

Proposed feed mill, Casuarina

Diptera Pty Ltd

**Report and recommendations of the
Environmental Protection Authority**

**Environmental Protection Authority
Bulletin 469
November 1990**

Proposed feed mill, Lot 13 Born Road, Casuarina

Diptera Pty Ltd

**Report and recommendations of the
Environmental Protection Authority**

ISBN 0 7309 3553 1
ISSN 1030-0120

1. Background

Diptera Pty Ltd as Trustee for the Wilfred Rybak Trust proposes to construct and operate a small stock feed manufacturing facility on Lot 10 Born Road, Casuarina, in the Town of Kwinana.

This proposal was referred to the Environmental Protection Authority by the Town of Kwinana, subsequent to an application by the proponent to the Council. The Council also enclosed a Schedule of Objections to the proposal by some 59 concerned residents in the area, together with a response by the proponent to the objections.

2. Proposal

The proposal involves the construction of a single skinned building (20 x 18 m), with approximately 80 m² to house the manufacturing equipment and 240 m² to store the finished product (refer to Figure 1). External installation of storage silos would be required - four grain silos of 50 tonnes capacity and four soft material silos of 10 tonnes capacity each.

In the process (Figure 2), cereal grains would be drawn from the silos and ground in a 30 hp hammer mill, in 0.5 tonne batches. The ground grain then would be mixed, together with meat meal or bran if required, before being conveyed to a pellet press via a 20 hp steam conditioner (590 KPA, 85-90°C), which assists in the binding of the pellets. Cooled pellets would be sieved and the finished product stored in 40 kg bags or conveyed to a bulk outloading bin.

3. Existing environment

The proposed feed mill facility would be located near the middle of a 4 ha block (Figure 3) which is zoned for rural purposes. However, many blocks in the area, including ones to the rear, are zoned special rural.

The front half of the property, which has been partly cleared, there are situated a brick house, machinery shed (15 x 6 m), and stables. The rear of the property has a reasonably dense cover of mature marrí, jarrah and tuart trees.

4. Environmental impacts

Potential environmental impacts from this proposal are noise levels (manufacturing, traffic), dust and gaseous emissions, water usage, waste disposal, vermin control and visual impacts in a rural setting. The proponent has addressed these issues in the Consultative Environmental Review (CER) documentation to a reasonable degree, prior to detailed design being prepared.

Noise levels generated by the hammer mill can be contained within a sound proof enclosure. Most other noise generating equipment such as conveyors would be contained within the walls of the building. Boiler blowdown would discharge into an underground sump. The proposed facility would be located approximately 200m from any existing neighbouring residence. The proponent's commitment to restrict operations to daylight hours has been made to prevent noise intrusions at night.

At an anticipated production rate of 20 tonnes/day, it is unlikely that traffic levels would significantly increase in the area to the point of generating unacceptable noise levels or safety problems to the local community.

Dust emissions would be minimised by the use of modern equipment which is also used to reduce product wastage. All conveying and milling equipment would be sealed and vented to a dust extraction system.

The proposal has some potential to omit odours. However, due to the small size of the plant relative to the block size and distance to surrounding residences, and the likelihood that the nature of these odours is not offensive or out of character with those generated by other land users in the area, the Authority believes that this is acceptable.

Product cooler emissions would exhaust through a cyclone, and both the dust extraction system and the cyclone discharge fines would be recycled back into the process.

Waste disposal is not anticipated to be a problem with the process. Most wastes and spillages would be dry and, given their inherent values to the proponent, would be reprocessed and sold with the product.

Potential impact on the groundwater resource by the development is considered to be minimal. The proponent intends installing a 100,000 litre rainwater tank, as high quality water is required for the boiler. A usage of 168 litres/hour is estimated for the process. The existing bore would be required as a back-up to the rainwater storage tank.

The proponent indicates that vermin would be controlled using standard on-farm controls such as rodent baits, weevil control and good housekeeping. Grain will be stored in sealed bins and will be turned over approximately every 12 days.

Visual impact of the proposed facility would be minimised by siting it towards the rear of the property, amongst existing trees. The Authority believes that the proponent should consider the need for further landscaping and painting of the structures to ensure aesthetic compatibility with the surrounding environment.

5. Consultation

During the assessment of this proposal the Authority consulted the Department of Urban Development and the Town of Kwinana, and received two comments from local residents concerned about the development.

Recommendation 1

The Environmental Protection Authority concludes that the project, as described in the supporting documentation for Consultative Environmental Review for Proposed Feed Mill Lot 13 Born Road, Casuarina, is environmentally acceptable and recommends that it could proceed subject to commitments made by the proponent and recommendations made in this report.

The Authority recognises the concern of the local community at what can be perceived as an industrial project being located in rural/special rural setting. As such, restrictions on noise levels and operating times are necessary to ensure that the values of other land users in the area are protected.

Recommendation 2

The Environmental Protection Authority recommends that the hours of operation of the processing equipment should in the first instance be limited to between 0700 hours and 1700 hours from Monday to Friday and 0700 hours to 1200 hours on Saturday and should exclude Sundays, Saturday afternoons and public holidays.

After 12 months of plant operations the proponent may apply to the Authority to operate outside the recommended hours. The Authority would only consider such an application if it was accompanied by a report detailing the likely impacts on the environment and the community.

Recommendation 3

The Environmental Protection Authority recommends that the proponent should ensure that all process equipment on the premises, including conveyors, screens, fans, the hammer mill, boiler and dust control equipment is managed and operated such that the noise emissions from the premises does not cause or contribute to noise levels in excess of 50 dB(A) between between 0700 hours and 1700 hours from Monday to Friday and 0700 hours to 1200 hours on Saturday, to the satisfaction of the Environmental Protection Authority, when measured:

- (a) at any point on or adjacent to other premises not occupied by the proponent and used for residential or other noise sensitive purposes; and**
- (b) at a height between 1.2 m and 1.5 m above ground level and greater than 3.5 m from any reflecting surface other than the ground.**

The Authority also recommends that noise emissions should not be permitted to cause unacceptable annoyance due to tonal or impulsive components to the satisfaction of the Authority.

The Authority 's experience is that it is common for details of a proposal to alter through the detailed design and construction phase. In many cases alterations are not environmentally significant or have a positive effect on the environmental performance of the project. The Authority believes that such non-substantial changes, and especially those which improve environmental performance and protection, should be provided for.

The Authority believes that any approval for the proposal based on this assessment should be limited to five years. Accordingly, if the proposal has not been substantially commenced within five years of the date of this report, then such approval should lapse. After that time, further consideration of the proposal should occur only following a new referral to the Authority.

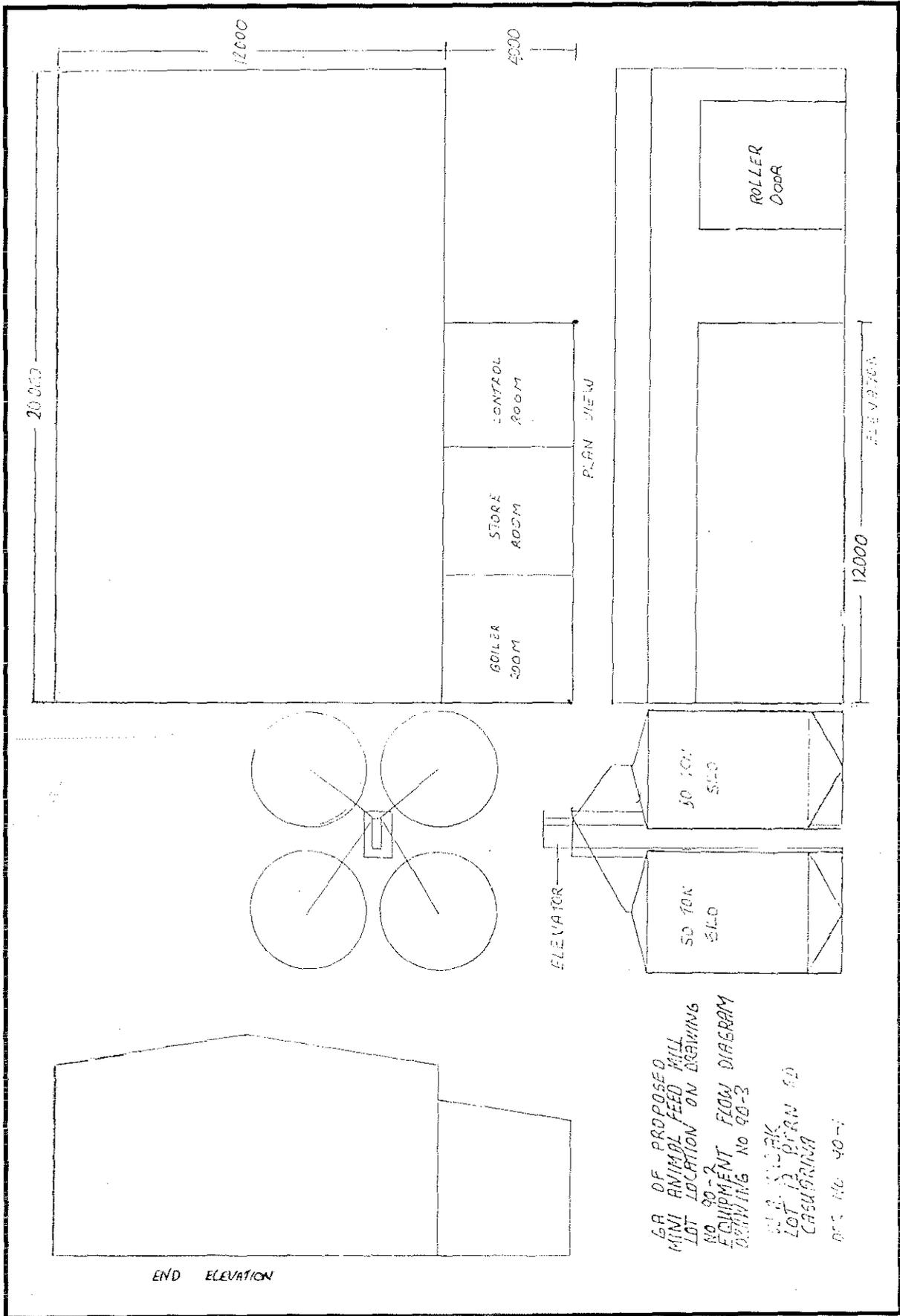
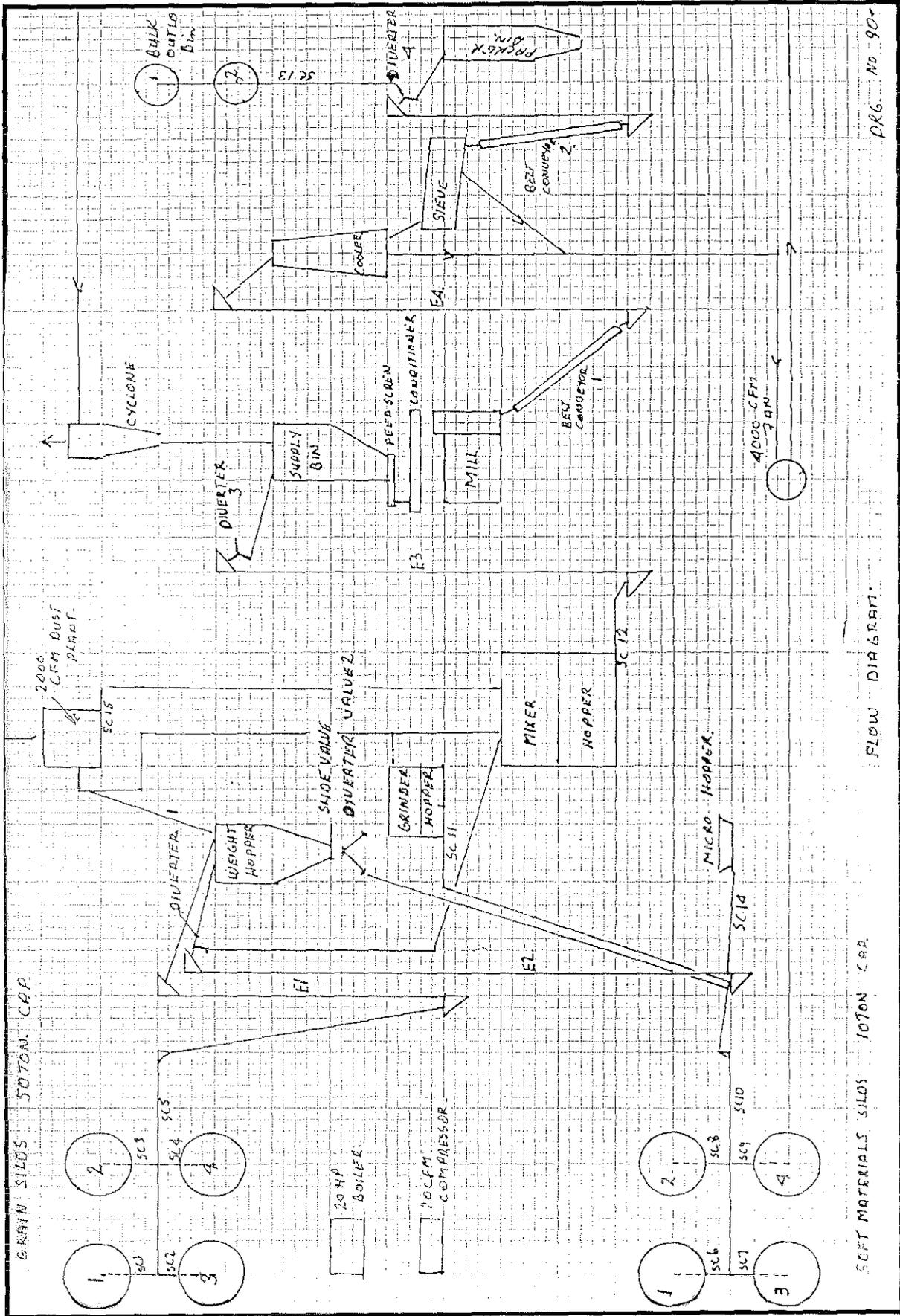


Figure 1: Layout of proposed feed mill



PRG. No 90

FLOW DIAGRAM

Figure 2: Flow diagram

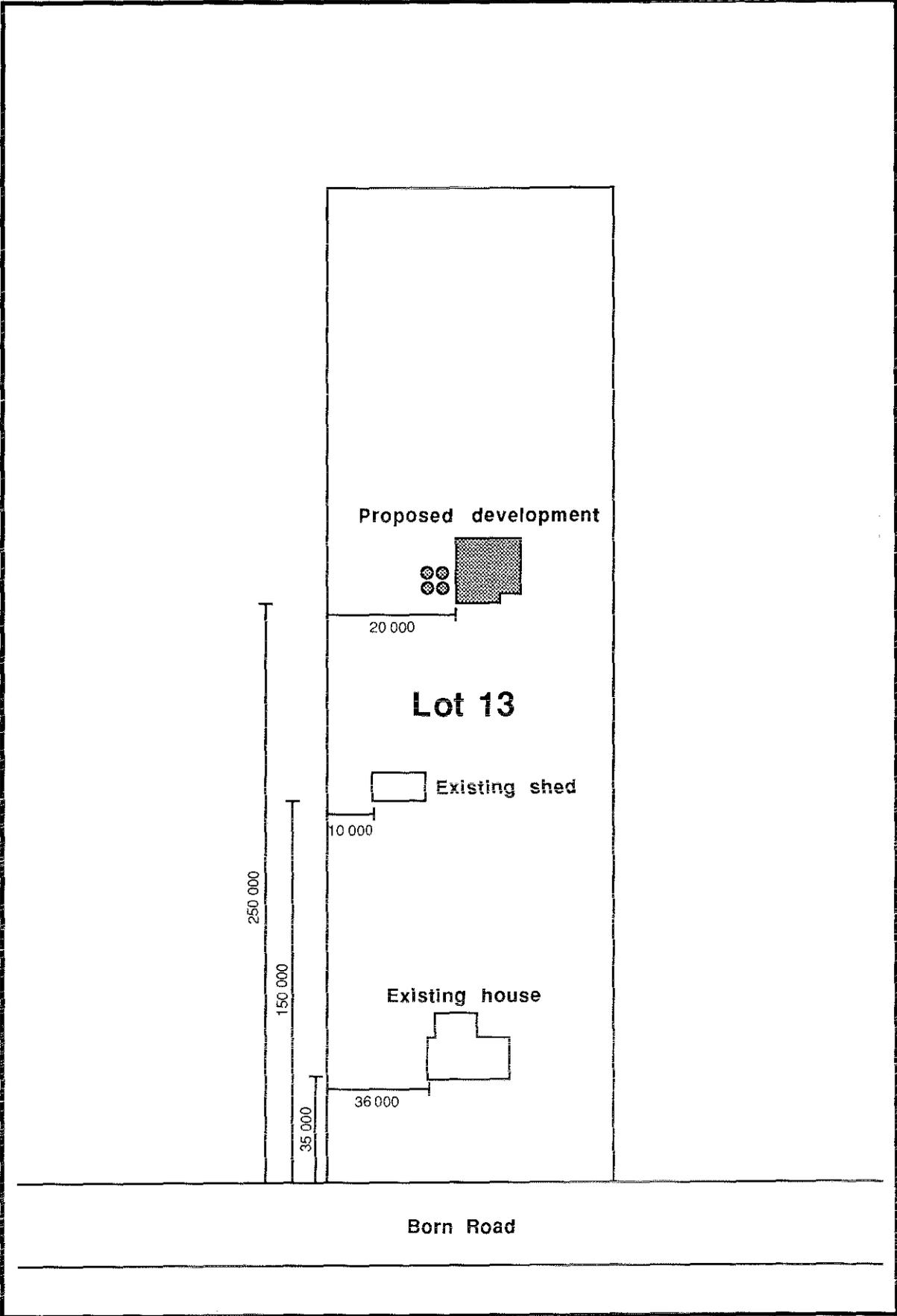


Figure 3: Location of proposed development

Appendix

Proponents commitments

The following commitments will be undertaken:

- (a) Manufacturing plant will only operate during daylight hours.
- (b) Transportation of raw materials and finished products will be confined to daylight hours.
- (c) Manufacturing plant will be located no closer than 250m from the Born Road boundary amongst trees.
- (d) Only limited clearing of natural vegetation will be carried out, to allow vehicle access to the plant.
- (e) No counter sales will be carried out from the mill.
- (f) In the event that noise levels or other emissions are shown to be unacceptable by the government authorities, the company will immediately cease operations and take appropriate remedial action prior to recommencement of operations.