3.1 Introduction

An initial archaeological evaluation was undertaken between September and November 1994. This was upgraded to meet current Historic Scotland standards between December 2005 and February 2006 (illus 2.1). The objectives were to identify, characterise and excavate archaeological features within the corridor, in those areas where no archaeological remains had previously been identified.

3.2 Methods

Desk-based assessment was carried out using the following sources: the National Monuments Record of Scotland (NMRS); vertical, stereo and oblique aerial photographs, held by the Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS); the first, second and subsequent editions of the Ordnance Survey 6" map coverage of the area; and the early maps of the area held in the National Library of Scotland. Soil and geology maps were consulted in order that a representative sample of subsoils along the road corridor could be examined.

The road corridor was walked to locate any previously unidentified surface archaeological remains. Most fields on the route line were under crop in both 1994 and 2005, and therefore the potential for artefact and feature identification was limited. Although no upstanding archaeological features were found, a scatter of worked flint and chert was located at Castlesteads Park, which subsequent trenching proved to be associated with buried archaeological features (see Sections 5 and 6). The area to the south of the Smeaton brick and tile works was opencast mined between 1994 and 2005.

The evaluations were designed to examine areas between known sites and to test areas within the corridor adjacent to known sites. In 1994, a total of c 9,872m² (154 trenches) was stripped of topsoil by JCB. In 2005–06, 14,504m² (185 trenches) were excavated, mostly using a tracked excavator. All topsoil removal was conducted under continuous archaeological supervision, and trenches were hand-cleaned to reveal any archaeological features.

3.3 Results

Desk-based assessment discounted the site of the Langside cropmark enclosure (NMRS ref: NT36NE 67) as its location corresponded with the site of an 'old gravel pit' and 'gravel pit' depicted on the Ordnance Survey first and second edition maps (*Edinburghshire*, sheet VII, 1854; *Edinburghshire*, sheet VIII NE, 1909) respectively.

The evaluation did not locate any archaeological evidence for the known pit alignment (NMRS ref: NT36NW 52) where its extrapolated line intersected the road corridor immediately beside the Edinburgh City Bypass (NT 335 696). Excavation located deposits of levelling material associated with the construction of the bypass, and the pit alignment had probably been destroyed here at that time, if it ever existed. The pit alignment forms part of an extensive network of such features identified from aerial photographs (Halliday 1982), of which two further examples were examined (Section 4). The 2005–06 evaluation added little to the 1994 results although a number of lithics were recovered, again largely in unstratified deposits, with a concentration in two trenches located close to the stone-paved area at Castlesteads.

The 1994 evaluation did not find any direct evidence of the cist cemetery south-east of Newfarm (NMRS ref: NT36NW 5) although a gas pipe trench, excavated in 1970, which cut through two long cists, was identified. Subsequent excavations carried out from September to December 1996 (Rees 2002) revealed that the cist cemetery did not extend into the road corridor. However, evaluation work in 2006 uncovered three stone features on a similar alignment to the long cists near the edge of the corridor. The 2006 evaluation also identified a linear ditch and a post-medieval building adjacent to Salter's Road. The former is clearly shown on an aerial photograph of the Smeaton brick and tile works and the latter appears on the first edition Ordnance Survey map (1854).

An access track to the Penicuik to Musselburgh cycleway crossed a cropmark feature (NT36NW 146, NGR: NT 3470 6870), and this was revealed to stem from dumped mining spoil.

Just north of the Old Dalkeith Colliery Road and adjacent to the site of Smeaton brick and tile works, trenches revealed deep deposits of brick and tile waste material, apparently backfilled into the clay extraction pits depicted on old maps.

Moving south-east, a pit alignment (NGR: NT 3563 6837) was recorded in the clay subsoil adjacent to Langside Farm in 2005. Two small pits, both containing modern pottery, were located in 1994 within the field south-east of Langside Farm (NGR: NT 3571 6830), and the ash trackbed of the mineral line from Smeaton colliery to Langside Head colliery was recorded alongside the B6414 in 2005. All of these lines were closed by 1934 (Wham 2006). Beyond

Langside, the route continues to gain height and the remains of a ploughed-out field boundary (relating to one present on the Ordnance Survey First Edition map of 1854) was recorded north of Easter Cowden farm (NGR: NT 3617 6796). None of the buried peat deposits containing tree remains that were recorded to the north of the Bellyford Burn in 1994 (NGR: NT 3680 6760) were traced in 2005. Finally, an isolated length of ditch was located north-west of Fordel Mains, in a field known locally as 'Kiln Park' (NGR: NT 3728 6726). No further work was undertaken at these locations.

The 1994 evaluation located two previously unknown archaeological sites within the northwestern end of the road corridor and confirmed the existence of a third site previously thought to have been removed. Trial-trenching in the field east of Castlesteads Park produced evidence of two ringgroove structures with associated negative features at NGR: NT 3397 6935. Further east, on the edge of a river terrace overlooking the River Esk, an enigmatic area of rough paving was located at NGR: NT 3430 6910. Further excavation was conducted at these sites (Sections 5 and 6). At Easter Cowden, the remains of the engine house associated with Fuffet coal pit (NGR: NT 3693 6743) were located during trial-trenching. This structure, present on the Ordnance Survey First Edition map (1854) but absent from the second edition map (1909) and thought to have been destroyed, was found to be in fair condition, buried beneath dump deposits of industrial waste material.

In addition to the sites mentioned above, the evaluation also produced evidence of numerous field drains, in the form of stone-slabbed culverts, and modern tile drains. Full details of the evaluation results are available in the archive (Strachan & Rees 1995; O'Connell & Suddaby 2008).