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Mr B Smith
Bellway Homes (Yorkshire) Limited
2 Deighton Close
Wetherby
LS22 7GZ

26th February 2010

Ref: C3457/JBW/3315

Dear Ben

RE: Land off Lee Lane, Royston.

Further to the completion of fieldwork (trial pitting) at the above site we are pleased to present our findings relating to the proposed development.

It is understood that Bellway Homes (Yorkshire) Limited (Bellway) are considering purchasing the above site, with a view to redeveloping the property for a residential end use. A proposed development layout, as provided by Pegasus Planning Group, is shown on the Planning Layout Drawing, produced by Knapton and Knapton (Drawing Ref: 09/393./01), presented in Appendix A, attached to this letter.

Sirius Geotechnical and Environmental Ltd (Sirius) was commissioned by Bellway to carry out a limited ground investigation to assist in the due diligence process during potential site acquisition.

This investigation comprises the following scope of works:

- A brief desk study, including a review of historical Ordnance Survey (OS) plans and available geological plans.
- One day's trial pitting to allow determination of shallow (<4m) soil conditions based on field observations and in situ hand shear vane tests within cohesive deposits.

This letter report provides a factual account of the findings of the investigation and provisional indications of potential geotechnical and contamination constraints to the development in order to assist in your preliminary assessment of the site. It should be noted that these works are not intended to be used for obtaining regulatory approvals (this is likely to require supplementary works).

Where this letter report refers to the potential presence of invasive plants such as Japanese Knotweed or the presence of asbestos containing materials (ACM's), it

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INVESTOR IN PEOPLE



should be noted that the observations are for information only and should be verified by a suitably qualified expert.

It is assumed in the production of this report that the site is to be developed for a residential end use. It is likely that some regrading will be required to enable development of the site, although for the purpose of this letter report it is assumed that levels will remain broadly as existed at the time of the investigation. If this assumption is incorrect, the conclusions and recommendations presented in this letter report may need to be revised.

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Desk Based Information

Site Description

The site is located off Lee Lane, in the village of Royston, approximately 6km north east of Barnsley town centre. A site location plan is presented as Drawing No. C3457/01, in Appendix A attached to this letter.

The site is an irregular shaped plot of rough grass land covering an area of approximately 1.18 hectares (11,800m²). Four disused small outbuildings are present within the central and eastern areas of the site. Anecdotal evidence suggest that the buildings were formerly used as pigeon lofts and animal food storage sheds. No asbestos containing materials (ACM) were identified in the buildings during the site walkover survey.

Site History

Review of available historical OS plans indicate that the site has remained undeveloped from at least 1891 to the present day, with the exception of four small outbuildings constructed within the central and eastern areas of the site sometime between 1970 and 1976.

Significant features, recorded on the historical OS plans, nearby the site include a brick pond immediately beyond the site's eastern boundary, which was subsequently infilled some time prior to 1930, and a railway (formerly part of the Barnsley Coal Railway Extension) 300m to the north of the site.

Published Geology

Review of the 1:50,000 (BGS Sheet 87 - Barnsley) and 1:10,560 (BGS Sheet 262 SE - Yorkshire (West Riding)) scale geological plans indicates a fault crossing the northern area of the site aligned approximately north east/south west, with the downthrow to the south east.



The site is shown to be underlain by Boulder Clay (Glacial Till), overlying undifferentiated Middle Coal Measures strata, comprising mudstone, siltstone, sandstone and coal, to the south east of the fault and Oaks Rock (sandstone) to the north west.

The Royston coal seam is conjectured to subcrop within the north eastern area of the site, aligned approximately north west/south east, dipping to the north east.

Mining and Quarrying

According to the Coal Authority (CA) Gazetteer the property lies in an area which requires a Coal Authority mining report.

Inspection of historical OS plans reviewed as part of this investigation do not reveal any quarries on the site. However, review of historical OS plans indicates a former clay pit/brick pond located immediately adjacent to the eastern boundary of the site.

Hydrology and hydrogeology.

The nearest known surface water feature is an unnamed stream/drainage channel, flowing from west to east, located approximately 230m to the north west of the site.

The site is recorded as being underlain by Boulder Clay (Glacial Till) overlying strata of the Middle Coal Measures, comprising Oaks Rock (sandstone) and undifferentiated mudstone, siltstone, sandstone and coal. According to the Environment Agency's (EA) Groundwater Vulnerability Map Sheet 11 (South Pennines) the property is classified as overlying a minor aquifer.

Recorded Ground Conditions

Fieldwork was undertaken on 2nd July 2009 and comprised the excavation of seven machine dug trial pits (TP1 – TP7) to depths ranging between 2.00m and 3.50m bgl. The locations of the exploratory holes are shown on Drawing No. C3457/03, presented within Appendix A attached to this letter report.

Made ground (predominantly described as topsoil) was encountered within all of the exploratory holes to depths of between 0.20m and 0.40m bgl.

The composition of the reworked topsoil generally comprised brown sandy clay with occasional roots and rootlets, and locally gravel of brick, coal and limestone.

Underlying the reworked topsoil, interbedded natural cohesive and granular deposits, described as *firm and stiff sandy gravelly clay*, and *angular and subangular gravel and cobbles*, respectively, were encountered to depths of between 1.60m and 3.40m bgl. It is assumed that these materials are derived in situ from weathering of the underlying bedrock, and are therefore part of the weathered mantle.



Hand shear vane tests undertaken within the weathered mantle material (cohesive material) typically recorded shear strength values in the order of 67 to 110kN/m², indicating medium to high strength conditions.

One hand shear test undertaken on an excavated lump of the cohesive weathered mantle material, encountered within TP1 at a depth of 2.70m, recorded a shear strength of 31kN/m², indicating low strength conditions

Weak sandstone was encountered beneath the weathered mantle material within the majority of the trial pits at depths of between 1.60m and 1.80m bgl, with the exception of TP1 – TP3 located within the north eastern area of the site, where the sandstone was encountered at depths of between 3.00m and 3.40m bgl.

A shallow seam of coal was encountered within trial pit TP3, located within the northern area of the site, at a depth of 1.70m bgl and was reported to be 0.40m thick. This coal seam may be representative of the Royston coal seam.

No groundwater was encountered during the excavation of the trial pits.

Tentative Conclusions

Based on the recorded geology the possibility of shallow mine workings affecting surface stability cannot be discounted; principally in the north eastern part of the site.

Further investigation (say 1 days rotary probing and additional pitting/topsoil strip) will be required to clarify the level of risk posed at the site given that the Royston coal seam is conjectured to subcrop within the north eastern area of the site and several named seams exist beneath the site at an unknown depth.

At this stage a contingency should be included for drilling and pressure grouting potential mine workings below the site, and in addition treating mine entries (i.e. shafts and/or bell pits).

The tentative recommendations provided below are based on the assumption that the surface stability of the site is not affected by shallow mine workings. If this proves not to be the case following further investigation the recommendations will need to be revised; including strengthening/reinforcing foundations.

This investigation has revealed the shallow soils to typically comprise reworked topsoil, over weathered mantle material, over sandstone.

For preliminary design purposes, it is recommended shallow spread foundations should be taken through the reworked topsoil into the underlying weathered mantle material and/or bedrock at an anticipated minimum founding depth of 0.90m below



existing or finished ground level, whichever is the lower of the two. Minimum founding depth assumes medium shrinkage clay – yet to be proven. For preliminary

design purposes the weathered mantle material (at least medium strength clay) can be assumed to have a net bearing capacity of 100kN/m^2 , increasing to at least 200kN/m^2 within the underlying bedrock. However, if foundations are placed in different materials there is a potential for differential settlement.

It should be noted that further in situ and laboratory testing of the weathered mantle material may prove a higher bearing capacity.

Foundations will need to be over deepened/protected in accordance with NHBC Chapter 4.2, where within the influence of trees.

Reinforcement of foundations to cater for potential residual movement along the conjectured fault plane on site is anticipated.

Based on a visual assessment of the soils, and for preliminary design purposes, a CBR value of 2% should be assumed for the firm natural clay.

No visual/olfactory evidence of gross organic contamination was encountered as part of this investigation. Reworked topsoil could give rise to elevated concentrations of contaminants such as benzo(a)pyrene and arsenic, and as such, and as a worst case scenario (in the absence of chemical data), removal of the made ground topsoil to a suitably licensed facility, and import of "clean topsoil" for gardens/landscaping could be assumed. In all likelihood only some of the topsoil is likely to require removal due to elevated concentrations of contaminants.

Potential sources of hazardous gases identified within, or within close proximity of the site include ground gas associated with the infilled brick pond located immediately beyond the site's eastern boundary and mines gas associated with the underlying strata. As such a gas monitoring programme will be required for the site. Gas protection required is unlikely to exceed a passively ventilated subfloor void and gas proof membrane.

In order to confirm foundation solutions/contamination constraints, and aid in obtaining regulatory approvals, it will be necessary to undertake supplementary investigation works. The supplementary works required are likely to comprise a detailed desk study, rotary probing to confirm the presence/absence of workable coal within influencing distance of the surface, additional trial pitting to investigate for crop workings and the presence/absence of a recorded fault, laboratory testing (geotechnical and chemical), and ground gas monitoring, in addition to the production/submission of a detailed geoenvironmental appraisal report.



We hope this satisfies your immediate needs; if you require any further information, please don't hesitate to contact myself or Mark Brennan on 0113 264 9960.

Our invoice for the works is attached for your approval.

Yours sincerely

Jim Wilson
Engineer

For and on behalf of
Sirius Geotechnical and Environmental Ltd

Encs:

Appendix A Drawings

- C3457/01 Site Location Plan
- 09/393/01 Knapton and Knapton Planning Layout
- C3457/03 Exploratory Hole Location Plan

Appendix B Historical Plans

Appendix C Exploratory Hole Records

- TP1 – TP7, inclusive

Invoice



APPENDIX A

DRAWINGS



Site Location Plan

Contract Number	C3457
Contract	Lee Lane Royston
Client	Bellway Homes (Yorkshire) Ltd



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Scale	1:50,000	
Drawn by	JC	Approved MB
Drawing Number	C3457/01	



NOTES

Approximate site boundary

TP1

Sirius trial pit - July 2009

REVISION	
D	**
A	**
R	**
C	**
D	**

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CLIENT

Bellway

SITE
LEE LANE,
ROYSTON

DRAWING TITLE
EXPLORATORY HOLE
LOCATION PLAN

DRAWING NO. CS48/03	REVISION NO. 1
DRAWN BY JW	APPROVED BY MB
DATE JULY-2009	SCALE NTS
	PAPER SIZE A4



APPENDIX B

HISTORICAL PLANS



Site Details:

LEE LANE, ROYSTON,
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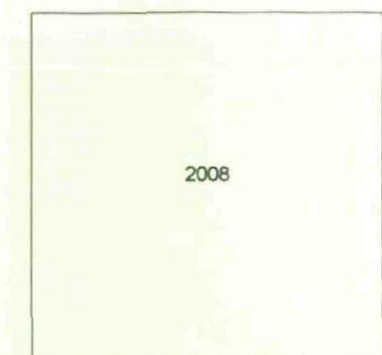
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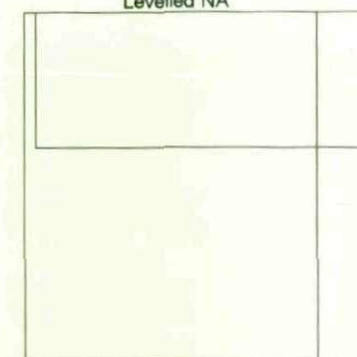
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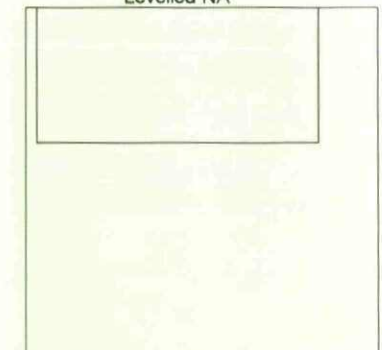
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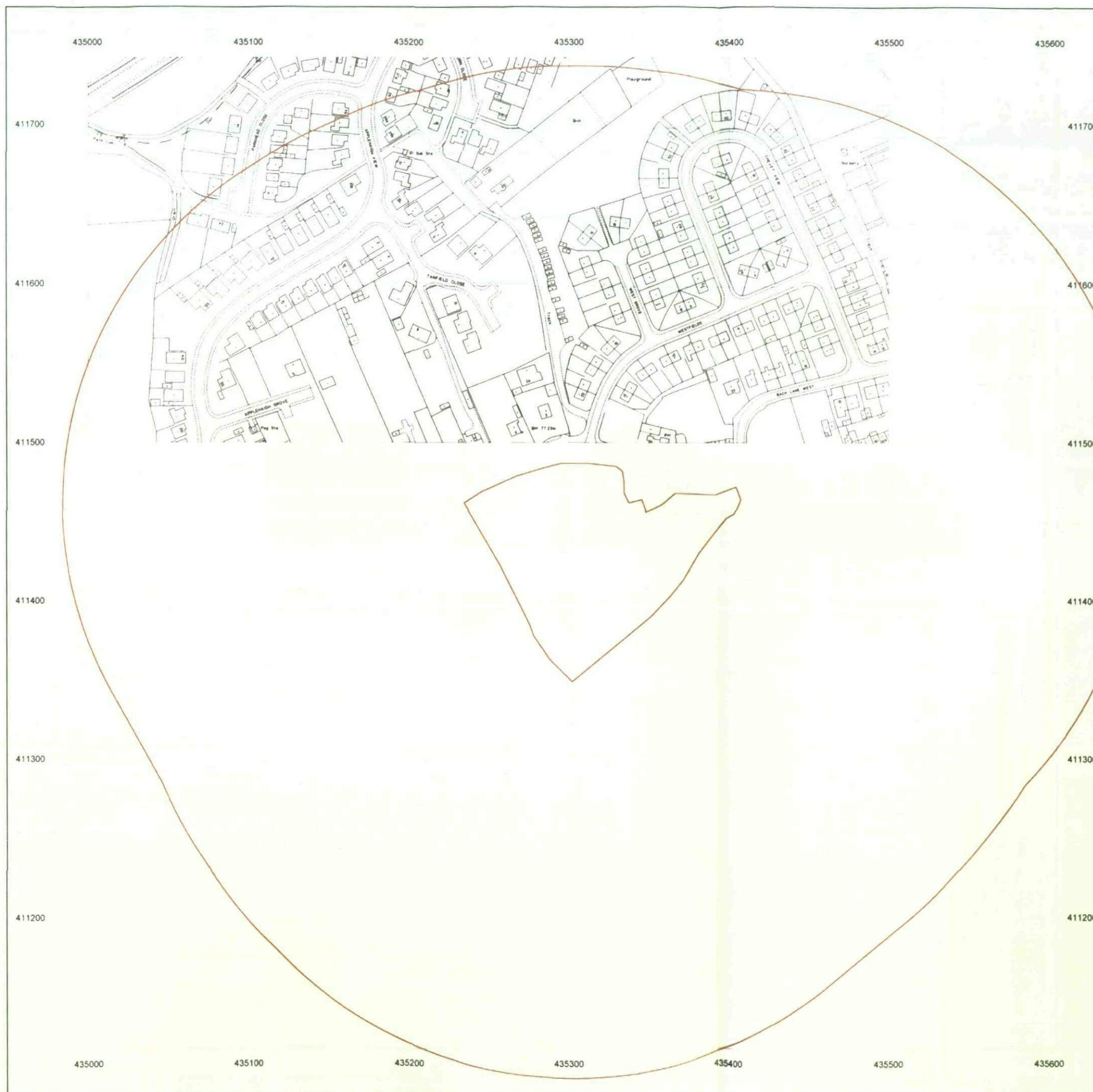
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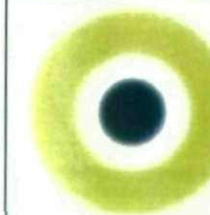
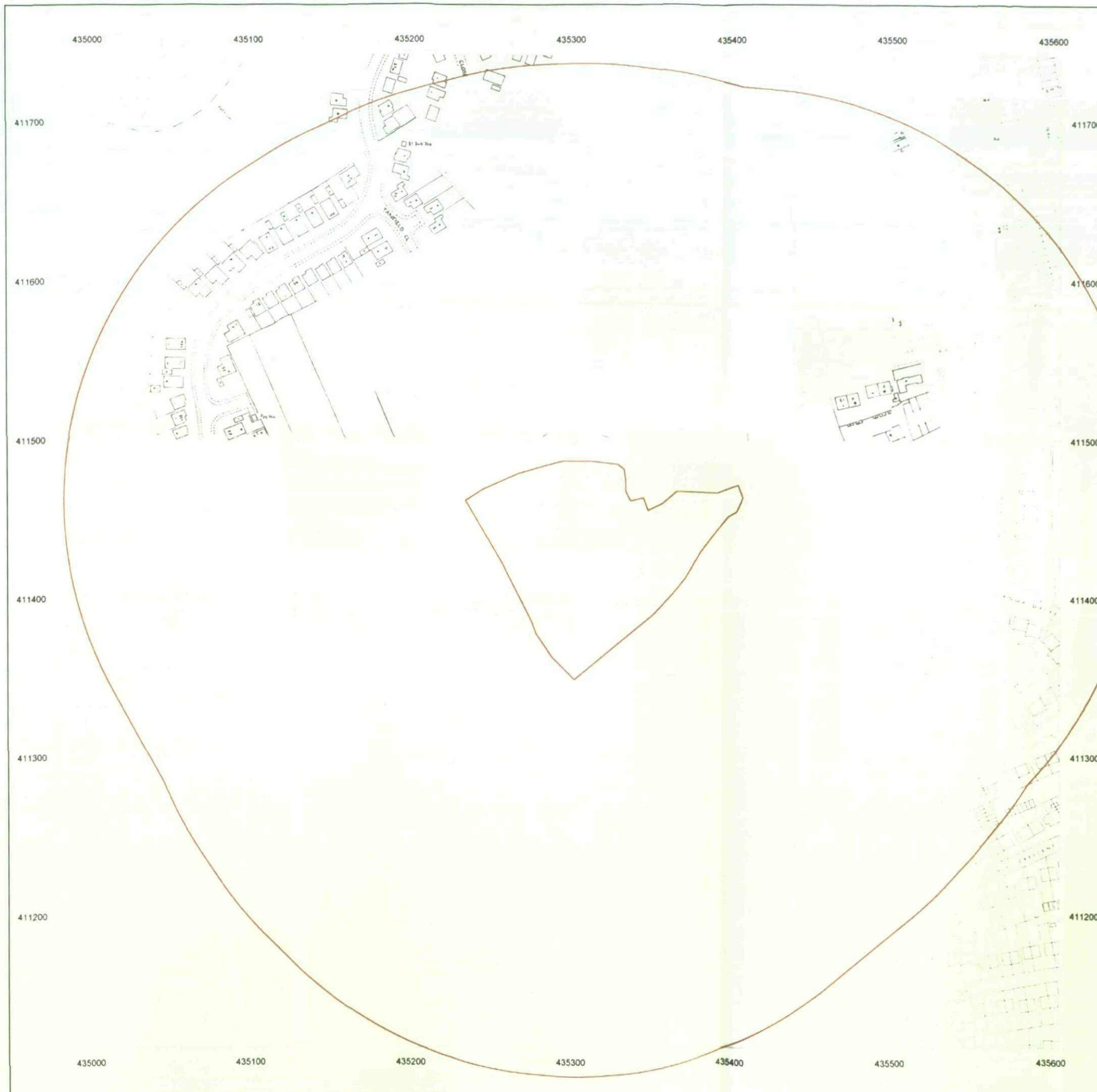


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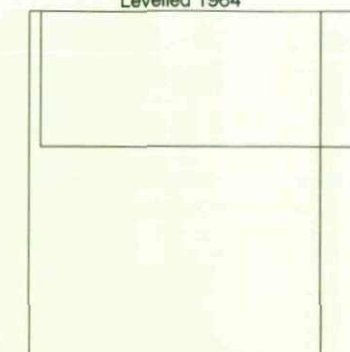
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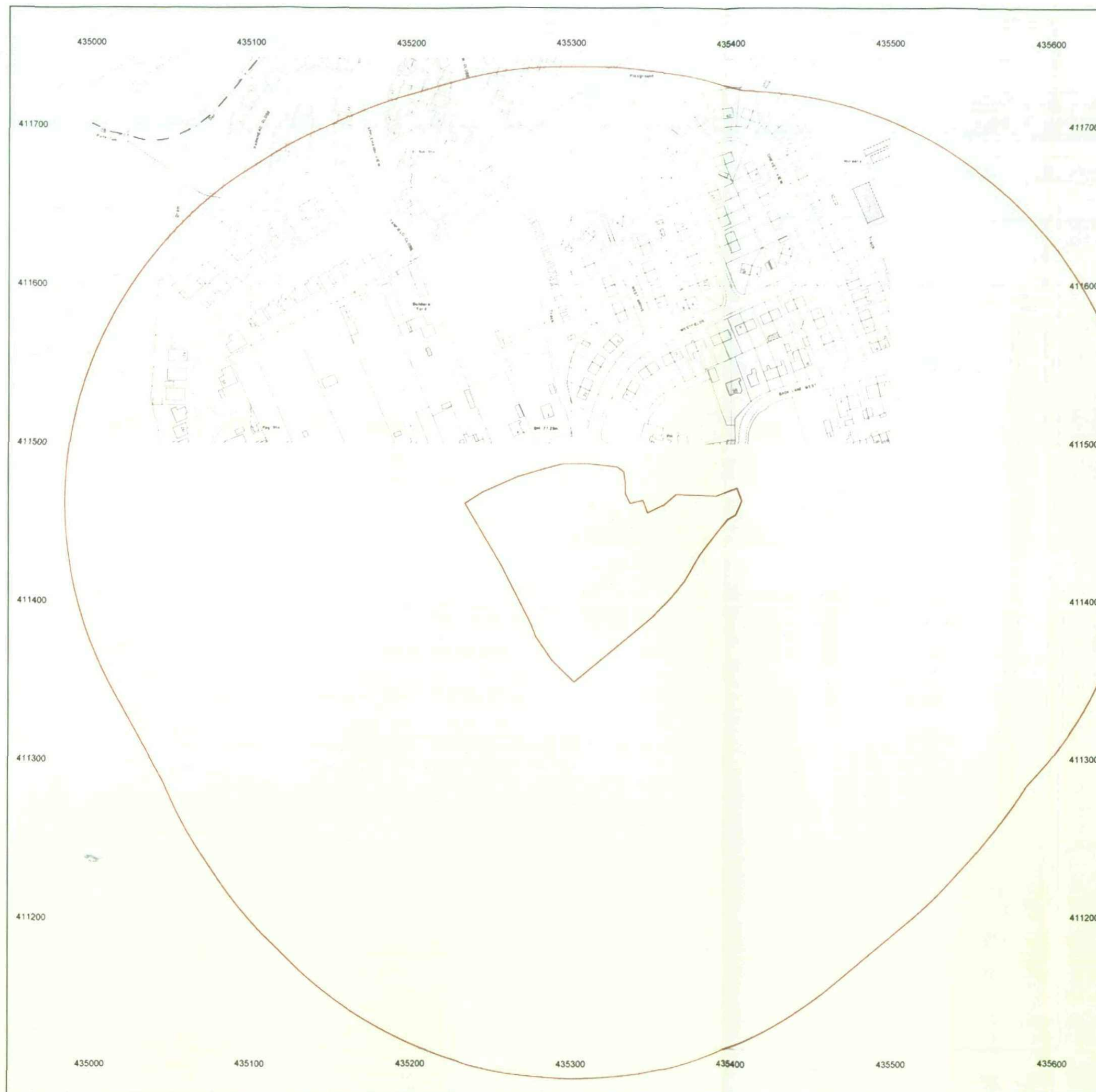
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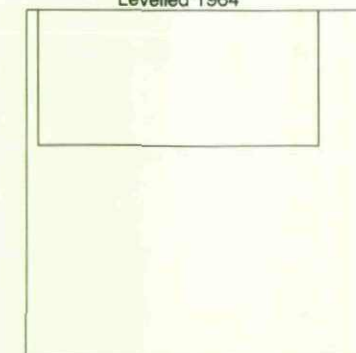
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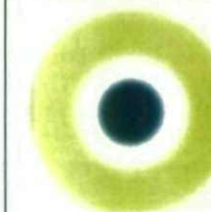
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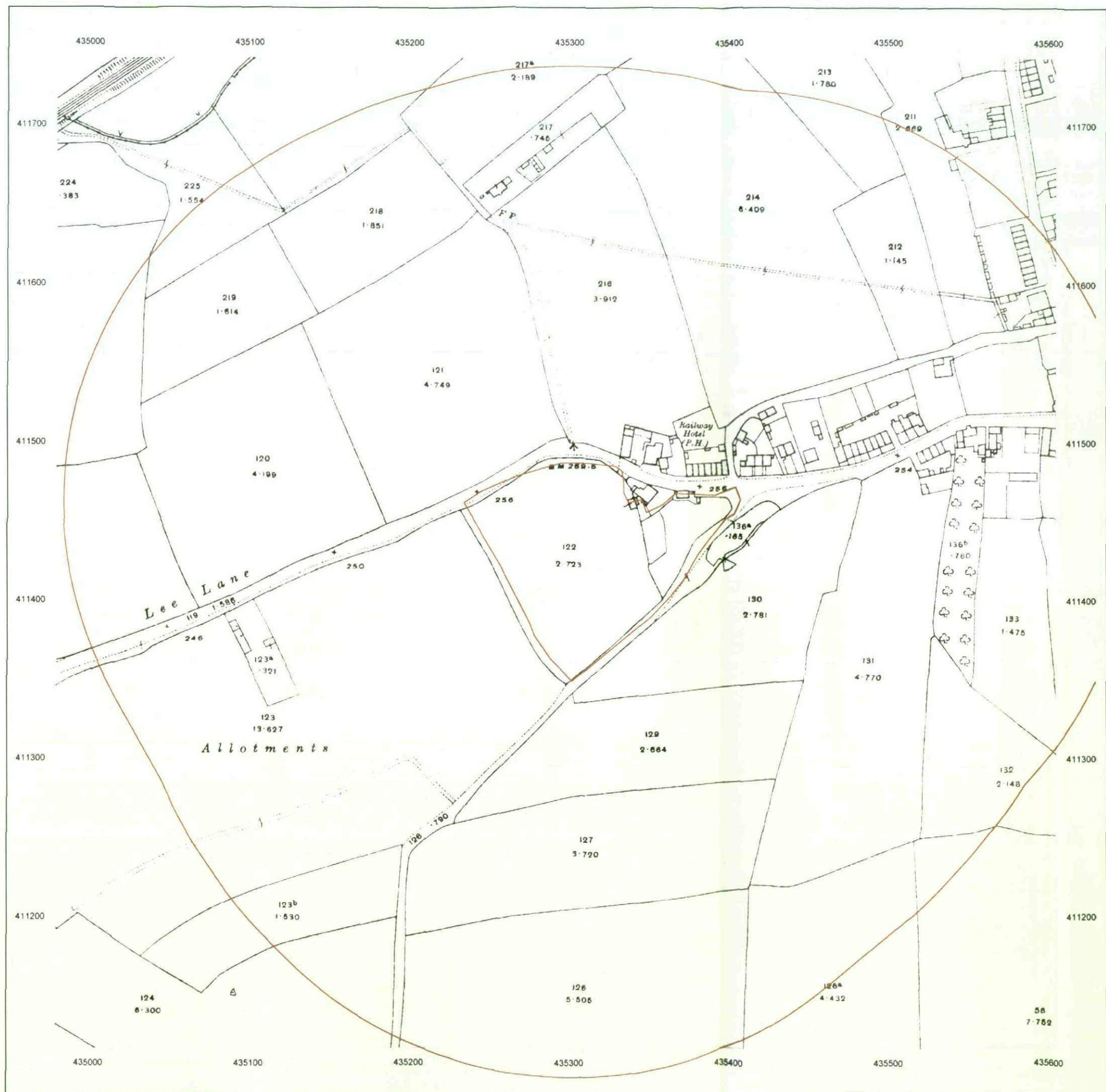


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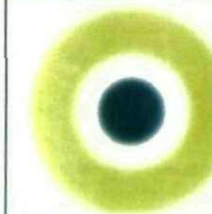
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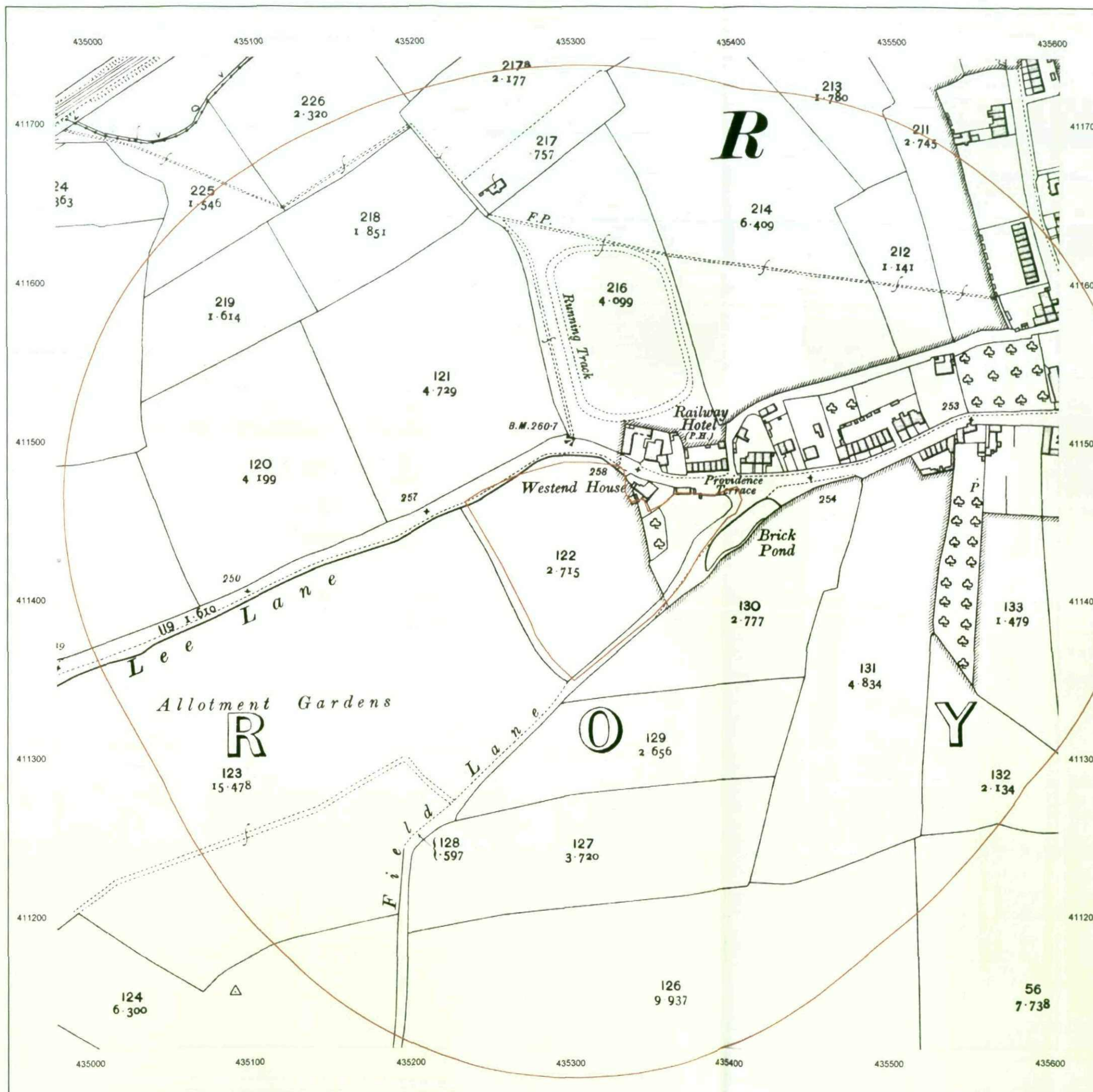
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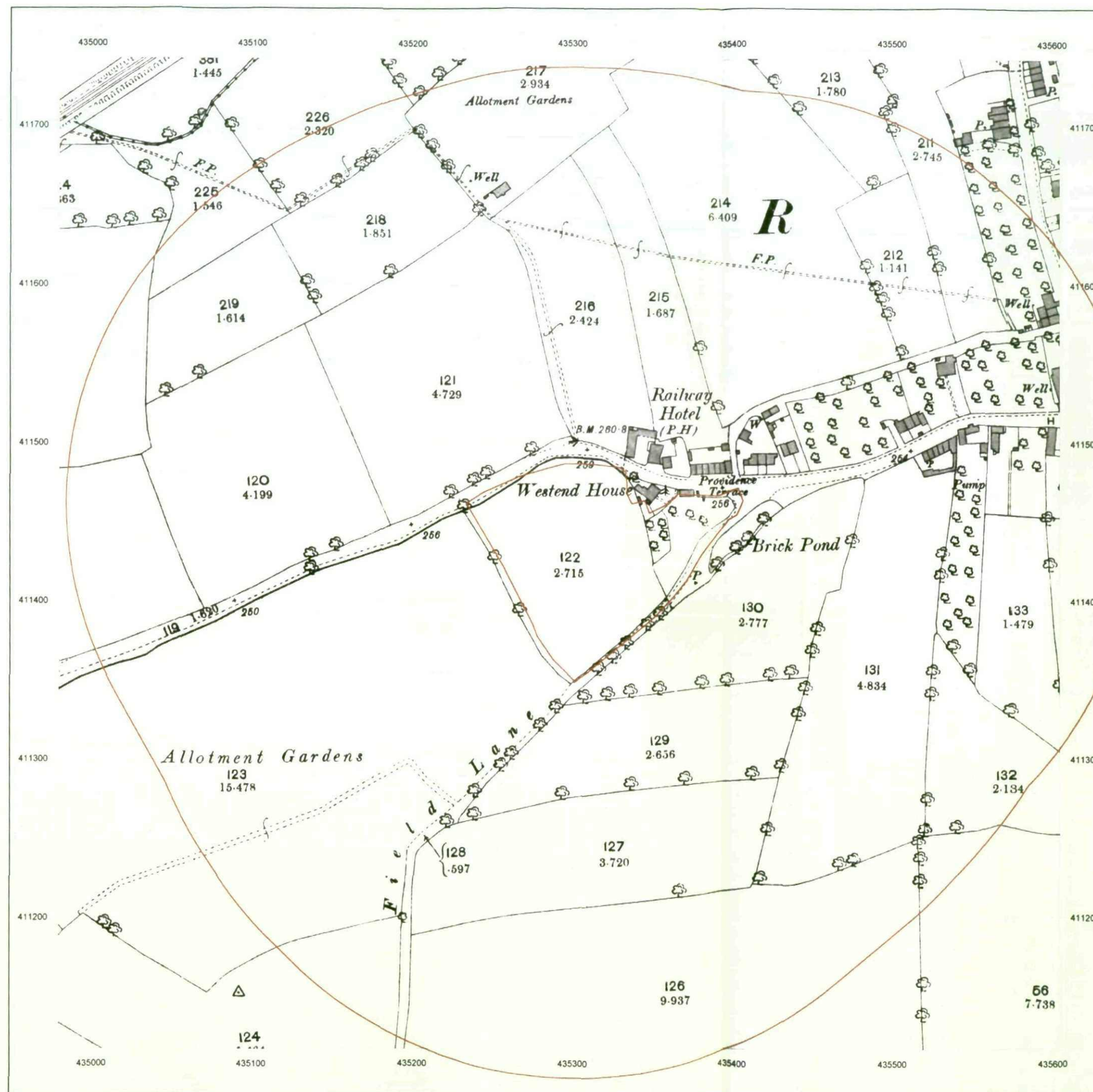
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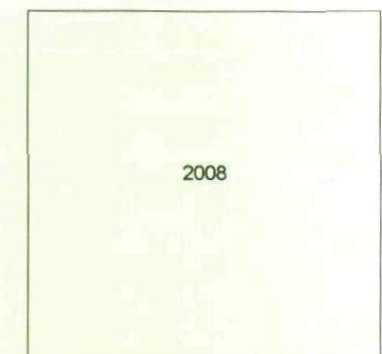
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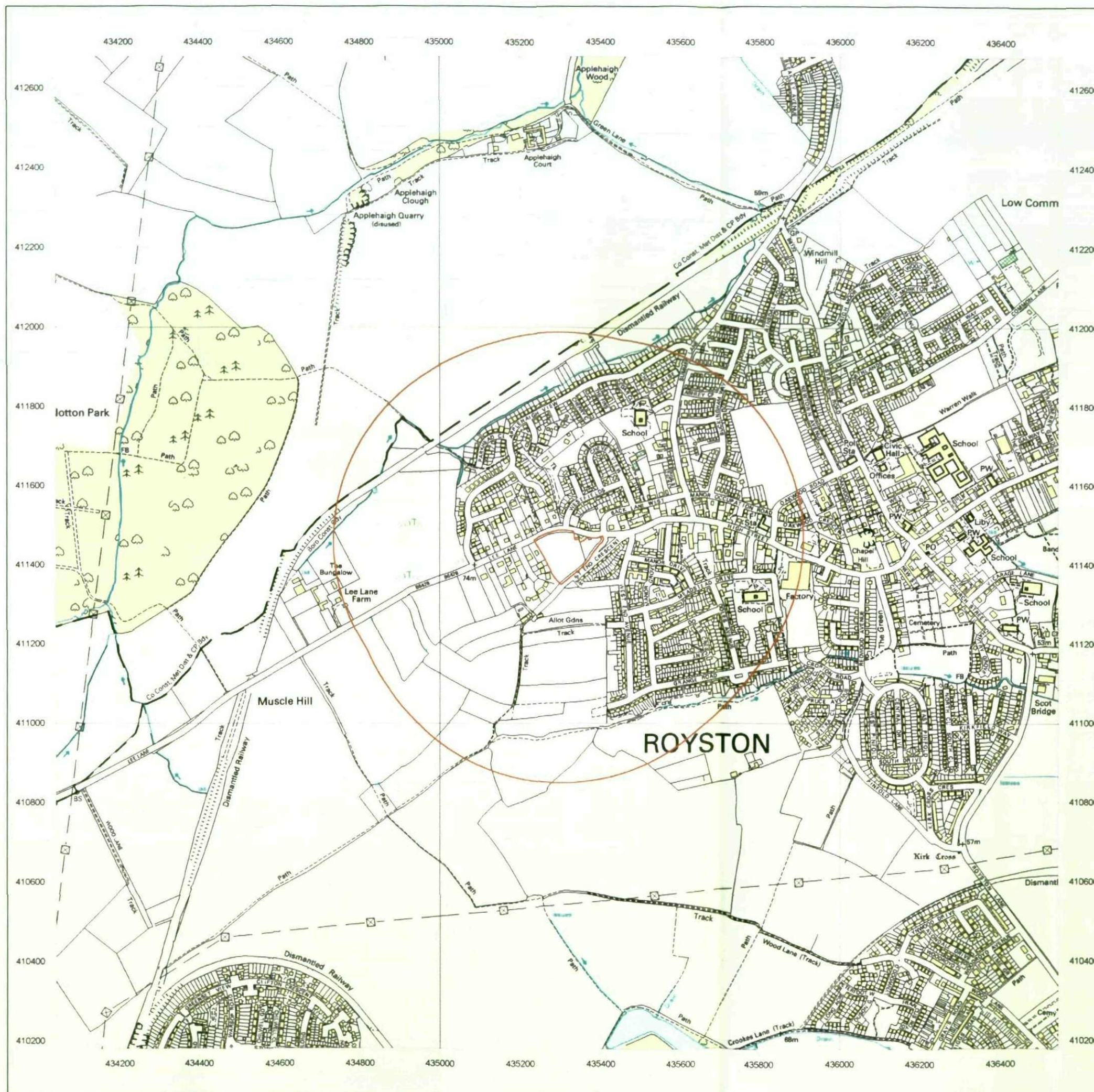
2002



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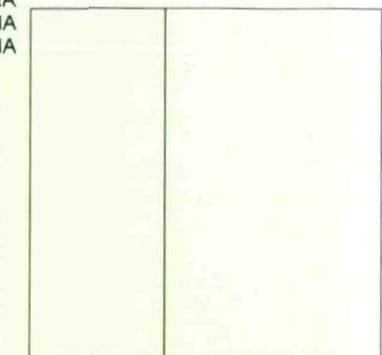
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Grid Ref: 435292, 411430

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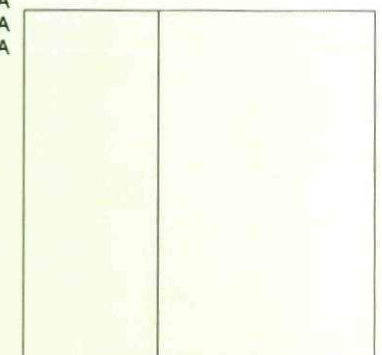
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Report Ref: HMD-283-481153
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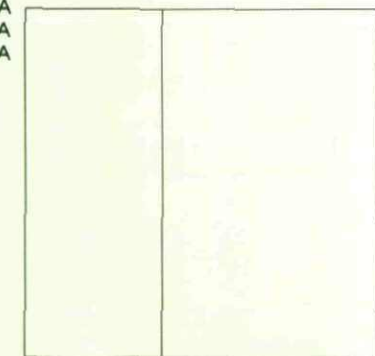
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Site Details:

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BARNSELY, S71 4RT

Client Ref: C3457/JW/1488
Report Ref: HMD-283-481153
Grid Ref: 435292, 411430

Map Name: Provisional

Map date: 1951

Scale: 1:10,560

Printed at: 1:10,560

Surveyed 1951
Revised 1951
Edition NA
Copyright NA
Levelled NA

Surveyed 1951
Revised 1951
Edition NA
Copyright NA
Levelled NA



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Production date: 29 June 2009





Site Details:

LEE LANE, ROYSTON,
BARNSELY, S71 4RT

Client Ref: C3457/JW/1488
Report Ref: HMD-283-481153
Grid Ref: 435292, 411430

Map Name: County Series

Map date: 1948

Scale: 1:10,560

Printed at: 1:10,560

Surveyed 1850
Revised 1948
Edition NA
Copyright NA
Levelled NA

Surveyed 1851
Revised 1948
Edition NA
Copyright NA
Levelled NA

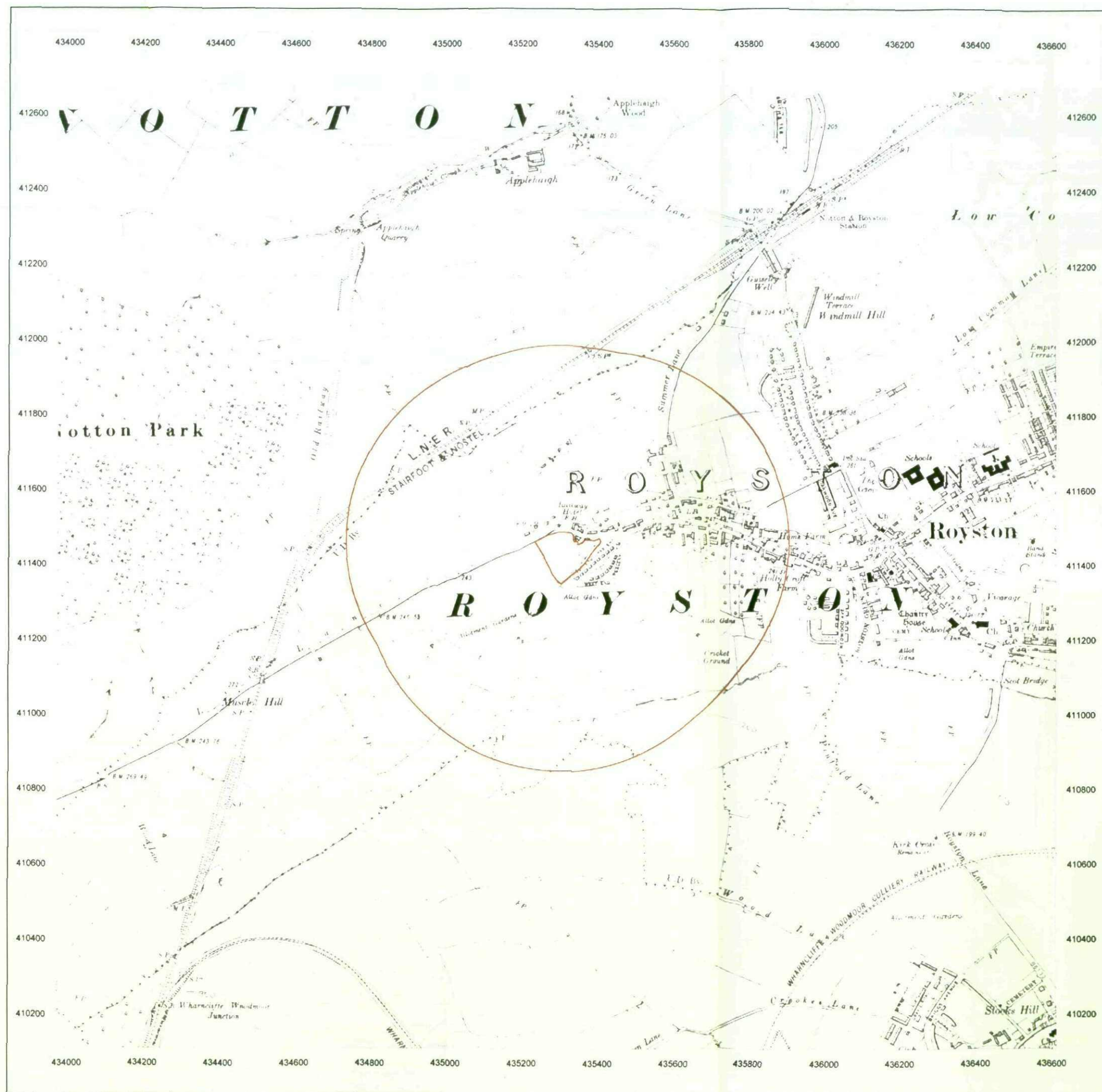


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Site Details:

LEE LANE, ROYSTON,
BARNLEY, S71 4RT

Client Ref: C3457/JW/1488
Report Ref: HMD-283-481153
Grid Ref: 435292, 411430

Map Name: County Series

Map date: 1938

Scale: 1:10,560

Printed at: 1:10,560

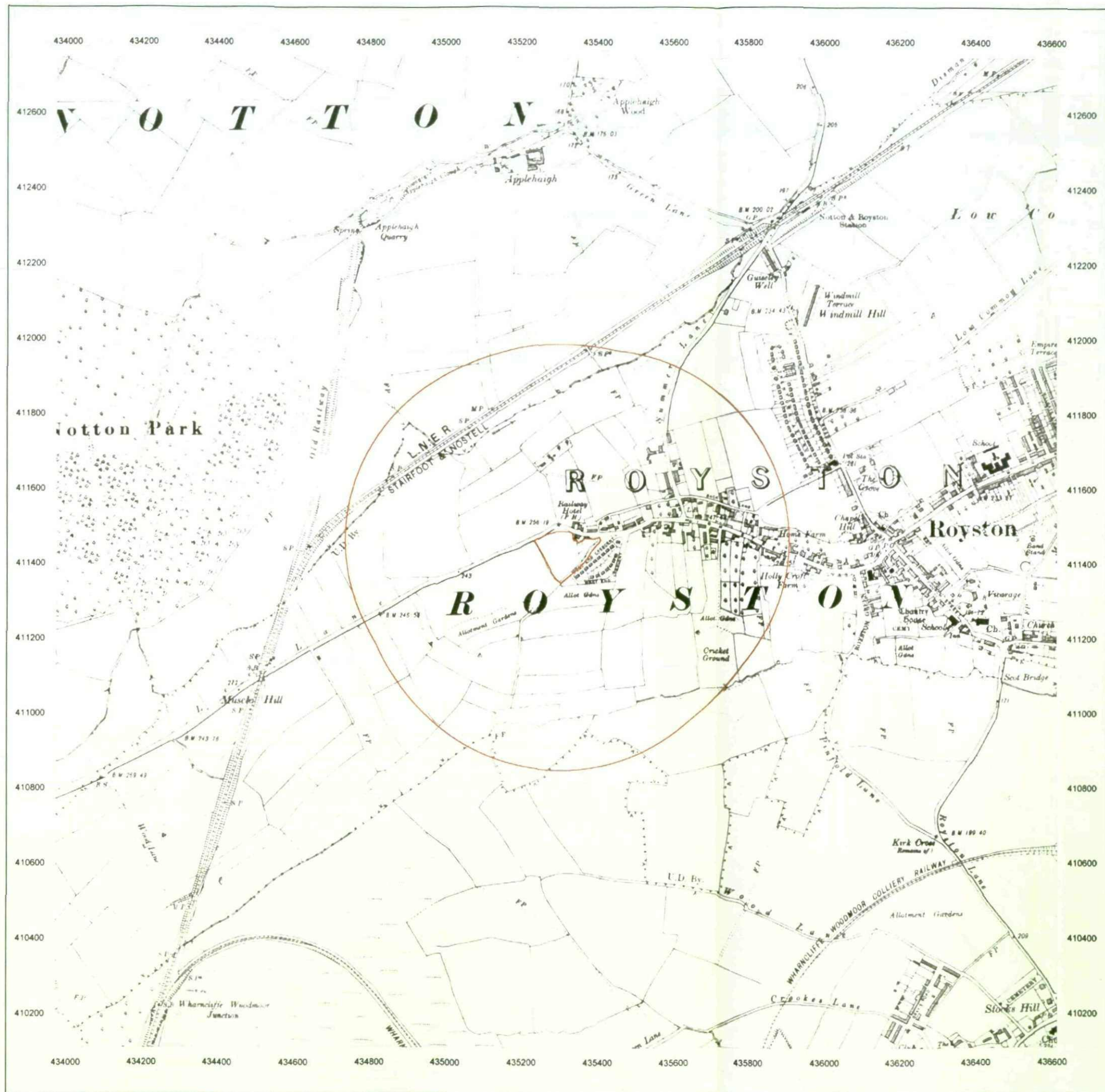
Surveyed 1851
Revised 1938
Edition 1938
Copyright NA
Levelled NA



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Production date: 29 June 2009



Site Details:

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BARNSELY, S71 4RT

Client Ref: C3457/JW/1488
Report Ref: HMD-283-481153
Grid Ref: 435292, 411430

Map Name: County Series

Map date: 1930

Scale: 1:10,560

Printed at: 1:10,560

Surveyed 1850
Revised 1930
Edition NA
Copyright NA
Levelled NA

Surveyed 1851
Revised 1930
Edition NA
Copyright NA
Levelled NA



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Site Details:

LEE LANE, ROYSTON,
BARNLEY, S71 4RT

Client Ref: C3457/JW/1488
Report Ref: HMD-283-481153
Grid Ref: 435292, 411430

Map Name: County Series

Map date: 1904

Scale: 1:10,560

Printed at: 1:10,560

Surveyed 1891
Revised 1904
Edition NA
Copyright NA
Levelled NA

Surveyed 1891
Revised 1904
Edition NA
Copyright NA
Levelled NA



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Production date: 29 June 2009





APPENDIX C

EXPLORATORY HOLE RECORDS



TRIAL PIT RECORD

TP No. **TP1**

Sheet 1 of 1

Site : Lee Lane, Royston

Contract No:
C3457

Client : Bellway Homes (Yorkshire) Ltd

Dates:
02/07/2009

Method : JCB 3CX with 600mm wide toothed backhoe bucket.

Scale 1:25

SAMPLE DETAILS

STRATA RECORD

Logged By: JW

Checked By: MB

Description

Depth
(m)Level
(mAOD)
PID
(mm)

Legend

Type
Depth
From - To(m)
Vane
Results
kN/m²

Groundwater

MADE GROUND: Friable, brown, slightly sandy, slightly gravelly CLAY with occasional roots and rootlets. Low plasticity (field description). Gravel is angular and subangular, fine and medium of brick, coal and limestone. (Topsoil)

0.40

Firm consistency becoming stiff with depth, medium to high strength, orange brown, slightly sandy CLAY. Low plasticity (field description).

73.0

86.0

Below 1.20m bgl: No hand shear vanes possible due to consistency of clay.

1.80

Brown grey, slightly clayey angular fine to coarse GRAVEL of siltstone with medium angular cobble content.

2.30

Soft consistency, low strength, orange brown mottled grey, slightly sandy CLAY. High plasticity (field description).

31.0

2.80

Brown grey, angular fine to coarse GRAVEL and COBBLES of sandstone and siltstone.

3.40

3.50

Weak orange brown weathered SANDSTONE. Recovered as angular tabular cobbles and boulders of sandstone (up to 400mm). Below 3.50m bgl: Unable to excavate.

End of Trial Pit at 3.50 m

Remarks and Water Observations

1. No groundwater encountered.
2. Excavation remained stable.
3. Trial Pit refusal at 3.50m bgl.
4. Trial pit backfilled with arisings on completion.

GL (m AOD)

Easting:

Northing:

Fig. No.

TP1



TRIAL PIT RECORD

TP No. **TP2**

Sheet 1 of 1

Site : Lee Lane, Royston

Contract No:

C3457

Client : Bellway Homes (Yorkshire) Ltd

Dates:

02/07/2009

Method : JCB 3CX with 600mm wide toothed backhoe bucket.

Scale 1:25

SAMPLE DETAILS

STRATA RECORD

Logged By: JW

Checked By: MB

Description

Depth
(m)

Level
(mAOD)
PID
(mm)

Legend

MADE GROUND: Friable brown, slightly sandy, slightly gravelly CLAY with occasional roots and rootlets. Low plasticity (field description). Gravel is angular and subangular, fine and medium of brick, coal and limestone. (Topsoil)

Firm consistency becoming stiff with depth, high strength, orange brown, slightly sandy CLAY. Low plasticity (field description).

Below 1.20m bgl: No hand shear vanes possible due to consistency of clay.

Brown grey, slightly clayey angular fine to coarse GRAVEL of siltstone with medium angular cobble content.

Weak orange brown weathered SANDSTONE. Recovered as slightly sandy, slightly gravelly, angular tabular cobbles and boulders of sandstone (up to 400mm). Gravel is angular, fine to coarse of sandstone.

Below 3.20m bgl: Unable to excavate.

End of Trial Pit at 3.20 m

0.40

2.30

3.10

3.20

Remarks and Water Observations

1. No groundwater encountered.
2. Excavation remained stable.
3. Trial pit refusal at 3.20m bgl.
4. Trial pit backfilled with arisings on completion.

GL (m AOD)

Easting:

Northing:

Fig. No.

TP2



TRIAL PIT RECORD

TP No. **TP3**

Sheet 1 of 1

Site : Lee Lane, Royston

Contract No:

C3457

Client : Bellway Homes (Yorkshire) Ltd

Dates:

02/07/2009

Method : JCB 3CX with 600mm wide toothed backhoe bucket.

Scale 1:25

SAMPLE DETAILS

STRATA RECORD

Logged By: JW

Checked By: MB

Description

Depth
(m)Level
(mAOD)
PID
(m)

Legend

Groundwater

Type
Depth
From - To(m)
Vane
Results
kN/m²

MADE GROUND: Friable brown, slightly sandy CLAY with occasional roots and rootlets. Low plasticity (field description). (Topsoil)

0.30

Firm consistency, orange brown, slightly sandy CLAY. Low plasticity (field description).

0.60

Firm consistency becoming stiff with depth, medium to high strength, orange brown, slightly sandy gravelly CLAY. Low plasticity (field description). Gravel is angular and subangular fine to coarse of sandstone.

Below 1.20m bgl: Unable to undertake hand shear vanes due to consistency of clay.

1.70

Black COAL. Recovered as clayey angular fine to coarse GRAVEL of coal.

2.10

Firm consistency becoming stiff with depth, medium to high strength, orange brown, slightly sandy gravelly CLAY. Low plasticity (field description). Gravel is angular and subangular fine to coarse of sandstone. Completely Weathered Middle Coal Measures Strata.

2.50

Stiff consistency, orange brown, slightly sandy slightly gravelly CLAY. Low plasticity (field description). Gravel is angular and subangular fine to coarse of sandstone. Completely Weathered Middle Coal Measures.

3.00

Weak orange brown weathered SANDSTONE. Recovered as slightly sandy, slightly gravelly, angular tabular cobbles and boulders of sandstone (up to 500mm). Gravel is angular, fine to coarse of sandstone.

Below 3.40m: Unable to excavate.

3.40

End of Trial Pit at 3.40 m

Remarks and Water Observations

1. No groundwater encountered.
2. Excavation remained stable.
3. Trial pit refusal at 3.40m bgl.
4. Trial pit backfilled with arisings on completion.

GL (m AOD)

Eastings:

Northing:

Fig. No.

TP3



TRIAL PIT RECORD

TP No. **TP4**

Sheet 1 of 1

Site : Lee Lane, Royston

Contract No:

C3457

Client : Bellway Homes (Yorkshire) Ltd

Dates:

02/07/2009

Method : JCB 3CX with 600mm wide toothed backhoe bucket.

Scale 1:25

SAMPLE DETAILS

STRATA RECORD

Logged By: JW

Checked By: MB

Description

Depth
(m)Level
(mAOD)
PID
from

Legend

MADE GROUND: Friable brown, slightly sandy CLAY with occasional roots and rootlets. Low plasticity (field description). (Topsoil)

0.25

Orange brown, sandy, angular and subangular fine to coarse GRAVEL of sandstone with medium angular cobble content.

1.60

Weak orange brown weathered SANDSTONE. Recovered as slightly sandy, slightly gravelly, angular tabular cobbles and boulders of sandstone (up to 450mm). Gravel is angular, fine to coarse of sandstone.

Below 2.20m bgl: Unable to excavate.

2.30

End of Trial Pit at 2.30 m

Remarks and Water Observations

1. No groundwater encountered.
2. Excavation remained stable.
3. Trial pit refusal at 2.30m bgl
4. Trial pit backfilled with arisings on completion.

GL (m AOD)

Easting:

Northing:

Fig. No.

TP4



TRIAL PIT RECORD

TP No. **TP5**

Sheet 1 of 1

Site : Lee Lane, Royston

Contract No:

C3457

Client : Bellway Homes (Yorkshire) Ltd

Dates:

02/07/2009

Method : JCB 3CX with 600mm wide toothed backhoe bucket.

Scale 1:25

SAMPLE DETAILS

STRATA RECORD

Logged By: JW

Checked By: MB

Description

Type
Depth
From - To(m)
Vane
Results
kN/m²

Groundwater

Depth
(m)Level
(m AOD)
PID
(m)

Legend

MADE GROUND: Friable brown, slightly sandy CLAY with occasional rootlets. Low plasticity (field description). (Topsoil)

0.20

Orange brown, sandy, angular and subangular fine to coarse GRAVEL of sandstone with medium angular cobble content.

Weak orange brown weathered SANDSTONE. Recovered as slightly sandy, slightly gravelly, angular tabular cobbles and boulders of sandstone (up to 300mm). Gravel is angular, fine to coarse of sandstone.

1.80

Below 2.30m bgl: Unable to excavate.

End of Trial Pit at 2.40 m

2.40

Remarks and Water Observations

1. No groundwater encountered.
2. Excavation remained stable.
3. Trial pit refusal at 2.40m bgl.
4. Trial pit backfilled with arisings on completion.

GL (m AOD)

Easting:

Northing:

Fig. No.

TP5



TRIAL PIT RECORD

TP No. **TP6**

Sheet 1 of 1

Site : Lee Lane, Royston

Contract No:

C3457

Client : Bellway Homes (Yorkshire) Ltd

Dates:
02/07/2008-02/07/2009

Method : JCB 3CX with 600mm wide toothed backhoe bucket.

Scale 1:25

SAMPLE DETAILS

STRATA RECORD

Logged By: JW

Checked By: MB

Description

Type	Depth From - To(m)	Vane Results kN/m ²
------	-----------------------	--------------------------------------

Groundwater

Depth (m)	Level (mAOD) PID (mm)	Legend
--------------	--------------------------------	--------

MADE GROUND: Friable brown, slightly sandy CLAY with occasional rootlets. Low plasticity (field description). (Topsoil)

0.20

Orange brown, sandy, clayey, angular and subangular fine to coarse GRAVEL of sandstone with medium angular cobble content.

Stiff consistency, high strength, orange brown mottled grey, slightly sandy slightly gravelly CLAY. Low plasticity (field description). Gravel is angular and subangular fine to coarse of sandstone.
Below 1.20m bgl: Unable to undertake hand shear vanes due to consistency of clay.

1.10

1.40

Brown grey, slightly clayey angular fine to coarse GRAVEL and COBBLES of sandstone.

1.70

Weak orange brown weathered SANDSTONE. Recovered as slightly sandy, slightly gravelly, angular tabular cobbles and boulders of sandstone (up to 300mm). Gravel is angular, fine to coarse of sandstone.
Below 1.90m bgl: Unable to excavate.

2.00

End of Trial Pit at 2.00 m

Remarks and Water Observations

1. No groundwater encountered.
2. Excavation remained stable.
3. Trial pit refusal at 2.00m bgl.
4. Trial pit backfilled with arisings on completion.

GL (m AOD)

Easting:

Northing:

Fig. No.

TP6



TRIAL PIT RECORD

TP No. **TP7**

Sheet 1 of 1

Site : Lee Lane, Royston

Contract No:

C3457

Client : Bellway Homes (Yorkshire) Ltd

Dates:

02/07/2009

Method : JCB 3CX with 600mm wide toothed backhoe bucket.

Scale 1:25

SAMPLE DETAILS

STRATA RECORD

Logged By: JW

Checked By: MB

Description

Depth
(m)Level
(mAOD)
PIG
(mm)

Legend

MADE GROUND: Friable, brown, slightly sandy CLAY with rootlets. Low plasticity (field description). (Topsoil)

0.25

Stiff consistency, high strength, orange brown mottled grey, slightly sandy slightly gravelly CLAY. Low plasticity (field description). Gravel is angular and subangular fine to medium of sandstone.

110.0

110.0

110.0

Below 1.20m bgl: Unable to undertake hand shear vanes due to consistency of clay.

1.60

Weak orange brown weathered SANDSTONE. Recovered as slightly sandy, slightly gravelly, angular tabular cobbles and boulders of sandstone (up to 400mm). Gravel is angular, fine to coarse of sandstone.

Below 2.20m bgl: Unable to excavate.
End of Trial Pit at 2.30 m

2.30

Remarks and Water Observations

1. No groundwater encountered.
2. Excavation remained stable.
3. Trial pit refusal at 2.30m bgl.
4. Trial pit backfilled with arisings on completion.

GL (m AOD)

Easting:

Northing:

Fig. No.

TP7

Sirius Engineering Group Ltd.

**Sirius Remediation Ltd
Sirius Geotechnical and Environmental Ltd
Sirius Drilling Services
Sirius Strategic Environmental Management Ltd**

Suite 2 Russel House
Mill Road
Langley Moor
Durham
DH7 8HJ

t. 0191 378 9972
f. 0191 378 1537

4245 Park Approach
Century Way
Thorpe Park
Leeds
LS15 8GB

t. 0113 264 9960
f. 0113 264 9962

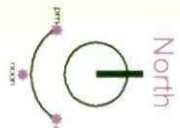
The Heath Business and
Technical Park
Runcorn
Cheshire
WA7 4QX

t. 01928 515715
f. 01928 515716

Strelley Hall
Nottingham
NG8 6PE

t. 0115 906 1334
f. 0115 906 1251





Scale
 Date
 Drg No



Plots 15 - 22
1 : 100

"the Green"



Plots 23 - 30
1 : 100

"the Green"



Plots 33-36
1 : 100

High Street

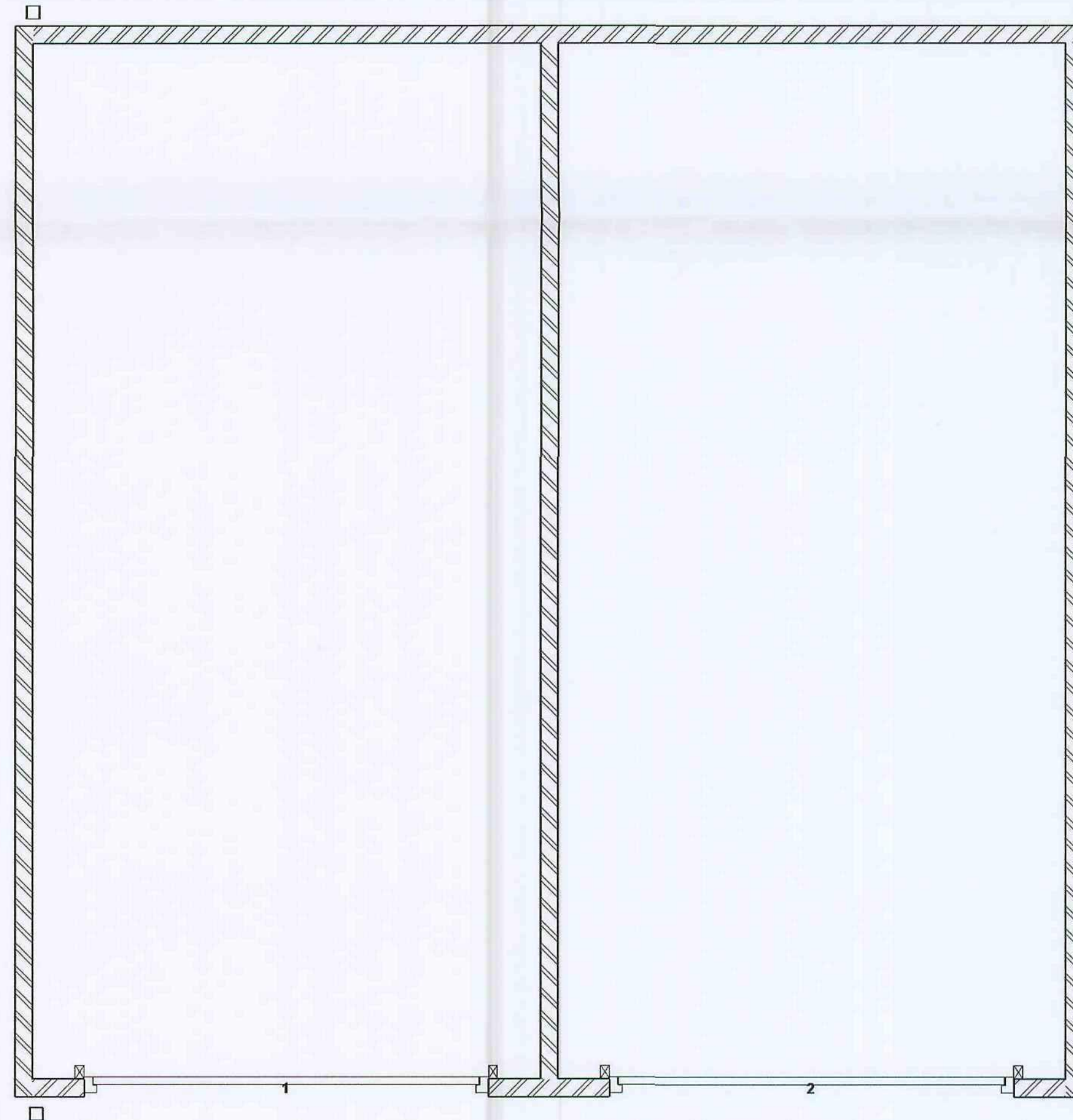


Front Elevation.

Rear Elevation.

Side Elevation.

Side Elevation.



Floor Plans

Created By:
KNAPTON
& Knapton.

Double Garage.

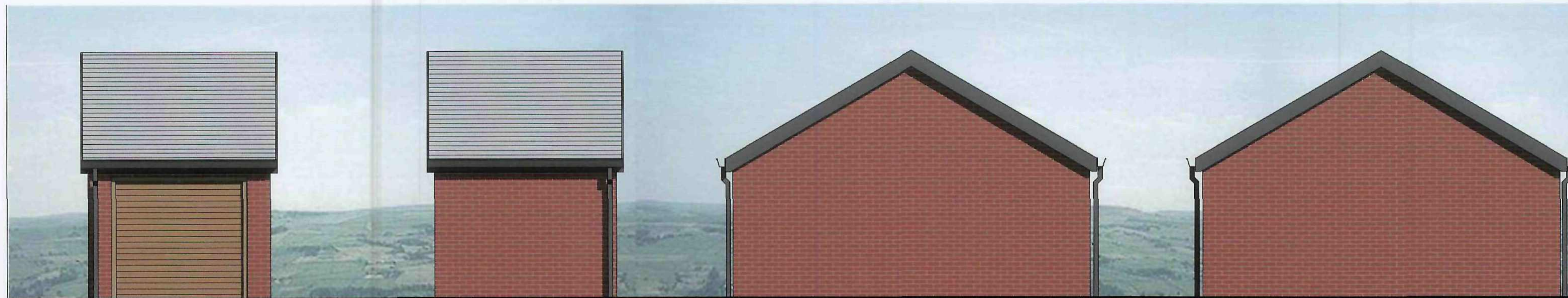


House Type: Double Garage

Title: Floor Plans & Eles

Scales: 1:25 DRG No: 09/393/17
Date: 25-02-10

Bellway
Bellway Homes (Yorkshire) Limited, 2 Leighton Close, Wetherby,
West Yorkshire, LS22 7JZ. Tel: 01937 546 766. Fax: 01937 546 440.
www.bellway.co.uk

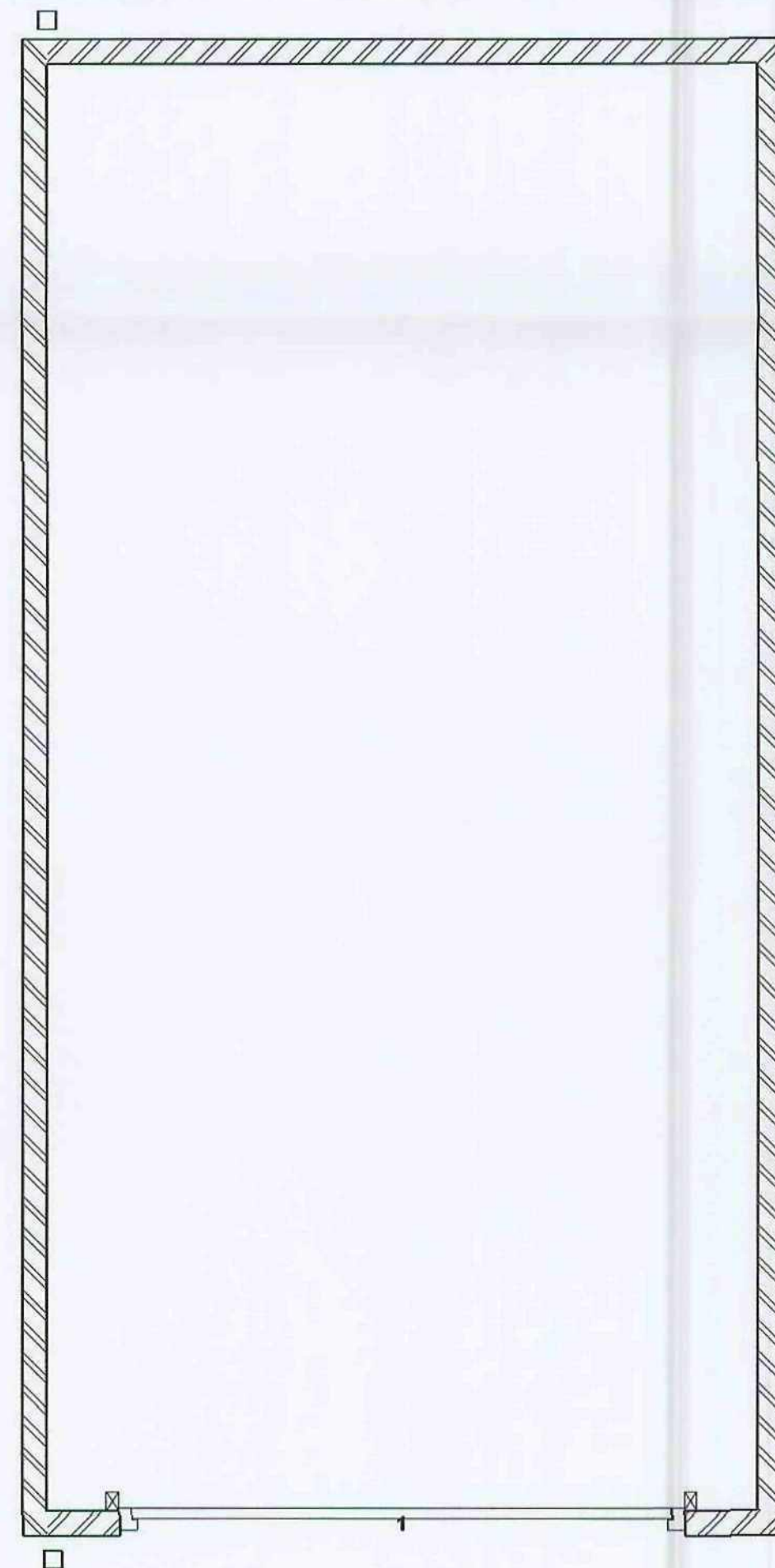


Front Elevation.

Rear Elevation.

Side Elevation.

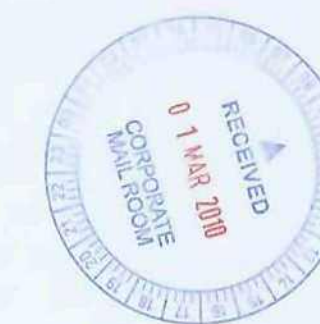
Side Elevation.



Floor Plans

Created By:
KNAPTON
& Knapton.

Single Garage.



House Type: Single Garage

Title: Floor Plans & Eles

Scales: 1:25 DRG No: 09/393/16
Date: 25-02-10

Bellway

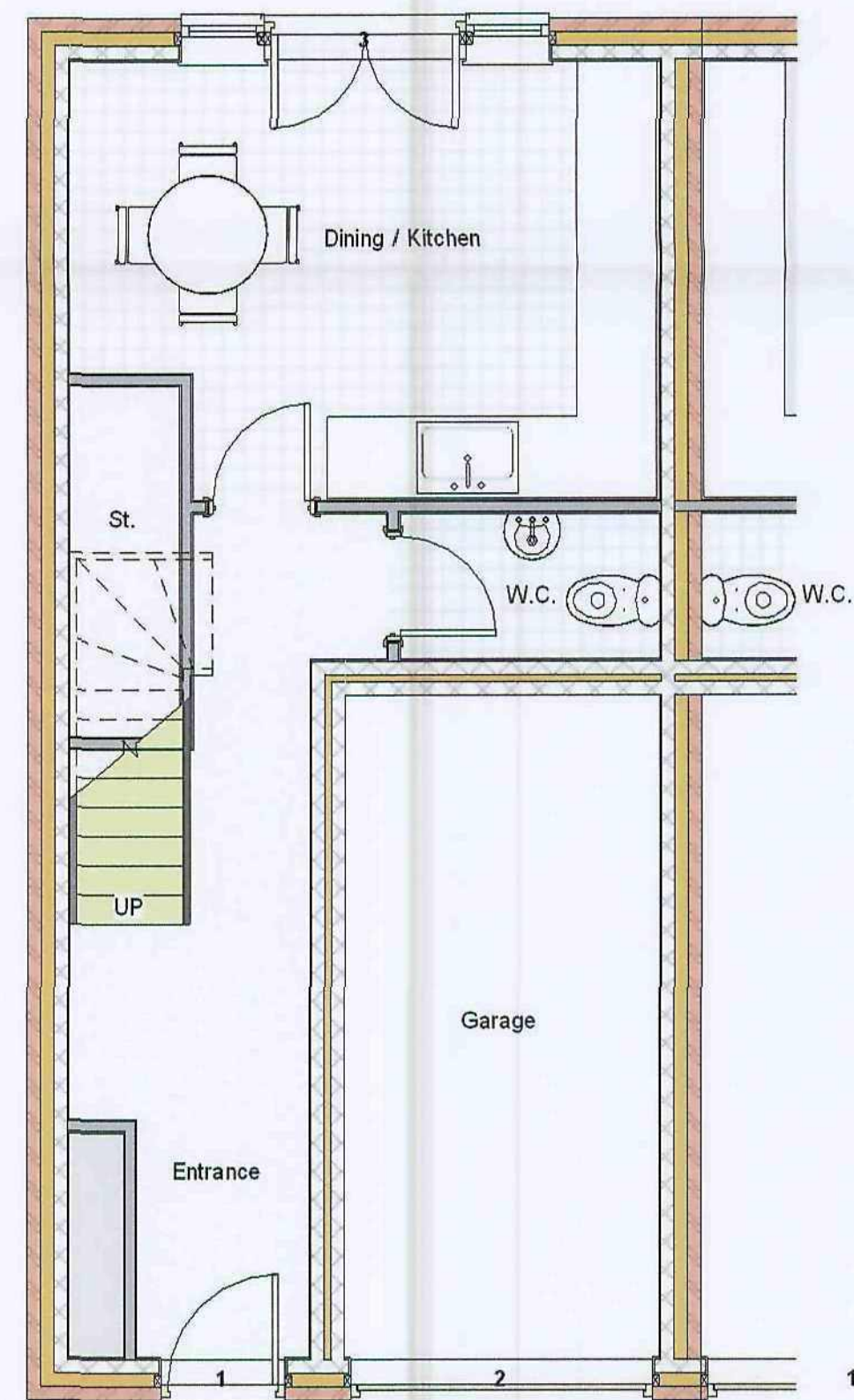
Bellway Homes (Yorkshire) Limited, © Deighton, Chose, Watkinson
West Yorkshire L22 7JZ, Tel: 01937 546 756 Fax: 01937 546 440
www.bellway.co.uk



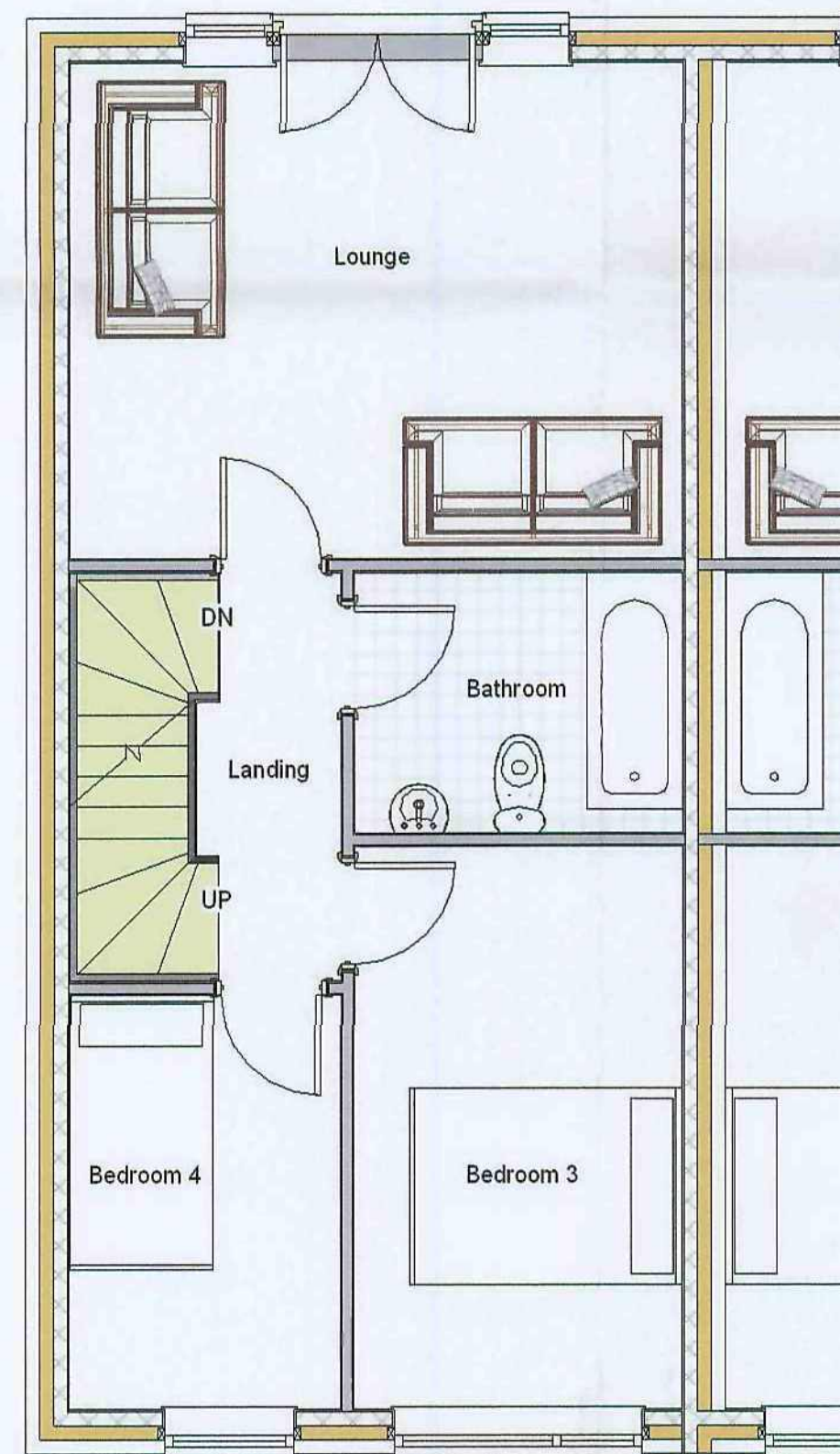
Front.

Rear.

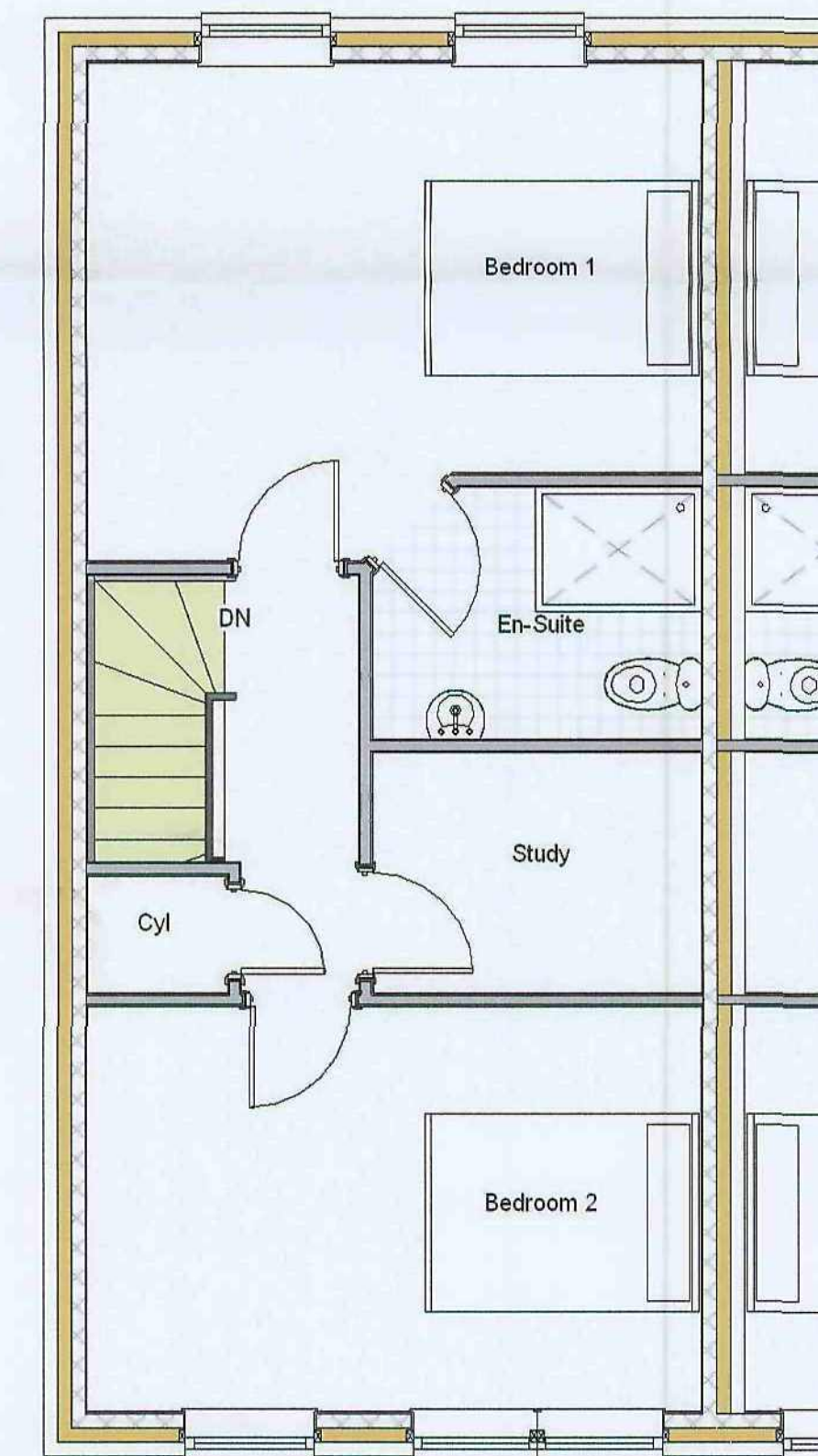
Side.



Ground Floor



First Floor



Second Floor

Created By:
KNAPTON
& Knapton
Winchester



House Type: Winchester

Title: Plans & Elevations

Scales: 1:50/1:100 DRG No: 09/393/15
Date: 25-02-10

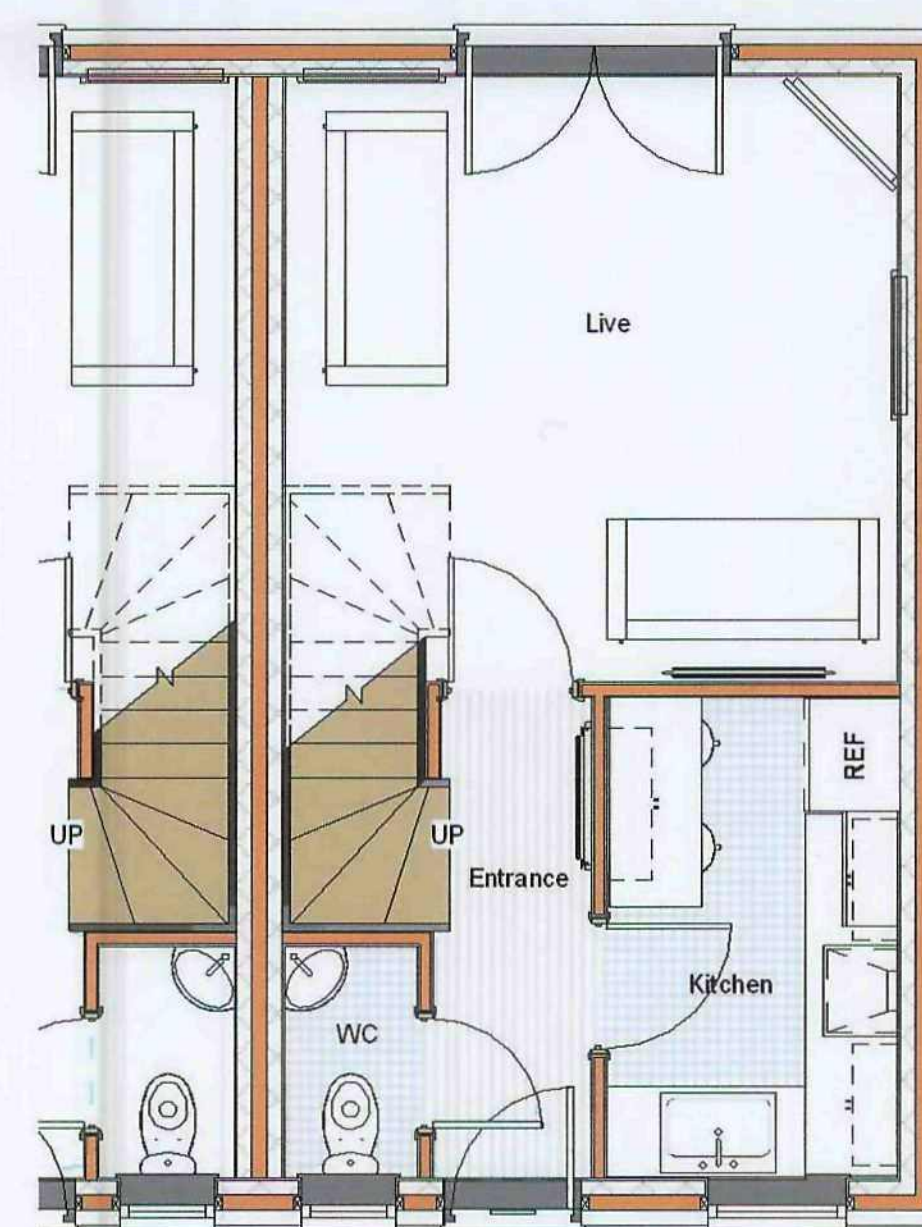
Bellway

Bellway Homes (Yorkshire) Limited 2 Daighon Close, Wetherby
West Yorkshire LS22 7JZ Tel: 01937 540 756 Fax: 01937 540 440
www.bellway.co.uk

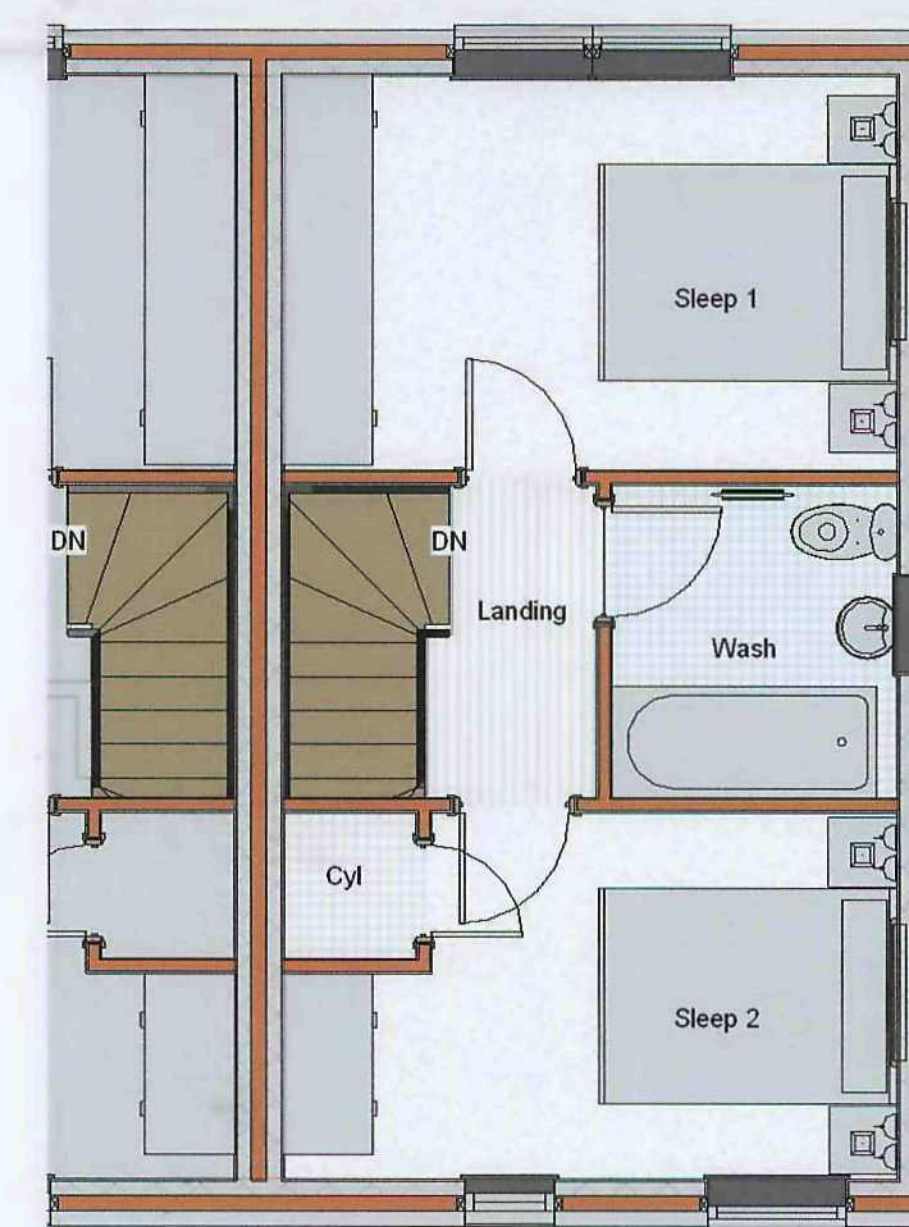


Created By:
KNAPTON
& Knapton^c

Milton



Ground Floor



First Floor



House Type: Milton

Title: Floor Plans & Eles

Scales: 1:50/1:100 DRG No: 09/393/14
Date: 25-02-09

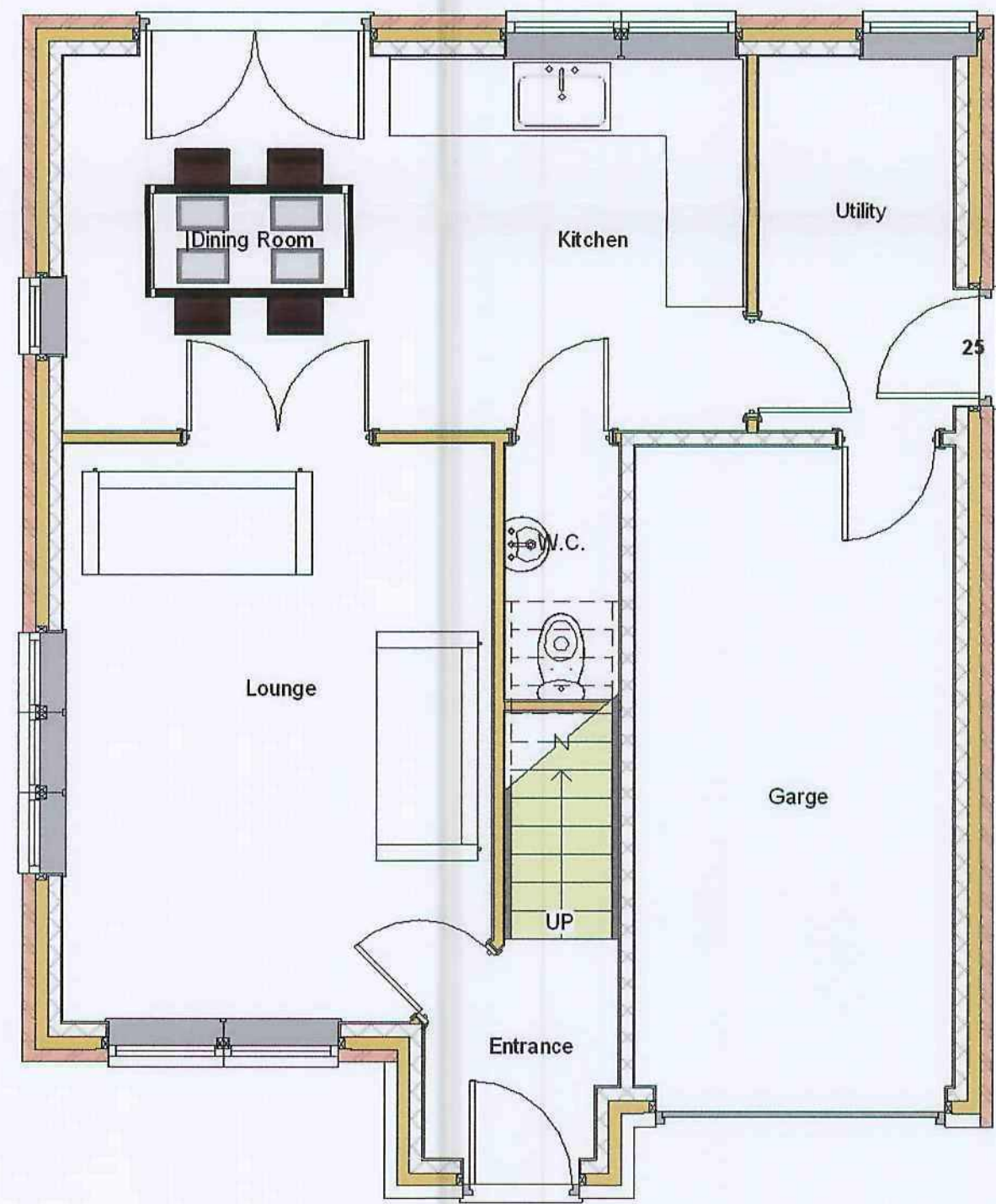
Bellway

Bellway Homes (Yorkshire) Limited, 2, Dughaigh, Clonsilla, Wetherby,
West Yorkshire, LS22 7GZ. Tel: 01937 546 766. Fax: 01937 546 440
www.bellway.co.uk

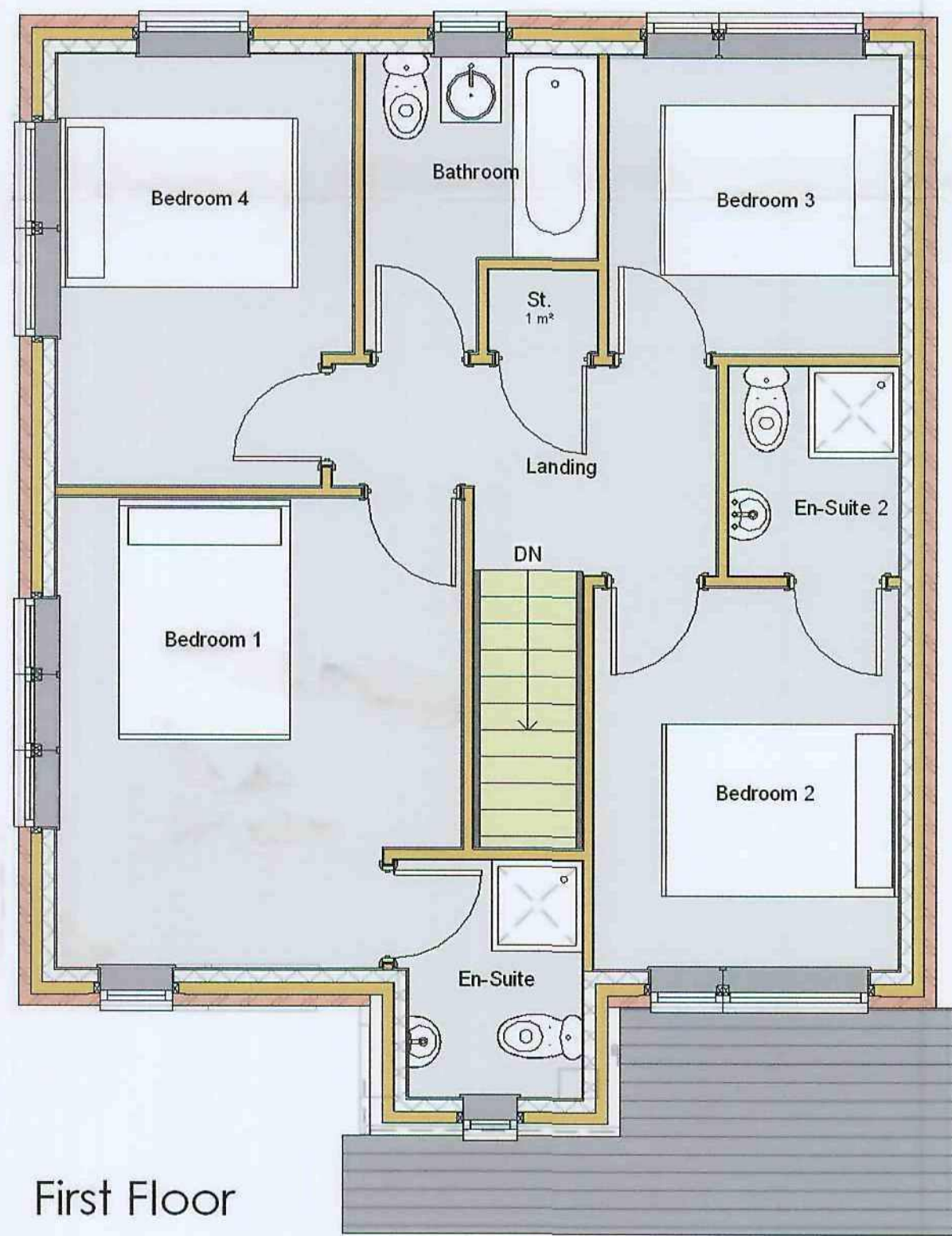


Created By:
KNAPTON
& Knapton

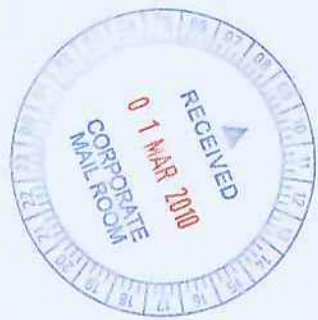
Millbeck



Ground Floor



First Floor



House Type: Millbeck

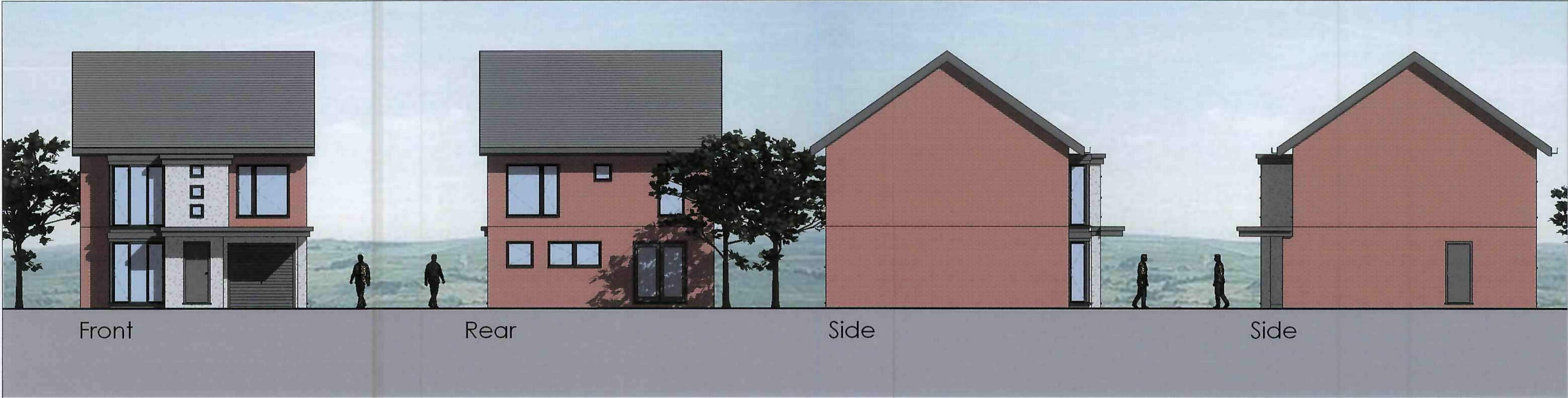
Title: Plans & Elevations

Scales: 1:50/1:100 DRG No: 09/393/13

Date: 25-02-10

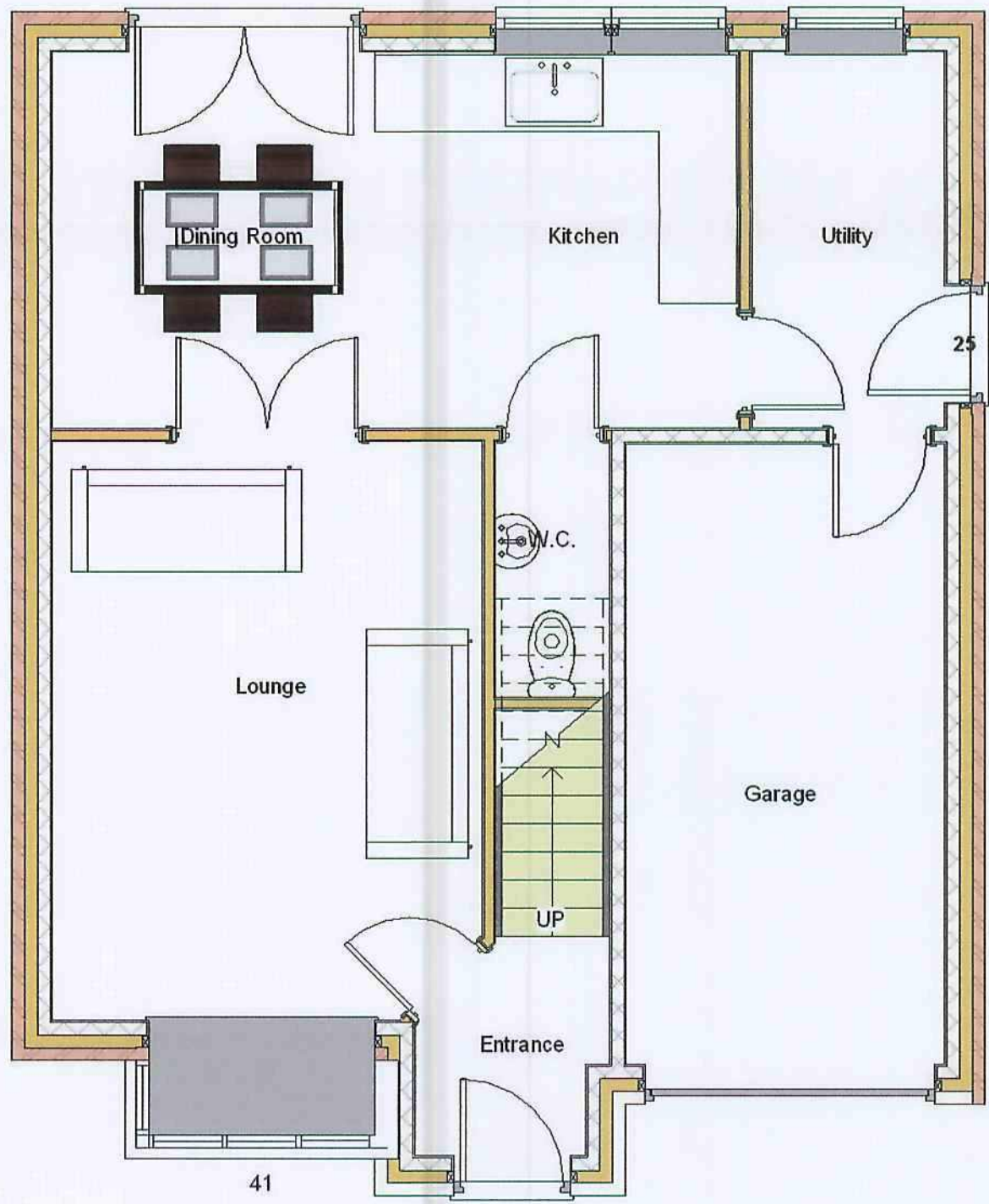
Bellway

Bellway Homes (Yorkshire) Limited, 2 Dighton Close, Wetherby, West Yorkshire LS22 7SE. Tel: 01937 546 750. Fax: 01937 546 440. www.bellway.co.uk

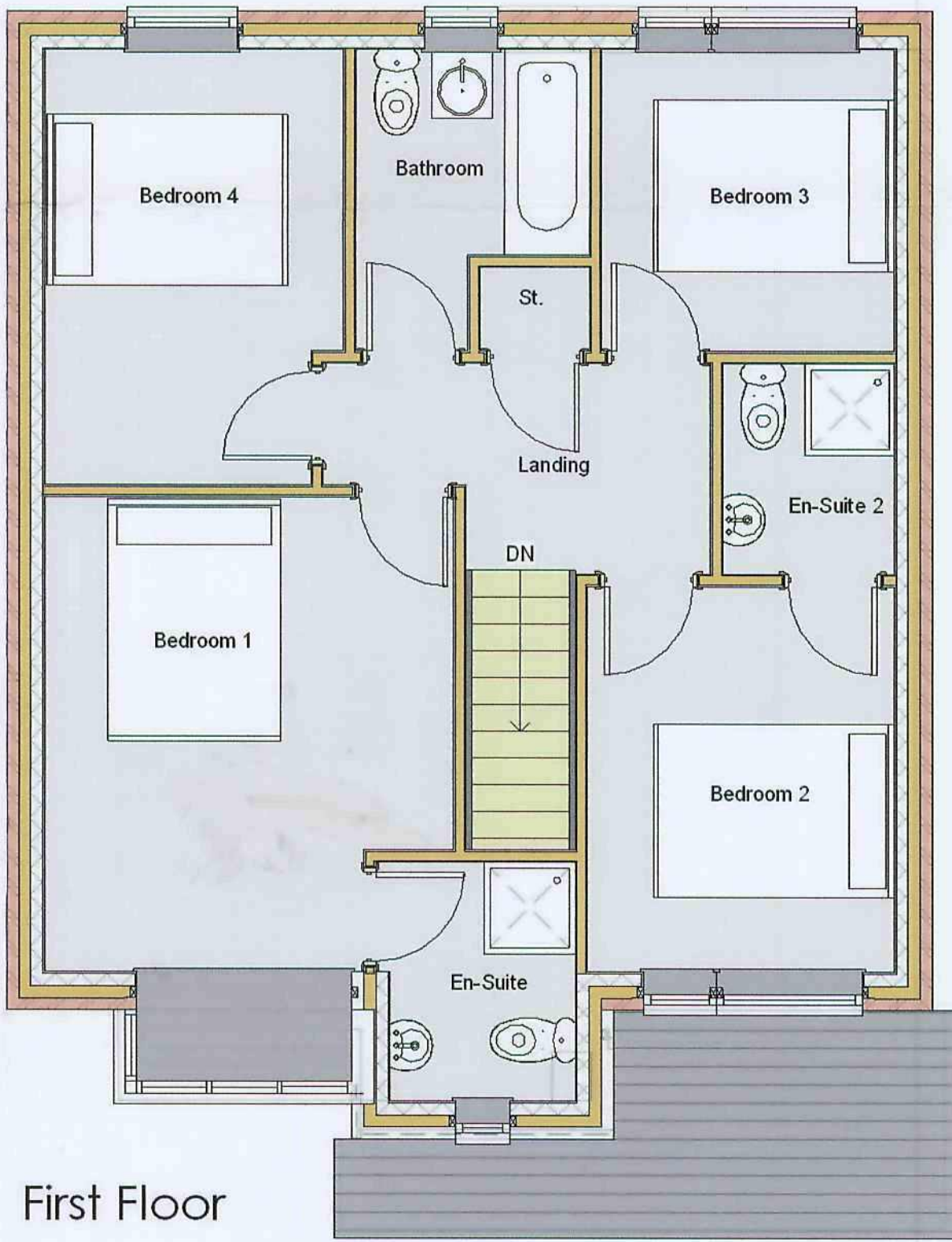


Created By
KNAPTON
& Knapton[©]

Millbeck



Ground Floor



First Floor



House Type: Millbeck

Title: Plans & Elevations

Scales: 1:50/1:100 DRG No: 09/359/12

Date: 25-02-10

Bellway

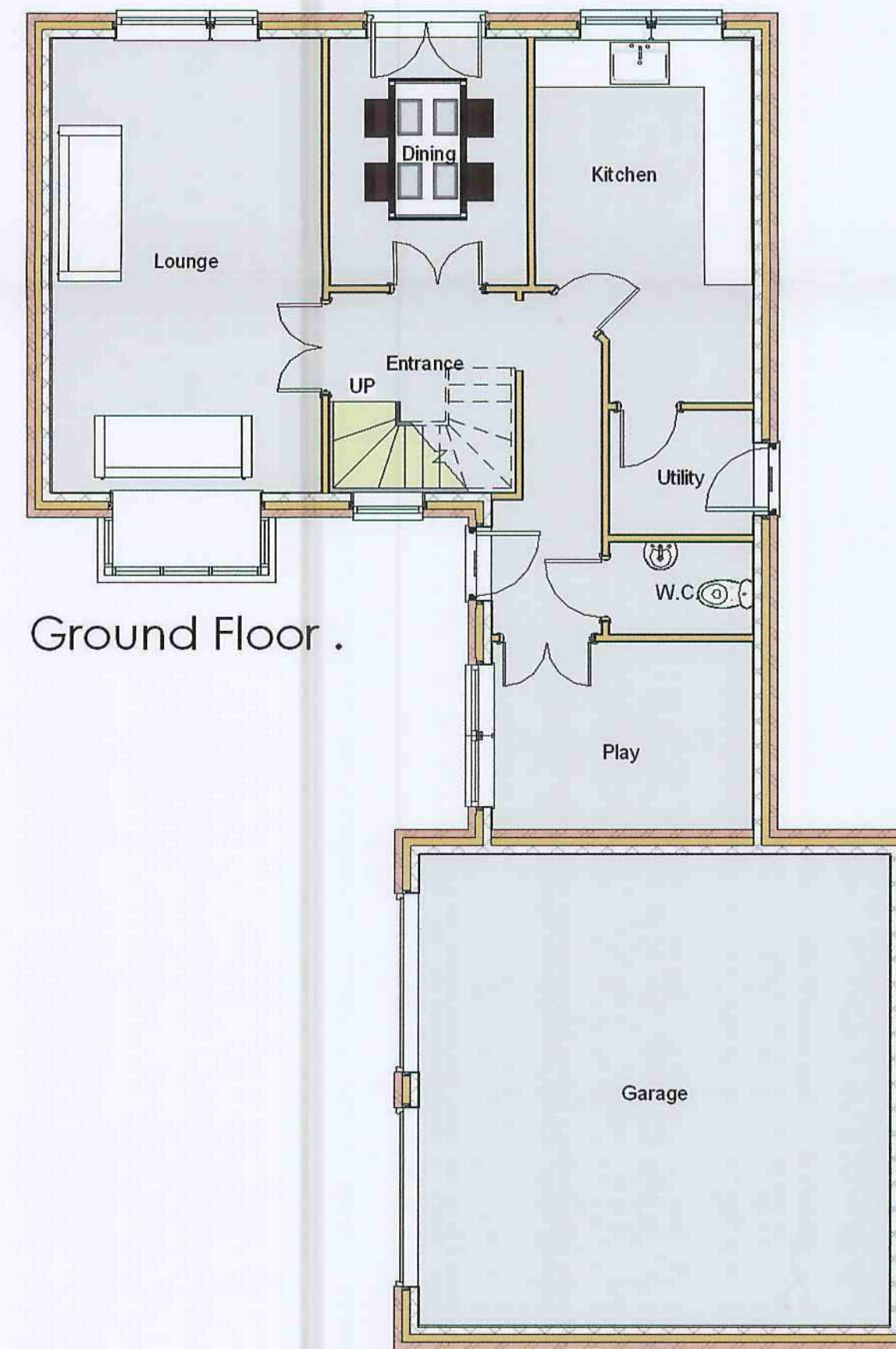
Bellway Homes (Yorkshire) Limited, 2 Easington, 150a, Wetherby, West Yorkshire, LS22 7JZ. Tel: 01937 546 300. Fax: 01937 546 440. www.bellway.co.uk



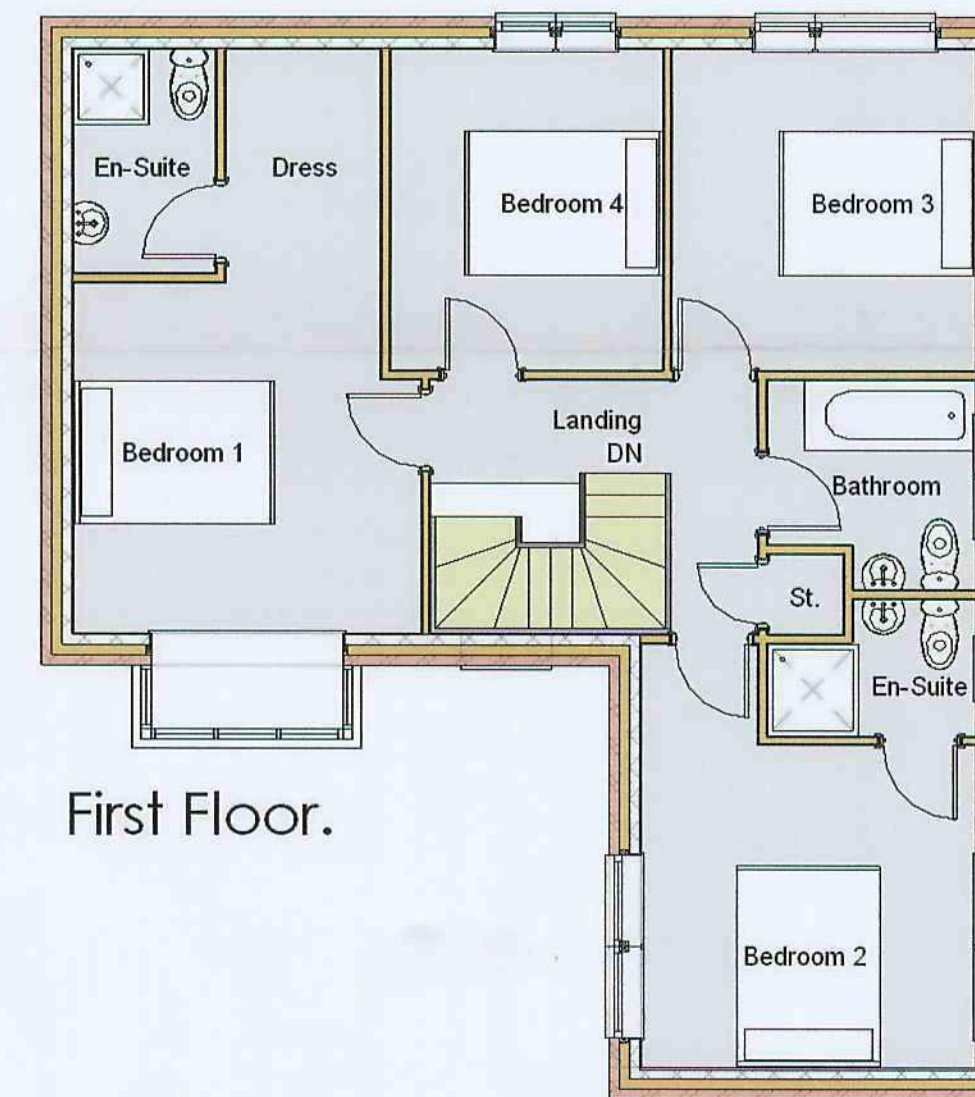
Front.

Side.

Side.



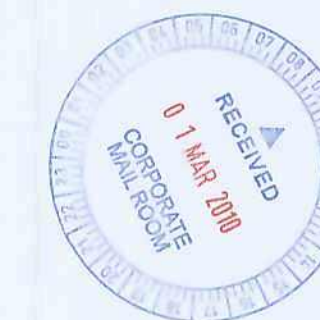
Ground Floor .



First Floor.

Created By:
KNAPTON
& Knapton.

Holmrook



House Type: Holmrook

Title: Plans & Elevations

Scales: 1/75/1/100 DRG No: 09-393-11
Date: 07-01-10

Bellway

Bellway Homes (Yorkshire) Limited, 2, Easington Close, Wetherby, West Yorkshire, LS22 7JZ Tel: 01937 546 700 Fax: 01937 546 440
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View Across High Street



View Down The Avenue



View Down High Street



Planning Layout
1:750

Drawing No. PPG/09/393/18
3D Visualisation





View Across The Green



View Down The Avenue

Brickwork

Render



Elevated View Across The Green



- Notes:
- 1) Potential for a Surface Water Sewer Requisition due to Planning stipulation that the Surface Water sewer must connect into the existing Surface Water sewer in Applehaigh View.
 - 2) Bellway Homes - Yorkshire scheme based upon Yorkshire Water allowing a Combined Sewer outfall. Further investigation and discussion needed with Yorkshire Water.
 - 3) Levels based upon Road Entrance being 0m due to no Topographical Survey being available at the time of design.

Storage Calculation:

SITE NAME		Lee Lane, Royston			
Design Details		Summary			
		Lee Lane, Royston			
		25 Year	30 Year	50 Year	100 Year
Storage Required Cum.		189	303	235	287
		Concrete Pipes			
150mm Diameter Pipe		195.2	178.2	287.8	152.8
100mm Diameter Pipe		99.2	114.0	113.8	102.4
75mm Diameter Pipe		75.7	78.3	93.3	112.9
50mm Diameter Pipe		52.3	38.8	61.8	82.9
25mm Diameter Pipe		28.1	68.8	21.8	65.4
		Concrete Box Culverts			
1.5 x 1.5m Box Culvert		61.7	88.4	69.9	66.4
2.0 x 2.0m Box Culvert		48.4	51.1	58.2	73.3
2.4 x 2.4m Box Culvert		35.7	38.2	43.9	55.4
		Site Area			
		Total Allowable Discharge			
		2.50 Areas			
		5.00 Lines			
SITE DETAILS					
Site area sq. m.		11970.00			
Site area hectares		1.16			
Site area acres		2.82			
Impermeable Area sq. m.		6490.00			
Total allowable discharge		5.00 Lines			



Rev A 23.02.10 CDC Drainage amended for new layout

Drawing Title
Engineering Appraisal
Lee Lane, Royston

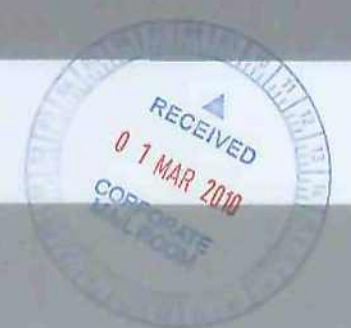
Bellway

(Yorkshire Division)
(a member of the Bellway Plc Group of Companies)
2 Deighton Close, Wetherby, West Yorkshire
LS22 7GZ
Tel 01937 583 533 Fax 01937 588 147
www.bellway.co.uk

Scale	1:500	Drawn	CDC
Date	September '09	Checked	

Drawing No.	ENG-LA-LL01	Rev	A
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ACCOMODATION SCHEDULE			SITE: Royston		DRAWING NUMBER:		
Storey	House Type	Abb.	No	Bedrooms	Sq/ft	Total sqft	%age
2	Millbeck	mi	10	4	0	0	29
2	Brampton	br	12	4	0	0	34
2	Chatsworth	ch	5	4	0	0	14
2	Holmrook	ho	4	4	0	0	11
2	Milton	mi	4	3	642	2568	11
Total			35		Total Sq.Ft	2568	100





Plots 15 - 22
1 : 100



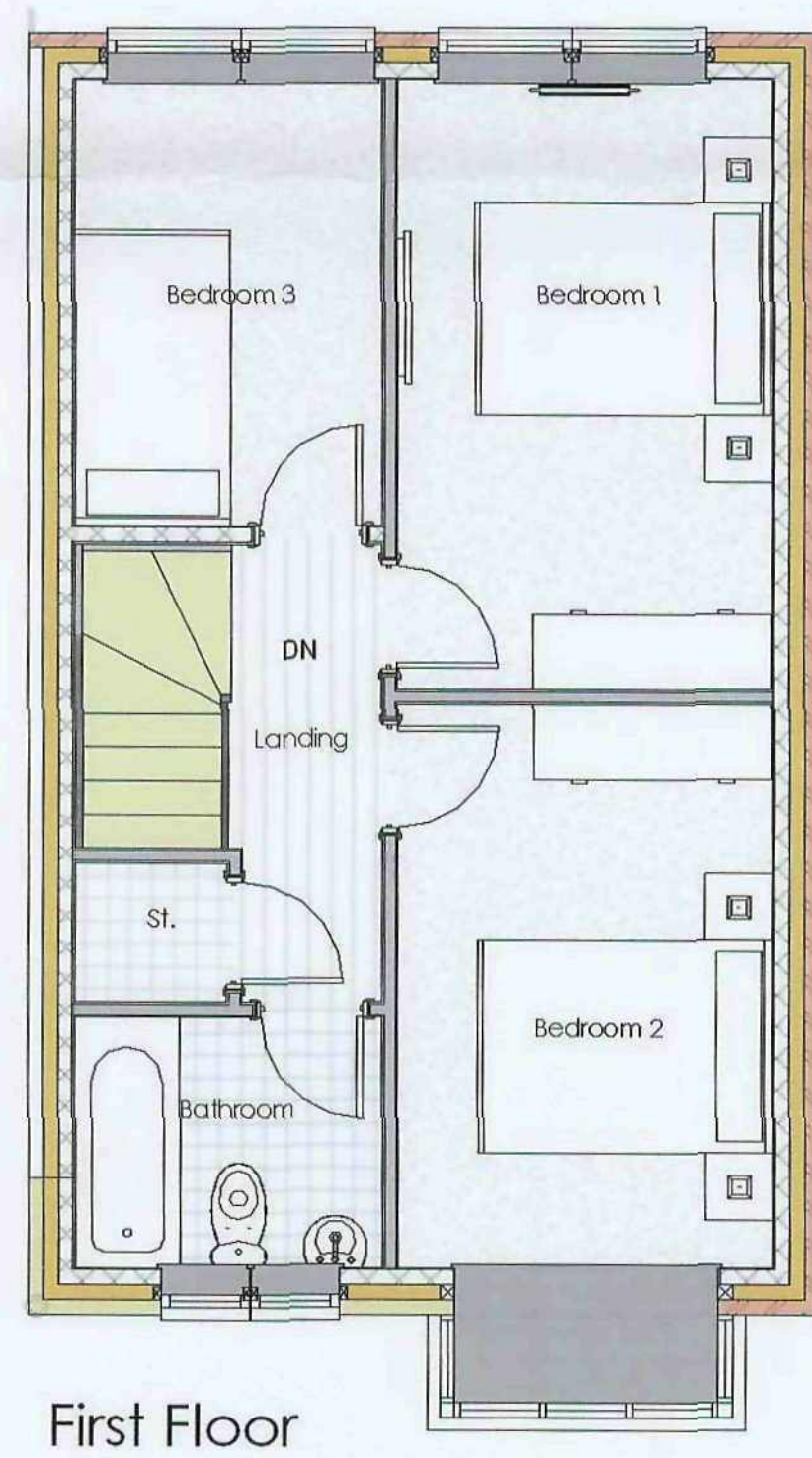
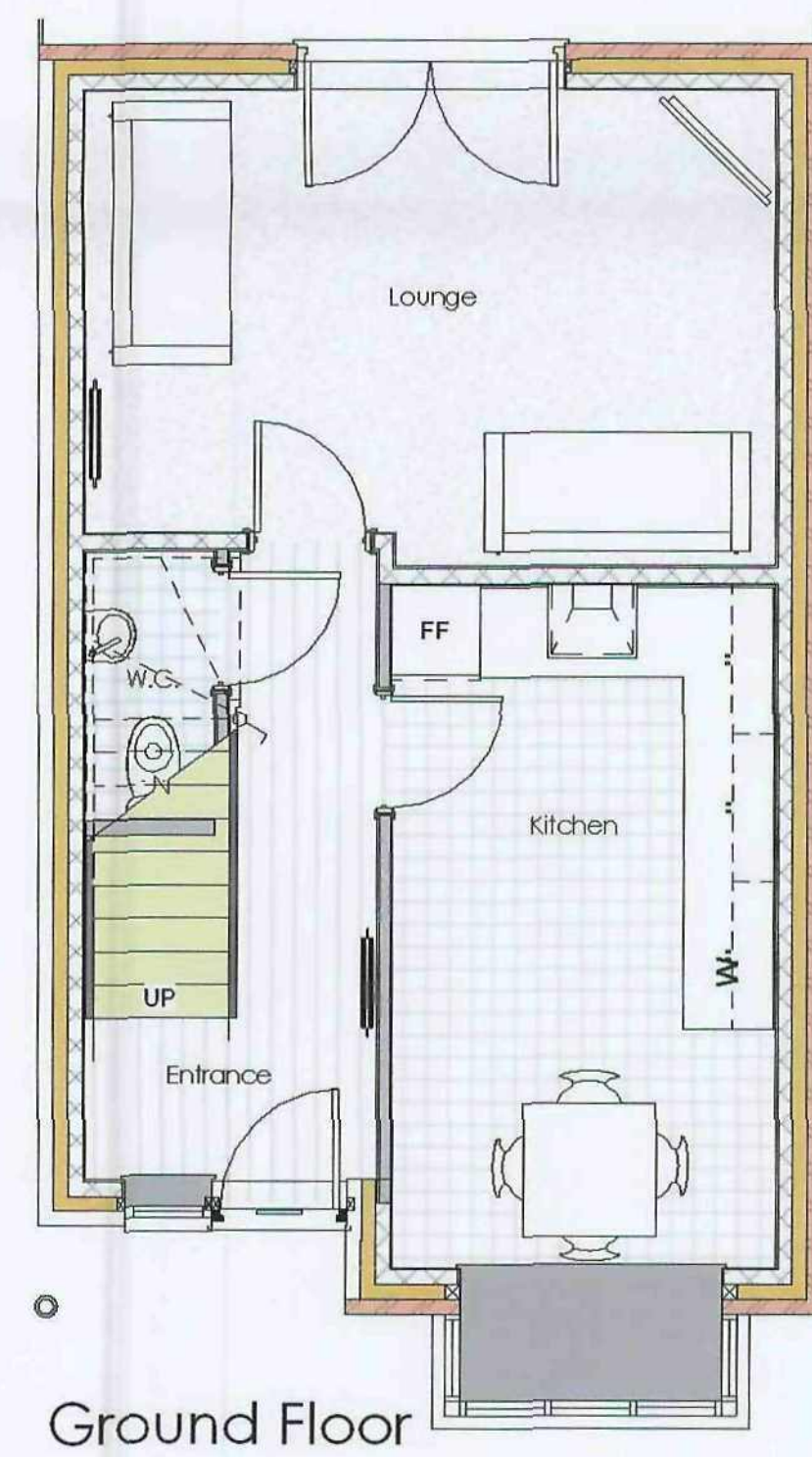
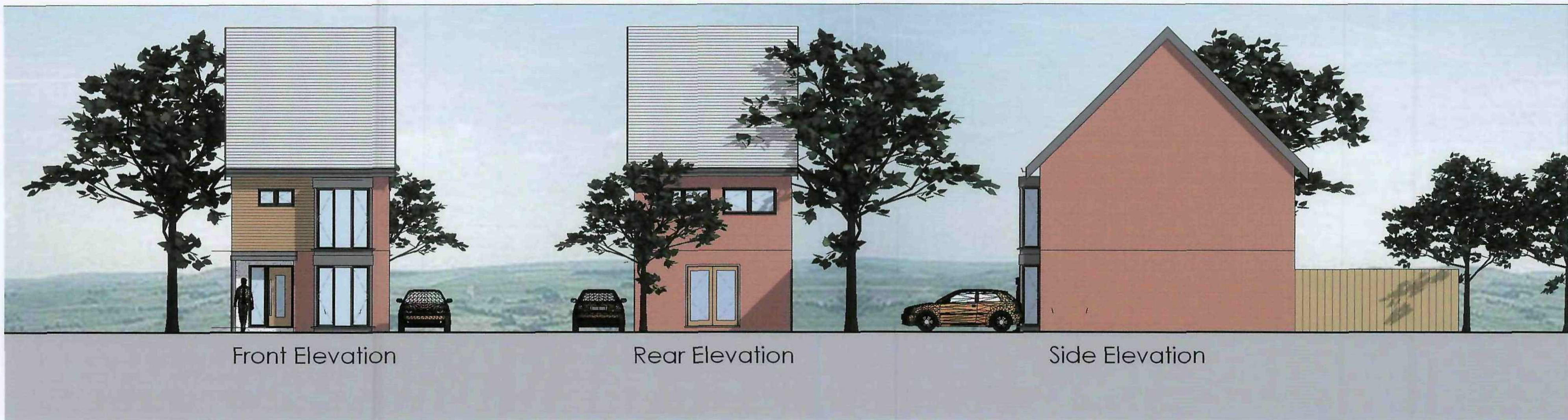
Plots 23 - 30
1 : 100



Plots 33-36
1 : 100

High Street





House Type: Darwin

Title: Floor Plans & Elevation

Scales: 1:50/1:100 DRG No: 09-393-10
Date: 19/11/09

Bellway

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West Yorkshire WF1 2JZ. Tel: 01937 548 755 Fax: 01937 548 440
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Proposed Residential Development @ High Street. Royston. Barnsley.



Schedule.

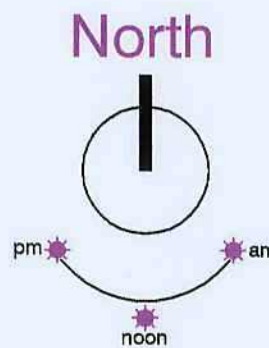
Overhead.

ACCOMODATION SCHEDULE			SITE: Royston		DRAWING NUMBER:		
Storey	House Type	Abb.	No	Bedrooms	Sq/ft	Total sqft	%age
2	Milton	mil	4	2	642	2568	11
3	Winchester	wim	3	3	1141	3423	8
2	Darwin	da	3	3	822	2466	8
2.5	Darwin	da(2.5)	3	3	1168	3504	8
2	Milbeck	mi	7	4	1066	7462	19
2	Brampton	br	10	4	1184	11840	28
2	Holmrook	ho	3	4	1469	4407	8
2	Chatsworth	ch	2	4	1458	2916	6
2.5	Chatsworth	ch(2.5)	1	5	2064	2064	3
Total			36		Total Sq.Ft	40650	100



Designers of the Built Environment

Scale: 1:500
Date: 20/07/09
Drg No: 09/363/01



Client: Bellway Homes Ltd.
Site: Royston
Plan: Planning Layout 1:500





Front.

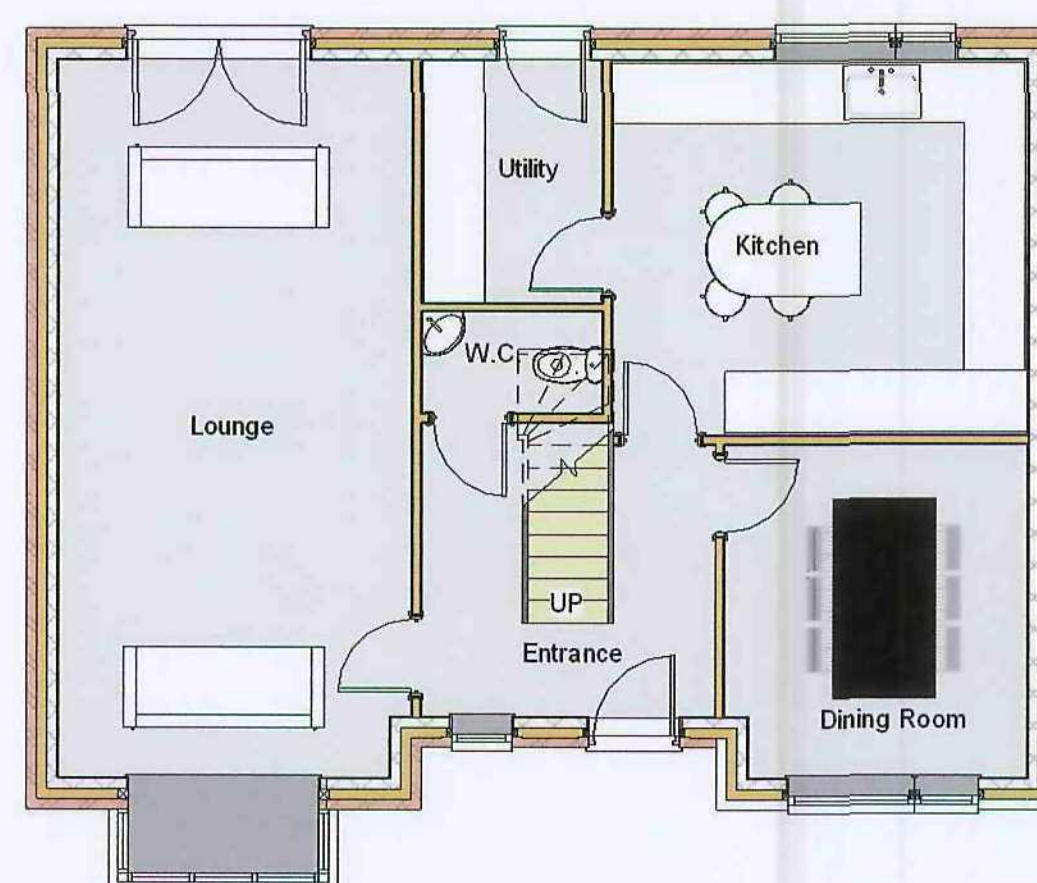
Rear.

Side.

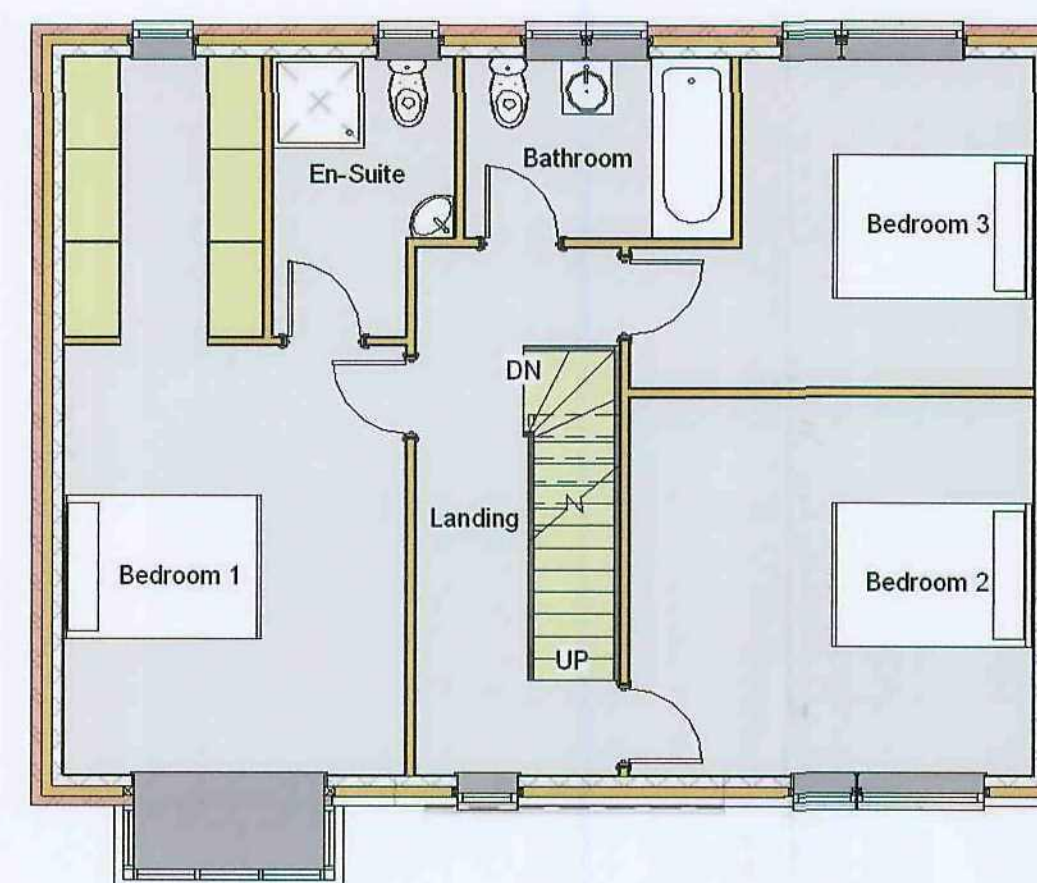
Side.

Created By:
KNAPTON
& Knapton

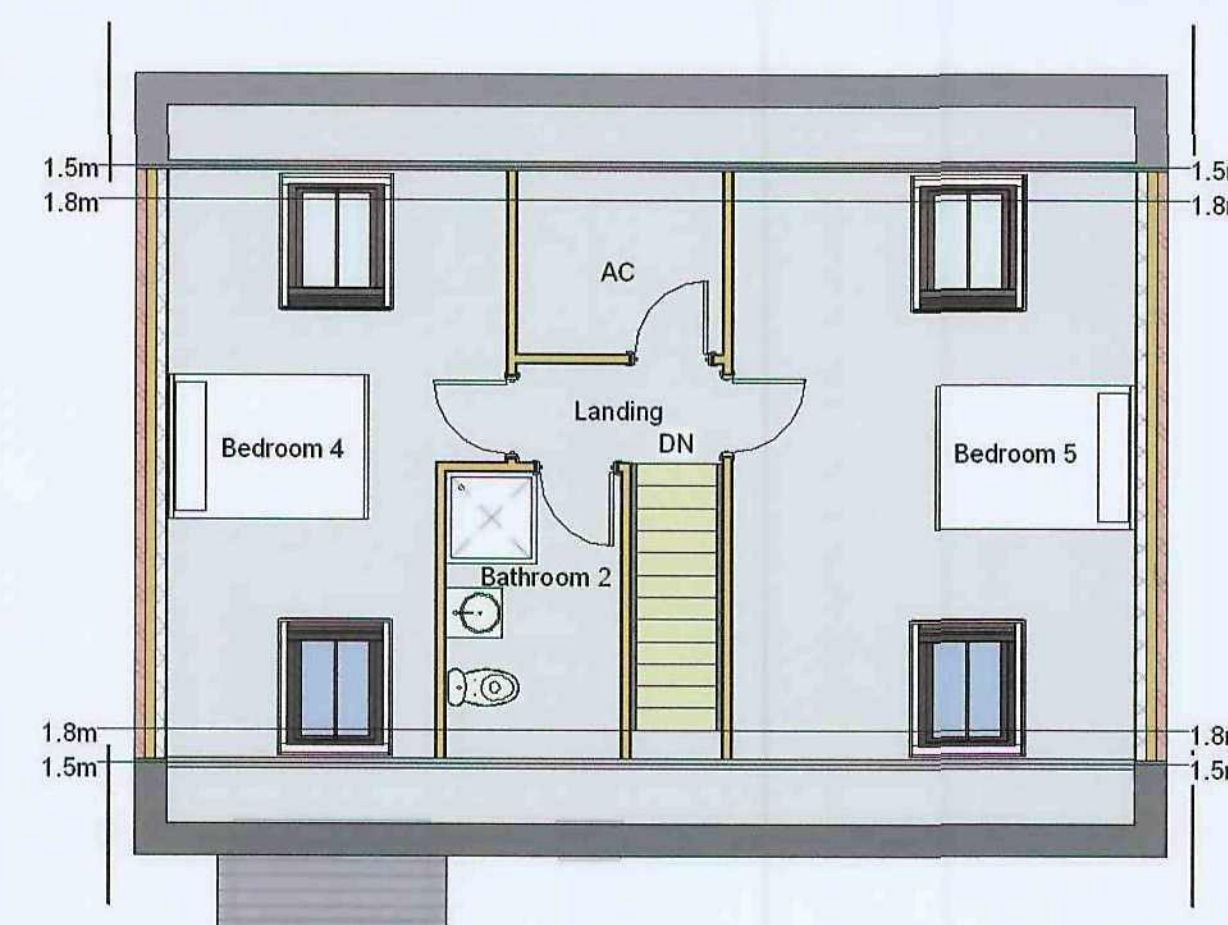
Chatsworth



Ground Floor.



First Floor.



Second Floor.



House Type: Chatsworth

Title: Plans & Elevations

Scales: 1:75/1:100 DRG No: 09-393-09

Date: 07-01-10

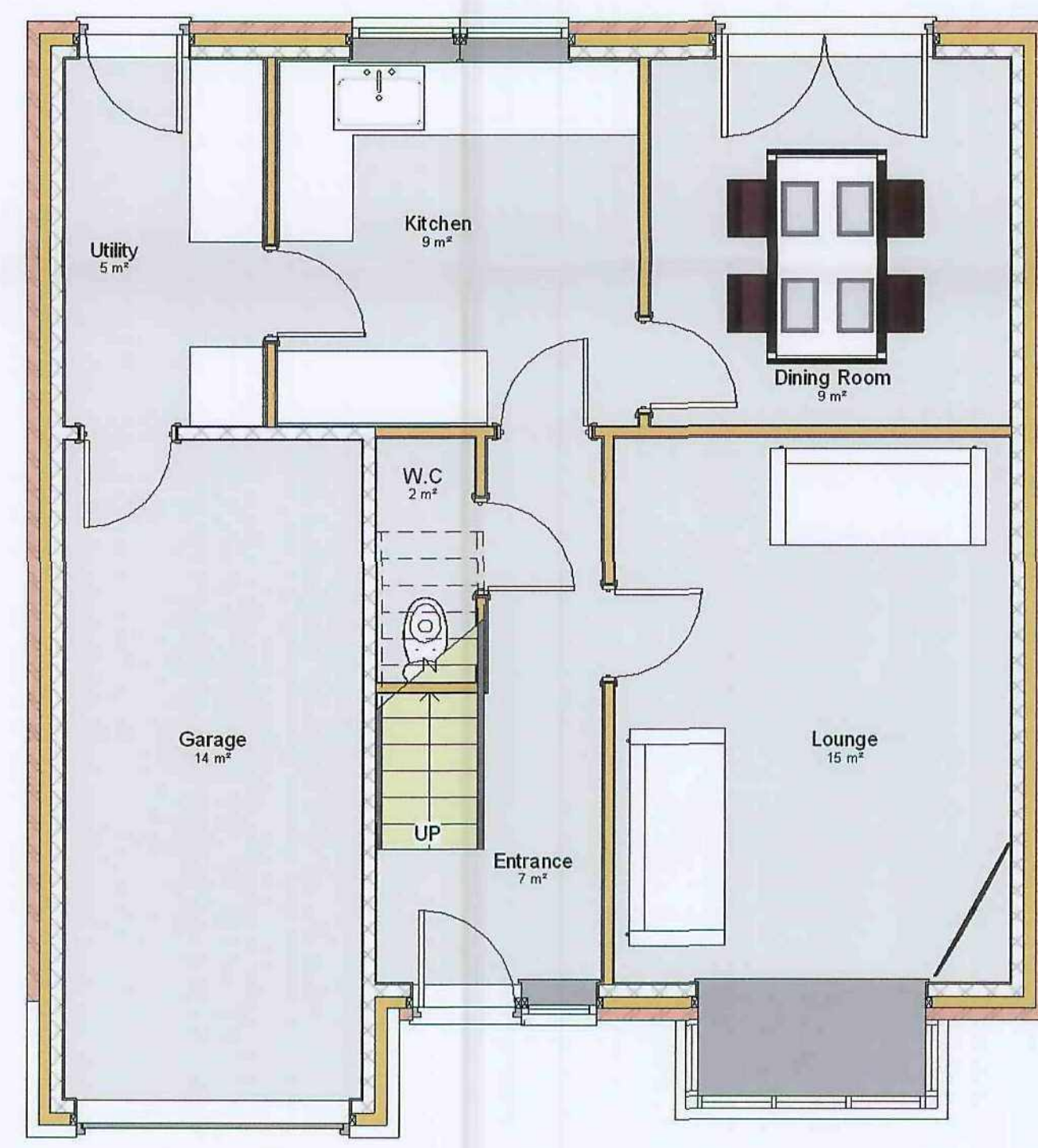
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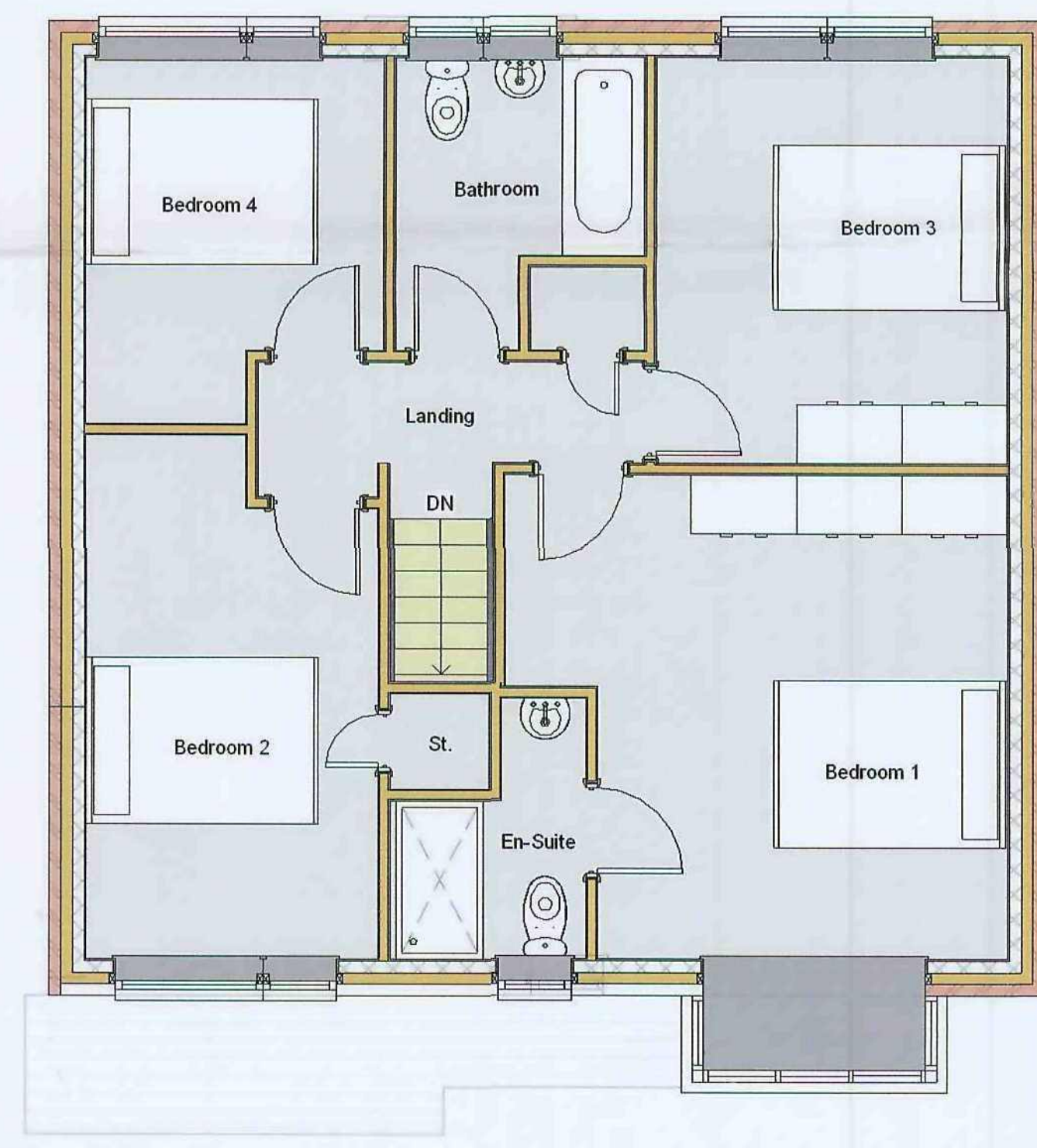


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Brampton



Ground Floor



First Floor



House Type: Brampton
Title: Plans and Elevations
Scale: 1:50/1:100 DRG No: 09/399/08
Date: 23-02-10

Bellway
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North West



North East



South West



South East

