
Appendix | 1

Replacement pages of Revised Environmental Assessment

2.3 Air Sensitive Receivers (“ASRs”)

2.3.1 The representative nearby ASR are summarised in **Table 2.3** and their locations are shown on **Figure 3.1**.

Table 2.3: Identified Representative ASRs

ID	DESCRIPTION	NO. OF STOREY	DISTANCE TO SITE BOUNDARY
A1	Temporary Structure	1	1m
A2	Temporary Structure	1-3	72m
A3	Temporary Structure	1-3	59m
A4	Temporary Structure	1-3	51m
A5	Village House No.220 at Sha Ling	1-3	59m
A6	Village House No.56 at Sha Ling	1-3	56m
A7	Village House No.73 at Sha Ling	1-3	2m
A8	Village House No.79 at Sha Ling	1-3	24m
A9	Temporary Structure	1-3	11m
A10	Village House No.100 at Sha Ling	1-3	18m
A11	Temporary Structure	1-3	7m
A12	Temporary Structure	1-3	16m
A13	Temporary Structure	1-3	58m
A14	Village House No.181 Sha Ling	1-3	117m
A15	Temporary Structure	1-2	12m

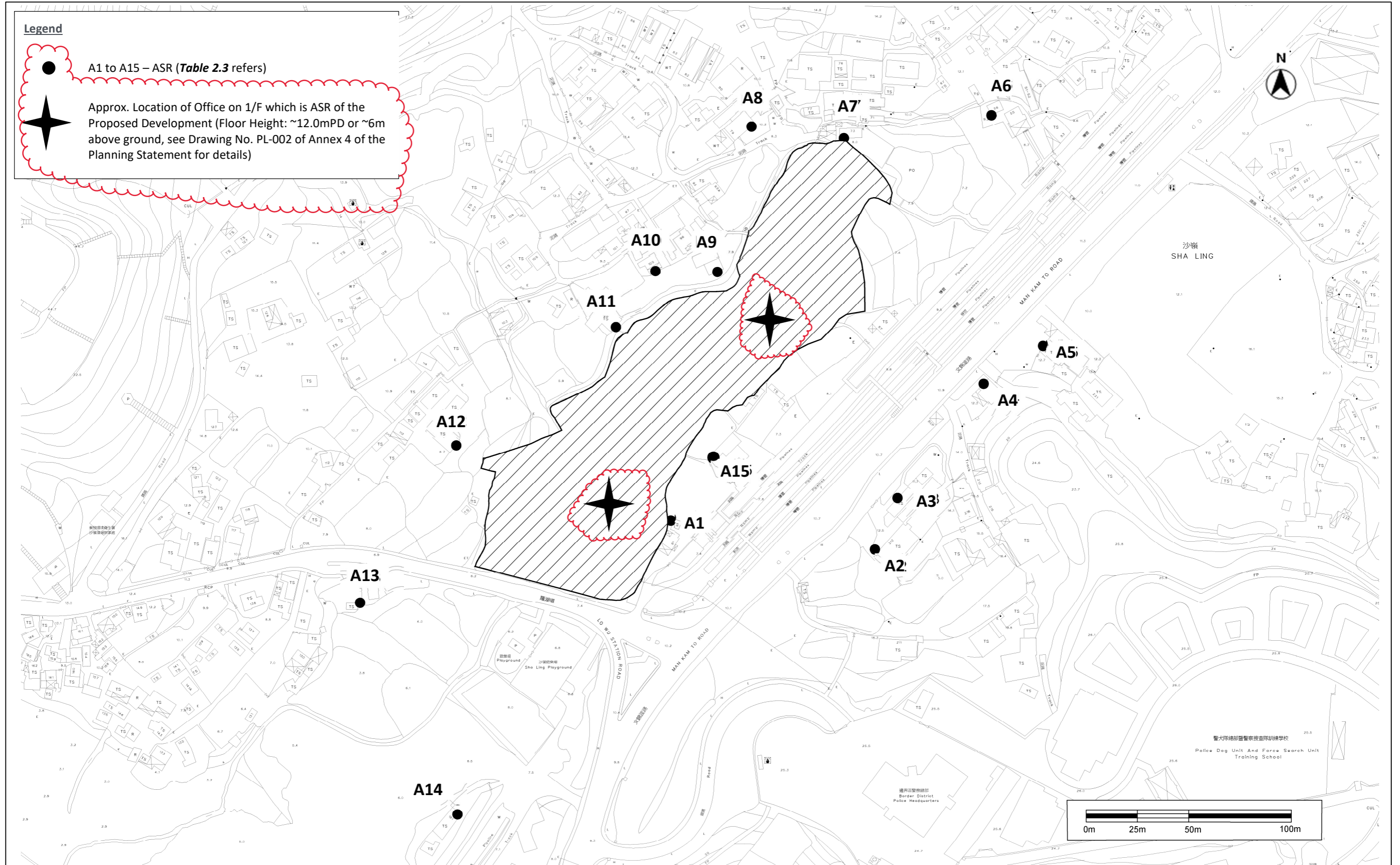
2.3.2 For the ASRs of the Proposed Development, the office indicated on Drawing No. PL-002 in Annex 4 of the Planning Statement as indicated on Figure 2.1 will be the ASR of the Proposed Development. The height of the office floor would be approx. 12.0mPD (~6m above ground).

2.4 Review of Air Quality Impact

Background Air Quality

- 2.4.1 According to the “Guidelines on Assessing the ‘TOTAL’ Air Quality Impacts” issued by EPD, *Pollutants in the Atmosphere and their Transport over Hong Kong (“PATH”)* is a territory-wide air quality model developed by EPD to estimate air pollutants concentration over the whole Pearl River Delta region including Hong Kong. The latest version of the PATH model is PATH-2016.
- 2.4.2 The data in year 2022 have been extracted from PATH V2.1 in Grids (35, 56), which is adopted as the background pollutant concentrations for this EA study.
- 2.4.3 PATH V2.1 data of background concentrations of pollutants was released by EPD in July 2021, while the prevailing AQOs have been effective since 1 January 2022. As a conservative approach, the data for Year 2022 from PATHv.2.1 was adopted in this assessment even though the proposed commencement year is 2023 or 2024. The background concentrations of RSP, FSP and NO₂ in 2022 are summarised in **Table 2-4** below.

Figure 2.1: Locations of ASRs



NSR	PREDICTED NOISE LEVEL, dB(A)			NOISE CRITERIA, dB(A)		
	Day	Evening	Night	Day	Evening	Night
IN11	48	43	32			
IN12	49	44	32			
IN13	51	46	35			
IN14	47	42	31			
IN15	54	49	37	55	49	44

Mechanical and Electrical (M&E) Equipment

- 3.3.37 As mentioned in **paragraphs 3.3.10 - 3.3.11**, 4 sets (in total of 19) of condensers were taken into account in this assessment.
- 3.3.38 They are distributed on the roof top of Cold Storage Blocks 1 and 2. Seven condensers and six condensers are located on Cold Storage Block 1 (SW), ~~while six condensers are located on and~~ Block 1 (NE), respectively, while another six condensers are located on the and Block 2, as shown on **Figure 3.5**.
- 3.3.39 According to the information provided by the Project M&E Consultant, the SWL of the condenser, 76 dB(A) shown in **Appendix D**, has been adopted in the calculation.
- 3.3.40 In order to minimise the noise impact, noise enclosure should be installed for the condenser.
- 3.3.41 According to the *Good Practices on Ventilation System Noise Control* published by EPD, a complete acoustic enclosure (minimum surface density of 10kg/m²) with silencer for condenser with opening could provide a noise reduction of 20dB(A) or more.
- 3.3.42 In order to further minimise the noise impact, it is suggested that the openings of enclosure of Block 1 and Block 2 should face Man Kam To Road and located as far as practicable from the NSRs as shown on **Figure 3.5**.
- 3.3.43 Regarding the screening effect, a 10 dB(A) reduction was adopted for NSRs without direct line-of-sight to the openings.
- 3.3.44 The noise levels from M&E equipment were thus calculated as shown in **Appendix F** and summarised in **Table 3.10**.

Table 3.10: Predicted Noise Levels from M&E Equipment

NSR	PREDICTED NOISE LEVEL, dB(A)	NOISE CRITERIA, dB(A)		
	Day / Evening / Night	Day	Evening	Night
IN1	36	55	49	44
IN2	30			
IN3	30			
IN4	30			

Table 3.12 Representative NSRs of Traffic Noise during Operation Peak

NSR ID	DESCRIPTION	NO. OF STOREY
TN1	Village House No. 61 at Sha Ling	1
TN2	Temporary Structure	1-3
TN3	Village House No. 185 at Sha Ling	1-3

Assessment Results

- 3.4.6 The predicted traffic noise levels in Year 2018 are summarised in **Table 3.13**. The results show that the Proposed Development would generate less than 1.0 dB(A) contribution to the road traffic noise on the surrounding NSRs. Therefore, the road traffic noise impact to the NSRs due to the operation of the Proposed Development is considered to be insignificant.

Table 3.13: Summary of Road Traffic Noise Impacts during Operation Peak in Commission Year (2018)

NSR		NOISE LEVEL, L ₁₀ (1-HR), dB(A)		CONTRIBUTION (2) – (1), dB(A)
ID	Floor Level	Without Proposed Development (1)	With Proposed Development (2)	
TN1	G/F	67.8	68.1	+0.3
TN2	G/F	77.6	77.7	+0.1
	1/F	77.4	77.5	+0.1
	2/F	77.0	77.1	+0.1
TN3	G/F	71.7	71.9	+0.2
	1/F	76.7	76.8	+0.1
	2/F	76.5	76.7	+0.2

Traffic Noise during late night / early morning

- 3.4.7 As the Site is located in rural area with low background noise level, late night and early morning hours are considered to be sensitive hours to the NSRs nearby. As such, potential traffic noise impact due to operation during the late night and early morning hours has been assessed.
- 3.4.8 According to **Table 3.7**, maximum total ~~six~~ one single trips per hour of vehicles, ~~including container vehicle/ HGV/ MG~~V, will pass through Lo Wu Station Road and Man Kam To Road in the night time and early morning hours (2300 -0700).

Assessment Assumption and Methodology

- 3.4.9 In order to assess the noise impact from the additional traffic volume generated from the proposed development at late night / early morning, noise measurements were conducted at the representative NSRs of Lo Wu Station Road and Man Kam To Road between 02:00 and 04:30 on 27 June 2019 which was a normal weekday as shown on **Figure 3.7**.
- 3.4.10 Two sets of 30 minutes noise measurement were conducted at each location. During each set of the measurement, a 9-tonne vehicle was run through the traffic access route (i.e. to and from) three times as to represent the maximum six single trips per hour of either container vehicle/ HGV/ MG

2018 Traffic Forecast (Operation Peak Hour 0945 to 1045)

ID	Location	Direction	Speed Limit (km/h)	Without Proposed Development (2018)		With Proposed Development (2018)	
				1 hr Flow	% HV	1 hr Flow	% HV
				Q'	P'	Q'	P'
A	Access Road to Sandy Ridge	2-WAY	50	15	33.3	15	33.3
B	Lo Wu Station Road	EB	50	35	57.1	45	66.7
B		WB	50	20	25.0	30	50.0
C1	Man Kam To Road (Sha Ling Road / Lo Wu Station)	NB	50	485	55.6	490	56.1
C1		SB	50	320	45.4	325	46.2
C2	Man Kam To Road (Sha Ling Road / Lo Wu Station)	NB	50	475	45.3	480	45.8
C2		SB	50	245	55.0	250	56.0
D	Man Kam To Road (Kong Nga Po Road / Lo Wu Station)	NB	50	530	54.7	535	55.1
D		SB	50	350	45.8	355	46.5
E	Kong Nga Po Road	EB	50	70	50.0	70	50.0
E		WB	50	105	38.1	105	38.1
F	Access Road to Kong Nga Po Road	2-WAY	50	10	50.0	10	50.0
G	Access Road to Man Kam Road	2-WAY	50	10	100.0	10	100.0
H	Access Road to Man Kam Road	2-WAY	50	10	100.0	10	100.0
I	Access Road to Man Kam Road	2-WAY	50	15	33.3	15	33.3
J1	Sha Ling Road	2-WAY	50	55	63.7	55	63.7
J2	Sha Ling Road	2-WAY	50	20	50.0	20	50.0
K	Sha Ling Road	2-WAY	50	40	75.0	40	75.0
L	Access Road to Sha Ling Road	2-WAY	50	10	100.0	10	100.0

Appendix D **CATALUGUE OF WATER COOLING TOWER**



FT-100L/SB 型技术参数总表

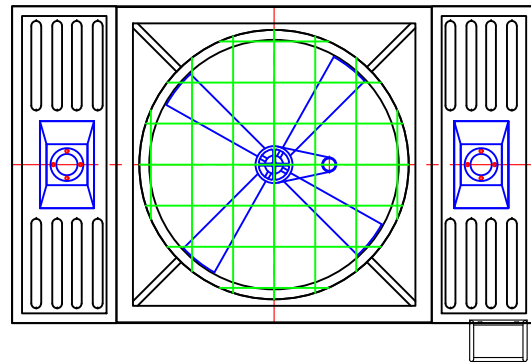
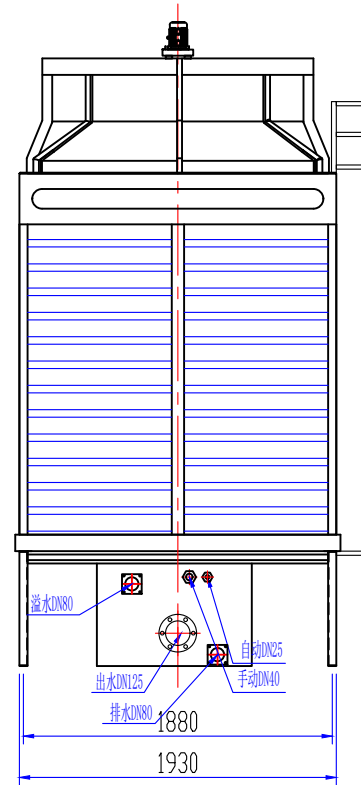
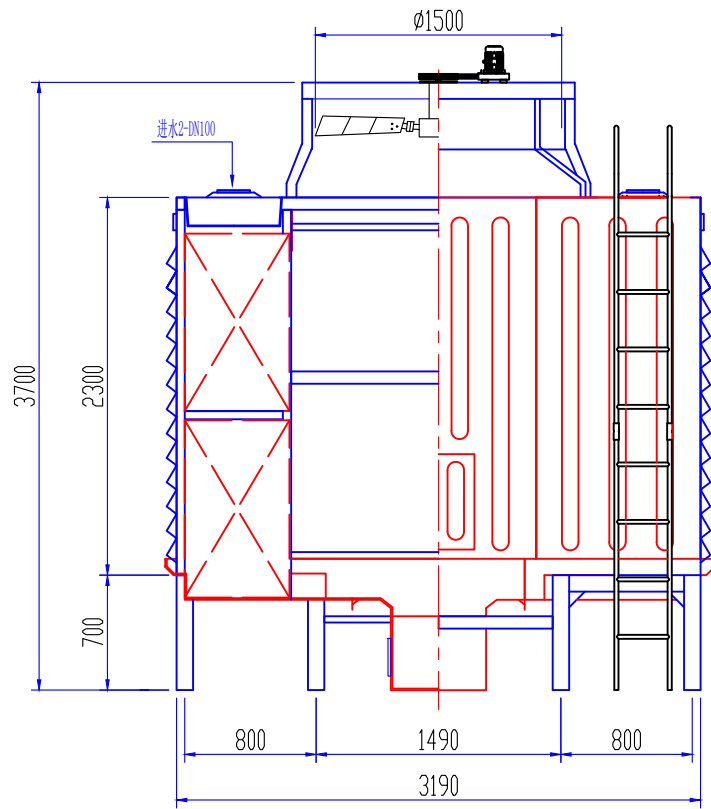
技术编号:

项目名称:

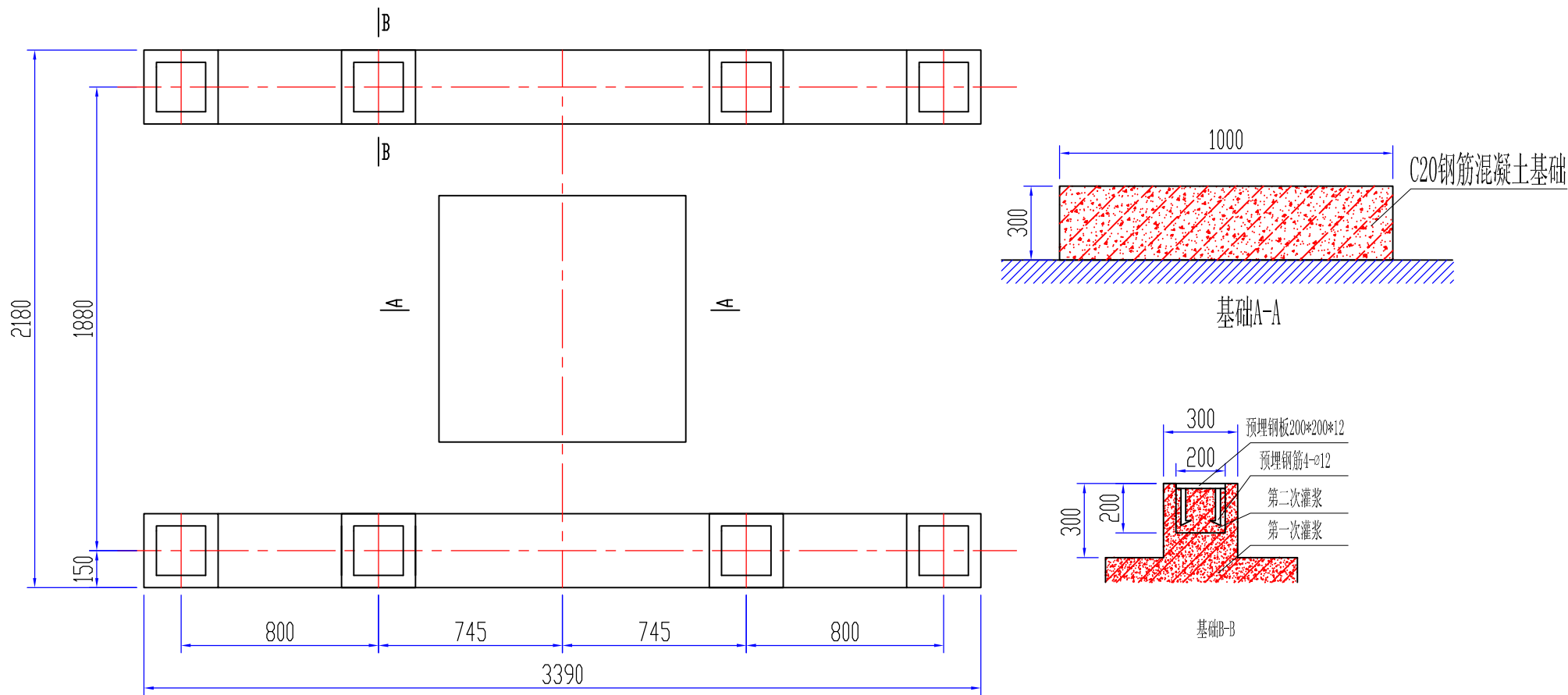
项 目	内 容	数 据	备 注
基 本 参 数	冷却塔类型	横流式方形水塔	
	冷却塔型号	FT-100L/SB	低噪音型
	单台冷却循环水量	100 m ³ /h	
	总冷却循环水量	100 m ³ /h	
	进水温度 / 出水温度	37℃ / 32℃	降温 5℃
	环境干球 / 湿球温度	31.5℃ / 28℃	
	冷却能力	500,000 kcal/h	
	噪音值	64.0dB(A)	16 米处
	电源	380V / 3P / 50Hz	
水质要求	P H 值 = 6 — 8		
设计 参 数	气水比	0.78 kg/kg	
	水阻	49Kpa	
	飞水损失	≤0.005%	
	蒸发损失	≤0.833%	
	净重 / 运行重量 (吨)	0.86/2.26	
风 机 参 数	风扇形式	轴流式	
	风量	65,000m ³ /h	
	风扇转速	410r/min	
	风叶直径 (Φ)	1,500 mm	
	叶片数量	1 套	4 片 / 套
	电机形式	全封闭防水型	
	传动方式	带传动	
	电机功率	4.0 kW (5HP-4P)	
	电机极数	4P	
电机启动方式	直接启动		
主要 尺 寸	长×宽×高 (L×W×H)	1,930×3,190×3,700 mm	
	进水管尺寸 (DN)	100mm	共 2 套
	出水管尺寸 (DN)	125mm	
	溢水管 / 排水管尺寸 (DN)	80mm / 80mm	
	自动 / 手动补水尺寸 (DN)	25mm / 40mm	
材 质	颈口	玻璃钢	优质玻璃纤维毡 和树脂合成
	围板		
	洒水系统		
	水盆、水缸		
	皮带	复合材料	
	风扇	铝合金	大弦弧
	电机	全封闭防水型	
	胶片	P. V. C. 材料	阻燃型
	铁框架、电机架	热浸镀锌钢	符合英国 BS EN ISO1461: 1999 标准

“HKa”

2017 年 8 月 28 日




					100L/SB			
标记	处数	更改文件号	签字	日期				方形横流式冷却塔外形图
制图	ONQ	标准化			图样标记	重量	比例	
设计		批准					1:15	100L/SB-02-C1-A
审核		日期	2017/03/13		共 张		第 张	
工艺		版本	A					



基础制作注意事项:

- 1、横梁承载, 参考冷却塔运行重量以及设计的安装系数, 校核安装地基的承载能力。
- 2、预埋钢板表面水平误差±2mm。
- 3、如有疑问, 可来电技术部咨询。

				FT-100L/SB			 广林冷却塔	
标记	处数	更改文件号	签字	日期	图样	标记		重量
制图	OSQ	标准化						1:15
设计		批准						
审核		日期	2017/03/04					
工艺		版本	A		共	张	第	张
							FT-100L/SB-01-A	