

2024年 9月 1 08

此文件在 收到。城市規劃委員會  
只會在收到所有必要的資料及文件後才正式確認收到  
申請的日期。

This document is received on 10 SEP 2024.  
The Town Planning Board will formally acknowledge  
the date of receipt of the application only upon receipt  
of all the required information and documents.

Form No. S16-I  
表格第 S16-I 號

**APPLICATION FOR PERMISSION  
UNDER SECTION 16 OF  
THE TOWN PLANNING ORDINANCE  
(CAP. 131)**

根據《城市規劃條例》(第131章)  
第16條遞交的許可申請

**Applicable to proposals not involving or not only involving:**  
適用於建議不涉及或不祇涉及:

- (i) **Construction of “New Territories Exempted House(s)”;**  
興建「新界豁免管制屋宇」;
- (ii) **Temporary use/development of land and/or building not exceeding 3 years in rural areas or Regulated Areas; and**  
位於鄉郊地區或受規管地區土地上及/或建築物內進行為期不超過三年的臨時用途/發展;及
- (iii) **Renewal of permission for temporary use or development in rural areas or Regulated Areas**  
位於鄉郊地區或受規管地區的臨時用途或發展的許可續期

Applicant who would like to publish the notice of application in local newspapers to meet one of the Town Planning Board's requirements of taking reasonable steps to obtain consent of or give notification to the current land owner, please refer to the following link regarding publishing the notice in the designated newspapers:  
[https://www.tpb.gov.hk/en/plan\\_application/apply.html](https://www.tpb.gov.hk/en/plan_application/apply.html)

申請人如欲在本地報章刊登申請通知,以採取城市規劃委員會就取得現行土地擁有人的同意或通知現行土地擁有人所指定的其中一項合理步驟,請瀏覽以下網址有關在指定的報章刊登通知:  
[https://www.tpb.gov.hk/tc/plan\\_application/apply.html](https://www.tpb.gov.hk/tc/plan_application/apply.html)

**General Note and Annotation for the Form**  
**填寫表格的一般指引及註解**

# “Current land owner” means any person whose name is registered in the Land Registry as that of an owner of the land to which the application relates, as at 6 weeks before the application is made  
「現行土地擁有人」指在提出申請前六星期,其姓名或名稱已在土地註冊處註冊為該申請所關乎的土地的擁有人的人

& Please attach documentary proof 請夾附證明文件

^ Please insert number where appropriate 請在適當地方註明編號

Please fill “NA” for inapplicable item 請在不適用的項目填寫「不適用」

Please use separate sheets if the space provided is insufficient 如所提供的空間不足,請另頁說明

Please insert a 「✓」 at the appropriate box 請在適當的方格內上加上「✓」號



For Official Use Only 請勿填寫此欄	Application No. 申請編號	A/NE-FTA/254
	Date Received 收到日期	10 SEP 2024

- The completed form and supporting documents (if any) should be sent to the Secretary, Town Planning Board (the Board), 15/F, North Point Government Offices, 333 Java Road, North Point, Hong Kong.  
申請人須把填妥的申請表格及其他支持申請的文件 (倘有), 送交香港北角渣華道 333 號北角政府合署 15 樓城市規劃委員會(下稱「委員會」)秘書收。
- Please read the "Guidance Notes" carefully before you fill in this form. The document can be downloaded from the Board's website at <http://www.tpb.gov.hk/>. It can also be obtained from the Secretariat of the Board at 15/F, North Point Government Offices, 333 Java Road, North Point, Hong Kong (Tel: 2231 4810 or 2231 4835), and the Planning Enquiry Counters of the Planning Department (Hotline: 2231 5000) (17/F, North Point Government Offices, 333 Java Road, North Point, Hong Kong and 14/F, Sha Tin Government Offices, 1 Sheung Wo Che Road, Sha Tin, New Territories).  
請先細閱《申請須知》的資料單張, 然後填寫此表格。該份文件可從委員會的網頁下載 (網址: <http://www.tpb.gov.hk/>), 亦可向委員會秘書處 (香港北角渣華道 333 號北角政府合署 15 樓 - 電話: 2231 4810 或 2231 4835) 及規劃署的規劃資料查詢處 (熱線: 2231 5000) (香港北角渣華道 333 號北角政府合署 17 樓及新界沙田上禾輦路 1 號沙田政府合署 14 樓) 索取。
- This form can be downloaded from the Board's website, and obtained from the Secretariat of the Board and the Planning Enquiry Counters of the Planning Department. The form should be typed or completed in block letters. The processing of the application may be refused if the required information or the required copies are incomplete.  
此表格可從委員會的網頁下載, 亦可向委員會秘書處及規劃署的規劃資料查詢處索取。申請人須以打印方式或以正楷填寫表格。如果申請人所提交的資料或文件副本不齊全, 委員會可拒絕處理有關申請。

### 1. Name of Applicant 申請人姓名/名稱

(☐ Mr. 先生 / ☐ Mrs. 夫人 / ☐ Miss 小姐 / ☐ Ms. 女士 / ☒ Company 公司 / ☐ Organisation 機構)

K.Wah Asphalt Limited

### 2. Name of Authorised Agent (if applicable) 獲授權代理人姓名/名稱 (如適用)

(☐ Mr. 先生 / ☐ Mrs. 夫人 / ☐ Miss 小姐 / ☐ Ms. 女士 / ☒ Company 公司 / ☐ Organisation 機構)

Aikon Development Consultancy Limited (毅勤發展顧問有限公司)

### 3. Application Site 申請地點

(a) Full address / location / demarcation district and lot number (if applicable) 詳細地址/地點/丈量約份及地段號碼 (如適用)	Lots 20 RP (Part), 21 and 23 RP (Part) in D.D. 88 and adjoining Government Land, East of Man Kam To Road, Sheung Shui, New Territories
(b) Site area and/or gross floor area involved 涉及的地盤面積及/或總樓面面積	<input checked="" type="checkbox"/> Site area 地盤面積 9,056 sq.m 平方米 <input checked="" type="checkbox"/> About 約 <input checked="" type="checkbox"/> Gross floor area 總樓面面積 2,804.19 sq.m 平方米 <input checked="" type="checkbox"/> About 約
(c) Area of Government land included (if any) 所包括的政府土地面積 (倘有)	799 sq.m 平方米 <input checked="" type="checkbox"/> About 約



(d) Name and number of the related statutory plan(s) 有關法定圖則的名稱及編號	Approved Fu Tei Au and Sha Ling Outline Zoning Plan No. S/NE-FTA/18
(e) Land use zone(s) involved 涉及的土地用途地帶	"Open Storage"
(f) Current use(s) 現時用途	Temporary Asphalt Plant  (If there are any Government, institution or community facilities, please illustrate on plan and specify the use and gross floor area) (如有任何政府、機構或社區設施，請在圖則上顯示，並註明用途及總樓面面積)

#### 4. "Current Land Owner" of Application Site 申請地點的「現行土地擁有人」

The applicant 申請人 -

- ☐ is the sole "current land owner" (please proceed to Part 6 and attach documentary proof of ownership).  
是唯一的「現行土地擁有人」(請繼續填寫第 6 部分，並夾附業權證明文件)。
- ☐ is one of the "current land owners" (please attach documentary proof of ownership).  
是其中一名「現行土地擁有人」(請夾附業權證明文件)。
- ☒ is not a "current land owner".  
並不是「現行土地擁有人」。

- ☐ The application site is entirely on Government land (please proceed to Part 6).  
申請地點完全位於政府土地上(請繼續填寫第 6 部分)。

#### 5. Statement on Owner's Consent/Notification

就土地擁有人的同意/通知土地擁有人的陳述

- (a) According to the record(s) of the Land Registry as at .....18/07/2024..... (DD/MM/YYYY), this application involves a total of .....6..... "current land owner(s)".  
根據土地註冊處截至 ..... 年 ..... 月 ..... 日的記錄，這宗申請共牽涉 ..... 名「現行土地擁有人」。

(b) The applicant 申請人 -

- ☒ has obtained consent(s) of .....6..... "current land owner(s)".  
已取得 ..... 名「現行土地擁有人」的同意。

Details of consent of "current land owner(s)" obtained 取得「現行土地擁有人」同意的詳情		
No. of "Current Land Owner(s)" 「現行土地擁有人」數目	Lot number/address of premises as shown in the record of the Land Registry where consent(s) has/have been obtained 根據土地註冊處記錄已獲得同意的地段號碼/處所地址	Date of consent obtained (DD/MM/YYYY) 取得同意的日期 (日/月/年)
6	Lots 20 RP (Part), 21 and 23 RP (Part) in D.D. 88	24/07/2024 08/08/2024

(Please use separate sheets if the space of any box above is insufficient. 如上列任何方格的空間不足，請另頁說明)



- ☐ has notified ..... "current land owner(s)"<sup>#</sup>  
已通知 ..... 名「現行土地擁有人」<sup>#</sup>。

Details of the "current land owner(s)"<sup>#</sup> notified 已獲通知「現行土地擁有人」<sup>#</sup>的詳細資料

No. of 'Current Land Owner(s)' 「現行土地擁有人」數目	Lot number/address of premises as shown in the record of the Land Registry where notification(s) has/have been given 根據土地註冊處記錄已發出通知的地段號碼／處所地址	Date of notification given (DD/MM/YYYY) 通知日期(日/月/年)

(Please use separate sheets if the space of any box above is insufficient. 如上列任何方格的空間不足，請另頁說明)

- ☐ has taken reasonable steps to obtain consent of or give notification to owner(s):  
已採取合理步驟以取得土地擁有人的同意或向該人發給通知。詳情如下：

Reasonable Steps to Obtain Consent of Owner(s) 取得土地擁有人的同意所採取的合理步驟

- ☐ sent request for consent to the "current land owner(s)" on ..... (DD/MM/YYYY)<sup>#&</sup>  
於 ..... (日/月/年)向每一名「現行土地擁有人」<sup>#</sup>郵遞要求同意書<sup>&</sup>

Reasonable Steps to Give Notification to Owner(s) 向土地擁有人發出通知所採取的合理步驟

- ☐ published notices in local newspapers on ..... (DD/MM/YYYY)<sup>&</sup>  
於 ..... (日/月/年)在指定報章就申請刊登一次通知<sup>&</sup>
- ☐ posted notice in a prominent position on or near application site/premises on ..... (DD/MM/YYYY)<sup>&</sup>  
於 ..... (日/月/年)在申請地點／申請處所或附近的顯明位置貼出關於該申請的通知<sup>&</sup>
- ☐ sent notice to relevant owners' corporation(s)/owners' committee(s)/mutual aid committee(s)/management office(s) or rural committee on ..... (DD/MM/YYYY)<sup>&</sup>  
於 ..... (日/月/年)把通知寄往相關的業主立案法團/業主委員會/互助委員會或管理處，或有關的鄉事委員會<sup>&</sup>

Others 其他

- ☐ others (please specify)  
其他（請指明）

Note: May insert more than one 「✓」.

Information should be provided on the basis of each and every lot (if applicable) and premises (if any) in respect of the application.

註：可在多於一個方格內加上「✓」號  
申請人須就申請涉及的每一地段（倘適用）及處所（倘有）分別提供資料



**6. Type(s) of Application 申請類別**

- ☐ Type (i) Change of use within existing building or part thereof  
第(i)類 更改現有建築物或其部分內的用途
- ☐ Type (ii) Diversion of stream / excavation of land / filling of land / filling of pond as required under Notes of Statutory Plan(s)  
第(ii)類 根據法定圖則《註釋》內所要求的河道改道／挖土／填土／填塘工程
- ☐ Type (iii) Public utility installation / Utility installation for private project  
第(iii)類 公用事業設施裝置/私人發展計劃的公用設施裝置
- ☐ Type (iv) Minor relaxation of stated development restriction(s) as provided under Notes of Statutory Plan(s)  
第(iv)類 略為放寬於法定圖則《註釋》內列明的發展限制
- ☒ Type (v) Use / development other than (i) to (iii) above  
第(v)類 上述的(i)至(iii)項以外的用途／發展

Note 1: May insert more than one 「✓」.

註 1：可在多於一個方格內加上「✓」號

Note 2: For Development involving columbarium use, please complete the table in the Appendix.

註 2：如發展涉及靈灰安置用途，請填妥於附件的表格。

**(i) For Type (i) application 供第(i)類申請**

(a) Total floor area involved 涉及的總樓面面積	sq.m 平方米		
(b) Proposed use(s)/development 擬議用途/發展	(If there are any Government, institution or community facilities, please illustrate on plan and specify the use and gross floor area) (如有任何政府、機構或社區設施，請在圖則上顯示，並註明用途及總樓面面積)		
(c) Number of storeys involved 涉及層數		Number of units involved 涉及單位數目	
(d) Proposed floor area 擬議樓面面積	Domestic part 住用部分 .....		sq.m 平方米 □About 約
	Non-domestic part 非住用部分 .....		sq.m 平方米 □About 約
	Total 總計 .....		sq.m 平方米 □About 約
(e) Proposed uses of different floors (if applicable) 不同樓層的擬議用途(如適用) (Please use separate sheets if the space provided is insufficient) (如所提供的空間不足，請另頁說明)	Floor(s) 樓層	Current use(s) 現時用途	Proposed use(s) 擬議用途



(ii) For Type (ii) application 供第(ii)類申請	
(a) Operation involved 涉及工程	<input type="checkbox"/> Diversion of stream 河道改道 <input type="checkbox"/> Filling of pond 填塘 Area of filling 填塘面積 ..... sq.m 平方米 <input type="checkbox"/> About 約 Depth of filling 填塘深度 ..... m 米 <input type="checkbox"/> About 約 <input type="checkbox"/> Filling of land 填土 Area of filling 填土面積 ..... sq.m 平方米 <input type="checkbox"/> About 約 Depth of filling 填土厚度 ..... m 米 <input type="checkbox"/> About 約 <input type="checkbox"/> Excavation of land 挖土 Area of excavation 挖土面積 ..... sq.m 平方米 <input type="checkbox"/> About 約 Depth of excavation 挖土深度 ..... m 米 <input type="checkbox"/> About 約  (Please indicate on site plan the boundary of concerned land/pond(s), and particulars of stream diversion, the extent of filling of land/pond(s) and/or excavation of land) (請用圖則顯示有關土地/池塘界線, 以及河道改道、填塘、填土及/或挖土的細節及/或範圍))
(b) Intended use/development 有意進行的用途/發展	

(iii) For Type (iii) application 供第(iii)類申請													
(a) Nature and scale 性質及規模	<input type="checkbox"/> Public utility installation 公用事業設施裝置 <input type="checkbox"/> Utility installation for private project 私人發展計劃的公用設施裝置  Please specify the type and number of utility to be provided as well as the dimensions of each building/structure, where appropriate 請註明有關裝置的性質及數量, 包括每座建築物/構築物(倘有)的長度、高度和闊度  <table border="1"> <thead> <tr> <th>Name/type of installation 裝置名稱/種類</th> <th>Number of provision 數量</th> <th>Dimension of each installation /building/structure (m) (LxWxH) 每個裝置/建築物/構築物的尺寸 (米) (長 x 闊 x 高)</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table> (Please illustrate on plan the layout of the installation 請用圖則顯示裝置的布局)	Name/type of installation 裝置名稱/種類	Number of provision 數量	Dimension of each installation /building/structure (m) (LxWxH) 每個裝置/建築物/構築物的尺寸 (米) (長 x 闊 x 高)									
Name/type of installation 裝置名稱/種類	Number of provision 數量	Dimension of each installation /building/structure (m) (LxWxH) 每個裝置/建築物/構築物的尺寸 (米) (長 x 闊 x 高)											



**(iv) For Type (iv) application 供第(iv)類申請**

- (a) Please specify the proposed minor relaxation of stated development restriction(s) and also fill in the proposed use/development and development particulars in part (v) below –  
請列明擬議略為放寬的發展限制並填妥於第(v)部分的擬議用途/發展及發展細節 –

- ☐ Plot ratio restriction From 由 ..... to 至 .....  
地積比率限制
- ☐ Gross floor area restriction From 由 .....sq. m 平方米 to 至 .....sq. m 平方米  
總樓面面積限制
- ☐ Site coverage restriction From 由 .....% to 至 .....%  
上蓋面積限制
- ☐ Building height restriction From 由 .....m 米 to 至 ..... m 米  
建築物高度限制  
From 由 ..... mPD 米 (主水平基準上) to 至 .....mPD 米 (主水平基準上)  
From 由 ..... storeys 層 to 至 ..... storeys 層
- ☐ Non-building area restriction From 由 .....m to 至 ..... m  
非建築用地限制
- ☐ Others (please specify) .....  
其他 (請註明) .....

**(v) For Type (v) application 供第(v)類申請**

(a) Proposed  
use(s)/development  
擬議用途/發展

Temporary Asphalt Plant for a Period of 5 Years

(Please illustrate the details of the proposal on a layout plan 請用平面圖說明建議詳情)

**(b) Development Schedule 發展細節表**

Proposed gross floor area (GFA) 擬議總樓面面積	2,804.19 ..... sq.m 平方米	<input checked="" type="checkbox"/> About 約
Proposed plot ratio 擬議地積比率	0.31 .....	<input checked="" type="checkbox"/> About 約
Proposed site coverage 擬議上蓋面積	27 ..... %	<input checked="" type="checkbox"/> About 約
Proposed no. of blocks 擬議座數	2 .....	
Proposed no. of storeys of each block 每座建築物的擬議層數	N/A ..... storeys 層	
	<input type="checkbox"/> include 包括 ..... storeys of basements 層地庫	
	<input type="checkbox"/> exclude 不包括 ..... storeys of basements 層地庫	
Proposed building height of each block 每座建築物的擬議高度	N/A ..... mPD 米(主水平基準上)	<input type="checkbox"/> About 約
	34.6m (Operational Block (Asphalt Plant and Ancillary Equipment/Machines))m 米	<input type="checkbox"/> About 約
	8.1m (Administrative Blocks (Ancillary Office/Storage))	

<input type="checkbox"/> Domestic part 住用部分		
GFA 總樓面面積	..... sq. m 平方米	<input type="checkbox"/> About 約
number of Units 單位數目	.....	
average unit size 單位平均面積	.....sq. m 平方米	<input type="checkbox"/> About 約
estimated number of residents 估計住客數目	.....	
<input checked="" type="checkbox"/> Non-domestic part 非住用部分		
<u>GFA 總樓面面積</u>		
<input type="checkbox"/> eating place 食肆	..... sq. m 平方米	<input type="checkbox"/> About 約
<input type="checkbox"/> hotel 酒店	..... sq. m 平方米	<input type="checkbox"/> About 約
(please specify the number of rooms 請註明房間數目) .....		
<input type="checkbox"/> office 辦公室	..... sq. m 平方米	<input type="checkbox"/> About 約
<input type="checkbox"/> shop and services 商店及服務行業	..... sq. m 平方米	<input type="checkbox"/> About 約
<input type="checkbox"/> Government, institution or community facilities 政府、機構或社區設施	(please specify the use(s) and concerned land area(s)/GFA(s) 請註明用途及有關的地面面積／總樓面面積)	
.....		
.....		
.....		
<input checked="" type="checkbox"/> other(s) 其他	(please specify the use(s) and concerned land area(s)/GFA(s) 請註明用途及有關的地面面積／總樓面面積)	
Please refer to the attached Planning Statement.....		
.....		
.....		
<input type="checkbox"/> Open space 休憩用地	(please specify land area(s) 請註明地面面積)	
<input type="checkbox"/> private open space 私人休憩用地	..... sq. m 平方米	<input type="checkbox"/> Not less than 不少於
<input type="checkbox"/> public open space 公眾休憩用地	..... sq. m 平方米	<input type="checkbox"/> Not less than 不少於
(c) Use(s) of different floors (if applicable) 各樓層的用途 (如適用)		
[Block number] [座數]	[Floor(s)] [層數]	[Proposed use(s)] [擬議用途]
.....	.....	Please refer to the attached Planning Statement.
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
(d) Proposed use(s) of uncovered area (if any) 露天地方 (倘有) 的擬議用途		
N/A		
.....		
.....		
.....		
.....		



### 7. Anticipated Completion Time of the Development Proposal 擬議發展計劃的預計完成時間

Anticipated completion time (in month and year) of the development proposal (by phase (if any)) (e.g. June 2023)  
擬議發展計劃預期完成的年份及月份 (分期 (倘有)) (例: 2023 年 6 月)  
(Separate anticipated completion times (in month and year) should be provided for the proposed public open space and Government, institution or community facilities (if any))  
(申請人須就擬議的公眾休憩用地及政府、機構或社區設施 (倘有) 提供個別擬議完成的年份及月份)

N/A

### 8. Vehicular Access Arrangement of the Development Proposal 擬議發展計劃的行車通道安排

<p>Any vehicular access to the site/subject building? 是否有車路通往地盤／有關建築物？</p>	<p>Yes 是</p> <p>No 否</p>	<p><input checked="" type="checkbox"/> There is an existing access. (please indicate the street name, where appropriate) 有一條現有車路。(請註明車路名稱(如適用))</p> <p>Man Kam To Road</p> <p><input type="checkbox"/> There is a proposed access. (please illustrate on plan and specify the width) 有一條擬議車路。(請在圖則顯示，並註明車路的闊度)</p> <p><input type="checkbox"/></p>
<p>Any provision of parking space for the proposed use(s)? 是否有為擬議用途提供停車位？</p>	<p>Yes 是</p> <p>No 否</p>	<p><input checked="" type="checkbox"/> (Please specify type(s) and number(s) and illustrate on plan) 請註明種類及數目並於圖則上顯示)</p> <p>Private Car Parking Spaces 私家車車位 <u>6</u></p> <p>Motorcycle Parking Spaces 電單車車位 <u>          </u></p> <p>Light Goods Vehicle Parking Spaces 輕型貨車泊車位 <u>          </u></p> <p>Medium Goods Vehicle Parking Spaces 中型貨車泊車位 <u>          </u></p> <p>Heavy Goods Vehicle Parking Spaces 重型貨車泊車位 <u>          </u></p> <p>Others (Please Specify) 其他 (請列明) <u>          </u></p> <p><input type="checkbox"/></p>
<p>Any provision of loading/unloading space for the proposed use(s)? 是否有為擬議用途提供上落客貨車位？</p>	<p>Yes 是</p> <p>No 否</p>	<p><input checked="" type="checkbox"/> (Please specify type(s) and number(s) and illustrate on plan) 請註明種類及數目並於圖則上顯示)</p> <p>Taxi Spaces 的士車位 <u>1</u></p> <p>Coach Spaces 旅遊巴車位 <u>          </u></p> <p>Light Goods Vehicle Spaces 輕型貨車車位 <u>          </u></p> <p>Medium Goods Vehicle Spaces 中型貨車車位 <u>          </u></p> <p>Heavy Goods Vehicle Spaces 重型貨車車位 <u>          </u></p> <p>Others (Please Specify) 其他 (請列明) <u>          </u></p> <p>1 L/UL Bays for Goods Vehicle, <u>          </u></p> <p>9 L/UL Bays for Asphalt Trucks &amp; Bitumen Trucks <u>          </u></p> <p><input type="checkbox"/></p>

## 9. Impacts of Development Proposal 擬議發展計劃的影響

If necessary, please use separate sheets to indicate the proposed measures to minimise possible adverse impacts or give justifications/reasons for not providing such measures.

如需要的話，請另頁註明可盡量減少可能出現不良影響的措施，否則請提供理據/理由。

<p>Does the development proposal involve alteration of existing building? 擬議發展計劃是否包括現有建築物的改動?</p>	<p>Yes 是</p> <p>No 否</p>	<p><input type="checkbox"/> Please provide details 請提供詳情</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p><input checked="" type="checkbox"/></p>																														
<p>Does the development proposal involve the operation on the right? 擬議發展是否涉及右列的工程? (Note: where Type (ii) application is the subject of application, please skip this section. 註：如申請涉及第(ii)類申請，請跳至下一條問題。)</p>	<p>Yes 是</p> <p>No 否</p>	<p><input type="checkbox"/> (Please indicate on site plan the boundary of concerned land/pond(s), and particulars of stream diversion, the extent of filling of land/pond(s) and/or excavation of land) (請用地盤平面圖顯示有關土地／池塘界線，以及河道改道、填塘、填土及／或挖土的細節及／或範圍)</p> <p><input type="checkbox"/> Diversion of stream 河道改道</p> <p><input type="checkbox"/> Filling of pond 填塘 Area of filling 填塘面積 ..... sq.m 平方米 <input type="checkbox"/> About 約 Depth of filling 填塘深度 ..... m 米 <input type="checkbox"/> About 約</p> <p><input type="checkbox"/> Filling of land 填土 Area of filling 填土面積 ..... sq.m 平方米 <input type="checkbox"/> About 約 Depth of filling 填土厚度 ..... m 米 <input type="checkbox"/> About 約</p> <p><input type="checkbox"/> Excavation of land 挖土 Area of excavation 挖土面積 ..... sq.m 平方米 <input type="checkbox"/> About 約 Depth of excavation 挖土深度 ..... m 米 <input type="checkbox"/> About 約</p> <p><input checked="" type="checkbox"/></p>																														
<p>Would the development proposal cause any adverse impacts? 擬議發展計劃會否造成不良影響？</p>		<table border="0"> <tr> <td>On environment 對環境</td> <td>Yes 會 <input type="checkbox"/></td> <td>No 不會 <input checked="" type="checkbox"/></td> </tr> <tr> <td>On traffic 對交通</td> <td>Yes 會 <input type="checkbox"/></td> <td>No 不會 <input checked="" type="checkbox"/></td> </tr> <tr> <td>On water supply 對供水</td> <td>Yes 會 <input type="checkbox"/></td> <td>No 不會 <input checked="" type="checkbox"/></td> </tr> <tr> <td>On drainage 對排水</td> <td>Yes 會 <input type="checkbox"/></td> <td>No 不會 <input checked="" type="checkbox"/></td> </tr> <tr> <td>On slopes 對斜坡</td> <td>Yes 會 <input type="checkbox"/></td> <td>No 不會 <input checked="" type="checkbox"/></td> </tr> <tr> <td>Affected by slopes 受斜坡影響</td> <td>Yes 會 <input type="checkbox"/></td> <td>No 不會 <input checked="" type="checkbox"/></td> </tr> <tr> <td>Landscape Impact 構成景觀影響</td> <td>Yes 會 <input type="checkbox"/></td> <td>No 不會 <input checked="" type="checkbox"/></td> </tr> <tr> <td>Tree Felling 砍伐樹木</td> <td>Yes 會 <input type="checkbox"/></td> <td>No 不會 <input checked="" type="checkbox"/></td> </tr> <tr> <td>Visual Impact 構成視覺影響</td> <td>Yes 會 <input type="checkbox"/></td> <td>No 不會 <input checked="" type="checkbox"/></td> </tr> <tr> <td>Others (Please Specify) 其他 (請列明)</td> <td>Yes 會 <input type="checkbox"/></td> <td>No 不會 <input type="checkbox"/></td> </tr> </table> <p>.....</p> <p>.....</p>	On environment 對環境	Yes 會 <input type="checkbox"/>	No 不會 <input checked="" type="checkbox"/>	On traffic 對交通	Yes 會 <input type="checkbox"/>	No 不會 <input checked="" type="checkbox"/>	On water supply 對供水	Yes 會 <input type="checkbox"/>	No 不會 <input checked="" type="checkbox"/>	On drainage 對排水	Yes 會 <input type="checkbox"/>	No 不會 <input checked="" type="checkbox"/>	On slopes 對斜坡	Yes 會 <input type="checkbox"/>	No 不會 <input checked="" type="checkbox"/>	Affected by slopes 受斜坡影響	Yes 會 <input type="checkbox"/>	No 不會 <input checked="" type="checkbox"/>	Landscape Impact 構成景觀影響	Yes 會 <input type="checkbox"/>	No 不會 <input checked="" type="checkbox"/>	Tree Felling 砍伐樹木	Yes 會 <input type="checkbox"/>	No 不會 <input checked="" type="checkbox"/>	Visual Impact 構成視覺影響	Yes 會 <input type="checkbox"/>	No 不會 <input checked="" type="checkbox"/>	Others (Please Specify) 其他 (請列明)	Yes 會 <input type="checkbox"/>	No 不會 <input type="checkbox"/>
On environment 對環境	Yes 會 <input type="checkbox"/>	No 不會 <input checked="" type="checkbox"/>																														
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Tree Felling 砍伐樹木	Yes 會 <input type="checkbox"/>	No 不會 <input checked="" type="checkbox"/>																														
Visual Impact 構成視覺影響	Yes 會 <input type="checkbox"/>	No 不會 <input checked="" type="checkbox"/>																														
Others (Please Specify) 其他 (請列明)	Yes 會 <input type="checkbox"/>	No 不會 <input type="checkbox"/>																														
		<p>Please state measure(s) to minimise the impact(s). For tree felling, please state the number, diameter at breast height and species of the affected trees (if possible) 請註明盡量減少影響的措施。如涉及砍伐樹木，請說明受影響樹木的數目、及胸高度的樹幹直徑及品種(倘可)</p> <p>N/A</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>																														



**10. Justifications 理由**

The applicant is invited to provide justifications in support of the application. Use separate sheets if necessary.  
現請申請人提供申請理由及支持其申請的資料。如有需要，請另頁說明。

Please refer to the attached Planning Statement.

**11. Declaration 聲明**

I hereby declare that the particulars given in this application are correct and true to the best of my knowledge and belief.  
本人謹此聲明，本人就這宗申請提交的資料，據本人所知及所信，均屬真實無誤。

I hereby grant a permission to the Board to copy all the materials submitted in this application and/or to upload such materials to the Board's website for browsing and downloading by the public free-of-charge at the Board's discretion. 本人現准許委員會酌情將本人就此申請所提交的所有資料複製及/或上載至委員會網站，供公眾免費瀏覽或下載。

Signature  
簽署



☐ Applicant 申請人 / ☒ Authorised Agent 獲授權代理人

Thomas LUK

N.A.

Name in Block Letters  
姓名（請以正楷填寫）

Position (if applicable)  
職位（如適用）

Professional Qualification(s)  
專業資格

☐ Member 會員 / ☐ Fellow of 資深會員

☐ HKIP 香港規劃師學會 /

☐ HKIA 香港建築師學會 /

☐ HKIS 香港測量師學會 /

☐ HKIE 香港工程師學會 /

☐ HKILA 香港園境師學會 /

☐ HKIUD 香港城市設計學會

☐ RPP 註冊專業規劃師

Others 其他

on behalf of  
代表

Aikon Development Consultancy Limited



☒ Company 公司 / ☐ Organisation Name and Chop (if applicable) 機構名稱及蓋章（如適用）

Date 日期

27/08/2024

(DD/MM/YYYY 日/月/年)

**Remark 備註**

The materials submitted in this application and the Board's decision on the application would be disclosed to the public. Such materials would also be uploaded to the Board's website for browsing and free downloading by the public where the Board considers appropriate.

委員會會向公眾披露申請人所遞交的申請資料和委員會對申請所作的決定。在委員會認為合適的情況下，有關申請資料亦會上載至委員會網頁供公眾免費瀏覽及下載。

**Warning 警告**

Any person who knowingly or wilfully makes any statement or furnish any information in connection with this application, which is false in any material particular, shall be liable to an offence under the Crimes Ordinance.

任何人在明知或故意的情況下，就這宗申請提出在任何要項上是虛假的陳述或資料，即屬違反《刑事罪行條例》。

**Statement on Personal Data 個人資料的聲明**

1. The personal data submitted to the Board in this application will be used by the Secretary of the Board and Government departments for the following purposes:

委員會就這宗申請所收到的個人資料會交給委員會秘書及政府部門，以根據《城市規劃條例》及相關的城市規劃委員會規劃指引的規定作以下用途：

- (a) the processing of this application which includes making available the name of the applicant for public inspection when making available this application for public inspection; and  
處理這宗申請，包括公布這宗申請供公眾查閱，同時公布申請人的姓名供公眾查閱；以及  
(b) facilitating communication between the applicant and the Secretary of the Board/Government departments.  
方便申請人與委員會秘書及政府部門之間進行聯絡。

2. The personal data provided by the applicant in this application may also be disclosed to other persons for the purposes mentioned in paragraph 1 above.  
申請人就這宗申請提供的個人資料，或亦會向其他人士披露，以作上述第 1 段提及的用途。

3. An applicant has a right of access and correction with respect to his/her personal data as provided under the Personal Data (Privacy) Ordinance (Cap. 486). Request for personal data access and correction should be addressed to the Secretary of the Board at 15/F, North Point Government Offices, 333 Java Road, North Point, Hong Kong.  
根據《個人資料(私隱)條例》(第 486 章)的規定，申請人有權查閱及更正其個人資料。如欲查閱及更正個人資料，應向委員會秘書提出有關要求，其地址為香港北角渣華道 333 號北角政府合署 15 樓。



**For Developments involving Columbarium Use, please also complete the following:**  
**如發展涉及靈灰安置所用途，請另外填妥以下資料：**

**Ash interment capacity 骨灰安放容量<sup>@</sup>**

Maximum number of sets of ashes that may be interred in the niches

在龕位內最多可安放骨灰的數量

Maximum number of sets of ashes that may be interred other than in niches

在非龕位的範圍內最多可安放骨灰的數量

**Total number of niches 龕位總數**

Total number of single niches

單人龕位總數

Number of single niches (sold and occupied)

單人龕位數目 (已售並佔用)

Number of single niches (sold but unoccupied)

單人龕位數目 (已售但未佔用)

Number of single niches (residual for sale)

單人龕位數目 (待售)

Total number of double niches

雙人龕位總數

Number of double niches (sold and fully occupied)

雙人龕位數目 (已售並全部佔用)

Number of double niches (sold and partially occupied)

雙人龕位數目 (已售並部分佔用)

Number of double niches (sold but unoccupied)

雙人龕位數目 (已售但未佔用)

Number of double niches (residual for sale)

雙人龕位數目 (待售)

Total no. of niches other than single or double niches (please specify type)

除單人及雙人龕位外的其他龕位總數 (請列明類別)

Number of niches (sold and fully occupied)

龕位數目 (已售並全部佔用)

Number of niches (sold and partially occupied)

龕位數目 (已售並部分佔用)

Number of niches (sold but unoccupied)

龕位數目 (已售但未佔用)

Number of niches (residual for sale)

龕位數目 (待售)

**Proposed operating hours 擬議營運時間**

<sup>@</sup> Ash interment capacity in relation to a columbarium means –

就靈灰安置所而言，骨灰安放容量指：

- the maximum number of containers of ashes that may be interred in each niche in the columbarium;

每個龕位內可安放的骨灰容器的最高數目；

- the maximum number of sets of ashes that may be interred other than in niches in any area in the columbarium; and

在該靈灰安置所並非龕位的範圍內，總共最多可安放多少份骨灰；以及

- the total number of sets of ashes that may be interred in the columbarium.

在該靈灰安置所內，總共最多可安放多少份骨灰。

## Gist of Application 申請摘要

(Please provide details in both English and Chinese as far as possible. This part will be circulated to relevant consultees, uploaded to the Town Planning Board's Website for browsing and free downloading by the public and available at the Planning Enquiry Counters of the Planning Department for general information.)  
(請盡量以英文及中文填寫。此部分將會發送予相關諮詢人士、上載至城市規劃委員會網頁供公眾免費瀏覽及下載及於規劃署規劃資料查詢處供一般參閱。)

Application No. 申請編號	(For Official Use Only) (請勿填寫此欄)		
Location/address 位置/地址	Lots 20 RP (Part), 21 and 23 RP (Part) in D.D. 88 and adjoining Government Land, East of Man Kam To Road, Sheung Shui, New Territories 新界上水文錦渡路以東丈量約份第88約地段第20號餘段(部分)、第21號及第23號餘段(部分) 和毗連政府土地		
Site area 地盤面積	9,056 sq. m 平方米 <input checked="" type="checkbox"/> About 約 (includes Government land of 包括政府土地 799 sq. m 平方米 <input checked="" type="checkbox"/> About 約)		
Plan 圖則	Approved Fu Tei Au and Sha Ling Outline Zoning Plan No. S/NE-FTA/18 虎地坳及沙嶺分區計劃大綱核准圖		
Zoning 地帶	"Open Storage" 「露天貯物」		
Applied use/ development 申請用途/發展	Temporary Asphalt Plant for a Period of 5 Years		
(i) Gross floor area and/or plot ratio 總樓面面積及/或 地積比率		sq.m 平方米	Plot Ratio 地積比率
	Domestic 住用	N.A <input type="checkbox"/> About 約 <input type="checkbox"/> Not more than 不多於	N.A <input type="checkbox"/> About 約 <input type="checkbox"/> Not more than 不多於
	Non-domestic 非住用	2,804.19 <input checked="" type="checkbox"/> About 約 <input type="checkbox"/> Not more than 不多於	0.31 <input checked="" type="checkbox"/> About 約 <input type="checkbox"/> Not more than 不多於
(ii) No. of blocks 幢數	Domestic 住用	N.A	
	Non-domestic 非住用	2	
	Composite 綜合用途	N.A	



(iii) Building height/No. of storeys 建築物高度／層數	Domestic 住用	N.A	m 米 <input type="checkbox"/> (Not more than 不多於)
		N.A	mPD 米(主水平基準上) <input type="checkbox"/> (Not more than 不多於)
		N.A	Storeys(s) 層 <input type="checkbox"/> (Not more than 不多於) ( <input type="checkbox"/> Include 包括 <input type="checkbox"/> Exclude 不包括 <input type="checkbox"/> Carport 停車間 <input type="checkbox"/> Basement 地庫 <input type="checkbox"/> Refuge Floor 防火層 <input type="checkbox"/> Podium 平台)
	Non-domestic 非住用	34.6m (Operational Block (Asphalt Plant and Ancillary Equipment/Machines)) 8.1m (Administrative Blocks (Ancillary Office/Storage))	m 米 <input checked="" type="checkbox"/> (Not more than 不多於)
		N.A	mPD 米(主水平基準上) <input type="checkbox"/> (Not more than 不多於)
		N.A	Storeys(s) 層 <input type="checkbox"/> (Not more than 不多於) ( <input type="checkbox"/> Include 包括 <input type="checkbox"/> Exclude 不包括 <input type="checkbox"/> Carport 停車間 <input type="checkbox"/> Basement 地庫 <input type="checkbox"/> Refuge Floor 防火層 <input type="checkbox"/> Podium 平台)
	Composite 綜合用途	N.A	m 米 <input type="checkbox"/> (Not more than 不多於)
		N.A	mPD 米(主水平基準上) <input type="checkbox"/> (Not more than 不多於)
		N.A	Storeys(s) 層 <input type="checkbox"/> (Not more than 不多於) ( <input type="checkbox"/> Include 包括 <input type="checkbox"/> Exclude 不包括 <input type="checkbox"/> Carport 停車間 <input type="checkbox"/> Basement 地庫 <input type="checkbox"/> Refuge Floor 防火層 <input type="checkbox"/> Podium 平台)
(iv) Site coverage 上蓋面積		27	% <input checked="" type="checkbox"/> About 約
(v) No. of units 單位數目		N/A	
(vi) Open space 休憩用地	Private 私人	N/A	sq.m 平方米 <input type="checkbox"/> Not less than 不少於
	Public 公眾	N/A	sq.m 平方米 <input type="checkbox"/> Not less than 不少於

(vii) No. of parking spaces and loading / unloading spaces 停車位及上落客貨車位數目	Total no. of vehicle parking spaces 停車位總數	6
	Private Car Parking Spaces 私家車車位 Motorcycle Parking Spaces 電單車車位 Light Goods Vehicle Parking Spaces 輕型貨車泊車位 Medium Goods Vehicle Parking Spaces 中型貨車泊車位 Heavy Goods Vehicle Parking Spaces 重型貨車泊車位 Others (Please Specify) 其他 (請列明) _____	6
	Total no. of vehicle loading/unloading bays/lay-bys 上落客貨車位／停車處總數	11
	Taxi Spaces 的士車位 Coach Spaces 旅遊巴車位 Light Goods Vehicle Spaces 輕型貨車車位 Medium Goods Vehicle Spaces 中型貨車車位 Heavy Goods Vehicle Spaces 重型貨車車位 Others (Please Specify) 其他 (請列明) 1 L/UL Bays for Goods Vehicle, 9 L/UL Bays for Asphalt Trucks & Bitumen Trucks	1

#### Submitted Plans, Drawings and Documents 提交的圖則、繪圖及文件

	Chinese 中文	English 英文
<b>Plans and Drawings 圖則及繪圖</b>		
Master layout plan(s)/Layout plan(s) 總綱發展藍圖／布局設計圖	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Block plan(s) 樓宇位置圖	<input type="checkbox"/>	<input type="checkbox"/>
Floor plan(s) 樓宇平面圖	<input type="checkbox"/>	<input type="checkbox"/>
Sectional plan(s) 截視圖	<input type="checkbox"/>	<input type="checkbox"/>
Elevation(s) 立視圖	<input type="checkbox"/>	<input type="checkbox"/>
Photomontage(s) showing the proposed development 顯示擬議發展的合成照片	<input type="checkbox"/>	<input type="checkbox"/>
Master landscape plan(s)/Landscape plan(s) 園境設計總圖／園境設計圖	<input type="checkbox"/>	<input type="checkbox"/>
Others (please specify) 其他 (請註明)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>Location plan, Lot Index Plan extract, Outline Zoning Plan extract, Layout Plan, Site Photos</u>		
<b>Reports 報告書</b>		
Planning Statement/Justifications 規劃綱領/理據	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Environmental assessment (noise, air and/or water pollutions) 環境評估 (噪音、空氣及／或水的污染)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Traffic impact assessment (on vehicles) 就車輛的交通影響評估	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Traffic impact assessment (on pedestrians) 就行人的交通影響評估	<input type="checkbox"/>	<input type="checkbox"/>
Visual impact assessment 視覺影響評估	<input type="checkbox"/>	<input type="checkbox"/>
Landscape impact assessment 景觀影響評估	<input type="checkbox"/>	<input type="checkbox"/>
Tree Survey 樹木調查	<input type="checkbox"/>	<input type="checkbox"/>
Geotechnical impact assessment 土力影響評估	<input type="checkbox"/>	<input type="checkbox"/>
Drainage impact assessment 排水影響評估	<input type="checkbox"/>	<input type="checkbox"/>
Sewerage impact assessment 排污影響評估	<input type="checkbox"/>	<input type="checkbox"/>
Risk Assessment 風險評估	<input type="checkbox"/>	<input type="checkbox"/>
Others (please specify) 其他 (請註明)	<input type="checkbox"/>	<input type="checkbox"/>
<u>Drainage Review</u>		

Note: May insert more than one 「✓」. 註：可在多於一個方格內加上「✓」號



Note: The information in the Gist of Application above is provided by the applicant for easy reference of the general public. Under no circumstances will the Town Planning Board accept any liabilities for the use of the information nor any inaccuracies or discrepancies of the information provided. In case of doubt, reference should always be made to the submission of the applicant.

註：上述申請摘要的資料是由申請人提供以方便市民大眾參考。對於所載資料在使用上的問題及文義上的歧異，城市規劃委員會概不負責。若有任何疑問，應查閱申請人提交的文件。

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**Section 16 Planning Application**  
**Renewal of Planning**  
**Application No. A/NE-FTA/192**

Temporary Asphalt Plant for a Period  
of Five Years

Lots 20 RP (Part), 21 and 23 RP (Part)  
in D.D. 88 and Adjoining Government  
Land, East of Man Kam To Road,  
Sheung Shui, New Territories

*Planning Statement*

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August 2024

## EXECUTIVE SUMMARY

*(In case of discrepancy between English and Chinese Versions, English shall prevail)*

This Planning Statement is submitted to the Town Planning Board (hereinafter referred to as “the Board”) in support of a planning application (hereinafter referred to as “the current application”) for **Temporary Asphalt Plant for a Period of Five Years** (hereinafter referred to as “the Temporary Asphalt Plant”) at Lots 20 RP (Part), 21 and 23 RP (Part) in D.D. 88 and adjoining Government Land, East of Man Kam To Road, Sheung Shui, New Territories (hereinafter referred to “the application site”). The current application aims to renew the latest planning permission under Planning Application No. A/NE-FTA/192 from the Board which will be expired on 12.12.2024 such that the Applicant can be given opportunity to continue using the application site for the Temporary Asphalt Plant. The Planning Statement serves to provide background information and planning justifications in support of the Temporary Asphalt Plant in order to facilitate consideration by the Board.

The application site is subject to three previous planning applications (No. A/NE-FTA/123, A/NE-FTA/148 and A/NE-FTA/192). The latest planning application No. A/NE-FTA/192 for the same use was approved with conditions by the Board on 18.10.2019.

The application site currently falls within an area zoned “Open Storage” (“OS”) on the approved Fu Tei Au and Sha Ling Outline Zoning Plan (OZP) No. S/NE-FTA/18 gazetted on 19.4.2024. As detailed in this Planning Statement, the Temporary Asphalt Plant is well justified on the grounds that:-

- (a) Approval of the current application enables the Applicant to continue utilizing the application site to support the industry and the community and benefit Hong Kong's long-term development;*
- (b) The Temporary Asphalt Plant supports with the development principle of "driving development by transport infrastructure" under the Hong Kong Major Transport Infrastructure Development Blueprint promulgated in 2023 and fuels future growth and development in Hong Kong;*
- (c) The Temporary Asphalt Plant is essential to address local and territorial demand for asphalt and support Hong Kong infrastructural developments;*
- (d) There will be no substantial changes in planning circumstances by allowing the current application and the Applicant has demonstrated his full compliance of planning approval conditions of previous planning approval;*
- (e) The application is of temporary nature, which will not jeopardise the long-term planning intention of “OS”;*
- (f) The Temporary Asphalt Plant will not be in conflict with the implementation programme of the relocation of Cheung Sha Wan Temporary Wholesale Poultry Market;*
- (g) No adverse environmental impact is expected as the Temporary Asphalt Plant will continue to be in line with all the required environmental control measures and good site*



*practices;*

- (h) No adverse traffic impact is expected as there is no significant change in planning circumstances and all key junctions will operate with sufficient capacity;*
- (i) No adverse drainage impact is expected as there is no change in the drainage system and the Applicant will continue to carry out routine maintenance; and*
- (j) The approval of the current application will not set an undesirable precedent.*

In view of the above and the list of detailed planning justifications in this Planning Statement, it is sincerely hoped that the Board will give favourable consideration to approve the current application for a temporary period of five years.

## 行政摘要

(如內文與其英文版本有差異，則以英文版本為準)

此規劃報告書在支持一宗遞交予城市規劃委員會（以下簡稱「城規會」）的規劃申請（以下簡稱「該申請」）作為期五年的臨時瀝青廠（以下簡稱「臨時瀝青廠」）。該申請涉及地點位於新界上水文錦渡路以東丈量約份第 88 約地段第 20 號餘段(部分)、第 21 號及第 23 號餘段(部分) 和毗連政府土地（以下簡稱「申請地點」）。該申請是為了將於 2024 年 12 月 12 日到期之規劃許可續期，從而可給予申請人機會於申請地點繼續作臨時瀝青廠。此規劃報告書提供該申請的背景及規劃理據以支持臨時瀝青廠作城規會考慮。

申請地點過往涉及三宗先前申請(編號：A/NE-FTA/123、A/NE-FTA/148 及 A/NE-FTA/192)。最近作同樣用途的規劃申請(編號：A/NE-FTA/192) 於 2019 年 10 月 18 日獲城規會有條件下批給臨時性質的許可。

申請地點現時於 2024 年 4 月 19 日刊憲公佈之虎地坳及沙嶺分區計劃大綱核准圖（編號：S/NE-FTA/18）內被劃為「露天貯物」地帶。此規劃報告書詳細闡述臨時瀝青廠的規劃理據，當中包括：-

- (一) 批准申請讓申請人繼續使用申請地點，以支持業界和社會，並有利於香港的長遠發展；
- (二) 臨時瀝青廠符合 2023 年香港主要運輸基建發展藍圖中「以運輸基建帶動發展」的發展原則，香港未來的增長和發展提供動力；
- (三) 臨時瀝青廠對滿足地區和本地的瀝青需求以及支持香港的基礎建設發展是不可或缺的；
- (四) 批准該申請不會對規劃情況帶來重大改變及申請人已證明其履行先前的規劃許可所附帶的所有規劃條件；
- (五) 申請屬臨時性質，不會影響「露天貯物」用途的長遠規劃意向；
- (六) 臨時瀝青廠不會影響長沙灣臨時家禽批發市場的搬遷計劃；
- (七) 臨時瀝青廠將繼續符合所有必要的環境管制和良好的地盤作業守則，預計不會對環境造成不良影響；
- (八) 臨時瀝青廠的規劃情況與先前獲批申請相較，沒有顯著改變，所有路口將以足夠的容量運作，預計不會對交通造成不良影響；
- (九) 由於排水系統沒有改變，而且申請人會繼續進行日常維修，因此預計不會對排水系統造成不良影響；及
- (十) 批准申請不會立下不良先例。

鑑於以上各點及此規劃報告書內所提供的詳細規劃理據，懇請城規會批准該申請作為期五年之擬議用途。



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## 1. INTRODUCTION

### 1.1 Purpose

- 1.1.1 Pursuant to section 16 of the Town Planning Ordinance (TPO) (Cap. 131), this *Planning Statement* is submitted to the Town Planning Board (hereinafter referred to as “the Board”) in support of a planning application (hereinafter referred to as “the current application”) for **Temporary Asphalt Plant for a Period of Five Years** (hereinafter referred to as “the Temporary Asphalt Plant”) at Lots 20 RP (Part), 21 and 23 RP (Part) in D.D. 88 and adjoining Government Land, East of Man Kam To Road, Sheung Shui, New Territories (hereinafter referred to as “the application site”). The Planning Statement serves to provide background information and planning justifications in support of the Temporary Asphalt Plant in order to facilitate the consideration by the Board. The application site has a total area of approximately 9,056m<sup>2</sup>, including 799m<sup>2</sup> of Government Land. Its location is shown on **Figure 1** whilst **Figure 2** indicates relevant private lots and government land which the application site involves.
- 1.1.2 Prepared on behalf of *K. Wah Asphalt Limited* (hereinafter referred to as “the Applicant”), Aikon Development Consultancy Limited have been commissioned to prepare and submit the current application on his behalf. The current application aims to **re-new** the latest planning permission under Planning Application No. A/NE-FTA/192 (hereinafter referred to as “the previous application”) from the Board which will be expired on 12.12.2024 such that the Applicant will be given an opportunity to continue utilising the application site for the Temporary Asphalt Plant under the circumstances that the proposed development parameters would be **in-principle the same** as those in the approved scheme under A/NE-FTA/192, and the site configuration and the nature/operation of the Temporary Asphalt Plant would be **identical to the approved scheme**, with no significant change in the overall physical setting surrounding the application site.
- 1.1.3 The application site currently falls within an area zoned “Open Storage” (“OS”) on the approved Fu Tei Au and Sha Ling Outline Zoning Plan (OZP) No. S/NE-FTA/18 gazetted on 19.4.2024 (hereinafter referred to as “the Current OZP”) (please refer to **Figure 3**). According to the Notes of the Current OZP, ‘Asphalt Plant’ use is a Column 2 use within the “OS” zone which requires planning permission from the Board.
- 1.1.4 In this connection, the Applicant wishes to seek planning permission again from the Board for the Temporary Asphalt Plant for a **temporary period of five years**.

### 1.2 Objectives

- 1.2.1 The current application strives to achieve the following objectives:-

(a) *To be given an opportunity to the Applicant to continue utilising the application site for the Temporary Asphalt Plant under the circumstances that the proposed development parameters would be in in-principle the same as those in the approved scheme under A/NE-FTA/192, and the site configuration and the nature/operation of the Temporary Asphalt Plant would be identical to the*

- approved scheme, with no significant change in the overall physical setting surrounding the application site;*
- (b) To continuously offer a suitable location for providing essential high-quality asphalt for infrastructural development and road maintenance in Hong Kong so as to generate socio-economic value for the city;*
- (c) To maximize land utilization of the application site that has been accommodating the temporary asphalt plant and surrounded by rural industrial uses; and*
- (d) To induce no adverse environmental nor traffic impacts on its surroundings by providing adequate protection and mitigation measures.*

### 1.3 Background

#### Providing Infrastructural Support for Hong Kong and Building the Backbone for Infrastructural Development

- 1.3.1 The Applicant has been engaged in various major infrastructure projects by Highways Department (HyD), Civil Engineering and Development Department (CEDD), Airport Authority (AA) and MTR Corporation (MTRC), namely Tseung Kwan O - Lam Tin Tunnel (TKO-LTT), The Hong Kong – Zhuhai – Macao Bridge (HZMB), Liantang/Heung Yuen Wai Boundary Control Point (LTHYW BCP), Central – Wan Chai Bypass, Tuen Mun – Chek Lap Kok Link, Queen's Hill Development, the North and South Runway Asphalt Resurfacing projects, as well as ongoing road maintenance works for Kowloon West and New Territories West. All of these projects form the backbone of Hong Kong's infrastructural development, adding capacity for future growth and laying a solid foundation towards a competitive, liveable and high-density city. The Temporary Asphalt Plant managed by the Applicant is well-operated and has been supplying high quality asphalt and playing an important role in these infrastructural projects and road maintenance works.
- 1.3.2 In recent years, the Hong Kong government has been in the forefront in developing the Northern Metropolis and others New Development Areas. The latest release of the Hong Kong Major Transport Infrastructure Development Blueprint also highlights the government's commitment in building a liveable, competitive and sustainable Hong Kong through "**driving development by transport infrastructure**" by adopting the planning principles of "infrastructure-led" and "capacity-creating". The road network of Hong Kong would be expanded and with increased capacity, and it is foreseeable that there is a **growing demand for high quality asphalt to materialise the vision**.
- 1.3.3 In addition, there is a series future contracts of Hong Kong key developments, such as the Northern Link - Kwu Tung Station, Hung Shui Kiu Station, Tuen Mun South Extension, a Tung Chung Line Extension etc (see **Table 1**). These projects have been approved by the Chief Executive Council and would be key drivers to support future Hong Kong economic development. The demand for high-quality asphalt is expected to be significant in realizing the strategic planning vision outlined in Hong Kong 2030+.

*Table 1 Future Contracts of Hong Kong Developments, Projects Authorised/Approved by the Executive Council*

Project Details	Target Completion Year
MTR Northern Link - Kwu Tung Station	2027
MTR Tung Chung Line Extension	2029
MTR Tuen Mun South Extension	2030
MTR Hung Shui Kiu Station	2030
Kwu Tung North and Fanling North New Development Area - Remaining Phase of Site Formation and Engineering Infrastructure Works	2031
Yuen Long South Development - Second Phase Development	2031

*The Importance of the Temporary Asphalt Plant in the North New Territories*

- 1.3.4 Amongst all the asphalt plants in Hong Kong, the Temporary Asphalt Plant under the current application is the **only asphalt plant in the North New Territories**. The Temporary Asphalt Plant has been a crucial supplier of high-quality asphalt in the North New Territories, playing a significant role in infrastructural projects and road maintenance works. The Temporary Asphalt Plant is also anticipated to play a major role in facilitating the development of the Northern Metropolis.
- 1.3.5 In addition, many infrastructure projects currently utilizing the Temporary Asphalt Plant are **ongoing** (see **Table 2**) and are **not expected to be completed within the current approval period**. Should the Temporary Asphalt Plant have to be ceased operation, it would cause serious disruption in the progress of the involved projects. In order to continue to utilise the application site and to ensure the supply of asphalt to support infrastructure projects in the locality and territory, the Applicant seeks to renew the previous approved application No. A/NE-FTA/192, which shall be expired on 12.12.2024.



*Table 2 Contracts on hand / on-going contracts of K. Wah Asphalt Limited (Sheung Shui Asphalt Plant)*

Employer	Contract	Details of Contract	Anticipated Completion
Airport Authority (AA)	Contract No. 3310	North Runway Modification Works	2025
Highways Department (HyD)	12/HY/2019	Highways Department Term Contract (Management and Maintenance of Roads in Kowloon West excluding Expressways and High Speed Roads 2020-2026)	2026
Highways Department (HyD)	04/HY/2020	Highways Department Term Contract (Management and Maintenance of Roads in Tuen Mun and Yuen Long Districts excluding Expressways and High Speed Roads 2021-2026)	2026
Highways Department (HyD)	HY/2014/08	Central Kowloon Route - Construction of Tunnel at Yau Ma Tei, Reconstruction of a Section of the Gascoigne Road Flyover and Reprovisioning of Affected Public Facilities at Yau Ma Tei	2026
Highways Department (HyD)	HY/2019/13	Central Kowloon Route - Construction of administration building and ventilation buildings, and installation of route-wide electrical and mechanical works	2028
Highways Department (HyD)	HY/2020/07	Widening of Castle Peak Road between Kwun Tsing Road and Hoi Wing Road)	2025
Highways Department (HyD)	HY/2020/08	Flyover from Kwai Tsing Interchange Upramp to Kwai Chung Road	2026
Highways Department (HyD)	HY/2021/16	Provision of Universal Accessibility Facilities at Footbridges, Elevated Walkways and Subways – Package 5 Contract 2	2025
Drainage Service Department (DSD)	DC/2019/12	Upgrading of West Kowloon and Tsuen Wan Sewerage – Phase 2B	2027
Drainage Service Department (DSD)	DC/2020/03	Drainage Maintenance and Construction in Hong Kong Island and Islands Districts (2021-2025) And Building and Civil Maintenance and Minor Works to DSD Plants and Facilities (2020-2025)	2025
Civil Engineering and Development Department (CEDD)	CV/2020/01	Site formation and infrastructure works for public housing developments at Pok Fu Lam South	2027
Civil Engineering and Development Department (CEDD)	CV/2022/07	Site formation and infrastructure works for public housing developments at Long Bin, Yuen Long - Phase 2	2026

Employer	Contract	Details of Contract	Anticipated Completion
Civil Engineering and Development Department (CEDD)	ED/2018/04	Trunk Road T2 and Infrastructure Works for Developments at the Former South Apron	2026
Civil Engineering and Development Department (CEDD)	ND/2019/01	Kwu Tung North New Development Area, Phase 1: Site Formation and Infrastructure Works	2026
Civil Engineering and Development Department (CEDD)	ND/2019/04	Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section (Shek Wu San Tsuen North to Lung Yeuk Tau)	2026
Civil Engineering and Development Department (CEDD)	NE/2017/03	Development of Anderson Road Quarry Site - Road Improvement Works and Pedestrian Connectivity Facilities Works Phase 2A	2026
Civil Engineering and Development Department (CEDD)	NE/2017/05	Widening of Tai Po Road (Sha Tin Section)	2025
Civil Engineering and Development Department (CEDD)	NL/2020/03	Tung Chung New Town Extension - Major Infrastructure Works in Tung Chung East	2028
Civil Engineering and Development Department (CEDD)	NL/2020/06	Tung Chung New Town Extension - Site Formation and. Infrastructure Works at Tung Chung Valley, Phase 1	2027
Civil Engineering and Development Department (CEDD)	YL/2020/06	Site Formation and Infrastructure Works for Public Housing Developments at Kam Tin South, Yuen Long – Phase 1	2026
HK & China Gas Company Limited	N.A	Reinstatement Service (Term Contract 2023-2025)	2025
Hongkong International Terminals (HIT)	N.A	Bituminous Re-surfacing Works at Terminal 4, 6, 7, 8, 9 & Depot S (1+1 Term Contract)	2025

Renewal of the Planning Approval under Current Application

- 1.3.6 The Applicant has been operating the Temporary Asphalt Plant at the application site since the approval of the previous applications. This application seeks to renew planning approval, allowing the Applicant to continue serving the territory and contribute to the development of the Northern Metropolis.
- 1.3.7 The application site is subject to three previous planning applications (No. A/NE-FTA/123, A/NE-FTA/148 and A/NE-FTA/192). The previous application (No. A/NE-FTA/192) for the same use was approved by the Board with conditions on a temporary basis for a period of five years on 18.10.2019 (**Appendix 1**). The Applicant has duly complied with all the approval conditions under the previous application (**Appendix 2a to 2e**).
- 1.3.8 Subsequent to the approval of planning application (No. A/NE-FTA/192), the Applicant has submitted a renewal of Temporary Building Permit (TBP) and Temporary Occupation Permit (TOP) to the Buildings Department (BD) in 2023, and the renewal of the TBP and TOP for the Temporary Asphalt Plant was subsequently approved by the BD, based on the supplementary information provided. The Temporary Asphalt Plant is currently operating in accordance with the approved TBP and TOP (see **Appendix 3**).
- 1.3.9 Under the current application, the site configuration and the nature/operation of the Temporary Asphalt Plant would be **identical to the approved scheme**, with no significant change in the overall physical setting surrounding the application site.
- 1.3.10 While the site configuration remains unchanged, it has been noted that there is a discrepancy between the total Gross Floor Area ("GFA") approved under application No. A/NE-FTA/192 and the GFA shown on the subsequent Building Plans (BPs) submitted to the BD. The said discrepancy is mainly attributable to the determination of GFA between departments. In determining the GFA for the Temporary Asphalt Plant for the s.16 planning application purpose, relevant GFA of the ancillary structures of the Temporary Asphalt Plant of about **430.87m<sup>2</sup>**, i.e. staircases and platforms for maintenance and emergency access, **were not included in the previous planning submission** having considered its ancillary nature. However, as far as the building requirements from BD for the BPs submission purpose is concerned, the GFA of these ancillary structures are accountable. In order to ensure smooth processing of the subsequent TBP and TOP after approval of the current application, the current application seeks to **aligns the GFA, while confirming the application site remains unchanged** when compared to the previous application, and there was **no change to the site configuration, building bulk, site area, form, and major development parameters** of the approved Temporary Asphalt Plant.

Safe and Non-Polluted Operation

- 1.3.11 Since obtaining the first planning approval in 2014, the Applicant has dedicated efforts to undertaking various measures to minimize any potential adverse impacts and offer a safe and sustainable occupational environment for the Applicant's



employees.

- 1.3.12 The Applicant has submitted an application to Environmental Protection Department (EPD) for a Specified Process (SP) Licence on 6.10.2015, pursuant to Section 14 of the Air Pollution Control Ordinance (APCO) for the Temporary Asphalt Plant and the SP Licence was issued on 23.2.2017. A renewal application of SP licence was submitted in 2018, and the SP license renewed in 2020. The operations of the Asphalt Plant have strictly complied with the APCO. The Applicant is applying for a renewal of SP license in 2024, ensuring the current operation has met relevant regulations. While the Air Pollution Control Plan (APCP) has been reviewed by EPD and it is being finalised, no adverse comment from EPD has been received on the APCP.
- 1.3.13 Apart from complying with the relevant regulations and requirements, the Applicant has also carried out several voluntary improvement measures on his operation process upon the previous planning approvals. A deodorization system has been installed in 2018 to filter the particles and odour. The Temporary Asphalt Plant has also been using low odour bitumen since June 2018 to reduce the volatility and formation of bitumen fume. All asphalt trucks of the Applicant have been well equipped with cover for reducing dusts and odour during transportation. Moreover, the Applicant provided continuous training to his employees to ensure they are equipped with the latest technology to minimise adverse environmental impacts. Regular environmental monitoring has also been conducted within the application site and at the surrounding area to ensure minimal impacts to the neighbourhood since the approval of previous application. The results of such monitoring demonstrate a constant compliance with the required standards.
- 1.3.14 In addition, the Applicant has also obtained ISO certificates (**Appendix 4**) which demonstrated the compliance with the requirements of ISO 14001:2015 for environmental management system standards, ISO 45001:2018 for occupational health and safety management system specification, ISO 9001: 2015 for quality management system standards. These certificates remain valid due to good operation and management by the Applicant. Furthermore, a dangerous goods license (**Appendix 5**) has been issued to the Applicant, and the Applicant is strictly complying with Dangerous Goods Ordinance to ensure public and operation safety.
- 1.3.15 The Applicant has maintained a close and responsive communication with the local community, such as establishing a hotline for providing comments and reporting issues.
- 1.3.16 The Applicant is deeply committed to environmental sustainability and has made significant strides in energy saving and carbon reduction, echoing the Hong Kong Climate Action Plan 2050. In 2022, the Applicant was awarded the Energy Management Award (Grand) from the CLP (see **Appendix 6**), recognising its outstanding performance in energy efficiency and conservation measures.

*The Applicant's Mission in Being a Leader in Quality, Innovation, and Community Engagement and Supporting the Industry, Community and the Territory*

- 1.3.17 The Applicant has established itself as a leading enterprise specializing in the production of high-quality asphalt. Driven by a commitment to excellence, they have consistently invested in upgrading their production processes, striving to deliver superior asphalt products. Recognizing the importance of sustainability, the Applicant has developed recycled asphalt as a green product, offering a more environmentally friendly solution. Simultaneously, the Applicant is dedicated to innovation and technological advancements. They have forged close collaborations with local university, working together on cutting-edge research projects, aiming to enhance the performance of materials while introducing new, sustainable, and groundbreaking solutions within the industry. Their resources and industry expertise shared with local university, support tertiary education and the development of the industry.
- 1.3.18 Beyond its leading role in the asphalt industry, the Applicant upholds a strong sense of social responsibility. Site visits were also offered for villagers in the locality and students for educational purpose to promote the understanding of asphalt products as being essential road building construction materials. As an enterprise committed to community contributions, the Applicant has visited villages after severe weather events, resurfaced roads in poor condition, and voluntarily helped repair village roads. The Applicant is also keen on participating in social services that advocate for active aging. Some of the community services engaged by the Applicant is listed as follow.
- **Community Engagement:** Invited members of the public to visit the approved Temporary Asphalt Plant, providing a platform for open dialogue and gathering valuable feedback.
  - **Youth Development:** Implemented various youth exchange and internship programs, aiming to foster understanding of Hong Kong's heavy industry and broaden the horizons of young people.
  - **Pandemic Support:** During the COVID-19 pandemic, provided essential support to the community by distributing masks and sanitizers to those in need.
  - **Community Outreach:** Participated in various community initiatives, including distributing mooncakes to elderly residents during Mid-Autumn Festival, a gesture of care and support.
  - **Infrastructure Support:** Actively assisted in repairing damaged village roads after heavy rainstorms.
  - **Supporting Active Ageing:** Participated in social events for elderly residents, encouraging active aging through both physical and mental engagement;
  - **Elderly Care:** Distributed lucky bag to hundreds of elderlies, acknowledging their contributions to society with respect and provided assistance to elderly neighbors by helping with home repairs, demonstrating a genuine concern for their well-being.
- 1.3.19 Being the **only** asphalt plant in the North New Territories owned by the Applicant, the Temporary Asphalt Plant occupies a strategic position in arranging relevant community initiatives and programs to serve the community's needs in the area. Considering the North New Territories faces challenges from severe weather events,

infrastructural disruptions, and a growing population due to the vision of Northern Metropolis, the Applicant anticipates an increasing demand for community services and the Temporary Asphalt Plant will become a key location for arranging these services, serving a wider community.

- 1.3.20 The Applicant's dedication to contributing to both Hong Kong's overall development and the local community has garnered widespread support and appreciation from both the institution and the community at large (see **Appendix 7**).
- 1.3.21 As mentioned, as a pioneer in the industry, the Applicant wishes to continue leading the delivery of services to the territory and is dedicated to meeting the evolving needs of society. Sincere efforts have been made by the Applicant to implement various environmental control measures. Such measures not only minimise the adverse impacts to the environment and surroundings, also offer a safe and sustainable occupational environment for the Applicant's employees. Various awards and certificates were presented to the Applicant to recognise the efforts made in such aspects. In this regard, the Applicant seeks to **renew** the latest planning permission under Planning Application No. A/NE-FTA/192 from the Board which will be expired on 12.12.2024 such that the Applicant will be given an opportunity to continue utilising the application site for the Temporary Asphalt Plant in supporting Hong Kong's future development, contributing to the community whilst inducing no adverse infrastructural and environmental impact.

#### 1.4 Structure of the Planning Statement

- 1.4.1 This Planning Statement is divided into 7 chapters. **Chapter 1** is the above introduction outlining the purpose and background of the current application. **Chapter 2** gives background details of the application site in terms of the current land-use characteristics and neighbouring developments. Planning context of the application site is reviewed in **Chapter 3** whilst **Chapter 4** provides details of the Temporary Asphalt Plant. **Chapter 5** demonstrates the result of technical assessments. A full list of planning justifications is given in **Chapter 6** whilst **Chapter 7** summarizes the concluding remarks for the Temporary Asphalt Plant.



## 2. SITE PROFILE

### 2.1 Location of the Application Site

2.1.1 The application site is located in Fu Tei Au, Sheung Shui, near the border with Shenzhen. The application site is located to the immediate east of Man Kam To Road and is south of Sha Ling and north of Hung Kiu San Tsuen (**Figure 1** refers).

2.1.2 The application site comprises Lots 20 RP (Part), 21 and 23 RP (Part) in D.D. 88, as well as the adjoining Government Land with a total area of approx. 9,056m<sup>2</sup> including 799m<sup>2</sup> of Government Land. The application site is situated in a rural character surrounded by various open storage/ vehicle repair workshop uses. The surrounding land-use characteristics and physical settings have remained unchanged since the approval granted for the previous planning application and amendments to the approved application.

### 2.2 Current Condition of the Application Site

2.2.1 As shown per **Illustration 1**, the application site is generally flat, and a piece of hard-paved land currently being utilised for the Temporary Asphalt Plant. It is connected to Man Kam To Road via an existing local access road.

### 2.3 Surrounding Land-use Characteristics

2.3.1 As demonstrated per **Illustration 2**, the surrounding areas are generally rural in character. To the immediate south of the application site is a vehicle repair workshop. To the west and southwest of the application site across the Man Kam To Road are a number of vehicle repair workshops and temporary structures. To the east of the application site are some temporary structures and vacant land. Land to the north and east of the application site is an area zoned “Green Belt” (“GB”) with tree groups, graves, pipelines and electricity pylons on the higher slopes.

2.3.2 To the further south of the application site is a site zoned “Other Specified Use (Poultry Slaughtering Centre)” (“OU(PSC)”) which was under Government’s consideration for accommodating the relocation of Cheung Sha Wan Temporary Wholesale Poultry Market (“CSWTWPM”) as shown per **Figure 3**. There is no detailed programme for the relocation at the moment. The land zoned as “OU(PSC)” is currently being used by Water Services Department Contract 4/WSD/16 for site office and open storage. A buffer distance of about 10m is situated between the application site and the “OU(PSC)” site, which is overgrown with trees and thick vegetation as well as accommodating an open drainage channel / nullah.

2.3.3 The application site is connected to Man Kam To Road via an existing access road. Land uses fronting Man Kam To Road are generally vehicle repair workshops, public vehicle park (including parking of container trailers/tractors and lorries), and warehouse facilities (**Figure 1** refer). The Man Kam To Road connects the Man Kam To Control Point to the North and Sheung Shui town centre via Jockey Club Road to the south.

### 3. PLANNING CONTEXT

#### 3.1 The Current OZP

- 3.1.1 The application site currently falls within an area zoned “OS” on the Current OZP (**please refer to Figure 3**). The planning intention of the “OS” zone is primarily for the provision of land for appropriate open storage uses and to regularize the already haphazard proliferation of open storage uses. It provides for the orderly development of land for open storage uses that cannot be accommodated in conventional godown premises. According to the Notes of the Current OZP, ‘Asphalt Plant’ use is a Column 2 use, which requires planning permission from the Board.
- 3.1.2 According to the Explanatory Statement of the Current OZP, the land within the Fu Tei Au and Sha Ling OZP was previously included in the Fu Tei Au and Sha Ling Interim Development Permission Area (IDPA) Plan No. IDPA/NE-FTA/1 which was prepared by the Director of Planning and notified in the Gazette on 7 September 1990. Since the gazette of the IDPA, the application site has been zoned as “OS”.
- 3.1.3 On 16 October 2009, the Draft Fu Tei Au and Sha Ling OZP No. S/NE-FTA/11 was exhibited for public inspection under Section 5 of the Town Planning Ordinance. Amendments to the OZP included revision to the Statutory Notes for the “OS” zone by amending the land use term ‘Concrete Batching Plant’ to ‘Asphalt Plant/Concrete Batching Plant’ under Column 2 and rezoning the site to the immediate south of the application site from “OS” and “OU(Petrol Filling Station)” to “OU(PSC)”.
- 3.1.4 On 19 April 2024, the approved Fu Tei Au and Sha Ling OZP No. S/NE-FTA/18 (the Current OZP) was exhibited for public inspection under section 9(D)(2) of the Ordinance. Despite several amendments of the Fu Tei Au and Sha Ling OZP since the previously approved application, **the zoning of the application site remained unchanged.**

#### 3.2 “Other Specified Use (Poultry Slaughtering Centre)” Zone

- 3.2.1 The “OU(PSC)” zone is intended primarily for the development of a poultry slaughtering centre to centralize the processing of poultry slaughtering so as to minimize the risk of human infection by avian influenza.
- 3.2.2 The proposal of developing a centralised poultry slaughtering centre was shelved by the Government in 2010 since the risk of avian influenza in Hong Kong was kept at a low level. The Food and Health Bureau (FHB) commissioned in mid-2015 a consultancy study to advise on the way forward for the live poultry trade in Hong Kong. The consultancy study advised to use the concerned “OU(PSC)” site for relocation of the CSWTWPM.
- 3.2.3 Given there is no detailed implementation programme for relocation of the CSWTWPM at the moment and considering the relocation of CSWTWPM shall subject to various potential procedures, including technical assessments, public consultation and funding process, it is unlikely to materialise nor putting forth the relocation of the

CSWTWPM in the coming five years. As such, the Temporary Asphalt Plant of temporary nature for a further five years, will not be in conflict with the implementation programme of the relocation of CSWTWPM.

### 3.3 Previous Planning Applications

- 3.3.1 The application site is subject to three previous planning applications (No. A/NE-FTA/123, 148 and 192) for the same use. Whilst a permanent development was sought under planning application No. A/NE-FTA/123, the application was rejected by the Board on 4.4.2014. The planning application No. A/NE-FTA/148 was the same as the planning application No. A/NE-FTA/123 in terms of the site area, layout and major development parameters except that the application No. A/NE-FTA/148 was on a temporary basis for a period of five years. The previous application No. A/NE-FTA/192 was approved by the Board on 18.10.2019. **Table 3** encapsulates details of these previous planning applications.

*Table 3: Previous Planning Applications at the Application Site*

Application No.	Proposed Use	Zone	Decision of the Board
A/NE-FTA/123	Proposed Asphalt Plant	"OS"	Rejected (4.4.2014)
A/NE-FTA/148	Proposed Temporary Asphalt Plant for a Period of Five Years	"OS"	Approved with conditions on a temporary basis for a period of five years (12.12.2014)
A/NE-FTA/192	Proposed Temporary Asphalt Plant for a Period of Five Years	"OS"	Approved with conditions on a temporary basis for a period of five years (18.10.2019)

- 3.3.2 As compared with the previously approved scheme under Application No. A/NE-FTA/192, the **development scheme and site configuration remain the same**, except minor changes in gross floor area to include existing ancillary facilities.
- 3.3.3 All approval conditions of the previous planning approval (Planning Application No. A/NE-FTA/192) have been duly complied with and the subsequent **Table 4** concludes the compliance with planning conditions under the previous approved application.

*Table 4: Compliance with planning conditions under approved Planning Application No. A/NE-FTA/192*

Planning Approval Conditions	Discharged Date
(c) the submission of a drainage proposal	27.08.2020
(d) the implementation of drainage proposal	14.12.2020
(e) the submission of proposals for fire service installations and water supplies for fire-fighting	27.7.2020
(f) the implementation of the proposals for fire service installations and water supplies for fire-fighting	2.11.2020
(g) the implementation of noise mitigation measures	26.7.2021



### 3.4 Town Planning Board Guidelines (TPB PG-No. 34D)

- 3.4.1 Town Planning Board Guidelines on Renewal of Planning Approval and Extension of Time for Compliance with Planning Conditions for Temporary Use or Development (TPG PG-No. 34D) are relevant to the application. The current application is considered in line with the TPB-PG No.34D for the following grounds:-
- 3.4.2 There has been no material change in planning circumstances since the previous approval was granted as there has been no significant change in land-use zoning and the physical settings surrounding the application site compared to the previously approved planning application;
- 3.4.3 The nature of the current application in terms of approval period sought, proposed asphalt plant use and the operation of the Temporary Asphalt Plant are the same as that proposed in the previous planning application. There are minor changes in the proposed development parameters which accounts for the existing ancillary structures (i.e. staircases and platforms for maintenance and emergency access for subsequent Building Plan submission). Despite the minor changes in GFA due to new determination of GFA, there was **no change to the site configuration, building bulk, site area, form and major development parameters**. No material changes to the approved development are involved as the current application only involves amendments of countable GFA to facilitate subsequent Building Plan submission.
- 3.4.4 No adverse planning implications by allowing the current application is likely to be anticipated and the Applicant has in fact complied with all planning conditions under previous approval within specified time limits (**Table 4 refers**).

## 4. THE DEVELOPMENT PROPOSAL

### 4.1 Site Configuration, Layout & Operation

- 4.1.1 The application site is currently occupied by the Temporary Asphalt Plant, comprising administrative blocks including ancillary offices, laboratory and storages as well as operation blocks with ancillary equipment / machines including, a mixing tower, an emergency generator, a bituminous emulsion plant, a removable bitumen tank, a rubber bitumen removable tank, a horizontal conveyor belt, a slant conveyor belt, five elevated bitumen tanks, an underground hopper, six aggregate storage bins, seven aggregate stock piles, a reclaimed asphalt pavement (RAP) stock pile, a RAP processing depot, a mechanical workshop and store room, a truck wheel washing bay, weighbridges, a weighbridge control room and a mobile bitumen storage and drum decanter and other supporting structures.
- 4.1.2 It is proposed to continue utilising the application site for the Temporary Asphalt Plant. As compared with the last approved scheme, there is **no change in the nature/operation of the current application** and there is **no change in site configuration** as compared with the approved scheme of No. A/NE-FTA/192 and is **identical to the approved scheme**.
- 4.1.3 The development parameters under the current application seeks to aligns the GFA by including the existing ancillary structures of the Temporary Asphalt Plant (i.e. staircases and platforms for maintenance and emergency access). The said existing ancillary structures of the Temporary Asphalt Plant **has long been exists** in the previous application, the GFA was not include in the planning submission having considered its ancillary nature. The inclusion of these existing GFA aims at reflecting the existing condition and ensuring a smooth processing of the subsequent building plan submission. Whilst the said existing ancillary structures has been existed in the previously approved application, there is **no change to the site configuration, building bulk, site area, form, and major development parameters** of the approved Temporary Asphalt Plant. The application site **remains unchanged when compared to the previous application**.
- 4.1.4 The site configuration remains identical to the last approved Planning Applications No. A/NE-FTA/192 and are shown in the Layout Plan per **Figure 4** whilst **Table 5** encapsulates a comparison of the major development parameters/items of the current application and the last approved Planning Applications No. A/NE-FTA/192.
- 4.1.5 There is **no change in the asphalt production process and operation**. The Temporary Asphalt Plant will continue to have a maximum hourly production capacity of 160 tonnes. Asphalt production for infrastructure projects is usually conducted at daytime. However, most of the road resurfacing is usually conducted during night-time to minimise traffic disruption during daytime. The Temporary Asphalt Plant would also supply asphalt products for emergency road works or repair and maintenance works of underground utilities, which could happen at any time. As such, to meet the market and emergency demand and to ensure the quality of asphalt products, the Temporary Asphalt Plant will continue to be required to be operated 24 hours a day, 7 days a

week. Despite the operation hour would be proposed to be 24 hours a day, it should be noted that the actual production rate and time will continue to be subject to the overall market situation and the demand from construction and road works sites. The current application has proposed the operation hours in maximum terms, allowing flexibility to adapt to fluctuating market conditions, rather than as a constant requirement.

- 4.1.6 Vehicle access to/from the application site remains the same as that proposed in the previously approved application which will be via an existing access road to Man Kam To Road (see **Figure 1**). As the Temporary Asphalt Plant is currently in operation, no additional traffic is expected to be generated upon the approval of current application. The maximum traffic generation is anticipated to be 30 vehicles/hour (2-way), i.e. 75 pcu/hour as in the existing Temporary Asphalt Plant.

Table 5: Comparison of Major Parameters/Items of the Current Application and the previous approved Planning Application No. A/NE-FTA/192

Major Parameters/Items	Previously Approved Application (No. A/NE-FTA/192) (a)	Current Application (b)	Difference (b) – (a)
<b>Site Area (m<sup>2</sup>)</b> Total Private Land Government Land	About 9,056 About 8,257 (91.18%) About 799 (8.82%)	About 9,056 About 8,257 (91.18%) About 799 (8.82%)	No Change No Change No Change
<b>Proposed Use(s)</b>	Temporary Asphalt Plant for a Period of 5 Years	Temporary Asphalt Plant for a Period of 5 Years	No Change
<b>Gross Floor Area (m<sup>2</sup>)</b> Total • Administrative Blocks (Ancillary Office/Storage)  • Operational Block (Asphalt Plant and Ancillary Equipment/Machines)  • Existing Ancillary Structures (i.e. Staircases and platforms for maintenance and emergency access (accountable for Building Plan submission) <sup>1</sup>	2,373.32 279.60  2,093.72  N.A	2,804.19 279.60  2,093.72  430.87	+430.87 No Change  No Change  +430.87
<b>Plot Ratio</b> <b>Site Coverage</b>	About 0.26 About 27%	About 0.31 About 27%	+0.05 No Change
<b>Number of Block</b>	2	2	No Change

<sup>1</sup> The existing ancillary structures of the Temporary Asphalt Plant have been existed since previous planning approvals, however, were not included in the previous planning submissions having considered its ancillary nature. In order to align with requirement for Building Plan submission, the current application included the GFA of the existing ancillary structures in order to ensure smooth processing of the subsequent TBP and TOP after approval of the current application. The application site remains unchanged when compared to the previous application, and there was no change to the site configuration, building bulk, site area, form, and major development parameters of the approved Temporary Asphalt Plant.

Major Parameters/Items	Previously Approved Application (No. A/NE-FTA/192) (a)	Current Application (b)	Difference (b) – (a)
<b>Building Height (m)</b>			
• Asphalt Plant and Ancillary Facilities (Excl. Ancillary Office)	Max. 34.6	Max. 34.6	No Change
• Ancillary Administrative Blocks	Max. 8.1 (1-storey)	Max. 8.1 (1-storey)	No Change
<b>No. of Parking Spaces and Loading/ Unloading Spaces</b>			
• Private Car Parking Spaces	6	6	No Change
• Goods Vehicle L/UL Bay	1	1	No Change
• Asphalt Trucks & Bitumen Trucks L/UL Bays (including 6 waiting spaces)	9	9	No Change
• Pick-Up/Drop-off Lay-by for Taxis & Private Cars	1	1	No Change
<b>Operation Hours</b>	24 hours (Monday to Sunday)	24 hours (Monday to Sunday)	No Change



4.1.7 Internal transport facilities will **remain the same** as proposed under the previously approved application. 6 existing private car parking spaces, one existing loading/unloading (L/UL) bay for goods vehicles, one existing pick-up/ drop-off lay-by for taxis and private cars and nine existing L/UL bays with six waiting spaces for Asphalt trucks and Bitumen trucks will be remained in the application site. Sufficient circulation space, parking spaces and waiting area will continue to be provided within the application site. No queueing outside the application site by vehicles associated with the Temporary Asphalt Plant has been observed since the approval of previous planning application.

#### 4.2 Provision of Landscape Treatment

4.2.1 The Applicant has submitted and implemented the Tree Preservation and Landscape Proposals under previous application. The Approved Tree Preservation and Landscape Proposals under A/NE-FTA/148 (**Appendix 8**) was implemented accordingly in 2017. The implemented landscape provision within the application site have been **kept in good and healthy condition** by the Applicant (**Illustration 3**). As such, it is proposed to maintain all the trees and plantings during the approval period should the current application be approved by the Board.

#### 4.3 Provision of Boundary Fencing on the Application Site

4.3.1 Boundary fencing has been provided in compliance with the approval condition (a) of the previous application. The Applicant has been and will be maintaining the boundary fencing to the satisfaction of the relevant Government department(s). Current condition of the boundary fencing is demonstrated per **Illustration 4**.

#### 4.4 Provision of Water Supplies for Fire-Fighting, Fire Service Installations and Emergency Vehicular Access (EVA)

4.4.1 A proposal for water supplies for fire-fighting and the fire service installations and a design of EVA were submitted by the Applicant in view of approval conditions (e) and (f) laid down per the previous application. The provision of water supplies for fire-fighting, fire service installations and EVA were then implemented accordingly. The approval conditions (e) and (f) regarding the aforesaid were discharged on 27.7.2020 and 2.11.2020 (**Appendices 2c** and **2d**). The Applicant will continue to properly maintain the installations and EVA to the satisfaction of the relevant Government department(s).

4.4.2 The existing fire services related facilities have been thoroughly inspected and certified by authorised bodies, demonstrating the existing performance meets the required standards. The certificates of fire-service installation and equipment of the application site dated 10.4.2024 and 11.4.2024 are attached per **Appendix 9** to demonstrate the current provision of water supplies for fire-fighting and fire service installations for the application site by the Applicant.

## 5. Traffic, Environmental and Drainage Considerations

### 5.1 Traffic Impact Assessment

- 5.1.1 A Traffic Impact Assessment (TIA) was conducted to examine the existing traffic condition and to assess the potential traffic impact arising from the Temporary Asphalt Plant.
- 5.1.2 While there is **no change** in the operation and no in-principal change in the development parameters of the Temporary Asphalt Plant, the existing internal transport facilities are expected to be sufficient to serve the Temporary Asphalt Plant.
- 5.1.3 The traffic generated by the Temporary Asphalt Plant is expected to be remained the same as the existing Temporary Asphalt Plant. No additional traffic is expected to be generated. The peak traffic generation and attraction are considered to be remained as 75 pcu/hour respectively.
- 5.1.4 Traffic survey was conducted at key junctions in the vicinity of the application site and junction capacity analysis was also conducted. The analysis concluded that all junctions would have sufficient capacity to accommodate the expected traffic growth to 2029 (i.e. Design Year), taking into account the traffic generated by the Temporary Asphalt Plant, developments in the surrounding areas and the growth of traffic. The Temporary Asphalt Plant will not have adverse traffic impact to the local road network. Please refer to **Appendix 10** for details of the TIA.

### 5.2 Environmental Assessment

- 5.2.1 An Environmental Assessment (EA) (**Appendix 11**) was conducted to review the potential environmental impacts associated with the Temporary Asphalt Plant, in terms of air quality, noise, water quality, waste management and land contamination.
- 5.2.2 The Temporary Asphalt Plant has already been built and in operation since 2017 and no construction works will be required. Therefore, impact on air quality, noise, water quality, waste management and land contamination arising from construction is not anticipated. The environmental impacts arising from the operation of the Plant arising from the operation of the Plant has not been changed since the 2019 EA report.
- 5.2.3 The Temporary Asphalt Plant has been and will continue to be subject to stringent environmental controls and good site practices of relevant statutory and non-statutory requirements. Being in line with all the controls and with implementation of recommended mitigation measures and good site practices, the Temporary Asphalt Plant will not result in any unacceptable environmental impacts. Please refer to **Appendix 11** for details of the EA.

### 5.3 Drainage Review

- 5.3.1 A Drainage Review (DR) (**Appendix 12**) was conducted to review the existing drainage system within the application site, referencing the accepted drainage proposal and its implementation in 2020, and recommend appropriate mitigation measures to mitigate any impacts if necessary.
- 5.3.2 A Drainage Impact Assessment (DIA) was submitted by the Applicant in a view to discharge the approval condition (c) laid down per the last planning approval. Drainage facilities were provided in according with the approved DIA under the approval condition (d) of the previous application (**Appendix 2a and 2b**).
- 5.3.3 According to the Drainage Review (**Appendix 12** refers), the existing drainage system within the application site is the same as that shown in the drainage proposal accepted in 2020. It is confirmed that no change in the drainage system is observed. The existing drainage system is well-maintained and there have been no flooding reports during severe rainstorms in the previous years.
- 5.3.4 The Applicant is well committed that the existing drainage provision implemented on the application site will be continued to be properly maintained during the approval period once the current application is approved by the Board.

## 6. PLANNING JUSTIFICATIONS

### 6.1 Supports with the Development Principle for "Driving Development by Transport Infrastructure" and Fuels Future Growth and Development

- 6.1.1 The Temporary Asphalt Plant has been playing an important role in the infrastructure projects by supplying high-quality asphalt to projects by public bodies and Government departments, namely TKO-LTT, HyD, CEDD, AA and MTRC such as HZMB, LTHYW BCP, Central – Wan Chai Bypass, Tuen Mun – Chek Lap Kok Link, Queen's Hill Development and the Airport Runway Asphalt Resurfacing projects, to name but a few. These projects form the backbone of Hong Kong's infrastructural development, adding capacity for future growth and laying a solid foundation towards a competitive, liveable and high-density city.
- 6.1.2 The construction industry in Hong Kong has revived in recent years, there is a series future contracts of Hong Kong key developments, such as the Northern Link - Kwu Tung Station, Hung Shui Kiu Station, Tuen Mun South Extension, a Tung Chung Line Extension etc. All of these projects have been approved by the Chief Executive Council and would be key drivers to support Hong Kong economic development and materialising the strategic planning vision under Hong Kong 2030+. With the implementation of various infrastructure projects and new development areas, **a continuous demand for high quality asphalt** is expected. In addition, the Hong Kong government has been in the forefront in developing the Northern Metropolis and others New Development Areas. The latest release of the Hong Kong Major Transport Infrastructure Development Blueprint also highlights the government's commitment in building a liveable, competitive and sustainable Hong Kong through "*driving development by transport infrastructure*" by adopting the planning principles of "*infrastructure-led*" and "*capacity-creating*". The road network of Hong Kong would be expanded and with increased capacity, and it is foreseeable that there is a growing demand for high quality asphalt to materialise the vision. The Temporary Asphalt Plant in Sheung Shui would be playing a key role in facilitating the development of the Northern Metropolis.

### 6.2 Meeting Local and Territorial Demand for Asphalt

- 6.2.1 There is a series of ongoing infrastructural projects engaged by the Applicant and are **unlikely to be completed within the current approval period**. Should the operation of the Temporary Asphalt Plant be ceased due to the failure in renewing the planning permission, a disruption might be expected on the on-going infrastructures projects supported by the Applicant's supply of asphalt. Apart from infrastructure projects, the Temporary Asphalt Plant is also engaging in road maintenance works and other road associated emergency repair and maintenance works carried out by Government departments by supplying asphalt as surfacing material to roads.
- 6.2.2 Establishing of an asphalt plant will require a considerable size of flat land, with suitable planning circumstances such as permitted zoning, compatible surrounding area and sufficient infrastructural support. The development of a similar asphalt plant

in an alternative location is not likely to be materialized in the short term given the **locational advantages** and not unsuitable planning circumstances of the application site as well as the requirement for establishment of an asphalt plant.

- 6.2.3 Considering the upcoming infrastructure projects and new development areas in North and Northeast New Territories, the Temporary Asphalt Plant, being **the only asphalt plant** in the North New Territories, is at a strategic location with convenient vehicular access to ensure reliable asphalt supply and to facilitate the implementation of new development areas in the New Territories. Approval of the planning application will allow the continuous supply of asphalt to address local and territorial demand for both infrastructure projects and different kinds of road maintenance works.

### **6.3 No Substantial Changes in Planning Circumstances and Full Compliance of Planning Approval Conditions of Previous Planning Approvals**

- 6.3.1 The nature of the current application in terms of approval period sought, the use and operation of the Temporary Asphalt Plant is **the same as** that proposed in the previous planning application. The **site configuration in the current application is identical to the previously approved scheme**. More importantly, there have been **no substantial changes in the planning circumstances** such as land-use zoning and the physical settings surrounding the application site when comparing with all the previously approved planning application(s). Given that the development parameters of the Temporary Asphalt Plant is in- principle the same as the previous application and site configuration remains unchanged, as such, **no adverse planning implications** by allowing the current application is likely to be anticipated. The Applicant has in fact **complied with all planning conditions under previous approval** within specified time limits. And the Applicant has been and will be maintaining the implemented facilities required by the planning conditions.

- 6.3.2 No adverse planning implication by allowing the current application is likely to be anticipated. In view of the above, it is considered that the current application is **in line with** the TPB PG-No. 34D.

### **6.4 Temporary Nature Would Not Jeopardize the Planning Intention of “OS” zone**

- 6.4.1 Notwithstanding the application site falls within an area zoned “OS” on the Current OZP, the **temporary nature of the current application will by no means jeopardize the long-term planning intention of “OS”**.
- 6.4.2 Moreover, it is the mere fact that such a period of the planning approval could be adjusted by the Board to a period of five years or less, and that a fresh section 16 planning application is required upon its expiry. The entire authority is always rested from the Board whether a new planning application for the continuation of the Temporary Asphalt Plant is further allowed or not. In this connection, the temporary nature of the Temporary Asphalt Plant would not in any sense pose any constraint to jeopardize nor preempt the long-term planning intention of “OS” zone or any planned



infrastructural development.

## **6.5 The Temporary Asphalt Plant will not be in conflict with the Implementation Programme of the Relocation of CSWTWPM**

- 6.5.1 The land to the immediate south of the application site is zoned as “OU(PSC)” for the development of a poultry slaughtering centre to centralize the processing of poultry slaughtering. The proposal of developing a centralised poultry slaughtering centre was shelved by the Government in 2010 since the risk of avian influenza in Hong Kong was kept at a low level. The Food and Health Bureau (FHB) commissioned in mid-2015 a consultancy study to advise on the way forward for the live poultry trade in Hong Kong. The consultancy study advised to use the concerned “OU(PSC)” site for relocation of the CSWTWPM.
- 6.5.2 Given there is no detailed implementation programme for relocation of the CSWTWPM at the moment and considering the relocation of CSWTWPM shall be **subject to various potential procedures**, including technical assessments, public consultation and funding process, it is **unlikely** to materialise nor putting forth the relocation of the CSWTWPM in the coming five years. As such, the Temporary Asphalt Plant of temporary nature for further five years, will not be in conflict with the implementation programme of the relocation of CSWTWPM.

## **6.6 No Adverse Traffic Impact**

- 6.6.1 A TIA was conducted to examine the existing traffic condition and to assess the potential traffic impact arising from the Temporary Asphalt Plant. The provision of internal transport facilities is considered to be sufficient as there is no substantial change in the planning circumstances. The traffic generation and attraction are expected to remain unchanged as current recorded figures of the existing asphalt plant. Junction capacity analysis concluded that all the key junctions in the vicinity of the application site will operate with adequate capacity in the design year 2029. It is concluded that the Temporary Asphalt Plant **will not have adverse traffic impact** to the surrounding road network.

## **6.7 No Adverse Environmental Impact**

- 6.7.1 An EA was conducted to review the potential environmental impacts associated with the Temporary Asphalt Plant, in terms of air quality, noise, water quality, waste management and land contamination. The Temporary Asphalt Plant has been and will continue to be subject to stringent environmental controls and good site practices of relevant statutory and non-statutory requirements. While being in line with all the requirements, appropriate mitigation measures would continue to be taken. **No significant adverse impact** on environment is anticipated according to the EA.

## **6.8 No Adverse Drainage Impact**

- 6.8.1 Drainage impact assessment has been carried out in previous applications and

subsequent discharge of approval conditions. A Drainage Review is prepared under the current application to confirm there is **no change in the drainage system** and the Site is the same as that shown in the drainage proposal accepted in 2020.

- 6.8.2 The existing drainage system is well-maintained and there have been no flooding reports during severe rainstorms in the previous years.
- 6.8.3 The Applicant is well committed that the existing drainage provision implemented on the application site will be **continued to be properly maintained** during the approval period once the current application is approved by the Board.

## **6.9 Continue to Support the Industry, the Community, and Hong Kong's Overall Development**

- 6.9.1 The Applicant has been a leader in the asphalt industry, renowned for its commitment to producing high-quality products. The Applicant has continuously invested in upgrading their production processes to deliver superior asphalt while prioritizing sustainability. Apart from producing high-quality asphalt, they foster innovation and technological advancements by supporting tertiary education and local university research, aiming to enhance performance and introduce sustainable and groundbreaking solutions within the industry.
- 6.9.2 Beyond its industry leadership, the Applicant is deeply rooted in its community demonstrated by their extensive community support programs. This social responsibility has earned widespread appreciation. The Applicant's dedication to both Hong Kong's overall development and the local community is a valuable example in a competitive and profit-driven society and should receive recognition. The Temporary Asphalt Plant under the current application serves as a strategic location for upgrading asphalt production, providing materials for research, and facilitating community services and programs in the North New Territories. Approval of the planning application will allow the Applicant to continue its mission in supporting the industry and the community, benefiting Hong Kong's overall development.

## **6.10 No Setting of Undesirable Precedent**

- 6.10.1 Since the approval of previous application, the Temporary Asphalt Plant at the application site has been **well maintained** and operated during the planning permission period.
- 6.10.2 **Regular self-monitoring measures** have been taken by the Applicant on the Temporary Asphalt Plant to maintain the potential environmental impacts to the minimal level. Apart from the self-monitoring measures, a renewal application for **SP Licence** has been submitted to EPD by the Applicant for the Temporary Asphalt Plant. Under the SP Licence, the Applicant has to comply with various requirements by the EPD to control and mitigate the potential impacts from the Temporary Asphalt Plant to an acceptable level.

- 6.10.3 Apart from complying with all the statutory requirements, the Applicant has been implementing various improvement measures on his operation process **voluntarily** upon the previous planning approval to further minimise the impact, including installing a deodorization system, using low odour bitumen and well equipping all asphalt trucks of the Applicant with cover.
- 6.10.4 Given that there is no substantial change in the planning circumstances; the Applicant has in fact complied with all planning conditions under previous approval within specified time limits; and that the Applicant has made sincere efforts to minimize and mitigate any potential impact voluntarily and under statutory requirements of the Government, the approval of current application to extend the planning permission time limit **will not set an undesirable precedent case** for other similar applications in the area.
- 6.10.5 Not only the approval of current application will not set an undesirable precedent case, but it will also **set a good example and demonstrate the good practices** for other asphalt plants in the territory. The Applicant has dedicated **sincere efforts** in implementing environmental protection and control measures, offering a safe occupational environment and maintaining close and responsive communication with local community to strike a balance between the interests of different stakeholders. The approval of current application will encourage the implementation of good practices by other asphalt plants.

## 7. CONCLUSION

- 7.1.1 This *Planning Statement* is submitted to the Board in support of a planning application for **Temporary Asphalt Plant for a Period of Five Years** at Lots 20 RP (Part), 21 and 23 RP (Part) in D.D. 88 and Adjoining Government Land, East of Man Kam To Road, Sheung Shui, New Territories. The current application aims to renew the previous planning permission under Planning Application No. A/NE-FTA/192 from the Board which will be expired on 12.12.2024 such that the Applicant can be given opportunity to continue using the application site for the Temporary Asphalt Plant.
- 7.1.2 The application site is subject to three previous planning applications (No. A/NE-FTA/123, A/NE-FTA/148 and A/NE-FTA/192). The latest planning application No. A/NE-FTA/192 for the same use was approved with conditions by the Board on 18.10.2019.
- 7.1.3 The application site currently falls within an area zoned “Open Storage” (“OS”) on the approved Fu Tei Au and Sha Ling Outline Zoning Plan (OZP) No. S/NE-FTA/18 gazetted on 19.4.2024. As detailed in this Planning Statement, the Temporary Asphalt Plant is well justified on the grounds that:-
- (a) *Approval of the current application enables the Applicant to continue utilizing the application site to support the industry and the community and benefit Hong Kong's long-term development;*
  - (b) *The Temporary Asphalt Plant supports with the development principle of "driving development by transport infrastructure" under the Hong Kong Major Transport Infrastructure Development Blueprint promulgated in 2023 and fuels future growth and development in Hong Kong;*
  - (c) *The Temporary Asphalt Plant is essential to address local and territorial demand for asphalt and support Hong Kong infrastructural developments;*
  - (d) *There will be no substantial changes in planning circumstances by allowing the current application and the Applicant has demonstrated his full compliance of planning approval conditions of previous planning approval;*
  - (e) *The application is of temporary nature, which will not jeopardise the long-term planning intention of “OS”;*
  - (f) *The Temporary Asphalt Plant will not be in conflict with the implementation programme of the relocation of Cheung Sha Wan Temporary Wholesale Poultry Market;*
  - (g) *No adverse environmental impact is expected as the temporary asphalt will continue to be in line with all the required environmental control measures and good site practices;*
  - (h) *No adverse traffic impact is expected as there is no significant change in planning circumstances and all key junctions will operate with sufficient capacity;*
  - (i) *No adverse drainage impact is expected as there is no change in the drainage system and the Applicant will continue to carry out routine maintenance; and*
  - (j) *The approval of the current application will not set an undesirable precedent.*

- 7.1.4 In view of the above and the list of detailed planning justifications in this Planning Statement, it is sincerely hoped that the Board will give favourable consideration to approve the current application for a temporary period of five years.



## List of Figures

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Figure 1	Location Plan
Figure 2	Extract of Lot Index Plan No. ags_S00000129261_0001
Figure 3	Extract of Approved Fu Tei Au and Sha Ling Outline Zoning Plan No. S/NE-FTA/18
Figure 4	Layout Plan



**LEGEND:**



The Application Site

(For Identification Only)

**Project:**  
Section 16 Planning Application for Temporary Asphalt Plant for a Period of 5 Years at Lots 20RP (Part), 21 and 23RP (Part) in D.D. 88 and Adjoining Government Land, East of Man Kam To Road, Sheung Shui, New Territories (Renewal of Planning Application No. A/NE-FTA/192)

**Title:**  
Location Plan  
(Extract of Survey Sheet 3-NW-C)

Ref.: ADCL/PLG-10290-R001/F001

**Figure:**  
1

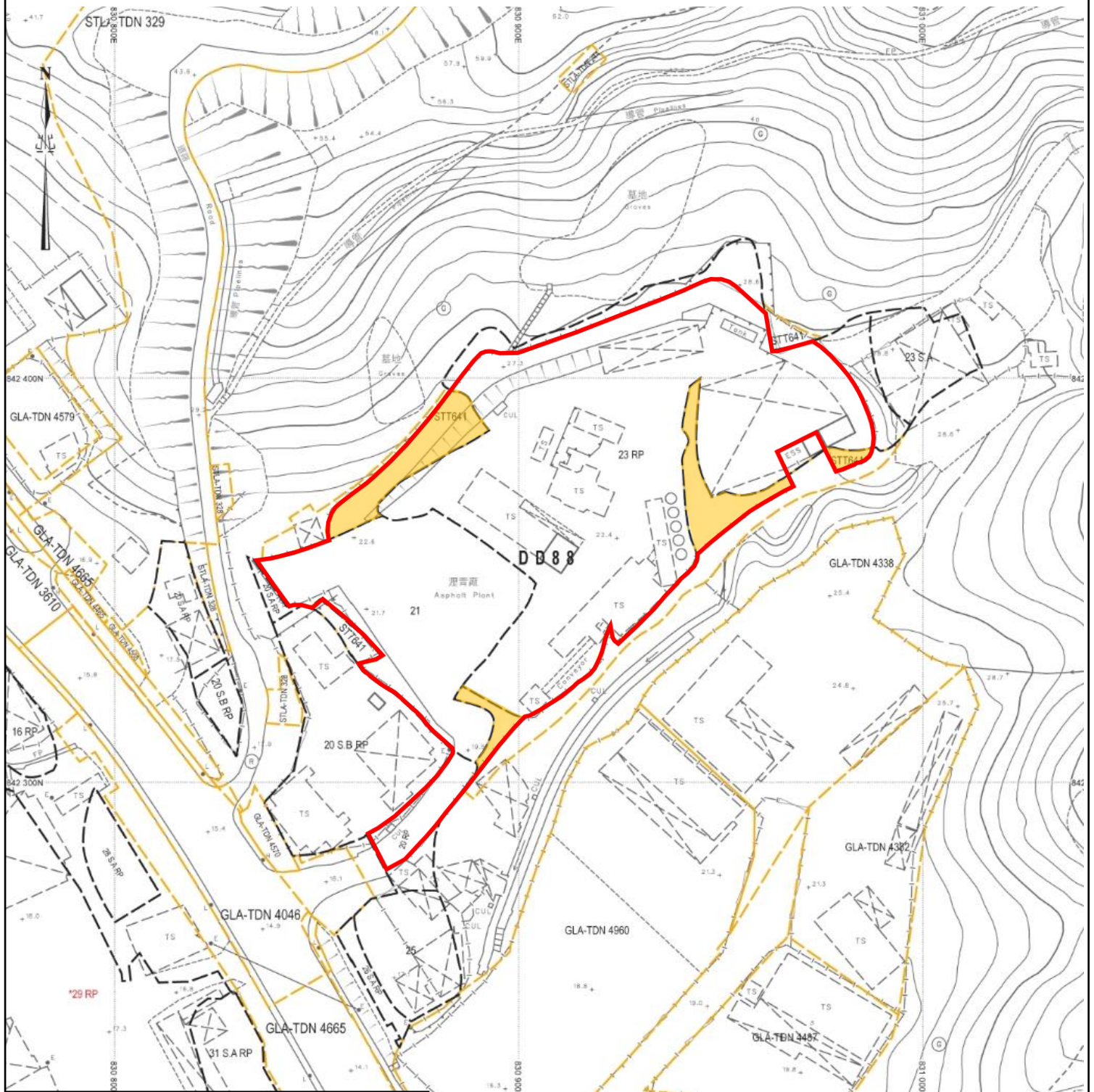
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**Date:**  
Aug 2024



AIKON DEVELOPMENT CONSULTANCY LTD.





**LEGEND:**



The Application Site



Government Land

(For Identification Only)

**Project:**

Section 16 Planning Application for Temporary Asphalt Plant for a Period of 5 Years at Lots 20RP (Part), 21 and 23RP (Part) in D.D. 88 and Adjoining Government Land, East of Man Kam To Road, Sheung Shui, New Territories (Renewal of Planning Application No. A/NE-FTA/192)

**Title:**

Extract of Lot Index Plan No. ags\_S00000129261\_0001

Ref.: ADCL/PLG-10290-R001/F001

**Figure:**

2

**Scale:**

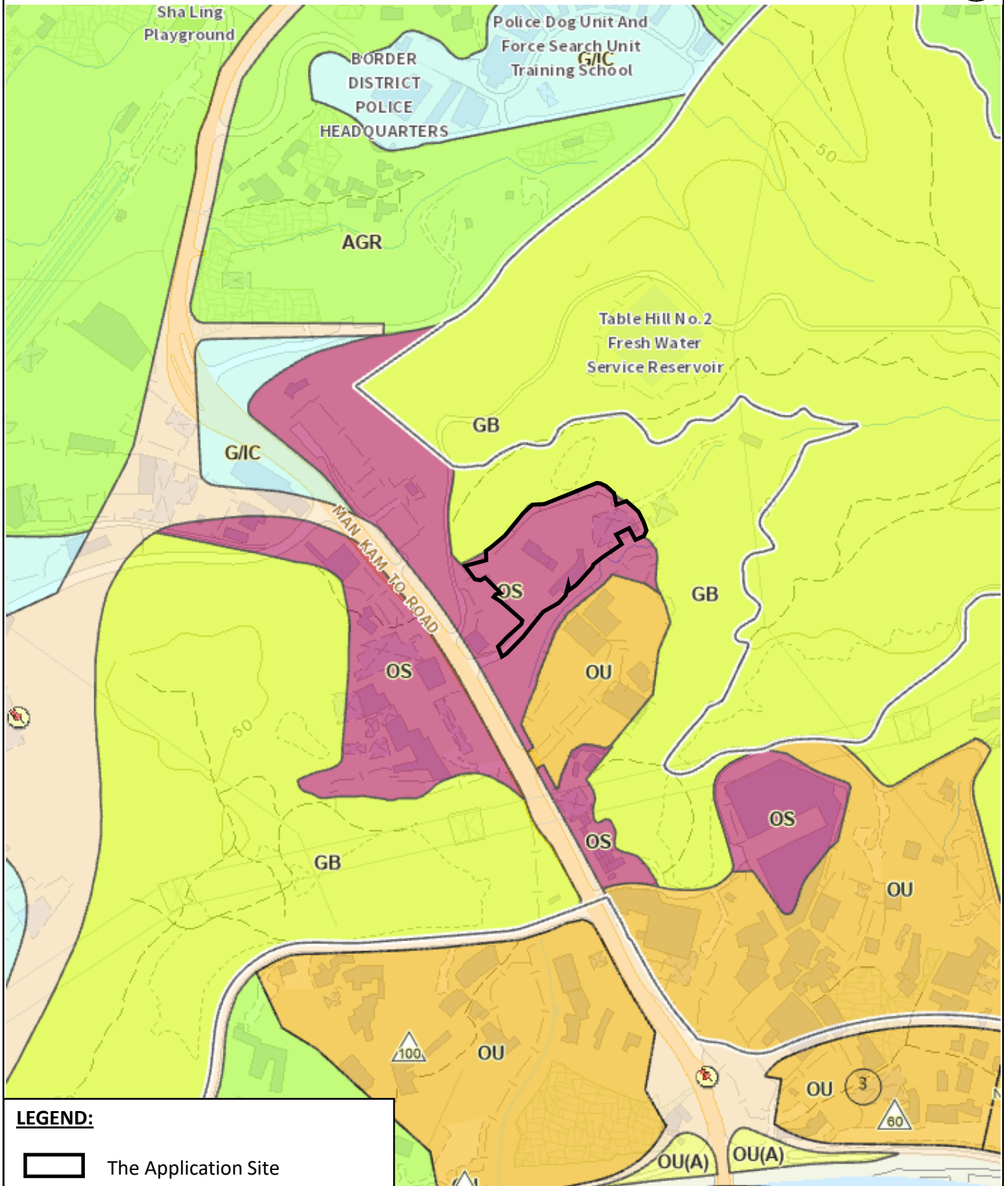
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**Date:**

Aug 2024



AIKON DEVELOPMENT CONSULTANCY LTD.



**LEGEND:**



The Application Site

*(For Identification Only)*

**Project:**

Section 16 Planning Application for Temporary Asphalt Plant for a Period of 5 Years at Lots 20RP (Part), 21 and 23RP (Part) in D.D. 88 and Adjoining Government Land, East of Man Kam To Road, Sheung Shui, New Territories (Renewal of Planning Application No. A/NE-FTA/192)

**Title:**

Extract of Approved Fu Tei Au and Sha Ling Outline Zoning Plan No. S/NE-FTA/18

Ref.: ADCL/PLG-10290-R001/F003

**Figure:**

3

**Scale:**

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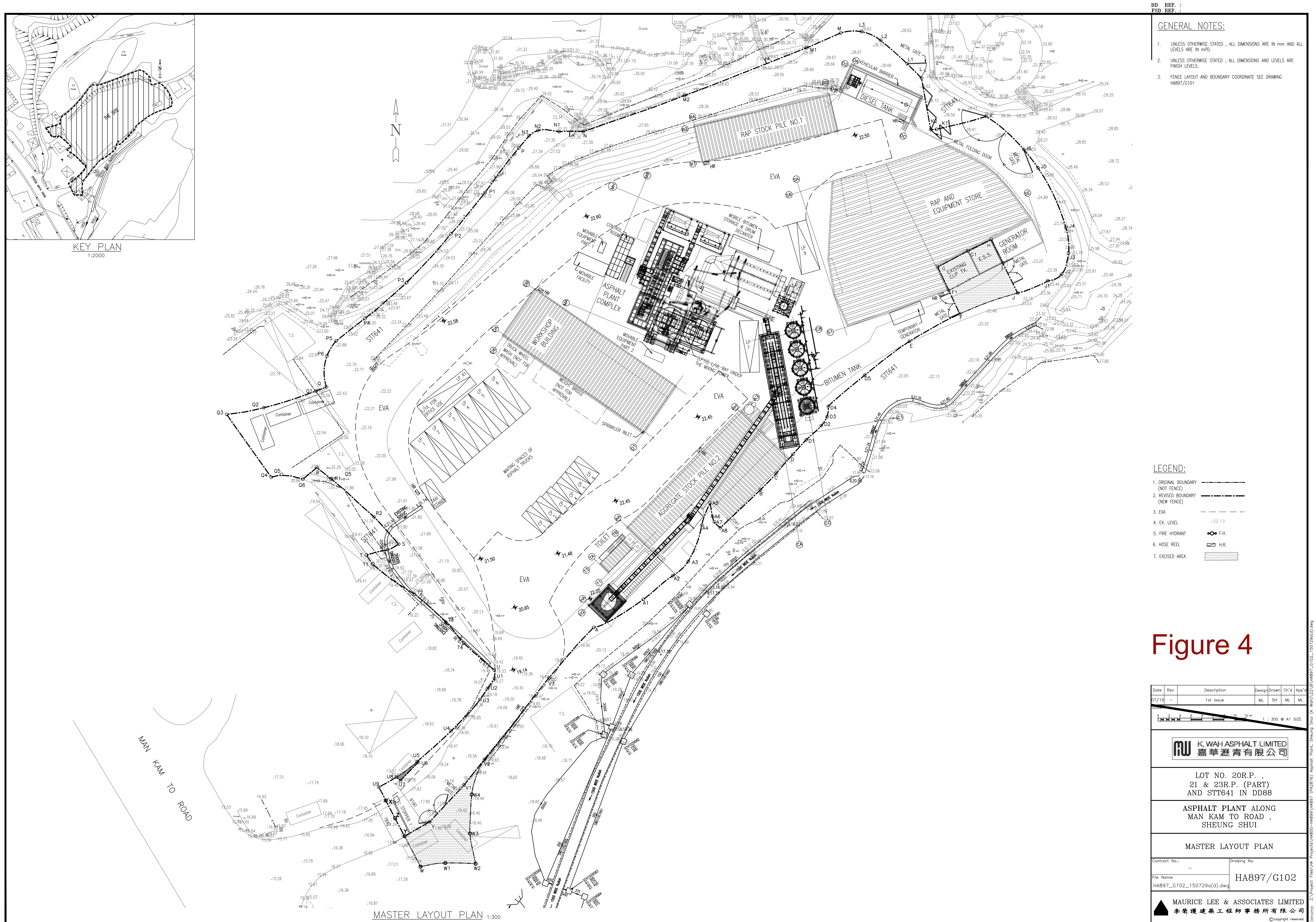
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Aug 2024



AIKON DEVELOPMENT CONSULTANCY LTD.





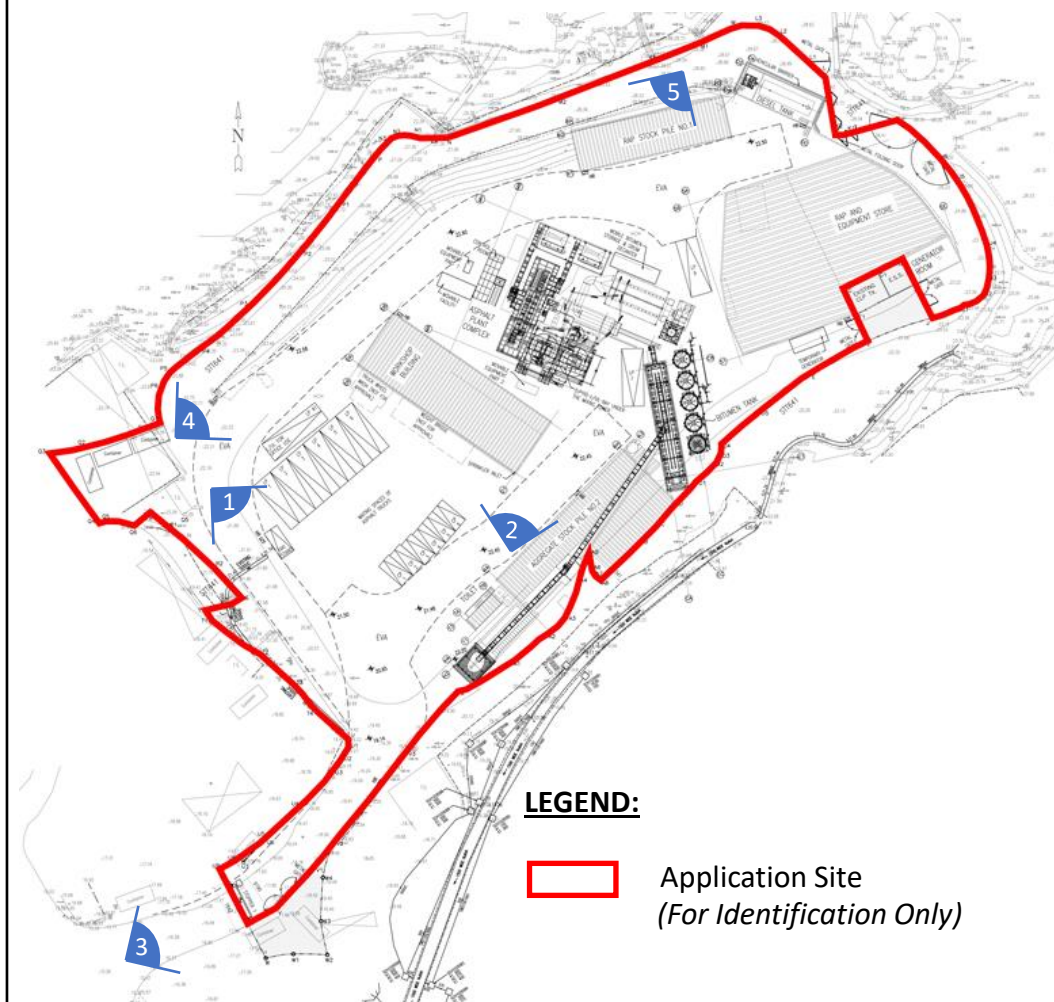


## List of Illustrations

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Illustration 1	Existing Condition of the Application Site
Illustration 2	Existing Condition of the Surrounding Area
Illustration 3	Current Condition of Implemented Landscape Proposal
Illustration 4	Current Condition of Boundary Fencing





**Project:**  
Section 16 Planning Application for Temporary Asphalt Plant for a Period of 5 Years at Lots 20RP (Part), 21 and 23RP (Part) in D.D. 88 and Adjoining Government Land, East of Man Kam To Road, Sheung Shui, New Territories (Renewal of Planning Application No. A/NE-FTA/192)

**Title:**  
Existing Condition of the Application Site  
(Photos taken in June 2024)

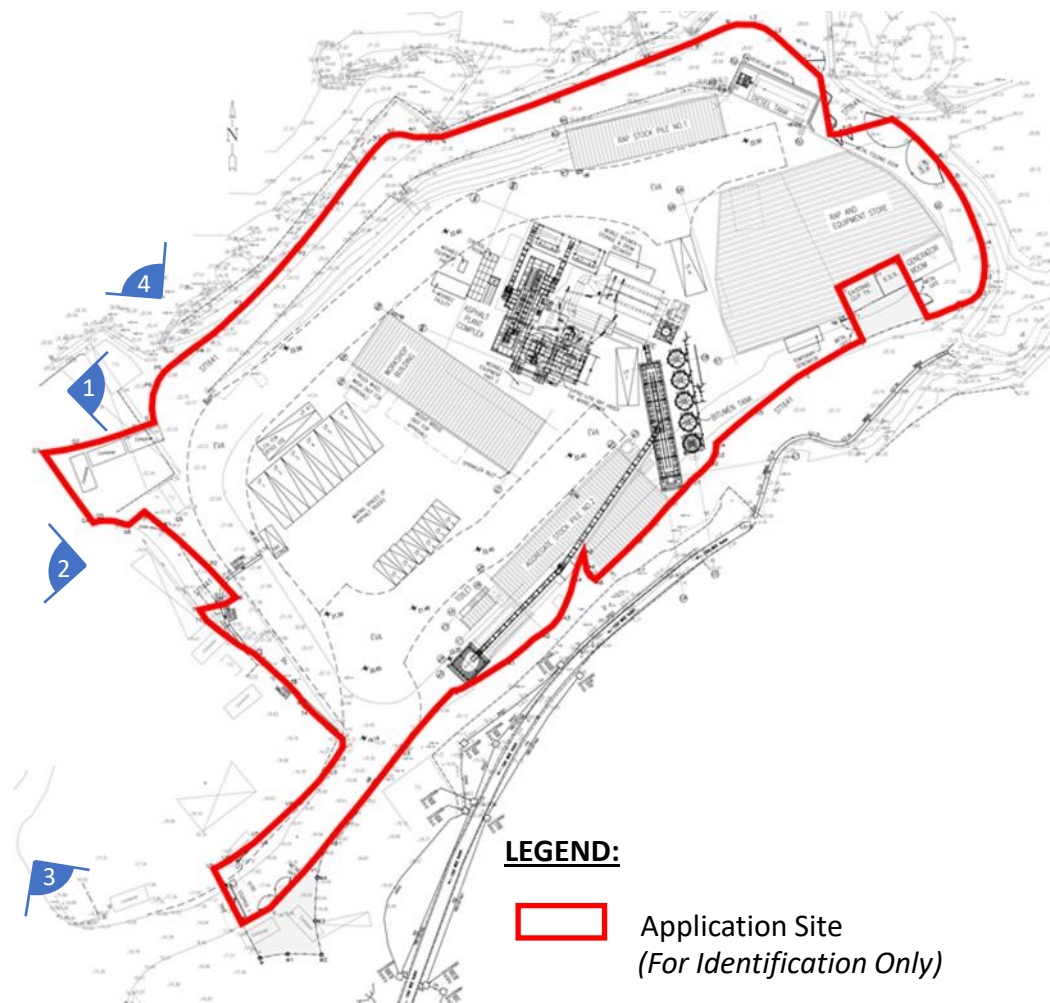
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**Scale:**  
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**Date:**  
July 2024





**Project:**  
Section 16 Planning Application for Temporary Asphalt Plant for a Period of 5 Years at Lots 20RP (Part), 21 and 23RP (Part) in D.D. 88 and Adjoining Government Land, East of Man Kam To Road, Sheung Shui, New Territories (Renewal of Planning Application No. A/NE-FTA/192)

**Title:**  
Existing Condition of the Surrounding Area  
(Photos taken in June 2024)

Ref.: ADCL/PLG-10290-R001/I002

**Illustration:**  
2

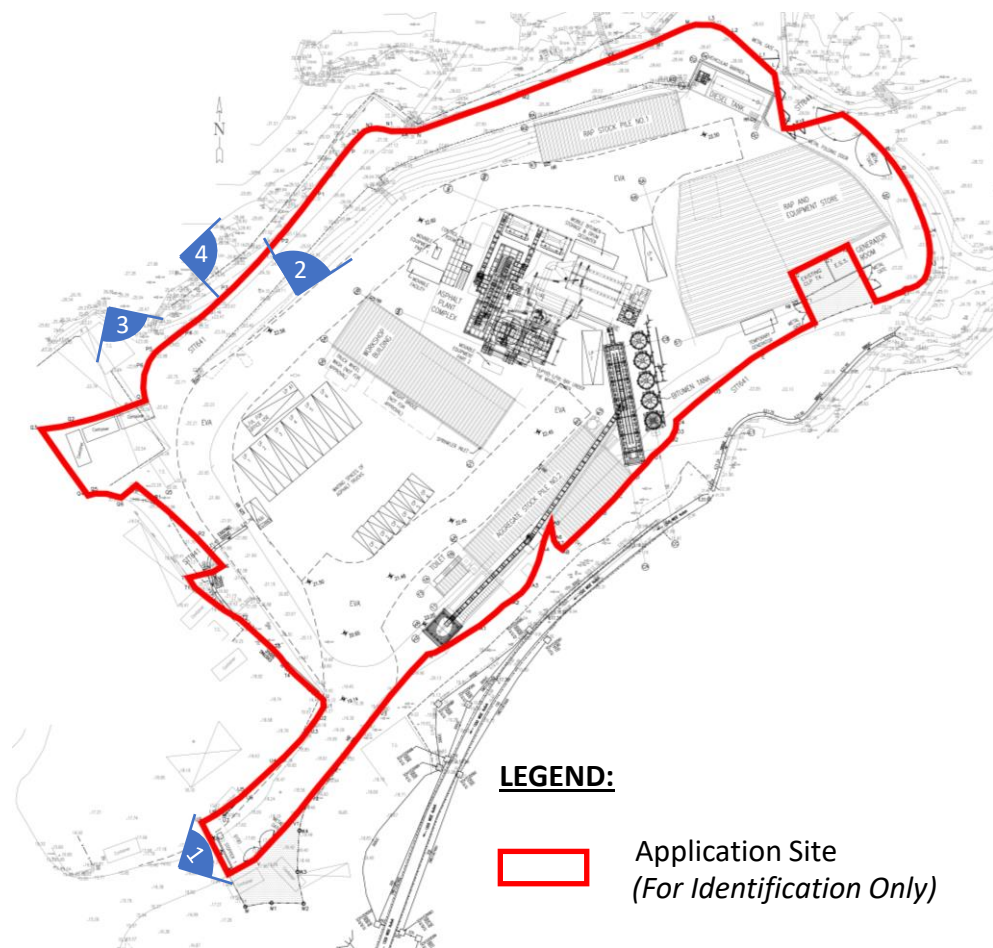
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**Date:**  
July 2024









**Project:**  
Section 16 Planning Application for Temporary Asphalt Plant for a Period of 5 Years at Lots 20RP (Part), 21 and 23RP (Part) in D.D. 88 and Adjoining Government Land, East of Man Kam To Road, Sheung Shui, New Territories (Renewal of Planning Application No. A/NE-FTA/192)

**Title:**  
Current Condition of the Boundary Fencing  
(Photos taken in June 2024)

Ref.: ADCL/PLG-101290-R001/F001

**Illustration:**  
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**Scale:**  
N/A

**Date:**  
July 2024



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Appendix 1

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Approval Letter for Planning Application No. A/NE-FTA/192

**城市規劃委員會**

香港北角渣華道三百三十三號  
北角政府合署十五樓

**TOWN PLANNING BOARD**

15/F., North Point Government Offices  
333 Java Road, North Point,  
Hong Kong.

傳 真 Fax: 2877 0245 / 2522 8426

電 話 Tel: 2231 4317

來函檔號 Your Reference:

By Post & Fax (3180 7611)

覆函請註明本會檔號

In reply please quote this ref.: TPB/A/NE-FTA/192

1 November 2019

Aikon Development Consultancy Ltd.  
Unit 1310, Tower 2, Metroplaza  
223 Hing Fong Road  
Kwai Chung, New Territories  
(Attn.: Thomas Luk)

Dear Sir/Madam,

**Renewal of Planning Approval for Temporary Asphalt Plant for a Period of 5 Years  
in “Open Storage” Zone, Lots 20 RP (Part), 21 and 23 RP (Part) in D.D. 88  
and adjoining Government Land, East of Man Kam To Road, Sheung Shui**

I refer to my letter to you dated 17.10.2019.

After giving consideration to the application, the Town Planning Board (TPB) approved the application for permission under section 16 of the Town Planning Ordinance on the terms of the application as submitted to the TPB. The permission shall be valid on a temporary basis for a period of 5 years from 13.12.2019 until 12.12.2024 and is subject to the following conditions :

- (a) the maintenance of peripheral fencing on the site at all times during the planning approval period;
- (b) the maintenance of all existing trees within the site at all times during the planning approval period;
- (c) the submission of a drainage proposal within 6 months from the date of the commencement of the renewed planning approval to the satisfaction of the Director of Drainage Services or of the TPB by 13.6.2020;
- (d) in relation to (c) above, the implementation of drainage proposal within 9 months from the date of the commencement of the renewed planning approval to the satisfaction of the Director of Drainage Services or of the TPB by 13.9.2020;
- (e) the submission of proposals for fire service installations and water supplies for fire-fighting within 6 months from the date of the commencement of the renewed planning approval to the satisfaction of the Director of Fire Services or of the TPB by 13.6.2020;

- (f) in relation to (e) above, the implementation of the proposals for fire service installations and water supplies for fire-fighting within 9 months from the date of the commencement of the renewed planning approval to the satisfaction of the Director of Fire Services or of the TPB by 13.9.2020;
- (g) the implementation of noise mitigation measures, as proposed by you, within 9 months from the date of the commencement of the renewed planning approval to the satisfaction of the Director of Environmental Protection or of the TPB by 13.9.2020;
- (h) if any of the above planning conditions (a) or (b) is not complied with during the planning approval period, the approval hereby given shall cease to have effect and shall be revoked immediately without further notice; and
- (i) if any of the above planning conditions (c), (d), (e), (f) or (g) is not complied with by the specified date, the approval hereby given shall cease to have effect and shall on the same date be revoked without further notice.

The TPB also agreed to advise you to note the advisory clauses as set out at Appendix IV of the TPB Paper.

You are reminded to **strictly** adhere to the time limit for complying with the above planning conditions. If any of the above planning conditions are not complied with by the specified time limit, the permission given shall be revoked without further notice and the development will be subject to enforcement action. If you wish to apply for extension of time for compliance with planning conditions, you should submit a section 16A application to the TPB no less than six weeks before the expiry of the specified time limit. This is to allow sufficient time for processing of the application in consultation with the concerned departments. The TPB will not consider any application for extension of time if the time limit specified in the permission has already expired at the time of consideration by the TPB. For details, please refer to the TPB Guidelines No. 34C and 36B. The Guidelines, application form (Form No. S16A) and the Guidance Notes for applications are available at the TPB's website ([www.info.gov.hk/tpb/](http://www.info.gov.hk/tpb/)), the Planning Enquiry Counters of the Planning Department (Hotline : 2231 5000) at 17/F, North Point Government Offices, 333 Java Road, North Point; 14/F, Sha Tin Government Offices, 1 Sheung Wo Che Road, Sha Tin; and the Secretariat of the TPB at 15/F, North Point Government Offices.

This temporary permission will lapse on 13.12.2024. You may submit an application to the TPB for renewal of the temporary permission no less than two months before its expiry by completing an application form (Form No. S16-III). For details, please refer to TPB Guidelines No. 34C. However, the TPB is under no obligation to renew the temporary permission.

For amendments to the approved scheme that may be permitted with or without application under section 16A, please refer to TPB Guidelines No. 36B for details.

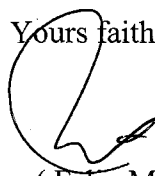
A copy of the TPB Paper in respect of the application (except the supplementary planning statement/technical report(s), if any) and the relevant extract of minutes of the TPB meeting held on 18.10.2019 are enclosed herewith for your reference.

Under section 17(1) of the Town Planning Ordinance, an applicant aggrieved by a decision of the TPB may apply to the TPB for a review of the decision. If you wish to seek a review, you should inform me within 21 days from the date of this letter (on or before 22.11.2019). I will then contact you to arrange a hearing before the TPB which you and/or your authorized representative will be invited to attend. The TPB is required to consider a review application within three months of receipt of the application for review. Please note that any review application will be published for three weeks for public comments.

This permission by the TPB under section 16 of the Town Planning Ordinance should not be taken to indicate that any other government approval which may be needed in connection with the development, will be given. You should approach the appropriate government departments on any such matter.

If you have any queries regarding this planning permission, please contact Mr. Tim Fung of Sha Tin, Tai Po & North District Planning Office at 2158 6237. In case you wish to consult the relevant Government departments on matters relating to the above approval conditions, a list of the concerned Government officers is attached herewith for your reference.

Yours faithfully,



( Felix MA )

for Secretary, Town Planning Board

## **List of Government Department Contacts**

(Application No. A/NE-FTA/192)

<b>部門 Department</b>	<b>辦事處 Office</b>	<b>聯絡人姓名 Name of Contact Person</b>	<b>電話號碼 Telephone No.</b>	<b>傳真號碼 Facsimile No.</b>
渠務署 Drainage Services Department	新界北渠務部 Mainland North Division	王秋林先生 Mr. WONG Chau Lam	2300 1433	2770 4761
環境保護署 Environmental Protection Department	策略評估組 Strategic Assessment Group	黃智聰先生 Mr. WONG Chi Chung, Chris	2835 1145	2591 0558
消防處 Fire Services Department	策劃組 Planning Group (PG)	陳銘冲先生 Mr. CHAN Ming Chung	2733 7735	2739 8775

## Appendix 2a

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Letter from Planning Department dated 27.8.2020 for Compliance with Approval Condition (c)  
on Submission of a Drainage Proposal



## 規 劃 署

沙田、大埔及北區規劃處  
香港新界沙田上禾輦路一號  
沙田政府合署  
十三樓 1301-1314 室



## Planning Department

Sha Tin, Tai Po & North District  
Planning Office  
Rooms 1301-1314, 13/F,  
Shatin Government Offices,  
1 Sheung Wo Che Road, Sha Tin,  
N.T., Hong Kong

本函檔號     Your Reference   ADCL/PLG-10189/L005  
本署檔號     Our Reference   (   ) in TPB/A/NE-FTA/192  
電話號碼     Tel. No. :        2158 6220  
傳真機號碼   Fax No. :        2691 2806 / 2696 2377

Aikon Development Consultancy Limited  
Unit 1310, 13/F, Tower 2 Metroplaza,  
223 Hing Fong Road, Kwai Chung  
New Territories, Hong Kong  
(Attn.: Mr. Thomas LUK)

**By Post and Fax (3180 7611)**

27 August 2020

Dear Mr. LUK,

**Renewal of Planning Approval for Temporary Asphalt Plant for a Period of 5 Years  
in “Open Storage” Zone, Lots 20 RP (Part), 21 and 23 RP (Part) in D.D. 88,  
and adjoining Government Land, East of Man Kam To Road, New Territories**

**(Compliance with Approval Conditions (c) and (g) for Application No. A/NE-FTA/192)**

I refer to your submission received on 31.7.2020 for compliance with approval conditions (c) and (g) in relation to the submission of drainage proposal and implementation of noise mitigation measures under the captioned application.

Chief Engineer/Mainland North, Drainage Services Department (Contact Person: Mr. Henry W. C. YU; Tel.: 2300 1407) has been consulted and has no comment on the submission. As such, approval condition (c) is considered complied with. His advisory comments are attached at **Appendix I**.

Please proceed to implement the accepted drainage proposal for compliance with approval condition (d). In order to facilitate compliance checking, you are required to provide a set of completion photo records with viewpoints indicated on the accepted proposals for inspection.

Director of Environmental Protection (Contact Person: Mr. Chris WONG; Tel.: 2835 1145) has been consulted and advised that approval condition (g) is considered not complied with. His advisory comments are attached at **Appendix II**. You are advised to revise and resubmit the proposal for our consideration.

Should you have any queries, please feel free to contact Ms. Wendy W. L. LEE of this department at 2158 6241.

Yours faithfully,

A handwritten signature in dark ink, appearing to read 'Jessica Chu', written in a cursive style.

(Ms. Jessica CHU)  
for and on behalf of  
Director of Planning

## Appendix I

Comments of the Chief Engineer/Mainland North, Drainage Services Department (Contact Person: Mr. Henry YU; Tel.: 2300 1407):

- (a) the “existing nullah” to which the applicant proposed to discharge the storm water from the subject site is maintained by DSD. The applicant should clear the silting, debris and fallen leaves in their proposed drainage system regularly such that no debris, silting and fallen leaves will be washed down to DSD's stormwater drainage system in the downstream;
- (b) the applicant is required to construct and maintain the proposed drainage works properly and rectify the drainage systems if they are found to be inadequate or ineffective during operation. The applicant shall also be liable for and shall indemnify claims and demands arising out of damage or nuisance caused by a failure of the systems. For works undertaken outside the lot boundary, prior consent and agreement from DLO/N and/or relevant private lot owners should be sought;
- (c) the applicant is reminded that all existing flow paths as well as the run-off falling onto and passing through the site should be intercepted and disposed of via proper discharge points. The applicant shall also ensure that no works, including any site formation works, shall be carried out as may adversely interfere with the free flow condition of the existing drain, channels and watercourses on or in the vicinity of the subject site any time during or after the works;
- (d) the lot owner / developer shall take all precautionary measures to prevent any disturbance, damage and pollution from the development to any parts of the existing drainage facilities in the vicinity of the lots. In the event of any damage to the existing drainage facilities, the developer shall be held responsible for the cost of all necessary repair works, compensation and any other consequences arising there from; and
- (e) the applicant shall allow all time free access for the Government and its agent to conduct site inspection on his completed drainage works, if necessary.

## Appendix II

Director of Environmental Protection (Contact Person: Mr. Chris WONG; Tel.: 2835 1145):

- (a) the applicant is requested to provide a letter from the Authorised Person (AP) under Buildings Ordinance (BO) certifying that the implementation of noise mitigation measures, as proposed by the applicant, for the asphalt plant as per approval condition (g) has been satisfactorily and fully implemented, with colour site photos and figures for illustration purpose on the implemented noise mitigation measures;
- (b) the applicant should supplement in the submission on noise mitigation measures for exhaust fan and mixing unit and other relevant measures which were covered and committed to be undertaken by the applicant in the Further Information to support the s.16 application submitted by the applicant on 9.10.2019; and
- (c) the applicant should also confirm that all the committed measures as stated in their Further Information dated 9.10.2019 have been properly and fully implemented to assure that noise standards under Chapter 9 of Hong Kong Planning Standards and Guidelines (HKPSG) would be complied with.

## Appendix 2b

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Letter from Planning Department dated 14.12.2020 for Compliance with Approval Condition  
(d) on Implementation of Drainage Proposal



## 規 劃 署

沙田、大埔及北區規劃處  
新界沙田上禾輦路 1 號  
沙田政府合署 13 樓



## Planning Department

Sha Tin, Tai Po & North  
District Planning Office  
13/F, Shatin Government Offices,  
1 Sheung Wo Che Road, Sha Tin,  
N.T.

本函檔號      Your Reference : ADCL/PLG-10189/L009  
本署檔號      Our Reference : (    ) in TPB/A/NE-FTA/192  
電話號碼      Tel. No. : 2158 6220  
傳真機號碼      Fax No. : 2691 2806 / 2696 2377

**By Post and Fax (3180 7611)**

Aikon Development Consultancy Limited  
Unit 1310, Level 13  
Tower 2 Metroplaza  
223 Hing Fong Road  
Kwai Chung, New Territories  
(Attn.: Mr. Thomas LUK)

14 December 2020

Dear Mr. LUK,

**Renewal of Planning Approval for Temporary Asphalt Plant for a Period of 5 Years  
in “Open Storage” Zone, Lots 20 RP (Part), 21 and 23 RP (Part) in D.D. 88  
and adjoining Government Land, East of Man Kam To Road, Sheung Shui**

**(Compliance with Approval Condition (d) for Application No. A/NE-FTA/192)**

I refer to your submission dated 19.11.2020 for compliance with approval condition (d) in relation to the implementation of drainage proposal under the captioned planning application.

Chief Engineer/Mainland North, Drainage Services Department (Contact person: Mr. Henry YU; Tel. No.: 2300 1407) has been consulted and advised that the implementation of drainage facilities on site was acceptable. As such, approval condition (d) is considered complied with. His advisory comments are attached at **Appendix I**.

Should you have any queries, please feel free to contact Ms. Wendy W. L. LEE of this department at 2158 6241.

Yours faithfully,

( Ms. Jessica CHU )  
for and on behalf of  
Director of Planning



## Appendix I

Comments of the Chief Engineer/Mainland North, Drainage Services Department  
(Contact Person: Mr. Henry YU; Tel. No.: 2300 1407):

- (a) the applicant is reminded that the development and the drainage facilities implemented on site shall not obstruct overland flow/surface runoff and any existing drainage facilities; and
- (b) the applicant shall make sure that rain water falling onto the subject site shall be collected by a drainage system and conveyed to a proper discharge point(s). The applicant shall maintain such system properly and rectify the system if it is found to be inadequate or ineffective during operation at his own cost. The applicant shall also be liable for and shall indemnify Government against claims and demands arising out of damage or nuisance caused by a failure of the system.

## Appendix 2c

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Letter from Planning Department dated 27.7.2020 for Compliance with Approval Condition (e)  
on Submission of Proposal for Fire Services Installations and Water Supplies for Fire-fighting

## 規 劃 署

沙田、大埔及北區規劃處  
香港新界沙田上禾輦路一號  
沙田政府合署  
十三樓 1301-1314 室



## Planning Department

Sha Tin, Tai Po & North District  
Planning Office  
Rooms 1301-1314, 13/F.,  
Shatin Government Offices,  
1 Sheung Wo Che Road, Sha Tin,  
N.T., Hong Kong

本函檔號      Your Reference    ADCL/PLG-10189/L004  
本署檔號      Our Reference    (    ) in TPB/A/NE-FTA/192  
電話號碼      Tel. No. :          2158 6220  
傳真機號碼    Fax No. :          2691 2806 / 2696 2377

Aikon Development Consultancy Limited  
Unit 1310, 13/F, Tower 2 Metroplaza,  
223 Hing Fong Road, Kwai Chung  
New Territories, Hong Kong  
(Attn.: Mr. Thomas LUK)

**By Post and Fax (3180 7611)**

27 July 2020

Dear Mr. LUK,

**Renewal of Planning Approval for Temporary Asphalt Plant for a Period of 5 Years  
in “Open Storage” Zone, Lots 20 RP (Part), 21 and 23 RP (Part) in D.D. 88,  
and adjoining Government Land, East of Man Kam To Road, New Territories**

**(Compliance with Approval Conditions (e) and (f) for Application No. A/NE-FTA/192)**

I refer to your submission received on 17.6.2020 for compliance with approval conditions (e) and (f) in relation to the submission and implementation of the proposals for fire service installations and water supplies for fire-fighting under the captioned application.

Director of Fire Services (Contact person: Mr. CHAN Ming-chung; Tel.: 2733 7735) has been consulted and advised that approval condition (e) is considered complied with. His advisory comments are attached at **Appendix I**. For condition (f), your submission is still being processed by the Fire Services Department. His comment(s) will be conveyed to you once available.

Should you have any queries, please feel free to contact Ms. Wendy W. L. LEE of this department at 2158 6241.

Yours faithfully,

(Ms. Jessica CHU)  
for and on behalf of  
Director of Planning

**Appendix I**

Comments of the Director of Fire Services (Contact Person: Mr. CHAN Ming-chung; Tel.: 2733 7735 or Mr. IP Yan-chi, Joseph; Tel: 2733 5844):

- the applicant is advised that the installation/ maintenance/ modification/ repair work of the fire service installation (FSI) shall be undertaken by an 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 (FS251) and forward a copy of the certificate to the Director of Fire Services.

## Appendix 2d

Letter from Planning Department dated 2.11.2020 for Compliance with Approval Condition (f)  
on Implementation of the Proposal for Fire Services Installations and Water Supplies for Fire-  
fighting

## 規 劃 署

沙田、大埔及北區規劃處  
香港新界沙田上禾輦路一號  
沙田政府合署  
十三樓 1301-1314 室



## Planning Department

Sha Tin, Tai Po & North District  
Planning Office  
Rooms 1301-1314, 13/F.,  
Shatin Government Offices,  
1 Sheung Wo Che Road, Sha Tin,  
N.T., Hong Kong.

本函檔號      Your Reference  
本署檔號      Our Reference    (    ) in TPB/A/NE-FTA/192  
電話號碼      Tel. No. :            2158 6220  
傳真機號碼    Fax No. :            2691 2806 / 2696 2377

Aikon Development Consultancy Limited  
Unit 1310, 13/F, Tower 2 Metroplaza,  
223 Hing Fong Road, Kwai Chung  
New Territories, Hong Kong  
(Attn.: Mr. Thomas LUK)

**By Post and Fax (3180 7611)**

2 November 2020

Dear Mr. LUK,

**Renewal of Planning Approval for Temporary Asphalt Plant for a Period of 5 Years  
in "Open Storage" Zone, Lots 20 RP (Part), 21 and 23 RP (Part) in D.D. 88,  
and adjoining Government Land, East of Man Kam To Road, New Territories**

**(Compliance with Approval Condition (f) for Application No. A/NE-FTA/192)**

I refer to your submission received on 4.8.2020 for compliance with approval condition (f) in relation to the implementation of the proposals for fire service installations and water supplies for fire-fighting under the captioned application. An interim reply was sent to you on 15.9.2020.

Director of Fire Services (Contact person: Mr. IP Yan-chi, Joseph; Tel.: 2733 5844) has been consulted and advised that approval condition (f) is considered complied with.

Should you have any queries, please feel free to contact Ms. Wendy W. L. LEE of this department at 2158 6241.

Yours faithfully,

(Ms. Jessica CHU)  
for and on behalf of  
Director of Planning

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Internal  
CTP/TPB(1)  
Site record

HFC/TF/WL/JT/jt



## Appendix 2e

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Letter from Planning Department dated 26.7.2021 for Compliance with Approval Condition  
(g) on Implementation of Noise Mitigation Measures

## 規 劃 署

沙田、大埔及北區規劃處  
香港新界沙田上禾輦路一號  
沙田政府合署  
十三樓 1301-1314 室



## Planning Department

Sha Tin, Tai Po & North District  
Planning Office  
Rooms 1301-1314, 13/F.,  
Shatin Government Offices,  
1 Sheung Wo Che Road, Sha Tin,  
N.T., Hong Kong.

本函檔號      Your Reference    ADCL/PLG-10189/L015  
本署檔號      Our Reference    (    ) in TPB/A/NE-FTA/192  
電話號碼      Tel. No. :          2158 6220  
傳真機號碼    Fax No. :          2691 2806 / 2696 2377

Aikon Development Consultancy Limited  
Unit 1310, 13/F, Tower 2 Metroplaza,  
223 Hing Fong Road, Kwai Chung  
New Territories, Hong Kong  
(Attn.: Mr. Thomas LUK)

**By Post and Fax (3180 7611)**

26 July 2021

Dear Mr. LUK,

**Renewal of Planning Approval for Temporary Asphalt Plant for a Period of 5 Years  
in “Open Storage” Zone, Lots 20 RP (Part), 21 and 23 RP (Part) in D.D. 88,  
and adjoining Government Land, East of Man Kam To Road, Sheung Shui**

**(Compliance with Approval Condition (g) for Application No. A/NE-FTA/192)**

I refer to your submission received on 18.6.2021 for compliance with approval condition (g) in relation to the implementation of noise mitigation measures.

Director of Environmental Protection (Contact Person: Ms. Candice CHUNG Tel.: 2835 1114) has been consulted and has no comment on your submission. As such, approval condition (g) is considered complied with.

Should you have any queries, please feel free to contact Ms. Wendy W. L. LEE of this department at 2158 6241.

Yours faithfully,

( Ms. Jessica CHU )

for and on behalf of Director of Planning

### Appendix 3

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Temporary Building Permit and Temporary Occupation Permit dated 19.5.2023 and Approved  
Drawings

19 May 2023

**CHEUNG Vincent Dick Fai**  
**Unit 01, 17/F,**  
**Canny Industrial Building,**  
**33 Tai Yau Street, San Po Kong,**  
**Kowloon.**

Dear Sir,

**Renewal of Temporary Building Permit (TBP)[No. NT 9/2016(TBP)] and  
Temporary Occupation Permit (TOP)[No. NT 5/2017(TOP)]  
East of Man Kam To Road, Sheung Shui, New Territories  
on D.D. 88 Lot 20 R.P., 21 and 23 R.P. (Part)**

I refer to your letter received on 5 May 2023 applying for the renewal of the captioned TBP and TOP.

2. I attached herewith the TBP No. NT 9/2016(TBP) and TOP No. NT 5/2017(TOP) which have been renewed up to 12 December 2024.
3. Director of Fire Services of Fire Services Department (Contact Officer: Mr. W.F. YIP at 3971 4625) has no objection in principle to your application provided that all existing fire services installations and equipment required by Fire Services Department are maintained in an efficient working order at all times.
4. District Planning Officer/Shia Tin, Tai Po & North of Planning Department (Contact Officer: Mr. Tim FUNG at 2158 6237) has no statutory planning objection to your application.
5. Comments from District Lands Officer/North of Lands Department will be conveyed to you if available.
6. Prior to future application for renewal of permits, you are advised to ensure that no unauthorized building works are carried out during the continuance of period covered by the permits. If building works are required to be carried out, amendment plans shall be submitted for our consideration prior to commencement of works.
7. Your attention is drawn to the conditions imposed in paragraph 2 of the Form BD 105 and Form BD 107. As regards item 2(f) on form BD 107 regarding removal of the temporary building, please note that the demolition works will be subject to control under the Buildings Ordinance (BO) and as such prior approval and consent under Section 14(1) of the BO is required for the works.

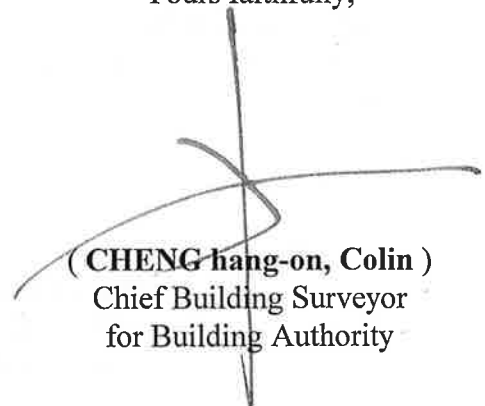
/8...



Our Ref. BD 2/9260/13(TB)(P)(Pt.IV)

8. To allow adequate time for processing of future permit renewals, you are advised to submit the application preferably 45 days ahead of the expiry date.

Yours faithfully,

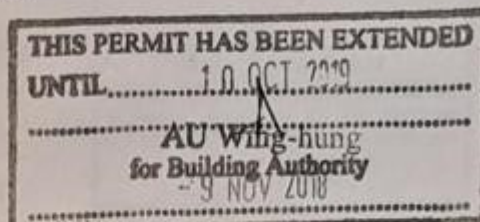


( **CHENG hang-on, Colin** )  
Chief Building Surveyor  
for Building Authority

c.c. K. Wah Asphalt Limited  
Suite No. 912, 9/F,  
Skyline Tower, 9 Wang Kwong Road,  
Kowloon Bay, Hong Kong

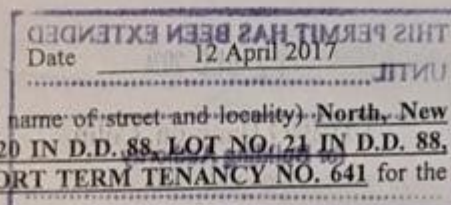
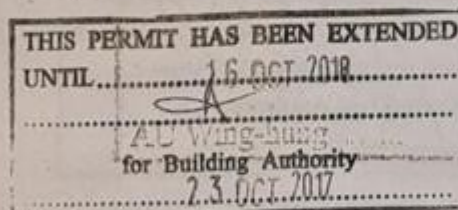
DFS	(By Fax ONLY: 2772 6234)
DPO/STN	(By Fax ONLY: 2691 2806)
DLO/N	(By Fax ONLY: 2675 9224)

BUILDING AUTHORITY OF HONG KONG  
FORM BD 105  
BUILDINGS ORDINANCE  
(Chapter 123)  
Section 21



Permit for temporary occupation of a new temporary building  
or of the whole/part of a new building

Permit No. NT 5/2017(TOP)  
Our Ref. No. BD 2/9260/13 (TB)(P)(Pt. III)  
To: K. Wah Asphalt Limited  
c/o CHEUNG Vincent Dick Fai  
Room 102-103, 1st Floor,  
David House,  
8-20 Nanking Street,  
Jordan,  
Kowloon



I hereby permit the occupation of the new building, at (No. and name of street and locality) North, New Territories on (Lot No.) THE REMAINING PORTION OF LOT NO. 20 IN D.D. 88, LOT NO. 21 IN D.D. 88, THE REMAINING PORTION OF LOT NO. 23 IN D.D. 88 AND SHORT TERM TENANCY NO. 641 for the following purposes:

- (A) A single-storey asphalt plant complex for non-domestic use;
- (B) A single-storey control room building for non-domestic use;
- (C) A single-storey workshop building for non-domestic use;
- (D) A single-storey RAP and equipment store building for non-domestic use;
- (E) A single-storey RAP stock pile no. 1 building for non-domestic use;;
- (F) A single-storey aggregate stock pile no. 2 building for non-domestic use;
- (G) A two-storey portable toilet building for non-domestic use; and
- (H) Open parking spaces for non-domestic use,

for a period of expiring on 11 October 2017.

2. The permit is granted subject to the following conditions -

- (a) During the period of temporary occupation all fire service installations and equipment covered by the Director of Fire Services Certificate dated 11 April 2017 and referenced FP 19/28603 must at all times be maintained in efficient working order.
- (b) No building works are to be carried out contrary to the provisions of the Buildings Ordinance and regulations made there under.
- (c) All precautionary measures necessary to ensure the safety and convenience of the public, the occupiers of the premises or any workmen employed in the construction work should be maintained in good condition during the period of temporary occupation.
- (d) All fire escape routes are to be kept clear at all times.

3. Your attention is drawn to the provision of section 21(3) and (5) of the Buildings Ordinance.



(TANG Hoi-kwan, Edwin)  
Chief Building Surveyor  
for Building Authority

PERMIT HAS BEEN EXTENDED  
UNTIL 11 MAR 2023  
HUNG Ling-chi  
for Building Authority

THIS PERMIT HAS BEEN EXTENDED  
UNTIL 12 DEC 2024  
CHENG Hang-on, Colin  
for Building Authority  
19 MAY 2023

CERTIFIED TRUE COPY  
23 FEB 2023  
Section Chief's Office  
Planning and Development Department  
A public officer authorized by the Building  
Department is making this statement  
of fact for the Building Department



**BUILDING AUTHORITY OF HONG KONG**  
**FORM BD 107**  
**BUILDINGS ORDINANCE**  
 (Chapter 123)  
**BUILDING (PLANNING) REGULATIONS**  
 Regulation 51

**CERTIFIED TRUE COPY**

LEUNG Yuen-yeec, Debby  
 Senior Clerical Officer

A public officer authorized by the Building  
 Authority in writing for the purposes  
 of Section 36H of the Buildings Ordinance

**23 FEB 2023**

Permit to erect a temporary building

Permit No. NT 9/2016(TBP)  
 Our Ref. No. BD 2/9260/13(TB)  
 To: K. Wah Asphalt Limited  
 c/o CHEUNG Vincent Dick Fai  
Room 102-103, 1st Floor,  
David House,  
8-20 Nanking Street,  
Jordan, Kowloon.

**THIS PERMIT HAS BEEN EXTENDED**

UNTIL 10 OCT 2019

AU Wing-ting  
 for Building Authority

9 NOV 2018

Date 28 March 2017

I hereby permit the erection of temporary buildings at (No. and name of street and locality)  
East of Man Kam To Road, Sheung Shui - D.D. 88 Lot 20 R.P., 21 and 23 R.P. (Part) on (Lot  
 No.) D.D. 88 Lot 20 R.P., 21 and 23 R.P. (Part) in accordance with the plans approved by me  
 on See Table Below. Consent to the commencement of the works to erect the said temporary buildings is  
 also hereby given.

Type of Plans	Date of Notice of Approval
Building (Temporary)	22.12.2015
Building (Temporary)Amendment	23.2.2016
Building (Temporary)Amendment	3.6.2016
Building (Temporary)Amendment	18.7.2016
Superstructure (Steel Frame) - Filler Elevators and Silo	14.12.2015
Superstructure (Steel Frame) - Cold Feeder and Hopper No.2	21.12.2015
Superstructure (Steel Frame) - Rap elevators and Diesel oil tank	24.12.2015
Superstructure (Steel Frame) - Control Cabin, Cold Feeder Facade & Roof, Dryer Drum Base and Slant Conveyor Belt No.1	8.1.2016
Superstructure - Workshop Building and Water Tanks	2.2.2016
Superstructure - Generator Room and Aggregate Stock Pile No.2	2.2.2016
Superstructure - Chimney, Feeding Belt Conveyor, Bag Filter Support, Roof & Cladding of Hopper No.2, RAP-Cold Feeder Canopy and Slant Conveyor Belt No.2.	3.2.2016
Superstructure Amendment (Steel Frame) - Cold Feeder and Hopper No.2	4.2.2016
Superstructure (Steel Frames) - Bitumen Tanks, Rap Feeder and Conveyor Belts.	26.2.2016
Superstructure (Steel Frames and Claddings) - Aggregate Stock Pile No.1	3.3.2016

/Type .....



2 NOV 24

19 MAY 2023

Permit No : NT 9/2016(TBP)  
 Our Ref No.: BD 2/9260/13(TB)  
 Date: 28 March 2017

Type of Plans (Con't.)	Date of Notice of Approval
Superstructure (Steel Frame) - Imported Filler Tower, Mixing Tower and Rap Tower	10.3.2016
Drainage works (Structural Details)	11.3.2016
Superstructure (Steel Frame and Cladding) - Exhaust Fan	22.3.2016
Superstructure (Steel Frame and Cladding) - RAP and Equipment Building	24.3.2016
Superstructure Amendment (Steel Frame) - Rap elevators and Diesel oil tank	18.5.2016
Superstructure Amendment - Chimney, Feeding Belt Conveyor, Bag Filter Support, Roof & Cladding of Hopper No.2, RAP-Cold Feeder Canopy and Slant Conveyor Belt No.2	8.6.2016
Drainage Works (Structural Details) Amendment	16.6.2016
Superstructure (Steel Frame) - Toilet	27.6.2016
Superstructure (Steel Frames) - Water Tanks	11.7.2016
Superstructure Amendment - Generator Room and Aggregate Stock Pile No.2	20.7.2016
Superstructure Amendment - Workshop Building and Water Tanks	20.7.2016
Superstructure Amendment (Steel Frames and Claddings) - Aggregate Stock Pile No. 1	20.7.2016
Drainage (Temporary)	18.7.2016
Building (Temporary) Amendment	27.1.2017
Drainage works (Structural Details) Amendment	24.1.2017
Drainage (Temporary) Amendment	27.1.2017
Building (Temporary) Amendment	28.3.2017
Drainage (Temporary) Amendment	28.3.2017

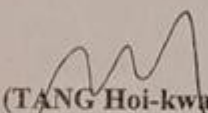
2. This permit is issued subject to the following conditions:

- (a) the work shall be carried out in accordance with the provisions of Part VII of the Building (Planning) Regulations;
- (b) all precautions against fire shall be taken to the satisfaction of the Director of Fire Services;
- (c) the temporary building shall not be occupied unless a temporary occupation permit has been issued and has not expired;
- (d) this permit shall be returned to the Building Authority on expiry;
- (e) this permit may be cancelled at any time without compensation by the service of a notice in writing on the permittee by the Building Authority;

/(f) .....

Permit No : NT 9/2016(TBP)  
Our Ref No.: BD 2/9260/13(TB)  
Date: 28 March 2017

- (f) upon expiry or cancellation of this permit, the temporary building shall be removed forthwith; and
  - (g) prior approval and consent should be obtained from the Building Authority for the demolition of the temporary building.
3. This permit supersedes my pervious permit dated 27 January 2017.
4. This permit is valid until 16 October 2018.

  
(TANG Hoi-kwan, Edwin)  
Chief Building Surveyor  
for Building Authority

Our Ref. : (TBP& TOP)NT23/02-01  
17<sup>th</sup> February 2023

Buildings Department  
7/F, Cityplaza Three (CP3), 14 Taikoo Wan Road,  
Taikoo Shing, Hong Kong

Dear Sirs,

**Re : For Existing Asphalt Batching Plant  
Renewal of Temporary Building (TBP) & Temporary Occupation Permit (TOP)  
@ East of Man Kam To Road, Sheung Shui- D.D. 88 Lot 20 R.P., 21 AND 23 R.P. (part)**

The above TBP & TOP had expire on 09/10/2022.

On behalf of our Client, we would like to apply for renewal of the said permit and submit herewith the following documents for your processing:-

1. 1 copy of Form BA4 signed by the Owner ;
2. 1 copy of Business Registration by the Owner ;
3. 1 copy of Form BA17 signed by the Owner ;
4. 1 copy of top, no.: NT 5/2017(TOP) dated 09/11/2018 issued by BD ;
5. 1 copy of Form FS 251 Certificate ;
6. 1 copy of BD approved plans, drawing no.: HA897/G01(H), HA897/G02(F), HA897/G03(F), HA897/G04(F), HA897/G06(C), HA897/G07(C), HA897/G08 with BD approved chop in A3 size ;
7. 1 copy of stability certification (Form BA6) by RSE ;
8. 1 copy of letter of certification by RSE ;
9. 1 copy of letter of declaration by RSE ;
10. 1 copy of site photos (taken on 09/02/2023) with photo location plan & AP's statement.

Please be informed that the captioned TOP renewal is for a period of 5 years. Please note that the captioned building is capable of lasting 5 years in safe and sanitary conditions for the purposes specified in the application.

Also, Client has lost the original copy of TBP,. Now we would like to retrieve the above said certified true copy of TBP from your office for this application. Please arrange and reply us as soon as possible..

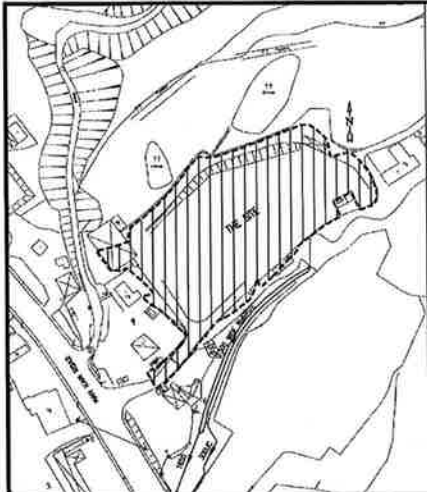
Thank you for your attention and should you have queries, please do not hesitate to contact the undersigned at 2526 6679.

Yours faithfully,



Cheung, Vincent Dick Fai  
Authorized Person  
Encl.  
c.c. Client





# LEGEND:

1. ORIGINAL BOUNDARY (NOT FENCE, FENCE SECTION 18 APPROVAL)
2. REVISED BOUNDARY
3. FENCING CONSTRUCTED UNDER MINOR WORK
4. PERMANENT FENCING
5. NO HOARDING, NO PERMANENT FENCING
6. LOT BOUNDARY OF ST1641
7. EXISTING FENCE
8. EXISTING RAILING (RAILING DETAILS WILL BE SUBMITTED SEPARATELY AFTER TOP)
9. EVA
10. EX. LEVEL
11. PROPOSED STRUCTURAL LEVEL
12. STREET FIRE HYDRANT
13. HOSE REEL
14. EXPOSED AREA
15. NON-BUILDING AREA WITHIN SITE641
16. LANDSCAPE AREA
17. FIRE HYDRANT

## COLOUR:

1. METAL
2. CONCRETE
3. BRICK
4. ASPHALT PAVEMENT
5. STEEL

## PLANNING PARAMETERS

PLANNING SITE AREA : 9056.407 m<sup>2</sup>  
CLASS OF SITE : "A"  
MAIN ROAD LEVEL : 419.60 mPD  
HEIGHT OF BUILDING : 34.000 m  
GROSS FLOOR AREA : 2799.000 m<sup>2</sup>  
PERMITTED PLOT RATIO : 2.55 (UNDER B(P)R)  
SITE COVERED AREA : 2440.711 m<sup>2</sup>  
PERMITTED SITE COVERAGE : 60% (UNDER B(P)R)

## GFA & COVER AREA SCHEDULES

ITEM	DESCRIPTION	COVER AREA (m <sup>2</sup> )	GFA (m <sup>2</sup> )	REMARK
1	WORKSHOP BUILDING	310.000	253.130	SEE DWG: G04
2	RAP AND EQUIPMENT STORE	740.955	740.955	
3	GENERATOR ROOM	40.028	0.000	
4	ASPHALT PLANT COMPLEX, AGGREGATE STOCK PILE NO.2 & BITUMEN TANK	1095.491	1526.358	SEE DWG: G02
5	TOILET AND WASTEWATER COLLECTOR	24.237	36.427	
6	DIESEL TANK	57.500	57.500	SEE DWG: G06
7	RAP STOCK PILE NO.1	162.500	162.500	
	<b>TOTAL</b>	<b>2440.711</b>	<b>2799.000</b>	

ACTUAL PLOT RATIO: 2799.000 / 9056.407 = 0.308 < 0.5

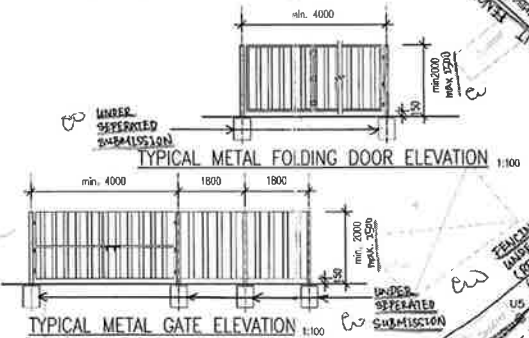
ACTUAL SITE COVERAGE: 2440.711 / 9056.407 x 100% = 26.95% < 60%

## SCHEDULE OF SANITARY FITMENTS

LOCATION	USE	DENSITY (m <sup>2</sup> /PERSON)	POPULATION (M.F.)	W	F	WC	BATH	URINAL
CONTROL ROOM	CONTROL	-	2					
ASPHALT PLANT	ASPHALT PRODUCTION	-	3					
WORKSHOP BUILDING	WORKSHOP	9	26	1	1	3	3	3
RAP AND EQUIPMENT STORE	STORE	9	79					

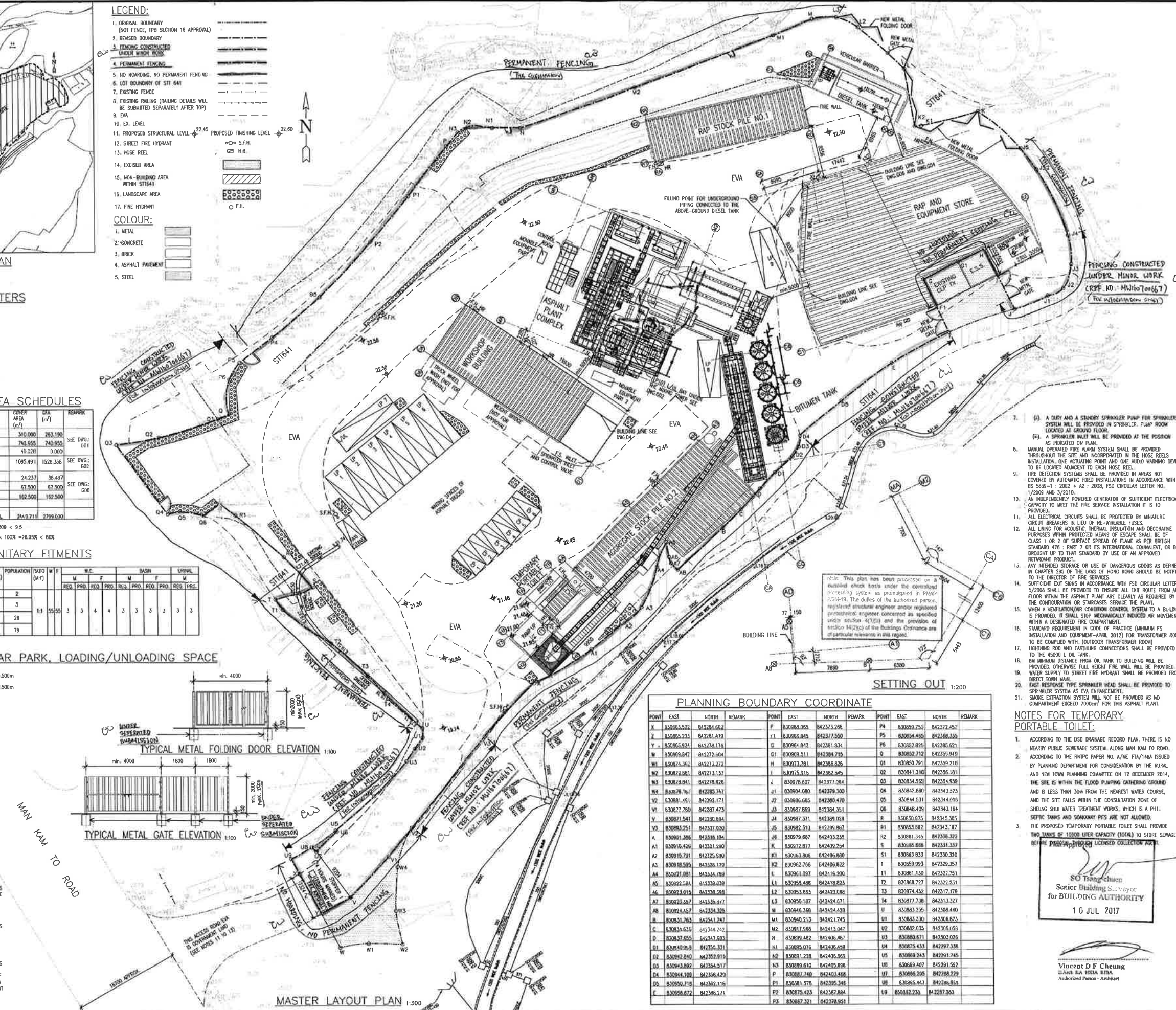
## DIMENSIONS OF CAR PARK, LOADING/UNLOADING SPACE

- (1) LOADING/UNLOADING SPACE : 9.400m x 3.500m
- (2) CAR PARK : 5.000m x 2.500m
- (3) WIDTH OF EVA : >7.3m
- (4) WIDTH OF VEHICLE ACCESS: 7.324m



## NOTES FOR ACCESS ROAD/EVA

1. THE TENANT OF SITE641 IN D088 & OWNERS OF LOTS 208P, 212&23RP OF D088 HAVE THE RIGHT OF WAY TO USE THIS ACCESS ROAD/EVA, UNDER TENANCY AGREEMENT SITE641 IN D088, & ST WAYER 853.
2. THE TENANT OF SITE641 IN D088 & OWNERS OF LOTS 208P, 212&23RP OF D088 SHALL COMPLETE THE DESIGN & CONSTRUCTION OF THIS RIGHT OF WAY CUM ACCESS ROAD/EVA TO THE SATISFACTION OF LANDS DEPARTMENT OR OTHER RELEVANT GOVERNMENT DEPARTMENTS PRIOR TO APPLICATION OF TEMPORARY OCCUPATION PERMIT.



## PLANNING BOUNDARY COORDINATE

POINT	EAST	NORTH	REMARK	POINT	EAST	NORTH	REMARK	POINT	EAST	NORTH	REMARK
X	830961.522	842284.662		F	830968.065	842373.298		P4	830959.251	842372.457	
Y	830955.233	842281.419		L1	830965.945	842477.350		P5	830954.460	842368.335	
Z	830955.924	842278.136		G1	830964.042	842361.834		P6	830952.925	842365.621	
W1	830969.847	842272.604		G2	830969.511	842364.715		Q	830952.712	842359.949	
W2	830974.352	842273.272		H	830973.781	842368.926		Q1	830950.791	842359.216	
W3	830978.881	842273.137		I	830975.915	842362.545		Q2	830941.316	842356.181	
W4	830978.841	842278.626		J	830976.607	842377.084		Q3	830934.582	842354.959	
W5	830978.167	842285.247		K	830984.080	842379.300		Q4	830942.660	842343.523	
W6	830981.451	842292.171		L	830985.605	842380.470		Q5	830944.531	842344.016	
W7	830977.780	842287.473		M	830987.858	842384.351		Q6	830948.408	842343.184	
W8	830971.541	842280.804		N	830987.371	842389.028		Q7	830950.975	842345.205	
W9	830983.251	842307.020		O	830982.310	842399.963		R1	830953.802	842343.187	
V1	830991.386	842338.184		P	830979.687	842403.235		R2	830981.345	842338.322	
V2	830991.426	842321.290		Q	830972.877	842409.254		S	830985.866	842331.337	
A1	830915.791	842325.590		R	830963.808	842406.980		S1	830963.833	842330.320	
A2	830918.589	842328.179		S2	830962.766	842406.822		T	830959.993	842329.357	
A3	830921.081	842334.789		T	830961.097	842416.300		U	830961.130	842327.751	
A4	830922.584	842336.630		U1	830959.496	842418.823		U2	830968.727	842322.231	
A5	830923.015	842338.298		V1	830953.653	842423.098		T2	830974.432	842317.179	
A6	830923.527	842335.377		V2	830950.187	842424.871		T3	830977.738	842313.327	
A7	830924.457	842334.325		W	830946.368	842424.428		U	830963.255	842308.440	
A8	830931.763	842341.247		X1	830940.213	842421.745		U1	830963.330	842306.873	
C	830934.636	842344.252		X2	830917.965	842421.947		U2	830962.035	842305.055	
D	830937.655	842341.683		Y	830999.482	842405.487		U3	830960.871	842303.026	
E1	830940.093	842350.331		Y1	830995.076	842406.459		U4	830965.433	842297.508	
E2	830942.840	842352.819		Z	830981.728	842406.669		U5	830969.243	842291.745	
E3	830943.892	842354.517		N3	830980.610	842405.895		U6	830969.407	842291.592	
E4	830944.109	842356.470		P	830987.740	842403.458		U7	830966.205	842288.729	
E5	830950.718	842362.116		P1	830981.578	842395.346		U8	830965.447	842288.934	
F	830958.872	842368.271		P2	830975.423	842387.884		U9	830962.236	842287.080	
				P3	830987.321	842378.951					

## NOTES FOR TEMPORARY PORTABLE TOILET:

1. ACCORDING TO THE DSD DRAINAGE RECORD PLAN, THERE IS NO NEARBY PUBLIC SEWAGE SYSTEM ALONG MAN KAM TO ROAD.
2. ACCORDING TO THE RNPIC PAPER NO. A/NE-ITA/404 ISSUED BY PLANNING DEPARTMENT FOR CONSIDERATION BY THE RURAL AND NEW TOWN PLANNING COMMITTEE ON 12 DECEMBER 2014, THE SITE IS WITHIN THE FLOOD PLANNING GATHERING GROUND AND IS LESS THAN 30M FROM THE NEAREST WATER COURSE, AND THE SITE FALLS WITHIN THE CONSULTATION ZONE OF SHEDD SHUI WATER TREATMENT WORKS, WHICH IS A PH1 SEPTIC TANKS AND SANITARY PIPES ARE NOT ALLOWED.
3. THE PROPOSED TEMPORARY PORTABLE TOILET SHALL PROVIDE TWO TANKS OF 10000 LITER CAPACITY (TOTAL) TO STORE SEWAGE BEFORE THE PLANNING DEPARTMENT LICENSED COLLECTION.

SO Tong-chuen  
Senior Building Surveyor  
for BUILDING AUTHORITY  
10 JUL 2017

Vincent D F Cheung  
11/08/2017  
Authorized Person - Architect

## GENERAL NOTES:

- (1) GENERAL APPLICATIONS
  1. UNLESS OTHERWISE STATED, ALL DIMENSIONS ARE IN mm AND ALL LEVELS ARE IN mPD.
  2. UNLESS OTHERWISE STATED, ALL DIMENSIONS AND LEVELS ARE FINISH LEVELS.
  3. FOUNDATION PLAN AND STRUCTURAL PLAN TO BE SUBMITTED SEPARATELY.
  4. DRAINAGE PLAN TO BE SUBMITTED SEPARATELY FOR ALL WATER SUPPLY AND PLUMBING WORK.
  5. ALL VEHICLE TURNING RADIUS TO BE PER THE TRANSPORT PLANNING AND DESIGN MANUAL VOLUME 2.
  6. THE DESIGN AND CONSTRUCTION OF ASPHALT PLANT SHALL FOLLOW APP-120 (PWP 255), INCLUDING APPENDIX B AS FOLLOWS.
  - 7.1 PLANT CONTROL ROOM AREA DOES NOT EXCEED 30 S.M. PER PRODUCTION LINE AND TOTAL GFA OF PLANT SWITCH CONTROL ROOM < 100 S.M. AND PERSONNEL INSIDE CONTROL ROOM DOES NOT EXCEED 3 PERSONS/PRODUCTION LINE.
    - (a) MIN. REQUIREMENT ARE WAIVED
    - (b) MIN. REQUIREMENT ARE WAIVED
    - (c) MIN. REQUIREMENT ARE WAIVED
    - (d) MIN. REQUIREMENT ARE WAIVED
    - (e) MIN. REQUIREMENT ARE WAIVED
    - (f) MIN. REQUIREMENT ARE WAIVED
    - (g) MIN. REQUIREMENT ARE WAIVED
    - (h) MIN. REQUIREMENT ARE WAIVED
    - (i) MIN. REQUIREMENT ARE WAIVED
    - (j) MIN. REQUIREMENT ARE WAIVED
    - (k) MIN. REQUIREMENT ARE WAIVED
    - (l) MIN. REQUIREMENT ARE WAIVED
    - (m) MIN. REQUIREMENT ARE WAIVED
    - (n) MIN. REQUIREMENT ARE WAIVED
    - (o) MIN. REQUIREMENT ARE WAIVED
    - (p) MIN. REQUIREMENT ARE WAIVED
    - (q) MIN. REQUIREMENT ARE WAIVED
    - (r) MIN. REQUIREMENT ARE WAIVED
    - (s) MIN. REQUIREMENT ARE WAIVED
    - (t) MIN. REQUIREMENT ARE WAIVED
    - (u) MIN. REQUIREMENT ARE WAIVED
    - (v) MIN. REQUIREMENT ARE WAIVED
    - (w) MIN. REQUIREMENT ARE WAIVED
    - (x) MIN. REQUIREMENT ARE WAIVED
    - (y) MIN. REQUIREMENT ARE WAIVED
    - (z) MIN. REQUIREMENT ARE WAIVED
  - 7.2 THERE IS 1 PRODUCTION LINE FOR ASPHALT PLANT. THERE ARE 2 STAFF WORKING INSIDE CONTROL ROOM FOR ASPHALT PLANT.
  8. MITIGATION MEASURES INCLUDE:
    - (a) STOPPER AT POINT XYZ IS PROVIDED
    - (b) METAL FOLDING DOOR AT POINT L3-L1, L-K2, K-K, K-J6 ARE PROVIDED
    - (c) METAL GATE AT POINT F-F1, I-I, I-L1, L-L1, IN THE MIDDLE OF M1-M2 AND K-K1 ARE PROVIDED
    - (d) ALL BUILDING ARE SET BACK FROM SITE BOUNDARY OR NON-BUILDING AREA ZONE BY 3m MIN.
    - (e) AN UNDERSTANDING LETTER FROM THE OWNER IS REQUIRED TO CONTRIBUTE.
    - (f) FREQUENCY OF SEWAGE COLLECTION FROM THE STORAGE TANKS SHALL BE TWICE DAILY AND.
    - (g) TWO NOS. OF LICENSED CONTRACTORS SHALL BE EMPLOYED FOR DAILY COLLECTION.
  9. (H) SPECIFIC NOTES ON ASPHALT PLANT
    1. WIDTH OF STAIRCASE TO CONTROL ROOM IS 1100mm, ALL OTHER STAIRCASE TO BE 750mm CLEAR OR MORE IN WIDTH TO BE PROVIDED WITH HANDRAIL.
    2. MIN. CLEAR HEADROOM FOR CONTROL ROOM, PLANT ROOM AND STAIRCASE TO BE 2100mm.
    3. THE PROCESS ADOPTED AND BATCHING PROCESS PLAN ARE NOT FOR APPROVAL. THESE INFORMATION ARE PROVIDED FOR REFERENCE ONLY.
    4. NO WORKERS/ PEOPLE ARE ALLOWED TO STATION AT THE MIX TOWER STRUCTURE DURING NORMAL OPERATION CONDITION. ALL STAIRCASES IN MIX TOWER IS FOR MAINTENANCE /CLEANING OF EQUIPMENT ONLY.

## F.S. NOTES:

1. F.S. INSTALLATION OR EQUIPMENT SHALL BE PROVIDED IN ACCORDANCE WITH CODE OF PRACTICE FOR MINIMUM FIRE SERVICE INSTALLATION AND EQUIPMENT (LATEST EDITION) AND ALL FSD'S CIRCULAR LETTERS.
2. PORTABLE FIRE EXTINGUISHER WILL BE PROVIDED AT THE POSITIONS AS INDICATED ON GENERAL PLAN.
3. EMERGENCY LIGHTING SHALL BE PROVIDED THROUGHOUT THE SITE AND ALL EXIT ROUTES LEADING TO GROUND FLOOR IN ACCORDANCE WITH BS 5266-1: 2011 PART 1 AND BS EN 18382:2013.
4. VISUAL ALARM SIGNALS SHALL BE PROVIDED WHERE NECESSARY IN ACCORDANCE WITH DESIGN MANUAL: BARRIER FREE ACCESS 2008 AND FSD CIRCULAR NO. 2012.
5. FIRE CONTROL CENTER SHALL BE PROVIDED AS INDICATED ON PLAN.
6. FIRE HYDRANT HOSE REEL SYSTEM SHALL BE PROVIDED, SYSTEM CONSISTS OF THE FOLLOWING:
  - (a) A 36,000 LITERS F.S. WATER TANK WILL BE PROVIDED FOR FIRE HOSE REEL SYSTEM. WATER IS FED TO THIS TANK OF HOSE REEL SYSTEM FROM CITY MAIN.
  - (b) A DUTY AND A STANDBY FIRE SERVICE PUMPS FOR HOSE REEL SYSTEM WILL BE PROVIDED IN F.S. PUMP ROOM LOCATED AT GROUND FLOOR.
  - (c) HOSE REELS WITH HOSE REEL TUBING OF 30 METRES IN LENGTH WILL BE PROVIDED AT THE POSITIONS AS INDICATED ON PLANS.
  - (d) EVERY PART OF THE SITE IS WITHIN THE REACH OF A 30 METRES HOSE REEL TUBING.
  - (e) AN AUTOMATIC SPRINKLER SYSTEM WILL BE PROVIDED TO WORKSHOP BUILDING, RAP AND EQUIPMENT STORE, AGGREGATE STOCK PILE NO.2, RAP STOCK PILE NO.1 AND TEMPORARY TOILET IN ACCORDANCE WITH LPC RULES INCORPORATING BS EN 12845: 2003 AND FSD CIRCULAR LETTER 3/2012 AND FSD CIRCULAR LETTER 3/2006. THE DESIGN CLASSIFICATION IS ORDINARY HAZARDOUS GROUP II.
  - (f) A 10T CUM. (I.E. 1/3 REDUCTION OF FULL HOLDING CAPACITY 100 CUM. WITH SPRINKLER ALARM IS TRANSMITTED TO FSDC VS DIRECT LINK) WATER TANK 10 BE PROVIDED TO SUPPLY THE SPRINKLER SYSTEM. IT IS A SINGLE END FEED SUPPLY FROM CITY MAIN.
7. MINIMUM DISTANCE FROM ON TANK TO BUILDING WILL BE PROVIDED. OTHERWISE FULL HEIGHT FIRE WALL WILL BE PROVIDED. WATER SUPPLY TO STREET FIRE HYDRANT SHALL BE PROVIDED FROM DIRECT TOWN MAIN.
8. FAST RESPONSE TYPE SPRINKLER HEAD SHALL BE PROVIDED TO SPRINKLER SYSTEM AS EVA ENHANCEMENT.
9. SMOKE EXTRACTION SYSTEM WILL NOT BE PROVIDED AS NO COMPARTMENT EXCEED 7000m<sup>3</sup> FOR THIS ASPHALT PLANT.

DATE	REVISION	DESCRIPTION	BY	CHK	APP
09/17	H	AMEND THE HOODING TO FENCING	RW	RW	CTK
02/17	D	BD APPROVED ON 28 MAR 2017	ML	RW	ML
01/17	F	BD APPROVED ON 27 JAN 2017	ML	RW	ML
02/16	F	BD AMENDMENT	ML	RW	ML
01/16	Rev.	Description	Design/Drawn	Chk'd	App'd
02/15	-	Tell Issue	ML	SH	ML

Scale: 1 : 300 @ A1 SIZE

K. WAH ASPHALT LIMITED  
嘉華瀝青有限公司

LOT NO. 20R.P.,  
21 & 23R.P. (PART)  
AND SITE641 IN D088

ASPHALT PLANT ALONG  
MAN KAM TO ROAD,  
SHEUNG SHUI

MASTER LAYOUT PLAN

Contract No.: HA997/G01(H)

MAURICE LEE & ASSOCIATES LIMITED  
李瑞理建築工程師事務所有限公司

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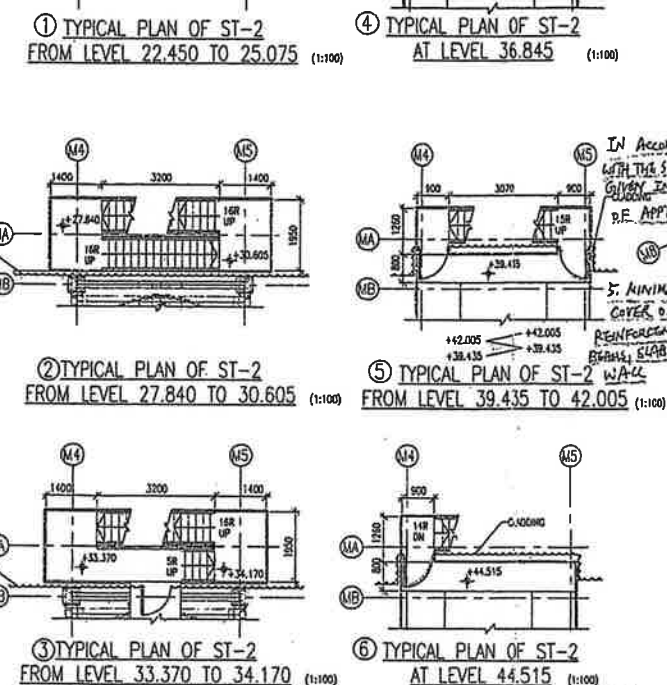
BD REF. 1  
250 REF. 1

**GENERAL NOTES:**

1. UNLESS OTHERWISE STATED, ALL DIMENSIONS ARE IN mm AND ALL LEVELS ARE IN mPD.
2. UNLESS OTHERWISE STATED, ALL DIMENSIONS AND LEVELS ARE STRUCTURAL DIMENSIONS AND STRUCTURAL LEVELS.
3. GENERAL NOTES SEE DWG: H897/001
4. 1100mm HEIGHT MINIMUM ARE PROVIDED TO ALL STAIRCASE, LIFTING AND PLATFORM WITH LEVEL DIFFERENCE EXCEEDING 0.6m.

**REINFORCED CONCRETE WORKS FOR INFORMATION:**

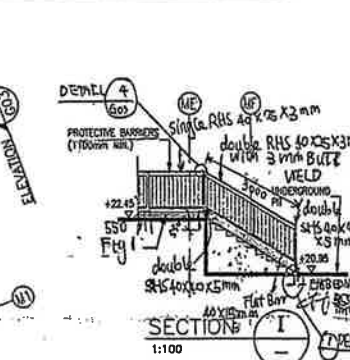
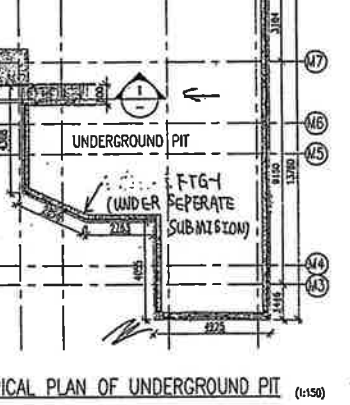
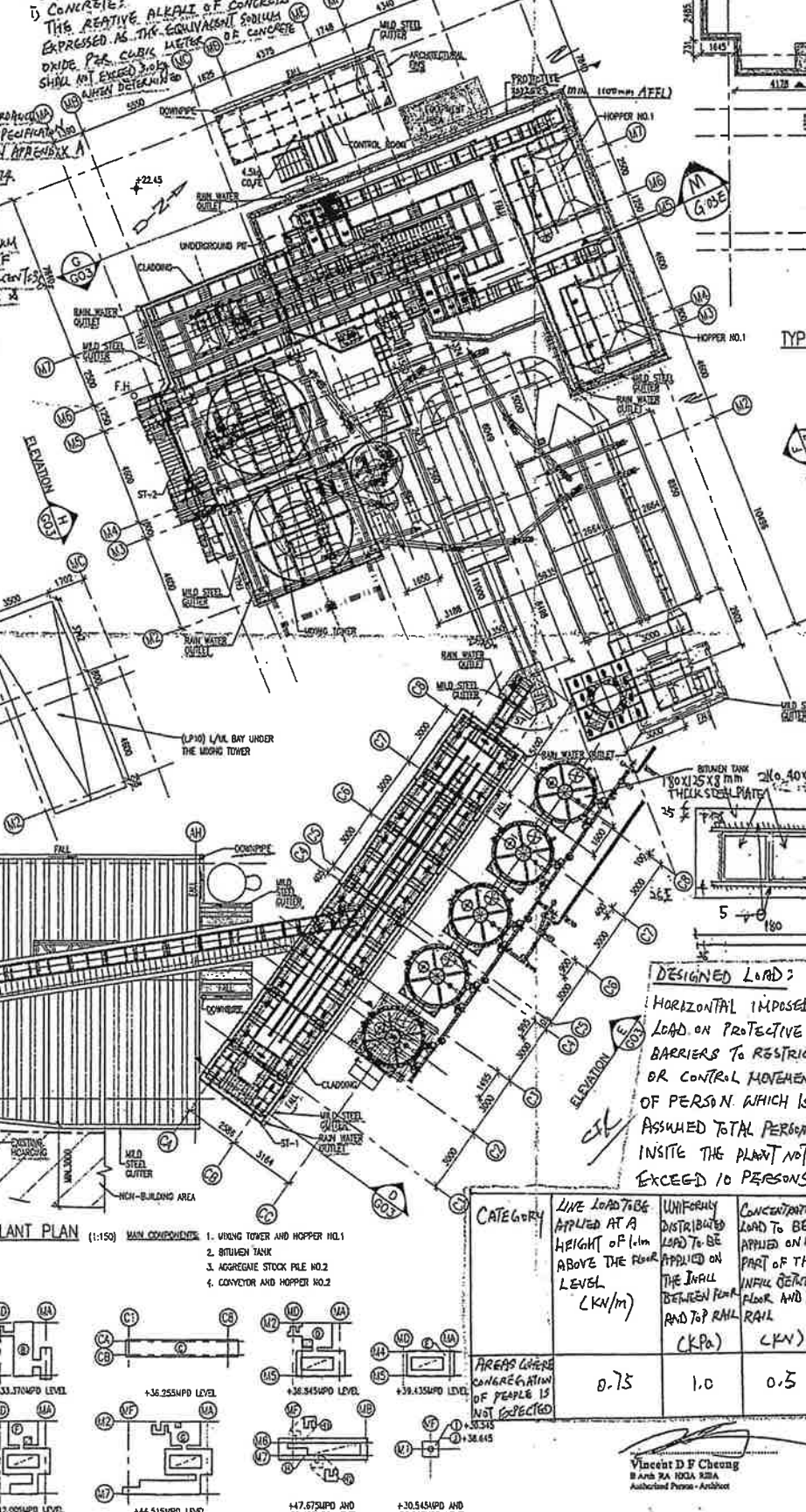
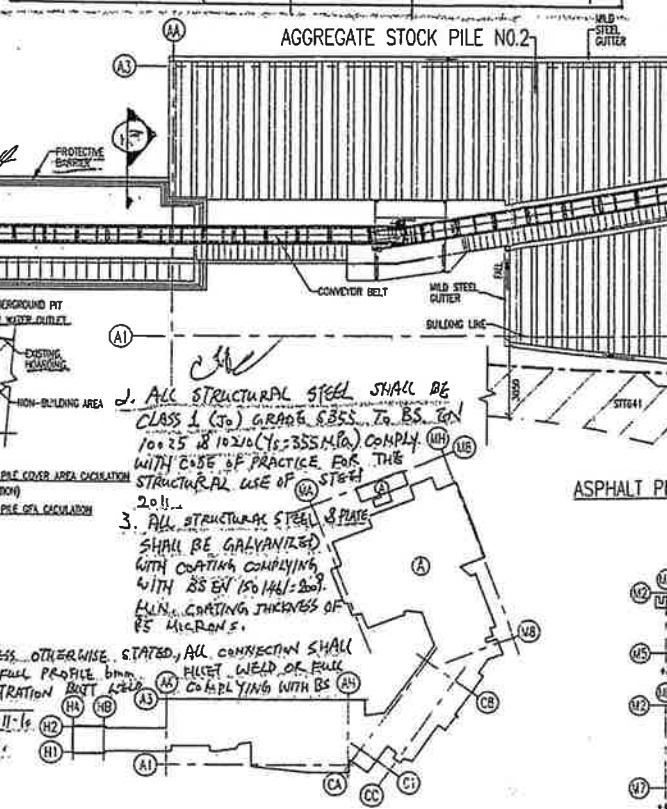
1. ALL CONCRETE WORKS TO BE DESIGNED TO CODE OF PRACTICE FOR STRUCTURAL USE OF CONCRETE 2013 (2ND EDITION).
2. THE CONCRETE WORKS SHALL COMPLY WITH CS2:2010 EXCEPT SECTION 7.1 WITH THE REQUIREMENTS OF THE SPECIFICATION AND HONG KONG BUILDING (CONSTRUCTION) REGULATIONS (1997).
3. REINFORCEMENT TO COMPLY WITH CS2:2012  
 (i) BAR DESIGNED Y-HIGH TENSILE STEEL MIN. YIELD STRESS = 500 N/mm<sup>2</sup> GRADE 500B BAR  
 (ii) ANCHORAGE AND LENGTH FOR REINFORCEMENT IS 40D.  
 (iii) CONCRETE WORKS IN BY GRAB 300/20 & CS1
4. CONCRETE:  
 (i) THE RELATIVE ALKALITY OF CONCRETE EXPRESSED AS THE EQUIVALENT SOLIDUM EXPOSED AS THE EQUIVALENT SOLIDUM OF CONCRETE  
 (ii) PER CUBIC METRE OF CONCRETE SHALL NOT EXCEED 3.0g OF CHLORIDE WHEN DETERMINED



**STRUCTURAL STEEL WORKS:**

1. THE GRADE AND DESIGN STRENGTH OF STRUCTURAL STEEL SHALL BE AS FOLLOWS. CLASSIFICATION OF STRUCTURAL STEEL SHALL BE CLASS 1 IN ACCORDANCE WITH CODE OF PRACTICE FOR THE STRUCTURAL USE OF STEEL 2011.

ELEMENTS OF STRUCTURAL STEELWORK	GRADE	QUALITY DESIGNATION	TO
ALL ELEMENTS	S275	(J0)	BS EN 10025: 2004



NOTES: ALL GAPS ARE LESS THAN 100mm.

**DESIGNED LOADS:**

HORIZONTAL IMPOSED LOAD ON PROTECTIVE BARRIERS TO RESTRICT OR CONTROL MOVEMENT OF PERSON WHICH IS ASSUMED TOTAL PERSONNEL INSIDE THE PLANT NOT EXCEED 10 PERSONS

NO.	REVISION	DESCRIPTION	DATE	BY	CHKD	APPD
01/17	E	BO APPROVED ON 27 JAN 2017		MA	MA	MA
02/18	E	BO APPROVED		MA	MA	MA
03/19	E	1st issue		MA	MA	MA

**LOT NO. 20R.P. 21 & 23R.P. (PART) AND ST1641 IN DD68**

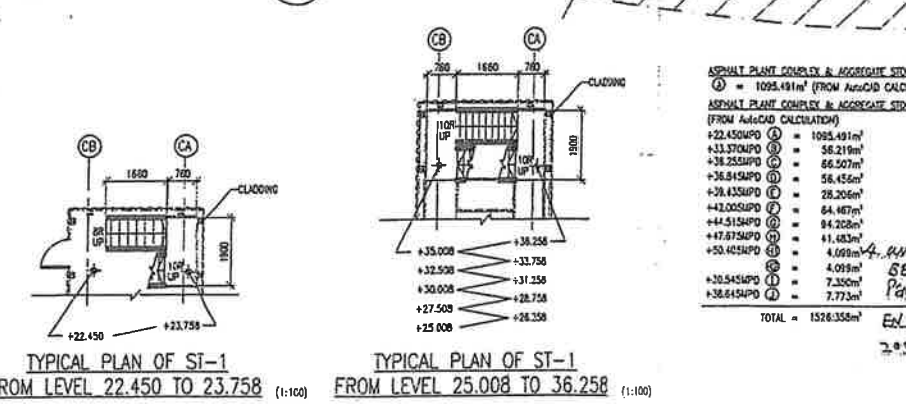
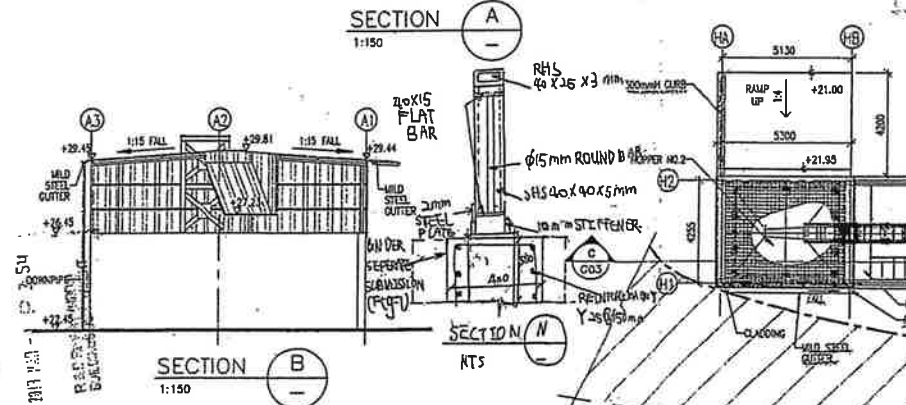
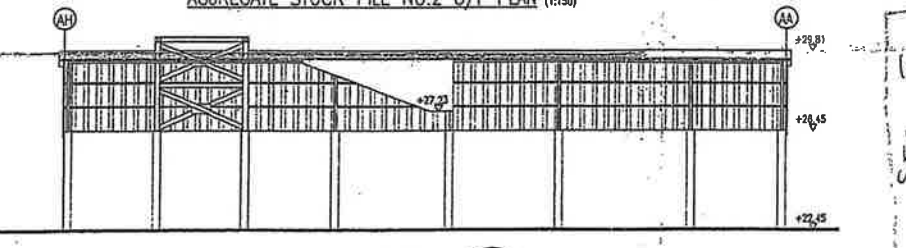
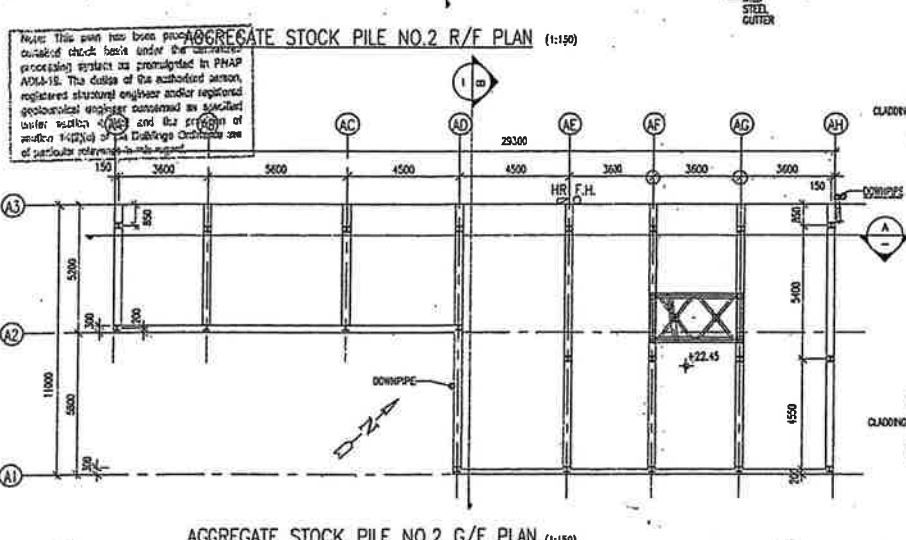
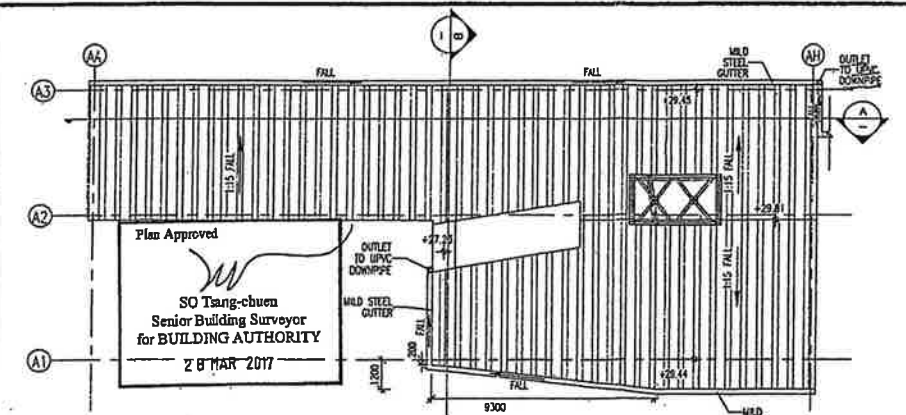
**ASPHALT PLANT ALONG MAN KAM TO ROAD, SHEUNG SHUI**

**ASPHALT PLANT COMPLEX PLAN**

Contract No.: HA897/G02(F)

File Name: HA897\_G02(F)\_170228(d).dwg

**MAURICE LEE & ASSOCIATES LIMITED**  
李安達建築工程師事務所有限公司



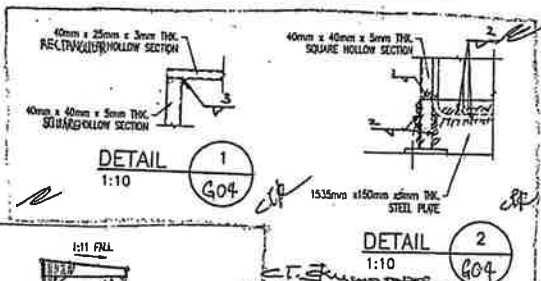
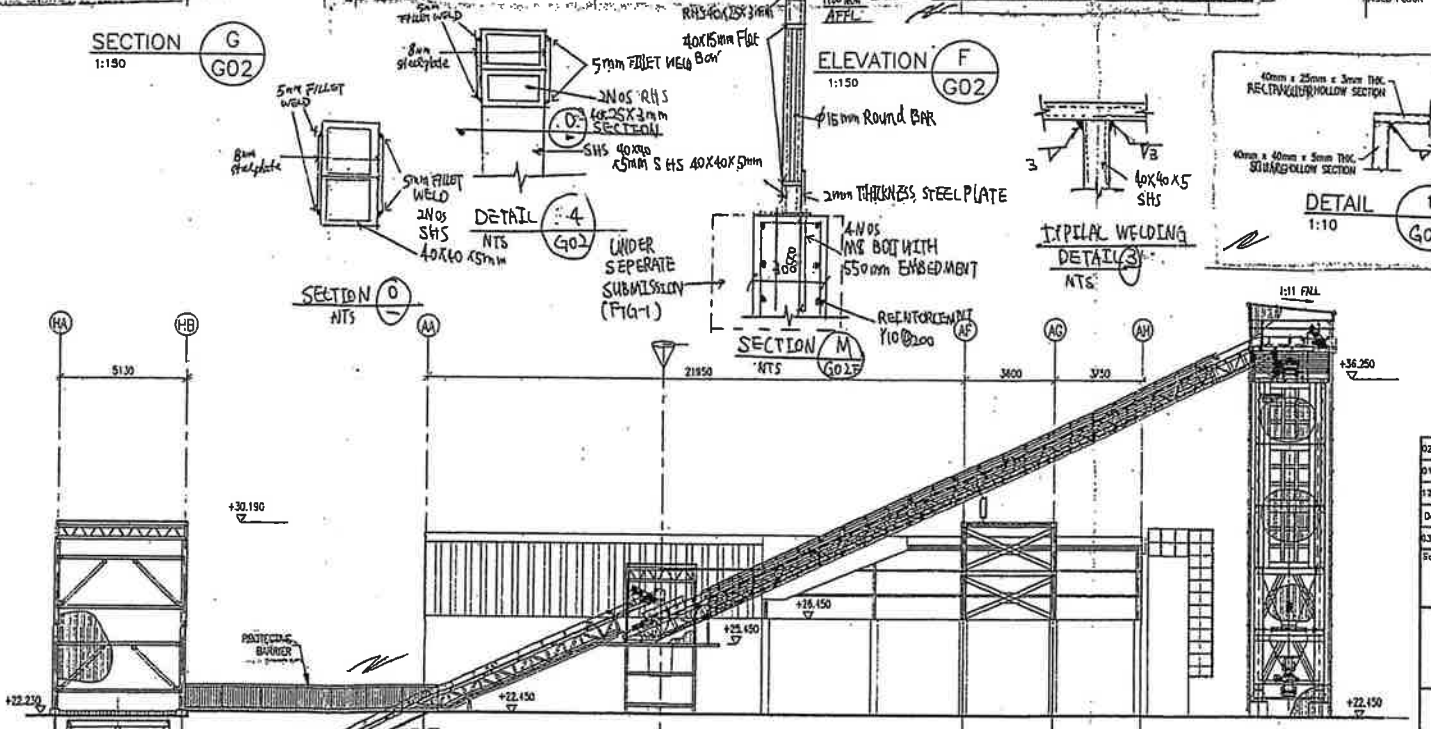
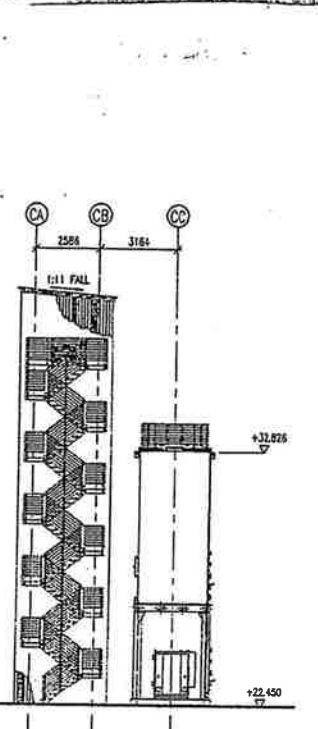
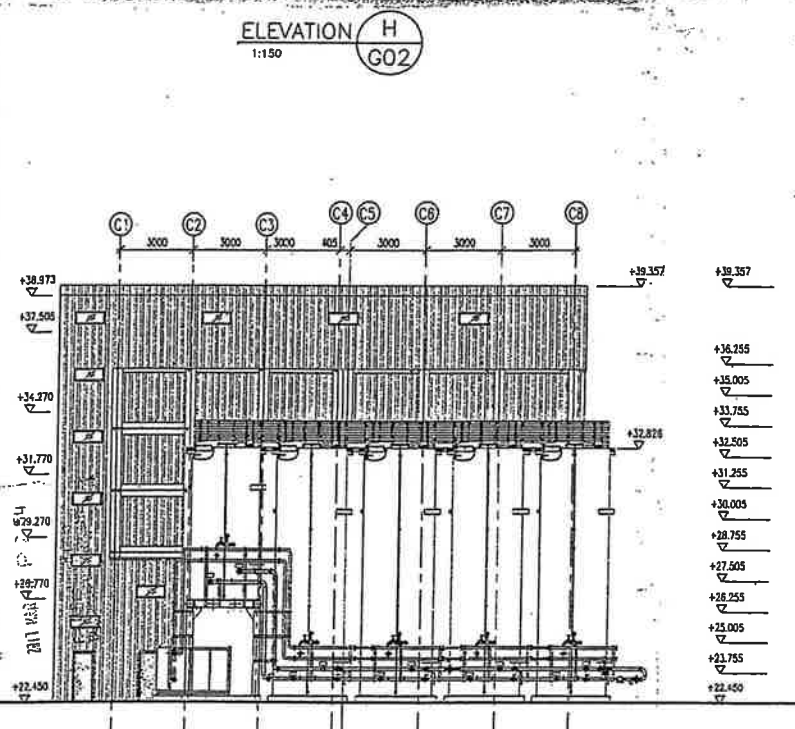
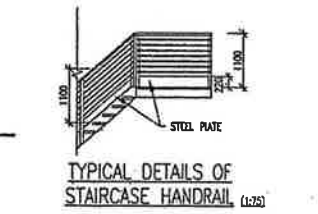
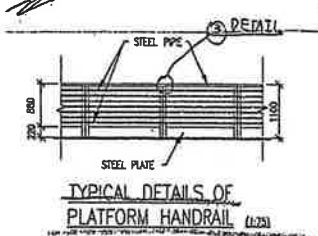
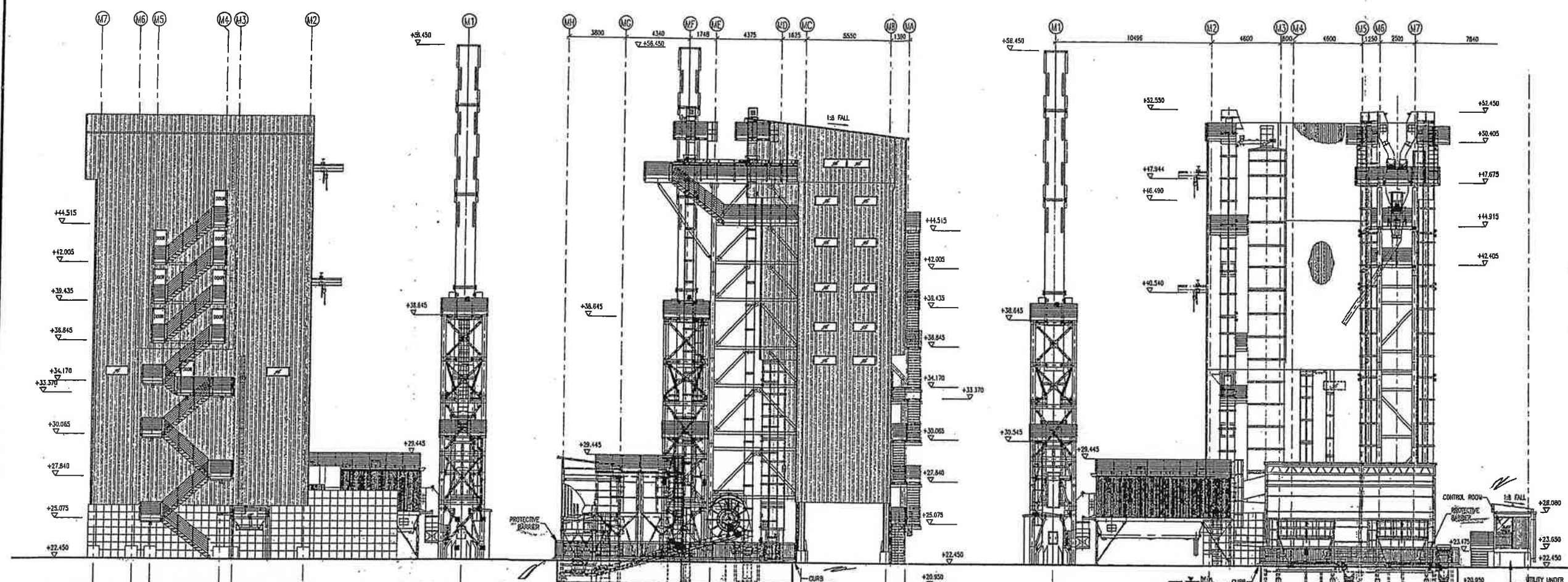
**ASPHALT PLANT COVER & AGGREGATE STOCK PILE COVER AREA CALCULATION**

① = 1000mm<sup>2</sup> (FROM AREA CALCULATION)

② = 1000mm<sup>2</sup> (FROM AREA CALCULATION)

ITEM	AREA (m <sup>2</sup> )
①	1005.491
②	58.219
③	66.507
④	58.455
⑤	28.206
⑥	64.467
⑦	84.208
⑧	11.433
⑨	4.099
⑩	7.350
⑪	7.773
TOTAL	1526.355





**KUMARAPAN CHIDAMBARAM**  
B.Tech (Civil), M.I. Structure, MUKER, RPS/SL  
Registered Structural Engineer (RSE 1294)  
Maurice Lee & Associates Ltd.

02/17	E	BO INSPECTION AMENDMENT	ML	AC	ML	ML
01/17	D	BO APPROVED ON 27 JAN 2017	ML	RW	ML	ML
12/16	D	BO AMENDMENT	ML	RW	ML	ML
Date	Rev.	Description	Design/Drawn	Ch'd	App'd	
03/15	-	1st issue	ML	SL	ML	ML

**K. WAH ASPHALT LIMITED**  
嘉華瀝青有限公司

LOT NO. 20R.P.,  
21 & 23R.P. (PART)  
AND ST7641 IN DB88

ASPHALT PLANT ALONG  
MAN KAM TO ROAD,  
SHEUNG SHUI

**ASPHALT PLANT COMPLEX  
SECTION & ELEVATION**

Contract No.:  
Drawing No.:  
File Name: HA897\_G03(E)\_170228(d).dwg

**MAURICE LEE & ASSOCIATES LIMITED**  
華樂建築工程師事務所有限公司

Plan Approved  
  
SO Tsang-chuen  
Senior Building Surveyor  
for BUILDING AUTHORITY  
28 MAR 2017

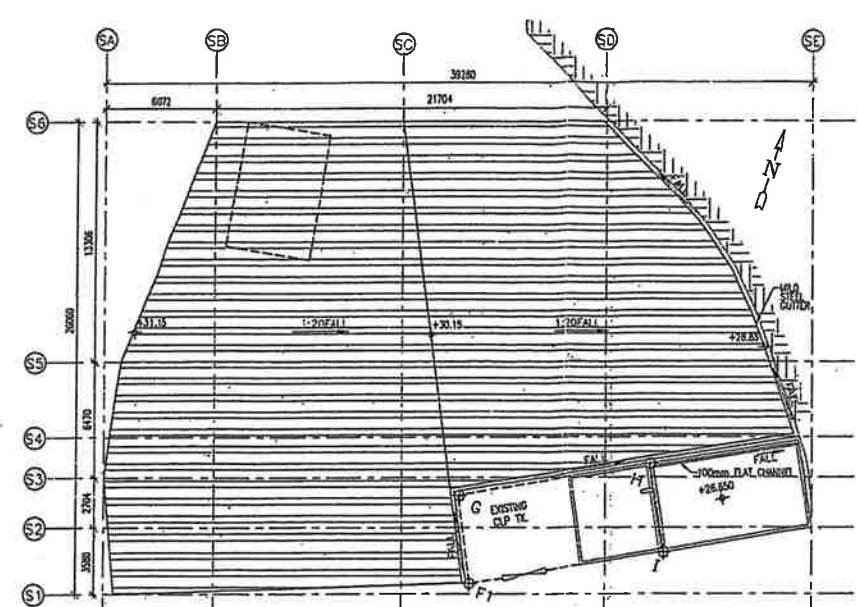
Note: This plan has been processed on a computer using the latest software and equipment. The design is based on the information provided and is subject to change without notice. The design is for general reference only and should not be used for construction without the approval of the Building Authority.

**Vicent D.F. Cheung**  
B.Sc. (Hons) CIVIL  
Authorized Person - Architect

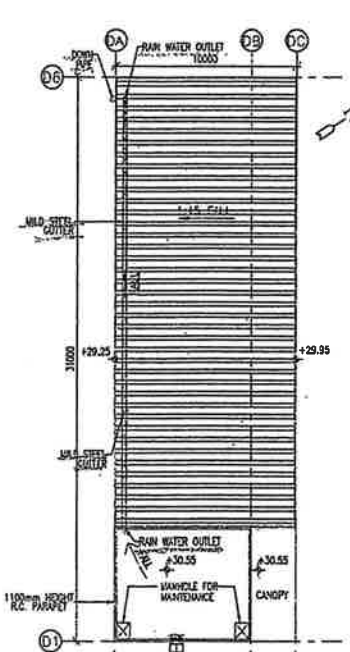
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**GENERAL NOTES:**

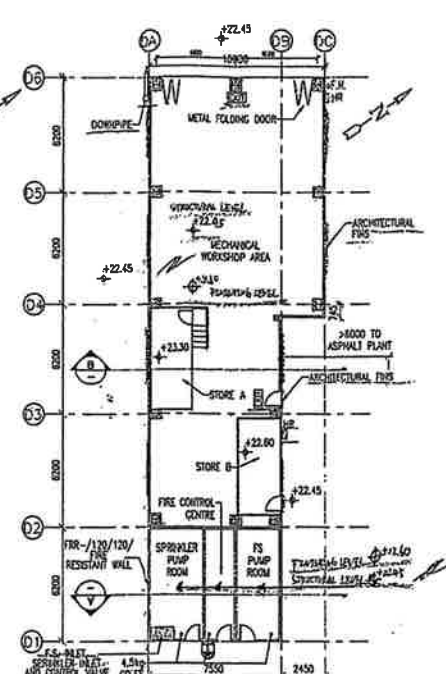
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2. UNLESS OTHERWISE STATED, ALL DIMENSIONS AND LEVELS ARE STRUCTURAL DIMENSIONS AND STRUCTURAL LEVELS.
3. GENERAL NOTES SEE ENCL: H4897/001
4. RAP & EQUIPMENT STORE BUILDING:
  - 4.1 BUILDING VOLUME = 9145m<sup>3</sup> < 7500m<sup>3</sup>
  - 4.2 HEIGHT OF BUILDING = 7.35m < 7.50m
  - 4.3 MINIMUM DISTANCE FROM MAIN ASPHALT PLANT = 6.00m
5. WORKSHOP BUILDING:
  - 5.1 BUILDING VOLUME = 1497.30m<sup>3</sup> < 7500m<sup>3</sup>
  - 5.2 HEIGHT OF BUILDING = 7.25m < 7.50m
  - 5.3 MINIMUM DISTANCE FROM MAIN ASPHALT PLANT = 6.00m



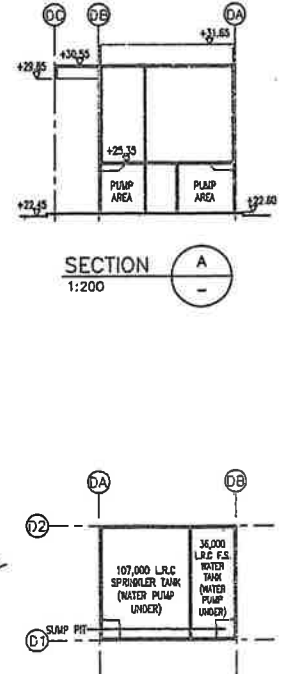
RAP & EQUIPMENT STORE BUILDING  
R/F PLAN (1:200)



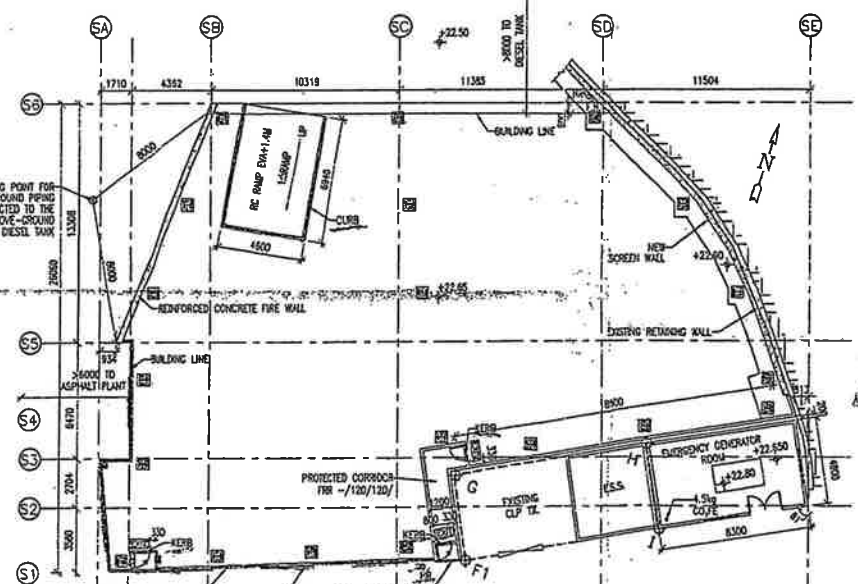
WORKSHOP BUILDING  
R/F PLAN (1:200)



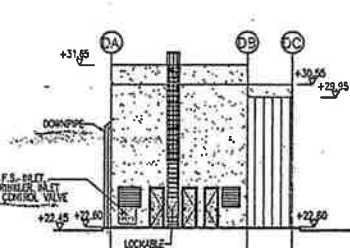
WORKSHOP BUILDING  
G/F PLAN (1:200)



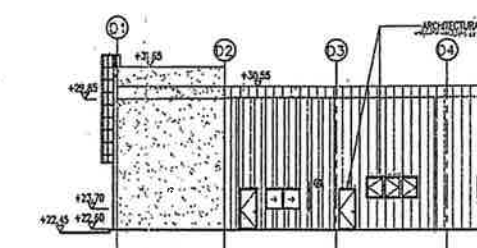
WORKSHOP BUILDING  
WATER TANK (1:200)



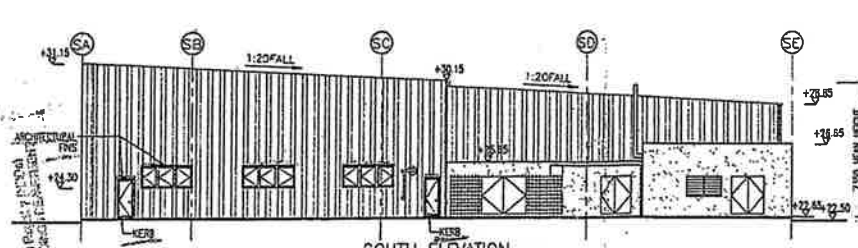
RAP & EQUIPMENT STORE BUILDING  
G/F PLAN (1:200)



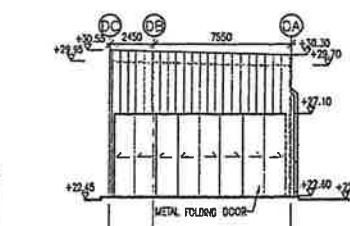
EAST ELEVATION (1:200)



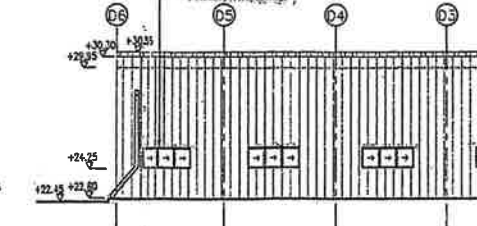
NORTH ELEVATION (1:200)



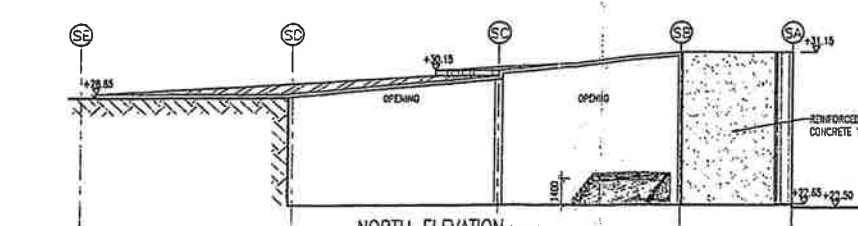
SOUTH ELEVATION (1:200)



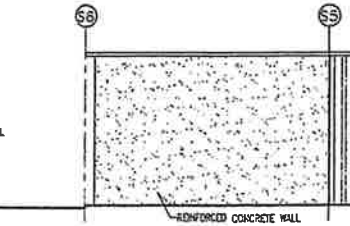
WEST ELEVATION (1:200)



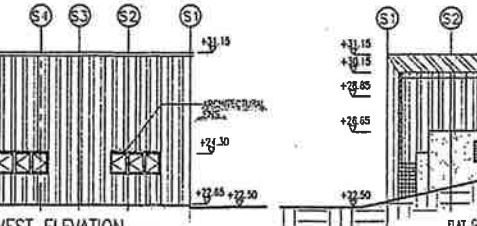
SOUTH ELEVATION (1:200)



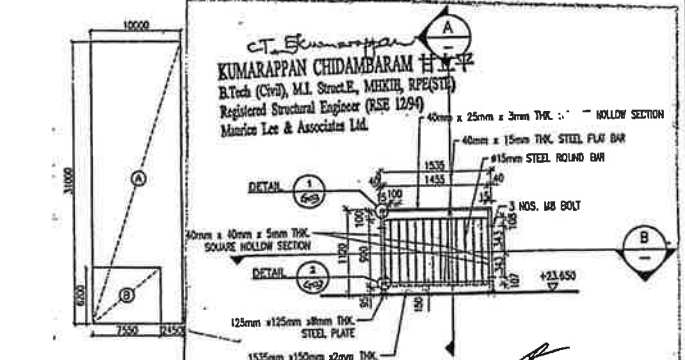
NORTH ELEVATION (1:200)



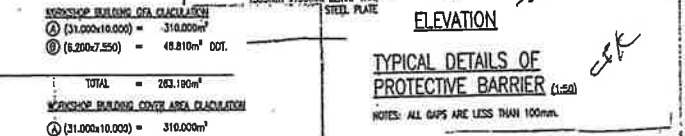
RAP & EQUIPMENT STORE BUILDING  
WEST ELEVATION (1:200)



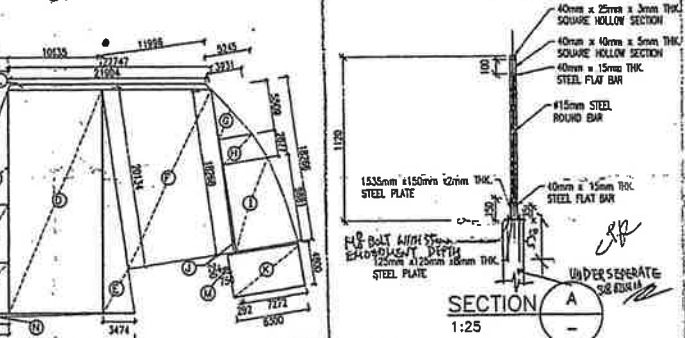
EAST ELEVATION (1:200)



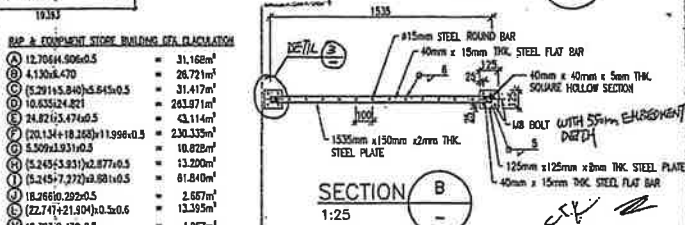
ELEVATION (1:200)



TYPICAL DETAILS OF  
PROTECTIVE BARRIER (1:20)



SECTION A (1:25)



SECTION B (1:25)

NOTE: This plan has been processed on a computer using the latest software. The plan is subject to change without notice. The plan is not to be used for any other purpose without the written consent of the Surveyor.

SO Tang-chun  
Senior Building Surveyor  
for BUILDING AUTHORITY  
28 MAR 2017

**RAP & EQUIPMENT STORE BUILDING AREA CALCULATION**

NO.	DESCRIPTION	AREA (m <sup>2</sup> )	TOTAL
1	12.70m x 50.6m	642.82	
2	4.13m x 4.70	19.41	
3	5.29m x 5.84m	30.90	
4	10.63m x 2.82m	29.98	
5	24.82m x 4.74m	117.64	
6	23.33m x 4.74m	110.58	
7	10.13m x 18.38m	186.28	
8	5.59m x 5.93m	33.16	
9	5.24m x 5.31m	27.82	
10	5.24m x 7.27m	38.10	
11	18.26m x 2.22m	40.55	
12	22.74m x 21.94m	500.00	
13	18.33m x 4.38m	80.28	
14	0.77m x 1.71m	1.32	
	<b>TOTAL</b>	<b>740.95m<sup>2</sup></b>	

**RAP & EQUIPMENT STORE BUILDING COVER AREA CALCULATION**

NO.	DESCRIPTION	AREA (m <sup>2</sup> )	TOTAL
1	22.74m x 21.94m	500.00	
2	0.77m x 1.71m	1.32	
	<b>TOTAL</b>	<b>501.32m<sup>2</sup></b>	

**CONTAINER ROOM AREA CALCULATION**

NO.	DESCRIPTION	AREA (m <sup>2</sup> )	TOTAL
1	8.30m x 8.00m	66.40	
2	0.75m x 0.25m	0.19	
	<b>TOTAL</b>	<b>66.59m<sup>2</sup></b>	

**CONTAINER ROOM COVER AREA CALCULATION**

NO.	DESCRIPTION	AREA (m <sup>2</sup> )	TOTAL
1	8.30m x 8.00m	66.40	
2	0.75m x 0.25m	0.19	
	<b>TOTAL</b>	<b>66.59m<sup>2</sup></b>	

NO.	DESCRIPTION	DATE	BY	FOR
01/17	BD INSPECTION AMENDMENT	17/01/2017	ML	ML
01/17	BD APPROVED BY JUN 2017	17/01/2017	ML	ML
01/17	BD AMENDMENT	17/01/2017	ML	ML
01/17	Rev.	17/01/2017	ML	ML
01/17	Rev.	17/01/2017	ML	ML

**K WAH ASPHALT LIMITED**  
嘉華瀝青有限公司

LOT NO. 20R.P.  
21 & 23R.P. (PART)  
AND STT641 IN DB68

ASPHALT PLANT ALONG  
MAN KAM TO ROAD,  
SHEUNG SHUI

ANCILLARY BUILDINGS  
PLAN, SECTION & ELEVATION (1 OF 2)

HA897/G04(F)

MAURICE LEE & ASSOCIATES LIMITED  
李榮理建築工程師事務所有限公司

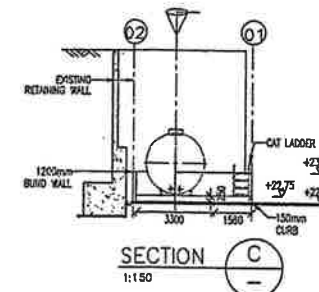
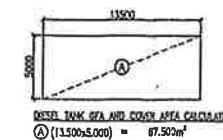
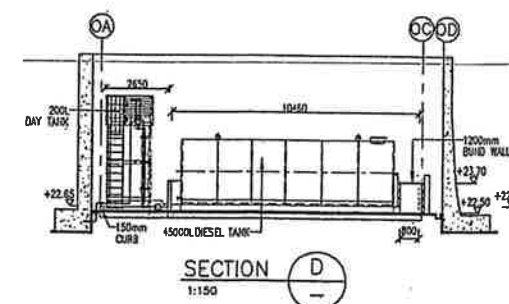
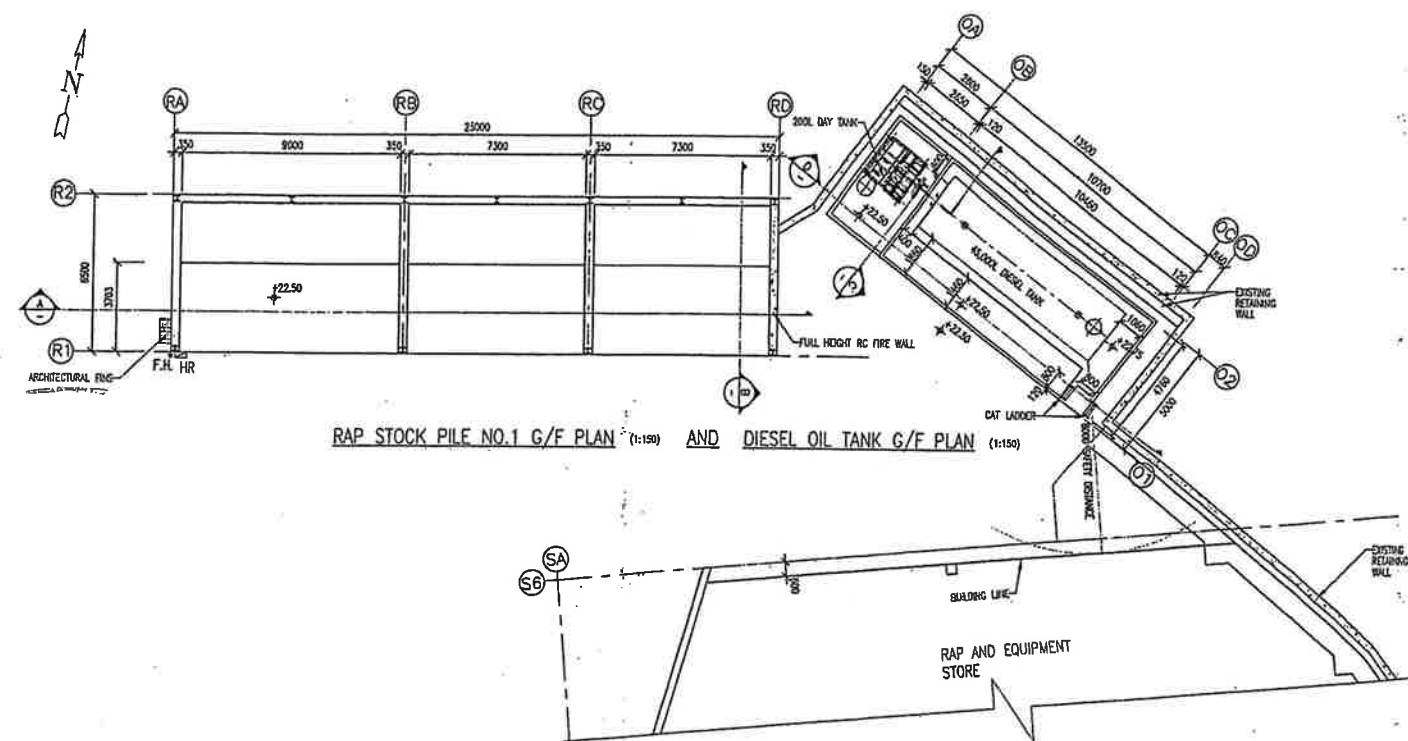
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TO BP 2



# GENERAL NOTES:

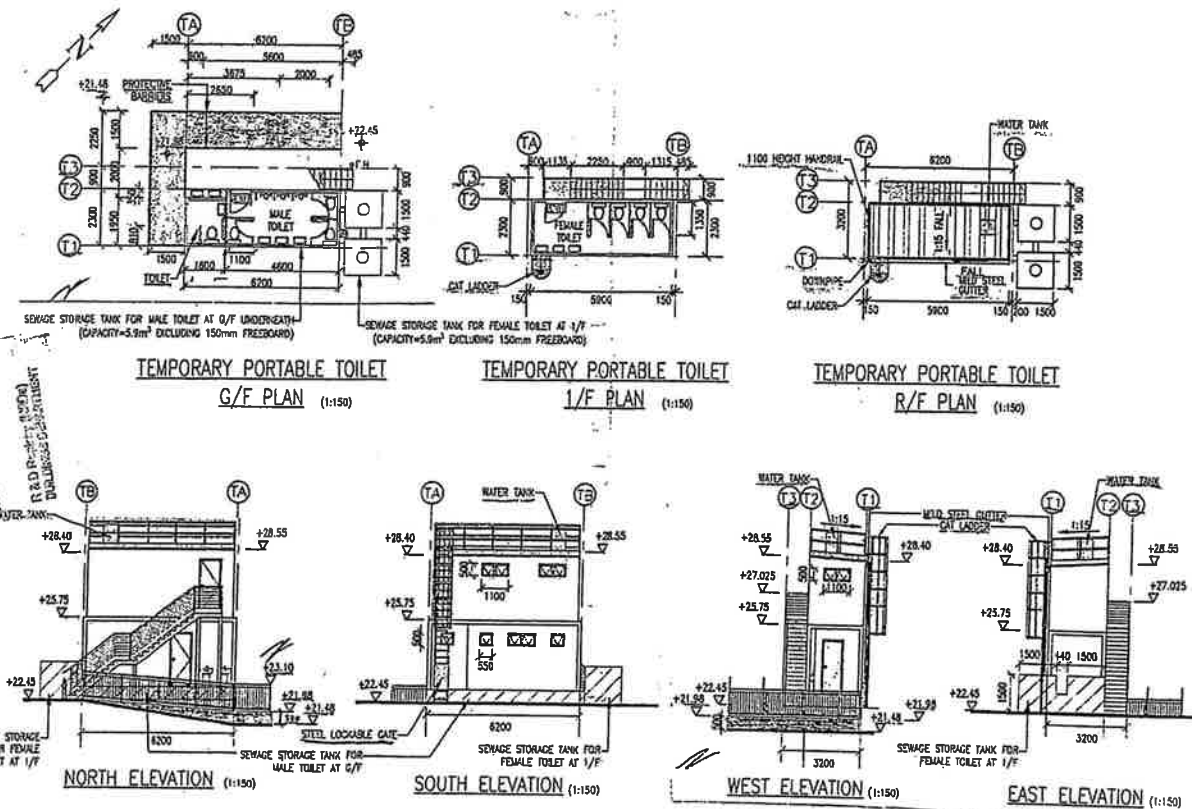
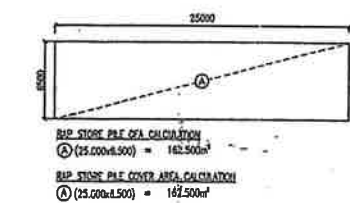
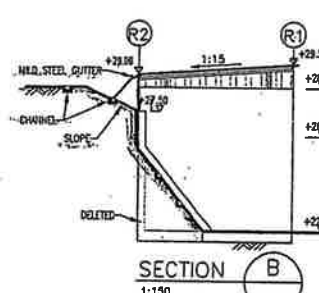
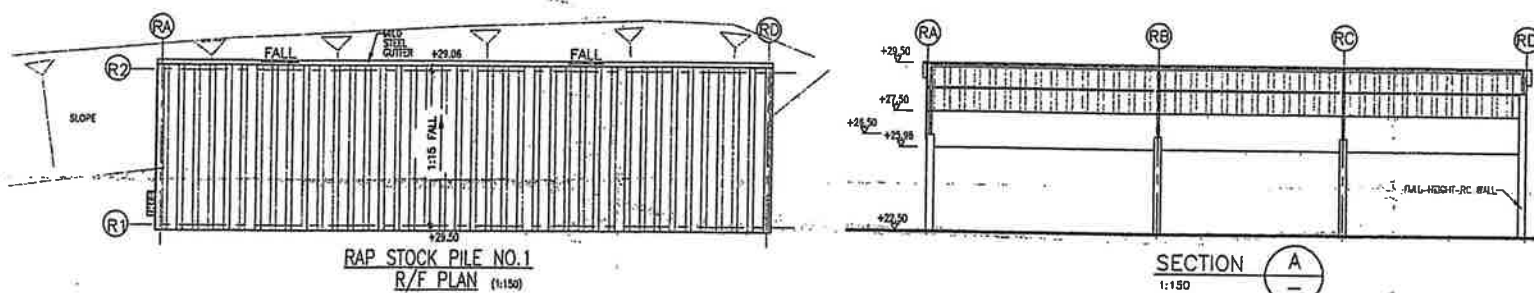
1. UNLESS OTHERWISE STATED, ALL DIMENSIONS ARE IN mm AND ALL LEVELS ARE IN mPD.
2. UNLESS OTHERWISE STATED, ALL DIMENSIONS AND LEVELS ARE STRUCTURAL DIMENSIONS AND STRUCTURAL LEVELS.
3. GENERAL NOTES SEE Dwg. 1: HA897/001



BUILD VOLUME CALCULATION FOR 45m³ DIESEL OIL TANK (NOT FOR APPROVAL)

NO	L	B	AREA	H	Vol
BURIED AREA	10.48	4.78	49.7896	1.2	59.74752
DUCT	3.96	0.4	1.584		
DUCT	8	1.45	13.11		
DUCT PLANT			35.0653	0.25	8.7664
DUCT PLATFORM	0.8	0.5	0.4	1.2	0.48
DUCT SUPPORT	2	9	0.1	1.8	0.36
					49.85312

CURB WALL VOLUME (4.700x0.650x1.150) = 1.868m³  
 PLANT VOLUME (0.250x0.250x1.150) = 0.013m³  
 PLANT VOLUME (0.300x0.300x0.016x1) = 0.006m³  
 STEEL SUPPORT VOLUME (0.150x0.150x1.150x1) = 0.012m³  
 NET VOLUME = 1.877m³ > 0.200m³



FIRE RESISTANCE FOR ELEMENTS OF CONSTRUCTION OF BUILDING														
ITEM	DESCRIPTION	COMPARTMENT OF BUILDING		CLASS	F.R.R. REQUIRED	MINIMUM DIMENSION OF ELEMENTS OF CONSTRUCTION (mm)								Remark
		FLOOR AREA(m2)	VOLUME(m3)			WALL & PARTITIONS THICKNESS				BEAMS & COLUMNS				
						STEEL CLADDING	R.C. WALLS WITH MORE THAN 1% VERTICAL REINFORCEMENT			STEEL (MINIMUM DIMENSION)	R.C. (MINIMUM DIMENSION)			
							THICKNESS	COVER TO MAIN REINFORCEMENT	BEAM		COLUMN	BEAM	COLUMN	
1	WORKSHOP BUILDING	207.25	1497.38	6B	NA	-	-	-	-	-	-	-	-	Unprotected as single storey building, not exceeding 7000m3
1.1	SPRINKLE PUMP ROOM	8.47	22.02	B	120	-	100	25	50	50	200	300	-	-
1.2	F.S. PUMP ROOM	7.34	19.09	B	120	-	100	25	50	50	200	300	-	-
1.3	F.S. CONTROL ROOM	8.2	13.52	B	120	-	100	25	50	50	200	300	-	-
2	RAP STOCK PILE NO.1	146.32	984.74	6B	NA	-	-	-	-	-	-	-	-	Unprotected as single storey building, not exceeding 7000m3 and 7.5m W, separated from
3	RAP AND EQUIPMENT STORE	700	5145	6A	NA	-	-	-	-	-	-	-	-	Unprotected as single storey building, not exceeding 7000m3 and 7.5m W, except exit route
3.1	PROTECT CORRIDOR	7.64	61.12	6A	120	-	100	25	50	50	200	300	-	-
4	GENERATOR ROOM	35	144	6A	120	-	100	25	50	50	200	300	-	-
5	AGGREGATE STOCK PILE NO.2	62.72	435.3	6B	NA	-	-	-	-	-	-	-	-	Unprotected as single storey building, not exceeding 7000m3

TOILET BUILDING GFA CALCULATION  
 G/F (8.200x2.300) = 14.260m²  
 ② (1.500x1.500) = 2.250m²  
 ③ (1.500x1.500) = 2.250m²  
 1/F (8.000x0.800) = 5.477m²  
 ② (6.200x2.300) = 14.260m²  
 ③ (1.500x1.500) = 2.250m²  
 TOTAL = 38.497m²

WINDOW TO FLOOR AREA CALCULATION

	TOILET	FLOOR AREA (m²)	WINDOW AREA (m²)	PERCENTAGE (%)
G/F	TOILET	2.403	0.275	11.44%
1/F	MALE TOILET	10.350	1.400	10.63%
	FEMALE TOILET	13.570	1.650	12.16%

NOTES: This plan has been prepared on the basis of the information provided by the client. The architect is not responsible for the accuracy of the information provided by the client. The architect is not responsible for the accuracy of the information provided by the client.

SO Tsung-chuen  
 Senior Building Surveyor  
 for BUILDING AUTHORITY  
 28 MAR 2017

MAURICE LEE & ASSOCIATES LIMITED  
 李榮漢建築工程師事務所有限公司

LOT NO. 20R.P.  
 21 & 23R.P. (PART)  
 AND STT641 IN D088

ASPHALT PLANT ALONG  
 MAN KAM TO ROAD,  
 SHEUNG SHUI

ANCILLARY BUILDINGS  
 PLAN, SECTION & ELEVATION (2 OF 2)

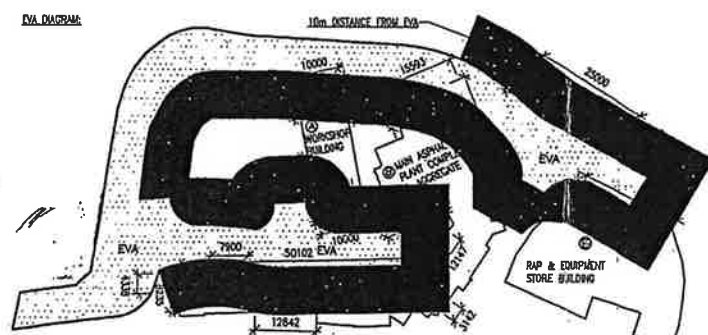
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**GENERAL NOTES:**

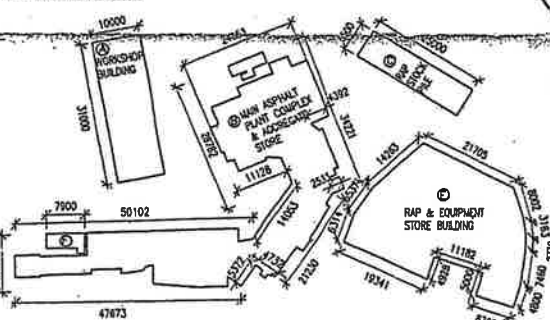
1. UNLESS OTHERWISE STATED, ALL DIMENSIONS ARE IN mm AND ALL LEVELS ARE IN mPD.
2. UNLESS OTHERWISE STATED, ALL DIMENSIONS AND LEVELS ARE FINISH LEVELS.
3. EVA SHALL COMPLY WITH CODE OF PRACTICE FOR FIRE SAFETY IN BUILDINGS 2011 EXCEPT THAT ENHANCED FIRE SERVICE INSTALLATIONS ARE PROVIDED TO EXEMPT FROM CLAUSE D22.1. PLEASE SEE DWG. HA897/G01 FOR ENHANCED FS NOTES.
4. MINIMUM WIDTH OF EVA = 7.3M.
5. EVA SHALL BE PAVED AND ADEQUATE TO SUPPORT 30,000KG FIRE EXIGES.
6. GRADIENT OF EVA IS LESS THAN 1:10.



**EVA CALCULATION OF PERIMETER FACADE (FOR F.S.O.):**

- ① WORKSHOP BUILDING (CLASSIFICATION B)**  
PERIMETER FACADE REQUIRED: 82.0x25.0=2050m  
PERIMETER FACADE PROVIDED: 7.7+10.0+10.3+15.2+18.0+58.7m > 2050m  
PERCENTAGE OF PERIMETER FACADE PROVIDED: 99.7/100.0=72.8% > 25% ok
- ② MAIN ASPHALT PLANT & AGGREGATE STOCK PILE (CLASSIFICATION B)**  
PERIMETER FACADE REQUIRED: 250.5x22.5=5636m  
PERIMETER FACADE PROVIDED: 10.0+11.1+11.7+14.0+18.2+17.8+13.1+32.8+5.4+13.8+10.0=150.3m  
PERCENTAGE OF PERIMETER FACADE PROVIDED: 150.3/250.5=60.0% > 25% ok
- ③ RAP & EQUIPMENT STORE BUILDING & DIESEL GENERATOR (CLASSIFICATION B)**  
PERIMETER FACADE REQUIRED: 124.3x25.0=3108m  
PERIMETER FACADE PROVIDED: 11.5+21.7+33.2m > 3108m  
PERCENTAGE OF PERIMETER FACADE PROVIDED: 33.2/124.3=26.7% > 25% ok
- ④ RAP STOCK PILE (CLASSIFICATION B)**  
PERIMETER FACADE REQUIRED: 63.0x25.0=1575m  
PERIMETER FACADE PROVIDED: 6.5+4.5+28.0+38.0m > 1575m  
PERCENTAGE OF PERIMETER FACADE PROVIDED: 38.0/63.0=60.3% > 25% ok
- ⑤ TEMPORARY TOILET (CLASSIFICATION B)**  
PERIMETER FACADE REQUIRED: 24.8x25.0=620m  
PERIMETER FACADE PROVIDED: 4.4+4.4+7.5+18.7m > 620m  
PERCENTAGE OF PERIMETER FACADE PROVIDED: 18.7/24.8=75.4% > 25% ok
- NOTES:  
1. BUILDING: ① RAP STOCK PILE, ② DIESEL TANK, ③ TOILET & WASTEWATER COLLECTOR, ④ LIE WITHIN 10m FROM EVA.
- LEGEND:  
AREA PROTECTED BY EVA  
EVA AREA

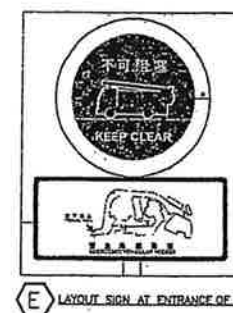
**BUILDING PERIMETER FACADE:**



**BUILDING PERIMETER FACADE (FOR F.S.O.):**

- ① OFFICE WORKSHOP BUILDING (CLASSIFICATION B)**  
PERIMETER FACADE REQUIRED: 10.0x31.0=310m  
PERIMETER FACADE PROVIDED: 10.0+31.0=41.0m  
PERCENTAGE OF PERIMETER FACADE PROVIDED: 41.0/31.0=132.3% > 25% ok
- ② MAIN ASPHALT PLANT COMPLEX & AGGREGATE STOCK PILE (CLASSIFICATION B)**  
PERIMETER FACADE REQUIRED: 250.5x22.5=5636m  
PERIMETER FACADE PROVIDED: 10.0+11.1+11.7+14.0+18.2+17.8+13.1+32.8+5.4+13.8+10.0=150.3m  
PERCENTAGE OF PERIMETER FACADE PROVIDED: 150.3/250.5=60.0% > 25% ok
- ③ RAP & EQUIPMENT STORE BUILDING & DIESEL GENERATOR (CLASSIFICATION B)**  
PERIMETER FACADE REQUIRED: 124.3x25.0=3108m  
PERIMETER FACADE PROVIDED: 11.5+21.7+33.2m > 3108m  
PERCENTAGE OF PERIMETER FACADE PROVIDED: 33.2/124.3=26.7% > 25% ok
- ④ RAP STOCK PILE NO.1 (CLASSIFICATION B)**  
PERIMETER FACADE REQUIRED: 63.0x25.0=1575m  
PERIMETER FACADE PROVIDED: 6.5+4.5+28.0+38.0m > 1575m  
PERCENTAGE OF PERIMETER FACADE PROVIDED: 38.0/63.0=60.3% > 25% ok
- ⑤ TEMPORARY TOILET (CLASSIFICATION B)**  
PERIMETER FACADE REQUIRED: 24.8x25.0=620m  
PERIMETER FACADE PROVIDED: 4.4+4.4+7.5+18.7m > 620m  
PERCENTAGE OF PERIMETER FACADE PROVIDED: 18.7/24.8=75.4% > 25% ok

**MASTER LAYOUT PLAN 1:300**



E LAYOUT SIGN AT ENTRANCE OF EVA



① INDICATION SIGN ALONG EVA IN THE FORM OF CARRIAGEWAY

Some this plan has been processed on a computerized system under the controlled processing system as per paragraph 10.1 of the Code of Practice for Fire Safety in Buildings 2011. The data of the authorized person, registered structural engineer and/or registered professional engineer concerned as specified in section 4(2)(b) of the Building Ordinance is all multiple signatures is not required.

Plm Approved  
SO Tang-chuen  
Senior Building Surveyor  
for BUILDING AUTHORITY  
28 MAR 2017

02/17	C	SD INSPECTION AMENDMENT	ML	ARC	ML	ML
01/17	B	SD APPROVED ON 27 JAN 2017	ML	ARC	ML	ML
01/17	B	Minor Amendment	ML	ARC	ML	ML
Date	Rev.	Description	Design/Drawn	Chk'd	App'd	
07/15	-	1st Issue	ML	SH	ML	ML

Scale: 1:300 @ A1 SIZE

**MU K. WAH ASPHALT LIMITED**  
嘉華瀝青有限公司

LOT NO. 20R.P.,  
21 & 23R.P. (PART)  
AND STT641 IN DD88

ASPHALT PLANT ALONG  
MAN KAM TO ROAD,  
SHEUNG SHUI

EMERGENCY VEHICULAR ACCESS  
LAYOUT, DETAIL AND FACADE  
CALCULATION

Contract No.:  
Drawing No.:  
File Name: HA897/G07(C)\_170228(d).dwg

**HA897/G07(C)**

**MAURICE LEE & ASSOCIATES LIMITED**  
李榮理建築工程師事務所有限公司

Vincent D F Cheung  
9.4mb BA, IGA, NDA  
Authorized Person - Architect



BD REF. 1  
FSD REF. 1

# GENERAL NOTES:

1. UNLESS OTHERWISE STATED, ALL DIMENSIONS ARE IN mm AND ALL LEVELS ARE IN mPD.
2. UNLESS OTHERWISE STATED, ALL DIMENSIONS AND LEVELS ARE STRUCTURAL DIMENSIONS AND STRUCTURAL LEVELS.
3. FENCE LAYOUT PLAN SEE DRAWING: HA897/G01
4. MINIMUM HEIGHT OF FENCE FROM GROUND LEVEL = 2000 mm
5. FENCE AND GATE ARE CONSTRUCTED OF CORRUGATED METAL SHEET SUPPORTED ON STEEL FRAMES.

After this plan has been prepared on a printed sheet, it shall be submitted to the Building Authority for approval. The plan shall be approved by the Building Authority. The plan shall be approved by the Building Authority. The plan shall be approved by the Building Authority.

Plan Approved  
SO Tang-chien  
Senior Building Surveyor  
for BUILDING AUTHORITY  
10 JUL 2017

Date	Rev.	Description	Design/Drawn	Ch'd	App'd
08/12	1	1st issue	AW	ArC	CTK

K. WAH ASPHALT LIMITED  
嘉華瀝青有限公司

LOT NO. 20R.P.,  
21 & 23R.P. (PART)  
AND ST641 IN DD88

ASPHALT PLANT ALONG  
MAN KAM TO ROAD,  
SHEUNG SHUI

FENCE-ELEVATION

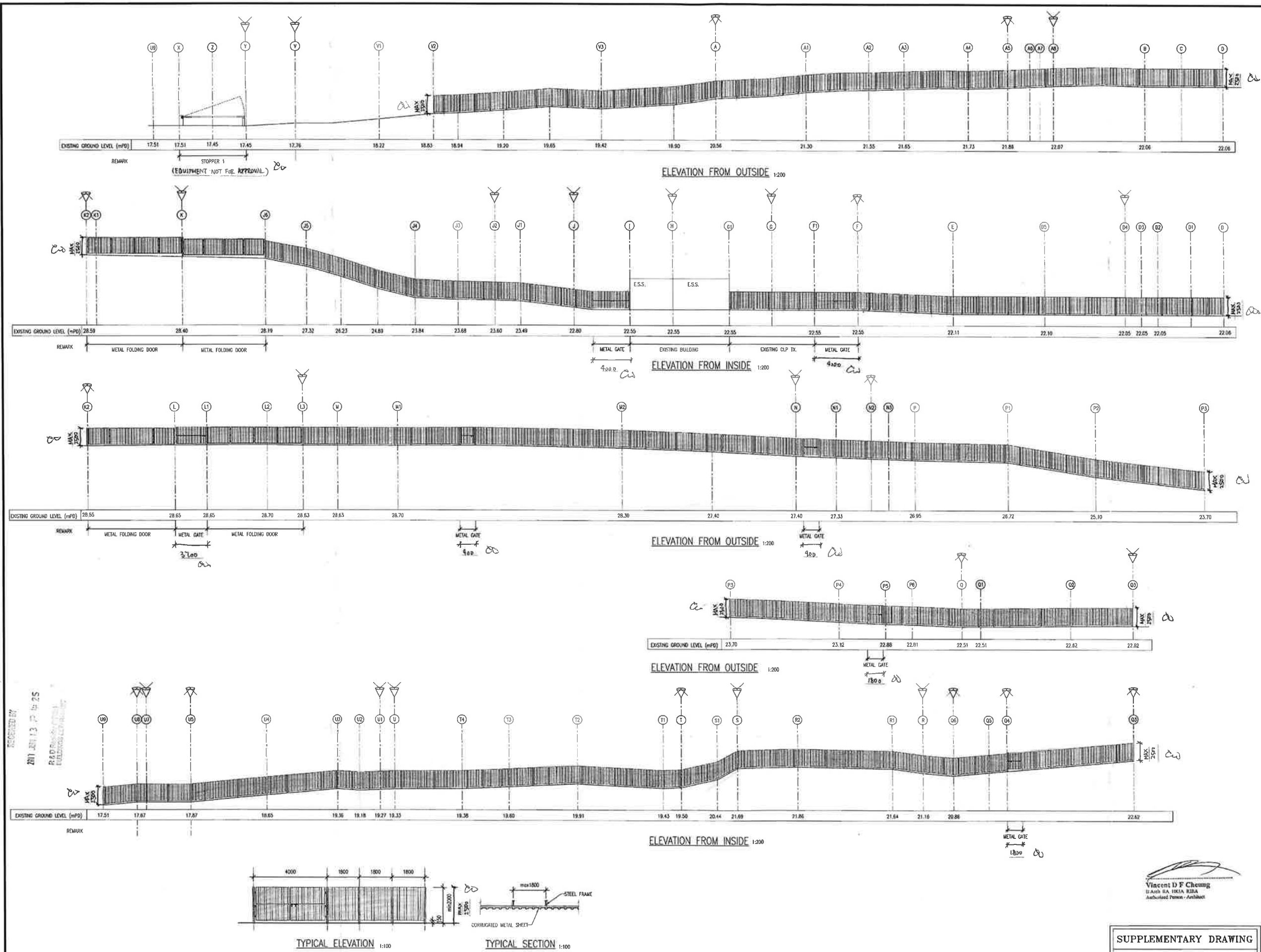
Contract No.:  
Drawing No.: HA897/G08

MAURICE LEE & ASSOCIATES LIMITED  
李榮漢建築工程師事務所有限公司

## SUPPLEMENTARY DRAWING

THIS DRAWING IS TO SUPPLEMENT AMENDMENT  
SUBMISSION OF DRAWING G01(1).

Vicent D F Cheung  
Is Arch. R.A. 1961A, R.U.B.A.  
Authorized Person - Architect



RECORDED BY  
2011 JUN 13 PM 2:55  
RADIOGRAPHY  
BUILDING AUTHORITY

## Appendix 4

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### ISO Certificates





*This is to certify that the Environmental Management System of*

## **K. WAH ASPHALT LIMITED**

Sheung Shui Plant  
Lot 20, RP 21 & RP 23 in D.D. 88, Man Kam To Road Sheung Shui New Territories Hong Kong

*complies with the requirements of* **ISO 14001 : 2015** *environmental management system standard,*  
*applicable to:*

**Design and manufacture of bituminous materials,  
and the provision of road marking and paving service**

*The certificate remains valid subject to satisfactory maintenance of the system  
which will be monitored by Hong Kong Quality Assurance Agency.*

Signed for and on behalf of  
**HONG KONG QUALITY ASSURANCE AGENCY**

**Chief Executive Officer**

**Director**



Registered address 19/F K Wah Centre 191 Java Road North Point Hong Kong Tel (852) 2202 9111 Fax (852) 2202 9222  
Note In accordance with the Agency Regulations, the Hong Kong Quality Assurance Agency undertakes no liability or responsibility for any product or service supplied by the organization in accordance with the requirements of this Certification Scheme. The use of the Accreditation mark(s) shown on this certificate (if applicable) indicates accreditation in respect of those activities covered by that Accreditation Authority. This certificate remains the property of HKQAA and shall be returned when required by the Agency.

Date of Granting

30 August 2018

Expiry Date

29 August 2024

Effective Date (Recertification / Extension / Reduced) 30 August 2021

Amendment Date 6 August 2021



茲證明

## 嘉華瀝青有限公司

上水廠房

香港新界上水文錦渡路 D.D.88 地段 20 餘段、RP 21 餘段及 RP 23 餘段

的環境管理體系符合 **ISO 14001 : 2015** 標準要求，覆蓋範圍如下：

**瀝青物料的設計及製造，和馬路畫線及鋪路服務**

本局將對有關體系進行持續審核，以確保本證書有效。

### 香港品質保證局



總裁



董事



註冊地址  
備註

香港北角渣華道 191 號嘉華國際中心 19 樓 電話 (852) 2202 9111 傳真 (852) 2202 9222  
根據香港品質保證局規則，本局毋須就本認證計劃下對上列機構所提供的產品或服務負任何責任。此證書所列的標誌(如適用)表明認證範圍獲該認可機構認可。此證書為香港品質保證局所屬財產，並須於本局要求時歸還。



證書授予日期

二零一八年八月三十日

有效日期

二零二四年八月二十九日

生效日期(再認證/擴大/縮小)

二零二一年八月三十日

修訂日期

二零二一年八月六日



*This is to certify that the Occupational Health and Safety Management System of*

## **K. WAH ASPHALT LIMITED**

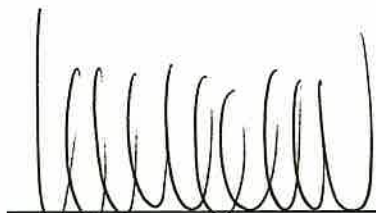
Lot 20, RP 21 & RP 23 in D.D. 88, Man Kam To Road Sheung Shui New Territories Hong Kong

*complies with the requirements of **ISO 45001:2018** occupational health and safety management systems specification, applicable to:*

**Design and manufacture of bituminous materials,  
and the provision of road marking and paving service**

*The certificate remains valid subject to satisfactory maintenance of the system  
which will be monitored by Hong Kong Quality Assurance Agency.*

Signed for and on behalf of  
**HONG KONG QUALITY ASSURANCE AGENCY**

  
**Chief Executive Officer**  
**Director**

Registered address 19/F K Wah Centre 191 Java Road North Point Hong Kong Tel (852) 2202 9111 Fax (852) 2202 9222  
Note In accordance with the Agency Regulations, the Hong Kong Quality Assurance Agency undertakes no liability or responsibility for any product or service supplied by the organization in accordance with the requirements of this Certification Scheme. The use of the Accreditation mark(s) shown on this certificate (if applicable) indicates accreditation in respect of those activities covered by that Accreditation Authority. This certificate remains the property of HKQAA and shall be returned when required by the Agency.

Date of Granting	30 July 2019	Expiry Date	29 August 2024
Effective Date (Recertification / Extension / Reduced)	30 August 2021	Amendment Date	10 August 2021



茲證明

## 嘉華瀝青有限公司

香港新界上水文錦渡路 D.D. 88 地段 20 餘段、RP 21 餘段及 RP 23 餘段

的職業健康安全管理體系符合 **ISO 45001:2018** 規格要求，覆蓋範圍如下：

**瀝青物料的設計及製造，和馬路畫線及鋪路服務**

本局將對有關職業健康安全管理體系進行持續審核，以確保本證書有效。

## 香港品質保證局

總裁

董事



註冊地址 香港北角渣華道 191 號嘉華國際中心 19 樓 電話 (852) 2202 9111 傳真 (852) 2202 9222  
備註 根據香港品質保證局規則，本局毋須就本認證計劃下對上列機構所提供的產品或服務負任何責任。此證書所列的標誌(如適用)表明認證範圍獲該認可機構認可。此證書為香港品質保證局所屬財產，並須於本局要求時歸還。

證書授予日期 二零一九年七月三十日 有效日期 二零二四年八月二十九日  
生效日期(再認證/擴大/縮小) 二零二一年八月三十日 修訂日期 二零二一年八月十日





*This is to certify that the Quality Management System of*

## **K. WAH ASPHALT LIMITED**

Sheung Shui Plant  
Lot 20, RP 21 & RP 23 in D.D. 88, Man Kam To Road Sheung Shui New Territories Hong Kong

*complies with the requirements of* **ISO 9001 : 2015** *quality management system standard,*  
*applicable to:*

**Design and manufacture of bituminous materials,  
and the provision of road marking and paving service**

*The certificate remains valid subject to satisfactory maintenance of the system  
which will be monitored by Hong Kong Quality Assurance Agency.*

Signed for and on behalf of  
**HONG KONG QUALITY ASSURANCE AGENCY**

**Chief Executive Officer**

**Director**

Registered address 19/F K. Wah Centre 191 Java Road North Point Hong Kong Tel (852) 2202 9111 Fax (852) 2202 9222  
Note In accordance with the Agency Regulations, the Hong Kong Quality Assurance Agency undertakes no liability or responsibility for any product or service supplied by the organization in accordance with the requirements of this Certification Scheme. The use of the Accreditation mark(s) shown on this certificate (if applicable) indicates accreditation in respect of those activities covered by that Accreditation Authority. This certificate remains the property of HKQAA and shall be returned when required by the Agency. Further clarifications regarding the scope of this certificate and the applicability of ISO 9001 : 2015 requirements may be obtained by consulting the organization.

Date of Granting

30 August 2018

Expiry Date

29 August 2024

Effective Date (Recertification / Extension / Reduced)

30 August 2021

Amendment Date

3 August 2021





茲證明

## 嘉華瀝青有限公司

上水廠房

香港新界上水文錦渡路 D.D.88 地段 20 餘段、RP 21 餘段及 RP 23 餘段

的品質管理體系符合 **ISO 9001 : 2015** 標準要求，覆蓋範圍如下：

**瀝青物料的設計及製造，和馬路畫線及鋪路服務**

本局將對有關體系進行持續審核，以確保本證書有效。

## 香港品質保證局

總裁

董事



註冊地址  
備註

香港北角渣華道 191 號嘉華國際中心 19 樓 電話 (852) 2202 9111 傳真 (852) 2202 9222  
根據香港品質保證局規則，本局毋須就本認證計劃下對上列機構所提供的產品或服務負任何責任。此證書所列的標誌(如適用)表明認證範圍獲該認可機構認可。此證書為香港品質保證局所屬財產，並須於本局要求時歸還。要澄清本證書的認證範圍和 ISO9001:2015 要求的實施，可向上列機構查詢。

證書授予日期

二零一八年八月三十日

有效日期

二零二四年八月二十九日

生效日期(再認證/擴大/縮小)

二零二一年八月三十日

修訂日期

二零二一年八月三日



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## Appendix 5

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### Store and Use Licence for Schedule 2 Dangerous Goods

THE GOVERNMENT OF THE HONG KONG  
SPECIAL ADMINISTRATIVE REGION

香港特別行政區政府

Dangerous Goods Ordinance

Chapter 295

Section 6 and Section 9

危險品條例

第二百九十五章

第六條及第九條

STORE AND USE LICENCE FOR SCHEDULE 2 DANGEROUS GOODS (S2DG)

S2 危險品貯存暨使用牌照

1. Name of the licensee  
持牌人的姓名或名稱 **K. Wah Asphalt Limited**

2. Particulars of S2DG permitted to be stored or used  
獲准貯存或使用的 S2 危險品的詳情

UN number/ HK number 聯合國編號/ 香港編號	Proper Shipping Name 正式運輸名稱	Class 類別	Subsidiary Hazard 次要危險性	Packing Group 包裝類別	Maximum quantity for the storage and use in aggregate 總共貯存和使用的最多 分量
(i) H301	DIESEL	Class 3A	None	PG III	41,800 litres
(ii) H301	DIESEL	Class 3A	None	PG III	200 litres

3. Particulars of the licensed store  
有關持牌貯存所的詳情

(a) Address of the store  
貯存所的地址 **Lot No. 20 R.P. 21 & 23 R.P. (Part) and STT641 in DD88 Man Kam To Road, Sheung Shui, N.T.**

(b) Location(s) at which the S2DG may be stored  
可貯存有關 S2 危險品的地點 **(i) An Aboveground Tank on open ground;  
(ii) An Aboveground Daily Service Tank on open ground**

4. Location(s) at which the S2DG may be used  
可使用有關 S2 危險品的地點 **Asphalt production area on open ground**


Prescribed fee for the licence

5. 牌照的訂明費用 **\$7,570.00**

6. Date on which the licence is first granted  
首次批給牌照的日期 **02/08/2023**

7. Validity period of the licence  
牌照的有效期 **23/05/2024 - 22/05/2025**

8. This licence is subject to the endorsed conditions overleaf.  
本牌照受後頁已批註的條件所規限。



(KWOK Chi-kwan)  
for Director of Fire Services  
消防處處長  
(郭志鈞 代行)



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## Appendix 6

Energy Management Award (Grand) from the CLP

26 October 2022

## CLP Smart Energy Award Receives 600 Entries and Showcases Innovative Energy and Carbon Reduction Initiatives

CLP Power Hong Kong Limited (CLP Power) today (26 October) hosted a presentation ceremony for the 2022 **Smart Energy Award** programme, which attracted entries from around 600 corporate and Government bodies, small and medium-sized enterprises (SMEs), non-governmental organisations (NGOs), and educational institutions. The programme recognises businesses and organisations for their outstanding performance in applying innovative technologies and smart management to save energy and reduce carbon emissions.

The awards were presented in four categories: Carbon Management, Innovation, Energy Management, and Sustainable Vision. Each category comprises one division for corporate and Government bodies and another for Catering and SMEs, NGOs, and educational institutions. Judges selected a total of 63 winners (please see appendix for full awards list).

The Kowloon Motor Bus Co. (1993) Ltd. (KMB) won the **Carbon Management Grand Award** in the corporate and Government body division after successfully introducing innovative technologies and energy-saving initiatives to enhance its operational efficiency and reduce emissions. This year KMB introduced a fleet of new generation single-decker electric buses, and installed solar panels on the roofs of its non-electric fleet, which provide power for ventilation and air conditioning systems when the engines of the buses are turned off. The company will complete the installation of a total of 30,000 solar panels in depots, terminals, and bus shelters by 2023, reducing estimated carbon emissions by more than 4,800 tonnes a year.

A restaurant under LH Group, #HAP Taiwanese Hotpot, won the **Innovation Excellence Award** for introducing an Internet of Things-based intelligent control hot pot induction cooker system, which controls the temperature of cookers and monitors energy consumption data to optimise efficiency. The system allows employees to regulate the temperature of cookers using an App, saving them time and effort, and is the first of its kind in Hong Kong.

Hong Kong pledges to become carbon neutral by 2050 to counter climate change. CLP Power Managing Director Mr T K Chiang said, “We are committed to encouraging our customers to conduct their business in a greener way and participate in Hong Kong’s low-carbon transformation. Reducing carbon emissions is a primary focus of CLP Power. We will continue to promote energy efficiency to our customers, applying innovative technologies and launching a wide range of initiatives as we work hand in hand with them to transform Hong Kong into a low-carbon smart city.”

Chairman of the Energy Advisory Committee Mr Jimmy Kwok, who was the officiating guest at the ceremony, said: “More and more corporates and SMEs pay attention to the impact of climate change and have incorporated carbon reduction into their strategies in recent years. The green transformation of businesses is a win-win situation, reducing carbon emissions for everyone while lowering operating expenses by improving energy efficiency.”

The **CLP Smart Energy Award** programme is widely recognised in the community, its judging panel is a broad cross-section of officials and experts, comprising members from Government, chambers, green groups, and professional bodies. To find out more about the energy-saving solutions adopted by the winners of the **CLP Smart Energy Award** programme, please visit [www.clp.com.hk/SEaward](http://www.clp.com.hk/SEaward).

#### **About CLP Power Hong Kong Limited**

CLP Power Hong Kong Limited (CLP Power) is the Hong Kong utility subsidiary wholly owned by CLP Holdings Limited, a company listed on the Hong Kong Stock Exchange and one of the largest investor-owned power businesses in Asia. CLP Power operates a vertically integrated electricity supply business in Hong Kong, and provides a highly reliable supply of electricity and excellent customer services to more than six million people in its supply area.

## Appendix: Winners in the Smart Energy Award 2022 programme

Award	Category	Organisation
Carbon Management Grand Award	Corporate/Government Bodies	The Kowloon Motor Bus Company (1933) Limited
	Catering and SME, NGO and Educational Institutes	Caritas Ma On Shan Secondary School
		Hong Kong Housing Society
Carbon Management Excellence Award	Corporate/Government Bodies	Hong Kong Housing Authority
		Sino Estates Management Limited
		Television Broadcasts Limited
	Catering and SME, NGO and Educational Institutes	Common Farms
		Kamakura Foods Limited
Smart Technology Partners	Ampd Energy Limited	
	CLPe	
Energy Management Grand Award	Corporate/Government Bodies	DFI Retail Group
		Hospital Authority
	Catering and SME, NGO and Educational Institutes	K. Wah Asphalt Limited
		Telford International Industries Limited
Energy Management Excellence Award	Corporate/Government Bodies	Kai Shing Management Services Limited
		MTR Corporation Limited
	Catering and SME, NGO and Educational Institutes	Living Corner
		Taste of Asia Group Limited
Smart Technology Partners	City Facilities Management (HKG) Limited	
	Yat Fai Solar System Limited	
Innovation Grand Award	Corporate/Government Bodies	Nan Fung Property Management
		New World Property Management Company Limited
	Catering and SME, NGO and Educational Institutes	Zean International Limited
Innovation Excellence Award	Corporate/Government Bodies	Equinix Hong Kong Limited
		Maxim's Caterers Limited
	Catering and SME, NGO and Educational Institutes	LH Group - #HAP Taiwanese Hotpot
		CK One Limited
		Yew Chung International School – Secondary
Smart Technology Partners	Caretech System Limited	
	CLP Innovation Enterprises Limited	
	EnerCool Asia Pacific Limited	
	Siemens Limited	





# 能源管理大獎

為推廣節能環保，企業及機構積極實踐節能措施，提升整體營運及能源效益。

## 企業 / 政府部門



DFI 零售集團



醫院管理局



啟勝管理服務有限公司



港鐵公司



## 餐飲及中小企/非牟利機構/學校



嘉華滙青有限公司



匯泉國際實業有限公司



生活角落



亞洲國際餐飲集團





# 能源管理卓越大獎

餐飲及中小企/非牟利機構/學校

嘉華瀝青有限公司  
K. Wah Asphalt Limited

 嘉華瀝青有限公司  
K. WAH ASPHALT LIMITED



嘉華瀝青有限公司專門承接瀝青鋪設及馬路劃線工程並提供相關產品。企業十分重視環保理念，除了著力減少生產程序的用電量外，還應用創新技術實踐節能環保，大大提升能源效益。

- 計劃利用創新的溫拌瀝青鋪設方法，每年可減少20萬公升柴油消耗，約相等於節省214萬度電。同時為大型機器安裝變頻驅動器，每1,000生產小時可節省46,000度電。
- 重整生產程序以調整高峰時段的用電量，例如提早加熱生產材料，有助於特定時間節省400度電力需求，減低電力系統負荷。
- 投資研發自家機械，以便回收再用近23,000公噸廢棄瀝青，有助節省原生材料之餘，更能減少堆填區的負荷。



智能技術夥伴

一輝太陽能系統有限公司  
Yat Fai Solar System Limited

一輝太陽能系統有限公司  
YAT FAI SOLAR SYSTEM LIMITED

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## Appendix 7

### Supporting Letters

19 Aug., 2024

A Support Letter for K. Wah Asphalt

Dear Sir/Madam,

I am writing this letter to testify that K. Wah Asphalt has made great contributions to our research and education efforts in the Department of Civil and Environmental Engineering at the Hong Kong Polytechnic University. In particular, K. Wah Asphalt supplied pavement materials and construction plants to support our research projects that aim to build more durable and sustainable bituminous roads. They also provide us site trials to evaluate the constructability and performance of developed new bituminous materials and road structures. Such supports are essential for our Department to carry out relevant research, which eventually benefits the society.

In addition, K. Wah Asphalt donated construction materials for our teaching purpose. Because some materials such as bitumen and aggregate are difficult to be purchased in the market in small amounts, the donated materials are very important for us to run laboratory experiments for educational purpose.

Because K. Wah Asphalt is a great supporter to education, I fully support their application without hesitation. If you have any questions, please do not hesitate to contact me.

Sincerely Yours,



Yuhong Wang  
Ir. Professor  
Department of Civil and Environmental Engineering  
The Hong Kong Polytechnic University  
Contact: 852-2766-4489  
Email: [ceyhwang@polyu.edu.hk](mailto:ceyhwang@polyu.edu.hk)



# 上水區鄉事委員會 The Sheung Shui District Rural Committee

香港新界上水寶運路三號  
No. 3, Po Wan Road, Sheung Shui, N.T., Hong Kong.  
Tel: 2670 0292 Fax: 2668 8257 E-mail: ssdrc8@yahoo.com.hk

本會編號: 016-SSDRC-2024

敬啟者:

## 支持信

嘉華瀝青有限公司位於文錦渡路的廠房，於二零一七年開業至今一直與社區保持緊密聯繫，保持良好專業態度，耐心聽取各方意見並致力改善廠房運作，避免對居民產生影響。

同時，嘉華瀝青有限公司亦關心地區、關懷社區及關注民生所需。在疫情期間為地區提供防疫物資；暴雨後，協助有需要的鄉村維修道路，平整路面，方便村民出入，造福鄉梓。

敬希 嘉華瀝青有限公司繼續保持良好專業態度，關心地區、關懷社區及關注民生所需為香港未來及新界北發展作出貢獻。

此致

嘉華瀝青有限公司

上水區鄉事委員會



侯志強主席

侯榮光首副主席

廖世鴻副主席 謹啟

日期: 2024 年 8 月 16 日

敬啟者：

本人認識嘉華瀝青有限公司已有一段時間。他們一直以來關心地區，經常參與社區活動，為區內損壞的鄉村道路維修，方便村民及車輛出入。同時，嘉華對長者尤其關愛，在疫情期間為有需要長者提供物資支援，對抗疫情；亦參與區內長者活動，與長者互動，鼓勵老友記活出積極及正面人生。

希望嘉華這個團隊繼續關心地區，造福社群。

蘇西智

SBS BBS MH



16-8-2024

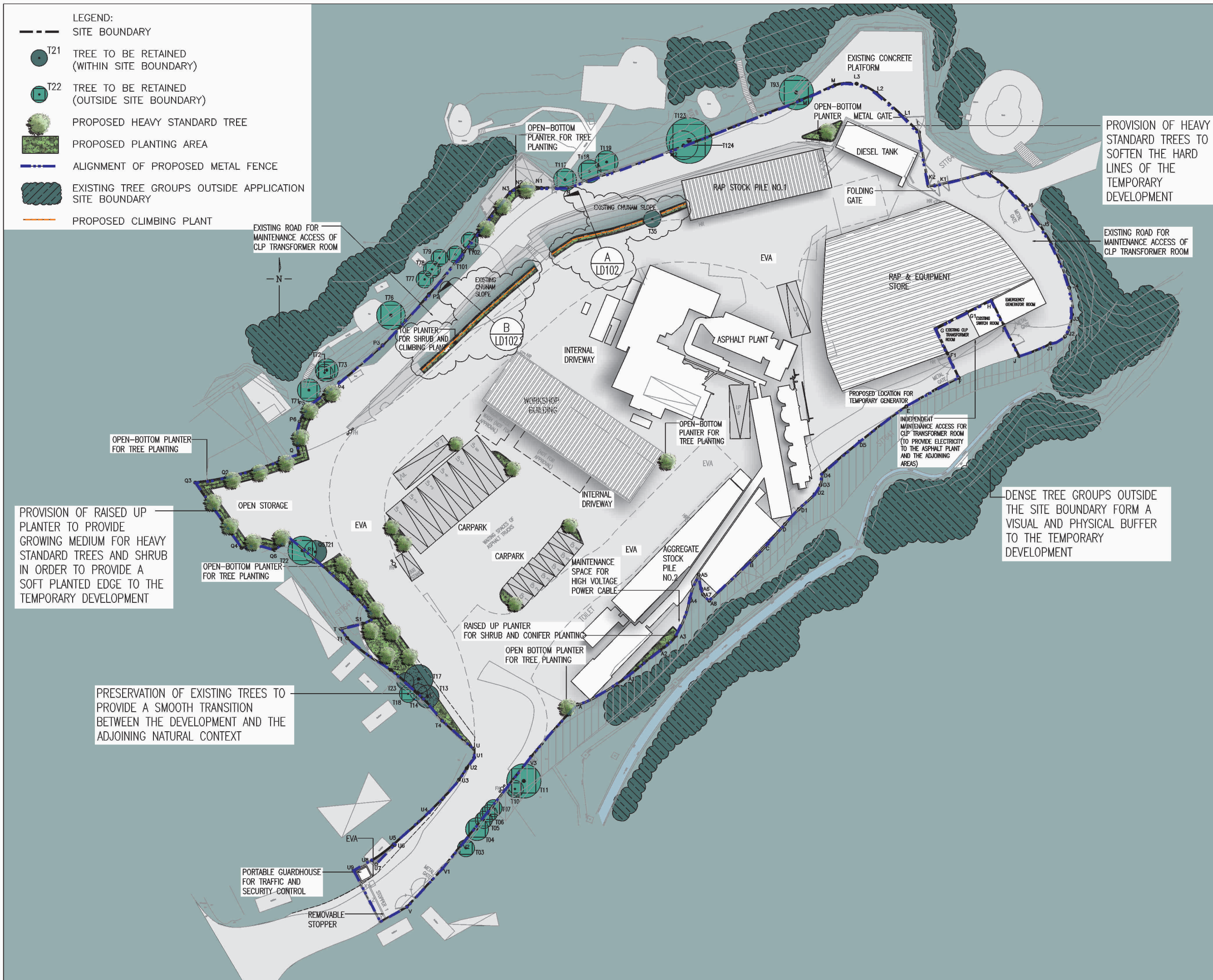
## Appendix 8

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### Approved Tree Preservation and Landscape Proposals under Previous Application



- LEGEND:
- SITE BOUNDARY
  - T21 TREE TO BE RETAINED (WITHIN SITE BOUNDARY)
  - T22 TREE TO BE RETAINED (OUTSIDE SITE BOUNDARY)
  - PROPOSED HEAVY STANDARD TREE
  - PROPOSED PLANTING AREA
  - ALIGNMENT OF PROPOSED METAL FENCE
  - EXISTING TREE GROUPS OUTSIDE APPLICATION SITE BOUNDARY
  - PROPOSED CLIMBING PLANT



PROJECT :  
PROPOSED ASPHALT PLANT  
ON A TEMPORARY BASIS AT VARIOUS  
LOTS AND GOVERNMENT LAND  
IN DD 88, SHEUNG SHUI, N.T.

DRAWING TITLE :  
LANDSCAPE MASTER PLAN

PROJECT No. C1523

DRAWING No. LMP01

SCALE : 1:600

DATE OF ISSUE : JUL 2015

CAD FILENAME : C1523-LMP01

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C	GENERAL AMENDMENT	26/10/15
B	GENERAL AMENDMENT	11/09/15
A	GENERAL AMENDMENT	03/08/15

REV	DESCRIPTION	DATE
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DRAWN BY : CAD

CHECKED BY : TEL

APPROVED BY : TEL

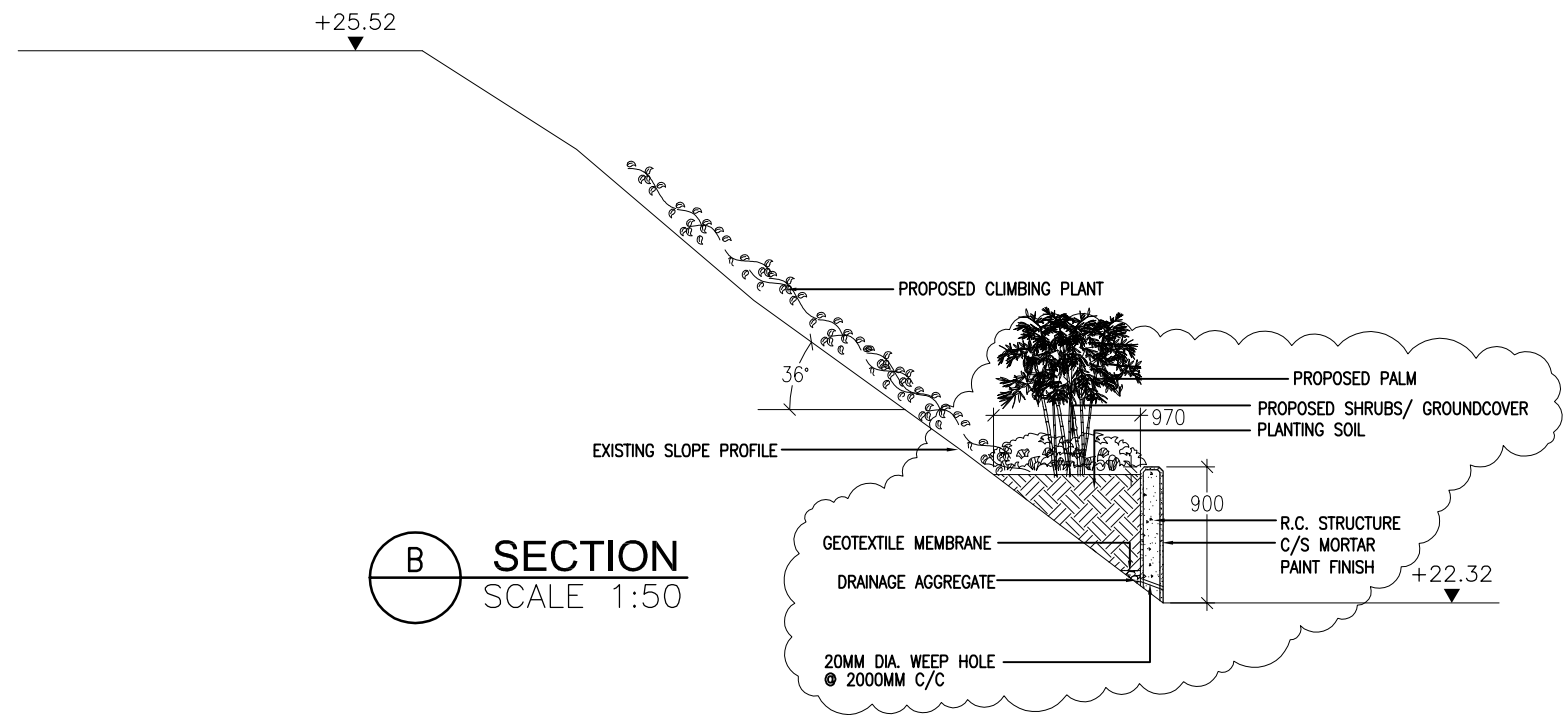
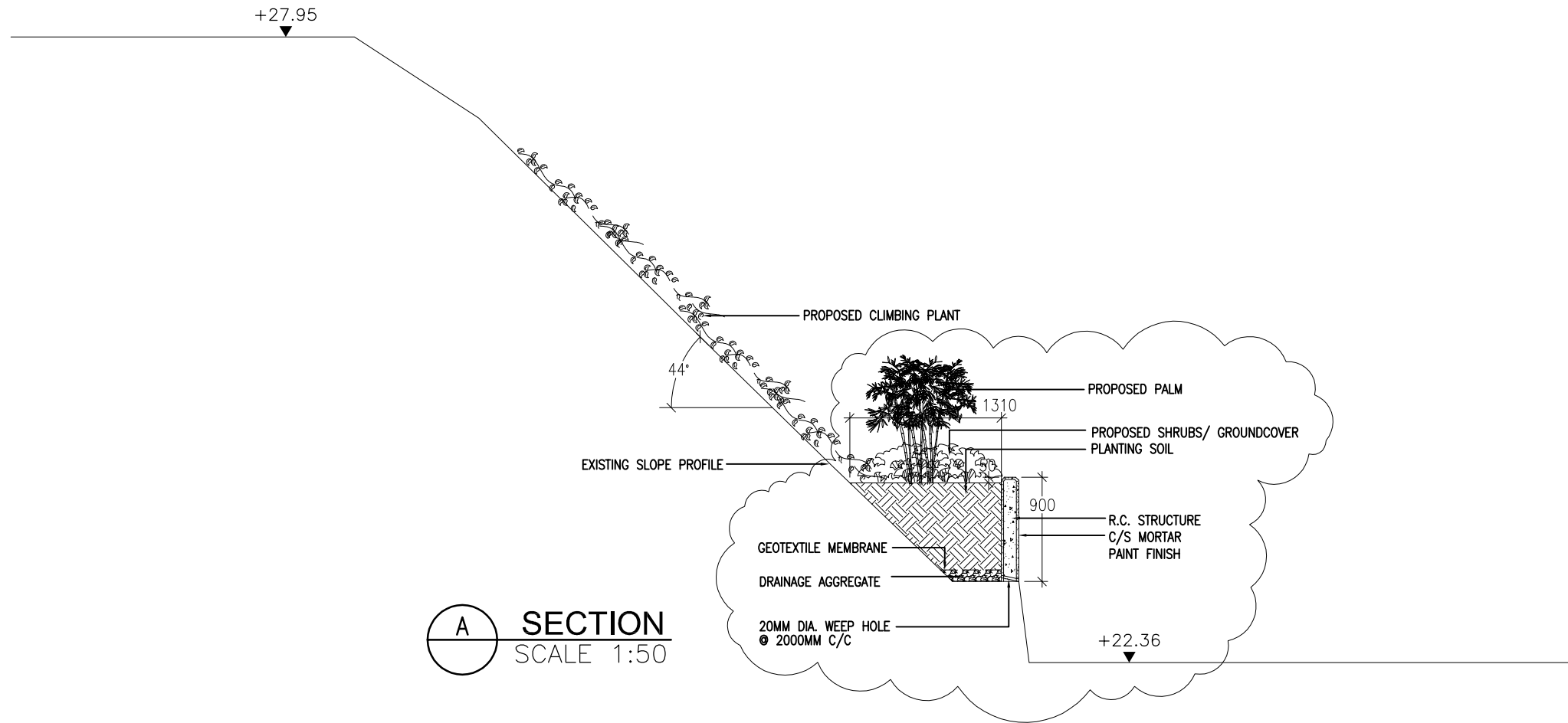
- NOTES :
- DO NOT SCALE DRAWING. FIGURED DIMENSIONS ARE TO BE FOLLOWED.
  - COPYRIGHT OF THE DRAWING IS RETAINED BY THE AUTHORIZED PERSON.
  - ALL DIMENSIONS ARE TO BE CHECKED AT SITE BY THE MAIN CONTRACTOR.
  - READ THIS DWG. IN CONNECTION WITH GEN. ARCH. PLANS, STRUCT. PLANS, AND OTHER RELATED DWGS.

LanDes

LANDES LIMITED  
景藝設計有限公司

FLAT A, 17/F,  
SHUN PONT COMMERCIAL BUILDING,  
5-11 THOMSON ROAD, HONG KONG  
TEL.: 2868 0980 FAX.: 2868 2203  
香港灣仔譚臣道5-11號,  
信邦商業大廈17樓A室  
電話: 2868 0980  
傳真: 2868 2203





PROJECT :  
PROPOSED ASPHALT PLANT  
ON A TEMPORARY BASIS AT VARIOUS  
LOTS AND GOVERNMENT LAND  
IN DD 88, SHEUNG SHUI, N.T.

DRAWING TITLE :  
TYPICAL SECTION OF  
TOE PLANTER

PROJECT No. C1523

DRAWING No. LD102

SCALE : 1:50

DATE OF ISSUE : JUL 2015

CAD FILENAME : C1523-LD102

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A	GENERAL AMENDMENT	26/10/15
REV	DESCRIPTION	DATE

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CHECKED BY : TEL  
APPROVED BY : TEL

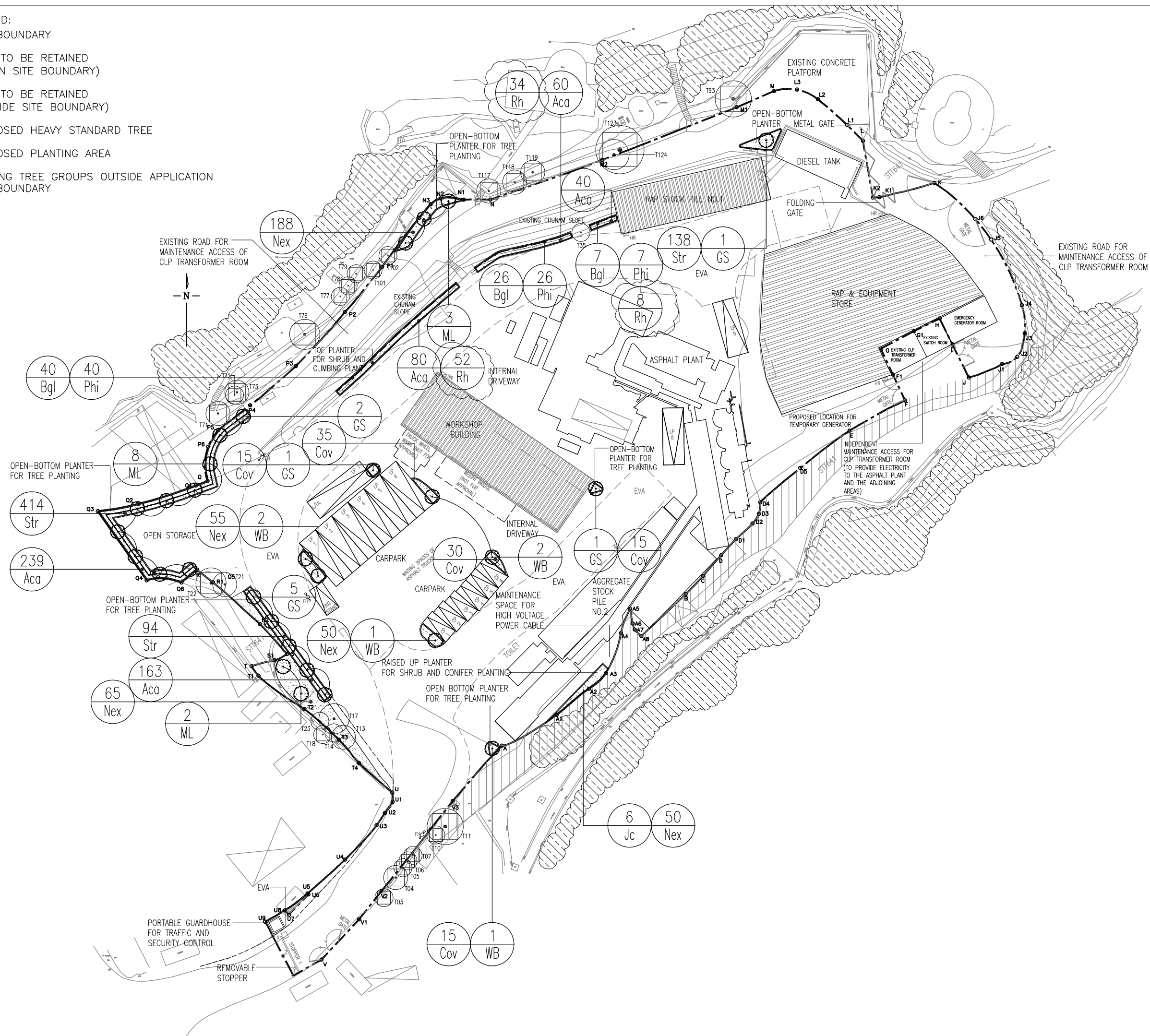
NOTES :  
1. DO NOT SCALE DRAWING. FIGURED  
DIMENSIONS ARE TO BE FOLLOWED.  
2. COPYRIGHT OF THE DRAWING IS RETAINED  
BY THE AUTHORIZED PERSON.  
3. ALL DIMENSIONS ARE TO BE CHECKED  
AT SITE BY THE MAIN CONTRACTOR.  
4. READ THIS DWG. IN CONNECTION WITH GEN.  
ARCH. PLANS, STRUCT. PLANS, AND OTHER  
RELATED DWGS.

LanDes

LANDES LIMITED  
景藝設計有限公司

FLAT A, 17/F,  
SHUN PONT COMMERCIAL BUILDING,  
5-11 THOMSON ROAD, HONG KONG  
TEL.: 2868 0980 FAX.: 2868 2203  
香港灣仔譚臣道5-11號,  
信邦商業大廈17樓A室  
電話: 2868 0980  
傳真: 2868 2203

- LEGEND:
- SITE BOUNDARY
  - T21 TREE TO BE RETAINED (WITHIN SITE BOUNDARY)
  - T22 TREE TO BE RETAINED (OUTSIDE SITE BOUNDARY)
  - PROPOSED HEAVY STANDARD TREE
  - PROPOSED PLANTING AREA
  - EXISTING TREE GROUPS OUTSIDE APPLICATION SITE BOUNDARY



PROJECT :  
PROPOSED ASPHALT PLANT  
ON A TEMPORARY BASIS AT VARIOUS  
LOTS AND GOVERNMENT LAND  
IN DD 88, SHEUNG SHUI, N.T.

DRAWING TITLE :  
PLANTING PLAN

PROJECT No. C1523

DRAWING No. PT01

SCALE : 1:600

DATE OF ISSUE : JUL 2015

CAD FILENAME : C1523-PT01

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C	GENERAL AMENDMENT	26/10/15
B	GENERAL AMENDMENT	11/09/15
A	GENERAL AMENDMENT	03/08/15

REV	DESCRIPTION	DATE
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DESIGN BY : TEL

DRAWN BY : CAD

CHECKED BY : TEL

APPROVED BY : TEL

- NOTES :
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  - COPYRIGHT OF THE DRAWING IS RETAINED BY THE AUTHORIZED PERSON.
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LanDes

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SHUN PONT COMMERCIAL BUILDING,  
5-11 THOMSON ROAD, HONG KONG  
TEL.: 2868 0980 FAX.: 2868 2203  
香港灣仔譚臣道5-11號,  
信邦商業大廈17樓A室  
電話: 2868 0980  
傳真: 2868 2203

Quantity	Code	Chinese Name	Botanical Name	Height (mm)	Spread (mm)	DBH (mm)	Spacing (mm)	Remark
TREE								
10	GS	菲島福木	<i>Garcinia subelliptica</i>	2500	1500	80	4000	Straight trunk, balanced form
13	ML	白千層	<i>Melaleuca leucadendron</i>	3000	2000	80	4000	Straight trunk, balanced form
6	WB	狐尾椰	<i>Wodyetia bifurcata</i>	4000	2000	80	3500 min.	Straight trunk, balanced form
CONIFER								
6	Jc	龍柏	<i>Juniperus chinensis 'kaizuca'</i>	1000	600	-	1500	Straight trunk, balanced form
PALM								
94	Rh	棕竹	<i>Rhapis excelsa</i>	900	500	-	500	balanced form, Abundance of foliage
SHRUBS AND GROUNDCOVERS								
582	Aca	軟枝黃蟬	<i>Allamanda cathartica 'Allamanda'</i>	400	400	-	300	
110	Cov	紅葉洒金榕	<i>Codiaeum variegatum 'Glorisa'</i>	450	400	-	300	
408	Nex	波士頓蕨	<i>Nephrolepis exaltata 'Bostoniensis'</i>	500	300	-	250	
646	Str	金邊虎尾蘭	<i>Sansevieria trifasciata 'Laurentii'</i>	450	300	-	400	
CLIMBING PLANT								
73	Bgl	羊蹄甲藤	<i>Bauhinia glauca</i>	900	300	-	500	at least 5 shoots per plant
73	Phi	爬牆虎	<i>Parthenocissus himalayana</i>	1000	300	-	500	at least 5 shoots per plant

PROJECT :  
PROPOSED ASPHALT PLANT  
ON A TEMPORARY BASIS AT VARIOUS  
LOTS AND GOVERNMENT LAND  
IN DD 88, SHEUNG SHUI, N.T.

DRAWING TITLE :  
PLANTING SCHEDULE

PROJECT No. C1523

DRAWING No. PS01

SCALE : N.T.S.

DATE OF ISSUE : JUL 2015

CAD FILENAME : C1523-PS01

D	GENERAL AMENDMENT	17/11/15
C	GENERAL AMENDMENT	26/10/15
B	GENERAL AMENDMENT	11/09/15
A	GENERAL AMENDMENT	03/08/15

REV	DESCRIPTION	DATE
-----	-------------	------

DESIGN BY : TEL

DRAWN BY : CAD

CHECKED BY : TEL

APPROVED BY : TEL

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AT SITE BY THE MAIN CONTRACTOR.  
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ARCH. PLANS, STRUCT. PLANS, AND OTHER  
RELATED DWGS.

LanDes

LANDES LIMITED  
景藝設計有限公司

FLAT A, 17/F,  
SHUN PONT COMMERCIAL BUILDING,  
5-11 THOMSON ROAD, HONG KONG  
TEL.: 2868 0980 FAX.: 2868 2203  
香港灣仔譚臣道5-11號,  
信邦商業大廈17樓A室  
電話: 2868 0980  
傳真: 2868 2203

## Appendix 9

---

Certificate of Fire Service Installation and Equipment of Application Site dated 10.4.2024 and  
11.4.2024



## FIRE SERVICE (INSTALLATIONS AND EQUIPMENT) REGULATIONS

FSD Ref.:

消防處檔號

消防(裝置及設備)規例

(Regulation 9(1))

(第九條(1)款)

A 9315928

## CERTIFICATE OF FIRE SERVICE INSTALLATION AND EQUIPMENT

消防裝置及設備證書

Name of Client:

顧客姓名

K. Wah Asphalt Limited

Name of Building:

樓宇名稱

Asphalt Plant along Man Kam To Road

Street No./Town Lot:

門牌號數/市地段

Lots 20RP(Part), 21 and  
23RP(Part) in D.D.88

Street/Road/Estate Name:

街道/屋苑名稱

Man Kam To Road

Block:

座

District:

分區

Sheung Shui

Area:

地區

☐ HK

香港

☐ K

九龍

☐ NT

新界

Type of Building 樓宇類型:

☐ Industrial 工業☐ Commercial 商業☐ Domestic 住宅☐ Composite 綜合☐ Licensed premises 持牌處所☐ Institutional 社團Part 1 Annual Inspection ONLY  
第一部 只適用於年檢事項

In accordance with Regulation 8(b) of Fire Service (Installations and Equipment) Regulations, the owner of any fire service installation or equipment which is installed in any premises shall have such fire service installation or equipment inspected by a registered contractor at least once in every 12 months. 根據消防(裝置及設備)規例第八條(b)款，擁有裝置在任何處所內的任何消防裝置或設備的人，須每12個月由一名註冊承辦商檢查該等消防裝置或設備至少一次。

Code 編碼 (1-35)	Type of FSI 裝置類型	Location(s) 位置	Comment on Condition 狀況評述	Completion Date 完成日期(DD/MM/YY)	Next Due Date 下次到期日(DD/MM/YY)
10	Emergency Generator	G/F	Conforms with FSD requirements	10/04/2024	09/04/2025
11	Emergency Lighting	G/F, 1/F	Conforms with FSD requirements	10/04/2024	09/04/2025
16	FH/HR System	G/F	Conforms with FSD requirements	10/04/2024	09/04/2025
28	Sprinkler System	G/F, 1/F	Conforms with FSD requirements	10/04/2024	09/04/2025
30	Street Fire Hydrant System	G/F	Conforms with FSD requirements	10/04/2024	09/04/2025
13	MFA System	G/F, 1/F	Conforms with FSD requirements	10/04/2024	09/04/2025
15	Fire Detection System	G/F, 1/F	Conforms with FSD requirements	10/04/2024	09/04/2025
12	Exit Sign	G/F, 1/F	Conforms with FSD requirements	10/04/2024	09/04/2025
35	VFA	G/F, 1/F	Conforms with FSD requirements	10/04/2024	09/04/2025

## Part 2 第二部 Installation / Modification / Repair / Inspection work 裝置/改裝/修理/檢查工作

Code 編碼 (1-35)	Type of FSI 裝置類型	Location(s) 位置	Nature of Work Carried out 完成之工作內容	Comment on Condition 狀況評述	Completion Date 完成日期(DD/MM/YY)
				Reserved 保留	
				Fixed Automatically Operated Appliances 固定自動操作裝置	
				Fixed Foam System 固定泡沫系統	
				Gas Detection System 氣體偵測系統	

## Part 3 第三部 Defects 損壞事項

Code 編碼 (1-35)	Type of FSI 裝置類型	Location(s) 位置	Outstanding Defects 未修缺點	Comment on Defects 缺點評述
				Portable Hand-operated Approved Appliances 手提式經核准之設備
				Pressurization of Staircase Enclosures 樓梯間加压
				Ring Main System with Fixed Pumps 環形主系統(固定泵)
				Sprinkler System 灑水系統

I/We hereby certify that the above installations/equipment have been tested and found to be in efficient working order in accordance with the Codes of Practice for Minimum Fire Service Installations and Equipment and Inspection, Testing and Maintenance of Installations and Equipment published from time to time by the Director of Fire Services. Defects are listed in Part 3.

本人藉此證明以上之消防裝置及設備經試驗，證明性能良好，符合消防處處長不時公佈的最低限度之消防裝置及設備守則與裝置及設備之檢查測試及保養守則的規格，損壞事項列於第三部。

**如證書涉及年檢事項，應張貼於大廈  
或處所當眼處以供消防處人員查核**

This certificate should be displayed at prominent location of the building or premises for FSD's inspection if any annual maintenance work is involved.

Authorized

Signature:

授權人簽署

Name

姓名

FSD/RC No.:

消防處註冊號碼

Company Name:

公司名稱

Telephone:

聯絡電話

Date:

日期

HON MING SHING

RC1/139, RC2/248

Tung Lick Fire Eng. Co.

2745 7923

10/04/2024

For FSD  
use only:

Inspected

Key-in

Verified

## FIRE SERVICE (INSTALLATIONS AND EQUIPMENT) REGULATIONS

消防(裝置及設備)規例

A 9461575

FSD Ref.:

消防處編號

(Regulation 9(1))

(第九條(1)款)

## CERTIFICATE OF FIRE SERVICE INSTALLATION AND EQUIPMENT

消防裝置及設備證書

Name of Client: K. WAH ASPHALT LIMITED

顧客姓名

Name of Building: 文錦渡路88號地段

樓宇名稱

Street No./Town Lot:

門牌號數/市地段

Street/Road/Estate Name:

街道/屋苑名稱

Block:

座

District:

分區

Area:

地區

☐ HK

香港

☐ K

九龍

☐ NT

新界

Type of Building 樓宇類型: ☐ Industrial 工業 ☐ Commercial 商業 ☐ Domestic 住宅 ☐ Composite 綜合 ☐ Licensed premises 持牌處所 ☐ Institutional 社團Part 1 Annual Inspection ONLY  
第一部 只適用於年檢事項

In accordance with Regulation 8(b) of Fire Service (Installations and Equipment) Regulations, the owner of any fire service installation or equipment which is installed in any premises shall have such fire service installation or equipment inspected by a registered contractor at least once in every 12 months. 根據消防(裝置及設備)規例第八條(b)款, 擁有裝置在任何處所內的任何消防裝置或設備的人, 須每12個月由一名註冊承辦商檢查該等消防裝置或設備至少一次。

Code 編碼 (1-35)	Type of FSI 裝置類型	Location(s) 位置	Comment on Condition 狀況評述	Completion Date 完成日期(DD/MM/YY)	Next Due Date 下次到期日(DD/MM/YY)
			---NIL---		

## Part 2 第二部 Installation / Modification / Repair / Inspection work 裝置/改裝/修理/檢查工作

Code 編碼 (1-35)	Type of FSI 裝置類型	Location(s) 位置	Nature of Work Carried out 完成之工作內容	Comment on Condition 狀況評述	Completion Date 完成日期(DD/MM/YY)
24	5x1.0kg Dry Powder f.e.	Site area.	For supply.	Conforms with	11/04/2024
24	1x2.0kg Dry Powder f.e.			FSD requirements.	
24	4x5.0kg CO2 Gas f.e.				
24	18x9.0L Foam f.e.				

## Part 3 第三部 Defects 損壞事項

Code 編碼 (1-35)	Type of FSI 裝置類型	Location(s) 位置	Outstanding Defects 未修缺點	Comment on Defects 缺點評述
			---NIL---	

I/We hereby certify that the above installations/equipment have been tested and found to be in efficient working order in accordance with the Codes of Practice for Minimum Fire Service Installations and Equipment and Inspection, Testing and Maintenance of Installations and Equipment published from time to time by the Director of Fire Services. Defects are listed in Part 3.

本人藉此證明以上之消防裝置及設備經試驗, 證明性能良好, 符合消防處處長不時公佈的最低限度之消防裝置及設備守則與裝置及設備之檢查測試及保養守則的規格, 損壞事項列於第三部。

**如證書涉及年檢事項, 應張貼於大廈  
或處所當眼處以供消防處人員查核**

This certificate should be displayed at prominent location of the building or premises for FSD's inspection if any annual maintenance work is involved.

Authorized  
Signature:  
授權人簽署

Name:

姓名

FSD/RC No.:

消防處註冊號碼

Company Name:  
公司名稱

Telephone:

聯絡電話

Date:

日期

For FSD  
use only:

Inspected

Key-in

Verified



## FIRE SERVICE (INSTALLATIONS AND EQUIPMENT) REGULATIONS

消防(裝置及設備)規例

A 9386800

FSD Ref.:

消防處檔號

(Regulation 9(1))

(第九條(1)款)

## CERTIFICATE OF FIRE SERVICE INSTALLATION AND EQUIPMENT

消防裝置及設備證書

Name of Client:

顧客姓名

K. Wah Asphalt Limited

Name of Building:

樓宇名稱

Asphalt Plant along Man Kam To Road

Street No./Town Lot:

門牌號數/市地段

Lots 20RP(Part) 21 and  
23RP(Part) in D.D.88

Street/Road/Estate Name:

街道/屋苑名稱

Man Kam To Road

Block:

座

District:

分區

Sheung Shui

Area:

地區

☐ HK

香港

☐ K

九龍

☐ NT

新界

Type of Building 樓宇類型: ☐ Industrial 工業☐ Commercial 商業☐ Domestic 住宅☐ Composite 綜合☐ Licensed premises 持牌處所☐ Institutional 社團Part 1 Annual Inspection ONLY  
第一部 只適用於年檢事項

In accordance with Regulation 8(b) of Fire Service (Installations and Equipment) Regulations, the owner of any fire service installation or equipment which is installed in any premises shall have such fire service installation or equipment inspected by a registered contractor at least once in every 12 months. 根據消防(裝置及設備)規例第八條(b)款, 擁有裝置在任何處所內的任何消防裝置或設備的人, 須每12個月由一名註冊承辦商檢查該等消防裝置或設備至少一次。

Code 編碼 (1-35)	Type of FSI 裝置類型	Location(s) 位置	Comment on Condition 狀況評述	Completion Date 完成日期(DD/MM/YY)	Next Due Date 下次到期日(DD/MM/YY)
24	1no. 1KG ABC D.P. F/E	Site area	Conforms with FSD requirements	10/04/2024	09/04/2025
24	5nos. 3KG ABC D.P. F/E	Site area	Conforms with FSD requirements	10/04/2024	09/04/2025
24	1no. 4KG ABC D.P. F/E	Site area	Conforms with FSD requirements	10/04/2024	09/04/2025
24	1no. 9L AFFF Foam F/E	Site area	Conforms with FSD requirements	10/04/2024	09/04/2025
24	1no. 5KG CO2 F/E	Site area	Conforms with FSD requirements	10/04/2024	09/04/2025

## Part 2 第二部 Installation / Modification / Repair / Inspection work 裝置/改裝/修理/檢查工作

Code 編碼 (1-35)	Type of FSI 裝置類型	Location(s) 位置	Nature of Work Carried out 完成之工作內容	Comment on Condition 狀況評述	Completion Date 完成日期(DD/MM/YY)

## Part 3 第三部 Defects 損壞事項

Code 編碼 (1-35)	Type of FSI 裝置類型	Location(s) 位置	Outstanding Defects 未修缺點	Comment on Defects 缺點評述

I/We hereby certify that the above installations/equipment have been tested and found to be in efficient working order in accordance with the Codes of Practice for Minimum Fire Service Installations and Equipment and Inspection, Testing and Maintenance of Installations and Equipment published from time to time by the Director of Fire Services. Defects are listed in Part 3.

本人藉此證明以上之消防裝置及設備經試驗, 證明性能良好, 符合消防處處長不時公佈的最低限度之消防裝置及設備守則與裝置及設備之檢查測試及保養守則的規格, 損壞事項列於第三部。

**如證書涉及年檢事項, 應張貼於大廈  
或處所當眼處以供消防處人員查核**

This certificate should be displayed at prominent location of the building or premises for FSD's inspection if any annual maintenance work is involved.

Authorized  
Signature:  
授權人簽署

Name

姓名

FSD/RC No.:

消防處註冊號碼

Company Name:  
公司名稱

Telephone:  
聯絡電話

Date:  
日期

通力消防工程公司  
TUNG LICK FIRE ENGINEERING CO.

HON FONG

RC3/524

Tung Lick Fire Eng. Co.

2745 7923

10/04/2024

For FSD  
use only:

Inspected

Key-in

Verified

消防（裝置及設備）規例

消防處檔號

(Regulation 9(1))

( 第九條 (1) 款 )

## 消防裝置及設備證書

顧客姓名

**K. Wah Asphalt Limited**

樓宇名稱

## Asphalt Plant along Man Kam To Road

門牌號數/市地段

**23RP(Part) in D.D.88**

街道/屋苑名稱

## Man Kam To Road

座

分區

Sheung Shui

地區

香港

九龍

新界

Type of Building 樓宇類型: ☐ Industrial工業 ☐ Commercial商業 ☐ Domestic住宅 ☐ Composite綜合 ☐ Licensed premises持牌處所 ☐ Institutional社團

## 第一部 只適用於年檢事項

In accordance with Regulation 8(b) of Fire Service (Installations and Equipment) Regulations, the owner of any fire service installation or equipment which is installed in any premises shall have such fire service installation or equipment inspected by a registered contractor at least once in every 12 months. 根據消防(裝置及設備)規例第八條(b)款，擁有裝置在任何處所內的任何消防裝置或設備的人，須每12個月由一名註冊承辦商檢查該等消防裝置或設備至少一次。

Code 編號 (1-35)	Type of FSI 裝置類型	Location(s) 位置	Comment on Condition 狀況評述	Completion Date 完成日期(DD/MM/YY)	Next Due Date 下次到期日(DD/MM/YY)
24	8nos. 5KG CO2 F/E	Site area	Conforms with FSD requirements	10/04/2024	09/04/2025
24	2nos. 5KG ABC D.P. F/E	Site area	Conforms with FSD requirements	10/04/2024	09/04/2025
24	3nos. 1KG ABC D.P. F/E	Site area	Conforms with FSD requirements	10/04/2024	09/04/2025
24	1no. 9L AFFF Foam F/E	Site area	Conforms with FSD requirements	10/04/2024	09/04/2025
25	2nos. Sand Bucket	Site area	Conforms with FSD requirements	10/04/2024	09/04/2025

## Part 2 第二部 Installation / Modification / Repair / Inspection work 裝置/改裝/修理/檢查工作

[illegible]

## Part 3 第三部 Defects 損壞事項

Code 編碼 (1-35)	Type of FSI 裝置類型	Location(s) 位置	Outstanding Defects 未修缺點	Comment on Defects 缺點評述

通力消防工程公司

本人藉此證明以上之消防裝置及設備經試驗，證明性能良好，符合消防處處長不時公佈的最低限度之消防裝置及設備守則與裝置及設備之檢查測試及保養守則的規格，損壞事項列於第三部。

Name \_\_\_\_\_

Name

FSD/RC No.

消防處註冊號碼

公司名稱

Telephone

Date

TING LICK FIRE ENGINEERING CO.

For FSD  
use only:

HON FONG

RC3/524

**Tung Lick Fire Eng. Co.**

2745 7923

10/04/2024

Inspected

Key-in

Verified

This certificate should be displayed at prominent location of the building or premises for FSD's inspection if any annual maintenance work is involved.



## Appendix 10

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### Traffic Impact Assessment

**Renewal of Section 16 Planning Application  
for Temporary Asphalt Plant for a Period of 5 Years  
at Lots 20RP (Part), 21 and 23RP (Part) in D.D. 88  
and adjoining Government Land  
to the East of Man Kam To Road, Sheung Shui, New Territories**

**Traffic Impact Assessment  
Final Report  
9<sup>th</sup> August 2024**

**Prepared by: CKM Asia Limited**

**Prepared for: K. Wah Asphalt Limited**

**Renewal of Section 16 Planning Application  
for Temporary Asphalt Plant for a Period of 5 Years  
at Lots 20RP (Part), 21 and 23RP (Part) in D.D. 88  
and adjoining Government Land  
to the East of Man Kam To Road, Sheung Shui, New Territories**

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3. THE PROPOSED TEMPORARY ASPHALT PLANT Development Parameters Provision of Internal Transport Facilities	6
4. TRAFFIC IMPACT Design Year Traffic Forecast Traffic Growth 2029 Junction Capacity Analysis 2029 Road Link Capacity Analysis	7
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Appendix A – Junction Capacity Analysis	

**Renewal of Section 16 Planning Application  
for Temporary Asphalt Plant for a Period of 5 Years  
at Lots 20RP (Part), 21 and 23RP (Part) in D.D. 88  
and adjoining Government Land  
to the East of Man Kam To Road, Sheung Shui, New Territories**

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**NUMBER**

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- 3.2 Provision of Internal Transport Facilities
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- 4.3 2029 Junction Performance



**Renewal of Section 16 Planning Application  
for Temporary Asphalt Plant for a Period of 5 Years  
at Lots 20RP (Part), 21 and 23RP (Part) in D.D. 88  
and adjoining Government Land  
to the East of Man Kam To Road, Sheung Shui, New Territories**

**FIGURES**

**NUMBER**

- 1.1 Location of the Application Site
- 2.1 Location of the Surveyed Junctions
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- 2.6 Junction of Man Kam To Road / Fu Tei Au Road
- 2.7 Junction of Man Kam To Road / Access Road to Hung Kiu San Tsuen
- 2.8 Junction of Jockey Club Road / Po Wan Road
- 2.9 Existing Peak Hour Traffic Flows with the Existing Temporary Asphalt Plant
- 4.1 2029 Traffic Flows with the Proposed Temporary Asphalt Plant

## 1.0 INTRODUCTION

### Background

- 1.1 The Application Site is located to the east of Man Kam To Road in Sheung Shui, and is shown in **Figure 1.1**. It is currently occupied by an asphalt plant operated by the Applicant (the “Existing Temporary Asphalt Plant”).
- 1.2 The Existing Temporary Asphalt Plant was first approved by the Town Planning Board on 12<sup>th</sup> December 2014 for a period of 5 years until the end of 2019 (A/NE-FTA/148) with a Class B amendment approved on 23<sup>rd</sup> October 2015 (A/NE-FTA/148-2). Subsequently, the Town Planning Board approved a renewal of the planning permission on 18<sup>th</sup> October, 2019 (A/NE-FTA/192) for a period of 5 years until the end of 2024.
- 1.3 This is the 2<sup>nd</sup> renewal application for 5 years (the “Proposed Temporary Asphalt Plant. The Proposed Temporary Asphalt Plant has in-principle the same development parameters as the Existing Temporary Asphalt Plant, i.e. there is no change in the key development parameters including the site area, building bulk, production capacity etc..
- 1.4 CKM Asia Limited was commissioned by the Applicant to conduct a Traffic Impact Assessment (“TIA”) in support of the Proposed Temporary Asphalt Plant.

### Scope of Study

- 1.5 The main objectives of this Study are as follows:
- To assess the existing traffic issues in the vicinity of the Application Site;
  - To quantify the amount of traffic generated by the Existing Temporary Asphalt Plant and Proposed Temporary Asphalt Plant;
  - To examine the traffic impact on the local road network;
  - To identify any deficiencies in the road network in accommodating the traffic generated by the Proposed Temporary Asphalt Plant; and
  - To ensure adequate provision of transport facilities.

### Contents of the Report

- 1.6 After this introduction, the remaining chapters contain the following:
- |               |  |
|---------------|--|
| Chapter Two   | – Describes the existing condition;              |
| Chapter Three | – Outlines the Proposed Temporary Asphalt Plant; |
| Chapter Four  | – Describes the traffic impact analysis; and     |
| Chapter Five  | – Gives the overall conclusion.                  |

## 2.0 EXISTING SITUATION

### The Application Site

- 2.1 The Application Site has an area of around 9,056.43 m<sup>2</sup> located to the east of Man Kam To Road between Kong Nga Po Road and Fu Tei Au Road. Existing vehicular access to the Application Site is provided at Man Kam To Road.

### Traffic Generation of the Existing Temporary Asphalt Plant

- 2.2 Traffic generation of the Existing Temporary Asphalt Plant is obtained based on the record provided by the Applicant for the typical operational months of February, March and April 2024.
- 2.3 Based on the record, the peak hour traffic generation of the Existing Temporary Asphalt Plant for these 3 months are presented in Table 2.1.

TABLE 2.1 PEAK HOUR TRAFFIC GENERATION

Month	Peak Hour Traffic Generation (vehicles / hour)		
	Attraction	Generation	2-Way
February 2024	14	14	28
March 2024	14	14	28
April 2024	15	15	30
<b>Maximum</b>	<b>15</b>	<b>15</b>	<b>30</b>

- 2.4 Table 2.1 shows the maximum peak hour traffic generation of the existing temporary asphalt plant is 30 vehicles (2-way), which is equivalent to 75 passenger car unit ("pcu").

### The Local Road Network

- 2.5 Man Kam To Road is a rural road linking the Man Kam To Boundary Control Point ("BCP") and continues south as Jockey Club Road towards Sheung Shui and Fanling. The section of Man Kam To Road between Po Wan Road and Kong Nga Po Road is mostly of single carriageway standard with 2 northbound traffic lanes towards the Man Kam To BCP and 1 southbound traffic lane towards Sheung Shui.
- 2.6 Lo Wu Station Road is a single carriageway 2-lane local road connecting Man Kam To Road and Lo Wu MTR Station.
- 2.7 Kong Nga Po Road is local road connecting Man Kam To Road and Kong Nga Po, where upgrading work is being carried out by the Civil Engineering and Development Department to form a 7.3m wide single carriageway 2-lane standard.
- 2.8 Fu Tei Au Road is a single carriageway 2-lane local road. It connects Man Kam To Road and Sheung Shui Treatment Works and Fresh Water Pumping Station.
- 2.9 Po Wan Road is a single carriageway 2-lane district distributor. It provides an alternative route between Man Kam To Road / Jockey Club Road, and Po Shek Wu Road bypassing the roundabout of Jockey Club Road / Po Shek Wu Road.

### Pedestrian Facilities

- 2.10 Footpaths are provided along both sides of Man Kam To Road in vicinity of the Application Site. It was observed that few pedestrians use these footpaths.

### Public Transport Facilities

- 2.11 One franchised bus and one GMB route operate close to the Application Site, and the bus stops are located on both sides of Man Kam To Road which are some 180m to the south of the Junction of Man Kam To Road / Application Site Access Road. Details of the public transport services are presented in Table 2.2.

TABLE 2.2 PUBLIC TRANSPORT SERVICES OPERATING CLOSE TO THE APPLICATION SITE

Route	Routing	Frequency (min)
KMB 73K	Sheung Shui – Man Kam To	10 - 30
GMB 59K	Sheung Shui Station - Lin Ma Hang	15 - 30
GMB 59S	Heung Yuen Wai Boundary Control Point -Sheung Shui Station	3 - 8

Note: KMB - Kowloon Motor Bus GMB - Green Minibus

### Traffic Survey

- 2.12 To quantify the existing traffic flows in the vicinity of the Application Site, manual classified counts were conducted on Monday, 6<sup>th</sup> May 2024 during the AM and PM peak periods at the following junctions:

J01 – Junction of Man Kam To Road / Lo Wu Station Road;  
J02 – Junction of Man Kam To Road / Kong Nga Po Road;  
J03 – Junction of Man Kam To Road / Access Road to Open Storage Site No.7;  
J04 – Junction of Man Kam To Road / Access Road to Application Site;  
J05 – Junction of Man Kam To Road / Fu Tei Au Road;  
J06 – Junction of Man Kam To Road / Access Road to Hung Kiu San Tsuen; and  
J07 – Junction of Jockey Club Road / Po Wan Road.

- 2.13 Locations of the surveyed junctions are shown in **Figure 2.1**, and the layouts of these junctions are shown in **Figures 2.2 – 2.8**.
- 2.14 The traffic counts are classified by vehicle type to enable traffic flows in passenger car unit (“pcu”) to be calculated. The AM and PM peak hours identified from the surveys are found to be between 0800 and 0900 hours, and 1700 and 1800 hours respectively.
- 2.15 **Figure 2.9** presents the existing AM and PM peak hour traffic flows, which includes the traffic generated by the Existing Temporary Asphalt Plant.

### Existing Pedestrian Activities at J05 and J07

- 2.16 The signalised Junction of Man Kam To Road / Fu Tei Au Road (J05) and the Junction of Jockey Club Road / Po Wan Road (J07) operate with a pedestrian demand-dependant phase; hence, the pedestrian phase is only called if the pedestrian push button is activated by pedestrians. Observations were made at the pedestrian crossings and the results are summarized in Table 2.3.



TABLE 2.3 OBSERVED PEDESTRIAN PATTERNS AT J05 AND J07

	J/O Man Kam To Road / Fu Tei Au Road (J05)		J/O Jockey Club Road / Po Wan Road (J07)	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Number of Cycles <u>with</u> pedestrian stage	3 (9%)	3 (9%)	2 (5%)	3 (8%)
Number of Cycles <u>without</u> pedestrian stage	32 (91%)	31 (91%)	37 (95%)	37 (92%)
<b>Total</b>	<b>34 (100%)</b>	<b>34 (100%)</b>	<b>40 (100%)</b>	<b>40 (100%)</b>

2.17 Table 2.3 shows that the pedestrian demand-dependant phase is activated only 2 to 3 times during the AM and PM peak hour respectively, i.e. less than 10% of time.

#### Existing Performance of the Surveyed Junctions

2.18 The existing performance of the surveyed junctions are calculated based on the observed traffic counts, and the analysis was undertaken using the methods outlined in Volume 2 of Transport Planning and Design Manual ("TPDM"), and the signal information obtained from the Traffic Control Division ("TCD") of Transport Department ("TD").

2.19 Similar to the previous renewal application, due to the presence of the demand dependant pedestrian phase, and to better determine the performance of the Junction of Man Kam To Road / Fu Tei Au Road (J05) and the Junction of Jockey Club Road / Po Wan Road (J07), the capacity analysis is conducted for 3 cases:

- Case 1 - Worst case operation with pedestrian phase activated every cycle, which is unrealistic because there are few pedestrians at these locations;
- Case 2 - Optimal case operation without pedestrian phase activated; and
- Case 3 - Sensitivity test assuming the pedestrian phase is activated 20% of time.

2.20 The junction capacity analysis results are summarised in Table 2.4 and the detailed calculations are found in Appendix A.

TABLE 2.4 EXISTING JUNCTION PERFORMANCE

Junction			Type of Control	Parameter	AM Peak Hour	PM Peak Hour
J01	J/O Man Kam To Road / Lo Wu Station Road		Priority	RFC	0.102	0.098
J02	J/O Man Kam To Road / Kong Nga Po Road		Priority	RFC	0.427	0.320
J03	J/O Man Kam To Road / Access Road to Open Storage Site No.7		Signal	RC	85%	94%
J04	J/O Man Kam To Road / Access Road to Application Site		Priority	RFC	0.047	0.080
J05	J/O Man Kam To Road / Fu Tei Au Road	Case 1	Signal	RC	40%	45%
		Case 2	Signal	RC	90%	96%
		Case 3	Signal	RC	80%	86%
J06	J/O Man Kam To Road / Access Road to Hung Kiu San Tsuen		Priority	RFC	0.080	0.104
J07	J/O Jockey Club Road / Po Wan Road	Case 1	Signal	RC	90%	114%
		Case 2	Signal	RC	> 100%	> 100%
		Case 3	Signal	RC	> 100%	> 100%

Note: RC – Reserve Capacity

RFC – Ratio of Flow to Capacity

2.21 The above results indicate the surveyed junctions currently operate with capacities.

**Existing Performance of the Surveyed Road Link**

2.22 The existing performance, in terms of Peak Hourly Flows / Design Flow Ratio ("P/Df") of the surveyed road links is calculated based on the observed traffic flows, and the analysis results are summarized in Table 2.5.

TABLE 2.5 EXISTING ROAD LINK PERFORMANCE

Road Link		Road Type	Direction	Config-uration	Design Flow (pcu/hr)	Peak Hour Flows / Design Flow Ratio (P/Df)	
						AM Peak Hour	PM Peak Hour
L01	Man Kam To Road	Rural Road	Northbound	Single-2	2,500	0.418	0.347
			Southbound	Single-1	1,500	0.635	0.623
L02	Po Wan Road	District Distributor	Eastbound	Single-1	1,350	0.229	0.152
			Westbound	Single-1	1,350	0.222	0.123
L03	Fu Tei Au Road	Rural Road	Eastbound	Single-1	1,040	0.039	0.040
			Westbound	Single-1	1,040	0.027	0.043
L04	Lo Wu Station Road	Rural Road	Eastbound	Single-1	1,040	0.038	0.041
			Westbound	Single-1	1,040	0.028	0.014

2.23 The above results indicate the surveyed road links also currently operate with capacities.

### 3.0 THE PROPOSED TEMPORARY ASPHALT PLANT

#### Development Parameters

- 3.1 Development parameters of the Proposed Temporary Asphalt Plant are in principle the same as the Existing Temporary Asphalt Plant, of which the maximum production capacity remains at 160 tonnes / hour.
- 3.2 The following are found at the Application Site:
- (i) an Administrative Block with ancillary offices, laboratory and storage,
  - (ii) an Operation Block with ancillary equipment / machines including mixing towers, emergency generator, a bituminous emulsion plant, various bitumen tanks, aggregate storage bins and stock piles etc. for asphalt production; and
  - (iii) Existing Ancillary Structures (i.e. staircases and platforms for maintenance and emergency access)
- 3.3 Table 3.1 compares the development parameters between the Existing Temporary Asphalt Plant, and the Proposed Temporary Asphalt Plant.

TABLE 3.1 SUMMARIES OF DEVELOPMENT PARAMETERS

Major Parameters	Existing Temporary Asphalt Plant (A/NE-FTA/192)	Proposed Temporary Asphalt Plant	Difference
Administrative Block (Ancillary Office and Storage)	279.60 m <sup>2</sup>	279.60 m <sup>2</sup>	No Change
Operation Block (Asphalt Plant, Ancillary Equipment / Machines)	2,093.72 m <sup>2</sup>	2,093.72 m <sup>2</sup>	No Change
<b>Existing</b> Ancillary Structures (i.e. staircases and platforms for maintenance and emergency access) <sup>(Note 1)</sup>	n/a	430.87 m <sup>2</sup>	+ 430.87 m <sup>2</sup>
<b>TOTAL GFA</b>	<b>2,373.32 m<sup>2</sup></b>	<b>2,804.19 m<sup>2</sup></b>	<b>+ 430.87 m<sup>2</sup></b>

Note 1: Existing GFA accountable in building plan submission.

#### Provision of Internal Transport Facilities

- 3.4 The existing internal transport facilities are sufficient to serve the Existing Temporary Asphalt Plant, and also the Proposed Temporary Asphalt Plant in view there is no change in the development parameters as well as the maximum production capacity. Table 3.2 summarises the internal transport facilities provided.

TABLE 3.2 PROVISION OF INTERNAL TRANSPORT FACILITIES

Facility	Approved / Proposed Provision
Car Parking Spaces	6 nos. @ 5.0m (L) x 2.5m (W) x Min. 2.4m (H)
Goods Vehicle Loading / Unloading Bay	1 no. @ 11.0m (L) x 3.5m (W) x Min. 4.7m (H)
Pick-up / Drop-off Lay-by for Taxis and Private Cars	1 no. @ 5.0m (L) x 2.5m (W) x Min. 2.4m (H)
Asphalt Plant loading / unloading bay	9 nos. @ 9.5m (L) x 3.5m (W)

## 4.0 TRAFFIC IMPACT

### Design Year

- 4.1 If the Proposed Temporary Asphalt Plant is approved by the TPB by, says late-2024, with permission to operate and cease in 5 years, i.e. by late-2029. Hence, the design year adopted for capacity analysis is 2029.

### Traffic Forecast

- 4.2 The design year traffic flows are estimated with reference to:
- (i) Expected traffic growth from 2024 to 2029;
  - (ii) Traffic generated by other known planned / committed developments located in the vicinity; and
  - (iii) Traffic generation of the Proposed Temporary Asphalt Plant.
- 4.3 Details of the above are presented in below paragraphs.

#### *(i) Traffic Growth Rate*

- 4.4 To produce the 2029 traffic flows, a growth factor is used to project from the 2024 traffic flow. This factor is obtained with reference to the "*Projections of Population Distribution 2023-2031*" published by Planning Department ("PlanD") for Tertiary Planning Unit ("TPU") covering the study area, which is presented in Table 4.1.

TABLE 4.1 POPULATION PROJECTIONS IN TERTIARY PLANNING UNIT

Tertiary Planning Unit	Projected Population (in Thousands)		
	2024	2027 <sup>(Note 1)</sup>	Change
620, 622 & 641	5,700	5,600	-100
624 & 629	52,200	53,200	+ 1,000
<b>TOTAL</b>	<b>57,900</b>	<b>58,800</b>	<b>+900</b>
<b>Average Annual Growth (2024 – 2027)</b>			<b>+0.5%</b>

Note 1: Annual population projections by TPU are available up to 2027.

- 4.5 Table 4.1 shows the projected population change from 2024 to 2027 is +0.5% per annum. In view that the annual population projection by TPU is only available up to 2027, the same growth rate between 2024 to 2027, is assumed for the growth between 2027 and 2029. To be conservative, an annual growth rate of 1% is adopted to produce the future traffic flow from 2024 to 2029.

#### *(ii) Other Known Planned / Committed Developments*

- 4.6 Information on other known major planned / committed developments are obtained from the available public domains including the Town Planning Board's Statutory Planning Portal 3 by Planning Department, website of District Council, Legislative Council, EPD, Civil Engineering and Development Department etc. are summarised in Table 4.2.

TABLE 4.2 DETAILS OF OTHER KNOWN MAJOR PLANNED / COMMITTED DEVELOPMENTS IDENTIFIED

Ref.	Location	Location	Expected Completion
A.	Organic Resources Recovery Centre Phase 2 (O.PARK2)	Kong Nga Po Road	Within 2024
B.	Kong Nga Po Police Training Facilities	Kong Nga Po Road	2026 – 2027



- 4.7 Traffic generated by the above other known major planned / committed developments is included in the design year.

*(iii) Traffic Generation of the Proposed Temporary Asphalt Plant*

- 4.8 The Temporary Asphalt Plant has been in operation since 2017, and since there is no change in the maximum production capacity, the traffic generation remains unchanged as shown in Table 2.1. The existing traffic flows obtained from the traffic survey has already included the traffic generated by the Existing Temporary Asphalt Plant, which is the same as the Proposed Temporary Asphalt Plant, hence, additional traffic generation need not be added to the 2029 traffic flow.

**Traffic Growth**

- 4.9 The future traffic flows are derived as follow:

$$2029 \text{ Traffic Flow} = 2024 \text{ Existing Traffic Flows} + \\ \text{Total Traffic Growth from 2024 to 2029} + \\ \text{Traffic Generated by Other Developments "A" \& "B"}$$

- 4.10 **Figure 4.1** shows Year 2029 peak hour traffic flows with the Proposed Temporary Asphalt Plant.

**2029 Junction Capacity Analysis**

- 4.11 Year 2029 capacity analysis for the case with the Proposed Temporary Asphalt Plant are summarised in Table 4.3, and detailed calculations are presented in Appendix A.

TABLE 4.3 2029 JUNCTION PERFORMANCE

Junction		Type of Control	Parameter	AM Peak Hour	PM Peak Hour
J01	J/O Man Kam To Road / Lo Wu Station Road	Priority	RFC	0.103	0.098
J02	J/O Man Kam To Road / Kong Nga Po Road	Priority	RFC	0.788	0.659
J03	J/O Man Kam To Road / Access Road to Open Storage Site No.7	Signal	RC	45%	56%
J04	J/O Man Kam To Road / Access Road to Application Site	Priority	RFC	0.054	0.093
J05	J/O Man Kam To Road / Fu Tei Au Road	Case 1	Signal	18%	23%
		Case 2	Signal	59%	66%
		Case 3	Signal	51%	57%
J06	J/O Man Kam To Road / Access Road to Hung Kiu San Tsuen	Priority	RFC	0.093	0.119
J07	J/O Jockey Club Road / Po Wan Road	Case 1	Signal	58%	77%
		Case 2	Signal	100%	> 100%
		Case 3	Signal	92%	> 100%

Note: RC – Reserve Capacity      RFC – Ratio of Flow to Capacity  
Case 1 - Worst case operation with pedestrian phase activated every cycle;  
Case 2 - Optimal case operation without pedestrian phase activated; and  
Case 3 - Sensitivity operation performance assuming the pedestrian phase activated 20% of time.

- 4.12 Table 4.3 shows that the junctions analyzed have capacity to accommodate the expected traffic growth to 2029 including the traffic generated by the Proposed Temporary Asphalt Plant, which has no adverse impact to the surrounding road junctions.

### 2029 Road Link Capacity Analysis

- 4.13 Year 2029 road link analysis for the case with the Proposed Temporary Asphalt Plant are summarised in Table 4.4.

TABLE 4.4 2029 ROAD LINK PERFORMANCE

Road Link		Road Type	Direction	Config-uration	Design Flow (pcu/hr)	Peak Hour Flows / Design Flow Ratio (P/Df)	
						AM Peak Hour	PM Peak Hour
L01	Man Kam To Road	Rural Road	Northbound	Single-2	2,500	0.517	0.437
			Southbound	Single-1	1,500	0.779	0.777
L02	Po Wan Road	District Distributor	Eastbound	Single-1	1,350	0.241	0.160
			Westbound	Single-1	1,350	0.233	0.130
L03	Fu Tei Au Road	Rural Road	Eastbound	Single-1	1,040	0.043	0.065
			Westbound	Single-1	1,040	0.063	0.044
L04	Lo Wu Station Road	Rural Road	Eastbound	Single-1	1,040	0.040	0.043
			Westbound	Single-1	1,040	0.029	0.015

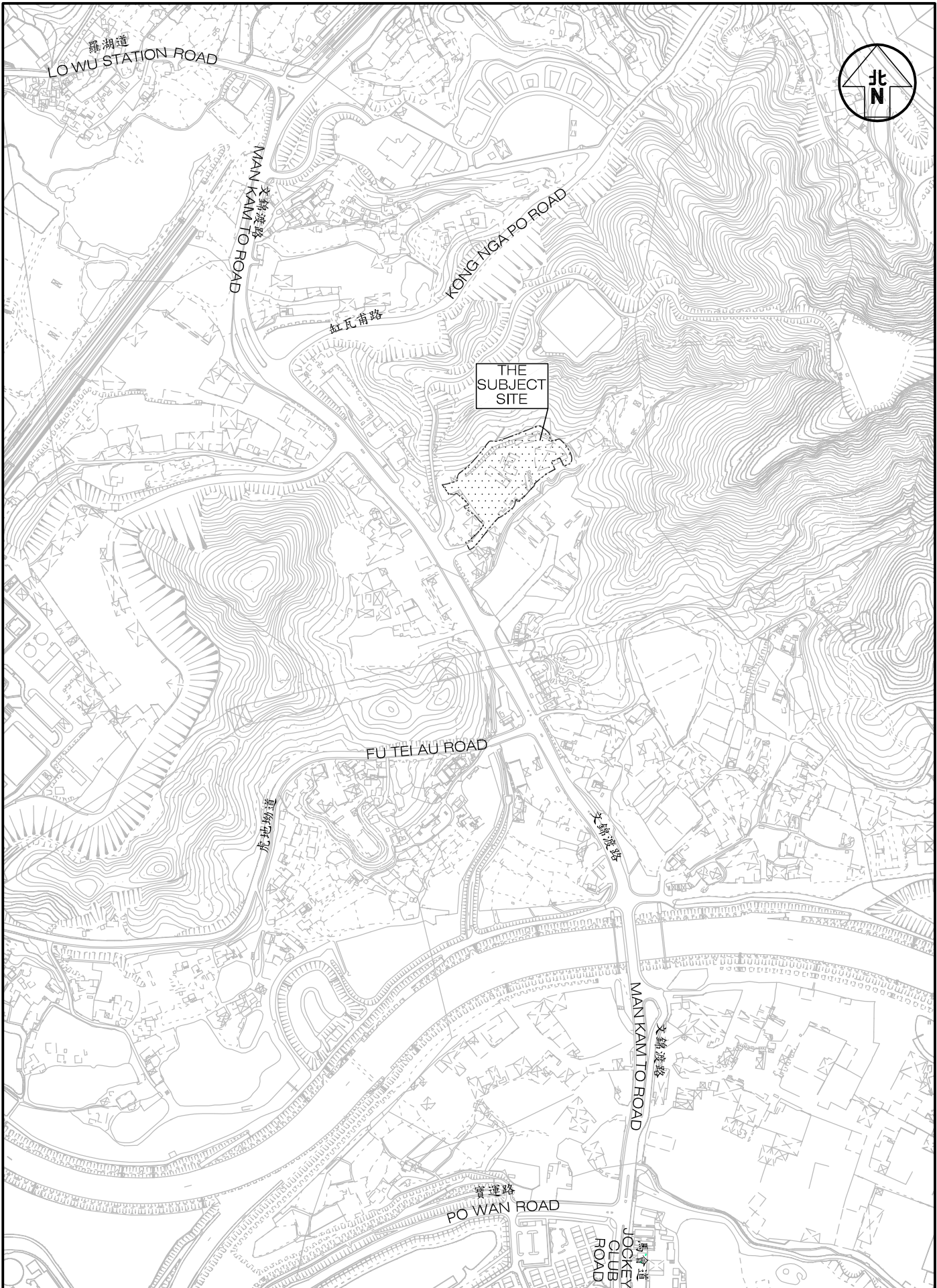
- 4.14 Table 4.4 shows that the road links analyzed have capacity to accommodate the expected traffic growth to 2029 including the traffic generated by the Proposed Temporary Asphalt Plant, which has no adverse impact.

## 5.0 SUMMARY

- 5.1 The Application Site is located to the east of Man Kam To Road in Sheung Shui, and is currently occupied by the Existing Temporary Asphalt Plant, which was first approved for a period of 5 years (A/NE-FTA/148) by the Town Planning Board on 12<sup>th</sup> December 2014, with a Class B amendment approved on 23<sup>rd</sup> October 2015 (A/NE-FTA/148-2). A renewal for another period of 5 years was approved on 18<sup>th</sup> October, 2019 (A/NE-FTA/192) until the end of 2024.
- 5.2 This is the 2<sup>nd</sup> renewal application for 5 years, i.e. up to 2029. The Proposed Temporary Asphalt Plant has **in-principle the same** development parameters and same maximum production rate as the Existing Temporary Asphalt Plant.
- 5.3 The internal transport facilities of the Proposed Temporary Asphalt Plant, which could serve its operation needs, are maintained. The existing vehicular access at Man Kam To Road is also maintained.
- 5.4 Manual classified counts were conducted at the selected key junctions and road links located in the vicinity of the Application Site to establish the existing traffic flows during the AM and PM peak hours. The future year traffic data for the junction analysis is estimated with reference to the population projection, and traffic generation of other known planned / committed developments.
- 5.5 The maximum traffic generation of the Proposed Temporary Asphalt Plant is 30 vehicles / hour (2-way), or equivalent to 75 pcu/hour, which is the same as the Existing Temporary Asphalt Plant.
- 5.6 All junctions and road links analysed have sufficient capacity to accommodate the expected traffic growth to 2029 including the traffic generated by the Proposed Temporary Asphalt Plant. Hence, it can be concluded that the Proposed Temporary Asphalt Plant would not have adverse traffic impact to the surrounding road network.



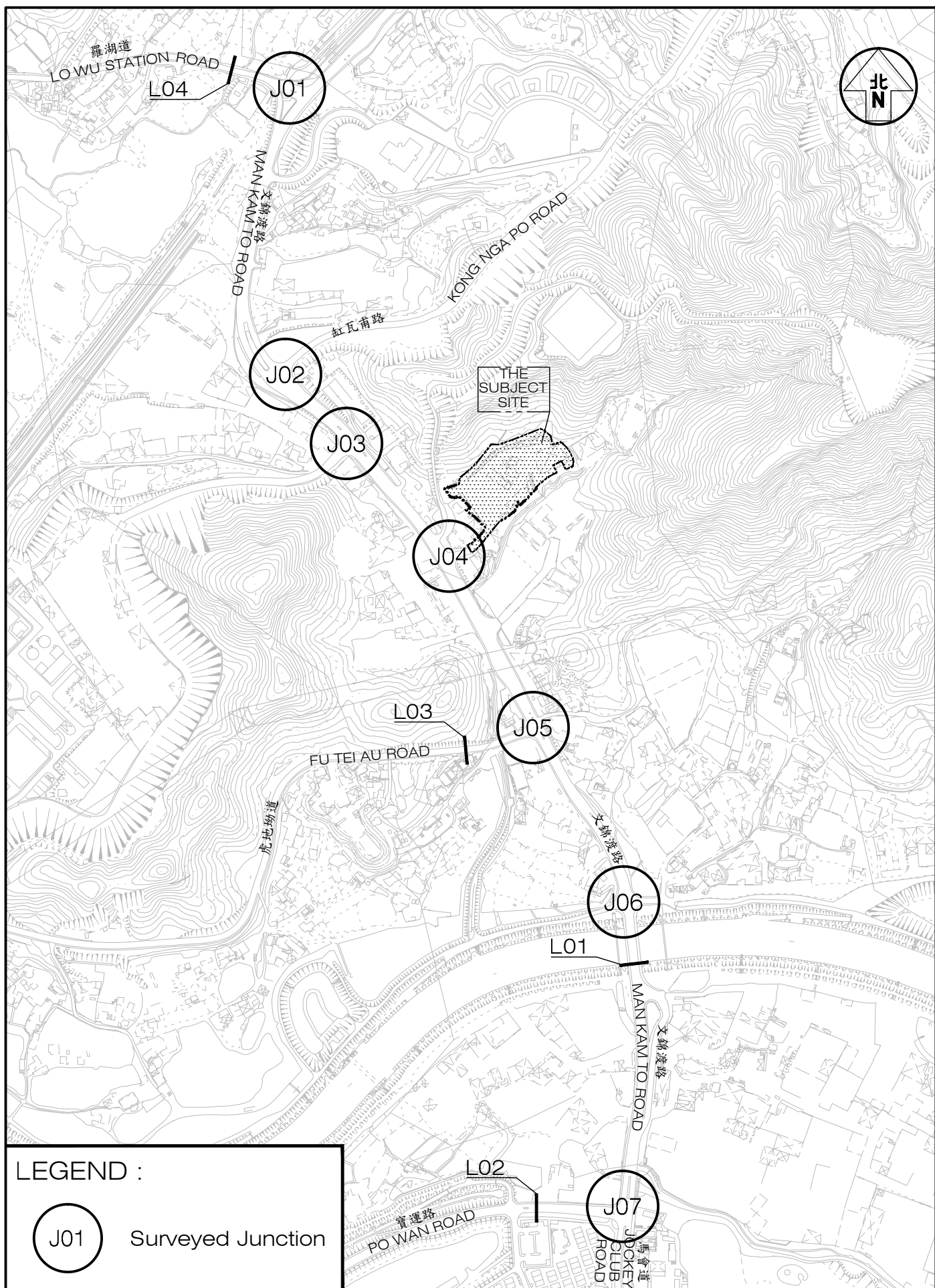




Project Title	RENEWAL OF SECTION 16 PLANNING APPLICATION FOR TEMPORARY ASPHALT PLANT FOR A PERIOD OF 5 YEARS AT LOTS 20RP (PART), 21 AND 23RP (PART) IN D.D. 88 AND ADJOINING GOVERNMENT LAND TO THE EAST OF MAN KAM TO ROAD, SHEUNG SHUI, NEW TERRITORIES	Job No.	Figure No.		Scale in A4	
		J7343	1.1		1 : 6,000	
Figure Title	LOCATION OF THE APPLICATION SITE	Designed by	Drawn by	Checked by	Revision	Date
		W C H	S C Y	K C	A	07 JUN 2024
		CKM Asia Limited				
		Traffic and Transportation Planning Consultants				
		21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong				
		Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk				

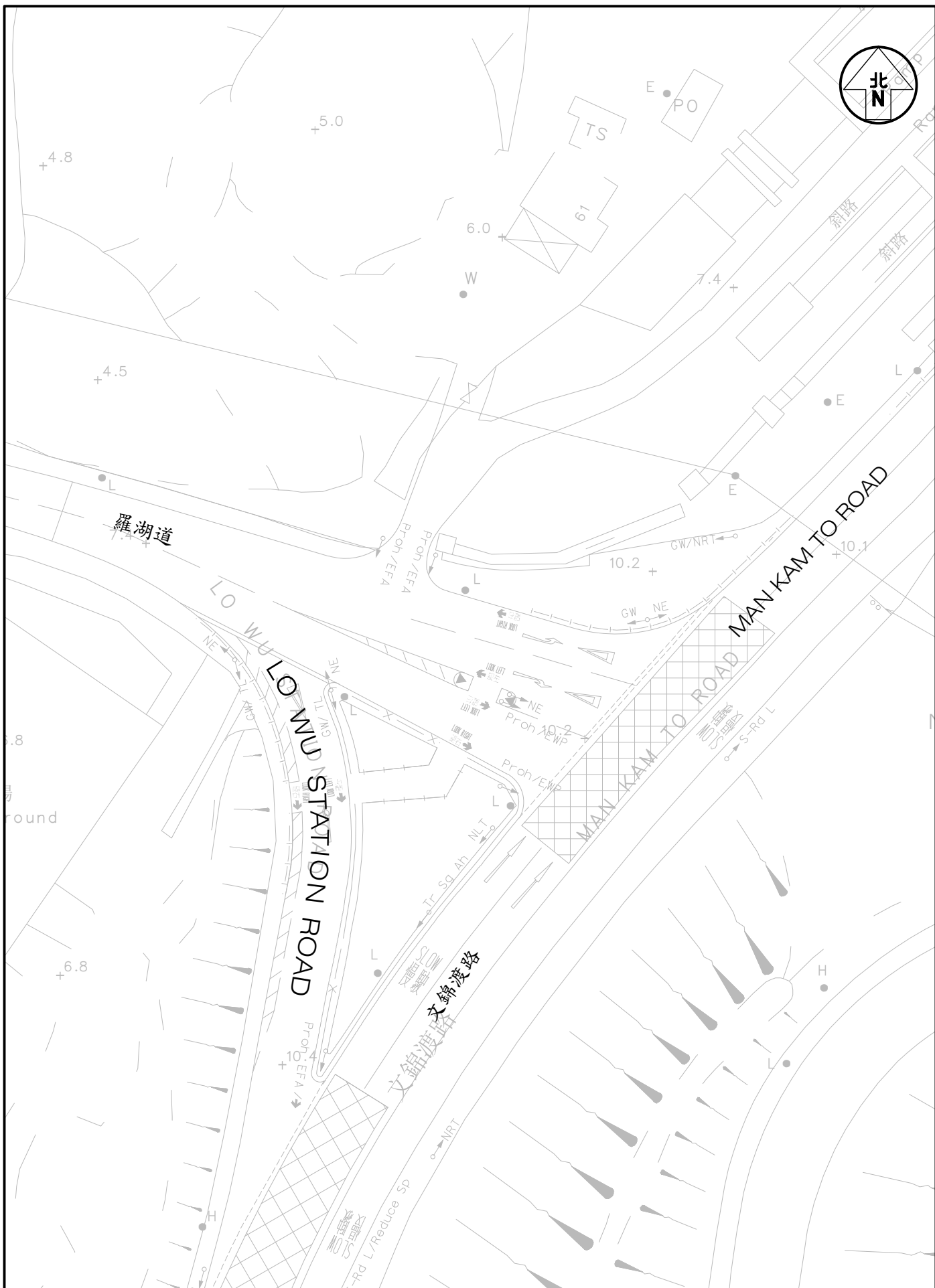
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Project Title	RENEWAL OF SECTION 16 PLANNING APPLICATION FOR TEMPORARY ASPHALT PLANT FOR A PERIOD OF 5 YEARS AT LOTS 20RP (PART), 21 AND 23RP (PART) IN D.D. 88 AND ADJOINING GOVERNMENT LAND TO THE EAST OF MAN KAM TO ROAD, SHEUNG SHUI, NEW TERRITORIES	Job No.	Figure No.		Scale in A4	
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Figure Title	LOCATION OF SURVEYED JUNCTIONS	Designed by	Drawn by	Checked by	Revision	Date
		W C H	S C Y	K C	A	14 JUN 2024
		<b>CKM Asia Limited</b> Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk				

T:\JOB\J7300-J7349\J7343(2024 06) J7343\_TIA\Fig 2.1-2.8 RevA.dwg



Project Title	RENEWAL OF SECTION 16 PLANNING APPLICATION FOR TEMPORARY ASPHALT PLANT FOR A PERIOD OF 5 YEARS AT LOTS 20RP (PART), 21 AND 23RP (PART) IN D.D. 88 AND ADJOINING GOVERNMENT LAND TO THE EAST OF MAN KAM TO ROAD, SHEUNG SHUI, NEW TERRITORIES	Job No.	Figure No.		Scale in A4	
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		CKM Asia Limited				
		Traffic and Transportation Planning Consultants				
		21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong				
		Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk				

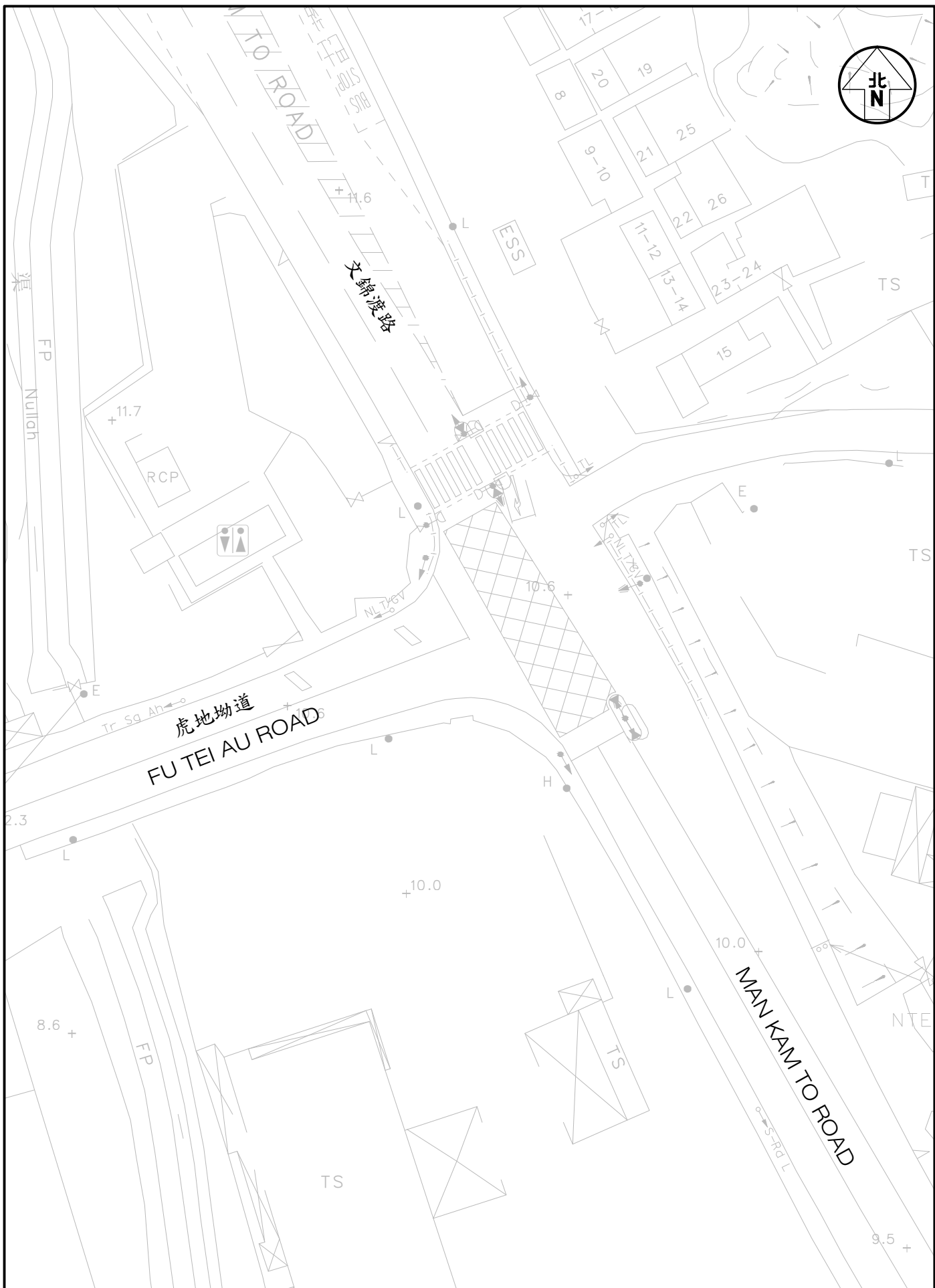
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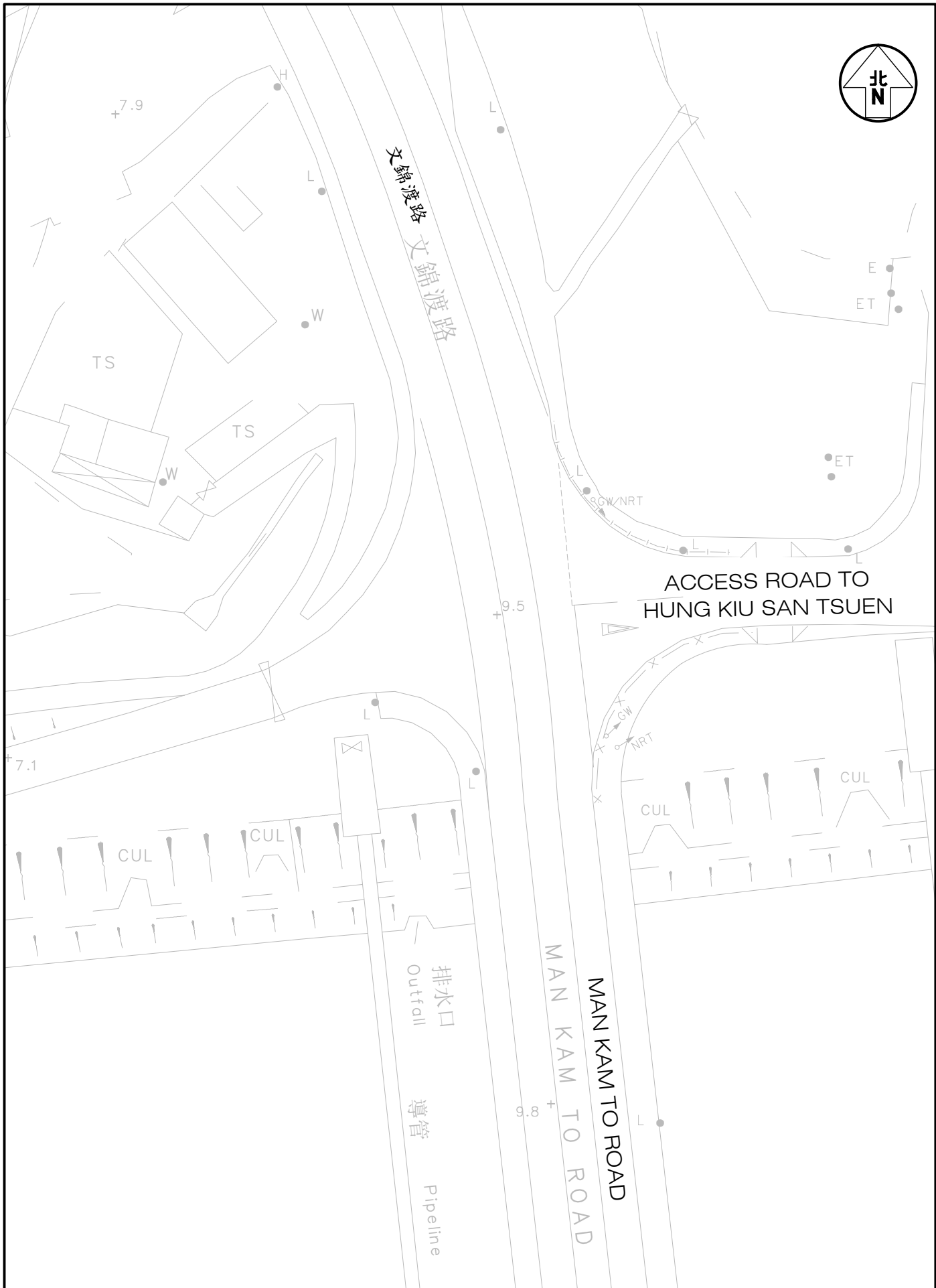






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		CKM Asia Limited					
		Traffic and Transportation Planning Consultants					
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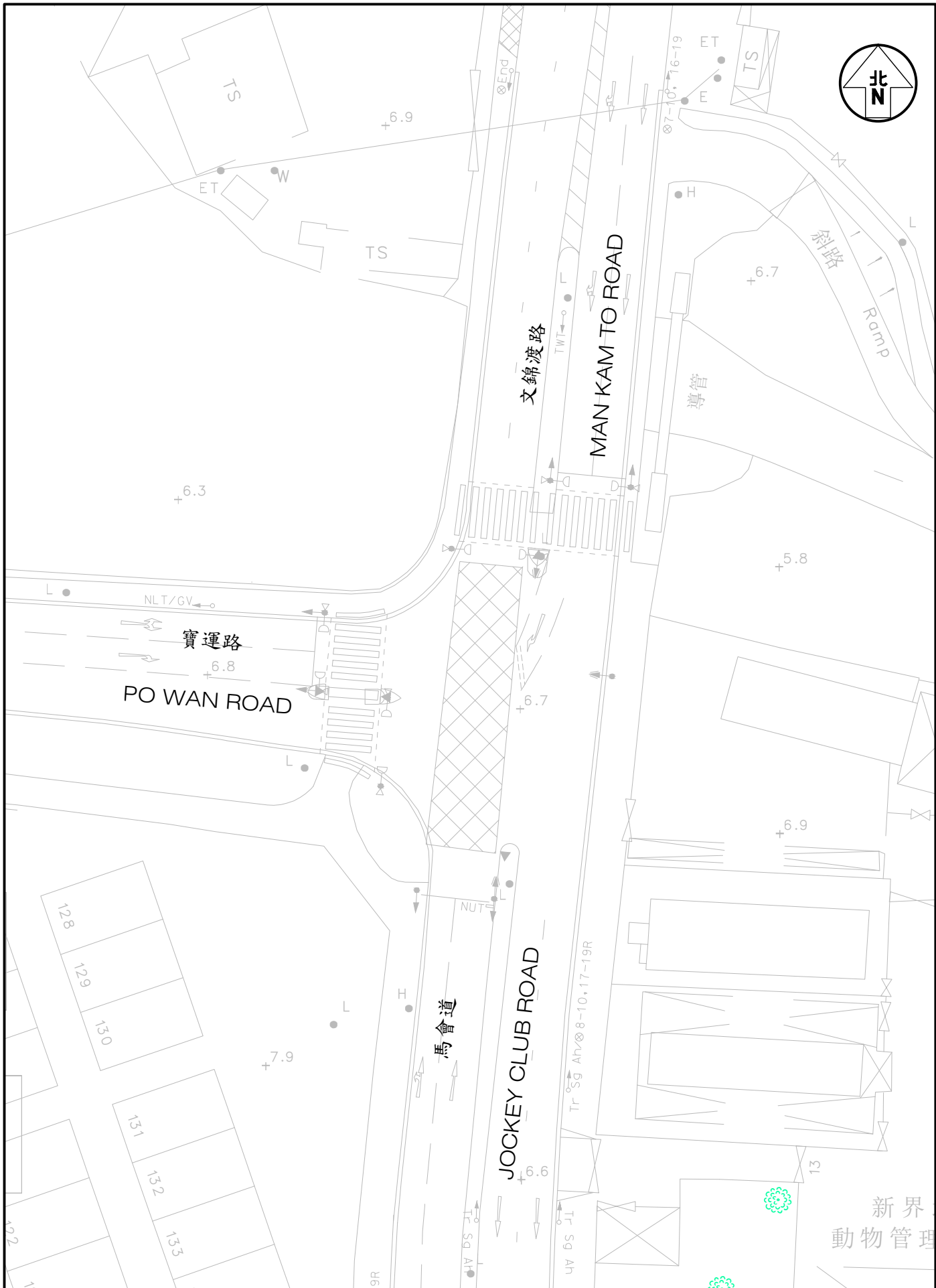
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Project Title	RENEWAL OF SECTION 16 PLANNING APPLICATION FOR TEMPORARY ASPHALT PLANT FOR A PERIOD OF 5 YEARS AT LOTS 20RP (PART), 21 AND 23RP (PART) IN D.D. 88 AND ADJOINING GOVERNMENT LAND TO THE EAST OF MAN KAM TO ROAD, SHEUNG SHUI, NEW TERRITORIES	Job No.	Figure No.			Scale in A4	
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		CKM Asia Limited					
		Traffic and Transportation Planning Consultants					
		21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong					
		Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk					

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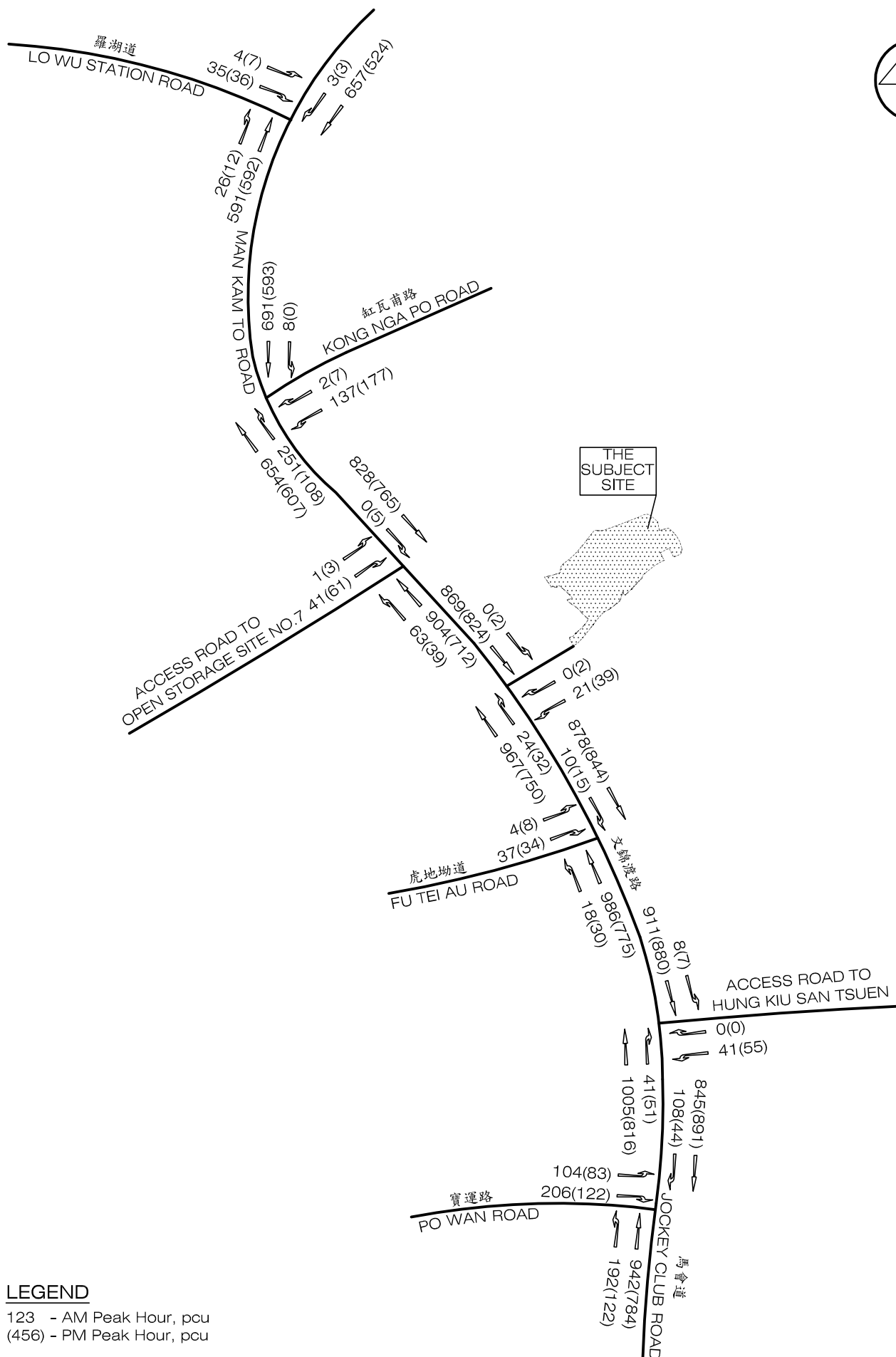
Project Title  
RENEWAL OF SECTION 16 PLANNING APPLICATION FOR TEMPORARY ASPHALT PLANT  
FOR A PERIOD OF 5 YEARS AT LOTS 20RP (PART), 21 AND 23RP (PART)  
IN D.D. 88 AND ADJOINING GOVERNMENT LAND  
TO THE EAST OF MAN KAM TO ROAD, SHEUNG SHUI, NEW TERRITORIES

Figure Title  
JUNCTION OF MAN KAM TO ROAD /  
JOCKEY CLUB ROAD / PO WAN ROAD

Job No. J7343	Figure No. 2.8	Scale in A4 1 : 500
Designed by W C H	Drawn by S C Y	Checked by K C
	Revision A	Date 14 JUN 2024

**CKM Asia Limited**  
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T:\JOB\J7300-J7349\J7343(2024 06) J7343\_TIA\Fig 2.1-2.8 RevA.dwg



#### LEGEND

123 - AM Peak Hour, pcu  
(456) - PM Peak Hour, pcu

Project Title RENEWAL OF SECTION 16 PLANNING APPLICATION FOR TEMPORARY ASPHALT PLANT FOR A PERIOD OF 5 YEARS AT LOTS 20RP (PART), 21 AND 23RP (PART) IN D.D. 88 AND ADJOINING GOVERNMENT LAND TO THE EAST OF MAN KAM TO ROAD, SHEUNG SHUI, NEW TERRITORIES

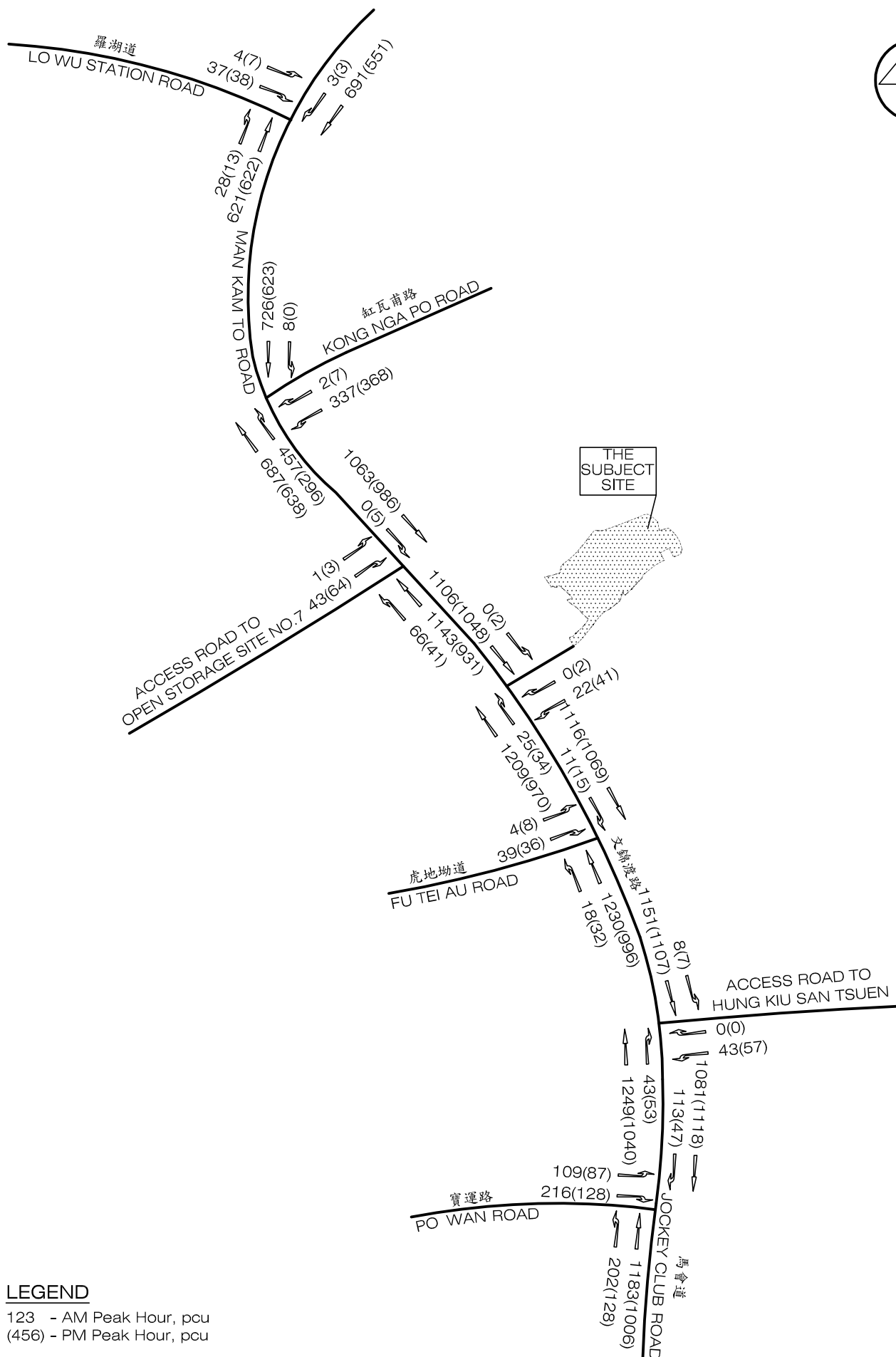
Figure Title EXISTING PEAK HOUR TRAFFIC FLOWS WITH EXISTING TEMPORARY ASPHALT PLANT

Job No. J7343	Figure No. 2.9	Scale in A4 N.T.S.
Designed by T T O	Drawn by S C Y	Checked by K C
	Revision A	Date 14 JUN 2024

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T:\JOB\J7300-J7349\J7343(2024 06) J7343\_TIA\Fig 2.9 RevA.dwg



#### LEGEND

123 - AM Peak Hour, pcu  
(456) - PM Peak Hour, pcu

Project Title  
RENEWAL OF SECTION 16 PLANNING APPLICATION FOR TEMPORARY ASPHALT PLANT  
FOR A PERIOD OF 5 YEARS AT LOTS 20RP (PART), 21 AND 23RP (PART)  
IN D.D. 88 AND ADJOINING GOVERNMENT LAND  
TO THE EAST OF MAN KAM TO ROAD, SHEUNG SHUI, NEW TERRITORIES

Figure Title

2029 PEAK HOUR TRAFFIC FLOWS  
WITH THE PROPOSED TEMPORARY ASPHALT PLANT

Job No. J7343	Figure No. 4.1	Scale in A4 N.T.S.
Designed by T T O	Drawn by S C Y	Checked by K C
	Revision A	Date 14 JUN 2024

CKM Asia Limited

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T:\JOB\J7300-J7349\J7343(2024 06) J7343\_TIA\Fig 4.1 RevA.dwg

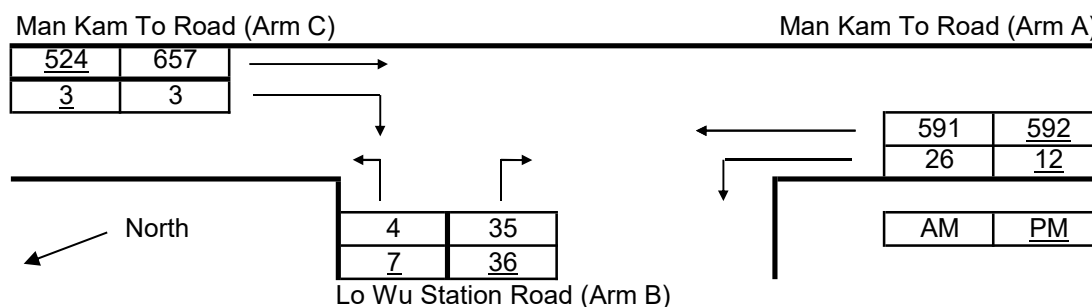
## Appendix A – Junction Capacity Analyses

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# Priority Junction Analysis

Junction:	Man Kam To Road / Lo Wu Station Road	Job Number: J7343
Scenario:	Existing Condition	J1 - P. 1
Design Year:	2024	Designed By: TTO
	Checked By: WCH	Date: 14-Jun-24



The predictive equations of capacity of movement are:

$$Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]$$

$$Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]$$

$$Q-CB = F[745 - 0.364Y(q-AC + q-AB)]$$

The geometric parameters represented by D, E, F are:

$$D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-IBA - 150)]$$

$$E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]$$

$$F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]$$

where  $Y = 1 - 0.0345W$

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

v-IBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :

Input	Input	Input	Calculated
W	10.50	V-rBA	50
W-CR	0.00	V-IBA	50
		V-rBC	50
		V-rCB	50
		w-BA	3.70
		w-BC	3.70
		w-CB	3.40
		D	0.8849
		E	0.9414
		F	0.9150
		Y	0.6378

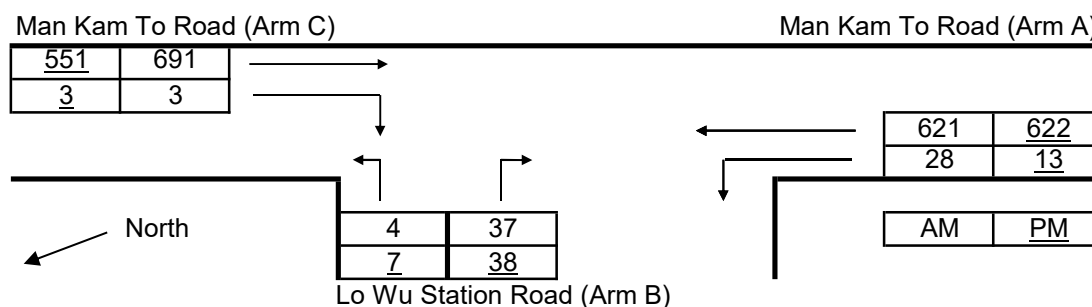
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	657	524	Q-BA	346	364
q-CB	3	3	Q-BC	570	571
q-AB	26	12	Q-CB	551	553
q-AC	591	592	Q-BAC	360	386
q-BA	35	36			
q-BC	4	7			
f	0.102	0.156			

Ratio-of-flow to Capacity	AM	PM
<b>B-A</b>	<b>0.102</b>	<b>0.098</b>
B-C	0.007	0.012
C-B	0.005	0.005
B-AC	0.109	0.110

# Priority Junction Analysis

Junction:	Man Kam To Road / Lo Wu Station Road	Job Number:	J7343
Scenario:	Design Case	J1 - P.	2
Design Year:	2029	Designed By:	TTO
		Checked By:	WCH
		Date:	14-Jun-24



The predictive equations of capacity of movement are:

$$Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]$$

$$Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]$$

$$Q-CB = F[745 - 0.364Y(q-AC + q-AB)]$$

The geometric parameters represented by D, E, F are:

$$D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-IBA - 150)]$$

$$E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]$$

$$F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]$$

where  $Y = 1 - 0.0345W$

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

v-IBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :

Input	Input	Input	Calculated
W	10.50	V-rBA	100
W-CR	0.00	V-IBA	100
		V-rBC	100
		V-rCB	100
		w-BA	3.70
		w-BC	3.70
		w-CB	3.40
		D	0.9570
		E	0.9866
		F	0.9589
		Y	0.6378

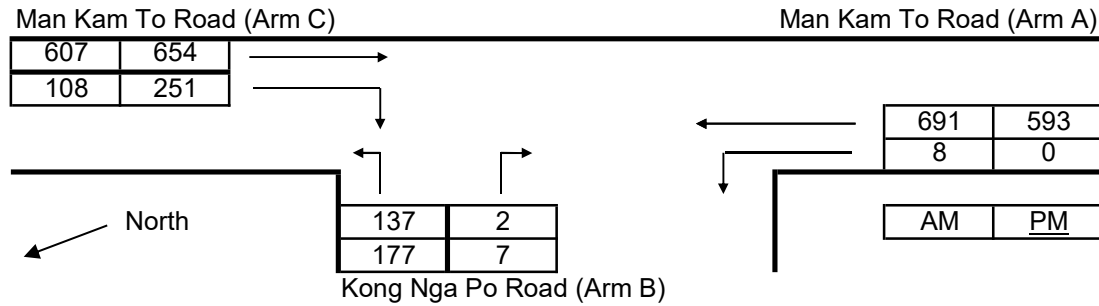
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	691	551	Q-BA	362	383
q-CB	3	3	Q-BC	590	591
q-AB	28	13	Q-CB	570	573
q-AC	621	622	Q-BAC	377	405
q-BA	37	38			
q-BC	4	7			
f	0.102	0.156			

Ratio-of-flow to Capacity	AM	PM
<b>B-A</b>	<b>0.103</b>	<b>0.098</b>
B-C	0.007	0.012
C-B	0.005	0.005
B-AC	0.110	0.110

## Priority Junction Analysis

Junction:	Man Kam To Road / Kong Nga Po Road	Job Number:	J7343
Scenario:	Existing Condition	J2 - P. 1	
Design Year:	2024	Designed By:	TTO
		Checked By:	WCH
		Date:	14-Jun-24



The predictive equations of capacity of movement are:

$$Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]$$

$$Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]$$

$$Q-CB = F[745 - 0.364Y(q-AC + q-AB)]$$

The geometric parameters represented by D, E, F are:

$$D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-IBA - 150)]$$

$$E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]$$

$$F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]$$

where  $Y = 1 - 0.0345W$

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

v-IBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :

Input	Input	Input	Calculated
W	12.00	V-rBA	70
W-CR	3.50	V-IBA	70
		V-rBC	70
		V-rCB	100
		w-BA	3.50
		w-BC	3.50
		w-CB	3.70
		D	0.8963
		E	0.9415
		F	0.9866
		Y	0.5860

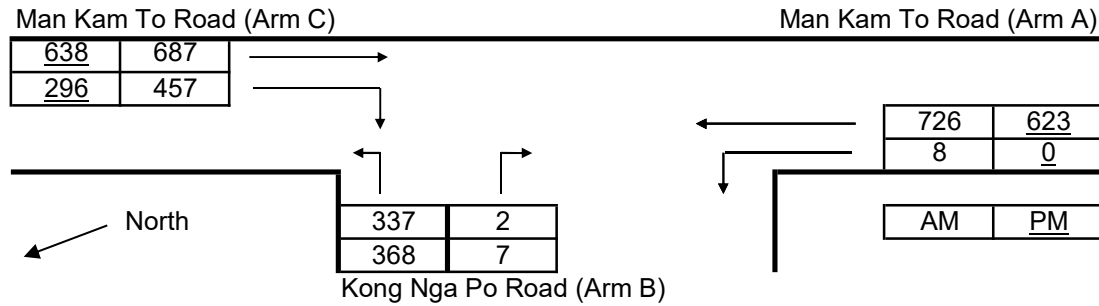
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	654	607	Q-BA	326	390
q-CB	251	108	Q-BC	562	582
q-AB	8	0	Q-CB	588	610
q-AC	691	593	Q-BAC	556	572
q-BA	2	7			
q-BC	137	177			
f	0.985	0.964			

Ratio-of-flow to Capacity	AM	PM
B-A	0.006	0.017
B-C	0.244	0.303
C-B	0.427	0.177
B-AC	0.250	0.320

# Priority Junction Analysis

Junction:	Man Kam To Road / Kong Nga Po Road	Job Number:	J7343
Scenario:	Design Case	J2 - P. 2	
Design Year:	2029	Designed By:	TTO
		Checked By:	WCH
		Date:	14-Jun-24



The predictive equations of capacity of movement are:

$$Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]$$

$$Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]$$

$$Q-CB = F[745 - 0.364Y(q-AC + q-AB)]$$

The geometric parameters represented by D, E, F are:

$$D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-IBA - 150)]$$

$$E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]$$

$$F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]$$

where  $Y = 1 - 0.0345W$

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

v-IBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :

Input	Input	Input	Calculated
W	12.00	V-rBA	70
W-CR	3.50	V-IBA	70
		V-rBC	70
		V-rCB	100
		w-BA	3.50
		w-BC	3.50
		w-CB	3.70
		D	0.8963
		E	0.9415
		F	0.9866
		Y	0.5860

Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	687	638	Q-BA	259	329
q-CB	457	296	Q-BC	555	576
q-AB	8	0	Q-CB	581	604
q-AC	726	623	Q-BAC	551	568
q-BA	2	7			
q-BC	337	368			
f	0.993	0.981			

Ratio-of-flow to Capacity	AM	PM
B-A	0.009	0.021
B-C	0.607	0.638
C-B	0.788	0.489
B-AC	0.616	0.659



## Signal Junction Analysis

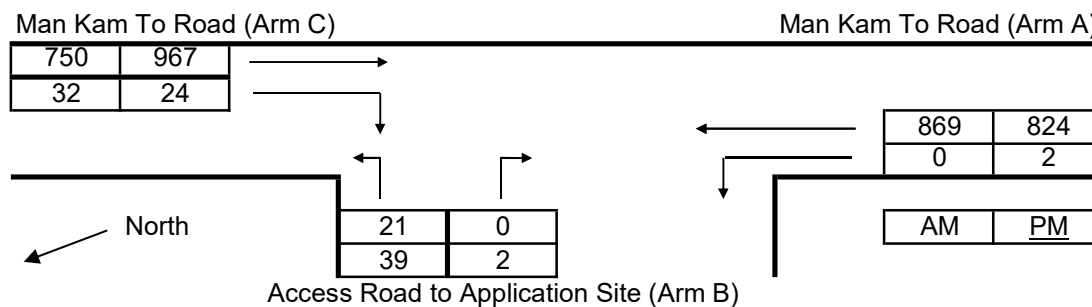
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## Signal Junction Analysis

[illegible]

## Priority Junction Analysis

Junction:	Man Kam To Road / Access Road to Application Site	Job Number: J7343
Scenario:	Existing Condition	J4 - P. 1
Design Year:	2024	Designed By: TTO      Checked By: WCH      Date: 14-Jun-24



The predictive equations of capacity of movement are:

$$Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]$$

$$Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]$$

$$Q-CB = F[745 - 0.364Y(q-AC + q-AB)]$$

The geometric parameters represented by D, E, F are:

$$D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-IBA - 150)]$$

$$E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]$$

$$F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]$$

where  $Y = 1 - 0.0345W$

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

v-IBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :

Input		Input		Input		Calculated	
W	11.00	V-rBA	75	w-BA	3.30	D	0.8862
W-CR	3.00	V-IBA	75	w-BC	3.30	E	0.9279
		V-rBC	75	w-CB	3.30	F	0.9279
		V-rCB	75			Y	0.6205

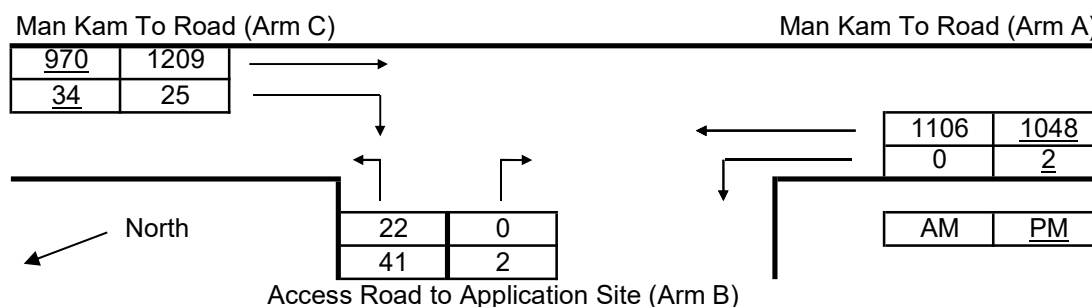
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	967	750	Q-BA	290	324
q-CB	24	32	Q-BC	509	518
q-AB	0	2	Q-CB	509	518
q-AC	869	824	Q-BAC	509	507
q-BA	0	2			
q-BC	21	39			
f	1.000	0.963			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.005
B-C	0.041	0.075
C-B	0.047	0.062
B-AC	0.041	0.080

## Priority Junction Analysis

Junction:	Man Kam To Road / Access Road to Application Site	Job Number: J7343
Scenario:	Design Case	J4 - P. 2
Design Year:	2029	Designed By: TTO      Checked By: WCH      Date: 14-Jun-24



The predictive equations of capacity of movement are:

$$Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]$$

$$Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]$$

$$Q-CB = F[745 - 0.364Y(q-AC + q-AB)]$$

The geometric parameters represented by D, E, F are:

$$D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-IBA - 150)]$$

$$E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]$$

$$F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]$$

where  $Y = 1 - 0.0345W$

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

v-IBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :

	Input		Input		Input		Calculated	
	W	11.00	V-rBA	75	w-BA	3.30	D	0.8862
	W-CR	3.00	V-IBA	75	w-BC	3.30	E	0.9279
			V-rBC	75	w-CB	3.30	F	0.9279
			V-rCB	75			Y	0.6205

Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	1209	970	Q-BA	212	251
q-CB	25	34	Q-BC	459	471
q-AB	0	2	Q-CB	459	471
q-AC	1106	1048	Q-BAC	459	457
q-BA	0	2			
q-BC	22	41			
f	1.000	0.963			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.006
B-C	0.048	0.087
C-B	0.054	0.072
B-AC	0.048	0.093



## Signal Junction Analysis

[illegible]

## Signal Junction Analysis

Junction:Man Kam To Road / Fu Tei Au Road

Scenario:Design Case

Design Year:2029

Job Number:J7343

J5 - P. 2

Date:14 June 2024

Designed By:TTO

Checked By:WCH

Approach	Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	Turning %	Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	y value	Critical y	Turning %	Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	y value	Critical y	
Man Kam To Road SB	SA+RT	A1	1,2	5.70	20.0		1	2183	1063	0.487	0.487	1	2183	991	0.454	0.454
Fu Tei Au Road EB	LT+RT	B1	3	4.50	10.0		100	1796	44	0.025	0.025	100	1796	68	0.038	0.038
Man Kam To Road NB	LT+SA	C1	1	3.00	12.0		9	1894	656	0.346		9	1894	456	0.241	
	SA	C2	1	3.00				2055	553	0.269			2055	515	0.251	
pedestrian phase	D(p)	4				min crossing time =	6		sec GM +	11			sec FGM =	17		sec

NOTE: As Stage 4 is depmand dependent, we have 3 cases during the peak hours:  
Case 1 ALL of the cycles have 4 stages (i.e. lost time = 33s)  
Case 2 ALL of the cycles have only 3 stages (i.e. lost time = 9s)  
Case 3 20% of the cycles have 4 stages, and the rest of them have 3 stages. (i.e. lost time = [20% x 34 cyc x 33s + 80% x 34 cyc x 9s] / 34 = 14s)

AM Traffic Flow (pcu/hr)

1

43

0

1063

66

1143

N

↑

PM Traffic Flow (pcu/hr)

3

64

5

986

41

931

N

↑

S=1940+100(W-3.25)

S=2080+100(W-3.25)

SM=S÷(1+1.5f/r)

SM=(S-230)÷(1+1.5f/r)

	AM Peak Hour			PM Peak Hour		
	Case 1	Case 2	Case 3	Case 1	Case 2	Case 3
Sum y	0.512	0.512	0.512	0.491	0.491	0.491
L (s)	35	10	15	35	10	15
C (s)	106	106	106	106	106	106
practical y	0.603	0.815	0.773	0.603	0.815	0.773
R.C. (%)	18%	59%	51%	23%	66%	57%

1

A1

C1 C2

2

A1

3

B1

4

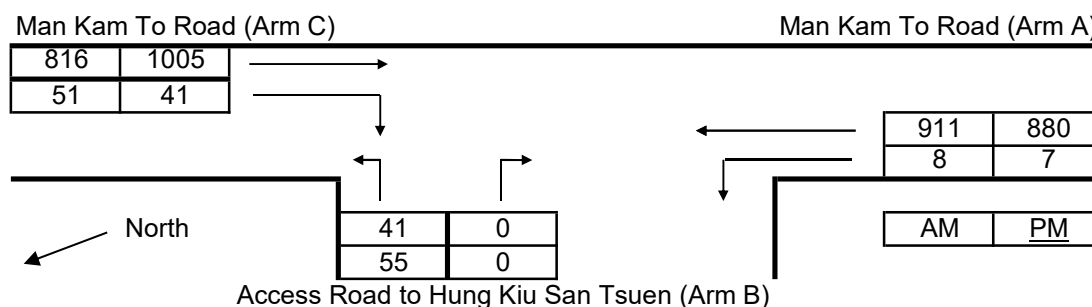
D(p)

5

AM	G =	I/G =	G =	I/G = 7	G =	I/G = 6	G = 21	I/G = 4	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
PM	G =	I/G =	G =	I/G = 7	G =	I/G = 6	G = 21	I/G = 4	G =	I/G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =

## Priority Junction Analysis

Junction: Man Kam To Road / Access Road to Hung Kiu San Tsuen Job Number: J7343  
 Scenario: Existing Condition J6 - P. 1  
 Design Year: 2024 Designed By: TTO Checked By: WCH Date: 14-Jun-24



The predictive equations of capacity of movement are:

$$Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]$$

$$Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]$$

$$Q-CB = F[745 - 0.364Y(q-AC + q-AB)]$$

The geometric parameters represented by D, E, F are:

$$D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-IBA - 150)]$$

$$E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]$$

$$F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]$$

where  $Y = 1 - 0.0345W$

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

v-IBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :

Input		Input		Input		Calculated	
W	12.00	V-rBA	75	w-BA	3.50	D	0.9034
W-CR	0.00	V-IBA	75	w-BC	3.50	E	0.9460
		V-rBC	75	w-CB	3.20	F	0.9189
		V-rCB	75			Y	0.5860

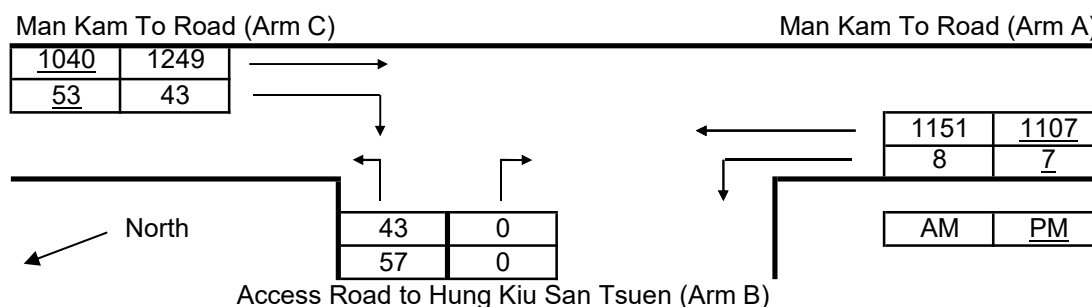
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	1005	816	Q-BA	257	283
q-CB	41	51	Q-BC	520	527
q-AB	8	7	Q-CB	504	511
q-AC	911	880	Q-BAC	520	527
q-BA	0	0			
q-BC	41	55			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.078	0.104
C-B	0.080	0.099
B-AC	0.078	0.104

## Priority Junction Analysis

Junction:	Man Kam To Road / Access Road to Hung Kiu San Tsuen	Job Number: J7343
Scenario:	Design Case	J6 - P. 2
Design Year:	2029	Designed By: TTO      Checked By: WCH      Date: 14-Jun-24



The predictive equations of capacity of movement are:

$$Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]$$

$$Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]$$

$$Q-CB = F[745 - 0.364Y(q-AC + q-AB)]$$

The geometric parameters represented by D, E, F are:

$$D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-IBA - 150)]$$

$$E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]$$

$$F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]$$

where  $Y = 1 - 0.0345W$

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

v-IBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	Input		Input		Input		Calculated	
	W	12.00	V-rBA	75	w-BA	3.50	D	0.9034
	W-CR	0.00	V-IBA	75	w-BC	3.50	E	0.9460
			V-rBC	75	w-CB	3.20	F	0.9189
			V-rCB	75			Y	0.5860

Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	1249	1040	Q-BA	181	212
q-CB	43	53	Q-BC	472	481
q-AB	8	7	Q-CB	457	466
q-AC	1151	1107	Q-BAC	472	481
q-BA	0	0			
q-BC	43	57			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.091	0.119
C-B	0.093	0.114
B-AC	0.091	0.119

## Signal Junction Analysis

[illegible]



## Signal Junction Analysis

Junction:Jockey Club Road / Po Wan Road

Scenario:Design Case

Design Year:2029

Job Number: J7343

J7 - P. 2

Designed By: TTO

Checked By: WCH

Date: 14 June 2024

Approach	Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	Turning %	AM Peak				PM Peak																																																																																																
							Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y	Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y																																																																																												
Jockey Club Road SB	SA	A1	1,2	3.40			1955	616	0.315	0.315		1955	598	0.306	0.306																																																																																												
	SA+RT	A2	1,2	3.40	18.0	20	1834	578	0.315		8	1853	567	0.306																																																																																													
Po Wan Road EB	LT+RT	B1	3	3.20	12.0	100	1720	155	0.090	0.090	100	1720	91	0.053																																																																																													
	RT	B2	3	3.20	15.0	100	1886	170	0.090		100	2075	114	0.055	0.055																																																																																												
Jockey Club Road NB	LT+SA	C1	1	3.20	12.0	31	1863	655	0.352		24	1879	539	0.287																																																																																													
	SA	C2	1	3.20			2075	730	0.352			2075	595	0.287																																																																																													
pedestrian phase			D(p)	4	min crossing time =		5	sec GM +		7	sec FGM =		12	sec																																																																																													
NOTE: As Stage 4 is depmand dependent, we have 3 cases during the peak hours: Case 1 ALL of the cycles have 4 stages (i.e. lost time = 26s) Case 2 ALL of the cycles have only 3 stages (i.e. lost time = 9s) Case 3 20% of the cycles have 4 stages, and the rest of them have 3 stages. (i.e. lost time = [20% x 40 cyc x 26 sec + 80% x 40 cyc x 9 sec] / 40 = 14s)																																																																																																											
<div><div><div>AM Traffic Flow (pcu/hr)</div><div><div><div><div><div></div><div></div></div><div><div>113</div><div>1081</div></div><div><div>109</div><div>216</div></div><div><div></div><div>1183</div></div><div><div>202</div><div></div></div></div><div><div>N</div><div></div></div></div><div><div>PM Traffic Flow (pcu/hr)</div><div><div><div><div><div></div><div></div></div><div><div>47</div><div>1118</div></div><div><div>87</div><div>128</div></div><div><div></div><div>1006</div></div><div><div>128</div><div></div></div></div><div><div>N</div><div></div></div></div></div><div><div><div>S=1940+100(W-3.25)</div><div>S=2080+100(W-3.25)</div></div><div><div>SM=S÷(1+1.5f/r)</div><div>SM=(S-230)÷(1+1.5f/r)</div></div><table><tr><th rowspan="2"></th><th colspan="3">AM Peak Hour</th><th colspan="3">PM Peak Hour</th></tr><tr><th>Case 1</th><th>Case 2</th><th>Case 3</th><th>Case 1</th><th>Case 2</th><th>Case 3</th></tr><tr><td>Sum y</td><td>0.405</td><td>0.405</td><td>0.405</td><td>0.361</td><td>0.361</td><td>0.361</td></tr><tr><td>L (s)</td><td>26</td><td>9</td><td>12</td><td>26</td><td>9</td><td>12</td></tr><tr><td>C (s)</td><td>90</td><td>90</td><td>90</td><td>90</td><td>90</td><td>90</td></tr><tr><td>practical y</td><td>0.640</td><td>0.810</td><td>0.780</td><td>0.640</td><td>0.810</td><td>0.776</td></tr><tr><td>R.C. (%)</td><td>58%</td><td>100%</td><td>92%</td><td>77%</td><td>124%</td><td>115%</td></tr></table></div></div><div><div><div>1</div><div><div><div><div></div><div></div></div><div><div>A1</div><div></div></div><div><div>C1</div><div>C2</div></div></div><div><div></div><div></div></div></div><div>2</div><div><div><div><div></div><div></div></div><div><div>A2</div><div>A1</div></div></div><div><div></div><div></div></div></div><div>3</div><div><div><div><div></div><div></div></div><div><div>B1</div><div>B2</div></div></div><div><div></div><div></div></div></div><div>4</div><div><div><div><div></div><div></div></div><div><div>D(p)</div><div>D(p)</div></div></div><div><div></div><div></div></div></div><div>5</div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div><div><div></div><div></div></div></div></div><table><tr><td>AM</td><td>G =</td><td>I/G =</td><td>G =</td><td>I/G = 5</td><td>G =</td><td>I/G = 9</td><td>G = 12</td><td>I/G = 3</td><td>G =</td><td>I/G =</td></tr><tr><td></td><td>G =</td><td>I/G =</td><td>G =</td><td>I/G =</td><td>G =</td><td>I/G =</td><td>G =</td><td>I/G =</td><td>G =</td><td>I/G =</td></tr><tr><td>PM</td><td>G =</td><td>I/G =</td><td>G =</td><td>I/G = 5</td><td>G =</td><td>I/G = 9</td><td>G = 12</td><td>I/G = 3</td><td>G =</td><td>I/G =</td></tr><tr><td></td><td>G =</td><td>I/G =</td><td>G =</td><td>I/G =</td><td>G =</td><td>I/G =</td><td>G =</td><td>I/G =</td><td>G =</td><td>I/G =</td></tr></table></div></div></div></div>																	AM Peak Hour			PM Peak Hour			Case 1	Case 2	Case 3	Case 1	Case 2	Case 3	Sum y	0.405	0.405	0.405	0.361	0.361	0.361	L (s)	26	9	12	26	9	12	C (s)	90	90	90	90	90	90	practical y	0.640	0.810	0.780	0.640	0.810	0.776	R.C. (%)	58%	100%	92%	77%	124%	115%	AM	G =	I/G =	G =	I/G = 5	G =	I/G = 9	G = 12	I/G = 3	G =	I/G =		G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	PM	G =	I/G =	G =	I/G = 5	G =	I/G = 9	G = 12	I/G = 3	G =	I/G =		G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =
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## Appendix 11

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### Environmental Assessment



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**Section 16 Planning Application**

**Renewal of Planning Application No. A/NE-FTA/192 –  
Temporary Asphalt Plant on Man Kam To Road,  
Sheung Shui  
Environmental Assessment Report**

Prepared for:  
**K. Wah Asphalt Ltd**

**August 2024**

# Renewal of Planning Application No. A/NE-FTA/192 – Temporary Asphalt Plant on Man Kam To Road, Sheung Shui Environmental Assessment Report

Prepared for  
**K. Wah Asphalt Ltd**

For and on behalf of  
EnviroSolutions & Consulting

**Alexi BHANJA**  
Group COO

**ESC Project No.** AQN23.1007-J.01  
**Deliverable No.** D02  
**Revision No.** 1.1

## File Location

[https://envirosc.sharepoint.com/teams/HKProjects/Shared Documents/AQN23.1007-J.01 Sheung Shui AP/07 Deliverables/EA/AQN23.1007-J.02\\_v1 EA.docx](https://envirosc.sharepoint.com/teams/HKProjects/Shared Documents/AQN23.1007-J.01 Sheung Shui AP/07 Deliverables/EA/AQN23.1007-J.02_v1 EA.docx)

Rev.	Description	Prepared	Reviewed	Approved	Date
1.1	Environmental Assessment Report	RL	CYW	AW	Aug 2024

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# 1 INTRODUCTION

## 1.1 Preface

1.1.1 EnviroSolutions & Consulting Ltd (“ESC”) has been appointed to prepare this Environmental Assessment (“EA”) Report in support of a renewal of planning application for Temporary Asphalt Plant (“the Temporary Asphalt Plant”) for a Period of Five Years at Lots 20 RP (Part), 21 and 23 RP (Part) in D.D. 88 and adjoining Government Land, East of Man Kam To Road, Sheung Shui, New Territories (“the Application Site”). The application aims to renew the latest planning permission under Planning Application No. A/NE-FTA/192 from the Town Planning Board (“TPB”) which will expire on 12 December 2024 such that the Applicant can be given opportunity to continue using the Application Site for the Temporary Asphalt Plant with **no change in operation. The Temporary Asphalt Plant under the current application is proposed to maintain existing operation, site configuration and major development parameters.**

## 1.2 Project Background

1.2.1 Since early 2010s, demand for asphalt increased because of several mega infrastructure projects such as Hong Kong-Zhuhai-Macao Bridge, Guangzhou-Shenzhen-Hong Kong Express Rail, etc. At that time, there were several temporary asphalt plants in Hong Kong. None of them were located within the Northeast District.

1.2.2 In order to ensure stable supply of asphalt, the Temporary Asphalt Plant was proposed to be provided at the Application Site. The history of planning applications and Specified Process (“SP”) Licence application is summarised below:

- In 2014, a planning application (no. A/NE-FTA/148) for the Proposed Development was made under Section 16 of the *Town Planning Ordinance* (“TPO”). The planning application was approved with conditions by the TPB on 12 December 2014.
- In accordance with Schedule 1 of the *Air Pollution Control Ordinance* (“APCO”), the Temporary Asphalt Plant is a “Tar and Bitumen Works” and classified as a SP. A SP Licence application was then made supported by providing an Air Pollution Control Plan (“APCP”) to the authority, Environmental Protection Department (“EPD”). A SP Licence No. L-15-035(1) was duly granted on 23 February 2017. After receiving no adverse comment on the submitted commissioning trial report from EPD on 7 April 2017, the Temporary Asphalt Plant came into operation.
- In 2019, S16 Application (No. A/NE-FTA/192) was made to the TPB to renew planning approval for the Temporary Asphalt Plant for another five years. On 18 October 2019, the renewal application was approved with conditions for a period from 13 December 2019 to 12 December 2024.
- Amongst the approval conditions, only one condition, Approval Condition (g), was related to environmental impact, “the implementation of noise mitigation

*measures, as proposed by you, as required under approval condition (g) to the satisfaction of the Director of Environmental Protection or of the TPB by 13.9.2021”.*

- Thereafter, submissions were made to the TPB for compliance with Approval Condition (g). On 26 July 2021, a letter was issued by the PlanD stating that the Approval Condition (g) regarding implementation of noise mitigation measures was complied with. The copies of the final submission and PlanD letter are provided in **Appendix A**.
- Shortly after approval of the S16 Application, the application for renewal of the SP Licence was made and the renewed SP Licence No. L-15-035(2) with an effective period of three years was obtained on 18 May 2020.
- An application for renewing SP Licence No. L-15-035(2) was made on 15 March 2023. The renewal is further described in **paragraphs 2.2.11 and 2.2.12**.

1.2.3 The Applicant has been engaged in various major infrastructure projects, road construction and maintenance works carried out by Highways Department (“HyD”), Drainage Services Department (“DSD”), Civil Engineering and Development Department (“CEDD”), Airport Authority (“AA”) and MTR Corporation (“MTRC”). Those projects included Tseung Kwan O – Lam Tin Tunnel (“TKO-LTT”), The Hong Kong – Zhuhai – Macao Bridge (“HZMB”), Liantang/Heung Yuen Wai Boundary Control Point (“LTHYW BCP”), Central – Wan Chai Bypass, Tuen Mun – Chek Lap Kok Link (“TMCLKL”), Queen’s Hill Development and the North and South Runway Asphalt Resurfacing projects, as well as ongoing road maintenance works for Kowloon West and New Territories West.

1.2.4 The Hong Kong government has been in the forefront in developing the Northern Metropolis and others New Development Areas (“NDAs”). The latest release of the Hong Kong Major Transport Infrastructure Development Blueprint also highlights the government's commitment in building a liveable, competitive and sustainable Hong Kong through “**driving development by transport infrastructure**” by adopting the planning principles of “infrastructure-led” and “capacity-creating”. The road network of Hong Kong would be expanded and with increased capacity, and it is foreseeable that there is a **growing demand for high quality asphalt to materialise the vision**.

1.2.5 As indicated in **Table 1-1**, a number of projects such as the Northern Link – Kwu Tung Station, Hung Shui Kiu Station, Tuen Mun South Extension, Tung Chung Line Extension, etc., will be carried out in Hong Kong. It is essential to ensure stable asphalt supply to support the aforementioned works in Hong Kong. The Temporary Asphalt Plant is the only asphalt plant located in the North New Territories. To avoid disruption for the supply of asphalt, which would impact infrastructure projects and road works, the Temporary Asphalt Plant operation is essential to be continued.

*Table 1-1 Major Planned Projects in Hong Kong*

PROJECTS	ANTICIPATED COMPLETION
MTR Northern Link - Kwu Tung Station	2027
MTR Tung Chung Line Extension	2029

PROJECTS	ANTICIPATED COMPLETION
MTR Tuen Mun South Extension	2030
MTR Hung Shui Kiu Station	2030
Kwu Tung North and Fanling North New Development Area - Remaining Phase of Site Formation and Engineering Infrastructure Works	2031
Yuen Long South Development - Second Phase Development	2031

1.2.6 In addition, a number of infrastructure projects currently utilising the Temporary Asphalt Plant are ongoing as shown in **Table 1-2** below. Those projects will not be completed within the current approval period expiring on 12 December 2024. Should the Temporary Asphalt Plant have to be ceased operation, it would cause serious disruption in the progress of the involved projects. In order to continue to utilise the application site and to ensure the supply of asphalt to support infrastructure projects in the locality and territory, the Applicant seeks to renew the previous approved application No. A/NE-FTA/192 with an expiry date on 12 December 2024.

*Table 1-2 Major Contracts Supported by the Temporary Asphalt Plant*

EMPLOYER	CONTRACT NO.	CONTRACT TITLE	ANTICIPATED COMPLETION
AA	Contract No. 3310	North Runway Modification Works	2025
HyD	12/HY/2019	Highways Department Term Contract (Management and Maintenance of Roads in Kowloon West excluding Expressways and High Speed Roads 2020 – 2026)	2026
HyD	04/HY/2020	Highways Department Term Contract (Management and Maintenance of Roads in Tuen Mun and Yuen Long Districts excluding Expressways and High Speed Roads 2021 – 2026)	2026
HyD	HY/2014/08	Construction of tunnel at Yau Ma Tei, reconstruction of a section of the Gascoigne Road Flyover and reprovisioning of affected public facilities at Yau Ma Tei	2026
HyD	HY/2019/13	Construction of administration building and ventilation buildings, and installation of route-wide electrical and mechanical works	2028
HyD	HY/2020/07	Widening of Castle Peak Road between Kwun Tsing Road and Hoi Wing Road	2025
HyD	HY/2020/08	Flyover from Kwai Tsing Interchange Up ramp to Kwai Chung Road	2026
HyD	HY/2021/16	Provision of Universal Accessibility Facilities at Footbridges, Elevated Walkways and Subways Package 5 - Contract 2	2025

EMPLOYER	CONTRACT NO.	CONTRACT TITLE	ANTICIPATED COMPLETION
DSD	DC/2019/12	Upgrading of West Kowloon and Tsuen Wan Sewerage – Phase 2B	2027
DSD	DC/2020/03	Drainage Maintenance and Construction in Hong Kong Island and Islands Districts (2021-2025) And Building and Civil Maintenance and Minor Works to DSD Plants and Facilities (2020-2025)	2025
CEDD	CV/2020/01	Site formation and infrastructure works for public housing developments at Pok Fu Lam South	2027
CEDD	CV/2022/07	Site Formation and Infrastructure Works for Public Housing Developments at Long Bin, Yuen Long	2026
CEDD	ED/2018/04	Trunk Road T2 and Infrastructure Works for Developments at the Former South Apron	2026
CEDD	ND/2019/01	Kwu Tung North New Development Area, Phase 1: Site Formation and Infrastructure Works	2026
CEDD	ND/2019/04	Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section (Shek Wu San Tsuen North to Lung Yeuk Tau)	2026
CEDD	NE/2017/03	Development of Anderson Road Quarry Site - Road Improvement Works and Pedestrian Connectivity Facilities Works Phase 2A	2026
CEDD	NE/2017/05	Widening of Tai Po Road (Sha Tin Section)	2025
CEDD	NL/2020/03	Tung Chung New Town Extension - Major Infrastructure Works in Tung Chung East	2028
CEDD	NL/2020/06	Tung Chung New Town Extension - Site Formation and. Infrastructure Works at Tung Chung Valley, Phase 1	2027
CEDD	YL/2020/06	Site Formation and Infrastructure Works for Public Housing Developments at Kam Tin South, Yuen Long – Phase 1	2026
HK & China Gas Co. Ltd.	N/A	Reinstatement Service (Term Contract 2023 – 2025)	2025
Hongkong International Terminals	N/A	Bituminous Re-surfacing Works at Terminal 4, 6, 7, 8, 9 & Depot S (1+1 Term Contract)	2025

1.2.7 The planning approval under A/NE-FTA/192 for the Temporary Asphalt Plant is set to expire on 12 December 2024. To avoid disruption to ongoing projects, the Applicant is submitting a renewal application seeking planning permission to continue utilising

the Application Site while maintaining the same operation. This application aims to maintain existing operations at the Application Site while ensuring no changes to the nature, operation, or site configuration of the Temporary Asphalt Plant, with no adverse impact induced.

### 1.3 Site Description

1.3.1 The Application Site is located to east of Man Kam To road and to the north of Hung Kiu San Tsuen as shown in **Figure 1-1**.

1.3.2 To the north and east of the Application Site is land zoned “Green Belt” in which no new development is expected. A metal workshop is located on the hillside to the northeast of the Application Site. There are public roads access to the metal workshop which also surround and lie within the Application Site.

1.3.3 Based on the Application Site observation on 11 July 2024, the environs of the Application Site remain the same as those observed in 2019/20, including:

- Some public roads providing access to the metal workshop adjacent to the north of the Application Site surrounding and partially lying within the Application Site.
- A metal workshop locating on the hillside to the northeast of the Application Site.
- A piece of land reserved for developing Poultry Slaughtering Centre but shelved in 2010 located to the southeast of the Application Site.
- Several car repair workshops located to the south and southwest of the Application Site.
- Some other workshops and open storage sites located to the further southwest, across Man Kam To Road.
- Some open storage sites located to the west and northwest.

### 1.4 Project Description

1.4.1 Under the current application, it is proposed to continue utilising the Application Site for the Temporary Asphalt Plant. **As compared with the last approved scheme, there is no change in the nature, and no change to the Application Site configuration, building bulk, site area, form, and major development parameters of the approved Plant, and the Application Site remains unchanged when compared to the previous application.** The Application Site configuration and layout are identical to the approved scheme.

1.4.2 There is **no change** in the asphalt production process and operation. The main product of the Temporary Asphalt Plant is Hot Mix Asphalt (“HMA”) consisting of aggregates blended with bitumen. The usage of HMA is mainly for road paving and airport runway. The maximum HMA production rate of the Temporary Asphalt Plant is 160 tonnes/hour using a batch mix production mode with a small quantity of asphalt emulsion is also produced. Since road and airport runway maintenance works are mainly carried out between midnight and early morning, the Temporary



Asphalt Plant must be operated for 24 hours/day. In response to EPD's control of "Land Filling and Fly-tipping" policy, up to 85,000 tonnes of Reclaimed Asphalt Pavement ("RAP") per year are consumed in the asphalt production

1.4.3 The Master Layout Plan shown in **Figure 1-2** is identical to that of the last approved Planning Application No. A/NE-FTA/192. The major components of the Temporary Asphalt Plant include:

- Asphalt Plant Complex including the Mixing Tower
- Bitumen Tanks
- RAP Stock Pile No. 1
- RAP Equipment Store
- Aggregate Stock Pile No. 2
- Workshop Building

1.4.4 There will be **no change** to the building bulk, site area, form, and major development parameters of the Temporary Asphalt Plant after obtaining the approval with conditions from TPB on 12 December 2019 as mentioned in **paragraph 1.2.2**. A Schematic Diagram of the Temporary Asphalt Plant showing the manufacture of HMA is enclosed in **Appendix A**.

## 1.5 Objectives of the Report

1.5.1 The objectives of this EA Report are to:

- Review potential environmental impacts arising from the operation of the Temporary Asphalt Plant, in terms of air quality, noise, water quality, waste management and land contamination.
- Review the situation of air and noise sensitive receivers

Figure 1-1 Site Boundary and Locations

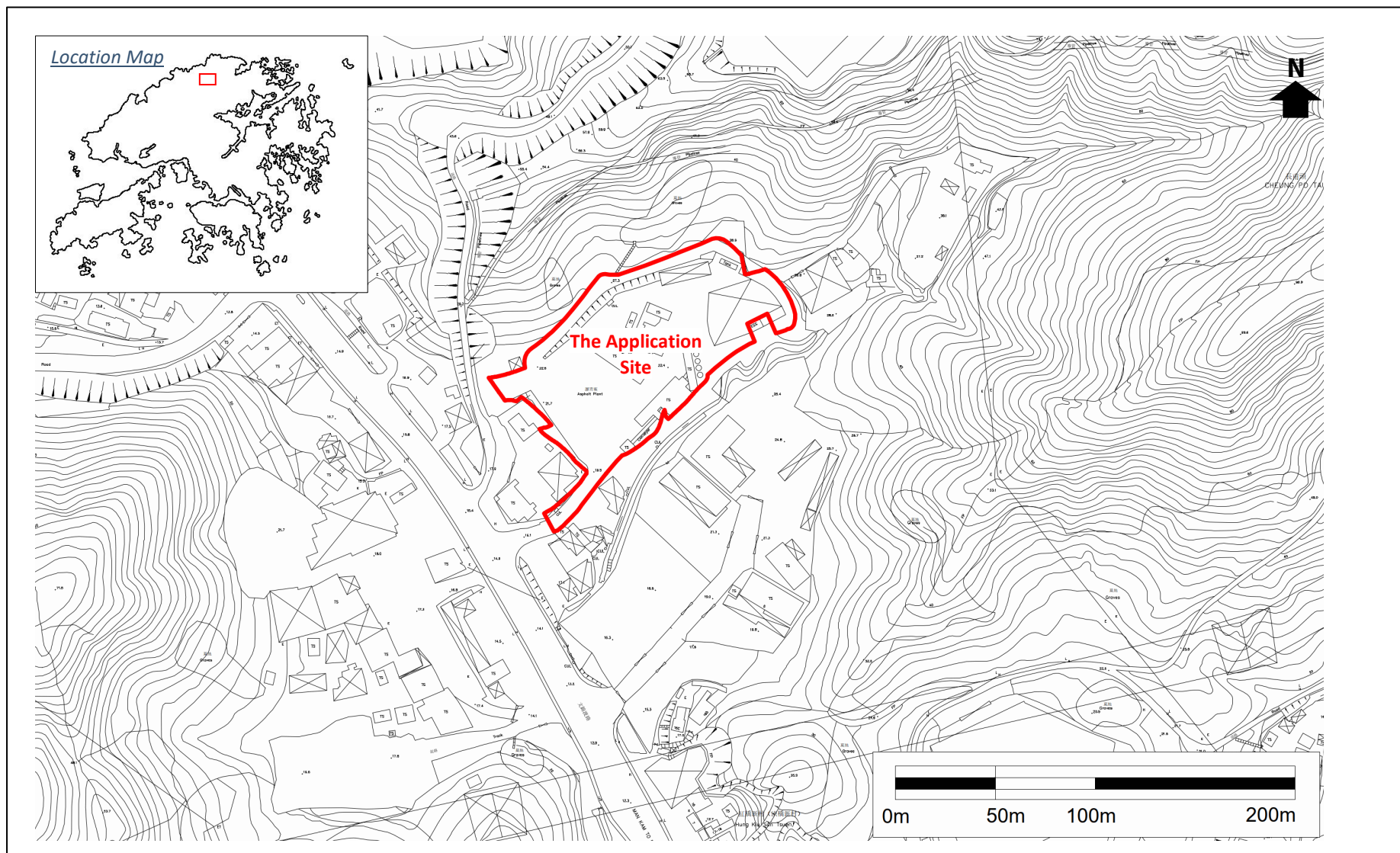
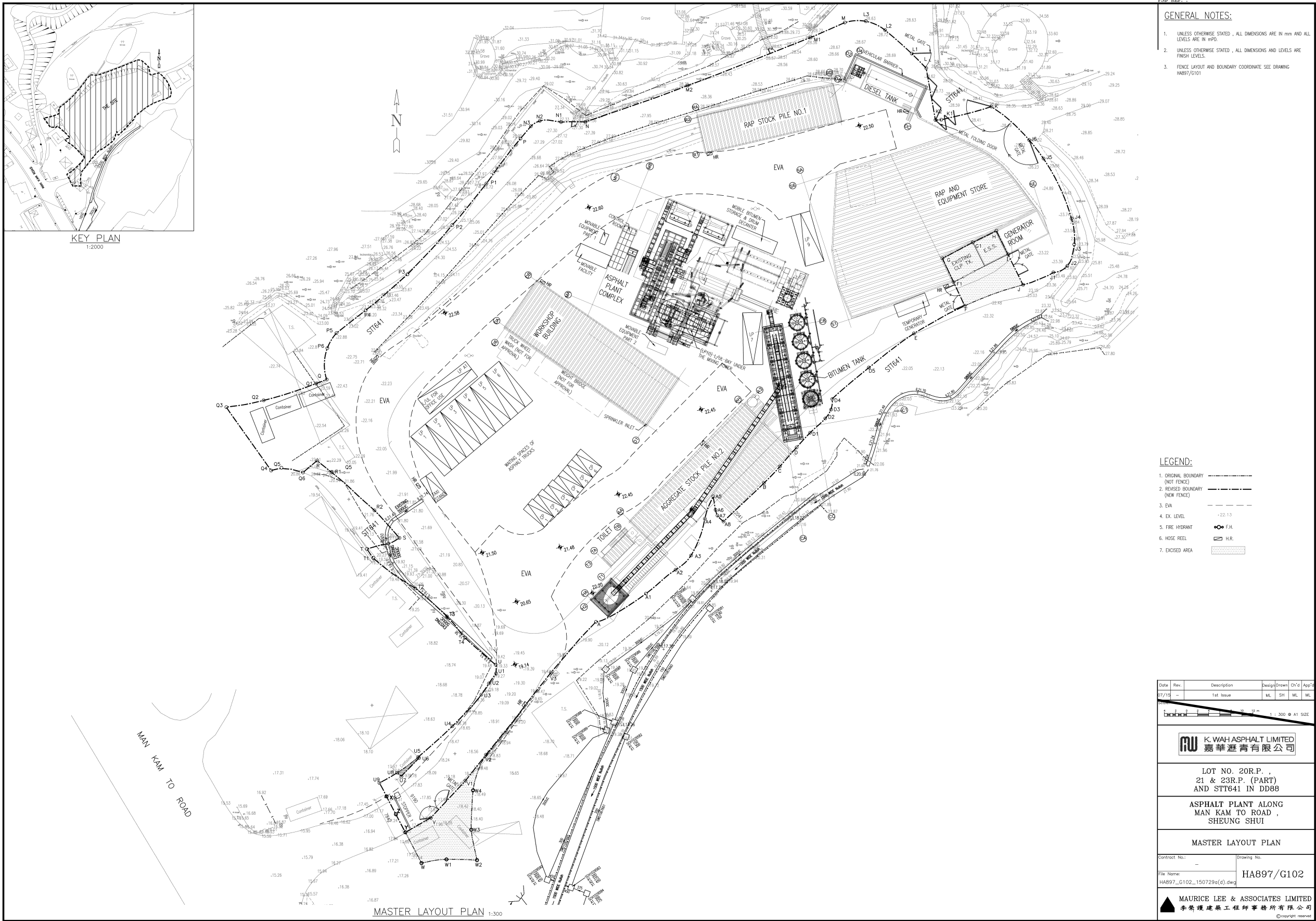


Figure 1-2 Master Layout Plan



## 2 REVIEW OF ENVIRONMENTAL IMPACTS

### 2.1 Introduction

2.1.1 Assessments of environmental impact to air quality, noise, water quality, waste and land contamination, were carried out in previously submitted EA Reports to support previous Planning Applications and received “no comment” from the Authority. Apart from the aforementioned planning applications supported by the EA Reports, applications were made under the *Air Pollution Control Ordinance* (“APCO”). The documents are listed in **Table 2-1** below:

*Table 2-1 Summary of Submissions*

REF	REVISION	REPORT	APPLICATION	DATE	REMARK
7076143 I D01/01	1	Environmental Assessment (2014 EA Report)	Planning Application No. A/NE-FTA/148	August 2014	No comment
7076382 I D01/01	9.3	Air Pollution Control Plan (“APCP”) (“2017 APCP”)	SP Licence No. L-15-035(1)	March 2017	No comment
7076703 I D01/01	1	Environmental Assessment (2019 EA Report)	Planning Application No. A/NE-FTA/192	August 2019	No comment
N/A	N/A	Review on Air Sensitive Receivers (“ASRs”)	SP Licence Renewal Application obtaining the renewed SP Licence No. L-15-035(2)	2019	No comment
AQN23.1014-J.01	2	APCP (“2024 APCP”)	SP Licence Renewal Application	August 2024	Being reviewed and no adverse comment

2.1.2 As the Temporary Asphalt Plant has been in operation since 2017, the existing operation would be maintained without any changes in site configuration, building bulk, site area, form, and major development parameters. **No construction work** is needed for the continuation of Plant operation, therefore there will be no environmental impacts arising from construction. Due to **no change in operation** of the Temporary Asphalt Plant, environmental impacts related to Plant operation are the same as those previously assessed in the 2014 EA Report and 2019 EA Report.



## 2.2 Air Quality

### Planning Application No. A/NE-FTA/148 (2014)

2.2.1 With reference to the Rural and New Town Planning Committee (“RNTPC”) Paper dated 12 December 2014, paragraph 9.1. stated the conclusion of 2014 EA Report supporting Planning Application No. A/NE-FTA/148 was agreed by the Director of Environmental Protection (“DEP”).

2.2.2 The air quality assessment for Plant operation in the 2014 EA Report included the following:

- Quantitative impact assessment was conducted to compare against the historical Air Quality Objectives (“AQOs”) in force between 2014 and 2021 (“2014 AQOs”) and adopted international standards for non-criteria pollutants Volatile Organic Compounds (“VOCs”), formaldehyde, benzo(a)pyrene (“B[a]P”) and bitumen fumes
- No exceedance of the AQOs and adopted standards for non-criteria pollutants were predicted at all representative Air Sensitive Receivers (“ASRs”)
- The Temporary Asphalt Plant would not pose any unacceptable air quality impacts on the ASRs in the vicinity
- Plant operation would fully comply with 2014 AQOs, other adopted criteria and the Best Practicable Means (“BPM”)

### The First version of SP Licence No. L-15-035(1)

2.2.3 The 2017 APCP supporting the application for SP Licence No. L-15-035(1) was received with “no comment”. The SP Licence was obtained on 23 February 2017.

2.2.4 The 2017 APCP included:

- Identification of Representative ASRs within 500m from the Application Site boundary
- Adopting the 2014 AQOs
- Adopting international standards for non-criteria pollutants including B[a]P, bitumen fume (“Polycyclic Organic Matter”), formaldehyde and VOCs. Recommended standards for benzene (“C<sub>6</sub>H<sub>6</sub>”), as well as metals and odour.
- Reporting the estimated cumulative air quality levels at the ASRs including the contour plots complying with the 2014 AQOs as well as the adopted standards for non-criteria pollutants, metals and odour
- Recommending the BPMs for HMA manufacturing
- Concluding:
  - The BMPs would be provided, implemented and maintained



- All the relevant AQOs (historical AQOs) would be met with the Temporary Asphalt Plant in operation
- No unacceptable noxious and offensive emissions would arise from Plant operation

2.2.5 The Applicant has properly implemented the recommendations and air quality control measures provided in the 2017 APCP and the SP Licence. Soon after the commissioning trials held in March 2017, a letter of no objection to the commencement of operation of the Temporary Asphalt Plant was issued by EPD in April 2017.

2.2.6 Since commencement of operation in 2017, several improvements have been made to the Temporary Asphalt Plant by the Applicant, as follows:

- An additional deodorisation system for further reduction of particulates and odour
- The use of low-odour bitumen to reduce the volatility and formation of bitumen fumes
- Covers attaching to asphalt trucks to reduce fugitive dust and odour during transportation

2.2.7 In accordance with SP Licence requirements, during operation of the Temporary Asphalt Plant, 24-hour average ambient Respirable Suspended Particulates (“RSP”) sampling was conducted by the Applicant at a frequency not less than once every six calendar days. Source sampling at chimney for the concerned air pollutants is carried out at a frequency not less than once per every 12 months.

#### **The First Renewal for SP Licence No. L-15-035(2)**

2.2.8 A renewal application of SP licence was submitted to EPD in November 2018. A review of ASRs was completed in March 2019 and **no change** of ASRs was identified. The findings and conclusion were still valid for the renewal application. SP Licence No. L-15-035(2) was granted by EPD in May 2020.

#### **The First Renewal for Planning Application No. A/NE-FTA/192 (2019)**

2.2.9 An EA report was prepared in August 2019 to support the renewal of planning approval (Planning Application No. A/NE-FTA/192) for the Temporary Asphalt Plant for another five years to 2024. Review of the 2017-APCP and ASRs for the renewal of SP licence in 2019 concluded that no adverse air quality and health impact from operation of the Temporary Asphalt Plant was anticipated with implementation of the control measures recommended in APCP and stipulated in the SP licence.

2.2.10 The renewal application was approved for a period from 13 December 2019 to 12 December 2024 with several approval conditions.

#### **The Second (Current) Renewal for SP Licence**

- 2.2.11 An application for renewing SP Licence No. L-15-035(2) was made, supported by a new APCP. The latest version of the new APCP (“2024 APCP”) was submitted to EPD in August 2024 to support the renewal application of SP Licence. In the 2024 APCP:
- The cumulative concentrations of pollutants including RSP, FSP, NO<sub>2</sub>, SO<sub>2</sub>, etc., have been quantitatively assessed based on the latest modelling guidelines.
  - The predicted cumulative concentrations would comply with both the prevailing AQOs and future 2025 AQOs.
  - Representative ASRs in the 2017 APCP were reviewed and there is no change.
- 2.2.12 The recently revised APCP versions were submitted in June and July 2024. The APCP has been reviewed by EPD and it is being finalised, and **no adverse comment has been received on the APCP.**

### The Second (Current) Renewal for Planning Application (2024)

- 2.2.13 This EA report has been prepared to support the renewal of planning approval for the Temporary Asphalt Plant for another five years to 2029. The previously submitted 2014 EA Report, 2017 APCP, ASRs for the renewal of SP Licence in 2019, 2019 EA Report and 2024 APCP concluded that no adverse air quality and health impact from operation of the Temporary Asphalt Plant was anticipated with implementation of the control measures recommended in APCP and stipulated in the SP Licence. Since there will be no change in the Temporary Asphalt Plant operation, no adverse air quality impact will be arising from the continued operation of the Temporary Asphalt Plant.

### Summary of Air Pollution Control Measures

- 2.2.14 Based on the Application Site observations on 11 July 2024, the air pollution control measures are summarised in **Table 2-2** below.

*Table 2-2 Mitigation Measures for the Temporary Asphalt Plant*

ID	DESCRIPTION	MITIGATION MEASURES
EP1	Exhaust from Dust Collectors of Stack	<ul style="list-style-type: none"> <li>• Pre-skimmer and filter baghouse are provided for dust removal prior to exhaust emission to ambient air</li> <li>• Ventilation duct for the chimney are 34m above ground to assist air pollutants dispersion</li> <li>• ULSD with a maximum sulphur content of 0.005% w/w is used</li> <li>• Air-to-fuel ratio is properly controlled to achieve complete fuel combustion as far as possible</li> <li>• Dust is filtered with high capacity filter baghouse before discharge to ambient air</li> <li>• The exhaust fume from the mixer is passed to the aggregate rotary dryer drum for re-burning by incineration, potential PAHs emission arising from the mixer is minimised</li> </ul>

ID	DESCRIPTION	MITIGATION MEASURES
EP2	Fugitive dust emission from underground hopper	<ul style="list-style-type: none"> <li>Sufficient automatic water sprinklers and manual water hoses are installed and operated during loading of aggregate to suppress possible dust emissions</li> <li>Underground hoppers are enclosed at the top and three sides</li> <li>Enclosed conveyor belts are used to minimise dust emissions</li> </ul>
EP3	Fugitive dust emission from spare Aggregates Storage Bay	<ul style="list-style-type: none"> <li>Sufficient automatic water sprinklers and manual water hoses are installed and operated during loading of aggregate to suppress possible dust emissions</li> <li>Storage bay is covered on top with three sides enclosure, and front curtain will be provided at the fine aggregate piles with sizes less than 5mm</li> </ul>
EP4	Fugitive dust emission from RAP Storage Bay	<ul style="list-style-type: none"> <li>Sufficient automatic water sprinklers and manual water hoses are installed and operated during loading of aggregate to suppress possible dust emissions</li> <li>Covered on top with three sides enclosure, and equipped with front curtain</li> </ul>
EP5	Fugitive dust emission from Coarse RAP Storage Bay	<ul style="list-style-type: none"> <li>Sufficient automatic water sprinklers and manual water hoses are installed and operated during loading of aggregate to suppress possible dust emissions</li> <li>Covered on top with three sides enclosure, and equipped with front curtain</li> </ul>
EP6	Fugitive dust emission from Crushed RAP Storage Bay	<ul style="list-style-type: none"> <li>Sufficient automatic water sprinklers and manual water hoses are installed and operated during loading of aggregate to suppress possible dust emissions</li> <li>Covered on top with three sides enclosure, and equipped with front curtain</li> </ul>
EP7	Fugitive dust emission from RAP Feed Hopper at RAP Processing Depot	<ul style="list-style-type: none"> <li>Sufficient automatic water sprinklers and manual water hoses are installed and operated during loading of aggregate to suppress possible dust emissions</li> <li>Covered on top with three sides enclosure, and equipped with front curtain</li> <li>RAP processing housed in fully enclosed building with enclosed conveyor belts</li> </ul>
EP8 & EP9	Fugitive dust emission from (Coarse & Fine) RAP Feed Hopper	<ul style="list-style-type: none"> <li>Sufficient automatic water sprinklers and manual water hoses are installed and operated during loading of aggregate to suppress possible dust emissions</li> <li>Covered on top with three sides enclosure, and equipped with front curtain.</li> <li>Enclosed conveyor and bucket elevator are used to minimise dust emissions.</li> </ul>
EP10	Exhaust from Dust Collectors of Silos	<ul style="list-style-type: none"> <li>Fully enclosed debagging machine and enclosed bucket elevator are used to load imported lime into the silo.</li> <li>Dust is filtered with bag filter before discharge to ambient air.</li> <li>Water sprinklers are operated during filler feeding processes.</li> <li>Feed by fully enclosed screw conveyor.</li> </ul>

ID	DESCRIPTION	MITIGATION MEASURES
EP11	Negligible dust emission from conditioner	<ul style="list-style-type: none"> <li>Water sprinklers are operated during handling of conditioned dust.</li> </ul>
EP12 – EP16	Bitumen fume emission from heated bitumen tanks	<ul style="list-style-type: none"> <li>The heating temperature of the particular bitumen type and grade shall not exceed the corresponding temperature limit Tamper-free high temperature cut-off device shall be provided to cut off the heater in case the upper limit for bitumen temperature is reached. The cut off temperature shall be set at 160°C.</li> <li>Connected to the Mixing Tower thereby being emitted from the stack EP1 to further reduce bitumen fume emission.</li> </ul>
EP17	Bitumen fume emission from heated bitumen tanks	<ul style="list-style-type: none"> <li>The heating temperature of the particular bitumen type and grade shall not exceed the corresponding temperature limit Tamper-free high temperature cut-off device is provided to cut off the heater in case the upper limit for bitumen temperature is reached. The cut off temperature shall be set at 160°C.</li> <li>Exhaust fume is discharged through tank vents of at least 10m above ground.</li> <li>Activated carbon filter is installed to eliminate bitumen fume emission.</li> </ul>
EP18	Asphalt rubber fume emission from the removable heated asphalt rubber tank	<ul style="list-style-type: none"> <li>The heating temperature of the asphalt rubber shall not exceed the corresponding temperature limit Tamper-free high temperature cut-off device shall be provided to cut off the heater in case the upper limit for bitumen temperature is reached. The cut off temperature shall be set at 191°C.</li> <li>Activated carbon filter is installed to eliminate bitumen fume emission.</li> </ul>
EP19	Exhaust from the diesel burner of the Bitumen Storage and Drum Decanter	<ul style="list-style-type: none"> <li>Air-to-fuel ratio is properly controlled to achieve complete fuel combustion.</li> <li>Maximum sulphur content of liquid fuel used shall be 0.005% by weight.</li> <li>Activated carbon filter is installed to eliminate bitumen fume emission.</li> </ul>
EP20	Fugitive dust emissions from oversized aggregate reject bin	<ul style="list-style-type: none"> <li>Water sprinklers are operated during loading of rejected aggregate.</li> </ul>
EP21	Fugitive dust emissions from rejected aggregate storage	<ul style="list-style-type: none"> <li>Sufficient automatic water sprinklers and manual water hoses are installed and operated during loading of aggregate to suppress possible dust emissions.</li> <li>Three sides enclosure with the top cover and front-side curtain.</li> </ul>

ID	DESCRIPTION	MITIGATION MEASURES
EP22	Fugitive dust emissions from Paved Road	<ul style="list-style-type: none"> <li>All access roads within the Application Site are hard-paved and adequately wetted during operational hours.</li> <li>Vehicle and wheel washing facilities are provided to remove dust or mud deposits on vehicle body and wheels prior to exiting the Application Site.</li> <li>Traffic on site is restricted to 5km/hour.</li> <li>Loaded tankers/trucks shall be fully covering with tarpaulin sheet before leaving the Application Site.</li> </ul>
EP23	Temporary Diesel Generator already removed	<ul style="list-style-type: none"> <li>Not applicable</li> </ul>
EP24	Combustion products from diesel fuel for Emergency Generator	<ul style="list-style-type: none"> <li>Air-to-fuel ratio is properly controlled to achieve complete fuel combustion.</li> <li>Ventilation duct for the heater shall be 8m above ground to assist air pollutants dispersion.</li> <li>Maximum sulphur content of liquid fuel used shall be 0.005% by weight.</li> </ul>
EP25	Bitumen fume emission from heated Bitumen Storage and Drum Decanter	<ul style="list-style-type: none"> <li>The heating temperature of the bitumen storage shall not exceed the corresponding temperature limit Tamper-free high temperature cut-off device shall be provided to cut off the heater in case the upper limit for bitumen temperature is reached the cut off temperature shall be set at 191°C.</li> <li>Activated carbon filter is installed to eliminate bitumen fume emission.</li> </ul>

## 2.3 Noise

2.3.1 The noise impact arising from the Temporary Asphalt Plant assessed in the 2014 EA Report was based on noise measurement taken at the Applicant's asphalt plant at Anderson Road Quarry. The noise impact assessed in the 2019 EA Report was based on actual noise measurements at the Temporary Asphalt Plant during operation. Since no changes to Plant components or operations have been made and no new Noise Sensitive Receivers ("NSRs") have been identified, the noise impact assessment provided by 2019 EA Report is considered to remain valid.

2.3.2 Based on the Application Site observations on 11 July 2024, the noise mitigation measures listed below include:

- 2.5m high hoarding erected along the Application Site Boundary
- The mixing unit installed inside the mixing tower fully enclosed by cladding
- The exhaust fan located inside a plant room fully enclosed by steel plates
- The screw conveyor, slant belt conveyor, belt conveyor, bucket elevator and filler elevator all fully enclosed with cladding



- The rotary dryer drum set up in the centre of the Temporary Asphalt Plant which can be screened by the storage facilities, mixing tower and other building structure of the Temporary Asphalt Plant
- A barrier which is a steel plate with a thickness of not less than 1.5mm and a surface density of not less than 10kg/m<sup>2</sup> is provided to reduce noise impact of the air compressor
- A barrier which is a steel plate with a thickness of not less than 1.5mm and a surface density of not less than 10kg/m<sup>2</sup> provided to reduce noise impact of the bitumen pump
- The aggregate unloading bay/storage area three sides enclosed with top by cladding
- The RAP unloading area enclosed by cladding
- The asphalt loading area enclosed by two sides with top by cladding and curtains at the entrance and exit sides

2.3.3 Furthermore, the noise mitigation measures submitted on 18 June 2021 were received with no comment from EPD (Appendix A refers).

2.3.4 Therefore, no adverse noise impact arising from the continued Plant operation is anticipated.

## 2.4 Water Quality

2.4.1 As mentioned in the 2014 and 2019 EA Reports, water is not required for the production of HMA. No industrial wastewater is generated from the Temporary Asphalt Plant during operation. The only sources of wastewater during Plant operation include the following:

- Sewage generated from site staff
- Surface runoff

2.4.2 Since all water for vehicle wheel washing is treated and reused, there is no generation of wastewater from this source.

2.4.3 For the sewage generated from site staff, portable toilets equipped with storage tanks are already installed at the Temporary Asphalt Plant to collect sewage/wastewater generated by staff. The collected sewage/wastewater is tankered away by a licensed contractor for off-site disposal on a regular basis. No adverse water quality impact arises from the Temporary Asphalt Plant since the operation started. Hence, no adverse impact on water quality due to sewage/wastewater generated by staff is anticipated.

2.4.4 For the Application Site surface runoff, water sprinklers are installed for dust suppression and the entire site is paved. Operational procedures are applied to prevent over-wetting of the ground and roads so as to minimise surface runoff. All

surface runoff is collected by the existing peripheral surface U-channels and diverted to sand traps for silt removal prior to being discharged into public drains.

2.4.5 Therefore, no adverse water quality impact due to surface runoff is anticipated.

## 2.5 Waste Management

2.5.1 There is no change to the operation of the Temporary Asphalt Plant or disposal methods of waste. The waste generated from the Temporary Asphalt Plant operation mainly comprises general refuse, commercial waste, rejected aggregates, treated aggregate fines from the dust conditioner and chemical waste.

2.5.2 General refuse and commercial waste are collected and taken away regularly by a registered waste collector for disposal off-site at a landfill managed by EPD. Hence, no adverse waste implication due to handling, transportation and/or disposal of general refuse and commercial waste is anticipated.

2.5.3 Rejected aggregates and treated aggregate fines are Inert Construction and Demolition (“C&D”) Material and disposed of off-site at an appropriate government-managed facility. Temporary stockpiling area, enclosed at three sides and with a front curtain, is set up for storage of aggregate prior to disposal. No adverse impact from Inert C&D Material is anticipated.

2.5.4 No more than 85,000 tonnes of RAP is reused in producing HMA. Reuse of RAP in the production process as aggregate as mentioned in **paragraph 1.4.1** for green asphalt product instead of treating as C&D waste for disposal at being dumped at landfill, thereby helping to reduce the pressure on landfill capacity.

2.5.5 There is only a small quantity of chemical wastes including used oil filters, scrap battery and waste lubrication oil generated from daily operation of the Temporary Asphalt Plant. A licensed collector is employed to handle and disposed of the chemical wastes. Hence, no adverse impact from chemical waste is anticipated.

## 2.6 Land Contamination

2.6.1 In the 2014 EA Report, the Application Site was reported to be used as rice paddy prior to the 1970s. In the mid- to late-1970s, the Application Site was filled and converted to open land. Then Site was used for open storage, manufacture of construction materials, warehouses and concrete batching plant. The 2014 EA report concluded no sources of historical land contamination issues were identified and was considered valid in the 2019 EA Report.

2.6.2 There is **no change** to Plant operation after being used since 2017. Hence, the conclusion of no historical land contamination made in the 2014 Report is considered to remain valid for this Application.

### 3 CONCLUSION

#### 3.1 General

- 3.1.1 The Plant has been in operation since 2017 after obtaining the approval with conditions from TPB for Planning Application No. A/NE-FTA/148 in 2014, SP Licence No. L-15-035(1) from EPD in 2017, approval with conditions from TPB for Planning Renewal Application No. A/NE-FTA/192 in 2019 and renewed SP Licence No. L-15-035(2) in 2020. The SP Licence No. L-15-035(2) is being renewed and no adverse comment on the APCP is received. The Planning Application aims to renew the latest planning permission under Planning Application No. A/NE-FTA/192 from TPB which will expire on 12 December 2024 such that the Applicant can be given opportunity to continue using the Application Site for the Temporary Asphalt Plant. Considering the Temporary Asphalt Plant supplies asphalt for major infrastructure projects, airport runway and road maintenance works, it is necessary to keep the Temporary Asphalt Plant operation to avoid any disruption in the progress of the involved projects. In the light of this reason, the Applicant would like to apply for the Temporary Asphalt Plant operation for the other five years by submitting a planning application under Section 16 of TPO. This EA Report has been prepared to support the Planning Application.
- 3.1.2 The Temporary Asphalt Plant under the current application is proposed to maintain existing operation approved under previous application. There is **no change** to the Application Site configuration, building bulk, site area, form, and major development parameters of the approved Temporary Asphalt Plant. The application site remains unchanged when compared to the previous application. The existing operation is proven to induce no adverse environmental impact by maintaining good operation and on-site practices.
- 3.1.3 The main product of the Temporary Asphalt Plant is HMA and the maximum HMA production rate remains the same, i.e., 160 tonnes/hour using a batch mix production mode. Since road maintenance works are mainly processed between midnight and early morning, the Temporary Asphalt Plant must operate 24 hours per day supplying HMA in order to meet the demand.
- 3.1.4 The Temporary Asphalt Plant has already been built and in operation since 2017. No construction works will be required for the extension of operation. Therefore, there will be no construction-related impact on air quality, noise, water quality and waste management. The environmental impacts arising from the operation of the Temporary Asphalt Plant has not been changed since the 2019 EA report.
- 3.1.5 The conclusions for air quality, noise water quality, waste management and land contamination are as follows:

#### 3.2 Air Quality

- 3.2.1 The current SP Licence No. L-15-035(2) was obtained in 2020. The latest version of APCP report with assessment by comparing the existing and proposed 2025 AQOs to

support of the application for renewal of SP Licence has been submitted to EPD for review and no adverse comment on APCP is received. No adverse air quality impact or health impact from the operation of the Temporary Asphalt Plant is expected by implementing and maintaining the control measures recommended in the APCP. Revised APCP versions were submitted in June and July 2024. The APCP is being finalised and reviewed by EPD. **No adverse comment has been received on the APCP.**

### 3.3 Noise

- 3.3.1 Since no changes on the Temporary Asphalt Plant component and operation, the noise impact assessment provided by 2019 EA Report is referred to in this EA Report. Based on 2019 EA Report, no adverse noise impact in terms of off-site traffic noise or on-site operation noise is anticipated. Therefore, with the implementation and maintenance of noise mitigation measures, no adverse noise impact is expected.

### 3.4 Water Quality

- 3.4.1 HMA production process does not require the use of water and so there is no industrial wastewater arising from the Temporary Asphalt Plant operation. The sources of water pollution from the Temporary Asphalt Plant includes sewage from site staff and surface runoff from the Application Site. All water for vehicle wheel washing is treated and reused.
- 3.4.2 Portable toilets equipped with storage tanks are installed to collect sewage generated by site staff. The sewage collected is disposed by licenced contractors. All site runoff is collected by existing peripheral surface U-channels and diverted to sedimentation tanks for silt removal prior to discharge into public drains. Therefore, no adverse water quality impact arises from the Temporary Asphalt Plant operation is anticipated.

### 3.5 Waste Management

- 3.5.1 General refuse and commercial waste generated are collected by registered waste collectors and disposed at a landfill managed by EPD regularly. Rejected aggregates and treated aggregate fines are disposed of off-site at an appropriate government-managed facility. Chemical waste is collected by licensed collectors. Hence, no adverse impact of waste from the Temporary Asphalt Plant operation was caused previously or is anticipated hereafter.

### 3.6 Land Contamination

- 3.6.1 With reference to 2014 EA Report, no suspected land contaminated were found based on aerial photographs. The 2014 EA Report draws a conclusion that no sources of historical land contamination issues were identified. The conclusion is still considered valid under this Application as there is no change on the land use. Therefore, no land contamination is anticipated within the Application Site.

## **Appendix A**      Letter of Compliance from Planning Department for A/NE-FTA/192



Our ref: 7076703/L27544/AW/MCC/rw

18 June 2021

District Planning Officer/Shu Tin, Tai Po & North  
Shu Tin, Tai Po & North District Planning Office  
13/F Shu Tin Government Offices  
1 Sheung Wo Che Road, Shu Tin  
New Territories, Hong Kong

By Post

Attention: Ms Wendy LEE

Dear Madam

**Renewal of Planning Approval for Temporary Asphalt Plant for a Period of 5 Years at  
Lots 20 RP (Part), 21 and 23 RP (Part) in D.D. 88 and adjoining  
Government Land, East of Man Kam To Road, Sheung Shui  
Compliance of Approval Condition (g) of Approved Planning Application No. A/NE-FTA/192-1)**

Further to the letter of the Town Planning Board dated 1 June 2021 regarding the non-compliance with approval condition (g), we are pleased to enclose herewith the Response to Comment ("RtoC") table and the revised submission of the implementation of the noise mitigation measures for discharging approval condition (g).

The Applicant confirms that noise mitigation measures will be properly and fully implemented to assure that noise standards under Chapter 9 of the *Hong Kong Planning Standards and Guidelines* ("HKPSG") would be complied with.

I, as a corporate member of Hong Kong Institute of Acoustics (membership no: M155), hereby certify that the noise mitigation measures proposed by the Applicant are in line with the mitigation measures recommended and committed in the Further Information ("FI") of the captioned planning application. A figure with photographs for illustration purpose on the implemented noise mitigation measures has been enclosed for reference.

Should you have any queries regarding the above, please do not hesitate to contact the undersigned on 3995 8120.

Yours faithfully



**Antony WONG**  
Technical Director – Water & Environment

Encl.

Ref.	Information Request	Responses
<b>Comments from EPD (Contact Person: Ms Candice CHUNG, Tel: 2835 1114)</b>		
	<ul style="list-style-type: none"> <li>Response-to-Comment Item C – the applicant should state in the submission the surface mass density of the steel case enclosing the air compressor (e.g. whether it is <math>\geq 10\text{kg/m}^2</math>). The door of the steel case should also kept locked. The applicant should also clarify if the air-intake is facing away from nearby noise sensitive receivers.</li> </ul>	<p>The density of steel varies between approx. <math>7,500\text{kg/m}^3</math> and <math>8,000\text{kg/m}^3</math>. Furthermore, according to BD's Code of Practice ("CoP") for the Structural Use of Steel 2011 which can be downloaded from <a href="https://www.bd.gov.hk/doc/en/resources/codes-and-references/code-and-design-manuals/SUOS2011.pdf">https://www.bd.gov.hk/doc/en/resources/codes-and-references/code-and-design-manuals/SUOS2011.pdf</a>, steel density is <math>7,850\text{kg/m}^3</math>. For a conservative approach, the steel density of <math>7,500\text{kg/m}^3</math> is therefore adopted.</p> <p>As advised by the Applicant, the thicknesses of steel case is approx. 2mm. Therefore, the surface density of the steel case is approx. <math>15\text{kg/m}^2</math>. The exact surface density (i.e. <math>15\text{kg/m}^2</math>) and thickness of the steel case (i.e. 2mm) and sound absorptive material (i.e. 25mm) have been provided in the revised submission.</p> <p>The Applicant also confirmed that the door of the steel case are kept locked during operation of the air compressor. Besides, the air-intake of the steel case is facing northeast towards a hill, which is away from the nearby noise sensitive receivers. The relevant information have been also provided in the revised submission.</p>

Item	Machine	Noise Mitigation Measures
1	Exhaust Fan	The exhaust fan is already fully enclosed with four sides and the top.
2	Air Compressor	<p>The air compressor has been enclosed in the steel case with surface density about <math>15\text{kg/m}^2</math> (i.e. 2mm thick steel plate with density of about <math>7,500\text{kg/m}^3</math>) lined with approx. 25mm thick sound absorptive material facing the air compressor. The Applicant confirmed the door of the steel case shall be kept locked during operation of the air compressor. Besides, the air-intake of the steel case is facing northeast towards a hill, which is always from the nearby noise sensitive receivers.</p> <p>Additional noise barrier made of steel plate with surface density about <math>22.5\text{kg/m}^2</math> (i.e. 3mm thick steel plate with density of about <math>7,500\text{kg/m}^3</math>) and 27mm sound absorptive material facing the ground, on the top of the compressor, has been also installed.</p>
3	Rotary Dryer Drum	Screened by a barrier to the west of the drum with surface density of approx. $18\text{kg/m}^2$ (i.e. 6.2mm thick cement pressure plate with density of about $2,300\text{kg/m}^3$ plus 0.5mm thick steel plate with density of about $7,500\text{kg/m}^3$ ) lined with approx. 27mm thick sound absorptive material facing the drum.
4	RAP Processing Machine	The crusher of RAP Processing Machine has been enclosed with four sides and the top made of steel plate with surface density about $22.5\text{kg/m}^2$ (i.e. 3mm thick steel plate with density of about $7,500\text{kg/m}^3$ ) lined with 27mm thick sound absorptive material facing the machine.
5	Screw Conveyor/Slant Belt Conveyor/Belt Conveyor	<p>Due to the operation need for heat dissipation of motors, the proposed noise mitigation measures have been slightly modified as follows:</p> <p>(a) The motors have been enclosed on both sides, the top, the bottom and the front which the enclosures is made of steel plates with surface density about <math>22.5\text{kg/m}^2</math> (i.e. 3mm thick steel plate with density of about <math>7,500\text{kg/m}^3</math>) lined with 27mm thick sound absorptive material facing the motors.</p>
6	Bucket Elevator/Filler Elevator	The elevators have been enclosed by steel plate with surface density about $22.5\text{kg/m}^2$ (i.e. 3mm thick steel plate with density of about $7,500\text{kg/m}^3$ ) lined with 27mm thick sound absorptive material facing the bucket elevator.
7	Mixing Unit	The mixing unit is already fully enclosed by cladding.
8	Bitumen Pump	<p>Due to the operation need for heat dissipation of pump, the proposed noise mitigation measures have been slightly modified as follows:</p> <p>(a) The pump has been enclosed on both sides, the top, the bottom and in front of the opening which the enclosures will be made of steel plates with surface density about <math>22.5\text{kg/m}^2</math> (i.e. 3mm thick steel plate with density of about <math>7,500\text{kg/m}^3</math>) lined with 27mm thick sound absorptive material facing the pump.</p>



Figure 1 – Noise Mitigation Measures (Sheet 1 of 5)

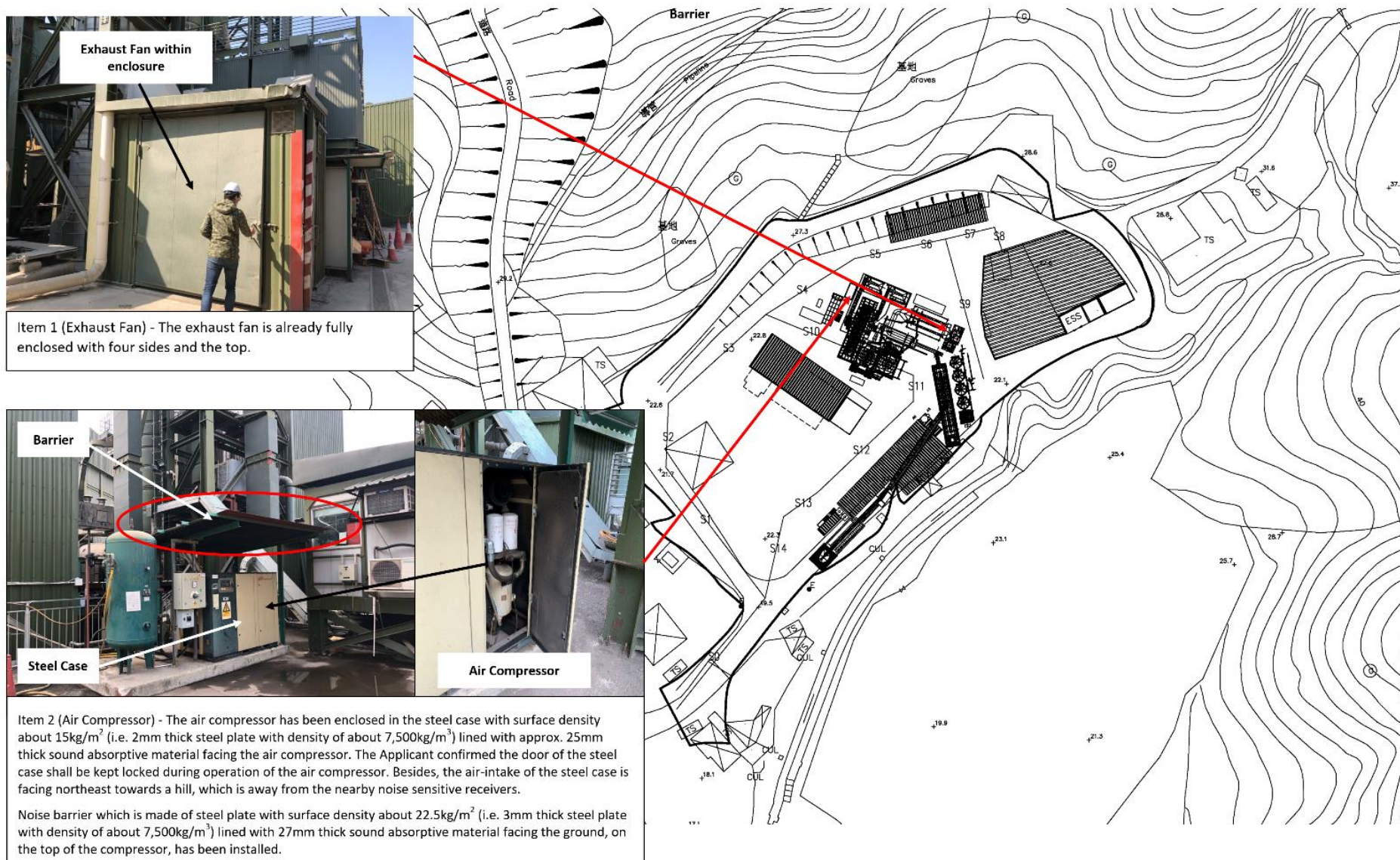




Figure 2 – Noise Mitigation Measures (Sheet 2 of 5)

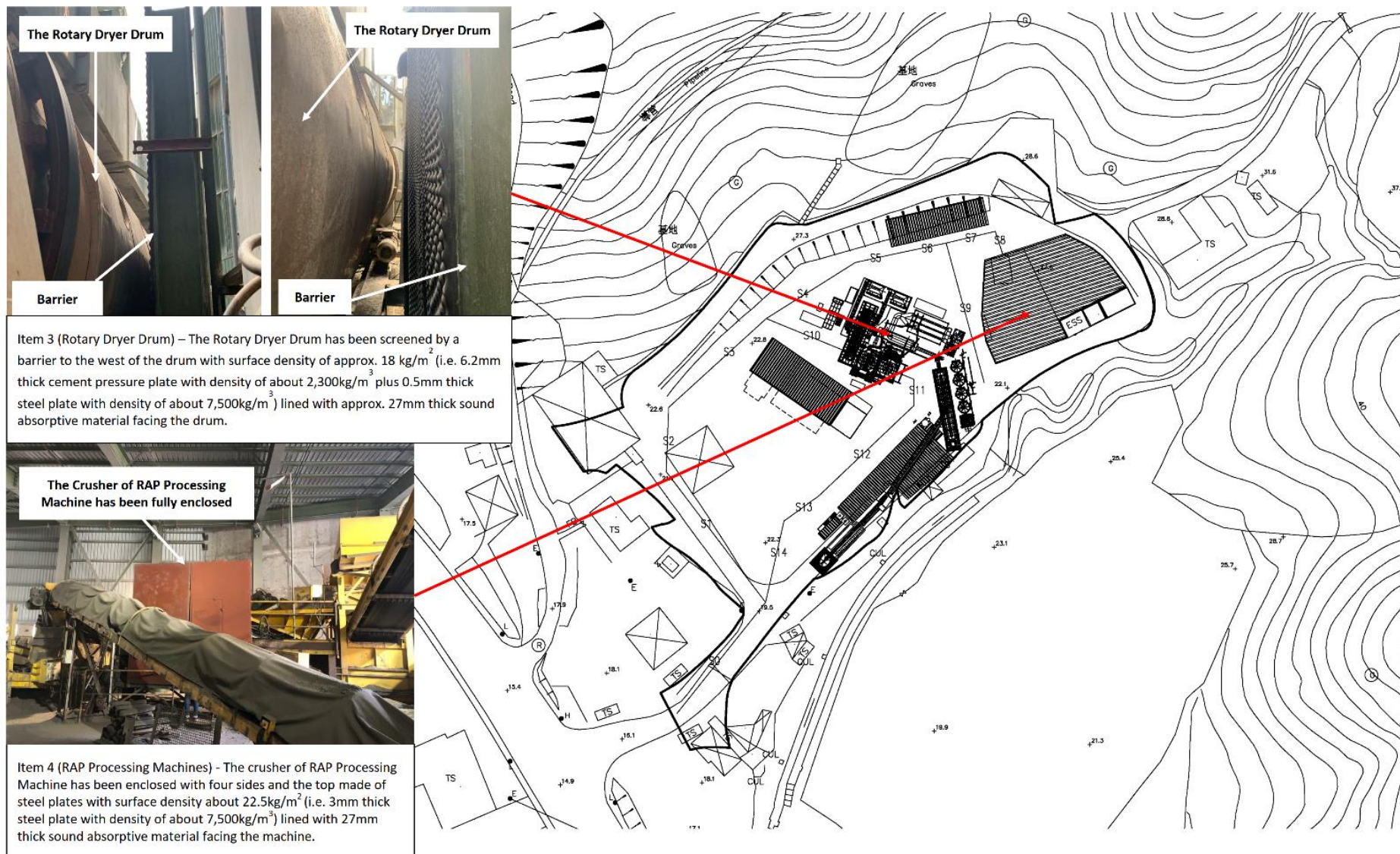




Figure 3 – Noise Mitigation Measures (Sheet 3 of 5)

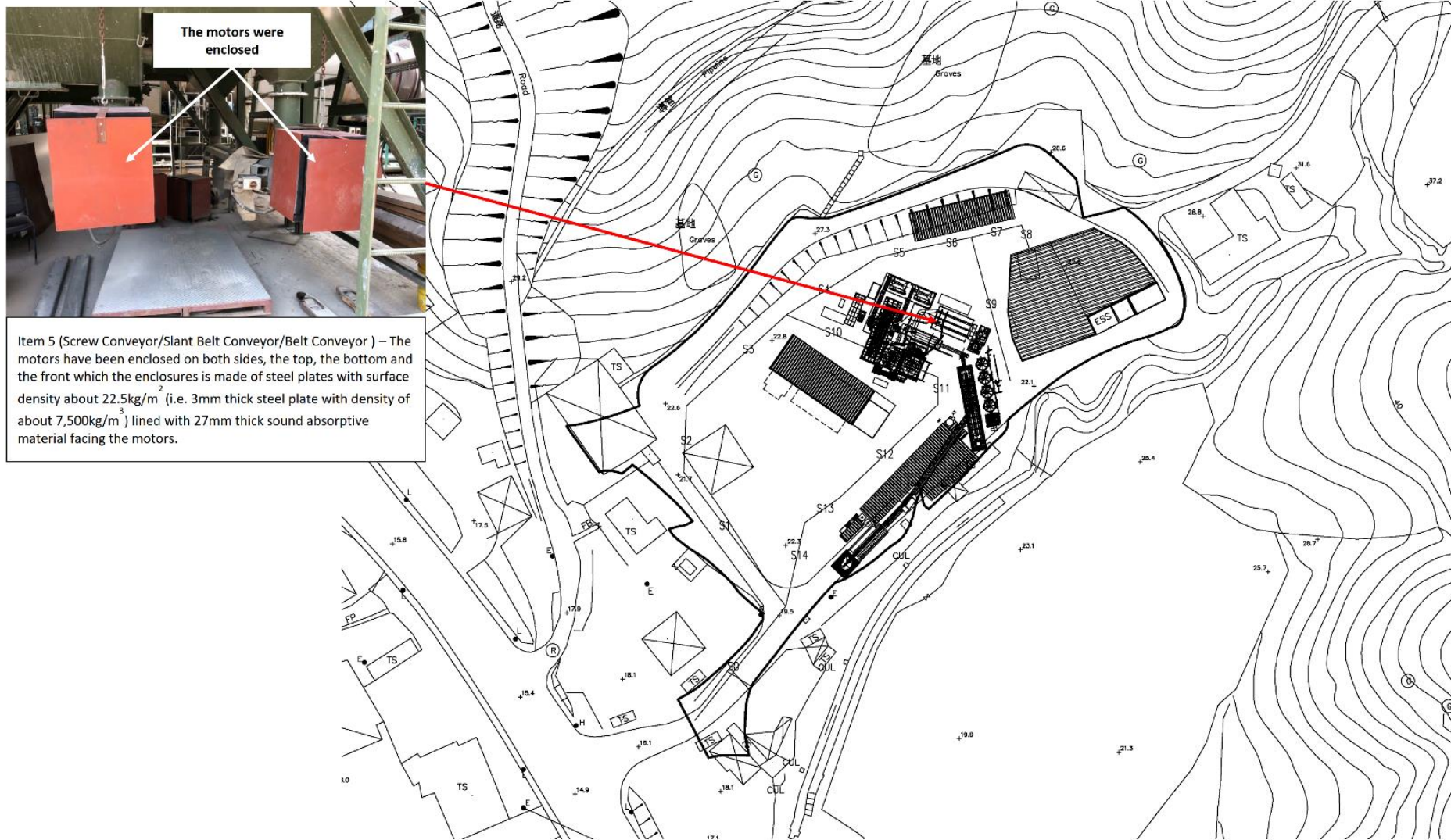




Figure 4 – Noise Mitigation Measures (Sheet 4 of 5)

Item 6 (Bucket Elevator/Filler Elevator) - The elevators have been enclosed by steel plate with surface density about  $22.5\text{kg/m}^2$  (i.e. 3mm thick steel plate with density of about  $7,500\text{kg/m}^3$ ) lined with 27mm thick sound absorptive material facing the bucket elevator.

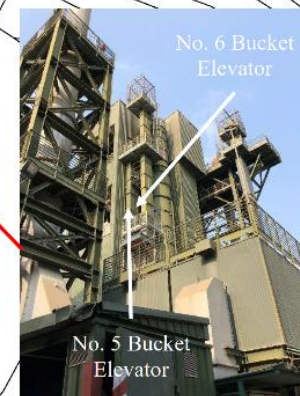
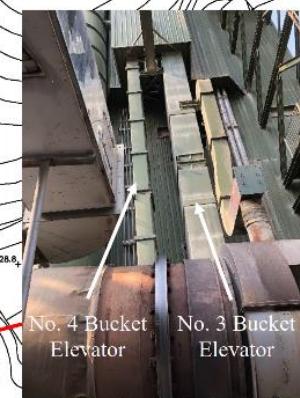
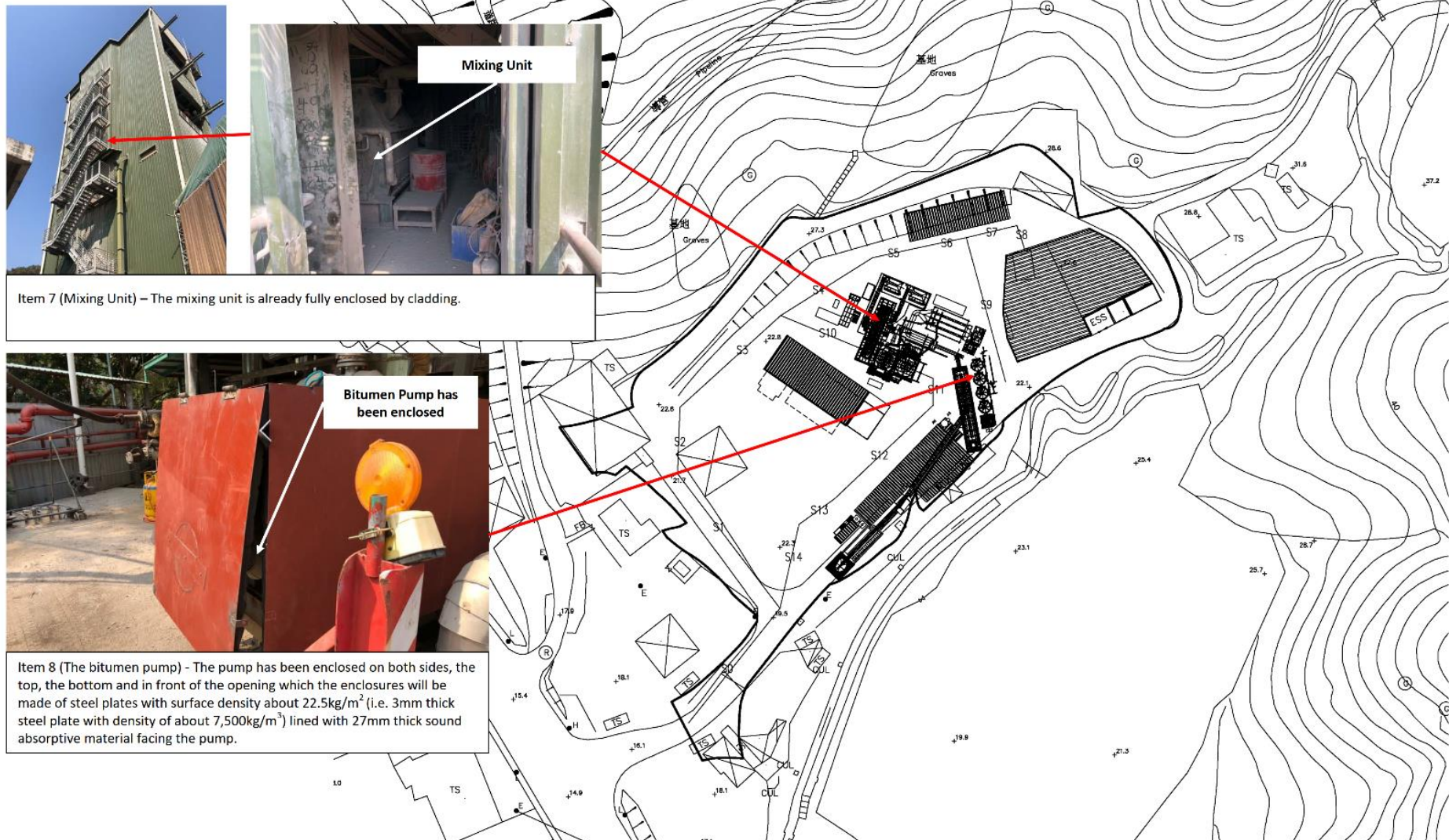




Figure 5 – Noise Mitigation Measures (Sheet 5 of 5)



## 規 劃 署

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## Planning Department

Sha Tin, Tai Po & North District  
Planning Office  
Rooms 1301-1314, 13/F,  
Shatin Government Offices,  
1 Sheung Wo Che Road, Sha Tin,  
N.T., Hong Kong.

本函檔號      Your Reference    ADCL/PLG-10189/L015  
本署檔號      Our Reference    (    ) in TPB/A/NE-FTA/192  
電話號碼      Tel. No. :          2158 6220  
傳真機號碼    Fax No. :          2691 2806 / 2696 2377

Aikon Development Consultancy Limited  
Unit 1310, 13/F, Tower 2 Metroplaza,  
223 Hing Fong Road, Kwai Chung  
New Territories, Hong Kong  
(Attn.: Mr. Thomas LUK)

**By Post and Fax (3180 7611)**

26 July 2021

Dear Mr. LUK,

**Renewal of Planning Approval for Temporary Asphalt Plant for a Period of 5 Years  
in “Open Storage” Zone, Lots 20 RP (Part), 21 and 23 RP (Part) in D.D. 88,  
and adjoining Government Land, East of Man Kam To Road, Sheung Shui**

**(Compliance with Approval Condition (g) for Application No. A/NE-FTA/192)**

I refer to your submission received on 18.6.2021 for compliance with approval condition (g) in relation to the implementation of noise mitigation measures.

Director of Environmental Protection (Contact Person: Ms. Candice CHUNG Tel.: 2835 1114) has been consulted and has no comment on your submission. As such, approval condition (g) is considered complied with.

Should you have any queries, please feel free to contact Ms. Wendy W. L. LEE of this department at 2158 6241.

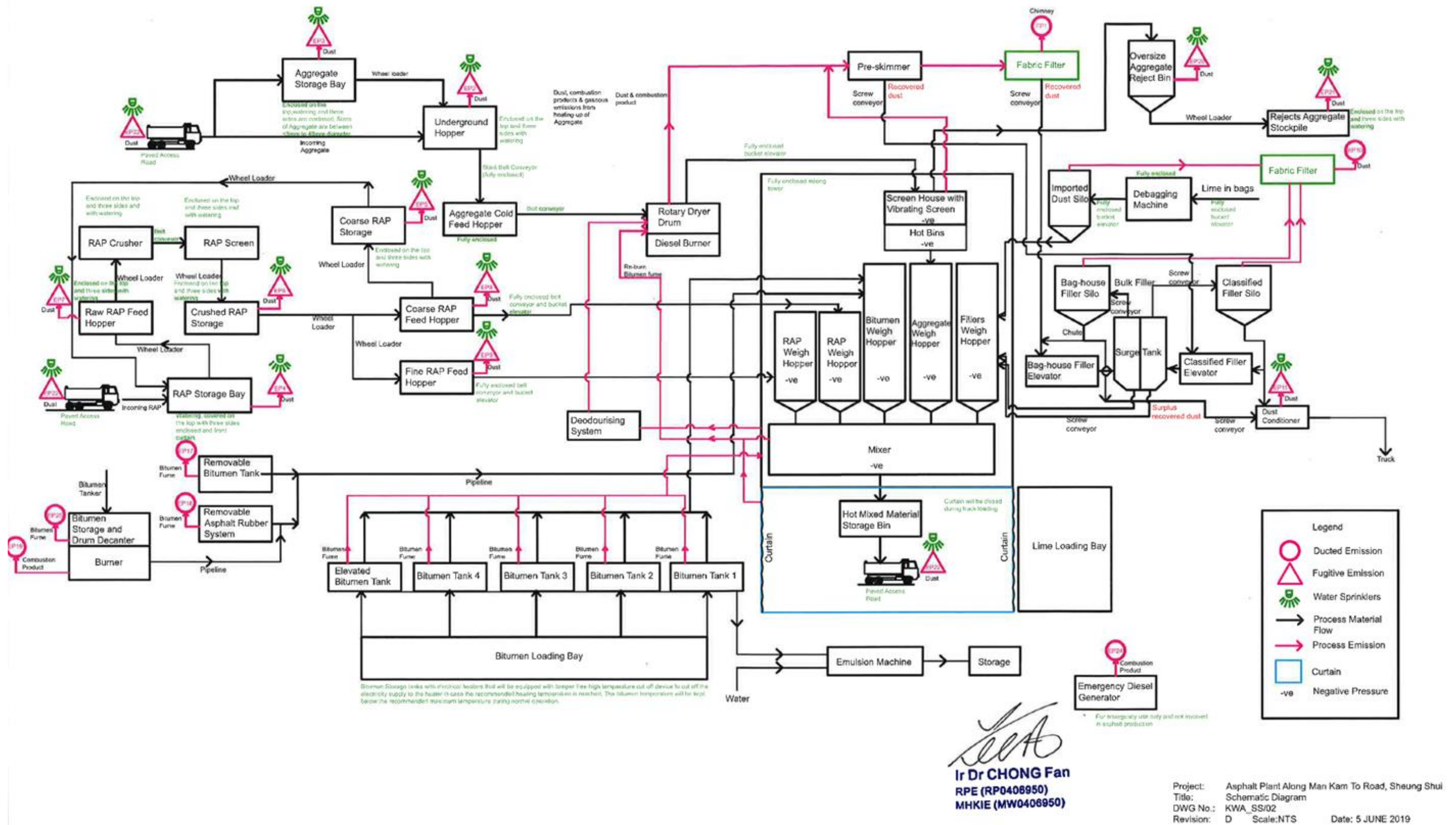
Yours faithfully,

( Ms. Jessica CHU )

for and on behalf of Director of Planning

## **Appendix B**      Schematic Diagram of the Temporary Asphalt Plant





## Appendix 12

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### Drainage Review



**EnviroSolutions & Consulting Ltd**

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Section 16 Planning Application

**Renewal of Planning Application No. A/NE FTA/192 –  
Temporary Asphalt Plant on Man Kam To Road,  
Sheung Shui  
Drainage Review**

Prepared for:  
**K. Wah Asphalt Ltd**

**August 2024**

# Renewal of Planning Application No. A/NE FTA/192 – Temporary Asphalt Plant on Man Kam To Road, Sheung Shui Drainage Review

Prepared for  
**K. Wah Asphalt Ltd**

For and on behalf of  
EnviroSolutions & Consulting

**Alexi BHANJA**  
Group COO

**ESC Project No.** AQN23.1007-J.01  
**Deliverable No.** D03  
**Revision No.** 1.1

## File Location

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Rev.	Description	Prepared	Reviewed	Approved	Date
1.1	Drainage Review	RL/MJW	CYW	AW	Aug 2024

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# 1 INTRODUCTION

## 1.1 Preface

- 1.1.1 EnviroSolutions & Consulting Ltd (“ESC”) has been appointed to prepare this Drainage Review (“DR”) Report in support of a renewal of planning application for Temporary Asphalt Plant (“the Temporary Asphalt Plant”) for a Period of Five Years at Lots 20 RP (Part), 21 and 23 RP (Part) in D.D. 88 and adjoining Government Land, East of Man Kam To Road, Sheung Shui, New Territories (“the Application Site”). The application aims to renew the latest planning permission under Planning Application No. A/NE-FTA/192 from the Town Planning Board (“TPB”) which will expire on 12 December 2024 such that the Applicant can be given opportunity to continue using the Application Site for the Temporary Asphalt Plant with **no change in operation. The Temporary Asphalt Plant under the current application is proposed to maintain existing operation, site configuration and major development parameters.**

## 1.2 Project Background

- 1.2.1 Since early 2010s, demand for asphalt increased because of several mega infrastructure projects such as Hong Kong-Zhuhai-Macao Bridge, Guangzhou-Shenzhen-Hong Kong Express Rail, etc. At that time, there were several temporary asphalt plants in Hong Kong. None of them were located within the Northeast District.
- 1.2.2 In order to ensure stable supply of asphalt, the Temporary Asphalt Plant was proposed to be provided at the Application Site. The history of planning applications is summarised below:
- In 2014, a planning application (no. A/NE-FTA/148) for the Proposed Development was made under Section 16 of the *Town Planning Ordinance* (“TPO”). The planning application was approved with conditions by the TPB on 12 December 2014.
  - An application for fulfilling Approval Condition (b) was submitted on 9 February 2017. On 6 March 2017, the Planning Department (“PlanD”) provided a letter regarding complying with Approval Condition (b) considered by the Drainage Services Department (“DSD”). A copy of the letter is appended to **Appendix A**.
  - After obtaining the aforementioned letter, the Buildings Department (“BD”) approved the Drainage Layout Plan prepared for the Temporary Asphalt Plant on 28 March 2017, which is provided in **Appendix B**. All statutory requirements related to drainage for the Temporary Asphalt Plant including Approval Conditions of Planning Application No. A/NE-FTA/148 were complied with.
  - In 2019, S16 Application (No. A/NE-FTA/192) was made to the TPB to renew planning approval for the Temporary Asphalt Plant for another period of five years. On 18 October 2019, the renewal application was approved for a period from 13 December 2019 to 12 December 2024. Approval Conditions (c) and (d) related to drainage submissions were:

- (c) *The submission of a drainage proposal within 6 months from the date of the commencement of the renewed planning approval to the satisfaction of the Director of Drainage Services or of the TPB by 13.6.2020; and*
- (d) *In relation to (c) above, the implementation of drainage proposal within 9 months from the date of the commencement of the renewed planning approval to the satisfaction of the Director of Drainage Services or of the TPB by 13.9.2020.*
- Thereafter, submissions were made to the TPB for compliance with Approval Conditions (c) and (d). On 27 August 2020, a letter was issued by the PlanD stating that Approval Condition (c) regarding drainage proposal was considered complied with. On 14 December 2020, the other letter from PlanD was issued stating that Approval Condition (d) regarding implementation of drainage proposal was complied with. The copies of the aforementioned two letters are provided in **Appendix C**.

1.2.3 The Applicant has been engaged in various major infrastructure projects, road construction and maintenance works carried out by Highways Department (“HyD”), Drainage Services Department (“DSD”), Civil Engineering and Development Department (“CEDD”), Airport Authority (“AA”) and MTR Corporation (“MTRC”). Those projects included Tseung Kwan O – Lam Tin Tunnel (“TKO-LTT”), The Hong Kong – Zhuhai – Macao Bridge (“HZMB”), Liantang/Heung Yuen Wai Boundary Control Point (“LTHYW BCP”), Central – Wan Chai Bypass, Tuen Mun – Chek Lap Kok Link (“TMCLKL”), Queen’s Hill Development and the North and South Runway Asphalt Resurfacing projects, as well as ongoing road maintenance works for Kowloon West and New Territories West.

1.2.4 The Hong Kong government has been in the forefront in developing the Northern Metropolis and others New Development Areas (“NDAs”). The latest release of the Hong Kong Major Transport Infrastructure Development Blueprint also highlights the government's commitment in building a liveable, competitive and sustainable Hong Kong through **“driving development by transport infrastructure”** by adopting the planning principles of “infrastructure-led” and “capacity-creating”. The road network of Hong Kong would be expanded and with increased capacity, and it is foreseeable that there is a **growing demand for high quality asphalt to materialise the vision**.

1.2.5 As indicated in **Table 1-1**, The Temporary Asphalt Plant is the only asphalt plant located in the North New Territories. To avoid disruption for the supply of asphalt, which would impact infrastructure projects and road works, the Temporary Asphalt Plant operation is essential to be continued.

*Table 1-1 Major Planned Projects in Hong Kong*

PROJECTS	ANTICIPATED COMPLETION
MTR Northern Link - Kwu Tung Station	2027
MTR Tung Chung Line Extension	2029
MTR Tuen Mun South Extension	2030
MTR Hung Shui Kiu Station	2030

PROJECTS	ANTICIPATED COMPLETION
Kwu Tung North and Fanling North New Development Area - Remaining Phase of Site Formation and Engineering Infrastructure Works	2031
Yuen Long South Development - Second Phase Development	2031

1.2.6 In addition, a number of infrastructure projects currently utilising the Temporary Asphalt Plant are ongoing as shown in **Table 1-2** below. Those projects will not be completed within the current approval period expiring on 12 December 2024. Should the Temporary Asphalt Plant have to be ceased operation, it would cause serious disruption in the progress of the involved projects. In order to continue to utilise the Application Site and to ensure the supply of asphalt to support infrastructure projects in the locality and territory, the Applicant seeks to renew the previously approved application No. A/NE-FTA/192 with an expiry date on 12 December 2024.

*Table 1-2 Major Contracts Supported by the Temporary Asphalt Plant*

EMPLOYER	CONTRACT NO.	CONTRACT TITLE	ANTICIPATED COMPLETION
AA	Contract No. 3310	North Runway Modification Works	2025
HyD	12/HY/2019	Highways Department Term Contract (Management and Maintenance of Roads in Kowloon West excluding Expressways and High Speed Roads 2020 – 2026)	2026
HyD	04/HY/2020	Highways Department Term Contract (Management and Maintenance of Roads in Tuen Mun and Yuen Long Districts excluding Expressways and High Speed Roads 2021 – 2026)	2026
HyD	HY/2014/08	Construction of tunnel at Yau Ma Tei, reconstruction of a section of the Gascoigne Road Flyover and reprovisioning of affected public facilities at Yau Ma Tei	2026
HyD	HY/2019/13	Construction of administration building and ventilation buildings, and installation of route-wide electrical and mechanical works	2028
HyD	HY/2020/07	Widening of Castle Peak Road between Kwun Tsing Road and Hoi Wing Road	2025
HyD	HY/2020/08	Flyover from Kwai Tsing Interchange Upramp to Kwai Chung Road	2026
HyD	HY/2021/16	Provision of Universal Accessibility Facilities at Footbridges, Elevated Walkways and Subways Package 5 - Contract 2	2025
DSD	DC/2019/12	Upgrading of West Kowloon and Tsuen Wan Sewerage – Phase 2B	2027

EMPLOYER	CONTRACT NO.	CONTRACT TITLE	ANTICIPATED COMPLETION
DSD	DC/2020/03	Drainage Maintenance and Construction in Hong Kong Island and Islands Districts (2021-2025) And Building and Civil Maintenance and Minor Works to DSD Plants and Facilities (2020-2025)	2025
CEDD	CV/2020/01	Site formation and infrastructure works for public housing developments at Pok Fu Lam South	2027
CEDD	CV/2022/07	Site Formation and Infrastructure Works for Public Housing Developments at Long Bin, Yuen Long	2026
CEDD	ED/2018/04	Trunk Road T2 and Infrastructure Works for Developments at the Former South Apron	2026
CEDD	ND/2019/01	Kwu Tung North New Development Area, Phase 1: Site Formation and Infrastructure Works	2026
CEDD	ND/2019/04	Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section (Shek Wu San Tsuen North to Lung Yeuk Tau)	2026
CEDD	NE/2017/03	Development of Anderson Road Quarry Site - Road Improvement Works and Pedestrian Connectivity Facilities Works Phase 2A	2026
CEDD	NE/2017/05	Widening of Tai Po Road (Sha Tin Section)	2025
CEDD	NL/2020/03	Tung Chung New Town Extension - Major Infrastructure Works in Tung Chung East	2028
CEDD	NL/2020/06	Tung Chung New Town Extension - Site Formation and. Infrastructure Works at Tung Chung Valley, Phase 1	2027
CEDD	YL/2020/06	Site Formation and Infrastructure Works for Public Housing Developments at Kam Tin South, Yuen Long – Phase 1	2026
HK & China Gas Co. Ltd.	N/A	Reinstatement Service (Term Contract 2023 – 2025)	2025
Hongkong International Terminals	N/A	Bituminous Re-surfacing Works at Terminal 4, 6, 7, 8, 9 & Depot S (1+1 Term Contract)	2025

1.2.7 The planning approval under A/NE-FTA/192 for the Temporary Asphalt Plant is set to expire on 12 December 2024. To avoid disruption to ongoing projects, the Applicant is submitting a renewal application seeking planning permission to continue utilising the Application Site while maintaining the same operation. This application aims to

maintain existing operations at the Application Site while ensuring no changes to the nature, operation, or site configuration of the Temporary Asphalt Plant, with no adverse impact induced.

- 1.2.8 Since a drainage proposal and its implementation were already received with no comment as mentioned in **paragraph 1.2.2**, the current drainage system of the Temporary Asphalt Plant should be reviewed and improvement for the drainage system, if necessary, should be recommended.

### 1.3 Site Description

- 1.3.1 The Application Site is located to the east of Man Kam To road and to the north of Hung Kiu San Tsuen as shown in **Figure 1-1**. The Master Layout Plan of the Temporary Asphalt Plant are provided in **Figure 1-2**.

- 1.3.2 Based on the Application Site observation on 11 July 2024, the environs of the Application Site remain the same as those observed in 2019/20, including:

- Some public roads providing access to the metal workshop adjacent to the north of the Application Site surrounding and partially lying within the Application Site.
- A metal workshop locating on the hillside to the northeast of the Application Site.
- A piece of land reserved for developing Poultry Slaughtering Centre but shelved in 2010 located to the southeast of the Application Site.
- Several car repair workshops located to the south and southwest of the Application Site.
- Some other workshops and open storage sites located to the further southwest, across Man Kam To Road.
- Some open storage sites located to the west and northwest.

### 1.4 Project Description

- 1.4.1 Under the current application, it is proposed to continue utilising the Application Site for the Temporary Asphalt Plant. **As compared with the last approved scheme, there is no change in the nature, and no change to the Application Site configuration, building bulk, site area, form, and major development parameters of the approved Plant, and the Application Site remains unchanged when compared to the previous application.** The Application Site configuration and layout are identical to the approved scheme.

- 1.4.2 There is **no change** in the asphalt production process and operation. The main product of the Temporary Asphalt Plant is Hot Mix Asphalt (“HMA”) consisting of aggregates blended with bitumen. The usage of HMA is mainly for road paving and airport runway. The maximum HMA production rate of the Temporary Asphalt Plant is 160 tonnes/hour using a batch mix production mode with a small quantity of asphalt emulsion is also produced. Since road and airport runway maintenance works are mainly carried out between midnight and early morning, the Temporary



Asphalt Plant must be operated for 24 hours/day. In response to Environmental Protection Department (“EPD”)’s control of “Land Filling and Fly-tipping” policy, up to 85,000 tonnes of Reclaimed Asphalt Pavement (“RAP”) per year are consumed in the asphalt production

- 1.4.3 There will be **no change** to the building bulk, site area, form, and major development parameters of the Temporary Asphalt Plant after obtaining the approval with conditions from TPB on 12 December 2019 as mentioned in **paragraph 1.2.2**.

## **1.5 Objectives of the Report**

- 1.5.1 The objectives of this Drainage Review are to:

- Review the existing drainage system within the Application Site with reference to the drainage proposal and its implementation accepted in 2020 as mentioned in **paragraph 1.2.2**.
- Review the existing drainage condition and recommend measures if necessary.

Figure 1-1 Site Boundary and Locations

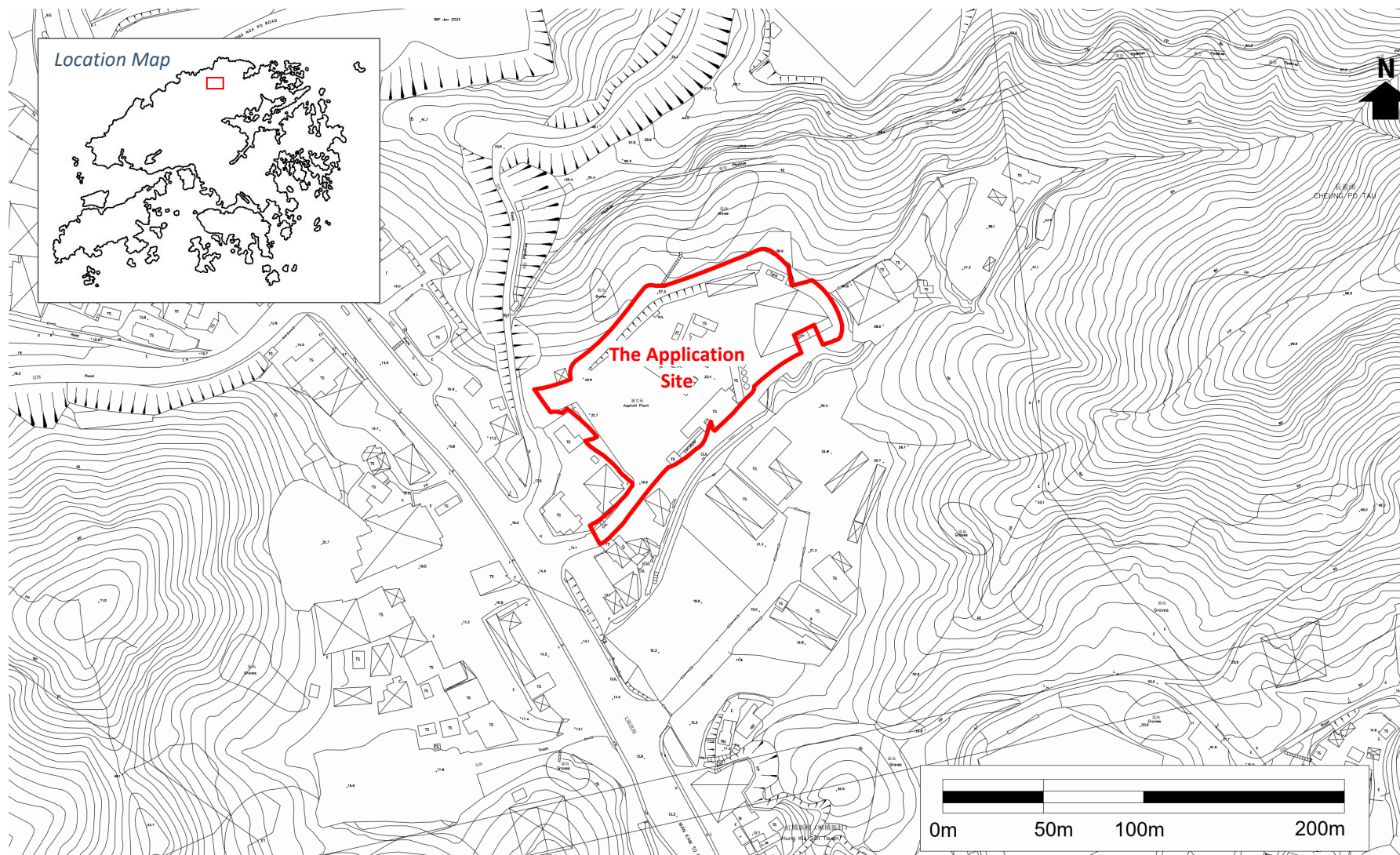
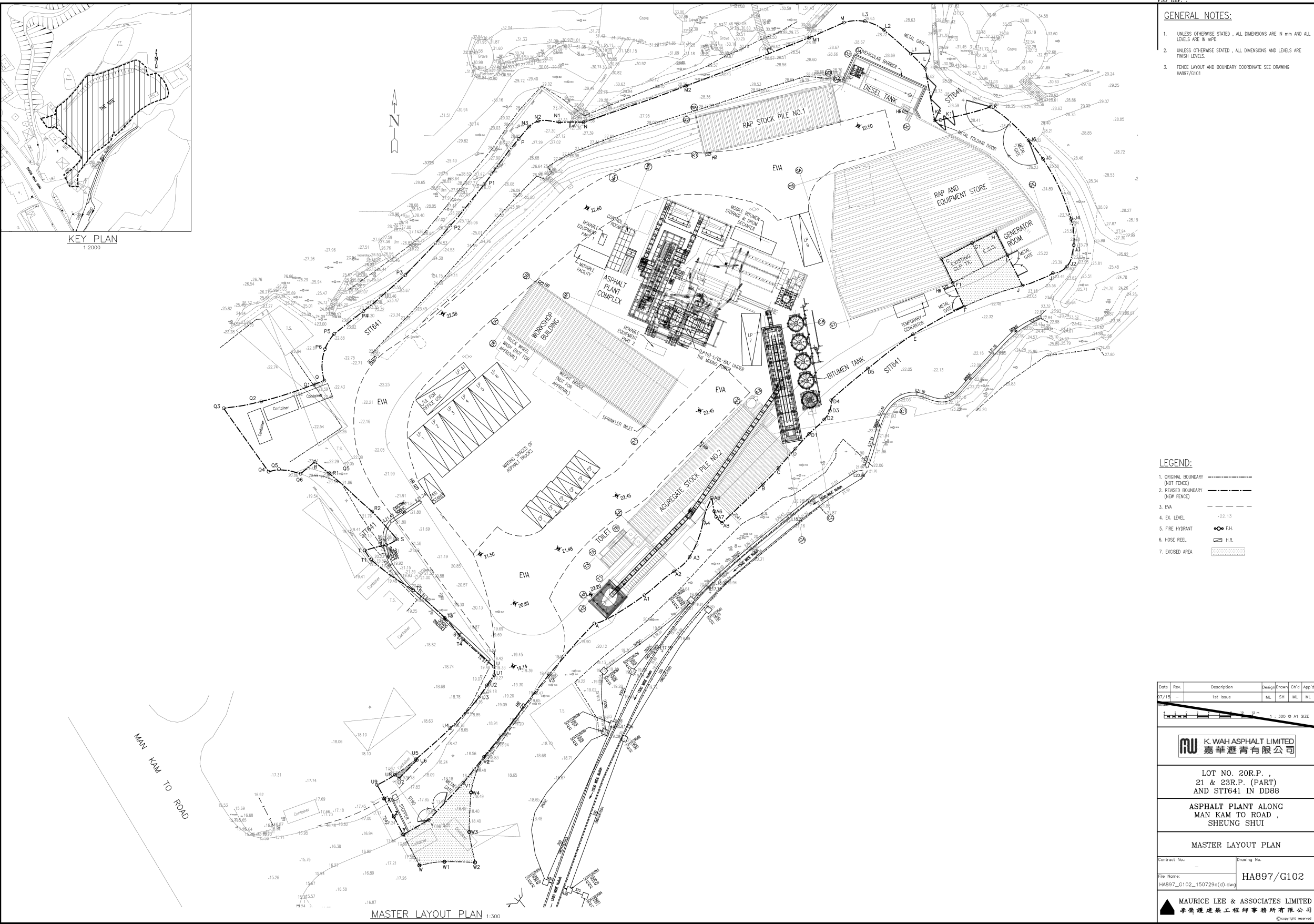


Figure 1-2 Master Layout Plan





## 2 REVIEW OF EXISTING DRAINAGE AND ENVIRONMENT

### 2.1 Existing Conditions

- 2.1.1 A Site visit was carried out on 11 July 2024 to review the current situation of the drainage system within the Application Site. Based on the Application Site observations, the drainage system was already in place within the Application Site, the same as that shown in the drainage proposal accepted in 2020 as mentioned in **paragraph 1.2.2**.
- 2.1.2 Surface runoff could be discharged into the stormwater drainage system outside the Application Site as reported in the implementation of drainage proposal accepted in 2020.

### 2.2 Drainage Review

- 2.2.1 As mentioned in **paragraph 1.2.2**, the Drainage Layout Plan shown in **Figure B-1** of **Appendix B** was approved by BD on 28 March 2017. For ease of reference, a simplified Drainage Layout Plan showing the drainage data which is extracted from the drainage proposal received no comment from DSD on 27 August 2020 is shown in **Figure B-2** of **Appendix B**. The letters showing no comment on the drainage proposal on 27 August 2020 and acceptance for the implementation of drainage proposal on 14 December 2020 are enclosed in **Appendix C**.
- 2.2.2 Based on the Drainage Layout Plan, the existing drainage system within the Application Site was observed on 11 July 2024 to be the same as the approved Drainage Layout Plan.
- 2.2.3 Surface runoff from the Application Site is collected by the existing on-site drainage system and discharged to the following locations:
- A discharge point located to the southwest of the Application Site connected to a 1.5m wide open channel.
  - Two discharge points located to the south of the Application Site connected to a 1.5m wide open channel.
  - A discharge point located to the southeast of the Application Site connected to a 580mm wide U-channel, which further connected to the downstream 1.5m wide open channel.
- 2.2.4 In addition, two 200mm U-channels at the Application Site entrance on the EVA are provided to prevent water from overflowing via the EVA and Site entrance onto Man Kam To Road. A pump is provided to carry the water from the EVA and discharge it into the 1.5m open channel.
- 2.2.5 Site area of the Temporary Asphalt Plant will remain the same. Hence, there will be no increase in surface runoff for this Planning Application.

2.2.6 As mentioned above, there is no difference between the existing drainage system and the approved Drainage Layout Plan based on the Application Site observations on 11 July 2024. The drainage system was observed to be properly maintained.

2.2.7 The drains are properly maintained without any blockage. The Application Site paving conditions are good. These observations can be referred to the photographs provided in **Figure B-3** of **Appendix B**.

## 2.3 Recommendations

2.3.1 Though no modification to the existing drainage system within the Application Site is and will be made, it is recommended that the on-site drainage system is continued to be visually inspected and maintained regularly to make sure the drains will not be blocked.



### 3 CONCLUSION

- 3.1.1 The existing Temporary Asphalt Plant has been in operation since 2017 after obtaining the approval with conditions from TPB for Planning Application No. A/NE-FTA/148 in 2014 and approval with conditions from TPB for Planning Renewal Application No. A/NE-FTA/192 in 2019. This Planning Application aims to renew the latest planning permission under Planning Application No. A/NE-FTA/192 from TPB which will expire on 12 December 2024 such that the Applicant can be given opportunity to continue using the Application Site for the Temporary Asphalt Plant. Considering the Temporary Asphalt Plant supplies asphalt for major infrastructure projects, airport runway and road maintenance works, it is necessary to keep the Temporary Asphalt Plant operation to avoid any disruption in the progress of the involved projects. In the light of this reason, the Applicant would like to apply for the Temporary Asphalt Plant operation for the other five years by submitting a planning application under Section 16 of TPO.
- 3.1.2 This Drainage Review is prepared to support the Renewal Planning Application.
- 3.1.3 The existing drainage system within the Application Site was observed on 11 July 2024 to be the same as the Drainage Layout Plan approved by BD on 28 March 2017 and is with the same as the findings reported in the drainage proposal received with no comment from DSD on 27 August 2020, as mentioned in **paragraph 1.2.2**.
- 3.1.4 Since the Temporary Asphalt Plant operation in 2017, no flooding due to the Temporary Asphalt Plant during inclement weathers including Super Typhoon Hato in August 2017, Super Typhoon Mangkhut in 2018, extreme rainfall in September 2023, etc., has been caused.
- 3.1.5 On this basis, and with the on-site drains maintained properly, no adverse drainage impact is anticipated due to the Temporary Asphalt Plant.
- 3.1.6 The Applicant will continue to carry out routine inspection and maintenance of on-site drainage system to avoid blockage, as described in **Section 2.3**.

## **Appendix A**      Letter of Compliance from Planning Department for A/NE-FTA/148

07-MAR-2017 11:04 FROM

TO 25216631

P.001

規 劃 署

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新界沙田上禾輦路1號  
沙田政府合署13樓



Planning Department

Sha Tin, Tai Po & North  
District Planning Office  
13/F, Sha Tin Government Offices,  
1 Sheung Wo Che Road, Sha Tin, N.T.

本函檔號 Your Reference: MKRNT/DEL/62

本署檔號 Our Reference: ( ) in TPB/A/NE-FTA/148

電話號碼 Tel. No.: 2158 6220

傳真機號碼 Fax No.: 2691 2806 / 2696 2377

MKRNT	
7.3.17	
Initial	Date
C7	
21	
Project File:	
Fin File:	
• Contract	
• Con/Neg	
• Billing	
• Sub. Con.	

By Post and Fax (25216631)  
6 March 2017

Townland Consultants Limited  
18<sup>th</sup> Floor, 101 King's Road,  
North Point, Hong Kong  
(Attn.: Ms. Cindy Tsang)

Dear Ms. Tsang,

**Proposed Temporary Asphalt Plant for a Period of 5 Years  
in "Open Storage" zone, Lots 20RP, 21 and 23 RP(Part) in D.D. 88  
and adjoining Government Land to the East of Man Kam To Road, Sheung Shui**

**(Compliance with Approval Condition (b) for Applications No. A/NE-FTA/148 and 148-2)**

I refer to your letter dated 9.2.2017 for compliance with approval condition (b) in relation to the provision of drainage facilities at the captioned site, the planning permission of which was granted by the Rural and New Town Planning Committee (RNTPC) of the TPB on 12.12.2014 under Application No. A/NE-FTA/148. Subsequently, the applicant applied under section 16A(2) of the Town Planning Ordinance for Class B amendment to the planning permission under Application No. A/NE-FTA/148-2 which was approved with conditions by the RNTPC of the TPB on 23.10.2015.

The Chief Engineer/Mainland North, Drainage Service Department (Contact person: Mr. Leslie S.Y. Lau; Tel.: 2300 1135) has been consulted on your submission. He has conducted site inspection on 24.2.2017 and considers the approval condition (b) has been complied with.

Should you have any queries, please feel free to contact Ms. Cindy K.F. WONG of this department at 2158 6241.

Yours faithfully,

  
(Ms Jessica Chu)  
for and on behalf of  
Director of Planning

我們的理想 - 「透過規劃工作,使香港成為世界知名的國際都市。」  
Our Vision - "We plan to make Hong Kong an international city of world prominence."



07-MAR-2017 11:21

98%

P.01

07-MAR-2017 11:04 FROM

TO 25216631

P.002

- 2 -

C.C.

CE/MN, DSD (Attn: Mr Leslie S. Y. Lau)

Internal

CTP/TPB(1)

Site record

JC/CW/cw

07-MAR-2017 11:21

97%

TOTAL P.002  
P.02

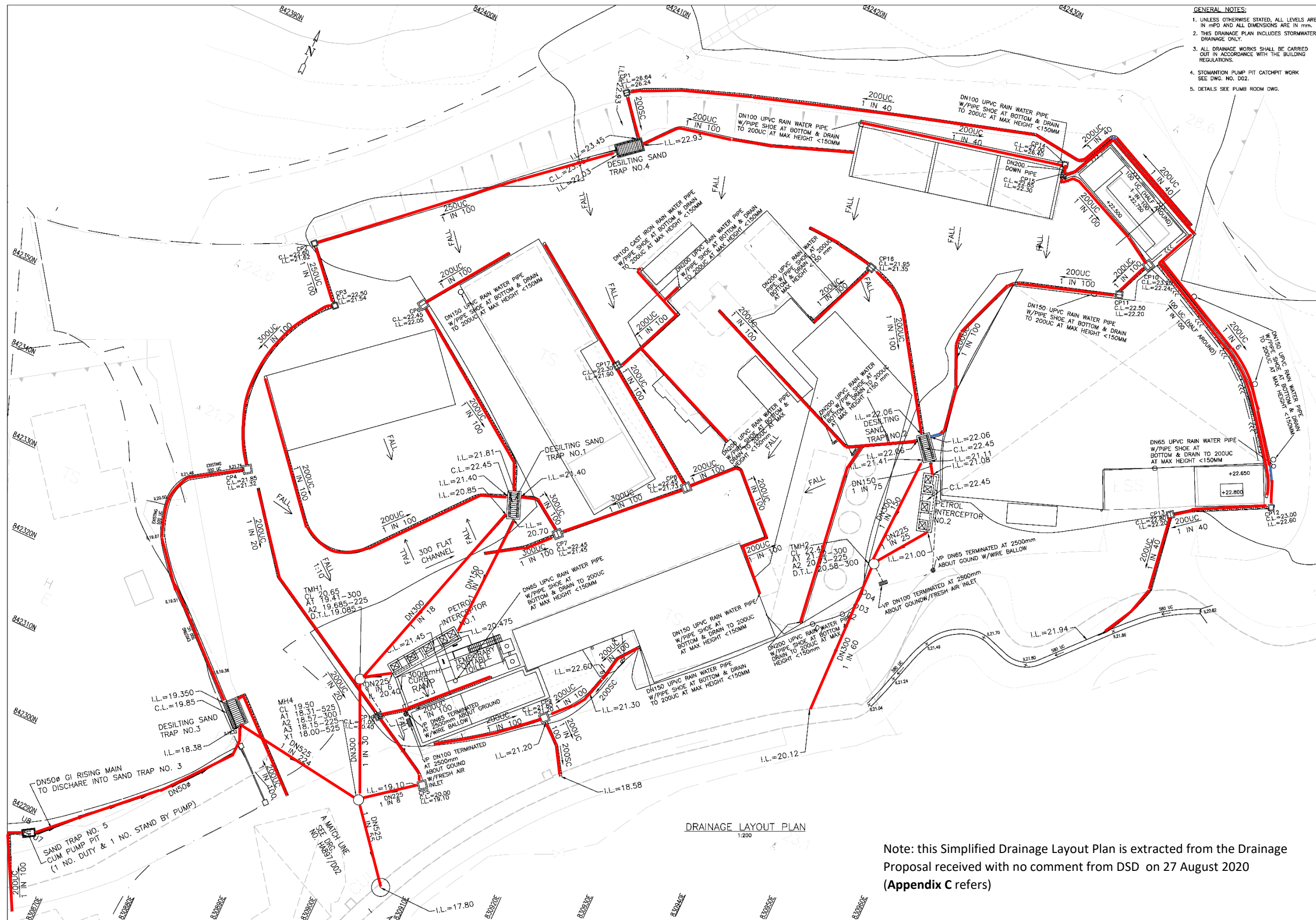
## **Appendix B**      Approved Drainage Layout Plan



[illegible]



Figure B-2 Simplified Drainage Layout Plan









## **Appendix C**      Letters from Planning Department for A/NE-FTA/192

## 規 劃 署

沙田、大埔及北區規劃處  
香港新界沙田上禾輦路一號  
沙田政府合署  
十三樓 1301-1314 室



## Planning Department

Sha Tin, Tai Po & North District  
Planning Office  
Rooms 1301-1314, 13/F,  
Shatin Government Offices,  
1 Sheung Wo Che Road, Sha Tin,  
N.T., Hong Kong.

本函檔號 Your Reference ADCL/PLG-10189/L005  
本署檔號 Our Reference ( ) in TPB/A/NE-FTA/192  
電話號碼 Tel. No.: 2158 6220  
傳真機號碼 Fax No.: 2691 2806 / 2696 2377

Aikon Development Consultancy Limited  
Unit 1310, 13/F, Tower 2 Metroplaza,  
223 Hing Fong Road, Kwai Chung  
New Territories, Hong Kong  
(Attn.: Mr. Thomas LUK)

**By Post and Fax (3180 7611)**

27 August 2020

Dear Mr. LUK,

**Renewal of Planning Approval for Temporary Asphalt Plant for a Period of 5 Years  
in “Open Storage” Zone, Lots 20 RP (Part), 21 and 23 RP (Part) in D.D. 88,  
and adjoining Government Land, East of Man Kam To Road, New Territories**

**(Compliance with Approval Conditions (c) and (g) for Application No. A/NE-FTA/192)**

I refer to your submission received on 31.7.2020 for compliance with approval conditions (c) and (g) in relation to the submission of drainage proposal and implementation of noise mitigation measures under the captioned application.

Chief Engineer/Mainland North, Drainage Services Department (Contact Person: Mr. Henry W. C. YU; Tel.: 2300 1407) has been consulted and has no comment on the submission. As such, approval condition (c) is considered complied with. His advisory comments are attached at **Appendix I**.

Please proceed to implement the accepted drainage proposal for compliance with approval condition (d). In order to facilitate compliance checking, you are required to provide a set of completion photo records with viewpoints indicated on the accepted proposals for inspection.

*Note: the paragraph of this letter and Appendix II were related to comments from the other department for the other non-drainage aspect which was discharged on 26 July 2021. To avoid misunderstanding, this paragraph is hidden and Appendix II regarding the other aspect of this letter is not attached.*

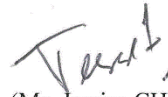
我們的理想 - 「透過規劃工作,使香港成為世界知名的國際都市。」  
Our Vision - “We plan to make Hong Kong an international city of world prominence.”





Should you have any queries, please feel free to contact Ms. Wendy W. L. LEE of this department at 2158 6241.

Yours faithfully,

A handwritten signature in black ink, appearing to read "Jessica Chu", is written over the printed name.

(Ms. Jessica CHU)  
for and on behalf of  
Director of Planning

## Appendix I

Comments of the Chief Engineer/Mainland North, Drainage Services Department (Contact Person:  
Mr. Henry YU; Tel.: 2300 1407):

- (a) the “existing nullah” to which the applicant proposed to discharge the storm water from the subject site is maintained by DSD. The applicant should clear the silting, debris and fallen leaves in their proposed drainage system regularly such that no debris, silting and fallen leaves will be washed down to DSD's stormwater drainage system in the downstream;
- (b) the applicant is required to construct and maintain the proposed drainage works properly and rectify the drainage systems if they are found to be inadequate or ineffective during operation. The applicant shall also be liable for and shall indemnify claims and demands arising out of damage or nuisance caused by a failure of the systems. For works undertaken outside the lot boundary, prior consent and agreement from DLO/N and/or relevant private lot owners should be sought;
- (c) the applicant is reminded that all existing flow paths as well as the run-off falling onto and passing through the site should be intercepted and disposed of via proper discharge points. The applicant shall also ensure that no works, including any site formation works, shall be carried out as may adversely interfere with the free flow condition of the existing drain, channels and watercourses on or in the vicinity of the subject site any time during or after the works;
- (d) the lot owner / developer shall take all precautionary measures to prevent any disturbance, damage and pollution from the development to any parts of the existing drainage facilities in the vicinity of the lots. In the event of any damage to the existing drainage facilities, the developer shall be held responsible for the cost of all necessary repair works, compensation and any other consequences arising there from; and
- (e) the applicant shall allow all time free access for the Government and its agent to conduct site inspection on his completed drainage works, if necessary.

## 規 劃 署

沙田、大埔及北區規劃處  
新界沙田上禾輦路 1 號  
沙田政府合署 13 樓



## Planning Department

Sha Tin, Tai Po & North  
District Planning Office  
13/F, Shatin Government Offices,  
1 Sheung Wo Che Road, Sha Tin,  
N.T.

本函檔號 Your Reference : ADCL/PLG-10189/L009  
本署檔號 Our Reference : ( ) in TPB/A/NE-FTA/192  
電話號碼 Tel. No. : 2158 6220  
傳真機號碼 Fax No. : 2691 2806 / 2696 2377

**By Post and Fax (3180 7611)**

Aikon Development Consultancy Limited  
Unit 1310, Level 13  
Tower 2 Metroplaza  
223 Hing Fong Road  
Kwai Chung, New Territories  
(Attn.: Mr. Thomas LUK)

14 December 2020

Dear Mr. LUK,

**Renewal of Planning Approval for Temporary Asphalt Plant for a Period of 5 Years  
in “Open Storage” Zone, Lots 20 RP (Part), 21 and 23 RP (Part) in D.D. 88  
and adjoining Government Land, East of Man Kam To Road, Sheung Shui**

**(Compliance with Approval Condition (d) for Application No. A/NE-FTA/192)**

I refer to your submission dated 19.11.2020 for compliance with approval condition (d) in relation to the implementation of drainage proposal under the captioned planning application.

Chief Engineer/Mainland North, Drainage Services Department (Contact person: Mr. Henry YU; Tel. No.: 2300 1407) has been consulted and advised that the implementation of drainage facilities on site was acceptable. As such, approval condition (d) is considered complied with. His advisory comments are attached at **Appendix I**.

Should you have any queries, please feel free to contact Ms. Wendy W. L. LEE of this department at 2158 6241.

Yours faithfully,



( Ms. Jessica CHU )  
for and on behalf of  
Director of Planning

我們的理想 – 「透過規劃工作，使香港成為世界知名的國際都市。」  
Our Vision – “We plan to make Hong Kong an international city of world prominence.”



- 2 -

## Appendix I

Comments of the Chief Engineer/Mainland North, Drainage Services Department  
(Contact Person: Mr. Henry YU; Tel. No.: 2300 1407):

- (a) the applicant is reminded that the development and the drainage facilities implemented on site shall not obstruct overland flow/surface runoff and any existing drainage facilities; and
- (b) the applicant shall make sure that rain water falling onto the subject site shall be collected by a drainage system and conveyed to a proper discharge point(s). The applicant shall maintain such system properly and rectify the system if it is found to be inadequate or ineffective during operation at his own cost. The applicant shall also be liable for and shall indemnify Government against claims and demands arising out of damage or nuisance caused by a failure of the system.

Date : 2<sup>nd</sup> October, 2024  
Your Ref. : TPB/A/NE-FTA/254  
Our Ref. : ADCL/PLG-10290/L002

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

**By Email**

Dear Sir/Madam,

**Re: Section 16 Planning Application for Temporary Asphalt Plant for a Period of Five Years at Lots 20 RP (Part), 21 and 23 RP (Part) in D.D. 88 and adjoining Government Land, East of Man Kam To Road, Sheung Shui, New Territories (Renewal of Planning Application No. A/NE-FTA/192)**  
**Planning Application No. A/NE-FTA/254**

We refer to our submission dated 27.8.2024 (Ref.: ADCL/PLG-10290/L001), we would like to provide the following items to facilitate considerations by the Director of Fire Services or the TPB: -

- i. Full set of valid FS251 covering all the FSIs implemented on the application site; and
- ii. Undertaking to confirm there is no change in the layout and proposed uses as compared with the previous application.

Thank you for your kind attention and should you have any queries, please do not hesitate to contact our Dr. Thomas LUK / Ms. Isa YUEN at [REDACTED].

Yours faithfully,  
Aikon Development Consultancy Limited



Encl.  
c.c. Client





嘉華瀝青有限公司

K. WAH ASPHALT LIMITED (Asphalt and Road Marking Specialist)

嘉華集團成員 A member of K. Wah Group

Ref: KWCM/KWA/TL/20240930

Date: 30 September 2024

**Planning Department**

Dear Sirs,

**Re: Section 16 Renewal of Planning Approval for Temporary Asphalt Plant for a Period of Five Years at Lots 20RP (Part), 21 and 23 RP (Part) in D.D. 88 and Adjoining Government Land, East of Man Kam To Road, Sheung Shui, New Territories [Planning Application No.: A/NE-FTA/254]**

We would like to confirm that there is no change in the layout of the captioned plant, proposed uses, production process and operation, as compared with the previous approved Planning Application, No. A/NE-FTA/192. Also, the plant has been well maintained and operated during the planning permission period.

The full set of FS251 certificates for the plant, valid until 9 April 2025, together with the declaration letter of the registered contractor are enclosed for your information.

If you have any queries, please do not hesitate to contact the undersigned at [REDACTED].

Yours faithfully,

For and on behalf of  
K. Wah Asphalt Limited

Teresa Lai  
General Manager

Attachment: Letter from Tung Lick Fire Engineering Co.

香港九龍灣宏光道39號宏天廣場9樓912室

Suite No. 912, 9/F., Skyline Tower, 39 Wang Kwong Road, Kowloon Bay, Hong Kong

電話 Tel: (852) 2173 6688 (總辦事處 Head Office) / (852) 2325 0115 (廠房 Site Office)

傳真 Fax: (852) 2808 0183 (總辦事處 Head Office) / (852) 2352 3296 (廠房 Site Office)

網址 Website : <http://www.kwcm.com>



商界減碳建未來  
CarbonSmart



# 通力消防工程公司 TUNG LICK FIRE ENGINEERING CO.

九龍長沙灣永康街 29-33 號兆威工業大廈 9/F 4 號  
Unit 4, 9/F., Siu Wai Industrial Centre, 29-33 Wing Hong Street, Kln.

Tel: 2745 7923 Fax: 2744 6300

email: info@tunglick.com.hk web: www.tunglick.com.hk

**HKFSD REGISTERED FIRE SERVICE INSTALLATION CONTRACTOR**

香港  
消防事務處  
註冊  
承接一切  
消防設備  
經銷各國  
滅火器材

Ref: KW-PD-001

Date: 30 September, 2024

## Planning Department

Dear Sirs

**Re: Asphalt Plant at Lots 20RP(Part), 21 and 23 RP(Part) in D.D.88 and adjoining Government Land, East of Man Kam To Road, Sheung Shui, New Territories**


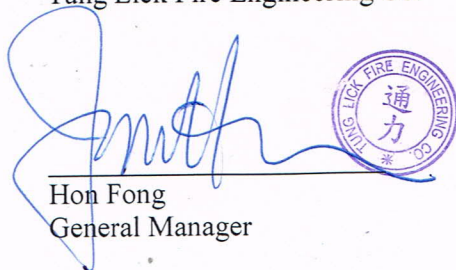
We would like to verify that we carried out inspections for the fire service installation and equipment mentioned in the following FS251 Certificates on the captioned site on 10 April 2024.

We also enclosed the FS251 Certificates, A9315928, A9386799, A9386800 and A9386837, which are valid until 9 April 2025, for your information.

If you have any queries, please do not hesitate to contact the undersigned at [REDACTED]

Yours faithfully,

For and on behalf of  
Tung Lick Fire Engineering Co.



Hon Fong  
General Manager

Attachment: FSIs – 4 certificates

## FIRE SERVICE (INSTALLATIONS AND EQUIPMENT) REGULATIONS

FSD Ref.:

消防處檔號

消防 (裝置及設備) 規例

(Regulation 9(1))

(第九條(1)款)

A 9315928

## CERTIFICATE OF FIRE SERVICE INSTALLATION AND EQUIPMENT

消防裝置及設備證書

Name of Client:

顧客姓名

K. Wah Asphalt Limited

Name of Building:

樓宇名稱

Asphalt Plant along Man Kam To Road

Street No./Town Lot:

門牌號數/市地段

Lots 20RP(Part), 21 and  
23RP(Part) in D.D.88

Street/Road/Estate Name:

街道/屋苑名稱

Man Kam To Road

Block:

座

District:

分區

Sheung Shui

Area:

地區

☐ HK

香港

☐ K

九龍

☐ NT

新界

Type of Building 樓宇類型:

☐ Industrial 工業☐ Commercial 商業☐ Domestic 住宅☐ Composite 綜合☐ Licensed premises 持牌處所☐ Institutional 社團Part 1 Annual Inspection ONLY  
第一部 只適用於年檢事項

In accordance with Regulation 8(b) of Fire Service (Installations and Equipment) Regulations, the owner of any fire service installation or equipment which is installed in any premises shall have such fire service installation or equipment inspected by a registered contractor at least once in every 12 months. 根據消防(裝置及設備)規例第八條(b)款, 擁有裝置在任何處所內的任何消防裝置或設備的人, 須每12個月由一名註冊承辦商檢查該等消防裝置或設備至少一次。

Code 編碼 (1-35)	Type of FSI 裝置類型	Location(s) 位置	Comment on Condition 狀況評述	Completion Date 完成日期(DD/MM/YY)	Next Due Date 下次到期日(DD/MM/YY)
10	Emergency Generator	G/F	Conforms with FSD requirements	10/04/2024	09/04/2025
11	Emergency Lighting	G/F, 1/F	Conforms with FSD requirements	10/04/2024	09/04/2025
16	FH/HR System	G/F	Conforms with FSD requirements	10/04/2024	09/04/2025
28	Sprinkler System	G/F, 1/F	Conforms with FSD requirements	10/04/2024	09/04/2025
30	Street Fire Hydrant System	G/F	Conforms with FSD requirements	10/04/2024	09/04/2025
13	MFA System	G/F, 1/F	Conforms with FSD requirements	10/04/2024	09/04/2025
15	Fire Detection System	G/F, 1/F	Conforms with FSD requirements	10/04/2024	09/04/2025
12	Exit Sign	G/F, 1/F	Conforms with FSD requirements	10/04/2024	09/04/2025
35	VFA	G/F, 1/F	Conforms with FSD requirements	10/04/2024	09/04/2025

## Part 2 第二部 Installation / Modification / Repair / Inspection work 裝置/改裝/修理/檢查工作

Code 編碼 (1-35)	Type of FSI 裝置類型	Location(s) 位置	Nature of Work Carried out 完成之工作內容	Comment on Condition 狀況評述	Completion Date 完成日期(DD/MM/YY)
				Reserved 保留	
				Fixed Automatically Operated Appliance 固定自動操作裝置	
				Fixed Foam System 固定泡沫系統	
				Gas Detection System 氣體偵測系統	

## Part 3 第三部 Defects 損壞事項

Code 編碼 (1-35)	Type of FSI 裝置類型	Location(s) 位置	Outstanding Defects 未修缺點	Comment on Defects 缺點評述
				Portable Hand-operated Approved Appliance 手提式經核准之設備
				Pressurization of Staircase Enclosure 樓梯間加压
				Ring Main System with Fixed Pumps 帶固定泵的環形主系統
				Sprinkler System 灑水系統

I/We hereby certify that the above installations/equipment have been tested and found to be in efficient working order in accordance with the Codes of Practice for Minimum Fire Service Installations and Equipment and Inspection, Testing and Maintenance of Installations and Equipment published from time to time by the Director of Fire Services. Defects are listed in Part 3.

本人藉此證明以上之消防裝置及設備經試驗, 證明性能良好, 符合消防處處長不時公佈的最低限度之消防裝置及設備守則與裝置及設備之檢查測試及保養守則的規格, 損壞事項列於第三部。

如證書涉及年檢事項, 應張貼於大廈  
或處所當眼處以供消防處人員查核

This certificate should be displayed at prominent location of the building or premises  
for FSD's inspection if any annual maintenance work is involved.

Authorized

Signature:

授權人簽署

Name

姓名

FSD/RC No.:

消防處註冊號碼

Company Name:

公司名稱

Telephone:

聯絡電話

Date:

日期

TUNG LICK FIRE ENGINEERING CO.

HON MING SHING

RC1/139, RC2/248

Tung Lick Fire Eng. Co.

2745 7923

10/04/2024

For FSD  
use only:

Inspected

Key-in

Verified





## FIRE SERVICE (INSTALLATIONS AND EQUIPMENT) REGULATIONS

消防(裝置及設備)規例

A 9386800

FSD Ref.:

消防處檔號

(Regulation 9(1))

(第九條(1)款)

## CERTIFICATE OF FIRE SERVICE INSTALLATION AND EQUIPMENT

消防裝置及設備證書

Name of Client:

顧客姓名

K. Wah Asphalt Limited

Name of Building:

樓宇名稱

Asphalt Plant along Man Kam To Road

Street No./Town Lot:

門牌號數/市地段

Lots 20RP(Part) 21 and  
23RP(Part) in D.D.88

Street/Road/Estate Name:

街道/屋苑名稱

Man Kam To Road

Block:

座

District:

分區

Sheung Shui

Area:

地區

☐ HK

香港

☐ K

九龍

☐ NT

新界

Type of Building 樓宇類型: ☐ Industrial 工業☐ Commercial 商業☐ Domestic 住宅☐ Composite 綜合☐ Licensed premises 持牌處所☐ Institutional 社團Part 1 Annual Inspection ONLY  
第一部 只適用於年檢事項

In accordance with Regulation 8(b) of Fire Service (Installations and Equipment) Regulations, the owner of any fire service installation or equipment which is installed in any premises shall have such fire service installation or equipment inspected by a registered contractor at least once in every 12 months. 根據消防(裝置及設備)規例第八條(b)款, 擁有裝置在任何處所內的任何消防裝置或設備的人, 須每12個月由一名註冊承辦商檢查該等消防裝置或設備至少一次。

Code 編碼 (1-35)	Type of FSI 裝置類型	Location(s) 位置	Comment on Condition 狀況評述	Completion Date 完成日期(DD/MM/YY)	Next Due Date 下次到期日(DD/MM/YY)
24	1no. 1KG ABC D.P. F/E	Site area	Conforms with FSD requirements	10/04/2024	09/04/2025
24	5nos. 3KG ABC D.P. F/E	Site area	Conforms with FSD requirements	10/04/2024	09/04/2025
24	1no. 4KG ABC D.P. F/E	Site area	Conforms with FSD requirements	10/04/2024	09/04/2025
24	1no. 9L AFFF Foam F/E	Site area	Conforms with FSD requirements	10/04/2024	09/04/2025
24	1no. 5KG CO2 F/E	Site area	Conforms with FSD requirements	10/04/2024	09/04/2025

## Part 2 第二部 Installation / Modification / Repair / Inspection work 裝置/改裝/修理/檢查工作

Code 編碼 (1-35)	Type of FSI 裝置類型	Location(s) 位置	Nature of Work Carried out 完成之工作內容	Comment on Condition 狀況評述	Completion Date 完成日期(DD/MM/YY)

## Part 3 第三部 Defects 損壞事項

Code 編碼 (1-35)	Type of FSI 裝置類型	Location(s) 位置	Outstanding Defects 未修缺點	Comment on Defects 缺點評述

I/We hereby certify that the above installations/equipment have been tested and found to be in efficient working order in accordance with the Codes of Practice for Minimum Fire Service Installations and Equipment and Inspection, Testing and Maintenance of Installations and Equipment published from time to time by the Director of Fire Services. Defects are listed in Part 3.

本人藉此證明以上之消防裝置及設備經試驗, 證明性能良好, 符合消防處處長不時公佈的最低限度之消防裝置及設備守則與裝置及設備之檢查測試及保養守則的規格, 損壞事項列於第三部。

**如證書涉及年檢事項, 應張貼於大廈  
或處所當眼處以供消防處人員查核**

This certificate should be displayed at prominent location of the building or premises for FSD's inspection if any annual maintenance work is involved.

Authorized  
Signature:  
授權人簽署

Name

姓名

FSD/RC No.:

消防處註冊號碼

Company Name:  
公司名稱

Telephone:  
聯絡電話

Date:  
日期

通力消防工程公司  
TUNG LICK FIRE ENGINEERING CO.

HON FONG

RC3/524

Tung Lick Fire Eng. Co.

2745 7923

10/04/2024

For FSD  
use only:

Inspected

Key-in

Verified



## FIRE SERVICE (INSTALLATIONS AND EQUIPMENT) REGULATIONS

FSD Ref.:

消防處檔號

消防(裝置及設備)規例

(Regulation 9(1))

(第九條(1)款)

## CERTIFICATE OF FIRE SERVICE INSTALLATION AND EQUIPMENT

消防裝置及設備證書

To Supersede FS251  
Certificate No. A9386798

A 9386837

Name of Client:

顧客姓名

K. Wah Asphalt Limited

Name of Building:

樓宇名稱

Asphalt Plant along Man Kam To Road

Street No./Town Lot:

門牌號數/市地段

Lots 20RP(Part), 21 and  
23RP(Part) in D.D.88

Street/Road/Estate Name:

街道/屋苑名稱

Man Kam To Road

Block:

座

District:

分區

Sheung Shui

Area:

地區

☐ HK

香港

☐ K

九龍

☐ NT

新界

Type of Building 樓宇類型:

☐ Industrial 工業☐ Commercial 商業☐ Domestic 住宅☐ Composite 綜合☐ Licensed premises 持牌處所☐ Institutional 社團Part 1 Annual Inspection ONLY  
第一部 只適用於年檢事項

In accordance with Regulation 8(b) of Fire Service (Installations and Equipment) Regulations, the owner of any fire service installation or equipment which is installed in any premises shall have such fire service installation or equipment inspected by a registered contractor at least once in every 12 months. 根據消防(裝置及設備)規例第八條(b)款, 擁有裝置在任何處所內的任何消防裝置或設備的人, 須每12個月由一名註冊承辦商檢查該等消防裝置或設備至少一次。

Code 編碼 (1-35)	Type of FSI 裝置類型	Location(s) 位置	Comment on Condition 狀況評述	Completion Date 完成日期(DD/MM/YY)	Next Due Date 下次到期日(DD/MM/YY)
24	4nos. 9L AFFF Foam F/E	DG Store	Conforms with FSD requirements	10/04/2024	09/04/2025
25	4nos. Sand Bucket	DG Store	Conforms with FSD requirements	10/04/2024	09/04/2025

## Part 2 第二部 Installation / Modification / Repair / Inspection work 裝置/改裝/修理/檢查工作

Code 編碼 (1-35)	Type of FSI 裝置類型	Location(s) 位置	Nature of Work Carried out 完成之工作內容	Comment on Condition 狀況評述	Completion Date 完成日期(DD/MM/YY)

## Part 3 第三部 Defects 損壞事項

Code 編碼 (1-35)	Type of FSI 裝置類型	Location(s) 位置	Outstanding Defects 未修缺點	Comment on Defects 缺點評述

I/We hereby certify that the above installations/equipment have been tested and found to be in efficient working order in accordance with the Codes of Practice for Minimum Fire Service Installations and Equipment and Inspection, Testing and Maintenance of Installations and Equipment published from time to time by the Director of Fire Services. Defects are listed in Part 3.

本人藉此證明以上之消防裝置及設備經試驗, 證明性能良好, 符合消防處處長不時公佈的最低限度之消防裝置及設備守則與裝置及設備之檢查測試及保養守則的規格, 損壞事項列於第三部。

如證書涉及年檢事項, 應張貼於大廈  
或處所當眼處以供消防處人員查核

This certificate should be displayed at prominent location of the building or premises  
for FSD's inspection if any annual maintenance work is involved.

Authorized  
Signature:

授權人簽署

Name:

姓名

FSD/RC No.:

消防處註冊號碼

Company Name:

公司名稱

Telephone:

聯絡電話

Date:

日期

通力消防工程公司  
TUNG LICK FIRE ENGINEERING CO.

HON FONG

RC3/524

Tung Lick Fire Eng. Co.

2745 7923

10/04/2024

For FSD  
use only:

Inspected

Key-in

Verified

Date : 23<sup>rd</sup> October, 2024  
Your Ref. : TPB/A/NE-FTA/254  
Our Ref. : ADCL/PLG-10290/L003

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

**By Email**

Dear Sir/Madam,

**Re: Section 16 Planning Application for Temporary Asphalt Plant for a Period of Five Years at Lots 20 RP (Part), 21 and 23 RP (Part) in D.D. 88 and adjoining Government Land, East of Man Kam To Road, Sheung Shui, New Territories (Renewal of Planning Application No. A/NE-FTA/192)**  
**Planning Application No. A/NE-FTA/254**

We refer to the comments from the Environmental Protection Department (dated 14.10.2024) and Lands Department (dated 17.10.2024) regarding the subject application.

We submit herewith the Further Information (FI) for the consideration by relevant Government departments or Town Planning Board. Please find the attached the following items for your onward processing:-

- i. Response-to-Comments table; and
- ii. Revised Environmental Assessment.

The revised Environmental Assessment includes clarifications and minor adjustments in response to the comments from Environmental Protection Department. No substantial changes were made in the revised assessment.

Thank you for your kind attention and should you have any queries, please do not hesitate to contact the undersigned at [REDACTED].

Yours faithfully,  
Aikon Development Consultancy Limited



Encl.

cc. Client

DPO/STN, PlanD (Attn.: Ms. Shirley CHAN) - By Email

Address 地址 :

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Nos. 267-275 Des Voeux Road Central, Hong Kong

## Further Information

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Table 1	Response-to-Comments table
Annex 1	Revised Environmental Assessment

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Table | 1

Response-to-Comments table

**Responses-to-Comments Table**

Date	Department	Comments	Responses
17.10.2024	Lands Department	1. The application site comprises Old Schedule Agricultural Lots held under the Block Government Lease which contains the restriction that no structures are allowed to be erected without the prior approval of the Government. No right of access via Government land (GL) is granted to the application site.	Noted. The planning application is subject to two previous planning approvals (No. A/NE-FTA/148 and A/NE-FTA/192) for the same use. The Applicant submits the current renewal application in order to renew the latest planning permission under Planning Application No. A/NE-FTA/192 from the Board which will be expired on 12 December 2024.
		2. Short Term Waiver (STW) No. 883 was issued for Lot No. 20 RP, 21 and 23 RP in D.D. 88 for the purpose of a concrete production plant and open storage of machinery and equipment. For Unauthorized Building Works, please refer to paragraph 5 below.	Noted.
		3. The GL in the application site is covered by Short Term Tenancy (STT) No. 641 for the purpose of a concrete/ asphalt batching plant; manufacturing of concrete products; and open storage of machinery and equipment.	Noted.
		4. The application site is already being used for the uses under the application. The total site coverage of the existing structures erected on site far exceeded the 1,012.34m <sup>2</sup> permitted under the STW/STT.  No application is received from the lot owners and tenant for variation of STT/STW to regularize the built-over-area and height restriction after last planning permission in November 2019. This office reserved the rights to take enforcement action for the breach of STW/STT.	The Applicants had submitted an application to District Lands Office /North on 13 March 2015 for amending the Short Term Waiver (STW) and the Short Term Tenancy (STT) for the proposed Temporary Asphalt Batching Plant (ABP) after obtaining the first planning approval granted for the planning application (No. A/NE-FTA/148) by Town Planning Board (TPB) dated 12 December 2014 ("the approved planning application").



Date	Department	Comments	Responses
		<p>5. The following irregularity not covered by the subject planning application has been detected by this office:</p> <p>Unauthorised structures within the said private lots not covered by the planning application. There are unauthorised structures within the said private lots not covered by the subject planning application. The lot owners should immediately rectify the lease breaches and this office reserves the rights to take necessary lease enforcement action against the breaches without further notice.</p> <p>6. The lot owners/applicant shall either (i) remove the unauthorised structures not covered by the subject planning application immediately; or (ii) include the unauthorised structures in the subject planning application for the further consideration by the relevant departments and, subject to the approval of the Town Planning Board to the planning application which shall have reflected the rectification or amendment as aforesaid required, apply to this office for modification of the STW and STT to permit the structures erected/to be erected and occupation of GL. The modification for STW and STT will be considered by the Government in its capacity as a landlord and there is no guarantee that they will be approved. The STW/STT, if approved, will be considered on whole lot basis and subject to such terms and conditions including the payment of back-</p>	<p>Due to technical reasons, the site area / boundary of the application site were amended by excluding two pieces of land near the entrance to the ABP and the piece of land occupied by the existing CLP transformer / ESS from the original STW application. According to the Planning Department's letter dated 28 July 2015, Planning Department had no adverse comment on the then planning consultant's submission that the change in site area and boundary were Class A amendments. With that, the Applicants then submitted the revised STW and STT applications to District Lands Office/ North on 31 August 2015 for processing.</p> <p>Please take note that the original and the revised STW applications were submitted on behalf of the Landlord, the administratrix of the concerned lots at the time of applications.</p> <p>District Lands Office / North has all along been processing the revised STW and STT applications over the time. The structures being considered as unauthorised by District Lands Office / North were not under the revised STW application and <u>fall outside</u> the current planning application (No. A/NE-FTA/254). Notwithstanding this, the Applicants would closely liaise with the owner concerned for carving out the concerned land with existing structures from the</p>

Date	Department	Comments	Responses
		<p>dated of waiver fee/rent from the first date the unauthorized structures were erected/occupation of GL and administrative fee as considered appropriate to be imposed by LandsD. In addition, LandsD reserves the right to take enforcement action against the lot owners for any breach of the lease conditions, including the breaches already in existence or to be detected at any point of time in future and land control action for any unlawful occupation of Government land. Besides, given the proposed use is temporary in nature, only erection of temporary structure(s) will be considered.</p> <p>7. Unless and until the unauthorised structures are duly rectified by the lot owners/applicant or entirely included in the subject planning application; and irregularities of the STW/STT are rectified, please take it as this office's objection to the application which must be brought to the attention of the Town Planning Board when they consider the application.</p>	<p>relevant Lot to enable District Lands Office / North to continue processing the revised STW and STT applications for the ABP.</p> <p>Furthermore, the Applicants will continue to assist the owner to liaise and resolve the issues on unauthorized structures with the occupier as a separate matter once the current planning application is approved.</p>
		8. Please notify the applicant of our comments/requirements as stated above.	Noted.

Comment	Responses
From Environmental Protection Department (Contact Person: Ms. Maureen CHANG, tel.: 2835 1867)	
Air Quality	
<p>1. No quantitative AQIA was submitted. We consider a quantitative AQIA is required to support this planning application. In addition, for Section 4.4, please remove Table 7, and briefly illustrate effluent discharged will comply with standards stipulated in the TM-DSS.</p>	<p>As mentioned in the EA Report dated August 2024 enclosed in Appendix 11 of the Planning Statement, quantitative AQIA was already conducted and summarised in the Air Pollution Control Plan ("2024 APCP") supporting the Specified Process ("SP") Licence Renewal.</p> <p>The final version, version 3 dated September 2024, of the Air Pollution Control Plan ("2024 APCP") was submitted to the EPD and received with no comment. On 17 October 2024, EPD provided a letter regarding completion of the assessment for the SP Licence renewal application. The conclusion of the 2024 APCP includes:</p> <ul style="list-style-type: none"> <li>a) The Plant is operated by the Licence Holder capable of providing and maintaining the best practicable means for the prevention of the emission from the premises of any air pollutant.</li> <li>b) The Plant operation would not affect the attainment and maintenance of the prevailing AQOs.</li> <li>c) No emission noxious or offensive emission would be, or be likely to be, prejudicial to health due to the Plant operation.</li> </ul> <p>The cover letter from EPD on 17 October 2024 has been enclosed in Appendix C for reference.</p> <p>Please refer to the revised Table 2-1, paras. 1.2.2, 1.4.4, 2.2.11 and 2.2.12, and Section 3.2, the updated Schematic Diagram enclosed in Appendix B and EPD's cover letter enclosed in Appendix C of the EA Report for details. Table 2-2 of the EA Report has also been amended with reference to Version 3 of the APCP dated September 2024.</p>

Comment	Responses
From Environmental Protection Department (Contact Person: Ms. Maureen CHANG, tel.: 2835 1867)	
	Regarding effluent, as mentioned in para. 2.4.2 of the EA Report, all the water for vehicle washing is treated and reused, and no wastewater from vehicle washing is generated. For sewage from site staff, the sewage is collected and tankered away as mentioned in para. 2.4.3. Therefore, there is no treated effluent from the Temporary Asphalt Plant being discharged to the nearby water body.
Noise	
<p>1. It is noted from the submission that no assessment was conducted except referring to 2019 EA Report. We consider an updated noise impact assessment to support the subject application. Detail assessment and justification is required to demonstrate no adverse noise impact would be caused by the project and compliance of relevant criteria. The consultant is strongly recommended to follow the methodology and format similar to those in the 2019 EA Report with our <b>technical comments on A/NE-FTA/192</b> ((See attached file: 20241014 FTA 254 EPD Comments on Noise for FTA_192.docx)) incorporated. Details shall be included, e.g. relevant criteria, information of the fixed noise sources including validity of the measurement results from 2019, status quo of the existing NSRs identified in the vicinity, planned / committed NSRs, traffic data, mitigation measures, etc. Site survey details shall be documented for completeness and future reference, e.g. date, time, personnel, equipment, calibration, weather, field observations, etc.</p>	The noise section of EA has been revised to incorporate the comprehensive review of potential noise impact to the NSRs.
<p>2. The Environmental Assessment (EA) identified several noise impact associated with the operation of the temporary asphalt plant, which include off-site traffic, loading/unloading activities, vehicle movement and operation of equipment. Quantitative assessment has been carried out to address these identified noise impact. However, some</p>	Noted. The noise section of EA has been revised.

Comment	Responses
From Environmental Protection Department (Contact Person: Ms. Maureen CHANG, tel.: 2835 1867)	
<p>assumptions adopted in the assessment are not clearly presented while some assessment methodologies are found inappropriate, the proponent/consultant should critically review the assessment such that it can reflect the actual situation of the operating asphalt plant in future. Our major comments on the noise assessment are given below, we reserve further comments on the assessment findings and the conclusion stated in the report.</p>	
<p>3. The presented method in determining the Sound Power Level of the equipment in Appendix C using backward calculation is incorrect and could not represent the actual Sound Power Level of the equipment, the consultant should follow the methodology detailed in relevant standards to determine the Sound Power Level of the equipment for noise assessment purpose.</p>	<p>Please be clarified that the Sound Power Levels (SWLs) of the exhaust fan, rotary dryer drum and RAP Processing Depot were calculated based on the measured Sound Pressure Levels (SPLs) by standard acoustic principle. A measurement has been conducted to validate the SWL adopted in EA 2019 is applicable in this renewal application. Para. 2.3.13 has been added to summarise the findings. The SWLs estimated based on the SPLs measured on 17 October 2024 are generally lower than those in EA 2019. The noise impact on the NSRs in 2024 should not be higher than that on the NSRs in 2019. Therefore, similar to the EA 2019 it is concluded no adverse noise impact is anticipated.</p>
<p>4. 10 dB(A) reduction for barrier correction is only applicable for plant totally screened off by <u>substantial barrier with proper sound absorptive lining</u> such that none of the plant is visible to the concerned NSR, structures which are lightweight and/or incomplete are not considered as effective barrier for screening. The use of steel plate alone is not considered as effective barrier in providing noise screening for NSRs. The presence of reflecting surfaces behind the noise source to the NSRs would also reduce the magnitude of the barrier correction. Please review the claimed correction and justify the adopted barrier correction by providing relevant details of the barrier and photographs of the site.</p>	<p>Please refer to the revised noise section of the EA Report.</p>



Comment	Responses
From Environmental Protection Department (Contact Person: Ms. Maureen CHANG, tel.: 2835 1867)	
<p>5. The reduction of more than 10 dB(A) for correction in adopting noise enclosure is only applicable for plant <u>fully enclosed with proper sound absorptive lining</u>. Providing enclosure on three sides with top by cladding is not an effective measure in claiming such noise reduction. Please review the claimed correction and justify the adopted correction by providing relevant details and photographs.</p>	<p>Same response as comment #4.</p>
<p>6. The proponent/consultant should review and confirm with the responsible Project Engineer whether the adopted % on time for all plants and equipment are practicable. Please also state in the report if the adopted % on time has been confirmed with the Project Engineer to be practicable. In particular, it is doubtful whether the loading and unloading of wheel loader can be completed in 5 seconds, which gives the % on time of 0.28% per 30 mins. The manoeuvring of wheel loader to desired spot for loading and unloading activity, idling of wheel loader with its engine operating before/after loading and unloading activities would also give rise to noise impact. Please supplement relevant details on the operation of the wheel loader for our consideration.</p>	<p>Para. 2.3.11 has been supplemented. The utilisation of each PME as list in EA 2019 will remain unchanged and has been confirmed by the Plant operator.</p>
<p>7. The addition of screening correction to noise sources which have applied corrections for mitigation measures (i.e. enclosure) is not justified and gives underestimation of predicted noise levels at NSRs. Please review and rectify.</p>	<p>Please refer to the revised noise section of the EA Report.</p>
<p>8. The area for setting up "Screw conveyor / Slant belt conveyor / Belt conveyor " and "Bucket elevator / Filler elevator" are not shown in the report and their locations cannot be determined. In addition, using notional noise source position to assess the noise impact at the NSRs is not justified, the worst case scenario should be adopted by assuming that these noise sources are positioned at the nearest</p>	<p>Please refer to the revised noise section of the EA Report.</p>

Comment	Responses
From Environmental Protection Department (Contact Person: Ms. Maureen CHANG, tel.: 2835 1867)	
location to the NSR. Please rectify the relevant figures and the assessment accordingly.	
9. S.1.5.9 - As revealed in the assessment presented in S.2, only some of the on-site noise sources are determined based on noise measurements, while the sound level of some equipment are made reference to the GW-TM or "Sound Power Levels of other commonly used PME". Please revise this section to avoid confusion.	Para. 2.3.13, 2.3.15 and 2.3.16 have been revised to supplement that the noise impact assessed in the EA 2019 was based on actual noise measurements at the Temporary Asphalt Plant during operation and GW-TM or "Sound Power Levels of other commonly used PME".
10. S.2.1.2 - ASR should read as "Area Sensitivity Rating"	The Area Sensitivity Rating has been reviewed in para. 2.3.6.
11. S.2.1.3 - The noise standard for planned fixed noise sources should be (a) 5 dB(A) below the appropriate ANLs as shown in Table 2 of IND-TM, or (b) the prevailing background noise level if the background noise level is 5 dB(A) lower than the ANLs. Please rectify	The noise standard has been reviewed in para. 2.3.2 and 2.3.3.
12. S.2.2.3 - Please review if there is any planned NSR within 300m from the site. Please state in this section whether any planned NSR is identified.	There is no planned NSR is identified within 300m from the Site Boundary.
13. S.2.2.5 - Please state in this section which year of Annual Traffic Census published by TD is referred in reaching the conclusion that "No major roads with annual average daily traffic flow in excess of 30,000 are found"	The traffic flow in 2019 has been discussed in the EA 2019 which received no comment on in 2019. The EA report – Noise Chapter has been provided in Appendix F for reference.
14. S.2.3 - Please state in this section the hourly maximum number of vehicles induced due to the operation of the asphalt plant. Although the noise contribution of off-site traffic will not increase, please also demonstrate in this section that there would not be adverse off-site traffic noise impact by comparing the induced traffic against the projected traffic at adjacent roads	Noted.

Comment	Responses
From Environmental Protection Department (Contact Person: Ms. Maureen CHANG, tel.: 2835 1867)	
15. S.2.3.2 and Appendix B - Please provide TD's endorsement on the traffic forecast data. Should TD only expresses no comment on the methodology for the traffic forecast, the consultant should provide confirmation from respective competent party (e.g. traffic consultant) that TD's endorsed methodology has been strictly adopted in preparing the traffic forecast data	The traffic flow in 2019 has been discussed in the EA 2019 which received no comment on in 2019. The EA report – Noise Chapter has been provided in Appendix F for reference.
16. S.2.3 - Please state each noise source identified on site, including the equipment enclosed in plant rooms, split-type air conditioners and the proposed RAP as mentioned in S.2.4.1, 2.4.2 and 2.4.4 respectively	The M&E installed inside the plant room and small/low-power windows type and split-type air conditioners have been stated in para. 2.3.12.
17. S.2.3.6 - This section discusses the on-site noise measurements for establishing the sound level data of the equipment for assessment purpose and should be moved to S.2.4 which details the assessment methodology	The report structure has been discussed/ reviewed in the EA 2019 which received no comment on in 2019. The EA report – Noise Chapter has been provided in Appendix F for reference. The noise measurement methodology and result has been discussed in para. 2.3.14.
18. S.2.4.2 - Please consider to revise the 2nd sentence to "... of these small-air conditioners is <u>insignificant</u> <del>minimal</del> ."	Para. 2.3.12 has been discussed the noise impact of low-power split-type air-conditioners and considered as insignificant.
19. S.2.4.3 - According to the previous approved EA report, vehicle repair pit is proposed in the site, please clarify if the vehicle repair pit is offered on-site. If it is, the noise impact from its operation should also be addressed	In para. 1.2.2 of the EA 2019, several car repairing workshops are located to the south and southwest of the Site. Such car repairing workshops are outside the Site boundary and not provided for the Temporary Asphalt Plant.
20. S.2.4.5 and Appendix C - Please provide the measured sound spectrum obtained from each measured plant/equipment with an aim to justify if correction for tonality is required. Please also supplement in S.2.4.5 whether the correction for tonality, intermittency and impulsiveness are applicable.	The details of noise measures have been provided in Appendix E.
21. S.2.4.6 - The formula in calculating distance correction is incorrect, please rectify.	Please refer to the revised noise section of the EA Report.

Comment	Responses
From Environmental Protection Department (Contact Person: Ms. Maureen CHANG, tel.: 2835 1867)	
<ul style="list-style-type: none"> <li>i. Should the first sentence read as "... other than those mentioned in Section 2.4.5 listed in Table 2.3 were ..."</li> <li>ii. Please present the % on time per 30 min in Table 2.3, and</li> <li>iii. supplement in section 2.4 on how the % on time and time correction is determined.</li> </ul>	
22. S.2.4.8 and Appendix D - By cursory check, it is observed that the barrier correction is still applied for some of the NSRs which would have line of sight to the concerned plant. For example, the barrier for bitumen pump seems failed to screen off the line of sight between NSR IN3 and the pump as shown in Figure 2.2, but barrier correction is applied. Please review the applied corrections at all NSRs.	Please refer to the revised noise section of the EA Report.
23. S.2.4.13 and Appendix D - <ul style="list-style-type: none"> <li>i. Please review if there will be idling of trucks with operating engine before/after loading and unloading activities, and conduct revision to the calculation of predicted noise levels if found necessary.</li> <li>ii. Appendix E presented in the EA report is nowhere mentioned.</li> </ul>	No idling is expected of trucks with operating engine before/after loading and unloading activities. Para. 2.3.15 has been supplemented.
24. S.2.5 and 2.6 - These sections are related to the determination of noise criteria and should be discussed under S.2.1.	Review of Noise Standard has been provided in paras. 2.3.2 and 2.3.3. Review of Noise Criteria of all NSRs has been provided in para. 2.3.19.
25. Appendix D - <ul style="list-style-type: none"> <li>i. SWL of 105 dB(A) is adopted for trucks, please state clearly which PME under "Sound power levels of other commonly used PME" is adopted. Please note that the SWL of 105 dB(A) is only applicable for truck with gross vehicle weight lower than or equal to 38 tonne. Please confirm if the trucks adopted is applicable to this SWL.</li> </ul>	SWL for truck with gross vehicle weight lower than or equal to 38 tonne has been adopted. Clarification has been provided in para. 2.3.16.

Comment	Responses
From Environmental Protection Department (Contact Person: Ms. Maureen CHANG, tel.: 2835 1867)	
ii. The discussion and justification on the number of trips for "On-site Movement of Trucks" can no where be found in the report, nor be able to deduce from Table 2.4. Please supplement in the main text.	
iii. Footnote * - Should the SWL of wheel loader refer to Appendix E?	



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Annex | 1

Revised Environmental Assessment



**EnviroSolutions & Consulting Ltd**

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**Section 16 Planning Application**

**Renewal of Planning Application No. A/NE-FTA/192 –  
Temporary Asphalt Plant on Man Kam To Road,  
Sheung Shui  
Environmental Assessment Report**

Prepared for:  
**K. Wah Asphalt Ltd**

**October 2024**



# Renewal of Planning Application No. A/NE-FTA/192 – Temporary Asphalt Plant on Man Kam To Road, Sheung Shui Environmental Assessment Report

Prepared for  
**K. Wah Asphalt Ltd**

For and on behalf of  
EnviroSolutions & Consulting

**Alexi BHANJA**  
Group COO

**ESC Project No.** AQN23.1007-J.01  
**Deliverable No.** D02  
**Revision No.** 2

## File Location

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Rev.	Description	Prepared	Reviewed	Approved	Date
1.1	Environmental Assessment Report	RL	CYW	AW	Aug 2024
2	Environmental Assessment Report	JC	CYW	AW	Oct 2024

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# 1 INTRODUCTION

## 1.1 Preface

- 1.1.1 EnviroSolutions & Consulting Ltd (“ESC”) has been appointed to prepare this Environmental Assessment (“EA”) Report in support of a renewal of planning application for Temporary Asphalt Plant (“the Temporary Asphalt Plant”) for a Period of Five Years at Lots 20 RP (Part), 21 and 23 RP (Part) in D.D. 88 and adjoining Government Land, East of Man Kam To Road, Sheung Shui, New Territories (“the Application Site”). The application aims to renew the latest planning permission under Planning Application No. A/NE-FTA/192 from the Town Planning Board (“TPB”) which will expire on 12 December 2024 such that the Applicant can be given opportunity to continue using the Application Site for the Temporary Asphalt Plant with **no change in operation. The Temporary Asphalt Plant under the current application is proposed to maintain existing operation, site configuration and major development parameters.**

## 1.2 Project Background

- 1.2.1 Since early 2010s, demand for asphalt increased because of several mega infrastructure projects such as Hong Kong-Zhuhai-Macao Bridge, Guangzhou-Shenzhen-Hong Kong Express Rail, etc. At that time, there were several temporary asphalt plants in Hong Kong. None of them were located within the Northeast District.
- 1.2.2 In order to ensure stable supply of asphalt, the Temporary Asphalt Plant was proposed to be provided at the Application Site. The history of planning applications and Specified Process (“SP”) Licence application is summarised below:
- In 2014, a planning application (no. A/NE-FTA/148) for the Proposed Development was made under Section 16 of the *Town Planning Ordinance* (“TPO”). The planning application was approved with conditions by the TPB on 12 December 2014.
  - In accordance with Schedule 1 of the *Air Pollution Control Ordinance* (“APCO”), the Temporary Asphalt Plant is a “Tar and Bitumen Works” and classified as a SP. A SP Licence application was then made supported by providing an Air Pollution Control Plan (“APCP”) to the authority, Environmental Protection Department (“EPD”). A SP Licence No. L-15-035(1) was duly granted on 23 February 2017. After receiving no adverse comment on the submitted commissioning trial report from EPD on 7 April 2017, the Temporary Asphalt Plant came into operation.
  - In 2019, S16 Application (No. A/NE-FTA/192) was made to the TPB to renew planning approval for the Temporary Asphalt Plant for another five years. On 18 October 2019, the renewal application was approved with conditions for a period from 13 December 2019 to 12 December 2024.
  - Amongst the approval conditions, only one condition, Approval Condition (g), was related to environmental impact, “the implementation of noise mitigation

*measures, as proposed by you, as required under approval condition (g) to the satisfaction of the Director of Environmental Protection or of the TPB by 13.9.2021”.*

- Thereafter, submissions were made to the TPB for compliance with Approval Condition (g). On 26 July 2021, a letter was issued by the PlanD stating that the Approval Condition (g) regarding implementation of noise mitigation measures was complied with. The copies of the final submission and PlanD letter are provided in **Appendix A**.
- Shortly after approval of the S16 Application, the application for renewal of the SP Licence was made and the renewed SP Licence No. L-15-035(2) with an effective period of three years was obtained on 18 May 2020.
- An application for renewing SP Licence No. L-15-035(2) was made on 15 March 2023. On 17 October 2024, EPD provided a letter informing the assessment for the SP Licence Renewal Application was completed. The Schematic Diagram has been updated with minor improvement for presentation enclosed in **Appendix B** and a copy of the aforementioned letter is enclosed in **Appendix C**. The renewal is further described in **paragraphs 2.2.11** and Error! Reference source not found..

- 1.2.3 The Applicant has been engaged in various major infrastructure projects, road construction and maintenance works carried out by Highways Department (“HyD”), Drainage Services Department (“DSD”), Civil Engineering and Development Department (“CEDD”), Airport Authority (“AA”) and MTR Corporation (“MTRC”). Those projects included Tseung Kwan O – Lam Tin Tunnel (“TKO-LTT”), The Hong Kong – Zhuhai – Macao Bridge (“HZMB”), Liantang/Heung Yuen Wai Boundary Control Point (“LTHYW BCP”), Central – Wan Chai Bypass, Tuen Mun – Chek Lap Kok Link (“TMCLKL”), Queen’s Hill Development and the North and South Runway Asphalt Resurfacing projects, as well as ongoing road maintenance works for Kowloon West and New Territories West.
- 1.2.4 The Hong Kong government has been in the forefront in developing the Northern Metropolis and others New Development Areas (“NDAs”). The latest release of the Hong Kong Major Transport Infrastructure Development Blueprint also highlights the government's commitment in building a liveable, competitive and sustainable Hong Kong through “**driving development by transport infrastructure**” by adopting the planning principles of “infrastructure-led” and “capacity-creating”. The road network of Hong Kong would be expanded and with increased capacity, and it is foreseeable that there is a **growing demand for high quality asphalt to materialise the vision**.
- 1.2.5 As indicated in **Table 1-1**, a number of projects such as the Northern Link – Kwu Tung Station, Hung Shui Kiu Station, Tuen Mun South Extension, Tung Chung Line Extension, etc., will be carried out in Hong Kong. It is essential to ensure stable asphalt supply to support the aforementioned works in Hong Kong. The Temporary Asphalt Plant is the only asphalt plant located in the North New Territories. To avoid disruption for the supply of asphalt, which would impact infrastructure projects and road works, the Temporary Asphalt Plant operation is essential to be continued.

*Table 1-1 Major Planned Projects in Hong Kong*

PROJECTS	ANTICIPATED COMPLETION
MTR Northern Link - Kwu Tung Station	2027
MTR Tung Chung Line Extension	2029
MTR Tuen Mun South Extension	2030
MTR Hung Shui Kiu Station	2030
Kwu Tung North and Fanling North New Development Area - Remaining Phase of Site Formation and Engineering Infrastructure Works	2031
Yuen Long South Development - Second Phase Development	2031

1.2.6 In addition, a number of infrastructure projects currently utilising the Temporary Asphalt Plant are ongoing as shown in **Table 1-2** below. Those projects will not be completed within the current approval period expiring on 12 December 2024. Should the Temporary Asphalt Plant have to be ceased operation, it would cause serious disruption in the progress of the involved projects. In order to continue to utilise the application site and to ensure the supply of asphalt to support infrastructure projects in the locality and territory, the Applicant seeks to renew the previous approved application No. A/NE-FTA/192 with an expiry date on 12 December 2024.

*Table 1-2 Major Contracts Supported by the Temporary Asphalt Plant*

EMPLOYER	CONTRACT NO.	CONTRACT TITLE	ANTICIPATED COMPLETION
AA	Contract No. 3310	North Runway Modification Works	2025
HyD	12/HY/2019	Highways Department Term Contract (Management and Maintenance of Roads in Kowloon West excluding Expressways and High Speed Roads 2020 – 2026)	2026
HyD	04/HY/2020	Highways Department Term Contract (Management and Maintenance of Roads in Tuen Mun and Yuen Long Districts excluding Expressways and High Speed Roads 2021 – 2026)	2026
HyD	HY/2014/08	Construction of tunnel at Yau Ma Tei, reconstruction of a section of the Gascoigne Road Flyover and reprovisioning of affected public facilities at Yau Ma Tei	2026
HyD	HY/2019/13	Construction of administration building and ventilation buildings, and installation of route-wide electrical and mechanical works	2028
HyD	HY/2020/07	Widening of Castle Peak Road between Kwun Tsing Road and Hoi Wing Road	2025
HyD	HY/2020/08	Flyover from Kwai Tsing Interchange Upramp to Kwai Chung Road	2026

EMPLOYER	CONTRACT NO.	CONTRACT TITLE	ANTICIPATED COMPLETION
HyD	HY/2021/16	Provision of Universal Accessibility Facilities at Footbridges, Elevated Walkways and Subways Package 5 - Contract 2	2025
DSD	DC/2019/12	Upgrading of West Kowloon and Tsuen Wan Sewerage – Phase 2B	2027
DSD	DC/2020/03	Drainage Maintenance and Construction in Hong Kong Island and Islands Districts (2021-2025) And Building and Civil Maintenance and Minor Works to DSD Plants and Facilities (2020-2025)	2025
CEDD	CV/2020/01	Site formation and infrastructure works for public housing developments at Pok Fu Lam South	2027
CEDD	CV/2022/07	Site Formation and Infrastructure Works for Public Housing Developments at Long Bin, Yuen Long	2026
CEDD	ED/2018/04	Trunk Road T2 and Infrastructure Works for Developments at the Former South Apron	2026
CEDD	ND/2019/01	Kwu Tung North New Development Area, Phase 1: Site Formation and Infrastructure Works	2026
CEDD	ND/2019/04	Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section (Shek Wu San Tsuen North to Lung Yeuk Tau)	2026
CEDD	NE/2017/03	Development of Anderson Road Quarry Site - Road Improvement Works and Pedestrian Connectivity Facilities Works Phase 2A	2026
CEDD	NE/2017/05	Widening of Tai Po Road (Sha Tin Section)	2025
CEDD	NL/2020/03	Tung Chung New Town Extension - Major Infrastructure Works in Tung Chung East	2028
CEDD	NL/2020/06	Tung Chung New Town Extension - Site Formation and. Infrastructure Works at Tung Chung Valley, Phase 1	2027
CEDD	YL/2020/06	Site Formation and Infrastructure Works for Public Housing Developments at Kam Tin South, Yuen Long – Phase 1	2026
HK & China Gas Co. Ltd.	N/A	Reinstatement Service (Term Contract 2023 – 2025)	2025
Hongkong International Terminals	N/A	Bituminous Re-surfacing Works at Terminal 4, 6, 7, 8, 9 & Depot S (1+1 Term Contract)	2025

- 1.2.7 The planning approval under A/NE-FTA/192 for the Temporary Asphalt Plant is set to expire on 12 December 2024. To avoid disruption to ongoing projects, the Applicant is submitting a renewal application seeking planning permission to continue utilising the Application Site while maintaining the same operation. This application aims to maintain existing operations at the Application Site while ensuring no changes to the nature, operation, or site configuration of the Temporary Asphalt Plant, with no adverse impact induced.

### 1.3 Site Description

- 1.3.1 The Application Site is located to east of Man Kam To road and to the north of Hung Kiu San Tsuen as shown in **Figure 1-1**.
- 1.3.2 To the north and east of the Application Site is land zoned “Green Belt” in which no new development is expected. A metal workshop is located on the hillside to the northeast of the Application Site. There are public roads access to the metal workshop which also surround and lie within the Application Site.
- 1.3.3 Based on the Application Site observation on 11 July 2024, the environs of the Application Site remain the same as those observed in 2019/20, including:
- Some public roads providing access to the metal workshop adjacent to the north of the Application Site surrounding and partially lying within the Application Site.
  - A metal workshop locating on the hillside to the northeast of the Application Site.
  - A piece of land reserved for developing Poultry Slaughtering Centre but shelved in 2010 located to the southeast of the Application Site.
  - Several car repair workshops located to the south and southwest of the Application Site.
  - Some other workshops and open storage sites located to the further southwest, across Man Kam To Road.
  - Some open storage sites located to the west and northwest.

### 1.4 Project Description

- 1.4.1 Under the current application, it is proposed to continue utilising the Application Site for the Temporary Asphalt Plant. **As compared with the last approved scheme, there is no change in the nature, and no change to the Application Site configuration, building bulk, site area, form, and major development parameters of the approved Plant, and the Application Site remains unchanged when compared to the previous application.** The Application Site configuration and layout are identical to the approved scheme.
- 1.4.2 There is **no change** in the asphalt production process and operation. The main product of the Temporary Asphalt Plant is Hot Mix Asphalt (“HMA”) consisting of aggregates blended with bitumen. The usage of HMA is mainly for road paving and airport runway. The maximum HMA production rate of the Temporary Asphalt Plant



is 160 tonnes/hour using a batch mix production mode with a small quantity of asphalt emulsion is also produced. Since road and airport runway maintenance works are mainly carried out between midnight and early morning, the Temporary Asphalt Plant must be operated for 24 hours/day. In response to EPD's control of "Land Filling and Fly-tipping" policy, up to 85,000 tonnes of Reclaimed Asphalt Pavement ("RAP") per year are consumed in the asphalt production

1.4.3 The Master Layout Plan shown in **Figure 1-2** is identical to that of the last approved Planning Application No. A/NE-FTA/192. The major components of the Temporary Asphalt Plant include:

- Asphalt Plant Complex including the Mixing Tower
- Bitumen Tanks
- RAP Stock Pile No. 1
- RAP Equipment Store
- Aggregate Stock Pile No. 2
- Workshop Building

1.4.4 There will be **no change** to the building bulk, site area, form, and major development parameters of the Temporary Asphalt Plant after obtaining the approval with conditions from TPB on 12 December 2019 as mentioned in **paragraph 1.2.2**. The Schematic Diagram of the Temporary Asphalt Plant showing the manufacture of HMA was amended to be Version E dated 11 September 2024 to improve the presentation of the HMA process. Version E of Schematic Diagram attached to the renewed SP Licence is enclosed in **Appendix B** for reference.

## 1.5 Objectives of the Report

1.5.1 The objectives of this EA Report are to:

- Review potential environmental impacts arising from the operation of the Temporary Asphalt Plant, in terms of air quality, noise, water quality, waste management and land contamination.
- Review the situation of air and noise sensitive receivers

Figure 1-1 Site Boundary and Locations

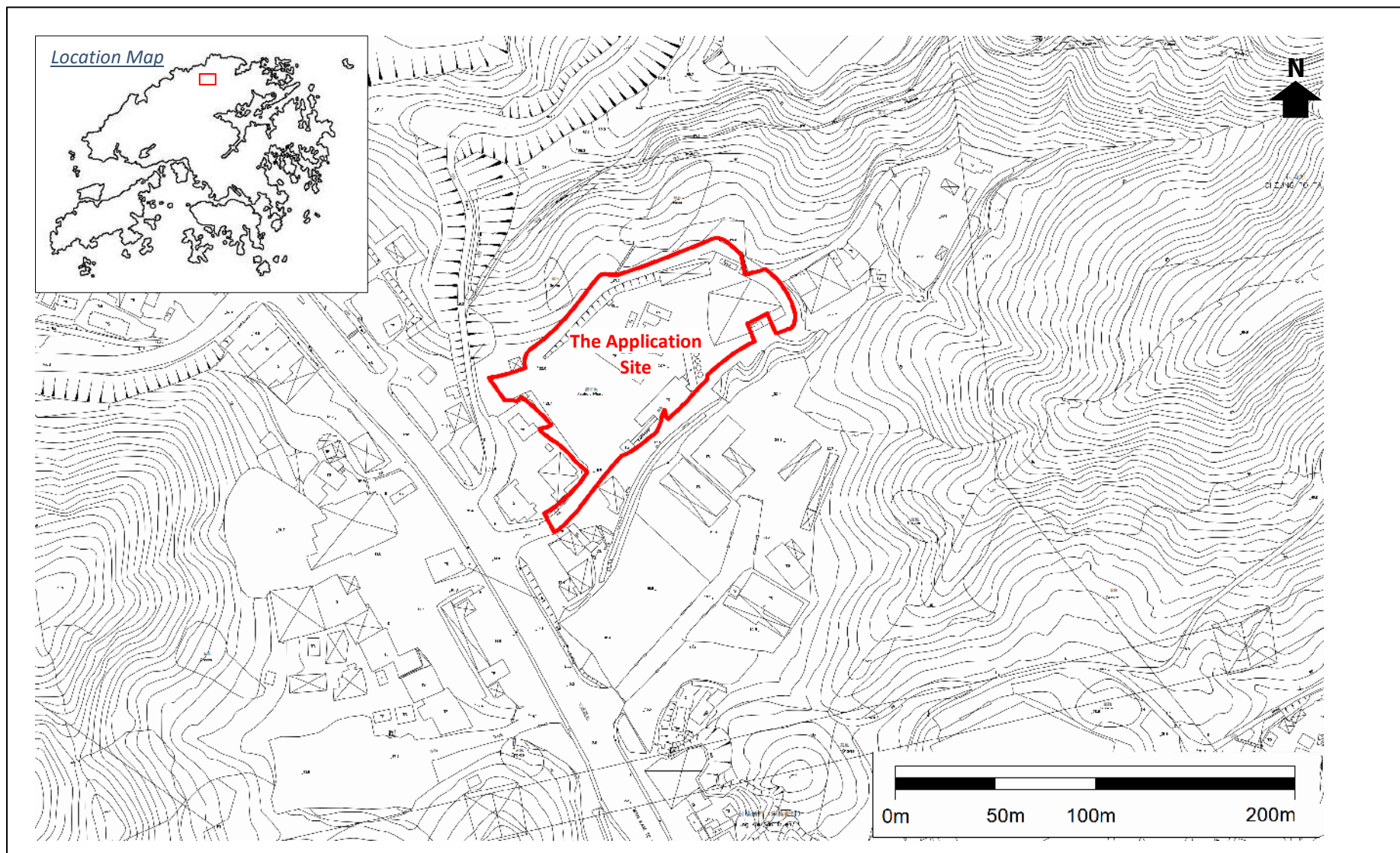
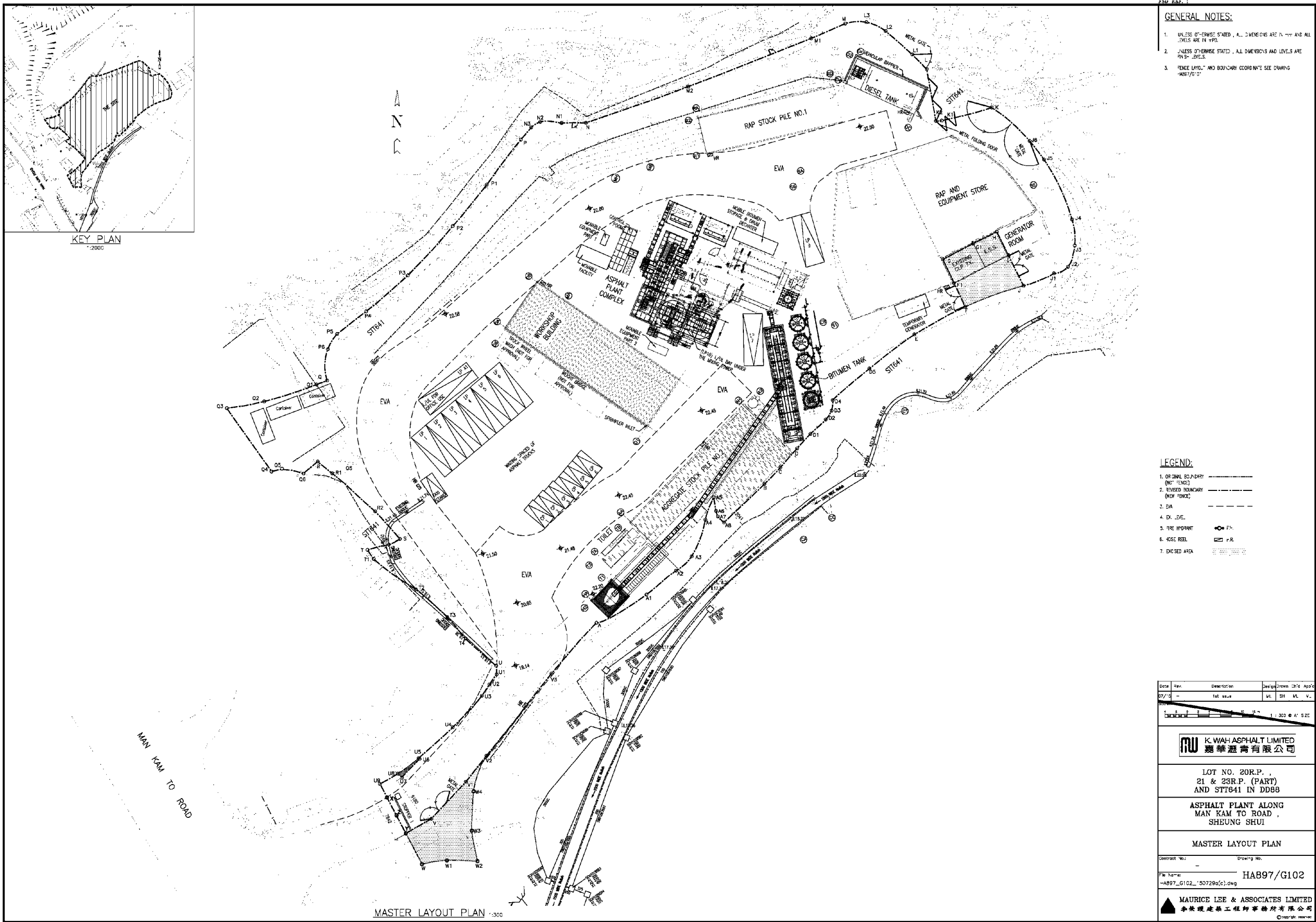


Figure 1-2 Master Layout Plan



## 2 REVIEW OF ENVIRONMENTAL IMPACTS

### 2.1 Introduction

2.1.1 Assessments of environmental impact to air quality, noise, water quality, waste and land contamination, were carried out in previously submitted EA Reports to support previous Planning Applications and received “no comment” from the Authority. Apart from the aforementioned planning applications supported by the EA Reports, applications were made under the *Air Pollution Control Ordinance* (“APCO”). The documents are listed in **Table 2-1** below:

*Table 2-1 Summary of Submissions*

REF	REVISION	REPORT	APPLICATION	DATE	REMARK
7076143 I D01/01	1	Environmental Assessment (2014 EA Report)	Planning Application No. A/NE-FTA/148	August 2014	No comment
7076382 I D01/01	9.3	Air Pollution Control Plan (“APCP”) (“2017 APCP”)	SP Licence No. L-15-035(1)	March 2017	No comment
7076703 I D01/01	1	Environmental Assessment (2019 EA Report)	Planning Application No. A/NE-FTA/192	August 2019	No comment
N/A	N/A	Review on Air Sensitive Receivers (“ASRs”)	SP Licence Renewal Application obtaining the renewed SP Licence No. L-15-035(2)	2019	No comment
AQN23.1014-J.01 for Renewal of SP Licence	3	APCP (“2024 APCP”)	SP Licence Renewal Application	17 October 2024	No comment on the APCP was received The assessment for applying SP Licence renewal was completed ( <b>Appendix C</b> refers).



2.1.2 As the Temporary Asphalt Plant has been in operation since 2017, the existing operation would be maintained without any changes in site configuration, building bulk, site area, form, and major development parameters. **No construction work** is needed for the continuation of Plant operation, therefore there will be no environmental impacts arising from construction. Due to **no change in operation** of the Temporary Asphalt Plant, environmental impacts related to Plant operation are the same as those previously assessed in the 2014 EA Report and 2019 EA Report.

## 2.2 Air Quality

### Planning Application No. A/NE-FTA/148 (2014)

2.2.1 With reference to the Rural and New Town Planning Committee (“RNTPC”) Paper dated 12 December 2014, paragraph 9.1. stated the conclusion of 2014 EA Report supporting Planning Application No. A/NE-FTA/148 was agreed by the Director of Environmental Protection (“DEP”).

2.2.2 The air quality assessment for Plant operation in the 2014 EA Report included the following:

- Quantitative impact assessment was conducted to compare against the historical Air Quality Objectives (“AQOs”) in force between 2014 and 2021 (“2014 AQOs”) and adopted international standards for non-criteria pollutants Volatile Organic Compounds (“VOCs”), formaldehyde, benzo(a)pyrene (“B[a]P”) and bitumen fumes
- No exceedance of the AQOs and adopted standards for non-criteria pollutants were predicted at all representative Air Sensitive Receivers (“ASRs”)
- The Temporary Asphalt Plant would not pose any unacceptable air quality impacts on the ASRs in the vicinity
- Plant operation would fully comply with 2014 AQOs, other adopted criteria and the Best Practicable Means (“BPM”)

### The First version of SP Licence No. L-15-035(1)

2.2.3 The 2017 APCP supporting the application for SP Licence No. L-15-035(1) was received with “no comment”. The SP Licence was obtained on 23 February 2017.

2.2.4 The 2017 APCP included:

- Identification of Representative ASRs within 500m from the Application Site boundary
- Adopting the 2014 AQOs
- Adopting international standards for non-criteria pollutants including B[a]P, bitumen fume (“Polycyclic Organic Matter”), formaldehyde and VOCs. Recommended standards for benzene (“C<sub>6</sub>H<sub>6</sub>”), as well as metals and odour.



- Reporting the estimated cumulative air quality levels at the ASRs including the contour plots complying with the 2014 AQOs as well as the adopted standards for non-criteria pollutants, metals and odour
- Recommending the BPMs for HMA manufacturing
- Concluding:
  - The BMPs would be provided, implemented and maintained
  - All the relevant AQOs (historical AQOs) would be met with the Temporary Asphalt Plant in operation
  - No unacceptable noxious and offensive emissions would arise from Plant operation

2.2.5 The Applicant has properly implemented the recommendations and air quality control measures provided in the 2017 APCP and the SP Licence. Soon after the commissioning trials held in March 2017, a letter of no objection to the commencement of operation of the Temporary Asphalt Plant was issued by EPD in April 2017.

2.2.6 Since commencement of operation in 2017, several improvements have been made to the Temporary Asphalt Plant by the Applicant, as follows:

- An additional deodorisation system for further reduction of particulates and odour
- The use of low-odour bitumen to reduce the volatility and formation of bitumen fumes
- Covers attaching to asphalt trucks to reduce fugitive dust and odour during transportation

2.2.7 In accordance with SP Licence requirements, during operation of the Temporary Asphalt Plant, 24-hour average ambient Respirable Suspended Particulates (“RSP”) sampling was conducted by the Applicant at a frequency not less than once every six calendar days. Source sampling at chimney for the concerned air pollutants is carried out at a frequency not less than once per every 12 months.

#### **The First Renewal for SP Licence No. L-15-035(2)**

2.2.8 A renewal application of SP licence was submitted to EPD in November 2018. A review of ASRs was completed in March 2019 and **no change** of ASRs was identified. The findings and conclusion were still valid for the renewal application. SP Licence No. L-15-035(2) was granted by EPD in May 2020.

#### **The First Renewal for Planning Application No. A/NE-FTA/192 (2019)**

2.2.9 An EA report was prepared in August 2019 to support the renewal of planning approval (Planning Application No. A/NE-FTA/192) for the Temporary Asphalt Plant for another five years to 2024. Review of the 2017-APCP and ASRs for the renewal of SP licence in 2019 concluded that no adverse air quality and health impact from

operation of the Temporary Asphalt Plant was anticipated with implementation of the control measures recommended in APCP and stipulated in the SP licence.

- 2.2.10 The renewal application was approved for a period from 13 December 2019 to 12 December 2024 with several approval conditions.

#### **The Second (Current) Renewal for SP Licence**

- 2.2.11 An application for renewing SP Licence No. L-15-035(2) was made, supported by a new APCP. The new APCP ("2024 APCP") version 3 was submitted to EPD on 9 October 2024 to support the renewal application of SP Licence. The results and conclusion of APCP are summarised below:

- The cumulative concentrations of pollutants including RSP, FSP, NO<sub>2</sub>, SO<sub>2</sub>, etc., have been quantitatively assessed based on the latest modelling guidelines.
- The predicted cumulative concentrations would comply with both the prevailing AQOs and future 2025 AQOs.
- Representative ASRs in the 2017 APCP were reviewed and there is no change.
- The conclusion of the 2024 APCP includes:
  - The Plant is operated by the Licence Holder capable of providing and maintaining the best practicable means for the prevention of the emission from the premises of any air pollutant.
  - The Plant operation would not affect the attainment and maintenance of the prevailing AQOs.
  - No emission noxious or offensive emission would be, or be likely to be, prejudicial to health due to the Plant operation.

- 2.2.12 No comment was received from EPD and EPD provided a letter informing the completion of the SP Licence renewal assessment on 17 October 2024 enclosed in **Appendix C**.

#### **The Second (Current) Renewal for Planning Application (2024)**

- 2.2.13 This EA report has been prepared to support the renewal of planning approval for the Temporary Asphalt Plant for another five years to 2029. The previously submitted 2014 EA Report, 2017 APCP, ASRs for the renewal of SP Licence in 2019, 2019 EA Report and 2024 APCP concluded that no adverse air quality and health impact from operation of the Temporary Asphalt Plant was anticipated with implementation of the control measures recommended in APCP and stipulated in the SP Licence. Since there will be no change in the Temporary Asphalt Plant operation, no adverse air quality impact will be arising from the continued operation of the Temporary Asphalt Plant.

#### **Summary of Air Pollution Control Measures**

2.2.14 Based on the Application Site observations on 11 July 2024, the air pollution control measures are summarised in **Table 2-2** below.

*Table 2-2 Mitigation Measures for the Temporary Asphalt Plant*

ID	DESCRIPTION	MITIGATION MEASURES
EP1	Exhaust from Dust Collectors of Stack	<ul style="list-style-type: none"> <li>Pre-skimmer and filter baghouse are provided for dust removal prior to exhaust emission to ambient air</li> <li>Ventilation duct for the chimney is 34m above ground to assist air pollutants dispersion</li> <li>ULSD with a maximum sulphur content of 0.005% w/w is used</li> <li>Air-to-fuel ratio is properly controlled to achieve complete fuel combustion as far as possible</li> <li>Dust is filtered with high capacity Fabric Filter (Bag-house / DC1) before discharge to ambient air</li> <li>The exhaust fume from the mixer is passed to the aggregate Rotary Dryer Drum for re-burning by incineration, potential PAHs emission arising from the mixer is minimised</li> </ul>
EP2	Fugitive dust emission from underground hopper	<ul style="list-style-type: none"> <li>Sufficient automatic water sprinklers and manual water hoses are installed and operated during loading of aggregate to suppress possible dust emissions</li> <li>Underground hoppers are enclosed at the top and three sides</li> <li>Enclosed conveyor belts are used to minimise dust emissions</li> </ul>
EP3	Fugitive dust emission from spare Aggregates Storage Bay	<ul style="list-style-type: none"> <li>Sufficient automatic water sprinklers and manual water hoses are installed and operated during loading of aggregate to suppress possible dust emissions</li> <li>Storage bay is covered on top with three sides enclosure, and front curtain will be provided at the fine aggregate piles with sizes less than 5mm</li> </ul>
EP4	Fugitive dust emission from RAP Storage Bay	<ul style="list-style-type: none"> <li>Sufficient automatic water sprinklers and manual water hoses are installed and operated during loading of aggregate to suppress possible dust emissions</li> <li>Covered on top with three sides enclosure, and equipped with front curtain</li> </ul>
EP5	Fugitive dust emission from Coarse RAP Storage Bay	<ul style="list-style-type: none"> <li>Sufficient automatic water sprinklers and manual water hoses are installed and operated during loading of aggregate to suppress possible dust emissions</li> <li>Covered on top with three sides enclosure, and equipped with front curtain</li> </ul>
EP6	Fugitive dust emission from Crushed RAP Storage Bay	<ul style="list-style-type: none"> <li>Sufficient automatic water sprinklers and manual water hoses are installed and operated during loading of aggregate to suppress possible dust emissions</li> <li>Covered on top with three sides enclosure, and equipped with front curtain</li> </ul>

ID	DESCRIPTION	MITIGATION MEASURES
EP7	Fugitive dust emission from RAP Feed Hopper at RAP Processing Depot	<ul style="list-style-type: none"> <li>Sufficient automatic water sprinklers and manual water hoses are installed and operated during loading of aggregate to suppress possible dust emissions</li> <li>Covered on top with three sides enclosure, and equipped with front curtain</li> <li>RAP processing housed in fully enclosed building with enclosed conveyor belts</li> </ul>
EP8 & EP9	Fugitive dust emission from (Coarse & Fine) RAP Feed Hopper	<ul style="list-style-type: none"> <li>Sufficient automatic water sprinklers and manual water hoses are installed and operated during loading of aggregate to suppress possible dust emissions</li> <li>Covered on top with three sides enclosure, and equipped with front curtain.</li> <li>Enclosed conveyor and bucket elevator are used to minimise dust emissions.</li> </ul>
EP10	Exhaust from Dust Collectors of Silos	<ul style="list-style-type: none"> <li>Fully enclosed debagging machine and enclosed bucket elevator are used to load imported lime into the silo.</li> <li>Dust is filtered with Fabric Filter (DC2) before discharge to ambient air.</li> <li>Water sprinklers are operated during filler feeding processes.</li> <li>Feed by fully enclosed screw conveyor.</li> </ul>
EP11	Negligible dust emission from conditioner	<ul style="list-style-type: none"> <li>Water sprinklers are operated during handling of conditioned dust.</li> </ul>
EP12 – EP16	Bitumen fume emission from heated bitumen tanks	<ul style="list-style-type: none"> <li>The heating temperature of the particular bitumen type and grade shall not exceed the corresponding temperature limit Tamper-free high temperature cut-off device is provided to cut off the heater in case the upper limit for bitumen temperature is reached. The cut off temperature is set at 163°C for Bitumen Tanks 1 and 2, and at 180°C for Bitumen Tanks 3 and 4, and Elevated Bitumen Tank.</li> <li>These EPs are connected to the Mixing Tower thereby being emitted from the stack EP1 to further reduce bitumen fume emission.</li> </ul>
EP17	Bitumen fume emission from heated bitumen tanks (to be provided)	<ul style="list-style-type: none"> <li>The heating temperature of the particular bitumen type and grade shall not exceed the corresponding temperature limit Tamper-free high temperature cut-off device is provided to cut off the heater in case the upper limit for bitumen temperature is reached. The cut off temperature will be set at 191°C.</li> <li>Exhaust fume is discharged through tank vents of at least 10m above ground.</li> <li>Activated carbon filter will be installed to eliminate bitumen fume emission.</li> </ul>

ID	DESCRIPTION	MITIGATION MEASURES
EP18	Asphalt rubber fume emission from the removable heated asphalt rubber tank	<ul style="list-style-type: none"> <li>The heating temperature of the asphalt rubber shall not exceed the corresponding temperature limit Tamper-free high temperature cut-off device shall be provided to cut off the heater in case the upper limit for bitumen temperature is reached. The cut off temperature is set at 191°C.</li> <li>Activated carbon filter is installed to eliminate bitumen fume emission.</li> </ul>
EP19	Exhaust from the diesel burner of the Bitumen Storage and Drum Decanter (to be provided)	<ul style="list-style-type: none"> <li>Air-to-fuel ratio shall be properly controlled to achieve complete fuel combustion.</li> <li>Maximum sulphur content of liquid fuel used shall be 0.005% by weight.</li> <li></li> </ul>
EP20	Fugitive dust emissions from oversized aggregate reject bin	<ul style="list-style-type: none"> <li>Water sprinklers are operated during loading of rejected aggregate.</li> </ul>
EP21	Fugitive dust emissions from rejected aggregate storage	<ul style="list-style-type: none"> <li>Sufficient automatic water sprinklers and manual water hoses are installed and operated during loading of aggregate to suppress possible dust emissions.</li> <li>Three sides enclosure with the top cover and front-side curtain.</li> </ul>
EP22	Fugitive dust emissions from Paved Road	<ul style="list-style-type: none"> <li>All access roads within the Application Site are hard-paved and adequately wetted during operational hours.</li> <li>Vehicle and wheel washing facilities are provided to remove dust or mud deposits on vehicle body and wheels prior to exiting the Application Site.</li> <li>Traffic on site is restricted to 5km/hour.</li> <li>Loaded tankers/trucks shall be fully covering with tarpaulin sheet before leaving the Application Site.</li> </ul>
EP23	Temporary Diesel Generator already removed	<ul style="list-style-type: none"> <li>Not applicable</li> </ul>
EP24	Combustion products from diesel fuel for Emergency Generator	<ul style="list-style-type: none"> <li>Air-to-fuel ratio is properly controlled to achieve complete fuel combustion.</li> <li>Ventilation duct for the heater is 8m above ground to assist air pollutants dispersion.</li> <li>Maximum sulphur content of liquid fuel used is 0.005% by weight.</li> </ul>
EP25	Bitumen fume emission from heated Bitumen Storage and Drum Decanter (to be provided)	<ul style="list-style-type: none"> <li>The heating temperature of the bitumen storage shall not exceed the corresponding temperature limit Tamper-free high temperature cut-off device shall be provided to cut off the heater in case the upper limit for bitumen temperature is reached. The cut off temperature shall be set at 191°C.</li> <li>Activated carbon filter will be installed to eliminate bitumen fume emission.</li> </ul>



## 2.3 Noise

### 2.3.1 As mentioned in **paragraph 1.2.2**, two planning applications were made under the TPO:

#### 1. Planning Application No. A/NE-FTA/148

- a. It was made under Section 16 of the TPO supported by an Environmental Assessment ("EA 2014") Report for the Temporary Asphalt Plant.
- b. The noise impact arising from the Plant during on-site operation was assessed based on the Sound Power Levels ("SWLs") for most of the equipment recommended in the *Technical Memorandum on Noise from Construction Work Other Than Percussive Piling* ("GW-TM") and *Sound Power Levels of other commonly used PME* ("Other PME List").
- c. The SWL of Rotary Dryer Drum was calculated based on the sound data provided by the manufacturer.
- d. The SWLs of Main Exhaust Fan, Feed Unit (or Mixer) and Reclaimed Asphalt Pavement ("RAP") Processing Plant were calculated based on the sound data measured at the asphalt plant at Anderson Road Quarry.
- e. No adverse operation noise impact was concluded based on the noise assessment results in the EA 2014.
- f. The planning application was approved with conditions by the TPB on 12 December 2014.

#### 2. Planning Application No. A/NE-FTA/192

- a. This application supported by the EA Report dated 12 August 2019 ("EA 2019") was made to the TPB to renew planning approval for the Temporary Asphalt Plant for another five years.
- b. Similar to EA 2014, in EA 2019 the noise impact arising from the Plant during on-site operation was assessed based on the SWLs for most of the equipment including Mixing Unit (or Mixer) recommended in the GW-TM and Other PME List.
- c. The SWLs of Rotary Dryer Drum, RAP Processing Machine and Main Exhaust Fan which are not available in GW-TM and Other PME List were calculated based on the actual noise measurements at the Temporary Asphalt Plant during operation.
- d. The SWL of Loader was referred to the catalogue of the supplier.
- e. No adverse operation noise impact was concluded based on the noise assessment results in the EA 2019.
- f. Off-site traffic noise impact was qualitatively reviewed and no adverse off-site traffic noise impact was concluded.
- g. Comment regarding provision of noise mitigation measures on the EA 2019 was received and the Applicant responded to be committed to provide a number of noise mitigation measures.
- h. On 18 October 2019, the renewal application was approved with conditions for a period from 13 December 2019 to 12 December 2024.

- i. Only one approval condition, Approval Condition (g), was related to noise.
- j. Approval Condition (g) states “*the implementation of noise mitigation measures, as proposed by you, as required under approval condition (g) to the satisfaction of the Director of Environmental Protection or of the TPB by 13.9.2021*”.
- k. As shown in **Appendix A**, the details of the noise mitigation measures implementation were submitted to the TPB on 18 June 2021. The submission of the implemented noise mitigation measures was found to comply with the requirements and Approval Conditions (g) was confirmed to be complied with on 26 July 2021.

2.3.2 As mentioned in **Section 1.4**, **there is no change in the nature, and no change to the Application Site configuration, building bulk, site area, form, and major development parameters of the approved Plant, and the Application Site remains unchanged when compared to the previous application.** The Application Site configuration and layout are identical to the approved scheme.

2.3.3 In order to determine the potential adverse noise impact on the Noise Sensitive Receivers (“NSRs”) due to the continued operation of the Temporary Asphalt Plant for this Planning Application for renewal, a review has been conducted to review:

- Noise Criteria
- NSRs
- Noise Impact from Off-Site Traffic noise
- Noise Impact from On-Site Operation Noise

#### Review of Noise Criteria

2.3.4 The operation of the Temporary Asphalt Plant shall comply with the noise criteria stipulated in the *Noise Control Ordinance* (Cap. 400) and *Chapter 9 Environment of the Hong Kong Planning Standard and Guidelines* (“HKPSG”).

2.3.5 Noise criteria for on-site operation noise (or fixed plant noise) during operation phase given in the *Technical Memorandum for the Assessment of Noise from Places other than Domestic premises, Public places or Construction Sites* (“IND-TM”) issued under NCO.





2.3.6 The noise criteria for planned fixed noise source is (a) 5 dB(A) below the appropriate ANLs as shown in Table 2 of IND-TM, or (b) the prevailing background noise level if the background noise level is 5 dB(A) lower than the ANLs.


2.3.7 There is no update or amendment of both IND-TM and HKPSG from Year 2019 (last submission of EA 2019) to Year 2024. Therefore, the noise criteria adopted in EA 2019 are considered to be valid for this Planning Application.

#### Review of NSRs

2.3.8 Five NSRs were identified in the first layer within 300m from the Site Boundary in EA 2019 which was the same as EA 2014. Site visit was conducted on 15 July and 17 October 2024 respectively to review the status of identified NSRs. Desktop study has also been carried out to review any new or planned NSRs within 300m study area. The review summary of all the identified NSRs is shown in **Table 2-3**. There is no change of the usage of the NSRs identified in EA 2019. Furthermore, there is no new or planned NSRs.

*Table 2-3 Review of NSRs*

NSR ID	Description	No. of Storeys	Area Sensitivity Rating	Land use in EA 2019	Review of Land Use	Photographic Record
IN1	Village House at Hung Kiu San Tsuen	2	A	Residential	Residential	
IN2	Village House at Lee Ka Yuen	2	A	Residential	Residential	
IN3	Village House 1	1	A	Residential	Residential	
IN4	Village House 2	1	A	Residential	Residential	

NSR ID	Description	No. of Storeys	Area Sensitivity Rating	Land use in EA 2019	Review of Land Use	Photographic Record
IN5	Village House 3	1	A	Residential	Residential	

2.3.9 All the identified NSRs are located in a rural area and there is no change in land use since Year 2019. No major roads with annual average daily traffic flow in excess of 30,000 or industrial areas are found in the vicinity of the identified NSRs since 2019 according to the Annual Traffic Census 2022. Therefore, the Area Sensitivity Rating (“ASR”) of the identified NSRs is Type A, as per IND-TM. The identification is the same as EA 2019.

#### Review of Noise Impact from Off-Site Traffic Noise

2.3.10 The maximum HMA production capacity will remain unchanged, i.e., 160 tonnes/hour. Therefore, the traffic arising from the Plant operation will also be unchanged. The maximum vehicle arising from the site is 24 trips/ hours at day and evening time; while 10 trips/ hour at night time.

2.3.11 A Review on Traffic Flow and the contribution of the application Plant has been conducted to assess potential noise due to the Plant operation. The HKPSG assessment criteria for domestic premises is 70 dB(A). Besides, contribution of less than 1.0 dB(A) is considered to be not significant in accordance with the *Road Traffic Noise Impact Assessment under the Environmental Impact Assessment Ordinance* (“GN 12/2023”). The summary of the Traffic Noise contribution in 2024 and 2029 are provided in **Table 2-4** to **Table 2-5**.

Table 2-4 Summary of Traffic Noise Contribution of the Plant in 2024 (AM Peak)

ROAD ID	ROAD DESCRIPTION		BASIC NOISE LEVEL, dB(A)		CONTRIBUTION, dB(A)
			WITH THE PLANT	WITHOUT THE PLANT	
L001	Man Kam To Road	NB	72.7	72.7	0.0
L002	Man Kam To Road	SB	73.3	73.3	0.0
L003	Kong Nga Po Road	EB	68.1	68.1	0.0
L004	Kong Nga Po Road	WB	66.6	66.6	0.0
L005	Man Kam To Road	SB	74.0	74.0	0.0
L006	Man Kam To Road	NB	74.1	74.1	0.0
L007	Access Road to Open Storage Site No.7	EB	61.1	61.1	0.0
L008	Access Road to Open Storage Site No.7	WB	63.2	63.2	0.0
L009	Man Kam To Road	NB	74.3	74.3	0.0
L010	Man Kam To Road	SB	74.3	74.3	0.0

ROAD ID	ROAD DESCRIPTION		BASIC NOISE LEVEL, dB(A)		CONTRIBUTION, dB(A)
			WITH THE PLANT	WITHOUT THE PLANT	
L011	Man Kam To Road	NB	74.4	74.2	0.2
L012	Man Kam To Road	SB	74.4	74.2	0.2
L013	Fu Tei Au Road	EB	60.7	60.7	0.0
L014	Fu Tei Au Road	WB	59.0	59.0	0.0
L015	Unnamed Access Road	WB	53.2	53.2	0.0
L016	Unnamed Access Road	EB	45.4	45.4	0.0
L017	Man Kam To Road	NB	74.5	74.3	0.2
L018	Man Kam To Road	SB	74.6	74.4	0.2

*Table 2-5 Summary of Traffic Noise Contribution of the Plant in 2024 (PM Peak)*

ROAD ID	ROAD DESCRIPTION		BASIC NOISE LEVEL, dB(A)		CONTRIBUTION, dB(A)
			WITH THE PLANT	WITHOUT THE PLANT	
L001	Man Kam To Road	NB	72.6	72.6	0.0
L002	Man Kam To Road	SB	71.8	71.8	0.0
L003	Kong Nga Po Road	EB	65.6	65.6	0.0
L004	Kong Nga Po Road	WB	65.4	65.4	0.0
L005	Man Kam To Road	SB	73.3	73.3	0.0
L006	Man Kam To Road	NB	72.6	72.6	0.0
L007	Access Road to Open Storage Site No.7	EB	63.4	63.4	0.0
L008	Access Road to Open Storage Site No.7	WB	61.9	61.9	0.0
L009	Man Kam To Road	NB	73.5	73.5	0.0
L010	Man Kam To Road	SB	73.1	73.1	0.0
L011	Man Kam To Road	NB	73.8	73.5	0.2
L012	Man Kam To Road	SB	73.3	73.1	0.2
L013	Fu Tei Au Road	EB	60.1	60.1	0.0
L014	Fu Tei Au Road	WB	61.6	61.6	0.0
L015	Unnamed Access Road	WB	55.6	55.6	0.0
L016	Unnamed Access Road	EB	57.9	57.9	0.0
L017	Man Kam To Road	NB	74.0	73.8	0.2
L018	Man Kam To Road	SB	73.5	73.2	0.2

*Table 2-6 Summary of Traffic Noise Contribution of the Plant in 2029 (AM Peak)*

ROAD ID	ROAD DESCRIPTION		BASIC NOISE LEVEL, dB(A)		CONTRIBUTION, dB(A)
			WITH THE PLANT	WITHOUT THE PLANT	
L001	Man Kam To Road	NB	72.9	72.9	0.0
L002	Man Kam To Road	SB	73.6	73.6	0.0
L003	Kong Nga Po Road	EB	70.7	70.7	0.0
L004	Kong Nga Po Road	WB	69.9	69.9	0.0
L005	Man Kam To Road	SB	74.9	74.9	0.0
L006	Man Kam To Road	NB	75.1	75.1	0.0
L007	Access Road to Open Storage Site No.7	EB	61.2	61.2	0.0



ROAD ID	ROAD DESCRIPTION		BASIC NOISE LEVEL, dB(A)		CONTRIBUTION, dB(A)
			WITH THE PLANT	WITHOUT THE PLANT	
L008	Access Road to Open Storage Site No.7	WB	63.2	63.2	0.0
L009	Man Kam To Road	NB	75.2	75.2	0.0
L010	Man Kam To Road	SB	75.2	75.2	0.0
L011	Man Kam To Road	NB	75.3	75.1	0.1
L012	Man Kam To Road	SB	75.3	75.1	0.1
L013	Fu Tei Au Road	EB	60.6	60.6	0.0
L014	Fu Tei Au Road	WB	58.9	58.9	0.0
L015	Unnamed Access Road	WB	53.2	53.2	0.0
L016	Unnamed Access Road	EB	45.4	45.4	0.0
L017	Man Kam To Road	NB	75.3	75.2	0.1
L018	Man Kam To Road	SB	75.4	75.3	0.1

*Table 2-7 Summary of Traffic Noise Contribution of the Plant in 2029 (PM Peak)*

ROAD ID	ROAD DESCRIPTION		BASIC NOISE LEVEL, dB(A)		CONTRIBUTION, dB(A)
			WITH THE PLANT	WITHOUT THE PLANT	
L001	Man Kam To Road	NB	72.8	72.8	0.0
L002	Man Kam To Road	SB	72.0	72.0	0.0
L003	Kong Nga Po Road	EB	68.2	68.2	0.0
L004	Kong Nga Po Road	WB	68.3	68.3	0.0
L005	Man Kam To Road	SB	74.1	74.1	0.0
L006	Man Kam To Road	NB	73.5	73.5	0.0
L007	Access Road to Open Storage Site No.7	EB	63.3	63.3	0.0
L008	Access Road to Open Storage Site No.7	WB	61.9	61.9	0.0
L009	Man Kam To Road	NB	74.3	74.3	0.0
L010	Man Kam To Road	SB	73.8	73.8	0.0
L011	Man Kam To Road	NB	74.5	74.3	0.2
L012	Man Kam To Road	SB	74.1	73.9	0.2
L013	Fu Tei Au Road	EB	60.0	60.0	0.0
L014	Fu Tei Au Road	WB	61.5	61.5	0.0
L015	Unnamed Access Road	WB	55.6	55.6	0.0
L016	Unnamed Access Road	EB	57.9	57.9	0.0
L017	Man Kam To Road	NB	74.7	74.6	0.2
L018	Man Kam To Road	SB	74.2	74.0	0.2

- 2.3.12 The contribution of the Plant on Traffic Noise at AM peak and PM peak in 2024 ranges from 0.0 to 0.2, while the contribution in 2029 ranges from 0.0 to 0.1. The contribution in 2024 and 2029 are less than 1.0 dB(A) and are acceptable in environmental view. Therefore, the no additional mitigation measure is required.

### Review of Noise Impact from On-Site Operation Noise

2.3.13 The operation hours, activities and operation schedule of on-site PME's during Plant operation remains unchanged since 2019. Therefore, the major noise sources listed below are the same as EA 2019:

- Mechanical and Electrical ("M&E") equipment
- Loading/unloading activities
- On-site movements of transportation trucks and wheel loaders

#### M&E Equipment

2.3.14 There is no change in quantity, type and location of M&E equipment such as water pumps, fire services pumps and transformers which are installed inside plant rooms. Small split-type and windows-type air-conditioners are installed at the site office. The noise impact arising from enclosed M&E and outdoor units of small air-conditioners are insignificant.

2.3.15 The Powered Mechanical Equipment ("PME") used on-site remains the same as EA 2019. The SWLs of PME's adopted in EA 2019 was obtained from manufacturers' catalogues provided by the Applicant, GW-TM, Other PME List and on-site noise measurement.

2.3.16 The utilisation of each PME as list in EA 2019 will remains unchanged and has been confirmed by the Plant operator, it is summarised in **Table 2-8**.

*Table 2-8 Operation Schedule of On-site Fixed PME*

PME	QUANTITY, UTILISATION (% PER 30MINS)	
	DAY AND EVENING	NIGHT
Exhaust Fan	1, 100%	1, 100%
Air Compressor (Air Flow $\leq 10\text{m}^3/\text{min}$ )	1, 50%	1, 30%
Rotary Dryer Drum (Aggregate)	1, 50%	1, 20%
Rotary Dryer Drum (RAP)	1, 50%	1, 20%
RAP Processing Machine	1, 100%	0, 0%
Screw Conveyor/Slant Belt Conveyor/Belt Conveyor	11, 100%	11, 30%
Bucket Elevator/Filler Elevator	6, 100%	5, 30%
Mixing Unit	1, 100%	1, 100%
Bitumen Pump	2, 100%	1, 50%

2.3.17 The SWLs of exhaust fan, rotary dryer drum and RAP Processing Depot adopted in the noise assessment in EA 2019 were determined based on site measured SPLs on 9 July 2019. In order to review the validity of the SWL of exhaust fan, rotary dryer drum and RAP Processing Depot, a noise measurement has been conducted on 17 October 2024. The measurement settings adopted in EA 2019 will be followed in this noise re-measurement. The SWL of above mentioned PME's was based on standard acoustic principle which was employed in EA 2019, the formula is showed as follows:

$$SPL = SWL - DC$$

where:

SPL = Sound Pressure Levels at receiver, in dB(A)

SWL = Sound Power Levels of PME, in dB(A)

DC = Distance Correction, in dB(A) by  $DC = 20 \log(D) + 8$

D = Horizontal distance between the NSR and source, in metres

- 2.3.18 The SWL of the exhaust fan is 2.6dB(A) lower, rotary dryer drum is 3.4dB(A) and RAP Processing Depot is 2.5dB(A) lower than the SWL of EA 2019. The details of noise measurement are provided in **Appendix D**.

#### Loading/unloading Activities

- 2.3.19 The main loading/ unloading activities, including operation schedule are the same as described in EA 2019. The SWL of loading/unloading activities from the truck refers to GW-TM, and the SWL of loading/unloading activities from the wheel loaders refers to manufacturers' catalogues provided by the Applicant. The wheeled loader has been replaced in February 2024 of which the SWL is the same as adopted in the assessment of EA 2019, the catalogue is provided in **Appendix E**, as such both references are valid. No idling is expected of trucks with operating engine before/after loading and unloading activities. The mitigation measures are implemented as stated in EA 2019.

- The aggregate unloading bay/storage area are three sides enclosed with top by cladding.
- The RAP unloading area is enclosed by cladding.
- The asphalt loading area is enclosed by two sides with top by cladding and curtains at the entrance and exit sides.

- 2.3.20 The utilisation of each PME as list in EA 2019 will remains unchanged and has been confirmed by the Plant operator, it is summarised in **Table 2-9**.

*Table 2-9 Operation Schedule of Loading/ Unloading Activities*

PME	QUANTITY, UTILISATION (% PER 30MINS)	
	DAY & EVENING	NIGHT
Wheel Loader (Loading/Unloading Aggregate/RAP)	26, 0.28%	6, 0.28%
Truck (Unloading Aggregate)	4, 1.67%	1, 1.67%
Truck (Loading Asphalt)	8, 1.67%	5, 1.67%
Truck (Unloading RAP)	1, 1.67%	1, 1.67%

#### On-site Operation Noise – Movement of Vehicles

- 2.3.21 Vehicles such as trucks and wheeled loaders will be used for raw material delivery and collection of asphalt. The route of vehicles travelling on-site and the operation is identical as that described in EA 2019. The SWLs of the vehicles was referenced from GW-TM and *Sound Power Levels of Other Commonly Used PME*, issued by EPD.

SWL of 105dB(A) for truck with gross vehicle weight lower than or equal to 38 tonne has been adopted in the assessment. Both references are valid.

- 2.3.22 The environment and terrain of the Site and surrounding environment is similar to that in 2019, no significant changes were identified during the site visit. Therefore, the application of screening correction for some of the road segment/ PMEs is still valid.

### Review on Prevailing Background Noise

- 2.3.23 A prevailing background noise was measured near NSR IN1 for preparation of 2014 EA Report (EA 2014) and was adopted in the noise assessment of EA 2019 after confirmation of no additional noise generation activities nearby compare with Year 2014. The prevailing background noise adopted in EA 2014 and EA 2019 is considered to be valid for this application, since there is no new noise generating activities in the vicinity of the Site was observed during the site visits, as such the measures background noise level in 2014 is representative as prevailing background noise level for this renewal application. Also, dominate noise source of all identified NSRs is Man Kam To Road, therefore, the prevailing background noise level should be similar at all NSRs.
- 2.3.24 The location of prevailing background noise measurement was conducted at NSR IN1 as shown **Figure 2-1**, the prevailing background noise is summarised in **Table 2-10**.

*Table 2-10 Summary of Background Noise*

ID	Measurement Location	Background Noise Level, dB(A)		
		Day	Evening	Night
BG1	Near NSR IN1	63	65	61

### Review on Noise Criteria at NSRs

- 2.3.25 As mentioned in paragraph 2.3.6, the noise criteria should be determined the lower level of prevailing background noise or 5 dB(A) lower the ANL. In view of there is no change in prevailing background noise level and the ASR of all NSRs, the noise criteria adopted in EA 2019 is valid, the summary is provided in **Table 2-11**.

*Table 2-11 Summary of Noise Criteria*

ID	Measurement Location	Period	Background Noise Level, dB(A)	ANL-5, dB(A)	Assessment Criteria, dB(A)
BG1	Near NSR IN1	Day	63	55	55
		Evening	65	55	55
		Night	61	45	45

- 2.3.26 All the NSRs in EA 2019 complied with the noise criteria, as mentioned in **paragraphs 2.3.15** and **2.3.17**, the noise sources remain unchanged, while the highest SWL of exhaust fan, rotary dryer drum and RAP Processing Depot is lower than that in EA 2019. Also, with the implementation of the mitigation measures. The predicated

noise level is expected to be lower or equal to previous assessment results, and hence, no exceedance is expected. The assessment result in EA 2019 is valid.

### Review on Mitigation Measures

2.3.27 Based on the Application Site observations on 11 July 2024 and 17 October 2024, the noise mitigation measures listed in the Compliance of Approval Condition (g) of Approved Planning Application No. A/NE-FTA/192-1 has been implemented and maintained, and no complaint was received in the past five (5) years:

- The exhaust fan is already fully enclosed with four sides and the top.
- The air compressor has been enclosed in the steel case with surface density about  $15\text{kg/m}^2$  (i.e. 2mm thick steel plate with density of about  $7,500\text{kg/m}^3$ ) lined with approx. 25mm thick sound absorptive material facing the air compressor.
- The door of the steel case keeps locked during operation of the air compressor.
- The air-intake of the steel case is facing northeast towards a hill, which is always from the nearby noise sensitive receivers.
- Additional noise barrier made of steel plate with surface density about  $22.5\text{kg/m}^2$  (i.e. 3mm thick steel plate with density of about  $7,500\text{kg/m}^3$ ) and 27mm sound absorptive material facing the ground, on the top of the compressor, has been also installed.
- A barrier to the west of the rotary dryer drum with surface density of approx.  $18\text{kg/m}^2$  has been installed (i.e. 6.2mm thick cement pressure plate with density of about  $2,300\text{kg/m}^3$  plus 0.5mm thick steel plate with density of about  $7,500\text{kg/m}^3$ ) lined with approx. 27mm thick sound absorptive material facing the drum
- The crusher of RAP Processing Machine has been enclosed with four sides and the top made of steel plate with surface density about  $22.5\text{kg/m}^2$  (i.e. 3mm thick steel plate with density of about  $7,500\text{kg/m}^3$ ) lined with 27mm thick sound absorptive material facing the machine.
- The motors for screw conveyor, slant belt conveyor and belt conveyor have been enclosed on both sides, the top, the bottom and the front which the enclosures is made of steel plates with surface density about  $22.5\text{kg/m}^2$  (i.e. 3mm thick steel plate with density of about  $7,500\text{kg/m}^3$ ) lined with 27mm thick sound absorptive material facing the motors.
- The elevators have been enclosed by steel plate with surface density about  $22.5\text{kg/m}^2$  (i.e. 3mm thick steel plate with density of about  $7,500\text{kg/m}^3$ ) lined with 27mm thick sound absorptive material facing the bucket elevator.
- The mixing unit is already fully enclosed by cladding.
- The pump has been enclosed on both sides, the top, the bottom and in front of the opening which the enclosures will be made of steel plates with surface density about  $22.5\text{kg/m}^2$  (i.e. 3mm thick steel plate with density of about  $7,500\text{kg/m}^3$ ) lined with 27mm thick sound absorptive material facing the pump.
- 2.5m high hoarding erected along the Application Site Boundary



2.3.28 Furthermore, the noise mitigation measures submitted on 18 June 2021 were received with no comment from EPD (**Appendix A** refers).

2.3.29 Since no changes to Plant components or operations have been made and no change on NSRs and no new NSRs have been identified, PMEs used on-site remains the same, the measure SWL is comparable with that in EA 2019 and no significant change of traffic noise impact compared with EA 2019, EA Report is considered to remain valid. Also, all the noise mitigation measures listed in the Compliance of Approval Condition (g) of Approved Planning Application No. A/NE-FTA/192-1 has been implemented and maintained, and no complaint was received in the past 5 years. Therefore, no adverse noise impact arising from the continued Plant operation is anticipated.

## 2.4 Water Quality

2.4.1 As mentioned in the 2014 and 2019 EA Reports, water is not required for the production of HMA. No industrial wastewater is generated from the Temporary Asphalt Plant during operation. The only sources of wastewater during Plant operation include the following:

- Sewage generated from site staff
- Surface runoff

2.4.2 Since all water for vehicle wheel washing is treated and reused, there is no generation of wastewater from this source.

2.4.3 For the sewage generated from site staff, portable toilets equipped with storage tanks are already installed at the Temporary Asphalt Plant to collect sewage/wastewater generated by staff. The collected sewage/wastewater is tankered away by a licensed contractor for off-site disposal on a regular basis. No adverse water quality impact arises from the Temporary Asphalt Plant since the operation started. Hence, no adverse impact on water quality due to sewage/wastewater generated by staff is anticipated.

2.4.4 For the Application Site surface runoff, water sprinklers are installed for dust suppression and the entire site is paved. Operational procedures are applied to prevent over-wetting of the ground and roads so as to minimise surface runoff. All surface runoff is collected by the existing peripheral surface U-channels and diverted to sand traps for silt removal prior to being discharged into public drains.

2.4.5 Therefore, no adverse water quality impact due to surface runoff is anticipated.

## 2.5 Waste Management

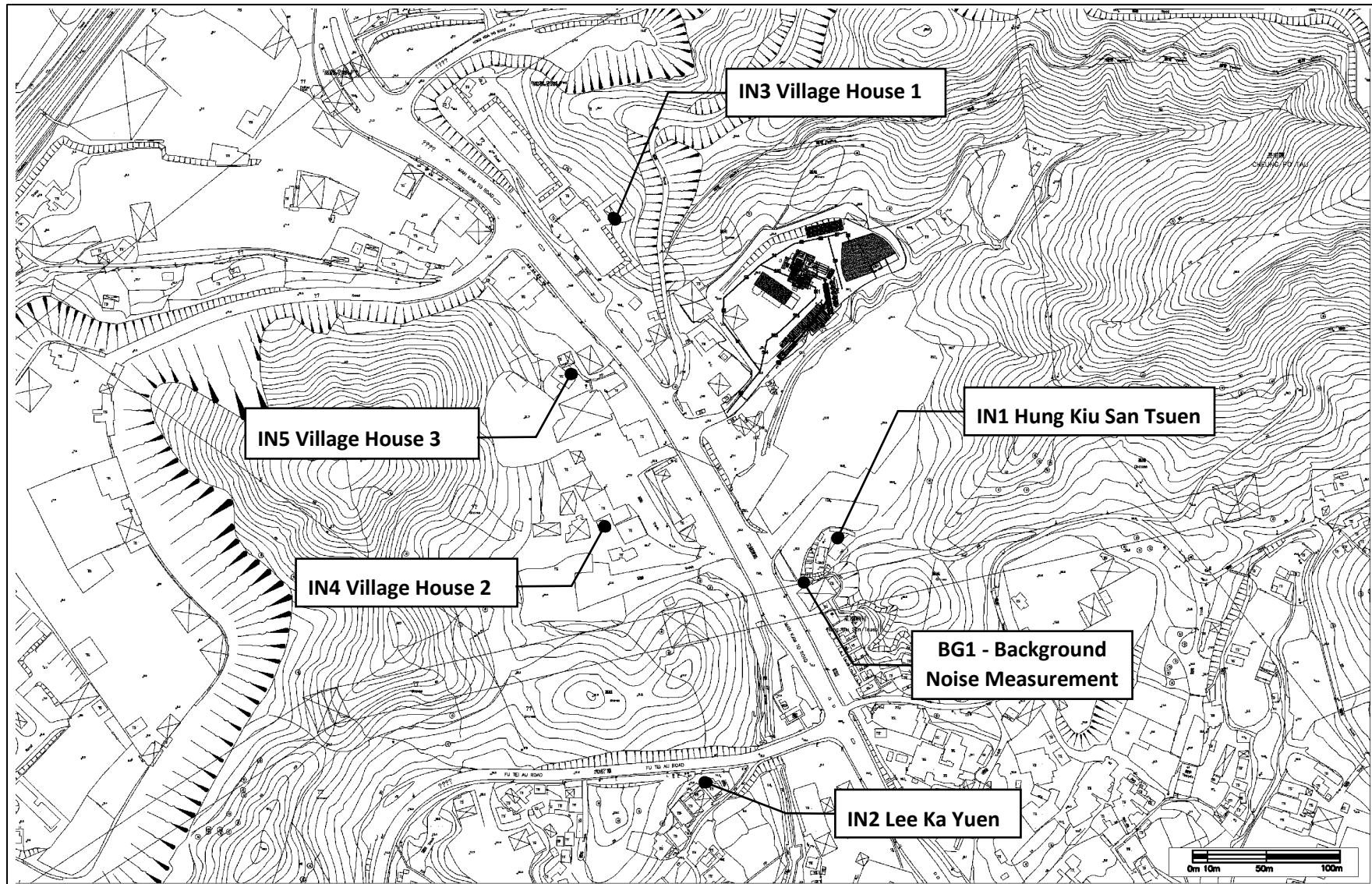
2.5.1 There is no change to the operation of the Temporary Asphalt Plant or disposal methods of waste. The waste generated from the Temporary Asphalt Plant operation mainly comprises general refuse, commercial waste, rejected aggregates, treated aggregate fines from the dust conditioner and chemical waste.

- 2.5.2 General refuse and commercial waste are collected and taken away regularly by a registered waste collector for disposal off-site at a landfill managed by EPD. Hence, no adverse waste implication due to handling, transportation and/or disposal of general refuse and commercial waste is anticipated.
- 2.5.3 Rejected aggregates and treated aggregate fines are Inert Construction and Demolition (“C&D”) Material and disposed of off-site at an appropriate government-managed facility. Temporary stockpiling area, enclosed at three sides and with a front curtain, is set up for storage of aggregate prior to disposal. No adverse impact from Inert C&D Material is anticipated.
- 2.5.4 No more than 85,000 tonnes of RAP is reused in producing HMA. Reuse of RAP in the production process as aggregate as mentioned in **paragraph 1.4.1** for green asphalt product instead of treating as C&D waste for disposal at being dumped at landfill, thereby helping to reduce the pressure on landfill capacity.
- 2.5.5 There is only a small quantity of chemical wastes including used oil filters, scrap battery and waste lubrication oil generated from daily operation of the Temporary Asphalt Plant. A licensed collector is employed to handle and disposed of the chemical wastes. Hence, no adverse impact from chemical waste is anticipated.

## 2.6 Land Contamination

- 2.6.1 In the 2014 EA Report, the Application Site was reported to be used as rice paddy prior to the 1970s. In the mid- to late-1970s, the Application Site was filled and converted to open land. Then Site was used for open storage, manufacture of construction materials, warehouses and concrete batching plant. The 2014 EA report concluded no sources of historical land contamination issues were identified and was considered valid in the 2019 EA Report.
- 2.6.2 There is **no change** to Plant operation after being used since 2017. Hence, the conclusion of no historical land contamination made in the 2014 Report is considered to remain valid for this Application.

Figure 2-1 Location of Noise Sensitive Receivers and Background Noise Measurement



### 3 CONCLUSION

#### 3.1 General

- 3.1.1 The Plant has been in operation since 2017 after obtaining the approval with conditions from TPB for Planning Application No. A/NE-FTA/148 in 2014, SP Licence No. L-15-035(1) from EPD in 2017, approval with conditions from TPB for Planning Renewal Application No. A/NE-FTA/192 in 2019 and renewed SP Licence No. L-15-035(2) in 2020. The SP Licence No. L-15-035(2) is being renewed and no adverse comment on the APCP is received. The Planning Application aims to renew the latest planning permission under Planning Application No. A/NE-FTA/192 from TPB which will expire on 12 December 2024 such that the Applicant can be given opportunity to continue using the Application Site for the Temporary Asphalt Plant. Considering the Temporary Asphalt Plant supplies asphalt for major infrastructure projects, airport runway and road maintenance works, it is necessary to keep the Temporary Asphalt Plant operation to avoid any disruption in the progress of the involved projects. In the light of this reason, the Applicant would like to apply for the Temporary Asphalt Plant operation for the other five years by submitting a planning application under Section 16 of TPO. This EA Report has been prepared to support the Planning Application.
- 3.1.2 The Temporary Asphalt Plant under the current application is proposed to maintain existing operation approved under previous application. There is **no change** to the Application Site configuration, building bulk, site area, form, and major development parameters of the approved Temporary Asphalt Plant. The application site remains unchanged when compared to the previous application. The existing operation is proven to induce no adverse environmental impact by maintaining good operation and on-site practices.
- 3.1.3 The main product of the Temporary Asphalt Plant is HMA and the maximum HMA production rate remains the same, i.e., 160 tonnes/hour using a batch mix production mode. Since road maintenance works are mainly processed between midnight and early morning, the Temporary Asphalt Plant must operate 24 hours per day supplying HMA in order to meet the demand.
- 3.1.4 The Temporary Asphalt Plant has already been built and in operation since 2017. No construction works will be required for the extension of operation. Therefore, there will be no construction-related impact on air quality, noise, water quality and waste management. The environmental impacts arising from the operation of the Temporary Asphalt Plant has not been changed since the 2019 EA report.
- 3.1.5 The conclusions for air quality, noise water quality, waste management and land contamination are as follows:

### 3.2 Air Quality

3.2.1 The letter confirming the application of SP Licence renewal supported by the 2024 APCP received with no comment was obtained on 17 October 2024 (**Appendix C** refers). It is concluded in the APCP that:

3. The Plant is operated by the Licence Holder capable of providing and maintaining the best practicable means for the prevention of the emission from the premises of any air pollutant.
4. The Plant operation would not affect the attainment and maintenance of the prevailing AQOs.
5. No emission noxious or offensive emission would be, or be likely to be, prejudicial to health due to the Plant operation.

3.2.2 In the light of receiving with no comments on the 2024 APCP and obtaining the confirmation of completing the SP Licence renewal application, it can be concluded that no adverse air quality impact or health impact will arise from the continued operation of the Temporary Asphalt Plant.

### 3.3 Noise

3.3.1 A review on identified NSRs, SWL adopted in the assessment and the traffic impact have been conducted. Since no changes on the Temporary Asphalt Plant component and operation and the NSR, the noise impact assessment provided by 2019 EA Report is referred to in this EA Report. Based on 2019 EA Report, no adverse noise impact in terms of off-site traffic noise or on-site operation noise is anticipated. Also, all the noise mitigation measures listed in the Compliance of Approval Condition (g) of Approved Planning Application No. A/NE-FTA/192-1 has been implemented and maintained, and no complaint was received in the past 5 years. Therefore, with the implementation and maintenance of noise mitigation measures, no adverse noise impact is expected.

### 3.4 Water Quality

3.4.1 HMA production process does not require the use of water and so there is no industrial wastewater arising from the Temporary Asphalt Plant operation. The sources of water pollution from the Temporary Asphalt Plant includes sewage from site staff and surface runoff from the Application Site. All water for vehicle wheel washing is treated and reused.

3.4.2 Portable toilets equipped with storage tanks are installed to collect sewage generated by site staff. The sewage collected is disposed by licenced contractors. All site runoff is collected by existing peripheral surface U-channels and diverted to sedimentation tanks for silt removal prior to discharge into public drains. Therefore, no adverse water quality impact arises from the Temporary Asphalt Plant operation is anticipated.



### **3.5 Waste Management**

- 3.5.1 General refuse and commercial waste generated are collected by registered waste collectors and disposed at a landfill managed by EPD regularly. Rejected aggregates and treated aggregate fines are disposed of off-site at an appropriate government-managed facility. Chemical waste is collected by licensed collectors. Hence, no adverse impact of waste from the Temporary Asphalt Plant operation was caused previously or is anticipated hereafter.

### **3.6 Land Contamination**

- 3.6.1 With reference to 2014 EA Report, no suspected land contaminated were found based on aerial photographs. The 2014 EA Report draws a conclusion that no sources of historical land contamination issues were identified. The conclusion is still considered valid under this Application as there is no change on the land use. Therefore, no land contamination is anticipated within the Application Site.

## **Appendix A** Letter of Compliance from Planning Department for A/NE-FTA/192

Our ref: 7076703/L27544/AW/MCC/rw

18 June 2021

District Planning Officer/Shu Tin, Tai Po & North  
Shu Tin, Tai Po & North District Planning Office  
13/F Shu Tin Government Offices  
1 Sheung Wo Che Road, Shu Tin  
New Territories, Hong Kong

By Post

Attention: Ms Wendy LEE

Dear Madam

**Renewal of Planning Approval for Temporary Asphalt Plant for a Period of 5 Years at  
Lots 20 RP (Part), 21 and 23 RP (Part) in D.D. 88 and adjoining  
Government Land, East of Man Kam To Road, Sheung Shui  
Compliance of Approval Condition (g) of Approved Planning Application No. A/NE-FTA/192-1)**

Further to the letter of the Town Planning Board dated 1 June 2021 regarding the non-compliance with approval condition (g), we are pleased to enclose herewith the Response to Comment ("RtoC") table and the revised submission of the implementation of the noise mitigation measures for discharging approval condition (g).

The Applicant confirms that noise mitigation measures will be properly and fully implemented to assure that noise standards under Chapter 9 of the *Hong Kong Planning Standards and Guidelines* ("HKPSG") would be complied with.

I, as a corporate member of Hong Kong Institute of Acoustics (membership no: M155), hereby certify that the noise mitigation measures proposed by the Applicant are in line with the mitigation measures recommended and committed in the Further Information ("FI") of the captioned planning application. A figure with photographs for illustration purpose on the implemented noise mitigation measures has been enclosed for reference.

Should you have any queries regarding the above, please do not hesitate to contact the undersigned on 3995 8120.

Yours faithfully



**Antony WONG**  
Technical Director – Water & Environment

Encl.

**SMEC ASIA LIMITED**  
27/F Ford Glory Plaza, 37-39 Wing Hong Street  
Cheung Sha Wan, Kowloon, Hong Kong  
T +852 3995 8100  
F +852 3995 8101  
E hongkong@smec.com  
W www.smec.com



Ref.	Information Request	Responses
<b>Comments from EPD (Contact Person: Ms Candice CHUNG, Tel: 2835 1114)</b>		
	<ul style="list-style-type: none"> <li>Response-to-Comment Item C – the applicant should state in the submission the surface mass density of the steel case enclosing the air compressor (e.g. whether it is <math>\geq 10\text{kg/m}^2</math>). The door of the steel case should also kept locked. The applicant should also clarify if the air-intake is facing away from nearby noise sensitive receivers.</li> </ul>	<p>The density of steel varies between approx. <math>7,500\text{kg/m}^3</math> and <math>8,000\text{kg/m}^3</math>. Furthermore, according to BD's Code of Practice ("CoP") for the Structural Use of Steel 2011 which can be downloaded from <a href="https://www.bd.gov.hk/doc/en/resources/codes-and-references/code-and-design-manuals/SUOS2011.pdf">https://www.bd.gov.hk/doc/en/resources/codes-and-references/code-and-design-manuals/SUOS2011.pdf</a>, steel density is <math>7,850\text{kg/m}^3</math>. For a conservative approach, the steel density of <math>7,500\text{kg/m}^3</math> is therefore adopted.</p> <p>As advised by the Applicant, the thicknesses of steel case is approx. 2mm. Therefore, the surface density of the steel case is approx. <math>15\text{kg/m}^2</math>. The exact surface density (i.e. <math>15\text{kg/m}^2</math>) and thickness of the steel case (i.e. 2mm) and sound absorptive material (i.e. 25mm) have been provided in the revised submission.</p> <p>The Applicant also confirmed that the door of the steel case are kept locked during operation of the air compressor. Besides, the air-intake of the steel case is facing northeast towards a hill, which is away from the nearby noise sensitive receivers. The relevant information have been also provided in the revised submission.</p>

Item	Machine	Noise Mitigation Measures
1	Exhaust Fan	The exhaust fan is already fully enclosed with four sides and the top.
2	Air Compressor	<p>The air compressor has been enclosed in the steel case with surface density about <math>15\text{kg/m}^2</math> (i.e. 2mm thick steel plate with density of about <math>7,500\text{kg/m}^3</math>) lined with approx. 25mm thick sound absorptive material facing the air compressor. The Applicant confirmed the door of the steel case shall be kept locked during operation of the air compressor. Besides, the air-intake of the steel case is facing northeast towards a hill, which is always from the nearby noise sensitive receivers.</p> <p>Additional noise barrier made of steel plate with surface density about <math>22.5\text{kg/m}^2</math> (i.e. 3mm thick steel plate with density of about <math>7,500\text{kg/m}^3</math>) and 27mm sound absorptive material facing the ground, on the top of the compressor, has been also installed.</p>
3	Rotary Dryer Drum	Screened by a barrier to the west of the drum with surface density of approx. $18\text{kg/m}^2$ (i.e. 6.2mm thick cement pressure plate with density of about $2,300\text{kg/m}^3$ plus 0.5mm thick steel plate with density of about $7,500\text{kg/m}^3$ ) lined with approx. 27mm thick sound absorptive material facing the drum.
4	RAP Processing Machine	The crusher of RAP Processing Machine has been enclosed with four sides and the top made of steel plate with surface density about $22.5\text{kg/m}^2$ (i.e. 3mm thick steel plate with density of about $7,500\text{kg/m}^3$ ) lined with 27mm thick sound absorptive material facing the machine.
5	Screw Conveyor/Slant Belt Conveyor/Belt Conveyor	<p>Due to the operation need for heat dissipation of motors, the proposed noise mitigation measures have been slightly modified as follows:</p> <p>(a) The motors have been enclosed on both sides, the top, the bottom and the front which the enclosures is made of steel plates with surface density about <math>22.5\text{kg/m}^2</math> (i.e. 3mm thick steel plate with density of about <math>7,500\text{kg/m}^3</math>) lined with 27mm thick sound absorptive material facing the motors.</p>
6	Bucket Elevator/Filler Elevator	The elevators have been enclosed by steel plate with surface density about $22.5\text{kg/m}^2$ (i.e. 3mm thick steel plate with density of about $7,500\text{kg/m}^3$ ) lined with 27mm thick sound absorptive material facing the bucket elevator.
7	Mixing Unit	The mixing unit is already fully enclosed by cladding.
8	Bitumen Pump	<p>Due to the operation need for heat dissipation of pump, the proposed noise mitigation measures have been slightly modified as follows:</p> <p>(a) The pump has been enclosed on both sides, the top, the bottom and in front of the opening which the enclosures will be made of steel plates with surface density about <math>22.5\text{kg/m}^2</math> (i.e. 3mm thick steel plate with density of about <math>7,500\text{kg/m}^3</math>) lined with 27mm thick sound absorptive material facing the pump.</p>



Figure 1 – Noise Mitigation Measures (Sheet 1 of 5)

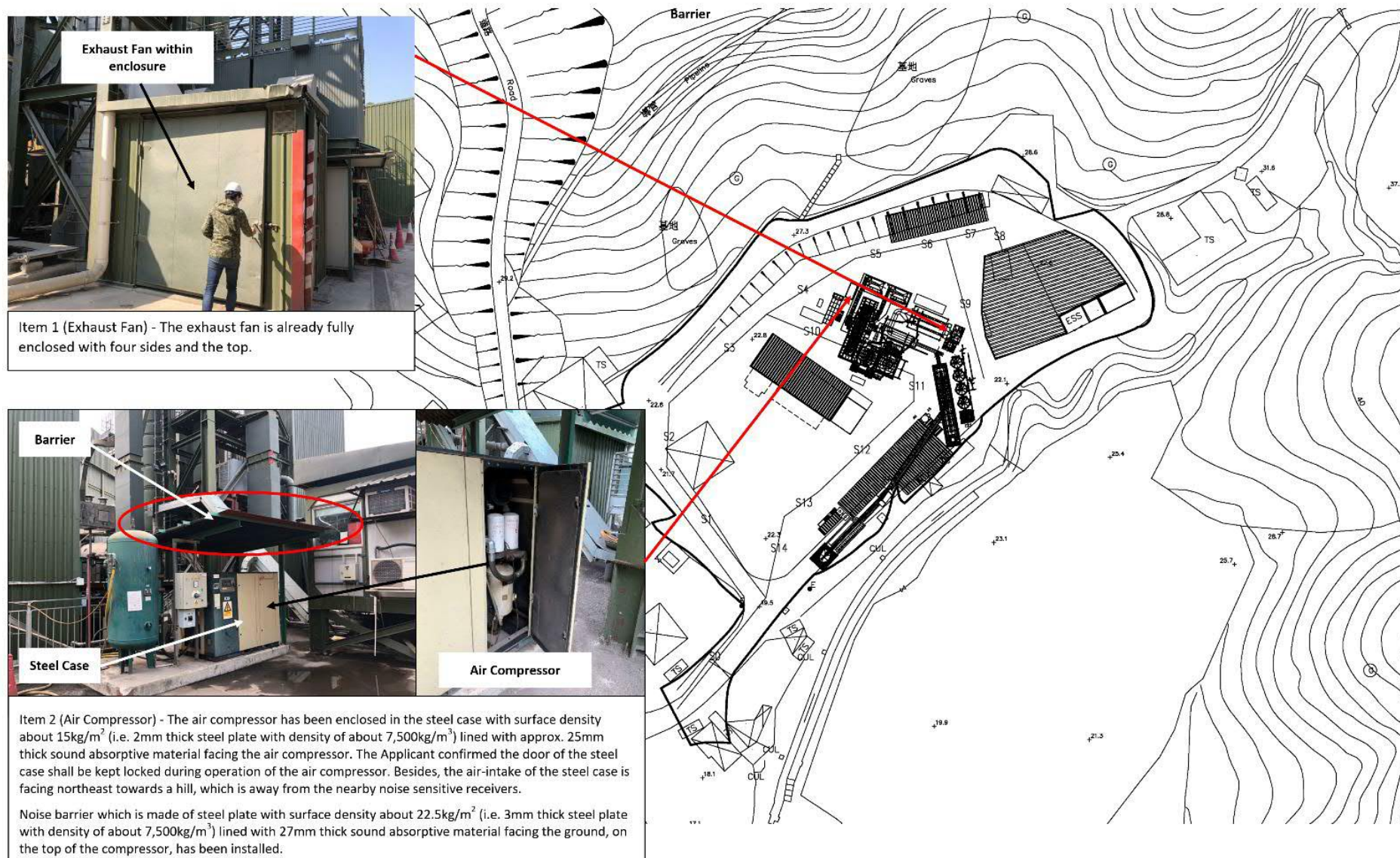




Figure 2 – Noise Mitigation Measures (Sheet 2 of 5)

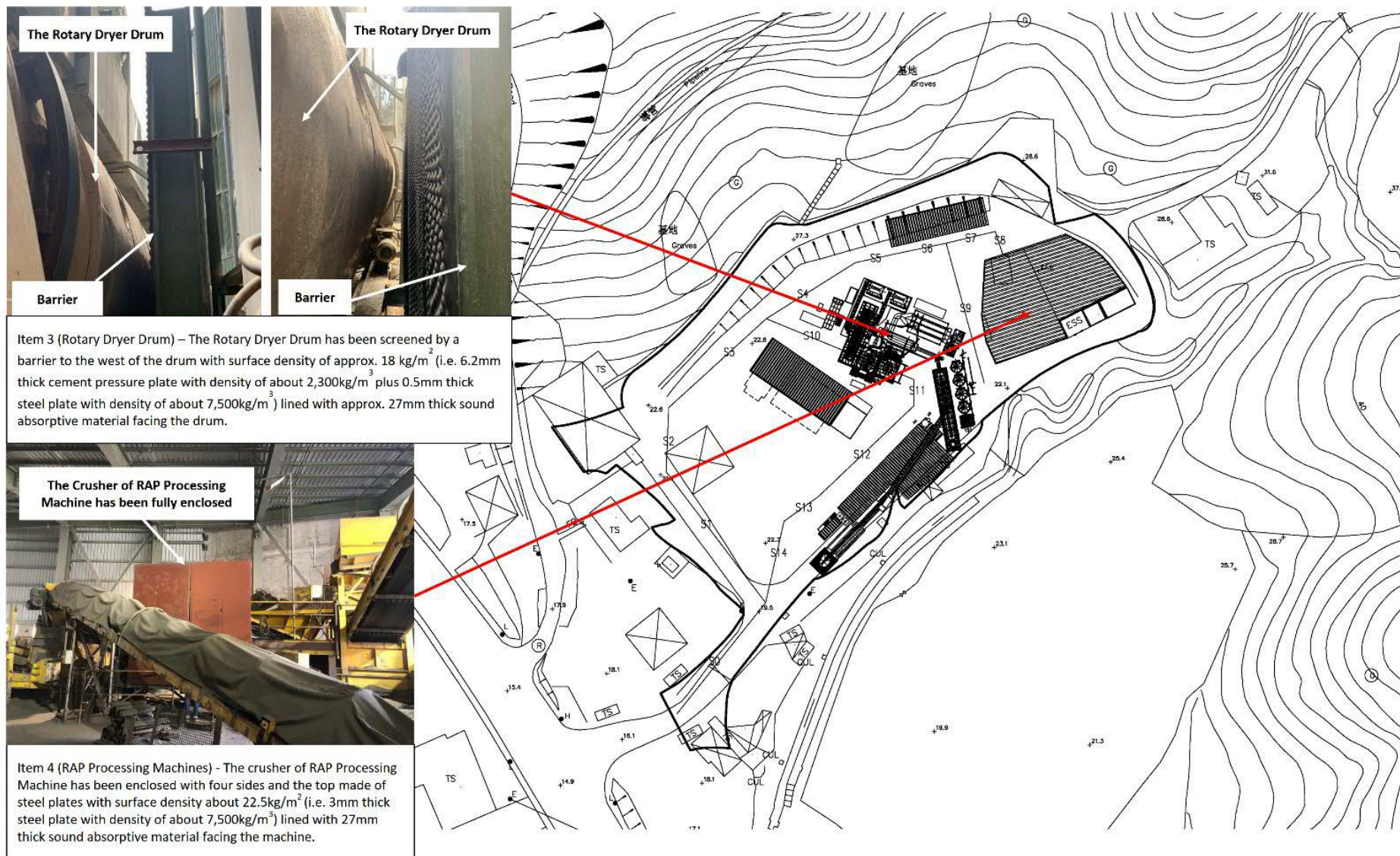




Figure 3 – Noise Mitigation Measures (Sheet 3 of 5)





Figure 4 – Noise Mitigation Measures (Sheet 4 of 5)

Item 6 (Bucket Elevator/Filler Elevator) - The elevators have been enclosed by steel plate with surface density about  $22.5\text{kg/m}^2$  (i.e. 3mm thick steel plate with density of about  $7,500\text{kg/m}^3$ ) lined with 27mm thick sound absorptive material facing the bucket elevator.

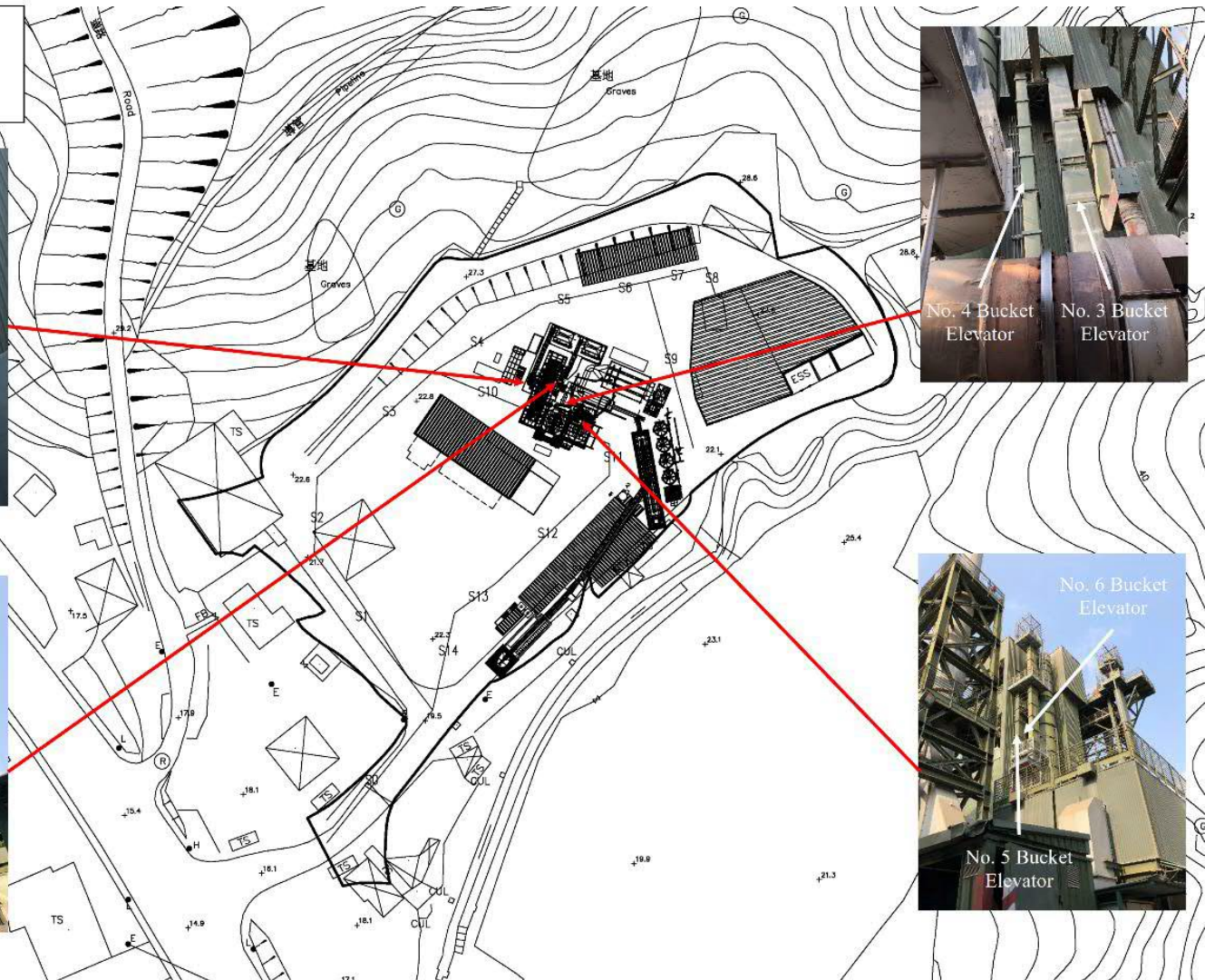
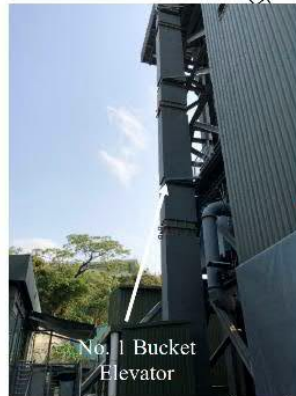
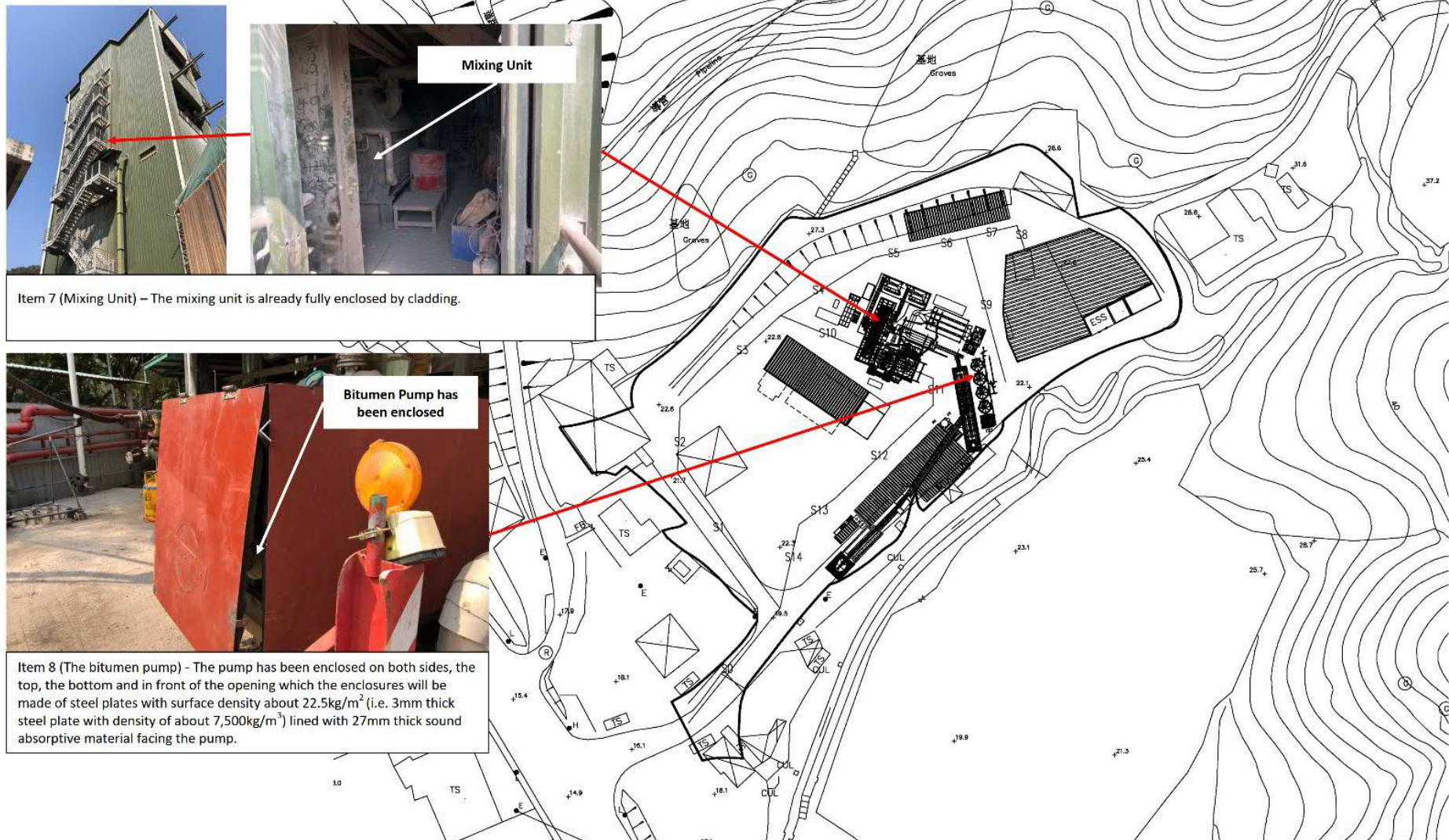




Figure 5 – Noise Mitigation Measures (Sheet 5 of 5)





## 規 劃 署

沙田、大埔及北區規劃處  
香港新界沙田上禾輦路一號  
沙田政府合署  
十三樓 1301-1314 室



## Planning Department

Sha Tin, Tai Po & North District  
Planning Office  
Rooms 1301-1314, 13/F,  
Shatin Government Offices,  
1 Sheung Wo Che Road, Sha Tin,  
N.T., Hong Kong.

本函檔號      Your Reference    ADCL/PLG-10189/L015  
本署檔號      Our Reference    (   ) in TPB/A/NE-FTA/192  
電話號碼      Tel. No. :        2158 6220  
傳真機號碼    Fax No. :        2691 2806 / 2696 2377

Aikon Development Consultancy Limited  
Unit 1310, 13/F, Tower 2 Metroplaza,  
223 Hing Fong Road, Kwai Chung  
New Territories, Hong Kong  
(Attn.: Mr. Thomas LUK)

**By Post and Fax (3180 7611)**

26 July 2021

Dear Mr. LUK,

**Renewal of Planning Approval for Temporary Asphalt Plant for a Period of 5 Years  
in "Open Storage" Zone, Lots 20 RP (Part), 21 and 23 RP (Part) in D.D. 88,  
and adjoining Government Land, East of Man Kam To Road, Sheung Shui**

**(Compliance with Approval Condition (g) for Application No. A/NE-FTA/192)**

I refer to your submission received on 18.6.2021 for compliance with approval condition (g) in relation to the implementation of noise mitigation measures.

Director of Environmental Protection (Contact Person: Ms. Candice CHUNG Tel.: 2835 1114) has been consulted and has no comment on your submission. As such, approval condition (g) is considered complied with.

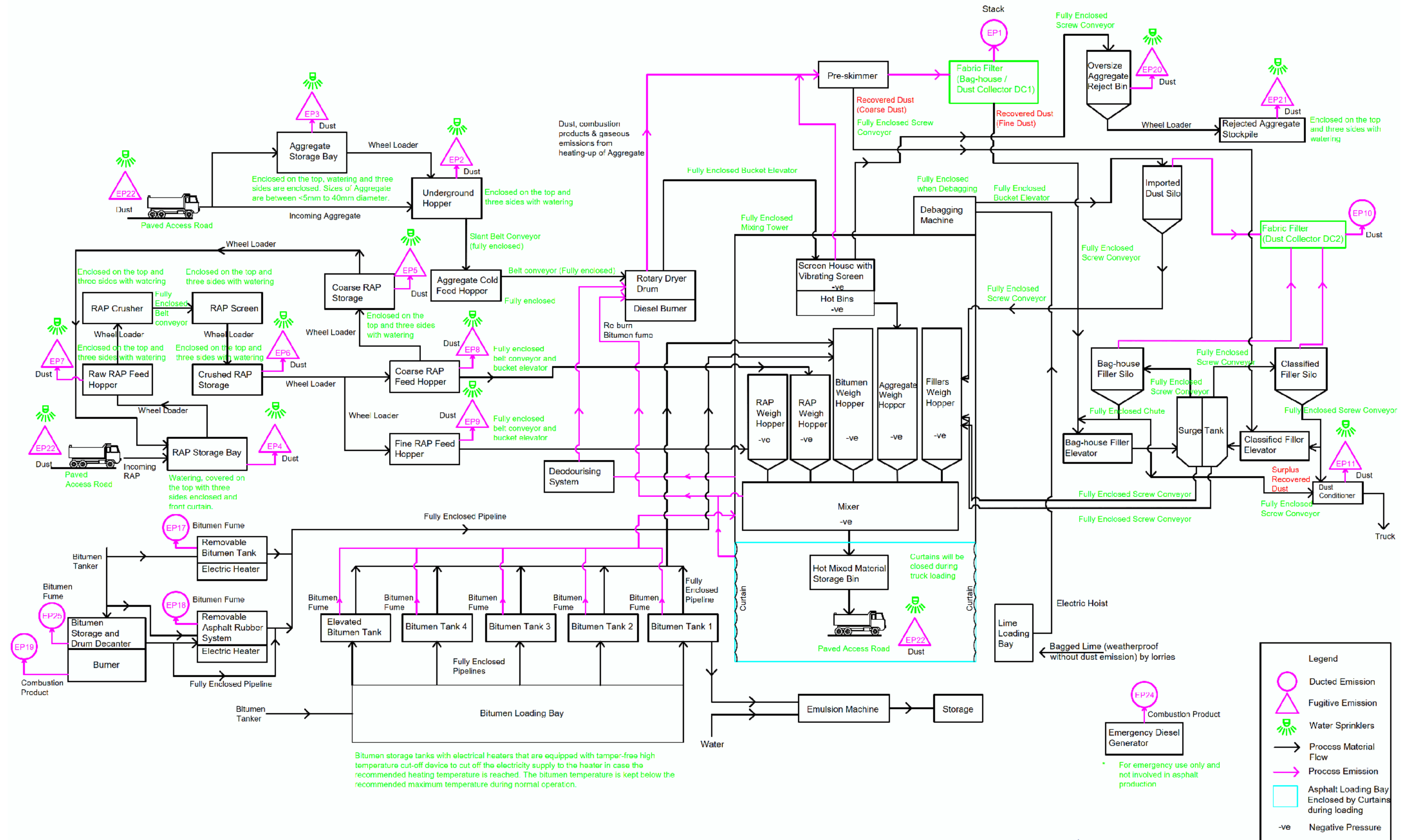
Should you have any queries, please feel free to contact Ms. Wendy W. L. LEE of this department at 2158 6241.

Yours faithfully,

( Ms. Jessica CHU )

for and on behalf of Director of Planning

## **Appendix B**      Schematic Diagram of the Temporary Asphalt Plant



Alexi Bhanja

Alexi BHANJA - Qualified Engineer  
Specialising in Civil, Environmental Engineering and  
Engineering of the Formwork for High-Rise Buildings  
RPE No. 0678580

Project: Asphalt Plant Along Man Kam To Road, Sheung Shui  
Title: Schematic Diagram  
DWG No.: KWA\_SS/02  
Revision: E Scale: NTS Date: 11 September 2024

## **Appendix C**      Letter of SP Licence Renewal

本署檔案  
OUR REF: ( ) in EP/RN/378916/SP  
來函檔案  
YOUR REF:  
電話 2158 5842  
TEL NO:  
圖文傳真 2685 1133  
FAX NO:  
網址  
HOMEPAGE: <http://www.cpd.gov.hk/>

Environmental Protection Department  
Environmental Compliance Division  
Regional Office (North)  
10/F., Sha Tin Government Offices,  
No. 1, Sheung Wo Che Road,  
Sha Tin, N.T. Hong Kong.



環境保護署  
環保法規管理科  
區域辦事處(北)  
香港新界沙田  
上禾輦路1號  
沙田政府合署10樓

**BY REGISTERED POST**

17 October 2024

K. Wah Asphalt Limited  
Suite No. 912, 9/F., Skyline Tower,  
39 Wang Kwong Road,  
Kowloon Bay, Hong Kong  
(Attn: Mr. Stephen Leung)

Dear Mr. Leung,

**Application for Renewal of a Licence Pursuant to  
Section 16 of the Air Pollution Control Ordinance**

I refer to your application for the renewal of the licence numbered L-15-035(2) for the conduct of a specified process, namely Tar and Bitumen Works in your premises at Lots No. 20 RP, 21, and 23 RP (Part) in D.D. 88 and Adjoining Government Land to the East of Man Kam To Road, Sheung Shui, New Territories.

Please be informed that the assessment of your application has been completed. Please find attached the revised Terms and Conditions (in both English and Chinese) for conducting the above-mentioned Tar and Bitumen Works for your study and comment. I should be grateful if you could indicate your agreement to and provide us with your comments on the draft Terms and Conditions, if any, on or before 31 October 2024.

Should you have any queries, please contact me at 2158 5842.

Yours faithfully,



(Alice WY TANG)

for Director of Environmental Protection

Encl.



## Appendix D      Detail Noise Measurement

## Noise Measurement Detail and Results for Existing PME of Asphalt Plant at Sheung Shui

### General Information

Date of Measurement: 17 Oct 2024

Time of Measurement: 14:00 -17:30

Weather Condition: Sunny

Measurement Equipment: RION NL-52 Sound Level Meter

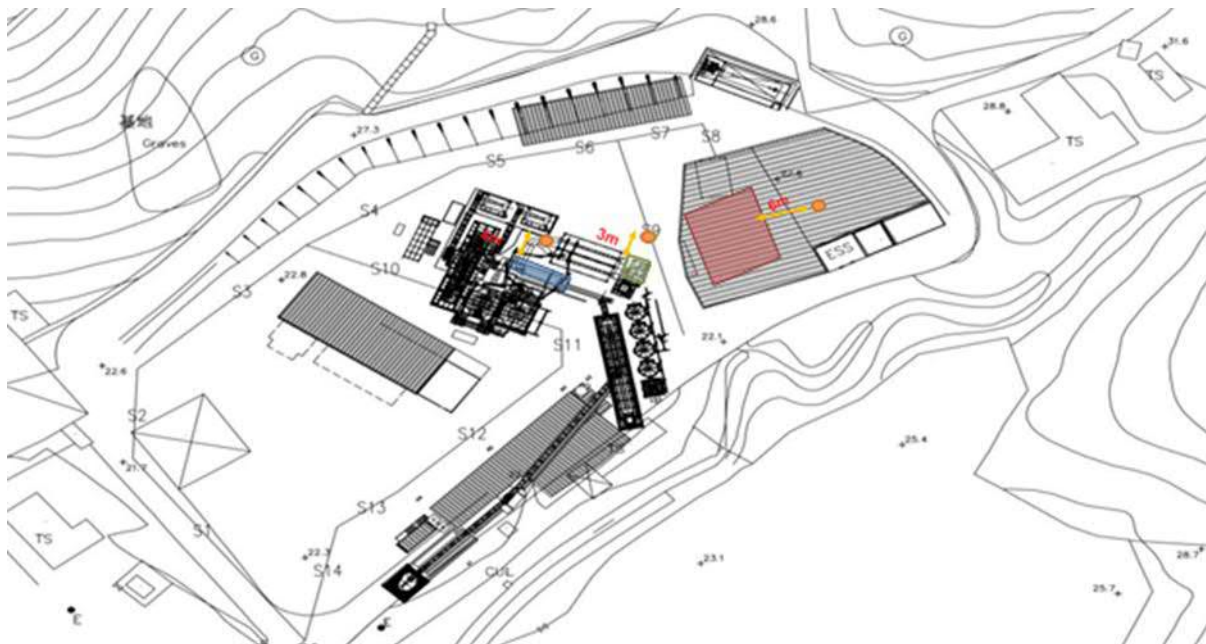
### Measurement Method

- Conduct calibration for noise meter before and after the noise measurement
- Weighted emission sound pressure level in dB(A) was measured
- Measurement duration of 1 minute
- Measurement height:1.2m above ground
- 2 measurement point for each PME (see below location plan)



### SWL Calculation

The SWL for the operation of PME was calculated based on the on-site measured noise level using the standard acoustic principles.

### Measurement location:



### Measurement Result

PME	Operation Condition	Figure Shape	Measure SPL, dB(A)	Measurement Distance (m)	Distance Correction, dB(A)	SWL, dB(A)	Highest SWL, dB(A)	Highest SWL in EA 2019, dB(A)	Remark
Rotary Dryer Drum	Full operation with no mitigation measure		74.8	4	20.0	94.8	94.8	98.2	Replaced dryer drum in Feb 2024
			74.8	4	20.0	94.8			
Main Exhaust Fan	Full operation with mitigation measure listed in S.2.3.5 of the EA Report		68.8	3	17.5	86.3	86.3	88.9	N/A
			68.6	3	17.5	86.1			
RAP Processing Machine	Full operation and measured inside the enclosure (mitigation measure), a steel plate barrier with a thickness of 1.5mm and a surface density of not less than 10kg/m <sup>2</sup>		77.0	6	23.6	100.6	100.6	103.1	Replaced wheeled loader in Feb 2024.
			75.9	6	23.6	99.5			

Note:

1. The model of replaced dryer drum is the same as adopted in the assessment of EA 2019
2. The wheeled loader has been replaced into new model, but the SWL of the plant is the same as adopted in the assessment of EA 2019.

## **Appendix E      Catalogue of Wheel Loader**

## Product Specifications For 950 GC



### Engine

<b>Net Power - ISO 9249</b>	225 hp
<b>Emissions</b>	Tier 4/Stage V
<b>Displacement</b>	428 in <sup>3</sup>
<b>Maximum Net Power - 1,700 rpm - ISO 9249 - Metric</b>	228 hp
<b>Maximum Power - 1,700 rpm - ISO 14396</b>	240 hp
<b>Maximum Power - 1,700 rpm - ISO 14396 - Metric</b>	243 hp
<b>Peak Gross Torque - 1,400 rpm - SAE J1995</b>	811 ft·lbf
<b>Peak Gross Torque - 1,400 rpm - ISO 14396</b>	805 ft·lbf
<b>Engine Model</b>	Cat C7.1
<b>Maximum Net Power - 1,700 rpm - ISO 9249</b>	225 hp
<b>Maximum Net Power - 1,700 rpm - SAE J1349</b>	225 hp
<b>Maximum Power - 1,700 rpm - SAE J1995</b>	241 hp
<b>Note</b>	The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 1.9 kg (4.2 lb) of refrigerant which has a CO2 equivalent of 2.717 metric tonnes (2.995 tons).



<b>Bore</b>	4.13 in
-------------	---------

<b>Stroke</b>	5.31 in
---------------	---------

## Weights

<b>Operating Weight</b>	41554 lb
-------------------------	----------

## Buckets

<b>Bucket Capacities</b>	2.9-4.4 m <sup>3</sup> (3.75-5.75 yd <sup>3</sup> )
--------------------------	---

## Transmission

<b>Reverse - 3</b>	14.2 mile/h
--------------------	-------------

<b>Forward - 3</b>	14.2 mile/h
--------------------	-------------

<b>Forward - 1</b>	4.5 mile/h
--------------------	------------

<b>Forward - 2</b>	8 mile/h
--------------------	----------

<b>Forward - 4</b>	22.4 mile/h
--------------------	-------------

<b>Reverse - 2</b>	8 mile/h
--------------------	----------

<b>Reverse - 1</b>	4.5 mile/h
--------------------	------------

<b>Note</b>	Maximum travel speed in standard vehicle with empty bucket and standard L3 tires with 760 mm (30 in) roll radius.
-------------	---

## Hydraulic System

<b>Hydraulic Cycle Time - Total Cycle Time</b>	9.4 s
--	-------

<b>Steering System - Pump Type</b>	Piston
------------------------------------	--------

<b>Implement System - Maximum Operating Pressure @ 50 ± 1.5 L/min (13.2 ± 0.4 gal/min)</b>	4047 psi
--	----------

Implement System - Maximum Pump Output at 2,390 rpm

68 gal/min

## Service Refill Capacities

DEF Tank

4.2 gal (US)

Transmission

11.9 gal (US)

Fuel Tank Size

76.6 gal (US)

Cooling System

13.2 gal (US)

Differential - Final Drives - Rear

10 gal (US)

Differential - Final Drives - Front

10.6 gal (US)

Crankcase

4.8 gal (US)

Hydraulic Tank

29.6 gal (US)

## Sound

With Cooling Fan Speed at Maximum Value -  
Operator Sound Pressure Level (ISO 6396:2008)

73 dB(A)

With Cooling Fan Speed at Maximum Value -  
Exterior Sound Power Level (ISO 6395:2008)

109 dB(A)

With Cooling Fan Speed at Maximum Value -  
Exterior Sound Pressure Level (SAE J88:2013)

76 dB(A)\*

Note (1)

\*Distance of 15 m (49.2 ft), moving forward in second gear ratio.

With Cooling Fan Speed at 70% of Maximum Value:  
Note (2)

European Union Directive "2000/14/EC" as amended by "2005/88/EC."

With Cooling Fan Speed at 70% of Maximum Value  
- Operator Sound Pressure Level (ISO 6396:2008)\*\*

73 dB(A)

**With Cooling Fan Speed at 70% of Maximum Value:** For machines in European Union countries and  
**Note (1)** in countries that adopt the EU Directives

**With Cooling Fan Speed at Maximum Value - Note** Distance of 15 m (49.2 ft), moving forward in  
second gear ratio.

**With Cooling Fan Speed at 70% of Maximum Value** 107 LWA\*\*\*  
**- Exterior Sound Power Level (ISO 6395:2008)\*\***

**Note (3)** \*\*\*European Union Directive "2000/14/EC" as  
amended by "2005/88/EC."

**Note (2)** \*\*For machines in European Union countries  
and in countries that adopt the "EU Directives."

## Dimensions

**Rack Back - Ground** 40 degrees

**Height - Top of Exhaust Pipe** 11.17 ft

**Centerline of Rear Axle to Hitch** 5.42 ft

**Lift Arm Clearance** 12 ft

**B-Pin Height** 13.75 ft

**Centerline of Rear Axle to Edge of  
Counterweight** 6.75 ft

**Ground Clearance** 1.5 ft

**Rack Back - Maximum Lift** 60 degrees

**Height - Top of Hood** 8.75 ft

**Wheel Base** 10.83 ft

**Height - Top of ROPS** 11.33 ft

<b>Rack Back - Carry</b>	45 degrees
--------------------------	------------

<b>Note</b>	All dimensions are approximate and based on MAXAM MS302 23.5R25 L3 radial tires.
-------------	--

## Weights And Operating Specifications

<b>Note (2)</b>	*Full compliance to ISO (2007) 14397-1 Sections 1 thru 6, which requires 2% verification between calculations and testing.
-----------------	--

<b>Tipping Load - Full Turn - Rigid Tires**</b>	25875 lb
---	----------

<b>Breakout Force</b>	34638 lbf
-----------------------	-----------

<b>Tipping Load - Full Turn - ISO 14397-1*</b>	24264 lb
--	----------

<b>Note (3)</b>	**Compliance to ISO (2007) 14397-1 Sections 1 thru 5.
-----------------	---

<b>Operating Weight</b>	41554 lb
-------------------------	----------

<b>Note (1)</b>	For 3.1 m3 (4 yd3) general purpose buckets with BOCE. Weight based on a machine configuration with MAXAM MS302 23.5R25 L3 radial tires, full fluids, operator, standard counterweight, cold start, roading fenders, Product Link™, secondary steering, sound suppression.
-----------------	---

## Engine - Tier 4 Final/Stage IV

<b>Emissions</b>	Tier 4/Stage IV
------------------	-----------------

## 950 GC Standard Equipment

### NOTE

Standard and optional equipment may vary. Consult your Cat dealer for details.

### POWER TRAIN

Engine - Cat C7.1 meets Tier 4 Final/Stage IV emissions standards

Torque converter

Transmission, automatic, power shift (4F/3R), kick-down function, overspeed protection

Brakes, full hydraulic enclosed wet-disc

EIMS (Engine Idle Management System)

EIS (Auto Idle Shutdown)  
Fan, radiator, electronically controlled, hydraulically driven, temperature sensing, on demand  
Filter, fuel primary-water separator/secondary  
Radiator, unit core (9.5 fpi) with ATAAC  
Starting aid, glow plugs  
Switch, transmission neutralizer lockout

## HYDRAULICS

Load sensing implement system pilot operated  
Dedicated load sensing steering pump  
Dedicated brake and fan gear pump

## ELECTRICAL

Alarm, back-up/main disconnect switch  
Alternator (145-amp, brush type)  
Batteries (2), maintenance free  
Ignition key; start/stop switch  
Lighting system, halogen (6 total) - Four (4) halogen work lights; Two (2) halogen road lights  
Starting and charging system (24-volt)  
Starter, electric (heavy duty)

## OPERATOR ENVIRONMENT

Air conditioning (HVAC) with 10 vents and filter unit located outside of cab  
Bucket/work tool function lockout  
Cab, pressurized and sound suppressed  
Hydroformed (ROPS/FOPS) structure  
12V power port (10A)  
Coat hook  
Radio ready  
Rear vision camera and display  
Pilot hydraulic controls, lift and tilt function  
Computerized monitoring system  
Gauges - Engine coolant temperatures/fluid level; Hydraulic/transmission oil temperature;  
Tachometer/DEF level  
Digital indicators - Gear indicator; Speedometer; Service meter units; Fault codes  
Warning indicators - Air inlet heater; Electrical malfunction; Engine inlet manifold temperature; Engine oil pressure, fuel level; Fuel pressure high/low; Hydraulic oil level, parking brake; Primary steering oil pressure; Service brake oil pressure; Action light, engine malfunction; Transmission filter bypass  
Heater and defroster  
Horn  
Cup holders and personal tray on right console  
Storage tray behind seat  
Mirrors, rearview external  
Seat, Cat Comfort (clutch) suspension  
Seat belt  
Steering column, adjustable angle  
Wipers/washers (front and rear)



Window, sliding (left and right side)

## **TIRES, RIMS, AND WHEELS**

Tires are available from Triangle, Maxam and Bridgestone  
Offerings vary by region. Consult your local Cat dealer for further details

## **FLUIDS**

Premixed 50% concentration of extended life coolant with freeze protection to -34° C (-29° F)

## **OTHER STANDARD EQUIPMENT**

Lift and bucket return-to-dig kick outs (Electro-Magnetic), mechanical adjustment  
Couplings, Cat O-ring face seal  
Doors, service access (locking)  
Front fender, steel  
Grill, airborne debris  
Hitch, drawbar with pin  
Hood, wing doors  
Hoses, Cat XT  
Counterweight  
Linkage, Z-bar, fabricated crosstube/tilt lever  
S•O•S oil sampling valves  
Sight gauges - Engine coolant, hydraulic oil; Transmission oil level  
Diagnostic pressure taps  
Product Link Ready

## **950 GC Optional Equipment**

### **NOTE**

Standard and optional equipment may vary. Consult your Cat dealer for details.

## **OPTIONAL EQUIPMENT**

Cold weather starting (jacket water heater, electric and ether starting aid)  
Third hydraulic function, additional dedicated single axis level  
Quick coupler control  
Limited slip differentials  
Ride control  
Air suspended seat  
Secondary steering, electrical  
Reversing cooling fan (auto/manual controlled)  
Toolbox  
Sun visor, rear  
High capacity converted 12V/15A  
Warning beacon  
Extra working lights (4), Halogen or LED  
Radio

Fender extensions/roading

## **Appendix F**      Noise Chapter of EA 2019



## Environmental Assessment

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### Section 16 Planning Application for Temporary Asphalt Plant, Man Kam To Road, Sheung Shui

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Prepared for Build Way International Inc.  
12 August 2019

## Document Control

Document:	Environmental Assessment
File Location:	Z:\Jobs\7076703 - K Wah - S16 Sheung Shui Asphalt Plant\08 Submission
Project Name:	Section 16 Planning Application for Temporary Asphalt Plant, Man Kam To Road, Sheung Shui
Project Number:	7076703 D01
Revision Number:	0.4

## Revision History

REVISION NO.	DATE	PREPARED BY	REVIEWED BY	APPROVED BY
0.4	12 August 2019	Austin CHAN	Arthur CHIU	Antony WONG

## Issue Register

DISTRIBUTION LIST	DATE ISSUED	NUMBER OF COPIES
Build Way International Inc.	12 August 2019	1
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# 1 INTRODUCTION

## 1.1 Background

- 1.1.1 In 2014, a Planning Application under Section 16 of the Town Planning Ordinance (TPO) was made for a temporary asphalt plant (“the Plant”) to be operated for a period of five years at a site to the east of Man Kam To Road near Hung Kiu San Tsuen in Sheung Shui (“the Site”). The Site is zoned “Open Storage” (OS) under the Approved Fu Tei Au and Sha Ling Outline Zoning Plan (OZP) No. S/NE-FTA/16. According to paragraph 10(c) of the Explanatory Note of the OZP, temporary use or development of any land or building exceeding a period of three years requires planning permission from the Town Planning Board (TPB).
- 1.1.2 Permission to operate the Plant for a period of five years was approved by TPB on 12 December 2014.
- 1.1.3 Under the *Air Pollution Control Ordinance* (APCO) the Plant is considered to be a “Tar and Bitumen Works” and so is classified as a Specified Process (SP). An application for a SP Licence, supported by an Air Pollution Control Plan (APCP), was therefore made to the APCO Authority, the Environmental Protection Department (EPD), and SP Licence No. L-15-035(1) was duly granted in early 2017. Shortly thereafter, the Plant commenced operation.
- 1.1.4 This Plant supplies asphalt for various major infrastructure projects, airport runway and road maintenance works carried out in Hong Kong. To avoid disruption in the supply of asphalt that would adversely affect completion of infrastructure projects, airport runway and road maintenance works, it is essential to maintain stable asphalt supply to the planned infrastructure works in the Territory and therefore it is essential to renew the planning approval for this Plant for a further five years.
- 1.1.5 SMEC Asia Limited (SMEC) has been commissioned by the Applicant to prepare this Environmental Assessment (EA) Report to support the aforementioned Planning Application.

## 1.2 Site Description

- 1.2.1 The Site occupies an area of about 9,056m<sup>2</sup> and is located to the east of Man Kam To Road and to the north of Hung Kiu San Tsuen, as shown on **Figure 1.1**.
- 1.2.2 Several car repair workshops are located to the south and southwest of the Site. Some other workshops and open storage sites are located to the further southwest, across Man Kam To Road. A metal workshop is located on the hillside to the northeast of the Site. There are public access roads for the metal workshop surrounding and partially lying within the Site.
- 1.2.3 To the southeast, there is a piece of land zoned “Other Specified Uses” (OU) that was intended for development of a Poultry Slaughtering Centre (PSC). However, the PSC was shelved by government in June 2010. Currently, the PSC site is used for open storage of construction materials and equipment. Land to the north and east of the Site are zoned “Green Belt” (GB), so no new development is anticipated in these areas.

## 1.3 Project Description

- 1.3.1 The Plant produces Hot Mix Asphalt (HMA), which comprises aggregates (in various sizes, including fillers) blended with bitumen and is mainly used for road paving and airport runway. The maximum HMA production rate is 160 tonnes/hour using a batch mix production mode, and a small quantity of asphalt emulsion is also produced. As road and airport runway maintenance works are mainly carried out between midnight and early morning, the Plant must operate 24 hours per day in order to supply HMA as and when needed. In order to support EPD’s control of “Land Filling and Fly-tipping” problem, an annual consumption of up to 85,000 tonnes per year of Reclaimed Asphalt Pavement (RAP) are used in the asphalt production.

- 1.3.2 As shown in the layout plans in the Planning Statement, the major components of the Plant include:
- Asphalt production plant including a mixing tower, rotary dryer drums, filler silos, mixed material storage bin, etc.
  - Aggregate hopper, conveyor belts, stockpile and storage bins.
  - Bitumen storage tanks.
  - Bitumen melter and decanter.
  - Asphalt emulsion plant.
  - RAP processing plant and stockpiles.
  - Emergency generator.
  - Auxiliary offices and laboratory.
- 1.3.3 A Schematic Diagram of the Plant showing the manufacture of HMA is enclosed in **Appendix A**.

## 1.4 Objectives of the Report

- 1.4.1 The objectives of this EA Report are to:
- Review potential environmental impacts arising from the operation of the Plant, in terms of air quality, noise, water quality and waste management.
  - Recommend appropriate measures to mitigate any impacts if necessary.

## 1.5 Review of Environmental Impacts

- 1.5.1 A number of environmental impacts, including those to air quality, noise, water quality, waste management and land contamination, were assessed in the EA Report (SMEC ref.7076143 I D01/01 – Revision 1 dated August 2014) (the “2014 EA Report”) supporting the original Section 16 Planning Application for the Plant (Application No.: A/NE-FTA/148).
- 1.5.2 As the Plant has already been built and in operation since 2017, no major construction works will be required for the extension of operation. Therefore construction-related air quality, noise, water quality and waste management impacts are not anticipated. The environmental impacts associated with the operation of the Plant have not changed since those assessed in the 2014 EA Report and are summarised below.

### Air Quality

- 1.5.3 In addition to the assessment of air quality impacts provided in the 2014 EA Report, an APCP including air quality impact assessment was prepared by SMEC to support the SP Licence application – no comment on the APCP was received from EPD. In that APCP:
- All Air Sensitive Receivers (ASRs) within 500m from the Site boundary were identified.
  - Apart from adopting the current Air Quality Objectives (AQOs) enforced since 1 January 2014, the standards for non-criteria pollutants including benzo(a)pyrene (B[a]P), bitumen fume (Polycyclic Organic Matter), benzene (C<sub>6</sub>H<sub>6</sub>), formaldehyde and Volatile Organic Compounds (VOCs) as well as metals and odour were proposed.
  - The estimated cumulative air quality levels at the ASRs including the contour plots would comply with AQOs as well as the standards for non-criteria pollutants, metals and odour.
  - The Best Practicable Means (BPMs) for HMA manufacturing were recommended.

In summary, the APCP concluded that:

- The BMPs would be provided, implemented and maintained by the Applicant for the Plant.
- All relevant AQOs would be met with the Plant in operation.
- No unacceptable noxious and offensive emissions would be due to the Plant operation.

- 1.5.4 The recommendations and air quality control measures stipulated in the APCP and the SP Licence have been properly implemented by the Applicant. Following the commissioning trials in March 2017, a letter of no objection to the commencement of operation of the Plant was issued by EPD in April 2017.
- 1.5.5 In accordance with SP Licence requirements, 24-hour average ambient Respirable Suspended Particulates (RSP) sampling at a frequency not less than once every six calendar days and source sampling at chimney for the concerned air pollutants at a frequency not less than once per every 12 months was carried out.
- 1.5.6 An application for the renewal of the SP Licence was submitted to EPD in November 2018. ASRs were reviewed by SMEC on 29 March 2019 and no additional ASR was identified. Therefore, the findings and conclusion of the APCP remain valid.
- 1.5.7 Since commencement of operation in 2017, several improvements have been made to the Plant by the Applicant. These included an additional deodorisation system for further reduction of particulates and odour; the use of low-odour bitumen to reduce the volatility and formation of bitumen fumes; and equipping asphalt trucks with covers to reduce fugitive dust and odour during transportation.
- 1.5.8 In conclusion, no adverse air quality impact and health impact from the operation of the Plant is anticipated with the implementation of the control measures recommended in the APCP and stipulated in the SP Licence.

### Noise

- 1.5.9 The noise impact arising from the Plant was assessed in the 2014 EA Report based on the noise measurement taken at the Applicant's asphalt plant at the Anderson Road Quarry. However, since the Plant has now been operating for some time, it is possible to utilise actual noise measurements from the Plant, rather than having to rely on a proxy. The noise impact due to operation of this Plant has therefore been assessed based on actual Plant operation and is detailed in **Chapter 2** of this EA report.

### Water Quality

- 1.5.10 As mentioned the 2014 EA Report, HMA production process does not require the use of water and so there is no industrial wastewater arising from the Plant operation. The potential sources of water pollution from the Plant includes sewage from staff site surface runoff from the Site. All water for vehicle wheel washing is treated and reused.
- 1.5.11 There is no public sewerage connection at the Site and there are no plans by the government to extend the nearby sewerage system to the Site in the near future. Portable toilets equipped with storage tanks are already installed within the Plant to collect sewage/wastewater generated by staff. The collected sewage/wastewater is regularly tankered away by a licensed contractor for off-site disposal. Hence, no adverse water quality impact due to sewage/wastewater generated by staff is anticipated.
- 1.5.12 Water sprinklers are installed for dust suppression and the entire site is paved. Operational procedures prevent over-wetting of the ground and roads and so surface runoff is minimised. All site runoff is collected by existing peripheral surface U-channels and diverted to sedimentation tanks for silt removal prior to discharge into public drains. Hence, no adverse water quality impact due to site surface runoff is anticipated.



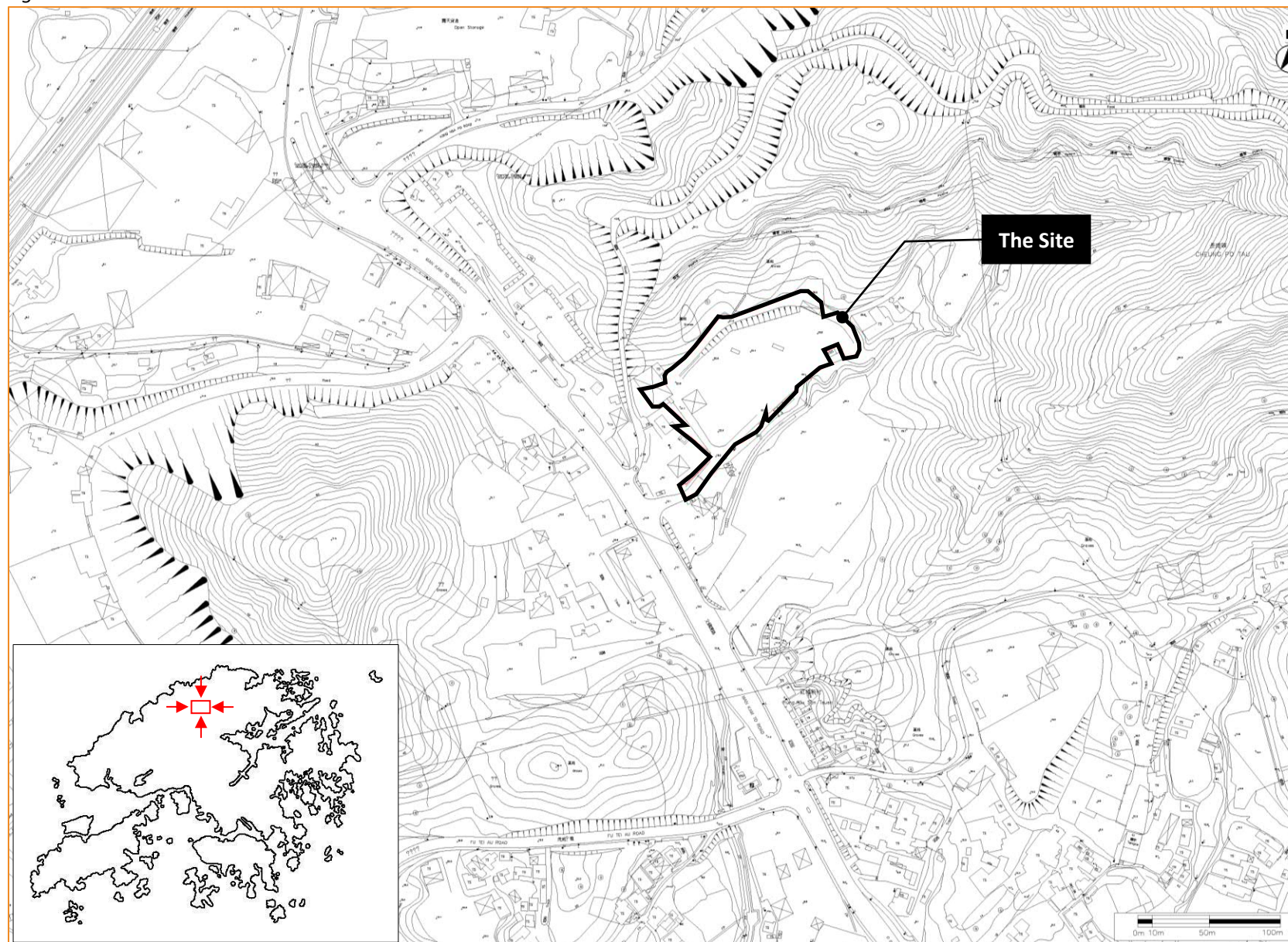
## Waste Management

- 1.5.13 General refuse, rejected aggregates, treated aggregate fines from the dust conditioner and chemical waste are the key wastes generated from Plant operation. These are discussed below.
- 1.5.14 General refuse and commercial waste were collected on a regular basis by registered waste collectors and disposed off-site at a landfill managed by EPD. Hence, no adverse waste impacts from handling, transportation or disposal are anticipated.
- 1.5.15 Rejected aggregates and treated aggregate fines are classified as Inert Construction and Demolition (C&D) Material and disposed of off-site at an appropriate government-managed facility. Temporary stockpiling area, enclosed at three sides and with a front curtain, was provided for storage aggregate prior to disposal. With the implementation of these waste management measures, no adverse impact from Inert C&D Material is anticipated.
- 1.5.16 Up to 85,000 tonnes per year of RAP generated from road resurfacing projects; which instead of dumped at landfill as C&D waste, can be reused in the production process as aggregate as mentioned in **Paragraph 1.3.1**. This green asphalt product would help to release the pressure of C&D waste dumping at Hong Kong's landfill sites.
- 1.5.17 Only a small quantity of chemical wastes is generated from daily operation of the Plant. This included spent oil filters, scrap battery and waste lubrication oil, none of which is considered to be hazardous. A licensed collector is employed to handle and disposed of the chemical wastes. Hence, no adverse impact from chemical waste is anticipated.

## Land Contamination

- 1.5.18 As mentioned in the 2014 EA Report, prior to the 1970s the Site was used as rice paddy. In the mid- to late-1970s, the Site was filled and transformed into open land. The Site was then used for open storage, the manufacture of construction materials, warehousing and, since the 1990s, as a concrete batching plant. The 2014 EA report concluded that no sources of historical land contamination issues were identified and this is still considered valid under this Application.

Figure 1.1: Site Location and its Environs



## 2 OPERATION NOISE IMPACT

### 2.1 Environmental Legislation and Standards

#### Noise Control Ordinance (Cap. 400)

- 2.1.1 The main piece of legislation controlling environmental noise impact is the *Noise Control Ordinance* (NCO). The NCO enables regulations and Technical Memoranda (TMs) to be enacted, which introduces detailed control criteria, measurement procedures and other technical matters.
- 2.1.2 Fixed plant noise during operation phase is governed under the *Technical Memorandum for the Assessment of Noise from Places other than Domestic premises, Public places or Construction Sites* (IND-TM). Table 2 of IND-TM stipulates the day, evening and night time Acceptable Noise Levels (ANLs) for Noise Sensitive Receivers (NSRs) according to the corresponding Area Sensitive Rating (ASR), which is determined by Influencing Factors (IFs) in accordance with the IND-TM. These are summarised in **Table 2.1**.

Table 2.1: Acceptable Noise Levels for Fixed Noise Source

TIME PERIOD	ANL, dB(A)		
	ASR "A"	ASR "B"	ASR "C"
Day (0700 to 1900 hours)	60	65	70
Evening (1900 to 2300 hours)			
Night (2300 to 0700 hours)	50	55	60

#### Hong Kong Planning Standards & Guidelines (HKPSG)

- 2.1.3 The noise criteria for planned fixed noise source shall follow the requirements of Table 4.1 of Chapter 9 of HKPSG:
- 5 dB(A) below the appropriate ANLs shown in Table 2 of IND-TM
  - The prevailing background noise levels

### 2.2 Identification of Noise Sensitive Receivers

#### On-site Operation Noise

- 2.2.1 In order to evaluate the on-site operation noise impact (i.e. noise from fixed sources and truck movements within the Site), representative NSRs within 300m from the boundary of the Site are identified for the assessment.
- 2.2.2 The first layer of NSRs has been identified for the assessment of on-site operation noise as shown on **Figure 2.1** and summarised in **Table 2.2**. Second layer NSRs will be less affected than first layer NSRs due to being further away, therefore the first layer NSRs are the most affected.
- 2.2.3 The identified NSRs are the same as those reported in the 2014 EA report. No new NSRs were identified during the site visit on 27 June 2019.
- 2.2.4 The NSR identified nearest to the Plant is, namely, Village House 1, which is about 77m to the west of the Site. Other identified NSRs (i.e. surrounding village houses) are located from 87m to 251m from the Site boundary.
- 2.2.5 All identified NSRs are located in a rural area. No major roads with annual average daily traffic flow in excess of 30,000 or industrial areas are found in the vicinity of the identified NSRs. Therefore, the Area Sensitivity Rating (ASR) of the identified NSRs is Type A, as per IND-TM.

Table 2.2: Identified Representative NSRs of Noise from On-site Operation

NSR ID	DESCRIPTION	USE	DISTANCE TO SITE BOUNDARY, m	DISTANCE TO CENTRE OF THE SITE, m	NO. STOREYS	ASR
IN1	Village House at Hung Kiu San Tsuen	Residential	111	175	2	A
IN2	Village House at Lee Ka Yuen	Residential	251	350	2	A
IN3	Village House 1	Residential	77	126	1	A
IN4	Village House 2	Residential	111	217	1	A
IN5	Village House 3	Residential	87	167	1	A

## 2.3 Potential Noise Impacts during Operation Phase

### Off-Site Traffic Noise

- 2.3.1 The current maximum HMA production capacity of 160 tonnes/hour will remain unchanged. Therefore, the traffic arising from Plant operation will also be unchanged.
- 2.3.2 According to the data provided by the Project Traffic Consultant, shown in **Appendix B**, traffic on Man Kam To Road is expected to increase over the next five years. However, since the maximum number of vehicles using the Plant remains unchanged, the noise contribution of off-site traffic will not increase. Hence, no adverse impact in terms of off-site traffic noise is anticipated.

### On-site Operation Noise

- 2.3.3 As the Plant operates 24 hours per day, potential noise impacts due to operation in day/evening and night periods should be assessed.
- 2.3.4 The potential noise sources during the Plant operation are identified as follows:
- Mechanical and Electrical (M&E) equipment.
  - Loading/unloading activities.
  - On-site movements of transportation trucks and wheel loaders.
- 2.3.5 During a site visit on 9 July 2019, the following noise mitigation measures, shown on **Figure 2.2**, were observed:
- 2.5m high hoarding is erected along the Site Boundary.
  - The mixing unit is installed inside the mixing tower which is fully enclosed by cladding.
  - The exhaust fan is located inside a plant room which is fully enclosed by steel plates.
  - The screw conveyor, slant belt conveyor, belt conveyor, bucket elevator and filler elevator are all fully enclosed with cladding.
  - The rotary dryer drum is set up in the centre of the plant, which can be screened by the storage facilities, mixing tower and other building structure of the Plant.
  - A barrier which is a steel plate with a thickness of not less than 1.5mm and a surface density of not less than 10kg/m<sup>2</sup> is provided to reduce noise impact of the air compressor.
  - A barrier which is a steel plate with a thickness of not less than 1.5mm and a surface density of not less than 10kg/m<sup>2</sup> is provided to reduce noise impact of the bitumen pump.
  - The aggregate unloading bay/storage area are three sides enclosed with top by cladding.
  - The RAP unloading area is enclosed by cladding.
  - The asphalt loading area is enclosed by two sides with top by cladding and curtains at the entrance and exit sides.



- 2.3.6 The Sound Power Level (SWL) adopted in the noise assessment in the 2014 EA report was based on the measurement data from another Asphalt Plant at Anderson Road, since at that time the Plant under this Application was not yet constructed. Now that the Plant has been operational for some time, on-site noise measurements for M&E equipment can be made. Noise measurements were carried out on 7 July 2019 and are detailed in **Appendix C**.

## 2.4 Assessment Methodology

### Mechanical and Electrical (M&E) Equipment

- 2.4.1 Most of the M&E equipment, such as water pumps, fire services pumps and transformers, are installed inside plant rooms. No significant noise impact arising from enclosed M&E equipment is anticipated. The impact from these sources is therefore not included in this noise assessment.
- 2.4.2 Small, low-power split-type air-conditioners are installed at the site office. The noise from the Outdoor Units (ODUs) of these small air-conditioners is minimal. Therefore, these ODUs have also not been included in the noise assessment.
- 2.4.3 According to the information provided by the Applicant, the locations of fixed Powered Mechanical Equipment (PME) are shown on **Figure 2.2** and summarised in **Table 2.3**.

*Table 2.3: Operation Schedule of On-site Fixed PME*

PME	QUANTITY (PME/30MIN)		
	DAY	EVENING	NIGHT
Exhaust Fan	1		1
Air Compressor (Air Flow $\leq 10\text{m}^3/\text{min}$ )	1		1
Rotary Dryer Drum (Aggregate)	1		1
Rotary Dryer Drum (RAP) *	1		1
RAP Processing Machine	1		0
Screw Conveyor/Slant Belt Conveyor/Belt Conveyor	11		11
Bucket Elevator/Filler Elevator	6		5
Mixing Unit	1		1
Bitumen Pump	2		1

Note (\*) – The Rotary Dryer Drum (RAP) has not been installed yet

- 2.4.4 All PME, except the Rotary Dryer Drum (RAP), are installed and in use. In order to minimise the noise impact of the Rotary Dryer Drum (RAP), a barrier which will be a steel plate with a thickness of not less than 1.5mm and a surface density of not less than  $10\text{kg/m}^2$  will be provided once installed.
- 2.4.5 The SWLs of the exhaust fan, rotary dryer drum and RAP Processing Depot are determined based on the measured Sound Pressure Levels (SPLs) on site. Detailed measurement information is shown in **Appendix C**.



- 2.4.6 The SWLs of the PME other than those listed in **Table 2.3** were obtained from manufacturers' catalogues provided by the Applicant, the *Technical Memorandum on Noise from Construction Work Other Than Percussive Piling* (GW-TM) and *Sound Power Levels of Other Commonly Used PME*, issued by EPD. The noise levels were assessed based on standard acoustics formula:

$$\text{SPL} = \text{SWL} - \text{DC} + \text{FC}$$

where:

- SPL = Sound Pressure Levels at receiver, in dB(A)  
 SWL = Sound Power Levels of PME, in dB(A)  
 DC = Distance Correction, in dB(A) by  $\text{DC} = 20\log_{10}(\text{D}) + 8$   
 D = Horizontal distance between the NSR and source, in metres  
 FC = Façade Correction of +3 dB(A)

- 2.4.7 To minimise noise impact, the RAP Processing Machine will only be operated during daytime and evening, i.e. 0700 to 2300. Moreover, mitigation measures for the RAP Processing Machine have been already implemented, with the machine being semi-enclosed by cladding such that there is no line-of-sight to the NSRs.
- 2.4.8 For the mitigation measures listed in **Paragraph 2.3.5** and shown on **Figure 2.2**, that have already been implemented at source, a reduction of 15dB(A) was adopted for PME with full enclosure and a reduction of 10dB(A) for PME with a barrier.
- 2.4.9 Noise can be mitigated at source and also can be attenuated during propagation. According to **Figure 2.4**, the noise generated from the Plant will be screened by natural terrain or existing building structures. Therefore, a 10dB(A) screening effect is adopted for the NSRs.

### Loading/Unloading Activities

- 2.4.10 The main loading/unloading activities include:
- Unloading raw material (e.g. bitumen, aggregate and RAP) to the Plant.
  - Collecting asphalt from the Plant.
  - Transporting the aggregate or RAP from storage area to feed bins (i.e. loading the aggregate/RAP from storage area and unloading the aggregate/RAP to feed bins).
- 2.4.11 The operation schedule of the loading and unloading activities are summarised in **Table 2.4**.

**Table 2.4: Operation Schedule of Loading/Unloading Activities**

SCHEDULE OF LOADING/ UNLOADING ACTIVITIES	QUANTITY (VEH/30MIN)		
	DAY	EVENING	NIGHT
Wheel Loader (Loading/Unloading Aggregate/RAP)	26		6
Truck (Unloading Aggregate)	4		1
Truck (Loading Asphalt)	8		5
Truck (Unloading RAP)	1		1

- 2.4.12 In order to minimise the noise impact during loading/unloading activities, the following measures, shown on **Figure 2.2**, have been implemented:
- The aggregate unloading bay/storage area are three sides enclosed with top by cladding.
  - The RAP unloading area is enclosed by cladding.
  - The asphalt loading area is enclosed by two sides with top by cladding and curtains at the entrance and exit sides.

- 2.4.13 The SWL of loading/unloading activities from the truck refers to GW-TM, while the SWL of loading/unloading activities from the wheel loaders refers to manufacturers' catalogues provided by the Applicant. The time for different loading activities was measured on site: The maximum loading and unloading time of the trucks is approximately 30 seconds each, while the maximum loading and unloading time of the wheel loader is approximately 5 seconds each.
- 2.4.14 The bitumen pump will be used to unload bitumen and the noise of this has been considered in the calculation, as listed in **Table 2.3**.
- 2.4.15 With regard to the screening effect by existing structures or natural terrain, a 10dB(A) reduction is adopted for NSRs without direct line-of-sight to the loading/unloading activities.

### On-site Operation Noise – Movement of Vehicles

- 2.4.16 Vehicles used for the delivery of raw materials or collection of asphalt, such as trucks and wheeled loaders, are considered to be the major on-site vehicular noise sources. The road segments within the Site are shown on **Figure 2.3**.
- 2.4.17 For the noise generated from on-site movement of vehicles, *Method for Mobile Plant Using a Regular Well-Defined Route* stipulated in Annex F of BS 5228-1:2009+A1:2014 is adopted for assessment. Calculation is based on the following standard formula:
- $$\text{SPL} = \text{SWL} - 33 + 10\log Q - 10\log V - 10\log d + \text{AC} + \text{FC}$$
- where:
- SPL = Sound Pressure Levels at receiver, in dB(A)
  - SWL = Sound Power Levels of Powered Mechanical Equipment (PME), in dB(A)
  - Q = Number of vehicles per hour
  - V = Average vehicle speed, in km/h
  - d = Distance of receiving position from the centre of haul road, in meters
  - AC = Angle of view Correction =  $10\log(\Theta/180)$  where  $\Theta$  is the angle of view (in degree) of a particular haul road segment
  - FC = Façade Correction of +3 dB(A)
- 2.4.18 SWLs of the vehicles were obtained from GW-TM and *Sound Power Levels of Other Commonly Used PME*, issued by EPD.
- 2.4.19 Some road segments are fully screened by existing building structures or natural terrain, as shown on **Figure 2.4**, and for these, a noise reduction of 10 dB(A) was adopted.

## 2.5 Prevailing Background Noise

- 2.5.1 In general practice, the prevailing background noise should be captured from the noise measurement before commencement of operation of a facility. However, since the Plant operates. Therefore, the prevailing noise levels measured in the 2014 EA Report have been adopted in this EA report – no new noise generating activities in the vicinity of the Site were observed during recent site visits and so there is no reason that noise levels measured in 2014 are no longer representative of prevailing noise levels.
- 2.5.2 In 2014, prevailing background noise measurement was conducted near NSR IN1, as shown on **Figure 2.1**, and the noise levels recorded are shown in **Table 2.5**. Since all identified NSRs are dominantly affected by Man Kam To Road, the background noise levels shall be similar. Therefore, the measured background noise level was also applied to other identified NSRs.

Table 2.5: Summary of Background Noise

ID	MEASUREMENT LOCATION	BACKGROUND NOISE LEVEL, dB(A)		
		DAY	EVENING	NIGHT
BG1	Near NSR IN1	63	65	61

## 2.6 Noise Criteria

- 2.6.1 As shown in **Table 2.2**, the ASR of the identified NSRs has been determined as Type (i) rural area in accordance with Table 1 of IND-TM. The ANLs of the NSRs are 60 dB(A) and 50 dB(A) in day-and-evening time and night time, respectively.
- 2.6.2 As mentioned in **Section 2.1**, the noise criteria for planned fixed noise source shall follow the requirements of Table 4.1 of Chapter 9 of HKPSG, either 5 dB(A) below the appropriate ANLs shown in Table 2 of IND-TM or the prevailing background noise levels, whichever is lower.
- 2.6.3 As the prevailing background noise levels are higher, as shown in **Table 2.6**, below, the assessment criteria is 55 dB(A) in day-and-evening time and 45 dB(A) in the night time.

Table 2.6: Assessment Criteria of On-site Operation Noise

ID	MEASUREMENT LOCATION	PERIOD	BACKGROUND NOISE LEVEL, dB(A)	ANL-5, dB(A)	ASSESSMENT CRITERIA, dB(A)
BG1	Near NSR IN1	Day	63	55	<b>55</b>
		Evening	65	55	<b>55</b>
		Night	61	45	<b>45</b>

## 2.7 Assessment Result

- 2.7.1 The operation noise impact assessment was carried out for the five NSRs listed in **Table 2.2** and shown on **Figure 2.1** (IN1 to IN5). The noise results are summarised in **Table 2.7** and detailed in **Appendix D**. The predicted operation noise impact at NSRs ranges from 43dB(A) to 50dB(A) during day and evening time period, and from 38dB(A) to 45dB(A) during night time period which comply with relevant noise criteria.

Table 2.7: Predicted On-site Operation Noise Impact

NSR ID	TIME PERIOD	CRITERIA, dB(A)	PREDICTED NOISE LEVEL, dB(A)	EXCEEDANCE
IN1	Day	55	50	No
	Evening	55		No
	Night	45	45	No
IN2	Day	55	43	No
	Evening	55		No
	Night	45	38	No
IN3	Day	55	50	No
	Evening	55		No
	Night	45	45	No
IN4	Day	55	47	No
	Evening	55		No
	Night	45	42	No
IN5	Day	55	49	No
	Evening	55		No
	Night	45	44	No

---

## 2.8 Conclusion

### Off-Site Traffic Noise

- 2.8.1 There will be no change in the maximum production capacity of 160 tonnes/hour, therefore, no additional vehicles will be added to existing traffic volume. Hence, no adverse impact in terms of off-site traffic noise is anticipated.

### On-Site Operation Noise

- 2.8.2 A site visit was conducted on 9 July 2019 and on-site measurement was also conducted to verify the previous measured noise data in the 2014 EA report. The assessment for on-site operation noise was conducted based on the block plan, schematic diagram and above-mentioned observations and measurements. The predicted operation noise impact at NSRs ranges from 43dB(A) to 50dB(A) during day and evening time period, and from 38dB(A) to 45dB(A) during night time period. These results show that fixed source noise from the Plant is expected to comply with relevant noise criteria. Hence, no adverse operation noise impact is anticipated.



Figure 2.1: Locations of NSRs of Noise from On-site Operation

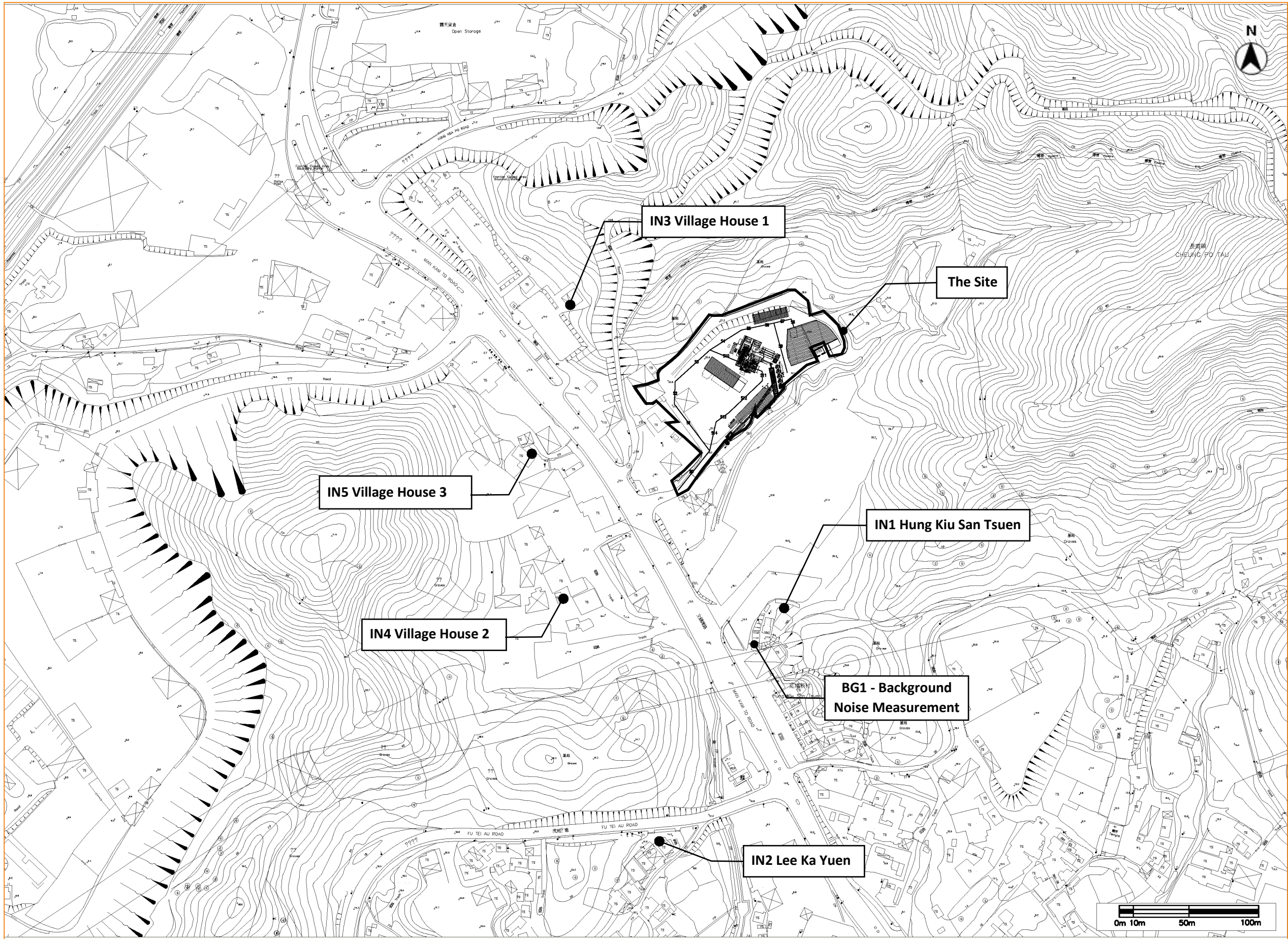




Figure 2.2: Locations of Noise Sources and Mitigation Measures during Project Operation

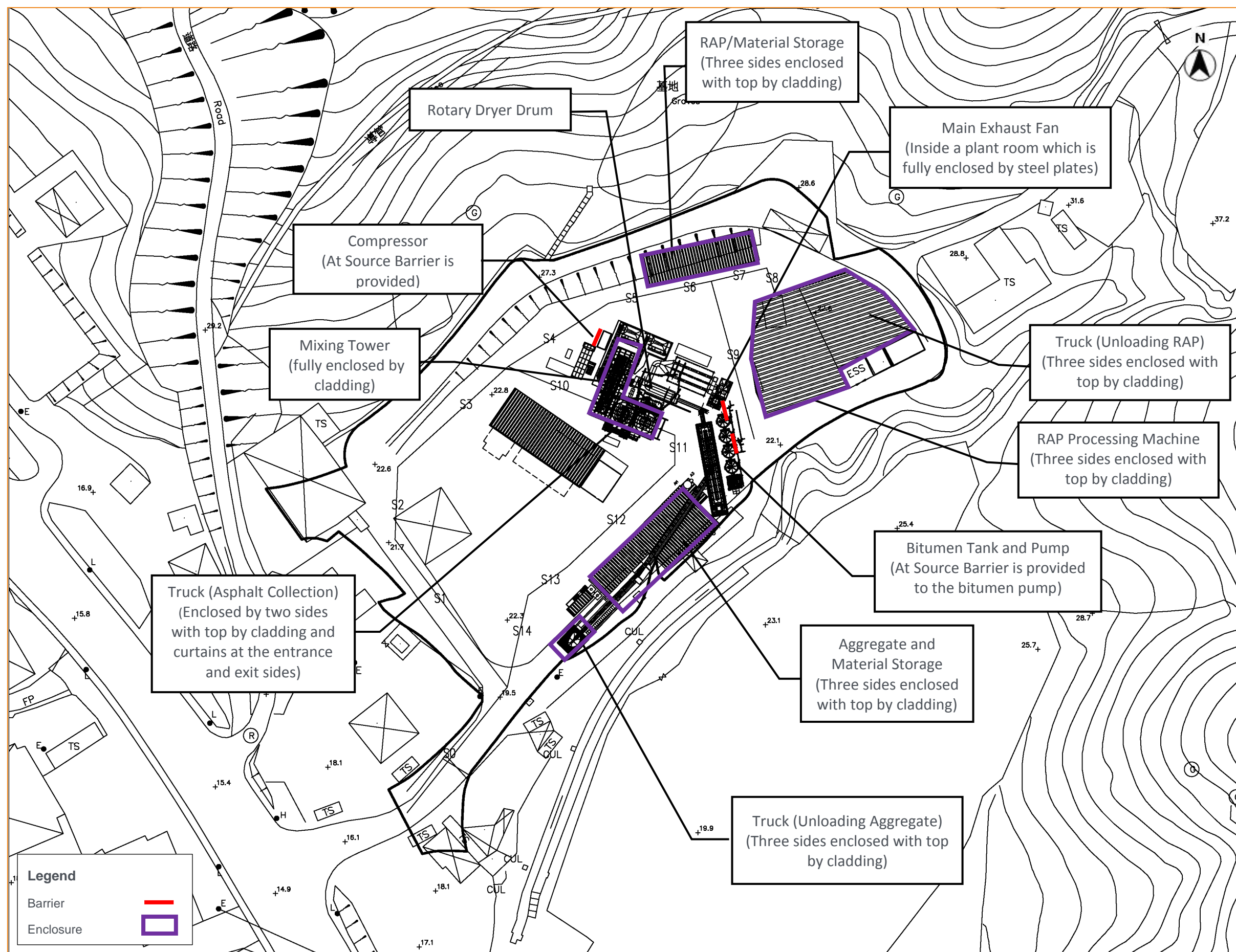


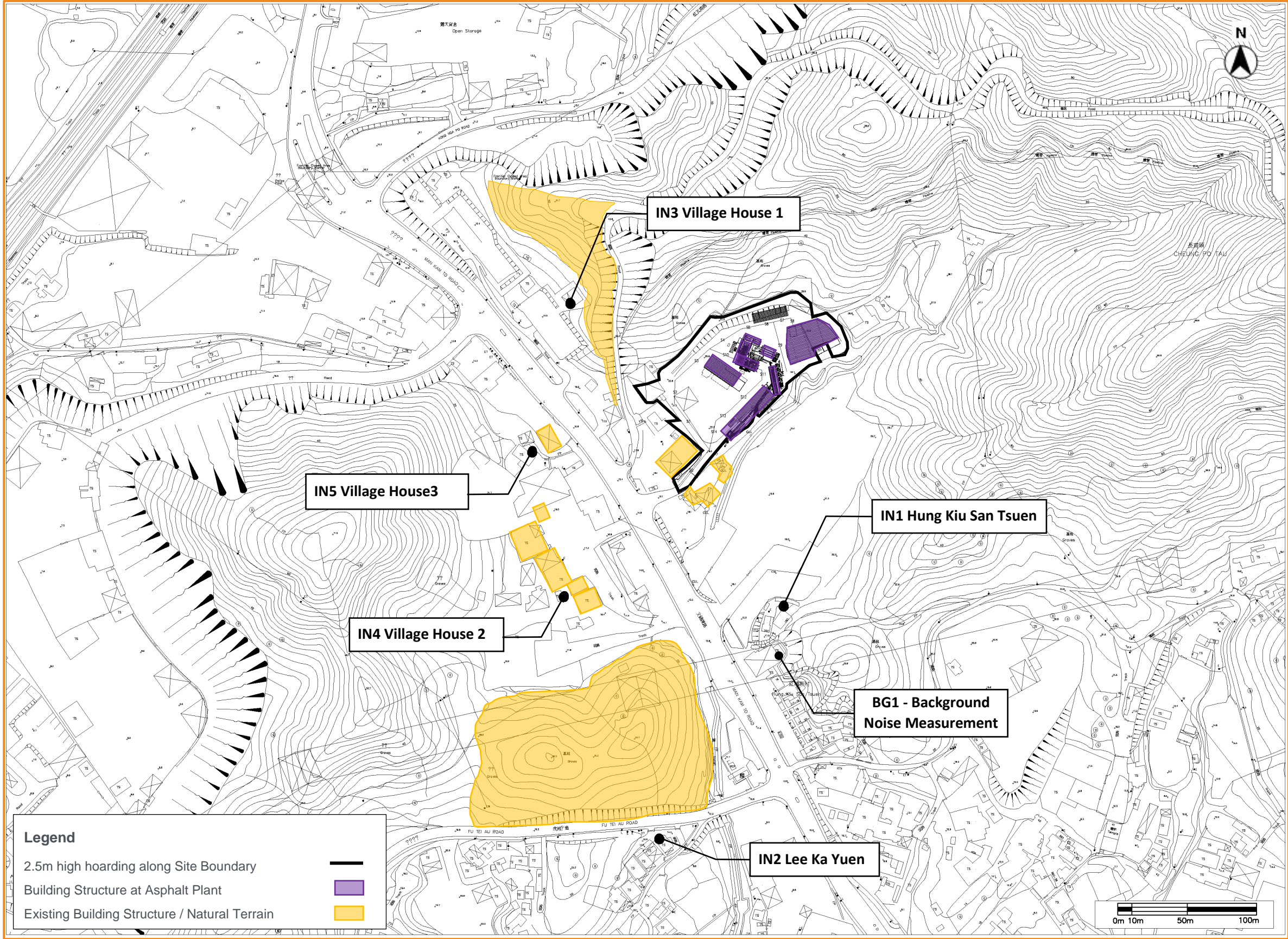


Figure 2.3: Locations of Haul Roads during Project Operation





Figure 2.4: Overall Mitigation Measures



### 3 CONCLUSION

- 3.1.1 Construction and operation of a temporary Asphalt Plant at Man Kam To Road was approved by TPB on 12 December 2014. This Plant supplies asphalt for various major infrastructure projects, airport runway and road maintenance projects, it is essential that this stable supply is maintained to meet the market demand. Therefore, the Applicant wishes to extend the operation of the Plant for a further five years. This EA Report has been prepared to support the Section 16 Planning Application for the extension of operation of the Plant.
- 3.1.2 The Plant produces HMA that is mainly used for road and airport runway paving. The maximum HMA production rate is 160 tonnes/hour using a batch mix production mode. As road maintenance works are mainly carried out between midnight and early morning, the Plant must operate 24 hours per day in order to supply HMA as and when needed.
- 3.1.3 As the Plant has already been built and in operation since 2017, no major construction works will be required for the extension of operation. Therefore construction-related air quality, noise, water quality and waste management impacts are not anticipated. The environmental impacts associated with the operation of the Plant have not changed since those assessed in the 2014 EA Report.

- 3.1.4 The conclusions of this EA Report are summarised below:

#### Air Quality

- 3.1.5 An application for a SP Licence, supported by an APCP, was made to EPD and SP Licence No. L-15-035(1) was duly granted in early 2017. Shortly thereafter, the Plant commenced operation.
- 3.1.6 The recommendations and air quality control measures stipulated in the APCP and the SP Licence have been properly implemented by the Applicant. Following the commissioning trials in March 2017, a letter of no objection to the commencement of operation of the Plant was issued by EPD in April 2017.
- 3.1.7 In accordance with SP Licence requirements, 24-hour average ambient RSP sampling at a frequency not less than once every six calendar days and source sampling at chimney for the concerned air pollutants at a frequency not less than once per every 12 months was carried out.
- 3.1.8 Since commencement of operation in 2017, several improvements have been made to the Plant by the Applicant. These included an additional deodorisation system for further reduction of particulates and odour; the use of low-odour bitumen to reduce the volatility and formation of bitumen fumes; and equipping asphalt trucks with covers to reduce fugitive dust and odour during transportation.
- 3.1.9 In conclusion, no adverse air quality impact and health impact from the operation of the Plant is anticipated with the implementation of the control measures recommended in the APCP and stipulated in the SP Licence.

#### Noise

- 3.1.10 The noise impact arising from the Plant was assessed in the 2014 EA Report based on the noise measurements taken at the Applicant's asphalt plant at the Anderson Road Quarry. However, since the Plant has now been operating from some time, it is possible to utilise actual noise measurements from the Plant, rather than having to rely on a proxy. The noise impact due to operation of this Plant has therefore been assessed based on actual Plant operation.

### Off-Site Traffic Noise

- 3.1.11 There will be no change in the maximum production capacity of 160 tonnes/hour, therefore, no additional vehicles will be added to existing traffic volume. Hence, no adverse impact in terms of off-site traffic noise is anticipated.

### On-Site Operation Noise

- 3.1.12 During a site visit on 9 July 2019, the following noise mitigation measures were observed:
- 2.5m high hoarding is erected along the Site Boundary.
  - The mixing unit is inside the mixing tower which is fully enclosed by cladding.
  - The exhaust fan is located inside a plant room which is fully enclosed by steel plates.
  - The screw conveyor, slant belt conveyor, belt conveyor, bucket elevator and filler elevator are all fully enclosed with cladding.
  - The rotary dryer drum is set up in the centre of the plant, which can be screened by the storage facilities, mixing tower and other building structure of the Plant.
  - A barrier which is a steel plate with a thickness of not less than 1.5mm and a surface density of not less than 10kg/m<sup>2</sup> is provided to reduce the noise impact of the air compressor.
  - A barrier which is a steel plate with a thickness of not less than 1.5mm and a surface density of not less than 10kg/m<sup>2</sup> is provided to reduce the noise impact of the bitumen pump.
  - The aggregate unloading bay/storage area are three sides enclosed with top by cladding.
  - The RAP unloading area is enclosed by cladding.
  - The asphalt loading area is enclosed by two sides with top by cladding and curtains at the entrance and exit sides.
- 3.1.13 As the Rotary Dryer Drum (RAP) has yet been installed, a barrier which will be a steel plate with a thickness of not less than 1.5mm and a surface density of not less than 10kg/m<sup>2</sup> will be provided once installed to minimise the noise impact.
- 3.1.14 The assessment for on-site operation noise was conducted based on the block plan, schematic diagram and above-mentioned observations. The predicted operation noise impact at NSRs ranges from 43dB(A) to 50dB(A) during day and evening time period, and from 38dB(A) to 45dB(A) during night time period. These results show that fixed-source noise from the Plant is expected to comply with the relevant noise criterion. Hence, no adverse operation noise impact is anticipated.

### Water Quality

- 3.1.15 HMA production process does not require the use of water and so there is no industrial wastewater arising from the Plant operation. The potential sources of water pollution from the Plant includes sewage from staff site surface runoff from the Site. All water for vehicle wheel washing is treated and reused.
- 3.1.16 There is no public sewerage connection at the Site and there are no plans by the government to extend the nearby sewerage system to the Site in the near future. Portable toilets equipped with storage tanks are already installed within the Plant to collect sewage/wastewater generated by staff. The collected sewage/wastewater is regularly tankered away by a licensed contractor for off-site disposal. Hence, no adverse water quality impact due to sewage/wastewater generated by staff is anticipated.



- 3.1.17 Water sprinklers are installed for dust suppression and the entire site is paved. Operational procedures prevent over-wetting of the ground and roads and so surface runoff is minimised. All site runoff is collected by existing peripheral surface U-channels and diverted to sedimentation tanks for silt removal prior to discharge into public drains. Hence, no adverse water quality impact due to site surface runoff is anticipated.

### Waste Management

- 3.1.18 General refuse and commercial waste generated were collected on a regular basis by registered waste collectors and disposed off-site at a landfill managed by EPD. Hence, no adverse waste impacts from handling, transportation or disposal are anticipated.
- 3.1.19 Rejected aggregates and treated aggregate fines are classified as Inert C&D Material and disposed of off-site at an appropriate government-managed facility. Temporary stockpiling area, enclosed at three sides and with a front curtain, was provided for storage aggregate prior to disposal. With the implementation of these waste management measures, no adverse impact from Inert C&D Material is anticipated.
- 3.1.20 Only a small quantity of chemical wastes is generated from daily operation of the Plant. This included spent oil filters, scrap battery and waste lubrication oil, none of which is considered to be hazardous. A licensed collector is employed to handle and disposed of the chemical wastes. Hence, no adverse impact from chemical waste is anticipated.

### Land Contamination

- 3.1.21 Prior to the 1970s the Site was used as rice paddy. In the mid- to late-1970s, the Site was filled and transformed into open land. The Site was then used for open storage, the manufacture of construction materials, warehousing and, since the 1990s, as a concrete batching plant. The 2014 EA report concluded that no sources of historical land contamination issues were identified and this is still considered valid under this Application.

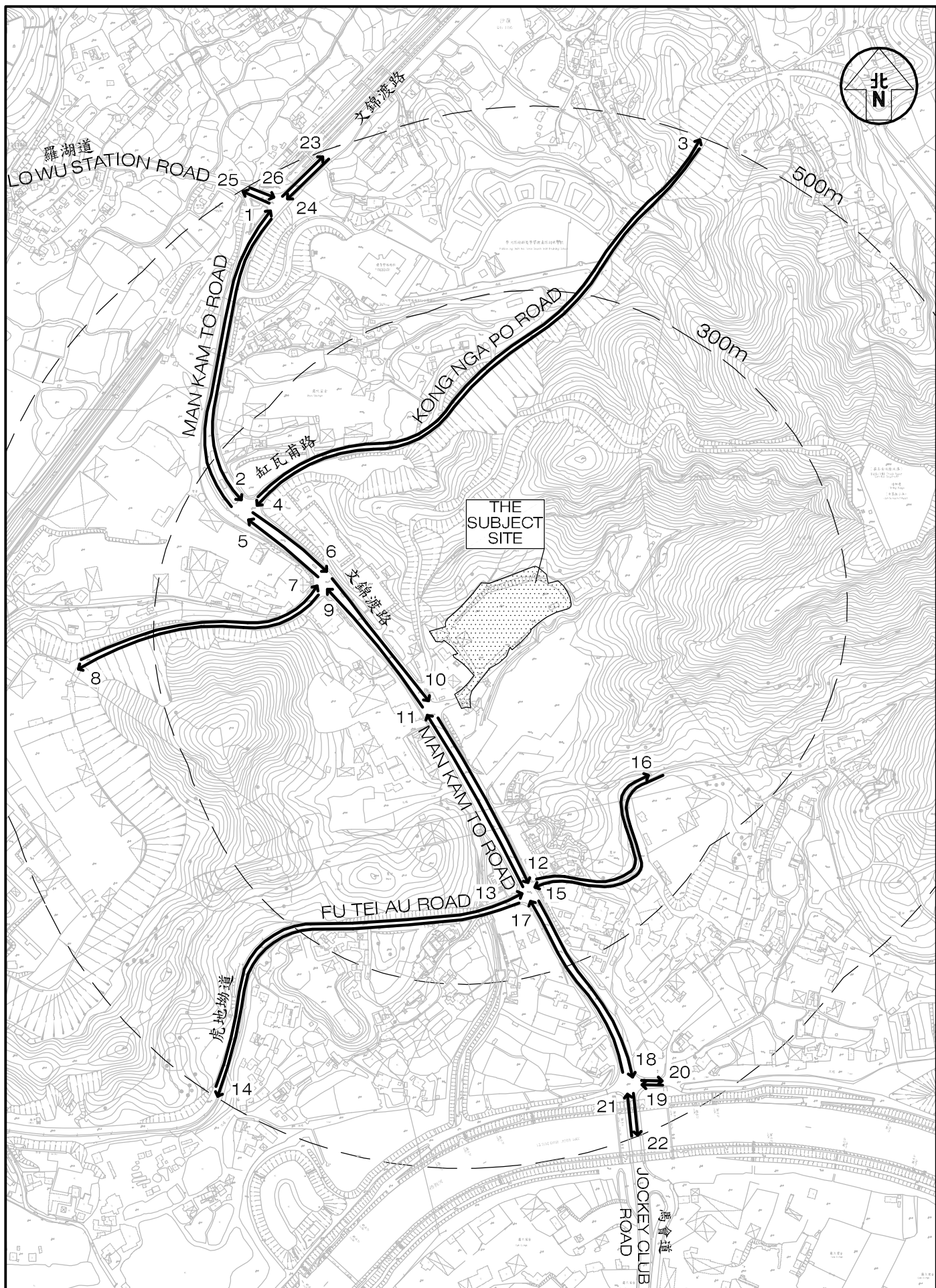
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## Appendix A    **SCHEMATIC DIAGRAM OF THE PLANT**



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## Appendix B    **TRAFFIC FORECAST OF YEAR 2019 AND YEAR 2024**



Project Title  
**RENEWAL OF SECTION 16 PLANNING APPLICATION FOR TEMPORARY ASPHALT PLANT  
 FOR A PERIOD OF 5 YEARS AT LOTS 20RP, 21 AND 23RP (PART)  
 IN D.D. 88 AND ADJOINING GOVERNMENT LAND  
 TO THE EAST OF MAN KAM TO ROAD, SHEUNG SHUI, NEW TERRITORIES**

Figure Title

**300M AND 500M RADIUS OF  
 THE PROPOSED TEMPORARY ASPHALT PLANT**

Job No.  
**J6856**

Designed by  
**H C F**

Figure No.

**EIA1**

Drawn by  
**S C Y**

Checked by  
**K C**

Revision  
**A**

Date  
**12 JUL 2019**

Scale in A4

**1 : 5,500**

**CKM Asia Limited**

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**Table D3 – Year 2019  
Peak Hour Traffic Data for Noise Assessment  
Without the Proposed Temporary Asphalt Plant**

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# TABLE D3 – PEAK HOUR TRAFFIC FLOW AND VEHICLE COMPOSITION

## YEAR 2019 TRAFFIC FORECAST

Date: 06 August 2019

Job No.: J6856

Link ID	Road Section	From Road	To Road	AM Peak Hour		
				Traffic Flows (veh/hr)	Vehicle Composition	
					LV	HV
L001	Man Kam To Road (NB)	Kong Nga Po Road	Lo Wu Station Road	750	56.0%	44.0%
L002	Man Kam To Road (SB)	Lo Wu Station Road	Kong Nga Po Road	600	37.0%	63.0%
L003	Kong Nga Po Road (EB)	Man Kam To Road	Police Dog Unit and Force Search Unit Training School	200	85.3%	14.7%
L004	Kong Nga Po Road (WB)	Police Dog Unit and Force Search Unit Training School	Man Kam To Road	100	69.7%	30.3%
L005	Man Kam To Road (SB)	Access Road to Open Storage Site No.7	Kong Nga Po Road	800	69.7%	30.3%
L006	Man Kam To Road (NB)	Kong Nga Po Road	Access Road to Open Storage Site No.7	500	49.6%	50.4%
L007	Access Road to Open Storage Site No.7 (EB)	Open Storage Site No.7	Man Kam To Road	50	37.0%	63.0%
L008	Access Road to Open Storage Site No.7 (WB)	Man Kam To Road	Open Storage Site No.7	50	45.4%	54.6%
L009	Man Kam To Road (NB)	Access Road to Application Site	Access Road to Open Storage Site No.7	800	70.1%	29.9%
L010	Man Kam To Road (SB)	Access Road to Open Storage Site No.7	Access Road to Application Site	550	49.8%	50.2%
L011	Man Kam To Road (NB)	Fu Tei Au Road	Access Road to Application Site	800	70.1%	29.9%
L012	Man Kam To Road (SB)	Access Road to Application Site	Fu Tei Au Road	550	49.8%	50.2%
L013	Fu Tei Au Road (EB)	Sheung Shui Treatment Works and Fresh Water Pumping Station	Man Kam To Road	50	73.0%	27.0%
L014	Fu Tei Au Road (WB)	Man Kam To Road	Sheung Shui Treatment Works and Fresh Water Pumping Station	50	77.0%	23.0%
L015	Unnamed Access Road (WB)	Sheung Shui Wa Shan South Section	Man Kam To Road	50	25.0%	75.0%
L016	Unnamed Access Road (EB)	Man Kam To Road	Sheung Shui Wa Shan South Section	50	0.0%	100.0%
L017	Man Kam To Road (NB)	Access Road to Hung Kiu San Tsuen	Fu Tei Au Road	850	70.5%	29.5%
L018	Man Kam To Road (SB)	Fu Tei Au Road	Access Road to Hung Kiu San Tsuen	550	51.3%	48.7%
L019	Access Road to Hung Kiu San Tsuen (WB)	Hung Kiu San Tsuen	Man Kam To Road	50	39.2%	60.8%
L020	Access Road to Hung Kiu San Tsuen (EB)	Man Kam To Road	Hung Kiu San Tsuen	50	72.5%	27.5%
L021	Man Kam To Road (NB)	Jockey Club Road	Access Road to Hung Kiu San Tsuen	900	70.4%	29.6%
L022	Man Kam To Road (SB)	Access Road to Hung Kiu San Tsuen	Jockey Club Road	600	51.1%	48.9%
L023	Man Kam To Road (NB)	Lo Wu Station Road	Sa Ling Road	600	70.2%	29.8%
L024	Man Kam To Road (SB)	Sa Ling Road	Lo Wu Station Road	400	51.3%	48.7%
L025	Lo Wu Station Road (WB)	Man Kam To Road	Lo Wu MTR Station	150	21.9%	78.1%
L026	Lo Wu Station Road (EB)	Lo Wu MTR Station	Man Kam To Road	150	25.8%	74.2%

Note: "LV" includes motorcycle, private car and taxi

"HV" includes light / medium / heavy goods vehicle, public / private light bus, non-franchised bus and franchised bus

# TABLE D3 – PEAK HOUR TRAFFIC FLOW AND VEHICLE COMPOSITION

## YEAR 2019 TRAFFIC FORECAST

Date: 01 August 2019

Job No.: J6856

Link ID	Road Section	From Road	To Road	PM Peak Hour		
				Traffic Flows (veh/hr)	Vehicle Composition	
					LV	HV
L001	Man Kam To Road (NB)	Kong Nga Po Road	Lo Wu Station Road	350	44.1%	55.9%
L002	Man Kam To Road (SB)	Lo Wu Station Road	Kong Nga Po Road	500	54.3%	45.7%
L003	Kong Nga Po Road (EB)	Man Kam To Road	Police Dog Unit and Force Search Unit Training School	100	55.2%	44.8%
L004	Kong Nga Po Road (WB)	Police Dog Unit and Force Search Unit Training School	Man Kam To Road	150	67.0%	33.0%
L005	Man Kam To Road (SB)	Access Road to Open Storage Site No.7	Kong Nga Po Road	400	46.6%	53.4%
L006	Man Kam To Road (NB)	Kong Nga Po Road	Access Road to Open Storage Site No.7	650	57.5%	42.5%
L007	Access Road to Open Storage Site No.7 (EB)	Open Storage Site No.7	Man Kam To Road	100	64.0%	36.0%
L008	Access Road to Open Storage Site No.7 (WB)	Man Kam To Road	Open Storage Site No.7	50	35.5%	64.5%
L009	Man Kam To Road (NB)	Access Road to Application Site	Access Road to Open Storage Site No.7	450	45.7%	54.3%
L010	Man Kam To Road (SB)	Access Road to Open Storage Site No.7	Access Road to Application Site	650	58.5%	41.5%
L011	Man Kam To Road (NB)	Fu Tei Au Road	Access Road to Application Site	450	45.7%	54.3%
L012	Man Kam To Road (SB)	Access Road to Application Site	Fu Tei Au Road	650	58.5%	41.5%
L013	Fu Tei Au Road (EB)	Sheung Shui Treatment Works and Fresh Water Pumping Station	Man Kam To Road	50	60.5%	39.5%
L014	Fu Tei Au Road (WB)	Man Kam To Road	Sheung Shui Treatment Works and Fresh Water Pumping Station	50	42.2%	57.8%
L015	Unnamed Access Road (WB)	Sheung Shui Wa Shan South Section	Man Kam To Road	50	71.5%	28.5%
L016	Unnamed Access Road (EB)	Man Kam To Road	Sheung Shui Wa Shan South Section	50	50.0%	50.0%
L017	Man Kam To Road (NB)	Access Road to Hung Kiu San Tsuen	Fu Tei Au Road	500	45.4%	54.6%
L018	Man Kam To Road (SB)	Fu Tei Au Road	Access Road to Hung Kiu San Tsuen	700	59.2%	40.8%
L019	Access Road to Hung Kiu San Tsuen (WB)	Hung Kiu San Tsuen	Man Kam To Road	50	49.9%	50.1%
L020	Access Road to Hung Kiu San Tsuen (EB)	Man Kam To Road	Hung Kiu San Tsuen	50	23.5%	76.5%
L021	Man Kam To Road (NB)	Jockey Club Road	Access Road to Hung Kiu San Tsuen	500	44.3%	55.7%
L022	Man Kam To Road (SB)	Access Road to Hung Kiu San Tsuen	Jockey Club Road	750	58.9%	41.1%
L023	Man Kam To Road (NB)	Lo Wu Station Road	Sa Ling Road	300	44.9%	55.1%
L024	Man Kam To Road (SB)	Sa Ling Road	Lo Wu Station Road	500	55.2%	44.8%
L025	Lo Wu Station Road (WB)	Man Kam To Road	Lo Wu MTR Station	50	61.8%	38.2%
L026	Lo Wu Station Road (EB)	Lo Wu MTR Station	Man Kam To Road	50	56.3%	43.7%

Note: "LV" includes motorcycle, private car and taxi

"HV" includes light / medium / heavy goods vehicle, public / private light bus, non-franchised bus and franchised bus

**Table D4 – Year 2024  
Peak Hour Traffic Data for Noise Assessment  
Without the Proposed Temporary Asphalt Plant**

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# TABLE D4 – PEAK HOUR TRAFFIC FLOW AND VEHICLE COMPOSITION

## YEAR 2024 TRAFFIC FORECAST

Date: 06 August 2019

Job No.: J6856

Link ID	Road Section	From Road	To Road	AM Peak Hour		
				Traffic Flows (veh/hr)	Vehicle Composition	
					LV	HV
L001	Man Kam To Road (NB)	Kong Nga Po Road	Lo Wu Station Road	800	56.2%	43.8%
L002	Man Kam To Road (SB)	Lo Wu Station Road	Kong Nga Po Road	600	36.9%	63.1%
L003	Kong Nga Po Road (EB)	Man Kam To Road	Police Dog Unit and Force Search Unit Training School	200	85.6%	14.4%
L004	Kong Nga Po Road (WB)	Police Dog Unit and Force Search Unit Training School	Man Kam To Road	100	70.0%	30.0%
L005	Man Kam To Road (SB)	Access Road to Open Storage Site No.7	Kong Nga Po Road	850	69.9%	30.1%
L006	Man Kam To Road (NB)	Kong Nga Po Road	Access Road to Open Storage Site No.7	550	49.5%	50.5%
L007	Access Road to Open Storage Site No.7 (EB)	Open Storage Site No.7	Man Kam To Road	50	35.7%	64.3%
L008	Access Road to Open Storage Site No.7 (WB)	Man Kam To Road	Open Storage Site No.7	50	43.4%	56.6%
L009	Man Kam To Road (NB)	Access Road to Application Site	Access Road to Open Storage Site No.7	850	70.0%	30.0%
L010	Man Kam To Road (SB)	Access Road to Open Storage Site No.7	Access Road to Application Site	550	49.7%	50.3%
L011	Man Kam To Road (NB)	Fu Tei Au Road	Access Road to Application Site	850	70.0%	30.0%
L012	Man Kam To Road (SB)	Access Road to Application Site	Fu Tei Au Road	550	49.7%	50.3%
L013	Fu Tei Au Road (EB)	Sheung Shui Treatment Works and Fresh Water Pumping Station	Man Kam To Road	50	71.7%	28.3%
L014	Fu Tei Au Road (WB)	Man Kam To Road	Sheung Shui Treatment Works and Fresh Water Pumping Station	50	78.0%	22.0%
L015	Unnamed Access Road (WB)	Sheung Shui Wa Shan South Section	Man Kam To Road	50	25.0%	75.0%
L016	Unnamed Access Road (EB)	Man Kam To Road	Sheung Shui Wa Shan South Section	50	0.0%	100.0%
L017	Man Kam To Road (NB)	Access Road to Hung Kiu San Tsuen	Fu Tei Au Road	900	70.6%	29.4%
L018	Man Kam To Road (SB)	Fu Tei Au Road	Access Road to Hung Kiu San Tsuen	600	51.5%	48.5%
L019	Access Road to Hung Kiu San Tsuen (WB)	Hung Kiu San Tsuen	Man Kam To Road	50	39.2%	60.8%
L020	Access Road to Hung Kiu San Tsuen (EB)	Man Kam To Road	Hung Kiu San Tsuen	50	73.4%	26.6%
L021	Man Kam To Road (NB)	Jockey Club Road	Access Road to Hung Kiu San Tsuen	950	70.7%	29.3%
L022	Man Kam To Road (SB)	Access Road to Hung Kiu San Tsuen	Jockey Club Road	600	51.2%	48.8%
L023	Man Kam To Road (NB)	Lo Wu Station Road	Sa Ling Road	650	70.3%	29.7%
L024	Man Kam To Road (SB)	Sa Ling Road	Lo Wu Station Road	450	51.6%	48.4%
L025	Lo Wu Station Road (WB)	Man Kam To Road	Lo Wu MTR Station	150	22.2%	77.8%
L026	Lo Wu Station Road (EB)	Lo Wu MTR Station	Man Kam To Road	150	25.2%	74.8%

Note: "LV" includes motorcycle, private car and taxi

"HV" includes light / medium / heavy goods vehicle, public / private light bus, non-franchised bus and franchised bus



# TABLE D4 – PEAK HOUR TRAFFIC FLOW AND VEHICLE COMPOSITION

## YEAR 2024 TRAFFIC FORECAST

Date: 06 August 2019

Job No.: J6856

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				Traffic Flows (veh/hr)	Vehicle Composition	
					LV	HV
L001	Man Kam To Road (NB)	Kong Nga Po Road	Lo Wu Station Road	350	44.4%	55.6%
L002	Man Kam To Road (SB)	Lo Wu Station Road	Kong Nga Po Road	550	54.3%	45.7%
L003	Kong Nga Po Road (EB)	Man Kam To Road	Police Dog Unit and Force Search Unit Training School	100	54.4%	45.6%
L004	Kong Nga Po Road (WB)	Police Dog Unit and Force Search Unit Training School	Man Kam To Road	200	66.7%	33.3%
L005	Man Kam To Road (SB)	Access Road to Open Storage Site No.7	Kong Nga Po Road	450	47.0%	53.0%
L006	Man Kam To Road (NB)	Kong Nga Po Road	Access Road to Open Storage Site No.7	700	57.4%	42.6%
L007	Access Road to Open Storage Site No.7 (EB)	Open Storage Site No.7	Man Kam To Road	100	64.8%	35.2%
L008	Access Road to Open Storage Site No.7 (WB)	Man Kam To Road	Open Storage Site No.7	50	36.7%	63.3%
L009	Man Kam To Road (NB)	Access Road to Application Site	Access Road to Open Storage Site No.7	450	45.8%	54.2%
L010	Man Kam To Road (SB)	Access Road to Open Storage Site No.7	Access Road to Application Site	700	58.4%	41.6%
L011	Man Kam To Road (NB)	Fu Tei Au Road	Access Road to Application Site	450	45.7%	54.3%
L012	Man Kam To Road (SB)	Access Road to Application Site	Fu Tei Au Road	700	58.6%	41.4%
L013	Fu Tei Au Road (EB)	Sheung Shui Treatment Works and Fresh Water Pumping Station	Man Kam To Road	50	61.8%	38.2%
L014	Fu Tei Au Road (WB)	Man Kam To Road	Sheung Shui Treatment Works and Fresh Water Pumping Station	50	42.5%	57.5%
L015	Unnamed Access Road (WB)	Sheung Shui Wa Shan South Section	Man Kam To Road	50	73.3%	26.7%
L016	Unnamed Access Road (EB)	Man Kam To Road	Sheung Shui Wa Shan South Section	50	50.0%	50.0%
L017	Man Kam To Road (NB)	Access Road to Hung Kiu San Tsuen	Fu Tei Au Road	500	45.5%	54.5%
L018	Man Kam To Road (SB)	Fu Tei Au Road	Access Road to Hung Kiu San Tsuen	750	59.0%	41.0%
L019	Access Road to Hung Kiu San Tsuen (WB)	Hung Kiu San Tsuen	Man Kam To Road	50	51.5%	48.5%
L020	Access Road to Hung Kiu San Tsuen (EB)	Man Kam To Road	Hung Kiu San Tsuen	50	22.2%	77.8%
L021	Man Kam To Road (NB)	Jockey Club Road	Access Road to Hung Kiu San Tsuen	550	44.2%	55.8%
L022	Man Kam To Road (SB)	Access Road to Hung Kiu San Tsuen	Jockey Club Road	800	58.9%	41.1%
L023	Man Kam To Road (NB)	Lo Wu Station Road	Sa Ling Road	350	44.9%	55.1%
L024	Man Kam To Road (SB)	Sa Ling Road	Lo Wu Station Road	550	55.3%	44.7%
L025	Lo Wu Station Road (WB)	Man Kam To Road	Lo Wu MTR Station	50	61.8%	38.2%
L026	Lo Wu Station Road (EB)	Lo Wu MTR Station	Man Kam To Road	50	60.0%	40.0%

Note: "LV" includes motorcycle, private car and taxi

"HV" includes light / medium / heavy goods vehicle, public / private light bus, non-franchised bus and franchised bus

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## Appendix C    **LOCATIONS AND RESULT OF ON-SITE NOISE MEASUREMENT**

## Noise Measurement Details and Results at the Existing Asphalt Plant at Sheung Shui

### General Information

Date of Measurement: 9 July 2019




Time of Measurement: 15:30 – 17:30

Weather Condition: Cloudy

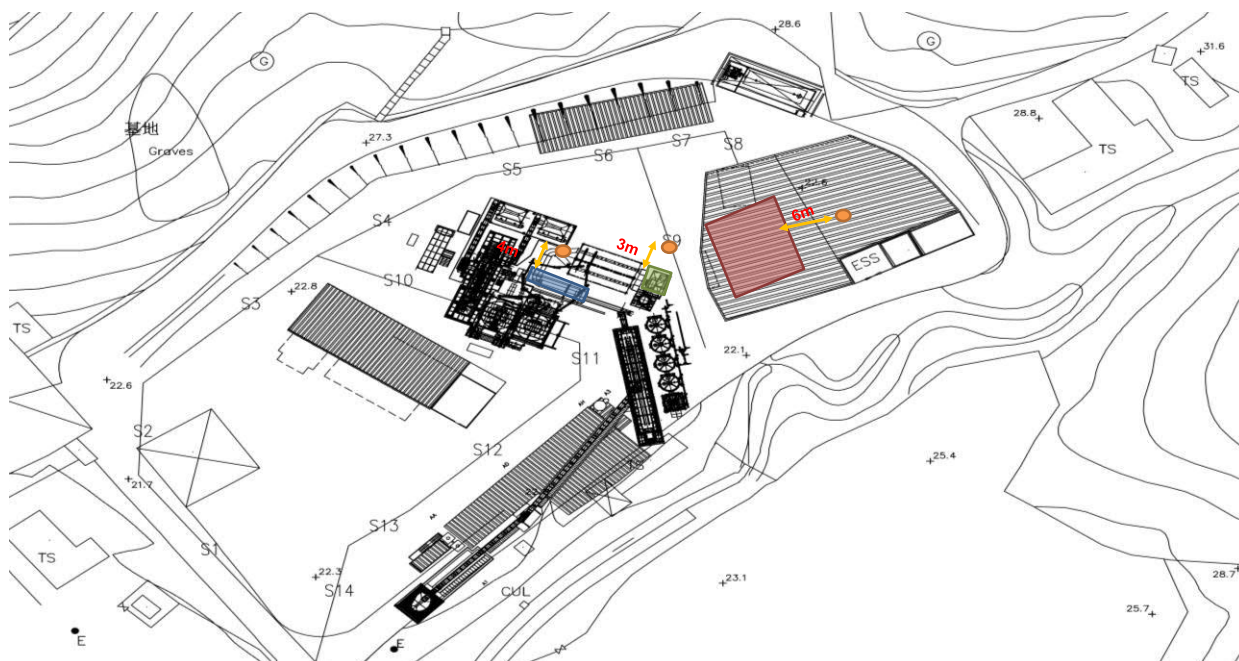
Measurement Equipment: Larson Davis 831 Sound Level Meter

### Measurement Method:

A-weighted emission sound pressure level in dB(A) was measured for the equipment for a duration of 1 minutes, calibration of equipment was carried out before and after measurement. The SWL for the operation of PME was backward calculated based on the on-site measured noise level using the standard acoustical principles

PME	Operation Condition	Figure Shape	Measured SPL, dB(A)	Measurement Distance (m)	Distance Correction, dB(A)	SWL, dB(A)	Highest SWL, dB(A)
Rotary Dryer Drum	Full operation with no mitigation measure		77.9	4	20.0	97.9	98.2
			78.2	4	20.0	98.2	
Main Exhaust Fan	Full operation with mitigation measure listed in S.2.3.5 of the EA Report		71.4	3	17.5	88.9	88.9
			68.9	3	17.5	86.4	
RAP Processing Machine	Full operation and measured inside the enclosure (mitigation measure)		79.5	6	23.6	103.1	103.1
			78.5	6	23.6	102.1	

### Measurement Locations



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## Appendix D    **PREDICTED NOISE LEVEL OF ON-SITE OPERATION**

IN1 - Day and Evening

Plant/Activity	SWL, dB(A) ^	No. of Equipment / Events / Trips	At-source Noise Mitigation Measures ✓	Noise Reduction from Mitigation Measures, dB(A)	Total SWL, dB(A)	% Usage (30mins) ^	Distance #	View Angle, deg	Speed, km/h	Correction, dB(A)					Leq, dB(A)
										Time Correction, dB(A)	Distance Correction, dB(A)	View Angle Correction, dB(A)	Screening Effect, dB(A) +	Façade Correction, dB(A)	
Mechanical and Electrical (M&E) Equipment															
Exhaust fan	89	1		0	89	100	181	N/A	N/A	0	-53	N/A	-10	3	28.9
Air compressor, air flow ≤ 10 m³/min	100	1		0	100	50	194	N/A	N/A	-3	-54	N/A	-10	3	36.3
Rotary dryer drum (Aggregate)	98	1		0	98	50	181	N/A	N/A	-3	-53	N/A	-10	3	34.9
Rotary dryer drum (RAP)	98	1		0	98	50	181	N/A	N/A	-3	-53	N/A	-10	3	34.9
RAP Processing Machine	103	1		0	103	100	188	N/A	N/A	0	-53	N/A	-10	3	42.5
Screw conveyor / Slant belt conveyor / Belt conveyor	90	11	Enclosure	-15	85	100	157	N/A	N/A	0	-52	N/A	-10	3	26.5
Bucket elevator / Filler elevator	90	6	Enclosure	-15	83	100	157	N/A	N/A	0	-52	N/A	-10	3	23.9
Mixing Unit	96	1	Enclosure	-15	81	100	176	N/A	N/A	0	-53	N/A	-10	3	21.1
Bitumen Pump	95	2		0	98	100	167	N/A	N/A	0	-52	N/A	-10	3	38.6
Loading/Unloading Activities															
Wheel Loader (Loading / Unloading Aggregate/RAP)	109	26		0	123	0.28	129	N/A	N/A	-25.6	-50	N/A	-10	3	40.3
Truck (Unloading Aggregate)	105	4		0	111	1.67	129	N/A	N/A	-17.8	-50	N/A	-10	3	36.0
Truck (Asphalt Collection)	105	8	Enclosure	-15	99	1.67	176	N/A	N/A	-17.8	-53	N/A	-10	3	21.3
Truck (Unloading RAP)	105	1		0	105	1.67	199	N/A	N/A	-17.8	-54	N/A	-10	3	26.2
On-site Movement of Truck															
Truck (RAP Delivery)															
Segment - S0	105	2	N/A	N/A	N/A	N/A	117.6	16.6	10	N/A	-20.7	-10.3	-10	3	27.0
Segment - S1	105	2	N/A	N/A	N/A	N/A	145.1	3.2	10	N/A	-21.6	-17.6	-10	3	18.8
Segment - S2	105	2	N/A	N/A	N/A	N/A	172.9	2.6	10	N/A	-22.4	-18.4	-10	3	17.2
Segment - S3	105	2	N/A	N/A	N/A	N/A	185.8	9.6	10	N/A	-22.7	-12.7	-10	3	22.6
Segment - S4	105	2	N/A	N/A	N/A	N/A	197.0	7.3	10	N/A	-22.9	-13.9	-10	3	21.1
Segment - S5	105	2	N/A	N/A	N/A	N/A	202.4	2.8	10	N/A	-23.1	-18.1	-10	3	16.9
Segment - S6	105	2	N/A	N/A	N/A	N/A	203.9	3.8	10	N/A	-23.1	-16.7	-10	3	18.2
Segment - S7	105	2	N/A	N/A	N/A	N/A	206.4	3.5	10	N/A	-23.1	-17.2	-10	3	17.7
Segment - S8	105	2	N/A	N/A	N/A	N/A	205.1	0.6	10	N/A	-23.1	-24.9	-10	3	10.0
Truck (Bitumen Delivery)															
Segment - S0	105	2	N/A	N/A	N/A	N/A	117.6	16.6	10	N/A	-20.7	-10.3	-10	3	27.0
Segment - S1	105	2	N/A	N/A	N/A	N/A	145.1	3.2	10	N/A	-21.6	-17.6	-10	3	18.8
Segment - S2	105	2	N/A	N/A	N/A	N/A	172.9	2.6	10	N/A	-22.4	-18.4	-10	3	17.2
Segment - S3	105	2	N/A	N/A	N/A	N/A	185.8	9.6	10	N/A	-22.7	-12.7	-10	3	22.6
Segment - S4	105	2	N/A	N/A	N/A	N/A	197.0	7.3	10	N/A	-22.9	-13.9	-10	3	21.1
Segment - S5	105	2	N/A	N/A	N/A	N/A	202.4	2.8	10	N/A	-23.1	-18.1	-10	3	16.9
Segment - S6	105	2	N/A	N/A	N/A	N/A	203.9	3.8	10	N/A	-23.1	-16.7	-10	3	18.2
Segment - S9	105	2	N/A	N/A	N/A	N/A	187.1	2.9	10	N/A	-22.7	-17.9	-10	3	17.4
Truck (Asphalt Collection)															
Segment - S0	105	16	N/A	N/A	N/A	N/A	117.6	16.6	10	N/A	-20.7	-10.3	-10	3	36.0
Segment - S1	105	16	N/A	N/A	N/A	N/A	145.1	3.2	10	N/A	-21.6	-17.6	-10	3	27.9
Segment - S2	105	16	N/A	N/A	N/A	N/A	172.9	2.6	10	N/A	-22.4	-18.4	-10	3	26.3
Segment - S3	105	16	N/A	N/A	N/A	N/A	185.8	9.6	10	N/A	-22.7	-12.7	-10	3	31.6
Segment - S10	105	16	N/A	N/A	N/A	N/A	180.9	10.8	10	N/A	-22.6	-12.2	-10	3	32.3
Segment - S11	105	16	N/A	N/A	N/A	N/A	167.4	0.2	10	N/A	-22.2	-30.1	-10	3	14.7
Segment - S12	105	16	N/A	N/A	N/A	N/A	154.2	10.4	10	N/A	-21.9	-12.4	-10	3	32.8
Segment - S13	105	16	N/A	N/A	N/A	N/A	143.7	4.1	10	N/A	-21.6	-16.4	-10	3	29.0
Segment - S14	105	16	N/A	N/A	N/A	N/A	133.2	5.2	10	N/A	-21.2	-15.4	-10	3	30.4
Truck (Aggregate Delivery)															
Segment - S0	105	16	N/A	N/A	N/A	N/A	117.6	16.6	10	N/A	-20.7	-10.3	-10	3	36.0
Segment - S13	105	16	N/A	N/A	N/A	N/A	143.7	4.1	10	N/A	-21.6	-16.4	-10	3	29.0
Segment - S14	105	16	N/A	N/A	N/A	N/A	133.2	5.2	10	N/A	-21.2	-15.4	-10	3	30.4
Wheel Loader (Loading/Unloading Aggregate/RAP)															
Segment - S6	109	52	N/A	N/A	N/A	N/A	203.9	3.8	10	N/A	-23.1	-16.7	-10	3	36.4
Segment - S7	109	52	N/A	N/A	N/A	N/A	206.4	3.5	10	N/A	-23.1	-17.2	-10	3	35.9
Segment - S8	109	52	N/A	N/A	N/A	N/A	205.1	0.6	10	N/A	-23.1	-24.9	-10	3	28.1
Segment - S12	109	52	N/A	N/A	N/A	N/A	154.2	10.4	10	N/A	-21.9	-12.4	-10	3	41.9
Segment - S13	109	52	N/A	N/A	N/A	N/A	143.7	4.1	10	N/A	-21.6	-16.4	-10	3	38.2
Sub-Total SPL, dB(A)															50

Note (\*) - The SWL of Main Exhaust Fan, Rotary Dryer Drum, RAP Processing Machine is obtained by on-site measurement. Detailed information of the on-site measurement please refer to Appendix D.

The type of wheel loader using in the Plant is CAT-950. The SWL of the wheel loader is referenced to the Catalog as shown in Appendix F.

The SWL of other PME is referenced to GW-TM or “Sound power levels of other commonly used PME” issued by EPD.

The Bucket Elevator / Filler Elevator is similar to the Conveyor Belt. Therefore, the SWL of the Bucket Elevator / Filler Elevator is referenced to the SWL of Conveyor Belt.

The SWL of the mixer of the Asphalt Plant is referred to grout mixer.

The SWL of the bitumen pump is referred to grout pump.

Note (^) - Detailed description of the mitigation measures can be found in S2.3.5 and S2.4.4 of the EA report.

Note (\*) - The % usage is provided by the Applicant based on daily practice.

Note (#) - The distances of Screw / Belt / Slant Belt Conveyor and Bucket / Filler Elevator are measured between NSR and the notional source position.

The shortest distance between the loading/unloading areas of loader and corresponding NSRs is adopted in the calculation. The location of the PME is shown on Figure 2.2.

The distances of other PME are measured between NSR and their corresponding location. The location of the PME is shown on Figure 2.2.

Note (+) - The noise generated from the PME/Activity is screened by existing building structure or natural terrain as shown on Figure 2.4.



IN1 - Night

Plant/Activity	SWL, dB(A) ^	No. of Equipment / Events / Trips	At-source Noise Mitigation Measures ✓	Noise Reduction from Mitigation Measures, dB(A)	Total SWL, dB(A)	% Usage (30mins) ^	Distance #	View Angle, deg	Speed, km/h	Correction, dB(A)					Leq, dB(A)	
										Time Correction, dB(A)	Distance Correction, dB(A)	View Angle Correction, dB(A)	Screening Effect, dB(A) +	Façade Correction, dB(A)		
Mechanical and Electrical (M&E) Equipment																
Exhaust fan	89	1		0	89	100	181	N/A	N/A	0	-53	N/A	-10	3	28.9	
Air compressor, air flow ≤ 10 m³/min	100	1		0	100	30	194	N/A	N/A	-5.2	-54	N/A	-10	3	34.1	
Rotary dryer drum (Aggregate)	98	1		0	98	20	181	N/A	N/A	-7	-53	N/A	-10	3	30.9	
Rotary dryer drum (RAP)	98	1		0	98	20	181	N/A	N/A	-7	-53	N/A	-10	3	30.9	
RAP Processing Machine	103	0		0	0	100	188	N/A	N/A	0	-53	N/A	-10	3	0.0	
Screw conveyor / Slant belt conveyor / Belt conveyor	90	11	Enclosure	-15	85	30	157	N/A	N/A	-5.2	-52	N/A	-10	3	21.3	
Bucket elevator / Filler elevator	90	5	Enclosure	-15	82	30	157	N/A	N/A	-5.2	-52	N/A	-10	3	17.9	
Mixing Unit	96	1	Enclosure	-15	81	100	176	N/A	N/A	0	-53	N/A	-10	3	21.1	
Bitumen Pump	95	1		0	95	50	167	N/A	N/A	-3	-52	N/A	-10	3	32.6	
Loading/Unloading Activities																
Wheel Loader (Loading / Unloading Aggregate/RAP)	109	6		0	117	0.28	129	N/A	N/A	-25.6	-50	N/A	-10	3	34.0	
Truck (Unloading Aggregate)	105	1		0	105	1.67	129	N/A	N/A	-17.8	-50	N/A	-10	3	30.0	
Truck (Asphalt Collection)	105	5	Enclosure	-15	97	1.67	176	N/A	N/A	-17.8	-53	N/A	-10	3	19.3	
Truck (Unloading RAP)	105	1		0	105	1.67	199	N/A	N/A	-17.8	-54	N/A	-10	3	26.2	
On-site Movement of Truck																
Truck (RAP Delivery)																
Segment - S0	105	2	N/A	N/A	N/A	N/A	117.6	16.6	10	N/A	-20.7	-10.3	-10	3	27.0	
Segment - S1	105	2	N/A	N/A	N/A	N/A	145.1	3.2	10	N/A	-21.6	-17.6	-10	3	18.8	
Segment - S2	105	2	N/A	N/A	N/A	N/A	172.9	2.6	10	N/A	-22.4	-18.4	-10	3	17.2	
Segment - S3	105	2	N/A	N/A	N/A	N/A	185.8	9.6	10	N/A	-22.7	-12.7	-10	3	22.6	
Segment - S4	105	2	N/A	N/A	N/A	N/A	197.0	7.3	10	N/A	-22.9	-13.9	-10	3	21.1	
Segment - S5	105	2	N/A	N/A	N/A	N/A	202.4	2.8	10	N/A	-23.1	-18.1	-10	3	16.9	
Segment - S6	105	2	N/A	N/A	N/A	N/A	203.9	3.8	10	N/A	-23.1	-16.7	-10	3	18.2	
Segment - S7	105	2	N/A	N/A	N/A	N/A	206.4	3.5	10	N/A	-23.1	-17.2	-10	3	17.7	
Segment - S8	105	2	N/A	N/A	N/A	N/A	205.1	0.6	10	N/A	-23.1	-24.9	-10	3	10.0	
Truck (Bitumen Delivery)																
Segment - S0	105	0	N/A	N/A	N/A	N/A	117.6	16.6	10	N/A	-20.7	-10.3	-10	3	0	
Segment - S1	105	0	N/A	N/A	N/A	N/A	145.1	3.2	10	N/A	-21.6	-17.6	-10	3	0	
Segment - S2	105	0	N/A	N/A	N/A	N/A	172.9	2.6	10	N/A	-22.4	-18.4	-10	3	0	
Segment - S3	105	0	N/A	N/A	N/A	N/A	185.8	9.6	10	N/A	-22.7	-12.7	-10	3	0	
Segment - S4	105	0	N/A	N/A	N/A	N/A	197.0	7.3	10	N/A	-22.9	-13.9	-10	3	0	
Segment - S5	105	0	N/A	N/A	N/A	N/A	202.4	2.8	10	N/A	-23.1	-18.1	-10	3	0	
Segment - S6	105	0	N/A	N/A	N/A	N/A	203.9	3.8	10	N/A	-23.1	-16.7	-10	3	0	
Segment - S9	105	0	N/A	N/A	N/A	N/A	187.1	2.9	10	N/A	-22.7	-17.9	-10	3	0	
Truck (Asphalt Collection)																
Segment - S0	105	10	N/A	N/A	N/A	N/A	117.6	16.6	10	N/A	-20.7	-10.3	-10	3	34.0	
Segment - S1	105	10	N/A	N/A	N/A	N/A	145.1	3.2	10	N/A	-21.6	-17.6	-10	3	25.8	
Segment - S2	105	10	N/A	N/A	N/A	N/A	172.9	2.6	10	N/A	-22.4	-18.4	-10	3	24.2	
Segment - S3	105	10	N/A	N/A	N/A	N/A	185.8	9.6	10	N/A	-22.7	-12.7	-10	3	29.6	
Segment - S10	105	10	N/A	N/A	N/A	N/A	180.9	10.8	10	N/A	-22.6	-12.2	-10	3	30.2	
Segment - S11	105	10	N/A	N/A	N/A	N/A	167.4	0.2	10	N/A	-22.2	-30.1	-10	3	12.7	
Segment - S12	105	10	N/A	N/A	N/A	N/A	154.2	10.4	10	N/A	-21.9	-12.4	-10	3	30.7	
Segment - S13	105	10	N/A	N/A	N/A	N/A	143.7	4.1	10	N/A	-21.6	-16.4	-10	3	27.0	
Segment - S14	105	10	N/A	N/A	N/A	N/A	133.2	5.2	10	N/A	-21.2	-15.4	-10	3	28.4	
Truck (Aggregate Delivery)																
Segment - S0	105	4	N/A	N/A	N/A	N/A	117.6	16.6	10	N/A	-20.7	-10.3	-10	3	30.0	
Segment - S13	105	4	N/A	N/A	N/A	N/A	143.7	4.1	10	N/A	-21.6	-16.4	-10	3	23.0	
Segment - S14	105	4	N/A	N/A	N/A	N/A	133.2	5.2	10	N/A	-21.2	-15.4	-10	3	24.4	
Wheel Loader (Loading/Unloading Aggregate/RAP)																
Segment - S6	109	12	N/A	N/A	N/A	N/A	203.9	3.8	10	N/A	-23.1	-16.7	-10	3	30.0	
Segment - S7	109	12	N/A	N/A	N/A	N/A	206.4	3.5	10	N/A	-23.1	-17.2	-10	3	29.5	
Segment - S8	109	12	N/A	N/A	N/A	N/A	205.1	0.6	10	N/A	-23.1	-24.9	-10	3	21.7	
Segment - S12	109	12	N/A	N/A	N/A	N/A	154.2	10.4	10	N/A	-21.9	-12.4	-10	3	35.5	
Segment - S13	109	12	N/A	N/A	N/A	N/A	143.7	4.1	10	N/A	-21.6	-16.4	-10	3	31.8	
Sub-Total SPL, dB(A)															45	

Note (\*) - The SWL of Main Exhaust Fan, Rotary Dryer Drum, RAP Processing Machine is obtained by on-site measurement. Detailed information of the on-site measurement please refer to Appendix D.

The type of wheel loader using in the Plant is CAT-950. The SWL of the wheel loader is referenced to the Catalog as shown in Appendix F.

The SWL of other PME is referenced to GW-TM or “Sound power levels of other commonly used PME” issued by EPD.

The Bucket Elevator / Filler Elevator is similar to the Conveyor Belt. Therefore, the SWL of the Bucket Elevator / Filler Elevator is referenced to the SWL of Conveyor Belt.

The SWL of the mixer of the Asphalt Plant is referred to grout mixer.

The SWL of the bitumen pump is referred to grout pump.

Note (^) - Detailed description of the mitigation measures can be found in S2.3.5 and S2.4.4 of the EA report.

Note (\*) - The % usage is provided by the Applicant based on daily practice.

Note (#) - The distances of Screw / Belt / Slant Belt Conveyor and Bucket / Filler Elevator are measured between NSR and the notional source position.

The shortest distance between the loading/unloading areas of loader and corresponding NSRs is adopted in the calculation. The location of the PME is shown on Figure 2.2.

The distances of other PME are measured between NSR and their corresponding location. The location of the PME is shown on Figure 2.2.

Note (+) - The noise generated from the PME/Activity is screened by existing building structure or natural terrain as shown on Figure 2.4.

IN2 - Day and Evening

Plant/Activity	SWL, dB(A) ^	No. of Equipment / Events / Trips	At-source Noise Mitigation Measures ✓	Noise Reduction from Mitigation Measures, dB(A)	Total SWL, dB(A)	% Usage (30mins) ^	Distance #	View Angle, deg	Speed, km/h	Correction, dB(A)					Leq, dB(A)
										Time Correction, dB(A)	Distance Correction, dB(A)	View Angle Correction, dB(A)	Screening Effect, dB(A) +	Façade Correction, dB(A)	
Mechanical and Electrical (M&E) Equipment															
Exhaust fan	89	1		0	89	100	357	N/A	N/A	0	-59	N/A	-10	3	23.0
Air compressor, air flow ≤ 10 m³/min	100	1		0	100	50	362	N/A	N/A	-3	-59	N/A	-10	3	30.8
Rotary dryer drum (Aggregate)	98	1		0	98	50	353	N/A	N/A	-3	-59	N/A	-10	3	29.1
Rotary dryer drum (RAP)	98	1		0	98	50	353	N/A	N/A	-3	-59	N/A	-10	3	29.1
RAP Processing Machine	103	1		0	103	100	368	N/A	N/A	0	-59	N/A	-10	3	36.7
Screw conveyor / Slant belt conveyor / Belt conveyor	90	11	Enclosure	-15	85	100	321	N/A	N/A	0	-58	N/A	-10	3	20.3
Bucket elevator / Filler elevator	90	6	Enclosure	-15	83	100	321	N/A	N/A	0	-58	N/A	-10	3	17.7
Mixing Unit	96	1	Enclosure	-15	81	100	347	N/A	N/A	0	-59	N/A	-10	3	15.2
Bitumen Pump	95	2		0	98	100	344	N/A	N/A	0	-59	N/A	-10	3	32.3
Loading/Unloading Activities															
Wheel Loader (Loading / Unloading Aggregate/RAP)	109	26		0	123	0.28	295	N/A	N/A	-25.6	-57	N/A	-10	3	33.1
Truck (Unloading Aggregate)	105	4		0	111	1.67	295	N/A	N/A	-17.8	-57	N/A	-10	3	28.8
Truck (Asphalt Collection)	105	8	Enclosure	-15	99	1.67	347	N/A	N/A	-17.8	-59	N/A	-10	3	15.4
Truck (Unloading RAP)	105	1		0	105	1.67	381	N/A	N/A	-17.8	-60	N/A	-10	3	20.6
On-site Movement of Truck															
Truck (RAP Delivery)															
Segment - S0	105	2	N/A	N/A	N/A	N/A	266.8	4.3	10	N/A	-24.3	-16.2	-10	3	17.6
Segment - S1	105	2	N/A	N/A	N/A	N/A	297.5	5.3	10	N/A	-24.7	-15.3	-10	3	18.0
Segment - S2	105	2	N/A	N/A	N/A	N/A	321.7	0.0	10	N/A	-25.1	-37.5	-10	3	-4.6
Segment - S3	105	2	N/A	N/A	N/A	N/A	341.8	3.9	10	N/A	-25.3	-16.6	-10	3	16.1
Segment - S4	105	2	N/A	N/A	N/A	N/A	362.4	3.3	10	N/A	-25.6	-17.4	-10	3	15.0
Segment - S5	105	2	N/A	N/A	N/A	N/A	372.9	1.4	10	N/A	-25.7	-21.1	-10	3	11.2
Segment - S6	105	2	N/A	N/A	N/A	N/A	377.4	1.9	10	N/A	-25.8	-19.7	-10	3	12.5
Segment - S7	105	2	N/A	N/A	N/A	N/A	383.0	1.7	10	N/A	-25.8	-20.2	-10	3	12.0
Segment - S8	105	2	N/A	N/A	N/A	N/A	383.3	0.5	10	N/A	-25.8	-25.7	-10	3	6.5
Truck (Bitumen Delivery)															
Segment - S0	105	2	N/A	N/A	N/A	N/A	266.8	4.3	10	N/A	-24.3	-16.2	-10	3	17.6
Segment - S1	105	2	N/A	N/A	N/A	N/A	297.5	5.3	10	N/A	-24.7	-15.3	-10	3	18.0
Segment - S2	105	2	N/A	N/A	N/A	N/A	321.7	0.0	10	N/A	-25.1	-37.5	-10	3	-4.6
Segment - S3	105	2	N/A	N/A	N/A	N/A	341.8	3.9	10	N/A	-25.3	-16.6	-10	3	16.1
Segment - S4	105	2	N/A	N/A	N/A	N/A	362.4	3.3	10	N/A	-25.6	-17.4	-10	3	15.0
Segment - S5	105	2	N/A	N/A	N/A	N/A	372.9	1.4	10	N/A	-25.7	-21.1	-10	3	11.2
Segment - S6	105	2	N/A	N/A	N/A	N/A	377.4	1.9	10	N/A	-25.8	-19.7	-10	3	12.5
Segment - S9	105	2	N/A	N/A	N/A	N/A	363.9	2.8	10	N/A	-25.6	-18.1	-10	3	14.3
Truck (Asphalt Collection)															
Segment - S0	105	16	N/A	N/A	N/A	N/A	266.8	4.3	10	N/A	-24.3	-16.2	-10	3	26.6
Segment - S1	105	16	N/A	N/A	N/A	N/A	297.5	5.3	10	N/A	-24.7	-15.3	-10	3	27.0
Segment - S2	105	16	N/A	N/A	N/A	N/A	321.7	0.0	10	N/A	-25.1	-37.5	-10	3	4.5
Segment - S3	105	16	N/A	N/A	N/A	N/A	341.8	3.9	10	N/A	-25.3	-16.6	-10	3	25.1
Segment - S10	105	16	N/A	N/A	N/A	N/A	348.7	6.5	10	N/A	-25.4	-14.4	-10	3	27.2
Segment - S11	105	16	N/A	N/A	N/A	N/A	341.2	0.2	10	N/A	-25.3	-28.7	-10	3	13.0
Segment - S12	105	16	N/A	N/A	N/A	N/A	324.2	3.5	10	N/A	-25.1	-17.1	-10	3	24.8
Segment - S13	105	16	N/A	N/A	N/A	N/A	307.0	1.5	10	N/A	-24.9	-20.9	-10	3	21.3
Segment - S14	105	16	N/A	N/A	N/A	N/A	292.7	0.4	10	N/A	-24.7	-26.4	-10	3	15.9
Truck (Aggregate Delivery)															
Segment - S0	105	16	N/A	N/A	N/A	N/A	266.8	4.3	10	N/A	-24.3	-16.2	-10	3	26.6
Segment - S13	105	16	N/A	N/A	N/A	N/A	307.0	1.5	10	N/A	-24.9	-20.9	-10	3	21.3
Segment - S14	105	16	N/A	N/A	N/A	N/A	292.7	0.4	10	N/A	-24.7	-26.4	-10	3	15.9
Wheel Loader (Loading/Unloading Aggregate/RAP)															
Segment - S6	109	52	N/A	N/A	N/A	N/A	377.4	1.9	10	N/A	-25.8	-19.7	-10	3	30.7
Segment - S7	109	52	N/A	N/A	N/A	N/A	383.0	1.7	10	N/A	-25.8	-20.2	-10	3	30.1
Segment - S8	109	52	N/A	N/A	N/A	N/A	383.3	0.5	10	N/A	-25.8	-25.7	-10	3	24.6
Segment - S12	109	52	N/A	N/A	N/A	N/A	324.2	3.5	10	N/A	-25.1	-17.1	-10	3	33.9
Segment - S13	109	52	N/A	N/A	N/A	N/A	307.0	1.5	10	N/A	-24.9	-20.9	-10	3	30.4
Sub-Total SPL, dB(A)															43

Note (\*) - The SWL of Main Exhaust Fan, Rotary Dryer Drum, RAP Processing Machine is obtained by on-site measurement. Detailed information of the on-site measurement please refer to Appendix D.

The type of wheel loader using in the Plant is CAT-950. The SWL of the wheel loader is referenced to the Catalog as shown in Appendix F.

The SWL of other PME is referenced to GW-TM or “Sound power levels of other commonly used PME” issued by EPD.

The Bucket Elevator / Filler Elevator is similar to the Conveyor Belt. Therefore, the SWL of the Bucket Elevator / Filler Elevator is referenced to the SWL of Conveyor Belt.

The SWL of the mixer of the Asphalt Plant is referred to grout mixer.

The SWL of the bitumen pump is referred to grout pump.

Note (^) - Detailed description of the mitigation measures can be found in S2.3.5 and S2.4.4 of the EA report.

Note (\*) - The % usage is provided by the Applicant based on daily practice.

Note (#) - The distances of Screw / Belt / Slant Belt Conveyor and Bucket / Filler Elevator are measured between NSR and the notional source position.

The shortest distance between the loading/unloading areas of loader and corresponding NSRs is adopted in the calculation. The location of the PME is shown on Figure 2.2.

The distances of other PME are measured between NSR and their corresponding location. The location of the PME is shown on Figure 2.2.

Note (+) - The noise generated from the PME/Activity is screened by existing building structure or natural terrain as shown on Figure 2.4.

IN2 - Night

Plant/Activity	SWL, dB(A) ^	No. of Equipment / Events / Trips	At-source Noise Mitigation Measures ✓	Noise Reduction from Mitigation Measures, dB(A)	Total SWL, dB(A)	% Usage (30mins) ^	Distance #	View Angle, deg	Speed, km/h	Correction, dB(A)					Leq, dB(A)
										Time Correction, dB(A)	Distance Correction, dB(A)	View Angle Correction, dB(A)	Screening Effect, dB(A) +	Façade Correction, dB(A)	
Mechanical and Electrical (M&E) Equipment															
Exhaust fan	89	1		0	89	100	357	N/A	N/A	0	-59	N/A	-10	3	23.0
Air compressor, air flow ≤ 10 m³/min	100	1			100	30	362	N/A	N/A	-5.2	-59	N/A	-10	3	28.6
Rotary dryer drum (Aggregate)	98	1		0	98	20	353	N/A	N/A	-7	-59	N/A	-10	3	25.1
Rotary dryer drum (RAP)	98	1			98	20	353	N/A	N/A	-7	-59	N/A	-10	3	25.1
RAP Processing Machine	103	0		0	0	100	368	N/A	N/A	0	-59	N/A	-10	3	0.0
Screw conveyor / Slant belt conveyor / Belt conveyor	90	11	Enclosure	-15	85	30	321	N/A	N/A	-5.2	-58	N/A	-10	3	15.1
Bucket elevator / Filler elevator	90	5	Enclosure	-15	82	30	321	N/A	N/A	-5.2	-58	N/A	-10	3	11.7
Mixing Unit	96	1	Enclosure	-15	81	100	347	N/A	N/A	0	-59	N/A	-10	3	15.2
Bitumen Pump	95	1		0	95	50	344	N/A	N/A	-3	-59	N/A	-10	3	26.3
Loading/Unloading Activities															
Wheel Loader (Loading / Unloading Aggregate/RAP)	109	6		0	117	0.28	295	N/A	N/A	-25.6	-57	N/A	-10	3	26.8
Truck (Unloading Aggregate)	105	1		0	105	1.67	295	N/A	N/A	-17.8	-57	N/A	-10	3	22.8
Truck (Asphalt Collection)	105	5	Enclosure	-15	97	1.67	347	N/A	N/A	-17.8	-59	N/A	-10	3	13.4
Truck (Unloading RAP)	105	1		0	105	1.67	381	N/A	N/A	-17.8	-60	N/A	-10	3	20.6
On-site Movement of Truck															
Truck (RAP Delivery)															
Segment - S0	105	2	N/A	N/A	N/A	N/A	266.8	4.3	10	N/A	-24.3	-16.2	-10	3	17.6
Segment - S1	105	2	N/A	N/A	N/A	N/A	297.5	5.3	10	N/A	-24.7	-15.3	-10	3	18.0
Segment - S2	105	2	N/A	N/A	N/A	N/A	321.7	0.0	10	N/A	-25.1	-37.5	-10	3	-4.6
Segment - S3	105	2	N/A	N/A	N/A	N/A	341.8	3.9	10	N/A	-25.3	-16.6	-10	3	16.1
Segment - S4	105	2	N/A	N/A	N/A	N/A	362.4	3.3	10	N/A	-25.6	-17.4	-10	3	15.0
Segment - S5	105	2	N/A	N/A	N/A	N/A	372.9	1.4	10	N/A	-25.7	-21.1	-10	3	11.2
Segment - S6	105	2	N/A	N/A	N/A	N/A	377.4	1.9	10	N/A	-25.8	-19.7	-10	3	12.5
Segment - S7	105	2	N/A	N/A	N/A	N/A	383.0	1.7	10	N/A	-25.8	-20.2	-10	3	12.0
Segment - S8	105	2	N/A	N/A	N/A	N/A	383.3	0.5	10	N/A	-25.8	-25.7	-10	3	6.5
Truck (Bitumen Delivery)															
Segment - S0	105	0	N/A	N/A	N/A	N/A	266.8	4.3	10	N/A	-24.3	-16.2	-10	3	0
Segment - S1	105	0	N/A	N/A	N/A	N/A	297.5	5.3	10	N/A	-24.7	-15.3	-10	3	0
Segment - S2	105	0	N/A	N/A	N/A	N/A	321.7	0.0	10	N/A	-25.1	-37.5	-10	3	0
Segment - S3	105	0	N/A	N/A	N/A	N/A	341.8	3.9	10	N/A	-25.3	-16.6	-10	3	0
Segment - S4	105	0	N/A	N/A	N/A	N/A	362.4	3.3	10	N/A	-25.6	-17.4	-10	3	0
Segment - S5	105	0	N/A	N/A	N/A	N/A	372.9	1.4	10	N/A	-25.7	-21.1	-10	3	0
Segment - S6	105	0	N/A	N/A	N/A	N/A	377.4	1.9	10	N/A	-25.8	-19.7	-10	3	0
Segment - S9	105	0	N/A	N/A	N/A	N/A	363.9	2.8	10	N/A	-25.6	-18.1	-10	3	0
Truck (Asphalt Collection)															
Segment - S0	105	10	N/A	N/A	N/A	N/A	266.8	4.3	10	N/A	-24.3	-16.2	-10	3	24.6
Segment - S1	105	10	N/A	N/A	N/A	N/A	297.5	5.3	10	N/A	-24.7	-15.3	-10	3	25.0
Segment - S2	105	10	N/A	N/A	N/A	N/A	321.7	0.0	10	N/A	-25.1	-37.5	-10	3	2.4
Segment - S3	105	10	N/A	N/A	N/A	N/A	341.8	3.9	10	N/A	-25.3	-16.6	-10	3	23.0
Segment - S10	105	10	N/A	N/A	N/A	N/A	348.7	6.5	10	N/A	-25.4	-14.4	-10	3	25.1
Segment - S11	105	10	N/A	N/A	N/A	N/A	341.2	0.2	10	N/A	-25.3	-28.7	-10	3	11.0
Segment - S12	105	10	N/A	N/A	N/A	N/A	324.2	3.5	10	N/A	-25.1	-17.1	-10	3	22.8
Segment - S13	105	10	N/A	N/A	N/A	N/A	307.0	1.5	10	N/A	-24.9	-20.9	-10	3	19.2
Segment - S14	105	10	N/A	N/A	N/A	N/A	292.7	0.4	10	N/A	-24.7	-26.4	-10	3	13.9
Truck (Aggregate Delivery)															
Segment - S0	105	4	N/A	N/A	N/A	N/A	266.8	4.3	10	N/A	-24.3	-16.2	-10	3	20.6
Segment - S13	105	4	N/A	N/A	N/A	N/A	307.0	1.5	10	N/A	-24.9	-20.9	-10	3	15.2
Segment - S14	105	4	N/A	N/A	N/A	N/A	292.7	0.4	10	N/A	-24.7	-26.4	-10	3	9.9
Wheel Loader (Loading/Unloading Aggregate/RAP)															
Segment - S6	109	12	N/A	N/A	N/A	N/A	377.4	1.9	10	N/A	-25.8	-19.7	-10	3	24.3
Segment - S7	109	12	N/A	N/A	N/A	N/A	383.0	1.7	10	N/A	-25.8	-20.2	-10	3	23.8
Segment - S8	109	12	N/A	N/A	N/A	N/A	383.3	0.5	10	N/A	-25.8	-25.7	-10	3	18.3
Segment - S12	109	12	N/A	N/A	N/A	N/A	324.2	3.5	10	N/A	-25.1	-17.1	-10	3	27.6
Segment - S13	109	12	N/A	N/A	N/A	N/A	307.0	1.5	10	N/A	-24.9	-20.9	-10	3	24.0
Sub-Total SPL, dB(A)															38

Note (\*) - The SWL of Main Exhaust Fan, Rotary Dryer Drum, RAP Processing Machine is obtained by on-site measurement. Detailed information of the on-site measurement please refer to Appendix D.

The type of wheel loader using in the Plant is CAT-950. The SWL of the wheel loader is referenced to the Catalog as shown in Appendix F.

The SWL of other PME is referenced to GW-TM or “Sound power levels of other commonly used PME” issued by EPD.

The Bucket Elevator / Filler Elevator is similar to the Conveyor Belt. Therefore, the SWL of the Bucket Elevator / Filler Elevator is referenced to the SWL of Conveyor Belt.

The SWL of the mixer of the Asphalt Plant is referred to grout mixer.

The SWL of the bitumen pump is referred to grout pump.

Note (^) - Detailed description of the mitigation measures can be found in S2.3.5 and S2.4.4 of the EA report.

Note (\*) - The % usage is provided by the Applicant based on daily practice.

Note (#) - The distances of Screw / Belt / Slant Belt Conveyor and Bucket / Filler Elevator are measured between NSR and the notional source position.

The shortest distance between the loading/unloading areas of loader and corresponding NSRs is adopted in the calculation. The location of the PME is shown on Figure 2.2.

The distances of other PME are measured between NSR and their corresponding location. The location of the PME is shown on Figure 2.2.

Note (+) - The noise generated from the PME/Activity is screened by existing building structure or natural terrain as shown on Figure 2.4.

IN3 - Day and Evening

Plant/Activity	SWL, dB(A) ^	No. of Equipment / Events / Trips	At-source Noise Mitigation Measures ✓	Noise Reduction from Mitigation Measures, dB(A)	Total SWL, dB(A)	% Usage (30mins) ^	Distance #	View Angle, deg	Speed, km/h	Correction, dB(A)					Leq, dB(A)	
										Time Correction, dB(A)	Distance Correction, dB(A)	View Angle Correction, dB(A)	Screening Effect, dB(A) +	Façade Correction, dB(A)		
Mechanical and Electrical (M&E) Equipment																
Exhaust fan	89	1		0	89	100	152	N/A	N/A	0	-52	N/A	-10	3	30.4	
Air compressor, air flow ≤ 10 m³/min	100	1	Barrier	-10	90	50	124	N/A	N/A	-3	-50	N/A	-10	3	30.2	
Rotary dryer drum (Aggregate)	98	1		0	98	50	138	N/A	N/A	-3	-51	N/A	-10	3	37.2	
Rotary dryer drum (RAP)	98	1	Barrier	-10	88	50	138	N/A	N/A	-3	-51	N/A	-10	3	27.2	
RAP Processing Machine	103	1		0	103	100	166	N/A	N/A	0	-52	N/A	-10	3	43.6	
Screw conveyor / Slant belt conveyor / Belt conveyor	90	11	Enclosure	-15	85	100	117	N/A	N/A	0	-49	N/A	-10	3	29.1	
Bucket elevator / Filler elevator	90	6	Enclosure	-15	83	100	117	N/A	N/A	0	-49	N/A	-10	3	26.5	
Mixing Unit	96	1	Enclosure	-15	81	100	133	N/A	N/A	0	-50	N/A	-10	3	23.5	
Bitumen Pump	95	2	Barrier	-10	88	100	159	N/A	N/A	0	-52	N/A	-10	3	29.0	
Loading/Unloading Activities																
Wheel Loader (Loading / Unloading Aggregate/RAP)	109	26		0	123	0.28	148	N/A	N/A	-25.6	-51	N/A	-10	3	39.1	
Truck (Unloading Aggregate)	105	4		0	111	1.67	148	N/A	N/A	-17.8	-51	N/A	-10	3	34.8	
Truck (Asphalt Collection)	105	8	Enclosure	-15	99	1.67	133	N/A	N/A	-17.8	-50	N/A	-10	3	23.7	
Truck (Unloading RAP)	105	1		0	105	1.67	178	N/A	N/A	-17.8	-53	N/A	-10	3	27.2	
On-site Movement of Truck																
Truck (RAP Delivery)																
Segment - S0	105	2	N/A	N/A	N/A	N/A	148.0	13.5	10	N/A	-21.7	-11.2	-10	3	25.1	
Segment - S1	105	2	N/A	N/A	N/A	N/A	123.6	2.4	10	N/A	-20.9	-18.7	-10	3	18.4	
Segment - S2	105	2	N/A	N/A	N/A	N/A	97.5	7.5	10	N/A	-19.9	-13.8	-10	3	24.3	
Segment - S3	105	2	N/A	N/A	N/A	N/A	97.2	18.5	10	N/A	-19.9	-9.9	-10	3	28.2	
Segment - S4	105	2	N/A	N/A	N/A	N/A	113.3	9.7	10	N/A	-20.5	-12.7	-10	3	24.8	
Segment - S5	105	2	N/A	N/A	N/A	N/A	127.8	1.5	10	N/A	-21.1	-20.7	-10	3	16.3	
Segment - S6	105	2	N/A	N/A	N/A	N/A	139.0	1.8	10	N/A	-21.4	-20.1	-10	3	16.5	
Segment - S7	105	2	N/A	N/A	N/A	N/A	151.7	1.5	10	N/A	-21.8	-20.8	-10	3	15.4	
Segment - S8	105	2	N/A	N/A	N/A	N/A	158.9	2.1	10	N/A	-22.0	-19.4	-10	3	16.6	
Truck (Bitumen Delivery)																
Segment - S0	105	2	N/A	N/A	N/A	N/A	148.0	13.5	10	N/A	-21.7	-11.2	-10	3	25.1	
Segment - S1	105	2	N/A	N/A	N/A	N/A	123.6	2.4	10	N/A	-20.9	-18.7	-10	3	18.4	
Segment - S2	105	2	N/A	N/A	N/A	N/A	97.5	7.5	10	N/A	-19.9	-13.8	-10	3	24.3	
Segment - S3	105	2	N/A	N/A	N/A	N/A	97.2	18.5	10	N/A	-19.9	-9.9	-10	3	28.2	
Segment - S4	105	2	N/A	N/A	N/A	N/A	113.3	9.7	10	N/A	-20.5	-12.7	-10	3	24.8	
Segment - S5	105	2	N/A	N/A	N/A	N/A	127.8	1.5	10	N/A	-21.1	-20.7	-10	3	16.3	
Segment - S6	105	2	N/A	N/A	N/A	N/A	139.0	1.8	10	N/A	-21.4	-20.1	-10	3	16.5	
Segment - S9	105	2	N/A	N/A	N/A	N/A	153.0	12.3	10	N/A	-21.8	-11.7	-10	3	24.5	
Truck (Asphalt Collection)																
Segment - S0	105	16	N/A	N/A	N/A	N/A	148.0	13.5	10	N/A	-21.7	-11.2	-10	3	34.1	
Segment - S1	105	16	N/A	N/A	N/A	N/A	123.6	2.4	10	N/A	-20.9	-18.7	-10	3	27.4	
Segment - S2	105	16	N/A	N/A	N/A	N/A	97.5	7.5	10	N/A	-19.9	-13.8	-10	3	33.4	
Segment - S3	105	16	N/A	N/A	N/A	N/A	97.2	18.5	10	N/A	-19.9	-9.9	-10	3	37.3	
Segment - S10	105	16	N/A	N/A	N/A	N/A	124.7	1.1	10	N/A	-21.0	-22.0	-10	3	24.1	
Segment - S11	105	16	N/A	N/A	N/A	N/A	146.1	2.4	10	N/A	-21.6	-18.7	-10	3	26.7	
Segment - S12	105	16	N/A	N/A	N/A	N/A	141.2	12.9	10	N/A	-21.5	-11.5	-10	3	34.1	
Segment - S13	105	16	N/A	N/A	N/A	N/A	135.1	4.4	10	N/A	-21.3	-16.1	-10	3	29.6	
Segment - S14	105	16	N/A	N/A	N/A	N/A	138.7	7.6	10	N/A	-21.4	-13.8	-10	3	31.9	
Truck (Aggregate Delivery)																
Segment - S0	105	16	N/A	N/A	N/A	N/A	148.0	13.5	10	N/A	-21.7	-11.2	-10	3	34.1	
Segment - S13	105	16	N/A	N/A	N/A	N/A	135.1	4.4	10	N/A	-21.3	-16.1	-10	3	29.6	
Segment - S14	105	16	N/A	N/A	N/A	N/A	138.7	7.6	10	N/A	-21.4	-13.8	-10	3	31.9	
Wheel Loader (Loading/Unloading Aggregate/RAP)																
Segment - S6	109	52	N/A	N/A	N/A	N/A	139.0	1.8	10	N/A	-21.4	-20.1	-10	3	34.7	
Segment - S7	109	52	N/A	N/A	N/A	N/A	151.7	1.5	10	N/A	-21.8	-20.8	-10	3	33.6	
Segment - S8	109	52	N/A	N/A	N/A	N/A	158.9	2.1	10	N/A	-22.0	-19.4	-10	3	34.7	
Segment - S12	109	52	N/A	N/A	N/A	N/A	141.2	12.9	10	N/A	-21.5	-11.5	-10	3	43.2	
Segment - S13	109	52	N/A	N/A	N/A	N/A	135.1	4.4	10	N/A	-21.3	-16.1	-10	3	38.7	
Sub-Total SPL, dB(A)															50	

Note (\*) - The SWL of Main Exhaust Fan, Rotary Dryer Drum, RAP Processing Machine is obtained by on-site measurement. Detailed information of the on-site measurement please refer to Appendix D.

The type of wheel loader using in the Plant is CAT-950. The SWL of the wheel loader is referenced to the Catalog as shown in Appendix F.

The SWL of other PME is referenced to GW-TM or “Sound power levels of other commonly used PME” issued by EPD.

The Bucket Elevator / Filler Elevator is similar to the Conveyor Belt. Therefore, the SWL of the Bucket Elevator / Filler Elevator is referenced to the SWL of Conveyor Belt.

The SWL of the mixer of the Asphalt Plant is referred to grout mixer.

The SWL of the bitumen pump is referred to grout pump.

Note (✓) - Detailed description of the mitigation measures can be found in S2.3.5 and S2.4.4 of the EA report.

Note (•) - The % usage is provided by the Applicant based on daily practice.

Note (#) - The distances of Screw / Belt / Slant Belt Conveyor and Bucket / Filler Elevator are measured between NSR and the notional source position.

The shortest distance between the loading/unloading areas of loader and corresponding NSRs is adopted in the calculation. The location of the PME is shown on Figure 2.2.

The distances of other PME are measured between NSR and their corresponding location. The location of the PME is shown on Figure 2.2.

Note (+) - The noise generated from the PME/Activity is screened by existing building structure or natural terrain as shown on Figure 2.4.

IN3 - Night

Plant/Activity	SWL, dB(A) *	No. of Equipment / Events / Trips	At-source Noise Mitigation Measures ✓	Noise Reduction from Mitigation Measures, dB(A)	Total SWL, dB(A)	% Usage (30mins) ^	Distance #	View Angle, deg	Speed, km/h	Correction, dB(A)					Leq, dB(A)
										Time Correction, dB(A)	Distance Correction, dB(A)	View Angle Correction, dB(A)	Screening Effect, dB(A) +	Façade Correction, dB(A)	
Mechanical and Electrical (M&E) Equipment															
Exhaust fan	89	1		0	89	100	152	N/A	N/A	0	-52	N/A	-10	3	30.4
Air compressor, air flow ≤ 10 m³/min	100	1	Barrier	-10	90	30	124	N/A	N/A	-5.2	-50	N/A	-10	3	28.0
Rotary dryer drum (Aggregate)	98	1		0	98	20	138	N/A	N/A	-7	-51	N/A	-10	3	33.2
Rotary dryer drum (RAP)	98	1	Barrier	-10	88	20	138	N/A	N/A	-7	-51	N/A	-10	3	23.2
RAP Processing Machine	103	0		0	0	100	166	N/A	N/A	0	-52	N/A	-10	3	0.0
Screw conveyor / Slant belt conveyor / Belt conveyor	90	11	Enclosure	-15	85	30	117	N/A	N/A	-5.2	-49	N/A	-10	3	23.9
Bucket elevator / Filler elevator	90	5	Enclosure	-15	82	30	117	N/A	N/A	-5.2	-49	N/A	-10	3	20.5
Mixing Unit	96	1	Enclosure	-15	81	100	133	N/A	N/A	0	-50	N/A	-10	3	23.5
Bitumen Pump	95	1	Barrier	-10	85	50	159	N/A	N/A	-3	-52	N/A	-10	3	23.0
Loading/Unloading Activities															
Wheel Loader (Loading / Unloading Aggregate/RAP)	109	6		0	117	0.28	148	N/A	N/A	-25.6	-51	N/A	-10	3	32.8
Truck (Unloading Aggregate)	105	1		0	105	1.67	148	N/A	N/A	-17.8	-51	N/A	-10	3	28.8
Truck (Asphalt Collection)	105	5	Enclosure	-15	97	1.67	133	N/A	N/A	-17.8	-50	N/A	-10	3	21.7
Truck (Unloading RAP)	105	1		0	105	1.67	178	N/A	N/A	-17.8	-53	N/A	-10	3	27.2
On-site Movement of Truck															
Truck (RAP Delivery)															
Segment - S0	105	2	N/A	N/A	N/A	N/A	148.0	13.5	10	N/A	-21.7	-11.2	-10	3	25.1
Segment - S1	105	2	N/A	N/A	N/A	N/A	123.6	2.4	10	N/A	-20.9	-18.7	-10	3	18.4
Segment - S2	105	2	N/A	N/A	N/A	N/A	97.5	7.5	10	N/A	-19.9	-13.8	-10	3	24.3
Segment - S3	105	2	N/A	N/A	N/A	N/A	97.2	18.5	10	N/A	-19.9	-9.9	-10	3	28.2
Segment - S4	105	2	N/A	N/A	N/A	N/A	113.3	9.7	10	N/A	-20.5	-12.7	-10	3	24.8
Segment - S5	105	2	N/A	N/A	N/A	N/A	127.8	1.5	10	N/A	-21.1	-20.7	-10	3	16.3
Segment - S6	105	2	N/A	N/A	N/A	N/A	139.0	1.8	10	N/A	-21.4	-20.1	-10	3	16.5
Segment - S7	105	2	N/A	N/A	N/A	N/A	151.7	1.5	10	N/A	-21.8	-20.8	-10	3	15.4
Segment - S8	105	2	N/A	N/A	N/A	N/A	158.9	2.1	10	N/A	-22.0	-19.4	-10	3	16.6
Truck (Bitumen Delivery)															
Segment - S0	105	0	N/A	N/A	N/A	N/A	148.0	13.5	10	N/A	-21.7	-11.2	-10	3	0
Segment - S1	105	0	N/A	N/A	N/A	N/A	123.6	2.4	10	N/A	-20.9	-18.7	-10	3	0
Segment - S2	105	0	N/A	N/A	N/A	N/A	97.5	7.5	10	N/A	-19.9	-13.8	-10	3	0
Segment - S3	105	0	N/A	N/A	N/A	N/A	97.2	18.5	10	N/A	-19.9	-9.9	-10	3	0
Segment - S4	105	0	N/A	N/A	N/A	N/A	113.3	9.7	10	N/A	-20.5	-12.7	-10	3	0
Segment - S5	105	0	N/A	N/A	N/A	N/A	127.8	1.5	10	N/A	-21.1	-20.7	-10	3	0
Segment - S6	105	0	N/A	N/A	N/A	N/A	139.0	1.8	10	N/A	-21.4	-20.1	-10	3	0
Segment - S9	105	0	N/A	N/A	N/A	N/A	153.0	12.3	10	N/A	-21.8	-11.7	-10	3	0
Truck (Asphalt Collection)															
Segment - S0	105	10	N/A	N/A	N/A	N/A	148.0	13.5	10	N/A	-21.7	-11.2	-10	3	32.0
Segment - S1	105	10	N/A	N/A	N/A	N/A	123.6	2.4	10	N/A	-20.9	-18.7	-10	3	25.4
Segment - S2	105	10	N/A	N/A	N/A	N/A	97.5	7.5	10	N/A	-19.9	-13.8	-10	3	31.3
Segment - S3	105	10	N/A	N/A	N/A	N/A	97.2	18.5	10	N/A	-19.9	-9.9	-10	3	35.2
Segment - S10	105	10	N/A	N/A	N/A	N/A	124.7	1.1	10	N/A	-21.0	-22.0	-10	3	22.1
Segment - S11	105	10	N/A	N/A	N/A	N/A	146.1	2.4	10	N/A	-21.6	-18.7	-10	3	24.7
Segment - S12	105	10	N/A	N/A	N/A	N/A	141.2	12.9	10	N/A	-21.5	-11.5	-10	3	32.0
Segment - S13	105	10	N/A	N/A	N/A	N/A	135.1	4.4	10	N/A	-21.3	-16.1	-10	3	27.6
Segment - S14	105	10	N/A	N/A	N/A	N/A	138.7	7.6	10	N/A	-21.4	-13.8	-10	3	29.8
Truck (Aggregate Delivery)															
Segment - S0	105	4	N/A	N/A	N/A	N/A	148.0	13.5	10	N/A	-21.7	-11.2	-10	3	28.1
Segment - S13	105	4	N/A	N/A	N/A	N/A	135.1	4.4	10	N/A	-21.3	-16.1	-10	3	23.6
Segment - S14	105	4	N/A	N/A	N/A	N/A	138.7	7.6	10	N/A	-21.4	-13.8	-10	3	25.8
Wheel Loader (Loading/Unloading Aggregate/RAP)															
Segment - S6	109	12	N/A	N/A	N/A	N/A	139.0	1.8	10	N/A	-21.4	-20.1	-10	3	28.3
Segment - S7	109	12	N/A	N/A	N/A	N/A	151.7	1.5	10	N/A	-21.8	-20.8	-10	3	27.2
Segment - S8	109	12	N/A	N/A	N/A	N/A	158.9	2.1	10	N/A	-22.0	-19.4	-10	3	28.4
Segment - S12	109	12	N/A	N/A	N/A	N/A	141.2	12.9	10	N/A	-21.5	-11.5	-10	3	36.8
Segment - S13	109	12	N/A	N/A	N/A	N/A	135.1	4.4	10	N/A	-21.3	-16.1	-10	3	32.4
Sub-Total SPL, dB(A)															45

Note (\*) - The SWL of Main Exhaust Fan, Rotary Dryer Drum, RAP Processing Machine is obtained by on-site measurement. Detailed information of the on-site measurement please refer to Appendix D.

The type of wheel loader using in the Plant is CAT-950. The SWL of the wheel loader is referenced to the Catalog as shown in Appendix F.

The SWL of other PME is referenced to GW-TM or “Sound power levels of other commonly used PME” issued by EPD.

The Bucket Elevator / Filler Elevator is similar to the Conveyor Belt. Therefore, the SWL of the Bucket Elevator / Filler Elevator is referenced to the SWL of Conveyor Belt.

The SWL of the mixer of the Asphalt Plant is referred to grout mixer.

The SWL of the bitumen pump is referred to grout pump.

Note (✓) - Detailed description of the mitigation measures can be found in S2.3.5 and S2.4.4 of the EA report.

Note (^) - The % usage is provided by the Applicant based on daily practice.

Note (#) - The distances of Screw / Belt / Slant Belt Conveyor and Bucket / Filler Elevator are measured between NSR and the notional source position.

The shortest distance between the loading/unloading areas of loader and corresponding NSRs is adopted in the calculation. The location of the PME is shown on Figure 2.2.

The distances of other PME are measured between NSR and their corresponding location. The location of the PME is shown on Figure 2.2.

Note (+) - The noise generated from the PME/Activity is screened by existing building structure or natural terrain as shown on Figure 2.4.



IN4 - Day and Evening

Plant/Activity	SWL, dB(A) ^	No. of Equipment / Events / Trips	At-source Noise Mitigation Measures ✓	Noise Reduction from Mitigation Measures, dB(A)	Total SWL, dB(A)	% Usage (30mins) ^	Distance #	View Angle, deg	Speed, km/h	Correction, dB(A)					Leq, dB(A)
										Time Correction, dB(A)	Distance Correction, dB(A)	View Angle Correction, dB(A)	Screening Effect, dB(A) +	Façade Correction, dB(A)	
Mechanical and Electrical (M&E) Equipment															
Exhaust fan	89	1		0	89	100	230	N/A	N/A	0	-55	N/A	-10	3	26.8
Air compressor, air flow ≤ 10 m³/min	100	1		0	100	50	221	N/A	N/A	-3	-55	N/A	-10	3	35.1
Rotary dryer drum (Aggregate)	98	1		0	98	50	219	N/A	N/A	-3	-55	N/A	-10	3	33.2
Rotary dryer drum (RAP)	98	1		0	98	50	219	N/A	N/A	-3	-55	N/A	-10	3	33.2
RAP Processing Machine	103	1		0	103	100	246	N/A	N/A	0	-56	N/A	-10	3	40.2
Screw conveyor / Slant belt conveyor / Belt conveyor	90	11	Enclosure	-15	85	100	176	N/A	N/A	0	-53	N/A	-10	3	25.5
Bucket elevator / Filler elevator	90	6	Enclosure	-15	83	100	176	N/A	N/A	0	-53	N/A	-10	3	22.9
Mixing Unit	96	1	Enclosure	-15	81	100	211	N/A	N/A	0	-54	N/A	-10	3	19.5
Bitumen Pump	95	2		0	98	100	222	N/A	N/A	0	-55	N/A	-10	3	36.1
Loading/Unloading Activities															
Wheel Loader (Loading / Unloading Aggregate/RAP)	109	26		0	123	0.28	165	N/A	N/A	-25.6	-52	N/A	-10	3	38.2
Truck (Unloading Aggregate)	105	4		0	111	1.67	165	N/A	N/A	-17.8	-52	N/A	-10	3	33.9
Truck (Asphalt Collection)	105	8	Enclosure	-15	99	1.67	211	N/A	N/A	-17.8	-54	N/A	-10	3	19.7
Truck (Unloading RAP)	105	1		0	105	1.67	262	N/A	N/A	-17.8	-56	N/A	-10	3	23.9
On-site Movement of Truck															
Truck (RAP Delivery)															
Segment - S0	105	2	N/A	N/A	N/A	N/A	129.4	2.2	10	N/A	-21.1	-19.1	-10	3	17.8
Segment - S1	105	2	N/A	N/A	N/A	N/A	151.4	15.2	10	N/A	-21.8	-10.7	-10	3	25.5
Segment - S2	105	2	N/A	N/A	N/A	N/A	165.5	2.5	10	N/A	-22.2	-18.5	-10	3	17.3
Segment - S3	105	2	N/A	N/A	N/A	N/A	188.8	3.2	10	N/A	-22.8	-17.5	-10	3	17.8
Segment - S4	105	2	N/A	N/A	N/A	N/A	216.8	3.0	10	N/A	-23.4	-17.7	-10	3	16.9
Segment - S5	105	2	N/A	N/A	N/A	N/A	232.6	1.7	10	N/A	-23.7	-20.3	-10	3	14.0
Segment - S6	105	2	N/A	N/A	N/A	N/A	241.4	2.2	10	N/A	-23.8	-19.2	-10	3	15.0
Segment - S7	105	2	N/A	N/A	N/A	N/A	251.7	1.8	10	N/A	-24.0	-20.0	-10	3	14.0
Segment - S8	105	2	N/A	N/A	N/A	N/A	255.1	1.2	10	N/A	-24.1	-21.9	-10	3	12.1
Truck (Bitumen Delivery)															
Segment - S0	105	2	N/A	N/A	N/A	N/A	129.4	2.2	10	N/A	-21.1	-19.1	-10	3	17.8
Segment - S1	105	2	N/A	N/A	N/A	N/A	151.4	15.2	10	N/A	-21.8	-10.7	-10	3	25.5
Segment - S2	105	2	N/A	N/A	N/A	N/A	165.5	2.5	10	N/A	-22.2	-18.5	-10	3	17.3
Segment - S3	105	2	N/A	N/A	N/A	N/A	188.8	3.2	10	N/A	-22.8	-17.5	-10	3	17.8
Segment - S4	105	2	N/A	N/A	N/A	N/A	216.8	3.0	10	N/A	-23.4	-17.7	-10	3	16.9
Segment - S5	105	2	N/A	N/A	N/A	N/A	232.6	1.7	10	N/A	-23.7	-20.3	-10	3	14.0
Segment - S6	105	2	N/A	N/A	N/A	N/A	241.4	2.2	10	N/A	-23.8	-19.2	-10	3	15.0
Segment - S9	105	2	N/A	N/A	N/A	N/A	236.0	7.5	10	N/A	-23.7	-13.8	-10	3	20.5
Truck (Asphalt Collection)															
Segment - S0	105	16	N/A	N/A	N/A	N/A	129.4	2.2	10	N/A	-21.1	-19.1	-10	3	26.8
Segment - S1	105	16	N/A	N/A	N/A	N/A	151.4	15.2	10	N/A	-21.8	-10.7	-10	3	34.5
Segment - S2	105	16	N/A	N/A	N/A	N/A	165.5	2.5	10	N/A	-22.2	-18.5	-10	3	26.4
Segment - S3	105	16	N/A	N/A	N/A	N/A	188.8	3.2	10	N/A	-22.8	-17.5	-10	3	26.8
Segment - S10	105	16	N/A	N/A	N/A	N/A	208.8	10.8	10	N/A	-23.2	-12.2	-10	3	31.6
Segment - S11	105	16	N/A	N/A	N/A	N/A	212.2	1.2	10	N/A	-23.3	-21.7	-10	3	22.1
Segment - S12	105	16	N/A	N/A	N/A	N/A	193.0	0.7	10	N/A	-22.9	-24.2	-10	3	20.0
Segment - S13	105	16	N/A	N/A	N/A	N/A	170.9	0.8	10	N/A	-22.3	-23.6	-10	3	21.1
Segment - S14	105	16	N/A	N/A	N/A	N/A	156.4	4.0	10	N/A	-21.9	-16.6	-10	3	28.5
Truck (Aggregate Delivery)															
Segment - S0	105	16	N/A	N/A	N/A	N/A	129.4	2.2	10	N/A	-21.1	-19.1	-10	3	26.8
Segment - S13	105	16	N/A	N/A	N/A	N/A	170.9	0.8	10	N/A	-22.3	-23.6	-10	3	21.1
Segment - S14	105	16	N/A	N/A	N/A	N/A	156.4	4.0	10	N/A	-21.9	-16.6	-10	3	28.5
Wheel Loader (Loading/Unloading Aggregate/RAP)															
Segment - S6	109	52	N/A	N/A	N/A	N/A	241.4	2.2	10	N/A	-23.8	-19.2	-10	3	33.1
Segment - S7	109	52	N/A	N/A	N/A	N/A	251.7	1.8	10	N/A	-24.0	-20.0	-10	3	32.1
Segment - S8	109	52	N/A	N/A	N/A	N/A	255.1	1.2	10	N/A	-24.1	-21.9	-10	3	30.2
Segment - S12	109	52	N/A	N/A	N/A	N/A	193.0	0.7	10	N/A	-22.9	-24.2	-10	3	29.1
Segment - S13	109	52	N/A	N/A	N/A	N/A	170.9	0.8	10	N/A	-22.3	-23.6	-10	3	30.2
Sub-Total SPL, dB(A)															47

Note (\*) - The SWL of Main Exhaust Fan, Rotary Dryer Drum, RAP Processing Machine is obtained by on-site measurement. Detailed information of the on-site measurement please refer to Appendix D.

The type of wheel loader using in the Plant is CAT-950. The SWL of the wheel loader is referenced to the Catalog as shown in Appendix F.

The SWL of other PME is referenced to GW-TM or “Sound power levels of other commonly used PME” issued by EPD.

The Bucket Elevator / Filler Elevator is similar to the Conveyor Belt. Therefore, the SWL of the Bucket Elevator / Filler Elevator is referenced to the SWL of Conveyor Belt.

The SWL of the mixer of the Asphalt Plant is referred to grout mixer.

The SWL of the bitumen pump is referred to grout pump.

Note (^) - Detailed description of the mitigation measures can be found in S2.3.5 and S2.4.4 of the EA report.

Note (\*) - The % usage is provided by the Applicant based on daily practice.

Note (#) - The distances of Screw / Belt / Slant Belt Conveyor and Bucket / Filler Elevator are measured between NSR and the notional source position.

The shortest distance between the loading/unloading areas of loader and corresponding NSRs is adopted in the calculation. The location of the PME is shown on Figure 2.2.

The distances of other PME are measured between NSR and their corresponding location. The location of the PME is shown on Figure 2.2.

Note (+) - The noise generated from the PME/Activity is screened by existing building structure or natural terrain as shown on Figure 2.4.

IN4 - Night

Plant/Activity	SWL, dB(A) ^	No. of Equipment / Events / Trips	At-source Noise Mitigation Measures ✓	Noise Reduction from Mitigation Measures, dB(A)	Total SWL, dB(A)	% Usage (30mins) ^	Distance #	View Angle, deg	Speed, km/h	Correction, dB(A)					Leq, dB(A)
										Time Correction, dB(A)	Distance Correction, dB(A)	View Angle Correction, dB(A)	Screening Effect, dB(A) +	Façade Correction, dB(A)	
Mechanical and Electrical (M&E) Equipment															
Exhaust fan	89	1		0	89	100	230	N/A	N/A	0	-55	N/A	-10	3	26.8
Air compressor, air flow ≤ 10 m³/min	100	1		0	100	30	221	N/A	N/A	-5.2	-55	N/A	-10	3	32.9
Rotary dryer drum (Aggregate)	98	1		0	98	20	219	N/A	N/A	-7	-55	N/A	-10	3	29.2
Rotary dryer drum (RAP)	98	1		0	98	20	219	N/A	N/A	-7	-55	N/A	-10	3	29.2
RAP Processing Machine	103	0		0	0	100	246	N/A	N/A	0	-56	N/A	-10	3	0.0
Screw conveyor / Slant belt conveyor / Belt conveyor	90	11	Enclosure	-15	85	30	176	N/A	N/A	-5.2	-53	N/A	-10	3	20.3
Bucket elevator / Filler elevator	90	5	Enclosure	-15	82	30	176	N/A	N/A	-5.2	-53	N/A	-10	3	16.9
Mixing Unit	96	1	Enclosure	-15	81	100	211	N/A	N/A	0	-54	N/A	-10	3	19.5
Bitumen Pump	95	1			95	50	222	N/A	N/A	-3	-55	N/A	-10	3	30.1
Loading/Unloading Activities															
Wheel Loader (Loading / Unloading Aggregate/RAP)	109	6		0	117	0.28	165	N/A	N/A	-25.6	-52	N/A	-10	3	31.9
Truck (Unloading Aggregate)	105	1		0	105	1.67	165	N/A	N/A	-17.8	-52	N/A	-10	3	27.9
Truck (Asphalt Collection)	105	5	Enclosure	-15	97	1.67	211	N/A	N/A	-17.8	-54	N/A	-10	3	17.7
Truck (Unloading RAP)	105	1		0	105	1.67	262	N/A	N/A	-17.8	-56	N/A	-10	3	23.9
On-site Movement of Truck															
Truck (RAP Delivery)															
Segment - S0	105	2	N/A	N/A	N/A	N/A	129.4	2.2	10	N/A	-21.1	-19.1	-10	3	17.8
Segment - S1	105	2	N/A	N/A	N/A	N/A	151.4	15.2	10	N/A	-21.8	-10.7	-10	3	25.5
Segment - S2	105	2	N/A	N/A	N/A	N/A	165.5	2.5	10	N/A	-22.2	-18.5	-10	3	17.3
Segment - S3	105	2	N/A	N/A	N/A	N/A	188.8	3.2	10	N/A	-22.8	-17.5	-10	3	17.8
Segment - S4	105	2	N/A	N/A	N/A	N/A	216.8	3.0	10	N/A	-23.4	-17.7	-10	3	16.9
Segment - S5	105	2	N/A	N/A	N/A	N/A	232.6	1.7	10	N/A	-23.7	-20.3	-10	3	14.0
Segment - S6	105	2	N/A	N/A	N/A	N/A	241.4	2.2	10	N/A	-23.8	-19.2	-10	3	15.0
Segment - S7	105	2	N/A	N/A	N/A	N/A	251.7	1.8	10	N/A	-24.0	-20.0	-10	3	14.0
Segment - S8	105	2	N/A	N/A	N/A	N/A	255.1	1.2	10	N/A	-24.1	-21.9	-10	3	12.1
Truck (Bitumen Delivery)															
Segment - S0	105	0	N/A	N/A	N/A	N/A	129.4	2.2	10	N/A	-21.1	-19.1	-10	3	0
Segment - S1	105	0	N/A	N/A	N/A	N/A	151.4	15.2	10	N/A	-21.8	-10.7	-10	3	0
Segment - S2	105	0	N/A	N/A	N/A	N/A	165.5	2.5	10	N/A	-22.2	-18.5	-10	3	0
Segment - S3	105	0	N/A	N/A	N/A	N/A	188.8	3.2	10	N/A	-22.8	-17.5	-10	3	0
Segment - S4	105	0	N/A	N/A	N/A	N/A	216.8	3.0	10	N/A	-23.4	-17.7	-10	3	0
Segment - S5	105	0	N/A	N/A	N/A	N/A	232.6	1.7	10	N/A	-23.7	-20.3	-10	3	0
Segment - S6	105	0	N/A	N/A	N/A	N/A	241.4	2.2	10	N/A	-23.8	-19.2	-10	3	0
Segment - S9	105	0	N/A	N/A	N/A	N/A	236.0	7.5	10	N/A	-23.7	-13.8	-10	3	0
Truck (Asphalt Collection)															
Segment - S0	105	10	N/A	N/A	N/A	N/A	129.4	2.2	10	N/A	-21.1	-19.1	-10	3	24.8
Segment - S1	105	10	N/A	N/A	N/A	N/A	151.4	15.2	10	N/A	-21.8	-10.7	-10	3	32.5
Segment - S2	105	10	N/A	N/A	N/A	N/A	165.5	2.5	10	N/A	-22.2	-18.5	-10	3	24.3
Segment - S3	105	10	N/A	N/A	N/A	N/A	188.8	3.2	10	N/A	-22.8	-17.5	-10	3	24.8
Segment - S10	105	10	N/A	N/A	N/A	N/A	208.8	10.8	10	N/A	-23.2	-12.2	-10	3	29.6
Segment - S11	105	10	N/A	N/A	N/A	N/A	212.2	1.2	10	N/A	-23.3	-21.7	-10	3	20.1
Segment - S12	105	10	N/A	N/A	N/A	N/A	193.0	0.7	10	N/A	-22.9	-24.2	-10	3	18.0
Segment - S13	105	10	N/A	N/A	N/A	N/A	170.9	0.8	10	N/A	-22.3	-23.6	-10	3	19.0
Segment - S14	105	10	N/A	N/A	N/A	N/A	156.4	4.0	10	N/A	-21.9	-16.6	-10	3	26.5
Truck (Aggregate Delivery)															
Segment - S0	105	4	N/A	N/A	N/A	N/A	129.4	2.2	10	N/A	-21.1	-19.1	-10	3	20.8
Segment - S13	105	4	N/A	N/A	N/A	N/A	170.9	0.8	10	N/A	-22.3	-23.6	-10	3	15.1
Segment - S14	105	4	N/A	N/A	N/A	N/A	156.4	4.0	10	N/A	-21.9	-16.6	-10	3	22.5
Wheel Loader (Loading/Unloading Aggregate/RAP)															
Segment - S6	109	12	N/A	N/A	N/A	N/A	241.4	2.2	10	N/A	-23.8	-19.2	-10	3	26.8
Segment - S7	109	12	N/A	N/A	N/A	N/A	251.7	1.8	10	N/A	-24.0	-20.0	-10	3	25.8
Segment - S8	109	12	N/A	N/A	N/A	N/A	255.1	1.2	10	N/A	-24.1	-21.9	-10	3	23.9
Segment - S12	109	12	N/A	N/A	N/A	N/A	193.0	0.7	10	N/A	-22.9	-24.2	-10	3	22.7
Segment - S13	109	12	N/A	N/A	N/A	N/A	170.9	0.8	10	N/A	-22.3	-23.6	-10	3	23.8
Sub-Total SPL, dB(A)														42	

Note (\*) - The SWL of Main Exhaust Fan, Rotary Dryer Drum, RAP Processing Machine is obtained by on-site measurement. Detailed information of the on-site measurement please refer to Appendix D.

The type of wheel loader using in the Plant is CAT-950. The SWL of the wheel loader is referenced to the Catalog as shown in Appendix F.

The SWL of other PME is referenced to GW-TM or “Sound power levels of other commonly used PME” issued by EPD.

The Bucket Elevator / Filler Elevator is similar to the Conveyor Belt. Therefore, the SWL of the Bucket Elevator / Filler Elevator is referenced to the SWL of Conveyor Belt.

The SWL of the mixer of the Asphalt Plant is referred to grout mixer.

The SWL of the bitumen pump is referred to grout pump.

Note (✓) - Detailed description of the mitigation measures can be found in S2.3.5 and S2.4.4 of the EA report.

Note (•) - The % usage is provided by the Applicant based on daily practice.

Note (#) - The distances of Screw / Belt / Slant Belt Conveyor and Bucket / Filler Elevator are measured between NSR and the notional source position.

The shortest distance between the loading/unloading areas of loader and corresponding NSRs is adopted in the calculation. The location of the PME is shown on Figure 2.2.

The distances of other PME are measured between NSR and their corresponding location. The location of the PME is shown on Figure 2.2.

Note (+) - The noise generated from the PME/Activity is screened by existing building structure or natural terrain as shown on Figure 2.4.

IN5 - Day and Evening

Plant/Activity	SWL, dB(A) ^	No. of Equipment / Events / Trips	At-source Noise Mitigation Measures ✓	Noise Reduction from Mitigation Measures, dB(A)	Total SWL, dB(A)	% Usage (30mins) ^	Distance #	View Angle, deg	Speed, km/h	Correction, dB(A)					Leq, dB(A)
										Time Correction, dB(A)	Distance Correction, dB(A)	View Angle Correction, dB(A)	Screening Effect, dB(A) +	Façade Correction, dB(A)	
Mechanical and Electrical (M&E) Equipment															
Exhaust fan	89	1		0	89	100	191	N/A	N/A	0	-54	N/A	-10	3	28.4
Air compressor, air flow ≤ 10 m³/min	100	1		0	100	50	171	N/A	N/A	-3	-53	N/A	-10	3	37.4
Rotary dryer drum (Aggregate)	98	1		0	98	50	177	N/A	N/A	-3	-53	N/A	-10	3	35.1
Rotary dryer drum (RAP)	98	1		0	98	50	177	N/A	N/A	-3	-53	N/A	-10	3	35.1
RAP Processing Machine	103	1		0	103	100	208	N/A	N/A	0	-54	N/A	-10	3	41.7
Screw conveyor / Slant belt conveyor / Belt conveyor	90	11	Enclosure	-15	85	100	136	N/A	N/A	0	-51	N/A	-10	3	27.7
Bucket elevator / Filler elevator	90	6	Enclosure	-15	83	100	136	N/A	N/A	0	-51	N/A	-10	3	25.1
Mixing Unit	96	1	Enclosure	-15	81	100	169	N/A	N/A	0	-53	N/A	-10	3	21.5
Bitumen Pump	95	2		0	98	100	189	N/A	N/A	0	-54	N/A	-10	3	37.5
Loading/Unloading Activities															
Wheel Loader (Loading / Unloading Aggregate/RAP)	109	26		0	123	0.28	144	N/A	N/A	-25.6	-51	N/A	-10	3	39.3
Truck (Unloading Aggregate)	105	4		0	111	1.67	144	N/A	N/A	-17.8	-51	N/A	-10	3	35.0
Truck (Asphalt Collection)	105	8	Enclosure	-15	99	1.67	169	N/A	N/A	-17.8	-53	N/A	-10	3	21.7
Truck (Unloading RAP)	105	1		0	105	1.67	224	N/A	N/A	-17.8	-55	N/A	-10	3	25.2
On-site Movement of Truck															
Truck (RAP Delivery)															
Segment - S0	105	2	N/A	N/A	N/A	N/A	118.7	14.8	10	N/A	-20.7	-10.9	-10	3	26.4
Segment - S1	105	2	N/A	N/A	N/A	N/A	118.1	17.9	10	N/A	-20.7	-10.0	-10	3	27.3
Segment - S2	105	2	N/A	N/A	N/A	N/A	112.9	7.5	10	N/A	-20.5	-13.8	-10	3	23.7
Segment - S3	105	2	N/A	N/A	N/A	N/A	132.8	3.6	10	N/A	-21.2	-17.0	-10	3	19.8
Segment - S4	105	2	N/A	N/A	N/A	N/A	162.5	0.4	10	N/A	-22.1	-26.9	-10	3	9.0
Segment - S5	105	2	N/A	N/A	N/A	N/A	180.6	0.9	10	N/A	-22.6	-22.8	-10	3	12.6
Segment - S6	105	2	N/A	N/A	N/A	N/A	192.0	1.2	10	N/A	-22.8	-21.8	-10	3	13.4
Segment - S7	105	2	N/A	N/A	N/A	N/A	204.8	0.9	10	N/A	-23.1	-23.1	-10	3	11.8
Segment - S8	105	2	N/A	N/A	N/A	N/A	210.6	1.7	10	N/A	-23.2	-20.4	-10	3	14.4
Truck (Bitumen Delivery)															
Segment - S0	105	2	N/A	N/A	N/A	N/A	118.7	14.8	10	N/A	-20.7	-10.9	-10	3	26.4
Segment - S1	105	2	N/A	N/A	N/A	N/A	118.1	17.9	10	N/A	-20.7	-10.0	-10	3	27.3
Segment - S2	105	2	N/A	N/A	N/A	N/A	112.9	7.5	10	N/A	-20.5	-13.8	-10	3	23.7
Segment - S3	105	2	N/A	N/A	N/A	N/A	132.8	3.6	10	N/A	-21.2	-17.0	-10	3	19.8
Segment - S4	105	2	N/A	N/A	N/A	N/A	162.5	0.4	10	N/A	-22.1	-26.9	-10	3	9.0
Segment - S5	105	2	N/A	N/A	N/A	N/A	180.6	0.9	10	N/A	-22.6	-22.8	-10	3	12.6
Segment - S6	105	2	N/A	N/A	N/A	N/A	192.0	1.2	10	N/A	-22.8	-21.8	-10	3	13.4
Segment - S9	105	2	N/A	N/A	N/A	N/A	195.3	10.7	10	N/A	-22.9	-12.3	-10	3	22.8
Truck (Asphalt Collection)															
Segment - S0	105	16	N/A	N/A	N/A	N/A	118.7	14.8	10	N/A	-20.7	-10.9	-10	3	35.4
Segment - S1	105	16	N/A	N/A	N/A	N/A	118.1	17.9	10	N/A	-20.7	-10.0	-10	3	36.3
Segment - S2	105	16	N/A	N/A	N/A	N/A	112.9	7.5	10	N/A	-20.5	-13.8	-10	3	32.7
Segment - S3	105	16	N/A	N/A	N/A	N/A	132.8	3.6	10	N/A	-21.2	-17.0	-10	3	28.8
Segment - S10	105	16	N/A	N/A	N/A	N/A	162.4	10.5	10	N/A	-22.1	-12.4	-10	3	32.6
Segment - S11	105	16	N/A	N/A	N/A	N/A	176.0	2.1	10	N/A	-22.5	-19.4	-10	3	25.2
Segment - S12	105	16	N/A	N/A	N/A	N/A	160.1	5.8	10	N/A	-22.0	-14.9	-10	3	30.1
Segment - S13	105	16	N/A	N/A	N/A	N/A	140.7	1.9	10	N/A	-21.5	-19.8	-10	3	25.8
Segment - S14	105	16	N/A	N/A	N/A	N/A	132.2	8.8	10	N/A	-21.2	-13.1	-10	3	32.7
Truck (Aggregate Delivery)															
Segment - S0	105	16	N/A	N/A	N/A	N/A	118.7	14.8	10	N/A	-20.7	-10.9	-10	3	35.4
Segment - S13	105	16	N/A	N/A	N/A	N/A	140.7	1.9	10	N/A	-21.5	-19.8	-10	3	25.8
Segment - S14	105	16	N/A	N/A	N/A	N/A	132.2	8.8	10	N/A	-21.2	-13.1	-10	3	32.7
Wheel Loader (Loading/Unloading Aggregate/RAP)															
Segment - S6	109	52	N/A	N/A	N/A	N/A	192.0	1.2	10	N/A	-22.8	-21.8	-10	3	31.5
Segment - S7	109	52	N/A	N/A	N/A	N/A	204.8	0.9	10	N/A	-23.1	-23.1	-10	3	29.9
Segment - S8	109	52	N/A	N/A	N/A	N/A	210.6	1.7	10	N/A	-23.2	-20.4	-10	3	32.6
Segment - S12	109	52	N/A	N/A	N/A	N/A	160.1	5.8	10	N/A	-22.0	-14.9	-10	3	39.2
Segment - S13	109	52	N/A	N/A	N/A	N/A	140.7	1.9	10	N/A	-21.5	-19.8	-10	3	34.9
Sub-Total SPL, dB(A)															49

Note (\*) - The SWL of Main Exhaust Fan, Rotary Dryer Drum, RAP Processing Machine is obtained by on-site measurement. Detailed information of the on-site measurement please refer to Appendix D.

The type of wheel loader using in the Plant is CAT-950. The SWL of the wheel loader is referenced to the Catalog as shown in Appendix F.

The SWL of other PME is referenced to GW-TM or “Sound power levels of other commonly used PME” issued by EPD.

The Bucket Elevator / Filler Elevator is similar to the Conveyor Belt. Therefore, the SWL of the Bucket Elevator / Filler Elevator is referenced to the SWL of Conveyor Belt.

The SWL of the mixer of the Asphalt Plant is referred to grout mixer.

The SWL of the bitumen pump is referred to grout pump.

Note (^) - Detailed description of the mitigation measures can be found in S2.3.5 and S2.4.4 of the EA report.

Note (\*) - The % usage is provided by the Applicant based on daily practice.

Note (#) - The distances of Screw / Belt / Slant Belt Conveyor and Bucket / Filler Elevator are measured between NSR and the notional source position.

The shortest distance between the loading/unloading areas of loader and corresponding NSRs is adopted in the calculation. The location of the PME is shown on Figure 2.2.

The distances of other PME are measured between NSR and their corresponding location. The location of the PME is shown on Figure 2.2.

Note (+) - The noise generated from the PME/Activity is screened by existing building structure or natural terrain as shown on Figure 2.4.

IN5 - Night

Plant/Activity	SWL, dB(A) ^	No. of Equipment / Events / Trips	At-source Noise Mitigation Measures ✓	Noise Reduction from Mitigation Measures, dB(A)	Total SWL, dB(A)	% Usage (30mins) ^	Distance #	View Angle, deg	Speed, km/h	Correction, dB(A)					Leq, dB(A)
										Time Correction, dB(A)	Distance Correction, dB(A)	View Angle Correction, dB(A)	Screening Effect, dB(A) +	Façade Correction, dB(A)	
Mechanical and Electrical (M&E) Equipment															
Exhaust fan	89	1		0	89	100	191	N/A	N/A	0	-54	N/A	-10	3	28.4
Air compressor, air flow ≤ 10 m³/min	100	1		0	100	30	171	N/A	N/A	-5.2	-53	N/A	-10	3	35.2
Rotary dryer drum (Aggregate)	98	1		0	98	20	177	N/A	N/A	-7	-53	N/A	-10	3	31.1
Rotary dryer drum (RAP)	98	1		0	98	20	177	N/A	N/A	-7	-53	N/A	-10	3	31.1
RAP Processing Machine	103	0		0	0	100	208	N/A	N/A	0	-54	N/A	-10	3	0.0
Screw conveyor / Slant belt conveyor / Belt conveyor	90	11	Enclosure	-15	85	30	136	N/A	N/A	-5.2	-51	N/A	-10	3	22.5
Bucket elevator / Filler elevator	90	5	Enclosure	-15	82	30	136	N/A	N/A	-5.2	-51	N/A	-10	3	19.1
Mixing Unit	96	1	Enclosure	-15	81	100	169	N/A	N/A	0	-53	N/A	-10	3	21.5
Bitumen Pump	95	1			95	50	189	N/A	N/A	-3	-54	N/A	-10	3	31.5
Loading/Unloading Activities															
Wheel Loader (Loading / Unloading Aggregate/RAP)	109	6		0	117	0.28	144	N/A	N/A	-25.6	-51	N/A	-10	3	33.0
Truck (Unloading Aggregate)	105	1		0	105	1.67	144	N/A	N/A	-17.8	-51	N/A	-10	3	29.0
Truck (Asphalt Collection)	105	5	Enclosure	-15	97	1.67	169	N/A	N/A	-17.8	-53	N/A	-10	3	19.7
Truck (Unloading RAP)	105	1		0	105	1.67	224	N/A	N/A	-17.8	-55	N/A	-10	3	25.2
On-site Movement of Truck															
Truck (RAP Delivery)															
Segment - S0	105	2	N/A	N/A	N/A	N/A	118.7	14.8	10	N/A	-20.7	-10.9	-10	3	26.4
Segment - S1	105	2	N/A	N/A	N/A	N/A	118.1	17.9	10	N/A	-20.7	-10.0	-10	3	27.3
Segment - S2	105	2	N/A	N/A	N/A	N/A	112.9	7.5	10	N/A	-20.5	-13.8	-10	3	23.7
Segment - S3	105	2	N/A	N/A	N/A	N/A	132.8	3.6	10	N/A	-21.2	-17.0	-10	3	19.8
Segment - S4	105	2	N/A	N/A	N/A	N/A	162.5	0.4	10	N/A	-22.1	-26.9	-10	3	9.0
Segment - S5	105	2	N/A	N/A	N/A	N/A	180.6	0.9	10	N/A	-22.6	-22.8	-10	3	12.6
Segment - S6	105	2	N/A	N/A	N/A	N/A	192.0	1.2	10	N/A	-22.8	-21.8	-10	3	13.4
Segment - S7	105	2	N/A	N/A	N/A	N/A	204.8	0.9	10	N/A	-23.1	-23.1	-10	3	11.8
Segment - S8	105	2	N/A	N/A	N/A	N/A	210.6	1.7	10	N/A	-23.2	-20.4	-10	3	14.4
Truck (Bitumen Delivery)															
Segment - S0	105	0	N/A	N/A	N/A	N/A	118.7	14.8	10	N/A	-20.7	-10.9	-10	3	0
Segment - S1	105	0	N/A	N/A	N/A	N/A	118.1	17.9	10	N/A	-20.7	-10.0	-10	3	0
Segment - S2	105	0	N/A	N/A	N/A	N/A	112.9	7.5	10	N/A	-20.5	-13.8	-10	3	0
Segment - S3	105	0	N/A	N/A	N/A	N/A	132.8	3.6	10	N/A	-21.2	-17.0	-10	3	0
Segment - S4	105	0	N/A	N/A	N/A	N/A	162.5	0.4	10	N/A	-22.1	-26.9	-10	3	0
Segment - S5	105	0	N/A	N/A	N/A	N/A	180.6	0.9	10	N/A	-22.6	-22.8	-10	3	0
Segment - S6	105	0	N/A	N/A	N/A	N/A	192.0	1.2	10	N/A	-22.8	-21.8	-10	3	0
Segment - S9	105	0	N/A	N/A	N/A	N/A	195.3	10.7	10	N/A	-22.9	-12.3	-10	3	0
Truck (Asphalt Collection)															
Segment - S0	105	10	N/A	N/A	N/A	N/A	118.7	14.8	10	N/A	-20.7	-10.9	-10	3	33.4
Segment - S1	105	10	N/A	N/A	N/A	N/A	118.1	17.9	10	N/A	-20.7	-10.0	-10	3	34.2
Segment - S2	105	10	N/A	N/A	N/A	N/A	112.9	7.5	10	N/A	-20.5	-13.8	-10	3	30.7
Segment - S3	105	10	N/A	N/A	N/A	N/A	132.8	3.6	10	N/A	-21.2	-17.0	-10	3	26.8
Segment - S10	105	10	N/A	N/A	N/A	N/A	162.4	10.5	10	N/A	-22.1	-12.4	-10	3	30.5
Segment - S11	105	10	N/A	N/A	N/A	N/A	176.0	2.1	10	N/A	-22.5	-19.4	-10	3	23.2
Segment - S12	105	10	N/A	N/A	N/A	N/A	160.1	5.8	10	N/A	-22.0	-14.9	-10	3	28.1
Segment - S13	105	10	N/A	N/A	N/A	N/A	140.7	1.9	10	N/A	-21.5	-19.8	-10	3	23.7
Segment - S14	105	10	N/A	N/A	N/A	N/A	132.2	8.8	10	N/A	-21.2	-13.1	-10	3	30.7
Truck (Aggregate Delivery)															
Segment - S0	105	4	N/A	N/A	N/A	N/A	118.7	14.8	10	N/A	-20.7	-10.9	-10	3	29.4
Segment - S13	105	4	N/A	N/A	N/A	N/A	140.7	1.9	10	N/A	-21.5	-19.8	-10	3	19.8
Segment - S14	105	4	N/A	N/A	N/A	N/A	132.2	8.8	10	N/A	-21.2	-13.1	-10	3	26.7
Wheel Loader (Loading/Unloading Aggregate/RAP)															
Segment - S6	109	12	N/A	N/A	N/A	N/A	192.0	1.2	10	N/A	-22.8	-21.8	-10	3	25.1
Segment - S7	109	12	N/A	N/A	N/A	N/A	204.8	0.9	10	N/A	-23.1	-23.1	-10	3	23.5
Segment - S8	109	12	N/A	N/A	N/A	N/A	210.6	1.7	10	N/A	-23.2	-20.4	-10	3	26.2
Segment - S12	109	12	N/A	N/A	N/A	N/A	160.1	5.8	10	N/A	-22.0	-14.9	-10	3	32.9
Segment - S13	109	12	N/A	N/A	N/A	N/A	140.7	1.9	10	N/A	-21.5	-19.8	-10	3	28.5
Sub-Total SPL, dB(A)															44

Note (\*) - The SWL of Main Exhaust Fan, Rotary Dryer Drum, RAP Processing Machine is obtained by on-site measurement. Detailed information of the on-site measurement please refer to Appendix D.

The type of wheel loader using in the Plant is CAT-950. The SWL of the wheel loader is referenced to the Catalog as shown in Appendix F.

The SWL of other PME is referenced to GW-TM or “Sound power levels of other commonly used PME” issued by EPD.

The Bucket Elevator / Filler Elevator is similar to the Conveyor Belt. Therefore, the SWL of the Bucket Elevator / Filler Elevator is referenced to the SWL of Conveyor Belt.

The SWL of the mixer of the Asphalt Plant is referred to grout mixer.

The SWL of the bitumen pump is referred to grout pump.

Note (✓) - Detailed description of the mitigation measures can be found in S2.3.5 and S2.4.4 of the EA report.

Note (∧) - The % usage is provided by the Applicant based on daily practice.

Note (#) - The distances of Screw / Belt / Slant Belt Conveyor and Bucket / Filler Elevator are measured between NSR and the notional source position.

The shortest distance between the loading/unloading areas of loader and corresponding NSRs is adopted in the calculation. The location of the PME is shown on Figure 2.2.

The distances of other PME are measured between NSR and their corresponding location. The location of the PME is shown on Figure 2.2.

Note (+) - The noise generated from the PME/Activity is screened by existing building structure or natural terrain as shown on Figure 2.4.

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## Appendix E     **CATALOGUE OF WHEEL LOADER**



# 950 GC Wheel Loader Specifications

## Hydraulic System

Implement System Pump Type	Piston	
Steering System Pump Type	Piston	
Implement System – Maximum Pump Output @ 2,390 rpm	256 L/min	68 gal/min
Implement System – Maximum Operating Pressure @ 50 ± 1.5 L/min	27 900 kPa	4,047 psi
Implement System – Optional 3rd Function Maximum Pressure @ 70 L/min (18.5 gal/min)	20 680 kPa	2,999 psi
Implement System – Optional 3rd Function Maximum Flow	240 L/min	63 gal/min
Hydraulic Cycle Time – Raise from Carry Position	5.4 Seconds	
Hydraulic Cycle Time – Dump at Maximum Raise	1.2 Seconds	
Hydraulic Cycle Time – Lower, Empty, Float Down	2.8 Seconds	
Hydraulic Cycle Time – Total Cycle Time	9.4 Seconds	

## Tires\*

- Choices include:  
23.5R25 L3 ★★ from Triangle and Maxam  
23.5R25 L3 ★ from Bridgestone  
23.5R25 L2 ★ from Bridgestone

\*Tire offerings vary by region. Consult your local Cat dealer for further details.

## Sound

The sound values indicated below are for specific operating conditions only. Machine and operator sound levels will vary at different engine and/or cooling fan speeds. Hearing protection may be needed when the machine is operated with a cabin that is not properly maintained, or when the doors and/or windows are open for extended periods or in a noisy environment.

With Cooling Fan Speed at Maximum Value:

Operator Sound Pressure Level (ISO 6396:2008)	75 dB(A)
Exterior Sound Power Level (ISO 6395:2008)	109 dB(A)
Exterior Sound Pressure Level (SAE J88:2013)	76 dB(A)*

With Cooling Fan Speed at 70% of Maximum Value:\*\*

Operator Sound Pressure Level (ISO 6396:2008)	73 dB(A)
Exterior Sound Power Level (ISO 6395:2008)	107 L <sub>WA</sub> ***

\*Distance of 15 m (49.2 ft), moving forward in second gear ratio.

\*\*For machines in countries that adopt the “EU Directives.”

\*\*\*European Union Directives “2000/14/EC” as amended by “2005/88/EC.”

## Cab

ROPS/FOPS	ROPS/FOPS meet ISO 3471:2008 and ISO 3449:2005 Level II standards
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## Brakes

Brakes	Brakes meet ISO 3450:2011 standards
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local people  
global experience

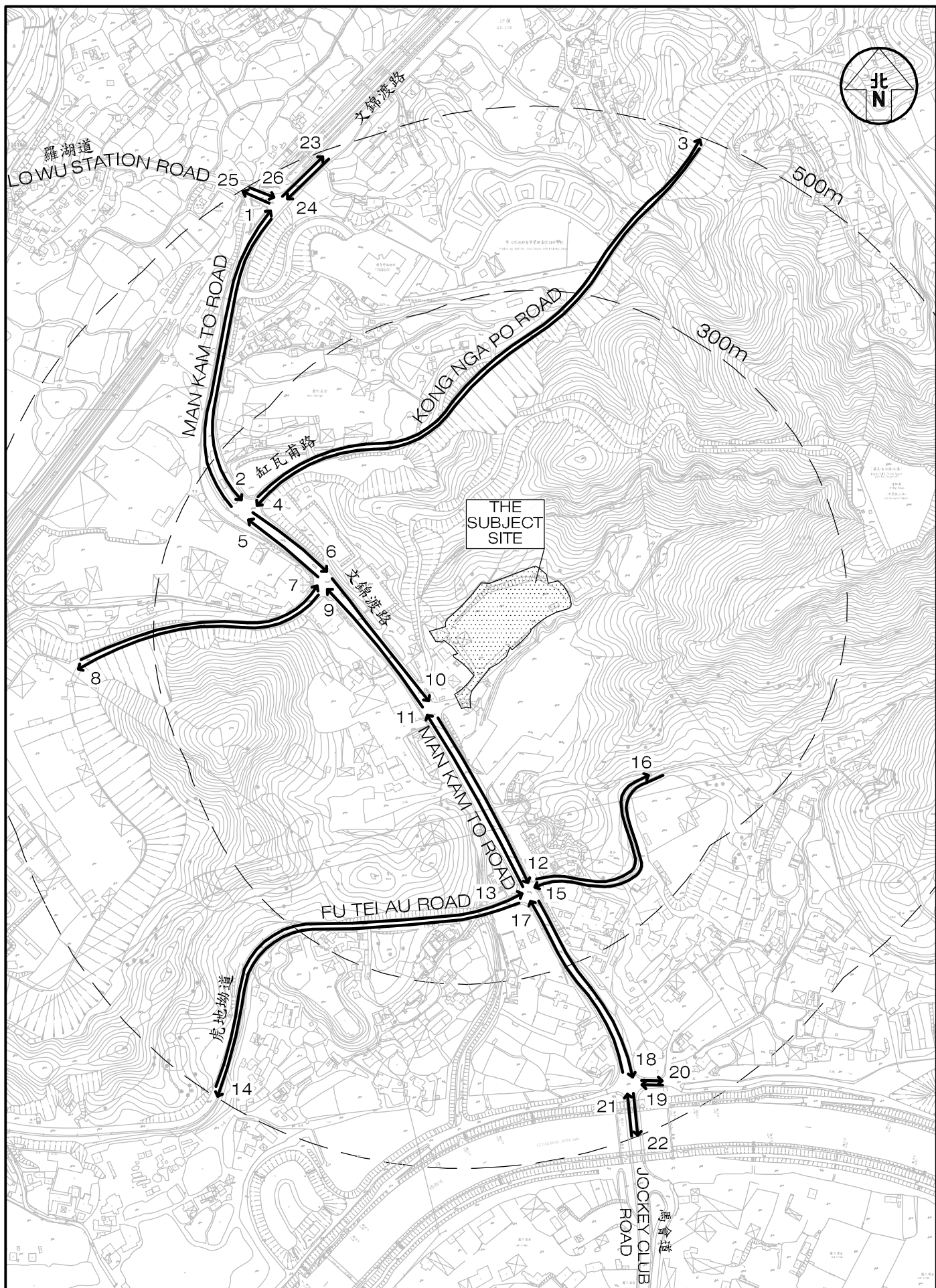
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Project Title RENEWAL OF SECTION 16 PLANNING APPLICATION FOR TEMPORARY ASPHALT PLANT FOR A PERIOD OF 5 YEARS AT LOTS 20RP, 21 AND 23RP (PART) IN D.D. 88 AND ADJOINING GOVERNMENT LAND TO THE EAST OF MAN KAM TO ROAD, SHEUNG SHUI, NEW TERRITORIES

Figure Title

300M AND 500M RADIUS OF  
THE PROPOSED TEMPORARY ASPHALT PLANT

Job No.  
J6856

Designed by  
H C F

Figure No.

EIA1

Drawn by  
S C Y

Checked by  
K C

Revision  
A

Scale in A4

1 : 5,500

Date  
12 JUL 2019

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**Table D3 – Year 2019  
Peak Hour Traffic Data for Noise Assessment  
Without the Proposed Temporary Asphalt Plant**

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# TABLE D3 – PEAK HOUR TRAFFIC FLOW AND VEHICLE COMPOSITION

## YEAR 2019 TRAFFIC FORECAST

Date: 06 August 2019

Job No.: J6856

Link ID	Road Section	From Road	To Road	AM Peak Hour		
				Traffic Flows (veh/hr)	Vehicle Composition	
					LV	HV
L001	Man Kam To Road (NB)	Kong Nga Po Road	Lo Wu Station Road	750	56.0%	44.0%
L002	Man Kam To Road (SB)	Lo Wu Station Road	Kong Nga Po Road	600	37.0%	63.0%
L003	Kong Nga Po Road (EB)	Man Kam To Road	Police Dog Unit and Force Search Unit Training School	200	85.3%	14.7%
L004	Kong Nga Po Road (WB)	Police Dog Unit and Force Search Unit Training School	Man Kam To Road	100	69.7%	30.3%
L005	Man Kam To Road (SB)	Access Road to Open Storage Site No.7	Kong Nga Po Road	800	69.7%	30.3%
L006	Man Kam To Road (NB)	Kong Nga Po Road	Access Road to Open Storage Site No.7	500	49.6%	50.4%
L007	Access Road to Open Storage Site No.7 (EB)	Open Storage Site No.7	Man Kam To Road	50	37.0%	63.0%
L008	Access Road to Open Storage Site No.7 (WB)	Man Kam To Road	Open Storage Site No.7	50	45.4%	54.6%
L009	Man Kam To Road (NB)	Access Road to Application Site	Access Road to Open Storage Site No.7	800	70.1%	29.9%
L010	Man Kam To Road (SB)	Access Road to Open Storage Site No.7	Access Road to Application Site	550	49.8%	50.2%
L011	Man Kam To Road (NB)	Fu Tei Au Road	Access Road to Application Site	800	70.1%	29.9%
L012	Man Kam To Road (SB)	Access Road to Application Site	Fu Tei Au Road	550	49.8%	50.2%
L013	Fu Tei Au Road (EB)	Sheung Shui Treatment Works and Fresh Water Pumping Station	Man Kam To Road	50	73.0%	27.0%
L014	Fu Tei Au Road (WB)	Man Kam To Road	Sheung Shui Treatment Works and Fresh Water Pumping Station	50	77.0%	23.0%
L015	Unnamed Access Road (WB)	Sheung Shui Wa Shan South Section	Man Kam To Road	50	25.0%	75.0%
L016	Unnamed Access Road (EB)	Man Kam To Road	Sheung Shui Wa Shan South Section	50	0.0%	100.0%
L017	Man Kam To Road (NB)	Access Road to Hung Kiu San Tsuen	Fu Tei Au Road	850	70.5%	29.5%
L018	Man Kam To Road (SB)	Fu Tei Au Road	Access Road to Hung Kiu San Tsuen	550	51.3%	48.7%
L019	Access Road to Hung Kiu San Tsuen (WB)	Hung Kiu San Tsuen	Man Kam To Road	50	39.2%	60.8%
L020	Access Road to Hung Kiu San Tsuen (EB)	Man Kam To Road	Hung Kiu San Tsuen	50	72.5%	27.5%
L021	Man Kam To Road (NB)	Jockey Club Road	Access Road to Hung Kiu San Tsuen	900	70.4%	29.6%
L022	Man Kam To Road (SB)	Access Road to Hung Kiu San Tsuen	Jockey Club Road	600	51.1%	48.9%
L023	Man Kam To Road (NB)	Lo Wu Station Road	Sa Ling Road	600	70.2%	29.8%
L024	Man Kam To Road (SB)	Sa Ling Road	Lo Wu Station Road	400	51.3%	48.7%
L025	Lo Wu Station Road (WB)	Man Kam To Road	Lo Wu MTR Station	150	21.9%	78.1%
L026	Lo Wu Station Road (EB)	Lo Wu MTR Station	Man Kam To Road	150	25.8%	74.2%

Note: "LV" includes motorcycle, private car and taxi

"HV" includes light / medium / heavy goods vehicle, public / private light bus, non-franchised bus and franchised bus



# TABLE D3 – PEAK HOUR TRAFFIC FLOW AND VEHICLE COMPOSITION

## YEAR 2019 TRAFFIC FORECAST

Date: 01 August 2019

Job No.: J6856

Link ID	Road Section	From Road	To Road	PM Peak Hour		
				Traffic Flows (veh/hr)	Vehicle Composition	
					LV	HV
L001	Man Kam To Road (NB)	Kong Nga Po Road	Lo Wu Station Road	350	44.1%	55.9%
L002	Man Kam To Road (SB)	Lo Wu Station Road	Kong Nga Po Road	500	54.3%	45.7%
L003	Kong Nga Po Road (EB)	Man Kam To Road	Police Dog Unit and Force Search Unit Training School	100	55.2%	44.8%
L004	Kong Nga Po Road (WB)	Police Dog Unit and Force Search Unit Training School	Man Kam To Road	150	67.0%	33.0%
L005	Man Kam To Road (SB)	Access Road to Open Storage Site No.7	Kong Nga Po Road	400	46.6%	53.4%
L006	Man Kam To Road (NB)	Kong Nga Po Road	Access Road to Open Storage Site No.7	650	57.5%	42.5%
L007	Access Road to Open Storage Site No.7 (EB)	Open Storage Site No.7	Man Kam To Road	100	64.0%	36.0%
L008	Access Road to Open Storage Site No.7 (WB)	Man Kam To Road	Open Storage Site No.7	50	35.5%	64.5%
L009	Man Kam To Road (NB)	Access Road to Application Site	Access Road to Open Storage Site No.7	450	45.7%	54.3%
L010	Man Kam To Road (SB)	Access Road to Open Storage Site No.7	Access Road to Application Site	650	58.5%	41.5%
L011	Man Kam To Road (NB)	Fu Tei Au Road	Access Road to Application Site	450	45.7%	54.3%
L012	Man Kam To Road (SB)	Access Road to Application Site	Fu Tei Au Road	650	58.5%	41.5%
L013	Fu Tei Au Road (EB)	Sheung Shui Treatment Works and Fresh Water Pumping Station	Man Kam To Road	50	60.5%	39.5%
L014	Fu Tei Au Road (WB)	Man Kam To Road	Sheung Shui Treatment Works and Fresh Water Pumping Station	50	42.2%	57.8%
L015	Unnamed Access Road (WB)	Sheung Shui Wa Shan South Section	Man Kam To Road	50	71.5%	28.5%
L016	Unnamed Access Road (EB)	Man Kam To Road	Sheung Shui Wa Shan South Section	50	50.0%	50.0%
L017	Man Kam To Road (NB)	Access Road to Hung Kiu San Tsuen	Fu Tei Au Road	500	45.4%	54.6%
L018	Man Kam To Road (SB)	Fu Tei Au Road	Access Road to Hung Kiu San Tsuen	700	59.2%	40.8%
L019	Access Road to Hung Kiu San Tsuen (WB)	Hung Kiu San Tsuen	Man Kam To Road	50	49.9%	50.1%
L020	Access Road to Hung Kiu San Tsuen (EB)	Man Kam To Road	Hung Kiu San Tsuen	50	23.5%	76.5%
L021	Man Kam To Road (NB)	Jockey Club Road	Access Road to Hung Kiu San Tsuen	500	44.3%	55.7%
L022	Man Kam To Road (SB)	Access Road to Hung Kiu San Tsuen	Jockey Club Road	750	58.9%	41.1%
L023	Man Kam To Road (NB)	Lo Wu Station Road	Sa Ling Road	300	44.9%	55.1%
L024	Man Kam To Road (SB)	Sa Ling Road	Lo Wu Station Road	500	55.2%	44.8%
L025	Lo Wu Station Road (WB)	Man Kam To Road	Lo Wu MTR Station	50	61.8%	38.2%
L026	Lo Wu Station Road (EB)	Lo Wu MTR Station	Man Kam To Road	50	56.3%	43.7%

Note: "LV" includes motorcycle, private car and taxi

"HV" includes light / medium / heavy goods vehicle, public / private light bus, non-franchised bus and franchised bus

**Table D4 – Year 2024  
Peak Hour Traffic Data for Noise Assessment  
Without the Proposed Temporary Asphalt Plant**

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# TABLE D4 – PEAK HOUR TRAFFIC FLOW AND VEHICLE COMPOSITION

## YEAR 2024 TRAFFIC FORECAST

Date: 06 August 2019

Job No.: J6856

Link ID	Road Section	From Road	To Road	AM Peak Hour		
				Traffic Flows (veh/hr)	Vehicle Composition	
					LV	HV
L001	Man Kam To Road (NB)	Kong Nga Po Road	Lo Wu Station Road	800	56.2%	43.8%
L002	Man Kam To Road (SB)	Lo Wu Station Road	Kong Nga Po Road	600	36.9%	63.1%
L003	Kong Nga Po Road (EB)	Man Kam To Road	Police Dog Unit and Force Search Unit Training School	200	85.6%	14.4%
L004	Kong Nga Po Road (WB)	Police Dog Unit and Force Search Unit Training School	Man Kam To Road	100	70.0%	30.0%
L005	Man Kam To Road (SB)	Access Road to Open Storage Site No.7	Kong Nga Po Road	850	69.9%	30.1%
L006	Man Kam To Road (NB)	Kong Nga Po Road	Access Road to Open Storage Site No.7	550	49.5%	50.5%
L007	Access Road to Open Storage Site No.7 (EB)	Open Storage Site No.7	Man Kam To Road	50	35.7%	64.3%
L008	Access Road to Open Storage Site No.7 (WB)	Man Kam To Road	Open Storage Site No.7	50	43.4%	56.6%
L009	Man Kam To Road (NB)	Access Road to Application Site	Access Road to Open Storage Site No.7	850	70.0%	30.0%
L010	Man Kam To Road (SB)	Access Road to Open Storage Site No.7	Access Road to Application Site	550	49.7%	50.3%
L011	Man Kam To Road (NB)	Fu Tei Au Road	Access Road to Application Site	850	70.0%	30.0%
L012	Man Kam To Road (SB)	Access Road to Application Site	Fu Tei Au Road	550	49.7%	50.3%
L013	Fu Tei Au Road (EB)	Sheung Shui Treatment Works and Fresh Water Pumping Station	Man Kam To Road	50	71.7%	28.3%
L014	Fu Tei Au Road (WB)	Man Kam To Road	Sheung Shui Treatment Works and Fresh Water Pumping Station	50	78.0%	22.0%
L015	Unnamed Access Road (WB)	Sheung Shui Wa Shan South Section	Man Kam To Road	50	25.0%	75.0%
L016	Unnamed Access Road (EB)	Man Kam To Road	Sheung Shui Wa Shan South Section	50	0.0%	100.0%
L017	Man Kam To Road (NB)	Access Road to Hung Kiu San Tsuen	Fu Tei Au Road	900	70.6%	29.4%
L018	Man Kam To Road (SB)	Fu Tei Au Road	Access Road to Hung Kiu San Tsuen	600	51.5%	48.5%
L019	Access Road to Hung Kiu San Tsuen (WB)	Hung Kiu San Tsuen	Man Kam To Road	50	39.2%	60.8%
L020	Access Road to Hung Kiu San Tsuen (EB)	Man Kam To Road	Hung Kiu San Tsuen	50	73.4%	26.6%
L021	Man Kam To Road (NB)	Jockey Club Road	Access Road to Hung Kiu San Tsuen	950	70.7%	29.3%
L022	Man Kam To Road (SB)	Access Road to Hung Kiu San Tsuen	Jockey Club Road	600	51.2%	48.8%
L023	Man Kam To Road (NB)	Lo Wu Station Road	Sa Ling Road	650	70.3%	29.7%
L024	Man Kam To Road (SB)	Sa Ling Road	Lo Wu Station Road	450	51.6%	48.4%
L025	Lo Wu Station Road (WB)	Man Kam To Road	Lo Wu MTR Station	150	22.2%	77.8%
L026	Lo Wu Station Road (EB)	Lo Wu MTR Station	Man Kam To Road	150	25.2%	74.8%

Note: "LV" includes motorcycle, private car and taxi

"HV" includes light / medium / heavy goods vehicle, public / private light bus, non-franchised bus and franchised bus

# TABLE D4 – PEAK HOUR TRAFFIC FLOW AND VEHICLE COMPOSITION

## YEAR 2024 TRAFFIC FORECAST

Date: 06 August 2019

Job No.: J6856

Link ID	Road Section	From Road	To Road	PM Peak Hour		
				Traffic Flows (veh/hr)	Vehicle Composition	
					LV	HV
L001	Man Kam To Road (NB)	Kong Nga Po Road	Lo Wu Station Road	350	44.4%	55.6%
L002	Man Kam To Road (SB)	Lo Wu Station Road	Kong Nga Po Road	550	54.3%	45.7%
L003	Kong Nga Po Road (EB)	Man Kam To Road	Police Dog Unit and Force Search Unit Training School	100	54.4%	45.6%
L004	Kong Nga Po Road (WB)	Police Dog Unit and Force Search Unit Training School	Man Kam To Road	200	66.7%	33.3%
L005	Man Kam To Road (SB)	Access Road to Open Storage Site No.7	Kong Nga Po Road	450	47.0%	53.0%
L006	Man Kam To Road (NB)	Kong Nga Po Road	Access Road to Open Storage Site No.7	700	57.4%	42.6%
L007	Access Road to Open Storage Site No.7 (EB)	Open Storage Site No.7	Man Kam To Road	100	64.8%	35.2%
L008	Access Road to Open Storage Site No.7 (WB)	Man Kam To Road	Open Storage Site No.7	50	36.7%	63.3%
L009	Man Kam To Road (NB)	Access Road to Application Site	Access Road to Open Storage Site No.7	450	45.8%	54.2%
L010	Man Kam To Road (SB)	Access Road to Open Storage Site No.7	Access Road to Application Site	700	58.4%	41.6%
L011	Man Kam To Road (NB)	Fu Tei Au Road	Access Road to Application Site	450	45.7%	54.3%
L012	Man Kam To Road (SB)	Access Road to Application Site	Fu Tei Au Road	700	58.6%	41.4%
L013	Fu Tei Au Road (EB)	Sheung Shui Treatment Works and Fresh Water Pumping Station	Man Kam To Road	50	61.8%	38.2%
L014	Fu Tei Au Road (WB)	Man Kam To Road	Sheung Shui Treatment Works and Fresh Water Pumping Station	50	42.5%	57.5%
L015	Unnamed Access Road (WB)	Sheung Shui Wa Shan South Section	Man Kam To Road	50	73.3%	26.7%
L016	Unnamed Access Road (EB)	Man Kam To Road	Sheung Shui Wa Shan South Section	50	50.0%	50.0%
L017	Man Kam To Road (NB)	Access Road to Hung Kiu San Tsuen	Fu Tei Au Road	500	45.5%	54.5%
L018	Man Kam To Road (SB)	Fu Tei Au Road	Access Road to Hung Kiu San Tsuen	750	59.0%	41.0%
L019	Access Road to Hung Kiu San Tsuen (WB)	Hung Kiu San Tsuen	Man Kam To Road	50	51.5%	48.5%
L020	Access Road to Hung Kiu San Tsuen (EB)	Man Kam To Road	Hung Kiu San Tsuen	50	22.2%	77.8%
L021	Man Kam To Road (NB)	Jockey Club Road	Access Road to Hung Kiu San Tsuen	550	44.2%	55.8%
L022	Man Kam To Road (SB)	Access Road to Hung Kiu San Tsuen	Jockey Club Road	800	58.9%	41.1%
L023	Man Kam To Road (NB)	Lo Wu Station Road	Sa Ling Road	350	44.9%	55.1%
L024	Man Kam To Road (SB)	Sa Ling Road	Lo Wu Station Road	550	55.3%	44.7%
L025	Lo Wu Station Road (WB)	Man Kam To Road	Lo Wu MTR Station	50	61.8%	38.2%
L026	Lo Wu Station Road (EB)	Lo Wu MTR Station	Man Kam To Road	50	60.0%	40.0%

Note: "LV" includes motorcycle, private car and taxi

"HV" includes light / medium / heavy goods vehicle, public / private light bus, non-franchised bus and franchised bus

## Noise Measurement Details and Results at the Existing Asphalt Plant at Sheung Shui

### General Information

Date of Measurement: 9 July 2019




Time of Measurement: 15:30 – 17:30

Weather Condition: Cloudy

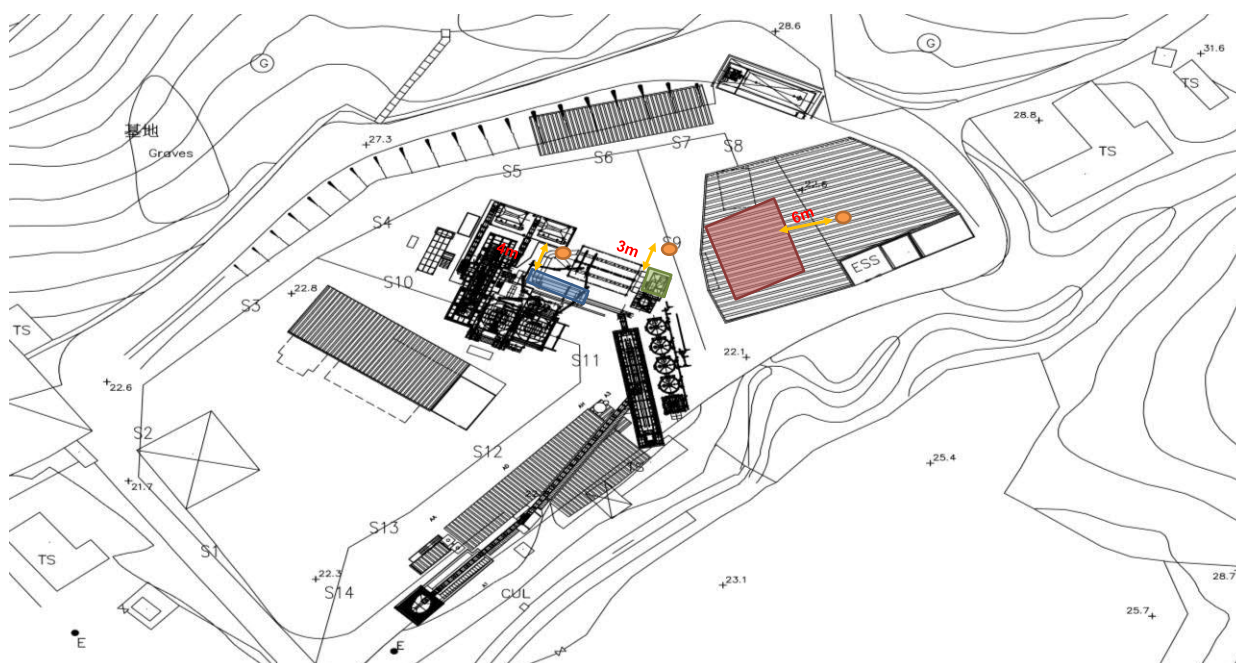
Measurement Equipment: Larson Davis 831 Sound Level Meter

### Measurement Method:

A-weighted emission sound pressure level in dB(A) was measured for the equipment for a duration of 1 minutes, calibration of equipment was carried out before and after measurement. The SWL for the operation of PME was backward calculated based on the on-site measured noise level using the standard acoustical principles

PME	Operation Condition	Figure Shape	Measured SPL, dB(A)	Measurement Distance (m)	Distance Correction, dB(A)	SWL, dB(A)	Highest SWL, dB(A)
Rotary Dryer Drum	Full operation with no mitigation measure		77.9	4	20.0	97.9	98.2
			78.2	4	20.0	98.2	
Main Exhaust Fan	Full operation with mitigation measure listed in S.2.3.5 of the EA Report		71.4	3	17.5	88.9	88.9
			68.9	3	17.5	86.4	
RAP Processing Machine	Full operation and measured inside the enclosure (mitigation measure)		79.5	6	23.6	103.1	103.1
			78.5	6	23.6	102.1	

### Measurement Locations





IN1 - Day and Evening

Plant/Activity	SWL, dB(A) ^	No. of Equipment / Events / Trips	At-source Noise Mitigation Measures ✓	Noise Reduction from Mitigation Measures, dB(A)	Total SWL, dB(A)	% Usage (30mins) ^	Distance #	View Angle, deg	Speed, km/h	Correction, dB(A)					Leq, dB(A)	
										Time Correction, dB(A)	Distance Correction, dB(A)	View Angle Correction, dB(A)	Screening Effect, dB(A) +	Façade Correction, dB(A)		
Mechanical and Electrical (M&E) Equipment																
Exhaust fan	89	1		0	89	100	181	N/A	N/A	0	-53	N/A	-10	3	28.9	
Air compressor, air flow ≤ 10 m³/min	100	1		0	100	50	194	N/A	N/A	-3	-54	N/A	-10	3	36.3	
Rotary dryer drum (Aggregate)	98	1		0	98	50	181	N/A	N/A	-3	-53	N/A	-10	3	34.9	
Rotary dryer drum (RAP)	98	1		0	98	50	181	N/A	N/A	-3	-53	N/A	-10	3	34.9	
RAP Processing Machine	103	1		0	103	100	188	N/A	N/A	0	-53	N/A	-10	3	42.5	
Screw conveyor / Slant belt conveyor / Belt conveyor	90	11	Enclosure	-15	85	100	157	N/A	N/A	0	-52	N/A	-10	3	26.5	
Bucket elevator / Filler elevator	90	6	Enclosure	-15	83	100	157	N/A	N/A	0	-52	N/A	-10	3	23.9	
Mixing Unit	96	1	Enclosure	-15	81	100	176	N/A	N/A	0	-53	N/A	-10	3	21.1	
Bitumen Pump	95	2		0	98	100	167	N/A	N/A	0	-52	N/A	-10	3	38.6	
Loading/Unloading Activities																
Wheel Loader (Loading / Unloading Aggregate/RAP)	109	26		0	123	0.28	129	N/A	N/A	-25.6	-50	N/A	-10	3	40.3	
Truck (Unloading Aggregate)	105	4		0	111	1.67	129	N/A	N/A	-17.8	-50	N/A	-10	3	36.0	
Truck (Asphalt Collection)	105	8	Enclosure	-15	99	1.67	176	N/A	N/A	-17.8	-53	N/A	-10	3	21.3	
Truck (Unloading RAP)	105	1		0	105	1.67	199	N/A	N/A	-17.8	-54	N/A	-10	3	26.2	
On-site Movement of Truck																
Truck (RAP Delivery)																
Segment - S0	105	2	N/A	N/A	N/A	N/A	117.6	16.6	10	N/A	-20.7	-10.3	-10	3	27.0	
Segment - S1	105	2	N/A	N/A	N/A	N/A	145.1	3.2	10	N/A	-21.6	-17.6	-10	3	18.8	
Segment - S2	105	2	N/A	N/A	N/A	N/A	172.9	2.6	10	N/A	-22.4	-18.4	-10	3	17.2	
Segment - S3	105	2	N/A	N/A	N/A	N/A	185.8	9.6	10	N/A	-22.7	-12.7	-10	3	22.6	
Segment - S4	105	2	N/A	N/A	N/A	N/A	197.0	7.3	10	N/A	-22.9	-13.9	-10	3	21.1	
Segment - S5	105	2	N/A	N/A	N/A	N/A	202.4	2.8	10	N/A	-23.1	-18.1	-10	3	16.9	
Segment - S6	105	2	N/A	N/A	N/A	N/A	203.9	3.8	10	N/A	-23.1	-16.7	-10	3	18.2	
Segment - S7	105	2	N/A	N/A	N/A	N/A	206.4	3.5	10	N/A	-23.1	-17.2	-10	3	17.7	
Segment - S8	105	2	N/A	N/A	N/A	N/A	205.1	0.6	10	N/A	-23.1	-24.9	-10	3	10.0	
Truck (Bitumen Delivery)																
Segment - S0	105	2	N/A	N/A	N/A	N/A	117.6	16.6	10	N/A	-20.7	-10.3	-10	3	27.0	
Segment - S1	105	2	N/A	N/A	N/A	N/A	145.1	3.2	10	N/A	-21.6	-17.6	-10	3	18.8	
Segment - S2	105	2	N/A	N/A	N/A	N/A	172.9	2.6	10	N/A	-22.4	-18.4	-10	3	17.2	
Segment - S3	105	2	N/A	N/A	N/A	N/A	185.8	9.6	10	N/A	-22.7	-12.7	-10	3	22.6	
Segment - S4	105	2	N/A	N/A	N/A	N/A	197.0	7.3	10	N/A	-22.9	-13.9	-10	3	21.1	
Segment - S5	105	2	N/A	N/A	N/A	N/A	202.4	2.8	10	N/A	-23.1	-18.1	-10	3	16.9	
Segment - S6	105	2	N/A	N/A	N/A	N/A	203.9	3.8	10	N/A	-23.1	-16.7	-10	3	18.2	
Segment - S9	105	2	N/A	N/A	N/A	N/A	187.1	2.9	10	N/A	-22.7	-17.9	-10	3	17.4	
Truck (Asphalt Collection)																
Segment - S0	105	16	N/A	N/A	N/A	N/A	117.6	16.6	10	N/A	-20.7	-10.3	-10	3	36.0	
Segment - S1	105	16	N/A	N/A	N/A	N/A	145.1	3.2	10	N/A	-21.6	-17.6	-10	3	27.9	
Segment - S2	105	16	N/A	N/A	N/A	N/A	172.9	2.6	10	N/A	-22.4	-18.4	-10	3	26.3	
Segment - S3	105	16	N/A	N/A	N/A	N/A	185.8	9.6	10	N/A	-22.7	-12.7	-10	3	31.6	
Segment - S10	105	16	N/A	N/A	N/A	N/A	180.9	10.8	10	N/A	-22.6	-12.2	-10	3	32.3	
Segment - S11	105	16	N/A	N/A	N/A	N/A	167.4	0.2	10	N/A	-22.2	-30.1	-10	3	14.7	
Segment - S12	105	16	N/A	N/A	N/A	N/A	154.2	10.4	10	N/A	-21.9	-12.4	-10	3	32.8	
Segment - S13	105	16	N/A	N/A	N/A	N/A	143.7	4.1	10	N/A	-21.6	-16.4	-10	3	29.0	
Segment - S14	105	16	N/A	N/A	N/A	N/A	133.2	5.2	10	N/A	-21.2	-15.4	-10	3	30.4	
Truck (Aggregate Delivery)																
Segment - S0	105	16	N/A	N/A	N/A	N/A	117.6	16.6	10	N/A	-20.7	-10.3	-10	3	36.0	
Segment - S13	105	16	N/A	N/A	N/A	N/A	143.7	4.1	10	N/A	-21.6	-16.4	-10	3	29.0	
Segment - S14	105	16	N/A	N/A	N/A	N/A	133.2	5.2	10	N/A	-21.2	-15.4	-10	3	30.4	
Wheel Loader (Loading/Unloading Aggregate/RAP)																
Segment - S6	109	52	N/A	N/A	N/A	N/A	203.9	3.8	10	N/A	-23.1	-16.7	-10	3	36.4	
Segment - S7	109	52	N/A	N/A	N/A	N/A	206.4	3.5	10	N/A	-23.1	-17.2	-10	3	35.9	
Segment - S8	109	52	N/A	N/A	N/A	N/A	205.1	0.6	10	N/A	-23.1	-24.9	-10	3	28.1	
Segment - S12	109	52	N/A	N/A	N/A	N/A	154.2	10.4	10	N/A	-21.9	-12.4	-10	3	41.9	
Segment - S13	109	52	N/A	N/A	N/A	N/A	143.7	4.1	10	N/A	-21.6	-16.4	-10	3	38.2	
Sub-Total SPL, dB(A)															50	

Note (\*) - The SWL of Main Exhaust Fan, Rotary Dryer Drum, RAP Processing Machine is obtained by on-site measurement. Detailed information of the on-site measurement please refer to Appendix D.

The type of wheel loader using in the Plant is CAT-950. The SWL of the wheel loader is referenced to the Catalog as shown in Appendix F.

The SWL of other PME is referenced to GW-TM or “Sound power levels of other commonly used PME” issued by EPD.

The Bucket Elevator / Filler Elevator is similar to the Conveyor Belt. Therefore, the SWL of the Bucket Elevator / Filler Elevator is referenced to the SWL of Conveyor Belt.

The SWL of the mixer of the Asphalt Plant is referred to grout mixer.

The SWL of the bitumen pump is referred to grout pump.

Note (^) - Detailed description of the mitigation measures can be found in S2.3.5 and S2.4.4 of the EA report.

Note (\*) - The % usage is provided by the Applicant based on daily practice.

Note (#) - The distances of Screw / Belt / Slant Belt Conveyor and Bucket / Filler Elevator are measured between NSR and the notional source position.

The shortest distance between the loading/unloading areas of loader and corresponding NSRs is adopted in the calculation. The location of the PME is shown on Figure 2.2.

The distances of other PME are measured between NSR and their corresponding location. The location of the PME is shown on Figure 2.2.

Note (+) - The noise generated from the PME/Activity is screened by existing building structure or natural terrain as shown on Figure 2.4.

IN1 - Night

Plant/Activity	SWL, dB(A) ^	No. of Equipment / Events / Trips	At-source Noise Mitigation Measures ✓	Noise Reduction from Mitigation Measures, dB(A)	Total SWL, dB(A)	% Usage (30mins) ^	Distance #	View Angle, deg	Speed, km/h	Correction, dB(A)					Leq, dB(A)
										Time Correction, dB(A)	Distance Correction, dB(A)	View Angle Correction, dB(A)	Screening Effect, dB(A) +	Façade Correction, dB(A)	
Mechanical and Electrical (M&E) Equipment															
Exhaust fan	89	1		0	89	100	181	N/A	N/A	0	-53	N/A	-10	3	28.9
Air compressor, air flow ≤ 10 m³/min	100	1		0	100	30	194	N/A	N/A	-5.2	-54	N/A	-10	3	34.1
Rotary dryer drum (Aggregate)	98	1		0	98	20	181	N/A	N/A	-7	-53	N/A	-10	3	30.9
Rotary dryer drum (RAP)	98	1		0	98	20	181	N/A	N/A	-7	-53	N/A	-10	3	30.9
RAP Processing Machine	103	0		0	0	100	188	N/A	N/A	0	-53	N/A	-10	3	0.0
Screw conveyor / Slant belt conveyor / Belt conveyor	90	11	Enclosure	-15	85	30	157	N/A	N/A	-5.2	-52	N/A	-10	3	21.3
Bucket elevator / Filler elevator	90	5	Enclosure	-15	82	30	157	N/A	N/A	-5.2	-52	N/A	-10	3	17.9
Mixing Unit	96	1	Enclosure	-15	81	100	176	N/A	N/A	0	-53	N/A	-10	3	21.1
Bitumen Pump	95	1		0	95	50	167	N/A	N/A	-3	-52	N/A	-10	3	32.6
Loading/Unloading Activities															
Wheel Loader (Loading / Unloading Aggregate/RAP)	109	6		0	117	0.28	129	N/A	N/A	-25.6	-50	N/A	-10	3	34.0
Truck (Unloading Aggregate)	105	1		0	105	1.67	129	N/A	N/A	-17.8	-50	N/A	-10	3	30.0
Truck (Asphalt Collection)	105	5	Enclosure	-15	97	1.67	176	N/A	N/A	-17.8	-53	N/A	-10	3	19.3
Truck (Unloading RAP)	105	1		0	105	1.67	199	N/A	N/A	-17.8	-54	N/A	-10	3	26.2
On-site Movement of Truck															
Truck (RAP Delivery)															
Segment - S0	105	2	N/A	N/A	N/A	N/A	117.6	16.6	10	N/A	-20.7	-10.3	-10	3	27.0
Segment - S1	105	2	N/A	N/A	N/A	N/A	145.1	3.2	10	N/A	-21.6	-17.6	-10	3	18.8
Segment - S2	105	2	N/A	N/A	N/A	N/A	172.9	2.6	10	N/A	-22.4	-18.4	-10	3	17.2
Segment - S3	105	2	N/A	N/A	N/A	N/A	185.8	9.6	10	N/A	-22.7	-12.7	-10	3	22.6
Segment - S4	105	2	N/A	N/A	N/A	N/A	197.0	7.3	10	N/A	-22.9	-13.9	-10	3	21.1
Segment - S5	105	2	N/A	N/A	N/A	N/A	202.4	2.8	10	N/A	-23.1	-18.1	-10	3	16.9
Segment - S6	105	2	N/A	N/A	N/A	N/A	203.9	3.8	10	N/A	-23.1	-16.7	-10	3	18.2
Segment - S7	105	2	N/A	N/A	N/A	N/A	206.4	3.5	10	N/A	-23.1	-17.2	-10	3	17.7
Segment - S8	105	2	N/A	N/A	N/A	N/A	205.1	0.6	10	N/A	-23.1	-24.9	-10	3	10.0
Truck (Bitumen Delivery)															
Segment - S0	105	0	N/A	N/A	N/A	N/A	117.6	16.6	10	N/A	-20.7	-10.3	-10	3	0
Segment - S1	105	0	N/A	N/A	N/A	N/A	145.1	3.2	10	N/A	-21.6	-17.6	-10	3	0
Segment - S2	105	0	N/A	N/A	N/A	N/A	172.9	2.6	10	N/A	-22.4	-18.4	-10	3	0
Segment - S3	105	0	N/A	N/A	N/A	N/A	185.8	9.6	10	N/A	-22.7	-12.7	-10	3	0
Segment - S4	105	0	N/A	N/A	N/A	N/A	197.0	7.3	10	N/A	-22.9	-13.9	-10	3	0
Segment - S5	105	0	N/A	N/A	N/A	N/A	202.4	2.8	10	N/A	-23.1	-18.1	-10	3	0
Segment - S6	105	0	N/A	N/A	N/A	N/A	203.9	3.8	10	N/A	-23.1	-16.7	-10	3	0
Segment - S9	105	0	N/A	N/A	N/A	N/A	187.1	2.9	10	N/A	-22.7	-17.9	-10	3	0
Truck (Asphalt Collection)															
Segment - S0	105	10	N/A	N/A	N/A	N/A	117.6	16.6	10	N/A	-20.7	-10.3	-10	3	34.0
Segment - S1	105	10	N/A	N/A	N/A	N/A	145.1	3.2	10	N/A	-21.6	-17.6	-10	3	25.8
Segment - S2	105	10	N/A	N/A	N/A	N/A	172.9	2.6	10	N/A	-22.4	-18.4	-10	3	24.2
Segment - S3	105	10	N/A	N/A	N/A	N/A	185.8	9.6	10	N/A	-22.7	-12.7	-10	3	29.6
Segment - S10	105	10	N/A	N/A	N/A	N/A	180.9	10.8	10	N/A	-22.6	-12.2	-10	3	30.2
Segment - S11	105	10	N/A	N/A	N/A	N/A	167.4	0.2	10	N/A	-22.2	-30.1	-10	3	12.7
Segment - S12	105	10	N/A	N/A	N/A	N/A	154.2	10.4	10	N/A	-21.9	-12.4	-10	3	30.7
Segment - S13	105	10	N/A	N/A	N/A	N/A	143.7	4.1	10	N/A	-21.6	-16.4	-10	3	27.0
Segment - S14	105	10	N/A	N/A	N/A	N/A	133.2	5.2	10	N/A	-21.2	-15.4	-10	3	28.4
Truck (Aggregate Delivery)															
Segment - S0	105	4	N/A	N/A	N/A	N/A	117.6	16.6	10	N/A	-20.7	-10.3	-10	3	30.0
Segment - S13	105	4	N/A	N/A	N/A	N/A	143.7	4.1	10	N/A	-21.6	-16.4	-10	3	23.0
Segment - S14	105	4	N/A	N/A	N/A	N/A	133.2	5.2	10	N/A	-21.2	-15.4	-10	3	24.4
Wheel Loader (Loading/Unloading Aggregate/RAP)															
Segment - S6	109	12	N/A	N/A	N/A	N/A	203.9	3.8	10	N/A	-23.1	-16.7	-10	3	30.0
Segment - S7	109	12	N/A	N/A	N/A	N/A	206.4	3.5	10	N/A	-23.1	-17.2	-10	3	29.5
Segment - S8	109	12	N/A	N/A	N/A	N/A	205.1	0.6	10	N/A	-23.1	-24.9	-10	3	21.7
Segment - S12	109	12	N/A	N/A	N/A	N/A	154.2	10.4	10	N/A	-21.9	-12.4	-10	3	35.5
Segment - S13	109	12	N/A	N/A	N/A	N/A	143.7	4.1	10	N/A	-21.6	-16.4	-10	3	31.8
Sub-Total SPL, dB(A)															45

Note (\*) - The SWL of Main Exhaust Fan, Rotary Dryer Drum, RAP Processing Machine is obtained by on-site measurement. Detailed information of the on-site measurement please refer to Appendix D.

The type of wheel loader using in the Plant is CAT-950. The SWL of the wheel loader is referenced to the Catalog as shown in Appendix F.

The SWL of other PME is referenced to GW-TM or “Sound power levels of other commonly used PME” issued by EPD.

The Bucket Elevator / Filler Elevator is similar to the Conveyor Belt. Therefore, the SWL of the Bucket Elevator / Filler Elevator is referenced to the SWL of Conveyor Belt.

The SWL of the mixer of the Asphalt Plant is referred to grout mixer.

The SWL of the bitumen pump is referred to grout pump.

Note (^) - Detailed description of the mitigation measures can be found in S2.3.5 and S2.4.4 of the EA report.

Note (\*) - The % usage is provided by the Applicant based on daily practice.

Note (#) - The distances of Screw / Belt / Slant Belt Conveyor and Bucket / Filler Elevator are measured between NSR and the notional source position.

The shortest distance between the loading/unloading areas of loader and corresponding NSRs is adopted in the calculation. The location of the PME is shown on Figure 2.2.

The distances of other PME are measured between NSR and their corresponding location. The location of the PME is shown on Figure 2.2.

Note (+) - The noise generated from the PME/Activity is screened by existing building structure or natural terrain as shown on Figure 2.4.

IN2 - Day and Evening

Plant/Activity	SWL, dB(A) ^	No. of Equipment / Events / Trips	At-source Noise Mitigation Measures ✓	Noise Reduction from Mitigation Measures, dB(A)	Total SWL, dB(A)	% Usage (30mins) ^	Distance #	View Angle, deg	Speed, km/h	Correction, dB(A)					Leq, dB(A)
										Time Correction, dB(A)	Distance Correction, dB(A)	View Angle Correction, dB(A)	Screening Effect, dB(A) +	Façade Correction, dB(A)	
Mechanical and Electrical (M&E) Equipment															
Exhaust fan	89	1		0	89	100	357	N/A	N/A	0	-59	N/A	-10	3	23.0
Air compressor, air flow ≤ 10 m³/min	100	1		0	100	50	362	N/A	N/A	-3	-59	N/A	-10	3	30.8
Rotary dryer drum (Aggregate)	98	1		0	98	50	353	N/A	N/A	-3	-59	N/A	-10	3	29.1
Rotary dryer drum (RAP)	98	1		0	98	50	353	N/A	N/A	-3	-59	N/A	-10	3	29.1
RAP Processing Machine	103	1		0	103	100	368	N/A	N/A	0	-59	N/A	-10	3	36.7
Screw conveyor / Slant belt conveyor / Belt conveyor	90	11	Enclosure	-15	85	100	321	N/A	N/A	0	-58	N/A	-10	3	20.3
Bucket elevator / Filler elevator	90	6	Enclosure	-15	83	100	321	N/A	N/A	0	-58	N/A	-10	3	17.7
Mixing Unit	96	1	Enclosure	-15	81	100	347	N/A	N/A	0	-59	N/A	-10	3	15.2
Bitumen Pump	95	2		0	98	100	344	N/A	N/A	0	-59	N/A	-10	3	32.3
Loading/Unloading Activities															
Wheel Loader (Loading / Unloading Aggregate/RAP)	109	26		0	123	0.28	295	N/A	N/A	-25.6	-57	N/A	-10	3	33.1
Truck (Unloading Aggregate)	105	4		0	111	1.67	295	N/A	N/A	-17.8	-57	N/A	-10	3	28.8
Truck (Asphalt Collection)	105	8	Enclosure	-15	99	1.67	347	N/A	N/A	-17.8	-59	N/A	-10	3	15.4
Truck (Unloading RAP)	105	1		0	105	1.67	381	N/A	N/A	-17.8	-60	N/A	-10	3	20.6
On-site Movement of Truck															
Truck (RAP Delivery)															
Segment - S0	105	2	N/A	N/A	N/A	N/A	266.8	4.3	10	N/A	-24.3	-16.2	-10	3	17.6
Segment - S1	105	2	N/A	N/A	N/A	N/A	297.5	5.3	10	N/A	-24.7	-15.3	-10	3	18.0
Segment - S2	105	2	N/A	N/A	N/A	N/A	321.7	0.0	10	N/A	-25.1	-37.5	-10	3	-4.6
Segment - S3	105	2	N/A	N/A	N/A	N/A	341.8	3.9	10	N/A	-25.3	-16.6	-10	3	16.1
Segment - S4	105	2	N/A	N/A	N/A	N/A	362.4	3.3	10	N/A	-25.6	-17.4	-10	3	15.0
Segment - S5	105	2	N/A	N/A	N/A	N/A	372.9	1.4	10	N/A	-25.7	-21.1	-10	3	11.2
Segment - S6	105	2	N/A	N/A	N/A	N/A	377.4	1.9	10	N/A	-25.8	-19.7	-10	3	12.5
Segment - S7	105	2	N/A	N/A	N/A	N/A	383.0	1.7	10	N/A	-25.8	-20.2	-10	3	12.0
Segment - S8	105	2	N/A	N/A	N/A	N/A	383.3	0.5	10	N/A	-25.8	-25.7	-10	3	6.5
Truck (Bitumen Delivery)															
Segment - S0	105	2	N/A	N/A	N/A	N/A	266.8	4.3	10	N/A	-24.3	-16.2	-10	3	17.6
Segment - S1	105	2	N/A	N/A	N/A	N/A	297.5	5.3	10	N/A	-24.7	-15.3	-10	3	18.0
Segment - S2	105	2	N/A	N/A	N/A	N/A	321.7	0.0	10	N/A	-25.1	-37.5	-10	3	-4.6
Segment - S3	105	2	N/A	N/A	N/A	N/A	341.8	3.9	10	N/A	-25.3	-16.6	-10	3	16.1
Segment - S4	105	2	N/A	N/A	N/A	N/A	362.4	3.3	10	N/A	-25.6	-17.4	-10	3	15.0
Segment - S5	105	2	N/A	N/A	N/A	N/A	372.9	1.4	10	N/A	-25.7	-21.1	-10	3	11.2
Segment - S6	105	2	N/A	N/A	N/A	N/A	377.4	1.9	10	N/A	-25.8	-19.7	-10	3	12.5
Segment - S9	105	2	N/A	N/A	N/A	N/A	363.9	2.8	10	N/A	-25.6	-18.1	-10	3	14.3
Truck (Asphalt Collection)															
Segment - S0	105	16	N/A	N/A	N/A	N/A	266.8	4.3	10	N/A	-24.3	-16.2	-10	3	26.6
Segment - S1	105	16	N/A	N/A	N/A	N/A	297.5	5.3	10	N/A	-24.7	-15.3	-10	3	27.0
Segment - S2	105	16	N/A	N/A	N/A	N/A	321.7	0.0	10	N/A	-25.1	-37.5	-10	3	4.5
Segment - S3	105	16	N/A	N/A	N/A	N/A	341.8	3.9	10	N/A	-25.3	-16.6	-10	3	25.1
Segment - S10	105	16	N/A	N/A	N/A	N/A	348.7	6.5	10	N/A	-25.4	-14.4	-10	3	27.2
Segment - S11	105	16	N/A	N/A	N/A	N/A	341.2	0.2	10	N/A	-25.3	-28.7	-10	3	13.0
Segment - S12	105	16	N/A	N/A	N/A	N/A	324.2	3.5	10	N/A	-25.1	-17.1	-10	3	24.8
Segment - S13	105	16	N/A	N/A	N/A	N/A	307.0	1.5	10	N/A	-24.9	-20.9	-10	3	21.3
Segment - S14	105	16	N/A	N/A	N/A	N/A	292.7	0.4	10	N/A	-24.7	-26.4	-10	3	15.9
Truck (Aggregate Delivery)															
Segment - S0	105	16	N/A	N/A	N/A	N/A	266.8	4.3	10	N/A	-24.3	-16.2	-10	3	26.6
Segment - S13	105	16	N/A	N/A	N/A	N/A	307.0	1.5	10	N/A	-24.9	-20.9	-10	3	21.3
Segment - S14	105	16	N/A	N/A	N/A	N/A	292.7	0.4	10	N/A	-24.7	-26.4	-10	3	15.9
Wheel Loader (Loading/Unloading Aggregate/RAP)															
Segment - S6	109	52	N/A	N/A	N/A	N/A	377.4	1.9	10	N/A	-25.8	-19.7	-10	3	30.7
Segment - S7	109	52	N/A	N/A	N/A	N/A	383.0	1.7	10	N/A	-25.8	-20.2	-10	3	30.1
Segment - S8	109	52	N/A	N/A	N/A	N/A	383.3	0.5	10	N/A	-25.8	-25.7	-10	3	24.6
Segment - S12	109	52	N/A	N/A	N/A	N/A	324.2	3.5	10	N/A	-25.1	-17.1	-10	3	33.9
Segment - S13	109	52	N/A	N/A	N/A	N/A	307.0	1.5	10	N/A	-24.9	-20.9	-10	3	30.4
Sub-Total SPL, dB(A)															43

Note (\*) - The SWL of Main Exhaust Fan, Rotary Dryer Drum, RAP Processing Machine is obtained by on-site measurement. Detailed information of the on-site measurement please refer to Appendix D.

The type of wheel loader using in the Plant is CAT-950. The SWL of the wheel loader is referenced to the Catalog as shown in Appendix F.

The SWL of other PME is referenced to GW-TM or “Sound power levels of other commonly used PME” issued by EPD.

The Bucket Elevator / Filler Elevator is similar to the Conveyor Belt. Therefore, the SWL of the Bucket Elevator / Filler Elevator is referenced to the SWL of Conveyor Belt.

The SWL of the mixer of the Asphalt Plant is referred to grout mixer.

The SWL of the bitumen pump is referred to grout pump.

Note (✓) - Detailed description of the mitigation measures can be found in S2.3.5 and S2.4.4 of the EA report.

Note (•) - The % usage is provided by the Applicant based on daily practice.

Note (#) - The distances of Screw / Belt / Slant Belt Conveyor and Bucket / Filler Elevator are measured between NSR and the notional source position.

The shortest distance between the loading/unloading areas of loader and corresponding NSRs is adopted in the calculation. The location of the PME is shown on Figure 2.2.

The distances of other PME are measured between NSR and their corresponding location. The location of the PME is shown on Figure 2.2.

Note (+) - The noise generated from the PME/Activity is screened by existing building structure or natural terrain as shown on Figure 2.4.

IN2 - Night

Plant/Activity	SWL, dB(A) ^	No. of Equipment / Events / Trips	At-source Noise Mitigation Measures ✓	Noise Reduction from Mitigation Measures, dB(A)	Total SWL, dB(A)	% Usage (30mins) ^	Distance #	View Angle, deg	Speed, km/h	Correction, dB(A)					Leq, dB(A)
										Time Correction, dB(A)	Distance Correction, dB(A)	View Angle Correction, dB(A)	Screening Effect, dB(A) +	Façade Correction, dB(A)	
Mechanical and Electrical (M&E) Equipment															
Exhaust fan	89	1		0	89	100	357	N/A	N/A	0	-59	N/A	-10	3	23.0
Air compressor, air flow ≤ 10 m³/min	100	1			100	30	362	N/A	N/A	-5.2	-59	N/A	-10	3	28.6
Rotary dryer drum (Aggregate)	98	1		0	98	20	353	N/A	N/A	-7	-59	N/A	-10	3	25.1
Rotary dryer drum (RAP)	98	1			98	20	353	N/A	N/A	-7	-59	N/A	-10	3	25.1
RAP Processing Machine	103	0		0	0	100	368	N/A	N/A	0	-59	N/A	-10	3	0.0
Screw conveyor / Slant belt conveyor / Belt conveyor	90	11	Enclosure	-15	85	30	321	N/A	N/A	-5.2	-58	N/A	-10	3	15.1
Bucket elevator / Filler elevator	90	5	Enclosure	-15	82	30	321	N/A	N/A	-5.2	-58	N/A	-10	3	11.7
Mixing Unit	96	1	Enclosure	-15	81	100	347	N/A	N/A	0	-59	N/A	-10	3	15.2
Bitumen Pump	95	1		0	95	50	344	N/A	N/A	-3	-59	N/A	-10	3	26.3
Loading/Unloading Activities															
Wheel Loader (Loading / Unloading Aggregate/RAP)	109	6		0	117	0.28	295	N/A	N/A	-25.6	-57	N/A	-10	3	26.8
Truck (Unloading Aggregate)	105	1		0	105	1.67	295	N/A	N/A	-17.8	-57	N/A	-10	3	22.8
Truck (Asphalt Collection)	105	5	Enclosure	-15	97	1.67	347	N/A	N/A	-17.8	-59	N/A	-10	3	13.4
Truck (Unloading RAP)	105	1		0	105	1.67	381	N/A	N/A	-17.8	-60	N/A	-10	3	20.6
On-site Movement of Truck															
Truck (RAP Delivery)															
Segment - S0	105	2	N/A	N/A	N/A	N/A	266.8	4.3	10	N/A	-24.3	-16.2	-10	3	17.6
Segment - S1	105	2	N/A	N/A	N/A	N/A	297.5	5.3	10	N/A	-24.7	-15.3	-10	3	18.0
Segment - S2	105	2	N/A	N/A	N/A	N/A	321.7	0.0	10	N/A	-25.1	-37.5	-10	3	-4.6
Segment - S3	105	2	N/A	N/A	N/A	N/A	341.8	3.9	10	N/A	-25.3	-16.6	-10	3	16.1
Segment - S4	105	2	N/A	N/A	N/A	N/A	362.4	3.3	10	N/A	-25.6	-17.4	-10	3	15.0
Segment - S5	105	2	N/A	N/A	N/A	N/A	372.9	1.4	10	N/A	-25.7	-21.1	-10	3	11.2
Segment - S6	105	2	N/A	N/A	N/A	N/A	377.4	1.9	10	N/A	-25.8	-19.7	-10	3	12.5
Segment - S7	105	2	N/A	N/A	N/A	N/A	383.0	1.7	10	N/A	-25.8	-20.2	-10	3	12.0
Segment - S8	105	2	N/A	N/A	N/A	N/A	383.3	0.5	10	N/A	-25.8	-25.7	-10	3	6.5
Truck (Bitumen Delivery)															
Segment - S0	105	0	N/A	N/A	N/A	N/A	266.8	4.3	10	N/A	-24.3	-16.2	-10	3	0
Segment - S1	105	0	N/A	N/A	N/A	N/A	297.5	5.3	10	N/A	-24.7	-15.3	-10	3	0
Segment - S2	105	0	N/A	N/A	N/A	N/A	321.7	0.0	10	N/A	-25.1	-37.5	-10	3	0
Segment - S3	105	0	N/A	N/A	N/A	N/A	341.8	3.9	10	N/A	-25.3	-16.6	-10	3	0
Segment - S4	105	0	N/A	N/A	N/A	N/A	362.4	3.3	10	N/A	-25.6	-17.4	-10	3	0
Segment - S5	105	0	N/A	N/A	N/A	N/A	372.9	1.4	10	N/A	-25.7	-21.1	-10	3	0
Segment - S6	105	0	N/A	N/A	N/A	N/A	377.4	1.9	10	N/A	-25.8	-19.7	-10	3	0
Segment - S9	105	0	N/A	N/A	N/A	N/A	363.9	2.8	10	N/A	-25.6	-18.1	-10	3	0
Truck (Asphalt Collection)															
Segment - S0	105	10	N/A	N/A	N/A	N/A	266.8	4.3	10	N/A	-24.3	-16.2	-10	3	24.6
Segment - S1	105	10	N/A	N/A	N/A	N/A	297.5	5.3	10	N/A	-24.7	-15.3	-10	3	25.0
Segment - S2	105	10	N/A	N/A	N/A	N/A	321.7	0.0	10	N/A	-25.1	-37.5	-10	3	2.4
Segment - S3	105	10	N/A	N/A	N/A	N/A	341.8	3.9	10	N/A	-25.3	-16.6	-10	3	23.0
Segment - S10	105	10	N/A	N/A	N/A	N/A	348.7	6.5	10	N/A	-25.4	-14.4	-10	3	25.1
Segment - S11	105	10	N/A	N/A	N/A	N/A	341.2	0.2	10	N/A	-25.3	-28.7	-10	3	11.0
Segment - S12	105	10	N/A	N/A	N/A	N/A	324.2	3.5	10	N/A	-25.1	-17.1	-10	3	22.8
Segment - S13	105	10	N/A	N/A	N/A	N/A	307.0	1.5	10	N/A	-24.9	-20.9	-10	3	19.2
Segment - S14	105	10	N/A	N/A	N/A	N/A	292.7	0.4	10	N/A	-24.7	-26.4	-10	3	13.9
Truck (Aggregate Delivery)															
Segment - S0	105	4	N/A	N/A	N/A	N/A	266.8	4.3	10	N/A	-24.3	-16.2	-10	3	20.6
Segment - S13	105	4	N/A	N/A	N/A	N/A	307.0	1.5	10	N/A	-24.9	-20.9	-10	3	15.2
Segment - S14	105	4	N/A	N/A	N/A	N/A	292.7	0.4	10	N/A	-24.7	-26.4	-10	3	9.9
Wheel Loader (Loading/Unloading Aggregate/RAP)															
Segment - S6	109	12	N/A	N/A	N/A	N/A	377.4	1.9	10	N/A	-25.8	-19.7	-10	3	24.3
Segment - S7	109	12	N/A	N/A	N/A	N/A	383.0	1.7	10	N/A	-25.8	-20.2	-10	3	23.8
Segment - S8	109	12	N/A	N/A	N/A	N/A	383.3	0.5	10	N/A	-25.8	-25.7	-10	3	18.3
Segment - S12	109	12	N/A	N/A	N/A	N/A	324.2	3.5	10	N/A	-25.1	-17.1	-10	3	27.6
Segment - S13	109	12	N/A	N/A	N/A	N/A	307.0	1.5	10	N/A	-24.9	-20.9	-10	3	24.0
Sub-Total SPL, dB(A)															38

Note (\*) - The SWL of Main Exhaust Fan, Rotary Dryer Drum, RAP Processing Machine is obtained by on-site measurement. Detailed information of the on-site measurement please refer to Appendix D.

The type of wheel loader using in the Plant is CAT-950. The SWL of the wheel loader is referenced to the Catalog as shown in Appendix F.

The SWL of other PME is referenced to GW-TM or “Sound power levels of other commonly used PME” issued by EPD.

The Bucket Elevator / Filler Elevator is similar to the Conveyor Belt. Therefore, the SWL of the Bucket Elevator / Filler Elevator is referenced to the SWL of Conveyor Belt.

The SWL of the mixer of the Asphalt Plant is referred to grout mixer.

The SWL of the bitumen pump is referred to grout pump.

Note (^) - Detailed description of the mitigation measures can be found in S2.3.5 and S2.4.4 of the EA report.

Note (\*) - The % usage is provided by the Applicant based on daily practice.

Note (#) - The distances of Screw / Belt / Slant Belt Conveyor and Bucket / Filler Elevator are measured between NSR and the notional source position.

The shortest distance between the loading/unloading areas of loader and corresponding NSRs is adopted in the calculation. The location of the PME is shown on Figure 2.2.

The distances of other PME are measured between NSR and their corresponding location. The location of the PME is shown on Figure 2.2.

Note (+) - The noise generated from the PME/Activity is screened by existing building structure or natural terrain as shown on Figure 2.4.

IN3 - Day and Evening

Plant/Activity	SWL, dB(A) ^	No. of Equipment / Events / Trips	At-source Noise Mitigation Measures ✓	Noise Reduction from Mitigation Measures, dB(A)	Total SWL, dB(A)	% Usage (30mins) ^	Distance #	View Angle, deg	Speed, km/h	Correction, dB(A)					Leq, dB(A)
										Time Correction, dB(A)	Distance Correction, dB(A)	View Angle Correction, dB(A)	Screening Effect, dB(A) +	Façade Correction, dB(A)	
Mechanical and Electrical (M&E) Equipment															
Exhaust fan	89	1		0	89	100	152	N/A	N/A	0	-52	N/A	-10	3	30.4
Air compressor, air flow ≤ 10 m³/min	100	1	Barrier	-10	90	50	124	N/A	N/A	-3	-50	N/A	-10	3	30.2
Rotary dryer drum (Aggregate)	98	1		0	98	50	138	N/A	N/A	-3	-51	N/A	-10	3	37.2
Rotary dryer drum (RAP)	98	1	Barrier	-10	88	50	138	N/A	N/A	-3	-51	N/A	-10	3	27.2
RAP Processing Machine	103	1		0	103	100	166	N/A	N/A	0	-52	N/A	-10	3	43.6
Screw conveyor / Slant belt conveyor / Belt conveyor	90	11	Enclosure	-15	85	100	117	N/A	N/A	0	-49	N/A	-10	3	29.1
Bucket elevator / Filler elevator	90	6	Enclosure	-15	83	100	117	N/A	N/A	0	-49	N/A	-10	3	26.5
Mixing Unit	96	1	Enclosure	-15	81	100	133	N/A	N/A	0	-50	N/A	-10	3	23.5
Bitumen Pump	95	2	Barrier	-10	88	100	159	N/A	N/A	0	-52	N/A	-10	3	29.0
Loading/Unloading Activities															
Wheel Loader (Loading / Unloading Aggregate/RAP)	109	26		0	123	0.28	148	N/A	N/A	-25.6	-51	N/A	-10	3	39.1
Truck (Unloading Aggregate)	105	4		0	111	1.67	148	N/A	N/A	-17.8	-51	N/A	-10	3	34.8
Truck (Asphalt Collection)	105	8	Enclosure	-15	99	1.67	133	N/A	N/A	-17.8	-50	N/A	-10	3	23.7
Truck (Unloading RAP)	105	1		0	105	1.67	178	N/A	N/A	-17.8	-53	N/A	-10	3	27.2
On-site Movement of Truck															
Truck (RAP Delivery)															
Segment - S0	105	2	N/A	N/A	N/A	N/A	148.0	13.5	10	N/A	-21.7	-11.2	-10	3	25.1
Segment - S1	105	2	N/A	N/A	N/A	N/A	123.6	2.4	10	N/A	-20.9	-18.7	-10	3	18.4
Segment - S2	105	2	N/A	N/A	N/A	N/A	97.5	7.5	10	N/A	-19.9	-13.8	-10	3	24.3
Segment - S3	105	2	N/A	N/A	N/A	N/A	97.2	18.5	10	N/A	-19.9	-9.9	-10	3	28.2
Segment - S4	105	2	N/A	N/A	N/A	N/A	113.3	9.7	10	N/A	-20.5	-12.7	-10	3	24.8
Segment - S5	105	2	N/A	N/A	N/A	N/A	127.8	1.5	10	N/A	-21.1	-20.7	-10	3	16.3
Segment - S6	105	2	N/A	N/A	N/A	N/A	139.0	1.8	10	N/A	-21.4	-20.1	-10	3	16.5
Segment - S7	105	2	N/A	N/A	N/A	N/A	151.7	1.5	10	N/A	-21.8	-20.8	-10	3	15.4
Segment - S8	105	2	N/A	N/A	N/A	N/A	158.9	2.1	10	N/A	-22.0	-19.4	-10	3	16.6
Truck (Bitumen Delivery)															
Segment - S0	105	2	N/A	N/A	N/A	N/A	148.0	13.5	10	N/A	-21.7	-11.2	-10	3	25.1
Segment - S1	105	2	N/A	N/A	N/A	N/A	123.6	2.4	10	N/A	-20.9	-18.7	-10	3	18.4
Segment - S2	105	2	N/A	N/A	N/A	N/A	97.5	7.5	10	N/A	-19.9	-13.8	-10	3	24.3
Segment - S3	105	2	N/A	N/A	N/A	N/A	97.2	18.5	10	N/A	-19.9	-9.9	-10	3	28.2
Segment - S4	105	2	N/A	N/A	N/A	N/A	113.3	9.7	10	N/A	-20.5	-12.7	-10	3	24.8
Segment - S5	105	2	N/A	N/A	N/A	N/A	127.8	1.5	10	N/A	-21.1	-20.7	-10	3	16.3
Segment - S6	105	2	N/A	N/A	N/A	N/A	139.0	1.8	10	N/A	-21.4	-20.1	-10	3	16.5
Segment - S9	105	2	N/A	N/A	N/A	N/A	153.0	12.3	10	N/A	-21.8	-11.7	-10	3	24.5
Truck (Asphalt Collection)															
Segment - S0	105	16	N/A	N/A	N/A	N/A	148.0	13.5	10	N/A	-21.7	-11.2	-10	3	34.1
Segment - S1	105	16	N/A	N/A	N/A	N/A	123.6	2.4	10	N/A	-20.9	-18.7	-10	3	27.4
Segment - S2	105	16	N/A	N/A	N/A	N/A	97.5	7.5	10	N/A	-19.9	-13.8	-10	3	33.4
Segment - S3	105	16	N/A	N/A	N/A	N/A	97.2	18.5	10	N/A	-19.9	-9.9	-10	3	37.3
Segment - S10	105	16	N/A	N/A	N/A	N/A	124.7	1.1	10	N/A	-21.0	-22.0	-10	3	24.1
Segment - S11	105	16	N/A	N/A	N/A	N/A	146.1	2.4	10	N/A	-21.6	-18.7	-10	3	26.7
Segment - S12	105	16	N/A	N/A	N/A	N/A	141.2	12.9	10	N/A	-21.5	-11.5	-10	3	34.1
Segment - S13	105	16	N/A	N/A	N/A	N/A	135.1	4.4	10	N/A	-21.3	-16.1	-10	3	29.6
Segment - S14	105	16	N/A	N/A	N/A	N/A	138.7	7.6	10	N/A	-21.4	-13.8	-10	3	31.9
Truck (Aggregate Delivery)															
Segment - S0	105	16	N/A	N/A	N/A	N/A	148.0	13.5	10	N/A	-21.7	-11.2	-10	3	34.1
Segment - S13	105	16	N/A	N/A	N/A	N/A	135.1	4.4	10	N/A	-21.3	-16.1	-10	3	29.6
Segment - S14	105	16	N/A	N/A	N/A	N/A	138.7	7.6	10	N/A	-21.4	-13.8	-10	3	31.9
Wheel Loader (Loading/Unloading Aggregate/RAP)															
Segment - S6	109	52	N/A	N/A	N/A	N/A	139.0	1.8	10	N/A	-21.4	-20.1	-10	3	34.7
Segment - S7	109	52	N/A	N/A	N/A	N/A	151.7	1.5	10	N/A	-21.8	-20.8	-10	3	33.6
Segment - S8	109	52	N/A	N/A	N/A	N/A	158.9	2.1	10	N/A	-22.0	-19.4	-10	3	34.7
Segment - S12	109	52	N/A	N/A	N/A	N/A	141.2	12.9	10	N/A	-21.5	-11.5	-10	3	43.2
Segment - S13	109	52	N/A	N/A	N/A	N/A	135.1	4.4	10	N/A	-21.3	-16.1	-10	3	38.7
Sub-Total SPL, dB(A)															50

Note (\*) - The SWL of Main Exhaust Fan, Rotary Dryer Drum, RAP Processing Machine is obtained by on-site measurement. Detailed information of the on-site measurement please refer to Appendix D.

The type of wheel loader using in the Plant is CAT-950. The SWL of the wheel loader is referenced to the Catalog as shown in Appendix F.

The SWL of other PME is referenced to GW-TM or “Sound power levels of other commonly used PME” issued by EPD.

The Bucket Elevator / Filler Elevator is similar to the Conveyor Belt. Therefore, the SWL of the Bucket Elevator / Filler Elevator is referenced to the SWL of Conveyor Belt.

The SWL of the mixer of the Asphalt Plant is referred to grout mixer.

The SWL of the bitumen pump is referred to grout pump.

Note (✓) - Detailed description of the mitigation measures can be found in S2.3.5 and S2.4.4 of the EA report.

Note (∧) - The % usage is provided by the Applicant based on daily practice.

Note (#) - The distances of Screw / Belt / Slant Belt Conveyor and Bucket / Filler Elevator are measured between NSR and the notional source position.

The shortest distance between the loading/unloading areas of loader and corresponding NSRs is adopted in the calculation. The location of the PME is shown on Figure 2.2.

The distances of other PME are measured between NSR and their corresponding location. The location of the PME is shown on Figure 2.2.

Note (+) - The noise generated from the PME/Activity is screened by existing building structure or natural terrain as shown on Figure 2.4.



IN3 - Night

Plant/Activity	SWL, dB(A) *	No. of Equipment / Events / Trips	At-source Noise Mitigation Measures ✓	Noise Reduction from Mitigation Measures, dB(A)	Total SWL, dB(A)	% Usage (30mins) ^	Distance #	View Angle, deg	Speed, km/h	Correction, dB(A)					Leq, dB(A)
										Time Correction, dB(A)	Distance Correction, dB(A)	View Angle Correction, dB(A)	Screening Effect, dB(A) +	Façade Correction, dB(A)	
Mechanical and Electrical (M&E) Equipment															
Exhaust fan	89	1		0	89	100	152	N/A	N/A	0	-52	N/A	-10	3	30.4
Air compressor, air flow ≤ 10 m³/min	100	1	Barrier	-10	90	30	124	N/A	N/A	-5.2	-50	N/A	-10	3	28.0
Rotary dryer drum (Aggregate)	98	1		0	98	20	138	N/A	N/A	-7	-51	N/A	-10	3	33.2
Rotary dryer drum (RAP)	98	1	Barrier	-10	88	20	138	N/A	N/A	-7	-51	N/A	-10	3	23.2
RAP Processing Machine	103	0		0	0	100	166	N/A	N/A	0	-52	N/A	-10	3	0.0
Screw conveyor / Slant belt conveyor / Belt conveyor	90	11	Enclosure	-15	85	30	117	N/A	N/A	-5.2	-49	N/A	-10	3	23.9
Bucket elevator / Filler elevator	90	5	Enclosure	-15	82	30	117	N/A	N/A	-5.2	-49	N/A	-10	3	20.5
Mixing Unit	96	1	Enclosure	-15	81	100	133	N/A	N/A	0	-50	N/A	-10	3	23.5
Bitumen Pump	95	1	Barrier	-10	85	50	159	N/A	N/A	-3	-52	N/A	-10	3	23.0
Loading/Unloading Activities															
Wheel Loader (Loading / Unloading Aggregate/RAP)	109	6		0	117	0.28	148	N/A	N/A	-25.6	-51	N/A	-10	3	32.8
Truck (Unloading Aggregate)	105	1		0	105	1.67	148	N/A	N/A	-17.8	-51	N/A	-10	3	28.8
Truck (Asphalt Collection)	105	5	Enclosure	-15	97	1.67	133	N/A	N/A	-17.8	-50	N/A	-10	3	21.7
Truck (Unloading RAP)	105	1		0	105	1.67	178	N/A	N/A	-17.8	-53	N/A	-10	3	27.2
On-site Movement of Truck															
Truck (RAP Delivery)															
Segment - S0	105	2	N/A	N/A	N/A	N/A	148.0	13.5	10	N/A	-21.7	-11.2	-10	3	25.1
Segment - S1	105	2	N/A	N/A	N/A	N/A	123.6	2.4	10	N/A	-20.9	-18.7	-10	3	18.4
Segment - S2	105	2	N/A	N/A	N/A	N/A	97.5	7.5	10	N/A	-19.9	-13.8	-10	3	24.3
Segment - S3	105	2	N/A	N/A	N/A	N/A	97.2	18.5	10	N/A	-19.9	-9.9	-10	3	28.2
Segment - S4	105	2	N/A	N/A	N/A	N/A	113.3	9.7	10	N/A	-20.5	-12.7	-10	3	24.8
Segment - S5	105	2	N/A	N/A	N/A	N/A	127.8	1.5	10	N/A	-21.1	-20.7	-10	3	16.3
Segment - S6	105	2	N/A	N/A	N/A	N/A	139.0	1.8	10	N/A	-21.4	-20.1	-10	3	16.5
Segment - S7	105	2	N/A	N/A	N/A	N/A	151.7	1.5	10	N/A	-21.8	-20.8	-10	3	15.4
Segment - S8	105	2	N/A	N/A	N/A	N/A	158.9	2.1	10	N/A	-22.0	-19.4	-10	3	16.6
Truck (Bitumen Delivery)															
Segment - S0	105	0	N/A	N/A	N/A	N/A	148.0	13.5	10	N/A	-21.7	-11.2	-10	3	0
Segment - S1	105	0	N/A	N/A	N/A	N/A	123.6	2.4	10	N/A	-20.9	-18.7	-10	3	0
Segment - S2	105	0	N/A	N/A	N/A	N/A	97.5	7.5	10	N/A	-19.9	-13.8	-10	3	0
Segment - S3	105	0	N/A	N/A	N/A	N/A	97.2	18.5	10	N/A	-19.9	-9.9	-10	3	0
Segment - S4	105	0	N/A	N/A	N/A	N/A	113.3	9.7	10	N/A	-20.5	-12.7	-10	3	0
Segment - S5	105	0	N/A	N/A	N/A	N/A	127.8	1.5	10	N/A	-21.1	-20.7	-10	3	0
Segment - S6	105	0	N/A	N/A	N/A	N/A	139.0	1.8	10	N/A	-21.4	-20.1	-10	3	0
Segment - S9	105	0	N/A	N/A	N/A	N/A	153.0	12.3	10	N/A	-21.8	-11.7	-10	3	0
Truck (Asphalt Collection)															
Segment - S0	105	10	N/A	N/A	N/A	N/A	148.0	13.5	10	N/A	-21.7	-11.2	-10	3	32.0
Segment - S1	105	10	N/A	N/A	N/A	N/A	123.6	2.4	10	N/A	-20.9	-18.7	-10	3	25.4
Segment - S2	105	10	N/A	N/A	N/A	N/A	97.5	7.5	10	N/A	-19.9	-13.8	-10	3	31.3
Segment - S3	105	10	N/A	N/A	N/A	N/A	97.2	18.5	10	N/A	-19.9	-9.9	-10	3	35.2
Segment - S10	105	10	N/A	N/A	N/A	N/A	124.7	1.1	10	N/A	-21.0	-22.0	-10	3	22.1
Segment - S11	105	10	N/A	N/A	N/A	N/A	146.1	2.4	10	N/A	-21.6	-18.7	-10	3	24.7
Segment - S12	105	10	N/A	N/A	N/A	N/A	141.2	12.9	10	N/A	-21.5	-11.5	-10	3	32.0
Segment - S13	105	10	N/A	N/A	N/A	N/A	135.1	4.4	10	N/A	-21.3	-16.1	-10	3	27.6
Segment - S14	105	10	N/A	N/A	N/A	N/A	138.7	7.6	10	N/A	-21.4	-13.8	-10	3	29.8
Truck (Aggregate Delivery)															
Segment - S0	105	4	N/A	N/A	N/A	N/A	148.0	13.5	10	N/A	-21.7	-11.2	-10	3	28.1
Segment - S13	105	4	N/A	N/A	N/A	N/A	135.1	4.4	10	N/A	-21.3	-16.1	-10	3	23.6
Segment - S14	105	4	N/A	N/A	N/A	N/A	138.7	7.6	10	N/A	-21.4	-13.8	-10	3	25.8
Wheel Loader (Loading/Unloading Aggregate/RAP)															
Segment - S6	109	12	N/A	N/A	N/A	N/A	139.0	1.8	10	N/A	-21.4	-20.1	-10	3	28.3
Segment - S7	109	12	N/A	N/A	N/A	N/A	151.7	1.5	10	N/A	-21.8	-20.8	-10	3	27.2
Segment - S8	109	12	N/A	N/A	N/A	N/A	158.9	2.1	10	N/A	-22.0	-19.4	-10	3	28.4
Segment - S12	109	12	N/A	N/A	N/A	N/A	141.2	12.9	10	N/A	-21.5	-11.5	-10	3	36.8
Segment - S13	109	12	N/A	N/A	N/A	N/A	135.1	4.4	10	N/A	-21.3	-16.1	-10	3	32.4
Sub-Total SPL, dB(A)															45

Note (\*) - The SWL of Main Exhaust Fan, Rotary Dryer Drum, RAP Processing Machine is obtained by on-site measurement. Detailed information of the on-site measurement please refer to Appendix D.

The type of wheel loader using in the Plant is CAT-950. The SWL of the wheel loader is referenced to the Catalog as shown in Appendix F.

The SWL of other PME is referenced to GW-TM or “Sound power levels of other commonly used PME” issued by EPD.

The Bucket Elevator / Filler Elevator is similar to the Conveyor Belt. Therefore, the SWL of the Bucket Elevator / Filler Elevator is referenced to the SWL of Conveyor Belt.

The SWL of the mixer of the Asphalt Plant is referred to grout mixer.

The SWL of the bitumen pump is referred to grout pump.

Note (✓) - Detailed description of the mitigation measures can be found in S2.3.5 and S2.4.4 of the EA report.

Note (^) - The % usage is provided by the Applicant based on daily practice.

Note (#) - The distances of Screw / Belt / Slant Belt Conveyor and Bucket / Filler Elevator are measured between NSR and the notional source position.

The shortest distance between the loading/unloading areas of loader and corresponding NSRs is adopted in the calculation. The location of the PME is shown on Figure 2.2.

The distances of other PME are measured between NSR and their corresponding location. The location of the PME is shown on Figure 2.2.

Note (+) - The noise generated from the PME/Activity is screened by existing building structure or natural terrain as shown on Figure 2.4.

IN4 - Day and Evening

Plant/Activity	SWL, dB(A) ^	No. of Equipment / Events / Trips	At-source Noise Mitigation Measures ✓	Noise Reduction from Mitigation Measures, dB(A)	Total SWL, dB(A)	% Usage (30mins) ^	Distance #	View Angle, deg	Speed, km/h	Correction, dB(A)					Leq, dB(A)
										Time Correction, dB(A)	Distance Correction, dB(A)	View Angle Correction, dB(A)	Screening Effect, dB(A) +	Façade Correction, dB(A)	
Mechanical and Electrical (M&E) Equipment															
Exhaust fan	89	1		0	89	100	230	N/A	N/A	0	-55	N/A	-10	3	26.8
Air compressor, air flow ≤ 10 m³/min	100	1		0	100	50	221	N/A	N/A	-3	-55	N/A	-10	3	35.1
Rotary dryer drum (Aggregate)	98	1		0	98	50	219	N/A	N/A	-3	-55	N/A	-10	3	33.2
Rotary dryer drum (RAP)	98	1		0	98	50	219	N/A	N/A	-3	-55	N/A	-10	3	33.2
RAP Processing Machine	103	1		0	103	100	246	N/A	N/A	0	-56	N/A	-10	3	40.2
Screw conveyor / Slant belt conveyor / Belt conveyor	90	11	Enclosure	-15	85	100	176	N/A	N/A	0	-53	N/A	-10	3	25.5
Bucket elevator / Filler elevator	90	6	Enclosure	-15	83	100	176	N/A	N/A	0	-53	N/A	-10	3	22.9
Mixing Unit	96	1	Enclosure	-15	81	100	211	N/A	N/A	0	-54	N/A	-10	3	19.5
Bitumen Pump	95	2		0	98	100	222	N/A	N/A	0	-55	N/A	-10	3	36.1
Loading/Unloading Activities															
Wheel Loader (Loading / Unloading Aggregate/RAP)	109	26		0	123	0.28	165	N/A	N/A	-25.6	-52	N/A	-10	3	38.2
Truck (Unloading Aggregate)	105	4		0	111	1.67	165	N/A	N/A	-17.8	-52	N/A	-10	3	33.9
Truck (Asphalt Collection)	105	8	Enclosure	-15	99	1.67	211	N/A	N/A	-17.8	-54	N/A	-10	3	19.7
Truck (Unloading RAP)	105	1		0	105	1.67	262	N/A	N/A	-17.8	-56	N/A	-10	3	23.9
On-site Movement of Truck															
Truck (RAP Delivery)															
Segment - S0	105	2	N/A	N/A	N/A	N/A	129.4	2.2	10	N/A	-21.1	-19.1	-10	3	17.8
Segment - S1	105	2	N/A	N/A	N/A	N/A	151.4	15.2	10	N/A	-21.8	-10.7	-10	3	25.5
Segment - S2	105	2	N/A	N/A	N/A	N/A	165.5	2.5	10	N/A	-22.2	-18.5	-10	3	17.3
Segment - S3	105	2	N/A	N/A	N/A	N/A	188.8	3.2	10	N/A	-22.8	-17.5	-10	3	17.8
Segment - S4	105	2	N/A	N/A	N/A	N/A	216.8	3.0	10	N/A	-23.4	-17.7	-10	3	16.9
Segment - S5	105	2	N/A	N/A	N/A	N/A	232.6	1.7	10	N/A	-23.7	-20.3	-10	3	14.0
Segment - S6	105	2	N/A	N/A	N/A	N/A	241.4	2.2	10	N/A	-23.8	-19.2	-10	3	15.0
Segment - S7	105	2	N/A	N/A	N/A	N/A	251.7	1.8	10	N/A	-24.0	-20.0	-10	3	14.0
Segment - S8	105	2	N/A	N/A	N/A	N/A	255.1	1.2	10	N/A	-24.1	-21.9	-10	3	12.1
Truck (Bitumen Delivery)															
Segment - S0	105	2	N/A	N/A	N/A	N/A	129.4	2.2	10	N/A	-21.1	-19.1	-10	3	17.8
Segment - S1	105	2	N/A	N/A	N/A	N/A	151.4	15.2	10	N/A	-21.8	-10.7	-10	3	25.5
Segment - S2	105	2	N/A	N/A	N/A	N/A	165.5	2.5	10	N/A	-22.2	-18.5	-10	3	17.3
Segment - S3	105	2	N/A	N/A	N/A	N/A	188.8	3.2	10	N/A	-22.8	-17.5	-10	3	17.8
Segment - S4	105	2	N/A	N/A	N/A	N/A	216.8	3.0	10	N/A	-23.4	-17.7	-10	3	16.9
Segment - S5	105	2	N/A	N/A	N/A	N/A	232.6	1.7	10	N/A	-23.7	-20.3	-10	3	14.0
Segment - S6	105	2	N/A	N/A	N/A	N/A	241.4	2.2	10	N/A	-23.8	-19.2	-10	3	15.0
Segment - S9	105	2	N/A	N/A	N/A	N/A	236.0	7.5	10	N/A	-23.7	-13.8	-10	3	20.5
Truck (Asphalt Collection)															
Segment - S0	105	16	N/A	N/A	N/A	N/A	129.4	2.2	10	N/A	-21.1	-19.1	-10	3	26.8
Segment - S1	105	16	N/A	N/A	N/A	N/A	151.4	15.2	10	N/A	-21.8	-10.7	-10	3	34.5
Segment - S2	105	16	N/A	N/A	N/A	N/A	165.5	2.5	10	N/A	-22.2	-18.5	-10	3	26.4
Segment - S3	105	16	N/A	N/A	N/A	N/A	188.8	3.2	10	N/A	-22.8	-17.5	-10	3	26.8
Segment - S10	105	16	N/A	N/A	N/A	N/A	208.8	10.8	10	N/A	-23.2	-12.2	-10	3	31.6
Segment - S11	105	16	N/A	N/A	N/A	N/A	212.2	1.2	10	N/A	-23.3	-21.7	-10	3	22.1
Segment - S12	105	16	N/A	N/A	N/A	N/A	193.0	0.7	10	N/A	-22.9	-24.2	-10	3	20.0
Segment - S13	105	16	N/A	N/A	N/A	N/A	170.9	0.8	10	N/A	-22.3	-23.6	-10	3	21.1
Segment - S14	105	16	N/A	N/A	N/A	N/A	156.4	4.0	10	N/A	-21.9	-16.6	-10	3	28.5
Truck (Aggregate Delivery)															
Segment - S0	105	16	N/A	N/A	N/A	N/A	129.4	2.2	10	N/A	-21.1	-19.1	-10	3	26.8
Segment - S13	105	16	N/A	N/A	N/A	N/A	170.9	0.8	10	N/A	-22.3	-23.6	-10	3	21.1
Segment - S14	105	16	N/A	N/A	N/A	N/A	156.4	4.0	10	N/A	-21.9	-16.6	-10	3	28.5
Wheel Loader (Loading/Unloading Aggregate/RAP)															
Segment - S6	109	52	N/A	N/A	N/A	N/A	241.4	2.2	10	N/A	-23.8	-19.2	-10	3	33.1
Segment - S7	109	52	N/A	N/A	N/A	N/A	251.7	1.8	10	N/A	-24.0	-20.0	-10	3	32.1
Segment - S8	109	52	N/A	N/A	N/A	N/A	255.1	1.2	10	N/A	-24.1	-21.9	-10	3	30.2
Segment - S12	109	52	N/A	N/A	N/A	N/A	193.0	0.7	10	N/A	-22.9	-24.2	-10	3	29.1
Segment - S13	109	52	N/A	N/A	N/A	N/A	170.9	0.8	10	N/A	-22.3	-23.6	-10	3	30.2
Sub-Total SPL, dB(A)															47

Note (\*) - The SWL of Main Exhaust Fan, Rotary Dryer Drum, RAP Processing Machine is obtained by on-site measurement. Detailed information of the on-site measurement please refer to Appendix D.

The type of wheel loader using in the Plant is CAT-950. The SWL of the wheel loader is referenced to the Catalog as shown in Appendix F.

The SWL of other PME is referenced to GW-TM or “Sound power levels of other commonly used PME” issued by EPD.

The Bucket Elevator / Filler Elevator is similar to the Conveyor Belt. Therefore, the SWL of the Bucket Elevator / Filler Elevator is referenced to the SWL of Conveyor Belt.

The SWL of the mixer of the Asphalt Plant is referred to grout mixer.

The SWL of the bitumen pump is referred to grout pump.

Note (^) - Detailed description of the mitigation measures can be found in S2.3.5 and S2.4.4 of the EA report.

Note (\*) - The % usage is provided by the Applicant based on daily practice.

Note (#) - The distances of Screw / Belt / Slant Belt Conveyor and Bucket / Filler Elevator are measured between NSR and the notional source position.

The shortest distance between the loading/unloading areas of loader and corresponding NSRs is adopted in the calculation. The location of the PME is shown on Figure 2.2.

The distances of other PME are measured between NSR and their corresponding location. The location of the PME is shown on Figure 2.2.

Note (+) - The noise generated from the PME/Activity is screened by existing building structure or natural terrain as shown on Figure 2.4.

IN4 - Night

Plant/Activity	SWL, dB(A) *	No. of Equipment / Events / Trips	At-source Noise Mitigation Measures ✓	Noise Reduction from Mitigation Measures, dB(A)	Total SWL, dB(A)	% Usage (30mins) ^	Distance #	View Angle, deg	Speed, km/h	Correction, dB(A)					Leq, dB(A)	
										Time Correction, dB(A)	Distance Correction, dB(A)	View Angle Correction, dB(A)	Screening Effect, dB(A) +	Façade Correction, dB(A)		
Mechanical and Electrical (M&E) Equipment																
Exhaust fan	89	1		0	89	100	230	N/A	N/A	0	-55	N/A	-10	3	26.8	
Air compressor, air flow ≤ 10 m³/min	100	1		0	100	30	221	N/A	N/A	-5.2	-55	N/A	-10	3	32.9	
Rotary dryer drum (Aggregate)	98	1		0	98	20	219	N/A	N/A	-7	-55	N/A	-10	3	29.2	
Rotary dryer drum (RAP)	98	1		0	98	20	219	N/A	N/A	-7	-55	N/A	-10	3	29.2	
RAP Processing Machine	103	0		0	0	100	246	N/A	N/A	0	-56	N/A	-10	3	0.0	
Screw conveyor / Slant belt conveyor / Belt conveyor	90	11	Enclosure	-15	85	30	176	N/A	N/A	-5.2	-53	N/A	-10	3	20.3	
Bucket elevator / Filler elevator	90	5	Enclosure	-15	82	30	176	N/A	N/A	-5.2	-53	N/A	-10	3	16.9	
Mixing Unit	96	1	Enclosure	-15	81	100	211	N/A	N/A	0	-54	N/A	-10	3	19.5	
Bitumen Pump	95	1			95	50	222	N/A	N/A	-3	-55	N/A	-10	3	30.1	
Loading/Unloading Activities																
Wheel Loader (Loading / Unloading Aggregate/RAP)	109	6		0	117	0.28	165	N/A	N/A	-25.6	-52	N/A	-10	3	31.9	
Truck (Unloading Aggregate)	105	1		0	105	1.67	165	N/A	N/A	-17.8	-52	N/A	-10	3	27.9	
Truck (Asphalt Collection)	105	5	Enclosure	-15	97	1.67	211	N/A	N/A	-17.8	-54	N/A	-10	3	17.7	
Truck (Unloading RAP)	105	1		0	105	1.67	262	N/A	N/A	-17.8	-56	N/A	-10	3	23.9	
On-site Movement of Truck																
Truck (RAP Delivery)																
Segment - S0	105	2	N/A	N/A	N/A	N/A	129.4	2.2	10	N/A	-21.1	-19.1	-10	3	17.8	
Segment - S1	105	2	N/A	N/A	N/A	N/A	151.4	15.2	10	N/A	-21.8	-10.7	-10	3	25.5	
Segment - S2	105	2	N/A	N/A	N/A	N/A	165.5	2.5	10	N/A	-22.2	-18.5	-10	3	17.3	
Segment - S3	105	2	N/A	N/A	N/A	N/A	188.8	3.2	10	N/A	-22.8	-17.5	-10	3	17.8	
Segment - S4	105	2	N/A	N/A	N/A	N/A	216.8	3.0	10	N/A	-23.4	-17.7	-10	3	16.9	
Segment - S5	105	2	N/A	N/A	N/A	N/A	232.6	1.7	10	N/A	-23.7	-20.3	-10	3	14.0	
Segment - S6	105	2	N/A	N/A	N/A	N/A	241.4	2.2	10	N/A	-23.8	-19.2	-10	3	15.0	
Segment - S7	105	2	N/A	N/A	N/A	N/A	251.7	1.8	10	N/A	-24.0	-20.0	-10	3	14.0	
Segment - S8	105	2	N/A	N/A	N/A	N/A	255.1	1.2	10	N/A	-24.1	-21.9	-10	3	12.1	
Truck (Bitumen Delivery)																
Segment - S0	105	0	N/A	N/A	N/A	N/A	129.4	2.2	10	N/A	-21.1	-19.1	-10	3	0	
Segment - S1	105	0	N/A	N/A	N/A	N/A	151.4	15.2	10	N/A	-21.8	-10.7	-10	3	0	
Segment - S2	105	0	N/A	N/A	N/A	N/A	165.5	2.5	10	N/A	-22.2	-18.5	-10	3	0	
Segment - S3	105	0	N/A	N/A	N/A	N/A	188.8	3.2	10	N/A	-22.8	-17.5	-10	3	0	
Segment - S4	105	0	N/A	N/A	N/A	N/A	216.8	3.0	10	N/A	-23.4	-17.7	-10	3	0	
Segment - S5	105	0	N/A	N/A	N/A	N/A	232.6	1.7	10	N/A	-23.7	-20.3	-10	3	0	
Segment - S6	105	0	N/A	N/A	N/A	N/A	241.4	2.2	10	N/A	-23.8	-19.2	-10	3	0	
Segment - S9	105	0	N/A	N/A	N/A	N/A	236.0	7.5	10	N/A	-23.7	-13.8	-10	3	0	
Truck (Asphalt Collection)																
Segment - S0	105	10	N/A	N/A	N/A	N/A	129.4	2.2	10	N/A	-21.1	-19.1	-10	3	24.8	
Segment - S1	105	10	N/A	N/A	N/A	N/A	151.4	15.2	10	N/A	-21.8	-10.7	-10	3	32.5	
Segment - S2	105	10	N/A	N/A	N/A	N/A	165.5	2.5	10	N/A	-22.2	-18.5	-10	3	24.3	
Segment - S3	105	10	N/A	N/A	N/A	N/A	188.8	3.2	10	N/A	-22.8	-17.5	-10	3	24.8	
Segment - S10	105	10	N/A	N/A	N/A	N/A	208.8	10.8	10	N/A	-23.2	-12.2	-10	3	29.6	
Segment - S11	105	10	N/A	N/A	N/A	N/A	212.2	1.2	10	N/A	-23.3	-21.7	-10	3	20.1	
Segment - S12	105	10	N/A	N/A	N/A	N/A	193.0	0.7	10	N/A	-22.9	-24.2	-10	3	18.0	
Segment - S13	105	10	N/A	N/A	N/A	N/A	170.9	0.8	10	N/A	-22.3	-23.6	-10	3	19.0	
Segment - S14	105	10	N/A	N/A	N/A	N/A	156.4	4.0	10	N/A	-21.9	-16.6	-10	3	26.5	
Truck (Aggregate Delivery)																
Segment - S0	105	4	N/A	N/A	N/A	N/A	129.4	2.2	10	N/A	-21.1	-19.1	-10	3	20.8	
Segment - S13	105	4	N/A	N/A	N/A	N/A	170.9	0.8	10	N/A	-22.3	-23.6	-10	3	15.1	
Segment - S14	105	4	N/A	N/A	N/A	N/A	156.4	4.0	10	N/A	-21.9	-16.6	-10	3	22.5	
Wheel Loader (Loading/Unloading Aggregate/RAP)																
Segment - S6	109	12	N/A	N/A	N/A	N/A	241.4	2.2	10	N/A	-23.8	-19.2	-10	3	26.8	
Segment - S7	109	12	N/A	N/A	N/A	N/A	251.7	1.8	10	N/A	-24.0	-20.0	-10	3	25.8	
Segment - S8	109	12	N/A	N/A	N/A	N/A	255.1	1.2	10	N/A	-24.1	-21.9	-10	3	23.9	
Segment - S12	109	12	N/A	N/A	N/A	N/A	193.0	0.7	10	N/A	-22.9	-24.2	-10	3	22.7	
Segment - S13	109	12	N/A	N/A	N/A	N/A	170.9	0.8	10	N/A	-22.3	-23.6	-10	3	23.8	
Sub-Total SPL, dB(A)															42	

Note (\*) - The SWL of Main Exhaust Fan, Rotary Dryer Drum, RAP Processing Machine is obtained by on-site measurement. Detailed information of the on-site measurement please refer to Appendix D.

The type of wheel loader using in the Plant is CAT-950. The SWL of the wheel loader is referenced to the Catalog as shown in Appendix F.

The SWL of other PME is referenced to GW-TM or “Sound power levels of other commonly used PME” issued by EPD.

The Bucket Elevator / Filler Elevator is similar to the Conveyor Belt. Therefore, the SWL of the Bucket Elevator / Filler Elevator is referenced to the SWL of Conveyor Belt.

The SWL of the mixer of the Asphalt Plant is referred to grout mixer.

The SWL of the bitumen pump is referred to grout pump.

Note (√) - Detailed description of the mitigation measures can be found in S2.3.5 and S2.4.4 of the EA report.

Note (^) - The % usage is provided by the Applicant based on daily practice.

Note (#) - The distances of Screw / Belt / Slant Belt Conveyor and Bucket / Filler Elevator are measured between NSR and the notional source position.

The shortest distance between the loading/unloading areas of loader and corresponding NSRs is adopted in the calculation. The location of the PME is shown on Figure 2.2.

The distances of other PME are measured between NSR and their corresponding location. The location of the PME is shown on Figure 2.2.

Note (+) - The noise generated from the PME/Activity is screened by existing building structure or natural terrain as shown on Figure 2.4.

IN5 - Day and Evening

Plant/Activity	SWL, dB(A) ^	No. of Equipment / Events / Trips	At-source Noise Mitigation Measures ✓	Noise Reduction from Mitigation Measures, dB(A)	Total SWL, dB(A)	% Usage (30mins) ^	Distance #	View Angle, deg	Speed, km/h	Correction, dB(A)					Leq, dB(A)
										Time Correction, dB(A)	Distance Correction, dB(A)	View Angle Correction, dB(A)	Screening Effect, dB(A) +	Façade Correction, dB(A)	
Mechanical and Electrical (M&E) Equipment															
Exhaust fan	89	1		0	89	100	191	N/A	N/A	0	-54	N/A	-10	3	28.4
Air compressor, air flow ≤ 10 m³/min	100	1		0	100	50	171	N/A	N/A	-3	-53	N/A	-10	3	37.4
Rotary dryer drum (Aggregate)	98	1		0	98	50	177	N/A	N/A	-3	-53	N/A	-10	3	35.1
Rotary dryer drum (RAP)	98	1		0	98	50	177	N/A	N/A	-3	-53	N/A	-10	3	35.1
RAP Processing Machine	103	1		0	103	100	208	N/A	N/A	0	-54	N/A	-10	3	41.7
Screw conveyor / Slant belt conveyor / Belt conveyor	90	11	Enclosure	-15	85	100	136	N/A	N/A	0	-51	N/A	-10	3	27.7
Bucket elevator / Filler elevator	90	6	Enclosure	-15	83	100	136	N/A	N/A	0	-51	N/A	-10	3	25.1
Mixing Unit	96	1	Enclosure	-15	81	100	169	N/A	N/A	0	-53	N/A	-10	3	21.5
Bitumen Pump	95	2		0	98	100	189	N/A	N/A	0	-54	N/A	-10	3	37.5
Loading/Unloading Activities															
Wheel Loader (Loading / Unloading Aggregate/RAP)	109	26		0	123	0.28	144	N/A	N/A	-25.6	-51	N/A	-10	3	39.3
Truck (Unloading Aggregate)	105	4		0	111	1.67	144	N/A	N/A	-17.8	-51	N/A	-10	3	35.0
Truck (Asphalt Collection)	105	8	Enclosure	-15	99	1.67	169	N/A	N/A	-17.8	-53	N/A	-10	3	21.7
Truck (Unloading RAP)	105	1		0	105	1.67	224	N/A	N/A	-17.8	-55	N/A	-10	3	25.2
On-site Movement of Truck															
Truck (RAP Delivery)															
Segment - S0	105	2	N/A	N/A	N/A	N/A	118.7	14.8	10	N/A	-20.7	-10.9	-10	3	26.4
Segment - S1	105	2	N/A	N/A	N/A	N/A	118.1	17.9	10	N/A	-20.7	-10.0	-10	3	27.3
Segment - S2	105	2	N/A	N/A	N/A	N/A	112.9	7.5	10	N/A	-20.5	-13.8	-10	3	23.7
Segment - S3	105	2	N/A	N/A	N/A	N/A	132.8	3.6	10	N/A	-21.2	-17.0	-10	3	19.8
Segment - S4	105	2	N/A	N/A	N/A	N/A	162.5	0.4	10	N/A	-22.1	-26.9	-10	3	9.0
Segment - S5	105	2	N/A	N/A	N/A	N/A	180.6	0.9	10	N/A	-22.6	-22.8	-10	3	12.6
Segment - S6	105	2	N/A	N/A	N/A	N/A	192.0	1.2	10	N/A	-22.8	-21.8	-10	3	13.4
Segment - S7	105	2	N/A	N/A	N/A	N/A	204.8	0.9	10	N/A	-23.1	-23.1	-10	3	11.8
Segment - S8	105	2	N/A	N/A	N/A	N/A	210.6	1.7	10	N/A	-23.2	-20.4	-10	3	14.4
Truck (Bitumen Delivery)															
Segment - S0	105	2	N/A	N/A	N/A	N/A	118.7	14.8	10	N/A	-20.7	-10.9	-10	3	26.4
Segment - S1	105	2	N/A	N/A	N/A	N/A	118.1	17.9	10	N/A	-20.7	-10.0	-10	3	27.3
Segment - S2	105	2	N/A	N/A	N/A	N/A	112.9	7.5	10	N/A	-20.5	-13.8	-10	3	23.7
Segment - S3	105	2	N/A	N/A	N/A	N/A	132.8	3.6	10	N/A	-21.2	-17.0	-10	3	19.8
Segment - S4	105	2	N/A	N/A	N/A	N/A	162.5	0.4	10	N/A	-22.1	-26.9	-10	3	9.0
Segment - S5	105	2	N/A	N/A	N/A	N/A	180.6	0.9	10	N/A	-22.6	-22.8	-10	3	12.6
Segment - S6	105	2	N/A	N/A	N/A	N/A	192.0	1.2	10	N/A	-22.8	-21.8	-10	3	13.4
Segment - S9	105	2	N/A	N/A	N/A	N/A	195.3	10.7	10	N/A	-22.9	-12.3	-10	3	22.8
Truck (Asphalt Collection)															
Segment - S0	105	16	N/A	N/A	N/A	N/A	118.7	14.8	10	N/A	-20.7	-10.9	-10	3	35.4
Segment - S1	105	16	N/A	N/A	N/A	N/A	118.1	17.9	10	N/A	-20.7	-10.0	-10	3	36.3
Segment - S2	105	16	N/A	N/A	N/A	N/A	112.9	7.5	10	N/A	-20.5	-13.8	-10	3	32.7
Segment - S3	105	16	N/A	N/A	N/A	N/A	132.8	3.6	10	N/A	-21.2	-17.0	-10	3	28.8
Segment - S10	105	16	N/A	N/A	N/A	N/A	162.4	10.5	10	N/A	-22.1	-12.4	-10	3	32.6
Segment - S11	105	16	N/A	N/A	N/A	N/A	176.0	2.1	10	N/A	-22.5	-19.4	-10	3	25.2
Segment - S12	105	16	N/A	N/A	N/A	N/A	160.1	5.8	10	N/A	-22.0	-14.9	-10	3	30.1
Segment - S13	105	16	N/A	N/A	N/A	N/A	140.7	1.9	10	N/A	-21.5	-19.8	-10	3	25.8
Segment - S14	105	16	N/A	N/A	N/A	N/A	132.2	8.8	10	N/A	-21.2	-13.1	-10	3	32.7
Truck (Aggregate Delivery)															
Segment - S0	105	16	N/A	N/A	N/A	N/A	118.7	14.8	10	N/A	-20.7	-10.9	-10	3	35.4
Segment - S13	105	16	N/A	N/A	N/A	N/A	140.7	1.9	10	N/A	-21.5	-19.8	-10	3	25.8
Segment - S14	105	16	N/A	N/A	N/A	N/A	132.2	8.8	10	N/A	-21.2	-13.1	-10	3	32.7
Wheel Loader (Loading/Unloading Aggregate/RAP)															
Segment - S6	109	52	N/A	N/A	N/A	N/A	192.0	1.2	10	N/A	-22.8	-21.8	-10	3	31.5
Segment - S7	109	52	N/A	N/A	N/A	N/A	204.8	0.9	10	N/A	-23.1	-23.1	-10	3	29.9
Segment - S8	109	52	N/A	N/A	N/A	N/A	210.6	1.7	10	N/A	-23.2	-20.4	-10	3	32.6
Segment - S12	109	52	N/A	N/A	N/A	N/A	160.1	5.8	10	N/A	-22.0	-14.9	-10	3	39.2
Segment - S13	109	52	N/A	N/A	N/A	N/A	140.7	1.9	10	N/A	-21.5	-19.8	-10	3	34.9
Sub-Total SPL, dB(A)															49

Note (\*) - The SWL of Main Exhaust Fan, Rotary Dryer Drum, RAP Processing Machine is obtained by on-site measurement. Detailed information of the on-site measurement please refer to Appendix D.

The type of wheel loader using in the Plant is CAT-950. The SWL of the wheel loader is referenced to the Catalog as shown in Appendix F.

The SWL of other PME is referenced to GW-TM or “Sound power levels of other commonly used PME” issued by EPD.

The Bucket Elevator / Filler Elevator is similar to the Conveyor Belt. Therefore, the SWL of the Bucket Elevator / Filler Elevator is referenced to the SWL of Conveyor Belt.

The SWL of the mixer of the Asphalt Plant is referred to grout mixer.

The SWL of the bitumen pump is referred to grout pump.

Note (✓) - Detailed description of the mitigation measures can be found in S2.3.5 and S2.4.4 of the EA report.

Note (•) - The % usage is provided by the Applicant based on daily practice.

Note (#) - The distances of Screw / Belt / Slant Belt Conveyor and Bucket / Filler Elevator are measured between NSR and the notional source position.

The shortest distance between the loading/unloading areas of loader and corresponding NSRs is adopted in the calculation. The location of the PME is shown on Figure 2.2.

The distances of other PME are measured between NSR and their corresponding location. The location of the PME is shown on Figure 2.2.

Note (+) - The noise generated from the PME/Activity is screened by existing building structure or natural terrain as shown on Figure 2.4.

IN5 - Night

Plant/Activity	SWL, dB(A) ^	No. of Equipment / Events / Trips	At-source Noise Mitigation Measures ✓	Noise Reduction from Mitigation Measures, dB(A)	Total SWL, dB(A)	% Usage (30mins) ^	Distance #	View Angle, deg	Speed, km/h	Correction, dB(A)					Leq, dB(A)
										Time Correction, dB(A)	Distance Correction, dB(A)	View Angle Correction, dB(A)	Screening Effect, dB(A) +	Façade Correction, dB(A)	
Mechanical and Electrical (M&E) Equipment															
Exhaust fan	89	1		0	89	100	191	N/A	N/A	0	-54	N/A	-10	3	28.4
Air compressor, air flow ≤ 10 m³/min	100	1		0	100	30	171	N/A	N/A	-5.2	-53	N/A	-10	3	35.2
Rotary dryer drum (Aggregate)	98	1		0	98	20	177	N/A	N/A	-7	-53	N/A	-10	3	31.1
Rotary dryer drum (RAP)	98	1		0	98	20	177	N/A	N/A	-7	-53	N/A	-10	3	31.1
RAP Processing Machine	103	0		0	0	100	208	N/A	N/A	0	-54	N/A	-10	3	0.0
Screw conveyor / Slant belt conveyor / Belt conveyor	90	11	Enclosure	-15	85	30	136	N/A	N/A	-5.2	-51	N/A	-10	3	22.5
Bucket elevator / Filler elevator	90	5	Enclosure	-15	82	30	136	N/A	N/A	-5.2	-51	N/A	-10	3	19.1
Mixing Unit	96	1	Enclosure	-15	81	100	169	N/A	N/A	0	-53	N/A	-10	3	21.5
Bitumen Pump	95	1			95	50	189	N/A	N/A	-3	-54	N/A	-10	3	31.5
Loading/Unloading Activities															
Wheel Loader (Loading / Unloading Aggregate/RAP)	109	6		0	117	0.28	144	N/A	N/A	-25.6	-51	N/A	-10	3	33.0
Truck (Unloading Aggregate)	105	1		0	105	1.67	144	N/A	N/A	-17.8	-51	N/A	-10	3	29.0
Truck (Asphalt Collection)	105	5	Enclosure	-15	97	1.67	169	N/A	N/A	-17.8	-53	N/A	-10	3	19.7
Truck (Unloading RAP)	105	1		0	105	1.67	224	N/A	N/A	-17.8	-55	N/A	-10	3	25.2
On-site Movement of Truck															
Truck (RAP Delivery)															
Segment - S0	105	2	N/A	N/A	N/A	N/A	118.7	14.8	10	N/A	-20.7	-10.9	-10	3	26.4
Segment - S1	105	2	N/A	N/A	N/A	N/A	118.1	17.9	10	N/A	-20.7	-10.0	-10	3	27.3
Segment - S2	105	2	N/A	N/A	N/A	N/A	112.9	7.5	10	N/A	-20.5	-13.8	-10	3	23.7
Segment - S3	105	2	N/A	N/A	N/A	N/A	132.8	3.6	10	N/A	-21.2	-17.0	-10	3	19.8
Segment - S4	105	2	N/A	N/A	N/A	N/A	162.5	0.4	10	N/A	-22.1	-26.9	-10	3	9.0
Segment - S5	105	2	N/A	N/A	N/A	N/A	180.6	0.9	10	N/A	-22.6	-22.8	-10	3	12.6
Segment - S6	105	2	N/A	N/A	N/A	N/A	192.0	1.2	10	N/A	-22.8	-21.8	-10	3	13.4
Segment - S7	105	2	N/A	N/A	N/A	N/A	204.8	0.9	10	N/A	-23.1	-23.1	-10	3	11.8
Segment - S8	105	2	N/A	N/A	N/A	N/A	210.6	1.7	10	N/A	-23.2	-20.4	-10	3	14.4
Truck (Bitumen Delivery)															
Segment - S0	105	0	N/A	N/A	N/A	N/A	118.7	14.8	10	N/A	-20.7	-10.9	-10	3	0
Segment - S1	105	0	N/A	N/A	N/A	N/A	118.1	17.9	10	N/A	-20.7	-10.0	-10	3	0
Segment - S2	105	0	N/A	N/A	N/A	N/A	112.9	7.5	10	N/A	-20.5	-13.8	-10	3	0
Segment - S3	105	0	N/A	N/A	N/A	N/A	132.8	3.6	10	N/A	-21.2	-17.0	-10	3	0
Segment - S4	105	0	N/A	N/A	N/A	N/A	162.5	0.4	10	N/A	-22.1	-26.9	-10	3	0
Segment - S5	105	0	N/A	N/A	N/A	N/A	180.6	0.9	10	N/A	-22.6	-22.8	-10	3	0
Segment - S6	105	0	N/A	N/A	N/A	N/A	192.0	1.2	10	N/A	-22.8	-21.8	-10	3	0
Segment - S9	105	0	N/A	N/A	N/A	N/A	195.3	10.7	10	N/A	-22.9	-12.3	-10	3	0
Truck (Asphalt Collection)															
Segment - S0	105	10	N/A	N/A	N/A	N/A	118.7	14.8	10	N/A	-20.7	-10.9	-10	3	33.4
Segment - S1	105	10	N/A	N/A	N/A	N/A	118.1	17.9	10	N/A	-20.7	-10.0	-10	3	34.2
Segment - S2	105	10	N/A	N/A	N/A	N/A	112.9	7.5	10	N/A	-20.5	-13.8	-10	3	30.7
Segment - S3	105	10	N/A	N/A	N/A	N/A	132.8	3.6	10	N/A	-21.2	-17.0	-10	3	26.8
Segment - S10	105	10	N/A	N/A	N/A	N/A	162.4	10.5	10	N/A	-22.1	-12.4	-10	3	30.5
Segment - S11	105	10	N/A	N/A	N/A	N/A	176.0	2.1	10	N/A	-22.5	-19.4	-10	3	23.2
Segment - S12	105	10	N/A	N/A	N/A	N/A	160.1	5.8	10	N/A	-22.0	-14.9	-10	3	28.1
Segment - S13	105	10	N/A	N/A	N/A	N/A	140.7	1.9	10	N/A	-21.5	-19.8	-10	3	23.7
Segment - S14	105	10	N/A	N/A	N/A	N/A	132.2	8.8	10	N/A	-21.2	-13.1	-10	3	30.7
Truck (Aggregate Delivery)															
Segment - S0	105	4	N/A	N/A	N/A	N/A	118.7	14.8	10	N/A	-20.7	-10.9	-10	3	29.4
Segment - S13	105	4	N/A	N/A	N/A	N/A	140.7	1.9	10	N/A	-21.5	-19.8	-10	3	19.8
Segment - S14	105	4	N/A	N/A	N/A	N/A	132.2	8.8	10	N/A	-21.2	-13.1	-10	3	26.7
Wheel Loader (Loading/Unloading Aggregate/RAP)															
Segment - S6	109	12	N/A	N/A	N/A	N/A	192.0	1.2	10	N/A	-22.8	-21.8	-10	3	25.1
Segment - S7	109	12	N/A	N/A	N/A	N/A	204.8	0.9	10	N/A	-23.1	-23.1	-10	3	23.5
Segment - S8	109	12	N/A	N/A	N/A	N/A	210.6	1.7	10	N/A	-23.2	-20.4	-10	3	26.2
Segment - S12	109	12	N/A	N/A	N/A	N/A	160.1	5.8	10	N/A	-22.0	-14.9	-10	3	32.9
Segment - S13	109	12	N/A	N/A	N/A	N/A	140.7	1.9	10	N/A	-21.5	-19.8	-10	3	28.5
Sub-Total SPL, dB(A)															44

Note (\*) - The SWL of Main Exhaust Fan, Rotary Dryer Drum, RAP Processing Machine is obtained by on-site measurement. Detailed information of the on-site measurement please refer to Appendix D.

The type of wheel loader using in the Plant is CAT-950. The SWL of the wheel loader is referenced to the Catalog as shown in Appendix F.

The SWL of other PME is referenced to GW-TM or “Sound power levels of other commonly used PME” issued by EPD.

The Bucket Elevator / Filler Elevator is similar to the Conveyor Belt. Therefore, the SWL of the Bucket Elevator / Filler Elevator is referenced to the SWL of Conveyor Belt.

The SWL of the mixer of the Asphalt Plant is referred to grout mixer.

The SWL of the bitumen pump is referred to grout pump.

Note (^) - Detailed description of the mitigation measures can be found in S2.3.5 and S2.4.4 of the EA report.

Note (\*) - The % usage is provided by the Applicant based on daily practice.

Note (#) - The distances of Screw / Belt / Slant Belt Conveyor and Bucket / Filler Elevator are measured between NSR and the notional source position.

The shortest distance between the loading/unloading areas of loader and corresponding NSRs is adopted in the calculation. The location of the PME is shown on Figure 2.2.

The distances of other PME are measured between NSR and their corresponding location. The location of the PME is shown on Figure 2.2.

Note (+) - The noise generated from the PME/Activity is screened by existing building structure or natural terrain as shown on Figure 2.4.



# 950 GC Wheel Loader Specifications

## Hydraulic System

Implement System Pump Type	Piston	
Steering System Pump Type	Piston	
Implement System – Maximum Pump Output @ 2,390 rpm	256 L/min	68 gal/min
Implement System – Maximum Operating Pressure @ 50 ± 1.5 L/min	27 900 kPa	4,047 psi
Implement System – Optional 3rd Function Maximum Pressure @ 70 L/min (18.5 gal/min)	20 680 kPa	2,999 psi
Implement System – Optional 3rd Function Maximum Flow	240 L/min	63 gal/min
Hydraulic Cycle Time – Raise from Carry Position	5.4 Seconds	
Hydraulic Cycle Time – Dump at Maximum Raise	1.2 Seconds	
Hydraulic Cycle Time – Lower, Empty, Float Down	2.8 Seconds	
Hydraulic Cycle Time – Total Cycle Time	9.4 Seconds	

## Tires\*

- Choices include:  
23.5R25 L3 ★★ from Triangle and Maxam  
23.5R25 L3 ★ from Bridgestone  
23.5R25 L2 ★ from Bridgestone

\*Tire offerings vary by region. Consult your local Cat dealer for further details.

## Sound

The sound values indicated below are for specific operating conditions only. Machine and operator sound levels will vary at different engine and/or cooling fan speeds. Hearing protection may be needed when the machine is operated with a cabin that is not properly maintained, or when the doors and/or windows are open for extended periods or in a noisy environment.

With Cooling Fan Speed at Maximum Value:

Operator Sound Pressure Level (ISO 6396:2008)	75 dB(A)
Exterior Sound Power Level (ISO 6395:2008)	109 dB(A)
Exterior Sound Pressure Level (SAE J88:2013)	76 dB(A)*

With Cooling Fan Speed at 70% of Maximum Value:\*\*

Operator Sound Pressure Level (ISO 6396:2008)	73 dB(A)
Exterior Sound Power Level (ISO 6395:2008)	107 L <sub>WA</sub> ***

\*Distance of 15 m (49.2 ft), moving forward in second gear ratio.

\*\*For machines in countries that adopt the “EU Directives.”

\*\*\*European Union Directives “2000/14/EC” as amended by “2005/88/EC.”

## Cab

ROPS/FOPS	ROPS/FOPS meet ISO 3471:2008 and ISO 3449:2005 Level II standards
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## Brakes

Brakes	Brakes meet ISO 3450:2011 standards
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## Appendix G      Traffic Forecast

## No comment on methodology from Traffic Department

RE: Traffic Forecast for Renewal of S16 for Temporary Asphalt Plant for a Period of 5 Years, Man Kam To Road, Sheung Shui (A/NE-FTA/254)



Kam Fai TAM <kamfaitam@td.gov.hk>  
To: CKM Asia

Reply Reply All Forward

Mon 21/10/2024 17:31



Dear Eric Wong,

Please note that the Traffic Noise Impact Assessment (TNIA) and Air Quality Impact Assessment (AQIA) are not under our purview. We are not in a position to provide comments on the traffic figures tailor-made for the Environmental assessment study.

Notwithstanding the above, we have no comments on the methodology of the traffic forecast.

Kind regards,

TAM Kam-fai  
E/SD2, TENTE  
Transport Department  
Tel: 2399 2405



**CKM ASIA LIMITED 陳錦敏亞洲有限公司**

*Traffic and Transportation Planning Consultants 交通及運輸策劃顧問*

Our Ref: J7343/2

19<sup>th</sup> June, 2024

Transport Department  
NT Regional Office  
Traffic Engineering (NTE) Division  
North Section  
9/F, Mongkok Government Offices  
30 Luen Wan Street, Mongkok, Kowloon

**Attn: Mr. CHU Ho Man, Hoffman (Engr/North 1)**  
(BY E-MAIL: homanchu@td.gov.hk & POST)

**Renewal of Section 16 Planning Application for Temporary Asphalt Plant  
for a Period of 5 Years at Lots 20RP, 21 and 23RP (Part) in D.D. 88  
and adjoining Government Land to the East of Man Kam To Road  
Sheung Shui, New Territories**

**Traffic Forecast for Traffic Noise Impact Assessment ("TNIA"),  
and Air Quality Impact Assessment ("AQIA")**

Dear Mr. Chu,

CKM Asia Limited is the Traffic Consultant engaged by the Applicant of the captioned Temporary Asphalt Plant to produce the design year traffic data for the Environmental Consultant to conduct Traffic Noise Impact Assessment ("TNIA"), and Air Quality Impact Assessment ("AQIA").

The design years (i.e. 2024, 2027 and 2029) traffic forecast data are produced in accordance with the latest requirement of the "EMFAC-HK" guideline from Environmental Protection Department. The detailed forecast methodology and the design years traffic data adopted are enclosed for your office review.

It is highly appreciated if you could comment on the traffic forecast methodology.

Should you have any queries, please do not hesitate to contact the undersigned.

Thank you very much for your attention.

Yours sincerely,



Eric WONG  
Principal Traffic Engineer

Encl.

KIMWCH

21<sup>st</sup> Floor, Methodist House, 36 Hennessy Road, Wanchai, Hong Kong  
香港灣仔軒尼詩道36號循道衛理大廈21樓

Tel 電話: (852) 2520 5990 Fax 傳真: (852) 2528 6343

Email 電郵: mail@ckmasia.com.hk Website 網址: http://www.ckmasia.com.hk

## Traffic Forecast - 2024

Link ID	Road Section	With the Site						Without the Site					
		AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
		Traffic Flows (veh/hr)	%LV	%HV	Traffic Flows (veh/hr)	%LV	%HV	Traffic Flows (veh/hr)	%LV	%HV	Traffic Flows (veh/hr)	%LV	%HV
RD_001	Man Kam To Road	455	50.70%	49.30%	395	43.70%	56.30%	455	50.70%	49.30%	395	43.70%	56.30%
RD_002	Man Kam To Road	445	40.00%	60.00%	415	57.20%	42.80%	445	40.00%	60.00%	415	57.20%	42.80%
RD_003	Kong Nga Po Road	210	65.50%	34.50%	80	44.80%	55.20%	210	65.50%	34.50%	80	44.80%	55.20%
RD_004	Kong Nga Po Road	105	46.40%	53.60%	165	79.30%	20.70%	105	46.40%	53.60%	165	79.30%	20.70%
RD_005	Man Kam To Road	660	55.40%	44.60%	470	44.20%	55.80%	660	55.40%	44.60%	470	44.20%	55.80%
RD_006	Man Kam To Road	545	41.60%	58.40%	575	64.00%	36.00%	545	41.60%	58.40%	575	64.00%	36.00%
RD_007	Access Road to Open Storage Site No.7	25	34.80%	65.20%	45	39.50%	60.50%	25	34.80%	65.20%	45	39.50%	60.50%
RD_008	Access Road to Open Storage Site No.7	40	34.10%	65.90%	30	34.70%	65.30%	40	34.10%	65.90%	30	34.70%	65.30%
RD_009	Man Kam To Road	700	54.50%	45.50%	490	43.40%	56.60%	700	54.50%	45.50%	490	43.40%	56.60%
RD_010	Man Kam To Road	565	41.20%	58.80%	610	62.10%	37.90%	565	41.20%	58.80%	610	62.10%	37.90%
RD_011	Man Kam To Road	715	54.40%	45.60%	505	42.10%	57.90%	700	55.7%	44.3%	490	43.39%	56.61%
RD_012	Man Kam To Road	575	40.80%	59.20%	630	60.90%	39.10%	560	41.89%	58.11%	615	62.39%	37.61%
RD_013	Fu Tei Au Road	35	61.90%	38.10%	40	73.00%	27.00%	35	61.90%	38.10%	40	73.00%	27.00%
RD_014	Fu Tei Au Road	25	63.70%	36.30%	35	49.90%	50.10%	25	63.70%	36.30%	35	49.90%	50.10%
RD_015	Unnamed Access Road	5	50.00%	50.00%	10	57.10%	42.90%	5	50.00%	50.00%	10	57.10%	42.90%
RD_016	Unnamed Access Road	5	100.00%	0.00%	15	50.00%	50.00%	5	100.00%	0.00%	15	50.00%	50.00%
RD_017	Man Kam To Road	725	54.30%	45.70%	530	41.70%	58.30%	710	55.45%	44.55%	515	42.91%	57.09%
RD_018	Man Kam To Road	600	41.20%	58.80%	655	61.10%	38.90%	585	42.26%	57.74%	640	62.53%	37.47%
RD_019	Access Road to Hung Kiu San Tsuen	30	41.50%	58.50%	40	40.60%	59.40%	30	41.50%	58.50%	40	40.60%	59.40%

## Traffic Forecast - 2029

Link ID	Road Section	With the Site						Without the Site					
		AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
		Traffic Flows (veh/hr)	%LV	%HV	Traffic Flows (veh/hr)	%LV	%HV	Traffic Flows (veh/hr)	%LV	%HV	Traffic Flows (veh/hr)	%LV	%HV
RD_001	Man Kam To Road	475	50.70%	49.30%	415	44.00%	56.00%	475	50.70%	49.30%	415	44.00%	56.00%
RD_002	Man Kam To Road	470	39.90%	60.10%	435	57.20%	42.80%	470	39.90%	60.10%	435	57.20%	42.80%
RD_003	Kong Nga Po Road	375	64.50%	35.50%	175	54.90%	45.10%	375	64.50%	35.50%	175	54.90%	45.10%
RD_004	Kong Nga Po Road	265	56.40%	43.60%	270	73.70%	26.30%	265	56.40%	43.60%	270	73.70%	26.30%
RD_005	Man Kam To Road	850	57.00%	43.00%	590	47.30%	52.70%	850	57.00%	43.00%	590	47.30%	52.70%
RD_006	Man Kam To Road	725	46.10%	53.90%	695	63.80%	36.20%	725	46.10%	53.90%	695	63.80%	36.20%
RD_007	Access Road to Open Storage Site No.7	25	33.40%	66.60%	45	40.90%	59.10%	25	33.40%	66.60%	45	40.90%	59.10%
RD_008	Access Road to Open Storage Site No.7	40	35.00%	65.00%	30	34.70%	65.30%	40	35.00%	65.00%	30	34.70%	65.30%
RD_009	Man Kam To Road	885	56.00%	44.00%	610	46.30%	53.70%	885	56.00%	44.00%	610	46.30%	53.70%
RD_010	Man Kam To Road	750	45.70%	54.30%	735	62.30%	37.70%	750	45.70%	54.30%	735	62.30%	37.70%
RD_011	Man Kam To Road	905	55.90%	44.10%	625	45.40%	54.60%	890	56.84%	43.16%	610	46.52%	53.48%
RD_012	Man Kam To Road	760	45.60%	54.40%	755	61.10%	38.90%	745	46.52%	53.48%	740	62.34%	37.66%
RD_013	Fu Tei Au Road	35	62.80%	37.20%	40	73.60%	26.40%	35	62.80%	37.20%	40	73.60%	26.40%
RD_014	Fu Tei Au Road	25	65.30%	34.70%	35	51.40%	48.60%	25	65.30%	34.70%	35	51.40%	48.60%
RD_015	Unnamed Access Road	5	50.00%	50.00%	10	57.10%	42.90%	5	50.00%	50.00%	10	57.10%	42.90%
RD_016	Unnamed Access Road	5	100.00%	0.00%	15	50.00%	50.00%	5	100.00%	0.00%	15	50.00%	50.00%
RD_017	Man Kam To Road	915	55.90%	44.10%	655	44.50%	55.50%	900	56.83%	43.17%	640	45.54%	54.46%
RD_018	Man Kam To Road	785	45.50%	54.50%	780	61.30%	38.70%	770	46.39%	53.61%	765	62.50%	37.50%



Date : 29<sup>th</sup> October, 2024  
Your Ref. : TPB/A/NE-FTA/254  
Our Ref. : ADCL/PLG-10290/L005

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

**By Email**

Dear Sir/Madam,


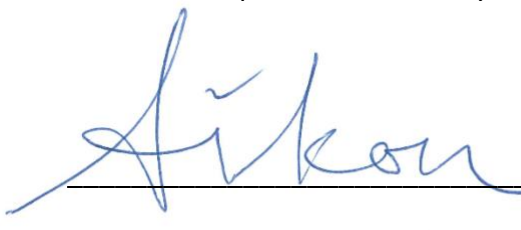
**Re: Section 16 Planning Application for Temporary Asphalt Plant for a Period of Five Years at Lots 20 RP (Part), 21 and 23 RP (Part) in D.D. 88 and adjoining Government Land, East of Man Kam To Road, Sheung Shui, New Territories (Renewal of Planning Application No. A/NE-FTA/192)**  
**Planning Application No. A/NE-FTA/254**

We refer to the comments from the Environmental Protection Department (dated 29.10.2024) regarding the subject application. We would like to enclose herewith the Summary of the Specified Process Licence for Asphalt Plant in Sheung Shui to supplement the revised Environmental Assessment and address the abovementioned departmental comments for their consideration.

We would like to clarify that the Specified Process Licence was renewed on 25.10.2024, and the operations of the Temporary Asphalt Plant have strictly complied with the Air Pollution Control Ordinance.

Thank you for your kind attention and should you have any queries, please do not hesitate to contact the undersigned at [REDACTED].

Yours faithfully,  
Aikon Development Consultancy Limited



Encl.

cc. Client

DPO/STN, PlanD (Attn.: Ms. Shirley CHAN) - By Email

## Specified Process Licence for Asphalt Plant in Sheung Shui

### Executive Summary

#### 1 BACKGROUND

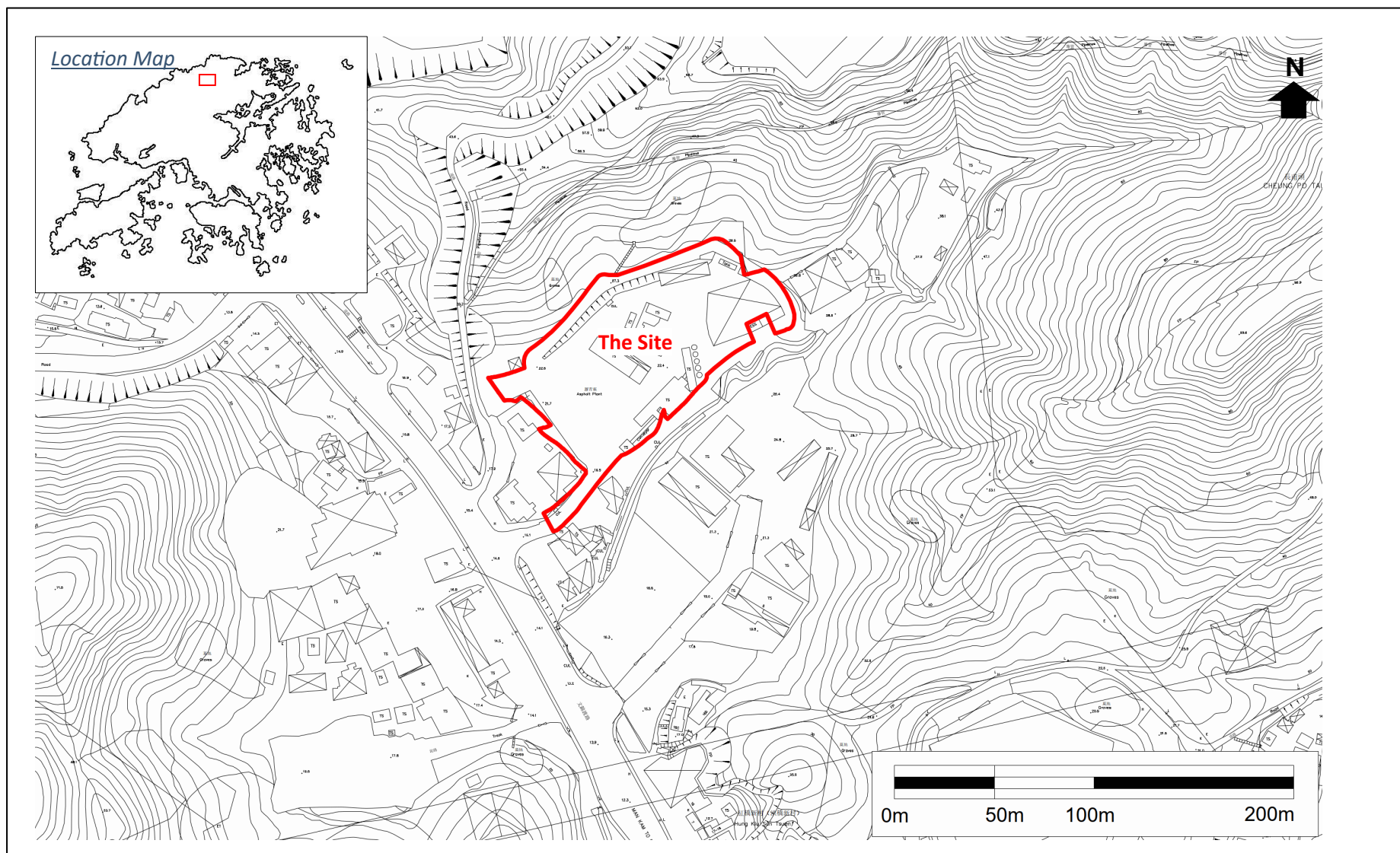
##### 1.1 Site Location

- 1.1.1 K. Wah Asphalt Ltd (“K. Wah” or “the Licence Holder”) currently operates an Asphalt Plant (“the Plant”) on Man Kam To Road in Sheung Shui (“the Site”) as shown in **Figure 1-1**, below.

##### 1.2 Summary of Specified Licence (“SP”) Application

- 1.2.1 The Plant is classified as Tar and Bitumen Works under Schedule 1 of the *Air Pollution Control Ordinance* (“APCO”). Its processing capacity is 160 tonnes of asphalt per hour or more than 250kg per hour with heated bitumen for the manufacturing process. Therefore, the Plant is a SP and a SP Licence is required pursuant to Section 14 of the APCO.
- 1.2.2 SP Licence No. L-15-035(1) for the Plant was granted on 23 February 2017.
- 1.2.3 After receiving no adverse comment from the Environmental Protection Department (“EPD”) on 7 April 2017 on the commissioning trial report, the Temporary Asphalt Plant began operation.
- 1.2.4 Thereafter, an application for renewing SP Licence No. L-15-035(1) was made and a renewed SP Licence No. L-15-035(2) with an effective period of three years was obtained on 18 May 2020.
- 1.2.5 Three years later, an application for renewing SP Licence No. L-15-035(2) was made on 15 March 2023. This SP Licence renewal application is summarised below:
1. On 27 September 2024, the Air Pollution Control Plan (“APCP-2024”) version 3 dated September 2024 was emailed to EPD for review.
  2. On 2 October 2024, EPD provided “no comment” on the APCP and asked for a hardcopy of APCP-2024 and a CD containing the softcopy of the APCP-2024, all the modelling files and calculations, and all the drawings.
  3. On 8 October 2024, EnviroSolutions & Consulting Ltd (“ESC”) on behalf of the Licence Holder submitted a copy of APCP-2024, revised drawings and a CD to EPD.
  4. On 17 October 2024, EPD provided a letter advising that their assessment of the SP Licence Renewal Application was completed.
  5. On 25 October 2024, EPD granted the renewed SP Licence No. L-15-035(3) with an effective period of five years.
- 1.2.6 This Executive Summary aims to summarise the findings of the APCP-2024 for ease of reference.

Figure 1-1 Location of the Asphalt Plant and Its Environs



## 2 SUMMARY OF APCP FINDINGS

### 2.1 Operation Process, Pollution Sources and Control Measures

- 2.1.1 Section 2.3 of APCP-2024 describes the handling of raw materials, asphalt production and asphalt delivery in detail.
- 2.1.2 Sections 2.4 and 5.1 of APCP-2024 describes major air pollutants arising from the Plant operation, which are as follows:
1. Respirable Suspended Particulates (“RSP” or “PM<sub>10</sub>”)
  2. Fine Suspended Particulates (“FSP” or “PM<sub>2.5</sub>”)
  3. Carbon Monoxide (“CO”)
  4. Nitrogen Dioxide (“NO<sub>2</sub>”)
  5. Sulphur Dioxide (“SO<sub>2</sub>”)
  6. Bitumen Fumes
  7. Metals
  8. Volatile Organic Compounds (“VOCs”)
  9. Odour
- 2.1.3 **Figure 2-1**, below, shows the locations of emission points of the Plant. **Figure 2-2**, below, shows the latest version of the Schematic Diagram improving the presentation.

### 2.2 Air Quality Standards

- 2.2.1 Chapter 3 of APCP-2024 summarises the prevailing Air Quality Objectives (“AQOs”), assessment standards for non-criteria pollutants and the guidance note for asphalt plants, namely *A Guidance Note on the Technical, Management and Monitoring Requirements for Specified Process – Tar and Bitumen Works (Asphalt Concrete Plants)* (“the GN”).

### 2.3 Air Pollution Control Measures

- 2.3.1 Chapter 4 of APCP-2024 describes the emission sources and the relevant control measures. The control measures comply with the GN and are considered to be the Best Practicable Means (“BPM”) for the Plant. The mitigation measures are summarised in Table 4-1 of APCP-2024.

### 2.4 Air Quality Assessment

- 2.4.1 Section 5.1 of APCP-2024 describes which pollutants were assessed in the previously submitted APCP in 2017 (“APCP-2017”) and which pollutants have been assessed in APCP-2024:

1. The cumulative impact concentrations of NO<sub>2</sub>, RSP, FSP and SO<sub>2</sub> have been assessed for the comparison with the prevailing AQOs
2. The assessment of 8-hour CO was as assessed in APCP-2017 since there has been no change to the prevailing AQOs and the concentrations estimated in APCP-2017 are far below the historical AQOs in 2014
3. The assessment results for non-criteria pollutants in APCP-2017 are also well within the assessment standards including the latest concentrations limits of Benzo(a)pyrene ("B[a]P") and Cadmium ("Cd") described in paragraph 3.1.2 of the APCP-2024, and so these non-criteria pollutants were not required to be predicted again
4. Since there is no update to odour and bitumen fume criteria, the results in APCP-2017 are still valid
5. Appendix A of APCP-2024 provides the assessment results including the aforementioned non-criteria pollutants and odour concentrations extracted from APCP-2017

## 2.5 Identification of the Air Sensitive Receivers ("ASRs") and Location Plan of the ASRs

- 2.5.1 The status of ASRs within 500m from the Site boundary has been reviewed in Section 5.2 of APCP-2024 and concluded that there has been no change to the ASRs identified in APCP-2017, which therefore remain valid.
- 2.5.2 **Table 2-1** below which is extracted from Table 5-1 of APCP-2024 shows the identified ASRs. **Figure 2-3** which is extracted from Figure 5-1 of APCP-2024 shows the ASR locations.

Table 2-1 Representative ASRs

ID	DESCRIPTION	NO. STOREYS	OF	RECEPTOR HEIGHT, mAG	PATH GRID
A1a	Village House at Hung Kiu San Tsuen	2		1.4, 4.4	(35,55)
A1b	Village House at Hung Kiu San Tsuen	2		1.4, 4.4	(35,55)
A2	Tin Hau Temple	1		1.4	(35,55)
A3	Border District Police Headquarter	5		1.4, 4.4, 7.4, 10.4, 13.4	(35,56)
A4	Sha Ling Police Post	1		1.4	(35,55)
A5a	Village House at Lee ka Yuen	2		1.4, 4.4	(35,55)
A5b	Village House at Lee ka Yuen	2		1.4, 4.4	(35,55)
A5c	Village House at Lee ka Yuen	2		1.4, 4.4	(35,55)
A6a	Village House 1	1		1.4	(35,55)
A6b	Village House 2	1		1.4	(35,55)
A7	Village House 3	2		1.4	(35,55)



ID	DESCRIPTION	NO. STOREYS	OF	RECEPTOR HEIGHT, mAG	PATH GRID
A8	Village House 4	1		1.4	(35,55)
A9	Village House 5	1		1.4	(35,55)
A10	Village House 6	2		1.4, 4.4	(35,55)
A11	Village House 7	1		1.4	(35,55)
A12	Whole Poultry Market	1		10.9	(35,55)
A13	Workshop (west of the Site)	1		1.4	(35,55)
A14	Lik Shun Services Ltd.	2		1.4, 4.4	(35,55)
A15	Workshop (east of the Site)	1		1.4	(35,55)

## 2.6 Modelling Methodology

2.6.1 Sections 5.3 to 5.9 of APCP-2024 describe the modelling methodology as follows:

1. Background concentrations downloaded from PATH v3.0
2. Use of AERMOD and site-specific MET data downloaded from the Smart Air Modelling Platform ("SAMP")
3. Vehicular emissions from open roads based on the traffic data for Years 2025, 2027 and 2029, use of EMFAC-HK model for estimating the vehicular emission rates of Nitrogen Oxide ("NO"), NO<sub>2</sub>, RSP and FSP including the consideration of Zero Emission Vehicles ("ZEV"), sensitivity tests for the three years of provided traffic data and adoption of the highest emission rates, which are in Year 2027, as the worst-case scenario
4. Consideration of industrial emissions including major industrial emissions show no industrial emission within the 500m assessment area and emissions from the Organic Waste Treatment Facilities, Phase 2 ("OCCR2") were not considered significant
5. Particle size distribution was considered
6. Adoption of ozone-limiting method for short-term cumulative NO<sub>2</sub> assessment and the Jenkin Method for long-term cumulative NO<sub>2</sub> assessment

2.6.2 Section 5.10 of APCP-2024 summarises the assessment results for RSP, FSP, NO<sub>2</sub> and SO<sub>2</sub> cumulative concentrations. Figures 5-2 to 5-5 of APCP-2024 show the contour plots for cumulative RSP, FSP, NO<sub>2</sub> and SO<sub>2</sub> cumulative concentrations within the 500m study area at the relevant worst-hit levels. All the predicted cumulative concentrations comply with the prevailing AQOs. **Table 2-2** and **Table 2-3** which are extracted from Tables 5-4 and 5-5 of APCP-2024 shows the ASR locations show the predicted cumulative concentrations complying with the prevailing AQOs.

Table 2-2 Predicted FSP and RSP Concentrations at Representative ASRs

ASR ID	DESCRIPTION	PATH GRID	HEIGHT, mPD	RSP, $\mu\text{g}/\text{m}^3$		FSP, $\mu\text{g}/\text{m}^3$	
				10 <sup>th</sup> HIGHEST DAILY AVERAGE	ANNUAL AVERAGE	36 <sup>th</sup> HIGHEST DAILY AVERAGE	ANNUAL AVERAGE
A1a	Hung Kiu San Tsuen	(35,55)	19.9	58.7	22.2	30.4	14.0
A1a	Hung Kiu San Tsuen	(35,55)	22.9	58.7	22.2	30.4	14.0
A1b	Hung Kiu San Tsuen	(35,55)	13.4	58.8	22.4	30.4	14.1
A1b	Hung Kiu San Tsuen	(35,55)	16.4	58.8	22.3	30.4	14.0
A2	Tin Hau Temple	(35,55)	5.5	58.3	22.0	30.2	13.8
A4	Sha Ling Police Post	(35,55)	12.0	58.9	22.8	31.0	14.5
A5a	Lee ka Yuen	(35,55)	13.7	58.9	22.3	30.6	14.0
A5a	Lee ka Yuen	(35,55)	16.7	58.9	22.3	30.6	14.0
A5b	Lee ka Yuen	(35,55)	13.7	58.8	22.1	30.5	13.9
A5b	Lee ka Yuen	(35,55)	16.7	58.8	22.1	30.5	13.9
A5c	Lee ka Yuen	(35,55)	18.4	59.1	22.2	30.6	13.9
A5c	Lee ka Yuen	(35,55)	21.4	59.2	22.2	30.6	13.9
A6a	Village House 1	(35,55)	15.2	59.1	22.9	31.1	14.5
A6b	Village House 2	(35,55)	15.2	58.8	22.6	30.8	14.3
A7	Village House 3	(35,55)	20.4	58.5	22.7	30.8	14.3
A8	Village House 4	(35,55)	15.5	59.4	23.2	31.3	14.6
A9	Village House 5	(35,55)	15.6	59.6	22.6	31.0	14.2
A10	Village House 6	(35,55)	11.9	58.8	22.4	30.4	14.1
A10	Village House 6	(35,55)	14.9	58.7	22.3	30.3	14.0
A11	Village House 7	(35,55)	11.9	58.7	22.4	30.4	14.1
A12	Poultry Plant	(35,55)	22.7	58.7	22.2	30.4	13.9
A12	Poultry Plant	(35,55)	32.2	58.7	22.2	30.4	13.9
A13	Workshop	(35,55)	19.3	60.8	24.2	30.8	14.4
A14	Lik Shun Services Ltd	(35,55)	20.9	65.1	25.4	30.8	14.5
A14	Lik Shun Services Ltd	(35,55)	23.9	64.4	24.5	30.7	14.3
A15	Workshop	(35,55)	30.2	58.8	22.3	30.3	13.9
A3	Police HQ	(35,56)	29.5	60.9	23.2	32.1	14.7
A3	Police HQ	(35,56)	32.5	60.9	23.2	32.1	14.7
A3	Police HQ	(35,56)	35.5	60.9	23.2	32.1	14.7
A3	Police HQ	(35,56)	38.5	60.9	23.2	32.0	14.7
<b>Prevailing AQOs</b>				<b>100</b>	<b>50</b>	<b>50</b>	<b>25</b>

Note: The predicted RSP and FSP cumulative concentrations comply with the prevailing AQOs that took effect on January 1, 2022 as well as the proposed new AQOs for 2025.

Table 2-3 Predicted NO<sub>2</sub> and SO<sub>2</sub> Concentrations at Representative ASRs

ASR ID	DESCRIPTION	PATH GRID	HEIGHT, mPD	NO <sub>2</sub> , µg/m <sup>3</sup>		SO <sub>2</sub> , µg/m <sup>3</sup>	
				19 <sup>th</sup> HIGHEST HOURLY AVERAGE	ANNUAL AVERAGE	4 <sup>th</sup> HIGHEST 10-MIN AVERAGE	4 <sup>th</sup> HIGHEST DAILY AVERAGE
A1a	Hung Kiu San Tsuen	(35,55)	19.9	152.0	21.0	156.3	14.9
A1a	Hung Kiu San Tsuen	(35,55)	22.9	131.0	20.1	164.6	15.4
A1b	Hung Kiu San Tsuen	(35,55)	13.4	193.7	28.1	118.9	13.4
A1b	Hung Kiu San Tsuen	(35,55)	16.4	175.5	24.1	122.5	13.8
A2	Tin Hau Temple	(35,55)	5.5	113.7	14.8	72.3	9.4
A4	Sha Ling Police Post	(35,55)	12.0	184.7	38.3	118.7	22.8
A5a	Lee ka Yuen	(35,55)	13.7	153.8	24.0	128.4	19.7
A5a	Lee ka Yuen	(35,55)	16.7	147.6	23.2	130.9	20.4
A5b	Lee ka Yuen	(35,55)	13.7	121.3	18.8	99.4	25.0
A5b	Lee ka Yuen	(35,55)	16.7	118.0	18.6	100.6	26.0
A5c	Lee ka Yuen	(35,55)	18.4	118.9	19.9	118.6	26.6
A5c	Lee ka Yuen	(35,55)	21.4	114.6	19.7	120.6	27.9
A6a	Village House 1	(35,55)	15.2	174.8	36.4	155.1	26.1
A6b	Village House 2	(35,55)	15.2	153.0	29.7	144.5	25.2
A7	Village House 3	(35,55)	20.4	169.7	29.5	210.5	24.1
A8	Village House 4	(35,55)	15.5	185.8	39.1	152.6	20.9
A9	Village House 5	(35,55)	15.6	160.5	27.1	177.7	23.0
A10	Village House 6	(35,55)	11.9	197.2	29.2	98.1	12.2
A10	Village House 6	(35,55)	14.9	180.6	24.5	100.1	12.3
A11	Village House 7	(35,55)	11.9	199.5	28.7	88.7	11.5
A12	Poultry Plant	(35,55)	22.7	138.4	18.9	162.5	15.8
A12	Poultry Plant	(35,55)	32.2	109.6	17.9	162.1	17.0
A13	Workshop	(35,55)	19.3	172.4	24.3	232.7	15.7
A14	Lik Shun Services Ltd	(35,55)	20.9	158.7	20.3	279.0	16.0
A14	Lik Shun Services Ltd	(35,55)	23.9	152.6	19.6	278.2	16.4
A15	Workshop	(35,55)	30.2	131.9	15.6	373.7	15.4

ASR ID	DESCRIPTION	PATH GRID	HEIGHT, mPD	NO <sub>2</sub> , µg/m <sup>3</sup>		SO <sub>2</sub> , µg/m <sup>3</sup>	
				19 <sup>th</sup> HIGHEST HOURLY AVERAGE	ANNUAL AVERAGE	4 <sup>th</sup> HIGHEST 10-MIN AVERAGE	4 <sup>th</sup> HIGHEST DAILY AVERAGE
A3	Police HQ	(35,56)	29.5	103.4	17.2	108.3	11.3
A3	Police HQ	(35,56)	32.5	97.3	17.0	108.2	11.3
A3	Police HQ	(35,56)	35.5	94.0	16.8	107.9	11.3
A3	Police HQ	(35,56)	38.5	91.2	16.5	107.4	11.3
<b>Prevailing AQOs</b>				<b>200</b>	<b>40</b>	<b>500</b>	<b>50</b>

Note: the predicted NO<sub>2</sub> and SO<sub>2</sub> cumulative concentrations comply with the prevailing AQOs that took effect on January 1, 2022 as well as the proposed new AQOs for 2025.

- 2.6.3 Comparison with new parameters in the proposed 2025 AQOs are also presented in **Error! Reference source not found.** of APCP-2024 for reference. **Table 2-4** and **Table 2-5** which are extracted from Tables G-1 and G-2 of Appendix G of APCP-2024 show the predicted cumulative concentrations complying with the 2025 AQOs.

Table 2-4 Predicted FSP and RSP Concentrations at Representative ASRs (2025 AQOs)

ASR ID	DESCRIPTION	PATH GRID	HEIGHT, mPD	RSP, µg/m <sup>3</sup>		FSP, µg/m <sup>3</sup>	
				10 <sup>th</sup> HIGHEST DAILY AVERAGE	ANNUAL AVERAGE	19 <sup>th</sup> HIGHEST DAILY AVERAGE	ANNUAL AVERAGE
A1a	Hung Kiu San Tsuen	(35,55)	19.9	58.7	22.2	35.5	14.0
A1a	Hung Kiu San Tsuen	(35,55)	22.9	58.7	22.2	35.4	14.0
A1b	Hung Kiu San Tsuen	(35,55)	13.4	58.8	22.4	36.1	14.1
A1b	Hung Kiu San Tsuen	(35,55)	16.4	58.8	22.3	35.7	14.0
A2	Tin Hau Temple	(35,55)	5.5	58.3	22.0	35.1	13.8
A4	Sha Ling Police Post	(35,55)	12.0	58.9	22.8	35.1	14.5
A5a	Lee ka Yuen	(35,55)	13.7	58.9	22.3	35.2	14.0
A5a	Lee ka Yuen	(35,55)	16.7	58.9	22.3	35.2	14.0
A5b	Lee ka Yuen	(35,55)	13.7	58.8	22.1	35.1	13.9
A5b	Lee ka Yuen	(35,55)	16.7	58.8	22.1	35.2	13.9
A5c	Lee ka Yuen	(35,55)	18.4	59.1	22.2	35.3	13.9
A5c	Lee ka Yuen	(35,55)	21.4	59.2	22.2	35.4	13.9
A6a	Village House 1	(35,55)	15.2	59.1	22.9	35.0	14.5
A6b	Village House 2	(35,55)	15.2	58.8	22.6	35.0	14.3
A7	Village House 3	(35,55)	20.4	58.5	22.7	35.6	14.3
A8	Village House 4	(35,55)	15.5	59.4	23.2	35.3	14.6

ASR ID	DESCRIPTION	PATH GRID	HEIGHT, mPD	RSP, $\mu\text{g}/\text{m}^3$		FSP, $\mu\text{g}/\text{m}^3$	
				10 <sup>th</sup> HIGHEST DAILY AVERAGE	ANNUAL AVERAGE	19 <sup>th</sup> HIGHEST DAILY AVERAGE	ANNUAL AVERAGE
A9	Village House 5	(35,55)	15.6	59.6	22.6	35.4	14.2
A10	Village House 6	(35,55)	11.9	58.8	22.4	36.1	14.1
A10	Village House 6	(35,55)	14.9	58.7	22.3	35.7	14.0
A11	Village House 7	(35,55)	11.9	58.7	22.4	36.1	14.1
A12	Poultry Plant	(35,55)	22.7	58.7	22.2	35.4	13.9
A12	Poultry Plant	(35,55)	32.2	58.7	22.2	35.2	13.9
A13	Workshop	(35,55)	19.3	60.8	24.2	35.8	14.4
A14	Lik Shun Services Ltd	(35,55)	20.9	65.1	25.4	36.0	14.5
A14	Lik Shun Services Ltd	(35,55)	23.9	64.4	24.5	36.0	14.3
A15	Workshop	(35,55)	30.2	58.8	22.3	35.4	13.9
A3	Police HQ	(35,56)	29.5	60.9	23.2	37.2	14.7
A3	Police HQ	(35,56)	32.5	60.9	23.2	37.2	14.7
A3	Police HQ	(35,56)	35.5	60.9	23.2	37.2	14.7
A3	Police HQ	(35,56)	38.5	60.9	23.2	37.2	14.7
<b>2025 AQOs</b>				<b>75</b>	<b>30</b>	<b>37.5</b>	<b>15</b>

Note: the predicted RSP and FSP cumulative concentrations comply with the prevailing AQOs that took effect on January 1, 2022 as well as the proposed new AQOs for 2025.

Table 2-5 Predicted NO<sub>2</sub>, SO<sub>2</sub> and CO Concentrations at Representative ASRs (2025 AQOs)

ASR ID	DESCRIPTION	PATH GRID	HEIGHT, mPD	NO <sub>2</sub> , $\mu\text{g}/\text{m}^3$	SO <sub>2</sub> , $\mu\text{g}/\text{m}^3$	CO, $\mu\text{g}/\text{m}^3$
				10 <sup>th</sup> HIGHEST DAILY AVERAGE	4 <sup>th</sup> HIGHEST DAILY AVERAGE	MAX DAILY AVERAGE
A1a	Hung Kiu San Tsuen	(35,55)	19.9	51.3	14.9	544.0
A1a	Hung Kiu San Tsuen	(35,55)	22.9	46.8	15.4	544.4
A1b	Hung Kiu San Tsuen	(35,55)	13.4	64.7	13.4	542.8
A1b	Hung Kiu San Tsuen	(35,55)	16.4	57.1	13.8	543.0
A2	Tin Hau Temple	(35,55)	5.5	35.4	9.4	537.6
A4	Sha Ling Police Post	(35,55)	12.0	68.2	22.8	537.4
A5a	Lee ka Yuen	(35,55)	13.7	52.0	19.7	549.7
A5a	Lee ka Yuen	(35,55)	16.7	51.3	20.4	550.2



ASR ID	DESCRIPTION	PATH GRID	HEIGHT, mPD	NO <sub>2</sub> , µg/m <sup>3</sup>	SO <sub>2</sub> , µg/m <sup>3</sup>	CO, µg/m <sup>3</sup>
				10 <sup>th</sup> HIGHEST DAILY AVERAGE	4 <sup>th</sup> HIGHEST DAILY AVERAGE	MAX DAILY AVERAGE
A5b	Lee ka Yuen	(35,55)	13.7	45.7	25.0	551.1
A5b	Lee ka Yuen	(35,55)	16.7	45.5	26.0	551.7
A5c	Lee ka Yuen	(35,55)	18.4	48.4	26.6	552.8
A5c	Lee ka Yuen	(35,55)	21.4	49.8	27.9	553.8
A6a	Village House 1	(35,55)	15.2	64.6	26.1	537.9
A6b	Village House 2	(35,55)	15.2	53.6	25.2	537.6
A7	Village House 3	(35,55)	20.4	57.4	24.1	538.3
A8	Village House 4	(35,55)	15.5	72.9	20.9	538.5
A9	Village House 5	(35,55)	15.6	55.8	23.0	548.2
A10	Village House 6	(35,55)	11.9	68.9	12.2	540.7
A10	Village House 6	(35,55)	14.9	58.4	12.3	540.8
A11	Village House 7	(35,55)	11.9	67.6	11.5	539.8
A12	Poultry Plant	(35,55)	22.7	46.8	15.8	540.5
A12	Poultry Plant	(35,55)	32.2	41.5	17.0	542.2
A13	Workshop	(35,55)	19.3	56.1	15.7	537.8
A14	Lik Shun Services Ltd	(35,55)	20.9	50.8	16.0	538.4
A14	Lik Shun Services Ltd	(35,55)	23.9	49.1	16.4	538.8
A15	Workshop	(35,55)	30.2	39.1	15.4	537.1
A3	Police HQ	(35,56)	29.5	36.8	11.3	538.7
A3	Police HQ	(35,56)	32.5	36.3	11.3	538.7
A3	Police HQ	(35,56)	35.5	35.4	11.3	538.7
A3	Police HQ	(35,56)	38.5	35.2	11.3	538.7
<b>2025 AQOs</b>				<b>120</b>	<b>40</b>	<b>4,000</b>

Note: the predicted NO<sub>2</sub>, SO<sub>2</sub> and CO cumulative concentrations comply with the prevailing AQOs that took effect on January 1, 2022 as well as the proposed new AQOs for 2025.

Figure 2-1 Locations of Emission Points of the Plant

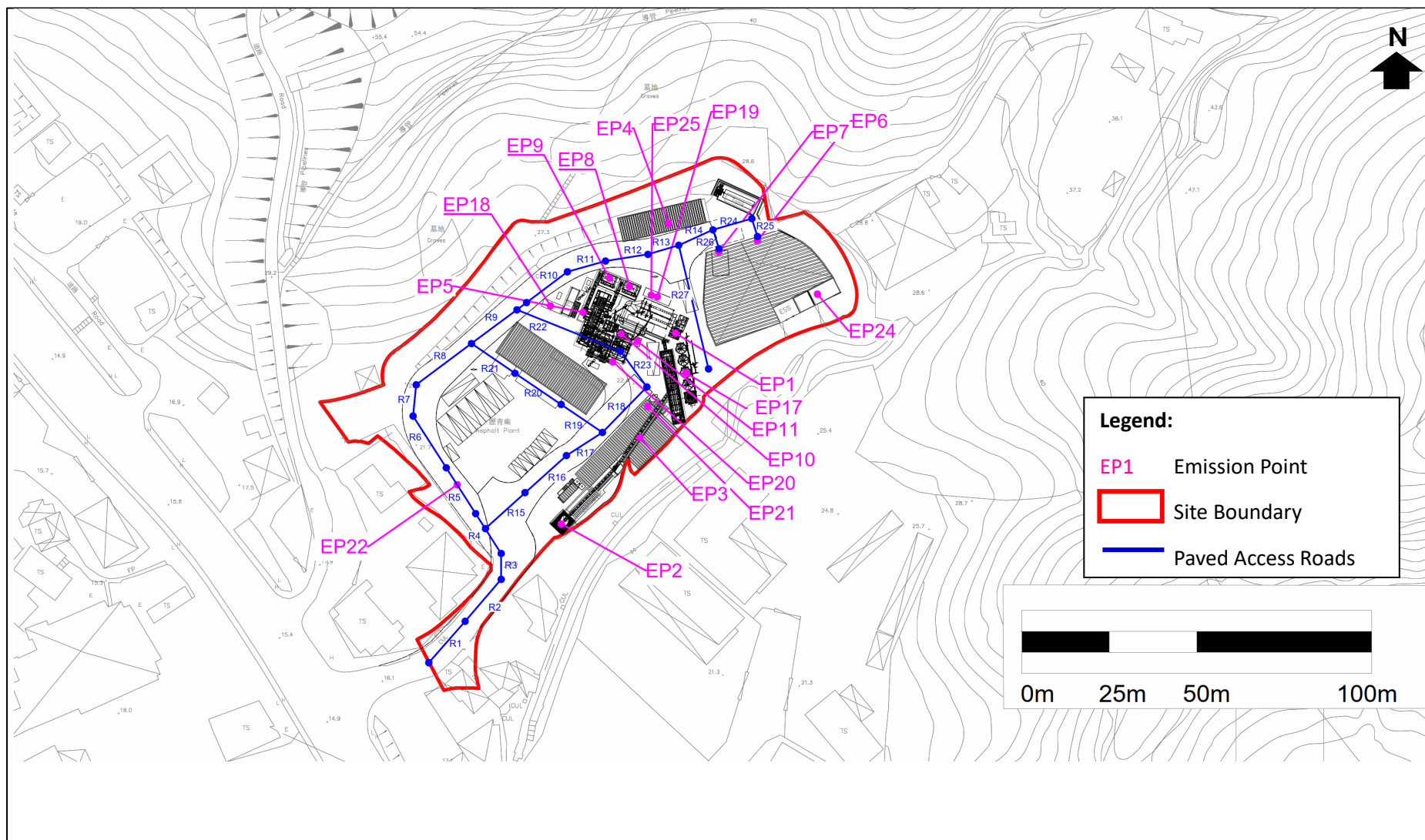


Figure 2-2 Improved Schematic Diagram of the Plant

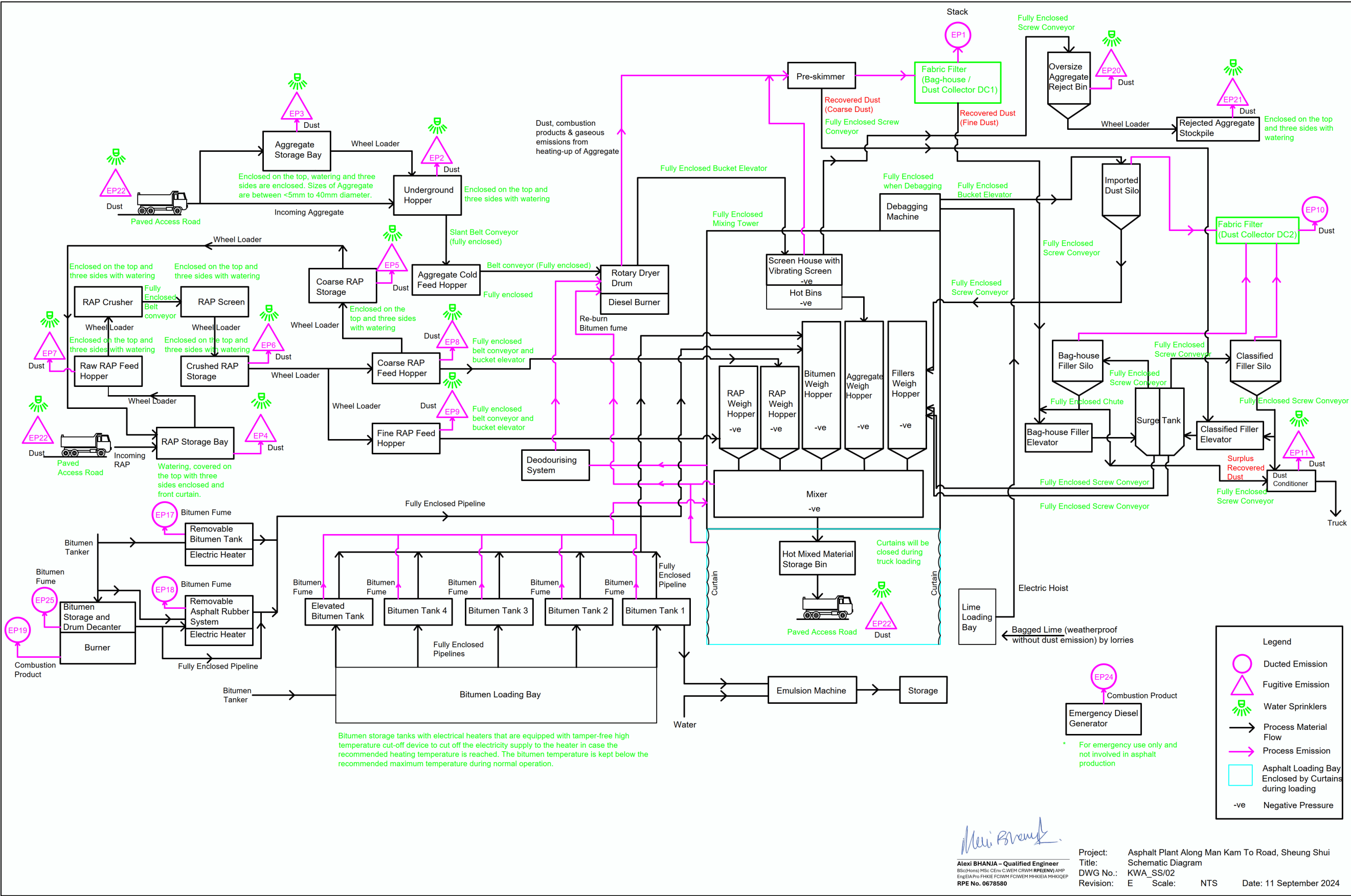
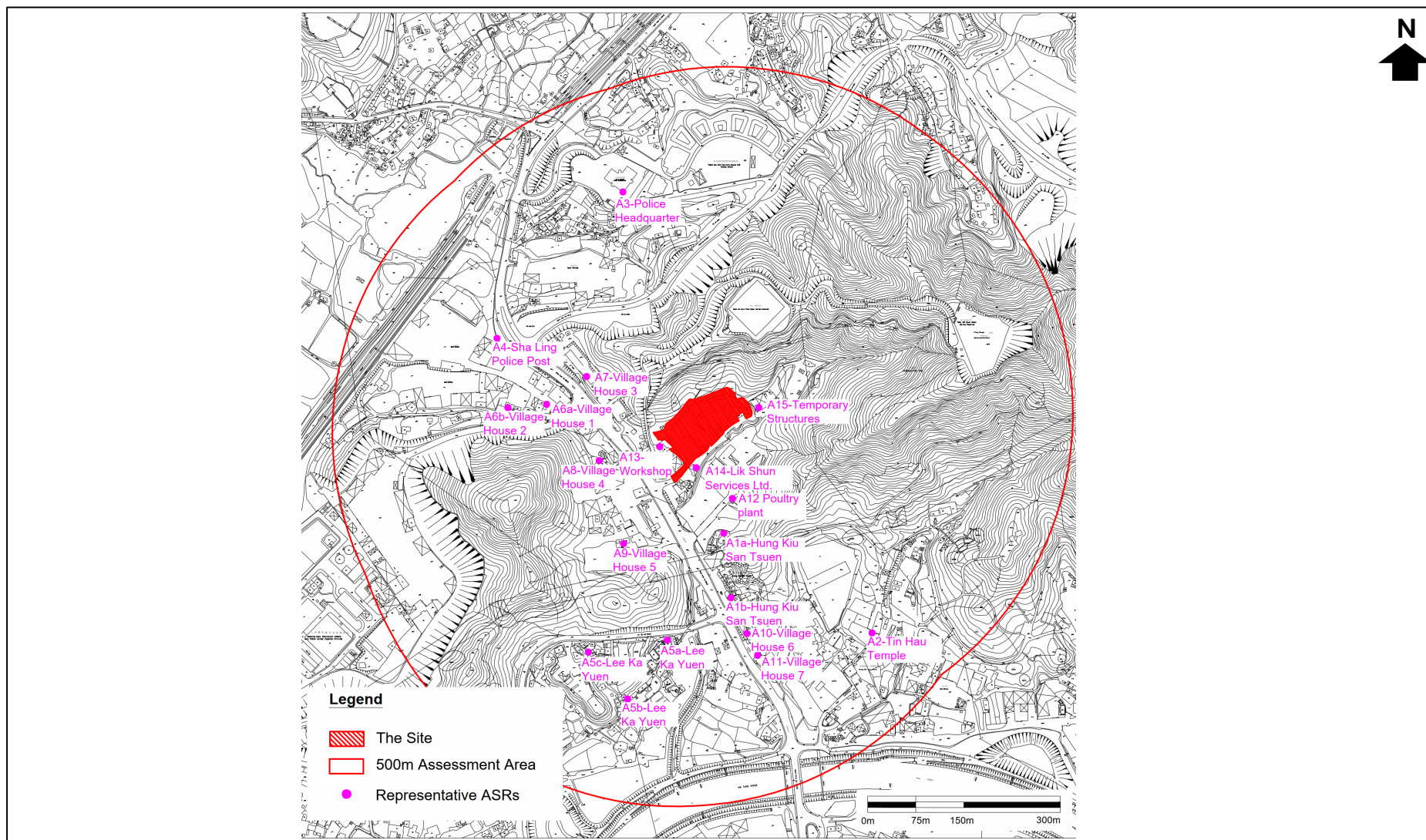




Figure 2-3 Locations of Representative ASRs



### **3 CONCLUSION OF APCP AND RENEWED SP LICENCE**

3.1 Since both the non-criteria pollutants and criteria pollutants comply with the relevant standards and also with the prevailing AQOs, with the implementation of the control measures as the BPM it is concluded that:

1. The Plant operated by the Licence Holder is capable of achieving and maintaining the BPM for the prevention of emissions from the premises of any air pollutant
2. The Plant operation will not affect the attainment and maintenance of the prevailing AQOs
3. No noxious or offensive emissions from the operation of the Plant will be, or are likely to be, prejudicial to human health.

3.2 The renewed SP Licence No. L-15-035(3) with an effective period of five years was obtained on 25 October 2024. The cover letter of the renewed SP Licence is attached in Appendix A.



## Appendix A Cover Letter of Renewed SP Licence

本署檔案  
OUR REF : ( ) in EP/RN/378916/SP  
來函檔案  
YOUR REF :  
電話 : 2158 5842  
TEL NO :  
圖文傳真 : 2685 1133  
FAX NO :  
網址  
HOME PAGE : <http://www.epd.gov.hk/>

Environmental Protection Department  
Environmental Compliance Division  
Regional Office (North)  
10/F., Sha Tin Government Offices,  
No. 1, Sheung Wo Che Road,  
Sha Tin, N.T. Hong Kong.



環境保護署  
環保法規管理科  
區域辦事處(北)  
香港新界沙田  
上禾輋路1號  
沙田政府合署10樓

**BY REGISTERED POST**

25 October 2024

K. Wah Asphalt Limited  
Suite No. 912, 9/F., Skyline Tower,  
39 Wang Kwong Road,  
Kowloon Bay, Hong Kong  
(Attn: Mr. Stephen Leung)

Dear Mr. Leung,

**Application for Renewal of a Licence Pursuant to  
Section 16 of the Air Pollution Control Ordinance**

I refer to your application for the renewal of the licence numbered L-15-035(2) for the conduct of a specified process, namely Tar and Bitumen Works in your premises at Lots No. 20 RP, 21, and 23 RP (Part) in D.D. 88 and Adjoining Government Land to the East of Man Kam To Road, Sheung Shui, New Territories.

I would like to inform you that the processing of your application has been completed. The licence numbered L-15-035(3) is hereby renewed to you to conduct the said Tar and Bitumen Works in the above premises. The effective period of the licence is 5 years commencing from 25 October 2024. The terms and conditions which you are required to observe and comply with are attached herewith in the Attachment I to the licence.

Please note that this approval is given strictly under the relevant sections of the said Ordinance. It shall not affect the Director of Environmental Protection in exercising his power in future under the other provisions of the Ordinance and its subsidiary legislation, nor shall it imply consent of this department for you to cause other forms of pollution such as noise, liquid or solid waste discharges from any activities to be conducted at the above premises. The licence does not serve as a waiver of any lease or other licence, or grant any exemption from or permit any contravention of, any provision under any enactment.

I would like to advise you that if you are aggrieved by the requirements of the terms and conditions fixed to this licence, you may, pursuant to section 31 of the Air Pollution Control Ordinance, appeal to the Appeal Board within 21 days after you have received this letter, in such manner and form as prescribed under the Air Pollution Control (Appeal Board) Regulations.

Please feel free to contact the undersigned at 2158 5842 if you have any enquiry regarding the above.

Yours faithfully,

(Alice WY TANG)

for Director of Environmental Protection

Encl.

**Relevant Extracts of Town Planning Board Guidelines No. 34D  
on ‘Renewal of Planning Approval and Extension of Time for Compliance  
with Planning Conditions for temporary Use or Development’  
(TPB PG-No. 34D)**

1. The criteria for assessing applications for renewal of planning approval include:
  - (a) whether there has been any material change in planning circumstances since the previous temporary approval was granted (such as a change in the planning policy/land-use zoning for the area) or a change in the land uses of the surrounding areas;
  - (b) whether there are any adverse planning implications arising from the renewal of the planning approval (such as pre-emption of planned permanent development);
  - (c) whether the planning conditions under previous approval have been complied with to the satisfaction of relevant Government departments within the specified time limits;
  - (d) whether the approval period sought is reasonable; and
  - (e) any other relevant considerations.
  
2. Under normal circumstances, the approval period for renewal should not be longer than the original validity period of the temporary approval. In general, the Board is unlikely to grant an approval period exceeding three years unless there are strong justifications and the period is allowed for under the relevant statutory plans. Depending on the circumstances of each case, the Board could determine the appropriate approval period, which may be shorter than the time under request.

**Previous s.16 Applications**

**Approved Applications**

<b>Application No.</b>	<b>Uses/Developments</b>	<b>Date of Consideration</b>
A/NE-FTA/148	Proposed Temporary Asphalt Plant for a Period of 5 Years	12.12.2014
A/NE-FTA/192	Renewal of Planning Approval for Temporary Asphalt Plant for a Period of 5 Years	18.10.2019

**Rejected Application**

<b>Application No.</b>	<b>Uses/Development</b>	<b>Date of Consideration</b>	<b>Rejection Reasons</b>
A/NE-FTA/123	Proposed Asphalt Plant	4.4.2014	R1-R2

**Rejection Reasons**

- R1     The proposed development was not compatible with the planned land uses in the area.
- R2     Approval of the application would jeopardise the land use planning of the area and set an undesirable precedent for similar applications in the area.

**Government Departments' General Comments**

**1. Traffic**

Comments of the Commissioner for Transport (C for T):

- no comment on the application from traffic engineering perspective; and
- the Investigation Study of Northern Metropolis Highway (NMH) is expected to be commenced soon in which site investigation (SI) will be conducted along the proposed alignment of NMH. As the application site (the Site) is located at a proposed interchange of NMH, Highways Department should be consulted on the potential interface with the anticipated SI works.

Comments of the Chief Highway Engineer/New Territories East, Highways Department (CHE/NTE, HyD):

- no comment on the application from highways maintenance perspective;
- according to Transport Department (TD)'s "Strategic Study on Major Roads beyond 2030 – Feasibility Study", it is observed the Site is near the schematic alignment of the proposed NMH preliminarily identified under the study. HyD's upcoming investigation study of NMH will review, among others, the alignment and construction programme of NMH and carry out the associated SI works along and near the possible alignments. In this connection, free access shall be made available at all times for the Government (and its agent) to carry out SI works, if required, on the government land within the Site; and
- detailed advisory comments are appended in **Appendix V**.

**2. Drainage**

Comments of the Chief Engineer/Mainland North, Drainage Services Department (CE/MN, DSD):

- no objection in principle to the application from public drainage viewpoint; and
- should the application be approved, approval conditions should be included to request the applicant to submit a condition record of the existing drainage facilities on site as previously implemented on the same site in planning application No. A/NE-FTA/192 and the previously approved drainage proposal; and the existing drainage facilities on site shall be maintained and rectified if found inadequate/ineffective during operation at all times during the planning approval period.

**3. Landscape**

Comments of the Chief Town Planner/Urban Design and Landscape, Planning Department (CTP/UL&L, PlanD):

- the Site falls within non-landscape sensitive zoning and no significant landscape impact arising from the applied use is anticipated.

#### 4. **Environment**

Comments of the Director of Environmental Protection (DEP):

- no objection to the application from environmental planning perspective;
- should the application be approved, the applicant should observe the relevant requirements of the Noise Control Ordinance (NCO) as operation of the applied use shall be subject to the control under NCO; and maintain the mitigation measures implemented under the last previous application;
- no environmental complaint concerning the Site was received in the past three years; and
- detailed comments on the submitted environmental assessment (**Appendix Ic**) are appended in **Appendix V**.

#### 5. **Water Supplies**

Comments of the Chief Engineer/Construction, Water Supplies Department (CE/C, WSD):

- no objection to the application; and
- detailed advisory comments are appended in **Appendix V**.

#### 6. **Building Matters**

Comments of the Chief Building Surveyor/New Territories West, Buildings Department (CBS/NTW, BD):

- no objection to the application;
- there is no record of approval granted by the Building Authority for the three containers and one temporary structure (all the four structures existing on site as informed by the applicant and not included in the gross floor area (GFA) calculation in the approved building plan) shown in Figure 4 of the Planning Statement (**Drawing A-1**) and he is not in a position to offer comments on their suitability for the applied use;
- according to his record, the total GFA claimed in Table 5 of the Planning Statement (2,804.19m<sup>2</sup>) (**Appendix Ia**) is different from the GFA in the approved building plan (2,799m<sup>2</sup>); and
- detailed advisory comments under the Buildings Ordinance are appended in **Appendix V**.

#### 7. **New Development Area**

Comments of the Project Manager (North), Civil Engineering and Development Department (PM(N), CEDD):

- it is noted that the temporary asphalt plant on a five-year basis (the subject development) is located within the proposed development area at Lo Wu/Man Kam To (LW/MKT) under the Planning and Engineering (P&E) Study for New Territories North New Town and Man



Kam To which was already commenced on 29.10.2021. While the implementation programme of the proposed development area at LW/MKT will be formulated under the P&E Study, the site formation works will likely commence soon after the completion of detailed design in next stage. Hence, please be reminded that subject to the land use planning in the P&E Study, the subject development, if approved, may need to be vacated for the site formation works; and

- as the subject development is located near the proposed interchange of NMH under planning, TD and HyD should be consulted.

## **8. Food Safety and Health**

Comments of the Director of Food and Environmental Hygiene (DFEH):

- no adverse comments on the application; and
- detailed advisory comments are appended in **Appendix V**.

Comments of the Director of Health (D of Health):

- it is noted that a licence should be issued by the Environmental Protection Department (EPD) for operating an asphalt plant. He trust that EPD has conducted checking and monitoring of the existing asphalt plant through current licensing mechanism and taken reference to EPD's Guidance Note on the technical, management and monitoring requirements for specified process – Tar and Bitumen Works (Asphaltic Concrete Plants).

## **9. Other Departments**

The following government departments have no objection to/no comment on the application:

- Director of Fire Services (D of FS);
- Chief Architect/Advisory and Statutory Compliance, Architectural Services Department (CA/ASC, ArchSD);
- Director of Agriculture, Fisheries and Conservation (DAFC);
- Director of Electrical and Mechanical Services (DEMS);
- Commissioner of Police (C of P); and
- District Officer (North), Home Affairs Department (DO(N), HAD).

**Recommended Advisory Clauses**

- (a) to note the comments of the District Lands Officer/North, Lands Department (DLO/N, LandsD) that:
- (i) the application site (the Site) comprises Old Schedule Agricultural Lots held under the Block Government lease which contains the restriction that no structures are allowed to be erected with the prior approval of the Government. No right of access via Government land (GL) is granted to the Site;
  - (ii) Short Term Waiver (STW) No. 883 was issued for Lots 20 RP, 21 and 23 RP in D.D. 88 for the purpose of a concrete production plant and open storage of machinery and equipment. For Unauthorized Buildings Works (UBW), please refer to sub-paragraph (a)(v) below;
  - (iii) the GL in the Site is covered by Short Term Tenancy (STT) No. 641 for the purpose of a concrete/asphalt batching plant; manufacturing of concrete products; and open storage of machinery and equipment;
  - (iv) the Site is already being used for the uses under the application. The total site coverage of the existing structures erected on site far exceeded the 1,012.34m<sup>2</sup> permitted under the STW/STT. No application is received from the lot owners and tenant for variation of STT/STW to regularise the built-over-area and height restriction after the last planning permission in November 2019. Her office reserves the rights to take enforcement action for the breach of STW/STT;
  - (v) the following irregularity covered by the subject planning application has been detected by her office:
    - Unauthorised structure within the said private lot not covered by the planning application

there are unauthorised structures within the said private lots not covered by the subject planning application. The lot owners should immediately rectify the lease breaches and her office reserves the rights to take necessary lease enforcement action against the breaches without further notice; and
  - (vi) the lot owners/applicant shall either remove the unauthorised structures not covered by the subject planning application immediately or include the unauthorised structures in the subject planning application for further consideration by the relevant departments; and subject to the approval of the Board to the planning application which shall have reflected the rectification or amendment as aforesaid required, apply to her office for modification of the STW and STT to permit the structures erected/to be erected and occupation of GL. The modification of STW and STT will be considered by the Government in its capacity as a landlord and there is no guarantee that they will be approved. The STW/STT, if approved, will be considered on whole lot basis and subject to such terms and conditions including the payment of back-dated waiver fee/rent from the first date the unauthorised structures were erected/occupation of GL and administrative fee as considered appropriate to be imposed by LandsD. In addition, LandsD reserves the right to take enforcement action against the lot owners for any breach of the lease conditions, including the breaches already in existence or to be detected at any point of time in future and land control action for any

unlawful occupation of GL. Besides, given the proposed use is temporary in nature, only erection of temporary structure(s) will be considered;

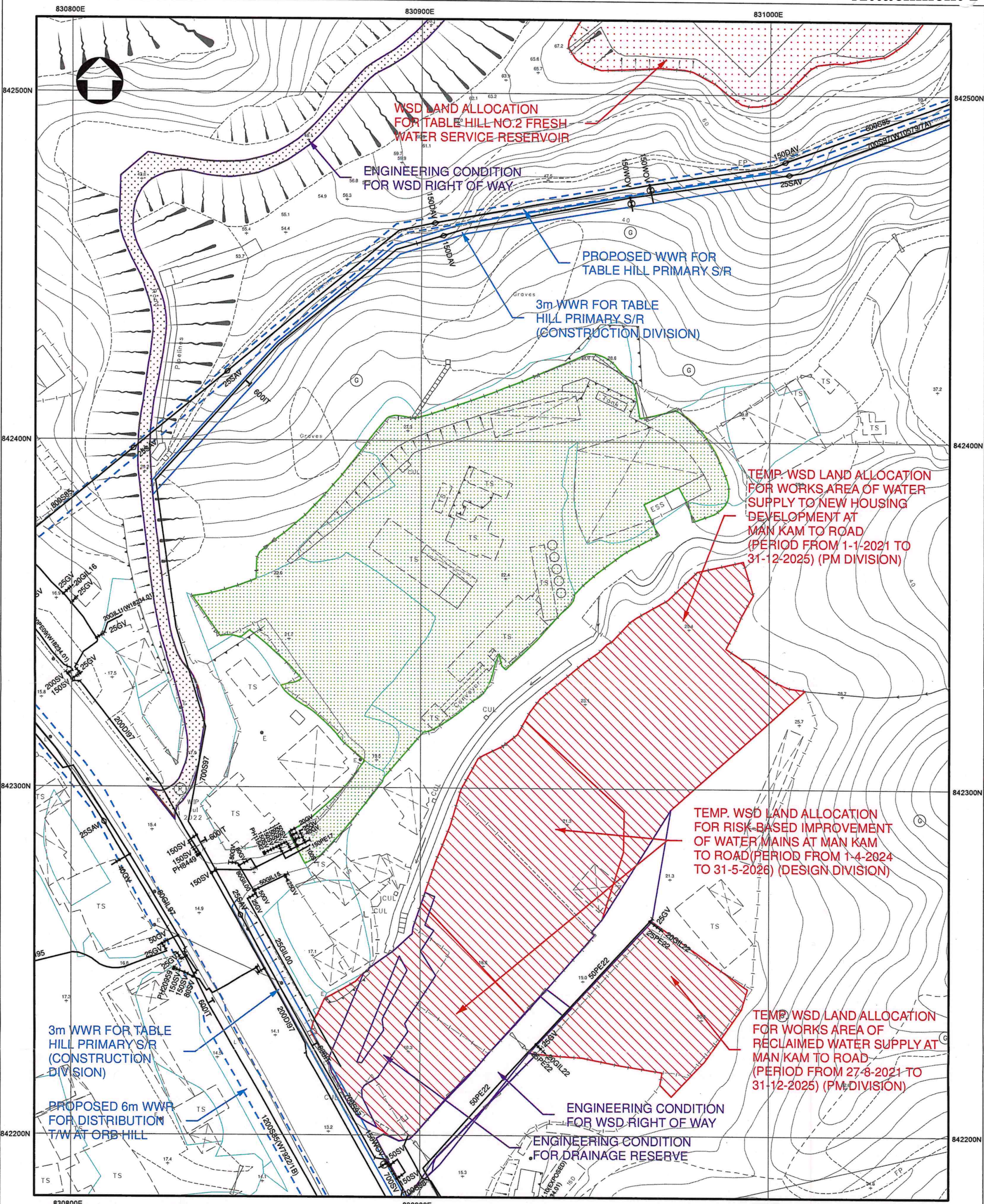
- (b) to note the comments of the Chief Highway Engineer/New Territories East, Highways Department (CHE/NTE, HyD) that
- (i) the access arrangement of the Site should be commented and approved by the Transport Department (TD);
  - (ii) adequate drainage measures shall be provided to prevent surface water running from the Site to the nearby public road and drains;
  - (iii) the access road connecting the Site with the nearby public road is not and will not be maintained by his office. His office should not be responsible for maintaining any access connecting to the Site; and
  - (iv) according to TD's "Strategic Study on Major Roads beyond 2030 – Feasibility Study", it is observed the Site is near the schematic alignment of the proposed NMH preliminarily identified under the study. HyD's upcoming investigation study of NMH will review, among others, the alignment and construction programme of NMH and carry out the associated site investigation (SI) works along and near the possible alignments. In this connection, free access shall be made available at all times for the Government (and its agent) to carry out SI works, if required, on the GL within the Site;
- (c) to note the comments of the Director of Environmental Protection (DEP) that:
- (i) the applicant should observe the relevant requirements of the Noise Control Ordinance (NCO) as operation of the applied use shall be subject to the control under NCO; and maintain the mitigation measures implemented under the last previous application;
  - (ii) to note the following textual comments on the submitted environmental assessment (EA) (**Appendix Ia**) and provide a finalised version for his retention:
    - section 2.4: please state the water control zone at which the Site is located and provide corresponding water quality objectives;
    - section 2.4: please add a section to tabulate all representative water sensitive receivers (WSRs) within 500m assessment area by stating their nature, distance from the site boundary and impact to the WSRs subject to the plant operation. Please also provide a figure to show all WSRs identified. Reference can be made to Environmental Protection Department's Centralized Environmental Database;
    - section 2.4.1: please clarify whether there will be wastewater generated during cleansing of the plant. If yes, please address the associated water quality impact and provide corresponding mitigation measure;
    - section 2.4.2: it is noted that water for vehicle wheel washing will be treated and reused. Please explain how the water will be reused and adopt "Technical Specifications on Grey Water Reuse and Rainwater Harvesting" issued by the Water Supplies Department;
    - section 3.4: please amend subject to update made at section 2.4; and

- please include the “Executive Summary on Specified Process Licence for Asphalt Plant in Sheung Shui” as Appendix to the EA;
- (d) to note the comments of the Chief Engineer/Construction, Water Supplies Department (CE/C, WSD) that:
- (i) existing water mains within the Site as shown in the Mains Record Plan (MRP) (**Attachment 1**) may be affected. The applicant is required to either divert or protect the water mains found on site;
  - (ii) if diversion is required, existing water mains within the Site are needed to be diverted outside the site boundary of the Site to lie in GL. A strip of land of minimum 1.5m in width should be provided for the diversion of existing water mains. The cost of diversion of existing water mains upon request will have to be borne by the applicant; and the applicant shall submit all the relevant proposal to WSD for consideration and agreement before the works commence; and
  - (iii) if diversion is not required, the following conditions shall apply:
    - existing water mains are affected as indicated on the MRP and no development which requires resiting of water mains will be allowed;
    - details of site formation works shall be submitted to the Director of Water Supplies (D of WS) for approval prior to commencement of works;
    - no structures shall be built or materials stored within 1.5m from the centre line(s) of water main(s) shown on the MRP. Free access shall be made available at all times for staff of D of WS or their contractor to carry out construction, inspection, operation, maintenance and repair works;
    - no trees or shrubs with penetrating roots may be planted within the Water Works Reserve or in the vicinity of the water main(s) shown on the MRP. No change of existing site condition may be undertaken within the aforesaid area without the prior agreement of D of WS. Rigid root barriers may be required if the clear distance between the proposed tree and the pipe is 2.5m or less, and the barrier must extend below the invert level of the pipe;
    - no planting or obstruction of any kind except turfing shall be permitted within the space of 1.5m around the cover of any valve or within a distance of 1m from any hydrant outlet; and
    - tree planting may be prohibited in the event that D of WS considers that there is any likelihood of damage being caused to water mains;
- (e) to note the comments of the Project Manager (North), North Development Office, Civil Engineering and Development Department that the temporary asphalt plant on a five-year basis (the subject development) is located within the proposed development area at Lo Wu/Man Kam To (LW/MKT) under the Planning and Engineering (P&E) Study for New Territories North New Town and Man Kam To which was already commenced on 29.10.2021. While the implementation programme of the proposed development area at LW/MKT will be formulated under the P&E Study, the site formation works will likely commence soon after the completion of detailed design in next stage. Hence, please be reminded that subject to the land use planning in the P&E Study, the subject development, if approved, may need to be vacated for the site

formation works;

- (f) to note the comments of the Chief Building Surveyor/New Territories West, Buildings Department (CBS/NTW, BD) that:
  - (i) if the existing structures are erected on leased land without approval of BD (not being a New Territories Exempted House), they are unauthorized under the Buildings Ordinance (BO) and should not be designated for any approved use under the subject application;
  - (ii) before any new building works (including asphalt plant) are to be carried out on the Site, prior approval and consent of the Building Authority (BA) should be obtained, otherwise they are UBW under the Buildings Ordinance (BO). An Authorized Person (AP) should be appointed as the coordinator for the proposed building works in accordance with the BO;
  - (iii) for UBW erected on leased land, enforcement action may be taken by the BA to effect their removal in accordance with the BD's enforcement policy against UBW as and when necessary. The granting of any planning approval should not be construed as an acceptance of any existing building works or UBWs on the Site under the BO;
  - (iv) if the applied use under the application is subject to the issue of a licence, any existing structure on the Site intended to be used for such purposes are required to comply with the building safety and other relevant requirements as may be imposed by the licensing authority;
  - (v) in connection with sub-paragraph (f)(ii) above, the Site shall be provided with means of obtaining access thereto from a street under regulation 5 of the Building (Planning) Regulation (B(P)R) and emergency vehicular access shall be provided under regulation 41D of B(P)R;
  - (vi) if the Site is not abutting on a specified street of not less than 4.5m wide, its permitted development intensity shall be determined by the BA under regulation 19(3) of the B(P)R at building plan submission stage;
  - (vii) any temporary shelters or converted containers for office, storage, washroom or other uses are considered as temporary buildings and are subject to the control of Part VII of the B(P)R; and
  - (viii) detailed checking under the BO will be carried out at building plan submission stage; and
- (g) to note the comments of the Director of Food and Environmental Hygiene (DFEH) that
  - (i) the applicant should be reminded that the operation of the asphalt plant should not cause any environmental hygiene problems or nuisances at and in the vicinities of the Site;
  - (ii) for any waste generated from the such activity/operation, the applicant should arrange disposal properly at their own expenses; and
  - (iii) Food and Environmental Hygiene Department's facilities or operation should not be affected.





- NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SPECIFIED.
  2. ALL LEVELS ARE IN METRES ABOVE PRINCIPAL DATUM.
  3. INFORMATION ON ALIGNMENT OF MAINS IS OF INDICATIVE VALUE ONLY. WHERE POSITIONAL ACCURACY MAY BE OF IMPORTANCE, DETAILS SHOULD BE SITE CHECKED.
  4. FOR MAINS RECORDS SIGN CONVENTIONS AND DESIGNATIONS SEE SKETCH NO. 3988.
  5. NO EXISTING SALT WATER MAINS IN THE VICINITY OF THE SITE.
  6. THE SITE IS NOT WITHIN WSD GATHERING GROUNDS.
  7. THE SUBJECT SITE IS WITHIN 1000 m RADIUS CONSULTATION ZONE OF SHEUNG SHUI WATER TREATMENT WORKS (REPRODUCED FROM 2009 PHI REGISTER).

SUBJECT SITE

PRIVATE LOT BOUNDARY (FOR REF. ONLY)

PART COPY OF FRESH WATER MAINS RECORD PLAN(S)

W67880/3-NW-21D

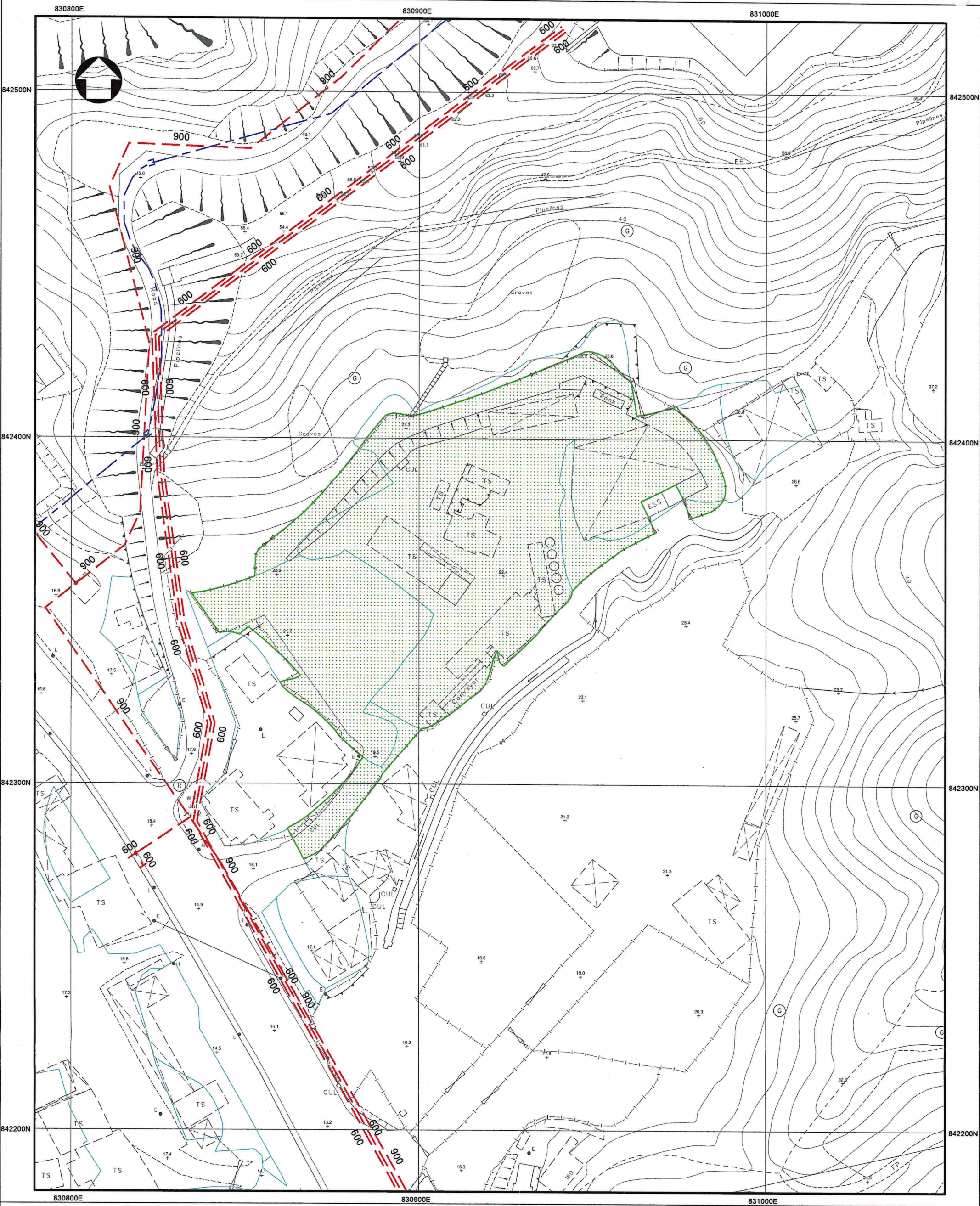
FILE REF: (1) IN WSD/M/SP 3051/446/51S/13 PT.4

REF. CODE: 38W24M SHEET 1 OF 1 SCALE 1:1000



水務署  
Water Supplies Department





- NOTES: 1. EXISTING WSD CABLE SHOWN THUS  
2. NO PROPOSED WSD CABLE IN THE VICINITY OF THE SITE.  
3. PROPOSED FRESH WATER MAINS SHOWN THUS  
4. NO PROPOSED SALT WATER MAINS IN THE VICINITY OF THE SITE.  
5. FOR PROPOSED WATER MAINS, PLEASE REFER TO PLANNING REPORT NO(S). 4/2013, 3/2023.

SUBJECT SITE  
PRIVATE LOT BOUNDARY (FOR REF. ONLY)

SUPPLEMENTARY INFORMATION OF WSD CABLE AND PROPOSED WATER MAINS PART COPY OF SURVEY SHEET NO(S). <b>3-NW-21D</b>		
FILE REF: (1) IN WSD/M/SP 3051/446/51S/13 PT.4		
REF. CODE: 44W10C REF. CODE: 24W23P	SHEET 1 OF 1	SCALE 1:1000



致城市規劃委員會秘書：

專人送遞或郵遞：香港北角渣華道 333 號北角政府合署 15 樓

傳真：2877 0245 或 2522 8426

電郵：tpbpd@pland.gov.hk

**To : Secretary, Town Planning Board**

By hand or post : 15/F, North Point Government Offices, 333 Java Road, North Point, Hong Kong

By Fax : 2877 0245 or 2522 8426

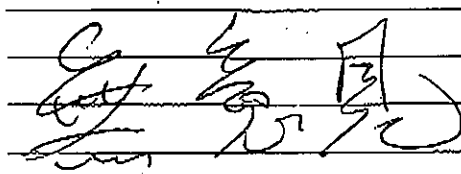
By e-mail : tpbpd@pland.gov.hk

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有關的規劃申請編號 The application no. to which the comment relates  
A/NE-FTA/254

意見詳情 (如有需要，請另頁說明)

Details of the Comment (use separate sheet if necessary)

  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

「提意見人」姓名/名稱 Name of person/company making this comment 侯志強

簽署 Signature



日期 Date

2024.9.23

**就規劃申請/覆核提出意見 Making Comment on Planning Application / Review**

參考編號

**Reference Number:**

241007-185430-52689

提交限期

**Deadline for submission:**

08/10/2024

提交日期及時間

**Date and time of submission:**

07/10/2024 18:54:30

有關的規劃申請編號

**The application no. to which the comment relates:**

A/NE-FTA/254

「提意見人」姓名/名稱

**Name of person making this comment:**

先生 Mr. CK Cheung

意見詳情

**Details of the Comment :**

現時香港瀝青供應商的數目寥寥可數。  
建議城規會批准續期申請，以提高該行業競爭力。否則，作為總承建商的我們，只得受限於更少選擇從而承擔更高工程成本。

**就規劃申請/覆核提出意見 Making Comment on Planning Application / Review**

參考編號

**Reference Number:**

241007-190525-76669

提交限期

**Deadline for submission:**

08/10/2024

提交日期及時間

**Date and time of submission:**

07/10/2024 19:05:25

有關的規劃申請編號

**The application no. to which the comment relates:**

A/NE-FTA/254

「提意見人」姓名/名稱

**Name of person making this comment:**

先生 Mr. 鄧先生

意見詳情

**Details of the Comment :**

我在一次長者活動中認識嘉華這公司，他們對長者的關心及尊重實在令我感動，希望他們繼續努力，關心社區，關心長者。



**就規劃申請/覆核提出意見 Making Comment on Planning Application / Review**

參考編號

**Reference Number:**

241007-192646-65431

提交限期

**Deadline for submission:**

08/10/2024

提交日期及時間

**Date and time of submission:**

07/10/2024 19:26:46

有關的規劃申請編號

**The application no. to which the comment relates:**

A/NE-FTA/254

「提意見人」姓名/名稱

**Name of person making this comment:**

先生 Mr. 林先生

意見詳情

**Details of the Comment :**

有廠房，有發展，有建設。可以推動經濟，保持就業機會，幫助基建運輸發展。支持城規會批准續期申請。

**就規劃申請/覆核提出意見 Making Comment on Planning Application / Review**

參考編號

**Reference Number:**

241007-212421-78972

提交限期

**Deadline for submission:**

08/10/2024

提交日期及時間

**Date and time of submission:**

07/10/2024 21:24:21

有關的規劃申請編號

**The application no. to which the comment relates:**

A/NE-FTA/254

「提意見人」姓名/名稱

**Name of person making this comment:**

女士 Ms. 梁小姐

意見詳情

**Details of the Comment :**

像這樣一間老字號的建築材料公司，在香港已經買少減少，希望他們可以把多年的技術傳承下去，為香港建設更多道路，促進經濟發展。

**就規劃申請/覆核提出意見 Making Comment on Planning Application / Review**

參考編號

**Reference Number:**

241007-212932-94335

提交限期

**Deadline for submission:**

08/10/2024

提交日期及時間

**Date and time of submission:**

07/10/2024 21:29:32

有關的規劃申請編號

**The application no. to which the comment relates:**

A/NE-FTA/254

「提意見人」姓名/名稱

**Name of person making this comment:**

先生 Mr. S T Kwan

意見詳情

**Details of the Comment :**

支持香港工業，支持香港製造的概念，尤其是這廠房回收建築廢料循環再造再用的綠色生產，減少碳排放。

**就規劃申請/覆核提出意見 Making Comment on Planning Application / Review**

參考編號

**Reference Number:**

241008-100446-52354

提交限期

**Deadline for submission:**

08/10/2024

提交日期及時間

**Date and time of submission:**

08/10/2024 10:04:46

有關的規劃申請編號

**The application no. to which the comment relates:** A/NE-FTA/254

「提意見人」姓名/名稱

**Name of person making this comment:**

先生 Mr. Patrick Lau

意見詳情

**Details of the Comment :**

Support the application. With the contributions to Hong Kong major infrastructures made by the asphalt plant in the past years, the proposed application renewal could greatly help in the upcoming major development – Northern Metropolis.

**就規劃申請/覆核提出意見 Making Comment on Planning Application / Review**

參考編號

**Reference Number:**

241008-101743-40234

提交限期

**Deadline for submission:**

08/10/2024

提交日期及時間

**Date and time of submission:**

08/10/2024 10:17:43

有關的規劃申請編號

**The application no. to which the comment relates:**

A/NE-FTA/254

「提意見人」姓名/名稱

**Name of person making this comment:**

先生 Mr. Anthony K Y Wong

意見詳情

**Details of the Comment :**

We support the Section 16 Renewal of the asphalt plant as they are an experienced manufacturer and plays an important role in the road construction and development in Hong Kong.



# 就規劃申請/覆核提出意見 Making Comment on Planning Application / Review

參考編號

Reference Number:

241008-114425-36434

提交限期

Deadline for submission:

08/10/2024

提交日期及時間

Date and time of submission:

08/10/2024 11:44:25

有關的規劃申請編號

The application no. to which the comment relates:

A/NE-FTA/254

「提意見人」姓名/名稱

Name of person making this comment:

小姐 Miss K Chui

意見詳情

Details of the Comment :

政府發展藍圖重點發展增建兩鐵一路，北部都會區，最好就係繼續俾最接近發展區地方做廠房啦，用最佳地理位置以低工程成本興建咁先係最有經濟效益。支持城規會批准申請先有利項目發展。

致城市規劃委員會秘書：

專人送遞或郵遞：香港北角渣華道 333 號北角政府合署 15 樓

傳真：2877 0245 或 2522 8426

電郵：tpbpd@pland.gov.hk

To : Secretary, Town Planning Board

By hand or post : 15/F, North Point Government Offices, 333 Java Road, North Point, Hong Kong

By Fax : 2877 0245 or 2522 8426

By e-mail : tpbpd@pland.gov.hk

有關的規劃申請編號 The application no. to which the comment relates  
A/NE-FTA/254 Received on 23/10/2024

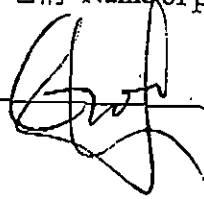
意見詳情 (如有需要，請另頁說明)

Details of the Comment (use separate sheet if necessary)

意見詳情 (如有需要，請另頁說明)

「提意見人」姓名/名稱 Name of person/company making this comment 侯志強

簽署 Signature



日期 Date 2024.11.11