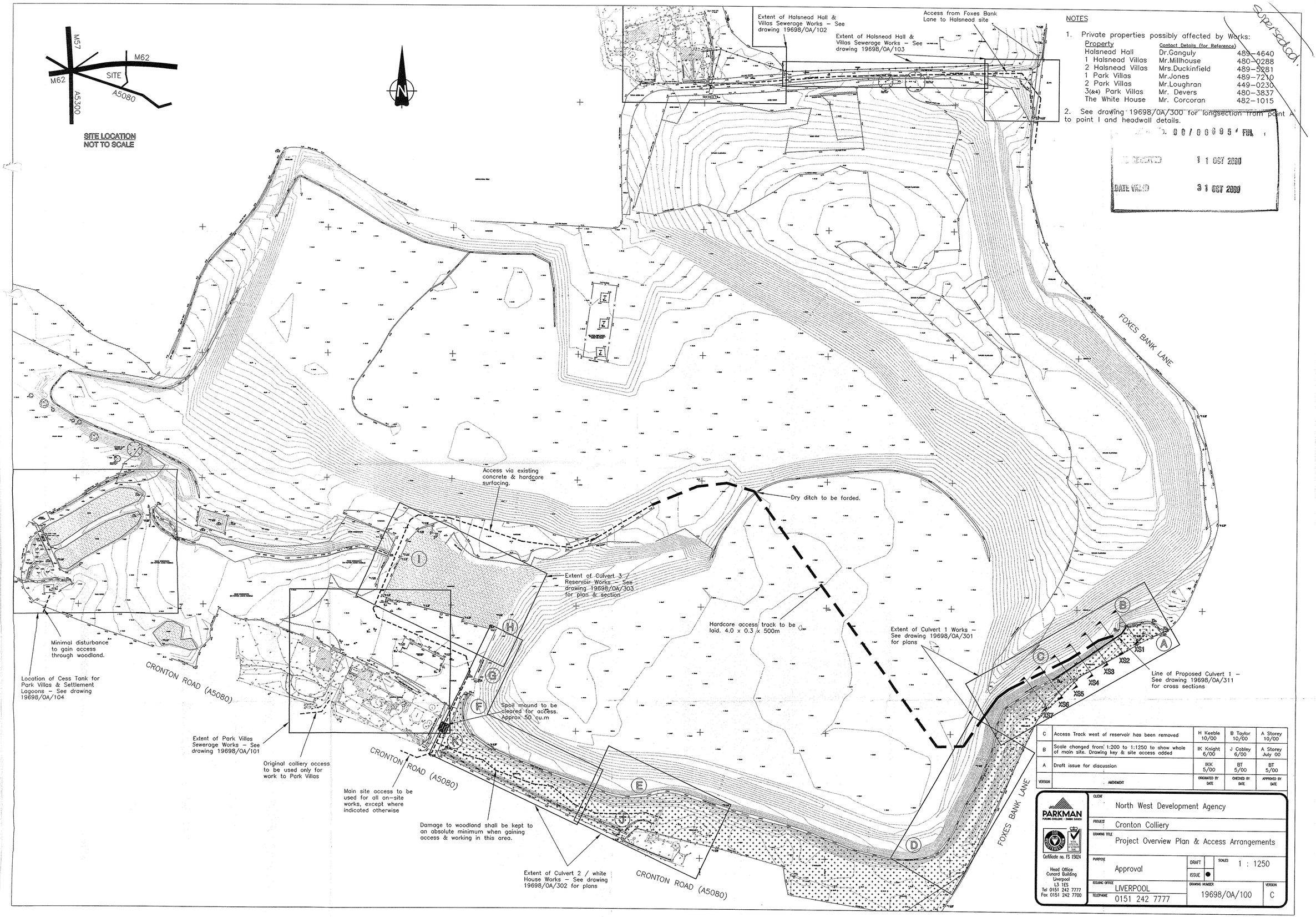

NOTES

1. Private properties possibly affected by Works:

Property	Contact Details (for Reference)	
Halsnead Hall	Dr.Ganguly	489-4640
1 Halsnead Villas	Mr.Millhouse	480-0288
2 Halsnead Villas	Mrs.Duckinfield	489-5281
1 Park Villas	Mr.Jones	489-7210
2 Park Villas	Mr.Loughran	449-0230
3(&4) Park Villas	Mr. Devers	480-3837
The White House	Mr. Corcoran	482-1015

2. See drawing 19698/OA/300 for longsection from point A to point I and headwall details.

Superseded.

00/00695 FUL
RECEIVED 11 OCT 2000
DATE VALID 31 OCT 2000

VERSION	AMENDMENT	ORIGINATED BY DATE	CHECKED BY DATE	APPROVED BY DATE
C	Access Track west of reservoir has been removed	H Keeble 10/00	B Taylor 10/00	A Storey 10/00
B	Scale changed from 1:200 to 1:1250 to show whole of main site. Drawing key & site access added	IK Knight 6/00	J Cobley 6/00	A Storey July 00
A	Draft issue for discussion	IKK 5/00	BT 5/00	BT 5/00

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PLANNING CONSULTANTS • DRAWING BUSINESS

Certificate no. FS 15024

Head Office
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Tel 0151 242 7777
Fax 0151 242 7700

CLIENT: North West Development Agency

PROJECT: Cronton Colliery

DRAWING TITLE: Project Overview Plan & Access Arrangements

PURPOSE: Approval

DRAFT / ISSUE ●

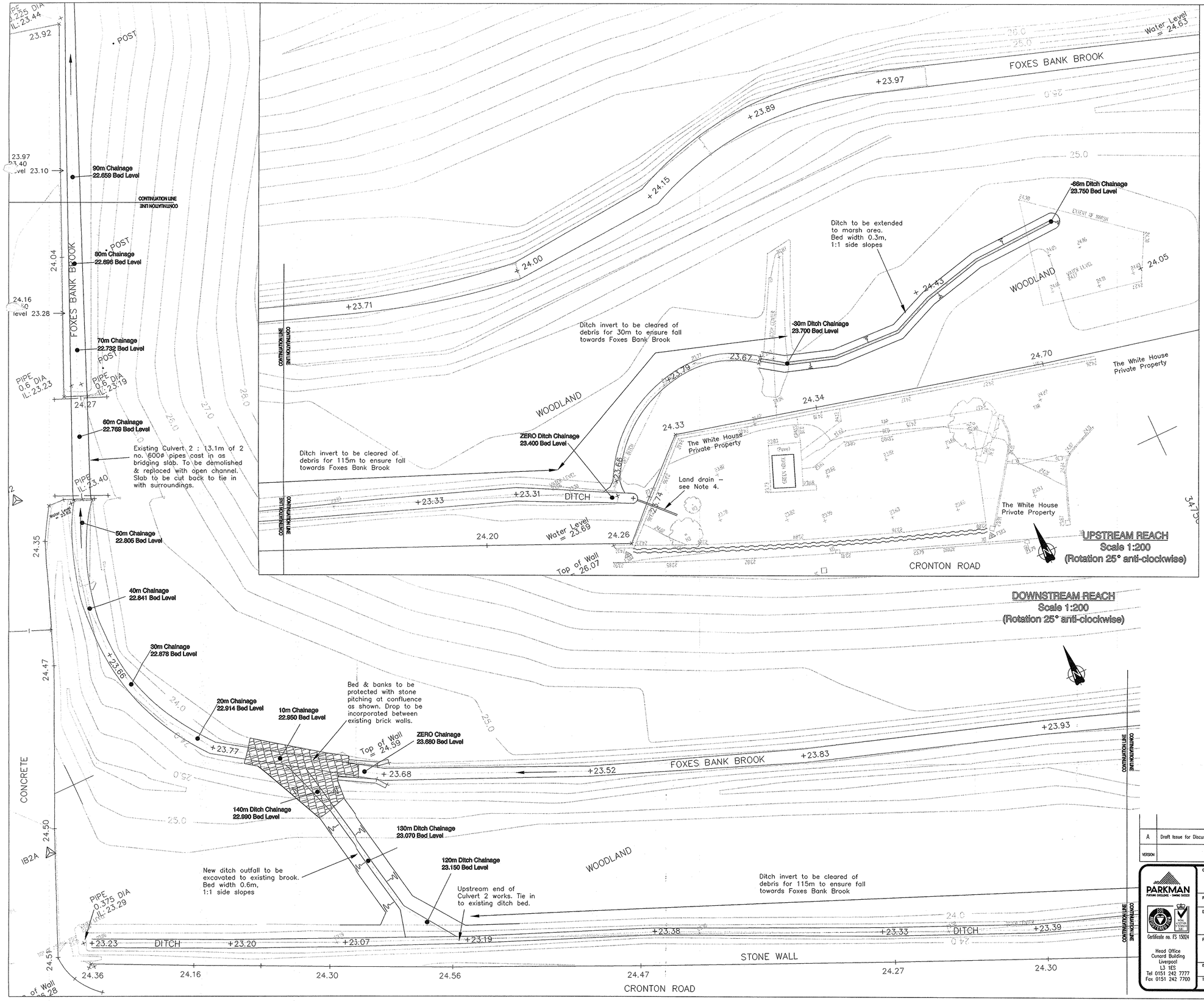
SCALES: 1 : 1250

ISSUING OFFICE: LIVERPOOL

TELEPHONE: 0151 242 7777

DRAWING NUMBER: 19698/OA/100

VERSION: C



NOTES

1. Levels taken from survey data supplied by Total Surveys Ltd., dated 14 Dec. 1998 & Formby Surveys Ltd., dated April 2000. Contours and cross sections have been interpolated using ground modelling software and should be checked on site prior to works.

2. Culvert 2 is to be demolished as part of the works. The existing bridge is to be cut back to tie in with the surroundings.

3. Proposed ground levels are to match existing as near as possible. The banks of the proposed brook & ditch channel are to be at 1:1 side slopes as far as is required to tie in with existing ground.

4. 5m of 150ø perforated clay pipe to The White House garden, downstream invert level 23.500m, laid at 1:500, in 300mm granular bed & surround. (Wall foundations must not be weakened due to the works.) Porous end cap to be fitted at upstream end to prevent soil/stone ingress.

11 OCT 2000

31 OCT 2000

PLAN DISPLAYED AT COMMITTEE

Date 30.11.00

VERSION	AMENDMENT	ORIGINATED BY DATE	CHECKED BY DATE	APPROVED BY DATE
A	Draft Issue for Discussion	IK Knight 6/00	J Cobley Jun 2000	ARS July 2000

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CLIENT	North West Development Agency
PROJECT	Cronton Colliery
DRAWING TITLE	Regrading of Foxes Bank Brook Plan
PURPOSE	Tender
DRAFT / ISSUE	●
SCALES	1:200
ISSUING OFFICE	LIVERPOOL
TELEPHONE	0151 242 7777
DRAWING NUMBER	19698/OB/302
VERSION	A

Application No. 00/00095/FUL
DATE RECEIVED 11 OCT 2000
DATE VALID 31 OCT 2000

PLANTATION EDGING

Existing high level ditch over line of proposed culvert. Finished ground to be graded to prevent water from standing. See drawing 19698/OB/311

Existing culvert has no outfall headwall. New headwall to be constructed as shown.

Line of Proposed Culvert 1 – see note 5

Replacement headwall to be provided. Channel to be benched into slab to guide flows.
25.020 Bed Level
24.770 Culvert Invert

Existing retaining wall to remain.

Existing headwall to be demolished.

PIPE 0.9 DIA IL 25.38

150m Chainage 24.730 Bed Level
140m Chainage 24.755 Bed Level
130m Chainage 24.780 Bed Level
120m Chainage 24.805 Bed Level
110m Chainage 24.830 Bed Level
100m Chainage 24.855 Bed Level
24.605 Culvert Invert
90m Chainage 24.880 Bed Level
24.630 Culvert Invert
80m Chainage 24.905 Bed Level
24.655 Culvert Invert..
70m Chainage 24.930 Bed Level
24.680 Culvert Invert
60m Chainage 24.955 Bed Level
24.705 Culvert Invert
50m Chainage 24.980 Bed Level
24.730 Culvert Invert
40m Chainage 25.005 Bed Level
24.855 Culvert Invert
30m Chainage 25.030 Bed Level
20m Chainage 25.055 Bed Level
10m Chainage 25.080 Bed Level
0m Chainage 25.105 Bed Level

Pre-cast 11.25° bend. 24.997 Bed Level 24.747 Culvert Invert

Top of Wall = 28.93

FOXES BANK BROOK

DITCH

WOODLAND

STONE WALL

PIPE 0.1 DIA IL 25.82

PIPE 0.3 DIA IL 25.83

SOFFIT

CONTINUATION LINE

CONTINUATION LINE

160m Chainage 24.705 Bed Level
170m Chainage 24.680 Bed Level

CAUTION : Existing overhead power cables.

ASSUMED centreline of existing Culvert 1, taken from EA Inspection Report dated 10th Feb 2000.
72m of 900ø pipe in poor condition.
All details to be confirmed on site prior to commencement of works.
See note 3.

FOXES BANK LANE

UPSTREAM REACH
Scale 1:200
(Rotation 30° clockwise)

Existing culvert outlet via stone arch.
Crown level 26.54
Soffit level 26.14
Bed level 25.453
Hard invert level 25.106
Width 1.75

Existing culvert from Bluebell Farm under Foxes Bank Road to be de-silted during works.
Approximate silt volume
= 1.8 x 0.3 x 10m = 5.4cu.m

Downstream end of Culvert 1 works. Proposed bed level to tie in to existing.
310m Chainage 24.330 Bed Level

300m Chainage 24.335 Bed Level
290m Chainage 24.380 Bed Level
280m Chainage 24.405 Bed Level
270m Chainage 24.430 Bed Level
260m Chainage 24.455 Bed Level
250m Chainage 24.480 Bed Level
240m Chainage 24.505 Bed Level
230m Chainage 24.530 Bed Level
220m Chainage 24.555 Bed Level
210m Chainage 24.580 Bed Level
200m Chainage 24.605 Bed Level
190m Chainage 24.630 Bed Level
180m Chainage 24.655 Bed Level

Brook to be regraded to 1:400 from Foxes Bank Lane for 310m to levels indicated thus:

Water Level = 25.00

FOXES BANK BROOK

POOL

STONE WALL

FOXES BANK LANE

DOWNSTREAM REACH
Scale 1:200
(Rotation 60° clockwise)

NOTES

1. Levels taken from survey data supplied by Total Surveys Ltd., dated 14 Dec. 1998. Contours and cross sections have been interpolated using ground modelling software and should be checked on site prior to works.

2. This drawing to be read in conjunction with drawings 19698/OB/300 & 311.

3. The contractor should note the the line of the existing culvert has not been confirmed. He may, however, utilise the existing culvert, if the location is suitable, for dealing with flows during construction of the proposed 1800ø culvert and to suit his method of working. Caution should be exercised on site to prevent collapse of the existing culvert due to increased overburden.

4. Proposed ground levels are to match existing as near as possible, with the exception of the higher level ditch shown in sections XS4 & XS5, which is to be graded out such that it does not hold water. The banks of the proposed brook channel are to be at 1:1 side slopes as far as is required to tie in with existing ground.

5. The proposed culvert is to consist of 1800ø Class 'M' PCC pipe, laid to a gradient of 1:400 in an 'S' bed and surround. Cover is to be re-instated to a minimum depth of 0.7m. Construction plant should be prevented from travelling over the completed culvert.

6. The pipe & bedding details indicated above have been determined on the assumption that the cover to the pipe will not exceed 4.0m at any time in the future. If it is proposed to exceed this limit during future works, measures to ensure the structural integrity of the culvert must be incorporated into those works.

7. The contractor will be made aware of trees in the work area which are subject to preservation orders. These trees should be clearly indicated on site and works may need to be modified to avoid damage to them.

8. A headwall and screen will be required at each end of the proposed culvert.

9. Access to the work area will be possible at the upstream end only. The brook regrading works are to be carried out from the bank. Temporary bridging may need to be used for the relaying of the culvert.

PLAN DISPLAYED AT COMMITTEE
Date 30.11.00

VERSION	AMENDMENT		ORIGINATED BY DATE	CHECKED BY DATE	APPROVED BY DATE
A		JMD 8/00	J Cobley 8/00	J Cobley 8/00	

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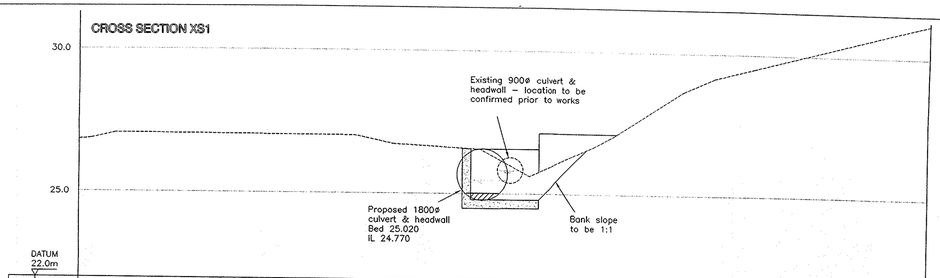
CLIENT: North West Development Agency
PROJECT: Cronton Colliery – Foxes Bank Brook
DRAWING TITLE: Works to Culvert No. 1 Plan
PURPOSE: Tender
DRAFT / ISSUE ●
SCALES: 1:200
ISSUING OFFICE: LIVERPOOL
TELEPHONE: 0151 242 7777
DRAWING NUMBER: 19698/OB/301
VERSION: A

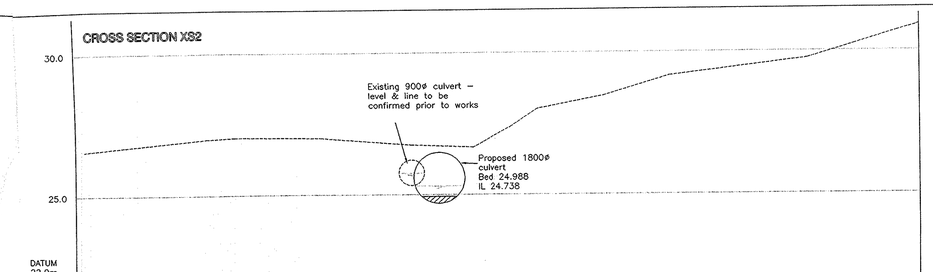
CROSS SECTION XS1



DATUM 22.0m

CHAINAGE	0.000		5.000		10.000		15.000		20.000		25.000	30.000
EXISTING LEVEL	26.833	26.864	27.064	27.048	27.038	27.031	26.984	26.740	26.560	26.093	25.622	26.675	27.066	27.788	28.663	29.142	29.507	29.831	31.179

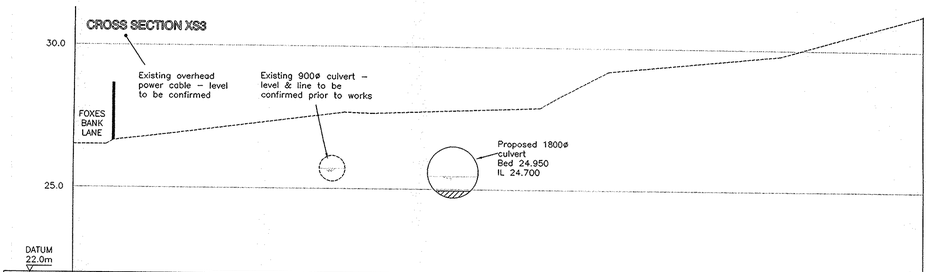
CROSS SECTION XS2



DATUM 22.0m

CHAINAGE	0.000	0.342	5.000		10.000		15.000		20.000		25.000	30.000
EXISTING LEVEL	26.580	26.991	27.005	27.039	27.000	26.910	26.761	26.676	27.112	27.403	28.012	28.475	28.819	29.161	29.618	29.743	30.236	30.678	30.903

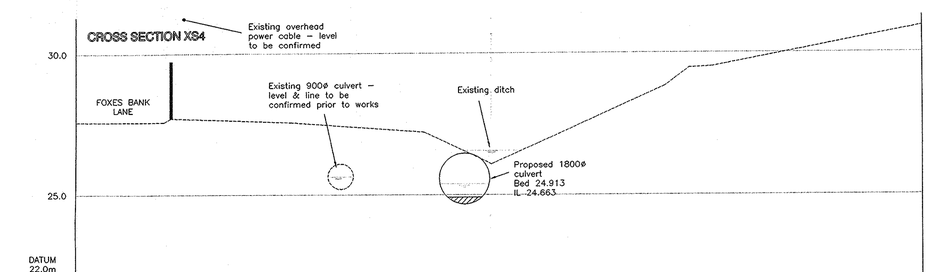
CROSS SECTION XS3



DATUM 22.0m

CHAINAGE	0.000	2.397	5.000	10.000	15.000	20.000	25.000	30.000
EXISTING LEVEL	26.765	26.880	27.095	27.684	27.685	27.650	27.829	27.885	29.177	29.290	29.805	30.385	31.018	31.265

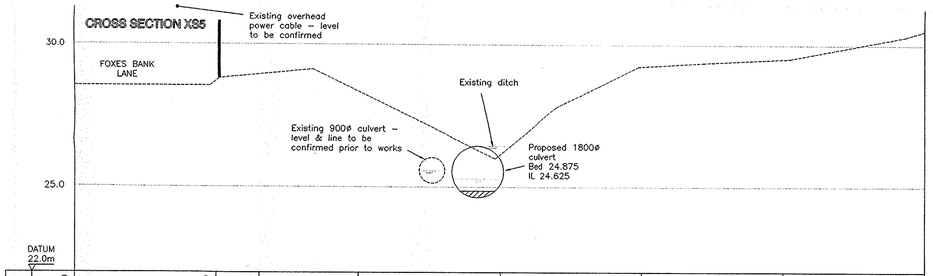
CROSS SECTION XS4



DATUM 22.0m

CHAINAGE	0.000	4.104	5.000	10.000	15.000	20.000	25.000	30.000
EXISTING LEVEL	27.689	27.656	27.561	27.388	27.214	26.987	26.190	28.417	28.831	29.462	29.503	29.966	30.926

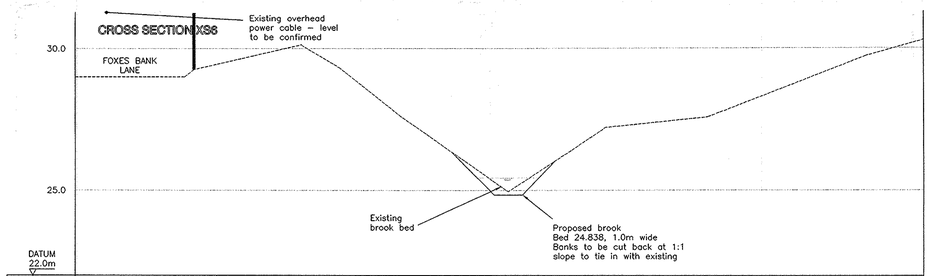
CROSS SECTION XS5



DATUM 22.0m

CHAINAGE	0.000	5.000	6.506	10.000	15.000	20.000	25.000	30.000
EXISTING LEVEL	28.939	29.125	28.946	28.345	26.001	26.157	27.801	29.230	29.236	29.379	29.518	29.530	30.312	30.514

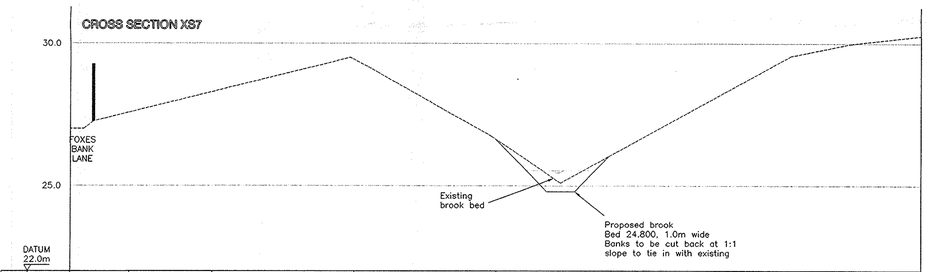
CROSS SECTION XS6



DATUM 22.0m

CHAINAGE	0.000	5.000	8.017	10.000	15.000	20.000	25.000	30.000
EXISTING LEVEL	30.111	29.321	28.792	27.611	25.178	24.957	27.198	27.323	27.563	28.587	29.731	30.289

CROSS SECTION XS7



DATUM 22.0m

CHAINAGE	0.000	2.065	5.000	10.000	15.000	20.000	25.000	30.000
EXISTING LEVEL	27.575	28.305	29.505	29.417	28.988	26.736	26.616	25.100	26.585	29.341	29.560	29.998	30.274

NOTES

1. Levels taken from survey data supplied by Total Surveys Ltd., dated 14 Dec. 1998. Contours and cross sections have been interpolated using ground modelling software and should be checked on site prior to works.
2. This drawing to be read in conjunction with drawing 19698/0B/301.
3. The contractor should note the the line of the existing 900ø culvert has not been confirmed. He may, however, utilise the existing culvert, if the location is suitable, for dealing with flows during construction of the proposed 1800 ø culvert and to suit his method of working.
4. The existing 900ø culvert is to be abandoned. Pipework must be flood grouted in accordance with the contract.
5. Water levels shown on these sections are nominal and should not be taken as indicative of existing flows.
6. Proposed ground levels are to match existing as near as possible, with the exception of the higher level ditch shown in sections XS4 & XS5, which is to be graded out such that it does not hold water. The banks of the proposed brook channel are to be at 1:1 side slopes as far as is required to tie in with existing ground.
7. The proposed culvert is to consist of a Class 'M' PCC pipe, laid to a gradient of 1:400 in an 'S' bed.
8. The pipe & bedding details indicated above have been determined on the assumption that the cover to the pipe will not exceed 4.0m at any time in the future. If it is proposed to exceed this limit during future works, measures to ensure the structural integrity of the culvert must be incorporated into those works.
9. Details of headwalls are shown on drawing No. 19698/0B/313.

PLAN DISPLAYED AT COMMITTEE

Date 30.11.00

APPLICATION No. 00/00695/FUL

DATE RECEIVED 11 OCT 2000

DATE VALID 31 OCT 2000

VERSION	AMENDMENT	ORIGINATED BY DATE	CHECKED BY DATE	APPROVED BY DATE
A			J Cobley Jun 2000	ARS Jun 2000

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Tel 0151 242 7777
Fax 0151 242 7700

CLIENT: North West Development Agency

PROJECT: Cronton Colliery – Foxes Bank Brook

DRAWING TITLE: Works to Culvert No. 1 Cross Sections

PURPOSE: Tender

DRAFT / ISSUE ●

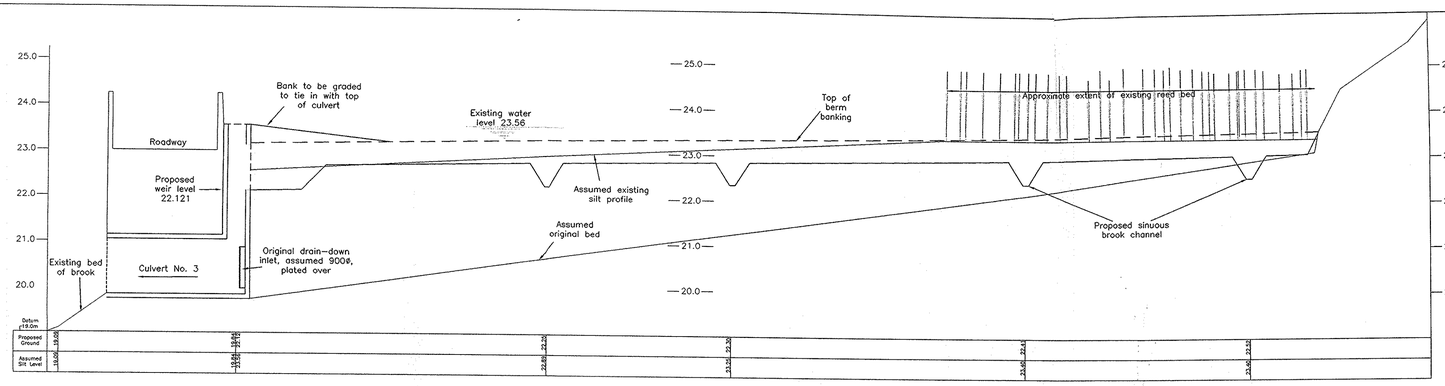
SCALES: 1:100

ISSUING OFFICE: LIVERPOOL

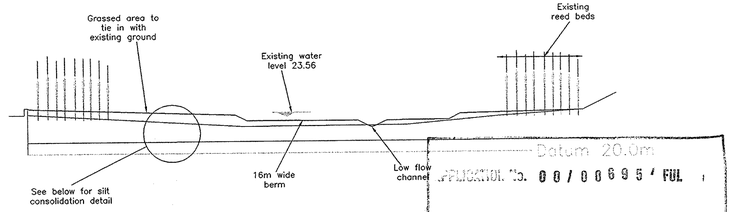
TELEPHONE: 0151 242 7777

DRAWING NUMBER: 19698/0B/311

VERSION: A



LONG SECTION THROUGH DISUSED FIRE-FIGHTING RESERVOIR
Scales 1:250 Horiz, 1:62.5 Vert

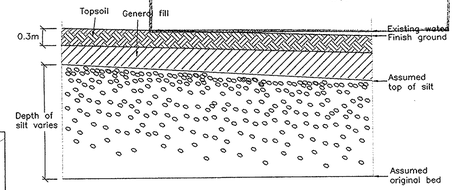


PROPOSED TYPICAL CROSS SECTION
Scale 1:250

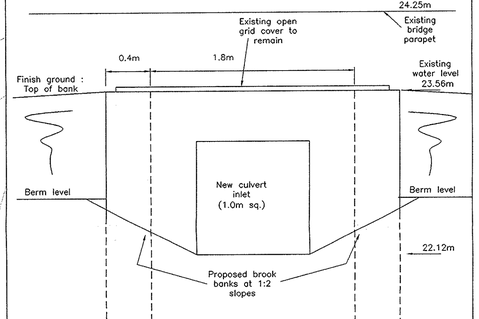
APPLICATION No. 00/00695/FUL

DATE RECEIVED 11 OCT 2000

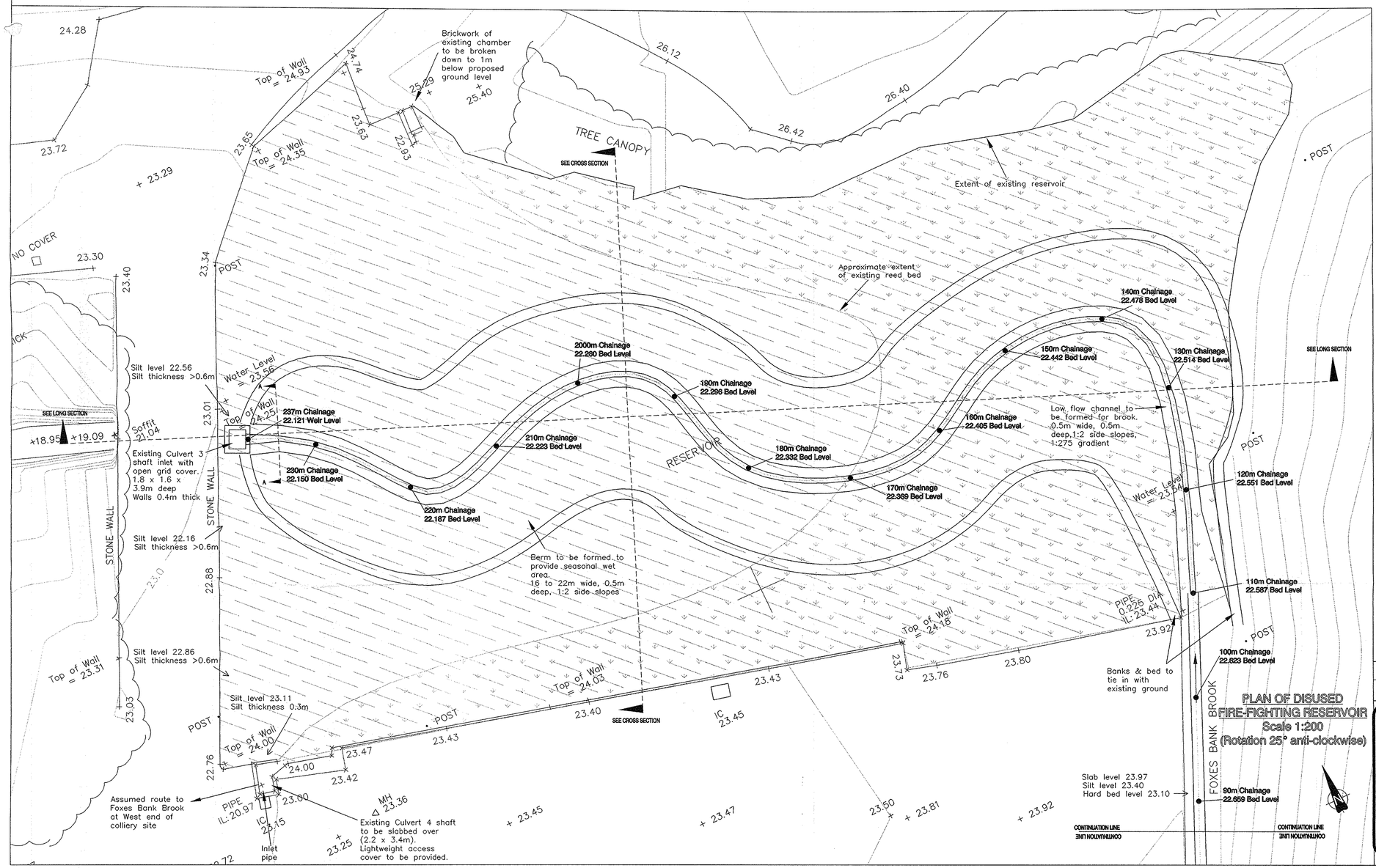
DATE VALID 31 OCT 2000



SILT CONSOLIDATION DETAIL - SEE NOTE 5
Scale 1:50



ELEVATION ON PROPOSED INLET TO CULVERT 3 (A-A)
Scale 1:25



PLAN OF DISUSED FIRE-FIGHTING RESERVOIR
Scale 1:200
(Rotation 25° anti-clockwise)

NOTES

1. Levels taken from survey data supplied by Total Surveys Ltd., dated 14 Dec. 1998. Contours and cross sections have been interpolated using ground modelling software and should be checked on site prior to works.
2. Proposed water levels shown on the sections are nominal and should not be taken as indicative of flows.
3. New inlet to be broken out to Culvert 3, as detailed above.
4. Culvert 4 inlet to be slabbed over, as indicated.
5. Consolidation of silt to be achieved as follows:
   A – Non-cohesive contaminant-free fill material to be placed in controlled quantities to form stable ground. Hardcore shall be uniformly graded from 20mm to 200mm.
   B – As water is displaced it will flow into Culvert 3 Shaft Inlet. The watercourse downstream is to be protected at all times from contamination of silt.
   C – The fill material is to be brought up to 300mm below finish ground level.
   D – The final layer is to be topsoil, seeded with species-rich plants as advised by NWDA's ecological consultant, in agreement with the EA.
6. Screens to be fitted to the inlet and outlet of Culvert 3. See drawing No. 19698/08/300.

PLAN DISPLAYED AT COMMITTEE
Date 30.11.00

VERSION	AMENDMENT	ORIGINATED BY DATE	CHECKED BY DATE	APPROVED BY DATE
A		IK Knight 6/00	J Cobley Jun 2000	ARS Jun 2000

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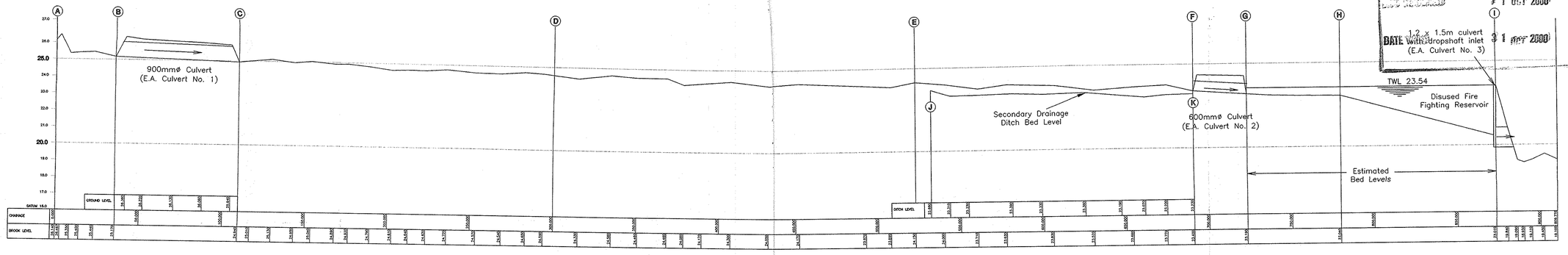
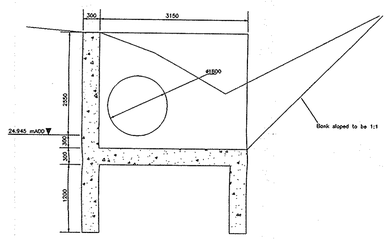
Tel 0151 242 7777
Fax 0151 242 7700

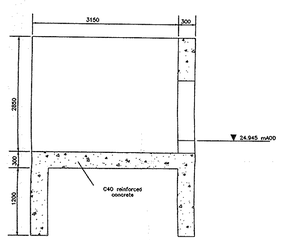
CLIENT	North West Development Agency
PROJECT	Cronton Colliery
DRAWING TITLE	Works to Reservoir Plan & Sections
PURPOSE	Tender
DRAFT / ISSUE	ISSUE ●
SCALES	As Shown
ISSUING OFFICE	LIVERPOOL
TELEPHONE	0151 242 7777
DRAWING NUMBER	19698/08/303
VERSION	A



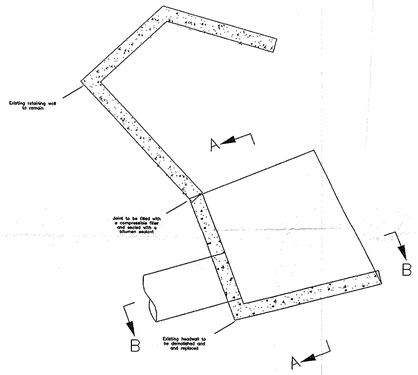
EXISTING LONG SECTION
Scales: H = 1:1250
V = 1:125



SECTION A - A

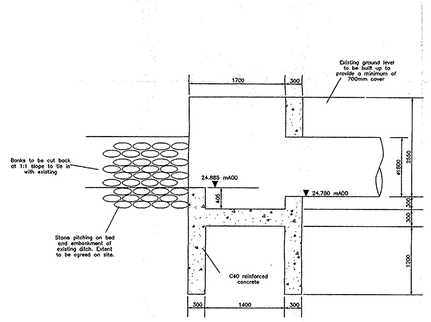


SECTION B - B

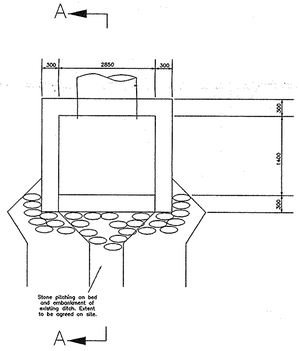


PLAN

INLET HEADWALL
CULVERT No.1



SECTION A - A



PLAN

DISCHARGE HEADWALL
CULVERT No.1

NOTES

1. Levels taken from survey data supplied by Total Surveys Ltd. 14 Dec. 1998. Contours and cross sections have been interpolated using ground modelling software and should be checked on site prior to works.
2. Location of existing 900ø culvert to be confirmed prior to works.
3. Position of discharge headwall to be determined on site.
4. This drawing to be read in conjunction with drawings 19698/0B/100 & 301

PLAN DISPLAYED
AT COMMITTEE
Date 30.11.00

VERSION	AMENDMENT	ORIGINATED BY DATE	CHECKED BY DATE	APPROVED BY DATE
B	Steel Grilles removed from drawing.	HK 10/00	RT 10/00	AS 10/00
A		RHK Aug 2000	JC Aug 2000	JC Aug 2000

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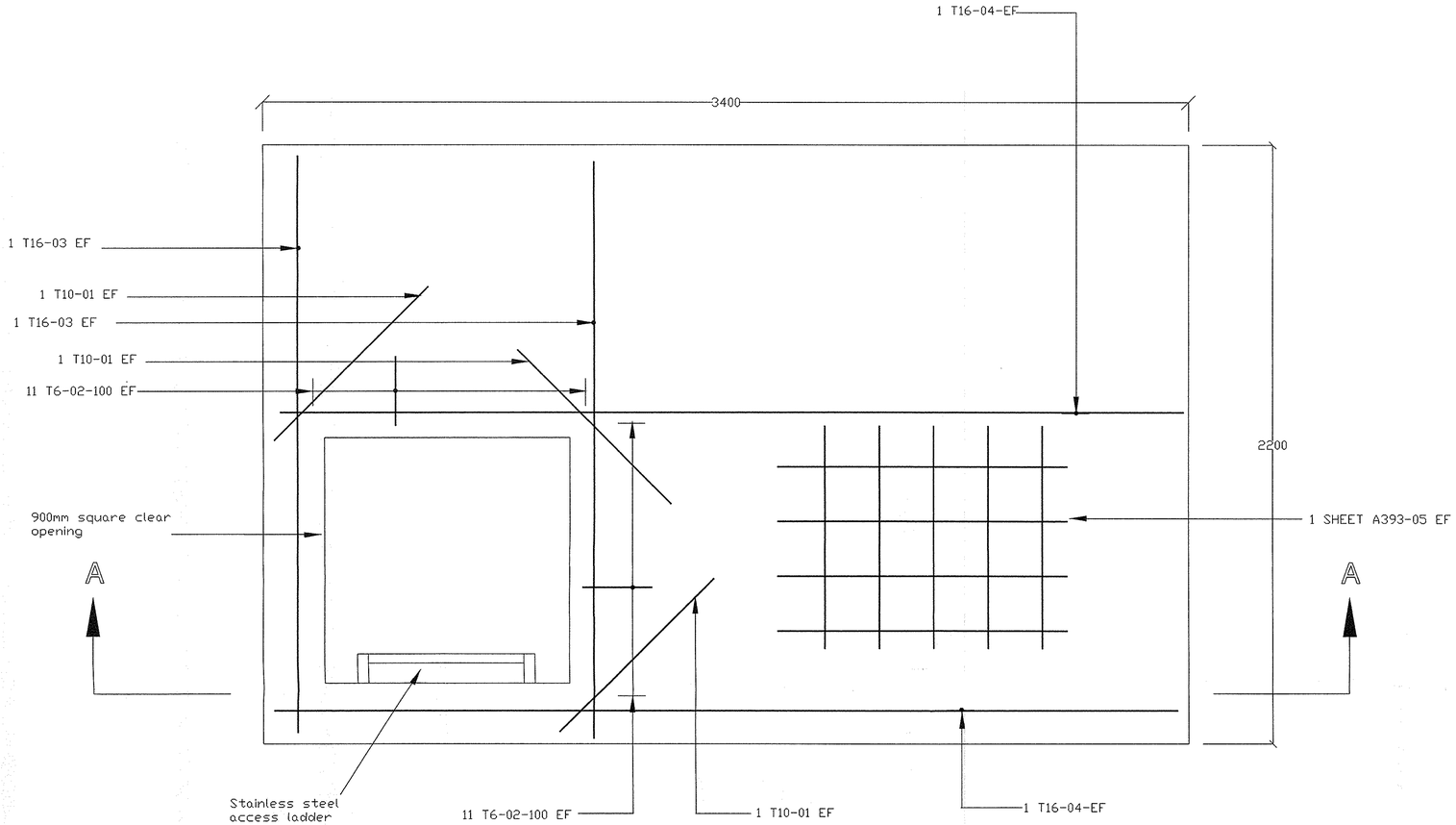
CLIENT: North West Development Agency
PROJECT: Cronton Colliery
DRAWING TITLE: Long Section and General Arrangement of Headwalls to Culvert no. 1
PURPOSE: Tender
DRAFT / ISSUE ●
SCALES: 1:50
ISSUING OFFICE: LIVERPOOL
TELEPHONE: 0151 242 7777
DRAWING NUMBER: 19698/0B/313
VERSION: A

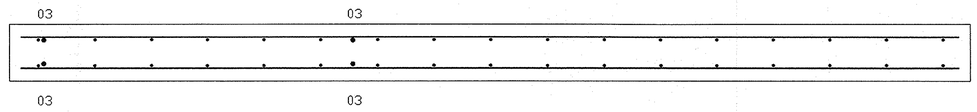
APPLICATION No. 00/00695/FUL 1
DATE RECEIVED 11 OCT 2000
DATE VALID 31 OCT 2000

NOTES

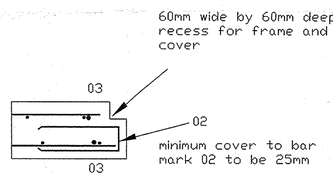
1. All dimensions shown are in millimetres unless otherwise stated
2. All concrete to be grade C40/20
3. Minimum cover to reinforcement to be 40mm unless otherwise stated.
4. All reinforcement to be high yield steel grade 460 to BS4449.
5. The trimmer bars around the opening to be placed to suit.



COVER SLAB PLAN



SECTION A-A



TYPICAL SECTION AT EDGE OF OPENING

PLAN DISPLAYED AT COMMITTEE
Date 30.11.00

VERSION	AMENDMENT	ORIGINATED BY DATE	CHECKED BY DATE	APPROVED BY DATE
A	First Issue	JMD 08/00	BT 08/00	BT 08/00

PARKMAN
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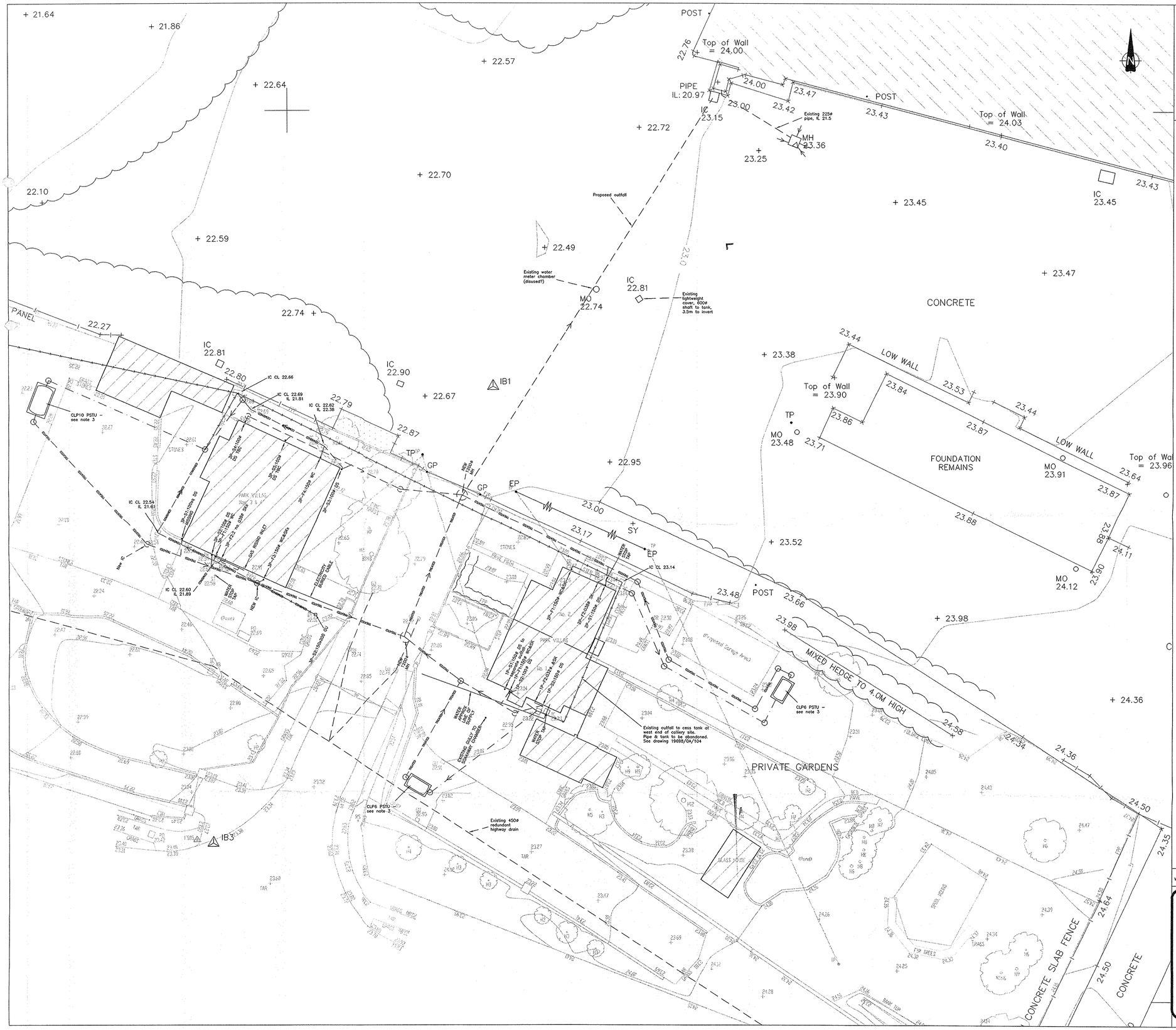
Fax 0151 242 7700

CLIENT: North West Development Agency
PROJECT: Cronton Colliery
DRAWING TITLE: Slab Design
PURPOSE: Tender
DRAFT / ISSUE
SCALES: 1:10
ISSUING OFFICE: LIVERPOOL
TELEPHONE: 0151 242 7777
DRAWING NUMBER: 19698/08/312
VERSION: A



KEY

- Surface Water Drain
- Foul Drain
- Treated Effluent Drain
- Existing Combined Drain
- Drain to be Abandoned

NOTES

1. Levels taken from data supplied by Total Surveys Ltd., dated 14 Dec. 1998, and Formby Surveys Ltd., dated April 2000. The contractor should confirm all levels prior to commencement of works.

2. Building drainage connection points have been referenced as per the following example:
   HH–S7:100ø DS
   HH=Halsnead Hall, 1H&2H=1&2 Halsnead Villas, 1P,2P&3P=1,2&3 Park Villas
   S=Surface, F=Foul, C=Combined, Numbered per Property
   100ø=Pipe Diameter
   DS=downspout, WC=toilet, SK=sink

3. Package Sewage Treatment Units to be Clearwater Aeroclear CLP6 or CLP10, as indicated, 1.25ø x 2.35m or 1.85ø x 3.30m, respectively. Units to be installed in accordance with the manufacturer's instructions.

4. Electricity supply to the units shall be taken from each house, via a dedicated supply. cabling shall be laid underground at a depth of 0.45m, within suitable ducting.

5. The contractor is to work to an agreed programme and methodolgy which minimises disruption to the householders during the works.

6. Where possible, the existing combined drainage system will be used for the proposed foul sewers. All surface water flows will be carried in new pipework.

7. Contractor to confirm all foul and surface water connections prior to commencement of works. Any discrepancies to that shown on the drawing must immediately be notified to the Engineer.

8. All new pipework to be 150mm diameter unless otherwise stated.

9. All abandoned pipework to be grouted with class G4 cement grout. At western boundary of 3 Park Villas, Contractor is to excavate down to existing pipe and block end with concrete before grouting.

10. Abandoned manholes shall be broken down 300mm below ground level and filled with hardcore. Surface finish is to match existing surround, i.e. turf, concrete etc.

11. All pipework to be Class S bed and surround.

APPLICATION No. 00/00695/FUL

VERSION	AMENDMENT	DATE	ORIGINATED BY	CHECKED BY	APPROVED BY
A	DATE RECEIVED 11 OCT 2000		JMD 8/00	J Cobley 8/00	J Cobley 8/00
	DATE RECEIVED 31 OCT 2000				

PARKMAN
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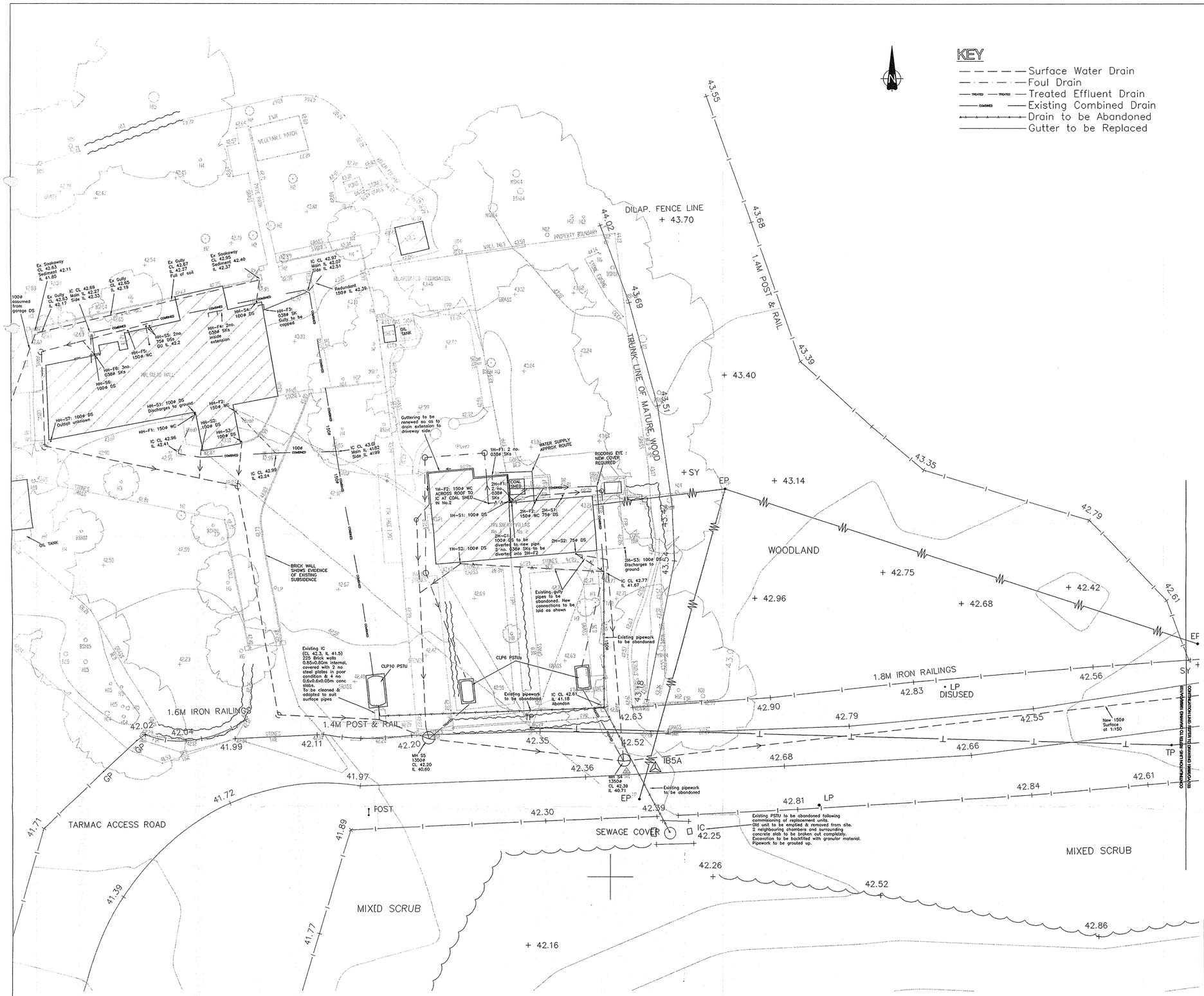
CLIENT: North West Development Agency
PROJECT: Cronton Colliery
DRAWING TITLE: Sewerage Works at Park Villas Plan
PURPOSE: Tender
DRAFT / ISSUE ●
SCALES: 1:200
ISSUING OFFICE: LIVERPOOL
TELEPHONE: 0151 242 7777
DRAWING NUMBER: 19698/0B/101
VERSION: A



NOTES

1. Levels taken from data supplied by Total Surveys Ltd., dated 14 Dec. 1998, and Formby Surveys Ltd., dated April 2000. The contractor should confirm all levels prior to commencement of works.

2. Building drainage connection points have been referenced as per the following example:
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   HH=Halsnead Hall, 1H&2H=1&2 Halsnead Villas, 1P,2P&3P=1,2&3 Park Villas
   S=Surface, F=Foul, C=Combined, Numbered per Property
   100ø=Pipe Diameter
   DS=downspout, WC=toilet, SK=sink

3. Package Sewage Treatment Units to be Clearwater Aeroclear CLP6 or CLP10, as indicated, 1.25ø x 2.35m or 1.85ø x 3.30m, respectively. Units to be installed in accordance with the manufacturer's instructions.

4. Electricity supply to the units shall be taken from each house, via a dedicated supply. cabling shall be laid underground at a depth of 0.45m, within suitable ducting.

5. The contractor is to work to an agreed programme and methodolgy which minimises disruption to the householders during the works.

6. Where possible, the existing combined drainage system will be used for the proposed foul sewers. All surface water flows will be carried in new pipework.

7. Contractor to confirm all foul and surface water connections prior to commencement of works. Any discrepancies to that shown on the drawing must immediately be notified to the Engineer.

8. All new pipework to be 150mm diameter unless otherwise stated.

9. All abandoned pipework to be grouted with Class G4 cement grout.

10. Abandoned manholes shall be broken down 300mm below ground level and filled with hardcore. Surface finish is to match existing surround i.e. turf, concrete etc.

11. All pipework to be Class S bed and surround.

APPLICATION No. 00/00695/FUL
DATE RECEIVED 11 OCT 2000
DATE VALID 31 OCT 2000

VERSION	AMENDMENT	ORIGINATED BY DATE	CHECKED BY DATE	APPROVED BY DATE
A		IK Knight	J Cobley 6/00	A Storey 7/00

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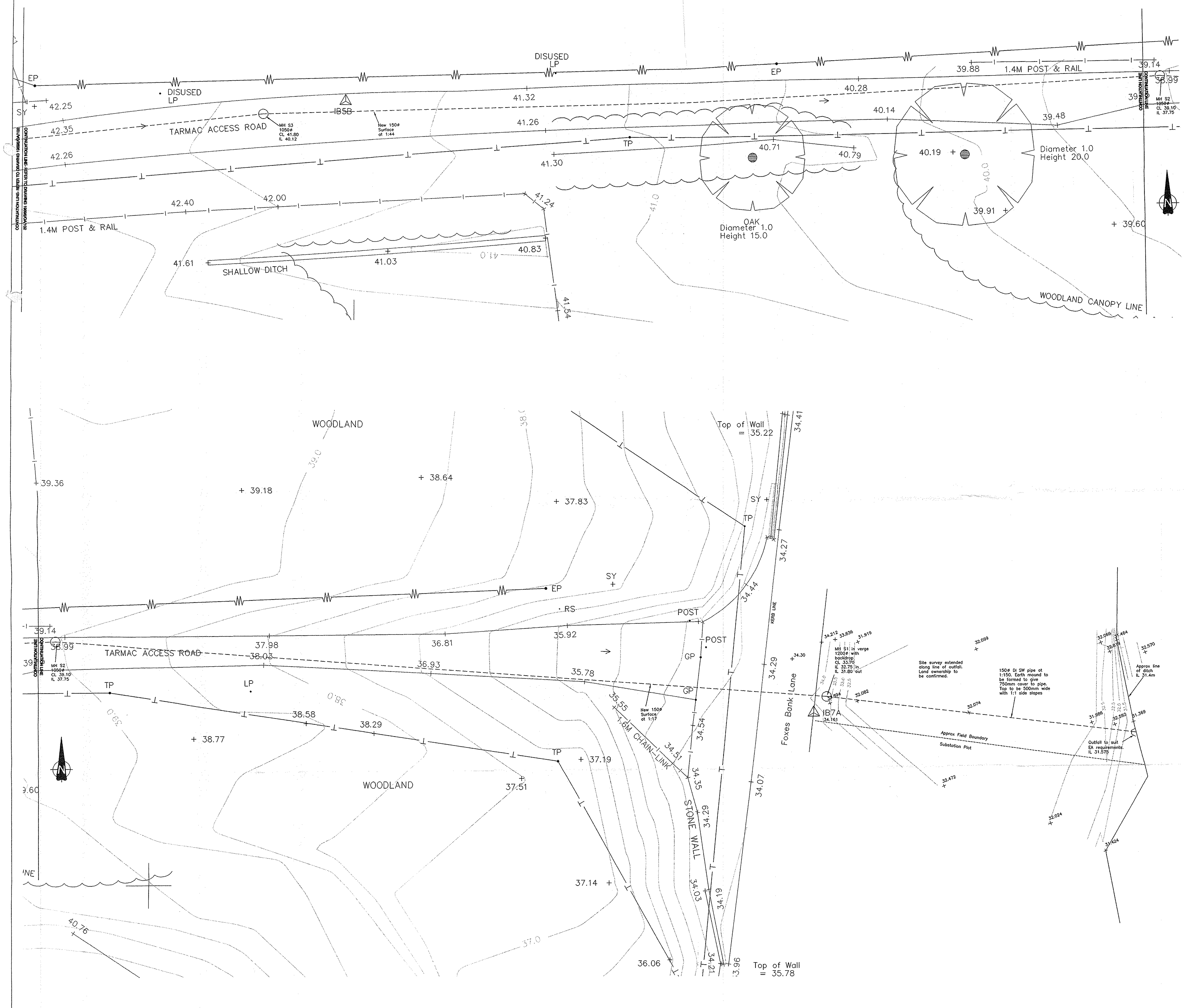
CLIENT: North West Development Agency
PROJECT: Cronton Colliery
DRAWING TITLE: Sewerage Works at Halsnead Hall & Villas Plan – Sheet 1 of 2
PURPOSE: Tender
DRAFT
ISSUE ●
SCALES: 1:200
ISSUING OFFICE: LIVERPOOL
TELEPHONE: 0151 242 7777
DRAWING NUMBER: 19698/OB/102
VERSION: A



KEY

- — — — — — Surface Water Drain
- — · — · — Foul Drain
- —TREATED—TREATED—TREATED— Treated Effluent Drain
- —COMBINED—COMBINED—COMBINED— Existing Combined Drain
- —x—x—x—x— Drain to be Abandoned

NOTES

1. Levels taken from data supplied by Total Surveys Ltd., dated 14 Dec. 1998, and Formby Surveys Ltd., dated April 2000. The contractor should confirm all levels prior to commencement of works.

2. Building drainage connection points have been referenced as per the following example:
   HH–S7:100ø DS
   HH=Halsnead Hall, 1H&2H=~~1&2 Halsnead Villas,~~
   1P,2P&3P=~~1,2&3~~ Park Villas
   S=Surface, F=Foul, C=Combined, Numbered per Property
   100ø=Pipe Diameter
   DS=downspout, WC=toilet, SK=sink

3. Package Sewage Treatment Units to be Clearwater Aeroclear CLP6 or CLP10, as indicated, 1.25ø x 2.35m or 1.85ø x 3.30m, respectively. Units to be installed in accordance with the manufacturer's instructions.

4. Electricity supply to the units shall be taken from each house, via a dedicated supply. cabling shall be laid underground at a depth of 0.45m, within suitable ducting.

5. The contractor is to work to an agreed programme and methodolgy which minimises disruption to the householders during the works.

6. Where possible, the existing combined drainage system will be used for the proposed foul sewers. All surface water flows will be carried in new pipework.

7. Contractor to confirm all foul and surface water connections prior to commencement of works. Any discrepancies to that shown on the drawing must immediately be notified to the Engineer.

8. For details of outfall stucture see drawing no. 19698/OB/105.

9. All pipework to be class S bed and surround.

...PPLICATION No. 00/00695/FUL
...TE RECEIVED 11 OCT 2000
...TE VALID 31 OCT 2000

VERSION	AMENDMENT	ORIGINATED BY DATE	CHECKED BY DATE	APPROVED BY DATE
A		JK Knight 8/00	JC 8/00	ARS 8/00

PARKMAN
PURSUING EXCELLENCE · SHARING SUCCESS

BSI REGISTERED FIRM
Certificate no. FS 15024

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Cunard Building
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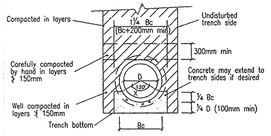
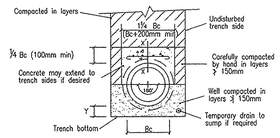
CLIENT	North West Development Agency
PROJECT	Cronton Colliery
DRAWING TITLE	Sewerage Works at Halsnead Hall & Villas Plan – Sheet 2 of 2
PURPOSE	Tender
DRAFT	
ISSUE	●
SCALES	1:200
ISSUING OFFICE	LIVERPOOL
TELEPHONE	0151 242 7777
DRAWING NUMBER	19698/0B/103
VERSION	A

APPLICATION No. 00/00065/FUL
DATE RECEIVED 11 OCT 2000
DATE VALID 31 OCT 2000

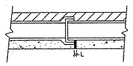
FIGURE 1
PIPE BEDDING FOR RIGID WALLED PIPES - CLASS A, B AND S



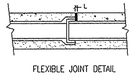
CLASS A CONCRETE BED
UNREINFORCED



CLASS A CONCRETE ARCH



FLEXIBLE JOINT DETAIL



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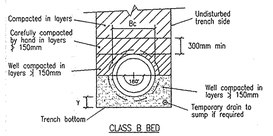
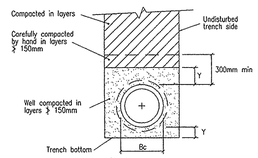


CLASS B BED



CLASS S BED

NOTES

1. For Type A and Type B material see, W.S.A. Civil Engineering Specification for the Water Industry 4th Edition Clause 2.50.
2. For bedding classes, see I.G.N. No. 4-08-01 table 1
3. For pipes in roads and car parks see, W.S.A. Civil Engineering Specification for the Water Industry 4th Edition Clause 3.7.

3. DIMENSION Y

In rocks, mixed soils containing rock bands, boulders, large flints, stones or other irregular hard spots; Y=1/4 Bc under barrels, with a minimum of 200mm (plus 12.5mm per 300mm of cover in excess of 4.5m)under both barrels and sockets.

In machine dug uniform soil; Y=1/6 Bc with a minimum of 100mm under both barrels and sockets.

In hand-shaped uniform soils; Y=100mm minimum under both barrels and sockets.

4. REINFORCED CONCRETE

Concrete to be grade C20 with 20mm aggregate.

Reinforcement to be high tensile steel. Transverse and longitudinal reinforcement areas to be; For class A1, no reinforcement For class A2, 0.4% of the concrete area For class A3, 1.0% of the concrete area where the concrete area is taken at section X–X.

Dimension L for the compressible filler to be; 18mm for pipe diameters between 150 and 400mm 36mm for pipe diameters between 450 and 1200mm 54mm for pipe diameters between 1350 and 1800mm

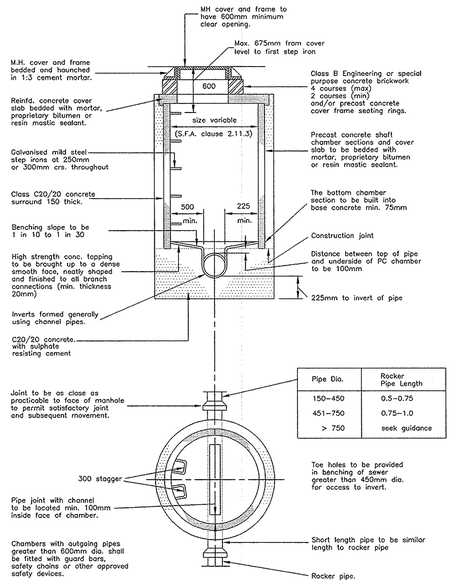
Compressible filler to cover the full concrete cross sectional area.

KEY

- In situ concrete
- Granular bedding material
- Type B fill

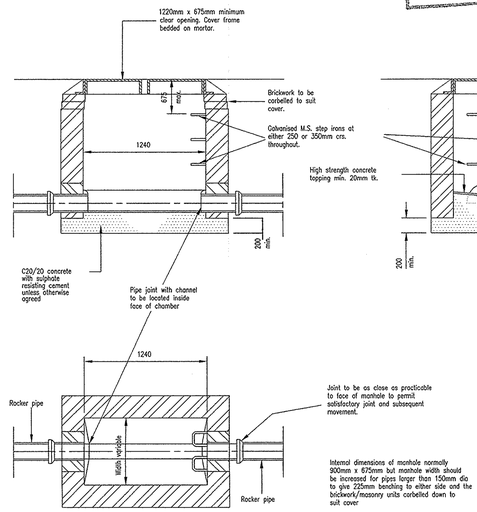
Bc Outside diameter of pipe

FIGURE 2
TYPICAL MANHOLE DETAIL - TYPE B
DEPTH FROM GROUND LEVEL TO SOFFIT OF PIPE 1.35m TO 3.0m



Pipe Dia.	Rocker Pipe Length
150–450	0.5–0.75
451–750	0.75–1.0
> 750	seek guidance

FIGURE 3
TYPICAL MANHOLE DETAIL - TYPE C
DEPTH FROM GROUND LEVEL TO SOFFIT OF PIPE 1m TO 1.45m



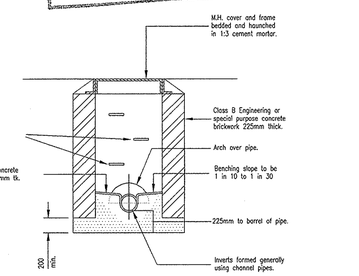
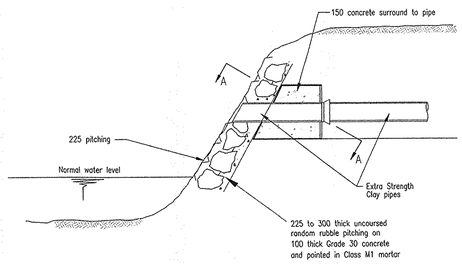
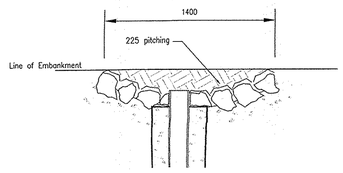


FIGURE 4
Typical Outfall Detail

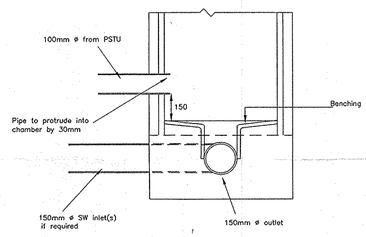


CROSS SECTION
Not to Scale



SECTION A-A
Not to Scale

FIGURE 5
SAMPLE POINT



NOTES

1. Details in accordance with specification from Sewers for Adoption 4th Edition.
2. All dimensions in millimetres.
3. Backfill above pipe bedding for existing and proposed highway locations must be in accordance with the Highway Authority Specification (Ref. Note 2 of Figure 4)
4. Details in accordance with specification from W.S.A. Civil Engineering Specification for the Water Industry 5th edition.

The Contractor is to check and verify all building and site dimensions, levels and sewer inverts at connection points before work commences.

The Contractor is to comply in all respects with the current Building Regulations whether or not stated on these drawings. All sewer work is to comply with "Sewers for Adoption Edition 4"

This drawing must be read with and checked against any structural or other specialists drawings provided.

VERSION	AMENDMENT	ORIGINATED BY DATE	CHECKED BY DATE	APPROVED BY DATE
A	First Issue	JMD 8/00	ARS 8/00	ARS 8/00

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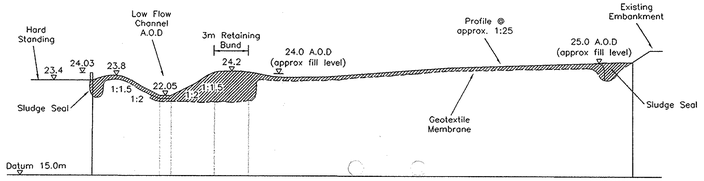
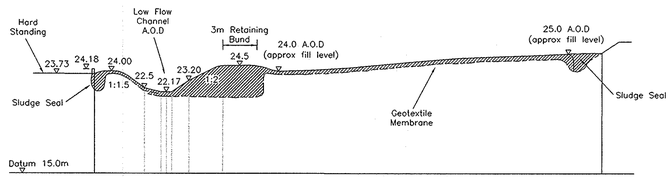
PERSIMMON HOMES

CLIENT: North West Development Agency
PROJECT: Cronton Colliery
DRAWING TITLE: Drainage Standard Details
PURPOSE: Tender
DRAFT / ISSUE ●
SCALES: Not to Scale
ISSUING OFFICE: LIVERPOOL
TELEPHONE: 0151 242 7777
DRAWING NUMBER: 19698/OB/105
VERSION: A



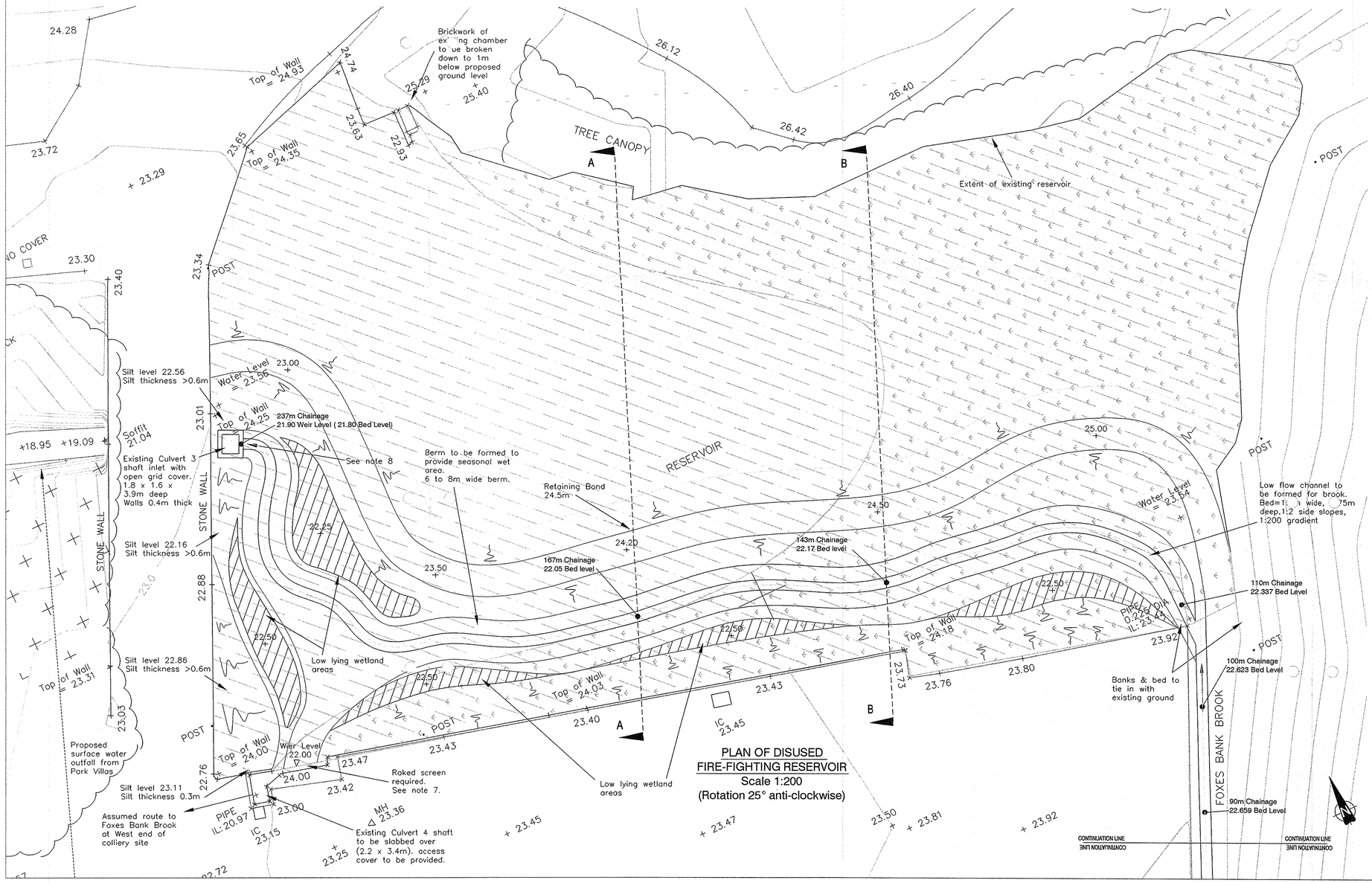
CROSS SECTION A-A
Scale 1:250



CROSS SECTION B-B
Scale 1:250

NOTES

1. Levels taken from survey data supplied by Total Surveys Ltd., dated 14 Dec. 1998. Contours and cross sections have been interpolated using ground modelling software and should be checked on site prior to works.
2. Proposed water levels shown on the sections are nominal and should not be taken as indicative of flows.
3. New inlet to be broken out to Culvert 3, as detailed below.
4. Culvert 4 inlet to be slabbed over, and weir level lowered as indicated.
5. The watercourse downstream is to be protected at all times from contamination of silt.
6. Trees and hedges to be protected by a 1.2m high fence.
7. The existing overflow culvert will be protected as follows:
   - Galvanised mild steel screen to cover overflow culvert (approx. 1m x 0.25m, exact size to be determined on site)
   - 15mm diameter bars at 200 centres.
   - Grill to be fixed to replacement cover slab and existing wall.
8. Suitable maintenance access to culvert No.3.
   The reservoir is to be filled with colliery spoil to form a stable and compact bed. It is envisaged that the bed profile, either side of the main channel, will provide suitable access to the screen for maintenance purposes.
   Should additional access be required then ground levels, either side of the drop shaft, shall be raised and suitably graded.
9. All silts are to be retained within the reservoir by using a Geolon PP120s geotextile membrane.
10. To prevent silts from polluting the watercourse culverts 3 and 4 are to be protected, or temporarily sealed, prior to infilling of the reservoir.
11. Sludge seals are to be placed around the extremities of the reservoir to ensure that silts are retained beneath the membrane.
12. Colliery material is to be placed on top of the geotextile in a controlled manner. This will allow stable gradients to be formed.
13. A silt retaining bund will be required to prevent distortion of the low flow channel and wetland areas.
14. A number of lower wetland areas are to be formed in order to assist in the recolonisation of marginal vegetation.



PLAN OF DISUSED FIRE-FIGHTING RESERVOIR
Scale 1:200
(Rotation 25° anti-clockwise)

ELEVATION ON PROPOSED INLET TO CULVERT 3
Scale 1:25

VERSION	AMENDMENT	ORIGINATED BY DATE	CHECKED BY DATE	APPROVED BY DATE
B	Revised infilling proposal and channel alignment	D.Thomas 19.12.01	H.Keeble 19.12.01	A.Storey 19.12.01
A	First Issue	D.Thomas 25.09.01	H.Keeble 25.09.01	A.Storey 25.09.01

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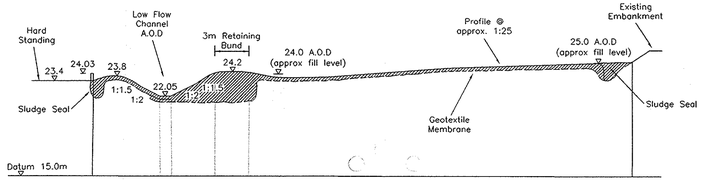
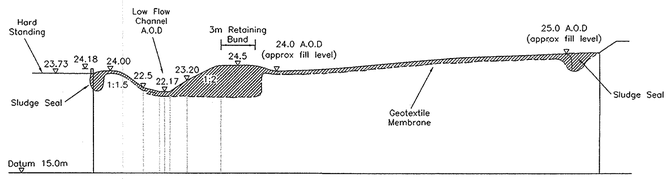
CLIENT	North West Development Agency
PROJECT	Cronton Colliery
DRAWING TITLE	Revised Works to Reservoir Plan & sections
PURPOSE	Construction
DRAFT / ISSUE	ISSUE ✓
SCALES	As Shown
ISSUING OFFICE	LIVERPOOL
TELEPHONE	0151 242 7777
DRAWING NUMBER	19698/V/303
VERSION	B



CROSS SECTION A-A
Scale 1:250



CROSS SECTION B-B
Scale 1:250

NOTES

1. Levels taken from survey data supplied by Total Surveys Ltd., dated 14 Dec. 1998. Contours and cross sections have been interpolated using ground modelling software and should be checked on site prior to works.
2. Proposed water levels shown on the sections are nominal and should not be taken as indicative of flows.
3. New inlet to be broken out to Culvert 3, as detailed below.
4. Culvert 4 inlet to be slabbed over, and weir level lowered as indicated.
5. The watercourse downstream is to be protected at all times from contamination of silt.
6. Trees and hedges to be protected by a 1.2m high fence.
7. The existing overflow culvert will be protected as follows:
   - Galvanised mild steel screen to cover overflow culvert (approx. 1m x 0.25m, exact size to be determined on site)
   - 15mm diameter bars at 200 centres.
   - Grill to be fixed to replacement cover slab and existing wall.
8. Suitable maintenance access to culvert No.3.
   The reservoir is to be filled with colliery spoil to form a stable and compact bed. It is envisaged that the bed profile, either side of the main channel, will provide suitable access to the screen for maintenance purposes. Should additional access be required then ground levels, either side of the drop shaft, shall be raised and suitably graded.
9. All silts are to be retained within the reservoir by using a Geolon PP120s geotextile membrane.
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13. A silt retaining bund will be required to prevent distortion of the low flow channel and wetland areas.
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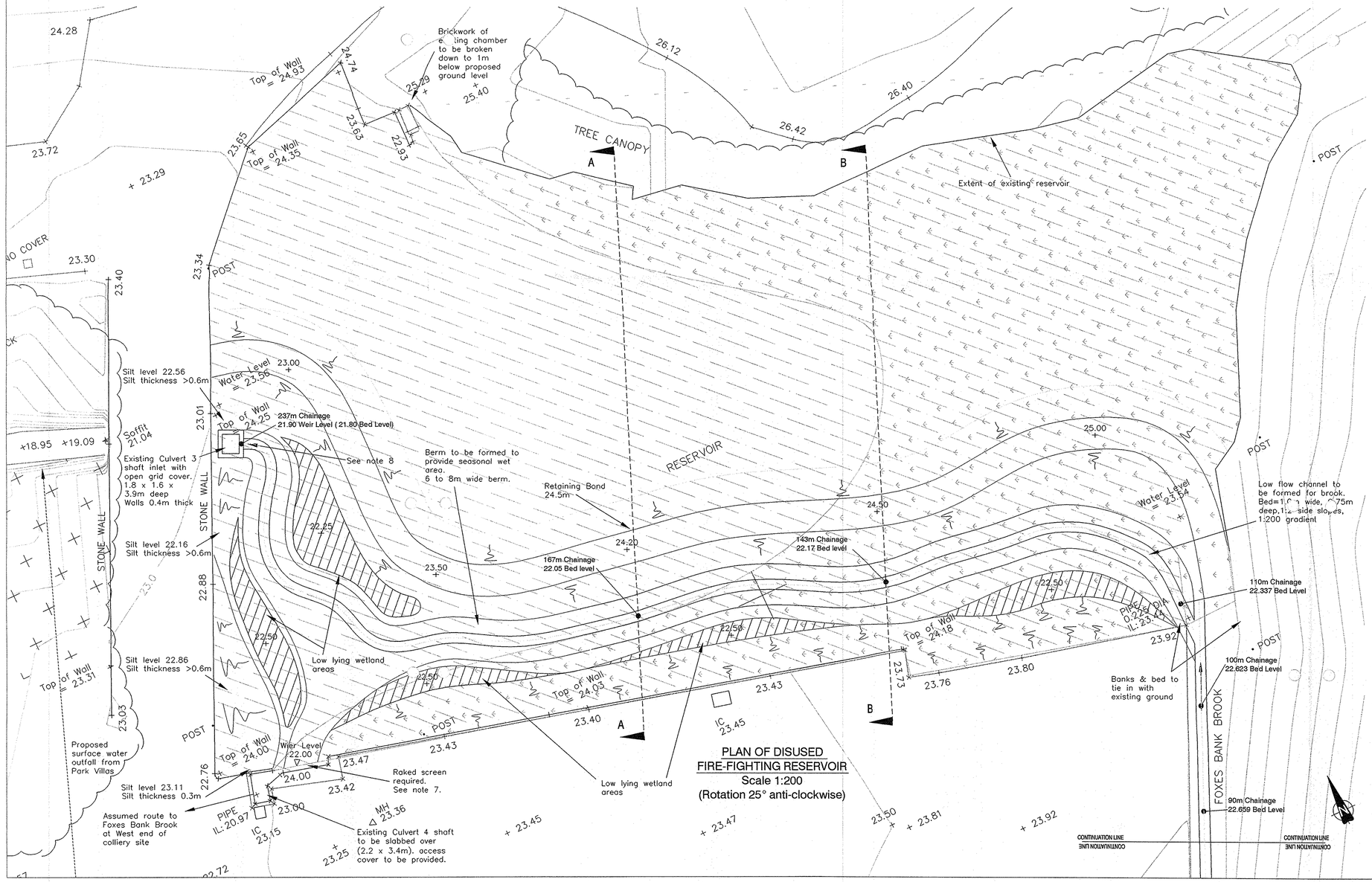

PLAN OF DISUSED
FIRE-FIGHTING RESERVOIR
Scale 1:200
(Rotation 25° anti-clockwise)

ELEVATION ON PROPOSED INLET TO CULVERT 3
Scale 1:25

VERSION	AMENDMENT	ORIGINATED BY DATE	CHECKED BY DATE	APPROVED BY DATE
B	Revised infilling proposal and channel alignment	D.Thomas 19.12.01	H.Keeble 19.12.01	A.Storey 19.12.01
A	First Issue	D.Thomas 25.09.01	H.Keeble 25.09.01	A.Storey 25.09.01

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CLIENT	North West Development Agency
PROJECT	Cronton Colliery
DRAWING TITLE	Revised Works to Reservoir Plan & sections
PURPOSE	Construction
DRAFT / ISSUE	✓
SCALES	As Shown
ISSUING OFFICE	LIVERPOOL
TELEPHONE	0151 242 7777
DRAWING NUMBER	19698/V/303
VERSION	B