

2. PROJECT DESCRIPTION

2.1 Main Description

- 2.1.1 This Project includes the widening of about 650 m of Sai Sha Road between Kam Ying Road and its junction with proposed Road T7 from a 7.3 m single carriageway to dual 2-lane carriageway of primary distributor standard. The Project also includes the provision of a roundabout at the junction with the access road to Lee On Estate. Two pedestrian/cyclist subways beneath the roundabout and a footbridge across Sai Sha Road will be provided to segregate pedestrians from the road traffic for the purpose of improving safety.
- 2.1.2 At present, Sai Sha Road is a single 2-lane carriageway and provides the main access route between Ma On Shan and Sai Kung. Upon the completion of the residential development at Sai Sha which consists of 2,196 housing units accommodating 6,400 persons, 1,200 vehicles in the morning peak hour will be generated onto Sai Sha Road causing it to be overloaded with a vehicle/capacity ratio of about 1.2 in the year 2001.
- 2.1.3 To accommodate the traffic associated with the proposed development, the section of Sai Sha Road from its junction with Kam Ying Road to the proposed development is required to be widened to dual 2-lane carriageway.
- 2.1.4 The private developers of the above developments will be responsible for widening the length of Sai Sha Road from Road T7 junction to their developments and it is anticipated the widening works will be completed in the year 2001. Also, the proposed Road T7 has been scheduled for completion in end 2002 to meet with the traffic growth of Ma On Shan New Town. This Project which involves the widening of the section of Sai Sha Road between Kam Ying Road and the proposed Road T7 is therefore essential for completion of the road network in the area.
- 2.1.5 As indicated in Section 2 of the PPFS report, the proposed scope of the Project includes the following:
- (i) widening of about 650 m of Sai Sha Road between Kam Ying Road and its junction with proposed Road T7 from a 7.3 m single carriageway to dual 2-lane carriageway of primary distributor standard;
 - (ii) provision of 3.5 m wide footpath on both sides of the carriageway;
 - (iii) reprovision and/or diversion of the existing cycle track with a width of 3.5 m;
 - (iv) provision of a footbridge across Sai Sha Road;
 - (v) provision of a roundabout at the junction with the access road to Lee On Estate;
 - (vi) provision of two pedestrian/cyclist subways beneath the above roundabout;

- (vii) modification of the existing junction of Sai Sha Road and Kam Ying Road including provision of a ramp and a staircase for the completion of the subway across Sai Sha Road;
- (viii) provision of the necessary environmental mitigation measures arising from the works; and
- (xi) provision of associated landscape, drainage and lighting works.

2.2 Construction Phase

- 2.2.1 Detailed information regarding construction activities and methods is not available at this stage. It will be the responsibility of the Contractor to carry out the construction planning and undertake the works. Appropriate construction methods and techniques will be adopted by the Contractor in accordance with their available resources.
- 2.2.2 The road widening is scheduled to commence in early 2001 and be completed within 26 months. The anticipated construction sequence is shown in the construction programme, *Figure 2*.
- 2.2.3 The works will entail construction of at-grade road sections, with a footbridge and pedestrian subways constructed at appropriate locations, all elements will drain into the ground level drainage system.
- 2.2.4 The Sai Kung bound carriageway will be constructed first without disrupting the existing traffic flow. After its completion, traffic will be diverted onto the Sai Kung bound carriageway to allow construction of the Sha Tin bound carriageway.
- 2.2.5 The footbridge will be built on top of bored pile foundation with in-situ concrete ramps and staircases. The main span will be steel trusses to be prefabricated off site and lifted into position.
- 2.2.6 Pile cap construction will proceed as soon as piling work is completed, requiring excavation for the caps, fixing reinforcements, concreting, concrete breaking and backfilling. This shall be followed by the construction of the ramps and staircases which is likely to involve fixing the reinforcement, erecting formwork, and pouring concrete.
- 2.2.7 Drainage will be installed along new road sections. The establishment of drainage culverts will require excavation of the drainage trench alongside the road into which precast concrete pipes will be lowered. The road construction will then be followed by laying road pavements.
- 2.2.8 It is anticipated that the construction activities associated with the Sai Sha Road widening will coincide with the construction of the Ma On Shan Rail (MOS Rail) link between Kam Ying Road and the station at Lee On (LEO). The envisaged construction programmes are presented in *Table A1* in *Annex A*.

- 2.2.9 The construction of MOS Rail is scheduled to commence in early 2000 and be completed in 2004. The MOS Rail alignment to the east of the proposed footbridge will be on elevated bridge structure (see *Figure 3*). This will be formed by precast concrete members prefabricated off-site and supported on cast in-situ concrete columns on bored pile foundations. West of the proposed footbridge the MOS Rail alignment will be underground. This section is likely to be constructed using open cut methods using sheet piles as temporary supports. LEO is assumed to be constructed of reinforced concrete built on bored pile foundations.
- 2.2.10 The construction plant inventory likely to be required for each of the construction activities and their associated sound power levels (SWLs) are given in *Table A2* in *Annex A*.
- 2.2.11 It should be noted that each construction programme will be subject to change and refinement due to design development and Government review, as well as changes and refinements as the design progresses. Any subsequent significant changes to the programme will necessitate an environmental review to confirm that impacts, including cumulative impacts, are no greater than those predicted in this EIA.

2.3 Operational Phase

- 2.3.1 Operational noise predictions that have been included in this assessment consider two separate years. These are described as follows:
- Baseline Year (2001): this represents the prevailing traffic noise levels prior to the construction of the road.
 - Design Year (2018): this has been selected as the period when the traffic flows along Sai Sha Road are expected to be greatest within fifteen years of the opening of the new road (scheduled for 2003).
- 2.3.2 The forecasted traffic flow data⁽¹⁾, for each of these years are shown in *Figures 4a* and *4b*. The operational speed for the Sai Sha Road and its connecting roads is assumed to be 50 kph.
- 2.3.3 The data included in these figures has been agreed by the Transport Department for use in the context of the study only.

⁽¹⁾ All traffic data supplied by Maunsell Consultants Asia Ltd