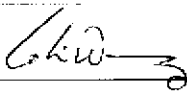
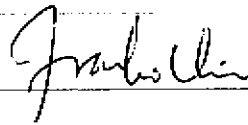
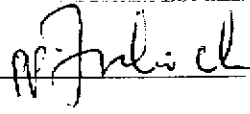


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Document title	Project Profile for Cement Silos Addition Work in Tai Po Cement Depot	File reference	
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FIGURES

FIGURE 1.1 SITE LOCATION PLAN

FIGURE 1.2 PROPOSED PLANT LAYOUT PLAN

FIGURE 4.1 LOCATIONS OF SENSITIVE RECEIVERS

ABBREVIATIONS

ASR	Air Sensitive Receiver
EIA	Environmental Impact Assessment
EIAO	Environmental Impact Assessment Ordinance
NSRs	Noise Sensitive Receivers

1 BASIC INFORMATION

1.1 Project Title

The title of the proposed project is “Cement Silos Addition Work in Tai Po Cement Depot” (hereafter referred to as the Project).

1.2 Purpose and Nature of the Project

The existing Tai Po Cement Depot is operated by K. Wah Materials Ltd. (hereafter referred to as K. Wah). The Depot covers approximately 5,900 m² and consists of 6 cement silos of total capacity at 8,500 MT. Cement are delivered to the Depot through the cement barges. Existing cement silos capacity is not capable of storing all the cement from a single shipment load. Current practice is to unload the cement from the silos into cement tanker for immediately delivery to the client, thus free up the silos for further storage. As a result, the barge is required to berth alongside the shore for an extended period of time and uploading of cement can only be operated in a batch mode.

In order to increase the Depot storage capacity and to reduce potential nuisance of the barge operation, K. Wah plans to construct three additional cement silos of total capacity at 7,500 MT. With the three additional silos, the total capacity of the Depot will be increased to 16,000MT.

1.3 Name of Project Proponent

The Project Proponent is K. Wah Materials Ltd.

1.4 Location and Scale of Project and History of Site

The existing cement Depot has been operated by K. Wah since 1993. The project site is within the existing site of cement Depot, which is located at 18 Yu On Street, Sam Mun Tsai, Tai Po. A site location plan is shown in Figure 1.1.

The new additional cement silos will be constructed adjacent to the existing six cement silos as shown in Figure 1.2. The total construction floor area of the new cement silo is approximately 400 m² whereas the area of the existing cement silos is about 800 m².

1.5 Number and Types of Designated Projects Covered by the Project Profile

The Project involves the operation of cement silos with total capacity greater than 10,000MT. It is classified as a Designated Project under item K.5 of Part I of Schedule 2 of the Environmental Impact Assessment Ordinance (EIAO) (Cap. 499).

1.6 Name and Telephone Number of Contact Person(s)

All queries regarding the project can be addressed to:

2 OUTLINE OF PLANNING AND IMPLEMENTATION PROGRAMME

2.1 General

The project is to design, construct and operate three additional cement silos within the existing cement Depot.

2.2 Responsibilities of Parties

K. Wah Materials Ltd. is the overall Project Proponent, who oversees and manages the Project. The Project Proponent has commissioned an Environmental Consultant to conduct an Environmental Impact Assessment (EIA) in accordance with the Environmental Impact Assessment Ordinance. The Project will be implemented by Contractor(s) to be appointed by the Project Proponent at the subsequent stages.

2.3 Project Time Table

The Project will be implemented under 2 stages as follows:

Stage I: Construction of three additional cement silos. An environmental permit will be obtained for the construction. The tentative construction program will be scheduled from March 2002 to November 2002, for approximately 9 months.

Stage II: Operation of the additional cement silos. Environmental permit and new specified process license under Air Pollution Control Ordinance will be required for the operation.

2.4 Interactions with Other Projects

There are no other projects likely to interact with this proposed project.

3 POSSIBLE IMPACT ON THE ENVIRONMENT

3.1 General Description of Depot

The operation of the Depot will be powered by mains. There are no additional gaseous emissions from the mechanical plant (e.g. generators).

The existing cement Depot consists of 6 cement silos of total capacity at 8,500MT- four at 1,500MT and two at 1,250MT. The silos are located at 13.8 - 23.6m from the existing seawall. Average daily cement dispatching rate is 1,400 – 1,500MT. Cement are delivered to the Depot by cement barges in average 3-5 times a week and uploaded to the cement silos via pipelines and enclosed Bucket Elevator. The entire uploading process is performed within a totally enclosed system in order to suppress dust emissions.

In the existing Depot, two of the 1,500MT cement silos and two of the 1,250MT cement silos are interconnected. This allows the existing six silos to be connected to four dust collectors. In addition, another three dust collectors are installed at the three loading points for the cement tankers. A total of seven dust collectors are employed in the existing plant to mitigate any fugitive emissions.

Cement are stored inside silos until unloading to cement tankers for delivery. Due to the limited capacity of existing silos, three additional silos of total capacity at 7,500MT are proposed to be constructed. The new silos are located in adjacent to the existing silos and occupy a floor area of approximately 400m² (Figure 2.2). Each silo will be fitted with a dust collector and connected to the existing loading points for cement tankers. There will be no increase in the number of cement tanker loading points in the proposed addition.

Additional cement silos are purely for storage purpose only. As the cement dispatching rate will remain the same, there will be no additional cement tankers employed.

Only one 2-Leg Concrete Batching Plant, running by K. Wah Concrete Co. Ltd. has been identified within 500 m of the proposed development. Hence, there will be cumulative impacts of noise and fugitive dust emissions on the nearby sensitive receivers.

3.2 Potential Environmental Impacts

3.2.1 Air Quality

The likely air quality impact associated with the construction activities of the Project is dust nuisance. Major sources of dust on site are expected to be from excavation, materials handling and wind erosion. As the present site is quite small, dust impact on the nearby sensitive receivers would be minimal.

During the operational phase of the cement silos, additional dust emission source can be identified as follows:

- Emissions from the dust collectors

3.2.2 Noise

In order to minimize the construction noise impact, the additional cement silos will be fabricated off-site and transported to the Depot for installation by barge. Therefore, the major noisy construction activities will be due to ground excavation, setting of foundation and silo erection. As the existing noise sensitive receivers are quite far away from the proposed site and the number of powered mechanical equipment is small, the construction noise impact is considered to be minor.

The operation of silo itself will not generate noise. During the operational phase, as there will be no increase in cement dispatching rate, road traffic noise and the noise nuisance arising from the operation of the cement Depot will be unchanged. Previous noise monitoring at the site boundary of the nearest noise sensitive receiver, Casa Marina III, in the “Environmental Noise Impact Assessment – Tai Po Town Lot 161” report indicated that the noise level due to the cement work complies with the noise limit.

3.2.3 Water Quality

During construction phase, construction site runoff and drainage, potential liquid (that is, lubricant oil, fuel oil, solvent, etc.) and spillage could result in water quality impacts on the environment. Silts from site runoff may cause blockage of sewers and drains, and increase suspended solids concentrations in receiving water.

During operational phase, since there is no effluent discharge to the adjacent water body, water quality impact is not anticipated.

3.2.4 Waste

Waste to be generated during the construction phase of the proposed development will comprise excavated material, construction material and general refuse. The handling and disposal of waste arising from the construction site may pose environmental impacts if not properly managed.

During the operation of the additional silos, all the cements will be delivered to the clients through the cement tankers. In addition, maintenance of the tankers is not allowed in the Depot. There is also no diesel fuel stored in the Depot. Therefore, no waste will be generated

3.2.5 Visual Impact

The proposed additional cement silos are located adjacent to the existing silos. The heights and shape of the additional silos are similar to those of the existing silos. In addition, the surface of all silos will be painted with environmental friendly colour. Therefore, visual impact is unlikely to be an issue from the environmental point of view.

3.2.6 Hazard

As there will be no storage of dangerous goods inside the Depot, hazard would not arise during the construction and operation of the cement silos.

3.2.7 Other Impacts

The proposed project site is within the existing cement Depot. There will not be any impacts on local ecology, landscaping, site of cultural importance or listed buildings.

4 MAJOR ELEMENTS OF THE SURROUNDING ENVIRONMENT

4.1 Sensitive Receivers

The existing sensitive receivers in the vicinity of the project site have been identified and are tabulated in Table 4.1. The locations of the sensitive receivers are shown in Figure 4.1.

Table 4.1: Sensitive receivers

ASR	NSR	Description	Uses
1	1	Fortune Garden	Residential
2	2	Tycoon Place	Residential
3	3	Village House	Residential
4	4	Sha Lan Villa	Residential
5	5	Wu York Yu Care and Attention Home	Home for the aged
6	6	TWGHs Pao Siu Loong Care & Attention Home	Home for the aged
7	7	Casa Marina III	Residential
8	-	Shipyard	Industrial
9	-	Tai Po Marine Office	Commercial
10	-	Wholesale Fish Market	Commercial

5 ENVIRONMENTAL PROTECTION MEASURES TO BE INCORPORATED IN THE DESIGN AND ANY FURTHER ENVIRONMENTAL IMPLICATIONS

5.1 Mitigation Measures

5.1.1 Air Quality

Although the involved construction site is small, the contractor is still required to implement the mitigation measures stipulated in the Air Pollution Control Regulation (Construction Dust) as far as practical. The mitigation measures will be incorporated in the Contract Specification in order to minimize any potential dust nuisance arising from the construction activities of the project that are in excess of the acceptable levels.

During the operation of the cement Depot, according to "Guidance Note on the Best Practicable Means for Cement Works (Cement Depot) BPM 3/1" issued by EPD, the mitigation measures for handling cement are summarized as follows:

- The loading, unloading, handling, transfer or storage of cement shall be carried out in a totally enclosed system acceptable to the Authority. All dust-laden air or waste gas generated by the process operations will be properly extracted and vented to the fabric filtering system and meet the particulate emission limit of $50\text{mg}/\text{m}^3$.
- Cement shall be stored in the storage silo fitted with audible high level alarms that give warning of overfilling. The high level alarm indicators shall be interlocked with the cement filling system such that in the event of the silo approaching an overfilling condition, the audible alarm will activate, and after 1 minute or less the cement filling system will be stopped.
- Vents of all silos shall be fitted with fabric filtering system to meet the particulate limit of $50\text{mg}/\text{m}^3$.
- Seating of pressure relief valves of all silos shall be checked, and the valves resealed if necessary, before each uploading.

5.1.2 Noise

Construction noise impact can be alleviated by the use of quiet construction method and equipment. The contractor will be required to meet the Technical Memorandum on Environmental Impact Assessment Process noise criteria at the nearest noise sensitive receivers (NSRs) during normal working hours. No evening or night-time work is planned.

Good site practice and noise management will be stipulated for implementation by the contractor to reduce the impact of the construction site activities on nearby NSRs. The following measures will be incorporated into the contract specifications.

- Only well maintained plants shall be operated on-site and plant shall be serviced regularly during the construction period.

- Machines and plants used intermittently shall be shut down between work periods or shall be throttled down to a minimum.
- Silencers or mufflers on construction equipment shall be utilized and shall be properly maintained during the construction period.
- Existing structures shall be effectively utilized, where possible, and shall be orientated so that the noise is directed away from the nearby NSRs.
- Portable noise barriers shall be positioned within a few metres of noisy plant items.

For the operational phase, the previous monitoring result indicated that the noise level at the nearest sensitive receiver Casa Marina III complied with the noise limit. As there will have no increase in dispatching rate, operational noise impact will be unchanged and no addition mitigation measure is proposed.

5.1.3 Water Quality

Since only land based construction activities will be undertaken, minimal water quality impact arising from the project is expected. However, in order to ensure that no adverse environmental impacts will arise during construction, good practices outlined in ProPECC PN 1/94 "Construction Site Drainage" will be followed.

Mitigation measures will be stipulated for implementation by contractor to control construction site runoff. This will minimize the chances of introducing sediment and pollutants into the stormwater drainage system. With the implementation of adequate construction site drainage and the provision of sediment removal facilities, it is expected that unacceptable water quality impacts would not arise.

During operation, regular environmental audits will be conducted to check the environmental performance of daily operation to ensure that no effluents will be discharged illegally.

5.1.4 Waste

Good waste management practices including avoiding, minimizing, reusing and recycling will be adopted to reduce waste generation during construction phase. Scrap metals or abandoned equipment will be recycled if practical.

General refuse generated from the operation of the project will be collected from lidded bins and delivered to a central collection point and will be stored in containers to prevent windblown litter, vermin, water pollution and visual impact.

6 POSSIBLE SEVERITY, DISTRIBUTION AND DURATION OF ENVIRONMENTAL EFFECTS

6.1 Short Term Effect

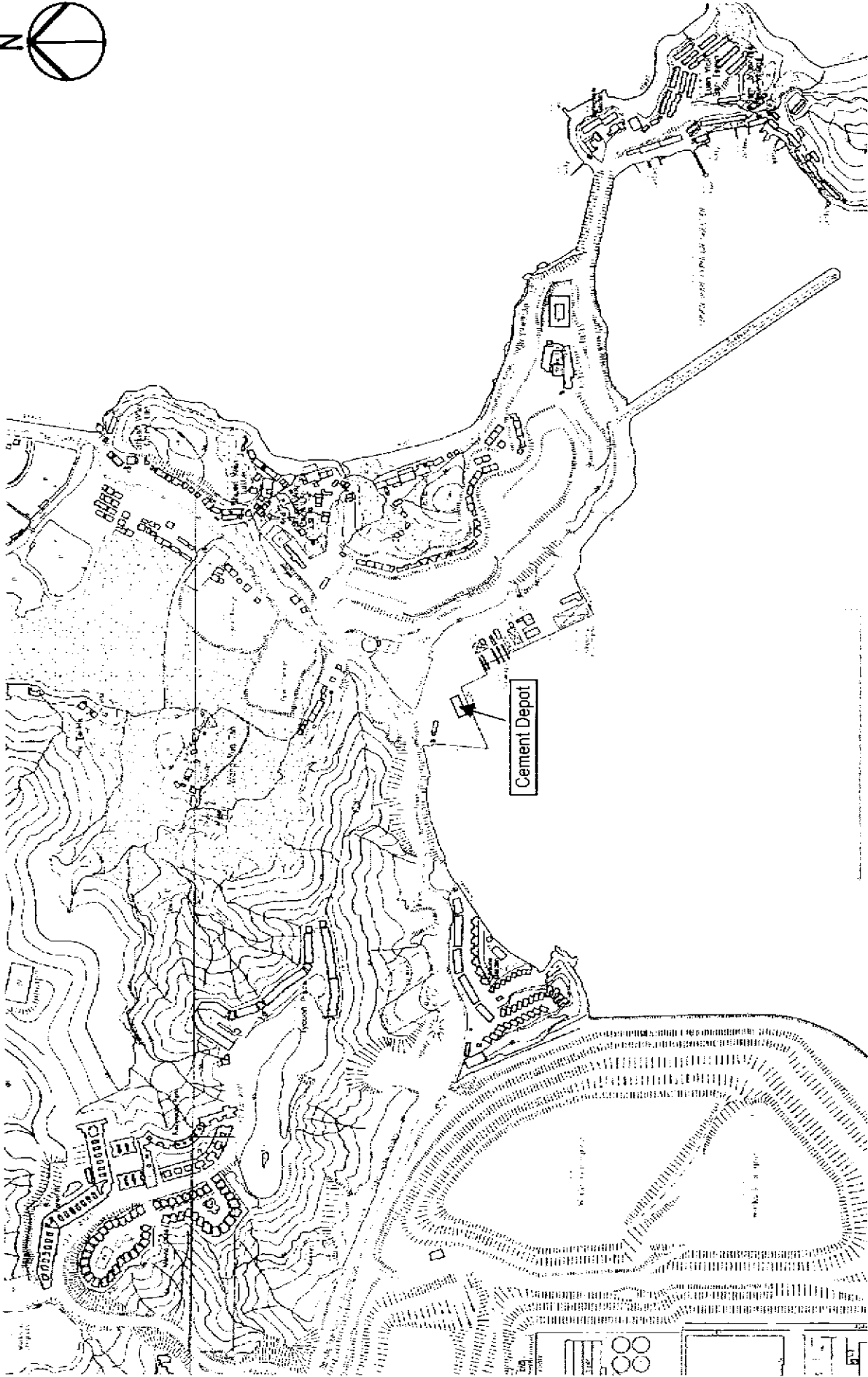
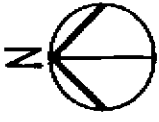
Potential environmental impacts due to construction will last for the duration of the construction period (tentatively 9 months). As such the effects are considered to be temporary and short term. With the implementation of appropriate mitigation measures, no insurmountable impacts are expected.

6.2 Beneficial Effects

The addition three silos will enhance the storage capacity. It therefore shortens the duration for barge unloading and allows more efficient planning of cement tanker delivery. Therefore, the duration of the noise nuisance generated from the barge operation will be reduced.

7 USE OF PREVIOUSLY APPROVED EIA REPORTS

No previous EIA report has been approved or submitted for the subject development.



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 SHEET NUMBER
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 SHEET TOTAL
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PROJECT
 EIA Study for Cement
 Depot

Site Location Plan

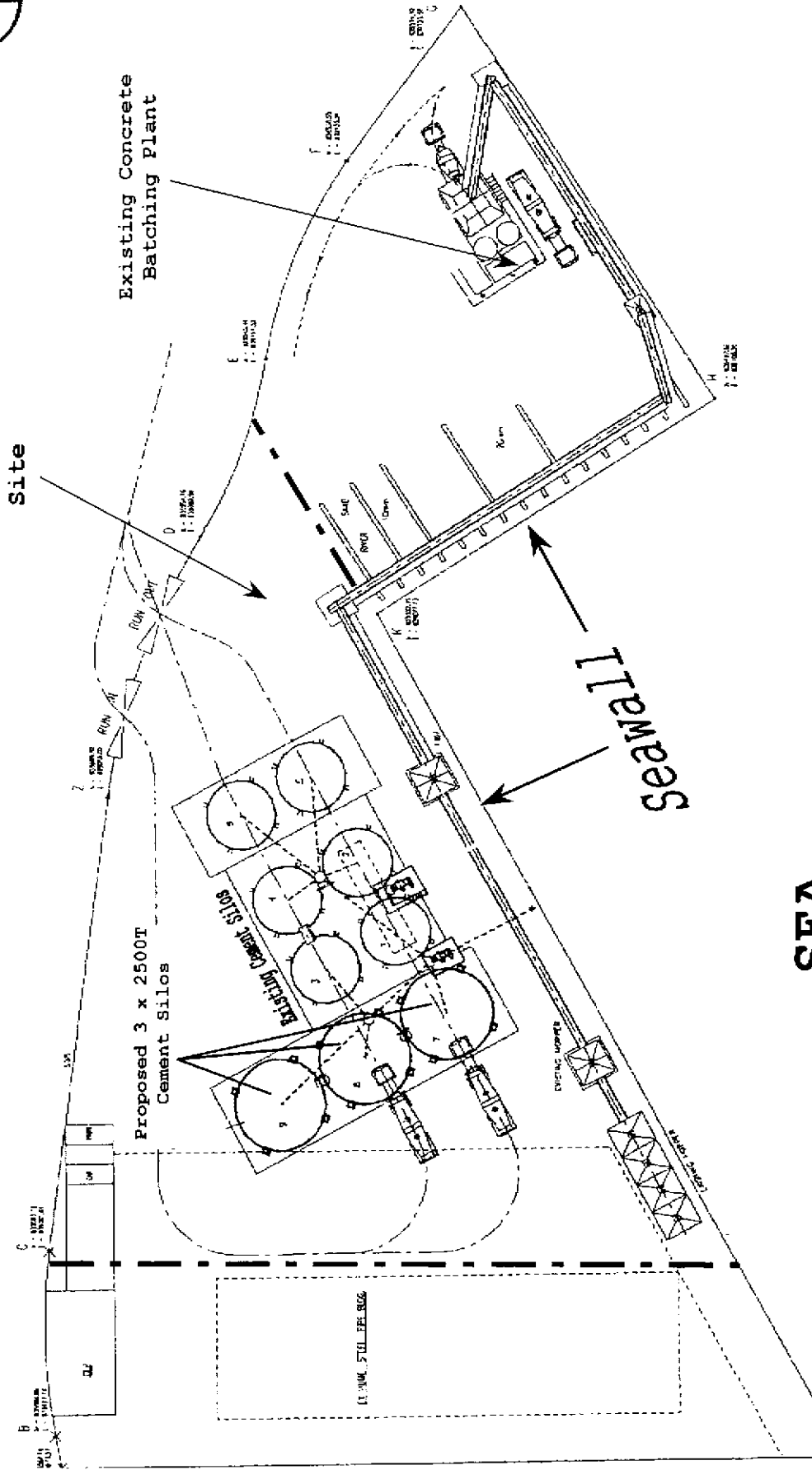
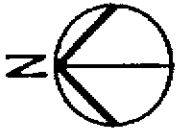
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Legend :

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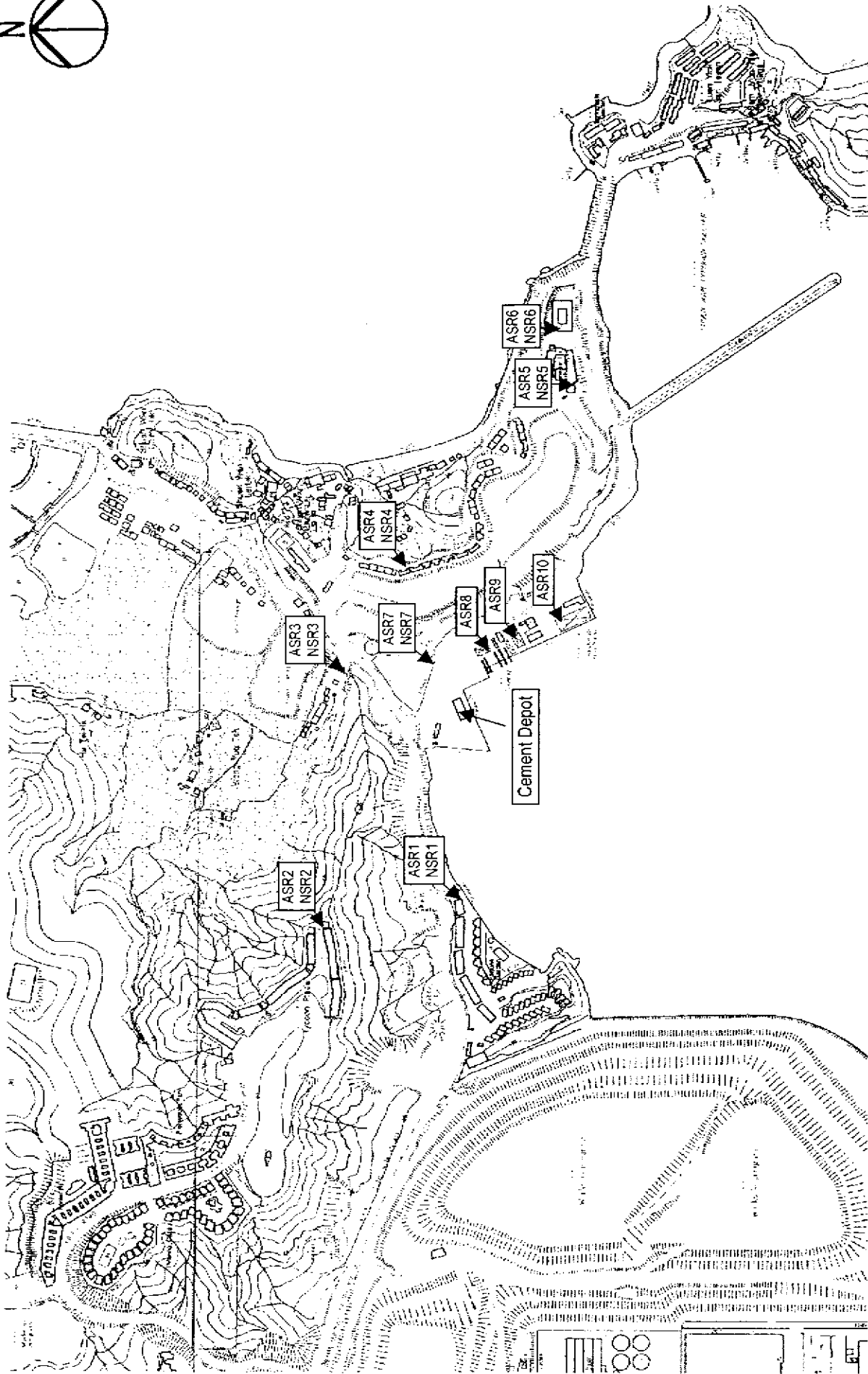
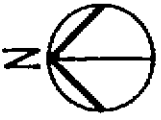
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4	15/01/2024	AK	AK	REVISED FOR PERMIT

Proposed Site Layout Plan

APL *Advanced Planning & Logistics*
 Heavy Plant Limited

EIA Study for Cement Depot

SCALE: 1:450
 DATE: 15/01/2024



DATE	2011.04
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ARJIA
EIA Study for Cement Depot

Locations of Sensitive Receivers

DATE: 2011.04
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