

**Report of Archaeological Watching Brief
October 2004 – March 2005.
Culloden Area Water Mains Renewal Project
Highland.**

Client: Halcrow Group Ltd on behalf of Scottish Water.

**By
Stuart Farrell
B.A A.I.F.A F.S.A.Scot.
April 2005**

Contents

- 1. Introduction**
 - 2. Acknowledgements**
 - 3. Background**
 - 4. Objectives**
 - 5. Method**
 - 6. Watching Brief**
 - 7. Conclusions**
 - 8. Recommendations**
 - 9. Archive**
 - 10. Discovery and Excavation**
 - 11. References**
- Appendix 1 – Photographic Register**

Non-Technical Summary

Stuart Farrell was commissioned by Halcrow Group Ltd in October 2004 to undertake an archaeological watching brief for a number of sections of the Culloden Water Mains Renewal Project, this followed on from a desktop and walkover survey conducted by the author in August 2004.

Work revealed one archaeological deposit, and a previously unrecorded site was noted due to a route change.

No recommendations for further archaeological work have been made.

1. Introduction

This report is for an archaeological watching brief conducted for Halcrow Group Ltd on behalf of Scottish Water by the author for the Culloden Water Mains Renewal Project, Highland.

The fieldwork was conducted between 19th October 2004 and 31st March 2005.

2. Acknowledgements

I would like to thank the following for their help during the work:

- Mr. R Taylor, of Scottish Water Contracting;
- Mrs. L Watts, of Scottish Water Contracting;
- Mr. W Aitken, of Scottish Water Contracting;
- Mr. A Barnett, of Halcrow Group Ltd;
- Staff of Scottish Water Contracting Ltd for onsite work;
- Mr. S Buchanan & Mr. H Robinson, for onsite help.

Stuart Farrell
39a Park Street
Nairn
Highland
IV12 4PP

3. Historical Background

This watching brief was conducted further to a desktop and walkover survey (Farrell, 2004) that revealed a number of previously recorded sites, especially cropmarks in the vicinity of a number of proposed pipeline locations. Unrecorded sites were of a farmstead and a well. It was been recommended for two proposed routes be moved as to avoid two Scheduled Ancient Monument areas, it had also been recommended for four areas of watching brief to be conducted for four sections of proposed work. Subsequently only two sections of watching brief were conducted due to one section being dropped out of the construction schedule and another section being moved further away from that originally proposed.

4. Objectives

To conduct a watching brief on the excavation of the pipe trenches to record those features revealed by excavation work. This work is to include the following:

- Watching brief
- Report on results

5. Methodology

A monitoring was made of the removal of topsoil and subsoil's to an average depth of 200mm. A back-acting machine with a toothed bucket excavated the trenches (all 0.45m wide) with possible archaeological features being cleaned by hand.

Weather on the days of work (October 2004 - March 2005) was generally dull and overcast.

6. Watching Brief Investigation

The watching brief was carried out in accordance with accepted professional archaeological standards as published by the Institute of Field Archaeologists (IFA 1999). Over the construction period a suitably qualified archaeologist was on site to carry out observations and assessment of the area affected by the excavation works. Areas of watching brief marked in blue on maps.

Results

Results were as follows:

Section E – F – Loch Flemington to Stoneyfield NH 80578/51810 to NH 81989/53093 Work Conducted October 19th 2004 – March 31st 2005 (See figures 2-4)

This section had 7 archaeological sites close to the pipeline to include a ring-ditch (also a SAM), cropmarks, henge, cist burial, a palisaded pit-circle (also a SAM) and a circular enclosure. Work was started at Stoneyfield back towards Loch Flemington due farmers planting programme, then moved to start at Loch Flemington.

Overall work did not reveal any archaeological deposits, though a new site was recorded as part of a route change. The new site was comprised of the stone and concrete footings of a L-shaped modern building at NH 81759/52805, trench cut

through a mortar-bonded wall 0.6m wide of dressed sandstone blocks, foundations were evident to an upstanding structure 0.5m high, also revealed were 2 concrete fittings at floor level, buildings function is unknown but probably modern. Overall area around site has seen episodes of leveling and landscaping of dumped soils including modern material. Site is not marked on 1st or 2nd edition Ordnance Survey maps and may be 20th century in date.

Overall natural ground at Stoneyfield was a mixture of sandy-gravel, with inclusions of small to large cobbles whilst natural at Loch Flemington is less granular but more sandier.

Section L – M – Meikle Kildrummie NH 85625/53860 to NH 85575/52885
Work Conducted 17th – 30th March 2005 (See figures 5-6)

This section had 5 archaeological sites close to the pipeline to include two ring-ditches, a barrow and enclosure (all a SAM), cropmarks, and a cairn.

Work revealed one archaeological feature at NH 85876/53476, being 1.5m E of existing fence line. Deposit was a charcoal stained black fill over natural ground of orange-brown sandy-gravel, with inclusions of small cobbles. At a depth of 0.5m below existing ground surface, 2.1m in length and of a maximum depth of 0.2m. Deposit was not visible on W-facing section of trench, no indication of any cut and may only be a deposit. No finds made, though likely to be prehistoric in date.

Below: View of deposit facing SW – scale 2m.



Appendix 1 – Photographic Register

1 – View of work in progress at Stoneyfield facing SW.	19-10-2004
2 – View of work in progress at Stoneyfield facing NE.	20-10-2004
3 – View of work in progress at Stoneyfield facing NE.	20-10-2004
4 – View of stone footings facing NW – scale 1m.	21-10-2004
5 – View of concrete footings facing NE – scale 1m.	21-10-2004
6 – General shot of building facing S.	21-10-2004
7 – View of work in progress at Stoneyfield facing NE.	21-10-2004
8 – View of work in progress at Stoneyfield facing SSW.	21-10-2004
9 – View of work in progress at Stoneyfield facing ENE.	22-10-2004
10 – View of work in progress at Stoneyfield facing SW.	25-10-2004
11 – View of completed work at Loch Flemington facing SW.	26-10-2004
12 – View of completed work at Loch Flemington facing SW.	27-10-2004
13 – View of work in progress at Loch Flemington facing NE.	27-10-2004
14 – View of work in progress at Loch Flemington facing W.	28-10-2004
15 – View of work completed work at Loch Flemington facing NE.	29-10-2004
16 – View of local wildlife at Loch Flemington.	29-10-2004
17 – View of work in progress at Loch Flemington facing W.	29-10-2004
18 – View of work in progress at Loch Flemington facing NW.	29-10-2004
19 – View of work in progress at Loch Flemington facing E.	29-10-2004
20 – View of work in progress at Loch Flemington facing E.	3 -11-2004
21 – View of route by site 2 at Loch Flemington facing W.	3 -11-2004
22 – View of work in progress at Kinchyle facing S.	17-3 -2005
23 – View of work in progress at Kinchyle facing N.	17-3 -2005
24 – View of excavated trench at Kinchyle facing S.	19-3 -2005
25 – View of excavated trench at Kinchyle facing W.	19-3 -2005
26 – Detail of feature 1 facing SW – scale 2m.	21-3 -2005
27 – Detail of feature 1 facing SSW – scale 2m.	21-3 -2005
28 – Detail of feature 1 facing SW – scale 2m.	21-3 -2005
29 – Detail of feature 1 facing SSW – scale 2m.	21-3 -2005
30 – Detail of feature 1 facing S – scale 2m.	21-3 -2005
31 – Detail of feature 1 facing W – scale 2m.	21-3 -2005
32 – View of work in progress at Kinchyle facing E.	29-3 -2005
33 – View of work in progress at Kinchyle facing W.	29-3 -2005
34 – View of work in progress at Kinchyle facing SW.	29-3 -2005
35 – View of work in progress at Loch Flemington facing W.	30-3 -2005
36 – View of work in progress at Loch Flemington facing SE.	30-3 -2005
37 - View of work in progress at Loch Flemington facing W.	31-3 -2005

7. Conclusions

Overall although limited in results, the work undertaken has been a factor in partially better understanding the sites already recorded. The area of watching-brief around Meikle Kildrummie, for instance, shows that the barrows/ring-ditches are sited mostly on a prominent ridge and probably sit alone in the landscape and are not surrounded by any kind of settlement.

8. Recommendations

No recommendations with regard any further fieldwork for this project is to be proposed due to the no features being revealed, and that no further work is required.

9. Archive

The following is to be deposited in the National Monuments Record in Edinburgh:

- Notebook of results
- Copy of this report

A set of colour slides showing the progress of the work has been deposited with Highland Council Sites and Monuments Record.

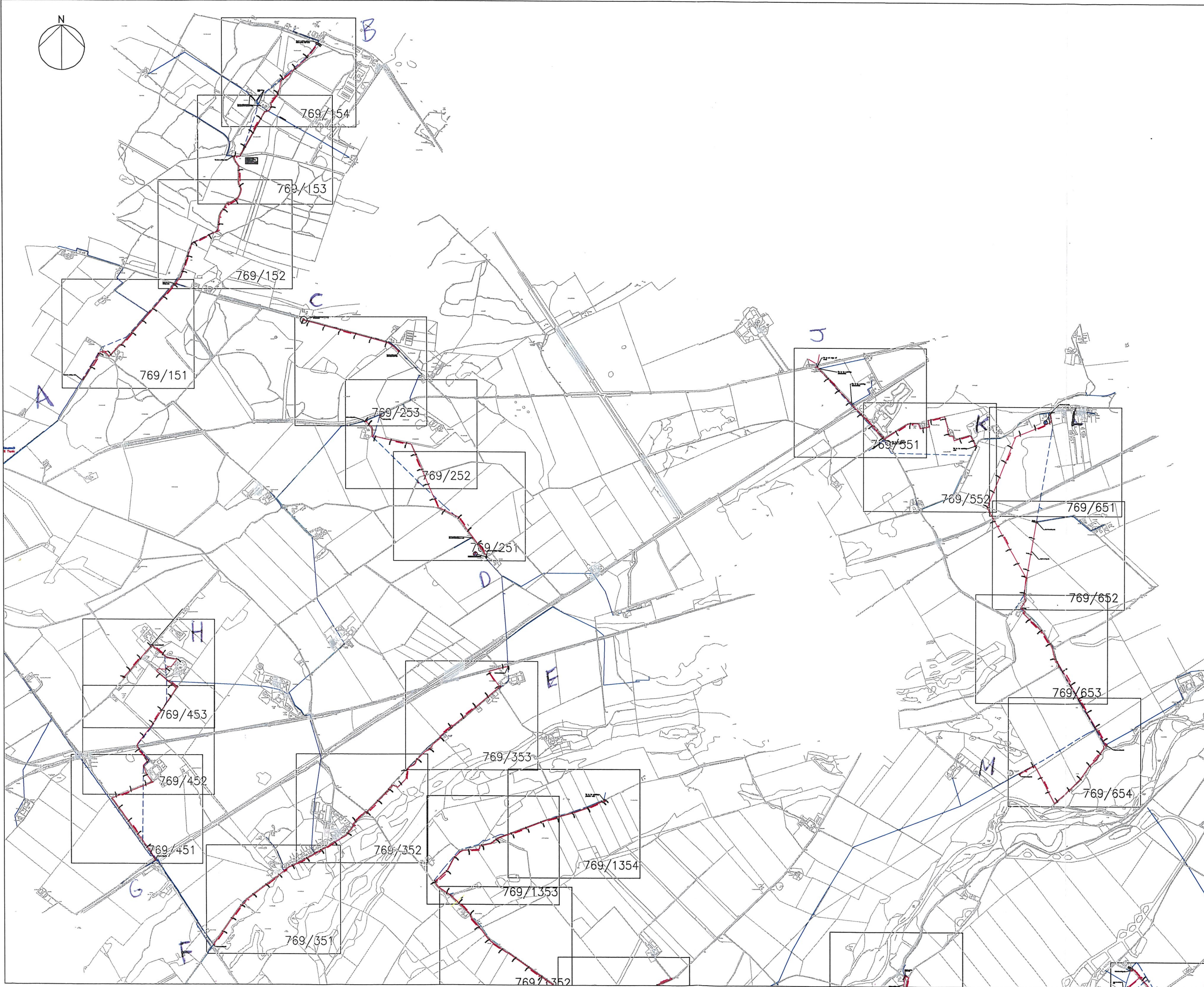
10. Discovery & Excavation in Scotland

A short summary of the results of this project will be submitted to the Council for Scottish Archaeology's publication *Discovery & Excavation in Scotland*.

11. References

Farrell, S (2004) Report of Archaeological Desktop & Walkover Survey Culloden Area Water Mains Renewal Project, Highland. Unpublished report – copy held in HSMR and NMRS.

IFA (1999) By-laws, Standards and Policy Statements of the Institute of Field Archaeologists. Reading.



Key Plan:

Legend:

- Existing Main (In use)
- Distribution Main
- Existing Mains (To be abandon)
- Mains (Proposed)
- DAV - Air Valve Double (DAV)
- SAV - Air Valve Single (SAV)
- WOH - Hydrant: Terminal (WOH)
- FH - Hydrant: Fire (FH)
- BB - Stopcock (Boundary box)
- SP - Sample Point (SP)
- PRV - Pressure Reducing Valve (PRV)
- WOV - Washout (Scour) Valve (WOV)
- SV - Control Valve (SV)
- PRV - Pressure Relief Valve (PRV)
- BM - Bulk Meter (BM)
- RM - Revenue Meter (RM)

Rev	By	Chkd	Appvd	Date	Description
A	AR	IM	AB	11/04	Route changes

Client
SCOTTISH WATER
Torrion House
Beechwood Business Park
Inverness
IV1 3BW
TELE: 01463 228100
FAX: 01463 228102

Halcrow Group Limited
Neville House, Beechwood Business Park, Inverness IV2 3BW
Tel 01463 231707 Fax 01463 243726
www.halcrow.com

Halcrow

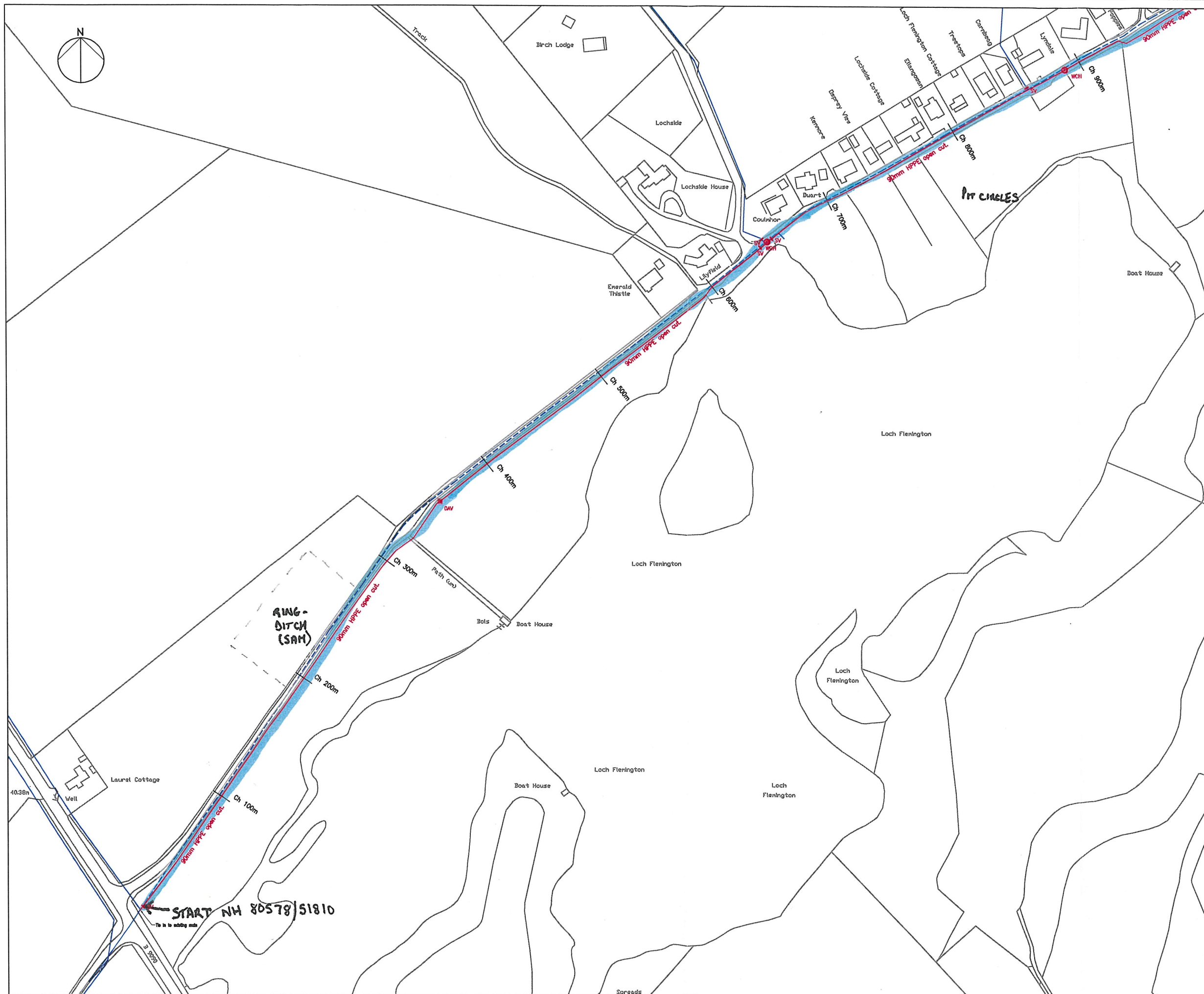
Project
WATER MAIN RENEWAL PROJECT
WATER SUPPLY ZONE -
CULLODEN

Drawing
OVERALL LAYOUT PLAN
SHEET 1

Drawn by: AR	Date: AUG 2004
Checked by: IMM	Date: AUG 2004
Approved by: AB	Date: AUG 2004

Drawing No.	Revision
WSWMP/769/100_01	A

Drawing Scale: AS SHOWN



Key Plan:

Legend:

- Existing Main (In use)
- Distribution Main
- Existing Mains (To be abandoned)
- Mains (Proposed)
- DAV ◆ Air Valve Double (DAV)
- SAV ◇ Air Valve Single (SAV)
- WOH ⊙ Hydrant: Terminal (WOH)
- FH ● Hydrant: Fire (FH)
- BB ⊥ Stopcock (Boundary box)
- SP ● Sample Point (SP)
- PRV ■ Pressure Reducing Valve (PRV)
- WOV ⊥ Washout (Scour) Valve (WOV)
- SV ⊥ Control Valve (SV)
- PRV ■ Pressure Relief Valve (PRV)
- BM ■ Bulk Meter (BM)
- RM ■ Revenue Meter (RM)

SCOTTISH WATER SOLUTIONS
I hereby certify that this is the drawing
referred to in my letter of _____
and signed relative hereto.

Signed _____
Date _____

Rev	By	Chkd	Apprd	Date	Description

Client		SCOTTISH WATER	
Halcrow Group Limited		Torridon House	
Newis House, Beechwood Business Park, Inverness IV2 3BW		Beechwood Business Park	
Tel: 01463 231707 Fax: 01463 243725		Inverness	
www.halcrow.com		N1 3B	
		TELE: 01463 228100	
		FAX: 01463 228102	

Halcrow Group Limited
Newis House, Beechwood Business Park, Inverness IV2 3BW
Tel: 01463 231707 Fax: 01463 243725
www.halcrow.com

Halcrow

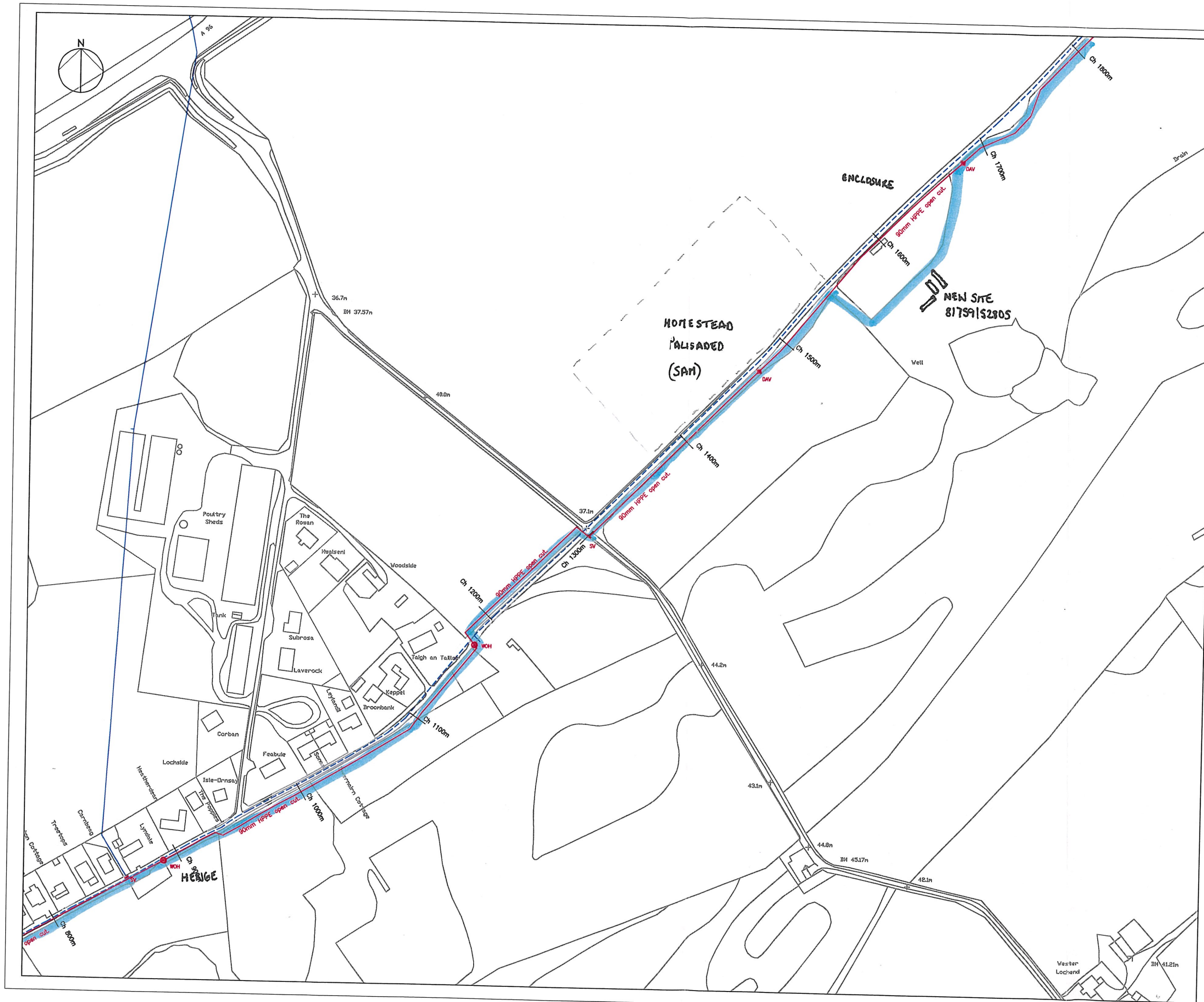
Project
WATER MAIN RENEWAL PROJECT
WATER SUPPLY ZONE -
CULLODEN
NODES E-F

Drawing
CONSTRUCTION PLAN
SHEET 1

Drawn by: AR Date: AUG 2004
Checked by: IMM Date: AUG 2004
Approved by: AB Date: AUG 2004

Drawing No. WSWMRP/769/351 Revision 0

Drawing Scale: AS SHOWN



Key Plan:

Legend:

- Existing Main (In use)
- Distribution Main
- Existing Mains (To be abandoned)
- Mains (Proposed)
- DAV - Air Valve Double (DAV)
- SAV - Air Valve Single (SAV)
- WOH - Hydrant: Terminal (WOH)
- FH - Hydrant: Fire (FH)
- BB - Stopcock (Boundary box)
- SP - Sample Point (SP)
- PRV - Pressure Reducing Valve (PRV)
- WOV - Washout (Scour) Valve (WOV)
- SV - Control Valve (SV)
- PRV - Pressure Relief Valve (PRV)
- BM - Bulk Meter (BM)
- RM - Revenue Meter (RM)

SCOTTISH WATER SOLUTIONS
I hereby certify that this is the drawing referred to in my letter of and signed receive hereto.
Signed
Date

Rev	By	Chkd	Apprd	Date	Description

Client
SCOTTISH WATER

SCOTTISH WATER
Territon House
Beechwood Business Park
Inverness
IV1 3JH
TEL: 01463 228100
FAX: 01463 228102

Halcrow Group Limited
Nerva House, Beechwood Business Park, Inverness IV2 3BW
Tel: 01463 231707 Fax: 01463 243725
www.halcrow.com

Halcrow

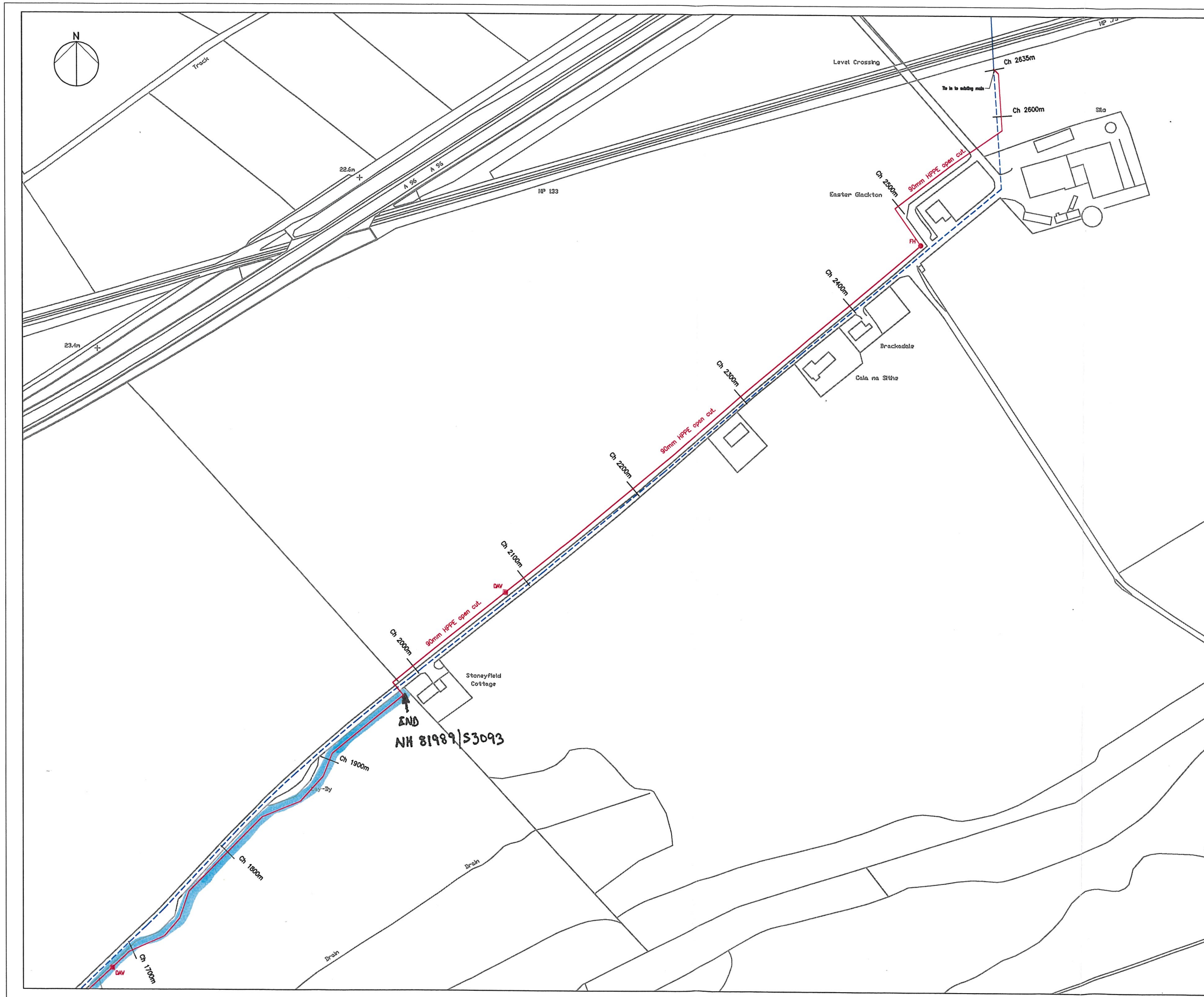
Project
WATER MAIN RENEWAL PROJECT
WATER SUPPLY ZONE -
CULLODEN
NODES E-F

Drawing
CONSTRUCTION PLAN
SHEET 2 **3**

Drawn by: AR Date: AUG 2004
Checked by: IMM Date: AUG 2004
Approved by: AB Date: AUG 2004

Drawing No. **WSWMP/769/352** Revision **0**

Drawing Scale: AS SHOWN



Key Plan:

Legend:

- Existing Main (In use)
- Distribution Main
- Existing Mains (To be abandoned)
- Mains (Proposed)
- DAV - Air Valve Double (DAV)
- SAV - Air Valve Single (SAV)
- WOH - Hydrant: Terminal (WOH)
- FH - Hydrant: Fire (FH)
- BB - Stopcock (Boundary box)
- SP - Sample Point (SP)
- PRV - Pressure Reducing Valve (PRV)
- WOV - Washout (Scour) Valve (WOV)
- SV - Control Valve (SV)
- PRV - Pressure Relief Valve (PRV)
- BM - Bulk Meter (BM)
- RM - Revenue Meter (RM)

SCOTTISH WATER SOLUTIONS
I hereby certify that this is the drawing
referred to in my letter of
and signed relative hereto.

Signed
Date

Rev	By	Chkd	Apprd	Date	Description
-----	----	------	-------	------	-------------

Client
SCOTTISH WATER
Terridon House
Beachwood Business Park
Inverness
IV1 3BW
TELE: 01463 228100
FAX: 01463 228102

Halcrow Group Limited
Nevis House, Beachwood Business Park, Inverness IV2 3BW
Tel: 01463 231707 Fax: 01463 243725
www.halcrow.com

Halcrow

Project
WATER MAIN RENEWAL PROJECT
WATER SUPPLY ZONE -
CULLODEN
NODES E-F

Drawing
CONSTRUCTION PLAN
SHEET 3

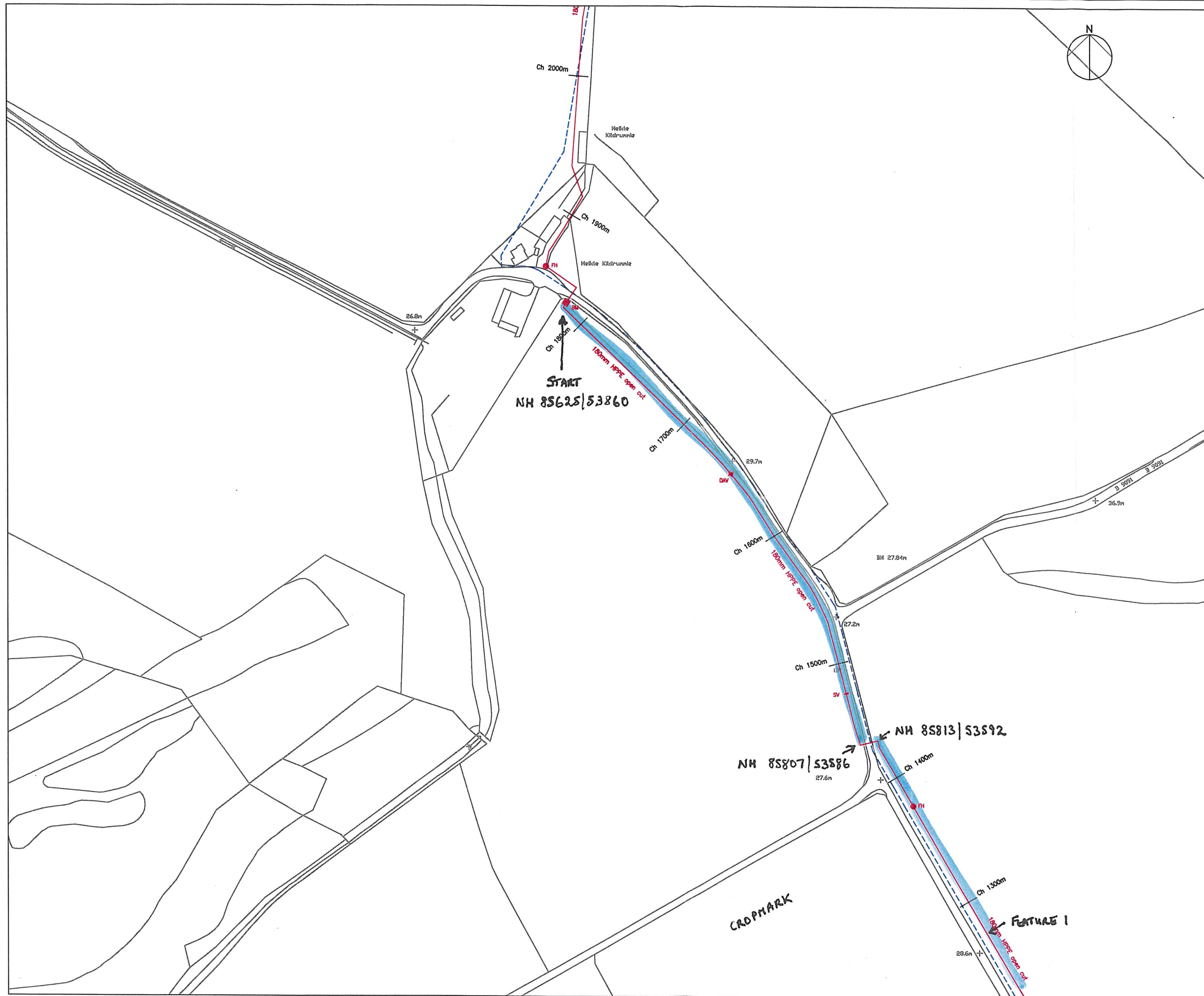
Drawn by: AR Date: AUG 2004
Checked by: IMM Date: AUG 2004
Approved by: AB Date: AUG 2004

Drawing No.
WSWMRP/769/353

Revision
0

Drawing Scale: AS SHOWN

Produced by: J. Brown
Reviewed by: J. Brown
User and Print Date



Key Plan:

Legend:

- Existing Main (In use)
- Distribution Main
- Existing Mains (To be abandoned)
- Mains (Proposed)
- DAV - Air Valve Double (DAV)
- SAV - Air Valve Single (SAV)
- WOH - Hydrant: Terminal (WOH)
- FH - Hydrant: Fire (FH)
- BB - Stopcock (Boundary box)
- SP - Sample Point (SP)
- PRV - Pressure Reducing Valve (PRV)
- WOV - Washout (Scour) Valve (WOV)
- SV - Control Valve (SV)
- PRV - Pressure Relief Valve (PRV)
- BM - Bulk Meter (BM)
- RM - Revenue Meter (RM)

Rev	By	Chkd	Apprd	Date	Description

Client: SCOTTISH WATER
 Torridge House
 Beechwood Business Park
 Inverness
 Tel: 01463 231707 Fax: 01463 243725
 Email: info@scottishwater.co.uk

Halcrow Group Limited
 Nevill House, Beechwood Business Park, Inverness IV2 3BW
 Tel: 01463 231707 Fax: 01463 243725
 www.halcrow.com

Halcrow

Project: WATER MAIN RENEWAL PROJECT
 WATER SUPPLY ZONE - CULLODEN
 NODES L-M

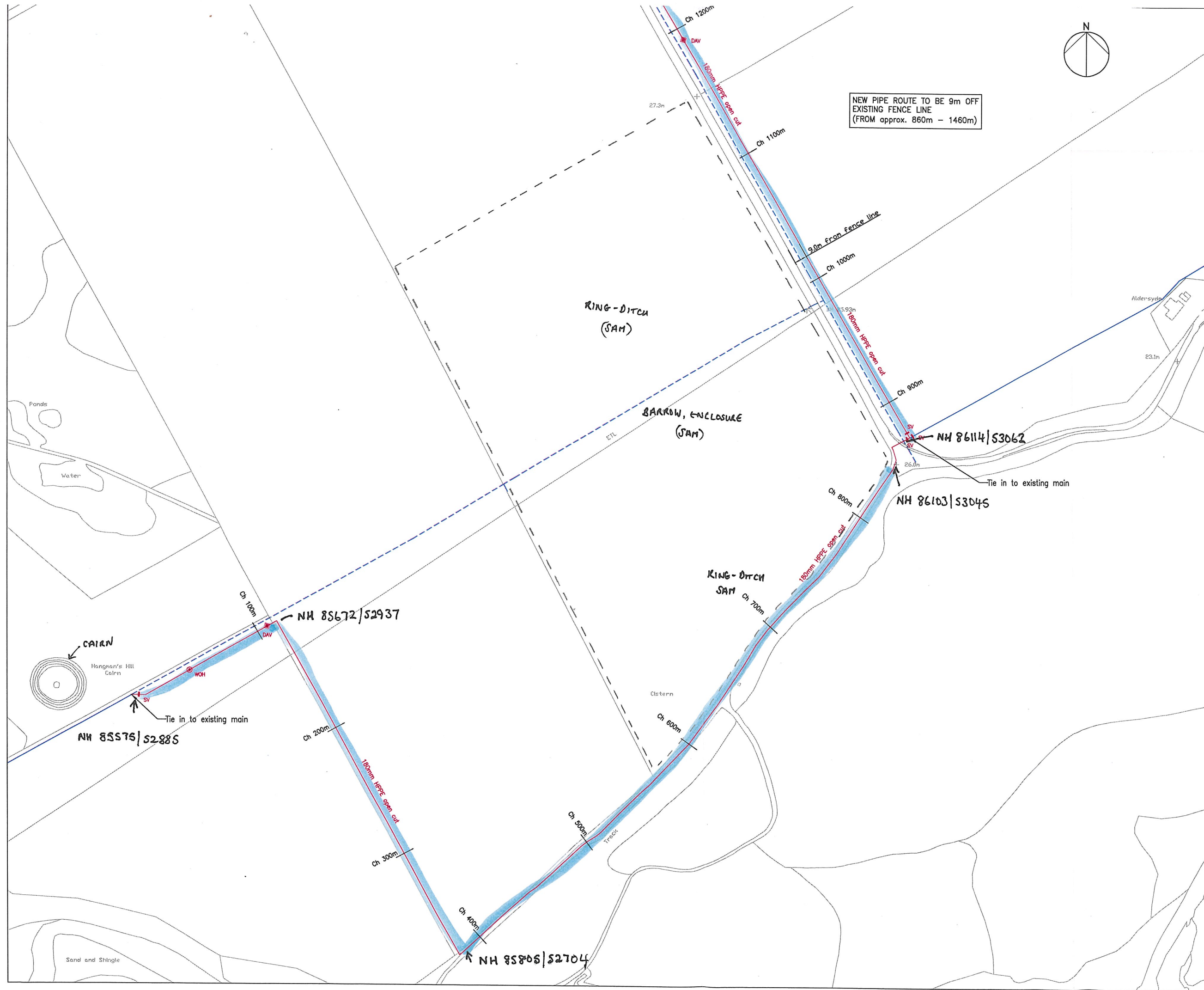
Drawing: CONSTRUCTION PLAN
 SHEET 2

Drawn by: AR Date: AUG 2004
 Checked by: IMM Date: AUG 2004
 Approved by: AB Date: AUG 2004

Drawing No. WSWMRP/769/652 Revision 0

Drawing Scale: AS SHOWN

Scale: 1:1000
 Date: 01/08/2004
 User and Plot Data



Key Plan:

Legend:

- Existing Main (In use)
- Distribution Main
- ... Existing Mains (To be abandoned)
- Mains (Proposed)
- DAV — Air Valve Double (DAV)
- SAV — Air Valve Single (SAV)
- WOH — Hydrant: Terminal (WOH)
- FH — Hydrant: Fire (FH)
- BB — Stopcock (Boundary box)
- SP — Sample Point (SP)
- PRV — Pressure Reducing Valve (PRV)
- WOV — Washout (Scour) Valve (WOV)
- SV — Control Valve (SV)
- PRV — Pressure Relief Valve (PRV)
- BM — Bulk Meter (BM)
- RM — Revenue Meter (RM)

B	AR	IM	AB	23/12	Valves added
A	AR	IM	AB	11/04	Pipe route changed & note added
Rev	By	Chkd	Apprd	Date	Description

Client
SCOTTISH WATER
Scottish Water
Torrion House
Beechwood Business Park
Inverness
IV1 3BW
TELE: 01463 228100
FAX: 01463 228102

Halcrow Group Limited
Neville House, Beechwood Business Park, Inverness IV2 3BW
Tel: 01463 231707 Fax: 01463 243726
www.halcrow.com

Halcrow

Project
WATER MAIN RENEWAL PROJECT
WATER SUPPLY ZONE -
CULLODEN
NODES L-M

Drawing
CONSTRUCTION PLAN
SHEET 1

Drawn by: AR Date: AUG 2004
Checked by: IMM Date: AUG 2004
Approved by: AB Date: AUG 2004

Drawing No. WSWMRP/769/651 Revision B

Drawing Scale: AS SHOWN