Section 16 Planning Application for Proposed Filling of Land for Agricultural Use with Ancillary Solar Panels at Lot No. 1522 in D.D. 76, North, Fanling

Supporting Planning Statement

Planning Consultant

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Executive Summary

(in case of discrepancy between English and Chinese versions, English version shall prevail)

This proposal is submitted to the Town Planning Board ("**the Board**") for a Proposed Filling of Land for Agricultural Use with Ancillary Solar Panels ("**the Proposed Development**") at Lot No. 1522 in D.D. 76 ("**the Subject Site**").

The Subject Site falls within an area of "Agriculture" ("**AGR**") zone on the Approved Lung Yeuk Tau and Kwan Tei South Outline Zoning Plan No. S/NE-LYT/19 ("**the OZP**"). According to the Notes of the OZP for "AGR" zone, 'Agricultural Use' is a Column 1 use which do not require planning permission from the Board. According to the "Assessment Criteria for Considering Applications for Solar Photovoltaic System made under Section 16 of the Town Planning Ordinance", the installation of solar panel system for the purpose of generating electricity for a permitted use, such as a farm, greenhouse/farm structure within an "AGR" zone used for self-sufficient agricultural generation is also considered an ancillary use, which does not require permission from the Board. Filling of land is necessary to commence the agricultural use on the Subject Site, which planning permission from the Town Planning Board for the proposed development is required. Upon completion of the proposal, it comprises a 1-floor enclosed greenhouse and an open structure with ancillary solar panels on the rooftop of the greenhouse. The proposed building height of 2.5 m and the total floor area is about 422 sq.m. which conforms to the respective requirement under the OZP.

This proposal aims to accommodate the high demand of the local citizens for fresh vegetables and electricity. It is situated at a convenient location that is favourable to operate a greenhouse and to serve the applicant and nearby residents if possible. It is expected that the implementation of the proposed greenhouse can improve the supply of high-value vegetables (mushroom farming) and electricity which boost local agriculture industry and promote the use of renewable energy.

The Proposed Development does not hinder the long-term planning intention of "AGR" zone. In addition, laying of soil for filling of land for the proposed development will not exceed 0.2m thickness of concrete for about 422 sq.m. in area for greenhouse built-up and its cultivation. There will be no adverse traffic, visual, landscape, drainage and environmental impacts.

In view of the above justifications, we would sincerely seek the favourable suggestion of the Board to improve this Proposal.

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LCH Planning and Development Consultants Limited

内容摘要

(如內文與其英文版本有差異,則以英文版本為準)

本規劃就粉嶺龍躍頭(下稱「**擬議地點**」)的用地,向城市規劃委員會(下稱「**城規會**」) 徵求意見作擬議填土以作准許的用途農業用途並設置輔助太陽能電池板(下稱「擬議發 展」)。

申請地點現時於《龍躍頭及軍地南分區計劃大綱草圖編號 S/NE-LYT/19》(下稱 「大綱圖」)劃作「農業」地帶。根據大綱圖有關「農業」地帶的註釋,「農業用途」 屬於「農業」地帶的第一欄用途,不需要獲得城規會的規劃許可。根據「根據《城市 規劃條例》第16條提出安裝太陽能光伏系統的申請的評審準則」,安裝太陽能系統用 於為許可用途發電,例如農場、溫室/農場「農業」的建築物主要用於自給自足的農業 發電,也被視為輔助用途,不需要獲得城規會的規劃許可。申請地點的農業用途需要 填土,需要獲得城規會的規劃許可才能進行擬議發展。完成擬議填土後,將會有一座1 層封閉式溫室和一個開放式結構,溫室屋頂設有輔助太陽能電池板。擬建建築高度為 2.5米,總建築面積為約422平方米,合乎大綱圖的相關要求。

是次規劃申請可以滿足當區居民對本地蔬菜和電力的需求,因其地理位置優越,有利 於運營溫室並為附近的居民提供本地蔬菜。預計擬議溫室和太陽能光伏系統的實施可 以透過增加高價值蔬菜和電力的供應,從而促進當地農業產業並促進再生能源的使用。

擬議發展不會妨礙長遠規劃意向。此外,擬議發展開發的土地填土將不超過 0.2m 混凝 土厚度,面積約422平方米,用於溫室建設和種植。擬議填土亦不會對交通、視覺、景 觀、排水系統和環境造成不利影響。

鑒於以上提出的依據,我們真誠地尋求城規會對於擬議發展的意見。

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1 INTRODUCTION

1.1 The Proposal

- 1.1.1 We are commissioned by the Applicant to prepare and submit on its behalf this planning proposal for a proposed filling of land for agricultural use with ancillary solar panels (hereinafter referred to as the "Proposed Development") in Kan Tau Tsuen, Fanling (Figure 1) (hereinafter referred to as the "Subject Site") to the Town Planning Board ("the Board") under Section 16 of the Town Planning Ordinance ("the Ordinance").
- 1.1.2 The Subject Site falls within an area designated as "Agriculture" ("**AGR**") zone on the Approved Lung Yeuk Tau and Kwan Tei South Outline Zoning Plan No. S/NE-LYT/19 ("**the OZP**") (**Figure 5**). According to the Notes of the OZP for "AGR" zone, 'Agricultural Use' is a Column 1 use that is always permitted by the Board.
- 1.1.3 The Notes also state that any filling of land, including that to effect a change of use to any of those specified in Columns 1 and 2 above or the uses or developments always permitted under the covering Notes shall not be undertaken without the permission from the Town Planning Board under section 16 of the Town Planning Ordinance, except laying of soil not exceeding 1.2m in thickness for cultivation or construction of any agricultural structure with prior written approval issued by the Lands Department.
- 1.1.4 Filling of land is necessary to commence the agricultural use on the Subject Site. This Application is applying permission from the Town Planning Board for the proposed filling of land.

2 THE SUBJECT SITE AND DEVELOPMENT PROPOSAL

2.1 Current Condition of the Subject Site

- 2.1.1 The Subject Site (covers a total of about 834 square metres ("sq. m."). Portion of the Subject Site is currently under vegetation (**Figure 3**).
- 2.1.2 The Subject Site is attached to the road to the Blessing Villa that connects the site to Sha Tau Kok Road (**Figure 2**). The site is situated at the southeast of Sha Tau Kok Road (Ma Mei Ha) and Kan Tau Tsuen. Besides, there is a river known as Tan Shan River which is located in the southwest of the site. It is also located in the west of Blessing Villa and the northeast of Ng Uk Tsuen.

2.2 Land Status

- 2.2.1 The Subject Site falls within the boundary of Lot No. 1522 in Demarcation District 76, Ma Mei Ha ("**the Lot**") (**Figure 4** refer).
- 2.2.2 The Lot is subject to a Block Government Lease. Upon permission with or without conditions of this planning application, the Applicant will follow the procedures of acquiring "Letter of Approval for Agricultural Structures" and "Certificate of Exemptions" from the Lands Department ¹ and the "Acknowledgement Letter" from the CLP Power Hong Kong (CLP) will be followed once the Proposed Development application is approved to align with the official standard of greenhouse farming operation.

2.3 Surrounding Context

- 2.3.1 Ma Mei Ha is a sub-urban area located northeast of Fanling in the New Territories. The area is comprised of Eight villages and the major uses of land are agriculture land, low-rise residential developments, temporary structures, domestic structures and vacant land. Ma Mei Ha is located in between three major villages (Hung Leng, Leng Tsai and Kan Tau Tsuen). There is a major road (Sha Tau Kok Road) in Ma Mei Ha, and the major transportation mode is by bus or minibus, connecting Ma Mei Ha to Fanling MTR station.
- 2.3.2 The Subject Site is located at the northeast edge of Kwan Tei, with village houses and temporary structures surrounding the site. The run-in and out is located at the southeast boundary of the Subject Site, and the site is accessible from Sha Tau Kok Road Ma Mei Ha via the road to Blessing Villa.

¹ Agriculture, Fisherises and Conservation Department. (2024). Application Guide for Letter of Approval for Agricultural Structures & Certificates of Exemption. <u>https://www.afcd.gov.hk/english/agriculture/agr_hk/agr_hk_app/agr_hk_app.html</u>

2.4 Existing Village Clusters in the Vicinity

2.4.1 At the northern edge of Ma Mei Ha, the Hung Leng is adjacent to the west across the Sha Tau Kok Road – Ma Mei Ha. Going north along the Sha Tau Kok Road are the Regency Court and Leng Tsai Ning, and further south are the Ng Uk Tsuen, Blessing Villa, Kan Tau Tsuen, Tan Chuk Hang Lo Wai and Ma Mei Ha Tsuen.



Diagram 1 Existing Village Clusters (Source: GeoInfo Map, HKSAR Government)

2.5 Controlled-environment Greenhouse as Agricultural Use

- 2.5.1 While the development parameters of the greenhouse are not the subject of this planning permission, details are presented below. There will be a single storey enclosed greenhouse with ancillary solar panels rooftop. The proposed building height of 2.5 m and the total floor area is 422 sq.m.
- 2.5.2 To construct the greenhouse, it is proposed to fill a 0.2m layer of concrete for about an area of 422 sq.m. as the foundation of the greenhouse, as well as to provide insulation layer to the greenhouse.

Proposed Development Parameters of Filling of Land						
Site Area	About 834 sq.m.					
	About 422 sq.m. with					
Proposed Filling of Land	about/not more than a 0.2m					
	layer of concrete					
Indicative Development Parameters of the Greenhouse						
Covered/Total Floor Area of	About 122ag m					
Greenhouse Structure	About 422sq.m.					
No. of Structure	1					
Maximum Height of Structure	1 storey/ 2.5 meters					
Private Car Parking Space/	1 space of 7m x 3.5m					

Loading & Unloading Space

2.6 Operation Arrangement of the Greenhouse

- 2.6.1 The proposed controlled environment greenhouse will operate 24 hours a day and is powered by the solar panels on the roof to meet the heat, moisture and lighting needs for mushroom cultivation. The electricity generated will be used solely for the operation of the related to the mushroom production of the proposed greenhouse.
- 2.6.2 The product from the proposed greenhouse will mainly serve the Applicant, with the remaining will be shared with the neighbours and local communities.
- 2.6.3 One ancillary Car Parking Space of 3.5m x 7m will be provided for within the Application Site (**Annex 1**). This will also serve as the Loading & Unloading Space for the Light Goods Vehicle. The Site is linked with an existing local track road, which eventually connects to Sha Tau Kok Road Ma Mei Ha (**Annex 2**). Due to the small scale of the greenhouse, it is considered that one parking space together serving as the loading & unloading space is a reasonable logistic arrangement of mushroom production.
- 2.6.4 The follow-up procedures of the acquiring "Letter of Approval for Agricultural Structures" and "Certificate of Exemption" from the Lands Department and the "Acknowledgement Letter" from the CLP Power Hong Kong (CLP) will be followed.
- 2.6.5 The Applicant, who also living in the vicinity, will consume the mushroom cultivated and shared among the villagers. Excess supply of mushroom may be exported to local vegetable suppliers within the vicinity or Fanling District.

3 PLANNING ASSESSMENT

3.1 Statutory Planning Context

- 3.1.1 The Subject Site falls within an area designated as "Agriculture" zone on the Approved Lung Yeuk Tau and Kwan Tei South Outline Zoning Plan No. S/NE-LYT/19 (**Figure 5**) (also known as the "**OZP**"). The planning intention of the "AGR" zone is "intended primarily to retain and safeguard good quality agricultural land/farm/fish ponds for agricultural purposes".
- 3.1.2 According to Notes of "AGR" zone of OZP (**Figure 5**), 'Agricultural Use' is Column 1 use under "AGR" zone. With reference to the Definition of Terms as published by the Town Planning Board, 'Agricultural Use' includes any structure or premises ancillary to and directly connected with the agricultural activities, such as cowshed, green house and structure for the storage of machinery, tools, carts, trolleys, seeds and fertilizers; but excludes any structure or premises for domestic purposes.
- 3.1.3 The Notes also state that any filling of land, including that to effect a change of use to any of those specified in Columns 1 and 2 above or the uses or developments always permitted under the covering Notes shall not be undertaken without the permission from the Town Planning Board under section 16 of the Town Planning Ordinance, except laying of soil not exceeding 1.2m in thickness for cultivation or construction of any agricultural structure with prior written approval issued by the Lands Department.
- 3.1.4 The agricultural use is in line with the long-term planning intention of the "AGR" zone. The proposed controlled-environment greenhouse is always permitted under the Notes of the OZP, this Application is seeking permission from the Town Planning Board for the proposed filling of land to construct the proposed controlled-environment greenhouse.

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AGRICULTURE

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
Agricultural Use Government Use (Police Reporting Centre only) On-Farm Domestic Structure Public Convenience Religious Institution (Ancestral Hall only) Rural Committee/Village Office	Animal Boarding Establishment Barbecue Spot Burial Ground Field Study/Education/Visitor Centre Government Refuse Collection Point Government Use (not elsewhere specified) House (New Territories Exempted House only, other than rebuilding of New Territories Exempted House or replacement of existing domestic building by New Territories Exempted House permitted under the covering Notes) Picnic Area Place of Recreation, Sports or Culture (Horse Riding School, Hobby Farm, Fishing Ground only) Public Utility Installation Religious Institution (not elsewhere specified) School Utility Installation for Private Project

Planning Intention

This zone is intended primarily to retain and safeguard good quality agricultural land/farm/fish ponds for agricultural purposes. It is also intended to retain fallow arable land with good potential for rehabilitation for cultivation and other agricultural purposes.

Remarks

(a) Any filling of pond, including that to effect a change of use to any of those specified in Columns 1 and 2 above or the uses or developments always permitted under the covering Notes (except public works co-ordinated or implemented by Government, and maintenance, repair or rebuilding works), shall not be undertaken or continued on or after the date of the first publication in the Gazette of the notice of the interim development permission area plan without the permission from the Town Planning Board under section 16 of the Town Planning Ordinance.

(Please see next page)

(Source: Town Planning Board, HKSAR Government)

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AGRICULTURE (Cont'd)

Remarks (Cont'd)

- (b) Any filling of land, including that to effect a change of use to any of those specified in Columns 1 and 2 above or the uses or developments always permitted under the covering Notes (except public works co-ordinated or implemented by Government, and maintenance, repair or rebuilding works), shall not be undertaken or continued on or after the date of the first publication in the Gazette of the notice of the draft Lung Yeuk Tau and Kwan Tei South Outline Zoning Plan No. S/NE-LYT/10 without the permission from the Town Planning Board under section 16 of the Town Planning Ordinance. This restriction does not apply to filling of land specifically required under prior written instructions of Government department(s) or for the purposes specified below:
 - (i) laying of soil not exceeding 1.2m in thickness for cultivation; or
 - (ii) construction of any agricultural structure with prior written approval issued by the Lands Department.

(Source: Town Planning Board, HKSAR Government)

3.2 High Demand for vegetables and electricity in the city

3.2.1 Existing Supply data of major fresh food - reference figures (dated 17.06.2024) ² from Agriculture, Fisheries and Conservation Department (AFCD) are shown below:

Supply of vegetables - Vegetable Marketing Organization (VMO) and the					
Government Wholesale Markets yesterday^					
	Units (Tonnes)				
VMO*	112.47				
Government wholesale markets #	462.82				
* Total throughput of the VMO Cheung Sha Wan Wholesale Vegetable Market yesterday.					
# Total vegetable intake at the Government Cheung Sha Wan and Western Wholesale Food Markets and the North District Temporary Market for Agricultural Products.					

^ Account for about 40% of market share.

- 3.2.2 According to the report of Hong Kong Energy End-use Date 2023 by the Electrical and Mechanical Services Department (EMSD), Hong Kong's "energy end-use " consumed 279,907 terajoules (TJ) in 2021, whereas the solar among renewable energy was only accounted for 432 TJ in 2021. Natural and geographical constraints limit the development of large-scale renewable energy in Hong Kong. Therefore, there is a need to develop decentralized renewable energy.
- 3.2.3 Feed-in tariff (FiT) is an important measure to promote the development of renewable energy (RE) under the Current Scheme Control of Agreements (SCA) signed between the government and the two power companies in April 2017. With the joint efforts of all sectors of society, solar energy in renewable energy has grown significantly, from 47 terajoules in 2018 to 432 TJ in 2021. ³

 ² Food and Health Bureau & Agriculture, Fisherises and Conservation Department. (2024). Fresh Food Supply & Consumption. <u>https://www.afcd.gov.hk/english/agriculture/agr_fresh/agr_fresh.html</u>
³ EMSD. (2023). Hong Kong Energy End-use Data 2023. <u>https://www.emsd.gov.hk/filemanager/en/content_762/HKEEUD2023.pdf</u>

3.3 Mushroom Cultivation in Controlled-Environment Greenhouse

3.3.1 It is noteworthy that mushroom cultivation in controlled-environment greenhouse has long been recognised by the Agriculture, Fisheries and Conservation Department. There are various types of mushrooms that can be farmed in greenhouse with the adoption of technologies. For further information, the Agriculture, Fisheries and Conservation Department regularly publishes newsletters on technologies in greenhouse, which include mushroom cultivation⁴.

3.4 Solar Panels to Support Controlled-environment Greenhouse

- 3.4.1 The proposed ancillary solar panels will be connected to the existing electrical power network of CLP Power Hong Kong Limited (CLP) under the 'Renewable Energy Feed-in Tariff Scheme' ("ReFiT" Scheme). The proposed capacity of solar panels on the greenhouse rooftop will approximately generate electrical energy of 91.35 watt, with a maximum efficiency capacity of 435 watt.
- 3.4.2 The proposed ancillary solar panels are directly ancillary and commensurate in scale with the development use within the "AGR" zone at the rooftop of private building (i.e. the proposed greenhouse as closed structure with a roof and walls) mainly for generating electricity for agricultural purposes. According to the "Assessment Criteria for Considering Applications for Solar Photovoltaic System made under Section 16 of the Town Planning Ordinance" published by the Town Planning Board, it is regarded as an ancillary use for supplementing power supply to its use. No planning permission is required.

3.5 Drainage Consideration

3.5.1 The existing drainage condition and pattern of the area will not be altered. The Proposed Development will not cause any adverse drainage impact onto the area.

3.6 Traffic Consideration

3.6.1 The Proposed Development will not incur adverse traffic impact, as it serves the landowner which is also the Applicant only which may not cause extra traffic flow. Therefore, it is expected that there will not be significant negative impacts regarding the safety of road users and the traffic network of the area concerned.

3.7 Environmental Consideration

3.7.1 The Applicant will follow the relevant mitigation measures and requirements in the latest "*Code of Practice on Handling Environmental Aspects of Temporary Uses and Open Storage Sites*" to minimize any potential environmental impact. Also, no felling of recorded existing Old and Valuable Trees (OVTs),

⁴ Agriculture, Fisherises and Conservation Department. (2024). Controlled-Environment Greenhouse Newsletters.

https://www.afcd.gov.hk/english/agriculture/agr_ceg/agr_ceg_new/agr_ceg_new.html

potentially registrable OVTs, and trees of rare or protected species will be incurred. No adverse environmental impact is anticipated.

3.8 Visual and Landscape Compatibility

- 3.8.1 The Subject Site is situated in area of rural village landscape character which are surrounded by village houses and temporary structures. The proposed greenhouse use is compatible with the surrounding use and will not disturb the prevailing rural village landscape character. Existing tree group in the Subject Site will be preserved to maintain the landscape environment. Refer to **Annex 3** for the location of the existing tree group.
- 3.8.2 The proposed filling of land is not visually incompatibility with the surrounding. The proposed greenhouse with a maximum height of about 2.5 metres is visually compatible with the 1-storey village houses in the west and east boundaries, and the temporary structures along the east boundary.

4 PLANNING MERITS & JUSTIFICATIONS

4.1 Satisfy the Local Needs by Catering the High Demand of Agricultural Products

4.1.1 Intention of the proposed filling of land for the greenhouse is to cater the high demand of local agricultural production in the Hong Kong. It primarily serves the applicant, local villagers and adjacent community. The introduction of vibrant local agricultural production diversifies food supply with reduction of imported food reliance and higher safety standard maintenance.

4.2 Develop modern multi-tier hydroponic production in a closed environment for optimal efficiency and pollution-free products

4.2.1 The proposed filling of land for the greenhouse will increase the supply of high-value vegetables⁵, which can boost local fresh vegetables markets to mitigate the high demands in the local market and culinary sector, i.e. mushroom farming. Organic mushrooms are the essential ecosystem recycler, performing an active role in the ecosystem's chemical cycle and the food chain as sustainable food supply for the economic growth⁶.

4.3 Adoption of Sustainable Energy

4.3.1 The development of renewable energy is an important part of the government's response to climate change. Increasing the use of renewable energy will help decarbonize the power generation industry.

4.4 In Line with the Long-term Planning Intention of "AGR" Zone

4.4.1 The development of the greenhouse is permitted as-of-right in the "AGR" zone. The proposed filling of land for the construction and operation of greenhouse is in line with the long-term planning intention of the "AGR" zone. Instead of not fully utilizing the land resources, constructing a greenhouse can further accommodate the demand of the citizens and villagers for the vegetables and electricity which is compatible with the long-term planning intention for the village and city.

4.5 Compatible with the Surrounding Development with No Adverse Visual and Landscape Impact

4.5.1 The proposed filling of land as well as the greenhouse is visually compatible with the surrounding environment, which is mainly composed of village houses and temporary structures. There is no immediate change to the rural village landscape character. No adverse visual and landscape impact is

⁵ Food and Health Bureau & Agriculture, Fisheries and Conservation Department. (2014). New Agricultural Policy: Sustainable Agricultural Development in Hong Kong. <u>https://www.gov.hk/en/residents/government/publication/consultation/docs/2015/Agricultural_Policy.pdf</u>

⁶ Hong Kong Trade Development Council. (2024). Hong Kong FoodTech: Futuristic Fungi Farming. <u>https://research.hktdc.com/en/article/MTY3MTIyOTY5OQ</u>

anticipated.

4.6 No Adverse Traffic Impact

4.6.1 The proposed greenhouse will not incur adverse traffic impact as it is a smallscale works inside the private land. Therefore, it is expected that there will be insignificant negative impacts regarding the safety of road users and the traffic network of the area concerned.

4.7 No Adverse Environmental Impact

- 4.7.1 The proposed greenhouse aligns with the sustainable environmental goals for the government to decarbonize the electricity generation sector and combating climate change in Hong Kong through community participation. It demonstrates as a precedented development of sustainable integration of agriculture and renewable facility.
- 4.7.2 Moreover, the latest "*Code of Practice on Handling Environmental Aspects of Open Storage and Temporary Uses*" issued by Environmental Protection Department will also be followed. Therefore, there will not be adverse environment impacts including noise and air quality in the vicinity.

4.8 No Adverse Drainage Impact

4.8.1 The existing drainage condition and pattern of the area will not be altered. Besides, the proposed drainage system would improve the existing drainage conditions by diverting the flow away from the adjacent lot. Thus, no adverse drainage impact is anticipated.

5 CONCLUSION

5.1.1 In view of the above, we respectfully request the Board Members to give permission on the proposed filling of land.