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(ACE Paper 22/97)
for advice

Quarry Bay Relief Works Environmental Impact Assessment (EIA) Study

Purpose

1. This paper presents the main findings of the detailed environmental impact assessment study of the proposed MTR Quarry Bay Relief Works and invite members to consider the Administration's recommendation. An executive summary of the EIA study is attached. A presentation will be made at the meeting by the project proponent, MTRC, and their consultants.

Advice Sought

2. Members are invited to endorse the findings and recommendations of the EIA report, as well as the proposed indirect noise mitigation measures in dealing with the construction noise impact at North Point.

Need for Project

3. The proposed Relief Works is part of the original MTR Tseung Kwan O Extension identified as one of the high priority projects in Government's Railway Development Strategy Report announced in December 1994. A subsequent study has shown that the Works is also needed to relieve the pressure on the Kwun Tong/Island Line (KTL/IL) Interchange at Quarry Bay for both operation and passenger safety reasons.

Project Description

4. The Quarry bay extension will run west from the existing KTL overrun tunnels through Braemar Hill to North Point, running into a new Station adjacent to the existing North Point station (and emerging from rock tunnel south of King's Road near Fortress Hill Station) as shown in Figure 1. The works entail an enlarged station or North Point to allow a cross platform interchange between the Island and Kwun Tong Lines, a plant room to supply additional ventilation and further vents.

Specific Environmental Aspects to Highlight

5. Due to the dense nature of the built environment, the unmitigated construction noise levels at most noise sensitive receivers in the vicinity of the three work sites NP1, NP2 and NP5 at North Point (Figure 2) during certain site operations are predicted to exceed the non-statutory day time limits of 75 dB(A) ($L_{eq\text{-}30min}$) at dwellings and 70dB(A)($L_{eq\text{-}30min}$) at schools recommended by the Professional Persons Environmental Consultative Committee.

6. To mitigate the problem, the study recommended the construction of noise enclosures over the portal areas at the work sites, provision of noise insulation to the kindergarten and the following three further mitigation measures:

(a) use of construction equipment quieter than those listed as standard;
(b) use of moveable barriers with cantilevered upper portion and acoustic shrouds for rock drills prior to the completion of the noise enclosure; and
(c) limit the number of plants operating concurrently at the same time.

However, even with the adoption of all the measures residual impacts are still predicted at sensitive receivers around the three work sites, during mainly the periods while the enclosures are being constructed and after their dismantle.

7. A summary of the construction noise exposure pattern is shown in Figure 3. It can be seen that the problem is most severe at NP1, at which about 286 flats will be impacted.

Views of Environmental Study Management Group (SMG)

8. All the SMG members have no in principle objection for the project to proceed.

9. EPD is satisfied that all practicable noise mitigation measures have been explored and that all practicable direct mitigation measures will be implemented by the MTRC. However, EPD considered that even with the proposed noise mitigation measures, the residual noise impact from construction work is still serious.

10. District Officer (Eastern), having informally gauged the views of the representatives of building owners' corporations in the area, advised that while some did not support the works, the majority have indicated a reluctant acceptance and urged that more effective mitigation measures be introduced. In view of the comments received, DO (Eastern) suggested MTRC to reconsider the proposal to provide noise insulation to affected dwellings.

11. MTRC pointed out that the Quarry Bay Relief Works are a requirement to ensure passenger safety. Failure to timely progress this project will have severe implications on passenger safety at Quarry Bay Station and will impact future operations of the MTR system.

12. As the residual impact is considered serious in terms of both magnitude and duration, the case was referred to the Secretary for Planning, Environment & Lands for further consideration.

<u>The Administration's Recommendations</u>

13. There is no existing policy to provide indirect technical remedies to premises affected by construction noise. However, having considered the rather serious degree of impact, the Administration recommends that the project should proceed with the proviso that noise insulation will be provided to the affected dwellings immediately adjacent to Work Site NP1. The dwellings involved are shown in Figure 4 and totalled about 286 in number.

14. MTRC has agreed to implement the Administration's as well as all the EIA recommendations.

Planning, Environment and Lands Branch
April 1997

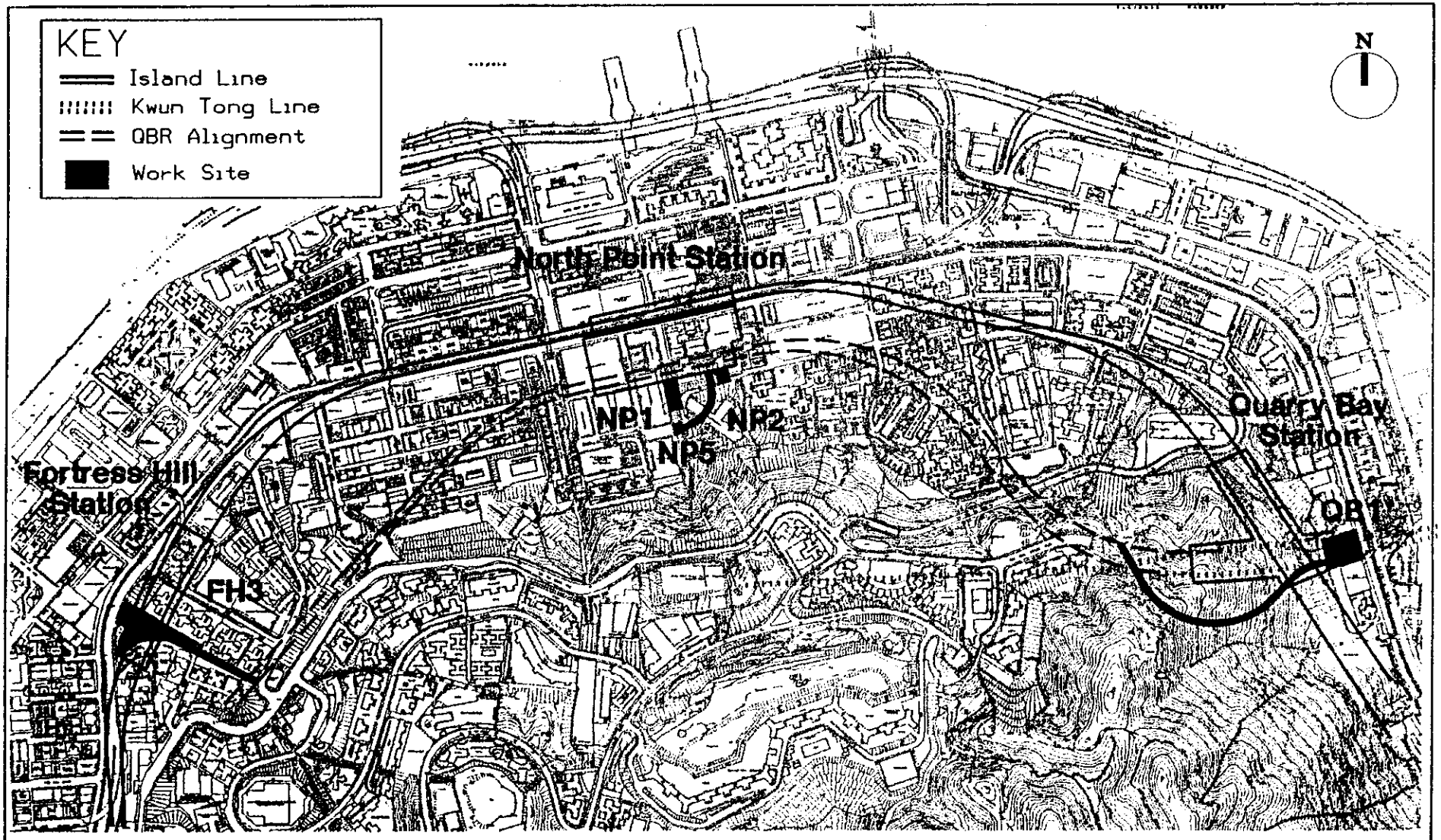

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FIGURE No. 1.2a

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FIGURE 1 QBR ALIGNMENT

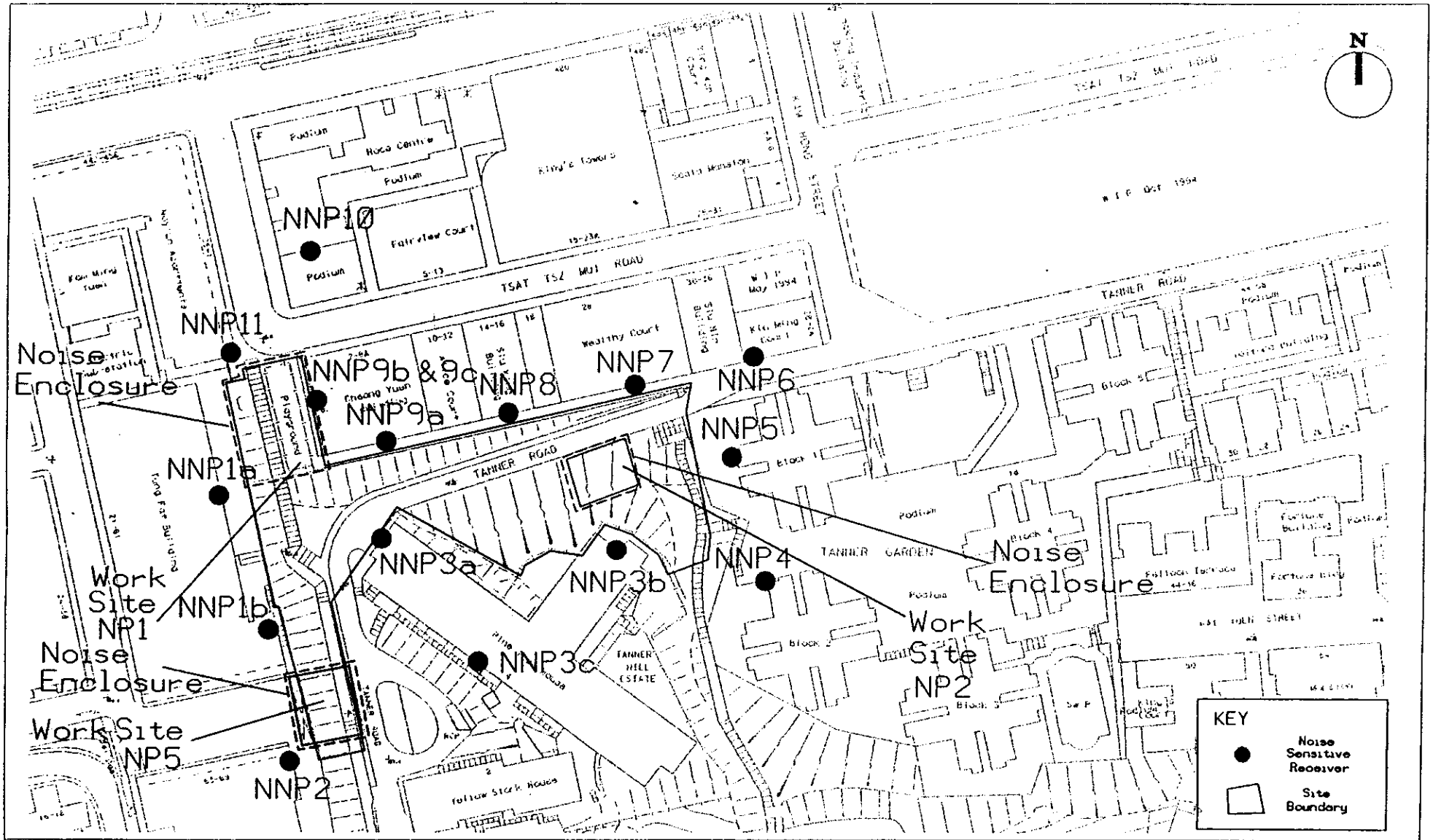

FIGURE 2 NSR Locations in North Point

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FIGURE No. 2.1a

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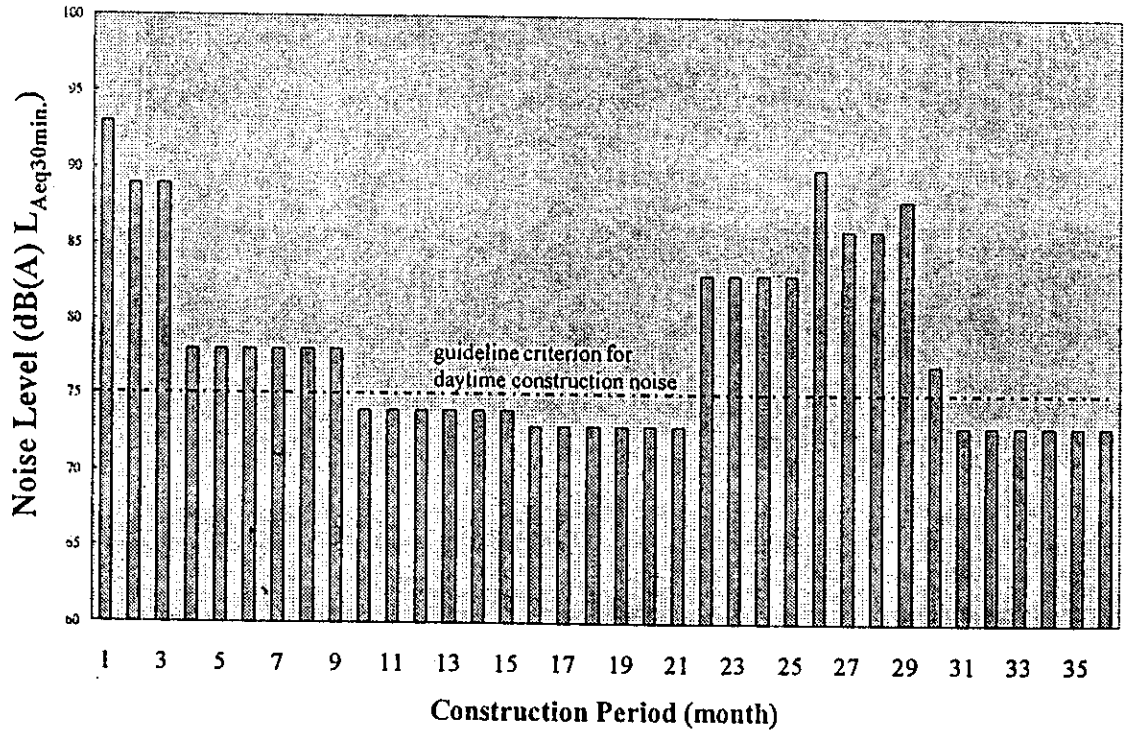
Figure 3 : Noise Exposure Pattern at North Point Work Sites

Summary of noise exceedance for the 3 Work Sites

Work Site	Period Exceeding the guideline noise level of 75 dB(A)	Range of highest noise levels	Period of highest noise levels
NP1	18 months	86 - 93 dB(A)	7 months
NP2	7 months	84 - 86 dB(A)	3 months
NP5	7 months	81 - 84 dB(A)	7 months

Indicative noise trend during the entire construction period at Cheong Yuen Building (NNP9b) next to Work Site NP1



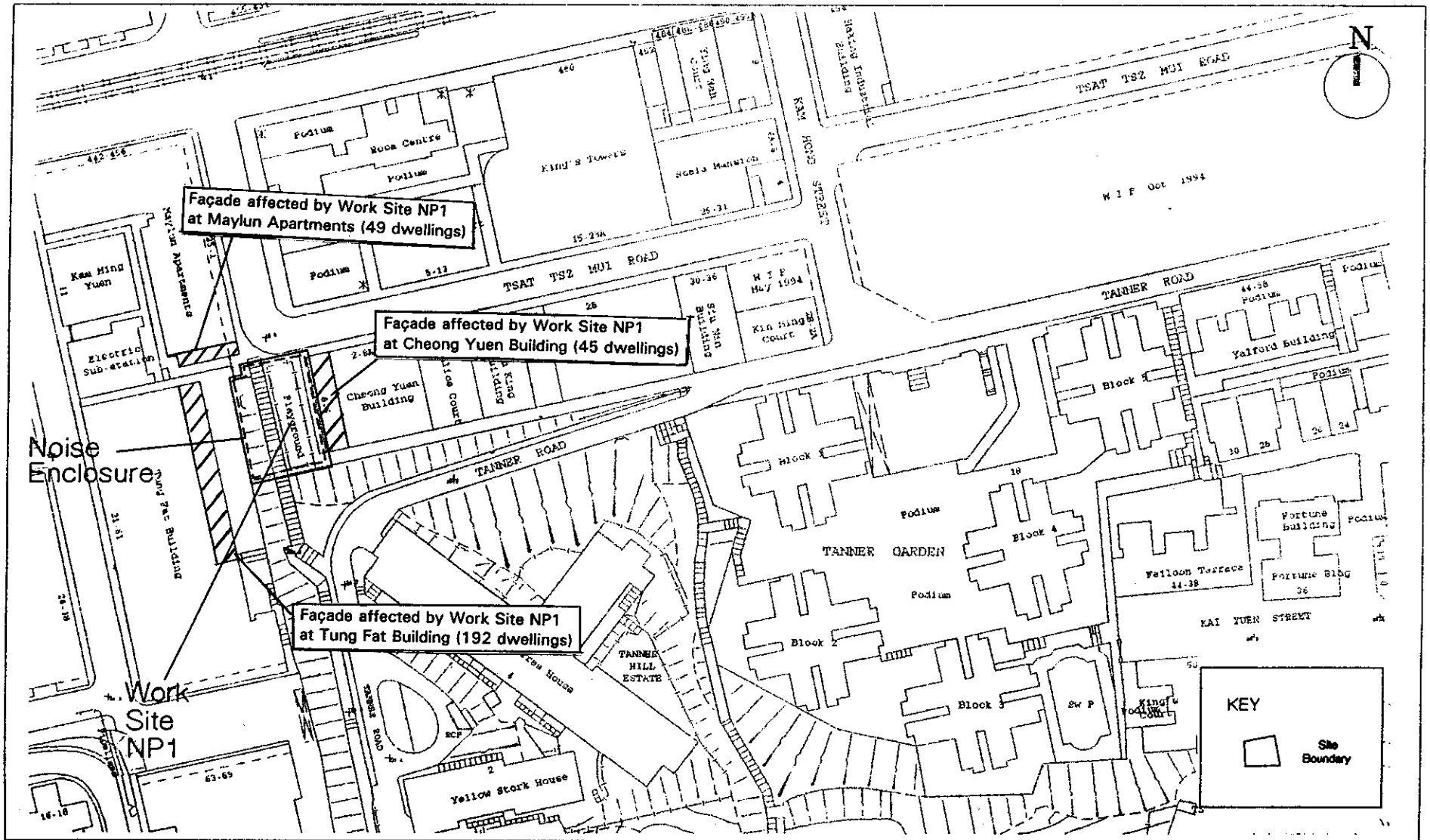


FIGURE 4 WORK SITE NP1 LOCATION

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