### **APPENDICES**

Appendix I	The Accepted Drainage Proposal of the Previous Application No.
	A/HSK/424
Appendix II	Revised Drainage Proposal
Appendix III	The Accepted Fire Service Installations Proposal of the Previous Application No. A/HSK/424
Appendix IV	Revised Fire Service Installations Proposal



Appendix I

The Accepted Drainage Proposal of the Previous Application No. A/HSK/424



規劃署

屯門及元朗西規劃處 香港新界沙田上禾業路1號 沙田政府合著14樓



### By Fax (2323 3662) and Post Planning Department

Tuen Mun and Yuen Long West District Planning Office 14/F, Sha Tin Government Offices, 1 Sheung Wo Che Road, Sha Tin, N.T. Hong Kong

29 May 2024

來函檔號	Your Reference	
本署檔號	Out Reference	() in TPB/A/HSK/424
電話號碼	Tel. No. :	2158 6294
傳真機號碼	Fax No. :	2489 9711

Dear Sir/ Madam,

### Compliance with Approval Condition (a) <u>Planning Application No. A/HSK/424</u>

I refer to your submission dated 3.5.2024 regarding the submission of a drainage proposal for compliance with captioned approval condition. The relevant department has been consulted on your submission. Your submission is considered:

Acceptable. The captioned condition has been complied with.

□ Acceptable. Since the captioned condition requires both the submission and implementation of the proposal, it has not been fully complied with. Please proceed to implement the accepted proposal for full compliance with the approval condition.

□ Not acceptable. The captioned condition has not been complied with.

Should you have any queries, please contact Ms. Vicky SY (Tel: 2300 1347) of the Drainage Services Department direct.

Yours faithfully,

( Ms. Charlotte LAM ) for District Planning Officer/ Tuen Mun and Yuen Long West Planning Department

c.c CE/MN, DSD (Attn: Ms. Vicky SY)

<u>Internal</u> CTP/TPB2

> 透過規劃工作,使香港成為一個宜居、具競爭力和可持續發展的**亞洲國際都會** We plan to make Hong Kong a Liveable • Competitive • Sustainable ASLA'S WORLD CITY



Our Ref. : DD124 Lot 25 & VL Your Ref. : TPB/A/HSK/424

The Secretary, Town Planning Board, 15/F, North Point Government Offices, 333 Java Road, North Point, Hong Kong

**<u>By Email</u>** 3 May 2024

Dear Sir,

### **Compliance with Approval Condition (a)**

Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) with Ancillary Facilities for a Period of 3 Years in "Village Type Development" and "Open Space" Zones, Various Lots in D.D. 124 and Adjoining Government Land, Ha Tsuen, Yuen Long, New Territories

### (S.16 Planning Application No. A/HSK/424)

We are writing to submit a response-to-comments table and a revised drainage proposal for compliance with approval condition (a) of the subject application, i.e. *the submission of a drainage proposal* (**Appendices I** and **II**).

Should you require more information regarding the application, please contact our Mr. Louis TSE at (852) TSE

Yours faithfully,

For and on behalf of R-riches Property Consultants Limited

Matthew NG Planning and Development Manager

<u>Appendix I – Response to comments of the Chief Engineer/Mainland North, Drainage Services</u> <u>Department (CE/MN,DSD)</u>

Comr	nents of the CE/MN, DSD	
(Cont	act Person: Ms. Vicky SY; Tel: 2300 1347)	
(i)	The U channel at the eastern side of the application site proposed on the submission dated 28.2.2024 is deleted in this submission. Please clarify on the reason for this change. Please note that peripheral surface channels shall be provided along the site boundary to collect the surface runoff	Peripheral channel is provided (i.e. UC is provided at the eastern side of the application site) as shown at the revised drainage proposal ( <b>Appendix II</b> ).
	intercept the overland flow from the adjacent lands.	











VIEW 1: Existing 3000(W)x2000(D)Natural Stream



VIEW 2: FINAL DISCHARGE POINT SCP1006600

Site Area =	3581.	5 m2				Page 3
Calculation of Runoff f	rom the	Propo	sed Development,			
	Q	= (	0.278 C i A			
	С	= (	0.95		(P.42 of Stormwater Drainage Manual)	
	А	= (	3581.5	$m^2$		
		= (	0.0035815	km <sup>2</sup>		
take	i	= 2	250	mm/hr		
Therefore,	Q	= (	0.278*0.95*250*0.003	35815		
		= (	0.236	m <sup>3</sup> /sec		
			14188	lit/min		
Calculation Maximum (	Capacity	y of Pr	oposed 500(W)x275(E	)) Gutter		
Manning Equation	V	= ]	$R^{2/3}*S_{f}^{0.5}/n$			
where	R	- (	$(W \times D)/(2D + W)$	W= D-	0.5 mm 0.275 m	
where	κ	= (	0.131	m	0.275 m	
	n	= (	0.012	s/m <sup>1/3</sup>	(Table 13 of Stormwater Drainage Manual)	
1/ 150	$S_{\mathrm{f}}$	= (	0.0067			
Therefore	V	_ (	0 1212/3*0 00670.5/0 01	2		
Therefore,	v	=	1.755	m/sec		
Maximum Capacity	(())	_ ,	V*A			
		=	1.755*0.5*0.275			
		= (	0.241	m <sup>3</sup> /sec		
1 nos of Gutte	r	= (	0.241	m <sup>3</sup> /sec		
		=	14476	lit/min		
		>	14188	lit/min		
			Provide 500(W)x27	5(D) Gutte	<u>r (1:150) is OK</u>	

Site Area =	929	3 m2				Page 4
Calculation of Runoff fr	om the	Propo	osed Development,			
	Q	=	0.278 C i A			
	С	=	0.95		(P.42 of Stormwater Drainage Manual)	
	А	=	9293	$m^2$		
		=	0.009293	km <sup>2</sup>		
take	i	=	250	mm/hr		
Therefore,	Q	=	0.278*0.95*250*0.00	9293		
		=	0.614	m <sup>3</sup> /sec		
		_	36814	lıt/mın		
Calculation Maximum C	Capacit	y of P	roposed 600mm dia. U	nderground	l pipe.	
Manning Equation	V	=	$R^{2/3}*S_{f}^{0.5}/n$			
			2	dia	600 mm	
where	R	=	$\pi r^2/2 \pi r$	r=	0.3 m	
		=	0.15	m		
	n	=	0.012	s/m <sup>1/3</sup>	(Table 13 of Stormwater Drainage Manual)	
1/ 100	$S_{f}$	=	0.01			
Therefore	V	_	0.15 <sup>2/3</sup> *0.01 <sup>0.5</sup> /0.012			
mererore,	v	=	2.353	m/sec		
Maximum Capacity (	Q <sub>max</sub> )	=	V*A			
		=	$2.353^* \pi r^2$			
		=	0.665	m <sup>3</sup> /sec		
1 nos of pipe		=	0.665	m <sup>3</sup> /sec		
		=	39911	lit/min		
		>	36814	lıt/mın		
		]	Provide 600mm dia ur	derground	<u>pipe (1:100) is OK</u>	



Figure 8.7 - Chart for the Rapid Design of Channels





## ALTERNATIVE TOP SECTION FOR PRECAST CONCRETE COVERS / GRATINGS

#### NOTES:

- 1. ALL DIMENSIONS ARE IN MILLIMETRES.
- 2. ALL CONCRETE SHALL BE GRADE 20 /20.
- 3. CONCRETE SURFACE FINISH SHALL BE CLASS U2 OR F2 AS APPROPRIATE.
- 4. FOR DETAILS OF JOINT, REFER TO STD. DRG. NO. C2413.
- 5. CONCRETE TO BE COLOURED AS SPECIFIED.
- UNLESS REQUESTED BY THE MAINTENANCE PARTY AND AS DIRECTED BY THE ENGINEER, CATCHPIT WITH TRAP IS NORMALLY NOT PREFERRED DUE TO PONDING PROBLEM.
- 7. UPON THE REQUEST FROM MAINTENANCE PARTY, DRAIN PIPES AT CATCHPIT BASE CAN BE USED BUT THIS IS FOR CATCHPITS LOCATED AT SLOPE TOE ONLY AND AS DIRECTED BY THE ENGINEER.
- 8. FOR CATCHPITS CONSTRUCTED ON OR ADJACENT TO A FOOTPATH, STEEL GRATINGS (SEE DETAIL 'A' ON STD. DRG. NO. C2405 ) OR CONCRETE COVERS (SEE STD. DRG. NO. C2407 ) SHALL BE PROVIDED AS DIRECTED BY THE ENGINEER.
- 9. IF INSTRUCTED BY THE ENGINEER, HANDRAILING (SEE DETAIL 'G' ON STD. DRG. NO. C2405; EXCEPT ON THE UPSLOPE SIDE ) IN LIEU OF STEEL GRATINGS OR CONCRETE COVERS CAN BE ACCEPTED AS AN ALTERNATIVE SAFETY MEASURE FOR CATCHPITS NOT ON A FOOTPATH NOR ADJACENT TO IT. TOP OF THE HANDRAILING SHALL BE 1 000 mm MIN. MEASURED FROM THE ADJACENT GROUND LEVEL.
- 10. MINIMUM INTERNAL CATCHPIT WIDTH SHALL BE 1 000 mm FOR CATCHPITS WITH A HEIGHT EXCEEDING 1 000 mm MEASURED FROM THE INVERT LEVEL TO THE ADJACENT GROUND LEVEL. AND, STEP IRONS (SEE DSD STD. DRG. NO. DS1043) AT 300 ¢ STAGGERED SHALL BE PROVIDED. THICKNESS OF CATCHPIT WALL FOR INSTALLATION OF STEP IRONS SHALL BE INCREASED TO 150 mm.
- 11. FOR RETROFITTING AN EXISTING CATCHPIT WITH STEEL GRATING, SEE DETAIL 'F' ON STD. DRG. NO. C2405.
- 12. SUBJECT TO THE APPROVAL OF THE ENGINEER, OTHER MATERIALS CAN ALSO BE USED AS COVERS / GRATINGS.

	- FORMER DRG. I	NO. C2406J. Original Signed 03.2015
	REF. R	EVISION SIGNATURE DATE
CATCHPIT WITH TRAP		VIL ENGINEERING AND Elopment department
(SHEET 2 OF 2)	<b>SCALE</b> 1:20	DRAWING NO.
	DATE JAN 199	01 02400 / 2
卓越工程 建設香港	We Engineer	Hong Kong's Development



Figure 8.10 - Typical Details of Catchpits



Figure 8.11 - Typical U-channel Details

### Appendix II

Revised Drainage Proposal













VIEW 1: Existing 3000(W)x2000(D)Natural Stream



VIEW 2: FINAL DISCHARGE POINT SCP1006600

Site Area	=	9293 m2
Warehouse Area	=	7163 m2
From Start Point	to CP15	

#### Provide nominal 225UC (1:100) is Ok

#### From Start Point to CP4

Collect 3/8 warehouse catchment area Calculation of Runoff from the Proposed Development

	Q	=	0.278 C i A		
	С	=	0.95		(P.42 of Stormwater Drainage Manual)
	А	=	2686.125 0.0026861	m <sup>2</sup> km <sup>2</sup>	
take	i	=	250	mm/hr	
Therefore,	Q	= = =	0.278*0.95*250*0.002 0.177 <b>10641</b>	6861 m <sup>3</sup> /sec lit/min	

#### Provide 600HR UC (1:200) is Ok

#### From CP4 to CP12

### Collect 4/8 warehouse catchment area + vacant area (9293-7163)

Calculation of Runoff from the Proposed Development

	Provide 750 HRUC (1.200) is Ok						
Therefore,	Q	= 0.278*0.95*250*( = 0.377 = 22626	0.0057115 m <sup>3</sup> /sec lit/min				
take	i	= 250	mm/hr				
	А	= 5711.5 = 0.0057115	m <sup>2</sup> km <sup>2</sup>				
	С	= 0.95		(P.42 of Stormwater Drainage Manual)			
	Q	= 0.278 C i A					

#### From CP12 to CP15

#### Collect 7/8 warehouse catchment area + vacant area (9293-7163)

Calculation of Runoff from the Proposed Development

	Q	=	0.278 C i A		
	С	=	0.95		(P.42 of Stormwater Drainage Manual)
	А	=	8397.625 0.0083976	m <sup>2</sup> km <sup>2</sup>	
take	i	=	250	mm/hr	
Therefore,	Q	= = <b>=</b>	0.278*0.95*250*0.008 0.554 <b>33267</b>	3976 m <sup>3</sup> /sec lit/min	

Provide 900 HR UC (1:100) is Ok

### Outfall Catchment Area = Site Area

Calculation of Runoff from the Proposed Development

	Q	= 0.278 C i A		
	С	= 0.95		(P.42 of Stormwater Drainage Manual)
	А	= 9293 = 0.009293	m <sup>2</sup> km <sup>2</sup>	
take	i	= 250	mm/hr	
Therefore,	Q	= 0.278*0.95*250*0.0092 = 0.614 = <b>36814</b>	293 m <sup>3</sup> /sec lit/min	
Calculation Maximum Capacity o	f Prop	osed 900mm dia. Undergrour	nd pipe.	
Manning Equation	V	$= R^{2/3} * S_f^{0.5} / n$	dia	900 mm
where	R	= $\pi r^2/2 \pi r$ = $r/2$ = 0.225	r= m	0.45 m
	n	= 0.012	s/m <sup>1/3</sup>	(Table 13 of Stormwater Drainage Manual)
1/ 200	$S_{f}$	= 0.005		
Therefore,	V	$= 0.225^{2/3} * 0.005^{0.5} / 0.012$ $= 2.180$	m/sec	
Maximum Capacity (Q <sub>max</sub> )	)	= V*A		
1 nos of pipe		= $2.18* \pi r^2$ = 1.387 = 1.387 = 83205 > 36814	m <sup>3</sup> /sec m <sup>3</sup> /sec lit/min lit/min	
		Provide 900mm dia undergr	ound pipe	e (1:100) is OK

Calculation Maximum Capacity of Proposed 250(W)x200(D) Gutter

Manning Equation	V	$= R^{2/3} * S_f^{0.5} / n$		
where	R	= (WxD)/(2D+W) = 0.077	W= D= m	0.25 mm 0.2 m
	n	= 0.012	s/m <sup>1/3</sup>	(Table 13 of Stormwater Drainage Manual)
1/ 100	$S_{\mathrm{f}}$	= 0.0100		
Therefore,	V	$= 0.077^{2/3} * 0.01^{0.5} / 0.012$ $= 1.507$	m/sec	
Maximum Capacity ( $Q_{max}$ )		= V*A = 1.507*0.25*0.2 = 0.075	m <sup>3</sup> /sec	
1 nos of Gutter		= 0.075 = 4522 > #REF!	m <sup>3</sup> /sec lit/min lit/min	
		Provide 250(W)x200(D)	Gutter (1:	100) is OK









## ALTERNATIVE TOP SECTION FOR PRECAST CONCRETE COVERS / GRATINGS

#### NOTES:

- 1. ALL DIMENSIONS ARE IN MILLIMETRES.
- 2. ALL CONCRETE SHALL BE GRADE 20 /20.
- 3. CONCRETE SURFACE FINISH SHALL BE CLASS U2 OR F2 AS APPROPRIATE.
- 4. FOR DETAILS OF JOINT, REFER TO STD. DRG. NO. C2413.
- 5. CONCRETE TO BE COLOURED AS SPECIFIED.
- UNLESS REQUESTED BY THE MAINTENANCE PARTY AND AS DIRECTED BY THE ENGINEER, CATCHPIT WITH TRAP IS NORMALLY NOT PREFERRED DUE TO PONDING PROBLEM.
- 7. UPON THE REQUEST FROM MAINTENANCE PARTY, DRAIN PIPES AT CATCHPIT BASE CAN BE USED BUT THIS IS FOR CATCHPITS LOCATED AT SLOPE TOE ONLY AND AS DIRECTED BY THE ENGINEER.
- 8. FOR CATCHPITS CONSTRUCTED ON OR ADJACENT TO A FOOTPATH, STEEL GRATINGS (SEE DETAIL 'A' ON STD. DRG. NO. C2405 ) OR CONCRETE COVERS (SEE STD. DRG. NO. C2407 ) SHALL BE PROVIDED AS DIRECTED BY THE ENGINEER.
- 9. IF INSTRUCTED BY THE ENGINEER, HANDRAILING (SEE DETAIL 'G' ON STD. DRG. NO. C2405; EXCEPT ON THE UPSLOPE SIDE ) IN LIEU OF STEEL GRATINGS OR CONCRETE COVERS CAN BE ACCEPTED AS AN ALTERNATIVE SAFETY MEASURE FOR CATCHPITS NOT ON A FOOTPATH NOR ADJACENT TO IT. TOP OF THE HANDRAILING SHALL BE 1 000 mm MIN. MEASURED FROM THE ADJACENT GROUND LEVEL.
- 10. MINIMUM INTERNAL CATCHPIT WIDTH SHALL BE 1 000 mm FOR CATCHPITS WITH A HEIGHT EXCEEDING 1 000 mm MEASURED FROM THE INVERT LEVEL TO THE ADJACENT GROUND LEVEL. AND, STEP IRONS (SEE DSD STD. DRG. NO. DS1043) AT 300 ¢ STAGGERED SHALL BE PROVIDED. THICKNESS OF CATCHPIT WALL FOR INSTALLATION OF STEP IRONS SHALL BE INCREASED TO 150 mm.
- 11. FOR RETROFITTING AN EXISTING CATCHPIT WITH STEEL GRATING, SEE DETAIL 'F' ON STD. DRG. NO. C2405.
- 12. SUBJECT TO THE APPROVAL OF THE ENGINEER, OTHER MATERIALS CAN ALSO BE USED AS COVERS / GRATINGS.

	- FORMER DRG. I	NO. C2406J. Original Signed 03.2015
	REF. R	EVISION SIGNATURE DATE
CATCHPIT WITH TRAP		VIL ENGINEERING AND Elopment department
(SHEET 2 OF 2)	<b>SCALE</b> 1:20	DRAWING NO.
	DATE JAN 199	01 02400 / 2
卓越工程 建設香港	We Engineer	Hong Kong's Development



Figure 8.10 - Typical Details of Catchpits



Figure 8.11 - Typical U-channel Details

Appendix III

The Accepted Fire Service Installations Proposal of the Previous Application No. A/HSK/424



#### By Fax (2323 3662) and Post

#### **Planning Department**

Tuen Mun and Yuen Long West District Planning Office 14/F, Sha Tin Government Offices, 1 Sheung Wo Che Road, Sha Tin, N.T. Hong Kong

26 April 2024

規劃署

屯門及元朗西規劃處 香港新界沙田上禾輩路1號 沙田政府合署14樓



來函檔號 Your Reference 本署檔號 Our Reference ( ) in TPB/A/HSK/424 電話號碼 Tel. No.: 2158 6294 傳真機號碼 Fax No.: 2489 9711

Dear Sir/ Madam,

### Compliance with Approval Condition (d) <u>Planning Application No. A/HSK/424</u>

I refer to your submission dated 15.4.2024 regarding the submission of a fire service installations proposal for compliance with captioned approval condition. The relevant department has been consulted on your submission. Your submission is considered:

- Acceptable. The captioned condition has been complied with. Detailed departmental comments are at Appendix I.
- □ Acceptable. Since the captioned condition requires both the submission and implementation of the proposal, it has not been fully complied with. Please proceed to implement the accepted proposal for full compliance with the approval condition.

□ Not acceptable. The captioned condition has not been complied with.

Should you have any queries on the departmental comments, please contact Mr. YUEN Tsz-fung (Tel: 2733 7781) of the Fire Services Department direct.

Yours faithfully,

( Ms. Charlotte LAM ) for District Planning Officer/ Tuen Mun and Yuen Long West Planning Department

<u>c.c</u> D of FS

FS (Attn: Mr. CHEUNG Wing Hei)

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Internal CTP/TPB2

### Appendix I

A/HSK/424 - Compliance with Approval Condition (d)

Comments from the Fire Services Department:

(i) Please be advised that the installation/maintenance/modification/repair work of Fire Service Installations shall be undertaken by a Registered Fire Service Installation Contractor (RFSIC). The RFSIC shall after completion of the installation/maintenance/modification/repair work issue to the person on whose instruction the work was undertaken a certificate (F.S. 251) and forward a copy of the certificate to the Director of Fire Services.



Our Ref. : DD124 Lot 25 & VL Your Ref. : TPB/A/HSK/424

The Secretary Town Planning Board 15/F, North Point Government office 333 Java Road North Point, Hong Kong

By Email 15 April 2024

Dear Sir,

### **Compliance with Approval Condition (d)**

Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) with Ancillary Facilities for a Period of 3 Years in "Village Type Development" and "Open Space" Zone, Various Lots in D.D. 124 and Adjoining Government Land, Ha Tsuen, Yuen Long, New Territories

### (S.16 Planning Application No. A/HSK/424)

We are writing to submit a revised fire service installations (FSIs) proposal for compliance with approval condition (d) of the subject application, i.e. *the submission of a FSIs proposal* (**Appendix I**).

Should you require more information regarding the application, please contact our Ms. Ron LEUNG at (852) **Control of the undersigned at your convenience**. Thank you for your kind attention.

Yours faithfully,

For and on behalf of R-riches Property Consultants Limited

Matthew NG Planning and Development Manager

# F.S.NOTES:

## <u>1. GENERAL</u>

- 1.1 FIRE SERVICE INSTALLATIONS SHALL BE PROVIDED IN ACCORDANCE WITH THE CODES OF PRACTICE FOR EQUIPMENT AND INSPECTION, TESTING AND MAINTENANCE OF INSTALLATIONS AND EQUIPMENT 2022 (COP HONG KONG WATERWORKS STANDARD REQUIREMENTS.
- 1.2 ALL TUBES AND FITTINGS SHALL BE G.M.S. TO BS1387 MEDIUM GRADE WHERE PIPEWORK UP TO Ø150mm.
- 1.3 ALL TUBES AND FITTINGS SHALL BE DUCTILE IRON TO BS EN545 K12 WHERE PIPEWORK ABOVE Ø150mm.
- 1.4 ALL DRAIN PIPES SHALL BE DISCHARGED TO A CONSPICUOUS POSITION WITHOUT THE POSSIBILITY OF BEING SUBMERGED.
- 1.5 ALL PUDDLE FLANGES SHALL BE MADE OF DUCTILE IRON
- 1.6 THE AGGREGATE AREA OF OPENABLE WINDOWS NOT LESS THAN 6.25% OF THE FLOOR AREA OF THE STRUCTURE
- 1.7 VENTILATION/AIR CONDITIONING SYSTEM NOT TO BE PROVIDED.
- 2. HOSE REEL SYSTEM
- 2.1 NEW FIRE HOSE REEL SHALL BE PROVIDED AS INDICATED ON PLAN TO ENSURE THAT EVERY PART OF THE BUILDING CAN BE REACHED BY A LENGTH OF NOT MORE THAN 30m HOSE REEL TUBING.
- 2.2 THE WATER SUPPLY FOR HOSE REEL SYSTEM WILL BE FED FROM A NEW 2m<sup>3</sup> F.S. FIBREGLASS WATER TANK VIA TWO HOSE REEL PUMPS (DUTY/ STANDBY) LOCATED INSIDE FS PUMP ROOM AT EXTERNAL AREA.
- 2.3 HOSE REEL PUMPS SHALL BE STARTED BY ACTUATION OF ANY BREAKGLASS UNIT FITTED ASIDE EACH HOSE REEL SETS
- 2.4 ALL FIRE HOSE REEL OUTLETS SHOULD BE HOUSED IN GLASS FRONTED CABINET SECURED UNDER LOCK & KEY.
- 2.5 ALL FIRE HOSE REEL SHOULD BE PROVIDED WITH FSD APPROVED TYPE INSTRUCTION PLATE & WSD WARNING PLATE
- 2.6 SECONDARY ELECTRICITY SUPPLY DIRECTLY TEE OFF BEFORE CLP'S INCOMING MAIN SWITCH SHALL BE PROVIDED FOR THE FS PUMPS.

# 3. AUTOMATIC SPRINKLER SYSTEM

- 3.1 NEW AUTOMATIC SPRINKLER SYSTEM SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH LPC RULES FOR AUTOMATIC SPRINKLER INSTALLATIONS INCORPORATING BS EN 12845: 2015 (INCLUDING TECHNICAL BULLETINS, NOTES, COMMENTARY AND RECOMMENDATIONS) AND FSD CIRCULAR LETTER NO. 5/2020. THE CLASSIFICATION OF THE OCCUPANCIES WILL BE ORDINARY HAZARD GROUP III.
- 3.2 ONE NEW 135m<sup>3</sup> SPRINKLER WATER TANK WILL BE PROVIDED AS INDICATED ON PLAN. THE TOWN MAIN WATER SUPPLY WILL BE FED FROM SINGLE END.
- 3.3 TWO NEW SPRINKLER PUMPS (DUTY/STANDBY) AND ONE JOCKEY PUMP SHALL BE PROVIDED IN FS PUMP ROOM LOCATED AT EXTERNAL AREA.
- 3.4 NEW SPRINKLER CONTROL VALVE SET AND SPRINKLER INLET SHALL BE PROVIDED AS INDICATED ON PLAN.
- 3.5 A TEST VALVE SHALL BE PROVIDED FOR EACH ZONE OF SPRINKLER PIPE. THIS VALVE SHALL BE AT A CONSPICUOUS POSITION THAT WATER CAN BE DRAINED AWAY EASILY.
- 3.6 ALL SUBSIDIARY STOP VALVES TO BE ELECTRIC MONITORING TYPE.
- 3.7 ALL ELECTRIC TYPE VALVES SHOULD GIVE VISUAL SIGNALS TO FIRE SERVICE MAIN SUPERVISORY CONTROL PANEL TO INDICATE THE STATUS (OPEN/CLOSE) OF THE VALVES.
- 3.8 SECONDARY ELECTRICITY SUPPLY DIRECTLY TEE OFF BEFORE CLP'S INCOMING MAIN SWITCH SHALL BE PROVIDED FOR THE SPRINKLER PUMPS.
- 3.9 THE SPRINKLER SYSTEM DESIGN IS BASED ON THE FOLLOWINGS: HAZARD CLASS : ORDINARY HAZARD GROUP III TYPE OF STORAGE : POST-PALLET (ST2) STORAGE CATEGORY : CATEGORY I MAXIMUM STORAGE HIEGHT : 3.5m SPRINKLER PROTECTION : CEILING PROTECTION ONLY MAXIMUM STORAGE AREA : 50m<sup>2</sup> MINIMUM CLEARANCE AROUND : 2.4m

# 4. FIRE ALARM SYSTEM

- 4.1 NEW FIRE ALARM SYSTEM SHALL BE PROVIDED IN ACCORDANCE WITH BS 5839-1:2017 +A2:2008 AND FSD CIRCULAR LETTERS NO. 6/2021.
- 4.2 NEW BREAKGLASS UNITS AND FIRE ALARM BELLS SHALL BE PROVIDED AT ALL NEW FIRE HOSE REEL POINTS. THE FIRE ALARM INTALLATION WILL BE INTEGRATED WITH THE HOSE REEL SYSTEM.
- 5. EMERGENCY LIGHTING
- 5.1 EMERGENCY LIGHTING SHALL BE PROVIDED IN ACCORDANCE WITH 'BS 5266-1 :2016 AND BS EN 1838 :2013", AND FSD CIRCULAR LETTERS NO. 4/2021. COVERING ALL AREA. EMERGENCY LIGHTINGS SHALL BE BACKED UP BY BUILT-IN BATTERY AND CAPABLE OF MAINTAINING FUNCTION OF NOT LESS THAN 2 HOURS IN CASE OF POWER FAILURE

# <u>6. EXIT SIGN</u>

6.1 ALL EXIT SIGNS/DIRECTIONAL EXIT SIGNS SHALL BE PROVIDED IN ACCORDANCE WITH 'BS 5266-1 :2016 AND FSD CIRCULAR LETTER NO. 5/2008, FOR THE BUILDING. EXIT SIGNS/DIRECTIONAL EXIT SIGNS SHALL BE BACKED UP BY BUILT-IN BATTERY AND CAPABLE OF MAINTAINING FUNCTION OF NOT LESS THAN 2 HOURS IN CASE OF POWER FAILURE.

# 7. PORTABLE APPLIANCES

7.1 PORTABLE HAND OPERATED APPLIANCES SHALL BE PROVIDED AS INDICATED ON PLAN.

	FIRE ALARM BELL	UNIT SIGN	SPRINKLER CONTROL VALVE SET	
<u>LEGEND</u>	HR HOSE REEL • BREAK GLASS UNIT	EMERGENCY LIGHT	FE 5KG CO2 FIRE EXTINGUISHER	5KG DRY POWDER FIRE EXTINGUISHER

FRUJEUT.	DRAWING TITLE :
TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN)	ES Notos Logond
WITH ANCILLARY FACILITIES FOR A PERIOD OF 3 YEARS LOTS 25	F.S. Notes, Leyenu,
(PART), 26 (PART), 27 (PART), 28 (PART), 29, 30, 31, 32 (PART), 33	Fire Service Installation
(PART), 34 (PART),36 (PART), 70 (PART), 76 (PART), 77 (PART), 78	Lavout Plan
S.A (PART), 80 (PART) AND 82 (PART) IN D.D.124 AND ADJOINING	Layout i lall
GOVERNMENT LAND, HA TSUEN, YUEN LONG, NEW TERRITORIES	

MINIMUM	FIRE	SERVICE	INSTALLA	FIONS	AND
2022),	FSD	CIRCULAR	LETTERS	AND	THE

REV

Water Tank

Room For FSIs

Section drawing of window opening for the structure (B1)

GF of Structure B1 Openable Windows Calculation Area of GF Structure B1 = 7163 sq.m. Area of High Bay Window (H.B.W.) = 1.2m(H) x 374m = 448.8 sq.m. Total openable window area = 448.8 sq.m. = 6.26% of floor area

1F of Structure B1 Openable Windows Calculation Area of 1F Structure B1 = 2407 sq.m. Area of High Bay Window (H.B.W.) = 1.2m(H) x 126m = 151.2 sq.m. Total openable window area = 151.2sq.m.

= 6.28% of floor area

DATE

Section drawing of window opening for the structure (B1)

DESCRIPTION



(ON PLAN)

CONSULTANT

STRUCTURE	Uses	Covered Area	GFA	Building Height
B1	WAREHOUSE (EXCL. D.G.G.*)	7163m²	9570m²	11 m (ABOUT)(2-STOREY)
B2	RAIN SHELTER FOR L/UL	203m <sup>2</sup>	203m <sup>2</sup>	7 m (ABOUT)(1-STOREY)
B3	SITE OFFICE	134m²	268m²	8 m (ABOUT)(2-STOREY)
B4	CARETAKER OFFICE AND WASHROOM	71m²	71m²	5 m (ABOUT)(1-STOREY)
B5	PUMP ROOM	44m²	44m²	7 m (ABOUT)(1-STOREY)
	Total:	7615m <sup>2</sup>	10156m <sup>2</sup>	

\*D.G.G.-DANGEROUS GOODS GODOWN

FIRE SERVICE CONTRACTOR

**Century Fire Service** Engineering Co., Ltd.

DRAWN BY CHECKED APPROVED

	NAME	DATE	DRAWING NO :	REV.
	C.K.NG	13 Apr 2024	F2-01	U
BY			SCALE : 1:400 (A0)	
BY			SOURCE : B.O.O. Ref. BD F.S.D. Ref. FP	

Appendix IV

**Revised Fire Service Installations Proposal** 



# F.S.NOTES:

## <u>1. GENERAL</u>

- 1.1 FIRE SERVICE INSTALLATIONS SHALL BE PROVIDED IN ACCORDANCE WITH THE CODES OF PRACTICE FOR EQUIPMENT AND INSPECTION, TESTING AND MAINTENANCE OF INSTALLATIONS AND EQUIPMENT 2022 (COF HONG KONG WATERWORKS STANDARD REQUIREMENTS.
- 1.2 ALL TUBES AND FITTINGS SHALL BE G.M.S. TO BS1387 MEDIUM GRADE WHERE PIPEWORK UP TO Ø150mm.
- 1.3 ALL TUBES AND FITTINGS SHALL BE DUCTILE IRON TO BS EN545 K12 WHERE PIPEWORK ABOVE Ø150mm.
- 1.4 ALL DRAIN PIPES SHALL BE DISCHARGED TO A CONSPICUOUS POSITION WITHOUT THE POSSIBILITY OF BEING SUBMERGED.
- 1.5 ALL PUDDLE FLANGES SHALL BE MADE OF DUCTILE IRON
- 1.6 THE AGGREGATE AREA OF OPENABLE WINDOWS NOT LESS THAN 6.25% OF THE FLOOR AREA OF THE STRUCTURE
- 1.7 VENTILATION/AIR CONDITIONING SYSTEM NOT TO BE PROVIDED.
- 2. HOSE REEL SYSTEM
- 2.1 NEW FIRE HOSE REEL SHALL BE PROVIDED AS INDICATED ON PLAN TO ENSURE THAT EVERY PART OF THE BUILDING CAN BE REACHED BY A LENGTH OF NOT MORE THAN 30m HOSE REEL TUBING.
- 2.2 THE WATER SUPPLY FOR HOSE REEL SYSTEM WILL BE FED FROM A NEW 2m<sup>3</sup> F.S. FIBREGLASS WATER TANK VIA TWO HOSE REEL PUMPS (DUTY/ STANDBY) LOCATED INSIDE FS PUMP ROOM AT EXTERNAL AREA.
- 2.3 HOSE REEL PUMPS SHALL BE STARTED BY ACTUATION OF ANY BREAKGLASS UNIT FITTED ASIDE EACH HOSE REEL SETS
- 2.4 ALL FIRE HOSE REEL OUTLETS SHOULD BE HOUSED IN GLASS FRONTED CABINET SECURED UNDER LOCK & KEY.
- 2.5 ALL FIRE HOSE REEL SHOULD BE PROVIDED WITH FSD APPROVED TYPE INSTRUCTION PLATE & WSD WARNING PLATE
- 2.6 SECONDARY ELECTRICITY SUPPLY DIRECTLY TEE OFF BEFORE CLP'S INCOMING MAIN SWITCH SHALL BE PROVIDED FOR THE FS PUMPS.

# 3. AUTOMATIC SPRINKLER SYSTEM

- 3.1 NEW AUTOMATIC SPRINKLER SYSTEM SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH LPC RULES FOR AUTOMATIC SPRINKLER INSTALLATIONS INCORPORATING BS EN 12845: 2015 (INCLUDING TECHNICAL BULLETINS, NOTES, COMMENTARY AND RECOMMENDATIONS) AND FSD CIRCULAR LETTER NO. 5/2020. THE CLASSIFICATION OF THE OCCUPANCIES WILL BE ORDINARY HAZARD GROUP III.
- 3.2 ONE NEW 135m<sup>3</sup> SPRINKLER WATER TANK WILL BE PROVIDED AS INDICATED ON PLAN. THE TOWN MAIN WATER SUPPLY WILL BE FED FROM SINGLE END.
- 3.3 TWO NEW SPRINKLER PUMPS (DUTY/STANDBY) AND ONE JOCKEY PUMP SHALL BE PROVIDED IN FS PUMP ROOM LOCATED AT EXTERNAL AREA.
- 3.4 NEW SPRINKLER CONTROL VALVE SET AND SPRINKLER INLET SHALL BE PROVIDED AS INDICATED ON PLAN.
- 3.5 A TEST VALVE SHALL BE PROVIDED FOR EACH ZONE OF SPRINKLER PIPE. THIS VALVE SHALL BE AT A CONSPICUOUS POSITION THAT WATER CAN BE DRAINED AWAY EASILY.
- 3.6 ALL SUBSIDIARY STOP VALVES TO BE ELECTRIC MONITORING TYPE.
- 3.7 ALL ELECTRIC TYPE VALVES SHOULD GIVE VISUAL SIGNALS TO FIRE SERVICE MAIN SUPERVISORY CONTROL PANEL TO INDICATE THE STATUS (OPEN/CLOSE) OF THE VALVES.
- 3.8 SECONDARY ELECTRICITY SUPPLY DIRECTLY TEE OFF BEFORE CLP'S INCOMING MAIN SWITCH SHALL BE PROVIDED FOR THE SPRINKLER PUMPS.
- 3.9 THE SPRINKLER SYSTEM DESIGN IS BASED ON THE FOLLOWINGS: HAZARD CLASS : ORDINARY HAZARD GROUP III TYPE OF STORAGE : POST-PALLET (ST2) STORAGE CATEGORY : CATEGORY I MAXIMUM STORAGE HIEGHT : 3.5m SPRINKLER PROTECTION : CEILING PROTECTION ONLY MAXIMUM STORAGE AREA : 50m<sup>2</sup> MINIMUM CLEARANCE AROUND : 2.4m

# 4. FIRE ALARM SYSTEM

- 4.1 NEW FIRE ALARM SYSTEM SHALL BE PROVIDED IN ACCORDANCE WITH BS 5839-1:2017 +A2:2008 AND FSD CIRCULAR LETTERS NO. 6/2021.
- 4.2 NEW BREAKGLASS UNITS AND FIRE ALARM BELLS SHALL BE PROVIDED AT ALL NEW FIRE HOSE REEL POINTS. THE FIRE ALARM INTALLATION WILL BE INTEGRATED WITH THE HOSE REEL SYSTEM.
- 5. EMERGENCY LIGHTING
- 5.1 EMERGENCY LIGHTING SHALL BE PROVIDED IN ACCORDANCE WITH 'BS 5266-1 :2016 AND BS EN 1838 :2013", AND FSD CIRCULAR LETTERS NO. 4/2021. COVERING ALL AREA. EMERGENCY LIGHTINGS SHALL BE BACKED UP BY BUILT-IN BATTERY AND CAPABLE OF MAINTAINING FUNCTION OF NOT LESS THAN 2 HOURS IN CASE OF POWER FAILURE

# <u>6. EXIT SIGN</u>

6.1 ALL EXIT SIGNS/DIRECTIONAL EXIT SIGNS SHALL BE PROVIDED IN ACCORDANCE WITH 'BS 5266-1 :2016 AND FSD CIRCULAR LETTER NO. 5/2008, FOR THE BUILDING. EXIT SIGNS/DIRECTIONAL EXIT SIGNS SHALL BE BACKED UP BY BUILT-IN BATTERY AND CAPABLE OF MAINTAINING FUNCTION OF NOT LESS THAN 2 HOURS IN CASE OF POWER FAILURE.

# 7. PORTABLE APPLIANCES

7.1 PORTABLE HAND OPERATED APPLIANCES SHALL BE PROVIDED AS INDICATED ON PLAN.

ILMPORARY WAREHO	)USE (EXCLUDING DANGEROUS GOOE Acilities for a period of 3 `	S GODOWN) YEARS LOTS 25 F.S. Notes, Legend,		
PROJECT :		DRAWING TITLE :		ARCHITECT :
				T UIVIT SLT
	FIRE ALARM BELL	- SUBSIDIARY VALVE / FLOW SWITCH		PLIMP SET
	BREAK GLASS UNIT	EXIT EXIT SIGN	$\int_{\varphi}^{\varphi}$ sprinkler control value set	SPRINKLER HEAD (C
LEGEND	HR HOSE REEL	EMERGENCY LIGHT	FE 5KG CO2 FIRE EXTINGUISHER	5KG DRY POWDER FIRE EXTINGUISHER

FRUJEUI .	DRAWING TITLE :
TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) WITH ANCILLARY FACILITIES FOR A PERIOD OF 3 YEARS LOTS 25	F.S. Notes, Legen
(PART), 26 (PART), 27 (PART), 28 (PART), 29, 30, 31, 32 (PART), 33	Fire Service Instal
(PARI), 34 (PARI),36 (PARI), 70 (PART), 76 (PART), 77 (PART), 78 S.A (PART). 80 (PART) AND 82 (PART) IN D.D.124 AND ADJOINING	Layout Plan
GOVERNMENT LAND, HA TSUEN, YUEN LONG, NEW TERRITORIES	

	MINIMUM	FIRE	SERVICE	INSTALLAT	IONS	AND	
D	2022),	FSD	CIRCULAR	LETTERS	AND	THE	

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d,	
llation	

REV

DESCRIPTION

DATE



(ON PLAN)

CONSULTANT

STRUCTURE Uses WAREHOUSE (EXCL. D.G.G B1 RAIN SHELTER FOR L/UL B2 SITE OFFICE В3 CARETAKER OFFICE AND Β4 METER ROOM B5

\*D.G.G.-DANGEROUS GOODS GODOWN

FIRE SERVICE CONTRACTOR

**Century Fire Service** Engineering Co., Ltd.

DRAWN BY CHECKED APPROVED

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