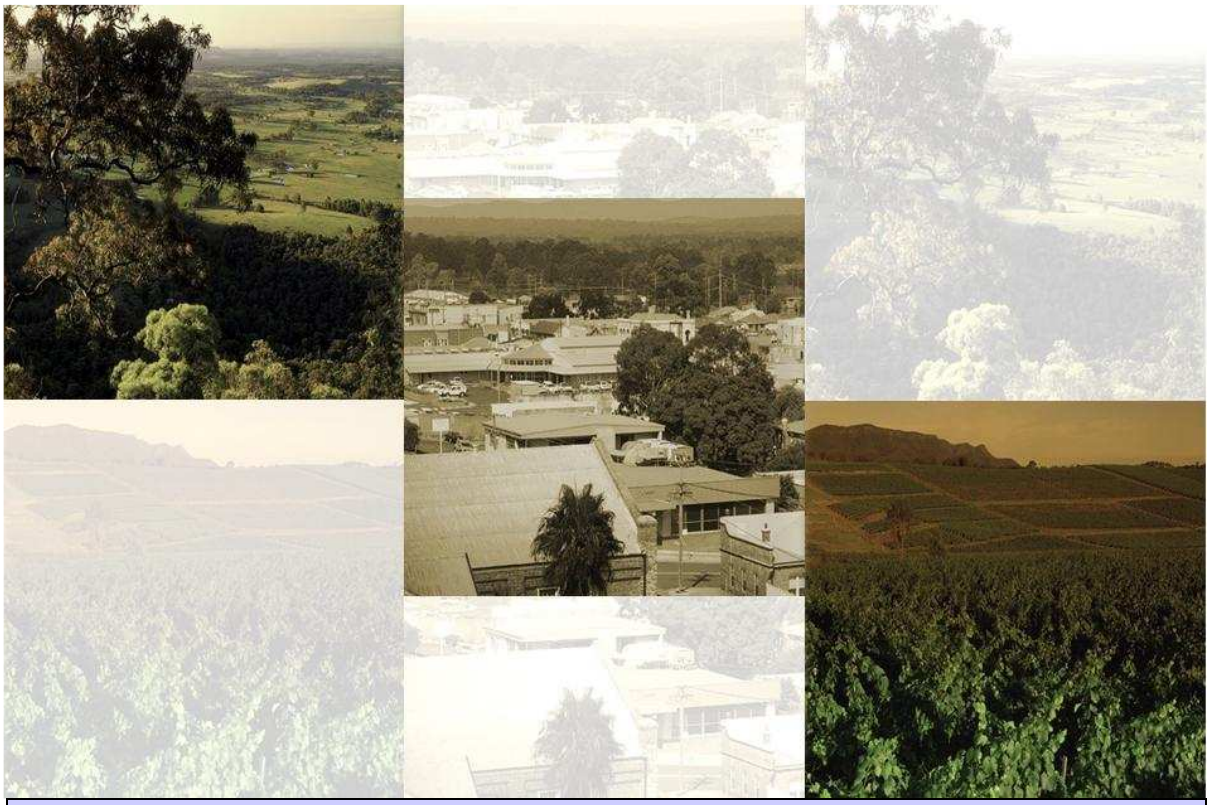
CESSNOCK

DEVELOPMENT CONTROL PLAN

PART E
SPECIFIC AREAS



E.4: STANFORD MAIN

Amendment History

Version No.	Nature of Amendment	Date in Force
1	Initial adoption by Council on 13 December 2000 (DCP 44)	3 January 2001
2	Consequential Amendments to site-specific DCP's arising from the Cessnock DCP 2006	1 December 2006
3	Incorporation into Part E: Specific Areas	30 March 2007
4	Consequential amendments as a result of Cessnock Local Environmental Plan.	23 December 2011

TABLE OF CONTENTS

PART E: SPECIFIC AREAS

E.4

FIGURES

APPENDICES

E.4 STANFORD MAIN

4.1 INTRODUCTION

This Chapter ensures that detailed planning, heritage, urban design principles and controls, and the long-term development of the former colliery site, reflect and complement the State heritage significance of the existing development on the site. The complementary aim is to describe controls, which will ensure the appropriateness and outstanding urban design quality of all future development of the site on a staged development basis and which will assist the process of revealing more of the site's heritage significance over time.

4.1.1 Application

This Chapter applies to all lands currently known as the former Stanford Main No.2 Colliery on the Ellalong-Millfield Road at Paxton (currently known as Lot 120, DP 848876), (see Figure 1: Locality Plan).

4.1.2 Purpose

The Chapter provides the necessary framework for Council to assess and determine development applications for the future development of the site. The Chapter forms an integral 'Implementation Plan' component of the Conservation Management Plan for the site, required under the provisions of the NSW Heritage Act 1977.

A copy of the Conservation Management Plan is available from the Cessnock City Council Administration Centre in Vincent Street, Cessnock.

4.1.3 Who Should Use this Chapter

This Chapter is for the use of:

- consent authorities - for the assessment of development applications;

- landowners and applicants for development - to provide the basis for the design of future development on the site; and

- the public - to provide an indication of the form and quality of development permissible on the site and thus an indication of the level of the site's heritage significance.

4.1.4 How to Use this Chapter

The Principles and specific Controls of this Chapter shall be reflected in any site Masterplan and in any development application relating to the site.

This Chapter provides Council, the Developer and the public, with the mechanisms by which to prepare and assess all development applications related to the site. Section 3: Development Principles and 4: Specific Development Controls are of particular importance and all proposed development shall comply with its provisions and requirements. The Chapter provides consent authorities with the necessary checks and balances in relation to any application relating to the subject site.

4.1.5 Information Required in Relation to Development Applications

This site has heritage significance, not just for the Region, but for the State. For this reason the information required to accompany any development application shall exceed that required under 'normal' DA conditions.

4.1.5.1 Conservation Management Plan

Because of the level of significance of the site, a Conservation Management Plan shall be approved by the Heritage Branch prior to commencement of alterations to the former colliery. Where, as in this case, the State significant listing affects a large site containing a range of significant items, the Conservation Plan would be expected to contain, or be accompanied by, an outline or draft chapter. This chapter fulfils that function, serving to guide and control the implementation of the Conservation Management principles.

4.1.5.2 Statement of Heritage Impact

Prior to issuing development approval in the context described in the above clauses, Cessnock Council and the Heritage Branch shall have sufficient information, to allow it to assess the impact of the proposal on the heritage significance of the item or the site. The required information shall be provided through a Heritage Impact Statement (HIS), based on the Conservation Management Plan and prepared by the applicant. The HIS forms a component of the Statement of Environmental Effects (SOEE) that accompanies a development application.

4.1.5.3 Curtilage and Excavation Permits

This Conservation Plan affects a larger land area than that covered by the extant buildings. It is possible that such a significant, old site may contain underground evidence of former structures and that a large portion of the site plays a greater part than currently understood, in contributing to the significant physical presence of the important buildings.

The latter fact is reflected in the Heritage Branch publication 'Heritage Curtilages' which provides additional information to allow consent authorities to make adequately informed decisions about development applications affecting heritage sites.

In relation to the possibility of uncovering significant heritage relics at the time of excavation, Sections 139 and 140 of the *Heritage Act 1977* require that an Excavation Permit be obtained from the Heritage Branch (in the NSW Department of Planning) prior to commencement of development. Excavation Permits, like development consents, are usually conditional, requiring compliance with matters such as analysis, artefact cataloguing etc. The Heritage Branch will advise the consent authority of its requirements in this respect (general terms of approval), in response to the consent authority seeking its approval to any development application, under Section 91 Integrated Development of the *Environmental Planning & Assessment Act, 1979*.

The above issues are examined in detail in Section 2 following.

4.2 FRAMEWORK FOR DEVELOPMENT

4.2.1 Statutory Context

4.2.1.1 The Parent Local Environmental Plan

This Chapter adds detail to those planning provisions contained in the Cessnock Local Environmental Plan.

4.2.2 Urban and Built Heritage Context

In terms of early exploration of the area, the site is located on the line of communication established between Wollombi and Maitland which in part follows Ellalong Creek. Ellalong Lagoon was a landmark along the early route. The site is adjacent to the branch of the Great North Road between Wollombi and Maitland, that was opened in 1831. It was one of the first grants in the area (December 1825) and has been used for agricultural activity ever since.

The cultural landscape of the site reveals an environment that encouraged the agricultural and pastoral pursuits of the 19th & 20th centuries. Ellalong Creek was the influencing factor for the later apportionment of the large estates. The cross-road site influenced the location of the colliery, and Millfield Road determined the siting of Paxton village.

The site is above the Great Coal Measures. Because the land was in freehold title, mining leases were taken up later than nearby Crown land leases. The site was considered for coal mining about 1920.

The immediate site and the adjacent village demonstrate the early 20th century focus on the development of the South Maitland coal fields, Australia's richest coal deposit of the period. The Stanford Merthyr No.2 (or Paxton) Colliery, was one of the later collieries opened on the South Maitland coalfields. It is considered to have the highest-level heritage significance because of its relationship with its environment and the quality and design of the remaining buildings.

The clear physical relationship between the colliery site and Paxton village is a rare and outstanding example of the creation and function of an integrated coal mining settlement / development of the period.

An extract from the *Advocate* of 18 August 1922, variously describes the local infrastructure and surroundings which to this day have a direct bearing on the significance of the site:

- *the property occupies part of the valley through which the Congewai Creek flows on its way to the Wollombi Brook, and is flanked by mountain ranges. The site of the colliery is near the Millfield Road, on the side of a gently sloping hill, and ideal for drainage purposes. The railway, which leaves the Kalingo railway about three miles from the colliery, is complete so far as the main colliery line is concerned.*

- *the colliery line will sweep around the hill towards the Congewai Road.*

- *…. a capacity of about 2,000,000 gallons, has been constructed for water supply purposes, but the creek which is within a few hundred yards, is also available.*

- *an area has been subdivided for township purposes at the junction of Millfield and Congewai Roads, close to the colliery. Northcote Avenue runs parallel to Millfield Road, and the intersecting streets are Earp's Road, Clift and Paxton Streets. Provision is made for quarter-acre blocks, and the town will be named Paxton, after one of the directors of the company.*

4.2.3 Landscape Heritage Context

The original landscape of the site would have looked similar to the naturally vegetated areas north of Paxton. Generally, the site would have been covered with dry sclerophyll forest with a light undercover of herbs and shrubs. Dominant plant species would have been gums, boxes, ironbarks and stringybarks with paperbarks and she-oaks occurring in the wetter drainage lines. The foliage cover would have been denser than the natural areas that still exist, as this vegetation shows indications of thinning and regrowth presumably undertaken by the management for the construction of the colliery.

The formation of the colliery by the EGCMC in 1920 and 1921 required the acquisition of a number of smaller properties. It is known that at the time of purchase, a substantial portion of the land had been developed as agricultural land by the former owners.

Purchasing the land enabled the company to undertake other ventures including the subdivision and sale of land to form the private town of Paxton. The first sales of quarter acre blocks commenced in August 1922 with suggestions made that Paxton had the potential to become another Cessnock. As the mine grew, resulting in a corresponding demand for labour, then so did Paxton complete with public school and local church.

The colliery was situated on the south-western side of Millfield Road on an area of land that gently sloped away from the road to ensure good drainage. This location also allowed easy access to the Congewai Creek which was also an important consideration for the mine. Having sited the mine, it appears that it was an easy decision to locate the town directly opposite Millfield Road, ensuring convenient walking access to the mine by its inhabitants. The major cross road of the town, Stanford Street, was aligned as an extension of the main entrance and access road to the mine. In spite of this, Millfield Road acts as a strong barrier between the two.

Early work on the mine concentrated on the construction of the mine shaft and infrastructure including the railway. A brickworks and sawmill had been constructed previously so as to supply materials for the construction and erection of the necessary surface buildings, machinery and the like. Coal was first struck in February 1923, however, it was not until later that year that coal production was consistently being provided. Coal production fluctuated in the years to follow, due to a combination of factors including: floods; strikes; lockouts; and a contraction of coal markets. This situation tended to persist for the life of the mine, with good years often interspersed with bad.

It would seem that in an effort to establish the colliery and to get it profitable, little consideration was given to improving the appearance of the mine with landscaping. The exception to this is the Administration Building (built in 1925) that appears to have had a fence and Canary Island Date Palms established soon after it was constructed in 1925, following the completion of all the operations structures.

The Mine Manager's Residence was completed soon after the Administration Building. This building has had extensive tree planting undertaken in the past and like the Administration Building it has a row of Canary Island Date Palms located in front of what would have been the major elevation. From the evidence available it would seem that the Manager's Residence was fenced all round and included a number of small gardens and paddocks. A large concrete tank still exists, although the building itself has been demolished.

Two additional residences were constructed off the main access road near to the front entrance. Not much tree planting was undertaken, with the exception of what appears to be a dead deciduous tree. Both buildings have now been demolished.

Two further residences were also constructed between the Administration Building and the Mine Manager's Residence. The only above ground remains of these buildings is a solitary Norfolk Island Pine which appears to have been planted in one of the rear yards.

The most profitable time for the colliery occurred soon after World War II and lasted until the late 1950s, when once again the mine was plagued by stoppages and strikes. It was during this time that a new Bath House was constructed in an effort to improve workers' conditions. Plans were prepared to affect ornamental tree planting along the main access road, car park and site generally. The evidence suggests that only a small proportion of the landscaping plans were implemented, most notably being the Crepe Myrtles to the front of the Bath House building. Most other plantings appear to have never been undertaken or were not adequately maintained.

In 1961, the colliery closed following the owner's decision that the mine could no longer be operated profitably. In the ensuing years following the Sawmill's closure, which remained open until 1972, the site has been left idle with the exception of cattle grazing occurring in some of the pastures.

4.2.4 Land Use Context

Paxton is located approximately 12 kilometres from Cessnock which is the main town of the area and is the local government area's administrative centre. Other nearby towns including Millfield and Ellalong are small settlements of similar size to Paxton and also have associations with coal mining.

The land north and east of the town are generally covered with native forests with the Aberdare State Forest being located only a few kilometres north-east of Paxton. Land to the south and west is generally cleared pastures capitalising on the availability of deeper, more fertile soils due to the presence of Congewai Creek, before returning to native forests. Located near the town to the south-east is the locally prominent Ellalong Lagoon.

The main road running through Paxton is Millfield Road. There are a few commercial buildings located on Millfield Road, including the Paxton Hotel. The commercial buildings are not aggregated together but are spread out with residences between. Millfield Road defines the south-western edge of the town which consists of a collection of single storey detached cottages with other facilities such as a public school on Anderson Avenue and sizeable Bowling Club located on the corner of Clift Street and McDonald Avenue. Main Street contains the town's development on its north-eastern edge.

On the southern side of Millfield Road is the Stanford Main No.2 Colliery, which currently reads as a collection of disused industrial buildings set amongst broad pastures and stands of native vegetation. The demarcation between the town and the colliery is pronounced, which is remarkable considering the strong relationship that exists between the two.

The Quorrobolong 9132-2-S 1:25,000 topographic map, illustrates the shape and form of the Paxton township. The location of the colliery buildings relative to the town and path of the former railway can also be seen. Many of the East Greta Coal Mining Company Officials of the 1920 have their names preserved in and about Paxton for example:

- the Town of Paxton is named after John Maitland Paxton, a member of the Board of Directors;
- Adelaide Street, after the Adelaide Steamship Company whose financial involvement in the EGCMC enabled it to finance development of the Stanford Colliery;
- Anderson Avenue, after D G Anderson, Company Secretary;
- Clift Street, after Kenneth S Clift, Company Director;
- McDonald Avenue, after Hector C McDonald, Company Director;
- Earps Road, after Charles A Earp, CBE, Chairman of the Board of Directors;
- Northcote Avenue after Edward Northcote, Company Director;
- Sawyer Street, after S J Sawyer, First Manager of the Colliery; and,
- Williams Street, after Henry Williams, Company Stockholder, Superintendent of Collieries.

4.3 DEVELOPMENT PRINCIPLES

4.3.1 Staged Development

The overriding site development principle is to allow and accommodate development of the site which serves the identified objectives of the Conservation Management Plan and which is compatible with the need to conserve the interpretability of the history of the site.

The principles and specific development controls of this Chapter demonstrate the relevance of staging developments on the site and anticipate all the environmental implications of such development on a site of State Heritage significance.

4.3.2 Building Alteration and Demolition

As is accepted by the NSW Heritage Branch (formerly the NSW Heritage Office), *"… the objective in conserving a Heritage area is to sensitively accommodate change, not to prevent it. The area must be allowed to live and grow, not become frozen in a time warp"* (NSW Heritage Office publication 'Conservation Areas' p. 13).

Where any grouping of heritage items not within a Conservation Area has a collective significance, loss of any one item can erode the heritage significance of the area as a whole. However, adaptations (ie. a controlled degree of intervention) are often needed in heritage places to accommodate modern working or lifestyle requirements. These may include the addition of new facilities, or building additions and alterations, or additional parking. As long as the heritage significance of the place is not adversely affected, such changes can be perfectly acceptable. Changes to the fabric of items and areas can also result from an understandable desire to reduce maintenance.

Solutions aimed at minimising the intrusion of incompatible building materials, building forms and details are a major management issue in heritage areas and shall be encouraged. They shall be based on heritage study data analysis, or conservation analyses of the places concerned.

As determined by the Heritage Branch, there are two basic principles, now commonly established as points of consideration in formulating Heritage DCP's, that encourage good heritage site development solutions. They are:

1 alterations or extensions shall have regard to the architectural character and style of the building, area and landscape concerned. Character and style may be major aspects of a building's heritage significance, requiring any change to respect that style. This may mean simply the adoption of an understated character for the new work, so as not to challenge the existing fabric or directly mimic its form. If historical details are mimicked, not only will they not be of any heritage value themselves, but they might also camouflage the important characteristics of the genuine part of the building.

2 alterations or extensions shall consider the characteristics of the surrounding built and landscape forms. The impact upon neighbouring properties, landscape and streetscape will be of concern both to the owners of those properties and to the wider community. If these issues are addressed early, problems can be avoided later.

The other important issue relates to opportunities to interpret materials used over time to construct the significant items within the area. To allow this to happen, an implied objective is, wherever possible to re-use on-site materials removed / demolished from significant structures.

These general principles can be worked into specific heads of consideration that shall again be fine tuned to the needs and significance of the particular heritage area. These are discussed in detail in Section 8.4 – Degrees of Acceptable Physical Intervention and elaborated into controls in Section B.3.4 and Section B.4.4 of the Conservation Management Plan.

4.3.3 Landscape Principles

In relation to infill with new gardens, fences, gates and signs, the visual form and rhythm provided by gardens, trees and major landscapes may have heritage significance as substantial evidence of particular periods of development of a site. Reinstatement and infill proposals shall be carefully considered and based on historical research (see Appendix 1: Landscape Heritage Assessment). Introduced species and forms shall serve the established visual character of any significant landscape. New fences and gates shall reflect predominant adjacent similar elements and shall relate to the materials and detail of new buildings. New signs shall only be introduced where they will not adversely affect the level of significance of the immediate area or the larger heritage conservation area or the capacity to interpret it.

4.3.4 Infill Principles

There are numerous publications provided by the Department of Planning with regard to ‘infill development’ and the Heritage Branch has publications, such as: ’Conservation Areas’ and ’Heritage Curtilages’.

The issues of the character, scale, massing and disposition, materials and details of infill development, shall, especially within heritage conservation areas, be strictly based on those elements of the existing environment, including those elements which may not be grand or attractive (eg. old tennis courts and playing areas – in this case perhaps the former employees’ car park, entrance turnstile gates or the coal loading chutes). In relation to heritage curtilages, significant features can be as simple as a stone wall marking the boundary of an early subdivision or garden. Not only do these items have historical and social significance in their own right, they can also be used to help define a heritage curtilage for the main heritage structures. Infill design shall avoid incurring loss of such elements. Existing walls, fences and gardens can provide the necessary theme for infill design.

4.4 SPECIFIC DEVELOPMENT CONTROLS

4.4.1 Sustainable Development

The standard heritage management imperative of retaining the interpretability of the area and of its contributory elements, marries well with Ecologically Sustainable Development (ESD) principles.

ESD implies an integration of environmental and economic considerations in decision-making, appropriate valuation of environmental assets, dealing cautiously with the issue of irreversibility of actions and recognising cumulative impacts of environmental intervention.

Relevant ESD Principles and Controls in this context are:

Principles

(i) Encourage development that conserves the community's built and natural resources and which either incorporates fuel and power source substitution or, contains levels of demand on non-renewable infrastructure;

(ii) encourage development that maximises solar access and solar energy use;

(iii) encourage development which uses recycled and low embodied energy materials;

(iv) encourage building design that allows for longer-term adaptability with a minimum of local environmental and resource-consumption impacts;

(v) encourage development that maintains existing levels of local area amenity; and

(vi) encourage development which incorporates waste recycling / re-use.

Controls

(i) All proposed development of the site shall demonstrate consideration of alternative energy and infrastructure design options, the possibility of waste recycling and the possibility of recycling of demolished materials;

(ii) all new buildings shall be designed and sited to maximise exposure of the principal habitable spaces, to solar access;

(iii) removal of significant trees (as identified in the Landscape Assessment prepared for the site) from the identified curtilage of the site is not permitted; and

(iv) demolition and removal of existing structures will be permitted only where there is no proven impact on the level of significance of the environment and where an assessment has been made of the potential to retain and re-use existing materials on site.

4.4.2 Character, Scale, Massing and Density of New Development

The character of the former Stanford Colliery site is determined by the existing buildings and structures, remnant from the former coal mining period of site occupation.

Principles

(i) Encourage the removal over time of buildings and structures of inappropriate scale and form (ie. intrusive) so that development within proximity to the 'contributory' items is focused on those structures and retains sufficient effective curtilage around each to preserve their interpretability;

(ii) retain the overall open character of the site landscape, encourage groupings rather than scatter of buildings, with each grouping of scale similar to that formed by the remaining colliery buildings;

(iii) locate new building groups within an ordered landscape recognising the need to maintain exiting major views and to retain the emphasis of major topographical features;

(iv) restrict the height and scale of new buildings to proportions determined by the principal proportions of the existing benchmark buildings, Powerhouse, Winder House (Main Shaft), Winder House (Upcast Shaft), Administration Building and the Blacksmith's and Fitters' Workshop;

(v) new buildings shall be designed to conform to existing significant buildings in terms of massing of plan elements, facade lengths and ridge heights;

(vi) long facades shall be articulated by breaking the building into distinct segments, desirably with distinct indentations;

(vii) new development shall complement existing buildings in the vicinity in materials and colour. Generally, where adjacent to masonry buildings, new building facades shall have a masonry character, with walls and roof forms rather than windows, the dominant elements. Where adjacent to corrugated iron buildings, the character of new buildings shall be compatible;

(viii) horizontal elements of new buildings such as string courses, cornices, parapets, window sills and heads shall relate to those of existing significant or benchmark buildings, and together with vertical elements, such as bay widths, and changes in facade planes, establish a well proportioned rhythm; and

(ix) new building character shall be one of domestic-scale masonry, timber and corrugated iron structures. Red-browns and grey colours shall predominate. Colours shall draw on their sandstone, brick, timber and corrugated iron contexts.

Controls

(i) No new building works will be permitted unless each new building conforms with the requirements of the Heritage Branch's 'Conservation Areas' and 'Heritage Curtilages' documents;

(ii) within any new grouping of buildings, roofs shall all be of a consistent pitch (or range of pitches) throughout the site and building groups shall include a variety of predominantly one and two storey buildings;

(iii) the maximum permissible number of storeys of any one building is three, excluding any underground parking. Any underground parking shall be limited to one level with the maximum above ground perceived building height to be three storeys;

(iv) where possible, building groups shall be arranged to retain identified landscape view corridors to and from major landscape or landmark features;

(v) no removal of identified significant trees will be permitted in relation to the siting of new buildings or building groups;

(vi) design elements such as verandahs, verandah posts, and strongly expressed ridge and eaves lines, shall be used in the design of new building, to provide direct scale linkages with the benchmark or reference building/s;

(vii) in relation to the character of new buildings, all facade colours shall be limited in intensity, to those of the benchmark or reference building/s; and

(viii) where applicable, residential-type buildings shall conform to the requirements of the Part D: Specific Development, Chapter 2: Urban Housing, in terms of solar access, private open space etc.

4.4.3 Building Alterations, Additions and Demolitions

The degree of intervention into any building within a site of Heritage Significance shall relate to the assessed significance of the item and of its contribution to the significance of the site. The level of the significance of the item and the extent of fabric, which determines that significance, as well as the condition of the building, determines the level of acceptable intervention. (refer to Section 6.1 of the Conservation Management Plan for the former Stanford Main No.2 Colliery for the 'Levels of Significance' of buildings / structures within the site).

Principles

(i) Re-use of an item for a totally new purpose, or demolition of an item, is generally only appropriate where the item is of lower-level significance, is 'intrusive' or where a large portion of the surviving fabric does not contribute to the level of significance of the item;

(ii) decisions on the extent of building alterations and additions, and building demolition shall only be taken within the context of an overall Conservation Management Policy or Plan for the site and the Burra Charter Options of Preservation, Restoration, Reconstruction and Adaptation;

(iii) where it is determined that a new use is required, this shall be one which is 'compatible'. (ie. a use that involves no change to culturally significant fabric, or a change that is substantially reversible). Changes, or introduction of new fabric, shall be strictly limited to those required by the new use and shall not adversely impact on significant fabric. New fabric shall read clearly as new fabric, distinguishable from the fabric on which the significance of the item depends;

(iv) where possible, changes to significant fabric undertaken as part of a conservation process should be reversible. Respect for the fabric of a place shall extend to fabric from different periods and to contents or associated features such as joinery and fitments;

(v) prior to any removal of demolished materials from the site, the potential to re-use any or all material shall be fully investigated; and

(vi) any building additions shall be consistent with the predominant building form in height, mass and scale of individual elements. New materials shall be consistent in theme, with existing materials.

Controls

(i) No further fabric, identified in the Conservation Management Plan proper, as having a major contribution to the overall level of significance of any of the buildings or landscapes, as having higher level of significance shall be altered or removed prior to thorough examination of all known alternate options. Any additions to these buildings shall only occur at locations where there will be the most minor adverse impact;

(ii) no external fabric of any of the above items shall be demolished or altered if it will result in a loss of interpretability of the cultural significance of the item and its curtilage;

(iii) demolition of whole structures will only be permitted where:

- the structure of building is of lower level significance;
- the structure or building is sufficiently dilapidated for reconstruction not to be a viable option; and
- where removal of the structure or building will not adversely impact upon the level of significance of the building group or total site (ie. where the building or item is identified as being 'intrusive').

4.4.4 Character and Scale of Landscape

The design of a heritage item and its grounds can reveal much information about the architectural ideas, style and taste of its historical period. Associated elements such as driveways, visual axes, plantings and fencing can provide valuable additional interpretive information. Accordingly, a Landscape Conservation policy shall recognise the importance of these elements.

The heritage significance of major sites often relates directly to visual linkages with geographic or topographic features. It is important that planning controls ensure any new development that may be introduced respects these linkages or corridors.

Some properties have become important landmarks contributing significant panoramic views in the locality. They often provide visual pleasure and a reference point for travellers. It is important not to lose these qualities through inappropriate development on surrounding land.

Principles

The Landscape and Curtilage management principles outlined below are as further detailed in the Heritage Branch publication 'Heritage Curtilages'.

Proposed changes to Landscapes forming an integral component of the landscape significance of the site, shall be determined from the following analysis:

(i) has the significance of the original relationship of the heritage item to its site, landscape and locality been conserved?;

(ii) has an adequate setting for the heritage item been provided and retained, enabling its heritage significance to be maintained?;

(iii) have adequate visual catchments or corridors been provided and retained to the heritage item from major viewing points and from the item to outside elements with which it has important visual or functional relationships?; and

(iv) are buffer areas required to screen the heritage item from visually unsympathetic development or to provide protection from vibration, traffic noise, pollution or vandalism.

Other major guiding principles include:

(v) it is important to recognise that it may be important for historical reasons to display a heritage item in its relationship to its original allotment. In such cases, the retention of the allotment is necessary to demonstrate the visual setting and functional relationships of the structures on it, because they are integral to the heritage significance of the property. Original subdivision patterns can provide valuable information on the development of cultural landscapes;

(vi) even in cases where the original boundaries have been broken up through subsequent subdivision, features such as walls, paths, roads and plantings may mark them. It is important to identify and retain these features, as they may provide evidence of the original land grant, a significant event in the property's history or its association with a particular owner;

(vii) well-considered landscape curtilages can provide physical evidence of historical associations between the land and successive human activities and structures upon it. It is important to minimise intervention into significant landscapes where that physical evidence would be compromised or lost as a result;

(viii) trees or shrubs may be the sole remnants of:

- the original garden;
- avenue entry drives; and
- perimeter or feature planting.

They may have historical, aesthetic and scientific value for such reasons and be significant in their own right. Trees may also enhance the appreciation of some heritage items by providing a local landmark.

There may also be smaller plantings, including small trees, shrubberies, perennials and ground covers that were part of the garden design and setting of a building. These plantings shall be included within a heritage curtilage and can often help to define its perimeter.

(ix) it may be necessary to retain plantings to frame or screen heritage items. These may include original plantings that are of historical or scientific significance or those contributing to the visual amenity of the area, protecting it from visual intrusion or consolidating its 'sense of place'; and

(x) identified significant trees shall be properly protected with approved horticultural practices being implemented to ensure their on-going survival and viability. Where required, replacement plantings shall be planned for those trees that are becoming over-mature or have suffered major damage.

Controls

(i) All future landscape works shall maintain the site's rural and rural industrial quality, so complementing its heritage significance. This is best achieved by maintaining large areas of open grassland as the principal landscape characteristic. Where tree planting is required to soften new development, a combination of informal native and exotic plant species shall be used in keeping with the precedent already established with the existing mine buildings. However, exotics shall be confined to internal / courtyard spaces;

(ii) all significant vegetation as identified within the plans contained within the Landscape Heritage Assessment is to be retained and properly maintained and managed (eg. routine inspections, proper maintenance of vigour by watering and feeding especially during times of drought, exercise extreme care when planning and undertaking changes to ground conditions – avoid if possible);

(iii) landscape elements associated with the colliery (ie. the Stack and the Head Frame (Main Shaft)) shall be kept prominent when viewed from outside the site, specifically from existing locations within the township of Paxton. This would include views along the main access road to the site and from Millfield Road;

(iv) where screening is required to block new development, indigenous species are to be used. They shall be planted informally rather than to a formalised design. All plantings within 30 metres of the site boundary to Millfield Road, between Main Road and William Street, shall consist of natives, informally planted;

(v) views to the dam, where currently available, be protected in some form so that a better understanding of the mine's operation be preserved;

(vi) establish curtilages as indicated on the curtilages drawing contained within the Landscape Heritage Assessment. Ensure all cultural plantings are protected and maintained. Remove extraneous and inappropriate plantings and other landscape elements as discussed with the Landscape Heritage Assessment. Any future works shall be based on sound research seeking to identify former plantings;

(vii) remnant fences, drains and other such landscape elements as indicated within the Landscape Heritage Assessment shall be protected and / or interpreted to give a sense of how the site was broken into smaller, discrete areas with specific functions and to indicate their relative importance based on the level of treatment given;

(viii) retain and protect indigenous vegetation of sufficient area to allow managed sustainability. It is desirable that this be done to indicate how the site was once vegetated;

(ix) development of the site along Millfield Road shall not occur where it would otherwise be located opposite the township of Paxton (ie. between Main Road and William Street);

(x) All landscape elements (such as signage, paving, fencing etc.,), shall be in keeping with the themes established on the site in the early decades of the 20th century. Garden beds of flowers and small shrubs shall only occur within the residential unit precincts;

(xi) with the exception of the 'entry gate' identification fencing and the purpose designed animal sanctuary fencing, existing fencing shall either be retained or be of timber post and strained wire type;

(xii) all car parking areas shall be appropriately sited and well screened with the provision of an adequate number of summer shade trees; and

(xiii) no new vehicle crossings to the site will be permitted along the Millfield Road frontage.

Please note that a summary of the main recommendations is included on plans contained within the Landscape Heritage Assessment (Appendix B).

4.4.5 Traffic and Parking Management

Principles

(i) Development of the subject site will ultimately bring about a different traffic movement pattern in the local area and will change the status of the site in terms of its local area traffic impact. The intensity of proposed site development will have to reflect local area traffic handling capacities;

(ii) the location, number and design of site accesses and egresses will have to take account of their impacts on the performance of major local road intersections;

(iii) traffic movements onto and off the site will have to be designed to take account of their effects during peak loadings on adjacent roads;

(vii) on-site parking shall be concealed from view from outside the site and shall be of a scale that has no adverse environmental effect on the significant environment of the major heritage items. Designs for increased on-site parking will be required to take account of the visual and environmental impacts of car parking areas on significant heritage environments; and

(viii) traffic movements and parking areas on site, shall be restricted as far as possible to the periphery of the major building groups and to the locations of the existing site accessways. This approach will ensure conservation of landscapes, view corridors and the curtilages of higher level heritage items.

Controls

(i) All accessways, circulation corridors and parking areas shall be designed to minimise adverse impact on the landscape and shall be: compact in dimension; and sufficiently distant from the limits of any major heritage item, not to have adverse impact on its curtilage.

4.4.6 Roads, Pathways and Connections

Principles

(i) Significant linkages will often retain apparently incidental evidence of their earlier level of significance. A full inventory of such features / evidence shall be undertaken and documented prior to any intervention being undertaken;

(ii) as previously indicated, it is necessary to recognise the comparative significance of all established pedestrian and vehicular pathways and roads, prior to undertaking alteration to the location and form of them and where possible, to incorporate them into new Masterplan concepts for the site; and

(iii) long-established evidence of circulation / access systems integral to the current form of site development shall be retained, with alteration being appropriate only in relation to those paths or roadways which have low order significance in relation to the history of development of the site.

Controls

(i) the scale, form, surfaces and identifiable locations of existing or abandoned roads, pathways and other physical connections, shall not be altered without thorough examination of alternate possibilities and then only to an extent which does not compromise their significance to the overall site.

4.4.7 Other Infrastructure

The most visible evidence of 'infrastructure' impacting on the site, is the:

- former brickworks;
- pit-pony paddock;
- former car park;
- entry turnstiles; and
- sites of the second Explosives Cabin, the Lamp and Oil Stores buildings, the officials' residences (both on the main and internal access roads) and mine manager's residence.

Principles

(i) Any future development of the site shall be undertaken in the knowledge that, especially in areas of the site known to have been used for purposes now abandoned, care shall be exercised in altering the surface of the ground;

(ii) any future development of existing services infrastructure shall be based on detailed knowledge of the locations and capacities of all concealed services;

(iii) increases in surface water run-off shall be controlled on-site for controlled release into the local stormwater system; and

(iv) increases in loads on the existing local wastewater infrastructure shall be minimised through on-site recycling of wastewater where possible.

Controls

(i) Prior to any alterations to the surface of any part of the lands within the site being undertaken, accurate surveys shall be undertaken and reference shall be made to all known surveys and other documentation, to assess the likely impact of any such action and to take all steps to ensure that any disturbed evidence can be comprehensively documented at the appropriate time. Such precautions shall especially be observed in relation to any work undertaken adjacent to all buildings and structures identified as having high-level heritage significance;

(ii) any proposal to increase the intensity of development of the site shall include designed responses to:

(a) containment and dispersal of surface water run-offs; and
(b) on-site recycling of additional water.

4.4.8 Building Materials

The building materials used on the site's significant buildings may be characterised as stone, brick, timber, steel and galvanised iron.

The Principles and Controls over changing components of the built environment covered by that Chapter, can be generally applied in this instance, with the following alterations / additions:

4.4.8.1 Roads and Footpaths

Principles

(i) Changes in kerb and guttering type and materials of internal roadways shall be permitted only in those locations where it can be shown that an alternative treatment is consistent with appropriate heritage conservation practice for the site; and

(ii) all paving materials and footpath dimensions shall be consistent with the objective of retaining the character of the particular environments of the major building groups.

Controls

(i) Where minimal or no kerb and guttering is proposed for new internal roadways, the existing grass verge with a new swale drain is the preferred design solution;

(ii) where possible, existing pathways and roads, or at least representative sections thereof, shall be retained in their existing form and location, modified only in the absence of a viable alternative;

(iii) new vehicular and pedestrian circulation area pavements shall be one of the following:

(a) asphalt or dark-toned concrete or gravel; or
(b) small paving blocks either of brick or concrete block.

(iv) monolithic in-situ asphalt or concrete paving shall not be used where it may abut the external walls of historic buildings without damp-proof courses.

4.4.8.2 Walls

Principles

(i) If adding to an existing building, choose brickwork, stone, galvanised iron or timber to harmonise with the original;

(ii) strong coloured or textured bricks shall be avoided;

(iii) all new masonry and timber-framed work shall be distinctively of its period and not attempt to appear as an integral part of the original structure. Colour matching of materials is an important performance control criterion;

(iv) timber cladding or weatherboards, shall be retained / restored where they are integral components of contributory or higher-level significant buildings. Where weatherboard wall profiles are considered a desirable design solution, man-made weatherboard substitutes will not be appropriate.

Controls

(i) Whether of masonry or timber, all new walls shall appear as discrete elements and shall not be integrated with an existing wall to provide an unbroken plane;

(ii) all new walls shall be of a scale and form consistent with those of the major adjacent or local precinct reference building.

4.4.8.3 Roofs

Principles

(i) Any extension of any existing building, shall follow the same shape, style, proportion, materials and pitch of the original roof, so as to match the original in overall appearance. This principle shall also be applied to new buildings constructed in close proximity to existing benchmark buildings.

Controls

(i) Galvanised corrugated iron roofs will be preferred to other claddings where the new roof is to be constructed adjacent a major existing tile roof and the new roof will have high visibility. In such cases, the predominant colour of the existing roof shall be followed in the new roof;

(ii) flat roofs with metal deck finish will be approved only when used as a spacing or linking component of a pitched roof form, or where they are not visible from above; and

(iii) Mansard, Cape Cod or other inappropriate roof forms, shall be avoided.

4.4.8.4 Windows and Doors

Principles

(i) New window and doorframes shall be of heavy section to complement the general style of the window and doorframes of the benchmark buildings. Paint or other finishes shall be of dark colour;

(ii) windows, door heads and sills shall be expressed and external doors shall be of heavy section.

Controls

(i) A variety of window and doorframes will be permitted provided that deep frame sections are used and provided that finishing colours are dark browns, greys, greens or reds.

4.4.8.5 Fences and Gates

Principles

(i) Where sufficient evidence of original fences and gates remains, new adjacent fences shall repeat the materials form and proportions of the original. Post and rail, rustic post and wire timber fences as well as timber picket, are considered appropriate for this site, depending on location.

Controls

(i) Fences and gates shall be generally of low profile and where of timber, shall be a similar height to existing remnant fencing and have similar post spacing;

(ii) new masonry walls / fences shall only be introduced where no alternate soft landscape solution is available. The height of such walls / fences shall be as above.

4.4.8.6 Signage and External Lighting

Principles

In relation to this site, the location and form of external signs and lighting shall be the subject of separate development approval. Signs, lettering and lighting shall be of consistent design throughout the site and shall all be free-standing, except where a building accommodates a variety of functions, each of which require identification. In this instance signs affixed to the face of the building shall be permitted. Free-standing signage shall be limited in number, designed to take advantage of circulation vantage points and shall be of highly durable material which requires a minimum of site surface disruption to install and replace.

Controls

(i) Signs shall be of durable, low maintenance metal framing of deep section design, with a maximum height of 1500mm;

(ii) all future signage shall be typeface 'ITC Novarese' and of a suitable scale;

(iii) other than for typeface, the signage proportions of: width; height; letter size; and letter location, shall as those detailed in the National Trust Corporate Identity Manual (1986) under the section Signage and as outlined as follows:

Letterspacing:
Good signage requires constant, even, open letterspacing to achieve legibility and consistency of signage across the site. Letterspacing shall be visually spaced rather than mechanically spaced, to better define letterforms.

Letter Sizes Per Sign:
The number of letters on a sign and within a series of signs shall be kept to a minimum. A maximum of three letter sizes may appear on signs, such as maps, where a complex information hierarchy is required. The sign format shall be determined by the largest letter size used on the sign. The second letter size shall be half that of the first and the third, where required, shall be half that again.

Dimensioning:
All sign elements: panel size; lettering; spacing; arrows; and pictograms, shall be dimensioned in terms of the lower case letter 'x'. This height is measured in millimetres.

Choice of 'x'-height:
The size of lettering is determined by the viewing distance, whether the viewer is stationary or moving, and the hierarchy of the information. The 'x'-height may be calculated at 5mm for every 2.5 metres viewing distance required. Signs that are to be viewed by motorists shall not contain more than four pieces of information, nor more than 8 words in total, as the time available is an important factor in legibility.

Viewing Heights:
To be effective, a sign needs to be located at a height suitable to the purpose, within a person's cone of vision and with due regard to its environment.

Any further signage detail shall be provided within a development application at the appropriate stage.

4.4.9 Excavation and Building Construction Works

The general requirements for controlling all excavations or variation of the ground surface within the site, have been set out generally in the Archaeological Assessment (see Appendix 2).

Principles

(i) All excavations and minor ground alterations shall be undertaken in the knowledge that the potential to disturb evidence that may be of significance is high;

(ii) All construction works shall be undertaken in the knowledge that no intervention has occurred.

Controls

(i) Any disturbance to the ground surface within the former colliery site shall be undertaken strictly in accordance with the NSW Heritage Office 'Heritage Manual' requirements, including those covering 'Archaeological Assessments';

(ii) excavation works shall be designed to minimise the possibility of adverse impact on existing masonry and timber-framed buildings; and

(iii) all construction works shall be undertaken in such a fashion, so as to minimise and contain dust, ground vibration and underpinning of masonry buildings.

4.4.10 Visual and Acoustic Privacy

Principles

- The site Masterplan shall reflect groupings of uses according to visual and acoustic compatibility to minimise potential conflict and the need for substantial physical changes to the site to achieve acceptable levels of isolation and attenuation;

- where proposed, active and passive site uses abut, the visual and acoustic privacy provisions of Amcord and Part D: Specific Development, Chapter 2: Urban Housing, shall become the basic reference design standards for achieving acceptable levels of visual and acoustic privacy.

Controls

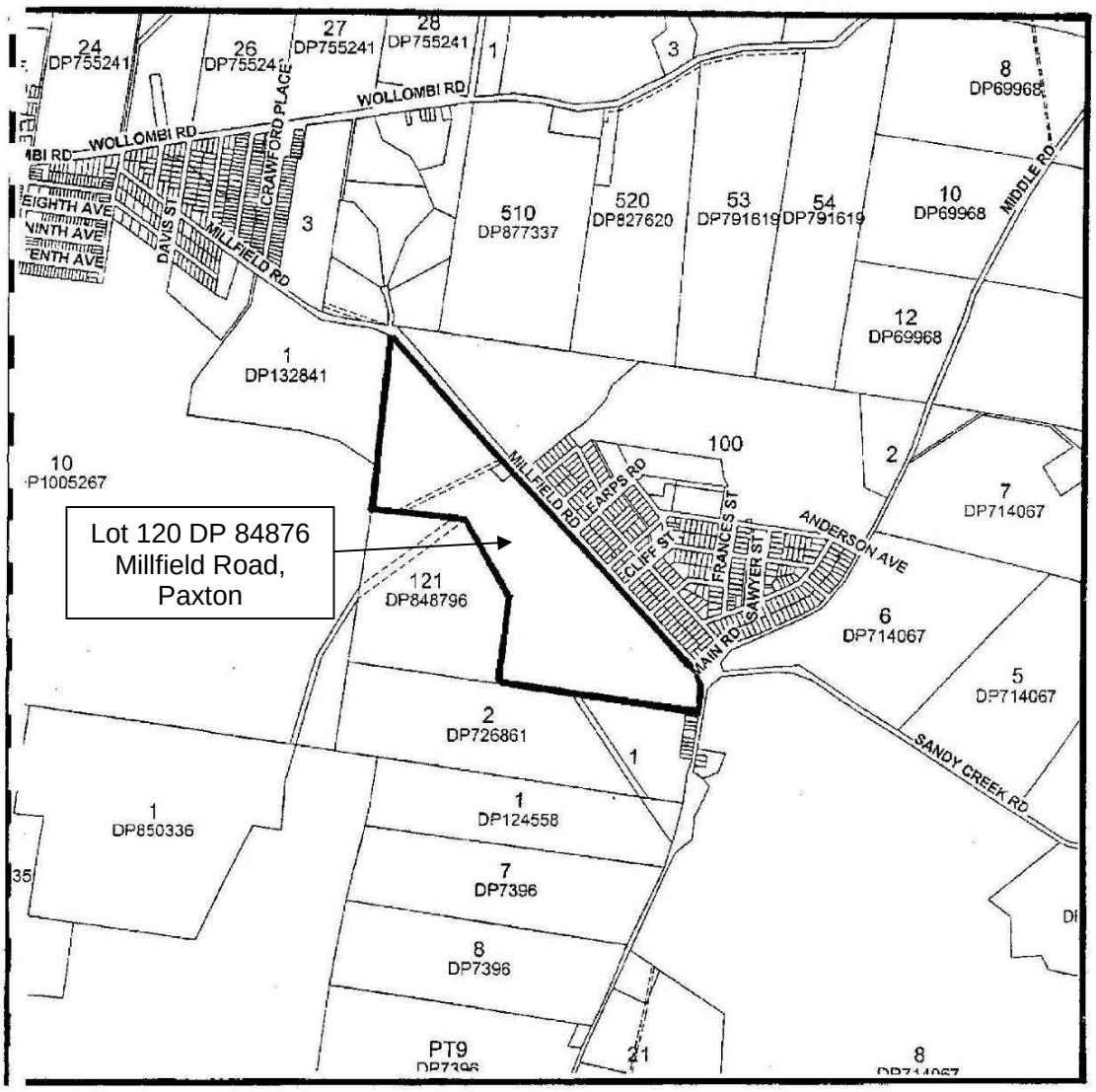
- The potential for the overlooking of passive occupancy uses by active use areas, shall be avoided. The size and form of the site shall be regarded as a potential design tool in relation to the resolution of sound attention and visual privacy issues;

- active uses shall be sited to contain noise from incompatible uses both within and adjacent to the site; and

- vehicular accesses and egresses shall be located to avoid adverse acoustic impacts and thus loss of amenity to neighbouring land users.

The proposed accommodation shall be sited so as to achieve a maximum of visual and acoustic privacy for its patrons, with a minimum of change to the physical form of the land or its landscape. This use shall be well separated from high noise generating site uses and from the traffic routes serving them.

FIGURE 1 – LOCALITY PLAN



APPENDIX A LANDSCAPE HERITAGE ASSESSMENT

Prepared By EJE Landscape Architecture

APPENDIX B ARCHAEOLOGICAL ASSESSMENT

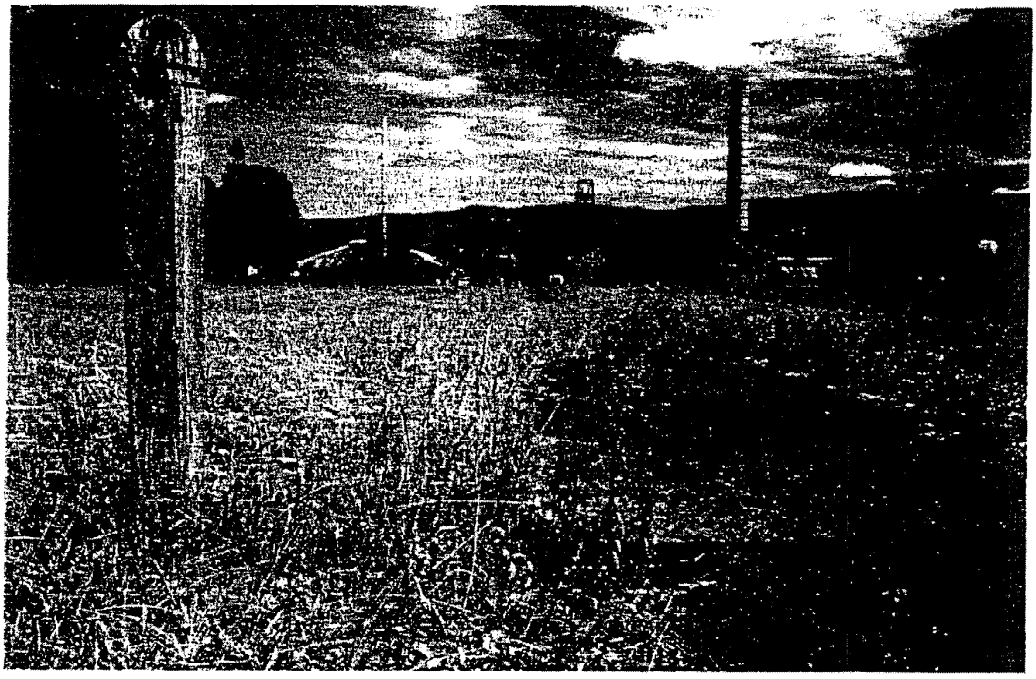
Prepared By Angela Besant, ERM Mitchell McCotter

APPENDIX A LANDSCAPE HERITAGE ASSESSMENT

Prepared By EJE Landscape Architecture

PREPARED FOR:
EJE TOWN PLANNING

STANFORD MAIN Nº 2 COLLIERY
PAXTON



GENERAL VIEW OF COLLIERY FROM FORMER OFFICIALS COTTAGE BOUNDARY

LANDSCAPE HERITAGE ASSESSMENT

EJE LANDSCAPE ARCHITECTURE
LANDSCAPE ARCHITECTS
412 KING STREET
NEWCASTLE

(02) 49 294 926 (B)
(02) 49 263 069 (F)

APRIL 1999
PROJECT Nº: 4149.5

LANDSCAPE HERITAGE ASSESSMENT

STANFORD MAIN Nº 2 COLLIERY, PAXTON

CONSERVATION MANAGEMENT PLAN

HARdIE HOLDINGS

1.0 OVERVIEW

This report considers heritage landscape issues associated with the Stanford Main Nº 2 Colliery and forms part of the overall conservation plan for the site.

The colliery has already been assessed as having heritage significance by a number of organisations (eg NSW Heritage Office, Department of Urban Affairs and Planning, Cessnock City Council, National Trust of Australia [NSW]). It is, therefore, the purpose of this Landscape Heritage Assessment to submit the site to a thorough investigation and assessment to determine, amongst other things, the importance of site's general setting in contributing to the heritage significance of the main buildings and structures and to identify specific elements within the landscape that aid in the interpretation of the site. Once this has been determined, it will then be possible to ascertain how best the site may be interpreted and to make recommendations should future development occur on site.

Objectives of the study are as follows:

- to examine the historical development of the site;
- to undertake a survey and assessment of the site as it currently presents itself;
- to determine the landscape relationship between the colliery and the township of Paxton;
- to identify and assess important landscape elements; and,
- to establish strategies for conserving nominated elements to protect and promote the heritage significance of the site.

FIGURE 1.1: GENERAL VIEW OF SITE LOOKING IN THE DIRECTION OF PAXTON.

2.0 SITE CONTEXT

Paxton is located approximately 12 kilometre form Cessnock which is the main town of the area and the locality's administrative centre. Other nearby towns such as Millfield and Ellalong tend to be small settlements of similar size to Paxton and also have associations with coal mining.

The land north and east of the town and heading back to Cessnock tend to be covered with native forests with the Aberdare State Forest being located only a few kilometres north-east of the town. Land to the south and west tends to be comprised of cleared pastures capitalising on the availability of deeper, more fertile soils before returning to native forests. Located near to the town is the locally well-known Ellalong Lagoon.

The main road running through Paxton is Millfield Road. Located along this road are a few commercial buildings including the Paxton Hotel. The commercial buildings are not aggregated together but are spread out with residences in between. Millfield Road defines the south-western edge of the town which consists of a collection of single, storey detached cottages with other facilities such as a public school and recreation area. On the opposite side of the road is the Stanford Main Nº 2 Colliery which currently reads as a collection of disused industrial buildings set amongst broad pastures and stands of native vegetation. The demarcation between the town and the colliery is pronounced which is remarkable considering the strong relationship that exists between the two.

The Stanford Main Nº 2 site which was acquired from Coal and Allied by Hardie Holdings and proposed for development has an area of over 50ha. The primary site of this study has an area of only 6-7ha and comprises the most significant above ground elements of the colliery. Other parts of the larger site are also considered where specific landscape elements occur relating to past development associated with the colliery.

FIGURE 2.1: VIEW OF ELLALONG LAGOON AND COUNTRYSIDE FROM FORMER MANAGER'S RESIDENCE.

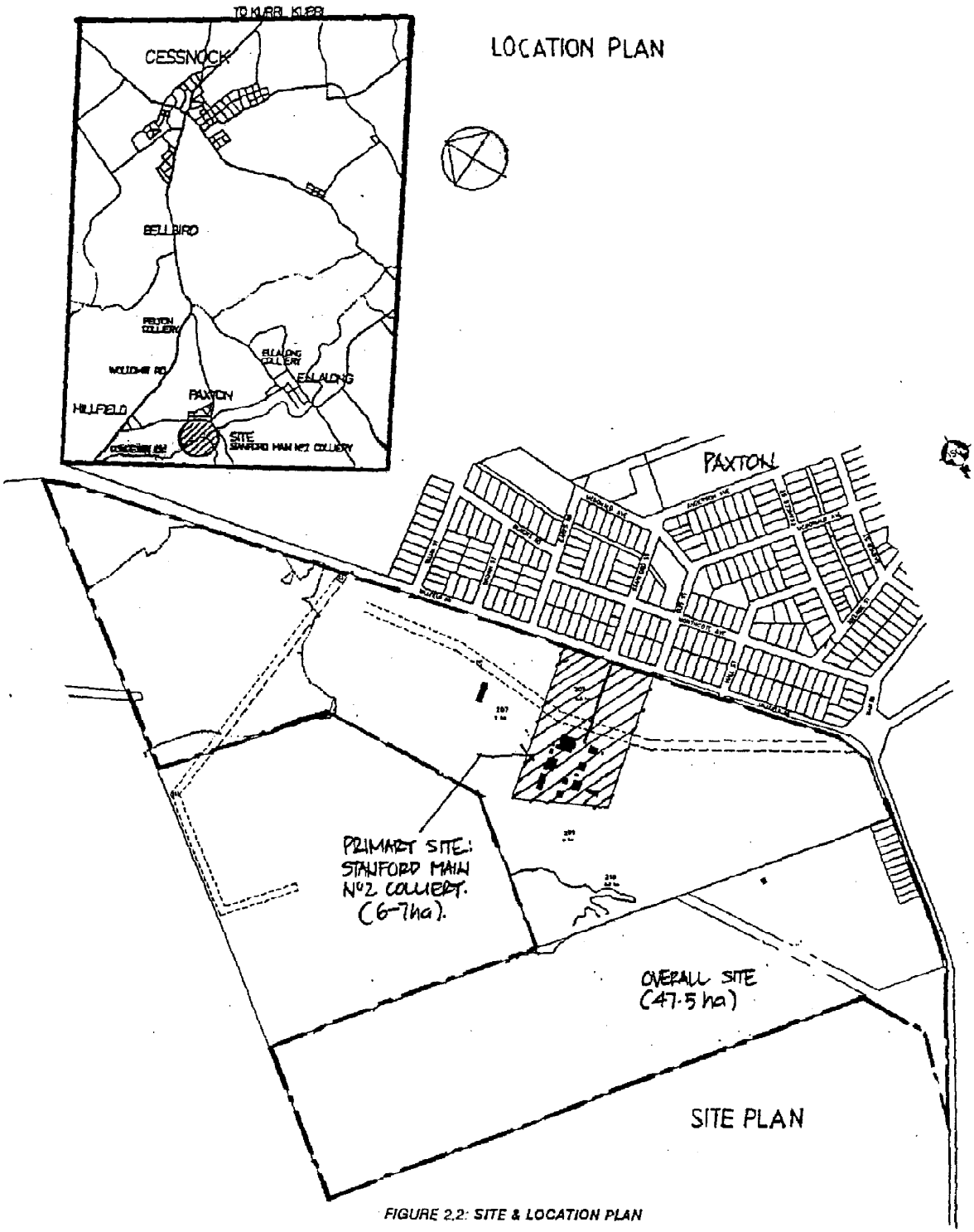


FIGURE 2.2: SITE & LOCATION PLAN

3.0 THE HISTORICAL LANDSCAPE

The original landscape of the site would have looked similar to the naturally vegetated areas north of Paxton. Generally the site would have been covered with dry sclerophyll forest with a light undercover of herbs and shrubs. Dominant plant species would have been gums, boxes, ironbarks and stringybarks with paperbarks and she-oaks occurring in the wetter drainage lines[1]. The foliage cover would have been more dense than the natural areas that still currently exist on site as this vegetation shows indications of thinning and regrowth presumably undertaken by the management for the construction of the colliery.

The formation of the colliery by the East Greta Coal Company (EGCMC) in 1920 and 1921 required the acquisition of a number of smaller properties. It is known that at the time of purchase a substantial portion of the land had been developed as agricultural land by the former owners. Up until this time the company was in the process of taking out mining options with the expectation of paying royalties to the various owners. Having made the decision to purchase the site outright, extra capital was provided by the Adelaide Steamship Company with the issuing of nearly a quarter million company shares which in turn gave control to the larger company. The mine was called *Stanford Merthyr Nº 2*[2] in recognition of EGCMC's other successful mine located near to Kurri Kurri.

Purchasing of the land enabled the company to undertake other ventures including the subdivision and sale of land to form the private town of Paxton. The first sales of quarter acre blocks commenced in August 1922 with suggestions made that Paxton had the potential to become another Cessnock. As the mine grew resulting in a corresponding demand for labour, then so did Paxton complete with public school and local church.

The colliery was sited on the south-western side of Millfield Road on an area of land that gently sloped away from the road to ensure good drainage. This location also allowed easy access to the Congewai Creek which was also an important consideration for the mine. Having sited the mine, it appears that it was an easy decision to locate the town directly opposite Millfield Road ensuring convenient walking access to the mine by its inhabitants. The major cross road of the town, Stanford Street, was aligned as an extension of the main entrance and access road to the mine. In spite of this, Millfield Road acts as a strong barrier between the two.

Early work on the mine concentrated on the construction of the mine shaft and infrastructure including the railway. A brickworks and sawmill had been constructed previously so as to supply materials for the construction of other items. The construction and erection of the necessary surface buildings, machinery and the like. Coal was first struck in February 1923, however, it was not until later that year that coal production was consistently being provided with an average of between 30 to 40 tonnes. By 1924, production had reached 250 tonnes per day. It had been estimated by the Company's Superintendent, Mr H. Williams that the mine would be profitable at levels exceeding 500 tonnes per day. This level of production was not reached until May 1925 when the mine was fully operational and producing 1000 tonnes per day. Coal production fluctuated in the years to follow due to a combination of factors including floods, strikes, lockouts and a contraction of coal markets. This situation tended to persist for the life of the mine with good years often interspersed with bad.

---

1 Typical species would have included the following: *Corymbia maculata* (Spotted Gum), *E. punctata* (Grey Gum), *E. tereticornis* (Forest Red Gum), *E. crebra* (Narrow-leaved Ironbark), *Melaleuca spp.* (Paperbarks), *Casuarina glauca* (Swamp She-oak) and *Allocasuarina littoralis* (Black She-oak).

2 In 1931, EGCMC was forced to sell to J & A Brown Abermain Seaham Limited (JABAS) as the result of accumulating and recurring financial difficulties. In 1933 JABAS changed the colliery's name to *Stanford Main Nº 2* in keeping with the names of its other mines (eg Pelaw Main, Richmond Main). Stanford Main Nº 2 is also referred unofficially as Paxton Colliery.

It would seem that in an effort to establish the colliery and to get it profitable, little consideration was given to improving the appearance of the mine with landscaping. The exception to this is the Administration Building (built in 1924) that appears to have had a fence and Canary Island Date Palms established soon after it was constructed in 1924 following the completion of all the operations structures.

The Mine Manager's Residence was completed soon after the Administration Building. It was located well away from the rest of the operations structures on a site referred to as "Nob Hill". It prominent location affords excellent views of the surrounding countryside (refer Figure 2.1) and of the mine itself. This building has had extensive tree planting undertaken in the past and like the Administration Building it has a row of Canary Island Date Palms located in front of what would have been the major elevation. From the evidence available it would seem that the Manager's Residence was fenced all round and included a number of small gardens and paddocks. A large concrete tank still exists although the building itself has been demolished.

Two additional residences were constructed off the main access road near to the front entrance. These buildings accommodated the Under Manager and the Mine's Mechanical Engineer (also referred to Jim Keever's House). It is assumed that these buildings would have been constructed around the same time as the Mine Manager's Residence. A 1930s photograph of the colliery (Figure 3.1) reveals that each residence was surrounded by a timber picket and/or a timber post and rail fence with wire mesh inserts. The photograph also indicates that not much tree planting was undertaken with the exception of what appears to be either a dead or deciduous tree. Both buildings have also been demolished.

Two further residences were also constructed between the Administration Building and the Mine Manager's Residence. These buildings were allocated to the mine's Electrical Engineer and Underground Overman. The only above ground remain of these buildings is a solitary Norfolk Island Pine which appears to have been planted in one of the rear yards.

The most profitable time for the colliery occurred soon after World War II and lasted until the late 1950s when once again the mine was plagued by stoppages and strikes. It was during this time that a new Bath House was constructed in an effort to improve workers' conditions. Plans were also prepared to effect ornamental tree planting along the main access road, the car park and the site generally (Figure 3.2). The evidence suggests that only a small proportion of the landscaping plans were implemented most notably being the Crepe Myrtles to the front of the Bath House Building. Most other plantings appear to have never been undertaken or were not adequately maintained.

In 1961 the colliery was closed following the owners decision that the mine could no longer be operated profitably. Following the closure of the colliery, the Saw Mill remained operational supplying the company's timber requirements especially in regard to its fleet of coal hopper wagons. In 1972 the Saw Mill was also closed.

In the ensuing years the site has been left idle with the exception of cattle grazing occurring in some of the pastures.

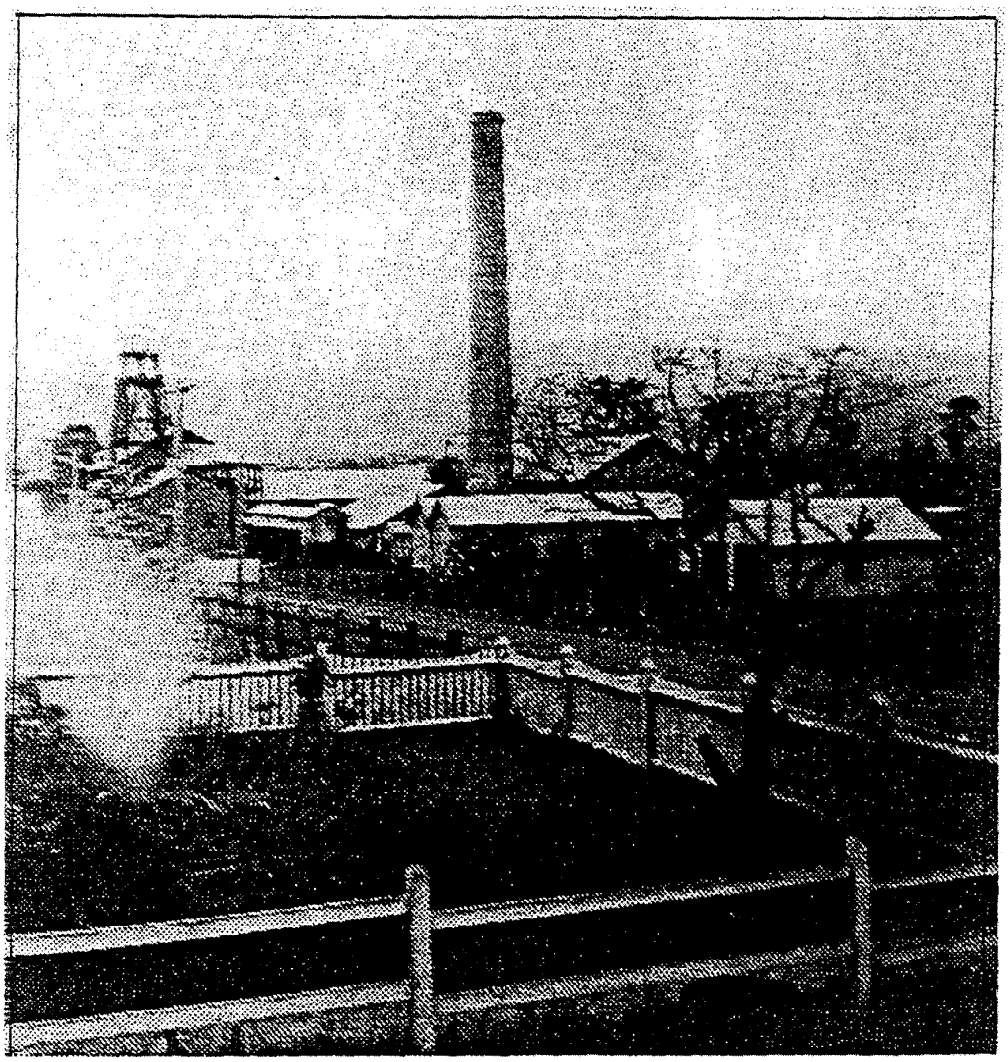


FIGURE 3.1: ***1930S VIEW OF COLLIERY FROM UNDER MANAGER'S RESIDENCE***

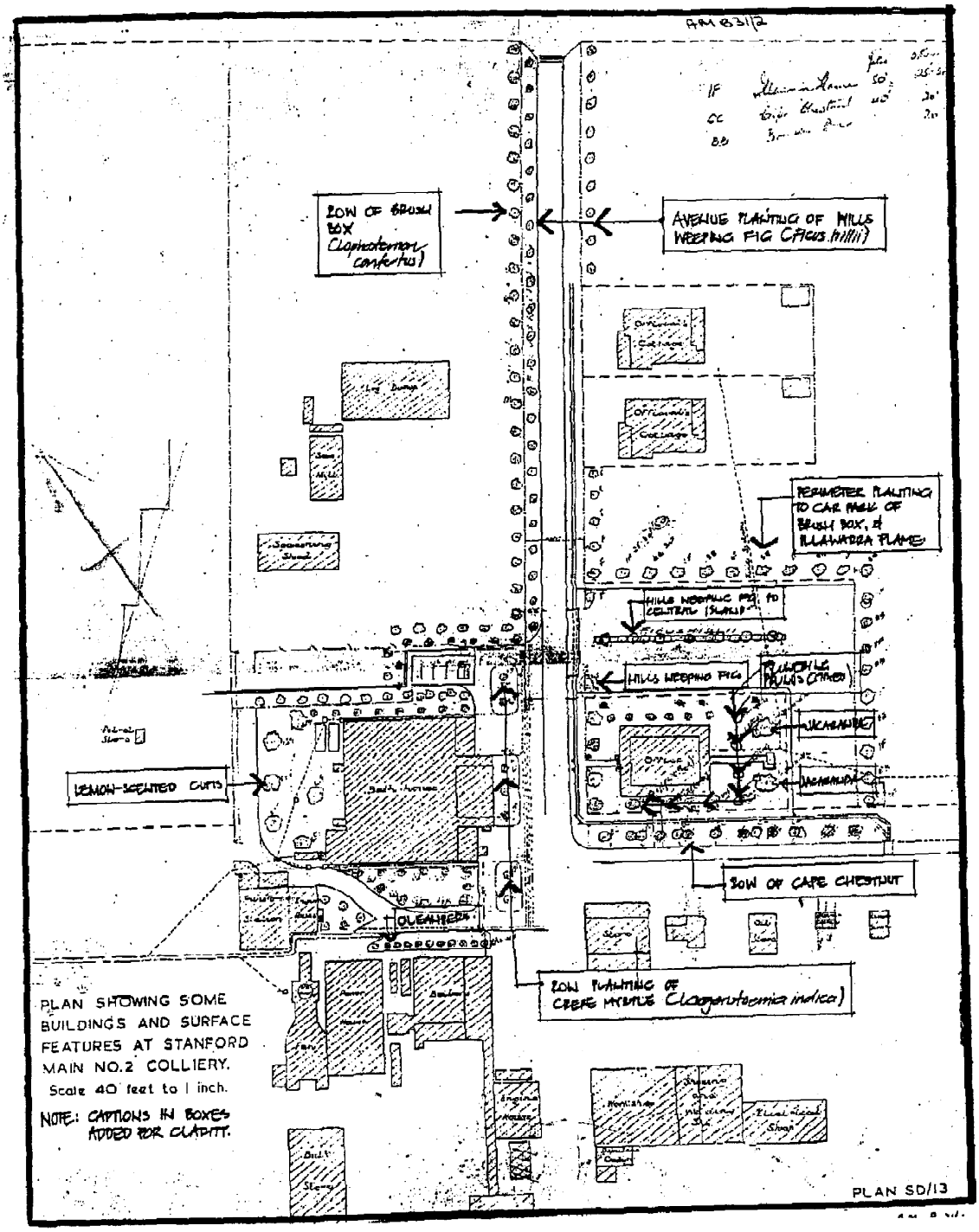
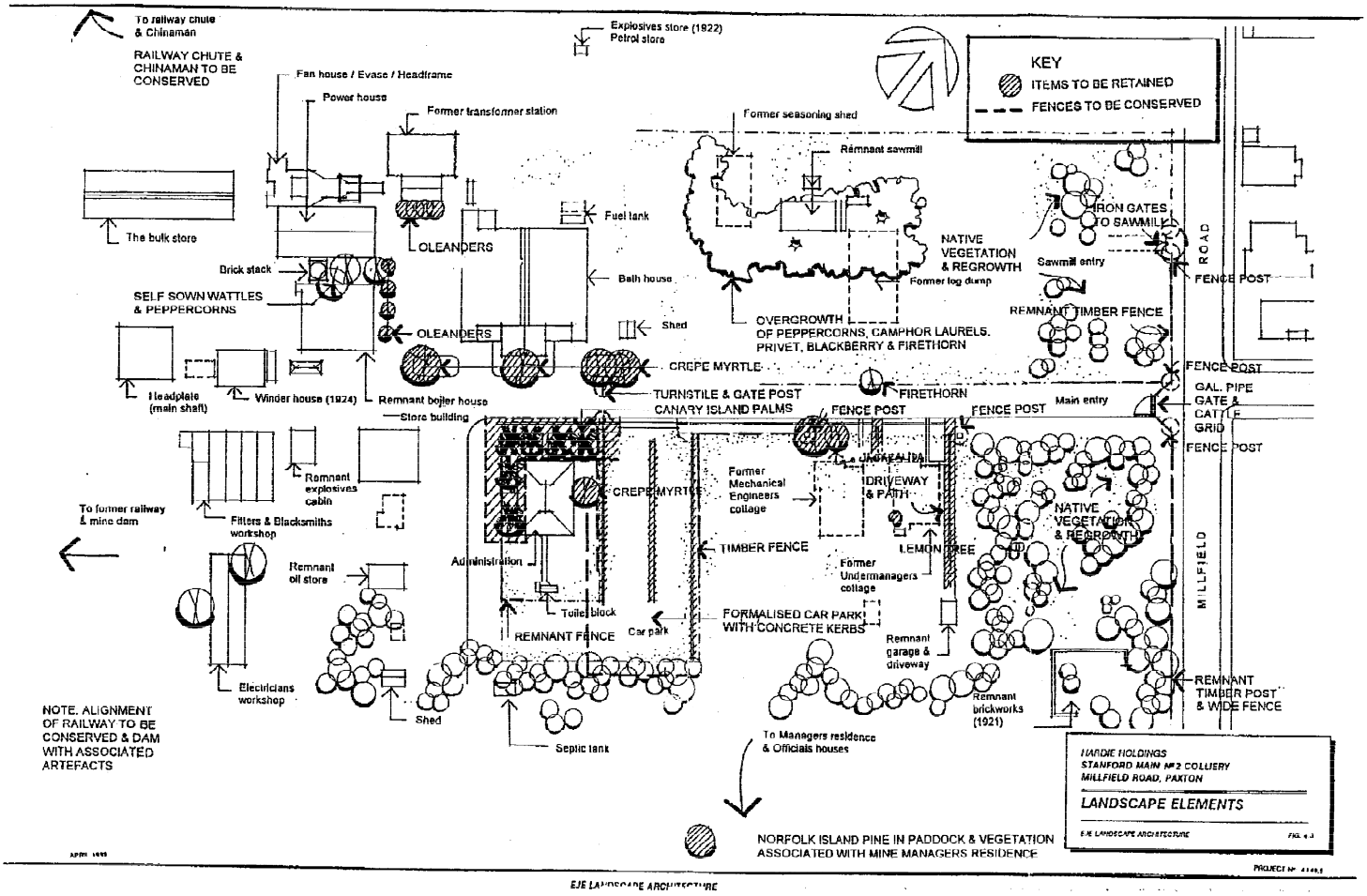
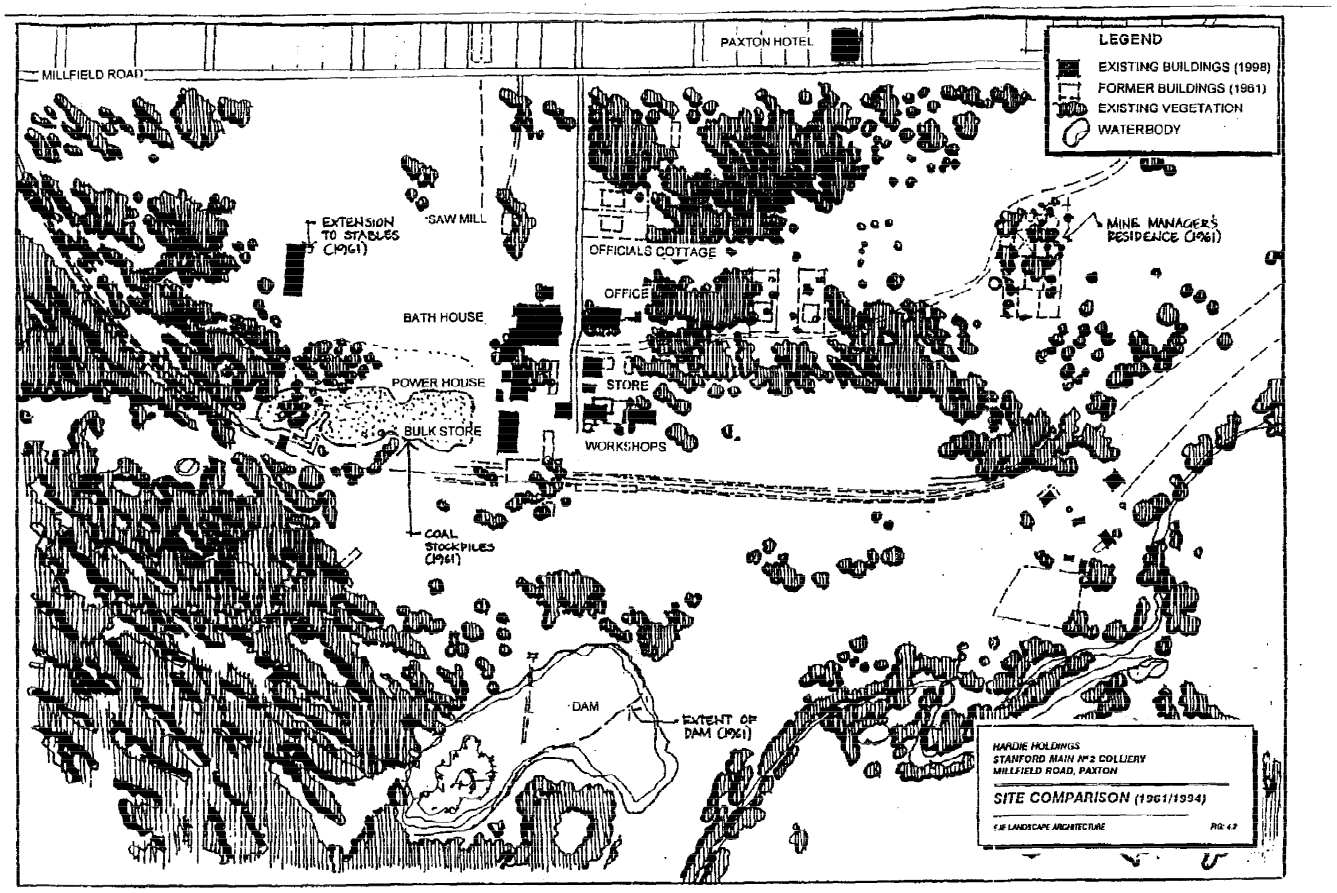


FIGURE 3.2: ***PROPOSED TREE PLANTING SCHEME*** *(c. LATE 1950s)*


To railway chute & Chinaman
RAILWAY CHUTE & CHINAMAN TO BE CONSERVED
Explosives store (1922)
Petrol store
Fan house / Evase / Headframe
Power house
Former transformer station
Former seasoning shed
Remnant sawmill
KEY
ITEMS TO BE RETAINED
FENCES TO BE CONSERVED
The bulk store
OLEANDERS
Fuel tank
Brick stack
Bath house
SELF SOWN WATTLES & PEPPERCORNS
OLEANDERS
Shed
NATIVE VEGETATION & REGROWTH
Former log dump
IRON GATES TO SAWMILL
Sawmill entry
FENCE POST
REMNANT TIMBER FENCE
OVERGROWTH OF PEPPERCORNS, CAMPHOR LAURELS, PRIVET, BLACKBERRY & FIRETHORN
ROAD
CREPE MYRTLE
TURNSTILE & GATE POST
CANARY ISLAND PALMS
FIRETHORN
FENCE POST
FENCE POST
Main entry
FENCE POST
GAL. PIPE GATE & CATTLE GRID
FENCE POST
Headplate (main shaft)
Winder house (1924)
Remnant boiler house
Store building
Remnant explosives cabin
To former railway & mine dam
Fitters & Blacksmiths workshop
CREPE MYRTLE
Former Mechanical Engineers cottage
DRIVEWAY & PATH
NATIVE VEGETATION & REGROWTH
TIMBER FENCE
LEMON TREE
Remnant oil store
Administration
Former Undermanagers cottage
Toilet block
REMNANT FENCE
Car park
FORMALISED CAR PARK WITH CONCRETE KERBS
Remnant garage & driveway
MILLFIELD
Electricians workshop
Shed
Septic tank
Remnant brickworks (1921)
REMNANT TIMBER POST & WIRE FENCE
NOTE. ALIGNMENT OF RAILWAY TO BE CONSERVED & DAM WITH ASSOCIATED ARTEFACTS
To Managers residence & Officials houses
NORFOLK ISLAND PINE IN PADDOCK & VEGETATION ASSOCIATED WITH MINE MANAGERS RESIDENCE
HARDIE HOLDINGS
STANFORD MAIN Nº 2 COLLIERY
MILLFIELD ROAD, PAXTON
LANDSCAPE ELEMENTS
EJE LANDSCAPE ARCHITECTURE


MILLFIELD ROAD
PAXTON HOTEL
LEGEND
EXISTING BUILDINGS (1998)
FORMER BUILDINGS (1961)
EXISTING VEGETATION
WATERBODY
EXTENSION TO STABLES (1961)
SAW MILL
BATH HOUSE
POWER HOUSE
BULK STORE
COAL STOCKPILES (1961)
OFFICIALS COTTAGE
OFFICE
STORE
WORKSHOPS
MINE MANAGER'S RESIDENCE (1961)
DAM
EXTENT OF DAM (1961)
HARDIE HOLDINGS
STANFORD MAIN N°2 COLLIERY
MILLFIELD ROAD, PAXTON
SITE COMPARISON (1961/1994)
EJE LANDSCAPE ARCHITECTURE
FIG 4.2

4.2 *Cultural Plantings*

Cultural plantings are not a prominent feature of the site. Plantings tend to occur as isolated elements associated with buildings. Earlier plantings (ie 1920s) appear to have been used to designate important buildings, giving them special treatment not afforded the more strongly buildings and structures. Later plantings (ie 1950s) were part of an overall mine beautification plan (refer Figure 3.2), although it appears that only those associated with the new bath house were planted. It is suggested that the other plantings were not undertaken due to the mine's poor profitability and consequent impending closure. Significant cultural plantings found within the site are as follows:

- ***Plantings associated with the Administration Building (Figure 4.3):*** It is assumed that considerable care would have been taken in establishing an attractive setting for this building presumably with foundation planting around it. What currently remains, however, are two rows of Canary Island Date Palms (*Phoenix canariensis)* (6 off) to the main elevations (ie north-west and south-west) and a Crepe Myrtle (*Lagerstroemia indica*) on the buildings north-eastern side. All trees appear to be in good condition.

- ***Plantings associated with the former Mine Manager's Residence (Figure 4.4):*** The site for the former Mine Manager's residence stands remote form the other colliery buildings. It is located approximately 400m east of the Administration Building on a local high point with panoramic views of the surrounding countryside and filtered views of the other colliery buildings. The building was demolished in the 1980s with only some footings, a concrete header tank and other debris remaining. The extent of the of the house and grounds is now represented by the presence of mature trees and remnant fences. Most significant of these trees are four Canary Island Date Palms (4 off) which, like the Administration Building, have been planted to highlight the former building's main elevation. Other trees occurring within this area are: Jacaranda (*Jacaranda mimosifolia*), Lilly Pilly (*Acmena smithii*), Nettle Tree (*Celtis australis*) and numerous Camphor Laurels (*Camphora cinnamomum*) occurring mainly along the north-western boundary. Weeds have also infiltrated the site with Firethorn (*Pyracantha augustifolia*) and Blackberry (*Rubrus fruticosus*) being the most common.

- ***Plantings associated with former Officials' Cottages [West] (Figure 4.5):*** Two trees are associated with these former building sites: a citrus tree (*Citrinus sp.)*, possibly a Lemon Tree, which is growing in the Undermanager's property, and a Jacaranda (*Jacaranda mimosifolia*) is growing in towards to front of the Mechanical Engineer's Cottage. Both trees are relatively young and may be indicative of earlier plantings.

- ***Planting associated with former Officials' Cottages [South-East] (Figure 4.6):*** It is known that the cottages for the Chief Clerk and Mine Engineer were located approximately half way between the Administration Building and the Manager's Residence. Both buildings have been demolished , however, a solitary Norfolk Island Pine (*Araucaria heterophylla*) remains marking the site. This tree is struggling and appears not to be handling the conditions well.

- ***Plantings associated with the Bath House. [South-West]*** A row of Crepe Myrtles (4 off) are growing on the south-eastern side of the building. To the south-western side of the building are two rows of Oleanders (*Nerium oleander*). It is assumed that these trees were planted sometime after the construction of the Bath House in 1954. These trees are part of a larger beautification program which eventually did not eventuate. Most trees are in good condition.

- ***Other Plantings:*** The only other cultural plantings occur around the saw mill. These consist of Peppercorns (*Schinus areira*) and Camphor Laurels with additional weed growth. These trees have been self-sown although the parent trees have not been located elsewhere on site. These plantings are not significant as they were not intentionally planted.

FIGURE 4.3: PLANTINGS ASSOCIATED WITH THE ADMINISTRATION BUILDING
(ie Canary Island Date Palms, Crepe Myrtle)

FIGURE 4.4: PLANTINGS ASSOCIATED WITH FORMER MINE MANAGER'S RESIDENCE
(ie Canary Island Date Palms)

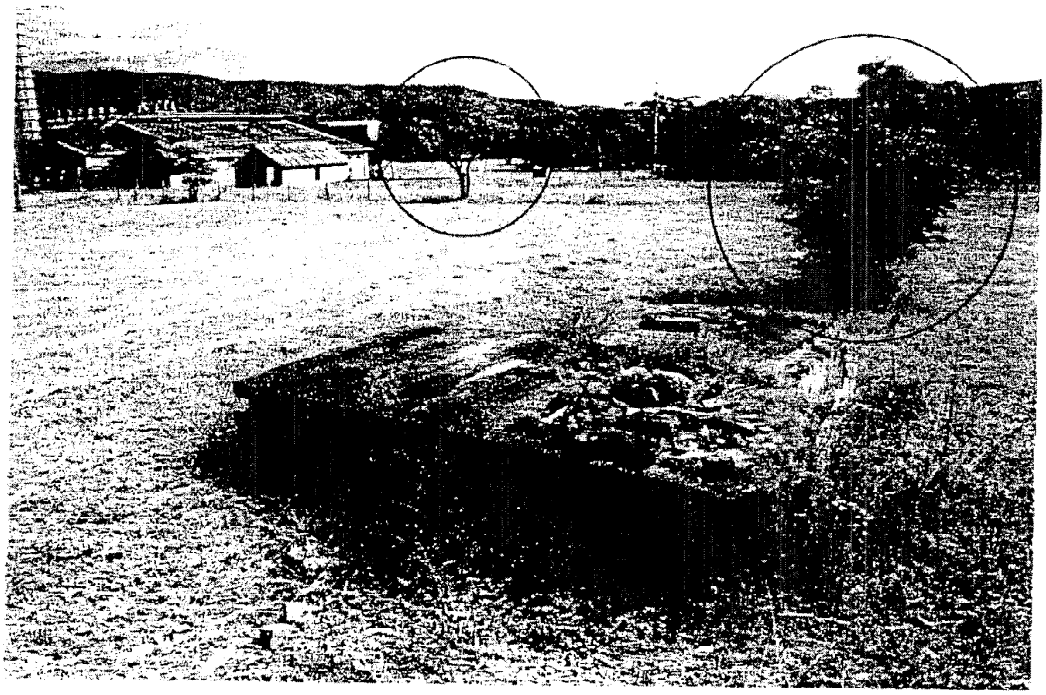


FIGURE 4.5: **PLANTINGS ASSOCIATED WITH FORMER OFFICIALS' COTTAGES (WEST)**
(ie Lemon Tree, Jacaranda)

FIGURE 4.6: **PLANTING ASSOCIATED WITH FORMER OFFICIALS' COTTAGES (EAST)**
(ie Norfolk Island Pine)

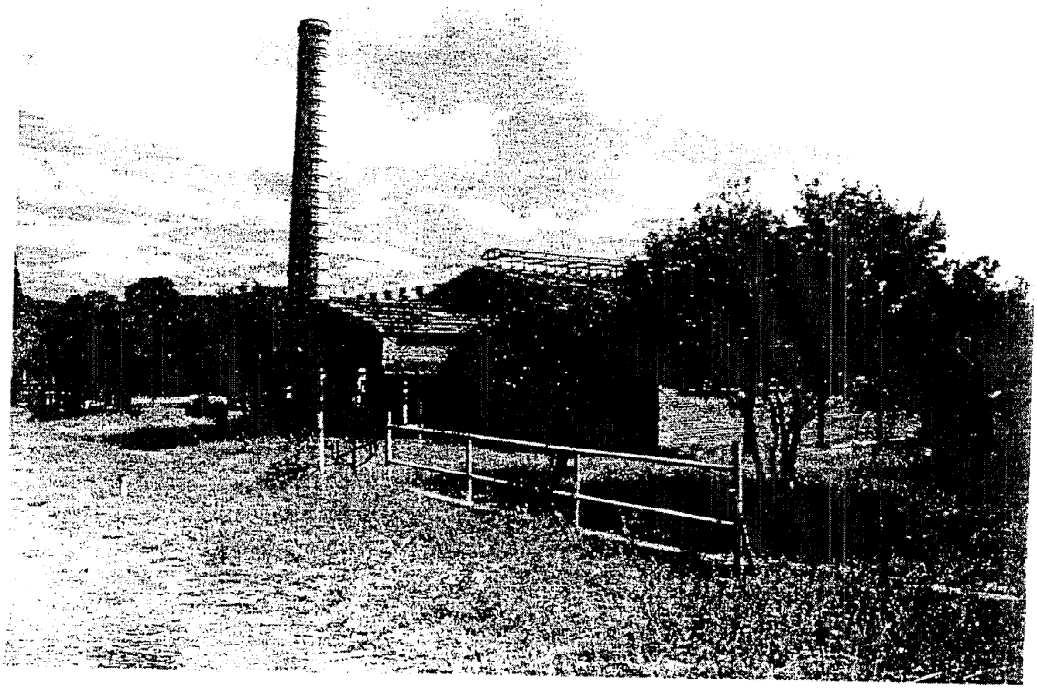


FIGURE 4.7: PLANTINGS ASSOCIATED WITH BATH HOUSE (SOUTH-EAST)
(ie Crepe Myrtles)

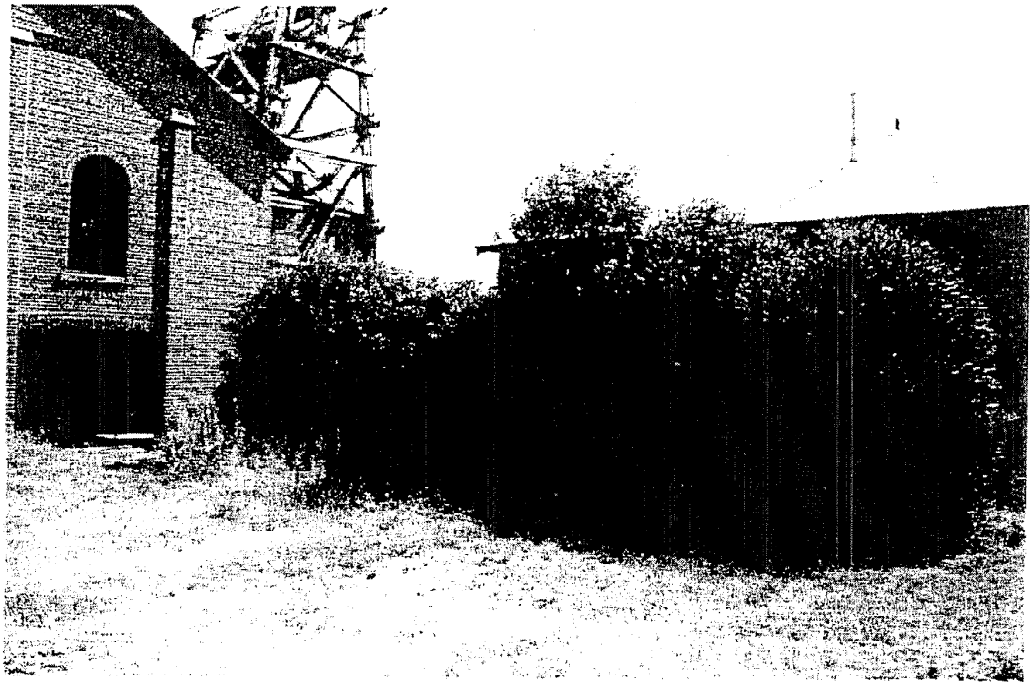


FIGURE 4.8: PLANTINGS ASSOCIATED WITH BATH HOUSE (SOUTH-WEST)
(ie Oleanders)

4.3 *Other Landscape Elements*

This is a reference to the numerous remnant fences and gates that occur around the site often defining building sites where the buildings no longer exist.

The fences tended to be simple, timber fences with the exception of those occurring around some or all of the on-site residences which were more elaborate. The boundary fences that remain appear to be more rural in character than industrial suggesting less need for security and public safety that is now required.

Towards the two entrances (ie the Main Entrance and the entrance to the Saw Mill), the remnant fence posts are formed from sectioned and dressed timber with a diamond top rail. Galvanised wire is then used to form the remainder of the fence (Figure 4.9). A similar fence was also placed around the Administration Building with smaller sections of timber having been used (Figure 4.10). Further away, running parallel to Millfield Road and along the boundary between the colliery and the pasture that once held the pit ponies, fence posts are the traditional split timber posts with strands of wire passing through (Figure 4.11).

It is known that a picket fence once existed to the cottages located off the main access to the colliery. This is now evidenced by only two remnant fence posts (Figure 4.12 and front cover). These fence posts are made from sectioned and dressed timber and have rounded heads and two recesses towards the top.

Three sets of gates occur on site. The main gate is constructed from galvanised tubular steel and incorporates similar fencing on either side (Figure 4.13). Incorporated into the entry is a cattle grid which would suggest that this gate has been installed during the time the site was used for grazing cattle and is therefore of reduced significance. Similarly, a lightweight square steel bar gate has been used for the entrance of the saw mill which would seem to suggest another more recent addition replacing earlier gates (Figure 4.14). The third gate, of which little remains, is the gate located across the main access road just after the car park. This gate is comprised of galvanised steel tube and incorporates steel turnstiles (Figure 4.15). It is assumed that this entrance would have been installed during the mid 1950's to coincide with the construction of the new Bath House.

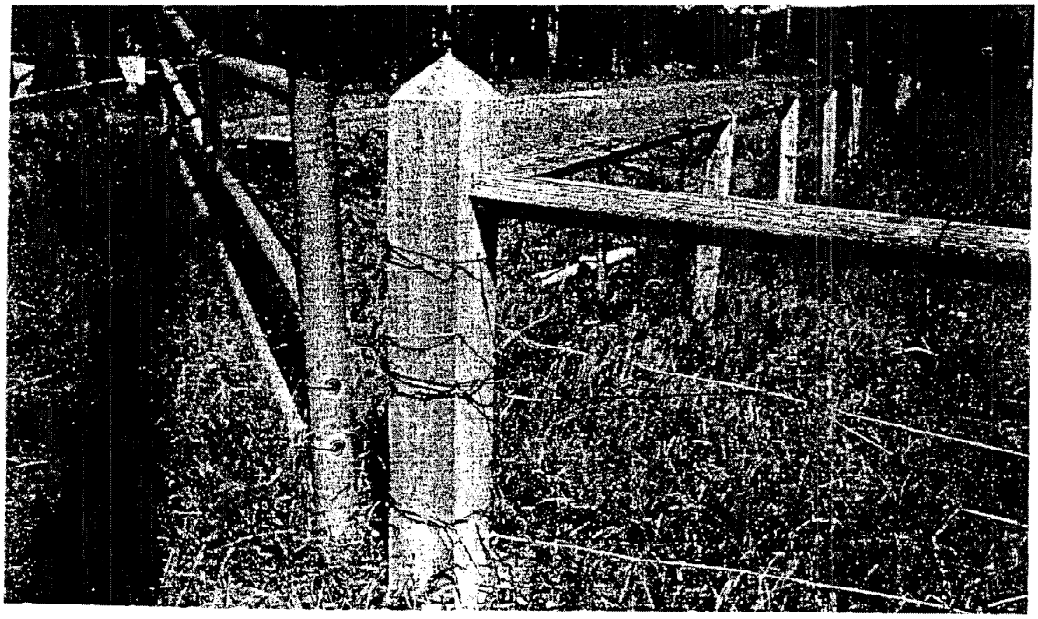


FIGURE 4.9: TYPICAL FENCE LOCATED NEAR TO MAIN ENTRANCE.

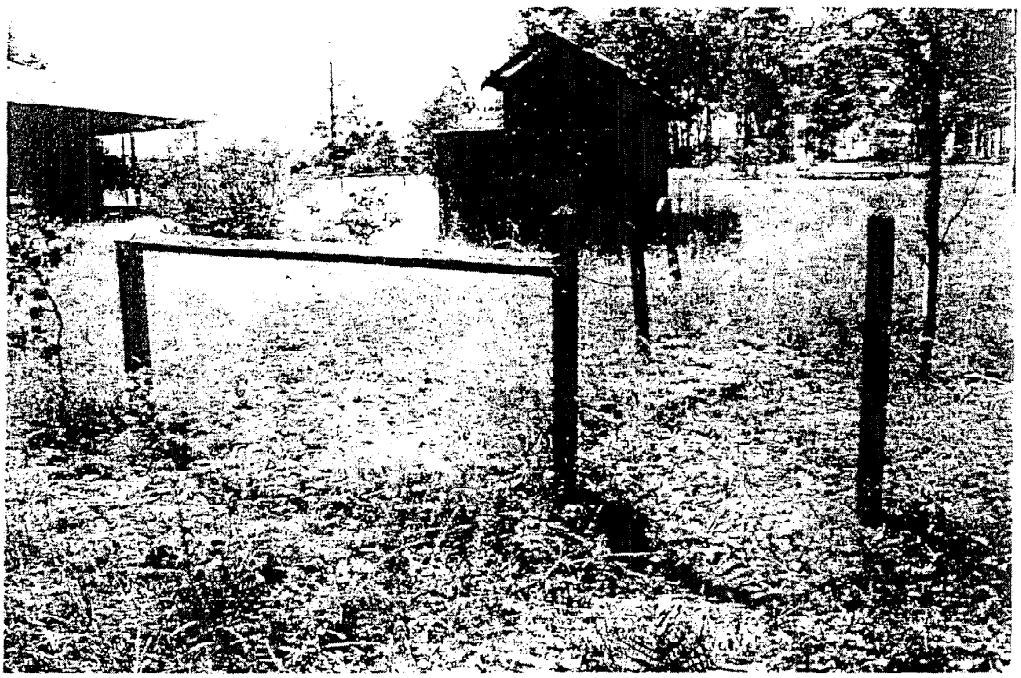


FIGURE 4.10: FENCE TO ADMINISTRATION BUILDING

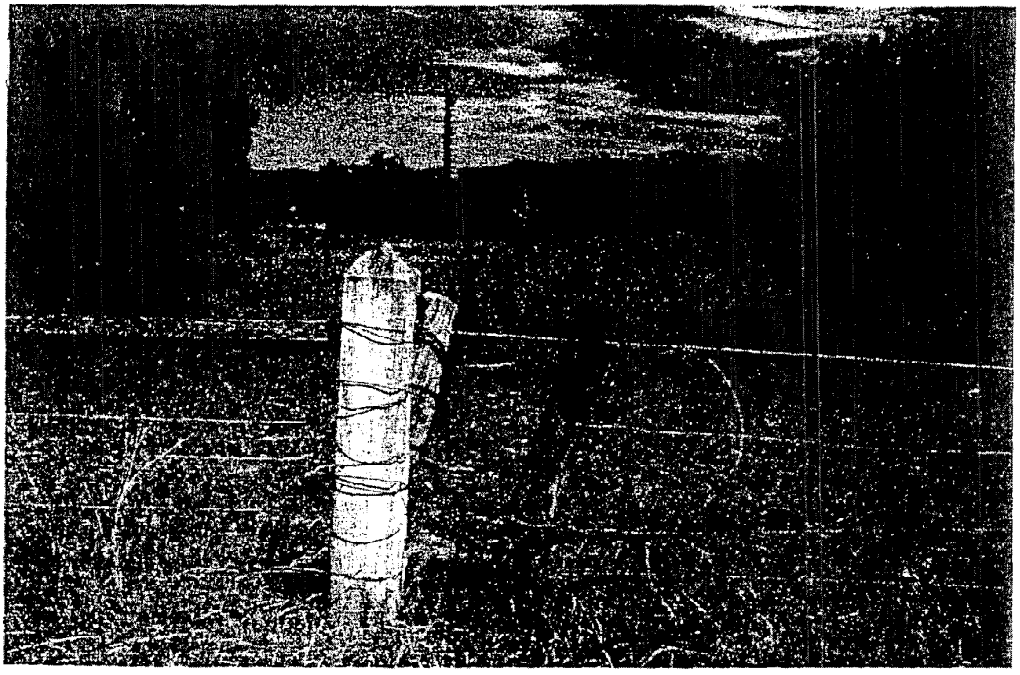


FIGURE 4.11: FENCE TO MILLFIELD ROAD AND PIT PONY PADDOCK

FIGURE 4.12: **FENCE POST TO MECHANICAL ENGINEER'S COTTAGE**

FIGURE 4.13: **GATE TO MAIN ENTRY**

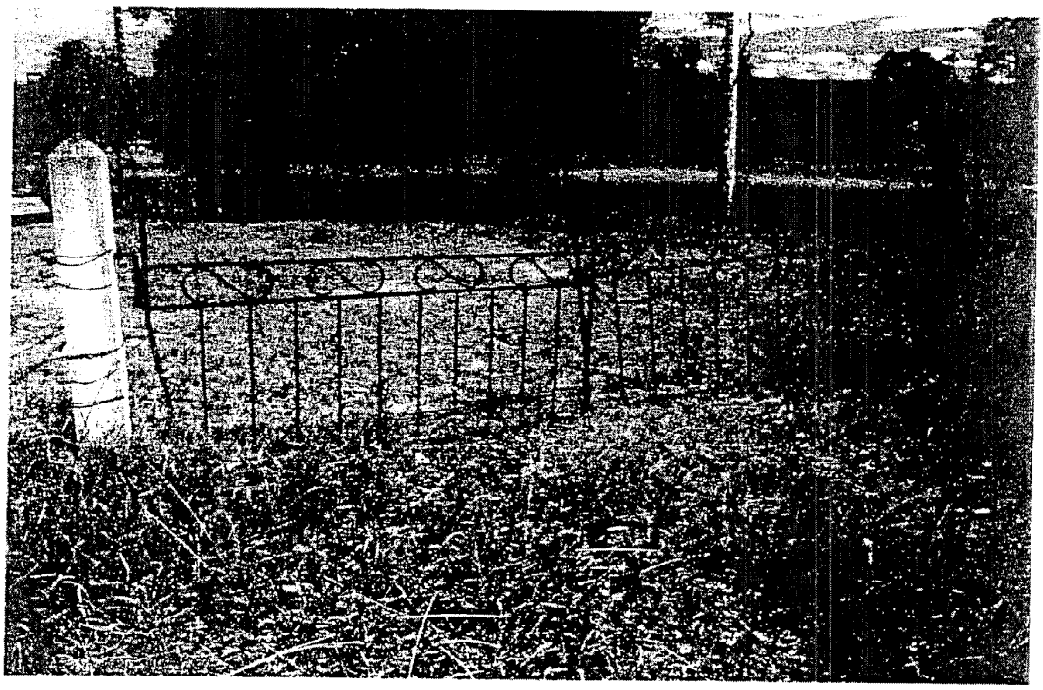


FIGURE 14.14: GATE TO SAW MILL ENTRY

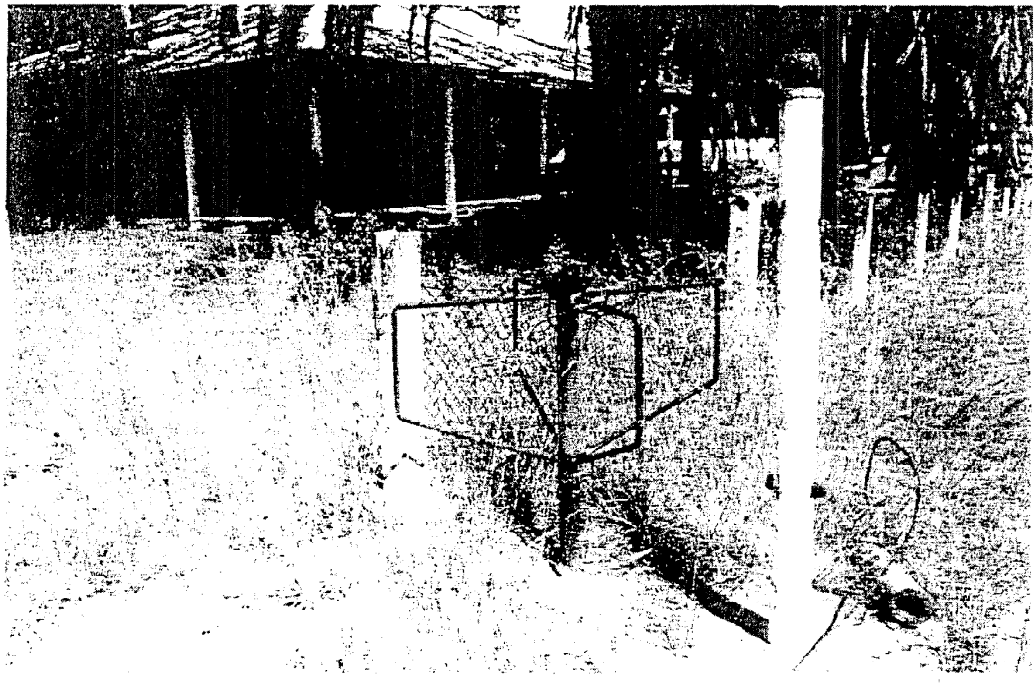


FIGURE 14.15: TURNSTILES TO GATE ON MAIN ACCESS ROAD.

5.0 THE LOCAL LANDSCAPE

The colliery is located on the south-western side of Millfield Road. As described elsewhere, in spite of the site being a former colliery, it maintains a park-like character which is contributed to by adjoining rural lands. On the opposite side of the road is the township of Paxton. This is typically a small country town primarily comprised of single, detached dwellings, a few shops and a pub. The town is strongly characterised by the presence of the mine which can most easily be seen from Millfield Road when travelling south-east. At other times views of the site are veiled by the existing native vegetation. As one moves further away from Millfield Road, the site becomes harder to see, that is with the exception of the colliery's tall orange-red brick stack and the head frame. The other buildings are less commonly seen as the majority of the colliery buildings are set well back off Millfield Road.

It is the presence of the stack and the headframe that define the town and give it appeal. These two elements are landmark elements. It is important that they not be built out and adequate importance is given to them. Obviously the other buildings make similar contributions but not to the extent of the landmark elements.

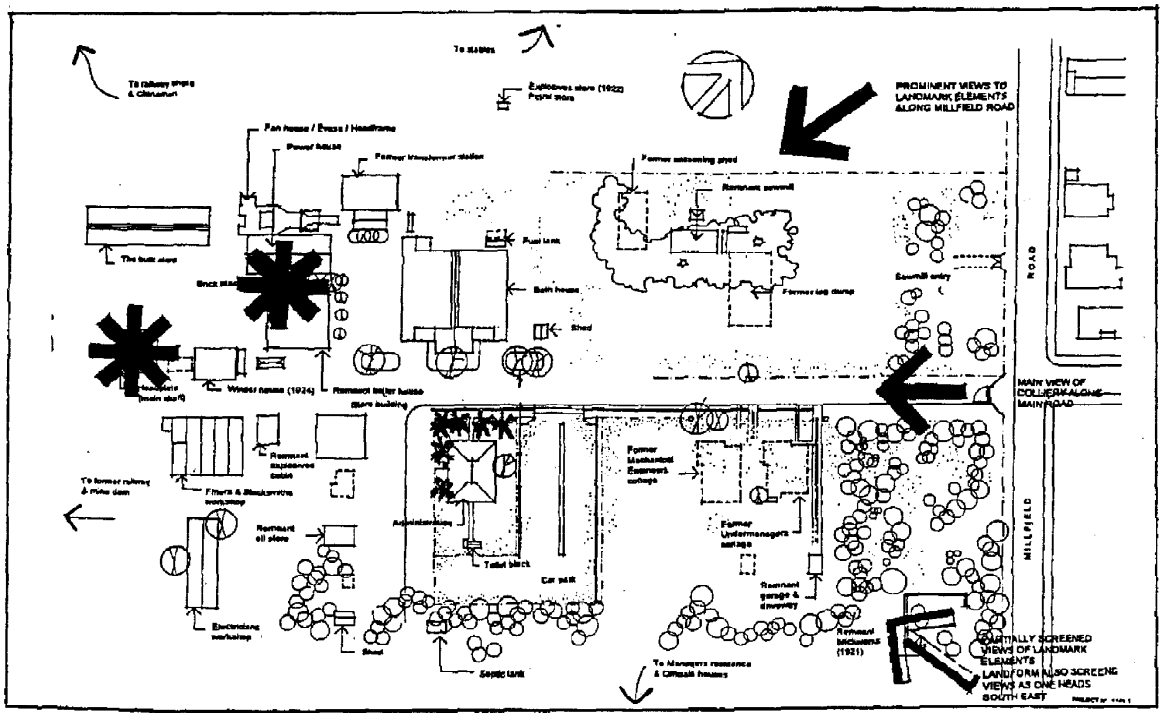


FIGURE 5.1: IMPORTANT VIEWS AND LANDMARK FEATURES

6.0 HERITAGE LANDSCAPE APPRAISAL

The heritage significance of the overall site stems primarily from the colliery being in such an intact state and so enabling an understanding of mining practices from the early to mid 20th Century. It has even been stated that the colliery is the "best preserved group of buildings on a coal mine site in Australia"[3]. Other aspects of the colliery's significance include: its association with the East Greta Coal Mining Company Limited that is noted as the pioneer of the South Maitland Coalfields; being a unique survivor of early 20th Century coal mining; having aesthetic industrial buildings of notable workmanship; and, the relationship it has with the nearby private town.

With respect to landscape issues, the colliery has had a important impact on the local area resulting in changes to the landscape. Prior to the coming of the mine, the area was predominantly a mixture of undulating hills covered either by native vegetation or pasture grasses. The arrival of the colliery meant further clearing of the bush, the construction of industrial-scale mining structures within the countryside, the formation of a water body used to supply water to the mine for the generation of power and other uses, the creation of a railway corridor extending well beyond the site and the establishment of an entire residential community in close proximity to the mine complete with shops, a school and church.

The relationship the colliery has with the town is an important issue. Even today, almost forty years after the mine's closure, Paxton is characterised by the presence of the brick stack and other related mine structures. The establishment of Paxton is integral with the creation of the colliery. It will be necessary for any future development of the site to understand this relationship and to ensure that it is maintained in some relevant manner. In particular this would preclude the construction of buildings having a frontage onto Millfield Road and opposite existing buildings and ensuring that a strong sense of separation is maintained between the two entities.

The landscape of the site itself, although not well endowed with cultural plantings, still conveys attitudes and practices of a former era. For example, the management hierarchy is reflected in the location and treatment of certain elements. This is best demonstrated in the Mine Manager's residence which was located well away from the mine although still in a position that afforded views of the mine. This sense of separation and elevated location conveyed to the miners a sense of privilege bestowed upon the manager (as evidenced by the use of the expression, "Nob Hill"). The residence also included the planting of Canary Island Date Palms which was a replication of the treatment given to the Administration Building. Perhaps not done with intent but this treatment provided a strong link between the Managers' Residence and the Administration Building and so reinforcing the manager's position of authority even though his residence was located away from the actual workings.

In terms of actual landscape items, the site has only a small scattering. This is indicative of the emphasis given over to production rather than those aspects that would have been regarded as peripheral to the extraction and processing of coal. It is acknowledged that this attitude was changing in the final years of the operational life of the mine, however, little appears to have been implemented. Where items do occur, they assist in our understanding of the site and how it operated. In some cases plants, paths and/or fences exist where other structures have been removed (eg the Official's Cottages) without which their former locations would not be readily apparent. The retention of such items, therefore, assists in providing a link to those buildings that no longer exist and helps to define a specific location and size within the site.

---

[3] Australian Heritage Commission, *Register of the National Estate*, Stanford Main Nº 2 Colliery, Database Nº 001212, Oct 1980.

7.0 LANDSCAPE CONSERVATION RECOMMENDATIONS

The following is a list of recommendations which, when implemented, will reinforce the heritage qualities of the colliery whilst still allowing compatible development to occur on site and so guaranteeing the long-term conservation of a heritage item of state significance.

- Landscape elements associated with the colliery (ie the Stack and the Head Frame, Main Shaft), be kept prominent when viewed from outside the site, specifically from existing locations within the township of Paxton. This would include views along the main access road and along Millfield Road.

  Comment: *The creation of Paxton is strongly associated with the formation of the colliery. It is the town that was created to provide accommodation and services to the people and families of those who worked the mine. Successes and hardships faced by the mine were also shared and reflected in the town. Therefore, it is important that a strong visual link is provided between the two to assist in explaining the relationship between the two separate yet linked entities.*

- Development of the site along Millfield Road should not occur where it coincides with the town.

  Comment: *This is to ensure that the strong physical division that has always existed between the town and the colliery is maintained.*

- Cultural plantings as indicated previously (Figure) should be protected and maintained.

  Comment: *The site does not have a large representation of cultural plantings still in existence. It would seem that generally landscaping of the site was not an important consideration, however, where it did occur shows how important buildings (eg the Administration Building and Manager's Residence) were given preferential treatment on so reinforcing the hierarchy of the workforce. It was only late in the mine's life were attempts made to improve the amenity of the more utilitarian parts of the site.*

- Remnant fences, drains and other such landscape elements as indicated (Figure) should be protected and/or interpreted to give a sense of how the site was broken into smaller, discrete areas with specific functions and to indicate their relative importance based on the level of treatment given.

  Comment: *Many of the mine's ancillary buildings have been demolished, however, sections of fences, paths, drains etc still remain giving evidence of their existence, their location and overall size. The retention of these elements is a simple means of adding to an interpretation of the site.*

- Views to the dam, where currently be available, be protected in some form so that a better understanding of the mine's operation can be preserved.

  Comment: *This is to ensure that a more complete appreciation of the mine's operation can be had including how other site's landscape were changed to suit the demands of the mine. It will not be necessary to maintain a completely open panorama, however, views of the dam should be readily accessible.*

- The alignment of the former railway including remnant fabric (eg sleepers, chute and chinaman etc) be protected and so further explaining the mine's operation.

Comment: *Surprisingly little of the railway still exists considering it is an importance element of the mine's infrastructure. It may be necessary to remove regrowth to reinstate the lines alignment with on-going maintenance required.*

- The site of Mine Manager's Residence including nominated trees is to be protected with some appropriate form of interpretation given to explain the former use of the site and its relationship to the operational buildings. This would include maintaining a view corridor between the two areas.

  Comment: *The manager of the mine held an important position within the hierarchy of the mine which was reflected in the location and treatment given to his residence. It is important that this relationship be given adequate regard. Since the building is no longer in existence, it is necessary to use the remnant landscape elements to assist in the site's interpretation.*

8.0 CONCLUSIONS

From the above, it can be appreciated that the landscape setting of the site, its spatial arrangement, its relationship with the township of Paxton and specific landscape elements contain within the site, all contribute to understanding how the mine operated and its influence on settlement patterns with in the South Maitland Coalfields.

Often landscape elements do not have the substance or presence as do other elements such as buildings and structures, however, they can be equally as important when trying to interpret the heritage significance of a place. This is clearly demonstrated with the landscape elements of the Stanford Main Nº 2 Colliery where often landscape elements are the most visible remnants giving insight to the mine's operation.

APPENDIX A: REFERENCES

A.1 Publications and Reports

- ERM Mitchell McCotter P.L. *Stanford Main Nº2, Archaeological Assessment*, report to EJE Town Planning, April 1999.
- Fenwick, P. *A Heritage Study of Stanford Main Nº 2 Colliery, Paxton*, report to Coal & Allied Industries Limited, 1991.
- Hunter, C. *Stanford Main Nº 2 Colliery, Paxton: History and Thematic Analysis*, report to EJE Town Planning, February 1999.
- Kovac M., Lawrie, J. *Soil Landscapes of the Singleton 1:250.000 Sheet*, Soil Conservation Service of NSW, 1991.
- Wildthing E.C. *Statement of Effect on Threatened Flora and Fauna: DP 714067, DP 817644,* and DP 814508, Paxton, NSW, report for Coal and Allied Operations, December 1997.

A.2 Maps and Aerial Photographs

- CMA *Cessnock 9132-2-N*, (Topographic Map, 1:25,000), Central Mapping Authority, 1986.
- CMA *Quorrobolong 9132-2-S*, (Topographic Map, 1:25,000), Central Mapping Authority, 1986.
- Surveyor Generals *Aerial Photograph, Film Nº 231, Frame Nº 5109*, NSW Government, Flown March 1961.
- Surveyor Generals *Aerial Photograph, Film Nº 4233, Frame Nº 129*, NSW Government, Flown August 1994.

APPENDIX B ARCHAEOLOGICAL ASSESSMENT

Prepared By Angela Besant, ERM Mitchell McCotter

STANFORD MAIN NO. 2

Archaeological Assessment

For:
EJE TOWN PLANNING

April 1999
59024d1

Report No. 59024D1

This report was prepared in accordance with the scope of services set out in the contract between ERM Mitchell McCotter Pty Ltd ACN 002 773 248 (ERMMM) and the Client. To the best of our knowledge, the proposal presented herein accurately reflects the Client's intentions when the report was printed. However, the application of conditions of approval or impacts of unanticipated future events could modify the outcomes described in this document. In preparing the report, ERMMM used data, surveys, analyses, designs, plans and other information provided by the individuals and organisations referenced herein. While checks were undertaken to ensure that such materials were the correct and current versions of the materials provided, except as otherwise stated, ERMMM did not independently verify the accuracy or completeness of these information sources.

Approval to Issue Draft

Description of Draft: STANFORD MAIN No 2 - ARCHAEOLOGY

Ref. No.: 59024 D 1 Footer Date: 9.4.99

Recipient: EJE Town Planning

I certify that the above document has been reviewed by the project director and approved for issue as a draft to the above recipient.

Signed: [signature] Date: 9.4.99

Name: Keren Halliday

(Project Director or Nominated Director)

ERM Mitchell McCotter Quality System

TABLE OF CONTENTS

Page No.

Chapter 1

INTRODUCTION

1.1 SUMMARY

This report seeks to assess the archaeological potential of the Stanford Main No. 2 colliery site and to produce management recommendations accordingly. The site is located at Paxton New South Wales, 12 kilometres south east of Cessnock. The complex comprises standing buildings in varying degrees of repair and the footprint of several buildings which were demolished prior to the late 1970's. The surface expression of the demolished buildings have been recorded and an overview presented in *Figure 1.1*. In order to add to the historic information known at the colliery complex, the assessment of the site has focused on those areas where less is known, the brickworks and sawmill.

The archaeological information has then been synthesised with historic research conducted by Peter Fenwick (1991) and Cynthia Hunter (1999). The report presents a significance statement incorporating the themes presented in the Heritage Manual (DUAP 1996). A management plan has been formulated for incorporation with the Conservation Management Plan prepared by EJE Town Planning. This report shall provide the basis for an excavation permit for the site under Section 140 of the Heritage Act N.S.W. (1977). This report is a supplement to assessments of machinery and standing buildings by heritage architects. It is recommended that an excavation permit for the site under Section 140 of the Heritage Act N.S.W. 1977 be issued to allow further details of the site to be recorded in those areas identified in the management recommendations.

1.2 BACKGROUND

The Stanford Main No. 2 site comprises two areas, the first (Block A) of approximately six to seven hectares, the second (Block B) of approximately 47.5 hectares. The proposal is to maintain the majority of the colliery site within one portion while subdividing part of the remainder into smaller residential portions. The colliery buildings are proposed to be incorporated into a tourist development / conference centre which will cover the main buildings and the stables to the west.

1.3 HISTORIC BACKGROUND

The following history is based upon the heritage study completed by Peter Fenwick in 1991. The East Greta Mining Company was regarded by many people as the pioneering company of the South Maitland Coalfield. The company was formed in April 1891, based on a syndicate formed in 1889. The group purchased 101 hectares of coal deposits south of West Maitland. The first colliery on this land was the East Greta No. 1, opened in December 1893. Increased demand brought about the opening of East Greta No. 2 in 1896. The first multiple death recorded on the South Maitland Coalfields, was at this colliery, when in November of 1898 a roof fall claimed the lives of three men.

Although not the first to mine the Greta seam, the company is considered a pioneer because of the investment it committed to coal transport infrastructure. To connect East Greta No.1 to the main northern railway line at West Maitland, the Company constructed two and a quarter miles of railway. This initial length of railway would subsequently develop into the South Maitland Railway network. The existence of the railway allowed the continued development of the Greta Coal Measures from East Greta, through to Kurri Kurri, Cessnock and the Paxton (Macleod 1998 pers. comm).

As the collieries at East Greta became uneconomic to mine, the company purchased 3845 hectares west of Cessnock. The area selected for the colliery known as Stanford Merthyr and associated infrastructure was a well drained sloping site adjacent to Millfield Road approximately 12 kilometres from Cessnock. As Stanford Merthyr No. 2 progressed further shafts were planned. These allowances made for future expansion, however this, never came to fruition.

In order to finance the development of Stanford Merthyr No 2. almost a quarter of a million shares were issued to the Adelaide Steamship Co. Ltd. which then had control of the company.

1.4 INFRASTRUCTURE DEVELOPMENT

In August 1922 work on the railway line was well under way. A seventy-two bullock plough and men with carts and horses worked to provide the ballast for the railway embankments. By August 1922 approximately 4.8 kilometres of the line was constructed with only eight kilometres remaining to connect the colliery with the South Maitland Railway line. A 9,090,000 litre dam was constructed for a water supply, backed up by the Congewai Creek. Bricks for the construction of buildings and the lining of the shafts were produced on site and a sawmill provided the companies' timber needs.

Coal was struck at a depth of 106 metres and water was removed by means of a pump and a 1140 litre bucket. The air shaft or upcast shaft was located 78 metres away from the main shaft and was bricked to a depth of 13.5 metres by August 1922. The poppet-head and brick engine house were near complete and the John Donald and Son of Glasgow steam engine installed. The old timber colliery office from Heddon Greta was used as a temporary office.

In May 1924 the mine was fully equipped at a cost of approximately 240,000 Australian pounds. The shaft had been sunk through sandstone with occasional beds of fine to medium conglomerate. The shafts were 3.66 metres in diameter and bricked in 230 mm bricks backed with concrete. One shaft was used for winding up the coal and the upcast shaft had a cage fitted for emergency work.

The winding engines were housed in roomy brick buildings, and were built by Messrs Walker Bros Maryborough Queensland. Two deck cages were used to hold two skips each and capable of hauling out 2.5 tonnes of coal per haul. The colliery was capable of producing 1500 tonnes per seven hour shift.

The upcast shaft was fitted with a three metre double inlet 'Sirocco' fan capable of moving 11.330 cubic metres of air per minute at 180 rpm. The fan was coupled to a 350 hp Ashworth - Parker compound engine housed in the power house. Power was generated by two Crompton 350 KW alternating current sets each coupled to a 500 hp Belliss and Morcombe steam engine.

1.5 PHYSICAL EVALUATION

The physical evaluation was based on air photographs from 1961 and 1998. Potential locations of archaeological material were noted. Field inspections over two days verified the presence of archaeological material and features were recorded with the use of a dumpy level.

The standing buildings have been recorded by photographic folio which is in Appendix A. It should be noted that the small structure in the pit pony paddock has been referred to as the explosives shed in the photographic folio and in the text. This structure was first built as the explosives magazine and later utilised as a petrol and/or oil store. All the features documented below can also be found in the photographic folio.

The following archaeological remains were recorded.

1.5.1 Managers Cottages

The two brick managers cottages located on the main entrance road to the colliery were located and all features present recorded (*Figure 1.2*). This building had housed the undermanger. The driveway and garage pad can be easily seen for the cottage adjacent to Millfield Road. The concrete pad of the toilet-bathroom remains on this building block however it may have been an external facility. The toilet pad was constructed first and the bathroom section was added later. A lemon tree remains on the northern side of this footing.

The second cottage, housed Jim Keevers, the mechanical engineer who had supervised the construction of the many colliery buildings. This site has retained the imprint of the driveway which does not appear to have been concrete. The garage is visible as a slightly elevated pad of soil at the rear of the block. The silk tree shown in the photograph of the colliery from the front yard of Jim Keevers' remains. Two fence posts remain of the original paling fence which was in place in the 1930's (Fenwick, 1991).

1.5.2 The Brickworks

The footings of a structure 33 metres by 16 metres were recorded adjacent to Millfield Road to the north-east of the cottages. It is probable that the footings are the remains of the brick workshop. The footings comprised a brick retaining wall which serves to provide a wall along three sides to retain fill. The low structure has large weep holes to allow the soil retained to drain. The wall retains a very level area of well compacted soil. This would indicate that the structure has not been constructed to support a floor other than earth, which supports the interpretation of the site as the location of the brickworks. The remaining sides are a small cut into the slope (*Figure 1.2*). The brickyard evolved over the period form May 1921 until 1929 when it was closed at the time of the miners lockout (Hunter 1999).

Remnants of sawn timber posts remain along the eastern side of the site. A round post hole with concrete collar remains at the north-western corner and another at the south-eastern corner is located one metre from the corner of the site. It would appear that an extra metre of covered area may have been added at a later date along the eastern side of the structure. There is also a faint depression in a straight line along this line which would suggest that as the structure fell into disrepair, the skillon on the east side was the first to come down resulting in a dripline depression.

A photograph of the brickworks in 1923 (Fenwick, 1991) show the horses operating the pugmill. An imprint of this operation could not be identified with certainty, although it is possibly evident on the north-western side of the footings where there is a faint outline of a possible circle, approximately five metres in diametre.

Evidence of four possible kiln sites were located on the southern end of the site. Three of these are in a parallel line located two to three metres apart, each with a diameter of up to two metres. They comprise mounds of very dark soil to approximately 40 centimetres high. If they are not the location of the brick kilns then they may have been ash dumps. The fourth is located about three metres from the garage site at the first undermanagers cottage site. This remnant comprises ground hardened by exposure to high temperature, dark charcoal laden soil with broken bricks and oyster shell evident. This site is eroded and about two metres in diametre. The close proximity of the kiln remnants to the residence would suggest that this may have been one of the first kilns constructed, later replaced by the other three other kilns closer to the brick shed.

An area of approximately one hectare to the east of the possible brickyard site has been heavily disturbed. Here the soil has been removed into the subsoil level. In some places this is only evident by the hummocky appearance of the surface which has accumulated enough humic material to be covered with a thin layer. In other areas the clay of the subsoil is clearly visible. It is possible that this area may have been used to procure some clay for the brickworks.

1.5.3 The Pit Top Screens

The pit top building was 100 feet long and 45 feet wide straddling the mines rail sidings. The structure is not evident on the overview of the site as this figure was based on the 1998 aerial photograph. The site has been capped with clay to such an extent that no evidence of the structure is visible.

Two concrete strip footings remain at the location of the rail siding. The footings are thirty centimetres wide and several metres long. They are parallel to each other although off set. They are not the footings of the screen house building as they are to close to each other. It is possible that they relate more to the rail line rather than the structure.

The remnants of the screen house have been covered by fill or destroyed when the structure was dismantled in 1968 when some of the Oregon timbers, 40 feet by one foot by six inches, and galvanised iron were removed. The following day the remainder of the screens and pit top building were burnt down. The cleaning up operation appears to have removed most archaeological evidence.

1.5.4 The Boiler House

The boiler house floor was recorded in detail in 1998 when it was exposed by excavations to treat soil contamination by Coal and Allied Pty Ltd. The site has now been capped by up to a metre of clay.

Photographs from the early 1930's show that the boiler house was a small brick building, designed to accommodate eight boilers (Fenwick, 1991). The building had a low gable roof and adjoined the base of the chimney via the brick and concrete draught chamber to which the individual boiler smoke boxes were connected. The general location of the boiler house is to the right of the centre of the stack. In the literature of the day the boiler house appears to be referred to as the steam rising plant (Fenwick 1991).

The boiler house accommodated four Goninans dished end Lancashire boilers to supply steam for generators and winding engines. The water was supplied from Congewai Creek and the storage dam. A concrete reservoir was also constructed to hold water from the town mains, having a capacity of 136,400 litres. The concrete tank remains on the site on the hill near the mine managers residence, to the east of the complex. The steam produced drove the Messrs Walker +Bros Maryborough steam winding engine and the Belliss and Morcombe steam engine in the powerhouse. The boilers measured 9.35 metres by 2.44 metres and produced a working pressure of 1030 kilopascals. A Nichols feed pump was installed to keep the boilers supplied with water. A special blend of coal was required for the power house which was not available at Pelaw Main or Richmond Main No.2. A suitable mix was made at the Hexham washery and a load returned to Richmond Main every afternoon (Preston 1989).

The stack which provided the necessary combustion draft for the coal fired boilers, stands 43 metres high with an internal diameter of 2.44 metres. The stack is located between the boiler house remains and the power house. The stack is one of only two colliery brick stacks still intact in the Cessnock area. Construction comprises bricks made on site, laid in the English Bond brick pattern. The stack has a slight taper and was banded with mild steel in the 1940's to reinforce the structure.

The stack is built upon the draught chamber, 5.6 metres in length with fire bricks lining the domed ceiling. The draught chamber is still relatively intact, although the ceiling has collapsed in the mid section and a peppercorn tree has invaded the southern side (*Figures 1.3).*

1.5.5 The Sawmill

The remnants of the sawmill comprise several skid rails, a winch, various posts and the overhead box for loading sawdust. The features of the sawmill are recorded in *Figure 1.4.* The guides at the side of the breaking down saw suggest that the breaking down saw was a Canadian saw which was a double blade saw which cut from above and below. Many other sawmills at this time used a Harkin saw which cut from above.

The timber rails, dogs (spike which hold the rail in place), and skip rails remain where timber was transferred to the bench saw. The saw has been removed. The timber rails and dogs remain where timber was moved out to the docking saw however the skip rails and saw have been removed.

The saw mill is generally in poor condition and unstable. The overhead box has been subject to fire and partially destroyed.

It is interesting to note that while historic references refer to the sawmill supplying all the collierys' timber needs, it was observed that the stables and original bathhouse have rafters of oregon. Delany (1991 in Hunter 1999) noted that he had recovered a large quantity of Oregon timber 40 feet by 12 inches by 6 inches. It is probable that while the sawmill supplied sawn hardwood for frames, smaller rafters, joists and timber floors, long spans utilised oregon which is considerably lighter than hardwood.

1.5.6 The Blacksmiths Shop

Remains of the area where blacksmiths, fitters and carpenters could work undercover can be seen between the two workshops at the south-eastern end of the Stanford complex. The roof and many of the support poles have gone however it can be seen that the structure was an additional skillon to the light rail carriage shop. The forge at the northern end of the structure partially remains, the brickwork intact to the level of the fire however the flue has come adrift and is scattered about the site. A second forge was located on the western side of the structure and is now marked by a pile of bricks. The site has a lot of debris from the roof and wall structure and shall be recorded in more detail in a monitoring program.

1.5.7 Rail Sidings

The rail sidings comprised the pit top screens and wagon loading facility and a series of ramps to the west of the main complex. A coal loader is located to the west of the site between the main complex and the stables. It comprises a ramp and shute known as a 'chinaman', which seperated the large coal from the small coal. The shute allowed the small coal to be loaded into the wagons. The sidings are relatively complete and well preserved with the exception of the pit top screens as discussed in 1.5.3.

It is interesting to note that the advertisment for the subdivision of Paxton in 1922 showed three branch lines in the Stanford Main No. 2 locality sketch. There is no evidence that the extra two branch lines were ever constructed. The location of these branch lines correspond with two other test bores which were sunk in 1920-1921. A faint outline of a possible road, or preliminary rail related earthworks, to these sites appears on the 1961 aerial photograph. The 'local sketch' which appears on the promotion must have been based on the plans for the extension of the rail system with a view to sinking another two shafts at a later date. These plans never came to fruition.

Chapter 2

SYNTHESIS AND MANAGEMENT

2.1 SYNTHESIS

The site of Stanford Main No.2 contains remnants of structures dating from 1921 (the sawmill and brickworks), which were adapted to different uses within the framework of coal mining. The site contains buildings from the early 1920's ie the old bathouse then bulk store, the workshops, the winding rooms, shafts and poppets. The use of materials throughout the site reflects the purpose of a structure, for example iron and hardwood for the workshops which would have been relatively quick to erect and provide support for those working on more substantial brick buildings and sinking the shafts.

With the exception of the 1950's bath house the buildings relate to the same time frame. Generally, the site remains as it was left in 1961 when the mine was closed. Several buildings have been demolished, notably the residential buildings, the smaller brick stores and the explosives issue building. The remainder of the site is intact however weathering rapidly.

2.2 SIGNIFICANCE

The significance assessment and statement is made in accordance with the following guidelines:

- NSW Heritage Manual (DUAP);
- Heritage Assessments and History and Heritage (The use of historical context and themes in heritage assessment) produced by the NSW Heritage Office; and
- The Burra Charter (ICOMOS 1992).

2.3 HISTORIC ASSESSMENT

The site of Stanford Main No. 2 is listed in Schedule 1 of the Hunter Regional Environment Plan due to the representativeness of the site and rarity within the state historic theme of mining. The site is both representative and rare within the local Cessnock area as an example of a complete complex. It was built largely from materials on site and demonstrates coal mining technology from the early 20th century. Stanford Main No. 2 is a unique example of the development of coal mining in the South Maitland Coalfields.

2.4 AESTHETIC SIGNIFICANCE

The site of Stanford Main No. 2 is also very significant for the small township of Paxton particularly due to the location of the mine in the main street. The site is a visual landmark within Paxton and surrounds, and continues to occupy a significant amount of land in the immediate area of the town. The redevelopment of the site, which ceased operations 30 years ago, appears to be an important issue to the residents. The buildings are deteriorating due to their age, lack of use and maintenance. This process could be expected to accelerate over the next few years as the fabric of the buildings becomes increasingly exposed to the weather.

2.5 TECHNICAL RESEARCH SIGNIFICANCE

The Stanford Main No. 2 complex has high technical research significance. The site is the most complete complex which illustrates the technical development in the South Maitland coal fields. It is significant that a technological system introduced in the early 20th century remained sufficiently useful and profitable to remain in use until the 1960's. The site is well placed to answer research questions based on technological developments within the coal industry in the early twentieth century.

2.6 SOCIAL SIGNIFICANCE

The site of Stanford Main No. 2 has had a major social significance as an agent of change to the landscape of Paxton township. The town of Paxton was founded in 1922 to service the coal mine. Land sales were conducted from 1922 and 1923. The town bears the names of those involved in the East Greta Mining Company, John Paxton a member of the board of Directors, Anderson Avenue named after a company secretary, Clift Street, Earps Road & Donald Avenue, all named after members of the Board of Directors.

The significance of the mine for the town of Paxton was demonstrated when at the time of closure in 1961 only 12 men of the 250 in Paxton were not employed at Stanford Main No. 2.

2.7 SIGNIFICANCE STATEMENT

The significance is based not only on individual structures but amplified by the complex of buildings and their relatively undisturbed context. Stanford Main No. 2 is of high regional significance for its research potential and the relative rarity of a complex of underground mining structures (see historic assessment, Hunter 1999).

The site has the historic resource to answer research questions posed about many aspects of early twentieth century coal extraction techniques, the development of industrial infrastructure or social structure on early twentieth century coalfields. The heritage theme of mine development is well represented at this site. Social aspects of twentieth century industrial towns could be subject to research questions with a focus on the development and subsequent decline of underground mining at Paxton and the effect on community.

2.8 ISSUES

Stanford Main No. 2 Colliery retains a high significance as a rare and representative example of early twentieth century coal mines within the Hunter Valley Region. The colliery has been listed under schedule one of the Hunter Regional Environment Plan (1989) which provides legislative protection under Section 140 of the New South Wales Heritage Act (1977). The proponent has acknowledge the regional importance of the site and has adapted the development plan to maintain the integrity of the majority of the complex. The isolation of the Managers residence in comparison to the spacing of the other buildings in the complex has made it difficult to retain the archaeological evidence within the development. It is desirable that the remnants of the building are thoroughly recorded as a condition of consent to the development application.

The development of the site is necessary in order to prevent the further deterioration of the buildings. The buildings have been subject to vandalism and several have lost their roofing material and are subject to rapid weathering. The buildings are to be restored in a manner sympathetic to the historic importance of the site as set out in the conservation plan. With an appropriate curtilege in place, the proposed redevelopment should stabilise and restore the complex and ensure that it retains an important place in the village of Paxton.

2.9 POLICY STATEMENT

This report specifically addresses the demolished structures within the complex. The management of the standing structures and machinery is addressed by specific management plans developed by heritage architects. The overall management plan seeks to maintain the integrity of the Stanford Main complex. To assist the process of restoration and reuse, the site shall be subject to more detailed recording of the manager's residence, the blacksmith's area and the stables. Monitoring over other nominated areas within the site shall ensure that no potential archaeological information is destroyed inadvertantly.

2.10 RECOMMENDATIONS

This management of the archaeological resource of the Stanford Main Site shall be ensured by the following strategies:

- the manager's residence, the blacksmith's area and thestables shall be recorded in more detail prior to the commencement of any works and subject to monitoring upon the commencement of works;
- archaeological monitoring shall be performed in the areas of the sawmill and the residences on the main and minor entrance. All features and relics unearthed shall be recorded and an assessment of significance made;
- the remnants of the brickworks shall not be subject to earthworks. The development proposal intends revegetation for these areas and this site has begun to be revegetated by surrounding trees. It would be appropriate to encourage the return of native grasses and minimise the regrowth of trees on the pad of the floor to minimise damage to the retaining walls by tree roots; and
- the embankments of the Stanford Main section of the Richmondvale Railway shall be protected from earthmoving. The embankments are currently subject to encroaching vegetation and this process will continue which is in line with the development proposal.

It is considered the majority of archaeological information available within the central area of the colliery has been recorded and a blanket excavation permit under section 140 of the Heritage Act 1977 would enable further recording of features in the areas indicated for monitoring.

All relics revealed during monitoring shall be subject to an approporiate course of action as indicated by their significance. The relics shall all remain on site either, in-situ and minimally disturbed in the case of less significant material, conserved and retained on site to add to public interpretation or preserved on site and in-situ in the case of significant items. It is not expected that the monitoring program will reveal any further relics of high significance however should this occur work in that are will cease immediately so the an appropriate conservation outcome can be achieved.

REFERENCES

Department of Urban Affairs and Planning NSW, Heritage Office (1996)
NSW Heritage Manual

Department of Urban Affairs and Planning NSW, Heritage Office (1996)
Regional Histories of New South Wales.

Fenwick Peter (1991)
A Heritage Study of Stanford Main No.2 Colliery Paxton report to Coal & Allied

ICOMOS Australia (1992)
The Illustrated Burra Charter

Pearson M & Sullivan S (1995)
Looking After Heritage Places Melbourne University Press

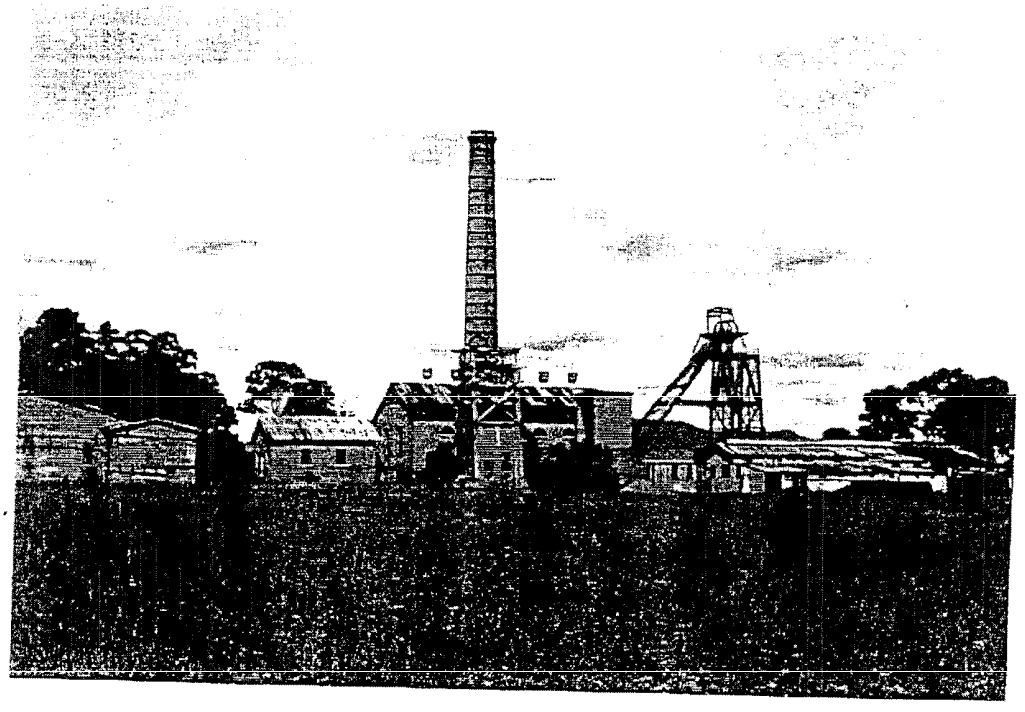
Preston R.G. (1989)
The Richmond Vale Railway
New South Wales Rail Transport Museum

Photograph One The timber water trough, east side of the stables.

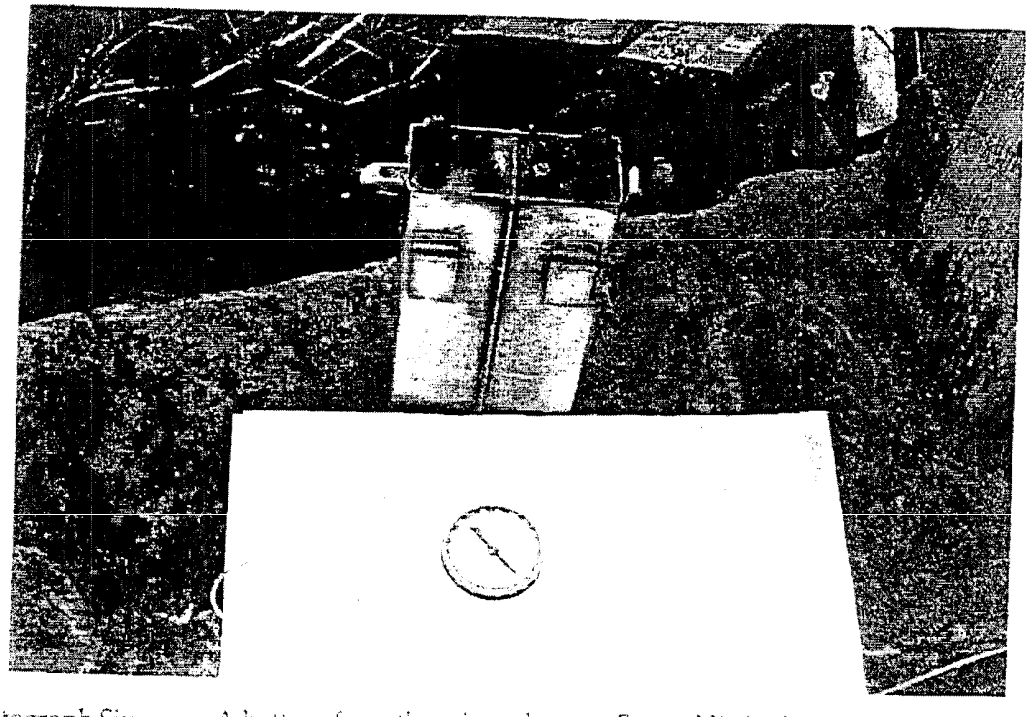
Photograph Two Internal layout of the stables. Note the wires between the external bracing to stabilise the building.

Photograph Three View of the front of the stables from the north-east

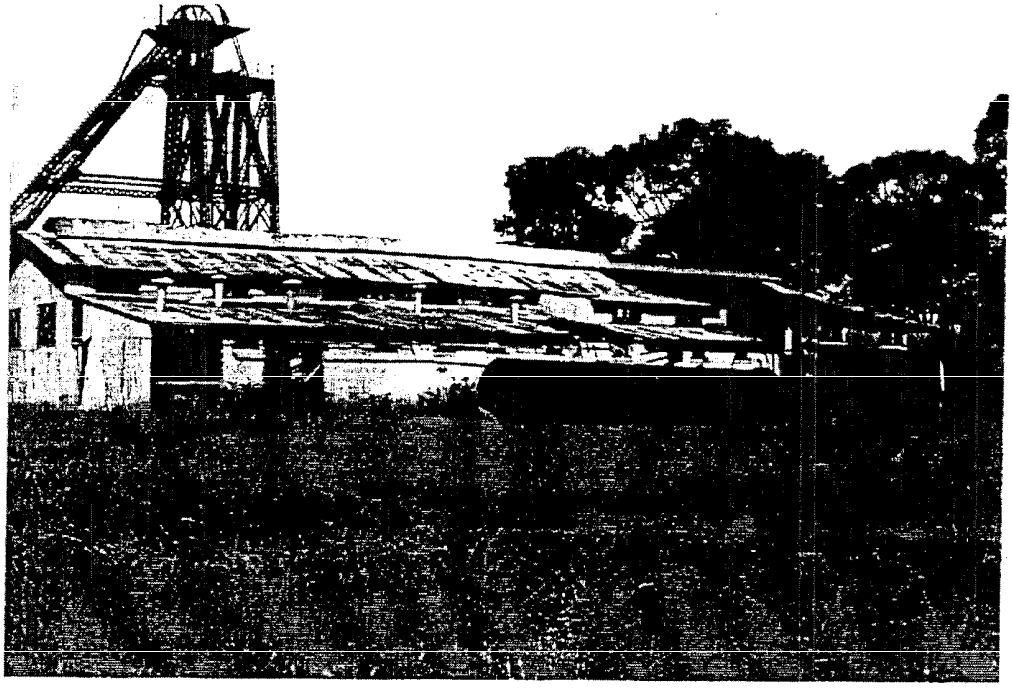
Photograph Four View of the explosives store from the south-west. The site was selected by the Millfield police officer in 1922 (Hunter 1999).



Photograph Five View of the main complex from the stables.

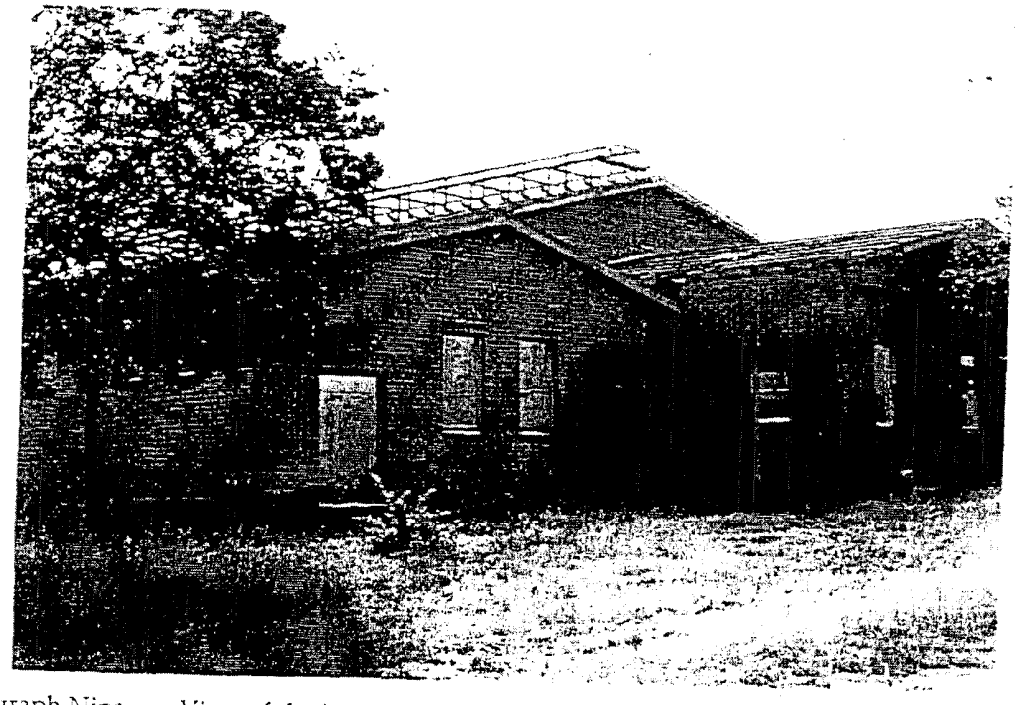


Photograph Six A battery from the miners lamps. Several lie in the explosives shed.

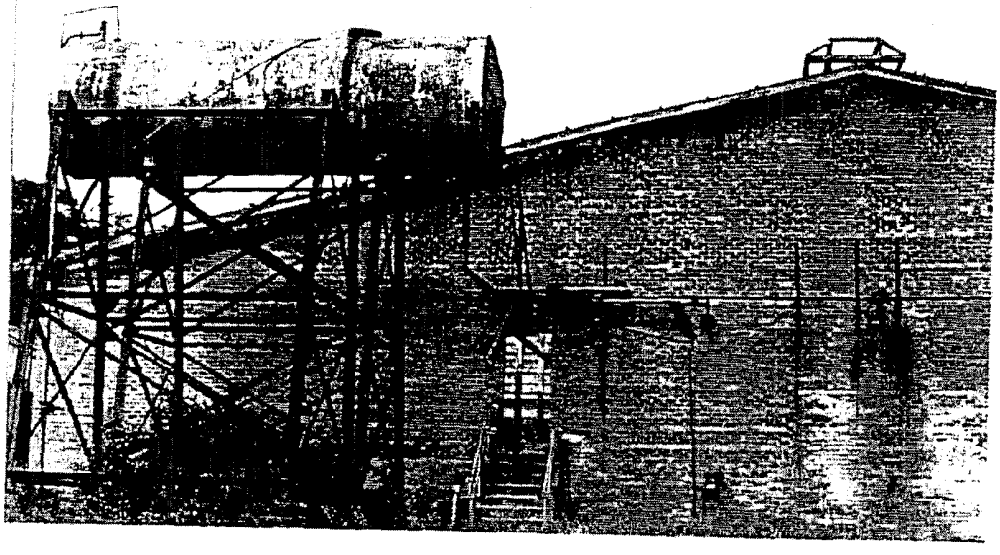


Photograph Seven View of the bath house built in c1928 from the south-east.

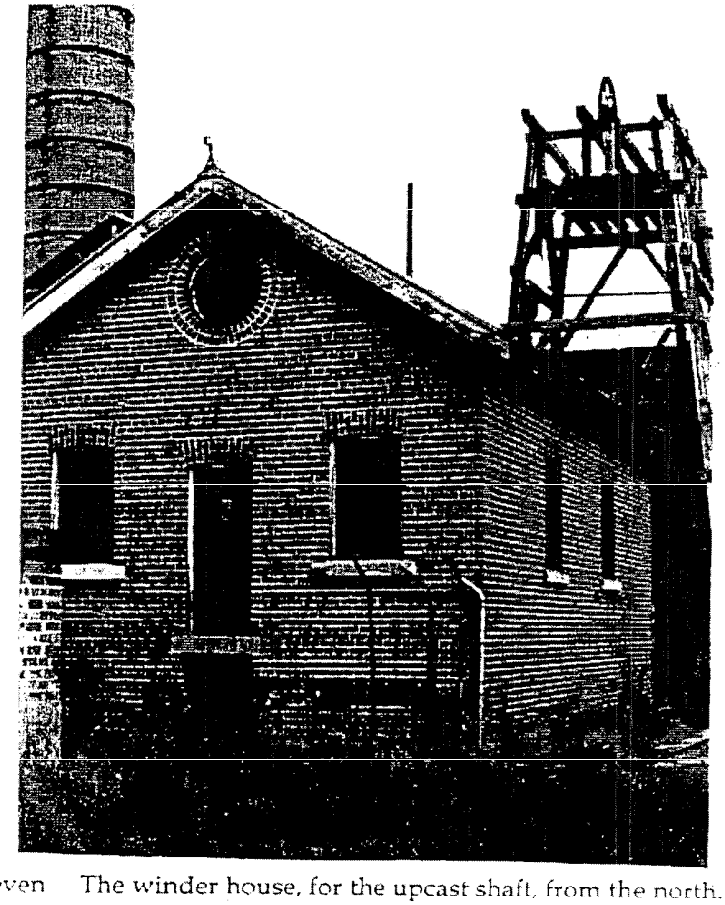
Photograph Eight View of the bath house from the north-east.



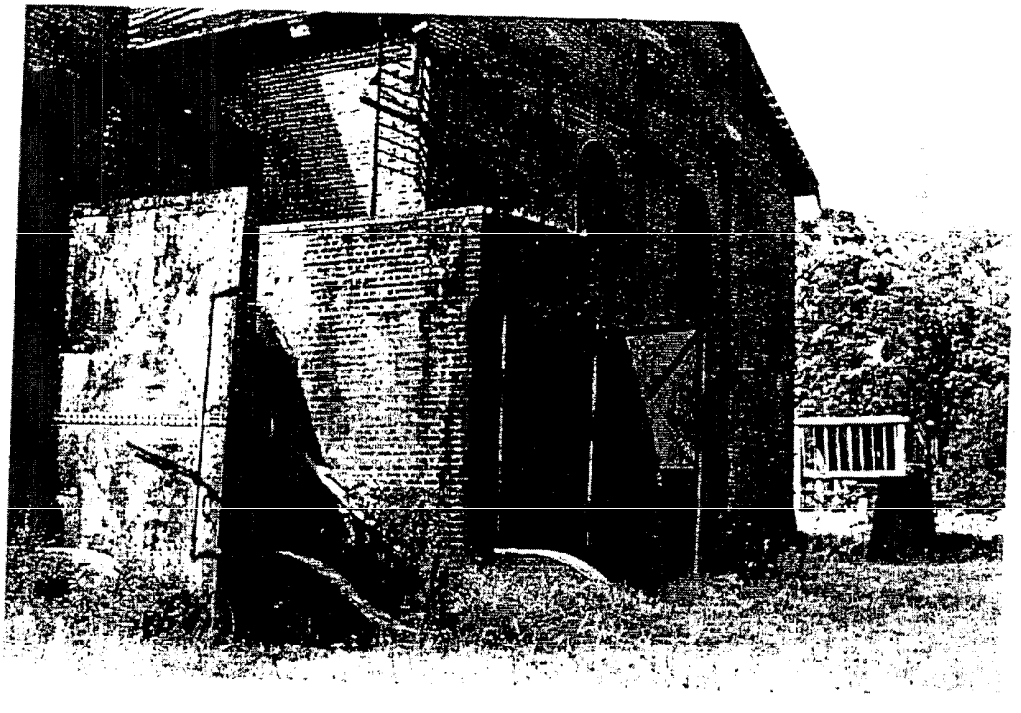
Photograph Nine View of the bath house built in the early 1950's from the south-east.



Photograph Ten The 1950's bath house from the rear. Photo from north-west.



Photograph Eleven The winder house, for the upcast shaft, from the north.

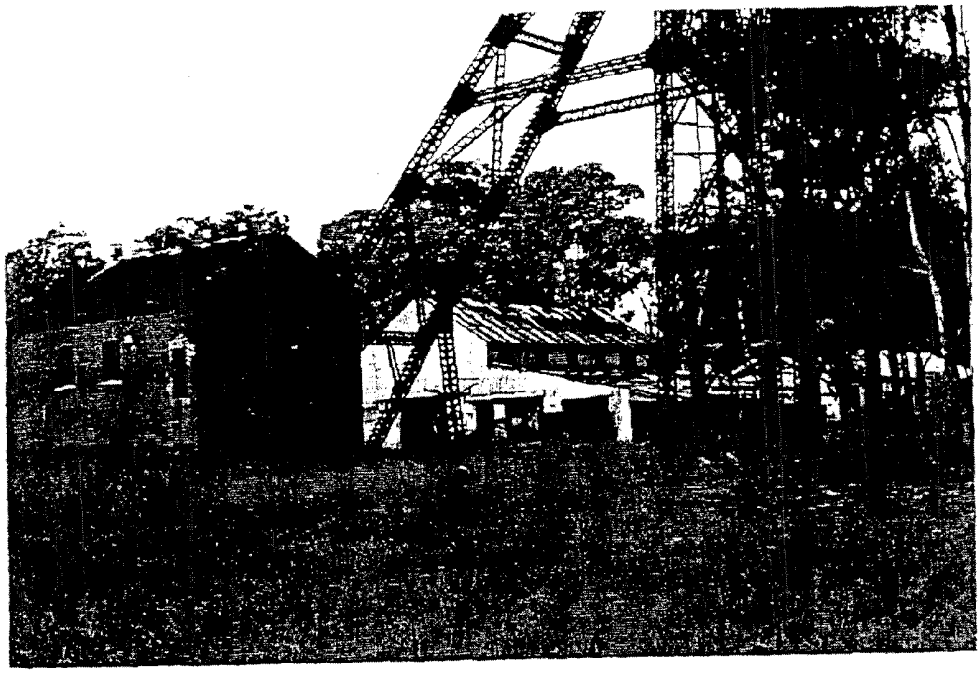


Photograph Twelve The power house and fan evase' fromthe south-west

Photograph Thirteen The upcast shaft, power house and fan evase' from the west.

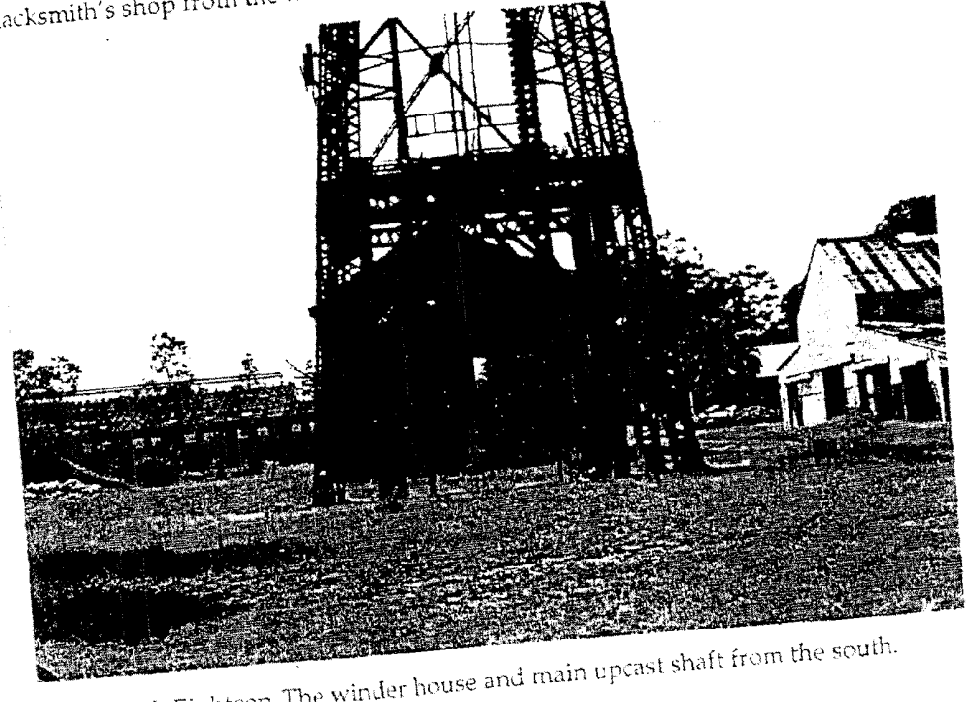
Photograph Fourteen The main shaft and winding house from the north.

Photograph Fifteen View of the power house, stack and covered boiler house floor from the east.

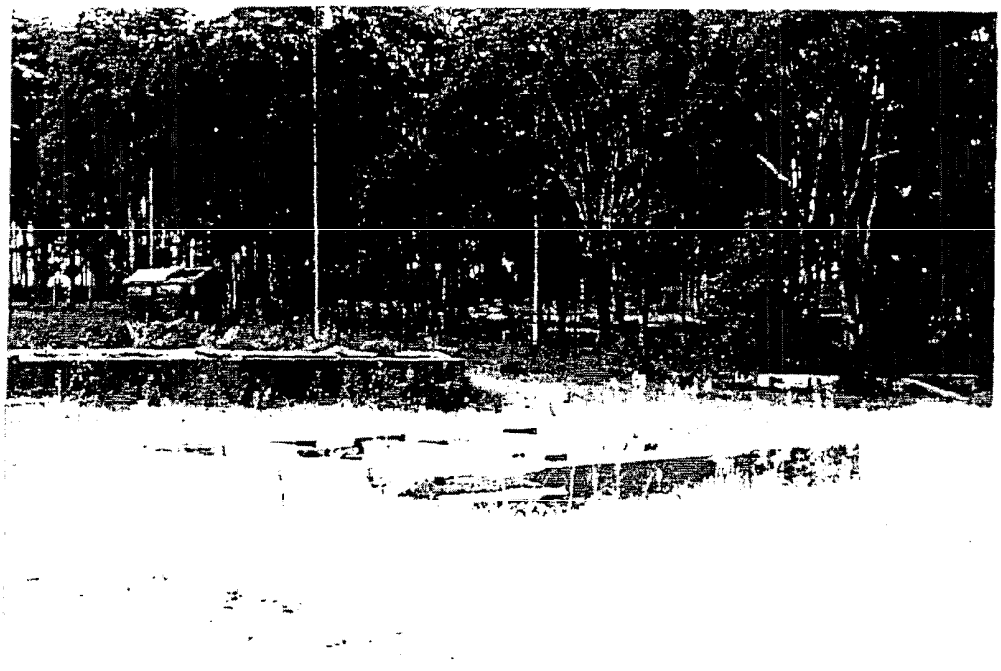


Photograph Sixteen The winding house and main shaft from the west.

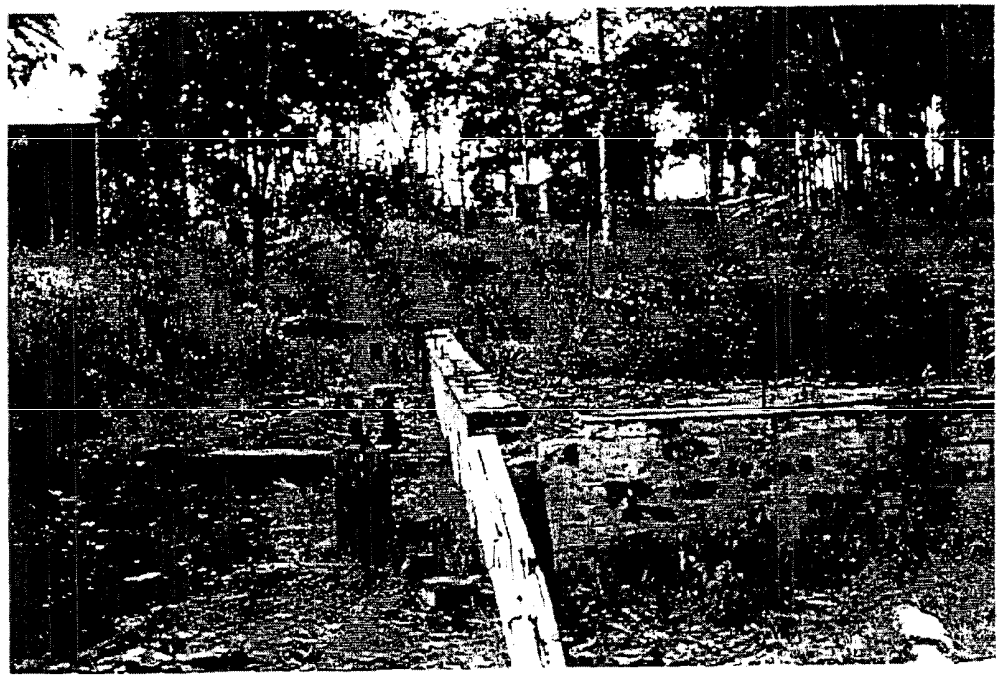
Photograph Seventeen The light rail workshop and remains of the blacksmith's shop from the west.



Photograph Eighteen The winder house and main upcast shaft from the south.



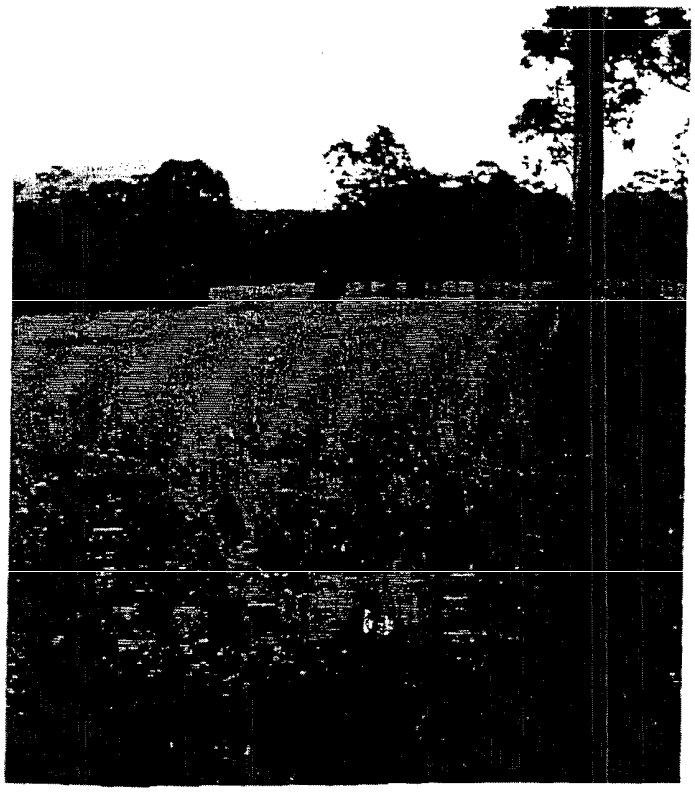
Photograph Nineteen Remnants of the store, explosives room which appeared to also house the labratory.



Photograph Twenty The probable labratory. There are many core samples throughout the ruins. The building is also double earthed suggesting the storage of volatile material. Administration and toilets at rear.

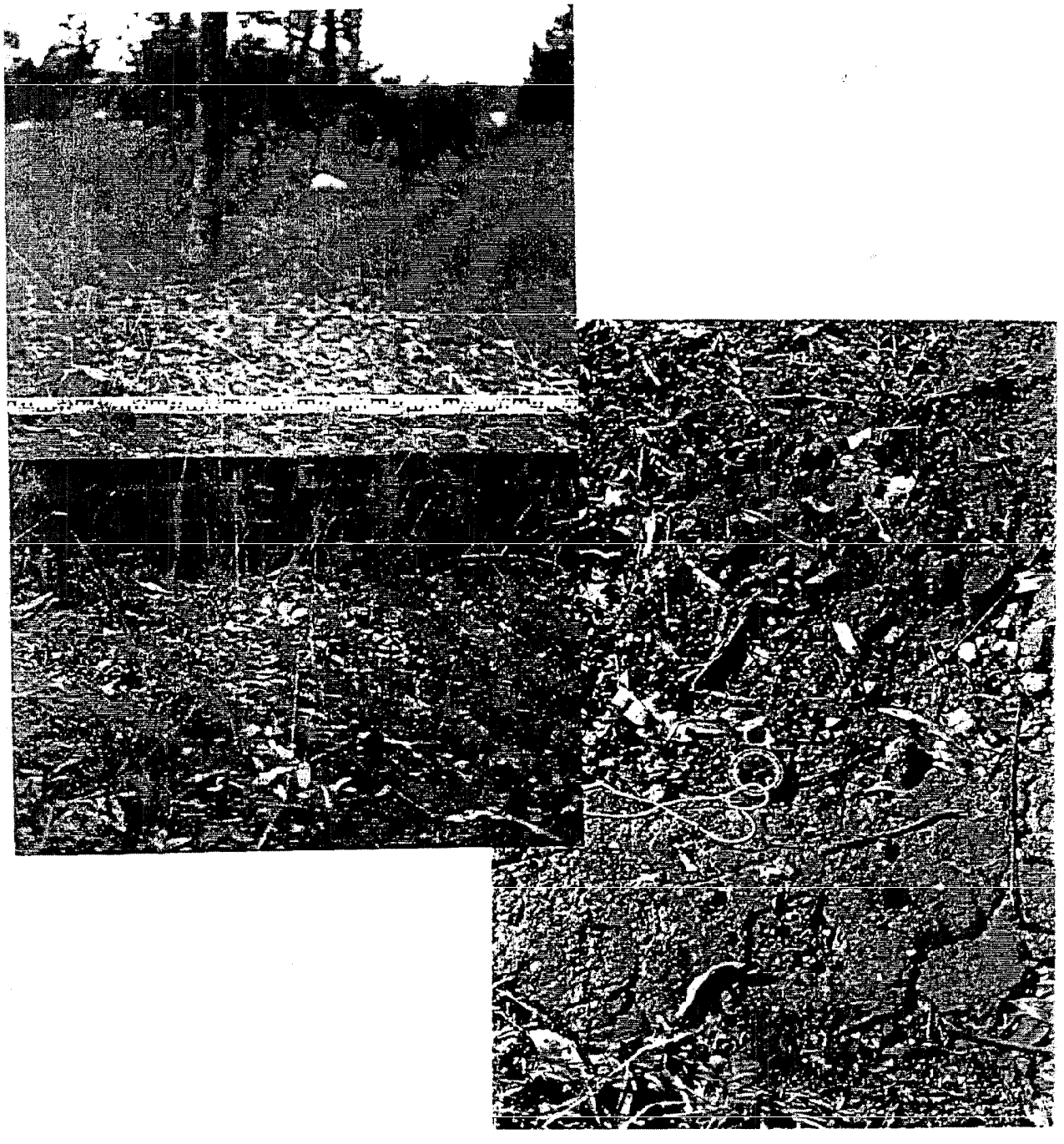
Photograph Twenty one The loading ramp and 'chinaman' at the western end of the sidings. Photo from the east.

Photograph Twenty two The remnant rail embankments, from the site of the screens to the west.



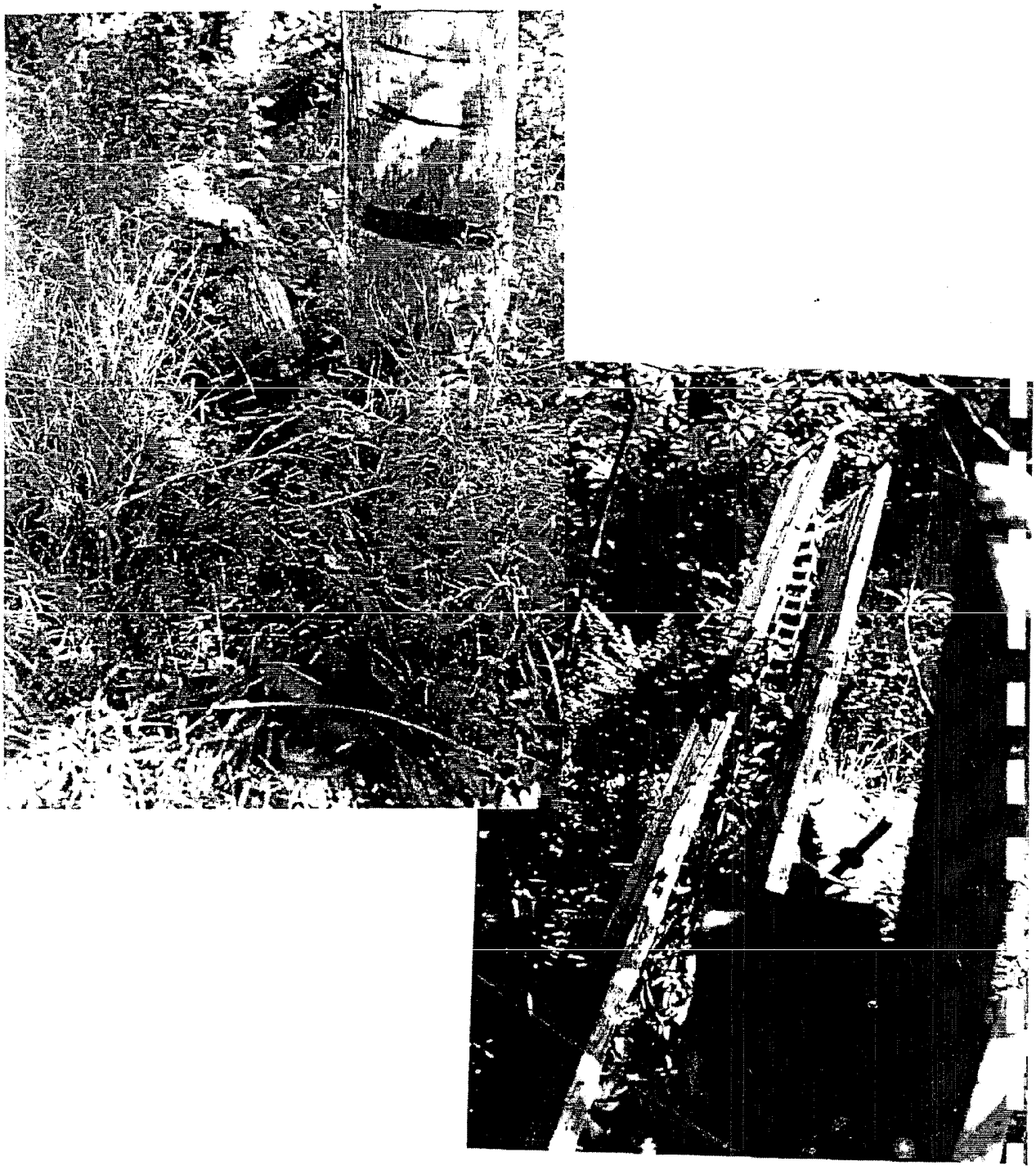
Photograph Twenty three Looking north-west from the rear of the brick floor of the garage, along the driveway toward the main entry road. Note the peppercorn trees on the left which mark the location of the sawmill.

Photograph Twenty four The footings which remain of the brickworks, adjacent to Millfield Road. View from the south-west.



Photograph Twenty five The weep holes in the retaining brickwork.

Photograph Twenty six The kiln site located close to the garage of the under manager's residence. The backed earth has been exposed to prolonged high heat. Remnants of crumbled brick are amongst charred coal and some oyster shell.



Photograph Twenty seven The sawmill- bedlogs, guides and the centralising post. The indents on the post are from the cable between the logs on the dump and the winch. The logs were drawn from both side of the post. View from the north-east.

Photograph Twenty eight The drag chain in the shute which transported sawdust up to the overhead bin. Relic 2.5 metres x 300 mm, view to the north.