Appendix VI
Traffic Management Plan

Concrete Batching Plant at Tsing Yi - Renewal Application A/TY/143

Transport Plan

April 2025

CTA Consultants Limited
志達顧問有限公司

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1. INTRODUCTION

1.1 Background

1.1.1 The concrete batching plant of the captioned Planning Approval is located at Sai Tso Wan Road, Tsing Yi and shown in **Figure 1.1**.

1.1.2 The last captioned Planning Approval (Planning Application No. A/TY/143) was granted in 2020 and will expire on 1 September 2025. All the approval conditions of the previous planning applications have been complied with. No complaint was received and no adverse impact was induced to the surrounding area since its commencement of operation in 2003.

1.1.3 The Applicant would like to submit a renewal planning application for another 5 years.

1.2 Objectives

1.2.1 The objective of this paper is to prepare the transport management plan, contingency plan and associated mitigation measures at traffic facilities, collectively named "Transport Plan".

1.2.2 The main scope of this Transport Plan are as follows:

- Based on the machinery and equipment requirements, and the layout arrangement of the plant, to identify the internal transport routing of the concrete trucks;
- Develop a Transport Management Plan based on the operation time for each activity and the expected number of concrete trucks under this planning application; and
- Formulate a Contingency Plan based on the information under this planning application.

2. TRANSPORT MANAGEMENT PLAN

2.1 Parking and Loading/ Unloading Provision

2.1.1 Based on the planning submission, the following types of parking spaces will be provided within the plant to facilitate the operation of the proposed Concrete Batching Plant:

- 3 nos. of private car parking spaces;
- 35 nos. of waiting/parking spaces within the plant; and
- 6 nos. of loading/ unloading spaces within the plant

2.1.2 A marshalling area (share use with A/TY/144) located at the southeast of the Site with about 2,000m^2 will be provided for trucks marshalling and holding trucks

- 12 out of 19 nos. of waiting/parking spaces at the marshalling area

2.1.3 The layout showing the internal transport facilities of the plant and the marshalling area are shown in **Figure 2.1** and **Figure 2.2**.

2.2 Internal Traffic Arrangement

2.2.1 The key procedures of the loading/unloading activities for the proposed Concrete Batching Plant are listed below:

i. Concrete mixer trucks arrive at the plant and wait for concrete loading at the waiting space by their assigned schedule/appointment in advance. They are all equipped with walkie-talkie system to ensure good communication between the management of the plant and drivers of concrete mixer trucks; (Refer to Step 1 of **Figure 2.3**);

ii. Concrete mixer truck enters the loading and unloading area for concrete loading. Loading of concrete from the silo to concrete mixer truck at the loading/ unloading space (Refer to Step 2 of **Figure 2.3**);

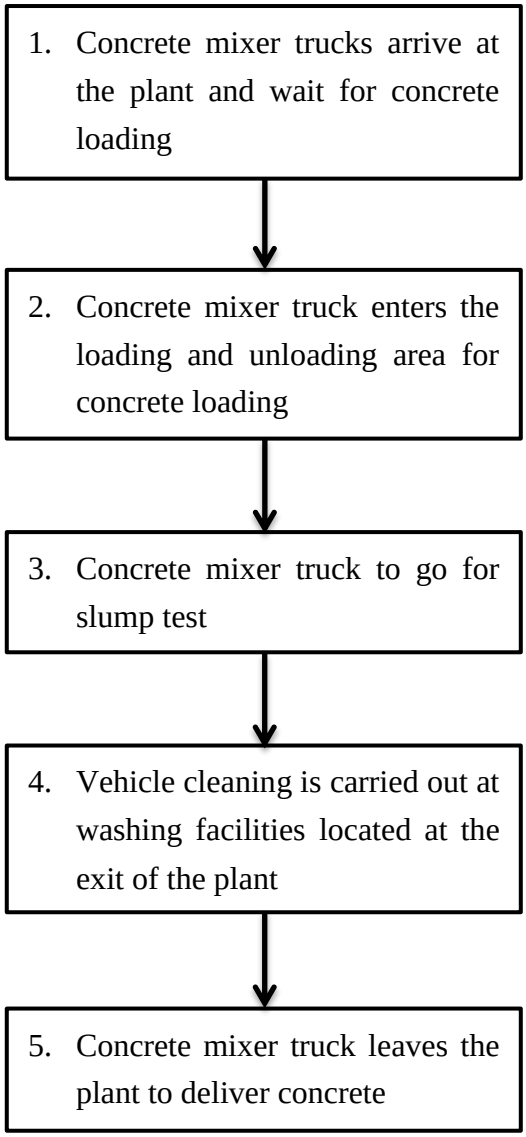
iii. Concrete mixer truck to go for slump test (Refer to Step 3 of **Figure 2.3**);;

iv. Vehicle cleaning is carried out at washing facilities within the plant before leaving the plant (Refer to Step 4 of **Figure 2.3**); and

v. Concrete mixer trucks depart from the plant to deliver concrete to the construction sites (Refer to Step 5 of **Figure 2.3**).

2.2.2 The operating procedure is summarized in the flow chart below.

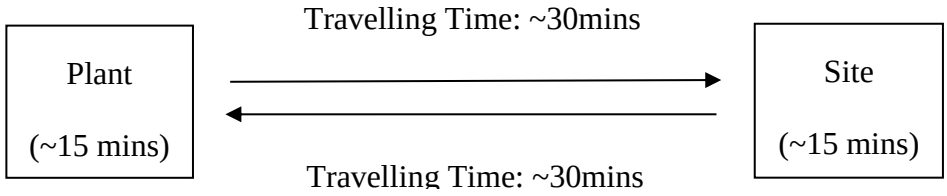
Figure 2.4 Plant Operation Flowcharts



3. CONTINGENCY PLAN

3.1 Normal Operation

- The operation will last for 12 hours from 7am to 7pm every day, from Mondays to Saturdays.
- The maximum hourly production capacity of the plant will be 240 m^3/hr.
- Assuming each concrete mixer truck will carry 7m^3 concrete, it is deduced that the maximum number of trucks generated in an hour will be 240 / 7 = 34 trucks/hr.
- The estimated round trips = 15 + 30 + 15 + 30 = 90mins



- Total nos. of trucks required = 34 x 90 / 60 = 51 veh

3.1.1 As advised by the operator, **30 nos. of trucks** are directly owned and used by the operator. In case of full operation, a maximum numbers of 21 nos. of additional trucks are required to be ordered from other parties, which will not stack in the plant beyond operation period.

3.2 Contingency Plan

3.2.1 In case of malfunction of the system in the plant, the production of the plant will be reduced and the trip generation of the concrete mixer trucks will be different. Therefore, 2 contingency plans are derived as follows:

- Case 1: Failure of 1 Production Leg
- Case 2: Failure of 2 Production Legs

3.2.2 The operation details of the proposed plant during different scenarios of contingency are summarized in **Table 3.2.1** below.

Table 3.2.1 Proposed Plant Operation under Contingency Plans

Case	Production Rate	Fleet Size Required(1)	No. of Direct Owned Trucks	Nos. of Hired Trucks	Nos. of Spared Trucks	No. of Waiting Spaces Required for the Operation	Total no. of Marshalling Trucks Spaces Required
Normal	= 240m^3/hr	= 240/7 x 90/60 = 51 trucks	30 trucks	21 trucks	0 trucks	51/90 x 15 = 8.5 trucks = 9 trucks	= 9 trucks < 41 (OK)
1	= 240/2 = 120m^3/hr	= 120/7 x 90/60 = 26 trucks	30 trucks	0 trucks	4 trucks	26/90 x 15 = 4.3 trucks = 5 trucks	= 9 trucks < 41 (OK)
2	= 0 m^3/hr	= 0 trucks	30 trucks	0 trucks	30 trucks	0 trucks	= 30 trucks < 41 (OK)

Note: (1) Concrete mixer truck with average capacity of 7m^3/truck is assumed.

3.3 Case 1: Failure of 1 Production Leg

3.3.1 In case if one production leg is malfunctioned within the plant, the production rate of concrete will be reduced by half, and the trip generation will be reduced by half with 26 nos. of trucks used by the operator and no additional trucks will be ordered.

3.3.2 The spared operator's trucks will be parked within the plant. The parking arrangement of the plant for half concrete production scenario is detailed as follows:

- 4 nos. of idled waiting/parking spaces within the plant for spare trucks;
- 31 nos. of waiting/parking spaces within the plant for operation;
- 6 nos. of loading/ unloading spaces within the plant for operation; and

3.3.3 The internal transport arrangement of the plant under Failure of 1 Production Leg scenario is shown in **Figure 3.1**.

3.4 Case 2: Failure of 2 Production Legs

3.4.1 In case if two production legs are malfunctioned, the production rate of concrete will be reduced to 0. Under this circumstance, the plant will not operate and all operator's trucks will stack within the plant. The parking arrangement is detailed as follows:

- 30 nos. of idled waiting/parking and loading/ unloading spaces within the plant for spare trucks.

3.4.2 The internal transport arrangement of the plant under no concrete production scenario is shown in **Figure 3.2**.

4. MITIGATION MEASURES

4.1.1 There is no traffic mitigation measure to the plant, such as restriction of concrete trucks at junctions, required under the previous planning applications since its commencement of operation in 2003. The plant have no adverse impact was induced to the surrounding area. As there is no change in the production rate and the operating and delivery arrangement, as a result in no change in the trip generation of the concrete plant. Therefore, no new traffic mitigation measure is required.

4.1.2 Incident Investigation

i) Non-Conformance (NC) Report will be issued to investigate the case if the truck driver violated from the traffic management requirement. Control mechanism will be carried out if necessary. The NC record will be considered as one of the evaluation item in the next deliver contract.

5. CONCLUSION

5.1.1 Based on the above cases, it is revealed that there are sufficient waiting/parking spaces for the plant to hold all the concrete batching trucks for the operation. Also, there are 12 nos. of additional parking spaces at marshalling area could be used in case of any unexpected situation. Therefore, no queue on public roads will be happened at any time during the planning approval period.

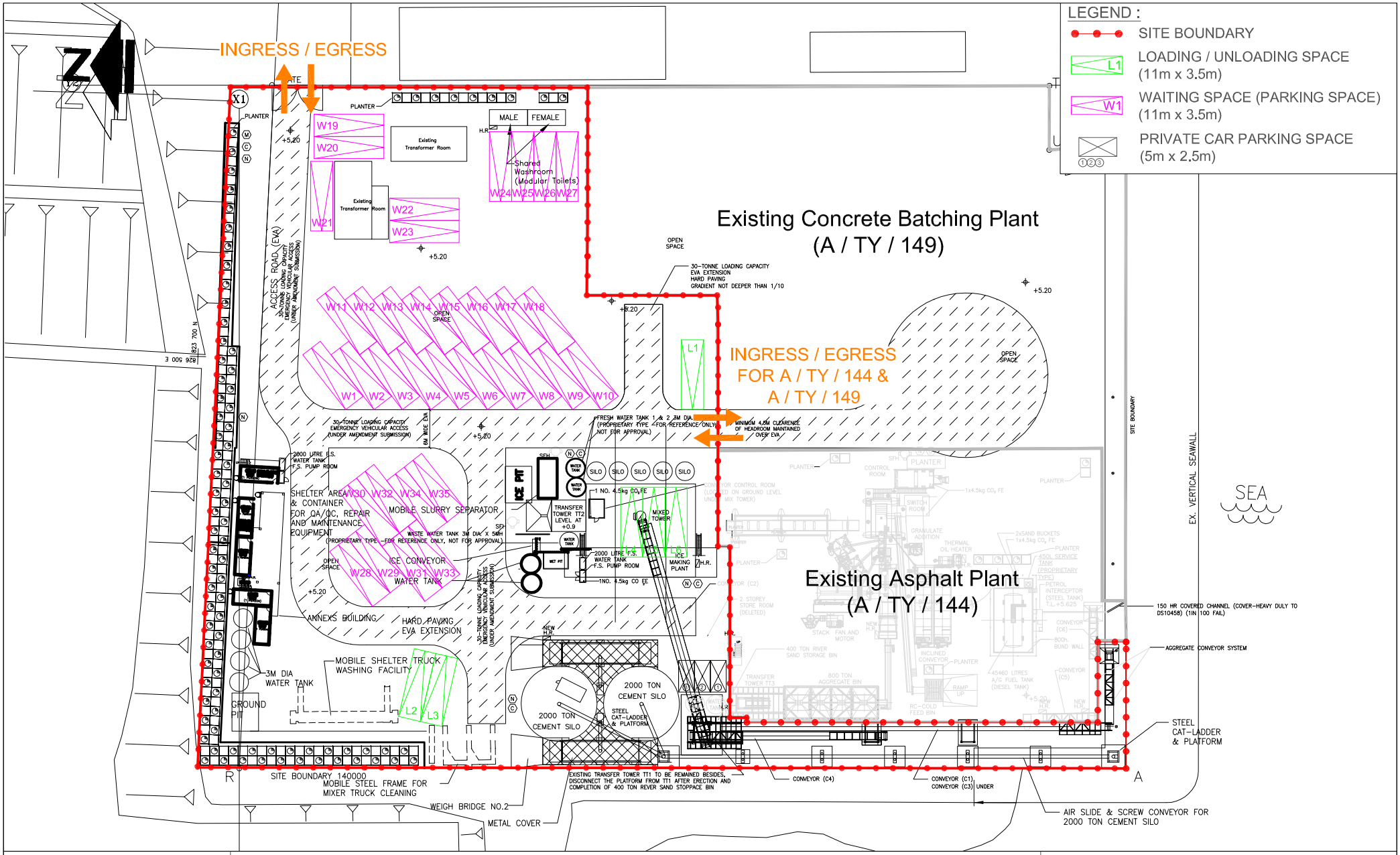


FIGURE NO.: 2.1	PROJECT TITLE: Concrete Batching Plant at Tsing Yi - Renewal Application A/TY/143
PROJECT NO.: 24101HK	DRAWING TITLE: LAYOUT PLAN FOR EXISTING CONCRETE BATCHING PLANT
SCALE: 1 : 800 @A4	DATE: 08 APR 2025

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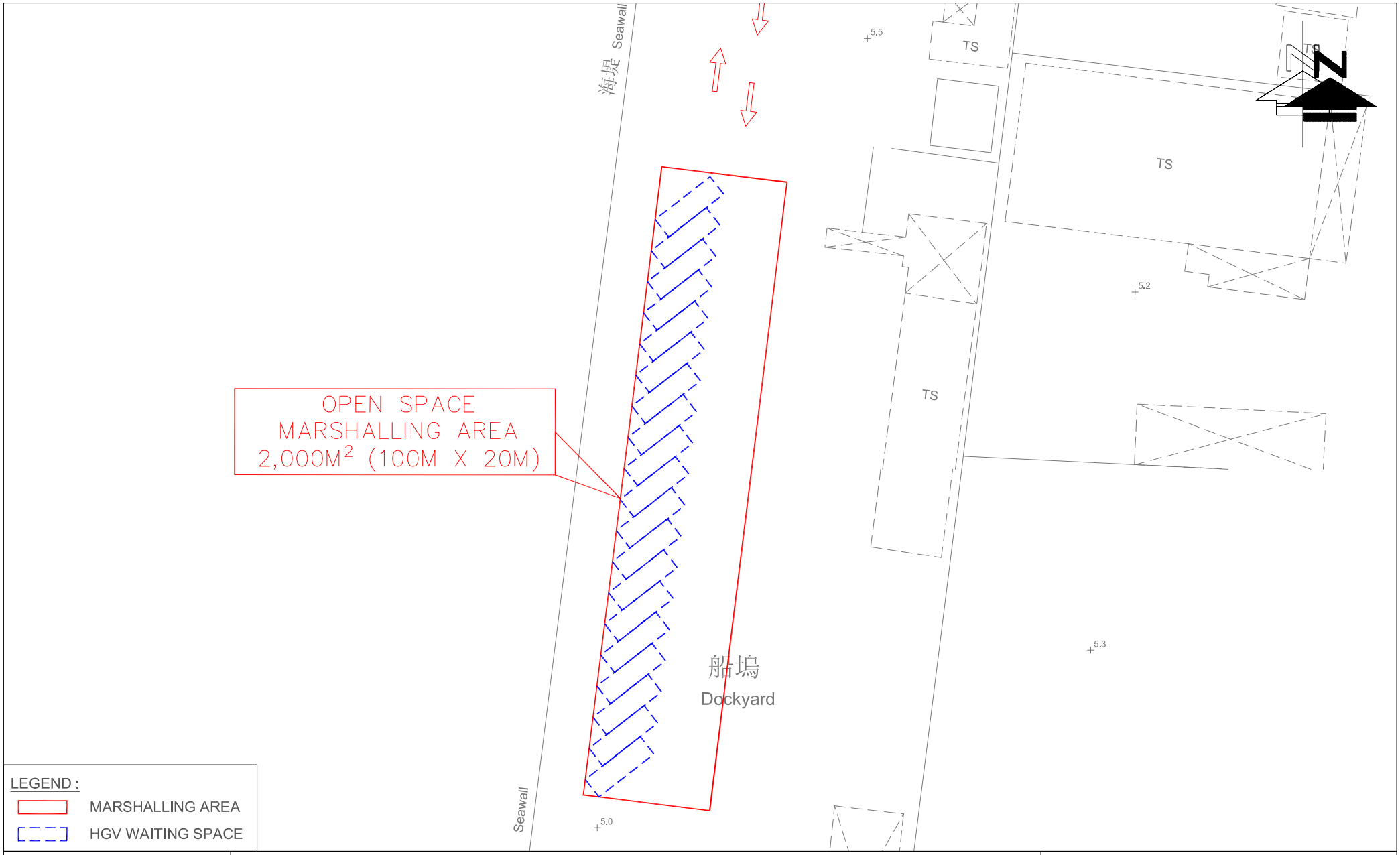

LEGEND :

- MARSHALLING AREA
- HGV WAITING SPACE

FIGURE NO.: 2.2	PROJECT TITLE: Concrete Batching Plant at Tsing Yi - Renewal Application A/TY/143
PROJECT NO.: 24101HK	DRAWING TITLE: PROPOSED PARKING ARRANGEMENT WITHIN MARSHALLING AREA
SCALE: 1 : 800 @A4	DATE: 14 FEB 2025

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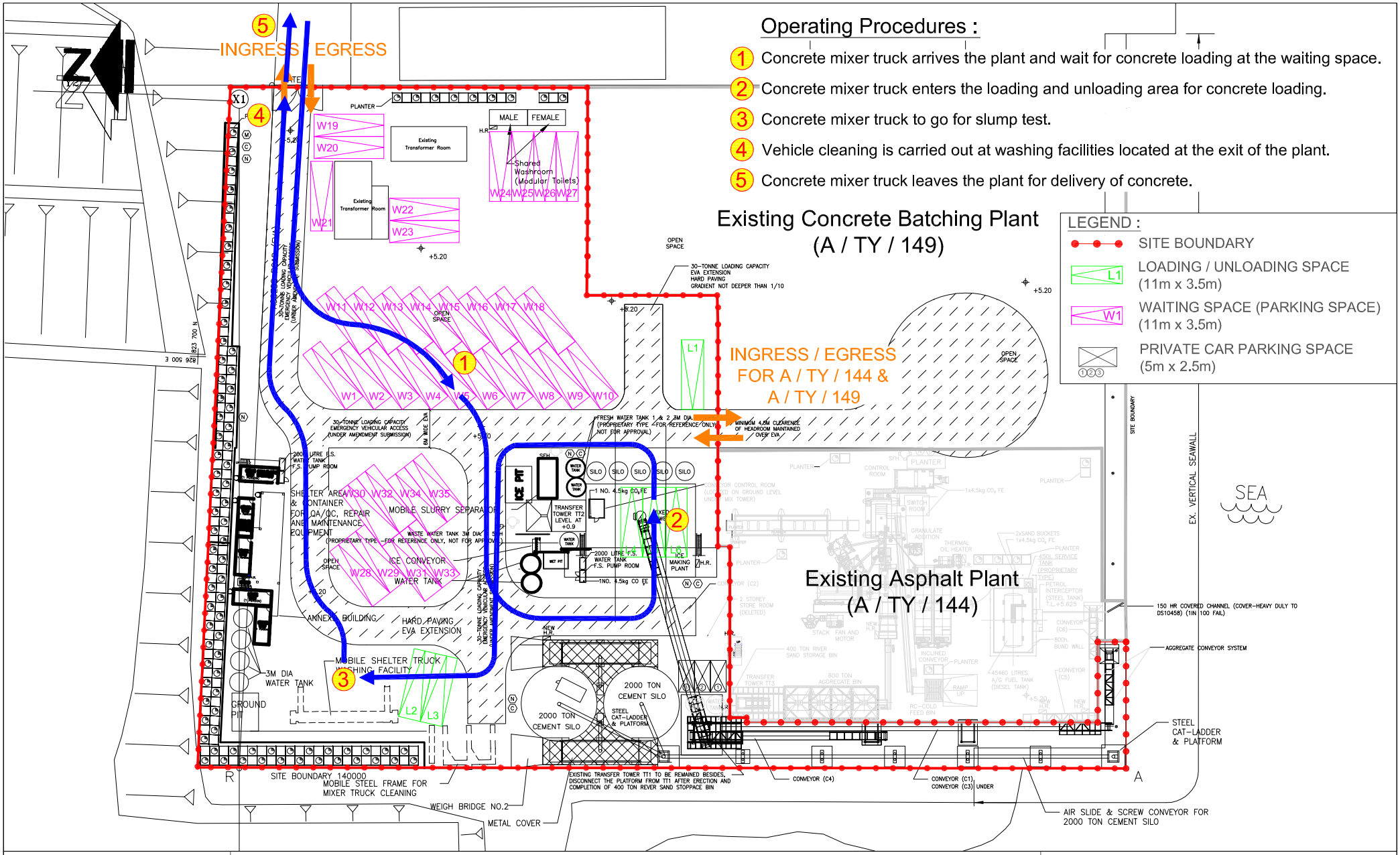

FIGURE NO.: 2.3	PROJECT TITLE: Concrete Batching Plant at Tsing Yi - Renewal Application A/TY/143
PROJECT NO.: 24101HK	DRAWING TITLE: OPERATION OF CONCRETE BATCHING PLANT
SCALE: 1 : 800 @A4	DATE: 09 APR 2025

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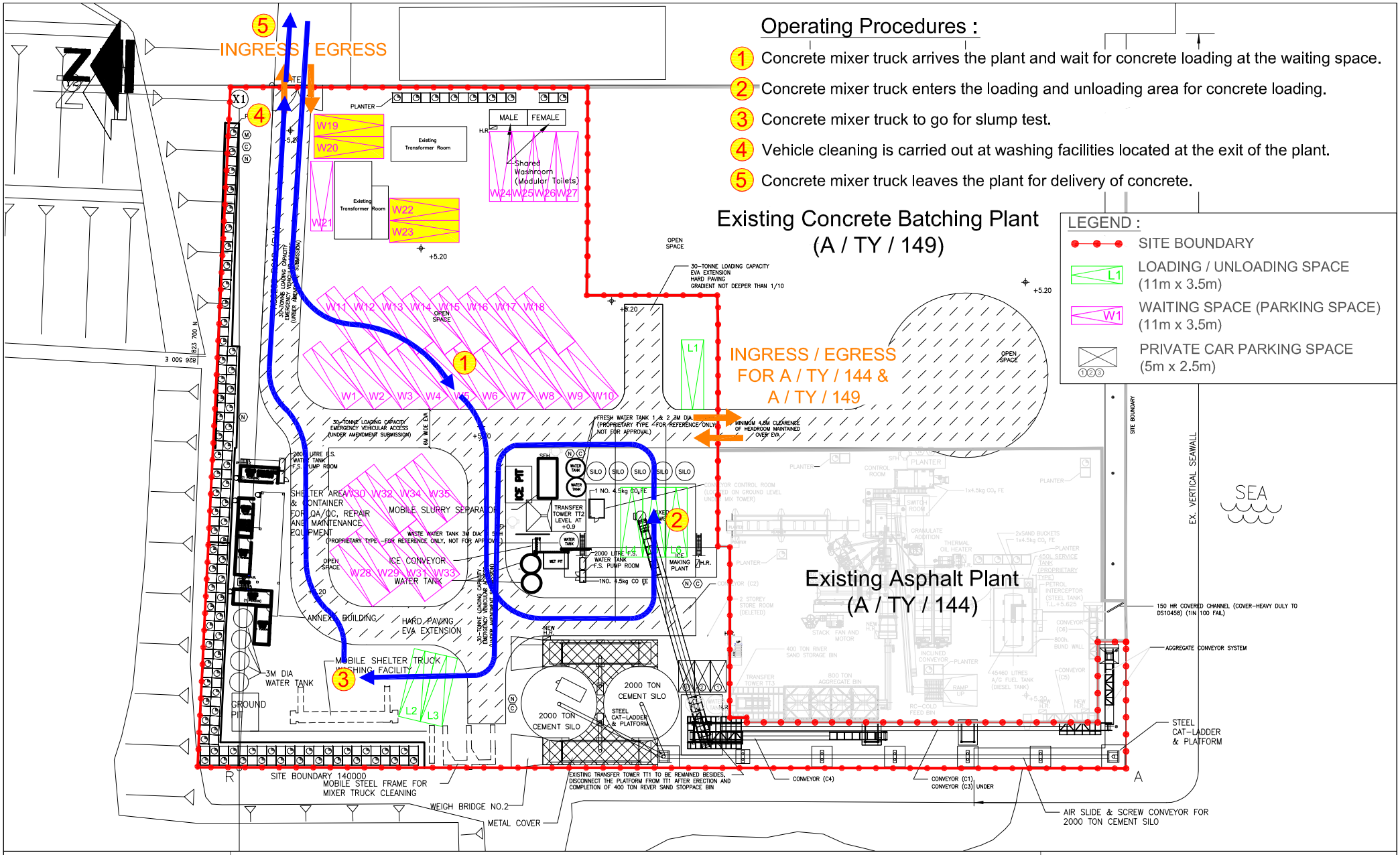

FIGURE NO.: 3.1	PROJECT TITLE: Concrete Batching Plant at Tsing Yi - Renewal Application A/TY/143
PROJECT NO.: 24101HK	DRAWING TITLE: CONTINGENCY PLAN 1 - FAILURE OF 1 PRODUCTION LEG
SCALE: 1 : 800 @A4	DATE: 09 APR 2025

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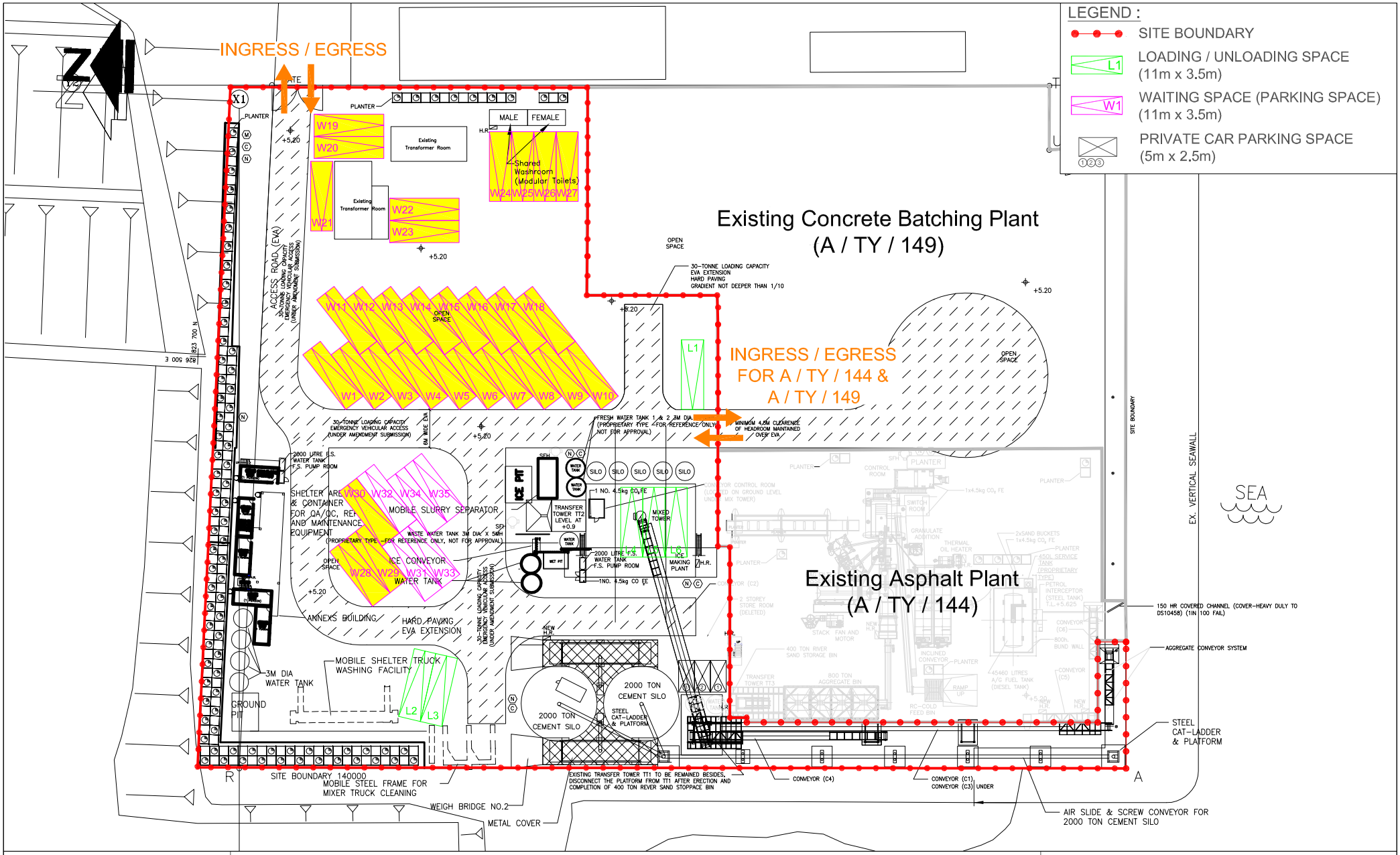

FIGURE NO.: 3.2	PROJECT TITLE: Concrete Batching Plant at Tsing Yi - Renewal Application A/TY/143
PROJECT NO.: 24101HK	DRAWING TITLE: CONTINGENCY PLAN 2 - FAILURE OF 2 PRODUCTION LEGS
SCALE: 1 : 800 @A4	DATE: 08 APR 2025

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