Part C Storage Media**

The storage media to be provided by consultant/contractor (Tick ONE storage media only)

Writable CD or DVD-R

Other Portable Storage Device

Remark: \* If the space is not enough, please complete the listing/description on separate sheets





## Terms & Conditions of Use

### General

1. The CEDD Spatial Data Portal provides geospatial data including the Territory-wide Airborne Light Detection and Ranging (LiDAR) Data, digital maps (for CEDD Consultants/ Contractors) and Unmanned Aerial Vehicle (UAV) products (for CEDD Consultants/ Contractors).
2. Territory-wide Airborne Light Detection and Ranging (LiDAR) Data was collected by the Civil Engineering and Development Department of the Government of the Hong Kong Special Administrative Region (the "Government") in 2010 and 2020. LiDAR Data (2010) were acquired from a fixed wing aircraft between 1 December 2010 and 8 January 2011 and LiDAR Data (2020)<sup>1</sup> were acquired from a helicopter between 20 December 2019 and 2 February 2020.
3. In these Terms and Conditions of Use of the CEDD Spatial Data Portal ("Terms of Use"):
  - "Data" include the "Spatial Data<sup>2</sup>" and all other contents provided by the Government to the public on the CEDD Spatial Data Portal;
  - "Spatial Data" include all data in the form of digital maps, text, graphics, drawings, diagrams, photographs, compilation of data, data specifications, metadata and Application Programming Interface ("API").

### Use of Data on CEDD Spatial Data Portal

4. You are allowed to browse, download, distribute, reproduce, hyperlink to and print the Data for both commercial and non-commercial purposes on a free-of-charge basis on the condition that: -
  - you shall comply with the Terms of Use;
  - you shall identify clearly the Government as the source of the Data and acknowledge the Government's ownership of the intellectual property rights in the Data and in all copies thereof including but not limited to paper copies, digital copies and copies placed on other websites;
  - you shall indemnify the Government against any allegations or claims of infringement of the rights of any person and all costs, losses, damages and liabilities incurred by the Government, which in any case arise directly or indirectly in relation to your use, reproduction and/or distribution of the Data.

### Third-Party Contribution

5. CEDD Spatial Data Portal may provide a function for the user to add graphics and measurements ("User Submissions") on the map display. CEDD Spatial Data Portal may allow the user to view maps with or without the User Submissions. The Government shall not have or accept any liability, obligation or responsibility whatsoever for any loss, destruction or damage (including without limitation consequential loss, destruction or damage) howsoever arising from or in respect of using, misusing, inability to use, or relying on the User Submissions. By browsing, contributing to, submitting or in any way using such User Submissions you agree to accept unconditionally the terms listed below:
  - (i) The submission, browse, hyperlinking to, printing or use of the User Submissions is and will be for non-commercial and personal enjoyment purposes or institutional non-commercial non-profit making purposes only.
  - (ii) You shall be solely responsible for the User Submissions you submit to CEDD Spatial Data Portal and the consequences arising from or in relation to the submission, browse, hyperlinking to, printing or use of such User Submissions by you or any other users.

- (iii) You agree that you will not by the submission, browse, hyperlinking to, printing or use of the User Submissions defame, abuse, harass, stalk, threaten or otherwise violate the legal rights (such as rights of privacy and publicity) of others.
- (iv) You agree that you will not submit or otherwise make available by way of User Submissions any inappropriate, defamatory, obscene, or unlawful contents or materials, any contents or materials that infringe the intellectual property rights of any person.
- (v) You warrant that the User Submissions do not and will not infringe any intellectual property rights of any person and you agree to indemnify the Government against any allegations or claims of intellectual property rights infringement in relation to User Submissions or the use of User Submissions.
- (vi) You agree that the User Submissions will be temporarily stored in CEDD Spatial Data Portal for not more than 90 days, after which the Government will remove and delete the User Submissions permanently. The Government reserves the right to remove and delete the User Submissions at any time in its absolute discretion without giving any reason or prior notice to user.
- (vii) You agree to grant each and every user of CEDD Spatial Data Portal a non-exclusive right to access and browse the User Submissions through the CEDD Spatial Data Portal, and to copy and make available copies of such User Submissions on similar terms and conditions as the above paragraphs (i), (iii), (iv) and (v).

## Disclaimer and Limitation of Liability

6. The Data are provided by the Government to you on an “as is” and “as available” basis. No statement, representation or warranty of any kind (whether express or implied) is given by the Government in relation to the Data (including its accuracy, correctness, completeness, non-infringement, reliability, security, timeliness and appropriateness of the use of the Data in any particular circumstances). The Government shall not be liable for any errors, omissions, deficiencies, inconsistencies, misstatements or misrepresentations (express or implied), concerning any Data, and shall not have or accept any liability, obligation or responsibility whatsoever for any loss, destruction or damage (including without limitation consequential loss, destruction or damage or other costs or expenses) howsoever arising from or in respect of any use or misuse of or reliance on the Data, or any inability to use the Data (including any breakdown, suspension, non-function, mal-function or interruption of operation of the CEDD Spatial Data Portal).
7. In consideration of the Government providing the Data on the CEDD Spatial Data Portal, you accept unconditionally the Terms of Use. IF YOU DO NOT AGREE TO THE TERMS OF USE, PLEASE DO NOT USE THE DATA PROVIDED THEREON. The Terms of Use may be revised and/or amended from time to time by the Government without prior notice to any person. Accessing or using to the CEDD Spatial Data Portal or using any Data after such amendments constitutes acceptance of such amendments. Please check the Terms of Use regularly for any revisions and/or amendments which may be made.
8. The descriptions, presentation, findings, interpretation, etc. contained in the Data are subject to a number of limitations, including but not limited to the methods adopted in data collection and the site conditions at the time of inspection. The Government makes no warranty or representation on the accuracy or correctness of any description, presentation, findings, interpretation, etc. contained in the Data. You shall not rely solely on the information contained in the Data in making any decision, including but not limited to deciding whether or not to undertake any planning, study, construction, remedial or maintenance works.

9. The Government shall not be responsible for any loss or damage whatsoever arising out of or in connection with the Data. The Government reserves the right to revise, omit or edit the Data or to suspend or terminate the provision of the Data, the CEDD Spatial Data Portal or any part thereof at any time in its absolute discretion without giving any reason or prior notice to any person (including you).

## Privacy Policy

10. The Government may record visits to the CEDD Spatial Data Portal without collecting your personal data. Information collected will be used for processing your request and statistical purposes. With regard to this information, you undertake that the information is true, accurate and up to date. You should inform us if there is any change in your information so that we can ensure it remains accurate and up to date.

## Link Information and other Third-Party Websites

11. The CEDD Spatial Data Portal may provide or assist in providing links to third-party websites through the CEDD Spatial Data Portal. The links are produced solely as a convenience to users of the CEDD Spatial Data Portal. Provision of, or assistance in providing, any links at the CEDD Spatial Data Portal to any third-party website does not give rise to any statement, representation or warranty, express or implied, that the Government agrees with, approves, recommends or endorses the contents of any such third-party websites. The provision of any links to third-party websites shall not constitute any form of co-operation or affiliation with the Government of any such third parties or external websites. The Government shall not have or accept any liability, obligation or responsibility whatsoever for any loss, destruction or damage (including without limitation consequential loss, destruction or damage or other costs or expenses) howsoever arising from or in respect of your use or misuse of or reliance on, or inability to use such links to any third-party website or your use or reliance on the contents of any such third-party websites. You should refer to the terms and conditions of each such third-party website when using such website.

## Intellectual Property Rights

12. Unless otherwise indicated, the Government is the owner of the intellectual property rights of all contents available on the CEDD Spatial Data Portal, including but not limited to all Data.

## Governing Law

13. The Terms of Use shall be governed and construed in accordance with the laws of the Hong Kong Special Administrative Region of the People's Republic of China ("Hong Kong"). You also agree to submit to the exclusive jurisdiction of the Hong Kong Courts.

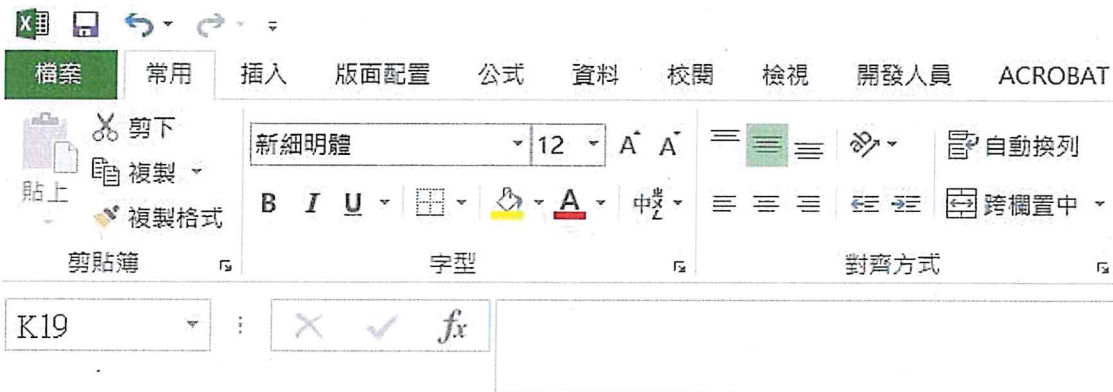
## Chinese Text

14. In the event of any conflict or inconsistency between the English text and the Chinese translation of these Terms of Use, the English text shall prevail.

## Note

1. There are several data voids in the 2020 LiDAR Data captured by the helicopter including (1) Tai O, (2) Yi O, (3) Discovery Bay, (4) Lamma Island, (5) Western Kowloon, (6) Ma On Kong, (7) The Peak and (8) Sha Tin. Unmanned Aerial System (UAS) LiDAR were implied to resurvey the problematic area (1), (2), (3), (4), (6) & (8) between 28 December 2020 and 4 February 2021.
2. “Spatial data” is defined with reference to the definition of “Geospatial Data” published by the Open Geospatial Consortium as “location properties related to any terrestrial feature or phenomena”. “Location properties” may include any information about the location or area of, and relationships among, and descriptive information about geographic features and phenomena. This includes remotely sensed data, vector map data, addresses, coordinates, etc. Note that “geospatial data” is more precise in many contexts than “geographic data” because geospatial data is often used in ways that do not involve a graphic representation, or map, created from the data.” (<https://www.ogc.org/ogc/glossary/g>).

Example of sheet Number in excel format :



	A	B	C	D	E	F	G
1	6SE3D	7SW1A	10NE1A	11NW1A			
2	6SE4B	7SW1B	10NE1B	11NW1B			
3	6SE4C	7SW1C	10NE1C	11NW1C			
4	6SE4D	7SW1D	10NE1D	11NW1D			
5	6SE5A	7SW2A	10NE2A	11NW2A			
6	6SE5B	7SW2B	10NE2B	11NW2B			
7	6SE5C	7SW2C	10NE2C	11NW2C			
8	6SE5D	7SW2D	10NE2D	11NW2D			
9	6SE7B	7SW3A	10NE3A	11NW3C			
10	6SE7C	7SW3B	10NE3B	11NW6A			
11	6SE7D	7SW3C	10NE3C	11NW6B			
12	6SE8A	7SW3D	10NE3D	11NW6D			
13	6SE8B	7SW4A	10NE4A	11NW7A			
14	6SE8C	7SW4B	10NE4B	11NW7B			
15	6SE8D	7SW4C	10NE4C	11NW7C			
16	6SE9A	7SW4D	10NE4D	11NW7D			
17	6SE9B	7SW6A	10NE5A	11NW8A			
18	6SE9C	7SW6B	10NE5B	11NW8C			
19	6SE9D	7SW6C	10NE5C	11NW11A			
20	6SE10A	7SW6D	10NE5D	11NW11B			
21	6SE10B	7SW7A	10NE6A	11NW11C			
22	6SE10C	7SW7B	10NE6B	11NW11D			
23	6SE10D	7SW7C	10NE6C	11NW12A			
24	6SE11A	7SW7D	10NE6D	11NW12B			
25	6SE11B	7SW8A	10NE7A	11NW12C			
26	6SE11C	7SW8B	10NE7B	11NW12D			