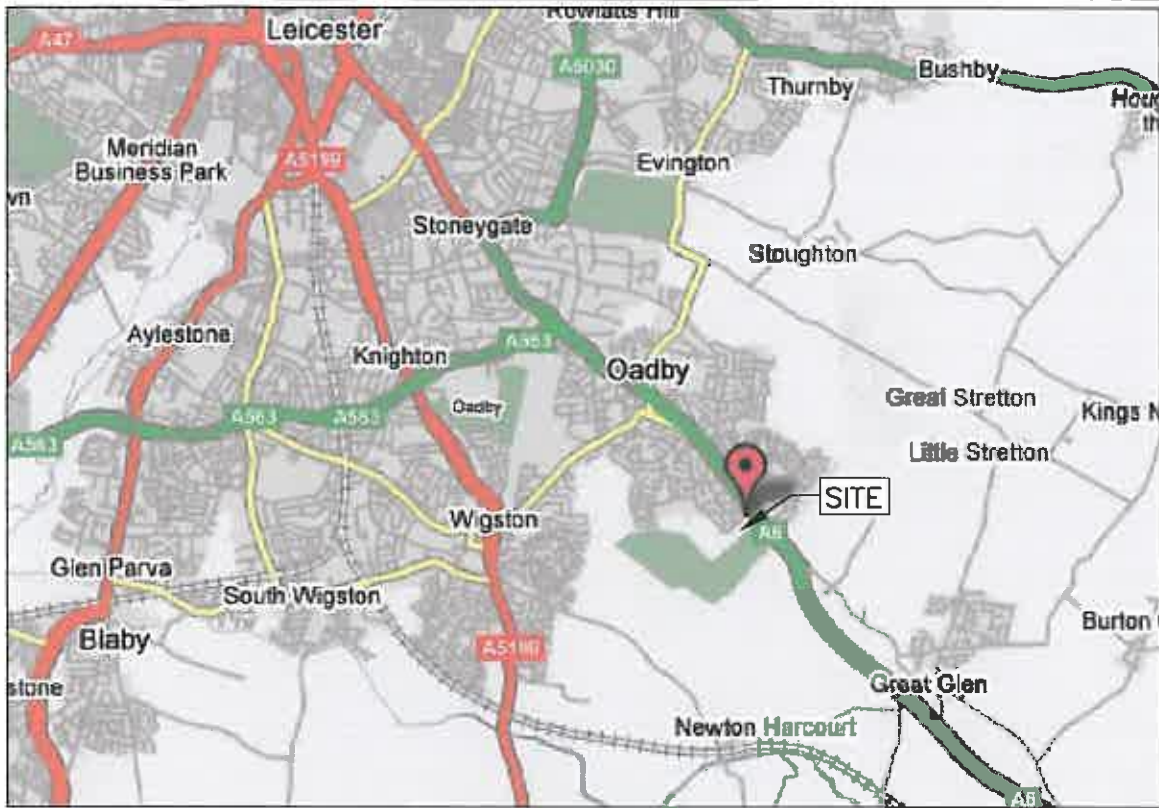
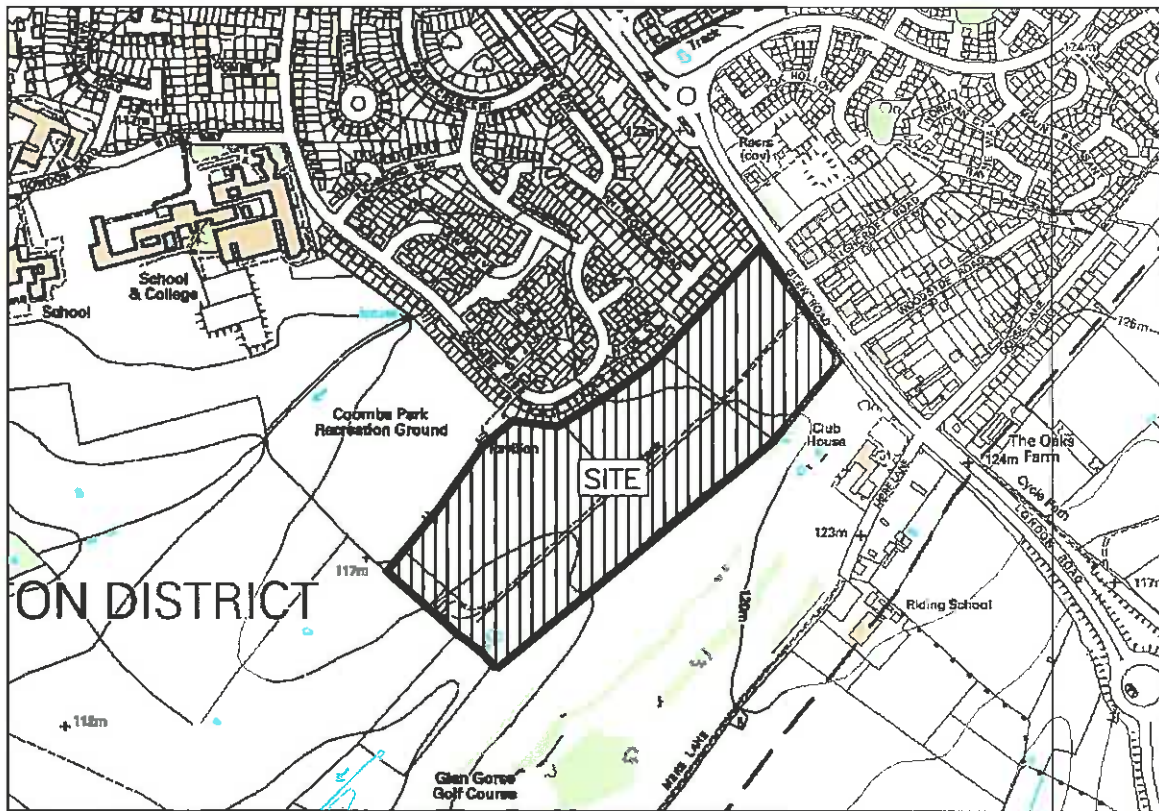


APPENDIX A

**SITE LOCATION
PLAN NO: 5873/00/001**




LOCATION PLAN



SITE PLAN

REV	AMENDMENT DETAILS	DRAWN	APPROVED	DATE
A	Southwest boundary amended	MN	AH	26.06.06

PROJECT LAND AT COTTAGE FARM OADBY	DESIGNED AND DRAWN BY WW	SCALE NTS	 Millard Consulting Engineers
DRAWING TITLE MASTER PLAN SITE SITE LOCATION	APPROVED BY AH	DATE 16.05.06	
CLIENT SMITH STUART REYNOLDS	DRAWING STATUS PRELIMINARY	CAD REFERENCE FILE NUMBER 5873/00/001	REVISION A
<p>T A Millard Midlands Limited Heron House Newdegate Street Nuneaton Warwickshire CV11 4EL telephone 024 76328843 facsimile 024 76328899 email nuneaton@tamillard.co.uk www.tamillard.co.uk</p> <p><i>office at Perth, Ipswich, Norwich and Swindon</i></p>			

APPENDIX B

**SEWER RECORD PLANS &
MANHOLE SCHEDULES**

AVAILABLE TO VIEW AT
THE COUNCIL OFFICES
BUSHLOE HOUSE

APPENDIX C

**MICRO DRAINAGE
CALCULATIONS**



Project No	5873
Sheet	1 of 6
Engineer	E Mewies
Date	04/05/06
Ref. No.	01

DESIGN CALCULATIONS FRONT SHEET

SCHEME	COTTAGE FARM – MASTERPLAN SITE
CLIENT	Wheatcroft / Bloor Homes
ASPECTS OF SCHEME TO BE DESIGNED	Estimation of balancing pond size to allow for greenfield runoff rates, to which the flow to watercourse is to be restricted
CODES OF PRACTICE, DESIGN SPECIFICATIONS & BRITISH STANDARDS	Wallingford Procedure Sewers for Adoption 5 th Edition
NOTES	Greenfield Runoff calculated using IOH Method. Allow 20% climate change in storage volume calculations.

INDEX

Pages	Calculations	Checked by	Date
2 3-6	Greenfield runoff calculation (79 l/s for 1 in 100 year) Micro Drainage Source Control storage design calculations (critical storm = 360 min, winter profile, storage required 3929 m ³)		

Heron House
 Newdegate Street
 Nuneaton CV11 4EL

COTTAGE FARM OADBY
 WHEATCROFT/BLOOR HOMES
 MASTERPLAN SITE POND



Date 04/05/06

Designed By EM

File

Checked By

Elstree Computing Ltd

Source Control W.10.2

IH 124 Mean Annual Flood

	Input			
Return Period (years)	100	SAAR (mm)	660.000	Urban 0.000
Area (Ha)	7.930	Soil	0.400	Region Number 4

	Results	1/s
	QBAR Rural	30.8
	QBAR Urban	30.8
Q	100 years	79.3
Q	1 year	25.6
Q	2 years	27.6
Q	5 years	37.9
Q	10 years	46.0
Q	20 years	54.8
Q	25 years	57.9
Q	30 years	60.4
Q	50 years	67.9
Q	100 years	79.3
Q	200 years	93.1
Q	250 years	97.8
Q	1000 years	128.3

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COTTAGE FARM OADBY
WHEATCROFT/BLOOR HOMES
MASTERPLAN SITE POND

Date 04/05/06

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Summary of Results for 100 year Return Period (+20%)

Storm Duration (mins)	Maximum Control (l/s)	Maximum Outflow (l/s)	Maximum Water Level (m OD)	Maximum Depth (m)	Maximum Volume (m ³)	Status
15 Winter	75.7	75.7	113.4912	0.4912	1928.8	OK
30 Winter	76.4	76.4	113.6383	0.6383	2505.4	OK
60 Winter	76.4	76.4	113.7823	0.7823	3070.8	OK
120 Winter	76.4	76.4	113.9093	0.9093	3569.1	OK
180 Winter	77.9	77.9	113.9643	0.9643	3784.6	OK
240 Winter	78.7	78.7	113.9883	0.9883	3879.9	OK
360 Winter	79.1	79.1	114.0013	1.0013	3929.3	OK
480 Winter	78.8	78.8	113.9918	0.9918	3892.0	OK
600 Winter	78.4	78.4	113.9798	0.9798	3846.2	OK
720 Winter	77.9	77.9	113.9658	0.9658	3790.5	OK

Storm Duration (mins)	Rain (mm/hr)	Time-Peak (mins)
15 Winter	98.68	18
30 Winter	64.79	33
60 Winter	40.51	62
120 Winter	24.46	120
180 Winter	17.96	178
240 Winter	14.34	234
360 Winter	10.42	344
480 Winter	8.30	442
600 Winter	6.96	474
720 Winter	6.02	550

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COTTAGE FARM OADBY
 WHEATCROFT/BLOOR HOMES
 MASTERPLAN SITE POND
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Rainfall Details

Region	ENG+WAL	Cv (Summer)	0.750	Summer Storms	No
Return Period (years)	100	Cv (Winter)	0.840	Winter Storms	Yes
M5-60 (mm)	20.000	Shortest Storm (mins)	15	Climate Change %	+20
Ratio-R	0.400	Longest Storm (mins)	720		

Time / Area Diagram

Total Area (ha) = 7.930

Time	(mins)	Area
from:	to:	(ha)
	0	4 7.930

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COTTAGE FARM OADBY
WHEATCROFT/BLOOR HOMES
MASTERPLAN SITE POND



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Tank/Pond Details

Invert Level (m) 113.000 Ground Level (m) 115.000

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)	Depth (m)	Area (m ²)	Depth (m)	Area (m ²)	Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.00	3925.0	0.50	3925.0	1.00	3925.0	1.50	3925.0	2.00	3925.0	2.50	3925.0
0.10	3925.0	0.60	3925.0	1.10	3925.0	1.60	3925.0	2.10	3925.0		
0.20	3925.0	0.70	3925.0	1.20	3925.0	1.70	3925.0	2.20	3925.0		
0.30	3925.0	0.80	3925.0	1.30	3925.0	1.80	3925.0	2.30	3925.0		
0.40	3925.0	0.90	3925.0	1.40	3925.0	1.90	3925.0	2.40	3925.0		

Hydro-Brake Outflow Control

Design Head (m) 1.000 Hydro-Brake Type MD3 Invert Level (m) 113.000
Design Flow (l/s) 79.0 Diameter (mm) 284

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.10	7.9	0.60	75.2	1.60	99.7	2.60	127.1	5.00	176.2	7.50	215.8
0.20	28.6	0.80	72.7	1.80	105.7	3.00	136.5	5.50	184.8	8.00	222.9
0.30	52.3	1.00	79.0	2.00	111.5	3.50	147.5	6.00	193.1	8.50	229.8
0.40	68.6	1.20	86.4	2.20	116.9	4.00	157.6	6.50	200.9	9.00	236.4
0.50	76.4	1.40	93.3	2.40	122.1	4.50	167.2	7.00	208.5	9.50	242.9

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Newdegate Street
Nuneaton CV11 4EL

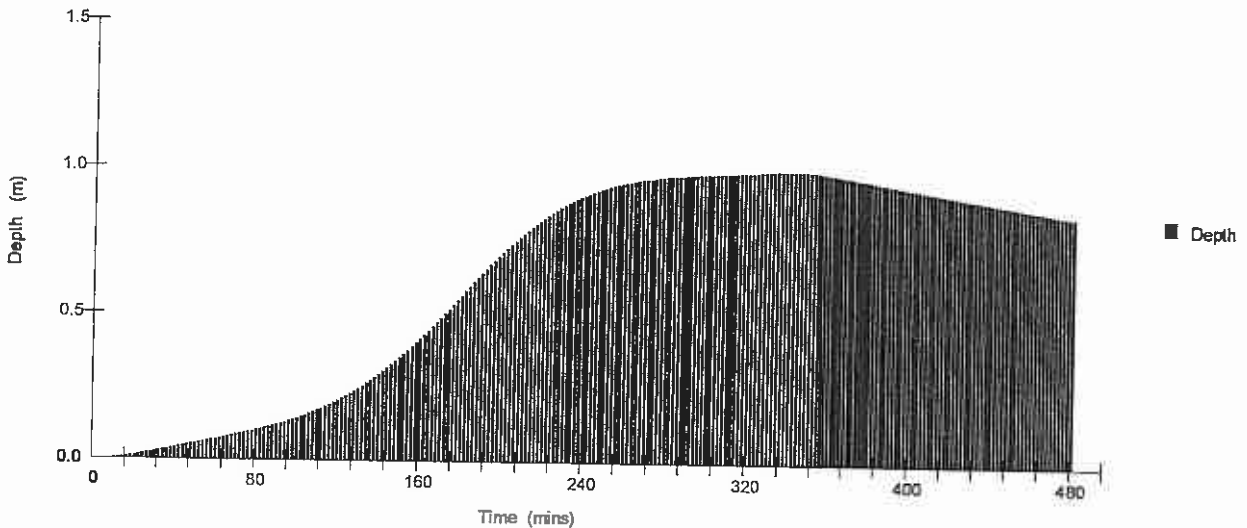
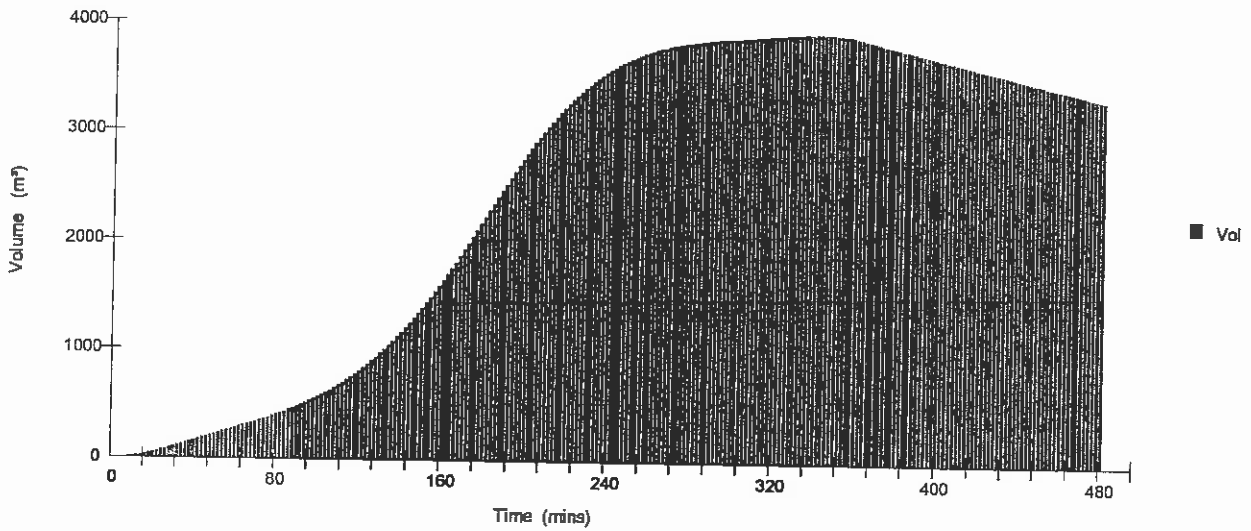
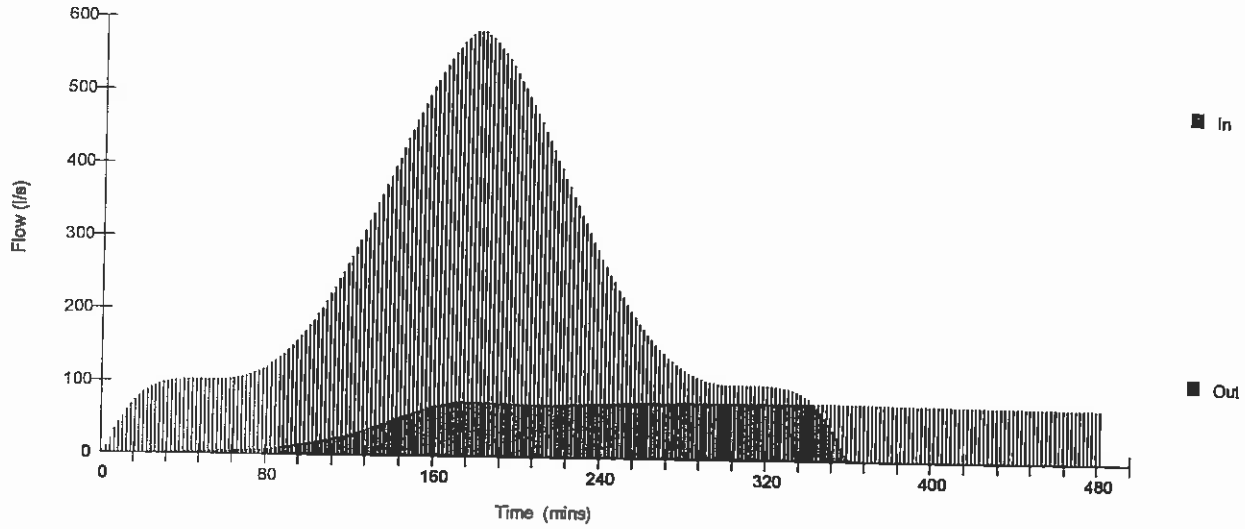
COTTAGE FARM OADBY
WHEATCROFT/BLOOR HOMES
MASTERPLAN SITE POND

Date 04/05/06
File MASTERPLAN_POND.SRC
Elstree Computing Ltd

Designed By EM
Checked By
Source Control W.10.2



Storm Duration 360 Mins (Winter)



APPENDIX D

**PROPOSED SURFACE WATER
DRAINAGE
STRATEGY, SCHEMATIC
LAYOUT
PLAN NO: 5873/02/001**

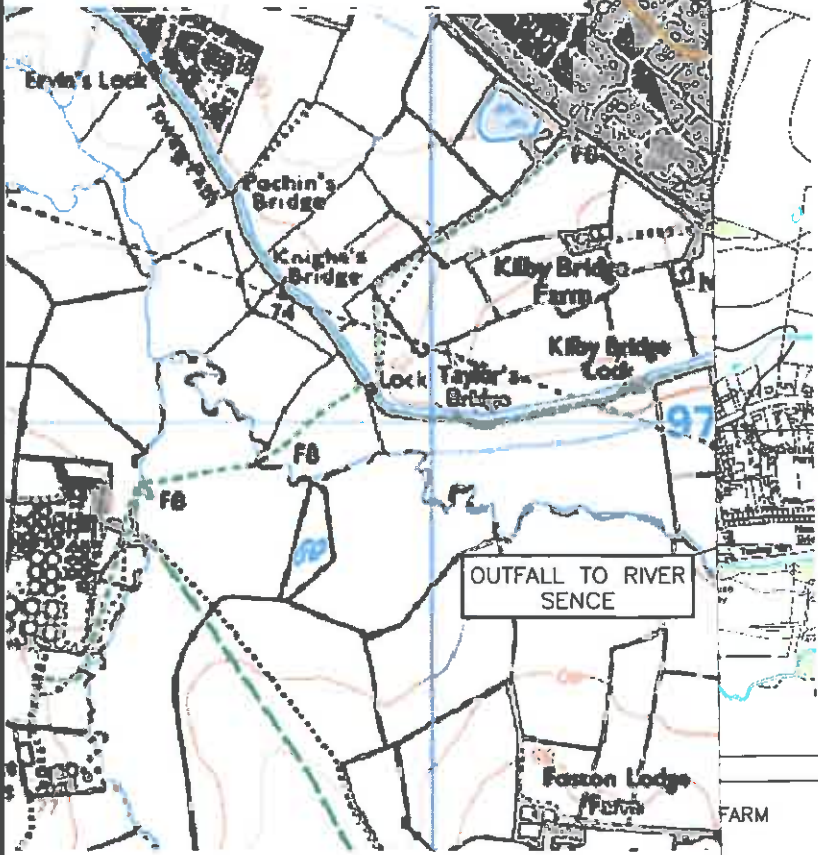


NOTES

1. THIS DRAWING IS BASED ON THE OS MAP AND MUST NOT BE SCALED.
2. ALL DIMENSION ARE IN MILLIMETRES UNLESS SPECIFIED OTHERWISE.

PROPOSED IMPROVEMENT WORKS

- ① PROPOSED SURFACE WATER RETENTION POND; VOLUME 3930 cu.m; 1.5m DEEP WITH 1 IN 3 SIDE SLOPES; 0.40ha.
- ② VORTEX FLOW CONTROL CHMABER LIMITED TO 27.6 l/s DISCHARGE.
- ③ IMPROVEMENT TO EXISTING DITCH AND WATERCOURSE FROM SITE TO EXISTING ESTATE AT WIGSTON HARCOURT.



FARM	DESIGNED AND DRAWN BY WW	SCALE NTS
	APPROVED BY AH	CHECKED BY AH
E WATER IC LAYOUT	DRAWING STATUS PRELIMINARY	DATE 11.05.06
	CAD REFERENCE FILE NUMBER 5873_02_001a.dwg	
WOLDS	DRAWING NUMBER 5873/02/001	REVISION A



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and Sevenoaks

APPENDIX E

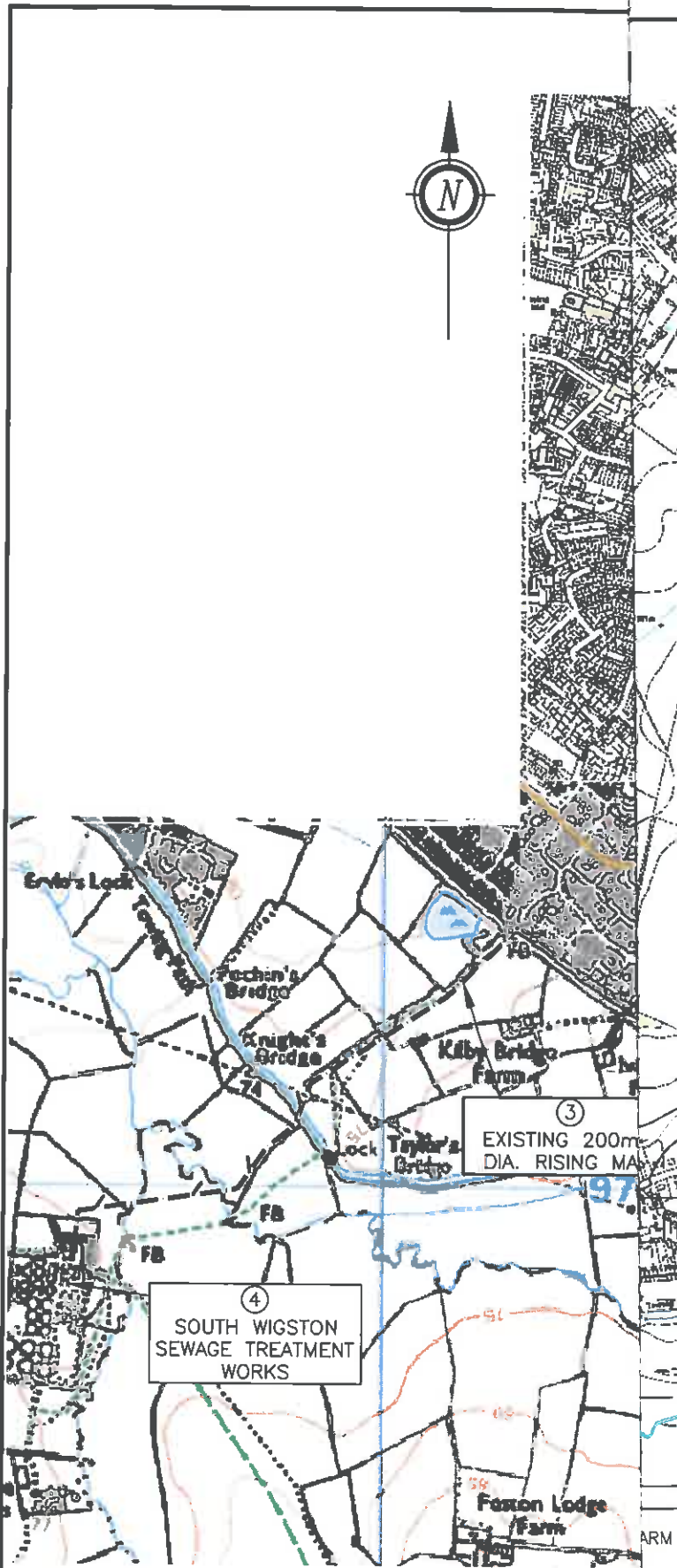
**PROPOSED FOUL WATER
DRAINAGE STRATEGY,
SCHEMATIC LAYOUT
PLAN NO: 5873/02/002.**

NOTES

1. THIS DRAWING IS BASED ON THE OS MAP AND MUST NOT BE SCALED.
2. ALL DIMENSION ARE IN MILLIMETRES UNLESS SPECIFIED OTHERWISE.

PROPOSED IMPROVEMENT WORKS

- ① PROPOSED 200mm DIAMETER FOUL WATER SEWER FROM SITE TO COOKS LANE PUMPING STATION; LENGTH 2800m; MINIMUM GRADIENT OF 1 IN 200. SEWER TO BE REQUISITIONED FROM SEVERN TRENT WATER (ASSET PROTECTION WASTEWATER EAST) AT ANSTEY, LEICESTER UNDER SECTIONS 98-101 OF THE WATER INDUSTRY ACT 1991 (AS AMENDED BY THE WATER ACT 2003)
- ② IMPROVEMENT OF COOKS LANE PUMPING STATION; CURRENT CAPACITY 13 l/s; PROPOSED IMPROVED CAPACITY 33 l/s. IMPROVEMENT WILL REQUIRE NEW PUMPS; ADDITIONAL WET WELL STORAGE; REFURBISHMENT OF CONTROLS AND ALTERATIONS TO THE KIOSK. ADDITIONAL LAND MAY BE REQUIRED TO PROVIDE FOR INCREASED WET WELL STORAGE.
- ③ EXISTING 200mm DIAMETER RISING MAIN FROM COOKS LANE PUMPING STATION TO SOUTH WIGSTON SEWERAGE TREATMENT WORKS. RISING MAIN APPEARS TO HAVE THE CAPACITY TO COPE WITH THE INCREASED FLOWS; SEVERN TRENT WILL INSIST UPON A SURGE ANALYSIS TO BE PREPARED AND ANY IMPROVEMENTS IN THE FORM OF VALVES, THRUST BLOCKS ETC.
- ④ EXISTING SOUTH WIGSTON SEWERAGE TREATMENT WORKS. INEVITABLY WORKS WILL NEED TO INCLUDE REFURBISHMENT/IMPROVEMENT TO COPE WITH THE ADDITIONAL FLOWS. DEVELOPER TO BEAR COSTS.



ARM	DESIGNED AND DRAWN BY WW		SCALE NTS
	APPROVED BY	CHECKED BY AH	
DRAINAGE LAYOUT	DRAWING STATUS PRELIMINARY		DATE 11.05.06
	CAD REFERENCE FILE NUMBER 5873_02_002a.dwg		
OLDS	DRAWING NUMBER 5873/02/002	REVISION A	



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