

**THE BOUNDARY WALL OF THE WILCON
HOMES BEAULIEU GRANGE DEVELOPMENT
ONTO HIGHBRIDGE STREET WALTHAM
ABBEY, ESSEX**

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SUMMARY

In October 1998 a photographic record was made of the boundary wall to the Wilcon Homes Beaulieu Grange development, which was once part of the Royal Gunpowder Factory at Waltham Abbey. Research into its history has revealed that the wall is the only surviving remains of the development associated with the realignment of the entrance in 1963. The change reflects a diversion from manufacturing to development of explosives on the site and the associated internal redistribution of space.

1 INTRODUCTION

- 1.1 Archaeological recording of the boundary wall of the Wilcon Homes Site on Highbridge Street, Waltham Abbey, Essex (NGR TL37620058) (Figure 1) took place during the week beginning 26 October 1998. The recording was requested by Shane Gould of the Essex County Council Archaeology Advisory Group as an archaeological condition on a planning application by Wilcon Homes to demolish and replace the existing wall on their Beaulieu Grange housing development.
- 1.2 The aim of the recording was to create a photographic record of the wall before its demolition, and also to present a written description of the wall. To this end, a photographic record was made of the wall as it stands at present, as well as an examination of the Waltham Abbey Royal Gunpowder Mills (WARGM) photographic record databases of photographs taken during the decontamination process. Details of the new and existing photographic record are presented in Appendix 1. This is complemented by a written description of the wall based on field observations and the original construction plans held in the WARGM Archive.

2 DESCRIPTION OF THE SITE

- 2.1 The wall forms the boundary of the present Wilcon Homes site with Highbridge Street (see 3.1 for the area's earlier history). The geology of the site is mixed river gravels overlying London clay. Soils in the vicinity are a stoneless clayey river alluvium, although the wall is constructed on soils derived from post-medieval (industrial) activity. The wall is located at a height of 19.20m AOD on the flat land in the flood plain of the River Lea (Murray 1998, 4).
- 2.2 The wall forms the southern boundary to the Highbridge Street Scheduled Ancient Monument (SAM) number 21567/2, and excavations within the SAM have revealed remains of the former Saltpetre Refinery (Vaughan & Murray 1998; Murray 1998). Archaeological recording south of the wall has also revealed further remains of the refinery (Passmore 1998).

3 HISTORY OF THE AREA

- 3.1** The part of the former Royal Gunpowder Factory adjacent to Highbridge Street was developed as a saltpetre refinery in 1783. During the early 1800s the refinery was remodelled, with new buildings replacing two that were demolished. This use of this part of the factory gave the entrance the name 'Refinery Gate'. By the 1860s the refinery had been taken on and reused as a pilot plant for the production of the new explosive guncotton. This pilot plant had fallen out of use by 1900 when a purpose-built guncotton factory was opened on the South Site. The area was then remodelled for use as an acetone factory. By 1963 most of these buildings had been demolished when the area was remodelled (Chaddock 1997).
- 3.2** Historically, this boundary to the site has been a brick wall adjacent to Highbridge Street (e.g. WASC 90/84). This line reflected the position of the refinery buildings inside the factory which were aligned either parallel or at right angles to Highbridge Street.
- 3.3** In 1963, this entrance to the site was remodelled. The present brick wall, containing the sign 'ERDE' (an acronym for Explosives Research and Development Establishment), and the gates were erected at this time. Also constructed with the wall within the new boundary of the site were a Police Hut (H37) and a Gas Meter House (H38). These buildings were demolished in August 1993 (RCHME 1994, 68). The concrete base of H38 was recorded during the Hertfordshire Archaeological Trust excavation earlier this year (Murray 1998, 9 (feature 2014)). Other landscaping and groundworks included the construction of a new wall along the southern side of Highbridge Street, a widening and realignment of Highbridge Street, and the widening of the entrance into the factory through the new gates.

4 DESCRIPTION OF THE WALL

- 4.1** The wall (Figures 2 and 3) consists of two sections, referred to in this report as the eastern half and the western half, along the southern boundary of the site, with additional piers either side of the gates. The wall is constructed of yellow stock laid in Flemish bond giving a width of 0.275m (9'). The wall is topped by a round concrete capping. On the northern elevation of the wall there are piers at 3.20m (10' 6'') intervals. The piers measure 0.455x0.275m (18'x9'). The height of the wall from ground level varies today since both the areas inside and outside the wall have been landscaped following the recent groundworks associated with the realignment of the new junction and road through the new housing site. According to the building plans it was stated that the wall should exceed 2.74m (9'') in height. Although not marked on the original plans, a step (of three bricks in height) was built at a point just before the wall crossed the Millhead Stream.
- 4.2** The eastern half of the wall is C-shaped in plan with the eastern section running parallel to Highbridge Street, the middle section running northwest towards the gates and the western section running north. The wall is carried over the Millhead Stream on a concrete plinth which rested on the canal banks and was placed over a new culvert. Part of this concrete plinth was observed on the Highbridge Street side of the wall and most of the northern elevation of the plinth and culvert is visible from within

the Wilcon Homes Site. An electricity meter box has been attached to the inside of the western section adjacent to the northernmost pier. There are a number of small cracks in the brickwork near the centre of this wall. Much of the eastern half of this wall was removed when the Lea View houses and associated boundary walls were erected, and only 2m survives from the change of angle. The later red brick wall butts the northern elevation of this wall.

- 4.3 The western half of the wall runs approximately parallel to Highbridge Street from the gates to the line of the older north-south running wall, where it turns a right angle and runs for a short distance northward to meet the earlier wall. It is this section of the wall that has the concrete 'ERDE' sign embedded within it. At the western end of the wall there are major cracks, probably caused by nearby trees.
- 4.4 The entrance to the site was via two blue steel gates which were hung off brick piers at either side. To the east of the gates was a similar blue steel gate for pedestrians – this led to the Police Hut situated directly behind the wall. On the opposite (western) side of the main gates was a piece of blue steel 'fixed panel' erected to give a symmetrical effect to the entrance. On the eastern side of the pedestrian gate was another blue fixed panel which was erected as an observation screen to give a line of sight from the reception of the Police Hut directly to Highbridge Street.
- 4.5 At the time of the survey, all of the gates, the fixed panels and the three piers had been removed (as part of the road widening of the new entrance), although some details of these features were incidentally recorded in earlier photographs held in the WARGM photographic archive (see Appendix 1).

5 DISCUSSION

- 5.1 The planning application to demolish the wall has provided the opportunity to record the wall into the ERDE site. This wall was constructed in 1963 when the present road alignment and junction were laid out (although this has been altered during the summer of 1998). Two buildings also erected in 1963, a Gas Meter House and a Police Hut, were demolished in 1993 and only the boundary wall survives from the 1963 rebuilding.
- 5.2 Research into this area has shown that the wall was important in that its alignment reflected a change from of use from the manufacture of explosives and propellants to the less intensive research activities within the site, which resulted in a change in internal layout of the area.

6 ARCHIVE

- 6.1 The archive, including the photographs and the databases of the WARGM photographic collections upon which Appendix 1 is based, is held by the WARGM Co Ltd at Waltham Abbey.

7 ACKNOWLEDGEMENT

- 7.1 Thanks are due to Steve Chaddock, the Archaeological Advisor to WARGM Co Ltd, for reading through and commenting on an earlier draft of this text.

8 REFERENCES

Unpublished Sources

Maps (held at WARGM)

WASC 900/84 1923 1:2500

Building Plans (held at WARGM)

H27 B.01 22-1-1963 1:200

H37 B.02 10-12-1962 1:40

Bibliography

Chaddock, S, 1997 *Desktop evaluation of the possible remains at Highbridge Street SAM, Waltham Abbey, Essex*

Murray, J, 1998 *Former Royal Gunpowder Factory Highbridge Street SAM, Waltham Abbey, Essex: Archaeological Observation & Recording* HAT Report 342

Passmore, A, 1998 *Archaeological Recording on the Highbridge Street entrance to the Wilcon Homes Site*

RCHME, 1994 *The Royal Gunpowder Factory, Waltham Abbey, Essex An RCHME Survey 1993*

Vaughan, T & Murray, J, 1998 *Waltham Abbey Royal Gunpowder Mills (Former RARDE North Site) Access Road: an archaeological evaluation* HAT Report 324

Appendix 1 – photographs of the boundary wall held in the WARGM archive

Black and white print

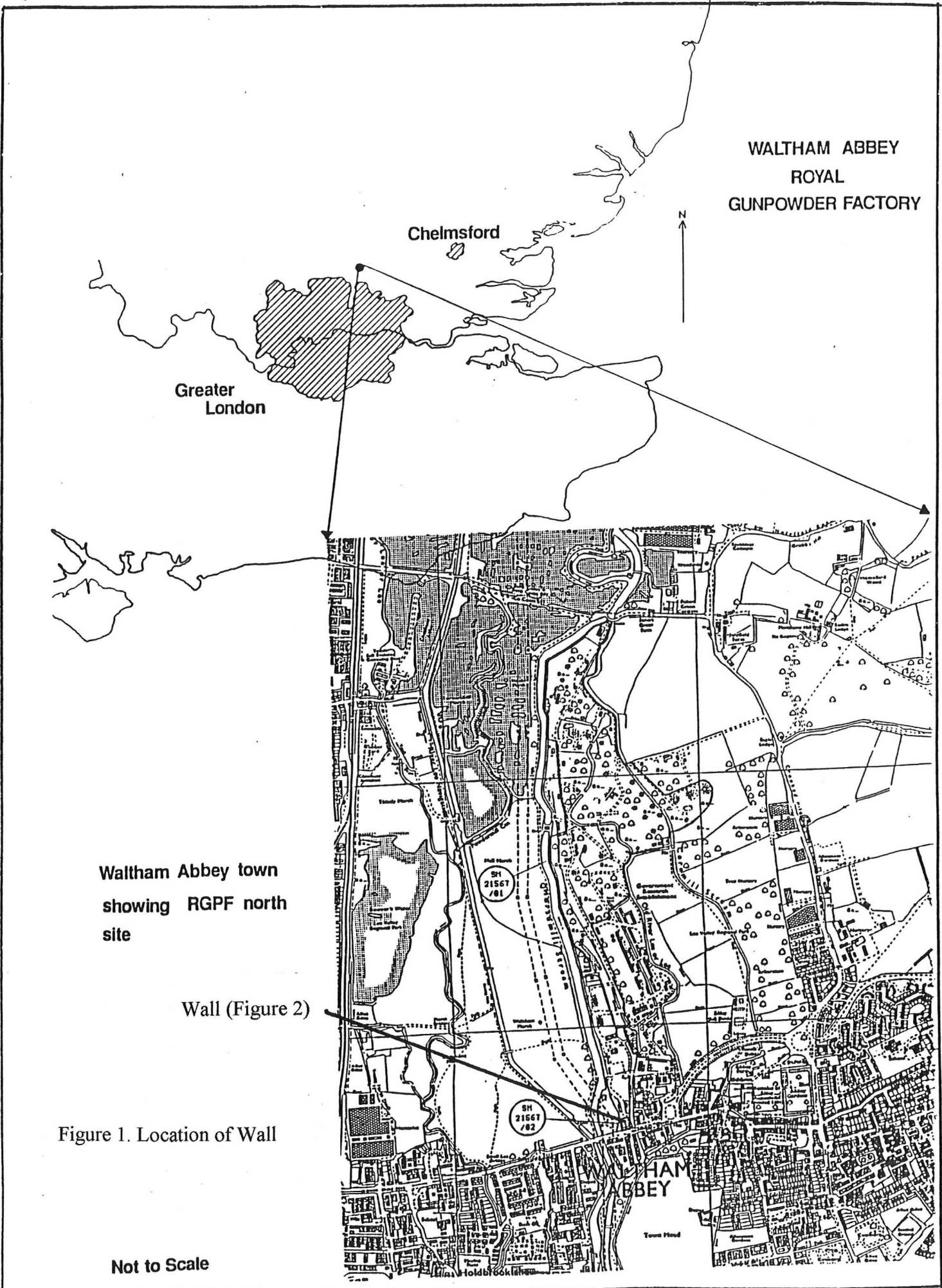
WAP Year	Photograph Number	Date	Subject	Direction of View
WAP98	BW001	27/8/98	Eastern half of wall	South
WAP98	BW002	27/8/98	Western half of wall	South
WAP98	BW003	27/8/98	Western half of wall – view along north elevation showing buttresses	West
WAP98	BW004	27/8/98	Western half of wall	Northeast
WAP98	BW005	27/8/98	Eastern half of wall	Northeast
WAP98	BW006	27/8/98	Close-up of 'ERDE' sign	North
WAP98	BW007	27/8/98	Wall on culvert over the Millhead Stream	Southeast

Colour slide

WAP Year	Photograph Number	Date	Subject	Direction of View
WAP94	CS021	10/1/94	Western half of wall showing ERDE sign and fixed panel in background	North
WAP98	CS001	7/7/98	Excavation to south of wall showing eastern half of wall in background	East
WAP98	CS003	7/7/98	Excavation to south of wall showing eastern half of wall with pedestrian gate and observation screen in background	North
WAP98	CS014	8/7/98	Excavation to south of wall showing western half of wall with fixed panel in background	North
WAP98	CS017	8/7/98	Excavation to south of wall showing eastern half of wall in background	East
WAP98	CS119	27/8/98	Western half of wall - view along north elevation showing buttresses	West
WAP98	CS120	27/8/98	western half of wall showing junction with old north-south wall	West
WAP98	CS121	27/8/98	Western half of wall	South
WAP98	CS122	27/8/98	Eastern half of wall	South
WAP98	CS123	27/8/98	Western half of wall	Northeast
WAP98	CS124	27/8/98	Eastern half of wall	Northeast
WAP98	CS125	27/8/98	Close-up of 'ERDE' sign	North
WAP98	CS126	27/8/98	Wall on culvert over the Millhead Stream	Southeast

Colour Print

WAP Year	Photograph Number	Date	Subject	Direction of View
WAP98	CP019	7/7/98	Excavation to south of wall showing eastern half of wall with pedestrian gate observation screen in background.	North
WAP98	CP025	7/7/98	Excavation to south of wall showing eastern half of wall in background	East



WALTHAM ABBEY
ROYAL
GUNPOWDER FACTORY

Chelmsford

Greater
London

Waltham Abbey town
showing RGPF north
site

Wall (Figure 2)

Figure 1. Location of Wall

Not to Scale

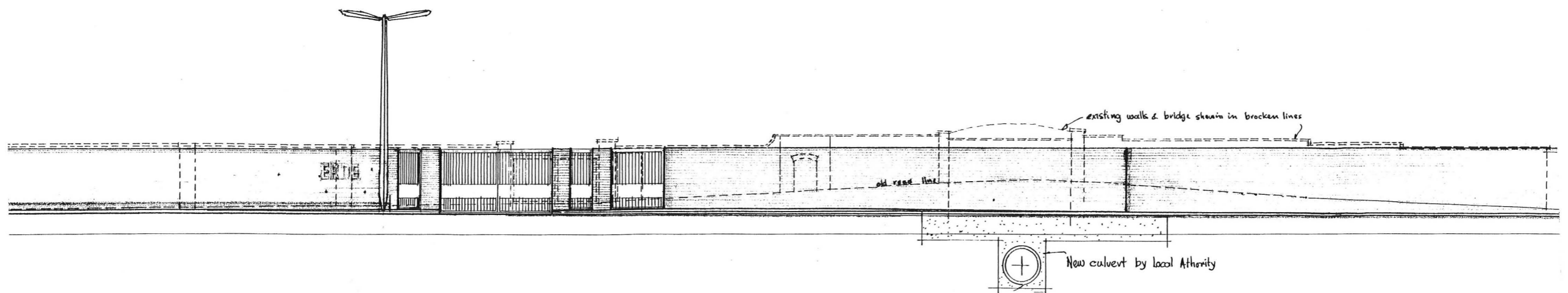
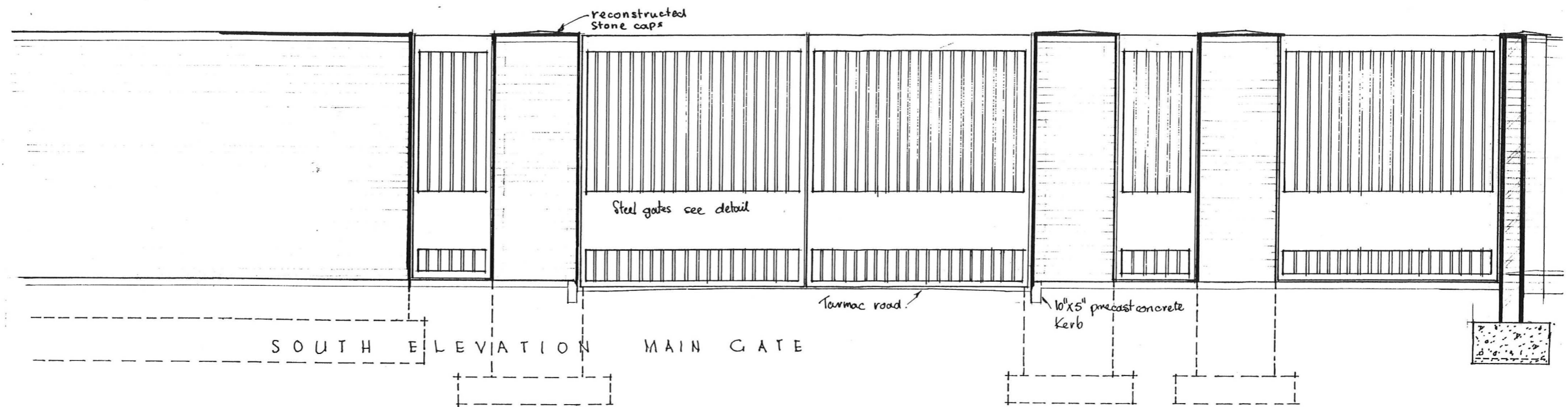


Figure 3. Top – detailed elevation of the gates (from H37 B.02) and bottom – elevation of the wall (from H37 B.01).

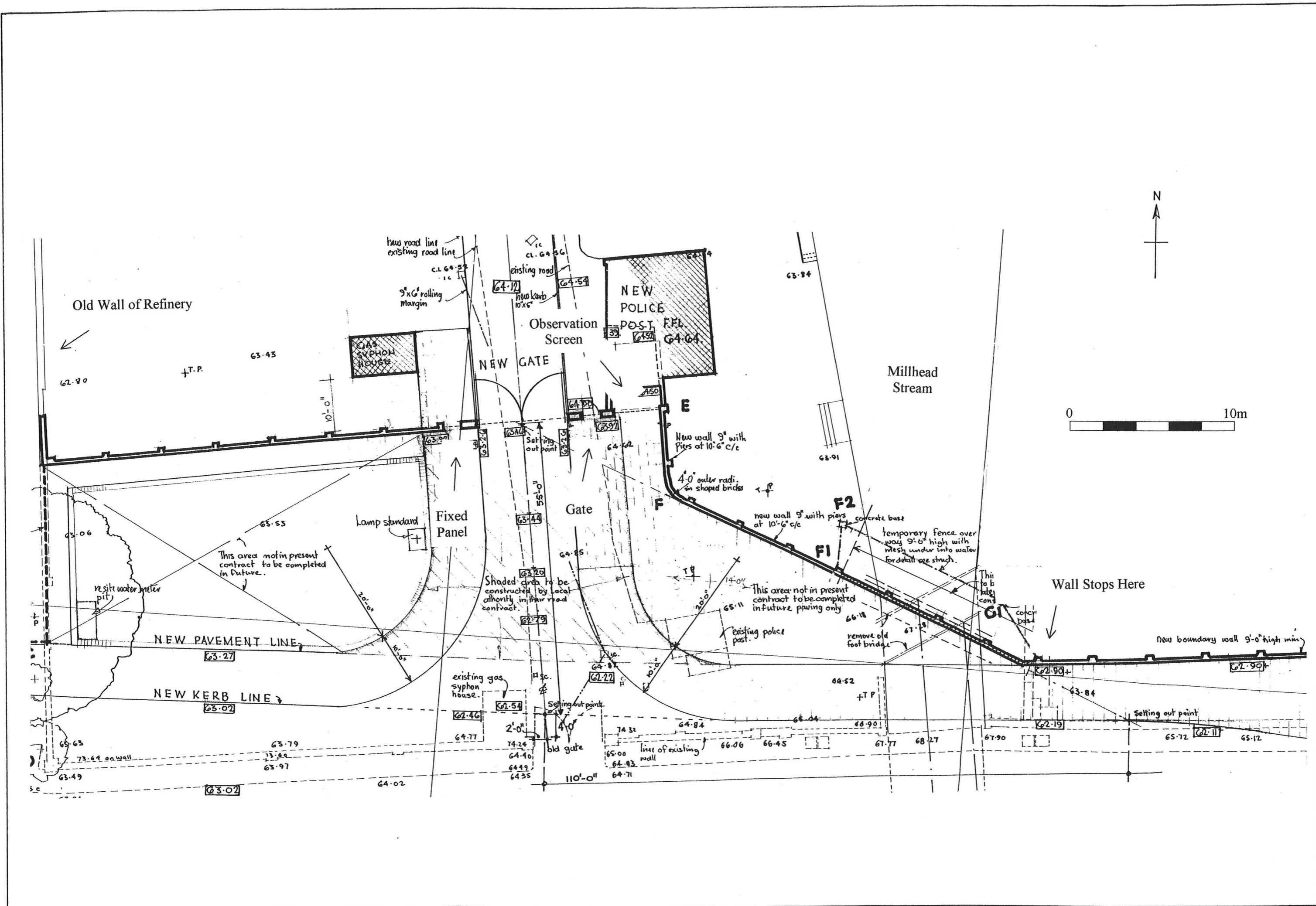


Figure 2. Plan of the wall (from H37 B.01).